Planning and Zoning Commission Meeting

Aubrey City Hall
107 S. Main St
Aubrey, TX 76227
May 9, 2024
6:00 PM

(Notice of Potential Quorum for City Council, Board of Adjustment, Library Board, Municipal Development District, and Parks and Recreation Board - even though a quorum of the members of these boards may or may not be present, no official action will be taken by their members.)

Notice Regarding Remote Participation of Board Members

Pursuant to Section 551.127, Texas Government Code, one or more commission members may attend this meeting remotely using videoconferencing technology. A quorum of the commission will be physically present at the location provided above. The video and audio feed of the videoconferencing equipment can be viewed and heard by the public by accessing Zoom utilizing the Public Participation link identified below.

Notice Regarding Public Participation

Individuals may attend the meeting in person at the above address, or access the meeting via videoconference, or telephone conference call.

Join the Zoom Meeting by clicking on the following link: https://us06web.zoom.us/j/89895676214?pwd=bOePvlEJz0T1x9Te1IQjKiT1nlwqNN.1

Meeting ID: 898 9567 6214 Password: 96668

To join the meeting by phone, dial 1 (346) 248-7799 and use the Meeting ID and password above.

Call to Order - Determine if a Quorum is Present:

Invocation & Pledge of Allegiance: Pledge of Allegiance to the Texas Flag - “Honor the Texas flag; I pledge allegiance to thee, Texas, one state, under God, one, and indivisible.”

Community Announcements: Items of community interest may include recognizing Citizens and Staff for outstanding contributions to the community, a reminder about an upcoming event that is organized or sponsored by the governing body, and announcements of an imminent threat to public safety that has arisen after the posting of this agenda.

Citizen Input: Any person may address the Commission. If your comments are concerning an agenda item, you may wait until the discussion on that item if you prefer. Once recognized by the chairperson, please step forward to the speaker’s podium, state your name and address and speak directly into the microphone so that people in the room and those attending remotely can hear comments and see presentations. To request to speak via videoconference, click on “Participants” at the bottom of the screen, and click “Raise Hand.” The chairperson will acknowledge your request and allow you to speak. Citizen comments are limited to three (3) minutes per individual unless additional time is otherwise required by law. No discussion or action may be taken at this meeting on any item not listed on the agenda, other than to make statements of factual information or recite existing policy in response to a citizen’s inquiry.

New Business: New items previously requested for consideration.

1. Consider and make a recommendation to City Council regarding a Preliminary Plat of HighPointe Ranch, being approximately 460.75 acres out of the Francesco Trevino Survey, Abstract 1243, generally located east of Highway 377, south of E Blackjack Rd and north of Springhill Rd.

2. Consideration and make a recommendation to City Council regarding a Final Plat of High Pointe Ranch Phase 1B being 44.215 acres in the Francisco Trevino Survey, Abstract No. 1243, City of Aubrey, Denton County, Texas located immediately east of US 377 between Spring Hill Road (FM 428) on the south and East Blackjack Rd on the north within the city limits of Aubrey. *(KLLB AIV, LLC)*

3. Consider and make a recommendation to the City Council regarding a Site Plan for Winn Ridge, Phase 1B, Lot 4X, Block E and right-of-way abandonment (proposed Lot 4R1), being approximately 1.66 acres of land out of the William Lumpkin Survey, Abstract No. 730, within the City of Aubrey, Denton County, Texas. (*City of Aubrey*)

4. Consider and make a recommendation to the City Council regarding a Replat for Winn Ridge, Phase 1B, Lot 4X, Block E and right-of-way abandonment, (proposed Lot 4R1), being approximately 1.66 acres of land out of the William Lumpkin Survey, Abstract No. 730, within the City of Aubrey, Denton County, Texas. (*City of Aubrey*)

5. Consider and make a recommendation to City Council regarding a Final Plat for Saratoga Phase 1 containing 14 residential lots, three (3) open space lots, and one (1) lift station lot in 15.477 acres of land out of the T. Chambers Survey, Abstract No.

223, within the Extraterritorial Jurisdiction of the City of Aubrey, Denton County, Texas (*550 Belmont Development, LP & HMH Saratoga Land LLC*)

6. Consider and make a recommendation to City Council regarding a Final Plat for Saratoga Phase 1A containing 162 residential lots and one (1) open space lots in 25.729 acres of land out of the T. Chambers Survey, Abstract No. 223, within the Extraterritorial Jurisdiction of the City of Aubrey, Denton County, Texas (*HMH Saratoga Land LLC*)

7. Consider and make a recommendation to City Council regarding a Final Plat for Saratoga Phase 2A containing 154 residential lots and four (4) open space lots in 31.60 acres of land out of the T. Chambers Survey, Abstract No. 223, within the Extraterritorial Jurisdiction of the City of Aubrey, Denton County, Texas (*HMH Saratoga Land LLC*)

8. Consider and make a recommendation to City Council regarding an Amending Plat for Chase Oaks, Lots 5R1 and 4, Block 1 to Lots 5R1-A and 4-A, Block 1, containing two (2) lots in 15.00 acres of land out of the H. White Survey, Abstract No. 1332, within the City of Aubrey Extraterritorial Jurisdiction and jurisdiction of Denton County, Texas (*H&L Partners, LLC & Monica J. Lucibello*)

9. Consider and make a recommendation to City Council regarding an Amending Plat for Blackjack Addition Lots 3R and 2R, Block A to Lots 2R1 & 3R-1, Block A, containing two (2) lots in 27.847 acres of the Thomas White Survey, Abstract No. 223, within the City of Aubrey Extraterritorial Jurisdiction, Denton County, Texas (*Wade L. & Judi K. Veeder and 1555 Blackjack, LLC*)

10. Consider and make a recommendation to City Council regarding a Replat for VR Estates, Lot 3-A-1 to Lots 3-A-1-1 and 3-A-1-2, containing two (2) lots in 3.626 acres of the T. Chambers Survey, Abstract No. 223, within the City of Aubrey Extraterritorial Jurisdiction, Denton County, Texas (*Wilber E. Fifer & Margaret Ann Fifer*)

11. Consideration and action on the minutes of the April 11, 2024 Planning and Zoning Commission meeting.

-ADJOURN-

I, Jenny Hicks, City Secretary, certify that this Notice of Meeting was posted, per the Open Meetings Act, on the official bulletin board at the City Hall of the City of Aubrey, Texas and on the City's website at www.aubreytx.gov in accordance with Chapter 551, Texas Government Code, and shall remain posted until the meeting is adjourned.

I certify that the attached notice and agenda of items to be considered by the Planning and Zoning Commission of the City of Aubrey, Texas was removed by me from the official bulletin board of the City of Aubrey, Texas, 107 South Main St, Aubrey, Texas on the _____day of _____, 2024.

(The Planning and Zoning Commission reserves the right to adjourn into closed session at any time during the course of this meeting to consult with its attorney regarding any of the matters

listed on this document, as authorized by Texas Government Code Section 551.071 Consultation with Attorney.)

This facility is wheelchair accessible and accessible parking spaces are available. Requests for accommodation or interpretive services must be made 48 hours prior to this meeting. Please contact the City Secretary's office at (940) 440-9343 for further information.

Planning and Zoning Commission Meeting
Staff Report
May 9, 2024

Agenda Item
Consider and make a recommendation to City Council regarding a Preliminary Plat of HighPointe Ranch, being approximately 460.75 acres out of the Francesco Trevino Survey, Abstract 1243, generally located east of Highway 377, south of E Blackjack Rd and north of Springhill Rd.

Staff Contact
Leanne Wilson, Development Services Director
lwilson@aubreytx.gov

Summary
Aubrey City Council approved an Extraterritorial Jurisdiction Development Agreement and in accordance with the agreement, the property was annexed and zoned. The Preliminary Plat is consistent with the Development Agreement and the approved zoning ordinance.

The Preliminary Plat consists of approximately 460.75 acres and will create 1,452 residential lots varying in square footage from 4,600 square feet and 40 feet wide to 9,750 square feet and 75 feet wide. Along with the residential lots, there will be 18 open space lots, and a lot for an amenity center.

The subject property is generally located along SH 377 as western boundary and bounded by E. Blackjack Rd. on the north and Springhill Rd. to the south. Right-of-way is being dedicated for both Springhill Rd. and Blackjack Rd. as indicated on the thoroughfare master plan.

Access to the development will be by residential streets connections to Springhill Rd. and Blackjack Rd. as well as two connections to SH 377. There are portions of the property that are affected by a designated FEMA flood hazard area (100-year floodplain.) The water and sanitary sewer will be provided by the City of Aubrey as defined in the developer's agreement. Electricity will be provided by Texas New Mexico Power.

This area is designated as a Suburban Neighborhood on the city’s Future Land Use plan, which recommends a uniform mix of single-family housing types with a recommended density of 2-6 dwelling units per acre. The proposed plat has an overall gross density of less than six dwelling units per acre and conforms to the approved and recorded develop agreement as part of the annexation.

The Preliminary Plat was previously approved at the March 22, 2022, City Council Meeting. This property is being final platted and developed in phases. Although the development is making forward progress, Aubrey Code considers a Preliminary Plat expired after two years from approval if applications for Final Plats for all phases have not been submitted.

Phase IA, IB and IC Final Plat applications were submitted prior to the expiration date. The Client is requesting another approval of the Preliminary Plat and applications will be submitted for Phases 2 through 5 prior to its expiration or a request for an extension of the expiration date will be requested for Council approval.

The Planning and Zoning Commission may take the following action regarding this plat:

1. Approve the Plat;

2. Approve with conditions; or
3. Deny the Plat.

Financial Summary

Staff Recommended Motion
Approve

Conditions
N/A

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

PLOTTED BY: TRODGER, DEREK 2/9/2022 3:15 PM
DWG NAME: K:\FRI_CIVIL\FRISCO\SINGLE FAMILY PURSUITS_2020\2020103 - CIRCLE Y RANCH\CAD\PRELIMINARYPLANSHEETS\C-1_COVER SHEET.DWG [Cover Sheet]
LAST SAVED: 2/9/2022 12:03 PM

PRELIMINARY PLAT AND
PRELIMINARY ENGINEERING SUBMITTAL
FOR
HIGH POINTE RANCH
CITY OF AUBREY, DENTON COUNTY, TEXAS

ENGINEER

Kimley»Horn

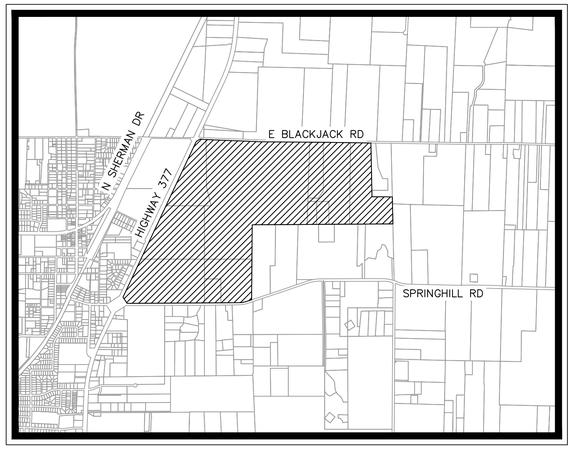
6160 WARREN PKWY
SUITE 210
FRISCO, TEXAS 75034
TEL: (972) 335-3580
CONTACT: THOMAS L. FLETCHER, P.E.

STATE OF TEXAS
REGISTRATION NO. F-928

OWNER/DEVELOPER:

Aubrey Blackjack Partners, LLC
4514 Cole Ave., Suite 1650
Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

FM Land Investments I, LLC.
138 Old Town Blvd. N, Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss



VICINITY MAP
SCALE: 1" = 2,000'

FEBRUARY 2022

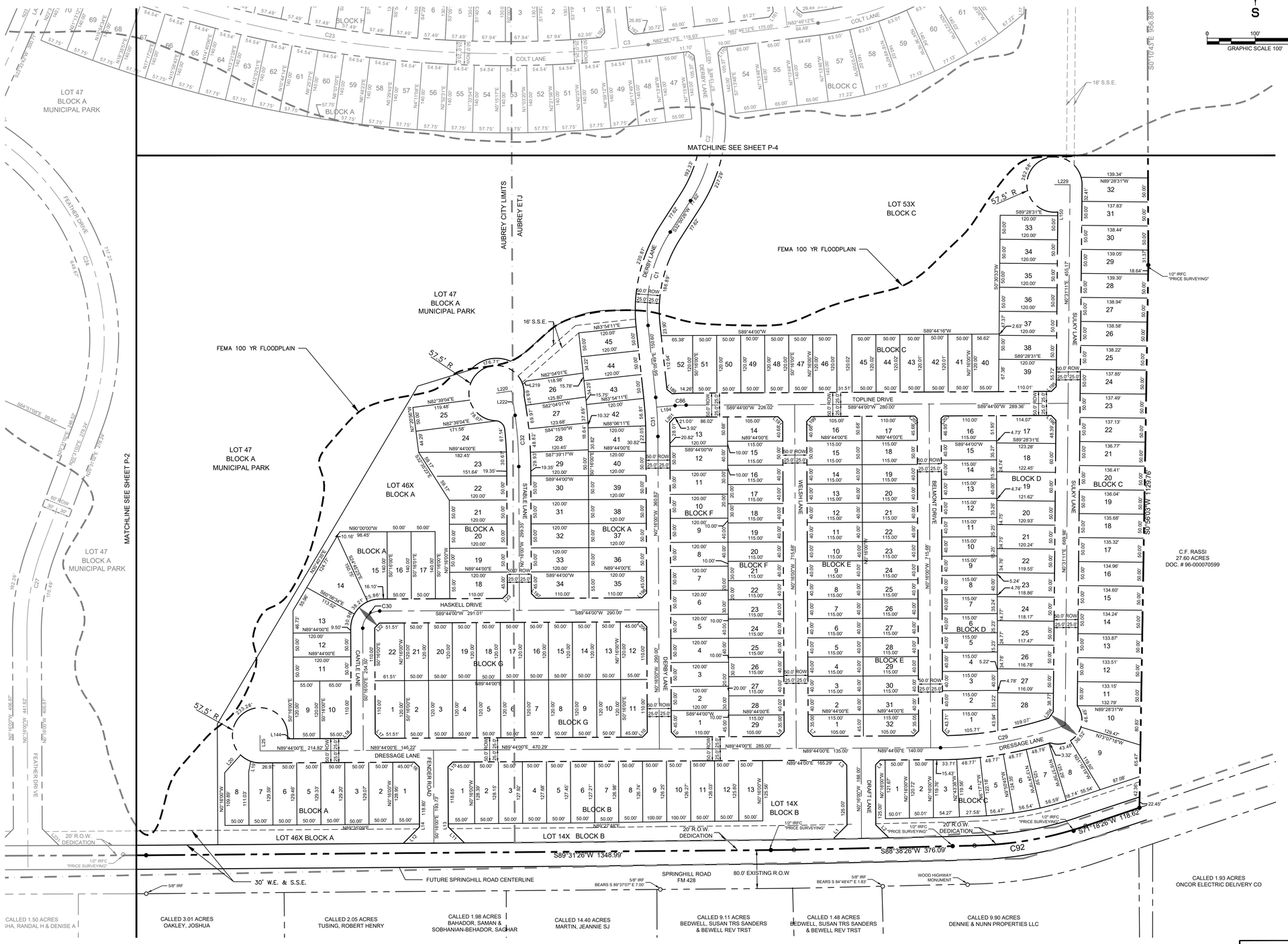
SHEET INDEX

Sheet Number	Sheet Title
C-1	COVER SHEET
P-1	PRELIMINARY PLAT
P-2	PRELIMINARY PLAT
P-3	PRELIMINARY PLAT
P-4	PRELIMINARY PLAT
P-5	PRELIMINARY PLAT
P-6	PRELIMINARY PLAT
P-7	PRELIMINARY PLAT
P-8	PRELIMINARY PLAT
P-9	PRELIMINARY PLAT
P-10	PRELIMINARY PLAT
P-11	PRELIMINARY PLAT
EX-1	EXISTING DRAINAGE AREA MAP
D-1	PRELIMINARY DRAINAGE PLAN
D-2	PRELIMINARY DRAINAGE PLAN
D-3	PRELIMINARY DRAINAGE PLAN
D-4	PRELIMINARY DRAINAGE PLAN
D-5	PRELIMINARY DRAINAGE PLAN
D-6	PRELIMINARY DRAINAGE PLAN
D-7	PRELIMINARY DRAINAGE PLAN
D-8	PRELIMINARY DRAINAGE PLAN
D-9	PRELIMINARY DRAINAGE PLAN
D-10	PRELIMINARY DRAINAGE PLAN
U-1	PRELIMINARY UTILITY PLAN
U-2	PRELIMINARY UTILITY PLAN
U-3	PRELIMINARY UTILITY PLAN
U-4	PRELIMINARY UTILITY PLAN
U-5	PRELIMINARY UTILITY PLAN
U-6	PRELIMINARY UTILITY PLAN
U-7	PRELIMINARY UTILITY PLAN
U-8	PRELIMINARY UTILITY PLAN
U-9	PRELIMINARY UTILITY PLAN
U-10	PRELIMINARY SEWER SHED MAP
PV-1	PRELIMINARY PAVING PLAN
PV-2	PRELIMINARY PAVING PLAN
PV-3	PRELIMINARY PAVING PLAN
PV-4	PRELIMINARY PAVING PLAN
PV-5	PRELIMINARY PAVING PLAN
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PV-7	PRELIMINARY PAVING PLAN
PV-8	PRELIMINARY PAVING PLAN
PV-9	PRELIMINARY PAVING PLAN

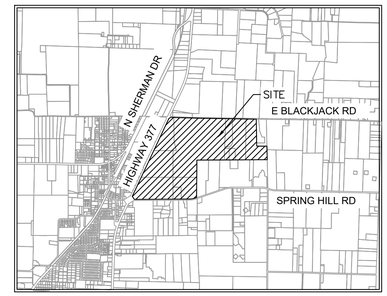
Variance Request: The following street exceeds the 1,250 foot block length in the development agreement: Cavaletti Lane

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PLOTTED BY TROEGER, DEREK 2/9/2022 3:15 PM
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LAST SAVED 1/26/2022 4:51 PM







VICINITY MAP
SCALE: 1" = 4,000'



KEY MAP
SCALE: 1" = 2,000'

LEGEND

D.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
W.E.	WATER EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
R.O.W.	RIGHT-OF-WAY
	STREET NAME CHANGE

LINE TYPE LEGEND

	MATCH LINE
	EASEMENT LINE
	PHASE LINE
	RIGHT-OF-WAY LINE
	100-YEAR FLOODPLAIN
	AUBREY CITY LIMITS

NOTE:
1) ALL X LOTS ARE OWNED AND MAINTAINED BY THE HOA.
2) ALL ISLANDS WITHIN THE ROW SHALL BE MAINTAINED BY THE HOA.
3) PER APPROVED DEVELOPMENT AGREEMENT BLOCK LENGTH IS 1,200'.
4) ALL FEMA FLOOD ZONES INDICATE A FLOODPLAIN & DRAINAGE EASEMENT.
5) PROPOSED FLOODPLAIN STUDY AND CLOMR WILL SHOW LIMITS OF POST-DEVELOPMENT FLOODPLAIN.
6) ALL OPEN SPACES WILL BE FLOODPLAIN & DRAINAGE EASEMENTS.
7) LOT 70X, BLOCK N, LOT 72X, BLOCK S AND LOT 29X, BLOCK AI ARE HOA LOTS THAT RESERVE FUTURE ROW FOR THE OUTER LOOP BASED ON PRELIMINARY ALIGNMENT STUDIES. ROW ACQUISITIONS WILL OCCUR ONCE ALIGNMENT & SCHEMATICS HAVE BEEN FINALIZED.

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PLAT
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:
Kimley-Horn
6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

OWNER/DEVELOPER:
Aubrey Blackjack Partners, LLC
4514 Cole Ave., Suite 1650
Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

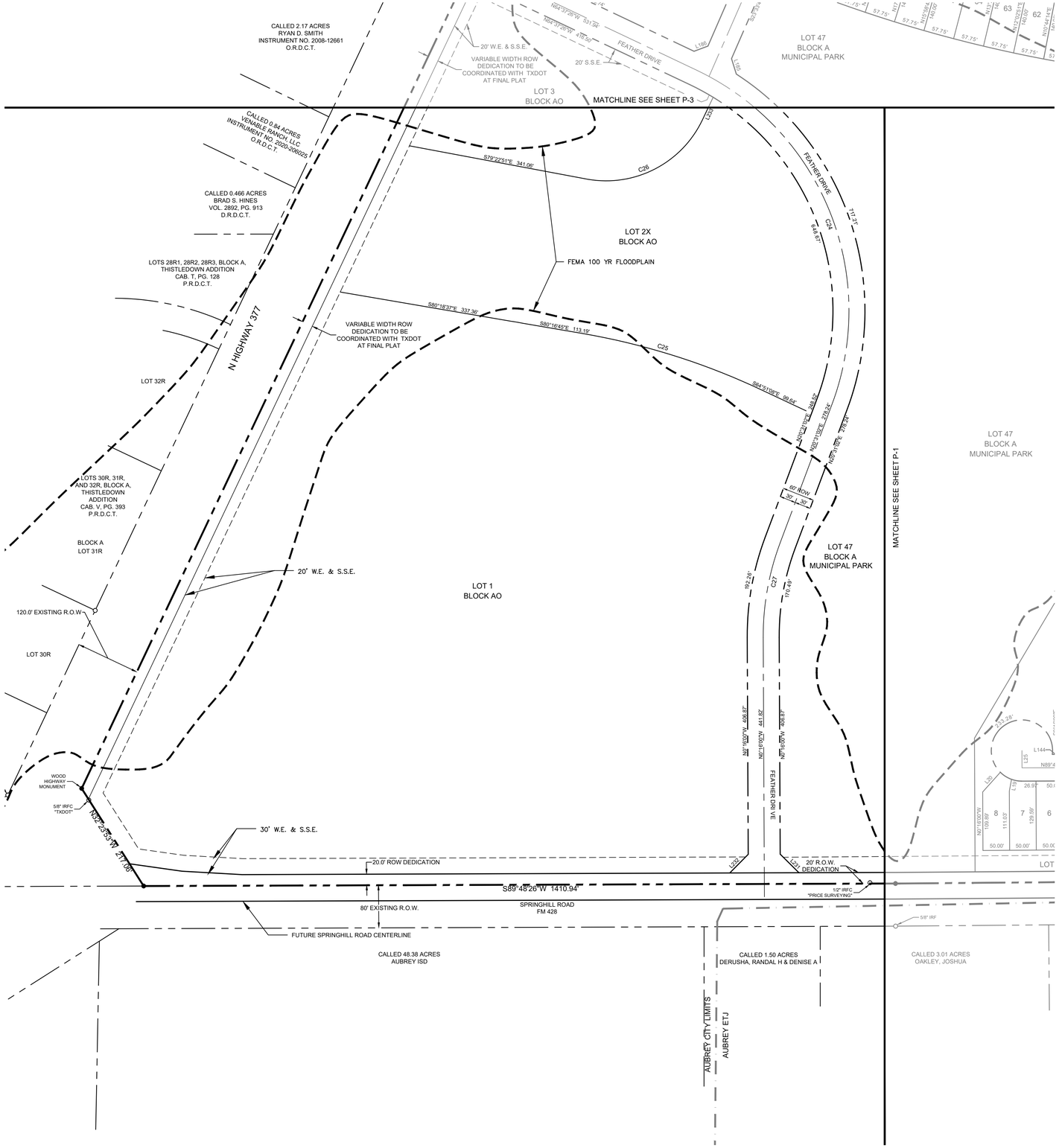
OWNER/DEVELOPER:
FM Land Investments I, LLC
138 Old Town Blvd. N., Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss

ENGINEER:
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Thomas Fletcher, P.E.
Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	P-1

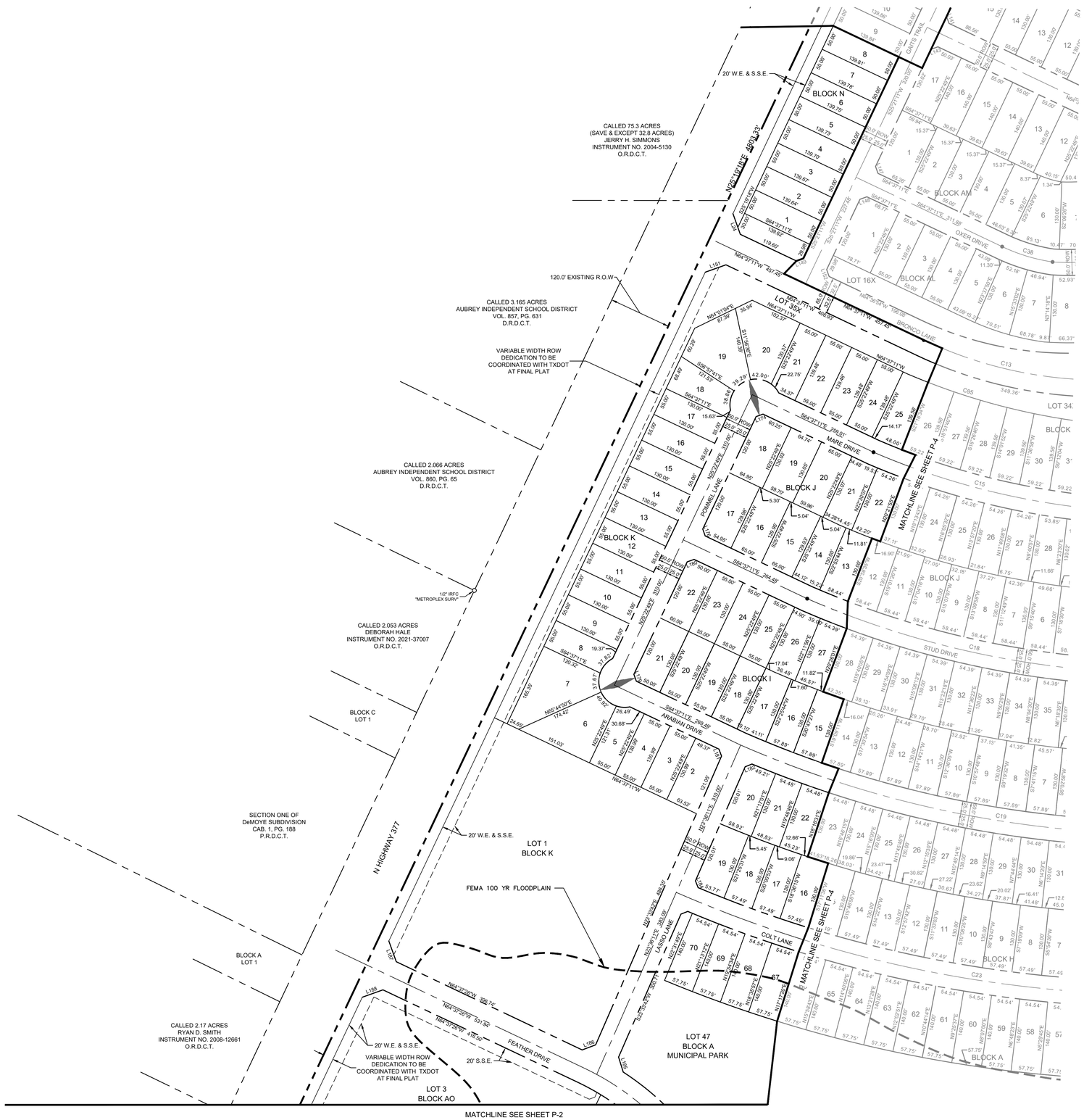
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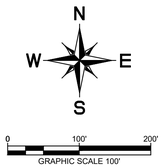
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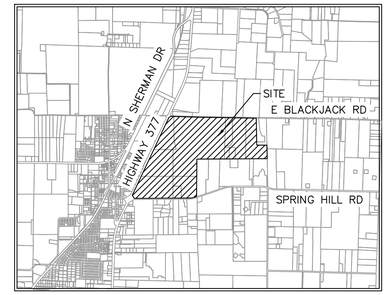

CALLED 2.17 ACRES
RYAN D. SMITH
INSTRUMENT NO. 2008-12661
O.R.D.C.T.
CALLED 0.84 ACRES
VENMEX RANCH, LLC
INSTRUMENT NO. 2020-206025
O.R.D.C.T.
CALLED 0.466 ACRES
BRAD S. HINES
VOL. 2892, PG. 913
D.R.D.C.T.
LOTS 28R1, 28R2, 28R3, BLOCK A,
THISTLEDOWN ADDITION
CAB. T, PG. 128
P.R.D.C.T.
LOTS 30R, 31R,
AND 32R, BLOCK A,
THISTLEDOWN
ADDITION
CAB. V, PG. 393
P.R.D.C.T.
LOT 32R
BLOCK A
LOT 31R
LOT 30R
N HIGHWAY 377
120.0' EXISTING R.O.W.
WOOD
HIGHWAY
MONUMENT
5/8" IRFC
"TXDOT"
N02°35'57"W 217.06'
20' W.E. & S.S.E.
30' W.E. & S.S.E.
VARIABLE WIDTH ROW
DEDICATION TO BE
COORDINATED WITH TXDOT
AT FINAL PLAT
20' W.E. & S.S.E.
VARIABLE WIDTH ROW
DEDICATION TO BE
COORDINATED WITH TXDOT
AT FINAL PLAT
LOT 3
BLOCK AO
MATCHLINE SEE SHEET P-3
LOT 2X
BLOCK AO
FEMA 100 YR FLOODPLAIN
LOT 1
BLOCK AO
FEATHER DRIVE
LOT 47
BLOCK A
MUNICIPAL PARK
S79°22'31"E 341.06'
S80°18'37"E 337.36'
S80°16'45"E 113.19'
S64°51'09"E 99.64'
N00°21'10"E 228.24'
N00°11'02"E 210.26'
N37°26'49"E 192.26'
N10°04'14"E 291.87'
N08°37'49"E 411.82'
N00°11'02"W 1,428.00'
S89°48'26"W 1410.94'
20.0' ROW DEDICATION
80' EXISTING R.O.W.
SPRINGHILL ROAD
FM 428
20' R.O.W.
DEDICATION
1/2" IRFC
"PRICE SURVEYING"
FUTURE SPRINGHILL ROAD CENTERLINE
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AUBREY ISD
CALLED 1.50 ACRES
DERUSHA, RANDAL H & DENISE A
CALLED 3.01 ACRES
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AUBREY CITY LIMITS
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648.97'
60' ROW
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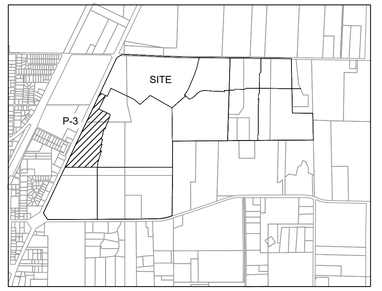
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LAST SAVED 1/26/2022 4:51 PM







VICINITY MAP
SCALE: 1" = 4,000'



KEY MAP
SCALE: 1" = 2,000'

LEGEND

D.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
W.E.	WATER EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
R.O.W.	RIGHT-OF-WAY
	STREET NAME CHANGE

LINE TYPE LEGEND

	MATCH LINE
	EASEMENT LINE
	PHASE LINE
	RIGHT-OF-WAY LINE
	100-YEAR FLOODPLAIN
	AUBREY CITY LIMITS

NOTE:
1) ALL X LOTS ARE OWNED AND MAINTAINED BY THE HOA.
2) ALL ISLANDS WITHIN THE ROW SHALL BE MAINTAINED BY THE HOA.
3) PER APPROVED DEVELOPMENT AGREEMENT BLOCK LENGTH IS 1,200'.
4) ALL FEMA FLOOD ZONES INDICATE A FLOODPLAIN & DRAINAGE EASEMENT.
5) PROPOSED FLOODPLAIN STUDY AND CLOMR WILL SHOW LIMITS OF POST-DEVELOPMENT FLOODPLAIN.
6) ALL OPEN SPACES WILL BE FLOODPLAIN & DRAINAGE EASEMENTS.
7) LOT 70X, BLOCK N, LOT 72X, BLOCK S AND LOT 29X, BLOCK AI ARE HOA LOTS THAT RESERVE FUTURE ROW FOR THE OUTER LOOP BASED ON PRELIMINARY ALIGNMENT STUDIES. ROW ACQUISITIONS WILL OCCUR ONCE ALIGNMENT & SCHEMATICS HAVE BEEN FINALIZED.

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PLAT
FOR
HIGH POINTE RANCH

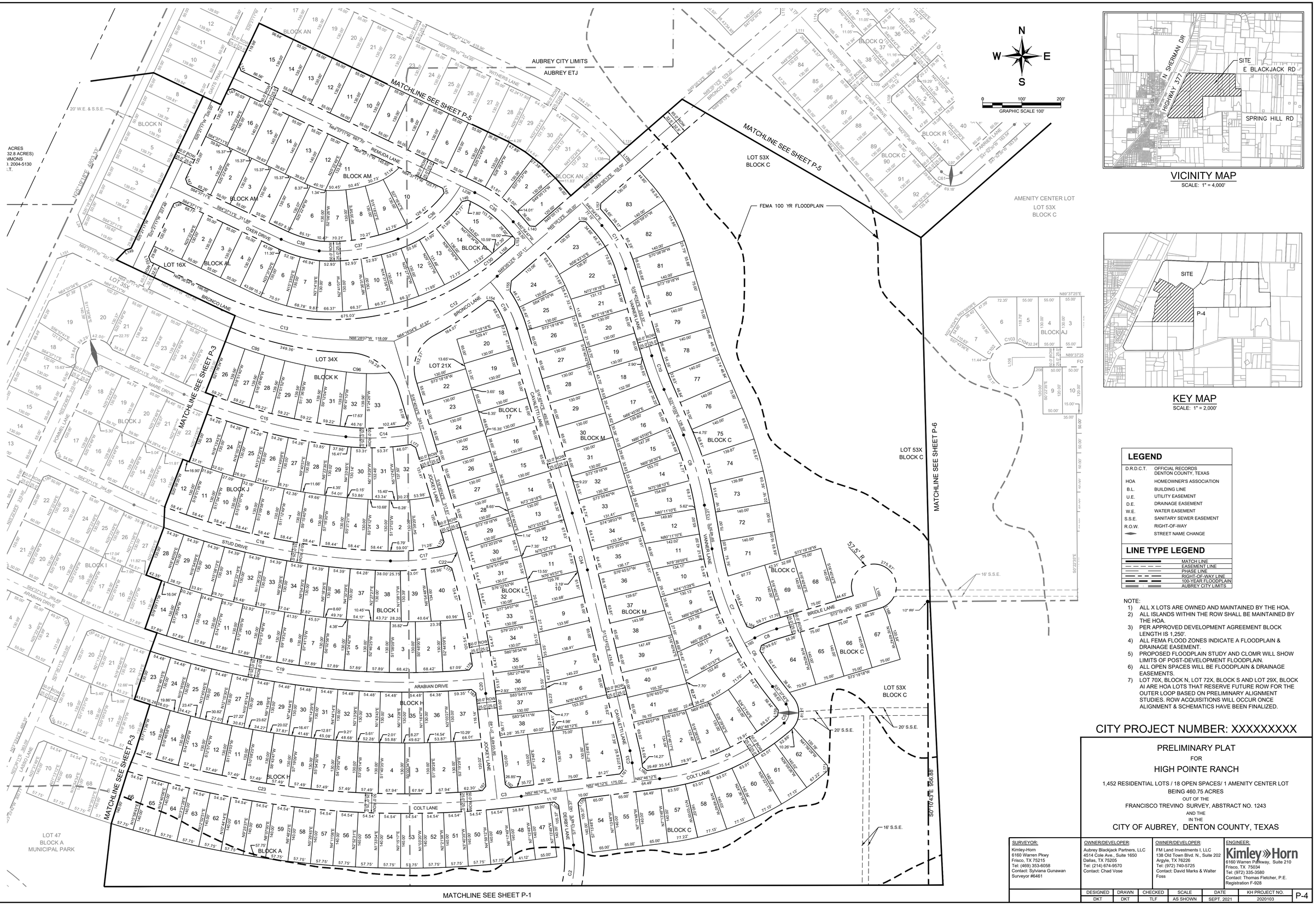
1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
Kimley-Horn 6160 Warren Pkwy Frisco, TX 75215 Tel: (469) 353-6058 Contact: Sylviana Gunawan Surveyor #6461	Aubrey Blackjack Partners, LLC 4514 Cole Ave., Suite 1650 Dallas, TX 75205 Tel: (214) 674-9570 Contact: Chad Vose	FM Land Investments I, LLC 138 Old Town Blvd. N., Suite 202 Argyle, TX 76226 Tel: (972) 740-5725 Contact: David Marks & Walter Foss	Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Thomas Fletcher, P.E. Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	P-3

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VICINITY MAP

SCALE: 1" = 4,000'

KEY MAP

SCALE: 1" = 2,000'

LEGEND

D.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
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D.E.	DRAINAGE EASEMENT
W.E.	WATER EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
R.O.W.	RIGHT-OF-WAY
	STREET NAME CHANGE

LINE TYPE LEGEND

	MATCH LINE
	EASEMENT LINE
	PHASE LINE
	RIGHT-OF-WAY LINE
	100-YEAR FLOODPLAIN
	AUBREY CITY LIMITS

NOTE:
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CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PLAT
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
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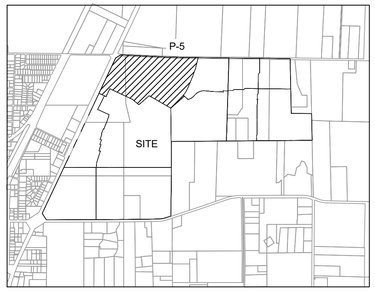
SURVEYOR:
Kimley-Horn
6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

OWNER/DEVELOPER:
Aubrey Blackjack Partners, LLC
4514 Cole Ave., Suite 1650
Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

OWNER/DEVELOPER:
FM Land Investments I, LLC
138 Old Town Blvd. N., Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss

ENGINEER:
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Thomas Fletcher, P.E.
Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	P-4



KEY MAP
SCALE: 1" = 2,000'

NOTE:
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LEGEND

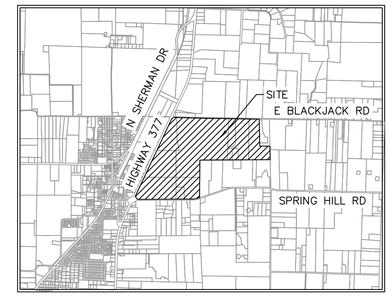
D.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
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B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
W.E.	WATER EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
R.O.W.	RIGHT-OF-WAY
	STREET NAME CHANGE

LINE TYPE LEGEND

	MATCH LINE
	EASEMENT LINE
	PHASE LINE
	RIGHT-OF-WAY LINE
	100-YEAR FLOODPLAIN
	AUBREY CITY LIMITS

N
W E
S

0 100' 200'
GRAPHIC SCALE 100'



VICINITY MAP
SCALE: 1" = 4,000'

TEXAS WEATHER INSTRUMENTS, INC 0.538 ACRE DOC. # 07-000023674

YOUNGBLOOD, LTD 6.164 ACRES (TR 5) V. 4257, P. 1101 DOC. # 99-0004597

1999 SALLY CAROLYN TURNER BOX TRUST 62.52 ACRES (TR 2) DOC. # 01-000007794

BLACKJACK ROAD VARIABLE WIDTH R.O.W.

S87°12'45"E 1160.10'

S88°09'46"E 505.03'

S89°21'08"E 1356.90'

N59°09'32"E 457.36'

5/8" IRFC "TXDOT"

VARIABLE WIDTH ROW DEDICATION TO BE COORDINATED WITH TXDOT AT FINAL PLAT

120.0' EXISTING R.O.W.

N HIGHWAY 377

CALLED 75.3 ACRES (SAVE & EXCEPT 32.8 ACRES) JERRY H. SIMMONS INSTRUMENT NO. 2004-5130 O.R.D.C.T.

VARIABLE WIDTH ROW DEDICATION TO BE COORDINATED WITH TXDOT AT FINAL PLAT

LOT 18X BLOCK N

LOT 17X BLOCK N

LOT 26X BLOCK O

LOT 70X BLOCK N

LOT 72X BLOCK S

LOT 29X BLOCK AI

BLOCK N
BLOCK O
BLOCK P
BLOCK Q
BLOCK R
BLOCK S
BLOCK T
BLOCK U
BLOCK AM
BLOCK AN
BLOCK AI
BLOCK C

LARA LANE
REMUDA LANE
BARREL LANE
ARENA LANE
CREST DRIVE
JENNET DRIVE
GUNSEAU LANE
FARRIER LANE
HIGHPOINTE LANE
BRONCO LANE
GAITS TRAIL
OXER DRIVE
WITHERS LANE
PETTICK LANE

FEMA 100 YR FLOODPLAIN

AUBREY CITY LIMITS
AUBREY ETJ

MATCHLINE SEE SHEET P-3
MATCHLINE SEE SHEET P-4
MATCHLINE SEE SHEET P-6
MATCHLINE SEE SHEET P-7

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PLAT
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
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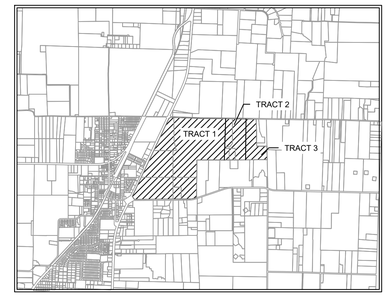
SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
Kimley-Horn 6160 Warren Pkwy Frisco, TX 75215 Tel: (469) 353-6058 Contact: Sylviana Gunawan Surveyor #6461	Aubrey Blackjack Partners, LLC 4514 Cole Ave., Suite 1650 Dallas, TX 75205 Tel: (214) 674-9570 Contact: Chad Vose	FM Land Investments I, LLC 138 Old Town Blvd. N., Suite 202 Argyle, TX 76226 Tel: (972) 740-5725 Contact: David Marks & Walter Foss	Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Thomas Fletcher, P.E. Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	P-5

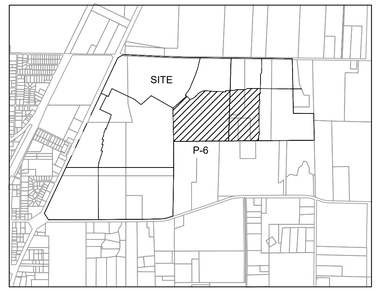
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VICINITY MAP
SCALE: 1" = 4,000'



KEY MAP
SCALE: 1" = 2,000'

LEGEND

D.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
W.E.	WATER EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
R.O.W.	RIGHT-OF-WAY
	STREET NAME CHANGE

LINE TYPE LEGEND

	MATCH LINE
	EASEMENT LINE
	PHASE LINE
	RIGHT-OF-WAY LINE
	100-YEAR FLOODPLAIN
	AUBREY CITY LIMITS

NOTE:
1) ALL X LOTS ARE OWNED AND MAINTAINED BY THE HOA.
2) ALL ISLANDS WITHIN THE ROW SHALL BE MAINTAINED BY THE HOA.
3) PER APPROVED DEVELOPMENT AGREEMENT BLOCK LENGTH IS 1,250'.
4) ALL FEMA FLOOD ZONES INDICATE A FLOODPLAIN & DRAINAGE EASEMENT.
5) EXISTING FEMA FLOOD ZONES ARE LOCATED WITHIN FEMA FIRM PANEL NO. 48121C0265G.
6) PROPOSED FLOODPLAIN STUDY AND CLOMR WILL SHOW LIMITS OF POST-DEVELOPMENT FLOODPLAIN.
7) ALL OPEN SPACES WILL BE FLOODPLAIN & DRAINAGE EASEMENTS.
8) LOT 70X, BLOCK N, LOT 72X, BLOCK S, LOT 40X, BLOCK AK AND LOT 29X, BLOCK AI ARE HOA LOTS THAT RESERVE FUTURE ROW FOR THE OUTER LOOP BASED ON PRELIMINARY ALIGNMENT STUDIES. ROW ACQUISITIONS WILL OCCUR ONCE ALIGNMENT & SCHEMATICS HAVE BEEN FINALIZED.

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PLAT
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
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AND THE
IN THE
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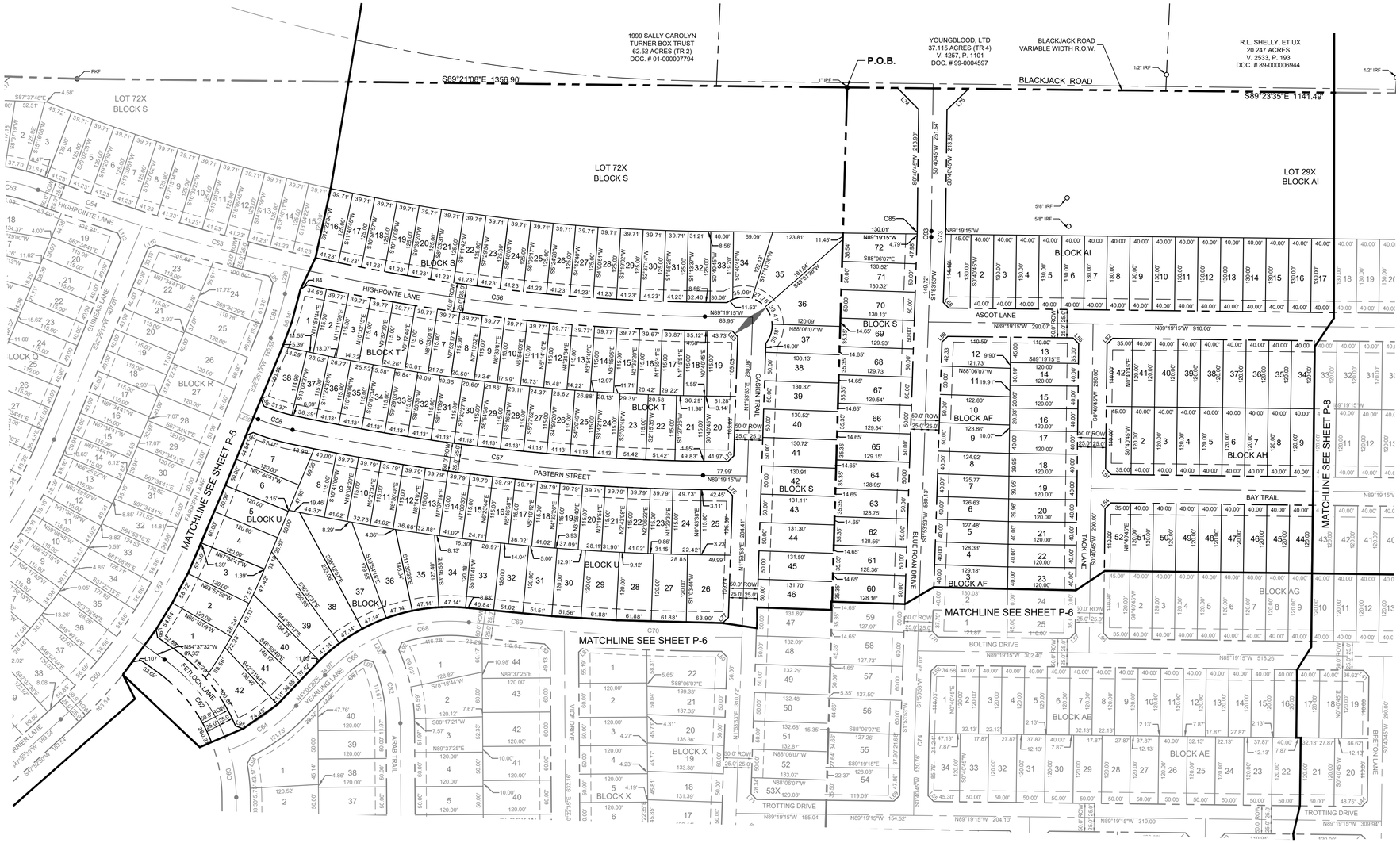
SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
Kimley-Horn 6160 Warren Pkwy Frisco, TX 75215 Tel: (469) 353-6058 Contact: Sylviana Gunawan Surveyor #6461	Aubrey Blackjack Partners, LLC 4514 Cole Ave., Suite 1650 Dallas, TX 75205 Tel: (214) 674-9570 Contact: Chad Vose	FM Land Investments I, LLC 138 Old Town Blvd. N., Suite 202 Argyle, TX 76226 Tel: (972) 740-5725 Contact: David Marks & Walter Foss	Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Thomas Fletcher, P.E. Registration F-928

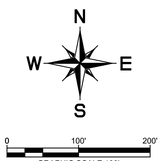
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DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	P-6

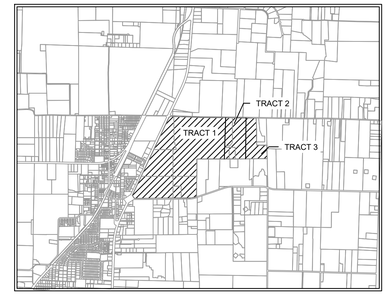
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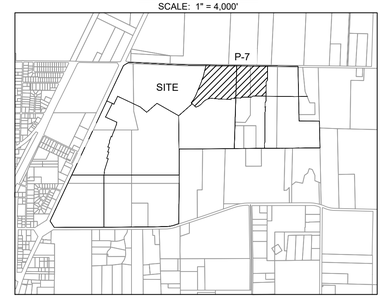
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VICINITY MAP
SCALE: 1" = 4,000'



KEY MAP
SCALE: 1" = 2,000'

LEGEND

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HOA	HOMEOWNER'S ASSOCIATION
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U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
W.E.	WATER EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
R.O.W.	RIGHT-OF-WAY
	STREET NAME CHANGE

LINE TYPE LEGEND

- MATCH LINE
- EASEMENT LINE
- PHASE LINE
- RIGHT-OF-WAY LINE
- 100-YEAR FLOODPLAIN
- AUBREY CITY LIMITS

NOTE:
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CITY PROJECT NUMBER: XXXXXXXXX

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Tel: (469) 353-6058
Contact: Sylviana Gunawan
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OWNER/DEVELOPER:
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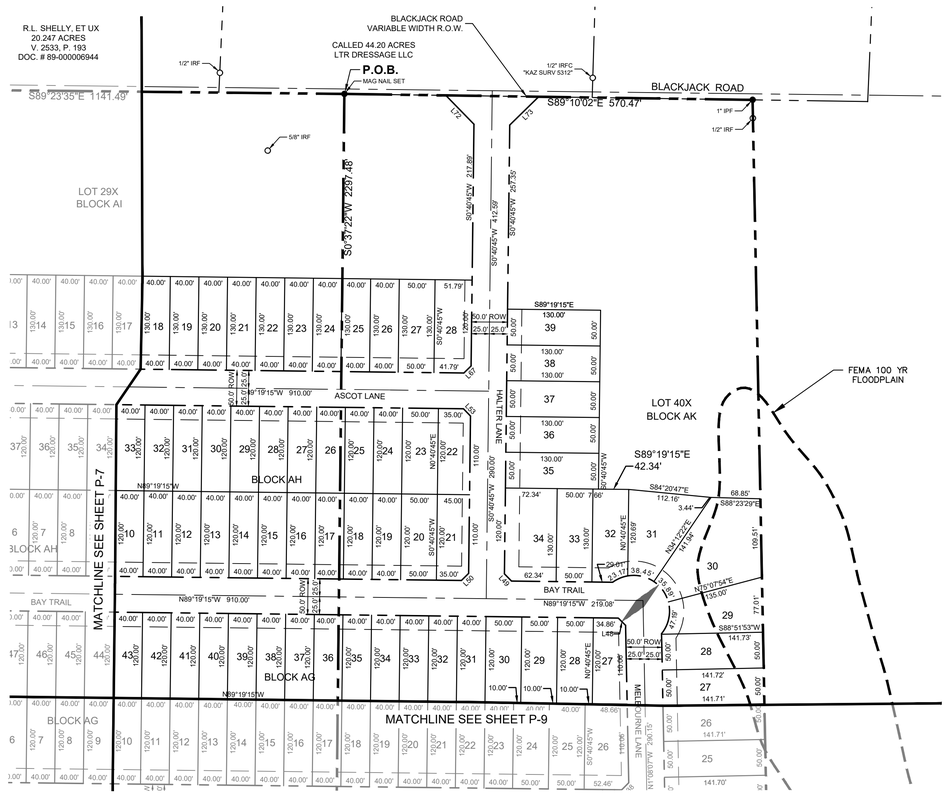
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ENGINEER:
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Contact: Thomas Fletcher, P.E.
Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	P-7

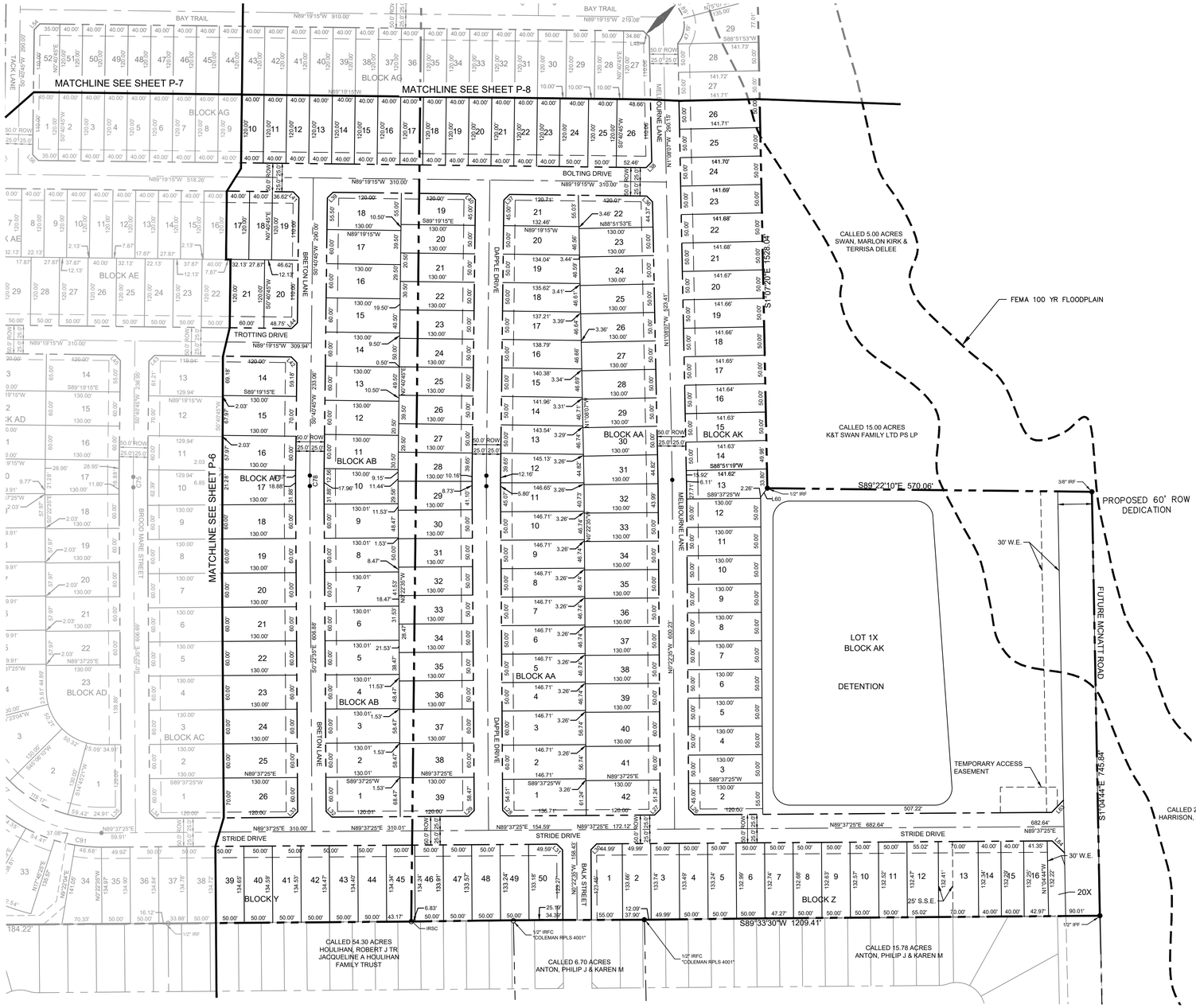
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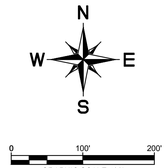
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DWG NAME K:\FRI_CIVIL\FRISCO SINGLE FAMILY PURSUITS_2020\2020103 - CIRCLE Y RANCH\CAD\PRELIMINARY PLANS\SHEETS\P-2_PRELIMINARY PLAT.DWG [PRELIMINARY PLAT (8)]
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R.L. SHELLY, ET UX
20.247 ACRES
V. 2533, P. 193
DOC. # 89-000006944
BLACKJACK ROAD
VARIABLE WIDTH R.O.W.
CALLED 44.20 ACRES
LTR DRESSAGE LLC
P.O.B.
MAG NAIL SET
1/2" IRF
1/2" IRFC
"KAZ SURV 5312"
5/8" IRF
1" IRF
S89°23'35"E 1141.49'
S89°10'02"E 570.47'
BLACKJACK ROAD
LOT 29X
BLOCK AI
S0°37'22"W 2257.48'
S0°49'40"W 212.89'
S0°40'45"W 412.59'
S0°40'45"W 257.75'
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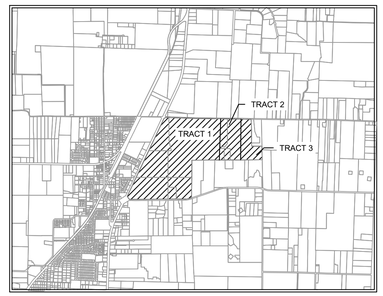
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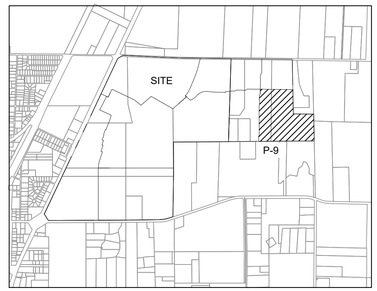




0 100' 200'
GRAPHIC SCALE 100'



VICINITY MAP
SCALE: 1" = 4,000'



KEY MAP
SCALE: 1" = 2,000'

LEGEND

D.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
W.E.	WATER EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
R.O.W.	RIGHT-OF-WAY
	STREET NAME CHANGE

LINE TYPE LEGEND

- MATCH LINE
- EASEMENT LINE
- PHASE LINE
- RIGHT-OF-WAY LINE
- 100-YEAR FLOODPLAIN
- AUBREY CITY LIMITS

NOTE:
1) ALL X LOTS ARE OWNED AND MAINTAINED BY THE HOA.
2) ALL ISLANDS WITHIN THE ROW SHALL BE MAINTAINED BY THE HOA.
3) PER APPROVED DEVELOPMENT AGREEMENT BLOCK LENGTH IS 1,250'.
4) ALL FEMA FLOOD ZONES INDICATE A FLOODPLAIN & DRAINAGE EASEMENT.
5) EXISTING FEMA FLOOD ZONES ARE LOCATED WITHIN FEMA FIRM PANEL NO. 48121C0265G.
6) PROPOSED FLOODPLAIN STUDY AND CLOMR WILL SHOW LIMITS OF POST-DEVELOPMENT FLOODPLAIN.
7) ALL OPEN SPACES WILL BE FLOODPLAIN & DRAINAGE EASEMENTS.
8) LOT 70X, BLOCK N, LOT 72X, BLOCK S, LOT 40X, BLOCK AK AND LOT 29X, BLOCK AI ARE HOA LOTS THAT RESERVE FUTURE ROW FOR THE OUTER LOOP BASED ON PRELIMINARY ALIGNMENT STUDIES. ROW ACQUISITIONS WILL OCCUR ONCE ALIGNMENT & SCHEMATICS HAVE BEEN FINALIZED.

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PLAT
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:
Kimley-Horn
6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

OWNER/DEVELOPER:
Aubrey Blackjack Partners, LLC
4514 Cole Ave., Suite 1650
Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

OWNER/DEVELOPER:
FM Land Investments I, LLC
138 Old Town Blvd. N., Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss

ENGINEER:
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Thomas Fletcher, P.E.
Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	P-9

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OWNER'S CERTIFICATIONS

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT **LW 377, LLC, AUBREY BLACKJACK PARTNERS, LLC, AND FM LAND INVESTMENTS I, LLC,** acting herein by and through its duly authorized officers, does hereby adopt this plat designating the hereinabove described property as **HIGH POINTE RANCH**, an addition to the City of Aubrey, Texas, and does hereby dedicate, in fee simple, to the public use forever, the streets and alleys shown thereon. The streets and alleys are dedicated for street purposes. The easements and public use areas, as shown, are dedicated for the public use forever, for the purposes indicated on this plat. In addition, utility easements may also be used for the mutual use and accommodation of all public utilities desiring to use or using the same unless the easement limits the use to particular utilities, said use by public utilities being subordinate to the public's and City of Aubrey's use thereof. The City of Aubrey and public utility entities shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs, or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of their respective systems in said easements. The City of Aubrey and public utility entities shall at all times have the full right of ingress and egress to or from their respective easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining, reading meters, and adding to or removing all or parts of their respective systems without the necessity at any time of procuring permission from anyone.

This approved subject to all platting ordinances, rules, and regulations of the City of Aubrey, Texas.

WITNESS my hand this the _____ day of _____, 20 _____.
By: _____
Name: _____
Title: _____

STATE OF TEXAS

COUNTY OF _____

BEFORE me, the undersigned authority, a Notary Public in and for said County and State, on this day personally appeared _____, known to me to be the person or persons whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same in the capacity herein stated and the act and deed of said company.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this _____ day of _____, 20 _____.

_____
Notary Public in and for _____ County
My Commission Expires: _____

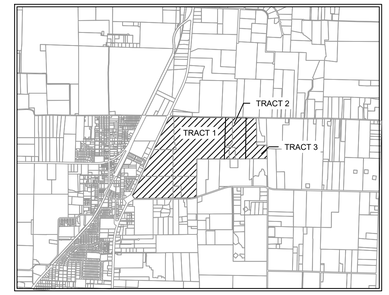
NOTES:

1. All bearings shown are based on grid north of the Texas Coordinate System of 1983, North Central Zone (4202), North American Datum of 1983. All dimensions shown are ground distances. To obtain a grid distance, multiply the ground distance by the Project Combined Factor (PCF) of 0.999855348.

2. According to Federal Emergency Management Agency's Flood Insurance Rate Map No. 48121C0265G, for Denton County, Texas and incorporated areas, dated 04/18/2011, this property is located within Zone X (unshaded) defined as "Areas determined to be outside the 0.2% annual chance floodplain" and Zone A defined as "Special flood hazard areas (SFHAs) subject to inundation by the 1% annual chance flood (No Base Flood Elevations determined)". If this site is not within an identified special flood hazard area, this flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. On rare occasions, greater floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor.

3. All Common Area Lots shall be owned and maintained by the Home Owners Association (H.O.A.)

PRELIMINARY
THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT



VICINITY MAP
SCALE: 1" = 4,000'

LEGEND

D.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
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B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
R.O.W.	RIGHT-OF-WAY
	STREET NAME CHANGE

LINE TYPE LEGEND

	MATCH LINE
	EASEMENT LINE
	PHASE LINE
	RIGHT-OF-WAY LINE
	100-YEAR FLOODPLAIN
	AUBREY CITY LIMITS

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CURVE TABLE

NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	38°56'15"	300.00'	203.88'	S13°22'18"W	199.98'
C2	40°04'14"	300.00'	209.81'	N12°48'19"E	205.56'
C3	1°30'49"	2360.00'	62.35'	N83°31'36"E	62.34'
C4	33°46'24"	600.00'	353.67'	N65°53'00"E	348.57'
C5	86°37'30"	35.50'	53.67'	N05°41'03"E	48.70'
C6	9°25'12"	800.00'	131.53'	S32°55'06"E	131.38'
C7	18°23'39"	800.00'	256.83'	S19°00'40"E	255.73'
C8	11°31'47"	337.34'	67.88'	S68°11'48"W	67.77'
C9	13°26'10"	800.00'	187.60'	N16°31'55"W	187.17'
C10	6°34'18"	800.00'	91.76'	S19°57'51"E	91.71'
C11	24°14'05"	300.00'	126.89'	N28°47'44"W	125.95'
C12	15°10'51"	1000.00'	264.95'	N56°40'39"E	264.18'
C13	23°50'56"	800.00'	332.99'	S76°32'39"E	330.59'
C14	18°33'08"	600.00'	194.28'	N86°47'28"E	193.43'
C15	17°11'07"	1430.00'	428.92'	S75°20'25"E	427.31'
C16	24°14'05"	300.00'	126.89'	N28°47'44"W	125.95'
C17	16°31'53"	600.00'	173.12'	N82°57'30"E	172.52'
C18	22°13'38"	1740.00'	675.01'	S77°39'45"E	670.79'
C19	29°15'06"	2050.00'	1046.60'	S81°01'22"E	1035.27'
C20	1°06'01"	2007.50'	38.55'	N06°38'50"W	38.55'

CURVE TABLE

NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C21	9°23'25"	2007.50'	329.01'	N11°53'33"W	328.65'
C22	0°05'26"	2007.50'	3.17'	N16°37'59"W	3.17'
C23	29°19'10"	2360.00'	1207.67'	S81°03'24"E	1194.53'
C24	82°10'23"	500.00'	717.09'	N20°34'10"W	657.20'
C25	15°42'42"	1304.94'	357.84'	N72°25'24"W	356.72'
C26	74°20'41"	200.00'	259.51'	N62°32'55"E	241.69'
C27	20°47'02"	500.00'	181.37'	S10°07'31"W	180.38'
C29	19°59'03"	760.00'	265.08'	N79°44'29"E	263.74'
C30	90°00'00"	35.50'	55.76'	S44°44'00"W	50.20'
C31	4°22'34"	800.00'	61.10'	N02°27'17"W	61.09'
C32	7°40'00"	800.00'	107.05'	N04°06'00"W	106.97'
C33	6°00'14"	300.00'	31.44'	N10°13'56"W	31.42'
C34	3°26'39"	2500.00'	150.28'	N14°57'22"W	150.26'
C35	23°42'24"	300.00'	124.13'	N52°45'59"W	123.24'
C36	39°25'06"	311.12'	214.04'	N49°36'28"E	209.85'
C37	24°05'50"	488.03'	205.25'	N81°27'56"E	203.74'
C38	16°51'31"	346.49'	101.95'	S73°05'08"E	101.58'
C39	23°42'24"	700.00'	289.63'	N52°45'59"W	287.57'
C40	22°58'57"	300.00'	120.34'	N13°51'42"E	119.53'
C44	5°54'28"	600.00'	61.86'	N61°41'35"W	61.84'

CURVE TABLE

NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C45	16°36'52"	600.00'	173.98'	N50°25'56"W	173.38'
C46	10°16'40"	625.00'	112.11'	N50°22'08"W	111.96'
C47	17°49'35"	300.00'	93.34'	S40°10'26"W	92.96'
C48	26°39'55"	300.00'	139.62'	N35°45'16"E	138.36'
C49	3°06'18"	625.00'	33.87'	N43°40'39"W	33.87'
C50	26°39'55"	600.00'	279.24'	N35°45'16"E	276.72'
C51	20°03'05"	300.00'	104.99'	N12°23'46"E	104.45'
C52	19°58'00"	600.00'	209.09'	N12°26'19"E	208.03'
C53	18°23'31"	300.00'	96.30'	N78°20'56"W	95.89'
C54	3°15'17"	3415.00'	193.99'	S70°46'48"E	193.96'
C55	4°34'17"	3415.00'	272.47'	S74°41'35"E	272.40'
C56	12°20'31"	3415.00'	735.62'	S83°08'59"E	734.19'
C57	11°17'58"	3695.00'	728.70'	S83°40'16"E	727.52'
C58	10°26'35"	350.00'	63.79'	S72°47'59"E	63.71'
C59	12°57'10"	885.00'	200.07'	N28°53'54"E	199.64'
C60	12°30'02"	885.00'	193.08'	N41°37'29"E	192.70'
C61	90°00'00"	35.50'	55.76'	S87°07'30"E	50.20'
C62	38°03'29"	300.00'	199.27'	N35°35'47"W	195.63'
C63	16°11'27"	300.00'	84.78'	N08°28'18"W	84.49'
C64	27°16'05"	300.00'	142.78'	N56°42'23"E	141.43'

CURVE TABLE

NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C65	26°39'55"	900.00'	418.86'	N35°45'16"E	415.09'
C66	21°52'54"	300.00'	114.57'	S54°00'48"W	113.88'
C67	14°34'56"	275.00'	69.99'	S50°21'48"W	69.80'
C68	31°37'48"	300.00'	165.61'	S80°46'09"W	163.52'
C69	2°25'55"	3980.00'	168.94'	S84°37'55"E	168.93'
C70	4°30'31"	3980.00'	313.18'	S88°06'08"E	313.10'
C71	1°53'13"	4005.00'	131.90'	S88°53'53"E	131.89'
C72	1°34'36"	4005.00'	110.20'	S87°09'59"E	110.20'
C73	0°38'18"	525.00'	5.85'	N01°34'44"E	5.85'
C74	1°13'08"	1000.00'	21.27'	S01°17'19"W	21.27'
C75	1°03'20"	1000.00'	18.42'	S00°09'05"W	18.42'
C76	1°03'20"	1000.00'	18.42'	S00°09'05"W	18.42'
C77	90°00'00"	250.00'	392.70'	S45°22'35"E	353.55'
C78	1°03'20"	1000.00'	18.42'	S00°09'05"W	18.42'
C82	24°40'11"	300.00'	129.17'	N12°42'40"W	128.17'
C83	73°55'57"	50.00'	64.52'	N00°16'48"W	60.13'
C84	9°24'03"	500.00'	82.04'	N17°43'17"E	81.94'
C85	0°38'29"	475.00'	5.32'	N01°00'00"E	5.32'
C86	4°22'34"	300.00'	22.91'	S87°32'43"W	22.91'
C91	9°43'36"	275.00'	46.68'	S85°29'44"E	46.63'

CURVE TABLE

NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C92	17°20'00"	778.51'	235.52'	N79°58'26"E	234.62'
C93	1°13'08"	500.00'	10.64'	N01°17'19"E	10.64'

LINE TABLE

NO.	BEARING	LENGTH
L1	S44°44'00"W	40.98'
L2	S45°16'00"E	38.28'
L3	S45°16'00"E	14.14'
L4	N44°44'00"E	14.14'
L5	S45°08'00"E	13.93'
L6	N44°52'00"E	14.11'
L7	S45°16'00"E	14.14'
L8	N44°44'00"E	14.14'
L9	S45°16'00"E	14.14'
L10	N44°44'00"E	14.14'
L11	S45°16'00"E	47.27'
L12	S44°44'00"W	47.93'
L13	S00°16'00"E	6.35'
L14	S00°16'00"E	6.20'
L15	S44°44'00"W	14.14'
L16	S45°16'00"E	14.14'
L17	S45°16'00"E	14.14'
L18	N44°44'00"E	14.14'
L19	N10°39'09"E	22.56'
L20	N41°50'17"E	49.62'

LINE TABLE

NO.	BEARING	LENGTH
L22	S44°44'00"W	14.14'
L23	N44°44'00"E	14.14'
L26	N45°22'35"W	14.14'
L27	N44°37'25"E	14.14'
L28	S45°22'35"E	14.14'
L29	N44°37'25"E	14.14'
L30	N44°37'25"E	14.14'
L31	S45°22'35"E	14.14'
L32	S45°22'35"E	14.14'
L33	S44°37'25"W	14.14'
L34	S45°22'35"E	14.14'
L35	N44°37'25"E	14.14'
L36	N45°13'41"W	14.36'
L37	S45°40'45"W	14.14'
L38	N44°46'19"E	13.92'
L39	S45°40'45"W	14.14'
L40	N44°19'15"W	14.14'
L41	S44°19'15"E	14.14'
L42	S44°19'15"E	14.14'
L43	N45°40'45"E	14.14'

LINE TABLE

NO.	BEARING	LENGTH
L44	S45°40'45"W	14.14'
L45	S44°19'15"E	14.14'
L46	S45°40'45"W	14.14'
L47	S44°19'15"E	14.14'
L48	N45°13'41"W	14.36'
L49	S44°19'15"E	14.14'
L50	N45°40'45"E	14.14'
L51	S44°19'15"E	14.14'
L52	N45°40'45"E	14.14'
L53	S44°19'15"E	14.14'
L54	S45°40'45"W	14.14'
L55	S44°19'15"E	14.14'
L56	S44°19'15"E	14.14'
L57	N45°40'45"E	14.14'
L58	N46°17'19"E	14.29'
L60	N36°39'00"E	19.50'
L63	N44°12'00"E	30.11'
L64	S45°44'04"E	30.20'
L65	N44°19'15"W	14.14'
L66	N46°17'19"E	14.29'

LINE TABLE

NO.	BEARING	LENGTH
L67	N45°40'45"E	14.14'
L68	S43°42'41"E	13.99'
L69	N45°40'45"E	14.14'
L70	S43°42'41"E	13.99'
L71	N43°42'41"W	13.99'
L72	S44°19'15"E	56.37'
L73	N45°40'45"E	56.68'
L74	S44°19'15"E	53.07'
L75	N45°40'45"E	53.36'
L76	S46°17'19"W	14.29'
L77	N45°58'52"E	14.37'
L78	S43°42'41"E	13.99'
L79	N46°17'19"E	14.29'
L80	S44°00'27"E	13.92'
L81	N46°39'31"E	13.63'
L82	S42°54'40"E	14.74'
L83	S43°42'41"E	13.99'
L84	N57°46'17"E	14.20'
L85	S31°31'15"E	14.15'
L86	N22°35'04"W	14.14'

LINE TABLE

NO.	BEARING	LENGTH
L87	N45°45'39"E	14.42'
L88	S45°22'35"E	14.14'
L89	N19°07'33"W	23.96'
L90	N67°24'59"E	14.14'
L91	S44°37'25"W	14.14'
L92	N23°16'59"E	13.40'
L93	S72°56'17"E	13.29'
L94	N26°53'12"E	15.65'
L95	S69°08'20"E	13.68'
L96	N10°34'12"W	14.37'
L97	N87°07'30"W	14.14'
L98	N44°37'25"E	14.14'
L99	S45°22'35"E	14.14'
L100	N44°37'25"E	14.14'
L101	S45°22'35"E	14.14'
L102	N53°36'49"W	21.07'
L103	S45°22'35"E	14.14'
L104	N44°37'25"E	14.14'
L106	N00°22'35"W	20.15'
L107	N81°19'09"E	14.37'

LINE TABLE

NO.	BEARING	LENGTH
L108	N03°28'52"E	13.99'
L109	S86°31'08"E	14.29'
L110	N64°46'27"E	14.78'
L111	S86°31'08"E	14.52'
L112	S24°43'29"E	13.60'
L113	N48°31'44"E	14.88'
L114	N03°28'52"E	13.77'
L115	S03°00'47"W	13.88'
L116	S42°32'41"E	14.15'
L117	N47°27'19"E	61.01'
L118	N42°19'09"W	57.88'
L119	S86°31'08"E	14.52'
L120	S10°37'46"E	14.06'
L121	S31°15'38"W	12.95'
L122	N76°21'16"E	14.82'
L123	N70°21'11"E	14.14'
L124	S19°38'49"E	14.14'
L125	N64°38'49"W	31.96'
L127	N02°27'19"E	6.58'
L128	N02°22'14"E	6.96'

LINE TABLE

NO.	BEARING	LENGTH
L129	S40°13'42"E	13.54'
L130	S42°37'46"E	14.14'
L131	N47°22'14"E	14.14'
L132	N49°39'45"E	14.70'
L133	S39°55'12"E	13.46'
L134	N58°51'42"E	16.68'
L135	S19°38'00"E	14.15'
L136	N70°22'00"E	14.14'
L137	S85°54'47"E	14.17'
L138	N04°05'13"E	14.11'
L139	N40°54'47"W	36.84'
L140	S85°54'47"E	14.14'
L141	S19°38'00"E	14.17'
L142	N70°22'00"E	14.12'
L143	N70°22'00"E	14.12'
L145	S14°09'54"E	12.73'
L146	N75°00'54"E	15.24'
L147	S19°38'00"E	14.15'
L148	N70°22'00"E	14.14'
L149	N70°22'00"E	14.14'

LINE TABLE

NO.	BEARING	LENGTH
L151	N70°21'03"E	42.40'
L152	S19°38'00"E	14.15'
L153	N04°05'13"E	14.14'
L154	S81°44'14"E	13.84'
L156	S85°54'47"E	14.14'
L157	N04°05'13"E	14.14'
L158	N49°10'37"E	38.37'
L159	N05°26'23"E	14.61'
L160	S52°13'48"E	14.14'
L161	N37°46'12"E	14.14'
L162	S51°16'22"E	14.10'
L163	N15°51'05"E	13.82'
L164	S71°57'23"E	13.90'
L165	S61°47'31"W	29.71'
L166	S16°40'42"E	32.45'
L167	N39°27'48"E	14.00'
L168	N23°46'41"W	20.00'
L169	S52°13'48"E	14.14'
L170	N37°46'12"E	14.14'
L171	N03°14'46"E	14.10'

LINE TABLE

NO.	BEARING	LENGTH
L172	N32°00'38"E	13.20'
L173	S58°17'09"E	14.95'
L174	N70°22'49"E	14.14'
L175	N30°31'58"E	13.59'
L176	N19°37'11"W	14.14'
L177	S59°10'19"E	14.53'
L178	N38°34'04"E	13.73'
L179	S19°37'11"E	14.14'
L180	N70°22'49"E	14.14'
L181	S20°31'45"E	14.36'
L182	N68°10'15"E	14.24'
L183	S50°35'39"E	14.33'
L184	N21°47'08"W	14.06'
L185	S17°16'07"E	30.27'
L186	N69°28'08"E	27.83'
L187	S19°38'15"E	42.44'
L188	N70°21'45"E	42.42'
L189	S50°22'12"E	14.32'
L190	N02°22'14"E	65.39'
L191	S45°16'00"E	14.14'

LINE TABLE

NO.	BEARING	LENGTH
L195	N45°07'45"E	14.24'
L196	S44°52'15"E	14.04'
L197	N45°16'00"W	14.14'
L198	S44°44'00"W	14.14'
L199	N44°44'00"E	14.14'
L200	S45°16'00"E	14.14'
L201	N41°23'57"E	14.40'
L202	S45°16'00"E	7.07'
L203	N44°44'00"E	7.07'
L219	S48°46'31"W	10.57'
L220	N82°04'01"E	31.93'
L222	N07°55'59"W	51.21'
L229	S89°28'31"E	32.46'
L231	S45°16'00"E	49.56'
L232	N44°44'00"E	49.32'
L233	S25°22'34"W	47.26'
L236	N64°37'11"W	40.12'
L237	N25°02'45"W	29.40'
L238	N13°01'16"E	48.89'
L239	N67°34'41"W	33.82'

LINE TABLE

NO.	BEARING	LENGTH
L240	N87°32'41"W	40.38'

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PLAT
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:
Kimley-Horn
6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

OWNER/DEVELOPER:
Aubrey Blackjack Partners, LLC
4514 Cole Ave., Suite 1650
Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

OWNER/DEVELOPER:
FM Land Investments I, LLC
138 Old Town Blvd. N., Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss

ENGINEER:
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, TX. 75034
Tel: (972) 335-3580
Contact: Thomas Fletcher, P.E.
Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103

P-10

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

PLOTTED BY TROEGER, DEREK 2/9/2022 3:20 PM
DWG NAME K:\FRI_CIVIL\FRISCO SINGLE FAMILY PURSUITS_20\20203\03 - CIRCLE Y RANCH\CAD\PRELIMINARY PLAN\SHEETS\P-2_PRELIMINARY PLAT.DWG [PRELIMINARY PLAT (11)]
LAST SAVED 2/9/2022 3:11 PM

DESCRIPTION OF SURVEYED PROPERTY:

BEING a tract of land situated in the F. Trevino Survey, Abstract No. 1243, Denton County, Texas, and being all of a called 357.445 acre tract of land described in a Special Warranty Deed to ALW 377, LLC, as recorded in Instrument No. 2018-78707 of the Official Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a 1 inch iron pipe found for the northeast corner of said 357.445 acre tract, common to the northwest corner of a called 61.611 acre tract of land described in a deed to FM Land Investments I, LLC, as recorded in Instrument No. 2021-31043 of the Official Records of Denton County, Texas, being in the centerline of Black Jack Road, a variable width right-of-way, no record found;

THENCE South 1°40'23" West, departing the centerline of said Black Jack Road, along an easterly line of said 357.445 acre tract and the westerly line of said 61.611 acre tract part of the way, a distance of 2,322.77 feet to a 1/2 inch iron rod with plastic cap stamped "Price Surveying" found for the northerly southeast corner of said 357.445 acre tract;

THENCE South 89°34'57" West, along a southerly line of said 357.445 acre tract, the northerly line of a called 27.106 acre tract of land described in a deed to Aubrey Farms LLC, as recorded in Instrument No. 2019-83125 of the Official Records of Denton County, Texas, and the northerly line of a called 27.37 acre tract of land described in a deed to Deccan Ranch, LLC, as recorded in Instrument No. 2019-327 of the Official Records of Denton County, Texas, a distance of 1539.46 feet to a 1/2 inch iron rod found for an ell corner of said 357.445 acre tract, common to the northwest corner of said 27.37 acre tract;

THENCE South 0°10'43" East, along an easterly line of said 357.445 acre tract and a westerly line of said 27.37 acre tract, a distance of 956.88 feet to a 1/2 inch iron rod with plastic cap stamped "Price Surveying" found for corner;

THENCE South 0°56'03" West, along an easterly line of said 357.445 acre tract and a westerly line of said 27.37 acre tract, a distance of 1129.76 feet to the southerly southeast corner of said 357.445 acre tract, common to the southwest corner of said 27.37 acre tract, being on the northerly right-of-way line of F.M. Highway No. 428, an 80 foot wide right-of-way;

THENCE along the southerly line of said 357.445 acre tract and the northerly right-of-way line of said F.M. Highway No. 428, the following courses and distances:

South 71°18'26" West, a distance of 118.62 feet to the beginning of a tangent curve to the right having a central angle of 17°20'00", a radius of 778.51 feet, a chord bearing and distance of South 79°58'26" West, 234.62 feet;

In a southwesterly direction, with said curve to the right, an arc distance of 235.52 feet to a point for corner;

South 88°38'26" West, a distance of 376.09 feet to a point for corner;

South 89°31'26" West, a distance of 1348.99 feet to a point for corner;

South 89°48'26" West, a distance of 1410.94 feet to the southerly southwest corner of said 357.445 acre tract, common to the south end of a corner clip at the intersection of the northerly right-of-way line of said F.M. Highway No. 428 with the easterly right-of-way line of U.S. Highway 377, a 120 foot wide right-of-way;

THENCE North 32°23'53" West, departing the northerly right-of-way line of said F.M. Highway No. 428, along a southwesterly line of said 357.445 acre tract and said corner clip, a distance of 217.06 feet to a wooden highway monument found for the northerly southwest corner of said 357.445 acre tract, common to the north end of said corner clip, being on the easterly right-of-way line of said U.S. Highway 377;

THENCE North 25°19'18" East, along a westerly line of said 357.445 acre tract and the easterly right-of-way line of said U.S. Highway 377, a distance of 4803.33 feet to the southerly northwest corner of said 357.445 acre tract, common to the south end of a corner clip at the intersection of the easterly right-of-way line of said U.S. Highway 377 with the centerline of aforesaid Black Jack Road;

THENCE North 59°03'32" East, departing the easterly right-of-way line of said U.S. Highway 377, along a northwesterly line of said 357.445 acre tract and said corner clip, a distance of 167.36 feet to a PK nail found for the northerly northwest corner of said 357.445 acre tract, common to the north end of said corner clip, being in the centerline of said Black Jack Road;

THENCE South 87°12'45" East, along a northerly line of said 357.445 acre tract and the centerline of said Black Jack Road, a distance of 1160.10 feet to a PK nail found for corner;

THENCE South 88°09'46" East, along a northerly line of said 357.445 acre tract and continuing along the centerline of said Black Jack Road, a distance of 505.03 feet to a PK nail found for corner;

THENCE South 89°21'08" East, along a northerly line of said 357.445 acre tract and continuing along the centerline of said Black Jack Road, a distance of 1356.90 feet to the **POINT OF BEGINNING** and containing 357.561 acres (15,575,370 square feet) of land, more or less.

NOTES:

1. All bearings shown are based on grid north of the Texas Coordinate System of 1983, North Central Zone (4202), North American Datum of 1983. All dimensions shown are ground distances. To obtain a grid distance, multiply the ground distance by the Project Combined Factor (PCF) of 0.999855348.
2. According to Federal Emergency Management Agency's Flood Insurance Rate Map No. 48121C0265G, for Denton County, Texas and incorporated areas, dated 04/18/2011, this property is located within Zone X (unshaded) defined as "Areas determined to be outside the 0.2% annual chance floodplain" and Zone A defined as "Special flood hazard areas (SFHAs) subject to inundation by the 1% annual chance flood (No Base Flood Elevations determined)". If this site is not within an identified special flood hazard area, this flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. On rare occasions, greater floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor.
3. All Common Area Lots shall be owned and maintained by the Home Owners Association (H.O.A.)

BEING a tract of land situated in the F. Trevino Survey, Abstract No. 1243, Denton County, Texas, and being all of a called 61.667 acre tract of land described in a General Warranty Deed to Betsy Turner, as recorded in Instrument No. 97-0010270 of the Official Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a mag nail set for the northeast corner of said 61.667 acre tract, common to the northwest corner of a called 41.640 acre tract of land described in a deed to Michael Ray Self and spouse, Hannah Carter Self, as recorded in Instrument No. 2020-72317 of the Official Records of Denton County, Texas, being on the southerly line of Tract I described in a deed to LTR Dressage, LLC, as recorded in Instrument No. 2012-60776 of the Official Records of Denton County, Texas, and in the centerline of Black Jack Road, a variable width right-of-way, no record found;

THENCE South 0°37'22" West, departing the southerly line of said Tract I and the centerline of said Black Jack Road, along the easterly line of said 61.667 acre tract and the westerly line of said 41.640 acre tract, a distance of 2297.48 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the southeast corner of said 61.667 acre tract, common to the southwest corner of said 41.640 acre tract, being on the northerly line of a called 94.58 acre tract of land described in a deed to Robert J. Houlihan, Trustee of the Jacqueline A. Houlihan Family Trust, as recorded in Instrument No. 2015-75670 of the Official Records of Denton County, Texas;

THENCE South 89°33'30" West, along the southerly line of said 61.667 acre tract, the northerly line of said 94.58 acre tract and the northerly line of a called 5.000 acre tract of land described in a deed to Robert J. Houlihan, as recorded in Instrument No. 2015-75669 of the Official Records of Denton County, Texas, a distance of 1184.22 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the southwest corner of said 61.667 acre tract, being on the easterly line of a called 166.34 acre tract of land described in a deed to ALW 377, LLC, as recorded in Instrument No. 2018-78707 of the Official Records of Denton County, Texas;

THENCE North 1°40'23" East, departing the northerly line of said 94.58 acre tract, along the westerly line of said 61.667 acre tract and the easterly line of said 166.34 acre tract, a distance of 2319.56 feet to a 1 inch iron pipe found for the northwest corner of said 61.667 acre tract, common to the northeast corner of said 166.34 acre tract, being on the southerly line of a called 37.115 acre tract of land described in a deed to Calvin Paul Redfearn, as recorded in Instrument No. 2014-96676 of the Official Records of Denton County, Texas, and in the middle of Black Jack Road;

THENCE South 89°23'35" East, along the northerly line of said 61.667 acre tract, the southerly line of said 37.115 acre tract, the southerly line of a called 20.236 acre tract of land described in a deed to Gary Conway and Debbie Conway, as recorded in Instrument No. 2019-158825 of the Official Records of Denton County, Texas, and the southerly line of said Tract I, a distance of 1141.49 feet to the **POINT OF BEGINNING** and containing 61.611 acres (2,683,778 square feet) of land, more or less.

BEING a tract of land situated in the F. Trevino Survey, Abstract No. 1243, Denton County, Texas, and being all of a called 41.640 acre tract of land described in a Warranty Deed with Vendor's Lien to Michael Ray Self and spouse, Hannah Carter Self, as recorded in Instrument No. 2020-72317 of the Official Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a mag nail set for the northwest corner of said 41.640 acre tract, common to the northeast corner of a called 61.667 acre tract of land described in a deed to Betsy Turner, as recorded in Instrument No. 97-0010270 of the Official Records of Denton County, Texas, being on the southerly line of Tract I described in a deed to LTR Dressage, LLC, as recorded in Instrument No. 2012-60776 of the Official Records of Denton County, Texas, and in the centerline of Black Jack Road, a variable width right-of-way, no record found;

THENCE South 89°10'02" East, along a northerly line of said 41.640 acre tract, the southerly line of said Tract I, the southerly line of a called 22.380 acre tract of land described as Tract II in said deed recorded in Instrument No. 2012-60776 of the Official Records of Denton County, Texas, and the centerline of said Black Jack Road, a distance of 570.47 feet to a 1 inch iron pipe found for the northerly northeast corner of said 41.640 acre tract, common to the northwest corner of a called 14.975 acre tract of land described in a deed to K & T Swan Family Limited Partnership, L.P., as recorded in Instrument No. 2017-78524 of the Official Records of Denton County, Texas;

THENCE South 1°07'20" East, departing the southerly line of said Tract II and the centerline of said Black Jack Road, along an easterly line of said 41.640 acre tract and the westerly line of said 14.975 acre tract, a distance of 1528.04 feet to a 1/2 inch iron rod found for the southwest corner of said 14.975 acre tract, common to an ell corner of said 41.640 acre tract;

THENCE South 89°22'10" East, along a northerly line of said 41.640 acre tract and the southerly line of said 14.975 acre tract, a distance of 570.06 feet to a 3/8 inch iron rod found for the southerly northeast corner of said 41.640 acre tract, common to the southeast corner of said 14.975 acre tract;

THENCE South 1°04'44" East, along an easterly line of said 41.640 acre tract, a distance of 745.84 feet to a 1/2 inch iron pipe found for the southeast corner of said 41.640 acre tract, common to the northeast corner of a called 16.597 acre tract of land described in a deed to Phillip J. Anton and wife, Karen M. Anton, as recorded in Instrument No. 95-65740 of the Official Records of Denton County, Texas;

THENCE South 89°33'30" West, along the southerly line of said 41.640 acre tract, the northerly line of said 16.597 acre tract, the northerly line of a called 6.703 acre tract of land described in a deed to Phillip John Anton and wife, Karen Marie Anton, as recorded in Instrument No. 2005-92268 of the Official Records of Denton County, Texas, and the northerly line of a called 94.58 acre tract of land described in a deed to Robert J. Houlihan, Trustee of the Jacqueline A. Houlihan Family Trust, as recorded in Instrument No. 2015-75670 of the Official Records of Denton County, Texas, a distance of 1209.41 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the southwest corner of said 41.640 acre tract, common to the southeast corner of aforesaid 61.667 acre tract;

THENCE North 0°37'22" East, departing the northerly line of said 94.58 acre tract, along the westerly line of said 41.640 acre tract and the easterly line of said 61.667 acre tract, a distance of 2297.48 feet to the **POINT OF BEGINNING** and containing 41.650 acres (1,814,290 square feet) of land, more or less.

SURVEYORS CERTIFICATION

KNOW ALL MEN BY THESE PRESENTS:

I, Sylviana Gunawan, a Registered Professional Land Surveyor in the State of Texas, do hereby declare that I have prepared this plat from an actual on the ground survey of the land, and that the corner monuments shown thereon were properly placed under my personal supervision in accordance with Subdivision Regulations of the City of Aubrey, Texas.

_____
Sylviana Gunawan
Registered Professional Land Surveyor #6461
Kimley-Horn and Associates, Inc.
6160 Warren Parkway, Suite 210
Frisco, Texas 75034
972-335-3580
sylviana.gunawan@kimley-horn.com

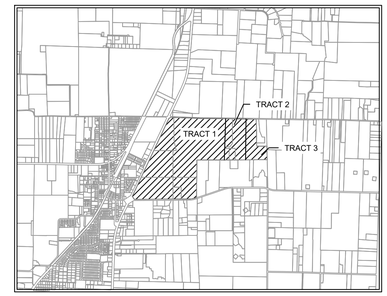
PRELIMINARY
THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

STATE OF TEXAS §
COUNTY OF COLLIN §

BEFORE ME, the undersigned authority, a Notary Public, on this day personally appeared Sylviana Gunawan, known to me to be the person whose name is subscribed to the foregoing instruments, and acknowledged to me that he executed the same for the purpose and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the ____ day of _____, 2021.

_____
NOTARY PUBLIC in and for the STATE OF TEXAS



VICINITY MAP
SCALE: 1" = 4,000'

LEGEND

D.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
D.E.	DRAINAGE EASEMENT
W.E.	WATER EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
R.O.W.	RIGHT-OF-WAY
	STREET NAME CHANGE

LINE TYPE LEGEND

	MATCH LINE
	EASEMENT LINE
	PHASE LINE
	RIGHT-OF-WAY LINE
	100-YEAR FLOODPLAIN
	AUBREY CITY LIMITS

NOTE:
1) ALL X LOTS ARE OWNED AND MAINTAINED BY THE HOA.
2) ALL ISLANDS WITHIN THE ROW SHALL BE MAINTAINED BY THE HOA.
3) PER APPROVED DEVELOPMENT AGREEMENT BLOCK LENGTH IS 1,250'.
4) ALL FEMA FLOOD ZONES INDICATE A FLOODPLAIN & DRAINAGE EASEMENT.
5) EXISTING FEMA FLOOD ZONES ARE LOCATED WITHIN FEMA FIRM PANEL NO. 48121C0265G.
6) PROPOSED FLOODPLAIN STUDY AND CLOMR WILL SHOW LIMITS OF POST-DEVELOPMENT FLOODPLAIN.
7) ALL OPEN SPACES WILL BE FLOODPLAIN & DRAINAGE EASEMENTS.
8) LOT 70X, BLOCK N, LOT 72X, BLOCK S, LOT 40X, BLOCK AK AND LOT 29X, BLOCK AI ARE HOA LOTS THAT RESERVE FUTURE ROW FOR THE OUTER LOOP BASED ON PRELIMINARY ALIGNMENT STUDIES. ROW ACQUISITIONS WILL OCCUR ONCE ALIGNMENT & SCHEMATICS HAVE BEEN FINALIZED.

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PLAT
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
Kimley-Horn 6160 Warren Pkwy Frisco, TX 75215 Tel: (469) 353-6058 Contact: Sylviana Gunawan Surveyor #6461	Aubrey Blackjack Partners, LLC 4514 Cole Ave., Suite 1650 Dallas, TX 75205 Tel: (214) 674-9570 Contact: Chad Vose	FM Land Investments I, LLC 138 Old Town Blvd. N., Suite 202 Argyle, TX 76226 Tel: (972) 740-5725 Contact: David Marks & Walter Foss	Kimley»Horn 6160 Warren Pakway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Thomas Fletcher, P.E. Registration F-928

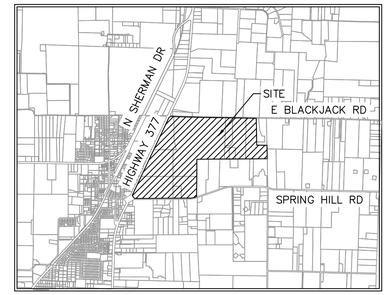
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103

P-11

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

PLOTTED BY TROEGER, DEREK 2/9/2022 5:01 PM
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LAST SAVED 2/9/2022 4:52 PM





VICINITY MAP
SCALE: 1" = 4,000'

LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR, AREA IN ACRES, Q100 FLOW IN CFS
A-1	INLET NUMBER
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

DRAINAGE DESIGN CRITERIA

Q100 = C*I*A

Q = FLOW IN CUBIC FEET PER SECOND (CFS)

C = RUNOFF COEFFICIENT = 0.65 (RESIDENTIAL)
0.30 (OPEN SPACE)

I = INTENSITY (TIME OF CONCENTRATION = TC)

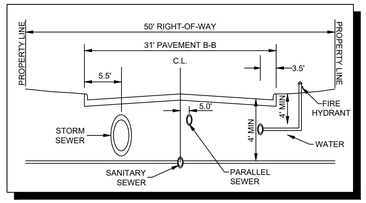
TC OF 15 MINUTES (RESIDENTIAL) = 7.87 IN/HR

A = DRAINAGE AREA IN ACRES

DRAINAGE AREA TABLE

DRAINAGE AREA NO.	AREA (ac)	ANTECEDENT FACTOR	RUNOFF COEFFICIENT "C"	TIME OF CONCENTRATION (minutes)	RAINFALL INTENSITY "I"100 (in/hr)	TOTAL FLOW Q100 (cfs)
EX 1	88.88	1.00	0.30	15	7.87	209.8
EX 2	42.74	1.00	0.30	15	7.87	100.9
EX 3	85.05	1.00	0.30	15	7.87	200.8
EX 4	15.38	1.00	0.30	15	7.87	36.3
EX 5	30.03	1.00	0.30	15	7.87	70.9
EX 6	26.93	1.00	0.30	15	7.87	63.6
EX 7	67.90	1.00	0.30	15	7.87	160.3
EX 8	50.23	1.00	0.30	15	7.87	118.6
EX 9	46.06	1.00	0.30	15	7.87	108.7
EX 10	35.51	1.00	0.30	15	7.87	83.8
EX 11	72.22	1.00	0.30	15	7.87	170.5
EX 12	65.23	1.00	0.30	15	7.87	154.0
EX 13	28.40	1.00	0.30	15	7.87	67.1
EX 14	12.65	1.00	0.30	15	7.87	29.9
EX 15	4.96	1.00	0.30	15	7.87	11.7
EX 16	1.77	1.00	0.30	15	7.87	4.2
EX 17	32.96	1.00	0.30	15	7.87	77.8
EX 18	9.77	1.00	0.30	15	7.87	23.1
EX 19	166.17	1.00	0.30	15	7.87	392.3
EX 20	118.67	1.00	0.30	15	7.87	280.2

TYPICAL UTILITY LOCATION



NOTE: EXISTING TOPOGRAPHIC INFORMATION IS FROM CURRENT TNRIS LIDAR.

DOCUMENT IS INTENDED FOR REVIEW PURPOSES ONLY. NOT FOR CONSTRUCTION OR PERMIT PURPOSES.

CITY PROJECT NUMBER: XXXXXXXXX

EXISTING DRAINAGE AREA MAP
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:
Kimley-Horn
6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

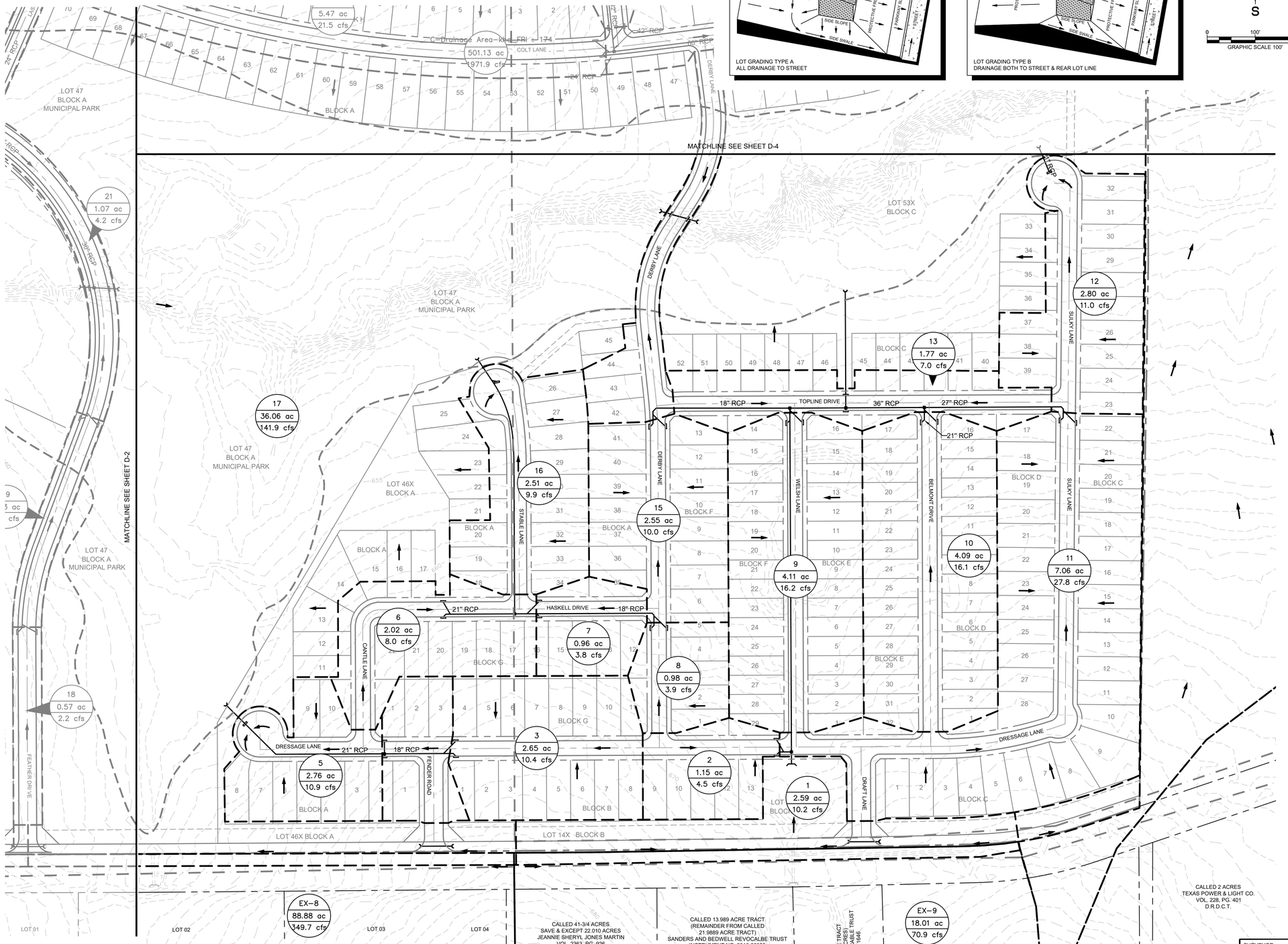
OWNER/DEVELOPER:
Aubrey Blackjack Partners, LLC
4514 Cole Ave., Suite 1650
Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

OWNER/DEVELOPER:
FM Land Investments I, LLC
138 Old Town Blvd. N., Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss

ENGINEER:
Kimley»Horn
6160 Warren Pkwy, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Thomas Fletcher, P.E.
Registration F-928

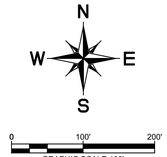
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DKT	KPH	TLF	AS SHOWN	SEPT. 2021	2020103

EX-1

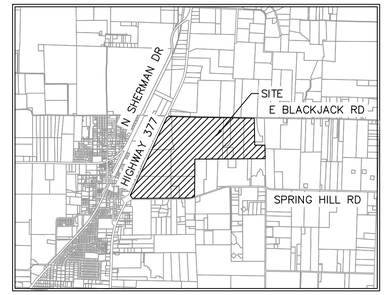


LOT GRADING TYPE A
ALL DRAINAGE TO STREET

LOT GRADING TYPE B
DRAINAGE BOTH TO STREET & REAR LOT LINE



0 100' 200'
GRAPHIC SCALE 100'



VICINITY MAP
SCALE: 1" = 4,000'

LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR, AREA IN ACRES, Q100 FLOW IN CFS
A-1	INLET NUMBER
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED PHASE LINE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

DRAINAGE DESIGN CRITERIA

Q100 = C*I*A

Q = FLOW IN CUBIC FEET PER SECOND (CFS)

C = RUNOFF COEFFICIENT = 0.50 (RESIDENTIAL)

I = INTENSITY (TIME OF CONCENTRATION = TC)

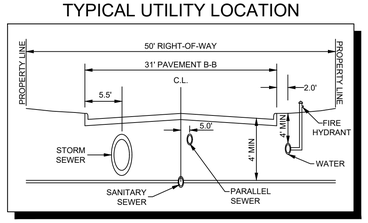
TC OF 15 MINUTES (RESIDENTIAL) = 7.87 IN/HR

A = DRAINAGE AREA IN ACRES

DRAINAGE GENERAL NOTES

1. LAYOUT SHOWN IS PRELIMINARY. STORM DRAIN PIPE SIZING, INLET LOCATIONS, AND JUNCTION BOX LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE WITH FINAL PLAT AND CONSTRUCTION PLANS, BUT SHALL MEET THE REQUIREMENTS OF THE DENTON COUNTY DEVELOPMENT RULES AND REGULATIONS. EXCEPT FOR PROVIDING CAPTURE OF 100-YEAR STORM WITHIN RIGHT-OF-WAY.
2. ALL STORM DRAIN LATERALS ARE ASSUMED TO BE 18" DIAMETER UNLESS NOTED OTHERWISE.
3. STORM SEWER SHALL PIPE SHALL BE DESIGNED FOR THE 100-YEAR STORM.

TYPICAL UTILITY LOCATION



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY DRAINAGE PLAN
FOR
HIGH POINTE RANCH

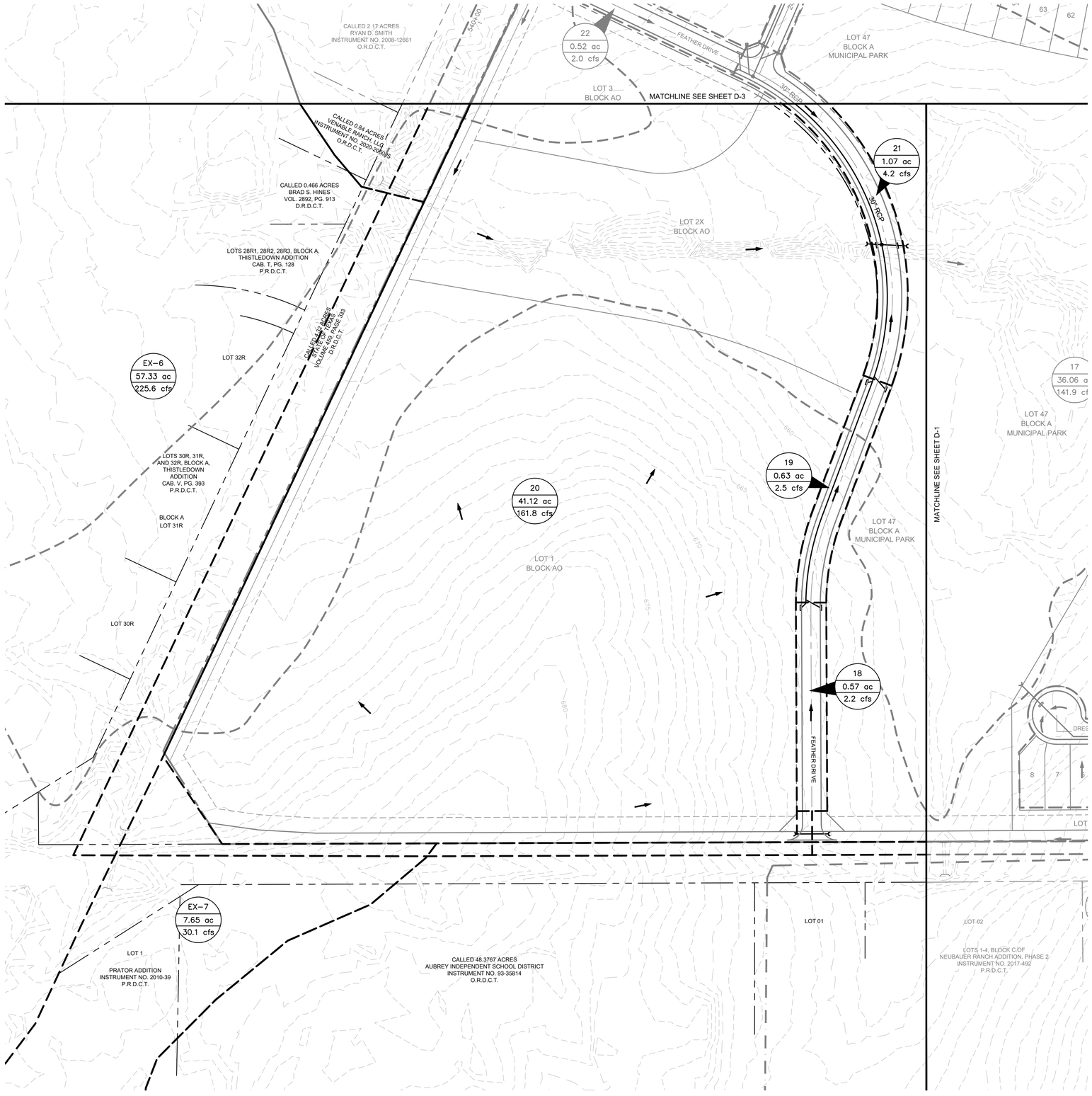
1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
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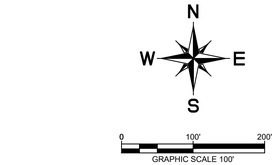
SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
Kimley-Horn 6160 Warren Pkwy Frisco, TX 75215 Tel: (469) 353-6058 Contact: Sylviana Gunawan Surveyor #6461	Aubrey Blackjack Partners, LLC 4514 Cole Ave., Suite 1650 Dallas, TX 75205 Tel: (214) 674-9570 Contact: Chad Vose	FM Land Investments I, LLC 138 Old Town Blvd. N., Suite 202 Argyle, TX 76226 Tel: (972) 740-5725 Contact: David Marks & Walter Foss	Kimley»Horn 6160 Warren Parkway, Suite 210 Frisco, TX. 75034 Tel: (972) 335-3580 Contact: Thomas Fletcher, P.E. Registration F-928

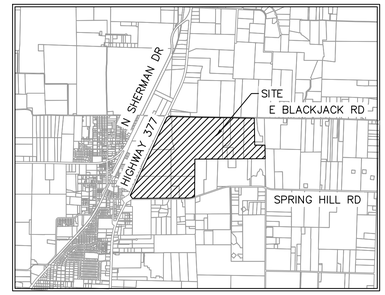
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	XXX	TLF	AS SHOWN	SEPT. 2021	2020103	D-1

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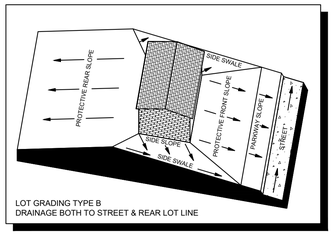




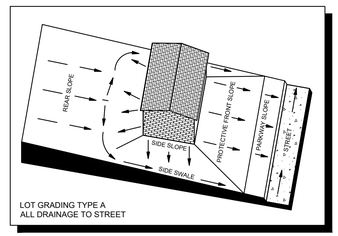


VICINITY MAP

SCALE: 1" = 4,000'



LOT GRADING TYPE B
DRAINAGE BOTH TO STREET & REAR LOT LINE



LOT GRADING TYPE A
ALL DRAINAGE TO STREET

LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR, AREA IN ACRES, Q100 FLOW IN CFS
A-1	INLET NUMBER
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED PHASE LINE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

DRAINAGE DESIGN CRITERIA

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I = INTENSITY (TIME OF CONCENTRATION = TC)

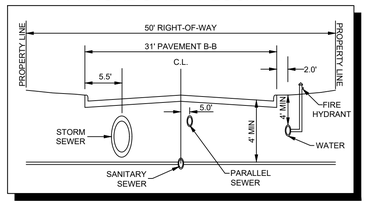
TC OF 15 MINUTES (RESIDENTIAL) = 7.87 IN/HR

A = DRAINAGE AREA IN ACRES

DRAINAGE GENERAL NOTES

1. LAYOUT SHOWN IS PRELIMINARY. STORM DRAIN PIPE SIZING, INLET LOCATIONS, AND JUNCTION BOX LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE WITH FINAL PLAT AND CONSTRUCTION PLANS, BUT SHALL MEET THE REQUIREMENTS OF THE DENTON COUNTY DEVELOPMENT RULES AND REGULATIONS. EXCEPT FOR PROVIDING CAPTURE OF 100-YEAR STORM WITHIN RIGHT-OF-WAY.
2. ALL STORM DRAIN LATERALS ARE ASSUMED TO BE 18" DIAMETER UNLESS NOTED OTHERWISE.
3. STORM SEWER SHALL PIPE SHALL BE DESIGNED FOR THE 100-YEAR STORM.

TYPICAL UTILITY LOCATION



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY DRAINAGE PLAN

FOR

HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT

BEING 460.75 ACRES

OUT OF THE

FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243

AND THE

IN THE

CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:
Kimley-Horn
6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

OWNER/DEVELOPER:
Aubrey Blackjack Partners, LLC
4514 Cole Ave., Suite 1650
Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

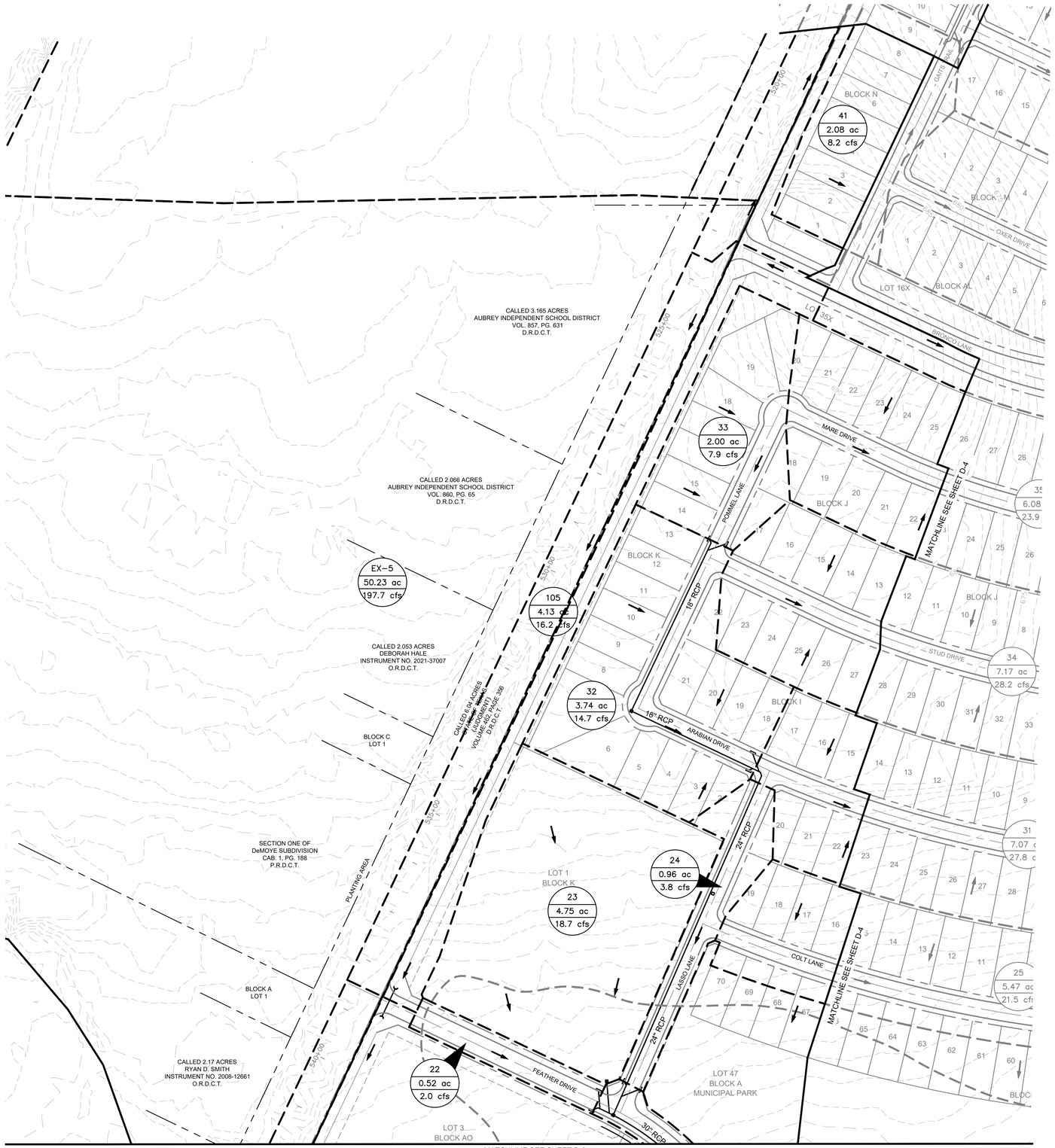
OWNER/DEVELOPER:
FM Land Investments I, LLC
138 Old Town Blvd. N., Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss

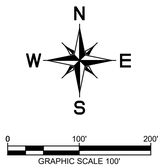
ENGINEER:
Kimley»Horn
6160 Warren Pkwy, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Thomas Fletcher, P.E.
Registration F-928

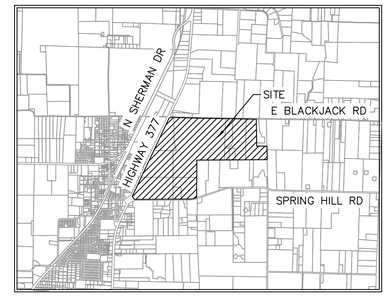
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DKT	XXX	TLF	AS SHOWN	SEPT. 2021	2020103	D-2

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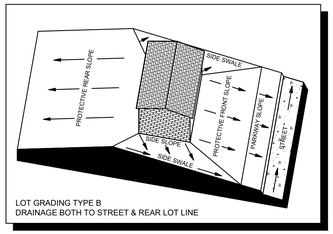




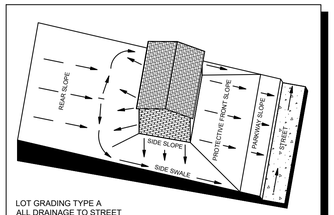


VICINITY MAP

SCALE: 1" = 4,000'



LOT GRADING TYPE B
DRAINAGE BOTH TO STREET & REAR LOT LINE



LOT GRADING TYPE A
ALL DRAINAGE TO STREET

LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR AREA IN ACRES Q100 FLOW IN CFS
A-1	INLET NUMBER
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED PHASE LINE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

DRAINAGE DESIGN CRITERIA

Q100 = C*I*A

Q = FLOW IN CUBIC FEET PER SECOND (CFS)

C = RUNOFF COEFFICIENT = 0.50 (RESIDENTIAL)

I = INTENSITY (TIME OF CONCENTRATION = TC)

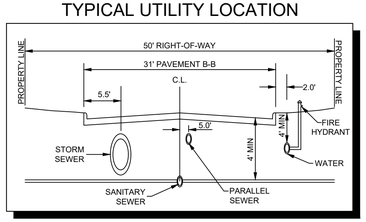
TC OF 15 MINUTES (RESIDENTIAL) = 7.87 IN/HR

A = DRAINAGE AREA IN ACRES

DRAINAGE GENERAL NOTES

1. LAYOUT SHOWN IS PRELIMINARY. STORM DRAIN PIPE SIZING, INLET LOCATIONS, AND JUNCTION BOX LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE WITH FINAL PLAT AND CONSTRUCTION PLANS, BUT SHALL MEET THE REQUIREMENTS OF THE DENTON COUNTY DEVELOPMENT RULES AND REGULATIONS. EXCEPT FOR PROVIDING CAPTURE OF 100-YEAR STORM WITHIN RIGHT-OF-WAY.
2. ALL STORM DRAIN LATERALS ARE ASSUMED TO BE 18" DIAMETER UNLESS NOTED OTHERWISE.
3. STORM SEWER SHALL PIPE SHALL BE DESIGNED FOR THE 100-YEAR STORM.

TYPICAL UTILITY LOCATION



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY DRAINAGE PLAN

FOR

HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT

BEING 460.75 ACRES

OUT OF THE

FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243

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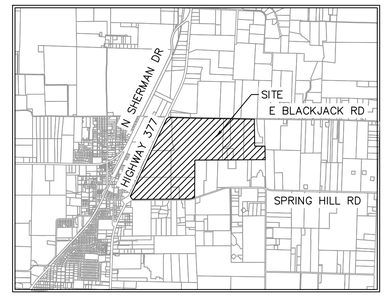
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VICINITY MAP

SCALE: 1" = 4,000'

LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR AREA IN ACRES Q100 FLOW IN CFS
A-1	INLET NUMBER
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED PHASE LINE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

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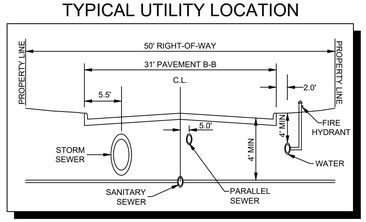
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LOT GRADING TYPE A
ALL DRAINAGE TO STREET

LOT GRADING TYPE B
DRAINAGE BOTH TO STREET & REAR LOT LINE

TYPICAL UTILITY LOCATION



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY DRAINAGE PLAN
FOR
HIGH POINTE RANCH

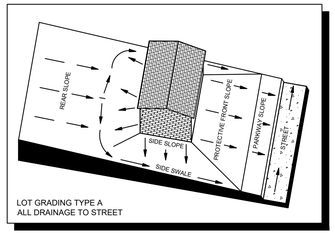
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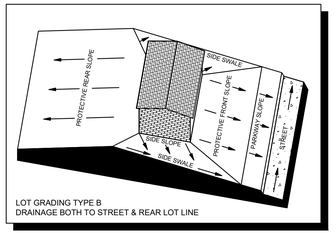
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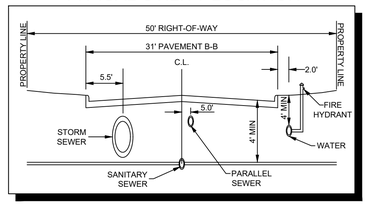


LOT GRADING TYPE A
ALL DRAINAGE TO STREET



LOT GRADING TYPE B
DRAINAGE BOTH TO STREET & REAR LOT LINE

TYPICAL UTILITY LOCATION



DRAINAGE GENERAL NOTES

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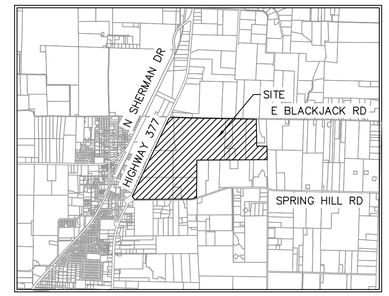
A = DRAINAGE AREA IN ACRES

LEGEND

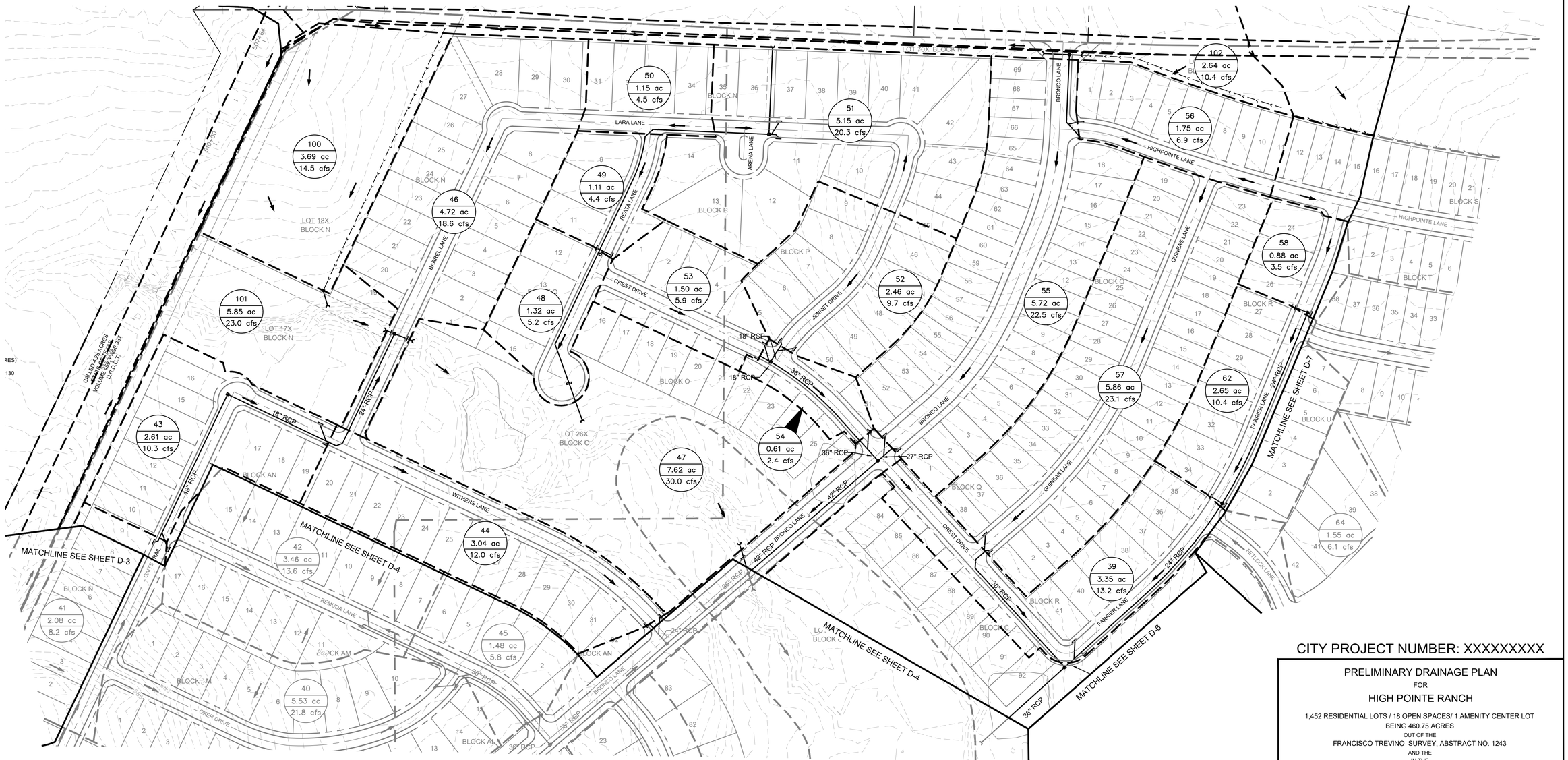
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	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

N W E S

0 100' 200'
GRAPHIC SCALE 100'



VICINITY MAP
SCALE: 1" = 4,000'



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY DRAINAGE PLAN
FOR
HIGH POINTE RANCH

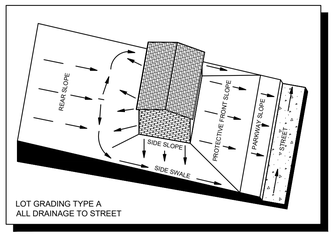
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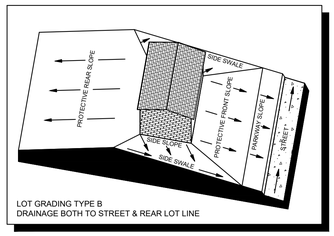
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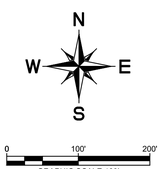
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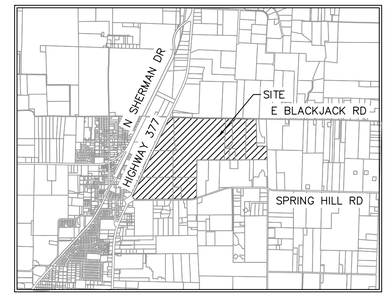
LOT GRADING TYPE A
ALL DRAINAGE TO STREET



LOT GRADING TYPE B
DRAINAGE BOTH TO STREET & REAR LOT LINE



0 100' 200'
GRAPHIC SCALE 100'



VICINITY MAP
SCALE: 1" = 4,000'

LEGEND

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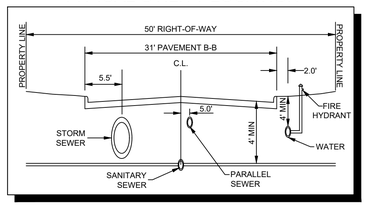
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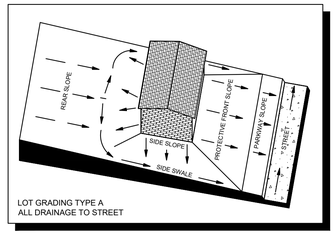
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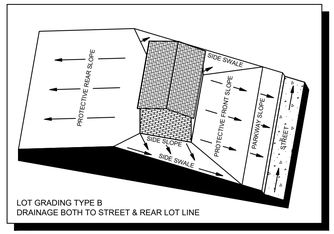
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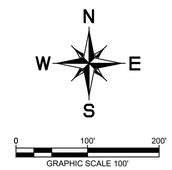
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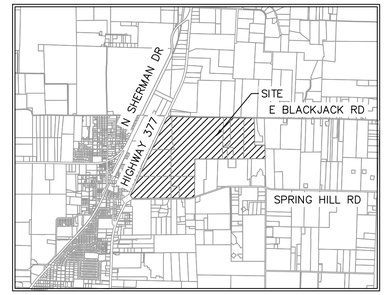


LOT GRADING TYPE A
ALL DRAINAGE TO STREET

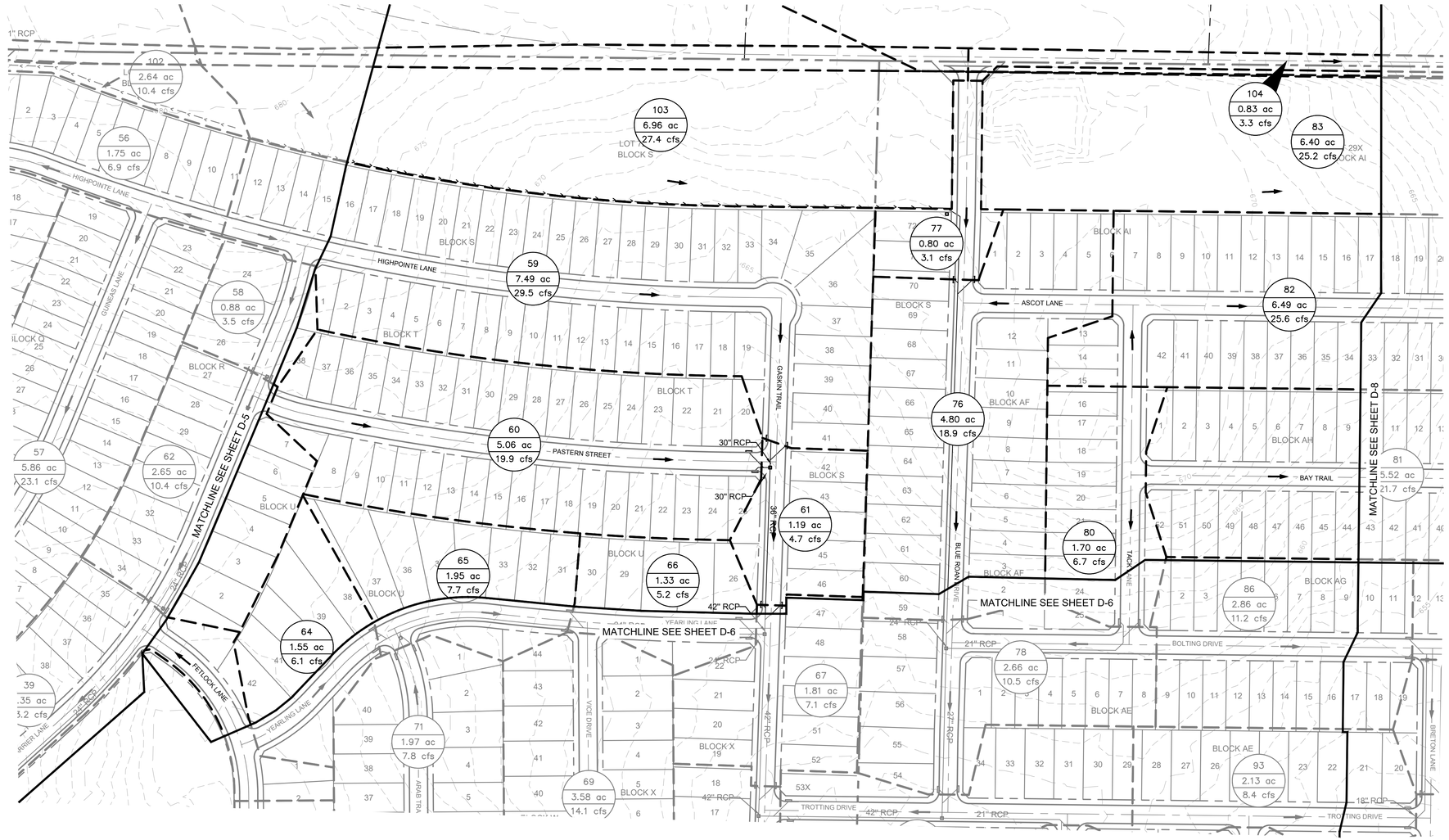


LOT GRADING TYPE B
DRAINAGE BOTH TO STREET & REAR LOT LINE





VICINITY MAP
SCALE: 1" = 4,000'



LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR, AREA IN ACRES, Q100 FLOW IN CFS
A-1	INLET NUMBER
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED PHASE LINE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

DRAINAGE DESIGN CRITERIA

Q100 = C*I*A

Q = FLOW IN CUBIC FEET PER SECOND (CFS)

C = RUNOFF COEFFICIENT = 0.50 (RESIDENTIAL)

I = INTENSITY (TIME OF CONCENTRATION = TC)

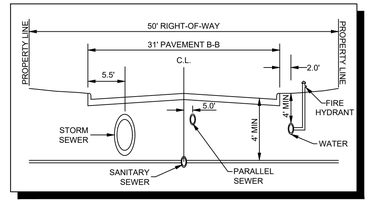
TC OF 15 MINUTES (RESIDENTIAL) = 7.87 IN/HR

A = DRAINAGE AREA IN ACRES

DRAINAGE GENERAL NOTES

1. LAYOUT SHOWN IS PRELIMINARY. STORM DRAIN PIPE SIZING, INLET LOCATIONS, AND JUNCTION BOX LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE WITH FINAL PLAT AND CONSTRUCTION PLANS, BUT SHALL MEET THE REQUIREMENTS OF THE DENTON COUNTY DEVELOPMENT RULES AND REGULATIONS. EXCEPT FOR PROVIDING CAPTURE OF 100-YEAR STORM WITHIN RIGHT-OF-WAY.
2. ALL STORM DRAIN LATERALS ARE ASSUMED TO BE 18" DIAMETER UNLESS NOTED OTHERWISE.
3. STORM SEWER SHALL PIPE SHALL BE DESIGNED FOR THE 100-YEAR STORM.

TYPICAL UTILITY LOCATION



CITY PROJECT NUMBER: XXXXXXXXX

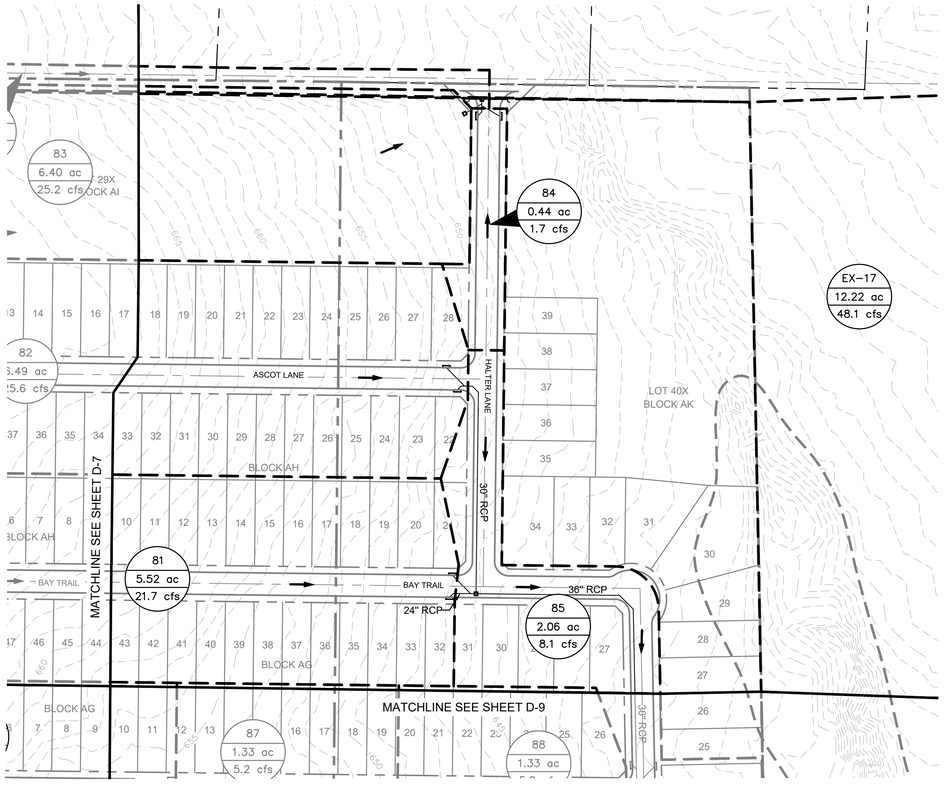
PRELIMINARY DRAINAGE PLAN
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
Kimley-Horn 6160 Warren Pkwy Frisco, TX 75215 Tel: (469) 353-6058 Contact: Sylviana Gunawan Surveyor #6461	Aubrey Blackjack Partners, LLC 4514 Cole Ave., Suite 1650 Dallas, TX 75205 Tel: (214) 674-9570 Contact: Chad Vose	FM Land Investments I, LLC 138 Old Town Blvd. N., Suite 202 Argyle, TX 76226 Tel: (972) 740-5725 Contact: David Marks & Walter Foss	Kimley»Horn 6160 Warren Pakway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Thomas Fletcher, P.E. Registration F-928

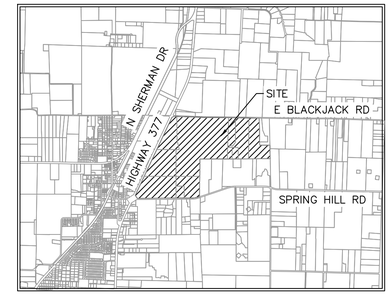
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	D-7

PLOTTED BY: TROGER, DEREK 3/9/2022 3:23 PM
DWG NAME: K:\FBU_CIVIL\FRISCO\SINGLE FAMILY PURSUITS_2020\2020103 - CIRCLE Y RANCH\CAD\PRELIMINARY\PLANSHEETS\D-2_DRAINAGE PLAN.DWG [D-8]
LAST SAVED: 3/9/2022 3:12 PM
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0 100' 200'
GRAPHIC SCALE 100'



VICINITY MAP
SCALE: 1" = 4,000'

LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR, AREA IN ACRES, Q100 FLOW IN CFS
A-1	INLET NUMBER
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED PHASE LINE
	PROPOSED STORM DRAIN INLET
	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR

DRAINAGE DESIGN CRITERIA

Q100 = C*I*A

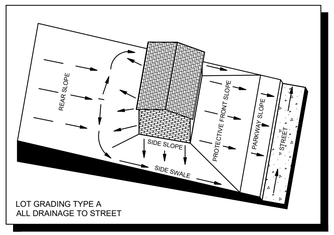
Q = FLOW IN CUBIC FEET PER SECOND (CFS)

C = RUNOFF COEFFICIENT = 0.50 (RESIDENTIAL)

I = INTENSITY (TIME OF CONCENTRATION = TC)

TC OF 15 MINUTES (RESIDENTIAL) = 7.87 IN/HR

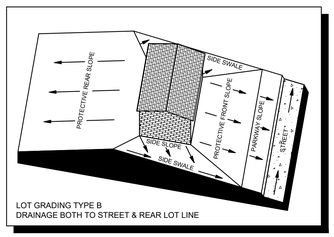
A = DRAINAGE AREA IN ACRES



LOT GRADING TYPE A
ALL DRAINAGE TO STREET

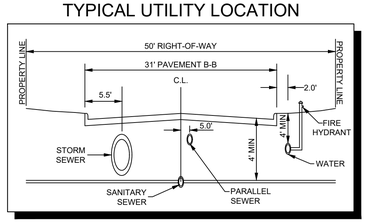
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LOT GRADING TYPE B
DRAINAGE BOTH TO STREET & REAR LOT LINE

TYPICAL UTILITY LOCATION



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY DRAINAGE PLAN

FOR

HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:
Kimley-Horn
6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

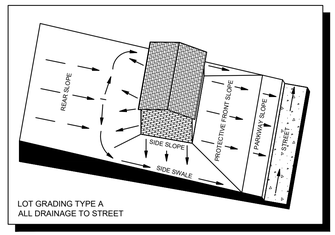
OWNER/DEVELOPER:
Aubrey Blackjack Partners, LLC
4514 Cole Ave., Suite 1650
Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

OWNER/DEVELOPER:
FM Land Investments I, LLC
138 Old Town Blvd. N., Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss

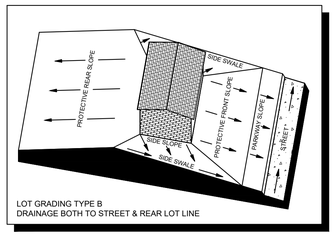
ENGINEER:
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Thomas Fletcher, P.E.
Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103

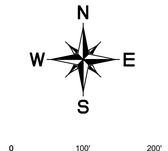
D-8

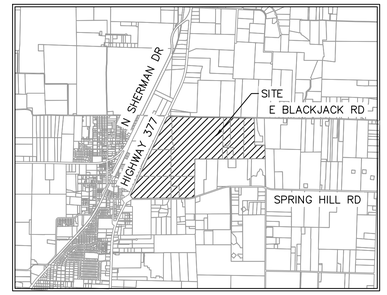


LOT GRADING TYPE A
ALL DRAINAGE TO STREET



LOT GRADING TYPE B
DRAINAGE BOTH TO STREET & REAR LOT LINE





VICINITY MAP
SCALE: 1" = 4,000'



LEGEND

X-1 / 9.9 ac / 5.5 cfs	AREA DESIGNATOR, AREA IN ACRES, Q100 FLOW IN CFS
A-1	INLET NUMBER
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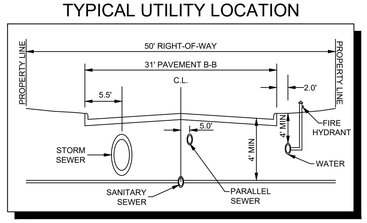
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TYPICAL UTILITY LOCATION



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY DRAINAGE PLAN
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
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Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	D-9

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LAST SAVED 2/9/2022 3:12 PM

DRAINAGE AREA TABLE						
DRAINAGE AREA NO.	AREA (ac)	ANTECEDENT FACTOR	RUNOFF COEFFICIENT "C"	TIME OF CONCENTRATION (minutes)	RAINFALL INTENSITY "I"100 (in/hr)	TOTAL FLOW Q100 (cfs)
2	1.15	1.00	0.50	15	7.87	4.5
3	2.65	1.00	0.50	15	7.87	10.4
5	2.76	1.00	0.50	15	7.87	10.9
6	2.02	1.00	0.50	15	7.87	8.0
7	0.96	1.00	0.50	15	7.87	3.8
8	0.98	1.00	0.50	15	7.87	3.9
9	4.11	1.00	0.50	15	7.87	16.2
10	4.09	1.00	0.50	15	7.87	16.1
12	2.80	1.00	0.50	15	7.87	11.0
13	1.77	1.00	0.50	15	7.87	7.0
15	2.55	1.00	0.50	15	7.87	10.0
16	2.51	1.00	0.50	15	7.87	9.9
17	36.06	1.00	0.50	15	7.87	141.9
18	0.57	1.00	0.50	15	7.87	2.2
19	0.63	1.00	0.50	15	7.87	2.5
20	41.12	1.00	0.50	15	7.87	161.8
21	1.07	1.00	0.50	15	7.87	4.2
22	0.52	1.00	0.50	15	7.87	2.0
23	4.75	1.00	0.50	15	7.87	18.7
24	0.96	1.00	0.50	15	7.87	3.8

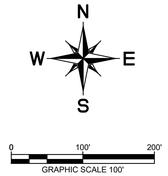
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DRAINAGE AREA NO.	AREA (ac)	ANTECEDENT FACTOR	RUNOFF COEFFICIENT "C"	TIME OF CONCENTRATION (minutes)	RAINFALL INTENSITY "I"100 (in/hr)	TOTAL FLOW Q100 (cfs)
25	5.47	1.00	0.50	15	7.87	21.5
26	1.14	1.00	0.50	15	7.87	4.5
27	4.08	1.00	0.50	15	7.87	16.0
28	7.46	1.00	0.50	15	7.87	29.4
29	1.64	1.00	0.50	15	7.87	6.5
30	6.16	1.00	0.50	15	7.87	24.2
31	7.07	1.00	0.50	15	7.87	27.8
32	3.74	1.00	0.50	15	7.87	14.7
33	2.00	1.00	0.50	15	7.87	7.9
34	7.17	1.00	0.50	15	7.87	28.2
35	6.08	1.00	0.50	15	7.87	23.9
36	1.55	1.00	0.50	15	7.87	6.1
37	1.86	1.00	0.50	15	7.87	7.3
38	3.62	1.00	0.50	15	7.87	14.3
39	3.35	1.00	0.50	15	7.87	13.2
40	5.53	1.00	0.50	15	7.87	21.8
41	2.08	1.00	0.50	15	7.87	8.2
42	3.46	1.00	0.50	15	7.87	13.6
43	2.61	1.00	0.50	15	7.87	10.3
44	3.04	1.00	0.50	15	7.87	12.0

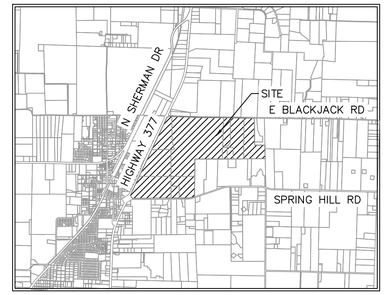
DRAINAGE AREA TABLE						
DRAINAGE AREA NO.	AREA (ac)	ANTECEDENT FACTOR	RUNOFF COEFFICIENT "C"	TIME OF CONCENTRATION (minutes)	RAINFALL INTENSITY "I"100 (in/hr)	TOTAL FLOW Q100 (cfs)
45	1.48	1.00	0.50	15	7.87	5.8
46	4.72	1.00	0.50	15	7.87	18.6
47	7.62	1.00	0.50	15	7.87	30.0
48	1.32	1.00	0.50	15	7.87	5.2
49	1.11	1.00	0.50	15	7.87	4.4
50	1.15	1.00	0.50	15	7.87	4.5
51	5.15	1.00	0.50	15	7.87	20.3
52	2.46	1.00	0.50	15	7.87	9.7
53	1.50	1.00	0.50	15	7.87	5.9
54	0.61	1.00	0.50	15	7.87	2.4
55	5.72	1.00	0.50	15	7.87	22.5
56	1.75	1.00	0.50	15	7.87	6.9
57	5.86	1.00	0.50	15	7.87	23.1
58	0.88	1.00	0.50	15	7.87	3.5
59	7.49	1.00	0.50	15	7.87	29.5
60	5.06	1.00	0.50	15	7.87	19.9
61	1.19	1.00	0.50	15	7.87	4.7
62	2.65	1.00	0.50	15	7.87	10.4
64	1.55	1.00	0.50	15	7.87	6.1
65	1.95	1.00	0.50	15	7.87	7.7

DRAINAGE AREA TABLE						
DRAINAGE AREA NO.	AREA (ac)	ANTECEDENT FACTOR	RUNOFF COEFFICIENT "C"	TIME OF CONCENTRATION (minutes)	RAINFALL INTENSITY "I"100 (in/hr)	TOTAL FLOW Q100 (cfs)
66	1.33	1.00	0.50	15	7.87	5.2
67	1.81	1.00	0.50	15	7.87	7.1
68	2.75	1.00	0.50	15	7.87	10.8
69	3.58	1.00	0.50	15	7.87	14.1
70	5.34	1.00	0.50	15	7.87	21.0
71	1.97	1.00	0.50	15	7.87	7.8
72	1.57	1.00	0.50	15	7.87	6.2
73	4.08	1.00	0.50	15	7.87	16.0
74	2.40	1.00	0.50	15	7.87	9.5
75	1.48	1.00	0.50	15	7.87	5.8
76	4.80	1.00	0.50	15	7.87	18.9
77	0.80	1.00	0.50	15	7.87	3.1
78	2.66	1.00	0.50	15	7.87	10.5
79	2.41	1.00	0.50	15	7.87	9.5
80	1.70	1.00	0.50	15	7.87	6.7
81	5.52	1.00	0.50	15	7.87	21.7
82	6.49	1.00	0.50	15	7.87	25.6
83	6.40	1.00	0.50	15	7.87	25.2
84	0.44	1.00	0.50	15	7.87	1.7
85	2.06	1.00	0.50	15	7.87	8.1

DRAINAGE AREA TABLE						
DRAINAGE AREA NO.	AREA (ac)	ANTECEDENT FACTOR	RUNOFF COEFFICIENT "C"	TIME OF CONCENTRATION (minutes)	RAINFALL INTENSITY "I"100 (in/hr)	TOTAL FLOW Q100 (cfs)
86	2.86	1.00	0.50	15	7.87	11.2
87	1.33	1.00	0.50	15	7.87	5.2
88	1.33	1.00	0.50	15	7.87	5.2
89	3.98	1.00	0.50	15	7.87	15.7
90	7.74	1.00	0.50	15	7.87	30.5
91	1.01	1.00	0.50	15	7.87	4.0
92	5.78	1.00	0.50	15	7.87	22.8
93	2.13	1.00	0.50	15	7.87	8.4
94	2.34	1.00	0.50	15	7.87	9.2
95	2.58	1.00	0.50	15	7.87	10.1
96	5.21	1.00	0.50	15	7.87	20.5
97	4.65	1.00	0.50	15	7.87	18.3
98	2.40	1.00	0.50	15	7.87	9.4
99	3.66	1.00	0.50	15	7.87	14.4
100	3.69	1.00	0.50	15	7.87	14.5
101	5.85	1.00	0.50	15	7.87	23.0
102	2.64	1.00	0.50	15	7.87	10.4
103	6.96	1.00	0.50	15	7.87	27.4
104	0.83	1.00	0.50	15	7.87	3.3
105	4.13	1.00	0.50	15	7.87	16.2

DRAINAGE AREA TABLE						
DRAINAGE AREA NO.	AREA (ac)	ANTECEDENT FACTOR	RUNOFF COEFFICIENT "C"	TIME OF CONCENTRATION (minutes)	RAINFALL INTENSITY "I"100 (in/hr)	TOTAL FLOW Q100 (cfs)
106	2.08	1.00	0.50	15	7.87	8.2
107	3.18	1.00	0.50	15	7.87	12.5





VICINITY MAP
SCALE: 1" = 4,000'

DRAINAGE DESIGN CRITERIA

Q100 = C*I*A

Q = FLOW IN CUBIC FEET PER SECOND (CFS)

C = RUNOFF COEFFICIENT = 0.50 (RESIDENTIAL)

I = INTENSITY (TIME OF CONCENTRATION = TC)

TC OF 15 MINUTES (RESIDENTIAL) = 7.87 IN/HR

A = DRAINAGE AREA IN ACRES

DRAINAGE GENERAL NOTES

1. LAYOUT SHOWN IS PRELIMINARY. STORM DRAIN PIPE SIZING, INLET LOCATIONS, AND JUNCTION BOX LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE WITH FINAL PLAT AND CONSTRUCTION PLANS, BUT SHALL MEET THE REQUIREMENTS OF THE DENTON COUNTY DEVELOPMENT RULES AND REGULATIONS. EXCEPT FOR PROVIDING CAPTURE OF 100-YEAR STORM WITHIN RIGHT-OF-WAY.
2. ALL STORM DRAIN LATERALS ARE ASSUMED TO BE 18" DIAMETER UNLESS NOTED OTHERWISE.
3. STORM SEWER SHALL PIPE SHALL BE DESIGNED FOR THE 100-YEAR STORM.

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY DRAINAGE PLAN

FOR

HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:
Kimley-Horn
6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

OWNER/DEVELOPER:
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4514 Cole Ave., Suite 1650
Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

OWNER/DEVELOPER:
FM Land Investments I, LLC
138 Old Town Blvd. N., Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss

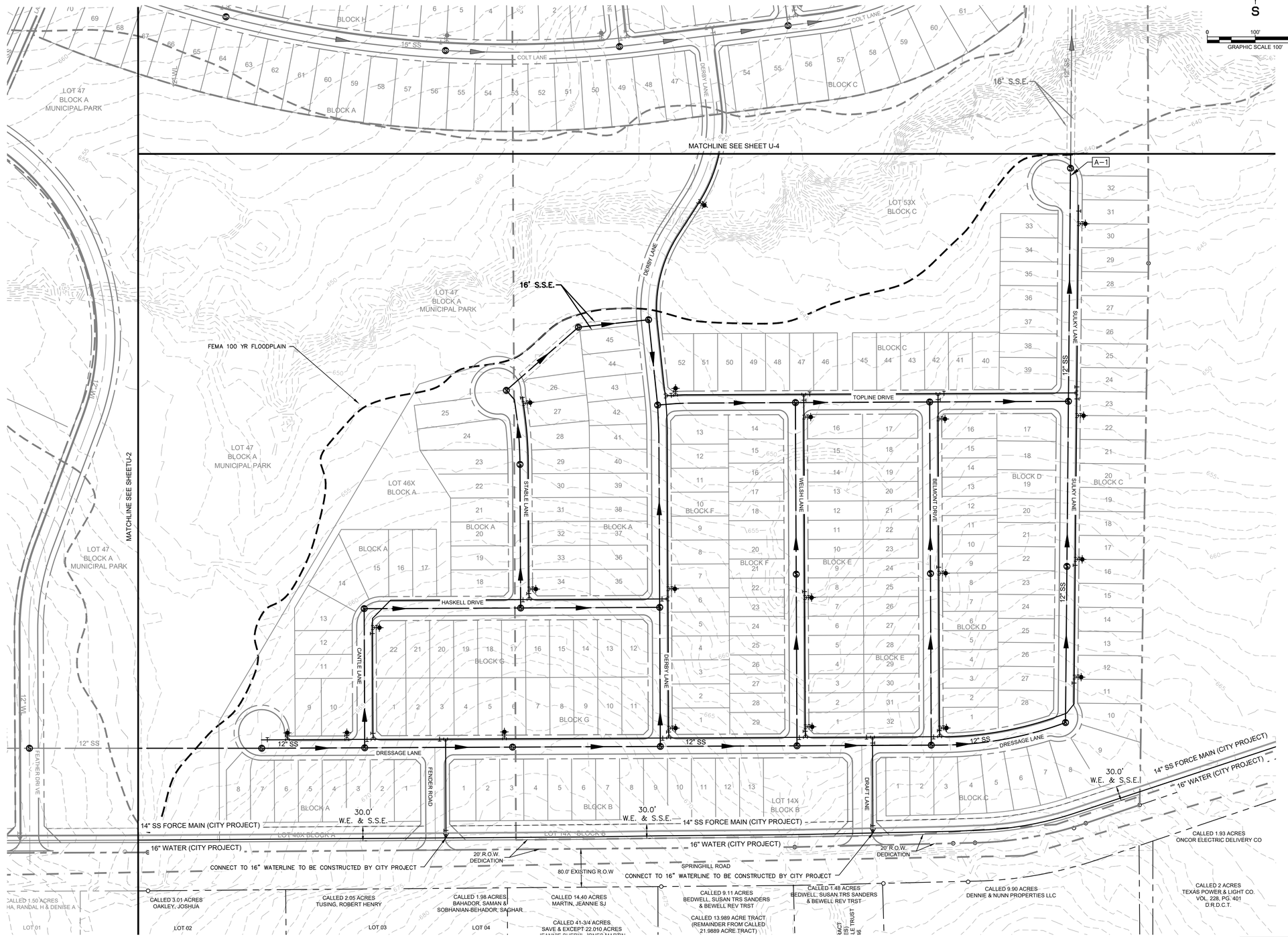
ENGINEER:
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Thomas Fletcher, P.E.
Registration F-928

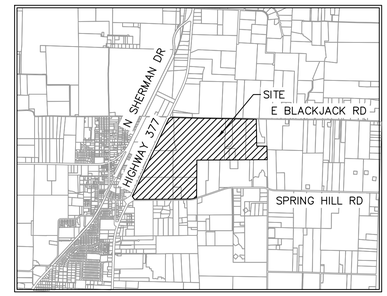
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103

D-10

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LAST SAVED 1/27/2022 11:38 AM





VICINITY MAP
SCALE: 1" = 4,000'

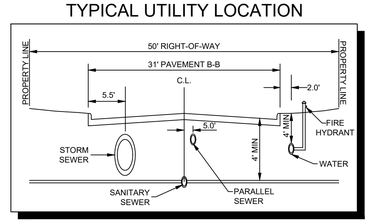
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- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- SANITARY SEWER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- IRRIGATION SLEEVE
- X-1 / 9.9 ac — PROPOSED SEWERSHED ACREAGE
- X-1 — PROPOSED SEWERSHED CALC POINT

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7. OFFSITE UTILITIES DESIGNED BY CITY'S CONSULTANT. UTILITY CONNECTION TO BE COORDINATED BY CITY'S CONSULTANT AND PROJECT ENGINEER.

TYPICAL UTILITY LOCATION



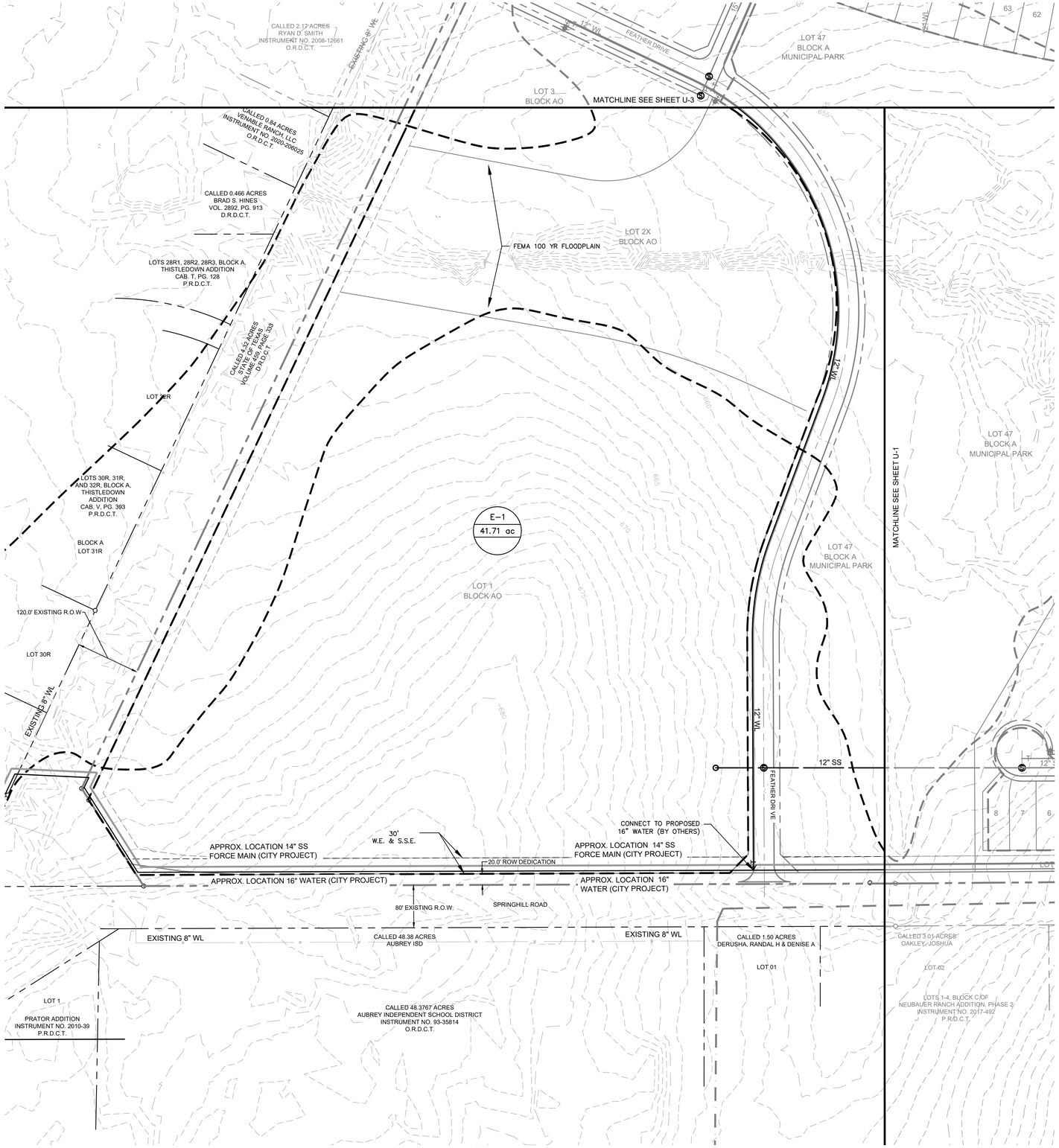
CITY PROJECT NUMBER: XXXXXXXXX

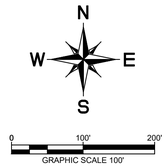
PRELIMINARY UTILITY PLAN
FOR
HIGH POINTE RANCH

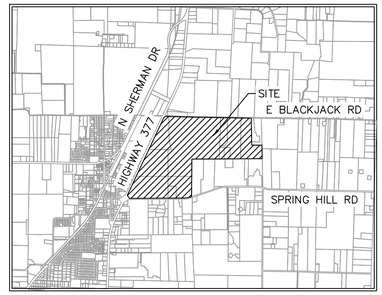
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DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	U-1







VICINITY MAP

SCALE: 1" = 4,000'

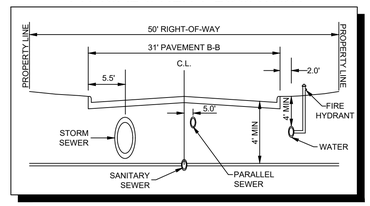
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TYPICAL UTILITY LOCATION



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY UTILITY PLAN

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BEING 460.75 ACRES

OUT OF THE

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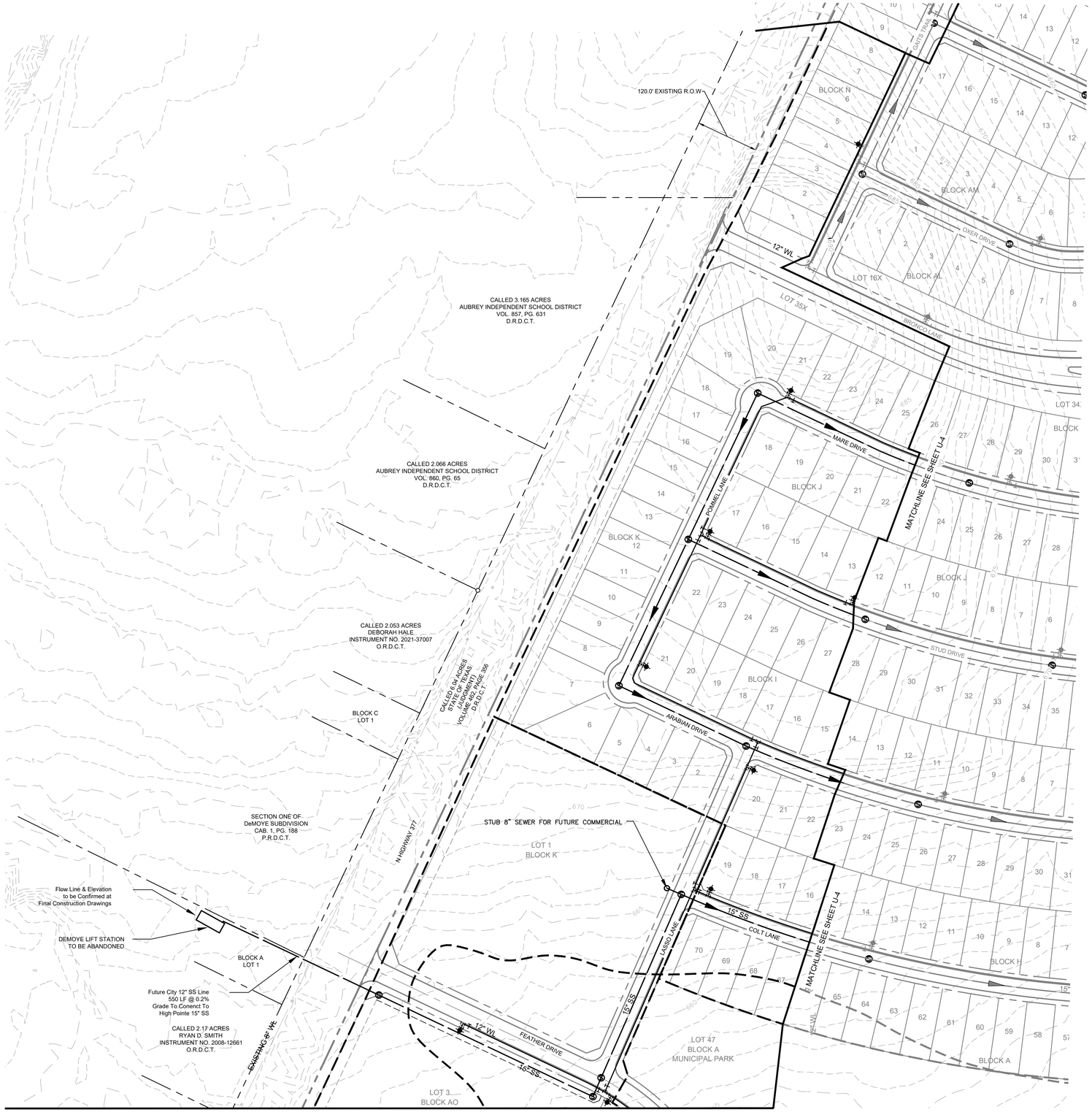
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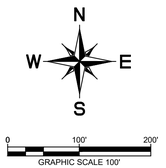
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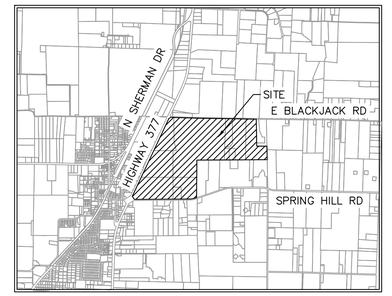
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VICINITY MAP
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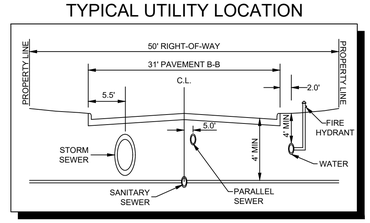
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TYPICAL UTILITY LOCATION



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY UTILITY PLAN
FOR
HIGH POINTE RANCH

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BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
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Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

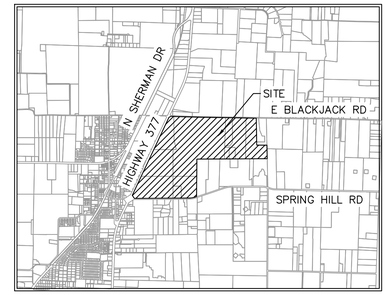
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ENGINEER:
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Registration F-928

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DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	U-3





VICINITY MAP

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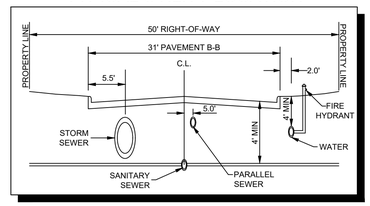
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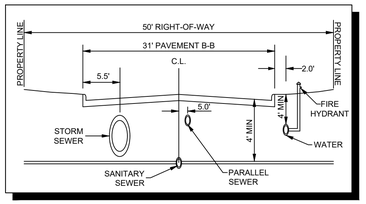
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U-4

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TYPICAL UTILITY LOCATION



WATER & SEWER GENERAL NOTES

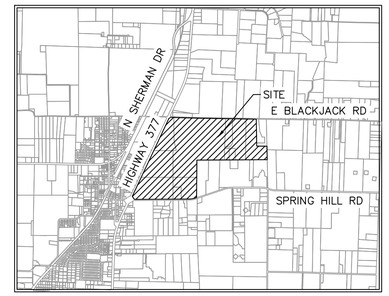
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N W E S

0 100' 200'
GRAPHIC SCALE 100'



VICINITY MAP
SCALE: 1" = 4,000'



CITY PROJECT NUMBER: XXXXXXXXX

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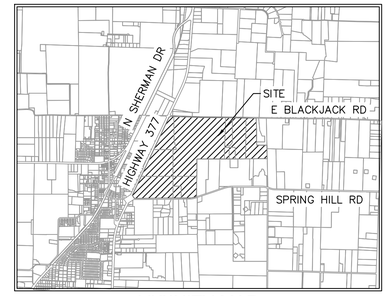
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DWG NAME: K:\FRI_CIVIL\FRISCO\SINGLE FAMILY PURSUITS_2020\20103 - CIRCLE Y RANCH\CAD\PRELIMINARY PLANSHEETS\U-2_UTILITY PLAN.DWG [U-6]
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VICINITY MAP
SCALE: 1" = 4,000'

0 100' 200'
GRAPHIC SCALE 100'

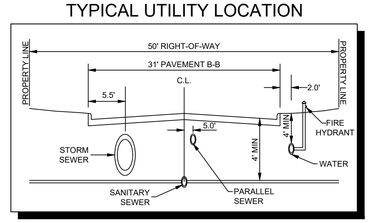
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- PROPOSED SANITARY SEWER LINE
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER CLEANOUT
- SANITARY SEWER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- IRRIGATION SLEEVE
- X-1 / 9.9 ac — PROPOSED SEWERSHED ACREAGE
- X-1 — PROPOSED SEWERSHED CALC POINT

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TYPICAL UTILITY LOCATION



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY UTILITY PLAN
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
Kimley-Horn 6160 Warren Pkwy Frisco, TX 75215 Tel: (469) 353-6058 Contact: Sylviana Gunawan Surveyor #6461	Aubrey Blackjack Partners, LLC 4514 Cole Ave., Suite 1650 Dallas, TX 75205 Tel: (214) 674-9570 Contact: Chad Vose	FM Land Investments I, LLC 138 Old Town Blvd. N., Suite 202 Argyle, TX 76226 Tel: (972) 740-5725 Contact: David Marks & Walter Foss	Kimley»Horn 6160 Warren Pkwy, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Thomas Fletcher, P.E. Registration F-928

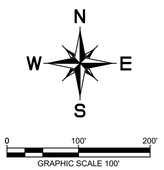
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103

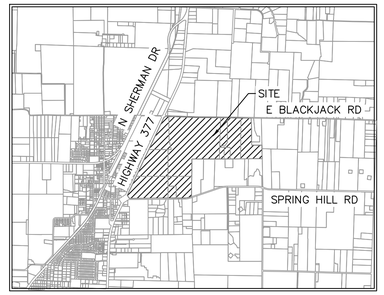
U-6

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LAST SAVED: 2/9/2023 3:08 PM







VICINITY MAP
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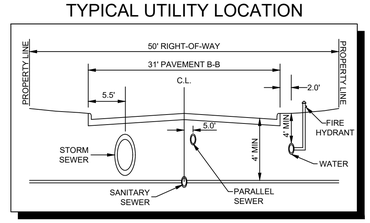
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6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

OWNER/DEVELOPER:
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Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

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138 Old Town Blvd. N., Suite 202
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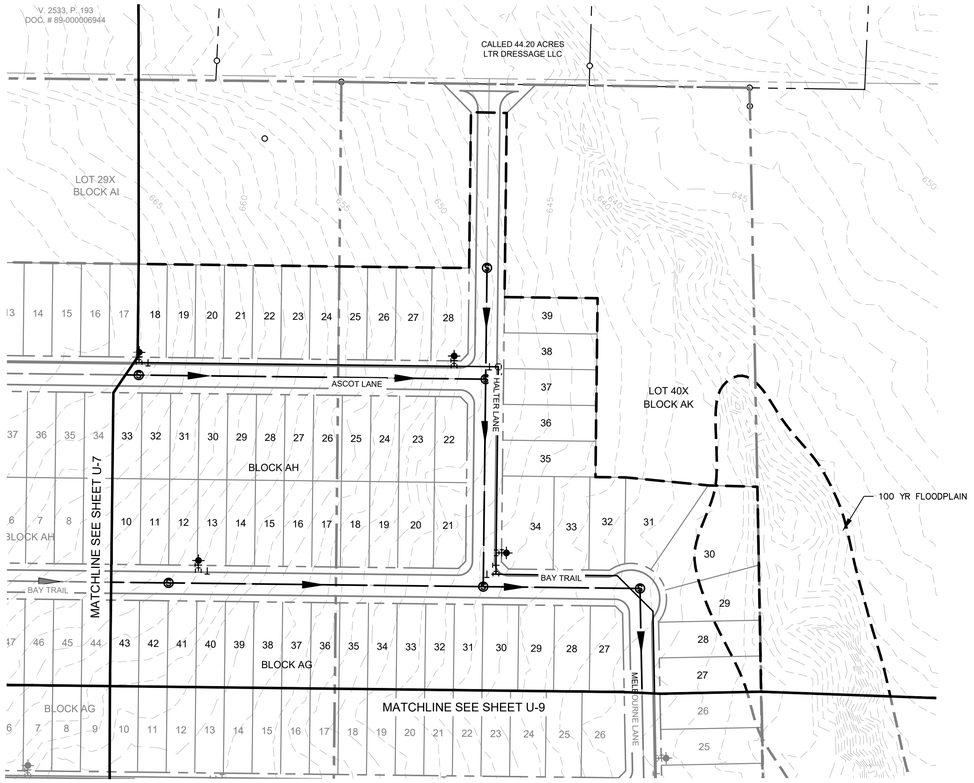
ENGINEER:
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Frisco, TX 75034
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Contact: Thomas Fletcher, P.E.
Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.
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U-7

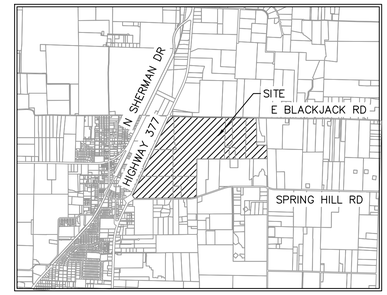
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0 100' 200'
GRAPHIC SCALE 100'



VICINITY MAP
SCALE: 1" = 4,000'

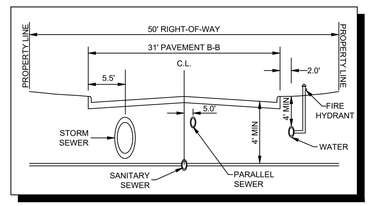
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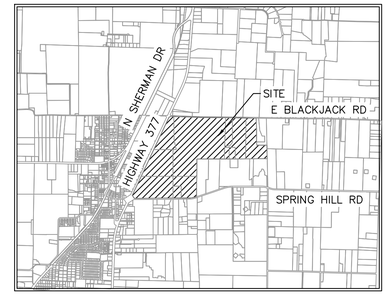
ENGINEER:
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Registration F-928

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DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103

U-8







VICINITY MAP

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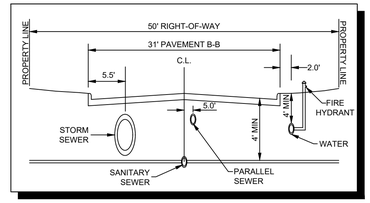
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PRELIMINARY UTILITY PLAN

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DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	U-9

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DWG NAME K:\FRI_CIVIL\FRISCO\SINGLE FAMILY PURSUITS_2020\2020103 - CIRCLE Y RANCH\CAD\PRELIMINARY PLANS\SHEETS\U-2_UTILITY PLAN.DWG [U-9]
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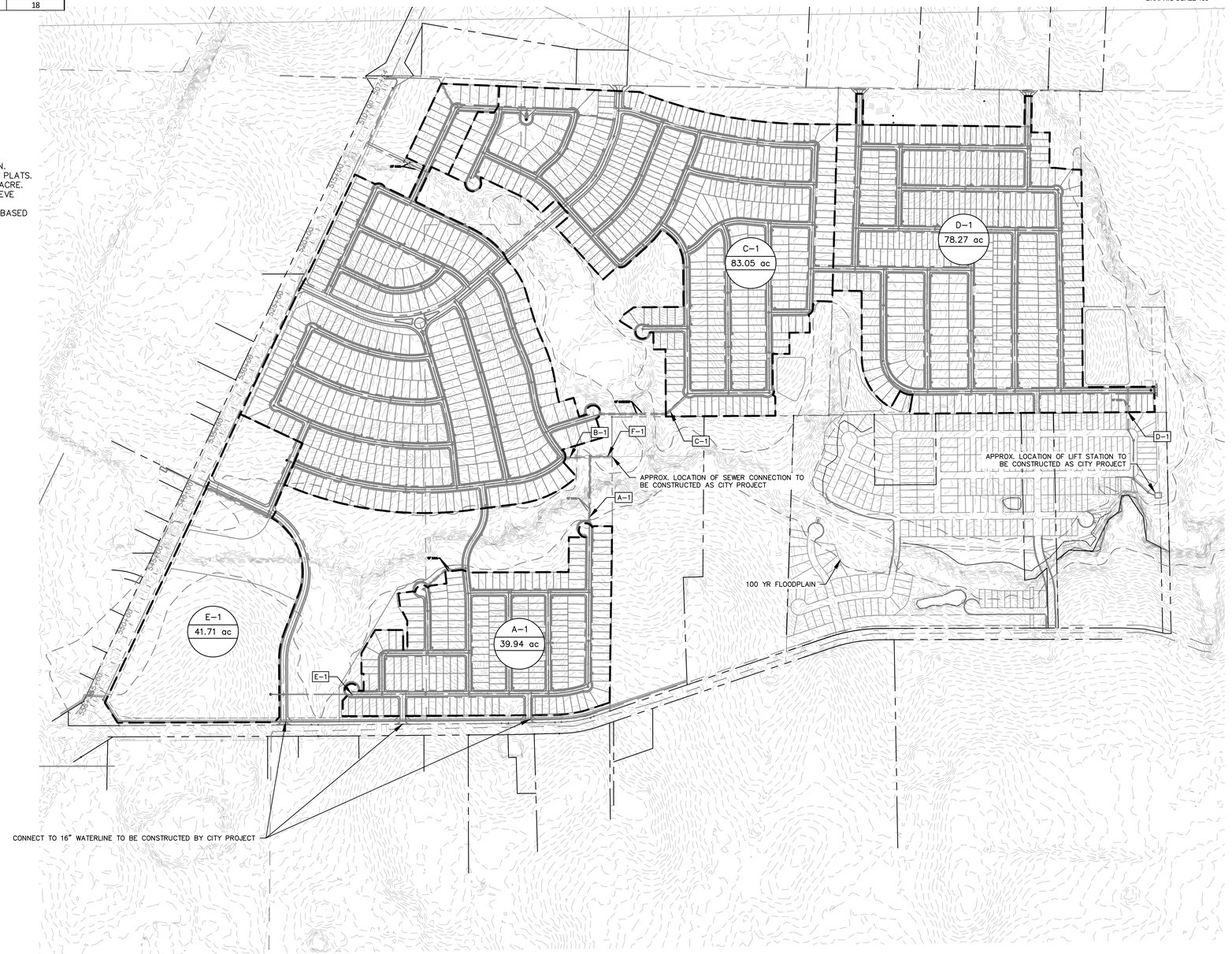
SEWER BASIN AREA FLOW CALCULATIONS						
AREA	AREA (AC)	NUMBER OF LOTS	FLOW (GPD)	DEMAND (MGD)	CUMULATIVE (MGD)	MIN PIPE SIZE (IN)
A-1	39.94	221	70,720	0.283	1.222	12
B-1	94.1	373	119,360	0.477	1.037	12
C-1	83.05	437	139,840	0.559	0.559	8
D-1	78.27	420	134,400	0.538	0.538	8
E-1	41.71	0	234,686	0.939	0.939	12
F-1	0	0	0	0.000	2.258	18

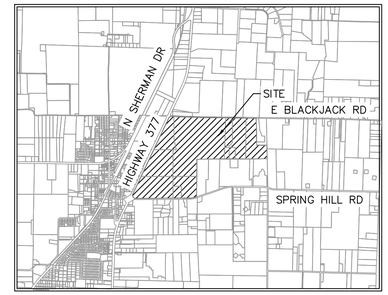
NOTES:
1. FLOW IS ESTIMATED AS 3.2 PERSONS/UNIT AND 100 GPD/PERSON.
2. UNITS ON DEVELOPED LAND ARE AS IDENTIFIED ON THE EXISTING PLATS.
3. UNITS ON UNDEVELOPED LAND ARE ESTIMATED AT 4 UNITS PER ACRE.
4. PEAKING FACTOR OF 4 IS APPLIED TO ALL FLOW RATES TO ACHIEVE DEMAND RATE.
5. PIPE DIAMETER SHOWN REFLECTS THE MINIMUM INSIDE DIAMETER BASED ON THE CALCULATIONS SHOWN BELOW.

PIPE CAPACITY		
PIPE SIZE (IN)	SLOPE (%)	CAPACITY (MGD)
8	0.335	0.6
10	0.25	0.92
12	0.2	1.34
15	0.15	2.26
18	0.115	3.21

PIPE CAPACITY EQUATION: $C = \frac{0.299}{n} D^{2.67} S^{0.50}$

C: PIPE CAPACITY (MGD)
D: INSIDE PIPE DIAMETER (FT)
n: MANNING'S ROUGHNESS COEFFICIENT (0.010)
S: ENERGY GRADE LINE SLOPE (FT/FT)





VICINITY MAP
SCALE: 1" = 4,000'

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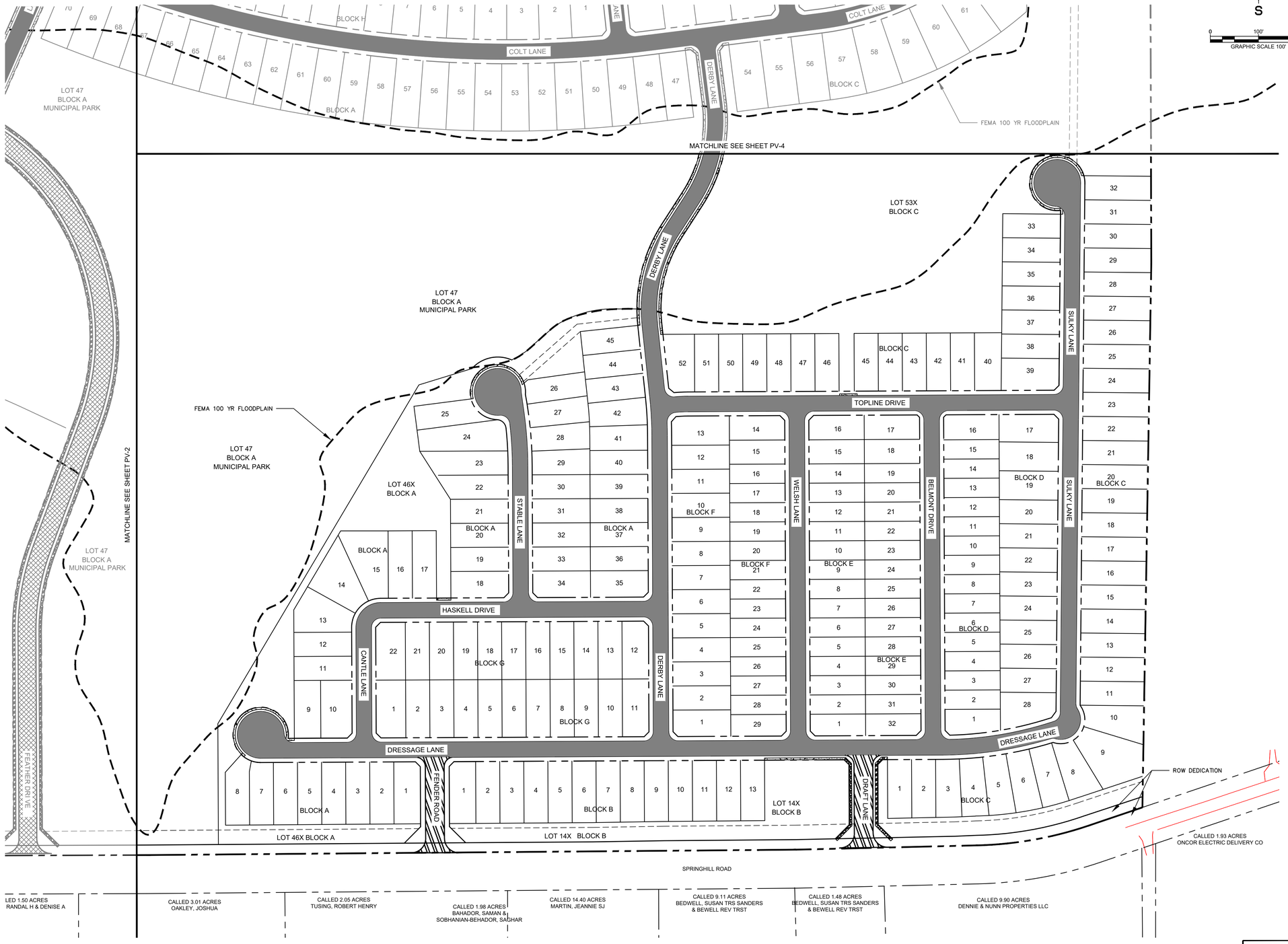
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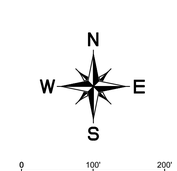
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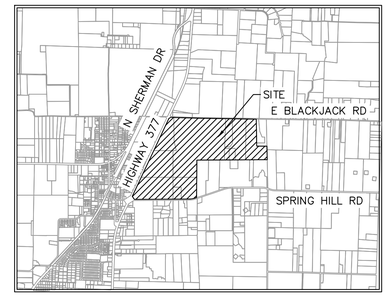
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DWG NAME K:\FRI_CIVIL\RESCO\SINGLE FAMILY PURSUITS_20202010\03 - CIRCLE Y RANCH\04-PRELIMINARY\PLANSHEETS\PV1-PAVING PLAN.DWG [PV-1]
LAST SAVED 2/9/2022 3:31 PM



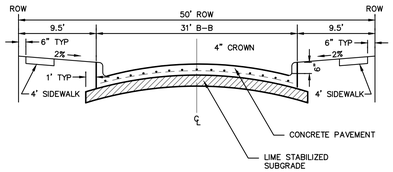




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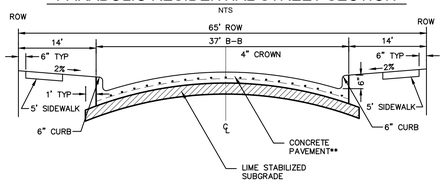
LEGEND

- PROPERTY LINE / MATCH LINE
- 4' CONCRETE SIDEWALK
- 5' CONCRETE SIDEWALK
- 31' B-B SECTION FOR RESIDENTIAL PAVEMENT
- 37' B-B SECTION FOR COMMERCIAL COLLECTOR PAVEMENT
- 39' B-B SECTION FOR RESIDENTIAL COLLECTOR PAVEMENT
- TEMPORARY PAVEMENT



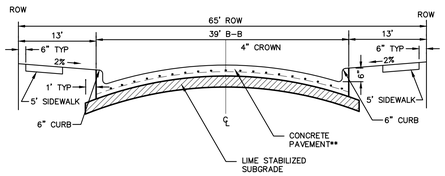
NOTE: PAVEMENT SECTION TO BE CALCULATED BY GEOTECHNICAL ENGINEER FOR MINIMUM 20-YEAR DESIGN, BUT SHALL NOT BE LESS THAN 6" THICK.

PARABOLIC RESIDENTIAL STREET SECTION
NTS



NOTE: PAVEMENT SECTION TO BE CALCULATED BY GEOTECHNICAL ENGINEER FOR MINIMUM 20-YEAR DESIGN, BUT SHALL NOT BE LESS THAN 8" THICK.

COMMERCIAL COLLECTOR STREET SECTION
NTS



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RESIDENTIAL COLLECTOR STREET SECTION
NTS

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PAVING PLAN
FOR
HIGH POINTE RANCH

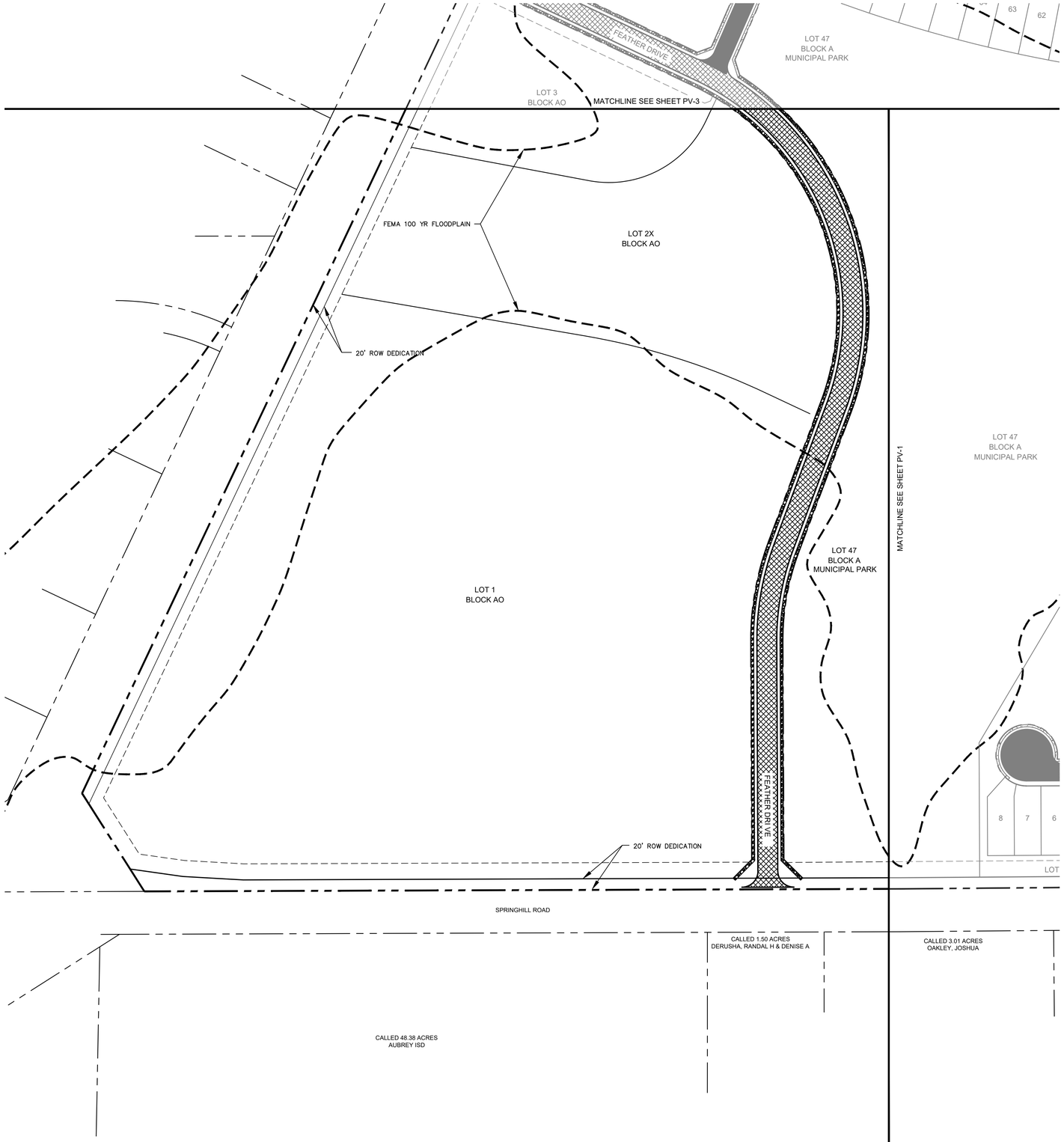
1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

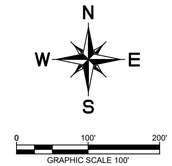
SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
Kimley-Horn 6160 Warren Pkwy Frisco, TX 75215 Tel: (469) 353-6058 Contact: Sylviana Gunawan Surveyor #6461	Aubrey Blackjack Partners, LLC 4514 Cole Ave., Suite 1650 Dallas, TX 75205 Tel: (214) 674-9570 Contact: Chad Vose	FM Land Investments I, LLC 138 Old Town Blvd. N., Suite 202 Argyle, TX 76226 Tel: (972) 740-5725 Contact: David Marks & Walter Foss	Kimley»Horn 6160 Warren Pakway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Thomas Fletcher, P.E. Registration F-928

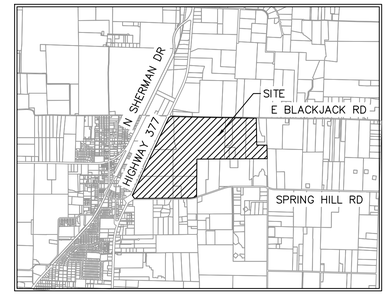
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	PV-1

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PLOTTED BY TROEGER, DEREK 2/9/2022 3:29 PM
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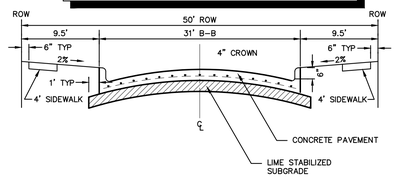




VICINITY MAP
SCALE: 1" = 4,000'

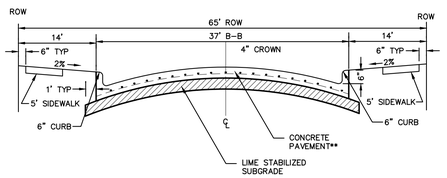
LEGEND

- PROPERTY LINE
- MATCH LINE
- 4' CONCRETE SIDEWALK
- 5' CONCRETE SIDEWALK
- 31' B-B SECTION FOR RESIDENTIAL PAVEMENT
- 37' B-B SECTION FOR COMMERCIAL COLLECTOR PAVEMENT
- 39' B-B SECTION FOR RESIDENTIAL COLLECTOR PAVEMENT
- TEMPORARY PAVEMENT



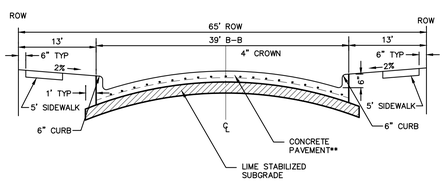
NOTE: PAVEMENT SECTION TO BE CALCULATED BY GEOTECHNICAL ENGINEER FOR MINIMUM 20-YEAR DESIGN, BUT SHALL NOT BE LESS THAN 6" THICK.

PARABOLIC RESIDENTIAL STREET SECTION
NTS



NOTE: PAVEMENT SECTION TO BE CALCULATED BY GEOTECHNICAL ENGINEER FOR MINIMUM 20-YEAR DESIGN, BUT SHALL NOT BE LESS THAN 8" THICK.

COMMERCIAL COLLECTOR STREET SECTION
NTS



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RESIDENTIAL COLLECTOR STREET SECTION
NTS

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PAVING PLAN
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

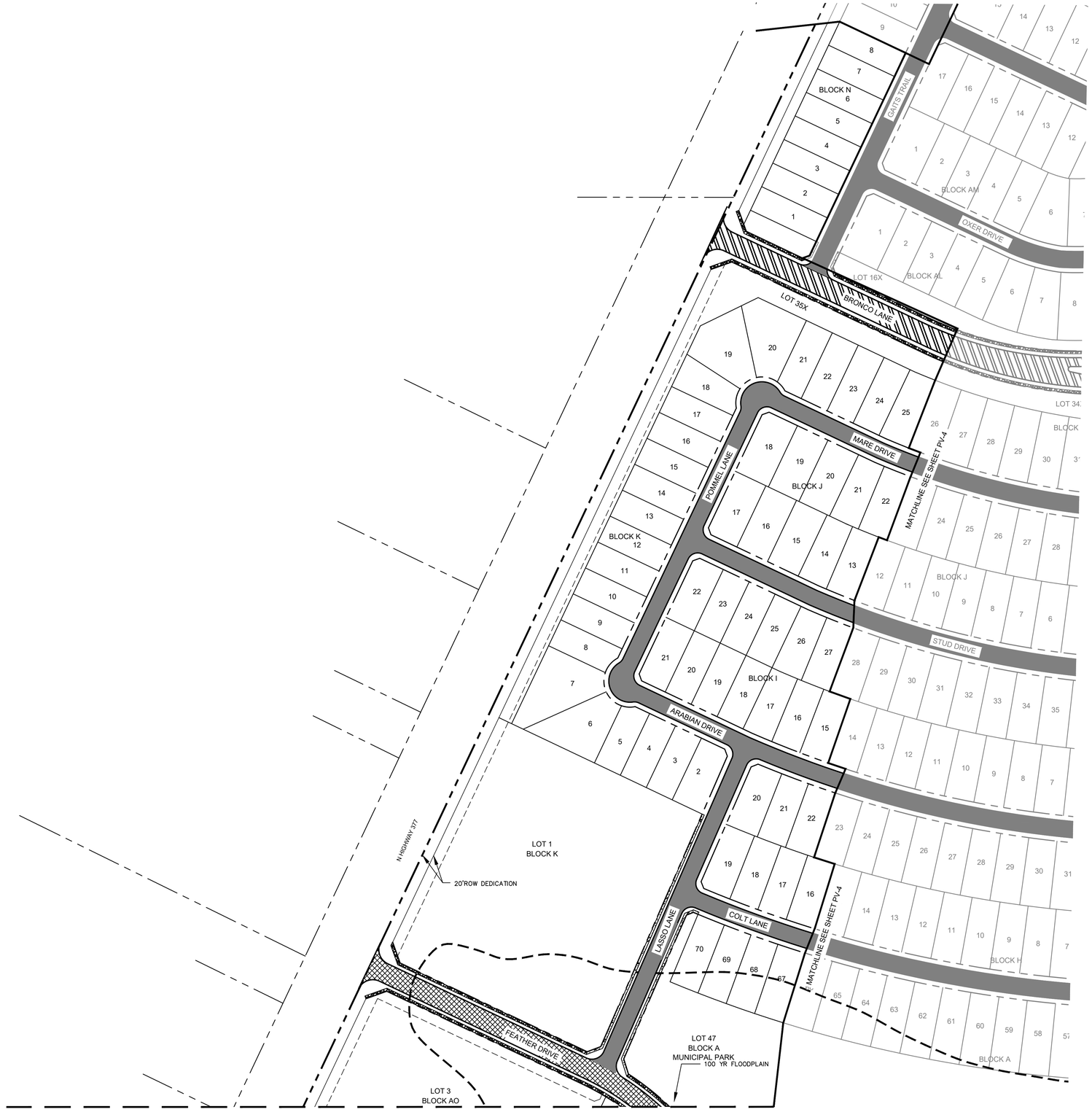
SURVEYOR:
Kimley-Horn
6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

OWNER/DEVELOPER:
Aubrey Blackjack Partners, LLC
4514 Cole Ave., Suite 1650
Dallas, TX 75205
Tel: (214) 674-9570
Contact: Chad Vose

OWNER/DEVELOPER:
FM Land Investments I, LLC
138 Old Town Blvd. N., Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss

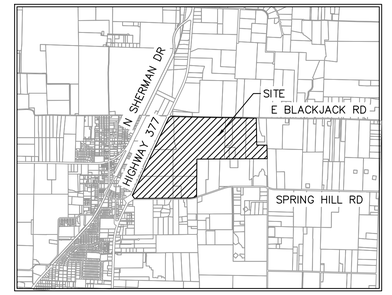
ENGINEER:
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Thomas Fletcher, P.E.
Registration F-928

DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	PV-2



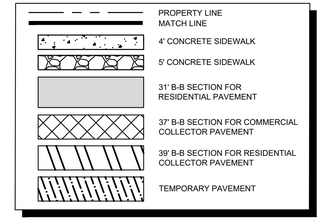
N
W E
S

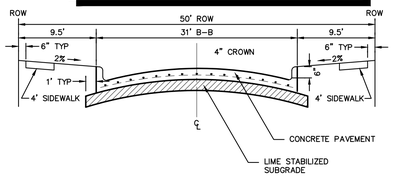
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GRAPHIC SCALE 100'



VICINITY MAP
SCALE: 1" = 4,000'

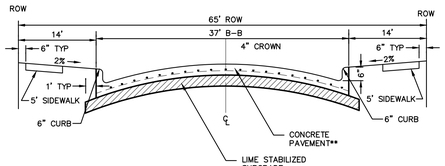
LEGEND





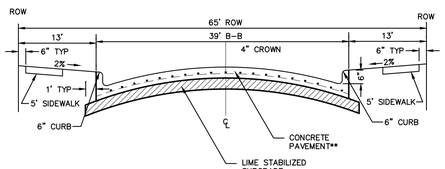
NOTE: PAVEMENT SECTION TO BE CALCULATED BY GEOTECHNICAL ENGINEER FOR MINIMUM 20-YEAR DESIGN, BUT SHALL NOT BE LESS THAN 6" THICK.

PARABOLIC RESIDENTIAL STREET SECTION
NTS



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COMMERCIAL COLLECTOR STREET SECTION
NTS



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RESIDENTIAL COLLECTOR STREET SECTION
NTS

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PAVING PLAN
FOR
HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
AND THE
IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:
Kimley-Horn
6160 Warren Pkwy
Frisco, TX 75215
Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

OWNER/DEVELOPER:
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Tel: (214) 674-9570
Contact: Chad Vose

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138 Old Town Blvd. N., Suite 202
Argyle, TX 76226
Tel: (972) 740-5725
Contact: David Marks & Walter Foss

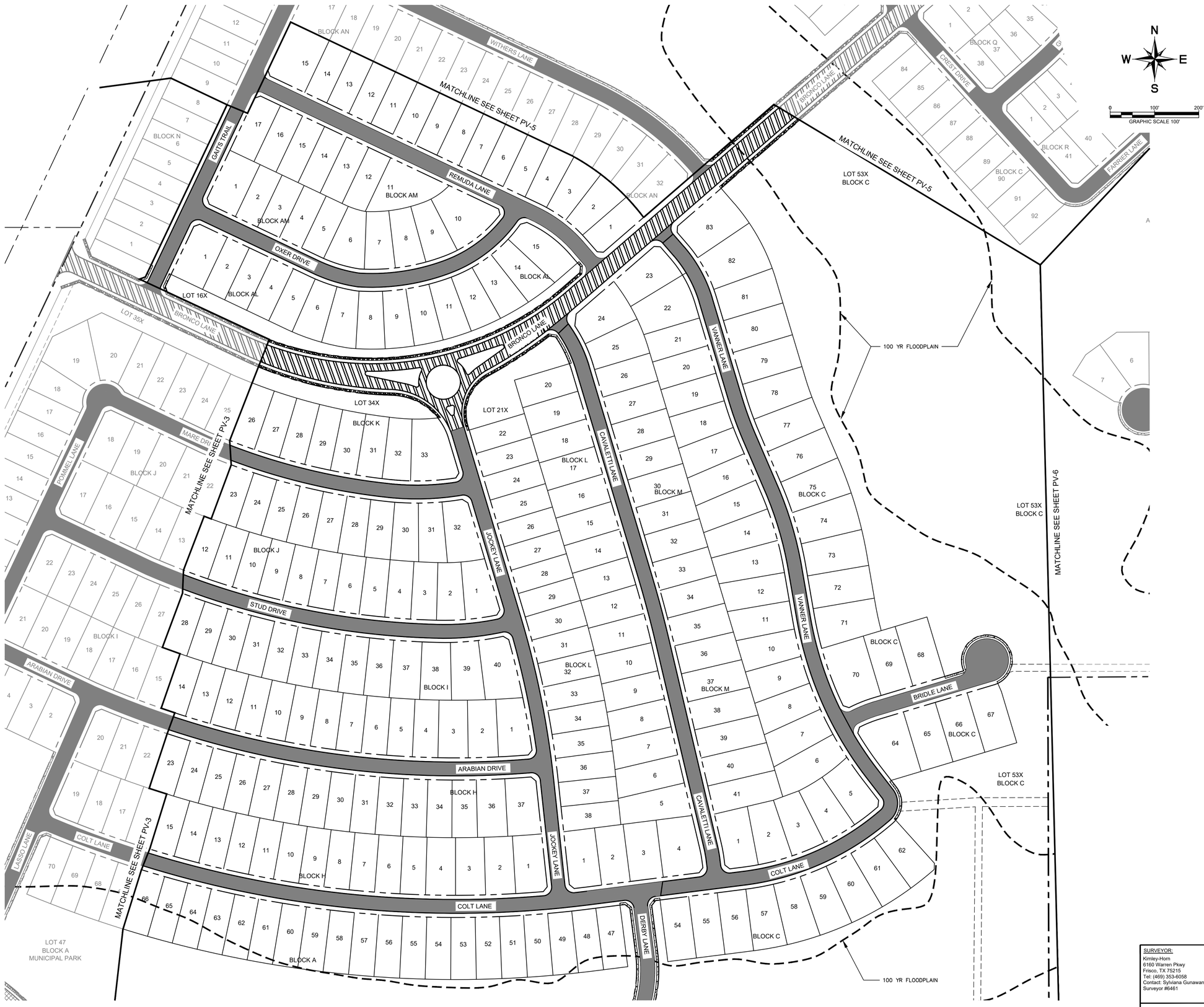
ENGINEER:
Kimley»Horn
6160 Warren Pkwy, Suite 210
Frisco, TX 75034
Tel: (972) 335-3580
Contact: Thomas Fletcher, P.E.
Registration F-928

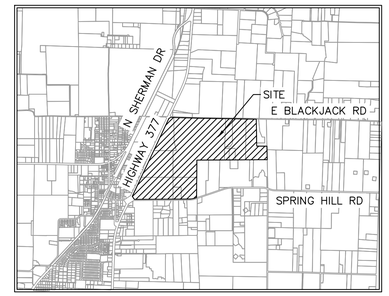
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LAST SAVED: 29/2021 2:53 PM
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PLOTTED BY TROEGER, DEREK 2/9/2023 3:36 PM
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LAST SAVED 2/9/2023 2:53 PM



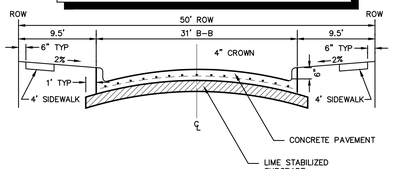


VICINITY MAP

SCALE: 1" = 4,000'

LEGEND

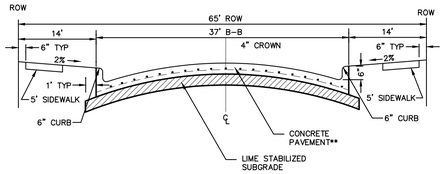
- PROPERTY LINE
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- 5' CONCRETE SIDEWALK
- 31' B-B SECTION FOR RESIDENTIAL PAVEMENT
- 37' B-B SECTION FOR COMMERCIAL COLLECTOR PAVEMENT
- 39' B-B SECTION FOR RESIDENTIAL COLLECTOR PAVEMENT
- TEMPORARY PAVEMENT



NOTE: PAVEMENT SECTION TO BE CALCULATED BY GEOTECHNICAL ENGINEER FOR MINIMUM 20-YEAR DESIGN, BUT SHALL NOT BE LESS THAN 6" THICK.

PARABOLIC RESIDENTIAL STREET SECTION

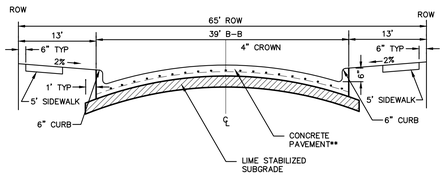
NTS



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COMMERCIAL COLLECTOR STREET SECTION

NTS



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RESIDENTIAL COLLECTOR STREET SECTION

NTS

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PAVING PLAN

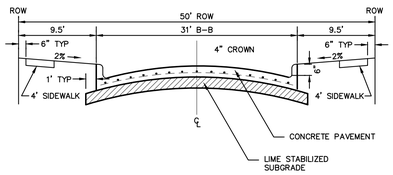
FOR

HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT
BEING 460.75 ACRES
OUT OF THE:
FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243
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IN THE
CITY OF AUBREY, DENTON COUNTY, TEXAS

SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
Kimley-Horn 6160 Warren Pkwy Frisco, TX 75215 Tel: (469) 353-6058 Contact: Sylviana Gunawan Surveyor #6461	Aubrey Blackjack Partners, LLC 4514 Cole Ave., Suite 1650 Dallas, TX 75205 Tel: (214) 674-9570 Contact: Chad Vose	FM Land Investments I, LLC 138 Old Town Blvd. N., Suite 202 Argyle, TX 76226 Tel: (972) 740-5725 Contact: David Marks & Walter Foss	Kimley»Horn 6160 Warren Pathway, Suite 210 Frisco, TX 75034 Tel: (972) 335-3580 Contact: Thomas Fletcher, P.E. Registration F-928

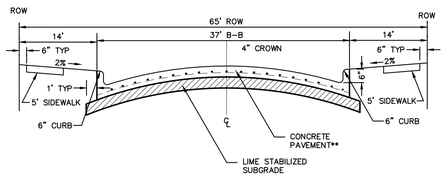
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	PV-4



NOTE: PAVEMENT SECTION TO BE CALCULATED BY GEOTECHNICAL ENGINEER FOR MINIMUM 20-YEAR DESIGN, BUT SHALL NOT BE LESS THAN 6" THICK.

PARABOLIC RESIDENTIAL STREET SECTION

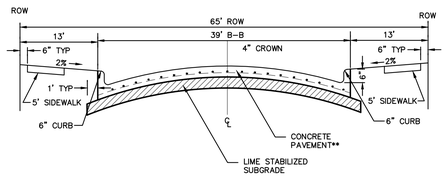
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COMMERCIAL COLLECTOR STREET SECTION

NTS



NOTE: PAVEMENT SECTION TO BE CALCULATED BY GEOTECHNICAL ENGINEER FOR MINIMUM 20-YEAR DESIGN, BUT SHALL NOT BE LESS THAN 8" THICK.

RESIDENTIAL COLLECTOR STREET SECTION

NTS

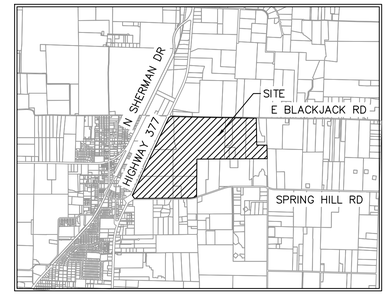
LEGEND

- PROPERTY LINE / MATCH LINE
- 4' CONCRETE SIDEWALK
- 5' CONCRETE SIDEWALK
- 31' B-B SECTION FOR RESIDENTIAL PAVEMENT
- 37' B-B SECTION FOR COMMERCIAL COLLECTOR PAVEMENT
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N W E S

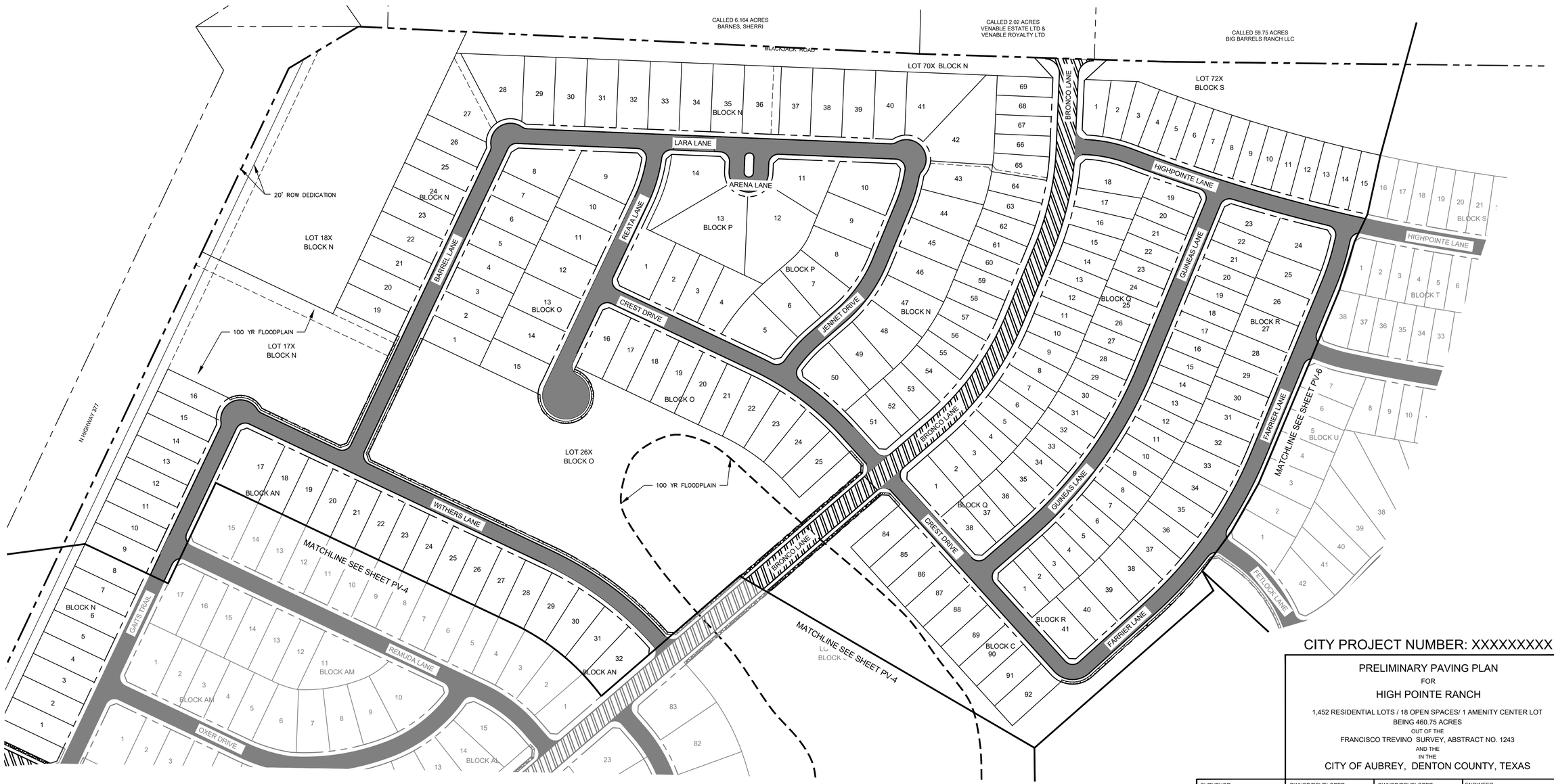
0 100' 200'

GRAPHIC SCALE 100'



VICINITY MAP

SCALE: 1" = 4,000'



CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PAVING PLAN

FOR

HIGH POINTE RANCH

1,452 RESIDENTIAL LOTS / 18 OPEN SPACES/ 1 AMENITY CENTER LOT

BEING 460.75 ACRES

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SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
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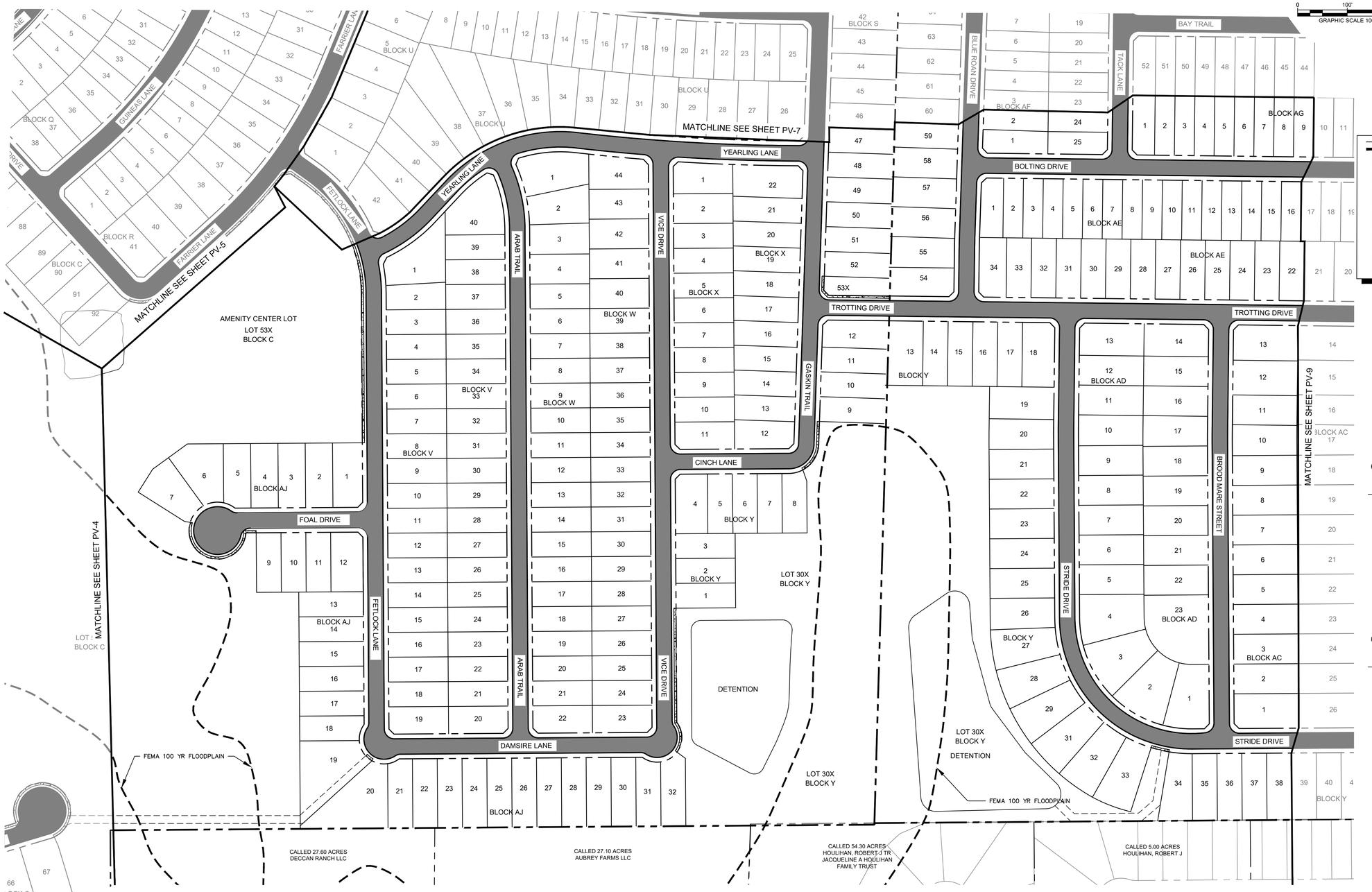
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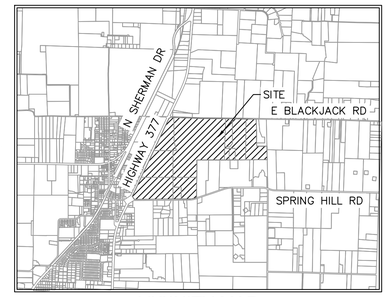
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LAST SAVED: 2/9/2022 2:51 PM

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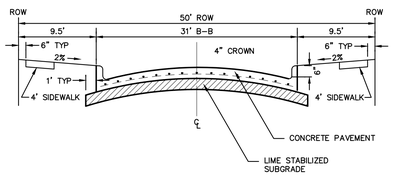




VICINITY MAP
SCALE: 1" = 4,000'

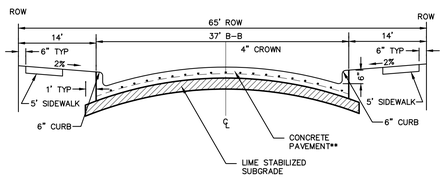
LEGEND

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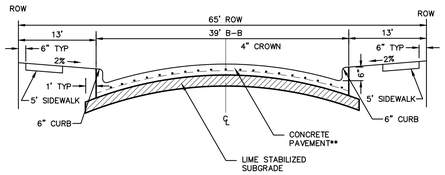
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PARABOLIC RESIDENTIAL STREET SECTION
NTS



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NTS

CITY PROJECT NUMBER: XXXXXXXXX

PRELIMINARY PAVING PLAN
FOR
HIGH POINTE RANCH

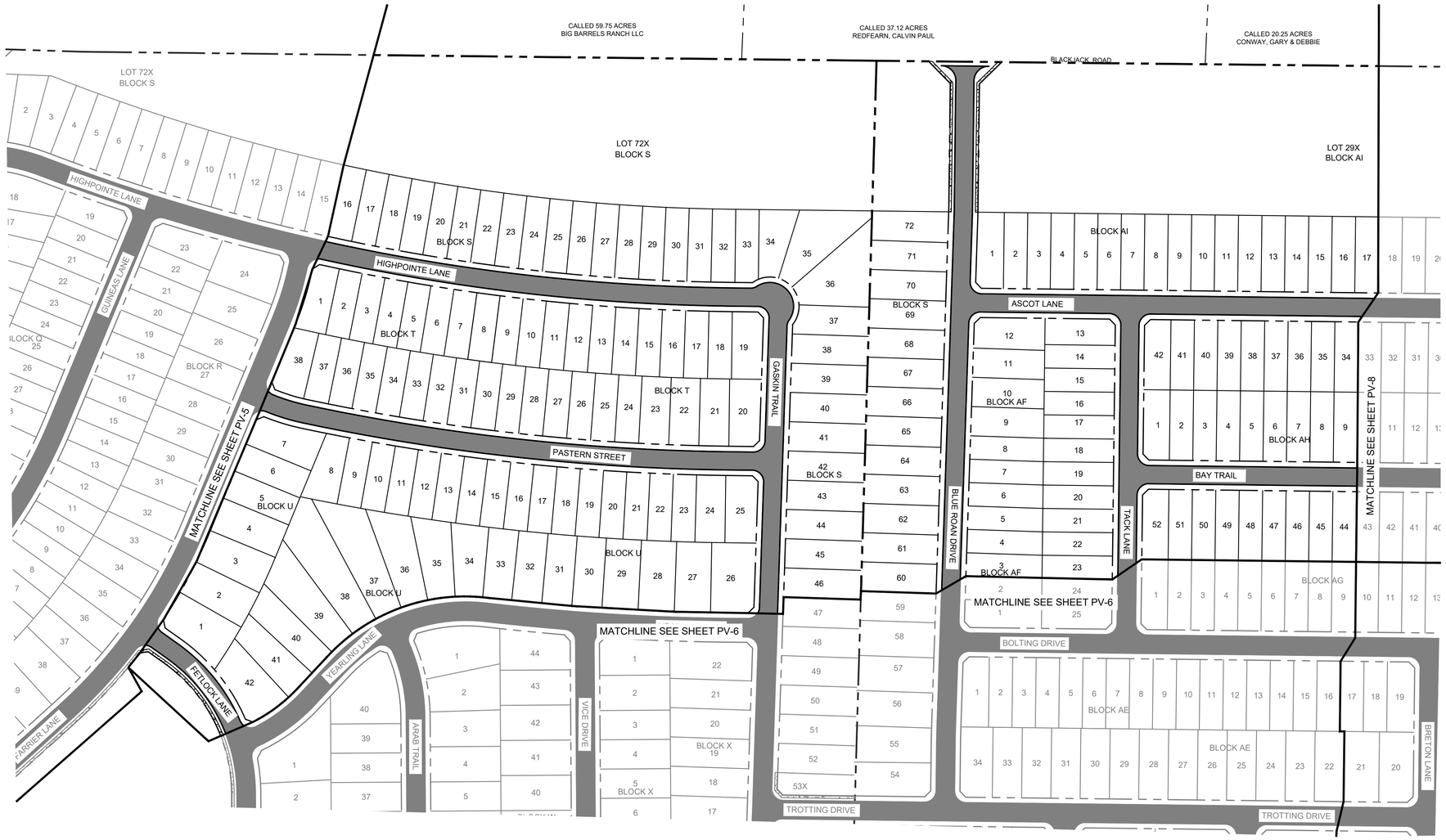
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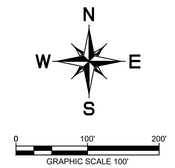
SURVEYOR:	OWNER/DEVELOPER:	OWNER/DEVELOPER:	ENGINEER:
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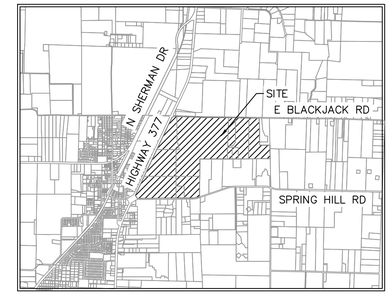
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LAST SAVED 2/9/2022 2:56 PM



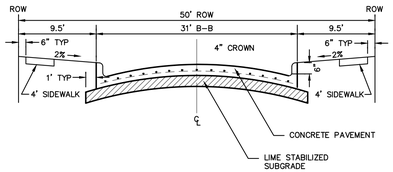




VICINITY MAP
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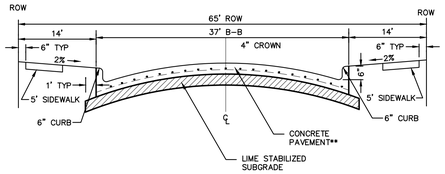
LEGEND

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- MATCH LINE
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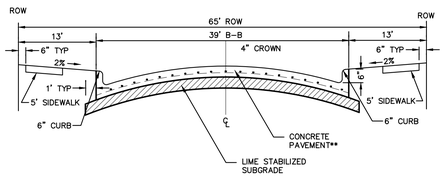
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PARABOLIC RESIDENTIAL STREET SECTION
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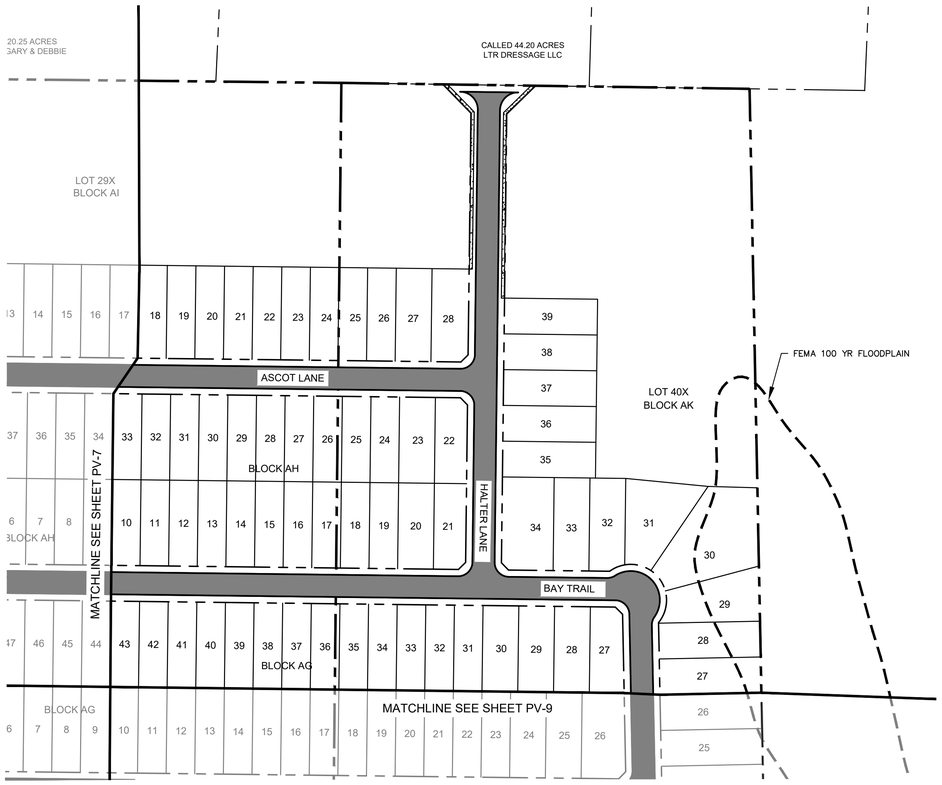
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PRELIMINARY PAVING PLAN
FOR
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BEING 460.75 ACRES
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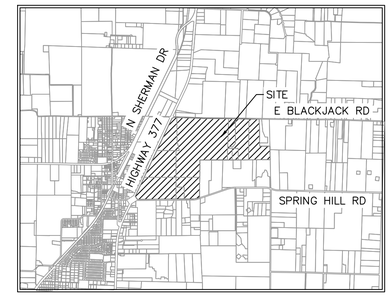
DESIGNED	DRAWN	CHECKED	SCALE	DATE	KH PROJECT NO.	
DKT	DKT	TLF	AS SHOWN	SEPT. 2021	2020103	PV-7





0 100' 200'

GRAPHIC SCALE 100'

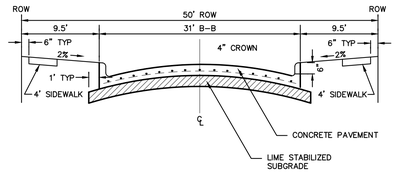


VICINITY MAP

SCALE: 1" = 4,000'

LEGEND

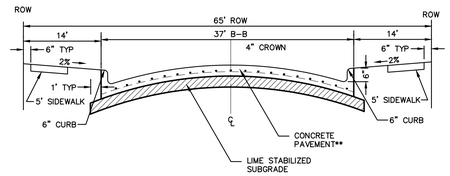
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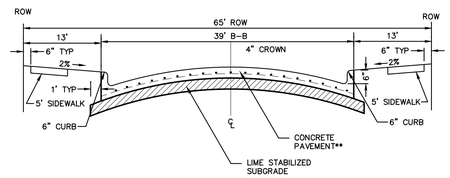
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COMMERCIAL COLLECTOR STREET SECTION

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Tel: (469) 353-6058
Contact: Sylviana Gunawan
Surveyor #6461

OWNER/DEVELOPER:
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Tel: (214) 674-9570
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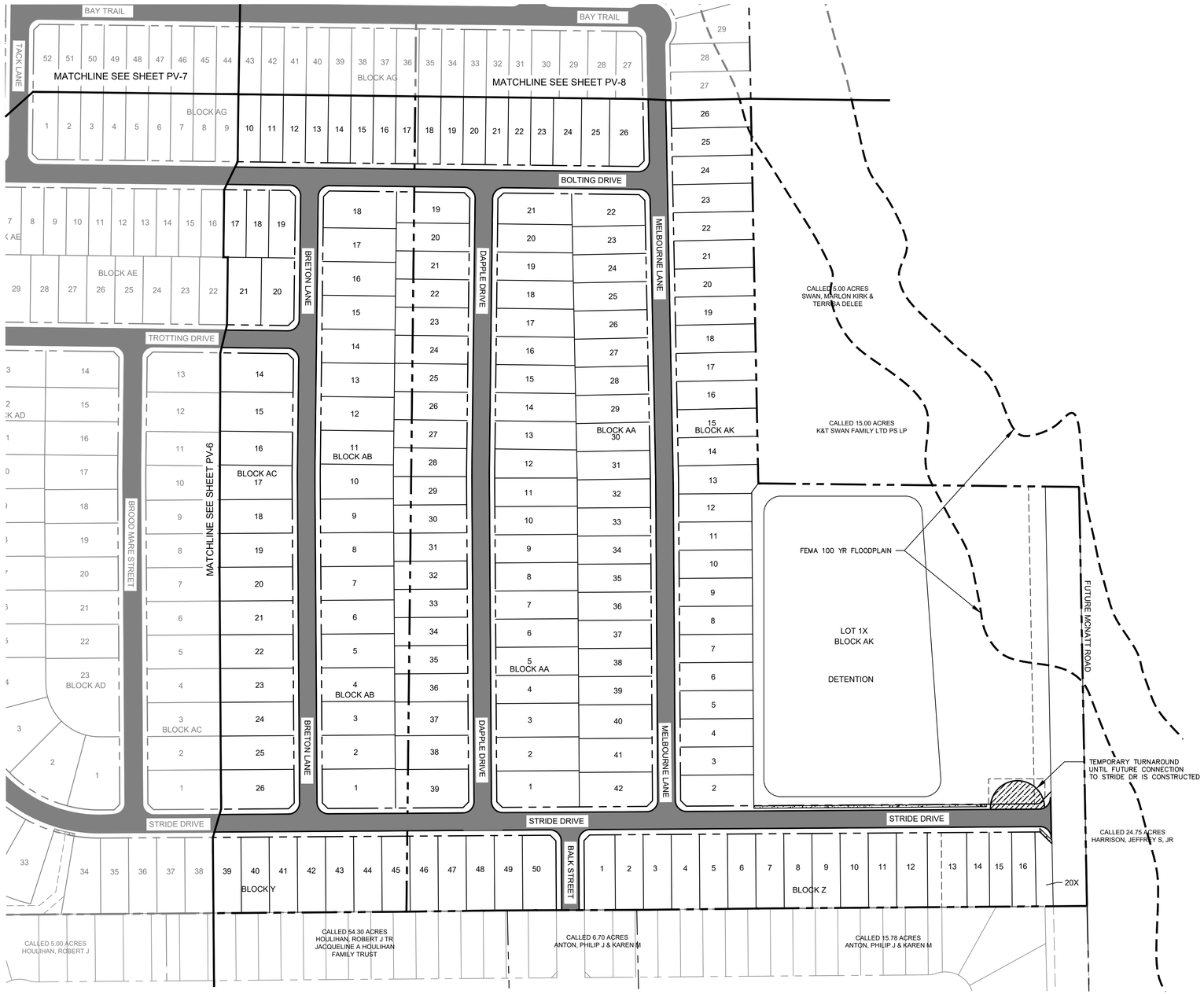
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Argyle, TX 76226
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Contact: David Marks & Walter Foss

ENGINEER:
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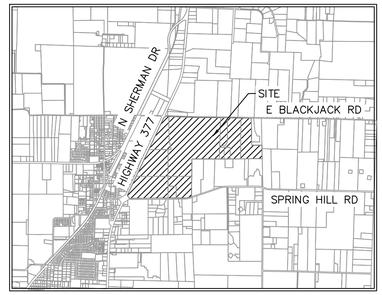
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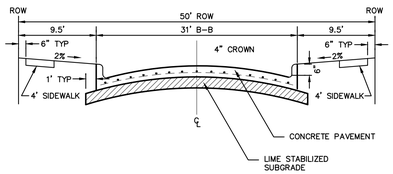




VICINITY MAP
SCALE: 1" = 4,000'

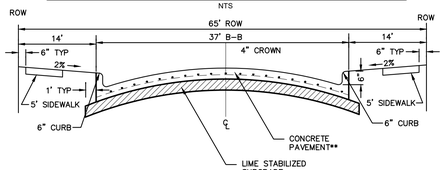
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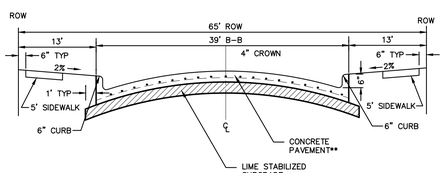
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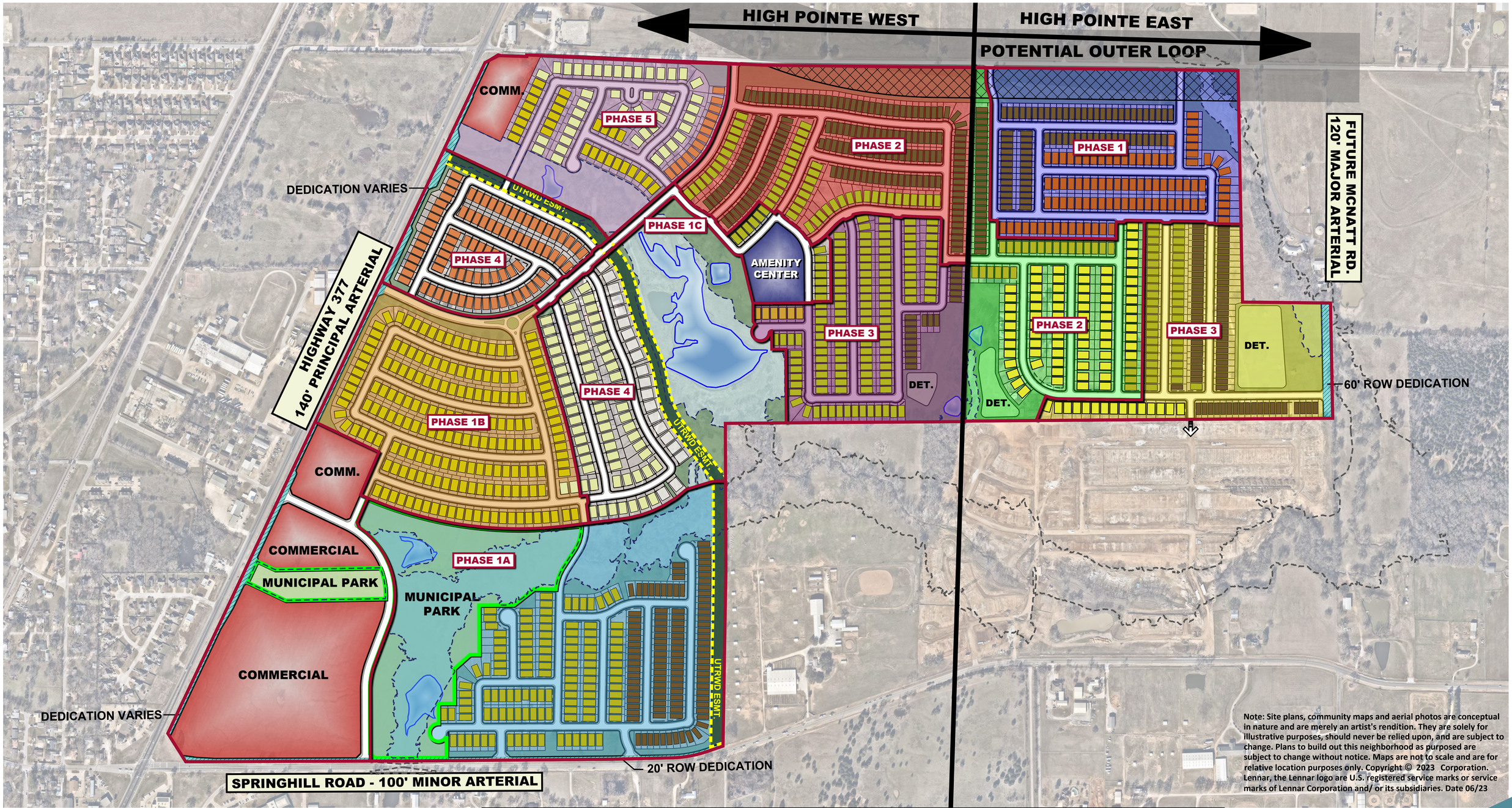
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Highpointe Ranch
Phasing Plan

Aubrey Texas
October 2023

Land Use Acreage Summary

Residential Lots / Residential Rights of Way	287.2	62.3%
Commercial	39.5	8.6%
Right-of-Way Dedication	9.3	2.0%
Open Space / Floodplain / Detention	82.7	17.9%
Municipal Park	29.9	6.5%
Amenity Center	3.7	0.8%
UTRWD Easement	8.5	1.8%
Total	**460.8**	**100.0%**

Potential Outer Loop (Overlay)

Residential Type				Phase 1 A West	Phase 1 B West	Phase 1 C West	Phase 2 West	Phase 3 West	Phase 4 West	Phase 5 West	Phase 1 East	Phase 2 East	Phase 3 East	Total Lots
	Name	Pad Size	Lot Size											
	Cottage	30'x75'	40'x115'	106	-	-	149	18	-	-	74	24	73	444
	Cottage	30'x75'	50'x120'	-	-	-	-	-	-	-	91	-	-	91
	Watermill	35'x75'	50'x120'	119	-	13	51	125	-	-	-	25	44	377
	Watermill	35'x75'	55'x130'	-	-	-	-	6	-	-	-	-	-	6
	Watermill	35'x75'	60'x130'	-	-	-	-	-	-	-	-	77	15	92
	Classic	40'x75'	50'x120'	-	-	-	-	-	86	13	-	-	-	99
	Classic	40'x75'	55'x130'	-	182		-	-	-	28	-	-	-	210
	Classic	40'x75'	65'x130'	-	2		-	-	66	43	-	-	-	111
	Classic	40'x75'	75'x130'	-	-	-	-	-	20	-	-	-	-	20
Total Lots				**225**	**184**	**13**	**200**	**149**	**172**	**84**	**165**	**126**	**132**	**1450**

GRAPHIC SCALE IN FEET
0 150 300 600
1"=300' @ 22x34

Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, Texas 75034
972-335-3580
State of Texas Registration No. F-928

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND HAS BEEN PRODUCED WITHOUT THE BENEFIT OF A SURVEY OR CONTACT WITH THE CITY, COUNTY, ETC.

DWG NAME K:\FRI_CIVIL\063451861-HIGH POINTE RANCH\CAD\EXHIBITS\PLANSHEETS\PHASING PLAN 20231011.DWG
LAST SAVED 10/13/2023 9:58 AM

Note: Site plans, community maps and aerial photos are conceptual in nature and are merely an artist's rendition. They are solely for illustrative purposes, should never be relied upon, and are subject to change. Plans to build out this neighborhood as purposed are subject to change without notice. Maps are not to scale and are for relative location purposes only. Copyright © 2023 Corporation. Lennar, the Lennar logo are U.S. registered service marks or service marks of Lennar Corporation and/ or its subsidiaries. Date 06/23

VG-19-2021-131889

Denton County
Juli Luke
County Clerk

Instrument Number: 131889

Real Property Recordings

AGREEMENT

Recorded On: July 21, 2021 03:36 PM

Number of Pages: 92

" Examined and Charged as Follows: "

Total Recording: $390.00

********** THIS PAGE IS PART OF THE INSTRUMENT **********
Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of color or race is invalid and unenforceable under federal law.

File Information:

Document Number:	131889
Receipt Number:	20210721000856
Recorded Date/Time:	July 21, 2021 03:36 PM
User:	Kerry H
Station:	Station 3

Record and Return To:

JENNY HUCKABEE
107 S MAIN ST

AUBREY TX 76227

STATE OF TEXAS
COUNTY OF DENTON

I hereby certify that this Instrument was FILED In the File Number sequence on the date/time printed hereon, and was duly RECORDED in the Official Records of Denton County, Texas.

Juli Luke
County Clerk
Denton County, TX

After recording, return to:
Jenny Huckabee
107 S Main St
Aubrey TX 76227

DEVELOPMENT AGREEMENT

This Development Agreement (this "Agreement") is entered into by and between ALW 377 LLC, a Texas limited liability company ("ALW"), FM Land Investments I, LLC, a Texas limited liability company, ("FM Land I") (collectively FM Land I and ALW, the "Owners"), and the City of Aubrey, Texas (the "City"), to be effective on the date upon which the last of all of the Parties has approved and duly executed this Agreement ("Effective Date").

RECITALS

WHEREAS, certain terms used herein are defined in Article I; and

WHEREAS, the City is a general law municipality organized under the laws of the State of Texas located within Denton County, Texas; and

WHEREAS, Owners and the City (which are sometimes individually referred to as a "Party" and collectively as the "Parties") desire to enter into this Agreement; and

WHEREAS, ALW currently owns approximately 357.445 acres of real property ("Tract 1"), FM Land I currently owns approximately 61.611 acres of real property ("Tract 2"), and approximately 41.650 acres of real property ("Tract 3"), , (collectively Tract 1, Tract 2, and Tract 3 are referred to as the "Property"), described by metes and bounds on **Exhibit A** and depicted on **Exhibit B** attached hereto; and

WHEREAS, ALW is under contract to sell Tract 1 to Aubrey Blackjack Partners, LLC ("Blackjack"); and

WHEREAS, upon the closing of the sale from ALW to Blackjack (the "ALW Closing"), ALW shall assign its rights and obligations under the terms of this Agreement to Blackjack pursuant to Section 10.1 herein, and Blackjack shall become an "Owner Assignee" hereunder bound to the terms of this Agreement; and

WHEREAS, approximately 309 acres of the Property is currently located in the City's extraterritorial jurisdiction ("ETJ") (the "ETJ Property") and approximately 152 acres of the Property is located wholly within the corporate limits of the City, as reflected on **Exhibit B**; and

WHEREAS, Within thirty (30) days of the ALW Closing, Owners will, in accordance to the terms of this Agreement, submit a petition for voluntary annexation and voluntarily annex the ETJ Property into the City's corporate limits and develop the Property as a master planned single family residential community which includes certain tracts of land designated for commercial land use (the "Development") in accordance with the concept plan attached hereto as **Exhibit C** (the "Concept Plant") and the development standards set forth in those certain proposed development standards attached hereto as **Exhibit D and Exhibit D-1** (collectively the "Development Standards"); and

WHEREAS, the City holds the certificates of convenience and necessity (the "CCNs") to provide retail water and wastewater service to the Property and the Owners agree that the City will be the exclusive provider of retail water and wastewater service to the Property; and

WHEREAS, the Development requires the construction of certain perimeter and offsite road improvements (the "Offsite Roadway Improvements") as defined herein and described in **Exhibit E**, attached hereto; and

WHEREAS, the Development requires the construction of certain offsite water improvements (the "Offsite Water Improvements") as defined herein and described in **Exhibit F**, attached hereto; and

WHEREAS, the Development requires the construction of certain offsite wastewater improvements (the "Offsite Wastewater Improvements") as defined herein and described in **Exhibit G**, attached hereto, and together both the Offsite Roadway Improvements and the Offsite Water Improvements are referred to as the "Offsite Improvements"); and

WHEREAS, the Development will require the construction of certain onsite infrastructure, including streets and roads; drainage; water, sanitary sewer, and other utility systems; and land for all of the Onsite Improvements (collectively, the "Onsite Improvements" and, together with the Offsite Improvements, the "Public Improvements"); and

WHEREAS, due to the location and other natural features of the Property, the cost of the Public Improvements does not allow for Owners' proposed development of the Property in a cost-effective and market-competitive manner without the creation of a municipal utility district; and

WHEREAS, the Parties have determined that the financing of the Public Improvements necessary for the Development can best be achieved by means of (i) the creation of a municipal utility district located within the corporate boundaries of the City, a portion of which is located within the extraterritorial jurisdiction of City at the time of execution of this Agreement but which shall be annexed into the corporate limits of the City in accordance with the terms of this Agreement, which boundaries shall be coterminous with the boundaries of and encompassing the Property, and which shall be formed through either the Texas Commission on Environmental Quality (the "TCEQ") or the Texas Legislature to be known as "High Pointe Ranch Municipal Utility District No. 1 of Denton County" (the "District"), and (ii) the creation of a tax increment reinvestment zone ("TIRZ") encompassing the Property; and

WHEREAS, the City supports the creation of the District under appropriate parameters, as set forth herein and provided in the City approved Consent Resolution; and

WHEREAS, Owners have submitted, and the City has received, a petition seeking City consent to the creation of the District; and

WHEREAS, as evidence of the City's consent, prior to the Effective Date of this Agreement, the City took action to approve a Consent Resolution, and authorized the Mayor to execute such Consent Resolution on the date of execution of this Agreement, a copy of the Consent Resolution is attached hereto as **Exhibit H** (the "Consent Resolution"), and demonstrates the

City's consent, pursuant to Section 42.042 of the Texas Local Government Code and Section 54.016 of the Texas Water Code, to inclusion of the Property in the District subject to the specified conditions; and

WHEREAS, the City agrees that if the proposed District is created, it will consist of the entire 461 acres of Property that is the subject of this Agreement and that any additional territory to be added to a District shall be subject to consent and approval of the City; and

WHEREAS, the Parties agree that the full development of the Property as provided herein will promote economic development within the City and will stimulate business and commercial activity within the City, which will drive infrastructure investment and thus will increase the City's tax base, sales tax revenues, and utility revenues; and

WHEREAS, the Parties agree that the Public Improvements are also improvements that qualify as projects under Texas Tax Code Chapter 311, as amended; and

WHEREAS, as related to the ETJ Property, the Parties are authorized to enter into this Agreement pursuant to Section 212.172 of the Texas Local Government Code and it is the intent of this Agreement to establish certain legally binding restrictions and commitments to be imposed upon the development of the Property, which shall survive annexation of the Property; and

NOW, THEREFORE, for and in consideration of the foregoing Recitals, the mutual covenants of the Parties set forth in this Agreement and for other good and valuable consideration, the receipt and adequacy of which are acknowledged, the Parties agree as follows:

ARTICLE I
GENERAL TERMS AND DEFINITIONS

1.1 Recitals. The recitals to this Agreement are incorporated herein for all purposes.

1.2 Definitions. Unless the context requires otherwise, the following terms shall have the meanings hereinafter set forth:

ALW is defined in the introductory paragraph.

ALW Closing is defined in the Recitals.

Acquisition Fees is defined in Section 5.9.

Amenity Center is defined in Section 5.5.

Available TIRZ Revenue means TIRZ Revenues less any amounts needed by the City or the TIRZ Board to pay administrative costs of the TIRZ up to the maximum amount of the actual costs of the eligible projects funded pursuant to the terms of this Agreement and the approved final Project and Financing Plan.

Blackjack is defined in the Recitals.

CCNs mean certificates of convenience and necessity.

City means the City of Aubrey, Texas, a general law municipality located in Denton County, Texas.

City Assignee is defined in Section 10.2.

City Council means the city council of the City.

Claims is defined in Section 7.2.

Concept Plan means the concept plan as shown in **Exhibit C.**

Consent Resolution is defined in the Recitals and Article II of this Agreement, a copy of which is attached hereto as **Exhibit H**.

Development is defined in the Recitals.

Development Standards means the development standards for the Property, which are set forth on **Exhibit D** and **Exhibit D-1**.

District is a municipal utility district located within the corporate boundaries of the City, a portion of which is located within the extraterritorial jurisdiction of City at the time of execution of this Agreement but which shall be annexed into the corporate limits of the City in accordance with the terms of this Agreement, which boundaries shall be coterminous with the boundaries of and encompassing the Property, and which shall be formed through either the Texas Commission on Environmental Quality (the "TCEQ") or the Texas Legislature to be known as "High Pointe Ranch Municipal Utility District No. 1 of Denton County"

District Consents is defined in Section 2.4.

Effective Date is defined in the introductory paragraph.

End-Buyer is defined in Section 11.1.

ETJ is defined in the Recitals.

ETJ Property is defined in the Recitals.

FM Land I is defined in the introductory paragraph.

Fully Developed and Improved Lot means any lot, regardless of proposed use, which is served by the Public Improvements and for which a final plat has been approved by the City and recorded in the real property records of Denton County.

Governing Regulations has the meaning set forth in Section 6.1.

Impact Fee(s) is defined in Section 7.1.

Indemnified Party is defined in Section 7.2.

Municipal Park Site is defined in Section 5.3.

Neighborhood Park/Open Space is defined in Section 5.4.

Offsite Improvements is defined in the Recitals.

Offsite Roadway Improvements is defined as follows:

Regional Collector – defined as the collector roadway within the Commercial and Municipal Park Land area connecting Springhill Road to US 377. The regional collector shall be located in a sixty-foot (60') right-of-way (ROW) with a typical pavement section of thirty-seven foot (37') back-to-back concrete. Included within this item are earthwork and drainage improvements required for the construction of the Regional Collector; and

US 377 Intersection Improvements at Regional Collector – Intersection improvements may include signalization and southbound left turn lane. Improvements to include construction, signage and striping, and traffic control as typical with this type of improvement; and

US 377 Intersection Improvements at Residential Collector – Intersection improvements may include northbound and southbound left turn lanes improvements and right turn deceleration lane. Improvements to include construction, signage and striping, and traffic control as typical with this type of improvement.

Offsite Wastewater Improvements is defined in the Recitals.

Offsite Water Improvements is defined in the Recitals.

Onsite Improvements is defined in the Recitals.

Oversized Improvements is defined in Section 5.7.

Owners is defined in the introductory paragraph and shall include Owner Assignee as defined in Section 10.1.

Owner Assignee is defined in Section 10.1.

Owners' Construction Costs is defined in Section 7.1.

Park Concept Plan is defined in Section 5.3.

Park Improvements is defined in Section 5.3.

Parties means the Owners and the City.

Party means the Owners or the City.

Project and Financing Plan means the final TIRZ Project and Financing Plan adopted by the City in accordance with Article III of this Agreement as may be amended from time to time.

Property means Tract 1, Tract 2, and Tract 3, described by metes and bounds on **Exhibit A** and depicted on **Exhibit B**.

Public Improvements means those Onsite Improvements and Offsite Improvements intended to serve and benefit the Property, which are permitted to be funded under the TIRZ Act, and which are identified as an eligible expense in the Project and Financing Plan.

TCEQ is defined in the Recitals.

TIRZ means a Tax Increment Reinvestment Zone which shall at minimum encompass the Property and be created by the City pursuant to the TIRZ Act.

TIRZ Act means Chapter 311 of the Texas Tax Code, as amended.

TIRZ Documents means collectively the TIRZ project and finance plan, the TIRZ ordinance, the TIRZ development agreement, and the TIRZ tax participation agreement.

TIRZ Revenue means the tax increment received by the City from the City property taxes levied against the Property.

Tract 1 is defined in the Recitals.

Tract 2 is defined in the Recitals.

Tract 3 is defined in the Recitals.

ARTICLE II
CONSENT TO CREATION OF THE DISTRICT

2.1 Consent to District Creation. Contemporaneously with the approval of this Agreement, the City Council agrees to consider the adoption of the Consent Resolution for formation of the District with the conditions provided herein and in the approved Consent

Resolution. City's consent shall be only for the Property as defined herein with no increase or decrease in the boundaries of the Property. **Subject to those conditions and limitations set forth in this Agreement and the Consent Resolution**, City and Owners agree that City's consent is for the creation of the District for the Property and issuance of bonds by the District for the Property pursuant to the authority of Article III, Section 52, and Article XVI, Section 59, of the Texas Constitution, and Chapters 49 and 54 of the Texas Water Code, as amended. City's consent shall encompass the Property, and Owners and Owner Assignee agree not to take any action to expand the boundaries of the District beyond the Property by annexation or any other means, or to merge with District with any other municipal utility district. Additionally, in the event that this Agreement becomes *void ab initio* in accordance with Article VIII, "Term," if the ALW Closing does not occur, Owners agree that they will not hold a Confirmation Election for the District in accordance with Section 49.102 of the Water Code, and City shall have no further obligation under this Agreement. This section shall survive termination of this Agreement.

2.2 Consent Resolution; Other Documents. On even date herewith, the City Council's approval of the Consent Resolution in the form attached hereto as **Exhibit H** is effective. The City agrees to adopt such further ordinances and execute such further documents as may reasonably be necessary by Owners, the TCEQ, the Attorney General of the State of Texas, or the District to evidence the City's consents as set forth in this Agreement and in the Consent Resolution.

2.3 No Limitation of Powers. Nothing herein is intended to limit, impair, or conflict with the authority of or powers granted to the District by the Texas Constitution, Texas Water Code, Texas Local Government Code, Texas Special District Local Laws Code, or any other current or future statute applicable to municipal utility districts. Likewise, nothing herein is intended to limit, impair or conflict with the authority of or powers granted to the City by the Texas Constitution, Texas Water Code, Texas Local Government Code, or any other current or future statute applicable to City.

2.4 Full Satisfaction. Subject to and limited by the terms of this Agreement and the conditions set forth in the City approved Consent Resolution, the consents contained in this Article II and in the Consent Resolution (the "District Consents") are given by the City: (a) in full and exclusive satisfaction of any applicable requirements for District consents contained in any statute or otherwise required by law, rule, regulation or policy, including, but not limited to, consents required by the Texas Water Code, as amended, the Texas Local Government Code, as amended, any rules, regulations or policies of the TCEQ, or any rules, regulations or policies of the Texas Attorney General (b) with the understanding that both City and Owners have relied on the District Consents to their individual material detriment, but for the District Consents, Owners would not have entered into this Agreement and but for the conditions and limitations on the District Consents, City would not have entered into this Agreement.

2.5 Limitation on District. It is the intention of the parties that the District and the TIRZ provided in Article III be utilized as a financing/reimbursement mechanism for certain improvements to the Property in accordance with the terms of this Agreement, and that the Owners understand and agree that the City is entering into this Agreement based upon Owners' representation that the District is being utilized as a financing mechanism for certain initial costs of the Development. The Parties agree that the intent of the Parties and the basis for this

Agreement that the District will remain in existence for the purpose of Owners' financing and reimbursement of certain improvements to the Property for which reimbursement is provided under the terms of this Agreement. The District shall take action to abolish itself, will request that the City take action to abolish the District, or City of its own accord may abolish the District at such time as the Owners have recovered one hundred percent (100%) of the costs incurred by Owners for Public Improvements for which reimbursement is allowed under the terms of this Agreement.

2.6. Limitation on Bonds. Bonds issued by the District shall have a maximum maturity of thirty (30) years for any one series of bonds, unless otherwise agreed to by the City and shall be issued for the purposes of paying for initial costs of development of Public Improvements and TIRZ projects which include Onsite improvements and Offsite Improvements. The District may issue bonds for the purchase, construction, acquisition, repair, extension and improvement of capital infrastructure, easements, works, improvements, facilities, plants, equipment, and appliances necessary for the construction of Public Improvements.

ARTICLE III
TAX INCREMENT REINVESTMENT ZONE

3.1 TIRZ Creation. The City agrees to commence creation of the TIRZ, the boundaries of which will at minimum encompass the Property and overlay the District. The City agrees to commence creation of the TIRZ within thirty (30) days after the date that Owners have notified City of the creation of the District via the confirmation election. Notwithstanding the foregoing, if the ALW Closing does not occur and this Agreement becomes *void ab intio* in accordance with Article VIII, "Term," City shall have no obligation to create the TIRZ; likewise, if Owners do not voluntarily annex the ETJ Property, City shall have no obligation to create the TIRZ. In accordance with the terms of this Section, City agrees to complete creation of the TIRZ in accordance with all statutory requirements no later than ninety (90) days after notification from Owners. After creation of the TIRZ, the City agrees to approve the TIRZ Documents in a form and substance to comply with the terms of this Agreement. Owners shall be liable for all costs of TIRZ creation and Owners shall promptly reimburse City for all City expenses related to the creation of the TIRZ. Notwithstanding the foregoing, in the event the TIRZ is created and approved by the City, all costs of TIRZ creation are eligible for reimbursement through the TIRZ as such funding becomes available in the Tax Increment Fund, subject to limitations in the TIRZ Act.

3.2 Increment. The City agrees to allocate thirty-eight percent (38%) of the City's ad valorem tax increment less collection and administrative expenses to be dedicated for payment consistent with the process identified in attached **Exhibit I** (the "Flow of Funds") to Owners for those portions of Public Improvements shown in **Exhibit J** (the "Sources and Uses") and currently estimated to cost approximately **TWENTY-FIVE MILLION FOUR HUNDRED SIXTY-ONE THOUSAND THREE HUNDRED AND TEN AND NO/100 DOLLARS ($25,461,310)** (the "City Reimbursable Public Improvements") and which are eligible for payment under the TIRZ

Act and in accordance with the adopted Final Project and Financing Plan. The City shall maintain the TIRZ funds separately as required by law, shall remit such TIRZ Revenues into an account established by the City for such purpose (the "High Pointe Capital Funding and Reimbursement Account") and shall, to the extent allowed by law, permit the District to pledge as collateral for the District's issuance of municipal bonds to reimburse Owners for the City Reimbursable Public Improvements or to directly reimburse Owners for the City Reimbursable Public Improvements identified in the adopted Project and Financing Plan for the TIRZ at the request of the Owners and/or District. Payment shall be made by the TIRZ Administrator to the District upon submission of required documentation by the District and approval of the City's TIRZ Administrator.

3.3 Available TIRZ Revenue. Upon the establishment of the TIRZ, the City will, on an annual basis, remit the Available TIRZ Revenue collected on the Property in accordance with the terms of this Agreement and the adopted Project and Financing Plan for the TIRZ, and shall deposit those monies into a tax increment fund in accordance with Texas Tax Code Chapter 311. All interest on TIRZ Revenues shall be applied to obligations of the City.

3.4 The TIRZ. The term of the TIRZ shall be thirty (30) years, with the base year being 2022 and the initial year being 2023. The TIRZ shall terminate in tax year 2052, with final payments made to the District no later than 2053. The maximum amount of TIRZ contribution shall not exceed the amount required to fund the principal and interest cost directly associated with the engineering and design costs, permitting costs, construction costs, bonds, or other fees/expenses of the City Reimbursable Public Improvements less any other reimbursements otherwise provided by the City to the District and/or Owner under this Agreement. As of the Effective Date of this Agreement, the maximum amount of TIRZ contribution is anticipated to not exceed **THIRTY-SIX MILLION AND NO/100 DOLLARS ($36,000,000.00)** such amount being subject to change based on actual costs and/or the expected TIRZ contribution amount as contemplated in the Final Project and Financing Plan.

ARTICLE IV
ANNEXATION AND POST-ANNEXATION MATTERS

4.1 Annexation. Within sixty (60) days prior to the latter to occur of the ALW Closing or the MH Closing, Owners agree to submit a petition for voluntary annexation and to voluntarily annex the ETJ Property into the City's corporate limits with such annexations to become effective only after both the ALW Closing and the MH Closing have occurred. Owners agree to execute and supply any and all instruments and/or other documentation necessary for the City to annex the ETJ Property into the City's corporate limits. This Agreement constitutes the service plan agreement for providing City services to the ETJ Property. If the City is unable to complete the annexation of the ETJ Property for any reason, including but not limited to procedural error or legal challenge, Owners shall execute another voluntary annexation petition for the ETJ Property within ten (10) days of being requested to do so. Prior to annexation of the ETJ Property, the City shall have considered this Agreement, shall have submitted to Owners, and Owners shall review and approve, and this annexation service plan shall be considered a binding, and mutually agreed upon, contractual obligation between the City and Owners.

4.2 Zoning of Property. While the Parties expressly acknowledge that the ETJ Property will be voluntarily annexed in accordance with Section 4.1 of this Agreement, the Parties agree that the Governing Regulations and the applicable provisions of this Agreement memorialize the plan for development of the Property as provided for in Section 212.172 of the Texas Local Government Code and other applicable law. The City shall consider zoning the Property consistent with the Governing Regulations and applicable provisions of this Agreement contemporaneously with the annexation of the ETJ Property. Through this Agreement, the Owners expressly consent and agree to the zoning of the Property consistent with and as contemplated by this section. The Owners agree that nothing in this Agreement shall prevent the Governing Regulations, including but not limited to zoning, from being enforced against an End-Buyer.

ARTICLE V
WATER AND SEWER SERVICE; PARKS; PUBLIC IMPROVEMENTS

5.1 Water and Sewer Service; Billing. The City shall be the exclusive retail provider of water and sewer service under water CCN No. 11234 and sewer CCN No. 20491 to the District and to customers located within the Property and District. After annexation of the ETJ Property, such service shall be provided at the same rates charged to other customers located within the corporate limits of the City. The City will bill the customers directly for its retail water and sewer service.

5.2 Reservation of Water and Sewer Capacity. City agrees that City will provide sufficient water and wastewater capacity to serve development within the District in accordance with the Concept Plan.

5.3 Municipal Park. Owners agree to dedicate to the City, at no cost to the City, a municipal park site (the "Municipal Park Site") with a minimum of thirty (30) acres, inclusive of floodplain, in the location shown on the Concept Plan attached hereto as **Exhibit C**. Owners agree that the minimum improvements for the municipal park shall be constructed prior to the issuance of the 400th residential building permit by the City and shall include: (i) a parking lot with a minimum of eighteen (18) total parking spaces and a minimum of two (2) handicap parking spaces; (ii) a minimum one thousand (1,000) square foot playground that includes a concrete border, mulch, drainage and playground equipment designed to meet International Play Equipment Manufacturer's Association (IPEMA) and Americans with Disabilities Act standards for commercial playgrounds; (iii) a basketball court with goals and striping; (iv) a minimum of three thousand (3,000) linear feet of eight (8) foot wide trails, which may include a sidewalk from the collector street offset from the back of the curb up to one hundred (100) feet; and (v) aerator for the existing pond shall remain (collectively, the "Park Improvements"). A concept plan for the Municipal Park Site depicting and providing specifications for the Park Improvements is attached hereto as **Exhibit C-1** (the **"Park Concept Plan").** Owners agree to cause the District to provide general maintenance of the Park Improvements until such time that the City has a parks and recreation department or staff to maintain the City's parks, and in its sole discretion, City has budgeted funds for the maintenance of Park Improvements. The City agrees to assume the maintenance responsibilities of the Park Improvements once the City has a parks and recreation department or staff to maintain the City's parks, and in its sole discretion, City has budgeted funds for the maintenance of Park Improvements. Owner agrees and understands that the timing of City's decision to budget funds and assume maintenance responsibilities for the Park is within the

sole discretion of the City and that failure of the Owners to timely complete construction of the Park Improvements in accordance with the terms of this Agreement shall entitle the City to cease issuance of building permits for the Property, and at City's discretion, may result in stop work orders for Public Improvements in all future phases of the Development until Owners have complied with the terms of this Section.

5.4 Neighborhood Open Space. Owners agree to dedicate to the District or the HOA a minimum of thirty (30) acres of park land/open space (the "Neighborhood Open Space") in the location shown on the Concept Plan attached hereto as **Exhibit C**, which may include floodplain. If dedicated to the District, ownership of the Neighborhood Open Space shall be transferred to the HOA upon implementation of the HOA. Owners agree that the Neighborhood Open Space will include preservation of existing ponds, trails and other amenities provided at Owners' discretion. All maintenance within the Neighborhood Open Space shall be the responsibility of the District or the HOA, as applicable. The Parties agree that the Neighborhood Open Space shall be solely for the use of the District or the HOA and not open to the general public, and all expenses for construction, maintenance and operation shall be paid by the Owners until transferred to the HOA. At time of transfer to the HOA, all costs of maintenance and operation shall be borne solely by the HOA. The Owners and/or the HOA recognize and agree that the Neighborhood Open Space is a private amenity and agree to take all necessary steps to identify the Neighborhood Open Space as a private amenity that is not open to the general public.

5.5 Amenity Center. Owners agree to construct an amenity center that will include a pool, pool deck, restrooms and associated facilities (the "Amenity Center"). Owners agree to cause the HOA to operate and maintain the Amenity Center at HOA's sole expense. Owners agree that the construction of the Amenity Center will begin no later than the issuance of the 600th residential building permit by the City, that Owners shall diligently and continuously devote sufficient funds and resources to the construction of the Amenity Center so that the Amenity Center is completed no later than twelve (12) months from the commencement of construction. Owners further agree that failure to timely commence construction and/or to complete construction of the Amenity Center in accordance with the terms of this Agreement shall entitle the City to cease issuance of building permits for the Property, and at City's discretion, may result in stop work orders for Public Improvements in all future phases of the Development until Owners have complied with the terms of this Section.

5.6 Onsite Improvements. All Onsite Improvements shall be designed, constructed and installed by Owners in compliance with the Governing Regulations. Construction and/or installation of the Onsite Improvements shall not begin until complete and accurate plans and specifications have been approved by the City in accordance with standard City procedures. Each of such contracts shall require a two-year maintenance bond following completion, which bond shall run in favor of the City of Aubrey for maintenance of the completed Onsite Improvements. To the extent easements or rights-of-way are needed within the Property, they shall be dedicated by Owners and/or District to the City at no cost to the City in the form of an instrument acceptable to both the City and Owners and/or District. The Onsite Improvements will be installed within easements granted to the City or in the public right of way by an instrument acceptable to the City in its sole discretion. The size of the Onsite Improvements shall be sized as finally determined by the Owners' engineer and confirmed by the City's engineer, subject to any oversizing of the Onsite Improvements pursuant to Section 5.7 herein.

5.7 Option to Oversize Offsite Improvements. The City will be obligated to bear and pay all costs, fees, and expenses, including but not limited to engineering and design costs, permitting costs, construction costs, bonds, or other fees/expenses for any change, required by the City, increasing the size of any portion of the Offsite Improvements, to a size greater than is necessary to serve the Development (the "Oversized Improvements"). If the City requires the Oversized Improvements, the City shall pay its pro rata share of the Oversized Improvements thirty (30) days prior to commencement of construction of the Oversized Improvements.

5.8 Inspections, Acceptance of Public Improvements.

(a) Roadway and Storm Infrastructure. The City shall have the right to inspect, at any time, the construction of all roadway and storm water Public Improvements, and any related Public Improvements necessary to support the proposed development within the Property, which shall be inspected, designed and constructed in compliance with all statutory and regulatory requirements, including design and construction criteria, and the Governing Regulations. All Roadway Improvements shall be dedicated to and become the property of the City and shall be maintained by the City in accordance with the terms of this Agreement upon City's final acceptance of such improvements. Roadway improvements include storm drainage infrastructure, sidewalks, traffic control devices and signage.

(b) Water and Wastewater Infrastructure. The City shall have the right to inspect the construction of all water and wastewater Public Improvements at any time, which water and wastewater shall be inspected, designed and constructed in compliance with all statutory and regulatory requirements, including design and construction criteria, and the Governing Regulations. All water and wastewater Public Improvements shall be dedicated to and become property of the City in accordance with the terms of this Agreement upon City's final acceptance of such improvements.

(c) No Release. The City's inspections shall not release Owners from their responsibility to construct, or ensure the construction of, adequate Public Improvements in accordance with approved engineering plans, construction plans, and other approved plans related to the development of the Property.

(d) City Owned. From and after the inspection and acceptance by the City of the Public Improvements and any other dedications required under this Agreement, excluding Park Improvements addressed in Article V, such Public Improvements and dedications shall be owned and maintained by the City.

(e) Approval of Plats/Plans. All plats, permits, plans, designs or specifications shall be subject to approval by the City in accordance with standard City processes and upon payment of applicable fees and shall be in accordance with the Governing Regulations. Approval by the City, the City's engineer or other City employee or representative, of any plats, permits, plans, designs or specifications submitted by Owners pursuant to this Agreement or pursuant to the Governing Regulations shall not constitute or be deemed to be a release of the responsibility and liability of Owners, their engineer, employees, officers or agents for the accuracy and competency of their design and specifications. Further, any such approvals shall not be deemed to be an assumption of such responsibility and liability by the City for any defect in the design and

specifications prepared by Owners or the Owners' engineer, or engineer's officers, agents, servants or employees, it being the intent of the parties that approval by the City's engineer signifies the City's approval on only the general design concept of the improvements to be constructed. All plats and plans of Owners related to the Property shall meet the requirements of the Governing Regulations.

5.9 Acquisition Fees. The City shall provide Owners with an easement map designating the anticipated third-party rights-of-way, fee simple interests, consents, easements, or other property interests, if any, required for the Offsite Improvements, including contact information of the interest holders. Immediately upon receipt of such information from City, Owners agree to use commercially reasonable efforts to obtain all third-party rights-of-way, fee simple interest, consents, easements, or other property interests if any, required for the Offsite Improvements at Owners sole expense. If, however, Owners are unable to obtain such third-party rights-of-way, consents, or easements within sixty (60) days of an initial offer from Owners, Owners shall notify City in writing and shall provide City copies of all documents utilized in making a determination of the amount of compensation to be offered to third parties, correspondence, appraisal reports, and other documents requested by City. The City agrees to take reasonable steps to secure same either through continued negotiations with third parties for a period of ninety (90) days or to proceed with eminent domain (subject to City Council authorization after a finding of public necessity based upon City's sole judgment and discretion). Owners shall be responsible for funding all reasonable and necessary costs of acquisition of third party rights-of-way, fee simple interests, consents, easements or other property interests regardless of whether such costs are incurred during the negotiation process or during the eminent domain process provided in this Section, including without limitation, legal proceeding/litigation costs, costs of appeals, attorney's fees and related expenses, and appraiser and expert witness fees paid or incurred by the City in the exercise of its obligations under this section, including the exercise of eminent domain powers (collectively, "Acquisition Fees") and shall, if requested in writing by the City, escrow with a mutually agreed upon escrow agent the City's reasonably estimated Acquisition Fees both in advance of the initiations of each eminent domain proceeding and as funds are needed by the City. Provided that the escrow fund remains appropriately funded in accordance with this Agreement, the City will use all reasonable efforts to expedite such negotiations and condemnation procedures so that the Offsite Improvements can be constructed as soon as reasonably practicable. If the City's Acquisition Fees exceed the amount of funds escrowed in accordance with this paragraph, Owners shall deposit additional funds as requested by the City into the escrow account within ten (10) days after written notice from the City. The City is not required to continue pursuing negotiations or eminent domain unless and until Owners deposit addition Acquisition Fees with the City. Any unused escrow funds will be refunded to Owners with thirty (30) days after any acquisition or condemnation award or settlement becomes final and non-appealable. Nothing in this subsection is intended to constitute a delegation of the police powers or governmental authority of the City, and the City reserves the right, at all times, to control its proceedings in eminent domain. Acquisition Fees paid for by Owners shall be eligible for payment using Available TIRZ Revenue.

5.10 Operation and Maintenance. Upon inspection, approval, and acceptance of the Public Improvements or any portion thereof, the City shall maintain and operate the accepted Public Improvements or any accepted portion thereof and provide water and wastewater service to the Property.

5.11 On-Site Rights-of-Way and Easements. Owners and/or District will transfer to the City any on-site easements necessary for Public Improvements at the time of development or within one hundred twenty (120) days of the City requesting same for a City project in an instrument suitable to the City.

5.12. Easements/Dedications. After the ALW Closing and MH Closing, at no cost to City, Owners and/or District will take all necessary actions to dedicate to the City a minimum thirty foot (30') wide easement as determined necessary by the City Engineer to accommodate utilities, including without limitation, along the frontage of the Property that abuts Highway 377, and the outer loop on the north side of the Property in order to provide for placement of City utilities, as well as placement of utilities from the Upper Trinity Regional Water District or other utility providers.

ARTICLE VI
DEVELOPMENT OF THE PROPERTY

6.1 Governing Regulations. Development of the Property shall be governed solely by the following (collectively, the "Governing Regulations"):

(a) the Concept Plan attached hereto as **Exhibit C**, as amended from time to time in accordance with this Agreement;

(b) the Development Standards attached hereto as **Exhibit D** and **Exhibit D-1**;

(c) approved final plats for all or a portion of the Property; and

(d) applicable federal, state, and local ordinances and regulations.

6.2 Amendment of Concept Plan. The Parties agree the Concept Plan was created by Owners for illustrating the boundary, lot mix and general layout of the project. Any amendment to the Concept Plan shall require an amendment to this Agreement and such amendment shall replace the attached Concept Plan and become a part of this Agreement. Notwithstanding the foregoing, the City Administrator of the City may but is not required to administratively approve any amendments to the Concept Plan that the City Administrator deems in his reasonable discretion to be consistent with Council approved site plans for the Development without amending this Agreement.

6.3 Enforcement of Regulations. The City will enforce the Governing Regulations on the Property in the same manner in which duly enacted zoning regulations are enforced within the City's corporate boundaries.

6.4 Homeowner's Association Required.

(a) Owners shall create a sustainable and mandatory homeowner's association ("HOA") for the Property that requires membership by all of the owners of a residential lot within the Property.

(b) The HOA shall own and be responsible for the maintenance of any private facilities, appurtenances, and open spaces/common areas and facilities within the Property, unless specifically designated to be owned and maintained by the District.

(c) The HOA shall have covenants and bylaws and shall require the payment of dues and assessments to maintain any private streets and common areas and facilities. The HOA covenants shall provide for assessments and liens for nonpayment of dues or assessments. The approved covenants of the HOA must be recorded with the County Clerk for Denton County.

6.5 Commercial Development. Owners agree to reserve a minimum of thirty-six (36) acres for commercial development, as shown on the Concept Plan attached hereto as **Exhibit C**.

6.6 Conflicts.

(a) In the event of any direct conflict between this Agreement and any ordinance, rule, regulation, standard, policy, order, guideline or other City-adopted or City-enforced requirement, whether existing on the Effective Date or hereinafter adopted, this Agreement shall control. Notwithstanding the foregoing, Owners shall comply with all applicable state and federal regulations and approved City design standards for Public Improvements.

(b) In the event of any direct conflict between the Development Standards and any other part of the Governing Regulations, the Development Standards shall control.

ARTICLE VII
DEVELOPMENT PROCESS AND CHARGES

7.1 Development Charges. Except as specifically described below, Owners and/or builders, as applicable, shall be subject to those fees and charges due and payable to the City in connection with the development of the Property that are charged uniformly to other developments located in the corporate limits of the City, whether in effect on the date of this Agreement or implemented at a later date. Owners and/or builders, as applicable, agree to pay City impact fees for roadways, and for water and wastewater per living unit equivalent, in accordance with adopted impact fee ordinances in effect at the time of building permit (the "Impact Fees"). Water and Wastewater Impact Fees applicable to individual lots will be due and payable by Owners at the time building permits are issued for each single-family residential lot. Notwithstanding the foregoing, Water and Wastewater Impact Fees collected by the City pursuant to this Section 7.1 shall be remitted to the High Pointe Capital Funding and Reimbursement Account consistent with the process shown in **Exhibit I**, Flow of Funds, to be used for reimbursement to Owners and/or the District for costs expended for the construction of the City Reimbursable Public Improvements. The Owners and City agree that once Owners have been reimbursed for all costs associated with the City Reimbursable Public Improvements the City shall continue to collect Impact Fees but shall no longer remit the Water and Wastewater Impact Fees to the High Pointe Capital Funding and Reimbursement Account.

7.2 INDEMNIFICATION AND HOLD HARMLESS

(a) OWNERS AND THEIR SUCCESSORS AND ASSIGNS SHALL INDEMNIFY AND HOLD HARMLESS THE CITY, ITS OFFICIALS, EMPLOYEES, OFFICERS, REPRESENTATIVES AND AGENTS (EACH AN "INDEMNIFIED PARTY"), FROM AND AGAINST ALL ACTIONS, DAMAGES, CLAIMS, LOSSES OR EXPENSE OF EVERY TYPE AND DESCRIPTION TO WHICH THEY MAY BE SUBJECTED OR PUT: (I) BY REASON OF, OR RESULTING FROM THE BREACH OF ANY PROVISION OF THIS AGREEMENT BY OWNERS; (II) THE NEGLIGENT DESIGN, ENGINEERING AND/OR CONSTRUCTION BY OWNERS OR ANY ARCHITECT, ENGINEER OR CONTRACTOR HIRED BY OWNERS OF ANY OF THE PUBLIC IMPROVEMENTS ACQUIRED FROM OWNERS HEREUNDER; (III) OWNERS' NONPAYMENT UNDER CONTRACTS BETWEEN OWNERS AND THEIR CONSULTANTS, ENGINEERS, ADVISORS, CONTRACTORS, SUBCONTRACTORS AND SUPPLIERS IN THE PROVISION AND/OR CONSTRUCTION OF THE PUBLIC IMPROVEMENTS; (IV) ANY CLAIMS OF PERSONS EMPLOYED BY OWNERS OR THEIR AGENTS TO CONSTRUCT THE PUBLIC IMPROVEMENTS; OR (V) ANY CLAIMS AND SUITS OF THIRD PARTIES, INCLUDING BUT NOT LIMITED TO OWNERS' RESPECTIVE PARTNERS, OFFICERS, DIRECTORS, EMPLOYEES, REPRESENTATIVES, AGENTS, SUCCESSORS, ASSIGNEES, VENDORS, GRANTEES, AND/OR TRUSTEES, REGARDING OR RELATED TO THE PUBLIC IMPROVEMENTS OR ANY AGREEMENT OR RESPONSIBILITY REGARDING THE PUBLIC IMPROVEMENTS, INCLUDING CLAIMS AND CAUSES OF ACTION WHICH MAY ARISE OUT OF THE PARTIAL NEGLIGENCE OF AN INDEMNIFIED PARTY (THE "CLAIMS"). NOTWITHSTANDING THE FOREGOING, NO INDEMNIFICATION IS GIVEN HEREUNDER FOR ANY ACTION, DAMAGE, CLAIM, LOSS OR EXPENSE DETERMINED BY A COURT OF COMPETENT JURISDICTION TO BE DIRECTLY ATTRIBUTABLE TO THE WILLFUL MISCONDUCT OR SOLE NEGLIGENCE OF ANY INDEMNIFIED PARTY. OWNERS ARE EXPRESSLY REQUIRED TO DEFEND CITY ITS OFFICIALS, EMPLOYEES, OFFICERS, REPRESENTATIVES AND AGENTS AGAINST ALL SUCH CLAIMS, AND CITY IS REQUIRED TO REASONABLY COOPERATE AND ASSIST OWNERS IN PROVIDING SUCH DEFENSE.

(b) IN ITS REASONABLE DISCRETION, CITY SHALL HAVE THE RIGHT TO APPROVE OR SELECT DEFENSE COUNSEL TO BE RETAINED BY OWNERS IN FULFILLING THEIR OBLIGATIONS HEREUNDER TO DEFEND AND INDEMNIFY THE INDEMNIFIED PARTIES, UNLESS SUCH RIGHT IS EXPRESSLY WAIVED BY CITY IN WRITING. THE INDEMNIFIED PARTIES RESERVE THE RIGHT TO PROVIDE A PORTION OR ALL OF THEIR/ITS OWN DEFENSE, AT THEIR/ITS SOLE COST; HOWEVER, INDEMNIFIED PARTIES ARE UNDER NO OBLIGATION TO DO SO. ANY SUCH ACTION BY AN INDEMNIFIED PARTY IS NOT TO BE CONSTRUED AS A WAIVER OF OWNERS' OBLIGATION TO DEFEND INDEMNIFIED PARTIES OR AS A WAIVER OF OWNERS' OBLIGATION TO INDEMNIFY INDEMNIFIED PARTIES PURSUANT TO THIS AGREEMENT. OWNERS SHALL RETAIN CITY-APPROVED DEFENSE COUNSEL WITHIN SEVEN BUSINESS DAYS OF WRITTEN NOTICE FROM AN INDEMNIFIED PARTY THAT IT IS INVOKING ITS RIGHT TO INDEMNIFICATION UNDER THIS AGREEMENT. IF OWNERS FAIL TO RETAIN COUNSEL WITHIN SUCH TIME PERIOD, INDEMNIFIED PARTIES SHALL HAVE THE RIGHT TO RETAIN DEFENSE COUNSEL ON THEIR OWN BEHALF, AND OWNERS SHALL BE LIABLE FOR ALL REASONABLE COSTS INCURRED BY INDEMNIFIED PARTIES.

(c) THIS SECTION 7.2 SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT.

(d) THE PARTIES AGREE AND STIPULATE THAT THIS INDEMNIFICATION AND THE EXPRESS NEGLIGENCE TEXT COMPLIES WITH THE CONSPICUOUSNESS REQUIREMENT, AND IS VALID AND ENFORCEABLE AGAINST OWNERS.

7.3 **OWNERS' ACKNOWLEDGEMENT OF THE CITY'S COMPLIANCE WITH FEDERAL AND STATE CONSTITUTIONS, STATUTES AND CASE LAW AND FEDERAL, STATE AND LOCAL ORDINANCES, RULES AND REGULATIONS/OWNERS' WAIVER AND RELEASE OF CLAIMS FOR OBLIGATIONS IMPOSED BY THIS AGREEMENT.**

(a) OWNERS ACKNOWLEDGE AND AGREE THAT, PROVIDED THERE ARE NO CITY MONETARY OR LAND USE DEFAULTS UNDER THIS AGREEMENT:

(I) THE PUBLIC IMPROVEMENTS TO BE CONSTRUCTED UNDER THIS AGREEMENT, AND THE FEES TO BE IMPOSED BY THE CITY PURSUANT TO THIS AGREEMENT, REGARDING THE PROPERTY, IN WHOLE OR IN PART, DO NOT CONSTITUTE A:

(A) TAKING UNDER THE TEXAS OR UNITED STATES CONSTITUTION;

(B) VIOLATION OF THE TEXAS LOCAL GOVERNMENT CODE, AS IT EXISTS OR MAY BE AMENDED; AND/OR

(C) NUISANCE.

(II) THE AMOUNT OF OWNERS' FINANCIAL AND INFRASTRUCTURE CONTRIBUTION FOR THE PUBLIC IMPROVEMENTS IS ROUGHLY PROPORTIONAL TO THE DEMAND THAT OWNERS' ANTICIPATED IMPROVEMENTS AND OWNERS' DEVELOPMENT OF THE PROPERTY PLACES ON THE CITY'S INFRASTRUCTURE.

(III) OWNERS HEREBY AGREE AND ACKNOWLEDGE THAT: (A) ANY PROPERTY WHICH IT CONVEYS TO THE CITY OR ACQUIRES FOR THE CITY PURSUANT TO THIS AGREEMENT IS ROUGHLY PROPORTIONAL TO THE BENEFIT RECEIVED BY OWNERS FOR SUCH LAND, AND OWNERS HEREBY WAIVE ANY CLAIM THEREFOR THAT IT MAY HAVE; AND (B) ALL PREREQUISITES TO SUCH DETERMINATION OF ROUGH PROPORTIONALITY HAVE BEEN MET, AND ANY VALUE RECEIVED BY THE CITY RELATIVE TO SAID CONVEYANCE IS RELATED BOTH IN NATURE AND EXTENT TO THE IMPACT OF THE DEVELOPMENT OF THE PROPERTY ON THE CITY'S INFRASTRUCTURE. OWNERS FURTHER AGREE TO WAIVE AND RELEASE ALL CLAIMS THEY MAY HAVE AGAINST THE CITY UNDER THIS AGREEMENT RELATED TO ANY AND ALL: (A) CLAIMS OR CAUSES OF ACTION BASED ON ILLEGAL OR EXCESSIVE EXACTIONS; AND (B) ROUGH PROPORTIONALITY AND INDIVIDUAL DETERMINATION REQUIREMENTS MANDATED BY THE UNITED STATES SUPREME COURT IN *DOLAN V. CITY OF TIGARD*, 512 U.S. 374 (1994), AND ITS PROGENY, AS WELL AS ANY OTHER REQUIREMENTS OF A NEXUS BETWEEN DEVELOPMENT CONDITIONS AND THE PROJECTED IMPACT OF THE PUBLIC IMPROVEMENTS.

(b) THIS SECTION 7.3 SHALL SURVIVE THE TERMINATION OF THIS AGREEMENT.

ARTICLE VIII
TERM

The term of this Agreement shall be for a period of the earlier of the date upon which all Parties obligations hereunder have been met or thirty (30) years. . The Parties may extend the term of this Agreement if they execute an agreement in writing. Notwithstanding anything to the contrary in this Agreement, this Agreement shall automatically terminate, be *void ab initio* and shall be of no further force and effect if the ALW Closing does not occur by January 1, 2022.

ARTICLE IX
EVENTS OF DEFAULT; REMEDIES

9.1 Events of Default. No Party shall be in default under this Agreement until notice of the alleged failure of such Party to perform has been given in writing (which notice shall set forth in reasonable detail the nature of the alleged failure) and until such Party has been given a reasonable time to cure the alleged failure (such reasonable time to be determined based on the nature of the alleged failure, but in no event more than 30 days after written notice of the alleged failure has been given). Notwithstanding the foregoing, no Party shall be in default under this Agreement if, within the applicable cure period, the Party to whom the notice was given begins performance and thereafter diligently and continuously pursues performance until the alleged failure has been cured and within such 30-day period gives written notice to the non-defaulting Party of the details of why the cure will take longer than 30 days with a statement of how many days are needed to cure.

9.2 Remedies. If a Party is in default, the aggrieved Party may, at its option and without prejudice to any other right or remedy under this Agreement, seek any relief available at law or in equity, including, but not limited to, an action under the Uniform Declaratory Judgment Act, or actions for specific performance, mandamus, or injunctive relief. NOTWITHSTANDING THE FOREGOING, HOWEVER, NO DEFAULT UNDER THIS AGREEMENT SHALL ENTITLE THE AGGRIEVED PARTY TO TERMINATE THIS AGREEMENT OR LIMIT THE TERM OF THIS AGREEMENT. The remedies set forth in this section are the sole and exclusive remedies for a default under this Agreement.

ARTICLE X
ASSIGNMENT AND ENCUMBRANCE

10.1 Assignment by Owners to Successor Owners.

(a) Owners have the right (from time to time without the consent of the City, but upon prior written notice to the City) to assign this Agreement, in whole or in part, and including any obligation, right, title, or interest of Owners under this Agreement, to any person or entity (an "Owner Assignee") that (i) is or will become an owner of any portion of the Property or (ii) is controlled by or under common control by the Owners, and (iii) that has provided documentation of financial ability acceptable to the City to demonstrate that Owner Assignee is qualified to comply with all of the terms of this Agreement applicable to Owners, provided that Owners are not in breach of this Agreement at the time of such assignment. An Owner Assignee is considered an "Owner" and a "Party," and under this Agreement for purposes of the obligations, rights, title,

and interest assigned to the Owner Assignee. Written notice of each proposed assignment to an Owner Assignee shall be provided to the City at least fifteen (15) days prior to the effective date of the assignment, which notice shall include a copy of the proposed assignment document together with the name, address, telephone number, and e-mail address (if available) of a contact person representing the Owner Assignee.

(b) Each assignment shall be in writing executed by Owners and the Owner Assignee and shall obligate the Owner Assignee to be bound by this Agreement to the extent this Agreement applies or relates to the obligations, rights, title, or interests being assigned. A copy of each fully executed assignment to an Owner Assignee shall be provided to all Parties within fifteen (15) days after execution. Subject to the provisions in subsection (c) below, from and after such assignment, the City agrees to look solely to the Owner Assignee for the performance of all obligations assigned to the Owner Assignee and agrees that Owners shall be released from subsequently performing the assigned obligations and from any liability that results from the Owner Assignee's failure to perform the assigned obligations; provided, however, if a copy of the assignment is not received by the City within fifteen (15) days after execution, Owners shall not be released until the City receives such copy of the assignment.

(c) No assignment by Owners shall release Owners from any liability that resulted from an act or omission by Owners that occurred prior to the effective date of the assignment unless the City approves the release in writing.

(d) Owners shall maintain written records of all assignments made by Owners to Owner Assignees, including a copy of each executed assignment and the Owner Assignee's Notice information as required by this Agreement, and, upon written request from another Party, shall provide a copy of such records to the requesting person or entity.

10.2 Assignment by the City. The City has the right (from time to time without the consent of Owners, but upon prior written Notice to Owners) to assign this Agreement, in whole or in part, and including any obligation, right, title, or interest of the City under this Agreement, to any agency, authority, or political subdivision of the state (a "City Assignee"). Notice of each proposed assignment to a City Assignee shall be provided to Owners at least fifteen (15) days prior to the effective date of the assignment, which Notice shall include a copy of the proposed assignment document together with the name, address, telephone number, and e-mail address of a contact person representing the City Assignee who Owners may contact for additional information. Each assignment shall be in writing executed by the City and the City Assignee and shall obligate the City Assignee to be bound by this Agreement to the extent this Agreement applies or relates to the obligations, rights, title, or interests being assigned. A copy of each fully executed assignment to a City Assignee shall be provided to all Parties within fifteen (15) days after execution. From and after such assignment, Owners agree to look solely to the City Assignee for the performance of all obligations assigned to the City Assignee and agrees that the City shall be released from subsequently performing the assigned obligations and from any liability that results from the City Assignee's failure to perform the assigned obligations; provided, however, if a copy of the assignment is not received by Owners within fifteen (15) days after execution, the City shall not be released until Owners receives such copy of the assignment. No assignment by the City shall release the City from any liability that resulted from an act or omission by the City that occurred prior to the effective date of the assignment unless Owners approve the release in writing. The

City shall maintain written records of all assignments made by the City to City Assignees, including a copy of each executed assignment and the City Assignee's Notice information as required by this Agreement, and, upon written request from another Party, shall provide a copy of such records to the requesting person or entity.

10.3 Encumbrance by Owner and Assignees. Owners and Owner Assignees have the right, from time to time, to collaterally assign, pledge, grant a lien or security interest in, or otherwise encumber any of their respective rights, title, or interest under this Agreement for the benefit of their respective lenders without the consent of, but with prompt written Notice to, the City. The collateral assignment, pledge, grant of lien or security interest, or other encumbrance shall not, however, obligate any lender to perform any obligations or incur any liability under this Agreement unless the lender agrees in writing to perform such obligations or incur such liability. Provided the City has been given a copy of the documents creating the lender's interest, including Notice (hereinafter defined) information for the lender, then that lender shall have the right, but not the obligation, to cure any default under this Agreement and shall be given a reasonable time to do so in addition to the cure periods otherwise provided to the defaulting Party by this Agreement; and the City agrees to accept a cure offered by the lender as if offered by the defaulting Party. A lender is not a Party to this Agreement unless this Agreement is amended, with the consent of the lender, to add the lender as a Party. Notwithstanding the foregoing, however, this Agreement shall continue to bind the Property and shall survive any transfer, conveyance, or assignment occasioned by the exercise of foreclosure or other rights by a lender, whether judicial or non-judicial. Any purchaser from or successor owner through a lender of any portion of the Property shall be bound by this Agreement and shall not be entitled to the rights and benefits of this Agreement with respect to the acquired portion of the Property until all defaults under this Agreement with respect to the acquired portion of the Property have been cured.

10.4 Transfer of Warranties. Any Public Improvements that are transferred to the City shall be accompanied by all applicable third-party bonds and warranties related to construction and maintenance of such Public Improvements.

10.5 Assignees as Parties. An assignee authorized in accordance with this Agreement and for which notice of assignment has been provided in accordance with this Agreement shall be considered a "Party" for the purposes of this Agreement. With the exception of the End-Buyer of a lot within the Property, any person or entity upon becoming an owner of land or upon obtaining an ownership interest in any part of the Property shall be deemed to be an "Owner" and have all of the obligations of the Owners as set forth in this Agreement and all related documents to the extent of said ownership or ownership interest.

10.6 No Third-Party Beneficiaries. This Agreement only inures to the benefit of, and may only be enforced by, the Parties. No other person or entity shall have any right, title, or interest under this Agreement or otherwise be deemed to be a third-party beneficiary of this Agreement.

ARTICLE XI
RECORDATION AND ESTOPPEL CERTIFICATES

11.1 Binding Obligations. This Agreement and all amendments hereto (including amendments to the Concept Plan as allowed in this Agreement) and assignments hereof shall be recorded in the deed records of Denton County. This Agreement binds and constitutes a covenant running with the Property. Upon the Effective Date, this Agreement shall be binding upon the Parties and their successors and assigns permitted by this Agreement and forms a part of any other requirements for Development within the Property. This Agreement, when recorded, shall be binding upon the Parties and their successors and assigns as permitted by this Agreement and upon the Property; however, this Agreement shall not be binding upon, and shall not constitute any encumbrance to title as to, any end-buyer/homebuyer of a Fully Developed and Improved Lot (an "End-Buyer") and shall not negate the End-Buyer's obligation to comply with the City's Regulations, including but not limited to zoning ordinances, as they currently exist or may be amended.

11.2 Estoppel Certificates. From time to time upon written request of Owners, if needed to facilitate a sale of all or a portion of the Property or a loan secured by all or a portion of the Property, the City will execute a written estoppel certificate in a form and substance satisfactory to the City, to its reasonable knowledge and belief, identifying any obligations of Owners under this Agreement that are in default.

ARTICLE XII
ADDITIONAL PROVISIONS

12.1 Recitals. The recitals contained in this Agreement: (a) are true and correct as of the Effective Date; (b) form the basis upon which the Parties negotiated and entered into this Agreement; (c) are legislative findings of the City Council of the City; and (d) reflect the final intent of the Parties with regard to the subject matter of this Agreement. In the event it becomes necessary to interpret any provision of this Agreement, the intent of the Parties, as evidenced by the recitals, shall be taken into consideration and, to the maximum extent possible, given full effect. The Parties have relied upon the recitals as part of the consideration for entering into this Agreement and, but for the intent of the Parties reflected by the recitals, would not have entered into this Agreement.

11.2 Notices. Any notice, payment or instrument required or permitted by this Agreement to be given or delivered to any party shall be deemed to have been received when personally delivered or transmitted by telecopy or facsimile transmission (which shall be immediately confirmed by telephone and shall be followed by mailing an original of the same within 24 hours after such transmission) or 72 hours following deposit of the same in any United States Post Office, registered or certified mail, postage prepaid, addressed as follows:

To the City: Attn: City Administrator
City of Aubrey, Texas
107 S. Main Street
Aubrey, TX 76227

With a copy to: Messer, Fort and McDonald, PLLC
Attn: Patricia A. Adams, City Attorney
6371 Preston Road, Suite 200
Frisco, TX 75034

To Owners: ALW 377 LLC
Attn: Alex Wacker
P.O. Box 837
Aubrey, Texas 76227

FM Land Investments I, LLC
Attn: David J. Marks, Manager
138 Old Town Blvd. N., Suite 202
Argyle, Texas 76226

With a copy to: Attn: Mindy L. Koehne
Coats Rose, P.C.
14755 Preston Road, Suite 600
Dallas, Texas 75254
Email: mkoehne@coatsrose.com

Any party may change its address or addresses for delivery of notice by delivering written notice of such change of address to the other party.

12.3 Interpretation. The Parties acknowledge that each has been actively involved in negotiating this Agreement. Accordingly, the rule of construction that any ambiguities are to be resolved against the drafting Party will not apply to interpreting this Agreement. In the event of any dispute over the meaning or application of any provision of this Agreement, the provision will be interpreted fairly and reasonably and neither more strongly for nor against any Party, regardless of which Party originally drafted the provision.

12.4 Time. In this Agreement, time is of the essence and compliance with the times for performance herein is required.

12.5 Authority and Enforceability. The City represents and warrants that this Agreement has been approved by official action by the City Council of the City in accordance with all applicable public notice requirements (including, but not limited to, notices required by the Texas Open Meetings Act) and that the individual executing this Agreement on behalf of the City has been duly authorized to do so. Owners represent and warrant that this Agreement has been approved by appropriate action of Owners, and that the individuals executing this Agreement on behalf of Owners have been duly authorized to do so. Each Party respectively acknowledges and agrees that this Agreement is binding upon such Party and is enforceable against such Party, in accordance with its terms and conditions and to the extent provided by law.

12.6 Entire Agreement. This Agreement constitutes the entire agreement between the Parties and supersedes all prior agreements, whether oral or written, covering the subject matter of

this Agreement. This Agreement shall not be modified or amended except in writing signed by the Parties.

12.7 Severability. If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable for any reason, then: (a) such unenforceable provision shall be deleted from this Agreement; (b) the unenforceable provision shall, to the extent possible and upon mutual agreement of the parties, be rewritten to be enforceable and to give effect to the intent of the Parties; and (c) the remainder of this Agreement shall remain in full force and effect and shall be interpreted to give effect to the intent of the Parties.

12.8 Applicable Law; Venue. This Agreement is entered into pursuant to, and is to be construed and enforced in accordance with, the laws of the State of Texas, and all obligations of the Parties are performable in Denton County. Exclusive venue for any action to enforce or construe this Agreement shall be in the Denton County District Court.

12.9 Non-Waiver. Any failure by a Party to insist upon strict performance by the other Party of any material provision of this Agreement shall not be deemed a waiver thereof, and the Party shall have the right at any time thereafter to insist upon strict performance of any and all provisions of this Agreement. No provision of this Agreement may be waived except by writing signed by the Party waiving such provision. Any waiver shall be limited to the specific purposes for which it is given. No waiver by any Party of any term or condition of this Agreement shall be deemed or construed to be a waiver of any other term or condition or subsequent waiver of the same term or condition.

12.10 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and constitute one and the same instrument.

12.11 Further Documents. The Parties agree that at any time after execution of this Agreement, they will, upon request of another Party, execute and deliver such further documents and do such further acts and things as the other Party may reasonably request in order to effectuate the terms of this Agreement. This provision shall not be construed as limiting or otherwise hindering the legislative discretion of the City Council seated at the time that this Agreement is executed or any future City Council.

12.12 Exhibits. The following exhibits are attached to this Agreement and are incorporated herein for all purposes:

Exhibit A	Legal Description of the Property
Exhibit B	Depiction of the Property
Exhibit C	Concept Plan
Exhibit C-1	Park Concept Plan
Exhibit D	Development Standards
Exhibit D-1	Supplemental Development Standards
Exhibit E	Offsite Roadway System Improvements
Exhibit F	Offsite Water System Improvements
Exhibit G	Offsite Wastewater Improvements

Exhibit H Consent Resolution
Exhibit I Flow of Funds
Exhibit J Sources and Uses

12.13 Governmental Powers; Waivers of Immunity. By its execution of this Agreement, the City does not waive or surrender any of its respective governmental powers, immunities, or rights except as provided in this section.

12.14 Force Majeure. Each Party shall use good faith, due diligence and reasonable care in the performance of its respective obligations under this Agreement, and time shall be of the essence in such performance; however, in the event a Party is unable, due to force majeure, to perform its obligations under this Agreement, then the obligations affected by the force majeure shall be temporarily suspended. Within three business days after the occurrence of a force majeure, the Party claiming the right to temporarily suspend its performance, shall give notice to all the Parties, including a detailed explanation of the force majeure and a description of the action that will be taken to remedy the force majeure and resume full performance at the earliest possible time. The term "force majeure" shall include events or circumstances that are not within the reasonable control of Party whose performance is suspended and that could not have been avoided by such Party with the good faith exercise of good faith, due diligence and reasonable care.

12.15 Amendments. This Agreement cannot be modified, amended, or otherwise varied, except in writing signed by the City and Owners expressly amending the terms of this Agreement.

12.16 Consideration. This Agreement is executed by the Parties hereto without coercion or duress and for substantial consideration, the sufficiency of which is hereby acknowledged.

[signatures on following pages]

EXECUTED by the City and Owners on the respective dates stated below.

Date: June 30, 2021

CITY OF AUBREY, TEXAS

By: _____
Chris Rich, Mayor

ATTEST:

_____
Jenny Huckabee, City Secretary

APPROVED AS TO FORM

_____
Patricia A. Adams, City Attorney

STATE OF TEXAS §
§
COUNTY OF DENTON §

This instrument was acknowledged before me on the 30TH day of JUNE, 2021, by Chris Rich, the Mayor of the City of Aubrey, Texas, on behalf of said City.

_____
Notary Public in and for the State of Texas

(SEAL)

JENNIFER D. HUCKABEE
Notary Public, State of Texas
Comm. Expires 07-05-2024
Notary ID 129043943

OWNER:

ALW 377 LLC
a Texas limited liability company

By: _____
Name: Alexander Wacker
Title: Manager

APPROVED AS TO FORM

_____
_____, Attorney

STATE OF TEXAS §
§
COUNTY OF Denton §

BEFORE ME, a Notary Public in and for the State of Texas, duly authorized to take acknowledgments, on June 15, 2021, personally appeared Alexander Wacker, Manager of ALW 377 LLC, a Texas limited liability company, and acknowledged that he executed the foregoing document on behalf of said limited liability company.

_____
Notary Public in and for the State of Texas

(SEAL)

KIMBERLY A. MARKEL
My Notary ID # 129171260
Expires October 18, 2024

OWNER:

FM LAND INVESTMENTS I, LLC
a Texas limited liability company

By: _____
Name: David F. Marks
Title: Manager

APPROVED AS TO FORM

Mindy L. Koehne, Attorney

STATE OF TEXAS §
§
COUNTY OF Denton §

BEFORE ME, a Notary Public in and for the State of Texas, duly authorized to take acknowledgments, on June 7, 2024, personally appeared David Marks, Manager of FM Land Investments I, LLC, a Texas limited liability company, and acknowledged that he executed the foregoing document on behalf of said limited liability company.

(SEAL)

SHANNON BRASSEAUX
Notary Public, State of Texas
Comm. Expires 02-21-2025
Notary ID 12251662

_____
Notary Public in and for the State of Texas

EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

EXHIBIT "A"

LEGAL DESCRIPTION

HIGH POINTE RANCH MUNICIPAL UTILITY DISTRICT NO. 1 – TRACT 1

OF a 357.445 acres tract of land out of the Francisco Trevino Survey, Abstract No. 1243, Denton County, Texas; being all of a certain 229.479 acres tract (Tract 1), a 32.8 acres tract (Tract 2) and a 29.885 acres tract (Tract 3), all described in Volume 4257, Page 1101, Document No. 99-0004597 of the Deed Records of Denton County, Texas; also being all of a certain 6.874 acres tract described in Volume 4574, Page 1528, Document No. 00-000036697 and all of a certain 57.6071 acres tract described in Volume 4483, Page 133, Document No. 99-000123273, both in the Deed Records of Denton County, Texas; and being further described by metes and bounds as follows:

BEGINNING at a set "PK" nail in Blackjack Road (paved) and in the southeast right of way line of U.S. Highway No. 377 and in the recognized north line of said Francisco Trevino Survey and at the northwest corner of said 32.8 acres tract for the most northerly northwest and beginning corner of this tract. Whence the recognized southwest corner of the Thomas Chambers Survey, Abstract No. 223 bears South 87°12'41" East 60.40 feet.

THENCE South 87°12'41" East at 60.40 feet pass a "PK" nail at the southwest corner of a certain 6.164 acres tract (Tract 5) described in said Volume 4257, Page 1101 and in all 1160.06 feet along said Blackjack Road to a found "PK" nail at the southeast corner of said 6.164 acres tract for a corner of this tract.

THENCE South 88°09'42" East 505.03 feet to a set "PK" nail in said Blackjack Road for a corner of this tract.

THENCE South 89°21'04" East 1356.90 feet to a set "PK" nail in said Blackjack Road for the northeast corner of this tract.

THENCE South 01°40'27" West at 20.69 feet pass a 4" steel post in the south line of said Blackjack Road and in all 2322.77 feet to a set capped ½" iron rod for the most easterly southeast corner of this tract.

THENCE South 89°35'01" West at 250.28 feet pass a found capped ½" iron rod at the northeast corner of a certain 27.104 acres tract described in Document No. 96-000070599 and in all 1539.46 feet to a found ½" iron pipe at the northwest corner of a certain 27.600 acres tract described in Document No. 96-000070600 for an ell corner of this tract.

THENCE South 00°10'39" East 956.88 feet to a set capped ½" iron rod in the west line of said 27.600 acres tract for a corner of this tract.

THENCE South 00°56'07" West 1132.15 feet to a set capped ½" iron rod in the north right of way line of F.M. Highway No. 428 and at the southwest corner of said 27.600 acres tract for the most southerly southeast corner of this tract.

THENCE along the north right of way line of said F.M. Highway No. 428 the following courses and distances:

- South 71°34'50" West 144.40 feet to a set capped ½" iron rod;
- Westerly along the arc of a 07 deg. 21 min. 35 sec. non-tangent curve to the right having a radius of 778.51 feet, a central angle of 18 deg. 46 min. 14 sec., a chord of South 82°46'29" West 253.91 feet and an arc length of 255.05 feet to a set capped ½" iron rod;
- South 88°45'46" West 378.48 feet to a set capped ½" iron rod;
- South 89°36'06" West 1349.02 feet to a set capped ½" iron rod;
- And South 89°52'21" West 1364.91 feet to a set capped ½" iron rod in the southeast right of way line of said U.S. Highway No. 377 for the most southerly southwest corner of this tract;

THENCE North 32°23'53" West 213.57 feet along the southeast right of way line of said U.S. Highway 377 to a wood right of way marker for the most westerly southwest corner of this tract.

THENCE North 25°19'53" East 4804.08 feet along the southeast right of way line of said U.S. Highway No. 377 to a set capped ½" iron rod for the most westerly northwest corner of this tract.

THENCE North 59°03'36" East at 101.21 feet pass a set ½" iron rod and in all 166.34 feet to the POINT OF BEGINNING and containing 357.445 acres of land, more or less.

LEGAL DESCRIPTION

HIGH POINTE RANCH MUNICIPAL UTILITY DISTRICT NO. 1 – TRACT 2

BEING a tract of land situated in the F. Trevino Survey, Abstract No. 1243, Denton County, Texas, and being all of a called 61.667 acre tract of land described in a General Warranty Deed to Betsy Turner, as recorded in Instrument No. 97-0010270 of the Official Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a mag nail set for the northeast corner of said 61.667 acre tract, common to the northwest corner of a called 41.640 acre tract of land described in a deed to Michael Ray Self and spouse, Hannah Carter Self, as recorded in Instrument No. 2020-72317 of the Official Records of Denton County, Texas, being on the southerly line of Tract I described in a deed to LTR Dressage, LLC, as recorded in Instrument No. 2012-60776 of the Official Records of Denton County, Texas, and in the centerline of Black Jack Road, a variable width right-of-way, no record found;

THENCE South 0°37'22" West, departing the southerly line of said Tract I and the centerline of said Black Jack Road, along the easterly line of said 61.667 acre tract and the westerly line of said 41.640 acre tract, a distance of 2297.48 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the southeast corner of said 61.667 acre tract, common to the southwest corner of said 41.640 acre tract, being on the northerly line of a called 94.58 acre tract of land described in a deed to Robert J. Houlihan, Trustee of the Jacqueline A. Houlihan Family Trust, as recorded in Instrument No. 2015-75670 of the Official Records of Denton County, Texas;

THENCE South 89°33'30" West, along the southerly line of said 61.667 acre tract, the northerly line of said 94.58 acre tract and the northerly line of a called 5.000 acre tract of land described in a deed to Robert J. Houlihan, as recorded in Instrument No. 2015-75669 of the Official Records of Denton County, Texas, a distance of 1184.22 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the southwest corner of said 61.667 acre tract, being on the easterly line of a called 166.34 acre tract of land described in a deed to ALW 377, LLC, as recorded in Instrument No. 2018-78707 of the Official Records of Denton County, Texas;

THENCE North 1°40'23" East, departing the northerly line of said 94.58 acre tract, along the westerly line of said 61.667 acre tract and the easterly line of said 166.34 acre tract, a distance of 2319.56 feet to a 1 inch iron pipe found for the northwest corner of said 61.667 acre tract, common to the northeast corner of said 166.34 acre tract, being on the southerly line of a called 37.115 acre tract of land described in a deed to Calvin Paul Redfearn, as recorded in Instrument No. 2014-96676 of the Official Records of Denton County, Texas, and in the middle of Black Jack Road;

THENCE South 89°23'35" East, along the northerly line of said 61.667 acre tract, the southerly line of said 37.115 acre tract, the southerly line of a called 20.236 acre tract of land described in a deed to Gary Conway and Debbie Conway, as recorded in Instrument No. 2019-158825 of the Official Records of Denton County, Texas, and the southerly line of said Tract I, a distance of 1141.49 feet to the POINT OF BEGINNING and containing 61.611 acres (2,683,778 square feet) of land, more or less.

LEGAL DESCRIPTION

HIGH POINTE RANCH MUNICIPAL UTILITY DISTRICT NO. 1 – TRACT 3

BEING a tract of land situated in the F. Trevino Survey, Abstract No. 1243, Denton County, Texas, and being all of a called 41.640 acre tract of land described in a Warranty Deed with Vendor's Lien to Michael Ray Self and spouse, Hannah Carter Self, as recorded in Instrument No. 2020-72317 of the Official Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a mag nail set for the northwest corner of said 41.640 acre tract, common to the northeast corner of a called 61.667 acre tract of land described in a deed to Betsy Turner, as recorded in Instrument No. 97-0010270 of the Official Records of Denton County, Texas, being on the southerly line of Tract I described in a deed to LTR Dressage, LLC, as recorded in Instrument No. 2012-60776 of the Official Records of Denton County, Texas, and in the centerline of Black Jack Road, a variable width right-of-way, no record found;

THENCE South 89°10'02" East, along a northerly line of said 41.640 acre tract, the southerly line of said Tract I, the southerly line of a called 22.380 acre tract of land described as Tract II in said deed recorded in Instrument No. 2012-60776 of the Official Records of Denton County, Texas, and the centerline of said Black Jack Road, a distance of 570.47 feet to a 1 inch iron pipe found for the northerly northeast corner of said 41.640 acre tract, common to the northwest corner of a called 14.975 acre tract of land described in a deed to K & T Swan Family Limited Partnership, L.P., as recorded in Instrument No. 2017-78524 of the Official Records of Denton County, Texas;

THENCE South 1°07'20" East, departing the southerly line of said Tract II and the centerline of said Black Jack Road, along an easterly line of said 41.640 acre tract and the westerly line of said 14.975 acre tract, a distance of 1528.04 feet to a 1/2 inch iron rod found for the southwest corner of said 14.975 acre tract, common to an ell corner of said 41.640 acre tract;

THENCE South 89°22'10" East, along a northerly line of said 41.640 acre tract and the southerly line of said 14.975 acre tract, a distance of 570.06 feet to a 3/8 inch iron rod found for the southerly northeast corner of said 41.640 acre tract, common to the southeast corner of said 14.975 acre tract;

THENCE South 1°04'44" East, along an easterly line of said 41.640 acre tract, a distance of 745.84 feet to a 1/2 inch iron pipe found for the southeast corner of said 41.640 acre tract, common to the northeast corner of a called 16.597 acre tract of land described in a deed to Phillip J. Anton and wife, Karen M. Anton, as recorded in Instrument No. 95-65740 of the Official Records of Denton County, Texas;

THENCE South 89°33'30" West, along the southerly line of said 41.640 acre tract, the northerly line of said 16.597 acre tract, the northerly line of a called 6.703 acre tract of land described in a deed to Phillip John Anton and wife, Karen Marie Anton, as recorded in Instrument No. 2005-92268 of the Official Records of Denton County, Texas, and the northerly line of a called 94.58 acre tract of land described in a deed to Robert J. Houlihan, Trustee of the Jacqueline A. Houlihan Family Trust, as recorded in Instrument No. 2015-75670 of the Official Records of Denton County, Texas, a distance of 1209.41 feet

to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the southwest corner of said 41.640 acre tract, common to the southeast corner of aforesaid 61.667 acre tract;

THENCE North 0°37'22" East, departing the northerly line of said 94.58 acre tract, along the westerly line of said 41.640 acre tract and the easterly line of said 61.667 acre tract, a distance of 2297.48 feet to the POINT OF BEGINNING and containing 41.650 acres (1,814,290 square feet) of land, more or less.

EXHIBIT B

DEPICTION OF THE PROPERTY

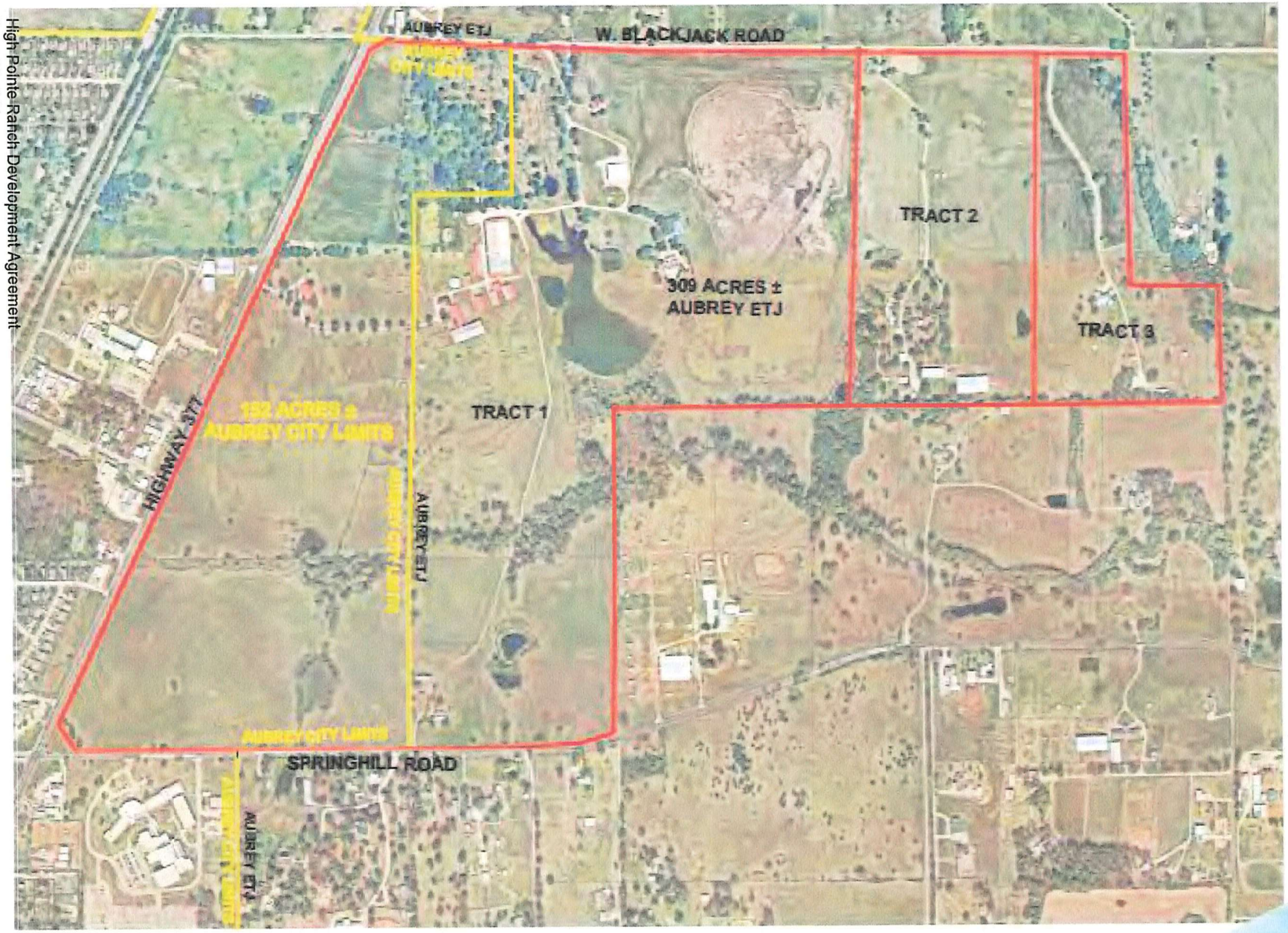


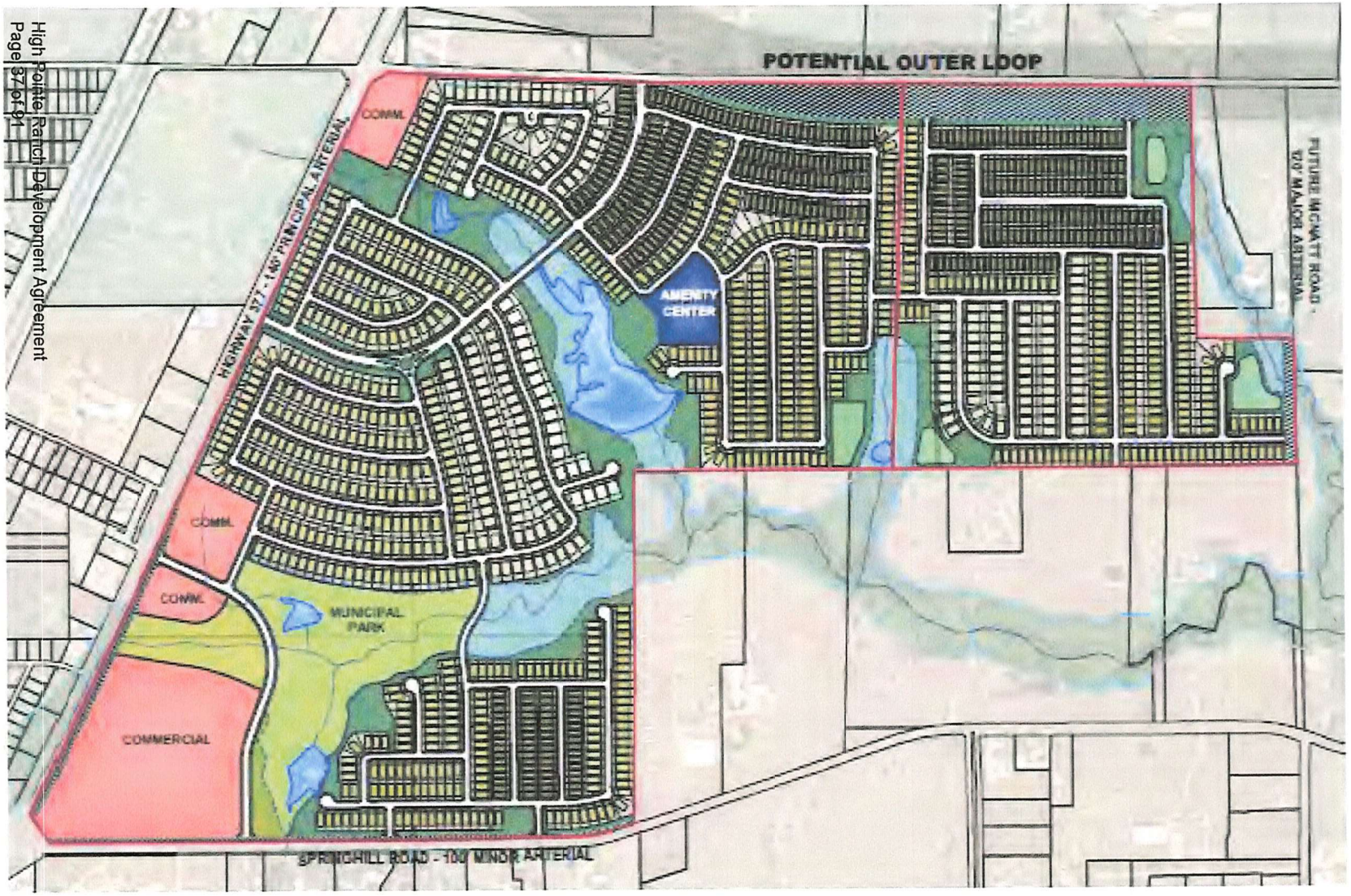
EXHIBIT "B"
High Pointe Ranch

Aubrey, Texas
April 2021

Kimley»Horn

EXHIBIT C

CONCEPT PLAN



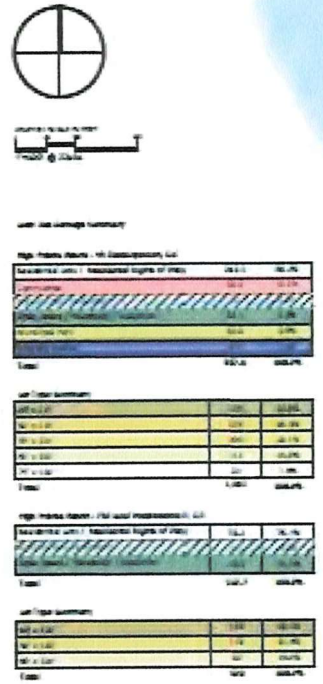


Exhibit "C"

High Pointe Ranch

Aubrey, Texas
March 2021

Kimley»Horn

EXHIBIT C-1

PARK CONCEPT PLAN

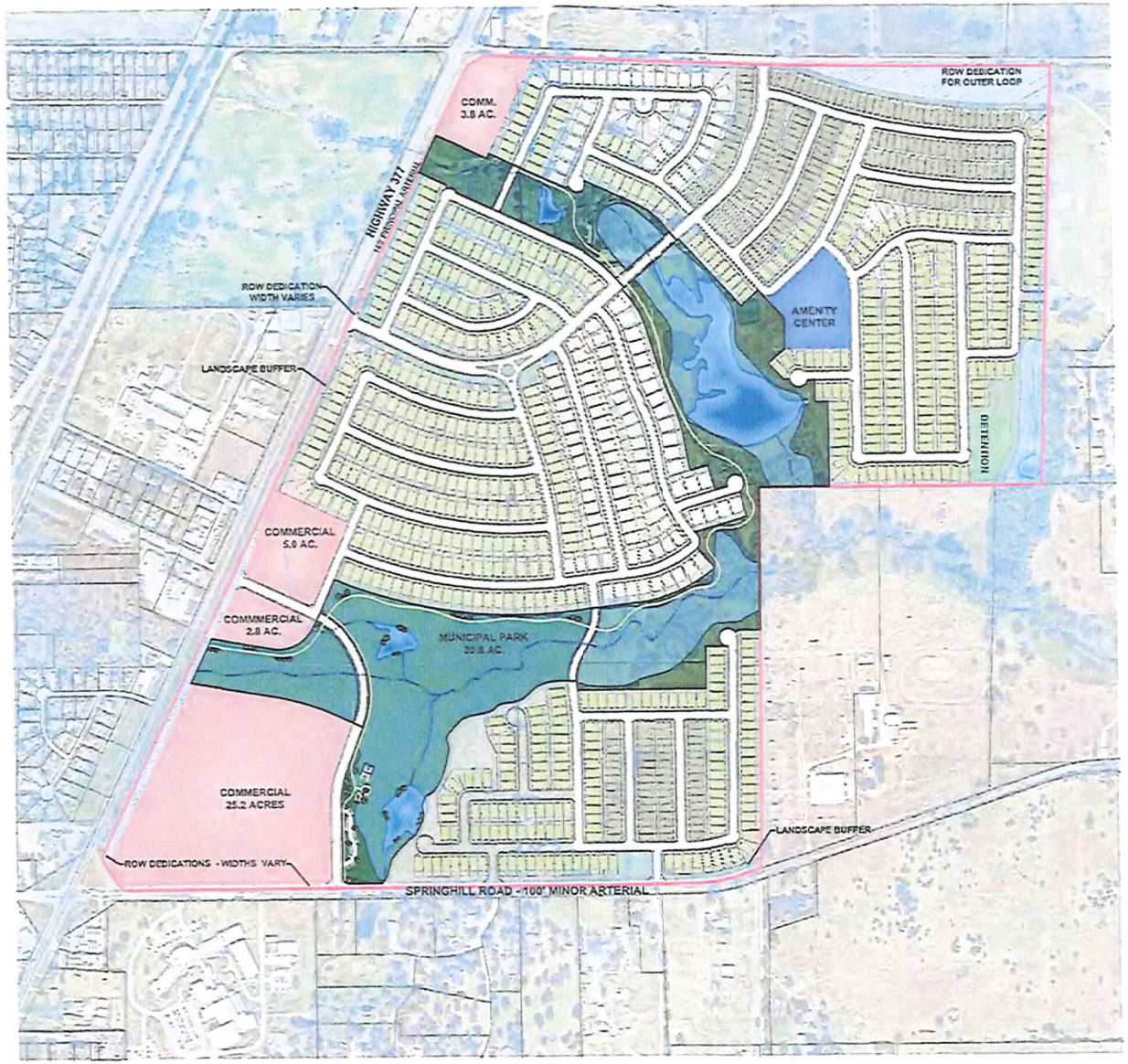


Exhibit C-1
Park Concept Plan

High Pointe Ranch

Aubrey, Texas
May 2021

Kimley»Horn

EXHIBIT D

DEVELOPMENT STANDARDS

EXHIBIT D

Community Planning Standards (CP Standards)

I. PLANNING STANDARDS

1.1 Purpose: The purpose and intent of these Community Planning Standards are to provide quality subdivision development with residential uses for the Property. Capitalized terms not otherwise defined in this Exhibit D have the meanings given such terms in the Development Agreement to which this Exhibit D is attached.

1.2 Zoning Districts: The following districts apply to the Property:

SF-6	Single Family Residential, 6,000 sf minimum lot
SF-5	Single Family Residential, 5,000 sf minimum lot

Zoning Regulations:

(a) SF-6

Permitted Uses: Single-family detached dwellings in accordance with the following limits:

Development Minimums:

Lot Area:	6,000 square feet
Lot Width:	60 feet, 55 feet for lots fronting cul-de-sac. Lot width is measured at building line.
Lot Depth:	110 feet
Front Yard:	20 feet
Side Yard:	5 feet; 15 feet on corner lot adjacent to street
Rear Yard:	20 feet, 10' for lots adjacent to park or tail with tubular steel, wrought iron or similar material fencing (no wood)
Dwelling Unit Size:	1,200 square feet
Parking Spaces:	2 per dwelling unit

Development Maximums:

Height:	35 feet
Lot Coverage:	50%

(b) SF-5

Permitted Uses: Single-family detached dwellings in accordance with the limits of SF-6 zoning or the following limits:

Development Minimums:	
Lot Area:	5,000 square feet
Lot Width:	45 feet. Lot width is measured at building line.
Lot Depth:	100 feet
Front Yard:	20 feet
Side Yard:	5 feet; 15 feet on corner lot adjacent to street
Rear Yard:	20 feet, 10' for lots adjacent to park or trail with
Rear Yard	tubular steel, wrought iron, or similar material fencing (no wood)
Dwelling Unit Size:	1,200 square feet
Parking Spaces:	2 per dwelling unit
Development Maximums:	
Height	35 feet
Lot Coverage	55%

1.3 Regulations Applicable: All regulations and standards pertaining to the development of the Property set forth in this Agreement and all exhibits hereto together with the following regulations and standards as modified by this Agreement shall constitute the exclusive development regulations and conditions applicable to the Property (the regulations and standards described above and set forth below, and as set forth in or modified by all exhibits attached hereto and in any final plats and construction plans hereafter approved for future phases (the "Development Regulations"):

(a) Property Maintenance Code adopted by the City Council on May 29, 2007, by Ordinance No. 383-07 as set forth in Exhibit E.

(b) Nuisance Ordinance adopted by the City Council on July 16, 2002, by Ordinance No. 321-02 as set forth in Exhibit F.

1.4 Hike and Bike Trail System: The Property shall be developed in a manner generally consistent with the hike and bike trail system depicted upon the Concept Plan. The trail system will consist of a combination of eight feet (8') sidewalks through open space and five feet (5') sidewalks located in street right-of-ways, as shown on Exhibit G attached hereto.

1.5 Homeowner's Association (HOA):

a. In accordance with this Ordinance, a HOA shall be established to maintain open space, recreational areas, and other commonly owned facilities.

b. The developer is responsible for drafting the HOA documents pertaining to the HOA's responsibilities to maintain these areas.

c. Prior to approval of a Final Plat, a document establishing the HOA shall be submitted to the City for review and approved by the City for conformance with all requirements and other applicable ordinances.

1.6 Exterior Wall Masonry: All exterior walls, excluding doors, windows and window units, shall be comprised of at least sixty (60) percent masonry product. Masonry product shall include stone, brick, cultured stone and cementitious materials such as HardiPlank and stucco. HardiPlank material shall be limited to fifty (50) percent of any exterior unless the style of the home calls for 100% HardiPlank such as the Cape Cod or Victorian products.

1.7 Floodplain Dedication: All floodplain areas shall be dedicated to the District and shall be considered common open space.

1.8 Lot Orientation: Lots may face, back or side any open space, park, floodplain, trail or other public access area. Lots shall comply with setbacks as specified in Section 1.2 of these CP Standards. Lots can back to streets with a right of way width of 80 feet or more. Lots can front streets with a right of way width of 80 feet or less.

1.9 Public Access: A 20 foot wide public access easement shall be placed at a minimum of 1200 foot spacing along floodplains, parks or other open spaces where no adjacent street is provided. Drainage and utility easements can serve as a public access easement provided they are at least 20 feet in width. An 8 foot trail shall be provided in the public access easement between a street and the corresponding open space.

II. DESIGN STANDARDS

SECTION A. GENERAL.

1. CONFORMITY TO THE DEVELOPMENT REGULATIONS:

   No plat shall be approved by the Planning and Zoning Commission, unless and until such conforms to the Development Regulations and these design and construction standards. All streets, alleys, sidewalks, drainage ways, water and sewer lines, and improvements shall be designed, placed and constructed in accordance with the Standard Specifications for Public Works Construction, North Central Texas, with all amendments thereto, except as amended or conflicted by these CP Standards. To the extent that there is a conflict between the regulations herein, and those found elsewhere, the regulations found herein shall control development within this Property.

2. SUBDIVISION NAMES:

   Subdivision names shall not duplicate or cause confusion with the names of existing subdivisions. All subdivision names shall be approved by the Planning and Zoning Commission upon recommendation of the Planning Department.

3. DESIGN DETAIL STANDARDS:

   If applicable, the Design Detail Standards (herein so called) attached to these CP Standards as drawings labeled P-1 through P-26, S1 and D1 through D7 shall pertain, generally, to the development of the Property.

SECTION B. BLOCKS.

Block lengths shall not exceed twelve hundred fifty (1,250) feet, except along arterial thoroughfares.

1. The length, width and shape of blocks shall be determined with due regard to:

   a. Provision of adequate building sites suitable to the special needs of the type of use contemplated;

   b. Zoning requirements as to lot size and dimensions; and

   c. Need for convenient and safe access, circulation, and control of street traffic.

2. In general, intersecting streets determining the block lengths and widths shall be provided at such intervals as to serve cross traffic adequately and to meet existing streets. Where no existing subdivision establishes control, the block lengths shall not exceed twelve hundred fifty (1,250)feet nor be less than two hundred fifty (250) feet in length. However, in cases where physical barriers or property ownership creates conditions where it is appropriate that these standards be varied by the Planning and Zoning Commission, the length may be increased or decreased to meet the existing conditions, having due regard for connecting streets, circulation of traffic and public safety.

SECTION C. LOTS.

1. Every lot shall meet the minimum area and dimension standards as set forth in the Development Regulations. The Planning and Zoning Commission shall have the authority to approve a subdivision plat where lots have area, dimensions or setbacks greater than the minimum standards set forth in the Development Regulations.

2. Every lot shall have access to a public street or to a private or gated street that has direct access to a public street.

SECTION D. EASEMENTS.

1. Easements shall be located across lots or may be on rear or side lot lines to provide for utilities where necessary, as determined by the utility companies and the District, and shall be of such widths as may be reasonably necessary for the utility or utilities using such easement. However, water, sewer, and drainage easements shall be a minimum of sixteen (16) feet wide.

2. Where a subdivision is traversed by a watercourse, drainage way, or channel, there shall be provided a storm sewer easement or drainage right-of-way or easement conforming substantially with such course and of such additional width as shall be designated by the District Engineer. Streets or access easements may be required into the watercourse from a public right-of-way.

3. Drainage easements shall not be obstructed by fences, landscaping or any other structure or building that may impede the surface flow of water, as determined by the District Engineer.

SECTION E. SIDEWALKS.

1. Sidewalks shall be required along any street upon which a lot abuts, regardless of whether such lot faces, abuts on the side, or backs up to such street, or is separated from such street by an alley. The only exceptions to this requirement are along freeways and freeway frontage.

2. Residential Subdivisions.

    a. Sidewalks shall be constructed by the developer along all arterial thoroughfares, and along all perimeter streets abutting the subdivision, regardless of whether such arterial or perimeter thoroughfare abuts a lot, alley, or other space. Sidewalks shall be constructed along all arterial thoroughfares and perimeter streets. The developer is not responsible, however, for constructing a sidewalk along the frontage, as herein defined, of any residential lot.

    b. The builder on a lot is responsible for the construction of all sidewalks along the frontage, as herein defined, of such residential lot and along that portion of the lot that sides or rears to a street other than an arterial. Provided, however, that such sidewalk is not required on a lot until completion of building construction. Upon completion of building construction, sidewalks shall be provided in accordance with the provisions contained herein. Authorization for occupancy shall not be granted until this requirement has been met.

SECTION F. STREETS

I. GENERAL:

a. Adequate streets shall be provided by the subdivider. The arrangement, character, extent, pavement width, right-of-way width, grade and location of each street shall substantially conform to the Concept Plan and these CP Standards and shall be considered in its relation to existing and planned streets, topographical conditions, significant natural features such as mature trees or water courses, public safety and convenience, and its relationship to the proposed uses of land to be served by such street.

b. Whenever a tract to be subdivided abuts any part of any street so designated on the Concept Plan, or where a street designated on the Concept Plan crosses any part of the tract to be subdivided, such part of the proposed public street shall be platted generally consistent with the location as indicated on the Concept Plan, and to a width consistent with the Concept Plan and the requirements of this ordinance.

Additional right-of-way shall not be required from a previously platted property where:

1. The plat of such property is being modified by an amending plat; or

2. The plat of such property is being modified by a replat, and where:

   A. The property is occupied by a building or buildings; and
   B. The sole purpose of the replat is to remove previously platted fire lanes, easements, mutual access easements, or delineate the legal boundaries of ownership of the property; and
   C. No additional development rights will be conveyed to the property as a result of the replat.

c. When such street is not on the Concept Plan, the arrangement of streets in a subdivision shall either:

1. Provide for the continuation or appropriate projection of existing streets in surrounding areas; or

2. Conform to a plat approved by the Planning and Zoning Commission to meet a particular situation where topographical or other conditions make continuance or conformity with existing streets impracticable.

d. Existing streets in adjoining areas shall be continued into the proposed subdivision. Proposed streets shall be at least as wide as, and in alignment with, such existing streets in the adjoining subdivision.

e. Where adjoining areas are not subdivided, the arrangement of streets in the subdivision shall make provision for the proper projection of streets into such unsubdivided area.

f. Names of new streets shall not duplicate or cause confusion with the names of existing streets. All street names shall be approved by the Planning and Zoning Commission upon recommendation of the Fire Marshal.

g. Street intersections shall be as nearly at right angles as practicable, giving due regard to terrain, topography, site distances and safety. All arterial streets, unless otherwise approved by the Planning and Zoning Commission, shall intersect at or near a ninety (90) degree angle. No streets, however, shall intersect at less than sixty (60) degrees. Curb tangent and radii shall be as follows:

R.O.W. Width	*Tangent*	*Radius*
50'	As approved by the District Engineer	
50'-80' Transition	As approved by the District Engineer	
80'	100'	600'
90'-120'	100'	1000'

h. With the exception of arterial thoroughfares, street lengths without an intersection or turnaround shall not exceed twelve hundred fifty (1,250) feet.

i. Dead-end streets shall be prohibited except as temporary stubs to permit future street extension. In no case shall the length of such a temporary dead end street exceed five hundred feet (500'). If such street exceeds one hundred fifty (150) feet, then a temporary turnaround which meets Fire Department standards shall be provided. Nothing in these CP Standards prohibits cul-de-sacs or hammerhead cul-de-sacs, which are specifically permitted.

j. Local streets shall be laid out so as to discourage their use by cut-through traffic.

k. No driveway shall be allowed on streets with right-of-ways greater than 80 feet in width.

l. Street rights-of-way and pavement widths shall be as follows:

Street Type	R.O.W. Width	Pavement Width
Residential	50'	31'
Residential, Divided	80'	2x22'
Arterial, Transition	80'	31'
Arterial, Four Lane Divided (A4D)	110'	2x22'

*Pavement widths shall be measured from the back of one curb to the back of the opposite curb.

The Planning and Zoning Commission may determine that topography, length of street, existing street pattern, location of existing buildings, nature of the proposed land use, or other special conditions warrant a street of greater or lesser width. However, the relationship of pavement width to right-of-way width shall be consistent with the requirements of this subsection and these design standards.

Where new street construction is to be connected to an existing street of the same designation, and where the existing street pavement width is less than that required herein, the pavement width of the new street may be adjusted to match the pavement width of the existing street, upon approval by the District Engineer.

m. Where residential lots within the Property are developed adjacent to an arterial thoroughfare, as designated on the development site plan for such lots, the developer shall provide a landscaped and irrigated buffer area within the dedicated right-of-way for the arterial thoroughfare. Once planted, all landscaping provided in District right-of-way shall be the responsibility of the District except for seasonal color which will be maintained by the HOA.

n. Streets which terminate into a cul-de-sac shall not exceed six hundred (600) feet. Each end of a hammerhead cul-de-sac shall not exceed six hundred (600) feet.

o. Residential street pavement shall be constructed of concrete that is six (6) inches in thickness and three thousand, six hundred (3,600) psi or greater, of Portland cement concrete, or as required by the District Engineer. Concrete reinforcing shall be No. 3 bars on twenty-four (24) inch centers running both ways, or as required by the District Engineer. Alternatively, as approved by the District Engineer, residential streets may be constructed of hot- mix asphalt of five (5) inch thickness with three thousand, six hundred (3,600) psi or greater equivalent thickness. Pavement crowning shall be a minimum of four (4) inches and a maximum of six (6) inches.

p. All street subgrades shall be lime stabilized with hydrated lime in the minimum amount of six (6) percent by weight to a depth of six (6) inches for the stipulated width plus one (1) foot behind the curbs or as recommended by a site specific geotechnical report. The more stringent standard will always apply.

q. Curbs shall be six (6) inches in height.

r. The minimum slopes of a street or alley shall be one half (0.50) percent. The maximum

slope for a residential street shall be ten (10) percent. The maximum slope for an arterial shall be seven (7) percent.

s. Vertical Alignment

Profile grades of streets and alleys shall be connected by vertical curves of a minimum length expressed as a multiple of the algebraic difference between the rates of grades, expressed in feet per hundred feet and the values shown as follows:

Multiple of algebraic difference	Design Speed 20	25	30	40	50	60
Crest vertical curve	10	15	28	50	80	150
Sag vertical curve	15	20	35	50	70	100

SECTION G. DRAINAGE

1. THE RATIONAL METHOD: The Rational Method is based on the direct relationship between rainfall and runoff, and the method is expressed by the following equation:

    1. Q=CIA where:

    2. Q = maximum rate of runoff (cfs)
    3. C = runoff coefficient representing a ratio of runoff to rainfall
    4. I = average rainfall intensity for a duration equal to the tc (in/hr)
    5. A = drainage area contributing to the design location (acres)

2. The relationship between rainfall and runoff is expressed through application of the Rational Method with satisfactory accuracy for small watersheds, but the accuracy diminishes as the watershed to which the procedure is applied increases in size. For this reason, in development of runoff rates in larger drainage areas (1000 ac.) use of the unit hydrograph method or other approved method is required. The size and shape of the watershed must be determined through the use of plan metric-topographic maps of the area, supplemented by field surveys in areas where topographic data has changed or where the contour interval is insufficient to adequately determine the direction of flow.

3. RUNOFF COEFFICIENTS (C): Runoff coefficients, as shown in Table I, shall be the minimum used, based on total development under the Owner's or Applicant's proposed land uses.

4. Where land uses other than those listed in Table 1 are planned, a coefficient shall be developed utilizing values comparable to those shown. Larger coefficients may be used if considered appropriate to the project by the Engineer.

TABLE 1
RUNOFF COEFFICIENTS

LAND USE	RUNOFF COEFFICIENT "C"

Parks or Open Space	0.35
Single Family	0.50

5. Rainfall Intensity (I) Rainfall intensity will be determined from the Rainfall-Intensity-Duration data as shown in the most current Denton County Subdivision Rules & Regulations or as approved by the District Engineer.

6. Time of Concentration (Tc) The time of concentration is defined as the longest time, without interruption of flow by detention systems, that will be required for a drop of water to flow from the upper limit of the drainage area to the point of concentration. The time of concentration to any point in a storm drainage system is the summation of the inlet time and the time of flow in the conduit or channel. The inlet time is the time for water to flow over the surface of the ground from the upper limit of the drainage area to the first storm drain inlet. The flow time in the conduit or channel is computed by dividing the length of the conduit by the average velocity in the conduit. Inlet time decreases as the slope and the imperviousness of the surface increase.

7. Minimum inlet time is 15.0 minutes.

SECTION H. DESIGN STORM FREQUENCY

The storm frequency used for this determination will be according to the facility to be designed as listed below. Emergency overflows where used are to be located at sags and T-intersections of streets and designed to prevent erosion and surface water damage.

DESIGN STORM FREQUENCY

Drainage Facility	Storm Frequency
Drainage ditches located in street right-of-way used in conjunction with County Lanes and Parkway street construction with no freeboard	100 years
Pipe storm sewers with emergency overflow to give a combined capacity of 100-year frequency	10 years
Pipe storm sewer with no emergency overflow	100 years
All open channels with a minimum of 2 feet freeboard above to the top of the bank	100 years
Culverts (pipe or concrete box)	100 years
Bridges, low point of bridge beams or similar bridge deck supporting structure to be 2 feet above 100-year storm or highest flood recorded, whichever is greater	100 years

SECTION I. FLOW IN GUTTER AND INLET LOCATION.

A storm drain conduit shall begin at the point where the depth of flow based on the 50-year storm frequency reaches the top of curb. Inlets are then to be located as necessary to remove the flow based on a 50-year storm frequency. Multiple inlets at a single location are permitted with sufficient justification provided. Where possible, inlets should be placed upstream from an intersection to prevent large amounts of water running though intersection.

a. Inlet Sizing: Inlets shall be sized based on the following:

STREET GRADE	LENGTH OF INLET OPENING FOR EACH CFS OF GUITER FLOW
Sags	0.6 foot
Less than4%	1 foot
Greater than 4%	1.5 foot

b. Road and Alley Capacities: Road and alley capacities shall be calculated by the Manning's formula:

$$Q=1.486/N\ A\ R2/3\ S1/2$$

SECTION J. ROUGHNESS COEFFICIENTS "n" FOR STORM DRAINS/ROADWAYS

Materials of Construction	Manning's Coefficient
Monolithic Concrete Structure	0.013
Concrete Pipe	
Good alignment, smooth joints	0.013
Fair alignment, ordinary joints	0.015
Poor alignment, poor joints	0.017
Corrugated Metal Pipe	0.024
Standards unpaved with or without bituminous coating	0.024
Paved invert, 25% of periphery paved	0.021
All Roadways	0.020

SECTION K. RECOMMENDED MAXIMUM VELOCITY

Type of Conduit	Maximum Velocity
Culverts	12 fps
Inlet Laterals	15 fps
Storm Sewers	12 fps

SECTION L. STREET STORM WATER LIMITS

The use of the street for carrying storm water shall be limited to the following:

SPREAD OF WATER- 10 YEAR STORM FREQUENCY

Arterial- One traffic lane to remain clear.

Residential Streets with curbs and gutters-Six inch (6") depth of flow at curb or no lanes completely clear.

Alleys-Contained within the paved surface.

For County Lanes and Parkway thoroughfares, the spread of water shall be based on a 100-year storm frequency. All storm water must be contained within the right-of-way. The depth of flow shall not exceed the roadway crown elevation.

SPREAD OF WATER- 100 YEAR STORM FREQUENCY

Notwithstanding the requirements above, all storm water in the 100-year storm frequency shall be contained within the street or alley right-of-way or with in the drainage easement. The water depth shall not be greater than 1" over any curb.

SECTION M. OPEN CHANNELS.

Open channels may be used to convey storm waters where closed conduits are not justified economically. The use of existing channels in their natural condition is encouraged when possible. In such cases, an adequate drainage easement shall be dedicated to meet ultimate flow requirements.

a. For unlimited channel sections, the normal side slope is 4:1 with 3:1 maximum.

b. For concrete lined channel sections and riprap lined channel sections the paved slopes normally are 2:1 with 1-1/2:1 maximum.

c. Maximum allowable velocity is 8 fps.

Detention is not required when storm drainage discharge is into existing 100-year floodplain as defined by FEMA.

SECTION N. WATER IMPROVEMENTS

a. All subdivisions shall be provided with a water system that meets or exceeds the TCEQ/~~Mustang SUD~~ City requirements. In the corporate limits, all subdivisions shall be connected to the City's water distribution system or other approved alternate.

b. Water lines shall be laid in streets and alleys or in easements.

c. Water mains shall be a minimum of 6-inch nominal internal diameter.

d. Water services for each lot shall be 1" type K copper. Each service shall be provided with two in-line nylon ball cutoff vales contained inside the meter box. The meter shall have 3/4" diameter yoke and shall be purchased from the ~~Mustang SUD~~ City. Service to each lot shall have a maximum cover of 18 inches.

e. Valves shall be located such that the distance between valves is a maximum of 600 feet on 12" and smaller lines, or larger lines. Valves shall be furnished with extensions, such that the working nut is a maximum of 48" below grade.

f. Fire hydrants shall be located such that the horizontal distance to any structure in a residential area does not exceed 500 feet laying length. In commercial areas that horizontal distance shall not exceed 300 feet laying length. Fire hydrants shall be located 3ft. from back-of-curb.

    i. All fire hydrants shall be coated with Kern-Luster or an equivalent coating. Body painted silver and caps painted green.

g. Reflective fire hydrant spotters shall be installed in all streets at a point adjacent to fire hydrants.

h. When PVC pipe is used, 12 gauge single strand wire 'or tracer tape, blue in color, shall be installed in the backfill material 24 inches above the top of the pipe in accordance with the manufacturer's recommendations.

i. Water lines 12 inch or smaller shall be installed with a minimum cover over the top of the pipe of 48 inches. Water lines larger than 12 inch shall be installed with a minimum cover over the top of the pipe of 60 inches to 72 inches.

j. Water lines shall be pressure tested and disinfected in accordance with AWWA C601.

k. The embedment of water lines shall be as per the ~~Mustang SUD~~ City "Pipe Embedment Detail."

l. The design shall conform to the latest criteria set forth in the AWWA Standards, as published by the American Water Works Association and the Texas Commission on Environmental Quality (TCEQ) requirements.

m. The specification for materials and workmanship shall conform to the latest edition of the "Standard Specifications for Public Works Construction" as published by North Central Texas Council of Governments and the TCEQ requirements.

SECTION O. SEWER IMPROVEMENTS.

a. All subdivisions shall be provided with sewage disposal system that meets the TCEQ/~~Mustang SUB~~ City requirements.

b. The developer shall furnish and install the complete sewage system, including the mains, manholes, cleanouts, Y-branches, service laterals for all lots, life stations and appurtenances.

c. Should the subdivision or addition abut and use a sewer main of the UTRWD, the developer shall pay ~~Mustang SUD~~ City a "pro rata" charge as necessary.

d. Sewer pipe shall have a minimum internal diameter of 6 inches.

e. Life stations, either temporary or permanent, are permitted.

f. Sewer service for each lot shall have a minimum, internal diameter of 4 inches. Minimum cover at the property line shall be 4 feet. Need red tracer tape to indicate location of sewer stub out.

g. Sewers shall be extended across the property being subdivided.

h. Offsite sewer utilities shall be constructed by developers at no expense to the District.

i. Sewer lines may be constructed using the following materials or approved equal:
   a. Polyvinyl Chloride PVC SDR-35 for depths of burial up to 20 feet.
   b. Polyvinyl Chloride PVC SDR-26 for depths of burial more than 20 feet.

j. The embedment of sewer lines shall be as per the ~~Mustang SUD~~ City "Wastewater Pipe Embedment Detail"

k. Prior to acceptance, the sanitary shall be subjected to an air test and/or leakage test.

l. All force mains, stream crossings, railroad crossings and road bores shall be ductile iron pipe.

m. All railroad crossings and road bores shall be encased in a steel carrier pipe.

n. Manhole spacing shall be in accordance with TCEQ requirements.

o. Horizontal curves in sewer lines shall meet the TCEQ requirements

p. The specification for materials and workmanship shall conform to the latest addition of the "Standard Specifications or Public Works Construction", published by the North Central Texas Council of Governments and the TCEQ requirements.

q. All utility lines that pass under a street or alley shall be installed before the street or alley is paved. When it is necessary that utility lines pass under the street or alley pavement, they shall be installed to a point at least three feet beyond the edge of the pavement.

III. CONSTRUCTION AND IMPROVEMENTS

SECTION A. GENERAL.

1. The developer shall prepare, or have prepared, and submit copies, in accordance with the requirements of the Engineering Department, of the complete engineering plans of the Road Improvements for the area covered by the plat. The developer shall have such plans prepared by an engineer registered in the state of Texas, subject to approval of the plans by the City. The City Engineer shall review the plans and specifications, and, if approved, shall mark them approved and return one (1) set to the developer. If not approved, the plans shall be marked with the objections noted and returned to the developer for correction. No building permits shall be issued for the main structure on a site until the engineering plans have been approved, or the City Engineer approves the permit. The developer shall have no obligation to submit engineering plans for the Utility Improvements to the City for review or approval.

2. After approval of the final plat and final construction plans for the Road Improvements, the developer shall install the facilities in accordance with such approved plans, and these regulations. The District shall inspect the installation of the Road Improvements.

3. The District will inspect the Road Improvements, and the District's determinations will be binding on the City. Any maintenance bonds shall benefit the party obligated to maintain the Road Improvements.

4. All improvements required herein shall be constructed in accordance with the standards prescribed by these CP Standards.

SECTION B. CONSTRUCTION PLANS.

Except as otherwise provided with respect to construction plans for the Utility Improvements, no construction work shall begin on the improvements in any proposed subdivision prior to approval of the final construction plans by the City Engineer.

Engineering plans showing details of the Road Improvements and all engineering details, other than buildings, of the proposed subdivision shall be submitted to the Engineering Department along with the final plat of the subdivision. Such plans shall be prepared by an engineer registered in the state of Texas.

Copies of the final paving and utility plans, not less than 24" x 36" in sheet size, shall be submitted to, and in the manner prescribed by, the City Engineer, including:

1. Streets, alleys, sidewalks, and monuments:

   a. Copies of plans and profiles of all required streets, alleys, sidewalks, crosswalk ways and monuments shall be provided. The right-of-way and paved width of all streets and street names shall be shown, including their top of curb grade and distances with the elevations indicated at all intersections and grade breaks. Such plans shall show the location of all proposed curbs and gutters.

3. Drainage:

   a. Copies of the proposed plan and profiles, indicating minimum two (2) foot contours based on

state datum shall be submitted to the City Engineer and utility companies. All street widths and grades shall be indicated on the plans and runoff figures shall be indicated on the outlet and inlet side of all drainage ditches, storm sewers and at all points in the street at changes of grade or where the water enters another street storm sewer or drainage ditch

b. A general location map of the subdivision showing the entire watershed;

c. Calculations shall show the anticipated storm water flow, including watershed area, runoff coefficient, time of concentration, and intensity. When a drainage ditch or storm sewer is proposed, calculations showing the basis for design shall be submitted to the City Engineer; and

d. When a drainage channel or storm sewer is proposed, complete plans, profiles, cross sections, grades and specifications shall be submitted, showing complete construction details.

SECTION C. SURVEY MONUMENTS.

In all subdivisions and additions, all block and lot corners shall be established and set. All corners, except those comprising the perimeter of the subdivision, shall consist of iron rods of a diameter not less than one-half (1/2) inch and eighteen (18) inches deep, set a maximum of two (2) inches below finished grade.

Perimeter markers shall be monuments consisting of a two (2) inch diameter aluminum disc and set in accordance with the City's general design standards.

SECTION D. STREET AND ALLEY IMPROVEMENTS.

1. Construction:

All streets and alleys shall be constructed in accordance with the NCTCOG Standards and Specifications for Public Works Construction, and these CP Standards.

2. Streets:

a. The developer shall be responsible for the dedication of right-of-way and construction of all streets which cross his or her subdivision. Where an arterial thoroughfare, as designated on the Concept Plan, crosses such subdivision, the developer shall dedicate all right-of-way for such arterial thoroughfare in accordance with the applicable right-of-way.

b. For any arterial thoroughfare that crosses such subdivision, the developer of the subdivision shall be responsible for installing not more than two (2) traffic lanes.

c. In the event it is impractical to install a portion of a street at the time of subdivision development, as determined by the City Engineer, the developer may escrow with the City money in lieu of construction of the required paving. Such escrow amount shall equal the cost for the design and construction of such required paving, including curb and gutter, and sidewalks where applicable, and shall be considered as full and final payment for the installation of said improvements. No further cost shall be assessed the developer thereafter.

3. Connection to Existing Streets:

No building shall be occupied and no use shall commence on a lot until such time as any street or portion thereof providing access to such lot shall have been connected to the existing street system by a street of at least 24 feet in width, located within public right-of-way. The construction of such street extension shall be in accordance with the NCTCOG Standards and Specifications for Public Works Construction

Where construction of the street extension occurs concurrently with construction of any building on a lot to be served by such extension, an access road shall be provided and maintained for fire apparatus and other emergency vehicles during the construction of the building, or until such time as the extension to the existing street system has been constructed. Such access road shall be provided in accordance with the City's Uniform Fire Code.

4. Engineer's Certificate:

Upon the completion of construction of the street or alley, a certificate shall be provided, signed by the subdivision's engineer, who shall be registered in the State of Texas, that any and all improvements constructed in the subdivision have been completed in accordance with the approved construction plans, and that all monuments and lot markers have been properly located and placed in accordance with these CP Standards.

5. Curb and Gutter:

Curb and gutter shall be installed in the subdivision by the developer on both sides of all interior streets and streets adjacent to greenbelts, and on the subdivision side of all streets forming part of the boundary of the subdivision, including half streets, where provided. Such curb and gutter shall be constructed in accordance with the NCTCOG Standards and Specifications for Public Works Construction. Curb and gutter shall not be required on streets adjacent to residential lots equal to or exceeding 20,000 square feet. A waiver of the curb and gutter requirements may be granted by the Planning and Zoning Commission, in its discretion, at the time of final plat.

6. Street Signs:

a. Within the corporate limits of the city, street signs shall be furnished and installed by the city at each intersection. The subdivider shall pay to the City Engineer, before beginning construction on site improvements, such sum as computed by the Transportation Department for street sign material and labor for the installation of such signs.

b. Street signs in subdivisions outside the city limits but within the extraterritorial jurisdiction of the City shall be installed in accordance with or exceeding city standards by the subdivider at his or her expense. Such signs shall be of a standard type approved by the city or may exceed the city standard, and shall be installed in accordance with the standards approved by the Director of Transportation. The District shall maintain street signs.

7. Street Lights:

Residential, Streets:
Street lights along residential streets shall be installed and paid for by the developer, including materials and labor, and shall be placed at each public street intersection, at the end of cui-de-sacs, and in curves or hazardous areas. The minimum spacing between streetlights shall be 175 feet. The maximum spacing shall be 350 feet. All

streetlights shall be installed prior to final inspections of any building by the Building Inspection Department.

9. Alleys

Alleys shall not be required, but if installed must conform to these CP Standards.

SECTION E. INTENTIONALLY OMITTED

SECTION F. INTENTIONALLY OMITTED.

SECTION G. SCREENING WALLS.

The purpose of providing screening walls is to improve the appearance of subdivisions abutting public rights-of-way; preserve and promote the aesthetic appeal of surrounding neighborhoods; and provide a cohesive identity for each subdivision.

1. Lots Backing Upon a Freeway Frontage Road or Arterial Thoroughfare:

   A screening wall shall be provided and maintained along the Property line as shown on Exhibit __ attached hereto and may be constructed of any of the materials shown on Exhibit __.

   The construction of such screening wall shall be the responsibility of the developer of the subdivision. Construction of the required screening wall shall occur subsequent to the final grading of the subdivision.

2. Lots Siding Upon a Freeway Frontage Road or Arterial Thoroughfare:

   Where a street within a single-family or multifamily subdivision must intersect a freeway frontage road or arterial thoroughfare, as identified on the Concept Plan, in order to provide access into the subdivision, and where a single-family, mobile home or duplex lot sides to a freeway frontage road or arterial thoroughfare, a screening wall shall be provided along the side of the lot adjacent to such freeway frontage road or arterial thoroughfare where the screening wall would constitute a continuation of any existing or proposed screening wall.

   Where two residential streets intersect with a freeway frontage road or arterial thoroughfare identified on the General Development Plan, the Planning and Zoning Commission shall determine whether adequate distance exists between the residential streets such that the provision of a masonry screening wall would be reasonable and appropriate.

   The provisions of this subsection shall apply where the sides of such lots are separated from the freeway frontage road or arterial thoroughfare by an alley. In such instance the screening wall shall be placed on the right-of-way line separating the alley and freeway frontage road or arterial thoroughfare.

5. Building Materials:

Screening walls may be constructed of masonry, decorative metals, wood, or a combination of these materials or any of the materials shown on Exhibit __.

6. Maintenance:

All areas adjacent to any screening wall or fence, or areas adjacent to a public street or right of way, shall be maintained in a clean and orderly condition by the HOA, free of debris and trash, in accordance with the applicable codes of the City.

7. Alternative Screening Material:

a. Other material or screening devices which meet the intent of this Section, as determined by the Planning and Zoning Commission, may be utilized to satisfy the requirements of this Section only upon approval of the Planning and Zoning Commission

8. Conflicts:

Where the screening or buffering standards prescribed by this Section are in conflict with special screening or buffering requirements which have been established within certain zoning districts, then the more restrictive requirements shall apply.

In instances where placement of a screening wall conflicts with the Visibility Obstructions Ordinance or other applicable ordinances, the screening wall shall be placed on private property within a screening wall maintenance easement which shall be provided on the subdivision plat of the property.

SECTION H. FINISHED FLOOR ELEVATION.

1. Where any lot is adjacent to a flood plain as identified on the Federal Emergency Management Agency (FEMA) maps, there shall be a minimum finished floor elevation of at least two (2) feet above the one hundred (100) year flood plain elevation, based on ultimate development.

SECTION K. SIDEWALKS.

1. When the delay of sidewalk construction is deemed appropriate due to future right of way improvements, escrow of funds in lieu of the construction of sidewalks may be approved by the City Engineer. Such funds shall be escrowed with the Town of Aubrey prior to the filing of the subdivision plat with the appropriate county clerk. The escrow amount shall be determined by the square foot cost of constructing such sidewalk, as estimated by the City Engineer. No building permits shall be granted until the escrow has been paid to the Engineering Department.

EXHIBIT D-1

SUPPLEMENTAL DEVELOPMENT STANDARDS

Exhibit D-1 Supplemental Development Standards.

1.1 Development Standards.

The purpose and intent of these Development Standards are to provide quality subdivision development with residential used for the Property. Capitalized terms not otherwise defined in **Exhibit D** or this **Exhibit D-1** have the meanings given such terms in the Development Agreement to which **Exhibit D** and this **Exhibit D-1** is attached.

No plat shall be approved by the Planning and Zoning Commission, unless and until such conforms to the Development Regulations and these design and construction standards. All streets, alleys, sidewalks, drainage ways, water and sewer lines, and improvements shall be designed, placed and constructed in accordance with the Standard Specifications for Public Works Construction, North Central Texas, with all amendments thereto, except as amended or directly conflicted by these Development Standards. To the extent that there is a direct conflict between the regulations herein, and those found elsewhere, the regulations found herein shall control development within this Property.

1.2 Single-Family Lots.

The following regulations will govern the design and development of the Property.

The following Lot Types are allowed in the subject development:

a) SF-40
b) SF-50
c) SF-55
d) SF-60
e) SF-65
f) SF-75

The maximum number of lots for the subject development is one-thousand four-hundred fifty-two (1452).

Lot distribution shall be per the Concept Plan attached as **Exhibit C** to this Development Agreement.

The following lot standards shall apply:

a) SF-40

Regulation	**Criteria**

1.	Minimum Lot Size -	4,600 S.F.
2.	Minimum Lot Width (*) -	40 feet
3.	Minimum Lot Depth (**) -	115 feet
4.	Minimum Front Yard Setback -	20 feet
5.	Minimum Garage Setback -	22 feet
6.	Side Yard Setback (Interior Lot) -	5 feet
7.	Side Yard Setback (Corner Lot/Adjacent to ROW) -	10 feet
8.	Rear Yard Setback -	15 feet
9.	Maximum Height -	35 feet
10.	Maximum Lot Coverage (***) -	60 percent

* Minimum Lot Width is measured along the front building line for all lots.

** Minimum Lot Depth along a "knuckle", "cul-de-sac", or along easements dedicated in accordance with Section 5.12 of the Development Agreement shall be 105 feet.

*** Maximum Lot Coverage percentage shall be exclusive of gazebos, pools, and outdoor living areas.

b) SF-50

Regulation		**Criteria**
1.	Minimum Lot Size -	6,000 S.F.
2.	Minimum Lot Width (*) -	50 feet
3.	Minimum Lot Depth (**) -	120 feet
4.	Minimum Front Yard Setback -	20 feet
5.	Minimum Garage Setback -	22 feet
6.	Side Yard Setback (Interior Lot) -	5 feet
7.	Side Yard Setback (Corner Lot/Adjacent to ROW) -	10 feet
8.	Rear Yard Setback -	20 feet
9.	Maximum Height -	35 feet
10.	Maximum Lot Coverage (***) -	60 percent

* Minimum Lot Width is measured along the front building line for all lots.

** Minimum Lot Depth along a "knuckle", "cul-de-sac", or along easements dedicated in accordance with Section 5.12 of the Development Agreement shall be 110 feet.

*** Maximum Lot Coverage percentage shall be exclusive of gazebos, pools, and outdoor living areas.

c) SF-55

Regulation	Criteria
1. Minimum Lot Size -	7,150 S.F.
2. Minimum Lot Width (*) -	50 feet
3. Minimum Lot Depth (**) -	130 feet
4. Minimum Front Yard Setback -	25 feet
5. Minimum Garage Setback -	25 feet
6. Side Yard Setback (Interior Lot) -	5 feet
7. Side Yard Setback (Corner Lot/Adjacent to ROW) -	10 feet
8. Rear Yard Setback -	25 feet
9. Maximum Height -	35 feet
10. Maximum Lot Coverage (***) -	50 percent

* Minimum Lot Width is measured along the front building line for all lots.

** Minimum Lot Depth along a "knuckle", "cul-de-sac", or along easements dedicated in accordance with Section 5.12 of the Development Agreement shall be 115 feet.

*** Maximum Lot Coverage percentage shall be exclusive of gazebos, pools, and outdoor living areas.

d) SF-60

Regulation	Criteria
1. Minimum Lot Size -	7,800 S.F.
2. Minimum Lot Width (*) -	60 feet
3. Minimum Lot Depth (**) -	130 feet
4. Minimum Front Yard Setback -	25 feet
5. Minimum Garage Setback -	25 feet

6.	Side Yard Setback (Interior Lot) -	5 feet
7.	Side Yard Setback (Corner Lot/Adjacent to ROW) -	10 feet
8.	Rear Yard Setback -	25 feet
9.	Maximum Height -	35 feet
10.	Maximum Lot Coverage (***) -	50 percent

* Minimum Lot Width is measured along the front building line for all lots.

** Minimum Lot Depth along a "knuckle", "cul-de-sac", or along easements dedicated in accordance with Section 5.12 of the Development Agreement shall be 115 feet.

*** Maximum Lot Coverage percentage shall be exclusive of gazebos, pools, and outdoor living areas.

e) SF-65

Regulation		**Criteria**
1.	Minimum Lot Size -	8,450 S.F.
2.	Minimum Lot Width (*) -	65 feet
3.	Minimum Lot Depth (**) -	130 feet
4.	Minimum Front Yard Setback -	25 feet
5.	Minimum Garage Setback -	25 feet
6.	Side Yard Setback (Interior Lot) -	7.5 feet
7.	Side Yard Setback (Corner Lot/Adjacent to ROW) -	10 feet
8.	Rear Yard Setback -	25 feet
9.	Maximum Height -	35 feet
10.	Maximum Lot Coverage (***) -	50 percent

* Minimum Lot Width is measured along the front building line for all lots.

** Minimum Lot Depth along a "knuckle", "cul-de-sac", or along easements dedicated in accordance with Section 5.12 of the Development Agreement shall be 115 feet.

*** Maximum Lot Coverage percentage shall be exclusive of gazebos, pools, and outdoor living areas.

f) SF-75

Regulation	Criteria
1. Minimum Lot Size -	9,750 S.F.
2. Minimum Lot Width (*) -	75 feet
3. Minimum Lot Depth (**) -	130 feet
4. Minimum Front Yard Setback -	25 feet
5. Minimum Garage Setback -	25 feet
6. Side Yard Setback (Interior Lot) -	7.5 feet
7. Side Yard Setback (Corner Lot/Adjacent to ROW) -	10 feet
8. Rear Yard Setback -	25 feet
9. Maximum Height -	35 feet
10. Maximum Lot Coverage (***) -	50 percent

* Minimum Lot Width is measured along the front building line for all lots.

** Minimum Lot Depth along a "knuckle", "cul-de-sac", or along easements dedicated in accordance with Section 5.12 of the Development Agreement shall be 115 feet.

*** Maximum Lot Coverage percentage shall be exclusive of gazebos, pools, and outdoor living areas.

1.3 Block Lengths

The following block length requirements shall apply to the subject development. In general, intersecting streets determining the block lengths and widths shall be provided at such intervals as to serve cross traffic adequately and to meet existing streets. Where no existing subdivision establishes control, the block lengths shall not exceed those enumerated below. However, in cases where physical barriers or property ownership creates conditions where it is appropriate that these standards be varied by the Planning and Zoning Commission, the length may be increased or decreased to meet the existing conditions, having due regard for connecting streets, circulation of traffic and public safety.

a) Interior Block Length – No block face may be longer than one thousand feet (1000'); however, Open Space with a width greater than forty feet (40') will be deemed to terminate a block face. Block face is measured along the Right-of-Way line.

b) Perimeter Block Length – Along the perimeter of the property the block face may be extended to two-thousand feet (2000'); however, Open Space with a width greater than forty feet (40') will be deemed to terminate a block face. Block face is measured along the Right-of-Way line.

1.4 Front Yard Landscaping Minimum Requirements.

The following landscaping requirements shall apply to the subject development for all front yards.

a) Trees. A minimum of one (1) – three-inch (3") caliper tree shall be provided measured twelve-inches (12") from the ground for SF-40, SF-50, and SF-55. A minimum of two (2) – three-inch (3") caliper tree shall be provided measured twelve-inches (12") from the ground for SF-60, SF-65, and SF-75. The following tree shall be acceptable:

1. Caddo Sugar Maple
2. Chinkapin Oak
3. Southern Live Oak
4. Bald Cypress
5. Cedar Elm
6. Bur Oak
7. Shumard Red Oak
8. Chinese Pistache
9. American Elm
10. Lacebark Elm
11. Southern Magnolia

b) Ornamental Trees. A minimum of one (1) – one and a half-inch (1.5") caliper ornamental tree shall be provided measured twelve-inches (12") from the ground. The following ornamental trees shall be acceptable:

1. Possumhaw Holly
2. Desert Willow
3. River Birch
4. Eastern Redbud
5. Crape Myrtle
6. Japanese Maple
7. Yaupon Holly
8. Dwarf Southern Magnolia

c) Shrubs. A minimum of ten (10) three-gallon to five-gallon shrubs shall be provided. The following shrubs and ornamental grasses shall be acceptable:

1. Compact Abelia
2. Glossy Abelia
3. Nellie R. Stevens Holly
4. Dwarf Buford Holly
5. Dwarf Yaupon
6. Autumn Sage
7. Mexican Bush Sage
8. Russian Sage
9. Texas Sage
10. Japanese Privet
11. Variegated Privet
12. Japanese Boxwood
13. Indian Hawthorn
14. Rosemary
15. Pink Muhly
16. Mexican Feather Grass
17. Purple Fountain Grass
18. Sea Green Juniper
19. Yucca

d) Border plants. A minimum of eight (8) one-gallon perennial plants shall be provided.

e) Lawn. Sod is required.

f) Irrigation. Irrigation is required.

1.5 Exterior Wall Masonry

a) **Residential Structures.** All exterior walls of residential structures, excluding doors, windows, and window units, shall be comprised of at least sixty percent (60%) masonry product. Masonry product shall include stone, brick, cultured stone and cementitious materials such as HardiPlank and stucco. HardiPlank material shall be limited to fifty percent (50%) of the total amount of any exterior wall which faces to a front or side lot line, unless the style of the home calls for 100% HardiPlank such as the Cape Cod, Victorian, or Farmhouse style products.

b) Commercial Structures. All exterior walls of commercial structures, excluding doors, windows, and architectural features, shall be comprised of one hundred percent (100%) masonry product. Masonry product shall include stone, brick, cultured stone and cementitious materials such as

HardiPlank and stucco. HardiPlank material shall be limited to fifty percent (50%) of the total amount of any exterior wall.

1.6 Fencing.

The following requirements shall apply to the subject development for all fencing.

a) **Fencing for lots adjacent to open spaces.** All lots adjacent to public open spaces shall have four-foot (4') in height tubular steel or wrought iron fencing. Wooden privacy fencing shall not be allowed for these lots. Landscaping adjacent to the fencing is allowed, but not required.

b) **Fencing for interior lots not adjacent to open spaces.** All lots that are not adjacent to open spaces shall provide wooden privacy fencing. Fence shall be six-foot (6') in height with four-inch (4") cedar pickets that are pre-stained. Fence shall be constructed with galvanized fence posts and hardware. Fence does not have to be board on board style construction.

c) **Screening adjacent to US 377, Springhill Road and E. Blackjack Road (Perimeter Roadways).** Subdivision fencing/screening along Perimeter Roadways shall be constructed of one hundred percent (100%) masonry material. Screening shall be six-foot (6') in height.

d) **Screening adjacent to commercial uses.** Screening between residential and commercial uses shall be constructed of masonry (brick, stone, or split face concrete block) with enhanced masonry columns. Screening shall be six-foot (6') in height. Masonry columns shall be constructed on a maximum spacing of one-hundred feet (100') on center. The portion of the Development that is constructed first shall be responsible for the construction of the masonry screening whether it is the commercial or residential use.

1.7 Sidewalks and Trails.

a) Sidewalks shall be constructed by the developer along all arterial thoroughfares, and along all perimeter streets abutting the subdivision, regardless of whether such arterial or perimeter thoroughfare abuts a lot, alley, or other space. Sidewalks shall be constructed along all arterial thoroughfares and perimeter streets. The developer is not responsible, however, for constructing a sidewalk along the frontage of any residential lot.

b) The builder on a lot is responsible for the construction of all sidewalks along the frontage of such residential lot and along that portion of the lot that sides or rears to a street other than an arterial. Provided, however, that such sidewalk is not required on a lot until completion of building

construction. Upon completion of building construction, sidewalks shall be provided in accordance with the provisions contained herein. Authorization for occupancy shall not be granted until this requirement has been met.

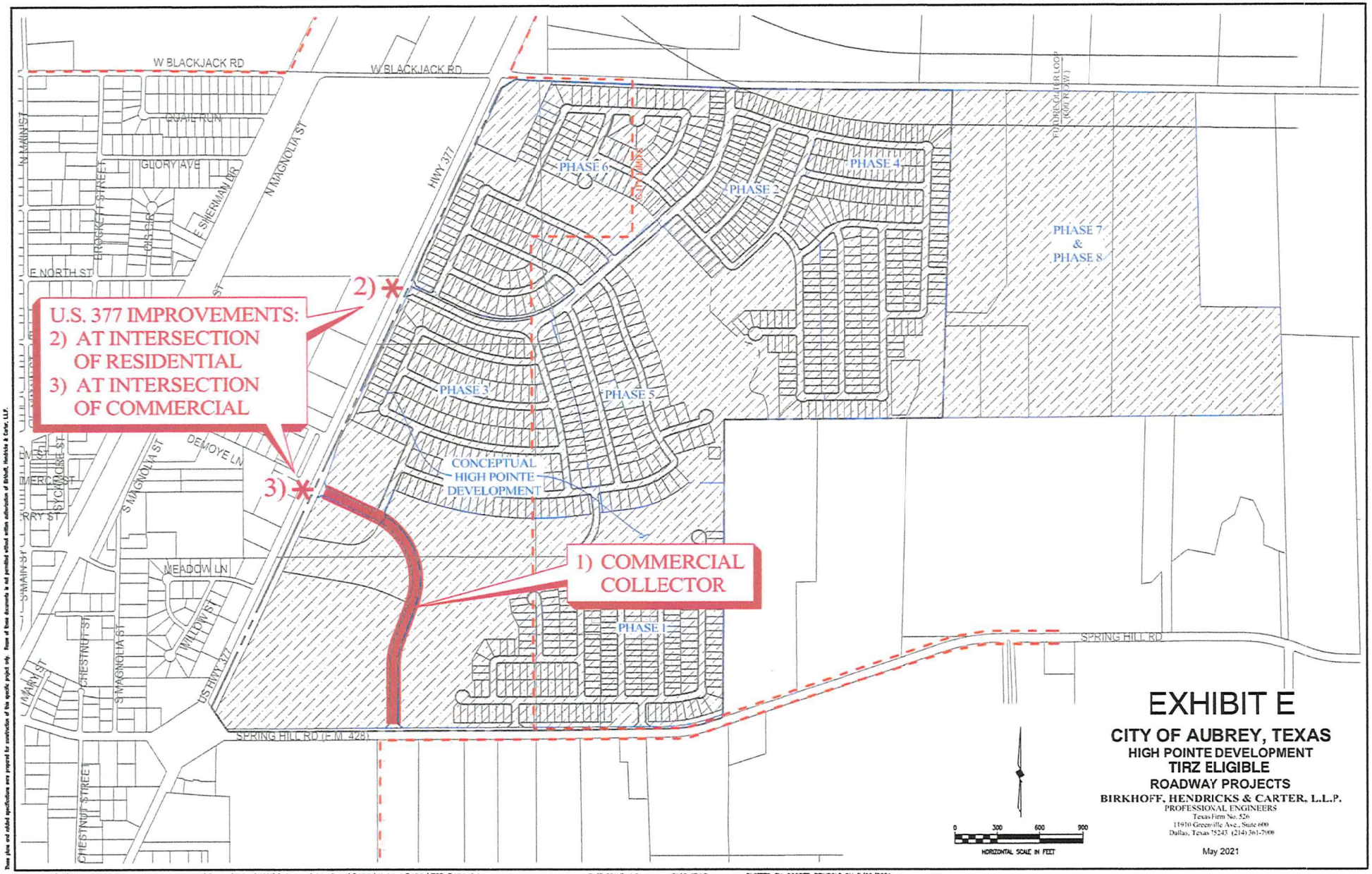
c) Sidewalks shall be a minimum of six-foot (6') wide.

d) Trails located in public open spaces and as generally depicted on **Exhibits C and C-1** to this Development Agreement shall be a minimum of eight-foot (8') wide.

e) Pavement shall be a minimum of four-inch (4") thick, 3000 PSI with number three (3) bars on twenty-four-inch (24") centers both ways.

EXHIBIT E

OFFSITE ROADWAY SYSTEM IMPROVEMENTS



REVISED: 5/20/21 - CREINBOLD H:\Projects\Aubrey\4000\346-High Pointe Ranch\Exhibits\Updated Exhibits\TIRZ-Exhibit 2.dwg PLOT SCALE: 1:2 PLOT STYLE: ---- PLOTTED BY: COOPER REINBOLD ON 5/20/2021

EXHIBIT F

OFFSITE WATER SYSTEM IMPROVEMENTS

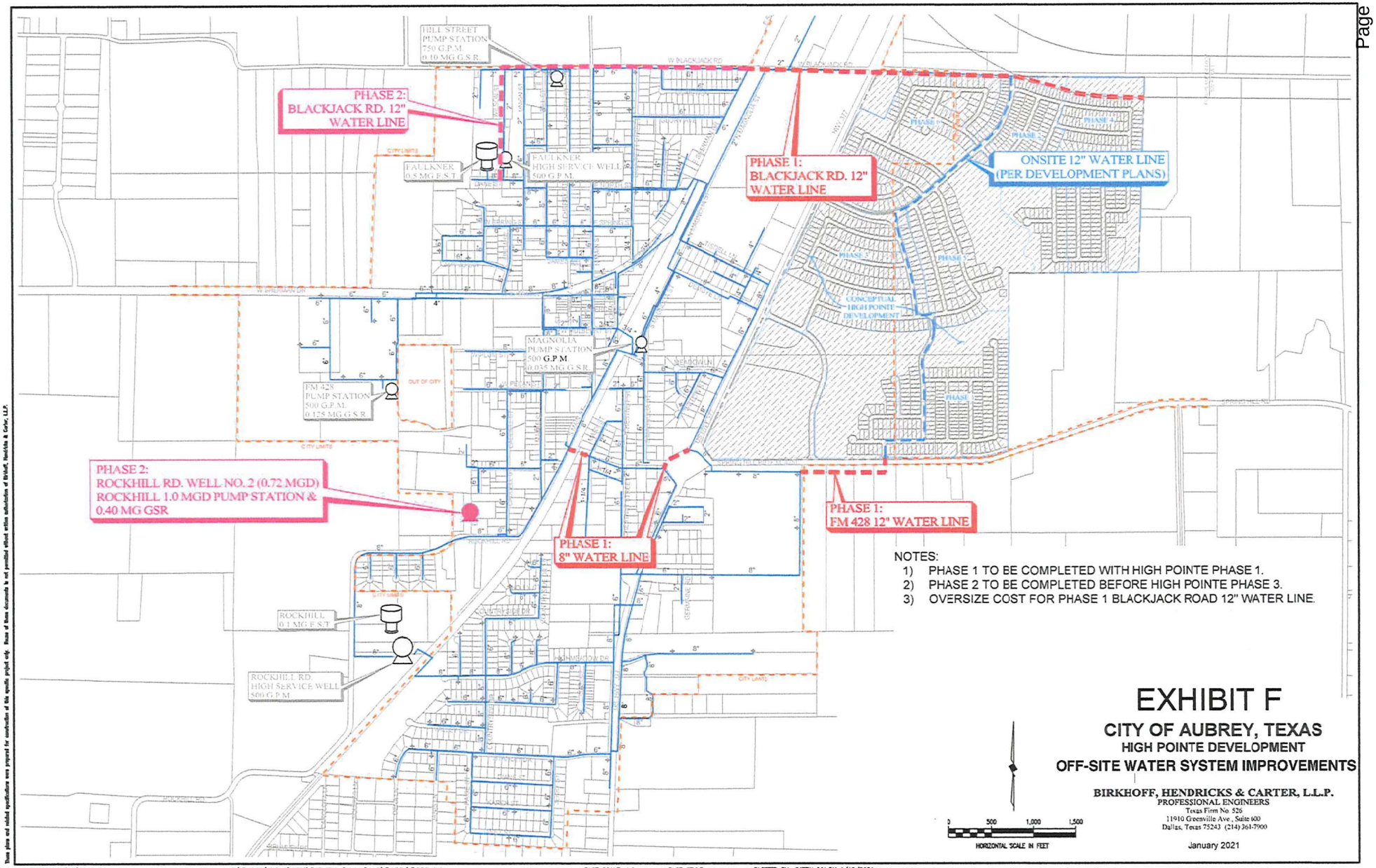


EXHIBIT F

CITY OF AUBREY, TEXAS

HIGH POINTE DEVELOPMENT

OFF-SITE WATER SYSTEM IMPROVEMENTS

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
Texas Firm No. 526
11910 Greenville Ave., Suite 600
Dallas, Texas 75243 (214) 361-7900

January 2021

These plans and related specifications were prepared for construction of this specific project only. None of these documents is not permitted without written authorization of Birkhoff, Hendricks & Carter, L.L.P.

REVISED: 1/12/21 - JMY H:\Projects\Aubrey\4000\346-High Pointe Ranch\Exhibits\Exhibit A.dwg PLOT SCALE: 1:2 PLOT STYLE: ---- PLOTTED BY: JUSTIN IVY ON 1/12/2021

EXHIBIT G

OFFSITE WASTEWATER IMPROVEMENTS

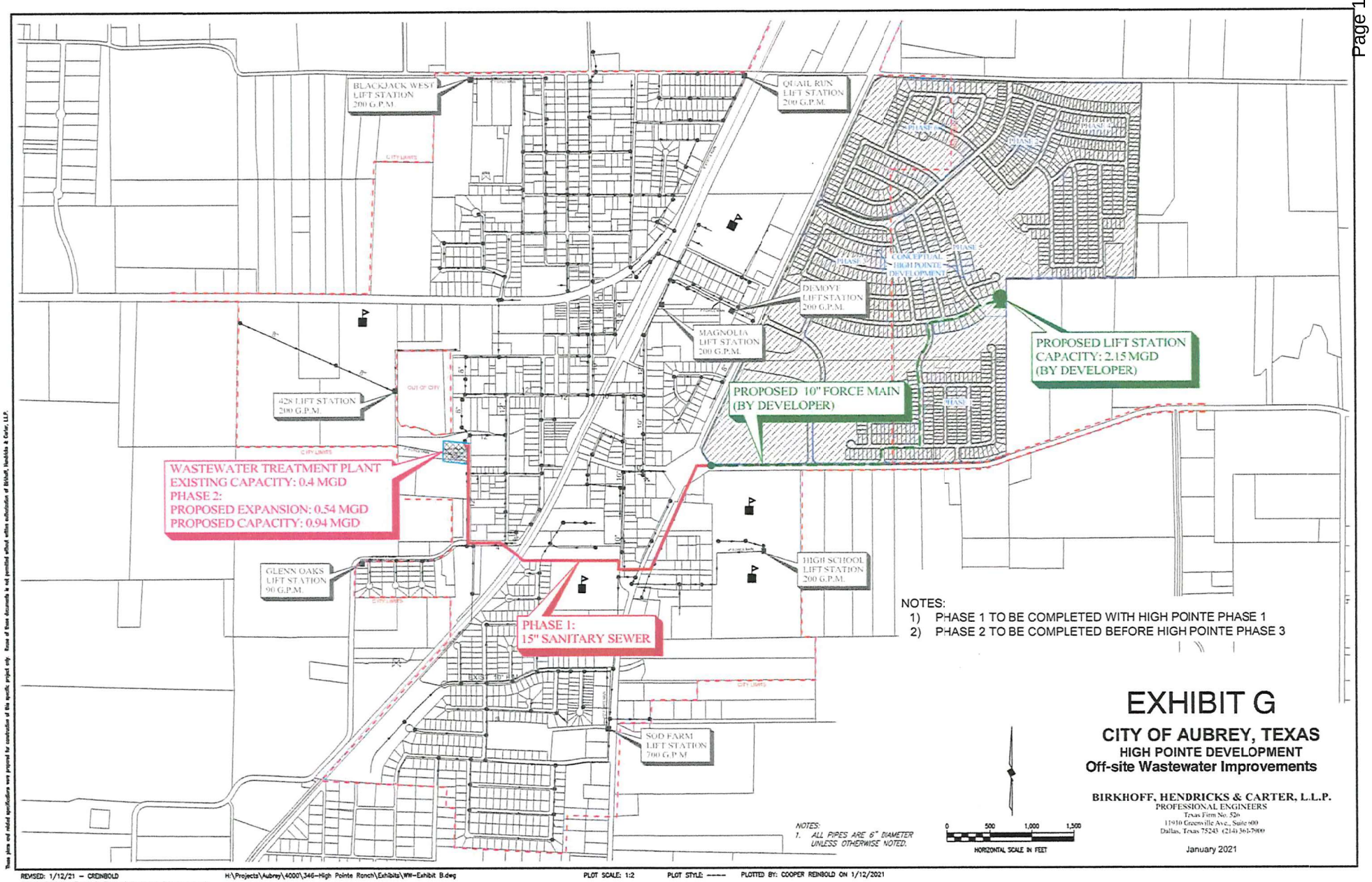


EXHIBIT G

CITY OF AUBREY, TEXAS

HIGH POINTE DEVELOPMENT

Off-site Wastewater Improvements

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
Texas Firm No. 526
11910 Greenville Ave., Suite 600
Dallas, Texas 75243 (214) 361-7900

January 2021

These plans and related specifications were prepared for construction of this specific project only. None of these documents is not permitted without written authorization of Birkhoff, Hendricks & Carter, L.L.P.

REVISED: 1/12/21 – CREINBOLD H:\Projects\Aubrey\40001\346–High Pointe Ranch\Exhibits\WW–Exhibit B.dwg PLOT SCALE: 1:2 PLOT STYLE: ——— PLOTTED BY: COOPER REINBOLD ON 1/12/2021

EXHIBIT H

CONSENT RESOLUTION

Exhibit H

(Approved Resolution)

THENCE South 00°56'07" West 1132.15 feet to a set capped ½" iron rod in the north right of way line of F.M. Highway No. 428 and at the southwest corner of said 27.600 acres tract for the most southerly southeast corner of this tract.

THENCE along the north right of way line of said F.M. Highway No. 428 the following courses and distances:

- South 71°34'50" West 144.40 feet to a set capped ½" iron rod;
- Westerly along the arc of a 07 deg. 21 min. 35 sec. non-tangent curve to the right having a radius of 778.51 feet, a central angle of 18 deg. 46 min. 14 sec., a chord of South 82°46'29" West 253.91 feet and an arc length of 255.05 feet to a set capped ½" iron rod;
- South 88°45'46" West 378.48 feet to a set capped ½" iron rod;
- South 89°36'06" West 1349.02 feet to a set capped ½" iron rod;
- And South 89°52'21" West 1364.91 feet to a set capped ½" iron rod in the southeast right of way line of said U.S. Highway No. 377 for the most southerly southwest corner of this tract;

THENCE North 32°23'53" West 213.57 feet along the southeast right of way line of said U.S. Highway 377 to a wood right of way marker for the most westerly southwest corner of this tract.

THENCE North 25°19'53" East 4804.08 feet along the southeast right of way line of said U.S. Highway No. 377 to a set capped ½" iron rod for the most westerly northwest corner of this tract.

THENCE North 59°03'36" East at 101.21 feet pass a set ½" iron rod and in all 166.34 feet to the POINT OF BEGINNING and containing 357.445 acres of land, more or less.

LEGAL DESCRIPTION

HIGH POINTE RANCH MUNICIPAL UTILITY DISTRICT NO. 1 – TRACT 2

BEING a tract of land situated in the F. Trevino Survey, Abstract No. 1243, Denton County, Texas, and being all of a called 61.667 acre tract of land described in a General Warranty Deed to Betsy Turner, as recorded in Instrument No. 97-0010270 of the Official Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a mag nail set for the northeast corner of said 61.667 acre tract, common to the northwest corner of a called 41.640 acre tract of land described in a deed to Michael Ray Self and spouse, Hannah Carter Self, as recorded in Instrument No. 2020-72317 of the Official Records of Denton County, Texas, being on the southerly line of Tract I described in a deed to LTR Dressage, LLC, as recorded in Instrument No. 2012-60776 of the Official Records of Denton County, Texas, and in the centerline of Black Jack Road, a variable width right-of-way, no record found;

THENCE South 0°37'22" West, departing the southerly line of said Tract I and the centerline of said Black Jack Road, along the easterly line of said 61.667 acre tract and the westerly line of said 41.640 acre tract, a distance of 2297.48 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the southeast corner of said 61.667 acre tract, common to the southwest corner of said 41.640 acre tract, being on the northerly line of a called 94.58 acre tract of land described in a deed to Robert J. Houlihan, Trustee of the Jacqueline A. Houlihan Family Trust, as recorded in Instrument No. 2015-75670 of the Official Records of Denton County, Texas;

THENCE South 89°33'30" West, along the southerly line of said 61.667 acre tract, the northerly line of said 94.58 acre tract and the northerly line of a called 5.000 acre tract of land described in a deed to Robert J. Houlihan, as recorded in Instrument No. 2015-75669 of the Official Records of Denton County, Texas, a distance of 1184.22 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the southwest corner of said 61.667 acre tract, being on the easterly line of a called 166.34 acre tract of land described in a deed to ALW 377, LLC, as recorded in Instrument No. 2018-78707 of the Official Records of Denton County, Texas;

THENCE North 1°40'23" East, departing the northerly line of said 94.58 acre tract, along the westerly line of said 61.667 acre tract and the easterly line of said 166.34 acre tract, a distance of 2319.56 feet to a 1 inch iron pipe found for the northwest corner of said 61.667 acre tract, common to the northeast corner of said 166.34 acre tract, being on the southerly line of a called 37.115 acre tract of land described in a deed to Calvin Paul Redfearn, as recorded in Instrument No. 2014-96676 of the Official Records of Denton County, Texas, and in the middle of Black Jack Road;

THENCE South 89°23'35" East, along the northerly line of said 61.667 acre tract, the southerly line of said 37.115 acre tract, the southerly line of a called 20.236 acre tract of land described in a deed to Gary Conway and Debbie Conway, as recorded in Instrument No. 2019-158825 of the Official Records of Denton County, Texas, and the southerly line of said Tract I, a distance of 1141.49 feet to the POINT OF BEGINNING and containing 61.611 acres (2,683,778 square feet) of land, more or less.

LEGAL DESCRIPTION

HIGH POINTE RANCH MUNICIPAL UTILITY DISTRICT NO. 1 – TRACT 3

BEING a tract of land situated in the F. Trevino Survey, Abstract No. 1243, Denton County, Texas, and being all of a called 41.640 acre tract of land described in a Warranty Deed with Vendor's Lien to Michael Ray Self and spouse, Hannah Carter Self, as recorded in Instrument No. 2020-72317 of the Official Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a mag nail set for the northwest corner of said 41.640 acre tract, common to the northeast corner of a called 61.667 acre tract of land described in a deed to Betsy Turner, as recorded in Instrument No. 97-0010270 of the Official Records of Denton County, Texas, being on the southerly line of Tract I described in a deed to LTR Dressage, LLC, as recorded in Instrument No. 2012-60776 of the Official Records of Denton County, Texas, and in the centerline of Black Jack Road, a variable width right-of-way, no record found;

THENCE South 89°10'02" East, along a northerly line of said 41.640 acre tract, the southerly line of said Tract I, the southerly line of a called 22.380 acre tract of land described as Tract II in said deed recorded in Instrument No. 2012-60776 of the Official Records of Denton County, Texas, and the centerline of said Black Jack Road, a distance of 570.47 feet to a 1 inch iron pipe found for the northerly northeast corner of said 41.640 acre tract, common to the northwest corner of a called 14.975 acre tract of land described in a deed to K & T Swan Family Limited Partnership, L.P., as recorded in Instrument No. 2017-78524 of the Official Records of Denton County, Texas;

THENCE South 1°07'20" East, departing the southerly line of said Tract II and the centerline of said Black Jack Road, along an easterly line of said 41.640 acre tract and the westerly line of said 14.975 acre tract, a distance of 1528.04 feet to a 1/2 inch iron rod found for the southwest corner of said 14.975 acre tract, common to an ell corner of said 41.640 acre tract;

THENCE South 89°22'10" East, along a northerly line of said 41.640 acre tract and the southerly line of said 14.975 acre tract, a distance of 570.06 feet to a 3/8 inch iron rod found for the southerly northeast corner of said 41.640 acre tract, common to the southeast corner of said 14.975 acre tract;

THENCE South 1°04'44" East, along an easterly line of said 41.640 acre tract, a distance of 745.84 feet to a 1/2 inch iron pipe found for the southeast corner of said 41.640 acre tract, common to the northeast corner of a called 16.597 acre tract of land described in a deed to Phillip J. Anton and wife, Karen M. Anton, as recorded in Instrument No. 95-65740 of the Official Records of Denton County, Texas;

THENCE South 89°33'30" West, along the southerly line of said 41.640 acre tract, the northerly line of said 16.597 acre tract, the northerly line of a called 6.703 acre tract of land described in a deed to Phillip John Anton and wife, Karen Marie Anton, as recorded in Instrument No. 2005-92268 of the Official Records of Denton County, Texas, and the northerly line of a called 94.58 acre tract of land described in a deed to Robert J. Houlihan, Trustee of the Jacqueline A. Houlihan Family Trust, as recorded in Instrument No. 2015-75670 of the Official Records of Denton County, Texas, a distance of 1209.41 feet

to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the southwest corner of said 41.640 acre tract, common to the southeast corner of aforesaid 61.667 acre tract;

THENCE North 0°37'22" East, departing the northerly line of said 94.58 acre tract, along the westerly line of said 41.640 acre tract and the easterly line of said 61.667 acre tract, a distance of 2297.48 feet to the POINT OF BEGINNING and containing 41.650 acres (1,814,290 square feet) of land, more or less.

EXHIBIT I

FLOW OF FUNDS

Aubrey – High Pointe Development Agreement
TIRZ and Impact Fees Flow of Funds

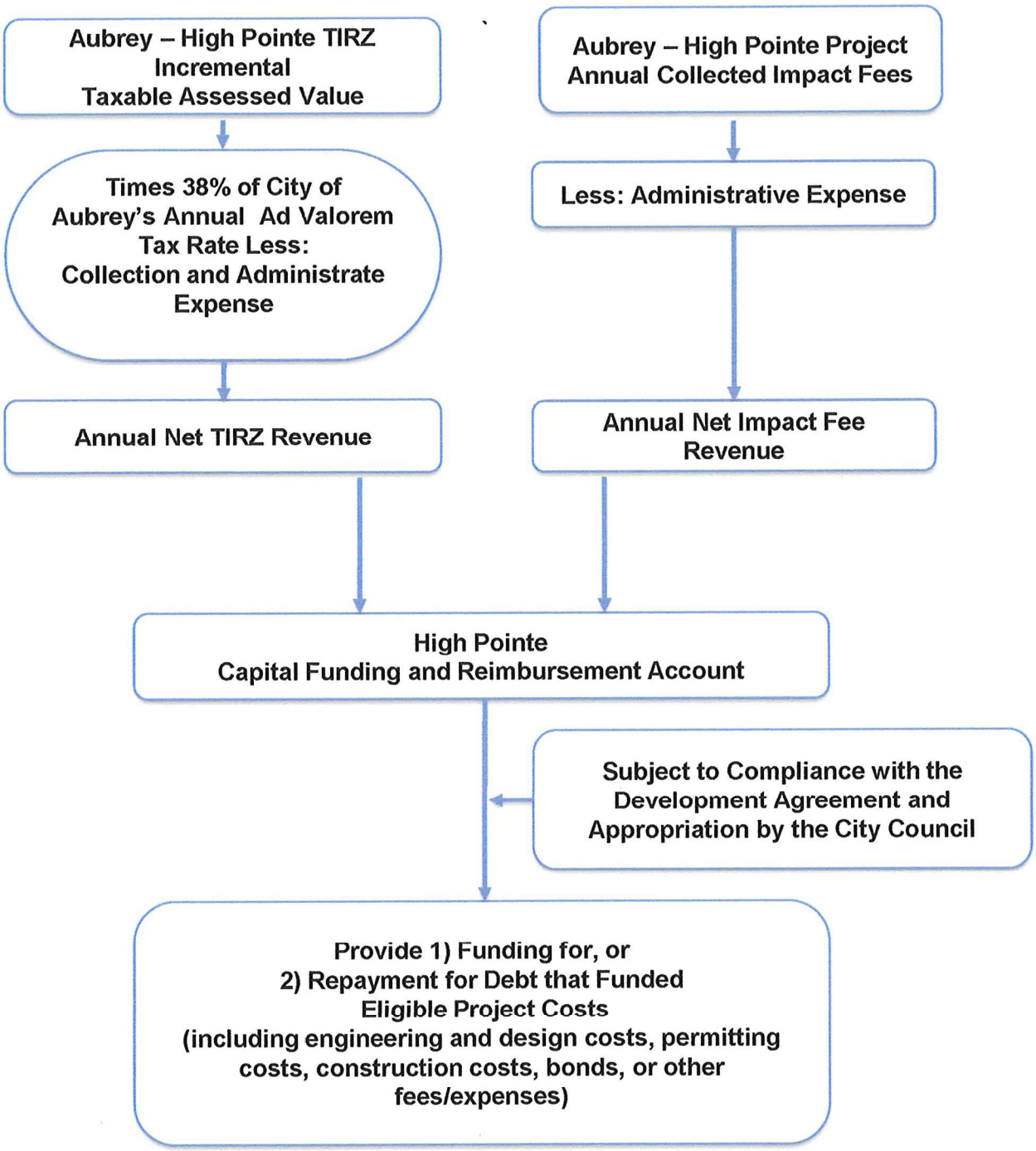


EXHIBIT J

SOURCES AND USES

Aubrey High Pointe Ranch Sources & Uses Analysis

SOURCES	Amount	Percentage
Net Developer Capital & MUD Proceeds	$ 59,727,782	70%
City W&S Impact Fee Reimbursements	$ 10,915,068	13%
City TIRZ Participation	$ 13,820,442	16%
City Oversize Participation	$ 725,800	1%
Total Sources	**$ 85,189,092**	

USES	Amount	Percentage
Onsite Infrastructure & Development	$ 59,727,782	70%
City Reimburseable Public Improvements		
Phase 1 Water	$ 2,501,400	3%
Phase 1 Sewer	$ 3,023,300	4%
Phase 2 Water	$ 6,509,500	8%
Phase 2 Sewer	$ 11,793,600	14%
Roadway Improvements	$ 1,633,510	2%
City Reimburseable Public Improvements Total	**$ 25,461,310**	
Total Uses	**$ 85,189,092**	

**The sources and uses of funds shown here are preliminary based on currently available estimates of design, construction, easement acquisition, and construction administration. These estimates are preliminary and do not include, among other things, interest cost, issuance costs, and construction inflation.*

Funding Sources | Aubrey High Pointe Ranch

Type	Amount
Developer Capital & MUD Proceeds	**$ 85,189,092**
City of Aubrey Participation	
Estimated Impact Fee Reimbursements	$ 10,915,068
TIRZ Reimbursements	$ 13,820,442
City CIP (Oversize)	$ 725,800
Total City of Aubrey Reimbursements	**$ 25,461,310**
Developer Capital & MUD Proceeds (Net of City Participation)	**$ 59,727,782**

Additional Analysis	
Net DevCap & MUD per Lot	$ 41,135
City Participation per Lot	$ 17,535
Estimated Debt Service on Net DevCap+MUD	$ 4,778,223
Estimated Tax Rate	$ 0.75000
Required Total Value to Cover Debt Service	$ 637,096,341
Estimated Full Development Home Value Required	$ 438,772
Estimated Debt Service on TIRZ Reimbursement	$ 1,105,635.36
Estimated TIRZ Increment Rate	$ 0.20581
Required Total Value to Cover Debt Service	$ 537,216,902
Estimated Full Development Home Value Required	$ 369,984

Funding Uses | Aubrey High Pointe Ranch

ONSITE			
ON	Clearing & Excavation	$	6,484,490
ON	Water Infrastructure	$	4,868,155
ON	Sewer Infrastructure	$	5,843,529
ON	Storm Sewer	$	5,624,725
ON	Pavement	$	10,060,428
ON	Retaining Walls	$	4,356,000
ON	Erosion Control	$	950,848
ON	Amenties/Landscaping/Screening	$	5,032,185
ON	Franchise Utilities	$	3,372,200
ON	Misc/Other	$	2,769,244
ON	Survey/Platting/Eng/Permitting	$	4,936,180
ON	Construction Mgmt	$	493,618
ON	Misc & Contingency	$	4,936,180
	Onsite Total	**$**	**59,727,782**

Funding Uses | Aubrey High Pointe Ranch

OFFSITE

PHASE 1 WATER			
1A	Blackjack Rd 12" Water Line	$	846,767
1A	FM428 Water Lines	$	464,622
1A	Contingencies & Misc	$	262,278
1A	Land Acquisition	$	10,500
1A	Materials Testing & QC	$	31,473
1A	Engineering Design & ConAdmin	$	314,733
1A	**Phase 1A Total**	**$**	**1,930,373**
PHASE 1 OVERSIZE			
1B	Blackjack 16" Water Line Oversize	$	195,000
1B	Contingencies & Misc	$	39,000
1B	Materials Testing & QC	$	4,680
1B	Engineering Design & ConAdmin	$	46,800
1B	**Phase 1B Total**	**$**	**285,480**
PHASE 1 SEWER			
1C	High Pointe Sewer Phase 1A	$	1,451,956
1C	Contingencies & Misc	$	290,391
1C	Land Acquisition	$	17,000
1C	Materials Testing & QC	$	34,847
1C	Engineering Design & ConAdmin	$	348,469
1C	**Phase 1C Total**	**$**	**2,142,663**
PHASE 1 SEWER OVERSIZE			
1D	High Point 24" Sewer Oversize	$	300,750
1D	Contingencies & Misc	$	60,150
1D	Materials Testing & QC	$	7,218
1D	Engineering Design & ConAdmin	$	72,180
1D	**Phase 1D Total**	**$**	**440,298**
	PHASE 1 TOTAL	**$**	**4,798,900**

Funding Uses | Aubrey High Pointe Ranch

PHASE 2 WATER			
2A	Supply/Pump/Ground Storage	$	3,305,000
2A	BlackJack 12" Line	$	1,081,889
2A	Contingencies & Misc	$	877,378
2A	Land Acquisition	$	87,120
2A	Materials Testing & QC	$	105,285
2A	Engineering Design & ConAdmin	$	1,052,853
2A	**Phase 2A Total**	**$**	**6,509,525**
PHASE 2 SEWER			
2B	WWTP Expansion	$	8,400,000
2B	Contingencies & Misc	$	1,680,000
2B	Materials Testing & QC	$	201,600
2B	Engineering Design & ConAdmin	$	1,512,000
2B	**Phase 2BTotal**	**$**	**11,793,600**
	PHASE 2 TOTAL	**$**	**18,303,100**

Roadway Improvements			
R1	Regional Collector	$	906,135
R2	US377 Improvements @ Commercial	$	411,125
R3	US377 Improvements @ Residential	$	316,250
	Roadway Improvement Total	**$**	**1,633,510**

PHASE 1 TOTAL	**$**	**4,798,900**
PHASE 2 TOTAL	**$**	**18,303,100**
ROADWAY IMPROVEMENTS TOTAL	**$**	**1,633,510**
ESTIMATED OVERSIZE TOTAL	**$**	**725,800**
	$	**25,461,310**

Water Total	$	8,725,400
Sewer Total	$	14,376,600
Roadway Improvement Total	$	1,633,510
OVERSIZE IMPROVEMENTS TOTAL	$	725,800
	$	25,461,310

CITY OF AUBREY PLAT CHECKLIST

In order to ensure a thorough and expedited review of a plat and/or plan, all development requests require that a pre-application discussion or a pre-submittal meeting occur prior to making an application to the City. A complete application, fee, and supplementary materials, in accordance with the City's Subdivision Ordinance, must accompany a plat submittal.

Contact Aubrey permitting staff for more information.

REQUIRED FOR ALL PLATS:

Fee delivered 9/17

- ✓ Project name in lower right corner
- ✓ Application form, fees, electronic copy/pdf
- ✓ Utility company letters
- ✓ ETJ affidavit or approval by city
- ✓ Vicinity map
- ✓ Owner's name, address & phone
- ✓ Surveyor/Engineer's name, address & phone
- ✓ Adjacent properties identified
- ✓ Front building lines
- ✓ Flood plain statement/boundary
- ✓ Lot/Alley dimensions
- ✓ Metes & bounds
- ✓ Easements (drainage, utility, landscape, etc.)
- ✓ Monuments, pins & B.M.'s set

Cosery provided. City to provide water/sewer/solid waste. KHA to follow up w/ cable will-serve once obtained.

- N/a 4 Copies of Plat (folded) for initial review by staff
- ✓ Engineer's summary report (Art. 2, Section 1.05 of Subdivision Ord. (how does property drain, grading)
- ✓ Proof of ownership per Art. 2, Sect. 1.05 Sub. Ord.
- ✓ North arrow
- ✓ Scale 1" = 200 figure & scale bar
- ✓ Size 24" x 36"
- ✓ Boundary lines identified
- ✓ Lots & blocks, acreage identified
- ✓ Required signatures
- ✓ Street dimensions
- ✓ RPLS certificate
- ✓ Match lines
- ✓ Street names
- ✓ Certified Tax certificate at time of recording

To be provided at time of recording

ADDITIONAL REQUIREMENTS FOR PRELIMINARY PLAT:

- ✓ Preliminary Drainage/Utility plans
- ✓ Street & road interconnect
- ✓ Contour lines
- Temp. Names Proposed street names
- ✓ Physical features
- ✓ Scale 1"= 200', 1"=100'
- ✓ Match lines
- ✓ Proposed parks, trails, open space

ADDITIONAL REQUIREMENTS FOR RE-PLAT, MINOR & FINAL PLAT
(see Subdivision Ordinance for complete list of plat documents required):

- ____ Filing documents and recording fees
- ____ 2 x 3 recording block
- ____ Co. judge signature block (if in ETJ)
- ____ Street & road interconnect
- ____ Owners certificate
- ____ Deed restrictions

} N/a

*Any required documentation that is missing from the application packet may constitute the application to be rejected and/or determined to be incomplete.

PLAT APPLICATION

107 S. Main St.
Aubrey, Texas 76227
940-440-9343

In order to ensure a thorough and expedited review of a plat and/or plan, all development requests require that a pre-application discussion or a pre-submittal meeting occur <u>prior</u> to making an application to the City. Contact Aubrey permitting staff for more information.

DESCRIPTION OF PROPERTY:

Subdivision Name: High Pointe Ranch
Total Number of Lots: 1,452 Residential + 4 Com. Lots Total Acreage: 459.70 Ac
Property Location: East of US 377, North of Spring Hill Rd, South of E. Blackjack Rd

CONTACT INFORMATION:

Owner: ALW 377, LLC Phone #: _____
Address: 353 CR 2510, Decatur, TX, 76234
Email address: _____
Applicant contact info: Thomas Fletcher, P.E.
Engineer/Surveyor: Kimley-Horn Phone #: 972-731-2186
Email address: thomas.fletcher@kimley-horn.com

FEES

Preliminary Plat – Residential	$500.00	Plus $20.00 per lot
Preliminary Plat – Commercial	$500.00	Plus $25.00 per acre
Final Plat – Residential	$500.00	Plus $20.00 per lot
Final Plat – Commercial	$500.00	Plus $25.00 per acre
Minor Plat	$500.00	
Replat - Residential	$250.00	Plus $20.00 per lot
Replat - Commercial	$600.00	Plus $25.00 per acre
Amended Plat	$250.00	
Plat Vacation	$250.00	Plus $20.00 per lot
Plat filing (County recording)	$200.00	
Legal notices (published)	$100.00	Plus actual expenses
Professional fees for review of land use related permits as prepared by City's consultants (ex: Engineer, Planner, Attorney)	*see Special Fees section of ordinance	*Requires deposit, and fee assessed to cover reasonable and necessary expenses in review of development related permits

The Texas Local Government Code generally requires that the municipal authority responsible for approving plats is to take action on a plat within 30 days of proper filing. Because thorough plat review, and resubmittal of corrections, generally requires in excess of 30 days, an opportunity to allow for additional review time is available to an owner/applicant. You may contact city staff for information on requesting a time extension and for scheduling your plat. In cases where city staff does not have adequate time for review and corrections to be made, there is a high likelihood that the plat will be forwarded to PZ and CC with a recommendation of denial.

Owner's signature required to authorize plat application submittal: _____

Fees paid: $22,418.50 (Pro-rata share of $30,936.50 total fee)

- **Cash** **Receipt #:** _____
- **Check #** _____ **Date:** _____

CITY OF AUBREY PLAT CHECKLIST

In order to ensure a thorough and expedited review of a plat and/or plan, all development requests require that a pre-application discussion or a pre-submittal meeting occur prior to making an application to the City. A complete application, fee, and supplementary materials, in accordance with the City's Subdivision Ordinance, must accompany a plat submittal.

Contact Aubrey permitting staff for more information.

REQUIRED FOR ALL PLATS:

____ Project name in lower right corner
____Application form, fees, electronic copy/pdf
____ Utility company letters
____ ETJ affidavit or approval by city
____ Vicinity map
____ Owner's name, address & phone
____ Surveyor/Engineer's name, address & phone
____ Adjacent properties identified
____ Front building lines
____ Flood plain statement/boundary
____ Lot/Alley dimensions
____ Metes & bounds
____ Easements (drainage, utility, landscape, etc.)
____ Monuments, pins & B.M.'s set
____ 4 Copies of Plat (folded) for initial review by staff
____ Engineer's summary report (Art. 2, Section 1.05 of
____ Subdivision Ord. (how does property drain, grading)
____ Proof of ownership per Art. 2, Sect. 1.05 Sub. Ord.
____ North arrow
____ Scale 1" = 200 figure & scale bar
____ Size 24" x 36"
____ Boundary lines identified
____ Lots & blocks, acreage identified
____ Required signatures
____ Street dimensions
____ RPLS certificate
____ Match lines
____ Street names
____Certified Tax certificate at time of recording

ADDITIONAL REQUIREMENTS FOR PRELIMINARY PLAT:

____ Preliminary Drainage/Utility plans
____ Street & road interconnect
____ Contour lines
____ Proposed street names
____ Physical features
____ Scale 1"= 200', 1"=100'
____ Match lines
____ Proposed parks, trails, open space

ADDITIONAL REQUIREMENTS FOR RE-PLAT, MINOR & FINAL PLAT
(see Subdivision Ordinance for complete list of plat documents required):

____ Filing documents and recording fees
____ 2 x 3 recording block
____ Co. judge signature block (if in ETJ)
____ Street & road interconnect
____ Owners certificate
____ Deed restrictions

*Any required documentation that is missing from the application packet may constitute the application to be rejected and/or determined to be incomplete.

PLAT APPLICATION

107 S. Main St.
Aubrey, Texas 76227
940-440-9343

In order to ensure a thorough and expedited review of a plat and/or plan, all development requests require that a pre-application discussion or a pre-submittal meeting occur prior to making an application to the City. Contact Aubrey permitting staff for more information.

DESCRIPTION OF PROPERTY:

Subdivision Name: High Pointe Ranch
Total Number of Lots: 1,452 Residential + 4 Com. Lots Total Acreage: 459.70 Ac
Property Location: East of US 377, North of Spring Hill Rd, South of E. Blackjack Rd

CONTACT INFORMATION:

Owner: FM Land Investments I, LLC Phone #: 972-740-5725
Address: 240 Squirrel Run, Argyle, TX 76226
Email address: davidmarks@marksmanrealty.com
Applicant contact info: Thomas Fletcher, P.E.
Engineer/Surveyor: Kimley-Horn Phone #: 972-731-2186
Email address: thomas.fletcher@kimley-horn.com

FEES

Preliminary Plat – Residential	$500.00	Plus $20.00 per lot
Preliminary Plat – Commercial	$500.00	Plus $25.00 per acre
Final Plat – Residential	$500.00	Plus $20.00 per lot
Final Plat – Commercial	$500.00	Plus $25.00 per acre
Minor Plat	$500.00	
Replat - Residential	$250.00	Plus $20.00 per lot
Replat - Commercial	$600.00	Plus $25.00 per acre
Amended Plat	$250.00	
Plat Vacation	$250.00	Plus $20.00 per lot
Plat filing (County recording)	$200.00	
Legal notices (published)	$100.00	Plus actual expenses
Professional fees for review of land use related permits as prepared by City's consultants (ex: Engineer, Planner, Attorney)	*see Special Fees section of ordinance	*Requires deposit, and fee assessed to cover reasonable and necessary expenses in review of development related permits

The Texas Local Government Code generally requires that the municipal authority responsible for approving plats is to take action on a plat within 30 days of proper filing. Because thorough plat review, and resubmittal of corrections, generally requires in excess of 30 days, an opportunity to allow for additional review time is available to an owner/applicant. You may contact city staff for information on requesting a time extension and for scheduling your plat. In cases where city staff does not have adequate time for review and corrections to be made, there is a high likelihood that the plat will be forwarded to PZ and CC with a recommendation of denial.

Owner's signature required to authorize plat application submittal: _____

Fees paid: $8,545.00 (Pro-rata share of $30,936.50 total fee)

- **Cash** **Receipt #:** _____
- **Check #** _____ **Date:** _____

Planning and Zoning Commission Meeting
Staff Report
May 9, 2024

Agenda Item
Consideration and action on a Final Plat of High Pointe Ranch Phase 1B being 44.215 acres in the Francisco Trevino Survey, Abstract No. 1243, City of Aubrey, Denton County, Texas located immediately east of US 377 between Spring Hill Road (FM 428) on the south and East Blackjack Rd on the north within the city limits of Aubrey. *(KLLB AIV, LLC)*

Staff Contact
Cate Ball, Planner
cball@plummer.com
817-806-1700

Summary
This plat was previously reviewed by the Planning and Zoning Commission at your December 14, 2023, and forwarded to City Council for their December 19, 2023 meeting. The plat was approved with the following conditions:

1. Per Chapter 10, Article 2 Procedures, Section 4.06(c) and Chapter 10, Article 4 Public Sites and Open Spaces, Section 2.05 (1)(ii) development shall not take place and no lots shall be platted in a flood zone. Therefore the applicant will need to provide the city with a LOMR – letter of map revision - indicating that none of the proposed platted lots are located within flood zones.
2. Per Article 11, Appendix B, Final Plat Checklist, the plat is missing: a. the recorded information pertaining to the variable width drainage easement, b. and required signatures.

In the meantime, the applicant requested a variance from the Board of Adjustments and Appeals for signage and an arbor structure that extends over Bronco Lane. That variance was granted on January 22, 2024. One of the conditions of that variance is that the sign and arbor structure be located on HOA property. Therefore, the applicant requests approval of this revised plat which includes the creation of two HOA lots created to address the variance conditions.

This Final Plat encompasses 44.215 acres [the previous plat encompassed 44.187 acres], creating 184 residential lots and 5 HOA lots [the previous plat created 3 HOA lots]. The single-family lots created generally have dimensions of ~55’ x ~130’.

This plat conforms with the development plan indicated in the previously approved preliminary plat and Development Agreement. Although this property falls within a municipal utility district (MUD), the City of Aubrey will be taking ownership and responsibility of all streets, drainage, water, and sewer. Case Report – High Pointe Ranch Phase 1B Final Plat Planning and Zoning – May 9, 2024 City Council – May 23, 2024

Electricity will be provided by TNMP (Texas New Mexico Power) which has reviewed the plat and determined that the easement locations and widths are adequate for their needs.

Twelve (12) lots are impacted by the location of the flood zone. Per Chapter 10, Article 2 Procedures, Section 4.06(c) and Chapter 10, Article 4 Public Sites and Open Spaces, Section 2.05 (1)(ii) no lots shall be platted in a flood zone. The developer intends to grade the property and submit a Letter of Map Revision. The plat

indicates placeholders for recorded documents pertaining to a variable width drainage easement, sanitary sewer easement, and the Highpointe Ranch Phase 1A plat.

The recorded information needs to be noted on the plat prior to this plat's recordation. Also missing are required signatures. The City Engineer has reviewed the construction plans and has no further comments.

Financial Summary

Staff Recommended Motion
Approve with Conditions

Conditions

1. Per Chapter 10, Article 2 Procedures, Section 4.06(c) and Chapter 10, Article 4 Public Sites and Open Spaces, Section 2.05 (1)(ii) development shall not take place and no lots shall be platted in a flood zone. Therefore the applicant will need to provide the city with a LOMR – letter of map revision - indicating that none of the proposed platted lots are located within flood zones.
2. Per Article 11, Appendix B, Final Plat Checklist, the plat is missing:
    1. the recorded information pertaining to the various easements and neighboring plat
    2. required signatures.

Case Report –High Pointe Ranch Phase 1B Final Plat
Planning and Zoning – May 9, 2024
City Council – May 23, 2024

To: Mayor, City Council, Planning and Zoning Commission

From: Cate Ball, AICP, PE

Request: Final Plat for High Pointe Ranch Phase 1B

Owner: KLLB AIV, LLC
Engineers: Kimley-Horn and Associates, Inc (Kyle Brockman, PE and Thomas Fletcher, PE)
Application Date: April 10, 2024
Location: Within city limits of Aubrey immediately east of US 377 bounded on the north by E. Blackjack Rd and on the south by Spring Hill Rd (Hwy 428).
Zoning: The property is zoned using a Planned Development Agreement for primarily single family residential uses.
Future Land Use Plan: Neighborhood Commercial, Estate Neighborhood, and Floodplain & Open Space
Current Use: Undeveloped land. Proposed use is single family residential.

History: The Preliminary Plat for the entire 460.75 acre development was approved in March of 2022. Preliminary Plats are valid for two years in which time the Final Plat needs to be approved by City Council.

Analysis: This plat was previously reviewed by the Planning and Zoning Commission at your December 14, 2023, and forwarded to City Council for their December 19, 2023 meeting. The plat was approved with the following conditions:

1. Per Chapter 10, Article 2 Procedures, Section 4.06(c) and Chapter 10, Article 4 Public Sites and Open Spaces, Section 2.05 (1)(ii) development shall not take place and no lots shall be platted in a flood zone. Therefore the applicant will need to provide the city with a LOMR – letter of map revision - indicating that none of the proposed platted lots are located within flood zones.
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    a. the recorded information pertaining to the variable width drainage easement,
    b. and required signatures.

In the meantime, the applicant requested a variance from the Board of Adjustments and Appeals for signage and an arbor structure that extends over Bronco Lane. That variance was granted on January 22, 2024. One of the conditions of that variance is that the sign and arbor structure be located on HOA property.

Therefore, the applicant requests approval of this revised plat which includes the creation of two HOA lots created to address the variance conditions. This Final Plat encompasses 44.215 acres [the previous plat encompassed 44.187 acres], creating 184 residential lots and 5 HOA lots [the previous plat created 3 HOA lots]. The single-family lots created generally have dimensions of ~55' x ~130'. This plat conforms with the development plan indicated in the previously approved preliminary plat and Development Agreement.

Although this property falls within a municipal utility district (MUD), the City of Aubrey will be taking ownership and responsibility of all streets, drainage, water, and sewer.

Electricity will be provided by TNMP (Texas New Mexico Power) which has reviewed the plat and determined that the easement locations and widths are adequate for their needs.

Twelve (12) lots are impacted by the location of the flood zone. Per Chapter 10, Article 2 Procedures, Section 4.06(c) and Chapter 10, Article 4 Public Sites and Open Spaces, Section 2.05 (1)(ii) no lots shall be platted in a flood zone. The developer intends to grade the property and submit a Letter of Map Revision.

The plat indicates placeholders for recorded documents pertaining to a variable width drainage easement, sanitary sewer easement, and the Highpointe Ranch Phase 1A plat. The recorded information needs to be noted on the plat prior to this plat's recordation. Also missing are required signatures.

The City Engineer has reviewed the construction plans and has no further comments.

Per Chpt 20, Article 2 Section 1.05(f) (1): The Planning and Zoning Commission shall review each Plat Application and shall take action to recommend:

a) approval of the Plat Application,
b) approval of the Plat Application subject to certain conditions, or
c) denial of the Plat Application.

Recommendation:

Staff recommends the Planning and Zoning Commission recommend conditional approval of this revised Final plat. The same conditions need to be addressed prior to plat recordation:

1. Per Chapter 10, Article 2 Procedures, Section 4.06(c) and Chapter 10, Article 4 Public Sites and Open Spaces, Section 2.05 (1)(ii) development shall not take place and no lots shall be platted in a flood zone. Therefore the applicant will need to provide the city with a LOMR – letter of map revision - indicating that none of the proposed platted lots are located within flood zones.
2. Per Article 11, Appendix B, Final Plat Checklist, the plat is missing:
    a. the recorded information pertaining to the various easements and neighboring plat,
    b. and required signatures.

Attachments: Location Map
Highpoint phasing plan
Engineer's Summary
Final Plat

Aubrey, Texas

ZONING CLASSIFICATIONS

SF-1	SINGLE FAMILY RESIDENTIAL 1 ACRE LOT
SF-10	SINGLE FAMILY RESIDENTIAL 10,000 SQ FT LOT
SF-75	SINGLE FAMILY RESIDENTIAL 7,500 SQ FT LOT
SF	SINGLE FAMILY RESIDENTIAL
SF-AC	TWO FAMILY RESIDENTIAL ATTACHED
MF	MULTI FAMILY
MH	MOBILE HOME PARK
AG-R	AGRICULTURAL RESIDENTIAL
GR	GENERAL RETAIL
SC	SHOPPING CENTER
C	COMMERCIAL
IND	INDUSTRIAL
PD	PLANNED DEVELOPMENT

N W E S

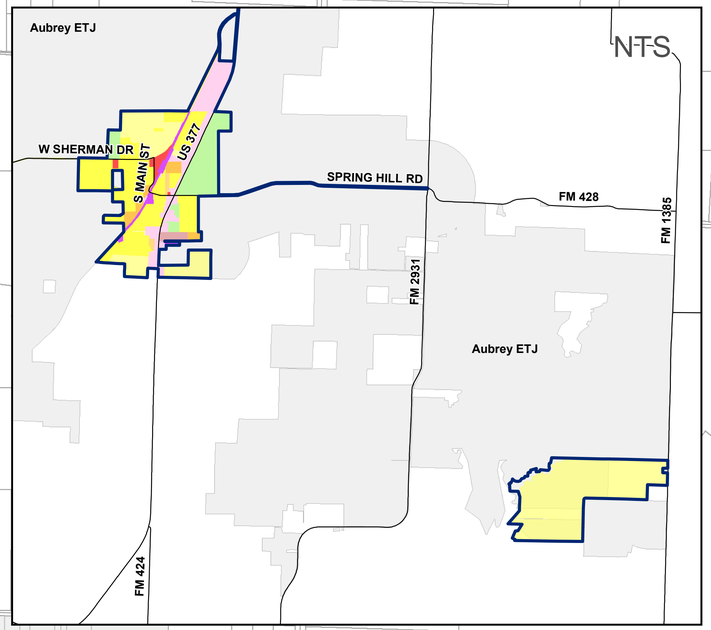
0 700 1,400

Feet

This is to certify that this official zoning map, approved on **March 27, 2018,** supersedes and replaces the map that was adopted in December 2015, as part of the Zoning Ordinance of the City of Aubrey, Texas, Ordinance #635-18

_____

_____



MASSEY RD

COLE RD

E SHERMAN DR

HWY 377

WILSON RD

BLACKJACK RD W

BLACKJACK RD E

High Pointe Ranch

Phase 1A here

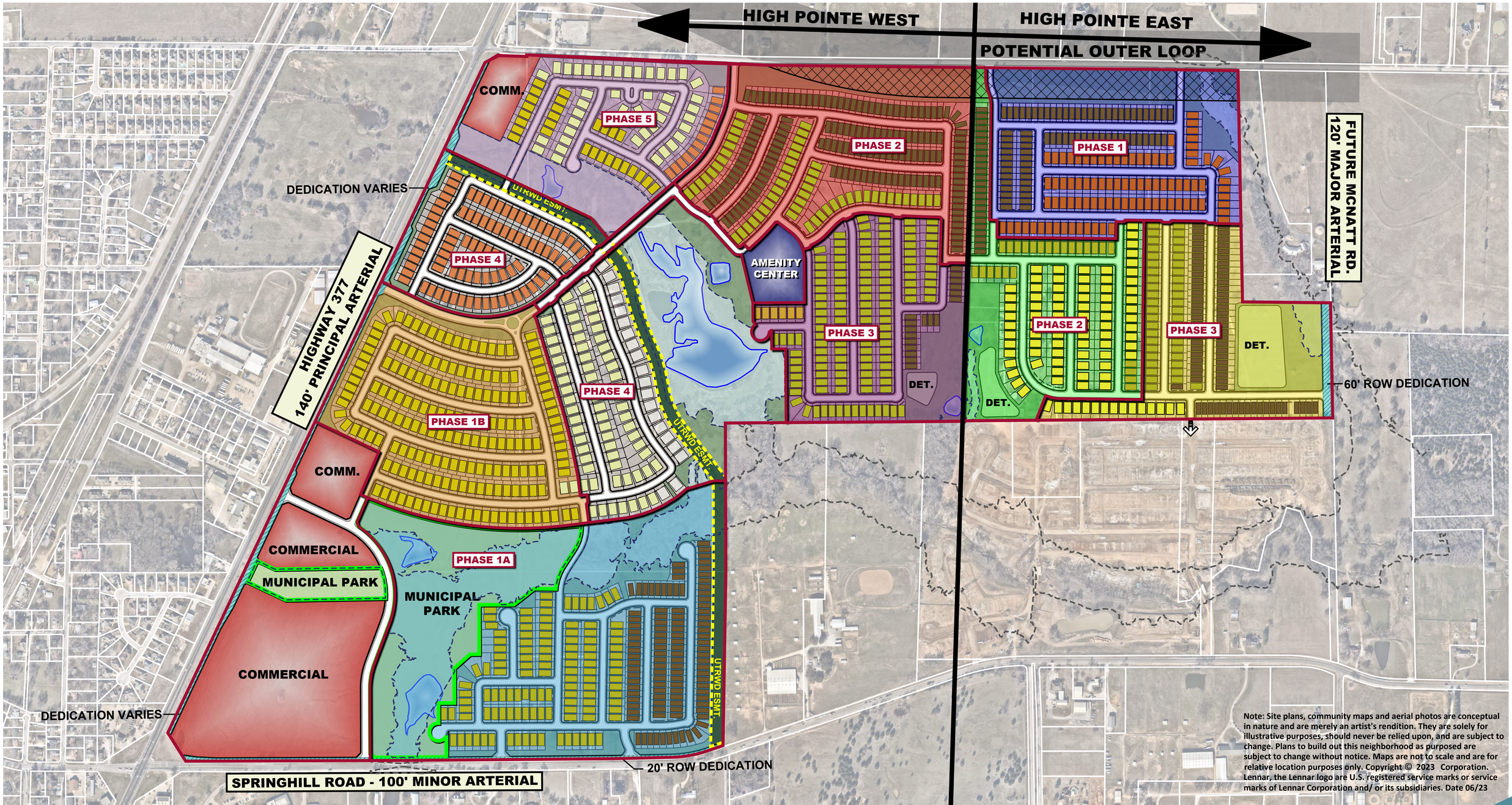
W SHERMAN DR

SPRING HILL RD

MCNATT RD

FM 2931

SF-75 · SF-75 · SF-75 ·



Note: Site plans, community maps and aerial photos are conceptual in nature and are merely an artist's rendition. They are solely for illustrative purposes, should never be relied upon, and are subject to change. Plans to build out this neighborhood as purposed are subject to change without notice. Maps are not to scale and are for relative location purposes only. Copyright © 2023 Corporation. Lennar, the Lennar logo are U.S. registered service marks or service marks of Lennar Corporation and/ or its subsidiaries. Date 06/23

High Pointe Ranch
Phasing Plan

Aubrey Texas
May 2023

Land Use Acreage Summary

Residential Lots / Residential Rights of Way	287.2	62.3%
Commercial	39.5	8.6%
Right-of-Way Dedication	9.3	2.0%
Open Space / Floodplain / Detention	82.7	17.9%
Municipal Park	29.9	6.5%
Amenity Center	3.7	0.8%
UTRWD Easement	8.5	1.8%
Total	**460.8**	**100.0%**

Potential Outer Loop (Overlay)

Residential Type				Phase 1 A West	Phase 1 B West	Phase 2 West	Phase 3 West	Phase 4 West	Phase 5 West	Phase 1 East	Phase 2 East	Phase 3 East	Total Lots
	Name	Pad Size	Lot Size										
	Cottage	30'x75'	40'x115'	106	-	149	18	-	-	74	24	73	444
	Cottage	30'x75'	50'x120'	-	-	-	-	-	-	91	-	-	91
	Watermill	35'x75'	50'x120'	119	-	57	132	-	-		25	44	377
	Watermill	35'x75'	55'x130'	-	-	-	6	-	-	-	-	-	6
	Watermill	35'x75'	60'x130'	-	-	-	-	-	-	-	77	15	92
	Classic	40'x75'	50'x120'	-	-	-	-	86	13	-	-	-	99
	Classic	40'x75'	55'x130'	-	182	-	-	-	28	-	-	-	210
	Classic	40'x75'	65'x130'	-	2	-	-	66	43	-	-	-	111
	Classic	40'x75'	75'x130'	-	-	-	-	20	-	-	-	-	20
Total Lots				**225**	**184**	**206**	**156**	**172**	**84**	**165**	**126**	**132**	**1450**

GRAPHIC SCALE IN FEET
0 150 300 600
1"=300' @ 22x34

Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, Texas 75034
972-335-3580
State of Texas Registration No. F-928

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND HAS BEEN PRODUCED WITHOUT THE BENEFIT OF A SURVEY OR CONTACT WITH THE CITY, COUNTY, ETC.

DWG NAME K:\FRI_CIVIL\063451861-HIGH POINTE RANCH\CAD\EXHIBITS\PLANSHEETS\PHASING PLAN 20230523.DWG
LAST SAVED 6/5/2023 1:42 PM

Engineer's Summary Report
Highpointe Ranch Phase 1B – Aubrey, TX

Project Description/Summary:

Highpointe Ranch is an approximately 461-acre proposed development east of US 377, north of Spring Hill Road and south of E. Blackjack Road. The properties composing the development are within the City of Aubrey corporate limits. The existing zoning is AG-R (Agricultural Residential). The proposed zoning is SF-5 and SF-6 per the approved Development Agreement (dated 7/21/2021). The project is within High Pointe Ranch Municipal Utility District No. 1 of Denton County and the City will create an overlapping TIRZ. Both special districts will adhere to the approved general terms of the Development Agreement.

Phase 1B of the Highpointe Ranch Development is approximately 45 acres consisting of 55' X 130' & 65' X 130' lots as established in the Development Agreement. 187 lots are proposed on the Final Plat, consisting of 184 residential lots and 3 Homeowner's Association (HOA) lots.

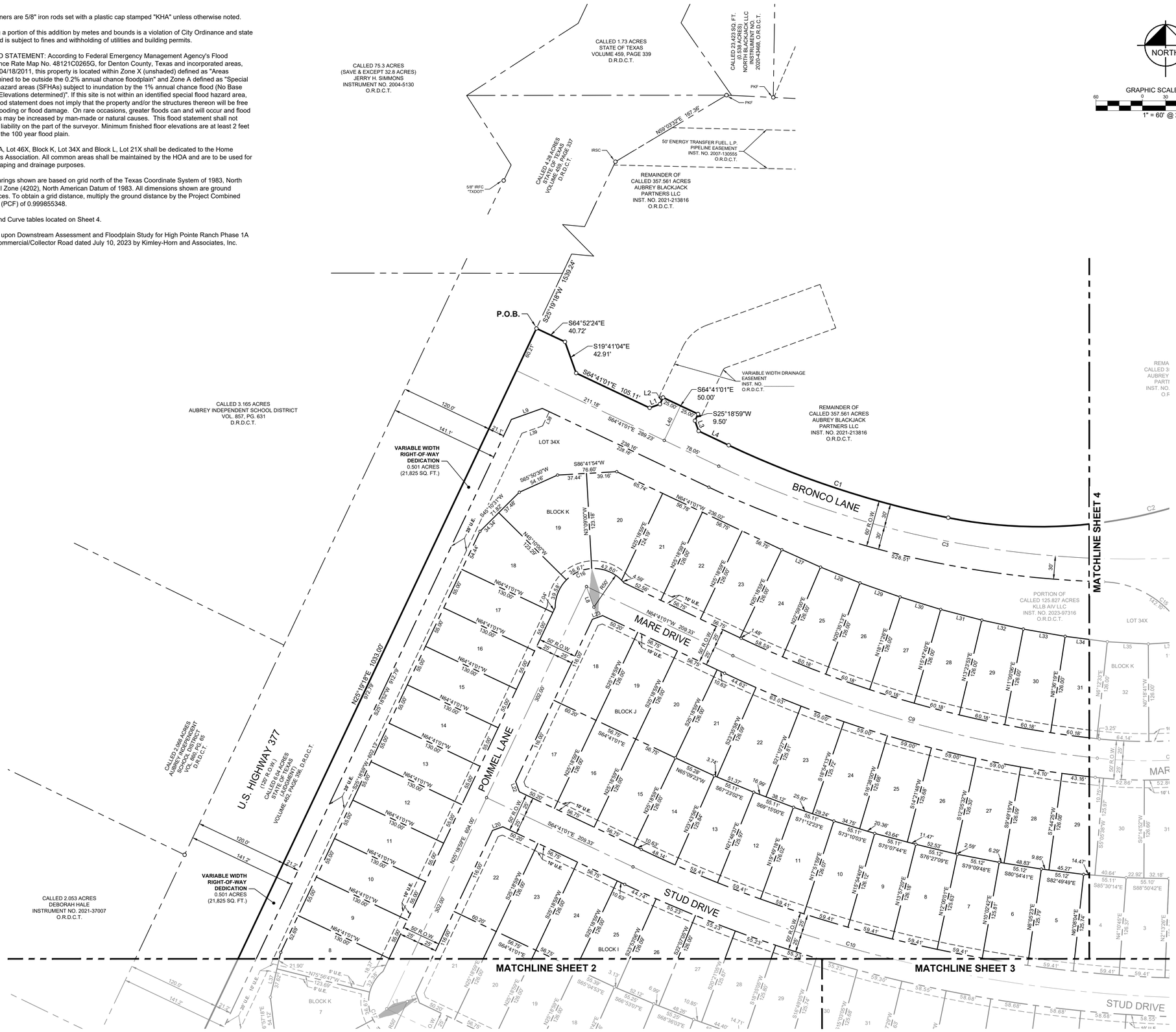
The development will be served by the City of Aubrey water, sewer, and solid waste services. Sanitary sewer flow will be directed to stubs that are currently proposed as part of a City project. Water connections will connect to an 8" waterline stub-out constructed with the previous Highpointe Ranch Phase 1A, which is located at the southern limits of this project. It is expected that TNMP will provide electric services and FisionX will provide communication and internet services to the development. Will-serve letters have been provided from TNMP and FisionX (provided with submittal).

Storm water drainage for Phase 1B will be directed to the floodplain occupying a large portion of the north and west side of the section. A Downstream Assessment dated April 2023 was provided along with the construction drawings for Phase 1B.

Kimley-Horn has previously provided all documents requested by the Upper Trinity Regional Water District (UTRWD), including an exhibit and legal documents.

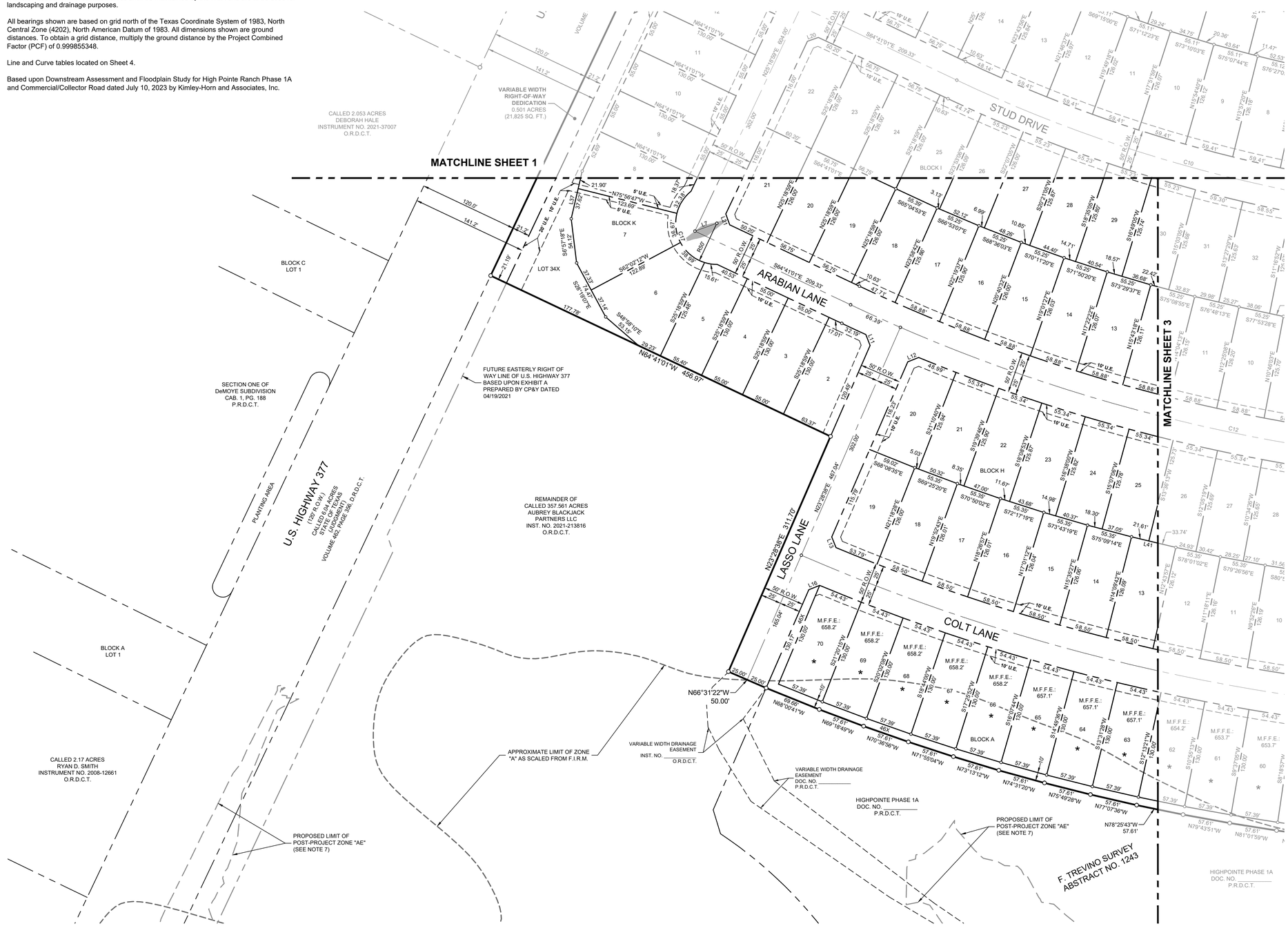
Notes :

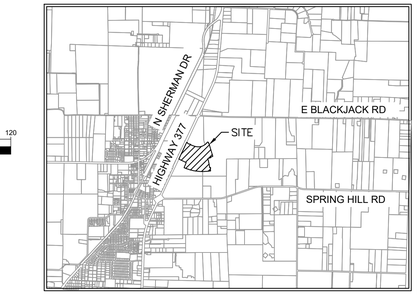
1. All corners are 5/8" iron rods set with a plastic cap stamped "KHA" unless otherwise noted.
2. Selling a portion of this addition by metes and bounds is a violation of City Ordinance and state law and is subject to fines and withholding of utilities and building permits.
3. FLOOD STATEMENT: According to Federal Emergency Management Agency's Flood Insurance Rate Map No. 48121C0265G, for Denton County, Texas and incorporated areas, dated 04/18/2011, this property is located within Zone X (unshaded) defined as "Areas determined to be outside the 0.2% annual chance floodplain" and Zone A defined as "Special flood hazard areas (SFHAs) subject to inundation by the 1% annual chance flood (No Base Flood Elevations determined)". If this site is not within an identified special flood hazard area, this flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. On rare occasions, greater floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor. Minimum finished floor elevations are at least 2 feet above the 100 year flood plain.
4. Block A, Lot 46X, Block K, Lot 34X and Block L, Lot 21X shall be dedicated to the Home Owners Association. All common areas shall be maintained by the HOA and are to be used for landscaping and drainage purposes.
5. All bearings shown are based on grid north of the Texas Coordinate System of 1983, North Central Zone (4202), North American Datum of 1983. All dimensions shown are ground distances. To obtain a grid distance, multiply the ground distance by the Project Combined Factor (PCF) of 0.999855348.
6. Line and Curve tables located on Sheet 4.
7. Based upon Downstream Assessment and Floodplain Study for High Pointe Ranch Phase 1A and Commercial/Collector Road dated July 10, 2023 by Kimley-Horn and Associates, Inc.


CALLED 75.3 ACRES
(SAVE & EXCEPT 32.8 ACRES)
JERRY H. SIMMONS
INSTRUMENT NO. 2004-5130
O.R.D.C.T.
CALLED 1.73 ACRES
STATE OF TEXAS
VOLUME 459, PAGE 339
D.R.D.C.T.
CALLED 23,423 SQ. FT.
(0.538 ACRES)
NORTH BLACKJACK LLC
INSTRUMENT NO.
2020-43486, O.R.D.C.T.
PKF
PKF
N69°15'32"E 167.36'
IRSC
50' ENERGY TRANSFER FUEL, L.P.
PIPELINE EASEMENT
INST. NO. 2007-130555
O.R.D.C.T.
REMAINDER OF
CALLED 357.561 ACRES
AUBREY BLACKJACK
PARTNERS LLC
INST. NO. 2021-213816
O.R.D.C.T.
5/8" IRFC
"TXDOT"
CALLED 4.36 ACRES
STATE OF TEXAS
VOLUME 695, PAGE 337
D.R.D.C.T.
P.O.B.
S25°19'18"W 1659.24'
S64°52'24"E
40.72'
S19°41'04"E
42.91'
S64°41'01"E 105.11'
L2
L1
S64°41'01"E
50.00'
S25°18'59"W
9.50'
L4
VARIABLE WIDTH DRAINAGE
EASEMENT
INST. NO.
O.R.D.C.T.
60.21'
211.18'
S64°41'01"E 289.23'
238.16'
238.16'
78.05'
25.00'
25.00'
50'
CALLED 3.165 ACRES
AUBREY INDEPENDENT SCHOOL DISTRICT
VOL. 857, PG. 631
D.R.D.C.T.
REMAINDER OF
CALLED 357.561 ACRES
AUBREY BLACKJACK
PARTNERS LLC
INST. NO. 2021-213816
O.R.D.C.T.
120.0'
141.1'
21.1'
L9
L8
L9
LOT 34X
VARIABLE WIDTH
RIGHT-OF-WAY
DEDICATION
0.501 ACRES
(21,825 SQ. FT.)
S65°50'30"W
54.16'
S45°10'31"W
37.68'
S86°41'54"W
76.60'
37.44'
39.16'
65.74'
N64°41'01"W
123.69'
BLOCK K
N25°18'59"E
125.18'
N64°41'01"W 236.92'
56.75'
C1
BRONCO LANE
60' R.O.W.
30'
30'
528.51'
C3
C2
C16
42.50'
39.67'
4.59'
52.56'
R60'
N64°41'01"W 209.33'
MARE DRIVE
50' R.O.W.
25'
25'
L27
L28
L29
L30
L31
L32
L33
L34
L35
PORTION OF
CALLED 125.827 ACRES
KLLB AIV, LLC
INST. NO. 2023-97316
O.R.D.C.T.
LOT 34X
MATCHLINE SHEET 4
N25°18'59"E 1033.00'
N25°18'59"E 992.78'
N25°18'59"E 994.00'
CALLED 2.066 ACRES
AUBREY INDEPENDENT
SCHOOL DIST. NO. 1
VOL. 857, PG. 631
O.R.D.C.T.
CALLED 6.04 ACRES
STATE OF TEXAS
(UNNUMBERED)
VOLUME 460, PAGE 396, D.R.D.C.T.
U.S. HIGHWAY 377
(100' R.O.W.)
POMMEL LANE
50' R.O.W.
25'
25'
BLOCK J
BLOCK I
S64°41'01"E 209.33'
STUD DRIVE
C10
MATCHLINE SHEET 2
MATCHLINE SHEET 3
CALLED 2.053 ACRES
DEBORAH HALE
INSTRUMENT NO. 2021-37007
O.R.D.C.T.
VARIABLE WIDTH
RIGHT-OF-WAY
DEDICATION
0.501 ACRES
(21,825 SQ. FT.)
N75°56'47"W
123.69'
BLOCK K
BLOCK L
N64°41'01"W 130.00'
N64°41'01"W 130.00'
N64°41'01"W 130.00'

Notes :

1. All corners are 5/8" iron rods set with a plastic cap stamped "KHA" unless otherwise noted.
2. Selling a portion of this addition by metes and bounds is a violation of City Ordinance and state law and is subject to fines and withholding of utilities and building permits.
3. FLOOD STATEMENT: According to Federal Emergency Management Agency's Flood Insurance Rate Map No. 48121C0265G, for Denton County, Texas and incorporated areas, dated 04/18/2011, this property is located within Zone X (unshaded) defined as "Areas determined to be outside the 0.2% annual chance floodplain" and Zone A defined as "Special flood hazard areas (SFHAs) subject to inundation by the 1% annual chance flood (No Base Flood Elevations determined)". If this site is not within an identified special flood hazard area, this flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. On rare occasions, greater floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor. Minimum finished floor elevations are at least 2 feet above the 100 year flood plain.
4. Block A, Lot 46X, Block K, Lot 34X and Block L, Lot 21X shall be dedicated to the Home Owners Association. All common areas shall be maintained by the HOA and are to be used for landscaping and drainage purposes.
5. All bearings shown are based on grid north of the Texas Coordinate System of 1983, North Central Zone (4202), North American Datum of 1983. All dimensions shown are ground distances. To obtain a grid distance, multiply the ground distance by the Project Combined Factor (PCF) of 0.999855348.
6. Line and Curve tables located on Sheet 4.
7. Based upon Downstream Assessment and Floodplain Study for High Pointe Ranch Phase 1A and Commercial/Collector Road dated July 10, 2023 by Kimley-Horn and Associates, Inc.





VICINITY MAP
SCALE: 1" = 4,000'

LEGEND

P.R.D.C.T.	PLAT RECORDS DENTON COUNTY, TEXAS
R.P.R.D.C.T.	REAL PROPERTY RECORDS DENTON COUNTY, TEXAS
P.O.B.	POINT OF BEGINNING
R.O.W.	RIGHT OF WAY
IRFC	CAPPED IRON ROD FOUND
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
S.S.E.	SANITARY SEWER EASEMENT

LINE TYPE LEGEND

	BOUNDARY LINE
	EASEMENT LINE
	PHASE LINE
	BUILDING LINE

FINAL PLAT

HIGHPOINTE RANCH PHASE 1B

44.187 ACRES

BLOCK A, LOTS 47-70 & 46X-HOA;
BLOCK H, LOTS 1-37; BLOCK I, LOTS 1-40;
BLOCK J, LOTS 1-32; BLOCK K, LOTS 2-33 & 34X-HOA;
BLOCK L, LOTS 1-2, 21X-HOA, & 22-38;

184 RESIDENTIAL LOTS
3 HOMEOWNER'S ASSOCIATION (HOA) LOTS

F. TREVINO SURVEY, ABSTRACT NO. 1243
CITY OF AUBREY, DENTON COUNTY, TEXAS

Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, Texas 75034
Tel. No. (972) 335-3580
FIRM # 10193822

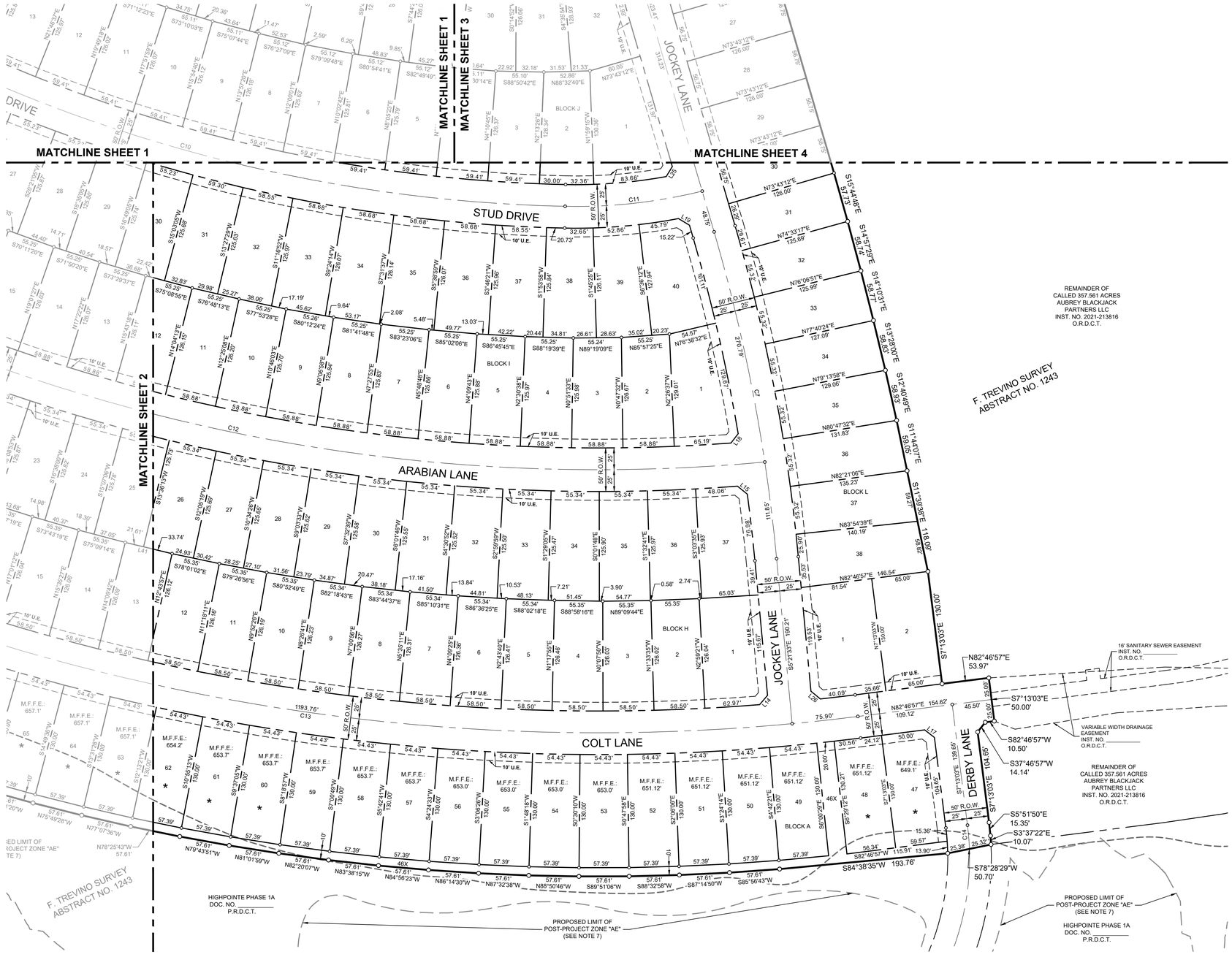
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1" = 60'	CDS	KHA	NOV. 2023	063451861	2 OF 5

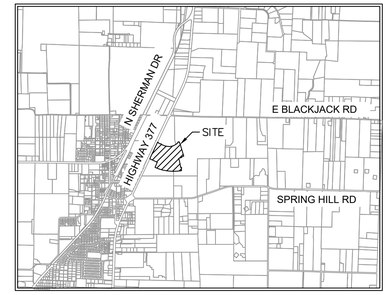
OWNER:
KLLB AIV, LLC
6900 E. Camelback Road, Suite 1090
Scottsdale, AZ 85251
Phone: 786-648-0271
Contact: Tricia Patton

SURVEYOR:
Kimley-Horn and Associates, Inc.
6160 Warren Pkwy., Suite 210
Frisco, Texas 75034
Phone: 972-335-3580
Contact : Sylviana Gunawan, R.P.L.S.

APPLICANT:
Kimley-Horn and Associates, Inc.
6160 Warren Pkwy., Suite 210
Frisco, Texas 75034
Phone: 972-335-3580
Contact : Thomas L. Fletcher, P.E.

DWG NAME: K:\FRI_SURVEY\063063747-HIGH POINT RANCH - AUBREY\DWG\063451861 HIGH POINTE RANCH PHASE 1B.DWG PLOTTED BY: GUNAWAN, SYLVIANA 11/15/2023 9:58 AM LAST SAVED: 11/15/2023 9:57 AM





VICINITY MAP
SCALE: 1" = 4,000'

LEGEND

P.R.D.C.T.	PLAT RECORDS DENTON COUNTY, TEXAS
R.P.R.D.C.T.	REAL PROPERTY RECORDS DENTON COUNTY, TEXAS
P.O.B.	POINT OF BEGINNING
R.O.W.	RIGHT OF WAY
IRFC	CAPPED IRON ROD FOUND
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
S.S.E.	SANITARY SEWER EASEMENT

LINE TYPE LEGEND

	BOUNDARY LINE
	EASEMENT LINE
	PHASE LINE
	BUILDING LINE

Notes :

1. All corners are 5/8" iron rods set with a plastic cap stamped "KHA" unless otherwise noted.
2. Selling a portion of this addition by metes and bounds is a violation of City Ordinance and state law and is subject to fines and withholding of utilities and building permits.
3. FLOOD STATEMENT: According to Federal Emergency Management Agency's Flood Insurance Rate Map No. 48121C0265G, for Denton County, Texas and incorporated areas, dated 04/18/2011, this property is located within Zone X (unshaded) defined as "Areas determined to be outside the 0.2% annual chance floodplain" and Zone A defined as "Special flood hazard areas (SFHAs) subject to inundation by the 1% annual chance flood (No Base Flood Elevations determined)". If this site is not within an identified special flood hazard area, this flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. On rare occasions, greater floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor. Minimum finished floor elevations are at least 2 feet above the 100 year flood plain.
4. Block A, Lot 46X, Block K, Lot 34X and Block L, Lot 21X shall be dedicated to the Home Owners Association. All common areas shall be maintained by the HOA and are to be used for landscaping and drainage purposes.
5. All bearings shown are based on grid north of the Texas Coordinate System of 1983, North Central Zone (4202), North American Datum of 1983. All dimensions shown are ground distances. To obtain a grid distance, multiply the ground distance by the Project Combined Factor (PCF) of 0.999855348.
6. Line and Curve tables located on Sheet 4.
7. Based upon Downstream Assessment and Floodplain Study for High Pointe Ranch Phase 1A and Commercial/Collector Road dated July 10, 2023 by Kimley-Horn and Associates, Inc.

FINAL PLAT

HIGHPOINTE RANCH PHASE 1B

44.187 ACRES

BLOCK A, LOTS 47-70 & 46X-HOA;
BLOCK H, LOTS 1-37; BLOCK I, LOTS 1-40;
BLOCK J, LOTS 1-32; BLOCK K, LOTS 2-33 & 34X-HOA;
BLOCK L, LOTS 1-2, 21X-HOA, & 22-38;

184 RESIDENTIAL LOTS
3 HOMEOWNER'S ASSOCIATION (HOA) LOTS

F. TREVIÑO SURVEY, ABSTRACT NO. 1243
CITY OF AUBREY, DENTON COUNTY, TEXAS

Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, Texas 75034
Tel. No. (972) 335-3580
FIRM # 10193822

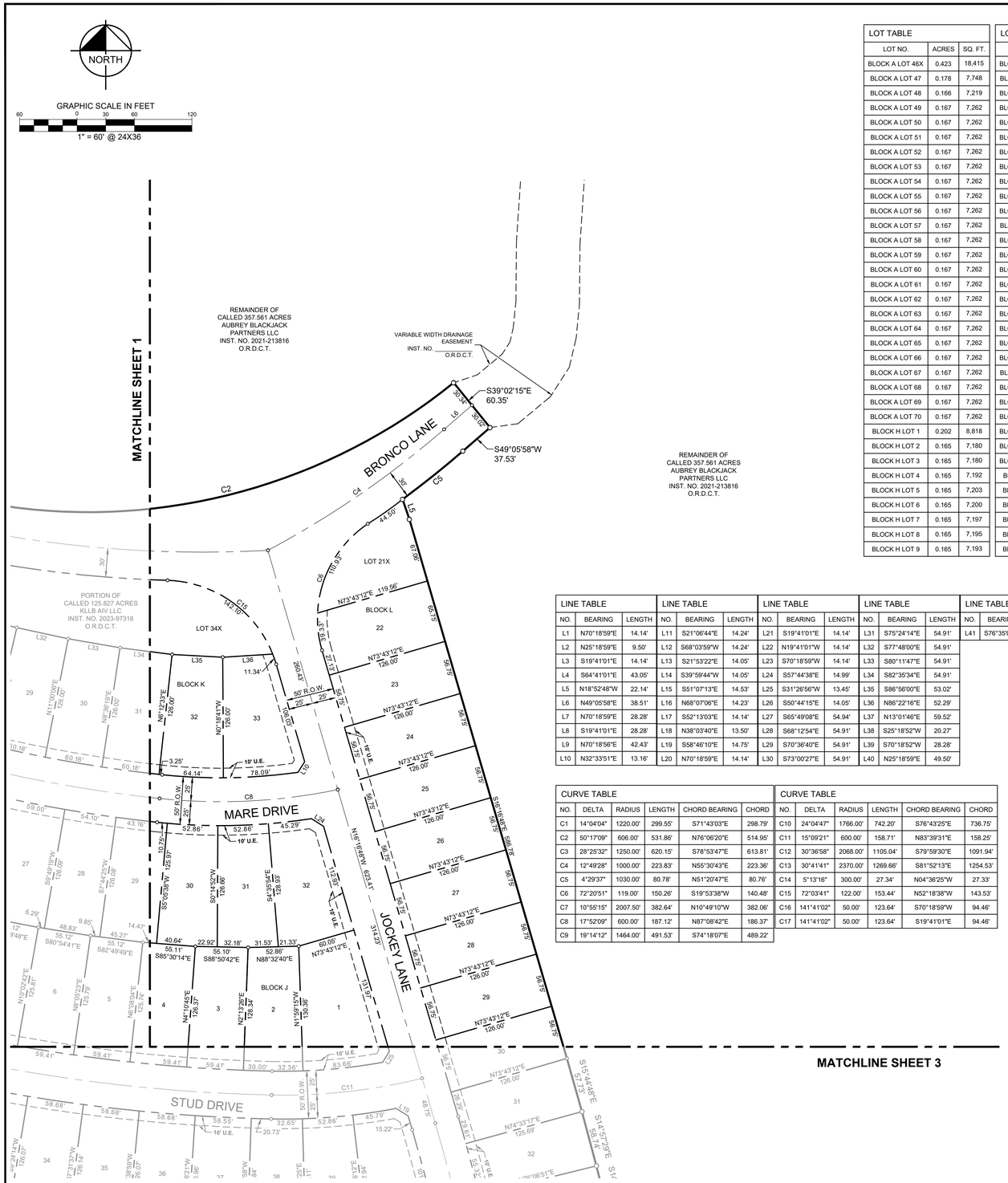
Scale	Drawn by	Checked by	Date	Project No.	Sheet No.
1" = 60'	CDS	KHA	NOV. 2023	063451861	3 OF 5

OWNER:
KLLB AIV, LLC
6900 E. Camelback Road, Suite 1090
Scottsdale, AZ 85251
Phone: 786-648-0271
Contact: Tricia Patton

SURVEYOR:
Kimley-Horn and Associates, Inc.
6160 Warren Pkwy., Suite 210
Frisco, Texas 75034
Phone: 972-335-3580
Contact : Sylviana Gunawan, R.P.L.S.

APPLICANT:
Kimley-Horn and Associates, Inc.
6160 Warren Pkwy., Suite 210
Frisco, Texas 75034
Phone: 972-335-3580
Contact : Thomas L. Fletcher, P.E.

DWG NAME: K:\FRI_SURVEY\093930747-HIGH POINT RANCH - AUBREY\DWG\063451861 HIGH POINTE RANCH PHASE 1B.DWG PLOTTED BY: GUNAWAN, SYLVIANA 11/15/2023 9:58 AM LAST SAVED: 11/15/2023 9:57 AM



LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK A LOT 46X	0.423	18,415
BLOCK A LOT 47	0.178	7,748
BLOCK A LOT 48	0.166	7,219
BLOCK A LOT 49	0.167	7,262
BLOCK A LOT 50	0.167	7,262
BLOCK A LOT 51	0.167	7,262
BLOCK A LOT 52	0.167	7,262
BLOCK A LOT 53	0.167	7,262
BLOCK A LOT 54	0.167	7,262
BLOCK A LOT 55	0.167	7,262
BLOCK A LOT 56	0.167	7,262
BLOCK A LOT 57	0.167	7,262
BLOCK A LOT 58	0.167	7,262
BLOCK A LOT 59	0.167	7,262
BLOCK A LOT 60	0.167	7,262
BLOCK A LOT 61	0.167	7,262
BLOCK A LOT 62	0.167	7,262
BLOCK A LOT 63	0.167	7,262
BLOCK A LOT 64	0.167	7,262
BLOCK A LOT 65	0.167	7,262
BLOCK A LOT 66	0.167	7,262
BLOCK A LOT 67	0.167	7,262
BLOCK A LOT 68	0.167	7,262
BLOCK A LOT 69	0.167	7,262
BLOCK A LOT 70	0.167	7,262
BLOCK H LOT 1	0.202	8,818
BLOCK H LOT 2	0.165	7,180
BLOCK H LOT 3	0.165	7,180
BLOCK H LOT 4	0.165	7,192
BLOCK H LOT 5	0.165	7,203
BLOCK H LOT 6	0.165	7,200
BLOCK H LOT 7	0.165	7,197
BLOCK H LOT 8	0.165	7,195
BLOCK H LOT 9	0.165	7,193

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK H LOT 10	0.165	7,190
BLOCK H LOT 11	0.165	7,188
BLOCK H LOT 12	0.165	7,186
BLOCK H LOT 13	0.165	7,185
BLOCK H LOT 14	0.165	7,183
BLOCK H LOT 15	0.165	7,181
BLOCK H LOT 16	0.165	7,180
BLOCK H LOT 17	0.165	7,180
BLOCK H LOT 18	0.165	7,179
BLOCK H LOT 19	0.176	7,688
BLOCK H LOT 20	0.177	7,700
BLOCK H LOT 21	0.165	7,175
BLOCK H LOT 22	0.165	7,175
BLOCK H LOT 23	0.165	7,174
BLOCK H LOT 24	0.165	7,172
BLOCK H LOT 25	0.165	7,170
BLOCK H LOT 26	0.165	7,168
BLOCK H LOT 27	0.165	7,166
BLOCK H LOT 28	0.164	7,164
BLOCK H LOT 29	0.164	7,162
BLOCK H LOT 30	0.164	7,159
BLOCK H LOT 31	0.164	7,156
BLOCK H LOT 32	0.164	7,154
BLOCK H LOT 33	0.164	7,151
BLOCK H LOT 34	0.164	7,159
BLOCK H LOT 35	0.165	7,174
BLOCK H LOT 36	0.165	7,174
BLOCK H LOT 37	0.178	7,768
BLOCK I LOT 1	0.201	8,739
BLOCK I LOT 2	0.168	7,300
BLOCK I LOT 3	0.166	7,216
BLOCK I LOT 4	0.165	7,197
BLOCK I LOT 5	0.165	7,194
BLOCK I LOT 6	0.165	7,190

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK I LOT 7	0.165	7,189
BLOCK I LOT 8	0.165	7,189
BLOCK I LOT 9	0.165	7,185
BLOCK I LOT 10	0.165	7,195
BLOCK I LOT 11	0.165	7,208
BLOCK I LOT 12	0.165	7,205
BLOCK I LOT 13	0.165	7,203
BLOCK I LOT 14	0.165	7,201
BLOCK I LOT 15	0.165	7,199
BLOCK I LOT 16	0.165	7,195
BLOCK I LOT 17	0.165	7,191
BLOCK I LOT 18	0.165	7,168
BLOCK I LOT 19	0.164	7,151
BLOCK I LOT 20	0.164	7,150
BLOCK I LOT 21	0.173	7,535
BLOCK I LOT 22	0.173	7,535
BLOCK I LOT 23	0.164	7,151
BLOCK I LOT 24	0.164	7,151
BLOCK I LOT 25	0.165	7,173
BLOCK I LOT 26	0.165	7,203
BLOCK I LOT 27	0.165	7,198
BLOCK I LOT 28	0.165	7,194
BLOCK I LOT 29	0.165	7,192
BLOCK I LOT 30	0.165	7,189
BLOCK I LOT 31	0.176	7,674
BLOCK I LOT 32	0.176	7,664
BLOCK I LOT 33	0.176	7,660
BLOCK I LOT 34	0.176	7,656
BLOCK I LOT 35	0.176	7,656
BLOCK I LOT 36	0.176	7,653
BLOCK I LOT 37	0.175	7,631
BLOCK I LOT 38	0.166	7,229
BLOCK I LOT 39	0.170	7,398
BLOCK I LOT 40	0.192	8,355

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK J LOT 1	0.239	10,409
BLOCK J LOT 2	0.171	7,468
BLOCK J LOT 3	0.168	7,299
BLOCK J LOT 4	0.166	7,227
BLOCK J LOT 5	0.166	7,211
BLOCK J LOT 6	0.166	7,213
BLOCK J LOT 7	0.165	7,209
BLOCK J LOT 8	0.166	7,219
BLOCK J LOT 9	0.166	7,232
BLOCK J LOT 10	0.166	7,229
BLOCK J LOT 11	0.166	7,226
BLOCK J LOT 12	0.166	7,224
BLOCK J LOT 13	0.166	7,219
BLOCK J LOT 14	0.165	7,188
BLOCK J LOT 15	0.164	7,151
BLOCK J LOT 16	0.164	7,151
BLOCK J LOT 17	0.173	7,535
BLOCK J LOT 18	0.173	7,535
BLOCK J LOT 19	0.164	7,151
BLOCK J LOT 20	0.164	7,150
BLOCK J LOT 21	0.165	7,196
BLOCK J LOT 22	0.190	8,272
BLOCK J LOT 23	0.178	7,738
BLOCK J LOT 24	0.178	7,734
BLOCK J LOT 25	0.177	7,730
BLOCK J LOT 26	0.178	7,742
BLOCK J LOT 27	0.178	7,757
BLOCK J LOT 28	0.163	7,107
BLOCK J LOT 29	0.164	7,164
BLOCK J LOT 30	0.169	7,351
BLOCK J LOT 31	0.171	7,441
BLOCK J LOT 32	0.198	8,610
BLOCK K LOT 2	0.182	7,924
BLOCK K LOT 3	0.164	7,150

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK K LOT 4	0.164	7,150
BLOCK K LOT 5	0.164	7,162
BLOCK K LOT 6	0.226	9,865
BLOCK K LOT 7	0.237	10,313
BLOCK K LOT 8	0.181	7,899
BLOCK K LOT 9	0.164	7,150
BLOCK K LOT 10	0.164	7,150
BLOCK K LOT 11	0.164	7,150
BLOCK K LOT 12	0.164	7,150
BLOCK K LOT 13	0.164	7,150
BLOCK K LOT 14	0.164	7,150
BLOCK K LOT 15	0.164	7,150
BLOCK K LOT 16	0.164	7,150
BLOCK K LOT 17	0.164	7,150
BLOCK K LOT 18	0.194	8,465
BLOCK K LOT 19	0.237	10,312
BLOCK K LOT 20	0.207	9,033
BLOCK K LOT 21	0.164	7,150
BLOCK K LOT 22	0.164	7,150
BLOCK K LOT 23	0.164	7,151
BLOCK K LOT 24	0.167	7,257
BLOCK K LOT 25	0.167	7,262
BLOCK K LOT 26	0.167	7,262
BLOCK K LOT 27	0.167	7,262
BLOCK K LOT 28	0.167	7,262
BLOCK K LOT 29	0.167	7,262
BLOCK K LOT 30	0.167	7,262
BLOCK K LOT 31	0.167	7,262
BLOCK K LOT 32	0.175	7,615
BLOCK K LOT 33	0.203	8,855
BLOCK K LOT 34X	1.800	78,407
BLOCK L LOT 1	0.248	10,816
BLOCK L LOT 2	0.194	8,450
BLOCK L LOT 21X	0.167	7,283

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK L LOT 22	0.188	8,202
BLOCK L LOT 23	0.164	7,150
BLOCK L LOT 24	0.164	7,150
BLOCK L LOT 25	0.164	7,150
BLOCK L LOT 26	0.164	7,150
BLOCK L LOT 27	0.164	7,150
BLOCK L LOT 28	0.164	7,150
BLOCK L LOT 29	0.164	7,150
BLOCK L LOT 30	0.164	7,150
BLOCK L LOT 31	0.164	7,145
BLOCK L LOT 32	0.165	7,169
BLOCK L LOT 33	0.166	7,210
BLOCK L LOT 34	0.168	7,300
BLOCK L LOT 35	0.171	7,439
BLOCK L LOT 36	0.175	7,621
BLOCK L LOT 37	0.181	7,868
BLOCK L LOT 38	0.197	8,599
INTERNAL ROW	9.872	430,016
ROW DEDICATION	0.501	21,825

LINE TABLE		
NO.	BEARING	LENGTH
L1	N70°18'59"E	14.14'
L2	N25°18'59"E	9.50'
L3	S19°41'01"E	14.14'
L4	S64°41'01"E	43.05'
L5	N18°52'48"W	22.14'
L6	N49°05'58"E	38.51'
L7	N70°18'59"E	28.28'
L8	S19°41'01"E	28.28'
L9	N70°18'56"E	42.43'
L10	N32°33'51"E	13.16'

LINE TABLE		
NO.	BEARING	LENGTH
L11	S21°06'44"E	14.24'
L12	S68°03'59"W	14.24'
L13	S21°53'22"E	14.05'
L14	S39°59'44"W	14.05'
L15	S51°07'13"E	14.53'
L16	N68°07'06"E	14.23'
L17	S52°13'03"E	14.14'
L18	N38°03'40"E	13.50'
L19	S58°46'10"E	14.75'
L20	N70°18'59"E	14.14'

LINE TABLE		
NO.	BEARING	LENGTH
L21	S19°41'01"E	14.14'
L22	N19°41'01"W	14.14'
L23	S70°18'59"W	14.14'
L24	S57°44'38"E	14.99'
L25	S31°26'56"W	13.45'
L26	S50°44'15"E	14.05'
L27	S65°49'08"E	54.94'
L28	S68°12'54"E	54.91'
L29	S70°36'40"E	54.91'
L30	S73°00'27"E	54.91'

LINE TABLE		
NO.	BEARING	LENGTH
L31	S75°24'14"E	54.91'
L32	S77°48'00"E	54.91'
L33	S80°11'47"E	54.91'
L34	S82°35'34"E	54.91'
L35	S86°56'00"E	53.02'
L36	N86°22'16"E	52.29'
L37	N13°01'46"E	59.52'
L38	S25°18'52"W	20.27'
L39	S70°18'52"W	28.28'
L40	N25°18'59"E	49.50'

LINE TABLE		
NO.	BEARING	LENGTH
L41	S76°35'08"E	55.35'

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	14°04'04"	1220.00'	299.55'	S71°43'03"E	298.79'
C2	50°17'09"	606.00'	531.86'	N76°06'20"E	514.95'
C3	28°25'32"	1250.00'	620.15'	S78°53'47"E	613.81'
C4	12°49'28"	1000.00'	223.83'	N55°30'43"E	223.36'
C5	4°29'37"	1030.00'	80.78'	N51°20'47"E	80.76'
C6	72°20'51"	119.00'	150.26'	S19°53'38"W	140.48'
C7	10°55'15"	2007.50'	382.64'	N10°49'10"W	382.06'
C8	17°52'09"	600.00'	187.12'	N87°08'42"E	186.37'
C9	19°14'12"	1464.00'	491.53'	S74°18'07"E	489.22'

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C10	24°04'47"	1766.00'	742.20'	S76°43'25"E	736.75'
C11	15°09'21"	600.00'	158.71'	N83°39'31"E	158.25'
C12	30°36'58"	2068.00'	1105.04'	S79°59'30"E	1091.94'
C13	30°41'41"	2370.00'	1269.66'	S81°52'13"E	1254.53'
C14	5°13'16"	300.00'	27.34'	N04°36'25"W	27.33'
C15	72°03'41"	122.00'	153.44'	N52°18'38"W	143.53'
C16	141°41'02"	50.00'	123.64'	S70°18'59"W	94.46'
C17	141°41'02"	50.00'	123.64'	S19°41'01"E	94.46'

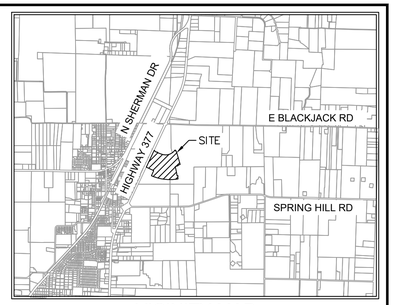
Notes :

1. All corners are 5/8" iron rods set with a plastic cap stamped "KHA" unless otherwise noted.
2. Selling a portion of this addition by metes and bounds is a violation of City Ordinance and state law and is subject to fines and withholding of utilities and building permits.
3. All surface drainage easements shall be kept clear of fences, buildings, foundations, plantings and other obstructions to the operation and maintenance of the drainage facility.
4. Blocking the flow of water or constructing improvements in surface drainage easements, and filling or obstructing the floodway is prohibited.
5. The City of Aubrey will not be responsible for any damage, personal injury or loss of life or property occasioned by flooding conditions.
6. The existing creeks or drainage channels traversing along or across the addition will remain as open channels and will be maintained by the individual property owners of the lot or lots that are traversed by or adjacent to the drainage courses along or across the lots.
7. Based upon Downstream Assessment and Floodplain Study for High Pointe Ranch Phase 1A and Commercial/Collector Road dated July 10, 2023 by Kimley-Horn and Associates, Inc.
8. Construction not completed within two years of approval subject to current County Subdivision Rules and Regulations.
9. No construction, without written approval from the City of Aubrey shall be allowed within an identified "FIRM" floodplain area, and then only after a detailed floodplain development permit including engineering plans and studies show that no rise in the Base Flood Elevation (BFE) will result, that no flooding will result, that no obstruction to the natural flow of water will result; and subject to all owners of the property affected by such construction becoming a party to the request. Where construction is permitted, all finish floor elevations shall be a minimum of two foot above the 100-year flood elevation.
10. The City of Aubrey will be responsible for the maintenance of all public infrastructure that is constructed in right-of-way or easements that are dedicated to the public or the City of Aubrey.
11. FLOOD STATEMENT: According to Federal Emergency Management Agency's Flood Insurance Rate Map No. 48121C0265G, for Denton County, Texas and incorporated areas, dated 04/18/2011, this property is located within Zone X (unshaded) defined as "Areas determined to be outside the 0.2% annual chance floodplain" and Zone A defined as "Special flood hazard areas (SFHAs) subject to inundation by the 1% annual chance flood (No Base Flood Elevations determined)". If this site is not within an identified special flood hazard area, this flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. On rare occasions, greater floods can and will occur and flood heights may be increased by man-made or natural causes. This flood statement shall not create liability on the part of the surveyor. Minimum finished floor elevations are at least 2 feet above the 100 year flood plain.
12. Water service to be provided by the City of Aubrey.
13. Utility Providers:

    Electric & Gas Service: Texas-New Mexico Power
    1479 Justin Rd
    Lewisville, TX 75055
    Phone: (972) 317-5542

    Telephone Service: FisionX, LLC
    1707 Marketplace BLvd, 1st FL
    Irving, TX 75063
    Phone: (305) 462-4176

14. Sanitary Sewer to be provided by the City of Aubrey.
15. The City of Aubrey shall not be responsible for the maintenance of any private facilities, including but not limited to, HOA or High Pointe Ranch Municipal Utility District No. 1 open space lots, private parks, amenity center(s), development signage and entry features. Maintenance of these facilities shall be the responsibility of either the HOA or High Pointe Ranch Municipal Utility District No. 1, and the HOA and High Pointe Ranch Municipal Utility District No. 1 hold harmless the City of Aubrey, from all claims, damages and loses arising out of or resulting from performance of the obligations said HOA or High Pointe Ranch Municipal Utility District No. 1.
16. All utilities and drainage structures are located in the right-of-way except as shown.
17. Block A, Lot 46X, Block K, Lot 34X and Block L, Lot 21X shall be dedicated to the Home Owners Association and shall be owned and maintained by the HOA. All common areas shall be maintained by the HOA and are to be used for landscaping and drainage purposes and public access for trails.
18. All bearings shown are based on grid north of the Texas Coordinate System of 1983, North Central Zone (4202), North American Datum of 1983. All dimensions shown are ground distances. To obtain a grid distance, multiply the ground distance by the Project Combined Factor (PCF) of 0.999855348.
19. Lots within proposed reclaimed flood zone are indicated on the plat with a ✶ No building permits will be issued on Lots 47-48, and 60-70, Block A until a Letter of Map Revision (LOMR) has been approved by FEMA.



VICINITY MAP
SCALE: 1" = 4,000'

LEGEND

P.R.D.C.T.	PLAT RECORDS DENTON COUNTY, TEXAS
R.P.R.D.C.T.	REAL PROPERTY RECORDS DENTON COUNTY, TEXAS
P.O.B.	POINT OF BEGINNING
R.O.W.	RIGHT OF WAY
IRFC	CAPPED IRON ROD FOUND
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
S.S.E.	SANITARY SEWER EASEMENT

LINE TYPE LEGEND

	BOUNDARY LINE
	EASEMENT LINE
	PHASE LINE
	BUILDING LINE

LAND USE TABLE :

LAND USE	ACREAGE	LOTS
RESIDENTIAL	31.424	184 LOTS
HOA/OPEN SPACE	0.423	A-46X
HOA/OPEN SPACE	1.800	K-34X
HOA/OPEN SPACE	0.167	L-21X
STREET R.O.W.	10.373	-
TOTAL	44.187	187 LOTS

FINAL PLAT

HIGHPOINTE RANCH PHASE 1B

44.187 ACRES

BLOCK A, LOTS 47-70 & 46X-HOA;
BLOCK H, LOTS 1-37; BLOCK I, LOTS 1-40;
BLOCK J, LOTS 1-32; BLOCK K, LOTS 2-33 & 34X-HOA;
BLOCK L, LOTS 1-2, 21X-HOA, & 22-38;

184 RESIDENTIAL LOTS
3 HOMEOWNER'S ASSOCIATION (HOA) LOTS

F. TREVINO SURVEY, ABSTRACT NO. 1243
CITY OF AUBREY, DENTON COUNTY, TEXAS

Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, Texas 75034
Tel. No. (972) 335-3580
FIRM # 10193822

Scale	Drawn by	Checked by	Date	Project No.	Sheet No.
1" = 60'	CDS	KHA	NOV. 2023	063451861	4 OF 5

OWNER:
KLLB AIV, LLC
6900 E. Camelback Road, Suite 1090
Scottsdale, AZ 85251
Phone: 786-648-0271
Contact: Tricia Patton

SURVEYOR:
Kimley-Horn and Associates, Inc.
6160 Warren Pkwy., Suite 210
Frisco, Texas 75034
Phone: 972-335-3580
Contact : Sylviana Gunawan, R.P.L.S.

APPLICANT:
Kimley-Horn and Associates, Inc.
6160 Warren Pkwy., Suite 210
Frisco, Texas 75034
Phone: 972-335-3580
Contact : Thomas L. Fletcher, P.E.

DWG NAME: K:\FRI_SURVEY\063063747-HIGH POINT RANCH - AUBREY\DWG\063451861 HIGH POINTE RANCH PHASE 1B.DWG PLOTTED BY GUNAWAN, SYLVIANA 11/15/2023 9:59 AM LAST SAVED 11/15/2023 9:57 AM

OWNER'S CERTIFICATE

STATE OF TEXAS §

COUNTY OF DENTON §

WHEREAS KLLB AIV LLC, is the owner of a tract of land situated in the F. Trevino Survey, Abstract No. 1243, Denton County, Texas, and being a portion of a called 125.827 acre tract of land described in a deed to KLLB AIV LLC, as recorded in Instrument No. 2023-97316 of the Official Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a 5/8 inch iron rod with plastic cap stamped "KHA" set for the northwest corner of said 125.827 acre tract, being on the easterly right-of-way line of U.S. Highway 377, a 120 foot wide right-of-way;

THENCE departing the easterly right-of-way line of said U.S. Highway 377, and along the northerly and easterly lines of said 125.827 acre tract, the following courses and distances:

South 64°52'24" East, a distance of 40.72 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 19°41'04" East, a distance of 42.91 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 64°41'01" East, a distance of 105.11 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 70°18'59" East, a distance of 14.14 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 25°18'59" East, a distance of 9.50 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 64°41'01" East, a distance of 50.00 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 25°18'59" West, a distance of 9.50 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 19°41'01" East, a distance of 14.14 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 64°41'01" East, a distance of 43.05 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set at the beginning of a tangent curve to the left with a radius of 1,220.00 feet, a central angle of 14°04'04", and a chord bearing and distance of South 71°43'03" East, 298.79 feet;

In an easterly direction, with said tangent curve to the left, an arc distance of 299.55 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set at the beginning of a compound curve to the left with a radius of 606.00 feet, a central angle of 50°17'09", and a chord bearing and distance of North 76°06'20" East, 514.95 feet;

In an easterly direction, with said compound curve to the left, an arc distance of 531.86 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 39°02'15" East, a distance of 60.35 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the northernmost northeast corner of said 125.827 acre tract;

South 49°05'58" West, a distance of 37.53 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set at the beginning of a tangent curve to the right with a radius of 1,030.00 feet, a central angle of 04°29'37", and a chord bearing and distance of South 51°20'47" West, 80.76 feet;

In a northerly direction, with said tangent curve to the right, an arc distance of 80.78 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 18°52'48" East, a distance of 22.14 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 16°16'48" East, a distance of 586.78 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 15°44'48" East, a distance of 57.73 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 14°57'29" East, a distance of 58.74 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 14°10'31" East, a distance of 58.77 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 13°28'00" East, a distance of 58.83 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 12°40'49" East, a distance of 58.93 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 11°44'07" East, a distance of 59.05 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 11°39'38" East, a distance of 118.09 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 07°13'03" East, a distance of 130.00 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 82°46'57" East, a distance of 53.97 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 07°13'03" East, a distance of 50.00 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 82°46'57" West, a distance of 10.50 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 37°46'57" West, a distance of 14.14 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 07°13'03" East, a distance of 104.65 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 05°51'50" East, a distance of 15.35 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 03°37'22" East, a distance of 10.07 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for an ell corner of said 125.827 acre tract;

THENCE departing the easterly line of said 125.827 acre tract and crossing said 125.827 acre tract, the following courses and distances:

South 78°28'29" West, a distance of 50.70 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 84°38'35" West, a distance of 193.76 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 85°56'43" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 87°14'50" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

South 88°32'58" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;
South 89°51'06" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 88°50'46" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 87°32'38" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 86°14'30" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 84°56'23" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 83°38'15" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 82°20'07" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 81°01'59" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 79°43'51" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 78°25'43" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 77°07'36" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 75°49'28" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 74°31'20" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 73°13'12" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 71°55'04" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 70°36'56" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;
North 69°18'49" West, a distance of 57.61 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 68°00'41" West, a distance of 69.66 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for an ell corner of said 125.827 acre tract on the westerly line of said 125.827 acre tract;

THENCE along the westerly line of said 125.827 acre tract, the following courses and distances:

North 66°31'22" West, a distance of 50.00 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 23°28'38" East, a distance of 311.70 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for corner;

North 64°41'01" West, a distance of 456.97 feet to a 5/8 inch iron rod with plastic cap stamped "KHA" set for the northernmost southwest corner of said 125.827 acre tract, being on the easterly right-of-way line of aforesaid U.S. Highway 377;

THENCE North 25°19'18" East, along the westerly line of said 125.827 acre tract and the easterly right-of-way line of said U.S. Highway 377, a distance of 1,033.00 feet to the **POINT OF BEGINNING** and containing 44.187 acres (1,924,793 square feet) of land, more or less.

OWNER'S DEDICATION STATEMENT

STATE OF TEXAS §

COUNTY OF DENTON §

NOW, THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT **KLLB AIV LLC,** acting herein by and through its duly authorized officers, does hereby adopt this plat designating the hereinabove described property as **HIGHPOINTE RANCH PHASE 1B**, an addition to the City of Aubrey, Texas, and does hereby dedicate, in fee simple, to the public use forever, the streets and alleys shown thereon. The streets and alleys are dedicated for street purposes. The easements and public use areas, as shown, are dedicated for the public use forever, for the purposes indicated on this plat. In addition, utility easements may also be used for the mutual use and accommodation of all public utilities desiring to use or using the same unless the easement limits the use to particular utilities, said use by public utilities being subordinate to the public's and City of Aubrey's use thereof. The City of Aubrey and public utility entities shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs, or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of their respective systems in said easements. The City of Aubrey and public utility entities shall at all times have the full right of ingress and egress to or from their respective easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining, reading meters, and adding to or removing all or parts of their respective systems without the necessity at any time of procuring permission from anyone.

Witness this _____ day of _____, 20__.

BY: **KLLB AIV LLC**, a Delaware limited liability company

BY: _____

Name: _____

Title: _____

STATE OF ARIZONA §

COUNTY OF _____ §

On this _____ day of _____, 2023, before me personally appeared _____ (name of signer), whom I know personally, and acknowledged that he/she executed the same.

_____
Notary Public, State of Arizona

SURVEYOR'S CERTIFICATION

KNOW ALL MEN BY THESE PRESENTS:

That I, Sylviana Gunawan, do hereby certify that a survey was made on the ground of the property described hereon under my personal supervision and the iron rods were placed in accordance with the subdivision rules and regulations of the City of Aubrey, Texas.

_____
Sylviana Gunawan
Registered Professional Land Surveyor No. 6461
Kimley-Horn and Associates, Inc.
6160 Warren Pkwy., Suite 210
Frisco, Texas 75034
Phone 972-335-3580

PRELIMINARY
THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

STATE OF TEXAS §

COUNTY OF COLLIN §

BEFORE ME, the undersigned, a Notary Public in and for The State of Texas, on this day personally appeared Sylviana Gunawan, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that she executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 20__.

_____
Notary Public, State of Texas

CERTIFICATE OF FINAL PLAT APPROVAL

This Final Plat was reviewed and approved by the City Council of the City of Aubrey, Texas the _____ day of _____, 20____.

_____
CHRIS RICH, MAYOR
CITY OF AUBREY, TEXAS

FINAL PLAT
HIGHPOINTE RANCH PHASE 1B

44.187 ACRES

BLOCK A, LOTS 47-70 & 46X-HOA;
BLOCK H, LOTS 1-37; BLOCK I, LOTS 1-40;
BLOCK J, LOTS 1-32; BLOCK K, LOTS 2-33 & 34X-HOA;
BLOCK L, LOTS 1-2, 21X-HOA, & 22-38;

184 RESIDENTIAL LOTS
3 HOMEOWNER'S ASSOCIATION (HOA) LOTS

F. TREVINO SURVEY, ABSTRACT NO. 1243
CITY OF AUBREY, DENTON COUNTY, TEXAS

Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, Texas 75034
Tel. No. (972) 335-3580
FIRM # 10193822

Scale	Drawn by	Checked by	Date	Project No.	Sheet No.
N/A	CDS	KHA	NOV. 2023	063451861	5 OF 5

OWNER:
KLLB AIV, LLC
6900 E. Camelback Road, Suite 1090
Scottsdale, AZ 85251
Phone: 786-648-0271
Contact: Tricia Patton

SURVEYOR:
Kimley-Horn and Associates, Inc.
6160 Warren Pkwy., Suite 210
Frisco, Texas 75034
Phone: 972-335-3580
Contact : Sylviana Gunawan, R.P.L.S.

APPLICANT:
Kimley-Horn and Associates, Inc.
6160 Warren Pkwy., Suite 210
Frisco, Texas 75034
Phone: 972-335-3580
Contact : Thomas L. Fletcher, P.E.

DWG NAME: K:\FRI_SURVEY\063306747-HIGH POINT RANCH - AUBREY\DWG\063451861 HIGH POINTE RANCH PHASE 1B.DWG PLOTTED BY: GUNAWAN, SYLVIANA 11/15/2023 9:59 AM LAST SAVED: 11/15/2023 9:57 AM

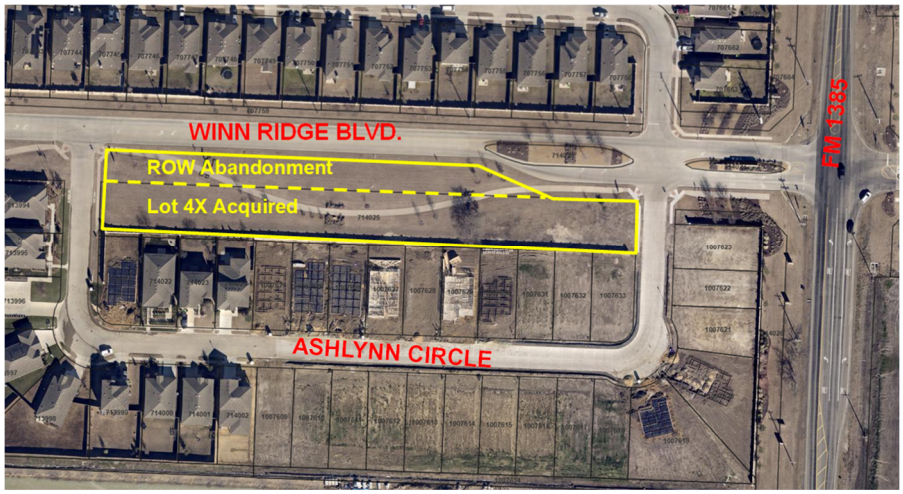
Case Report –Site Plan Application – Fire Station 2
Planning and Zoning Commission –May 9, 2024
City Council – May 23, 2024

To: Mayor, City Council, and Planning and Zoning Commission

From: Helen-Eve Beadle, AICP, HE Planning+Design, LLC

Request: Consider and make a recommendation to the City Council regarding a Site Plan for Winn Ridge, Phase 1B, Lot 4X, Block E and right-of-way abandonment, (proposed Lot 4R1), being approximately 1.66 acres of land out of the William Lumpkin Survey, Abstract No. 730, within the City of Aubrey, Denton County, Texas. (*City of Aubrey*)

Owner:	City of Aubrey
Engineer:	Project Management Associates, PLLC (Jose Soto, P.E.)
Application Date:	April 23, 2024
Location:	The property is generally located west of FM 1385, along Winn Ridge Drive, and north of Ashlynn Circle.
Zoning:	N/A
Current Use:	Open Space and right-of-way
Analysis:	The City recently acquired Lot 4X, Block B, (HOA lot) of the Winn Ridge subdivision from the developer/HOA. Lot 4X and right-of-way abandonment are being combined to provide for a fire station site and city park facilities. The Site Plan includes the location of the fire station, parking, pavilion, and playground. The Landscape Plans and Elevations are included in the Site Plan package.



Recommendation: The Site Plan for Fire Station No. 2 is recommended for approval subject to the following conditions:

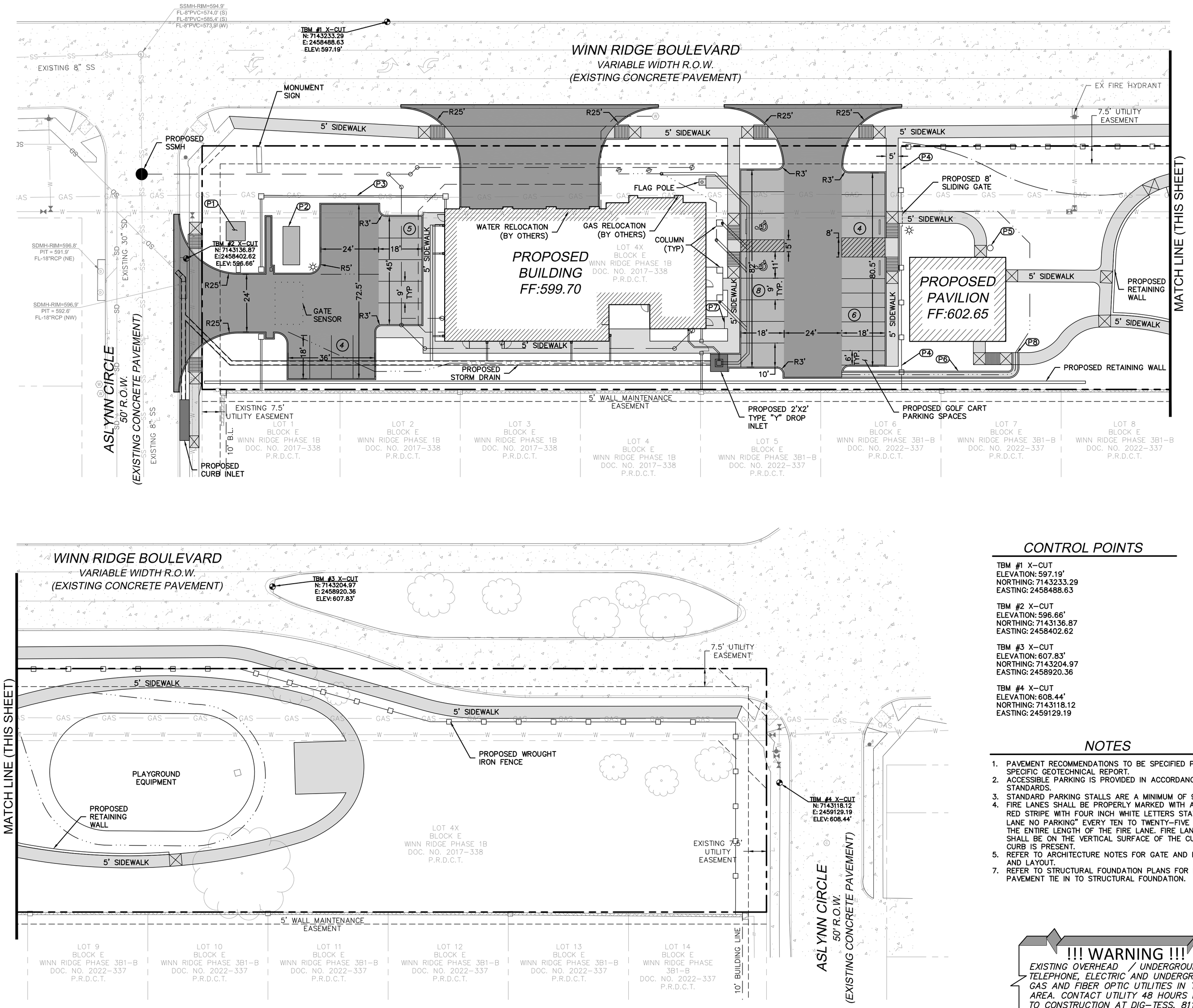
1. A photometric plan for site lighting meeting the City's lighting standards shall be submitted prior to a permit being issued for exterior lighting;
2. The project engineer shall submit a statement of compliance with the City's subdivision and engineering design standards; and
3. The lot configuration and associated utility and visibility easements shall be revised to follow the existing ROW and parkway configuration along the northeast portion of the lot.

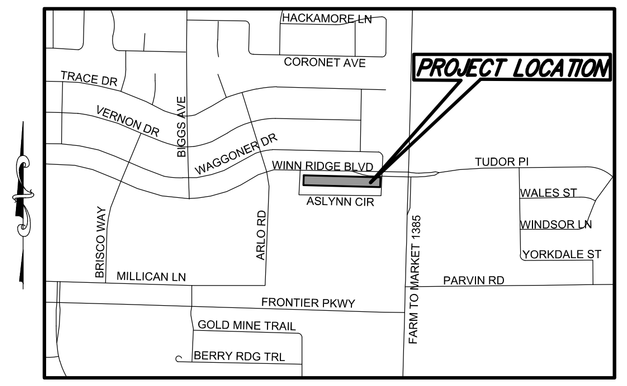
The Planning and Zoning Commission may recommend to the City Council

1. Approve the Site Plan;
2. Approve the Site Plan with conditions; or
3. Deny the Site Plan.

Attachments:

1. Fire Station No. 2 Site Plan
2. Fire Station No. 2 Elevations
3. Fire Station No. 2 Landscape Plans





VICINITY MAP
SCALE: 1"=1,000'

LEGEND

- SITE BOUNDARY
- EXISTING EASEMENT
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SERVICE
- EXISTING SANITARY SEWER
- EXISTING WATER
- PROPOSED TOP OF GRADE BREAK
- PROPOSED SWALE AND FLOWLINE
- PROPOSED STORM LINE
- HEAVY DUTY PAVEMENT (REFER TO GEOTECHNICAL REPORT)
- MEDIUM DUTY PAVEMENT (REFER TO GEOTECHNICAL REPORT)
- LIGHT DUTY PAVEMENT (REFER TO GEOTECHNICAL REPORT)
- ACCESSIBLE PARKING SPACE
- PROPOSED BUILDING FOOTPRINT
- NUMBER OF PARKING SPOTS PER AREA

CONTROL POINTS

TBM #1 X-CUT
ELEVATION: 597.19'
NORTHING: 7143233.29
EASTING: 2458488.63

TBM #2 X-CUT
ELEVATION: 596.66'
NORTHING: 7143136.87
EASTING: 2458402.62

TBM #3 X-CUT
ELEVATION: 607.83'
NORTHING: 7143204.97
EASTING: 2458920.36

TBM #4 X-CUT
ELEVATION: 608.44'
NORTHING: 7143118.12
EASTING: 2459129.19

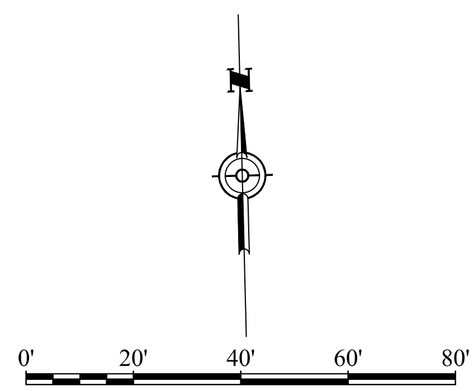
NOTES BY SYMBOL

- (P1) 8'X8' ELECTRIC TRANSFORMER PAD (REFER TO MEP PLANS)
- (P2) EMERGENCY GENERATOR (REFER TO MEP PLANS)
- (P3) MASONRY SCREEN WALL
- (P4) WROUGHT IRON FENCE
- (P5) DRINKING FOUNTAIN
- (P6) 2' F-F FLUME
- (P7) 1-3" STEP
- (P8) STEEL PLATE OVER FLUME CROSSING

NOTES

1. PAVEMENT RECOMMENDATIONS TO BE SPECIFIED PER SITE SPECIFIC GEOTECHNICAL REPORT.
2. ACCESSIBLE PARKING IS PROVIDED IN ACCORDANCE WITH TAS STANDARDS.
3. STANDARD PARKING STALLS ARE A MINIMUM OF 9'X18'.
4. FIRE LANES SHALL BE PROPERLY MARKED WITH A SIX INCH RED STRIPE WITH FOUR INCH WHITE LETTERS STATING "FIRE LANE NO PARKING" EVERY TEN TO TWENTY-FIVE FEET ALONG THE ENTIRE LENGTH OF THE FIRE LANE. FIRE LANE MARKINGS SHALL BE ON THE VERTICAL SURFACE OF THE CURB WHEN A CURB IS PRESENT.
5. REFER TO ARCHITECTURE NOTES FOR GATE AND FENCE DETAILS AND LAYOUT.
7. REFER TO STRUCTURAL FOUNDATION PLANS FOR PROPOSED PAVEMENT TIE IN TO STRUCTURAL FOUNDATION.

!!! WARNING !!!
EXISTING OVERHEAD / UNDERGROUND TELEPHONE, ELECTRIC AND UNDERGROUND GAS AND FIBER OPTIC UTILITIES IN THIS AREA. CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT DIG-TESS, 811.



GRAPHIC SCALE IN FEET
1" = 20'

Project Management Associates
Civil Engineers and Construction Managers
530 Bedford Road, Suite 102
Bedford, TX 76022
Texas Registered Engineering Firm F-10640

DRAWN BY: M.A.S.D.
CHECKED BY: E.O.M.
DATE: 03/21/2024
ISSUED FOR PERMIT:
ISSUE FOR PRICING:
ISSUE FOR CONSTRUCTION:
REVISIONS:

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RPGA DESIGN GROUP, INC.
ARCHITECTURE SPACE PLANNING INTERIORS
101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9487 METRO 972.445.6425

CITY OF AUBREY
FIRE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX

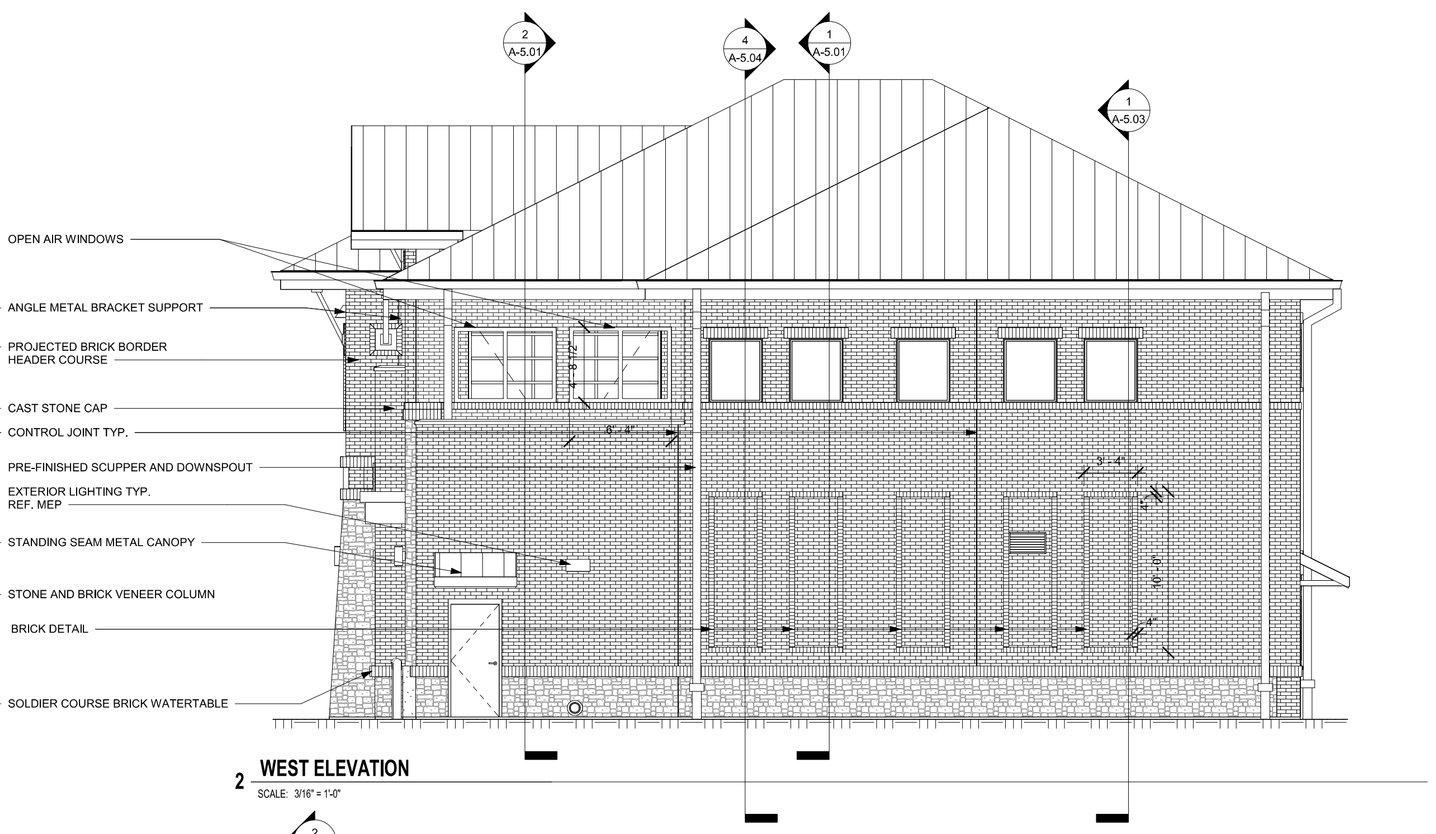
STATE OF TEXAS
EDGAR O. MEDINA
148482
LICENSED PROFESSIONAL ENGINEER
3/21/24

SHEET DESCRIPTION
SITE PLAN

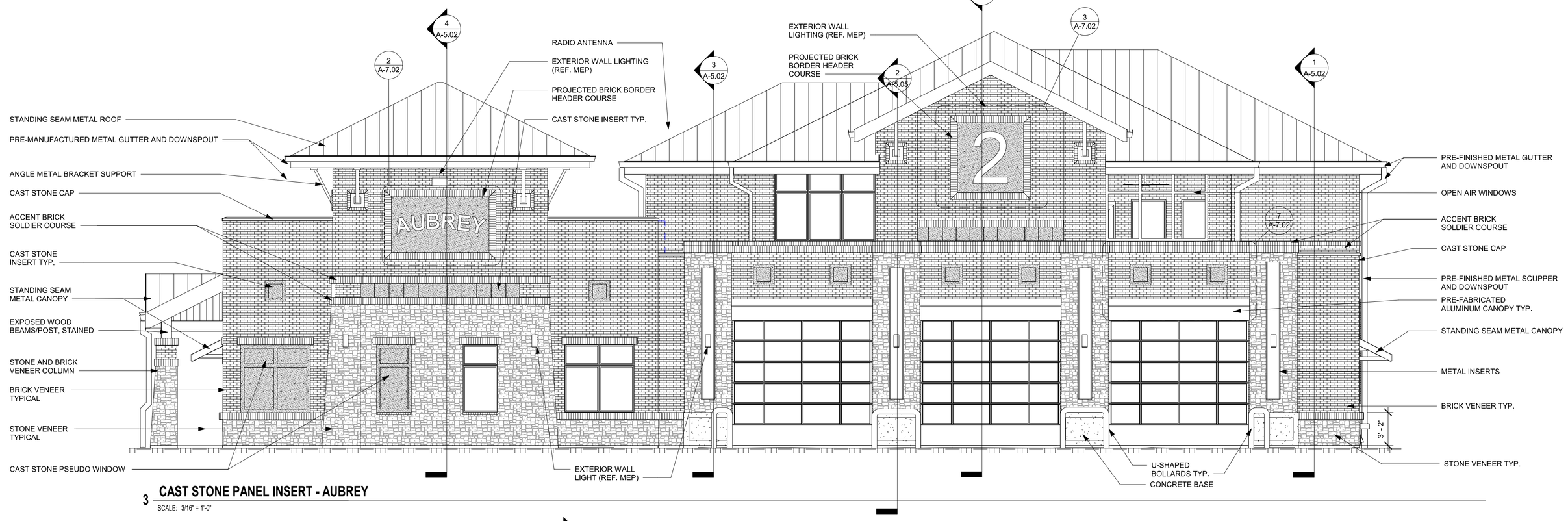
SHEET NO.
C-1.0



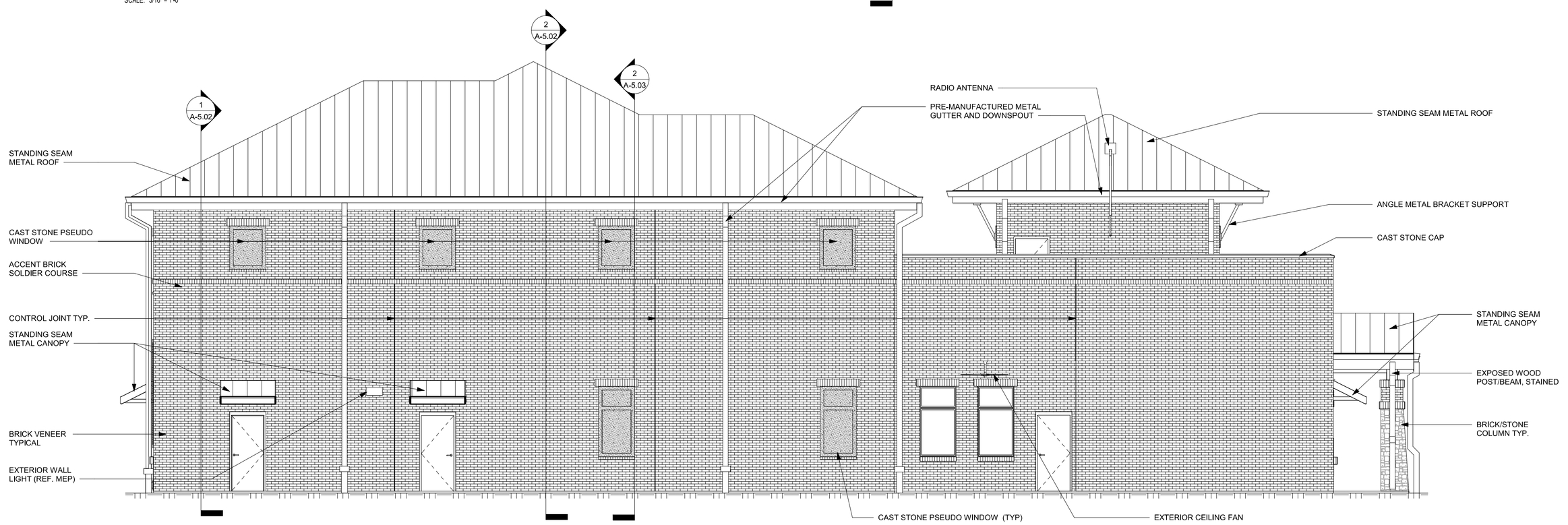
1 **EAST ELEVATION**
SCALE: 3/16" = 1'-0"



2 **WEST ELEVATION**
SCALE: 3/16" = 1'-0"



3 **CAST STONE PANEL INSERT - AUBREY**
SCALE: 3/16" = 1'-0"



4 **SOUTH ELEVATION**
SCALE: 3/16" = 1'-0"

DRAWN BY:	A.N.B., M.A.
CHECKED BY:	RPG
DATE:	3/21/2024
ISSUED FOR PERMIT:	--
ISSUED FOR PRICING:	--

REVISIONS:

No.	Description	Date

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WWW.RPGAARCHITECTS.COM

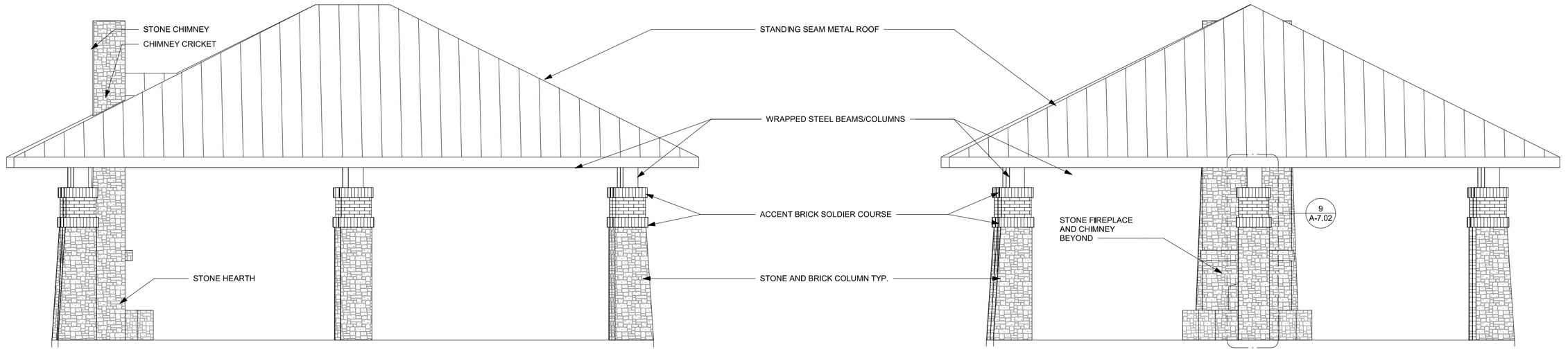
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT ROBERT PAUL GARNER, LUCAS 31414 STATE OF TEXAS

3/21/2024

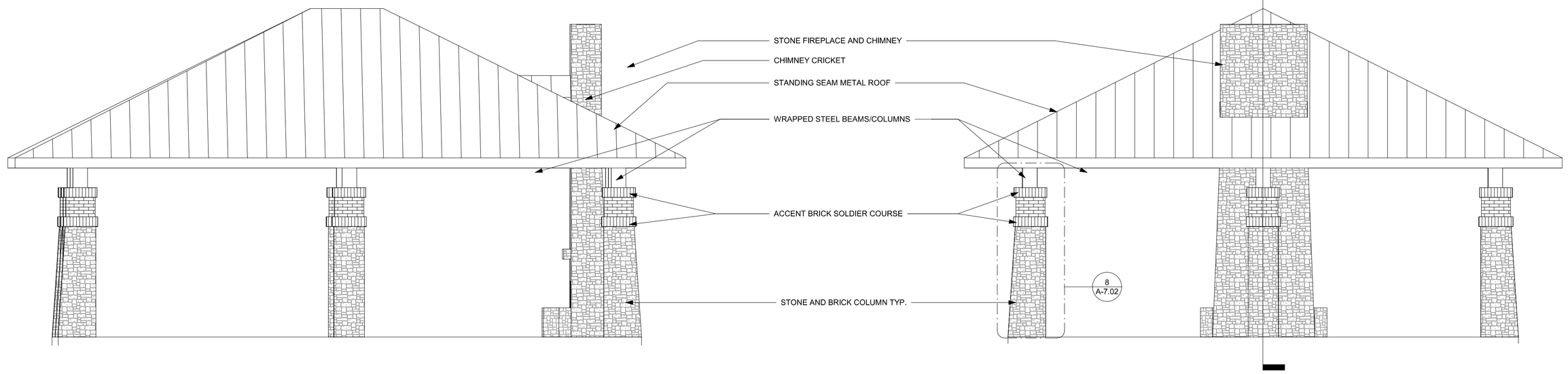
SHEET DESCRIPTION:
EXTERIOR ELEVATIONS

SHEET NO.
A-4.01



1 **North Elevation - Pavilion**
SCALE: 1/4" = 1'-0"

2 **West Elevation - Pavilion**
SCALE: 1/4" = 1'-0"



3 **South Elevation - Pavilion**
SCALE: 1/4" = 1'-0"

4 **East Elevation - Pavilion**
SCALE: 1/4" = 1'-0"

DRAWN BY:	A.N.B.
CHECKED BY:	RPG
DATE:	3/21/2024
ISSUED FOR PERMIT:	
ISSUED FOR PRICING:	

REVISIONS:

No.	Description	Date

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RPGA DESIGN GROUP, INC.
ARCHITECTURE SPACE PLANNING INTERIORS
101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.5477 FAX 817.332.9487
WWW.RPGAARCHITECTS.COM

CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

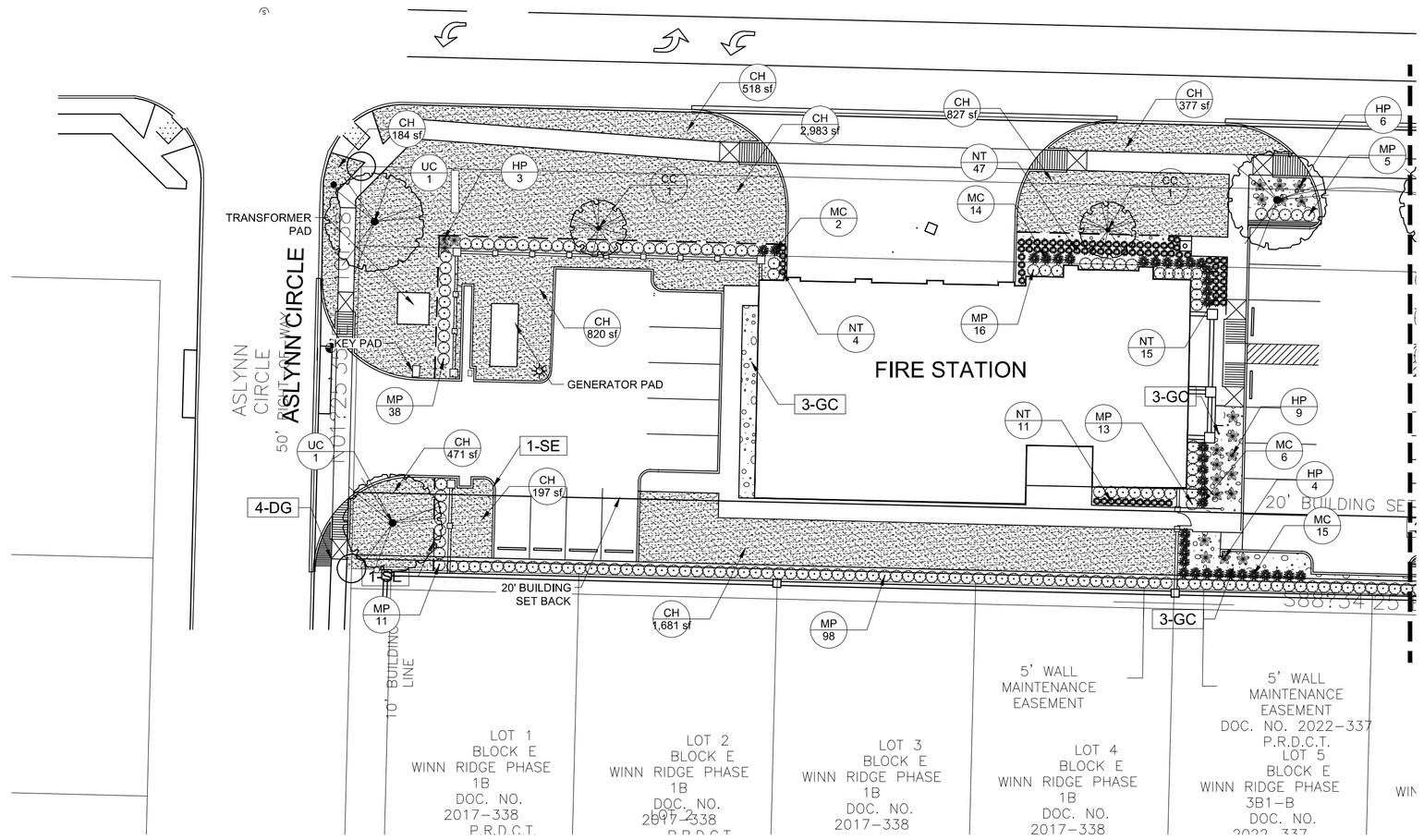
REGISTERED ARCHITECT RYAN P. GRIFFIN 31615 STATE OF TEXAS

3/21/2024

SHEET DESCRIPTION:
EXTERIOR ELEVATIONS

SHEET NO.
A-4.02

PLOT DATE AND TIME: 3/21/2024 4:41 PM



PLANT SCHEDULE

SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	CONTAINER	HEIGHT	SPREAD	REMARKS
TREES								
	UC	9	CEDAR ELM ULMUS CRASSIFOLIA	3" CAL.	POT	10`-12`	8`-10`	SINGLE TRUNK, FULL AND MATCHED
	PC	9	CHINESE PISTACHE MULTI-TRUNK PISTACIA CHINENSIS	3" CAL.	POT			SINGLE TRUNK, FULL AND MATCHED
	CC	15	MERLOT REDBUD CERCIS X `MERLOT`	3" CAL.	POT			SINGLE TRUNK, FULL AND MATCHED
SHRUBS								
	MP	224	DWARF SOUTHERN WAX MYRTLE MYRICA PUSILLA	3 GAL.	POT	16"-18"	12"-16"	FULL MATCHED-36" O.C.
DROUGHT TOLERANT								
	HP	42	RED YUCCA HESPERALOE PARVIFLORA	5 GAL.	POT	24"-26"	24"	FULL MATCHED-AS SHOWN ON PLAN
GRASSES								
	NT	181	MEXICAN FEATHERGRASS NASSELLA TENUISSIMA `PONY TAILS`	1 GAL.	POT	16"-18"	12"-16"	FULL MATCHED-18" O.C.
	MC	102	REGAL MIST PINK MUHLY MUHLENBERGIA CAPILLARIS `LENCA`	3 GAL.	POT	24"-26"	24"	FULL MATCHED-30" O.C.
SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	CONTAINER	*	*	SPACING REMARKS
SOD/SEED								
	CH	61,005 SF	BERMUDA GRASS CYNODON DACTYLON `419 HYBRID`	---				SOLID SOD ,STAGGERED JOINTS, THICK AND GREEN, NO GAPS BETWEEN SOD PIECES.

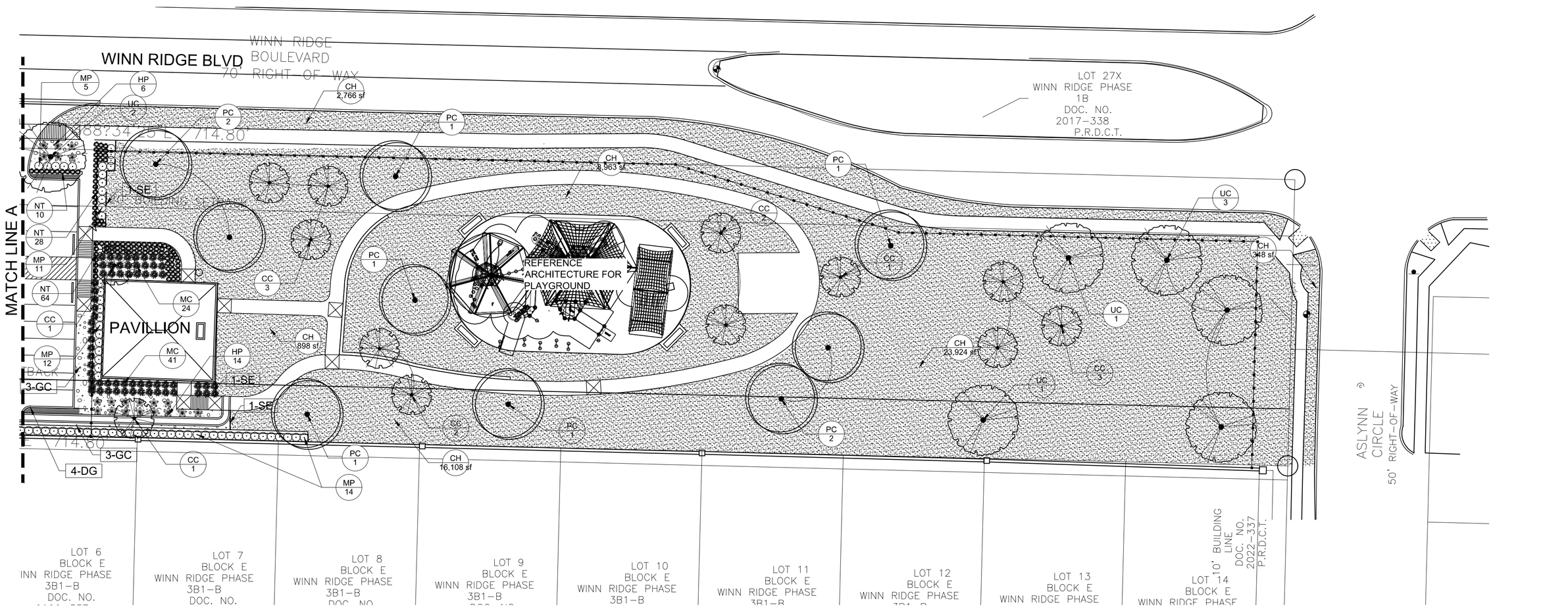
NOTE:

1. CAL. MEANS "CALIPER" WHICH IS A STANDARD FOR THE TRUNK MEASUREMENT. IT IS THE DIAMETER OF THE TRUNK MEASURED TWELVE (12) INCHES ABOVE GROUND LEVEL FOR NEW OR REPLACEMENT TREES. IF A TREE IS MULTI-TRUNK VARIETY, THE CALIPER OF THE TREE IS THE SUM OF THE LARGES TRUNK PLUS ONE-HALF THE TOTAL OF OTHER TRUNKS, MEASURED AT TWELVE (12) INCHES ABOVE THE ROOT BALL. TREES MUST MEET OR EXCEED THE SPECIFIED CALIPER SIZES IN PLANT LIST.
2. FOR SHRUBS MINIMUM CONTAINER SIZE IS USED UNDER ROOT BALL, HOWEVER PLANTS PLANTED SHALL MEET THE MINIMUM HEIGHT AS CALLED OUT IN THE PLANT LIST, WHICH COULD RESULT IN REQUIRING A LARGER CONTAINER SIZE TO MEET THE HEIGHT REQUIREMENT. THIS MAY REQUIRED A CONTAINER SIZE LARGER THAN THE ONES USED UNDER ROOT BALL.
3. QUANTITIES ARE PROVIDED AS A CURTESY TO THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL PLANT QUANTITIES SHOWN IN SCHEDULE AND PLANS FOR BIDDING AND PERMIT.

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
1-SE	STEEL EDGING- 3/16" THICK X 4" WIDE ONLY 1/2" EXPOSED ABOVE SOIL LINE OF SOD	239 LF	

SYMBOL	DESCRIPTION	QTY	DETAIL
3-GC	CRUSH GRANITE 3" DEPTH PLACED OVER FILTER FABRIC	13.44 CY	
4-DG	DECOMPOSED GRANITE 3" PLACED OVER FILTER FABRIC	1.12 CY	



GENERAL PLANTING NOTES

1. CONTRACTOR SHALL ADHERE TO CITY CONSTRUCTION REQUIREMENTS INCLUDING BUT NOT LIMITED TO ANY PERMITS, INSPECTIONS, AND METHODS OF MATERIAL INSTALLATION.
2. CONTRACTOR SHALL ADHERE TO ALL AGENCY REQUIREMENTS MEANS AND METHODS OF CONSTRUCTION.
3. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES ABOVE AND BELOW GRADE, AS WELL AS FINDING OUT EACH COMPANY'S RESTRICTIONS ON WORKING WITHIN THEIR EASEMENTS AND UTILITY LINES PRIOR TO COMMENCING CONSTRUCTION.
4. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING IMPROVEMENTS AND TO NOT DISTURB THOSE THAT ARE OUTSIDE OF THE SCOPE OF WORK. ANY STRUCTURES THAT ARE TO REMAIN WITHIN THE SCOPE OF WORK AREA SHALL NOT BE DAMAGED. PHOTOGRAPHS AND NOTES SHOULD BE MADE FOR ANY EXISTING DAMAGED CONDITIONS PRIOR TO COMMENCING CONSTRUCTION AND DISTRIBUTED TO OWNERS REPRESENTATIVE.
5. A LANDSCAPE IRRIGATION PLAN SHALL BE PREPARED PRIOR TO LANDSCAPE CONSTRUCTION AND WILL BE DESIGNED BY A TEXAS LICENSED IRRIGATION DESIGNER. ALL PLANTING AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM WITH A FREEZE AND RAIN SENSOR. THE SYSTEM SHALL BE DESIGNED TO MEET THE CITY AND THE STATE IRRIGATION REQUIREMENTS. THE IRRIGATION INSTALLER SHALL BE A STATE OF TEXAS LICENSED IRRIGATION DESIGNER.
6. CONTRACTOR SHALL NOTIFY OWNERS REPRESENTATIVE IF THERE ARE ANY WATER RESTRICTIONS AND WHAT IF ANY IMPACT THIS MAY HAVE ON THE INSTALLATION OF PLANT MATERIAL.
7. QUANTITIES SHOWN IN PLANT LIST FOR PLANT MATERIAL AREA PROVIDED AS A COURTESY FOR THE CONTRACTOR. CONTRACTOR SHALL VERIFY PRIOR TO BIDDING THAT THE QUANTITY WILL COVER THE SPECIFIED AREAS AT THE SPACING STATED IN THE PLANT LIST UNDER THE REMARKS COLUMN. IF THERE IS A DIFFERENCE, THE CONTRACTOR SHALL MAKE NOTE ON THEIR BID AND SHOW THE ADDED OR REDUCED COST.
8. CONTRACTOR SHALL ESTABLISH SOURCES FOR ALL PLANT MATERIAL ON PLANT LIST WHEN BIDDING PROJECT. NO PLANTS SUBSTITUTIONS.
9. CONTRACTOR SHALL BECOME FAMILIAR WITH THE DRAWINGS FOR THIS PROJECT PRIOR TO INSTALLATION.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE OWNERS REPRESENTATIVE OF ANY CONDITION FOUND ON-SITE WHICH PROHIBITS INSTALLATION AS SHOWN ON THESE PLANS.
11. ALL NEW PLANTING BEDS SHALL HAVE A MINIMUM SIX (6") INCHES OF BED PREPARATION.
12. LAWN AREA SHALL HAVE FERTILE AND CLEAN TOP SOIL TILLED 4" DEEP.
13. GRADING IN PLANTING BEDS SHALL BE SMOOTH AND PROVIDE POSITIVE DRAINAGE.
14. CONTRACTOR SHALL STAKE OUT LOCATION OF ALL TREES, AND SHRUBS FOR APPROVAL BY OWNERS REPRESENTATIVE PRIOR TO PLANTING.
15. MULCHING OF SHRUB AND ANY GROUND COVER AREAS SHALL HAVE 3 INCHES OF SHREDDED HARDWOOD MULCH.
16. LANDSCAPED AREAS SHALL BE KEPT FREE OF TRASH, LITTER, WEEDS, AND OTHER SUCH MATERIAL OR PLANTS NOT A PART OF THE LANDSCAPING.
17. THE PROPERTY OWNER, TENANT AND ANY AGENT THEREOF SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING MATERIALS IN GOOD CONDITION AT ALL TIMES SO AS TO PRESENT A HEALTHY, NEAT AND ORDERLY APPEARANCE. ANY LANDSCAPING MATERIAL THAT DIES SHALL BE REPLACED WITH HEALTHY MATERIAL WITHIN A REASONABLE TIME. ALL LANDSCAPED AREAS SHALL BE CONTINUOUSLY MAINTAINED FREE OF WEEDS, DEBRIS AND LITTER. WEEDS AND NATURAL UNCULTIVATED GRASS SHALL NOT BE CONSIDERED LANDSCAPING.

BERKENBILE
LANDSCAPE ARCHITECTS
SOUTHLAKE OFFICE
2355 Johnson Rd
Southlake, TX 76092
(214) 922-9946
(817) 379-9853

100% CD

DRAWN BY: SB
CHECKED BY: BLA
DATE: 03-21-2024
ISSUED FOR PERMIT:
ISSUED FOR PRICING:

REVISIONS:

No.	Description	Date

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RPGA DESIGN GROUP, INC.
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101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.5477 FAX 817.332.5480
WWW.RPGAARCHITECTS.COM

FIRE STATION #2
CITY OF AUBREY
WINN RIDGE BLVD. AUBREY, TEXAS

03-21-2024

REGISTERED LANDSCAPE ARCHITECT
STEPHEN C. BERKENBILE
1763
STATE OF TEXAS

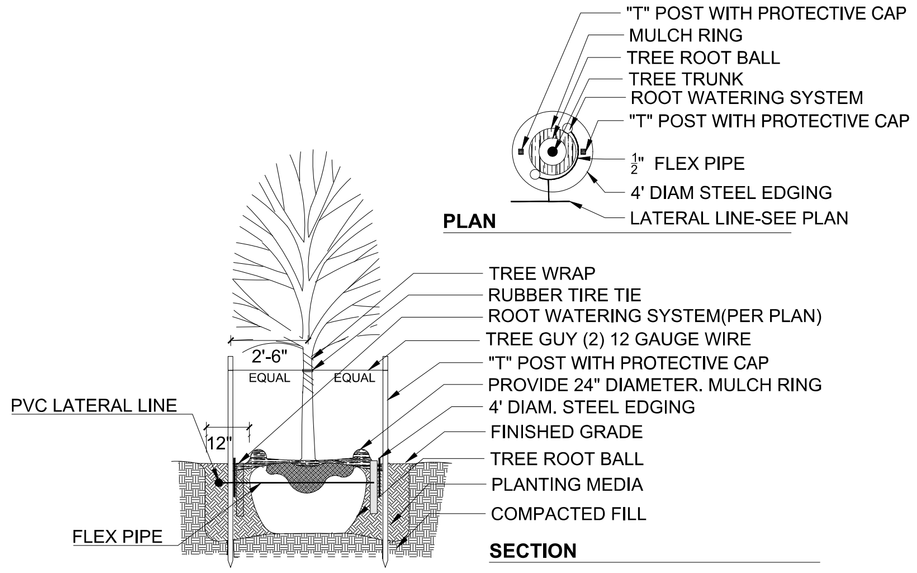
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SHEET NO.
L-1

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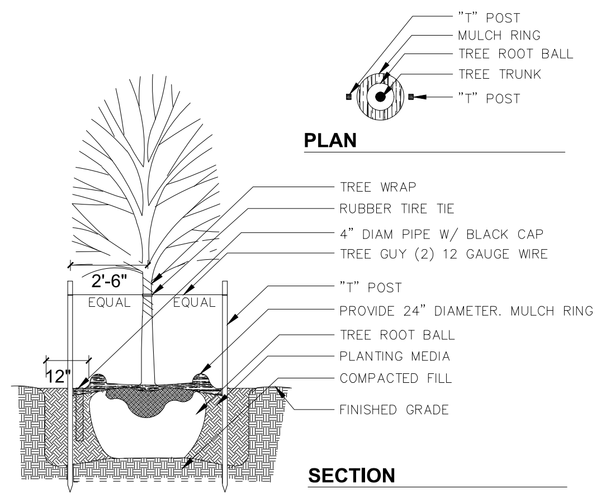
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PLOT DATE AND TIME: 3/21/2024 4:41 PM



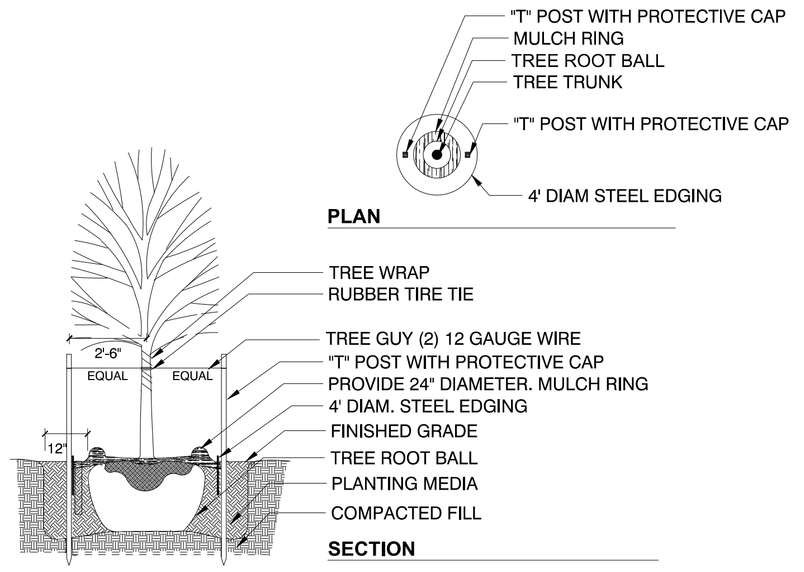
3 TREE PLANTING IN LAWN WITH ROOT WATERING SYSTEM

NTS P-CO-PLA1-03



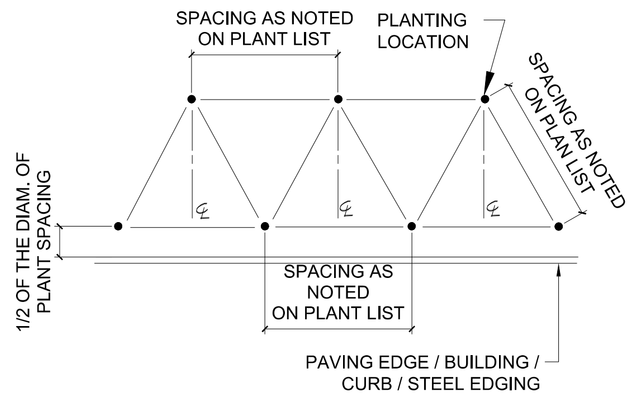
2 TREE PLANTING IN MULCH

1" = 1" P-CO-PLA1-02



1 TREE PLANTING IN LAWN WITH 4' DIAMETER STEEL EDGING

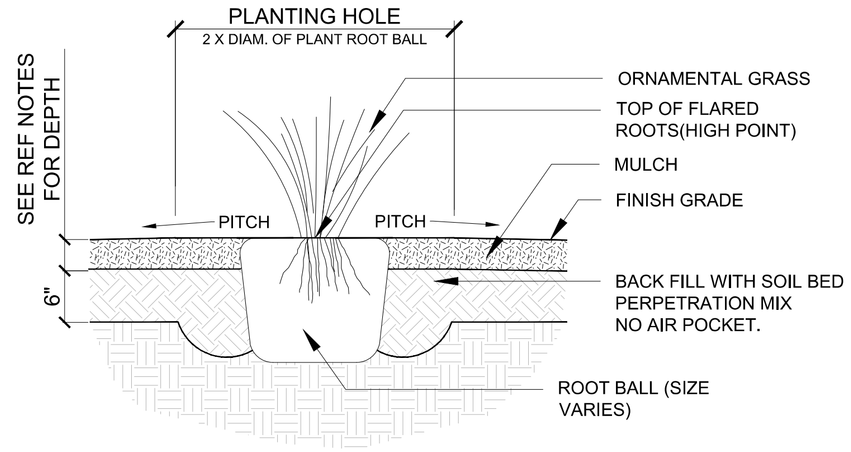
NTS P-CO-PLA1-01



NOTE:
SPACING DIAGRAM REFERS TO ALL PLANTING UNLESS NOTED OTHERWISE.

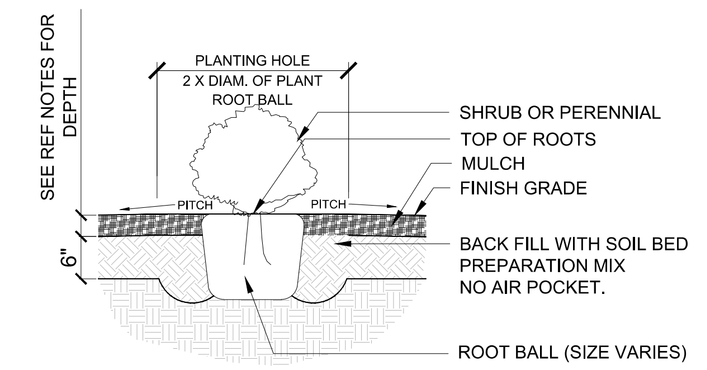
6 TRIANGULAR SPACING

NTS P-CO-PLA1-05



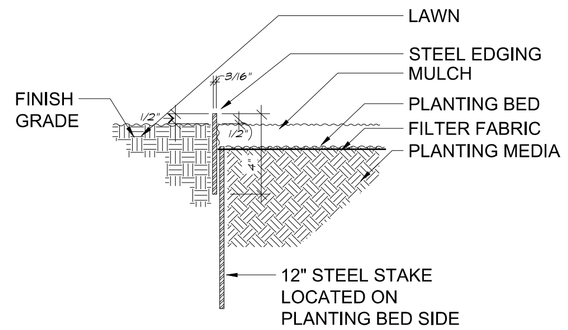
5 GRASS PLANTING DETAIL

NTS P-CO-PLA1-06



4 SHRUB PLANTING DETAIL

NTS P-CO-PLA1-04



7 STEEL EDGING DETAIL

NTS P-CO-PLA1-09

DRAWN BY: SB
CHECKED BY: BLA
DATE: 03-21-2024
ISSUED FOR PERMIT:
ISSUED FOR PRICING:

REVISIONS:

No.	Description	Date

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FIRE STATION #2
CITY OF AUBREY
WINN RIDGE BLVD. AUBREY, TEXAS

03-21-2024
REGISTERED LANDSCAPE ARCHITECT
STEPHEN C. BERKENBILE
1763
STATE OF TEXAS

SHEET DESCRIPTION:

SHEET NO.
L-2

100% CD

BERKENBILE
LANDSCAPE ARCHITECTS
SOUTHLAKE OFFICE
2355 Johnson Rd (214) 922-9946
Southlake, TX 76092 (817) 379-9853

FILE NAME AND PATH: S:\BLA,Inc Dropbox\BLA,Inc Team Folder\RPG\Rpg-230901 Aubrey FS No. 2105-CD DD\Sheet Files\CD\Rpg-230901 Aubrey FS No.2.dwg

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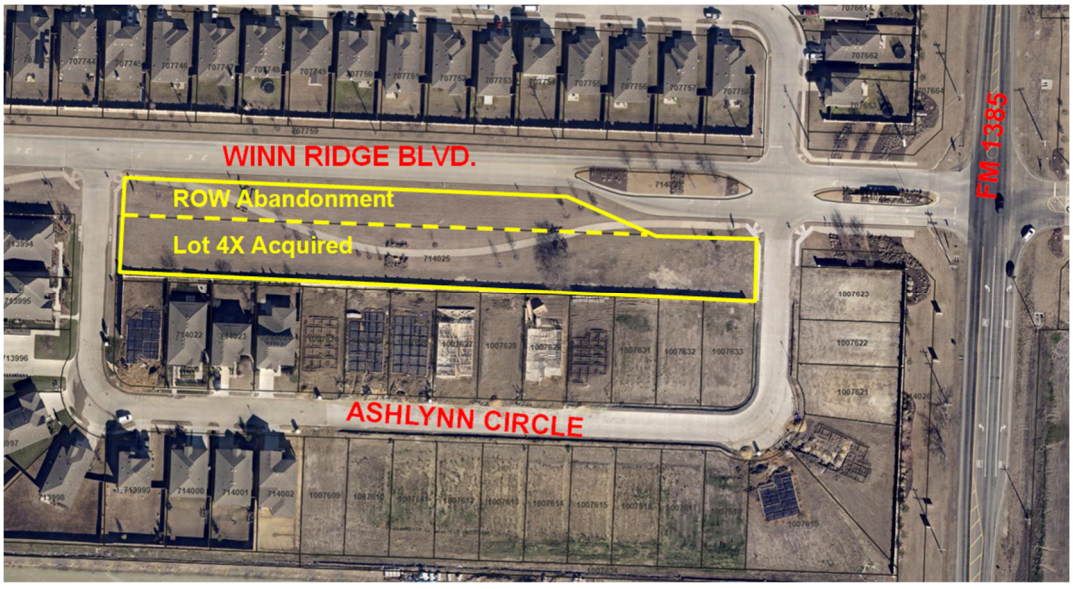
Case Report –Replat Application – Winn Ridge, Phase 1B, Lot 4X, Block E and right-of-way abandonment
Planning and Zoning Commission –May 9, 2024
City Council – May 23, 2024

To: Mayor, City Council, and Planning and Zoning Commission

From: Helen-Eve Beadle, AICP, HE Planning+Design, LLC

Request: Consider and make a recommendation to the City Council regarding a Replat for Winn Ridge, Phase 1B, Lot 4X, Block E and right-of-way abandonment, (proposed Lot 4R1), being approximately 1.66 acres of land out of the William Lumpkin Survey, Abstract No. 730, within the City of Aubrey, Denton County, Texas. (*City of Aubrey*)

Owner:	City of Aubrey
Engineer:	Project Management Associates, PLLC (Jose Soto, P.E.)
Application Date:	April 23, 2024
Location:	The property is generally located west of FM 1385, along Winn Ridge Drive, and north of Ashlynn Circle.
Zoning:	N/A
Current Use:	Open Space and right-of-way
Analysis:	The Replat for Lot 4R1 of the Winn Ridge, Phase 1 is to assemble land that was previously an HOA open space lot and right-of-way to provide for Fire Station No. 2 site.



Recommendation:

The Replat for Lot 4R1, Block E of the Winn Ridge, Phase 1B (Fire Station No. 2 site) is recommended for approval subject to the following conditions:

1. The project engineer shall submit a statement of compliance with the City's subdivision and engineering design standards;
2. The Winn Ridge HOA Owner signature block shall be removed from the Replat;
3. The Winn Ridge HOA references shall be removed from the notes, owner's certificate, and the signature block; and
4. The lot configuration and associated utility and visibility easements shall be revised to follow the existing ROW and parkway configuration along the northeast portion of the lot.

Other requirements for filing: Signed Final Plat, tax certificate for filing, completion of improvements, and filing fees.

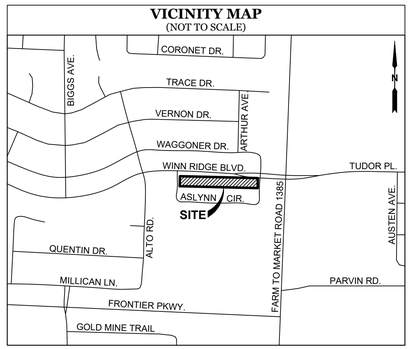
The Planning and Zoning Commission may recommend to the City Council

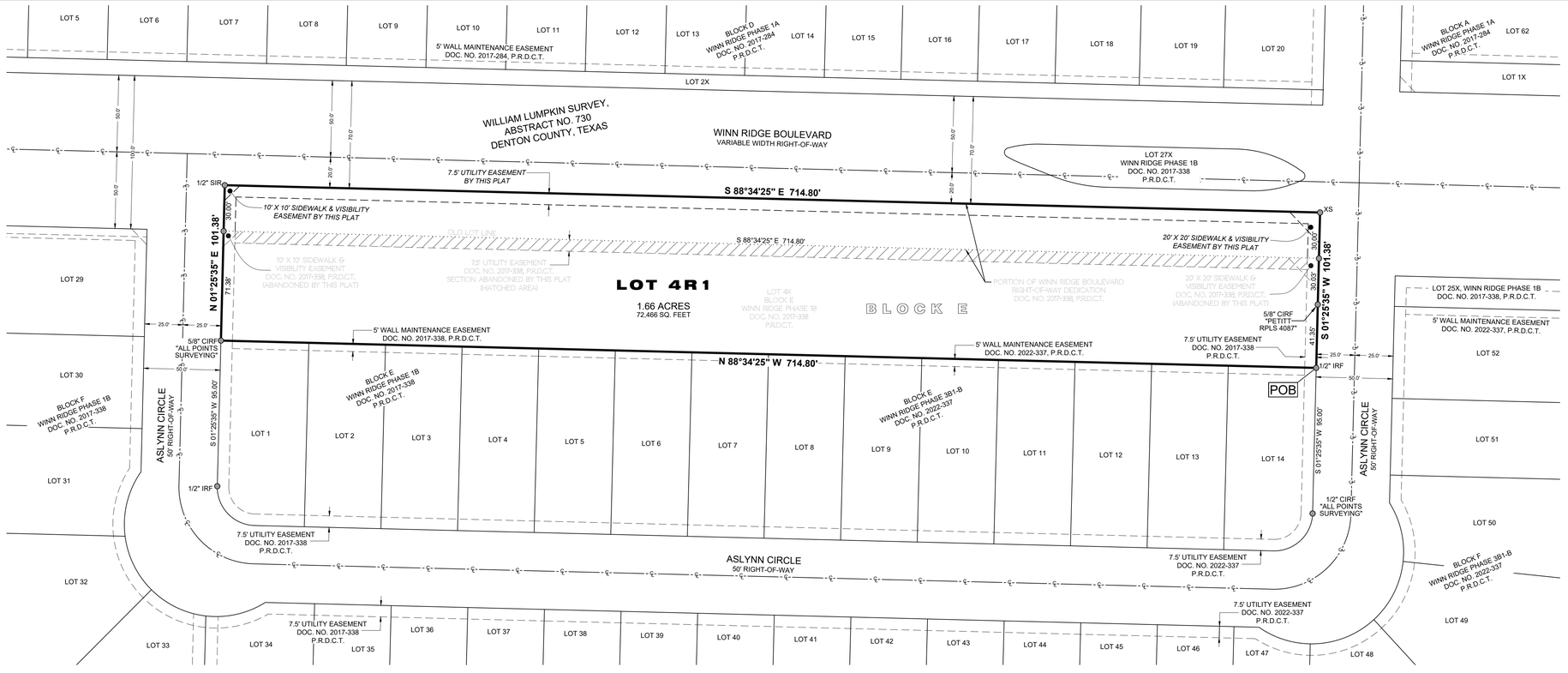
1. Approve the Replat;
2. Approve the Replat with conditions; or
3. Deny the Replat.

Attachments:

1. Replat of Winn Ridge, Phase 1B of Lot 4X, Block E to Lot 4R1, Block E
2. Fire Station No. 2 Construction Plans

VICINITY MAP
(NOT TO SCALE)





GENERAL NOTES

1. The purpose of this replat is to combine a portion of the Winn Ridge Boulevard right-of-way dedication with all of Lot 4X into one (1) lot of record.
2. This property is located in **Non-shaded Zone "X"** as scaled from the F.E.M.A. Flood Insurance Rate Map dated April 18, 2011 and is located in Community Number 480774 as shown on Map Number 48121C0270G.
3. The bearings and grid coordinates shown on this plat are based on GPS observations utilizing the AllTerra RTK Network - North American Datum of 1983 (Adjustment Realization 2011).
4. Selling a portion of this addition by metes and bounds is a violation of City Ordinance and State Law, and is subject to fines and/or withholding of utilities and building permits.
5. All interior property corners are marked with a 1/2-inch iron rod with a green plastic cap stamped "EAGLE SURVEYING" unless noted otherwise.

CERTIFICATE OF SURVEYOR

STATE OF TEXAS §
COUNTY OF DENTON §

I, **MATTHEW RAABE**, Registered Professional Land Surveyor, do hereby certify that this plat was prepared from an actual survey made on the ground and that the monuments shown hereon were found or placed with 1/2-inch iron rods with green plastic caps stamped "EAGLE SURVEYING" under my direction and supervision in accordance with the current provisions of the Texas Administrative Code and the Ordinances of the City of Aubrey, Denton County, Texas.

PRELIMINARY
this document shall not be recorded for any purpose and shall not be used or viewed or relied upon as a final survey document

Matthew Raabe, R.P.L.S. #6402 — Date

STATE OF TEXAS §
COUNTY OF DENTON §

BEFORE ME, the undersigned authority, on this day personally appeared **MATTHEW RAABE**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF THE OFFICE this _____ day of _____, 20___.

Notary Public in and for the State of Texas

CERTIFICATE OF REPLAT APPROVAL

This Replat was reviewed and approved by the City Council of the City of Aubrey Texas the

_____ day of _____, 20_____.

Chris Rich, Mayor
City of Aubrey, Texas

OWNER'S CERTIFICATE

STATE OF TEXAS §
COUNTY OF DENTON §

WHEREAS; **WINN RIDGE HOMEOWNERS ASSOCIATION, INC.** and the **CITY OF AUBREY**, are the owners of a certain tract of land out of the William Lumpkin Survey, Abstract Number 730, situated in Denton County, Texas, being Lot 4X in Block E of Winn Ridge, Phase 1B, a subdivision recorded in Document Number 2017-338 of the Plat Records of Denton County, Texas, and being a portion of Winn Ridge Boulevard, a 100 foot wide Right-of-Way dedicated under said Document Number 2017-338, and being more particularly described by metes & bounds as follows:

BEGINNING at a 1/2-inch iron rod found in the West Right-of-Way line of Aslynn Circle, being the Southeast corner of said Lot 4X and the Northeast corner of Lot 14 in Block E of Winn Ridge, Phase 3B1-B, a subdivision recorded in Document Number 2022-337 of the Plat Records of Denton County, Texas;

THENCE North 88 degrees 34 minutes 25 seconds West, along the South line of said Lot 4X and the North line of Lots 5-14 in Block E of said Winn Ridge, Phase 3B1-B and the North line of Lots 1-4 in Block E of said Winn Ridge, Phase 1B, a distance of 714.80 feet to a capped 1/2-inch iron rod stamped "ALL POINTS SURVEYING" found in the East Right-of-Way line of Aslynn Circle, being the Southwest corner of said Lot 4X and the Northwest corner of said Lot 1;

THENCE North 01 degree 25 minutes 35 seconds East, along the East Right-of-Way line of Aslynn Circle and the West line of said Lot 4X, passing a point at the Southeast intersection of Aslynn Circle and Winn Ridge Boulevard, being the Northwest corner of said Lot 4X at a distance of 71.38 feet, and continuing along said course, over and across Winn Ridge Boulevard for a total distance of 101.38 feet to a capped 1/2-inch iron rod stamped "EAGLE SURVEYING" set in same;

THENCE South 88 degrees 34 minutes 25 seconds East, continuing over and across Winn Ridge Boulevard, a distance of 714.80 feet to a cut 'X' set in same;

THENCE South 01 degree 25 minutes 35 seconds West, continuing over and across Winn Ridge Boulevard, passing a point at the Southwest intersection of Winn Ridge Boulevard and Aslynn Circle, being the Northeast corner of said Lot 4X at a distance of 30.00 feet, and continuing along said course along the West Right-of-Way line of Aslynn Circle and the East line of said Lot 4X for a total distance of 101.38 feet to the **POINT OF BEGINNING**, containing 1.66 acres, or 72,466 square feet of land, more or less.

OWNER'S DEDICATION

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT, **WINN RIDGE HOMEOWNERS ASSOCIATION, INC.** and the **CITY OF AUBREY,** do hereby adopt this plat designating the hereinabove described property as **LOT 4R1, BLOCK E, WINN RIDGE, PHASE 1B,** an addition in the City of Aubrey, Texas, and does hereby dedicate, in fee simple, to the public use forever, the streets and easements shown thereon. The streets are dedicated for street purposes. The easements and public use areas, as shown, are dedicated, for the public use forever, for the purposes indicated on this plat. No buildings, fences, trees, shrubs or other improvements or growths shall be constructed or placed upon, over or across the easements as shown, except that landscape improvements may be placed in landscape easements, if approved by the City of Aubrey. In addition, utility easements may also be used for the mutual use and accommodation of all public utilities desiring to use or using the same unless the easement limits the use to particular utilities, said use by public utilities being subordinate to the public's and City of Aubrey's use thereof. The City of Aubrey and public utility entities shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of their respective systems in said easements. The City of Aubrey and public utility entities shall at all times have the full right of ingress and egress to or from their respective easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining, reading meters, and adding to or removing all or parts of their respective systems without the necessity at any time procuring permission from anyone.

This plat approved subject to all platting ordinances, rules, regulations and resolutions of the City of Aubrey, Texas.

OWNER: **WINN RIDGE HOMEOWNERS ASSOCIATION, INC.**

BY: _____ _____
Authorized Representative — Date

OWNER: **CITY OF AUBREY**

BY: _____ _____
Authorized Representative — **Date**

STATE OF TEXAS §
COUNTY OF DENTON §

BEFORE ME, the undersigned authority, on this day personally appeared _____, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF THE OFFICE this _____ day of _____, 20__.

Notary Public in and for the State of Texas

STATE OF TEXAS §
COUNTY OF DENTON §

BEFORE ME, the undersigned authority, on this day personally appeared _____, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and considerations therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF THE OFFICE this _____ day of _____, 20__.

Notary Public in and for the State of Texas

LEGEND

POB	= POINT OF BEGINNING
CIRF	= CAPPED IRON ROD FOUND
IRF	= IRON ROD FOUND
CIRS	= CAPPED IRON ROD SET
XS	= 'X' CUT SET
P.R.D.C.T.	= PLAT RECORDS, DENTON COUNTY, TEXAS
O.R.D.C.T.	= OFFICIAL RECORDS, DENTON COUNTY, TEXAS

JOB NUMBER	2310.007-03
DATE	04/30/2024
REVISION	-
DRAWN BY	DJJ

EAGLE SURVEYING
Eagle Surveying, LLC
222 South Elm Street
Suite: 200
Denton, TX 76201
940.222.3009
www.eaglesurveying.com
TX Firm # 10194177

SURVEYOR
Eagle Surveying, LLC
Contact: Brad Eubanks
222 S. Elm Street, Suite: 200
Denton, TX 76201
(940) 222-3009

OWNER
City of Aubrey
107 S. Main St.
Aubrey, TX 76227
(940) 440-9343

REPLAT
WINN RIDGE, PHASE 1B
LOT 4R1, BLOCK E
1.66 ACRES

REPLAT OF LOT 4X, BLOCK E OF WINN RIDGE, PHASE 1B
RECORDED IN DOC. NO. 2017-338, P.R.D.C.T.,
WILLIAM LUMPKIN SURVEY, ABSTRACT NO. 730,
AN ADDITION TO THE CITY OF AUBREY, DENTON COUNTY, TEXAS



CITY OF AUBREY
FIRE STATION #2 &
POLICE SUBSTATION

WINN RIDGE BLVD.

03/21/2024

ARCHITECT:

RPGA DESIGN GROUP, INC.
ARCHITECTURE SPACE PLANNING INTERIORS
101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9487
WWW . RPGAARCHITECTS . COM

STRUCTURAL ENGINEER:

R.L. WOODS AND ASSOCIATES, LLC

1151 W. PIONEER
PARKWAY ARLINGTON,
TEXAS 76013

CIVIL ENGINEER:

PROJECT MANAGEMENT ASSOCIATES PLLC

530 BEDFORD ROAD, SUITE 102
BEDFORD, TX 76022

MEP ENGINEER:

MEP CONSULTING ENGINEERS INC.

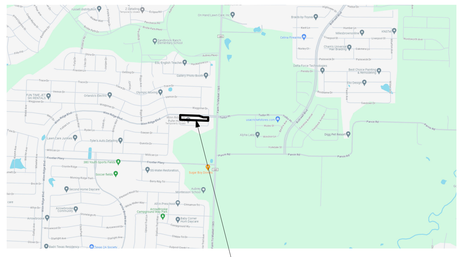
2928 STORY ROAD WEST
LAS COLINAS, TEXAS 75038

IRRIGATION / LANDSCAPE:

BERKENBILE LANDSCAPE ARCHITECTS

2001 NORTH LAMAR STREET, SUITE 290
DALLAS, TEXAS 75202

VICINITY MAP - N.T.S.





3/21/2024

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A-1.00 GENERAL NOTES
A-1.01 ACCESSIBILITY STANDARDS

CIVIL

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C1.0 SITE PLAN
C-1.1 DEMOLITION PLAN
C-2.1 DIMENSION CONTROL PLAN
C-2.2 DIMENSION CONTROL TABLES
C-2.3 PAVEMENT PLAN
C-3.1 GRADING PLAN
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GENERAL NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIG TESS" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLAN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK.
3. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE CONSTRUCTION STANDARDS OF THE CITY OF AUBREY AND GOVERNED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENT'S (NCTCOG) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 3RD EDITION.
4. IN CASE OF CONFLICT OR CONTRADICTIONS BETWEEN THE CONSTRUCTION STANDARDS OF THE CITY OF AUBREY AND THE NCTCOG SPECIFICATIONS, THE FOLLOWING HIERARCHY SHALL PRESIDE: CITY OF AUBREY CONSTRUCTION STANDARD DETAILS, CITY OF FORT WORTH STANDARD GENERAL NOTES, NCTCOG SPECIFICATIONS.
5. A RIGHT-OF-WAY PERMIT (ISSUED BY AUBREY PUBLIC WORKS DEPARTMENT) IS REQUIRED PRIOR TO ANY CONSTRUCTION IN CITY ROW AND EASEMENTS.
6. THE LOCATION OF UNDERGROUND FACILITIES INDICATED ON THE PLANS IS TAKEN FROM PUBLIC RECORDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UNDERGROUND FACILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATION AND TO DETERMINE WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND FACILITIES.
7. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U. S. DEPARTMENT OF LABOR, OSHA, "CONST. SAFETY AND HEALTH REGULATIONS.", VOL. 29, SUBPART P. PG. 128 - 137, AND ANY AMENDMENTS THERETO.
8. ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT EROSION. IN THE EVENT THAT SIGNIFICANT EROSION OCCURS AS A RESULT OF CONSTRUCTION THE CONTRACTOR SHALL RESTORE THE ERODED AREA TO ORIGINAL CONDITION AS SOON AS POSSIBLE.
9. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO TRENCH BACKFILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE DITCHES, IRRIGATION, SODDING, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS OF THE CITY OF AUBREY STORM WATER MANAGEMENT TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM CONSTRUCTION PERMIT REQUIREMENTS.

FOUNDATION NOTES

1. REFER TO STRUCTURAL DRAWINGS FOR STRUCTURAL FOUNDATION NOTES.

PARKING AND TRAFFIC CONTROL NOTES

1. HANDICAP ACCESSIBLE PARKING SPACES SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (A.D.A.) OF JANUARY, 1992 UNLESS OTHERWISE NOTED.
2. ACCESSIBLE PARKING SPACES DESIGNATED WITH A "VAN" SHALL BE SIGNED AS "VAN ACCESSIBLE" PER A.D.A. 4.1.2.5B.
3. ALL LIMITS OF PAVEMENT SHALL BE CURBED UNLESS NOTED OR DETAILED OTHERWISE.
4. ALL STANDARD PARKING SPACES SHALL BE 9 FEET IN WIDTH BY 18 FEET IN LENGTH, WITH 24 FOOT AISLES UNLESS NOTED OR DETAILED OTHERWISE.
5. ALL PAVEMENT STRIPING SHALL BE PAINTED WITH 2 COATS OF PAINT.
6. CONTRACTOR SHALL REFER TO ARCHITECTURAL/BUILDING PLANS FOR EXACT LOCATION AND DIMENSIONS OF EXIT PORCHES, RAMPS, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS.
7. FOR PARKING LOT PAVEMENT SECTION SEE DETAIL SHEET IN THIS SET.
8. FIRE LANES SHALL BE PROPERLY MARKED WITH A SIX INCH RED STRIPE WITH FOUR INCH WHITE LETTERS STATING "FIRE LANE NO PARKING" EVERY TEN TO TWENTY-FIVE FEET ALONG THE ENTIRE LENGTH OF THE FIRE LANE. FIRE LANE MARKINGS SHALL BE ON THE VERTICAL SURFACE OF THE CURB WHEN A CURB IS PRESENT.
9. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL DURING CONSTRUCTION STREET RIGHT-OF-WAY. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN, SIGNED AND SEALED BY ENGINEER, FOR REVIEW PRIOR TO THE START OF CONSTRUCTION.

UTILITY NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK.
2. DUE TO THE SMALL SCALE OF THE SITE WORK DRAWINGS, EXACT LOCATION OF UTILITY STUBS FOR BUILDING SHALL BE INSTALLED TO A POINT 5 FEET FROM THE BUILDING WALL UNLESS OTHERWISE NOTED OR DETAILED.
3. WHERE A STATE OR LOCAL MUNICIPAL STANDARD DETAIL DUPLICATES A DETAIL SHOWN IN THE PLANS, THE MORE STRINGENT DETAIL, AS DETERMINED BY THE REVIEWING AGENCY, SHALL APPLY.

WATER NOTES

1. ALL PVC PIPE WATER LINES SHALL CONFORM TO AWWA STANDARD C-900 WITH A DR RATIO OF 18. CLASS 150, BLUE IN COLOR, WITH NSF SEAL, PRESSURE TESTED AND DISINFECTED IN ACCORDANCE WITH AWWA STANDARDS.
2. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 42 INCH AND MAXIMUM 60 INCH OF COVER. GREATER DEPTHS ARE PERMITTED WHERE REQUIRED TO AVOID CONFLICTS WITH OTHER UTILITIES.
3. GENERALLY, WATER MAIN FITTINGS IDENTIFIED ON THIS DRAWING ARE SHOWN FOR INSTALLATION LOCATION PURPOSES. THE CONTRACTOR SHALL NOTE THAT NOT ALL FITTINGS ARE NOTED, SHOWN, OR INDICATED.
4. A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN SANITARY SEWER MAINS AND WATER MAINS. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN, THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE ELEVATION OF THE CROWN OF THE SEWER SHALL BE AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.
5. DOMESTIC WATER SERVICE SHALL BE INSTALLED WITH APPROPRIATELY SIZED GATE, BOX AND TEE FITTINGS PER CITY OF AUBREY STANDARD SPECIFICATIONS.
6. ALL WATER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS SHALL MEET OR EXCEED STATE AND LOCAL MUNICIPAL WATER AND SEWER DEPARTMENT STANDARDS.
7. PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH CITY OFAUBREY STANDARD SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTION WITH UTILITY TESTS, FLUSHING AND INSPECTIONS AS REQUIRED BY THE CITY OF AUBREY.
8. WHERE A STATE OR CITY OF AUBREY STANDARD SPECIFICATION DUPLICATES A DETAIL SHOWN IN THE PLANS, THE MORE STRINGENT DETAIL, AS DETERMINED BY THE REVIEWING AGENCY, SHALL APPLY.
9. GATE VALVES SHALL CONFORM TO ANSI/AWWA C509-87.
10. ALL WATER LINES SHALL BE ENCASED IN SAND IN ACCORDANCE WITH STANDARD CONSTRUCTION DETAILS. BACKFILL SHALL BE NATIVE MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY.
11. ALL DUCTILE IRON FITTINGS SHALL BE WRAPPED WITH AN 8 MIL MINIMUM THICKNESS POLYETHYLENE MATERIAL PER AWWA STANDARD C-150.
12. ALL WATER MAINS SHALL HAVE CONCRETE THRUST BLOCKING AT ALL TEES, BENDS, PLUGS, AND HYDRANTS PER THE CITY OF AUBREY DETAIL SHEET.
13. ALL TRENCHES SHALL BE COMPACTION TESTED AT THE RATE OF ONE TEST PER 150 L.F. OF TRENCH PER LIFT. LIFTS SHALL BE NO GREATER THAN 12" LOOSE. TESTS SHALL BE STAGGERED SO THAT TESTS OF ADJACENT LIFTS ARE NOT DIRECTLY OVER THE PREVIOUS LIFT. THE PAVING CONTRACTOR SHALL NOT BEGIN WORK UNTIL THE CITY OF AUBREY HAS APPROVED ALL TRENCH WORK.

SEWER

1. SANITARY SEWER LINES SHALL BE SDR 35 PVC PIPE, GREEN IN COLOR, UNLESS OTHERWISE NOTED ON THE CONSTRUCTION PLANS. ONE JOINT OF 150-PSI PRESSURE RATED PIPE SHALL BE INSTALLED UNDER ALL PROPOSED WATER PIPE CROSSINGS.
2. WHERE SANITARY SEWERS CROSS WATER MAINS, THE SEWER SHALL BE LAID AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST EIGHTEEN INCHES BELOW THE INVERT OF THE WATER MAIN. IF THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. SANITARY SEWER SHALL BE ENCASED IN CONCRETE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE CROSSING POINT OF THE OTHER PIPE AS MEASURED NORMALLY FROM ALL POINTS ALONG THE PIPE.
3. ALL SEWER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS, SHALL MEET OR EXCEED THE CITY OF AUBREY STANDARD SPECIFICATIONS.
4. PIPE SHALL BE BEDDED WITH CLASS B EMBEDMENT. BACKFILL SHALL BE NATIVE MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY.
5. WHERE A CITY OF AUBREY STANDARD SPECIFICATION OR ORDINANCE DETAIL DUPLICATES A DETAIL SHOWN IN THE PLANS, THE MORE STRINGENT DETAIL, AS DETERMINED BY THE REVIEWING AGENCY, SHALL APPLY.
6. THE CONTRACTOR SHALL USE OSHA APPROVED CONFINED SPACE ENTRY PROCEDURES WHEN ENTERING SANITARY SEWER MANHOLES. THE SAFETY EQUIPMENT SHALL BE FURNISHED BY THE CONTRACTOR AND SHALL BE OSHA CERTIFIED. PERSONS WORKING IN THESE AREAS SHALL BE TRAINED IN THE PROPER USE OF THE SAFETY EQUIPMENT.
7. THE CONTRACTOR TO COORDINATE INSTALLATION OF NEW CONNECTIONS WITH THE CITY OF AUBREY.

SUBGRADE PREPARATION NOTES

1. SITE SHALL BE STRIPPED AND GRUBBED TO REMOVE ALL VEGETATION, ROOT BALLS, EXISTING FILL MATERIALS, ORGANIC MATERIALS, DEBRIS, AND ROCK GREATER THAN 4 INCHES IN MAXIMUM DIMENSION, AND ANY OTHER UNSUITABLE SURFACE MATERIALS FROM AREAS OF NEW CONSTRUCTION.
2. EXCAVATION REQUIRED TO REMOVE ROOT BALLS OR EXISTING SITE IMPROVEMENTS AND EXISTING FILL MATERIALS SHALL BE BACKFILLED WITH PROPERLY PLACED AND COMPACTED FILL AS SPECIFIED.
3. THE SUBGRADE IN BUILDING AND PAVEMENT AREAS SHALL BE PROOF ROLLED PRIOR TO PLACING ANY FILL. IN CUT AREAS, PROOF ROLLING SHALL BE PREFORMED AFTER EXCAVATING TO FINAL GRADE.
4. PROOF ROLLING SHALL BE PERFORMED WITH 25 TON, MINIMUM, HEAVY PNEUMATIC EQUIPMENT.
5. AMY SOFT OR PUMPING AREAS FOUND BY THE PROOF ROLLING SHALL HAVE THE SOIL MATERIAL EXCAVATED TO FIRM GROUND, MOISTURE CONDITIONED, AND PROPERLY BACKFILLED AS SPECIFIED.
6. MOISTURE CONDITIONING OF SOIL MATERIAL SHALL BE PERFORMED AS DESCRIBED IN THE MOISTURE CONDITIONED SUBGRADE PREPARATION NOTES INCLUDED ON THIS SHEET.
7. FILL MATERIALS SHALL BE AS SPECIFIED IN SPECIFICATION SECTION 31 05 13 SOILS AND SECTION 31 05 16 AGGREGATE.
8. COMPACTION SHALL BE AS SPECIFIED IN SPECIFICATION SECTION 31 22 00 GRADING.
9. UPON COMPLETION OF SITE GRADING, CARE SHALL BE TAKEN TO MAINTAIN SUBGRADE MOISTURE CONTENT PRIOR TO CONSTRUCTION OF PAVEMENTS AND FLATWORK.
10. THE SITE SHALL BE GRADED TO PREVENT PONDING OF SURFACE WATER ON PREPARED SUBGRADE OR IN EXCAVATIONS. IF THE SUBGRADE BECOMES FROZEN, DESICCATED, SATURATED, OR DISTURBED, THE AFFECTED MATERIAL SHALL BE SCARIFIED AND RECOMPACTED PRIOR TO CONSTRUCTION OF PAVEMENT AND FLATWORK.
11. FILL PLACED AGAINST SLOPES AND EMBANKMENTS SHALL BE PLACED IN RELATIVELY HORIZONTAL LIFTS TO AVOID POTENTIAL SLIDING OF NEW FILL. WHEN PLACING FILL ON SLOPES AND EMBANKMENTS THAT ARE STEEPER THAN 6H:1V, THE FILL SHALL BE BENCHED INTO THE SLOPE. THE BENCH SHALL BE WIDE ENOUGH TO ACCOMMODATE AT LEAST ON FULL WIDTH OF THE COMPACTION EQUIPMENT.

MOISTURE CONDITIONED SUBGRADE PREPARATION NOTES

1. MOISTURE CONDITIONING OF SUBGRADE SHALL CONSIST OF OVER-EXCAVATING THE SITE SOILS, THEN PROCESSING AND COMPACTING THE SPECIFIED MINIMUM THICKNESS OF SOIL AT A TARGET MOISTURE CONTENT APPROXIMATED TO BE BETWEEN 2 AND 4 PERCENT ABOVE MATERIAL'S OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD PROCTOR METHOD (ASTM D 698).
2. THE SUBGRADE SHALL BE UNIFORMLY MOISTURE CONDITIONED TO A DEPTH OF THE UNSTABLE SOIL IN THE AREAS PROOF ROLLED.
3. THE MOISTURE CONDITIONED SUBGRADE SHALL EXTEND FIVE FEET, MINIMUM, FROM THE EDGE OF THE FLATWORK NOT ABUTTING THE BUILDING.
4. THE MOISTURE CONDITIONING PROCESS SHALL BE OBSERVED ON A FULL-TIME BASIS BY QUALIFIED PERSONNEL.
5. AFTER THE SUBGRADE CONDITIONING PROCESS IS COMPLETE, A 2-FOOT SELECT FILL CAP SHALL BE PLACED ABOVE THE MOISTURE CONDITIONED SOILS WITHIN 48 HOURS.
6. MOISTURE CONDITIONED SOILS SHALL BE MAINTAINED IN A MOIST CONDITION PRIOR TO PLACEMENT OF THE SELECT FILL CAP.
7. THE SURFACE OF THE SUBGRADE CONDITIONED AREA SHALL BE SEALED OR OTHERWISE PROTECTED AGAINST MOISTURE LOSS UNTIL THE SELECT FILL CAP IS PLACED.
8. THE MOISTURE CONDITIONED SOIL, FREE OF DEBRIS AND ANY ROCK FRAGMENT GREATER THAN 4 INCHES, SHALL BE PLACED IN 8-INCH, MAXIMUM, LOOSE LIFTS AND COMPACTED TO 95%, MINIMUM, OF MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D 698) AT A 2 TO 4 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT.

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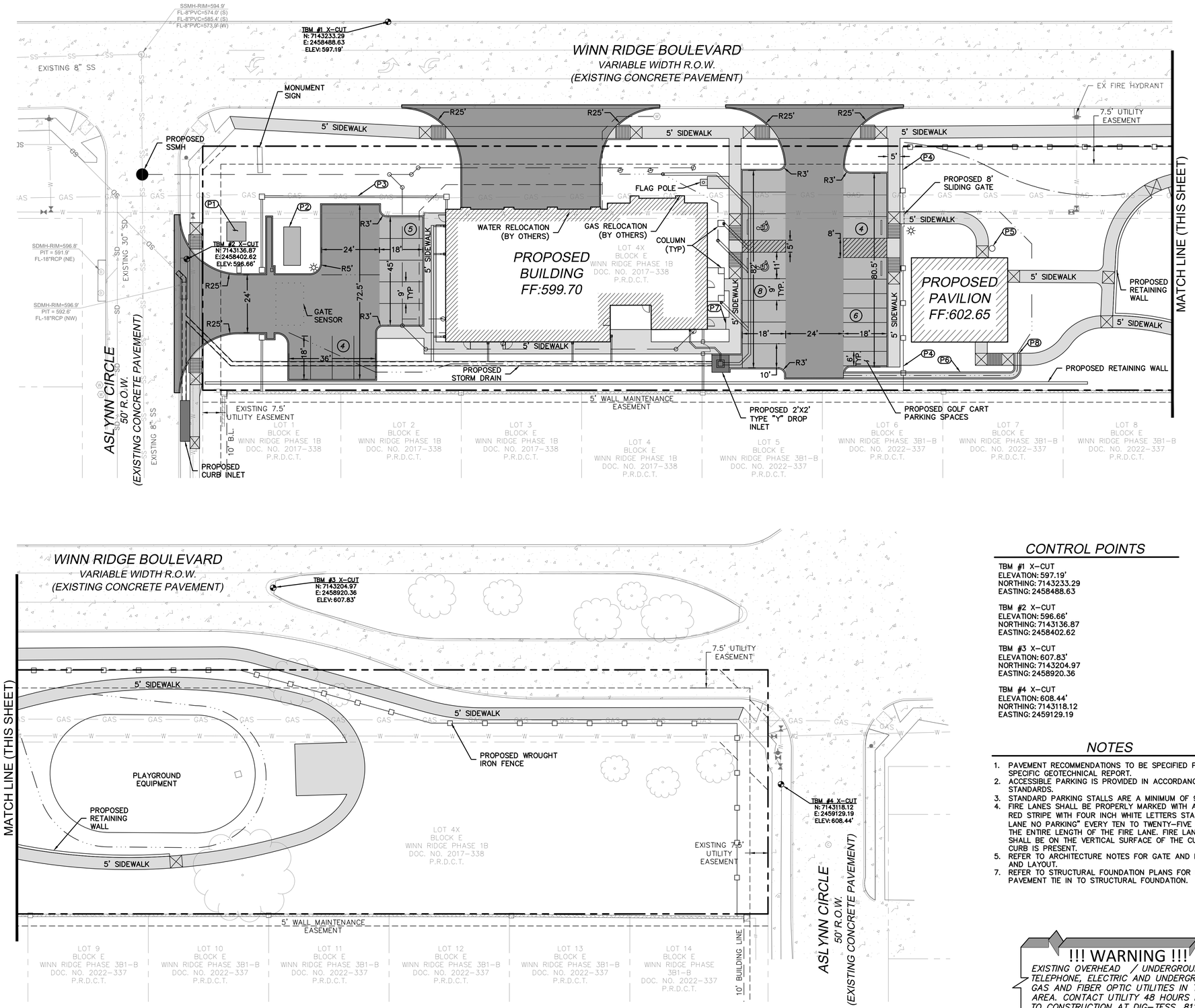
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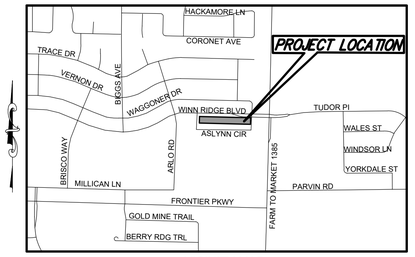
CITY OF AUBREY
FIRE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX

STATE OF TEXAS
JOSE SOTO
76246
REGISTERED PROFESSIONAL ENGINEER
03/21/2024

SHEET DESCRIPTION
GENERAL NOTES

SHEET NO.
C-0.1





VICINITY MAP
SCALE: 1"=1,000'

LEGEND

- SITE BOUNDARY
- EXISTING EASEMENT
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SERVICE
- EXISTING SANITARY SEWER
- EXISTING WATER
- PROPOSED TOP OF GRADE BREAK
- PROPOSED SWALE AND FLOWLINE
- PROPOSED STORM LINE
- HEAVY DUTY PAVEMENT (REFER TO GEOTECHNICAL REPORT)
- MEDIUM DUTY PAVEMENT (REFER TO GEOTECHNICAL REPORT)
- LIGHT DUTY PAVEMENT (REFER TO GEOTECHNICAL REPORT)
- ACCESSIBLE PARKING SPACE
- PROPOSED BUILDING FOOTPRINT
- NUMBER OF PARKING SPOTS PER AREA

CONTROL POINTS

TBM #1 X-CUT
ELEVATION: 597.19'
NORTHING: 7143233.29
EASTING: 2458488.63

TBM #2 X-CUT
ELEVATION: 596.66'
NORTHING: 7143136.87
EASTING: 2458402.62

TBM #3 X-CUT
ELEVATION: 607.83'
NORTHING: 7143204.97
EASTING: 2458920.36

TBM #4 X-CUT
ELEVATION: 608.44'
NORTHING: 7143118.12
EASTING: 2459129.19

NOTES BY SYMBOL

- (P1) 8'X8' ELECTRIC TRANSFORMER PAD (REFER TO MEP PLANS)
- (P2) EMERGENCY GENERATOR (REFER TO MEP PLANS)
- (P3) MASONRY SCREEN WALL
- (P4) WROUGHT IRON FENCE
- (P5) DRINKING FOUNTAIN
- (P6) 2' F-F FLUME
- (P7) 1-3" STEP
- (P8) STEEL PLATE OVER FLUME CROSSING

NOTES

1. PAVEMENT RECOMMENDATIONS TO BE SPECIFIED PER SITE SPECIFIC GEOTECHNICAL REPORT.
2. ACCESSIBLE PARKING IS PROVIDED IN ACCORDANCE WITH TAS STANDARDS.
3. STANDARD PARKING STALLS ARE A MINIMUM OF 9'X18'.
4. FIRE LANES SHALL BE PROPERLY MARKED WITH A SIX INCH RED STRIPE WITH FOUR INCH WHITE LETTERS STATING "FIRE LANE NO PARKING" EVERY TEN TO TWENTY-FIVE FEET ALONG THE ENTIRE LENGTH OF THE FIRE LANE. FIRE LANE MARKINGS SHALL BE ON THE VERTICAL SURFACE OF THE CURB WHEN A CURB IS PRESENT.
5. REFER TO ARCHITECTURE NOTES FOR GATE AND FENCE DETAILS AND LAYOUT.
7. REFER TO STRUCTURAL FOUNDATION PLANS FOR PROPOSED PAVEMENT TIE IN TO STRUCTURAL FOUNDATION.

!!! WARNING !!!
EXISTING OVERHEAD / UNDERGROUND TELEPHONE, ELECTRIC AND UNDERGROUND GAS AND FIBER OPTIC UTILITIES IN THIS AREA. CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT DIG-TESS, 811.

N

0' 20' 40' 60' 80'

GRAPHIC SCALE IN FEET
1" = 20'

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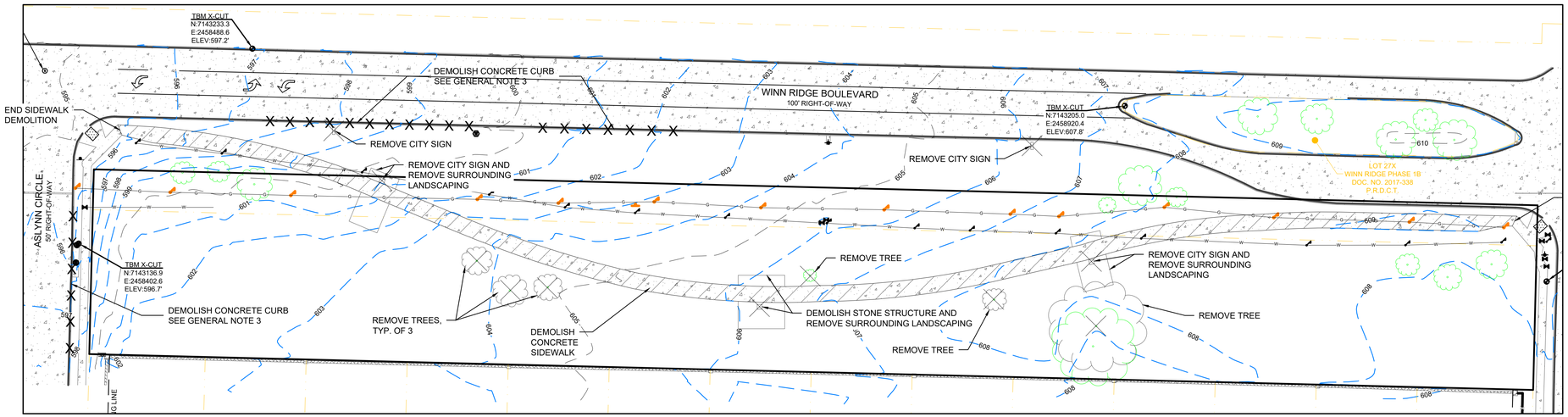
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CITY OF AUBREY
FIRE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX

STATE OF TEXAS
EDGAR O. MEDINA
148482
LICENSED PROFESSIONAL ENGINEER
3/21/24

SHEET DESCRIPTION
SITE PLAN

SHEET NO.
C-1.0



GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION, AND THE CITY OF AUBREY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION.
2. REFER TO SHEET C-0.1 FOR ADDITIONAL DEMOLITION WORK INFORMATION.
3. DEMOLISH EXISTING CONCRETE CURB TO LIMITS OF NEW DRIVEWAY APPROACH REFER TO SHEET C-2.1.

LEGEND

CONCRETE DEMOLITION

TREE TO BE REMOVED

0 30 60 90 120

GRAPHIC SCALE IN FEET
1" = 30'

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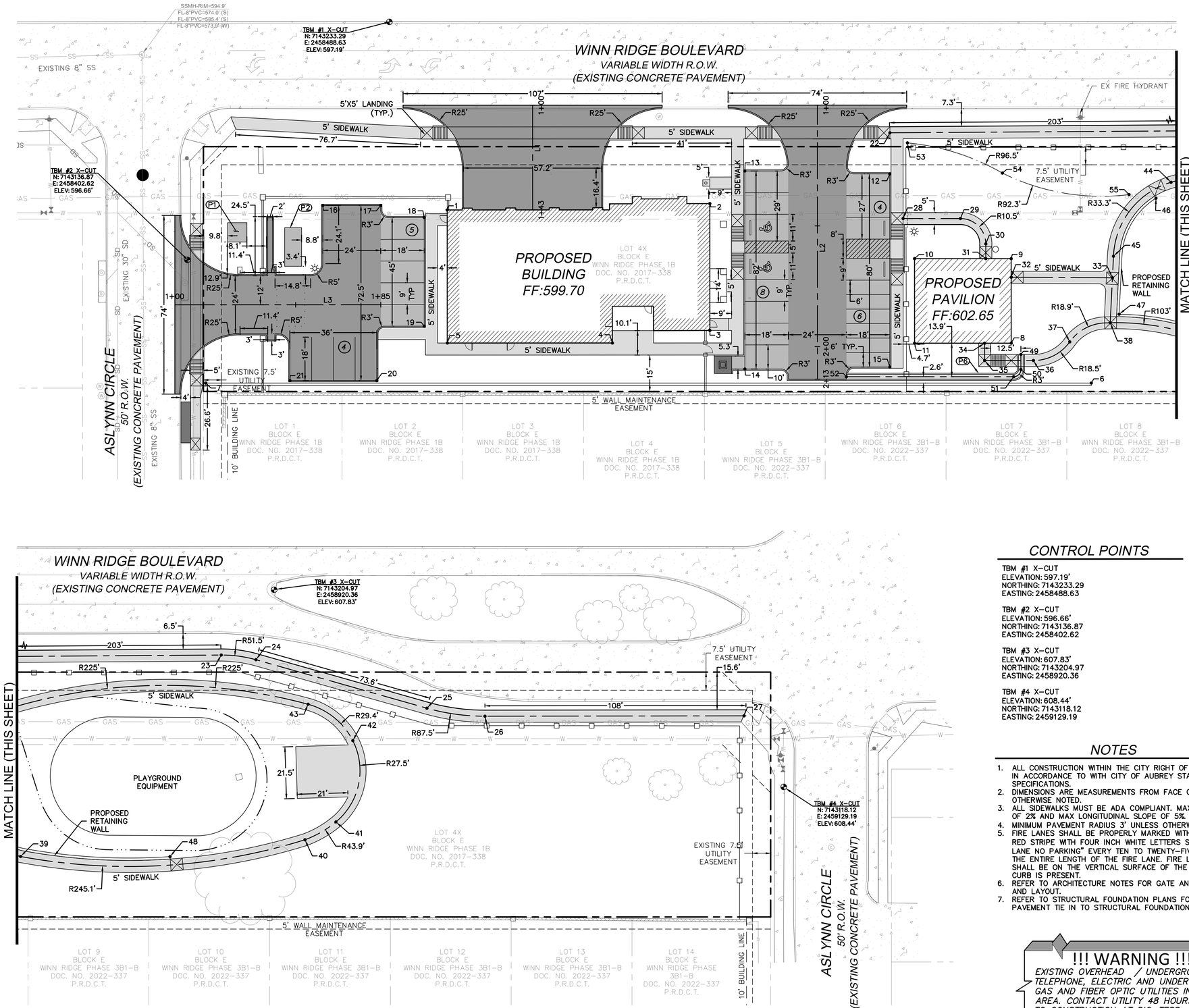
RPGA DESIGN GROUP, INC.
ARCHITECTURE SPACE PLANNING INTERIORS
101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.7487 METRO 972.455.6435

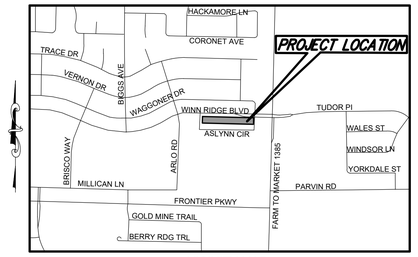
CITY OF AUBREY
FIRE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX

STATE OF TEXAS
JOSE SOTO
76246
REGISTERED
PROFESSIONAL ENGINEER
03/21/2024

SHEET DESCRIPTION
DEMOLITION PLAN

SHEET NO.
C-1.1





VICINITY MAP
SCALE: 1"=1,000'

LEGEND

- SITE BOUNDARY
- EXISTING EASEMENT
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SERVICE
- EXISTING SANITARY SEWER
- EXISTING WATER
- PROPOSED TOP OF GRADE BREAK
- PROPOSED STORM LINE
- HEAVY DUTY PAVEMENT (REFER TO GEOTECHNICAL REPORT)
- MEDIUM DUTY PAVEMENT (REFER TO GEOTECHNICAL REPORT)
- LIGHT DUTY PAVEMENT (REFER TO GEOTECHNICAL REPORT)
- ACCESSIBLE PARKING SPACE
- PROPOSED BUILDING FOOTPRINT
- NUMBER OF PARKING SPOTS PER AREA

CONTROL POINTS

TBM #1 X-CUT
ELEVATION: 597.19'
NORTHING: 7143233.29
EASTING: 2458488.63

TBM #2 X-CUT
ELEVATION: 596.66'
NORTHING: 7143136.87
EASTING: 2458402.62

TBM #3 X-CUT
ELEVATION: 607.83'
NORTHING: 7143204.97
EASTING: 2458920.36

TBM #4 X-CUT
ELEVATION: 608.44'
NORTHING: 7143118.12
EASTING: 2459129.19

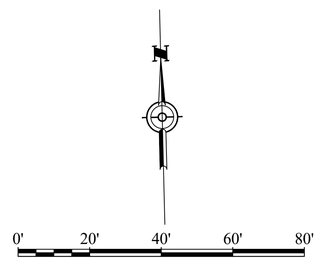
NOTES BY SYMBOL

- (P1) 8'X8' ELECTRIC TRANSFORMER PAD (REFER TO MEP PLANS)
- (P2) EMERGENCY GENERATOR (REFER TO MEP PLANS)
- (P6) 2' F-F FLUME

NOTES

1. ALL CONSTRUCTION WITHIN THE CITY RIGHT OF WAY SHALL BE IN ACCORDANCE TO WITH CITY OF AUBREY STANDARDS AND SPECIFICATIONS.
2. DIMENSIONS ARE MEASUREMENTS FROM FACE OF CURB UNLESS OTHERWISE NOTED.
3. ALL SIDEWALKS MUST BE ADA COMPLIANT. MAX CROSS SLOPE OF 2% AND MAX LONGITUDINAL SLOPE OF 5%.
4. MINIMUM PAVEMENT RADIUS 3' UNLESS OTHERWISE NOTED
5. FIRE LANES SHALL BE PROPERLY MARKED WITH A SIX INCH RED STRIPE WITH FOUR INCH WHITE LETTERS STATING "FIRE LANE NO PARKING" EVERY TEN TO TWENTY-FIVE FEET ALONG THE ENTIRE LENGTH OF THE FIRE LANE. FIRE LANE MARKINGS SHALL BE ON THE VERTICAL SURFACE OF THE CURB WHEN A CURB IS PRESENT.
6. REFER TO ARCHITECTURE NOTES FOR GATE AND FENCE DETAILS AND LAYOUT.
7. REFER TO STRUCTURAL FOUNDATION PLANS FOR PROPOSED PAVEMENT TIE IN TO STRUCTURAL FOUNDATION.

!!! WARNING !!!
EXISTING OVERHEAD / UNDERGROUND TELEPHONE, ELECTRIC AND UNDERGROUND GAS AND FIBER OPTIC UTILITIES IN THIS AREA. CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT DIG-TESS, 811.



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Texas Registered Engineering Firm F-10640

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CITY OF AUBREY
RE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX



SHEET DESCRIPTION
DIMENSION CONTROL PLAN

SHEET NO.
C-2.1

BAY ENTRANCE CENTERLINE - HORIZONTAL ALIGNMENT TABLE

NUMBER	START STATION	END STATION	RADIUS	LENGTH	DELTA	CHORD LENGTH	CHORD DIRECTION	LINE BEARING	START POINT	END POINT
L1	1+00.00	1+43.35		43.35'			S1° 24' 12.50"W	S1° 24' 12.50"W	N: 7143197.33 E: 2458547.05	N: 7143153.99 E: 2458545.99

DRIVE A CENTERLINE - HORIZONTAL ALIGNMENT TABLE

NUMBER	START STATION	END STATION	RADIUS	LENGTH	DELTA	CHORD LENGTH	CHORD DIRECTION	LINE BEARING	START POINT	END POINT
L2	1+00.00	2+13.47		113.47'			S1° 24' 43.93"W	S1° 24' 43.93"W	N: 7143194.44 E: 2458664.90	N: 7143081.00 E: 2458662.10

DRIVE B CENTERLINE - HORIZONTAL ALIGNMENT TABLE

NUMBER	START STATION	END STATION	RADIUS	LENGTH	DELTA	CHORD LENGTH	CHORD DIRECTION	LINE BEARING	START POINT	END POINT
L3	1+00.00	1+85.24		85.24'			S88° 35' 19.35"E	S88° 35' 19.35"E	N: 7143118.42 E: 2458396.95	N: 7143116.32 E: 2458482.16

POINT TABLE

POINT #	NORTHING	EASTING	DESCRIPTION
1	7143154.86	2458510.62	BUILDING CORNER*
2	7143154.79	2458619.37	BUILDING CORNER*
3	7143102.28	2458618.08	BUILDING CORNER*
4	7143098.09	2458577.63	BUILDING CORNER*
5	7143099.77	2458509.33	BUILDING CORNER*
6	7143076.58	2458775.39	RETAINING WALL BEGIN
7	7143085.70	2458408.95	RETAINING WALL END
8	7143093.89	2458742.65	PAVILION CORNER*
9	7143128.88	2458743.51	PAVILION CORNER*
10	7143129.88	2458703.52	PAVILION CORNER*
11	7143094.89	2458702.66	PAVILION CORNER*
12	7143165.24	2458694.15	PARKING FC
13	7143167.92	2458634.20	PARKING FC
14	7143085.95	2458632.18	PARKING FC
15	7143085.26	2458692.18	PARKING FC
16	7143157.99	2458459.18	PARKING FC
17	7143157.40	2458483.17	PARKING FC
18	7143151.96	2458501.04	PARKING FC
19	7143106.97	2458499.93	PARKING FC

POINT TABLE

POINT #	NORTHING	EASTING	DESCRIPTION
20	7143084.95	2458479.75	PARKING FC
21	7143085.84	2458443.76	PARKING FC
22	7143182.23	2458694.61	SIDEWALK BEGIN
23	7143178.51	2458897.79	SIDEWALK PC
24	7143176.20	2458912.12	SIDEWALK PT
25	7143154.39	2458982.37	SIDEWALK PC
26	7143150.47	2459006.30	SIDEWALK PT
27	7143147.94	2459113.49	SIDEWALK END
28	7143146.61	2458699.19	SIDEWALK BEGIN
29	7143146.02	2458722.93	SIDEWALK PC
30	7143135.27	2458733.17	SIDEWALK PT
31	7143129.14	2458733.01	SIDEWALK END
32	7143121.21	2458743.33	SIDEWALK BEGIN
33	7143119.94	2458785.21	SIDEWALK INT
34	7143094.16	2458731.65	SIDEWALK BEGIN
35	7143086.99	2458731.49	SIDEWALK PI
36	7143086.50	2458751.67	SIDEWALK PC
37	7143093.84	2458766.89	SIDEWALK PRC
38	7143101.32	2458783.84	SIDEWALK INT

POINT TABLE

POINT #	NORTHING	EASTING	DESCRIPTION
39	7143097.20	2458812.68	SIDEWALK PRC
40	7143101.19	2458930.52	SIDEWALK PCC
41	7143108.26	2458943.56	SIDEWALK PCC
42	7143141.72	2458951.36	SIDEWALK PCC
43	7143157.25	2458933.22	SIDEWALK PCC
44	7143158.86	2458810.45	SIDEWALK PCC
45	7143128.85	2458785.87	SIDEWALK PT
46	7143152.42	2458804.05	RETAINING WALL BEGIN
47	7143104.77	2458787.60	RETAINING WALL
48	7143095.61	2458874.52	RETAINING WALL END
49	7143089.12	2458746.54	FLUME BEGIN
50	7143082.91	2458746.39	FLUME PC
51	7143079.99	2458743.32	FLUME PT
52	7143081.71	2458674.09	FLUME END
53	7143177.88	2458701.76	GRADE BREAK BEGIN
54	7143164.42	2458740.75	GRADE BREAK PC
55	7143154.19	2458792.94	GRADE BREAK END

*CONTRACTOR MUST CROSS REFERENCE BUILDING FOOTPRINT WITH FOUNDATION PLANS AND ARCHITECTUAL PLANS PRIOR TO CONSTRUCTION

Project Management Associates

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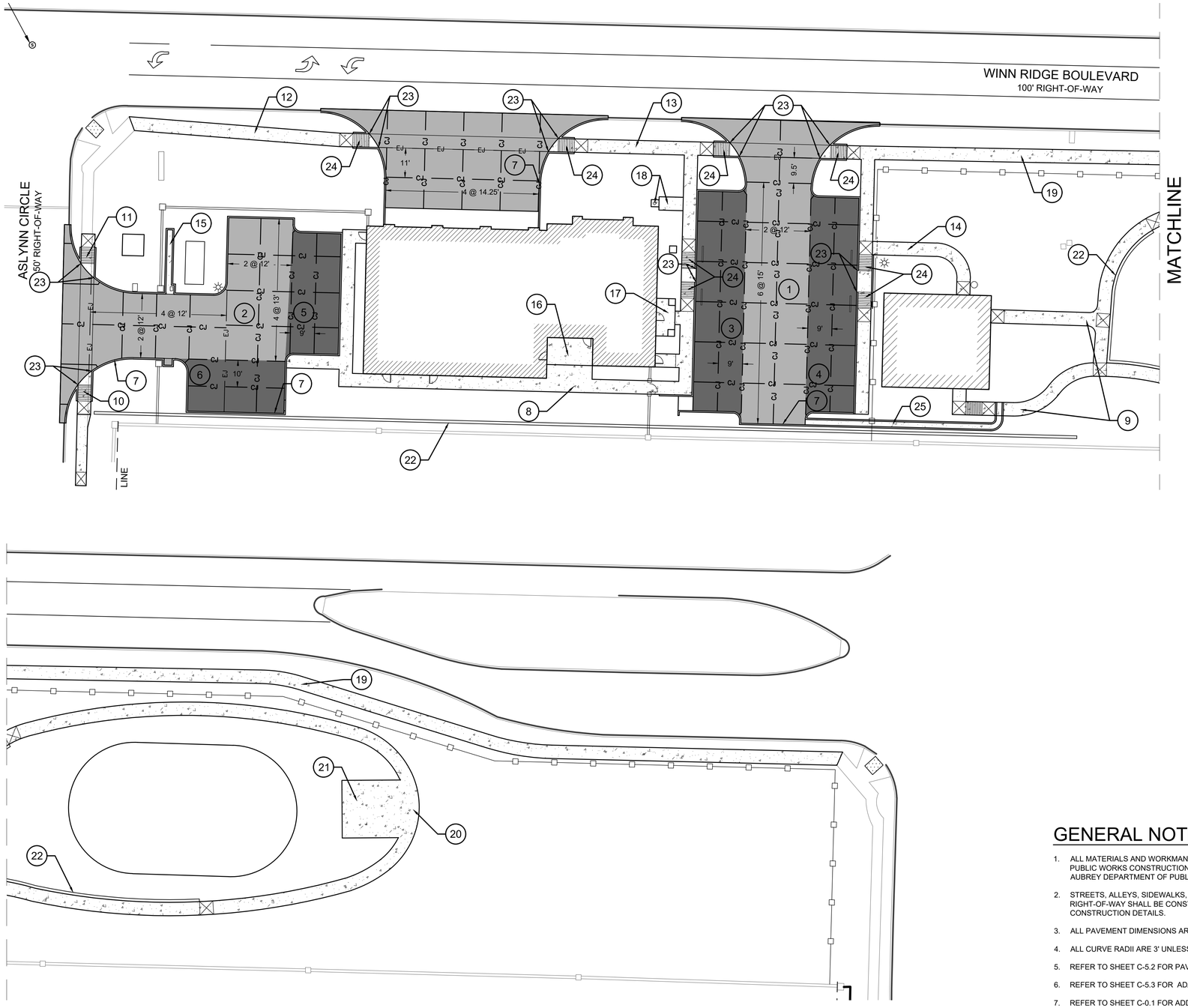
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CITY OF AUBREY
RE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX

3/21/24
STATE OF TEXAS
EDGAR O. MEDINA
148482
LICENSED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
DIMENSION CONTROL TABLES

SHEET NO.
C-2.2



LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- EASEMENTS
- PROPOSED CURB AND GUTTER
- CJ CJ — CONTROL JOINTS
- EJ EJ — EXPANSION JOINTS
- 5" CONCRETE PAVEMENT
- 8" CONCRETE PAVEMENT-PARKING AREAS

NOTES BY SYMBOL

1. INSTALL APPROX. 3,035 SF (TOTAL) OF 8" CONCRETE PAVEMENT
2. INSTALL APPROX. 3,079 SF (TOTAL) OF 8" CONCRETE PAVEMENT
3. INSTALL APPROX. 1,480 SF (TOTAL) OF 5" CONCRETE PAVEMENT
4. INSTALL APPROX. 1,443 SF (TOTAL) OF 5" CONCRETE PAVEMENT
5. INSTALL APPROX. 851 SF (TOTAL) OF 5" CONCRETE PAVEMENT
6. INSTALL APPROX. 706 SF (TOTAL) OF 5" CONCRETE PAVEMENT
7. INSTALL CONCRETE CURB AT PERIMETER OF PAVEMENT
8. INSTALL APPROX. 1,612 SF (TOTAL) OF 5' WIDE CONCRETE SIDEWALK
9. INSTALL APPROX. 925 SF (TOTAL) OF 5' WIDE CONCRETE SIDEWALK
10. INSTALL APPROX. 178 SF (TOTAL) OF PUBLIC CONCRETE SIDEWALK/ADA RAMP
11. INSTALL APPROX. 70 SF (TOTAL) OF PUBLIC CONCRETE SIDEWALK/ADA RAMP
12. INSTALL APPROX. 453 SF (TOTAL) OF PUBLIC CONCRETE SIDEWALK
13. INSTALL APPROX. 339 SF (TOTAL) OF PUBLIC CONCRETE SIDEWALK
14. INSTALL APPROX. 709 SF (TOTAL) OF CONCRETE SIDEWALK
15. INSTALL APPROX. 52 SF (TOTAL) OF GATE TRACK PAD
16. INSTALL APPROX. 171 SF (TOTAL) OF CONCRETE SIDEWALK
17. INSTALL APPROX. 86 SF (TOTAL) OF CONCRETE SIDEWALK
18. INSTALL APPROX. 53 SF (TOTAL) OF CONCRETE SIDEWALK AT FLAGPOLE
19. INSTALL APPROX. 2,180 SF (TOTAL) OF 5' WIDE PUBLIC CONCRETE SIDEWALK
20. INSTALL APPROX. 1,695 SF (TOTAL) OF 5' WIDE CONCRETE SIDEWALK
21. INSTALL APPROX. 477 SF (TOTAL) OF PUBLIC CONCRETE SIDEWALK
22. NEW RETAINING WALL, SEE SHEETS C-2.1 AND C-3.1
23. INSTALL CONCRETE 0 - HEIGHT CURB AT WIDTH OF RAMP LANDING
24. INSTALL ADA RAMP
25. INSTALL APPROX. 150 SF OF CONCRETE FLUME

GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION, AND THE CITY OF AUBREY DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION.
2. STREETS, ALLEYS, SIDEWALKS, DRIVEWAYS, AND STORM DRAINAGE FACILITIES IN THE PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE CITY OF AUBREY STANDARD CONSTRUCTION DETAILS.
3. ALL PAVEMENT DIMENSIONS ARE TO FACE OF CURB UNLESS INDICATED OTHERWISE.
4. ALL CURVE RADII ARE 3' UNLESS OTHERWISE NOTED.
5. REFER TO SHEET C-5.2 FOR PAVEMENT DETAILS.
6. REFER TO SHEET C-5.3 FOR ADA RAMP DETAILS.
7. REFER TO SHEET C-0.1 FOR ADDITIONAL PAVING INFORMATION.
8. PAVEMENT JOINT SPACING SHALL NOT EXCEED 15 FOOT CENTERS.

N

0 20 40 60 80

GRAPHIC SCALE IN FEET
1" = 20'

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Texas Registered Engineering Firm F-10640

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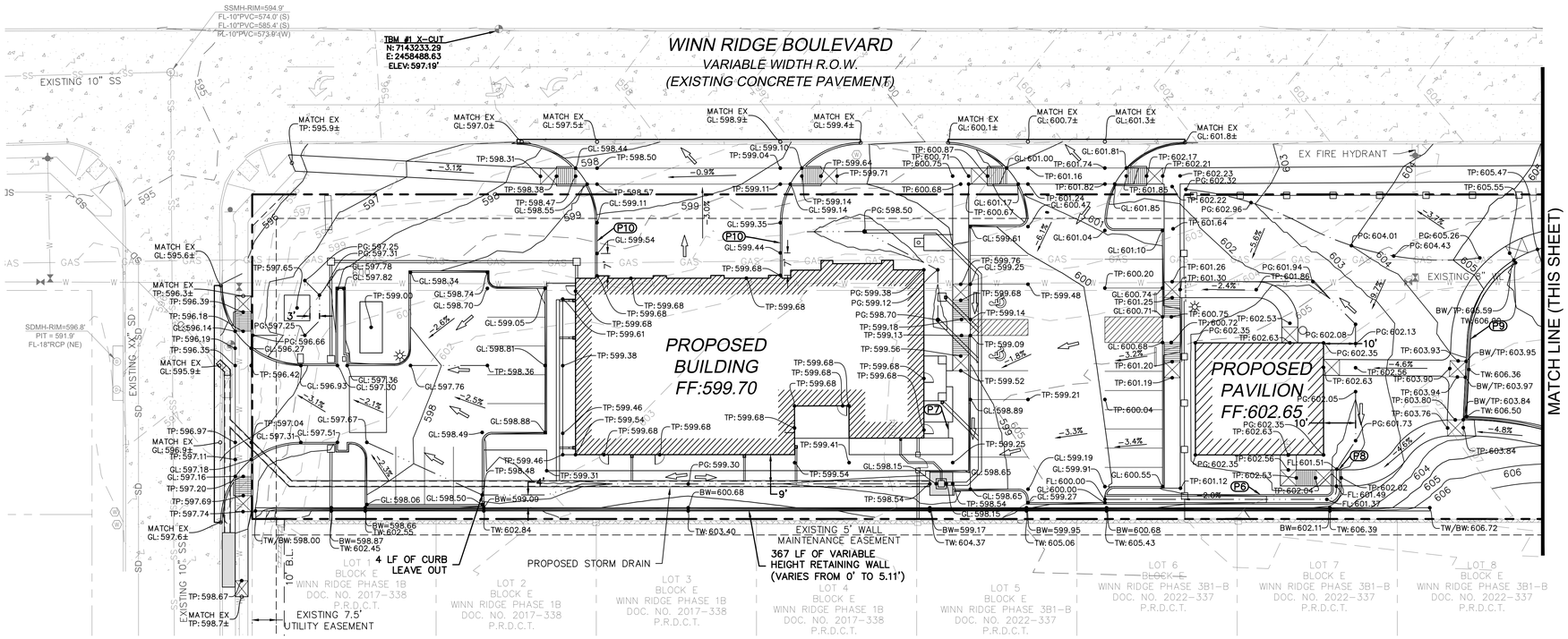
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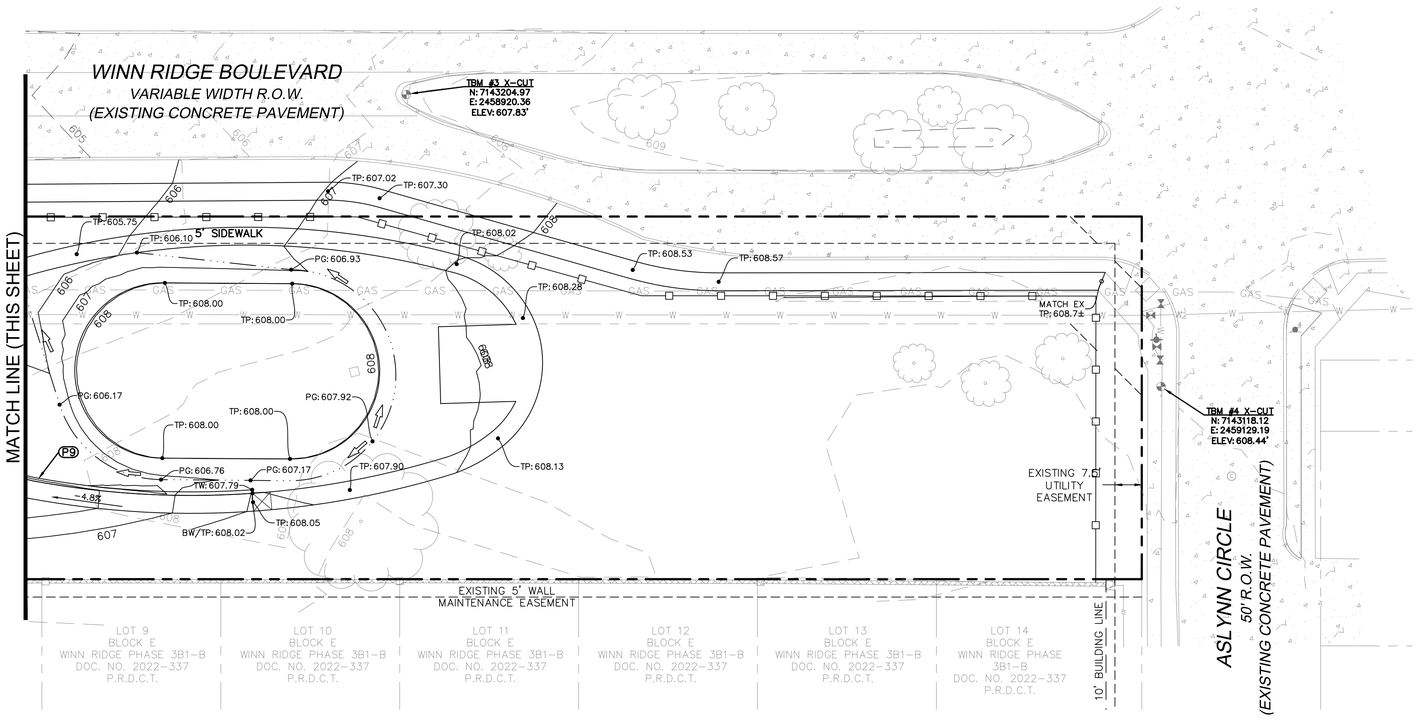
CITY OF AUBREY
FIRE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX

STATE OF TEXAS
JOSE SOTO
76246
REGISTERED
PROFESSIONAL
03/21/2024

SHEET DESCRIPTION
PAVEMENT PLAN

SHEET NO.
C-2.3





LEGEND

PROPERTY LINE	
PROPOSED CONTOURS	500
EXISTING CONTOURS	500
PROPOSED FLOW DIRECTION	
SWALE OR FLOW LINE	
HIGH POINT	HP
GROUND ELEVATION (PROPOSED)	PG
GUTTER LINE (PROPOSED)	GL
TOP OF PAVEMENT (PROPOSED)	TP
TOP OF RETAINING WALL (PROPOSED)	TW
BOTTOM OF RETAINING WALL (PROPOSED)	BW

NOTES BY SYMBOL

- (P6) 80.5 LF OF 2' F-F FLUME
- (P7) 1-3" STEP
- (P8) STEEL PLATE OVER FLUME CROSSING
- (P9) 141 LF OF VARIABLE HEIGHT GRAVITY RETAINING WALL (VARIES FROM 0' TO 2.6')
- (P10) TAPER CURB FROM 0.5' TO 0' IN 16 LF

CONTROL POINTS

TBM #1 X-CUT
ELEVATION: 597.19'
NORTHING: 7143233.29
EASTING: 2458488.63

TBM #2 X-CUT
ELEVATION: 596.66'
NORTHING: 7143136.87
EASTING: 2458402.62

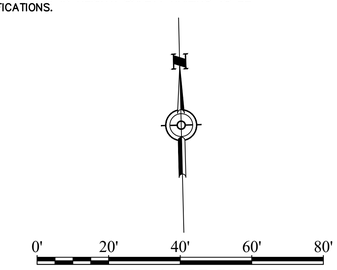
TBM #3 X-CUT
ELEVATION: 607.83'
NORTHING: 7143204.97
EASTING: 2458920.36

TBM #4 X-CUT
ELEVATION: 608.44'
NORTHING: 7143118.12
EASTING: 2459129.19

NOTES:

1. FULL-DEPTH SAW CUT REQUIRED FOR ALL PAVEMENT REMOVAL (INCIDENTAL TO PROJECT).
2. ALL DIMENSIONS ARE MEASURED TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. ALL ELEVATIONS SHOWN ARE TO TOP OF PAVEMENT. ADD 6" OR 0.5' TO "GL" ELEVATIONS TO OBTAIN TOP OF CURB ELEVATIONS WHERE APPROPRIATE.
4. ALL ACCESSIBLE WALKWAYS, SIDEWALKS, PARKING SPACES MUST MEET ADA REQUIREMENTS.
5. BOTTOM OF WALL (BW) ELEVATIONS REFER TO TOP OF PROPOSED GROUND OR TOP OF PROPOSED PAVEMENT AT WALL. THIS ELEVATION DOES NOT REFER TO TOP OF FOOTING. FOOTING WILL EXTEND A MINIMUM OF 6" BELOW BW OF WALL ELEVATION SHOWN ON THESE PLANS. REFER TO STRUCTURAL RETAINING WALL PLANS FOR FURTHER DETAIL.
6. MAXIMUM CONSTRUCTION JOINT SPACING OF 15 FEET FOR PAVEMENT THICKER THAN 5 INCHES.
7. CONSTRUCTION JOINT SPACING AT 5' FEET MAX FOR SIDEWALKS.
8. EXPANSION JOINTS REQUIRED AT MAX SPACING OF 100 FEET, AT PROPERTY/ROW, ACCESSIBLE RAMPS, BACK OF CURB/SIDEWALK, FOUNDATION/SIDEWALK (OR AS OTHERWISE SHOWN ON PAVING PLAN).
9. CLEAR ENTIRE SITE OF ALL VEGETATION. DEMOLISH IN THEIR ENTIRETY ALL EXISTING CONCRETE SIDEWALKS LOCATED WITHIN THE PROPERTY LIMITS.
10. SAFETY RAILING TO BE INSTALLED ON ALL RETAINING WALLS GREATER THAN 2 FEET IN HEIGHT OR CURB WALLS GREATER THAN 1 FOOT IN HEIGHT. SAFETY RAILING TO BE INSTALLED PER MANUFACTURES SPECIFICATIONS.

!!! WARNING !!!
EXISTING OVERHEAD / UNDERGROUND TELEPHONE, ELECTRIC AND UNDERGROUND GAS AND FIBER OPTIC UTILITIES IN THIS AREA. CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT DIG-TESS, 811.



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WINN RIDGE BLVD AUBREY, TX

STATE OF TEXAS
EDGAR O. MEDINA
148482
LICENSED
PROFESSIONAL ENGINEER
3/21/24

SHEET DESCRIPTION
GRADING PLAN

SHEET NO.
C-3.1

LEGEND

PROPERTY LINE

DRAINAGE BOUNDARY

PROPOSED CONTOURS — 500

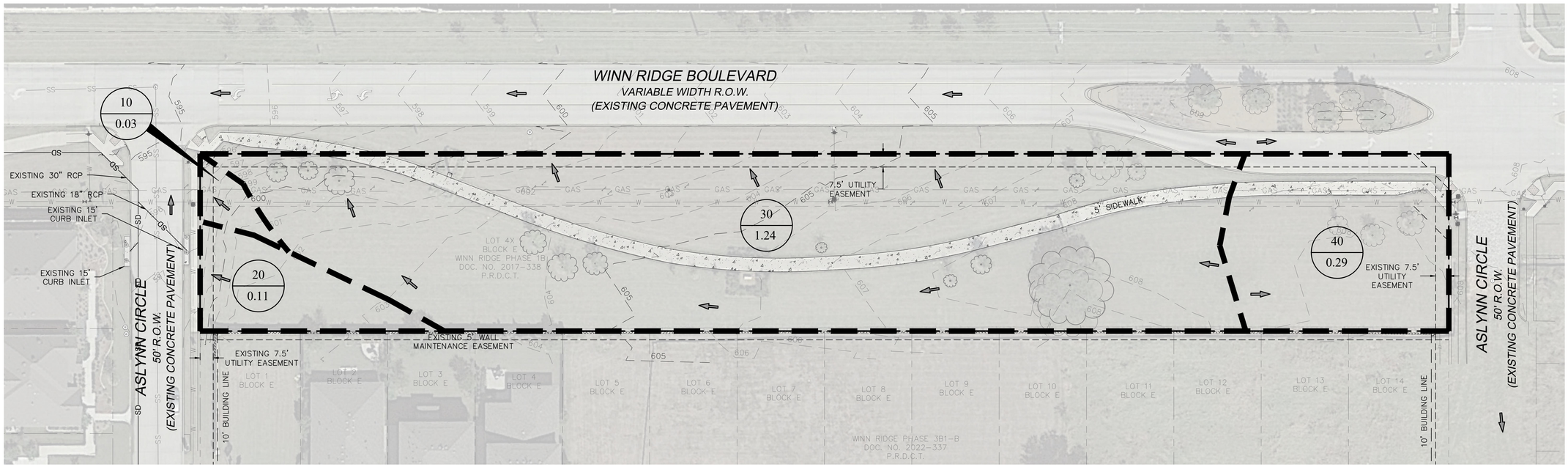
EXISTING CONTOURS

FLOW DIRECTION

DRAINAGE AREA — 10 / 1.00 (AREA NO. / ACRES)

NOTES:

1. THIS PROPERTY DOES LIE IN ZONE "X" AND DOES NOT LIE WITHIN THE 100-YEAR FLOOD ZONE PER F.I.R.M MAP No. 48121C0410G EFFECTIVE APRIL 18, 2011.

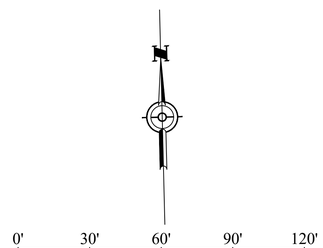


RUNOFF CALCULATION BY RATIONAL METHOD (2020 NCTCOG ISWM HYDROLOGY MANUAL) - EXISTING

AREA DESIGNATION	AREA (ac)	C	C_{f25}	C_{f100}	C^*C_{f25}	C^*C_{f100}	Tc (min)	I_{1YR} (in/hr)	I_{5YR} (in/hr)	I_{25YR} (in/hr)	I_{100YR} (in/hr)	Incremental Q_1 (cfs)	Incremental Q_5 (cfs)	Incremental Q_{25} (cfs)	Incremental Q_{100} (cfs)
10	0.03	0.30	1.10	1.25	0.33	0.38	10.00	3.99	5.66	7.83	9.613	0.04	0.05	0.08	0.11
20	0.11	0.30	1.10	1.25	0.33	0.38	18.00	3.09	4.14	5.71	6.9874	0.10	0.14	0.21	0.29
30	1.24	0.35	1.10	1.25	0.39	0.44	33.00	2.17	3.29	4.45	5.4109	0.95	1.44	2.13	2.95
40	0.29	0.42	1.10	1.25	0.47	0.53	15.00	3.37	4.63	6.39	7.8265	0.42	0.57	0.87	1.21

COEFFICIENT CALCULATOR (2014 NCTCOG ISWM HYDROLOGY MANUAL) - EXISTING

AREA DESIGNATION	C1	A1 (ac)	C2	A2 (ac)	C3	A3 (ac)	Ctotal
10	0.30	0.03					0.30
20	0.30	0.11					0.30
30	0.95	0.10	0.3	1.14			0.35
40	0.95	0.06	0.3	0.23			0.42



GRAPHIC SCALE IN FEET
1" = 30'

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CITY OF AUBREY
POLICE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX

3/21/24
STATE OF TEXAS
EDGAR O. MEDINA
148482
LICENSED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
EXISTING DRAINAGE MAP

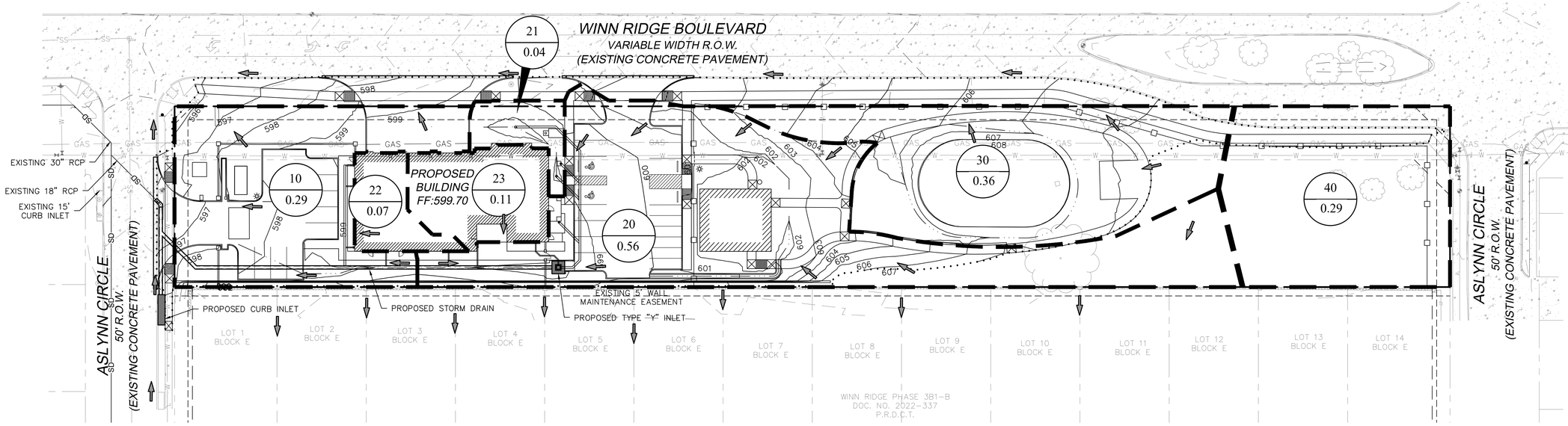
SHEET NO.
C-3.2

LEGEND

PROPERTY LINE	
DRAINAGE BOUNDARY	
PROPOSED CONTOURS	500
EXISTING CONTOURS	500
FLOW DIRECTION	
DRAINAGE AREA	10 / 1.00 — AREA NO. / ACRES
PROPOSED STORM LINE	

NOTES:

1. THIS PROPERTY DOES LIE IN ZONE "X" AND DOES NOT LIE WITHIN THE 100-YEAR FLOOD ZONE PER F.I.R.M MAP No. 48121C0410G EFFECTIVE APRIL 18, 2011.

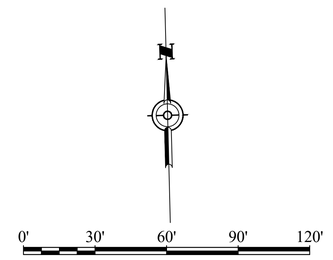


RUNOFF CALCULATION BY RATIONAL METHOD (2020 NCTCOG ISWM HYDROLOGY MANUAL) - PROPOSED

AREA	AREA	C	C_{f25}	C_{f100}	$C*C_{f25}$	$C*C_{f100}$	Tc	I_{1YR}	I_{5YR}	I_{25YR}	I_{100YR}	Incremental	Incremental	Incremental	Incremental
10	0.29	0.63	1.10	1.25	0.70	0.79	10.00	3.99	5.66	7.83	9.613	0.73	1.04	1.58	2.21
20	0.56	0.56	1.10	1.25	0.62	0.70	10.00	3.99	5.66	7.83	9.613	1.25	1.77	2.70	3.77
21	0.04	0.46	1.10	1.25	0.51	0.58	10.00	3.99	5.66	7.83	9.613	0.07	0.11	0.16	0.22
22	0.07	0.95	1.10	1.25	1.00	1.00	10.00	3.99	5.66	7.83	9.613	0.27	0.38	0.55	0.67
23	0.11	0.95	1.10	1.25	1.00	1.00	10.00	3.99	5.66	7.83	9.613	0.42	0.59	0.86	1.06
30	0.36	0.39	1.10	1.25	0.43	0.49	10.00	3.99	5.66	7.83	9.613	0.56	0.79	1.21	1.68
40	0.29	0.33	1.10	1.25	0.36	0.41	15.00	3.37	4.63	6.39	7.8265	0.32	0.44	0.67	0.93

COEFFICIENT CALCULATOR (2014 NCTCOG ISWM HYDROLOGY MANUAL) - PROPOSED

AREA	C1	A1 (ac)	C2	A2 (ac)	C3	A3 (ac)	Ctotal
10	0.95	0.15	0.3	0.14			0.63
20	0.95	0.22	0.3	0.34			0.56
21	0.95	0.01	0.3	0.03			0.46
22	0.95	0.070					0.95
23	0.95	0.11					0.95
30	0.95	0.05	0.3	0.31			0.39
40	0.95	0.01	0.3	0.28			0.33



GRAPHIC SCALE IN FEET
1" = 30

Project Management Associates
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WINN RIDGE BLVD AUBREY, TX

3/21/24
STATE OF TEXAS
EDGAR O. MEDINA
148482
LICENSED
PROFESSIONAL ENGINEER

SHEET DESCRIPTION
PROPOSED DRAINAGE AREA MAP

SHEET NO.
C-3.3

CITY OF AUBREY FIRE STATION # 2 - 100-Year Frequency Hydraulic Calculations

FROM	TO	PIPE LENGTH	DRAINAGE AREA			RUNOFF "C"	Cf100	INC. Ca	TOTAL CA	TIME OF CONCENTRATION			100-YEAR INTENSITIES	Q100 RUNOFF	INLET BYPASS	Q PIPE	PIPESIZE	n	Sf	HGL		V1 (IN)	V2 (OUT)	V1^2/2g	V2^2/2g	Kj	Hk	DESIGN HGL	INVERT ELEV.		T/C OR RIM ELEV	REMARKS
			INCREMENTAL AREA NO.	AREA AC	TOTAL AREA AC					INLET TIME MIN	TRAVEL TIME MIN	TOTAL TIME MIN								D/S	U/S								FROM	TO		
		FT											IN/HR	CFS	CFS	CFS	IN		ft/ft	ELEV	ELEV	FPS	FPS									
1	2	3	4	5	6	7	9	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
SD LINE A																																
0+19.56	0+63.06	43.50	*							15.00	0.14	15.14		0.00	(9.02)	9.02	18	0.013	0.0074	595.19	595.51	0.00	5.10	-------	0.40	1.25	0.10	595.61	592.80	593.69	598.19	STD 15' CURB INLET
0+04.00	0+19.56	15.56	20,21,22,23	0.78	0.78	0.64	1.25	0.63	0.63	15.14	0.03	15.17	7.88	4.95	(9.02)	13.97	18	0.013	0.0177	594.08	594.36	5.10	7.91	0.40	0.97	0.35	0.83	595.19	592.48	592.80	596.78	45D WYE- SD LINE B
0+00.00	0+04.00	4.00			0.78		1.25	0.00	0.63	15.17	0.01	15.18	7.87	4.95	(9.02)	13.97	18	0.013	0.0177	593.90	593.98	7.91	7.91	0.97	0.97	0.35	* P.F.	594.08	592.40	592.48	596.34	45D BEND
																												592.82				CONNECT TO EXISTING 18" RCP
SD LINE B																																
3+25.18	3+47.66	22.48	21(2/3)	0.03	0.03	0.95	1.25	0.03	0.03	15.14	0.14	15.28	7.88	0.21		0.21	12	0.012	0.0000	597.27	597.53	0.00	2.64	-------	0.11	0.35	* P.F.	597.63	596.17	596.53	598.50	12" DOME GRATE- 21 A
3+06.03	3+25.18	19.15			0.03		1.25	0.00	0.03	15.28	0.12	15.40	7.85	0.21		0.21	12	0.012	0.0000	596.97	597.17	2.64	2.64	0.11	0.11	0.35	* P.F.	597.27	595.87	596.17	599.74	45D BEND
2+88.27	3+06.03	17.76			0.03		1.25	0.00	0.03	15.40	0.11	15.52	7.82	0.21		0.21	12	0.012	0.0000	596.72	596.87	2.64	2.64	0.11	0.11	0.35	* P.F.	596.97	595.59	595.87	599.35	45D BEND
2+78.77	2+88.27	9.50	23(.05)	0.01	0.03	0.46	1.25	0.00	0.03	15.52	0.05	15.57	7.80	0.23		0.23	12	0.012	0.0000	596.62	596.62	2.64	2.96	0.11	0.14	0.50	0.10	596.72	595.44	595.59	599.15	45D WYE- 6" HDPE ROOF DRAIN LAT
2+54.42	2+78.77	24.35	21(1/3)	0.01	0.05	0.46	1.25	0.01	0.04	15.57	0.13	15.70	7.79	0.29		0.29	12	0.012	0.0001	596.52	596.52	2.64	3.06	0.11	0.15	0.50	0.10	596.62	595.05	595.44	599.05	45D WYE- 12" HDPE LAT- 21B
2+44.72	2+54.42	9.70	23(.05)	0.01	0.05	0.39	1.25	0.00	0.04	15.70	0.04	15.75	7.76	0.31		0.31	12	0.012	0.0001	596.35	596.35	2.64	3.84	0.11	0.23	0.50	0.17	596.52	594.90	595.05	598.83	45D WYE- 6" HDPE ROOF DRAIN LAT
2+39.07	2+44.72	5.65			0.05		1.25	0.00	0.04	15.75	0.02	15.77	7.75	0.31		0.31	12	0.012	0.0001	596.25	596.25	3.84	3.84	0.23	0.23	0.35	0.10	596.35	594.81	594.90	598.76	45D BEND
2+30.86	2+39.07	8.21			0.05		1.25	0.00	0.04	15.77	0.04	15.81	7.75	0.31		0.31	12	0.012	0.0001	596.13	596.13	3.84	3.84	0.23	0.23	0.50	0.11	596.25	594.68	594.81	598.63	45D BEND
1+85.67	2+30.86	45.19	20+23(.45)	0.61	0.66	0.58	1.25	0.45	0.49	15.81	0.35	16.16	7.74	3.76		3.76	18	0.013	0.0013	595.97	596.03	3.84	2.13	0.23	0.07	0.50	0.10	596.13	593.91	594.19	598.15	2'X2' TYPE "Y" DROP INLET - 6" HDPE ROOD DRAIN LAT
1+69.55	1+85.67	16.12	23(.45)	0.05	0.71	0.48	1.25	0.03	0.52	16.16	0.12	16.28	7.66	3.95		3.95	18	0.013	0.0014	595.85	595.87	3.84	2.24	0.23	0.08	0.50	0.10	595.97	593.82	593.91	598.97	CONNECT 6" HDPE ROOF DRAIN LAT
1+34.44	1+69.55	35.11	22(1/4)	0.02	0.73	0.48	1.25	0.01	0.53	16.28	0.26	16.54	7.64	4.02		4.02	18	0.013	0.0015	595.70	595.75	3.84	2.27	0.23	0.08	0.50	0.10	595.85	593.61	593.82	599.13	CONNECT 6" HDPE ROOF DRAIN LAT
1+11.34	1+34.44	23.10	22(1/4)	0.02	0.74	0.48	1.25	0.01	0.54	16.54	0.17	16.70	7.59	4.07		4.07	18	0.013	0.0015	595.56	595.60	3.84	2.30	0.23	0.08	0.50	0.10	595.70	593.47	593.61	599.09	CONNECT 6" HDPE ROOF DRAIN LAT
0+27.87	1+11.34	83.47	22(1/2)	0.04	0.78	0.48	1.25	0.02	0.56	16.70	0.58	17.29	7.55	4.21		4.21	18	0.013	0.0016	595.33	595.46	3.84	2.38	0.23	0.09	0.50	0.10	595.56	592.97	593.47	598.99	CONNECT 6" HDPE ROOF DRAIN LAT
0+00.00	0+27.87	27.87			0.78		1.25	0.00	0.56	17.29	0.20	17.49	7.44	4.15		4.15	18	0.013	0.0016	595.19	595.23	2.38	2.35	0.09	0.09	0.30	0.10	595.33	592.80	592.97	598.48	45D BEND
																												595.19				CONNECT TO 45D WYE - SD LINE A

* 15' CURB INLET 100YR FLOWRATE PER AS BUILT DRAWING:
WINN RIDGE MAJOR IMPROVEMENTS CITY OF AUBREY, DENTON COUNTY, TEXAS. FILE 12031-01A, SHEET # 28, AUGUST 2017

Grate Inlet in Sump - 100 Year Event

Grate Inlet design Calculations		Design Storm Frequency	Area Runoff Q=CIA					Carry Over from Upstream Inlet (cfs)	Total Flow (cfs)	Grate Inlet Capacity Required $Q_i = C_0 A(2gd)^{0.5}$			Grate Size Provided	Grate Inlet Capacity Provided $Q_i = C_0 A(2gd)^{0.5}$			
Inlet No.	Area No.	(yrs)	Time of Concentration (min)	Intensity I_{100} (in/hr)	Runoff Coeff "C"	Area (ac)	"Q_{100}" (cfs)			Depth of flow at grate opening (ft)	Area Required (square ft)	Area Required (square in)		Depth of flow at grate opening (ft)	Area Provided (square ft)	Area Provided (square in)	Q Capacity (cfs)
1	2	3	4	5	6	7	8			9	10	11	12	13	14	15	16
21A	21(2/3)	100.00	10.00	9.61	0.46	0.03	0.12	0.00	0.12	0.30	0.04	5.82	12" Dome	0.3	0.8	113.1	2.3
21B	21(1/3)	100.00	10.00	9.61	0.46	0.01	0.06	0.00	0.06	0.30	0.02	2.91	12" Dome	0.3	0.8	113.1	2.3

Capacity for Y Inlet in Sump - 100 Year Event

Inlet design Calculations		Design Storm Frequency	Area Runoff Q=CIA					Carry Over from Upstream Inlet (cfs)	Total Flow (cfs)	Inlet Capacity Required $\frac{Q}{P} = 3y^{\frac{3}{2}}$		
Inlet No.	Area No.	(yrs)	Time of Concentration (min)	Intensity I_{100} (in/hr)	Runoff Coeff "C"	Area (ac)	"Q_{100}" (cfs)			Depth of flow at inlet opening (ft)	Perimeter Required (ft)	
1	2	3	4	5	6	7	8			9	10	11
1	20	100.00	10.00	9.61	0.56	0.56	3.01	0.00	3.01	0.50	2.84	2'x2'

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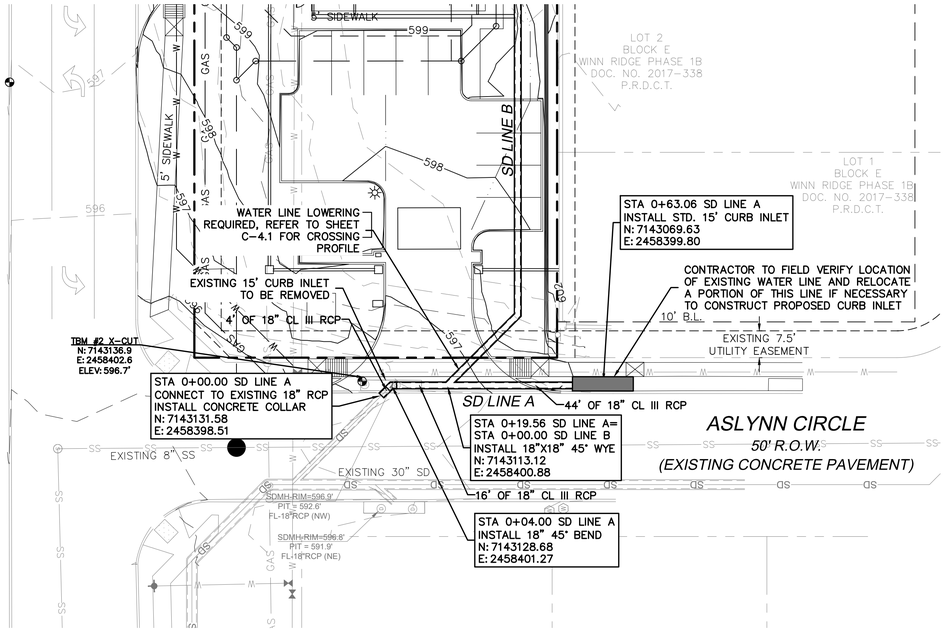
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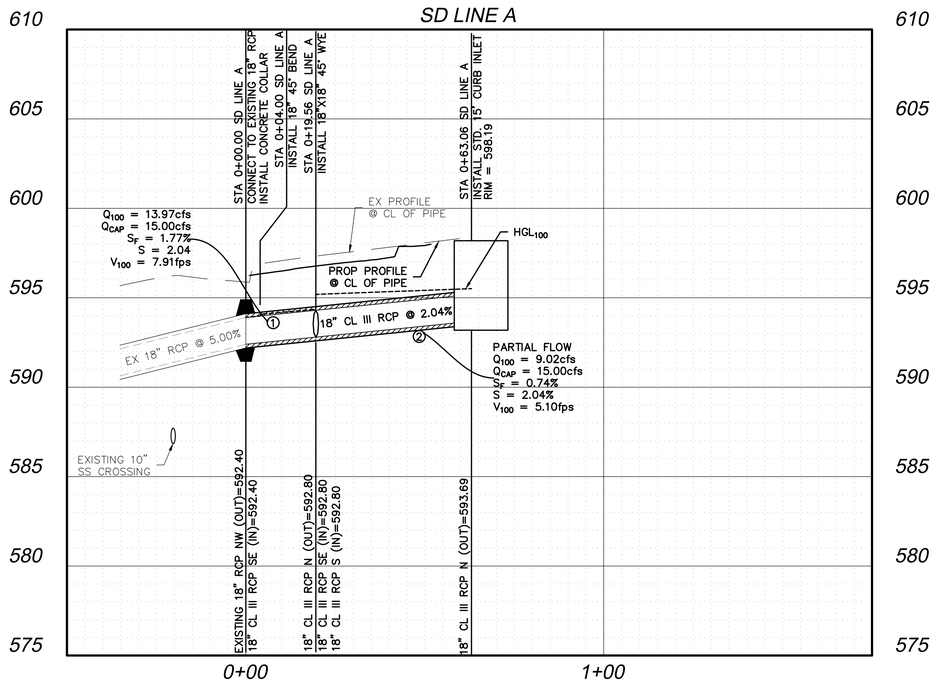
CITY OF AUBREY
RE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX

STATE OF TEXAS
EDGAR O. MEDINA
148482
LICENSED PROFESSIONAL ENGINEER
3/21/24

SHEET DESCRIPTION
STORM DRAIN COMPUTATIONS

SHEET NO.
C-3.4





LEGEND

SITE BOUNDARY	
EXISTING EASEMENT	
PROPOSED SANITARY SERVICE	
EXISTING SANITARY SEWER	SS
EXISTING WATER	W
EXISTING STORM DRAIN	SD
PROPOSED SWALE AND FLOWLINE	
PROPOSED STORM LINE	
ACCESSIBLE PARKING SPACE	
PROPOSED BUILDING FOOTPRINT	

!!! WARNING !!!

EXISTING OVERHEAD / UNDERGROUND TELEPHONE, ELECTRIC AND UNDERGROUND GAS AND FIBER OPTIC UTILITIES IN THIS AREA. CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT DIG-TESS, 811.

0' 20' 40' 60' 80'

GRAPHIC SCALE IN FEET
1" = 20'

Project Management Associates

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CITY OF AUBREY

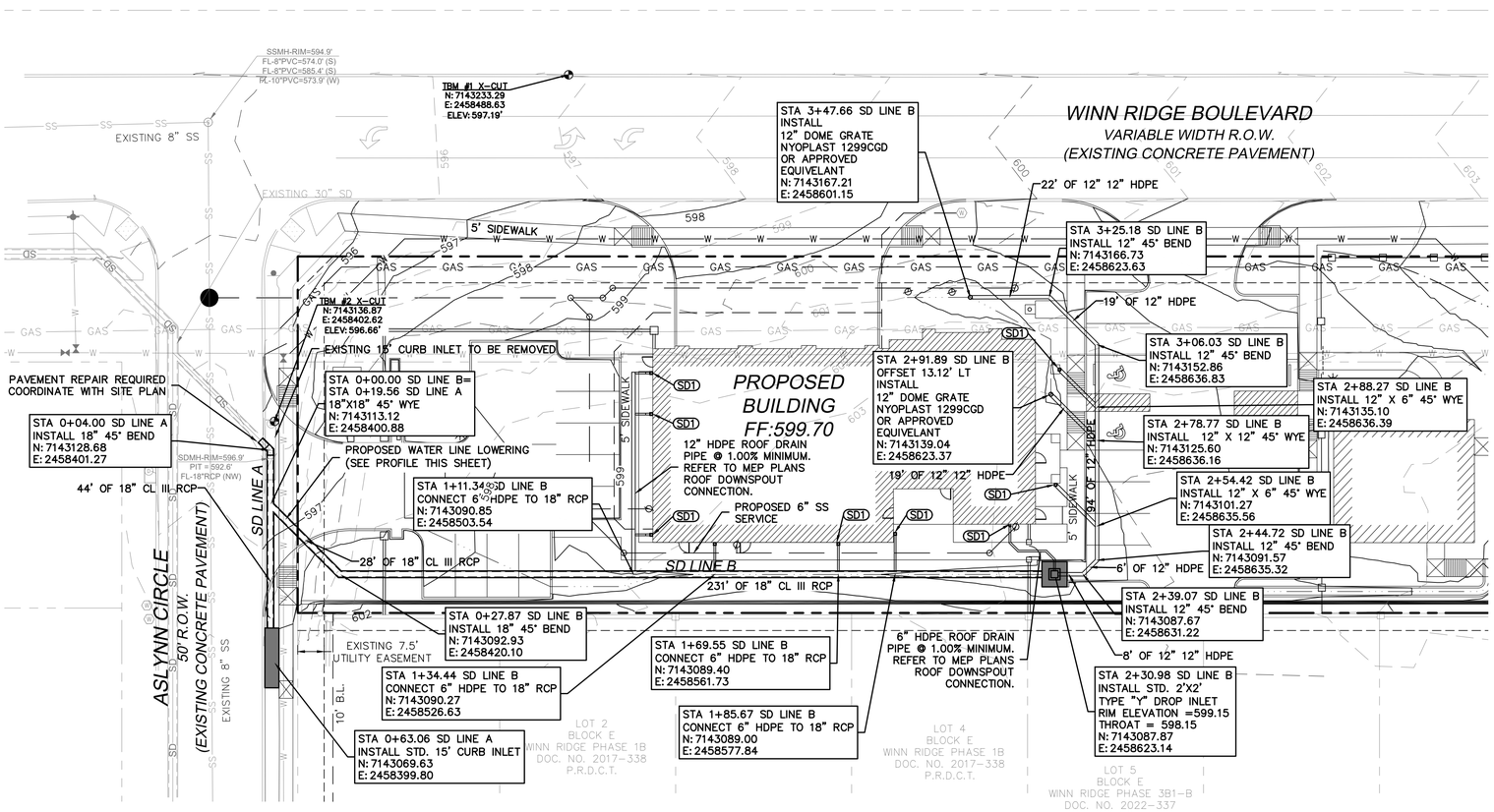
FIRE STATION # 2 & POLICE SUBSTATION

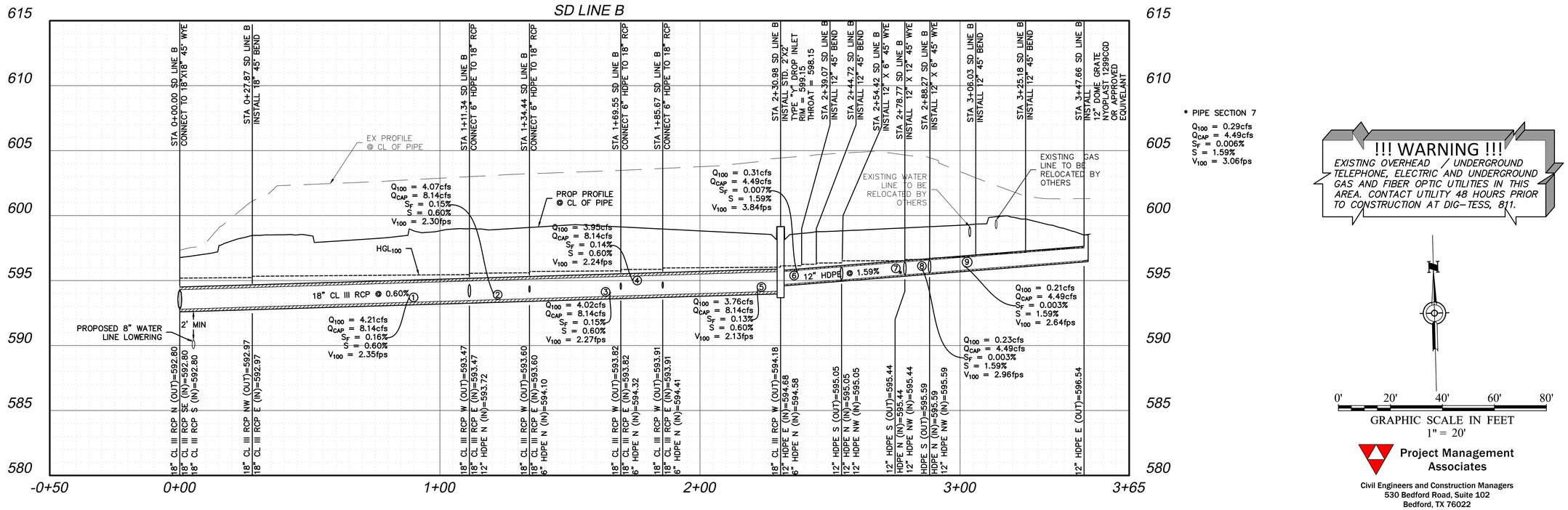
WINN RIDGE BLVD AUBREY, TX

STATE OF TEXAS
EDGAR O. MEDINA
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LICENSED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
STORM DRAIN IMPROVEMENTS

SHEET NO.
C-3.5





LEGEND

- SITE BOUNDARY
- EXISTING EASEMENT
- PROPOSED SANITARY SERVICE
- EXISTING SANITARY SEWER
- EXISTING WATER
- EXISTING STORM DRAIN
- PROPOSED SWALE AND FLOWLINE
- PROPOSED STORM LINE
- ACCESSIBLE PARKING SPACE
- PROPOSED BUILDING FOOTPRINT

NOTES BY SYMBOL

(SD1) REFER TO MEP PLANS FOR ROOF DRAIN INVERT ELEVATION/CONNECTION

NOTES:
1. HDPE PIPE AND FITTING SHALL CONFORM TO ADS N-12 ST IB PIPE OR ASTM F2648 SPECIFICATIONS.

* PIPE SECTION 7
Q_{100} = 0.29cfs
Q_{CAP} = 4.49cfs
S_F = 0.006%
S = 1.59%
V_{100} = 3.06fps

!!! WARNING !!!
EXISTING OVERHEAD / UNDERGROUND TELEPHONE, ELECTRIC AND UNDERGROUND GAS AND FIBER OPTIC UTILITIES IN THIS AREA. CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT DIG-TESS, 811.

0' 20' 40' 60' 80'
GRAPHIC SCALE IN FEET
1" = 20'

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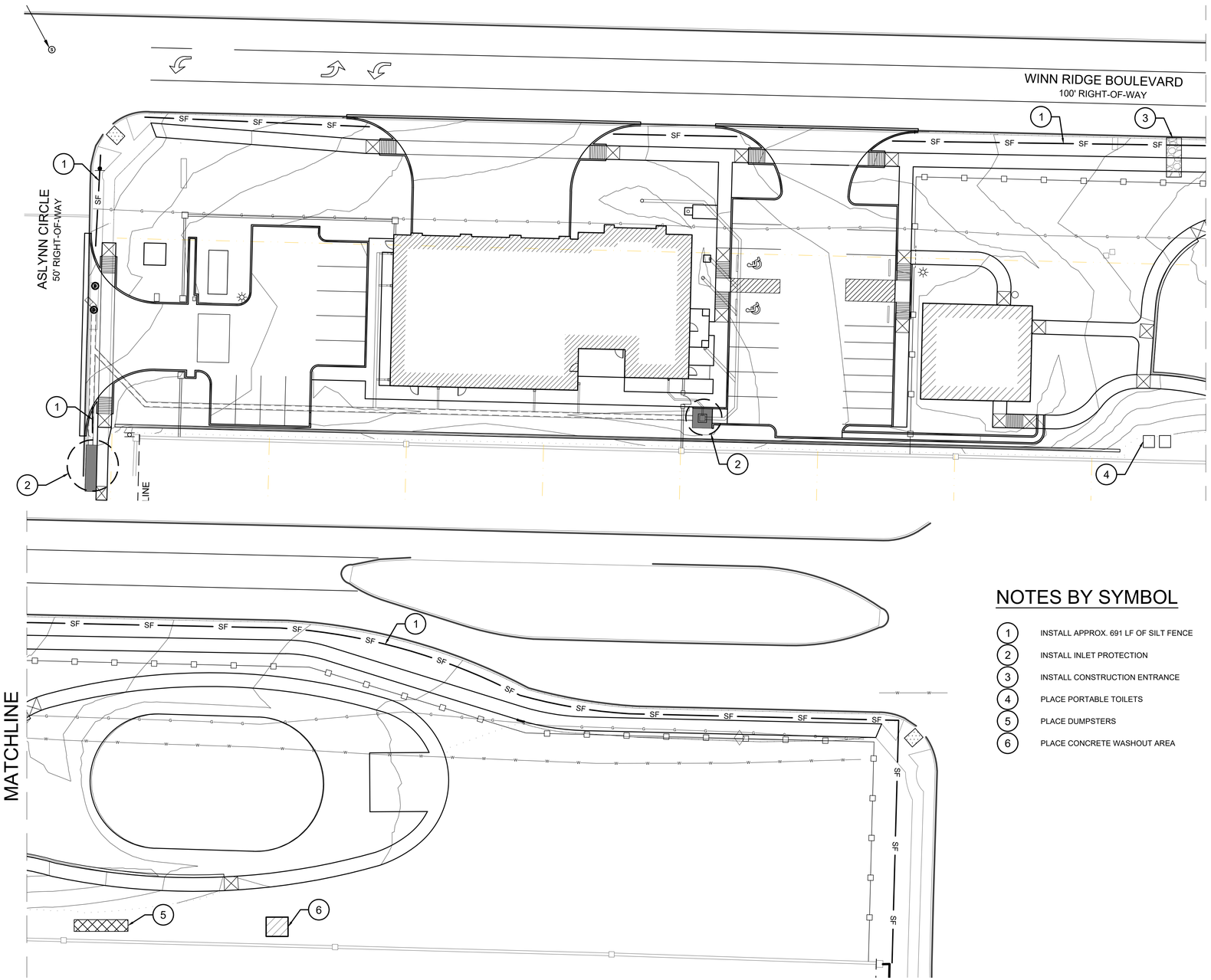
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3/21/24

SHEET DESCRIPTION
STORM DRAIN IMPROVEMENTS

SHEET NO.
C-3.6



LEGEND

- PAINTED STRIPE
- CONCRETE PAVEMENT
- 5" THICK CONCRETE SIDEWALK
- SF — SILT FENCE
- INLET PROTECTION
- CONSTRUCTION ENTRANCE
- RECOMMENDED PORTABLE TOILET LOCATION
- 15' ROCK BERM
- RECOMMENDED CONSTRUCTION DUMPSTER LOCATION
- 10' X 10' CONCRETE WASHOUT AREA
- PROPERTY LINE
- EASEMENTS

BEST MANAGEMENT PRACTICES:

TO PREVENT SITE CONTAMINATIONS FROM WASHING DOWNSTREAM, THE FOLLOWING BMPS WILL BE IMPLEMENTED:

- SILT FENCING AND STRAW BALE BARRIERS WILL BE PLACED ALONG THE PERIMETER OF THE AREA TO BE CLEARED AND GRADED BEFORE ANY CLEARING OR GRADING TAKES PLACE. A STABILIZED CONSTRUCTION ENTRANCE WILL BE CONSTRUCTED TO REDUCE VEHICLE TRACKING OF SEDIMENT.
  - a) THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT AS REQUIRED TO REMOVE EXCESS MUD, DIRT, OR ROCK TRACKED FROM THE SITE.
  - b) ALL VEHICLES ON SITE WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.
  - c) PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.
  - d) SPILL KITS WILL BE INCLUDED WITH ALL FUELING SOURCES AND MAINTENANCE ACTIVITIES AS APPLICABLE.
  - e) DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN OR OTHER SUITABLE COVERING MATERIAL TO PREVENT MATERIAL FROM BEING DISPERSED ALONG THE HAUL ROUTE.
  - f) ALL RUTS CAUSED BY EQUIPMENT WILL BE GRADED.
- WITHIN FOURTEEN (14) DAYS AFTER CLEARING AND GRADING, APPLY GROUND AGRICULTURAL LIMESTONE AND 10-10-10 FERTILIZER OR INSTALL SOD AS REQUIRED BY THE LANDSCAPING PLAN ON ALL AREAS NOT TO BE IMPACTED BY CONSTRUCTION.
  - a) FERTILIZERS TO BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER.
  - b) FERTILIZERS TO BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER.
  - c) FERTILIZERS TO BE STORED IN A COVERED SHED AND PARTIALLY USED BAGS WILL BE TRANSFERRED TO A SEALABLE BIN TO AVOID SPILLS.
- AFTER FERTILIZING, ALL AREAS WHICH WILL NOT BE IMPACTED BY CONSTRUCTION OF THE BUILDING WILL BE SEEDED (IF SOD IS NOT THE STABILIZATION METHOD).
- IF WATERING RESTRICTIONS ARE IN EFFECT, SEEDING OR SODDING MAY NOT BE AN OPTION. IN THIS CASE OTHER METHODS OF TEMPORARY STABILIZATION MAY BE NEEDED. CONTACT THE CITY OF FORT WORTH FOR DIRECTION TO DEAL WITH THIS SITUATION.
- TOP SOIL STOCK PILES WILL BE STABILIZED WITH TEMPORARY SEED AND MULCH NO LATER THAN FOURTEEN DAYS FROM THE LAST CONSTRUCTION ACTIVITIES IN THAT AREA. THE TEMPORARY SEED SHALL BE RYE (GRAIN) APPLIED AT THE RATE OF 120 POUNDS PER ACRE. IF WATERING RESTRICTIONS ARE IN EFFECT, OTHER METHODS OF STABILIZATION ARE TO BE USED.
- A COVERED DUMPSTER WILL BE USED FOR ALL WASTE MATERIALS RENTED FROM A LICENSED SOLID WASTE MANAGEMENT COMPANY LOCATED OR LICENSED TO DO BUSINESS IN THE CITY OF FORT WORTH, TEXAS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED WHEN FULL AND AS FREQUENTLY AS REQUIRED TO PREVENT TRASH OVERFLOW AND THE TRASH WILL BE HAULED TO AN APPROVED LANDFILL.
- SANITARY WASTE WILL BE COLLECTED FROM PORTABLE UNITS A MINIMUM OF ONCE A WEEK OR AS NEEDED TO AVOID OVERFILLING.
- ALL PAINT CONTAINERS AND CURING COMPOUNDS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SYSTEM, BUT WILL BE PROPERLY DISPOSED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE TEMPORARY MATERIAL STORAGE TRAILER ONSITE. EQUIPMENT WILL INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAW DUST, AND PLASTIC AND METAL TRASH CONTAINERS.
- SPRAY GUNS WILL BE CLEANED ON A REMOVABLE TARP.
- ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. SPILLS LARGE ENOUGH TO REACH THE STORM SYSTEM WILL BE REPORTED TO THE NATIONAL RESPONSE CENTER AT 1-800-424-8802.
- CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.
- WHEN TESTING/CLEANING OF WATER SUPPLY LINES, THE DISCHARGE FROM THE TESTED PIPE WILL BE COLLECTED AND CONVEYED TO A COMPLETED STORM WATER PIPE SYSTEM.
- GOOD HOUSEKEEPING AND SPILL CONTROL PRACTICES WILL BE FOLLOWED DURING CONSTRUCTION TO MINIMIZE STORM WATER CONTAMINATION FROM PETROLEUM PRODUCTS, FERTILIZERS, PAINTS, AND CONCRETE.

NOTES BY SYMBOL

1. INSTALL APPROX. 691 LF OF SILT FENCE
2. INSTALL INLET PROTECTION
3. INSTALL CONSTRUCTION ENTRANCE
4. PLACE PORTABLE TOILETS
5. PLACE DUMPSTERS
6. PLACE CONCRETE WASHOUT AREA

GENERAL NOTES

1. REFER TO ARCHITECTURAL PLANS FOR LAYOUT OF NEW BUILDING.
2. REFER TO SHEET C-5.0 AND C-5.1 FOR EROSION CONTROL DETAILS.
3. CONTRACTOR WILL PREPARE AND PROVIDE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROJECT.
4. CONTRACTOR WILL PROVIDE, INSTALL, MAINTAIN AND REMOVE ALL REQUIRED EROSION AND SITE ACCESS INFRASTRUCTURE (EROSION CONTROL FENCING, INLET PROTECTION, CONSTRUCTION ENTRANCE, ETC.) AS REQUIRED BY ALL APPLICABLE CODES/REQUIREMENTS AND APPROVED iSWM AND SWPPP DOCUMENTS.

NOTE:

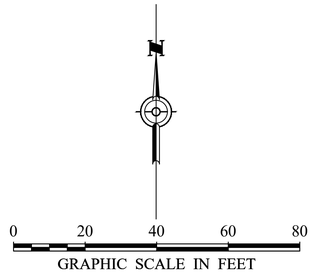
EROSION CONTROL MEASURES MAY ONLY BE PLACED IN FRONT OF INLETS, OR IN CHANNELS, DRAINAGE WAYS OR BORROW DITCHES AT RISK OF CONTRACTOR. CONTRACTOR SHALL REMAIN LIABLE FOR ANY DAMAGE CAUSED BY THE MEASURES, INCLUDING FLOODING DAMAGE, WHICH MAY OCCUR DUE TO BLOCKED DRAINAGE. AT THE CONCLUSION OF ANY PROJECT, ALL CHANNELS, DRAINAGE WAYS AND BORROW DITCHES IN THE WORK ZONE SHALL BE DREDGED OF ANY SEDIMENT GENERATED BY THE PROJECT OR DEPOSITED AS A RESULT OF EROSION CONTROL MEASURES.

SEQUENCE OF CONSTRUCTION

1. DESIGNATE TRUCK TIRE WASH LOCATION.
2. INSTALL INLET PROTECTION MEASURES AND SILT FENCE AS NECESSARY.
3. STRIP TOPSOIL AND OTHER ORGANIC MATERIALS. ALL SUCH TOPSOIL REMOVED SHALL BE STOCKPILED FOR LATER USE. ALL STOCKPILES SHALL BE SEEDED AND MULCHED TO PREVENT LOSS DUE TO EROSION, AND ENCIRCLED WITH SEDIMENT FENCE.
4. COORDINATE WITH OWNER FOR EMPLOYEE PARKING AND CONSTRUCTION STAGING AREAS.
5. GRADE REMAINDER OF SITE TO BRING BUILDING PAD AND PARKING AREAS TO FINISHED GRADE.
6. CONSTRUCT UNDERGROUND UTILITIES.
7. CONSTRUCT FOUNDATION AND BUILDING.

SEQUENCE CONTINUED

7. CONSTRUCT FOUNDATION AND BUILDING.
8. CONSTRUCT PAVED AREAS.
9. FINISH GRADING OF ALL AREAS.
10. COMPLETE PERMANENT SEEDING AND MULCHING OF ALL DISTURBED AREAS. EROSION CONTROL MEASURES ARE TO REMAIN IN PLACE UNTIL A FULL VEGETATIVE COVER HAS BEEN ESTABLISHED.



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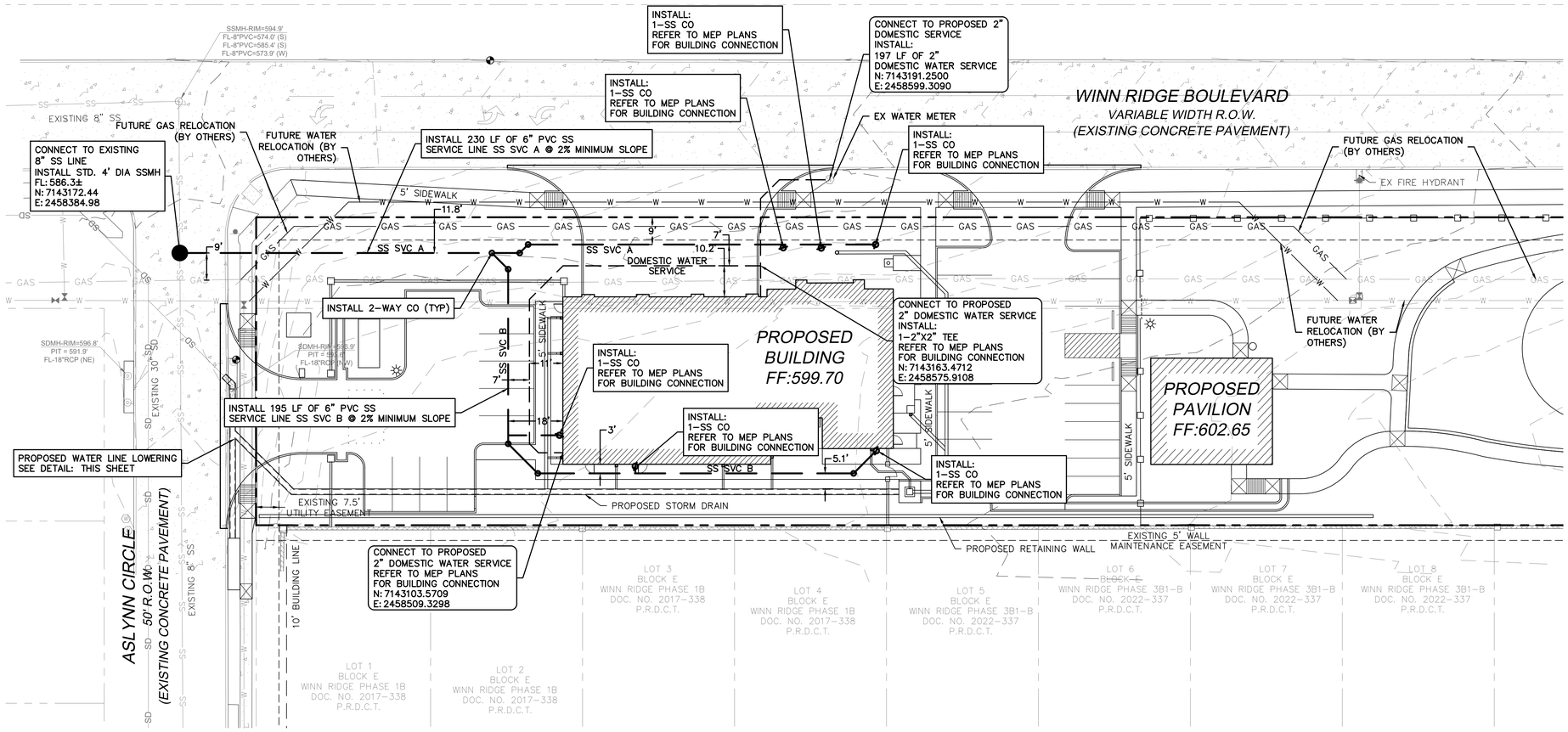
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STATE OF TEXAS
JOSE SOTO
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REGISTERED
PROFESSIONAL
03/21/2024

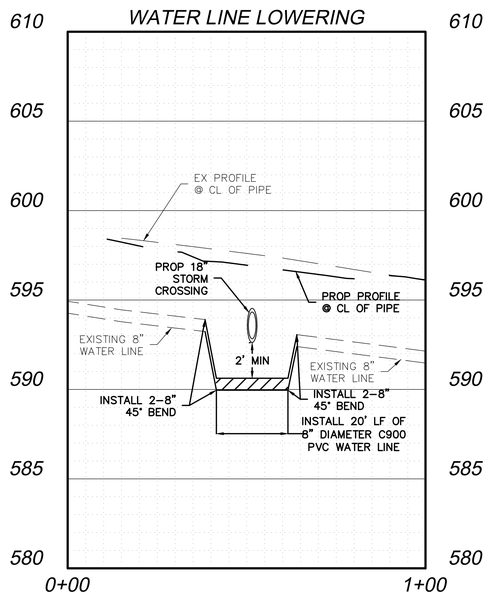
SHEET DESCRIPTION
EROSION CONTROL PLAN

SHEET NO.
C-3.7



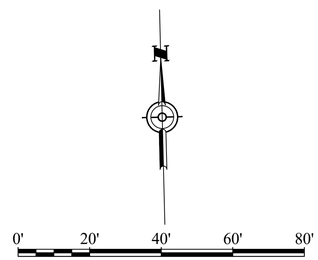
LEGEND

- SITE BOUNDARY
- EXISTING EASEMENT
- PROPOSED WATER SERVICE
- PROPOSED SANITARY SERVICE
- EXISTING SANITARY SEWER
- EXISTING WATER
- PROPOSED SWALE AND FLOWLINE
- PROPOSED STORM LINE
- PROPOSED BUILDING FOOTPRINT



!!! WARNING !!!

EXISTING OVERHEAD / UNDERGROUND TELEPHONE, ELECTRIC AND UNDERGROUND GAS AND FIBER OPTIC UTILITIES IN THIS AREA. CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT DIG-TESS, 811.



GRAPHIC SCALE IN FEET
1" = 20'

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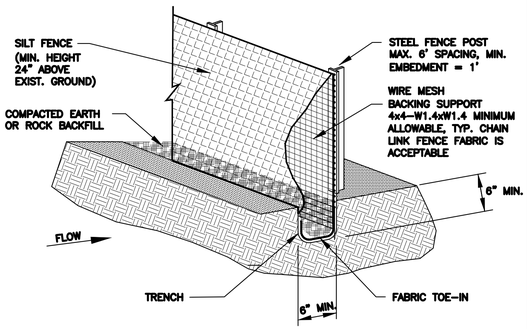
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STATE OF TEXAS
EDGAR O. MEDINA
148482
LICENSED PROFESSIONAL ENGINEER

SHEET DESCRIPTION
UTILITY PLAN

SHEET NO.
C-4.1



ISOMETRIC PLAN VIEW

N.T.S.

SILT FENCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE	
		DATE	STANDARD DRAWING NO.
		OCT. '04	1020A

SILT FENCE GENERAL NOTES:

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

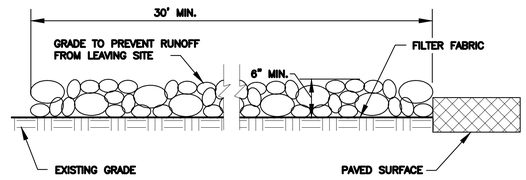
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

5. INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2" RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

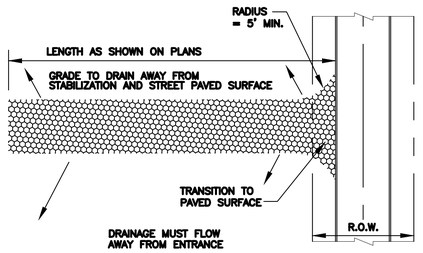
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

SILT FENCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE	
		DATE	STANDARD DRAWING NO.
		OCT. '04	1020B



PROFILE VIEW

N.T.S.



PLAN VIEW

N.T.S.

STABILIZED CONSTRUCTION ENTRANCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE	
		DATE	STANDARD DRAWING NO.
		OCT. '04	1070A

STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES:

1. STONE SHALL BE 3 TO 5 INCH DIAMETER CRUSHED ROCK OR ACCEPTABLE CRUSHED PORTLAND CEMENT CONCRETE.

2. LENGTH SHALL BE SHOWN ON PLANS, WITH A MINIMUM LENGTH OF 30 FEET FOR LOTS WHICH ARE LESS THAN 150 FEET FROM EDGE OF PAVEMENT. THE MINIMUM DEPTH IN ALL OTHER CASES SHALL BE 50 FEET.

3. THE THICKNESS SHALL NOT BE LESS THAN 6 INCHES.

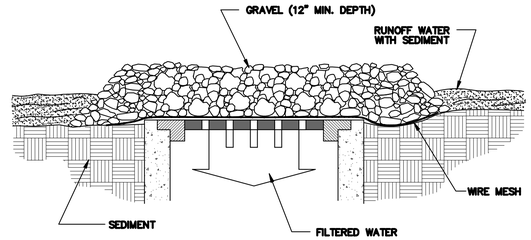
4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.

5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.

6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.

7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

STABILIZED CONSTRUCTION ENTRANCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE	
		DATE	STANDARD DRAWING NO.
		OCT. '04	1070B



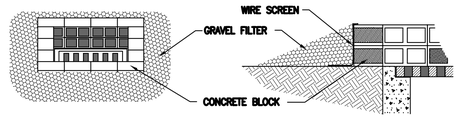
CROSS SECTION

N.T.S.

SPECIFIC APPLICATION

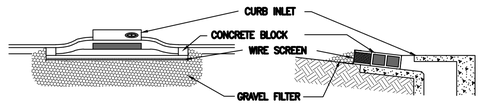
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATION FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE AND UNPROTECTED AREAS.

INLET PROTECTION WIRE MESH AND GRAVEL	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE	
		DATE	STANDARD DRAWING NO.
		OCT. '04	1140



DROP INLET PROTECTION

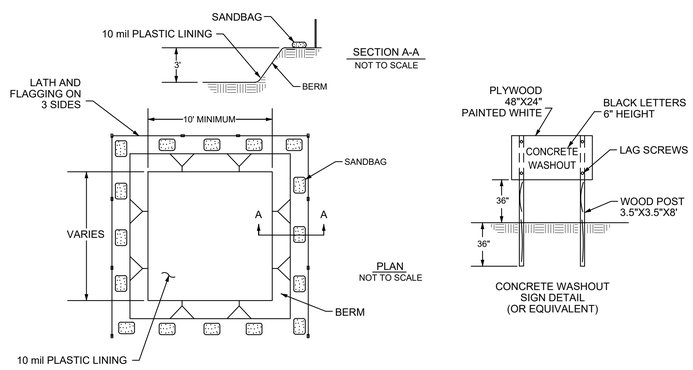
N.T.S.



CURB INLET PROTECTION

N.T.S.

INLET PROTECTION BLOCK AND GRAVEL	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE	
		DATE	STANDARD DRAWING NO.
		OCT. '04	1130



TYPE "BELOW GRADE"

CONCRETE WASHOUT SIGN DETAIL
(OR EQUIVALENT)

NOTES

1. ACTUAL LAYOUT TO BE DETERMINED IN THE FIELD.

2. A CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

3. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF OR RECYCLED.

4. HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

CONCRETE WASHOUT PIT

NTS

THESE NCTCOG STANDARDS HAVE BEEN REVIEWED BY JOSE SOTO, P.E. AND APPROVED FOR USE ON THIS PROJECT

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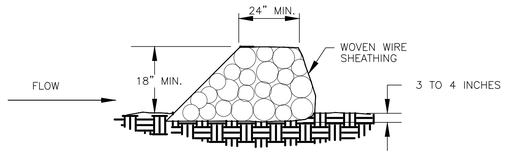
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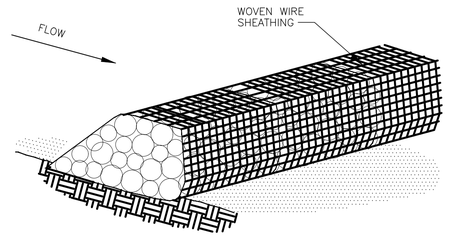
SHEET DESCRIPTION
EROSION CONTROL DETAILS

SHEET NO.
C-5.0



CROSS SECTION

N.T.S.



ISOMETRIC PLAN VIEW

N.T.S.

ROCK BERM	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE	
		DATE	STANDARD DRAWING NO.
		OCT. '04	1060A

ROCK BERM GENERAL NOTES:

1. USE ONLY OPEN GRADED ROCK 4–8 INCHES IN DIAMETER FOR STREAM FLOW CONDITION. USE OPEN GRADED ROCK 3–5 INCHES IN DIAMETER FOR OTHER CONDITIONS.

2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE SIZE OF 20 GAUGE AND SHALL BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP.

3. THE ROCK BERM SHALL BE INSPECTED EVERY TWO WEEKS OR AFTER EACH 1/2" RAIN EVENT AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTEDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

4. WHEN SILT REACHES A DEPTH EQUAL TO ONE–THIRD OF THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.

5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

6. ROCK BERM SHOULD BE USED AS CHECK DAMS FOR CONCENTRATED FLOW AND ARE NOT INTENDED FOR USE IN PERIMETER PROTECTION.

ROCK BERM	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE	
		DATE	STANDARD DRAWING NO.
		OCT. '04	1060B

THESE NCTCOG STANDARDS HAVE BEEN REVIEWED BY JOSE SOTO, P.E. AND APPROVED FOR USE ON THIS PROJECT

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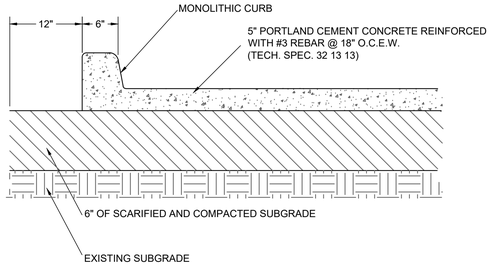
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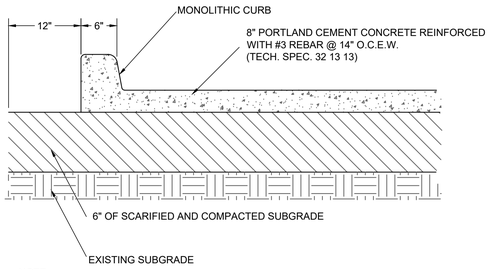
SHEET DESCRIPTION
EROSION CONTROL DETAILS 2

SHEET NO.
C-5.1



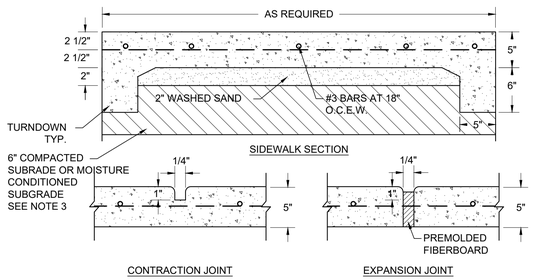
NOTE:
CONCRETE SHALL HAVE A MIN. 28 DAY COMPRESSIVE STRENGTH OF 4,000 psi, WITH 4.5 ± 1.5% AIR ENTRAINMENT. REFER TO GEOTECHNICAL REPORT BY GILES ENGINEERING ASSOCIATES, INC. DATED 02/12/2024, PROJECT NO. 4G-2301011 FOR ADDITIONAL PAVEMENT DESIGN AND SUBGRADE OPTIONS.

01 C-5.2 — 5" PAVEMENT SECTION PARKING SPACE AREA
SCALE: NTS



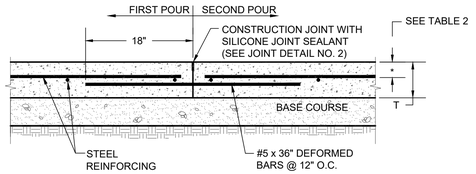
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04 C-5.2 — 8" PAVEMENT SECTION VEHICLE DRIVE LANES
SCALE: NTS

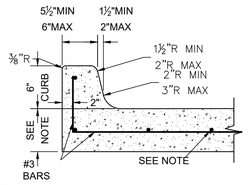


NOTE:
1. TRANSVERSE CONTRACTION JOINTS AT 6'-0" INTERVALS.
2. EXPANSION JOINTS AT 40'-0" INTERVALS.
3. SIDEWALKS ADJACENT TO BUILDING AND AT ENTRANCES TO THE BUILDING ARE TO HAVE MOISTURE CONDITIONED SUBGRADE. REFER TO GENERAL SHEET C-0.2 FOR SUBGRADE MOISTURE CONDITIONING PROCEDURE.

08 C-5.2 — SIDEWALK DETAILS
SCALE: NTS

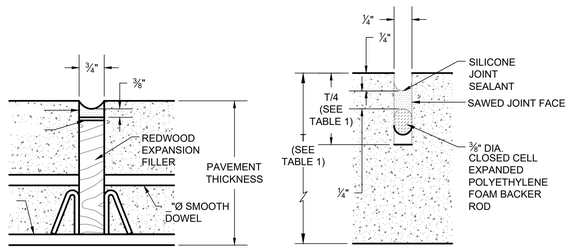


02 C-5.2 — PARKING LOT AND DRIVE PAVEMENT CONSTRUCTION JOINT
SCALE: NTS



NOTE:
REFER TO PAVEMENT SECTION DETAILS THIS SHEET FOR PAVEMENT DIMENSION AND REINFORCING STEEL SIZE AND SPACING

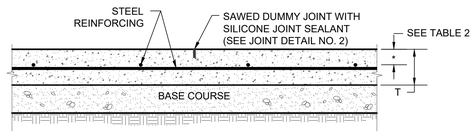
05 C-5.2 — PARKING LOT AND DRIVE PAVEMENT MONOLITHIC CURB
SCALE: NTS



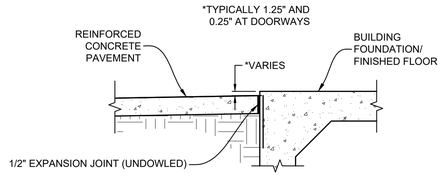
JOINT DETAIL NO. 1
NOT TO SCALE

JOINT DETAIL NO. 2
NOT TO SCALE

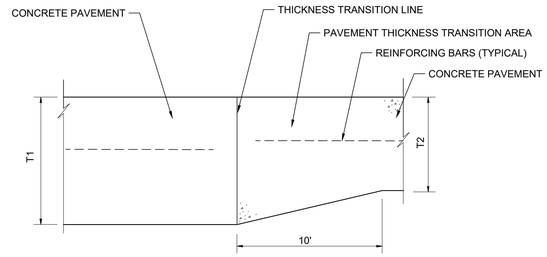
07 C-5.2 — PARKING LOT AND DRIVE PAVEMENT JOINT SEALING DETAILS
SCALE: NTS



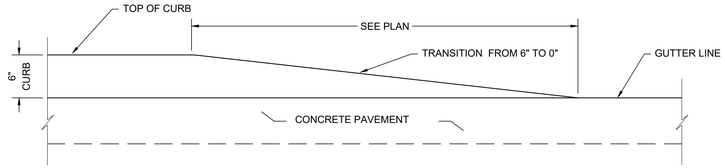
09 C-5.2 — PARKING LOT AND DRIVE CONCRETE SAWED CONTROL JOINT
SCALE: NTS



11 C-5.2 — BUILDING FOUNDATION/SIDEWALK DETAIL
SCALE: NTS



03 C-5.2 — PAVEMENT THICKNESS TRANSITION
SCALE: NTS



06 C-5.2 — PARKING LOT AND DRIVE CONCRETE 6" TO 0" CURB TRANSITION
SCALE: NTS

TABLE 1
(SAWED DUMMY JOINT DEPTH)

DIM T = PAVEMENT THICKNESS	DIM T/4 = JOINT DEPTH
5"	1 ¼"
6"	1½"
7"	1¾"
8"	2 1/8"

TABLE 2
(PAVEMENT REINFORCING STEEL PLACEMENT)

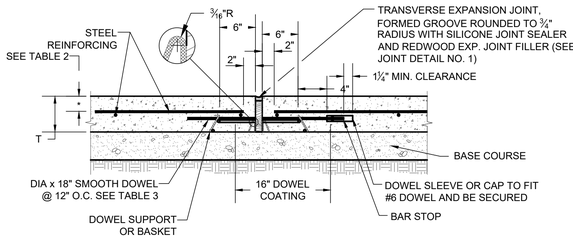
T (PAVEMENT THICKNESS)	* (CLEARANCE FROM FACE OF CONCRETE)
5"	2"
6"	2½"
8"	3"

NOTE: ALL DOWELS TO BE PLACED AT T/2.

TABLE 3
(DOWEL SIZE)

T (PAVEMENT THICKNESS)	DIA (DOWEL DIAMETER)
5"	3/4"
6"	3/4"
8"	3/4"

NOTE: ALL DOWELS TO BE PLACED AT T/2.



10 C-5.2 — PARKING LOT AND DRIVE PAVEMENT EXPANSION JOINT
SCALE: NTS

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530 Bedford Road, Suite 102
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Texas Registered Engineering Firm F-10640

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DATE: 03/21/2024
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ISSUE FOR CONSTRUCTION:
REVISIONS:

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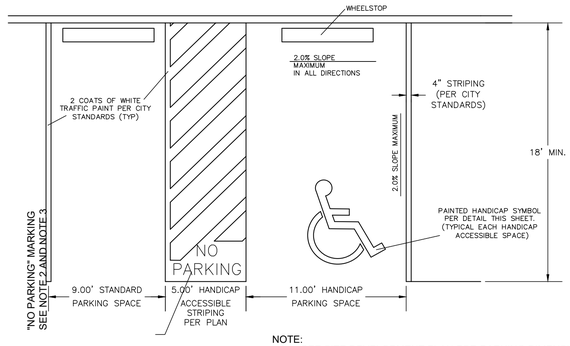
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FIRE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX

STATE OF TEXAS
JOSE SOTO
76246
REGISTERED PROFESSIONAL ENGINEER
03/21/2024

SHEET DESCRIPTION
PAVEMENT DETAILS

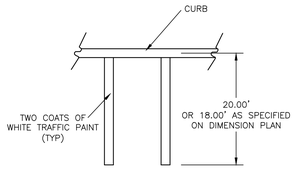
SHEET NO.
C-5.2



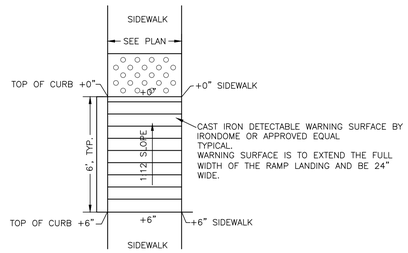
NOTE:
1. SEE SITE DEVELOPMENT PLAN FOR PARKING DIMENSIONS. DIMENSIONS SHOWN ARE MINIMUM REQUIRED.
2. 12" MINIMUM CHARACTER HEIGHT
3. 2" MINIMUM STROKE WIDTH

01 C-5.3 HANDICAPPED PAVEMENT STRIPING
SCALE: NTS

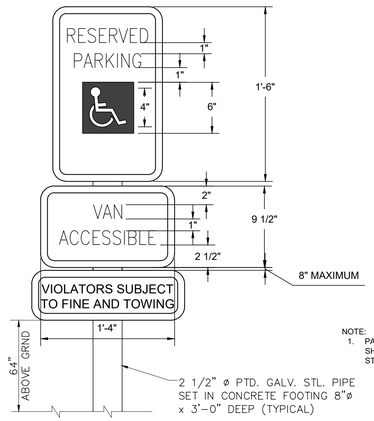
NOTE:
1. THE WORDS "NO PARKING" SHALL BE PAINTED ON ACCESS AISLES, ALL CAPITAL LETTERS WITH LETTER HEIGHT OF 2", MIN. AND STROKE WIDTH OF 2", MIN.
2. SEE DRAWING CIVIL SK-4 FOR PARKING SPACE DIMENSIONS.
3. DIMENSIONS SHOWN ON DETAIL MINIMUM REQUIRED.
4. MARKINGS SHALL COMPLY WITH TEXAS ACCESSIBILITY STANDARDS. REQUIREMENTS.



02 C-5.3 PAVEMENT STRIPING DETAIL
SCALE: NTS

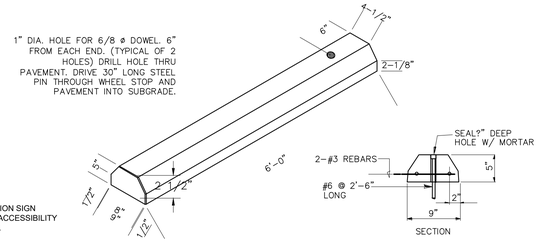


03 C-5.3 BARRIER FREE ADA RAMP
SCALE: NTS

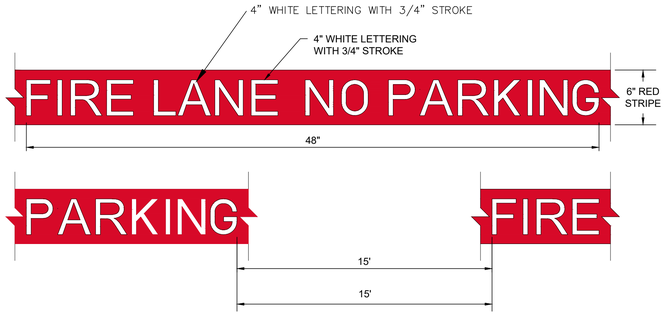


NOTE:
1. PARKING SPACE IDENTIFICATION SIGN SHALL COMPLY WITH TEXAS ACCESSIBILITY STANDARDS REQUIREMENTS.

04 C-5.3 TYPICAL HANDICAP PARKING SIGN – TYPE B
SCALE: NTS



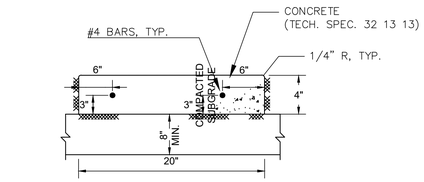
05 C-5.3 PRECAST CONCRETE WHEEL STOP
SCALE: NTS



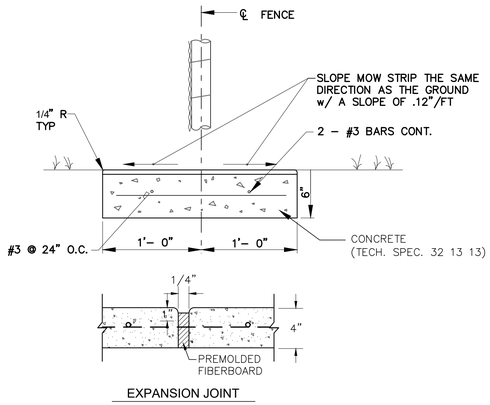
NOTE

1. REFER TO DIMENSION CONTROL PLAN C–2.1 FOR MARKING LAYOUT

06 C-5.3 FIRE LANE TYPICAL DETAIL
SCALE: NTS



EXPANSION JOINT



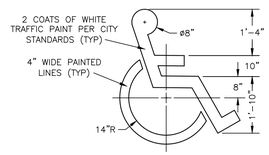
EXPANSION JOINT

NOTE:
1. EXPANSION JOINTS AT 40'-0" INTERVALS.

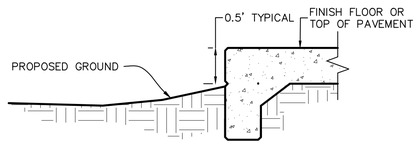
07 C-5.3 SLIDING GATE TRACK PAD
SCALE: NTS

NOTE:
1. EXPANSION JOINTS AT 40'-0" INTERVALS.

08 C-5.3 MOW STRIP DETAIL
SCALE: NTS



09 C-5.3 HANDICAPPED PAINTED SYMBOL
SCALE: NTS



10 C-5.3 EXPOSED FOUNDATION
SCALE: NTS

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WINN RIDGE BLVD AUBREY, TX

STATE OF TEXAS
JOSE SOTO
76246
REGISTERED PROFESSIONAL ENGINEER
03/21/2024

SHEET DESCRIPTION
SITE DETAILS

SHEET NO.
C-5.3

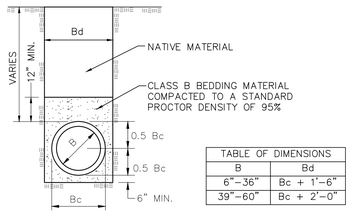
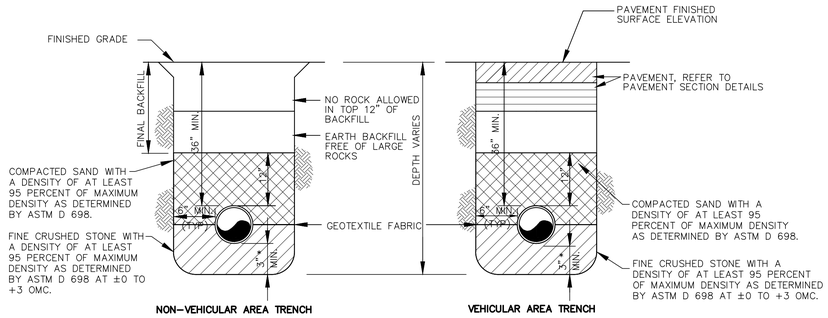


TABLE OF DIMENSIONS	
B	Bd
6"–36"	Bc + 1'–6"
39"–60"	Bc + 2'–0"

01 C-5.4 CLASS B PIPE EMBEDMENT FOR STORM DRAINS DETAIL

SCALE: NTS

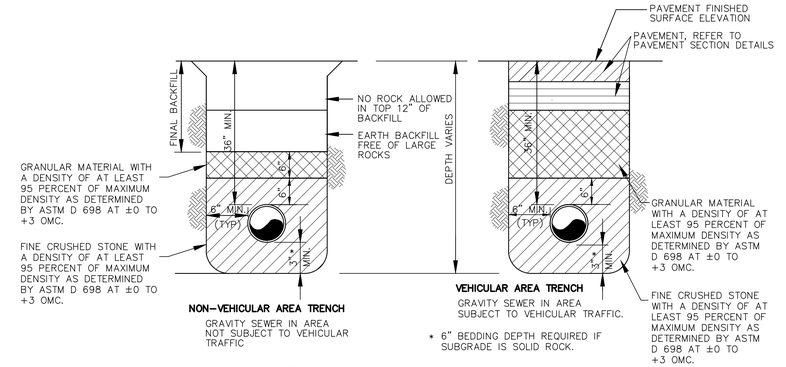


NOTES

1. TRENCHES SHALL BE SHORED, SLOPED, OR SHIELDED AS NECESSARY TO PROTECT WORKERS AND CONFORM TO OSHA REGULATIONS.
2. PROVIDE CLASS B+ EMBEDMENT.

02 C-5.4 WATER LINE TRENCH DETAILS

SCALE: NTS

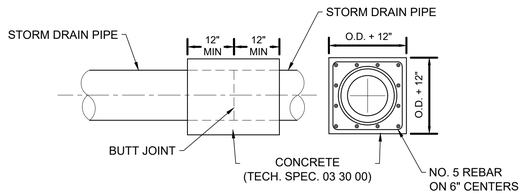


NOTES

1. DEPTH OF BACKFILL FOR SDR 35 PVC PIPE SHALL NOT EXCEED 15 FEET.
2. TRENCHES SHALL BE SHORED, SLOPED, OR SHIELDED AS NECESSARY TO PROTECT WORKERS AND CONFORM TO OSHA REGULATIONS.
3. PROVIDE CLASS B+ EMBEDMENT.

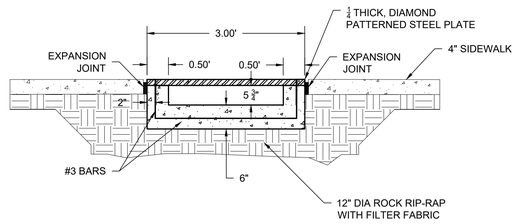
03 C-5.4 SANITARY SEWER TRENCH DETAILS

SCALE: NTS



04 C-5.4 PIPE JOINT COLLAR DETAIL

SCALE: NTS



NOTE:
1. ¾" X 4" ANCHOR BOLTS TO BE PLACED WITH CONCRETE AND FLUSH WITH TOP OF PLATE. BOLTS TO BE SPACE 12" ON CENTER
2. CONCRETE SHALL BE "CLASS A".

05 C-5.4 CONCRETE DRAINAGE FLUME UNDER PROPOSED SIDEWALK

SCALE: NTS

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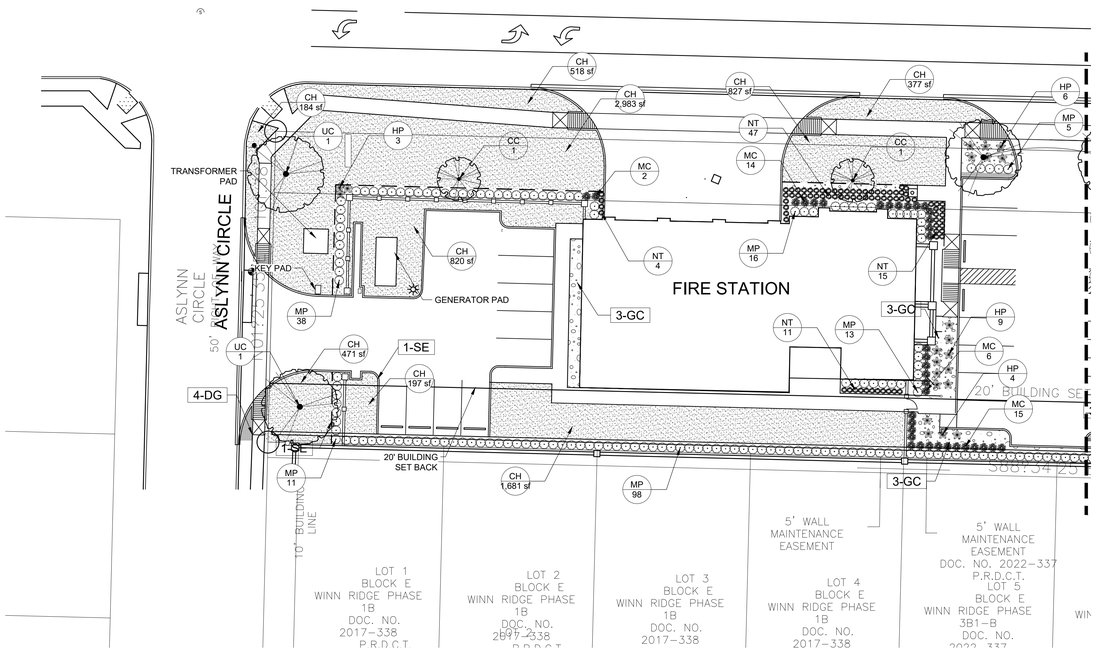
CITY OF AUBREY
FIRE STATION # 2 & POLICE SUBSTATION
WINN RIDGE BLVD AUBREY, TX

STATE OF TEXAS
JOSE SOTO
76246
REGISTERED PROFESSIONAL ENGINEER
03/21/2024

SHEET DESCRIPTION
DRAINAGE DETAILS

SHEET NO.
C-5.4

PLOT DATE AND TIME: 3/21/2024 4:41 PM



PLANT SCHEDULE

SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	CONTAINER	HEIGHT	SPREAD	REMARKS
TREES								
	UC	9	CEDAR ELM ULMUS CRASSIFOLIA	3" CAL.	POT	10`-12`	8`-10`	SINGLE TRUNK, FULL AND MATCHED
	PC	9	CHINESE PISTACHE MULTI-TRUNK PISTACIA CHINENSIS	3" CAL.	POT			SINGLE TRUNK, FULL AND MATCHED
	CC	15	MERLOT REDBUD CERCIS X `MERLOT`	3" CAL.	POT			SINGLE TRUNK, FULL AND MATCHED
SHRUBS								
	MP	224	DWARF SOUTHERN WAX MYRTLE MYRICA PUSILLA	3 GAL.	POT	16"-18"	12"-16"	FULL MATCHED-36" O.C.
DROUGHT TOLERANT								
	HP	42	RED YUCCA HESPERALOE PARVIFLORA	5 GAL.	POT	24"-26"	24"	FULL MATCHED-AS SHOWN ON PLAN
GRASSES								
	NT	181	MEXICAN FEATHERGRASS NASSELLA TENUISSIMA `PONY TAILS`	1 GAL.	POT	16"-18"	12"-16"	FULL MATCHED-18" O.C.
	MC	102	REGAL MIST PINK MUHLY MUHLENBERGIA CAPILLARIS `LENCA`	3 GAL.	POT	24"-26"	24"	FULL MATCHED-30" O.C.

SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	SIZE	CONTAINER	*	*	SPACING	REMARKS
SOD/SEED									
	CH	61,005 SF	BERMUDA GRASS CYNODON DACTYLON `419 HYBRID`	---					SOLID SOD ,STAGGERED JOINTS, THICK AND GREEN, NO GAPS BETWEEN SOD PIECES.

NOTE:

1. CAL. MEANS "CALIPER" WHICH IS A STANDARD FOR THE TRUNK MEASUREMENT. IT IS THE DIAMETER OF THE TRUNK MEASURED TWELVE (12) INCHES ABOVE GROUND LEVEL FOR NEW OR REPLACEMENT TREES. IF A TREE IS MULTI-TRUNK VARIETY, THE CALIPER OF THE TREE IS THE SUM OF THE LARGES TRUNK PLUS ONE-HALF THE TOTAL OF OTHER TRUNKS, MEASURED AT TWELVE (12) INCHES ABOVE THE ROOT BALL. TREES MUST MEET OR EXCEED THE SPECIFIED CALIPER SIZES IN PLANT LIST.
2. FOR SHRUBS MINIMUM CONTAINER SIZE IS USED UNDER ROOT BALL, HOWEVER PLANTS PLANTED SHALL MEET THE MINIMUM HEIGHT AS CALLED OUT IN THE PLANT LIST, WHICH COULD RESULT IN REQUIRING A LARGER CONTAINER SIZE TO MEET THE HEIGHT REQUIREMENT. THIS MAY REQUIRED A CONTAINER SIZE LARGER THAN THE ONES USED UNDER ROOT BALL.
3. QUANTITIES ARE PROVIDED AS A CURTESY TO THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL PLANT QUANTITIES SHOWN IN SCHEDULE AND PLANS FOR BIDDING AND PERMIT.

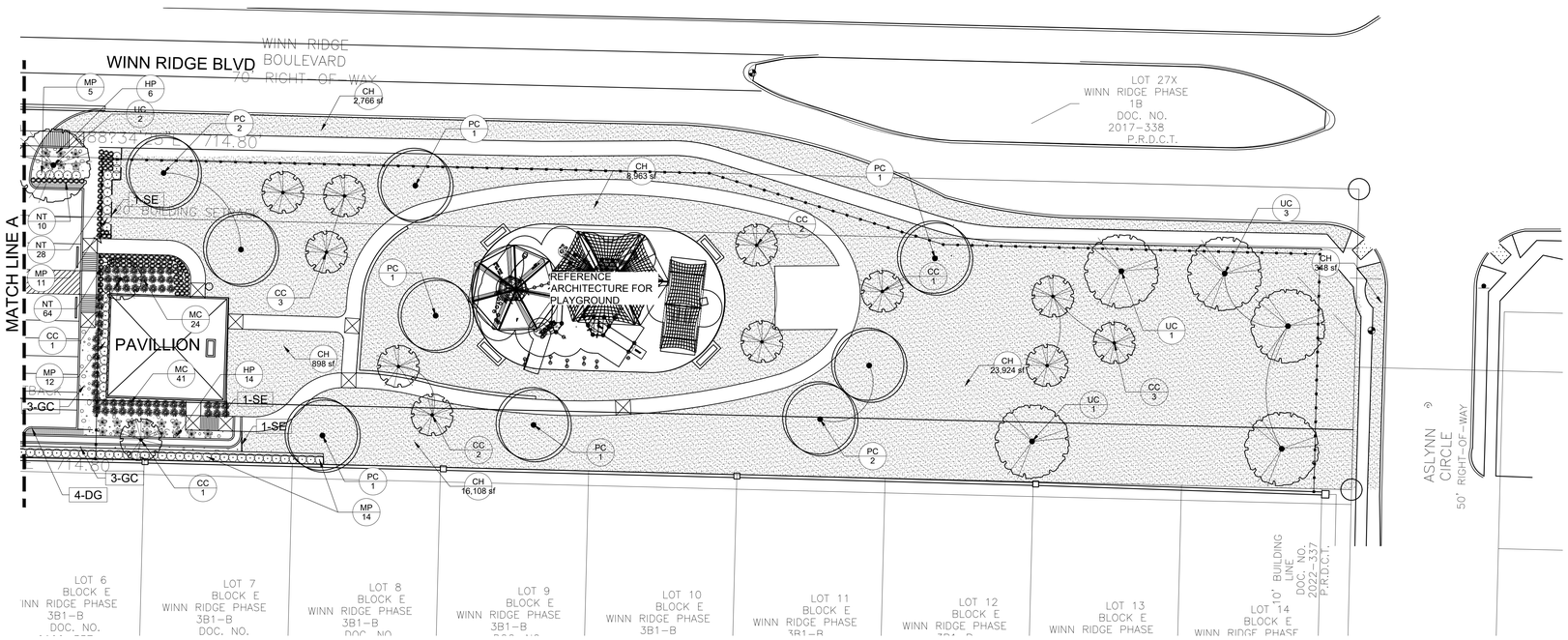
REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
1-SE	STEEL EDGING- 3/16" THICK X 4" WIDE ONLY 1/2" EXPOSED ABOVE SOIL LINE OF SOD	239 LF	

SYMBOL	DESCRIPTION	QTY	DETAIL
3-GC	CRUSH GRANITE 3" DEPTH PLACED OVER FILTER FABRIC	13.44 CY	
4-DG	DECOMPOSED GRANITE 3" PLACED OVER FILTER FABRIC	1.12 CY	

GENERAL PLANTING NOTES

1. CONTRACTOR SHALL ADHERE TO CITY CONSTRUCTION REQUIREMENTS INCLUDING BUT NOT LIMITED TO ANY PERMITS, INSPECTIONS, AND METHODS OF MATERIAL INSTALLATION.
2. CONTRACTOR SHALL ADHERE TO ALL AGENCY REQUIREMENTS MEANS AND METHODS OF CONSTRUCTION.
3. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES ABOVE AND BELOW GRADE, AS WELL AS FINDING OUT EACH COMPANY'S RESTRICTIONS ON WORKING WITHIN THEIR EASEMENTS AND UTILITY LINES PRIOR TO COMMENCING CONSTRUCTION.
4. CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING IMPROVEMENTS AND TO NOT DISTURB THOSE THAT ARE OUTSIDE OF THE SCOPE OF WORK. ANY STRUCTURES THAT ARE TO REMAIN WITHIN THE SCOPE OF WORK AREA SHALL NOT BE DAMAGED. PHOTOGRAPHS AND NOTES SHOULD BE MADE FOR ANY EXISTING DAMAGED CONDITIONS PRIOR TO COMMENCING CONSTRUCTION AND DISTRIBUTED TO OWNERS REPRESENTATIVE.
5. A LANDSCAPE IRRIGATION PLAN SHALL BE PREPARED PRIOR TO LANDSCAPE CONSTRUCTION AND WILL BE DESIGNED BY A TEXAS LICENSED IRRIGATION DESIGNER. ALL PLANTING AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM WITH A FREEZE AND RAIN SENSOR. THE SYSTEM SHALL BE DESIGNED TO MEET THE CITY AND THE STATE IRRIGATION REQUIREMENTS. THE IRRIGATION INSTALLER SHALL BE A STATE OF TEXAS LICENSED IRRIGATION DESIGNER.
6. CONTRACTOR SHALL NOTIFY OWNERS REPRESENTATIVE IF THERE ARE ANY WATER RESTRICTIONS AND WHAT IF ANY IMPACT THIS MAY HAVE ON THE INSTALLATION OF PLANT MATERIAL.
7. QUANTITIES SHOWN IN PLANT LIST FOR PLANT MATERIAL AREA PROVIDED AS A COURTESY FOR THE CONTRACTOR. CONTRACTOR SHALL VERIFY PRIOR TO BIDDING THAT THE QUANTITY WILL COVER THE SPECIFIED AREAS AT THE SPACING STATED IN THE PLANT LIST UNDER THE REMARKS COLUMN. IF THERE IS A DIFFERENCE, THE CONTRACTOR SHALL MAKE NOTE ON THEIR BID AND SHOW THE ADDED OR REDUCED COST.
8. CONTRACTOR SHALL ESTABLISH SOURCES FOR ALL PLANT MATERIAL ON PLANT LIST WHEN BIDDING PROJECT. NO PLANTS SUBSTITUTIONS.
9. CONTRACTOR SHALL BECOME FAMILIAR WITH THE DRAWINGS FOR THIS PROJECT PRIOR TO INSTALLATION.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADVISE THE OWNERS REPRESENTATIVE OF ANY CONDITION FOUND ON-SITE WHICH PROHIBITS INSTALLATION AS SHOWN ON THESE PLANS.
11. ALL NEW PLANTING BEDS SHALL HAVE A MINIMUM SIX (6") INCHES OF BED PREPARATION.
12. LAWN AREA SHALL HAVE FERTILE AND CLEAN TOP SOIL TILLED 4" DEEP.
13. GRADING IN PLANTING BEDS SHALL BE SMOOTH AND PROVIDE POSITIVE DRAINAGE.
14. CONTRACTOR SHALL STAKE OUT LOCATION OF ALL TREES, AND SHRUBS FOR APPROVAL BY OWNERS REPRESENTATIVE PRIOR TO PLANTING.
15. MULCHING OF SHRUB AND ANY GROUND COVER AREAS SHALL HAVE 3 INCHES OF SHREDDED HARDWOOD MULCH.
16. LANDSCAPED AREAS SHALL BE KEPT FREE OF TRASH, LITTER, WEEDS, AND OTHER SUCH MATERIAL OR PLANTS NOT A PART OF THE LANDSCAPING.
17. THE PROPERTY OWNER, TENANT AND ANY AGENT THEREOF SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPING MATERIALS IN GOOD CONDITION AT ALL TIMES SO AS TO PRESENT A HEALTHY, NEAT AND ORDERLY APPEARANCE. ANY LANDSCAPING MATERIAL THAT DIES SHALL BE REPLACED WITH HEALTHY MATERIAL WITHIN A REASONABLE TIME. ALL LANDSCAPED AREAS SHALL BE CONTINUOUSLY MAINTAINED FREE OF WEEDS, DEBRIS AND LITTER. WEEDS AND NATURAL UNCULTIVATED GRASS SHALL NOT BE CONSIDERED LANDSCAPING.



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DATE: 03-21-2024
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REVISIONS:

No.	Description	Date

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RPGA DESIGN GROUP, INC.
ARCHITECTURE SPACE PLANNING INTERIORS
101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9487
WWW.RPGAARCHITECTS.COM

FIRE STATION #2
CITY OF AUBREY
WINN RIDGE BLVD. AUBREY, TEXAS

100% CD

03-21-2024

REGISTERED LANDSCAPE ARCHITECT STEPHEN C. BERKENBILE 1763 STATE OF TEXAS

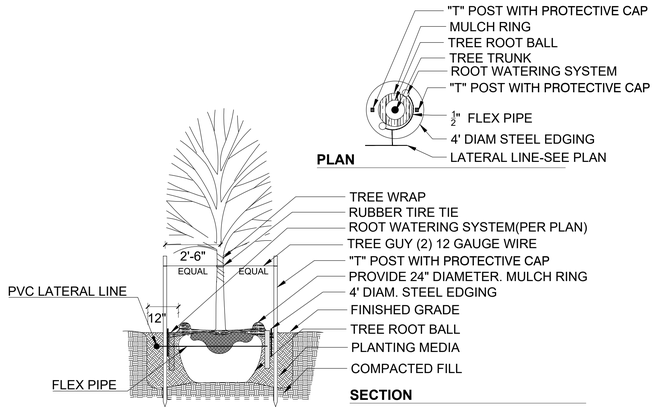
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SHEET NO.
L-1

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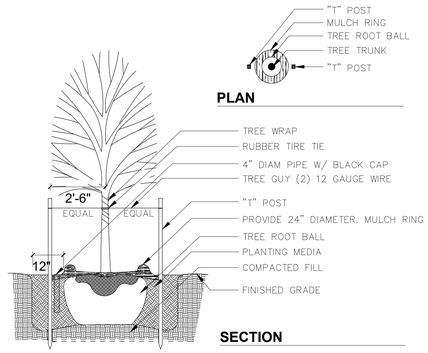
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PLOT DATE AND TIME: 3/21/2024 4:41 PM



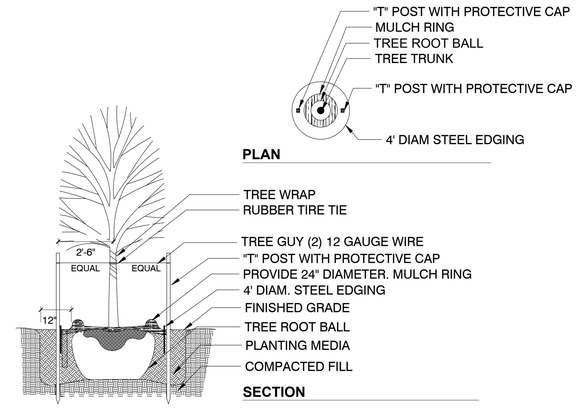
3 TREE PLANTING IN LAWN WITH ROOT WATERING SYSTEM

NTS P-CO-PLA1-03



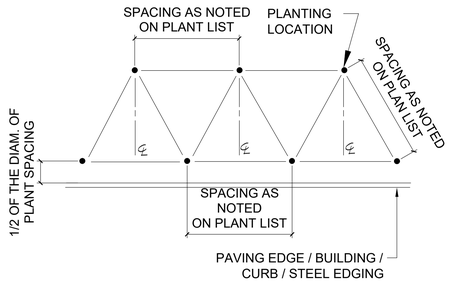
2 TREE PLANTING IN MULCH

1" = 1" P-CO-PLA1-02



1 TREE PLANTING IN LAWN WITH 4' DIAMETER STEEL EDGING

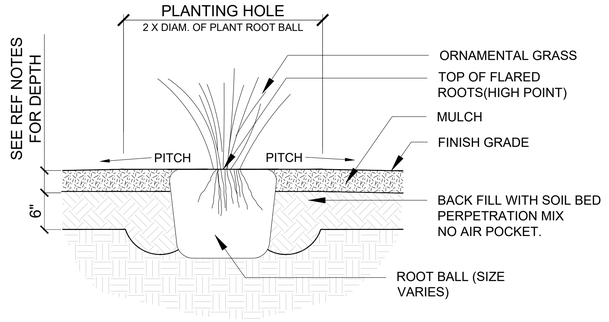
NTS P-CO-PLA1-01



NOTE:
SPACING DIAGRAM REFERS TO ALL PLANTING UNLESS NOTED OTHERWISE.

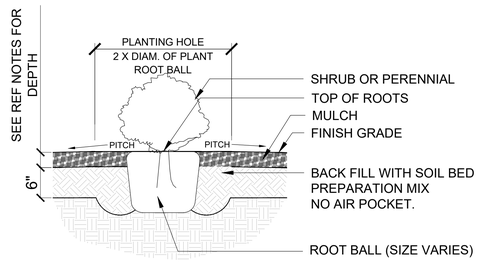
6 TRIANGULAR SPACING

NTS P-CO-PLA1-05



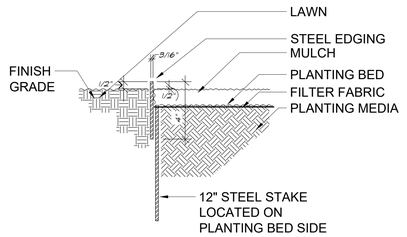
5 GRASS PLANTING DETAIL

NTS P-CO-PLA1-06



4 SHRUB PLANTING DETAIL

NTS P-CO-PLA1-04



7 STEEL EDGING DETAIL

NTS P-CO-PLA1-09

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03-21-2024

REGISTERED LANDSCAPE ARCHITECT STEPHEN C. BERKENBILE 1763 STATE OF TEXAS

SHEET DESCRIPTION:

SHEET NO.
L-2

BERKENBILE
LANDSCAPE ARCHITECTS
SOUTHLAKE OFFICE
2355 Johnson Rd (214) 922-9946
Southlake, TX 76092 (817) 379-9853

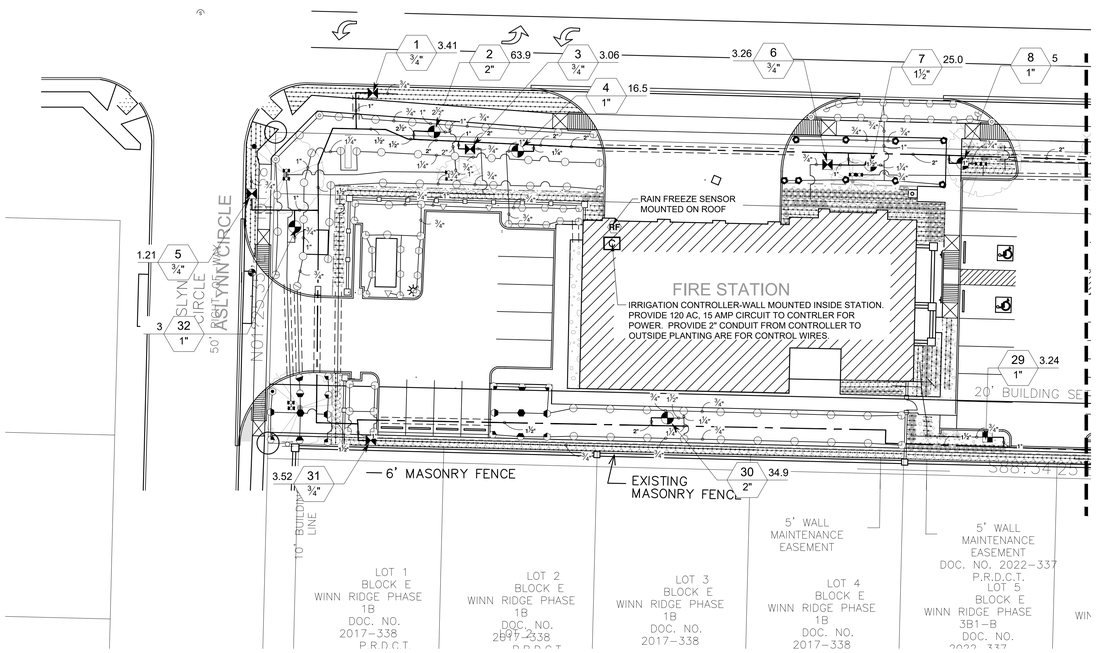
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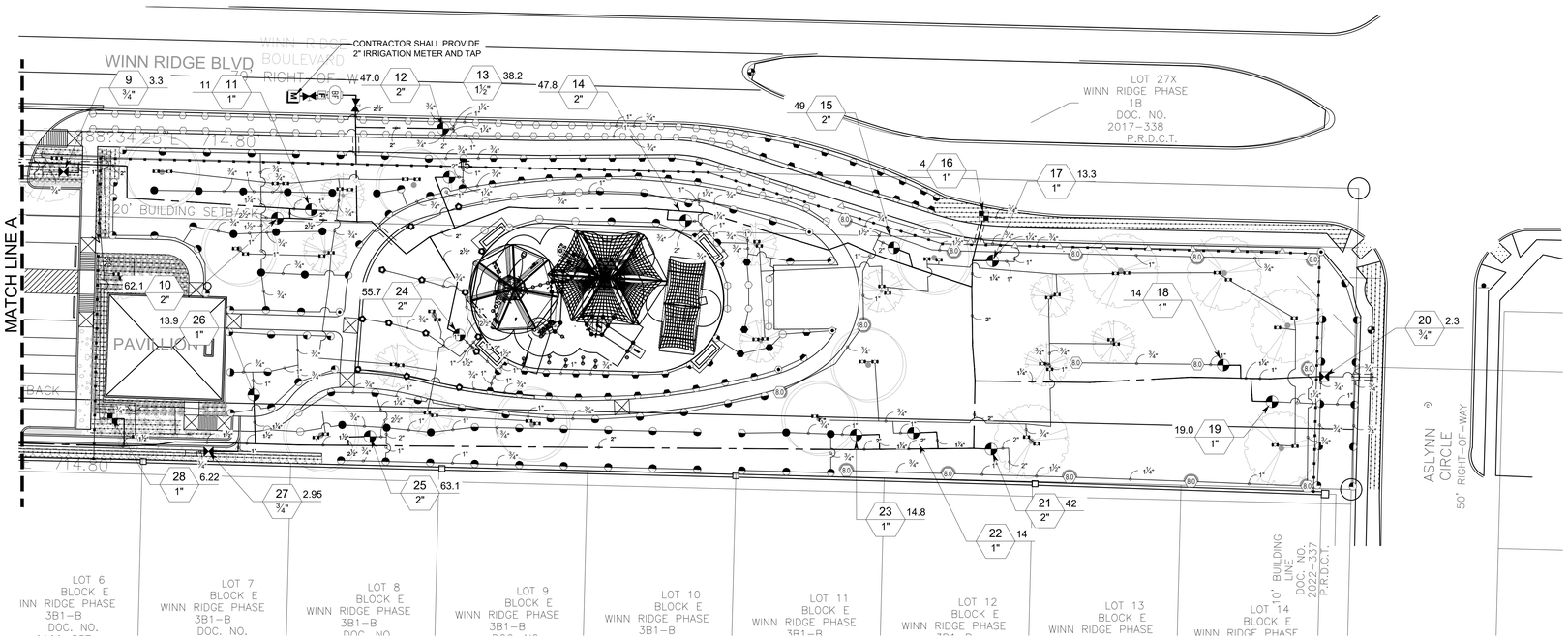
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VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PSI @ POC	PRECIP
1	RAIN BIRD XCZ-075-PRF	3/4"	AREA FOR DRIPLINE	3.41	39.2	44.7	0.64 in/h
2	RAIN BIRD PEB	2"	TURF SPRAY	63.91	38.6	54.9	1.65 in/h
3	RAIN BIRD XCZ-075-PRF	3/4"	AREA FOR DRIPLINE	3.06	38.4	43.8	0.64 in/h
4	RAIN BIRD PEB	1"	TURF SPRAY	16.5	34.5	40.6	1.55 in/h
5	RAIN BIRD XCZ-075-PRF	3/4"	AREA FOR DRIPLINE	1.21	36.3	41.7	0.64 in/h
6	RAIN BIRD XCZ-075-PRF	3/4"	AREA FOR DRIPLINE	3.26	38.9	44.3	0.64 in/h
7	RAIN BIRD PEB	1-1/2"	TURF SPRAY	24.95	34.4	41.6	1.85 in/h
8	RAIN BIRD PEB	1"	BUBBLER	5	32.3	37.8	2.37 in/h
9	RAIN BIRD XCZ-075-PRF	3/4"	AREA FOR DRIPLINE	3.3	39.0	44.4	0.64 in/h
10	RAIN BIRD PEB	2"	TURF SPRAY	62.13	36.1	46.4	1.51 in/h
11	RAIN BIRD PEB	1"	BUBBLER	11	33.6	39.3	2.03 in/h
12	RAIN BIRD PEB	2"	TURF SPRAY	46.96	38.6	47.1	1.95 in/h
13	RAIN BIRD PEB	1-1/2"	TURF SPRAY	38.19	35.8	43.8	1.39 in/h
14	RAIN BIRD PEB	2"	TURF SPRAY	47.76	37.4	47.3	1.4 in/h
15	RAIN BIRD PEB	2"	TURF ROTOR	49	43.5	54.4	1.36 in/h
16	RAIN BIRD XCZ-100-PRF	1"	AREA FOR DRIPLINE	4	35.1		0.64 in/h
17	RAIN BIRD PEB	1"	TURF SPRAY	13.31	33.7	39.5	1.66 in/h
18	RAIN BIRD PEB	1"	TURF ROTOR	14	38.6	45.6	0.42 in/h
19	RAIN BIRD PEB	1"	TURF SPRAY	18.96	33.8	42.4	1.59 in/h
20	RAIN BIRD XCZ-075-PRF	3/4"	AREA FOR DRIPLINE	2.3	37.5	43.0	0.64 in/h
21	RAIN BIRD PEB	2"	TURF ROTOR	42	43.4	53.5	0.97 in/h
22	RAIN BIRD PEB	1"	BUBBLER	14	36.2	42.1	1.99 in/h
23	RAIN BIRD PEB	1"	TURF SPRAY	14.8	33.0	39.0	1.0 in/h
24	RAIN BIRD PEB	2"	TURF SPRAY	55.68	37.7	47.8	1.52 in/h
25	RAIN BIRD PEB	2"	TURF SPRAY	63.1	38.3	57.8	1.5 in/h
26	RAIN BIRD PEB	1"	TURF SPRAY	13.85	32.9	39.2	1.41 in/h
27	RAIN BIRD XCZ-075-PRF	3/4"	AREA FOR DRIPLINE	2.95	38.4	43.9	0.64 in/h
28	RAIN BIRD XCZ-100-PRF	1"	AREA FOR DRIPLINE	6.22	37.2	42.9	0.64 in/h
29	RAIN BIRD XCZ-100-PRF	1"	AREA FOR DRIPLINE	3.24	35.2	40.7	0.64 in/h
30	RAIN BIRD PEB	2"	TURF SPRAY	34.9	37.1	48.0	1.73 in/h
31	RAIN BIRD XCZ-075-PRF	3/4"	AREA FOR DRIPLINE	3.52	40.4	45.9	0.64 in/h
32	RAIN BIRD PEB	1"	BUBBLER	3	31.6	37.1	2.34 in/h

CRITICAL ANALYSIS

Generated:	2024-03-21 16:14
P.O.C. NUMBER: 01	
Water Source Information:	PROVDE 2" WATER METER AND TAP-SEE CIVIL.
FLOW AVAILABLE	
Water Meter Size:	2"
Flow Available	70.55 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	64 PSI
Elevation Change:	5.00 ft
Service Line Size:	2"
Length of Service Line:	5 ft
Pressure Available:	62 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	63.91 GPM
Flow Available at POC:	70.55 GPM
Residual Flow Available:	6.64 GPM
Critical Station:	24
Design Pressure:	30 PSI
Friction Loss:	3.33 PSI
Fittings Loss:	0.33 PSI
Elevation Loss:	0 PSI
Loss through Valve:	4.64 PSI
Pressure Req. at Critical Station:	38.3 PSI
Loss for Fittings:	0 PSI
Loss for Main Line:	10.3 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	6.2 PSI
Loss for Water Meter:	3.01 PSI
Critical Station Pressure at POC:	57.8 PSI
Pressure Available:	62 PSI
Residual Pressure Available:	4.23 PSI

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
EST LCS RCS CST SST	RAIN BIRD 1804-SAM-PRS 15 STRIP SERIES TURF SPRAY 4.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	14	30
Q H F	RAIN BIRD 1804-SAM-PRS 5 SERIES MPR TURF SPRAY 4.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	2	30
Q T H F	RAIN BIRD 1804-SAM-PRS 8 SERIES MPR TURF SPRAY 4.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	116	30
Q T H F	RAIN BIRD 1804-SAM-PRS 10 SERIES MPR TURF SPRAY 4.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	78	30
Q T H TQ F	RAIN BIRD 1804-SAM-PRS 12 SERIES MPR TURF SPRAY 4.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	80	30
Q T H TQ F	RAIN BIRD 1804-SAM-PRS 15 SERIES MPR TURF SPRAY 4.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	104	30
4V 6V 18V	RAIN BIRD 1804-SAM-PRS ADJ TURF SPRAY 4.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	23	30
08HE-VAN 12HE-VAN 10HE-VAN 15HE-VAN	RAIN BIRD 1804-SAM-PRS HE-VAN SERIES TURF SPRAY 4.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING.	10	30
1401 1402	RAIN BIRD RWS-M-B-C MINI ROOT WATERING SYSTEM WITH 4.0" DIAMETER X 18.0" LONG WITH LOCKING GRATE, SEMI-RIGID MESH TUBE AND RAIN BIRD 1401 0.25 GPM OR 1402 0.5 GPM BUBBLER AS INDICATED. WITH CHECK VALVE.	66	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
8.0	HUNTER PGP-04-CV 8.0 TURF ROTOR, 4IN. POP-UP. ADJUSTABLE TO FULL CIRCLE. WITH DRAIN CHECK VALVE.	15	35	7	41'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD XCZ-075-PRF LOW FLOW DRIP CONTROL KIT, 3/4" LOW FLOW VALVE, 3/4" PRESSURE REGULATING RBY FILTER, AND 30PSI PRESSURE REGULATOR. 0.2GPM-5GPM.	8
	RAIN BIRD XCZ-100-PRF MEDIUM FLOW DRIP CONTROL KIT, 1IN. DV VALVE, 1IN. PRESSURE REGULATING FILTER, 40PSI PRESSURE REGULATOR. 3 GPM-15 GPM.	3
	AREA TO RECEIVE DRIPLINE NETAFIM TLCV-06-12 TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.6 GPH EMITTERS AT 12" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. 17MM.	3,648 L.F.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD PEB 1", 1-1/2", 2" PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	21
	SHUT OFF VALVE	2
BF	FEBCO 850 2" DOUBLE CHECK BACKFLOW PREVENTION, 1/2" TO 2"	1
C	RAIN BIRD ESP8LXME WITH (01) ESPLXMSM12 -36 STATION WALL MOUNTED COMMERCIAL CONTROLLER. WALL MOUNT CONTROLLER INSIDE FIRE STATION, REFERENCE ARCHITECTURE DRAWINGS FOR PRECISE LOCATION. TWO ADDITIONAL 12 STATIONS MODULES ARE REQUIRED FROM BASE 12 STATION CONTROLLER.	1
RF	HUNTER MINI-CLIK RAIN SENSOR, MOUNT AS NOTED	1
F	LANDSCAPE PRODUCTS INC. 5720-WYE STRAINER 2" BRONZE Y FILTER. 20 SS MESH, SEDIMENT AND DEBRIS PROTECTION. FOR COMMERCIAL AND RESIDENTIAL LANDSCAPE IRRIGATION SYSTEMS, SWIMMING POOLS AND VARIOUS PLUMBING APPLICATIONS. MAX OPERATING PRESSURE 400 PSI.	1
M	WATER METER 2" PROVDE 2" WATER METER AND TAP-SEE CIVIL.	1
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	6,918 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40	1,898 L.F.
	PIPE SLEEVE: PVC SCHEDULE 40	313.6 L.F.

Valve Callout
#" Valve Number
#• Valve Flow
#" • Valve Size

IRRIGATION NOTES

1. LINE LAYOUT IS DIAGRAMMATIC-ADJUST HEAD AND LINE LOCATIONS ON SITE TO ACCOMMODATE EXISTING JOB CONDITIONS AND TO ACHIEVE COMPLETE COVERAGE.
2. ALL MAIN LINE PIPING SHALL BE BURIED TO HAVE A MINIMUM COVER OF 18". ALL LATERAL PIPING DOWNSTREAM OF THE MAIN LINE SHALL BURIED TO HAVE A MINIMUM COVER OF 12".
3. ALL MAINS ARE TO DRAIN TO LOW POINTS AT A MINIMUM ONE HALF(1/2%) PERCENT SLOPE. AT LOW POINTS, INSTALL GATE VALVE TO FACILITATE DRAINAGE OF SYSTEM DURING FREEZING TEMPERATURES
4. CONTRACTOR SHALL INSTALL AUTOMATIC DRAIN VALVES AT LOW POINTS IN THE IRRIGATION LINES AS REQUIRED TO PREVENT FREEZE DAMAGE.
5. ALL VALVE BOXES SHALL BE BLACK IN COLOR(BODY AND LID). SIZES SHALL BE TEN(10") INCHES BY FOURTEEN(14") INCHES (RECTANGULAR) FOR REMOTE CONTROL VALVES AND NINE(9") INCHES(ROUND) FOR GATE AND QUICK COUPLER VALVES.
6. CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO SYSTEM LAYOUT IN FIELD TO INSURE POSITIVE DRAINAGE OF LATERAL LINE AND MAIN LINES.
7. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT, IF THE STATIC PRESSURE IS LESS THAN THE DESIGN STATIC PRESSURE OF 64 PSI. PRESSURE REGULATION AT THE SOURCE SHALL BE REQUIRED IF PRESSURE IS GREATER THAN 75 PSI.
8. ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES SHALL BE UF-14/1 DIRECT BURIAL CABLE. ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY USING RAINBIRD SNAP-TITE CONNECTORS AND SEALANT. PROVIDE SLEEVES FOR WIRE UNDER PAVED AREAS AS REQUIRED.
9. ALL IRRIGATION INSTALLATION SHALL CONFORM TO THE LOCAL CODES AND REGULATIONS
10. IRRIGATION SYSTEM SHALL BE INSTALLED AND FULLY OPERATIONAL BEFORE LANDSCAPING INSTALLATION.
11. IRRIGATION SYSTEM SHALL BE INSTALLED AND FULLY OPERATIONAL BEFORE LANDSCAPING INSTALLATION.
12. IRRIGATION SYSTEM SHALL BE INSTALLED AND FULLY OPERATIONAL BEFORE LANDSCAPING INSTALLATION.
13. IRRIGATION CONTRACTOR SHALL PLACE ADJUSTABLE ARC NOZZLES IN PLACE OF FIXED ARC NOZZLE AS NEEDED TO ELIMINATE OVERSPRAY ON TO PAVEMENT.

BERKENBILE
LANDSCAPE ARCHITECTS
SOUTHLAKE OFFICE
2355 Johnson Rd
Southlake, TX 76092
(214) 922-9946
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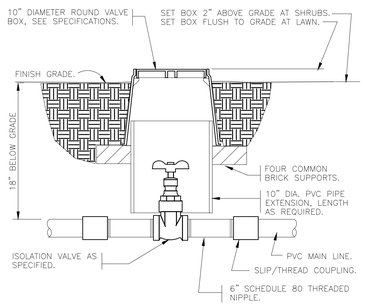
STEPHEN C. HERSCHBACH 4233 LICENSED IRRIGATOR

SHEET DESCRIPTION:

SHEET NO.
IR-1

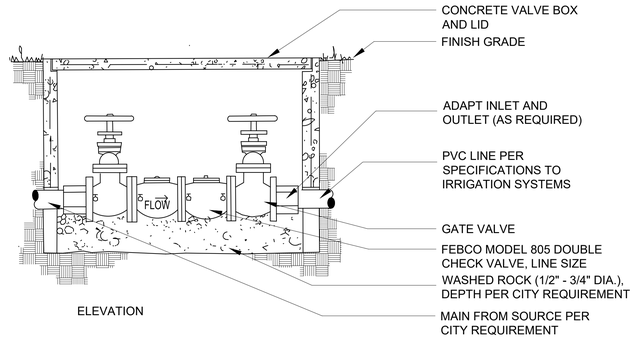
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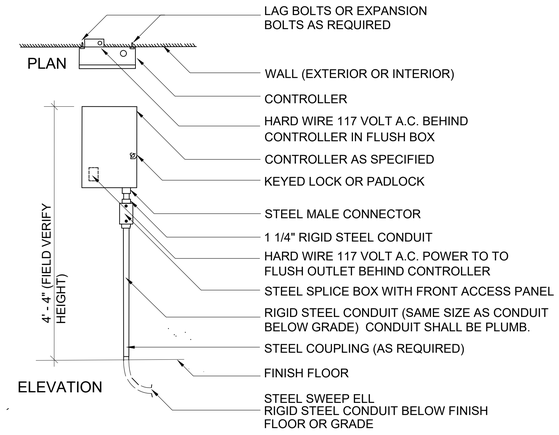
3 BRASS ISOLATION VALVE

1 1/2" = 1'-0" 328406.33-01



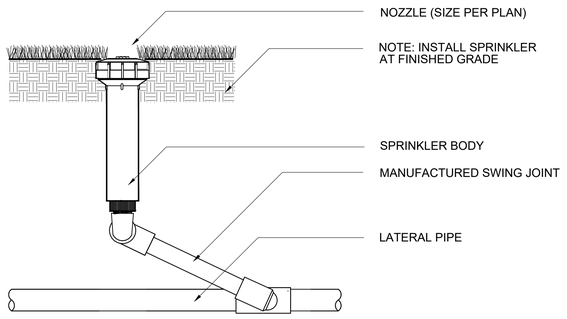
2 BACKFLOW PREVENTER

1" = 1" P-CO-BLA-03



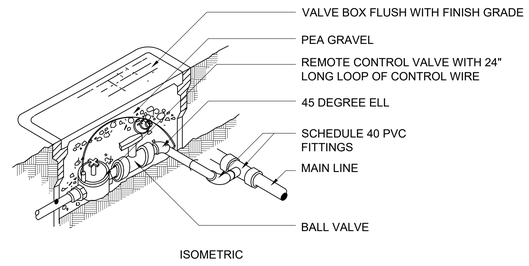
1 WALL MOUNTED CONTROLLER

NTS P-CO-BLA-01



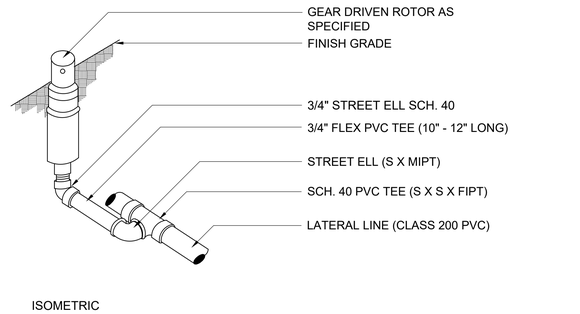
6 POP - UP RISER ASSEMBLY

1" = 1" P-CO-BLA-08



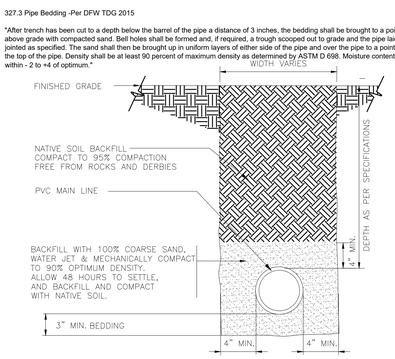
5 REMOTE CONTROL AND BALL VALVE

1" = 1" P-CO-BLA-05



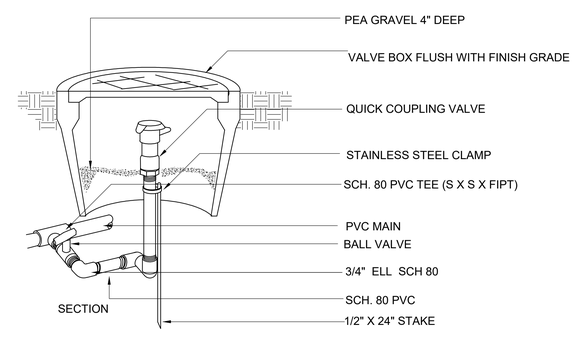
4 GEAR DRIVEN ROTOR

1" = 1" P-CO-BLA-04



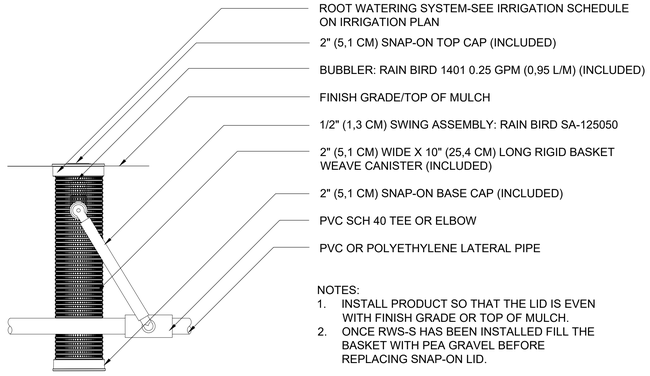
9 MAINLINE WITH SAND BEDDING

1 1/2" = 1'-0" FX-IR-FX-AUXEQ-13



8 QUICK COUPLER VALVE

1" = 1" P-CO-BLA-21



7 SUPPLEMENTAL ROOT WATERING SYSTEM:

1" = 1" P-CO-BLA-10

DRAWN BY: SB
CHECKED BY: BLA
DATE: 03-21-2024
ISSUED FOR PERMIT:
ISSUED FOR PRICING:

REVISIONS:

No.	Description	Date

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RPGA DESIGN GROUP, INC. ARCHITECTURE SPACE PLANNING INTERIORS
101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332-9477 FAX 817.332-9487
WWW.RPGAARCHITECTS.COM

FIRE STATION #2
CITY OF AUBREY
WINN RIDGE BLVD. AUBREY, TEXAS

03-21-2024

STEPHEN C. BERKENBILE 4233 LICENSED LANDSCAPE ARCHITECT

SHEET DESCRIPTION:

SHEET NO. IR-2

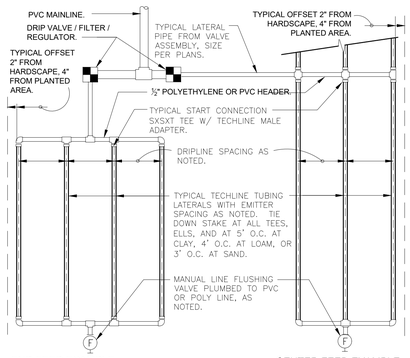
100% CD

BERKENBILE
LANDSCAPE ARCHITECTS
SOUTHLAKE OFFICE
2355 Johnson Rd (214) 922-9946
Southlake, TX 76092 (817) 379-9853

SHEET SIZE: ARCH FULL BLEED E1 (30.00 X 42.00 INCHES)

PLOT DATE AND TIME: 3/21/2024 4:40 PM

FILE NAME AND PATH: S:\BLA,Inc Dropbox\BLA,Inc Team Folder\RPG\Rpg-230901 Aubrey FS No. 2\05-CD DD\Sheet Files\CD\Rpg-230901 Aubrey FS No.2 IRRIGATION.dwg



END FEED EXAMPLE

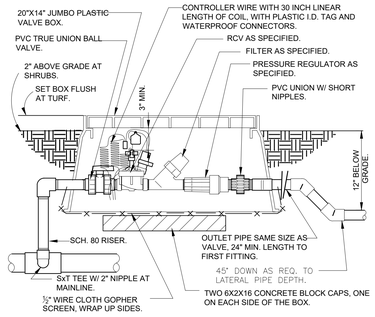
CENTER FEED EXAMPLE

TECHLINE CV MAXIMUM LENGTH OF SINGLE LATERAL (FEET)

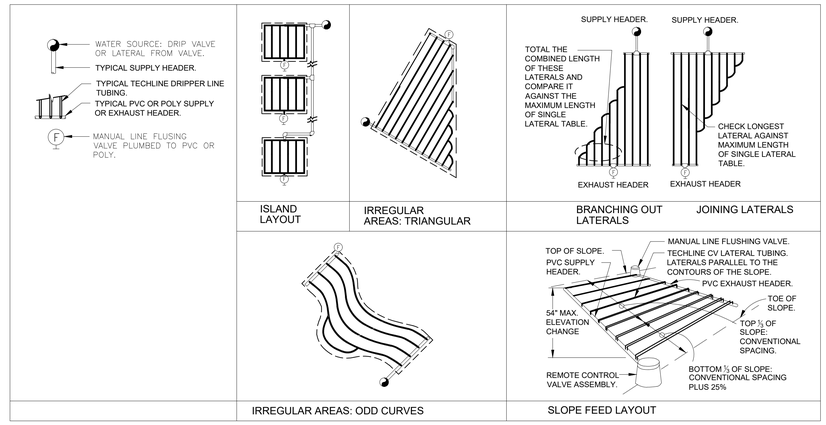
DRIPPER SPACING		12"				18"				24"	
DRIPPER FLOW RATE (GPH)		0.26	0.4	0.6	0.9	0.26	0.4	0.6	0.9	0.6	0.9
INLET PRESSURE (PSI)	15	127	109	86	65	177	151	120	91	152	116
	25	427	325	256	194	604	459	361	274	458	348
	35	539	409	322	244	763	579	456	346	580	440
	45	618	469	369	280	877	664	523	397	666	506

TECHLINE CV FLOW PER 100 FEET

DRIPPER SPACING	0.26 GPH DRIPPER		0.4 GPH DRIPPER		0.6 GPH DRIPPER		0.9 GPH DRIPPER	
	GPH	GPM	GPH	GPM	GPH	GPM	GPH	GPM
12"	26.40	0.44	40.00	0.67	61.00	1.02	92.00	1.53
18"	17.58	0.29	26.67	0.44	41.00	0.68	61.00	1.02
24"	N/A	N/A	N/A	N/A	31.00	0.51	46.00	0.77

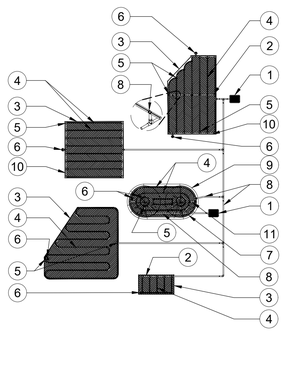


PVC PIPE SIZE	PVC SLEEVE SIZE, SCH 40	MAX NUMBER OF #12 WIRES	SCHED 40 PVC SLEEVE
0.75"	2.0"	9	1.0"
1.0"	2.5"	17	1.25"
1.25"	3.0"	23	1.5"
1.5"	3.0"	38	2.0"
2.0"	4.0"	54	2.5"
2.5"	6.0"		
3.0"	6.0"		
4.0"	6.0"		



1 TYPICAL NETAFIM TECHLINE CV REQUIREMENTS

3" = 1'-0" FX-IR-NETA-DRIP-14



Single Lateral Maximum Run Length (Feet)

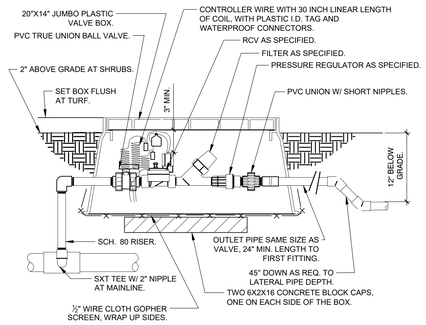
Inlet Pressure (psi)	12" Spacing			18" Spacing		
	Nominal Flow (gph)			Nominal Flow (gph)		
	0.4	0.6	1.0	0.4	0.6	1.0
15	220	170	125	285	240	170
25	326	255	195	495	370	275
35	410	330	238	572	470	335
45	474	360	270	640	515	375

3 17MM EZ-ID CV DRIPLINE TYPICAL ISLAND LAYOUT

NOT TO SCALE FX-IR-LPI-DRIP-01

2 1" DRIP VALVE/FILTER/REGULATOR

1 1/2" = 1'-0" FX-IR-FX-DRIP-12



6 3/4" DRIP VALVE/FILTER/REGULATOR

1 1/2" = 1'-0" FX-IR-FX-DRIP-11

4 SLEEVE SCHEDULE

1" = 1" P-CO-BLA-23

TECHLINE CV MAXIMUM LENGTH OF SINGLE LATERAL (FEET)

DRIPPER SPACING		12"				18"				24"	
DRIPPER FLOW RATE (GPH)		0.26	0.4	0.6	0.9	0.26	0.4	0.6	0.9	0.6	0.9
INLET PRESSURE (PSI)	15	127	109	86	65	177	151	120	91	152	116
	25	427	325	256	194	604	459	361	274	458	348
	35	539	409	322	244	763	579	456	346	580	440
	45	618	469	369	280	877	664	523	397	666	506

TECHLINE FLOW PER 100 FEET

DRIPPER SPACING	0.26 GPH DRIPPER		0.4 GPH DRIPPER		0.6 GPH DRIPPER		0.9 GPH DRIPPER	
	GPH	GPM	GPH	GPM	GPH	GPM	GPH	GPM
12"	26.40	0.44	40.00	0.67	61.00	1.02	92.00	1.53
18"	17.58	0.29	26.67	0.44	41.00	0.68	61.00	1.02
24"	N/A	N/A	N/A	N/A	31.00	0.51	46.00	0.77

TECHLINE CV GENERAL GUIDELINES FOR WATERING TIME

	TURF			SHRUB & GROUND COVER		
	CLAY	LOAM	SANDY	CLAY	LOAM	SANDY
DIPPER FLOW (GPH)	0.26	0.4	0.6	0.26	0.4	0.6
DRIPPER INTERVAL	18"	12"	12"	18"	18"	12"
LATERAL (ROW) SPACING	18"–22"	18"–22"	12"–16"	18"–24"	18"–24"	16"–20"
APPLICATION RATE (IN/HR)	.19–0.15	.43–.35	.96–.72	.19–.21	.29–.21	.72–.58
TIME TO APPLY 1/4"	79–100	35–43	16–21	79–107	52–71	21–26

5 NETAFIM MAX LENGTH - FLOW - WATERING CHARTS

N.T.S. 328413.56-30

DRAWN BY:	SB
CHECKED BY:	BLA
DATE:	03-21-2024
ISSUED FOR PERMIT:	
ISSUED FOR PRICING:	

REVISIONS:

No.	Description	Date

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WWW.RPGAARCHITECTS.COM

FIRE STATION #2
CITY OF AUBREY
WINN RIDGE BLVD. AUBREY, TEXAS

03-21-2024

STATE OF TEXAS
STEPHEN O. BERKENBILE
4233
LICENSED LANDSCAPE ARCHITECT

SHEET DESCRIPTION:

SHEET NO.
IR-3

100% CD

BERKENBILE
LANDSCAPE ARCHITECTS
SOUTHLAKE OFFICE
2305 Johnson Rd
Southlake, TX 76092
(214) 922-9946
(817) 379-9853

SHEET SIZE: ARCH FULL BLEED E1 (30.00 X 42.00 INCHES)

ARCHITECTURAL ABBREVIATIONS

ABBREVIATIONS

ABV	ABOVE
AFF	ABOVE FINISH FLOOR
AW	ACOUSTCAL WALL
ADD	ADDENDUM
A/C	AIR CONDITIONING
ALT	ALTERNATE
ALUM	ALUMINUM
ADA	AMERICANS W/ DISABILITIES ACT
AB	ANCHOR BOLT
BSMT	BASEMENT
BRG	BEARING
BM	BENCH MARK
BTW	BETWEEN
BLK	BLOCK
BLKG	BLOCKING
BO	BOTTOM OF
BOW	BOTTOM OF WALL
BLDG	BUILDING
BUR	BUILT UP ROOF
CAB	CABINET
CPT	CARPET
CLG	CEILING
CL	CENTERLINE
CT	CERAMIC TILE
CIR	CIRCLE
CLR	CLEAR(ANCE)
COL	COLUMN
COMP	COMPOSITION
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CONT	CONTINUE(OUS)
CJ	CONTROL JOINT
CG	CORNER GUARD
DED	DEDICATED
DTL	DETAIL
DIAG	DIAGONAL
DIA	DIAMETER
DW	DISHWASHER
DL	DIVIDED LIGHT
DBL	DOUBLE
DH	DOUBLE HUNG
DS	DOWN SPOUT
D	DRYER
DWG	DRAWING
DF	DRINKING FOUNTAIN
EA	EACH
ELEC	ELECTRICAL
EWC	ELECTRICAL WATER COOLER
EL	ELEVATION
ELEV	ELEVATOR
EQ	EQUAL
EQUIP	EQUIPMENT
EXH	EXHAUST
EJ	EXPANSION JOINT
EXIST	EXISTING
EXP	EXPOSED
EXT	EXTERIOR
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOS	FACE OF STUD
FV	FIELD VERIFY
FF	FINISH FLOOR
FEC	FIRE EXTINGUISHER CABINET
FPL	FIREPLACE
FR	FIRE-RETARDANT
FX	FICED
FLG	FLASHING
FLR	FLOOR(ING)
FD	FLOOR DRAIN
FLUOR	FLUORESCENT
FTG	FOOTING
FPHB	FROST PROOF HOSE BIBB
FC	FURRING CHANNEL
GA	GAGE, GAUGE
GALV	GALVINIZED
GI	GALVINIZED IRON
GC	GENERAL CONTRACT(OR)
GFI	GROUND FAULT INTERRUPTER
GYP BD	GYPSUM BOARD
GWB	GYPSUM WALL BOARD
HBD	HARDBOARD
HDW	HARDWARE
HWD	HARDWOOD
HD	HEAD
HDR	HEADER
HTG	HEATING
HVAC	HEATING/VENTILATION/AC
HT	HEIGHT
HC	HOLLOW CORE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HB	HOSE BIBB
ID	INSIDE DIAMETER
INSUL	INSULATE(D) (ION)
INT	INTERIOR
JT	JOINT
JST	JOIST
KS	KNEE SPACE
LS	LANDSCAPING
LAM	LAMINATE
LAV	LAVORATORY
LH	LEFT HAND
LT	LIGHT
LL	LIVE LOAD
MFR	MANUFACTURER
MB	MARKER BOARD
MAS	MASONRY
MO	MASONRY OPENING
MAT	MATERIAL(S)
MAX	MAXIMUM
MECH	MECHANIC(AL)
MC	MEDICINE CABINET
MDF	MEDIUM DENSITY FIBERBOARD
MTL	METAL
MICRO	MICROWAVE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MULL	MULLION
(N)	NEW
NRC	NOISE REDUCTION COEFFICIENT
NOM	NOMINAL
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO	NUMBER
OC	ON CENTER
OPNG	OPENING
OPP	OPPOSITE
OPH	OPPOSITE HAND
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OD	OVERFLOW DRAIN
OHD	OVERHEAD DOOR
(P)	PAINT
PR	PAIR
PA	PART
PB	PARTICLE BOARD
PNL	PANEL
PKG	PARKING
PVMT	PAVEMENT
P LAM	PLASTIC LAMINATE
PL	PLATE
PLWD	PLYWOOD
PVC	POLYVINLY CHLORIDE
PSF	POUNDS PER SQ FOOT
PSI	POUNDS PER SQ INCH
PS	PROJECTION SCREEN
QTY	QUANTITY
RAD	RADIUS
RE	REFERENCE, REFER TO
REF	REFERENCE
REFR	REFRIGERATOR
(R)	REMOVE
REQD	REQUIRED
RA	RETURN AIR
REV	REVISION (S), REVISED
RH	RIGHT HAND
ROW	RIGHT OF WAY
R	RISER
RD	ROOF DRAIN
RM	ROOM
RO	ROUGH OPENING
RND	ROUND
SCHED	SCHEDULE
SECT	SECTION
SHT	SHEET
SRO	SHEET ROCK OPENING
SH	SHELF
SHWR	SHOWER
SH	SINGLE HUNG
SIM	SIMILAR
SO	SLAB OPENING
SC	SOLID CORE
SPEC(S)	SPECIFICATION(S)
SB	SPLASH BLOCK
SQ	SQUARE
SF	SQUARE FEET
SY	SQUARE YARD
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STOR	STORAGE
SD	STORM DRAIN
STRUC	STRUCTURAL
SWS	STUDENT WORK STATION
SUSP	SUSPENDED
SAC	SUSPENDED ACOUSTICAL CEILING
TB	TACK BOARD
TC	TEACHER'S CABINET
TWS	TEACHER'S WORK STATION
TEL	TELEPHONE
TV	TELEVISION
TAS	TEXAS ACCESSIBILITY STANDARDS
THK	THICK(NESS)
THRESH	THRESHOLD
TBS	TO BE SELECTED
TLT	TOILET
T&G	TONGUE & GROOVE
TO	TOP OF
TOBM	TOP OF BEAM - STEEL
TOB	TOP OF BLOCKING
TOCN	TOP OF CURB
TOC	TOP OF FOOTING
TOF	TOP OF JOIST
TOJ	TOP OF PAVING
TOP	TOP OF PLATE
TOPL	TOP OF STEEL
TOS	TOP OF WALL
TOW	TRANSOM
TR	TREAD
T	TYPICAL
TYP	UNDERWRITERS LABORATORIES
UL	UNLESS NOTED OTHERWISE
UNO	VARIES
VAR	VERTICAL
VERT	VERIFY IN FIELD
VIF	VIDEO MONITOR
VM	VINYL COMPOSITION
VCT	TILE
VWC	VIDEO WALL COVERING
W	WASHER
WH	WATER HEATER
WC	WATER CLOSET
WP	WATERPROOFING
WR	WATER RESISTANT
WRF	WATER RESISTANT FLOORING
WWM	WELDED WIRE MESH
WDW	WINDOW
W/	WITH
W/O	WITHOUT
WD	WOOD
WP	WORK POINT

GENERAL NOTES

CONSTRUCTION

01. CONTRACTOR TO REFER TO SPECIFICATIONS FOR ADDITIONAL NOTES AND INFORMATION.
02. CONTRACTOR TO REFER TO MECHANICAL ELECTRICAL & PLUMBING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND COORDINATION.
03. CONTRACTOR SHALL VERIFY ALL EXISTING SITE AND BUILDING CONDITIONS IN THE FIELD PRIOR COMMENCING CONSTRUCTION ACTIVITIES AND NOTIFY ARCHITECT OF ANY DISCREPANCIES IN WRITING PRIOR TO COMMENCING OF WORK.
04. ALL DIMENSIONS ARE FINISH FACE TO FINISH FACE UNLESS NOTED OTHERWISE (U.N.O.)

ARCHITECTURAL SYMBOLS

REFERENCE SYMBOLS

- PROPERTY LINE, BOUNDARY LINE
- MATCH LINE
- CENTER LINE
- BREAK LINE
- DATUM ELEVATION
- EXISTING CONTOUR (625)
- NEW CONTOUR (625)
- NEW SPOT ELEVATION 602 / 60' ; EXISTING SPOT ELEVATION
- ROOM NUMBER DESIGNATION [101]
- DOOR NUMBER DESIGNATION (101)
- WINDOW LETTER DESIGNATION (A)
- PARTITION TYPE (A)
- COLUMN REREFENCE GRID: VERTICAL (2); HORIZONTAL (A)
- KENOTE REF. (02)
- REVISION CLOUD (1)
- BUILDING SECTION/ WALL SECTION 01 / A-6.01
- DETAIL SECTION 01 / A-6.01
- EXTERIOR ELEVATION 01 / A-6.01
- INTERIOR ELEVATION A-09
- DETAIL REFERENCE 04 / A-5.01
- PLAN NORTH ARROW
- TRUE NORTH ARROW

SYMBOLS USED AS ABBREVIATIONS

ANGLE	PERPENDICULAR
CENTERLINE	PLATE
CHANNEL	ROUND
PENNY	

GRAPHIC SYMBOLS

- ACCOUSTICAL TILE/BOARD
- BRICK (SECTION)
- BRICK (ELEVATION)
- CONCRETE STRUCTURAL OR POURED IN PLACE
- CONCRETE LIGHTWEIGHT OR FILL
- CONCRETE MASONRY UNIT
- EARTH
- GYPSUM BOARD
- INSULATION/BATT OR BLANKET
- INSULATION (RIGID)
- PLASTER WITH METAL
- PLYWOOD
- SAND
- SIDING
- STEEL
- STONE FILL
- STUCCO
- WOOD BLOCKING OR SHIM
- WOOD (FINISH)
- WOOD (ROUGH)
- SHINGLE
- GLASS BLOCK
- EXISTING WALLS

CODE ANALYSIS INFORMATION

APPLICABLE CODES

2018 INTERNATIONAL BUILDING CODE & CITY OF AUBREY AMENDMENTS
2018 INTERNATIONAL MECHANICAL CODE & CITY OF AUBREY AMENDMENTS
2018 INTERNATIONAL PLUMBING CODE & CITY OF AUBREY AMENDMENTS
2020 NATIONAL ELECTRICAL CODE & CITY OF AUBREY AMENDMENTS
2018 INTERNATIONAL FIRE CODE & CITY OF AUBREY AMENDMENTS
2018 INTERNATIONAL ENERGY CONSERVATION CODE & CITY OF AUBREY AMENDMENTS
AMERICANS WITH DISABILITIES ACT (ADA)
TEXAS ACCESSIBILITY STANDARDS (TAS)

PROPOSED CONSTRUCTION

NEW CONSTRUCTION OF FIRE STATION BUILDING.
TYPE IIB - FIRE ALARM WILL BE PROVIDED

SITE DESCRIPTION

CITY OF AUBREY FIRE STATION NO. 2, BOUNDED BY WINN RIDGE BLVD. AND ASLYNN CIRCLE
ADDRESS: WINN RIDGE BLVD.
AUBREY, TEXAS 76227

LAND ACRES: 1.5 ACRES

CURRENT ZONING - SINGLE FAMILY / PLANNED DEVELOPMENT

FACILITY DESCRIPTION

NEW FACILITY: TWO STORY BUILDING

NEW CONSTRUCTION

LOWER LEVEL	5,785 SF.
UPPER LEVEL	3,413 SF.
GROSS BUILDING AREA:	9,198 SF.
UPPER BALCONY	259 SF.
COVERED PATIO	169 SF.
COVERED ENTRY	98 SF.
TOTAL BUILDING	9,724 SF.

PROPOSED SCOPE OF WORK

NEW 9,724 SF. FIRE STATION BUILDING, 1,400 SF PAVILION, PLAYGROUND AREA, AND CONCRETE PARKING LOT.

PARKING ANALYSIS

CURRENT PROPOSED SCOPE OF WORK WILL REQUIRE THE FOLLOWING PARKING SPACES

	PROVIDED PARKING
STANDARD SPACES:	19
HANDICAP SPACES:	02
GOLF CART SPACES:	06
TOTAL SPACES:	27

OCCUPANCY CLASSIFICATION

IBC 305.1 PRIMARY OCCUPANCY: GROUP B

FIRE PROTECTION

FIRE ALARM SYSTEM WILL BE PROVIDED

DRAWN BY:	A.N.B.
CHECKED BY:	RPG
DATE:	3/21/2024
ISSUED FOR PERMIT:	08/22/23
ISSUED FOR PRICING:	08/22/23

REVISIONS:

No.	Description	Date

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RPGA DESIGN GROUP, INC.
ARCHITECTURE SPACE PLANNING INTERIORS
101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9497
WWW.RPGAARCHITECTS.COM

CITY OF AUBREY FIRE STATION #2 & POLICE SUBSTATION WINN RIDGE BLVD.

REGISTERED ARCHITECT JAMES R. PRICE 23743 STATE OF TEXAS

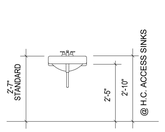
3/21/2024

SHEET DESCRIPTION:
GENERAL NOTES

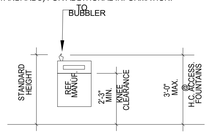
SHEET NO.
A-1.00

GENERAL NOTES: TYPICAL TOILET ROOM AND ACCESSORIES

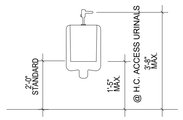
01. PLANS AND ELEVATIONS INDICATE TYPICAL DIMENSIONS, LOCATIONS FOR TOILET FIXTURES AND TOILET ACCESSORIES AS WELL AS REQUIRED CLEARANCES TO BE MAINTAINED.
02. REFER TO 1/4" AND 3/8" FLOOR PLAN SHEETS FOR ROOM OR FIXTURE ORIENTATION, LOCATION OF DOORS, WALL CONSTRUCTION AND ADDITIONAL EQUIPMENT ITEMS.
03. DIMENSIONS SHOWN FOR ACCESSORIES AND EQUIPMENT ITEMS ARE FROM FACE OF WALL FINISH (TILE, ETC.) AND ARE TYPICAL UNLESS NOTED OTHERWISE (U.N.O.).
04. FIXTURES SHOWN ARE GENERIC - REFER TO THE PLUMBING DRAWINGS AND OR SPECIFICATIONS FOR SCHEDULED FIXTURES.
05. REFER TO "TAS" (TEXAS ACCESSIBILITY STANDARDS) FOR ADDITIONAL INFORMATION.



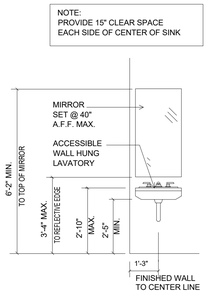
SINK



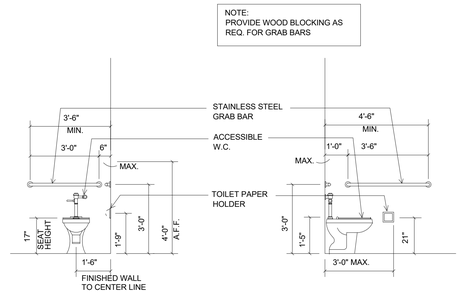
DRINKING FOUNTAIN



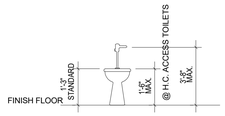
URINAL



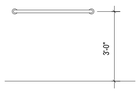
SINK AND MIRROR



TOILET AND GRAB BARS



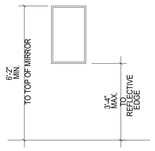
TOILET



GRAB BAR



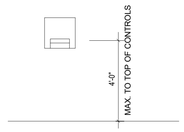
SOAP DISPENSER



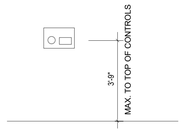
MIRROR



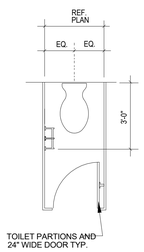
TOILET PAPER HOLDER



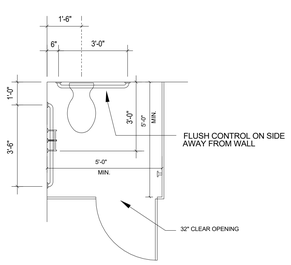
PAPER TOWEL DISPENSER/WASTE



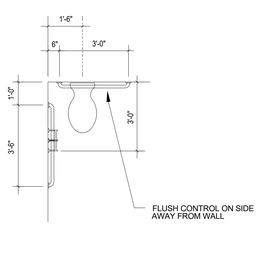
HAND DRYER



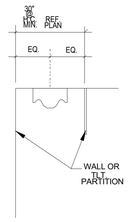
STANDARD STALL



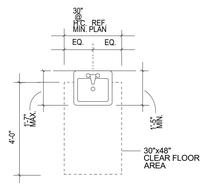
ACCESSIBLE STALL



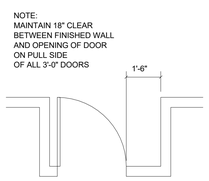
ACCESSIBLE TOILET



ACCESSIBLE URINAL



ACCESSIBLE SINK



DOOR CLEARANCE - TYPICAL

1 ACCESSIBILITY STANDARDS1

SCALE: 1/4" = 1'-0"

DRAWN BY:	A.N.B.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	09/06/2023
ISSUED FOR PRICING:	09/06/2023

REVISIONS:

No.	Description	Date

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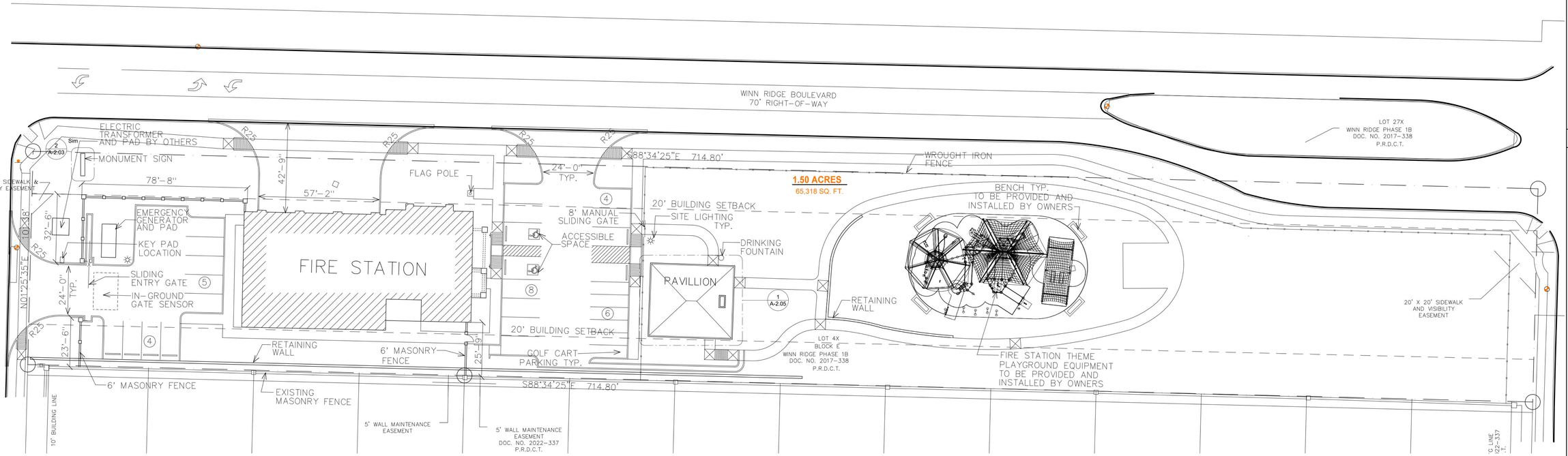
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WWW.RPGAARCHITECTS.COM

CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

3/21/2024

SHEET DESCRIPTION: ACCESSIBILITY STANDARDS

SHEET NO. **A-1.01**



1 **SITE PLAN**
SCALE: 1" = 20'-0"

SITE DATA SUMMARY TABLE		
EXISTING ZONING	SINGLE FAMILY / PLANNED DEVELOPMENT	
TOTAL ACREAGE	1.5 ACRES	
PAVILION FOOTPRINT	1,400 SQ. FT.	
BUILDING FOOTPRINT	6,052 SQ. FT.	
TOTAL BUILDING SQUARE FOOTAGE INCLUDING COVERED PORCHES	9,724 SQ. FT.	
PARKING SPACES: (9'x18' TYP.) (11'X18' TYP.) (6'X18' TYP.)	GATED STAFF PARKING:	9
	GATED ACCESSIBLE SPACES:	0
	VISITOR PARKING:	10
	ACCESSIBLE SPACES:	2
	TOTAL SPACES PROVIDED:	21
	GOLF CART SPACES PROVIDED:	6

DRAWN BY:	B.D.B.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	08/22/23
ISSUED FOR PRICING:	08/22/23

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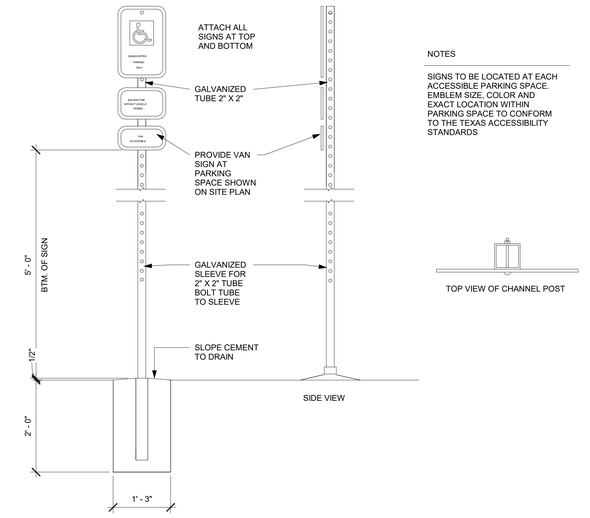
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT
JAMES LUKE CLEMENTS
STATE OF TEXAS
23174

3/21/2024

SHEET DESCRIPTION:
SITE PLAN

SHEET NO.
A-2.01

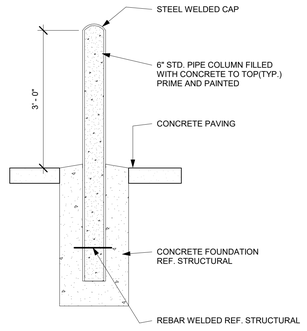


NOTES

SIGNS TO BE LOCATED AT EACH ACCESSIBLE PARKING SPACE. EMBLEM SIZE, COLOR AND EXACT LOCATION WITHIN PARKING SPACE TO CONFORM TO THE TEXAS ACCESSIBILITY STANDARDS

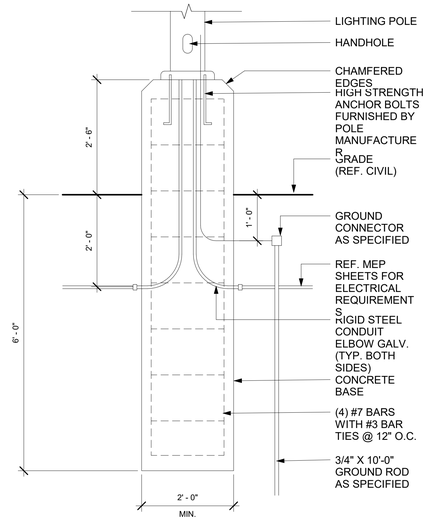
1 ACCESSIBLE SIGN DETAIL

SCALE: 3/4" = 1'-0"



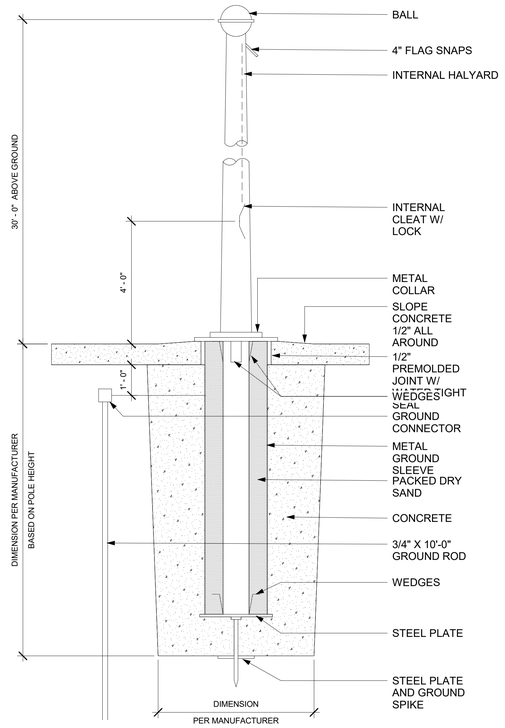
2 BOLLARD DETAIL @ APP BAY

SCALE: 3/4" = 1'-0"



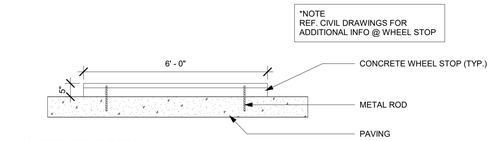
3 LIGHT POLE BASE DETAIL

SCALE: 3/4" = 1'-0"



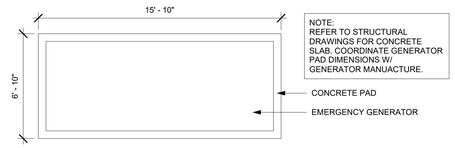
4 FLAG POLE DETAIL

SCALE: 1/2" = 1'-0"



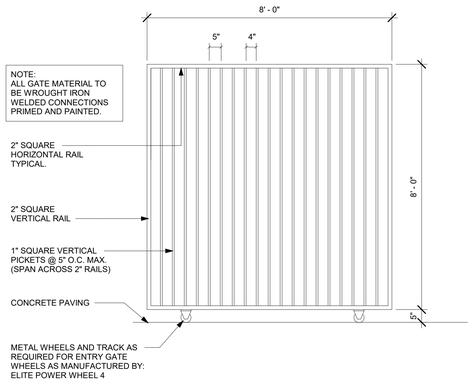
5 WHEEL STOP DETAIL

SCALE: 1/2" = 1'-0"



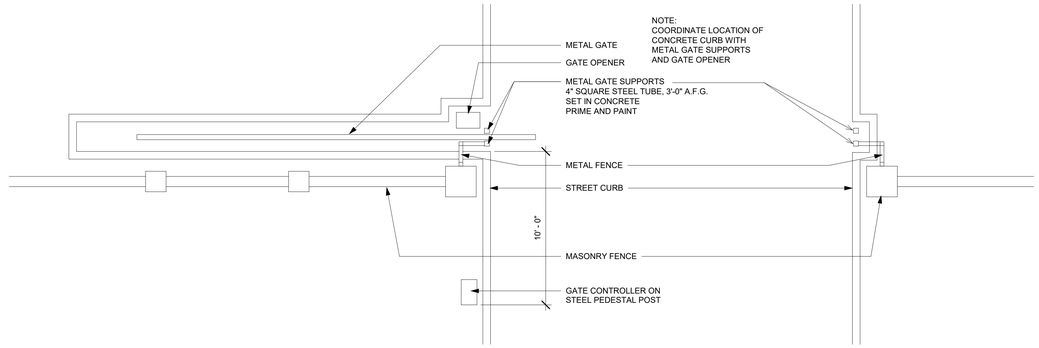
6 GENERATOR PAD PLAN

SCALE: 1/4" = 1'-0"



7 ACCESS GATE AT PARK FENCE

SCALE: 1/2" = 1'-0"



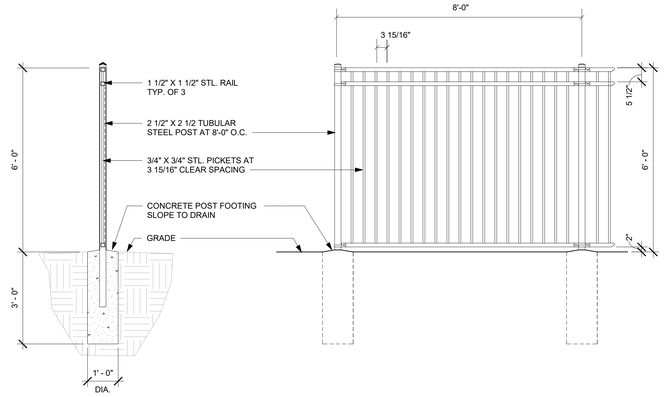
8 ENTRY GATE PLAN

SCALE: 1/4" = 1'-0"

FENCE NOTES:

FENCE SHALL BE:
AMERISTAR - AEGIS PLUS MAJESTIC
72" TALL, 3 RAIL
FLUSH TOP AND BOTTOM RAIL
BLACK COLOR

SPACE POSTS MAXIMUM 8'-0" O.C.



9 METAL FENCE AROUND PARK

SCALE: 1/2" = 1'-0"

DRAWN BY: A.N.B.
CHECKED BY: R.P.G.
DATE: 3/21/2024
ISSUED FOR PERMIT:
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CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.



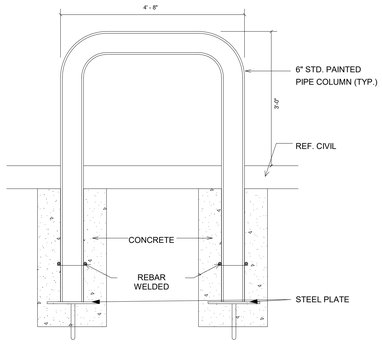
3/21/2024

SHEET DESCRIPTION:

SITE DETAILS

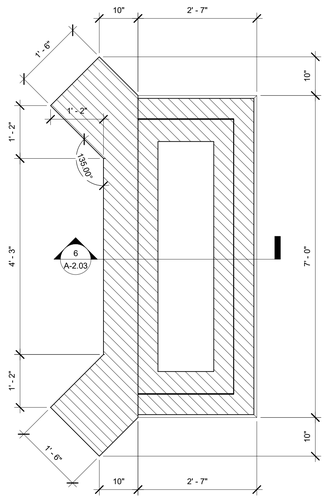
SHEET NO.

A-2.02



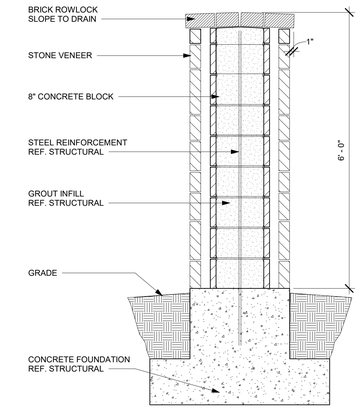
9 U-BOLLARD DETAIL

SCALE: 3/4" = 1'-0"



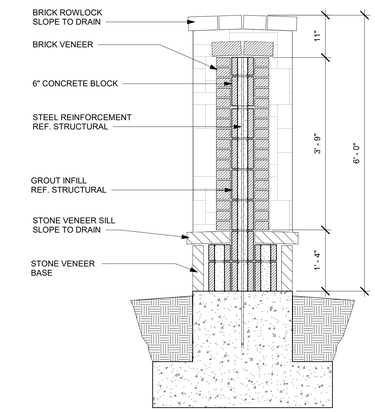
8 FIRE PLACE - PLAN

SCALE: 3/4" = 1'-0"



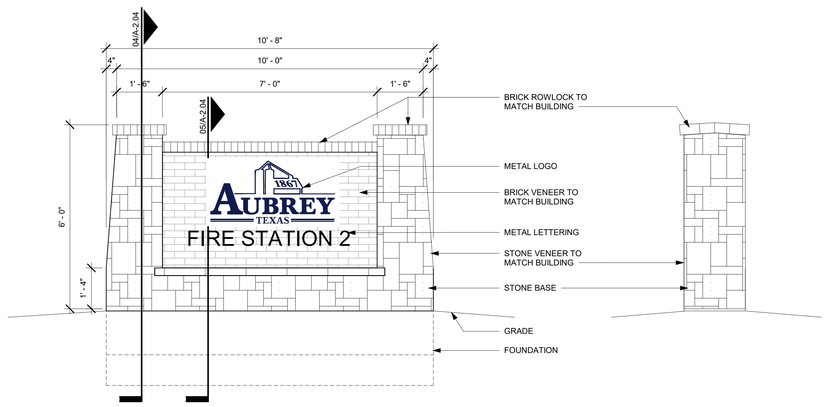
4 MONUMENT SIGN - SECTION A

SCALE: 3/4" = 1'-0"



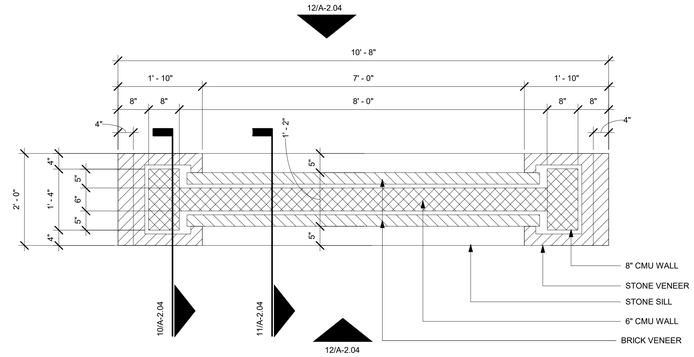
5 MONUMENT SIGN - SECTION B

SCALE: 3/4" = 1'-0"



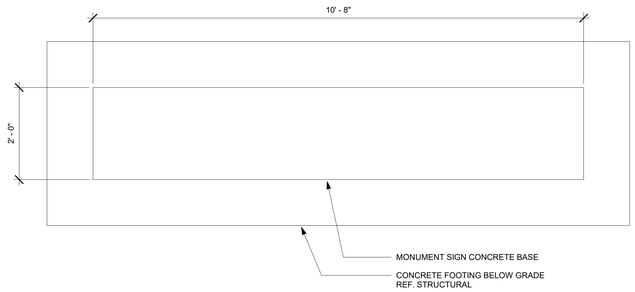
3 MONUMENT SIGN - ELEVATION

SCALE: 1/2" = 1'-0"



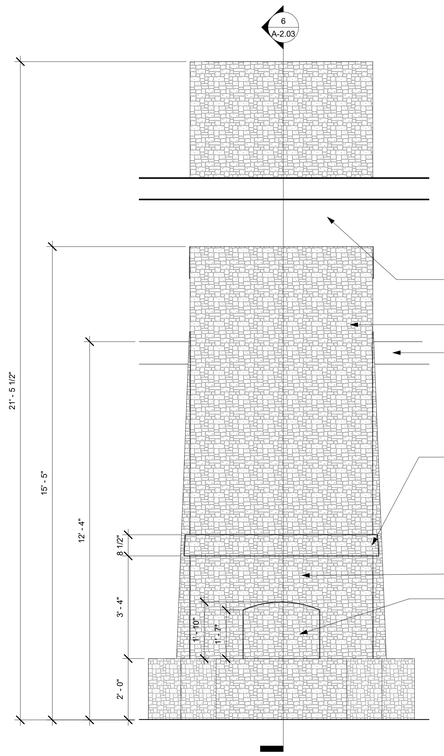
2 MONUMENT SIGN - PLAN

SCALE: 3/4" = 1'-0"



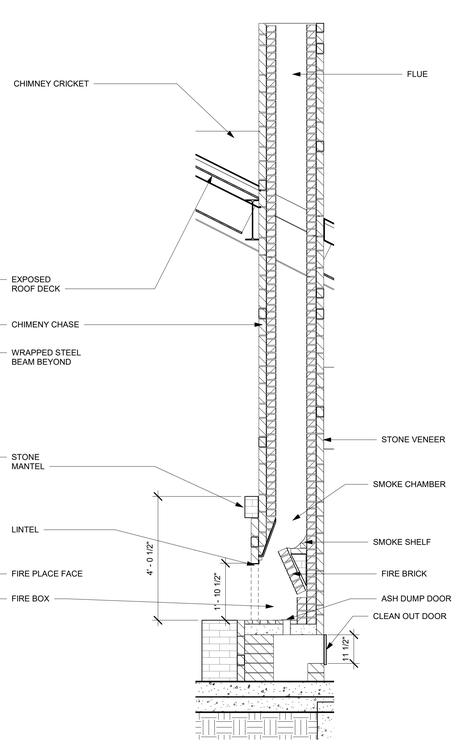
1 MONUMENT SIGN - FOUNDATION PROFILE

SCALE: 3/4" = 1'-0"



7 FIRE PLACE/CHIMNEY - ELEVATION DETAIL

SCALE: 1/2" = 1'-0"



6 FIRE PLACE/CHIMNEY - SECTION DETAIL

SCALE: 1/2" = 1'-0"

DRAWN BY:	A.N.B.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	
ISSUED FOR PRICING:	

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CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.



3/21/2024

SHEET DESCRIPTION:

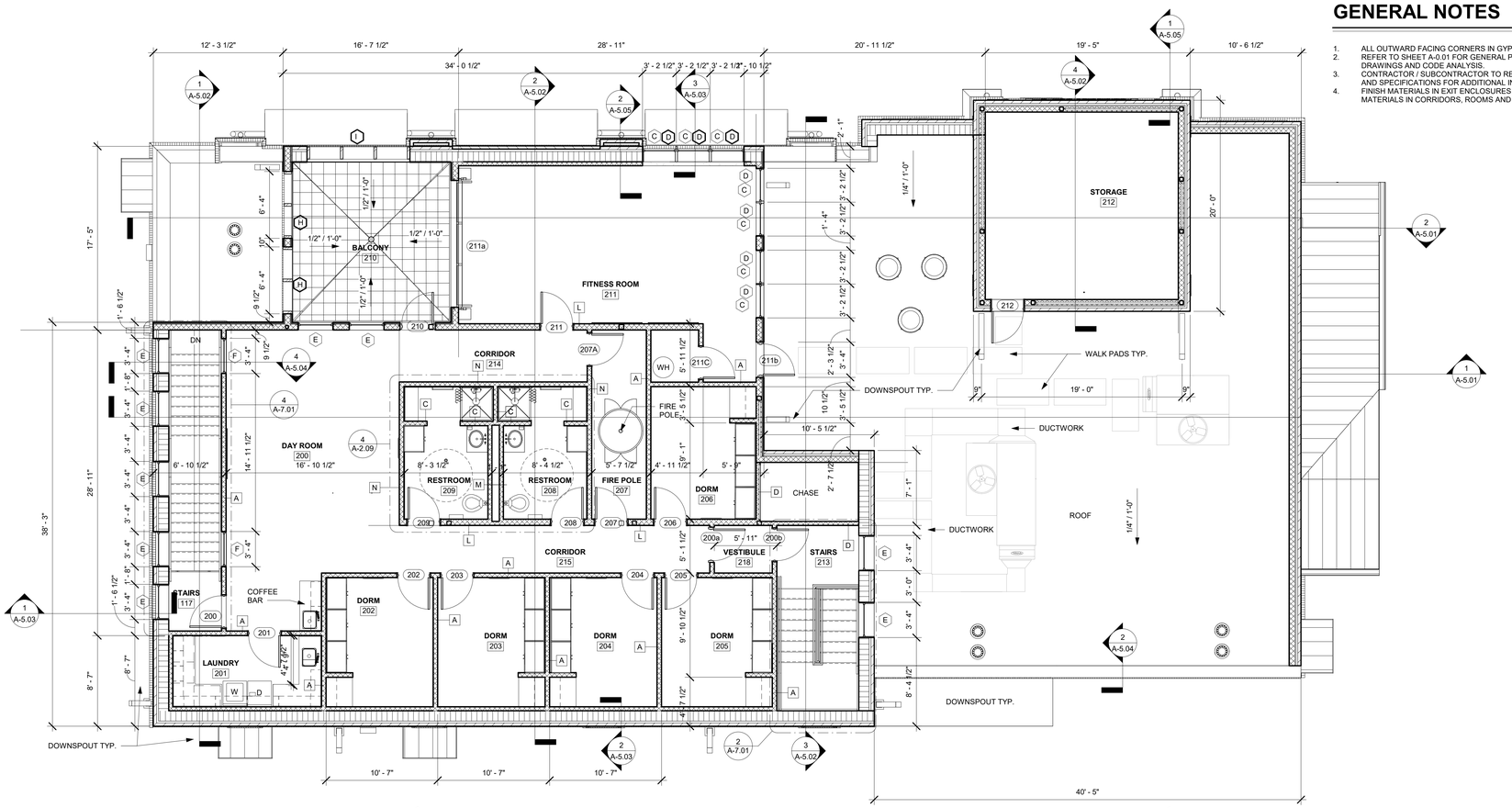
SITE DETAILS

SHEET NO.

A-2.03

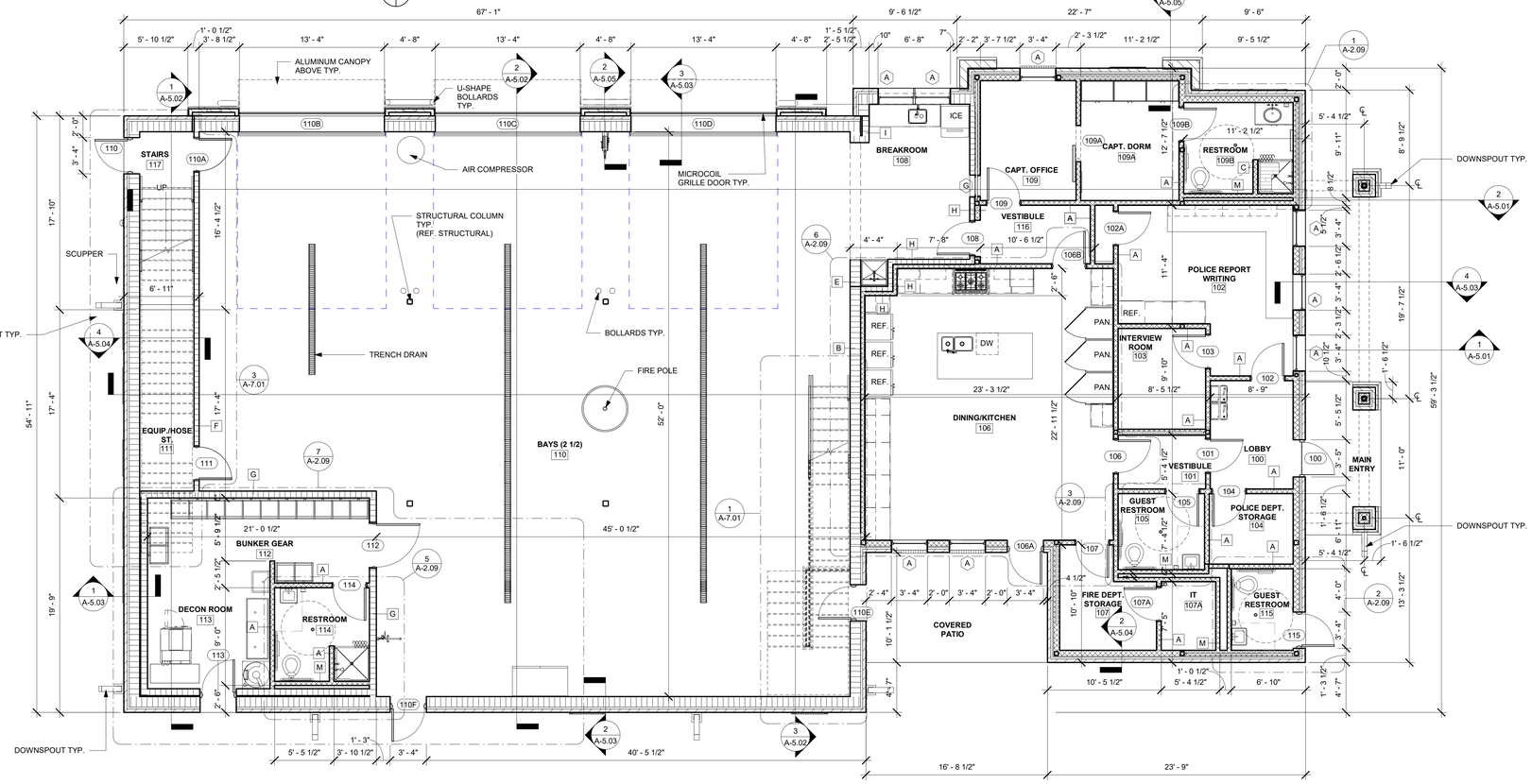
2 SECOND FLOOR PLAN

SCALE: 3/16" = 1'-0"



1 FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0"



GENERAL NOTES

1. ALL OUTWARD FACING CORNERS IN GYPSUM BOARD ARE TO RECEIVE STAINLESS STEEL CORNER GUARDS AS SPECIFIED.
2. REFER TO SHEET A-0.01 FOR GENERAL PROJECT INFORMATION, SYMBOLS, LEGENDS, ABBREVIATIONS, INDEX OF DRAWINGS AND CODE ANALYSIS.
3. CONTRACTOR / SUBCONTRACTOR TO REFER TO CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND COORDINATION.
4. FINISH MATERIALS IN EXIT ENCLOSURES AND EXIT PASSAGEWAYS SHALL HAVE MINIMUM CLASS B RATING. FINISH MATERIALS IN CORRIDORS, ROOMS AND ENCLOSED SPACES SHALL HAVE MINIMUM CLASS C RATING.

GENERAL NOTES

ALL DIMENSIONS ARE FROM FACE OF FINISHED WALL TO FACE OF FINISHED WALL.

REFER TO SHEET A-7.10 FOR PARTITION WALL TYPES.

INTERIOR ELEVATIONS KEYED BY ROOM NUMBER
SEE A-6.XX SHEETS.

PARTITION WALL LEGEND

- CMU WALL
- METAL STUD WALL
- BRICK VENEER
- BRICK WATERTABLE

NOTE: ALL INTERIOR PARTITION WALLS TO BE PARTITION TYPE "A" UNLESS NOTED OTHERWISE

SQUARE FOOTAGE

LOWER LEVEL	5,785 SQ.FT.
UPPER LEVEL	3,413 SQ.FT.
UPPER BALCONY	269 SQ.FT.
COVERED PATIO	172 SQ.FT.
COVERED ENTRY	93 SQ.FT.
TOTAL BUILDING	9,732 SQ.FT.

DRAWN BY: A.N.B.
CHECKED BY: RPG
DATE: 3/21/2024
ISSUED FOR PERMIT:
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3/21/2024

SHEET DESCRIPTION:
FLOOR PLANS

SHEET NO.
A-2.04

GENERAL NOTES

1. REFER TO SHEET A-0.01 FOR GENERAL PROJECT INFORMATION, SYMBOLS, LEGENDS, ABBREVIATIONS, INDEX OF DRAWINGS AND CODE ANALYSIS.
2. CONTRACTOR / SUBCONTRACTOR TO REFER TO CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND COORDINATION.

PARTITION WALL LEGEND

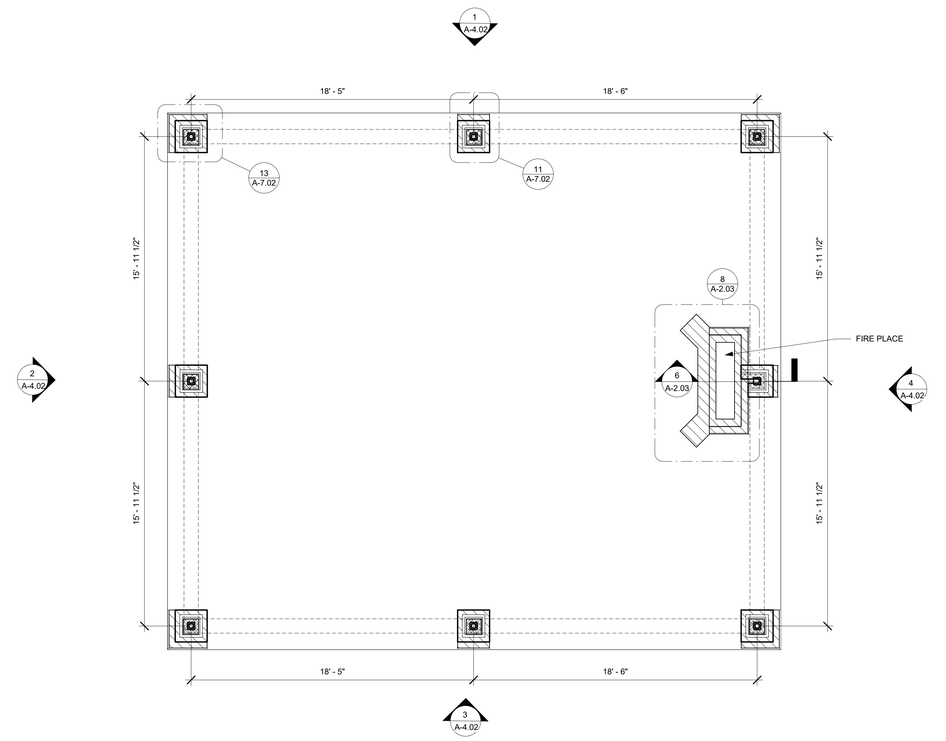
- CMU WALL
- METAL STUD WALL
- BRICK VENEER

GENERAL NOTES

ALL DIMENSIONS ARE FROM FACE OF FINISHED WALL TO FACE OF FINISHED WALL.

SQUARE FOOTAGE

PAVILION	1,400 SQ. FT.



1 **PAVILION FLOOR PLAN**
SCALE: 1/4" = 1'-0"

DRAWN BY: A.N.B.
CHECKED BY: RPG
DATE: 3/21/2024
ISSUED FOR PERMIT:
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REVISIONS:

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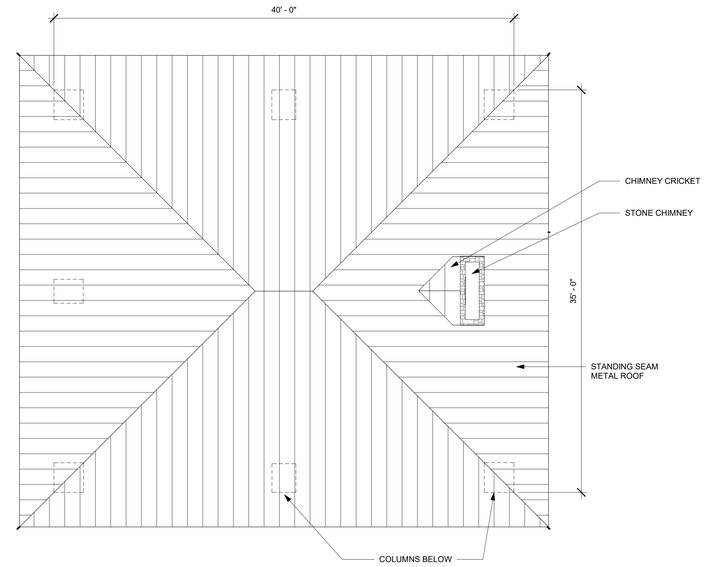
3/21/2024

SHEET DESCRIPTION:
PAVILION FLOOR PLAN

SHEET NO.
A-2.05

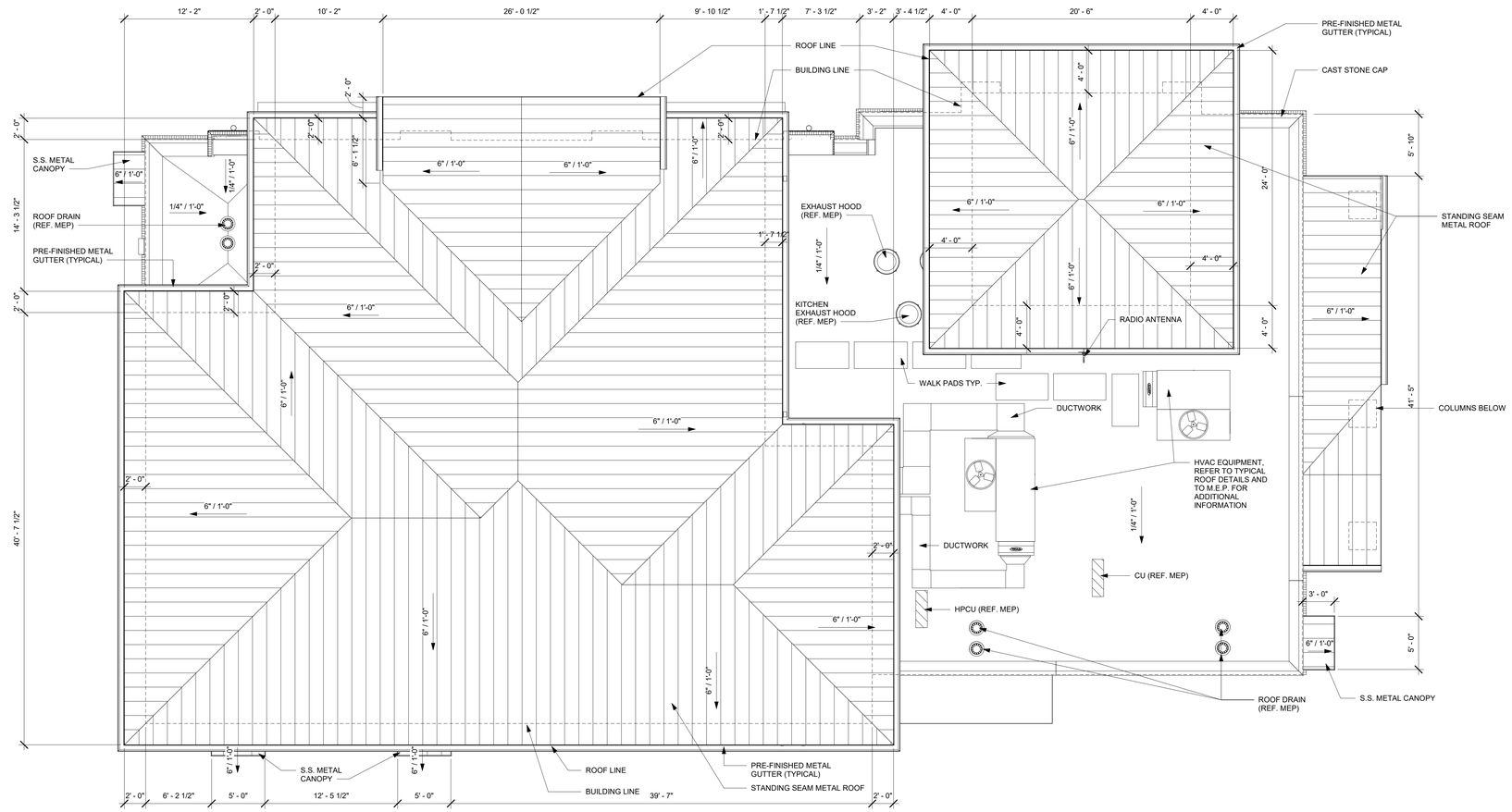
GENERAL NOTES

1. ALL ROOF CRICKETS ARE TO BE BUILT UP TAPERED INSULATION AT 1/2"/1'-0" SLOPE TOWARDS DOWNSPOUTS AS SHOWN (U.N.O)
2. REFER TO SHEET A-0.01 FOR GENERAL PROJECT INFORMATION, SYMBOLS, LEGENDS, ABBREVIATIONS, INDEX OF DRAWINGS AND CODE ANALYSIS.
3. CONTRACTOR / SUBCONTRACTOR TO REFER TO CIVIL, STRUCTURAL ,MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS AND SPECIFICATIONS FOR ADDTIONAL INFORMATION AND COORDINATION.



2 PAVILION ROOF PLAN

SCALE: 3/16" = 1'-0"



1 ROOF PLAN

SCALE: 3/16" = 1'-0"

DRAWN BY:	A.N.B.
CHECKED BY:	RPG
DATE:	3/21/2024
ISSUED FOR PERMIT:	
ISSUED FOR PRICING:	

REVISIONS:

No.	Description	Date

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CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.



3/21/2024

SHEET DESCRIPTION:

ROOF PLAN

SHEET NO.

A-2.06

GENERAL NOTES

1. ALL OUTWARD FACING CORNERS IN GYPSUM BOARD ARE TO RECEIVE STAINLESS STEEL CORNER GUARDS AS SPECIFIED.
2. REFER TO SHEET A-0.01 FOR GENERAL PROJECT INFORMATION, SYMBOLS, LEGENDS, ABBREVIATIONS, INDEX OF DRAWINGS AND CODE ANALYSIS.
3. CONTRACTOR / SUBCONTRACTOR TO REFER TO CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND COORDINATION.
4. ALL EXPOSED DUCTWORK TO BE PAINTED

NOTE:

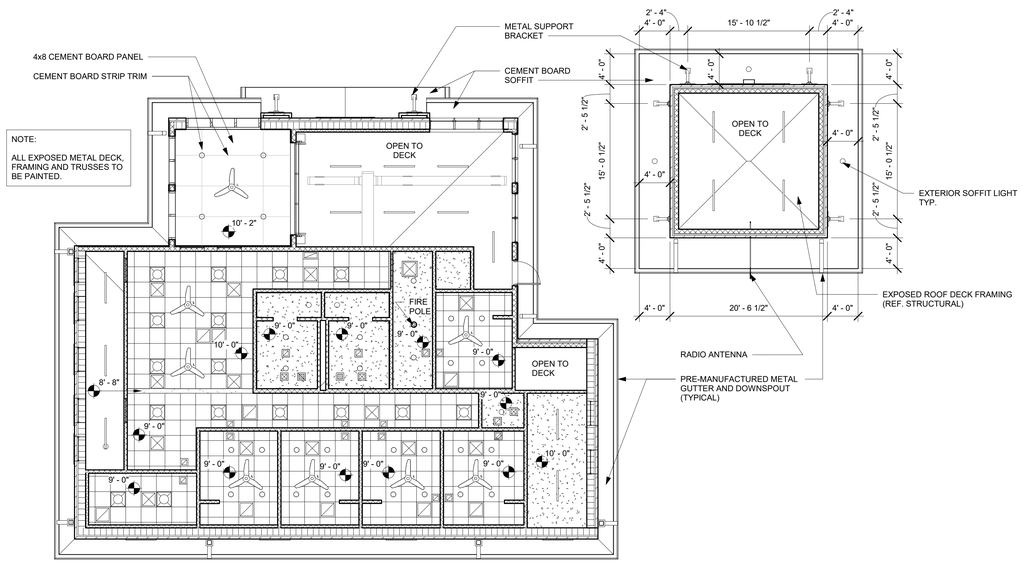
ALL GYPSUM BOARD AND LAY-IN CEILINGS TO BE SET AT 9'-0" ABOVE FINISH FLOOR UNLESS NOTED OTHERWISE.

NOTE:

REFERENCE MEP DRAWINGS FOR ALL HVAC AND LIGHTING FIXTURES TYPES.

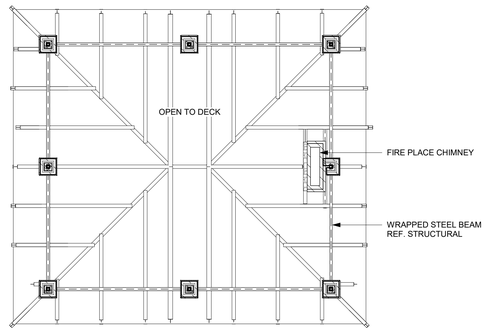
RCP LEGEND

	SUPPLY AIR
	RETURN AIR
	2X2 LAY-IN LED
	CAN RECESS LED
	5' FAN W/LIGHT
	5' FAN W/ LIGHT
	4' LED STRIP (REF. MEP)
	8' LED STRIP (REF. MEP)
	8' LED (REF. MEP)
	4' LED (REF. MEP)
	GAS FIRED UNIT HEATER
	WALL MOUNTED LED (REF. MEP)
	2X2 LAY IN CEILING
	GYP. BOARD
	CEMENT BOARD SOFFIT
	SOFFIT DOWNLIGHT (REF. MEP)
	EXIT SIGN



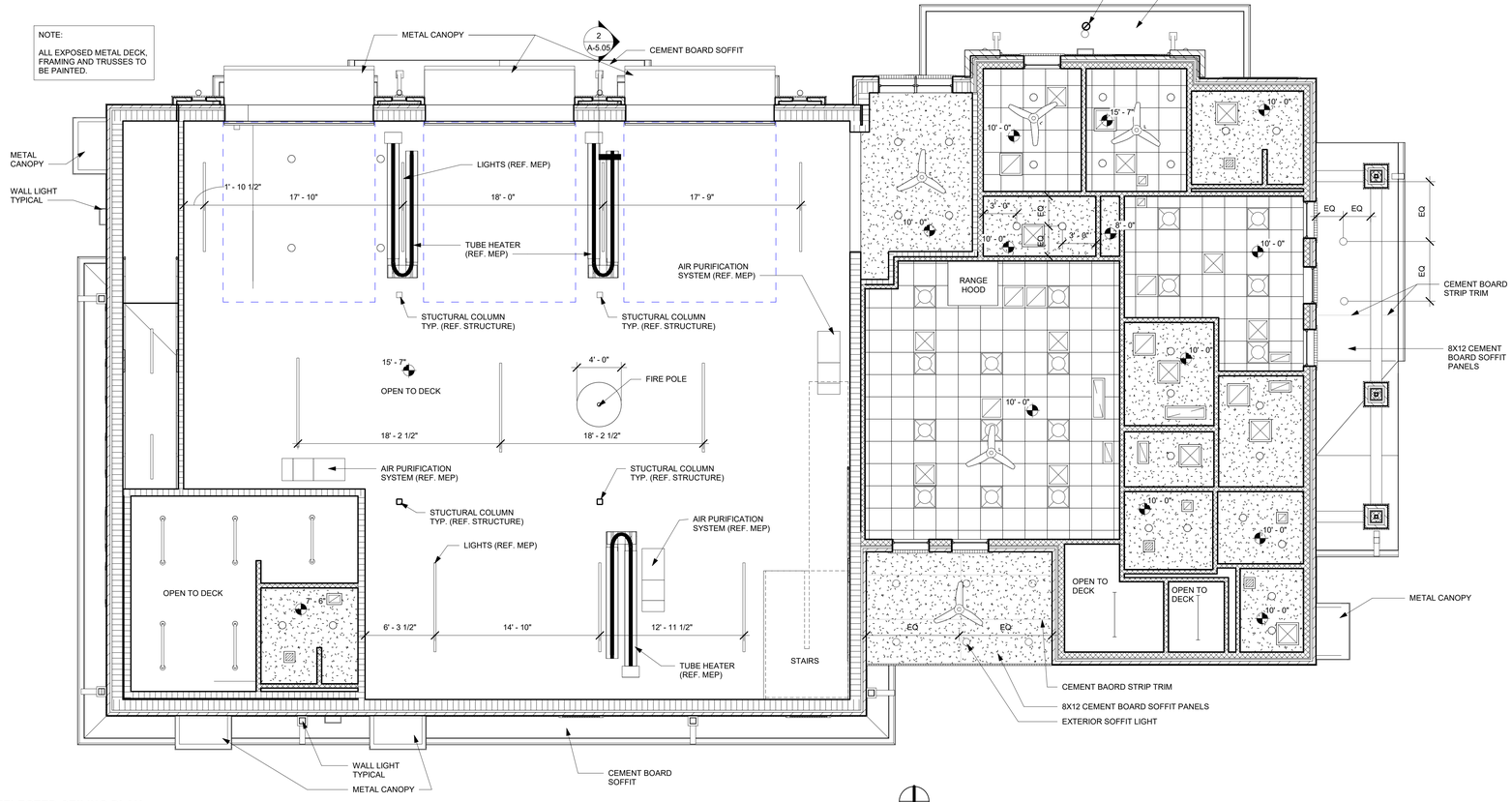
2 SECOND FLOOR PLAN

SCALE: 1/8" = 1'-0"



3 PAVILION REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"



1 REFLECTED CEILING PLAN

SCALE: 3/16" = 1'-0"

DRAWN BY: A.N.B.
CHECKED BY: R.P.G.
DATE: 3/21/2024
ISSUED FOR PERMIT:
ISSUED FOR PRICING:

REVISIONS:

No.	Description	Date

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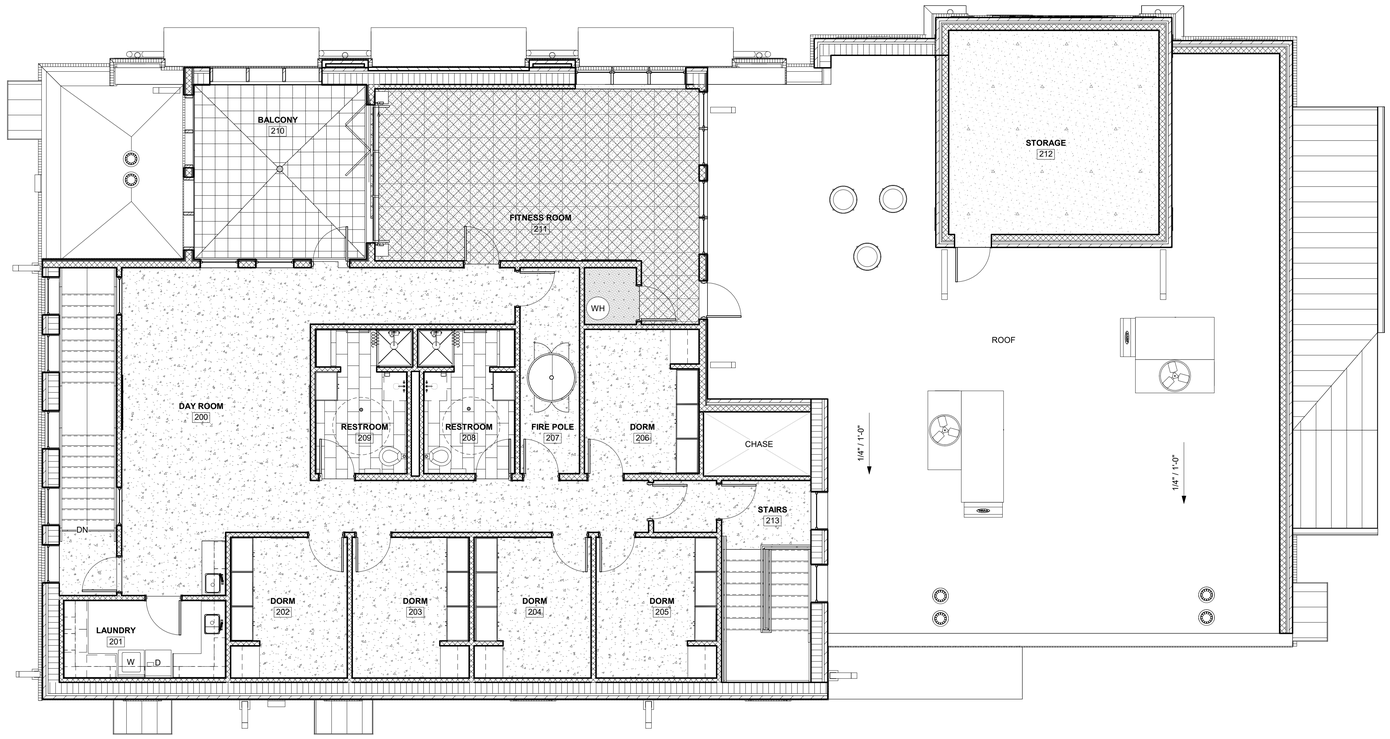
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FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

3/21/2024

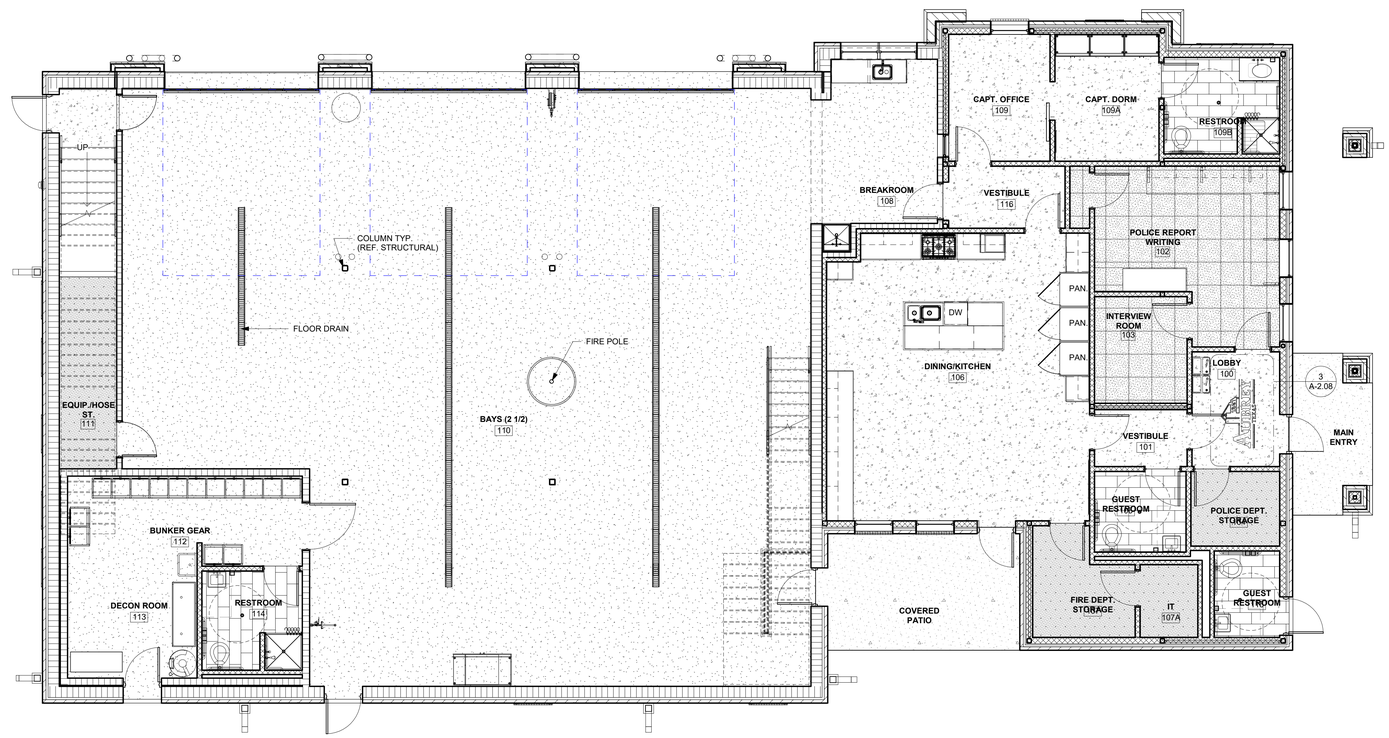
SHEET DESCRIPTION:
REFLECTED CEILING PLAN

SHEET NO.
A-2.07



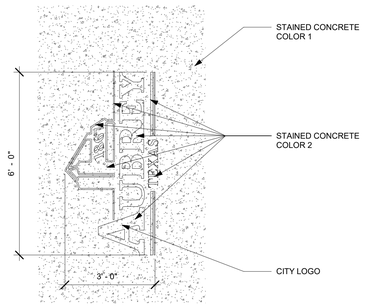
2 SECOND FLOOR FINISH PLAN

SCALE: 3/16" = 1'-0"



1 FIRST FLOOR FINISH PLAN

SCALE: 3/16" = 1'-0"



3 LOBBY INSIGNIA

SCALE: 1/2" = 1'-0"

LEGEND

- 2'-0" X 2'-0" CARPET TILE
- PORCELAIN TILE
- PORCELAIN TILE
- RUBBER MAT
- HIGH PERFORMANCE EPOXY
- STAINED CONCRETE
- SEALED CONCRETE
- CONCRETE
- 1/4" DIVIDER STRIP
- 1/8" DIVIDER STRIP

DRAWN BY: A.N.B.
CHECKED BY: RPG
DATE: 3/21/2024
ISSUED FOR PERMIT: 08/22/23
ISSUED FOR PRICING: 08/22/23

REVISIONS:

No.	Description	Date

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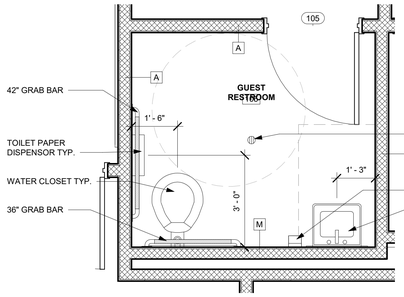
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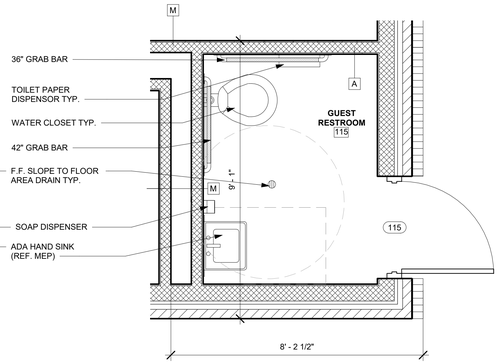
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

3/21/2024

SHEET DESCRIPTION: FINISH FLOOR PLAN

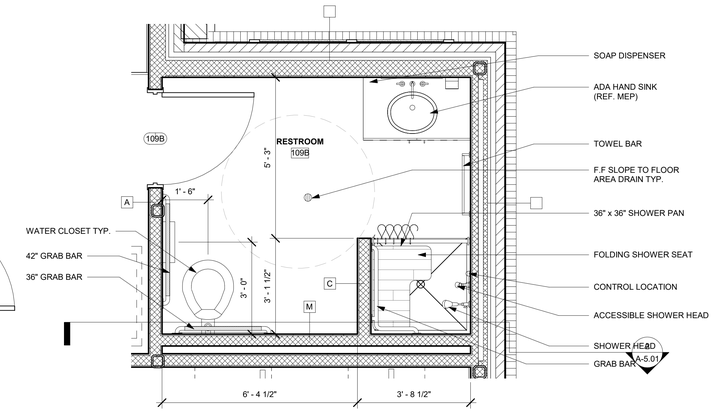
SHEET NO. A-2.08



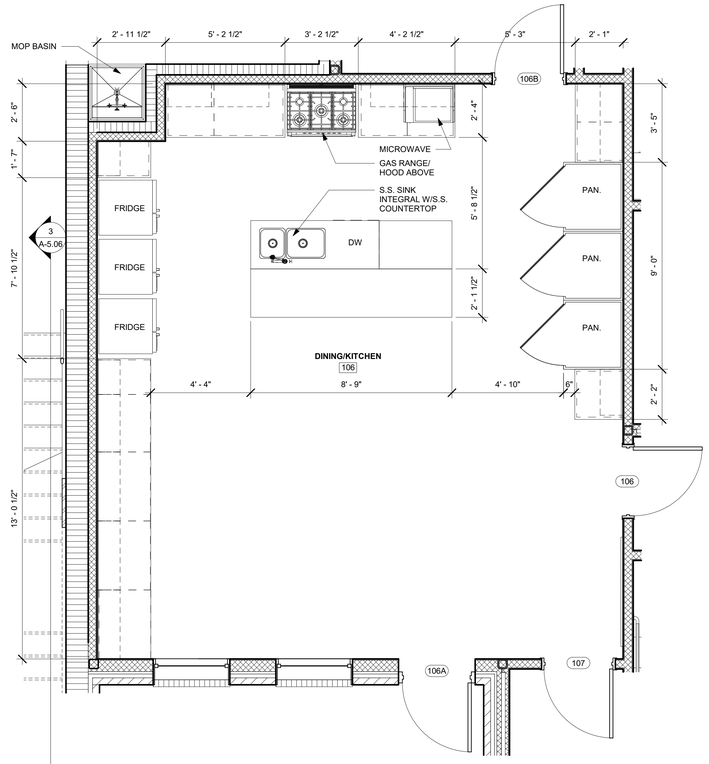


3 **GUEST RESTROOM**
SCALE: 1/2" = 1'-0"

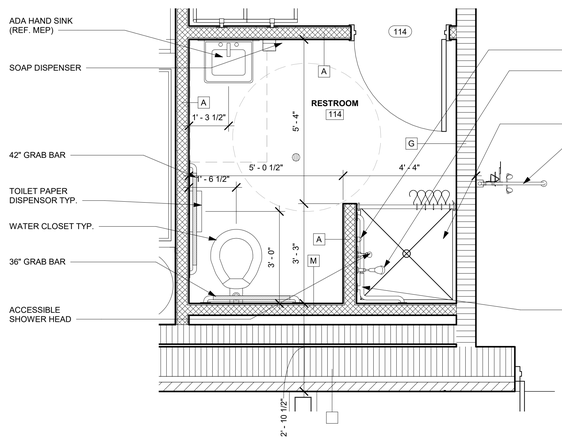
2 **EXTERIOR GUEST RESTROOM**
SCALE: 1/2" = 1'-0"



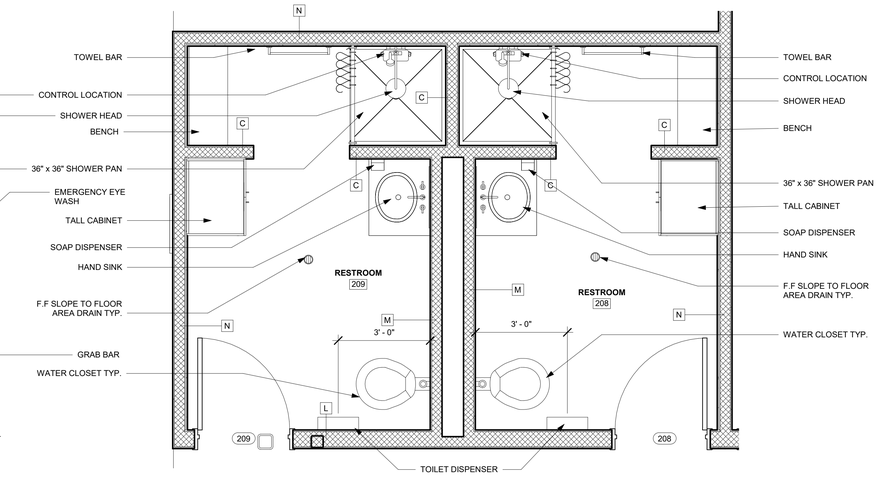
1 **CAPTAIN'S RESTROOM**
SCALE: 1/2" = 1'-0"



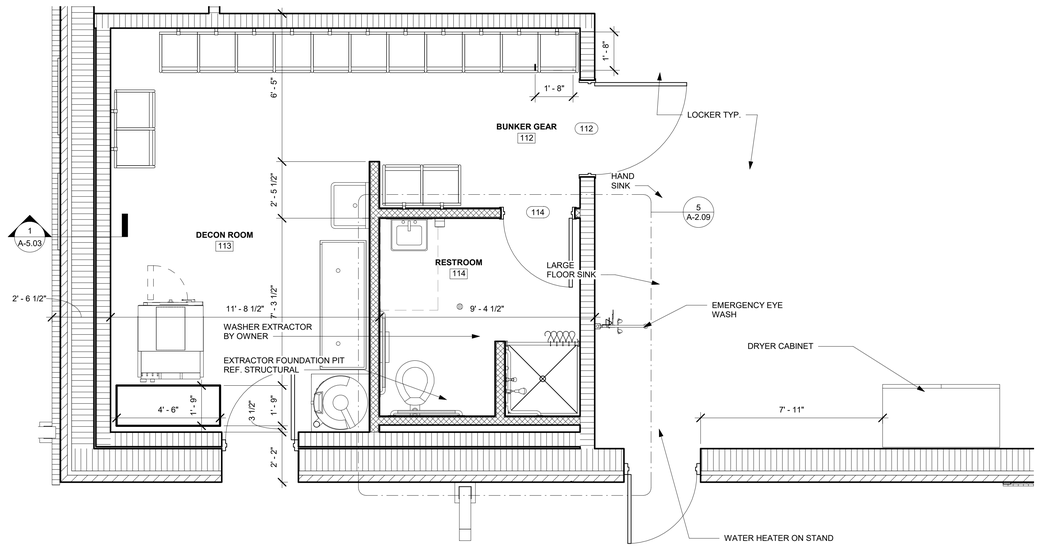
6 **ENLARGED KITCHEN/DINING PLAN**
SCALE: 3/8" = 1'-0"



5 **DECON ROOM RESTROOM**
SCALE: 1/2" = 1'-0"



4 **PRIVATE SHOWER/RESTROOMS**
SCALE: 1/2" = 1'-0"



7 **ENLARGED DECON/BUNKER GEAR ROOM PLAN**
SCALE: 3/8" = 1'-0"

DRAWN BY: A.N.B.
CHECKED BY: R.P.G.
DATE: 3/21/2024
ISSUED FOR PERMIT:
ISSUED FOR PRICING:

REVISIONS:

No.	Description	Date

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CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

3/21/2024

SHEET DESCRIPTION:
ENLARGED PLANS

SHEET NO.
A-2.09

ITEM	DESCRIPTION	SPECIFICATIONS	
CEILING			
AC	ACOUSTICAL CEILING TILE	MFR: Armstrong SIZE: 24"x24" COLOR: White	
MR	ACOUSTICAL CEILING TILE - MOISTURE RESISTANT	MFR: Armstrong SIZE: 24"x24" COLOR: White	
P	TEXTURE AND PAINT- PAINTED GYP. BOARD CEILING	MFR: Sherwin Williams SIZE: Flat Finish COLOR: TBD by Architect	
WALL			
TP	TEXTURE AND PAINT- PAINTED GYP. BOARD WALL	MFR: Sherwin Williams SIZE: Satin Finish COLOR: Snowbound SW7004	
PT-1	PORCELAIN TILE	DISTRIBUTOR: Trinity Surfaces SIZE: 12"x24" Contact Savie Hawkins 214-998-2094	NOTES: Matte finish; Restrooms, Shower, and Drinking fountain
PT-2	PORCELAIN TILE	DISTRIBUTOR: Trinity Surfaces SIZE: 12"x24" Contact Savie Hawkins 214-998-2094	NOTES: Matte finish; Restrooms, and Shower
PT-3	PORCELAIN TILE ACCENT	DISTRIBUTOR: Trinity Surfaces SIZE: 6"x24" RECTIFIED Contact Savie Hawkins 214-998-2094	NOTES: Restroom wall
PT-4	PORCELAIN TILE ACCENT	DISTRIBUTOR: Trinity Surfaces SIZE: 12"x28" MURETTO Contact Savie Hawkins 214-998-2094	NOTES: Restroom wall
EP	EPOXY PAINT	MFR: Sherwin Williams	NOTES: Verify style and color with Architect before placing order.
PP	PAINTED PLYWOOD	MFR: Sherwin Williams SIZE: Satin Finish COLOR: Snowbound SW7004	
BASE			
RB	RUBBER COVE BASE	MFR: Armstrong SIZE: 4" Base(straight @carpet; cove @hard floors) COLOR: Metal Gray	NOTES: Verify style and color with Architect before placing order.
PTB	PORCELAIN TILE BASE	MFR: Armstrong SIZE: 6"x24" RECTIFIED Contact Savie Hawkins 214-998-2094	NOTES: Matte finish; Restrooms and Shower
FLOOR			
SC	STAINED CONCRETE	MFR: Westcoat Specialty Coatings SIZE: S-C35 Water Based Stain COLOR: ARMOR 514	NOTES: Verify style and color with Architect before placing order.
PT-5	PORCELAIN TILE	DISTRIBUTOR: Trinity Surfaces SIZE: 12"x24" Contact Savie Hawkins 214-998-2094	NOTES: Verify style and color with Architect before placing order.
PT-6	PORCELAIN TILE	DISTRIBUTOR: Trinity Surfaces SIZE: 24"x24" Contact Savie Hawkins 214-998-2094	NOTES: Verify style and color with Architect before placing order.
CT	CARPET	MFR: Shaw Contract SIZE: 24"x24" PATTERN: ASHLAR	NOTES: Verify style and color with Architect before placing order.
RM	RUBBER FLOOR - MODULAR	MFR: Tarkett Color:TBD SIZE: 24"x24" STYLE: Replay Multi-Functional Sports Tile-COMT-XX	
C	SEALED CONCRETE	MFR: Laticrete STYLE: Concr. Sealer	
HPE	HIGH PERFORMANCE EPOXY	MFR: CROSSFIELD PRODUCTS CORP. COLOR: TBD by Architect STYLE: Fluid applied flooring epoxy base coat polyurethane top coat no aggregate.	
SPECIAL FINISH			
PL	PLASTIC LAMINATE	MFR: Wilsonart STYLE/COLOR: Daintree 8235K-05	NOTES: For use on millwork and doors as specified. Verify with Architect before placing order.
S	STAINLESS STEEL	Countertop provided by millwork subcontractor	NOTES: For use in Kitchen as specified. Verify with Architect before placing order.
SS	SOLID SURFACE	MFR: Wilsonart STYLE/COLOR: Morning Ice 9204CE	NOTES: For use in all areas as specified EXCEPT Kitchen and Breakroom. Verify with Architect before placing order.
NOTES: GROUT COLORS FOR PORCELAIN TILE TO BE DETERMINED DURING INSTALLATION OF TILE IN FIELD.			

FINISH MATERIALS

CEILING

AC	ACCOUSTICAL LAY-IN PANELS
MR	MOISTURE RESISTANT LAY-IN PANEL
P	PAINT

WALL

TP	TEXTURE AMD PAINT
PT-1	PORCELAIN TILE
PT-2	PORCELAIN TILE
PT-3	PORCELAIN TILE ACCENT
PT-4	PORCELAIN TILE ACCENT
EP	EPOXY PAINT
PP	PAINTED PLYWOOD

BASE

RB	RUBBER COVE BASE
PTB	PORCELAIN TILE

FLOOR

SC	STAINED CONCRETE
PT	PORCELAIN TILE
CT	CARPET
RM	RUBBER FLOORING PANELS
C	SEALED CONCRETE

SPECIAL FINISHES

PL	PLASTIC LAMINATE
S	STAINLESS STEEL
Q	QUARTZ
SS	SOLID SURFACE

DOORS AND WINDOWS

AL	ALUMINUM
HM	HOLLOW METAL
STL	STEEL
L	LAMINATE

FINISH SCHEDULE

RM. NO.	ROOM NAME	BASE	FLOOR	WALLS N	WALLS S	WALLS E	WALLS W	CEILING	AREA	CEILING HEIGHT	Comments
100	LOBBY	RB	SC	TP	TP	TP	TP	P	76 SF	10'	
101	VESTIBULE	RB	SC	TP	TP	TP	TP	P	40 SF	8'	
102	POLICE REPORT WRITING	RB	CT	TP	TP	TP	TP	AC	212 SF	10'	
103	INTERVIEW ROOM	RB	CT	TP	TP	TP	TP	P	75 SF	10'	
104	POLICE DEPT. STORAGE	RB	SC	TP	TP	TP	TP	AC	50 SF	10'	
105	GUEST RESTROOM	PTB	SC	TP	TP	TP	TP	P	56 SF	10'	
106	DINING/KITCHEN	RB	SC	TP	TP	TP	TP	AC	565 SF	10'	
107	FIRE DEPT. STORAGE	RB	SC	TP	TP	TP	TP	P	73 SF	13'	
107A	IT	RB	SC	TP	TP	TP	TP	P	32 SF	13'	
108	BREAKROOM	RB	SC	TP	TP	TP	TP	AC	147 SF	10'	
109	CAPT. OFFICE	RB	SC	TP	TP	TP	TP	AC	97 SF	10'	
109A	CAPT. DORM	RB	SC	TP	TP	TP	TP	AC	100 SF	10'	
109B	RESTROOM	PTB	PT	PT	PT	PT	PT	P	83 SF	10'	
110	BAYS (2 1/2)	RB	C	EP	EP	EP	EP	P	2817 SF	13'	
111	EQUIP./HOSE ST.	RB	C	EP	EP	EP	EP	P	83 SF	13'	
112	BUNKER GEAR	RB	C	EP	EP	EP	EP	P	150 SF	10'	
113	DECON ROOM	RB	C	EP	EP	EP	EP	P	118 SF	10'	
114	RESTROOM	PTB	PT	PT	PT	PT	PT	P	74 SF	8'	
115	GUEST RESTROOM	PTB	SC	PT	PT	PT	PT	P	43 SF	10'	
116	VESTIBULE	RB	SC	TP	TP	TP	TP	P	56 SF	10'	
117	STAIRS								79 SF	13'	
117	STAIRS								142 SF	13'	
200	DAY ROOM	RB	SC	TP	TP	TP	TP	AC	427 SF	10'	
201	LAUNDRY	RB	SC	TP	TP	TP	TP	AC	95 SF	9'	
202	DORM	RB	SC	TP	TP	TP	TP	AC	123 SF	9'	
203	DORM	RB	SC	TP	TP	TP	TP	AC	123 SF	9'	
204	DORM	RB	SC	TP	TP	TP	TP	AC	123 SF	9'	
205	DORM	RB	SC	TP	TP	TP	TP	AC	127 SF	9'	
206	DORM	RB	SC	TP	TP	TP	TP	AC	124 SF	9'	
207	FIRE POLE	RB	SC	TP	TP	TP	TP	P	92 SF	9'	
208	RESTROOM	PTB	PT	PT	PT	PT	PT	P	98 SF	9'	
209	RESTROOM	PTB	PT	PT	PT	PT	PT	P	99 SF	9'	
210	BALCONY	RB	C					P	227 SF	10'	
211	FITNESS ROOM	RB	SC	TP	TP	TP	TP	AC	449 SF	13'	
212	STORAGE	RB	C	TP	TP	TP	TP	P	324 SF	13'	
213	STAIRS	RB	SC	TP	TP	TP	TP	P	136 SF	10'	
214	CORRIDOR								87 SF	10'	
215	CORRIDOR								132 SF	9'	
218	VESTIBULE								25 SF	9'	

DOOR SCHEDULE

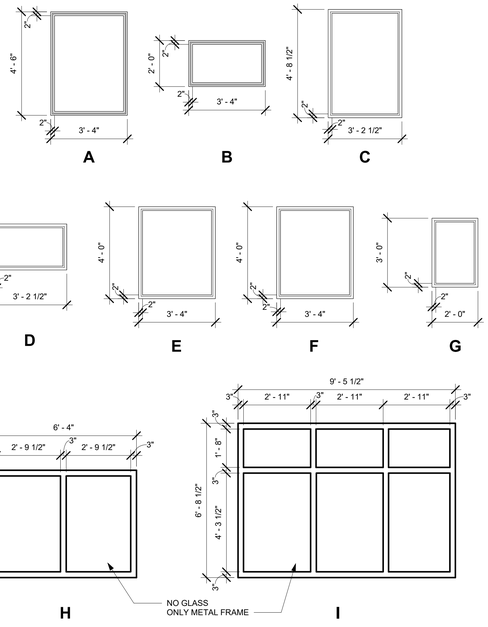
MARK	SIZE WIDTH	SIZE HEIGHT	DOOR	FRAME	SHEET A-7.04 HEAD	SHEET A-7.04 JAMB	SHEET A-7.04 SILL	TYPE	HARDWARE	COMMENTS
100	3' - 0"	7' - 0"	AL	AL	13/A-7.04	14/A-7.04	15/A-7.04	A		
101	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
102	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		CARD READER
102A	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
103	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
104	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
105	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
106	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		CARD READER
106A	3' - 0"	7' - 0"	HM	HM	8/A-7.04	9/A-7.04	5/A-7.04	B		INSULATED
106B	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	D		
107	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
107A	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		CARD READER
108	3' - 0"	7' - 0"	WD	HM			10/A-7.04	D		CARD READER, INSULATED
109	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		SLIDING DOOR 72" CLEAR TYP.
109A	3' - 0"	7' - 0"	WD	HM	11/A-7.04	12/A-7.04	18/A-7.04	E		
109B	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
110	3' - 0"	7' - 0"	HM	HM	1/A-7.04	2/A-7.04	5/A-7.04	B		KEY PAD, 20 MINUTES RATED
110A	3' - 0"	7' - 0"	WD	HM	3/A-7.04	4/A-7.04	10/A-7.04	D		20 MINUTES RATED
110B	13' - 4"	12' - 0"	STL	STL	16/A-7.04	17/A-7.04	19/A-7.04	F		OVERHEAD DOOR PANEL W/ GLASS ABOVE
110C	13' - 4"	12' - 0"	STL	STL	16/A-7.04	17/A-7.04	19/A-7.04	F		OVERHEAD DOOR PANEL W/ GLASS ABOVE
110D	13' - 4"	12' - 0"	STL	STL	16/A-7.04	17/A-7.04	19/A-7.04	F		OVERHEAD DOOR PANEL W/ GLASS ABOVE
110E	3' - 0"	7' - 0"	HM	HM	1/A-7.04	2/A-7.04	5/A-7.04	B		CARD READER
110F	3' - 0"	7' - 0"	HM	HM	1/A-7.04	2/A-7.04	5/A-7.04	B		KEY PAD
111	3' - 0"	7' - 0"	WD	HM	3/A-7.04	4/A-7.04	10/A-7.04	B		20 MINUTES RATED
112	4' - 0"	7' - 0"	HM	HM	3/A-7.04	4/A-7.04	10/A-7.04	B2		STORM RESISTANT
113	3' - 0"	7' - 0"						B		
114	3' - 0"	7' - 0"	WD	HM	3/A-7.04	4/A-7.04	10/A-7.04	B		
115	3' - 0"	7' - 0"	HM	HM	8/A-7.04	9/A-7.04	5/A-7.04	B		
200	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		20 MINUTES RATED
200a	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
200b	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	D		20 MINUTES RATED
201	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	D		
202	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
203	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
204	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
205	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
206	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
207	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	D		INSULATED
207A	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	D		INSULATED
208	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
209	3' - 0"	7' - 0"	WD	HM	3/A-7.04	7/A-7.04	10/A-7.04	B		
210	3' - 0"	7' - 0"	HM	HM	8/A-7.04	9/A-7.04	5/A-7.04	D		INSULATED
211	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	D		
211a	12' - 0"	8' - 0"	STL	STL	16/A-7.04	17/A-7.04	19/A-7.04	G		FULL GLASS OVERHEAD DOOR
211b	3' - 0"	7' - 0"	HM	HM	8/A-7.04	9/A-7.04	5/A-7.04	B		INSULATED
211C	3' - 0"	7' - 0"	WD	HM	6/A-7.04	7/A-7.04	10/A-7.04	B		
212	3' - 0"	7' - 0"	HM	HM	8/A-7.04	9/A-7.04	5/A-7.04	B		

LEGEND: AL = ALUMINUM; HM = HOLLOW METAL; WD = WOOD; GL = GLASS

WINDOW SCHEDULE

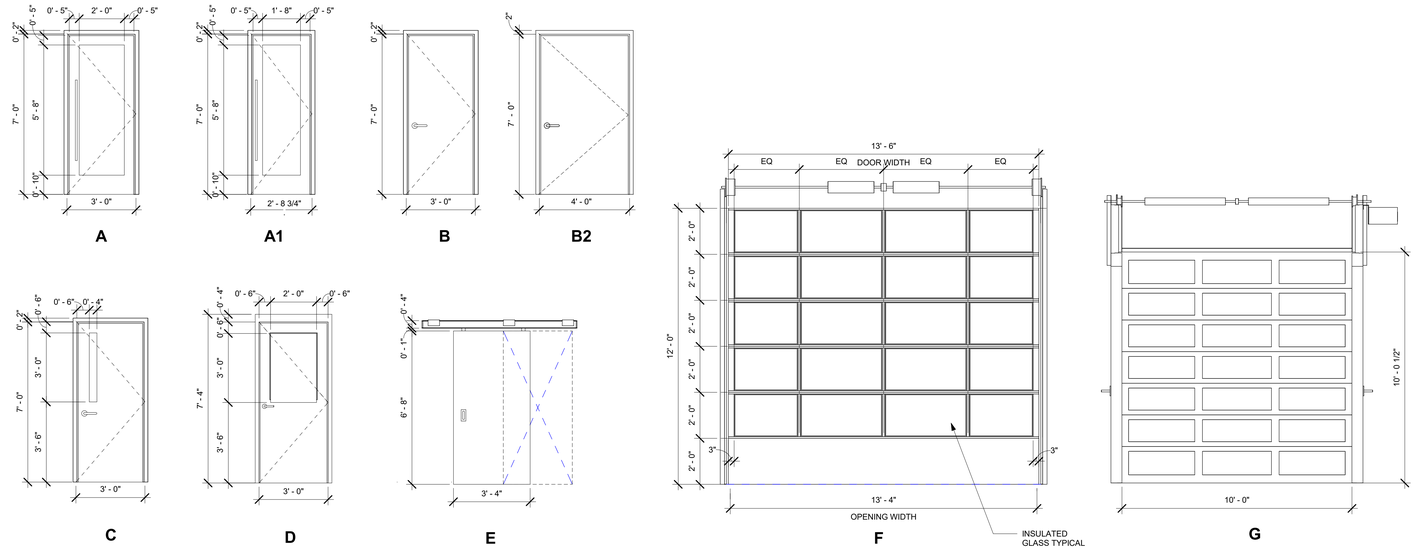
MARK	SIZE WIDTH	SIZE HEIGHT	WINDOW	FRAME	SHEET A-7.05 SILL	SHEET A-7.05 JAMB	SHEET A-7.05 HEAD	TYPE	HDWARE	COMMENTS
A	3' - 4"	4' - 6"		AL	3 or 8	2 or 7	4	A		NOTE 1
B	3' - 4"	2' - 0"		AL	4	2 or 7	1 or 6	B		NOTE 1
C	3' - 2 1/2"	4' - 8 1/2"		AL	8	7	4	C		NOTE 1
D	3' - 2 1/2"	2' - 0"		AL	4	2 or 7	1 or 7	D		NOTE 1
E	3' - 4"	4' - 0"		AL	3 or 8	2 or 7	1 or 6	E		NOTE 1
F	3' - 4"	4' - 0"		HM	12	11	10	F		INTERIOR
G	2' - 0"	3' - 0"		HM	12	11	10	G		INTERIOR
H	6' - 3 1/2"	6' - 8 1/2"		AL	13	14	12	H		GLASSLESS
I	9' - 5 1/2"	6' - 8 1/2"		AL	13	14	12	H		GLASSLESS

NOTE 1 - 1" INSULATED GLAZING, LOW E, SOLAR GREY, U-FACTOR ≤ 0.46 SHGC ≤ 0.25



WINDOW TYPES

SCALE: 3/8" = 1'-0"



DOOR TYPES

SCALE: 3/8" = 1'-0"

R P G A
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DRAWN BY: A.N.B.
CHECKED BY: R.P.G.
DATE: 3/21/2024
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REVISIONS:

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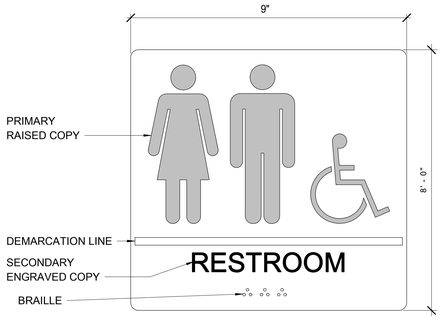
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FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT ROBERT P. GRAY 31A STATE OF TEXAS

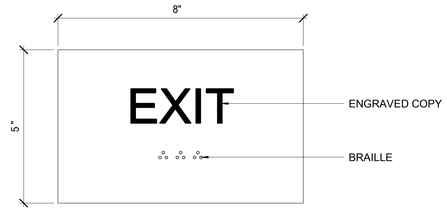
3/21/2024

SHEET DESCRIPTION: SCHEDULES

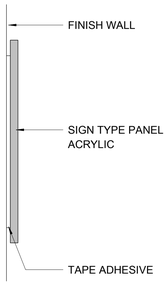
SHEET NO. **A-3.01**



SIGN TYPE A



SIGN TYPE B



SIGN TYPE DETAIL

GRAPHIC SIGNAGE SCHEDULE

ROOM NO.	ROOM NAME	DOOR #	PRIMARY RAISED COPY	SECONDARY RAISED COPY	SIGNAGE TYPE	QUANTITY	REMARKS
100	LOBBY	100	EXIT		B	1	EXIT SIGN
100	LOBBY	105	SYMBOLS	RESTROOM	A	1	
106	DINING/KITCHEN	106	EXIT		B	1	EXIT SIGN
106	DINING/KITCHEN	106a	EXIT		B	1	EXIT SIGN
107	FD STORAGE	107a	IT/ELECTRICAL ROOM		B	1	
109A	CAPT. DORM	109b	SYMBOLS	RESTROOM	A	1	
110	DRIVE-THRU BAYS	110a	EXIT		B	1	EXIT SIGN
110	DRIVE-THRU BAYS	110e	EXIT		B	1	EXIT SIGN
110	DRIVE-THRU BAYS	110f	EXIT		B	1	EXIT SIGN
112	BUNKER GEAR ROOM	114	SYMBOLS	RESTROOM	A	1	
113	DECON ROOM	113	EXIT		B	1	EXIT SIGN
115	GUEST RESTROOM	115	SYMBOLS	RESTROOM	A	1	
200	DAY ROOM	200	EXIT		B	1	EXIT SIGN
215	CORRIDOR	208	SYMBOLS	RESTROOM	A	1	
215	CORRIDOR	209	SYMBOLS	RESTROOM	A	1	

GENERAL NOTES:

A. COORDINATE WITH ARCHITECT EXACT PLACEMENT OF SIGNS.

B. SIGN COLORS TO BE SELLECTED BY OWNER/ARCHITECTS.

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CHECKED BY: R.P.G.
DATE: 3/21/2024
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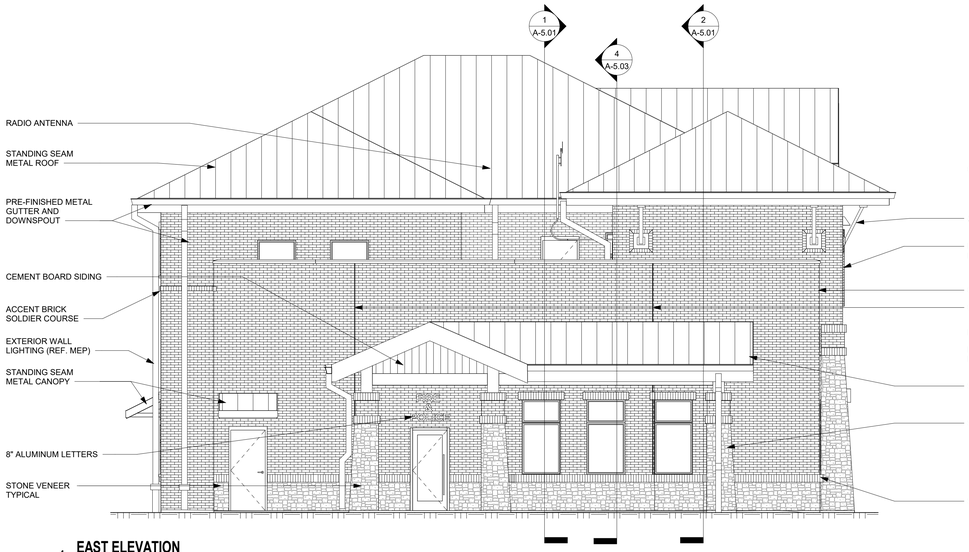
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ARCHITECTURE SPACE PLANNING INTERIORS
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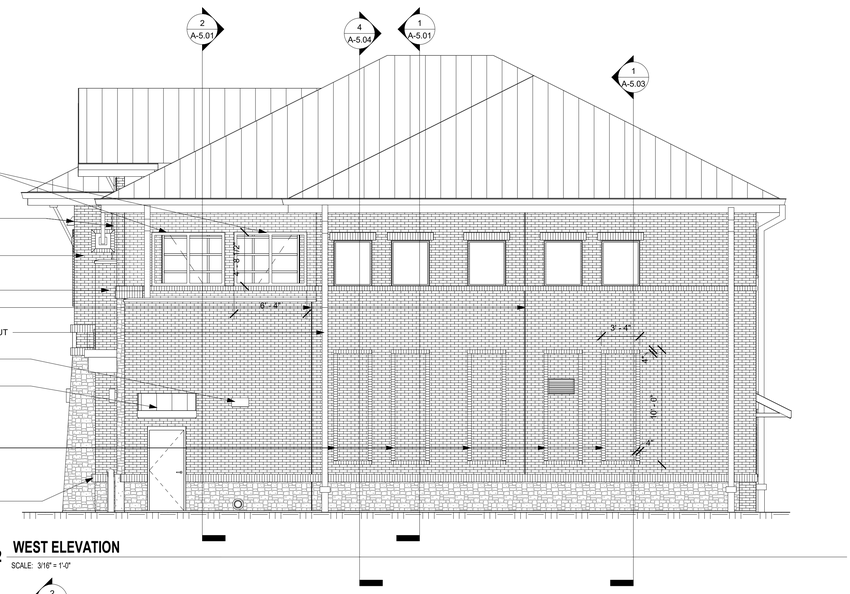
SHEET DESCRIPTION:
GRAPHIC SIGN DETAILS

SHEET NO.
A-3.02



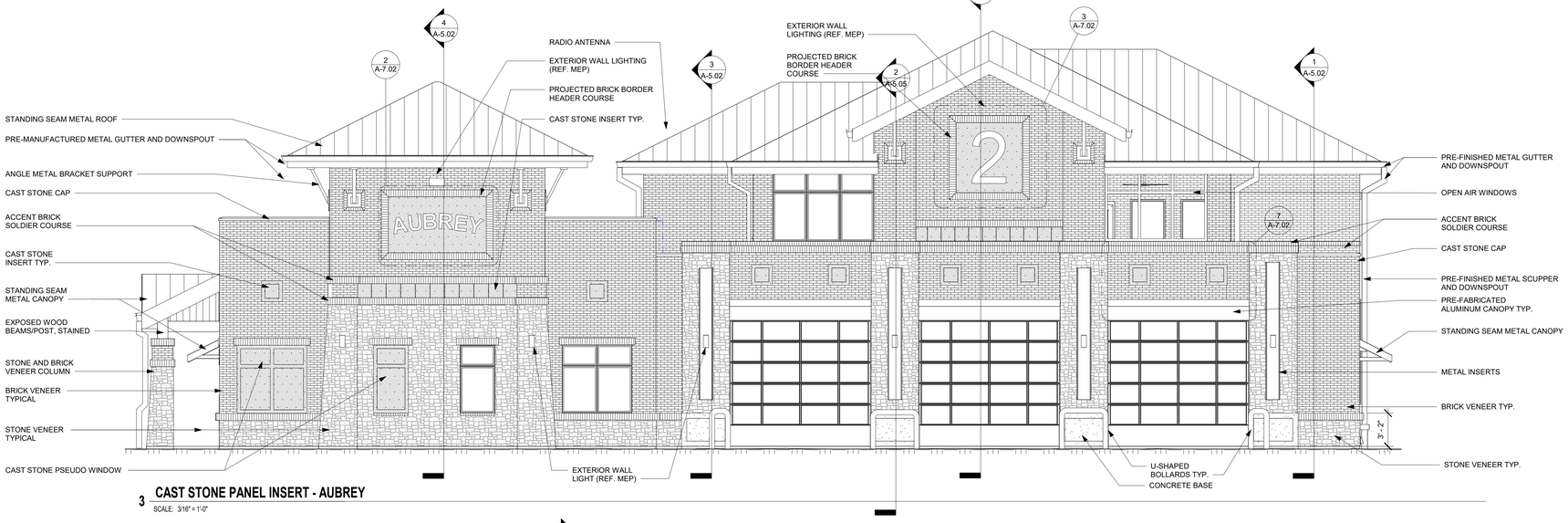
1 EAST ELEVATION

SCALE: 3/16" = 1'-0"



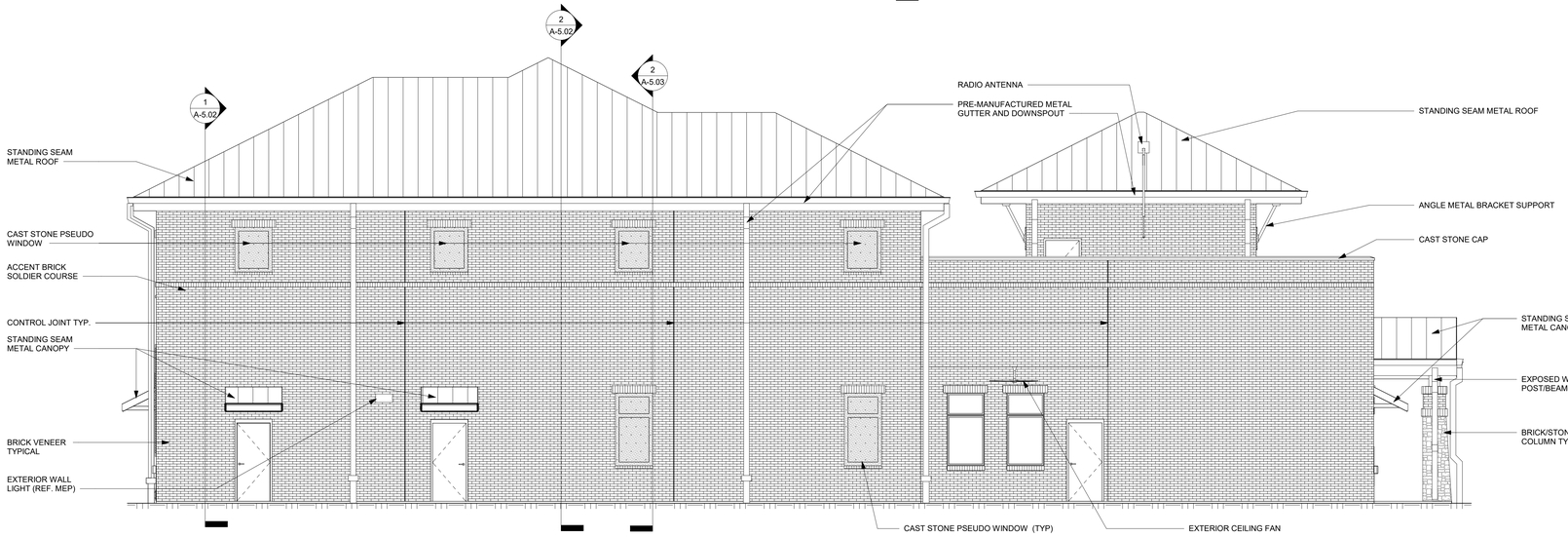
2 WEST ELEVATION

SCALE: 3/16" = 1'-0"



3 CAST STONE PANEL INSERT - AUBREY

SCALE: 3/16" = 1'-0"



4 SOUTH ELEVATION

SCALE: 3/16" = 1'-0"

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CHECKED BY: RPG
DATE: 3/21/2024
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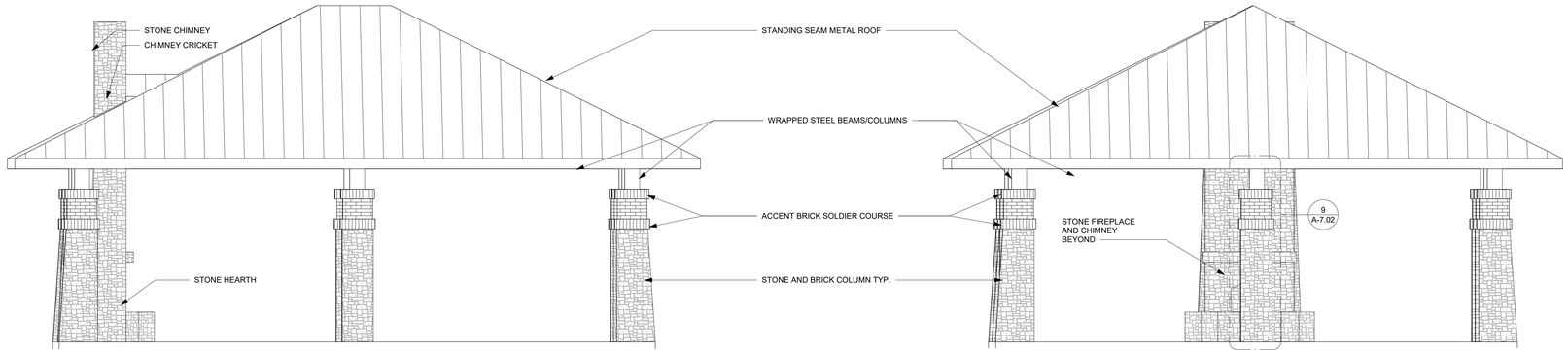
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WINN RIDGE BLVD.

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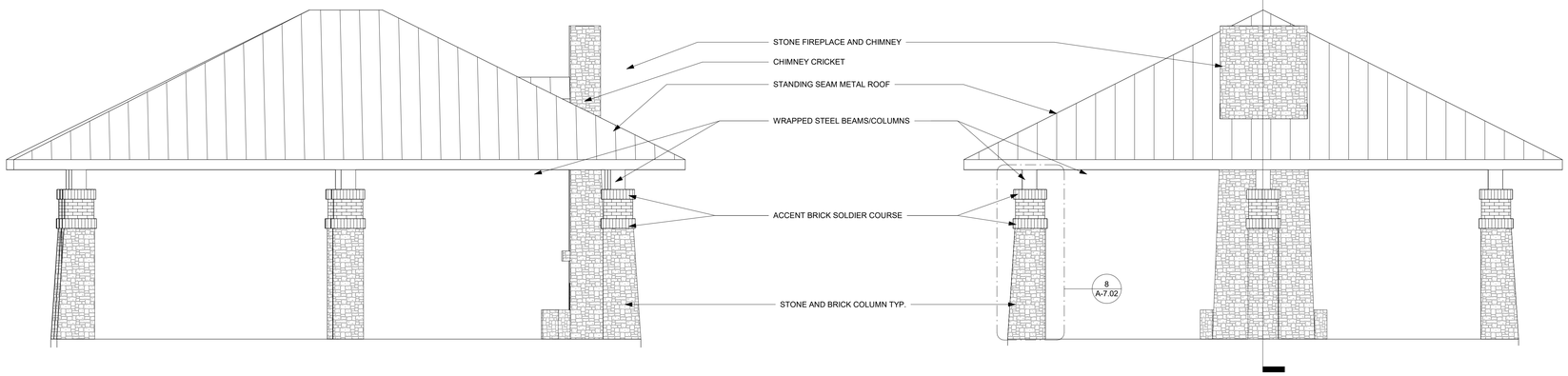
SHEET DESCRIPTION: EXTERIOR ELEVATIONS

SHEET NO. A-4.01



1 North Elevation - Pavilion
SCALE: 1/4" = 1'-0"

2 West Elevation - Pavilion
SCALE: 1/4" = 1'-0"



3 South Elevation - Pavilion
SCALE: 1/4" = 1'-0"

4 East Elevation - Pavilion
SCALE: 1/4" = 1'-0"

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CHECKED BY: **RPG**
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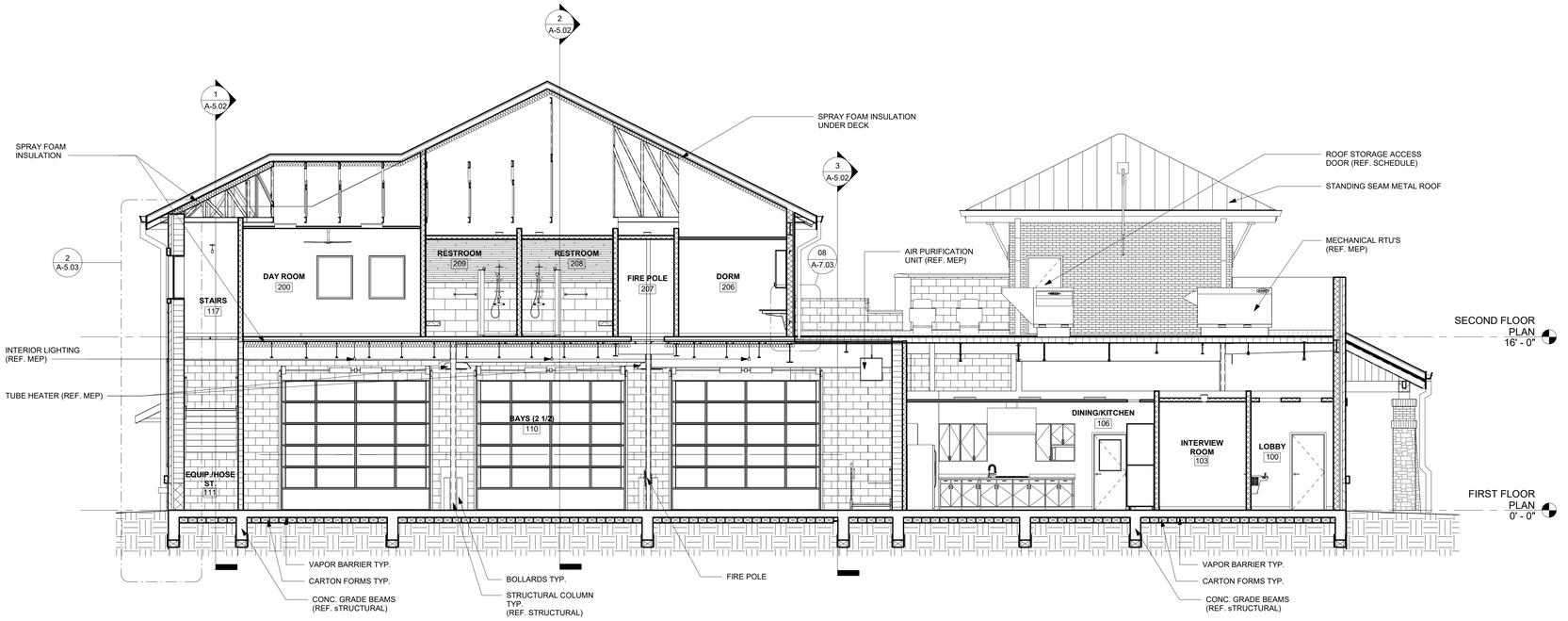
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT
JAMES NEAL LINDSEY
31478
STATE OF TEXAS

3/21/2024

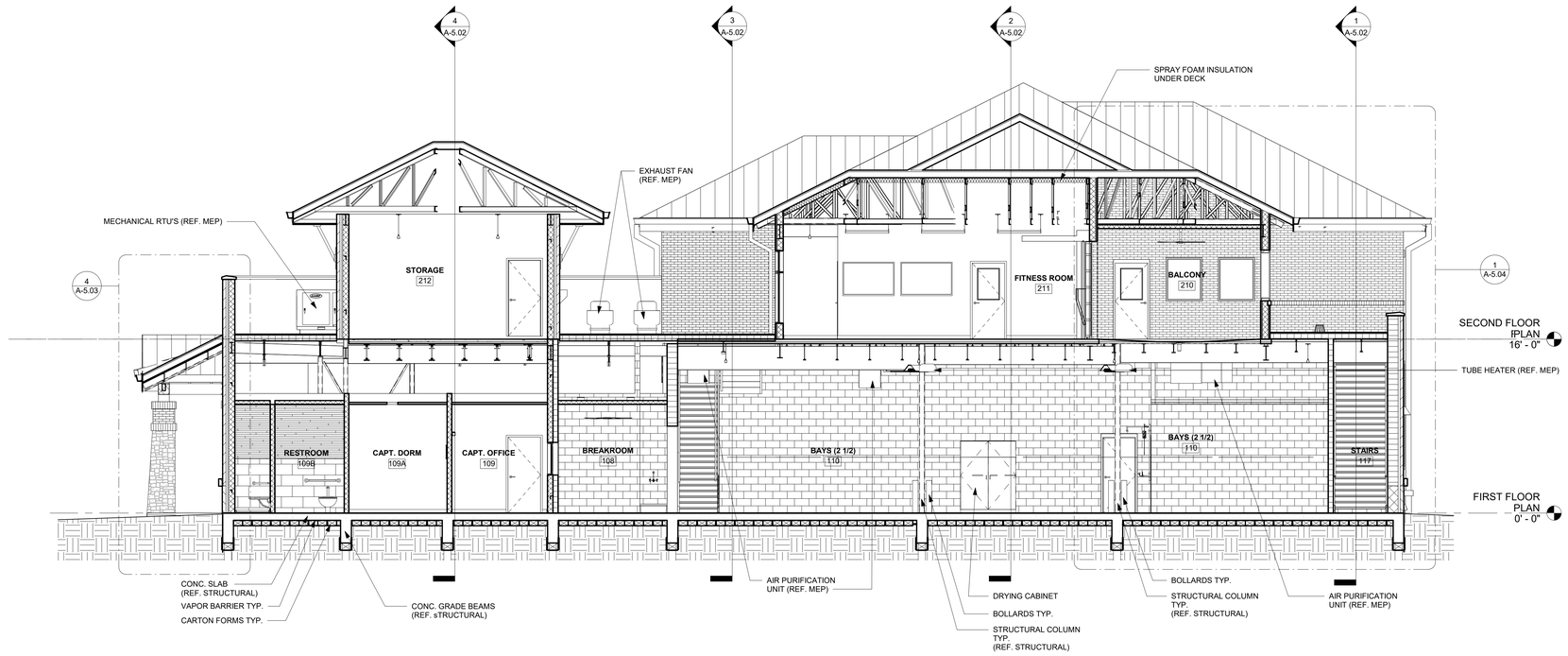
SHEET DESCRIPTION:
EXTERIOR ELEVATIONS

SHEET NO.
A-4.02



1 **BUILDING SECTION**

SCALE: 3/16" = 1'-0"



2 **BUILDING SECTION**

SCALE: 3/16" = 1'-0"

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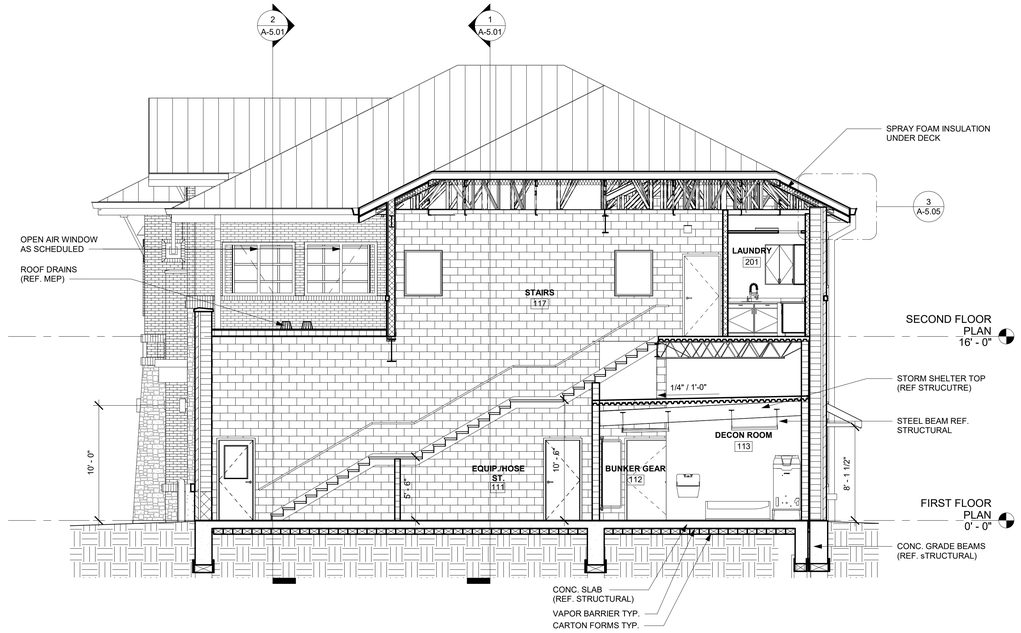
3/21/2024

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BUILDING SECTIONS

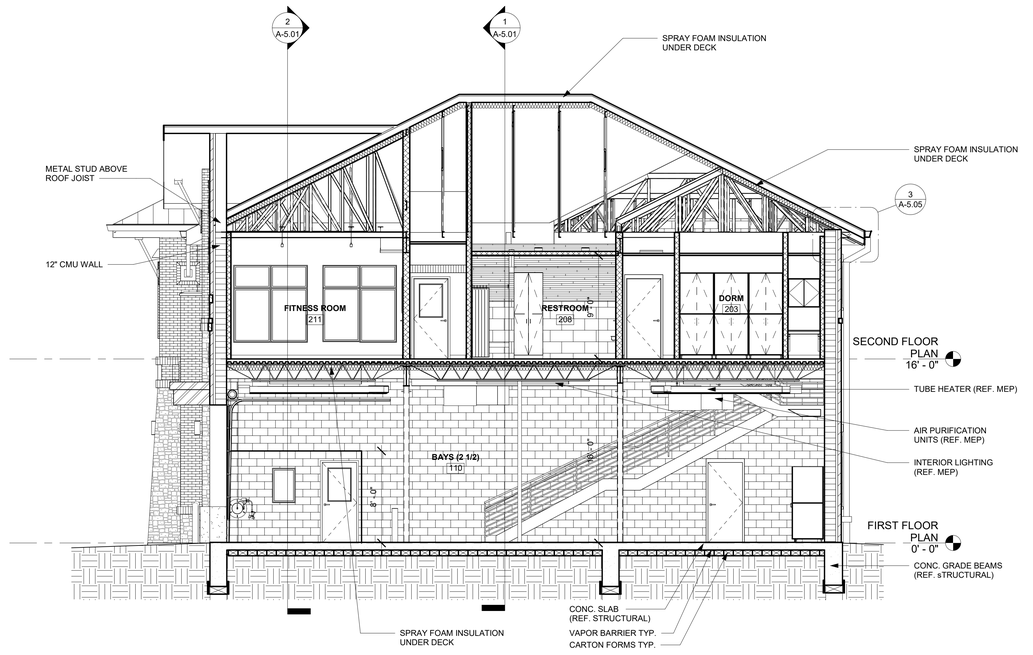
SHEET NO.

A-5.01



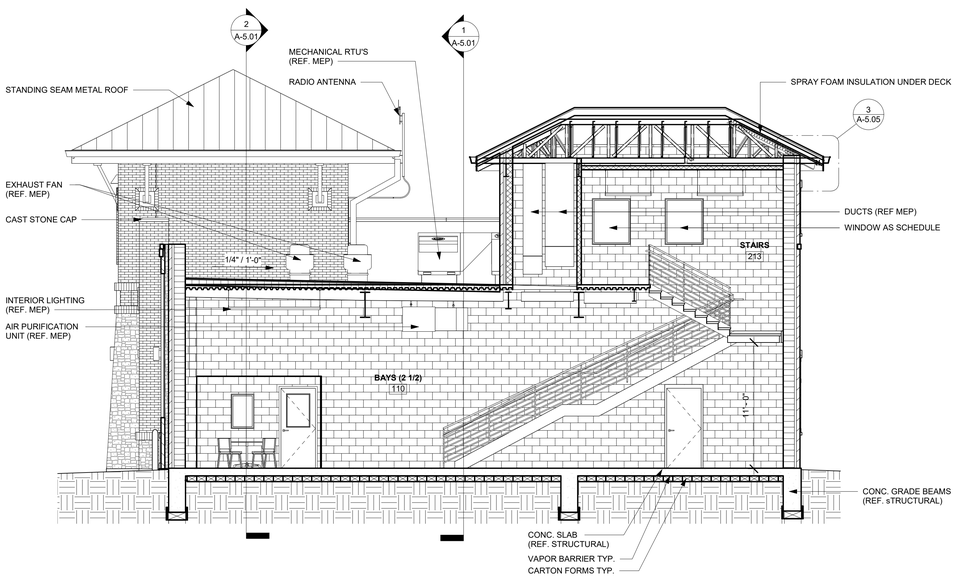
1 BUILDING SECTION

SCALE: 3/16" = 1'-0"



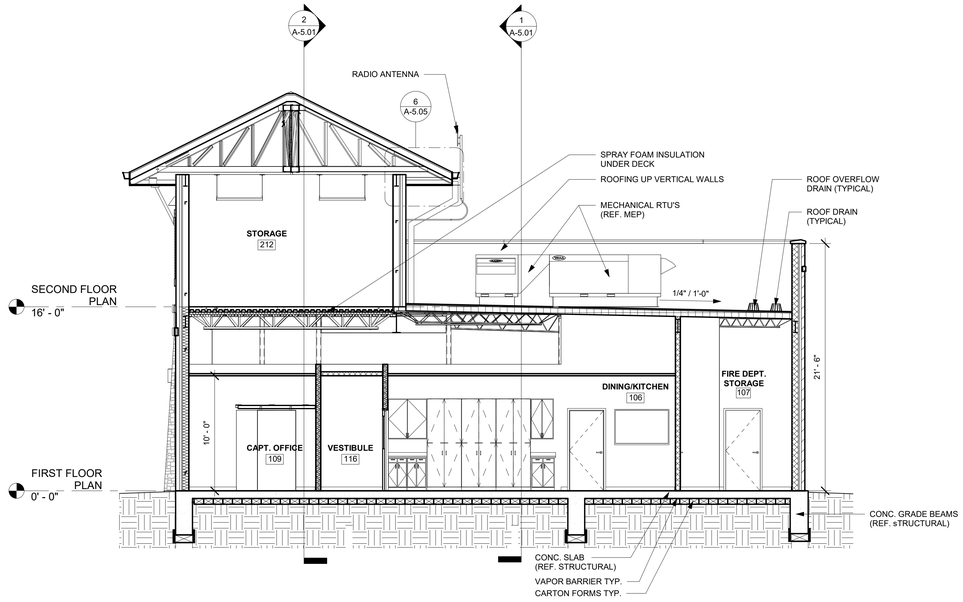
2 BUILDING SECTION

SCALE: 3/16" = 1'-0"



3 BUILDING SECTION

SCALE: 3/16" = 1'-0"



4 BUILDING SECTION

SCALE: 3/16" = 1'-0"

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CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT ROBERT P. GRAHAM 31A STATE OF TEXAS

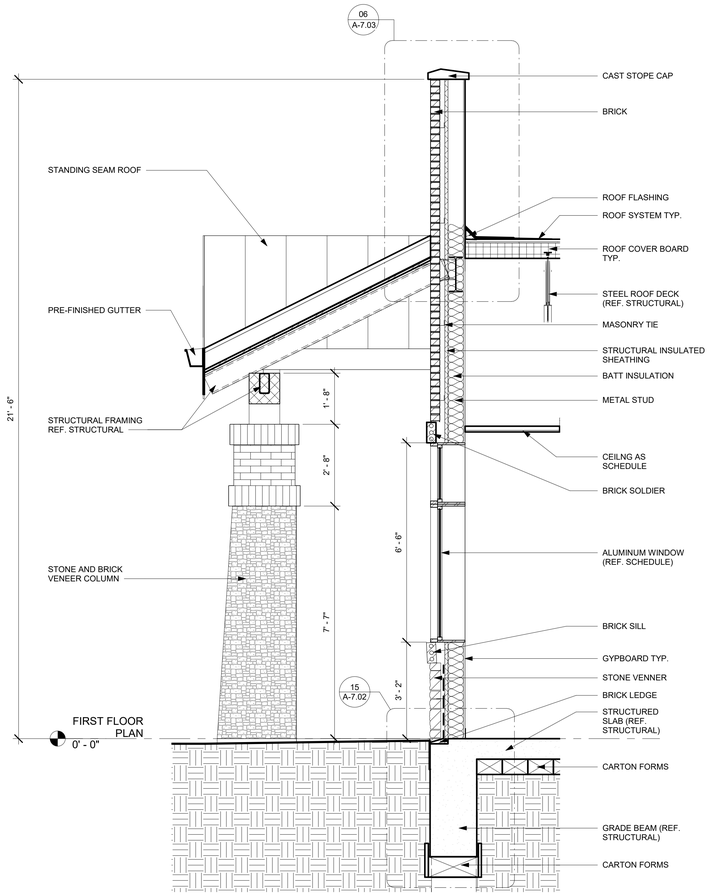
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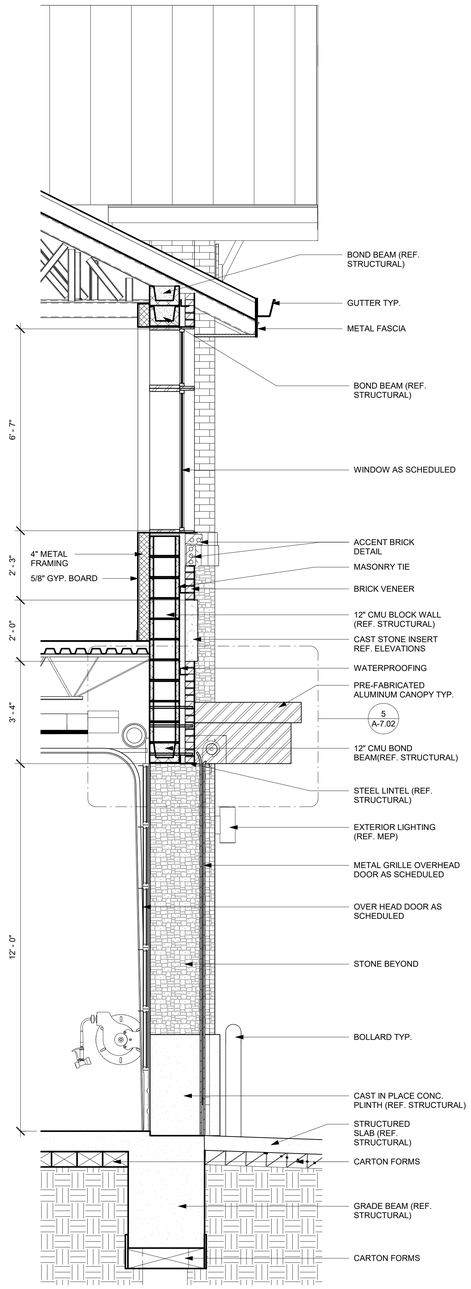
BUILDING SECTIONS

SHEET NO.

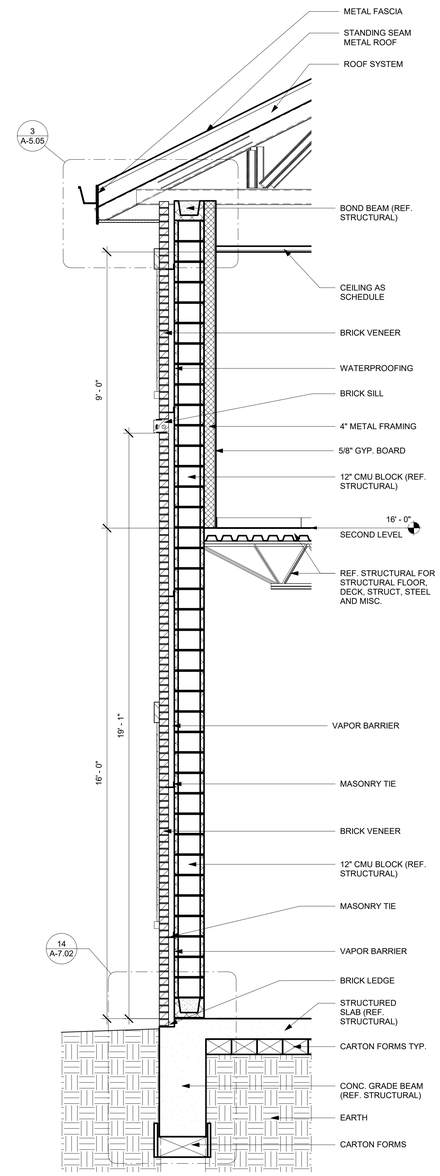
A-5.02



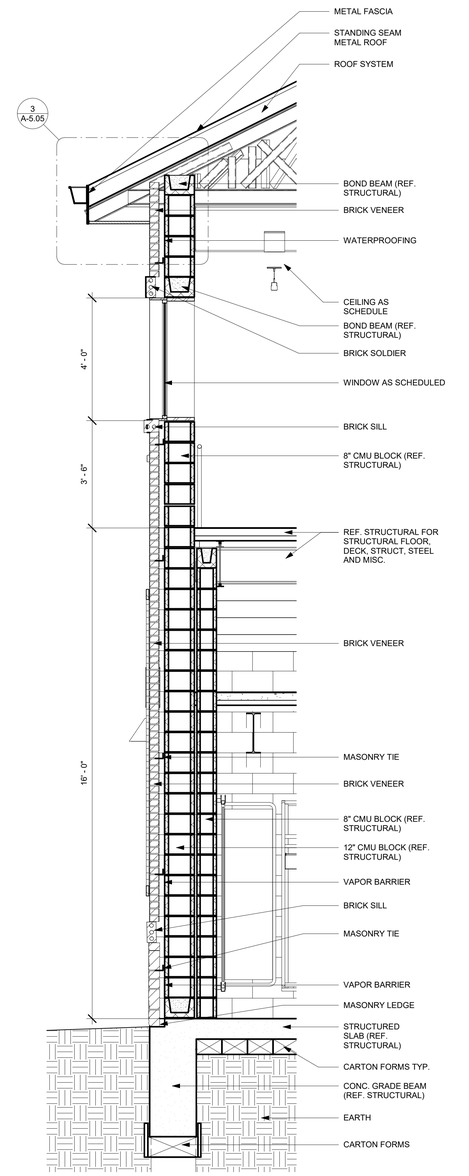
4 **WALL SECTION**
SCALE: 1/2" = 1'-0"



3 **WALL SECTION**
SCALE: 1/2" = 1'-0"



2 **WALL SECTION**
SCALE: 1/2" = 1'-0"



1 **WALL SECTION**
SCALE: 1/2" = 1'-0"

DRAWN BY:	A.N.B.
CHECKED BY:	R.P.G.
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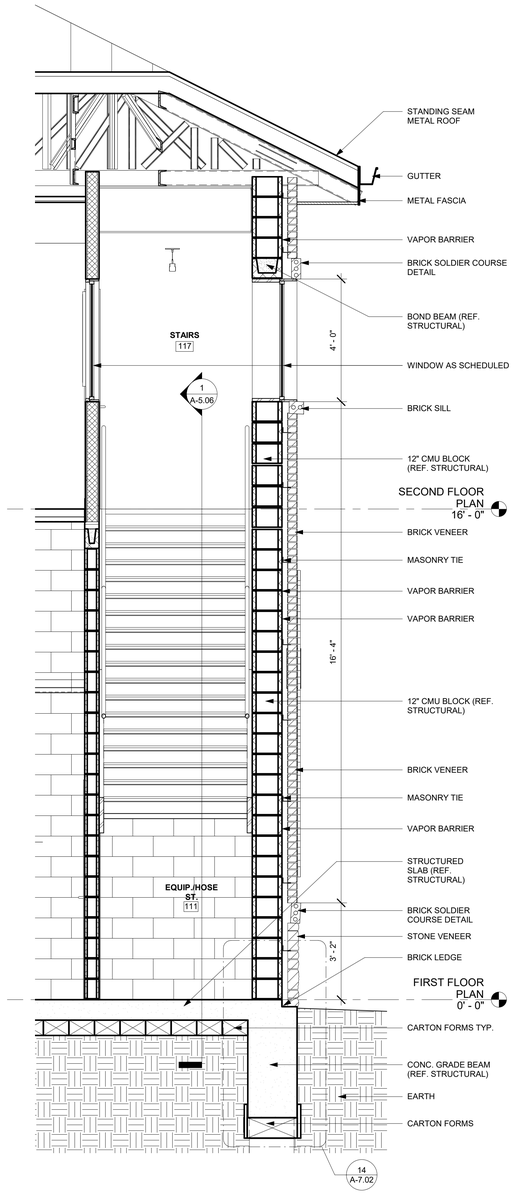
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WINN RIDGE BLVD.

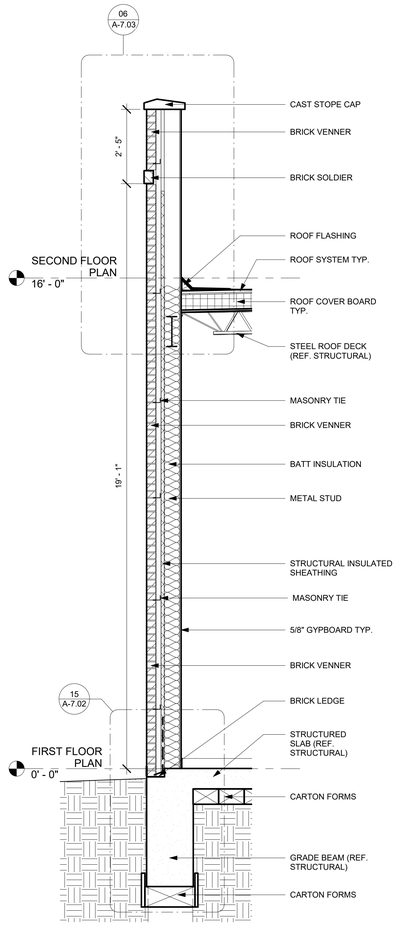
3/21/2024

SHEET DESCRIPTION:
WALL SECTIONS

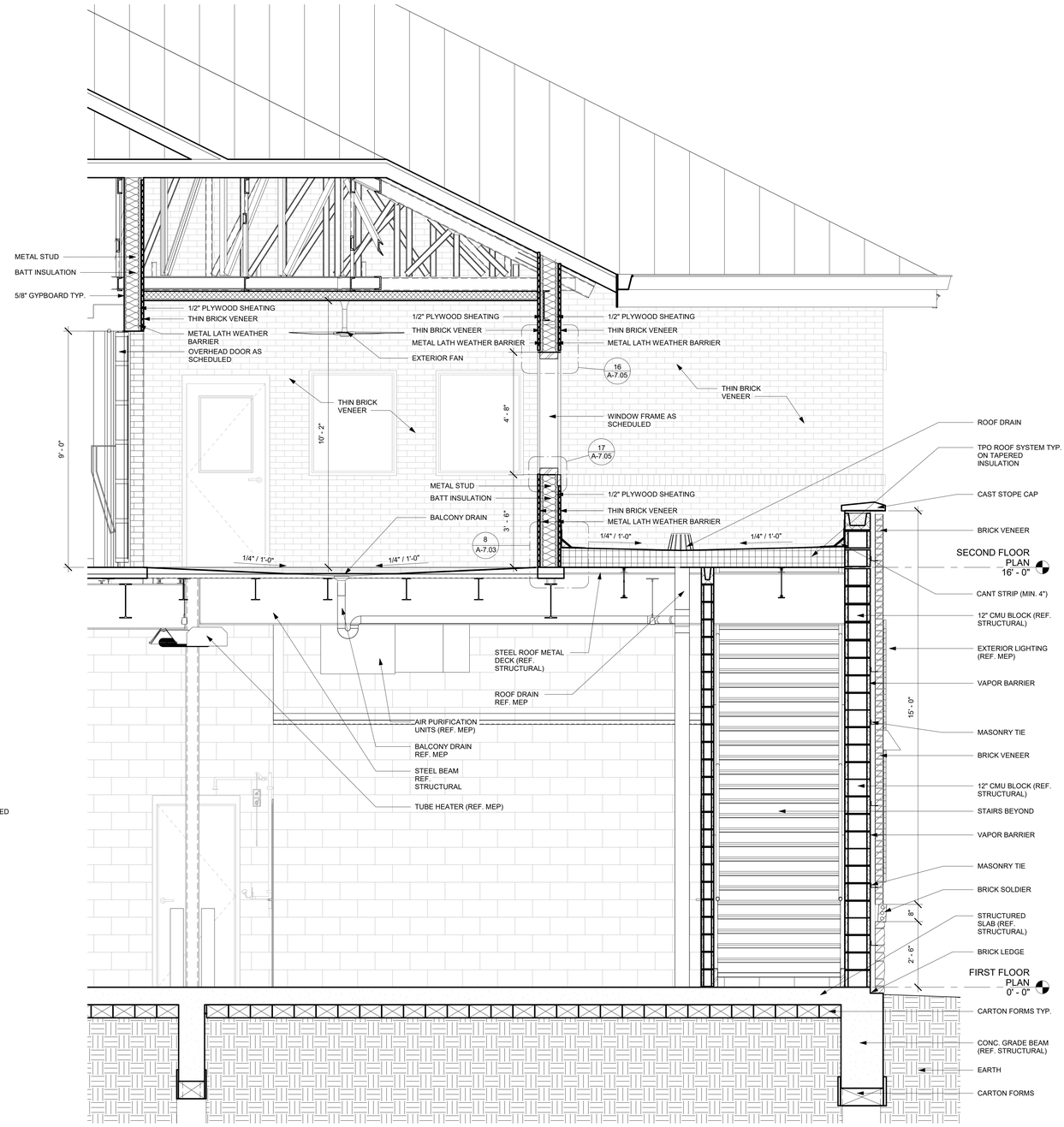
SHEET NO.
A-5.03



4 **WALL SECTION**
SCALE: 1/2" = 1'-0"



2 **WALL SECTION**
SCALE: 1/2" = 1'-0"



1 **WALL SECTION**
SCALE: 1/2" = 1'-0"

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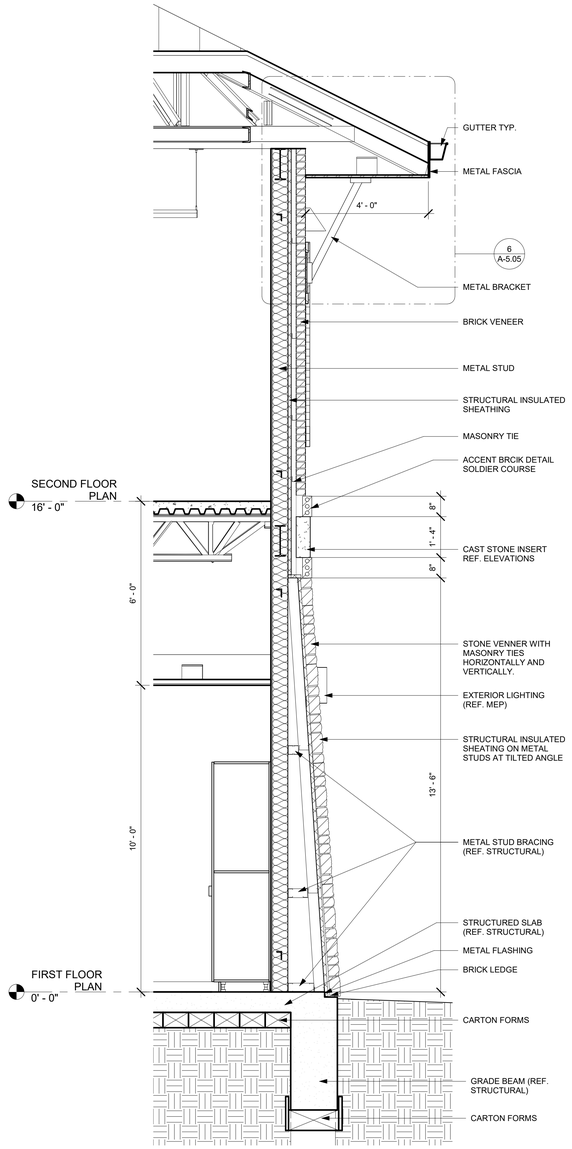
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WINN RIDGE BLVD.



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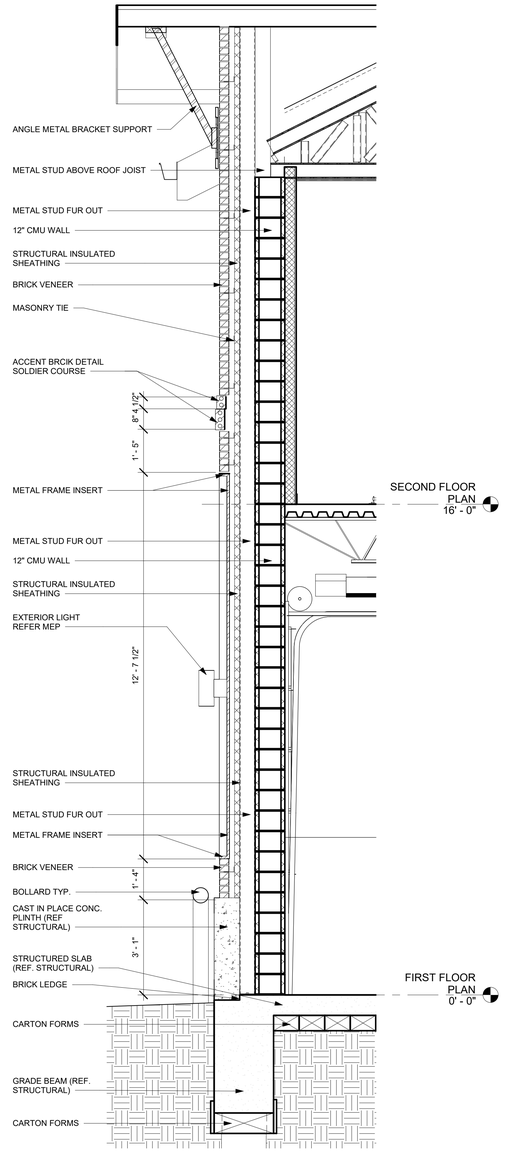
SHEET DESCRIPTION:
WALL SECTIONS

SHEET NO.
A-5.04



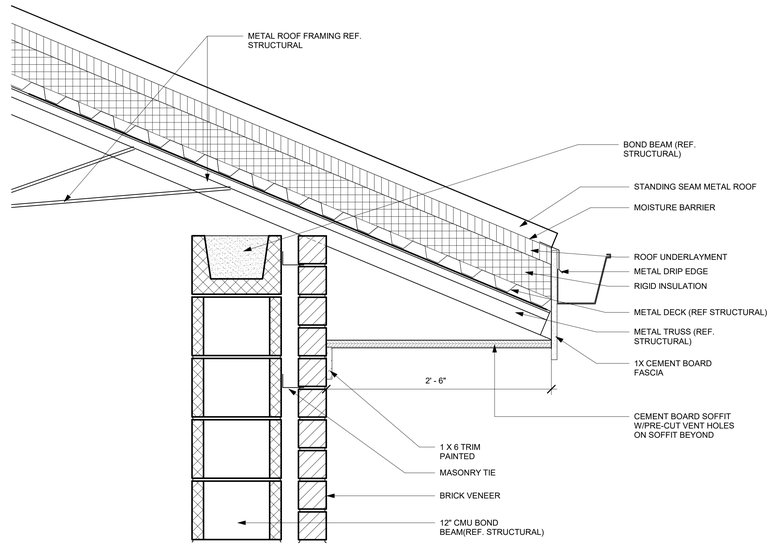
1 TAPERED WALL SECTION

SCALE: 1/2" = 1'-0"



2 WALL SECTION

SCALE: 1/2" = 1'-0"



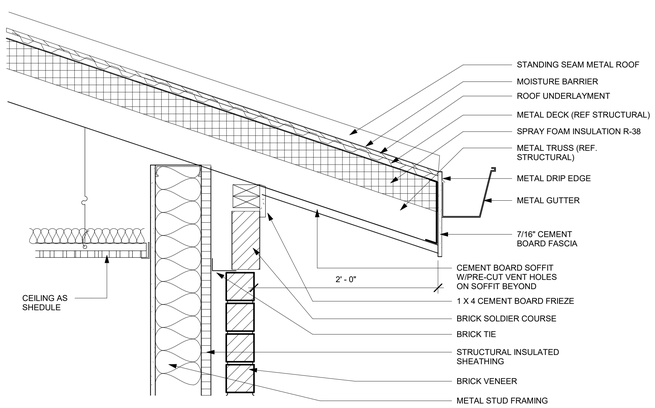
3 RAKE DETAIL

SCALE: 1 1/2" = 1'-0"



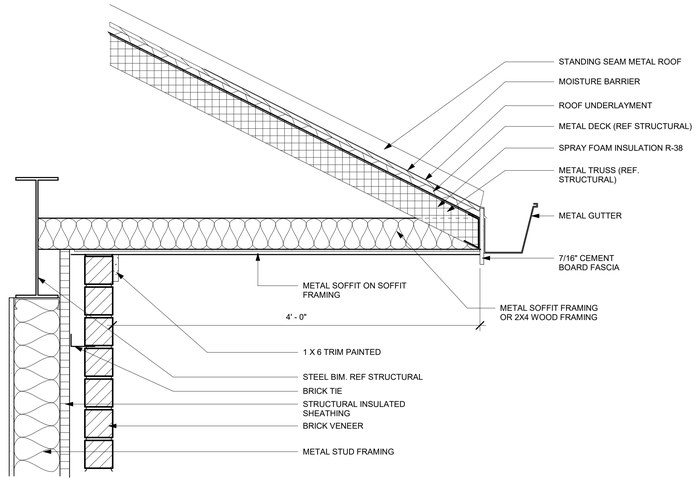
4 RAKE DETAIL

SCALE: 1 1/2" = 1'-0"



5 EAVE DETAIL

SCALE: 1 1/2" = 1'-0"



6 EAVE DETAIL @ TOWER

SCALE: 1 1/2" = 1'-0"

DRAWN BY:	A.N.B.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	08/22/23
ISSUED FOR PRICING:	08/22/23

REVISIONS:

No.	Description	Date

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CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT JAMES LUKE GILLILAND STATE OF TEXAS

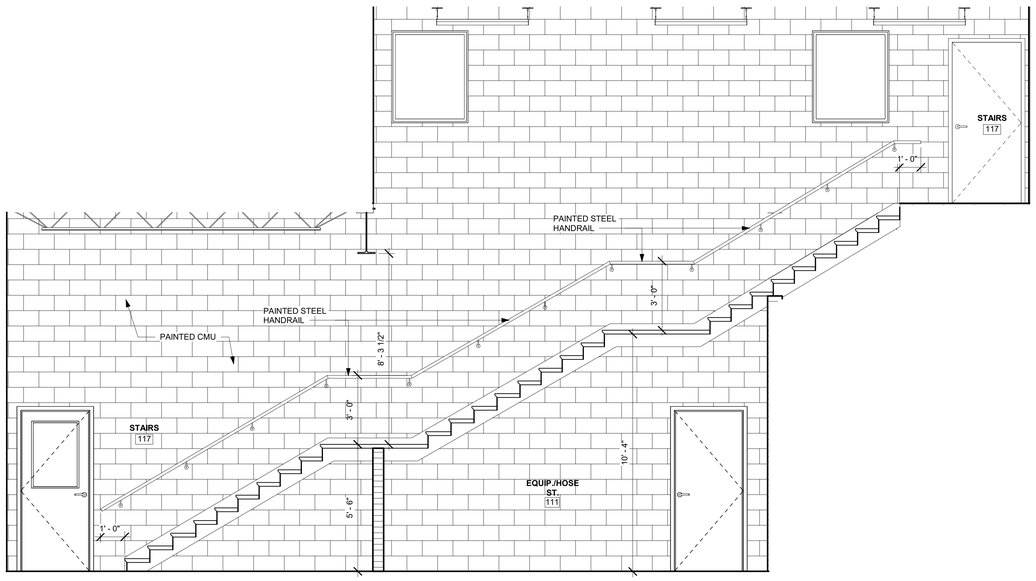
3/21/2024

SHEET DESCRIPTION:

WALL SECTIONS

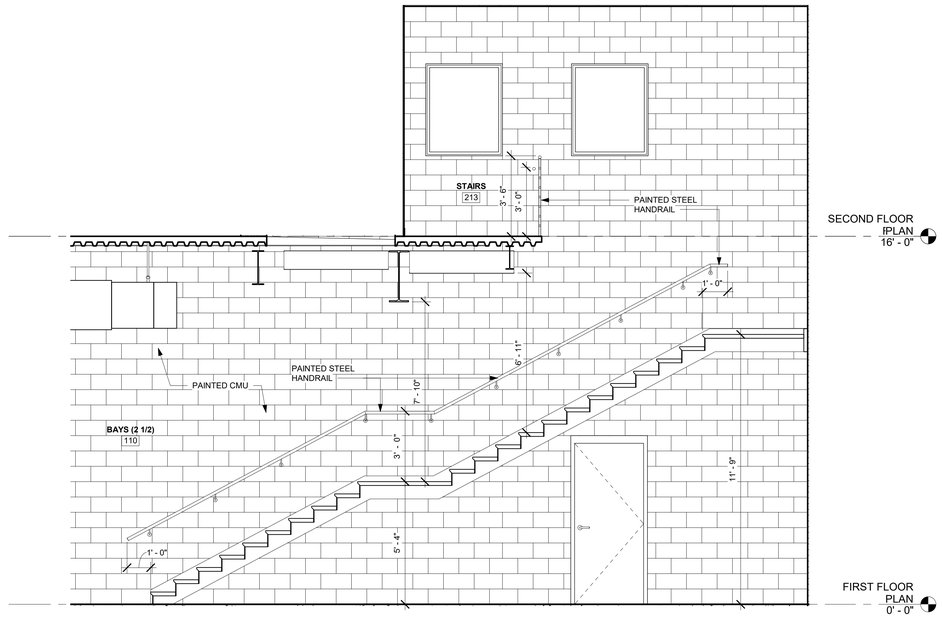
SHEET NO.

A-5.05



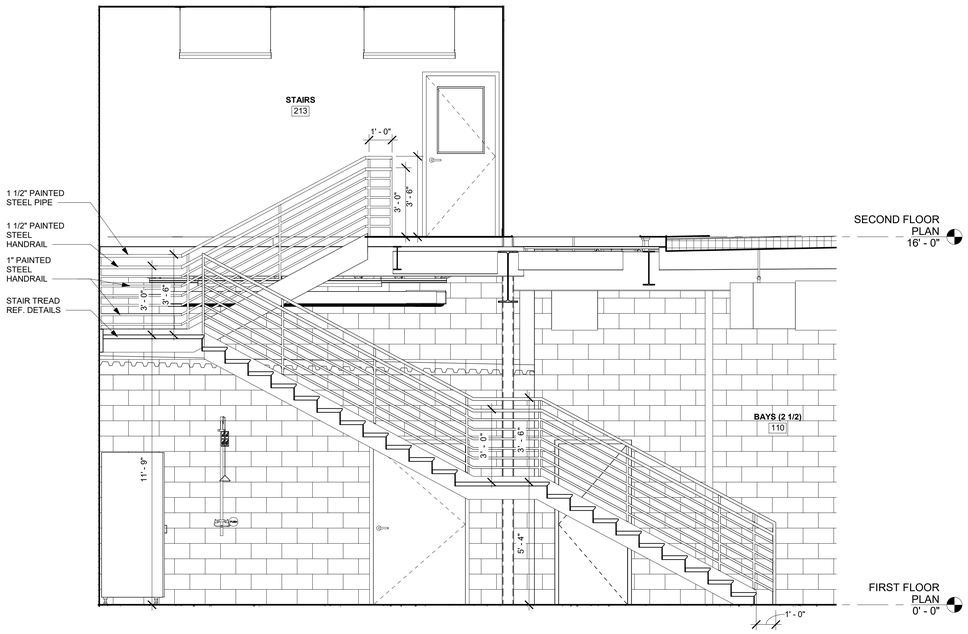
1 **SECTION AT STAIRS 117**

SCALE: 3/8" = 1'-0"



2 **SECTION AT STAIRS 213**

SCALE: 3/8" = 1'-0"



3 **SECTION AT STAIRS 213**

SCALE: 3/8" = 1'-0"

DRAWN BY:	M.A.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	03/20/24
ISSUED FOR PRICING:	03/20/24

REVISIONS:

No.	Description	Date

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3/21/2024

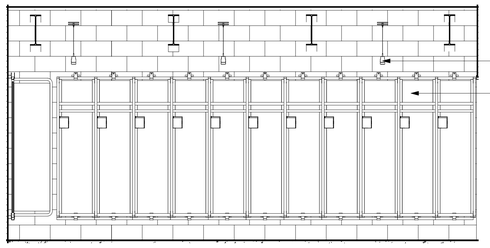
SHEET DESCRIPTION:

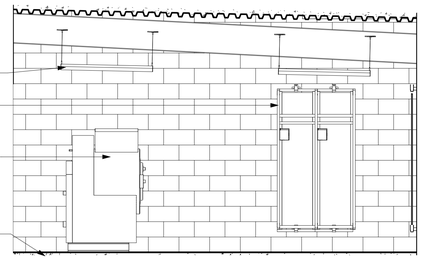
STAIR SECTIONS

SHEET NO.

A-5.06

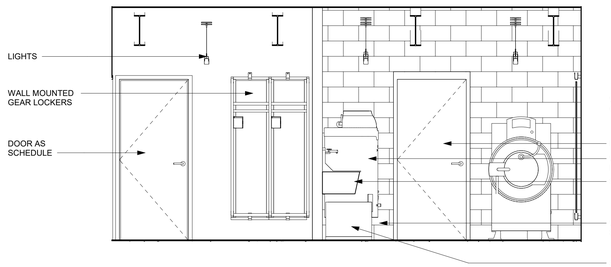
NOTE: ALL INTERIOR ELEVATIONS ARE DESIGNED AS TO PLAN NORTH DIRECTION



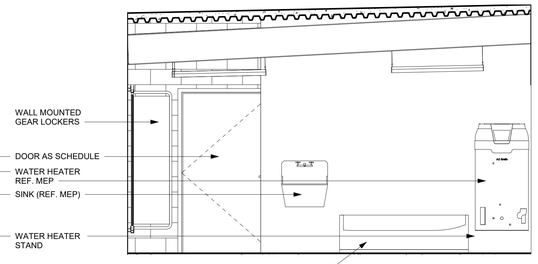


2 **BUNKER GEAR 112 - NORTH**
SCALE: 3/8" = 1'-0"

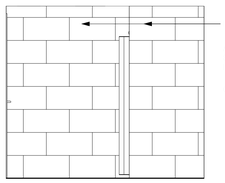
1 **BUNKER GEAR 112/DECON ROOM 113 - WEST**
SCALE: 3/8" = 1'-0"

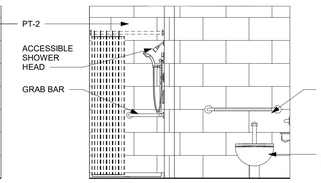


4 **BUNKER GEAR 112/DECON ROOM 113 - SOUTH**
SCALE: 3/8" = 1'-0"



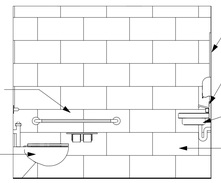
3 **BUNKER GEAR 112/DECON ROOM 113 - EAST**
SCALE: 3/8" = 1'-0"

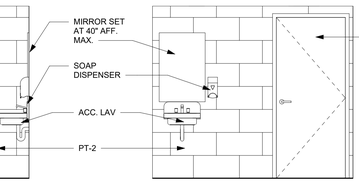




5 **DECON RESTROOM 114 - EAST**
SCALE: 3/8" = 1'-0"

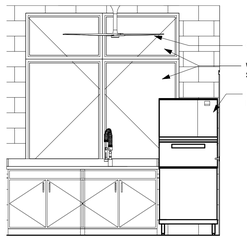
6 **DECON RESTROOM 114 - SOUTH**
SCALE: 3/8" = 1'-0"



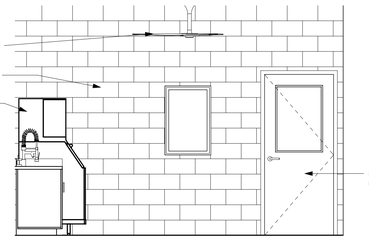


7 **DECON RESTROOM 114 - WEST**
SCALE: 3/8" = 1'-0"

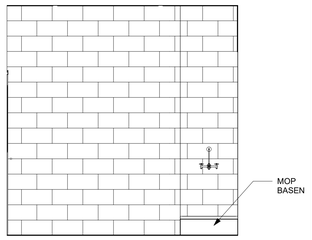
8 **DECON RESTROOM 114- NORTH**
SCALE: 3/8" = 1'-0"



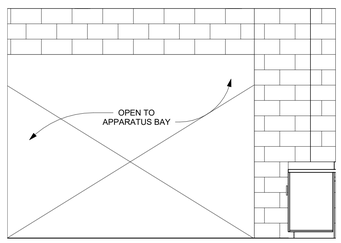
9 **BREAKROOM 108 - NORTH**
SCALE: 3/8" = 1'-0"



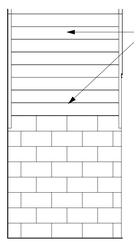
10 **BREAKROOM 108 - WEST**
SCALE: 3/8" = 1'-0"



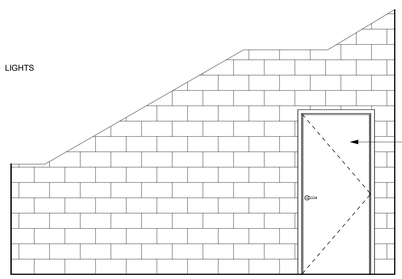
11 **BREAKROOM 108 - SOUTH**
SCALE: 3/8" = 1'-0"



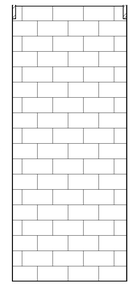
12 **BREAKROOM 108 - EAST**
SCALE: 3/8" = 1'-0"



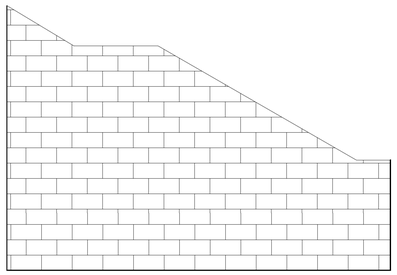
13 **EQUIP./HOSE STORAGE 111 - NORTH**
SCALE: 3/8" = 1'-0"



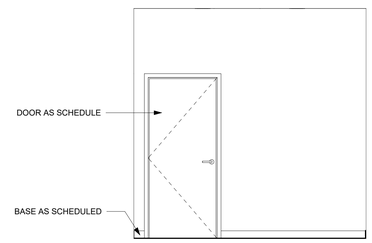
14 **EQUIP./HOSE STORAGE 111 - EAST**
SCALE: 3/8" = 1'-0"



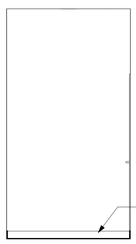
15 **EQUIP./HOSE STORAGE 111 - SOUTH**
SCALE: 3/8" = 1'-0"

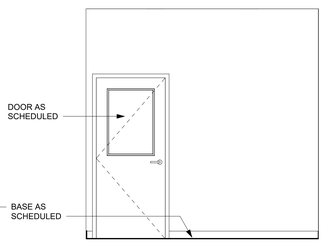


16 **EQUIP./HOSE STORAGE 111 - WEST**
SCALE: 3/8" = 1'-0"



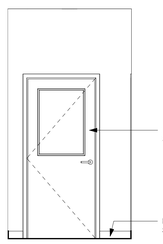
21 **VESIBULE 116 - NORTH**
SCALE: 3/8" = 1'-0"



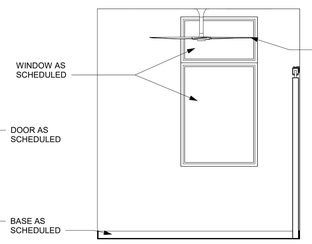


22 **VESIBULE 116 - EAST**
SCALE: 3/8" = 1'-0"

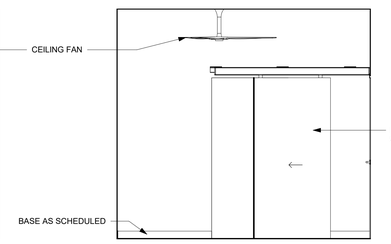
23 **VESIBULE 116 - SOUTH**
SCALE: 3/8" = 1'-0"



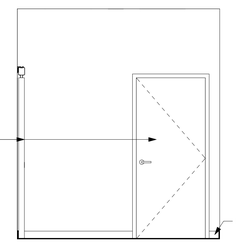
24 **VESIBULE 116 - WEST**
SCALE: 3/8" = 1'-0"



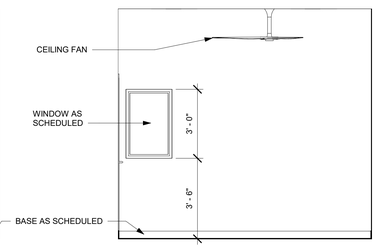
25 **CAPTAIN OFFICE 109 - NORTH**
SCALE: 3/8" = 1'-0"



26 **CAPTAIN OFFICE 109 - EAST**
SCALE: 3/8" = 1'-0"



27 **CAPTAIN OFFICE 109 - SOUTH**
SCALE: 3/8" = 1'-0"



28 **CAPTAIN OFFICE 109 - WEST**
SCALE: 3/8" = 1'-0"

DRAWN BY: A.N.B.
CHECKED BY: R.P.G.
DATE: 3/21/2024
ISSUED FOR PERMIT: 08/22/23
ISSUED FOR PRICING: 08/22/23
REVISIONS:

No.	Description	Date

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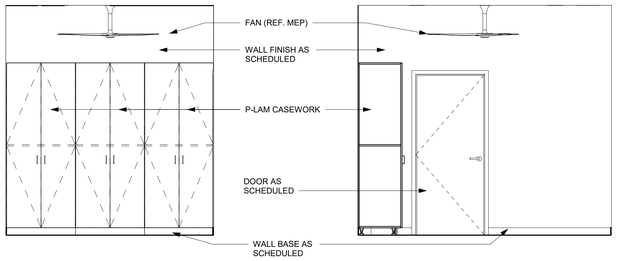
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

3/21/2024

SHEET DESCRIPTION:
INTERIOR ELEVATIONS

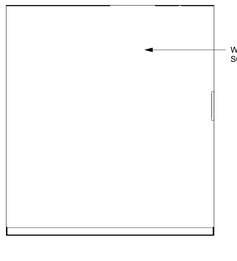
SHEET NO.
A-6.01

NOTE: ALL INTERIOR ELEVATIONS ARE DESIGNED AS TO PLAN NORTH DIRECTION

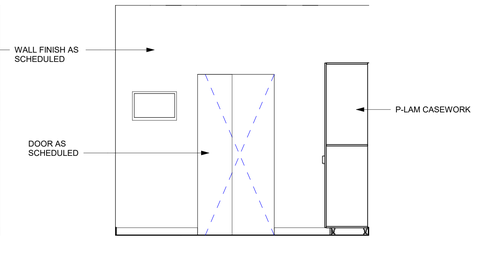


1 **CAPTAIN DORM 109A - NORTH**
SCALE: 3/8" = 1'-0"

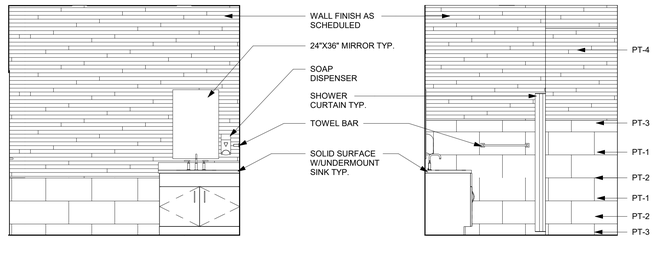
2 **CAPTAIN DORM 109A - EAST**
SCALE: 3/8" = 1'-0"



3 **CAPTAIN DORM 109A - SOUTH**
SCALE: 3/8" = 1'-0"

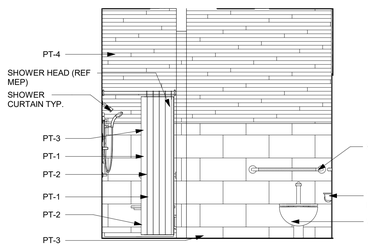


4 **CAPTAIN DORM 109A - WEST**
SCALE: 3/8" = 1'-0"

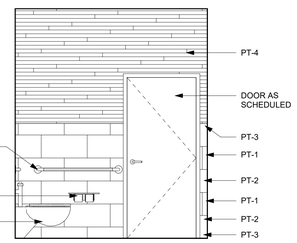


5 **CAPTAIN RESTROOM 109B - NORTH**
SCALE: 3/8" = 1'-0"

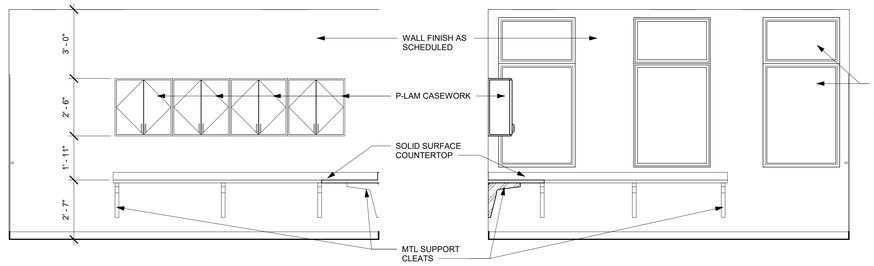
6 **CAPTAIN RESTROOM 109B - EAST**
SCALE: 3/8" = 1'-0"



7 **CAPTAIN RESTROOM 109B - SOUTH**
SCALE: 3/8" = 1'-0"

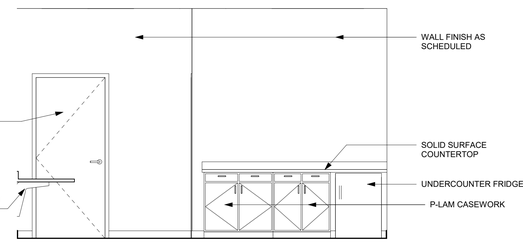


8 **CAPTAIN RESTROOM 109B - WEST**
SCALE: 3/8" = 1'-0"

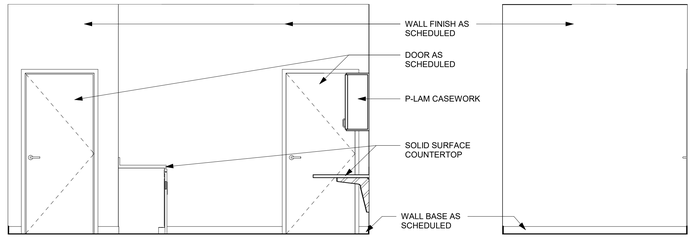


9 **POLICE REPORT WRITING 102 - NORTH**
SCALE: 3/8" = 1'-0"

10 **POLICE REPORT WRITING 102 - EAST**
SCALE: 3/8" = 1'-0"

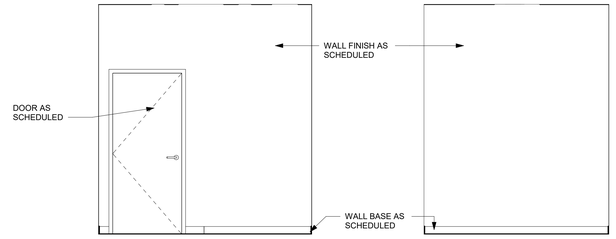


11 **POLICE REPORT WRITING 102 - SOUTH**
SCALE: 3/8" = 1'-0"



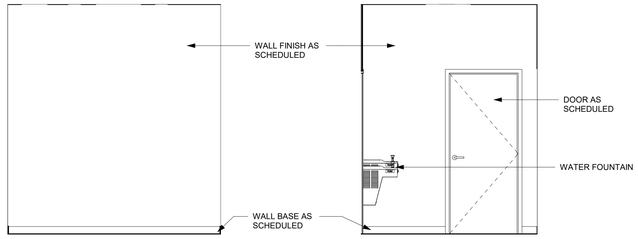
12 **POLICE REPORT WRITING 102 - WEST**
SCALE: 3/8" = 1'-0"

13 **INTERVIEW ROOM 103 - NORTH**
SCALE: 3/8" = 1'-0"



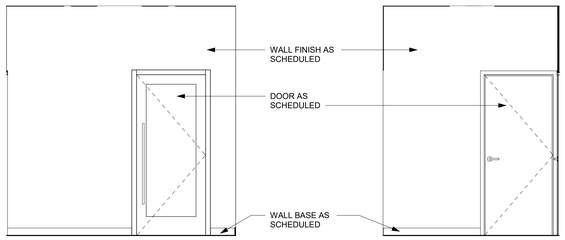
14 **INTERVIEW ROOM 103 - EAST**
SCALE: 3/8" = 1'-0"

15 **INTERVIEW ROOM 103 - SOUTH**
SCALE: 3/8" = 1'-0"



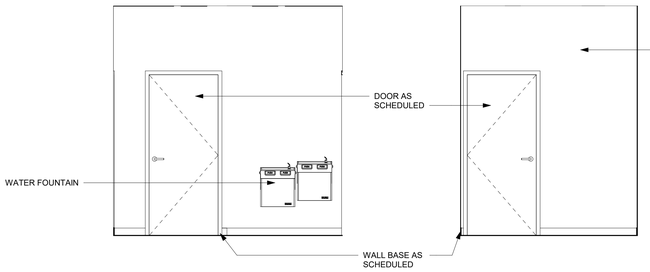
16 **INTERVIEW ROOM 103 - WEST**
SCALE: 3/8" = 1'-0"

17 **LOBBY 100 - NORTH**
SCALE: 3/8" = 1'-0"



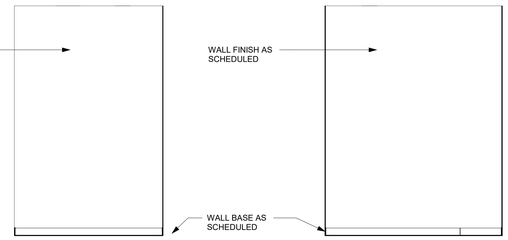
18 **LOBBY 100 - EAST**
SCALE: 3/8" = 1'-0"

19 **LOBBY 100 - SOUTH**
SCALE: 3/8" = 1'-0"



20 **LOBBY 100 - WEST**
SCALE: 3/8" = 1'-0"

21 **PD STORAGE 104 - NORTH**
SCALE: 3/8" = 1'-0"



22 **PD STORAGE 104 - EAST**
SCALE: 3/8" = 1'-0"

23 **PD STORAGE 104 - SOUTH**
SCALE: 3/8" = 1'-0"

DRAWN BY: A.N.B.
CHECKED BY: R.P.G.
DATE: 3/21/2024
ISSUED FOR PERMIT:
ISSUED FOR PRICING:

REVISIONS:

No.	Description	Date

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WINN RIDGE BLVD.

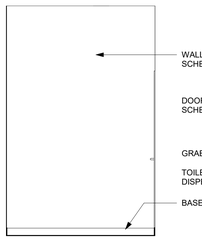


3/21/2024

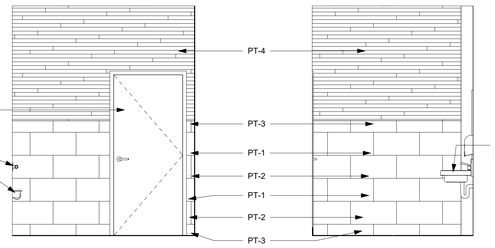
SHEET DESCRIPTION:
INTERIOR ELEVATIONS

SHEET NO.
A-6.02

NOTE: ALL INTERIOR ELEVATIONS ARE DESIGNED AS TO PLAN NORTH DIRECTION

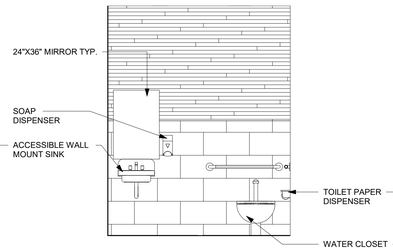


1 **PD STORAGE 104 - WEST**
SCALE: 3/8" = 1'-0"

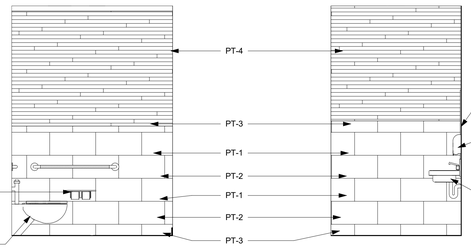


2 **LOBBY RESTROOM 105 - NORTH**
SCALE: 3/8" = 1'-0"

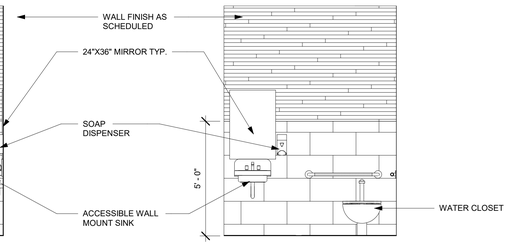
3 **LOBBY RESTROOM 105 - EAST**
SCALE: 3/8" = 1'-0"



4 **LOBBY RESTROOM 105 - SOUTH**
SCALE: 3/8" = 1'-0"

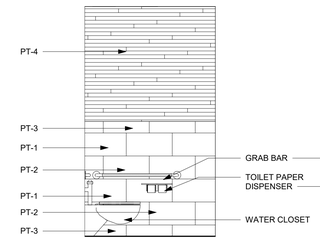


5 **LOBBY RESTROOM 105 - WEST**
SCALE: 3/8" = 1'-0"

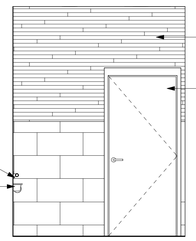


6 **GUEST RESTROOM 115 - SOUTH**
SCALE: 3/8" = 1'-0"

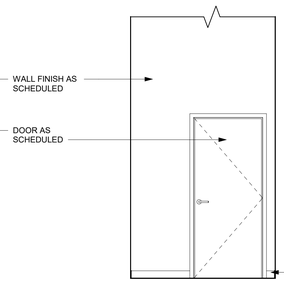
7 **GUEST RESTROOM 115 - WEST**
SCALE: 3/8" = 1'-0"



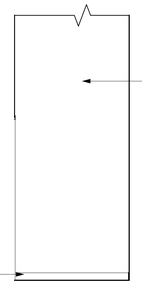
8 **GUEST RESTROOM 115 - NORTH**
SCALE: 3/8" = 1'-0"



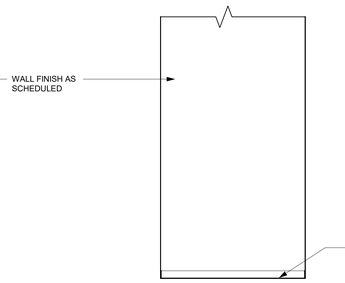
9 **GUEST RESTROOM 115 - EAST**
SCALE: 3/8" = 1'-0"



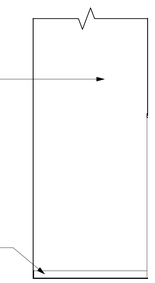
10 **IT ROOM 107A - WEST**
SCALE: 3/8" = 1'-0"



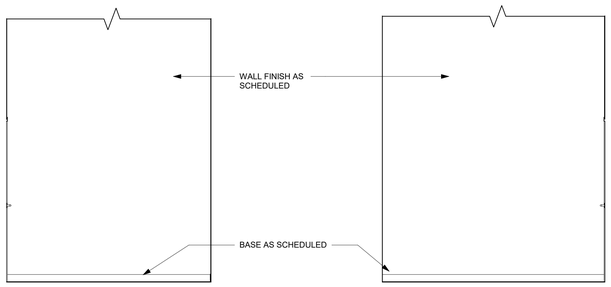
11 **IT ROOM 107A - NORTH**
SCALE: 3/8" = 1'-0"



12 **IT ROOM 107A - EAST**
SCALE: 3/8" = 1'-0"

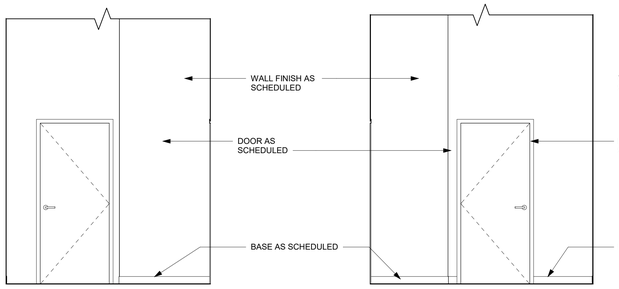


13 **IT ROOM 107A - SOUTH**
SCALE: 3/8" = 1'-0"



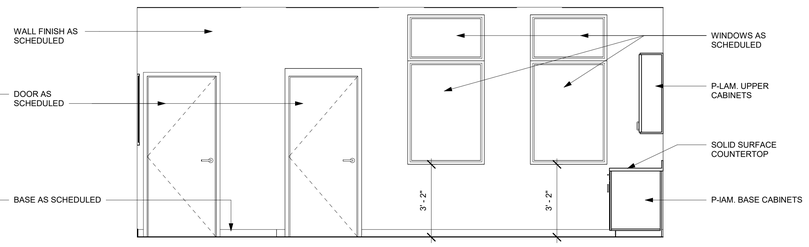
17 **FD STORAGE 107 - SOUTH**
SCALE: 3/8" = 1'-0"

14 **FD STORAGE 107 - WEST**
SCALE: 3/8" = 1'-0"

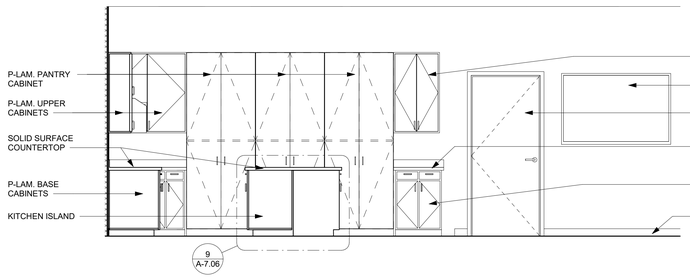


15 **FD STORAGE 107 - NORTH**
SCALE: 3/8" = 1'-0"

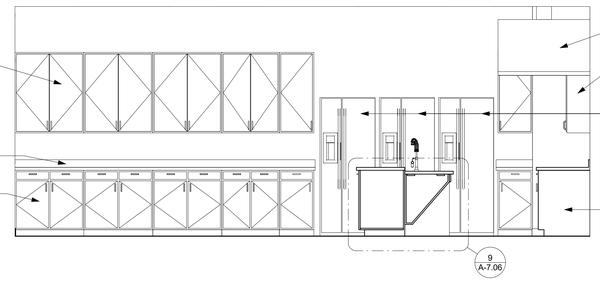
16 **FD STORAGE 107 - EAST**
SCALE: 3/8" = 1'-0"



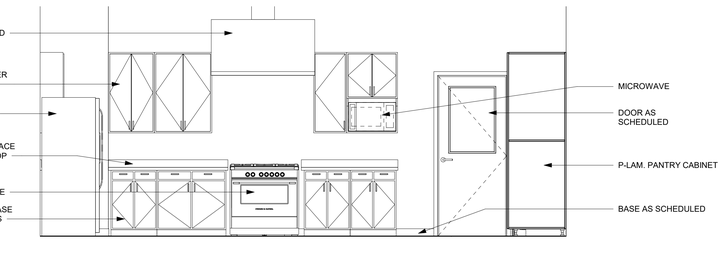
18 **DINING/KITCHEN 106 - SOUTH**
SCALE: 3/8" = 1'-0"



21 **DINING/KITCHEN 106 - EAST**
SCALE: 3/8" = 1'-0"



19 **DINING/KITCHEN 106 - WEST**
SCALE: 3/8" = 1'-0"



22 **DINING/KITCHEN 106 - NORTH**
SCALE: 3/8" = 1'-0"

DRAWN BY:	A.N.B.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	08/22/23
ISSUED FOR PRICING:	08/22/23

REVISIONS:

No.	Description	Date

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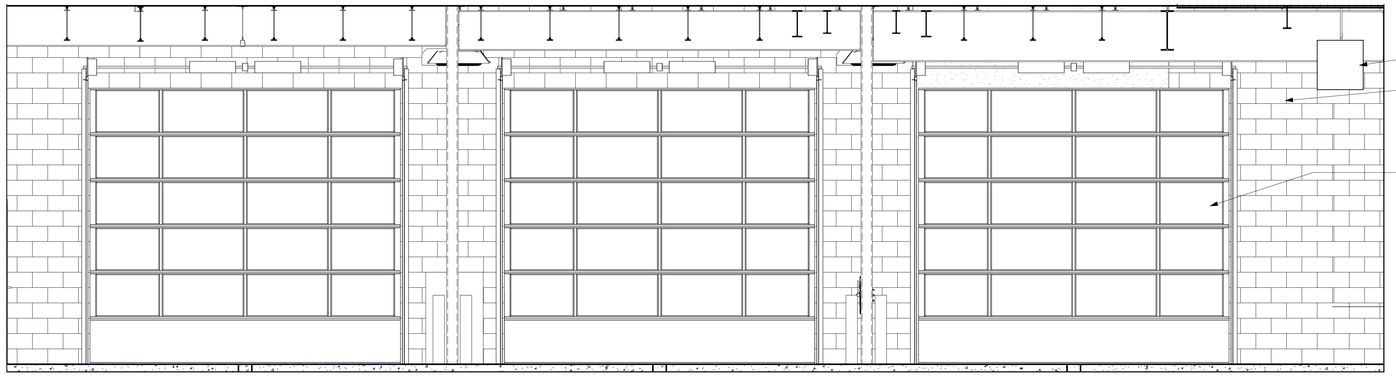
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

3/21/2024

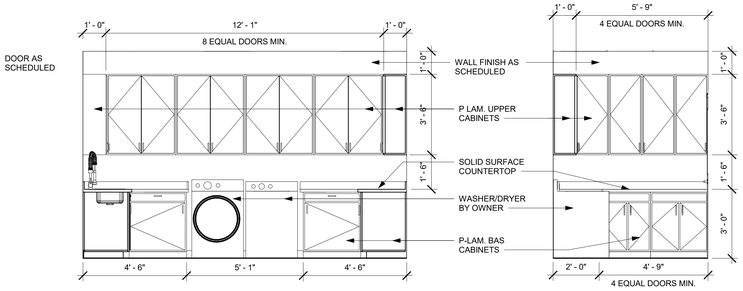
SHEET DESCRIPTION:
INTERIOR ELEVATIONS

SHEET NO.
A-6.03

NOTE: ALL INTERIOR ELEVATIONS ARE DESIGNED AS TO PLAN NORTH DIRECTION

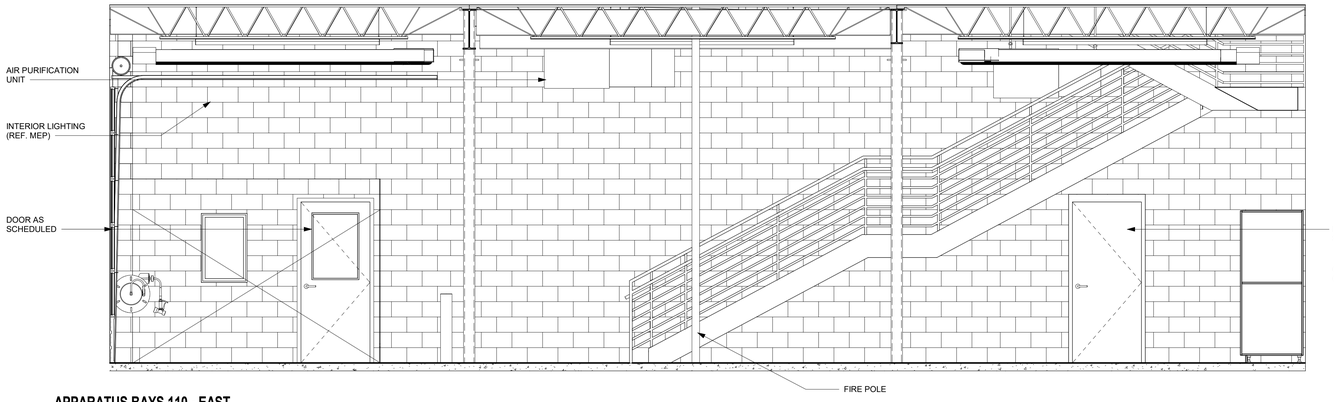


1 **APPARATUS BAYS 110- NORTH**
SCALE: 3/8" = 1'-0"

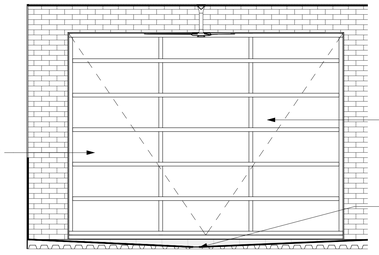


2 **LAUNDRY 201- SOUTH**
SCALE: 3/8" = 1'-0"

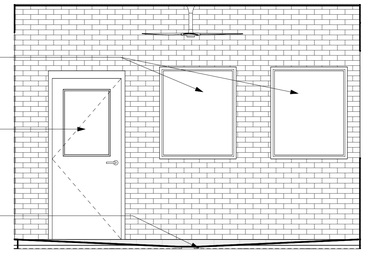
3 **LAUNDRY 201 - WEST**
SCALE: 3/8" = 1'-0"



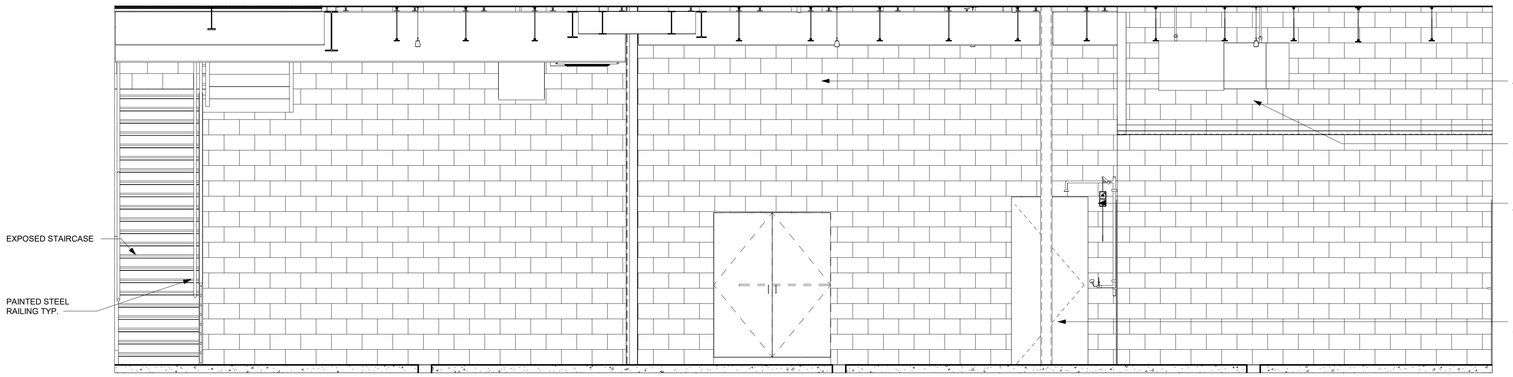
4 **APPARATUS BAYS 110 - EAST**
SCALE: 3/8" = 1'-0"



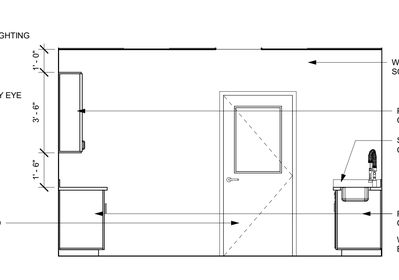
5 **BALCONY 210 - EAST**
SCALE: 3/8" = 1'-0"



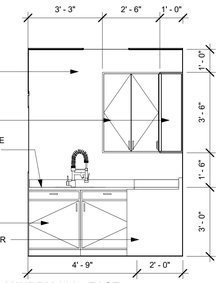
6 **BALCONY 210 - SOUTH**
SCALE: 3/8" = 1'-0"



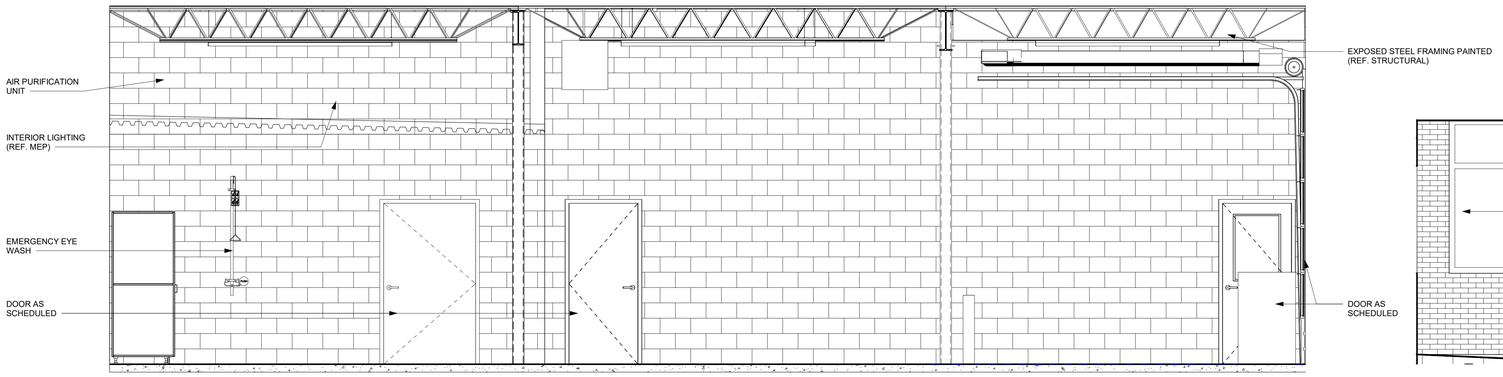
7 **APPARATUS BAYS 110 - SOUTH**
SCALE: 3/8" = 1'-0"



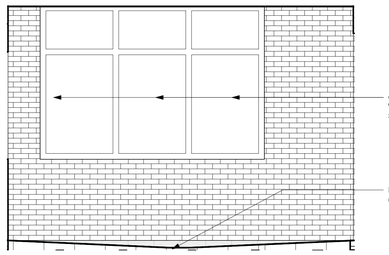
8 **LAUNDRY 201 -NORTH**
SCALE: 3/8" = 1'-0"



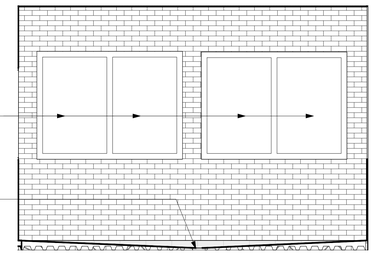
9 **LAUNDRY 201 - EAST**
SCALE: 3/8" = 1'-0"



10 **APPARATUS BAYS 110 - WEST**
SCALE: 3/8" = 1'-0"



11 **BALCONY 210 - NORTH**
SCALE: 3/8" = 1'-0"



12 **BALCONY 210 - WEST**
SCALE: 3/8" = 1'-0"

DRAWN BY:	A.N.B.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	08/22/23
ISSUED FOR PRICING:	08/22/23

REVISIONS:

No.	Description	Date

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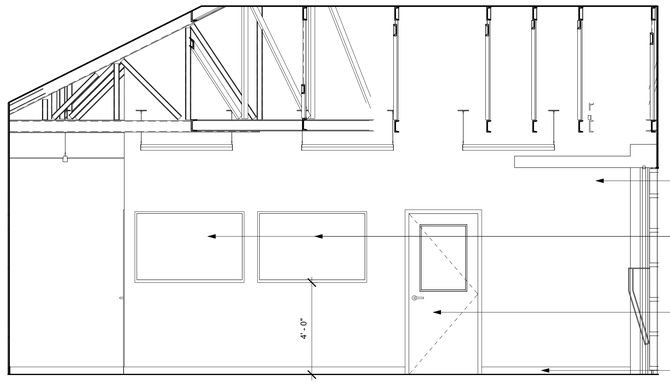
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

3/21/2024

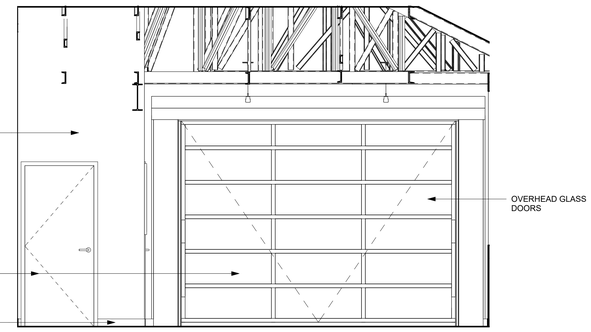
SHEET DESCRIPTION:
INTERIOR ELEVATIONS

SHEET NO.
A-6.04

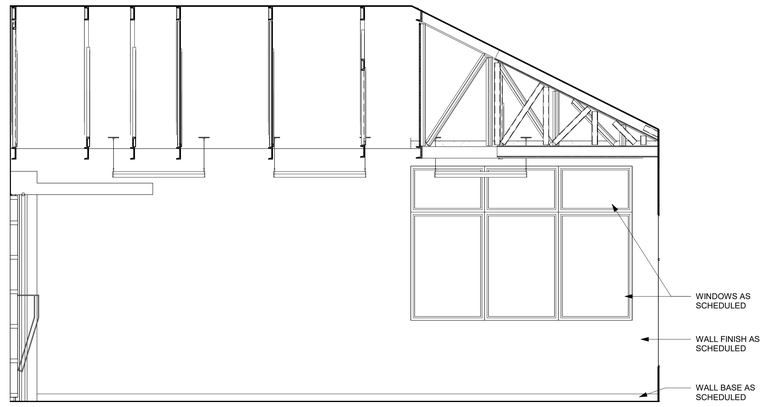
NOTE: ALL INTERIOR ELEVATIONS ARE DESIGNED AS TO PLAN NORTH DIRECTION



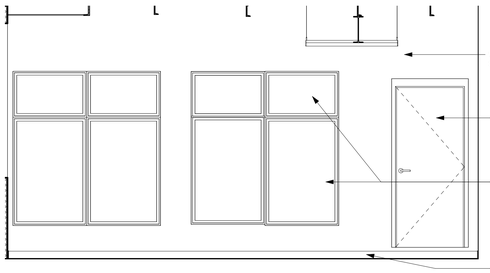
1 **FITNESS ROOM 211 - SOUTH**
SCALE: 3/8" = 1'-0"



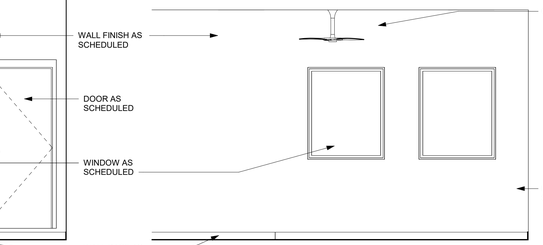
2 **FITNESS ROOM 211 - WEST**
SCALE: 3/8" = 1'-0"



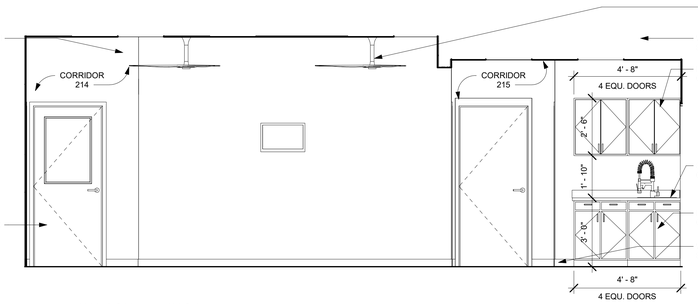
3 **FITNESS ROOM 211 - NORTH**
SCALE: 3/8" = 1'-0"



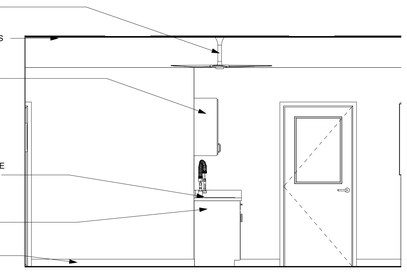
4 **FITNESS ROOM 211 - EAST**
SCALE: 3/8" = 1'-0"



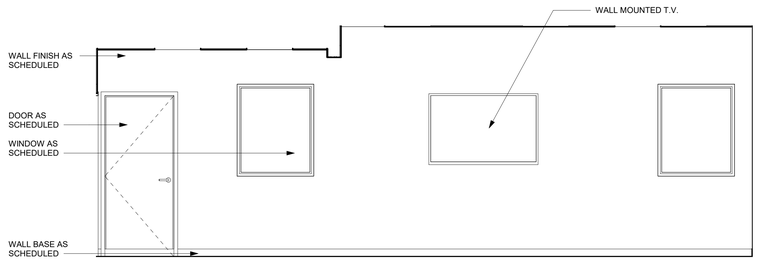
5 **DAY ROOM 200 - NORTH**
SCALE: 3/8" = 1'-0"



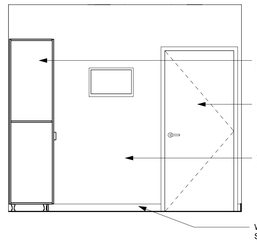
6 **DAY ROOM 200 - EAST**
SCALE: 3/8" = 1'-0"



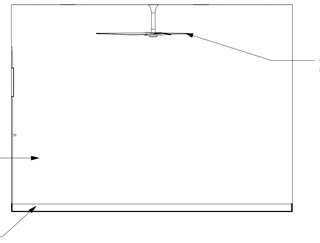
7 **DAY ROOM 200 - SOUTH**
SCALE: 3/8" = 1'-0"



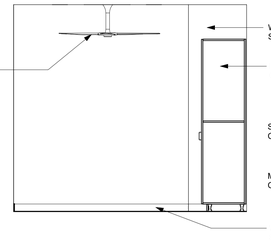
8 **DAY ROOM 200 - WEST**
SCALE: 3/8" = 1'-0"



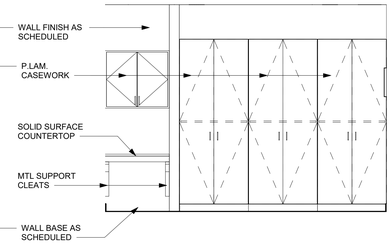
9 **DORM 202/204 - NORTH**
SCALE: 3/8" = 1'-0"



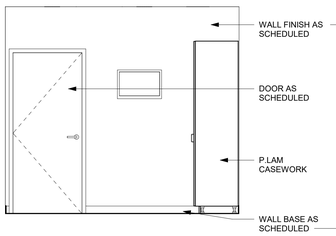
10 **DORM 202/204 - EAST**
SCALE: 3/8" = 1'-0"



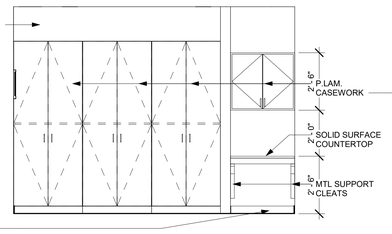
11 **DORM 202/204 - SOUTH**
SCALE: 3/8" = 1'-0"



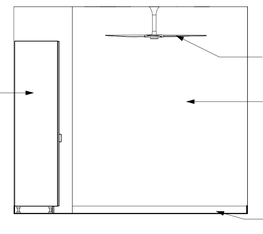
12 **DORM 202/204 - WEST**
SCALE: 3/8" = 1'-0"



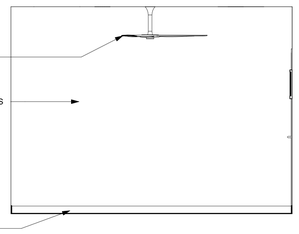
13 **DORM 203/205 - NORTH**
SCALE: 3/8" = 1'-0"



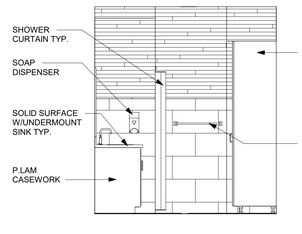
14 **DORM 203/205 - EAST**
SCALE: 3/8" = 1'-0"



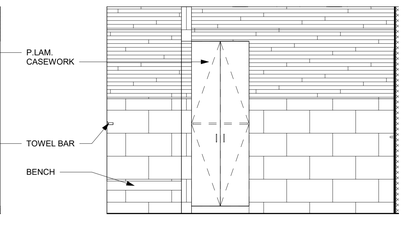
15 **DORM 203/205 - SOUTH**
SCALE: 3/8" = 1'-0"



16 **DORM 203/205 - WEST**
SCALE: 3/8" = 1'-0"



17 **RESTROOM 208 - NORTH**
SCALE: 3/8" = 1'-0"



18 **RESTROOM 208 - EAST**
SCALE: 3/8" = 1'-0"

DRAWN BY: A.N.B.
CHECKED BY: R.P.G.
DATE: 3/21/2024
ISSUED FOR PERMIT: 08/22/23
ISSUED FOR PRICING: 08/22/23

REVISIONS:

No.	Description	Date

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101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9497
WWW.RPGAARCHITECTS.COM

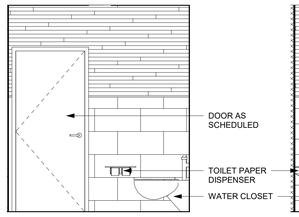
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT ROBERT P. GRIFFIN 31478 STATE OF TEXAS

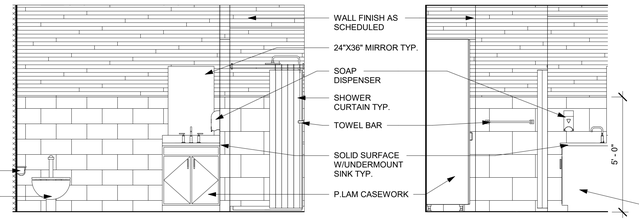
3/21/2024

SHEET DESCRIPTION: INTERIOR ELEVATIONS

SHEET NO. A-6.05

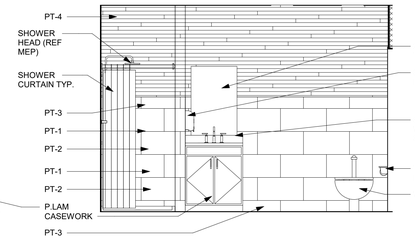


17 **RESTROOM 208 - SOUTH**
SCALE: 3/8" = 1'-0"

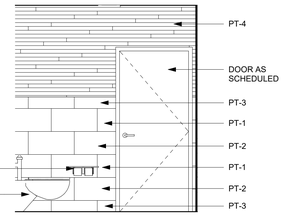


18 **RESTROOM 208 - WEST**
SCALE: 3/8" = 1'-0"

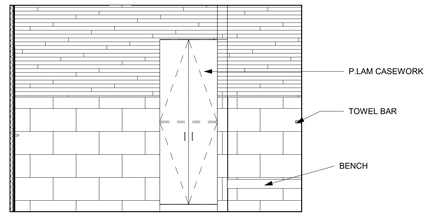
19 **RESTROOM 209 - NORTH**
SCALE: 3/8" = 1'-0"



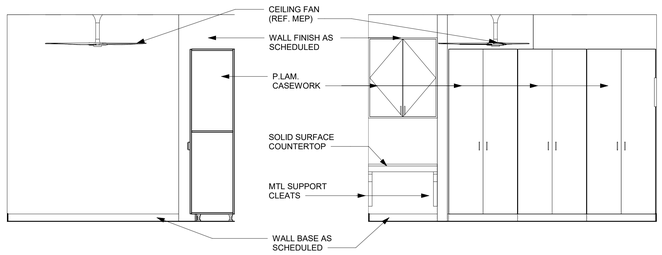
20 **RESTROOM 209 - EAST**
SCALE: 3/8" = 1'-0"



21 **RESTROOM 209 - SOUTH**
SCALE: 3/8" = 1'-0"

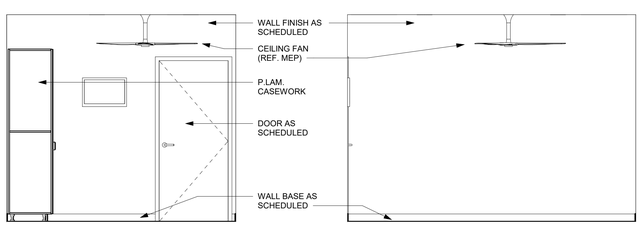


22 **RESTROOM 209 - WEST**
SCALE: 3/8" = 1'-0"



1 **DORM 206 - NORTH**
SCALE: 3/8" = 1'-0"

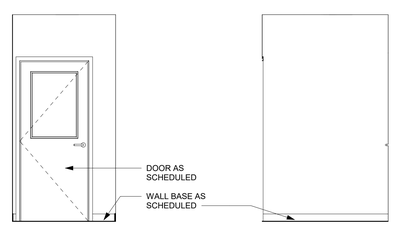
2 **DORM 206 - EAST**
SCALE: 3/8" = 1'-0"



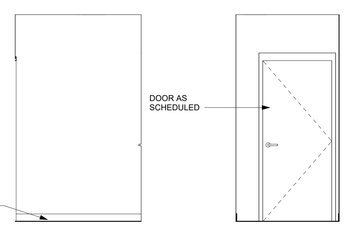
3 **DORM 206 - SOUTH**
SCALE: 3/8" = 1'-0"

4 **DORM 206 - WEST**
SCALE: 3/8" = 1'-0"

5 **VESTIBULE 218 - NORTH**
SCALE: 3/8" = 1'-0"

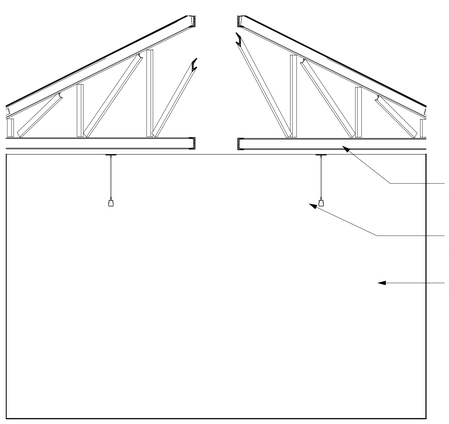


6 **VESTIBULE 218 - EAST**
SCALE: 3/8" = 1'-0"

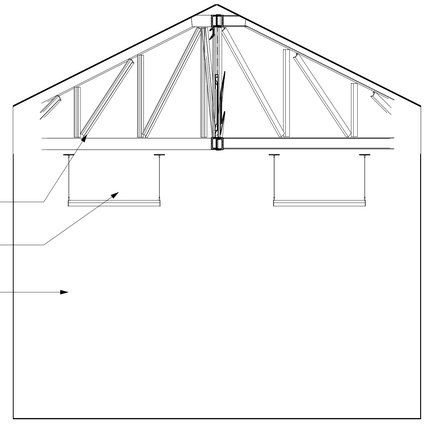


7 **VESTIBULE 218 - SOUTH**
SCALE: 3/8" = 1'-0"

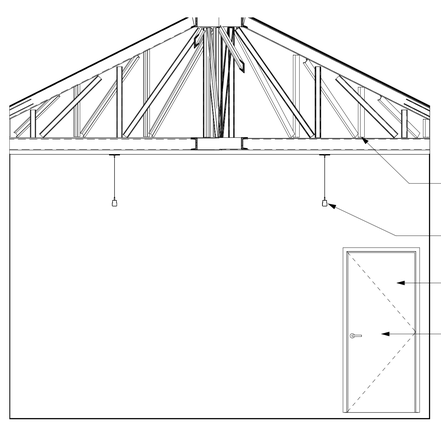
8 **VESTIBULE 218 - WEST**
SCALE: 3/8" = 1'-0"



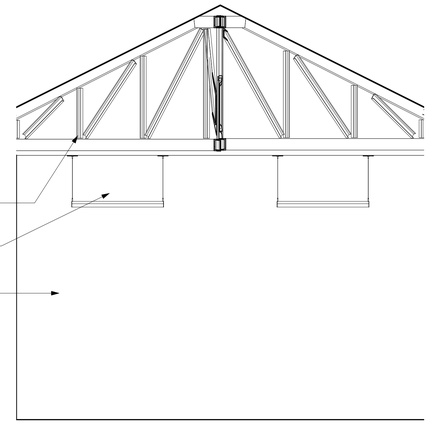
9 **STORAGE 212 - NORTH**
SCALE: 3/8" = 1'-0"



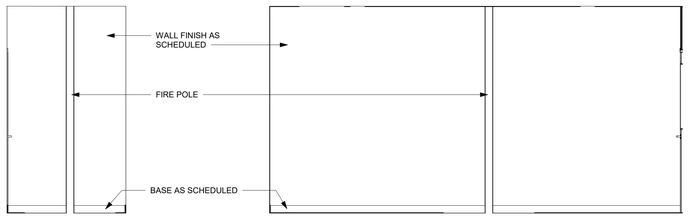
10 **STORAGE 212 - EAST**
SCALE: 3/8" = 1'-0"



11 **STORAGE 212 - SOUTH**
SCALE: 3/8" = 1'-0"

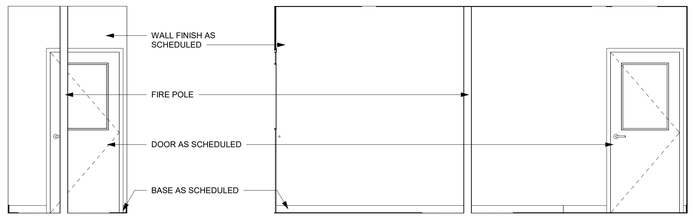


12 **STORAGE 212 - WEST**
SCALE: 3/8" = 1'-0"



13 **FIRE POLE ROOM 207 - NORTH**
SCALE: 3/8" = 1'-0"

14 **FIRE POLE ROOM 207 - EAST**
SCALE: 3/8" = 1'-0"



15 **FIRE POLE ROOM 207 - SOUTH**
SCALE: 3/8" = 1'-0"

16 **FIRE POLE ROOM -**
SCALE: 3/8" = 1'-0"

NOTE: ALL INTERIOR ELEVATIONS ARE DESIGNED AS TO PLAN NORTH DIRECTION

DRAWN BY: A.N.B.
CHECKED BY: R.P.G.
DATE: 3/21/2024
ISSUED FOR PERMIT: 08/22/23
ISSUED FOR PRICING: 08/22/23

REVISIONS:

No.	Description	Date

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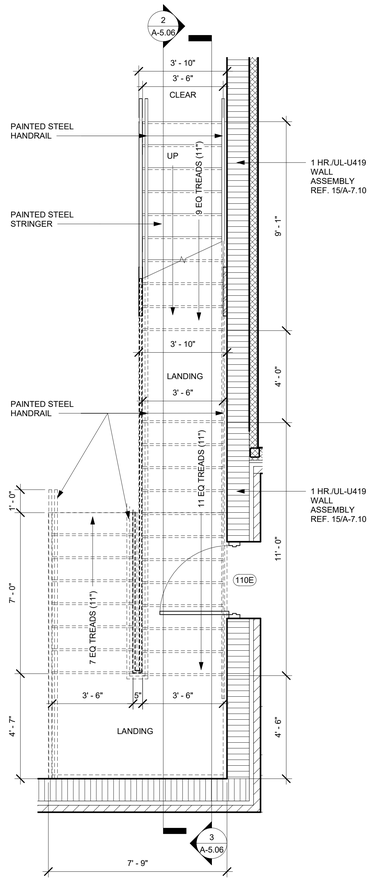
RPGA DESIGN GROUP, INC.
ARCHITECTURE SPACE PLANNING INTERIORS
105 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9497
WWW.RPGAARCHITECTS.COM

CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

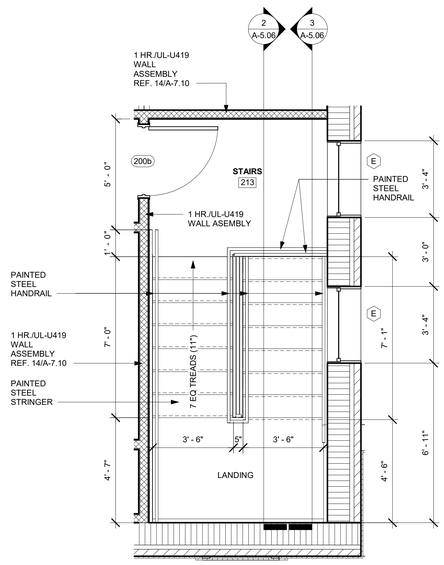
3/21/2024

SHEET DESCRIPTION:
INTERIOR ELEVATIONS

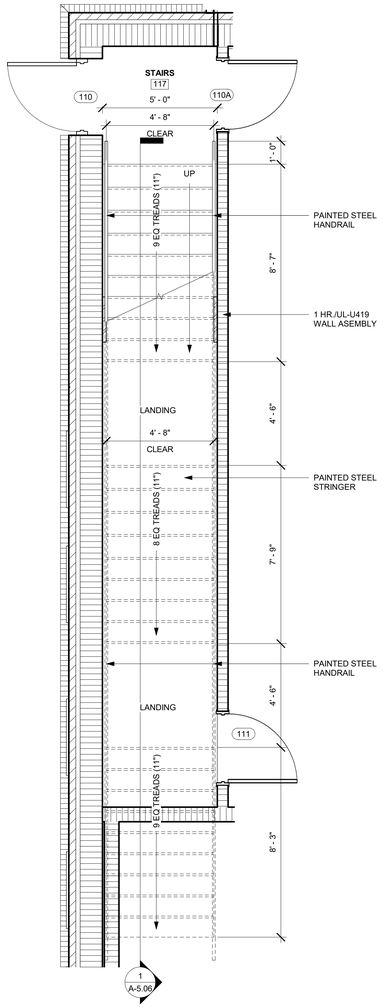
SHEET NO.
A-6.06



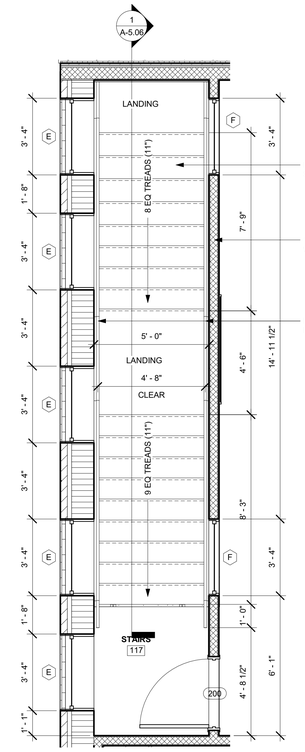
1 **STAIR 213 FIRST FLOOR PLAN**
SCALE: 3/8" = 1'-0"



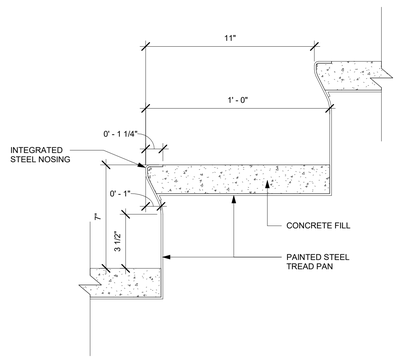
2 **STAIR 213 SECOND FLOOR PLAN**
SCALE: 3/8" = 1'-0"



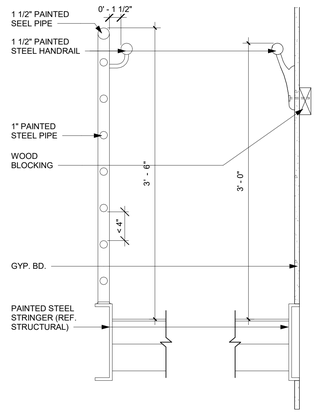
3 **STAIR 117 FIRST FLOOR PLAN**
SCALE: 3/8" = 1'-0"



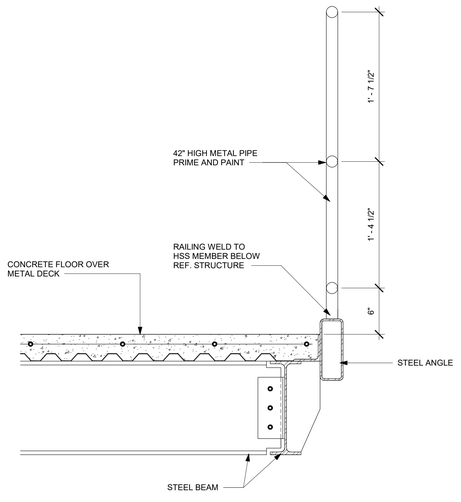
4 **STAIR 117 SECOND FLOOR PLAN**
SCALE: 3/8" = 1'-0"



5 **STAIR TREAD DETAIL**
SCALE: 3" = 1'-0"



6 **HANDRAIL DETAIL**
SCALE: 1 1/2" = 1'-0"



7 **RAILING SECTION DETAIL @ LANDING**
SCALE: 1 1/2" = 1'-0"

DRAWN BY:	M.A.
CHECKED BY:	J.L.
DATE:	3/21/2024
ISSUED FOR PERMIT:	03/21/24
ISSUED FOR PRICING:	03/21/24

REVISIONS:

No.	Description	Date

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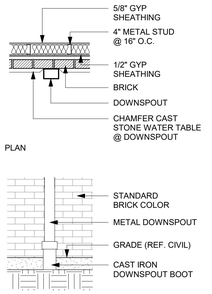
RPGA DESIGN GROUP, INC.
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CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

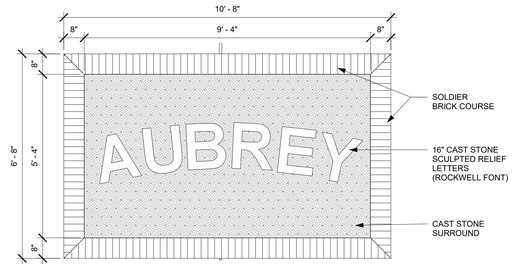
3/21/2024

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STAIRS FLOOR PLANS AND DETAILS

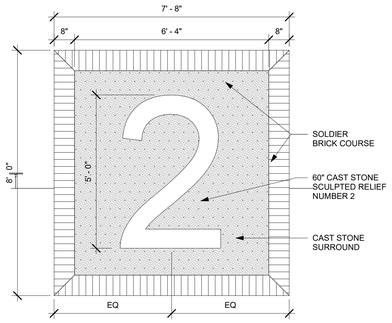
SHEET NO.
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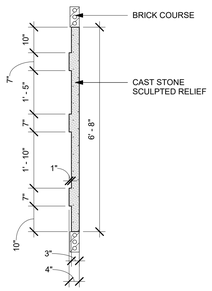
1 DOWNSPOUT DETAIL
SCALE: 1/2" = 1'-0"



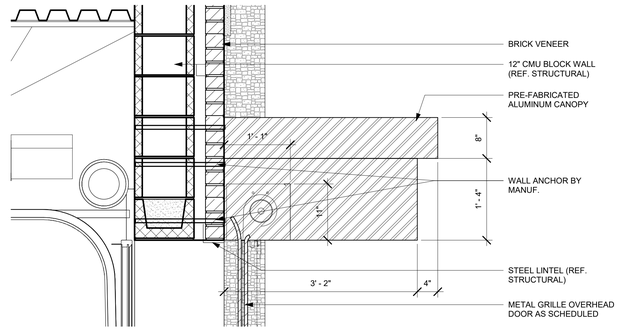
2 CAST STONE PANEL INSERT - AUBREY
SCALE: 1/2" = 1'-0"



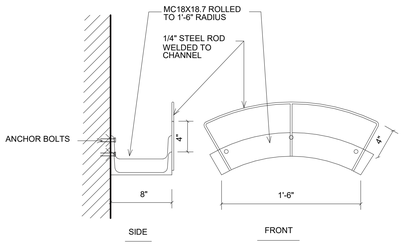
3 CAST STONE PANEL INSERT - #2
SCALE: 1/2" = 1'-0"



4 CAST STONE PANEL DETAIL
SCALE: 1/2" = 1'-0"

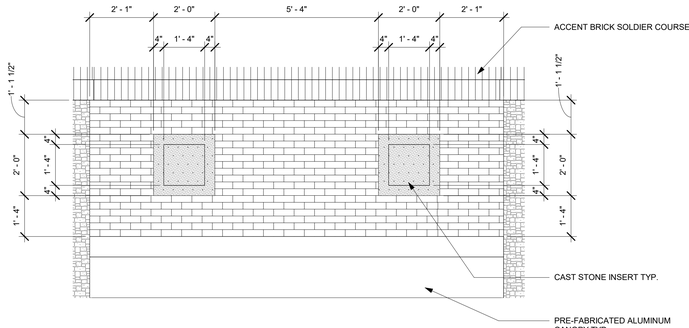


5 CANOPY DETAIL @ BAY DOORS
SCALE: 1" = 1'-0"

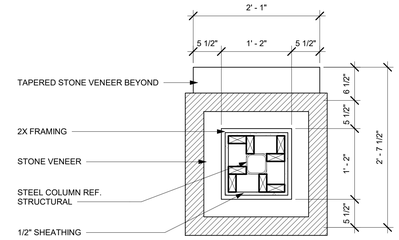


NOTE: TYP. HOSE RACK @ EACH INTERIOR HOSE BIB LOCATION

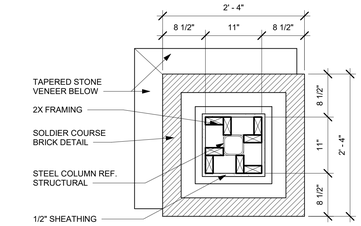
6 HOSE RACK
SCALE: 1 1/2" = 1'-0"



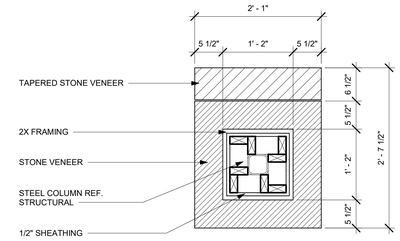
7 CAST STONE INSERT TYP. DETAIL @ BAY DOORS
SCALE: 1/2" = 1'-0"



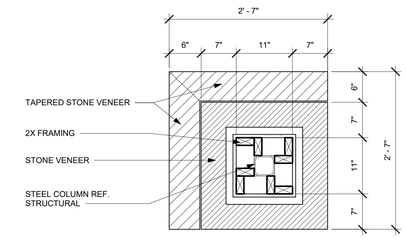
10 COLUMN B - PLAN
SCALE: 1" = 1'-0"



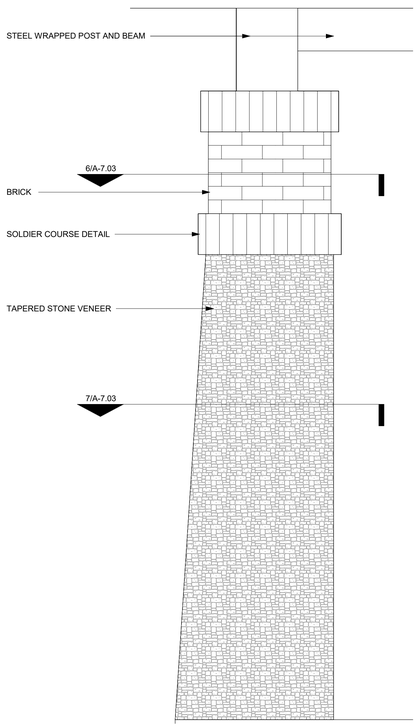
12 COLUMN A - PLAN
SCALE: 1" = 1'-0"



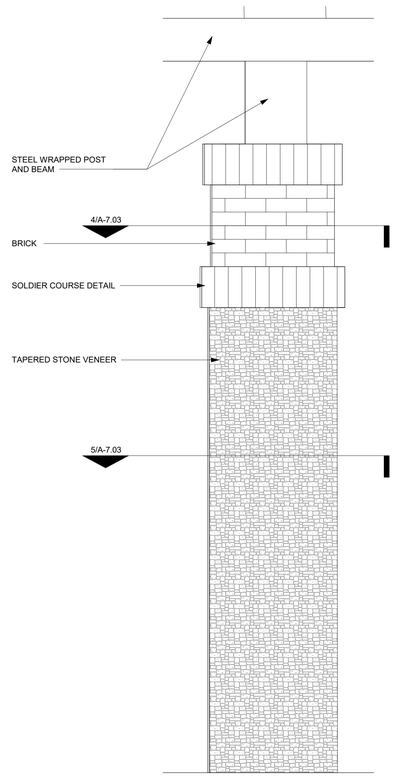
11 COLUMN B - PLAN
SCALE: 1" = 1'-0"



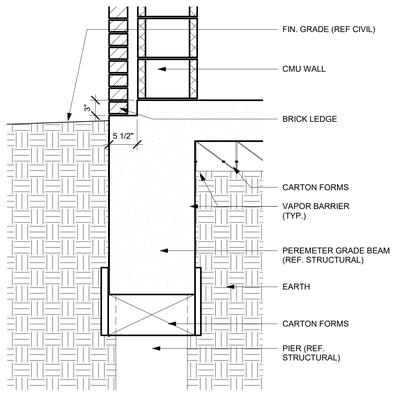
13 COLUMN A - PLAN
SCALE: 1" = 1'-0"



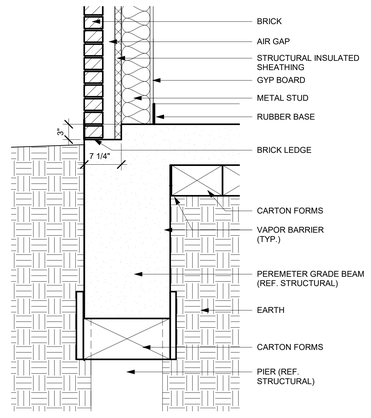
8 COLUMN A - ELEVATION
SCALE: 1" = 1'-0"



9 COLUMN A - ELEVATION
SCALE: 1" = 1'-0"



14 BRICK AT CMU LEDGE DETAIL
SCALE: 1" = 1'-0"



15 BRICK LEDGE DETAIL
SCALE: 1" = 1'-0"

DRAWN BY:	A.N.B.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	08/22/23
ISSUED FOR PRICING:	08/22/23

REVISIONS:

No.	Description	Date

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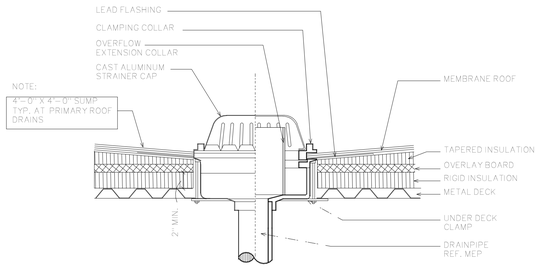
RPGA DESIGN GROUP, INC.
ARCHITECTURE SPACE PLANNING INTERIORS
101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9497
WWW.RPGAARCHITECTS.COM

CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

3/21/2024

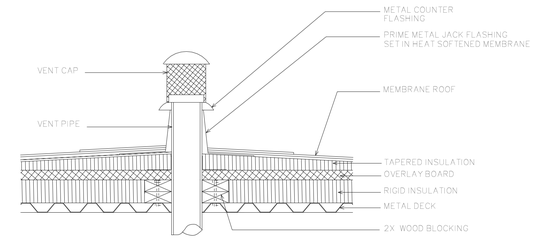
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BUILDING DETAILS

SHEET NO.
A-7.02



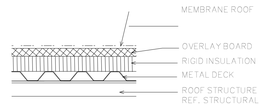
01 OVERFLOW ROOF DRAIN DETAIL

SCALE: 1 1/2"=1'-0"



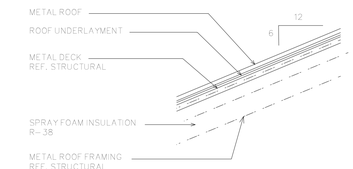
03 HOODED VENT SECTION

SCALE: 1 1/2"=1'-0"



05 ROOF DETAIL - TYPICAL

SCALE: 1 1/2"=1'-0"



07 PITCHED ROOF DETAIL - TYPICAL

SCALE: 1 1/2" = 1'-0"

02 ROOF DRAIN DETAIL

SCALE: 1 1/2"=1'-0"

04 MECHANICAL CURB DETAIL

SCALE: 1 1/2"=1'-0"

06 PARAPET WALL - TYPICAL

SCALE: 1 1/2"=1'-0"

08 ROOF @ METAL STUD WALL

SCALE: 1 1/2" = 1'-0"

09 ANTENNA @ ROOF DETAIL

SCALE: 3/4" = 1'-0"

10 ROOF @ CMU WALL

SCALE: 1 1/2" = 1'-0"

DRAWN BY:	A.N.B.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	03/21/2024
ISSUED FOR PRICING:	03/21/2024

REVISIONS:

No.	Description	Date

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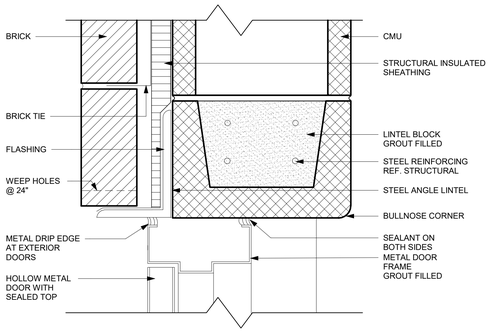
RPGA DESIGN GROUP, INC. ARCHITECTURE SPACE PLANNING INTERIORS
105 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9497
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3/21/2024

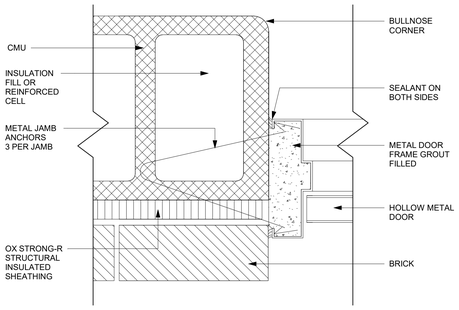
SHEET DESCRIPTION:
ROOF DETAILS

SHEET NO.
A-7.03



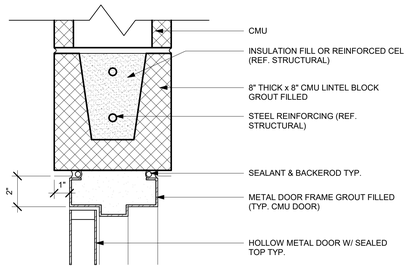
1 EXTERIOR DOOR HEAD DETAIL

SCALE: 3" = 1'-0"



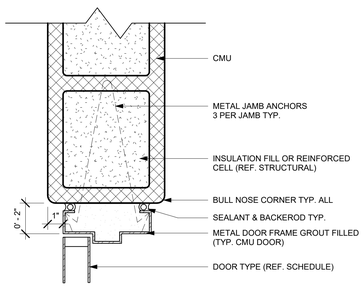
2 EXTERIOR DOOR JAMB DETAIL

SCALE: 3" = 1'-0"



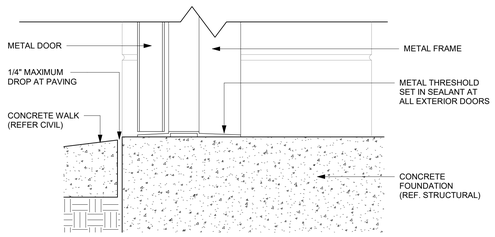
3 CMU DOOR HEAD

SCALE: 3" = 1'-0"



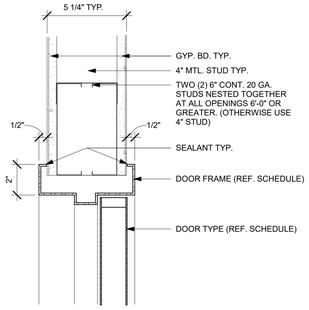
4 CMU DOOR JAMB

SCALE: 3" = 1'-0"



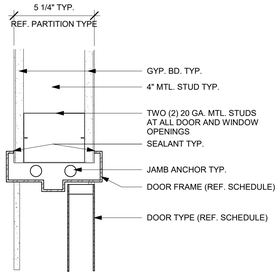
5 EXTERIOR DOOR SILL DETAIL

SCALE: 3" = 1'-0"



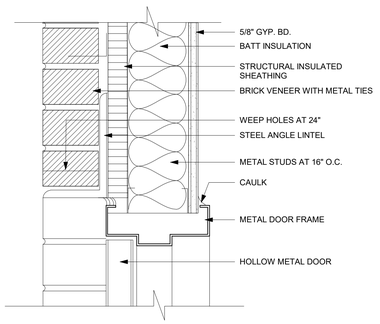
6 INT. DOOR HEAD

SCALE: 3" = 1'-0"



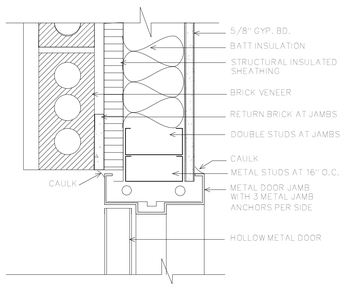
7 INT. DOOR JAMB

SCALE: 3" = 1'-0"



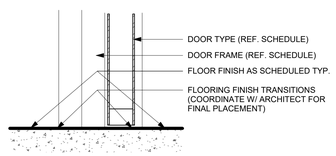
8 EXT. DOOR HEAD

SCALE: 3" = 1'-0"



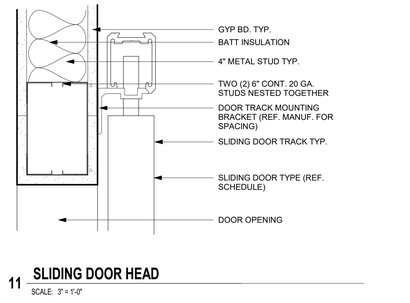
9 EXT. DOOR JAMB

SCALE: 3" = 1'-0"



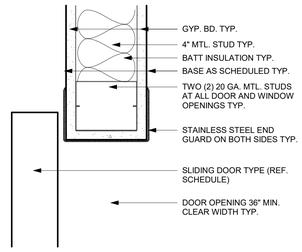
10 INT. DOOR SILL

SCALE: 3" = 1'-0"



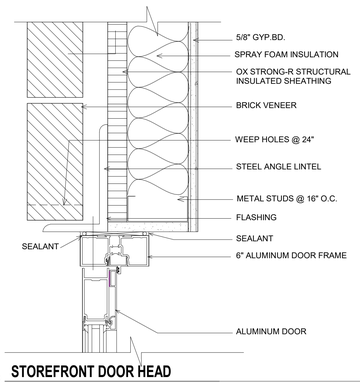
11 SLIDING DOOR HEAD

SCALE: 3" = 1'-0"



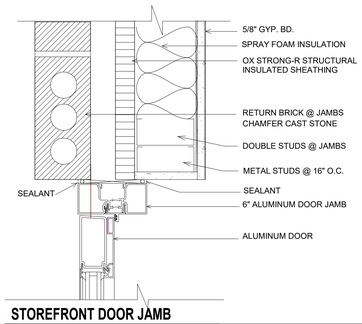
12 SLIDING DOOR JAMB

SCALE: 3" = 1'-0"



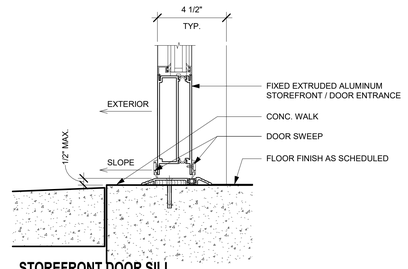
13 STOREFRONT DOOR HEAD

SCALE: 3" = 1'-0"



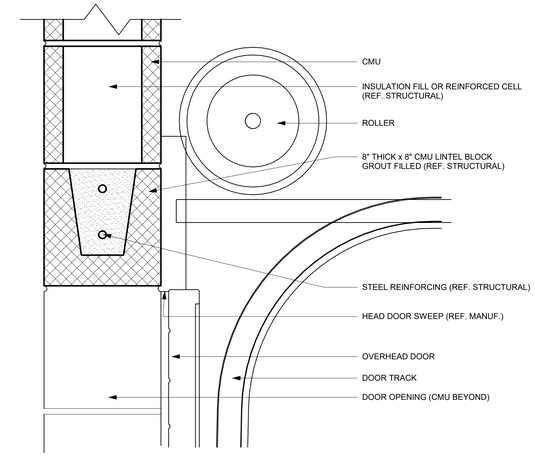
14 STOREFRONT DOOR JAMB

SCALE: 3" = 1'-0"



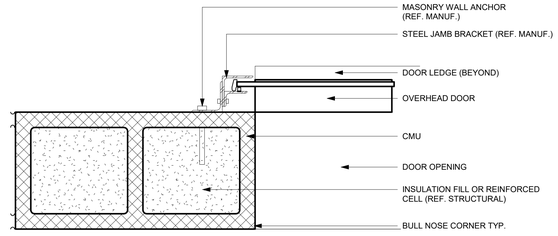
15 STOREFRONT DOOR SILL

SCALE: 3" = 1'-0"



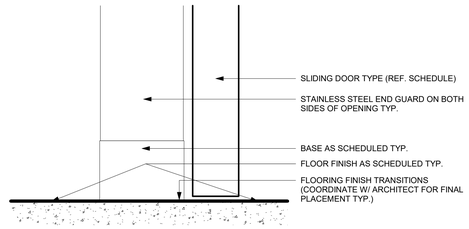
16 COILING DOOR HEAD

SCALE: 3" = 1'-0"



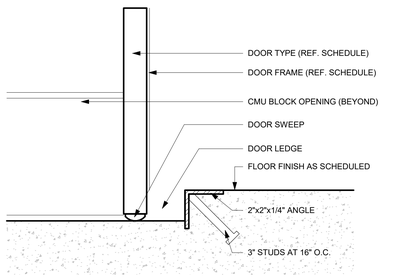
17 OVERHEAD DOOR JAMB

SCALE: 3" = 1'-0"



18 SLIDING DOOR SILL

SCALE: 3" = 1'-0"



19 OVERHEAD DOOR SILL

SCALE: 3" = 1'-0"

DRAWN BY: M.A.
CHECKED BY: R.P.G.
DATE: 3/21/2024
ISSUED FOR PERMIT: 08/22/23
ISSUED FOR PRICING: 08/22/23

REVISIONS:

No.	Description	Date

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ARCHITECTURE SPACE PLANNING INTERIORS
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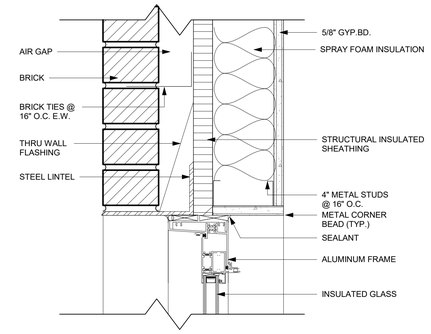
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT ROBERT PAUL GRIFFIN JR. 31414 STATE OF TEXAS

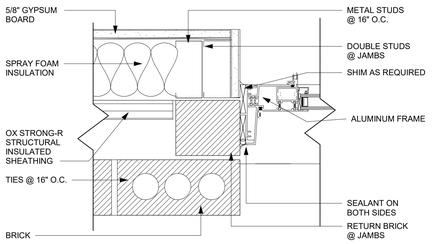
3/21/2024

SHEET DESCRIPTION: DOOR DETAILS

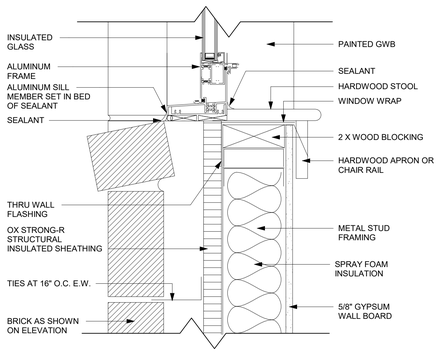
SHEET NO. A-7.04



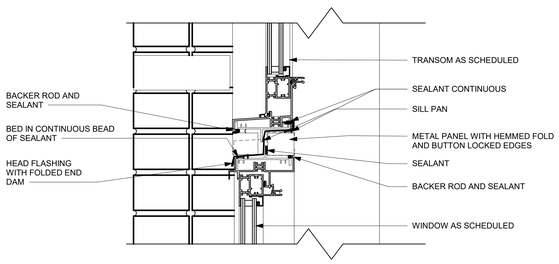
1 EXTERIOR WINDOW HEAD
SCALE: 3" = 1'-0"



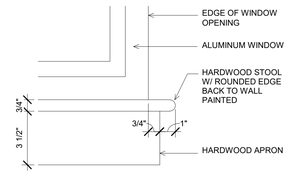
2 EXTERIOR WINDOW JAMB
SCALE: 3" = 1'-0"



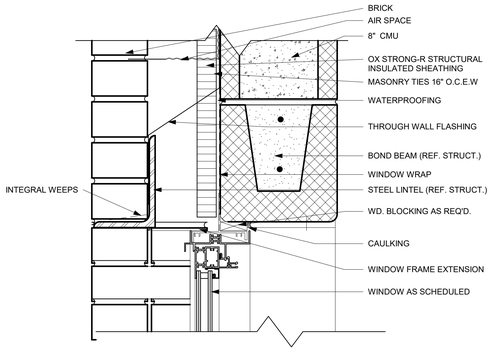
3 EXTERIOR WINDOW SILL DETAIL
SCALE: 3" = 1'-0"



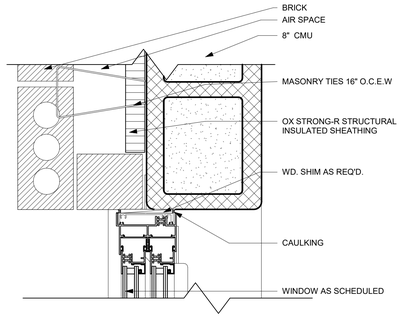
4 EXTERIOR WINDOW HEAD/TRANSOM SILL DETAIL BRICK WALL
SCALE: 3" = 1'-0"



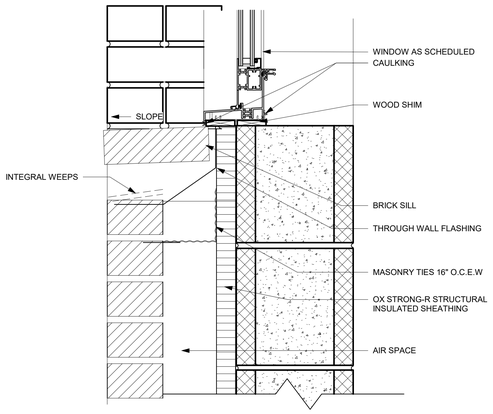
5 STOOL AND APRON ELEV.
SCALE: 3" = 1'-0"



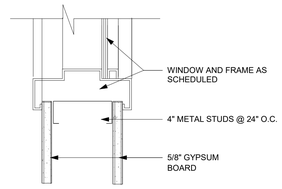
6 Exterior/WINDOW HEAD BRICK CMU WALL
SCALE: 3" = 1'-0"



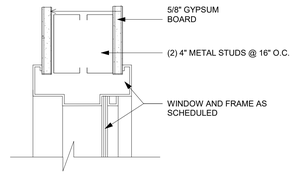
7 Exterior/WINDOW JAMB BRICK CMU WALL
SCALE: 3" = 1'-0"



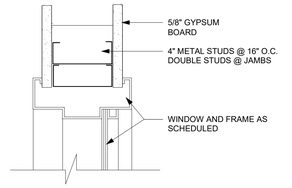
8 Exterior/WINDOW SILL DETAIL BRICK CMU WALL
SCALE: 3" = 1'-0"



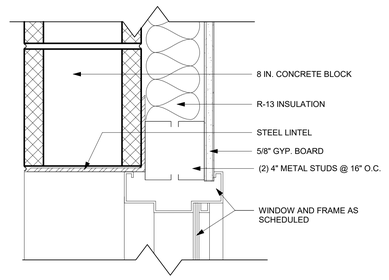
9 INTERIOR WINDOW SILL @ DAY ROOM
SCALE: 3" = 1'-0"



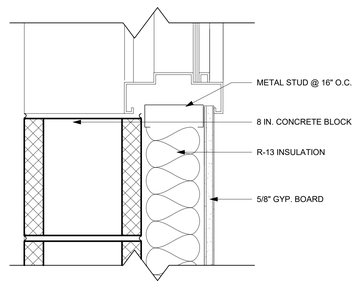
10 INTERIOR WINDOW HEAD @ DAY ROOM
SCALE: 3" = 1'-0"



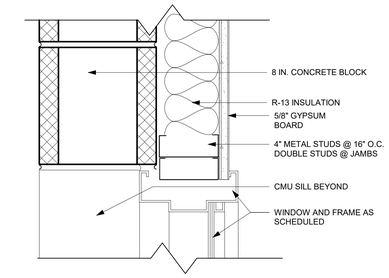
11 INTERIOR WINDOW JAMB @ DAY ROOM
SCALE: 3" = 1'-0"



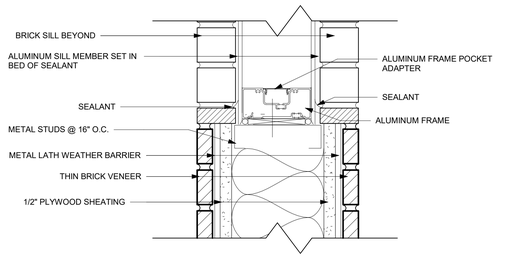
12 INTERIOR WINDOW HEAD @ CAPT. OFFICE
SCALE: 3" = 1'-0"



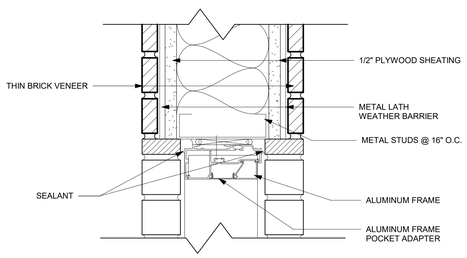
13 INTERIOR WINDOW SILL @ CAPT. OFFICE
SCALE: 3" = 1'-0"



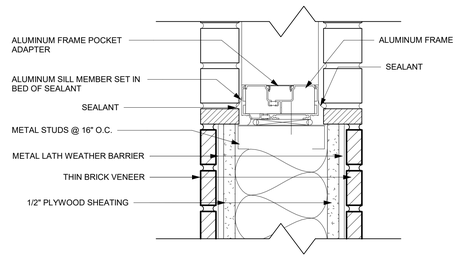
14 INTERIOR WINDOW JAMB @ CAPT. OFFICE
SCALE: 3" = 1'-0"



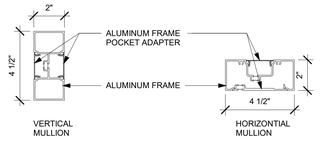
15 EXTERIOR WINDOW JAMB @ GLASSLESS FRAME
SCALE: 3" = 1'-0"



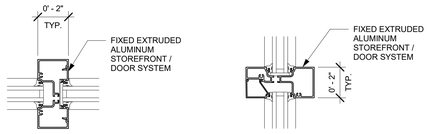
16 EXTERIOR WINDOW HEAD @ GLASSLESS FRAME
SCALE: 3" = 1'-0"



17 EXTERIOR WINDOW SILL @ GLASSLESS FRAME
SCALE: 3" = 1'-0"



18 EXTERIOR WINDOW MULLION @ GLASSLESS FRAME
SCALE: 3" = 1'-0"



19 EXT. STOREFRONT MULLION
SCALE: 3" = 1'-0"

DRAWN BY:	M.A.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	08/22/23
ISSUED FOR PRICING:	08/22/23

REVISIONS:

No.	Description	Date

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105 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9497
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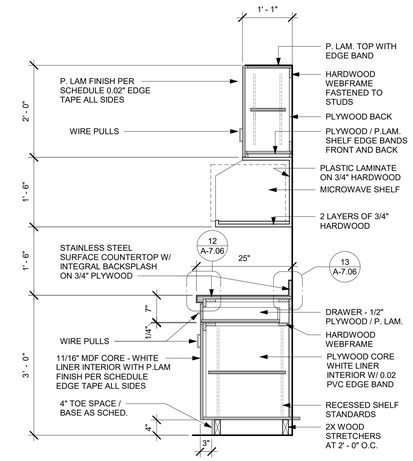
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT JAMES LUCIEN PHILLIPS 31A STATE OF TEXAS

3/21/2024

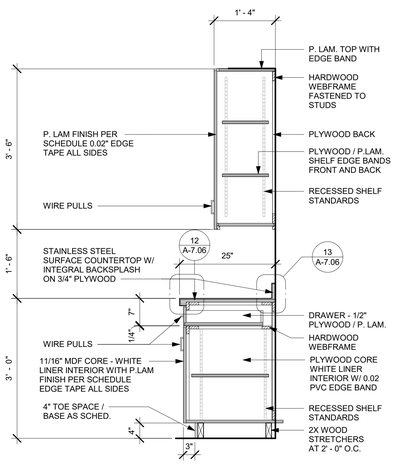
SHEET DESCRIPTION:
WINDOW DETAILS

SHEET NO.
A-7.05



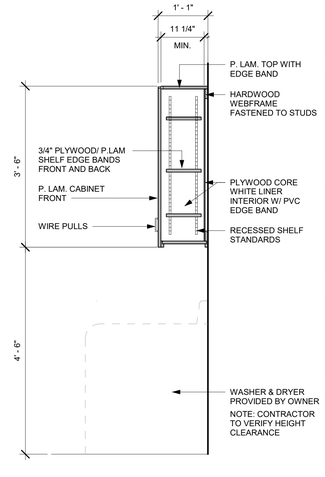
1 CABINET SECTION

SCALE: 3/4" = 1'-0"



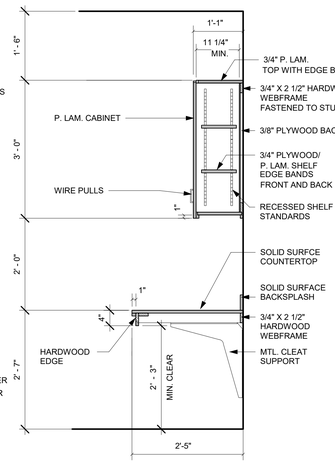
2 CABINET SECTION - KITCHEN @ 3' - 0"

SCALE: 3/4" = 1'-0"



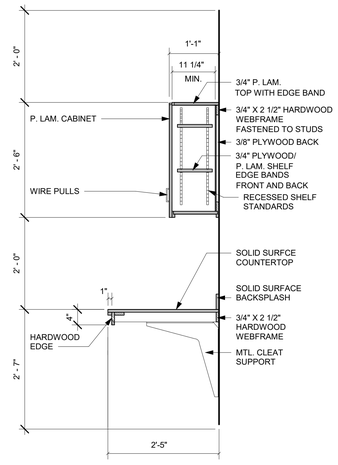
3 CABINET SECTION - LAUNDRY

SCALE: 3/4" = 1'-0"



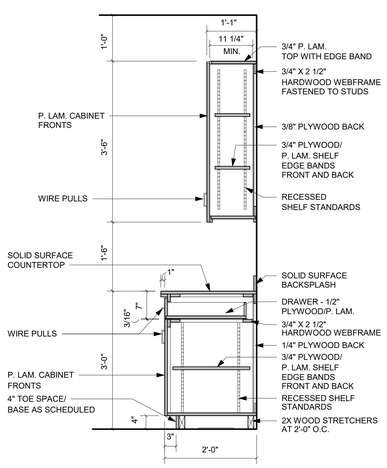
4 CABINET SECTION - REPORT WRITING ROOM

SCALE: 3/4" = 1'-0"



5 CABINET SECTION - REST/WORK - OFFICER

SCALE: 3/4" = 1'-0"



6 CABINET SECTION - LAUNDRY

SCALE: 3/4" = 1'-0"

8 CABINET SECTION - ACCESSIBLE KITCHEN SINK @ 2' - 6"

SCALE: 3/4" = 1'-0"

9 CABINET SECTION - KITCHEN ISLAND

SCALE: 3/4" = 1'-0"

10 CABINET SECTION - RESTROOM

SCALE: 3/4" = 1'-0"

11 CABINET SECTION - ACCESSIBLE RESTROOM SINK

SCALE: 3/4" = 1'-0"

12 STAINLESS STEEL EDGE DETAIL

SCALE: 3" = 1'-0"

13 STAINLESS STEEL BACKSPLASH

SCALE: 3" = 1'-0"

R P G A
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ARCHITECTURE SPACE PLANNING INTERIORS
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DRAWN BY:	M.A.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	08/22/23
ISSUED FOR PRICING:	08/22/23

REVISIONS:

No.	Description	Date

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CITY OF AUBREY

FIRE STATION #2 & POLICE SUBSTATION

WINN RIDGE BLVD.

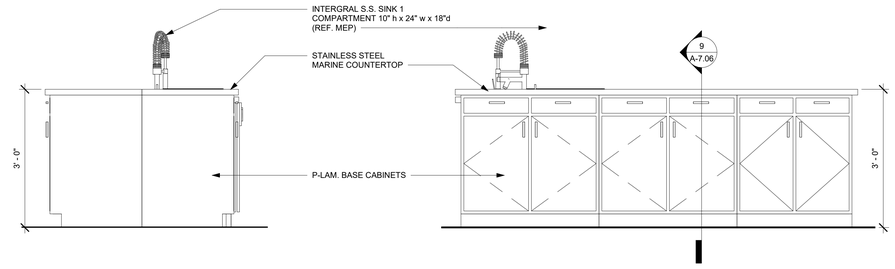
3/21/2024

SHEET DESCRIPTION:

MILLWORK DETAILS

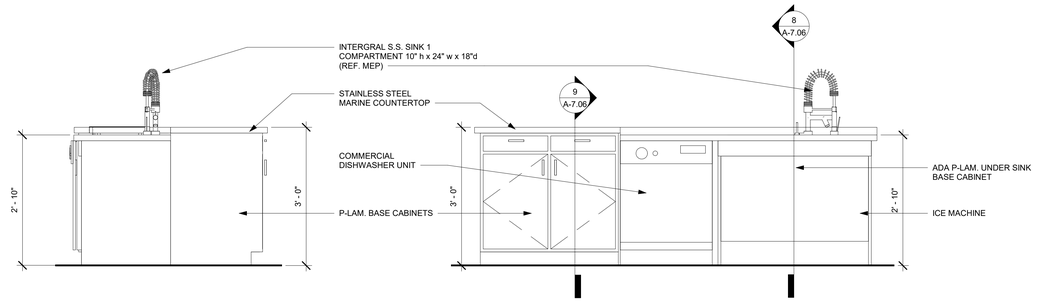
SHEET NO.

A-7.06



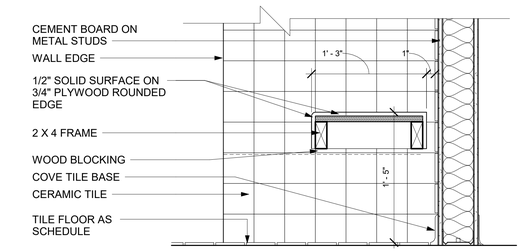
1 Elevation 28 - a
SCALE: 3/4" = 1'-0"

2 Elevation 28 - b
SCALE: 3/4" = 1'-0"



3 Elevation 28 - c
SCALE: 3/4" = 1'-0"

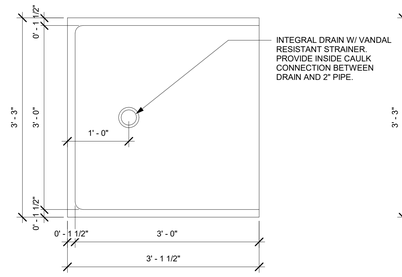
4 Elevation 28 - d
SCALE: 3/4" = 1'-0"



5 RESTROOM BENCH DETAIL
SCALE: 1 1/2" = 1'-0"

CUSTOM SHOWER PAN @
ACCESSIBLE SHOWER STALL

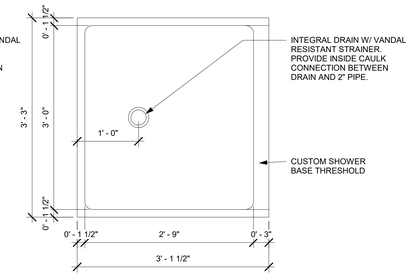
ACORN ENGINEERING COMPANY
MODEL # SBADA - 36-3F-VRS



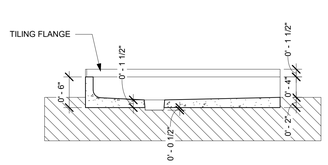
PLAN

CUSTOM SHOWER PAM @
ALL OTHER SHOWERS

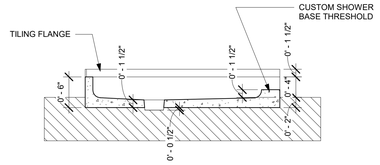
ACORN ENGINEERING COMPANY
MODEL # SBADA - 36-3F-VRS
WITH CUSTOM 3" INTEGRAL THRESHOLD ENTRANCE
SIMILAR TO THE THRESHOLD ON THE SBS SERIES PANS.



PLAN

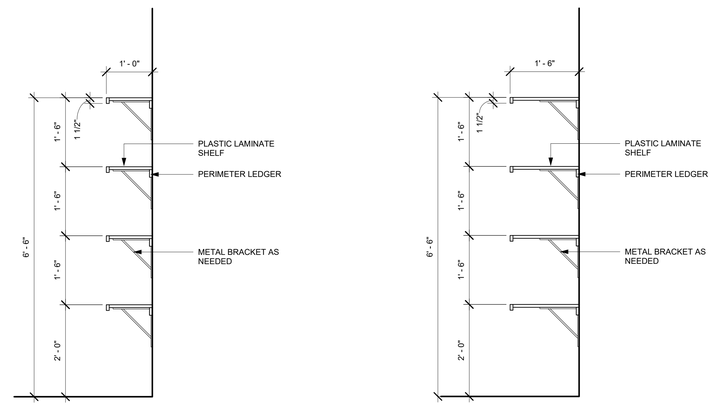


SECTION



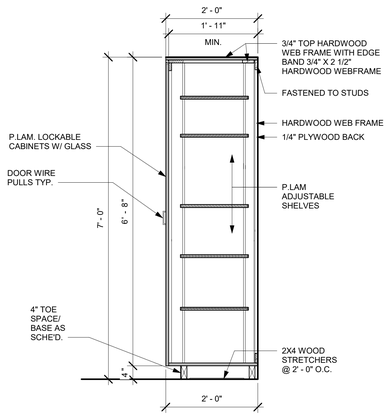
SECTION

7 SHOWER PAN DETAIL
SCALE: 1" = 1'-0"

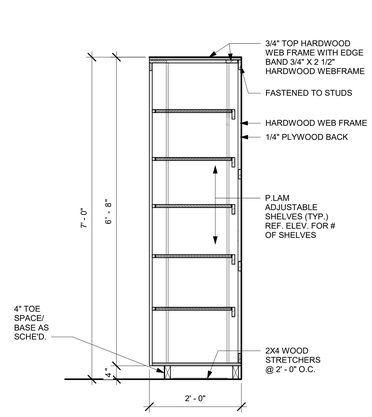


8 PANTRY SHELVES
SCALE: 3/4" = 1'-0"

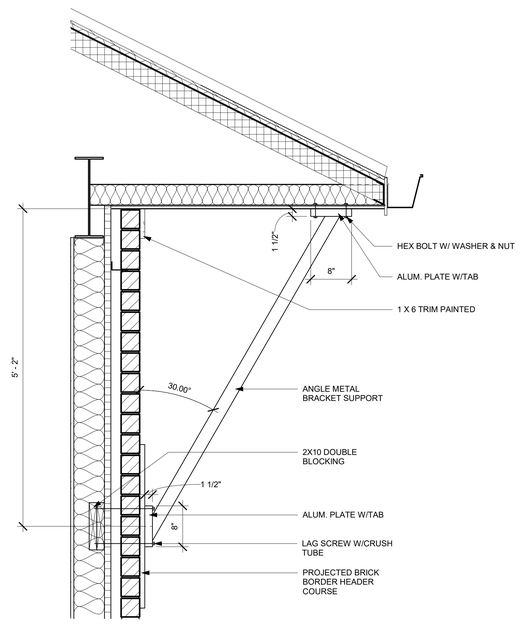
9 STORAGE SHELVES
SCALE: 3/4" = 1'-0"



10 EMS STORAGE LOCKERS W/GLASS
SCALE: 3/4" = 1'-0"



11 ADJUSTABLE SHELVING UNIT SEC. @7'-0"
SCALE: 3/4" = 1'-0"



13 ANGLE METAL BRACKET SUPPORT DETAIL
SCALE: 1" = 1'-0"

DRAWN BY: M.A.
CHECKED BY: R.P.G.
DATE: 3/21/2024
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08/22/23
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08/22/23

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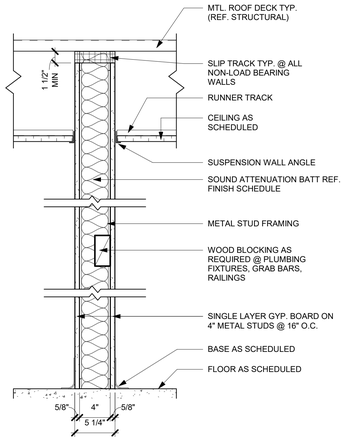
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT
ROBERT PAUL GRAHAM
31A
STATE OF TEXAS

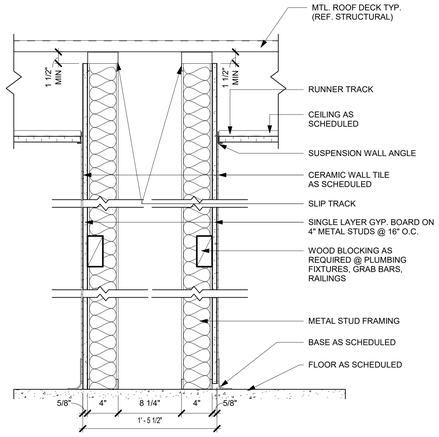
3/21/2024

SHEET DESCRIPTION:
DETAILS

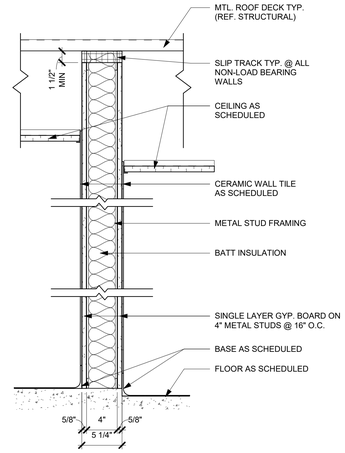
SHEET NO.
A-7.08



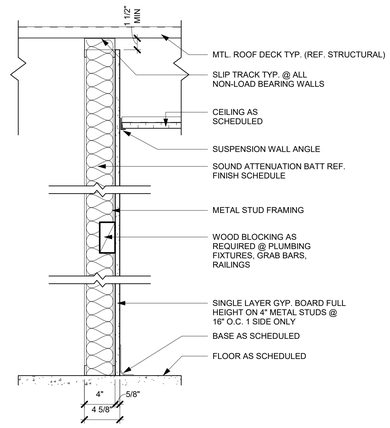
1 WALL PARTITION TYPE "A"
SCALE: 1 1/2" = 1'-0"



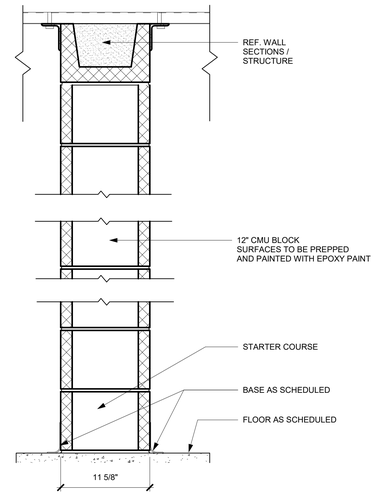
2 WALL PARTITION TYPE "B"
SCALE: 1 1/2" = 1'-0"



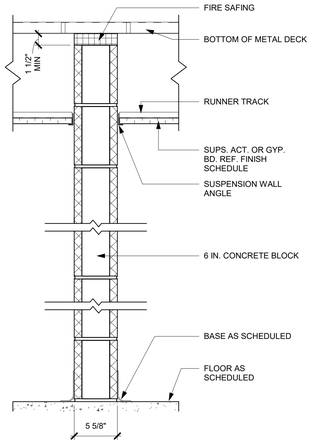
3 WALL PARTITION TYPE "C"
SCALE: 1 1/2" = 1'-0"



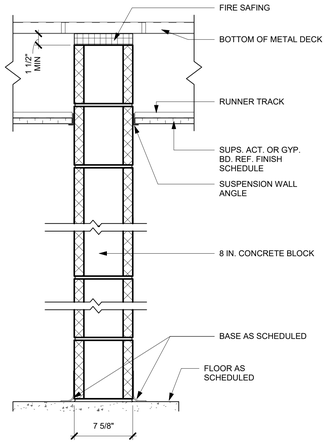
4 WALL PARTITION TYPE "D"
SCALE: 1 1/2" = 1'-0"



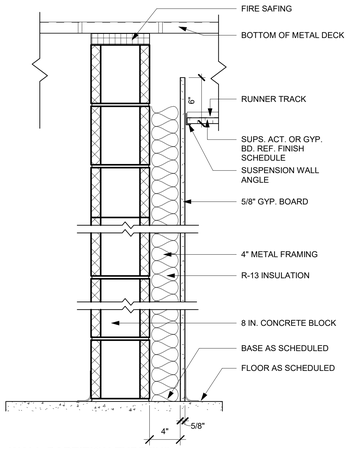
5 WALL PARTITION TYPE "E"
SCALE: 1 1/2" = 1'-0"



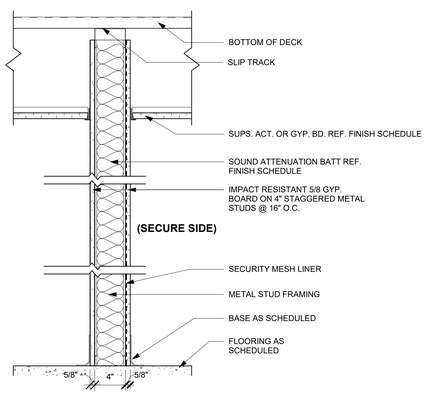
6 WALL PARTITION TYPE "F"
SCALE: 1 1/2" = 1'-0"



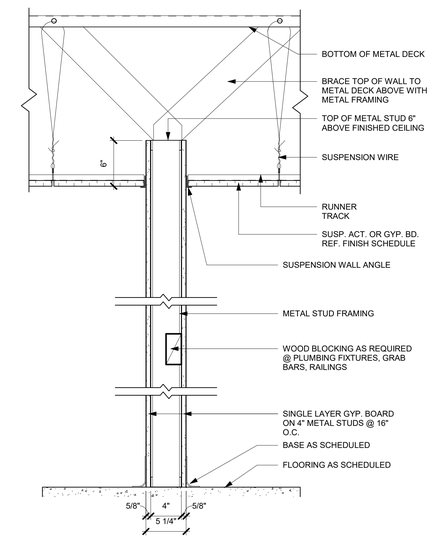
7 WALL PARTITION TYPE "G"
SCALE: 1 1/2" = 1'-0"



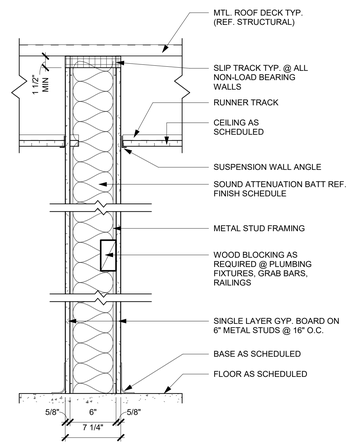
8 WALL PARTITION TYPE "H"
SCALE: 1 1/2" = 1'-0"



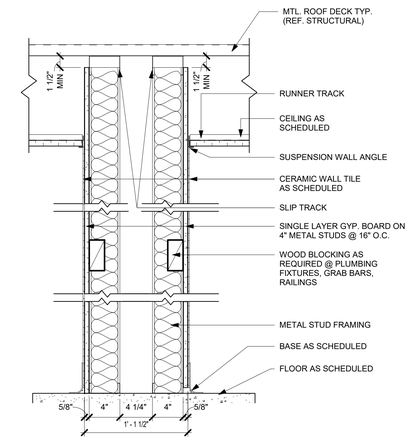
9 WALL PARTITION TYPE "J"
SCALE: 1 1/2" = 1'-0"



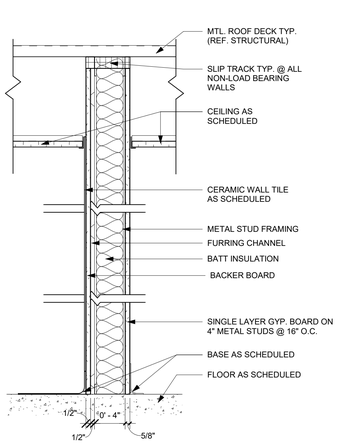
10 WALL PARTITION TYPE "K"
SCALE: 1 1/2" = 1'-0"



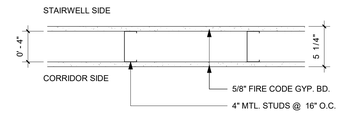
11 WALL PARTITION TYPE "L"
SCALE: 1 1/2" = 1'-0"



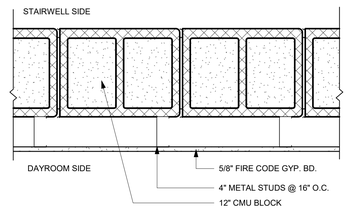
12 WALL PARTITION TYPE "M"
SCALE: 1 1/2" = 1'-0"



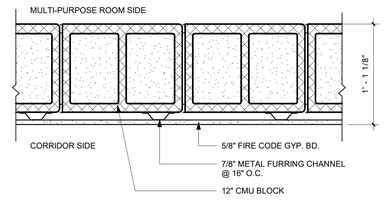
13 WALL PARTITION TYPE "N"
SCALE: 1 1/2" = 1'-0"



14 1 HR WALL @ STAIRWELL U.L. #U419
SCALE: 1 1/2" = 1'-0"



15 1 HR WALL @ STAIRWELL U.L. #U905
SCALE: 1 1/2" = 1'-0"



16 1 HR WALL @ STORM SHELTER U.L. #U905
SCALE: 1 1/2" = 1'-0"

DRAWN BY: M.A.
CHECKED BY: R.P.G.
DATE: 3/21/2024
ISSUED FOR PERMIT: 08/22/23
ISSUED FOR PRICING: 08/22/23

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No.	Description	Date

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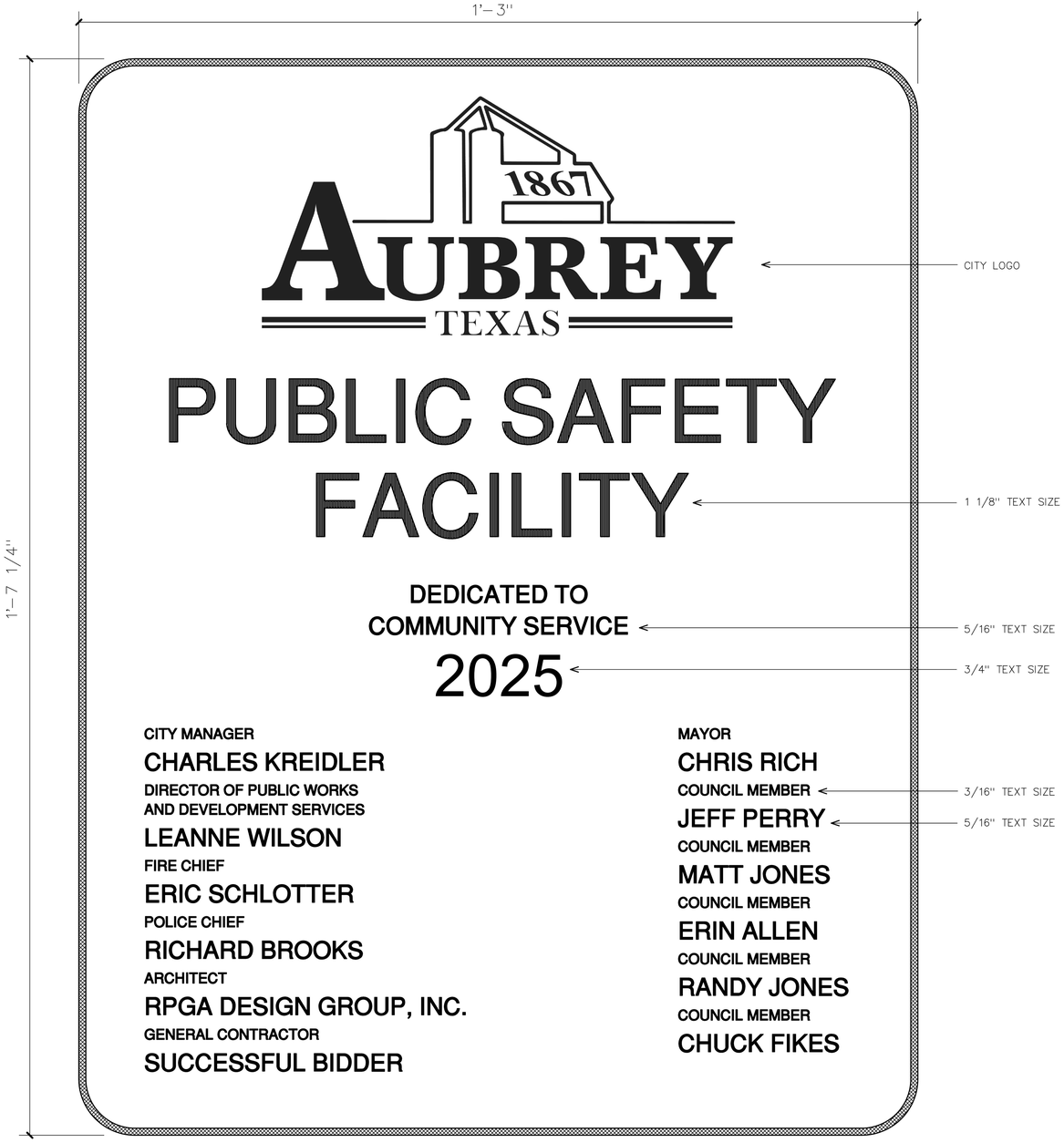
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CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

3/21/2024

SHEET DESCRIPTION: PARTITION TYPES

SHEET NO. A-7.10



BRONZE CASTING – SATIN FINISHED BORDER, LETTERS AND LOGO
DARK TEXTURED STIPPLE BACKGROUND
PLAQUE TO HAVE TWO COATS CLEAR ACRYLIC LACQUER
EQUAL TO A.R.K. RAMOS
FONT – HELVETICA

SEE SHEET A–3.03 FOR PLACEMENT.
VERIFY PLACEMENT WITH ARCHITECT PRIOR TO INSTALLATION.
VERIFY NAMES ON PLAQUE WITH OWNER AND
ARCHITECT DURING SUBMITTAL REVIEW.

01 CAST BRONZE PLAQUE

FULL SIZE SCALE

DRAWN BY: B.D.B.
CHECKED BY: R.P.G.
DATE: 3/21/2024
ISSUED FOR PERMIT:

ISSUED FOR PRICING:

REVISIONS:

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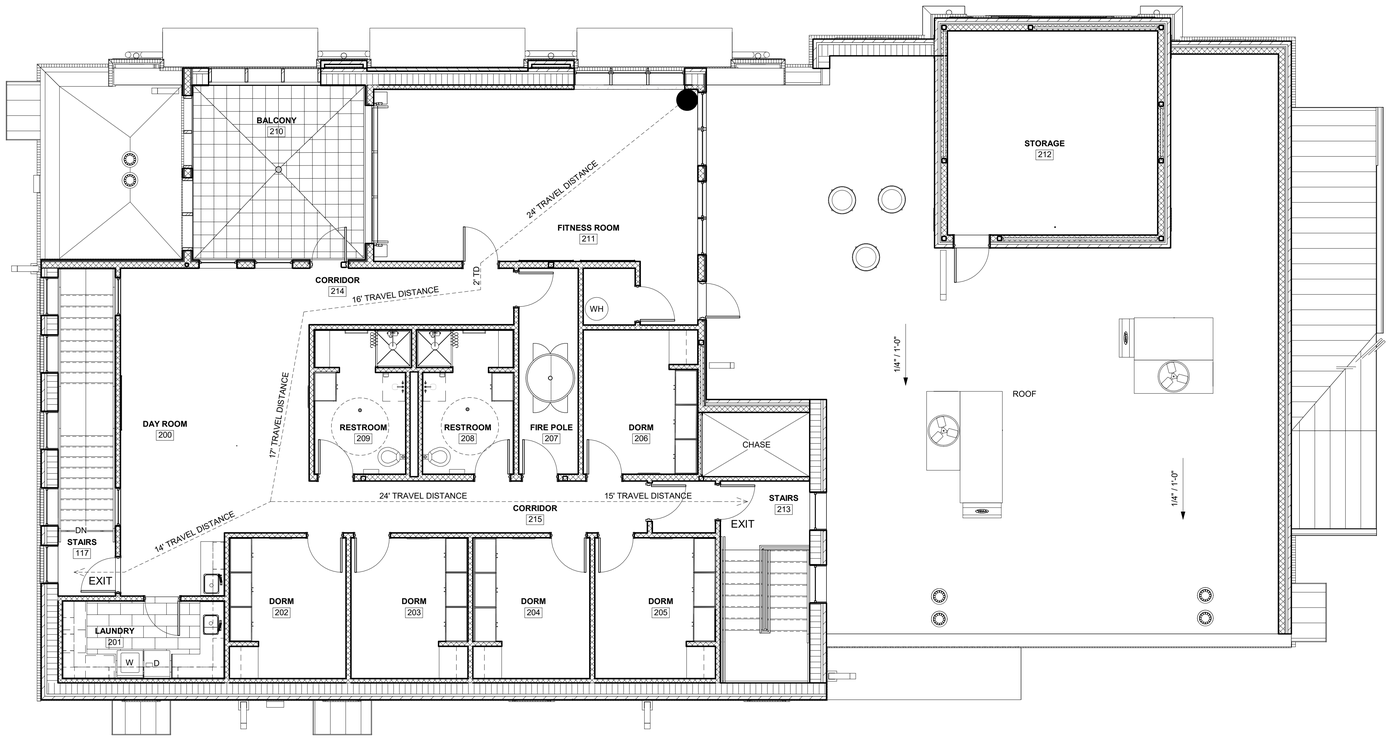
CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

REGISTERED ARCHITECT
RICHARD P. GRUNER, JR.
31A
STATE OF TEXAS

3/21/2024

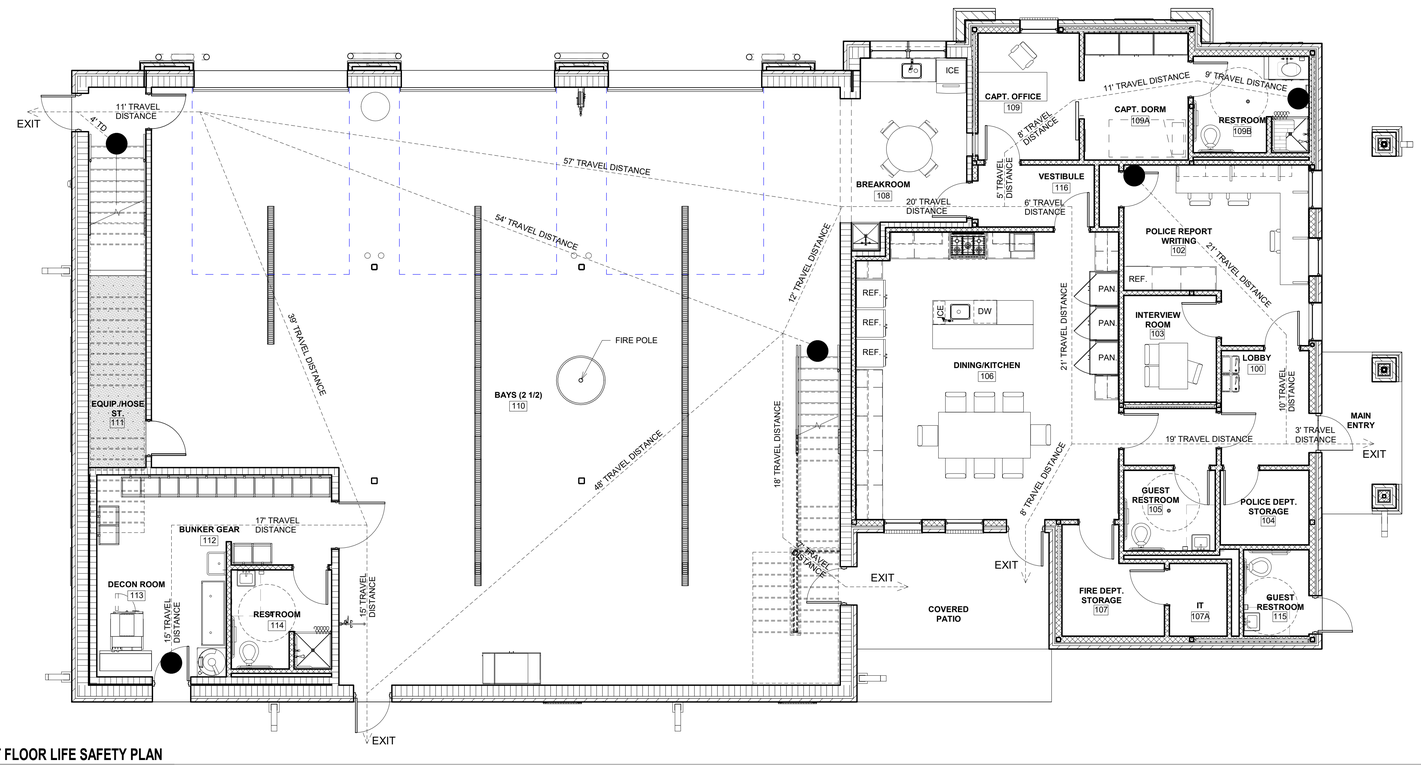
SHEET DESCRIPTION:
BUILDING PLAQUE

SHEET NO.
A-7.11



2 **SECOND FLOOR LIFE SAFETY PLAN**

SCALE: 3/16" = 1'-0"



1 **FIRST FLOOR LIFE SAFETY PLAN**

SCALE: 3/16" = 1'-0"

DRAWN BY:	M.A., A.N.B.
CHECKED BY:	R.P.G.
DATE:	3/21/2024
ISSUED FOR PERMIT:	
ISSUED FOR PRICING:	

REVISIONS:

No.	Description	Date

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CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

3/21/2024

SHEET DESCRIPTION:

LIFE SAFETY PLAN

SHEET NO.

A-7.12

GENERAL NOTES

GENERAL CONDITIONS

1. Design loads are as follows:
   - A. Roof live loads 20 PSF
   - B. Roof dead loads 25 PSF
   - C. Floor live loads:
     - i. Office 50 PSF
     - ii. Corridors & exit facilities (first floor) 100 PSF
     - iii. Corridors & exit facilities (above first floor level) 80 PSF
     - iv. Apparatus Bay/ Garage 250 PSF
     - v. Fitness Room 100 PSF
     - vi. Dormitory 40 PSF
   - D. Floor partition live loads 15 PSF
   - E. Equipment loads:
     - i. Generator 9,650 lbs max.
     - ii. Roof and floor supported HVAC equipment as noted on plan
   - F. Ground snow loads: 5 PSF
   - G. Wind pressure: unless noted otherwise, per ASCE 7-10 for:
     - i. Ultimate design wind speed = 120 mph (Risk Category IV)
     - ii. Exposure C.
     - iii. Component and cladding wind pressure:

       @ Tower / App Bay:

       Zone 1: 28.0, - 50.32
       Zone 2: 28.0, - 69.46
       Zone 3: 28.0, - 69.46
       Wall Zone 4: 37.6, - 40.75
       Wall Zone 5: 37.6, - 50.32

       @ Admin / Pavilion:

       Zone 1: 16.0, - 53.28
       Zone 2: 16.0, - 70.18
       Zone 3: 16.0, - 95.72
       Wall Zone 4: 33.41, - 36.25
       Wall Zone 5: 33.41, - 44.76
   - H. This project includes an ICC 500 compliant storm shelter. The ultimate design wind speed is 250 mph with an exposure factor of C.
   - I. Seismic design (per ASCE 7):
     - a. Seismic Risk Category: IV
     - b. Seismic Importance Factor: 1.5i
     - c. Mapped Spectral Response Acceleration Parameters:

       S_s=0.115g

       S_1=0.056g
     - d. Spectral Response Coefficients: S_{ds} = 0.01; S_{d1} = 0.09
     - e. Site Class: C
     - f. Seismic Design Category: A
     - g. Seismic Force Resisting System:
     - h. Design Base Shear: Reinf. CMU Walls (App. Bay) & Steel Braced Frames (Admin.)
     - i. Seismic Response Coefficient (CS) = 0.01
     - j. Analysis procedure: Equivalent Frame Method
2. Structure was designed in accordance with the IBC 2018 edition.
3. Consult structural engineer if locations or design weights of roof and floor supported Mech'l units differ from those indicated on structural plans.
4. Contractor shall verify all dimensions prior to start of construction.
5. General contractor shall be responsible for coordination of other trades (Mech'l, Elec'l, etc.) Prior to fabrication and installation of materials.
6. General contractor shall be responsible for coordination of architectural and structural drawings prior to fabrication, forming, or placement of materials. General contractor shall report discrepancies immediately to architect and shall proceed with construction only after discrepancy has been resolved.
7. The details designated as "Typical Details" apply generally to the drawings in all areas where conditions are similar to those shown in the details.

SITE

1. All drilled piers shall be cast-in-place, straight shaft piers bearing within the Gray Shale at a minimum depth of 28 feet below existing grade or final site grade, whichever is deeper. Design bearing pressure is 20 KSF. Design skin friction within the bearing strata, below minimum penetration of 5 ft. is 3 KSF for compression loads and 2.5 KSF for tension loads.
2. Bid pricing shall be based on bid depth indicated on drawings. Contractor should provide unit pricing per lineal foot of pier (add and deduct) on bid form. Adjustment to the contract sum will be made for overall increases or decreases in constructed pier quantity and length.
3. Casing is anticipated for this project. Contractor should provide unit pricing per lineal foot of casing on bid form. Adjustments to the contract sum will be made if casing is required due to site conditions, as determined by owner.
4. Pier casing, if required, shall be steel casing of sufficient strength to withstand handling and drilling stresses, concrete pressures, and surrounding earth and water pressures.
5. Provide bolsters and sleds for proper positioning of reinforcing within drilled shafts. Follow manufacturer's published installation recommendations.
6. Pier holes shall have reinforcing and concrete installed within 8 hours of after drilling. Holes that cannot be concreted within this time frame shall be backfilled and re-drilled.
7. Building pad shall be as follows:
   - A. Site preparation shall be in accordance with project geotechnical report. Reference Giles Engineering Associates, Inc. report no. 4G-2301011, dated February 12, 2024. Specifically reference report section 9.9 for preparation building site preparation.
   - B. Unless noted otherwise in geotechnical report, the building site and areas to be paved shall be stripped of all topsoil, vegetation, roots, old construction debris, or other organic material.
   - C. The subgrade shall be firm and able to support the construction equipment without displacement and be compacted as recommended in geotechnical report. Soft or yielding subgrade shall be corrected and made stable before construction proceeds. Any old fill found on the site shall be reworked to provide adequate support for foundations and pavements or shall be removed. The subgrade shall be proof rolled to detect any soft spots, which if exists, shall be reworked, compacted and tested.
   - D. At Pavilion, Contractor shall place a minimum of 3 feet of select fill in accordance with section 9.6 of geotechnical report.
   - E. Where foundation floor slab is suspended by use of void forms, the site preparation in area of void forms need only provide a level surface with sufficient strength to support carton forms and concrete. Unless noted otherwise in geotechnical report, fill in these areas may be on-site borrow material or imported select fill.
   - F. Compaction testing of controlled fills shall be taken as follows: one field density test per lift, for each 5000 SF of building area, with a minimum of two tests per lift. Each lift shall be compacted, tested, and approved before another lift is added.
8. Contractor shall brace wall or grade beam while placing backfill or fill material.
9. Contractor shall provide a 15 mil vapor barrier beneath all building slabs cast on grade. For void formed slab systems, the vapor barrier shall be placed on top of void forms, after inspection of the void forms has been completed.

CONCRETE

1. Concrete shall be composed of type 1 Portland Cement (ASTM C150), fine and coarse aggregates (ASTM C33), and potable water. Fly ash (ASTM C618, class C or F) may replace up to 20 percent of cementitious material. Set altering or water reducing admixtures (ASTM C494) may be used as conditions warrant.
2. Maximum water/cement ratio is 0.4 for exposed-to-view building slabs and 0.5 for all other concrete.
3. Concrete for piers shall have a minimum compressive strength of 3000 psi at 28 days. All other concrete shall have a minimum compressive strength of 4000 psi at 28 days.
4. Maximum nominal coarse aggregate size shall be 1" max., unless noted otherwise.
5. Concrete building slabs and grade beams that are exposed to weather shall be air entrained to between 4 and 6%.
6. Unless noted otherwise, concrete slump shall be as follows:

   Piers: 7" max., 5" min.

   All other concrete: 5" max., 3" min.
7. Reinforcing steel shall be ASTM A615 grade 60.
8. Welded wire fabric shall conform to ASTM 1065, Grade 65.
9. Unless noted otherwise, concrete protection for reinforcement shall be as follows:

   Piers 3" sides, 6" bottom, 2" top
   Footings 3" bottom, 2" sides, 2" top
   Grade beams 2" bottom, 2" sides, 1 ½" top
   Slabs on voids as indicated on plans
10. Unless noted otherwise, lap all reinforcing splices as follows:

Bar size	Class A splice	Class B splice
3	16"	21"
4	22"	28"
5	28"	36"
6	32"	42"
7	47"	62"
8	54"	70"
9	61"	79"
10	68"	88"

11. Provide corner bars to match and lap horizontal reinforcement at all grade beam and wall intersections. 30 bar dia. Lap minimum.
12. All reinforcement shall be detailed in accordance with the latest ACI Detailing Manual.
13. Contractor shall coordinate all penetrations, conduit, chamfers and embedded items prior to concrete placement.
14. Welded wire fabric shall be lapped the spacing of the cross wires plus 2".

MASONRY

1. Concrete masonry units: ASTM C90, grade N for loadbearing and reinforced masonry. Provide hollow normal weight units.
2. Unless noted otherwise, mortar for structural masonry shall be Type S, Portland Cement-Lime mortar. Masonry cement mortar is not allowed.
3. Bond shall be provided by lapping units in successive vertical courses.
4. Vertical cells to be filled shall have clear, unobstructed vertical cell of 2" x 3" minimum.
5. Cells to be grouted shall be filled solid. Grout shall have minimum 28 day compressive strength of 2500 PSI.
6. Unless noted otherwise, masonry shall be constructed using low-lift grouting procedures.
7. Vertical reinforcing bars shall be secured with bar supported to properly position bar in cells. Unless noted otherwise, the first cell at wall corners, each side of masonry control joints, door jambs, window jambs, and ends of walls shall be reinforced with 1-#5 and grouted solid.
8. Steel brick lintels for opening widths greater than 6'-0" shall be shored, at mid-span, until the supported brick wall has cured.
9. When a foundation dowel does not line up with a vertical reinforced cell, it shall not be sloped more than one horizontal to six vertical to achieve alignment. If the dowel cannot be aligned, it shall be grouted into an adjacent cell, in vertical alignment.
10. Temporary construction bracing of load-bearing walls shall remain in place until after the floor and roof deck attachments have been completed and all permanent bracing has been installed.

STRUCTURAL STEEL

1. Structural steel shall conform to AISC "Specification For The Design, Fabrication And Erection Of Structural Steel For Buildings", latest edition.
2. Galvanizing of steel members shall conform to ASTM A1236/A123M.
3. All structural steel wide flange shapes shall be ASTM A992 (grade 50). HSS shapes shall be A500 gr. B. Standard pipe shall be ASTM A53, grade B. All other structural steel shall be A36.
4. Welded construction shall conform to the American Welding Society "Structural Welding Code", D1.1
5. All welding shall be performed by welders certified with the last 12 months.
6. Full and partial penetration welds performed in the field shall be ultrasonically tested.
7. When welds are not called-out on drawings, they are minimum size continuous fillet welds in accordance with AWS D1.1.
8. All welds shall be made using E70 series electrodes.
9. Headed studs (H.S.) shall be nelson or better.
10. Structural steel connections not detailed shall be AISC standard type 2 connections.
11. All bolted connections shall use ASTM F3125 bolts unless noted otherwise. Temporary erection bolts may be ASTM A307
12. All bolts exposed to the elements shall be hot dipped galvanized or group 1, alloy 304 stainless steel
13. All type 2 beam connections shall be standard double angle type unless detailed otherwise. Angle sizes, number and size of bolts for field connections shall be designed using the shear scheduled or shown on the drawings or, when not indicated, 55% of the value found for the appropriate beam span from the beam tables shown in table 3-6 of the AISC Manual, fourteenth edition. In no case shall the number of rows of bolts in the beam connections be less than the number found by dividing the nominal beam depth by six (6) and rounding any fraction up to the next highest number.
14. Steel members shall not be spliced except where shown on the drawings. Steel members shown as rigid bents shall be miter cut in the shop and reconnected with full penetration welds. These welds shall be visually and ultrasonically tested by the testing laboratory.
15. Submit structural steel shop drawings to architect for approval prior to fabrication.
16. All structural steel shall be shop primed and field painted. Primer shall be gray oxide with minimum 2 mil dry thickness. Finish paint shall be 2 coats of rust-inhibiting paint as selected by owner.
17. Temporary construction bracing of the structural steel frame shall remain in place until after the floor and roof deck attachments have been completed and all permanent bracing has been installed.
18. The lifting and erection of pre-assembled elements, such as trusses or pre-fabricated framing, are considered special erection conditions. The selection of lift points and erection techniques are the responsibility of the contractor. Locate and provide sufficient lift points to prevent overstress and/or distortion of any components within the assembly. Provide temporary strong-backs, stiffeners and/or lifting devices as required.
19. The steel fabricator is responsible for coordination with the manufacturer of steel joists.

STRUCTURAL JOISTS

1. Steel joists shall confirm to the requirements of the standard specifications and load tables for open web steel joists, adopted by the steel joist institute. Joist manufacturer shall be a member of the steel joist institute. Joist erection shall conform to all applicable safety standards.
2. When special joists (sp) are indicated on plan, comply with the standard specifications and special design criteria as noted on the drawings. Special design criteria may include loading, end moments, wind uplift, deflection limits, maximum widths, special bridging, bottom chord bracing, cord stiffeners, bearing conditions, special seats, special chord configurations, clearance for ducts through members, etc. Provide all accessories as required to comply with the standard specifications and the design criteria.
3. Steel joists and bridging shall be designed by manufacturers for net uplift forces due to wind of 15 psf. Provide additional bridging as required to resist uplift forces, including a single line of bottom chord bridging near the first bottom chord panel point at each end of joists.
4. All hangers supporting mechanical equipment, etc. From the bottom chord of steel joists shall be located at the panel points of the joists.
5. All piping larger than 4" dia., running parallel to joists, shall be hung from a minimum of two joists, and supports shall be attached at panel points only.
6. For joists centered on columns, extend and weld bottom chords to columns. Do not connect bottom chords to columns until the supported roof or floor dead load is applied.
7. Joist bridging shall be furnished and installed to meet the design and spacing requirements of the steel joist institute specifications for open web joists. Provide bolted diagonal bridging for erection stability as required by the standard specifications, the governing building code, and/or OSHA. Provide additional bridging as required by the design to resist wind uplift forces indicated in notes or on drawings.
8. Depth of joists seats shall be 2 ½ inches for short span joists, unless shown otherwise on the drawings. Provide special seats as required at pitched roofs.
9. Joists shall be cambered the minimum recommended cambers, as indicated in the Steel Joist Institute Specifications, latest edition.
10. Where joists are utilized, and columns are not framed in at least two directions with structural steel members, a joist shall be field bolted at columns (each end of joist) to provide lateral stability during construction.
11. Damaged joists will be rejected. The contractor and the joist manufacturer shall be responsible for repairing and/or replacing damaged joists. All repairs shall be engineered by the joist manufacturer and repair details, signed and sealed by a registered engineer (in the state of the project) shall be submitted to the architect and engineer for review. An independent testing lab shall inspect all repairs. After successful completion of the repair work, the joist manufacturer shall submit the testing agency's reports along with the engineers' sealed letter stating that the damaged members have been satisfactorily repaired.

METAL ROOF DECK

1. Provide 1-1/2" metal decking 22 gage, type "B" roof deck. Deck shall be continuous over a minimum of 3 spans.
2. Unless noted otherwise, provide positive attachment to framing members with either 5/8" diameter puddle welds at the lap flutes and at a 36/4 pattern or powder actuated nails at the same spacing. Where CFMF metal framing is used for support, provide positive attachment to roof framing members (20ga. min. & F_y min = 33ksi) with #10 metal screws at the lap flutes and at a 36/4 pattern.
3. Acoustical deck and deck exposed to view (i.e., no ceiling or soffit) must be mechanically fastened to structure. Welding will not be permitted.
4. Side lap connections shall be #12 TEK screws, placed at the quarter points between the supports (minimum of 4 screws per panel).
5. Where partial panels may be required to complete deck installation at perimeter of structure, provide welds in each flute to structural members. Roof deck shall be continuous over a minimum of 3 spans.
6. At perimeters of deck: secure deck to structural members with same attachment and spacing as side lap connections or puddle welds as noted above.
7. All deck welds shall be made using E60 series electrodes.
8. The contractor shall arrange for mechanical fastener manufacturer's representative to provide onsite training for the fastening system specified. The structural engineer of record must receive documented confirmation that all of the contractor's personnel who install the fastening system are trained prior to the commencement of deck installation.
9. Installation of powder-actuated and screw fasteners shall be in accordance with manufacturer's recommendations.
10. Suspended ceiling, light fixtures, ducts, or other utilities shall not be supported by the steel deck.

METAL FLOOR DECK (NON COMPOSITE) [@ 2ND Floor Level]

1. Gage, standard form deck, depth: 1.0", gage: 20.
2. Attachment to framing members shall be made with 5/8" puddle welds through weld washers at each lap flute and 10 - 12" on center between lap flutes (total 4 welds per panel).
3. Where partial panels may be required to complete deck installation at the perimeter of structure, provide puddle welds at 12" on center.
4. Wire mesh reinforcement shall be centered between the top of the slab and the top of the metal deck. Reinforcement shall be 6 x 6 - W2.9 x W 2.9 WWF., U.N.O. reinf. for upper slab @ 2nd flr. balcony shall be 4x4, W2.9 x W2.9 WWF.
5. Form deck shall be continuous over a minimum of 3 spans.
6. Suspended ceiling, light fixtures, ducts, or other utilities shall not be supported by the steel deck.

COMPOSITE CONSTRUCTION [@ Storm Shelter]

1. Metal deck shall be 20 gage, galvanized, 2" deep composite metal deck, type "2 VLI" manufactured by vulcraft, or approved equal.
2. Deck shall be formed with integral locking lugs, etc. To provide a mechanical lock between steel deck and concrete topping (composite), and shall have 12" cell spacings.
3. Deck manufacturer shall furnish sheet metal closures between floor units and beams or columns as required.
4. Do not cut deck for openings not shown on drawings until concrete is in place and set.
5. Deck shall be shored during construction in accordance with deck manufacturer's recommendations, if spans and loads require deck to be shored. Contractor shall submit shop drawing indicating where deck is to be shored.
6. Attach deck to steel beams with 5/8" diameter puddle welds at each rib (12" o.c.). Headed studs welded through deck may replace puddle welds. Side laps shall be fastened with #12 tek screws at 3 feet on center between supports.
7. Deck shall be installed in 3 span lengths.
8. Unless otherwise indicated in the details, metal edge shall be 14 gage cold formed steel, welded at supporting beam flange at 12" on center.
9. Shear studs shall be 3/4" diameter by 4" headed studs (finish length).
10. Fill above deck shall be 3-1/2" thick normal weight concrete (145 pcf).
11. Reinforce fill with 4 x 4 W2.9 x W2.9 welded wire fabric (lap 6" at splices).
12. Place an extra layer of wire mesh 6'-0" feet wide in the top of the slab above all floor girders (not required over purlins).
13. Place support bolsters for wire mesh on purlin flanges so that the mesh is above the shear studs over the purlins and drapes down to 3/4" above the metal deck flutes between purlins.
14. It is the intent of these drawings to produce a level floor. During concrete placement, steel beams with a specified camber are anticipated to deflect to approximately level. Concrete slab shall be finished to a uniform thickness following the specified camber of the beams. Steel beams with no specified camber and the metal deck are anticipated to deflect as shown below. These deflections will produce an excess concrete quantity above that required for the minimum thickness specified. The contractor shall be familiar with the conditions of the project and furnish the materials required to create the specified floor elevation.
15. Member anticipated deflection:
    - A. Uncambered beams 1/2"
    - B. Metal deck 1/8"

PREMANUFACTURED AWNINGS AND CANOPIES

1. Design and construction of premanufactured awnings and canopies, including connections to the building structure, are the responsibility of the manufacturer.
2. Awnings and canopies shall be designed and constructed in accordance with the local building code.
3. Connections to building must be to structural members. Connections to masonry veneer will not be allowed.
4. The contractor shall coordinate the manufacturer's work with all trades and conform to performance and appearance criteria indicated in sections and details provided by the architect.
5. Submit show drawings and connection details for review.
6. Provide structural calculations, sealed by an engineer licensed to practice in the state [of Texas] [in which the project is located].
7. Design loads and structural performance criteria shall be as follows:
   - A. Wind: see general notes for wind speed and exposure. Design for uplift forces specified by the building code, limit lateral deflection to l/240.
   - B. Gravity:
     - i. Roof live load: 20 psf, reducible by code.
     - ii. Roof dead load: structure weight = weight of applied materials.
   - C. Deflections limits: LL= l/360; total load = l/240.

POST-INSTALLED ANCHORS

1. Except where indicated on the drawings, post-installed anchors shall consist of the following anchor types as provided by Hilti, Inc. Contact Hilti at (800) 879-8000 for product related questions.
   - A. Anchorage to concrete
     - i. Adhesive anchors for cracked and uncracked concrete use:
       - a. Adhesives for use:
         - (i) Hilti HIT-HY 200 safe set system with Hilti hollow drill bit and vacuum with HAS threaded rod per ICC ESR-3187
       - b. Steel elements for use with adhesive:
         - (i) Hilti HAS-V-36 grade 36 carbon steel rod
     - ii. Basis of design includes the following design parameters:
       - a. Cracked concrete
       - b. Water-saturated concrete
       - c. Base material temperature of 23-104 degrees Fahrenheit
       - d. Allowable with hammer-drill, hollow drill bit system, and core drilling methods
   - B. Rebar doweling into concrete
     - i. Adhesive anchors for cracked and uncracked concrete use:
       - a. Hilti HIT-HY 200 safe set system with Hilti hollow drill bit and vacuum with continuously deformed rebar per ICC ESR-3187
     - ii. Basis of design includes the following design parameters:
       - a. Cracked concrete
       - b. Water-saturated concrete
       - c. Base material temperature of 23-104 degrees Fahrenheit
       - d. Allowable with hammer-drill, hollow drill bit system, and core drilling methods
       - e. Current ICC-ES report with approval for development of bar using ACI provisions for embedment depths greater than 20 bar diameters
   - C. Anchorage to solid grouted masonry
     - i. Adhesive anchors use:
       - a. Hilti HIT-HY 270 safe set system with Hilti hollow drill bit and vacuum per ICC ESR-4143
       - b. Steel anchor element shall be Hilti HAS continuously threaded rod or continuously deformed steel rebar
2. Anchor capacity used in design shall be based on the technical data published by Hilti or other such method as approved by the structural engineer of record. Substitution requests for alternate products must be approved in writing by the structural engineer of record prior to use. Contractor shall provide calculations that have been sealed by another licensed engineer demonstrating that the substituted product is capable of meeting the performance of the specified product. Fasteners submitted for substitution must also have an ICC ESR showing compliance with the relevant building code for seismic uses, load resistance, installation category, and availability of comprehensive installation instructions for that particular fastener. Adhesive anchor evaluation will also consider creep, in-service temperature, installation temperature, moisture condition of concrete, and drilling methods.
3. Use of diamond core bit with roughening tool for anchor holes requires approval from engineer of record prior to drilling. Unless otherwise shown in the drawings, all holes shall be drilled perpendicular to the concrete surface.
4. Install anchors per the manufacturer's printed installation instructions, as included in the anchor packaging.
5. Overhead adhesive anchors must be installed using the Hilti PROFI piston plug system.
6. The contractor shall arrange an anchor manufacturer's representative to provide onsite installation training for all anchor products specified. The structural engineer of record must receive documented confirmation that all personnel who install anchors are trained prior to the commencement of anchor installation.
7. Anchor capacity is dependent upon spacing between adjacent anchors and proximity of anchors to edge of concrete. Install anchors in accordance with spacing and edge clearances indicated on the drawings.
8. Existing reinforcing bars in the concrete structure may conflict with specific anchor locations. Unless noted otherwise on the drawings, existing bars may not be cut. The contractor shall review the existing structural drawings and shall undertake to locate the position of the reinforcing bars at the locations of the concrete anchors by gpr, x-ray, chipping or other approved means.

SHOP DRAWING REVIEW AND SUBMITTAL NOTES

1. Shop drawings and/or product data for the following items are to be submitted to the structural engineer for review:
   - A. Reinforcing steel data and shop drawings.
   - B. Concrete formwork and void forms data.
   - C. Concrete mix designs.
   - D. Masonry product data.
   - E. Masonry reinforcing shop drawings and data.
   - F. Structural steel shop drawings and data.
   - G. Steel joists shop drawings and data.
   - H. Metal decking shop drawings and data.
   - I. Pre-engineered awnings data and calculations.
   - J. Light gauge metal framing and calculations.
2. General contractor shall pre-check all shop drawings before submission to the engineer for review. All submittals materials must bear the review stamp of the general contractor.
3. Allow 10 working days after date of delivery to the architect for engineer's review of shop drawings.
4. The use of reproductions of theses contract drawings, including the use of electronic files, by any contractor, subcontractor, erector, fabricator, or material supplier in lieu of the independent preparation of shop drawings signified their acceptance of all information shown hereon as correct and obligates themselves to any job expense, real or implied, arising due to any errors that may occur thereon. Such use of reproductions of these contract documents will not be allowed without prior consent from the engineer.

TESTING LAB SERVICES

1. An independent testing lab shall be engaged to perform quality control testing and inspections.
2. Contractor shall cooperate and coordinate activities with owner's testing lab.
3. Testing lab shall perform the following services:
   - A. Observation of pier drilling.
   - B. Observe void form systems, prior to placement of vapor barriers.
   - C. Observe reinforcing steel and items embedded in concrete.
   - D. Observe concrete pours.
   - E. Provide concrete testing as follows:
     - i. Prepare one set of five cylinders, from each day's pour for each type of concrete used, for compressive strength testing. Break one cylinder at 7 days, two at 28 days, and hold two for future testing, if required.
     - ii. Perform one slump test for ea. Set of cylinders prepared. Perform additional slump tests as required when changes in concrete consistency are discernable.
   - F. Provide inspection of structural steel connections with testing of a minimum of 20 percent of bolts and welds, per specifications.
   - G. Provide inspection of roof and floor deck attachments.
   - H. Perform periodic masonry grout and mortar testing as specified and observation of masonry reinforcement.
4. Refer to special inspections notes for special inspections required by code. Special inspections are in addition to the general quality control inspections indicated above.

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No.	Description	Date

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FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

STATE OF TEXAS
JULIO CESAR ANDRINO
131720
LICENSED
PROFESSIONAL ENGINEER
03-20-2024

SHEET DESCRIPTION:
GENERAL NOTES

SHEET NO.
S-0.01

SPECIAL INSPECTIONS

SI-1 The registered design professional in responsible charge (RDPiRC) for this project is the architect. Submit all inspection reports directly to the RDPiRC for review. Also, submit the structurally related special inspection reports to the structural engineer for review.

SI-2 The RDPiRC contracts with or is employed by the owner. In order to comply with the code requirements, the RDPiRC And the special inspectors and testing technicians may not be in the employ of the general contractor (GC), Subcontractors or material suppliers. In the case of an owner / contractor, the building official shall specify who employs the RDPiRC, special inspectors and testing technicians.

SI-3 These inspections are in addition to the inspections specified in Section 110 of the IBC. Refer to the building code, and any amendments to the building code for this jurisdiction, to determine all the required inspections in addition to the special inspections listed below.

SI-4 Inspection of Fabricators - Fabricator shall submit to the RDPiRC, with a copy to the owner and the GC, a certificate of compliance stating the he fabricated his work under the inspections services of a special inspector or under the inspection services of a nationally recognized trade organization that requires quality control inspections.

<<The following special inspections in table form are required only if marked by a 'X', 'C', or 'P'.
X - Denotes that the inspection is required, one time occurrence.
C - Denotes that the inspection is required and shall be continuous.
P - Denotes that the inspection is required and shall be periodic.
R - Denotes that inspection/testing is required and shall be performed with applicable standards.
NA - Denotes not applicable to this project.
"- - -" - Observe, or perform in accordance with applicable standards.

SI-5 Open Web Steel Joists & Joist Girders (Per IBC 2018 Table 1705.2.3)

Mark	Description	Referenced Standard
	1. Installation of open-web steel joists and joist girders.	
P	a. End connections - welding or bolted.	SJI specifications listed in Section 2207.1.
	b. Bridging - horizontal or diagonal.	
P	1. Standard bridging.	SJI specifications listed in Section 2207.1.
P	2. Bridging that differs from the SJI specifications listed in Section 2207.1.	

SI-6 Structural Steel Construction

Mark	Description	REFERNCED STANDARD	IBC REFERENCED	Remark
	Structural Steel:	AISC 360 Ch.N	1705.2	
P	1. Material verification of structural steel.	ASTM 6 ASTM Standards AISC 360 A3.1		Review Structural steel mill certificates and test reports
P	2. Verify structural steel indentification markings.	Applicable ASTM Standards		
	3. Structural steel welding:	AWS D1.1 AISC 360M2.4		
- - -	a. Inspection tasks Prior to Welding.			QA tasks listed in AISC 360, Table N5.4-1
- - -	b. Inspection tasks During Welding.			QA tasks listed in AISC 360, Table N5.4-2
- - -	c. Inspection tasks After Welding.			QA tasks listed in AISC 360, Table N5.4-3
	d. Nondestructive testing (NDT) of welded joints:			EXCEPTION: NDT of welds completed in an approved fabricator's shop. See AISC 360, N6
- - -	1) Complete penetration groove welds 5/16" or greater in risk category III or IV			AISC 360 N5b UT on 100%, may reduce to 25% per AISC 360, N5e
- - -	2) Complete penetration groove welds 5/16" or greater in risk category II			AISC 360, N5b UT on 10%, may increase to 100% per AISC 360, N5f
- - -	3) Welded joints subject to fatigue when required by Aisc 360, Appendix 3, Table A-3.1			AISC 360, N5c
- - -	4) Fabricator's NDT reports when fabricator performs NDT			AISC 360, N6
	4. Structural steel bolting:	RCSC Specification		
- - -	a. Inspection tasks Prior to Bolting			QA tasks listed in AISC 360, Table N5.6-1
- - -	b. Inspection tasks During Bolting			QA tasks listed in AISC 360, Table N5.6-2
- - -	c. Inspection tasks After Bolting			QA tasks listed in AISC 360, Table N5.6-3
P	5. Visual inspection of exposed cut surfaces of galvanized structural steel main members and exposed corners of the rectangular HSS for cracks subsequent to galvanizing.			
	Other Inspection Tasks:	AISC 360 N5.8		
P	1. Inspect steel frames to verify compliance with the details shown on the construction documents, such as braces, stiffeners, member locations and proper application of joint details at each connection.			
P	2. Inspect the placement of anchor rods and other embedments supporting structural steel for compliance with the construction documents. The diameter, grade, type and length of the anchor rod or embedded item, and the extent or depth of embedment into the concrete, shall be verified prior to the placement of concrete.			
	Cold-Formed Steel Deck:	SDI QA/QC		
P	1. Manufacturer documents listed ins SDI QA/QC, Section 2.1 & 2.2	SDI QA/QC Sec. 2		
	2. Cold-formed steel deck placement:			
- - -	a. Inspection tasks prior to deck placement			SDI QA/QC, Appendix 1 Table 1.1
- - -	b. Inspection tasks after deck placement			SDI QA/QC, Appendix 1 Table 1.2
	3. Cold-formed steel deck welding:	AWS D1.3		
- - -	a. Inspection tasks prior to welding			SDI QA/QC, Appendix 1 Table 1.3
- - -	b. Inspections tasks during welding			SDI QA/QC, Appendix 1 Table 1.4
- - -	c. Inspection tasks after welding			SDI QA/QC, Appendix 1 Table 1.5
	4. Cold-formed steel deck mechanical fastening:			
- - -	a. Inspection tasks prior to mechanical fastening			SDI QA/QC, Appendix 1 Table 1.6
- - -	b. Inspections tasks during mechanical fastening			SDI QA/QC, Appendix 1 Table 1.7
- - -	c. Inspection tasks after mechanical fastening			SDI QA/QC, Appendix 1 Table 1.8
	Inspection of steel elements of composite construction prior to concrete placement:			
P	1. Placement and Installation of steel headed stud anchors	AWS D1.1, D1.5, D1.6		
	Verification of Steel Construction Other Than Structural Steel:			
	1. Inspection of welding:			
	a. Reinforcing steel:			
P	1) Verification of weldability of reinforcing steel other than ASTMA A706	AWS D1.4 ACI 318: Ch. 26.6.1.1(g), 26.6.4.1		
C	2) Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special structural walls of concrete and shear reinforcement.	AWS D1.4 ACI 318: Ch. 26.6.1.1(g), 26.6.4.1		
C	3) Shear reinforcement	AWS D1.4 ACI 318: Ch. 26.6.1.1(g), 26.6.4.1		
P	4) Other reinforcement	AWS D1.4 ACI 318: Ch. 26.6.1.1(g), 26.6.4.1		

SI-7 Concrete Construction (Per IBC 2018 Table 1705.3)

Mark	Description	Referenced Standard	IBC Reference
P	1. Inspect reinforcement, including prestressing tendons, and verify placement.	ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
	2. Reinforcing bar welding:		
P	a. Inspect single-pass fillet welds, maximum 5/16"; and	ACI 318: 26.6.4	
P	3. Inspect anchors cast in concrete.	ACI 318: 17.8.2	
	4. Inspect anchors post-installed in hardened concrete members [a]		
C	a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	ACI 318: 17.8.2.4	
P	b. Mechanical anchors and adhesive anchors not defined in 4.a.	ACI 318: 17.8.2	
P	5. Verify use of required design mix.	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
C	6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	ASTM C172 ASTM C31 ACI 318: 26.4, 26.12	1908.10
C	7. Inspect concrete and shotcrete placement for proper application techniques.	ACI 318: 26.5	1908.6, 1908.7, 1908.8
P	8. Verify maintenance of specified curing temperature and techniques.	ACI 318: 26.5.3-26.5.5	1908.9
	9. Inspect prestressed concrete for:		
NA	a. Application of prestressing forces; and	ACI 318: 26.10	
NA	b. Grouting of bonded prestressing tendons.		
NA	10. Inspect erection of precast concrete members.	ACI 318: Ch. 26.8	
P	11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	ACI 318: 26.11.2	
P	12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	ACI 318: 26.11.1.2(b)	

Note:
a. Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

SI-8A Masonry Construction (Per TMS 602-16 Table 4)

Mark	MINIMUM TESTS
R	Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Specification Article 1.5 B.1.b.3 for self-consolidating grout.
R	Verification of f'_m and f'_{AAC} in accordance with Specification Article 1.4 B prior to construction, except where specifically exempted by TMS 402-13/ACI 530-13/ASCE 5-13.

Mark	MINIMUM SPECIAL INSPECTIONS					
	Inspection Task	Frequency			Reference for Criteria	
		Level 1	Level 2	Level 3	TMS 402	TMS 602
FREQUENCY AS NOTED	1. As masonry construction begins, verify that the following are in compliance:					
	a. Proportions of site-prepared mortar.	NA	P	NA		Art. 2.1, 2.6 A, & 2.6 C
	b. Grade and size of prestressing tendons and anchorages.	NA	P	NA		Art. 2.4 B & 2.4 H
	c. Grade, type and size of reinforcement, connectors, anchor bolts, and prestressing tendons and anchorages.	NA	P	NA		Art. 3.4 & 3.6 A
	d. Prestressing technique.	NA	P	NA		Art. 3.6 B
	e. Properties of thin-bed mortar for AAC masonry.	NA	C[a]/P[b]	NA		Art. 2.1 C.1
	f. Sample panel construction.	NA	P	NA		Art. 1.6 D
	2. Prior to grouting, verify that the following are in compliance:					
	a. Grout space.	NA	P	NA		Art. 3.2 D & 3.2 F
	b. Placement of prestressing tendons and anchorages.	NA	P	NA	Sec. 10.8 & 10.9	Art. 2.4 & 3.6
	c. Placement of reinforcement, connectors, and anchor bolts.	NA	P	NA	Sec. 6.1, 6.3.1, 6.3.6 & 6.3.7	Art. 2.4 & 3.6
	d. Proportions of site-prepared grout and prestressing grout for bonded tendons	NA	P	NA		Art. 2.6 B & 2.4 G.1.b
	3. Verify compliance of the following during construction:					
	a. Materials and procedures with the approved submittals.	NA	P	NA		Art. 1.5
	b. Placement of masonry units and mortar joint construction.	NA	P	NA		Art. 3.3 B
	c. Size and location of structural members.	NA	P	NA		Art. 3.3 F
	d. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.	NA	P	NA	Sec. 1.2.1 (e), 6.2.1, & 6.3.1	
	e. Welding of reinforcement.	NA	C	NA	Sec. 6.1.6.1.2	
	f. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F (44°C)) or hot weather (temperature above 90°F (32.2°)).	NA	P	NA		Art. 1.8 C & 1.8 D
	g. Application and measurement of prestressing force.	NA	C	NA		Art. 3.6 B
	h. Placement of grout and prestressing grout for bonded tendons is in compliance.	NA	C	NA		Art. 3.5 & 3.6 C
	i. Placement of AAC masonry units and construction of thin-bed mortar joints.	NA	C[a]/P[b]	NA		Art. 3.3 B.9 & 3.3 F.1.b
	4. Observe preparation of grout specimens, mortar specimens, and/or prisms.	NA	P	NA		Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.3.c.3, 1.4 B.3 & 1.4 B.4

Note:
(a) Required for the first 5000 square feet (465 square meters) of AAC masonry.
(b) Required after the first 5000 square feet (465 square meters) of AAC masonry.

SI-8B Masonry Construction (Per TMS 602-16 Table 3)

Mark	Minimum Verification Requirements	Required for Quality Assurance [a]			Reference for Criteria
		Level 1	Level 2	Level 3	TMS 602
FREQUENCY AS NOTED	Prior to construction, verification of compliance of submittals.	NA	R	NA	Art. 1.5
	Prior to construction, verification of f'_m and f'_{AAC}, except where specifically exempted by Code.	NA	R	NA	Art. 1.4 B
	During construction, verification of Slump flow and Visual Stability Index (VSI) when self-consolidating grout is delivered to project site.	NA	R	NA	Art. 1.5 & 1.6.3
	During construction, verification of f'_m and f'_{AAC}, for every 5,000 sq. ft. (465 sq. m).	NA	NR	NA	Art. 1.4 B
	During construction, verification of proportions of materials as delivered to the project site for premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout.	NA	NR	NA	Art. 1.4 B

Note:
(a) R = Required, NR = Not Required

SI-9 Wood Construction - does NOT apply to this project.

SI-10 Cold-Formed Steel Light-Frame Construction

Mark	Description	REFERNCED STANDARD	IBC REFERENCED	Remark
P	1. Where fabrication of structural, load-bearing or lateral load-resisting members or assemblies is being conducted on the premises of a fabricator's shop, Special Inspections of the fabricated items shall be performed during fabrication except where the fabricator has been approved to perform work without Special Inspections in accordance with Section 1704.2.5.		1704.2.5	
NA	2. Where a cold-formed steel truss clear span is 60 feet or greater, verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the approved truss submittal package.		1705.2.4	

SI-11 Soils (Per IBC 2018 Table 1705.6)

Mark	Description
P	1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.
P	2. Verify excavations are extended to proper depth and have reached proper material.
P	3. Perform classification and testing of compacted fill materials.
C	4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill.
P	5. Prior to placement o compacted fill, inspect subgrade and verify that site has been prepared properly.

SI-12 Pile Foundations (Per IBC 2018 Table 1705.7) - does NOT apply to this project.

SI-13 Pier Foundations (Per IBC 2018 Table 1705.8)

Mark	Description
C	1. Inspect drilling operations and maintain complete and accurate records for each element.
C	2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes.
-	3. For concrete elements, perform tests and additional special inspections in accordance with Concrete construction inspections.

SI-14 Wind Resistance

Mark	Description	REFERNCED STANDARD	IBC REFERENCED	Remark
	1. Structural Wood:		1705.11.1	
NA	a. Field gluing operations of the main windforce-resisting system			
NA	b. Nailing, bolting, anchoring and other fastening of components within the main windforce-resisting system, including wood shear walls, wood diaphragms, drag struts/collectors, braces and hold-downs, except if sheathing fastener spacing exceeds 4" on center.			
NA	2. Cold-Formed Steel Light-Frame Construction:		1705.11.2	
NA	a. Welding operations of elements of the main windforce-resisting system.			
NA	b. Screw attachment, bolting, anchoring and other fastening of elements of the main windforce-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs, except if the sheathing is gypsum or fiberboard or if fastener spacing is more than 4" on center.			
	3. Wind-Resisting Components in all structures. Fastening of the following systems and components:		1705.11.3	
P	a. Roof covering, roof deck and roof framing connections			
P	b. Exterior wall covering and wall connections to roof and floor diaphragms and framing			

R L W A
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ISSUED FOR PRICING: 03/14/24

REVISIONS:

No.	Description	Date

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FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

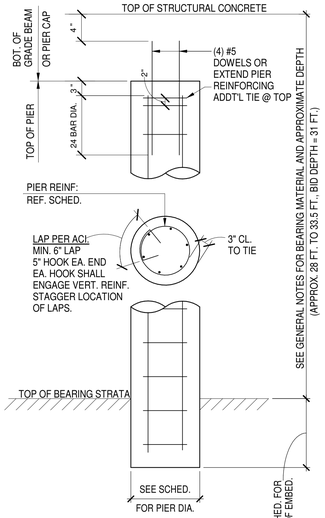
STATE OF TEXAS
JULIO CESAR ANDRINO
131720
LICENSED PROFESSIONAL ENGINEER
03-20-2024

SHEET DESCRIPTION:
SPECIAL INSPECTIONS

SHEET NO.
S-0.02

ABBREVIATIONS USED ON STRUCTURAL DRAWINGS

ABOVE FIN. FL.	- A.F.F.	LARGER THAN OR EQUAL TO	- >=
ADDITIONAL	- ADDT'L.	LESS THAN OR EQUAL TO	- <=
ADJACENT	- ADJ.	LIVE LOAD	- L.L.
ALTERNATE	- ALT.	LONGITUDINAL	- LONG.
ANCHOR BOLT	- A.B.	LONG LEG HORIZONTAL	- LLH
AND	- &	LONG LEG VERTICAL	- LLV
ANGLE	- L	LOW POINT	- L.P.
APPROXIMATE	- APPROX.	LONG SIDE VERTICAL	- LSV
ARCHITECTURAL	- ARCH'L.	MANUFACTURER	- MFR.
AT	- @	MATERIAL	- MAT'L.
AIR CONDITIONER	- A/C	MAXIMUM	- MAX.
AIR HANDLING UNIT	- AHU	MECHANICAL	- MECH'L.
		METAL	- MET.
BACK TO BACK	- B/B	MEZZANINE	- MEZZ.
BASE PLATE	- BP.	MINIMUM	- MIN.
BEAM	- BM.	MISCELLANEOUS	- MISC.
BEARING	- BRG.	MOMENT	- M.
BETWEEN	- BTWN.	MOMENT CONNECTIONS	- M.C.
BLOCKING	- BLK'G.	NEAR SIDE	- N.S.
BOTH WAYS	- B.W.	NEW	- (N)
BOTTOM	- BOT.	NOT TO SCALE	- N.T.S.
BOTTOM CHORD EXTENSION	- BCX	NUMBER	- NO.
BRIDGING	- BRDG.		
BUILDING	- BLDG.	ON CENTER	- O.C.
BUILDING LINE	- B.L.	OPENING(S)	- OPNG.(S)
		OPPOSITE	- OPP.
CAMBER	- C	OPPOSITE HAND	- O.H.
CEILING	- CLG.	OUTSIDE DIAMETER	- O.D.
CENTER TO CENTER	- C/C	OUTSIDE FACE	- O.F.
CENTER LINE	- ℄		
CENTERED	- CNTRD.	PENETRATION	- PEN.
CHANNEL	- C	PERIMETER	- PERIM.
CLEAR	- CL.	PERPENDICULAR	- PERP.
COLUMN	- COL.	PIPE BRACE	- P.B.
COMPRESSION	- C.	PLATE	- R.; PL.
CONCRETE	- CONC.	POINT	- PT.
CONCRETE MASONRY UNIT	- CMU	PRECAST CONCRETE	- P/C
CONDENSING UNIT	- CU	PROJECTION	- PROJ.
CONNECTION(S)	- CONN.(S)		
CONTINUOUS	- CONT.	RADIUS	- RAD.
CONSTRUCTION JOINT	- C.J.	REFER	- REF.
COORDINATE	- COORD.	REINFORCING	- REINF.
		REMAINDER	- REM.
DEFORMED BAR ANCHOR	- DBA.	REQUIRED	- REQ'D.
DETAIL	- DET.	RIGID FRAME	- R.F.
DEAD LOAD	- D.L.	ROOF TOP UNIT	- RTU
DIAGONAL	- DIAG.	ROOF DRAIN	- R.D.
DIAGONAL BRACE	- D.B.		
DIAMETER	- DIA. OR ∅	SAWN JOINT	- S.J.
DIMENSION	- DIM.	SCHEDULE	- SCHED.
DOUBLE	- DBL.	SECTION	- SECT.
DOWELS	- DWL(S)	SHEAR	- V.
DOWN	- DN.	SHEET	- SHT.
DRAWING	- DRWG.	SIMILAR	- SIM.
		SLIP CONNECTION	- S.C.
EACH	- EA.	SPACE	- SP.
EACH FACE	- E.F.	SPECIFICATIONS	- SPEC.
EACH WAY	- E.W.	STANDARD	- STD.
ELECTRICAL	- ELEC'L.	STEEL	- STL.
ELEVATION	- EL.	STIFFENER	- STIFF.
ELEVATOR	- ELEV.	STIRRUPS	- STIR.
ENGINEER	- ENGR.	STRUCTURE	- STRUCT.
EQUAL(EQUALLY)	- EQ.	STRUCTURAL	- STRUCT'L.
EXPANSION	- EXP.	SUPPORT	- SUPT.
EXPANSION JOINT	- E.J.	SYMMETRICAL	- SYMM.
EXISTING	- EXIST. ; (E)		
EXTERIOR	- EXT.	TOP CHORD EXTENSION	- TCX
FACE TO FACE	- F/F	TEMPERATURE	- TEMP.
FAR SIDE	- F.S.	TENSION	- T.
FIELD VERIFY	- F.V.	THICK	- THK.
FINISH(ED)	- FIN.	TONGUE & GROOVE	- T & G
FINISHED FLOOR	- FIN. FL.	TOP & BOTTOM	- T & B
FIXED CONNECTION	- F.C.	TOP OF BEAM	- T.O.B.
FLANGE	- FLG.	TOP OF FOOTING	- T.O.F.
FLOOR	- FL.	TOP OF JOIST	- T.O.J.
FOOTING	- FTG.	TOP OF METAL DECK	- T.M.D.
FOUNDATION	- FDN.	TOP OF PIER	- T.O.P.
		TOP OF PIER CAP	- T.O.P.C.
GAGE OR GAUGE	- GA.	TOP OF STRUCTURAL STEEL	- T.O.S.S.
GALVANIZED	- GALV.	TOP OF STRUCTURAL CONCRETE	- T.O.S.C.
GENERAL	- GEN.	TOP OF WALL	- T.O.W.
GRADE	- GR.	TOTAL LOAD	- T.L.
GRADE BEAM	- G.B.	TRANSVERSE	- TRAN.
GYPSUM BOARD	- GYP. BD.	TYPICAL	- TYP.
HEADED STUD	- H.S.	UNLESS OTHERWISE NOTED	- U.N.O.
HEIGHT	- HT.		
HIGH POINT	- H.P.	VENT THROUGH ROOF	- VTR.
HORIZONTAL	- HORIZ.	VERTICAL	- VERT.
HORIZONTAL LOAD	- H.L.		
		WATERSTOP	- W.S.
INFORMATION	- INFO.	WEIGHT	- WT.
INSIDE DIAMETER	- I.D.	WELDED WIRE MESH (FABRIC)	- W.W.F.
INSIDE FACE	- I.F.	WIND LOAD	- W.L.
INTERIOR	- INT.	WITH	- W/
INTERMEDIATE	- INTERM.	WOOD	- WD.
		WORK POINT	- W.P.
JOINT	- JT.		
JOISTS	- JST(S)	X-BRACING	- XB
KIPS	- K.		



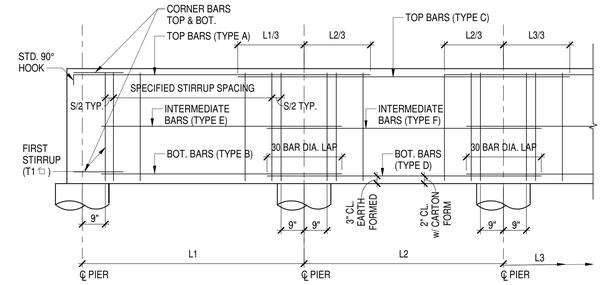
DRILLED PIER

1 TYPICAL DETAIL

PIER SCHEDULE

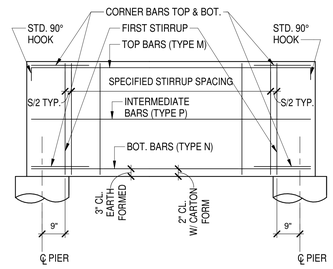
MARK #	STRAIGHT SHAFT w/ FRICTION (NO CASING)		STRAIGHT SHAFT w/ FRICTION (CASE PIER)	REINFORCING	
	SHAFT DIA.	EMBED DEPTH	EMBED DEPTH	VERT. REINF.	HORZ. REINF.
P-1	18"	5'-0"	6'-0"	(6) #7	#3 TIES @ 12" O.C.
P-2	18"	7'-0"	8'-0"	(6) #7	#3 TIES @ 12" O.C.
P-3	18"	9'-6"	9'-6"	(6) #7	#3 TIES @ 12" O.C.
P-4	18"	12'-6"	12'-6"	(6) #7	#3 TIES @ 12" O.C.

NOTES:
1. FOR CASED PIERS, FINAL CAST- INPLACE PIER DIARMETER SHALL NOT EXCEED (SHAFT DIA. ' +6")
2. REFER TO FOUNDATION PLAN ON SHEET S-2.01 AND S-2.05 FOR PIER MARKS
3. THE MIN. EMBED INTO THE BRG. STRATA MUST BE 5 FEET, WHICHEVER IS GREATER.



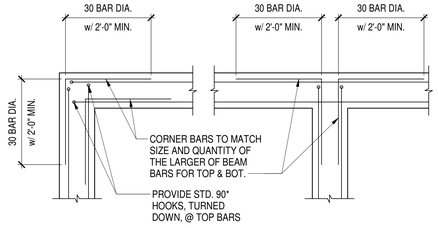
GRADE BEAM REINFORCING DIAGRAM

2 TYPICAL DETAIL



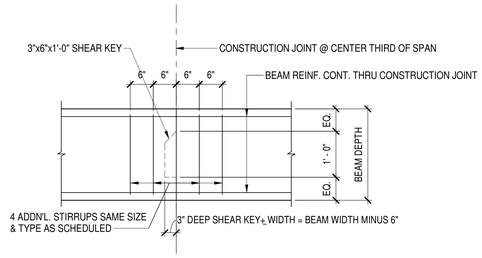
SINGLE SPAN GRADE BEAM REINF. DIAGRAM

3 TYPICAL DETAIL



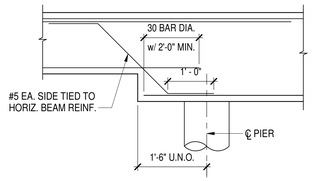
GRADE BEAM CORNER REINF.

4 TYPICAL DETAIL



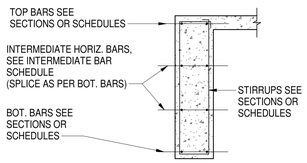
ELEVATION OF CONSTRUCTION JOINT @ BEAM

5 TYPICAL DETAIL



STEP IN GRADE BEAM ELEVATION

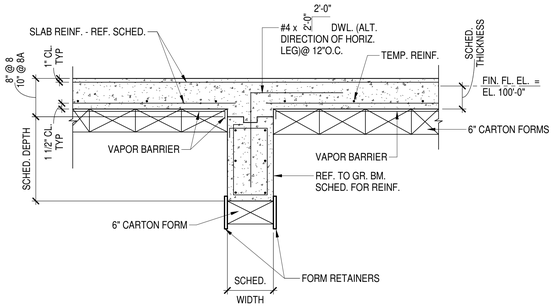
6 TYPICAL DETAIL



INTERMEDIATE BAR SCHEDULE		
BEAM DEPTH	NO. OF BARS EACH FACE	BAR SIZE
24" TO 35"	1	# 4
36" TO 41"	2	# 4
42" TO 53"	3	# 4
54" TO 65"	4	# 4

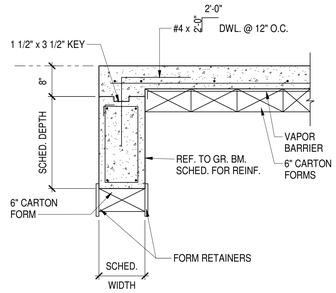
INTERMEDIATE BAR LOCATION

7 TYPICAL DETAIL



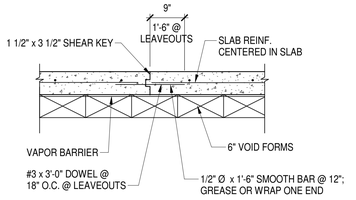
INTERIOR GRADE BEAM w/ CARTON FORMS

8, 8A TYPICAL DETAIL



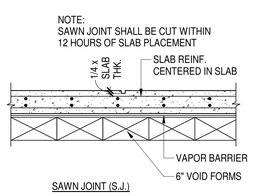
PERIMETER GRADE BEAM w/ CARTON FORMS

9 TYPICAL DETAIL



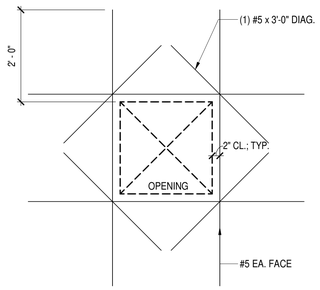
CONTRUCTION JOINT (C.J.)

11 TYPICAL DETAIL



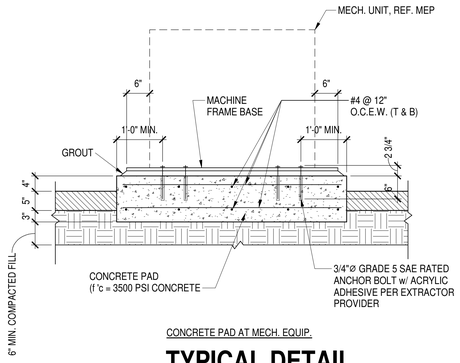
SAWN JOINT (S.J.)

12 TYPICAL DETAIL



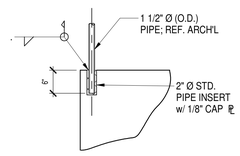
REINFORCEMENT AROUND OPENING

13 TYPICAL DETAIL



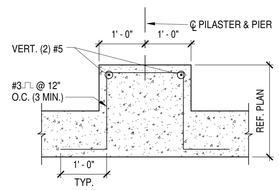
CONCRETE PAD AT MECH. EQUIP.

14 TYPICAL DETAIL



HANDRAIL POST TO CONCRETE CONNECTION

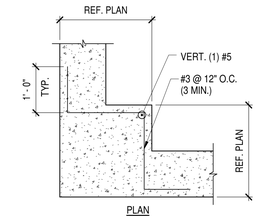
15 TYPICAL DETAIL



PLAN

ADDITIONAL REINFORCEMENT AT PILASTER

16 TYPICAL DETAIL



PLAN

ADDITIONAL REINFORCEMENT AT CORNER PILASTER

17 TYPICAL DETAIL

DRAWN BY: MH
CHECKED BY: JCA
DATE: 03/21/2024
ISSUED FOR PERMIT:
ISSUED FOR PRICING:

REVISIONS:

No.	Description	Date

RPGA DESIGN GROUP, INC. ARCHITECTURE SPACE PLANNING INTERIORS
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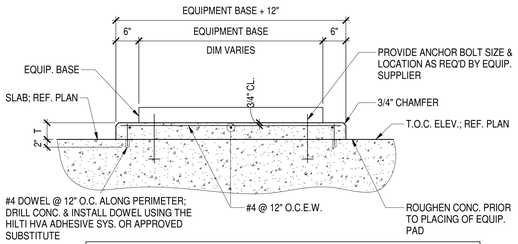
STATE OF TEXAS
JULIO CESAR ANDRINO
131720
LICENSED
PROFESSIONAL ENGINEER
03-20-2024

SHEET DESCRIPTION:
FOUNDATION DETAILS

SHEET NO.
S-1.01

RLWA
R. L. Woods & Associates, LLC
Structural and Forensic Engineering
1151 W. PIONEER PKWY. (817) 277-6686
ARLINGTON, TX 76013
Texas Registered Engineering Firm F-8284

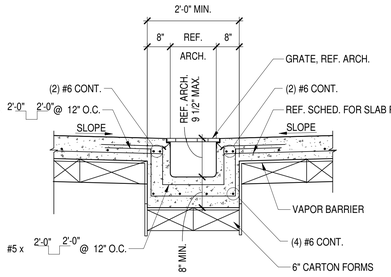
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NOTES:
1. PAD THICKNESS 4" MIN.
2. COORDINATE WITH MECHANICAL & ARCHITECTURAL DWGS FOR HOUSEKEEPING PAD REQUIRED; VERIFY PAD DIMENSIONS & OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AS REQUIRED.

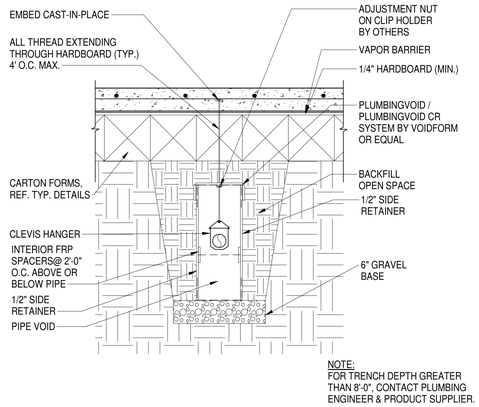
EQUIPMENT PAD

1 TYPICAL DETAIL



TRENCH DRAIN IN SLAB

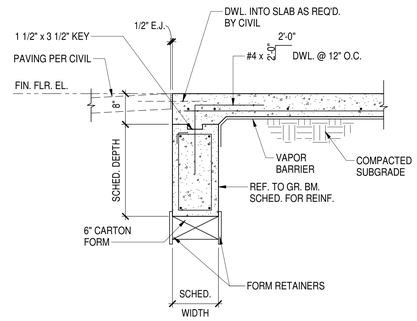
2 TYPICAL DETAIL



NOTE:
FOR TRENCH DEPTH GREATER THAN 8'-0", CONTACT PLUMBING ENGINEER & PRODUCT SUPPLIER.

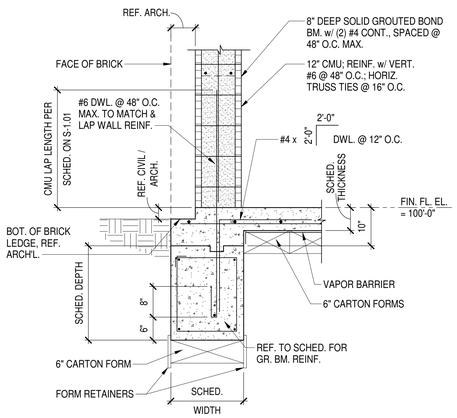
CARTON FORMS @ BELOW SLAB PIPING

3 TYPICAL DETAIL



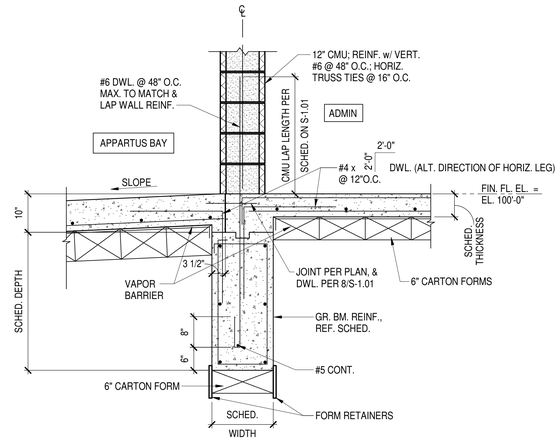
AT PAVILION

4 TYPICAL DETAIL

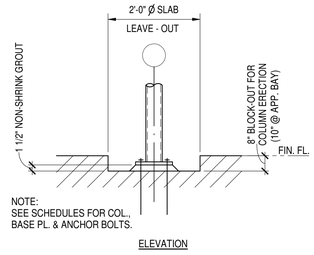


PERIMETER GRADE BEAM w/ LEDGE & CMU

5 TYPICAL DETAIL



6 TYPICAL DETAIL

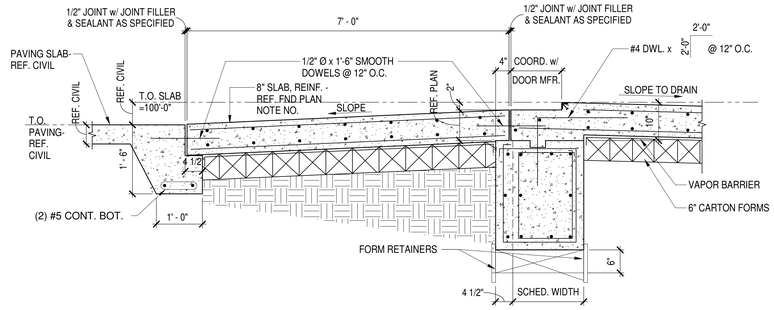


NOTE:
SEE SCHEDULES FOR COL., BASE PL. & ANCHOR BOLTS.

ELEVATION

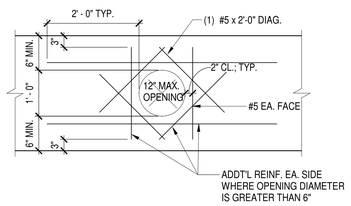
BLOCK OUT IN CONCRETE FOR STEEL COLUMN

7 TYPICAL DETAIL



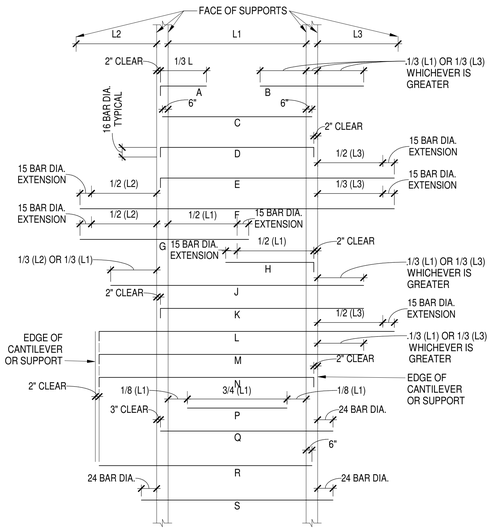
TRANSITION SLAB @ OVERHEAD DOOR

8 TYPICAL DETAIL



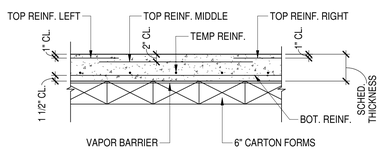
REINFORCEMENT AROUND OPENING THROUGH GRADE BEAM

9 TYPICAL DETAIL



BAR BENDING DIAGRAM

10 TYPICAL DETAIL



SLAB REINFORCEMENT PLACEMENT

11 TYPICAL DETAIL

GRADE BEAM SCHEDULE

MARK	BEAM SIZE		TOP REINF.			BOT. REINF.			STIRRUPS			REMARKS
	WIDTH	DEPTH	NO.	SIZE	TYPE	NO.	SIZE	TYPE	SIZE	TYPE	SPACES EACH END	
GB-1	16"	30"	2	#5	A	3	#6	B	#3	T1	4 @ 13", R @ 16" O.C.	-
GB-2	16"	30"	2	#5	C	2	#5	D	#3	T1	3 @ 14", R @ 16" O.C.	-
GB-3	16"	30"	2	#5	A	3	#6	B	#3	T1	4 @ 14", R @ 16" O.C.	-
GB-4	16"	30"	2	#5	A	2	#5	B	#3	T1	3 @ 14", R @ 16" O.C.	
GB-5	16"	30"	2	#5	C	2	#5	D	#3	T1	3 @ 14", R @ 16" O.C.	
GB-6	16"	30"	2	#5	M	2	#5	N	#3	T1	@ 16" O.C.	
GB-7	16"	30"	2	#5	A	4	#6	B	#3	T1	9 @ 13", R @ 16" O.C.	
GB-8	16"	30"	4	#7	C	2	#5	D	#3	T1	5 @ 14", R @ 16" O.C.	
GB-9	16"	30"	2	#5	A	2	#5	B	#3	T1	@ 16" O.C.	
GB-10	16"	30"	2	#5	A	2	#5	B	#3	T1	3 @ 13", R @ 16" O.C.	
GB-11	16"	30"	2	#5	C	2	#5	D	#3	T1	4 @ 13", R @ 16" O.C.	
GB-12	16"	36"	4	#6	A	3	#6	B	#3	T1	@ 16" O.C.	EXTEND T& B BARS @ CANTI. END
GB-13	16"	36"	4	#6	C	3	#6	D	#3	T1	@ 16" O.C.	
GB-14	14"	36"	3	#5	A	3	#5	B	#3	T1	@ 16" O.C.	EXTEND T& B BARS @ CANTI. END
GB-15	14"	36"	3	#5	C	3	#7	D	#3	T1	@ 16" O.C.	
GB-16	16"	36"	3	#5	A	3	#7	B	#3	T1	@ 16" O.C.	
GB-17	16"	36"	3	#5	C	3	#7	D	#3	T1	@ 16" O.C.	
GB-18	16"	36"	3	#5	A	5	#8	B	#3	T1	15 @ 5", R @ 16" O.C.	
GB-19	16"	36"	5	#7	C	3	#7	D	#3	T1	@ 16" O.C.	
GB-20	16"	36"	4	#7	A	3	#7	B	#3	T1	@ 16" O.C.	
GB-21	16"	30"	2	#5	M	3	#6	N	#3	T1	3 @ 13", R @ 16" O.C.	
GB-22	16"	30"	3	#5	C	2	#5	D	#3	T1	3 @ 14", R @ 16" O.C.	
GB-23	16"	30"	2	#5	A	4	#6	B	#3	T1	4 @ 13", R @ 16" O.C.	
GB-24	16"	30"	2	#6	A	3	#6	B	#3	T1	@ 16" O.C.	
GB-25	18"	36"	3	#6	A	3	#6	B	#3	T1	@ 14" O.C.	
GB-26	16"	36"	3	#7	M	3	#6	N	#3	T1	@ 14" O.C.	EXTEND T& B BARS @ CANTI. END
GB-27	16"	36"	3	#7	M	3	#9	N	#3	T1	5 @ 7", R @ 14" O.C.	EXTEND T& B BARS @ CANTI. END
GB-28	12"	24"	3	#5	M	3	#5	N	#3	T1	@ 16" O.C.	
GB-29	18"	30"	3	#5	M	3	#5	N	#3	T1	@ 14" O.C.	
GB-30	18"	36"	3	#6	C	3	#6	D	#3	T1	@ 14" O.C.	
GB-31	18"	36"	2	#7	A	3	#8	B	#3	T1	4 @ 9", R @ 16" O.C.	
GB-32	18"	36"	2	#7	B	3	#7	D	#3	T1	4 @ 9", R @ 16" O.C.	
GB-33	18"	36"	3	#6	A	3	#6	B	#3	T1	@ 14" O.C.	
GB-34	18"	36"	3	#6	C	3	#6	D	#3	T1	@ 14" O.C.	
GB-35	18"	36"	3	#8	A	3	#6	B	#4	T1	@ 14" O.C.	
GB-36	18"	36"	3	#7	C	3	#8	D	#4	T1	4 @ 8", R @ 14" O.C.	

NOTES:
1. REFER TO DETAILS 2 & 3 ON S-1.01 FOR GENERAL GRADE BEAM REINF. ARRANGEMENT.
2. ☐ T1 - STIRRUP TYPE

CONCRETE SLAB SCHEDULE

MARK	SLAB THICK	TOP REINF. LEFT			TOP REINF. RIGHT			BOT. REINF.			TEMP. REINF.	REMARKS
		SIZE	SPACING	TYPE	SIZE	SPACING	TYPE	SIZE	SPACING	TYPE		
S1	8"	#5	12"	P	#5	12"	B	#5	12"	C	#4 @ 18" O.C. (T & B)	APP BAY SLAB / SHELTER
S2	8"	#5	12"	P	-	-	-	#5	12"	C	#4 @ 18" O.C. (T & B)	APP BAY SLAB / SHELTER
S3	6"	#5	14"	P	#5	14"	B	#5	14"	C	#4 @ 14" O.C.	
S4	6"	#5	14"	P	-	-	-	#5	14"	C	#4 @ 14" O.C.	
S5	6"	-	-	-	-	-	-	#5	14"	C	#4 @ 14" O.C.	
S6	12"	-	-	-	#6	12"	B	#5	12"	C	#4 @ 18" O.C. (T & B)	

REF. 10/S-1.02 FOR SLAB BAR CONFIGURATIONS.

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No.	Description	Date

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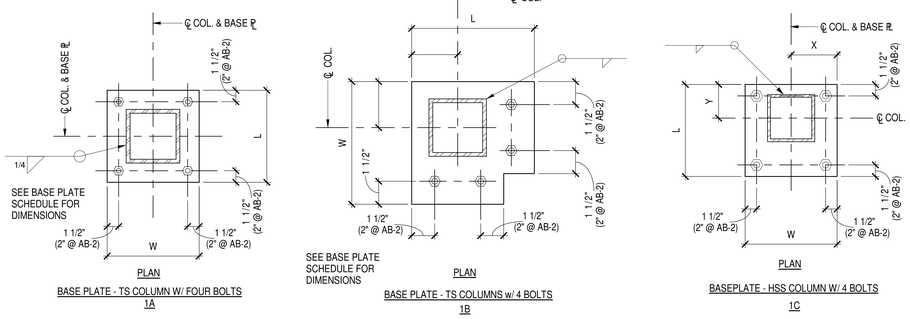
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FIRE STATION #2 & POLICE SUBSTATION
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STATE OF TEXAS
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131720
LICENSED PROFESSIONAL ENGINEER
03-20-2024

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FOUNDATION DETAILS

SHEET NO.
S-1.02



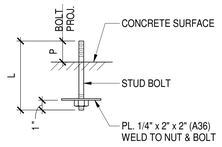
1 TYPICAL DETAIL

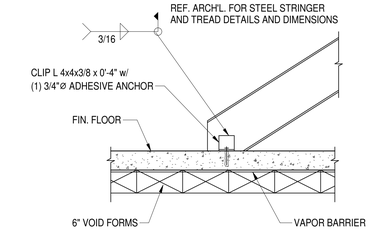
BASE PLATE SCHEDULE

MARK	DIMENSION L	W	X	Y	THICK MARK	ANCHOR BOLT	DETAIL	REMARK
BP-1	12"	12"	6"	6"	3/4"	AB-1	1A/S-1.03	
BP-2	12"	12"	6"	4"	3/4"	AB-1	1C/S-1.03	
BP-3	12"	12"	4"	4"	3/4"	AB-1	1B/S-1.03	
BP-4	12"	12"	6"	6"	1"	AB-2	1A/S-1.03	USE SHEAR/TENSION REINF. @ A.B. PER DETAIL 1/S-1.04
BP-5	12"	12"	6"	4"	1"	AB-2	1C/S-1.03	USE SHEAR/TENSION REINF. @ A.B. PER DETAIL 2/S-1.04
BP-6	12"	12"	4"	4"	1"	AB-2	1B/S-1.03	USE SHEAR/TENSION REINF. @ A.B. PER DETAIL 3/S-1.04

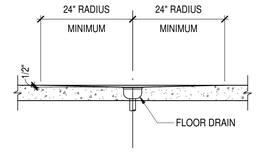
ANCHOR BOLT SCHEDULE

MARK	DIA.	DIMENSIONS L	P	MAT'L.
AB-1	3/4"	12"	4"	F1554
AB-2	1"	16"	4"	F1554



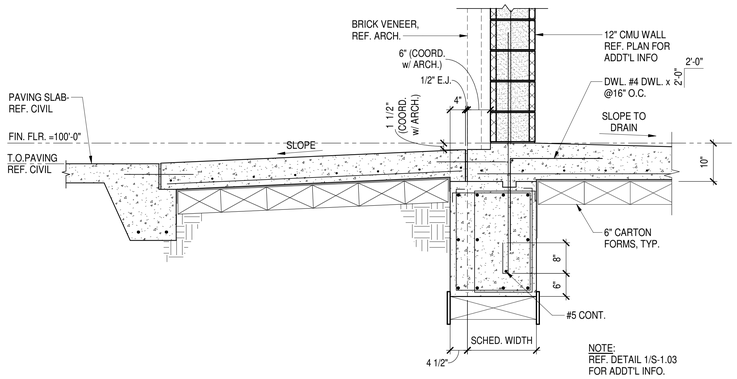


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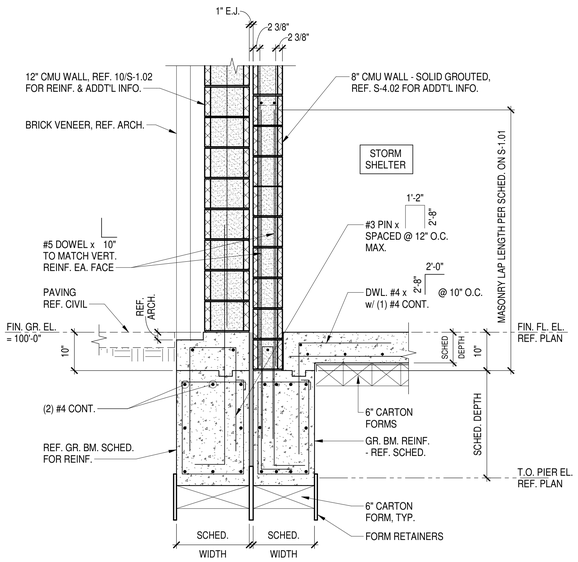


FLOOR DRAIN IN SLAB

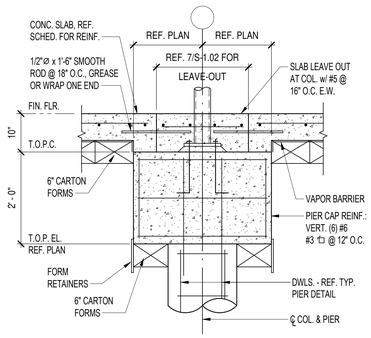
3 TYPICAL DETAIL



4 DETAIL
SCALE: 3/4" = 1'-0"

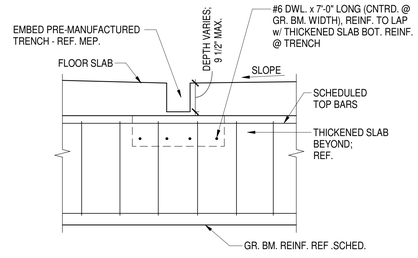


5 DETAIL
SCALE: 3/4" = 1'-0"



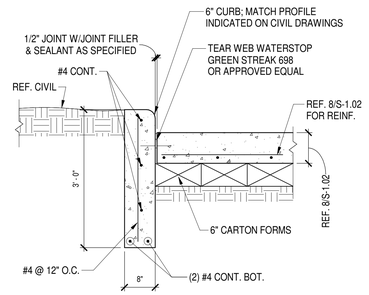
PIER CAP AT COLUMN

6 TYPICAL DETAIL

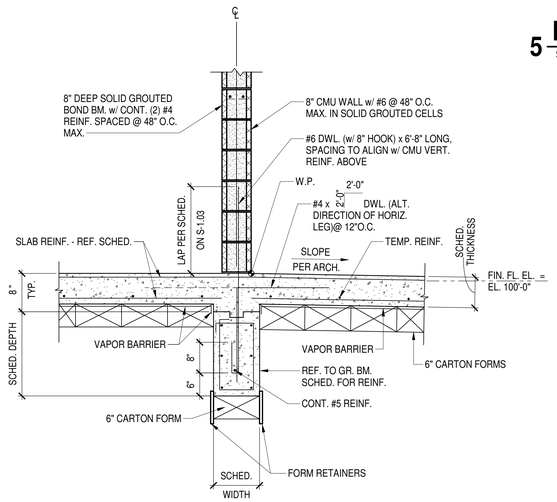


TRENCH AT GRADE BEAM

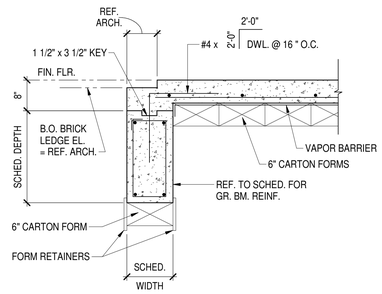
7 TYPICAL DETAIL



8 DETAIL
SCALE: 3/4" = 1'-0"



9 DETAIL
SCALE: 3/4" = 1'-0"



GRADE BEAM w/ BRICK LEDGE

10 TYPICAL DETAIL

MASONRY REINF. LAP LENGTHS

CENTERED IN 8" CMU INCLUDING MIN. AND MAX. LENGTH LIMITS

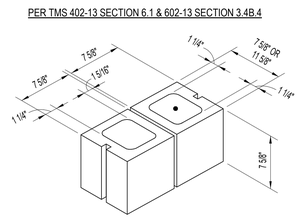
REBAR	MIN. LAP SPLICE LENGTH (IN)
#3	18
#4	24
#5	30
#6	38
#7	52
#8	72
#9	81
#10	90
#11	99

MASONRY REINF. LAP LENGTHS

CENTERED IN 12" CMU INCLUDING MIN. AND MAX. LENGTH LIMITS

REBAR	MIN. LAP SPLICE LENGTH (IN)
#3	18
#4	24
#5	30
#6	36
#7	42
#8	50
#9	64
#10	79
#11	97

PER TMS 402-13 SECTION 6.1 & 602-13 SECTION 3.4B.4

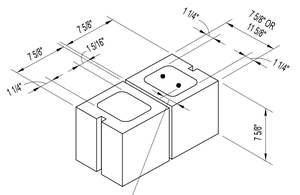


MASONRY REINF. LAP LENGTHS

EDGE IN 8" & 12" CMU INCLUDING MIN. AND MAX. LENGTH LIMITS

REBAR	MIN. LAP SPLICE LENGTH (IN)
#3	18
#4	30
#5	45
#6	54
#7	63
#8	72
#9	81
#10	90
#11	99

PER TMS 402-16 SECTION 6.1 & 602-16 SECTION 3.4B.4



FOR MASONRY FACE EXPOSED TO EARTH OR WEATHER: 2", FOR #6 OR LARGER 1 1/2", FOR #5 OR SMALLER

FOR MASONRY NOT EXPOSED TO EARTH OR WEATHER: 1 1/2"

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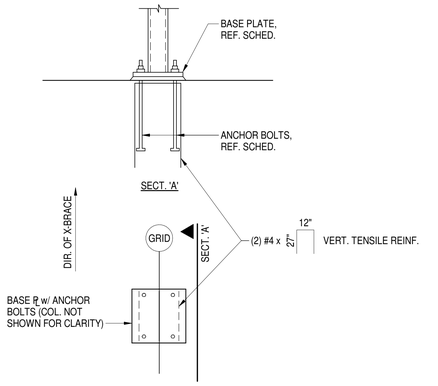
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SHEET DESCRIPTION:
FOUNDATION DETAILS

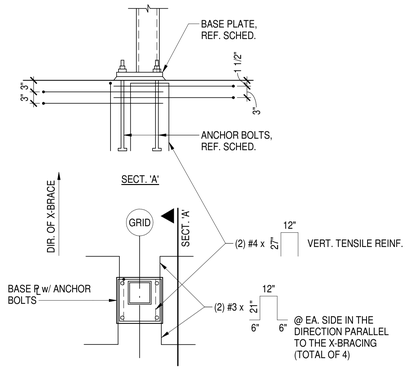
SHEET NO.
S-1.03



SHEAR REINF. & TENSION REINF. FOR ANCHOR BOLTS

1 DETAIL

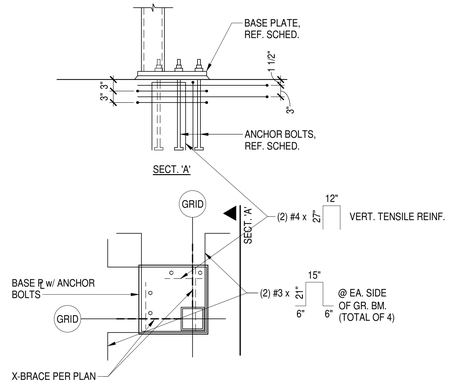
SCALE: 3/4" = 1'-0"



SHEAR REINF. AND TENSION REINF. FOR ANCHOR BOLTS

2 DETAIL

SCALE: 3/4" = 1'-0"



SHEAR REINF. & TENSION REINF. FOR ANCHOR BOLTS

3 DETAIL

SCALE: 3/4" = 1'-0"

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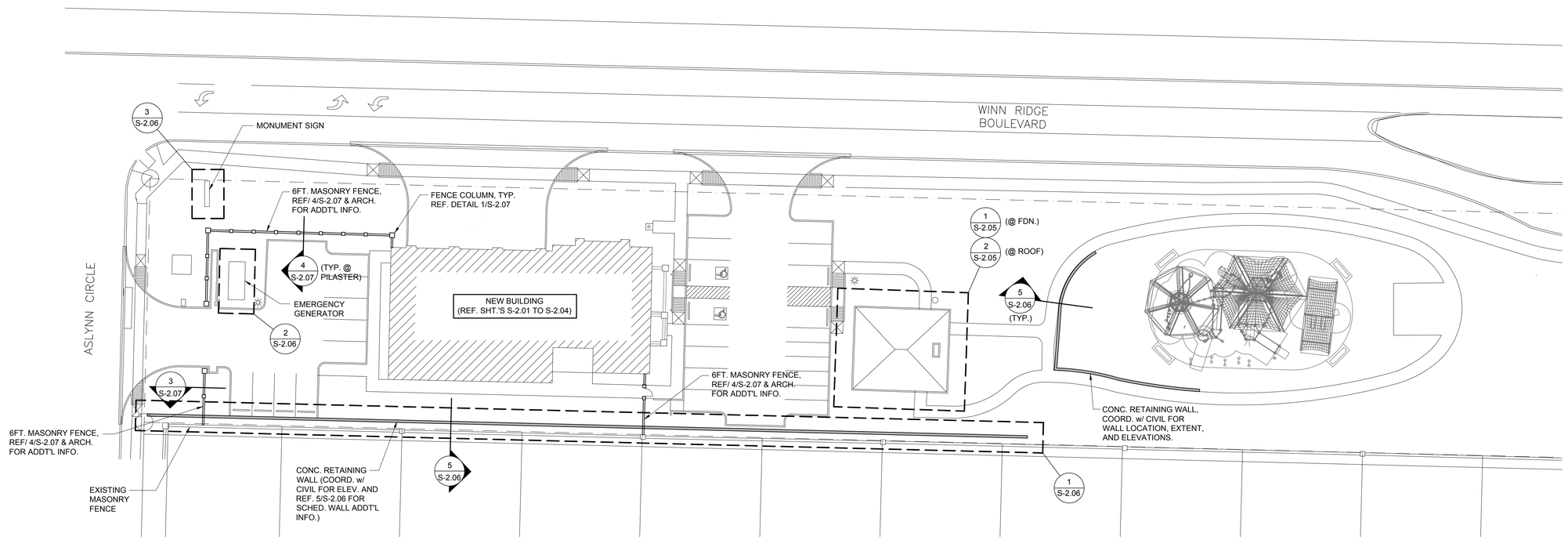
SHEET DESCRIPTION:

FOUNDATION DETAILS

SHEET NO.

S-1.04

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NORTH

1 STRUCTURAL OVERALL SITE PLAN

SCALE: 1" = 20'-0"

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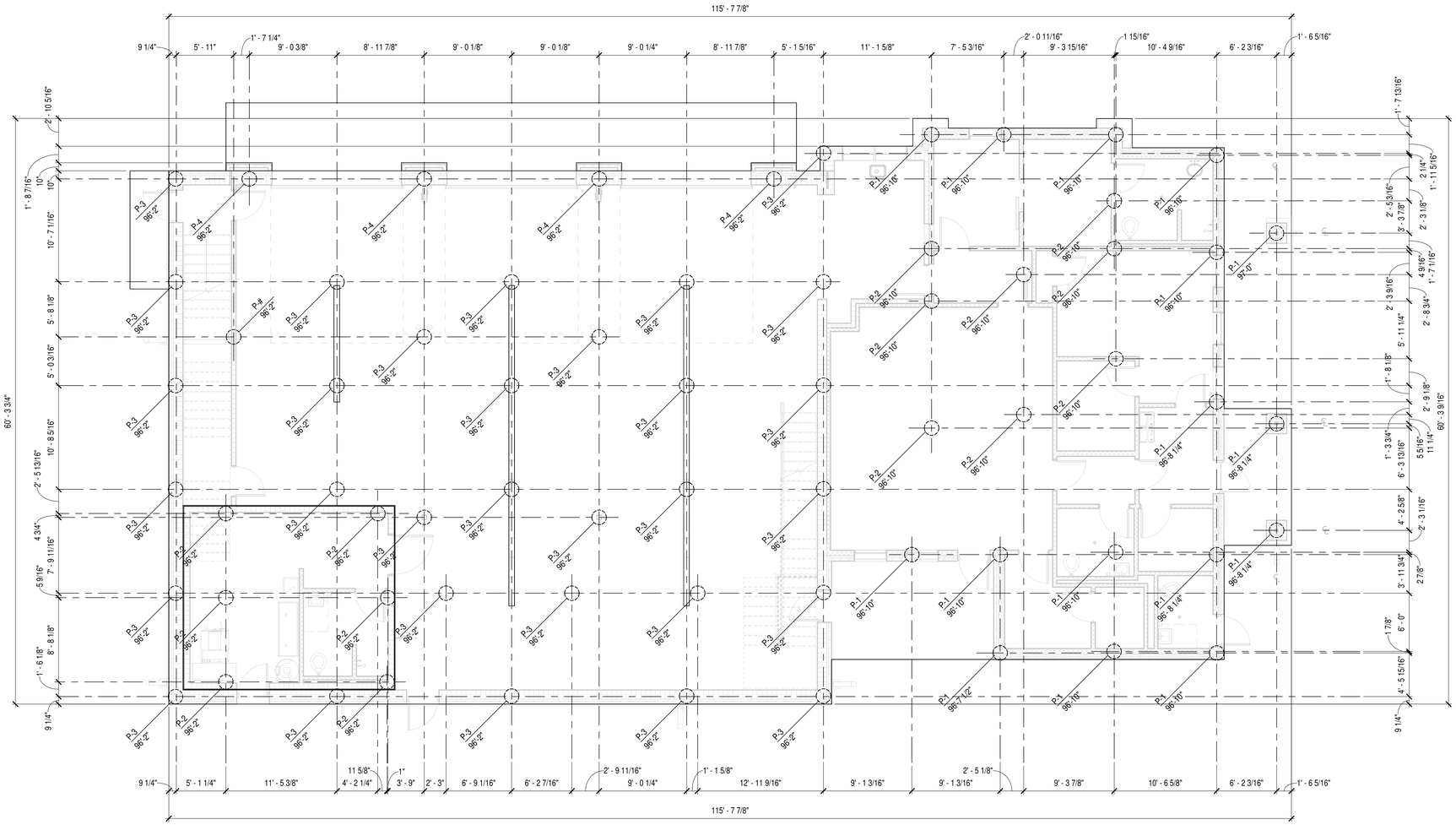
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SHEET DESCRIPTION:
STRUCTURAL OVERALL SITE PLAN

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S-2.00

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PLAN NOTES:

1. REF. TO SHT. S-0.01 GENERAL NOTES AND SHT. S-0.02 FOR CODE REQUIRED SPECIAL INSPECTIONS.
2. REF. TO SHT. S-1.01 FOR TYPICAL PIER DETAIL AND SCHEDULE.
3. PIERS ARE NOTED ON PLAN THUSLY:
   P-1 = PIER DESIGNATION, REF. SCHED.
   96'-2" = TOP OF PIER ELEVATION

1 FOUNDATION PLAN - PIER LAYOUT

SCALE: 3/16" = 1'-0"

GRAPHIC SYMBOLS

- INDICATES LOAD-BEARING METAL STUD WALL
- INDICATES LOAD-BEARING CMU WALL

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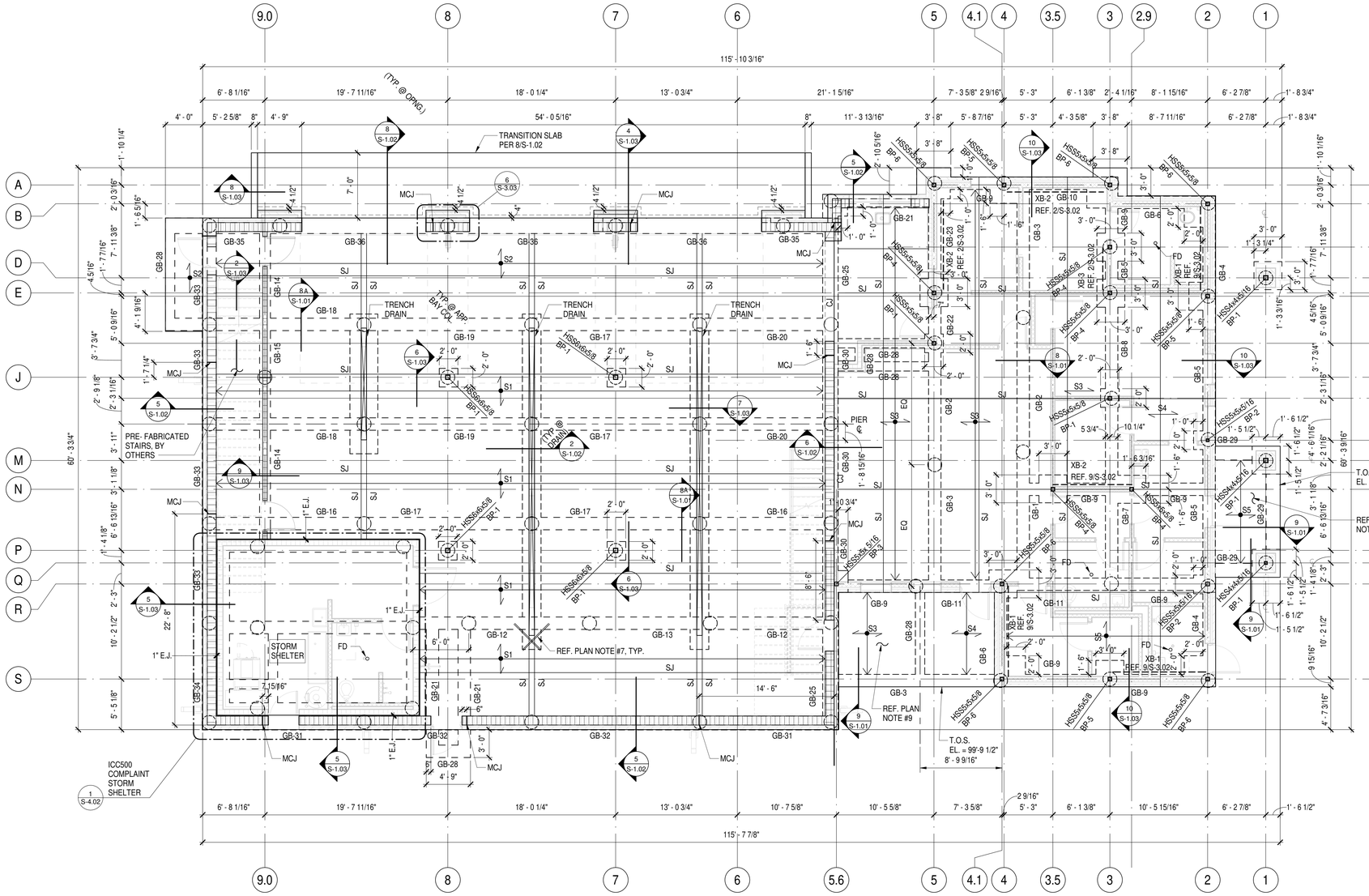
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SHEET DESCRIPTION:
FOUNDATION PLAN - PIER LAYOUT

SHEET NO.
S-2.01



N

1 FOUNDATION PLAN

SCALE: 3/16" = 1'-0"

FOUNDATION NOTES:

1. REFER TO SHT. S-0.01 FOR GENERAL NOTES AND SHT. S-0.02 FOR CODE REQUIRED SPECIAL INSPECTIONS.
2. FIN. FLR. EL. = 100'-0" = ACTUAL EL. = REF. CIVIL (599.70')
3. REFER TO SHT. S-1.01, S-1.02, AND S-1.03 FOR TYPICAL DETAILS NOT NOTED ON PLAN.
4. S-# INDICATES SCHEDULED FLOOR SLAB. REFER TO SCHED. ON SHT. S-1.02 FOR ADDT'L INFO.
   INDICATES SLAB SPAN DIRECTION
5. C.J. INDICATES CONSTRUCTION JOINT. REFER TO DETAIL 11/S-1.01.
6. S.J. INDICATES SAWN JOINT. REFER TO DETAIL 12/S-1.01.
7. PROVIDE (2) #4 x 3'-0" DIAG. REINF. TOP OF SLAB AT ALL RE-ENTRANT CORNERS OF SLABS AND RECESSED IN SLAB WITHOUR A CONSTRUCTION OR SAW JOINT.
8. REFER TO ARCH'L. DWGS. FOR LOCATION AND EXTENT OF ALL LEDGES, POCKETS OR DEPRESSIONS.
9. EXTERIOR SLABS AT PORCHES AND PATIOS ARE TO HAVE POSITIVE DRAINAGE AWAY FROM THE BUILDING. PROVIDE 2% SLOPE (1/4 INCH PER FOOT) SLOPE, U.N.O.
10. F.D. INDICATES FLOOR DRAIN, REFER TO MEP FOR LOCATIONS AND SIZE.
11. XB-# INDICATES STEEL CROSS BRACING. REFER TO SCHEDULE ON SHT. S-3.02 FOR ADDITIONAL INFORMATION.
12. AT DRAIN LOCATIONS IN SLAB DEPRESSIONS, REFER TO 3/S-1.03 FOR ADDT'L INFO. COORD. W/ ARCH. FOR T.O. SLAB ELEVATIONS AND REQ'D. SLOPES AT THESE LOCATIONS.
13. BP-# INDICATES BASE P . REF. SCHEDULE ON S-1.03 FOR ADDT'L INFO.
14. MCJ INDICATES MASONRY CONTROL JOINT, REF. 20/S-3.01.

GRAPHIC SYMBOLS

INDICATES LOAD-BEARING CMU WALL

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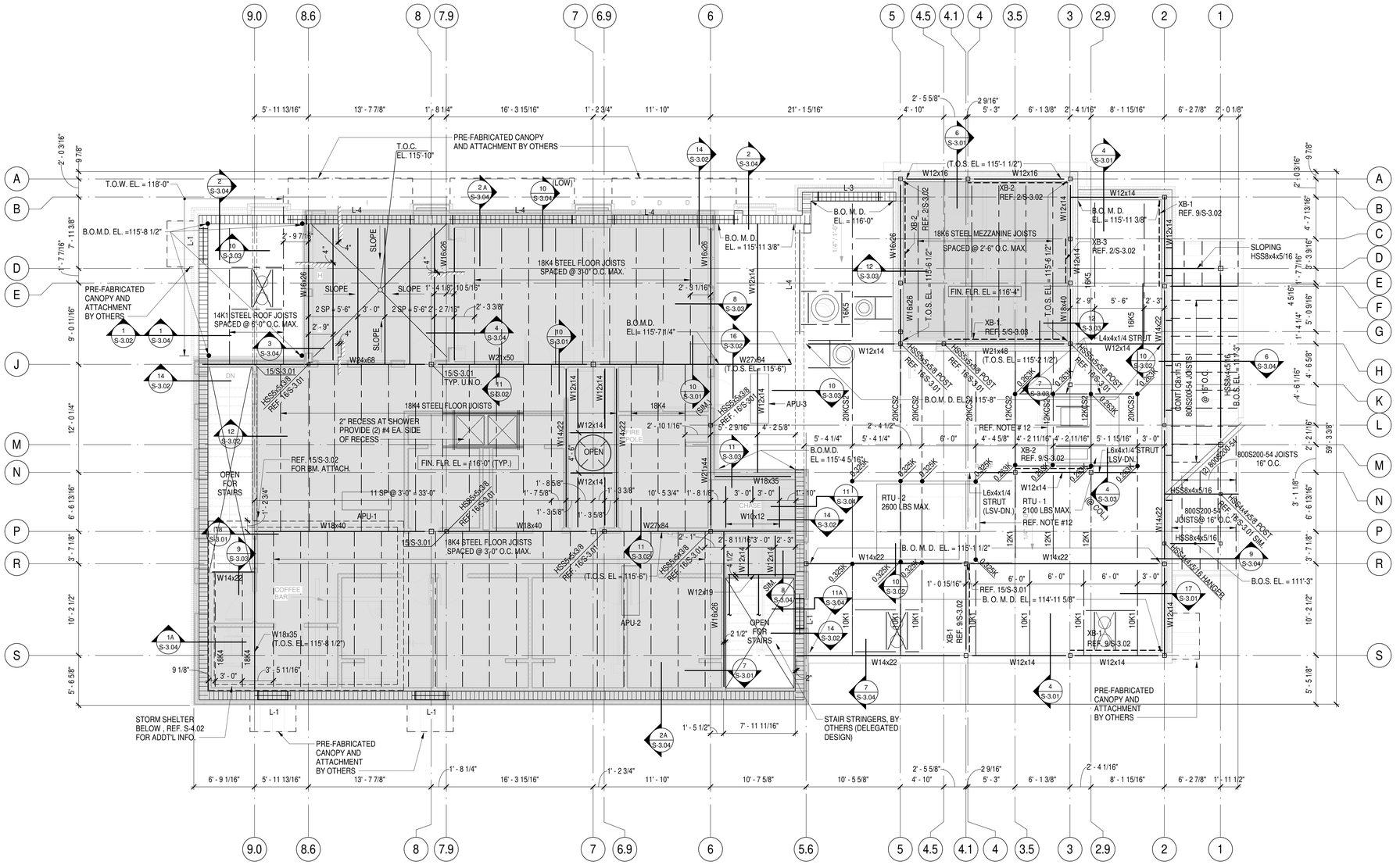
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SHEET DESCRIPTION:
FOUNDATION PLAN

SHEET NO.
S-2.02



1 LOW ROOF & 2ND FLOOR FRAMING PLAN

SCALE: 3/16" = 1'-0"

LOW ROOF/ SECOND FLOOR FRAMING PLAN NOTES:

1. REF. S-0.01 FOR STRUCTURAL NOTES AND S-0.02 FOR CODE-REQUIRED SPECIAL INSPECTIONS.
2. SECOND FLOOR FIN. FLR. EL. = 116'-0".
3. REF. TO SHT. S-3.01 & S-3.02 FOR TYPICAL DETAILS NOT NOTED ON PLAN.
4. FLOOR SLAB SHALL BE 3 1/2" LIGHT WEIGHT CONCRETE ON METAL FORM DECK REINF. PER GEN. NOTES.
5. COLUMNS ARE CENTERED ON GRID LINE INTERSECTIONS UNLESS DIMENSIONED OTHERWISE ON PLAN.
6. REFER TO PLAN FOR BEAM ELEVATIONS.
7. ATTACH ROOF DECK AND FLOOR DECK AS SPECIFIED IN GENERAL NOTES ON SHEET S-0.01, EXCEPT WHERE NOTED OTHERWISE ON PLAN.
8. REF. TO PLAN FOR BOTTON OF METAL DECK (B.O.M.D.) ELEVATION.
9. PROVIDE ANGLE BRACE AT JOIST ON COLUMN CENTERLINE OR FIRST JOISTS ON EACH SIDE OF COLUMN CENTERLINE.
10. L-# INDICATES CMU LINTEL. REF. SCHED. ON SHT. S-3.01
11. XB-# INDICATES CROSS BRACED FRAME, REF. SCHED ON SHT. S-3.02
12. REF. 8/S-301 FOR MECH'L UNIT SUPPORT FRAME.

GRAPHIC SYMBOLS

INDICATES LOAD-BEARING CMU WALL

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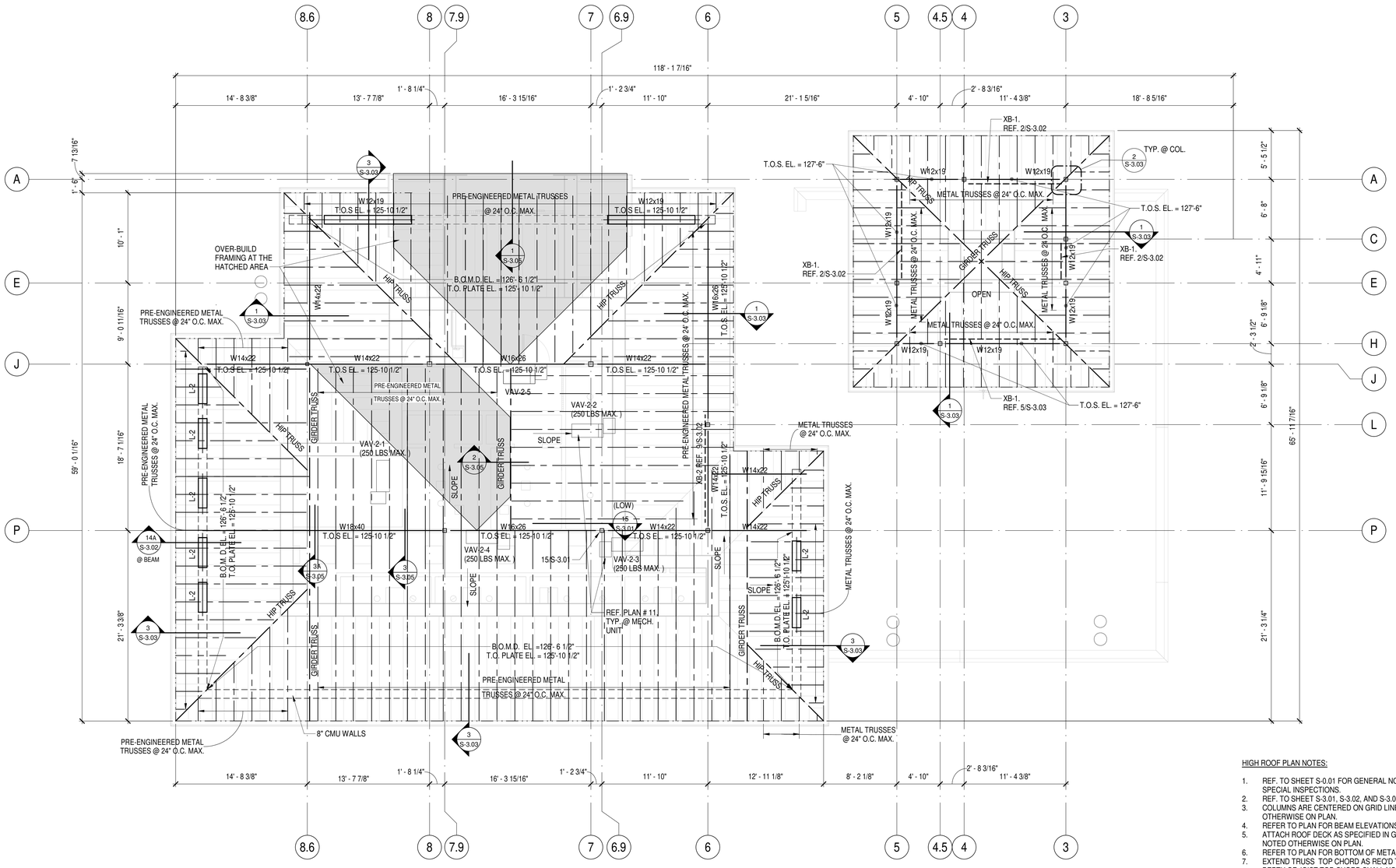
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SHEET DESCRIPTION:
2ND FLOOR AND LOW ROOF FRAMING PLAN

SHEET NO.
S-2.03



1 HIGH ROOF FRAMING PLAN

SCALE: 3/16" = 1'-0"

HIGH ROOF PLAN NOTES:

1. REF. TO SHEET S-0.01 FOR GENERAL NOTES ANS SHEET S-0.02 FOR CODE-REQUIRED SPECIAL INSPECTIONS.
2. REF. TO SHEET S-3.01, S-3.02, AND S-3.03 FOR TYPICAL DETAILS NOT NOTED ON PLAN.
3. COLUMNS ARE CENTERED ON GRID LINE INTERSECTIONS UNLESS DIMENSIONED OTHERWISE ON PLAN.
4. REFER TO PLAN FOR BEAM ELEVATIONS.
5. ATTACH ROOF DECK AS SPECIFIED IN GENERAL NOTES ON SHEET S-0.01 EXCEPT WHERE NOTED OTHERWISE ON PLAN.
6. REFER TO PLAN FOR BOTTOM OF METAL DECK (B.O.M.D.) ELEVATIONS.
7. EXTEND TRUSS TOP CHORD AS REQ'D TO ACHIEVE ARCHITECTURAL ROOF OVERHANGS. DEPTH OF JOIST TOP CHORD SHALL NOT BE GREATER THAN 6 INCHES.
8. ARRANGEMENT OF TRUSS INTERIOR CHORDS (WEB MEMBERS) TO BE SEPECIFIED BY THE TRUSS PROVIDER. HOWEVER, TO ACCOMMODATE DUCT/MECH. EQUIP. LAYOUTS, BRIDGING MAY BE REQUIRED, REF. TO MEP PLANS AND 12/S-3.04 FOR ADDT'L INFO. SEE BELOW FOR TRUSS DESIGN LOADING.
   D= 17 PSF TOP CHORD & 8 PSF BOTTOM CHORD (25 PSF TOTAL)
   Lr = 20 PSF TOP CHORD
9. JOIST GIRDER MRF. SHALL DESIGN GIRDERS FOR UNIFORM SUPPORT OF TYPICAL TRUSSES AS NOTED ON PLAN.
10. XB-#, INDICATES CROSS BRACED FRAME. REFER TO SHEET S-3.02 FOR ADDT'L INFO.
11. MECH. UNITS TO BE SUPPORTED OVER THE METAL TRUSS BOT. CHORD. PROVIDE PLY. SHTG. & MISC. BLKG. FRAMING BELOW UNITS TRUSS PROVIDER TO COORD. W/ MEP TO DETERMINE IF 'BLOCK-OUT' IS REQ'D @ UNIT IN LIEU OF DIAG.WEB. REFER TO 12/S-3.04 FOR ADDT'L INFO.

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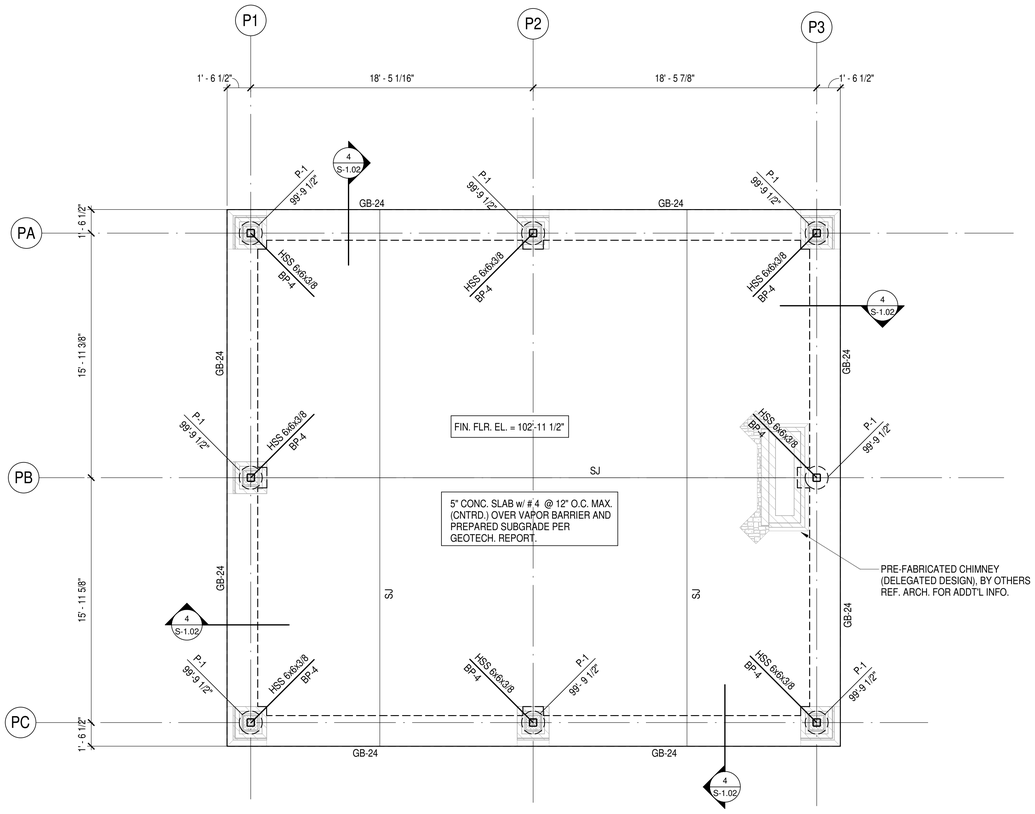
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SHEET DESCRIPTION:
HIGH ROOF FRAMING PLAN

SHEET NO.
S-2.04



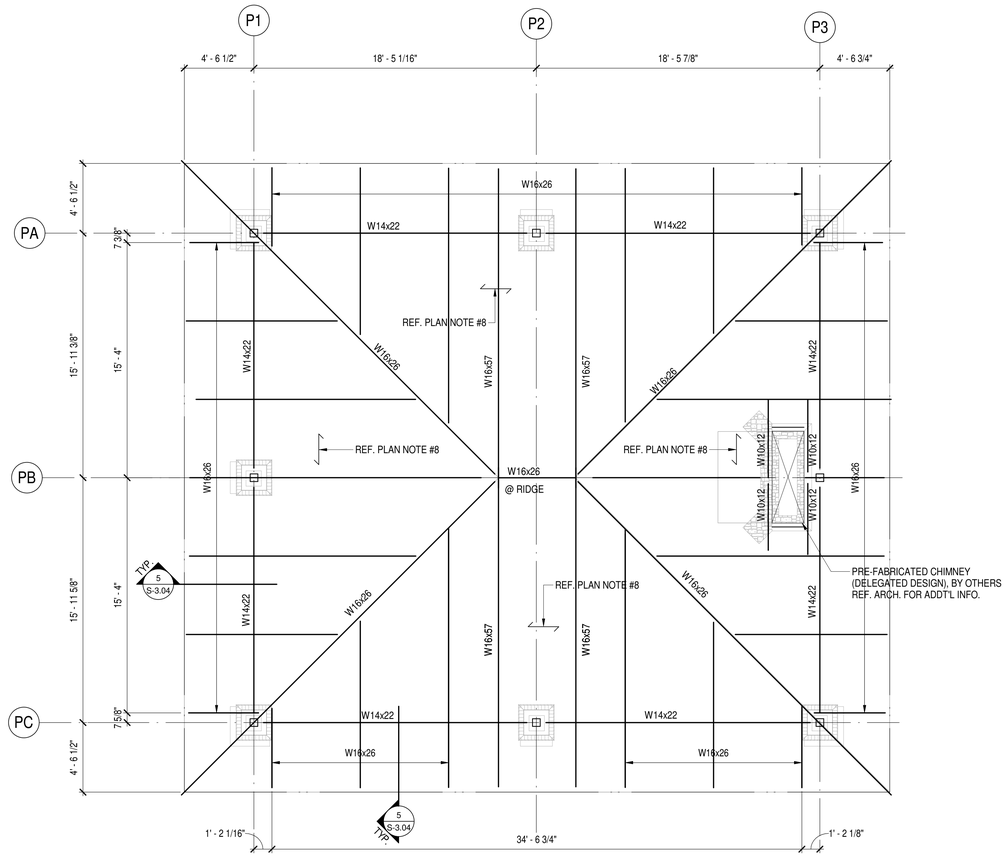
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1 PAVILION FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

PAVILION FOUNDATION PLAN NOTES:

1. REF. TO SHT. S-0.01 FOR GENERAL NOTES AND REF. TO SHT. S-1.XX SERIES FOR TYPICAL DETAILS NOT NOTED ON PLAN.
2. FINISH FLOOR ELEVATION = 102'-5" (REF. ARCH /CIVIL) UNLESS NOTED OTHERWISE.
3. PIERS ARE NOTED ON PLAN THUS:
   P-# — PIER DESIGNATION, REF. SCHED.
   99'-3" — TOP OF PIER EL.
4. COLUMNS ARE CENTERED ON GRIDLINE INTERSECTIONS UNLESS DIMENSIONED OTHERWISE ON PLAN. PIERS ARE CENTERED ON GRADE BEAMS, COLUMNS OR WALLS UNLESS NOTED OTHERWISE.
5. REF. ARCH'L FOR LOCATION AND EXTENT OF ALL LEDGES, POCKETS OR DEPRESSIONS.
6. WHERE COLUMN PILASTER OCCURS, PILASTER DEPTH TO MATCH THE ADJACENT DEPTH OF GRADE BEAM UNLESS NOTED OTHERWISE: REFER TO DETAIL 16 & 17/S-1.01 FOR ADDT'L INFO.
7. SLAB LEAVE-OUTS ARE 24"Ø CENTERED ON COLUMNS. REFER TO DETAIL 7/S-1.02 FOR ADDT'L INFO.



N

2 PAVILION ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

PAVILION ROOF FRAMING PLAN NOTES:

1. REF. S-0.01 FOR STRUCTURAL NOTES AND S-0.02 FOR CODE-REQUIRED SPECIAL INSPECTIONS.
2. REF. TO SHT. S-3.01 & S-3.02 FOR TYPICAL DETAILS NOT NOTED ON PLAN.
3. COLUMNS ARE CENTERED ON GRID LINE INTERSECTIONS UNLESS DIMENSIONED OTHERWISE ON PLAN.
4. REFER TO PLAN FOR BEAM ELEVATIONS.
5. ATTACH ROOF DECK AS SPECIFIED IN GENERAL NOTES ON SHEET S-0.01, EXCEPT WHERE NOTED OTHERWISE ON PLAN.
6. REF. TO PLAN FOR BOTTOM OF METAL DECK (B.O.M.D.) ELEVATION.
7. REFER TO TYP. DETAIL 3/S-3.01 FOR ROOF OPENINGS.
8. DIRECTION OF MTL. ROOF DECK (TYP.) REF. GEN. NOTES FOR ATTACH.

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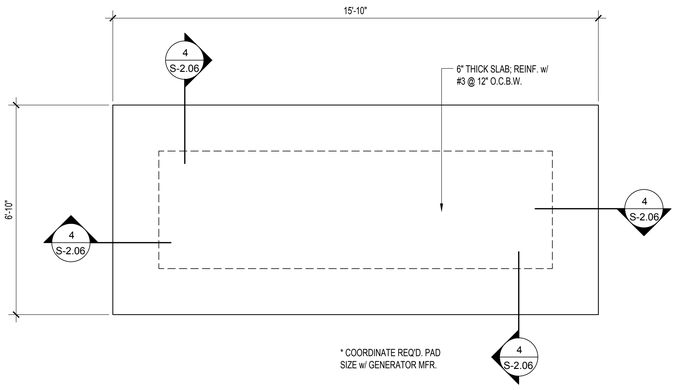
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PAVILION - FOUNDATION AND ROOF FRAMING PLANS

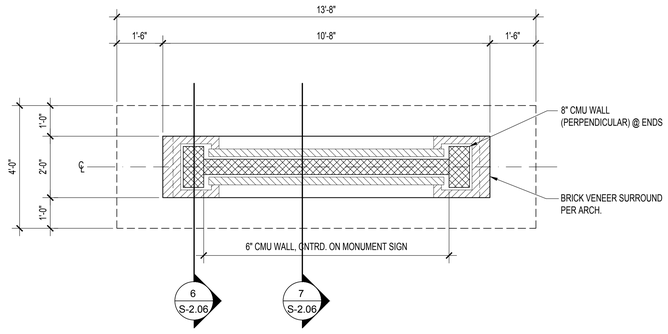
SHEET NO.
S-2.05



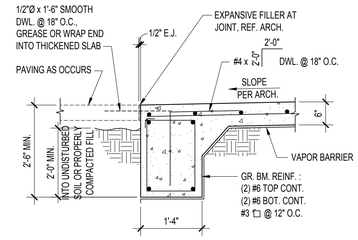
1 RETAINING WALL PLAN
SCALE: 3/32" = 1'-0"



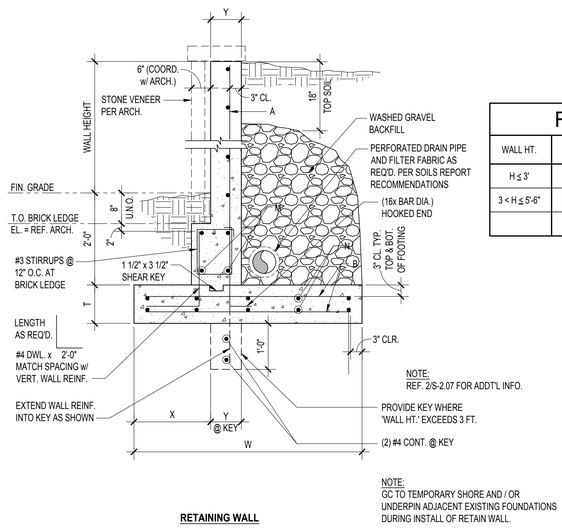
2 GENERATOR PAD FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



3 MONUMENT SIGN FOUNDATION PLAN
SCALE: 1/2" = 1'-0"



4 DETAIL
SCALE: 3/4" = 1'-0"



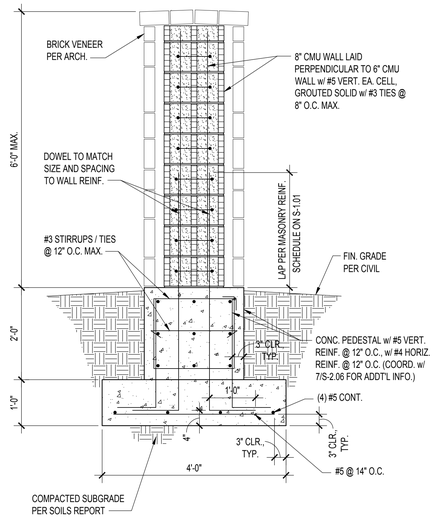
NOTE:
REF. 2/S-2.07 FOR ADDT'L INFO.

NOTE:
GC TO TEMPORARY SHORE AND / OR
UNDERPIN ADJACENT EXISTING FOUNDATIONS
DURING INSTALL OF RETAIN WALL.

RETAINING WALL

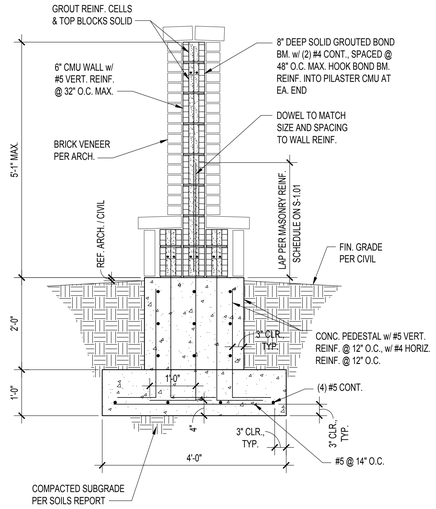
5 TYPICAL DETAIL

RETAINING WALL SCHEDULE								
WALL HT.	X	Y	T	W	A	B	M	N
H ≤ 3'	1'-3"	8"	14"	3'-2"	#5 @ 18"	#5 @ 12"	#4 @ 12"	#5 @ 12"
3 < H ≤ 5'-6"	2'-0"	8"	14"	4'-8"	#5 @ 12"	#5 @ 12"	#4 @ 12"	#5 @ 12"



EDGE OF MONUMENT SIGN

6 DETAIL
SCALE: 3/4" = 1'-0"



MONUMENT SIGN

7 DETAIL
SCALE: 3/4" = 1'-0"

R L W A
R. L. Woods & Associates, LLC
Structural and Forensic Engineering
1151 W. PIONEER PKWY. (817) 277-6686
ARLINGTON, TX 76013
Texas Registered Engineering Firm F-8284
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DRAWN BY: BWT
CHECKED BY: JCA
DATE: 03/21/2024
ISSUED FOR PERMIT:
ISSUED FOR PRICING:

REVISIONS:

No.	Description	Date

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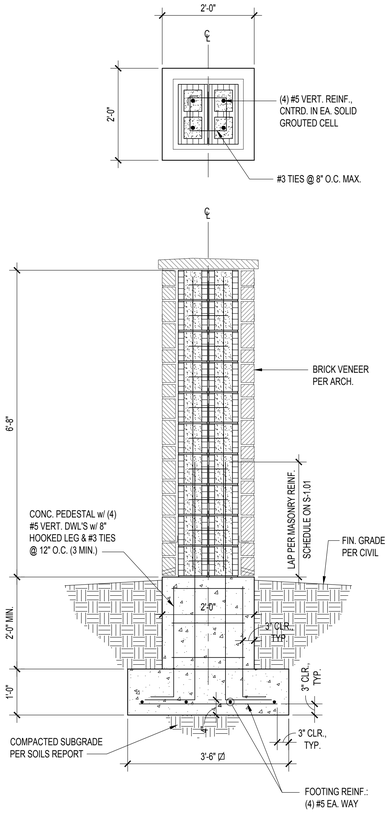
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ARCHITECTURE SPACE PLANNING INTERIORS
101 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9487
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CITY OF AUBREY
FIRE STATION #2 & POLICE SUBSTATION
WINN RIDGE BLVD.

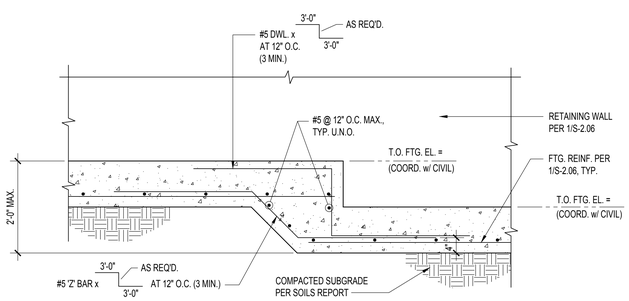
STATE OF TEXAS
JULIO CESAR ANDRINO
131720
LICENSED
PROFESSIONAL ENGINEER
03-21-2024

SHEET DESCRIPTION:
SITE STRUCTURES

SHEET NO.
S-2.06



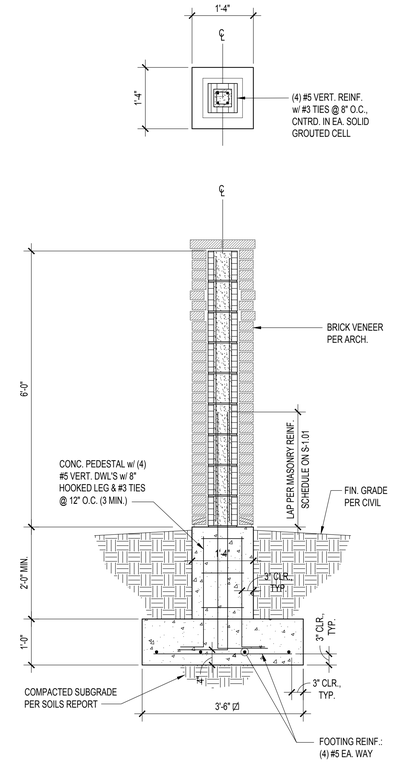
1 DETAIL
SCALE: 3/4" = 1'-0"



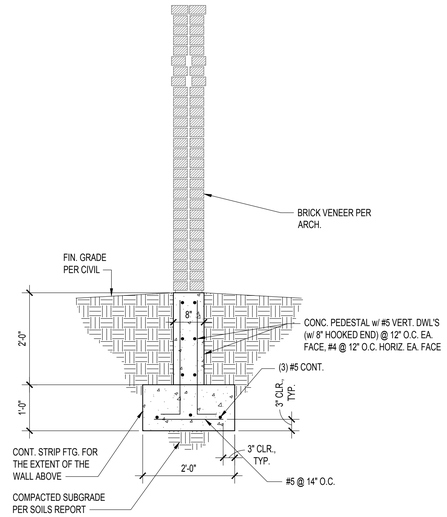
NOTE:
WALL REINF. NOT SHOWN FOR CLARITY.

ALLOWABLE STEP IN CONT. STRIP FTG.

2 TYPICAL DETAIL



3 DETAIL
SCALE: 3/4" = 1'-0"



4 DETAIL
SCALE: 3/4" = 1'-0"

DRAWN BY: BWT
CHECKED BY: JCA
DATE: 03/21/2024
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FIRE STATION #2 & POLICE SUBSTATION
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STATE OF TEXAS
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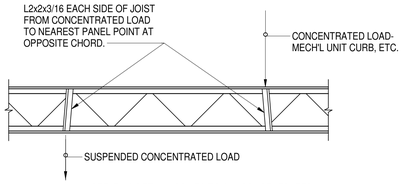
03-21-2024

SHEET DESCRIPTION:
SITE STRUCTURES

SHEET NO.
S-2.07

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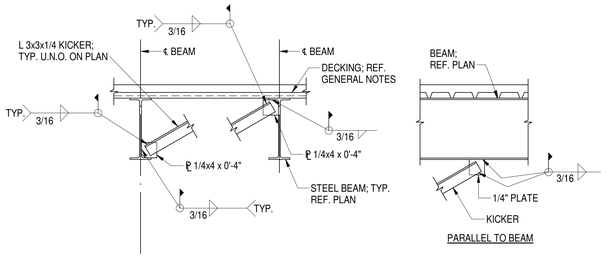
3/20/2024 3:19:38 PM



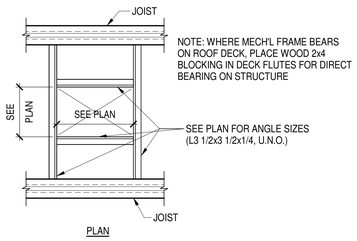
NOTE: THIS DETAIL APPLIES TO ALL CONCENTRATED LOADS WHICH EXCEED 50# AND ARE LOCATED MORE THAN 3" OFF PANEL POINT.

CONCENTRATED LOADS ON JOIST

1 TYPICAL DETAIL



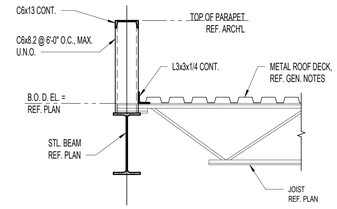
PARALLEL TO BEAM



PLAN

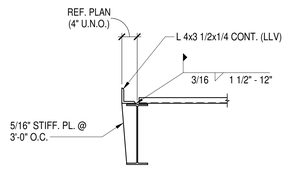
FRAMING FOR ROOF OPENING

3 TYPICAL DETAIL



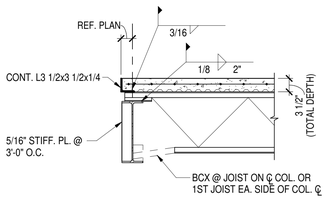
JOIST-TO-BEAM CONNECTION - PERIMETER

4 TYPICAL DETAIL



DECK TO BEAM CONNECTION @ ROOF

5 TYPICAL DETAIL



JOIST TO BEAM CONNECTION - PERIMETER

6 TYPICAL DETAIL

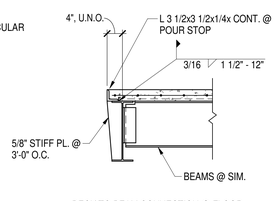


NOTES:

1. REF. PLAN FOR ANGLE BRACE LOCATION.
2. 1/4 CONN. PLATES MAY BE FIELD WELDED AT FABRICATOR'S OPTION.

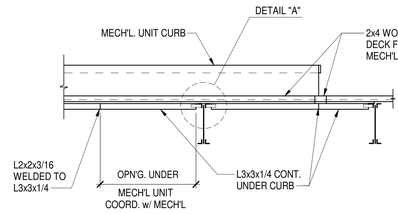
BEAM BRACING @ BOTTOM FLANGE

2 TYPICAL DETAIL

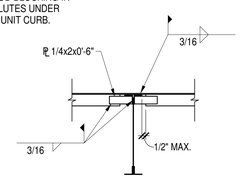


DECK TO BEAM CONNECTION @ FLOOR

7 TYPICAL DETAIL

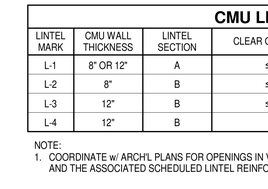


MECHANICAL UNIT CURB SUPORT



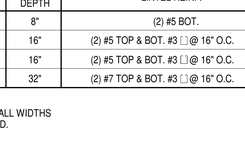
DETAIL "A"

8 TYPICAL DETAIL



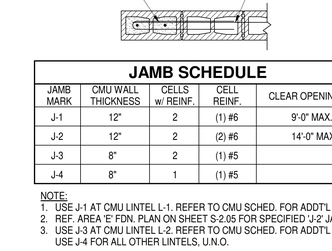
METAL DECK SUPPORT AT COLUMN

9 TYPICAL DETAIL



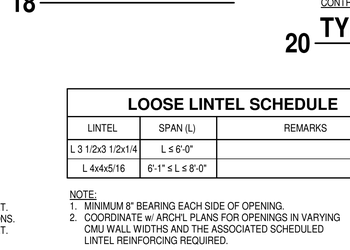
STEEL BEAM CONNECTION

10 TYPICAL DETAIL



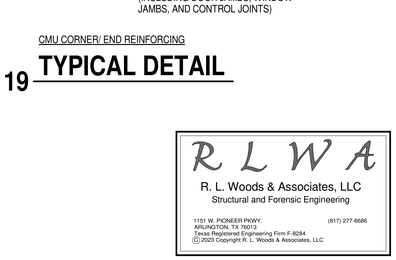
COLUMN TO BEAM CONNECTION

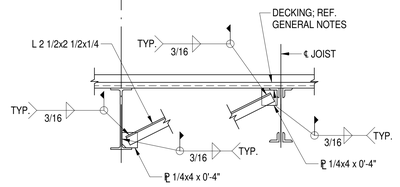
11 TYPICAL DETAIL



COLUMN TO BEAM CONNECTION

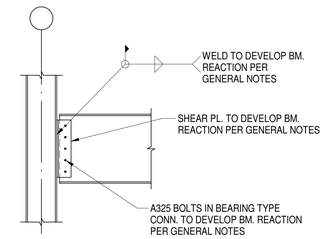
12 TYPICAL DETAIL



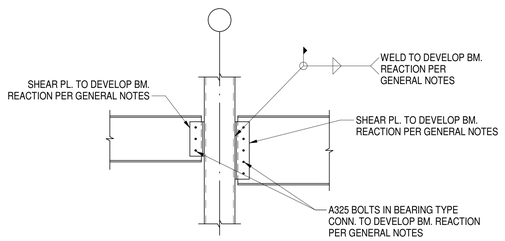


BRACE CONNECTION

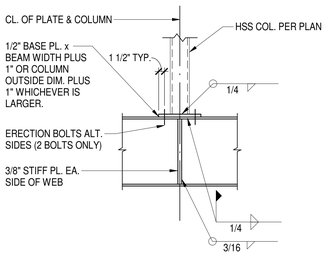
13 TYPICAL DETAIL



14 TYPICAL DETAIL

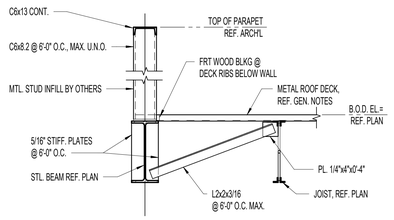


15 TYPICAL DETAIL



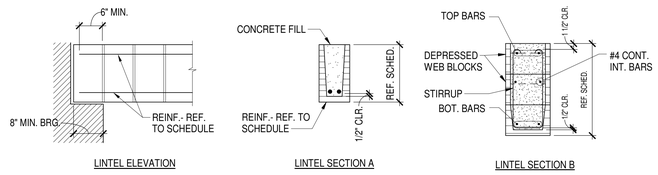
GIRDER CARRYING PIPE COLUMN

16 TYPICAL DETAIL



JOIST-TO-BEAM CONNECTION - PERIMETER

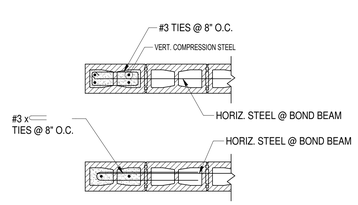
17 TYPICAL DETAIL



CMU LINTEL SCHEDULE

LINTEL MARK	CMU WALL THICKNESS	LINTEL SECTION	CLEAR OPENING SIZE	LINTEL DEPTH	LINTEL REINF.
L-1	8" OR 12"	A	≤ 4'-0" .	8"	(2) #5 BOT.
L-2	8"	B	≤ 9'-0" .	16"	(2) #5 TOP & BOT. #3 □@ 16" O.C.
L-3	12"	B	≤ 6'-6"	16"	(2) #5 TOP & BOT. #3 □@ 16" O.C.
L-4	12"	B	14'-0"	32"	(2) #7 TOP & BOT. #3 □@ 16" O.C.

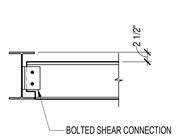
NOTE:
1. COORDINATE w/ ARCH'L PLANS FOR OPENINGS IN VARYING CMU WALL WIDTHS AND THE ASSOCIATED SCHEDULED LINTEL REINFORCING REQUIRED.



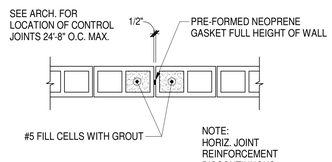
JAMB SCHEDULE

JAMB MARK	CMU WALL THICKNESS	CELLS w/ REINF.	CELL REINF.	CLEAR OPENING SIZE
J-1	12"	2	(2) #6	9'-0" MAX.
J-2	12"	2	(2) #6	14'-0" MAX.
J-3	8"	2	(1) #5	
J-4	8"	1	(1) #5	

NOTE:
1. USE J-1 AT CMU LINTEL L-1. REFER TO CMU SCHED. FOR ADDT'L INFO. ON THIS SHEET.
2. REF. AREA 'E' FDN. PLAN ON SHEET S-2.05 FOR SPECIFIED 'J-2' JAMB REINF. LOCATIONS.
3. USE J-3 AT CMU LINTEL L-2. REFER TO CMU SCHED. FOR ADDT'L INFO. ON THIS SHEET. USE J-4 FOR ALL OTHER LINTELS, U.N.O.



18 TYPICAL DETAIL



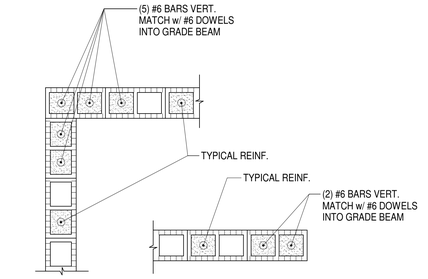
CONTROL JOINT

20 TYPICAL DETAIL

LOOSE LINTEL SCHEDULE

LINTEL	SPAN (L)	REMARKS
L 3 1/2x3 1/2x1/4	L ≤ 6'-0"	
L 4x4x5/16	6'-1" ≤ L ≤ 8'-0"	

NOTE:
1. MINIMUM 8" BEARING EACH SIDE OF OPENING.
2. COORDINATE w/ ARCH'L PLANS FOR OPENINGS IN VARYING CMU WALL WIDTHS AND THE ASSOCIATED SCHEDULED LINTEL REINFORCING REQUIRED.



CMU CORNER/ END REINFORCING

19 TYPICAL DETAIL

DRAWN BY: MH
CHECKED BY: JCA
DATE: 03/21/2024
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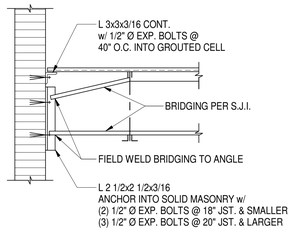


03-20-2024

SHEET DESCRIPTION: FRAMING DETAILS

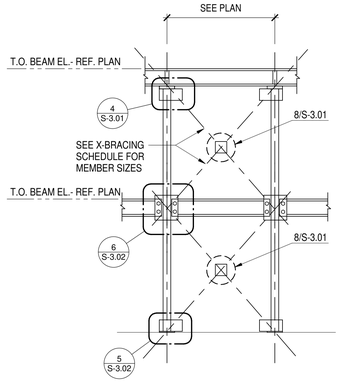
SHEET NO. S-3.01

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ARLINGTON, TX 76013
Texas Registered Engineering Firm F-8284
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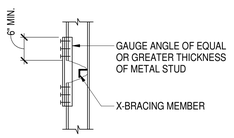
JOIST BRIDGING CONNECTION TO CMU

1 TYPICAL DETAIL



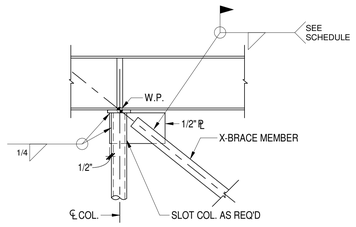
MULTI-LEVEL X-BRACING

2 TYPICAL DETAIL



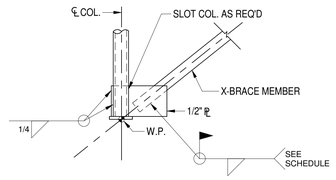
X-BRACING THROUGH METAL STUD

3 TYPICAL DETAIL



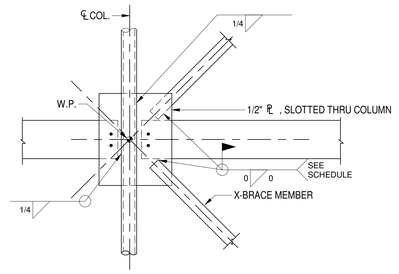
X-BRACE MEMBER CONN. @ TOP

4 TYPICAL DETAIL



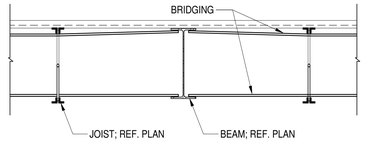
X-BRACE MEMBER CONN. @ BOT.

5 TYPICAL DETAIL



X-BRACE MEMBER CONN. @ MIDDLE

6 TYPICAL DETAIL

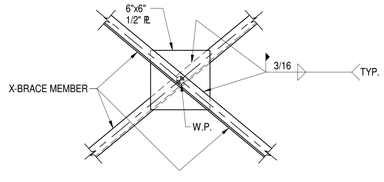


BEAM PARALLEL TO JOIST

7 TYPICAL DETAIL

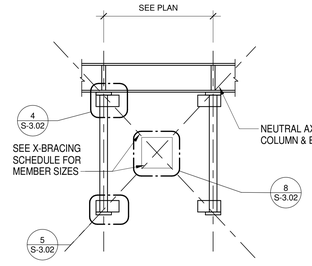
X-BRACING SCHEDULE			
MARK	MEMBER SIZE	FILLET WELD EA. END	DETAIL
XB-1	L2x2x1/4	3/16" x4" MIN.	2 & 9/S-3.02
XB-2	L2x2x1/4	3/16" x4" MIN., EA. SIDE	2 & 9/S-3.02
XB-3	L2 1/2x2 1/2x1/4	3/16" x4" MIN., EA. SIDE	2 & 9/S-3.02

NOTE: REFER TO 3/S-3.02 FOR X-BRACING THROUGH METAL STUD.



X-BRACE MEMBER CONN. @ MID.

8 TYPICAL DETAIL



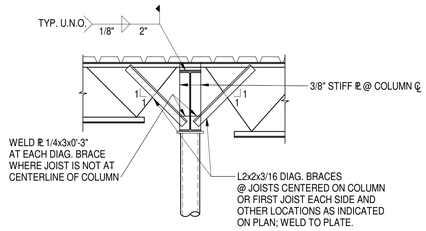
ELEVATION

X-BRACING

9 TYPICAL DETAIL

NOTES FOR JOISTS:

1. PROVIDE 2 1/2" BEARING.
2. STAGGER JOIST WHEN BEAM FLANGE WIDTH IS 5" OR LESS.
3. FIRST JOIST EA. SIDE OF COLUMNS SHALL HAVE BOLTED CONNECTION TO BEAM PER SJI REQUIREMENTS.

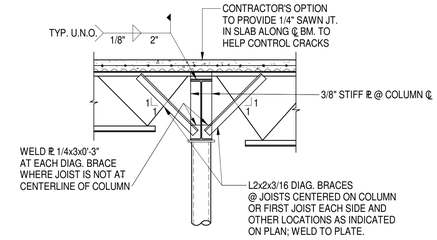


COLUMN BRACE CONNECTION - INTERIOR

10 TYPICAL DETAIL

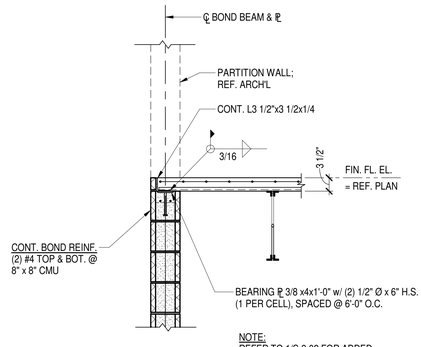
NOTES FOR JOISTS:

1. PROVIDE 2 1/2" BEARING.
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COLUMN BRACE CONNECTION - INTERIOR

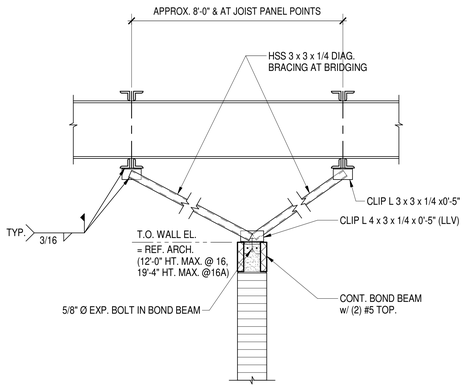
11 TYPICAL DETAIL



DECK BEARING ON MASONRY

12 DETAIL

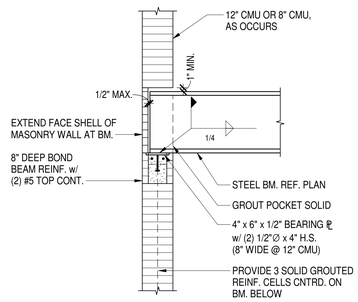
SCALE: 3/4" = 1'-0"



NOTE:
ALL FREE STANDING CMU WALL MUST HAVE ANGLE SUPPORTS AT THE TOP OF WALL, EXCEPT WALLS WITH HORIZONTAL SUPPORT CROSS WALLS AT RIGHT ANGLES TO THE FACE OF THE WALL THAT MEASURED 12'-0" OR LESS BETWEEN SUPPORTS.

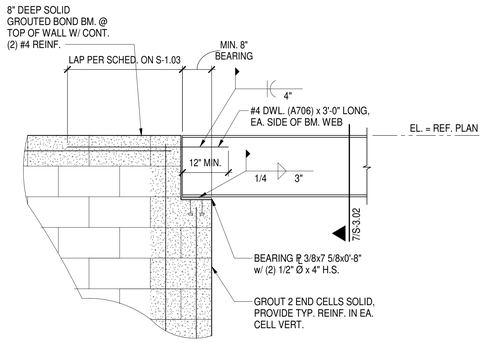
CMU WALL PARALLEL TO ROOF FRAMING

13 TYPICAL DETAIL



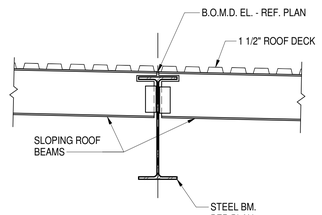
STEEL BEAM BEARING ON CMU

14 TYPICAL DETAIL



BEAM BEARING ON MASONRY

15 TYPICAL DETAIL



16 DETAIL

SCALE: 3/4" = 1'-0"

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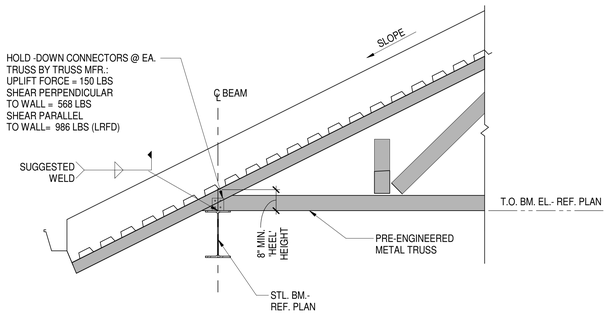
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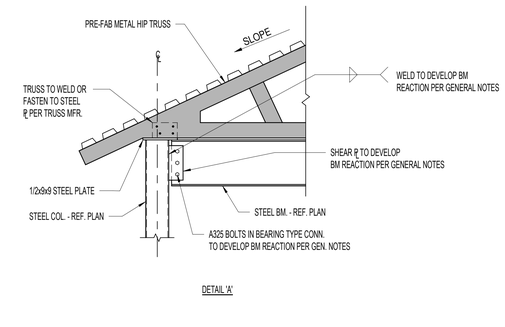
03-20-2024

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FRAMING DETAILS

SHEET NO.
S-3.02

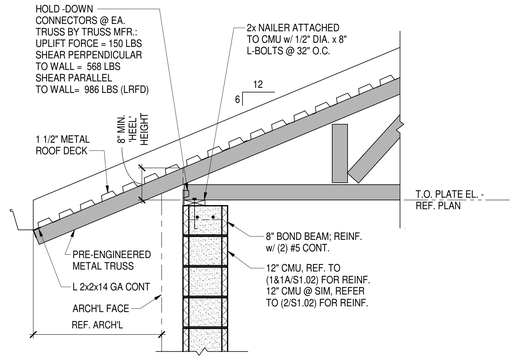


1 TYPICAL DETAIL

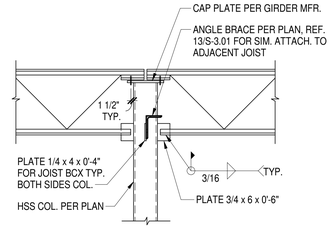


ROOF HIP TRUSS AT STEEL COLUMN

2 TYPICAL DETAIL

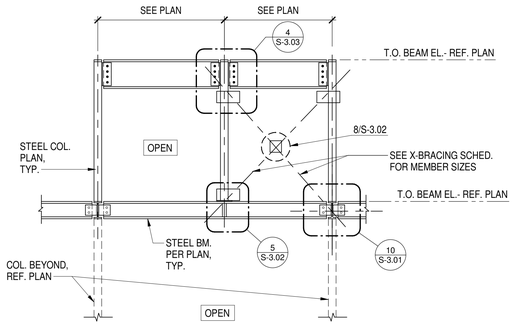


3 TYPICAL DETAIL



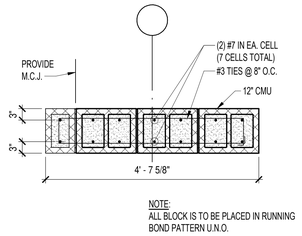
JOIST TO COL. CONNECTION

4 TYPICAL DETAIL



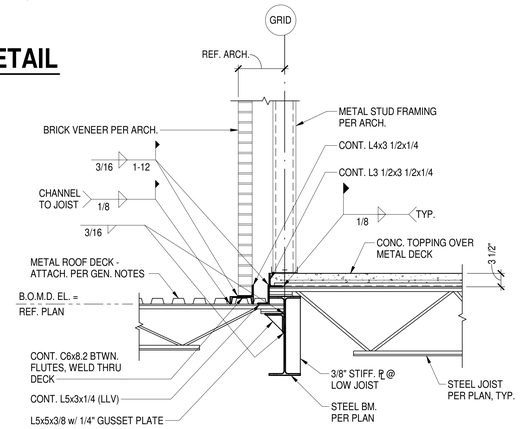
MULTI-LEVEL X-BRACING

5 TYPICAL DETAIL



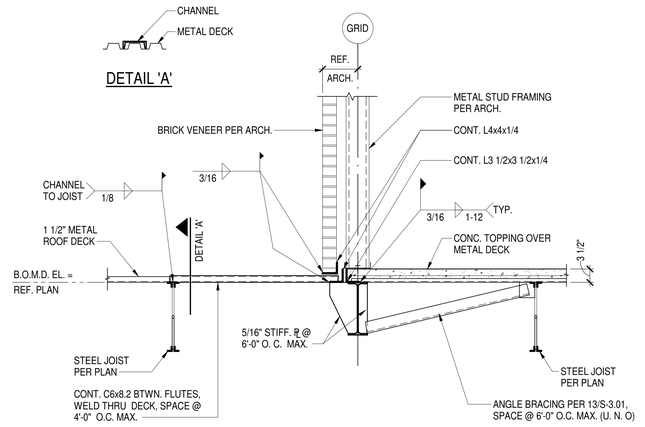
BASE COURSE @ PILASTER

6 TYPICAL DETAIL

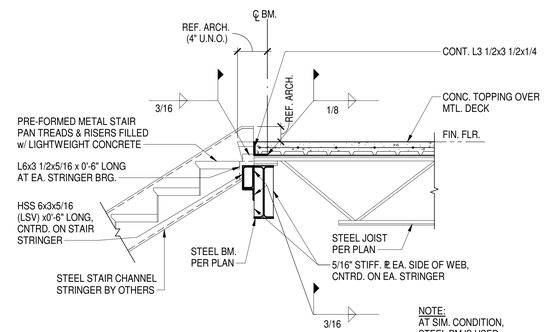


7 DETAIL

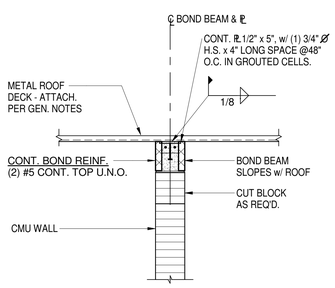
SCALE: 3/4" = 1'-0"



8 TYPICAL DETAIL

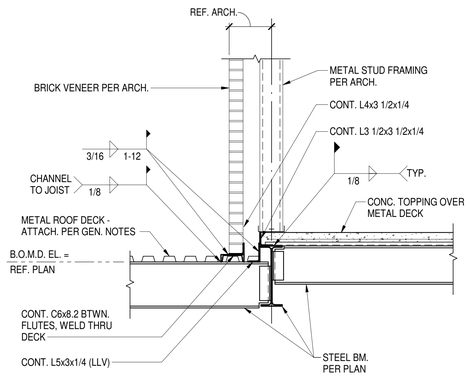


9 TYPICAL DETAIL



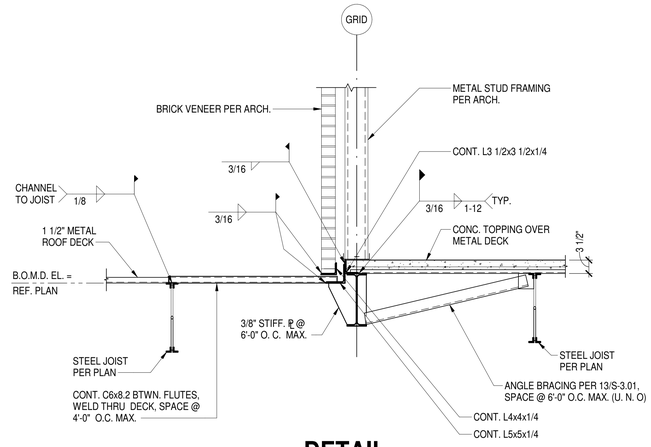
DECK BEARING ON CMU AT PERIMETER WALL

10 TYPICAL DETAIL



11 DETAIL

SCALE: 3/4" = 1'-0"



12 DETAIL

SCALE: 3/4" = 1'-0"

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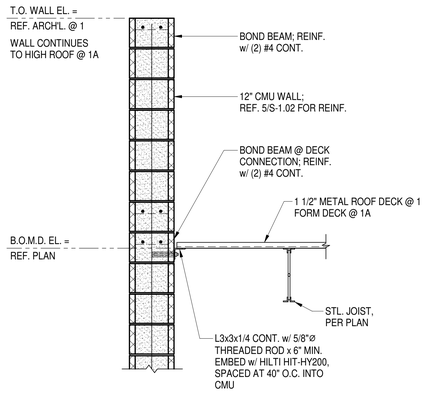
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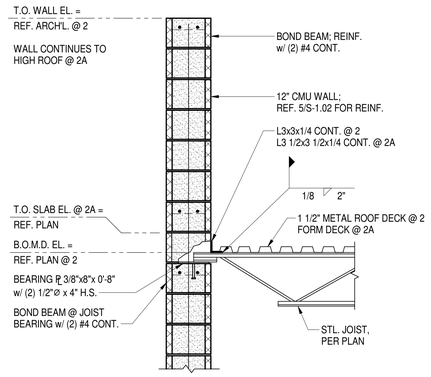
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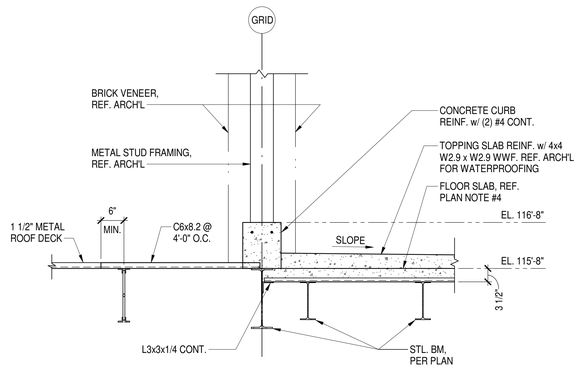
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S-3.03



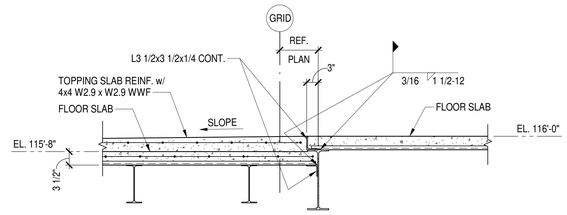
1,1A **DETAIL**
SCALE: 3/4" = 1'-0"



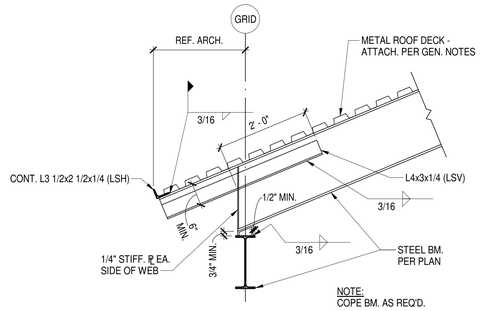
2,2A **DETAIL**
SCALE: 3/4" = 1'-0"



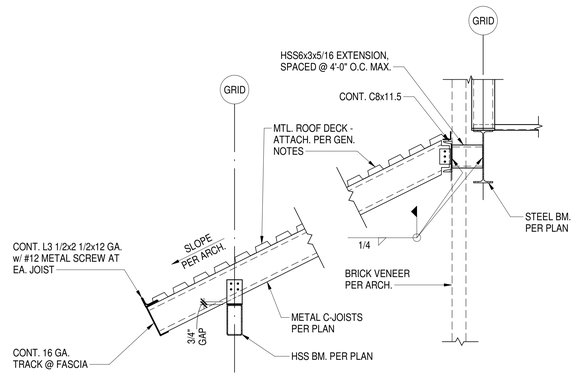
3 **DETAIL**
SCALE: 3/4" = 1'-0"



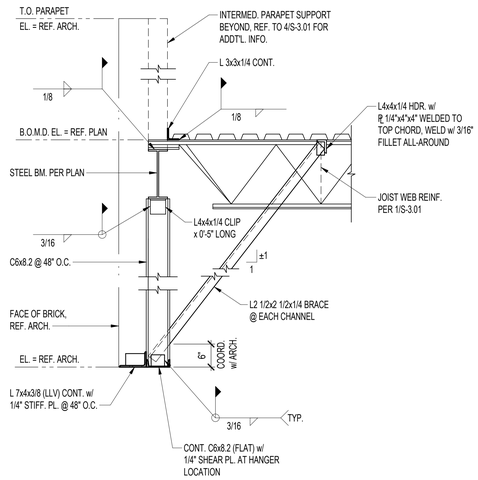
4 **DETAIL**
SCALE: 3/4" = 1'-0"



5 **DETAIL**
SCALE: 3/4" = 1'-0"

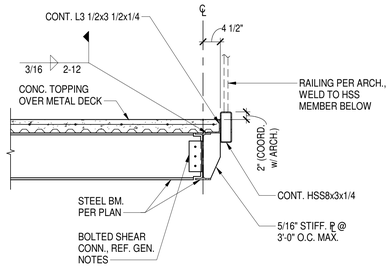


6 **DETAIL**
SCALE: 3/4" = 1'-0"

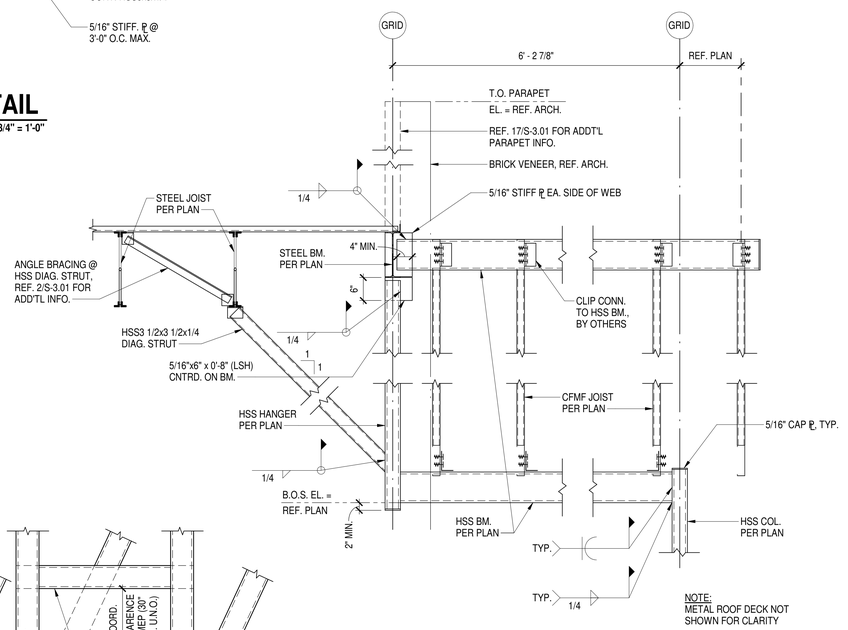


DECK TO BEAM CONNECTION w/ BRICK SUPPORT

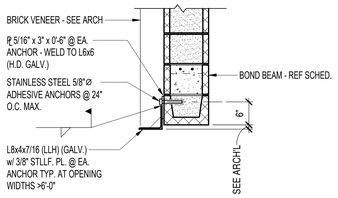
7 **TYPICAL DETAIL**



8 **DETAIL**
SCALE: 3/4" = 1'-0"



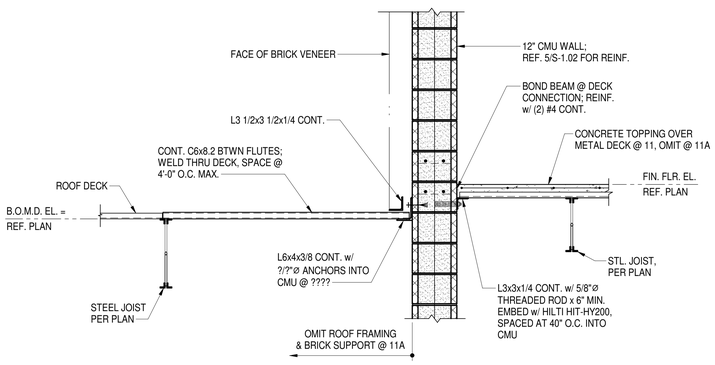
9 **DETAIL**
SCALE: 3/4" = 1'-0"



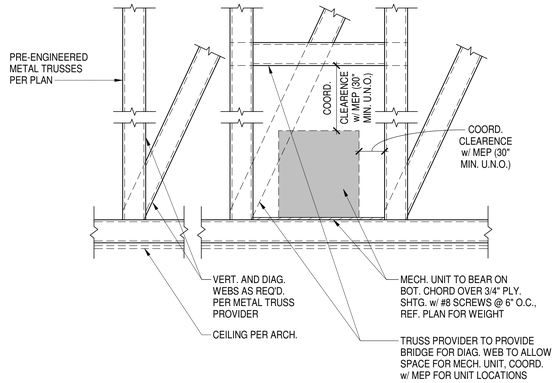
NOTES:
1. PROVIDE LOOSE LINTEL ANGLES FOR VENEER SUPPORT AT OPENINGS EQUAL TO OR LESS THAN 6'-0".
2. ADHESIVE ANCHORS SHALL NOT BE INSTALLED WITHIN 2" OF A MASONRY HEAD JOINT.
3. STEEL LEDGE ANGLE LENGTH SHALL BE LIMITED TO 20'-0". PROVIDE 3/8" CONTROL JOINT BETWEEN LEDGE ANGLE SECTIONS.

MASONRY VENEER SUPPORT AT MASONRY WALL

10 **TYPICAL DETAIL**



11,11A **DETAIL**
SCALE: 3/4" = 1'-0"



12 **DETAIL**
SCALE: 3/4" = 1'-0"

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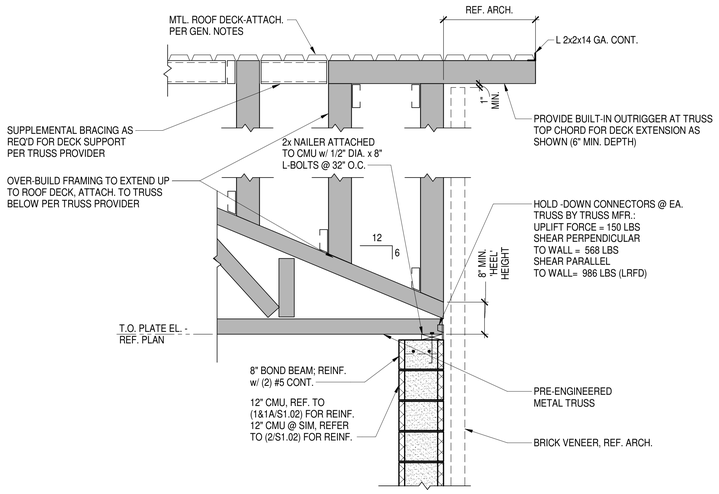
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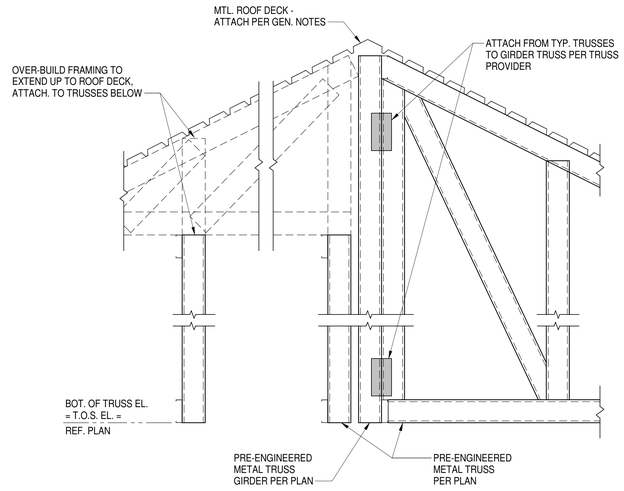
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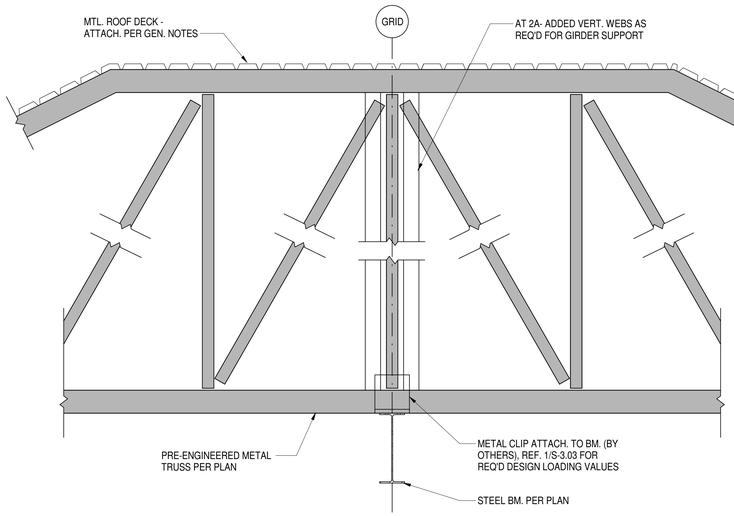
SHEET NO.
S-3.04



1 DETAIL
SCALE: 3/4" = 1'-0"



2 DETAIL
SCALE: 3/4" = 1'-0"



3, 3A DETAIL
SCALE: 3/4" = 1'-0"

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03-20-2024

SHEET DESCRIPTION:
FRAMING DETAILS

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S-3.05

STORM SHELTER NOTES

GENERAL BUILDING INFORMATION

1. Storm shelter shall conform to the standards of the ICC 500-2020: ICC/NSSA Standard for the Design and Construction of Storm Shelters.
2. Type of Shelter (ICC500 Section 106.2.1.1):
   a. Community Shelter
   b. Tornado Shelter
3. The shelter has not been designed within an area susceptible to flooding in accordance with ICC 500 Chapter 4 (ICC500 Section 106.2.1.11).
4. Main Windforce-Resisting Systems & Wind-Resisting Components:
   a. Roof Framing:
   b. Wall Connection at Roof: Hooked Dowels, Slab To Wall
   c. Diaphragm Systems:
      i. Roof Diaphragm: Concrete Over Composite Metal Deck
      ii. Boundary Elements: Solid Grouted CMU Shear Walls w/ Chord Steel
   d. Main Windforce-Resisting Systems: CMU Shear Walls
   e. Connections to Foundation:
      i. CMU Shear Walls: Dowels at Base of Wall
   f. Foundation: Grade Beams over Straight Shaft Drilled Piers
5. Roof Dead Loads:
   a. 4" NWC Over 2VLI Deck 62.0 psf
   b. Roof Framing 4.33 psf
   c. Roofing & Insulation 1 psf
   d. Mechanical & Electrical 6 psf
   e. Sprinkler 3 psf
   f. Miscellaneous 2 psf
6. Roof Live Load (Unreduced) (ICC500 Section 303.2):
   L_R = 100 psf
7. Laydown and Falling Debris Hazard Live Load (ICC500 Section 303.3 & 305.3):
   $L_{collapse}$ = 205.8 psf
8. Wind Load (ICC500 Section 106.2.1 & 304):
   a. Shelter Design Wind Speed (Ultimate) (ICC500 Section 304.2):
      Wind Speed = 250 mph
   b. Wind Exposure Category (ICC500 Section 304.4):
      Exposure Category = C
   c. Internal Pressure Coefficient (ICC500 Section 304.6):
      GC_{pi} = +/-0.55
      Enclosure Classification: Partially Enclosed
   d. Topographic Factor (ICC500 Section 304.5):
      K_{zt} = 1.0
   e. Directionality Factor (ICC500 Section 304.3):
      K_d = 1.0
   f. Components and Cladding Wind Pressures:
      Walls:
      Interior Zone, Negative -158.94 psf (Area = 10 sf)
      -137.29 psf (Area = 100 sf)
      -122.24 psf (Area = 500 sf)
      Exterior Zone, Negative -195.53 psf (Area = 10 sf)
      -152.35 psf (Area = 100 sf)
      -122.24 psf (Area = 500 sf)
      Interior & Exterior Zone, Positive 146.71 psf (Area = 10 sf)
      125.06 psf (Area = 100 sf)
      110.0 psf (Area = 500 sf)
      Roof:
      Interior Zone, Negative -160.24 psf (Area = 10 sf)
      -146.71 psf (Area = 50 sf)
      -146.71 psf (Area = 100 sf)
      Edge Zone, Negative -268.94 psf (Area = 10 sf)
      -173.88 psf (Area = 50 sf)
      -173.88 psf (Area = 100 sf)
      Corner Zone, Negative -404.71 psf (Area = 10 sf)
      -173.88 psf (Area = 50 sf)
      -173.88 psf (Area = 100 sf)
      Interior Zone, Positive 65.2 psf (Area = 10 sf)
      51.7 psf (Area = 50 sf)
      51.7 psf (Area = 100 sf)
      Edge & corner Zone, Positive 65.2 psf (Area = 10 sf)
      51.7 psf (Area = 50 sf)
      51.7 psf (Area = 100 sf)
      Note: Edge & Corner Zone Width, a = 3'-0"
9. Seismic Load:
   a. Refer to General Notes on Sheet S-0.01 for seismic design parameters
   b. Seismic Force Resisting System: Ordinary Reinforced Masonry Shear Walls
   c. Response Modification Factor, R = 2.0
   d. Seismic Response Coefficient, Cs = 0.01
   e. Analytical Procedure = Equivalent Lateral Force Procedure
   f. Seismic load does not govern. Refer to Wind Load for storm shelter design.
10. Roof surface slope shall not be less than 1/4" per foot. Roof structure shall be designed for the weight of ponding water per ASCE 7 Section 8. Refer to Architectural or Plumbing Drawings for locations of roof primary drainage system, and roof secondary (overflow) drainage system (ICC 500 Section 106.2.1.22-24).
11. Refer to architectural, mechanical, electrical, plumbing, and civil drawings for other shelter design information (ICC 500 Section 106) and quality assurance information per ICC 500 Section 107.
12. All General Notes for main building indicated on Sheet S-0.01 are applicable for storm shelter structure unless noted otherwise.

MISSILE IMPACT REQUIREMENTS

1. Missile Criteria for Storm Shelter Components (ICC 500 Section 305.1.1):
   a. The debris impact test missile for all components of the shelter envelope of storm shelters shall be a 15-pound (6.8 kg) sawn lumber 2 by 4 traveling at the speed as following:
      i. Vertical surfaces = 100 mph
      ii. Horizontal surfaces = 67 mph
2. Roof system to comply missile impact test requirements (ICC500 Section 106.2.1.12):
   a. Provided system: 4" NWC over 2" 18 ga. metal deck (6" total) reinforced with #4 @12" o.c. min. each way
   b. Tested system: 4" concrete slab reinforced with #4 @ 12" o.c. each way
   c. Testing document: Construction Materials Threshold Testing by Wind Science and Engineering Research Center, Texas Tech University, Nov. 2004.
3. Wall system to comply with missile impact test requirements (ICC500 Section 106.2.1.12):
   a. Provided system: 12" CMU fully grouted and reinforced with (2) #7 vertical and truss type horizontal @ 16" o.c.
   b. Tested system: 8" CMU reinforced with concrete and #4 rebar in every cell; truss type horizontal reinforcement was placed every 16".
   c. Testing document: Construction Materials Threshold Testing by Wind Science and Engineering Research Center, Texas Tech University, Nov. 2004.
4. Refer to architectural, mechanical, electrical, plumbing, and civil drawings for other components/assemblies of building and impact-protective systems.

QUALITY ASSURANCE PLAN

Quality Assurance Plan has been provided for the construction for storm shelter in accordance with ICC 500 Section 107.

Refer to Quality Assurance Plan on Sheet S-4.01.

SPECIAL INSPECTIONS

1. Special Inspections are required in accordance with ICC 500 Section 110 in addition to 2021 IBC Chapter 17. Refer to Storm Shelter Special Inspections on Sheet S-4.01.
2. Inspection of fabricator:
   Where fabrication of structural load-bearing and impact-resistant components and assemblies is being performed on the premises of a fabricator's shop, special inspection of the fabricator shall be provided.
3. Additional Special Inspections for post-installed anchors:
   Continuous special inspection shall be provided for post-installed anchors in harden concrete and masonry, where used for anchorage of storm shelter components forming a part of the storm shelter enclosure or for anchorage of the storm shelter structure to foundation.
   a. Special inspection to verify anchor installation and capacity.
   b. Provide report of documenting inspection in accordance with hoist building processes.

STRUCTURAL OBSERVATIONS

1. In accordance with 2021 IBC Section 1704.6 and ICC 500-2020 Section 111, visual observations of the construction of the structural system for general conformance to the approved construction documents at significant construction stages and at completion of the construction of the structural system shall be performed by Professional Engineer licensed in the State of Texas. At a minimum, the following significant construction stages are required site visits and observation:
   a. Storm shelter main windforce-resisting system connections to foundation:
      CMU dowels to foundation prior to grade beam concrete pour.
   b. Storm shelter main windforce-resisting system installation:
      CMU wall construction and wall dowels prior to grouting.
   c. Storm shelter roof diaphragm system attachment to wall installation.
   d. After completion of installation of storm shelter structural components.
2. Structural observations do not eliminate the need for special inspections and testing required by the governing building code.
3. Contractor shall schedule structural observations with Engineer. Work shall remain accessible and exposed until completion of each structural observation and required special inspections.

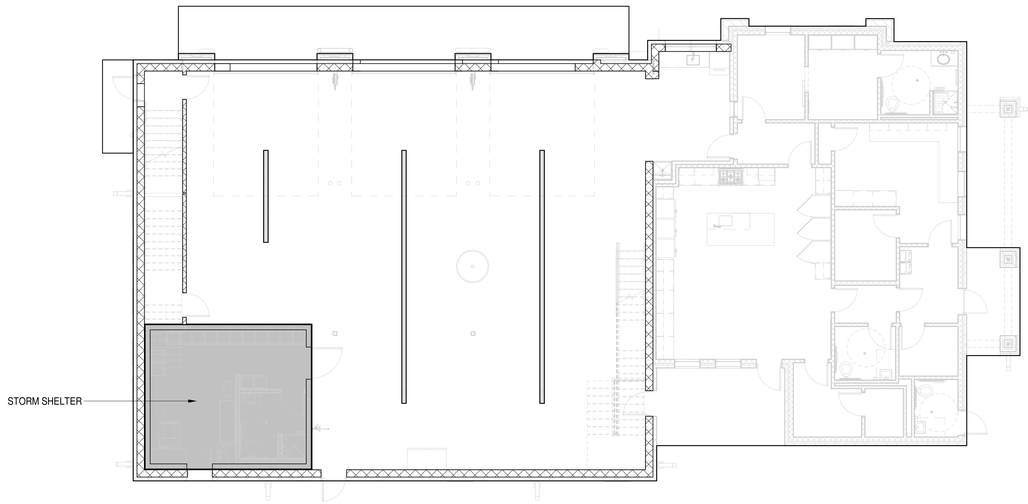
CONTRACTOR'S STATEMENT OF RESPONSIBILITY

In reference to ICC 500-2020 Section 107.4, Each contractor responsible for the construction, fabrication or installation of a main windforce-resisting system, impact-protective system or any component listed in the quality assurance plan shall submit a written statement of responsibility to the authority having jurisdiction, the Architect, the Engineer of Record and the Owner prior to the commencement of work on the system or component. The contractor's statement of responsibility shall contain:

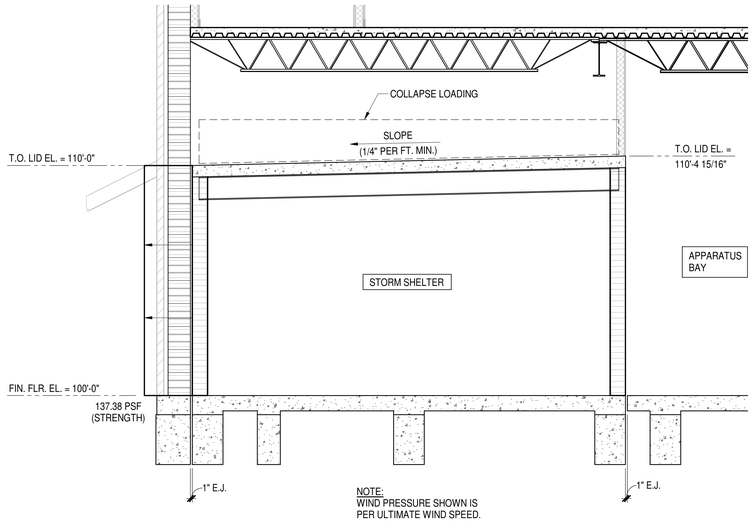
1. Acknowledgement of awareness of the special requirements contained in the quality assurance plan.
2. Acknowledgement that control will be exercised to obtain compliance with the construction documents.
3. Procedures for exercising control within the contractor's organization, the method and frequency of reporting and the distribution of reports.
4. Identification and qualifications of the person(s) exercising such control and their position(s) in the organization.

PENETRATIONS OF STORM SHELTER ENVELOPE BY MECHANICAL, ELECTRICAL & PLUMBING SYSTEMS

1. Per ICC 500 Section 306.6, Penetrations through the storm shelter envelope larger than 3-1/2 square inches in area for rectangular penetrations or 2-1/2 inches in diameter for circular penetrations, shall be protected in accordance with Section 306.4.
2. Please refer to Architectural and MEP drawings for impact-protective systems and their locations with dimensions.



KEY PLAN



SECTION AT STORM SHELTER w/
WIND LOADING DIAGRAM (MWFRS)

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CHECKED BY: JCA
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ISSUED FOR PRICING:

REVISIONS:

No.	Description	Date

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JULIO CESAR ANDRINO
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LICENSED
PROFESSIONAL ENGINEER

03-20-2024

SHEET DESCRIPTION:
STORM SHELTER
NOTES & KEY PLAN

SHEET NO.
S-4.00

STORM SHELTER SPECIAL INSPECTIONS

SI-1 The registered design professional in responsible charge (RDPiRC) for this project is the architect. Submit all inspection reports directly to the RDPiRC for review. Also, submit the structurally related special inspection reports to the structural engineer for review.

SI-2 The RDPiRC contracts with or is employed by the owner. In order to comply with the code requirements, the RDPiRC, the special inspectors, and testing technicians may not be in the employ of the general contractor (GC), subcontractors or material suppliers. In the case of an owner / contractor, the building official shall specify who employs the RDPiRC, special inspectors and testing technicians.

SI-3 These inspections are in addition to the inspections specified in Section 110 of the 2018 International Building Code (IBC). Refer to the building code, and any amendments to the building code for this jurisdiction, to determine all the required inspections in addition to the special inspections listed below.

SI-4 Inspection of Fabricators - Fabricator shall submit to the RDPiRC, with a copy to the owner and the GC, a certificate of compliance stating that he fabricated his work under the inspections services of a special inspector or under the inspection services of a nationally recognized trade organization that requires quality control inspections.

<<The following special inspections in table form are required only if marked by a 'X', 'C', or 'P'.
X - Denotes that the inspection is required, one time occurrence.
C - Denotes that the inspection is required and shall be continuous.
P - Denotes that the inspection is required and shall be periodic.
R - Denotes that inspection/testing is required and shall be performed with applicable standards.
NA - Denotes not applicable to this project.
"- - -" - Observe, or perform in accordance with applicable standards.

SI-5 Open Web Steel Joist & Joist Girder, does NOT apply to this project

SI-6 Structural Steel Construction

Mark	Description	Remark
X	1. Special Inspection requirements of main building are applied to storm shelter.	
	2. Provide the following special inspections in addition to the Special Inspection requirements shown on S-0.02.	
P	a. Verify size and length of weld of roof deck continuous perimeter angle to steel beams and embed plates.	50% of each connection type
P	b. Verify size and length of weld of steel beams to embed plates.	50% of each connection type
P	c. Verify attachment of roof deck to steel beams and perimeter angle.	50% of each connection type
C	d. Verify weld of shear studs to steel beams.	50% of each connection type
P	e. Verify weld of rebar dowels to roof deck perimeter angle.	50% of each connection type

SI-7 Concrete Construction (Per 2018 IBC Table 1705.3)

Mark	Description	Referenced Standard	IBC Reference
P	1. Inspect reinforcement, including prestressing tendons, and verify placement.	ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	
	2. Reinforcing bar welding:		
P	a. Verify weldability of reinforcing bars other than ASTM A706;	AWS D1.4	
P	b. Inspect single-pass fillet welds, maximum 5/16"; and	ACI 318: 26.6.4	
C	c. Inspect all other welds.		
P	3. Inspect anchors cast in concrete.	ACI 318: 17.8.2	
	4. Inspect anchors post-installed in hardened concrete members[a]		
C	a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	ACI 318: 17.8.2.4	
C	b. Mechanical anchors and adhesive anchors not defined in 4.a.	ACI 318: 17.8.2	
P	5. Verify use of required design mix.	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2
C	6. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	ASTM C172 ASTM C31 ACI 318: 26.4, 26.12	
C	7. Inspect concrete and shotcrete placement for proper application techniques.	ACI 318: 26.5	
P	8. Verify maintenance of specified curing temperature and techniques.	ACI 318: 26.5.3-26.5.5	
	9. Inspect prestressed concrete for:		
NA	a. Application of prestressing forces; and	ACI 318: 26.10	
NA	b. Grouting of bonded prestressing tendons.		
NA	10. Inspect erection of precast concrete members.	ACI 318: Ch. 26.8	
	11. For precast concrete diaphragm connections or reinforcement at joints classified as moderate (MDE or HDE) in structures assigned to Seismic Design Category C, D, E, or F, inspect such connections and reinforcement in the field for:	ACI 318: 26.13.1.3	
NA	a. Installation of the embedded parts		
NA	b. Completion of the continuity of reinforcement across joints.	ACI 550.5	
NA	c. Completion of connections in the field.		
NA	12. Inspect installation tolerances of precast concrete diaphragm connections for compliance with ACI 550.5.	ACI 318: 26.13.1.3	
P	13. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	ACI 318: 26.11.2	
P	14. Inspect formwork for shape, location and dimensions of the concrete member being formed.	ACI 318: 26.11.1.2(b)	

Note:
a. Specific requirements for special inspection shall be included in the research report for the anchor issued by an approved source in accordance with 17.8.2 in ACI 318, or other qualification procedures. Where specific requirements are not provided, special inspection requirements shall be specified by the registered design professional and shall be approved by the building official prior to the commencement of the work.

SI-8a Masonry Construction (Per TMS 602-16 Table 4)

Mark	MINIMUM TESTS
R	Verification of Slump flow and Visual Stability Index (VSI) as delivered to the project site in accordance with Specification Article 1.5 B.1.b.3 for self-consolidating grout.
R	Verification of f'_m and f'_{AAC} in accordance with Specification Article 1.4 B prior to construction, except where specifically exempted by TMS 402-13/ACI 530-13/ASCE 5-13.

Mark	MINIMUM SPECIAL INSPECTIONS					
	Inspection Task	Frequency			Reference for Criteria	
		Level 1	Level 2	Level 3	TMS 402	TMS 602
FREQUENCY AS NOTED	1. As masonry construction begins, verify that the following are in compliance:					
	a. Proportions of site-prepared mortar.	NA	NA	P		Art. 2.1, 2.6 A, & 2.6 C
	b. Grade and size of prestressing tendons and anchorages.	NA	NA	P		Art. 2.4 B & 2.4 H
	c. Grade, type and size of reinforcement, connectors, anchor bolts, and prestressing tendons and anchorages.	NA	NA	P		Art. 3.4 & 3.6 A
	d. Prestressing technique.	NA	NA	P		Art. 3.6 B
	e. Properties of thin-bed mortar for AAC masonry.	NA	NA	C		Art. 2.1 C.1
	f. Sample panel construction.	NA	NA	C		Art. 1.6 D
	2. Prior to grouting, verify that the following are in compliance:					
	a. Grout space.	NA	NA	C		Art. 3.2 D & 3.2 F
	b. Placement of prestressing tendons and anchorages.	NA	NA	P	Sec. 10.8 & 10.9	Art. 2.4 & 3.6
	c. Placement of reinforcement, connectors, and anchor bolts.	NA	NA	C	Sec. 6.1, 6.3.1, 6.3.6 & 6.3.7	Art. 2.4 & 3.6
	d. Proportions of site-prepared grout and prestressing grout for bonded tendons	NA	NA	P		Art. 2.6 B & 2.4 G.1.b
	3. Verify compliance of the following during construction:					
	a. Materials and procedures with the approved submittals.	NA	NA	P		Art. 1.5
	b. Placement of masonry units and mortar joint construction.	NA	NA	P		Art. 3.3 B
	c. Size and location of structural members.	NA	NA	P		Art. 3.3 F
	d. Type, size, and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction.	NA	NA	C	Sec. 1.2.1 (e), 6.2.1, & 6.3.1	
	e. Welding of reinforcement.	NA	NA	C	Sec. 6.1.6.1.2	
	f. Preparation, construction, and protection of masonry during cold weather (temperature below 40°F (44°C)) or hot weather (temperature above 90°F (32.2°)).	NA	NA	P		Art. 1.8 C & 1.8 D
	g. Application and measurement of prestressing force.	NA	NA	C		Art. 3.6 B
	h. Placement of grout and prestressing grout for bonded tendons is in compliance.	NA	NA	C		Art. 3.5 & 3.6 C
	i. Placement of AAC masonry units and construction of thin-bed mortar joints.	NA	NA	C		Art. 3.3 B.9 & 3.3 F.1.b
	4. Observe preparation of grout specimens, mortar specimens, and/or prisms.	NA	NA	C		Art. 1.4 B.2.a.3, 1.4 B.2.b.3, 1.4 B.3.c.3, 1.4 B.3 & 1.4 B.4

Note:
(a) Required for the first 5000 square feet (465 square meters) of AAC masonry.
(b) Required after the first 5000 square feet (465 square meters) of AAC masonry.

SI-8b Masonry Construction (Per TMS 602-16 Table 3)

Mark	Minimum Verification Requirements	Required for Quality Assurance[a]			Reference for Criteria
		Level 1	Level 2	Level 3	TMS 602
FREQUENCY AS NOTED	Prior to construction, verification of compliance of submittals.	NA	NA	R	Art. 1.5
	Prior to construction, verification of f'_m and f'_{AAC}, except where specifically exempted by Code.	NA	NA	R	Art. 1.4 B
	During construction, verification of Slump flow and Visual Stability Index (VSI) when self-consolidating grout is delivered to project site.	NA	NA	R	Art. 1.5 & 1.6.3
	During construction, verification of f'_m and f'_{AAC}, for every 5,000 sq. ft. (465 sq. m).	NA	NA	R	Art. 1.4 B
	During construction, verification of proportions of materials as delivered to the project site for premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout.	NA	NA	R	Art. 1.4 B

Note:
(a) R = Required, NR = Not Required

SI-9 Wood Construction does NOT apply to this project.

SI-10 Cold-Formed Steel Light-Frame Construction does NOT apply to this project.

SI-11 Soils (Per 2018 IBC Table 1705.6)

Mark	Description	Remark
	STORM SHELTER INSPECTIONS SHALL MATCH REQUIREMENTS OF THE MAIN BUILDING	

SI-12 Pile Foundations (Per 2021 IBC Table 1705.7) does NOT apply to this project.

SI-13 Pier Foundations (Per 2021 IBC Table 1705.8)

Mark	Description
	STORM SHELTER INSPECTIONS SHALL MATCH REQUIREMENTS OF THE MAIN BUILDING

SI-14 Required Inspections of Storage Rack Systems does NOT apply to this project.

SI-15 Wind Resistance

Mark	Description	REFERNCED STANDARD	IBC REFERENCED	Remark
	1. Structural Wood:		1705.11.1	
NA	a. Field gluing operations of the main windforce-resisting system			
NA	b. Nailing, bolting, anchoring and other fastening of components within the main windforce-resisting system, including wood shear walls, wood diaphragms, drag struts/collectors, braces and hold-downs, except if sheathing fastener spacing exceeds 4" on center.			
NA	2. Cold-Formed Steel Light-Frame Construction:		1705.11.2	
NA	a. Welding operations of elements of the main windforce-resisting system.			
NA	b. Screw attachment, bolting, anchoring and other fastening of elements of the main windforce-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs, except if the sheathing is gypsum or fiberboard or if fastener spacing is more than 4" on center.			
	3. Wind-Resisting Components in all structures. Fastening of the following systems and components:		1705.11.3	
P	a. Roof covering, roof deck and roof framing connections			
P	b. Exterior wall covering and wall connections to roof and floor diaphragms and framing			

STORM SHELTER QUALITY ASSURANCE PLAN

Quality Assurance (QA) Plan in Accordance with ICC 500-2014 Section 107:

QA 1 Roof cladding and roof framing connections:
a. Roof composite deck (concrete over metal deck) attachment to roof steel framing is achieved by deck weld to steel beams and shear studs (composite beams). Deck weld and shear stud placement shall be inspected as noted in Special Inspections.

QA 2 Wall connections to roof diaphragm and framing:
a. Wall connections to roof composite deck: roof composite deck attachment to wall is achieved with dowel bar to dowel into CMU wall as shown in wall section at roof. Dowel bar placement shall be inspected as noted Special Inspections.
b. Wall Connections to roof framing: Roof steel beam attachment to wall is achieved by welding steel beam to steel bearing plate with anchor bolts and deformed bar (welded to steel bearing plate) embedding in fully grouted CMU wall as is shown in wall section at roof beam. Steel weld and cast-in-place anchors shall be inspected as noted Special Inspections.

QA 3 Roof diaphragm system, including connectors and boundary elements:
a. Roof diaphragm system is consist of reinforced composite roof deck and is welded to steel support framing (steel beams) and embed plates at perimeter at reinforced concrete beams as shown in wall sections at roof. Reinforced concrete beams at perimeter with continuous chord steel in concrete are provided as boundary elements. Reinforcing bar size and placement shall be inspected as noted in Special Inspections.

QA 4 Main windforce-resisting systems, including reinforced masonry shear walls:
a. Main windforce-resisting system is consist of reinforced masonry shear walls. Inspect masonry, directly adjacent concrete, formwork, and reinforcing steel as noted in Special Inspections.

QA 5 Main windforce-resisting systems connections to the foundation:
a. Dowels are provided at the base of reinforced masonry shear walls to dowel the shear walls to concrete grade beams below. Dowels are also provided at the grade beams into drilled piers. Dowel placement and size shall be inspected as noted in Special Inspections.

QA 6 Fabrication and installation of components and assemblies that are part of wall assemblies, roof assemblies or impact-protective systems of the storm shelter envelope are required to meet impact or static or cyclic pressure test requirements of Chapter 3, such as, window assembly, door assembly, shutter assembly or louver:
a. Doors, windows, louvers and other penetration protecting systems shall comply requirements in ICC-500. Refer to Architectural and MEP Drawings and Specifications for requirements and details.
b. Installations of doors, windows, louvers and other penetration protecting systems shall be inspected per Architectural and MEP Drawings and Specifications.

QA 7 Wall cladding and wall cladding connections:
a. Refer to Architectural Drawings and Specifications for requirements and details.
b. Installations shall be inspected per Architectural Drawings and Specifications.

QA 8 Storm shelter critical support systems and connections and impact protection of the components and connections:
a. Refer to Architectural and MEP Drawings and Specifications for requirements and details.

QA 9 Foundation design:
a. Grade beams over straight shaft drilled piers are provided as foundation system. The foundation design value is included in General Notes.

QA 10 Inspection, testing and structural observation:
a. Refer to Storm Shelter Special Inspections for requirements.
b. Material testing shall be of type and frequency indicated in General Notes and Specifications.
c. Structural observations shall be conducted in accordance with ICC 500 Section 111.1 for general conformance to the Structural Drawings. Refer to Storm Shelter Notes.
d. Contractor shall notify the Engineer of Record and registered design professionals (if any) employed by the Owner at all significant construction stages to allow for structural observations.
e. Inspection, testing and observation reports shall be distributed to contractor, the Architect, and the Engineer of Record. Reports indicating deficiencies or deviations from contract drawings should be distributed within 24 hours of the site visit. Inspector shall notify contractor of any deficiency or deviation prior to leaving site.
f. Work shall remain accessible and exposed until completion of each structural observation and required special inspections.

QA 11 Contractor's statement of responsibility:
a. Refer to Storm Shelter Notes.

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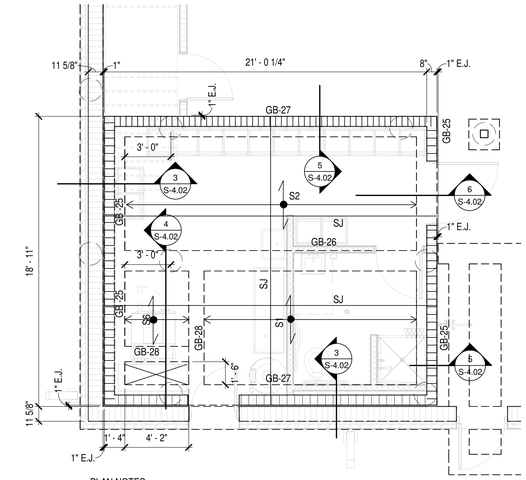
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LICENSED PROFESSIONAL ENGINEER
03-20-2024

SHEET DESCRIPTION:
STORM SHELTER QA PLAN AND SPECIAL INSPECTIONS

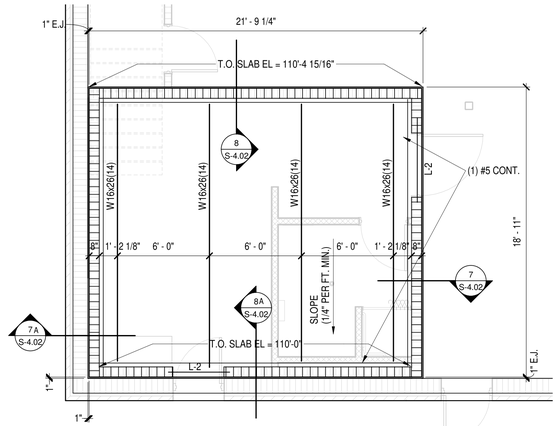
SHEET NO.
S-4.01



PLAN NOTES:
1. REFER TO PLAN NOTES ON SHEET S-2.02

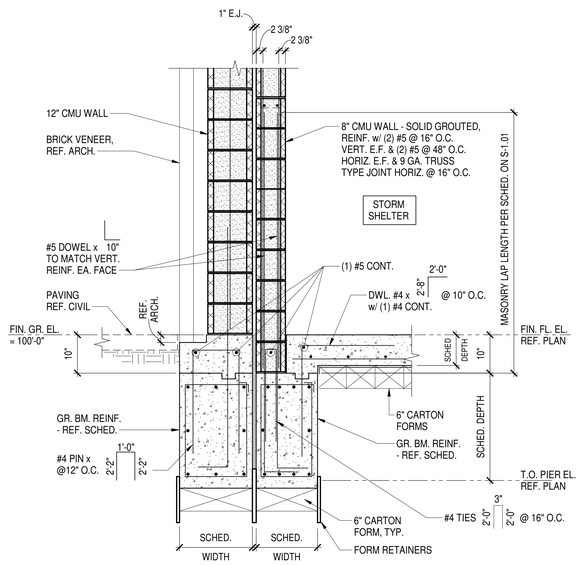
GRAPHIC SYMBOLS
- INDICATES NON LOAD-BEARING METAL STUD WALL
- INDICATES LOAD-BEARING CMU WALL

1 STORM SHELTER FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

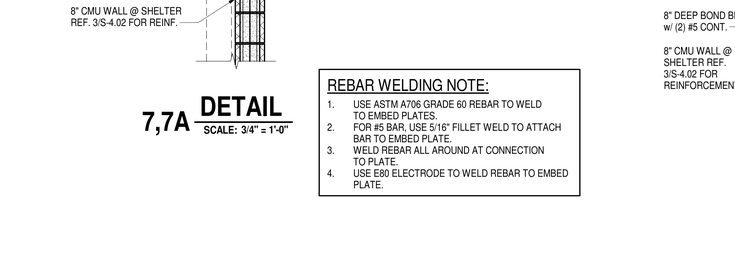


PLAN NOTES:
1. REFER TO PLAN NOTES ON SHEET S-2.03
2. NUMBER OF SHEAR STUDS IS NOTED IN PARENTHESIS ADJACENT TO BEAM SIZE. REFER TO DETAIL 9/S-4.02 FOR LAYOUT REQUIREMENTS OF STUDS
3. PROVIDE L-2 & J-2 JAMB REINF. EA. SIDE OF STORM SHELTER VENTILATION PENETRATIONS, REF. MEP FOR LOCATIONS.

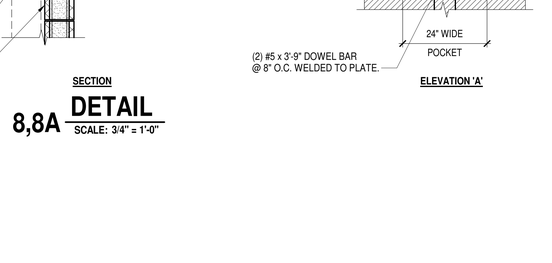
2 STORM SHELTER ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"



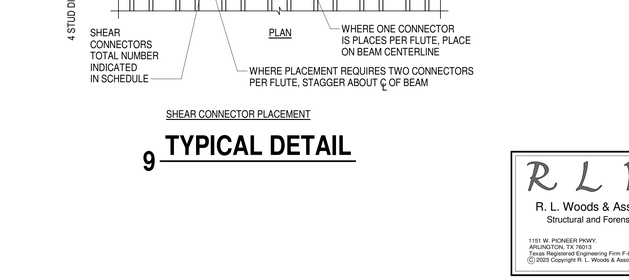
3 DETAIL
SCALE: 3/4" = 1'-0"



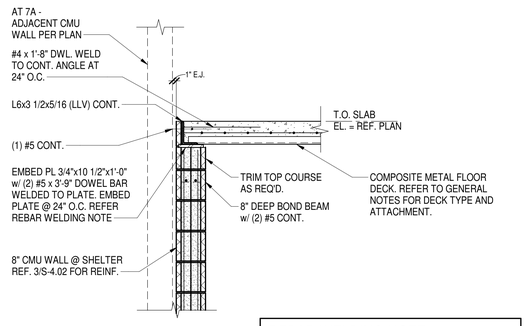
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SCALE: 3/4" = 1'-0"



5 DETAIL
SCALE: 3/4" = 1'-0"

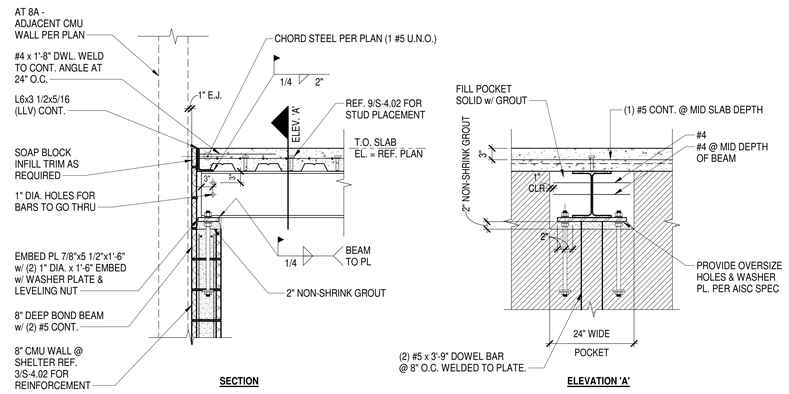


6 DETAIL
SCALE: 3/4" = 1'-0"

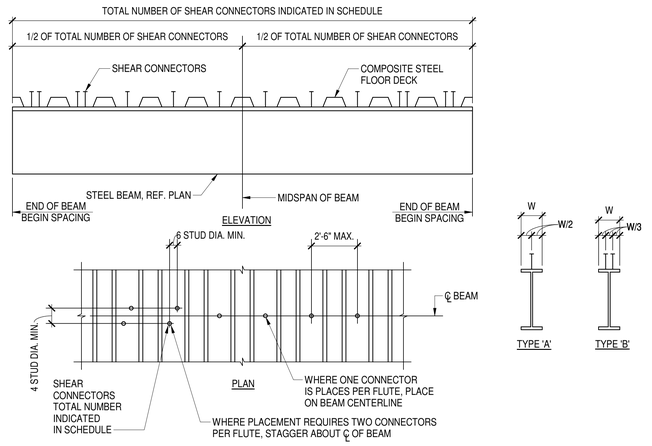


7,7A DETAIL
SCALE: 3/4" = 1'-0"

REBAR WELDING NOTE:
1. USE ASTM A706 GRADE 60 REBAR TO WELD TO EMBED PLATES.
2. FOR #5 BAR, USE 5/16" FILLET WELD TO ATTACH BAR TO EMBED PLATE.
3. WELD REBAR ALL AROUND AT CONNECTION TO PLATE.
4. USE E80 ELECTRODE TO WELD REBAR TO EMBED PLATE.



8,8A DETAIL
SCALE: 3/4" = 1'-0"



SHEAR CONNECTOR PLACEMENT

9 TYPICAL DETAIL

R L W A
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WINN RIDGE BLVD.



03-20-2024

SHEET DESCRIPTION:
STORM SHELTER PLANS AND DETAILS

SHEET NO.
S-4.02

WIRING DEVICE MOUNTING

MOUNTING HEIGHTS - UNLESS NOTED OTHERWISE ON PLANS

SWITCHES	48" AFF TO TOP OF SWITCH	
RECEPTACLES	FINISHED AREAS:	18" AFF TO BOTTOM OF RECEPTACLE
	UNFINISHED AREAS:	48" AFF TO TOP OF RECEPTACLE
	WATER COOLERS:	DIRECTLY BEHIND COOLER
	ABOVE COUNTER:	6" ABOVE COUNTER OR BACKSPLASH
DATA/TELEPHONE	FINISHED AREAS:	18" AFF TO BOTTOM OF OUTLET
	UNFINISHED AREAS:	48" AFF TO TOP OF OUTLET
	ABOVE COUNTER:	6" ABOVE COUNTER OR BACKSPLASH
	WALL MOUNTED:	48" AFF TO TOP OF OUTLET

FIXTURE MODIFIERS

X	X	X	X	X

32	MOUNT +32" AFF
36	MOUNT +36" AFF
48	MOUNT +48" AFF
60	MOUNT +60" AFF
72	MOUNT +72" AFF
A	MOUNT +6" ABOVE COUNTER TOP
AB	APPRATUS BAY RECEPTACLE - MOUNT +48"AFF AND PROVIDE WEATHERPROOF PROTECTIVE BOX.
B	MOUNT 6" BELOW COUNTER TOP
C	MOUNT ON CEILING
DF	DRINKING FOUNTAIN RECEPTACLE - MOUNT INSIDE CHASE.
DP	TEACHING DISPLAY RECEPTACLE - PROVIDE ISOLATED GROUND NEMA 5-20 RECEPTACLE +42"AFF
DS	DISPOSAL - MOUNT INSIDE CABINET IN SPACE BENEATH SINK. PROVIDE SWITCH TO CONTROL DISPOSAL ON WALL OF UNDER-SINK CABINET. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT ELEVATION.
DW	DISHWASHER - MOUNT INSIDE CABINET IN SPACE BENEATH SINK. PROVIDE 2" DIAMETER HOLE IN WALL BETWEEN UNDER-SINK SPACE AND DISHWASHER SPACE TO FEET DISHWASHER CORD.
E	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER - PROVIDE DEDICATED GFCI RATED NEMA 5-20 RECEPTACLE ON INSIDE PLUMBING CHASE BEHIND FOUNTAIN. PROVIDE REMOTE TEST BUTTON.
IG	ISOLATED GROUND
IM	ICE MAKER - REFER TO ARCHITECTURAL DRAWINGS FOR EXACT ELEVATION
L6	TECHNOLOGY RACK RECEPTACLE - PROVIDE DEDICATED NEMA L6-30R RECEPTACLE WITH ISOLATED GROUND, MOUNTED ON LADDER RACK ABOVE IT CABINET.
M	MICROWAVE - CENTER BEHIND MILLWORK FOR MICROWAVE IF AVAILABLE, OTHERWISE MOUNT +6" ABOVE COUNTER TOP.
N62	NEMA 6-20 RECEPTACLE
N63	NEMA 6-30 RECEPTACLE
N145	NEMA 14-50 RECEPTACLE
N155	NEMA 15-50 RECEPTACLE
PR	POWER REEL - MOUNT AT CEILING. PROVIDE AND INSTALL NEMA 5-20R RECEPTACLE AND OVERHEAD REEL. BASIS OF DESIGN - HBL35123GF220.
R	REFRIGERATOR - MOUNT +48"AFF. PROVIDE REMOTE TEST BUTTON.
RE	RANGE: ELECTRIC - PROVIDE GFCI RATED NEMA 14-50R RECEPTACLE AND DEDICATED 50A GFCI RATED BREAKER
RG	RANGE: GAS - PROVIDE GFCI RATED NEMA 5-15R RECEPTACLE AND DEDICATED 20A BREAKER
RU	REFRIGERATOR - MOUNT UNDER COUNTER
TD	TEACHER'S DESK RECEPTACLE - PROVIDE ISOLATED GROUND QUADPLEX RECEPTACLE +18"AFF
TP	TAMPER PROOF
TV	TV - MOUNT +72"AFF UNLESS NOTED OTHERWISE. PROVIDE RECESSED RECEPTACLE WITH ISOLATED GROUND EQUAL TO HUBBELL RR1514.
WP	WEATHERPROOF - PROVIDE WEATHERPROOF PROTECTIVE BOX

NOTES: NOT ALL OF THE RECEPTACLE TYPES ON THIS LIST ARE USED IN THIS PROJECT.

ABBREVIATIONS

A	AMPERE(S)
AC	ALTERNATING CURRENT
ACT	ABOVE COUNTER TOP
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY (SYMMETRICAL ROOT MEAN SQUARE)
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
AWG	AMERICAN WIRE GAGE
BFC	BELOW FINISHED CEILING
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CLG	CEILING
DWG	DRAWING
ECB	ENCLOSED CIRCUIT BREAKER
EF	EXHAUST FAN
EGS	ENGINE-GENERATOR SET
EMERG	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EX	EXISTING
F	FUSE OR FUSIBLE
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM PANEL
FLA	FULL LOAD CURRENT
FMC	FLEXIBLE METAL CONDUIT
FSS	FUSIBLE SAFETY SWITCH
FT	FOOT OR FEET
FVNR	FULL-VOLTAGE, NON- REVERSING
FVR	FULL-VOLTAGE, REVERSING
G, GND	GROUND
GFI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT CIRCUIT PROTECTION
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
IG	ISOLATED GROUND
KCMIL	THOUSANDS OF CIRCULAR MILS
KV	KILOVOLTS
KVA	KILOVOLT-AMPERE(S)
KVAR	KILOVOLT-AMPERE(S) REACTIVE
KW	KILOWATT(S)
LSI	LONG-TIME, SHORT-TIME-INSTANTANEOUS
LSIG	LONG-TIME, SHORT-TIME-INSTANTANEOUS, GROUND FAULT
LTFMC	LIQUID-TIGHT FLEXIBLE METAL CONDUIT
LTG	LIGHTING
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NF	NON-FUSED OR NON-FUSIBLE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NFSS	NON-FUSIBLE SAFETY SWITCH
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
P	POLE(S)
PA	PUBLIC ADDRESS
PH	PHASE
PNLBD	PANELBOARD
PVC	POLYVINYL CHLORIDE
PWR	POWER
REC	RECEPTACLE(S)
REQD	REQUIRED
RGS	RIGID GALVANIZED STEEL
RTU	ROOF TOP UNIT
RVSS	REDUCED VOLTAGE, SOLID-STATE
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TA	TIP AMPERES
TAS	TEXAS ACCESSIBILITY STANDARDS
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UL	UL SOLUTIONS
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT(S) OR VOLTAGE
VA	VOLT-AMPERE(S)
VFD	VARIABLE FREQUENCY DRIVE
W	WATT(S) OR WATTAGE
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER

ELECTRICAL GENERAL NOTES

1. ELECTRICAL WORK SHALL BE PERFORMED BY LICENSED ELECTRICAL CONTRACTOR. WIRING, EQUIPMENT, DEVICES, AND INSTALLATIONS SHALL CONFORM TO APPLICABLE LOCAL, STATE, AND FEDERAL CODES.
2. PROVIDE WIRING, CONDUIT, LABOR, AND MATERIALS NECESSARY FOR COMPLETE AND PROPER OPERATION OF ELECTRICAL SYSTEMS, EVEN WHEN NOT SHOWN EXPLICITLY ON DOCUMENTS.
3. PAY FEES AND PERMITS AS NECESSARY TO COMPLETE PROJECT. PROVIDE LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO ENSURE COMPLETE WORKING SYSTEMS.
4. ELECTRICAL WORK SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF NFPA 70 (NATIONAL ELECTRICAL CODE), NFPA 70B, NFPA 70E, IECC, ASHRAE 90.1, OSHA, AND OTHER REFERENCES REQUIRED BY CONTRACT.
5. INSTALLATION OF SWITCHES, OUTLETS AND CONTROL DEVICES SHALL COMPLY WITH LOCAL CODES, AMERICANS WITH DISABILITIES ACT, AND TEXAS ACCESSIBILITY STANDARDS.
6. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT. PROVIDE LABOR AND MATERIALS REQUIRED TO CONNECT ELECTRICAL POWER TO MECHANICAL AND PLUMBING EQUIPMENT.
7. ELECTRICAL EQUIPMENT, DEVICES, AND CIRCUITS SHALL CONTAIN EQUIPMENT GROUNDING CONDUCTOR. RACEWAY SYSTEM SHALL NOT BE USED AS SOLE GROUNDING PATH. GROUNDING SHALL BE IN COMPLIANCE WITH ARTICLE 250 OF NATIONAL ELECTRICAL CODE.
8. PANELBOARDS, TRANSFORMERS, SAFETY SWITCHES AND OTHER ELECTRICAL DEVICES AND EQUIPMENT SHALL HAVE ENGRAVED NAMEPLATES INDICATING EQUIPMENT IDENTIFICATION TAG, VOLTAGE, AND WHERE ITEM IS FED FROM. SWITCHBOARDS AND PANELBOARDS SHALL HAVE TYPED DIRECTORIES INDICATING FEEDER AND BRANCH CIRCUIT FEEDERS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
9. PROVIDE CLEARANCES, DEDICATED ELECTRICAL SPACES, AND WORKING SPACES AROUND AND ABOVE ELECTRICAL EQUIPMENT AND DEVICES AS REQUIRED BY NATIONAL ELECTRICAL CODE.
10. AMPERE INTERRUPTING CAPACITY OF ELECTRICAL ITEMS SHALL BE GREATER THAN MAXIMUM AVAILABLE SHORT CIRCUIT CURRENT. PROVIDE NAMEPLATE ON SERVICE EQUIPMENT INDICATING CALCULATED AVAILABLE FAULT CURRENT AND DATE OF CALCULATION PER NEC 110.24.
11. FLEXIBLE CONDUIT SHALL BE USED ONLY FOR FINAL CONNECTION TO LIGHTING FIXTURES AND VIBRATING EQUIPMENT (MAXIMUM LENGTH 72 INCHES).
12. ELECTRICAL WIRING SHALL BE INSTALLED IN RACEWAY, WIREWAY, OR OTHER PROTECTIVE COVER AS REQUIRED PER NATIONAL ELECTRICAL CODE.
13. CONDUCTORS IN UNINSULATED CEILING SPACE AND OUTDOORS SHALL BE DERATED USING 122-DEGREE FAHRENHEIT TEMPERATURE. REVISE CONDUCTOR SIZES BASED ON CONDUIT RATING.
14. OUTDOOR EQUIPMENT SHALL BE WEATHER PROTECTED, NEMA 3R, UNLESS OTHERWISE INDICATED.
15. PROVIDE FIRE PROOFING FOR PIPES OR CONDUITS THAT PENETRATE THROUGH FIRE/SMOKE RATED FLOORS, WALLS, CEILINGS, ROOFS, OR RUNS INSIDE CHASES. FIRE PROOFING METHODS AND MATERIALS SHALL BE AS REQUIRED TO MAINTAIN FIRE/SMOKE RATING OF PARTITION.
16. IF PROTECTIVE DEVICE RATING IS MARKED ON APPLIANCE OR EQUIPMENT, BRANCH-CIRCUIT OVERCURRENT DEVICE RATING SHALL NOT EXCEED THIS RATING.
17. SWITCHES SHALL BE MINIMUM 3 INCHES FROM DOOR TRIM WHEN LOCATED AT ENTRANCE TO ROOMS. OCCUPANCY SENSORS SHALL BE PASSIVE INFRARED AND ULTRASONIC TECHNOLOGY.
18. COORDINATE WITH OTHER DISCIPLINES' DRAWINGS AND SPECIFICATIONS.
19. SYMBOLS FOR VARIOUS ELEMENTS AND SYSTEMS ARE SHOWN ON DRAWINGS. SHOULD THERE BE DOUBT REGARDING MEANING OR INTENT OF SYMBOLS USED, INTERPRETATION SHALL BE OBTAINED FROM ARCHITECT OR ENGINEER IN WRITING.
20. WHERE CONFLICTS OCCUR BETWEEN DIFFERENT PARTS OF DOCUMENTS, GREATER QUANTITY, BETTER QUALITY, OR LARGER SIZE SHALL PREVAIL UNLESS OTHERWISE APPROVED IN WRITING BY ARCHITECT OR ENGINEER.
21. EMPTY CONDUITS SHALL CONTAIN NYLON PULL STRING FOR FUTURE CONDUCTOR PULLS.
22. FLOOR BOXES SHOWN ON PLANS ARE DIAGRAMMATIC. COORDINATE EXACT LOCATIONS WITH OWNER AND ARCHITECT BEFORE INSTALLATION. AVOID STRUCTURAL ELEMENTS AND OTHER SYSTEMS.
23. PROVIDE CONDUIT EXPANSION FITTINGS WHERE CONDUIT RUNS CROSS BUILDING EXPANSION JOINTS. REFER TO ARCHITECTURAL AND STRUCTURAL DOCUMENTS FOR EXPANSION JOINT LOCATIONS.
24. LIGHTING FIXTURES DESIGNATED WITH "NL" SHALL BE UNSWITCHED NIGHT LIGHTS.
25. CIRCUIT BREAKER PANELBOARDS RATED 400A AND BELOW AND HAVING MORE THAN 10 PERCENT OF THEIR BREAKERS PROTECTING LIGHTING AND APPLIANCE BRANCH CIRCUITS SHALL BE FILLED WITH 1P20A SPARE BREAKERS, EVEN IF NOT INDICATED IN PANELBOARD SCHEDULES.
26. UNLESS OTHERWISE NOTED, CONCEALED AND EXPOSED EXTERIOR RACEWAY SHALL BE RIGID METAL CONDUIT, UNDERGROUND RACEWAY SHALL BE SCHEDULE-40 RIGID POLYVINYL CHLORIDE CONDUIT, AND EXTERIOR CONNECTION TO VIBRATING EQUIPMENT SHALL BE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT.
27. UNLESS OTHERWISE NOTED, CONCEALED AND EXPOSED INTERIOR RACEWAY SHALL BE ELECTRICAL METALLIC TUBING; EXPOSED INTERIOR RACEWAY IN LOADING DOCK AREAS AND IN AREAS USED FOR TRAFFIC OF MECHANIZED CARTS, FORKLIFTS, AND PALLET-HANDLING UNITS AND IN MECHANICAL ROOMS AND IN GYMNASIUMS SHALL BE RIGID METAL CONDUIT; INTERIOR RACEWAY CONNECTION TO VIBRATING EQUIPMENT SHALL BE FLEXIBLE METALLIC CONDUIT; INTERIOR RACEWAY IN DAMP OR WET LOCATIONS SHALL BE RIGID METAL CONDUIT; AND INTERIOR RACEWAY CONNECTION TO VIBRATING EQUIPMENT IN DAMP OR WET LOCATIONS SHALL BE LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT.
28. MINIMUM RACEWAY SIZE SHALL BE 3/4-INCH.
29. RACEWAY RUNS SHALL BE CONSOLIDATED AND INSTALLED TIGHT TO STRUCTURE WHERE POSSIBLE.
30. FOR UNDERGROUND ELECTRICAL RUNS OR CMU WALLS, CREATE SHOP DRAWINGS SHOWING CONDUIT PATHWAYS BEFORE CONSTRUCTION. NO SURFACE MOUNTED CONDUIT WILL BE PERMITTED ON CMU UNLESS APPROVED BY ARCHITECT OR ENGINEER.
31. COORDINATE WITH LOW VOLTAGE CONTRACTOR FOR EXACT LOW VOLTAGE RACEWAY REQUIREMENTS.
32. BID EQUIPMENT IN SCHEDULES AS BASIS OF DESIGN. ALTERNATE EQUIPMENT BY ACCEPTABLE MANUFACTURERS MEETING PERFORMANCE REQUIREMENTS MAY BE REVIEWED BY DESIGN TEAM AND OWNER.
33. IN THESE DOCUMENTS, "FURNISH" SHALL MEAN TO SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION AND SIMILAR OPERATIONS. "INSTALL" SHALL MEAN TO UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN, AND SIMILAR OPERATIONS AT THE PROJECT SITE. "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.
34. BRANCH CIRCUITS SHALL BE 2#12, 1#12G, 3/4"C UNLESS NOTED OTHERWISE (U.N.O.).

ELECTRICAL LEGEND

LIGHT FIXTURES

- X — ILLUMINATED EXIT SIGN ("X" = FIXTURE TYPE PER LIGHTING SCHEDULE)

LIGHTING CONTROL DEVICES

- $ — SINGLE WAY SWITCH
- $3 — THREE WAY SWITCH
- $D — DIMMER SWITCH
- $OS — OCCUPANCY SENSING SWITCH
- OS — CEILING OCCUPANCY SENSOR
- WOS — WALL OCCUPANCY SENSOR
- PC — PHOTOCELL

POWER DEVICES

- J — JUNCTION BOX
- DISCONNECT SAFETY SWITCH
- SPD — SURGE PROTECTIVE DEVICE

RECEPTACLES

- DUPLEX RECEPTACLE
- QUADPLEX RECEPTACLE
- SPECIAL RATED RECEPTACLE
- G.F.I. RECEPTACLE
- CONTROL RECEPTACLE

ELECTRICAL WIRING

- BRANCH CIRCUIT WIRING (NOTE IT TO LAND FOR ROUTING)
- XX-## — CIRCUIT HOME RUN ("XX" = PANEL DESIGNATION, "##" = BRANCH CIRCUIT NUMBER)

VOLTAGE DROP ADJUSTMENTS

FOR 120V/20A BRANCH CIRCUITS

CIRCUIT LENGTH LESS THAN OR EQUAL TO 60 FEET:
2#12, 1#12G, 3/4"C

CIRCUIT LENGTH GREATER THAN 60 FEET AND LESS THAN OR EQUAL TO 105 FEET:
2#10, 1#10G, 3/4"C

CIRCUIT LENGTH GREATER THAN 105 FEET AND LESS THAN OR EQUAL TO 160 FEET:
2#8, 1#8G, 3/4"C

CIRCUIT LENGTH GREATER THAN 160 FEET AND LESS THAN OR EQUAL TO 245 FEET:
2#6, 1#6G, 3/4"C

FOR 277V/20A BRANCH CIRCUITS

CIRCUIT LENGTH LESS THAN OR EQUAL TO 145 FEET:
2#12, 1#12G, 3/4"C

CIRCUIT LENGTH GREATER THAN 145 FEET AND LESS THAN OR EQUAL TO 245 FEET:
2#10, 1#10G, 3/4"C

CIRCUIT LENGTH GREATER THAN 245 FEET AND LESS THAN OR EQUAL TO 370 FEET:
2#8, 1#8G, 3/4"C

CIRCUIT LENGTH GREATER THAN 370 FEET AND LESS THAN OR EQUAL TO 570 FEET:
2#6, 1#6G, 3/4"C

NOTE:
PROVIDE ADAPTOR AT CONNECTION POINT TO CONVERT WIRE SIZE AS REQUIRED TO MAKE TERMINATION AT DEVICE OR EQUIPMENT.

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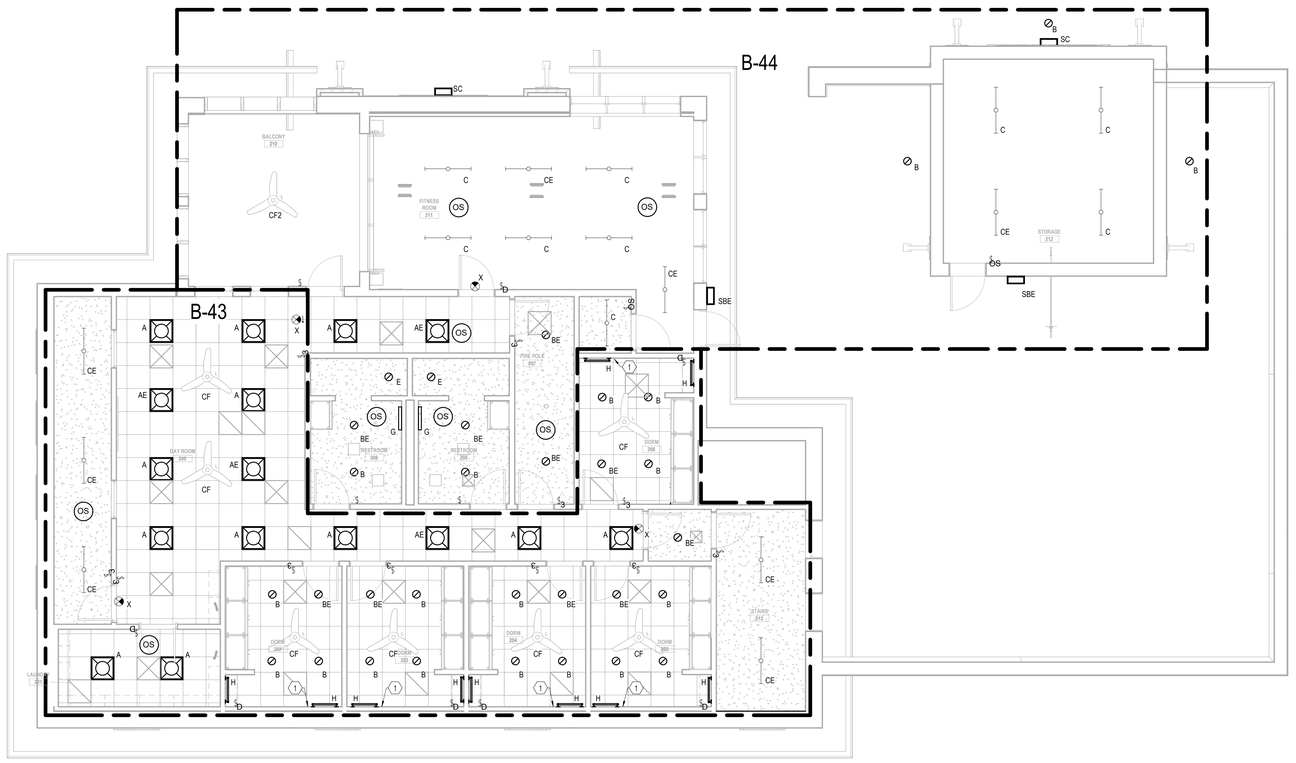
P. ADAM NEMATI
102287
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
03/20/2024

SHEET DESCRIPTION:
ELECTRICAL GENERAL NOTES AND LEGEND

SHEET NO.
E-001

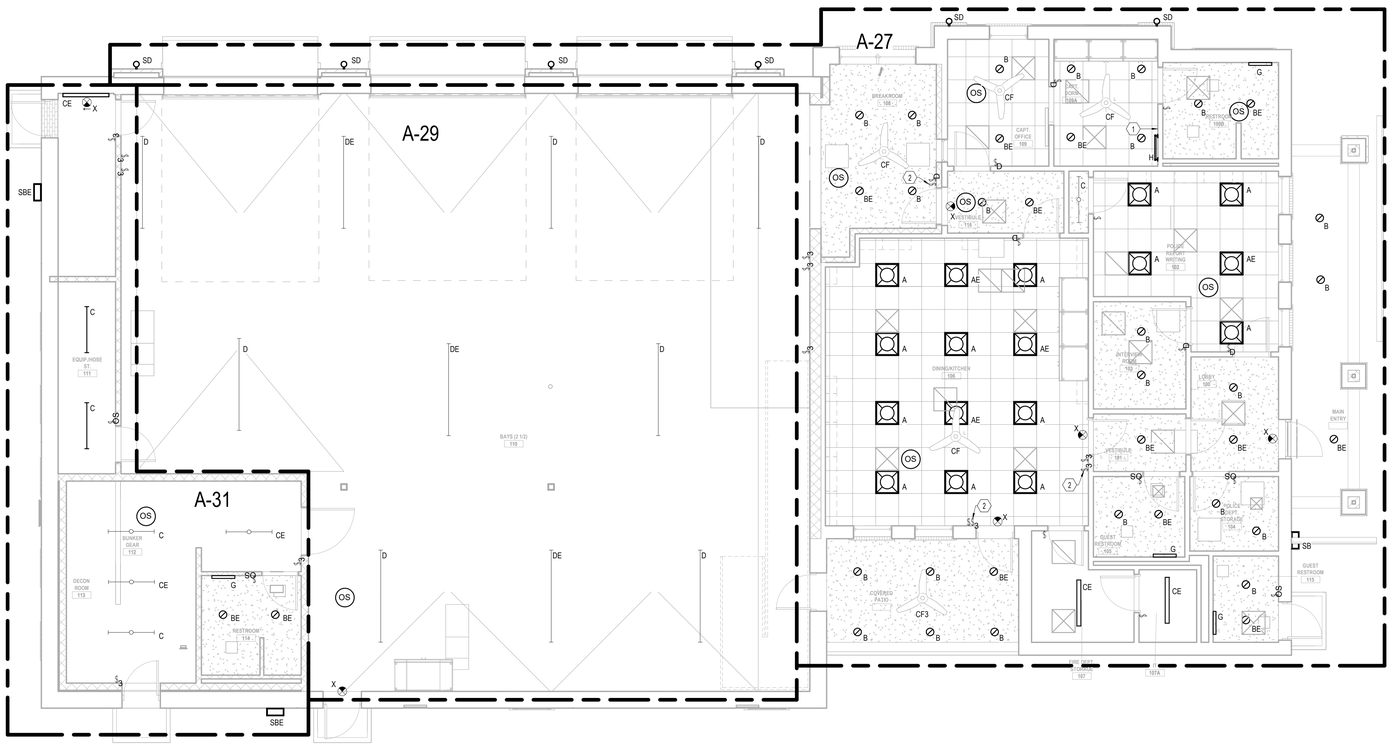
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DALLAS/FORT WORTH, TEXAS
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PROJECT CODE
31.00916



2 ELECTRICAL LIGHTING PLAN - LEVEL 2

3/16" = 1'-0"



1 ELECTRICAL LIGHTING PLAN - LEVEL 1

3/16" = 1'-0"

PLAN NOTES

A. PROVIDE EMERGENCY BATTERY BACKUP OPTION FOR FIXTURES WITH TAGS ENDING WITH 'E'.

B. POWER GROUPED LIGHT FIXTURES WITH CIRCUIT INDICATED IN PANELBOARD 'A'.

NOTES BY SYMBOL (#)

1. PROVIDE SWITCH BANK INCLUDING CONTROLS FOR THE FOLLOWING:
   - A. THREE WAY CONTROL FOR GENERAL ROOM LIGHTING
   - B. DIMMING CONTROL FOR READING LIGHT
   - C. FAN CONTROLS
2. FAN CONTROL.

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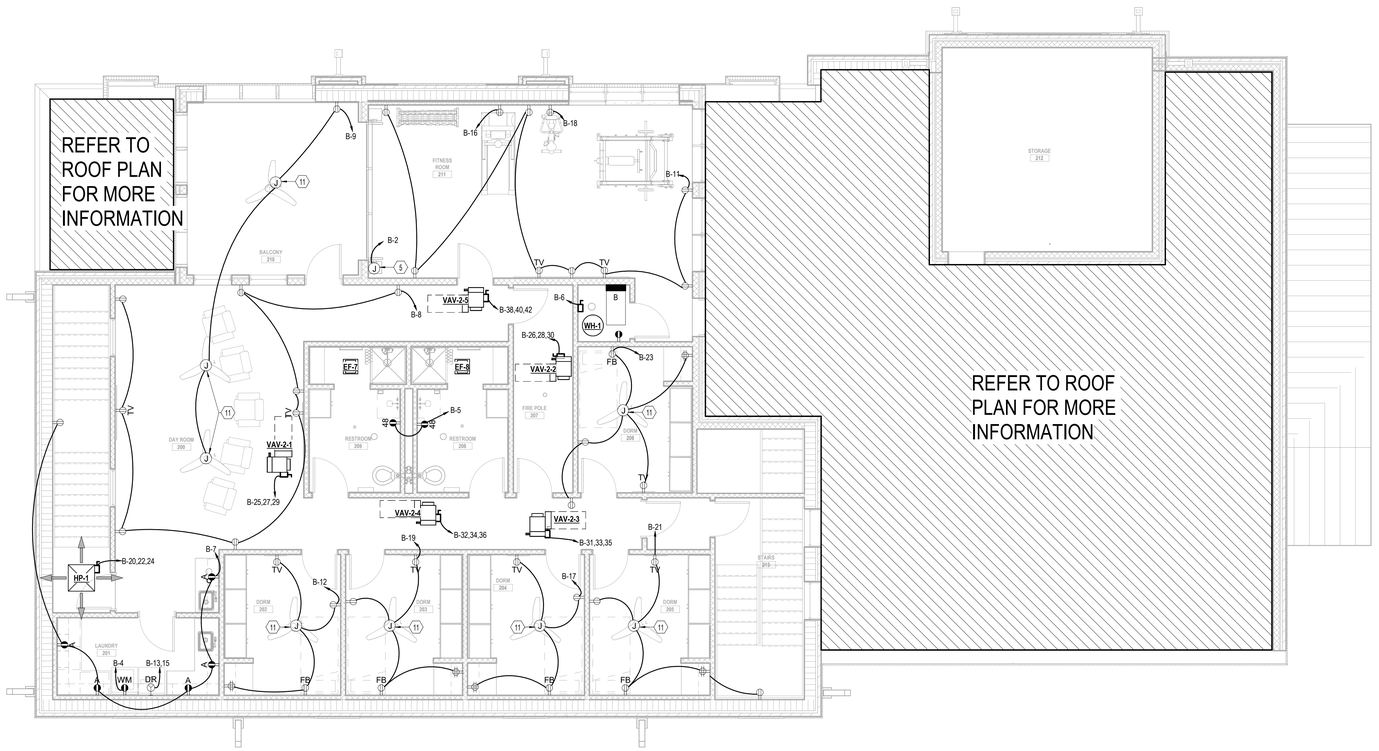
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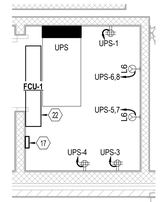
SHEET DESCRIPTION:
ELECTRICAL LIGHTING PLANS

SHEET NO.
EL101



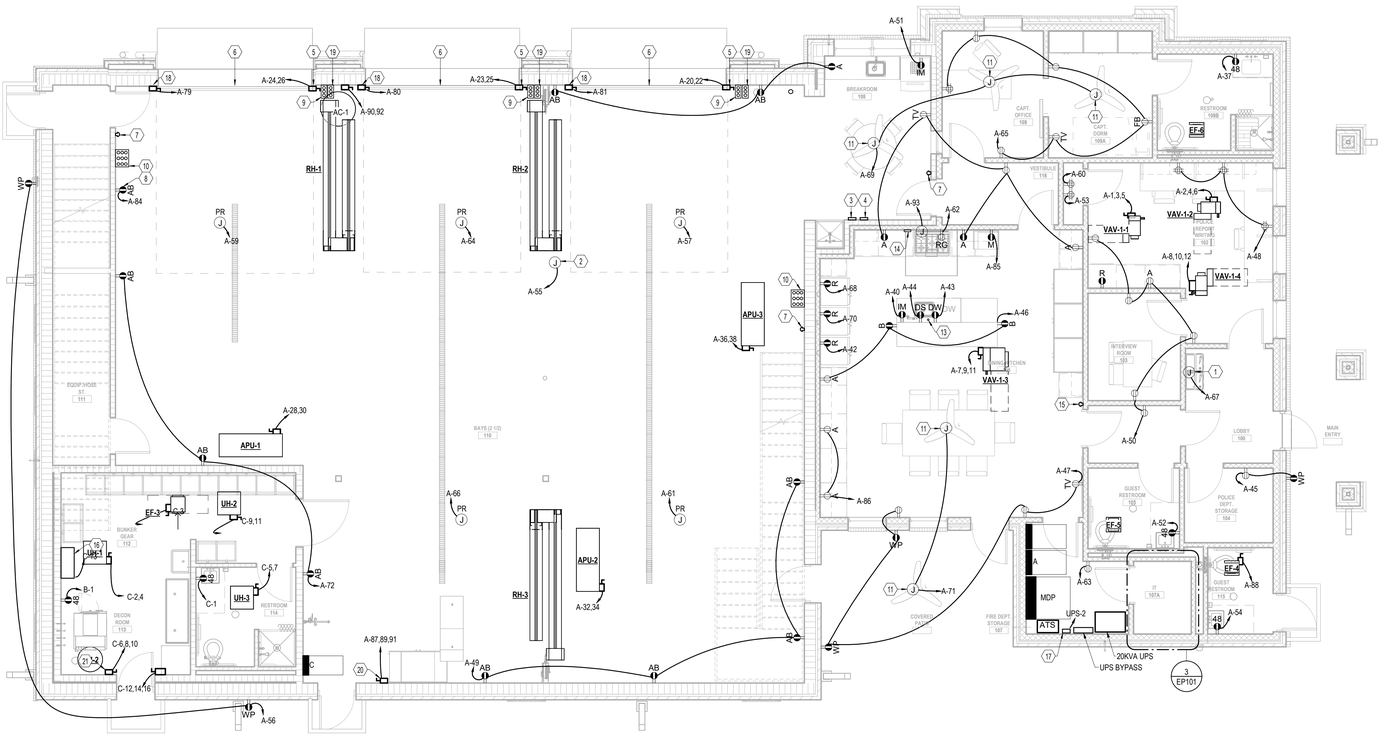
2 ELECTRICAL POWER PLAN - LEVEL 2

3/16" = 1'-0"



3 ELECTRICAL PLAN - 107A

3/8" = 1'-0"



1 ELECTRICAL POWER PLAN - LEVEL 1

3/16" = 1'-0"

PLAN NOTES

A. ELECTRICAL CONTRACTOR TO COORDINATE WITH DIVISION 27 AND 28. CONTRACTOR TO PROVIDE ALL CONDUIT PATHWAYS AND BACKBOXES. REFERENCE T-SERIES SHEETS FOR DEVICE LOCATIONS. REFERENCE SECURITY DOOR DETAIL FOR CONDUITS WHERE CARD READERS/KEYPADS ARE SHOWN.

B. COORDINATE CORD REEL LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.

C. PRIOR TO ROUGH-IN, COORDINATE BOX WALK WITH OWNER/ARCHITECT TO VERIFY ALL DEVICE LOCATIONS.

NOTES BY SYMBOL

1. PROVIDE GFCI LOCKABLE BREAKER FOR WATER FOUNTAIN.
2. RADIANT HEATERS CIRCUIT.
3. FIRE ALARM ANNUNCIATOR PANEL. COORDINATE FINAL LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
4. GENERATOR ANNUNCIATOR PANEL. COORDINATE FINAL LOCATION WITH OWNER/ARCHITECT PRIOR TO ROUGH-IN.
5. POWER FOR OVERHEAD COILING DOOR.
6. OVERHEAD DOORS TO INCLUDE PNEUMATIC BOTTOM THAT WILL CAUSE DOORS TO REVERSE IF AN OBJECT IS STRUCK.
7. RED MUSHROOM BUTTON FOR ALL FRONT BAY DOORS OPEN.
8. IRRIGATION CONTROLLER. COORDINATE FINAL LOCATION WITH OWNER/LANDSCAPING.
9. 3-BUTTON BAY DOOR CONTROLLER.
10. BAY DOOR AND COILING GRILLE CONTROLLER BANK.
11. CEILING FAN POWER.
12. POWER CEILING FAN WITH LOCAL RECEPTACLE CIRCUIT.
13. PUSH BUTTON DISPOSAL CONTROL IN COUNTERTOP.
14. HOOD FAN AND LIGHT CONTROL AT 44"AFF.
15. HOOD SOLENOID RESET BUTTON.
16. PROVIDE ISOLITE E3 550W MINI INVERTER MOUNTED ABOVE CEILING. COORDINATE WITH ARCH FOR ACCESS PANEL.
17. FIRE ALARM CONTROL PANEL.
18. COILING GRILLE POWER.
19. COILING GRILLE CONTROLS.
20. DRYING CABINET POWER.
21. EXTRACTOR POWER.
22. POWERED FROM OUTDOOR UNIT.

DRAWN BY:	ID
CHECKED BY:	TK
DATE:	03/20/2024
ISSUED FOR PERMIT:	03/20/2024
ISSUED FOR PRICING:	03/20/2024

REVISIONS:

No.	Description	Date

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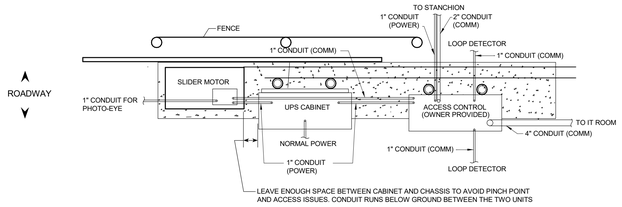
CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.

STATE OF TEXAS P. ADAM NEMATI 102287 LICENSED PROFESSIONAL ENGINEER 03/20/2024

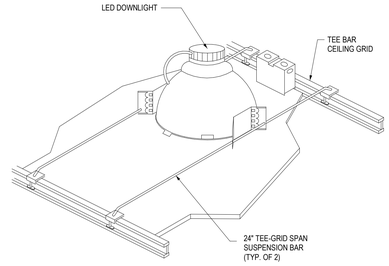
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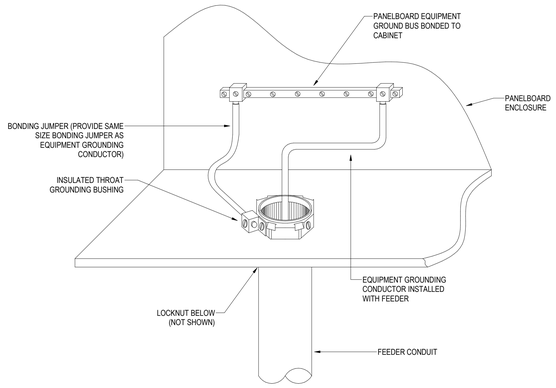
MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM
PROJECT CODE
31.00516



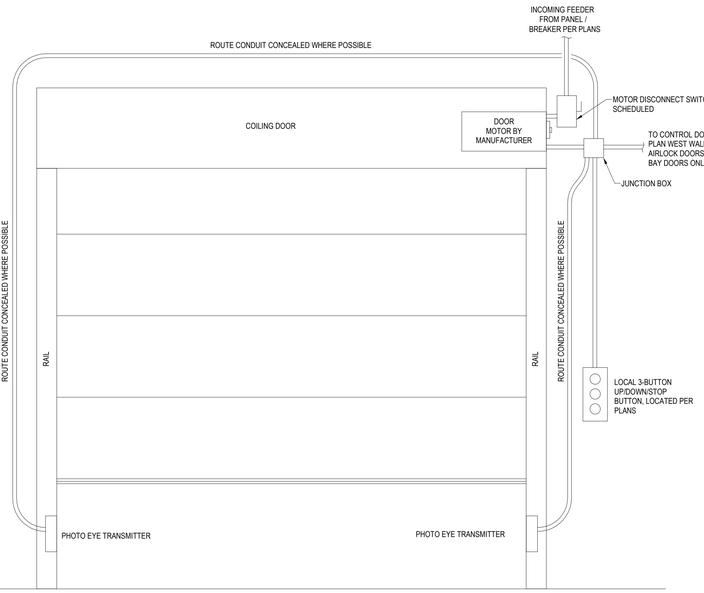
9 GATE CONTROL DIAGRAM
NTS



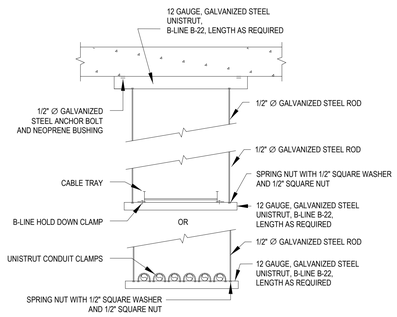
5 RECESSED DOWNLIGHT
NTS



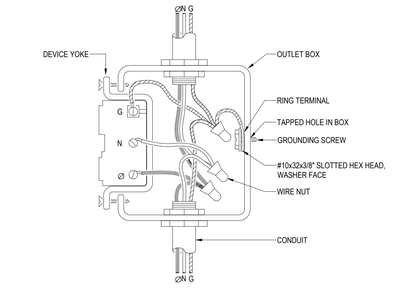
1 BONDING
NTS



10 COILING DOORS ELEVATION
NTS

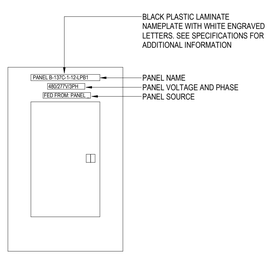


6 SUSPENDED CONDUIT SUPPORT
NTS

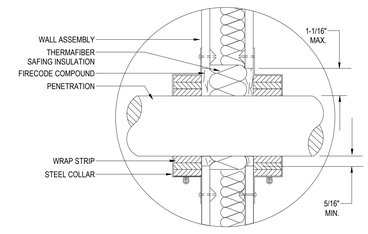


NOTES:
1. GROUNDING CONDUCTOR SHALL BE CONTINUOUS SO THAT REMOVAL OF DEVICE WILL NOT INTERFERE WITH CONDUCTOR CONTINUITY.

2 DEVICE GROUNDING
NTS

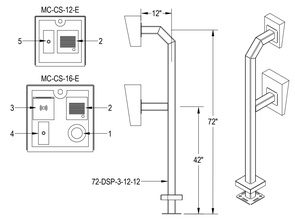


7 PANELBOARD IDENTIFICATION
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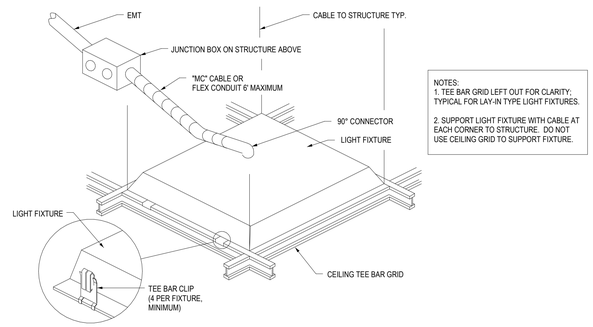


3 FIRESTOP WALL PENETRATION
NTS

DEVICE LEGEND
1. CAMERA
2. VIDEO INTERCOM
3. CARD READER
4. OVERRIDE SWITCH
5. KNOX KEY SWITCH



8 STANCHION
NTS



NOTES:
1. TEE BAR GRID LEFT OUT FOR CLARITY; TYPICAL FOR LAY-IN TYPE LIGHT FIXTURES.

2. SUPPORT LIGHT FIXTURE WITH CABLE AT EACH CORNER TO STRUCTURE. DO NOT USE CEILING GRID TO SUPPORT FIXTURE.

4 LAY-IN LIGHT FIXTURE
NTS

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DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM

PROJECT CODE
31.00016

DRAWN BY:	ID
CHECKED BY:	TK
DATE:	03/20/2024
ISSUED FOR PERMIT:	03/20/2024
ISSUED FOR PRICING:	03/20/2024

REVISIONS:

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CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.

STATE OF TEXAS
P. ADAM NEMATI
103287
LICENSED
PROFESSIONAL ENGINEER
03/20/2024

SHEET DESCRIPTION:
ELECTRICAL DETAILS

SHEET NO.
EZ501

Branch Panel: A

Location: FD STORAGE 107 | **Volts:** 208Y/120 | **A.I.C. Rating:** 10000
Supply From: MDP | **Phases:** 3 | **Mains Type:** MLO
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 400 A
Enclosure: Type 1 | **MCB Rating:** 1 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1				1560 VA	1800 VA								2
3	VAV-1-1CAPT. OFFICE 109	15 A	3			1560 VA	1800 VA			3	20 A	VAV-1-2 POLICE REPORT WRITING 102	4
5								1560 VA	1800 VA				6
7				6960 VA	1920 VA								8
9	VAV-1-3 DINING/KITCHEN 106	60 A	3			6960 VA	1920 VA			3	20 A	VAV-1-4 DINING/KITCHEN 106	10
11								6960 VA	1920 VA				12
13				1200 VA	1296 VA								14
15	SECURITY GATE	20 A	3			1200 VA	1296 VA			3	20 A	EF-1	16
17								1200 VA	1296 VA				18
19	KEF-1	20 A	2	600 VA	1080 VA					2	20 A	OH DOORS	20
21						600 VA	1080 VA						22
23	OH DOORS	20 A	2					1080 VA	1080 VA	2	20 A	OH DOORS	24
25				1080 VA	1080 VA								26
27	INTERIOR LIGHTING	20 A	1			1440 VA	780 VA			2	20 A	APU-1	28
29	INTERIOR LIGHTING	20 A	1					1440 VA	780 VA				30
31	INTERIOR LIGHTING	20 A	1	1440 VA	780 VA					2	20 A	APU-2	32
33	SITE LIGHTING	20 A	1			1440 VA	780 VA						34
35									780 VA	2	20 A	APU-3	36
37	R R.R. 109B	20 A	1	180 VA	780 VA								38
39	EF-2	15 A	1			480 VA	1500 VA			1	20 A	ICE MAKER DINING/KITCHEN 106	40
41	Room 106, 116, 108	20 A	1					900 VA	500 VA	1	20 A	REFRIGERATOR DINING/KITCHEN 106	42
43	DISHWASHER DINING/KITCHEN 106	20 A	1	1800 VA	1600 VA					1	20 A	DISPOSAL DINING/KITCHEN 106	44
45	Receptacle PD STOR. 104	20 A	1			360 VA	540 VA			1	20 A	DINING/KITCHEN 106	46
47	DINING/KITCHEN 106	20 A	1					900 VA	1080 VA	1	20 A	R POLICE REPORT WRITING 102	48
49	R BAYS (2 1/2) 110	20 A	1	720 VA	1080 VA					1	20 A	Room 102, 100, 103	50
51	ICE MAKER BREAKROOM 108	20 A	1			1500 VA	180 VA			1	20 A	R GUEST R.R. 105	52
53	EQUIPMENT RACK	20 A	1					360 VA	180 VA	1	20 A	R GUEST R.R. 115	54
55	RADIANT HEATERS BAYS (2 1/2) 110	20 A	1	1200 VA	360 VA					1	20 A	R EXTERIOR	56
57	OH SHORE LINE	20 A	1			500 VA	540 VA			1	20 A	R Room 108, 110	58
59	OH SHORE LINE	20 A	1					500 VA	360 VA	1	20 A	EQUIPMENT RACK	60
61	OH SHORE LINE	20 A	1	500 VA	180 VA					1	20 A	GAS RANGE DINING/KITCHEN 106	62
63	Receptacle FD STORAGE 107	20 A	1			180 VA	500 VA			1	20 A	OH SHORE LINE	64
65	Room 109, 109A	20 A	1					1260 VA	500 VA	1	20 A	OH SHORE LINE	66
67	WATER FOUNTAIN LOBBY 100	20 A	1	500 VA	500 VA					1	20 A	REFRIGERATOR DINING/KITCHEN 106	68
69	CEILING FANS Room 109A, 109, 108	20 A	1			1500 VA	500 VA			1	20 A	REFRIGERATOR DINING/KITCHEN 106	70
71	CEILING FANS DINING/KITCHEN 106	20 A	1					1000 VA	540 VA	1	20 A	R BAYS (2 1/2) 110	72
73				1200 VA	1440 VA					1	20 A	GENERATOR BATTERY CHARGER	74
75	CU-1	20 A	3			1200 VA	1040 VA			2	20 A	GENERATOR BLOCK HEATER	76
77								1200 VA	1040 VA				78
79	OH-COILING GRILLE	20 A	1	368 VA	368 VA					1	20 A	OH-COILING GRILLE	80
81	OH-COILING GRILLE	20 A	1			368 VA	540 VA			1	20 A	R - PAVILION	82
83	PAVILION WATER FOUNTAIN	20 A	1					500 VA	180 VA	1	15 A	IRRIGATION CONTROLLER	84
85	MICROWAVE DINING/KITCHEN 106	20 A	1	1500 VA	360 VA					1	20 A	Receptacle DINING/KITCHEN 106	86
87						3600 VA	480 VA			1	15 A	EF-4 QUEST R.R. 115	88
89	DRYING CABINET BAYS (2 1/2) 110	35 A	3					3600 VA	4030 VA				90
91				3600 VA	4030 VA					2	60 A	AC-1	92
93	KITCHEN HOOD DINING/KITCHEN 106	20 A	1			500 VA							94
95													96
97													98
99													100
101													102
103													104
105													106
107													108
109													110
111													112
113													114
115													116
117													118
119													120
	Total Load:			43062 VA		36864 VA		38526 VA					
	Total Amps:			361 A		307 A		323 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	50088 VA	66.00%	33058 VA		
Lighting	5760 VA	100.00%	5760 VA	**Total Conn. Load:**	118452 VA
Motor	16604 VA	100.00%	16604 VA	**Total Est. Demand:**	101422 VA
R	7020 VA	100.00%	7020 VA	**Total Conn. Current:**	329 A
M	35740 VA	100.00%	35740 VA	**Total Est. Demand Current:**	282 A

Notes:

Branch Panel: UPS

Location: IT 107A | **Volts:** 208Y/120 | **A.I.C. Rating:** 10000
Supply From: MDP | **Phases:** 3 | **Mains Type:** MLO
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 100 A
Enclosure: Type 1 | **MCB Rating:** 1 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	R IT 107A	20 A	1	360 VA	550 VA					1	20 A	FACP IT 107A	2
3	R IT 107A	20 A	1			360 VA	360 VA			1	20 A	R IT 107A	4
5	L6-30R IT 107A	30 A	2					1040 VA	1040 VA	2	30 A	L6-30R IT 107A	6
7				1040 VA	1040 VA								8
9													10
11													12
13													14
15													16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
	Total Load:			2990 VA		720 VA		2080 VA					
	Total Amps:			27 A		6 A		19 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
R	1080 VA	100.00%	1080 VA		
M	4710 VA	100.00%	4710 VA	**Total Conn. Load:**	5790 VA
				Total Est. Demand:	5790 VA
				Total Conn. Current:	16 A
				Total Est. Demand Current:	16 A

Notes:

Branch Panel: MDP

Location: FD STORAGE 107 | **Volts:** 208Y/120 | **A.I.C. Rating:** 22000
Supply From: | **Phases:** 3 | **Mains Type:** MCB
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 800 A
Enclosure: Type 1 | **MCB Rating:** 800 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1				43062 VA	23080 VA								2
3	A	400 A	3			36864 VA	20800 VA			3	225 A	B	4
5								38526 VA	19740 VA				6
7				12024 VA	2990 VA								8
9	C	100 A	3			11324 VA	720 VA			3	100 A	UPS	10
11								10244 VA	2080 VA				12
13				10560 VA	6720 VA								14
15	RTU-1	110 A	3			10560 VA	6720 VA			3	70 A	RTU-2	16
17								10560 VA	6720 VA				18
19													20
21													22
23													24
25													26
27													28
29													30
	Total Load:			98436 VA		86988 VA		87870 VA					
	Total Amps:			821 A		725 A		733 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	124488 VA	66.00%	82162 VA		
Lighting	8640 VA	100.00%	8640 VA	**Total Conn. Load:**	273294 VA
Motor	17684 VA	100.00%	17684 VA	**Total Est. Demand:**	228498 VA
Power	38880 VA	100.00%	38880 VA	**Total Conn. Current:**	759 A
R	14940 VA	83.47%	12470 VA	**Total Est. Demand Current:**	634 A
M	61282 VA	100.00%	61282 VA		

Notes:

Branch Panel: B

Location: | **Volts:** 208Y/120 | **A.I.C. Rating:** 10000
Supply From: MDP | **Phases:** 3 | **Mains Type:** MLO
Mounting: SURFACE | **Wires:** 4 | **Mains Rating:** 225 A
Enclosure: Type 1 | **MCB Rating:** 1 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	R DECON ROOM 113	20 A	1	180 VA	500 VA					1	20 A	OH DOOR FITNESS ROOM 211	2
3	R ROOF	20 A	1			180 VA	500 VA			1	20 A	WASHING MACHINE LAUNDRY 201	4
5	R Room 209, 208	20 A	1					360 VA	600 VA	1	20 A	WH-1	6
7	R Room 201, 200	20 A	1	1080 VA	1440 VA					1	20 A	DAY ROOM 200	8
9	R BALCONY 210	20 A	1			1680 VA	1260 VA			1	20 A	R ROOF	10
11	Receptacle FITNESS ROOM 211	20 A	1					1440 VA	1580 VA	1	20 A	DORM 202	12
13	DRYER LAUNDRY 201	50 A	2	3000 VA	180 VA					1	20 A	R ROOF	14
15						3000 VA	180 VA			1	20 A	Receptacle FITNESS ROOM 211	16
17	DORM 204	20 A	1					1580 VA	180 VA	1	20 A	Receptacle FITNESS ROOM 211	18
19	R Room 202, 203	20 A	1	1580 VA	600 VA								20
21	R Room 204, 205	20 A	1			1760 VA	600 VA			3	20 A	HP-1	22
23	R Room 206, 207	20 A	1					1760 VA	600 VA				24
25				2280 VA	720 VA								26
27	VAV-2-1 DAY ROOM 200	20 A	3			2280 VA	720 VA			3	15 A	VAV-2-2 FIRE POLE 207	28
29								2280 VA	720 VA				30
31				1200 VA	2040 VA								32
33	VAV-2-3	15 A	3			1200 VA	2040 VA			3	20 A	VAV-2-4	34
35								1200 VA	2040 VA				36
37				2400 VA	3000 VA								38
39	HPCU-1	30 A	3			2400 VA	3000 VA			3	30 A	VAV-2-5	40
41								2400 VA	3000 VA				42
43	INTERIOR LIGHTING	20 A	1	1440 VA	1440 VA					1	20 A	INTERIOR LIGHTING	44
45													46
47													48
49													50
51													52
53													54
55													56
57													58
59													60
	Total Load:			23080 VA		20800 VA		19740 VA					
	Total Amps:			194 A		175 A		165 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	36720 VA	66.00%	24235 VA		
Lighting	2880 VA	100.00%	2880 VA	**Total Conn. Load:**	63620 VA
R	6660 VA	100.00%	6660 VA	**Total Est. Demand:**	51135 VA
M	13220 VA	100.00%	13220 VA	**Total Conn. Current:**	177 A
				Total Est. Demand Current:	142 A

Notes:

EQUIPMENT SCHEDULE BY SYMBOL

SYMBOL	DESCRIPTION	LOAD	LOAD UNITS	LOAD VOLTS/PHASE	DISCONNECT	COMMENTS
CP-1	CIRCULATION PUMP	<1	AMPS	120/1	20A-1P SNAP SWITCH	POWER WITH NEAREST GENERAL PURPOSE RECEPTACLE CIRCUIT.
TMV-1	THERMOSTATIC MIXING VALVE	<1	AMPS	120/1	20A-1P SNAP SWITCH	POWER WITH NEAREST GENERAL PURPOSE RECEPTACLE CIRCUIT.
WH-1	WATER HEATER	5	AMPS	120/1	20A-1P SNAP SWITCH	
WH-2	WATER HEATER	52	AMPS	208/3	100A-3P NEMA 1 DISCONNECT	
RTU-1	ROOFTOP UNIT	88	AMPS	208/3	200A-3P NEMA 3R DISCONNECT	
RTU-2	ROOFTOP UNIT	56	AMPS	208/3	100A-3P NEMA 3R DISCONNECT	
VAV-1-1	VARIABLE AIR VOLUME TERMINAL	13	AMPS	208/3	30A-3P NEMA 1 DISCONNECT	
VAV-1-2	VARIABLE AIR VOLUME TERMINAL	3	AMPS	208/3	30A-3P NEMA 1 DISCONNECT	
VAV-1-3	VARIABLE AIR VOLUME TERMINAL	15	AMPS	208/3	30A-3P NEMA 1 DISCONNECT	
VAV-1-4	VARIABLE AIR VOLUME TERMINAL	41	AMPS	208/3	60A-3P NEMA 1 DISCONNECT	
VAV-2-1	VARIABLE AIR VOLUME TERMINAL	13	AMPS	208/3	30A-3P NEMA 1 DISCONNECT	
VAV-2-2	VARIABLE AIR VOLUME TERMINAL	3	AMPS	208/3	30A-3P NEMA 1 DISCONNECT	
VAV-2-3	VARIABLE AIR VOLUME TERMINAL	15	AMPS	208/3	30A-3P NEMA 1 DISCONNECT	
VAV-2-4	VARIABLE AIR VOLUME TERMINAL	41	AMPS	208/3	60A-3P NEMA 1 DISCONNECT	
VAV-2-5	VARIABLE AIR VOLUME TERMINAL	36	AMPS	208/3	60A-3P NEMA 1 DISCONNECT	
CU-1	CONDENSING UNIT	10	AMPS	208/3	30A-3P NEMA 3R DISCONNECT	
FCU-1	FAN COIL UNIT				30A-3P NEMA 1 DISCONNECT	POWERED FROM OUTDOOR UNIT.
HPCU-1	CONDENSING UNIT	20	AMPS	208/3	30A-3P NEMA 3R DISCONNECT	
HP-1	HEAT PUMP	5	AMPS	208/3	30A-3P NEMA 1 DISCONNECT	
UH-1	UNIT HEATER	11	AMPS	208/1	30A-2P NEMA 1 DISCONNECT	
UH-2	UNIT HEATER	11	AMPS	208/1	30A-2P NEMA 1 DISCONNECT	
UH-3	UNIT HEATER	11	AMPS	208/1	30A-2P NEMA 1 DISCONNECT	
UH-4	UNIT HEATER	11	AMPS	208/1	30A-2P NEMA 1 DISCONNECT	
RH-1	RADIANT HEATER	1	AMPS	120/1	20A-1P SNAP SWITCH	CIRCUIT ALL RADIANT HEATERS TO ONE CIRCUIT.
RH-2	RADIANT HEATER	1	AMPS	120/1	20A-1P SNAP SWITCH	CIRCUIT ALL RADIANT HEATERS TO ONE CIRCUIT.
RH-3	RADIANT HEATER	1	AMPS	120/1	20A-1P SNAP SWITCH	CIRCUIT ALL RADIANT HEATERS TO ONE CIRCUIT.
APU-1	AIR PURIFIER UNIT	7.5	AMPS	208/1	30A-2P NEMA 1 DISCONNECT	
APU-2	AIR PURIFIER UNIT	7.5	AMPS	208/1	30A-2P NEMA 1 DISCONNECT	
APU-3	AIR PURIFIER UNIT	7.5	AMPS	208/1	30A-2P NEMA 1 DISCONNECT	
KEF-1	KITCHEN EXHAUST FAN	5	AMPS	208/1	30A-2P NEMA 1 DISCONNECT	
EF-1	EXHAUST FAN	9.4	AMPS	208/3	30A-2P NEMA 1 DISCONNECT	
EF-2	EXHAUST FAN	4	AMPS	120/1	20A-1P SNAP SWITCH	
EF-3	EXHAUST FAN	9	AMPS	120/1	20A-1P SNAP SWITCH	
EF-4	EXHAUST FAN	4	AMPS	120/1	20A-1P SNAP SWITCH	
EF-5	EXHAUST FAN	<1	AMPS	120/1	20A-1P SNAP SWITCH	POWER WITH LOCAL RESTROOM RECEPTACLE CIRCUIT.
EF-6	EXHAUST FAN	4	AMPS	120/1	20A-1P SNAP SWITCH	
EF-7	EXHAUST FAN	<1	AMPS	120/1	20A-1P SNAP SWITCH	CIRCUIT ALL RADIANT HEATERS TO ONE CIRCUIT.
EF-8	EXHAUST FAN	<1	AMPS	120/1	20A-1P SNAP SWITCH	CIRCUIT ALL RADIANT HEATERS TO ONE CIRCUIT.

NOTES:

1. VERIFY ALL MOUNTING REQUIREMENTS WITH EQUIPMENT PROVIDER. COORDINATE EXACT LOCATIONS OF ALL EQUIPMENT WITH ARCHITECT.
2. VERIFY ACTUAL EQUIPMENT LOADS AND CONNECTION REQUIREMENTS WITH MANUFACTURER. DO NOT EXCEED THE LOAD VALUE AS SHOWN ON SCHEDULE. ALL CIRCUITS DESIGNED BASED ON ABOVE LOADS FOR EACH EQUIPMENT. CONTRACTOR SHALL NOT CIRCUIT OR CONNECT ANY EQUIPMENT WHICH EXCEEDS THE CONNECTED LOAD AS SHOWN ON TABLE. WIRE AND CONDUIT SIZES SHALL BE SIZED TO COMPENSATE FOR VOLTAGE DROP PER THE NATIONAL ELECTRICAL CODE.
3. CONTRACTOR SHALL PROVIDE APPROPRIATE RECEPTACLE, JUNCTION BOX, DISCONNECT OR CONNECTION MEANS FOR ALL DEVICES IN EQUIPMENT SCHEDULE EVEN IF NOT NOTED FOR EQUIPMENT INSTALLATION. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT INSTALLER.

DRAWN BY: ID
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DATE: 03/20/2024
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ISSUED FOR PRICING: 03/20/2024

REVISIONS:

No.	Description	Date

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WWW.RPGAARCHITECTS.COM

CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.



SHEET DESCRIPTION: ELECTRICAL SCHEDULES

SHEET NO. EZ601

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM
PROJECT CODE
31.00516

LIGHTING CONTROL SCHEDULE

ROOM TYPE	CONTROL DESCRIPTION
LAUNDRY/BUNKER GEAR	LIGHTS SHALL BE AUTOMATIC ON/OFF VIA OCCUPANCY SENSOR. MANUAL SWITCH AT ENTRIES TO PROVIDE OVERRIDE CONTROL.
ELECTRICAL ROOM, MDF, SHOP, PANTRY, BALCONY	LIGHTS SHALL BE MANUAL ON/OFF VIA SWITCH(ES).
FIRE POLE	LIGHTS SHALL BE AUTOMATIC ON/OFF VIA OCCUPANCY SENSOR. SWITCH AT ENTRIES TO PROVIDE MANUAL CONTROL. LIGHTS SHALL BE CONTROLLED WITH OVERRIDE CONTROL FROM STATION ALERTING SYSTEM.
SLEEP DORMS	GENERAL LIGHTING SHALL BE MANUAL ON/OFF VIA SWITCHES AT ENTRY AND AT BED CONTROL BANK. READING LIGHT SHALL BE MANUAL ON/OFF VIA SWITCH AT BED CONTROL BANK. DESK LIGHT SHALL BE MANUAL ON/OFF VIA FIXTURE INTEGRATED SWITCH. FIXTURES TO BE CONTROLLED BY INPUT FROM STATION ALERTING SYSTEM.
BREAKROOM	LIGHTS SHALL BE AUTOMATIC ON/OFF VIA OCCUPANCY SENSOR. MANUAL DIMMING SWITCH AT ENTRY TO PROVIDE OVERRIDE CONTROL.
POLICE REPORT WRITING, OFFICES	LIGHTS SHALL BE AUTOMATIC ON/OFF VIA OCCUPANCY SENSOR. MANUAL DIMMING SWITCH AT ENTRY TO PROVIDE OVERRIDE CONTROL.
CORRIDORS	LIGHTS SHALL BE AUTOMATIC ON, AND DIM TO 50% VIA OCCUPANCY SENSOR DURING THE DAY. LIGHTS SHALL BE AUTOMATIC ON TO 50%, AND AUTOMATIC OFF VIA OCCUPANCY SENSOR DURING THE NIGHT. SWITCHES AT ENDS OF CORRIDORS TO PROVIDE MANUAL CONTROL. LIGHTS FROM DORMS TO APP BAY SHALL BE CONTROLLED WITH OVERRIDE CONTROL FROM STATION ALERTING SYSTEM.
STAIRS	LIGHTS SHALL BE AUTOMATIC ON/OFF VIA OCCUPANCY SENSOR SWITCH AT TOP AND BOTTOM TO PROVIDE MANUAL CONTROL. LIGHTS SHALL BE CONTROLLED WITH OVERRIDE CONTROL FROM STATION ALERTING SYSTEM.
RESTROOMS	LIGHTS SHALL BE AUTOMATIC ON/OFF VIA OCCUPANCY SENSOR MANUAL SWITCH AT ENTRY TO PROVIDE OVERRIDE CONTROL.
DAY ROOM	LIGHTS SHALL BE AUTOMATIC ON/OFF VIA OCCUPANCY SENSOR MANUAL SWITCH AT ENTRIES TO PROVIDE OVERRIDE DIMMING CONTROL.
FITNESS	LIGHTS SHALL BE AUTOMATIC ON/OFF VIA OCCUPANCY SENSOR MANUAL SWITCH AT ENTRIES TO PROVIDE OVERRIDE CONTROL.
APP BAYS	LIGHTS SHALL BE AUTOMATIC ON, AND DIM TO 50% VIA OCCUPANCY SENSOR DURING THE DAY. LIGHTS SHALL BE AUTOMATIC ON TO 50%, AND AUTOMATIC OFF VIA OCCUPANCY SENSOR DURING THE NIGHT. SWITCHES AT ENTRIES INDICATED TO PROVIDE MANUAL CONTROL OF ALTERNATING ROWS OF LIGHTS. LIGHTS SHALL BE CONTROLLED WITH OVERRIDE CONTROL FROM STATION ALERTING SYSTEM.
EXTERIOR FIXTURES	LIGHTS SHALL BE CONTROLLED BY TIMECLOCK.

NOTES:

1. CONTRACTOR RESPONSIBLE FOR PROVIDING AND INSTALL ALL REQUIRED OCCUPANCY SENSORS AND DAYLIGHT SENSORS FOR PROPER OPERATION. ENSURE COVERAGE OF OCCUPANCY SENSORS COVERS ENTIRE ROOM ADEQUATELY.
2. ALL CONTROLS AND OPERATION SHALL BE IN COMPLIANCE WITH 2015 I.E.C.C.
3. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO ORDERING ANY DEVICES. SHOP DRAWINGS SHALL INCLUDE SENSOR LAYOUT, SWITCH LOCATIONS, CONNECTION DIAGRAMS, CONTROL SCHEDULE, AND ANY OTHER PERTINENT INFORMATION FOR COMPLETE INSTALLATION AND CONTROL OPERATION.
4. ENSURE LIGHTING CONTROLS FOR FIXTURES TO REMAIN ARE IN GOOD CONDITION AND REPLACE WITH LIKE FOR LIKE AS NECESSARY.

AUBREY FIRE STATION #2 LIGHT FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMP	VOLTAGE	MODEL
A	2X2 RECESSED TROFFER	RECESSED	16.8W LED	UNV	LITHONIA STAK 2X2 2000LM 80CRI 35K COL MVOLT
B	4" RECESSED DOWNLIGHT	RECESSED	13.7W LED	UNV	GOTHAM EVO4 35_15 AR MWD LD
C	GENERAL PURPOSE LINEAR	SUSPENDED	37.76W LED	UNV	LITHONIA FEM L48 6000LM IMACD MD 80CRI 35K
D	GENERAL PURPOSE LINEAR	SUSPENDED	149.5W LED	UNV	LITHONIA FEM L96 24000LM IMACD MD 80CRI 35K
E	4" RECESSED SHOWER DOWNLIGHT	RECESSED	28.8W LED	UNV	LITHONIA EVO4SH 35_10 DFF SMO
G	VANITY LIGHT	SURFACE	26W LED	UNV	AFX APV270520LAJD2WG-LW
H	DORM READING LIGHT	SURFACE	9.2W LED	UNV	BARTCO BSS501-24-35-D-L-6-WBR-SN-ESS
X	EXIT LIGHT	VARIES	4.5W LED	UNV	LITHONIA EDG/EDGR 1 R EL
CF	INDOOR CEILING FAN	SUSPENDED	20.1W	120V	HAIKU MK-HK4-04 2400 A470 F470 G10 I12
CF2	INDOOR CEILING FAN W/LIGHT KIT	SUSPENDED	20.1W	120V	HAIKU MK-HK4-04 2400 A470 F470 G10 I12 S2
CF3	INDOOR CEILING FAN DAMP RATED	SUSPENDED	20.1W	120V	HAIKU MK-HK4-04 2500 A470 F470 G10 I12
SA	SITE AREA	WALL	204W LED	UNV	LITHONIA DSX1 LED P3 40K 70CRI TSM MVOLT SPA CONTROLS DBLXD / SSS DM28AS - 22.5 FEET
SB	BUILDING PERIMETER	WALL	88W LED	UNV	LITHONIA WDGE3 LED P4 40K 70CRI R4 MVOLT CONTROLS DBLXD
SC	WALL SIGNAGE	WALL	60W LED	UNV	INSIGHT LIGHTING MX-HO-40K-D-6060-CES-48-DIM-TB
SD	BUILDING EXTERIOR SCONCE	WALL	31W LED	UNV	LUMINIS SQ602 L2L15 R15 BKT
SE	12 FOOT DECORATIVE HISTORIC POST TOP	POLE	60W LED	UNV	SPRING CITY APSNRT - 17 12.00 E5 TN3.00-3.00 C - BLACK ALMBNM-LE LE060 EVX L1(X) 40 CR3 Y S11 WS6 FPA CU - BLACK
SF	GROUND MOUNTED FLOOD LIGHT	GRADE	60W LED	UNV	LITHONIA DSXF1 LED P2 30K NSP MVOLT THK DBLXD / PSSA 12C DNA
SG	GROUND MOUNTED FLOOD LIGHT	GRADE	60W LED	UNV	LITHONIA DSXF1 LED P2 30K WFR MVOLT THK DBLXD / PSSA 12C DNA

Branch Panel: C

Location: BAYS (2 1/2) 110
Supply From: MDP
Mounting: SURFACE
Enclosure: Type 1

Volts: 208Y/120
Phases: 3
Wires: 4

A.I.C. Rating: 10000
Mains Type: MLO
Mains Rating: 100 A
MCB Rating: 1 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	R RR 114	20 A	1	180 VA	1000 VA					2	20 A	UH-1 DECON ROOM 113	2
3	EF-3	20 A	1			1080 VA	1000 VA						4
5	UH-3	20 A	2					1000 VA	2004 VA				6
7				1000 VA	2004 VA					3	30 A	EXTRACTOR DECON ROOM 113	8
9	UH-2 BUNKER GEAR 112	20 A	2			1000 VA	2004 VA						10
11								1000 VA	6240 VA				12
13	INVERTER RR 114	20 A	1	1600 VA	6240 VA					3	70 A	WH-2	14
15							6240 VA						16
17													18
19													20
21													22
23													24
25													26
27													28
29													30
		Total Load:		12024 VA		11324 VA		10244 VA					
		Total Amps:		102 A		96 A		85 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	6000 VA	66.00%	3960 VA		
Motor	1080 VA	100.00%	1080 VA	**Total Conn. Load:**	33592 VA
Power	18720 VA	100.00%	18720 VA	**Total Est. Demand:**	31552 VA
R	180 VA	100.00%	180 VA	**Total Conn. Current:**	93 A
M	7612 VA	100.00%	7612 VA	**Total Est. Demand Current:**	88 A

Notes:

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM

PROJECT CODE
31.00516

DRAWN BY: ID
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CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.



SHEET DESCRIPTION:
ELECTRICAL SCHEDULES

SHEET NO.
EZ602

COPPER FEEDER SCHEDULE BY SYMBOL: XXXX.X

FEEDER TAG	FEEDER DESCRIPTION	FEEDER TAG	FEEDER DESCRIPTION
15.3 15.4	15.3 3#12, 1#12 G, 3/4" C 15.4 3#12, 1#12 N, 1#12 G, 3/4" C	80.3 80.4	80.3 3#3, 1#8 G, 1-1/4" C 80.4 3#3, 1#3 N, 1#8 G, 1-1/4" C
20.3 20.4	20.3 3#12, 1#12 G, 3/4" C 20.4 3#12, 1#12 N, 1#12 G, 3/4" C	90.3 90.4	90.3 3#2, 1#8 G, 1-1/4" C 90.4 3#2, 1#2 N, 1#8 G, 1-1/4" C
25.3 25.4	25.3 3#10, 1#10 G, 3/4" C 25.4 3#10, 1#10 N, 1#10 G, 3/4" C	100.3 100.4	100.3 3#1, 1#8 G, 1-1/4" C 100.4 3#1, 1#1 N, 1#8 G, 1-1/2" C
30.3 30.4	30.3 3#10, 1#10 G, 3/4" C 30.4 3#10, 1#10 N, 1#10 G, 3/4" C	110.3 110.4	110.3 3#1, 1#6 G, 1-1/4" C 110.4 3#1, 1#1 N, 1#6 G, 1-1/2" C
35.3 35.4	35.3 3#8, 1#10 G, 3/4" C 35.4 3#8, 1#8 N, 1#10 G, 3/4" C	125.3 125.4	125.3 3#1/0, 1#6 G, 1-1/2" C 125.4 3#1/0, 1#1/0 N, 1#6 G, 2" C
40.3 40.4	40.3 3#8, 1#10 G, 3/4" C 40.4 3#8, 1#8 N, 1#10 G, 3/4" C	150.3 150.4	150.3 3#1/0, 1#6 G, 1-1/2" C 150.4 3#1/0, 1#1/0 N, 1#6 G, 2" C
45.3 45.4	45.3 3#6, 1#10 G, 3/4" C 45.4 3#6, 1#6 N, 1#10 G, 1" C	175.3 175.4	175.3 3#2/0, 1#6 G, 2" C 175.4 3#2/0, 1#2/0 N, 1#6 G, 2" C
50.3 50.4	50.3 3#6, 1#10 G, 3/4" C 50.4 3#6, 1#6 N, 1#10 G, 1" C	200.3 200.4	200.3 3#3/0, 1#6 G, 2" C 200.4 3#3/0, 1#3/0 N, 1#6 G, 2" C
60.3 60.4	60.3 3#4, 1#10 G, 1" C 60.4 3#4, 1#4 N, 1#10 G, 1 1/4" C	225.3 225.4	225.3 3#4/0, 1#4 G, 2" C 225.4 3#4/0, 1#4/0 N, 1#4 G, 2-1/2" C
70.3 70.4	70.3 3#4, 1#8 G, 1" C 70.4 3#4, 1#4 N, 1#8 G, 1-1/4" C		

NOTES ON NUMBER OF CONDUCTORS:
1. FOR XXXX.1 PROVIDE (1)ONE HOT CONDUCTOR, (1)ONE NEUTRAL CONDUCTOR, (1)ONE GROUND CONDUCTOR, AND USE CONDUIT SIZE FROM XXXX.3. EXAMPLE: 150.1 = 1#1/0, 1#1/0 N, 1#6 G, 1-1/2" C.
2. FOR XXXX.2 PROVIDE (2)TWO HOT CONDUCTORS, (1)ONE GROUND CONDUCTOR AND USE CONDUIT SIZE FROM XXXX.3 EXAMPLE: 110.2 = 2#1, 1#6 G, 1-1/4" C.

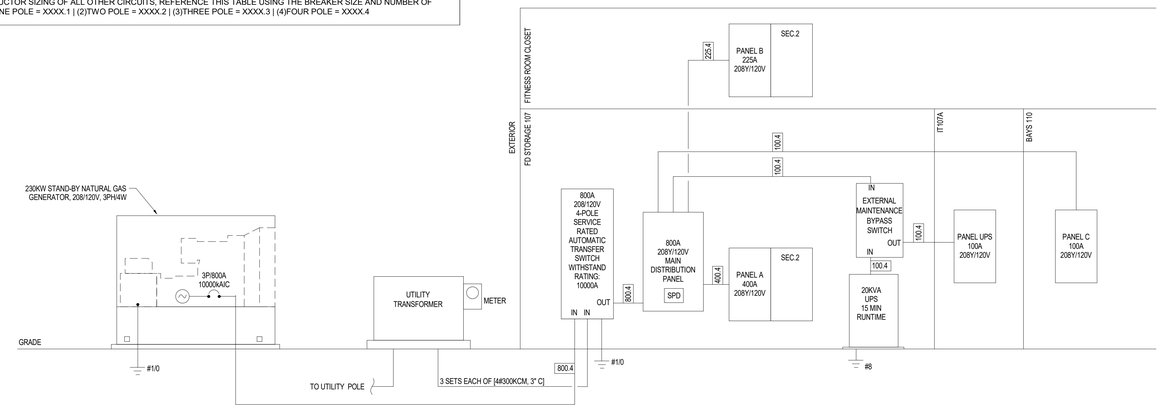
NOTES ON HOW TO USE THIS TABLE:
1. FOR CONDUIT AND CONDUCTOR SIZING ON RISER, REFERENCE THIS TABLE USING RECTANGULAR CONDUCTOR TAGS.
2. FOR CONDUIT AND CONDUCTOR SIZING OF MECHANICAL EQUIPMENT, REFERENCE THIS TABLE USING MCA RATING AND NUMBER OF POLES IF AVAILABLE ON MECHANICAL EQUIPMENT SCHEDULE. IF NOT AVAILABLE USE NOTE 3 BELOW.
3. FOR CONDUIT AND CONDUCTOR SIZING OF ALL OTHER CIRCUITS, REFERENCE THIS TABLE USING THE BREAKER SIZE AND NUMBER OF POLES FOR CIRCUIT. (1)ONE POLE = XXXX.1 | (2)TWO POLE = XXXX.2 | (3)THREE POLE = XXXX.3 | (4)FOUR POLE = XXXX.4

ALUMINUM FEEDER SCHEDULE BY SYMBOL: XXXX.X

FEEDER TAG	FEEDER DESCRIPTION	FEEDER TAG	FEEDER DESCRIPTION
250.3 250.4	250.3 3#350KCM, 1#4 G, 2-1/2" C 250.4 3#350KCM, 1-350KCM N, 1#4 G, 3" C	900.3 900.4	900.3 3 SETS EACH OF [3#500KCM, 1#4/0 G, 3" C] 900.4 3 SETS EACH OF [3#500KCM, 1#500KCM N, 1#4/0 G, 3-1/2" C]
300.3 300.4	300.3 3#500KCM, 1#3 G, 3" C 300.4 3#500KCM, 1-500KCM N, 1#3 G, 3-1/2" C	1000.3 1000.4	1000.3 4 SETS EACH OF [3#350KCM, 1#2/0 G, 3" C] 1000.4 4 SETS EACH OF [3#350KCM, 1#350KCM N, 1#2/0 G, 3" C]
350.3 350.4	350.3 2 SETS EACH OF [3#4/0, 1#2 G, 2" C] 350.4 2 SETS EACH OF [3#4/0, 1#4/0 N, 1#2 G, 2-1/2" C]	1200.3 1200.4	1200.3 4 SETS EACH OF [3#500KCM, 1#4/0 G, 3" C] 1200.4 4 SETS EACH OF [3#500KCM, 1#500KCM N, 1#4/0 G, 3-1/2" C]
400.3 400.4	400.3 2 SETS EACH OF [3#250KCM, 1#2 G, 2-1/2" C] 400.4 2 SETS EACH OF [3#250KCM, 1#250KCM N, 1#2 G, 2-1/2" C]	1400.3 1400.4	1400.3 5 SETS EACH OF [3#500KCM, 1#4/0 G, 3" C] 1400.4 5 SETS EACH OF [3#500KCM, 1#500KCM N, 1#4/0 G, 3-1/2" C]
450.3 450.4	450.3 2 SETS EACH OF [3#300KCM, 1#1/0 G, 3" C] 450.4 2 SETS EACH OF [3#300KCM, 1#300KCM N, 1#1/0 G, 3" C]	1600.3 1600.4	1600.3 6 SETS EACH OF [3#400KCM, 1#4/0 G, 3" C] 1600.4 6 SETS EACH OF [3#400KCM, 1#400KCM N, 1#4/0 G, 3" C]
500.3 500.4	500.3 2 SETS EACH OF [3#350KCM, 1#2/0 G, 3" C] 500.4 2 SETS EACH OF [3#350KCM, 1#350KCM N, 1#2/0 G, 3" C]	2000.3 2000.4	2000.3 7 SETS EACH OF [3#500KCM, 1#4/0 G, 3" C] 2000.4 7 SETS EACH OF [3#500KCM, 1#500KCM N, 1#4/0 G, 3-1/2" C]
600.3 600.4	600.3 2 SETS EACH OF [3#500KCM, 1#4/0 G, 3" C] 600.4 2 SETS EACH OF [3#500KCM, 1#500KCM N, 1#4/0 G, 3-1/2" C]	2500.3 2500.4	2500.3 9 SETS EACH OF [3#500KCM, 1#4/0 G, 3" C] 2500.4 9 SETS EACH OF [3#500KCM, 1#500KCM N, 1#4/0 G, 3-1/2" C]
700.3 700.4	700.3 3 SETS EACH OF [3#350KCM, 1#2/0 G, 3" C] 700.4 3 SETS EACH OF [3#350KCM, 1#350KCM N, 1#2/0 G, 3" C]	3000.3 3000.4	3000.3 10 SETS EACH OF [3#500KCM, 1#4/0 G, 3" C] 3000.4 10 SETS EACH OF [3#500KCM, 1#500KCM N, 1#4/0 G, 3-1/2" C]
800.3 800.4	800.3 3 SETS EACH OF [3#400KCM, 1#4/0 G, 3" C] 800.4 3 SETS EACH OF [3#400KCM, 1#400KCM N, 1#4/0 G, 3" C]	4000.3 4000.4	4000.3 13 SETS EACH OF [3#500KCM, 1#4/0 G, 3" C] 4000.4 13 SETS EACH OF [3#500KCM, 1#500KCM N, 1#4/0 G, 3-1/2" C]

NOTES ON NUMBER OF CONDUCTORS:
1. FOR XXXX.1 PROVIDE (1)ONE HOT CONDUCTOR, (1)ONE NEUTRAL CONDUCTOR, (1)ONE GROUND CONDUCTOR, AND USE CONDUIT SIZE FROM XXXX.3. EXAMPLE: 150.1 = 1#1/0, 1#1/0 N, 1#6 G, 1-1/2" C.
2. FOR XXXX.2 PROVIDE (2)TWO HOT CONDUCTORS, (1)ONE GROUND CONDUCTOR AND USE CONDUIT SIZE FROM XXXX.3 EXAMPLE: 110.2 = 2#1, 1#6 G, 1-1/4" C.

NOTES ON HOW TO USE THIS TABLE:
1. FOR CONDUIT AND CONDUCTOR SIZING ON RISER, REFERENCE THIS TABLE USING RECTANGULAR CONDUCTOR TAGS.
2. FOR CONDUIT AND CONDUCTOR SIZING OF ALL OTHER CIRCUITS, REFERENCE THIS TABLE USING THE BREAKER SIZE AND NUMBER OF POLES FOR THE BREAKER. (1)ONE POLE = XXXX.1 | (2)TWO POLE = XXXX.2 | (3)THREE POLE = XXXX.3 | (4)FOUR POLE = XXXX.4



1 ELECTRICAL RISER DIAGRAM
NTS

DRAWN BY: Author
CHECKED BY: Checker
DATE: 03/20/2024
ISSUED FOR PERMIT: 03/20/2024
ISSUED FOR PRICING: 03/20/2024

REVISIONS:

No.	Description	Date

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CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.



SHEET DESCRIPTION: ELECTRICAL DIAGRAMS

SHEET NO. EZ701

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM
PROJECT CODE
31.00516

ABBREVIATIONS

A/C	AIR CONDITIONING
ACH	AIR CHANGE PER HOUR
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFMS	AIR FLOW MEASURING STATION
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY
AHU	AIR HANDLING UNIT
AHJ	AUTHORITY HAVING JURISDICTION
APD	AIR PRESSURE DROP
AS	AIR SEPARATOR
BAS	BUILDING MANAGEMENT SYSTEM
BD	BALANCING DAMPER
BFF	BELOW FINISH FLOOR
BHP	BRAKE HORSEPOWER
BTUH	BRITISH THERMAL UNITS PER HOUR
CAV	CONSTANT AIR VOLUME
CFM	CUBIC FEET PER MINUTE
CHWP	CHILLED WATER PUMP
CLG	CEILING
CO	CLEAN OUT
CD	CONDENSATE DRAIN
CP	CONDENSATE PUMP
CRAC	COMPUTER ROOM A/C UNIT
CT	COOLING TOWER
CU	CONDENSING UNIT
CV	CONSTANT VOLUME/ CONTROL VALVE
(D)	DEMO
dB	DECIBELS
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREES
DN	DOWN
DX	DIRECT EXPANSION
(E)	EXISTING
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
ET	EXPANSION TANK
EUH	ELECTRIC UNIT HEATER
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
FPI	FINS PER INCH
FSD	FIRE-SMOKE DAMPER
G	GAS
GPM	GALLONS PER MINUTE
GV	GRAVITY VENTILATOR
HD	HEAD
HP	HORSEPOWER
HPS	HIGH PRESSURE STEAM
HVAC	HEATING, VENTILATION & AIR CONDITIONING
HWP	HYDRONIC HEATING WATER PUMP
HX	HEAT EXCHANGER
KW	KILOWATT
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LPS	LOW PRESSURE STEAM
MBH	THOUSAND BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MFG	MANUFACTURER
MOCP	MAXIMUM OVERCURRENT PROTECTION
(N)	NEW
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
PD	PRESSURE DROP
PH	PHASE (ELECTRICAL)
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH
QTY	QUANTITY
RA	RETURN AIR
RH	RELATIVE HUMIDITY
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SD	SMOKE DAMPER
SF	SUPPLY FAN
SP	STATIC PRESSURE
T	THERMOSTAT/ THERMOMETER
TYP	TYPICAL
UH	UNIT HEATER
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
WB	WET BULB
W.G.	WATER GAUGE
W.P.D.	WATER PRESSURE DROP
WSHP	WATER-SOURCE HEAT PUMP
WT	WEIGHT

MECHANICAL GENERAL NOTES

1. ALL DUCTWORK DIMENSIONS SHOWN REPRESENT INSIDE CLEAR DIMENSIONS.
2. THE MECHANICAL LAYOUT SHOWN ON THIS DRAWING IS FOR GENERAL ARRANGEMENT ONLY. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE CONDITIONS AT THE JOB SITE AND ALL THE OTHER TRADES INVOLVED.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE NECESSARY PIPING, FITTINGS, VALVES, HARDWARE, SUPPORTS AND ACCESSORIES REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE NEW MECHANICAL SYSTEM(S).
4. DO NOT SCALE LOCATIONS OR PARTITIONS FROM THIS DRAWING. THE CONTRACTOR SHALL REFER TO THE MANUFACTURER'S CUT-SHEETS, ROUGHING-IN DIMENSIONS, DETAILS, SPECIFICATIONS AND ALL OTHER INFORMATION RELATED TO THIS PROJECT, AS REQUIRED.
5. THE CONTRACTOR SHALL COORDINATE ALL THE FLOOR AND PARTITION PENETRATIONS WITH THE FIELD CONDITIONS AND STRUCTURAL DESIGN BEFORE DRILLING OR CORE-BORING.
6. THE CONTRACTOR SHALL SEAL ALL PENETRATIONS WITH A CODE APPROVED FIRE RATED MATERIAL AS REQUIRED TO MAINTAIN THE FIRE SEPARATION BETWEEN FLOORS/ROOF REQUIRED BY THE ARCHITECTURAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND FIRE BARRIER LOCATIONS.
7. THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S SPECIFICATIONS AND CUT-SHEETS FOR ALL THE EQUIPMENT, FITTINGS AND COMPONENTS AS REQUIRED FOR FINAL APPROVAL BY THE ENGINEER BEFORE PURCHASING OR INSTALLING THEM. REFER TO SPECIFICATIONS FOR MORE COMPLETE INFORMATION ABOUT THE EQUIPMENT SCHEDULED.
8. THE CONTRACTOR SHALL TEST ALL NEW PIPING AND NEW EQUIPMENT FOR PROPER OPERATION AND SHALL MAKE ALL NECESSARY REPAIRS AS REQUIRED TO PROVIDE A COMPLETE WORKING SYSTEM.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL THE AREAS AFFECTED BY THE WORK REQUIRED IN THESE DRAWINGS TO THEIR ORIGINAL CONDITION AS REQUIRED BY THE OWNER/ARCHITECT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE JOB-SITE AS REQUIRED BY THIS CONTRACT IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING, PERMITTING, AND CONDUCTING ALL THE INSPECTIONS AND TESTS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION. CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE OF COMMISSIONING INSPECTION TO THE ENGINEER.
12. ALL WORK AND INSTALLATION SHALL BE DONE BY A LICENSED CONTRACTOR WITH EXPERIENCE IN THE WORK REQUIRED FOR THIS PROJECT.
13. ALL WORK SHALL COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE (2018 IBC), 2018 INTERNATIONAL MECHANICAL CODE (2018 IMC), 2018 INTERNATIONAL PLUMBING CODE (2018 IPC), 2018 INTERNATIONAL FUEL GAS CODE (2018 IFGC), 2018 INTERNATIONAL ENERGY CONSERVATION CODE (2018 IECC), AND THE NATIONAL FIRE PROTECTION ASSOCIATION AND ALL OTHER CODES AND STANDARDS AS MAY BE APPLICABLE WITHIN THE CITY OF AUBREY.
14. ALL EQUIPMENT SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS. NO WEIGHT CAN BE PLACED ON THE ROOFING MATERIALS OR INSULATION.
15. ALL PIPING, CLAMPS, SUPPORTS, ETC. SHALL BE FASTENED TO JOISTS OR BEAMS. DO NOT ATTACH ANYTHING DIRECTLY TO THE DECK, CEILING SUPPORT SYSTEM, PIPING, CONDUIT OR DUCTWORK ABOVE.
16. CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY CODE ISSUES NOT ALREADY ADDRESSED.
17. THESE DRAWINGS DO NOT INDICATE OR SHOW ALL EXISTING PIPING, EQUIPMENT, DUCTWORK, ETC. THESE DRAWINGS ARE NOT A SUBSTITUTE FOR FIELD VERIFICATION.
18. ALL NEW ROOF PENETRATIONS SHALL BE PER THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
19. ALL NEW EQUIPMENT SUPPORTS SHALL BE INSTALLED PER THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
20. ALL NEW CURB CAPS SHALL BE INSTALLED PER THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
21. ALL ROOF MOUNTED EQUIPMENT LOCATIONS SHALL BE VERIFIED AND APPROVED BY A TEXAS REGISTERED STRUCTURAL ENGINEER.
22. DUCTWORK SHOP DRAWINGS SHALL BE PROVIDED TO, REVIEWED BY, AND APPROVED BY THE ENGINEER PRIOR TO ANY DUCTWORK FABRICATION AND OR INSTALLATION. DUCTWORK SHOP DRAWINGS SHALL INDICATE THE ACTUAL SIZE OF EACH SECTION OF DUCT AND ALL REQUIRED FITTINGS AND TRANSITIONS.
23. CONTRACTOR SHALL PROVIDE UL LISTED FIRE DAMPERS AT ALL FIRE WALL PENETRATIONS. REFER TO ARCHITECTURAL FOR FIRE WALL RATING. REFER TO MECHANICAL FLOOR PLANS FOR DAMPER SIZING.
24. PROVIDE DUCTWORK TRANSITIONS AS REQUIRED FOR ALL AIR DEVICE AND EQUIPMENT CONNECTIONS.
25. CONTRACTOR SHALL BID EQUIPMENT IN SCHEDULE AS BASIS OF DESIGN. ALTERNATE EQUIPMENT BY ACCEPTABLE MANUFACTURERS MEETING PERFORMANCE REQUIREMENTS MAY BE REVIEWED BY DESIGN TEAM AND OWNER RESULTING IN A CREDIT IF USED.
26. IN THESE DOCUMENTS, "FURNISH" SHALL MEAN TO SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION AND SIMILAR OPERATIONS. "INSTALL" SHALL MEAN TO UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN, AND SIMILAR OPERATIONS AT THE PROJECT SITE. "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.

HVAC LEGEND

DUCT

14"x12"	RECTANGULAR DUCT -1ST NUMBER INDICATES SIZE ON PLAN -2ND NUMBER INDICATES SIZE NOT SHOWN	14"x14"	RECTANGULAR DUCT - INTERNALLY LINED
14"ø	ROUND DUCT	14"ø	ROUND DUCT - INTERNALLY LINED
14"/12"	OVAL DUCT -1ST NUMBER INDICATES SIZE ON PLAN -2ND NUMBER INDICATES SIZE NOT SHOWN	14"/12"	OVAL DUCT - INTERNALLY LINED
	MITERED ELBOW WITH TURNING VANES		DUCTWORK BRANCH TAKE-OFF
	LONG RADIUS ELBOW (1.5 x O.D.)		
	DUCKWORK TRANSITION		SMACNA 45 HIGH EFFICIENCY TAP
	CONNECT TO EXISTING		FLEXIBLE DUCTWORK
	SUPPLY/OUTSIDE AIR DUCTWORK UP		SUPPLY/OUTSIDE AIR DUCTWORK UP
	RETURN AIR DUCTWORK UP		RETURN AIR DUCTWORK DOWN
	EXHAUST AIR DUCTWORK UP		EXHAUST AIR DUCTWORK DOWN

SYMBOLS AND ACCESSORIES

	SUPPLY AIR DEVICE		MECHANICAL EQUIPMENT PATTERN
	RETURN AIR DEVICE		
	EXHAUST AIR DEVICE	MARK 400 (TYP)	CFM — DIFFUSER/GRILLE TAG (TYPICAL)
	BALANCE DAMPER	SHEET NUMBER 1 / MX.XX	DETAIL NUMBER — DETAIL CALL-OUT
FD	FIRE DAMPER	SHEET NUMBER X / MX.XX	PLAN NUMBER — ENLARGED PLAN CALL-OUT
FSD	FIRE/SMOKE DAMPER		
BD	BACKDRAFT DAMPER	SHEET NUMBER X / MX.XX	ELEVATION NUMBER — ELEVATION CALL-OUT
T	THERMOSTAT @ARCH. SWITCH HEIGHT U.N.O.		
S	THERMOSTAT SENSOR @ARCH. SWITCH HEIGHT U.N.O.		
H	HUMIDISTAT @ARCH. SWITCH HEIGHT U.N.O.		
C	CARBON DIOXIDE SENSOR (CO2) @ARCH. SWITCH HEIGHT U.N.O.		
N	NITROGEN DIOXIDE SENSOR (NO2) @ARCH. SWITCH HEIGHT U.N.O.		
CO	CARBON MONOXIDE SENSOR (CO) @ARCH. SWITCH HEIGHT U.N.O.		

HYDRONIC PIPING SYSTEMS

CD	CONDENSATE DRAIN	RP	REFRIGERANT
	PIPE UP		PIPE DOWN

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ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM

PROJECT CODE
31.00516

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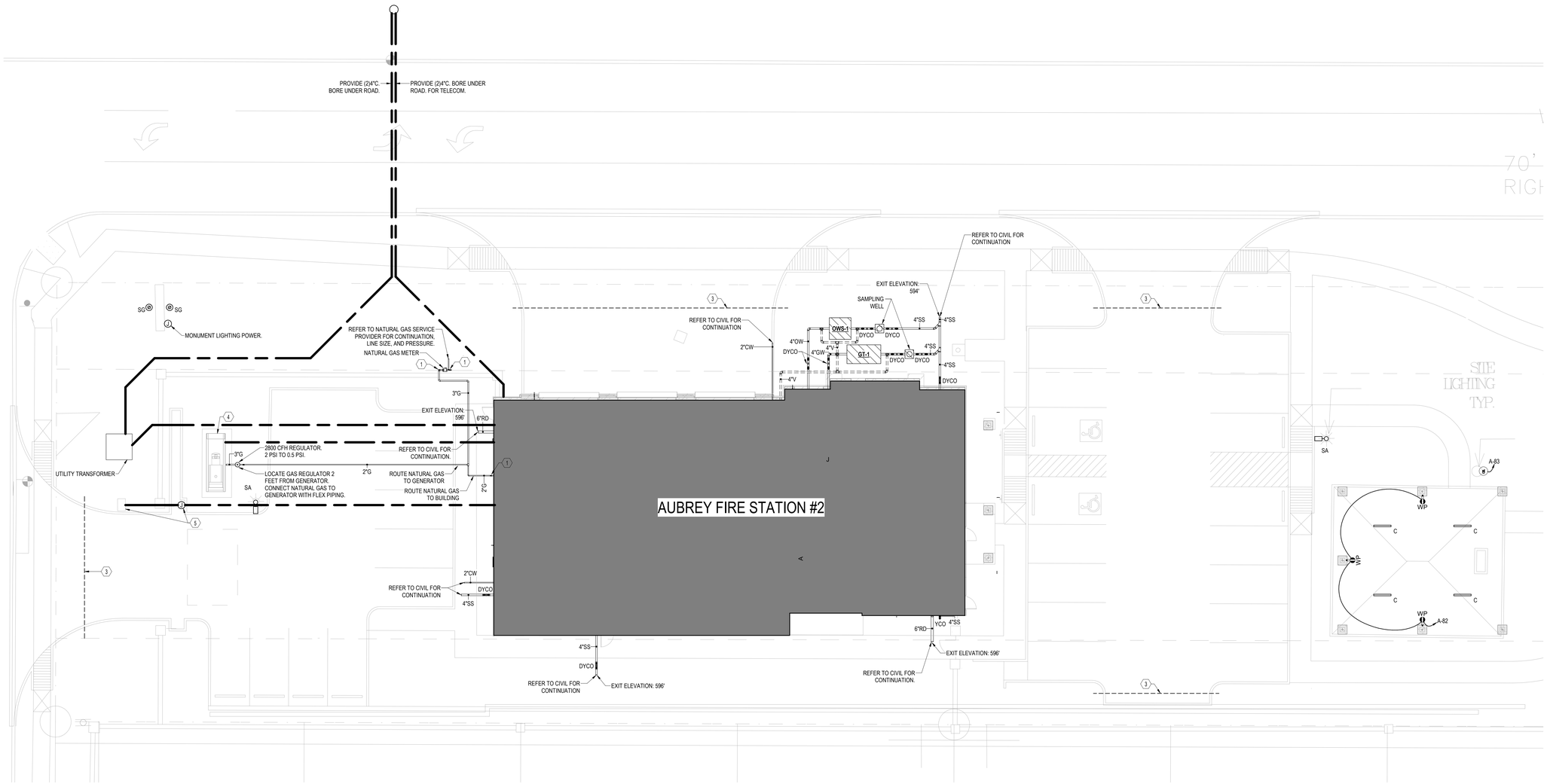
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STATE OF TEXAS
ANDREW D. HUNTLEY
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LICENSED
PROFESSIONAL ENGINEER
03/20/2024

SHEET DESCRIPTION:
MECHANICAL GENERAL NOTES AND LEGENDS

SHEET NO.
M-001



1 MECHANICAL ELECTRICAL PLUMBING SITE PLAN
3/32" = 1'-0"

PLAN NOTES

A. CONTRACTOR SHALL VERIFY SANITARY INVERT ELEVATIONS PRIOR TO CONSTRUCTION.

B. CONTRACTOR SHALL FIELD COORDINATE ALL UNDERGROUND PIPING WITH MECHANICAL, CIVIL, ELECTRICAL, AND LANDSCAPING DISCIPLINES.

C. REFER TO CIVIL PLANS FOR SITE CONTINUATION. REFER TO BUILDING PIPING PLANS FOR UNDERSLAB CONTINUATION.

NOTES BY SYMBOL (#)

1. PIPING DOWN TO BELOW GRADE.
2. PIPING UP FROM BELOW GRADE. NATURAL GAS TO ENTER BUILDING AT 18 INCHES ABOVE GRADE.
3. (2)4" CONDUITS FOR FUTURE.
4. NATURAL GAS GENERATOR. SEE DETAIL 1 ON SHEET E-001 FOR MORE INFORMATION. SEE PANEL 'A' FOR BLOCK HEATER AND BATTERY CHARGER CIRCUITING INFORMATION.
5. GATE STANCHION AND GATE POWER. SEE DETAIL 8 AND 9 EZ501 FOR MORE INFORMATION.

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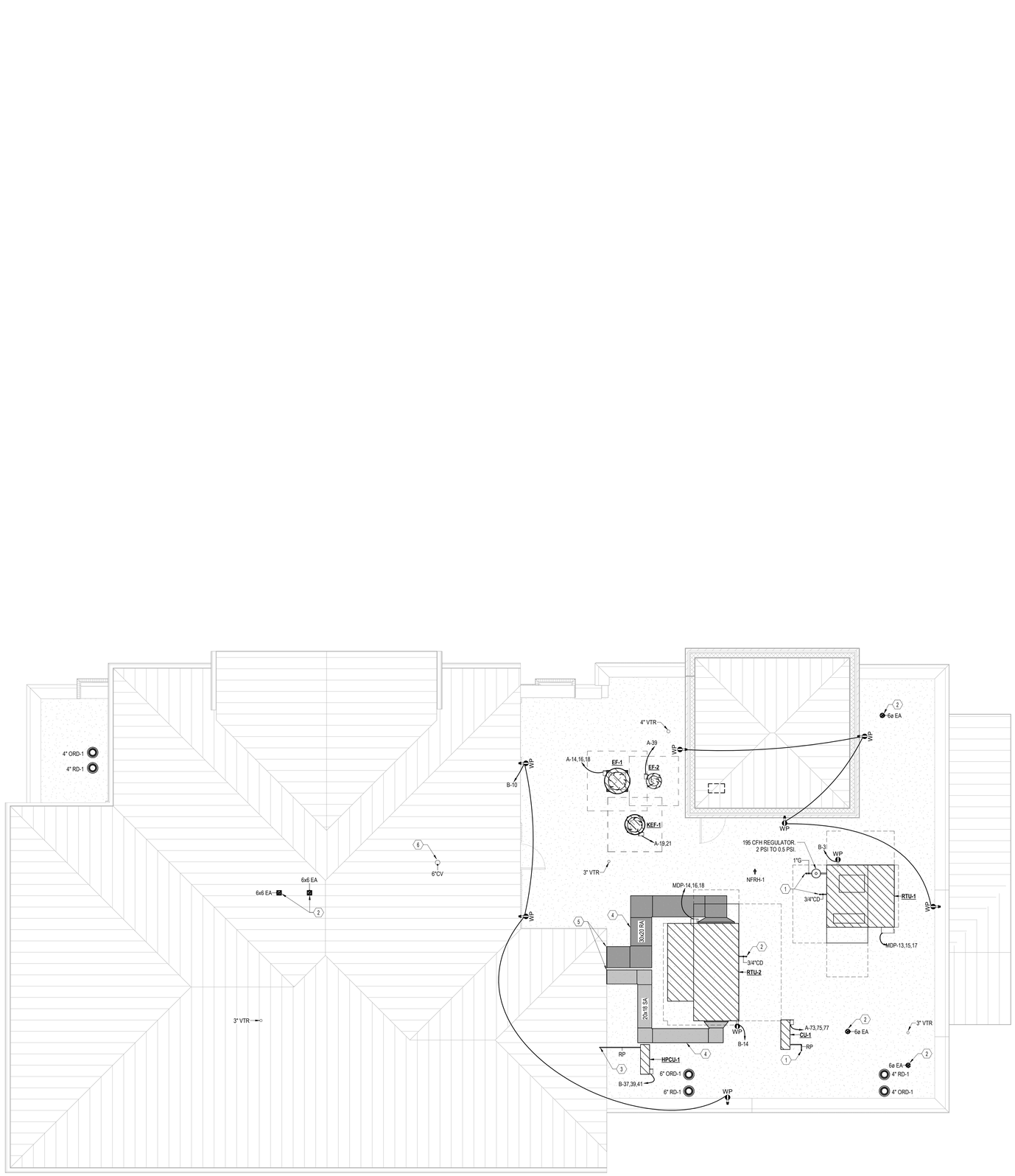
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SHEET DESCRIPTION:
MECHANICAL ELECTRICAL PLUMBING SITE PLAN

SHEET NO.
MEP01



1 MECHANICAL ELECTRICAL PLUMBING - ROOF PLAN

3/16" = 1'-0"

PLAN NOTES

A. COORDINATE ALL VENTS, FLUES, AND OTHER PENETRATIONS IN METAL ROOFING TO OCCUR BETWEEN STANDING SEAMS AND NOT RESTRICT FLOW OF WATER AROUND EACH SIDE OF PENETRATION.

B. MAINTAIN 10'-0" CLEARANCE BETWEEN ALL MECHANICAL INTAKES AND ANY EXHAUST DISCHARGE OR VENT PIPE OUTLET.

C. MAINTAIN EQUIPMENT CLEARANCES AS DICTATED BY MANUFACTURER RECOMMENDATIONS AND REGULATORY CODES TYPICAL.

D. REFER TO ARCHITECTURAL DETAILS FOR KITCHEN EXHAUST GREASE GUARD.

NOTES BY SYMBOL

1. PIPING DOWN TO LEVEL BELOW.
2. PROVIDE RAIN CAP.
3. PIPING THROUGH SIDEWALL.
4. PROVIDE DOUBLE WALL DUCTWORK WITH SLOPED TOP TO SHED WATER. REFER TO DETAIL FOR MORE INFORMATION.
5. DUCTWORK THROUGH SIDEWALL. REFER TO DETAIL 1/MZ502 FOR MORE INFORMATION.
6. REFER TO CONCENTRIC VENT DETAIL 6/PZ301 FOR MORE INFORMATION.

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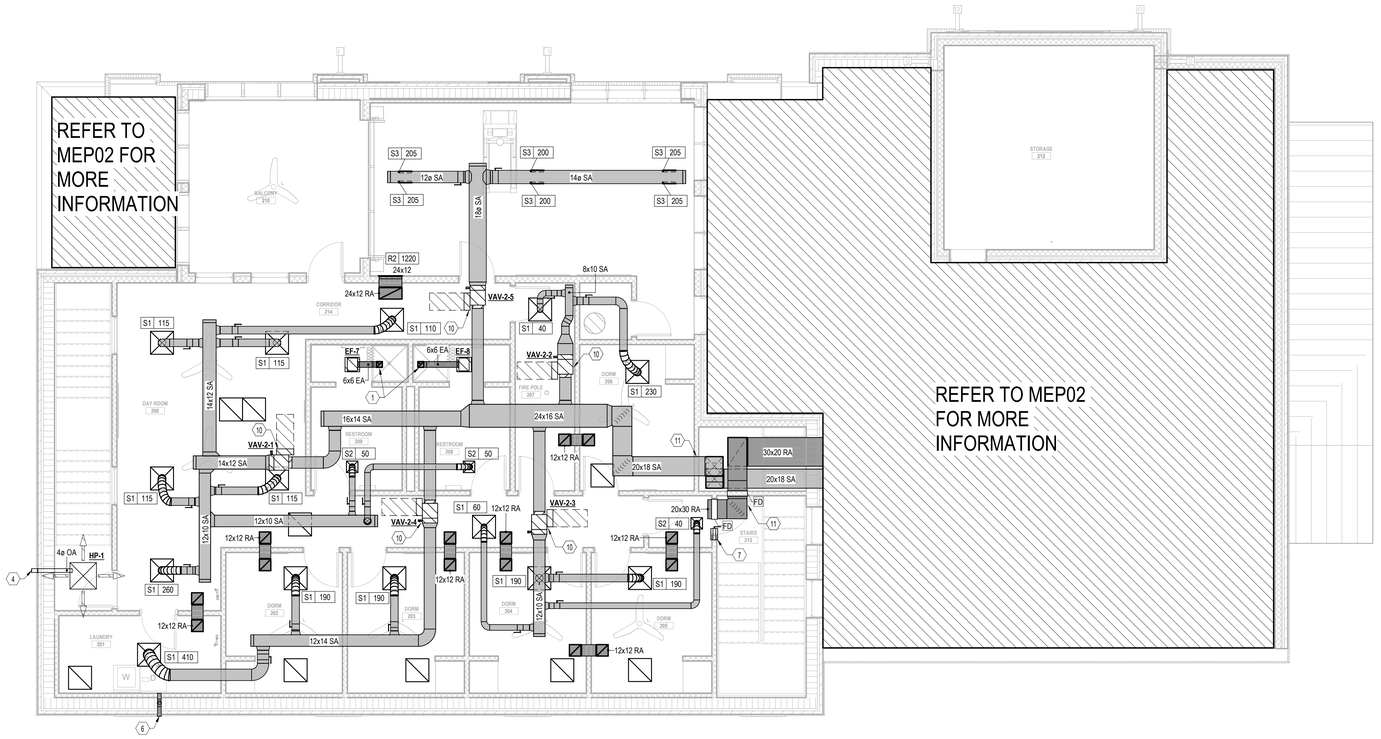
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SHEET DESCRIPTION:
MECHANICAL ELECTRICAL PLUMBING ROOF PLAN

SHEET NO.
MEP02



2 MECHANICAL PLAN - LEVEL 2

3/16" = 1'-0"

1 MECHANICAL PLAN - LEVEL 1

3/16" = 1'-0"

PLAN NOTES

A. PROVIDE ACOUSTICAL SEALANT AT ALL STC RATED WALL PENETRATIONS TO MITIGATE SOUND MIGRATION. REFER TO ARCHITECTURAL FOR LOCATION OF ALL STC RATED WALLS.

B. PROVIDE MANUAL VOLUME BALANCE DAMPERS FOR ALL SUPPLY, RETURN, AND EXHAUST GRILLE/DIFFUSER BRANCHES. UNLESS NOTED OTHERWISE.

C. ALL MITERED ELBOWS SHALL HAVE TURNING VANES.

D. PROVIDE CONCEALED DAMPER REGULATOR FOR ALL SUPPLY, RETURN, AND EXHAUST GRILLES/DIFFUSERS LOCATED IN AREAS WHERE ABOVE CEILING CANNOT BE ACCESSED.

E. PROVIDE INTERNALLY LINED DUCTWORK FOR ALL EXPOSED DUCTWORK IN FINISHED OCCUPIED SPACES. PAINT EXPOSED DUCTWORK AS SPECIFIED BY ARCHITECT.

F. PROVIDE ACCESS PANELS IN ALL INACCESSIBLE CEILINGS FOR HVAC EQUIPMENT.

G. COORDINATE DIFFUSER/GRILLE/EXHAUST FAN LOCATION WITH FINAL ARCHITECTURAL REFLECTED CEILING PLAN.

H. PROVIDE LONG RADIUS ELBOWS EVERYWHERE POSSIBLE. OTHERWISE, PROVIDE TURNING VANES IN ALL ELBOWS PER SMACNA STANDARDS.

I. PROVIDE LABELING ON ALL CEILINGS AND WALLS, INDICATING ANY DEVICES AND LOCATIONS REQUIRE SERVICE OR ACCESS ABOVE CEILINGS OR BEHIND WALLS - TERMINAL UNITS, MANUAL VOLUME BALANCE DAMPERS, FIRE/SMOKE DAMPERS, ETC.

J. COORDINATE ALL ABOVE CEILING INSTALLATIONS CLOSELY WITH PLUMBING, FIRE PROTECTION, FIRE ALARM, AND ELECTRICAL SUB-CONTRACTORS.

K. FOR DUCT RUNOUTS TO DIFFUSERS, SIZE ACCORDING TO NECK/INLET SIZE, UNLESS NOTED OTHERWISE.

L. ABOVE FINISH FLOOR HEIGHTS REFER TO BOTTOM OF EQUIPMENT/DEVICE ETC.

M. DUCT INSULATION SHALL BE CONTINUOUS THROUGH WALLS/FLOORS ETC TO PREVENT CONDENSATION.

N. DIFFUSER SHALL BE COMPLETELY INSULATED TO PREVENT CONDENSATION.

O. REFER TO VAV BOX SCHEDULE FOR INLET SIZE.

P. COVER ALL RETURN AIR DUCTWORK OPENINGS WITH 1/4" GALVANIZED STEEL MESH (INCLUDING ALL TRANSFER OPENINGS).

Q. PROVIDE RETURN AIR PATHWAYS FOR ALL TO DECK CONDITIONS.

R. ALL EQUIPMENT SHALL BE INSTALLED WITH MANUFACTURER RECOMMENDED CLEARANCES.

S. ALL 24"X24" RETURN GRILLES SHOWN SHALL BE 'R1' TYPE. PROVIDE ALL GRILLES WITH HALF BOOTS FOR SOUND ATTENUATION.

T. REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS FOR EXACT LOCATIONS AND ELEVATIONS OF LOUVERS. TYPICAL.

U. REFER TO SPECIFICATION SECTION 230700 HVAC INSULATION FOR ALL DUCTWORK AND PIPING INSULATION MATERIALS.

V. ALL CONTROL CABLING SHALL BE SECURED INDEPENDENTLY FROM ALL OTHER CABLING. CONTROL CABLING SHALL BE IN CONDUIT IN ALL INACCESSIBLE CEILING SPACES AND DOWN WALLS.

NOTES BY SYMBOL (#)

1. DUCTWORK UP TO LEVEL ABOVE.
2. DUCTWORK DOWN TO LEVEL BELOW.
3. PROVIDE HEAVY ACOUSTICAL WRAP AROUND SUPPLY AND RETURN AIR DUCTWORK FROM UNIT ABOVE SPACE.
4. PROVIDE RAIN COVER, BACKDRAFT DAMPER, AND BALANCING DAMPER ON OA CONNECTION.
5. PROVIDE 4-DSK 4" SIDEWALL VENT OR EQUIVALENT. SEE DETAIL 4 / MZ502 FOR MORE INFORMATION.
6. DRYER EXHAUST THROUGH EXTERIOR WALL. TERMINATE WITH SEIHO MODEL SFZC VENT CAP.
7. PROVIDE 12"X12" BAROMETRIC RELIEF DAMPER (GREENHECK BR). OPEN PRESSURE SET TO 0.05 IN. W.G. INSTALL BELOW CEILING TO PROVIDE RELIEF AIR TO AIR LOCK.
8. CONNECT DRYER EXHAUST TO DRYING CABINET. REFER TO MANUFACTURER FOR CONNECTION.
9. CONTRACTOR TO COORDINATE WITH ALL DISCIPLINES TO ENSURE NO PIPING, CONDUIT, OR EQUIPMENT ARE PLACED WITHIN 3 FT OF RADIANT HEATER EXHAUST VENT.
10. CONTRACTOR TO COORDINATE WITH STRUCTURAL TO PROVIDE A FRAME OUT FOR VAV AND CLEARANCE TO BE ACCESSIBLE AND FROM BELOW.
11. CONTRACTOR TO COORDINATE WITH STRUCTURAL TO PROVIDE A FRAME OUT FOR DUCTWORK MAIN AT THIS APPROXIMATE LOCATION.

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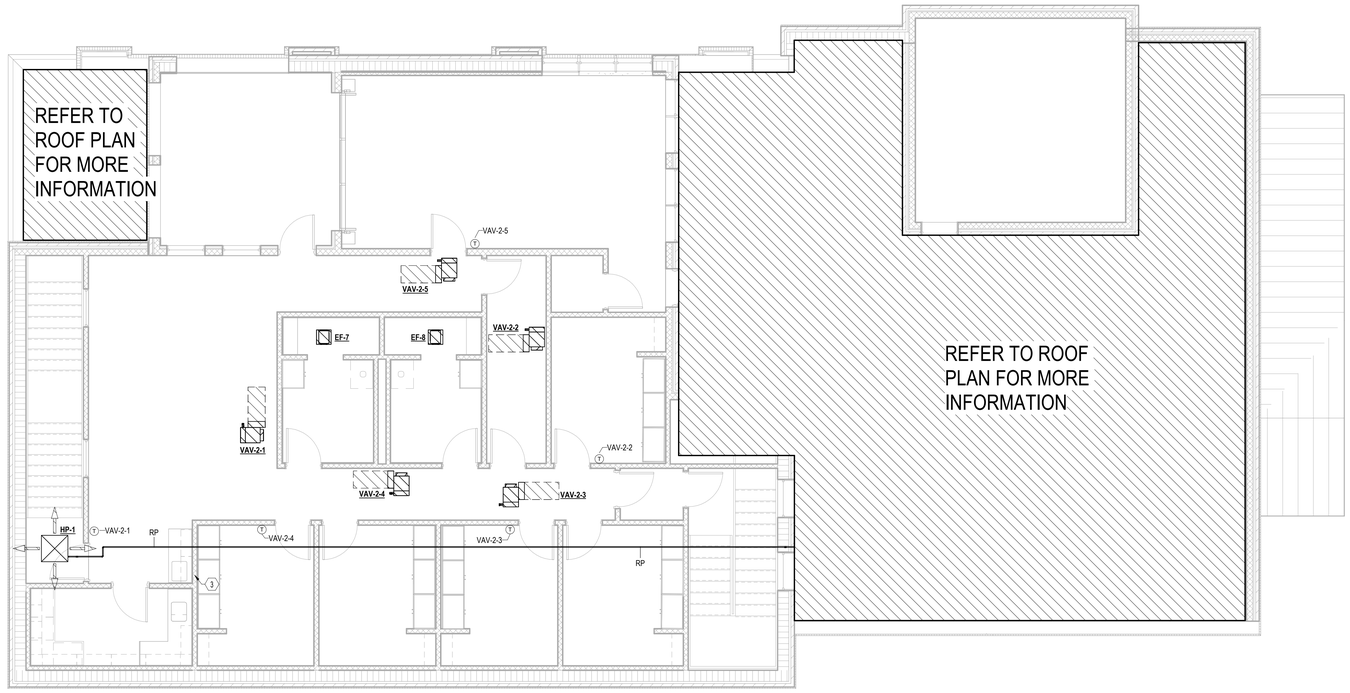
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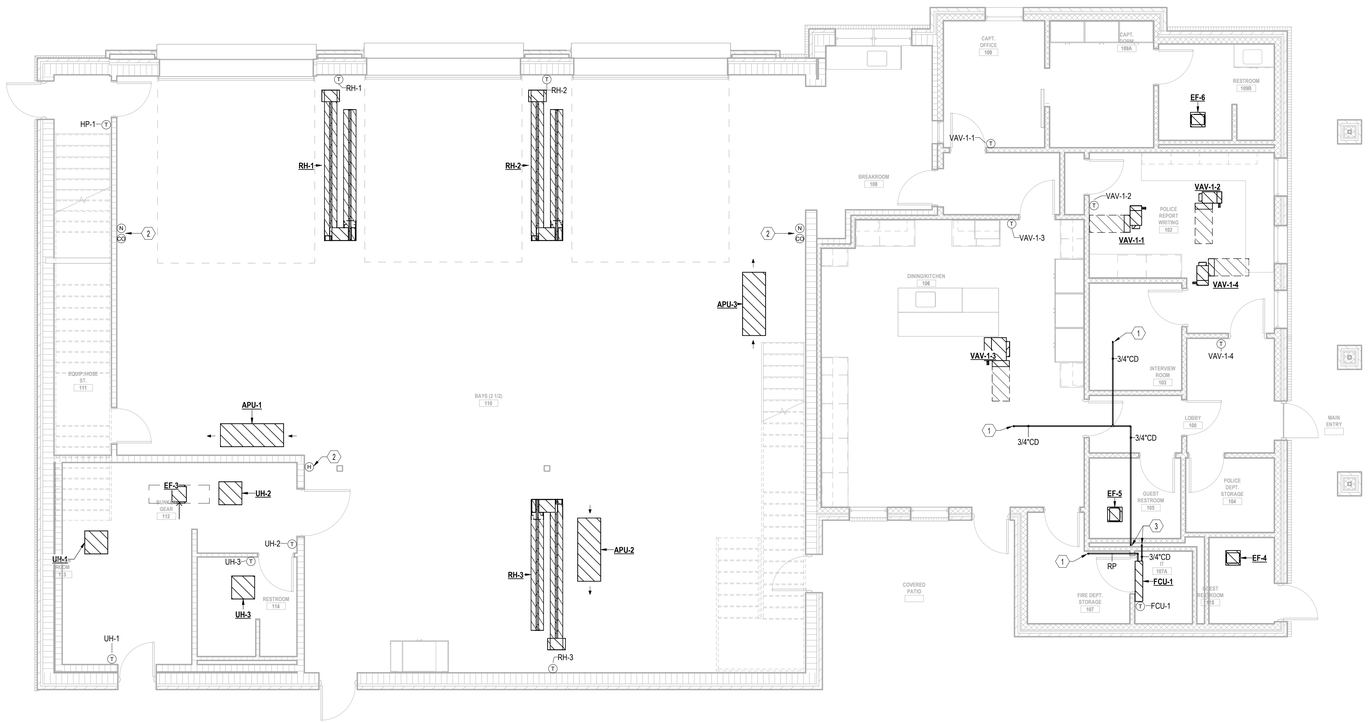
SHEET DESCRIPTION:
MECHANICAL PLAN

SHEET NO.
MH101



2 MECHANICAL PIPING PLAN - LEVEL 2

3/16" = 1'-0"



1 MECHANICAL PIPING PLAN - LEVEL 1

3/16" = 1'-0"

PLAN NOTES

A. PROVIDE ACOUSTICAL SEALANT AT ALL STC RATED WALL PENETRATIONS TO MITIGATE SOUND MIGRATION. REFER TO ARCHITECTURAL FOR LOCATION OF ALL STC RATED WALLS.

B. COORDINATE FINAL LOCATION OF ALL TEMPERATURE SENSORS, HUMIDISTATS, THERMOSTATS, AND CO2 SENSORS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.

C. PROVIDE LABELING ON ALL CEILINGS AND WALLS, INDICATING ANY DEVICES AND LOCATIONS REQUIRE SERVICE OR ACCESS ABOVE CEILINGS OR BEHIND WALLS - TERMINAL UNITS, MANUAL VOLUME BALANCE DAMPERS, FIRE/SMOKE DAMPERS, ETC.

D. COORDINATE ALL ABOVE CEILING INSTALLATIONS CLOSELY WITH PLUMBING, FIRE PROTECTION, FIRE ALARM, AND ELECTRICAL SUB-CONTRACTORS.

E. REFER TO HVAC EQUIPMENT MANUFACTURER FOR EXACT REFRIGERANT LINE SET SIZING.

F. PIPING INSULATION SHALL BE CONTINUOUS THROUGH WALLS/FLOORS ETC TO PREVENT CONDENSATION.

G. REFER TO SPECIFICATION SECTION 230700 HVAC INSULATION FOR ALL DUCTWORK AND PIPING INSULATION MATERIALS.

H. ALL CONTROL CABLING SHALL BE SECURED INDEPENDENTLY FROM ALL OTHER CABLING. CONTROL CABLING SHALL BE IN CONDUIT IN ALL INACCESSIBLE CEILING SPACES AND DOWN WALLS.

NOTES BY SYMBOL

1. PIPING UP TO LEVEL ABOVE.
2. REFER TO 2 / MZ703 FOR CONTROLS
3. CONNECT TO LAVATORY TAILPIECE.

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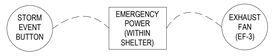
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03/20/2024

SHEET DESCRIPTION:
MECHANICAL PIPING PLAN

SHEET NO.
MH201



SYSTEM SEQUENCE OF OPERATION

- STORM SHELTER OPERATION SHALL BE ENGAGED BY STORM EVENT ACTIVATION BUTTON.
- EXHAUST FAN SHALL OPERATE ON NORMAL POWER. EXHAUST FAN SHALL BE BACKED UP BY EMERGENCY POWER PROVIDED BY ELECTRICAL. EXHAUST FAN SHALL ONLY BE RUN ON EMERGENCY POWER IF NORMAL POWER IS LOST.

NOTES:

- COORDINATE INTEGRATION CLOSELY WITH ELECTRICAL SUBCONTRACTOR.

2 STORM SHELTER CONTROL DIAGRAM

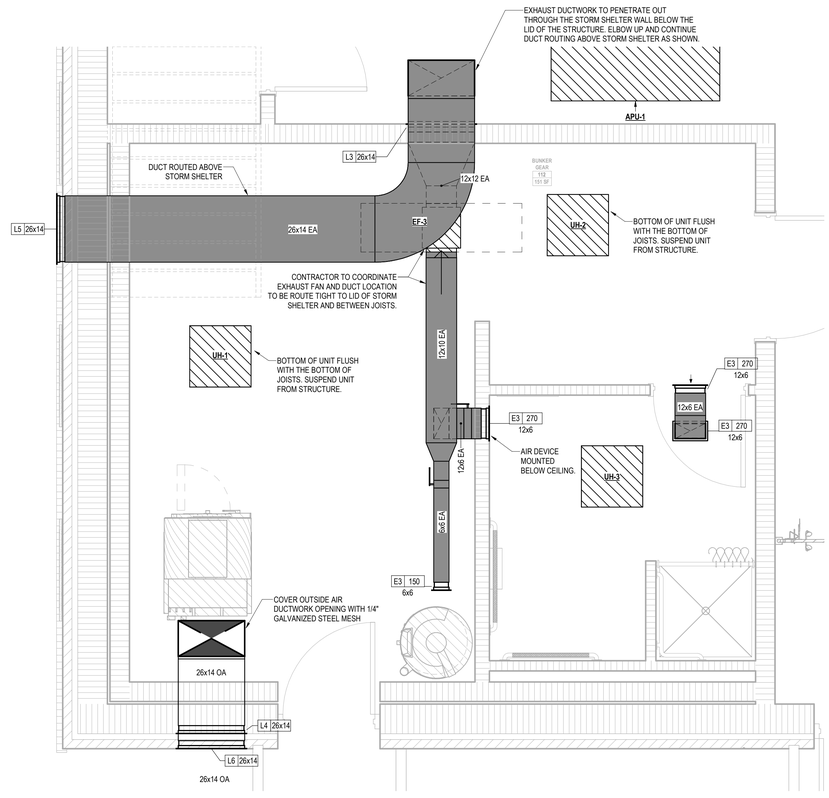
NONE

STORM SHELTER VENTILATION

ROOM	OCCUPANCY CLASSIFICATION	CFM PER PERSON	OCCUPANCY	CFM PER FT^2	EXHAUST CFM PER FT^2	EXHAUST FROM FIXTURES	AREA	REQUIRED VENTILATION	REQUIRED EXHAUST
BUNKER GEAR	LOCKER	5	37	0	1.0	0	270	185	270
RESTROOM	RESTROOM	0	0	0	0.0	70	75	0	70
								0	0
							TOTAL	185	340
							PROVIDED OUTSIDE AIR	420	
							PROVIDED EXHAUST AIR		420

NOTES:

1. ALL REFERENCE CFM PER PERSON AND CFM PER SQUARE FOOT TAKEN FROM 2018 INTERNATIONAL MECHANICAL CODE SECTION 403.
2. MECHANICAL VENTILATION COMPLIES WITH SECTION 702.4.2 OF ICC-500 2020.
3. MECHANICAL VENTILATION SHALL BE PROVIDED WITH EMERGENCY POWER.



1 MECHANICAL PLAN - LEVEL 1 - STORM SHELTER

1/2" = 1'-0"

DRAWN BY: Author
CHECKED BY: Checker
DATE: 03/20/2024
ISSUED FOR PERMIT: 03/20/2024
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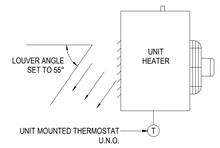
CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.

STATE OF TEXAS
ANDREW D. HUNTLEY
149586
LICENSED
PROFESSIONAL ENGINEER
03/20/2024

SHEET DESCRIPTION:
MECHANICAL STORM PLANS

SHEET NO.
MZ401

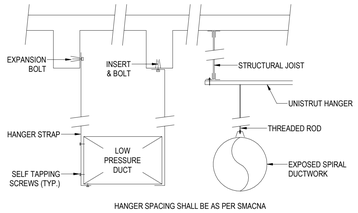
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ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
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PROJECT CODE
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NOTES:

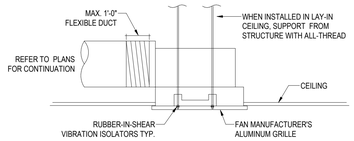
1. SUSPEND UNIT FROM WALL/JOIST PER MANUFACTURER'S RECOMMENDATIONS.
2. BOTTOM OF SUSPENDED UNITS SHALL BE MINIMUM 8'-0" AFF FOR HEAD CLEARANCE.

7 UNIT HEATER (ELECTRIC)
NTS

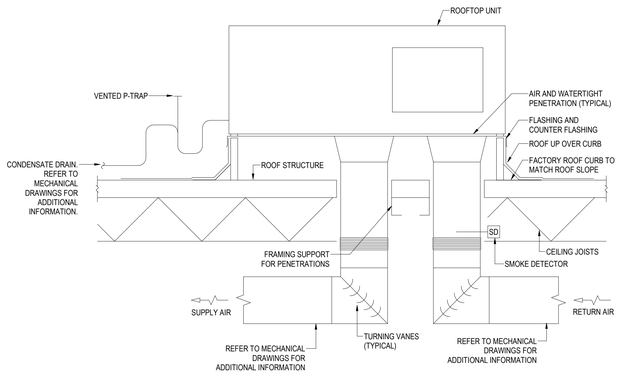


HANGER SPACING SHALL BE AS PER SMACNA

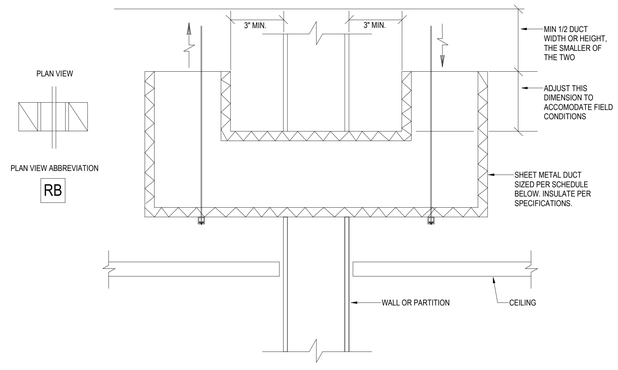
4 DUCT HANGER
NTS



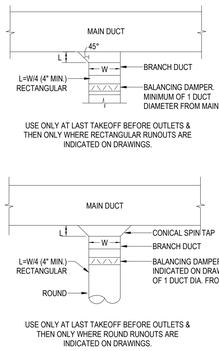
1 CEILING MOUNTED EXHAUST FAN
NTS



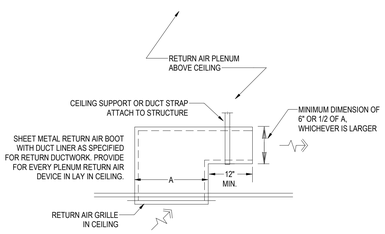
8 ROOFTOP UNIT
NTS



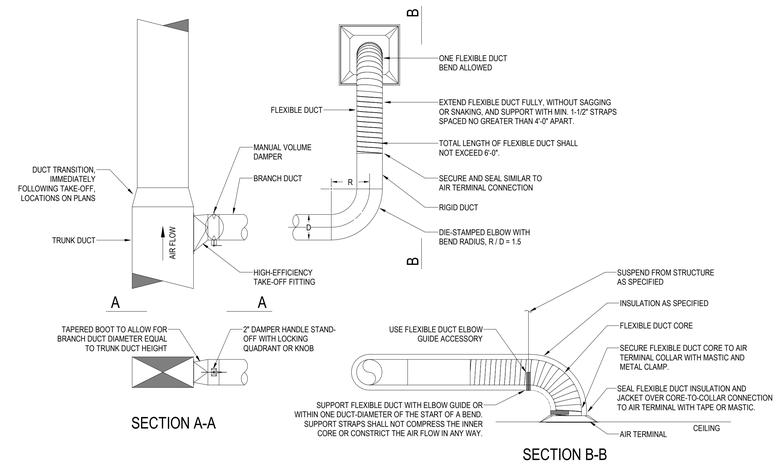
5 RETURN AIR BOOT DETAIL AND SCHEDULE
NTS



2 DUCTWORK TAKEOFFS
NTS



6 RETURN AIR GRILLE HALF BOOT
NTS



3 DIFFUSER RUN-OUT
NTS

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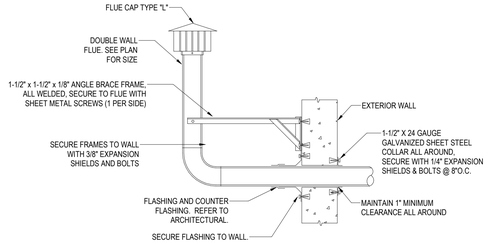
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WINN RIDGE BLVD.

STATE OF TEXAS
ANDREW D. HUNTLEY
149586
LICENSED PROFESSIONAL ENGINEER
03/20/2024

SHEET DESCRIPTION:
MECHANICAL DETAILS

SHEET NO.
MZ501

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
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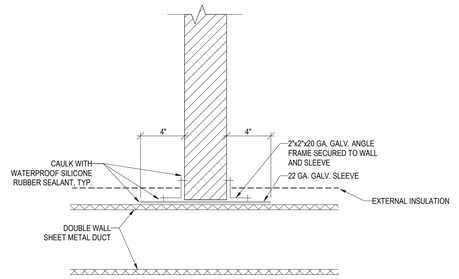


NOTES:

1. REFER TO ARCHITECTURAL FOR FLASHING DETAILS.

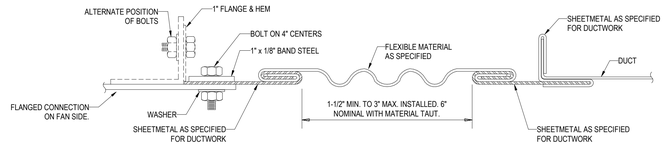
4 FLUE THROUGH WALL

NTS

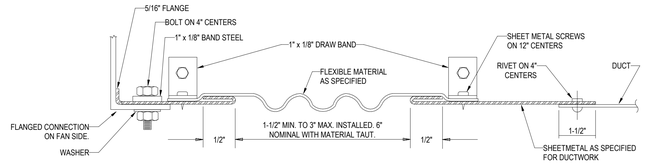


1 SEALING OF DUCTS THROUGH WALLS

NTS



RECTANGULAR FLEXIBLE CONNECTION

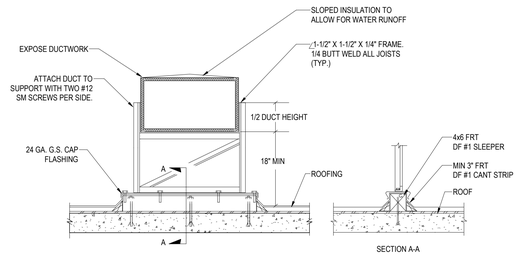


ROUND FLEXIBLE CONNECTION

1. CONTRACTOR TO PROVIDE KINETICS KINFLEX DUCTWORK CONNECTIONS WITH EPDM UV RESISTANT OUTER MEMBRANE FOR ALL EXTERIOR CONNECTIONS TO EQUIPMENT.

2 SEALING OF DUCTS THROUGH WALLS

NTS



NOTES:

1. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. ALL STEEL SUPPORT HARDWARE AND FRAME SHALL BE GALVANIZED.

3 ROOF DUCTWORK AND SUPPORT

NTS

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ANDREW D. HUNTLEY
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03/20/2024

SHEET DESCRIPTION:
MECHANICAL DETAILS

SHEET NO.
MZ502

MEPCE
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PROJECT CODE
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MULTIZONE DX ROOFTOP UNIT SCHEDULE WITH GAS HEAT

MARK	NOMINAL CAPACITY (TONS)	EER / SEER	REFRIGERANT TYPE	FAN				COOLING				GAS HEAT						ELECTRICAL			WEIGHT (LBS)	AMBIENT TEMP (°F)	MANUFACTURER	MODEL	NOTES
				SUPPLY AIRFLOW (CFM)	OUTDOOR AIR FLOW MINIMUM (CFM)	OUTDOOR AIR FLOW MAXIMUM (CFM)	ESP (IN. W.C.)	EAT (DB°F / WB°F)	LAT (DB°F / WB°F)	SENSIBLE MBH	TOTAL MBH	HEATING SUPPLY AIRFLOW (CFM)	INPUT (MBH)	OUTPUT (MBH)	EFFICIENCY (%)	E.A.T. (DB°F)	L.A.T. (DB°F)	VOLTAGE / PHASE	MCA	MOCP					
RTU-1	16	11 / 12.4	R-410	4,910	620	1,400	2.0	82.6 / 66	55 / 54	147	182	2,455	156	195	80	40	55	208 / 3	88	110	2500	105	AAON	RN015	ALL
RTU-2	8	11 / 12.6	R-410	3,670	-	380	2.0	78.4 / 63.4	55 / 54	93	100	1,835	-	-	-	-	-	208 / 3	56	70	2500	105	AAON	RNA-011	ALL

NOTES:

1. PROVIDE AND INSTALL SMOKE DETECTORS IN THE RETURN DUCT. SMOKE DETECTOR SHALL DE-ENERGIZE UNIT UPON DETECTION OF SMOKE.
2. PROVIDE C02 SENSOR FOR CO2 MONITORING. TYPICAL.
3. PROVIDE CONDENSATE OVERFLOW FLOAT SWITCH. UNIT SHALL SHUT DOWN WHEN SENSOR IS TRIGGERED.
4. PROVIDE ALL UNITS WITH 14" TALL INSULATED ROOF CURB.
5. PROVIDE UNITS WITH FACTORY ROOF CURBS WITH VIBRATION ISOLATION. FLASHING DETAILS TO BE COORDINATED WITH ARCHITECT.
6. PROVIDE EACH UNIT WITH 4" MERV-13 FILTERS.
7. PROVIDE (1) SET OF CONSTRUCTION FILTERS AND (1) SET OF NEW FILTERS. DO NOT OPERATE UNIT WITHOUT FILTERS DURING CONSTRUCTION.
8. PROVIDE WITH FACTORY INSTALLED NON-POWERED 115V GFI CONVENIENCE OUTLET.
9. ALL UNITS SHALL USE R-410 REFRIGERANT.
10. DOUBLE WALL, THERMAL-BREAK CABINET WITH R-13 FOAM INSULATION.
11. FACTORY-INSTALLED HAIL GUARDS.
12. 10-100% MODULATING COMPRESSOR ON LEAD CIRCUITS.
13. ECONOMIZER WITH ENTHALPY BASED CONTROL.
14. DIRTY FILTER SWITCH.
15. DIRECT-DRIVE PLENUM FAN WITH FACTORY MOUNTED VFD.
16. SINGLE-POINT POWER WITH FACTORY-MOUNTED DISCONNECT.
17. TERMINAL STRIP FOR CONTROLS BY CONTROL CONTRACTOR.
18. MANUFACTURER'S ONSITE STARTUP ASSISTANCE.

FAN SCHEDULE

MARK	LOCATION	TYPE	FAN			ELECTRICAL			MAX. WEIGHT (LBS)	MANUFACTURER	MODEL	CONTROLLED BY	NOTES
			AIRFLOW (CFM)	E.S.P. (IN. W.G.)	DRIVE	HP	WATTS	VOLTS / PHASE					
EF-1	APP BAY	ROOF MOUNTED	4000	0.50	DIRECT	2	-	208 / 3	108	GREENHECK	G-200-VG	SENSOR	2,3,4,5,6,9
EF-2	APP BAY	ROOF MOUNTED	150	0.50	DIRECT	1/20	-	120 / 1	28	GREENHECK	G-080-D	BMS	1,3,4,5,6,9
EF-3	DECONSTORM	INLINE	420	1.00	DIRECT	1/3	-	120 / 1	39	GREENHECK	CSP-A700-VG	REFER TO CONTROLS	1,3,6,7,9
EF-4	RR	CEILING	280	0.30	DIRECT	1/15	-	120 / 1	24	GREENHECK	SP-A390-VG	INTERLOCKED WITH LIGHTS	1,3,6,7,8,9
EF-5	RR	CEILING	70	0.30	DIRECT	-	6	120 / 1	12	GREENHECK	SP-A50-90-VG	INTERLOCKED WITH LIGHTS	1,3,6,7,8,9
EF-6	RR	CEILING	230	0.30	DIRECT	1/15	-	120 / 1	24	GREENHECK	SP-A390-VG	INTERLOCKED WITH LIGHTS	1,3,6,7,8,9
EF-7	RR	CEILING	120	0.30	DIRECT	-	12	120 / 1	12	GREENHECK	SP-A90-130-VG	INTERLOCKED WITH LIGHTS	1,3,6,7,8,9
EF-8	RR	CEILING	120	0.30	DIRECT	-	12	120 / 1	12	GREENHECK	SP-A90-130-VG	INTERLOCKED WITH LIGHTS	1,3,6,7,8,9

NOTES:

1. PROVIDE WITH GRAVITY BACKDRAFT DAMPER.
2. PROVIDE WITH MOTORIZED BACKDRAFT DAMPER. REFER TO CONTROL DIAGRAMS.
3. FACTORY PROVIDED DISCONNECT MOUNTED TO EQUIPMENT.
4. PROVIDE WITH ROOF CURB.
5. PROVIDE WITH BIRD SCREEN.
6. PROVIDE WITH SPEED CONTROLLER, ACCESSIBLE ABOVE CEILING, LABELED, AND CLOSE TO EQUIPMENT.
7. PROVIDE WITH SPRING ISLOATION KITS AND MOUNTING BRACKETS.
8. WALL SWITCH LOCATION TO BE ADJACENT TO LIGHT SWITCH. COORDINATE FINAL LOCATION WITH ARCHITECT.
9. PROVIDE FAN WITH SOFT START.

VAV TERMINAL UNITS (ELECTRIC)

MARK	BOX SIZE	MAX. CFM	MIN. CFM	INLET MIN. S.P. (IN. W.G.)	ELECTRICAL					ELECTRIC HEAT				TYPE	MANUFACTURER / MODEL	NOTES
					CAPACITY (KW)	VOLTS	PHASE	MCA	MOCP	HEATING CFM	EAT (F)	MAX LAT (F)	MIN MBH			
VAV-1-1	8	620	205	0.75	3.4	208	3	13	15	310	55	90	11.7	VAV	PRICE / SDV	ALL
VAV-1-2	8	730	240	0.75	4.0	208	3	15	20	365	55	90	13.8	VAV	PRICE / SDV	ALL
VAV-1-3	16	2,780	915	0.75	15.4	208	3	58	60	1390	55	90	52.5	VAV	PRICE / SDV	ALL
VAV-1-4	8	780	255	0.75	4.3	208	3	16	20	390	55	90	14.7	VAV	PRICE / SDV	ALL
VAV-2-1	10	920	305	0.75	5.5	208	3	19	20	460	52	90	18.9	VAV	PRICE / SDV	ALL
VAV-2-2	6	270	90	0.75	1.6	208	3	6	15	135	52	90	5.5	VAV	PRICE / SDV	ALL
VAV-2-3	8	480	160	0.75	2.9	208	3	10	15	240	52	90	9.8	VAV	PRICE / SDV	ALL
VAV-2-4	8	790	260	0.75	4.8	208	3	17	20	395	52	90	16.2	VAV	PRICE / SDV	ALL
VAV-2-5	10	1,210	400	0.75	7.3	208	3	25	30	605	52	90	24.8	VAV	PRICE / SDV	ALL

NOTES:

1. CONTROLS SHALL BE FURNISHED AND SHIPPED TO BOX FACTORY BY CONTROLS CONTRACTOR FOR FACTORY MOUNTING AND WIRING.
2. PROVIDE UNIT WITH A SINGLE-POINT CONNECTION.
3. COORDINATE CONTROL BOX LOCATION (RIGHT-HAND/LEFT-HAND) WITH FIELD CONDITIONS AND COORDINATE THROUGH SHOP DRAWINGS.
4. MAX NC TO BE 35. PROVIDE WITH SOUND ATTENTUATION IF NECESSARY.
5. PROVIDE WITH UNIT FACTORY WIRED UNIT MOUNTED...
6. AIR TERMINALS BOXES ARE PRESSURE INDEPENDENT TYPE.
7. DUCT RUNOUT SIZE TO MATCH BOX INLET UNLESS OTHERWISE NOTED.

DUCTLESS MINI SPLIT SYSTEM SCHEDULE

MARK		ARI SEER/COP	COOLING PERFORMANCE		ELECTRICAL			OUTDOOR UNIT WEIGHT (LBS)	MANUFACTURER	MODEL		NOTES
INDOOR UNIT	OUTDOOR UNIT		AIRFLOW (CFM)	TOTAL CAPACITY (MBH)	OUTDOOR UNIT					INDOOR UNIT	OUTDOOR UNIT	
					VOLTS / PHASE	MCA	MOCP					
FCU-1	CU-1	22.7	300	12	208 / 3	10	15	80	LG	LSN	LSU	1,2,3,4,5,6,7

NOTES:

1. MAINTAIN MINIMUM CLEARANCES REQUIRED FOR SERVICE, MAINTENANCE, AND INSPECTION.
2. INSTALL CONDENSING UNIT ON PRE-MANUFACTURED ROOF CURB BY THYBAR OR EQUAL.
3. PROVIDE WITH 7 DAY PROGRAMMABLE THERMOSTAT.
4. PROVIDE WITH FACTORY PROVIDED HAIL GUARDS FOR CONDENSER COILS.
5. PROVIDE UNIT WITH LOW AMBIENT KIT OR WIND BAFFLES.
6. PROVIDE WITH CONDENSATE PUMP TO SHUT OFF UNIT SHOULD CONDENSATE PUMP FAIL.
7. INDOOR UNIT POWERED FROM OUTDOOR UNIT

AIR DEVICE SCHEDULE

MARK	TYPE	DESCRIPTION	NECK SIZE	FACE / MODULE SIZE	THROW	MANUFACTURER / MODEL NO.	MATERIAL
S1	SUPPLY	THREE CONES	SEE NOTE 1	24" X 24"	4-WAY	TITUS / TMSA-AA	ALUMINUM
S2	SUPPLY	THREE CONES	SEE NOTE 1	12" X 12"	4-WAY	TITUS / TMSA-AA	ALUMINUM
S3	SUPPLY	DUCT MOUNTED	-	SEE NOTE 1	[1-] [2-]WAY	TITUS / S300FS	ALUMINUM
R1	RETURN	PERFORATED	SEE NOTE 1	24" X 24"	-	TITUS / PAR-AA	ALUMINUM
R2	RETURN	SIDEWALL	FULL SIZE	SEE PLANS	-	TITUS / 350 RL	STEEL
E1	EXHAUST	PERFORATED	SEE NOTE 1	12" X 12"	-	TITUS / PAR-AA	ALUMINUM
E2	EXHAUST	PERFORATED	SEE NOTE 1	24" X 24"	-	TITUS / PAR-AA	ALUMINUM
E3	EXHAUST	SIDEWALL	FULL SIZE	SEE PLANS	-	TITUS / 350 RL	STEEL
E4	EXHAUST	DUCT MOUNTED	-	SEE PLANS	-	TITUS / S8F	ALUMINUM

NOTES:

1. SEE BELOW AIR DEVICE RUNOUT SCHEDULE FOR NECK SIZES. DUCT RUN-OUT SIZE SHALL BE THE SAME AS THE NECK SIZE. NOT VALID FOR REGISTERS BEING USED FOR PLENUM RETURN AIR APPLICATIONS.

SUPPLY DUCTWORK		RETURN/EXHAUST DUCTWORK	
RUNOUT CFM	RUNOUT Ø	RUNOUT CFM	RUNOUT Ø
0-100	6"	0-75	6"
101-210	8"	76-170	8"
211-380	10"	171-310	10"
381-630	12"	311-500	12"
631-950	14"	501-770	14"
951-1400	16"	771-1100	16"

S3 DIFFUSER SIZES	
CFM	FACE SIZE
0 - 230	12" x 4"
231 - 290	12" x 6"
291 - 415	12" x 8"
416 - 640	18" x 10"
641 - 850	24" x 10"
851 - 1000	30" x 12"

2. COORDINATE COLOR AND FINISH WITH OWNER / ARCHITECT. PLASTER FRAMES SHALL BE FACTORY PRIMED FOR FIELD PAINTING.
3. COORDINATE FRAME MOUNTING BORDER WITH CEILING OR WALL TYPE. PROVIDE MOUNTING FRAMES FOR ALL AIR DEVICES MOUNTED IN GYPBOARD CEILINGS. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS.
4. SOUND VALUES SHALL NOT EXCEED 30 NC, UNLESS OTHERWISE NOTED.
5. PROVIDE MOLDED INSULATION BLANKET ON THE BACKSIDE OF DIFFUSER PAN FOR CEILING MOUNTED SUPPLY GRILLES.
6. PROVIDE RETURN AIR BOOT ON ALL PLENUMN RETURN GRILLES.

HEAT PUMP SPLIT SYSTEM SCHEDULE

MARK		CAPACITY (TONS)	SEER2	COOLING PERFORMANCE							HEATING PERFORMANCE			ELECTRICAL (OUTDOOR UNIT)			OUTDOOR UNIT WEIGHT (LBS)	AMBIENT TEMP (°F)	MANUFACTURER	MODEL NO. (INDOOR UNIT)	MODEL NO. (OUTDOR UNIT)	NOTES
INDOOR UNIT	OUTDOOR UNIT			SUPPLY AIRFLOW (CFM)	OUTDOOR AIRFLOW (CFM)	ESP (IN. W.C.)	EAT (DB°F / WB°F)	LAT (DB°F / WB°F)	SENSIBLE CAPACITY (MBH)	TOTAL CAPACITY (MBH)	SUPPLY AIRFLOW (CFM)	CAPACITY @ 17°F (MBH)	HSPF	VOLTAGE / PHASE	MCA	MOCP						
HP-1	HPCU-1	1.5	20.5	500	100	0.5	80.6 / 64.8	55 / 54	14	17	250	10,000	8.2	208 / 3	20.0	30.0	150	105	LG	LCN	LUU	ALL

NOTES:

1. PROVIDE WITH R-410 REFRIGERANT.
2. PROVIDE CONDENSATE OVERFLOW FLOAT SWITCH. UNIT SHALL SHUT DOWN WHEN SENSOR IS TRIGGERED.
3. CONTRACTOR TO VERIFY REFIGERANT PIPE SIZES WITH MANUFACTURER.
4. PROVIDE WITH 7 DAY PROGRAMMABLE THERMOSTATS FOR EACH FAN COIL UNIT.
5. FACTORY PROVIDED HAIL GUARDS FOR CONDENSER COILS.
6. FACTORY PROVIDED EQUIPMENT STAND.
7. PROVIDE WITH FLEXIBLE CONNECTIONS TO DUCT.
8. PROVIDE WITH INVERTER DRIVEN COMPRESSORS.
9. SUSPEND UNIT FROM STRUCTURE WITH VIBRATION ISOLATORS.
10. PROVIDE WITH DISPOSABLE MERV 8 FILTERS.
11. PROVIDE (1) SET OF CONSTRUCTION FILTERS AND (1) SET OF NEW FILTERS. DO NOT OPERATE UNIT WITHOUT FILTERS DURING CONSTRUCTION.

ELECTRIC UNIT HEATER SCHEDULE

MARK	SERVES	TYPE	ELECTRIC HEAT INPUT (KW)	CFM	MOTOR		WEIGHT (LBS.)	MANUFACTURER	MODEL	NOTES
					HP	VOLTS / PHASE				
UH-1	BUNKER GEAR	CEILING MOUNTED	2	310	1/30	208 / 1	31	REZNOR	ECS	1, 2
UH-2	BUNKER GEAR	CEILING MOUNTED	2	310	1/30	208 / 1	31	REZNOR	ECS	1, 2
UH-3	BUNKER GEAR	CEILING MOUNTED	2	310	1/30	208 / 1	31	REZNOR	EOR	1, 2

NOTES:

1. PROVIDE WITH MOUNTING HARDWARE.
2. PROVIDE WITH WALL MOUNTED THERMOSTAT.
3. INSTALL AT HEIGHT RECOMMENDED BY EQUIPMENT VENDOR.

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ENGINEERING FIRM F-4055
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RPGA DESIGN GROUP, INC.
ARCHITECTURE SPACE PLANNING INTERIORS
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CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.

STATE OF TEXAS
ANDREW D. HUNTLEY
149586
LICENSED
PROFESSIONAL ENGINEER
03/20/2024

SHEET DESCRIPTION:
MECHANICAL SCHEDULES

SHEET NO.
MZ601

KITCHEN HOOD SCHEDULE

MARK	KEH-1
HOOD SIZE (L" X D" X H")	48 x 54 x 24"
CFM	800
STATIC PRESSURE	0.435
WEIGHT	400
MANUFACTURER	CAPTIVEAIRE
MODEL	5424 ND-2

NOTES:

1. PROVIDE FACTORY PIPED FIRE PROTECTION SYSTEM.
2. PROVIDE WITH HEAT DETECTORS AND INTEGRATE WITH NEW REMOTE MOUNTED KITCHEN FAN CONTROL CENTER. ENSURE COMPATIBILITY WITH MAKE-UP AIR UNIT.
3. PROVIDE WALL-MOUNTED LIGHT & FAN SWITCHES NEAR HOOD AT ACCESSIBLE LOCATION +48" A.F.F.
4. PROVIDE STAINLESS-STEEL ENCLOSURE AND WALL PANELS.
5. PROVIDE VAPOR-PROOF INCANDESCENT LIGHT FIXTURES & FILTER REMOVAL TOOL.
6. PROVIDE ALL STAINLESS-STEEL CONSTRUCTION.
7. PROVIDE FRONT & RIGHT HAND PARTIAL END SKIRTS.
8. PROVIDE HOOD MOUNTED STAINLESS-STEEL END CABINET TO HOUSE FIRE SUPRESSION SYSTEM BOTTLES.
9. UL 710 LISTED WITHOUT EXHAUST FIRE DAMPER - UL #MH11726.

RADIANT UNIT HEATER SCHEDULE

MARK	SERVES	GAS HEAT			LENGTH (FT. - IN.)	ELECTRICAL			WEIGHT (LBS.)	MANUFACTURER	MODEL	NOTES
		INPUT (MBH)	LOW OUTPUT (MBH)	HIGH OUTPUT (MBH)		VOLTS / PHASE	MCA	MOCP				
RH-1	APP BAY	94	50	75	13'-1"	120 / 1	1	15	120	DETROIT RADIANT	HL3-20-65	1,2,3,4,6
RH-2	APP BAY	94	50	75	13'-1"	120 / 1	1	15	120	DETROIT RADIANT	HL3-20-65	1,2,3,4,6
RH-3	APP BAY	94	50	75	13'-1"	120 / 1	1	15	120	DETROIT RADIANT	HL3-20-65	1,2,3,4,5

NOTES:

1. PROVIDE MOUNTING HARDWARE.
2. PROVIDE WALL MOUNTED TWO-STAGE THERMOSTAT FOR EACH UNIT.
3. COORDINATE MOUNTING HEIGHT WITH ARCHITECT AND EQUIPMENT VENDOR.
4. PROVIDE COMBUSTION AIR INTAKE PER MANUFACTURER'S INSTRUCTIONS. TERMINATE WITH VENDOR APPROVED WEATHER CAP.
5. PROVIDE GAS FLUE PER MANUFACTURER'S INSTRUCTIONS. TERMINATE WITH VENDOR APPROVED WEATHER CAP.
6. VENTLESS RADIANT HEATER PROVIDE WITH MANUFACTURER INSTALLED VENT FLAP. MODEL WVE-GALV.

KITCHEN HOOD EXHAUST FAN SCHEDULE

MARK	FAN				ELECTRICAL		MAX. WEIGHT (LBS)	MANUFACTURER	MODEL	NOTES
	AIRFLOW (CFM)	E.S.P. (IN. W.G.)	FAN RPM	DRIVE	HP	VOLTS / PHASE				
KEF-1	800	0.60	1457	DIRECT	1/3	208/1	58	CAPTIVEAIRE	DU33HFA	ALL

NOTES:

1. PROVIDE WITH FACTORY WIRED AND UNIT MOUNTED DISCONNECT.
2. UL 762 APPROVED.
3. PROVIDE WITH 14" ROOF CURB WITH HINGING KIT AND BIRD GUARD.
4. PROVIDE WITH GREASE CUP.
5. PROVIDE WITH GRAVITY BACKDRAFT DAMPER.
6. ACTIVATION OF HOOD FIRE EXTINGUISHING SYSTEM SHALL SHUT OFF FUEL AND / OR CURRENT SUPPLY TO COOKING EQUIPMENT AND ELECTRICAL RECEPTACLES LOCATED UNDE...
7. PROVIDE KEF TYPE HOOD FANS WITH UNIT MOUNTED LIGHT AND FAN CONTROLS ALONG WITH HANDICAP COMPLIANT REMOTE CONTROL (GE / JXRC70).
8. CONTRACTOR TO INSTALL AN APPROVED GREASE DUCT FIRE WRAP ON THE DUCT FROM THE NEW HOOD TO THE EXHAUST FAN. PROVIDE ONE OF THE FOLLOWING APPROVED...
   (1) PREMIER (PYROSCAT)
   (2) 3M BARRIER (FIRE BARRIER - 15A)
   (3) FIRESTOP - BLANKET

AIR PURIFICATION UNIT SCHEDULE

MARK	LOCATION	AIRFLOW (CFM)	E.S.P. (IN. W.G.)	ELECTRICAL			MAX. WEIGHT (LBS)	MANUFACTURER / MODEL	NOTES
				VOLTAGE/PHASE	MCA	HP			
APU-1	APP BAY	2,200	1.2	208 / 1	7.5	1.0	240	AIRMATION / AMB-302GM	1,2,3,4
APU-2	APP BAY	2,200	1.2	208 / 1	7.5	1.0	240	AIRMATION / AMB-302GM	1,2,3,4
APU-3	APP BAY	2,200	1.2	208 / 1	7.5	1.0	240	AIRMATION / AMB-302GM	1,2,3,4

NOTES:

1. ALL AIR PURIFICATION UNITS SHALL BE INSTALLED WITH OPERATIONAL CONTROLS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. SYSTEM SHALL BE CAPABLE OF RECEIVING SIGNAL FROM A VEHICLE MOUNTED TRANSMITTER AND SHALL ACTIVATE UPON VEHICLE STARTUP OR UPON DETECTION SENSOR OF EYE-BEAM ACROSS BAY DOOR.
2. UPON ACTIVATION OF THE AIR PURIFICATION UNITS, UNITS SHALL OPERATE FOR PRESET DURATION (ADJUSTABLE) AS RECOMMENDED BY THE MANUFACTURER.
3. AIR PURIFICATION UNITS SHALL ACTIVATE IN CONJUNCTION WITH APPARATUS BAY EXHAUST FAN UPON CO OR NO2 DETECTION BY APPARATUS BAY SENSORS.
4. PROVIDE WITH FACTORY SUPPLIED MOUNTING BRACKETS OR CONTRACTOR TO FIELD FABRICATE.

LOUVER SCHEDULE

MARK	TYPE	SERVICE	AIRFLOW (CFM)	MAX. PRESS. DROP (IN. W.G.)	MAX. VELOCITY (FPM)	FREE AREA (SQ. FT.)	DIMENSIONS (W" x H")	MANUFACTURER	MODEL	NOTES
L1	INTAKE	APP BAY	2,000	0.05	500	4.42	24 X 48	GREENHECK	ESD-635	1,2,3,4,6,7
L2	INTAKE	APP BAY	2,000	0.05	500	4.42	24 X 48	GREENHECK	ESD-635	1,2,3,4,6,7
L3	EXHAUST	STORM SHELTER	420	0.16	1000	0.90	26 X 14	POTTORFF	XCD-545	1,2,3,4,5
L4	INTAKE	STORM SHELTER	420	0.16	1000	0.90	26 X 14	POTTORFF	XCD-545	1,2,3,4,5
L5	EXHAUST	STORM SHELTER	420	0.04	500	0.90	26 X 14	POTTORFF	EFD-245	1,2,3,4,5
L5	INTAKE	STORM SHELTER	420	0.04	500	0.90	26 X 14	POTTORFF	EFD-245	1,2,3,4,5

NOTES:

1. COORDINATE EXACT MOUNTING HEIGHT AND FINISH WITH ARCHITECT.
2. PROVIDE BIRD SCREEN.
3. LOUVER COLOR SHALL BE COORDINATED WITH ARCHITECT PRIOR TO ORDERING.
4. DUCTWORK CONNECTED DIRECTLY TO LOUVER SHALL SLOPE TOWARDS LOUVER 1% FOR FIRST 10 FT AFTER LOUVER.
5. PROVIDE WITH GRAVITY BACKDRAFT DAMPER.
6. PROVIDE WITH MOTORIZED BACKDRAFT DAMPER.
7. PROVIDE WITH 120V DAMPER ACTUATOR

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM

PROJECT CODE
31.00516

DRAWN BY: Author
CHECKED BY: Checker
DATE: 03/20/2024
ISSUED FOR PERMIT: 03/20/2024
ISSUED FOR PRICING: 03/20/2024

REVISIONS:

No.	Description	Date

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03/20/2024

SHEET DESCRIPTION:
MECHANICAL SCHEDULES

SHEET NO.
MZ602

GENERAL CONTROLS NOTES

1. PROVIDE MONITORING OF MISCELLANEOUS ALARMS AND CONTROLS AS LISTED. COORDINATE REQUIREMENTS FOR CONNECTION AND ALARM INTERFACE WITH THE CONTRACTOR FURNISHING AND INSTALLING THE MONITORED OR CONTROLLED EQUIPMENT.

GLOBAL POINTS LIST

	POINT ID	POINT DESCRIPTION	AI	AO	DO	DI	VI	UNITS
OUTDOOR AIR	SITE-OA-DBT	OUTDOOR AIR DRY-BULB TEMPERATURE	X					°F
	SITE-OA-RHM	OUTDOOR AIR RELATIVE HUMIDITY	X					% RH
	SITE-OA-CO2	OUTDOOR AIR CARBON DIOXIDE CONCENTRATION	X					PPM
FIRE ALARM SYSTEM	BLDG-FA	BUILDING FIRE ALARM	X					-
	BLDG-FAT	BUILDING FIRE ALARM TROUBLE	X					-

TYPICAL SPLIT SYSTEM POINTS LIST

EQUIPMENT ID	POINT ID	POINT DESCRIPTION	AO	AI	DO	DI	VI	SETPOINT	TREND	ALARM	UNITS
	SS-X-T	SPACE TEMPERATURE		X				72	X	X	F

1. SEPARATE THERMOSTAT IN ROOM FOR MONITORING ONLY.

MULTI-ZONE ROOF TOP UNIT WITH GAS HEAT POINTS LIST - RTU-1

DIAGRAM ID	POINT ID	POINT DESCRIPTION	AO	AI	DO	DI	VI	SETPOINT	MAX	MIN	UNITS
GLOBAL	SITE-OA-DBT	OUTDOOR AIR DRY-BULB TEMPERATURE		X							°F
	SITE-OA-RHM	OUTDOOR AIR RELATIVE HUMIDITY		X							% RH
	SITE-OA-CO2	OUTDOOR AIR CARBON DIOXIDE CONCENTRATION		X							PPM
	BLDG-OCC-MOD	OCCUPANCY MODE				X					OCC/UNOCC
OUTDOOR AIR FILTER BANK	AHU-X-OAFB-HPL	OUTDOOR AIR FILTER HIGH DIFFERENTIAL PRESSURE LIMIT				X					YES/NO
OUTDOOR AIR DAMPER	AHU-X-OAD-VFR	OUTDOOR AIR VOLUMETRIC FLOW RATE		X							CFM
	AHU-X-OAD-CTR	OUTDOOR AIR DAMPER POSITION CONTROL	X								% OPEN
	AHU-X-OAD-POS	OUTDOOR AIR DAMPER POSITION STATUS		X							% OPEN
MIXED AIR	AHU-X-MA-DBT	MIXED AIR DRY-BULB TEMPERATURE		X							°F
RETURN AIR	AHU-X-RA-DBT	RETURN AIR DRY-BULB TEMPERATURE		X							°F
	AHU-X-RA-RHM	RETURN AIR RELATIVE HUMIDITY		X							% RH
	AHU-X-RA-CO2	RETURN AIR CARBON DIOXIDE CONCENTRATION		X							PPM
	AHU-X-RA-SMK	RETURN AIR SMOKE DETECTION STATE				X					YES/NO
RETURN AIR FILTER BANK	AHU-X-RAFB-HPL	RETURN AIR FILTER HIGH DIFFERENTIAL PRESSURE LIMIT				X					YES/NO
RETURN AIR DAMPER	AHU-X-RAD-CTR	RETURN AIR DAMPER POSITION CONTROL	X								% OPEN
	AHU-X-RAD-POS	RETURN AIR DAMPER POSITION STATUS		X							% OPEN
SUPPLY AIR	AHU-X-SA-DBT	SUPPLY AIR DRY-BULB TEMPERATURE		X							°F
	AHU-X-SA-RHM	SUPPLY AIR RELATIVE HUMIDITY		X							% RH
	AHU-X-SA-SP	SUPPLY AIR STATIC PRESSURE		X				1	1.3	0.5	IN WC
SUPPLY AIR FAN	AHU-X-SAF-HPL	SUPPLY AIR FAN HIGH STATIC PRESSURE LIMIT				X					YES/NO
	AHU-X-SAF-VFR	SUPPLY AIR FAN VOLUMETRIC FLOW RATE		X							CFM
	AHU-X-SAF-CTR	SUPPLY AIR FAN SPEED CONTROL	X								HZ
	AHU-X-SAF-SPD	SUPPLY AIR FAN SPEED STATUS		X							% MAX
	AHU-X-SAF-FLT	SUPPLY AIR FAN FAULT STATE				X					YES/NO
	AHU-X-SAF-ST	SUPPLY AIR FAN RUN STATE				X					ON/OFF
	AHU-X-SAF-RUN	SUPPLY AIR FAN RUN-TIME					X				HR
GAS HEAT	AHU-X-GH-SG	GAS HEATING STAGE	X								%MAX
	AHU-X-GH-ST	GAS HEATING STATE				X					ON/OFF
ZONE	AHU-X-ZN-RHM	INDOOR AIR RELATIVE HUMIDITY		X							% RH
	AHU-X-ZN-BDP	BUILDING DIFFERENTIAL PRESSURE		X				0.05			IN H2O

1. Multizone RTU with Gas Heat and Economizer

Run Conditions - Requested:
The unit shall run whenever:
- Any zone is occupied.
- OR a definable number of unoccupied zones need heating or cooling.

Emergency Shutdown:
The unit shall shut down and generate an alarm upon receiving an emergency shutdown signal.

High Static Shutdown:
The unit shall shut down and generate an alarm upon receiving an high static shutdown signal.

Return Air Smoke Detection:
The unit shall shut down and generate an alarm upon receiving a return air smoke detector status.

RTU Optimal Start:
The unit shall start prior to scheduled occupancy based on the time necessary for the zones to reach their occupied setpoints. The start time shall automatically adjust based on changes in outside air temperature and zone temperatures.

Supply Fan:
The supply fan shall run anytime the unit is commanded to run, unless shutdown on safeties. To prevent short cycling, the supply fan shall have a user definable (adj.) minimum runtime.

Alarms shall be provided as follows:
- Supply Fan Failure: Commanded on, but the status is off.
- Supply Fan in Hand: Commanded off, but the status is on.
- Supply Fan Runtime Exceeded: Status runtime exceeds a user definable limit (adj.).

Supply Air Duct Static Pressure Control:
The controller shall measure duct static pressure and modulate the supply fan VFD speed to maintain a duct static pressure setpoint. The speed shall not drop below 30% (adj.). The static pressure setpoint shall be reset based upon the position of the zone dampers, with a goal of reducing the static pressure until at least one zone damper is nearly wide open.
- The initial duct static pressure setpoint shall be 1.5in H2O (adj.).
- If no zone damper is nearly wide open, the setpoint shall incrementally reset down to a minimum of 1.3in H2O (adj.).
- As one or more dampers nears the wide open position, the setpoint shall incrementally reset up to a maximum of 1.8in H2O (adj.).

Alarms shall be provided as follows:
- High Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) greater than setpoint.
- Low Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) less than setpoint.
- Supply Fan VFD Fault.

Supply Air Temperature Setpoint - Representative Building Loads Air Reset:
Implement a sequence that will allow the cold deck leaving air temperature to be reset to 70F (adjustable) if ALL the following conditions apply:

ALL zones served by the RTU are in heating mode (VAV electric reheat operating more than 25% (adjustable))

Outside air temperature is lower that 55F (adjustable)

If ANY zone temperature increases above cooling setpoint (see above), the RTU shall revert to normal operation.

Cooling Stages:
The controller shall measure the supply air temperature and stage the cooling to maintain its cooling setpoint. To prevent short cycling, there shall be a user definable (adj.) delay between stages, and each stage shall have a user definable (adj.) minimum runtime.

The cooling shall be enabled whenever:
- Outside air temperature is greater than 60°F (adj.).
- AND the economizer (if present) is disabled or fully open.
- AND the supply fan status is on.
- AND the heating (if present) is not active.

Alarms shall be provided as follows:
- High Supply Air Temp: If the supply air temperature is 5°F (adj.) greater than setpoint.

Gas Heating Stages:
The controller shall measure the supply air temperature and stage the heating to maintain its heating setpoint. To prevent short cycling, there shall be a user definable (adj.) delay between stages, and each stage shall have a user definable (adj.) minimum runtime.

The heating shall be enabled whenever:
- Outside air temperature is less than 60°F (adj.).
- AND the supply fan status is on.
- AND the cooling (if present) is not active.

The heating stages shall run for freeze protection whenever:
- Supply air temperature drops from 40°F to 35°F (adj.).
- AND the supply fan status is on.

Alarms shall be provided as follows:
- Low Supply Air Temp: If the supply air temperature is 5°F (adj.) less than setpoint.

Economizer:
The controller shall measure the mixed air temperature and modulate the economizer dampers in sequence to maintain a setpoint 2° F (adj.) less than the supply air temperature setpoint. The outside air dampers shall maintain a minimum adjustable position of 20% (adj.) open whenever occupied.

The economizer shall be enabled whenever:
- Outside air temperature is less than 65°F (adj.).
- AND the outside air enthalpy is less than 28 Btu/lb (adj.)
- AND the outside air temperature is less than the return air temperature.
- AND the outside air enthalpy is less than the return air enthalpy.
- AND the supply fan status is on.

The economizer shall close whenever:
- Mixed air temperature drops from 40°F to 35°F (adj.)
- OR the freezestat (if present) is on.
- OR on loss of supply fan status.

The outside and exhaust air dampers shall close and the return air damper shall open when the unit is off. If Optimal Start Up is available the mixed air damper shall operate as described in the occupied mode except that the outside air damper shall modulate to fully closed.

Minimum Outside Air Ventilation - Carbon Dioxide (CO2) Control:
When in the occupied mode, the controller shall measure the return air CO2 concentration and modulate the outside air dampers open on rising CO2 concentrations, overriding normal damper operation to maintain a CO2 setpoint of 750 ppm (adj.).

When the Kitchen Exhaust fan is energized, then the outside air dampers will open to maximum outside air allowable (see schedule).

Prefilter Differential Pressure Monitor:
The controller shall monitor the differential pressure across the prefilter.

Alarms shall be provided as follows:
- Prefilter Change Required: Prefilter differential pressure exceeds a user definable limit (adj.).

Mixed Air Temperature:
The controller shall monitor the mixed air temperature and use as required for economizer control (if present) or preheating control (if present).

Alarms shall be provided as follows:
- High Mixed Air Temp: If the mixed air temperature is greater than 90°F (adj.).
- Low Mixed Air Temp: If the mixed air temperature is less than 45°F (adj.).

Return Air Carbon Dioxide (CO2) Concentration Monitoring:
The controller shall measure the return air CO2 concentration.

Alarms shall be provided as follows:
- High Return Air Carbon Dioxide Concentration: If the return air CO2 concentration is greater than 1000ppm (adj.) when in the unit is running.

Return Air Humidity:
The controller shall monitor the return air humidity and use as required for economizer control (if present) or humidity control (if present).

Alarms shall be provided as follows:
- High Return Air Humidity: If the return air humidity is greater than 70% (adj.).
- Low Return Air Humidity: If the return air humidity is less than 35% (adj.).

Return Air Temperature:
The controller shall monitor the return air temperature and use as required for setpoint control or economizer control (if present).

Alarms shall be provided as follows:
- High Return Air Temp: If the return air temperature is greater than 90°F (adj.).
- Low Return Air Temp: If the return air temperature is less than 45°F (adj.).

Supply Air Temperature:
The controller shall monitor the supply air temperature.

Alarms shall be provided as follows:
- High Supply Air Temp: If the supply air temperature is greater than 70°F (adj.).
- Low Supply Air Temp: If the supply air temperature is less than 45°F (adj.).

1 DX MULTI-ZONE RTU WITH GAS HEAT
NONE

DRAWN BY: Author
CHECKED BY: Checker
DATE: 03/20/2024
ISSUED FOR PERMIT: 03/20/2024
ISSUED FOR PRICING: 03/20/2024

REVISIONS:

No.	Description	Date

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STATE OF TEXAS
ANDREW D. HUNTLEY
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LICENSED PROFESSIONAL ENGINEER
03/20/2024

SHEET DESCRIPTION:
MECHANICAL CONTROLS

SHEET NO.
MZ701

MEPCE
ENGINEERING FIRM F-4065
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM

PROJECT CODE
31.00516

MULTI-ZONE ROOF TOP UNIT WITH NO HEAT POINTS LIST - RTU-2

DIAGRAM ID	POINT ID	POINT DESCRIPTION	AO	AI	DO	DI	VI	SETPOINT	MAX	MIN	UNITS
GLOBAL	SITE-OA-DBT	OUTDOOR AIR DRY-BULB TEMPERATURE		X							°F
	SITE-OA-RHM	OUTDOOR AIR RELATIVE HUMIDITY		X							% RH
	SITE-OA-CO2	OUTDOOR AIR CARBON DIOXIDE CONCENTRATION		X							PPM
	BLDG-OCC-MOD	OCCUPANCY MODE				X					OCC/UNOCC
OUTDOOR AIR FILTER BANK	AHU-X-OAFB-HPL	OUTDOOR AIR FILTER HIGH DIFFERENTIAL PRESSURE LIMIT				X					YES/NO
OUTDOOR AIR DAMPER	AHU-X-OAD-VFR	OUTDOOR AIR VOLUMETRIC FLOW RATE		X							CFM
	AHU-X-OAD-CTR	OUTDOOR AIR DAMPER POSITION CONTROL	X								% OPEN
	AHU-X-OAD-POS	OUTDOOR AIR DAMPER POSITION STATUS		X							% OPEN
MIXED AIR	AHU-X-MA-DBT	MIXED AIR DRY-BULB TEMPERATURE		X							°F
RETURN AIR	AHU-X-RA-DBT	RETURN AIR DRY-BULB TEMPERATURE		X							°F
	AHU-X-RA-RHM	RETURN AIR RELATIVE HUMIDITY		X							% RH
	AHU-X-RA-CO2	RETURN AIR CARBON DIOXIDE CONCENTRATION		X							PPM
	AHU-X-RA-SMK	RETURN AIR SMOKE DETECTION STATE				X					YES/NO
RETURN AIR FILTER BANK	AHU-X-RAFB-HPL	RETURN AIR FILTER HIGH DIFFERENTIAL PRESSURE LIMIT				X					YES/NO
RETURN AIR DAMPER	AHU-X-RAD-CTR	RETURN AIR DAMPER POSITION CONTROL	X								% OPEN
	AHU-X-RAD-POS	RETURN AIR DAMPER POSITION STATUS		X							% OPEN
SUPPLY AIR	AHU-X-SA-DBT	SUPPLY AIR DRY-BULB TEMPERATURE		X							°F
	AHU-X-SA-RHM	SUPPLY AIR RELATIVE HUMIDITY		X							% RH
	AHU-X-SA-SP	SUPPLY AIR STATIC PRESSURE		X				1	1.3	0.5	IN WC
SUPPLY AIR FAN	AHU-X-SAF-HPL	SUPPLY AIR FAN HIGH STATIC PRESSURE LIMIT				X					YES/NO
	AHU-X-SAF-VFR	SUPPLY AIR FAN VOLUMETRIC FLOW RATE		X							CFM
	AHU-X-SAF-CTR	SUPPLY AIR FAN SPEED CONTROL	X								HZ
	AHU-X-SAF-SPD	SUPPLY AIR FAN SPEED STATUS		X							% MAX
	AHU-X-SAF-FLT	SUPPLY AIR FAN FAULT STATE				X					YES/NO
	AHU-X-SAF-ST	SUPPLY AIR FAN RUN STATE				X					ON/OFF
	AHU-X-SAF-RUN	SUPPLY AIR FAN RUN-TIME					X				HR
ZONE	AHU-X-ZN-RHM	INDOOR AIR RELATIVE HUMIDITY		X							% RH
	AHU-X-ZN-BDP	BUILDING DIFFERENTIAL PRESSURE		X				0.05			IN H2O

1. Variable Air Volume - MZ - NO HEAT - RTU (typical of 1)

Run Conditions - Requested:
The unit shall run whenever:
- Any zone is occupied.
- OR a definable number of unoccupied zones need heating or cooling.

Emergency Shutdown:
The unit shall shut down and generate an alarm upon receiving an emergency shutdown signal.

High Static Shutdown:
The unit shall shut down and generate an alarm upon receiving an high static shutdown signal.

Return Air Smoke Detection:
The unit shall shut down and generate an alarm upon receiving a return air smoke detector status.

RTU Optimal Start:
The unit shall start prior to scheduled occupancy based on the time necessary for the zones to reach their occupied setpoints. The start time shall automatically adjust based on changes in outside air temperature and zone temperatures.

Supply Fan:
The supply fan shall run anytime the unit is commanded to run, unless shutdown on safeties. To prevent short cycling, the supply fan shall have a user definable (adj.) minimum runtime.

Alarms shall be provided as follows:
- Supply Fan Failure: Commanded on, but the status is off.
- Supply Fan in Hand: Commanded off, but the status is on.
- Supply Fan Runtime Exceeded: Status runtime exceeds a user definable limit (adj.).

Supply Air Duct Static Pressure Control:
The controller shall measure duct static pressure and modulate the supply fan VFD speed to maintain a duct static pressure setpoint. The speed shall not drop below 30% (adj.). The static pressure setpoint shall be reset based upon the position of the zone dampers, with a goal of reducing the static pressure until at least one zone damper is nearly wide open.
- The initial duct static pressure setpoint shall be 1.5in H2O (adj.).
- If no zone damper is nearly wide open, the setpoint shall incrementally reset down to a minimum of 1.3in H2O (adj.).
- As one or more dampers nears the wide open position, the setpoint shall incrementally reset up to a maximum of 1.8in H2O (adj.).

Alarms shall be provided as follows:
- High Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) greater than setpoint.
- Low Supply Air Static Pressure: If the supply air static pressure is 25% (adj.) less than setpoint.
- Supply Fan VFD Fault.

Supply Air Temperature Setpoint - Representative Building Loads Air Reset:
Implement a sequence that will allow the cold deck leaving air temperature to be reset to 70F (adjustable) if ALL the following conditions apply:

ALL zones served by the RTU are in heating mode (VAV electric reheat operating more than 25% (adjustable))

Outside air temperature is lower that 55F (adjustable)

If ANY zone temperature increases above cooling setpoint (see above), the RTU shall revert to normal operation.

Cooling Stages:
The controller shall measure the supply air temperature and stage the cooling to maintain its cooling setpoint. To prevent short cycling, there shall be a user definable (adj.) delay between stages, and each stage shall have a user definable (adj.) minimum runtime.

The cooling shall be enabled whenever:
- Outside air temperature is greater than 60°F (adj.).
- AND the economizer (if present) is disabled or fully open.
- AND the supply fan status is on.
- AND the heating (if present) is not active.

Alarms shall be provided as follows:
- High Supply Air Temp: If the supply air temperature is 5°F (adj.) greater than setpoint.

Low Supply Air Temperature Alarm:
The controller shall alarm if the supply air temperature is less than 45°F (adj.).

Economizer:
The controller shall measure the mixed air temperature and modulate the economizer dampers in sequence to maintain a setpoint 2° F (adj.) less than the supply air temperature setpoint. The outside air dampers shall maintain a minimum adjustable position of 20% (adj.) open whenever occupied.

The economizer shall be enabled whenever:
- Outside air temperature is less than 65°F (adj.).
- AND the outside air enthalpy is less than 28 Btu/lb (adj.)
- AND the outside air temperature is less than the return air temperature.
- AND the outside air enthalpy is less than the return air enthalpy.
- AND the supply fan status is on.

The economizer shall close whenever:
- Mixed air temperature drops from 40°F to 35°F (adj.)
- OR the freezestat (if present) is on.
- OR on loss of supply fan status.

The outside and exhaust air dampers shall close and the return air damper shall open when the unit is off. If Optimal Start Up is available the mixed air damper shall operate as described in the occupied mode except that the outside air damper shall modulate to fully closed.

Minimum Outside Air Ventilation - Carbon Dioxide (CO2) Control:
When in the occupied mode, the controller shall measure the return air CO2 concentration and modulate the outside air dampers open on rising CO2 concentrations, overriding normal damper operation to maintain a CO2 setpoint of 750 ppm (adj.).

Prefilter Differential Pressure Monitor:
The controller shall monitor the differential pressure across the prefilter.

Mixed Air Temperature:
The controller shall monitor the mixed air temperature and use as required for economizer control (if present) or preheating control (if present).

Alarms shall be provided as follows:
- High Mixed Air Temp: If the mixed air temperature is greater than 90°F (adj.).
- Low Mixed Air Temp: If the mixed air temperature is less than 45°F (adj.).

Return Air Carbon Dioxide (CO2) Concentration Monitoring:
The controller shall measure the return air CO2 concentration.

Alarms shall be provided as follows:
- High Return Air Carbon Dioxide Concentration: If the return air CO2 concentration is greater than 1000ppm (adj.) when in the unit is running.

Return Air Humidity:
The controller shall monitor the return air humidity and use as required for economizer control (if present) or humidity control (if present).

Alarms shall be provided as follows:
- High Return Air Humidity: If the return air humidity is greater than 70% (adj.).
- Low Return Air Humidity: If the return air humidity is less than 35% (adj.).

Return Air Temperature:
The controller shall monitor the return air temperature and use as required for setpoint control or economizer control (if present).

Alarms shall be provided as follows:
- High Return Air Temp: If the return air temperature is greater than 90°F (adj.).
- Low Return Air Temp: If the return air temperature is less than 45°F (adj.).

Supply Air Temperature:
The controller shall monitor the supply air temperature.

Alarms shall be provided as follows:
- High Supply Air Temp: If the supply air temperature is greater than 120°F (adj.).
- Low Supply Air Temp: If the supply air temperature is less than 45°F (adj.).

2 DX MULTI-ZONE RTU WITH NO HEAT
NONE

DRAWN BY: Author
CHECKED BY: Checker
DATE: 03/20/2024
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CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.

STATE OF TEXAS
ANDREW D. HUNTLEY
149586
LICENSED
PROFESSIONAL ENGINEER
03/20/2024

SHEET DESCRIPTION:
MECHANICAL CONTROLS

SHEET NO.
MZ702

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM
PROJECT CODE
31.00516

PURGE EXHAUST FAN POINTS LIST

GROUP	POINT ID	POINT DESCRIPTION	AO	AI	DO	DI	UNITS
SENSORS	CO-X-LVL	CARBON MONOXIDE (EACH SENSOR)		X			PPM
	NO2-X-LVL	NITROGEN DIOXIDE LEVEL (EACH SENSOR)		X			PPM
	RHM-X-LVL	RELATIVE HUMIDITY SENSOR (EACH SENSOR)		X			%RH
FAN	EF-X-ST	FAN STATUS (EACH FAN)				X	ON/OFF
	EF-X-CMD	FAN START/STOP COMMAND (EACH FAN)			X		ON/OFF
	EF-X-SPD	FAN VFD SPEED (EACH FAN)			X		% OF MAX
DAMPER	MD-X-ST	MOTORIZED DAMPER STATUS				X	OPEN/CLOSED

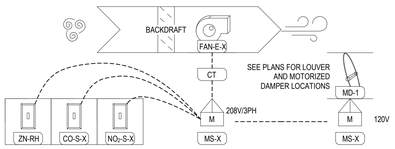
PURGE EXHAUST FAN SEQUENCE OF OPERATION

RUN CONDITIONS - STANDALONE:
1. THE FAN SHALL RUN ANY TIME IT RECEIVES AN ALARM SIGNAL FROM THE CO MONITORS OR THE NO2 MONITORS. REFER TO MANUFACTURER FOR APPROPTIATE CO AND NO2 PPM LEVELS.
2. THE FAN SHALL RUN ANY TIME THE HUMIDISTAT SENSERS A RELATIVE HUMIDITY GREATER THAN 50% WHILE THE RADIANT HEATERS ARE FIRING.

FAN STATUS:
THE CONTROLLER SHALL MONITOR THE FAN STATUS.
ALARMS SHALL BE PROVIDED AS FOLLOWS:
1. FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
2. FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.

MOTORIZED DAMPERS:
ANY TIME THE EXHAUST FAN ENERGIZES THE MOTORIZED DAMPERS SHALL OPEN.

APPARATUS BAY 1:
EF-1 SHALL ENERGIZE WITH MOTORIZED DAMPER ATTACHED TO LOUVER L1 & L2.



2 PURGE EXHAUST FAN CONTROL DIAGRAM
NTS

AIR TERMINAL UNIT POINTS LIST

EQUIPMENT ID	POINT ID	POINT DESCRIPTION	AO	AI	DO	DI	VI	SETPOINT	MAX	MIN	UNITS
PRIMARY AIR	ATU-X-PA-VFR	PRIMARY AIR VOLUMETRIC FLOW RATE		X							CFM
SUPPLY AIR	ATU-X-SA-DBT	SUPPLY AIR DRY-BULB TEMPERATURE		X							°F
PRIMARY AIR DAMPER	ATU-X-PAD-CTR	PRIMARY AIR DAMPER POSITION CONTROL	X								% OPEN
	ATU-X-PAD-POS	PRIMARY AIR DAMPER POSITION STATUS		X							% OPEN
ELECTRIC HEATING	ATU-X-EH-CTR	ELECTRIC HEATING	X								% OF MAX
ZONE	ATU-X-ZN-T	ZONE INDOOR AIR DRY-BULB TEMPERATURE		X							°F

VAV TERMINAL UNIT SEQUENCE OF OPERATION

A. GENERAL DESCRIPTION: THIS SEQUENCE DESCRIBES OPERATION OF THE VARIABLE AIR VOLUME TERMINAL UNIT WITH REHEAT COIL. ALL SETPOINTS SHALL BE ADJUSTABLE FROM THE BUILDING AUTOMATION SYSTEM. OCCUPANCY AND OCCUPANCY BYPASS MODES SHALL BE INTEGRATED AS DESCRIBED IN THE SPECIFICATIONS.

B. SETPOINTS: SETPOINTS FOR THE SYSTEM SHALL BE DETERMINED AS FOLLOWS:
a. SPACE TEMPERATURE SETPOINT FOR COOLING MODE: 75 DEG F (ADJ.).
b. SPACE TEMPERATURE SETPOINT FOR HEATING MODE: 70 DEG F (ADJ.).

C. SYSTEM OFF: WHEN THE SYSTEM IS OFF:
a. VAV TERMINAL UNIT AIR DAMPER SHALL BE OPEN 50%.
b. ELECTRIC REHEAT COIL SHALL BE OFF.

D. INITIATION OF SYSTEM STARTUP: THE SYSTEM SHALL BE STARTED BY ANY OF THE FOLLOWING
a. MANUALLY BY AN OPERATOR ENTERED COMMAND.
b. AUTOMATICALLY BY THE BUILDING AUTOMATION SYSTEM.

E. VAV TERMINAL UNIT START SEQUENCE: THE SYSTEM SHALL BE STARTED IN THE FOLLOWING SEQUENCE:
a. REHEAT COIL MODULATES IF REHEAT IS REQUIRED TO MEET TEMPERATURE SETPOINT.

F. VAV TERMINAL UNIT STOP SEQUENCE: THE SYSTEM SHALL BE STOPPED IN THE FOLLOWING SEQUENCE:
a. TURN REHEAT COIL OFF.
b. VAV TERMINAL UNIT AIR DAMPER SHALL BE OPEN 50%.

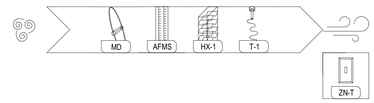
G. VAV TERMINAL UNIT OPERATION:
a. THE PRIMARY AIR DAMPER SHALL BE OPEN TO THE POSITION NECESSARY TO MAINTAIN FULL COOLING CFM WHEN THE ZONE SENSOR IS CALLING FOR FULL COOLING. AS THE COOLING DEMAND DECREASES, THE PRIMARY AIR DAMPER WILL MODULATE CLOSED TO THE MINIMUM OCCUPIED AIRFLOW (AS SCHEDULED) UNTIL THE LOAD IS SATISFIED. IF THE PRIMARY AIR DAMPER MODULATES TO THE MINIMUM SCHEDULED OPEN POSITION AND THE ZONE SENSOR IS CALLING FOR INCREASED ZONE TEMPERATURE, THE REHEAT COIL SHALL MODULATE TO ALLOW SPACE HEATING.
b. IN HEATING MODE, IF THE SUPPLY AIR TEMPERATURE REACHES 85 DEG (ADJ) AND THE ZONE SENSOR STILL CALLS FOR INCREASED ZONE TEMPERATURE, THE DAMPER SHALL MODULATE TO INCREASE AIRFLOW UP TO THE SCHEDULED HEATING MAXIMUM AIRFLOW.

H. VAV TERMINAL UNIT OPERATION WHEN KITCHEN HOOD ENERGIZES:
a. VAV-1-3 WILL OPEN TO 100%.
b. ALL VAV BOXES SHALL BE OPEN TO ATLEAST MINIMUM AIRFLOW DAMPER POSITION.

I. INITIATION FOR SYSTEM SHUTDOWN: THE VAV UNIT SHUTDOWN SHALL BE INITIATED BY ANY OF THE FOLLOWING:
a. MANUALLY BY AN OPERATOR ENTERED COMMAND AT BAS.
b. AUTOMATICALLY BY THE BAS.
c. AUTOMATICALLY BY ANY ALARM CONDITIONS AS DESCRIBED BELOW.

J. SYSTEM SHUT DOWN PROCEDURE:
a. POWER FAILURE: WHEN A POWER FAILURE OR BAS COMPONENT FAILURE OCCURS:
1. THE PRIMARY AIR DAMPER SHALL REMAIN AT THE LAST COMMANDED STATE. .
2. THE REHEAT COIL SHALL REMAIN AT THE LAST COMMANDED STATE.
b. LOSS OF COMMUNICATION: WHEN A COMMUNICATIONS LOSS OCCURS:
1. IF A LOCAL FIELD CONTROLLER LOSES COMMUNICATION WITH THE BAS NETWORK, AN ALARM SHALL BE GENERATED AT THE OPERATOR WORKSTATION INDICATING A LOSS OF COMMUNICATION WITH THE FIELD CONTROLLER.

K. BAS ALARMS: THE BAS SHALL GENERATE AN ALARM FOR THE FOLLOWING CONDITIONS:
a. IF SUPPLY AIR TEMPERATURE IS ABOVE 100 DEG F (ADJ) FOR 15 MIN (ADJ.).
b. IF SPACE TEMPERATURE SETPOINT HAS NOT BEEN SATISFIED FOR 30 MINS (ADJ).
c. IF A FIELD CONTROLLER LOSES COMMUNICATION WITH THE BAS NETWORK.



1 VAV SINGLE DUCT BOX WITH ELECTRIC REHEAT
NTS

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM

PROJECT CODE
31.00516

DRAWN BY: Author
CHECKED BY: Checker
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SHEET DESCRIPTION:
MECHANICAL CONTROLS

SHEET NO.
MZ703

ABBREVIATIONS

AD	AREA DRAIN
AP	ACCESS PANEL
BF	BOTTLE FILLER
CO	CLEANOUT
CTE	CONNECT TO EXISTING
CW	COLD WATER
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DYCO	DOUBLE YARD CLEANOUT
EL or ELV	ELEVATION
EWC	ELECTRICAL WATER COOLER
FCO	FLOOR CLEANOUT
FF	FINISHED FLOOR
FLR	FLOOR
FT	FOOT or FEET
FV	FLUSH VALVE
GCO	GROUND CLEANOUT
GI	GREASE INTERCEPTOR
GPM	GALLONS PER MINUTE
HB	HOSE BIB
HD	HUB DRAIN
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
INV	INVERT
IW	INDIRECT WASTE
L	LAVATORY
MECH	MECHANICAL
MSB	MOP SERVICE BASIN
NC	NORMALLY CLOSED
NFRH	NON-FREEZE ROOF HYDRANT
NFWH	NON-FREEZE WALL HYDRANT
NO	NORMALLY OPEN
OD	OVERFLOW DRAIN
OED	OPEN END DRAIN
OI	OIL INTERCEPTOR
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PSI	POUNDS PER SQUARE INCH
RPBP	REDUCED PRESSURE BACKFLOW PREVENTOR
RPZ	REDUCED PRESSURE ZONE
SA	SHOCK ABSORBER
SHW	SHOWER
S	SINK
SS	SANITARY SEWER
TLT	TOILET
TW	TEMPERED WATER
TYP	TYPICAL
U	URINAL
V	VENT
VB	VACUUM BREAKER
VS	VENT STACK
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WATER FILTER
WH	WALL HYDRANT
WS	WASTE STACK

PLUMBING GENERAL NOTES

1. THE PLUMBING LAYOUT SHOWN ON THESE DRAWINGS ARE SCHEMATIC ONLY. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE CONDITIONS AT THE JOB SITE AND ALL THE OTHER TRADES INVOLVED.
2. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY PIPING, FITTINGS, VALVES, HARDWARE, SUPPORTS AND ACCESSORIES REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF ALL THE PLUMBING FIXTURES AS REQUIRED BY CODE, (INCLUDING ALL HANDICAPPED CODE AND "ADA" & "TAS" REQUIREMENTS.)
3. DO NOT SCALE LOCATIONS OR PARTITIONS FROM THIS DRAWING. THE CONTRACTOR SHALL REFER TO THE MANUFACTURER'S CUT-SHEETS, ROUGHING-IN DIMENSIONS, ARCHITECTURAL DRAWINGS, DETAILS, SPECIFICATIONS AND ALL OTHER INFORMATION RELATED TO THIS PROJECT, AS REQUIRED.
4. ALL NEW PIPING SHALL BE INSULATED AS PER SPECIFICATIONS.
5. THE CONTRACTOR SHALL COORDINATE ALL THE FLOOR AND PARTITION PENETRATIONS WITH JOISTS, GRADE BEAMS AND SLEEVES AS REQUIRED WITH STRUCTURAL ENGINEER BEFORE DRILLING OR CORE-BORING.
6. THE CONTRACTOR SHALL SEAL ALL PENETRATIONS WITH A CODE APPROVED FIRE RATED MATERIAL AS REQUIRED TO MAINTAIN THE FIRE SEPARATION BETWEEN FLOORS/ROOF REQUIRED BY THE ARCHITECTURAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND FIRE BARRIER LOCATIONS.
7. THE CONTRACTOR SHALL COORDINATE ANY MODIFICATIONS TO THE PARTITIONS, WALLS OR LAYOUT REQUIRED FOR THE INSTALLATION OF THE PLUMBING FIXTURES WITH THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE NEW WORK AND INSTALLATION.
8. THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S SPECIFICATIONS AND CUT-SHEETS FOR ALL THE FIXTURES, FITTINGS AND COMPONENTS AS REQUIRED FOR FINAL APPROVAL BY THE ENGINEER BEFORE PURCHASING OR INSTALLING THEM.
9. THE FIXTURE SPECIFICATIONS (MANUFACTURER, MODEL, COLOR, TRIMS, ETC.) SHALL BE AS PER THE ARCHITECTS/ENGINEERS DRAWINGS AND SCHEDULES/SPECIFICATIONS.
10. THE CONTRACTOR SHALL TEST ALL NEW PIPING AND FIXTURES FOR PROPER OPERATION AND SHALL MAKE ALL NECESSARY REPAIRS AS REQUIRED TO PROVIDE A COMPLETE WORKING SYSTEM.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL THE AREAS AFFECTED BY HIS WORK TO THEIR ORIGINAL CONDITION AS REQUIRED BY THE ARCHITECT OR ENGINEER.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE JOB-SITE AS REQUIRED BY THE LOCAL CODES AND REGULATIONS AND AS REQUIRED BY THE STATE.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING, PERMITTING, AND CONDUCTING ALL THE INSPECTIONS AND TESTS REQUIRED BY THE LOCAL CODES, REGULATIONS AND AS REQUIRED BY THE STATE REPRESENTATIVE OR COMMISSIONING SPECIFICATIONS. CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE OF COMMISSIONING INSPECTION TO ARCHITECT OR ENGINEER.
14. ALL WORK AND INSTALLATION SHALL BE DONE BY A LICENSED CONTRACTOR WITH EXPERIENCE IN THE WORK REQUIRED FOR THIS PROJECT.
15. ALL WORK SHALL COMPLY WITH THE 2018 INTERNATIONAL BUILDING CODE (2018 IBC), 2018 INTERNATIONAL PLUMBING CODE (2018 IPC), 2018 INTERNATIONAL FUEL GAS CODE (2018 IFGC), 2018 INTERNATIONAL ENERGY CONSERVATION CODE (2018 IECC) AND ALL OTHER CODES AS MAY BE APPLICABLE WITHIN THE CITY OF AUBREY.
16. ALL EQUIPMENT SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS. NO WEIGHT CAN BE PLACED ON THE ROOFING MATERIALS OR INSULATION.
17. CONTRACTOR SHALL SAW-CUT ALL SLAB PENETRATIONS AND ENSURE THAT THEY ARE PROPERLY SEALED AND REMAIN WATERTIGHT.
18. CONTRACTOR SHALL ENSURE THAT ALL SLAB PENETRATIONS WITHIN THE SPACE ARE PROPERLY SEALED AND REMAIN WATERTIGHT.
19. ALL PIPING, CLAMPS, SUPPORTS, ETC. SHALL BE FASTENED TO JOISTS OR BEAMS. DO NOT ATTACH ANYTHING DIRECTLY TO THE DECK, CEILING SUPPORT SYSTEM OR DUCTWORK ABOVE.
20. CONTRACTOR SHALL PROVIDE FLOOR OR WALL CLEANOUTS AS PER THE IPC, AND LOCAL REQUIREMENTS, IN ADDITION TO THOSE SHOWN ON THE DRAWINGS.
21. CONFIRM ALL VENT THROUGH ROOFS ARE LOCATED A MINIMUM 10'-0" FROM ANY OUTSIDE AIR INTAKE.
22. ALL EXPOSED WASTE AND VENT PIPING SHALL BE CAST IRON.
23. ALL PIPING, VALVES, FITTINGS AND FIXTURES IN CONTACT WITH DOMESTIC WATER SHALL BE LEAD-FREE.
24. CONTRACTOR SHALL FURNISH AND INSTALL A PRESSURE REDUCING VALVE (PRV) IN THE POTABLE WATER LINE IF THE STREET PRESSURE IS 80 PSIG OR GREATER. THE DOWNSTREAM PRESSURE AFTER THE PRV SHALL BE INITIALLY SET FOR 50 PSIG (ADJUSTABLE). SEE SPECIFICATIONS.
25. ALL PIPING WITHIN A RETURN AIR PLENUM SHALL BE PLENUM RATED.
26. CONTRACTOR SHALL BID EQUIPMENT IN SCHEDULE AS BASIS OF DESIGN. ALTERNATE EQUIPMENT BY ACCEPTABLE MANUFACTURERS MEETING PERFORMANCE REQUIREMENTS MAY BE REVIEWED BY DESIGN TEAM AND OWNER RESULTING IN A CREDIT IF USED.
27. IN THESE DOCUMENTS, "FURNISH" SHALL MEAN TO SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION AND SIMILAR OPERATIONS. "INSTALL" SHALL MEAN TO UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN, AND SIMILAR OPERATIONS AT THE PROJECT SITE. "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.
28. PLUMBING SHOP DRAWINGS SHALL BE PROVIDED TO, REVIEWED BY, AND APPROVED BY THE ENGINEER PRIOR TO ANY PIPING INSTALLATION. PLUMBING SHOP DRAWINGS SHALL INDICATE THE ACTUAL SIZE OF EACH SECTION OF PIPE AND ALL REQUIRED FITTINGS AND TRANSITIONS.

CONTRACTOR TO PROVIDE DELEGATED DESIGN AND TURN-KEY UNDER-SLAB PIPING HANGER AND SUPPORT SYSTEM FOR STRUCTURAL SLAB WITH VOID FORMS. PLUMBING HANGER AND SUPPORT SYSTEM SHALL BE AN ISOLATED PLUMBING HANGER AND SUPPORT SYSTEM THAT FULLY SUSPENDS THE PIPING A MINIMUM HEIGHT ABOVE EXPECTED MAXIMUM SOIL EXPANSION, BELOW THE BUILDING'S FOUNDATION. PIPING SHALL NOT COME INTO CONTACT WITH ANY SOIL BELOW SLAB. WHERE EXITING THE BUILDING, CONTRACTOR MUST INCLUDE PROVISIONS FOR SOIL MOVEMENT TO PREVENT DAMAGE TO PIPING. DELEGATED DESIGN MUST INCLUDE SHOP DRAWINGS OF SANITARY SYSTEM LAYOUT WITH DETAILS FOR HANGERS AND SUPPORTS SIGNED BY AN ENGINEER LICENSED IN THE STATE OF TEXAS.

PLUMBING LEGEND

PIPING SYSTEMS

CD	CONDENSATE DRAIN	HW	HOT WATER
CW	COLD WATER	HWR	HOT WATER RETURN
G	NATURAL GAS	ORD	OVERFLOW ROOF DRAIN
GW	GREASE WASTE	RD	ROOF DRAIN
OW	OIL WATER	SS	SANITARY SEWER (WASTE)
		V	VENT

SYMBOLS AND ACCESSORIES

	ELBOW UP	GCO	GRADE CLEANOUT
	ELBOW DOWN	YCO	YARD CLEANOUT
	TEE UP	DYCO	DOUBLE YARD CLEANOUT
	TEE DOWN	WCO	WALL CLEANOUT
	CAP	FD	FLOOR DRAIN
	NON-FREEZE WALL HYDRANT	FS	FLOOR SINK
ORD	ROOF DRAIN		SANITARY WYE
RD	OVERFLOW ROOF DRAIN		SANITARY CROSS
	DOWNSPOUT NOZZLE		CONNECT TO EXISTING
	REDUCED PRESSURE ZONE BACKFLOW PREVENTER	X / PX.XX	DETAIL NUMBER / DETAIL CALL-OUT / SHEET NUMBER
	SHUT-OFF VALVE	X / MX.X	PLAN NUMBER / ENLARGED PLAN CALL-OUT / SHEET NUMBER
	FLOW ARROW		PLUMBING EQUIPMENT PATTERN
VTR	VENT THROUGH ROOF		
	DEMOLITION		
	EXISTING TO REMAIN		

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM

PROJECT CODE
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DRAWN BY: Author
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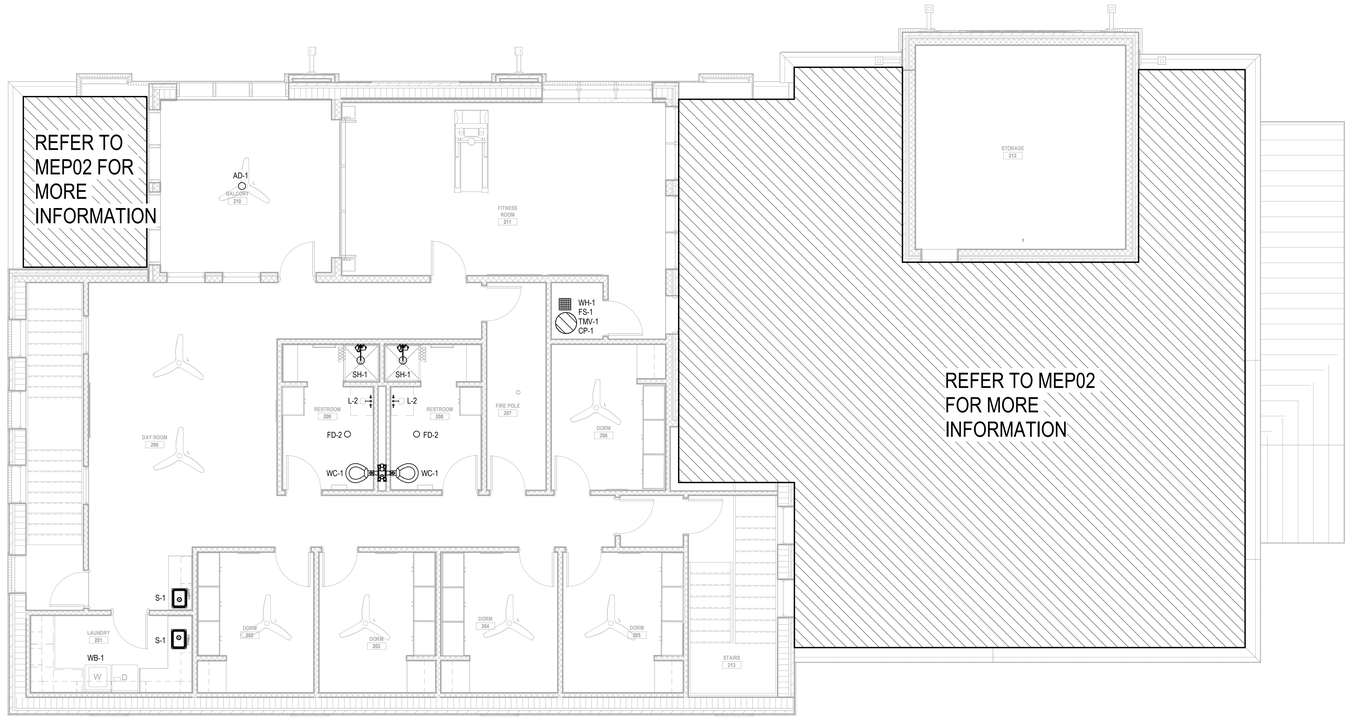
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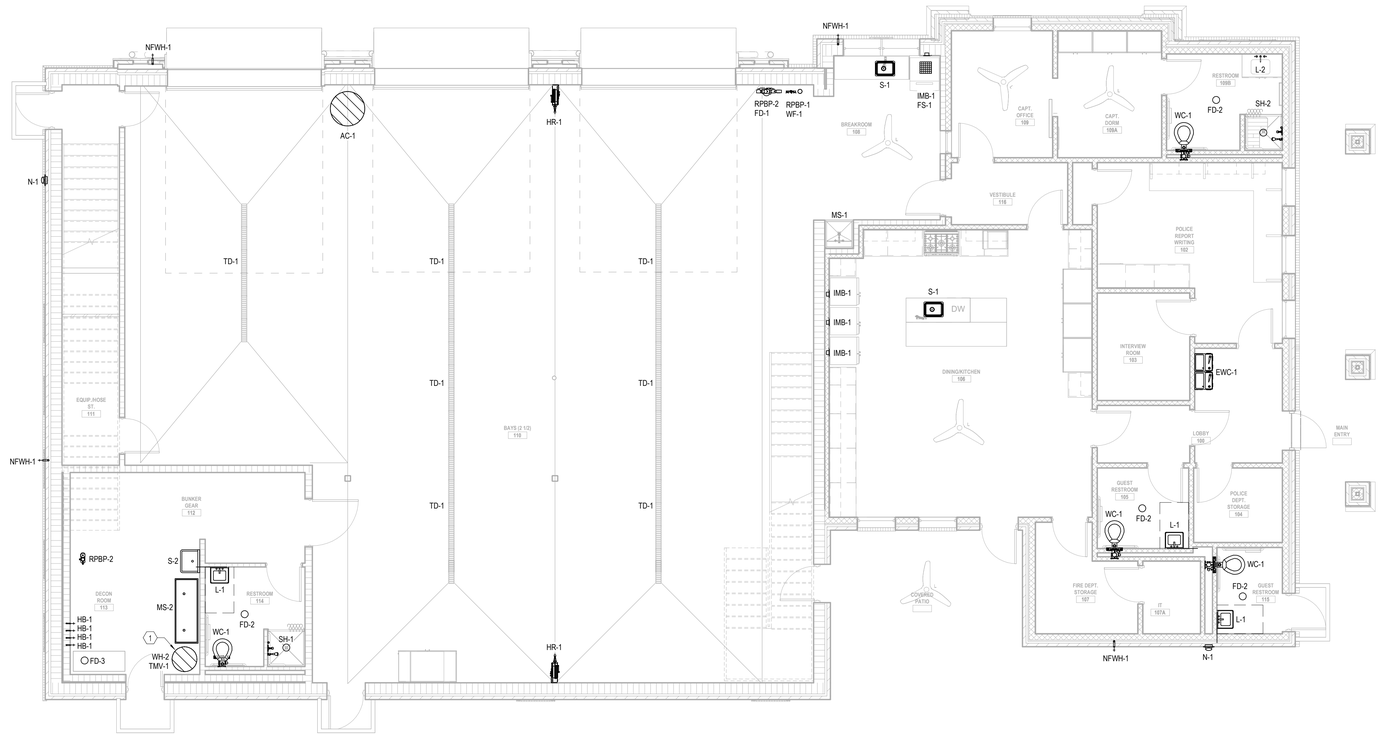
SHEET DESCRIPTION:
PLUMBING GENERAL NOTES AND LEGEND

SHEET NO.
P-001



2 ANNOTATION PLUMBING PLAN - LEVEL 2

3/16" = 1'-0"



1 ANNOTATION PLUMBING PLAN - LEVEL 1

3/16" = 1'-0"

PLAN NOTES

A. REFER TO WASTE AND VENT RISER DIAGRAM FOR VISUAL REPRESENTATION.

B. CONTRACTOR SHALL FIELD COORDINATE ALL CONDITIONS WITH ALL DISCIPLINES AND ADJUST PIPING LAYOUT AS NECESSARY.

C. REFER TO GENERAL PLUMBING SCHEDULE FOR SANITARY SEWER AND VENT CONNECTION SIZES.

D. PROVIDE P-TRAPS FOR ALL PLUMBING FIXTURES AND DRAINS AS REQUIRED BY CODE.

E. PROVIDE P-TRAPS WITH CLEANOUT PLUGS FOR ALL SINK/LAVATORY FIXTURES.

F. ALL ROOF DRAIN AND OVERFLOW ROOF DRAIN PIPING SHALL BE INSULATED. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

G. PROVIDE WYE FITTINGS AND LONG RADIUS ELBOWS FOR ALL WASTE, ROOF DRAIN AND OVERFLOW ROOF DRAIN PIPING.

H. CONNECT CONDENSATE PIPING TO EACH GFU/FCU. FURNISH VENTED P-TRAP PRIOR TO EACH CONNECTION.

I. TERMINATE WATER HEATER TEMPERATURE RELIEF VALVE WASTE TWO PIPE DIAMETERS ABOVE FLOOD RIM OF NEARBY DRAIN.

J. TERMINATE REDUCED PRESSURE ZONE BACKFLOW PREVENTER WASTE TWO PIPE DIAMETERS ABOVE FLOOD RIM OF NEARBY DRAIN.

K. CONTRACTOR SHALL FIELD COORDINATE ALL CONDITION WITH ALL DISCIPLINES AND ADJUST PIPING LAYOUT AS NECESSARY.

L. PROVIDE 8"X8" ACCESS PANELS FOR ALL SHUT-OFF VALVES LOCATED ABOVE INACCESSIBLE CEILINGS OR CONCEALED WITHIN WALLS. COORDINATE WITH ARCHITECT FOR FINAL FINISHES.

M. PIPE 1/2" COLD WATER AND HOT WATER IN WALL TO EACH SINK/LAVATORY/SHOWER/WASHING MACHINE WALL BOX. PIPE 1" COLD WATER IN WALL TO EACH WATER CLOSET. PIPE 1/2" COLD WATER DOWN IN WALL TO EACH ELECTRIC WATER COOLER/ICE MAKER BOX. PIPE 3/4" COLD WATER DOWN IN WALL TO EACH NON-FREEZE WALL HYDRANT. PIPE 3/4" COLD WATER AND HOT WATER IN WALL TO EACH MOP SINK. REFER TO NOTES BY SYMBOL AND NOTES ON SHEET FOR ALL OTHER WATER DISTRIBUTION INSTRUCTIONS.

N. ALL PIPING SHALL BE CONCEALED ABOVE CEILING UNLESS IN A MECHANICAL ROOM.

O. PROVIDE ESCUTCHEONS AT ALL PIPE PENETRATIONS THROUGH WALLS THAT ARE VISIBLE BELOW CEILINGS OR IN OPEN TO DECK AREAS OF NORMALLY OCCUPIED SPACES.

P. INSULATED PIPING SHALL BE CONTINUOUS THROUGH WALLS/FLOORS ETC TO PREVENT CONDENSATION. ALL INSULATED PIPING PENETRATIONS SHALL BE SLEEVED.

Q. FURNISH QUARTER TURN BALL VALVES ON ALL DOMESTIC HOT AND COLD WATER BRANCH LINES SERVING FIXTURES.

R. PROVIDE WATTS LF009 REDUCED PRESSURE ZONE BACKFLOW PREVENTER PRIOR TO DOMESTIC COLD WATER ICE MACHINE CONNECTIONS.

S. PROVIDE WATER FILTER AT ALL COLD WATER LINES SERVING ELECTRIC WATER COOLERS, COFFEE MAKERS, ICE MACHINES, SODA FOUNTAINS, AND BREAK ROOM SINKS. FILTER SHALL BE BETTER WATERS 3M XL7000 OR EQUAL. FILTER SHALL BE CONCEALED BENEATH CASEWORK AND IN AN ACCESSIBLE LOCATION.

T. CONNECT NATURAL GAS TO EACH NATURAL GAS FURNACE UNIT. FURNISH PLUG VALVE, APPLIANCE REGULATOR, AND 6" DIRT LEG PRIOR TO CONNECTION.

NOTES BY SYMBOL (#)

1. PROVIDE 22" HEIGHT GALVANIZED STEEL WATER HEATER STAND.

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CHECKED BY:	Checker
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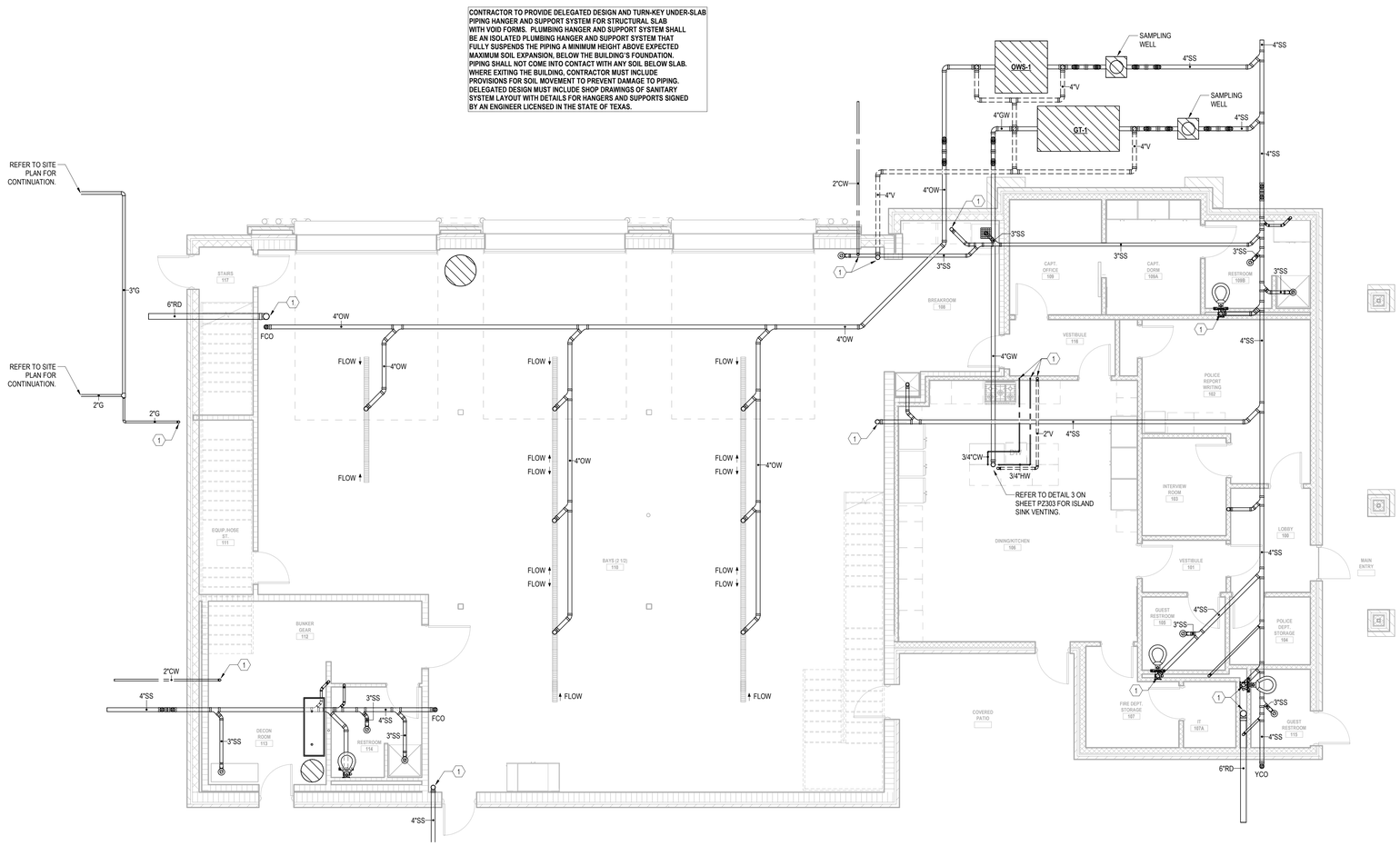
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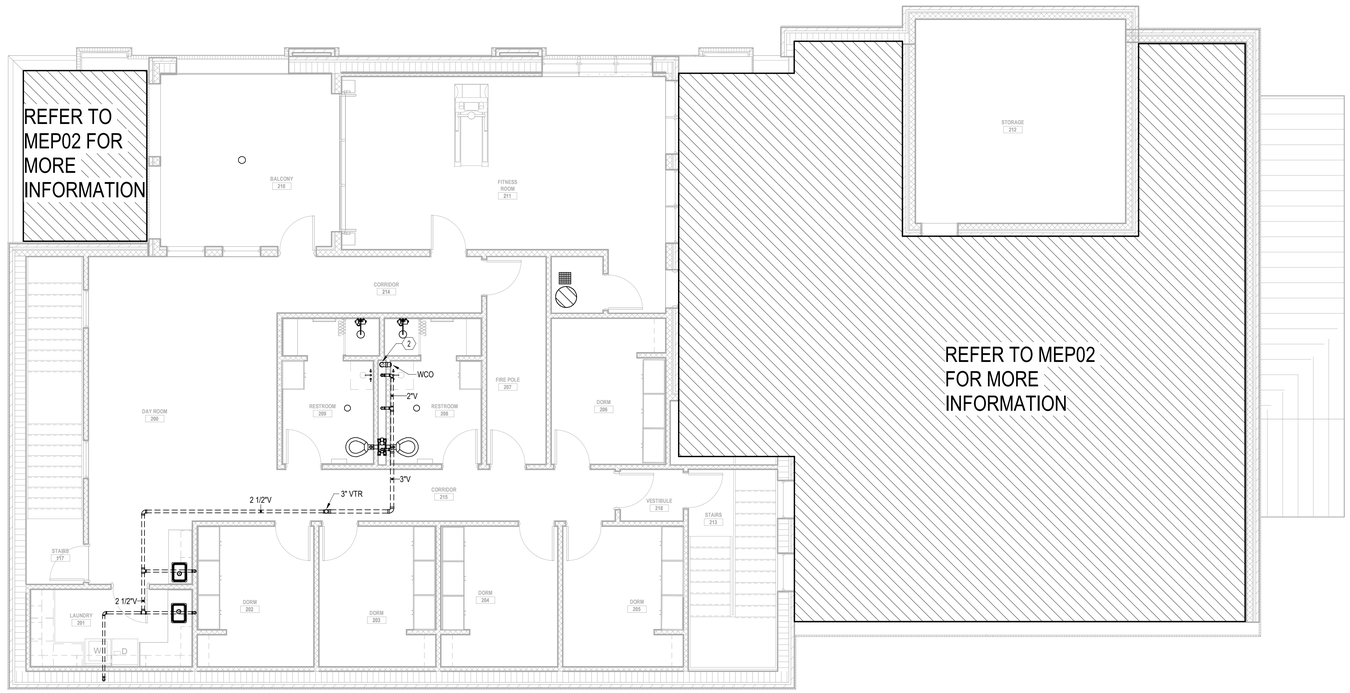
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ANDREW D. HUNTLEY
149586
LICENSED
PROFESSIONAL ENGINEER
03/20/2024

SHEET DESCRIPTION:
PLUMBING ANNOTATION PLAN

SHEET NO.
PJ101

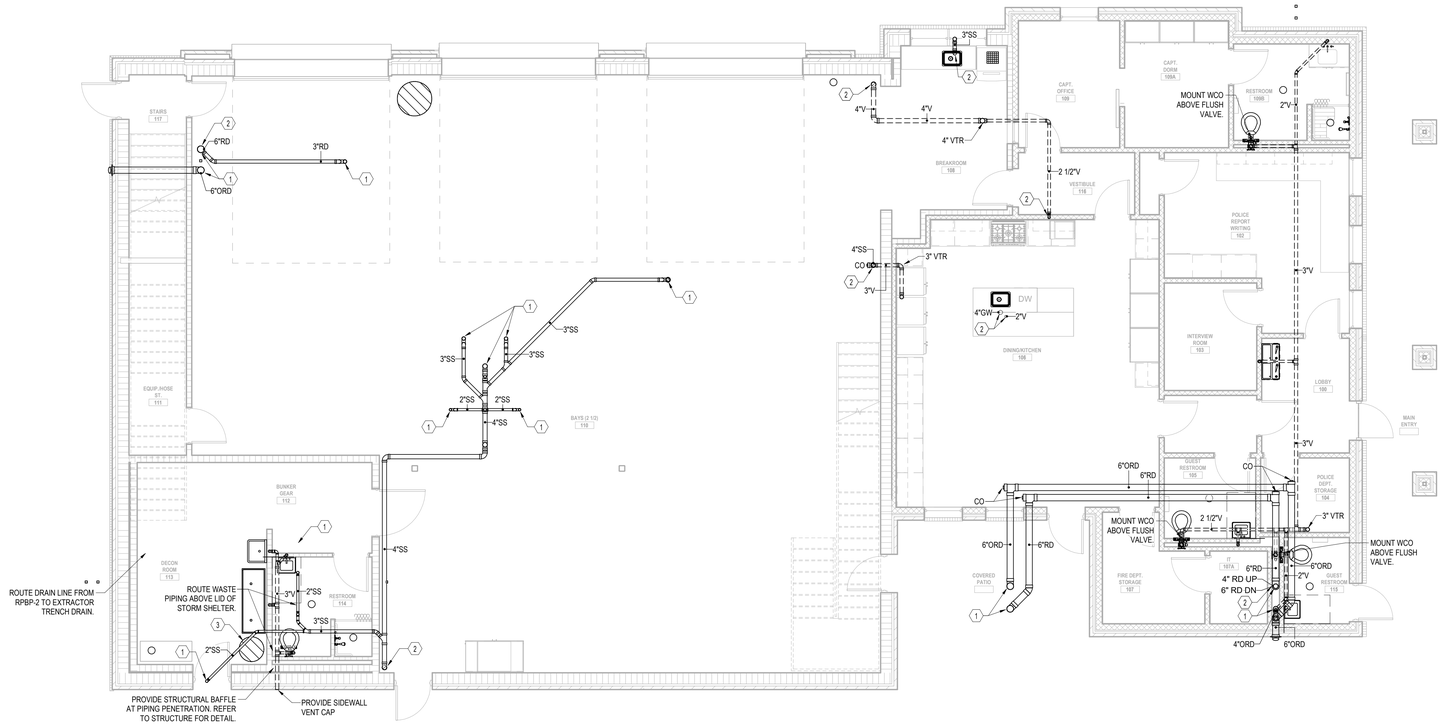
CONTRACTOR TO PROVIDE DELEGATED DESIGN AND TURN-KEY UNDER-SLAB PIPING HANGER AND SUPPORT SYSTEM FOR STRUCTURAL SLAB WITH VOID FORMS. PLUMBING HANGER AND SUPPORT SYSTEM SHALL BE AN ISOLATED PLUMBING HANGER AND SUPPORT SYSTEM THAT FULLY SUSPENDS THE PIPING A MINIMUM HEIGHT ABOVE EXPECTED MAXIMUM SOIL EXPANSION, BELOW THE BUILDING'S FOUNDATION. PIPING SHALL NOT COME INTO CONTACT WITH ANY SOIL BELOW SLAB. WHERE EXITING THE BUILDING, CONTRACTOR MUST INCLUDE PROVISIONS FOR SOIL MOVEMENT TO PREVENT DAMAGE TO PIPING. DELEGATED DESIGN MUST INCLUDE SHOP DRAWINGS OF SANITARY SYSTEM LAYOUT WITH DETAILS FOR HANGERS AND SUPPORTS SIGNED BY AN ENGINEER LICENSED IN THE STATE OF TEXAS.


REFER TO SITE PLAN FOR CONTINUATION.
REFER TO SITE PLAN FOR CONTINUATION.
3"G
2"G
2"G
6"RD
FCO
4"OW
FLOW
4"OW
FLOW
4"OW
FLOW
FLOW
FLO



2 PLUMBING WASTE AND VENT PLAN - LEVEL 2

3/16" = 1'-0"



1 PLUMBING WASTE AND VENT PLAN - LEVEL 1

3/16" = 1'-0"

PLAN NOTES

A. REFER TO WASTE AND VENT RISER DIAGRAM FOR VISUAL REPRESENTATION.

B. CONTRACTOR SHALL FIELD COORDINATE ALL CONDITIONS WITH ALL DISCIPLINES AND ADJUST PIPING LAYOUT AS NECESSARY.

C. REFER TO GENERAL PLUMBING SCHEDULE FOR SANITARY SEWER AND VENT CONNECTION SIZES.

D. PROVIDE P-TRAPS FOR ALL PLUMBING FIXTURES AND DRAINS AS REQUIRED BY CODE.

E. PROVIDE P-TRAPS WITH CLEANOUT PLUGS FOR ALL SINK/LAVATORY FIXTURES.

F. ALL ROOF DRAIN AND OVERFLOW ROOF DRAIN PIPING SHALL BE INSULATED. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

G. PROVIDE WYE FITTINGS AND LONG RADIUS ELBOWS FOR ALL WASTE, ROOF DRAIN AND OVERFLOW ROOF DRAIN PIPING.

H. CONNECT CONDENSATE PIPING TO EACH GFU/FCU. FURNISH VENTED P-TRAP PRIOR TO EACH CONNECTION.

I. TERMINATE WATER HEATER TEMPERATURE RELIEF VALVE WASTE TWO PIPE DIAMETERS ABOVE FLOOD RIM OF NEARBY DRAIN.

J. TERMINATE REDUCED PRESSURE ZONE BACKFLOW PREVENTER WASTE TWO PIPE DIAMETERS ABOVE FLOOD RIM OF NEARBY DRAIN.

NOTES BY SYMBOL (#)

1. PIPING UP TO LEVEL ABOVE.
2. PIPING DOWN TO LEVEL BELOW.
3. ROUTE DRAIN LINE FROM WATER HEATER TO MOP SINK.

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DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM

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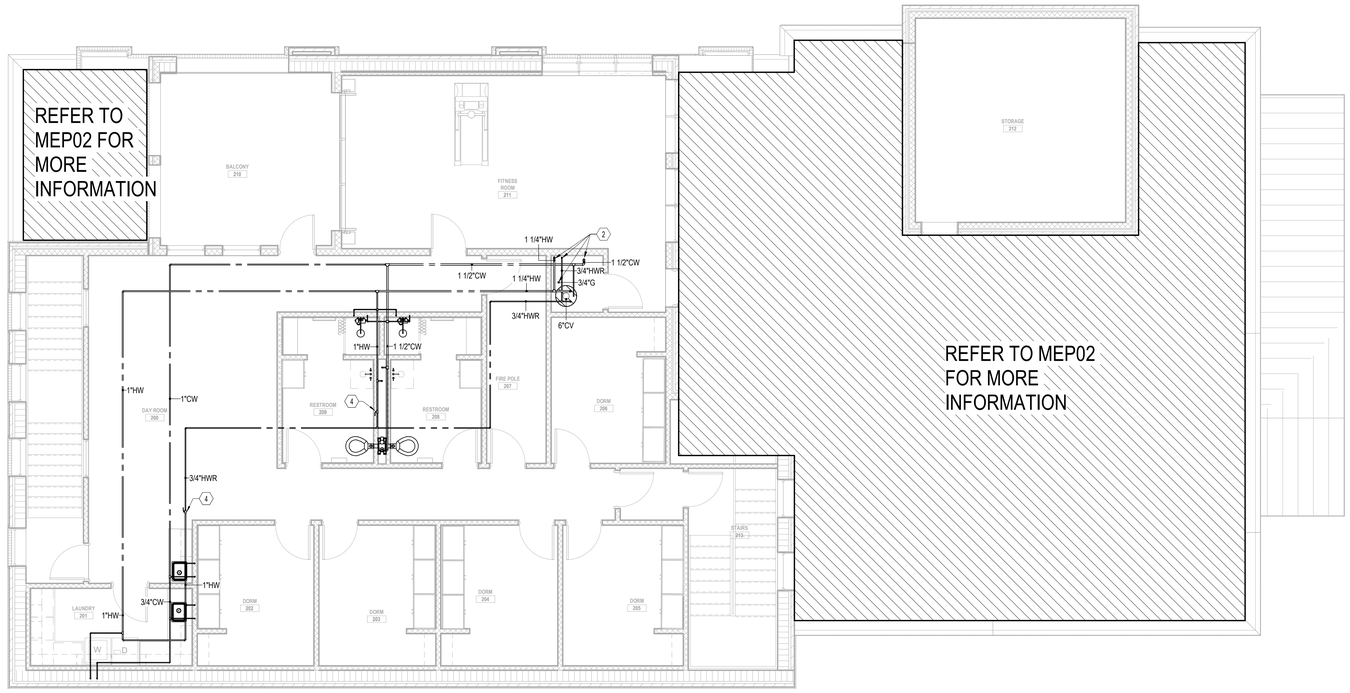
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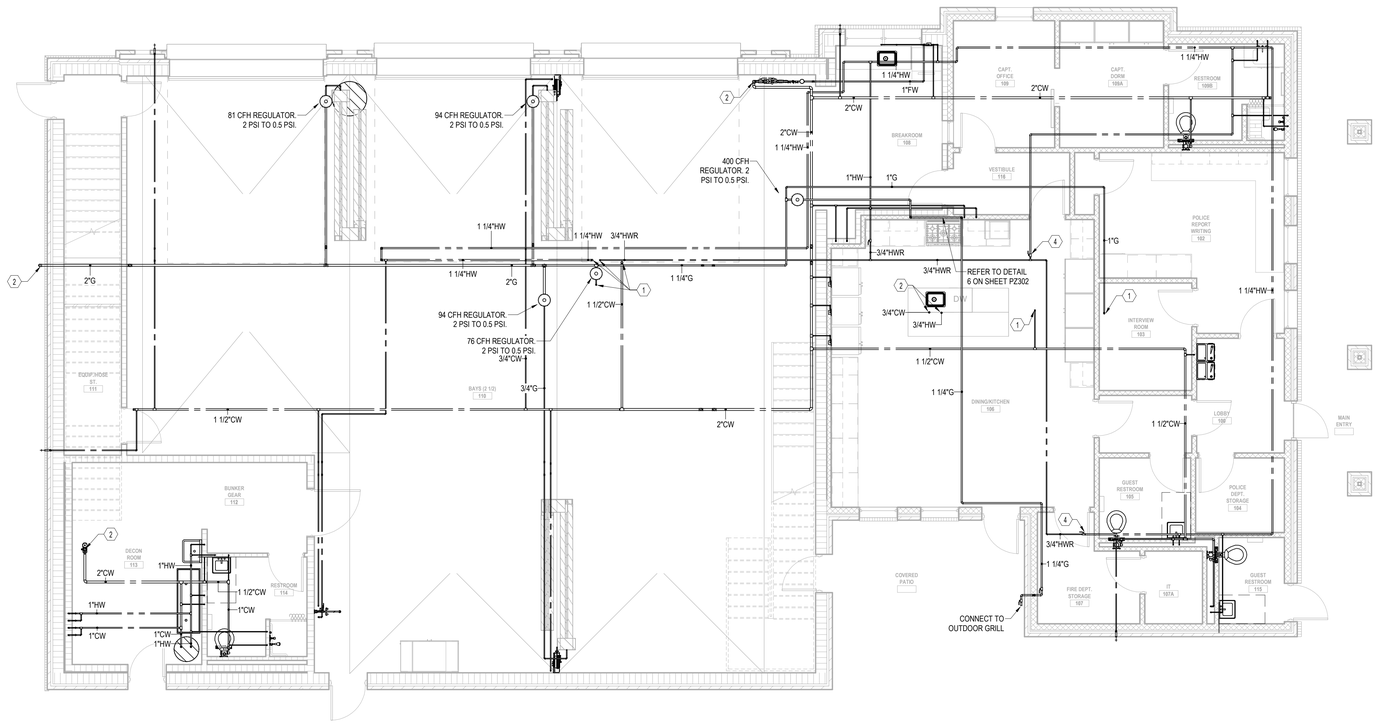
SHEET DESCRIPTION:
PLUMBING WASTE & VENT PLAN

SHEET NO.
PP101



2 PLUMBING SUPPLY PLAN - LEVEL 2

3/16" = 1'-0"



1 PLUMBING SUPPLY PLAN - LEVEL 1

3/16" = 1'-0"

PLAN NOTES

A. CONTRACTOR SHALL FIELD COORDINATE ALL CONDITION WITH ALL DISCIPLINES AND ADJUST PIPING LAYOUT AS NECESSARY.

B. PROVIDE 8"X8" ACCESS PANELS FOR ALL SHUT-OFF VALVES LOCATED ABOVE INACCESSIBLE CEILINGS OR CONCEALED WITHIN WALLS. COORDINATE WITH ARCHITECT FOR FINAL FINISHES.

C. PIPE 1/2" COLD WATER AND HOT WATER IN WALL TO EACH SINK/LAVATORY/SHOWER/WASHING MACHINE WALL BOX. PIPE 1" COLD WATER IN WALL TO EACH WATER CLOSET. PIPE 1/2" COLD WATER DOWN IN WALL TO EACH ELECTRIC WATER COOLER/ICE MAKER BOX. PIPE 3/4" COLD WATER DOWN IN WALL TO EACH NON-FREEZE WALL HYDRANT. PIPE 3/4" COLD WATER AND HOT WATER IN WALL TO EACH MOP SINK. REFER TO NOTES BY SYMBOL AND NOTES ON SHEET FOR ALL OTHER WATER DISTRIBUTION INSTRUCTIONS.

D. ALL PIPING SHALL BE CONCEALED ABOVE CEILING UNLESS IN A MECHANICAL ROOM.

E. PROVIDE ESCUTCHEONS AT ALL PIPE PENETRATIONS THROUGH WALLS THAT ARE VISIBLE BELOW CEILINGS OR IN OPEN TO DECK AREAS OF NORMALLY OCCUPIED SPACES.

F. INSULATED PIPING SHALL BE CONTINUOUS THROUGH WALLS/FLOORS ETC TO PREVENT CONDENSATION. ALL INSULATED PIPING PENETRATIONS SHALL BE SLEEVED.

G. FURNISH QUARTER TURN BALL VALVES ON ALL DOMESTIC HOT AND COLD WATER BRANCH LINES SERVING FIXTURES.

H. PROVIDE WATTS LF009 REDUCED PRESSURE ZONE BACKFLOW PREVENTER PRIOR TO DOMESTIC COLD WATER ICE MACHINE CONNECTIONS.

I. PROVIDE WATER FILTER AT ALL COLD WATER LINES SERVING ELECTRIC WATER COOLERS, COFFEE MAKERS, ICE MACHINES, SODA FOUNTAINS, AND BREAK ROOM SINKS. FILTER SHALL BE BETTER WATERS 3M XL7000 OR EQUAL. FILTER SHALL BE CONCEALED BENEATH CASEWORK AND IN AN ACCESSIBLE LOCATION.

J. CONNECT NATURAL GAS TO EACH NATURAL GAS FURNACE UNIT. FURNISH PLUG VALVE, APPLIANCE REGULATOR, AND 6" DIRT LEG PRIOR TO CONNECTION.

NOTES BY SYMBOL (#)

1. PIPING UP TO LEVEL ABOVE.
2. PIPING DOWN TO LEVEL BELOW.
3. ROUTE NATURAL GAS PIPING BELOW STAIRS.
4. PROVIDE CIRCUIT SOLVER SET TO BE FULLY OPEN AT 120°F. MODEL CS-3/4-120.

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LICENSED PROFESSIONAL ENGINEER
03/20/2024

SHEET DESCRIPTION:
PLUMBING SUPPLY PLAN

SHEET NO.
PS101

GENERAL PLUMBING SCHEDULE

MARK	FIXTURE	MAX GPM/GPF	CW	HW/TW	WASTE	VENT	DESCRIPTION
RD-1	ROOF DRAIN	-	-	-	*	-	WATTS MODEL RD-100 ROOF DRAIN AND CAST IRON DOME. REFER TO PLANS FOR SIZING.
RPBP-1	REDUCED PRESSURE ZONE BACKFLOW PREVENTER	-	1/2"	-	-	-	WATTS MODEL LF80 ASSE 1013 COMPLIANT REDUCED PRESSURE ZONE BACKFLOW ASSEMBLY WITH QUARTER TURN BALL VALVES. PROVIDE STRAINER AT INLET.
RPBP-2	REDUCED PRESSURE ZONE BACKFLOW PREVENTER	-	MATCH PIPE SIZE	-	-	-	WATTS MODEL LF909-QT-S-FS SMALL ASSE 1013 COMPLIANT REDUCED PRESSURE ZONE BACKFLOW ASSEMBLY WITH QUARTER TURN BALL VALVES AND SENSOR ON RELIEF VALVE FOR FLOOD DETECTION. PROVIDE STRAINER IN THE HORIZONTAL AT INLET. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
S-1	INTEGRAL SINK (ADA/TAS)	-	1/2"	1/2"	2"	1-1/2"	ELKAY MODEL LKAV4061 PULL DOWN FAUCET. PROVIDE WITH INSINKERATOR BADGER 1 GARBAGE DISPOSAL (1/2O/1, 1/3 HP). SINK TO BE INTEGRAL TO STAINLESS STEEL COUNTERTOP. REFER TO ARCHITECT FOR SPECIFICATIONS AND DETAILING.
S-2	WALL MOUNTED SINK	-	1/2"	1/2"	2"	1-1/2"	ELKAY MODEL EWS2520W4C STAINLESS STEEL WALL HUNG SINK KIT.
SH-1	SHOWER	2.5	1/2"	1/2"	2"	1-1/2"	MOEN PRESSURE ACTIVATED SHOWER SYSTEM WITH MOEN T9375 SHOWER HEAD, AND MOEN 8373HD DIVERTER VALVE.
SH-2	SHOWER (TAS)	2.5	1/2"	1/2"	2"	1-1/2"	MOEN (TAS) COMPLIANT PRESSURE ACTIVATED SHOWER SYSTEM (MOEN T9342GBM2S) WITH MOEN HAND HELD SHOWER HEAD, MOEN FIXED SHOWER HEAD, AND MOEN 8373HD DIVERTER VALVES. PROVIDE WITH ACESSIBLE SHOWER CONTROLS.
TD-1	TRENCH DRAIN	-	-	-	4"	2"	WATTS DEAD LEVEL O PRE-SLOPED 6" WIDE POLYPROPYLENE TRENCH DRAIN SYSTEM WITH DUCTILE IRON FRAME AND DUCTILE IRON HEEL-PROOF ADA CLASS F GRATE. REFER TO PLANS FOR OUTLET SPECIFICS. PROVIDE CONSTRUCTION COVERS AND COMPLETE INSTALLATION ACCESSORIES.
TMV-1	THERMOSTATIC MASTER MIXING VALVE	24	-	-	-	-	ARMSTRONG MODEL 320R WITH INTEGRAL THERMOMETER, INTEGRAL CHECK VALVES, STRAINERS, AND INTEGRAL THERMOSTATIC RETURN LIMITER. PROVIDE ACCESSORIES AS SHOWN ON MANUFACTURERS INSTALLATION GUIDE.
WB-1	WASHING MACHINE BOX	-	1/2"	1/2"	2"	2"	IPS MODEL W4700 WASHING MACHINE BOX WITH QUARTER TURN BALL VALVES AND HAMMER ARRESTORS. BOX SHALL BE COMPLETELY RECESSED WITHOUT FLANGES.
WC-1	WATER CLOSET WALL MOUNT (TAS)	1.28	1"	-	4"	2"	SLOAN MODEL ST-2459-STG WALL MOUNT, TAS ACCESSIBLE WATER CLOSET WITH SLOAN ROYAL 111 MANUAL FLUSH VALVE. REFER TO ARCHITECT FOR MOUNTING HEIGHT.
WCO	WALL CLEANOUT	-	-	-	MATCH PIPE SIZE	-	JOSAM MODEL 58600-CO CAST IRON WALL CLEANOUT.
WF-1	WATER FILTRATION SYSTEM (ICE MAKER)	3.34	1/2"	-	-	-	3M MODEL ICE160-S WATER FILTRATION SYSTEM. PROVIDE (2) SETS OF REPLACEMENT FILTERS. PROVIDE SHUT-OFF VALVES ON INLET AND OUTLET. PROVIDE DUAL CHECK BACKFLOW PREVENTER PRIOR TO INLET.
YCO	YARD CLEANOUT	-	-	-	MATCH PIPE SIZE	-	JOSAM MODEL 57008-Z-LT CAST IRON YARD CLEANOUT.

NOTES:

1. THE SCHEDULE ABOVE IS INFORMATIONAL AND IS IN NO WAY INTENDED TO SPECIFY ALL NECESSARY APPURTENANCES FOR THE FIXTURES LISTED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE COMPLETE AND OPERATING PLUMBING SYSTEMS.
2. PROVIDE AND INSTALL STOPS AT ALL FIXTURES.
3. REFER TO NOTE BY SYMBOLS ON DRAWINGS FOR HW/TW CONNECTION TYPE.
4. PROVIDE AND INSTALL WALL CLEANOUTS WHERE REQUIRED BY THE IPC.
5. COORDINATE FIXTURE COLORS AND FIXTURE FINISHES WITH ARCHITECT PRIOR TO ORDERING.
6. FLUSH VALVE LEVERS SHALL BE INSTALLED ON WIDE SIDE OF STALL.
7. WHERE REQUIRED, PLUMBING FIXTURES SHALL BE INSTALLED AT A HEIGHT THAT IS CONSISTENT WITH TAS REQUIREMENTS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS OF ALL WALL HUNG FIXTURES.
8. * FIXTURE SHALL MATCH PIPE SIZE ON PLAN/RISER
9. UNLESS NOTED OTHERWISE, ALL FLOOR DRAINS, AND FLOOR SINKS SHALL BE EQUIPPED WITH TRAP PROTECTION DEVICES BY PROSET SYSTEMS, TRAP PROTECTION DEVICES SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.
10. INSTALL ALL CONDENSATE DRAIN PIPE TO FLOOR DRAINS/SINKS SO THAT THERE IS NO RUNOUT OF WATER TO ADJACENT FLOORS. IN MECHANICAL TYPE SPACES, INSTALL FLOOR DRAINS TO WHICH CONDENSTES WILL DRAIN APPROXIMATELY 1/4" BELOW ADJACENT FLOOR LEVEL TO PREVENT RUNOFF.
11. COORDINATE FLOOR DRAIN COVERS AT TILE AND THICK FLOOR MATERIALS FOR FLUSH INSTALLATION. USE SQUARE DRAIN COVERS AT CERAMIC TILE.
12. PROVIDE DRAIN OUTLET CONNECTION AT SIZE LIST ON SCHEDULE UNLESS OTHERWISE NOTED IN PLANS
13. LOCATE WATER CONNECTIONS TO EQUIPMENT WHERE THEY WILL BE LEAST VISUALLY OBSTRUCTIVE AND WILL NOT REQUIRE SUPPLY LINES TO EQUIPMENT IN LOCATIONS THAT WILL BE VISIBLE IN THE COMPLETED WORK. CONTRACTOR SHALL ENSURE OUTLET SUPPLY BOXES ARE AS CONCEALED AS POSSIBLE.
14. COORDINATE HOLE DRILLING CLOSELY WITH ARCHITECT.
15. CONTROLS FOR CIRCULATING HOT WATER SYSTEM PUMPS SHALL START THE PUMP BASED ON THE IDENTIFICATION OF A DEMAND FOR HOT WATER WITHIN THE OCCUPANCY. THE CONTROLS SHALL AUTOMATICALLY TURN OFF THE PUMP WHEN THE WATER IN THE CIRCULATION LOOP IS AT A DESIRED TEMPERATURE AND WHEN THERE IS NO DEMAND FOR HOT WATER.
16. PITCH ALL DRAINAGE PIPING AT A MINIMUM OF 1/4" PER FOOT FOR 3" AND SMALLER AND 1/8" PER FOOT FOR 4" AND LARGER, UNLESS NOTED OTHERWISE.
17. FOR ALL REDUCED PRESSURE BACKFLOW PREVENTERS, FURNISH DRAIN LINE WITH INTEGRAL AIR GAP, FULL SIZE OF DRAIN OPENING IN BACKFLOW PREVENTER, TO NEAREST FLOOR DRAIN OR FLOOR SINK, OR AS NOTED ON DRAWINGS.
18. WATER HAMMER ARRESTORS SHALL BE FURNISHED AND INSTALLED WHERE QUICK-CLOSING VALVES ARE UTILIZED. WATER HAMMER ARRESTORS SHALL CONFORM TO PDI-WH-201.
19. LOCATE WATER HAMMER ARRESTOR BETWEEN LAST TWO FLUSH-VALVE FIXTURES.
20. WATER HAMMER ARRESTORS SHALL BE PROVIDED WITH AN ACCESS DOOR UNLESS PROVIDED WITH A LIFETIME WARRANTY.

GENERAL PLUMBING SCHEDULE

MARK	FIXTURE	MAX GPM/GPF	CW	HW/TW	WASTE	VENT	DESCRIPTION
AD-1	AREA DRAIN	-	-	-	MATCH PIPE SIZE	2"	JOSAM MODEL 32100-AE AREA DRAIN - STANDARD DUTY. EQUIP WITH TRAP PROTECTION DEVICE.
DYCO	DOUBLE YARD CLEANOUT	-	-	-	MATCH PIPE SIZE	-	JOSAM MODEL 58680 CAST IRON DOUBLE YARD CLEANOUT. PROVIDE "T" HANDLE WRENCH.
EWC-1	ELECTRIC WATER COOLER (BI-LEVEL)	-	1/2"	-	2"	1-1/2"	ELKAY MODEL LZSTL8LC WALL MOUNTED BI-LEVEL FILTERED WATER COOLER. BARRIER FREE AND VANDAL RESISTANT. PROVIDE WITH CANE APRON AND CARRIER. MOUNT AS DIRECTED BY ARCHITECT.
FCO	FLOOR CLEANOUT	-	-	-	MATCH PIPE SIZE		JOSAM MODEL 55000 CAST IRON FLOOR CLEANOUT.
FD-1	FLOOR DRAIN (ROUND STRAINER)	-	-	-	2"	2"	WATTS MODEL FD-100-B. 5" NICKEL BRONZE STRAINER. PROVIDE WITH PRO-SET TRAP GUARD EQUAL TO DRAIN SIZE.
FD-2	FLOOR DRAIN (SQUARE STRAINER TILE FLOORS)	-	-	-	2"	2"	SCHLUTER KERDI-LINE. 4"x4"/6"x6" SQUARE FLOOR DRAIN. REFER TO ARCHITECT FOR EXACT FINISH AND EXACT STYLE. CONTRACTOR SHALL PROVIDE ALL ACCESSORIES AS REQUIRED BY MANUFACTURER FOR INSTALLATION. DRAIN SHALL BE INSTALLED SEAMLESSLY WITH TILING AND FLUSH WITH FLOOR.
FD-3	FLOOR DRAIN (DOME STRAINER)	-	-	-	3"	2"	WATTS MODEL FD-100-K 5" NICKEL BRONZE STRAINER. EQUIP WITH TRAP PROTECTION DEVICE BY PROSET SYSTEMS.
FS-1	FLOOR SINK (SQUARE STRAINER)	-	-	-	MATCH PIPE SIZE	2"	WATTS MODEL FS-740. 12" SQUARE, 8" DEEP WITH WITH WHITE FINISH, 1/2 CAST IRON GRATE, ALUMINUM DOME STRAINER. PROVIDE WITH PRO-SET TRAP GUARD EQUAL TO DRAIN SIZE.
HB-1	HOSE BIBB (BALL VALVE)	-	3/4"	-	-	-	AMERICAN VALVE MODEL M71QTSS STAINLESS STEEL HOSE BIBB WITH FIELD INSTALLED VACUUM BREAKER. INSTALL 6" OFF FACE OF WALL.
HR-1	WATER HOSE REEL	-	3/4"	-	-	-	REELCRAFT DB3075 OLP MANUALLY OPERATED HOSE REEL. PROVIDE WITH ALL NECESSARY HARDWARE FOR WALL MOUNTING. PROVIDE WITH 75 FOOT 3/4"I.D. HOSE, 90° BALL BEARING SWIVEL JOINT INLET, AND T&S BRASS MODEL MV-2622-21 HEAVY DUTY WATER GUN, FRONT TRIGGER WITH STAY-PEN LATCH AND ADJUSTABLE NOZZLE.
HD-1	HUB DRAIN	-	-	-	2"	2"	JAY R. SMITH MODEL 9654 HUB DRAIN. EQUIP WITH TRAP PROTECTION DEVICE.
IMB-1	REFRIGERATOR ICE MAKER BOX	-	1/2"	-	-	-	IPS MODEL AB9700 REFRIGERATOR ICE MAKER OUTLET BOX WITH QUARTER TURN BALL VALVE AND HAMMER ARRESTOR. BOX SHALL BE COMPLETELY RECESSED WITHOUT FLANGES.
L-1	LAVATORY WALL MOUNT (TAS)	0.5	1/2"	1/2"	2"	2"	SLOAN SS-3003 WALL MOUNT LAVATORY. EQUIP WITH: DELTA TRINSIC 3359-MPU-DST MANUALLY-OPERATED FAUCET WITH WATTS MODEL LFUSG-B ASSE 1070 THERMOSTATIC MIXING VALVE.
L-2	LAVATORY UNDERMOUNT (TAS)	0.5	1/2"	1/2"	2"	2"	SLOAN SS-3001 UNDERMOUNT LAVATORY. EQUIP WITH: DELTA TRINSIC 3359-MPU-DST MANUALLY-OPERATED FAUCET WITH WATTS MODEL LFUSG-B ASSE 1070 THERMOSTATIC MIXING VALVE.
MS-1	MOP SINK	2.2	3/4"	3/4"	3"	2"	FIAT TERRAZZO MOP BASIN MODEL TSB100 FLOOR SET, SQUARE/RECTANGULAR MOP SINK WITH STAINLESS STEEL CURBS, HOSE & HOSE BRACKET, MOP HANGER, AND STAINLESS STEEL WALL GUARDS FOR ADJACENT WALLS. EQUIP WITH: MOEN 8230 MANUALLY-OPERATED FAUCET.
MS-2	MOP SINK	2.2	3/4"	3/4"	3"	2"	MOEN 8230 MANUALLY-OPERATED FAUCET. REFER TO ARCHITECT FOR MOP SINK SPECIFICATION AND SELECTION.
N-1	DOWNSPOUT NOZZLE (SERVES OVERFLOW ROOF DRAINS)	-	-	-	MATCH PIPE SIZE	-	JOSAM SERIES 25010 DOWNSPOUT NOZZLE. REFER TO PLANS FOR SIZING. MOUNT 2'-0" ABOVE FINISHED GRADE.
NFWH-1	NON-FREEZE WALL HYDRANT	-	3/4"	-	-	-	JR SMITH MODEL 5519 1/4 TURN NON-FREEZE WALL HYDRANT AND STAINLESS STEEL BOX WITH CONCEALED HOSE CONNECTION.
NFRH-1	NON-FREEZE ROOF HYDRANT	-	3/4"	-	-	-	WOODFORD MODEL SRH-MS NON-FREEZE KEY OPERATED DRAINLESS ROOF HYDRANT WITH CHROME PLATED FACE AND VACUUM BREAKER.
ORD-1	OVERFLOW ROOF DRAIN	-	-	-	*	-	WATTS MODEL RD-100 ROOF DRAIN AND CAST IRON DOME. REFER TO PLANS FOR SIZING. PROVIDE WITH 2" EXTERNAL WATER DAM. TERMINATE WITH DOWNSPOUT NOZZLE.

STORAGE TYPE NATURAL GAS WATER HEATER SCHEDULE

MARK	LOCATION	EFFICIENCY (%)	INPUT (MBH)	STORAGE CAPACITY (GAL)	TEMPERATURE RISE (°F)	RECOVERY @ 80°F	ELECTRICAL DATA		MANUFACTURER	MODEL	NOTES
							VOLTAGE	PHASE			
WH-1	LEVEL 2 JANITOR	94	76	50	80	107	120	1	AO SMITH	BTH-80	ALL

NOTES:

1. PROVIDE SHUT OFF VALVES ON HOT AND COLD WATER CONNECTIONS.
2. SET HEATER TO STORE WATER AT 140°F.
3. FURNISH AND INSTALL CONCENTRIC VENT AND ASSOCIATED PIPING WITH WATER HEATER. CONCENTRIC VENT SHALL BE INSTALLED THROUGH WALL OR ROOF.
4. PROVIDE DRAIN PAN UNDER WATER HEATER.
5. PROVIDE 4" THICK CONCRETE PAD 6" ALL AROUND DRAIN PAN.
6. PROVIDE WITH CONDENSATE NEUTRALIZATION KIT AND PIPE TO NEAREST FLOOR DRAIN.

STORAGE TYPE ELECTRIC WATER HEATER SCHEDULE

MARK	LOCATION	STORAGE CAPACITY (GAL)	TEMPERATURE RISE (°F)	RECOVERY @ 80°F	ELECTRICAL DATA				MANUFACTURER	MODEL
					VOLTAGE	PHASE	FLA	KW		
WH-2	STORM SHELTER	80	80	77	208	3	41.6	15	AO SMITH	DRE-80-15

NOTES:

1. PROVIDE SHUT OFF VALVES ON HOT AND COLD WATER CONNECTIONS.
2. SET HEATER TO STORE WATER AT 140°F.
3. PROVIDE DRAIN PAN UNDER WATER HEATER.
4. PROVIDE 22" HEIGHT GALVANIZED STEEL WATER HEATER STAND.

OIL/WATER INTERCEPTOR SCHEDULE

MARK	TOTAL CAPACITY (GAL)	LENGTH (INCHES)	WIDTH (INCHES)	HEIGHT (INCHES)	INLET (IN)	OUTLET (IN)	MANUFACTURER	MODEL
OWS-1	300	60	60	54	4	4	PARK	CMP-300

NOTES:

1. PROVIDE ELECTRONIC MONITORING SYSTEM.
2. FURNISH AND INSTALL SAMPLE WELL DIRECTLY DOWNSTREAM OF SEPARATOR.
3. ALL ACCESS PORTS/MANHOLES SHALL HAVE H-20 TRAFFIC RATED COVERS.

WATER HAMMER ARRESTOR

FIXTURE	#100	#200	#300	#400	#500
PDI UNITS	A	B	C	D	E
FIXTURE UNITS	1 - 11	12 - 32	33 - 60	61 - 113	114 - 154

NOTES:

1. WATER HAMMER ARRESTORS SHALL BE FURNISHED AND INSTALLED WHERE QUICK-CLOSING VALVES ARE UTILIZED. WATER HAMMER ARRESTORS SHALL CONFORM TO ASSE 1010.
2. FLUSH-VALVE WATER CLOSETS = 10 FIXTURE UNITS.
3. FLUSH-VALVE URINAL = 5 FIXTURE UNITS.
4. LOCATE WATER HAMMER ARRESTOR BETWEEN LAST TWO FLUSH-VALVE FIXTURES.
5. WATER HAMMER ARRESTORS SHALL COMPLY WITH PDI-WH-201.
6. WATER HAMMER ARRESTORS SHALL BE PROVIDED WITH AN ACCESS DOOR UNLESS PROVIDED WITH A LIFETIME WARRANTY.

GREASE TRAP SCHEDULE

MARK	TOTAL CAPACITY (GAL)	LENGTH (FEET - INCHES)	WIDTH (FEET - INCHES)	HEIGHT (FEET - INCHES)	INLET (IN)	OUTLET (IN)	MANUFACTURER	MODEL
GT-1	500	7'-10"	4'-4"	4'-6"	4	4	PARK	GT-500

NOTES:

1. PROVIDE ELECTRONIC MONITORING SYSTEM.
2. FURNISH AND INSTALL SAMPLE WELL DIRECTLY DOWNSTREAM OF SEPARATOR.
3. ALL ACCESS PORTS/MANHOLES SHALL HAVE H-20 TRAFFIC RATED COVERS.

GAS LOAD

EQUIPMENT	GAS LOAD (MBH)
WH-1	76
RTU-1	195
RH-1	81
RH-2	94
RH-3	94
GRILL	200
STOVE	200
GENERATOR	2800
TOTAL	3740

HOT WATER MAXIMUM PIPING LENGTHS

MARK	FIXTURE	HW / TW PIPE SIZE (IN)	MAXIMUM HOT WATER LENGTH FROM HEATING SOURCE/HOT WATER LOOP (FT)
L-1, L-2	LAVATORY	1/2	2
MS-1, MS-2	MOP SINK	3/4	21
S-1, S-2	SINK	1/2	43
SH-1, SH-2	SHOWER	1/2	43
WB-1	WASHING MACHINE BOX	1/2	43
	EXTRACTOR	1/2	43

NOTES:

1. REFER TO 2021 INTERNATIONAL ENERGY CONSERVATION CODE TABLE C404.5.1 FOR MORE INFORMATION. SYSTEM SHALL COMPLY.
2. HEATING SOURCE REFERS TO CIRCULATING HOT WATER LOOP, TANK WATER HEATER OR INSTANTANEOUS WATER HEATER.

HOT WATER CIRCULATION PUMP SCHEDULE

MARK	TYPE	FLOW (GPM)	HEAD (FT. W.C.)	ELECTRICAL			MANUFACTURER	MODEL	NOTES
				VOLTS	PHASE	WATTS			
CP-1	INLINE	0-20	0-20	120	1	5-45	ARMSTRONG	20-20SS	ALL

NOTES:

1. VARIABLE SPEED CONTROL INTEGRAL TO PUMP.
2. AUTOADAPT TO RUN ON DEMAND CONTROL.
3. SUPPORT PIPING AT EACH PUMP CONNECTION.
4. PROVIDE WITH SHUTOFF VALVE, CHECK VALVE, AND BALANCING VALVE ON PUMP DISCHARGE.
5. PROVIDE LINE SIZE FLEXIBLE CONNECTORS AT PUMP SUCTION AND DISCHARGE.

AIR COMPRESSOR SCHEDULE

MARK	AREA SERVED	MOTOR HP	ELECTRICAL DATA		TANK SIZE (GAL)	MANUFACTURER	MODEL NUMBER
			VOLTAGE	PHASE			
AC-1	APPARATUS BAY	5	230	1	80	CHAMPION	VRS-8

NOTES:

1. PROVIDE WITH VIBRATION ISOLATOR PADS.
2. PROVIDE WITH AIR-COOLED AFTERCOOLER TO REMOVE MOISTURE FROM DISCHARGED COMPRESSED AIR.
3. PROVIDE WITH CONTROL PANEL.
4. PROVIDE WITH AN ADJUSTABLE ELECTIC TIMED DRAIN TO AUTOMATICALLY DISCHARGE MOISTURE FROM THE RECIEVER.
5. PROVIDE LOW-OIL STOP CONTROL TO SHUT DOWN UNIT WHEN OIL LEVELS GET LOW.
6. PROVIDE WITH SYSTEM FLOW CONTROLLER.

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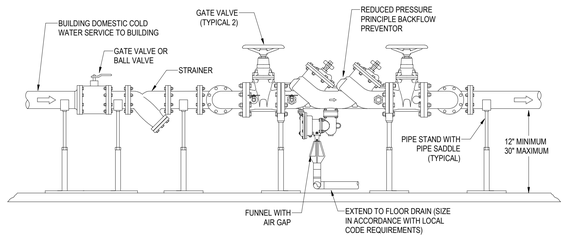
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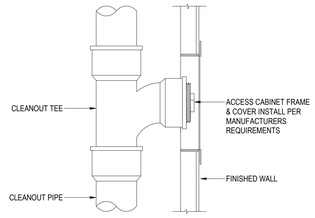
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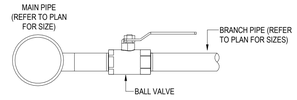
7 REDUCED PRESSURE ZONE BACKFLOW PREVENTOR

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4 WALL CLEANOUT

NTS

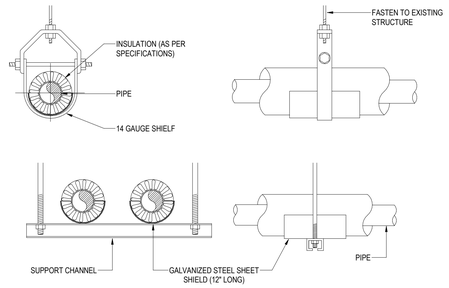


NOTES:

1. FURNISH QUARTER TURN BALL VALVES ON ALL DOMESTIC HOT AND COLD WATER BRANCH LINES SERVING FIXTURES.

1 BRANCH PIPE CONNECTION

NTS

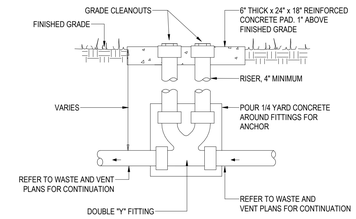


NOTES:

1. ATTACH SUPPORTS FOR ALL PIPING SUSPENDED FROM THE STEEL STRUCTURE.
2. VAPOR BARRIER SHALL BE CONTINUOUS AT ALL JOINTS.

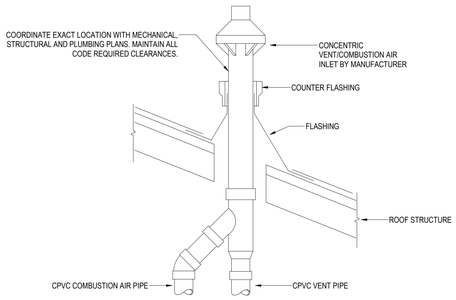
5 PIPE HANGER SUPPORT

NTS



2 DOUBLE YARD CLEANOUT

NTS

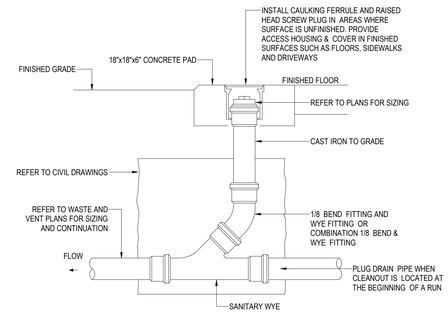


NOTES:

1. REFER TO ARCHITECTURAL FOR FLASHING DETAILS.

6 CONCENTRIC VENT THROUGH ROOF

NTS



3 FLOOR CLEANOUT

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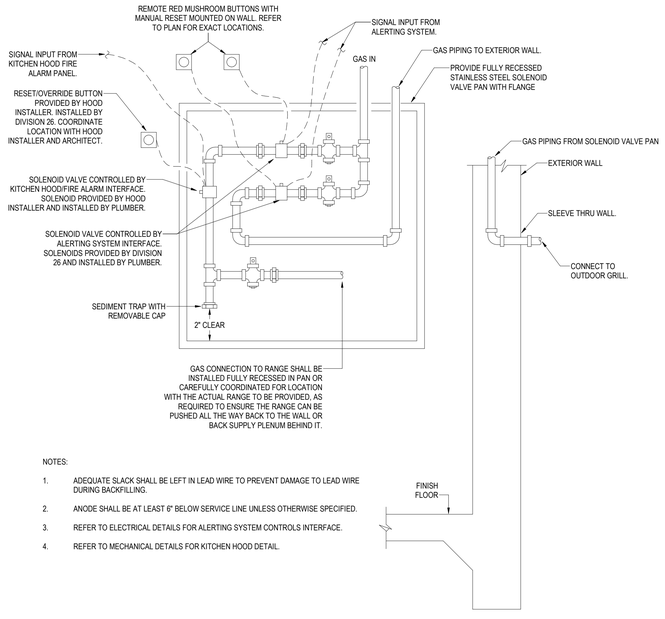
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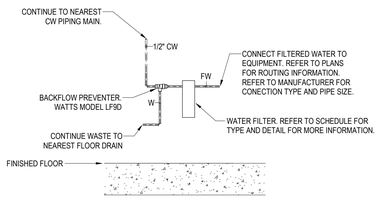


NOTES:

1. ADEQUATE SLACK SHALL BE LEFT IN LEAD WIRE TO PREVENT DAMAGE TO LEAD WIRE DURING BACKFILLING.
2. ANODE SHALL BE AT LEAST 6" BELOW SERVICE LINE UNLESS OTHERWISE SPECIFIED.
3. REFER TO ELECTRICAL DETAILS FOR ALERTING SYSTEM CONTROLS INTERFACE.
4. REFER TO MECHANICAL DETAILS FOR KITCHEN HOOD DETAIL.

6 SOLENOID VALVE ARRANGEMENT

NTS

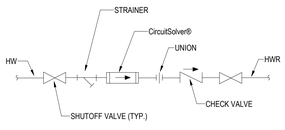


NOTES:

1. CONTRACTOR TO FIELD COORDINATE BACKFLOW PREVENTER TO BE LOCATED IN ACCESSIBLE LOCATION

7 ICE MAKER/COFFEE MACHINE WATER CONNECTION ASSEMBLY

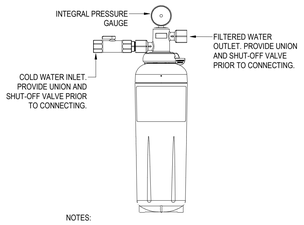
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NOTE: REFER TO FLOOR PLANS FOR LOCATIONS AND SIZES.

9 THERMOSTATIC BALANCING VALVE CONNECTIONS

NTS

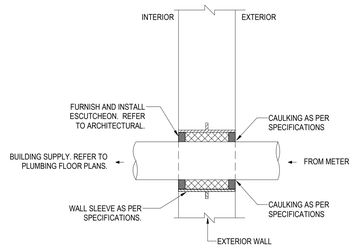


NOTES:

1. CONTRACTOR SHALL PROVIDE (2) EXTRA FILTERS FOR EACH FILTER TYPE.
2. CONTACTOR TO COORDINATE FINAL LOCATION WITH ARCHITECT.

8 WATER FILTER

NTS

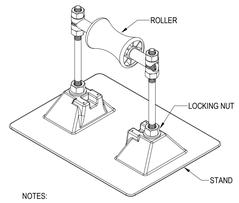


NOTES:

1. SPACE BETWEEN PIPING SLEEVE SHALL BE SEALED AT INSIDE SURFACE ONLY AS PER SPECIFICATIONS.
2. PAINT EXTERIOR GAS PIPING AS PER SPECIFICATIONS.

2 GAS EXTERIOR WALL PENETRATION

NTS

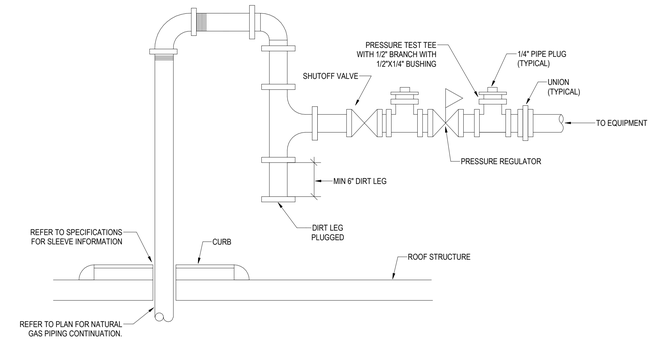


NOTES:

1. COORDINATE WITH ROOFER TO PROVIDE PADS FOR EACH ROOF PIPE SUPPORT.

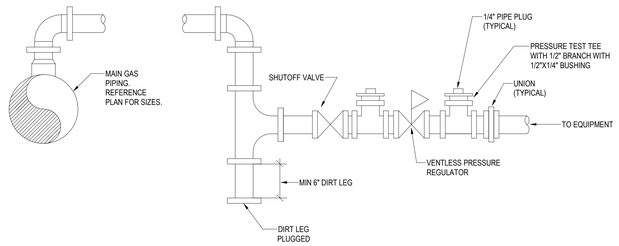
1 ROOF PIPE SUPPORT

NTS



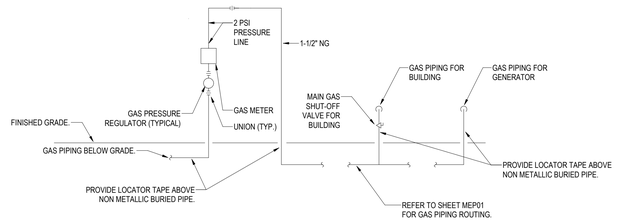
3 NATURAL GAS PIPING CONNECTION TO EQUIPMENT ON ROOF

NTS



4 NATURAL GAS PIPING CONNECTION TO INDOOR EQUIPMENT

NTS



NOTES:

1. GAS PIPING BETWEEN REGULATOR AND GENERATOR SHALL BE IDENTIFIED AS "GAS SUPPLY SERVING EMERGENCY GENERATOR".

5 NATURAL GAS ROUTING WITH GENERATOR

NTS

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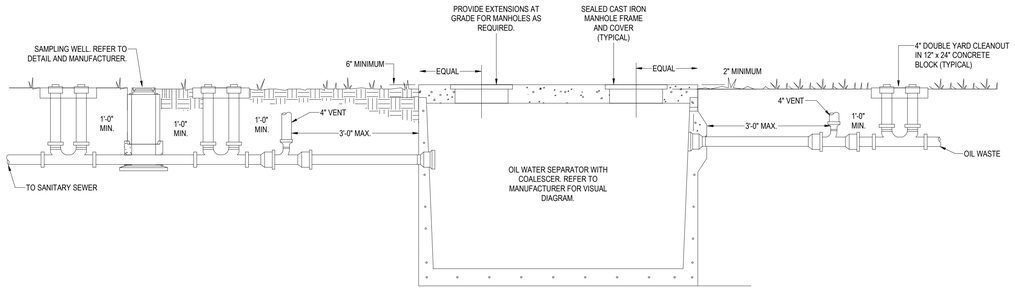
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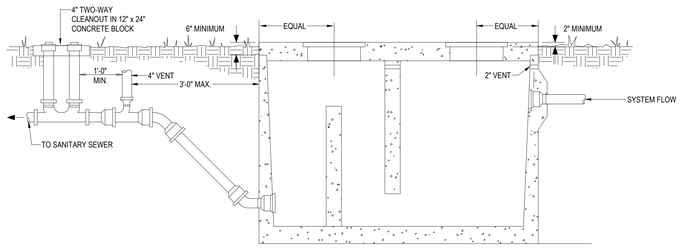


NOTES:

1. SEE PLANS FOR PIPE SIZES AND SEPARATOR LOCATION.
2. REFER TO SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS FOR REQUIREMENTS.

7 OIL WATER SEPARATOR DIAGRAM

NTS

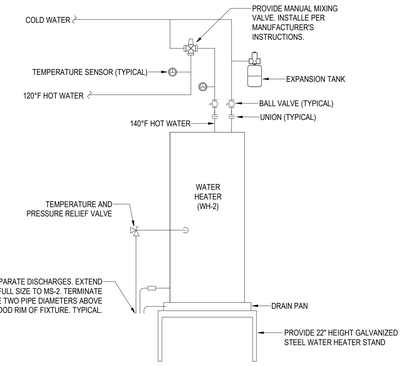


NOTES:

1. SEE PLANS FOR PIPE SIZES AND TRAP LOCATION.
2. PROVIDE AND INSTALL FLOW CONTROL DEVICE AS REQUIRED PER IPC 1003.3.4.2.

8 GREASE TRAP

NTS

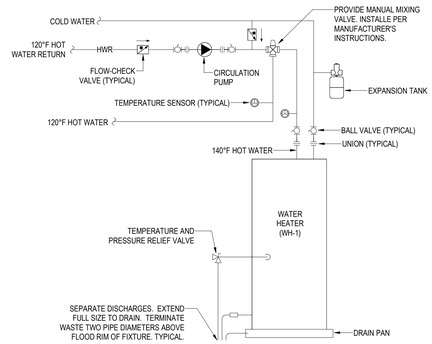


NOTES:

1. REFER TO FLOOR PLANS AND PLUMBING SCHEDULE SHEET FOR ADDITIONAL INFORMATION, CONNECTIONS AND SIZES.
2. REFER TO MANUFACTURER FOR ADDITIONAL REQUIREMENTS.
3. PROVIDE HOT WATER SUPPLY WITH HEAT TRAP FITTINGS.

4 WATER HEATER DETAIL (TMV)

NTS

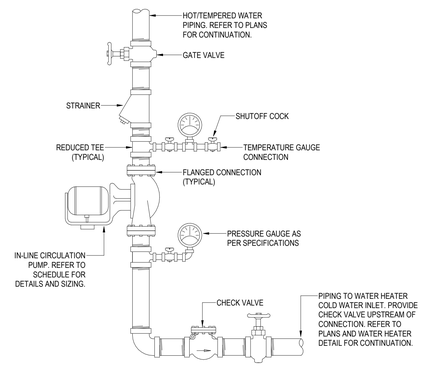


NOTES:

1. INSTALL CIRCULATION PUMP ON WALL. MAINTAIN REQUIRED CLEARANCE DIMENSIONS AS DESCRIBED IN THE EQUIPMENT INSTALLATION MANUAL.
2. CIRCULATION PUMP SHALL BE SUPPORTED INDEPENDENT OF PIPING.
3. REFER TO IN-LINE CIRCULATION PUMP DETAIL FOR ALL VALVE, STRAINER, AND GAUGE REQUIREMENTS.
4. HOUSE KEEPING PAD SHALL BE 4" THICK REINFORCED CONCRETE. HOUSE KEEPING PAD SHALL EXTEND A MINIMUM OF 4" BEYOND ALL SIDES OF WATER HEATER.
5. REFER TO FLOOR PLANS AND PLUMBING SCHEDULE SHEET FOR ADDITIONAL INFORMATION, CONNECTIONS AND SIZES.
6. REFER TO MANUFACTURER FOR ADDITIONAL REQUIREMENTS.
7. PROVIDE HOT WATER SUPPLY WITH HEAT TRAP FITTINGS.

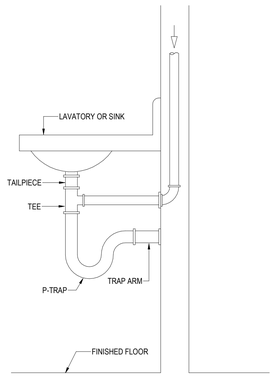
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5 IN-LINE CIRCULATION PUMP

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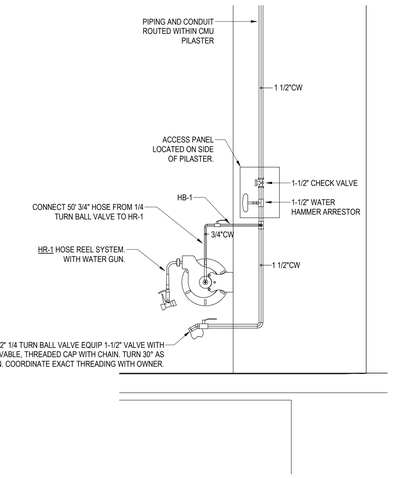


NOTES:

1. IF CONDENSATE CANNOT BE ROUTED WITHIN WALL. ROUTE TIGHT AGAINST WALL.

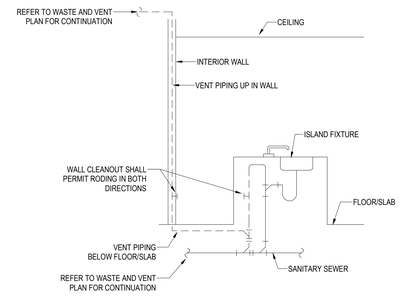
6 LAVATORY CONDENSATE DRAIN PIPING

NTS



2 WASHDOWN AND FILL STATION

NTS



3 ISLAND SINK VENTING

NTS

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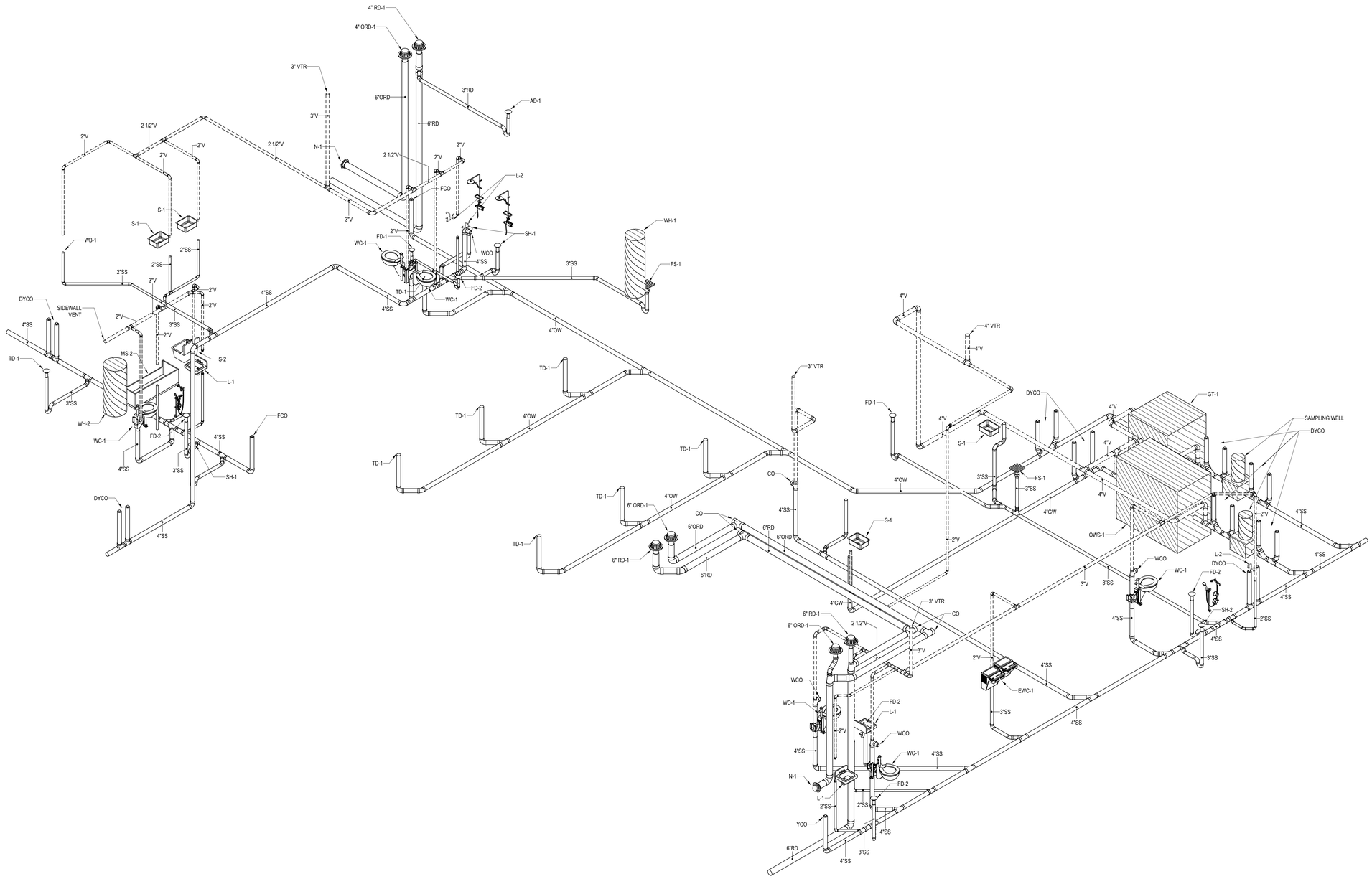
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1 PLUMBING RISER - WASTE AND VENT

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DATE:	03/20/2024
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CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.

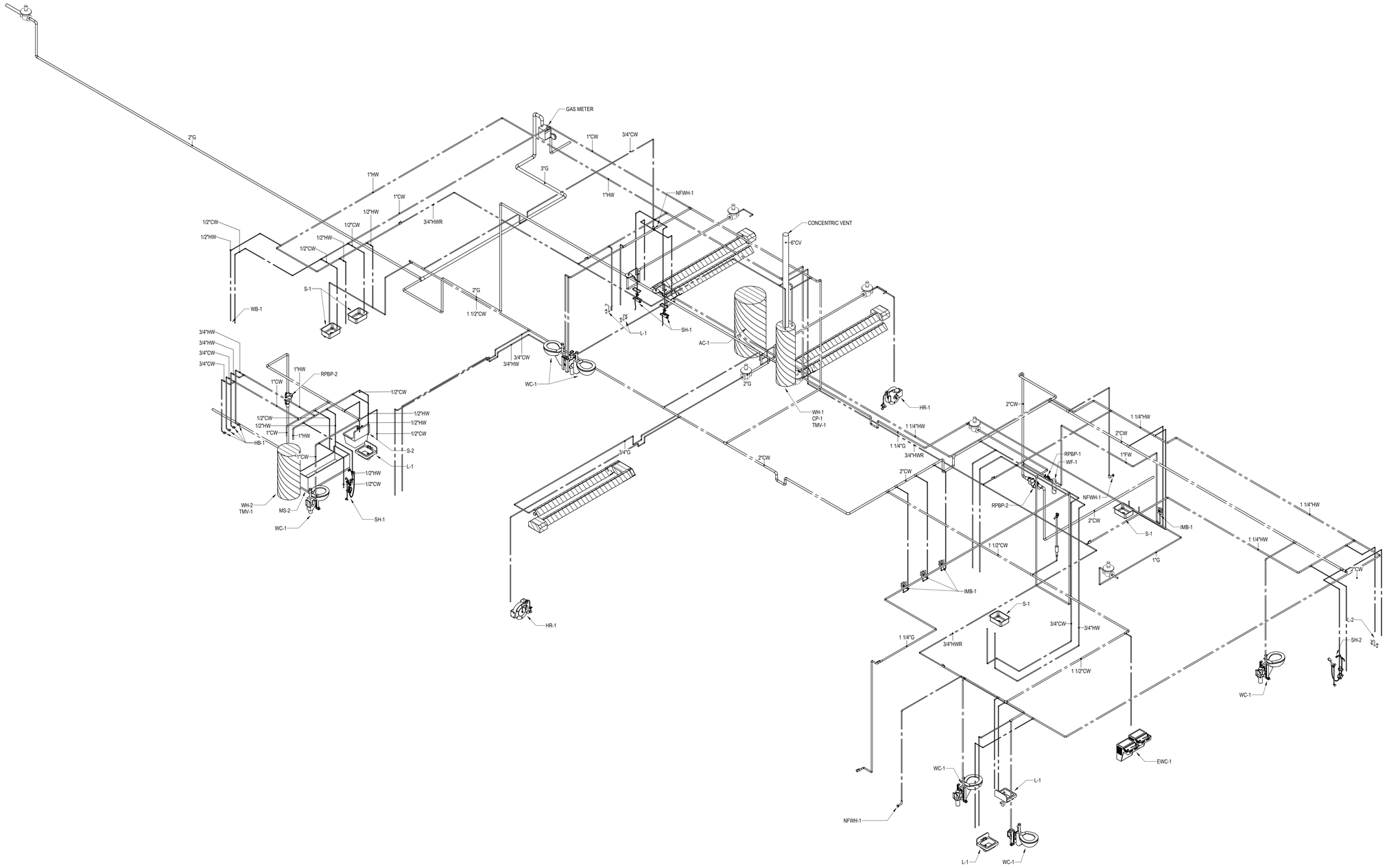
STATE OF TEXAS
ANDREW D. HUNTLEY
149586
LICENSED
PROFESSIONAL ENGINEER
03/20/2024

SHEET DESCRIPTION:
PLUMBING WASTE & VENT RISER DIAGRAM

SHEET NO.
PZ401

MEPCE
ENGINEERING FIRM F-4055
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM

PROJECT CODE
31.00516



1 PLUMBING RISER - SUPPLY

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03/20/2024

SHEET DESCRIPTION:
PLUMBING SUPPLY RISER DIAGRAM

SHEET NO.
PZ402

MEPCE
ENGINEERING FIRM: F-4000
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM
PROJECT CODE
31.00516

LOW VOLTAGE BACKBOX AND RACEWAY SCHEDULE

SYMBOL	DESCRIPTION	PORT NUMBER - CABLE ASSIGNMENTS								POWER	LOW VOLTAGE PATHWAY FEED	NOTES	DEVICE BOX/ RING	NOTES	MOUNTING	NOTES	FACEPLATE/ OUTLET	NOTES
		#1	#2	#3	#4	#5	#6	NOTES										
HD	HDMI	'H'								NO	(1) 1-1/2" CONDUIT	1, 8	4X4X2-7/8	3	RECESSED 18"AFF	4	1-PORT	
TV(xx) (xx) INDICATES DIAG. INCHES	AV DISPLAY	'A'	'A'	'H'	'C'					YES	AV, (1) 1-1/4" CONDUIT DATA, (1) 1" CONDUIT	1	PAC 525F	3	RECESSED 72"AFF UNO	4	4-PORT	5
4	4-PORT DATA DROP	'A'	'A'	'A'	'A'					NO	(1) 1-1/4" CONDUIT	1	4X4X2-7/8 2-GANG	2, 3	WALL, FLUSH 18"AFF UNO	4	2-PORT	
2	2-PORT DATA DROP	'A'	'A'							NO	(1) 1" CONDUIT	1	4X4X2-7/8 1-GANG	2, 3	WALL, FLUSH UNO	4	2-PORT	
1	1-PORT DATA DROP	'A'								NO	(1) 3/4" CONDUIT	1	4X4X2-7/8 1-GANG	2, 3	WALL, FLUSH UNO	4	2-PORT	
B	BLANK DATA DROP	'B'								NO	(1) 3/4" CONDUIT	1	4X4X2-7/8 1-GANG	2	WALL, FLUSH UNO	4	2-PORT	
AP	CEILING MOUNTED ACCESS POINT	'A'	'A'					7		NO	(1) 1-1/4" CONDUIT	1	2-PORT SURFACE MOUNT BOX	3	ABOVE ACCESSIBLE CEILING		2-PORT	8

CABLE SERVICE TYPES, AND TERMINATIONS

DESCRIPTOR	CABLE TYPE	NEC	TERMINATION TYPE AT EQUIPMENT ROOM	DESCRIPTION
'A'	UTP CAT6	CMP	HORIZONTAL DATA FIELD - ONTO RACK MOUNTED MODULAR PATCH PANELS	
'B'	BLANK			BLANK INSERT AT UNUSED PORT
'C'	RG6 COAX.	CMP	WALL MOUNTED SPLITTER	
'H'	HDMI 2.1	CMP	N/A	UTILIZE PASSIVE 2.1 HDMI CABLE FOR RUNS < 25'. ACTIVE HDMI FOR RUNS < 50'. AND FIBER TO HDBaseT FOR RUNS > 50'.

NOTES:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT STUB WITH GROMMET FROM ACCESSIBLE CEILING DOWN WALL TO DEVICE BOX WITH PULL STRING.
2. PROVIDE BACK BOX FOR ALL WORK AREA OUTLETS.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE DEVICE BOX, RING, AND CONDUIT.
4. DEVICE HEIGHTS SHOWN ON THESE DRAWINGS ARE FOR REFERENCE ONLY. ARCHITECTURAL ELEVATIONS SUPERSEDE HEIGHTS SHOWN HERE.
5. DEVICE SHARED WITH AUDIO VISUAL. REFER TO AUDIO VISUAL SPECS AND DRAWINGS FOR ADDITIONAL INFORMATION.
6. REFER TO ELECTRICAL PLANS FOR POKE-THRU SIZING INFORMATION.
7. CEILING OUTLET FOR WIRELESS ACCESS POINT. PROVIDE 15' SERVICE LOOP. TERMINATE EACH CABLE ON A SURFACE MOUNTED BOX/ BISCUIT. CONNECT UNIT WITH A PATCH CABLE.
8. REFER TO SHEET NOTES FOR HDMI TERMINATION POINTS.

FIRE ALARM GENERAL NOTES

1. LAYOUT SHOWN ON FIRE ALARM SHEETS ARE DIAGRAMMATIC IN NATURE AND ARE NOT INTENDED TO DEPICT EXACT FILED CONDITIONS. VERIFY ALL ASPECTS OF FIELD CONDITIONS BEFORE BEGINNING WORK.
2. ALL HORN/STROBE STROBE WILL BE SYNCHRONIZED.
3. INSTALLATION SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE ELECTRICAL CODES, LOCAL, STATE AND FEDERAL FIRE ALARM CODE AND AUTHORITIES HAVING JURISDICTION.
4. WIRING METHODS AND MATERIALS SHALL CONFORM WITH ALL APPLICABLE SECTIONS OF NEC ARTICLE 760.
5. 120 VAC @60 Hz INPUT POWER FOR FIRE ALARM CONTROLS SHALL BE A DEDICATED LOCKING BREAKER PROPERLY LABELED SOURCE.
6. ALL WIRING INCLUDING SHIELDING, MUST BE DRY AND FREE OF SHORTS AND GROUND FAULTS.
7. 120 VAC IS NOT PERMITTED IN SAME CONDUIT WITH LOW VOLTAGE WIRING.
8. HORN/STROBES SHALL BE MOUNTED AS SHOWN ON THE DRAWING.
9. ANY SMOKE DETECTOR HEAD INSTALLED BEFORE BUILDING IS CLEANED AND ACCEPTED SHALL BE COVERED TO PROTECT FROM DUST AND ANY FALSE ALARMS DUE TO DIRT-CONTAMINATED HEADS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. THERE WILL BE NO CONDUIT ENTRY ALLOWED 18 INCHES OR LOWER ON THE SIDE PANELS OR THROUGH THE BOTTOM OF ALL CONTROL EQUIPMENT BACKBOXES.
11. MANUAL PULL STATIONS SHALL BE MOUNTED AT 48 INCHES ABOVE FINISHED FLOOR TO CENTERLINE OF DEVICE.
12. LOCAL FIRE AUTHORITY SHALL WITNESS FINAL TEST.
13. ALL INITIATING CIRCUITS SHALL BE CLASS "A" WITH 6 FOOT SEPARATION, POWER LIMITED.
14. ALL NOTIFICATION CIRCUITS SHALL BE CLASS "B", POWER LIMITED.
15. 24 HOUR CENTRAL STATION MONITORING WILL BE PROVIDED.
16. DUCT SMOKE DETECTORS WILL BE INSTALLED AND POWERED BY CONTRACTOR.
17. CONTRACTOR TO ARRANGE COMPLETE TRAINING FOR MAINTENANCE PERSONNEL.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES AND PERMITS AS NECESSARY TO COMPLETE THIS JOB. ALSO PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSURE A COMPLETE WORKING SYSTEM APPROVED BY THE CITY.
19. PROVIDE AND INSTALL HEAT DETECTOR FOR ALL ELEVATOR MACHINE ROOMS (IF APPLICABLE) AND ELECTRICAL ROOMS.
20. CONTRACTOR SHALL PROVIDE ANY ITEMS REQUIRED BY AUTHORITIES HAVING JURISDICTION THAT IS NOT SHOWN ON DRAWING AT NO EXTRA COST TO THE OWNER.
21. ANY ELECTRONIC LOCK OR ACCESS CONTROLLED DOORS SHALL RELEASE LOCK UPON FIRE ALARM ACTIVATION.
22. FIRE ALARM ENGINEER TO TAKE INTO ACCOUNT BUILDING IS NOT SPRINKLERED PER OWNER REQUEST. PROVIDE ADDITIONAL SMOKE DETECTORS AS REQUIRED FOR FULL BUILDING COVERAGE.

ABBREVIATIONS

AWG	AMERICAN WIRE GAUGE
BICSI	BUILDING INDUSTRY CONSULTING SERVICES INTERNATIONS, INC.
CAT	CATEGORY CABLE
CMP	COMMUNICATIONS PLENUM CABLE
CMR	COMMUNICATIONS RISER CABLE
COW	COMPUTER ON WHEELS
DATA PORT	SINGLE CATEGORY 6e OR NEWER JACK CONNECTED TO A SINGLE CABLE SEGMENT
DEMARC	DEMARCATION POINT
DUPLEX ELECTRICAL OUTLET	TWO (2) ELECTRICAL RECEPTACLES, SINGLE GANG BACK BOX (PROVIDED BY ELECTRICAL CONTRACTOR)
DUPLEX DATAPORT	TWO (2) SINGLE CATEGORY 6e DATAPORTS OR NEWER
EF	ENTRANCE FACILITY
EIA	ELECTRONIC INDUSTRIES ALLIANCE
ELECTRICAL OUTLET	SINGLE 120 VOLT POWER RECEPTACLE (PROVIDED BY ELECTRICAL CONTRACTOR)
EMT	ELECTRICAL METALLIC CONDUIT
ER	EQUIPMENT ROOM (IDF, MDF)
FDC	FIBER DISTRIBUTION CENTER (RACK, WALL RACK)
FOC	FIBER OPTIC CABLE
FOPP	FIBER OPTIC PATCH PANEL
GC	GENERAL CONTRACTOR
GRC	GALVANIZED RIGID CONDUIT
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
IDF	INTERMEDIATE DISTRIBUTION FRAME
IMC	INTERMEDIATE METALLIC CONDUIT
ID	INTERACTIVE DISPLAY
ITS	INFORMATION AND TECHNOLOGY SERVICES
MDF	MAIN DISTRIBUTION FRAME
MM	MULTI-MODE FIBER OPTIC CABLE
MPP	MULTIPURPOSE PLENUM CABLE
MPR	MULTIPURPOSE RISER CABLE
N/A	NOT APPLICABLE
OFNP	OPTICAL FIBER NON-METALLIC PLENUM RATED
OFNR	OPTICAL FIBER NON-METALLIC RISER RATED
OTD	OPTICAL TIME DOMAIN REFLECTOMETER
POS	POINT OF SALE
PSTN	PUBLIC SWITCHED TELEPHONE NETWORK
RDP	RATE DEMARCATION POINT
QUAD-ELECTRICAL OUTLET	FOUR (4) ELECTRICAL RECEPTACLES 4X4 BACK BOX (PROVIDED BY ELECTRICAL CONTRACTOR)
RCDD	REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
RMU	RACK MOUNT UNIT (1.75")
SCS	STRUCTURED CABLING SYSTEM
SEC	SECURITY
SM	SINGLE MODE FIBER OPTIC CABLE
TBD	TO BE DETERMINED
TE	TELECOMMUNICATIONS ENCLOSURE
TIA	TELECOMMUNICATION INDUSTRY ASSOCIATION
TMG	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TR	TELECOMMUNICATION ROOM
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
VoIP	VOICE OVER IP (INTERNET PROTOCOL)
WAP	WIRELESS ACCESS POINT

TELECOM GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING THE NECESSARY INFRASTRUCTURE AND COMPONENTS PER THE SPECIFICATIONS TO ACCOMMODATE THE DATAVOICE OUTLETS OUTLINED ON THE DRAWINGS. THIS INCLUDES, BUT IS NOT LIMITED TO:
   - PATCH PANELS/CABLES
   - ALL REQUIRED CAT 6 HORIZONTAL CABLING
   - LADDER RACK / CABLE TRAYS
   - J-HOOKS
   - JACKS / FACEPLATES
   - GROUND BAR AND ASSOCIATED GROUNDING CONDUCTORS / CONNECTORS
2. THE DIVISION 27 SUBCONTRACTOR SHALL REVIEW ALL CONSTRUCTION DOCUMENTS AND SHALL COORDINATE ALL DIVISION 27 WORK ON THE T- SHEETS AND SPECIFICATIONS WITH OTHER DISCIPLINES. ALL DIVISION 27 REQUIREMENTS FOR THE PROJECT ARE THE RESPONSIBILITY OF THE TELECOMMUNICATIONS SUBCONTRACTOR UNLESS OTHERWISE NOTED. REFER TO MEP AND SECURITY SHEETS TO ENSURE POWER AND SECURITY LOCATIONS ARE COORDINATED.
3. IF THE DIVISION 27 GENERAL CONDITIONS AND PROJECT GENERAL CONDITIONS DIFFER ON THE SAME POINT, THE STRICTEST DEFINITION AND/OR INTERPRETATION SHALL GOVERN.
4. DRAWINGS FOR THIS WORK ARE DIAGRAMMATIC ONLY, INTENDED TO CONVEY THE EXTENT, GENERAL ARRANGEMENT AND LOCATIONS OF THE WORK. BECAUSE OF THE SCALE OF THE DRAWINGS, CERTAIN BASIC ITEMS SUCH AS CONDUIT FITTINGS, ACCESS PANELS, CABINET SIZES, SLEEVES, PULL BOXES, BACKBOXES, AND JUNCTION BOXES MAY NOT BE SHOWN. INCLUDE ALL ITEMS WHERE REQUIRED BY CODE, OTHER SECTIONS, AND FOR PROPER INSTALLATION OF THE WORK.
5. DIVISION 27 SUBCONTRACTOR MUST COORDINATE MEETING WITH DIVISION 26/28 SUBCONTRACTORS TO REVIEW ALL BACKBOXES, RACEWAYS, DATA, AND FIBER CABLING NEEDS PRIOR TO ROUGH-IN. SHOP DRAWINGS MUST BE CREATED AND SUBMITTED FOR ENGINEER REVIEW BEFORE INSTALLATION.
6. ELECTRICAL CONTRACTOR TO PROVIDE ALL CONDUITS, SLEEVES, WALL/FLOOR BOXES, CABLE TRAY, AND 120V POWER TO SUPPORT SECURITY COMPONENTS. SECURITY CONTRACTOR RESPONSIBLE FOR J-HOOK INSTALLATION AS REQUIRED TO PROPERLY SUPPORT CABLING.
7. ALL CONDUIT SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES FROM STRUCTURE.
8. ALL TELECOMMUNICATIONS CABLING IN EXPOSED OR INACCESSIBLE CEILINGS TO BE IN CONDUIT.
9. MINIMUM CONDUIT SIZE FOR INTERIOR SHALL BE 3/4" AND 1" FOR EXTERIOR CONDUITS, UNO. CONDUITS NOT TO EXCEED 40% FILL. CONDUIT ENDS TO INCLUDE BUSHINGS. PROVIDE PULL STRING IN ALL CONDUITS.
10. CONDUITS UP WALLS MUST BE ROUTED TO NEAREST ACCESSIBLE CEILING SPACE AT A POINT THAT ALLOWS FOR ADEQUATE VERTICAL WORK ROOM.
11. JUNCTION BOX TO BE ADDED FOR EVERY (2) 90 DEGREE BENDS AND EVERY 100' OF CONDUIT RUNS.
12. INCLUDE ALL ITEMS REQUIRED FOR A COMPLETELY OPERATIONAL AND FULLY FUNCTIONAL SYSTEM, WHETHER OR NOT SPECIFICALLY INDICATED ON PLANS.
13. FIRE SEAL AND LABEL ALL PENETRATIONS OF FIRE RATED ASSEMBLIES TO MAINTAIN FIRE AND U.L. RATING.
14. FIRE ALARM PANEL CONNECTIVITY AND PROGRAMMING BY FIRE ALARM CONTRACTOR.
15. SHIELDED AND SCREENED CABLES SHALL HAVE THEIR SHIELD'S GROUNDED PER MANUFACTURER'S INSTRUCTION. WHEN SHIELDED GROUNDS ARE REQUIRED AT ONE END ONLY, THEY SHALL BE GROUNDED AT THE DGP (MASTER PANEL WHEN REMOTE PANELS ARE USED), WITH THE OTHER END OF THE CABLE, INSULATED TO PREVENT SHIELD GROUNDING.
16. ALL METALLIC DATA, SIGNALING AND POWER CONDUCTORS FOR ROOF, FENCE AND POLE/TOWER MOUNTED DEVICES/SENSORS SHALL HAVE SURGE SUPPRESSORS WITH MANUFACTURER RECOMMENDED GROUNDING AT BOTH THE DEVICE AND TERMINATION ENDS.
17. ALL POWER SUPPLIES NOT FED FROM AN UPS SHALL HAVE EXTERNAL SURGE SUPPRESSORS WITH MANUFACTURER RECOMMENDED GROUNDING.
18. COORDINATE EXACT LOCATION(S) OF CEILING MOUNTED EQUIPMENT/DEVICES WITH ARCHITECTURAL PLANS, REFLECTED CEILING PLANS, STRUCTURAL PLANS, AND ALL AFFECTED TRADES PRIOR TO CONSTRUCTION AND INSTALLATION.
19. MAIN CABLE TRAY PATHWAYS SHALL BE LAID OUT AND DRAWN UP ON SHOP DRAWINGS IN ADVANCE OF INSTALLATION, AND SHALL BE CLOSELY COORDINATED WITH OTHER ABOVE-CEILING TRADES DURING REGULAR ON-SITE CONSTRUCTION MEETINGS. ACCEPTABLE MANUFACTURERS FOR CABLE TRAY ARE PANDUIT, WIREMOLD, CABLOFIL, AND CHATSWORTH. CABLE TRAY SHALL ACCOMMODATE ALL HORIZONTAL, BACKBONE, AND INTERCOM/PROGRAMMING SYSTEM CABLING WITHOUT EXCEEDING A 40% FILL RATIO.
20. CABLES BRANCHING OUTSIDE OF SHOWN CABLE TRAY SHALL BE ATTACHED TO AND SUPPORTED BY BUILDING STRUCTURE TO MEET ALL GOVERNING CODES AND ACCORDING TO MANUFACTURERS' RECOMMENDATIONS WITH 2" J-HOOKS. THE BRANCH CABLE SUPPORT SYSTEM SHALL BE INDEPENDENT OF OTHER TRADES' SUPPORT SYSTEMS.
21. ALL BRANCH PATHWAY SUPPORT SYSTEMS SHALL BE INSTALLED AT A MAXIMUM OF 4' TO 5' STAGGERED INTERVALS SO THAT INSTALLED CABLES WILL HAVE NO MORE THAN 9" OF DRAPE BETWEEN THEM.
22. THE SERVICE LOOP IN ANY WAO BACKBOX OR STATION-SIDE WALL CUT-IN SHALL BE 12" IN LENGTH.
23. AT EACH WIRELESS ACCESS POINT LOCATION NOTED WITHIN A DROP CEILING, THE CONTRACTOR SHALL PROVIDE GREEN DOT STICKER ON CEILING GRID BELOW ACCESS POINT LOCATION.
24. CONTRACTOR IS REQUIRED TO SUBMIT SHOP DRAWINGS FOR APPROVAL FOR ALL TELECOMMUNICATIONS SYSTEM DEVICES AND COMPONENTS PRIOR TO CONSTRUCTION.
25. CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING/PATCHING WORK REQUIRED FOR THE INSTALLATION OF THE REQUIRED DEVICES AND CABLING. CONTRACTOR MUST REPAIR ALL CUT AND PATCH WORK TO MATCH EXISTING CONDITIONS UPON COMPLETED SYSTEM INSTALLATION.
26. IN THESE DOCUMENTS, "FURNISH" SHALL MEAN TO SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION AND SIMILAR OPERATIONS. "INSTALL" SHALL MEAN TO UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN, AND SIMILAR OPERATIONS AT THE PROJECT SITE. "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.

SECURITY GENERAL NOTES

1. THE SECURITY SUBCONTRACTOR SHALL REVIEW ALL CONSTRUCTION DOCUMENTS AND SHALL COORDINATE ALL ELECTRONIC SECURITY WORK ON THE SECURITY SHEETS AND SPECIFICATIONS WITH OTHER DISCIPLINES. ALL SECURITY REQUIREMENTS FOR THE PROJECT ARE THE RESPONSIBILITY OF THE SECURITY SUBCONTRACTOR UNLESS OTHERWISE NOTED. REFER TO MEP AND TECHNOLOGY SHEETS TO ENSURE POWER AND DATA LOCATIONS ARE COORDINATED.
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4. ELECTRICAL CONTRACTOR TO PROVIDE ALL CONDUITS, SLEEVES, WALL/FLOOR BOXES, CABLE TRAY, AND 120V POWER TO SUPPORT SECURITY COMPONENTS. SECURITY CONTRACTOR RESPONSIBLE FOR J-HOOK INSTALLATION AS REQUIRED TO PROPERLY SUPPORT CABLING.
5. ALL SECURITY CABLING IN EXPOSED OR INACCESSIBLE CEILINGS TO BE IN CONDUIT.
6. IN ACCESSIBLE CEILINGS RUNNING WIRING MUST MEET ALL GOVERNING CODE.
7. MINIMUM CONDUIT SIZE FOR INTERIOR SHALL BE 3/4" AND 1" FOR EXTERIOR CONDUITS, UNO. CONDUITS NOT TO EXCEED 40% FILL. CONDUIT ENDS TO INCLUDE BUSHINGS. PROVIDE PULL STRING IN ALL CONDUITS
8. CONDUITS UP WALLS MUST BE ROUTED TO NEAREST ACCESSIBLE CEILING SPACE AT A POINT THAT ALLOWS FOR ADEQUATE VERTICAL WORK ROOM.
9. JUNCTION BOX TO BE ADDED FOR EVERY (2) 90 DEGREE BENDS AND EVERY 100' OF CONDUIT RUNS.
10. INCLUDE ALL ITEMS REQUIRED FOR A COMPLETELY OPERATIONAL AND FULLY FUNCTIONAL SYSTEM, WHETHER OR NOT SPECIFICALLY INDICATED ON PLANS.
11. FIRE SEAL AND LABEL ALL PENETRATIONS OF FIRE RATED ASSEMBLIES TO MAINTAIN FIRE AND U.L. RATING.
12. FIRE ALARM PANEL CONNECTIVITY AND PROGRAMMING BY FIRE ALARM CONTRACTOR.
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14. ALL METALLIC DATA, SIGNALING AND POWER CONDUCTORS FOR ROOF, FENCE AND POLE/TOWER MOUNTED DEVICES/SENSORS SHALL HAVE SURGE SUPPRESSORS WITH MANUFACTURER RECOMMENDED GROUNDING AT BOTH THE DEVICE AND TERMINATION ENDS.
15. ALL POWER SUPPLIES NOT FED FROM AN UPS SHALL HAVE EXTERNAL SURGE SUPPRESSORS WITH MANUFACTURER RECOMMENDED GROUNDING.
16. COORDINATE EXACT LOCATION(S) OF CEILING MOUNTED EQUIPMENT/ DEVICES WITH ARCHITECTURAL PLANS, REFLECTED CEILING PLANS, STRUCTURAL PLANS, AND ALL AFFECTED TRADES PRIOR TO CONSTRUCTION AND INSTALLATION.
17. COORDINATE EXACT LOCATIONS OF ALL DESKTOP/COUNTER MOUNTED SECURITY EQUIPMENT WITH MILLWORK/CASEWORK AND FURNITURE PLANS PRIOR TO INSTALLATION. CABLING TO BE SECURED AND CONCEALED WITHIN MILLWORK WHEN POSSIBLE AND TO UTILIZE WIREMOLD WHEN RUN ALONG ACCESSIBLE SPACES. PROVIDE GROMMITS WHEN CABLING IS ROUTED THROUGH ANY PANELING.
18. CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING/PATCHING WORK REQUIRED FOR THE INSTALLATION OF THE REQUIRED DEVICES AND CABLING. CONTRACTOR MUST REPAIR ALL CUT AND PATCH WORK TO MATCH EXISTING CONDITIONS UPON COMPLETED SYSTEM INSTALLATION.
19. IN THESE DOCUMENTS, "FURNISH" SHALL MEAN TO SUPPLY AND DELIVER TO PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY, INSTALLATION AND SIMILAR OPERATIONS. "INSTALL" SHALL MEAN TO UNLOAD, TEMPORARILY STORE, UNPACK, ASSEMBLE, ERECT, PLACE, ANCHOR, APPLY, WORK TO DIMENSION, FINISH, CURE, PROTECT, CLEAN, AND SIMILAR OPERATIONS AT THE PROJECT SITE. "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.
20. REFER TO MEP SITE PLAN SHEET FOR SECURITY GAE LOCATION AND DISTANCE INFORMATION.

SECURITY LEGEND

SECURITY

- CR — CARD READER, REFER TO DETAILS
- KP — KEYPAD, REFER TO DETAILS
- CAMERA, CEILING MOUNTED - SINGLE DIRECTION
- CAMERA, CEILING MOUNTED - 360° RANGE
- DB — CARD READER
- BC — BELL CHIME

FIRE ALARM

- FACP — FIRE ALARM CONTROL PANEL
- FAAP — FIRE ALARM ANNUNCIATOR
- SM — SMOKE DETECTOR
- S — SMOKE DETECTOR WITH SOUNDER BASE
- H — HEAT DETECTOR
- CO — CARBON MONOXIDE DETECTOR
- WALL/CEILING HORN/STROBE
- WALL/CEILING VISUAL STROBE
- P — MANUAL PULL STATION

CABLE ROUTING

ALL CABLING ABOVE CORRIDOR CEILINGS SHALL BE ROUTED WITHIN CABLE TRAY. BRANCH RUNS SHALL BE ROUTED WITHIN J-HOOKS.

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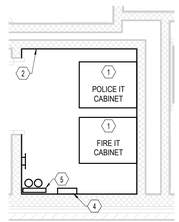
SHEET DESCRIPTION:
TECHNOLOGY GENERAL NOTES AND LEGEND

SHEET NO.
TN001

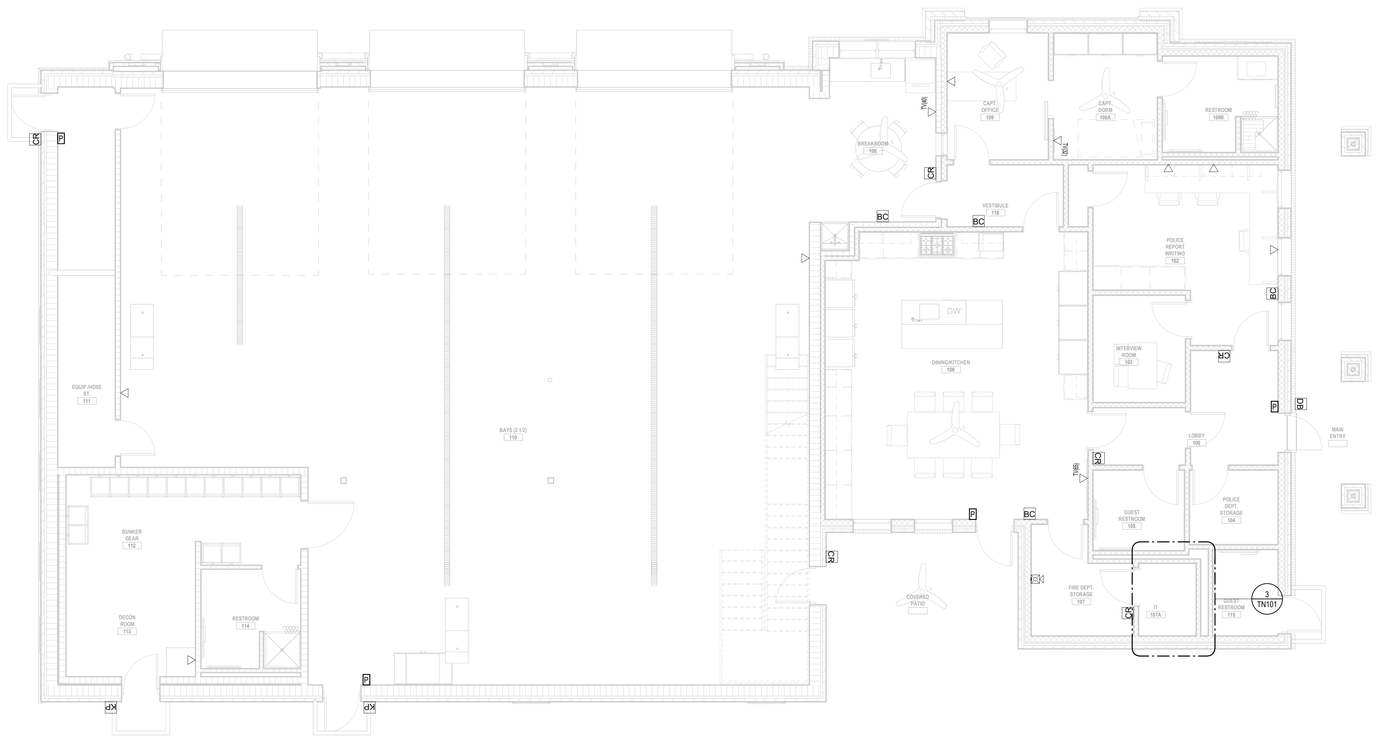
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2 TECHNOLOGY PLAN - LEVEL 2
3/16" = 1'-0"



3 TECHNOLOGY PLAN - 107A
3/8" = 1'-0"



1 TECHNOLOGY PLAN - LEVEL 1
3/16" = 1'-0"

PLAN NOTES

A. PROVIDE 3/4" CONDUIT TO ALL SINGLE GANG BOXES FOR ALL SECURITY DEVICES.

B. ELECTRICAL CONTRACTOR TO PROVIDE BACKBOXES AND CONCEAL CONDUIT BEHIND STRUCTURE WHERE POSSIBLE. VERTICAL RUNS TO FINAL DEVICE LOCATION TO BE COORDINATED WITH LOW VOLTAGE VENDOR BEFORE INSTALLATION.

C. WHEN CONDUIT IS ROUTED THROUGH EXPOSED OR GYPHARD CEILING, CONDUIT IS TO BE RUN 1' HORIZONTALLY INTO LAY-IN CEILING SPACE TO FACILITATE FUTURE ACCESS.

D. ALL WALL MOUNTED DEVICES TO HAVE 3/4" CONDUIT ROUTED TO ABOVE CEILING SPACE. "RING AND STRING" WILL NOT BE PERMITTED.

NOTES BY SYMBOL

1. CUBE-IT MODEL 12419X36.
2. PROVIDE 3/4" PLYWOOD ON ALL FOUR WALLS.
3. GROUNDING BAR @ 9'AFF.
4. ACCESS CONTROLS.
5. 12" VERTICAL LADDER.

DRAWN BY:	ID
CHECKED BY:	TK
DATE:	03/20/2024
ISSUED FOR PERMIT:	03/20/2024
ISSUED FOR PRICING:	03/20/2024

REVISIONS:

No.	Description	Date

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105 S. JENNINGS AVE., SUITE 100 FORT WORTH, TEXAS 76104 817.332.9477 FAX 817.332.9497
WWW.RPGAARCHITECTS.COM

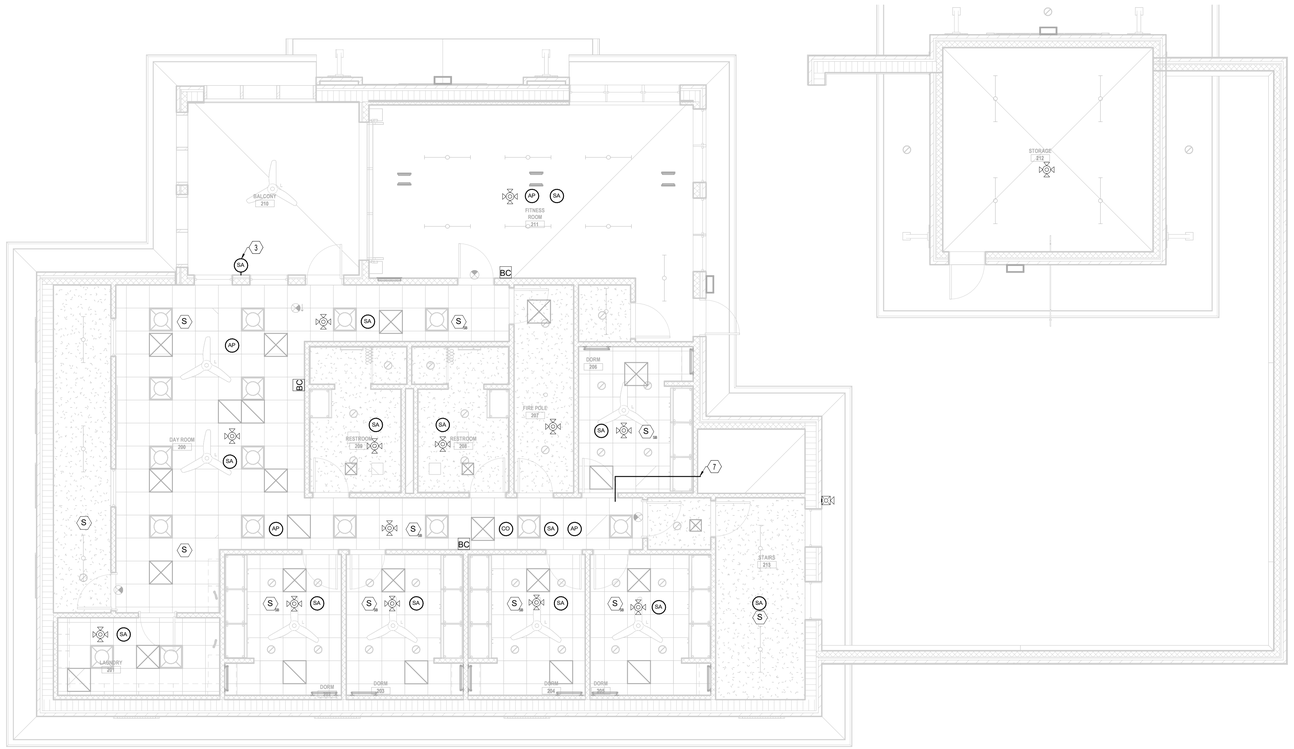
CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
Adam Nemati
REG. NO. 201150R
EXPIRES 12-31-26
RCDD 03/20/2024

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM
PROJECT CODE
21.00516

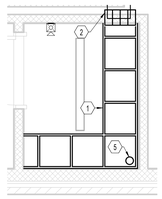
SHEET DESCRIPTION:
TECHNOLOGY FLOOR PLANS

SHEET NO.
TN101



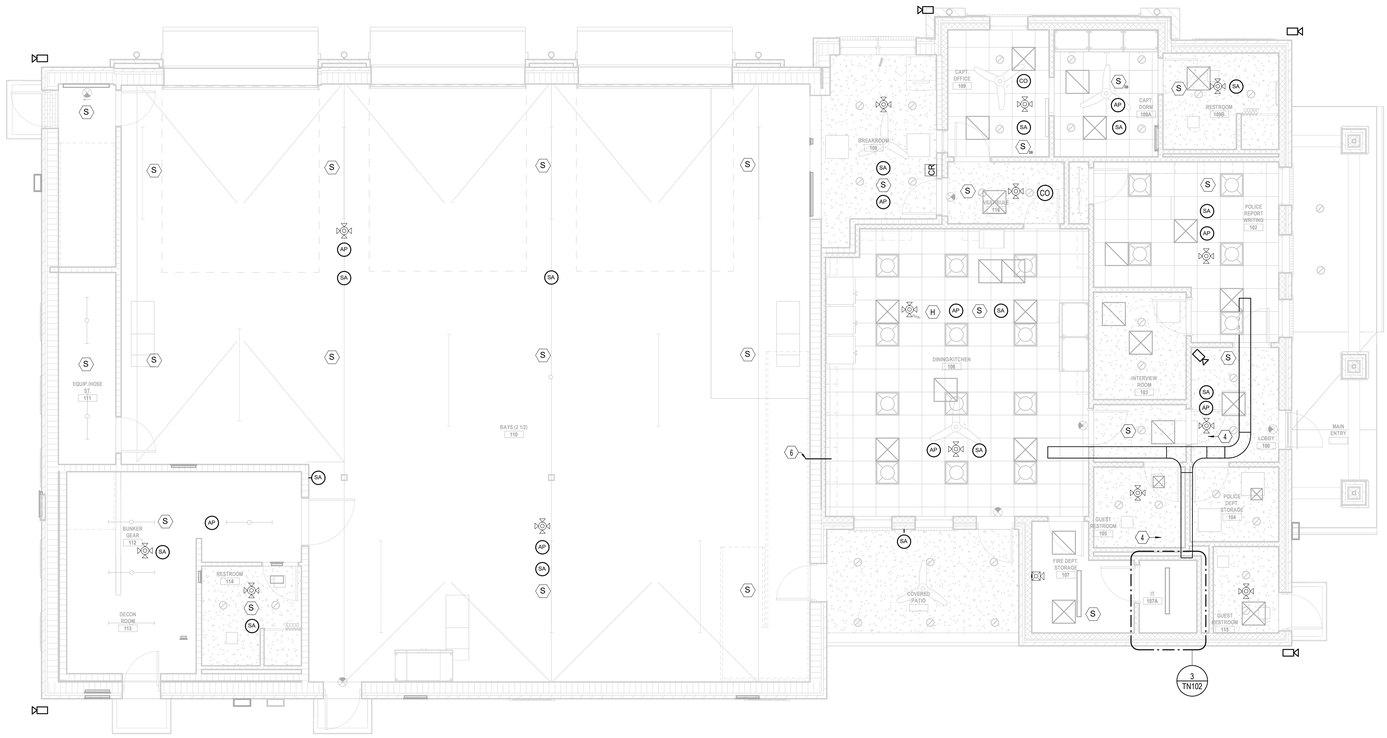
2 TECHNOLOGY CEILING PLANS LEVEL 2

3/16" = 1'-0"



3 TECHNOLOGY CEILING PLAN 107A

3/8" = 1'-0"



1 TECHNOLOGY CEILING PLANS LEVEL 1

3/16" = 1'-0"

PLAN NOTES

A. PROVIDE 3/4" CONDUIT TO ALL SINGLE GANG BOXES FOR ALL SECURITY DEVICES.

B. REFER TO COVER SHEET FOR ALL LOW VOLTAGE DEVICE RACEWAY AND BOX SIZING. ELECTRICAL CONTRACTOR TO PROVIDE ALL PATHWAYS TO LOW VOLTAGE DEVICES SHOWN.

C. COORDINATE FINAL DEVICE LOCATIONS WITH OWNER LOW VOLTAGE VENDORS PRIOR TO ROUGH-IN.

D. ELECTRICAL CONTRACTOR TO CONCEAL CONDUIT BEHIND STRUCTURE WHERE POSSIBL. VERTICAL RUNS TO FINAL DEVICE LOCATION TO BE COORDINATED WITH LOW VOLTAGE VENDOR BEFORE INSTALLATION.

E. WHEN CONDUIT IS ROUTED THROUGH EXPOSED OR GYP/HARD CEILING, CONDUIT IS TO BE RUN 1' HORIZONTALLY INTO LAY-IN CEILING SPACE TO FACILITATE FUTURE ACCESS.

F. ALL WALL MOUNTED DEVICES TO HAVE 3/4" CONDUIT ROUTED TO ABOVE CEILING SPACE. "RING AND STRING" WILL NOT BE PERMITTED.

G. PROVIDE SINGLE GANG BOX WITH 3/4"C TO ALL CAMERA LOCATIONS.

H. ALL EXTERIOR CAMERAS TO BE 360° TYPE.

NOTES BY SYMBOL

1. 18" HORIZONTAL LADDER TRAY.
2. 44+ SERIES (4X1 CONFIGURATION) EZ PATH PROVIDED BY ELECTRICAL.
3. PROVIDE VOLUME CONTROLS.
4. PROVIDE ACCESS PANELS AT INDICATED LOCATION. COORDINATE EXACT LOCATIONS AND SIZES WITH ARCH PRIOR TO INSTALLATION.
5. PROVIDE 4" WEATHERHEAD TO ROOF.
6. PROVIDE (2)4"C FROM DINING ROOM CEILING SPACE TO CHASE FOR 2ND FLOOR IT CABLING.
7. CONDUITS FROM FIRST FLOOR TO BE ROUTED TO CEILING SPACE.

DRAWN BY:	ID
CHECKED BY:	TK
DATE:	03/20/2024
ISSUED FOR PERMIT:	03/20/2024
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REVISIONS:

No.	Description	Date

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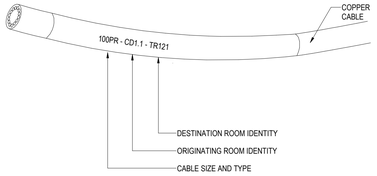
CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
BICSI
Adam Nemati
REG. NO. 201150R
EXPIRES 12-31-26
RCDD 03/20/2024

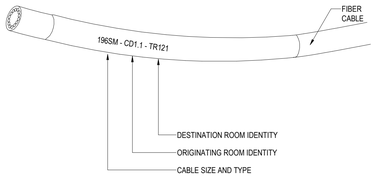
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TECHNOLOGY CEILING PLANS

SHEET NO.
TN102

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM
PROJECT CODE
31.00516

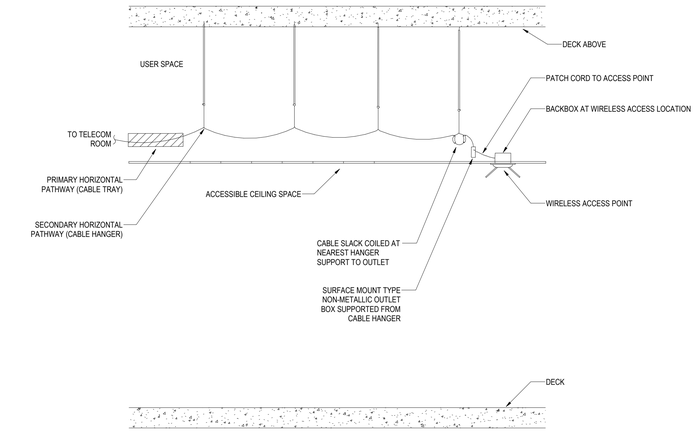


COPPER BACKBONE CABLING



FIBER BACKBONE CABLING

4 BACKBONE CABLE LABEL FORMAT
NTS



1 ACCESS POINT ROUTING - CEILING MOUNT
NTS

FIBER PATCH PANEL		19
		18
48 PATCH PANEL (WAP)		17
POE+ SWITCH		16
48 PATCH PANEL (CAM)		15
POE+ SWITCH		14
NETWORK RECORDER		13
48 PATCH PANEL		12
POE+ SWITCH		11
48 PATCH PANEL		10
POE+ SWITCH		9
		8
		7
AMPLIFIER		6
		5
STATION ALERTING		4
		3
		2
		1

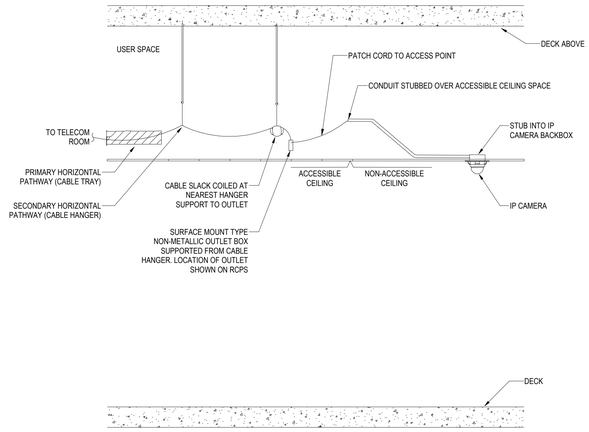
(FRONT VIEW)

8 IT RACK RISER - FIRE
NTS

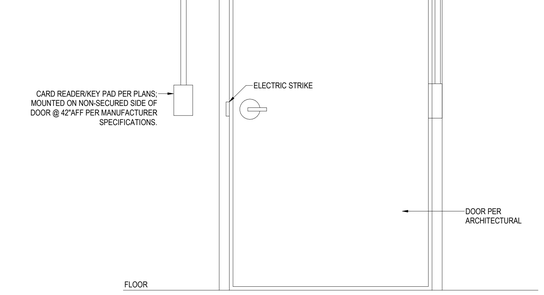
FIBER PATCH PANEL		19
		18
48 PATCH PANEL (WAP)		17
POE+ SWITCH		16
		15
		14
		13
48 PATCH PANEL		12
POE+ SWITCH		11
48 PATCH PANEL		10
POE+ SWITCH		9
		8
		7
		6
		5
		4
		3
		2
		1

(FRONT VIEW)

7 IT RACK RISER - POLICE
NTS



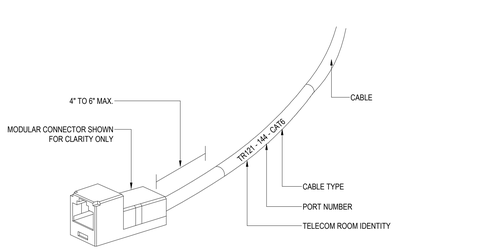
5 CAMERA ROUTING - CEILING MOUNTED
NTS



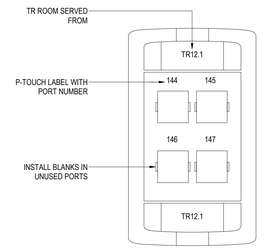
NOTES:

1. REFER TO ARCHITECTURAL DOOR HARDWARE DIVISION SPECIFICATIONS FOR ACTUAL HARDWARE INFORMATION.
2. PROVIDE PULL STRING IN ALL CONDUITS. SECURITY CABLING AND CONNECTIONS BY OWNER. COORDINATE PRECISE DOOR SECURITY REQUIREMENTS WITH OWNER.

2 CARD READER
NTS



6 HORIZONTAL CABLE LABEL
NTS



3 OUTLET LABEL FORMAT
NTS

DRAWN BY:	ID
CHECKED BY:	TK
DATE:	03/20/2024
ISSUED FOR PERMIT:	03/20/2024
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No.	Description	Date

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WWW.RPGAARCHITECTS.COM

CITY OF AUBREY
FIRE STATION #2 & PUBLIC SUBSTATION
WINN RIDGE BLVD.

REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER BICSI Adam Nemati REG. NO. 201150R EXPIRES 12-31-26 RCDD 03/20/2024

SHEET DESCRIPTION:
TECHNOLOGY DETAILS

SHEET NO.
TN501

MEPCE
ENGINEERING FIRM: F-4050
DALLAS/FORT WORTH, TEXAS
WWW.MEPCE.COM
PROJECT CODE
31.00516

Case Report –Final Plat Application – Saratoga Phase 1
Planning and Zoning Commission –May 9, 2024
City Council – May 23, 2024

To: Mayor, City Council, Planning and Zoning Commission

From: Helen-Eve Beadle, AICP, HE Planning+Design, LLC

Request: Consider and make a recommendation to City Council regarding a Final Plat for Saratoga Phase 1 containing 14 residential lots, three (3) open space lots, and one (1) lift station lot in 15.477 acres of land out of the T. Chambers Survey, Abstract No. 223, within the Extraterritorial Jurisdiction of the City of Aubrey, Denton County, Texas (*550 Belmont Development, LP & HMH Saratoga Land LLC*)

Owner:	550 Belmont Development, LP & HMH Saratoga Land LLC
Engineer:	Westwood Professional Services, Inc. (Erik Hinklin, P.E.)
Application Date:	April 10, 2024
Location:	The property is generally located north of Blackjack Road and west of FM 2931
Zoning:	N/A, the property is in the ETJ (Clear Sky MUD)
Future Land Use Plan:	Rural Residential and Agricultural
Current Use:	Undeveloped
Analysis:	On September 22, 2022 the Aubrey City Council approved a Preliminary Plat for 122.234 acres, 554 single family residential lots, and open space lots. The ±122 acres are being final platted in phases. Phase 1 encompasses 154 residential lots, four (4) open space lots, and one (1) lift station lot. The property is within ETJ Development Agreement for Clear Sky MUD and the plat is generally consistent with the approved agreement standards. Utilities: Water and sanitary sewer service will be provided by Mustang Special Utility District. CoServ and AT&T are providers for this property. Engineer Review: The City Engineer has reviewed the civil construction plans and the latest review letter is included in this report.
Recommendation:	The Final Plat for Saratoga Phase 1 is recommended for approval subject to the following conditions: 1. Final engineering approval of civil plans is needed by the City

Engineer (review letter included in report);
2. Drainage and access easements identified but not complete with recording information are to be added to the Final Plat prior to filing;
3. HOA documents shall be submitted and approved by the City Attorney and filed in conjunction with the Final Plat;
4. Landscape, Screening, retaining walls, and irrigation plans shall be submitted and approved prior to referenced work commencing;
5. An HOA lot will be created for the median in Omaha Street; and
6. Any existing structures on the property shall be removed prior to site development.

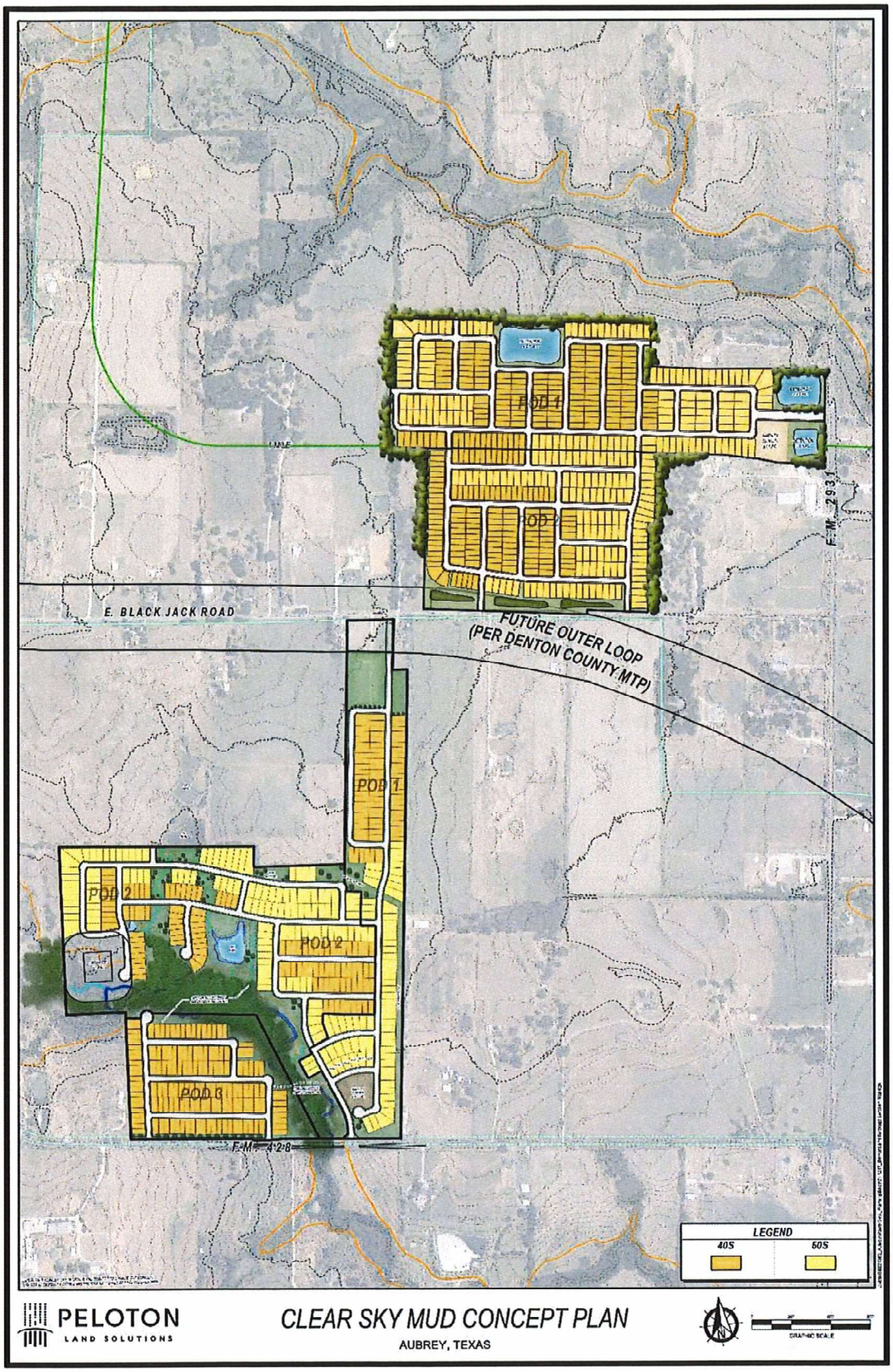
Other requirements for filing: Signed Final Plat, tax certificate for filing, completion of improvements, and filing fees.

The Planning and Zoning Commission may recommend to the City Council

1. Approve the Final Plat;
2. Approve the Final Plat with conditions; or
3. Deny the Final Plat.

Attachments:

1. Clear Sky MUD Saratoga Belmont Concept Plan
2. Engineer's Review Letter
3. Saratoga Phase 1 Final Plat and Civil Engineering Plans
4. ETJ Development Agreement


POD 1
POD 2
POD 1
POD 2
POD 3
E. BLACK JACK ROAD
FUTURE OUTER LOOP
(PER DENTON COUNTY MTP)
F.M. 2931
F.M. 428
LEGEND
40S
50S
PELOTON
LAND SOLUTIONS
CLEAR SKY MUD CONCEPT PLAN
AUBREY, TEXAS

Kimley»Horn

April 17, 2024

Mrs. Leanne Wilson
City of Aubrey, Texas
107 South Main Street
Aubrey, Texas 76227

RE: ***City of Aubrey Development Review Services – Saratoga-Phase 1***
Final Plat, TIA, Construction Plans for Lift Station and Infrastructure-4th Review
KHA No. 061296302

Dear Mrs. Wilson,

We have completed our review of the above referenced project and the following comments are based upon the City's requirements and standard engineering practices.

Final Plat

1. Please ensure all easements are either provided on the plat or provided via separate instrument.

Construction Plans

2. Previous Comment: A TxDOT permit will be required for the road entrance. The plans will not be approved until a TxDOT permit is approved. Provide a copy of the permit to the City.
3. Previous Comment: Please note the lift station plans were prepared under a separate cover, however, the lift station will need to be accepted prior to the subdivision being accepted in order to provide adequate facilities.
4. Previous Comment (combined comment): Show the storm, water and sewer on all sheets including the roadway, grading, detention pond and channel sheets. This was discussed during the 2-29-24 call. The utility sheets show all the elements and it is legible. Show water, sewer and storm lines on all sheets unless it is documented that the paving contractor will be the same contractor to perform the utility construction.
5. Previous Comment: Blackjack Road is showing 10' lanes. 10' turn lane may be acceptable, put a thru lane will need to be 11' minimum. *The County will need to review the street section.*
6. Previous Comment: Provide a detail for the knuckle areas of the roadway. Sheet 31 provides some information for the construction. Add details for the other knuckle areas.
7. Previous Comments regarding slopes on the roadway: The City has a minimum slope for roadway construction. This minimum slope shall be adhered to even if the roadway is a 'super elevated' section. Please remove all 0% grades along the gutter lines.
8. Previous Comment: Directional ramps shall be installed at all the crosswalks, unless documentation from the City is provided that directional ramps are not needed. *The City said for future developments, directional ramps shall be provided. For this phase, the ramps as shown are acceptable.*

9. Drainage easements shall be shown on the plat along the western property line of the development.
10. Previous Comment: See note on the drainage study. Need to label the existing storm structure under E. Blackjack Road and state the capacity. This was discussed on the 2-29-24 call. Thank you for providing the capacity of the ditch. It appears the capacity is 1-year? Update the existing cross section on Blackjack Road to show the hydraulics/capacity. Show the future outfall under Saratoga Street. Previous Comment: Previous Comment: Show and label any existing offsite drainage infrastructure that serves as a design point for this project. This was discussed on the 2-29-24 call.
11. Please note all comments regarding the water/sewer lines have been removed since Mustang has jurisdiction over the utilities.
12. Is the outfall riprap for SD-J shown correctly (floating in air)? Please address.
13. Previous Comment: Show the top of pond elevations and emergency spillway WSEL to ensure the pond is designed with adequate capacity. Right now the plans are showing no freeboard with the information provided. This was discussed 2-29-24. The design is still showing 100 year elevation at 627.46 and the emergency overflow flow line being 625.50. The 100-year needs to be contained (detained) prior to the emergency overflow engaging.
14. Previous Comments: Show the grading for the northeast pond outfall. It appears there may be ponding water as the contours are tying into proposed contours.
15. Previous Comment: Where is the information regarding the structural design/materials/reinforcement for the weir outfall structure for the pond? Please provide.
16. Is there a drainage easement for the North Pond's outfall? What is the depth of flow as the water exits the outfall and is conveyed onto private property? Please make sure the flow, velocity and flow regime mimics existing conditions per Texas Water Code.

Traffic Impact Analysis

1. See comments on previous review. Lee Engineering is performing the review of the TIA.

Please provide a response letter with the next submittal. Additional comments will be provided on the next submittal (due to the number of current comments and anticipated responses). Should you have any questions or comments, please do not hesitate to contact me at misty.christian@kimley-horn.com

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.
State of Texas Registered Firm #928

Misty Christian, P.E., CFM
MDC:mdc
K:\FTW_Roadway_Marketing\Aubrey\Saratoga\Phase 1\third submittal\saratogo_phase1_3.docx

FOURTH SUBMITTAL

PLANS FOR THE CONSTRUCTION OF

WATER, SANITARY SEWER, STORM DRAIN, & PAVING TO SERVE

SARATOGA PHASE 1

CITY OF AUBREY ETJ, CLEARSKY MUD 01, DENTON COUNTY, TEXAS

CERTIFICATE OF APPROVAL

Approved this _____ day of _____,_____ by the City Council of the City of Aubrey, Texas.

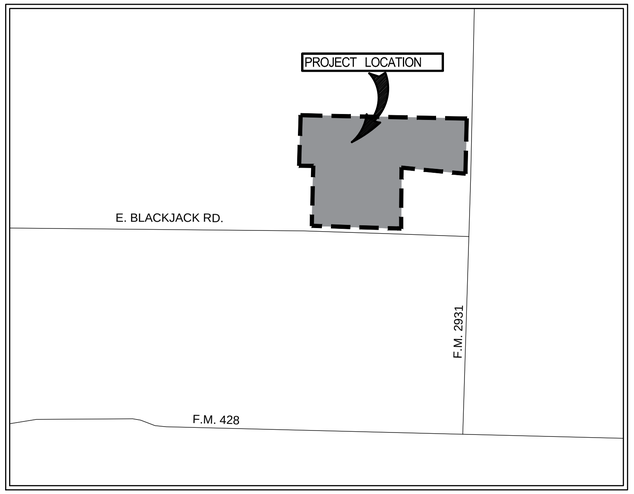
_____
Mayor

_____
City Secretary or City Manager

APPROVAL:

_____
MUSTANG S.U.D. DATE

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS, MUSTANG SPECIAL UTILITY DISTRICT MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.



LOCATION MAP

SCALE : N.T.S.

N

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN	100268	4/30/2024
TYPE OR PRINT NAME	PE #	DATE

OWNER/DEVELOPER
550 DEVELOPMENT, LP
2727 ROUTH STREET
DALLAS, TX 75201
CONTACT: STEVE GEE
STEVEGEE@GFB-TX.COM

SHEET INDEX

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01	COVER SHEET
02	FINAL PLAT
03	FINAL PLAT
04	GENERAL NOTES
05	PHASING PLAN
06	OVERALL ENGINEERING PLAN
07	OVERALL ENGINEERING PLAN
08	OVERALL ENGINEERING PLAN
09	EROSION CONTROL PLAN
10	EROSION CONTROL PLAN
11	EROSION CONTROL PLAN
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14	DEMOLITION & EROSION CONTROL PLAN
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17	GRADING PLAN
18	GRADING PLAN - NORTHEAST POND
19	GRADING PLAN - SOUTHEAST POND
20	GRADING PLAN - NORTH POND
21	GRADING PLAN - NORTH POND WIER
22	GRADING PLAN - NORTHWEST CHANNEL
23	GRADING PLAN - SOUTHWEST CHANNEL
24	GRADING PLAN - SOUTH CHANNEL
25	PAVING PLAN & PROFILE - OMAHA STREET
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28	PAVING PLAN & PROFILE - EVANGELINE DOWNS LANE (9+00 TO 18+00)
29	PAVING PLAN & PROFILE - EVANGELINE DOWNS LANE (18+00 TO END)
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64	SEWER PLAN & PROFILE - SS-D
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74	LIGHTING AND SIGNAGE PLAN
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85	UTILITY DETAILS
86	UTILITY DETAILS
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89	UTILITY DETAILS
90	UTILITY DETAILS
91	PAVING DETAILS
92	PAVING DETAILS
93	PAVING DETAILS
94	PEDESTRAIN RAIL DETAILS
95	PEDESTRAIN RAIL DETAILS

Westwood

Westwood Professional Services, Inc.

11000 Frisco Street, Suite 400
Frisco, TX 75033
Phone (469) 213-1800
Toll Free (888) 937-5150
TBPE FIRM NO. F-11756

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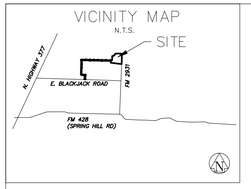
PLS PROJECT #: GEE21003
CITY PROJECT #: {PROJECT #}
TCEQ LOG #: {PROJECT #}

SARATOGA PHASE 1

Drawing: \\pw.com\Network\Drives\DJOB\gee21003-saratoga\master infrastructure\3_Design\35_Civil\01_CAD\Sheets\GEE21003-C-COVER
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VICINITY MAP
N.T.S.



LEGEND

B.L. BUILDING LINE
U.E. UTILITY EASEMENT
IRF IRON ROD FOUND
IRS 1/2" IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET
STREET NAME CHANGE
C.M. CONTROLLING MONUMENT
O.P.R.D.C.T. OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS
P.R.D.C.T. PLAT RECORDS DENTON COUNTY, TEXAS
UTILITY LINE
BUILDING LINE

LINE TABLE		
NO.	BEARING	LENGTH
L1	S01°38'33"W	65.30'
L2	S01°13'27"E	100.10'
L3	N88°40'33"W	7.98'
L4	S46°20'06"W	14.14'
L5	S01°20'06"W	15.50'
L6	N01°20'06"E	15.50'
L7	N43°39'54"W	14.14'
L8	S46°20'06"W	14.14'
L9	S01°20'06"W	15.50'
L10	N01°20'06"E	15.50'
L11	N43°39'54"W	14.14'
L12	S46°20'06"W	14.14'
L13	S43°39'54"E	14.14'
L14	S88°39'54"E	15.50'
L15	N88°39'54"W	15.50'
L16	S46°20'06"W	14.14'
L17	S43°39'54"E	14.14'
L18	S88°39'54"E	15.50'

LINE TABLE		
NO.	BEARING	LENGTH
L19	N88°30'23"W	15.50'
L20	S46°20'06"W	14.14'
L21	N49°50'02"E	13.25'
L22	N01°20'06"E	17.02'
L23	S01°20'06"W	23.66'
L24	S40°09'58"E	14.98'
L25	S81°40'02"E	18.37'
L26	N81°40'02"W	15.60'
L27	S53°01'36"W	14.07'
L28	S08°32'28"W	7.91'
L29	N08°32'03"E	7.42'
L30	N37°00'02"W	14.22'
L31	N43°39'54"W	14.14'
L32	N88°39'54"E	15.50'
L33	N46°20'06"E	14.14'
L34	N01°20'06"E	15.50'
L35	S43°39'54"E	14.14'
L36	S43°39'54"E	14.14'

LINE TABLE		
NO.	BEARING	LENGTH
L37	N46°20'06"E	14.14'
L38	N01°20'06"E	15.50'
L39	S01°20'06"W	15.50'
L40	S43°39'54"E	14.14'
L41	N46°20'06"E	14.14'
L42	N01°20'06"E	15.50'
L43	S01°20'06"W	15.50'
L44	S43°39'54"E	14.14'
L45	N46°20'06"E	14.14'
L46	N01°20'06"E	15.50'
L47	S01°20'06"W	15.50'
L48	S43°39'54"E	14.14'
L49	N46°20'06"E	14.14'
L50	N01°20'06"E	15.50'
L51	S01°20'06"W	15.50'
L52	S43°39'54"E	14.14'
L53	N46°20'06"E	14.14'

LINE TABLE		
NO.	BEARING	LENGTH
L55	S01°20'06"W	15.50'
L56	S43°39'54"E	14.14'
L57	N46°09'42"E	14.10'
L58	N01°20'06"E	15.50'
L59	S01°20'06"W	15.50'
L60	S43°39'54"E	14.14'
L61	S88°39'54"E	110.00'
L62	S88°39'54"E	85.00'
L63	N01°20'06"E	50.00'
L64	S88°39'54"E	14.02'
L65	N88°39'54"W	10.00'
L66	S43°39'54"E	14.14'
L67	N46°20'06"E	14.14'
L68	S01°20'06"W	50.50'
L69	S01°20'06"W	50.50'
L70	N01°20'06"E	101.00'
L71	N01°20'06"E	50.50'
L72	N01°20'06"E	50.50'

LINE TABLE		
NO.	BEARING	LENGTH
L73	N01°20'06"E	101.00'
L74	S01°20'06"W	50.50'
L75	S88°39'54"E	50.50'
L76	S88°39'54"E	50.50'
L77	N01°20'06"E	18.84'
L78	S88°39'54"E	17.68'
L79	S43°39'54"E	22.43'
L80	S01°20'06"W	104.61'
L81	N88°39'54"W	36.50'
L82	N01°20'06"E	81.97'
L83	N88°39'54"W	6.31'
L84	N46°28'42"E	35.44'
L85	S43°31'18"E	35.27'
L86	N37°10'33"W	13.90'

PHASE 2A – TRACT 1
HMH SARATOGA LAND LLC
INST.# 2023-123161
O.P.R.D.C.T.

PHASE 1A – TRACT 1
550 BELMONT DEVELOPMENT, LP
INST.# 2023-119064
O.P.R.D.C.T.

MICKEY D. MORGAN AND MICHELLE MORGAN
INST. # 95-0053363
O.P.R.D.C.T.

T. CHAMBERS SURVEY
ABSTRACT NO. 223

XCUT SET
NAD 83
GRID COORDINATES
N=7,165,432.79
E=2,446,331.01

Point of Beginning

S85°43'18"E 164.97'
N89°38'44"E 295.59'
1/2" IRF
1/2" IRF (C.M.)

20' Drainage Easement Inst.# O.P.R.D.C.T.
Variable Width Access Easement Inst.# O.P.R.D.C.T.

N22°28'37"E 157.30'
S85°27'31"E 70.30'

PIMLICO LANE
N72°05'42"E 124.90'
S01°20'06"W 306.59'
15' Water Easement Inst.# 1998-102073 O.P.R.D.C.T. (Approximate Location)
20' Right-of-Way Easement Inst.# 1954-3267 O.P.R.D.C.T. (Approximate Location)
10' U.E. & B.L.
10' VISABILITY EASEMENT

N01°20'06"E 298.17'
S01°20'06"W 248.17'
S88°39'54"E 120.13'
N88°39'54"W 120.00'
368.41'
105.15'
201.71'
276.44'

OMAHA STREET N88°39'54"W 538.35'

RETAMA STREET

TRACT 5
550 BELMONT DEVELOPMENT, LP
INST.# 2023-119064
O.P.R.D.C.T.

SANITARY & ACCESS EASEMENT SEE DETAIL "A"

LOT A
LIFT STATION

N88°39'54"W 70.00'
N83°02'38"W 240.85'
N83°34'37"W 13.51'
N79°50'22"W 156.02'
N88°26'38"W 73.62'
N82°44'21"W 279.21'
S01°37'19"W 569.64'

15' Water Easement Inst.# 1998-102073 O.P.R.D.C.T. (Approximate Location)
20' Electric Right-of-Way Easement Inst.# 1954-3267 O.P.R.D.C.T. (Approximate Location)
15' Water Easement Inst.# 1997-72001 O.P.R.D.C.T. (Approximate Location)

Farm-to-Market 2931
(a variable width right-of-way)

N
W E
S
0 50 100 200
GRAPHIC SCALE IN FEET

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
Block A, Lot 2X	123686	2.84
Block A, Lot 18	15059	0.35
Block A, Lot 19	7631	0.18
Block A, Lot 20	6007	0.14
Block A, Lot 21	6557	0.15
Block B, Lot 1	7285	0.17
Block B, Lot 2	7104	0.16
Block B, Lot 3	6885	0.16
Block B, Lot 4	6639	0.15
Block B, Lot 4X	98497	2.26
Block B, Lot 5	6396	0.15
Block B, Lot 5X	59338	1.36
Block B, Lot A	6143	0.14
Block C, Lot 6	6690	0.15
Block C, Lot 7	6960	0.16
Block C, Lot 8	6960	0.16
Block C, Lot 9	6960	0.16
Block C, Lot 10	8026	0.18

PHASE 2A – TRACT 3
HMH SARATOGA LAND LLC
INST.# 2023-123161
O.P.R.D.C.T.

PHASE 1A – TRACT 3
550 BELMONT DEVELOPMENT, LP
INST.# 2023-119064
O.P.R.D.C.T.

PHASE 1A – TRACT 2
550 BELMONT DEVELOPMENT, LP
INST.# 2023-119064
O.P.R.D.C.T.

CRYSTAL M. SOUSA
INST.# 2021-58623
O.P.R.D.C.T.

PHASE 2A – TRACT 1
550 BELMONT DEVELOPMENT, LP
INST.# 2023-119064
O.P.R.D.C.T.

PHASE 1B
550 BELMONT DEVELOPMENT, LP
INST.# 2023-119064
O.P.R.D.C.T.

PHASE 2B
550 BELMONT DEVELOPMENT, LP
INST.# 2023-119064
O.P.R.D.C.T.

PHASE 2A – TRACT 2
HMH SARATOGA LAND LLC
INST.# 2023-123161
O.P.R.D.C.T.

LONE STAR STREET
PREAKNESS STREET
SAM HOUSTON STREET
SEATTLE SLEW STREET
SARATOGA STREET
KENTUCKY DERBY STREET
WHINLAWEY LANE
EVANGELINE DOWNS LANE
EIGHT BELLS LANE
FLYING FOX DRIVE
DELTA DOWNS DRIVE
GALLANT FOX LANE
Campfire Drive
Retama Street

TRACT LINE

N01°20'06"E 50.00'
S88°39'54"E 335.66'
S88°39'54"E 50.00'
S88°39'54"E 210.00'
PASSING @ 105.00'
S88°39'54"E 2,310.98'
N88°39'54"W 530.16'
N88°39'54"W 770.00'
N88°39'54"W 605.11'
S88°39'54"E 220.32'
S88°39'54"E 220.06'
N88°39'54"W 50.00'
S01°20'06"W 210.00'
N01°20'06"E 966.63'
N01°20'06"E 1,001.06'
S01°20'06"W 50.00'
S01°20'06"W 50.04'
S01°20'06"W 406.06'
N01°20'06"E 126.18'
N01°20'06"E 441.13'
S01°20'06"W 315.25'
S01°20'06"W 319.17'
N01°20'06"E 130.37'
N01°20'06"E 135.73'
N01°20'06"E 140.15'
N01°20'06"E 144.97'
N01°20'06"E 143.02'
N01°20'06"E 144.13

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STATE OF TEXAS
COUNTY OF DENTON

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS AND BEING ALL OF A TRACT OF LAND DESCRIBED BY DEED TO 550 BELMONT DEVELOPMENT, LP RECORDED IN INSTRUMENT NUMBER 2023-119064 KNOWN AS TRACT 5 AND A PORTION OF THAT TRACT KNOWN AS PHASE 2B OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.) AND BEING A PORTION OF THAT TRACT OF LAND TO HMH SARATOGA LAND LLC RECORDED IN INSTRUMENT NUMBER 2023-123161 KNOWN AS PHASE 2A – TRACT 1 OF THE O.P.R.D.C.T. AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 1/2 INCH IRON ROD FOUND FOR THE NORTHEAST CORNER OF SAID TRACT 5, THE SOUTHEAST CORNER OF A TRACT OF LAND DESCRIBED BY DEED TO MICKEY D. MORGAN AND MICHELLE MORGAN, RECORDED IN INSTRUMENT NUMBER 95-0053363, OF SAID O.P.R.D.C.T. AND BEING IN THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET ROAD 2931 (A VARIABLE WIDTH RIGHT-OF-WAY);

THENCE S 01° 38' 33" W, 65.30 FEET WITH SAID WEST RIGHT-OF-WAY LINE AND THE EAST LINE OF SAID TRACT 5 TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;

THENCE S 01° 13' 27" E, 100.10 FEET CONTINUING WITH SAID COMMON LINE TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;

THENCE S 01° 37' 19" W, 569.64 FEET TO A 1/2 INCH IRON ROD FOUND IN THE SOUTHEAST CORNER OF SAID TRACT 5 AND BEING THE NORTHEAST CORNER OF LOT 3-A AS SHOWN BY THE PLAT LOTS 2-A, AND 3-A OF VR ESTATES, AMENDING LOTS 2 AND 3 OF VR ESTATES RECORDED IN INSTRUMENT NUMBER 2010-175 OF THE PLAT RECORDS, OF DENTON COUNTY, TEXAS (P.R.D.C.T.);

THENCE DEPARTING SAID SOUTHEAST CORNER FOLLOWING WITH THE COMMON LINE BEING THE NORTH LINE OF SAID LOT 3-A AND THE SOUTH LINE OF SAID TRACT 5 THE FOLLOWING COURSES AND DISTANCES:

N 82° 44' 21" W, 279.21 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 88° 26' 38" W, 73.62 FEET TO A 1/2 INCH IRON ROD FOUND;
N 79° 50' 22" W, 156.02 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 83° 34' 37" W, 13.51 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 83° 02' 38" W, 240.85 FEET TO A 1/2 IRON ROD FOUND;
N 88° 40' 33" W, 7.98 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;

THENCE DEPARTING SAID COMMON LINE WITH THE SOUTH LINE OF SAID TRACT 5 THE FOLLOWING COURSES AND DISTANCES:

N 01° 20' 06" E, 126.18 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 88° 39' 54" W, 605.11 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 46° 20' 06" W, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 88° 39' 54" W, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 01° 20' 06" E, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 43° 39' 54" W, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 88° 39' 54" W, 770.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 46° 20' 06" W, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 88° 39' 54" W, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 01° 20' 06" E, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 43° 39' 54" W, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 88° 39' 54" W, 530.16 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 46° 20' 06" W, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 210.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 43° 39' 54" E, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 88° 39' 54" W, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 46° 20' 06" W, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 210.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 43° 39' 54" E, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 50.04 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 88° 30' 23" W, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 46° 20' 06" W, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 406.06 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A CURVE TO THE LEFT;

WITH SAID CURVE TO THE LEFT, AN ARC DISTANCE OF 36.22 FEET, THROUGH A CENTRAL ANGLE OF 83° 00' 08", HAVING A RADIUS OF 25.00 FEET, AND A LONG CHORD WHICH BEARS S 40° 09' 58" E, 33.13 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;

S 81° 40' 02" E, 199.61 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 49° 50' 02" E, 13.25 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 01° 20' 06" E, 17.02 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 89° 13' 56" E, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 23.66 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 40° 09' 58" E, 14.98 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 81° 40' 02" E, 18.37 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 08° 19' 58" W, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 81° 40' 02" W, 15.60 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 53° 01' 36" W, 14.07 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 08° 32' 28" W, 7.91 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A CURVE TO THE LEFT;

WITH SAID CURVE TO THE LEFT, AN ARC DISTANCE OF 70.47 FEET, THROUGH A CENTRAL ANGLE OF 06° 17' 49", HAVING A RADIUS OF 641.18 FEET, AND A LONG CHORD WHICH BEARS S 05° 23' 33" W, 70.43 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;

S 01° 52' 52" W, 111.53 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;

THENCE S 43° 07' 41" E, 35.35 FEET DEPARTING SAID TRACT 5 TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET IN SAID PHASE 2B;

THENCE S 01° 52' 52" W, 38.78 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET IN THE SOUTH LINE OF SAID PHASE 2B AND IN THE CENTERLINE OF EAST BLACKJACK ROAD (A VARIABLE WIDTH RIGHT-OF-WAY);

THENCE N 88° 07' 08" W, WITH THE CENTERLINE OF SAID EAST BLACKJACK ROAD PASSING AT A DISTANCE OF 25 FEET THE SOUTHEAST CORNER OF SAID TRACT 5, BEING THE SOUTHWEST CORNER OF SAID PHASE 2B, THEN PASSING THE SOUTHWEST CORNER OF SAID TRACT 5 AND BEING THE SOUTHEAST CORNER OF SAID PHASE 2A – TRACT 1 AT A DISTANCE OF 75 FEET AND CONTINUING A TOTAL DISTANCE OF 100.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;

THENCE N 01° 52' 52" E, 38.74 FEET DEPARTING SAID EAST BLACKJACK ROAD CENTERLINE TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET IN SAID PHASE 2A – TRACT 1;

THENCE N 46° 52' 19" E, 35.36 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET IN THE COMMON LINE BEING THE WEST LINE OF SAID TRACT 5 AND THE EAST LINE OF SAID PHASE 2A – TRACT 1;

THENCE WITH SAID COMMON LINE THE FOLLOWING COURSES AND DISTANCES:

N 01° 52' 52" E, 111.55 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A CURVE TO THE RIGHT;

WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 76.61 FEET, THROUGH A CENTRAL ANGLE OF 07° 01' 22", HAVING A RADIUS OF 625.00 FEET, AND A LONG CHORD WHICH BEARS N 05° 23' 33" E, 76.56 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;

N 08° 32' 03" E, 7.42 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 37° 00' 02" W, 14.22 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 81° 40' 02" W, 203.31 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A CURVE TO THE LEFT;

WITH SAID CURVE TO THE LEFT, AN ARC DISTANCE OF 7.61 FEET, THROUGH A CENTRAL ANGLE OF 21° 47' 12", HAVING A RADIUS OF 20.00 FEET, AND A LONG CHORD WHICH BEARS S 87° 26' 22" W, 7.56 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A NON-TANGENT CURVE TO THE RIGHT;

WITH SAID NON-TANGENT CURVE TO THE RIGHT, AN ARC DISTANCE OF 110.46 FEET, THROUGH A CENTRAL ANGLE OF 126° 34' 33", HAVING A RADIUS OF 50.00 FEET, AND A LONG CHORD WHICH BEARS N 40° 09' 58" W, 89.33 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT;

WITH SAID NON-TANGENT CURVE TO THE LEFT, AN ARC DISTANCE OF 7.61 FEET, THROUGH A CENTRAL ANGLE OF 21° 47' 12", HAVING A RADIUS OF 20.00 FEET, AND A LONG CHORD WHICH BEARS N 12° 13' 42" E, 7.56 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;

N 01° 20' 06" E, 966.63 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 43° 39' 54" W, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 88° 39' 54" W, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 01° 20' 06" E, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 335.66 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 46° 20' 06" E, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 01° 20' 06" E, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 43° 39' 54" E, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 210.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 46° 20' 06" E, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 01° 20' 06" E, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 43° 39' 54" E, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 220.32 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 46° 20' 06" E, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 01° 20' 06" E, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 43° 39' 54" E, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 220.06 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 46° 09' 42" E, 14.10 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 01° 20' 06" E, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 01° 20' 06" W, 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 43° 39' 54" E, 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 110.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 01° 20' 06" E, 298.17 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 85.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
N 01° 20' 06" E, 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;
S 88° 39' 54" E, 14.02 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A CURVE TO THE LEFT;

WITH SAID CURVE TO THE LEFT, AN ARC DISTANCE OF 7.61 FEET, THROUGH A CENTRAL ANGLE OF 21° 47' 12", HAVING A RADIUS OF 20.00 FEET, AND A LONG CHORD WHICH BEARS N 80° 26' 30" E, 7.56 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A NON-TANGENT CURVE TO THE RIGHT;

WITH SAID NON-TANGENT CURVE TO THE RIGHT, AN ARC DISTANCE OF 43.57 FEET, THROUGH A CENTRAL ANGLE OF 49° 55' 38", HAVING A RADIUS OF 50.00 FEET, AND A LONG CHORD WHICH BEARS S 85° 29' 17" E, 42.20 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET;

N 29° 28' 32" E, 151.30 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET FOR THE NORTHWEST CORNER OF SAID TRACT 5, THE SOUTHERLY NORTHEAST CORNER OF SAID PHASE 1A – TRACT 1 AND BEING IN THE SOUTH LINE OF SAID MICKEY D. MORGAN AND MICHELLE MORGAN TRACT;

THENCE N 89° 38' 44" E, 295.59 FEET WITH THE NORTH LINE OF SAID TRACT 5 AND THE SOUTH LINE OF SAID MICKEY D. MORGAN AND MICHELLE MORGAN TRACT TO A 1/2 INCH IRON ROD FOUND;

THENCE S 85° 43' 18" E, 164.97 FEET CONTINUING WITH SAID COMMON LINE TO THE POINT OF BEGINNING AND CONTAINING 674,179 SQUARE FEET OR 15.477 ACRES MORE OR LESS.

NOTES:

1. ALL LOTS COMPLY WITH THE DEVELOPMENT STANDARDS IN THE RECORDED DEVELOPMENT AGREEMENT WITH THE CITY OF AUBREY, INSTRUMENT NO. 234344 RECORDED WITH THE DENTON COUNTY CLERK DECEMBER 2021.
2. THIS PROPERTY MAY BE SUBJECT TO CHARGES RELATED TO IMPACT FEES AND THE APPLICANT SHOULD CONTACT THE CITY REGARDING ANY APPLICABLE FEES DUE.
3. ALL COMMON AREAS, DRAINAGE EASEMENTS, AND DETENTION FACILITIES WILL BE OWNED AND MAINTAINED BY THE MUD.
4. NOTICE-SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS IS A VIOLATION OF CITY ORDINANCE AND STATE LAW AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
5. THIS PLAT DOES NOT ALTER OR REMOVE EXISTING DEED RESTRICTIONS, IF ANY, ON THIS PROPERTY.
6. ACCORDING TO THE FLOOD INSURANCE RATE MAPS (FIRM) NO. 48121C0255G, 48121C0260G, AND 48121C0265G DATED APRIL 18, 2011 PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FOR DENTON COUNTY, TEXAS THIS PROPERTY IS WITHIN "ZONE X SHADED– OTHER AREAS", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. THE SURVEYOR ASSUMES NO LIABILITY FOR THE ACCURACY OF THOSE MAPS.
7. BEARINGS ARE BASED ON THE TEXAS COORDINATE SYSTEM, NORTH CENTRAL ZONE (4202), NORTH AMERICAN DATUM OF 1983 (NAD' 83).
8. ALL CORNERS SET ARE 1/2 INCH IRON RODS WITH PLASTIC CAPS STAMPED "WESTWOOD PS" UNLESS OTHERWISE NOTED.
9. NO OVERHEAD UTILITIES ARE PERMITTED ON THE SUBJECT PROPERTY.
10. LOTS DESIGNATED AS 'X' TO BE USED FOR OPEN SPACE AND/OR DRAINAGE AND ARE OWNED AND MAINTAINED BY THE MUD.
11. THE LIFT STATION IS OWNED BY THE DISTRICT AND MAINTAINED BY MUSTANG SUD.

SURVEYOR'S CERTIFICATION:

THAT I, ADAM T. JOHNSON DO HEREBY CERTIFY THAT I PREPARED THIS PLAT FROM AN ACTUAL AND ACCURATE SURVEY OF THE LAND AND THAT THE CORNER MONUMENTS SHOWN THEREON AS "SET" WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION IN ACCORDANCE WITH THE SUBDIVISION ORDINANCE OF THE CITY OF AUBREY.

'Preliminary, this document shall not be recorded for any purpose and shall not be used or viewed or relied upon as a final survey document' TAC 22 138.33e
Adam T. Johnson, RPLS 6664
Date: 4/9/2024

ADAM T. JOHNSON
TEXAS REGISTRATION NO. 6664

STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS, ON THIS DAY PERSONALLY APPEARED ADAM T. JOHNSON, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSE AND CONSIDERATIONS THEREIN EXPRESSED.

GIVEN UNDER MY AND SEAL OF OFFICE, THIS _____ DAY OF _____, 2024.

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS

MY COMMISSION EXPIRES ON: _____

UTILITY CERTIFICATE

THIS PLAT CORRECTLY PRESENTS THE REQUIRED EASEMENTS FOR THIS DEVELOPMENT.

MUSTANG SPECIAL UTILITY DISTRICT _____
NAME/TITLE

CERTIFICATE OF PLAT APPROVAL

APPROVED

_____ _____
City Development Official Date of Approval
City of Aubrey, Texas

Witness by hand this _____ day of _____, 2024.

_____
City Secretary
City of Aubrey, Texas

OWNER'S CERTIFICATIONS:

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT 550 BELMONT DEVELOPMENT, LP AND HMH SARATOGA LAND LLC ACTING HEREIN BY AND THROUGH ITS DULY AUTHORIZED OFFICERS, DOES HEREBY ADOPT THIS PLAT DESIGNATING THE HEREIN ABOVE DESCRIBED PROPERTY AS SARATOGA PHASE 1, AN ADDITION TO THE CITY OF AUBREY, TEXAS, AND DOES HEREBY DEDICATE, IN FEE SIMPLE, TO THE PUBLIC USE FOREVER, THE STREETS AND ALLEYS SHOWN THEREON. THE STREETS AND ALLEYS ARE DEDICATED FOR STREET PURPOSES. THE EASEMENTS AND PUBLIC USE AREAS, AS SHOWN, ARE DEDICATED FOR THE PUBLIC USE FOREVER, FOR THE PURPOSES INDICATED ON THIS PLAT. IN ADDITION, UTILITY EASEMENTS MAY ALSO BE USED FOR THE MUTUAL USE AND ACCOMMODATION OF ALL PUBLIC UTILITIES DESIRING TO USE OR USING THE SAME UNLESS THE EASEMENT LIMITS THE USE TO PARTICULAR UTILITIES, SAID USE BY PUBLIC UTILITIES BEING SUBORDINATE TO THE PUBLIC'S AND CITY OF AUBREY'S USE THEREOF. THE CITY OF AUBREY AND PUBLIC UTILITY ENTITIES SHALL HAVE THE RIGHT TO REMOVE AND KEEP REMOVED ALL OR PARTS OF ANY BUILDINGS, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR GROWTHS WHICH MAY IN ANY WAY ENDANGER OR INTERFERE WITH THE CONSTRUCTION, MAINTENANCE, OR EFFICIENCY OF THEIR RESPECTIVE SYSTEMS IN SAID EASEMENTS; THE CITY OF AUBREY AND PUBLIC UTILITY ENTITIES SHALL AT ALL TIMES HAVE THE FULL RIGHT OF INGRESS AND EGRESS TO OR FROM THEIR RESPECTIVE EASEMENTS FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING, PATROLLING, MAINTAINING, READING METERS, AND ADDING TO OR REMOVING ALL OR PARTS OF THEIR RESPECTIVE SYSTEMS WITHOUT THE NECESSITY AT ANY TIME OF PROCURING PERMISSION FROM ANYONE.

THAT THE UNDERSIGNED DOES HEREBY COVENANT AND AGREE THAT HE (THEY) SHALL CONSTRUCT UPON THE FIRE LANE EASEMENTS, AS DEDICATED AND SHOWN HEREON, A HARD SURFACE AND THAT HE (THEY) SHALL MAINTAIN THE SAME IN A STATE OF GOOD REPAIR AT ALL TIMES AND KEEP THE SAME FREE AND CLEAR OF ANY STRUCTURES, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR OBSTRUCTION, INCLUDING BUT NOT LIMITED TO THE PARKING OF MOTOR VEHICLES, TRAILERS, BOATS, OR OTHER IMPEDIMENTS TO THE ACCESS OF FIRE APPARATUS, THE MAINTENANCE OF PAVING ON THE FIRE LANE EASEMENTS IS THE RESPONSIBILITY OF THE OWNER, AND THE OWNER SHALL POST AND MAINTAIN APPROPRIATE SIGNS IN CONSPICUOUS PLACES ALONG SUCH FIRE LANES, STATING "FIRE LANE, NO PARKING." THE POLICE OR HIS DULY AUTHORIZED REPRESENTATIVE IS HEREBY AUTHORIZED TO CAUSE SUCH FIRE LANES AND UTILITY EASEMENTS TO BE MAINTAINED FREE AND UNOBSTRUCTED AT ALL TIMES FOR FIRE DEPARTMENT AND EMERGENCY USE.

THE UNDERSIGNED DOES COVENANT AND AGREE THAT THE ACCESS EASEMENT MAY BE UTILIZED BY ANY PERSON OR THE GENERAL PUBLIC FOR INGRESS AND EGRESS TO OTHER REAL PROPERTY, AND FOR THE PURPOSE OF GENERAL PUBLIC VEHICULAR AND PEDESTRIAN USE AND ACCESS, AND FOR FIRE DEPARTMENT AND EMERGENCY USE, IN, ALONG, UPON, AND ACROSS SAID PREMISES, WITH THE RIGHT AND PRIVILEGE AT ALL TIMES OF THE CITY OF AUBREY, ITS AGENTS, EMPLOYEES, WORKMEN, AND REPRESENTATIVES HAVING INGRESS, EGRESS, AND REGRESS IN, ALONG, UPON, AND ACROSS SAID PREMISES.

THIS APPROVED SUBJECT TO ALL PLATTING ORDINANCES, RULES, AND REGULATIONS OF THE CITY OF AUBREY, TEXAS.

WITNESS MY HAND THIS THE _____ DAY OF _____ 2024.

BY: 550 BELMONT DEVELOPMENT, LP

BY: _____

STATE OF: TEXAS

COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED _____ KNOWN TO ME TO BE THE PERSON OR PERSONS WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN THE CAPACITY HEREIN STATED AND THE ACT AND DEED OF SAID COMPANY.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ DAY OF _____, 2024.

NOTARY PUBLIC IN AND FOR _____ COUNTY

MY COMMISSION EXPIRES: _____

WITNESS MY HAND THIS THE _____ DAY OF _____, 2024.

BY: HMH SARATOGA LAND LLC

BY: _____

STATE OF: TEXAS

COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED _____ KNOWN TO ME TO BE THE PERSON OR PERSONS WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN THE CAPACITY HEREIN STATED AND THE ACT AND DEED OF SAID COMPANY.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ DAY OF _____, 2024.

NOTARY PUBLIC IN AND FOR _____ COUNTY

MY COMMISSION EXPIRES: _____

A Final Plat of Saratoga Phase 1

15.477 ACRES TOTAL
14 RESIDENTIAL LOTS
(LOTS 18-21, BLOCK A; LOTS 1-5, BLOCK B; LOTS 6-10, BLOCK C)
3 OPEN SPACE LOTS
1 LIFT STATION
(LOT 2X, BLOCK A; LOTS 4X-5X,12X, BLOCK B)
SITUATED IN THE
T. CHAMBERS SURVEY, ABSTRACT NO. 223
CITY OF AUBREY ETJ
DENTON COUNTY, TEXAS

City Plan # _____ Date of Preparation: March 2024

Westwood
Professional Services, Inc.
11000 FRISCO STREET, SUITE 400 FRISCO, TEXAS 75033
TBPELS # 10074301 PH.# 469-213-1800

Utility Provider
Mustang Special
Utility District
Phone: 940-440-9561
7985 FM2931,
AUBREY, TX 76227

Owner
HMH Saratoga Land LLC
1038 Texan Trail
Grapevine, TX 76051
Phone: 866-409-1949

Owner
550 Belmont Development, LP
2727 Routh Street
Dallas, TX 75201
Contact: stevegee@gf-tx.com

Engineer / Surveyor
Westwood Professional
Services, Inc.
11000 Frisco Street Suite 400
Frisco, TX 75033
Phone: 469-213-1800
TX Firm No. 11756

DWG NAME: G:\JOB\GEE21000_Aubrey\MasterDev_Sar_\GEE21003_Saratoga\GEE21003_FP1.dwg

PROJECT NOTES:

1. THE TERM GOVERNING AUTHORITY REFERS TO THE CITY OF AUBREY.
2. ALL MATERIALS, CONSTRUCTION METHODS, WORKMANSHIP, EQUIPMENT, SERVICES AND TESTING FOR ALL PUBLIC IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' ORDINANCES, REGULATIONS, REQUIREMENTS, STATUTES, SPECIFICATIONS AND DETAILS, LATEST PRINTING AND AMENDMENTS THERETO. THE GOVERNING AUTHORITIES' PUBLIC WORKS AND WATER DEPARTMENT REQUIREMENTS, PLUMBING CODES, AND FIRE DEPARTMENT REGULATIONS SHALL TAKE PRECEDENT FOR ALL PRIVATE IMPROVEMENTS WHERE APPLICABLE. ALL OTHER PRIVATE CONSTRUCTION, NOT REGULATED BY THE GOVERNING AUTHORITY, SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, LATEST PRINTING AND AMENDMENTS THERETO, EXCEPT AS MODIFIED BY THE PROJECT CONTRACT DOCUMENTS.
3. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PROVISIONS OUTLINED IN F.H.A. DATA SHEET 79G AND SPECIFICATIONS PREPARED BY SOILS ENGINEER, HOWEVER, ANY CITY OF AUBREY STANDARD AND/OR SPECIFICATION SHALL SUPERSEDE THE ABOVE.
4. PRIOR TO COMMENCING ANY CONSTRUCTION, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS. FAILURE ON THE PART OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THE WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
5. THE CONTRACTOR, HIS AGENTS AND SUB-CONTRACTOR ARE COMPLETELY RESPONSIBLE FOR THE VERIFICATION OF THE ACCURACY OF THE GEOSPATIAL CONTROL FURNISHED HEREIN. THE OWNER, ENGINEER AND THEIR AGENTS ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE COORDINATES FURNISHED. THE CONTRACTOR IS REQUIRED TO VERIFY ALL COORDINATES FOR ACCURACY AND CONFIRM THE LOCATIONS OF ALL UTILITIES TO BE CONSTRUCTED, BOTH HORIZONTALLY AND VERTICALLY. DISCREPANCIES FOUND BY THE CONTRACTOR SHALL BE REPORTED, IN WRITING, TO THE OWNER AND ENGINEER IMMEDIATELY FOR RECONCILIATION.
6. TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THE PLANS IS PROVIDED FOR INFORMATIONAL PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT THE INFORMATION SHOWN IS CORRECT, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY ERRORS, DISCREPANCIES, OR OMISSIONS TO THE SURVEY INFORMATION PROVIDED.
7. CONTRACTOR TO OBTAIN A COPY OF GEOTECHNICAL REPORT PREPARED BY GEOTECHNICAL ENGINEER & IMPLEMENT ALL RECOMMENDATIONS IN IT (OR AS AMENDED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION). ALL DENSITY REPORTS ARE TO BE FURNISHED TO CITY INSPECTOR AT THE PRE-CONSTRUCTION MEETING. THE ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY, TRUE LOCATION AND EXTENT OF THE SOILS INFORMATION PREPARED BY OTHERS.
8. THE CONTRACTOR SHALL HAVE AT LEAST ONE COMPLETE SET OF APPROVED PLANS ON SITE AT ALL TIMES.
9. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. MATERIALS STORED ON THE WORK SITE SHALL BE PLACED, AND THE WORK SHALL AT ALL TIMES BE SO CONDUCTED, AS TO CAUSE NO GREATER OBSTRUCTION TO THE TRAVELING PUBLIC THAN IS CONSIDERED ACCEPTABLE BY THE GOVERNING AUTHORITIES AND THE OWNER AND ALLOW UNINTERRUPTED ACCESS TO ALL FIRE HYDRANTS, WATER VALVES, GAS VALVES, MANHOLES AND FIRE ALARM OR POLICE CALL BOXES IN THE VICINITY.
10. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND LICENSES NECESSARY FOR THE EXECUTION OF THE WORK AND SHALL FULLY COMPLY WITH ALL THEIR TERMS AND CONDITIONS. WHENEVER THE WORK UNDER THIS CONTRACT REQUIRES THE OBTAINING OF PERMITS FROM THE GOVERNING AUTHORITIES, THE CONTRACTOR SHALL FURNISH DUPLICATE COPIES OF SUCH PERMITS TO THE OWNER BEFORE THE WORK COVERED THEREBY IS STARTED. NO WORK WILL BE ALLOWED TO PROCEED BEFORE SUCH PERMITS HAVE BEEN OBTAINED. COSTS ASSOCIATED WITH PERMITS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
11. THE GOVERNING AUTHORITIES AND/OR THE OWNER WILL PROVIDE INSPECTION OF THE PROPOSED CONSTRUCTION. THE OWNER WILL PAY THE COSTS FOR INSPECTION SERVICES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE WELL IN ADVANCE OF PENDING CONSTRUCTION ACTIVITIES TO THE GOVERNING AUTHORITIES AND/OR OWNER FOR SCHEDULING OF INSPECTION SERVICES. WORK MAY NOT BE BACKFILLED OR COVERED UNTIL IT HAS BEEN INSPECTED BY THE GOVERNING AUTHORITY.
12. THE CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCHMARKS. WHEN ANY SUCH MARKERS OR MONUMENTS ARE IN DANGER OF BEING DISTURBED, THEY SHALL BE PROPERLY REFERENCED AND IF DISTURBED SHALL BE RESET BY A REGISTERED PUBLIC SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
13. ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE GOVERNING AUTHORITIES AND/OR OWNER.
14. AT NIGHT AND DURING ALL PERIODS OF TIME WHEN EQUIPMENT IS NOT BEING ACTIVELY USED FOR THE CONSTRUCTION WORK, THE CONTRACTOR SHALL PARK THE EQUIPMENT AT LOCATIONS WHICH ARE APPROVED BY THE OWNER. DURING THE CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH THE PRESENT ZONING REQUIREMENTS OF THE GOVERNING AUTHORITIES IN THE USE OF VACANT PROPERTY FOR STORAGE PURPOSES. THE CONTRACTOR SHALL ALSO PROVIDE ADEQUATE BARRICADES, MARKERS, AND LIGHTS TO PROTECT THE OWNER, THE GOVERNING AUTHORITIES, AND THE PUBLIC. ALL BARRICADES, LIGHTS, AND MARKERS MUST MEET THE REQUIREMENTS OF THE GOVERNING AUTHORITIES' REGULATIONS.
15. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR PURCHASING WATER FROM THE GOVERNING AUTHORITY FOR USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
16. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR THE INSTALLATION AND PURCHASING OF TEMPORARY ELECTRIC AND COMMUNICATIONS SERVICES FROM THE AVAILABLE PROVIDERS FOR HIS USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
17. IN THE EVENT THAT OTHER CONTRACTORS ARE DOING WORK IN THE SAME AREA SIMULTANEOUSLY WITH THE PROJECT, THE CONTRACTOR SHALL COORDINATE HIS PROPOSED CONSTRUCTION WITH THAT OF THE OTHER CONTRACTORS.
18. PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH REPRESENTATIVES FROM ALL CONTRACTORS, THE ENGINEER, THE OWNER, AND THE GOVERNING AUTHORITY.
19. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER IF ANY DISCREPANCIES ARISE BETWEEN EXISTING CONDITIONS AND THE CONSTRUCTION DOCUMENTS.
20. THE CONTRACTOR SHALL KEEP THE SITE OF THE WORK AND ADJACENT PREMISES AS FREE FROM MATERIAL, DEBRIS AND RUBBISH AS IS PRACTICABLE. THE CONTRACTOR SHALL REMOVE MATERIAL, DEBRIS, AND RUBBISH FROM ANY PORTION OF THE SITE IF, IN THE OPINION OF THE OWNER, SUCH MATERIAL, DEBRIS, AND RUBBISH CONSTITUTES A NUISANCE OR IS OBJECTIONABLE.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF EXISTING PAVED ROADS ADJACENT TO OR WITHIN THE SITE. COSTS ASSOCIATED WITH MAINTAINING THE CLEANLINESS OF EXISTING ROADS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
22. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO CONTROL DUST ON THE PROJECT SITE BY SPRINKLING OF WATER, OR ANY OTHER METHODS APPROVED BY THE GOVERNING AUTHORITIES. COSTS ASSOCIATED WITH DUST CONTROL SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
23. DUST CONTROL SHALL BE ACCOMPLISHED BY WATERING DRY, EXPOSED AREAS ON A REGULAR BASIS. SPRAYING OF PETROLEUM BASED OR TOXIC LIQUIDS FOR THIS IS PROHIBITED.
24. THE CONTRACTOR SHALL CLEAN UP ALL PARTS OF THE WORK BEFORE ACCEPTANCE BY THE OWNER. THIS CLEAN UP SHALL INCLUDE REMOVAL OF ALL OBJECTIONABLE MATERIALS AND, IN GENERAL, PREPARING THE SITE OF THE WORK IN AN ORDERLY MANNER OF APPEARANCE.
25. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK: ALL WORK WHICH HAS BEEN REJECTED OR CONDEMNED SHALL BE REPAIRED, OR IF IT CANNOT BE REPAIRED SATISFACTORILY, IT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. DEFECTIVE MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE WORK SITE. WORK DONE BEYOND THE LINE OR NOT IN CONFORMITY WITH THE GRADES SHOWN ON THE DRAWINGS OR AS WRITTEN AUTHORITY AND PRIOR AGREEMENT IN WRITING AS TO PRICES, SHALL BE AT THE CONTRACTOR'S RISK AND WILL BE CONSIDERED UNAUTHORIZED, AND THE OPTION OF THE OWNER MAY NOT BE MEASURED AND PAID FOR AND MAY BE ORDERED REMOVED AT THE CONTRACTOR'S EXPENSE. UPON FAILURE OF THE CONTRACTOR TO REPAIR SATISFACTORILY OR TO REMOVE AND REPLACE, IF SO DIRECTED, REJECTED, UNAUTHORIZED, OR CONDEMNED WORK OR MATERIALS IMMEDIATELY AFTER RECEIVING NOTICE FROM THE OWNER, THE OWNER WILL, AFTER GIVING WRITTEN NOTICE TO THE CONTRACTOR, HAVE THE AUTHORITY TO CAUSE DEFECTIVE WORK TO BE REMEDIED, OR REMOVED AND REPLACED, OR TO CAUSE UNAUTHORIZED WORK TO BE REMOVED AND TO DEDUCT THE COST THEREOF FROM ANY MONIES DUE OR TO BECOME DUE THE CONTRACTOR.
26. THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF ALL MATERIALS AND SYSTEMS COVERED BY THE PROJECT CONTRACT DOCUMENTS. THE COMPLETE SET OF "RECORD DRAWINGS" MUST BE DELIVERED TO THE OWNER AND/OR ENGINEER BEFORE REQUESTING FINAL PAYMENT.
27. ALL MATERIALS TO BE REMOVED FROM THE SITE INCLUDED, BUT NOT LIMITED TO, EXCESS MATERIAL AND UNSUITABLE MATERIALS SUCH AS CONCRETE, ASPHALT, LARGE ROCKS, REFUSE, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT. CONTRACTOR SHALL ALSO COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE. COSTS ASSOCIATED WITH THE DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
28. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE WITH ALL HANDICAPPED ACCESSIBILITY REQUIREMENTS INCLUDING SIGNAGE, TEXTURES, COLORING, MARKINGS, AND SLOPES OF ADA/TAS 2012 ACCESSIBLE ROUTES & RAMPS, AND PARKING SPACES.
29. ALL CONSTRUCTION MUST ADHERE TO THE TREE PRESERVATION REQUIREMENTS OF THE GOVERNING AUTHORITY.
30. INDIVIDUAL WATER AND SEWER SERVICES AND WATER VALVES SHALL BE MARKED IN ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
31. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION. THE PONDING OF WATER IN STREETS, DRIVES, TRENCHES, ETC, WILL NOT BE ALLOWED.
32. THE CONTRACTOR SHALL MAINTAIN EXISTING DRIVEWAYS ACCESS AT ALL TIME. THE CONTRACTOR MUST CEASE ALL CONSTRUCTION OPERATIONS IMMEDIATELY IF A SUSPECTED ARCHEOLOGICAL OBJECT/ARTIFACT IS UNCOVERED DURING CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY CONTACT THE TEXAS HISTORICAL COMMISSION AND THE GOVERNING AUTHORITY. PROJECT WORK SHALL NOT COMMENCE UNTIL PROPER PERMITS ARE IN PLACE AND PROVIDED TO THE GOVERNING AUTHORITY.

EXISTING FACILITIES AND EXISTING UTILITIES NOTES:

33. AS REQUIRED BY "THE TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT". TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4545) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS BEING PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED ON THE RECORDS AND/OR FIELD INFORMATION AVAILABLE AND ARE NOT GUARANTEED BY THE OWNER OR ENGINEER TO BE ACCURATE AS TO THE LOCATION AND DEPTH. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF HIS ACTIVITIES IN ORDER THAT HE MAY NEGOTIATE SUCH LOCAL ADJUSTMENTS AS NECESSARY IN THE CONSTRUCTION PROCESS TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL EXISTING UTILITIES, SERVICES, AND STRUCTURES ENCOUNTERED WHETHER OR NOT THEY ARE ON THE PLANS. ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT HIS EXPENSE. TO AVOID UNNECESSARY INTERFERENCES OR DELAYS, THE CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVALS, REPLACEMENTS, AND CONSTRUCTION WITH THE APPROPRIATE GOVERNING AUTHORITIES. THE OWNER WILL NOT BE LIABLE FOR DAMAGES DUE TO DELAY BECAUSE OF THE ABOVE. DIFFERENCES IN HORIZONTAL OR VERTICAL LOCATIONS OF EXISTING UTILITIES SHALL NOT BE BASIS FOR ADDITIONAL COMPENSATIONS TO THE CONTRACTOR.
34. WHERE EXISTING UTILITIES, SERVICE LINES, OR IRRIGATION LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITIES, SERVICE LINES, OR IRRIGATION LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION, OR BETTER, UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS, AT HIS OWN COST AND EXPENSE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICTS OR DISCREPANCIES.
35. ALL FENCES AND LANDSCAPING ENCOUNTERED AND REMOVED DURING CONSTRUCTION, EXCEPT THOSE DESIGNATED TO BE REMOVED OR RELOCATED, SHALL BE RESTORED TO THE ORIGINAL (OR BETTER) CONDITION UPON COMPLETION OF THE PROJECT. WHERE WIRE FENCING, EITHER WIRE MESH OR BARBED WIRE, IS TO BE CROSSED, THE CONTRACTOR SHALL SET CROSS-BRACED POSTS ON EITHER SIDE OF THE CROSSING. TEMPORARY FENCING SHALL BE ERECTED IN PLACE OF THE FENCING REMOVED WHENEVER THE WORK IS NOT IN PROGRESS AND WHEN THE SITE IS VACATED OVERNIGHT AND/OR AT ALL TIMES TO PREVENT PERSONS AND/OR LIVESTOCK FROM ENTERING THE CONSTRUCTION AREA. THE COST OF FENCE REMOVAL, TEMPORARY CLOSURES AND REPLACEMENT SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

STORMWATER POLLUTION PREVENTION PLAN AND EROSION CONTROL NOTES:

36. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH THE CONDITIONS OF THE S.W.P.P.P. AND T.C.E.Q. WHILE CONDUCTING HIS ACTIVITIES ON THE PROJECT.
37. ALL AREAS DISTURBED BY CHANNEL EXCAVATION SHALL BE REVEGETATED AS SET FORTH IN THE S.W.P.P.P., WHICH WAS PREPARED SPECIFICALLY FOR THIS PROJECT, OR OTHERWISE PROTECTED AGAINST EROSION BY THE USE OF RIP RAP, GABIONS, OR GEOTEXTILES.
38. THE GENERAL CONTRACTOR, AS THE T.C.E.Q. DEFINED "OPERATOR," SHALL PERFORM ALL REQUIRED INSPECTIONS OF STORM WATER CONTROLS AND PRACTICES AT FREQUENCIES OUTLINED IN THE T.P.D.E.S. GENERAL PERMIT AND SHALL FILL OUT APPROPRIATE INSPECTION FORMS (AS PROVIDED IN THE S.W.P.P.P.).
39. THE CONTRACTOR SHALL MODIFY THIS PLAN TO SHOW LOCATIONS OF TEMPORARY WASHDOWN AREA, PORTABLE TOILETS, EQUIPMENT MAINTENANCE/REPAIR AREAS, STOCKPILE AREAS, FUEL STORAGE AREAS, ETC. AND POLLUTANT CONTROLS FOR EACH.
40. ALL PRIVATE HAUL ROADS AND ACCESS ROUTES AND THE LOCATION OF ALL STAGING AREAS AND STORAGE AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIRING ALL ROADS AND OTHER FACILITIES USED DURING CONSTRUCTION. UPON COMPLETION OF THE PROJECT, ALL HAUL ROADS, ACCESS ROADS, STAGING AREAS, AND STORAGE AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE CONDITION AT THE TIME THE CONTRACTOR COMMENCES WORK ON THE PROJECT.
41. USE OF ON-SITE FUEL STORAGE TANKS IS DISCOURAGED. HOWEVER, IF USED, THE PREVENTION OF HAZARDS TO THE GROUND WATER IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR UTILIZING SAID STORAGE. SEE N.C.T.C.O.G. CONSTRUCTION BMP MANUAL SECTION 4 HAZARDOUS WASTE MANAGEMENT.
42. CONSTRUCTION ENTRANCES ARE TO BE INSTALLED AT ALL POINTS WHERE EQUIPMENT ENTERS OR LEAVES THE SITE. THE LOCATION OF SAME IS TO BE APPROVED BY THE OWNER OR HIS REPRESENTATIVE.
43. THIS EROSION CONTROL PLAN IS A SUPPLEMENT TO THE S.W.P.P.P. PREPARED BY OTHERS. REFER TO THE S.W.P.P.P. FOR ADDITIONAL REQUIREMENTS.
44. ADDITIONAL EROSION CONTROL MEASURES MAY BE IMPLEMENTED BY THE CONTRACTOR AT HIS DISCRETION AT NO ADDITIONAL EXPENSE TO THE OWNER. THE ADDITION OR DELETION OF ANY EROSION CONTROL MEASURE MAY REQUIRE THAT THE S.W.P.P.P. BE MODIFIED IN ACCORDANCE WITH THE T.C.E.Q.'S T.P.D.E.S. GENERAL PERMIT GUIDELINES.
45. PLANTING AND/OR SEEDING OF VEGETATED AREAS TO ACCOMPLISH STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LANDSCAPING PLAN. AREAS BEYOND THE LIMITS OF THE LANDSCAPING PLAN (OR WHEN A LANDSCAPING PLAN DOES NOT EXIST) SHALL BE HYDROMULCHED WITH HIGHWAY MIX AND WATERED WITH TEMPORARY ABOVE GROUND IRRIGATION UNTIL THE VEGETATION IS ESTABLISHED.
46. THE CONTRACTOR SHALL ASSUME LIABILITY FOR DAMAGE TO ADJACENT PROPERTIES AND/OR PUBLIC RIGHT OF WAY RESULTING FROM FAILURE TO FULLY IMPLEMENT AND EXECUTE ALL EROSION CONTROL PROCEDURES SHOWN AND NOTED IN THESE PLANS.
47. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO USE WHATEVER MEANS ARE NECESSARY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE, SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREETS, ALLEYS, STREAMS, STORM DRAIN SYSTEMS AND INLETS FROM EROSION DEPOSITS.
48. EROSION CONTROLS TO REMAIN IN PLACE AND TO BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
49. SILT FENCES SHALL BE PLACED AROUND ANY STOCKPILES USED ON THE SITE.
50. ALL TEMPORARY EROSION CONTROL DEVICES (SILT FENCE, ETC.) SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF SITE WITHIN THIRTY DAYS AFTER STABILIZATION OF ALL DISTURBED SURFACES IS COMPLETE.
51. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES ALREADY IN PLACE. CONTRACTOR SHALL REMOVE AND REPLACE EROSION CONTROL AS NEEDED FOR CONSTRUCTION OR ACCESS. CONTRACTOR SHALL REPLACE ANY EROSION CONTROL MATERIALS AT THE END OF EACH WORKDAY IF SAID MATERIALS WERE REMOVED DURING THE DAY FOR EASE OF CONSTRUCTION OR ACCESS.
52. EROSION CONTROL MEASURES MAY ONLY BE PLACED IN FRONT OF INLETS OR IN CHANNELS, DRAINAGEWAYS OR BORROW DITCHES AT RISK OF CONTRACTOR. CONTRACTOR SHALL REMAIN LIABLE FOR ANY DAMAGE CAUSED BY MEASURES, INCLUDING FLOODING DAMAGE WHICH MAY OCCUR DUE TO BLOCKED DRAINAGE. AT THE CONCLUSION OF ANY PROJECT, ALL CHANNELS, DRAINAGEWAYS AND BORROW DITCHES IN THE WORK ZONE SHALL BE DREDGED OF ANY SEDIMENT GENERATED BY THE PROJECT OR DEPOSITED AS A RESULT OF EROSION CONTROL MEASURES.
53. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY THE GOVERNING AUTHORITIES.
54. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED SHALL BE PERMANENTLY PLANTED AND/OR SEEDED WITHIN 14 DAYS.
55. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 14 DAYS SHALL BE TEMPORARILY PLANTED AND/OR SEEDED AND WATERED.
56. ALL WASH WATER SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN WASH WATER POLLUTANTS AND STORM RUNOFF DISCHARGED FROM THIS SITE.
57. ALL VEHICLES SHALL BE CLEANED AT THE CONSTRUCTION EXIT POINT(S) BEFORE LEAVING THE SITE.
58. A CENTRALIZED PIT/WASH BASIN SHALL BE CONSTRUCTED ON-SITE FOR THE PURPOSE OF CONCRETE TRUCK WASHING. SEE N.C.T.C.O.G. CONSTRUCTION BMP MANUAL SECTION 4 CONCRETE WASTE MANAGEMENT.
59. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SILT IN ANY STORM SEWER INLETS AND PIPES, AND ALONG SILT FENCES WITHIN 48 HOURS AFTER INSPECTION OF DEVICES REVEALS THE PRESENCE OF EXCESS SILTATION.
60. OIL AND GREASE ABSORBING MATERIALS SHALL BE READILY AVAILABLE ON-SITE AND SHALL BE PROMPTLY USED TO CONTAIN AND/OR CLEAN UP ALL FUEL OR CHEMICAL SPILLS OR LEAKS.
61. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO ADJACENT ROADWAYS BY ANY VEHICLES EXITING THE SITE SHALL BE CLEANED OR REMOVED IMMEDIATELY.
62. IF DIRT OR ROCK IS EXPORTED FROM THIS SITE, OR IF DIRT OR ROCK IS IMPORTED FROM AN OFF SITE BORROW LOCATION, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR COMPLIANCE WITH ALL T.C.E.Q. STORM WATER REQUIREMENTS FOR THE REMOTE SITE. THE CONTRACTOR SHALL FURNISH THE OWNER WITH A COPY OF THE WRITTEN AGREEMENT WITH THE LANDOWNER OF THE REMOTE SITE INDICATING PERMITTING/PERMISSION AND EROSION CONTROL MEASURES WILL BE IMPLEMENTED THEREON.
63. THE CONTRACTOR SHALL RESTORE ALL AREAS, ONSITE AND OFFSITE, DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO: TRENCH BACKFILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE SWALES, STAGING AREAS, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE DRAWINGS, RESTORATION SHALL INCLUDE HYDROMULCHING ALL DISTURBED AREAS WITH A SLOPE OF LESS THAN 20% (1:5) AND SODDING AREAS WITH A SLOPE OF 20% (1:5) OR GREATER. ESTABLISHMENT OF GRASS THROUGH PROPER WATERING IS LEFT UP TO THE CONTRACTOR'S MEANS AND METHODS, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE/IRRIGATION DRAWINGS.

UTILITY NOTES:

64. ALL PIPE LENGTHS MEASURED FROM STATION TO STATION BASED ON THE CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
65. PIPE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
66. THE CONTRACTOR SHALL NOT REMOVE, DISABLE OR DISRUPT EXISTING FIRE OR LIFE SAFETY SYSTEMS WITHOUT RECEIVING PRIOR WRITTEN PERMISSION FROM THE GOVERNING AUTHORITY.
67. FIRE HYDRANTS AND VALVES AS SHOWN ON THIS PLAN ARE SYMBOLIC ONLY. INSTALLATION OF SAME IS TO BE IN ACCORDANCE WITH THE DETAIL AND/OR AT THE STATIONS AS NOTED.
68. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS GOVERNING EXCAVATION. THE CONTRACTOR SHALL PROVIDE DETAILED PLANS AND SPECIFICATION FOR TRENCH SAFETY SYSTEMS THAT COMPLY WITH APPLICABLE LAWS GOVERNING EXCAVATION, THESE PLANS SHALL BE SEALED BY AN ENGINEER EXPERIENCED IN THE DESIGN OF TRENCH SAFETY SYSTEM, REGISTERED IN THE STATE OF TEXAS. THE CONTRACTOR SHALL SUBMIT COMPLETED TRENCH SAFETY PLANS TO THE GOVERNING AUTHORITY PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL ASPECTS OF WORK RELATED TO EXCAVATION. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U.S. DEPARTMENT OF LABOR, O.S.H.A., "CONSTRUCTION SAFETY AND HEALTH REGULATIONS".
69. ALL TRENCH BACKFILL SHALL BE PER GOVERNING AUTHORITY REQUIREMENTS UNLESS OTHERWISE NOTED.
70. SEE WATER CONSTRUCTION DETAILS SHEET FOR CONSTRUCTION DETAILS.
71. ALL CLEAN-OUTS TO BE PROVIDED PER GOVERNING AUTHORITY REQUIREMENTS.
72. THE CONTRACTOR SHALL MAINTAIN EXISTING SANITARY SEWER AND WATER SERVICES AT ALL TIMES DURING CONSTRUCTION.
73. AT ALL LOCATIONS IN THE PROFILES WHERE SDR-26 PVC PIPE IS SPECIFIED BENEATH WATER LINES, IT IS TO BE BACKFILLED WITH CEMENT STABILIZED SAND AS REQUIRED BY T.C.E.Q. REGULATION 217.53 (d) (3) FOR A DISTANCE OF 10' EITHER SIDE OF THE WATER LINE. AT OTHER LOCATIONS WHERE SDR-26 IS SPECIFIED, IT IS TO BE BACKFILLED AS NOTED.
74. ANY CONNECTION TIE-IN TO AN EXISTING MANHOLE MUST BE CORED.
75. ALL CURVED STORM DRAIN IS TO BE CONSTRUCTED WITH RADIUS PIPE OR BY METHOD OF PULLED JOINTS AND IS TO HAVE ALL JOINTS GROUTED, AS NECESSARY. IT SHALL BE THE CONTRACTORS OPTION AS TO WHICH METHOD TO USE. THERE SHALL BE NO SEPARATE PAY.
76. AFTER COMPLETION OF ALL STORM SEWER INSTALLATION, THE CONTRACTOR SHALL ENSURE THAT ALL DEBRIS AND SILT HAS BEEN REMOVED

TRAFFIC CONTROL NOTES:

77. THE CONTRACTOR SHALL PREPARE ALL TRAFFIC CONTROL PLANS AND SUBMIT TO THE GOVERNING AUTHORITY PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMITS FOR WORK WITHIN THE GOVERNING AUTHORITY. THE PLAN SHALL BE PREPARED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS M.U.T.C.D. AND AS MODIFIED BY THE T.X.D.O.T. SUPPLEMENT TO THE M.U.T.C.D. THE PLAN SHALL ADDRESS THE REQUIREMENTS FOR ALL SIGNS, BARRICADES, FLAGMEN, SIGNAL, PAVEMENT MARKING, LIGHTS, HOURS OF CONSTRUCTION, AND OTHER DEVICES AS NECESSARY FOR SAFE TRAFFIC CONTROL. THE COSTS ASSOCIATED WITH THE PREPARATION AND IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

GRADING NOTES:

78. IF ROCK IS ENCOUNTERED IN THE PAVEMENT SUBGRADE, REFER TO THE GEOTECHNICAL REPORT (NO G20-3956) FOR RECOMMENDATIONS AND PROCEDURES. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THIS CONTRACT.
79. MANHOLE RIM ELEVATIONS, CLEAN-OUTS, VALVE BOXES, FIRE HYDRANTS, ETC., SHALL BE ADJUSTED TO FINISHED GRADE BY THE PAVING CONTRACTOR AT THE TIME OF PAVING.
80. THE SUBGRADE SHALL BE PROOF ROLLED AND OBSERVED BY THE CONSTRUCTION INSPECTOR PRIOR TO AND AFTER SUB-GRADE STABILIZATION.
81. ROUGH SITE GRADING SHALL BE COMPLETED TO A TOLERANCE OF PLUS OR MINUS ONE TENTH OF ONE FOOT IN STREETS AND PLUS OR MINUS THREE TENTHS OF ONE FOOT FOR BUILDING PADS. FINAL LOT GRADING, TO BE DONE UPON COMPLETION OF PAVING AND UTILITY FACILITIES, SHALL BE PROVIDED TO A TOLERANCE OF PLUS OR MINU

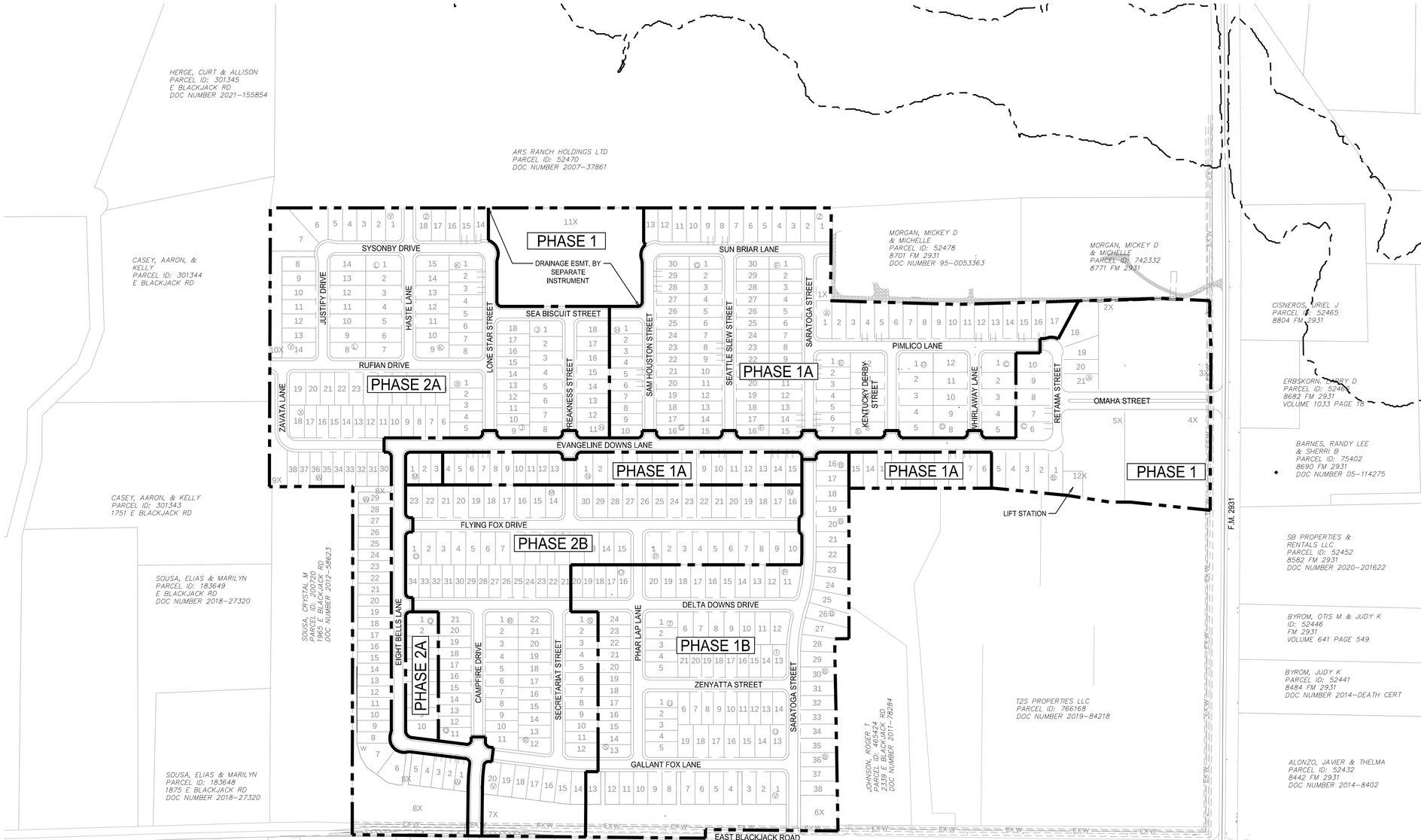
FIFTH SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.



0 200' 400'
SCALE: 1" = 200'

PHASE BOUNDARY
PROPERTY BOUNDARY

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

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ERIK S. HINKLIN (TYPE OR PRINT NAME) | 100268 (PE #) | 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

PHASING PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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CLS			
DESIGNED: CLS	APRIL 2024	GEE21003	05
REVIEWER: TRS			

SARATOGA PHASE 1

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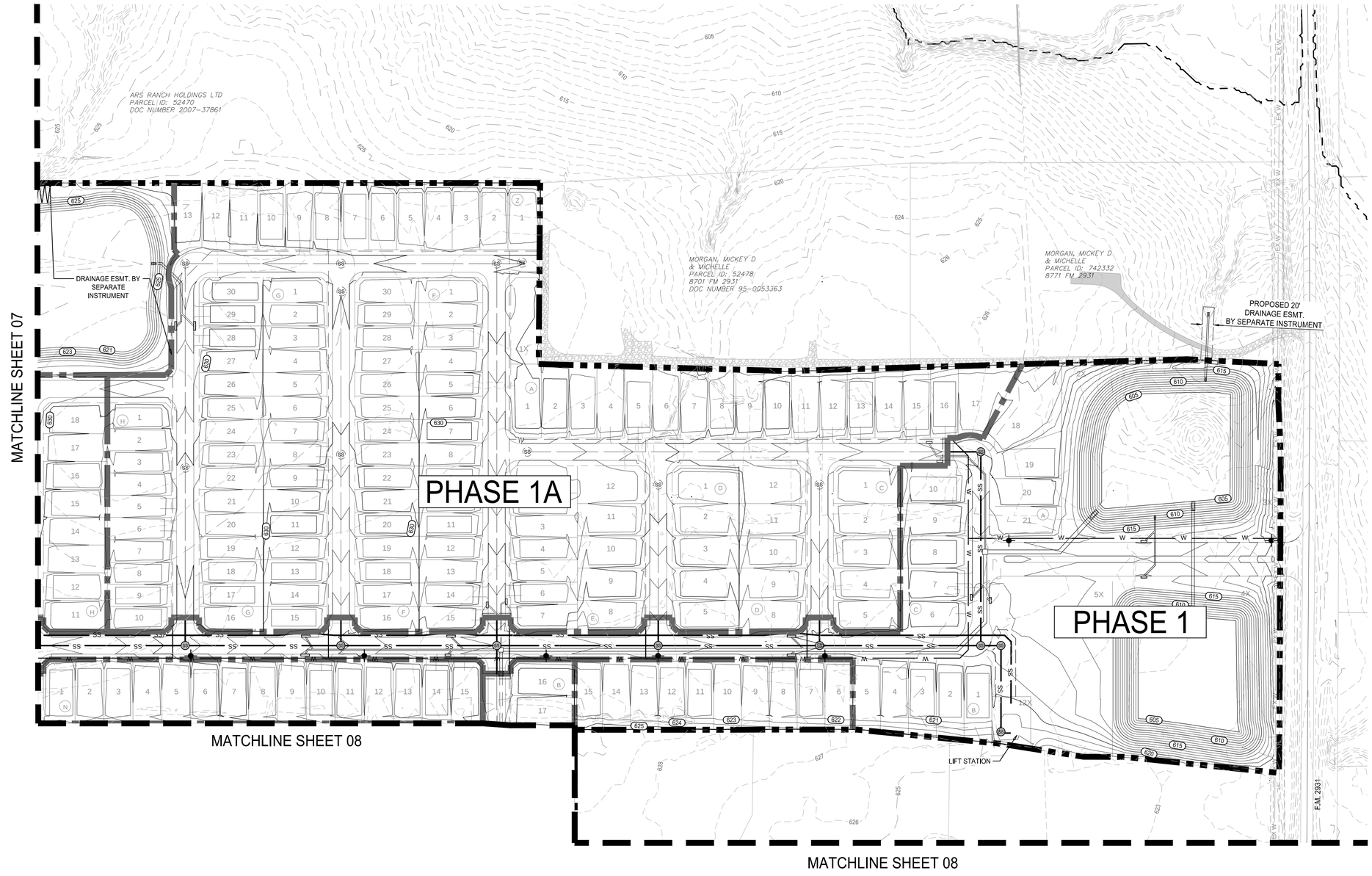
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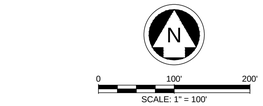
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PHASE BOUNDARY
PROPERTY BOUNDARY
SS SANITARY SEWER PIPE
W WATER PIPE
STORM DRAIN
FUTURE SANITARY SEWER PIPE
FUTURE WATER PIPE
FUTURE STORM DRAIN
PROPOSED MAJOR CONTOUR
PROPOSED MINOR CONTOUR
EXISTING MAJOR CONTOUR
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KEY MAP
N.T.S.

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NO.	DATE	REVISION

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OVERALL ENGINEERING PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	06
REVIEWER: TRS			

SARATOGA PHASE 1

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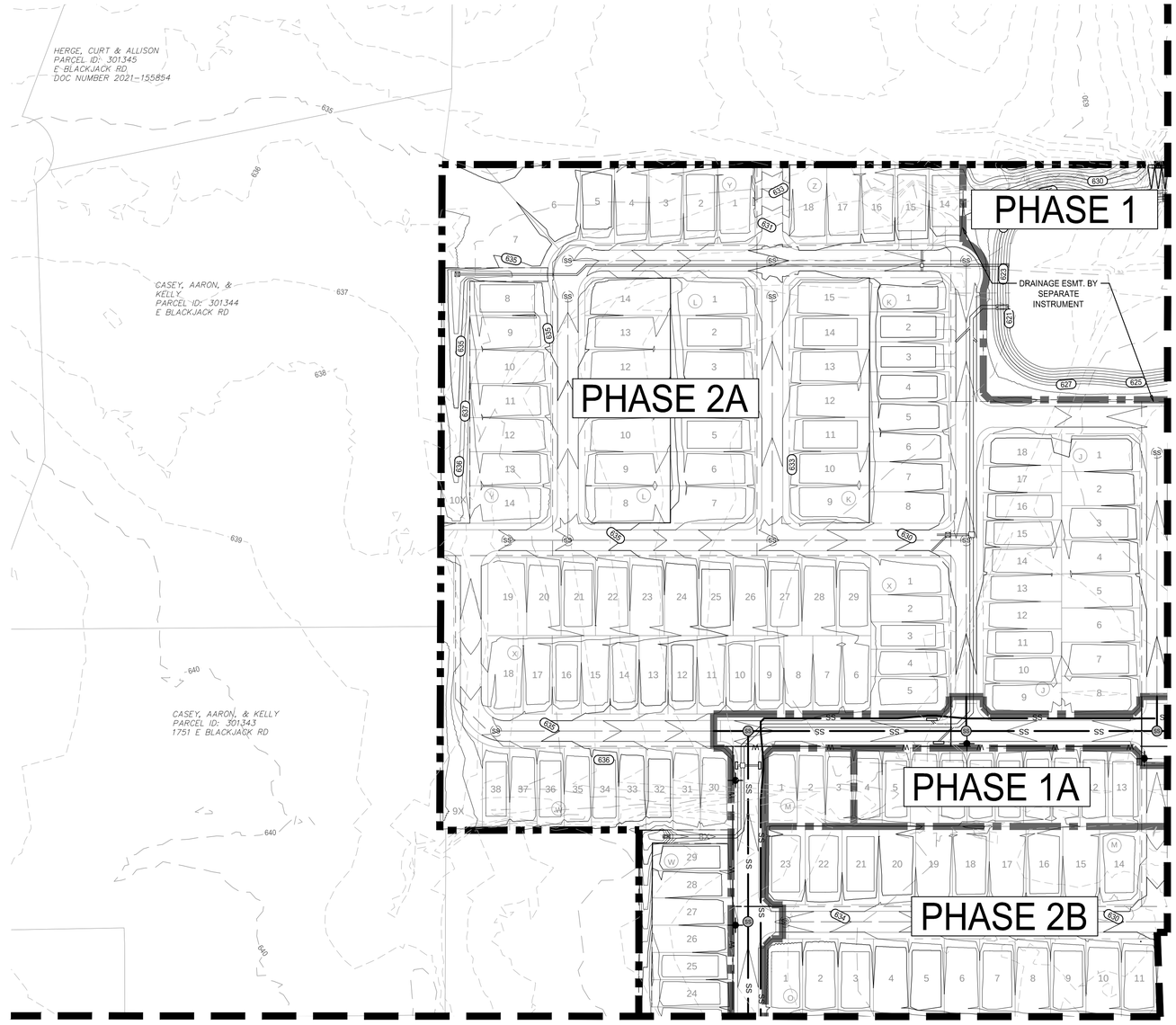
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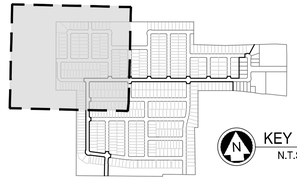


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0 100' 200'

SCALE: 1" = 100'

- PHASE BOUNDARY
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- SS SANITARY SEWER PIPE
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- STORM DRAIN
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REVIEWER: TRS			

SARATOGA PHASE 1

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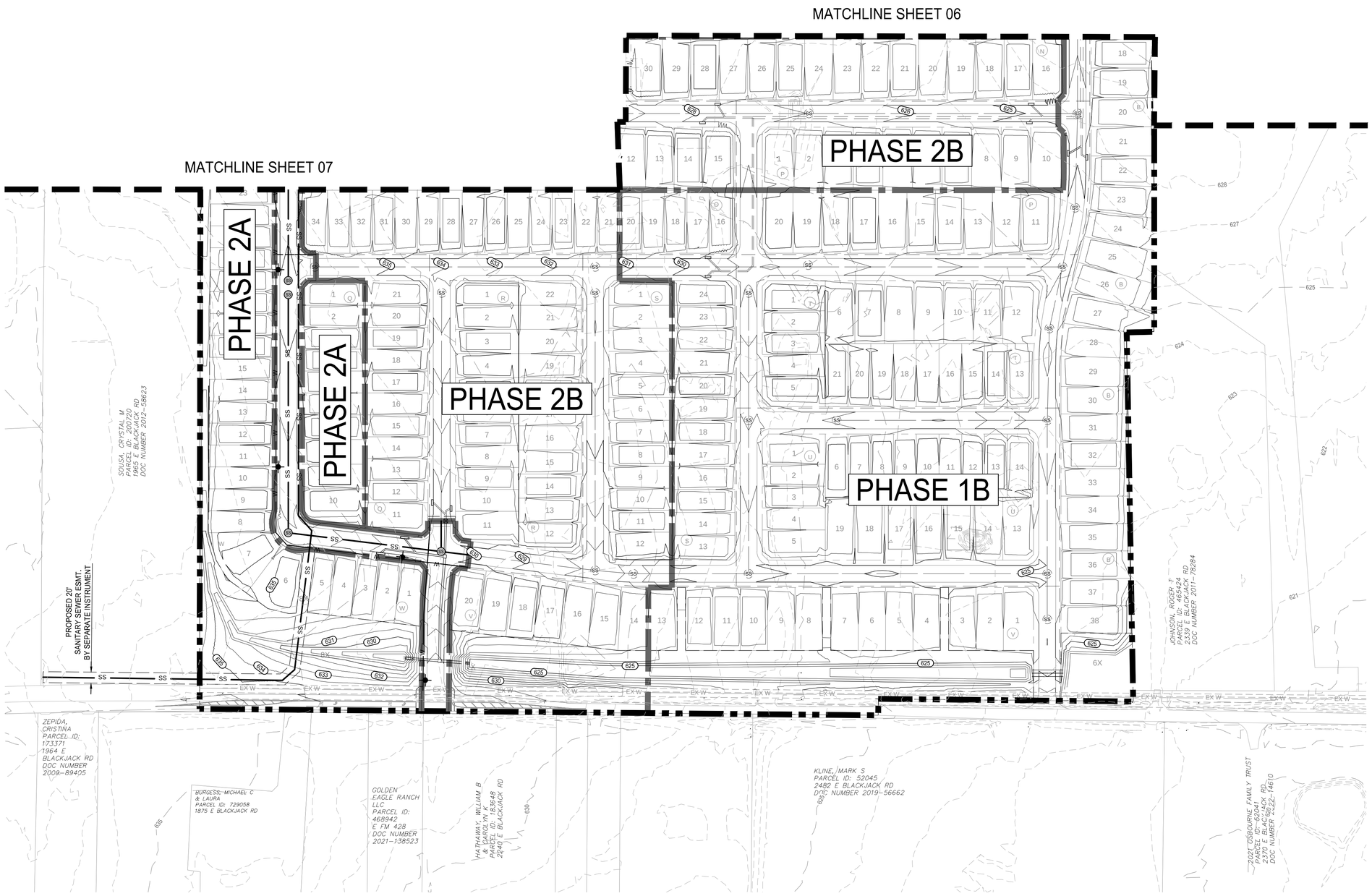
FIFTH SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

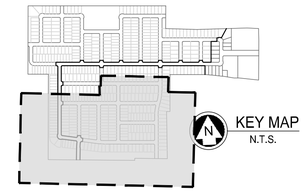
CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.



0 100' 200'
SCALE: 1" = 100'

- PHASE BOUNDARY
- PROPERTY BOUNDARY
- SS — SANITARY SEWER PIPE
- W — WATER PIPE
- STORM DRAIN
- SS — FUTURE SANITARY SEWER PIPE
- FUTURE WATER PIPE
- FUTURE STORM DRAIN
- 135 — PROPOSED MAJOR CONTOUR
- 133 — PROPOSED MINOR CONTOUR
- 135 — EXISTING MAJOR CONTOUR
- 133 — EXISTING MINOR CONTOUR



BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

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BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

OVERALL ENGINEERING PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	08
REVIEWER: TRS			

SARATOGA PHASE 1

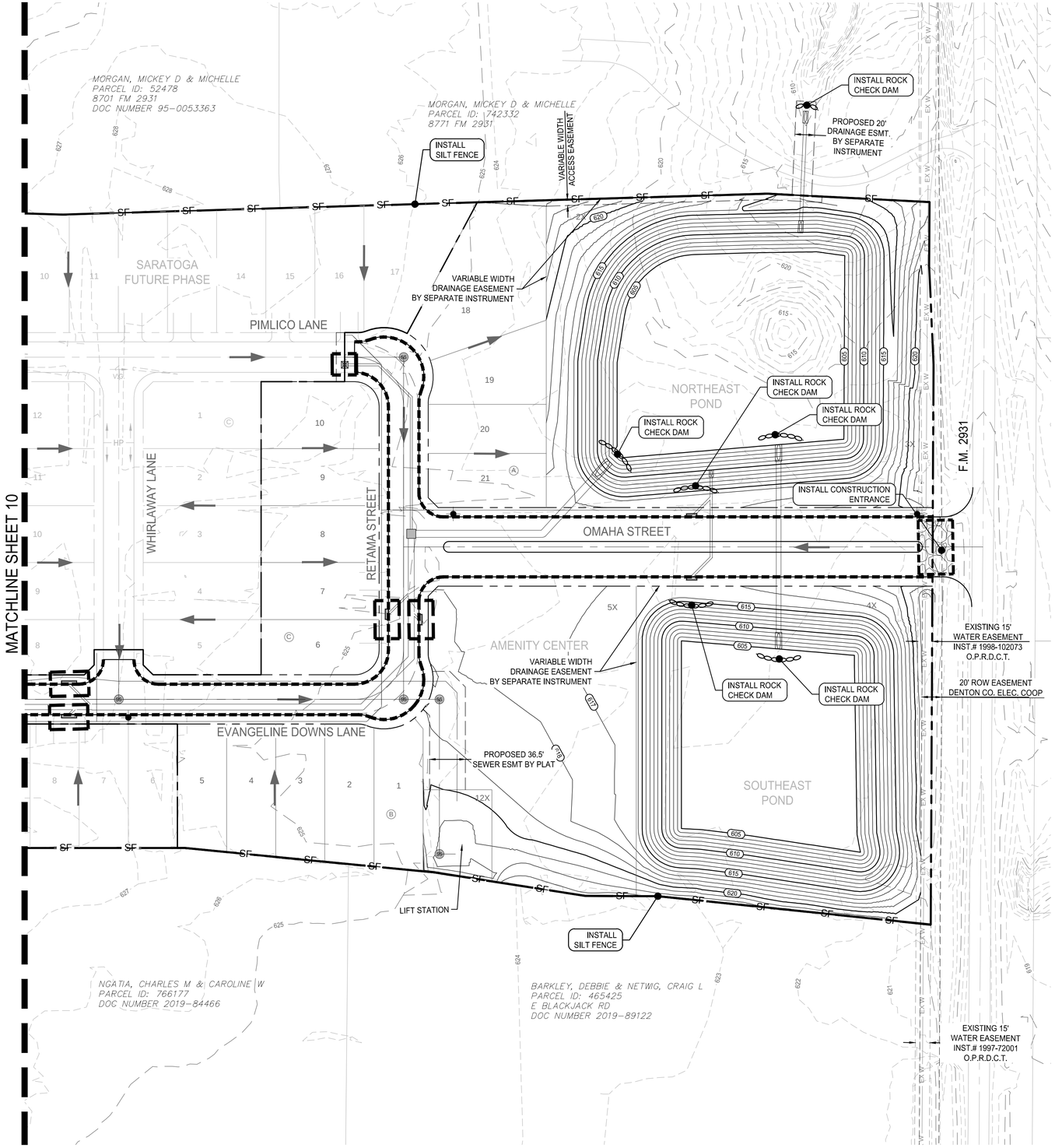
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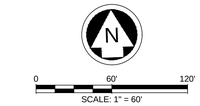
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ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

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LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SILT FENCE
- PROPOSED CURLEX (4' OR 8') & SILT FENCE (TO BE APPLIED AFTER PAVING AT ROW)
- PROPOSED CHECK DAM
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

EROSION CONTROL PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	09
REVIEWER: TRS			

SARATOGA PHASE 1

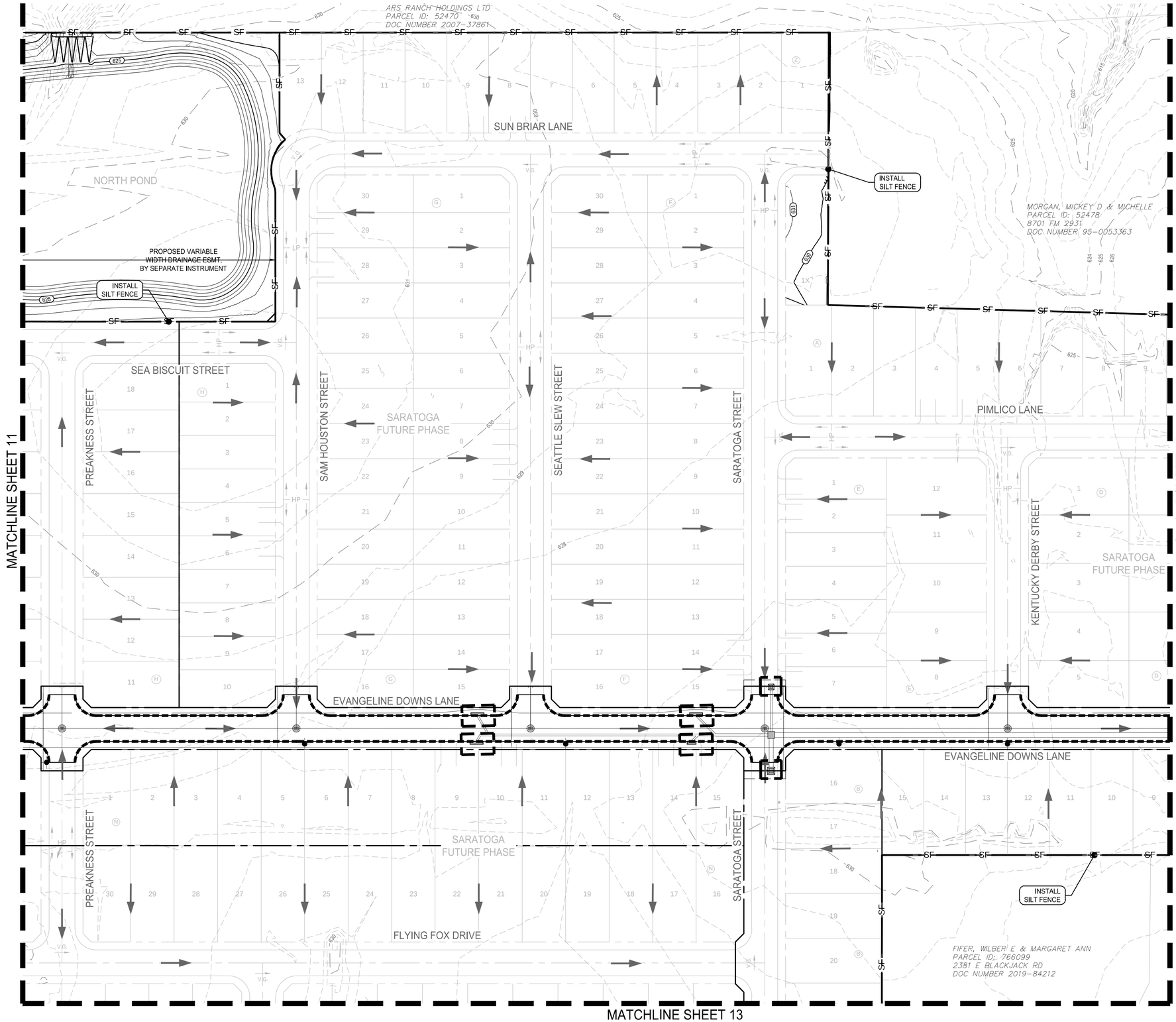
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N

0 60' 120'

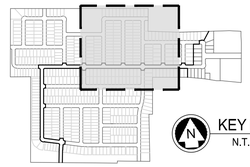
SCALE: 1" = 60'

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ERIK S. HINKLIN	100268	04/30/2024
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NO.	DATE	REVISION

SARATOGA PHASE 1

EROSION CONTROL PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

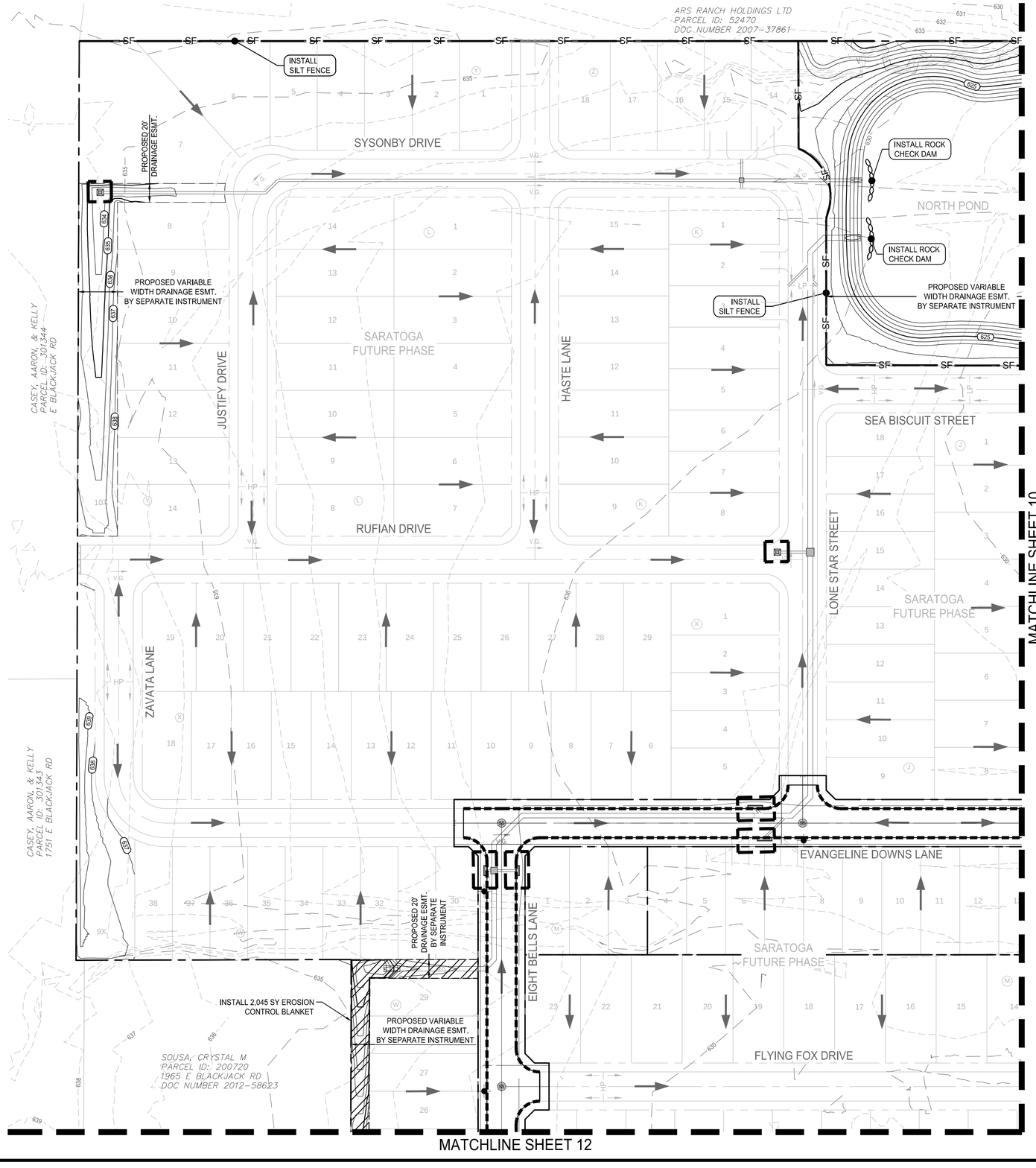
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	10
REVIEWER: TRS			

SARATOGA PHASE 1

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NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
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FIFTH SUBMITTAL

N

0 60' 120'

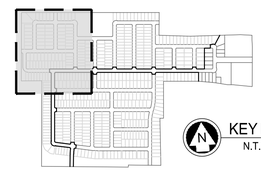
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TYPE OR PRINT NAME	PE #	DATE

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SARATOGA PHASE 1

EROSION CONTROL PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

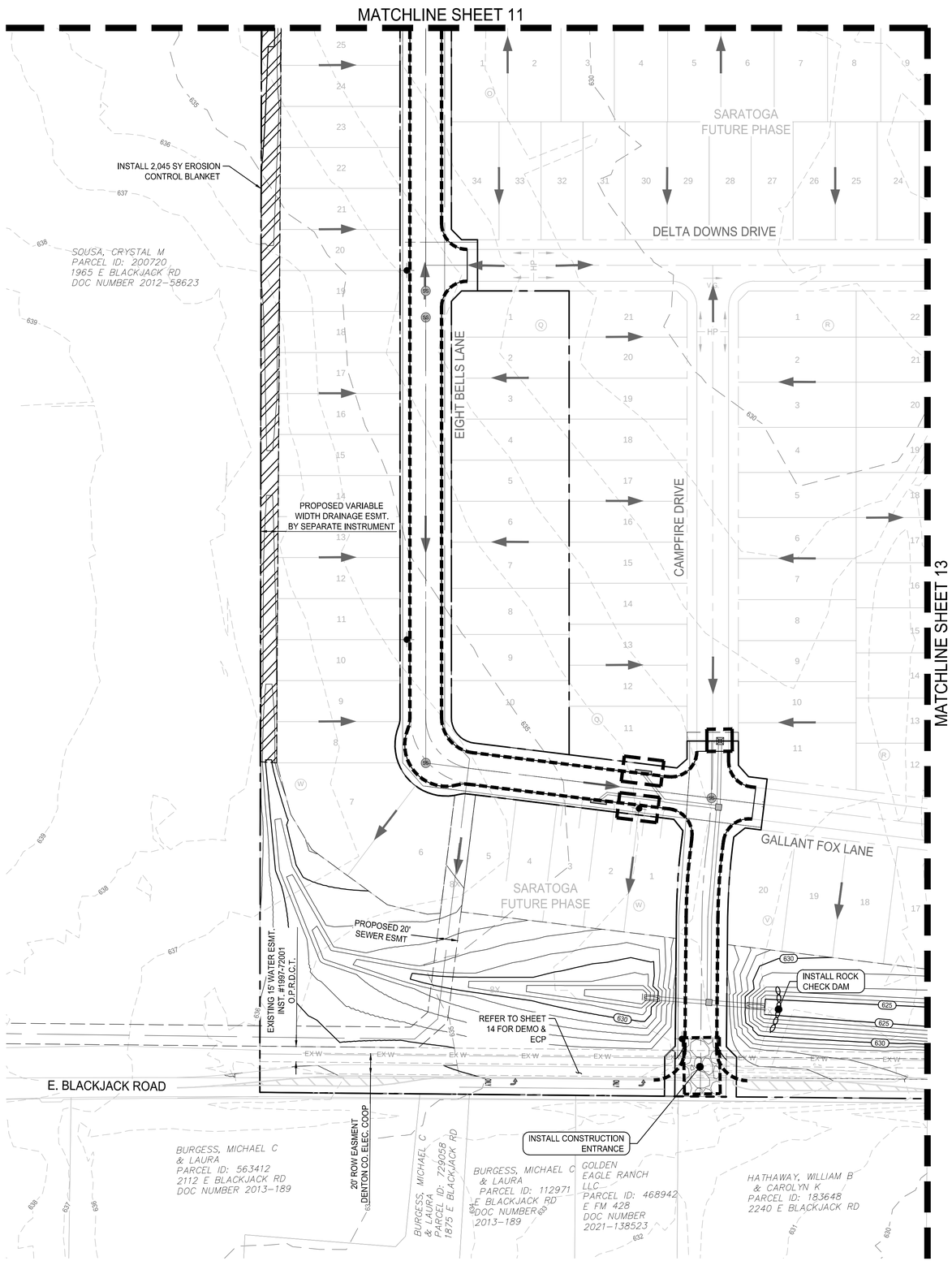
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	11
REVIEWER: TRS			

SARATOGA PHASE 1

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FIFTH SUBMITTAL

N

0 60' 120'

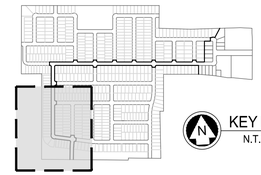
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SARATOGA PHASE 1

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AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	12
REVIEWER: TRS			

SARATOGA PHASE 1

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MATCHLINE SHEET 10

MATCHLINE SHEET 12

SARATOGA FUTURE PHASE

SARATOGA FUTURE PHASE

PHAR LAP LANE

PHAR LAP LANE

DELTA DOWNS DRIVE

ZENYATTA STREET

SECRETARIAT STREET

SARATOGA STREET

GALLANT FOX LANE

E. BLACKJACK ROAD

INSTALL SILT FENCE

INSTALL SILT FENCE

INSTALL ROCK CHECK DAM

INSTALL ROCK CHECK DAM

INSTALL ROCK CHECK DAM

INSTALL ROCK CHECK DAM

INSTALL ROCK CHECK DAM

PROPOSED 15' DRAINAGE ESMT

PROPOSED 15' DRAINAGE ESMT

PROPOSED 15' DRAINAGE ESMT

PROPOSED VARIABLE WIDTH DRAINAGE ESMT. BY SEPARATE INSTRUMENT

EXISTING 15' WATER ESMT. INST. #1997-72001 O.P.R.D.C.T.

20' ROW EASEMENT DENTON CO. ELEC. COOP

FIFER, WILBER E & MARGARET ANN
PARCEL ID: 766099
2381 E BLACKJACK RD
DOC NUMBER 2019-84212

JOHNSON, ROGER T
PARCEL ID: 465424
2339 E BLACKJACK RD
DOC NUMBER 2011-78284

KLINE, MARK S
PARCEL ID: 52045
2482 E BLACKJACK RD
DOC NUMBER 2019-56662

2021 OSBOURNE FAMILY TRUST
PARCEL ID: 52041
2370 E BLACKJACK RD
DOC NUMBER 2022-14610

MULHERN, DANIEL & DONNA
PARCEL ID: 237007
2300 E BLACKJACK RD
DOC NUMBER 2008-99966

GOLDEN EAGLE RANCH LLC
PARCEL ID: 52074
E BLACKJACK RD
DOC NUMBER
2021-138523

MULTHERN, DANIEL & DONNA
PARCEL ID: 73370
E BLACKJACK RD
DOC NUMBER
2016-54614

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N

0 60' 120'

SCALE: 1" = 60'

LEGEND

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Westwood

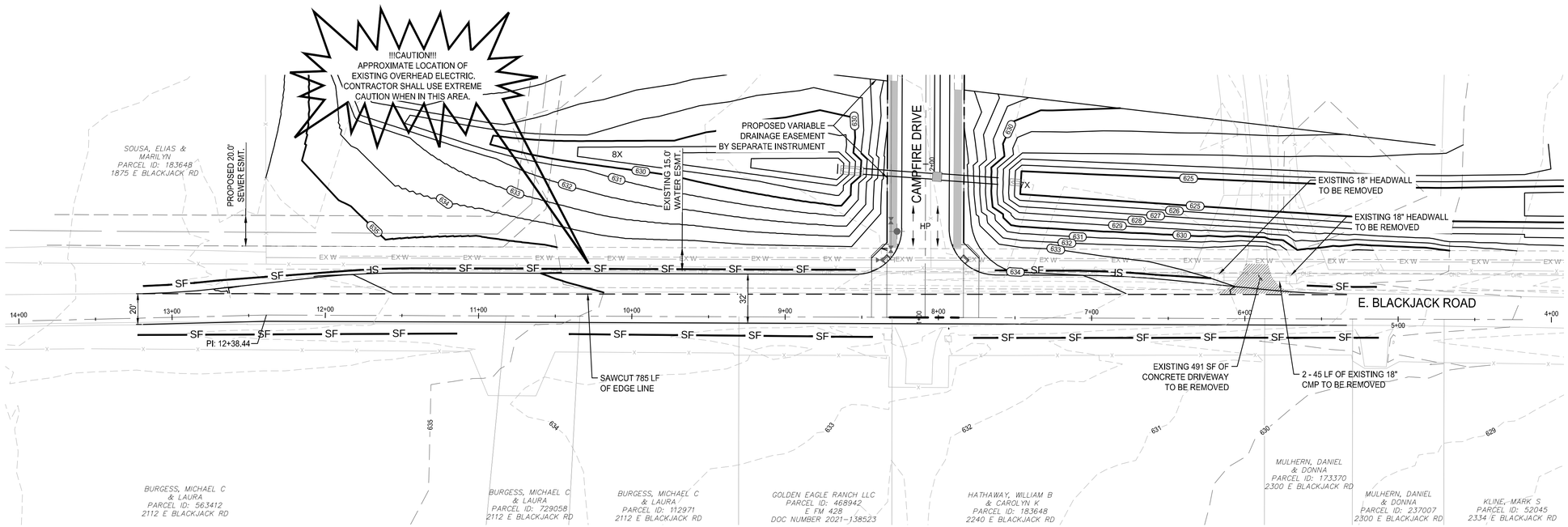
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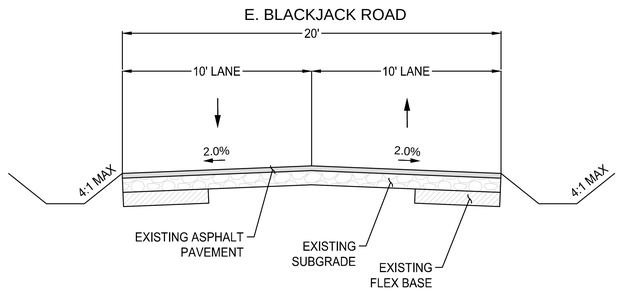
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TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	13
REVIEWER: TRS			

SARATOGA PHASE 1

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EXISTING CROSS SECTION - E. BLACKJACK ROAD

NTS

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

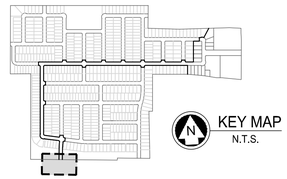
0 40' 80'
SCALE: 1" = 40'

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SILT FENCE
- PROPOSED CURLEX (4' OR 8') & SILT FENCE (TO BE APPLIED AFTER PAVING AT ROW)
- PROPOSED CHECK DAM
- INLET PROTECTION
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE

NOTES:

1. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES AND STANDARD DETAILS.
2. THE CITY OF AUBREY DESIGN AND CONSTRUCTION STANDARDS APPLY WHETHER INDICATED ON THESE PLANS OR NOT.
3. SILT FENCES SHALL BE INSTALLED AS SHOWN IN THE CITY OF AUBREY STANDARD DETAILS.
4. CONTRACTOR WILL INSTALL ADDITIONAL EROSION CONTROL WHERE EROSION PROTECTION IS NEEDED AS PER OWNERS, ENGINEERS OR THE CITY INSPECTOR.
5. THE EXISTING VEGETATION ALONG EXISTING PARKWAYS AND MEDIANS SHALL BE REPLACED TO ITS ORIGINAL CONDITION OR BETTER.
6. ALL DRAINAGE SWALES SHALL BE GRASSED AS PER CITY STANDARDS, PRIOR TO THE CITY ACCEPTANCE OF THE PROJECT.
7. ALL CONSTRUCTION EROSION CONTROL SHALL MEET CITY ORDINANCE.



BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

DEMOLITION & EROSION CONTROL PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 **Toll Free** (888) 937-5150
11000 Frisco Street, Suite 400
Frisco, TX 75033
westwoodps.com

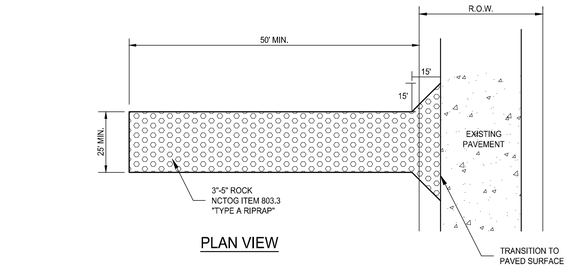
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	14
REVIEWER: TRS			

FIFTH SUBMITTAL

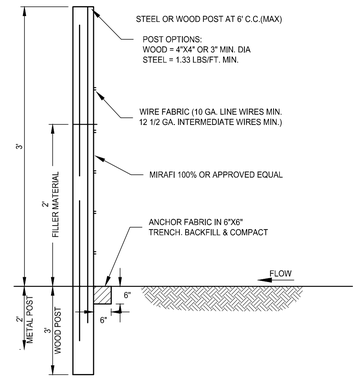
SARATOGA PHASE 1

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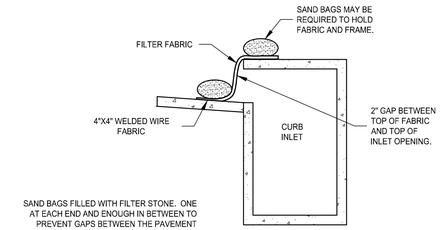
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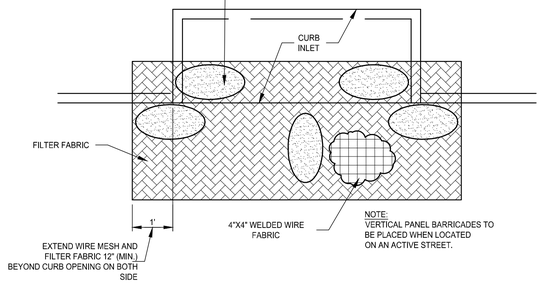
NOT TO SCALE



2 SILT FENCE

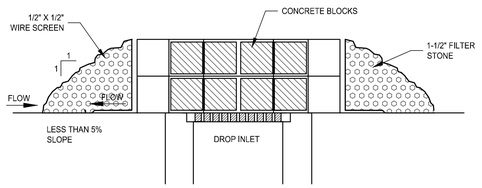
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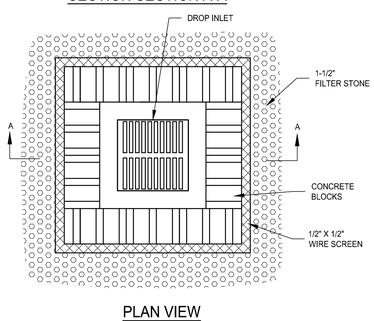




3 CURB INLET PROTECTION

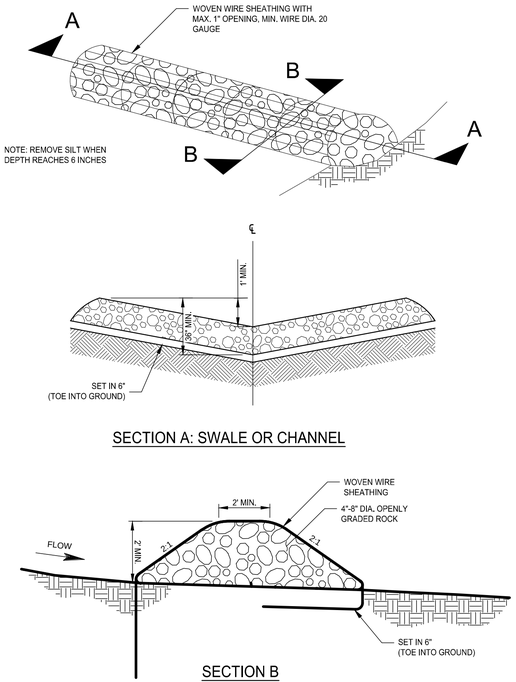
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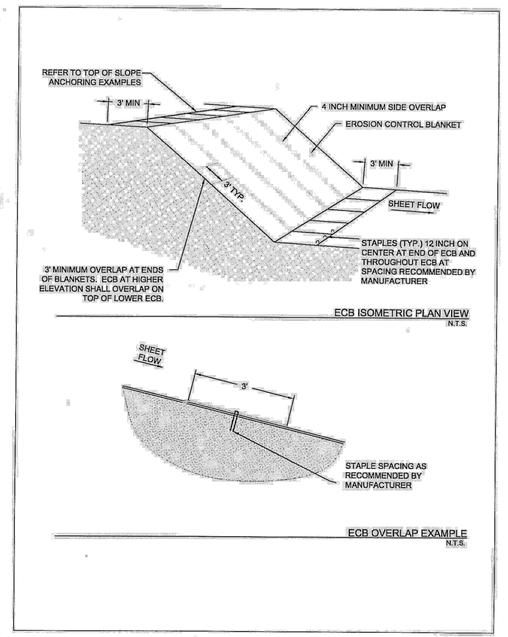
4 DROP INLET PROTECTION

NOT TO SCALE



5 ROCK CHECK DAM

NOT TO SCALE



6 EROSION CONTROL BLANKET

NOT TO SCALE

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

NOTES:

1. SOIL EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH CITY OF AUBREY EROSION REGULATIONS.
2. RESPONSIBILITY FOR INSTALLATION, ROUTINE INSPECTION, AND MAINTENANCE OF EROSION CONTROL SHOULD BE DEFINED AND ASSIGNED TO APPROPRIATE PERSON(S) PRIOR TO COMMENCEMENT OF ANY SOIL DISTURBING ACTIVITY.
3. EROSION CONTROL MEASURES MUST BE CONSTRUCTED AND FUNCTION BEFORE ANY GRADING OR LAND DISTURBANCE TAKES PLACE.
4. TEMPORARY OR PERMANENT SOIL STABILIZATION MUST BE APPLIED TO DISTURBED AREA LEFT DORMANT FOR 14 DAYS.
5. IN THE EVENT THAT MEASURES BEING USED ARE DEEMED TO BE INEFFECTIVE BY CITY INSPECTORS, ADDITIONAL MEASURES OR CHANGES IN THE ORIGINAL PLAN MAY BE REQUIRED BY THE CITY OF AUBREY.
6. ALL EROSION CONTROL DEVICES SHALL BE INSPECTED BY THE SITE FOREMAN DAILY, ANY STRUCTURE OR CONTROL DEVICES WHICH IS DAMAGED OR INOPERATIVE WILL BE REPAIRED OR REPLACED IMMEDIATELY.
7. SANITARY FACILITIES SHALL BE PROVIDED ON THE SITE & REGULARLY SERVICED AS RECOMMENDED BY THE SUPPLIER. TRASH & DEBRIS SHALL BE STORED IN COVERED BINS OR ENCLOSURES.
8. CONSTRUCTION ENTRANCES/EXITS SHOULD BE LIMITED AND PROTECTION PROVIDED TO PREVENT TRACKING OF SOILS ONTO CITY STREETS.
9. REMOVE SILT OR SEDIMENTS FROM STREETS, CURBS, GUTTERS, FLUMES, HANDICAP ACCESS RAMPS, CURB INLETS, STORM DRAINS, AND ANY OTHER PUBLIC DRAINAGE FACILITIES DAILY OR AS ACCUMULATION OCCURS.
10. EROSION CONTROL SHOULD BE EVALUATED TO DETERMINE THE EFFECTIVENESS OF THOSE DEVICES BY THE PERSON ASSIGNED TO INSPECT EROSION CONTROL DEVICES, AND CHANGES MADE IF NECESSARY.
11. SOIL TRACKED ONTO PUBLIC ROADS SHALL BE REMOVED DAILY IF FEASIBLE, OR WHEN VISIBLY ACCUMULATED SEDIMENT HAS BEEN DEPOSITED. DISCHARGED SEDIMENT SHALL BE REMOVED AS SOON AS POSSIBLE.
12. USING WASH WATER TO WASH SEDIMENT FORM STREETS IS PROHIBITED.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

EROSION CONTROL DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

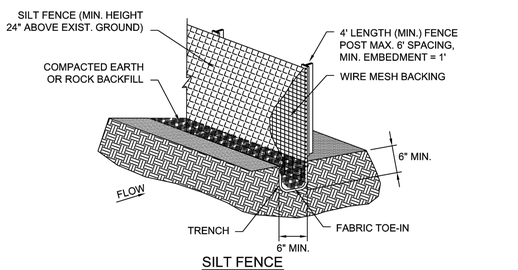
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	15
REVIEWER: TRS			

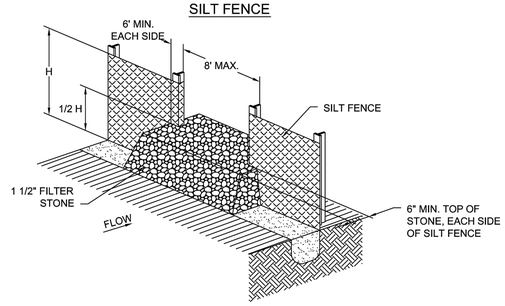
FIFTH SUBMITTAL

SARATOGA PHASE 1

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SILT FENCE



STONE OVERFLOW STRUCTURE

SILT FENCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.5 *
		DATE OCT. '04 / STANDARD DRAWING NO. 1020A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

SILT FENCE GENERAL NOTES:

1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WIRE BACKING, WHICH IN TURN IS ATTACHED TO THE FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

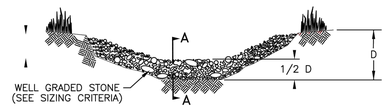
5. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN FINAL STABILIZATION IS ACHIEVED OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED.

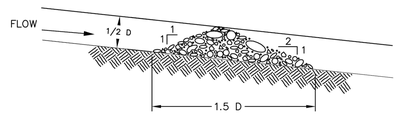
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

SILT FENCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.5 *
		DATE OCT. '04 / STANDARD DRAWING NO. 1020B

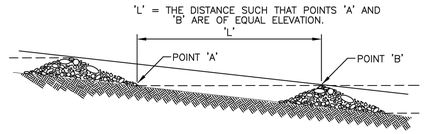
*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



VIEW LOOKING UPSTREAM



SECTION A – A



SPACING BETWEEN CHECK DAMS

ROCK CHECK DAM	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.9 *
		DATE OCT. '04 / STANDARD DRAWING NO. 1060A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

ROCK CHECK DAM GENERAL NOTES:

1. STONE SHALL BE WELL GRADED WITH SIZE RANGE FROM 1½ TO 3½ INCHES IN DIAMETER DEPENDING ON EXPECTED FLOWS.

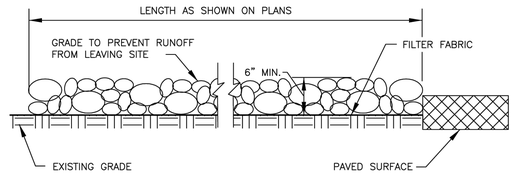
2. THE CHECK DAM SHALL BE INSPECTED AS SPECIFIED IN THE SWPPP AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

3. WHEN SILT REACHES A DEPTH EQUAL TO ONE–THIRD OF THE HEIGHT OF THE CHECK DAM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.

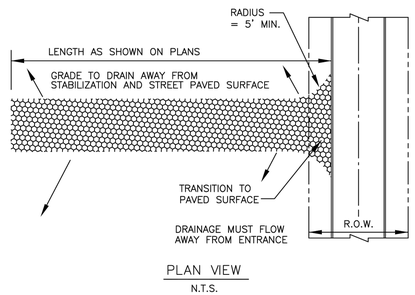
4. WHEN THE SITE HAS ACHIEVED FINAL STABILIZATION OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED, THE CHECK DAM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

ROCK CHECK DAM	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.9 *
		DATE OCT. '04 / STANDARD DRAWING NO. 1060B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



PROFILE VIEW
N.T.S.



PLAN VIEW
N.T.S.

STABILIZED CONSTRUCTION ENTRANCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.11 *
		DATE OCT. '04 / STANDARD DRAWING NO. 1070A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES:

1. STONE SHALL BE 3 TO 5 INCH DIAMETER COARSE AGGREGATE.

2. LENGTH SHALL BE AS SPECIFIED IN THE SWPPP.

3. THE THICKNESS SHALL NOT BE LESS THAN 12 INCHES.

4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.

5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.

6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.

7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

8. PREVENT SHORTCUTTING OF THE FULL LENGTH OF THE CONSTRUCTION ENTRANCE BY INSTALLING BARRIERS AS NECESSARY.

9. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP.

STABILIZED CONSTRUCTION ENTRANCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.11 *
		DATE OCT. '04 / STANDARD DRAWING NO. 1070B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

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ONCOR ELECTRIC DELIVERY	888-313-6862
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FIFTH SUBMITTAL

BENCHMARKS

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-FOR REVIEW ONLY-

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

EROSION CONTROL DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11758
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	16
REVIEWER: TRS			

SARATOGA PHASE 1

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FIFTH SUBMITTAL

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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

N

0 40' 80'

SCALE: 1" = 40'

LEGEND

645	PROPOSED MAJOR CONTOUR
644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
	GRADE BREAK
	DRAINAGE SWALE
×EX 532.5	EXISTING SPOT ELEVATION
×532.5	PROPOSED SPOT ELEVATION
FP 532.5	FINISHED PAD
TW 519.2 BW 518.7 ×	TOP OF WALL BOTTOM OF WALL
EW 518.7 ×	END OF WALL
HP	HIGH POINT
LP	LOW POINT

NOTES:

1. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES.
2. THE CITY OF AUBREY DESIGN AND CONSTRUCTION STANDARDS APPLY WHETHER INDICATED ON THESE PLANS OR NOT.
3. WALL INFORMATION SHOWN ON PLANS IS TO BE USED FOR HEIGHT AND LOCATION PURPOSES ONLY. ACTUAL RETAINING WALL AND SLOPE STABILITY DESIGN BY OTHERS.

KEY MAP
N.T.S.

BENCHMARKS

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ERIK S. HINKLIN 100268 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

GRADING PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	17
REVIEWER: TRS			

SARATOGA PHASE 1

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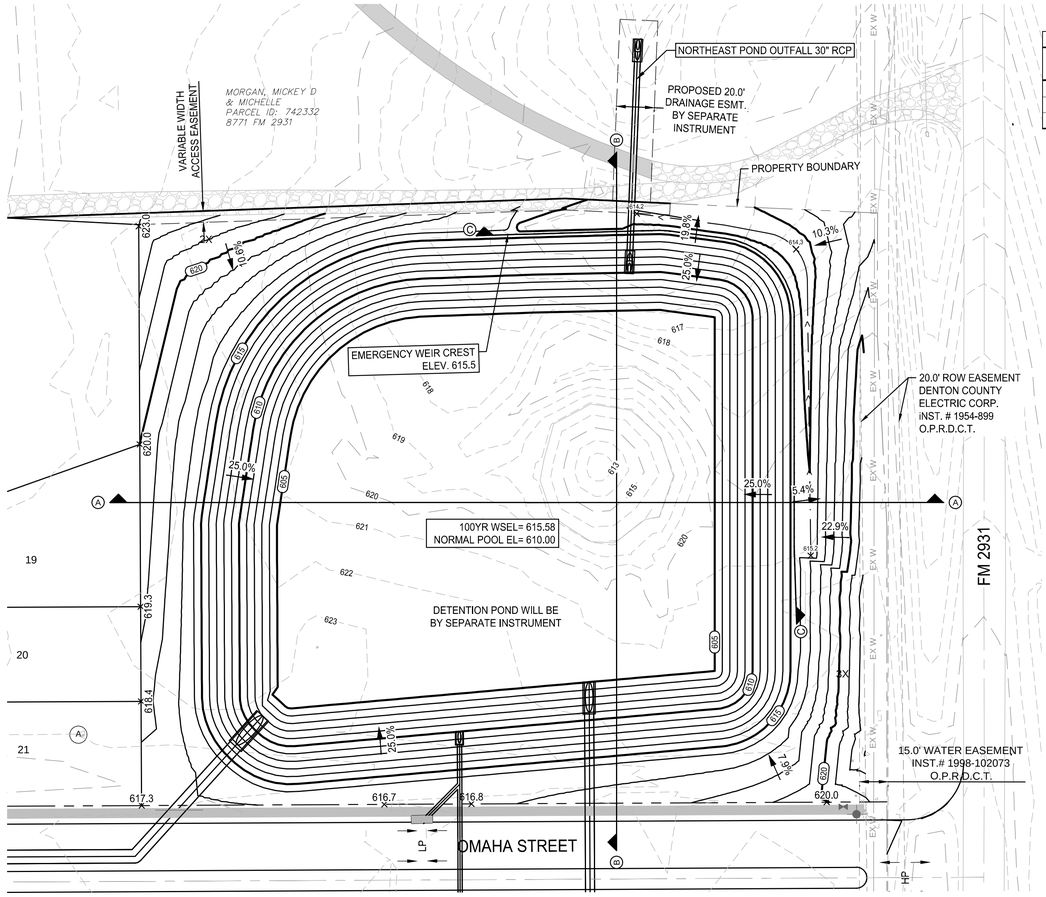
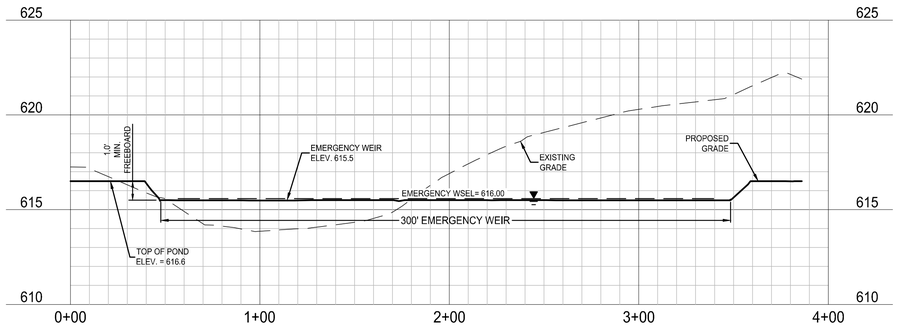


Table 2.1 Interconnected Detention Pond AN-1 & AN-2 Summary				
Storm Frequency	Qin (cfs)	Qout (cfs)	WSEL (ft)	Storage (ac-ft)
1-yr	97	17	611.73	8.6
25-yr	251	30	614.33	13.1
100-yr	315	35	615.58	15.4

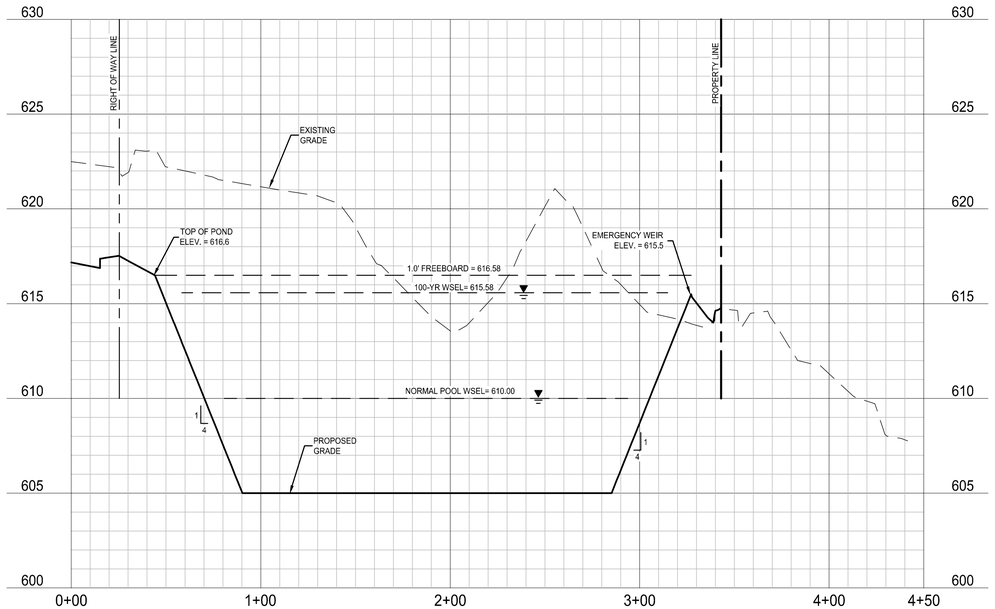
Detention Pond AN-1: Northern Northeastern Detention Pond						
ELEVATION (ft)	DEPTH (ft)	AREA (sq.ft)	AREA (acre)	Increm. STORAGE (acre-ft)	TOTAL STORAGE (acre-ft)	DISCHARGE (cfs)
610	0.0	61,776	1.42	1.38	6.05	0.00
611	1.0	65,607	1.51	1.46	7.52	20.00
612	2.0	69,539	1.60	1.55	9.07	23.00
613	3.0	73,572	1.69	1.64	10.71	26.00
614	4.0	77,705	1.78	1.74	12.45	28.00
615	5.0	81,938	1.88	1.83	14.28	29.00
616	6.0	86,272	1.98	1.93	16.21	-
616.5	6.5	88,477	2.03	2.93	17.21	-

P AN-1 DETENTION POND OUTLET STRUCTURE TABLES			
ORIFICE OUTLET		EMERGENCY WEIR	
Shape	Circular	Crest Elev (ft)	615.50
Dia (in)	15"	Top of Pond (ft)	616.60
Inlet Elev. (ft)	610.00	Discharge, Q (cfs)	320
coefficient of discharge	0.67	Weir Coeff., C_o	3.0
		Weir Length, L (ft)	300
		WEIR HEAD CALCULATIONS	
		$Q = CLH^{3/2}$	
		$H = (Q/(CL))^{2/3}$	
		$H = (315/(3.0*300))^{2/3}$	
		Head, H (ft)	0.50
		Emergency WSEL (ft)	616.0
		Emergency Freeboard (ft)	0.60

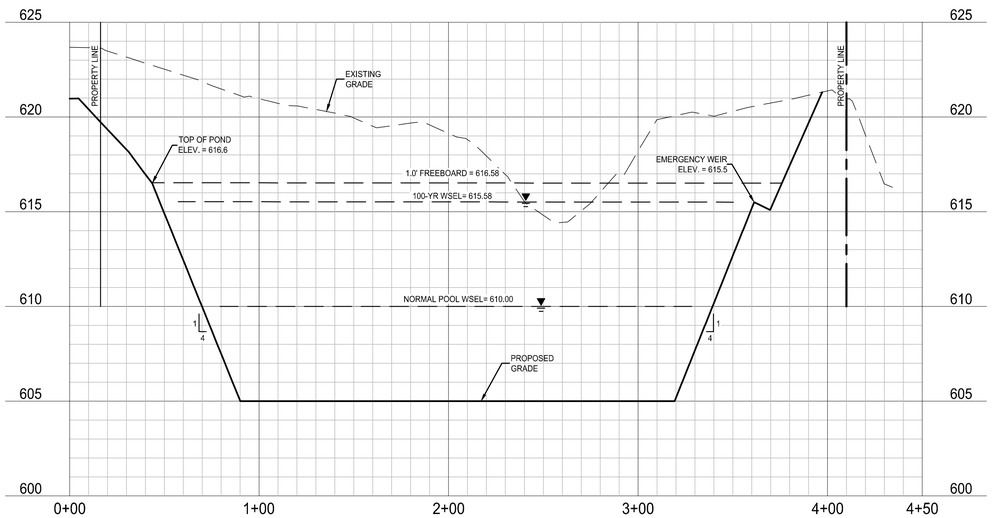
EMERGENCY SPILLWAY - SECTION CC



NORTHEAST POND - SECTION BB



NORTHEAST POND - SECTION AA



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

N

0 40' 80'

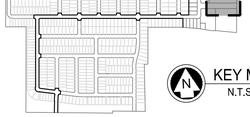
SCALE: 1" = 40'

LEGEND

645	PROPOSED MAJOR CONTOUR
644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
	GRADE BREAK
>	DRAINAGE SWALE
×EX 532.5	EXISTING SPOT ELEVATION
×532.5	PROPOSED SPOT ELEVATION
FP 532.5	FINISHED PAD
TW 519.2 BW 518.7 ×	TOP OF WALL BOTTOM OF WALL
EW 518.7 ×	END OF WALL
HP	HIGH POINT
LP	LOW POINT

NOTES:

1. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES.
2. THE CITY OF AUBREY DESIGN AND CONSTRUCTION STANDARDS APPLY WHETHER INDICATED ON THESE PLANS OR NOT.
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KEY MAP N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

GRADING PLAN - NORTHEAST POND

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	18
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

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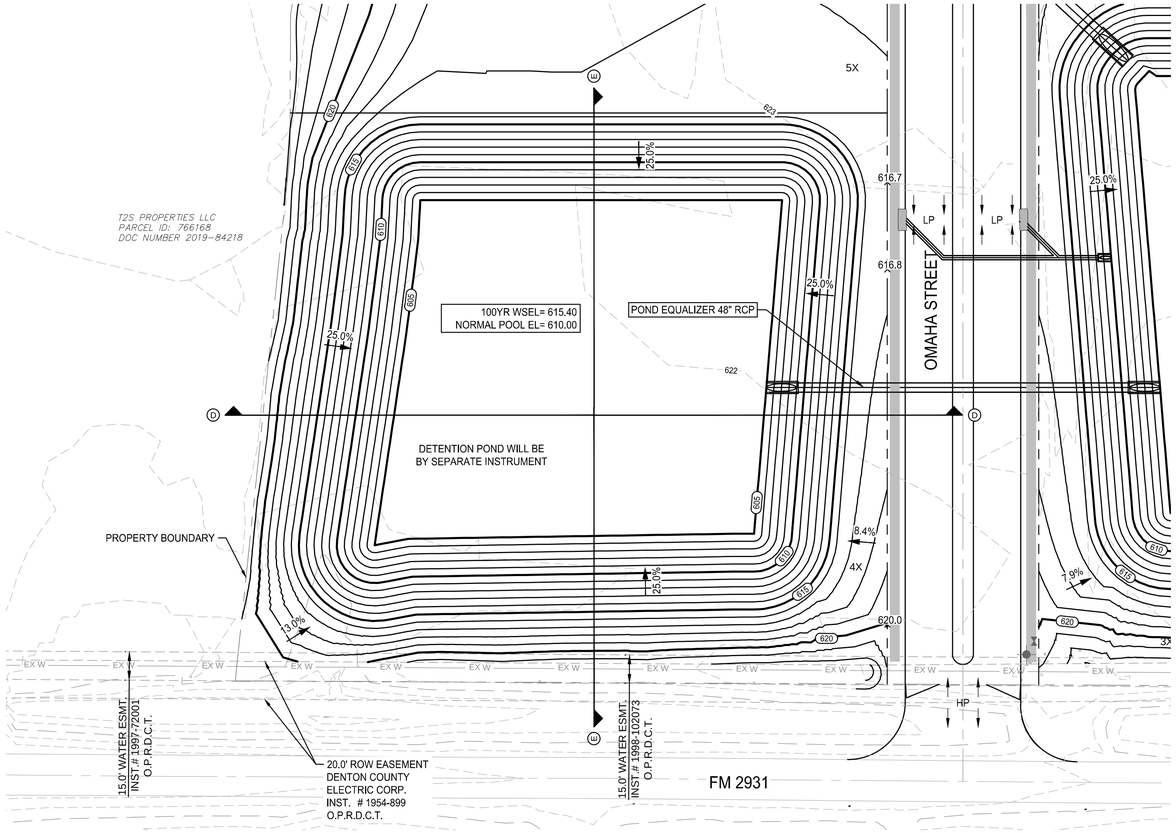


Table 2.2 Detention Pond AN-2 Summary				
Storm Frequency	Qin (cfs)	Qout (cfs)	WSEL (ft)	Storage (ac-ft)
1-yr	-	-	611.43	6.6
25-yr	-	-	614.08	10.3
100-yr	-	-	615.40	12.1

Detention Pond AN-2: Southern Northeastern Detention Pond						
ELEVATION (ft)	DEPTH (ft)	AREA (sq.ft)	AREA (acre)	Increm. STORAGE (acre-ft)	TOTAL STORAGE (acre-ft)	DISCHARGE (cfs)
610	5.0	50,771	1.17	1.13	4.87	-
611	6.0	54,333	1.25	1.21	6.07	-
612	7.0	57,995	1.33	1.29	7.36	-
613	8.0	61,757	1.42	1.37	8.74	-
614	9.0	65,620	1.51	1.46	10.20	-
615	10.0	69,584	1.60	1.55	11.75	-
616	11.0	73,648	1.69	0.82	12.57	-
616.5	11.5	75,717	1.74	1.67	13.42	-

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

0 40' 80'
SCALE: 1" = 40'

LEGEND

- 645 — PROPOSED MAJOR CONTOUR
- 644 — PROPOSED MINOR CONTOUR
- 520 — EXISTING MAJOR CONTOUR
- 519 — EXISTING MINOR CONTOUR
- RETAINING WALL
- EB — EXPOSED GRADE BEAM
- GRADE BREAK
- DRAINAGE SWALE
- ×EX 532.5 — EXISTING SPOT ELEVATION
- ×532.5 — PROPOSED SPOT ELEVATION
- FP 532.5 — FINISHED PAD
- TW 519.2 / BW 518.7 × — TOP OF WALL / BOTTOM OF WALL
- EW 518.7 × — END OF WALL
- HP — HIGH POINT
- LP — LOW POINT

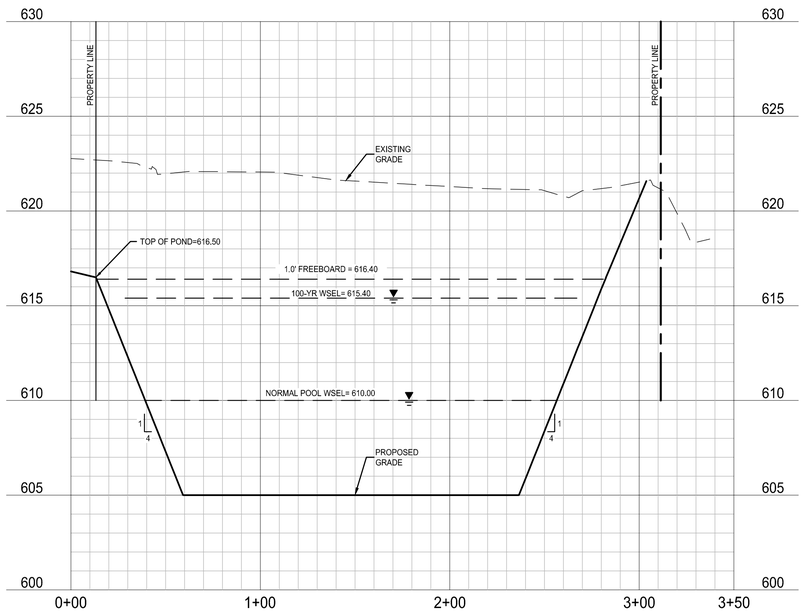
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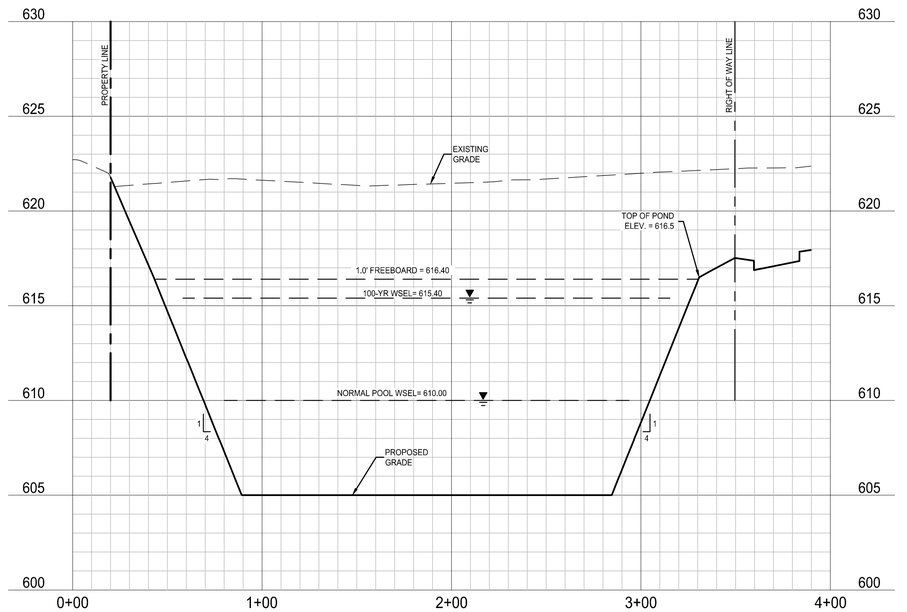


KEY MAP
N.T.S.

SOUTHEAST POND - SECTION EE



SOUTHEAST POND - SECTION DD



BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

GRADING PLAN - SOUTHEAST POND

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

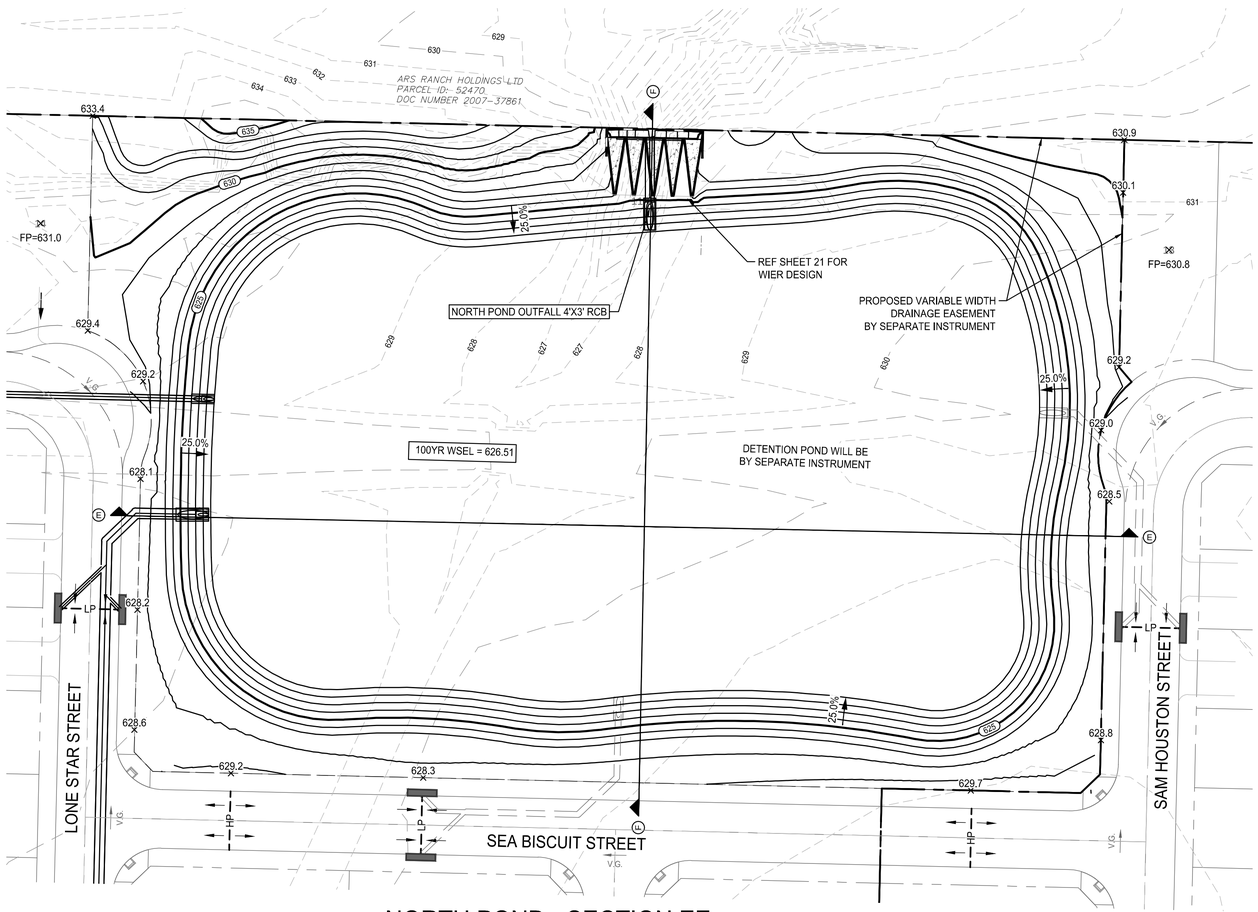
Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

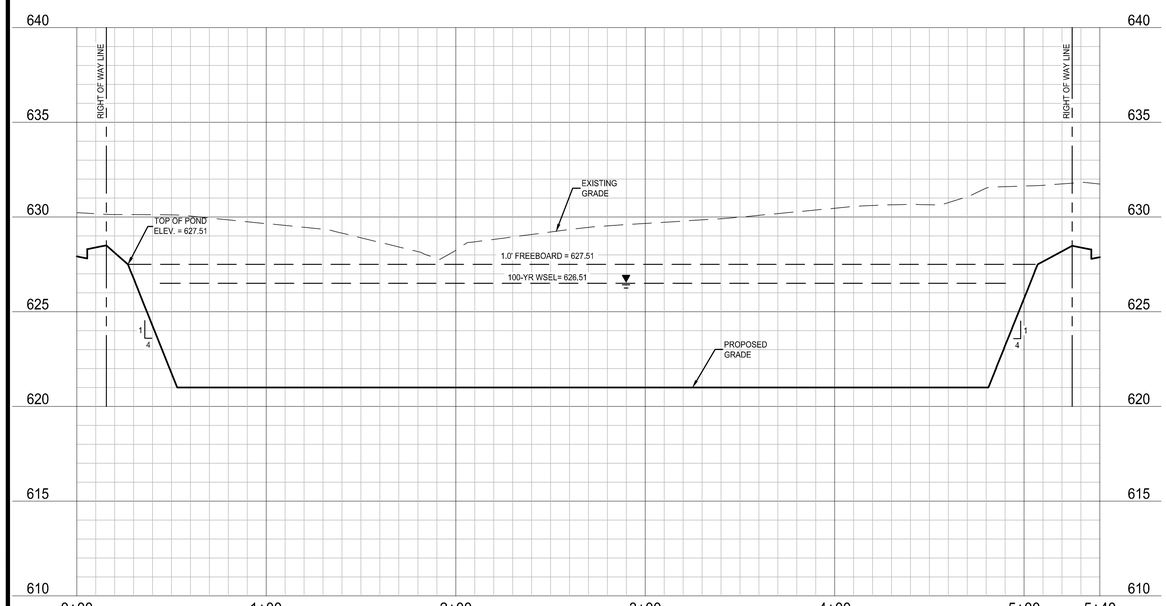
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REVIEWER: TRS			

SARATOGA PHASE 1

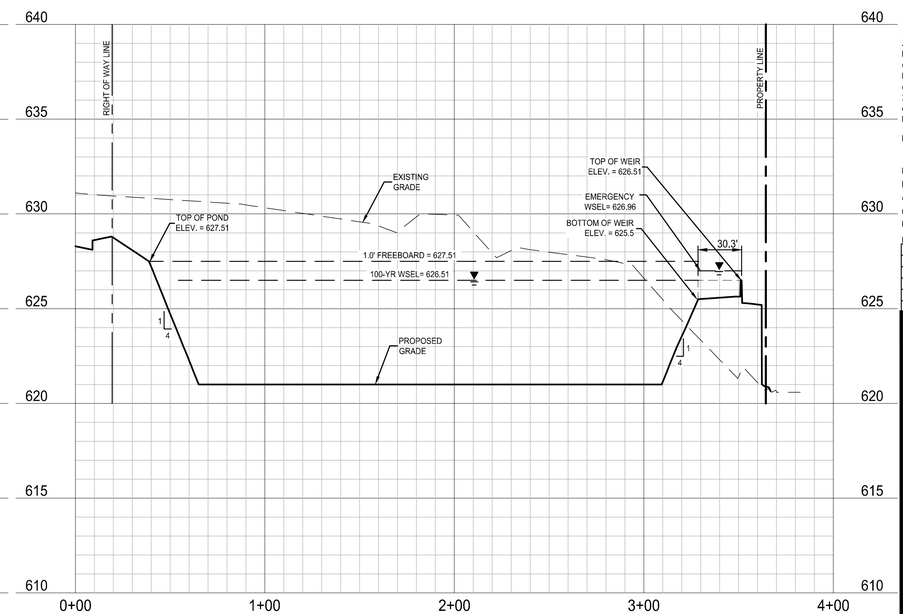
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NORTH POND - SECTION EE



NORTH POND - SECTION FF



North Detention Pond (AN-4) Stage, Storage, Discharge Curve						
ELEVATION (ft)	DEPTH (ft)	AREA (sq.ft)	AREA (acre)	Increm. STORAGE (acre-ft)	TOTAL STORAGE (acre-ft)	DISCHARGE (cfs)
621.0	0.0	103,245	2.37	0.00	0.00	0
622.0	1.0	108,363	2.49	2.43	2.43	1
623.0	2.0	113,581	2.61	2.55	4.98	17
624.0	3.0	118,899	2.73	2.67	7.64	25
625.0	4.0	124,313	2.85	2.79	10.44	59
626.0	5.0	129,834	2.98	2.92	13.35	110
627.0	6.0	135,452	3.11	3.04	16.40	528
627.5	6.5	138,301	3.18	1.57	17.97	1265

Table 2.3 North Detention Pond (AN-4) Detention Pond Summary				
Storm Frequency	QIN (cfs)	Qout (cfs)	WSEL (ft)	Storage (ac-ft)
1-yr	82	18	623.15	5.4
25-yr	254	88	625.62	12.2
100-yr	330	140	626.51	14.9

North Detention Pond (AN-4) Outlet Structures Table			
ORIFICE OUTLET		EMERGENCY WEIR	
Shape	Circular	Crest Elev (ft)	626.51
Dia (in)	24	Top of Pond (ft)	627.50
Inlet Elev. (ft)	621.00	Discharge, Q (cfs)	330
coefficient of discharge	0.67	Weir Coeff., C_o	3.0
PRIMARY WEIR		Weir Length, L (ft)	360
Crest Elev (ft)	623.85	WEIR HEAD CALCULATIONS	
Weir Length, L (ft)	8.0	$Q = CLH^{3/2}$	
Weir Coeff., Co	3	$H = (Q/(CL))^{2/3}$	
		$H = (330/(3.0*360))^{2/3}$	
		Head, H (ft)	0.45
		Emergency WSEL (ft)	626.96
		Emergency Freeboard (ft)	0.54

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ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

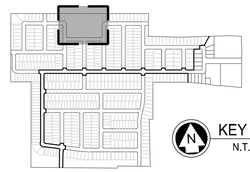
N

0 40' 80'
SCALE: 1" = 40'

LEGEND

645	PROPOSED MAJOR CONTOUR
644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
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TW 519.2 BW 518.7	TOP OF WALL BOTTOM OF WALL
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HP	HIGH POINT
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KEY MAP
N.T.S.

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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

GRADING PLAN - NORTH POND

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

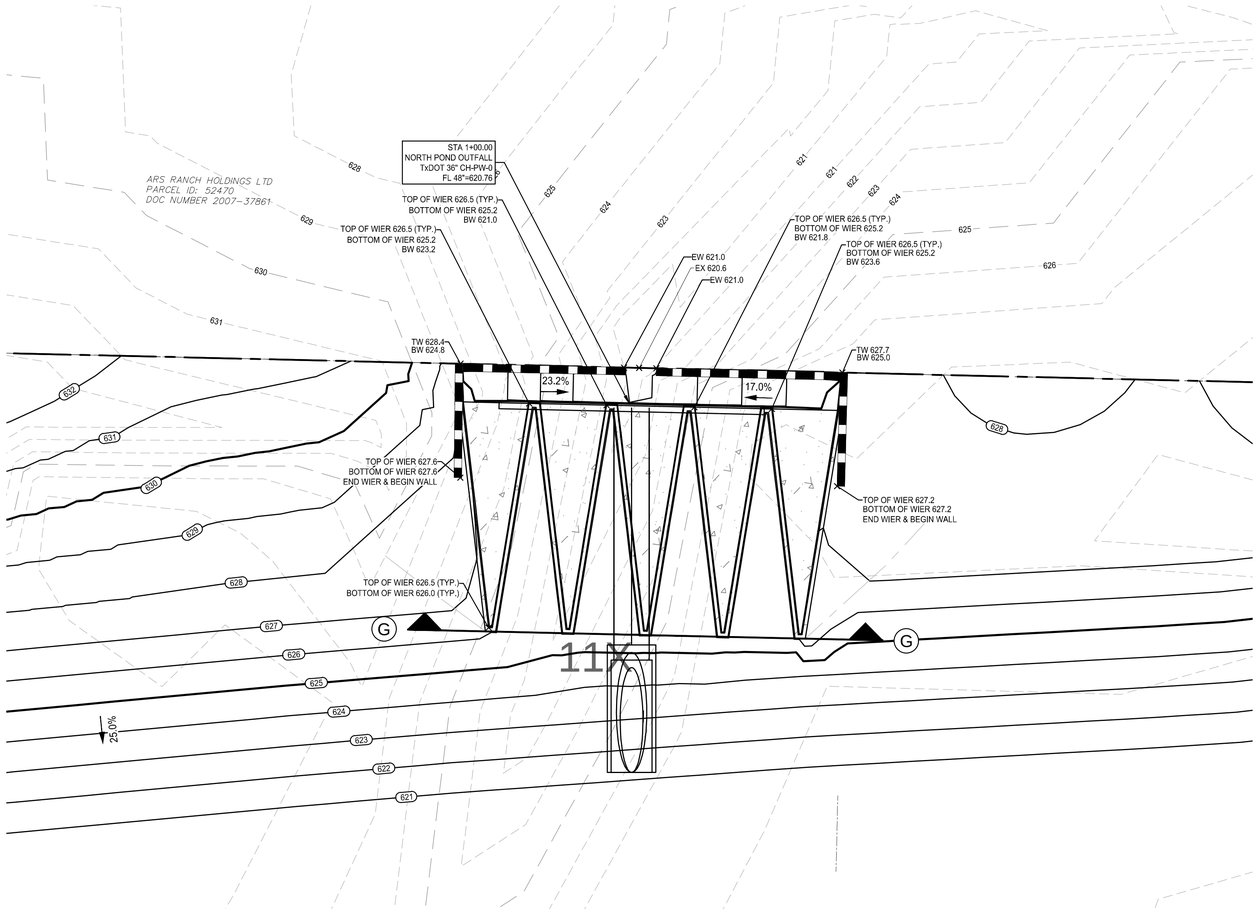
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	20
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

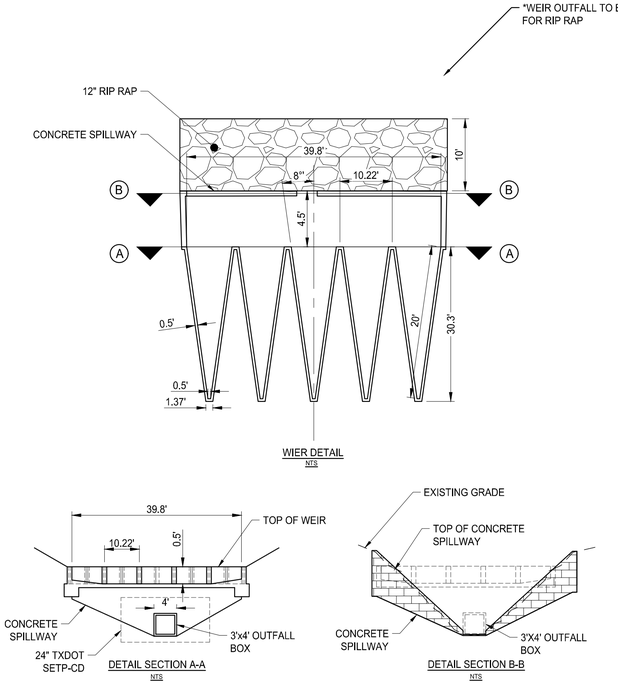
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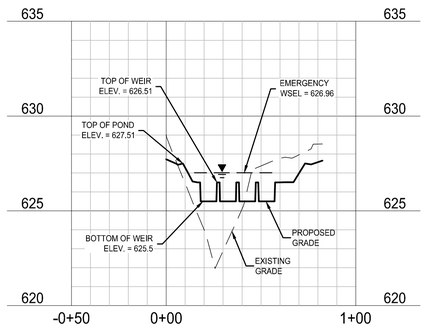
North Detention Pond (AN-4) Stage, Storage, Discharge Curve						
ELEVATION (ft)	DEPTH (ft)	AREA (sq.ft)	AREA (acre)	Increm. STORAGE (acre-ft)	TOTAL STORAGE (acre-ft)	DISCHARGE (cfs)
621.0	0.0	103,245	2.37	0.00	0.00	0
622.0	1.0	108,363	2.49	2.43	2.43	1
623.0	2.0	113,581	2.61	2.55	4.98	17
624.0	3.0	118,899	2.73	2.67	7.64	25
625.0	4.0	124,313	2.85	2.79	10.44	59
626.0	5.0	129,834	2.98	2.92	13.35	110
627.0	6.0	135,452	3.11	3.04	16.40	528
627.5	6.5	138,301	3.18	1.57	17.97	1265

Table 2.3 North Detention Pond (AN-4) Detention Pond Summary				
Storm Frequency	QIN (cfs)	Qout (cfs)	WSEL (ft)	Storage (ac-ft)
1-yr	82	18	623.15	5.4
25-yr	254	88	625.62	12.2
100-yr	330	140	626.51	14.9

North Detention Pond (AN-4) Outlet Structures Table			
ORIFICE OUTLET		EMERGENCY WEIR	
Shape	Circular	Crest Elev (ft)	626.51
Dia (in)	24	Top of Pond (ft)	627.50
Inlet Elev. (ft)	621.00	Discharge, Q (cfs)	330
coefficient of discharge	0.67	Weir Coeff., C_o	3.0
PRIMARY WEIR		Weir Length, L (ft)	360
Crest Elev (ft)	623.85	WEIR HEAD CALCULATIONS	
Weir Length, L (ft)	8.0	$Q = CLH^{3/2}$	
Weir Coeff., Co	3	$H = (Q/(CL))^{2/3}$	
		$H = (330/(3.0*360))^{2/3}$	
		Head, H (ft)	0.45
		Emergency WSEL (ft)	626.96
		Emergency Freeboard (ft)	0.54



NORTH POND SECTION GG



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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ONCOR ELECTRIC DELIVERY	888-313-6862
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MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

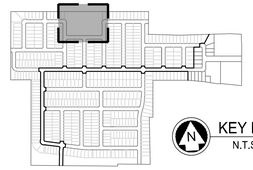
N

0 10' 20'
SCALE: 1" = 10'

LEGEND

645	PROPOSED MAJOR CONTOUR
644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
	GRADE BREAK
>	DRAINAGE SWALE
×EX 532.5	EXISTING SPOT ELEVATION
×532.5	PROPOSED SPOT ELEVATION
FP 532.5	FINISHED PAD
TW 519.2 BW 518.7 ×	TOP OF WALL BOTTOM OF WALL
EW 518.7 ×	END OF WALL
HP	HIGH POINT
LP	LOW POINT

NOTES:
1. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES.
2. THE CITY OF AUBREY DESIGN AND CONSTRUCTION STANDARDS APPLY WHETHER INDICATED ON THESE PLANS OR NOT.
3. WALL INFORMATION SHOWN ON PLANS IS TO BE USED FOR HEIGHT AND LOCATION PURPOSES ONLY. ACTUAL RETAINING WALL AND SLOPE STABILITY DESIGN BY OTHERS.



KEY MAP
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

GRADING PLAN - NORTH POND WIER

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	21
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

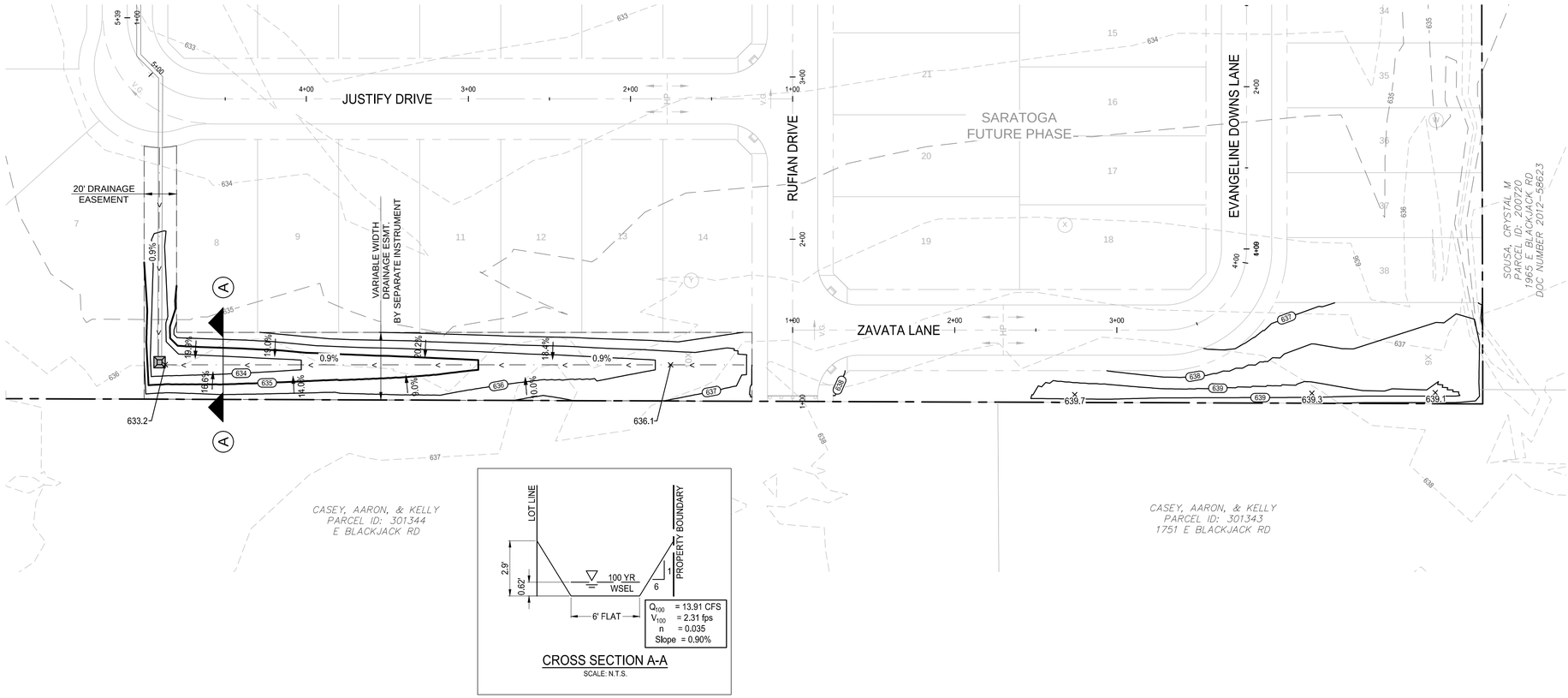
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Plot Date/Time: 4/30/2024 1:59 PM

FIFTH SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



CROSS SECTION A-A
SCALE: N.T.S.

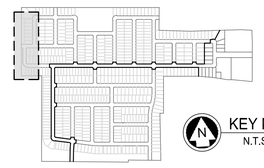
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SCALE: 1" = 40'

LEGEND

645	PROPOSED MAJOR CONTOUR
644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
	GRADE BREAK
	DRAINAGE SWALE
×EX 532.5	EXISTING SPOT ELEVATION
×532.5	PROPOSED SPOT ELEVATION
FP 532.5	FINISHED PAD
TW 519.2 BW 518.7 ×	TOP OF WALL BOTTOM OF WALL
EW 518.7 ×	END OF WALL
HP	HIGH POINT
LP	LOW POINT

NOTES:

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N.T.S.

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

GRADING PLAN - NORTHWEST CHANNEL

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	22
REVIEWER: TRS			

SARATOGA PHASE 1

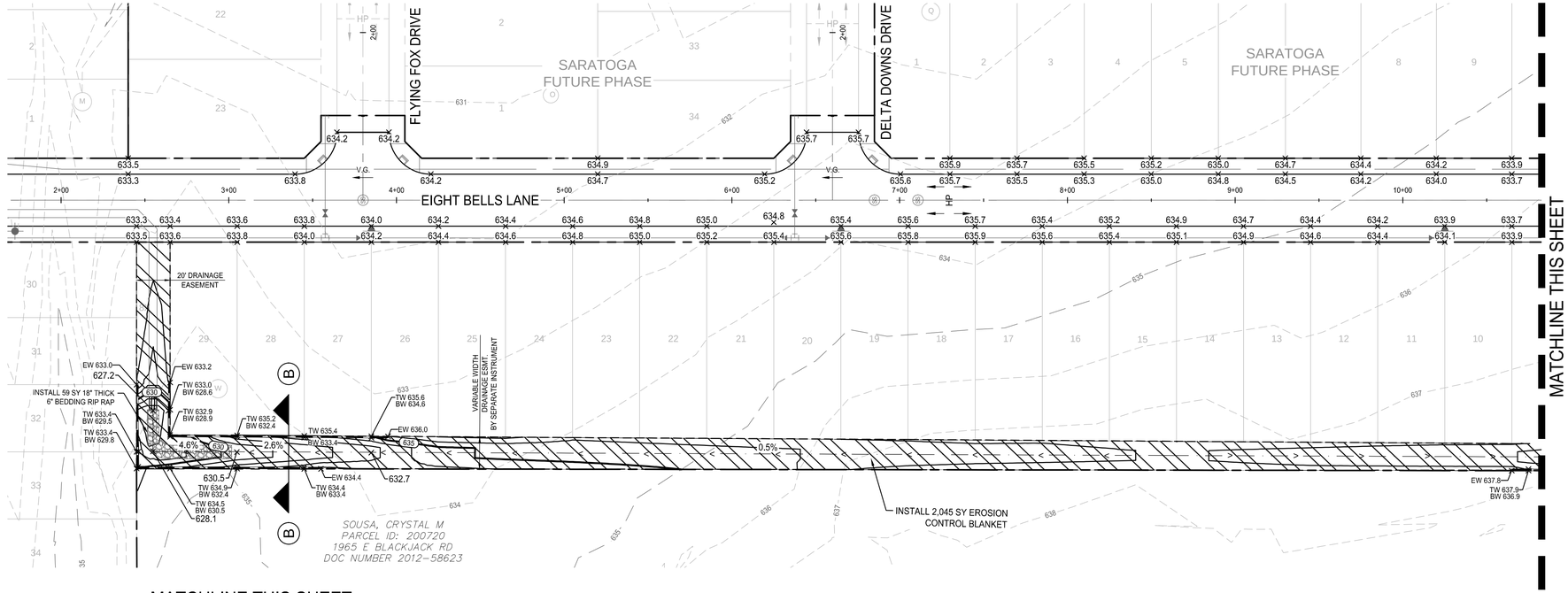
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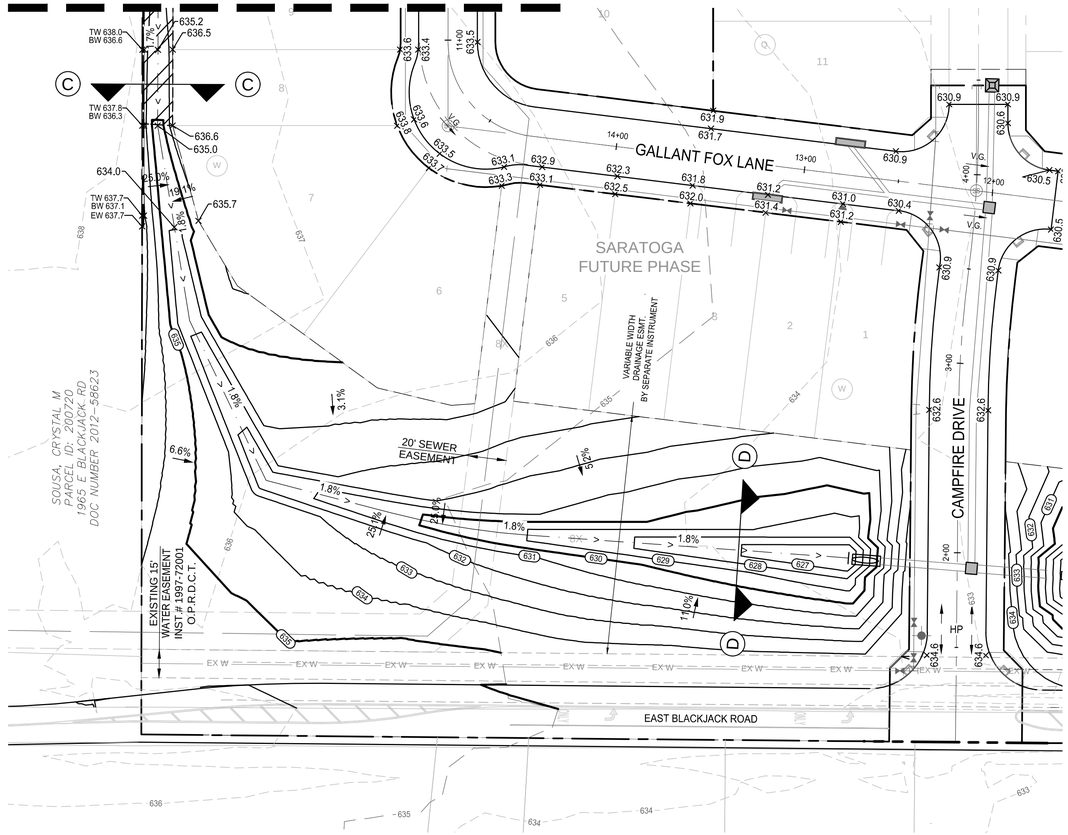
FIFTH SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

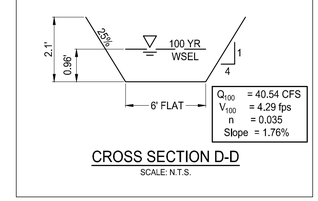
CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.





CROSS SECTION B-B
SCALE: N.T.S.

CROSS SECTION C-C
SCALE: N.T.S.



CROSS SECTION D-D
SCALE: N.T.S.

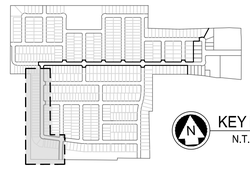
0 40' 80'
SCALE: 1" = 40'

LEGEND

645	PROPOSED MAJOR CONTOUR
644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
	GRADE BREAK
	DRAINAGE SWALE
EX 532.5	EXISTING SPOT ELEVATION
532.5	PROPOSED SPOT ELEVATION
FP 532.5	FINISHED PAD
TW 519.2 / BW 518.7	TOP OF WALL / BOTTOM OF WALL
EW 518.7	END OF WALL
HP	HIGH POINT
LP	LOW POINT

NOTES:

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PRELIMINARY
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

GRADING PLAN - SOUTHWEST CHANNEL

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

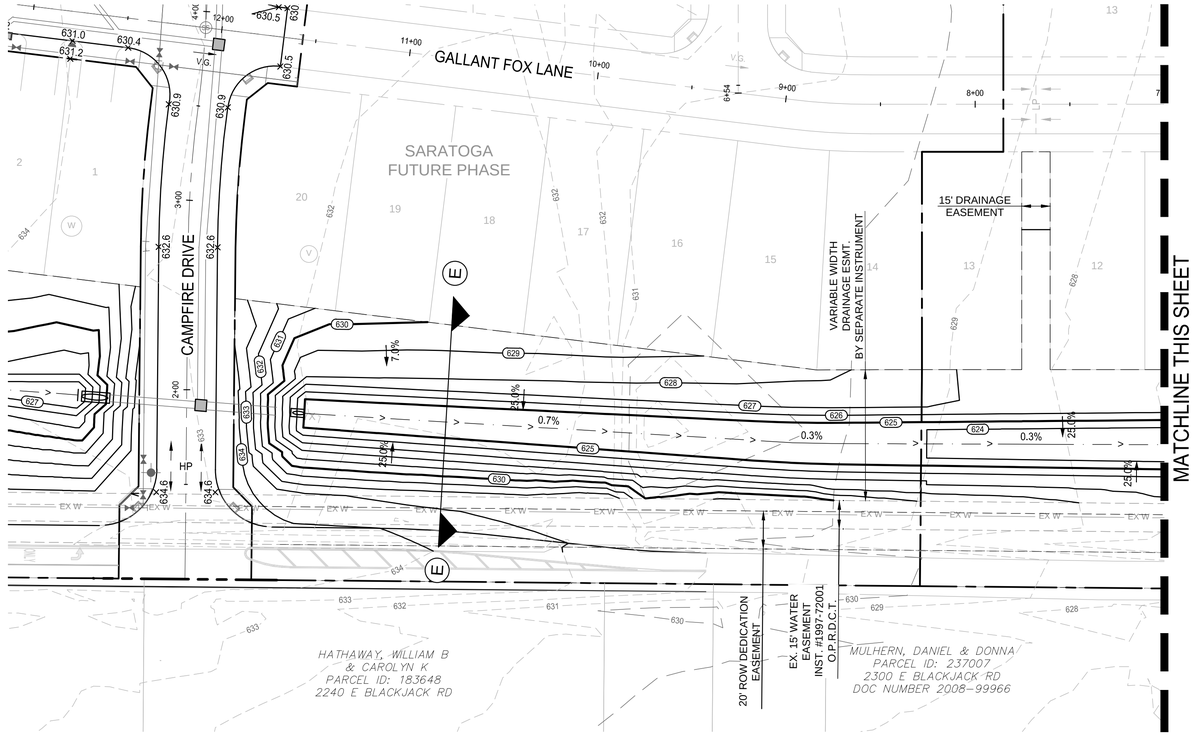
Phone (469) 213-1800 — 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 — Frisco, TX 75033
westwoodps.com

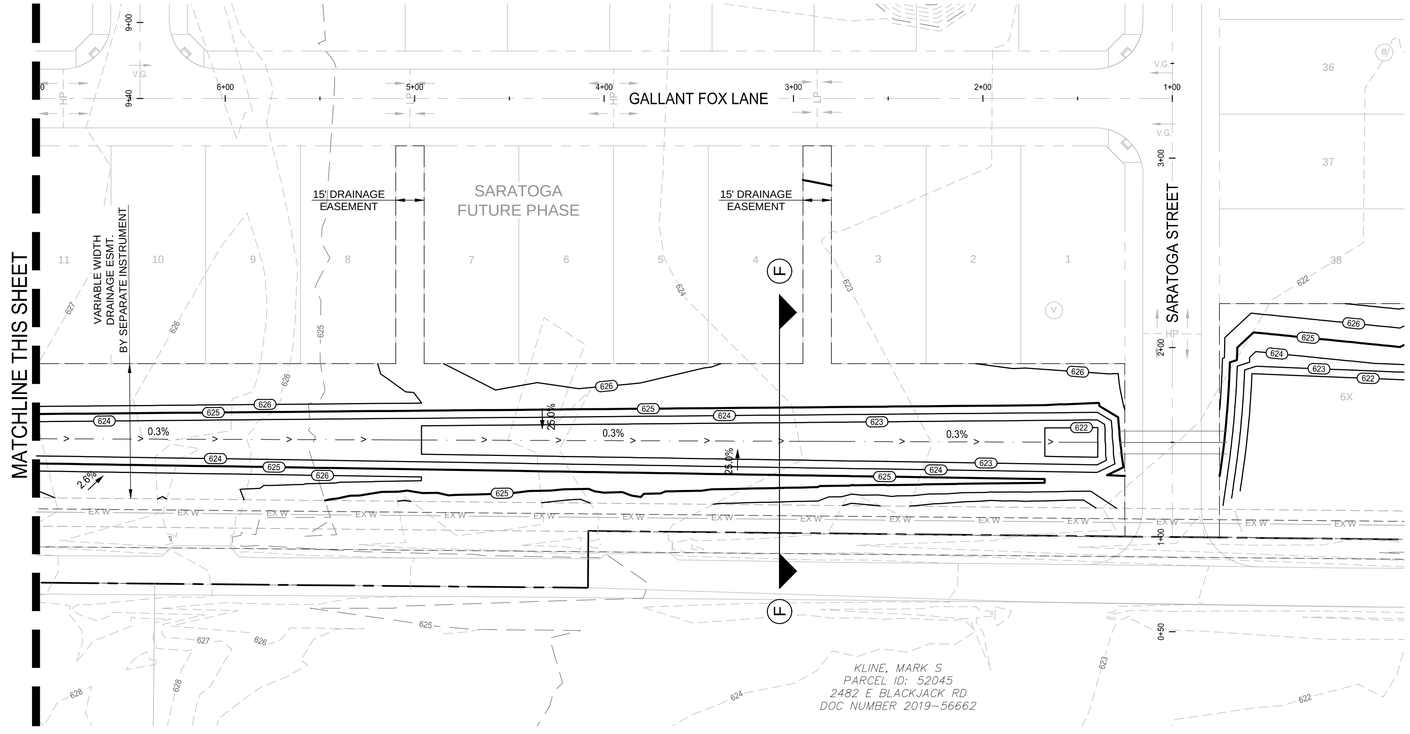
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

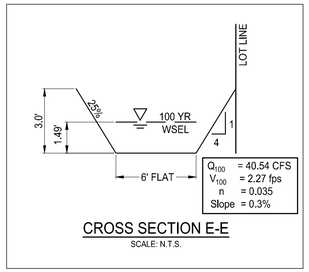
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DESIGNED: CLS	APRIL 2024	GEE21003	23
REVIEWER: TRS			

SARATOGA PHASE 1

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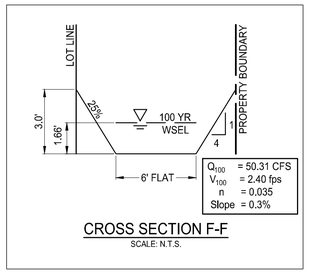






CROSS SECTION E-E

SCALE: N.T.S.



CROSS SECTION F-F

SCALE: N.T.S.

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

N

0 40' 80'

SCALE: 1" = 40'

LEGEND

645	PROPOSED MAJOR CONTOUR
644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
	GRADE BREAK
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TW 519.2 BW 518.7 ×	TOP OF WALL BOTTOM OF WALL
EW 518.7 ×	END OF WALL
HP	HIGH POINT
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KEY MAP
N.T.S.

BENCHMARKS

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

GRADING PLAN - SOUTH CHANNEL

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

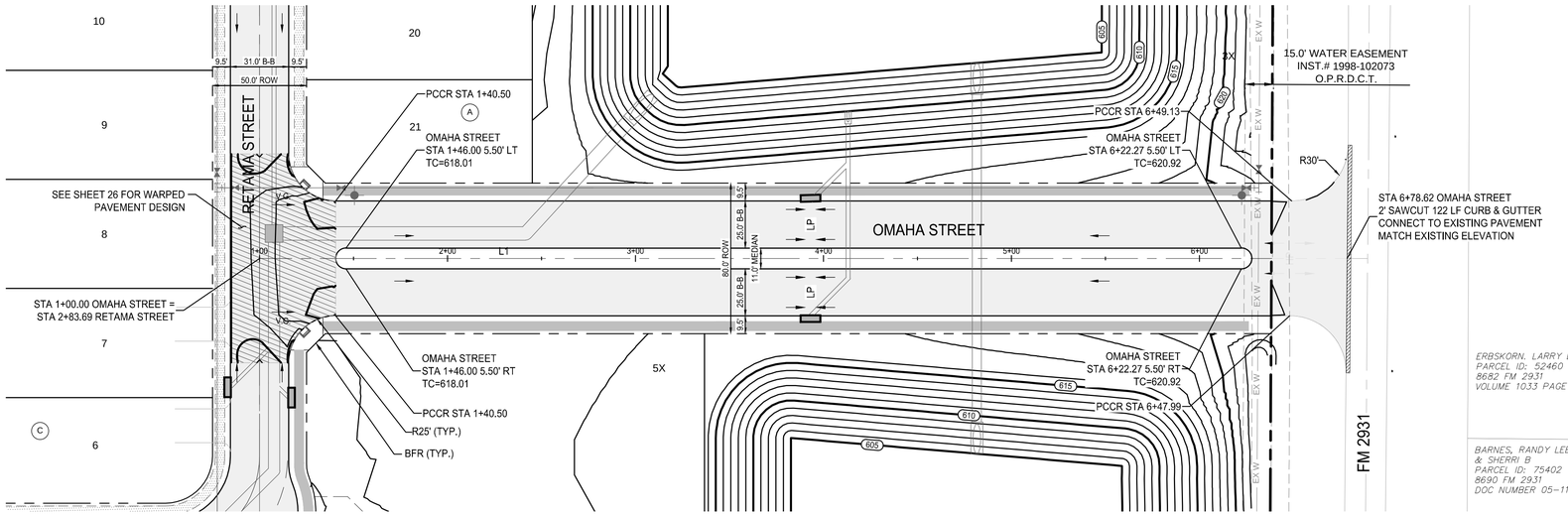
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

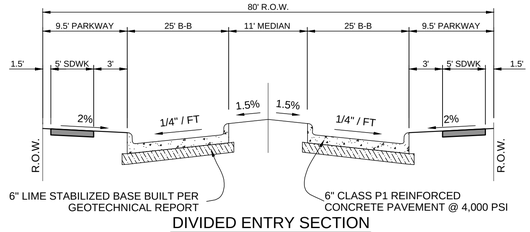
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	24
REVIEWER: TRS			

SARATOGA PHASE 1

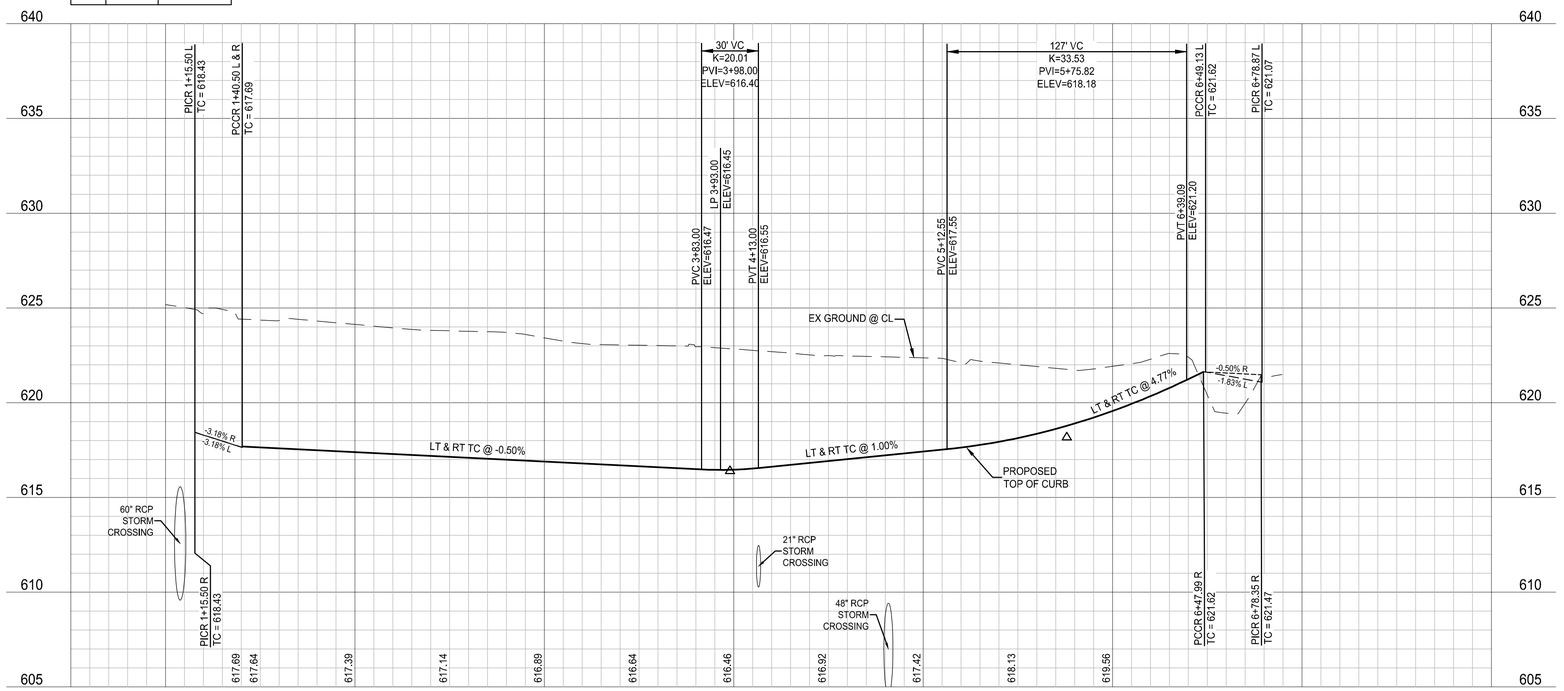
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Plot Date/Time: 4/30/2024 1:49 PM





DIVIDED ENTRY SECTION
N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L1	589.48'	S88° 39' 54"E



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

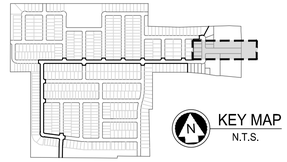
0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

NOTES:
1. FOR TYPICAL PAVEMENT SECTIONS SEE SHEET 93.
2. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES AND STANDARD DETAILS.
3. THE CITY OF AUBREY DESIGN AND CONSTRUCTION STANDARDS APPLY WHETHER INDICATED ON THESE PLANS OR NOT.
4. REFER TO LANDSCAPE/HARDSCAPE PLANS FOR SIDEWALKS TO BE BUILT BY DEVELOPER.
5. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.
6. ALL ELEVATIONS REFER TO TOP OF CURB UNLESS OTHERWISE NOTED.
7. BARRIER FREE RAMPS SHALL BE CONSTRUCTED BY PAVING CONTRACTOR.
8. REFER TO GEOTECH REPORT NO. G22-3956
9. STREETS ARE DESIGNED TO HAVE A SPEED LIMIT OF 25 MPH



KEY MAP
N.T.S.

BENCHMARKS

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING PLAN & PROFILE - OMAHA STREET

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

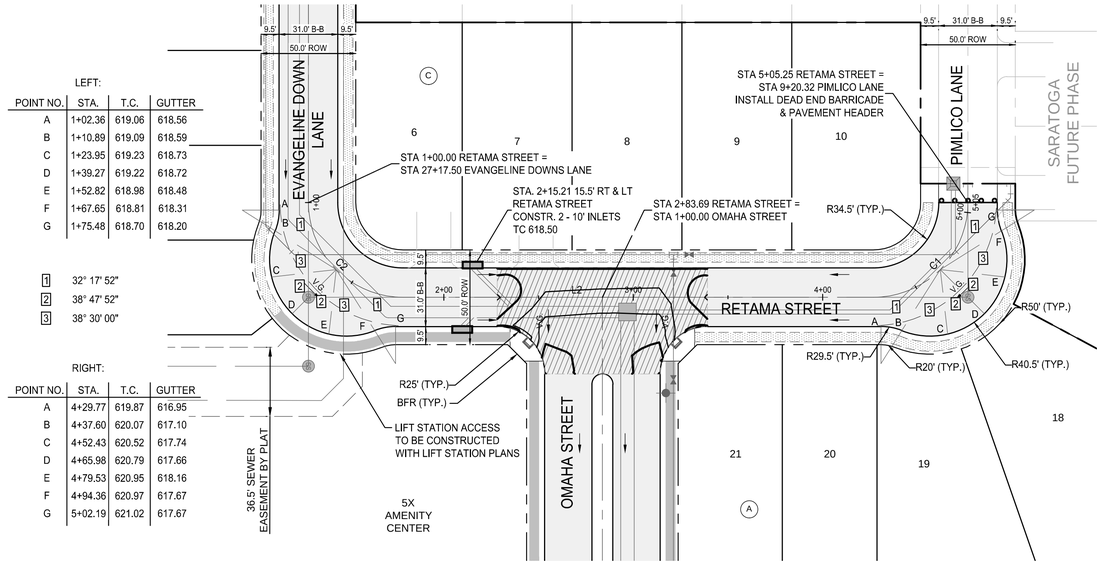
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

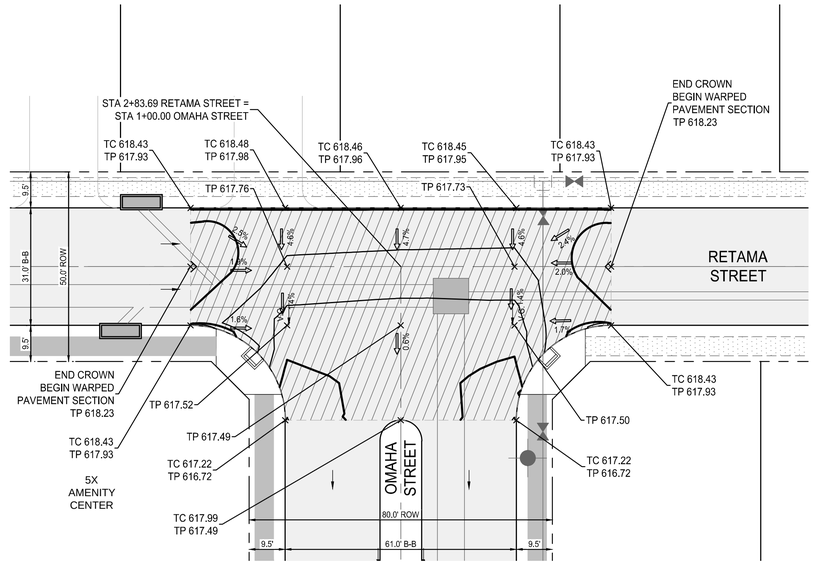
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REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

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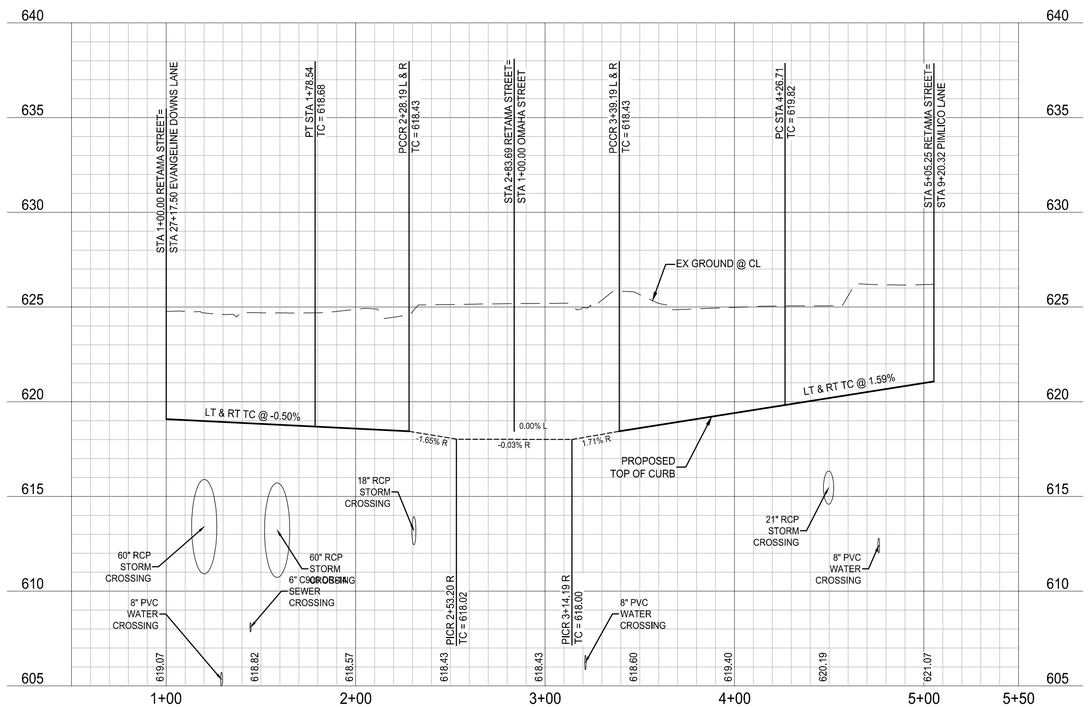


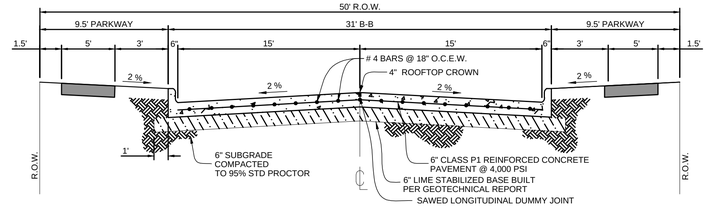
RETAMA STREET & OMAHA STREET INTERSECTION
WARPED PAVEMENT SECTION
SCALE: 1" = 20'

LINE TABLE		
LINE	LENGTH	BEARING
L2	248.17'	N01° 20' 06"E

CURVE TABLE						
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD	BEARING
C1	090° 00' 00"	50.00'	50.00'	78.54'	70.71'	N43° 39' 54"W
C2	090° 00' 00"	50.00'	50.00'	78.54'	70.71'	N46° 20' 06"E

RETAMA STREET





TYPICAL 50' ROW STREET SECTION
N.T.S.

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MUSTANG SUD	940-440-9561

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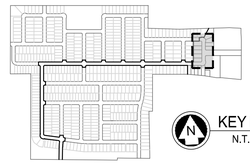
0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

NOTES:
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7. BARRIER FREE RAMPS SHALL BE CONSTRUCTED BY PAVING CONTRACTOR.
8. REFER TO GEOTECH REPORT NO. G22-3956
9. STREETS ARE DESIGNED TO HAVE A SPEED LIMIT OF 25 MPH



KEY MAP
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

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ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN (TYPE OR PRINT NAME) | 100268 (PE #) | 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING PLAN & PROFILE - RETAMA STREET

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | Toll Free (888) 937-5150
11000 Frisco Street, Suite 400
Frisco, TX 75033
westwoodps.com

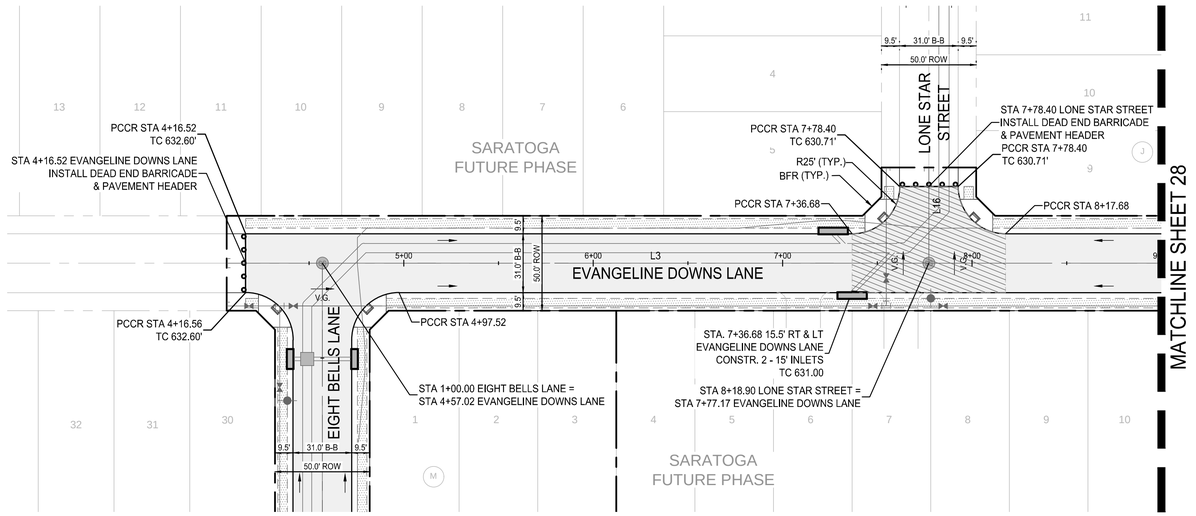
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

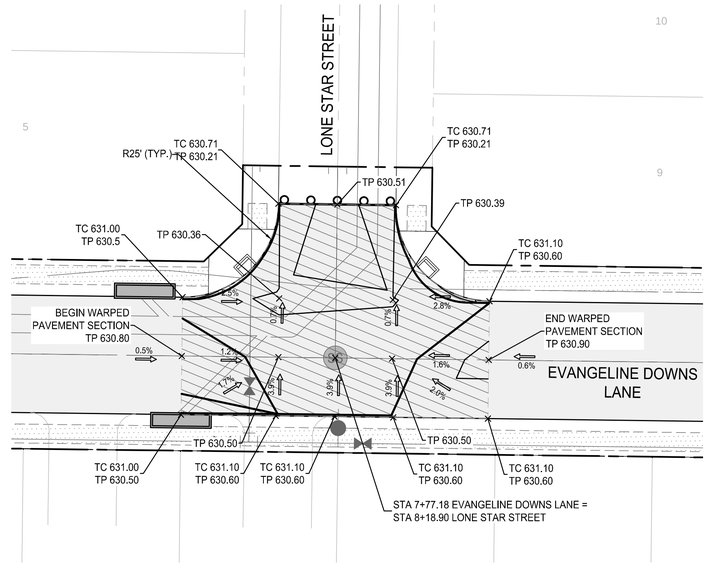
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DESIGNED: CLS	APRIL 2024	GEE21003	26
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

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EVANGELINE DOWNS LANE & LONE STAR STREET INTERSECTION
WARPED PAVEMENT SECTION
SCALE: 1" = 20'

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

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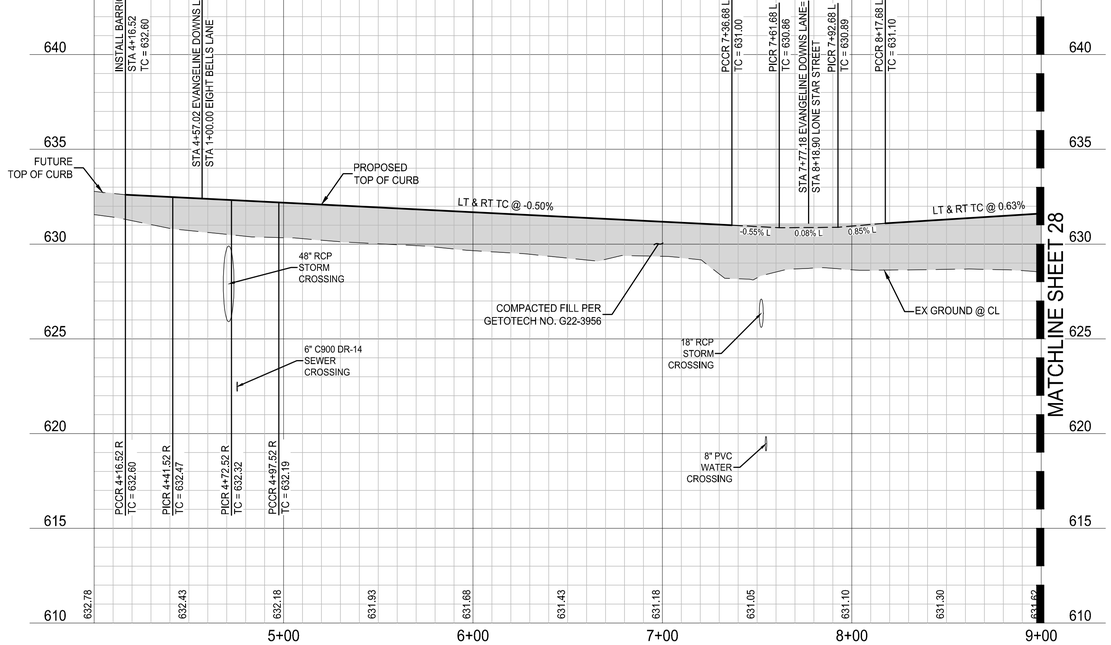
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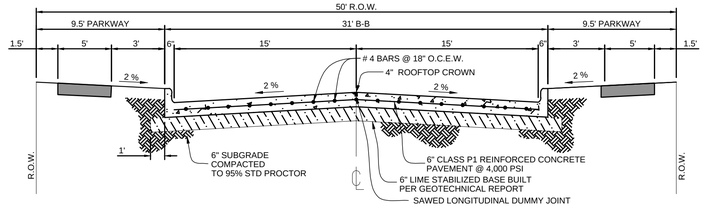
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EVANGELINE DOWNS LANE





TYPICAL 50' ROW STREET SECTION
N.T.S.



KEY MAP
N.T.S.

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING PLAN & PROFILE - EVANGELINE DOWNS LANE (4+00 TO 9+00)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

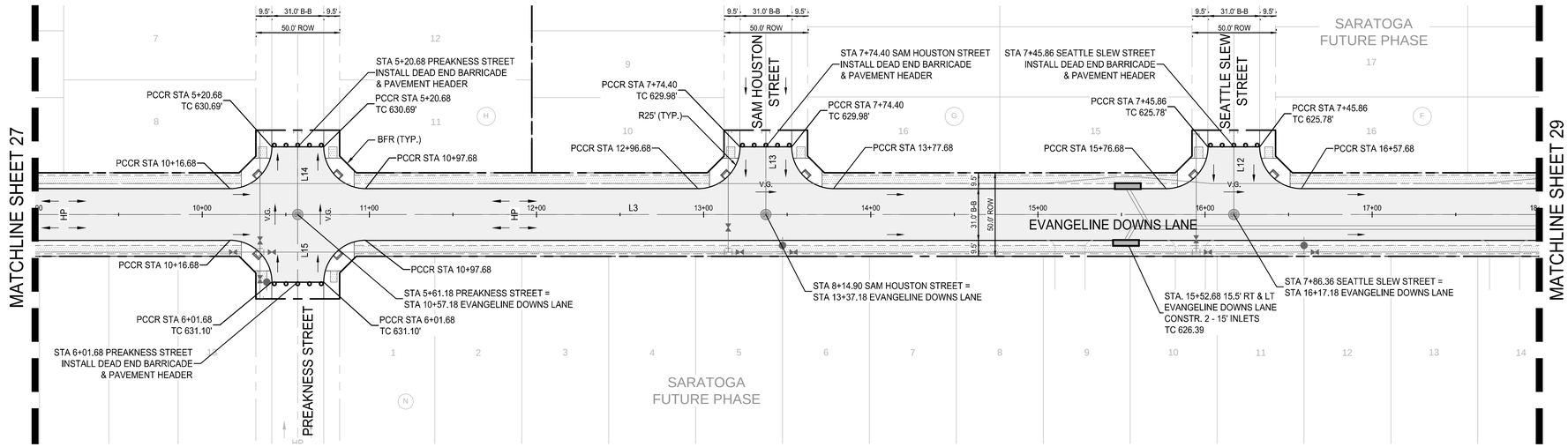
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

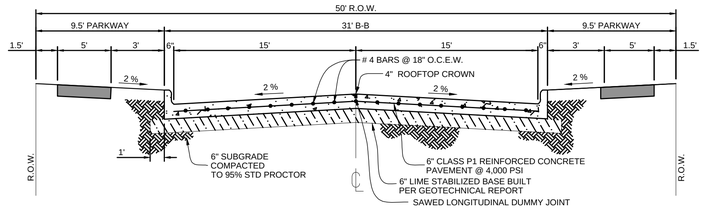
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DESIGNED: CLS	APRIL 2024	GEE21003	27
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

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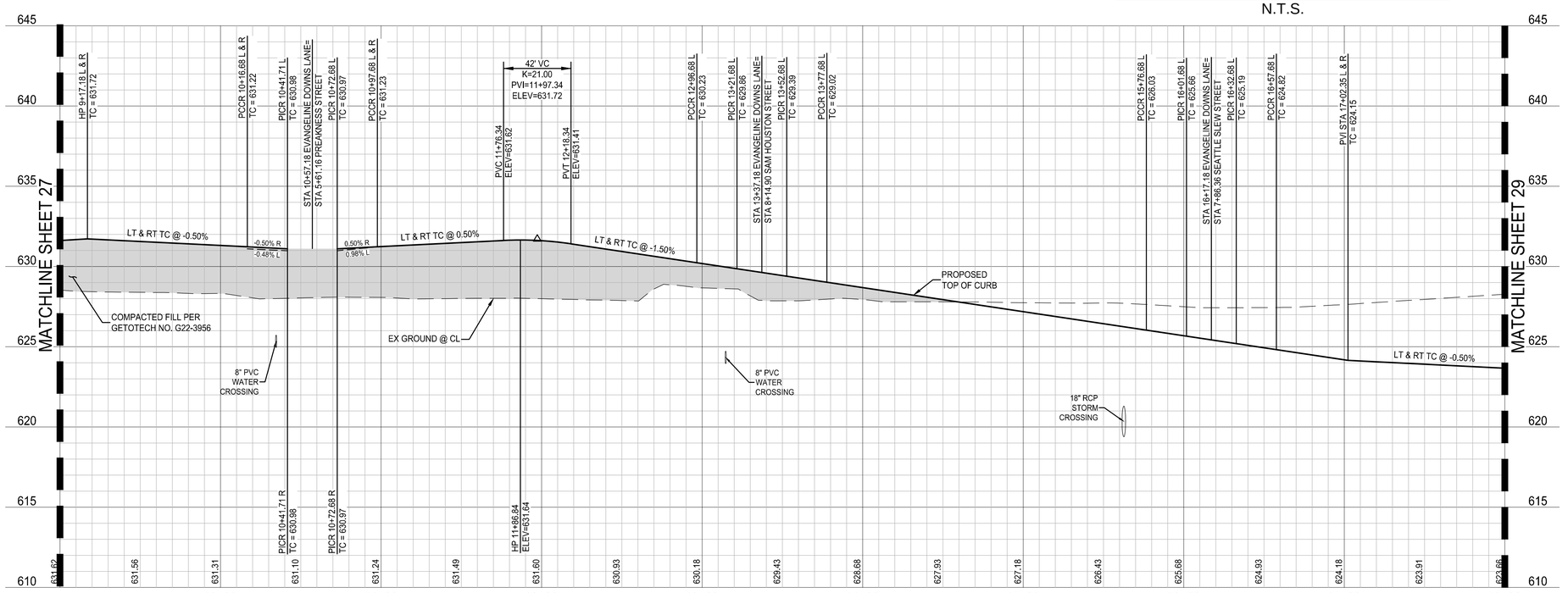




TYPICAL 50' ROW STREET SECTION

N.T.S.

EVANGELINE DOWNS LANE



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SCALE: 1" = 40'

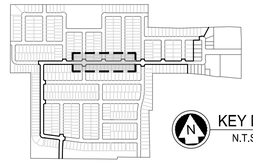
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KEY MAP
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING PLAN & PROFILE - EVANGELINE DOWNS LANE (9+00 TO 18+00)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
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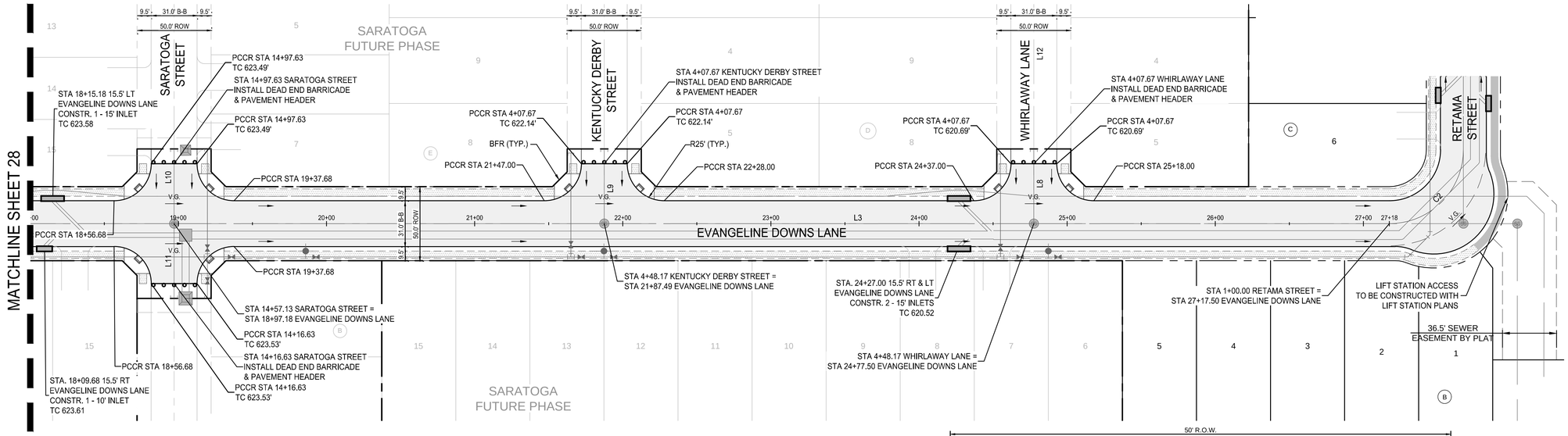
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	28
REVIEWER: TRS			

FIFTH SUBMITTAL

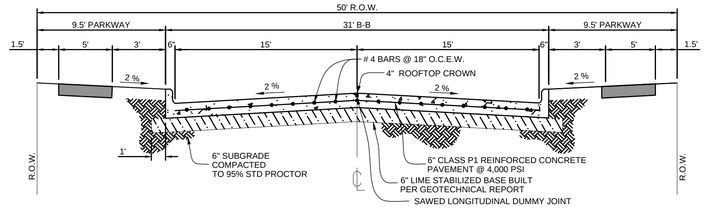
SARATOGA PHASE 1

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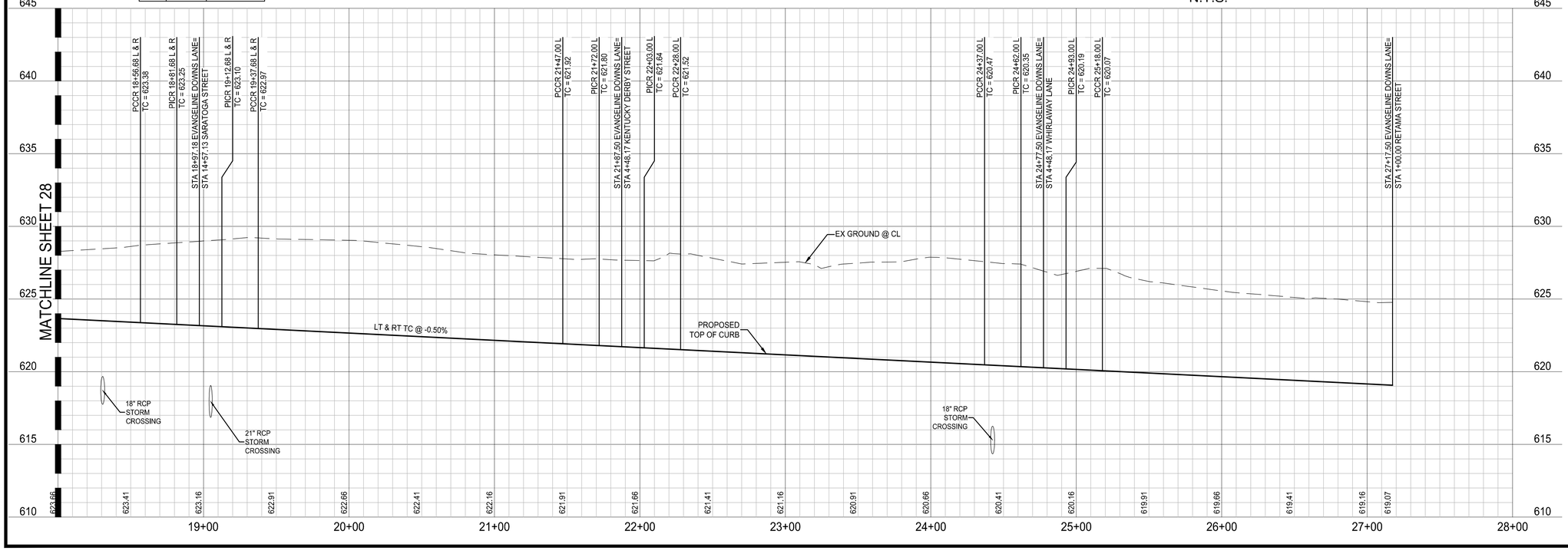
LINE TABLE		
LINE	LENGTH	BEARING
L3	320.16'	S88° 39' 54"E
L8	348.17'	S01° 20' 06"W
L9	348.17'	S01° 20' 06"W
L10	348.17'	N01° 20' 06"E
L11	280.00'	N01° 20' 06"E

EVANGELINE DOWNS LANE



TYPICAL 50' ROW STREET SECTION

N.T.S.



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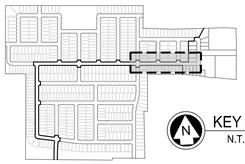
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- PROPOSED CURB INLET
- PROPOSED RAMP
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING PLAN & PROFILE - EVANGELINE DOWNS LANE (18+00 TO END)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	29
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

Drawing: T:\re.com\Network\Drives\GIUOB\gee21003-saratoga\master infrastructure\3_Design\30_Civil\30\1_CAD\Sheets\GEE21003-F-PAVING-P4.P
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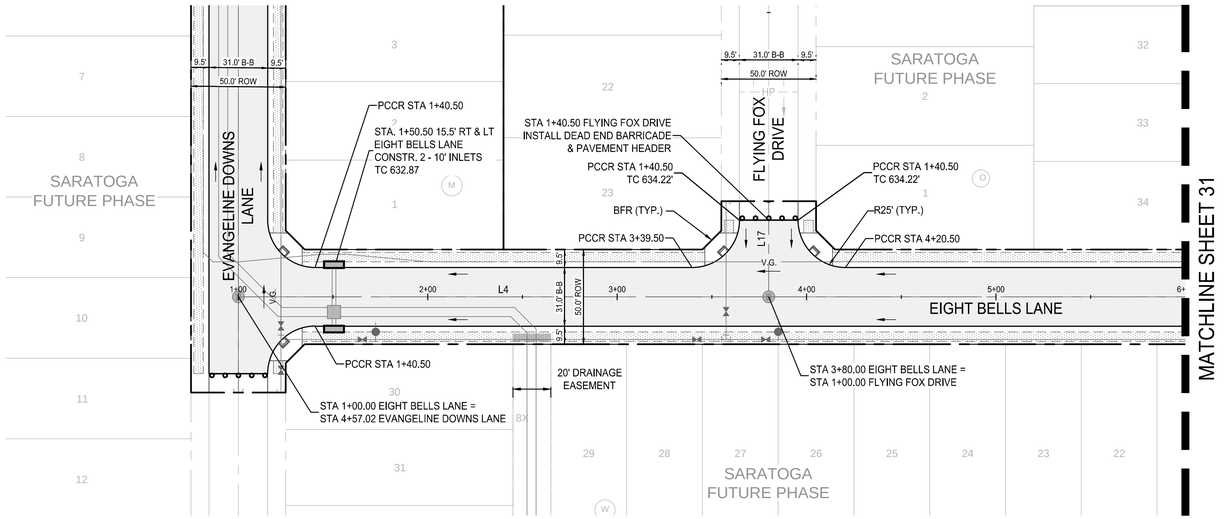
FIFTH SUBMITTAL

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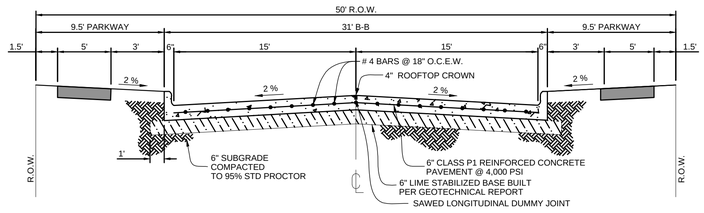
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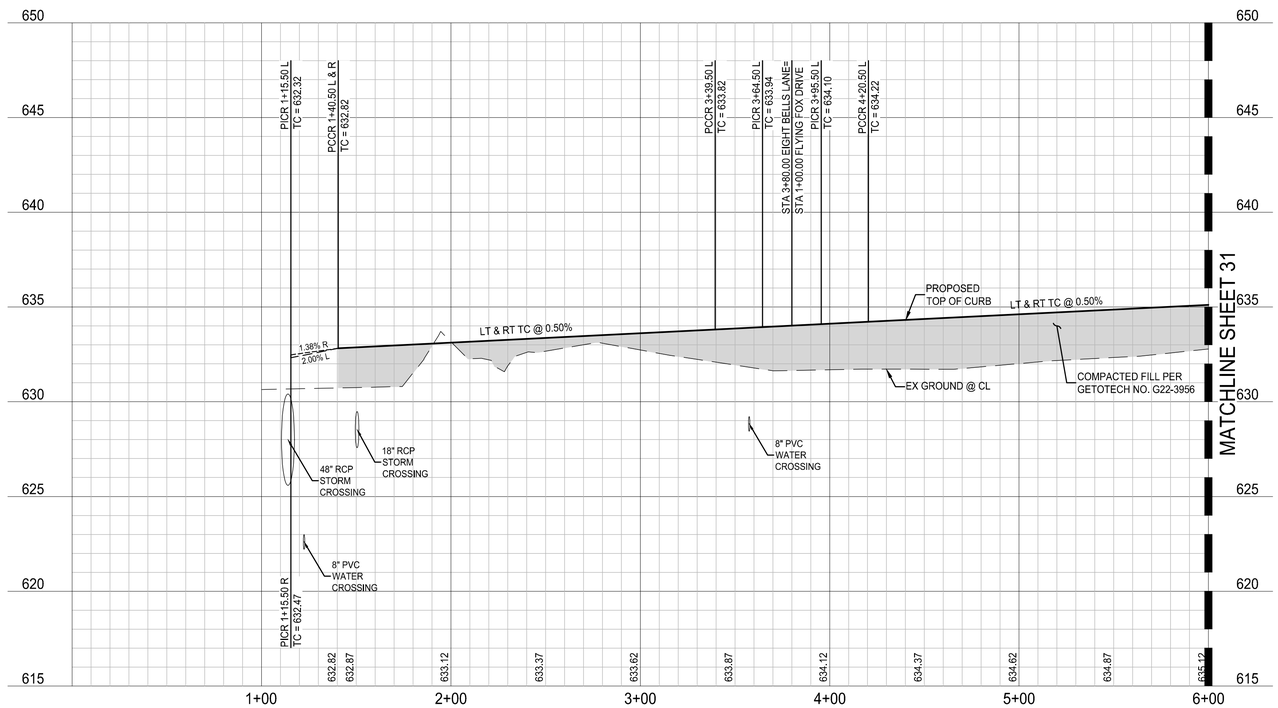
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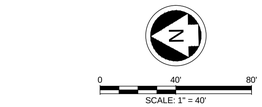
EIGHT BELLS LANE



TYPICAL 50' ROW STREET SECTION

N.T.S.





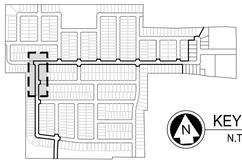
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SARATOGA PHASE 1

PAVING PLAN & PROFILE- EIGHT BELLS LANE (1+00 TO 6+00)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

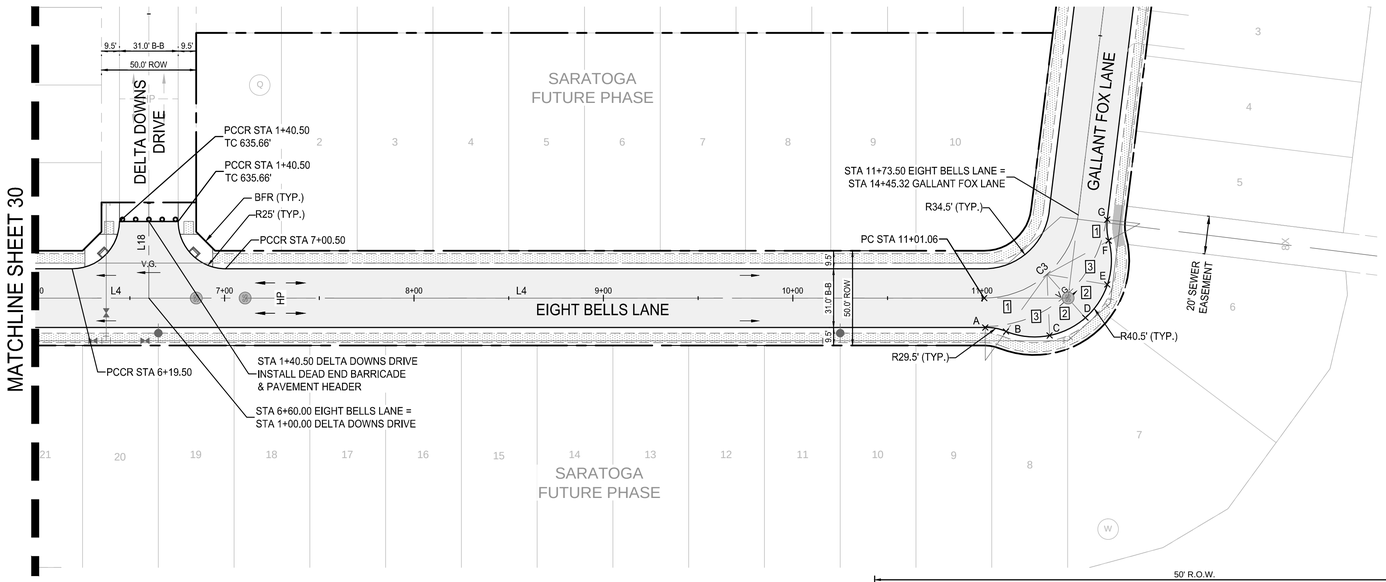
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	30
REVIEWER: TRS			

SARATOGA PHASE 1

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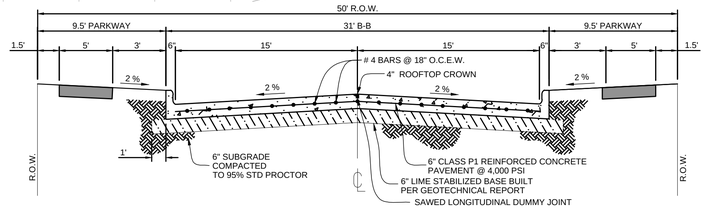


POINT NO.	STA.	T.C.	GUTTER
A	11+01.49	636.29	635.79
B	11+09.50	636.34	635.84
C	11+24.07	636.43	635.93
D	11+37.28	636.50	636.0
E	11+50.49	636.49	635.99
F	11+65.06	636.37	635.87
G	11+73.07	636.24	635.74

1	35° 38' 08"
2	39° 00' 00"
3	38° 08' 12"

LINE TABLE		
LINE	LENGTH	BEARING
L4	441.06'	S01° 20' 06"W
L18	280.00'	S88° 39' 54"E

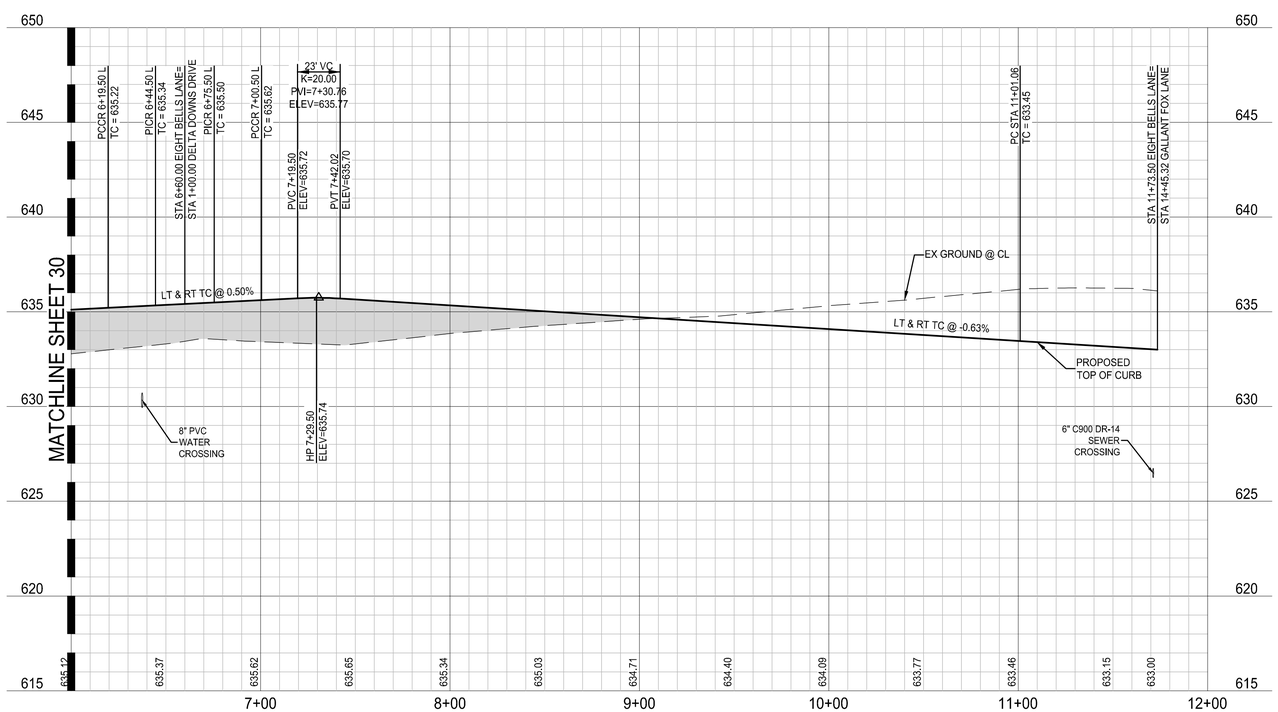
CURVE TABLE						
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD	BEARING
C3	083° 00' 08"	50.00'	44.24'	72.43'	66.26'	S40° 09' 58"E



TYPICAL 50' ROW STREET SECTION

N.T.S.

EIGHT BELLS LANE



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

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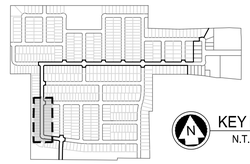
0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

NOTES:
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8. REFER TO GEOTECH REPORT NO. G22-3956
9. STREETS ARE DESIGNED TO HAVE A SPEED LIMIT OF 25 MPH



KEY MAP
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

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ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING PLAN & PROFILE - EIGHT BELLS LANE (6+00 TO END)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
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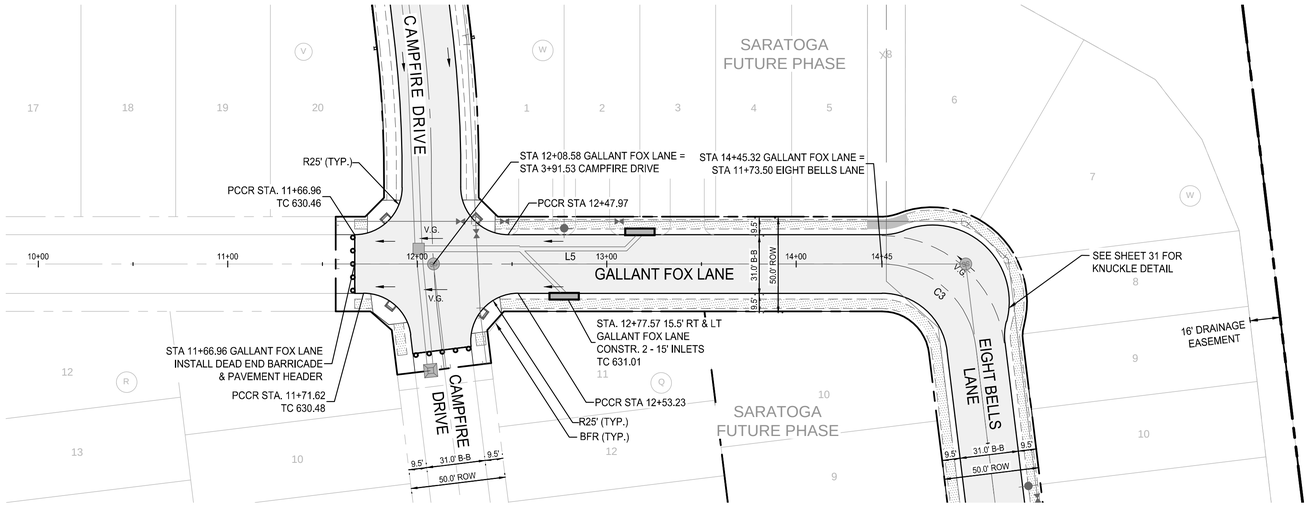
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

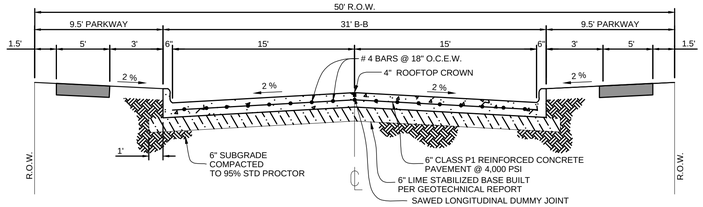
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DESIGNED: CLS	APRIL 2024	GEE21003	31
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

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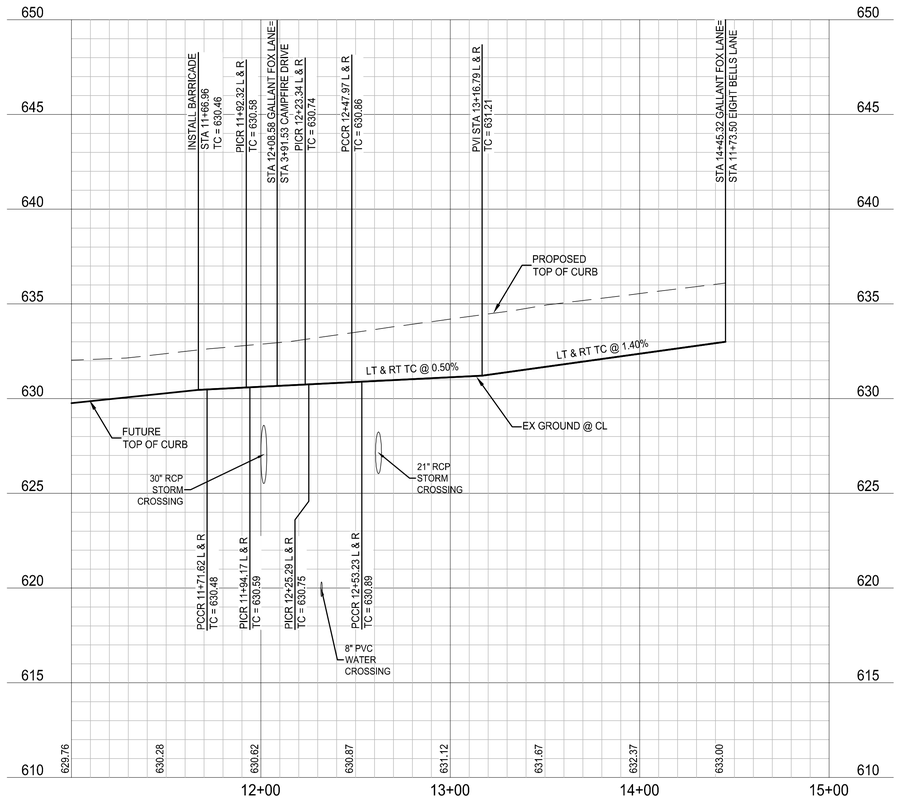




TYPICAL 50' ROW STREET SECTION

N.T.S.

GALLANT FOX LANE



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

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0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

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- PROPOSED CURB INLET
- PROPOSED RAMP
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- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

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PRELIMINARY
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING PLAN & PROFILE - GALLANT FOX LANE (11+00 TO END)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

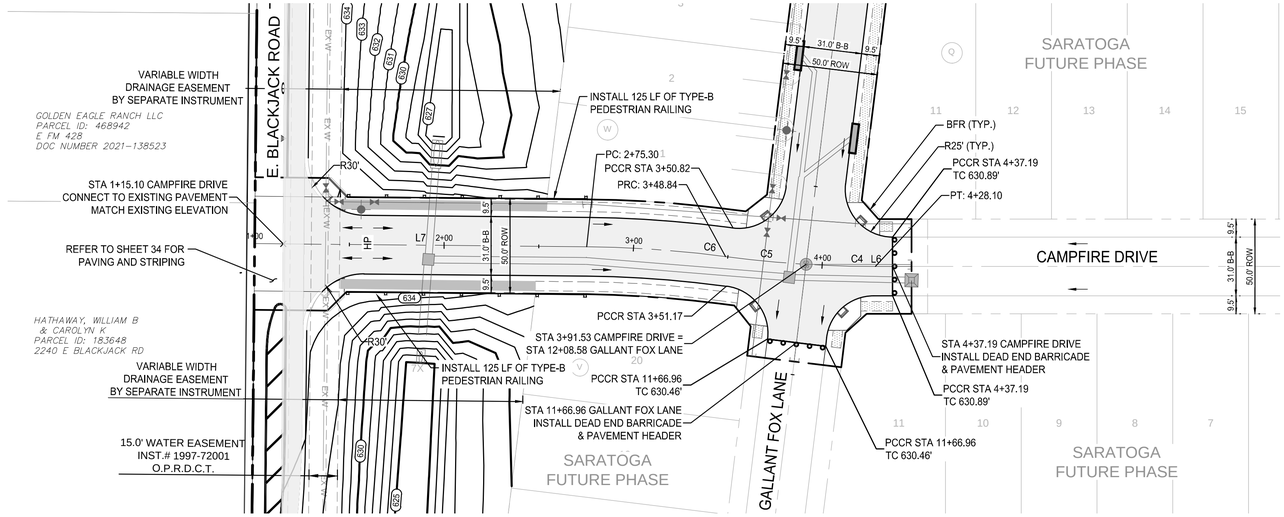
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

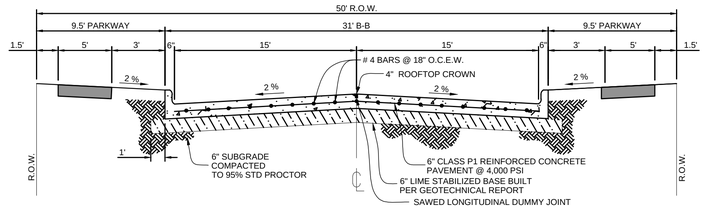
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REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

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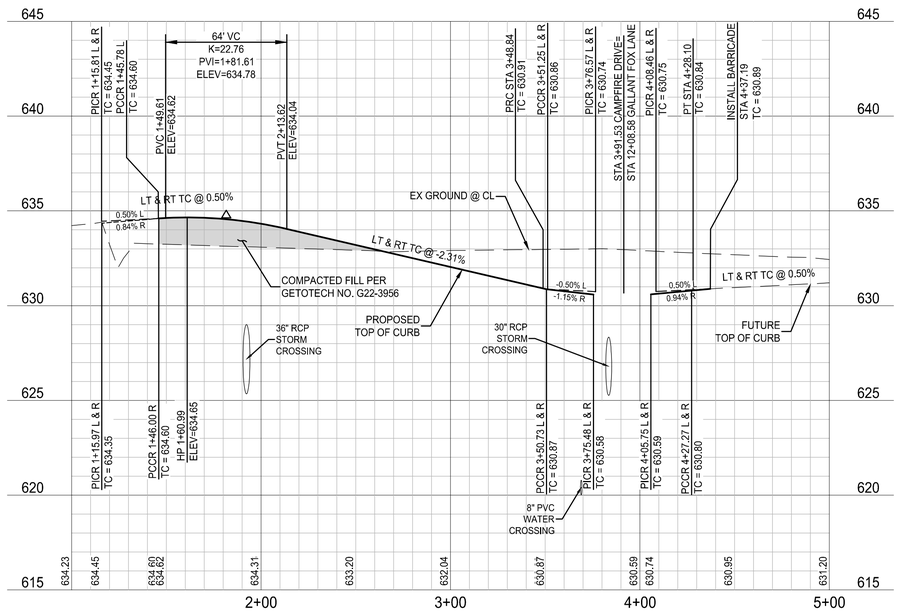
TYPICAL 50' ROW STREET SECTION

N.T.S.

CURVE TABLE						
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD	BEARING
C4	003° 29' 33"	600.00'	18.29'	36.57'	36.57'	N03° 04' 52"E
C5	004° 04' 35"	600.00'	21.35'	42.69'	42.68'	N06° 51' 56"E
C6	007° 01' 22"	600.00'	36.82'	73.54'	73.49'	N05° 23' 33"E

LINE TABLE		
LINE	LENGTH	BEARING
L6	482.98'	N01° 20' 06"E
L7	175.30'	N01° 52' 52"E

CAMPFIRE DRIVE



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
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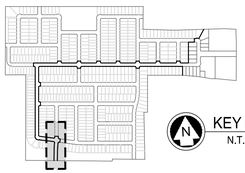
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SCALE: 1" = 40'

PROFILE SCALES:
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- PROPOSED CURB INLET
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KEY MAP
N.T.S.

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING PLAN & PROFILE - CAMP FIRE LANE

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
TollFree (888) 937-5150 Frisco, TX 75033
westwoodps.com

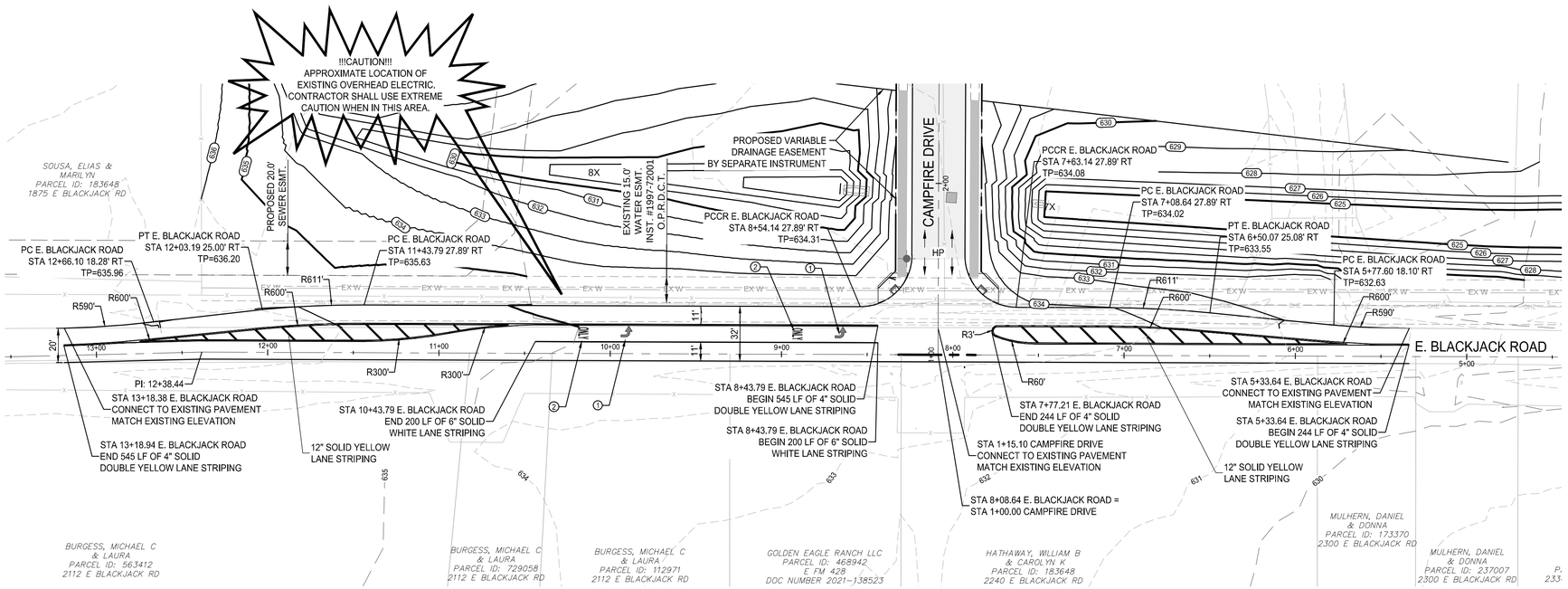
Westwood Professional Services, Inc.
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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	33
REVIEWER: TRS			

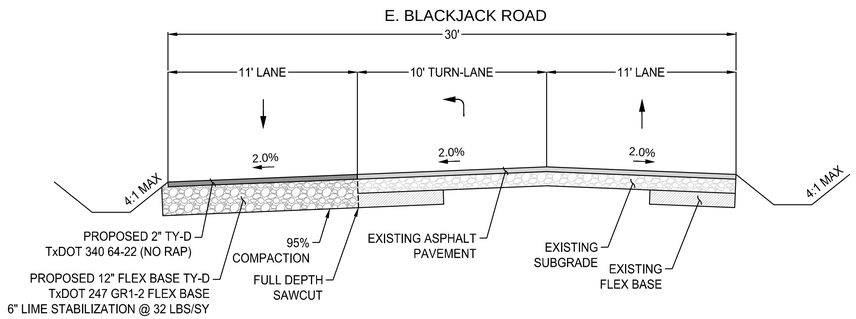
FIFTH SUBMITTAL

SARATOGA PHASE 1

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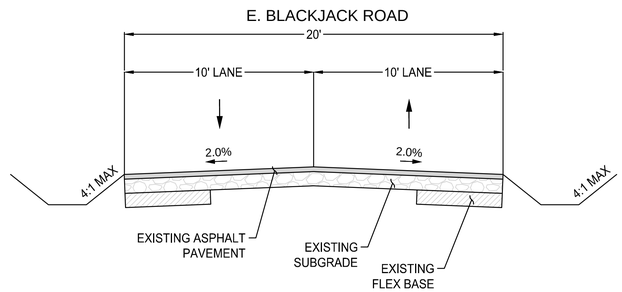


(1) REFL PAV MRK TY 1 (W) (ARROW) (100MIL) - TxDOT ITEM 666
(2) REFL PAV MRK TY 1 (W) (WORD) (100 MIL) - TxDOT ITEM 666



COUNTY ROAD WITH TURN LANE - E. BLACKJACK ROAD

NTS



EXISTING CROSS SECTION - E. BLACKJACK ROAD

NTS

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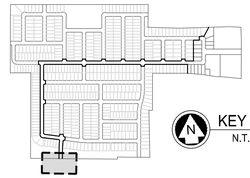
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING AND STRIPING PLAN - E. BLACKJACK ROAD

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	34
REVIEWER: TRS			

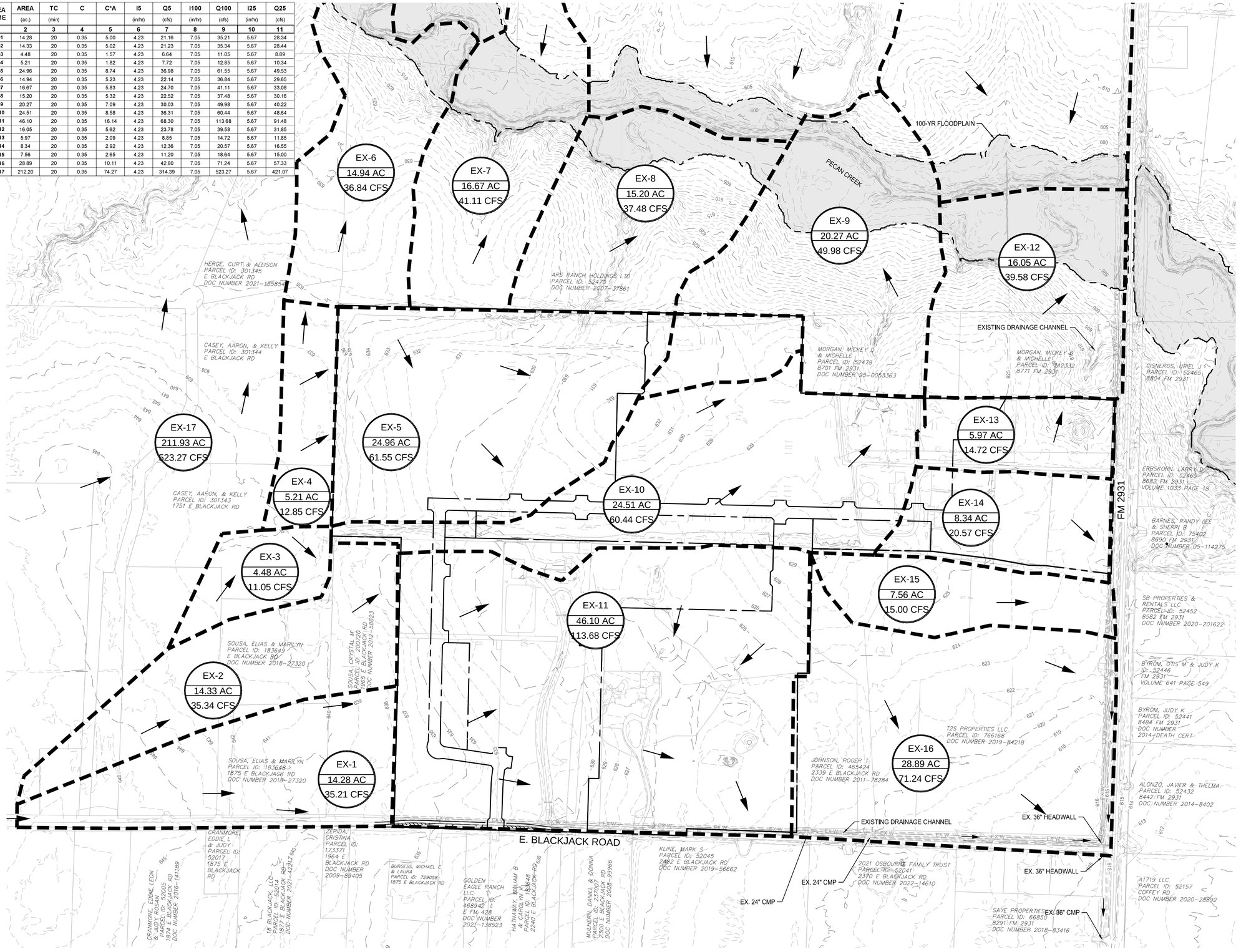
FIFTH SUBMITTAL

SARATOGA PHASE 1

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Last Plotted: 4/30/2024 2:22:23 PM
Plot Date/Time: 4/30/2024 4:07 PM

SARATOGA - EXISTING CONDITION
RATIONAL METHOD RUNOFF CALCULATIONS

AREA NAME	AREA (ac.)	TC (min)	C	C*A	I5 (in/hr)	Q5 (cfs)	I100 (in/hr)	Q100 (cfs)	I25 (in/hr)	Q25 (cfs)
1	2	3	4	5	6	7	8	9	10	11
EX-1	14.28	20	0.35	5.00	4.23	21.16	7.05	35.21	5.67	28.34
EX-2	14.33	20	0.35	5.02	4.23	21.23	7.05	35.34	5.67	28.44
EX-3	4.48	20	0.35	1.57	4.23	6.64	7.05	11.05	5.67	8.89
EX-4	5.21	20	0.35	1.82	4.23	7.72	7.05	12.85	5.67	10.34
EX-5	24.96	20	0.35	8.74	4.23	36.98	7.05	61.55	5.67	49.53
EX-6	14.94	20	0.35	5.23	4.23	22.14	7.05	36.84	5.67	29.65
EX-7	16.67	20	0.35	5.83	4.23	24.70	7.05	41.11	5.67	33.08
EX-8	15.20	20	0.35	5.32	4.23	22.52	7.05	37.48	5.67	30.16
EX-9	20.27	20	0.35	7.09	4.23	30.03	7.05	49.98	5.67	40.22
EX-10	24.51	20	0.35	8.58	4.23	36.31	7.05	60.44	5.67	48.64
EX-11	46.10	20	0.35	16.14	4.23	68.30	7.05	113.68	5.67	91.48
EX-12	16.05	20	0.35	5.62	4.23	23.78	7.05	39.58	5.67	31.85
EX-13	5.97	20	0.35	2.09	4.23	8.85	7.05	14.72	5.67	11.85
EX-14	8.34	20	0.35	2.92	4.23	12.36	7.05	20.57	5.67	16.55
EX-15	7.56	20	0.35	2.65	4.23	11.20	7.05	18.64	5.67	15.00
EX-16	28.89	20	0.35	10.11	4.23	42.80	7.05	71.24	5.67	57.33
EX-17	212.20	20	0.35	74.27	4.23	314.39	7.05	523.27	5.67	421.07



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

N

0 200' 400'
SCALE: 1" = 200'

LEGEND

- MAJOR CONTOUR
- MINOR CONTOUR
- DRAINAGE DIVIDE
- DRAINAGE FLOW DIRECTION
- 100 YEAR FLOODPLAIN LINE
- A1-A2 — DRAINAGE AREA NAME
- 1.00 — DRAINAGE AREA (ACRES)
- 5.50 — 100 YEAR FLOW (C.F.S.)

NOTES:
1. REFER TO PELOTON FLOOD STUDY FOR EXISTING DRAINAGE AREA MAP/ CONDITION DETAILS.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

EXISTING DRAINAGE AREA

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	35
REVIEWER: TRS			

FIFTH SUBMITTAL

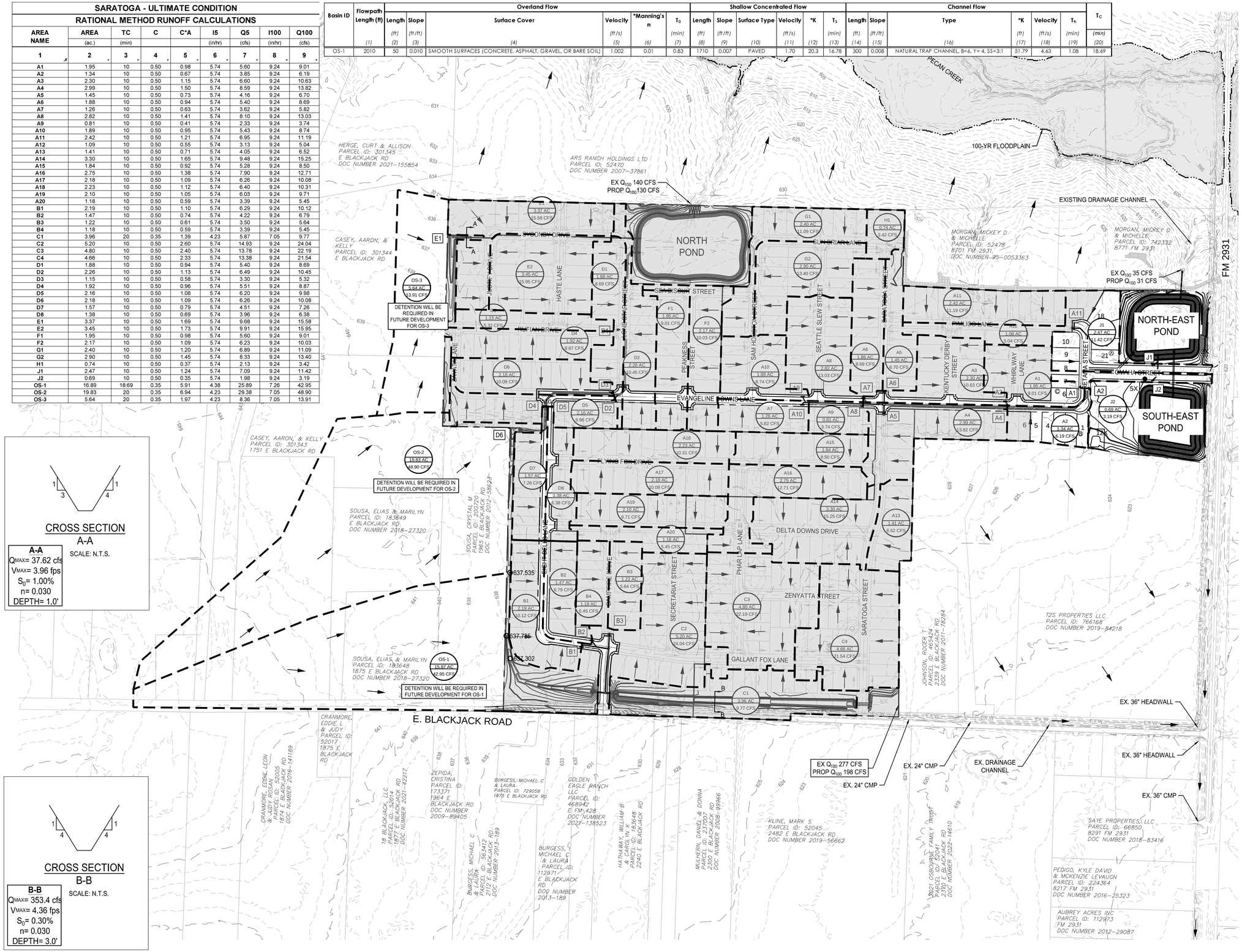
SARATOGA PHASE 1

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SARATOGA - ULTIMATE CONDITION
RATIONAL METHOD RUNOFF CALCULATIONS

AREA NAME	AREA (ac.)	TC (min)	C	C*A	I5 (in/hr)	Q5 (cfs)	I100 (in/hr)	Q100 (cfs)
1	2	3	4	5	6	7	8	9
A1	1.95	10	0.50	0.98	5.74	5.60	9.24	9.01
A2	1.34	10	0.50	0.67	5.74	3.85	9.24	6.19
A3	2.30	10	0.50	1.15	5.74	6.60	9.24	10.63
A4	2.99	10	0.50	1.50	5.74	8.59	9.24	13.82
A5	1.45	10	0.50	0.73	5.74	4.16	9.24	6.70
A6	1.88	10	0.50	0.94	5.74	5.40	9.24	8.69
A7	1.26	10	0.50	0.63	5.74	3.62	9.24	5.82
A8	2.82	10	0.50	1.41	5.74	8.10	9.24	13.03
A9	0.81	10	0.50	0.41	5.74	2.33	9.24	3.74
A10	1.89	10	0.50	0.95	5.74	5.43	9.24	8.74
A11	2.42	10	0.50	1.21	5.74	6.95	9.24	11.19
A12	1.09	10	0.50	0.55	5.74	3.13	9.24	5.04
A13	1.41	10	0.50	0.71	5.74	4.05	9.24	6.52
A14	3.30	10	0.50	1.65	5.74	9.48	9.24	15.25
A15	1.84	10	0.50	0.92	5.74	5.28	9.24	8.50
A16	2.75	10	0.50	1.38	5.74	7.90	9.24	12.71
A17	2.18	10	0.50	1.09	5.74	6.26	9.24	10.08
A18	2.23	10	0.50	1.12	5.74	6.40	9.24	10.31
A19	2.10	10	0.50	1.05	5.74	6.03	9.24	9.71
A20	1.18	10	0.50	0.59	5.74	3.39	9.24	5.45
B1	2.19	10	0.50	1.10	5.74	6.29	9.24	10.12
B2	1.47	10	0.50	0.74	5.74	4.22	9.24	6.79
B3	1.22	10	0.50	0.61	5.74	3.50	9.24	5.64
B4	1.18	10	0.50	0.59	5.74	3.39	9.24	5.45
C1	3.96	20	0.35	1.39	4.23	5.87	7.05	9.77
C2	5.20	10	0.50	2.60	5.74	14.93	9.24	24.04
C3	4.80	10	0.50	2.40	5.74	13.78	9.24	22.19
C4	4.66	10	0.50	2.33	5.74	13.38	9.24	21.54
D1	1.88	10	0.50	0.94	5.74	5.40	9.24	8.69
D2	2.26	10	0.50	1.13	5.74	6.49	9.24	10.45
D3	1.15	10	0.50	0.58	5.74	3.30	9.24	5.32
D4	1.92	10	0.50	0.96	5.74	5.51	9.24	8.87
D5	2.16	10	0.50	1.08	5.74	6.20	9.24	9.98
D6	2.18	10	0.50	1.09	5.74	6.26	9.24	10.08
D7	1.57	10	0.50	0.79	5.74	4.51	9.24	7.26
D8	1.38	10	0.50	0.69	5.74	3.96	9.24	6.38
E1	3.37	10	0.50	1.69	5.74	9.68	9.24	15.58
E2	3.45	10	0.50	1.73	5.74	9.91	9.24	15.95
F1	1.95	10	0.50	0.98	5.74	5.60	9.24	9.01
F2	2.17	10	0.50	1.09	5.74	6.23	9.24	10.03
G1	2.40	10	0.50	1.20	5.74	6.89	9.24	11.09
G2	2.90	10	0.50	1.45	5.74	8.33	9.24	13.40
H1	0.74	10	0.50	0.37	5.74	2.13	9.24	3.42
J1	2.47	10	0.50	1.24	5.74	7.09	9.24	11.42
J2	0.69	10	0.50	0.35	5.74	1.98	9.24	3.19
OS-1	16.89	18.69	0.35	5.91	4.38	25.89	7.26	42.95
OS-2	19.83	20	0.35	6.94	4.23	29.38	7.05	48.90
OS-3	5.64	20	0.35	1.97	4.23	8.36	7.05	13.91

Basin ID	Flowpath Length (ft)	Overland Flow: Length	Slope	Surface Cover	Velocity	*Manning's n	T_0	Shallow Concentrated Flow: Length	Slope	Surface Type	Velocity	*K	T_S	Channel Flow: Length	Slope	Type	*K	Velocity	T_h	T_C
	(1)	(ft) (2)	(ft/ft) (3)	(4)	(ft/s) (5)	(6)	(min) (7)	(ft) (8)	(ft/ft) (9)	(10)	(ft/s) (11)	(12)	(min) (13)	(ft) (14)	(ft/ft) (15)	(16)	(ft) (17)	(ft/s) (18)	(min) (19)	(min) (20)
OS-1	2010	50	0.010	SMOOTH SURFACES (CONCRETE, ASPHALT, GRAVEL, OR BARE SOIL)	1.002	0.01	0.83	1710	0.007	PAVED	1.70	20.3	16.78	300	0.008	NATURAL TRAP CHANNEL, B=6, Y= 4, SS=3:1	51.79	4.63	1.08	18.69



CROSS SECTION
A-A
SCALE: N.T.S.

A-A
Q_{MAX}= 37.62 cfs
V_{MAX}= 3.96 fps
S_0= 1.00%
n= 0.030
DEPTH= 1.0'

CROSS SECTION
B-B
SCALE: N.T.S.

B-B
Q_{MAX}= 353.4 cfs
V_{MAX}= 4.36 fps
S_0= 0.30%
n= 0.030
DEPTH= 3.0'

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

N

0 200' 400'
SCALE: 1" = 200'

LEGEND

- MAJOR CONTOUR
- MINOR CONTOUR
- PROPOSED STORM
- DRAINAGE DIVIDE
- DRAINAGE FLOW DIRECTION
- CURB INLET
- F4 — INLET NUMBER
- PROPOSED SWALE
- 100 YEAR FLOODPLAIN LINE
- A1-A2 / 1.00 / 5.50 — DRAINAGE AREA NAME, DRAINAGE AREA (ACRES), 100 YEAR FLOW (C.F.S.)

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

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-FOR REVIEW ONLY-

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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

PROPOSED DRAINAGE AREA MAP

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood
Phone (469) 213-1800 | Toll Free (888) 937-5150
11000 Frisco Street, Suite 400
Frisco, TX 75033
westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	36
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

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SARATOGA - HYDRAULIC CALCULATIONS (FUTURE / ULTIMATE)

		Runoff	Pipe	Drainage Area						Time of Concentration								Q100 YR	Q100 YR	Q100 YR			Box Culvert					Head Loss Calculations									Invert Elevation		
		Design Point	Length	Incremental		Total	Runoff	Incr.	Total	Inlet	Travel	Total	I5 YR	I100 YR	Q5 YR	Q100 YR	**Desgin**	Inlet	Inlet	Inc.	Q	Storm	No. of	Storm	Storm	Manning	Hydr	Hydraulic Grade								Head Loss	Design	Dwnstrm	Upstrm	TC / FG
		Upstrm	Dwnstrm	Between	Area	Area	Coeff			Time	Time	Time	Intensity	Intensity	Runoff	Runoff	**Storm**	Bypass	Carryover	Delta	in Pipe	Pipe	SD	Drain	Drain	n	Grade	Line Elevation		V1	V2			Loss		at Structure	HGL			Elev
		Station	Station	Points	No.	(Acres)	(Acres)						"I"	"I"	"Q"	"Q"		"Q"	"Q"	"Q"	"Q"	Diameter	Spans	Width	Heigth	Value	"Sf"	Dwnstrm	Upstrm	Flow (In)	Flow (Out)	V1^2 / 2g	V2^2 / 2g	Coeff	KjV1^2 / 2g	"Hk"	Elevation			
						"A"	"A"	"C"	"CA"	"CA"	(min.)	(min.)	(min.)	(in./hr)	(in./hr)	(c.f.s.)	(c.f.s.)		(c.f.s.)	(c.f.s.)	(c.f.s.)	(c.f.s.)	(in.)		(ft)	(ft)		(ft./ft.)			(f.p.s.)	(f.p.s.)	(feet)	(feet)	(Kj)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		17	17a	17b	18	19	19a	19b	19c	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
	STORM DRAIN LINE A																																							
*	25+90.40	25+79.44	10.96	A20	1.18	1.18	0.50	0.59	0.59	10.00	-	10.00	5.74	9.24	3.39	5.45	100 yr	-	-	-	5.45	18	1			0.013	0.0027	629.05	629.08		3.08		0.15	1.25		0.18	629.26	625.19	625.25	629.90
*	25+79.44	25+63.94	15.50		-	1.18	-	-	0.59	-	0.06	10.06	5.74	9.24	3.39	5.45	100 yr	-	-	-	5.45	18	1			0.013	0.0027	628.91	628.95	3.08	3.08	0.15	0.15	0.35	0.05	0.10	629.05	624.85	625.19	629.40
*	25+63.94	25+15.44	48.50	A19	2.10	3.28	0.50	1.05	1.64	10.00	0.08	10.14	5.71	9.20	9.37	15.09	100 yr	-	-	-	15.09	21	1			0.013	0.0091	627.97	628.41	3.08	6.26	0.15	0.61	0.75	0.11	0.50	628.91	624.60	624.85	629.30
*	25+15.44	25+01.30	14.14		-	3.28	-	-	1.64	-	0.13	10.27	5.71	9.20	9.37	15.09	100 yr	-	-	-	15.09	21	1			0.013	0.0091	627.63	627.75	6.26	6.26	0.61	0.61	0.35	0.21	0.21	627.97	624.53	624.60	628.80
*	25+01.30	22+31.30	270.00		-	3.28	-	-	1.64	-	0.04	10.31	5.71	9.20	9.37	15.09	100 yr	-	-	-	15.09	21	1			0.013	0.0091	624.96	627.41	6.26	6.26	0.61	0.61	0.35	0.21	0.21	627.63	621.95	624.53	628.90
*	22+31.30	17+22.07	509.23	A17+18	4.41	7.69	0.50	2.21	3.85	10.00	0.72	11.03	5.53	8.95	21.28	34.40	100 yr	-	-	-	34.40	36	1			0.013	0.0027	623.39	624.75	6.26	4.87	0.61	0.37	0.25	0.15	0.22	624.96	619.20	621.95	627.30
*	17+22.07	17+00.14	21.93	A16	2.75	10.44	0.50	1.38	5.22	10.00	1.74	12.77	5.21	8.49	27.22	44.31	100 yr	-	-	-	44.31	36	1			0.013	0.0044	622.96	623.06	4.87	6.27	0.37	0.61	0.75	0.28	0.33	623.39	619.09	619.20	624.80
*	17+00.14	16+31.14	69.00	A15	1.84	12.28	0.50	0.92	6.14	10.00	0.06	12.83	5.20	8.47	31.95	52.03	100 yr	-	-	-	52.03	36	1			0.013	0.0061	622.16	622.58	6.27	7.36	0.61	0.84	0.75	0.46	0.38	622.96	617.75	619.09	624.70
	16+31.14	13+51.14	280.00	A13+14	4.71	16.99	0.50	2.36	8.50	10.00	0.16	12.99	5.18	8.44	43.98	71.66	100 yr	-	-	-	71.66	48	1			0.013	0.0025	621.17	621.87	7.36	5.70	0.84	0.50	0.25	0.21	0.29	622.16	615.59	617.75	624.40
	13+51.14	08+21.32	529.82	A5-10	10.11	27.10	0.50	5.06	13.55	10.00	0.82	13.81	5.04	8.24	68.34	111.68	100 yr	-	-	-	111.68	54	1			0.013	0.0032	618.82	620.53	5.70	7.02	0.50	0.77	0.25	0.13	0.64	621.17	612.94	615.59	622.80
	08+21.32	08+05.82	15.50	A4	2.99	30.09	0.50	1.50	15.05	10.00	1.26	15.06	4.85	7.96	73.00	119.79	100 yr	-	-	-	119.79	54	1			0.013	0.0037	618.46	618.51	7.02	7.53	0.77	0.88	0.75	0.57	0.31	618.82	612.36	612.94	620.10
	08+05.82	05+30.78	275.04	A3	2.30	32.39	0.50	1.15	16.20	10.00	0.03	15.10	4.85	7.96	78.50	128.83	100 yr	-	-	-	128.83	60	1			0.013	0.0024	617.68	618.36	7.53	6.56	0.88	0.67	0.75	0.66	0.10	618.46	610.98	612.36	620.10
	05+30.78	04+60.12	70.66		-	32.39	-	-	16.20	-	0.70	15.80	4.85	7.96	78.50	128.83	100 yr	-	-	-	128.83	60	1			0.013	0.0024	617.28	617.45	6.56	6.56	0.67	0.67	0.35	0.23	0.23	617.68	610.63	610.98	618.70
	04+60.12	04+13.41	46.71		-	32.39	-	-	16.20	-	0.18	15.98	4.85	7.96	78.50	128.83	100 yr	-	-	-	128.83	60	1			0.013	0.0024	616.93	617.04	6.56	6.56	0.67	0.67	0.35	0.23	0.23	617.28	610.40	610.63	618.30
	04+13.41	03+92.41	21.00	A2	1.34	33.73	0.50	0.67	16.87	10.00	0.12	16.09	4.71	7.75	79.37	130.69	100 yr	0.05	-	-0.05	130.64	60	1			0.013	0.0025	616.69	616.74	6.56	6.65	0.67	0.69	0.75	0.50	0.19	616.93	610.29	610.40	618.10
	03+92.41	03+33.93	58.48	A1	1.95	35.68	0.50	0.98	17.84	10.00	0.05	16.15	4.70	7.74	83.84	138.05	100 yr	0.52	-	-0.57	137.48	60	1			0.013	0.0028	616.28	616.44	6.65	7.00	0.69	0.76	0.75	0.52	0.25	616.69	609.00	610.29	618.00
	03+33.93	02+00.13	133.80	A11+12	3.51	39.19	0.50	1.76	19.60	10.00	0.14	16.29	4.68	7.71	91.71	151.09	100 yr	-	-	-0.57	150.52	72	1			0.013	0.0013	615.86	616.03	7.00	5.32	0.76	0.44	0.25	0.19	0.25	616.28	608.33	609.00	617.70
	02+00.13	01+00.00	100.13		-	39.19	-	-	19.60	-	0.42	16.70	4.68	7.71	91.71	151.09	100 yr	-	-	-0.57	150.52	72	1			0.013	0.0013	**615.58**	615.71	5.32	5.32	0.44	0.44	0.35	0.15	0.15	615.86	607.83	608.33	617.00
	STORM DRAIN LINE SD-A1																																							
	01+32.88	01+00.00	32.88	A1	1.95	1.95	0.50	0.98	0.98	10.00	-	10.00	5.74	9.24	5.60	9.01	100 yr	-	-	-	9.01	18	1			0.013	0.0074	***616.69***	616.93	0.00	5.09	0.00	0.40	1.25	0.00	0.50	617.43	610.29	613.22	618.00
	STORM DRAIN LINE SD-A2																																							
	01+10.96	01+00.00	10.96	A2	1.34	1.34	0.50	0.67	0.67	10.00	-	10.00	5.74	9.24	3.85	6.19	100 yr	-	-	-	6.19	18	1			0.013	0.0035	***616.93***	616.97	0.00	3.50	0.00	0.19	1.25	0.00	0.24	617.20	610.40	612.70	618.10
	STORM DRAIN LINE SD-A3																																							
	01+32.88	01+00.00	32.88	A3	2.30	2.30	0.50	1.15	1.15	10.00	-	10.00	5.74	9.24	6.60	10.63	100 yr	-	-	-	10.63	18	1			0.013	0.0102	***618.46***	618.79	0.00	6.01	0.00	0.56	1.25	0.00	0.70	619.49	612.36	615.42	620.50
	STORM DRAIN LINE SD-A4																																							
	01+10.96	01+00.00	10.96	A4	2.99	2.99	0.50	1.50	1.50	10.00	-	10.00	5.74	9.24	8.59	13.82	100 yr	-	-	-	13.82	18	1			0.013	0.0173	***618.82***	619.01	0.00	7.81	0.00	0.95	1.25	0.00	1.18	620.19	612.94	614.98	620.50
	STORM DRAIN LINE SD-A5																																							
*	01+91.06	01+82.11	8.95	A5	1.45	1.45	0.50	0.73	0.73	10.00	-	10.00	5.74	9.24	4.16	6.70	100 yr	-	-	-	6.70	18	1			0.013	0.0041	622.37	622.40		3.79		0.22	1.25		0.28	622.68	619.10	619.51	624.00
*	01+82.11	01+57.36	24.75		-	1.45	-	-	0.73	-	0.04	10.04	5.74	9.24	4.16	6.70	100 yr	-	-	-	6.70	18	1			0.013	0.0041	622.16	622.27	3.79	3.79	0.22	0.22	0.35	0.08	0.10	622.37	618.07	619.10	623.60
	01+57.36	01+00.00	57.36	A6	1.88	3.33	0.50	0.94	1.67	10.00	0.11	10.15	5.71	9.20	9.51	15.32	100 yr	-	-	-	15.32	21	1			0.013	0.0093	***621.17***	621.70	3.79	6.36	0.22	0.63	0.75	0.17	0.46	622.16	616.96	617.82	623.30
*	STORM DRAIN LINE SD-A6																																							
	01+32.88	01+00.00	32.88	A6	1.88	1.88	0.50	0.94	0.94	10.00	-	10.00	5.74	9.24	5.40	8.69	100 yr	-	-	-	8.69	18	1			0.013	0.0068	***622.16***	622.39	0.00	4.91	0.00	0.37	1.25	0.00	0.47	622.86	617.82	619.44	623.90
	STORM DRAIN LINE SD-A7																																							
	04+56.72	04+47.78	8.94	A7	1.26	1.26	0.50	0.63	0.63	10.00	-	10.00	5.74	9.24	3.62	5.82	100 yr	-	-	-	5.82	18	1			0.013	0.0031	624.90	624.93		3.29		0.17	1.25		0.21	625.14	619.32	619.36	626.40
	04+47.78	04+37.78	10.00		-	1.26	-	-	0.63	-	0.05	10.05	5.74	9.24	3.62	5.82	100 yr	-	-	-	5.82	18	1			0.013	0.0031	624.77	624.80	3.29	3.29	0.17	0.17	0.35	0.06	0.10	624.90	619.02	619.32	626.00
	04+37.78	01+87.50	250.28	A10	1.89	3.15	0.50	0.95	1.58	10.00	0.05	10.10	5.72	9.22	9.01	14.51	100 yr	0.23	-	-0.23	14.28	21	1			0.013	0.0081	622.32	624.35	3.29	5.93	0.17	0.55	0.75	0.13	0.42	624.77	617.74	619.02	625.80
	01+87.50	01+66.50	21.00	A9	0.81	3.96	0.50	0.41	1.98	10.00	0.70	10.80	5.58	9.01	11.05	17.84	100 yr	-	-	-0.23	17.61	21	1			0.013	0.0124	621.64	621.90	5.93	7.31	0.55	0.83	0.75	0.41	0.42	622.32	616.92	617.74	623.20
	01+66.50	01+00.00	66.50	A8	2.82	6.78	0.50	1.41	3.39	10.00	0.05	10.85	5.57	9.00	18.88	30.50	100 yr	-	0.23	-	30.50	30	1			0.013	0.0055	**621.17**	621.54	7.31	6.21	0.83	0.60	0.75	0.62	0.10	621.64	615.59	616.92	623.10

* FUTURE PHASE CALCULATIONS FOR SIZING PURPOSES

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

HYDRAULIC CALCULATIONS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	37
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

Drawing: I:\pw.com\Network\Drives\DUO\Dgnet\1003-saratoga\master infrastructure\3_Design\35_Civil\351_CAD\Sheets\GEE21003-CAMAP
Last Saved by: BoulkerE
Last Saved Time: 4/30/2024 8:44 AM
Plot Date/Time: 4/30/2024 4:08 PM

SARATOGA - HYDRAULIC CALCULATIONS (FUTURE / ULTIMATE)

Runoff		Pipe	Drainage Area						Time of Concentration							Q100 YR	Q100 YR	Q100 YR			Box Culvert						Head Loss Calculations								Invert Elevation		
Design Point		Length	Incremental		Total	Runoff	Incr.	Total	Inlet	Travel	Total	I5 YR	I100 YR	Q5 YR	Q100 YR	Desgin	Inlet	Inlet	Inc.	Q	Storm	No. of	Storm	Storm	Manning	Hydr	Hydraulic Grade							Head Loss	Design	Dwnstrm	Upstrm	TC / FG
Upstrm	Dwnstrm	Between	Area	Area	Area	Coeff			Time	Time	Time	Intensity	Intensity	Runoff	Runoff	Storm	Bypass	Carryover	Delta	in Pipe	Pipe	SD	Drain	Drain	n	Grade	Line Elevation		V1	V2			Loss		at Structure	HGL			Elev
Station	Station	Points	No.	(Acres)	(Acres)							"I"	"I"	"Q"	"Q"		"Q"	"Q"	"Q"	"Q"	Diameter	Spans	Width	Heigth	Value	"Sf"	Dwnstrm	Upstrm	Flow (In)	Flow (Out)	V1^2 / 2g	V2^2 / 2g	Coeff	KjV1^2 / 2g	"Hk"	Elevation			
				"A"	"A"	"C"	"CA"	"CA"	(min.)	(min.)	(min.)	(in./hr)	(in./hr)	(c.f.s.)	(c.f.s.)		(c.f.s.)	(c.f.s.)	(c.f.s.)	(c.f.s.)	(in.)		(ft)	(ft)		(ft./ft.)			(f.p.s.)	(f.p.s.)	(feet)	(feet)	(Kj)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		17	17a	17b	18	19	19a	19b	19c	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
STORM DRAIN LINE SD-A8																																						
01+32.88	01+00.00	32.88	A8	2.82	2.82	0.50	1.41	1.41	10.00	-	10.00	5.74	9.24	8.10	13.03	**100 yr**	-	-	-	13.03	18	1			0.013	0.0154	***621.64***	622.14	0.00	7.36	0.00	0.84	1.25	0.00	1.05	623.20	616.92	618.84	623.60
STORM DRAIN LINE SD-A9																																						
01+10.96	01+00.00	10.96	A9	0.81	0.81	0.50	0.41	0.41	10.00	-	10.00	5.74	9.24	2.33	3.74	**100 yr**	-	-	-	3.74	18	1			0.013	0.0013	***622.32***	622.33	0.00	2.12	0.00	0.07	1.25	0.00	0.10	622.43	617.00	618.36	623.60
STORM DRAIN LINE SD-A10																																						
01+26.85	01+00.00	26.85	A10	1.89	1.89	0.50	0.95	0.95	10.00	-	10.00	5.74	9.24	5.43	8.74	**100 yr**	-	-	-	8.74	18	1			0.013	0.0069	***624.77***	624.96	0.00	4.94	0.00	0.38	1.25	0.00	**0.47**	625.43	619.02	620.48	626.40
STORM DRAIN LINE SD-A11																																						
* 03+66.67	03+39.83	26.84	A11	2.42	2.42	0.50	1.21	1.21	10.00	-	10.00	5.74	9.24	6.95	11.19	**100 yr**	-	-	-	11.19	18	1			0.013	0.0113	619.73	620.04		6.32		0.62	1.25		0.78	620.81	616.65	617.24	621.40
* 03+39.83	03+20.43	19.40		-	2.42	-	-	1.21	-	0.07	10.07	5.74	9.24	6.95	11.19	**100 yr**	-	-	-	11.19	18	1			0.013	0.0113	619.29	619.51	6.32	6.32	0.62	0.62	0.35	0.22	0.22	619.73	616.18	616.65	620.90
03+20.43	02+85.70	34.73	A12	1.09	3.51	0.50	0.55	1.76	10.00	0.05	10.12	5.72	9.21	10.03	16.16	**100 yr**	-	-	-	16.16	21	1			0.013	0.0104	618.70	619.06	6.32	6.71	0.62	0.70	0.75	0.47	0.23	619.29	615.21	616.18	620.80
02+85.70	02+39.00	46.70		-	3.51	-	-	1.76	-	0.09	10.21	5.72	9.21	10.03	16.16	**100 yr**	-	-	-	16.16	21	1			0.013	0.0104	617.97	618.46	6.71	6.71	0.70	0.70	0.35	0.24	0.24	618.70	614.18	615.21	620.40
02+39.00	01+00.00	139.00		-	3.51	-	-	1.76	-	0.12	10.32	5.72	9.21	10.03	16.16	**100 yr**	-	-	-	16.16	21	1			0.013	0.0104	**616.28**	617.73	6.71	6.71	0.70	0.70	0.35	0.24	0.24	617.97	609.00	614.18	619.60
* STORM DRAIN LINE SD-A12																																						
01+08.95	01+00.00	8.95	A12	1.09	1.09	0.50	0.55	0.55	10.00	-	10.00	5.74	9.24	3.13	5.04	**100 yr**	-	-	-	5.04	18	1			0.013	0.0023	***619.29***	619.31	0.00	2.85	0.00	0.13	1.25	0.00	0.16	619.47	616.18	616.74	621.20
																																				20.00		
* STORM DRAIN LINE SD-A13																																						
01+76.72	01+67.78	8.94	A13	1.41	1.41	0.50	0.71	0.71	10.00	-	10.00	5.74	9.24	4.05	6.52	**100 yr**	-	-	-	6.52	18	1			0.013	0.0038	623.38	623.41		3.68		0.21	1.25		0.26	623.68	619.58	619.63	625.10
01+67.78	01+51.72	16.06		-	1.41	-	-	0.71	-	0.04	10.04	5.74	9.24	4.05	6.52	**100 yr**	-	-	-	6.52	18	1			0.013	0.0038	623.22	623.28	3.68	3.68	0.21	0.21	0.35	0.07	0.10	623.38	619.00	619.58	624.80
01+51.72	01+00.00	51.72	A14	3.30	4.71	0.50	1.65	2.36	10.00	0.07	10.11	5.72	9.21	13.47	21.69	**100 yr**	-	-	-	21.69	24	1			0.013	0.0092	***622.16***	622.64	3.68	6.91	0.21	0.74	0.75	0.16	0.58	623.22	617.75	619.00	624.70
* STORM DRAIN LINE SD-A14																																						
01+26.85	01+00.00	26.85	A14	3.30	3.30	0.50	1.65	1.65	10.00	-	10.00	5.74	9.24	9.48	15.25	**100 yr**	-	-	-	15.25	21	1			0.013	0.0093	***623.22***	623.47	0.00	6.33	0.00	0.62	1.25	0.00	0.78	624.24	619.00	620.09	625.10
* STORM DRAIN LINE SD-A15																																						
01+32.88	01+00.00	32.88	A15	1.84	1.84	0.50	0.92	0.92	10.00	-	10.00	5.74	9.24	5.28	8.50	**100 yr**	-	-	-	8.50	18	1			0.013	0.0066	***622.96***	623.18	0.00	4.80	0.00	0.36	1.25	0.00	0.45	623.63	619.09	620.17	625.20
* STORM DRAIN LINE SD-A16																																						
01+08.95	01+00.00	8.95	A16	2.75	2.75	0.50	1.38	1.38	10.00	-	10.00	5.74	9.24	7.90	12.71	**100 yr**	-	-	-	12.71	18	1			0.013	0.0146	***623.39***	623.53	0.00	7.18	0.00	0.80	1.25	0.00	1.00	624.53	619.20	620.22	625.20
* STORM DRAIN LINE SD-A17																																						
01+94.96	01+84.00	10.96	A17	2.18	2.18	0.50	1.09	1.09	10.00	-	10.00	5.74	9.24	6.26	10.08	**100 yr**	-	-	-	10.08	18	1			0.013	0.0092	627.00	627.10		5.69		0.50	1.25		0.63	627.73	623.27	623.33	628.10
01+84.00	01+50.67	33.33		-	2.18	-	-	1.09	-	0.03	10.03	5.74	9.24	6.26	10.08	**100 yr**	-	-	-	10.08	18	1			0.013	0.0092	626.52	626.83	5.69	5.69	0.50	0.50	0.35	0.18	0.18	627.00	622.86	623.27	627.80
01+50.67	01+00.00	50.67	A18	2.23	4.41	0.50	1.12	2.21	10.00	0.10	10.13	5.72	9.21	12.60	20.30	**100 yr**	-	-	-	20.30	21	1			0.013	0.0164	***624.96***	625.80	5.69	8.42	0.50	1.10	0.75	0.38	0.72	626.52	621.95	622.86	627.60
* STORM DRAIN LINE SD-A18																																						
01+26.85	01+00.00	26.85	A18	2.23	2.23	0.50	1.12	1.12	10.00	-	10.00	5.74	9.24	6.40	10.31	**100 yr**	-	-	-	10.31	18	1			0.013	0.0096	***626.52***	626.78	0.00	5.82	0.00	0.53	1.25	0.00	0.66	627.44	622.86	623.34	628.00
* STORM DRAIN LINE SD-A19																																						
01+32.88	01+00.00	32.88	A19	2.10	2.10	0.50	1.05	1.05	10.00	-	10.00	5.74	9.24	6.03	9.71	**100 yr**	-	-	-	9.71	18	1			0.013	0.0085	***628.91***	629.19	0.00	5.48	0.00	0.47	1.25	0.00	0.58	629.77	624.62	625.59	629.90
STORM DRAIN LINE SD-B																																						
02+27.82	01+64.76	63.06	OS-1+B5	11.23	11.23	0.37	4.16	4.16	10.00	-	10.00	5.74	9.24	23.86	38.41	**100 yr**	-	-	-	38.41	36	1			0.013	0.0033	629.25	629.46		5.43		0.46	1.25		0.57	630.03	625.63	626.01	630.40
01+64.76	01+10.00	54.76	B1+2+3+4	6.06	17.29	0.50	3.03	7.19	10.00	0.19	10.19	5.70	9.19	40.97	66.01	**100 yr**	-	-	-	66.01	42	1			0.013	0.0020	***628.02***	628.63	5.43	6.86	0.46	0.73	0.25	0.11	0.62	629.25	625.02	625.13	634.00

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

* FUTURE PHASE CALCULATIONS FOR SIZING PURPOSES

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

HYDRAULIC CALCULATIONS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	38
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: \\pw.com\Network\Drives\Q\Projects\21003-aubrey\master info\hydraulics\H_Design\05_CivilUtil_CAD\Sheets\GEE21003-CAMAP
Last Saved by: BGoodlet
Last Plotted: 4/30/2024 8:41 AM
Plot Date/Time: 4/30/2024 4:08 PM

SARATOGA - HYDRAULIC CALCULATIONS (FUTURE / ULTIMATE)

Runoff		Pipe	Drainage Area						Time of Concentration								Q100 YR	Q100 YR	Q100 YR			Box Culvert					Head Loss Calculations								Invert Elevation		
Design Point		Length	Incremental		Total	Runoff	Incr.	Total	Inlet	Travel	Total	I5 YR	I100 YR	Q5 YR	Q100 YR	Desgin	Inlet	Inlet	Inc.	Q	Storm	No. of	Storm	Storm	Manning	Hydr	Hydraulic Grade						Head Loss	Design	Dwnstrm	Upstrm	TC / FG
Upstrm	Dwnstrm	Between	Area	Area	Area	Coeff			Time	Time	Time	Intensity	Intensity	Runoff	Runoff	Storm	Bypass	Carryover	Delta	in Pipe	Pipe	SD	Drain	Drain	n	Grade	Line Elevation		V1	V2			Loss		at Structure	HGL			Elev
Station	Station	Points	No.	"A"	"A"	"C"	"CA"	"CA"	(min.)	(min.)	(min.)	(in./hr)	(in./hr)	(c.f.s.)	(c.f.s.)		"Q"	"Q"	"Q"	"Q"	(in.)		(ft)	(ft)	Value	"Sf"	Dwnstrm	Upstrm	Flow (In)	Flow (Out)	V1^2 / 2g	V2^2 / 2g	Coeff	KjV1^2 / 2g	"Hk"	Elevation			
																	(c.f.s.)	(c.f.s.)	(c.f.s.)	(c.f.s.)	(in.)					(ft./ft.)			(f.p.s.)	(f.p.s.)	(feet)	(feet)	(Kj)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		17	17a	17b	18	19	19a	19b	19c	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
STORM DRAIN LINE SD-B1																																						
04+10.75	04+00.15	10.60	B1	2.19	2.19	0.50	1.10	1.10	10.00	-	10.00	5.74	9.24	6.29	10.12	**100 yr**	-	-	-	10.12	21	1			0.013	0.0041	630.38	630.42		4.20		0.27	1.25		0.34	630.77	626.06	626.11	631.00
04+00.15	03+44.15	56.00		-	2.19	-	-	1.10	-	0.04	10.04	5.74	9.24	6.29	10.12	**100 yr**	-	-	-	10.12	21	1			0.013	0.0041	630.05	630.28	4.20	4.20	0.27	0.27	0.35	0.10	0.10	630.38	625.78	626.06	630.60
03+44.15	02+90.81	53.34	B2	1.47	3.66	0.50	0.74	1.83	10.00	0.22	10.26	5.69	9.17	10.41	16.77	**100 yr**	-	-	-	16.77	30	1			0.013	0.0017	629.86	629.95	4.20	3.42	0.27	0.18	0.75	0.21	0.10	630.05	625.51	625.78	630.50
02+90.81	01+83.23	107.58	B3+4	2.40	6.06	0.50	1.20	3.03	10.00	0.26	10.52	5.63	9.09	17.07	27.54	**100 yr**	-	-	-	27.54	36	1			0.013	0.0017	629.49	629.67	3.42	3.90	0.18	0.24	0.25	0.05	0.19	629.86	625.29	625.51	632.30
01+83.23	01+00.00	83.23		-	6.06	-	-	3.03	-	0.46	10.98	5.63	9.09	17.07	27.54	**100 yr**	-	-	-	27.54	36	1			0.013	0.0017	**629.25**	629.39	3.90	3.90	0.24	0.24	0.20	0.05	0.10	629.49	625.13	625.29	632.90
STORM DRAIN LINE SD-B2																																						
01+33.23	01+00.00	33.23	B2	1.47	1.47	0.50	0.74	0.74	10.00	-	10.00	5.74	9.24	4.22	6.79	**100 yr**	-	-	-	6.79	21	1			0.013	0.0018	***630.05***	630.11	0.00	2.82	0.00	0.12	1.25	0.00	0.15	630.27	625.78	626.48	631.70
STORM DRAIN LINE SD-B3																																						
* 01+92.07	01+82.83	9.24	B3	1.22	1.22	0.50	0.61	0.61	10.00	-	10.00	5.74	9.24	3.50	5.64	100 yr	-	-	-	5.64	21	1			0.013	0.0013	630.13	630.14		2.34		0.09	1.25		0.11	630.25	626.18	626.22	631.70
* 01+82.83	01+64.55	18.28		-	1.22	-	-	0.61	-	0.07	10.07	5.74	9.24	3.50	5.64	100 yr	-	-	-	5.64	21	1			0.013	0.0013	630.01	630.03	2.34	2.34	0.09	0.09	0.35	0.03	0.10	630.13	626.14	626.18	631.30
01+64.55	01+00.00	64.55	B4	1.18	2.40	0.50	0.59	1.20	10.00	0.13	10.20	5.70	9.19	6.84	11.02	**100 yr**	-	-	-	11.02	30	1			0.013	0.0007	***629.86***	629.91	2.34	2.25	0.09	0.08	0.75	0.06	0.10	630.01	625.51	626.14	631.20
* STORM DRAIN LINE SD-B4																																						
01+32.53	01+00.00	32.53	B4	1.18	1.18	0.50	0.59	0.59	10.00	-	10.00	5.74	9.24	3.39	5.45	100 yr	-	-	-	5.45	18	1			0.013	0.0027	***630.01***	630.10	0.00	3.08	0.00	0.15	1.25	0.00	0.18	630.28	626.38	626.54	631.80
STORM DRAIN LINE SD-C																																						
01+97.20	01+40.41	56.79	OS-1+(B1-5)+(C1-4)	35.91	35.91	0.46	16.52	16.52	10.00	-	10.00	5.74	9.24	94.87	152.70	**100 yr**	-	-	-	152.70		2	5	2	0.015	0.0093	***623.86***	624.39	0.00	7.64	0.00	0.91	1.25	0.00	1.13	625.52	621.86	622.10	625.00
STORM DRAIN LINE SD-D																																						
13+39.59	12+32.59	107.00	OS-2	24.78	24.78	0.35	8.67	8.67	20.00	-	20.00	4.23	7.05	36.71	61.11	**100 yr**	-	-	-	61.11	48	1			0.013	0.0018	631.82	632.02		4.86		0.37	1.25		0.46	632.47	626.74	627.40	633.00
12+32.59	12+18.45	14.14		-	24.78	-	-	8.67	-	0.37	20.37	4.23	7.05	36.71	61.11	**100 yr**	-	-	-	61.11	48	1			0.013	0.0018	631.67	631.69	4.86	4.86	0.37	0.37	0.35	0.13	0.13	631.82	626.67	626.74	633.40
12+18.45	11+24.14	94.31		-	24.78	-	-	8.67	-	0.05	20.42	4.23	7.05	36.71	61.11	**100 yr**	-	-	-	61.11	48	1			0.013	0.0018	631.37	631.54	4.86	4.86	0.37	0.37	0.35	0.13	0.13	631.67	626.20	626.67	633.00
11+24.14	10+95.64	28.50	D7+8	2.95	27.73	0.50	1.48	10.15	10.00	0.32	20.74	4.16	6.93	42.17	70.31	**100 yr**	-	-	-	70.31	48	1			0.013	0.0024	630.91	630.97	4.86	5.59	0.37	0.49	0.25	0.09	0.39	631.37	626.06	626.20	632.50
10+95.64	10+53.21	42.43		-	27.73	-	-	10.15	-	0.08	20.82	4.16	6.93	42.17	70.31	**100 yr**	-	-	-	70.31	48	1			0.013	0.0024	630.63	630.74	5.59	5.59	0.49	0.49	0.35	0.17	0.17	630.91	625.84	626.06	632.10
10+53.21	07+98.05	255.16		-	27.73	-	-	10.15	-	0.13	20.95	4.16	6.93	42.17	70.31	**100 yr**	-	-	-	70.31	48	1			0.013	0.0024	629.85	630.46	5.59	5.59	0.49	0.49	0.35	0.17	0.17	630.63	624.57	625.84	631.90
07+98.05	07+72.05	26.00	D6	2.18	29.91	0.50	1.09	11.24	10.00	0.76	21.71	4.06	6.78	45.60	76.20	**100 yr**	-	0.18	0.18	76.38	48	1			0.013	0.0028	629.57	629.64	5.59	6.08	0.49	0.57	0.75	0.36	0.21	629.85	623.99	624.57	630.70
07+72.05	07+67.05	5.00	D5	2.16	32.07	0.50	1.08	12.32	10.00	0.07	21.78	4.05	6.77	49.89	83.40	**100 yr**	-	0.07	0.25	83.65	54	1			0.013	0.0018	629.46	629.47	6.08	5.26	0.57	0.43	0.75	0.43	0.10	629.57	623.91	623.99	630.50
07+67.05	07+38.77	28.28		-	32.07	-	-	12.32	-	0.02	21.80	4.05	6.77	49.89	83.40	**100 yr**	-	-	0.25	83.65	54	1			0.013	0.0018	629.26	629.31	5.26	5.26	0.43	0.43	0.35	0.15	0.15	629.46	623.77	623.91	630.40
07+38.77	04+78.77	260.00		-	32.07	-	-	12.32	-	0.09	21.89	4.05	6.77	49.89	83.40	**100 yr**	-	-	0.25	83.65	54	1			0.013	0.0018	628.64	629.11	5.26	5.26	0.43	0.43	0.35	0.15	0.15	629.26	622.47	623.77	630.40
04+78.77	01+88.09	290.68	D3+4	3.07	35.14	0.50	1.54	13.85	10.00	0.82	22.71	3.96	6.64	54.88	91.93	**100 yr**	-	-	0.25	92.18	54	1			0.013	0.0022	627.59	628.23	5.26	5.80	0.43	0.52	0.25	0.11	0.41	628.64	621.35	622.47	629.10
01+88.09	01+72.09	16.00	D2	2.26	37.40	0.50	1.13	14.98	10.00	0.84	23.55	3.89	6.52	58.22	97.70	**100 yr**	-	-	0.25	97.95	54	1			0.013	0.0025	627.35	627.39	5.80	6.16	0.52	0.59	0.75	0.39	0.20	627.59	621.28	621.35	627.70
01+72.09	01+59.68	12.41	D1	1.88	39.28	0.50	0.94	15.92	10.00	0.04	23.59	3.88	6.52	61.81	103.74	**100 yr**	-	-	0.25	103.99	54	1			0.013	0.0028	627.09	627.13	6.16	6.54	0.59	0.66	0.75	0.44	0.22	627.35	621.24	621.28	627.80
01+59.68	01+38.41	21.27		-	39.28	-	-	15.92	-	0.03	23.62	3.88	6.52	61.81	103.74	**100 yr**	-	-	0.25	103.99	54	1			0.013	0.0028	626.80	626.86	6.54	6.54	0.66	0.66	0.35	0.23	0.23	627.09	621.15	621.24	627.90
01+38.41	01+00.00	38.41		-	39.28	-	-	15.92	-	0.05	23.68	3.88	6.52	61.81	103.74	**100 yr**	-	-	0.25	103.99	54	1			0.013	0.0028	**626.46**	626.57	6.54	6.54	0.66	0.66	0.35	0.23	0.23	626.80	621.00	621.15	628.50
STORM DRAIN LINE SD-D1																																						
01+33.23	01+00.00	33.23	D1	1.88	1.88	0.50	0.94	0.94	10.00	-	10.00	5.74	9.24	5.40	8.69	**100 yr**	-	1.73	1.73	10.42	21	1			0.013	0.0043	***627.35***	627.49	0.00	4.32	0.00	0.29	1.25	0.00	0.36	627.86	620.94	622.48	628.10
STORM DRAIN LINE SD-D2																																						
01+10.61	01+00.00	10.61	D2	2.26	2.26	0.50	1.13	1.13	10.00	-	10.00	5.74	9.24	6.49	10.45	**100 yr**	-	0.08	0.08	10.53	21	1			0.013	0.0044	***627.59***	627.63	0.00	4.37	0.00	0.30	1.25	0.00	0.37	628.00	621.02	622.44	628.10
STORM DRAIN LINE SD-D3																																						
* 01+61.61	01+51.00	10.61	D3	1.15	1.15	0.50	0.58	0.58	10.00	-	10.00	5.74	9.24	3.30	5.32	100 yr	0.28	-	-0.28	5.04	18	1			0.013	0.0023	629.11	629.14		2.84		0.13	1.25		0.16	629.30	625.50	625.77	630.00
* 01+51.00	01+35.00	16.00		-	1.15	-	-	0.58	-	0.06	10.06	5.74	9.24	3.30	5.32	100 yr	-	-	-0.28	5.04	18	1			0.013	0.0023	628.98	629.01	2.84	2.84	0.13	0.13	0.35	0.04	0.10	629.11	624.60	625.50	629.50
01+35.00	01+00.00	35.00	D4	1.92	3.07	0.50	0.96	1.54	10.00	0.09	10.16	5.71	9.20	8.77	14.12	**100 yr**	-	-	-0.28	13.84	24	1			0.013	0.0037	***628.64***	628.77	2.84	4.41	0.13	0.30	0.75	0.09	0.21	628.98	622.47	624.60	629.20

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

* FUTURE PHASE CALCULATIONS FOR SIZING PURPOSES

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

HYDRAULIC CALCULATIONS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	39
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

Drawing: I:\pw-cust\Network\Dmn\CIVIL\Projects\21003-saratoga\master infrastructure\3_Design\3A_Civil\301_CIVIL\Sheets\GEE21003-CIVIL.dwg
Last Saved By: Brooke Lee
Last Saved Time: 4/30/2024 4:44 AM
Plot Date/Time: 4/30/2024 4:08 PM

SARATOGA - HYDRAULIC CALCULATIONS (FUTURE / ULTIMATE)

	Runoff		Pipe	Drainage Area						Time of Concentration							Q100 YR	Q100 YR	Q100 YR			Box Culvert						Head Loss Calculations								Invert Elevation		
	Design Point		Length	Incremental		Total	Runoff	Incr.	Total	Inlet	Travel	Total	I5 YR	I100 YR	Q5 YR	Q100 YR	Desgin	Inlet	Inlet	Inc.	Q	Storm	No. of	Storm	Storm	Manning	Hydr	Hydraulic Grade		V1	V2			Loss		Head Loss	Design	Dwnstrm	Upstrm	TC / FG
	Upstrm	Dwnstrm	Between	Area	Area	Area	Coeff			Time	Time	Time	Intensity	Intensity	Runoff	Runoff	Storm	Bypass	Carryover	Delta	in Pipe	Pipe	SD	Drain	Drain	n	Grade	Line Elevation						Coeff	Kj	at Structure	HGL			Elev
	Station	Station	Points	No.	(Acres)	(Acres)							"I"	"I"	"Q"	"Q"		"Q"	"Q"	"Q"	"Q"	Diameter	Spans	Width	Heigth	Value	"Sf"	Dwnstrm	Upstrm	Flow (In)	Flow (Out)	V1^2 / 2g	V2^2 / 2g			"Hk"	Elevation			
					"A"	"A"	"C"	"CA"	"CA"	(min.)	(min.)	(min.)	(in./hr)	(in./hr)	(c.f.s.)	(c.f.s.)		(c.f.s.)	(c.f.s.)	(c.f.s.)	(c.f.s.)	(in.)		(ft)	(ft)		(ft./ft.)			(f.p.s.)	(f.p.s.)	(feet)	(feet)	(feet)	(Kj)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		17	17a	17b	18	19	19a	19b	19c	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
*	STORM DRAIN LINE SD-D4																																							
	01+33.23	01+00.00	33.23	D4	1.92	1.92	0.50	0.96	0.96	10.00	-	10.00	5.74	9.24	5.51	8.87	100 yr	1.34	-	-1.34	7.53	18	1			0.013	0.0051	***628.47***	628.64	0.00	4.26	0.00	0.28	1.25	0.00	0.35	628.99	624.60	626.10	630.00
	STORM DRAIN LINE SD-D5																																							
	01+33.23	01+00.00	33.23	D5	2.16	2.16	0.50	1.08	1.08	10.00	-	10.00	5.74	9.24	6.20	9.98	100 yr	0.07	-	-0.07	9.91	18	1			0.013	0.0089	***628.83***	629.13	0.00	5.60	0.00	0.49	1.25	0.00	0.61	629.74	623.99	625.82	631.00
	STORM DRAIN LINE SD-D6																																							
	01+10.61	01+00.00	10.61	A6	1.88	1.88	0.50	0.94	0.94	10.00	-	10.00	5.74	9.24	5.40	8.69	100 yr	-	-	-	8.69	18	1			0.013	0.0068	***629.04***	629.11	0.00	4.91	0.00	0.37	1.25	0.00	0.47	629.58	624.57	625.92	631.00
	STORM DRAIN LINE SD-D7																																							
	01+07.50	01+00.00	7.50	D7	1.57	1.57	0.50	0.79	0.79	10.00	-	10.00	5.74	9.24	4.51	7.26	100 yr	-	-	-	7.26	18	1			0.013	0.0048	***630.08***	630.11	0.00	4.10	0.00	0.26	1.25	0.00	0.33	630.44	626.70	627.77	632.90
	STORM DRAIN LINE SD-D8																																							
	01+23.50	01+00.00	23.50	D8	1.38	1.38	0.50	0.69	0.69	10.00	-	10.00	5.74	9.24	3.96	6.38	100 yr	-	-	-	6.38	18	1			0.013	0.0037	***630.08***	630.16	0.00	3.60	0.00	0.20	1.25	0.00	0.25	630.41	626.70	627.93	632.90
	STORM DRAIN LINE SD-E																																							
	09+35.94	07+60.37	175.57	OS-3	5.64	5.64	0.35	1.97	1.97	20.00	-	20.00	4.23	7.05	8.36	13.91	100 yr	-	-	-	13.91	24	1			0.013	0.0038	630.33	631.00		4.43		0.30	1.25		0.38	631.38	626.20	627.43	633.20
	07+60.37	07+41.19	19.18		-	5.64	-	-	1.97	-	0.66	20.66	4.23	7.05	8.36	13.91	100 yr	-	-	-	13.91	24	1			0.013	0.0038	630.16	630.23	4.43	4.43	0.30	0.30	0.35	0.11	0.11	630.33	626.07	626.20	633.30
	07+41.19	02+48.43	492.76		-	5.64	-	-	1.97	-	0.07	20.73	4.23	7.05	8.36	13.91	100 yr	-	-	-	13.91	24	1			0.013	0.0038	628.19	630.05	4.43	4.43	0.30	0.30	0.35	0.11	0.11	630.16	622.12	626.07	633.20
	02+48.43	01+20.49	127.94	E1+2	6.82	12.46	0.50	3.41	5.38	10.00	1.85	22.59	3.97	6.65	21.39	35.82	100 yr	-	-	-	35.82	30	1			0.013	0.0076	***626.46***	627.44	4.43	7.30	0.30	0.83	0.25	0.08	0.75	628.19	621.00	622.12	628.90
	STORM DRAIN LINE SD-E1																																							
	01+22.50	01+00.00	22.50	E1	3.37	3.37	0.50	1.69	1.69	10.00	-	10.00	5.74	9.24	9.68	15.58	100 yr	0.08	-	-0.08	15.50	21	1			0.013	0.0096	***628.19***	628.40	0.00	6.43	0.00	0.64	1.25	0.00	0.80	629.20	622.12	622.83	629.20
	STORM DRAIN LINE SD-E2																																							
	01+08.50	01+00.00	8.50	E2	3.45	3.45	0.50	1.73	1.73	10.00	-	10.00	5.74	9.24	9.91	15.95	100 yr	0.11	-	-0.11	15.84	21	1			0.013	0.0100	***628.19***	628.27	0.00	6.57	0.00	0.67	1.25	0.00	0.84	629.11	622.12	623.40	629.20
	STORM DRAIN LINE J																																							
	02+16.96	01+88.78	28.18	J2	0.69	0.69	0.50	0.35	0.35	10.00	-	10.00	5.74	9.24	1.98	3.19	100 yr	-	-	-	3.19	21	1			0.013	0.0004	616.11	616.12		1.32		0.03	1.25		0.10	616.22	610.54	611.95	616.45
	01+88.78	01+27.78	61.00		-	0.69	-	-	0.35	-	0.35	10.35	5.74	9.24	1.98	3.19	100 yr	-	-	-	3.19	21	1			0.013	0.0004	615.99	616.01	1.32	1.32	0.03	0.03	0.75	0.02	0.10	616.11	610.24	610.54	
	01+27.78	01+00.00	27.78	J1	2.47	3.16	0.50	1.24	1.58	10.00	0.77	11.12	5.52	8.92	8.71	14.09	100 yr	-	-	-	14.09	21	1			0.013	0.0079	***615.58***	615.80	1.32	5.85	0.03	0.53	0.35	0.01	0.19	615.99	610.10	610.24	
	STORM DRAIN LINE J1																																							
	01+28.18	01+00.00	28.18	J1	2.47	2.47	0.50	1.24	1.24	10.00	-	10.00	5.74	9.24	7.09	11.42	100 yr	-	-	-	11.42	21	1			0.013	0.0052	***615.80***	615.95	0.00	4.74	0.00	0.35	1.00	0.00	0.35	616.29	610.24	611.96	616.46
	NORTH POND OUTFALL																																							
	01+48.11	01+00.00	48.11	N-POND	52.72	52.72	0.50	26.36	26.36	10.00	-	10.00	5.74	9.24	82.00	130.00	100 yr	-	-	-	130.00		1	4	3	0.015	0.0147	***625.49***	626.20	0.00	10.83	0.00	1.82	1.25	0.00	2.28	628.47	620.76	621.00	626.50
	NORTHEAST POND OUTFALL																																							
	02+36.74	01+12.90	123.84	NE-POND	14.19	14.19	0.50	7.10	7.10	10.00	-	10.00	5.74	9.24	40.76	65.60	100 yr	-	-	-	65.60	30	1			0.013	0.0161	***608.50***	612.50	0.00	13.36	0.00	2.77	1.25	0.00	3.47	615.97	608.00	610.00	615.50

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

* FUTURE PHASE CALCULATIONS FOR SIZING PURPOSES

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

HYDRAULIC CALCULATIONS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	40
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: G:\JOB\GEE21003-Saratoga\MASTER INFRASTRUCTURE\3_Design\35_Civil\301_CAD\Sheets\GEE21003-CrDMAP
Last Saved by: BobBurn
Last Saved Time: 4/30/2024 8:44 AM
Plot Date/Time: 4/30/2024 4:28 PM

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

SARATOGA CAPACITY OF CURB OPENING INLETS AND DROP INLETS IN SUMPS

Inlet No	Area No	Gutter Slope "So" (ft./ft.)	Crown Slope of Pavement	100 Year Carry Over Flow (c.f.s.)	100 Year D Area Gutter Flow "Q" (c.f.s.)	100 Year Total Gutter Flow "Q" (c.f.s.)	Depth of Gutter Flow "Yo" (ft.)	Depth of Depression "a" (ft.)	Depth of Flow at Opening "y" (ft.)	Capacity Inlet / Foot of Length "Q/L" (c.f.s./ft.)	Length of Inlet Opening "L" (ft.)	Capacity of Inlet "Q" (c.f.s.)	Bypass to Over Flow (c.f.s.)	Percent Q100 Captured
0	1	2	3	4	5a	5	6	7	8	9	10	11	12	13
J1	**J1**	0.008	0.0200	0.00	11.42	11.42	0.40	0.33	0.56	1.795	**15**	13.46	-	118%
J2	**J2**	0.008	0.0200	0.00	3.19	3.19	0.25	0.33	0.44	2.119	**5**	5.30	-	166%

SARATOGA CAPACITY OF GATE INLETS AND DROP INLETS IN SUMPS

Inlet No	Area No	100 Year Carry Over Flow (c.f.s.)	100 Year D Area "Q" (c.f.s.)	100 Year Total "Q" (c.f.s.)	Inlet Type	Drop Inlet Length of opening "L" (ft.)	Grate Inlet Area of opening "Ag" (sq ft.)	50% Clogging Factor Y/N	Depth of Flow at Opening "y" (ft.)	Capacity of Inlet "Q" (c.f.s.)	Bypass to Over Flow (c.f.s.)	Percent Q100 Captured
0	1	2	3	4	5	6	7	8	9	10	11	12
A5	**A13-20**		78.53	78.53	Drop Inlet	**24**		**N**	**1.06**	78.53	-	100%
A6	**A5+6**		10.77	10.77	Drop Inlet	**12**		**N**	**0.45**	10.77	-	100%
A11	**A11+12**		16.22	16.22	Drop Inlet	**12**		**N**	**0.59**	16.22	-	100%
B3	**B3+4**		11.09	11.09	Drop Inlet	**8**		**N**	**0.60**	11.09	-	100%
D1	**D3+4**		14.19	14.19	Drop Inlet	**12**		**N**	**0.54**	14.19	-	100%
E1	**OS-3**		35.00	35.00	Drop Inlet	**12**		**N**	**0.98**	35.00	-	100%

SARATOGA ON-GRADE INLET CAPACITY CALCULATION TABLE

Design Point	Inlet No.	Station	Area No	Area (ac.)	Runoff Coeff "C"	Time of Concen. (min.)	Street Long Slope "So" (ft./ft.)	Cross Slope of Pavement "Sx" (ft./ft.)	Cross Slope of Gutter "Sw" (ft./ft.)	5 Year Depth of Flow "Yo"* (ft.)	5 Year Spread of Flow "T"** (ft.)	100 Year Depth of Flow "Yo"* (ft.)	100 Year Spread of Flow "T"** (ft.)	Equivalent Cross Section "Se" (ft./ft.)	Street Section (type)	Manning Coefficient for Pavement "n"	5 Year Intensity (in./hr)	5 Year Runoff Flow (c.f.s.)	5 Year Carry Over Flow (c.f.s.)	5 Year Total Gutter Flow "Q" (c.f.s.)	100 Year Intensity (in./hr.)	100 Year Runoff Flow (c.f.s.)	100 Year Carry Over Flow (c.f.s.)	100 Year Total Gutter Flow "Q" (c.f.s.)	R.O.W. Capacity (c.f.s.)	Design Storm***	Length Required "Lo" (ft.)	Length Provided "L" (ft.)	"L/Lo"	Efficiency "E"	Inlet Capacity "Qi" (c.f.s.)	5 Year Bypass Flow (c.f.s.)	100 Year Bypass Flow (c.f.s.)
	A1		**A1**	1.95	0.50	10.0	**0.0050**	0.0200	0.220	0.33	16.70	0.40	19.97	0.109	Rooftop	0.019	5.74	5.60		5.60	9.24	9.01	-	9.01	25.05	**100 yr**	12.59	**10**	0.79	0.94	8.49	0.32	0.52
	A2		**A2**	1.34	0.50	10.0	**0.0050**	0.0200	0.220	0.29	14.51	0.35	17.35	0.109	Rooftop	0.019	5.74	3.85		3.85	9.24	6.19	-	6.19	25.05	**100 yr**	10.75	**10**	0.93	0.99	6.14	0.03	0.05
	A3		**A3**	2.30	0.50	10.0	**0.0050**	0.0200	0.220	0.36	17.77	0.42	21.24	0.109	Rooftop	0.019	5.74	6.60		6.60	9.24	10.63	-	10.63	25.05	**100 yr**	13.49	**15**	1.11	1.00	10.63	-	-
	A4		**A4**	2.99	0.50	10.0	**0.0050**	0.0200	0.220	0.39	19.61	0.47	23.44	0.109	Rooftop	0.019	5.74	8.59		8.59	9.24	13.82	-	13.82	25.05	**100 yr**	15.06	**15**	1.00	1.00	13.82	-	-
	A7		**A8**	2.82	0.50	10.0	**0.0050**	0.0200	0.220	0.38	19.18	0.46	23.08	0.109	Rooftop	0.019	5.74	8.10		8.10	9.24	13.03	0.23	13.26	25.05	**100 yr**	14.80	**15**	1.01	1.00	13.26	-	-
	A8		**A9**	0.81	0.50	10.0	**0.0050**	0.0200	0.220	0.24	12.02	0.29	14.36	0.112	Rooftop	0.019	5.74	2.33		2.33	9.24	3.74	-	3.74	25.05	**100 yr**	8.56	**10**	1.17	1.00	3.74	-	-
	A9		**A10**	1.89	0.50	10.0	**0.0150**	0.0200	0.220	0.27	13.44	0.32	16.06	0.109	Rooftop	0.019	5.74	5.43		5.43	9.24	8.74		8.74	43.39	**100 yr**	17.27	**15**	0.87	0.97	8.51	0.14	0.23
	A10		**A7**	1.26	0.50	10.0	**0.0150**	0.0200	0.220	0.23	11.54	0.28	13.80	0.109	Rooftop	0.019	5.74	3.62		3.62	9.24	5.82		5.82	43.39	**100 yr**	14.57	**15**	1.03	1.00	5.82	-	-
	B1		**B1**	2.19	0.50	10.0	**0.0110**	0.0200	0.220	0.30	15.05	0.36	17.99	0.109	Rooftop	0.019	5.74	6.29		6.29	9.24	10.12		10.12	37.16	**100 yr**	16.74	**15**	0.90	0.98	9.95	0.11	0.17
	B2		**B2**	1.47	0.50	10.0	**0.0110**	0.0200	0.220	0.26	12.96	0.31	15.49	0.109	Rooftop	0.019	5.74	4.22		4.22	9.24	6.79		6.79	37.16	**100 yr**	14.16	**15**	1.06	1.00	6.79	-	-
	D2		**D5**	2.16	0.50	10.0	**0.0050**	0.0200	0.220	0.35	17.36	0.42	20.80	0.109	Rooftop	0.019	5.74	6.20		6.20	9.24	9.98	0.07	10.05	25.05	**100 yr**	13.18	**15**	1.14	1.00	10.05	-	-
	D3		**D6**	2.18	0.50	10.0	**0.0050**	0.0200	0.220	0.35	17.42	0.42	20.96	0.109	Rooftop	0.019	5.74	6.26		6.26	9.24	10.08	0.18	10.26	25.05	**100 yr**	13.29	**15**	1.13	1.00	10.26	-	-
	D4		**D7**	1.57	0.50	10.0	**0.0050**	0.0200	0.220	0.31	15.40	0.37	18.41	0.109	Rooftop	0.019	5.74	4.51		4.51	9.24	7.26		7.26	25.05	**100 yr**	11.49	**10**	0.87	0.97	7.07	0.11	0.18
	D5		**D8**	1.38	0.50	10.0	**0.0050**	0.0200	0.220	0.29	14.67	0.35	17.54	0.109	Rooftop	0.019	5.74	3.96		3.96	9.24	6.38		6.38	25.05	**100 yr**	10.88	**10**	0.92	0.99	6.31	0.04	0.07
	A11		**A13**	1.41	0.35	10.0	**0.0050**	0.0200	0.220	0.26	12.94	0.31	15.47	0.109	Rooftop	0.019	5.74	2.83		2.83	9.24	4.56		4.56	25.05	**100 yr**	9.46	**10**	1.06	1.00	4.56	-	-
	A12		**A14**	3.30	0.35	10.0	**0.0050**	0.0200	0.220	0.36	17.80	0.43	21.28	0.109	Rooftop	0.019	5.74	6.63		6.63	9.24	10.68		10.68	25.05	**100 yr**	13.51	**15**	1.11	1.00	10.68	-	-
	A13		**A15**	1.84	0.35	10.0	**0.0050**	0.0200	0.220	0.29	14.30	0.34	17.09	0.109	Rooftop	0.019	5.74	3.70		3.70	9.24	5.95	-	5.95	25.05	**100 yr**	10.57	**10**	0.95	0.99	5.92	0.02	0.03
	A14		**A16**	2.75	0.35	10.0	**0.0050**	0.0200	0.220	0.33	16.62	0.41	20.49	0.109	Rooftop	0.019	5.74	5.53		5.53	9.24	8.90	0.76	9.66	25.05	**100 yr**	12.96	**10**	0.77	0.93	8.98	0.39	0.68
	A15		**A18**	2.23	0.35	10.0	**0.0103**	0.0200	0.220	0.27	13.42	0.32	16.04	0.109	Rooftop	0.019	5.74	4.48		4.48	9.24	7.22		7.22	35.95	**100 yr**	14.24	**15**	1.05	1.00	7.22	-	-
	A16		**A17**	2.18	0.35	10.0	**0.0103**	0.0200	0.220	0.27	13.31	0.32	15.91	0.109	Rooftop	0.019	5.74	4.38		4.38	9.24	7.05		7.05	35.95	**100 yr**	14.10	**10**	0.71	0.89	6.29	0.47	0.76
	A17		**A19**	2.10	0.35	10.0	**0.0100**	0.0200	0.220	0.26	13.19	0.32	15.77	0.109	Rooftop	0.019	5.74	4.22		4.22	9.24	6.79	-	6.79	35.43	**100 yr**	13.76	**10**	0.73	0.90	6.14	0.41	0.66
	A18		**A20**	1.18	0.35	10.0	**0.0100**	0.0200	0.220	0.21	10.63	0.27	13.60	0.109	Rooftop	0.019	5.74	2.37		2.37	9.24	3.82	0.76	4.58	35.43	**100 yr**	11.66	**10**	0.86	0.97	4.44	0.07	0.14

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

HYDRAULIC CALCULATIONS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

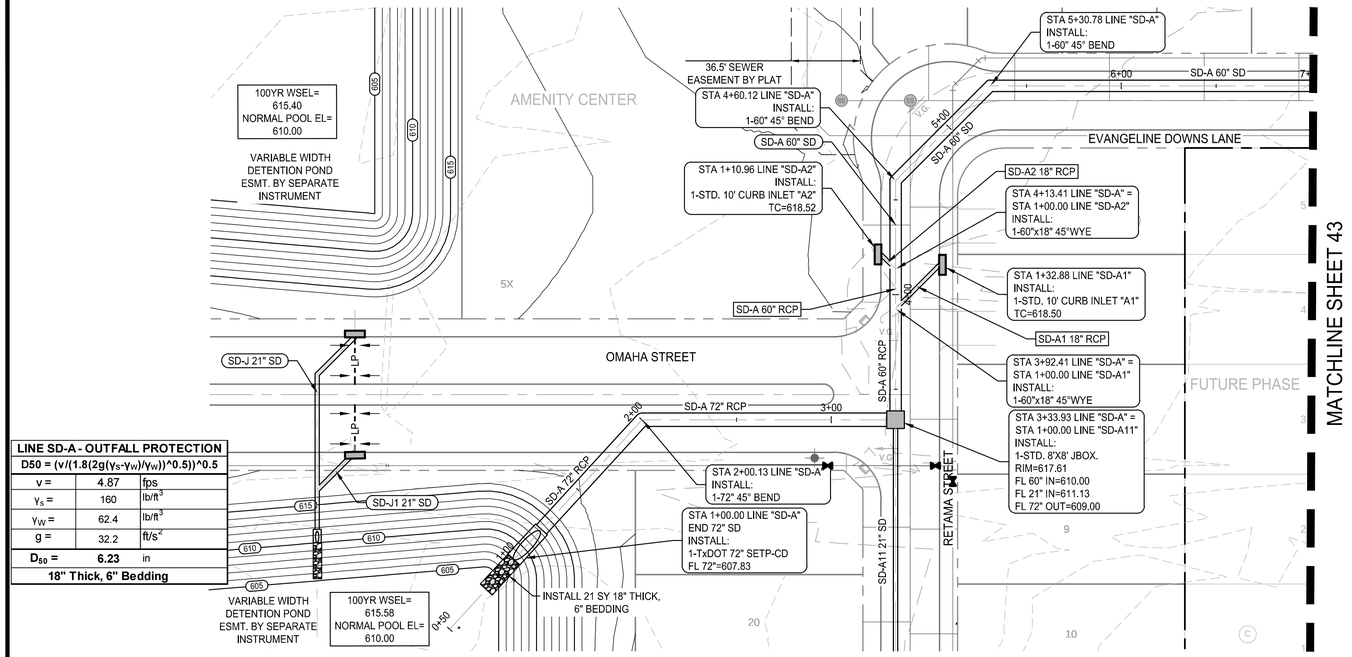
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	41
REVIEWER: TRS			

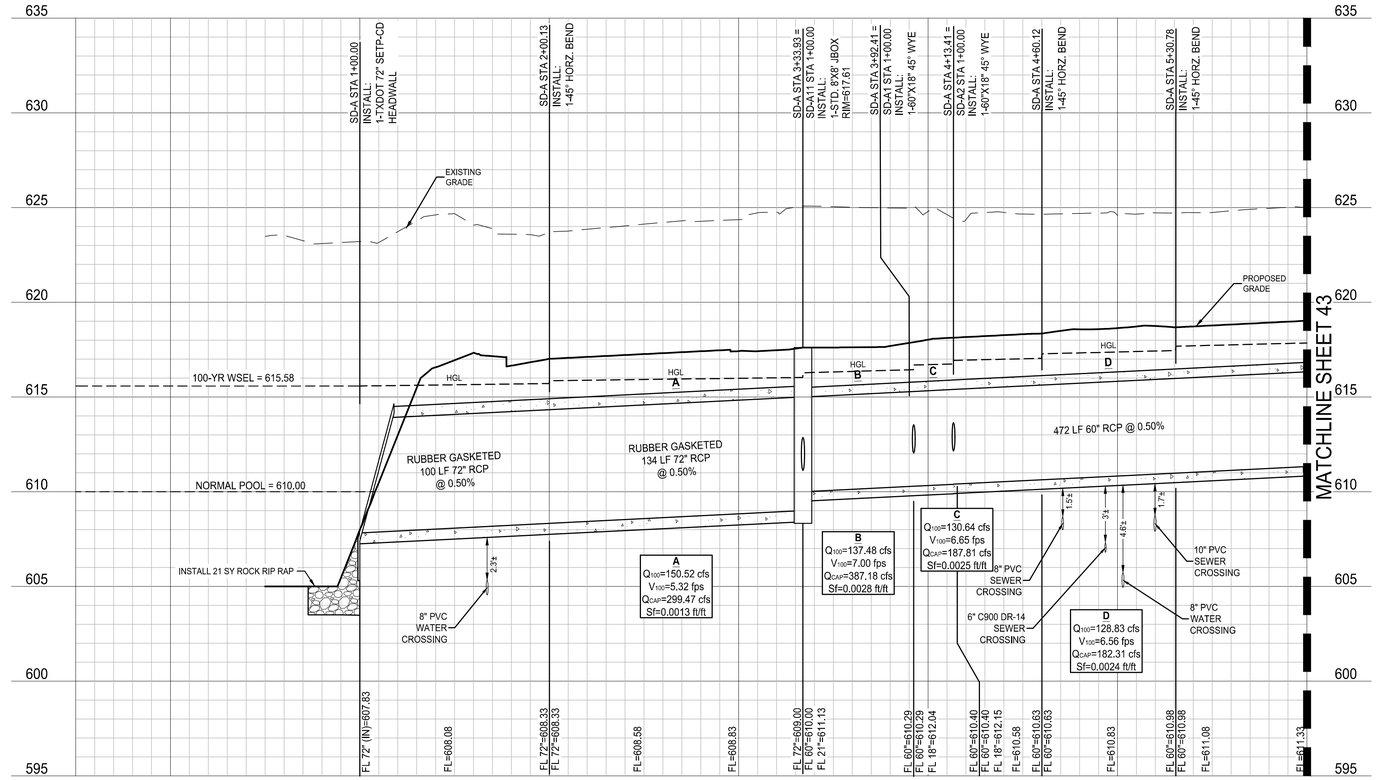
SARATOGA PHASE 1

Drawing: \\pw.com\Network\Drives\CIVIL\Projects\21003-saratoga\master infrastructure\3_Design\05_Civil\01_CAD\Sheets\GEE21003-C-CAVM.P
Last Saved By: Booker
Last Plotted: 4/30/2024 8:44 AM
Plot Date/Time: 4/30/2024 4:08 PM



LINE SD-A - OUTFALL PROTECTION		
D50 = (v/(1.8(2g(γs-γw)/γw))^0.5))^0.5		
v =	4.87	fps
γs =	160	lb/ft^3
γw =	62.4	lb/ft^3
g =	32.2	ft/s^2
D50 =	6.23	in
18" Thick, 6" Bedding		

SD-A



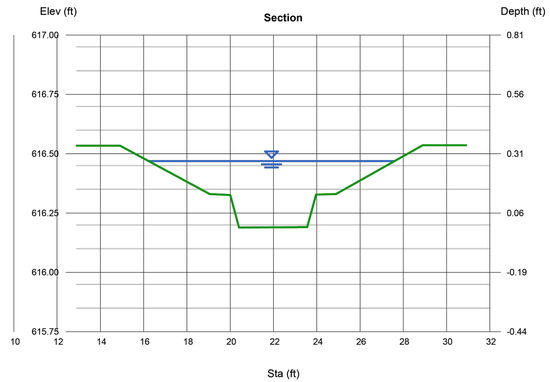
Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. — Tuesday, Aug 8 2023

FLUME 1

User-defined		Highlighted	
Invert Elev (ft)	= 616.19	Depth (ft)	= 0.28
Slope (%)	= 5.80	Q (cfs)	= 11.00
N-Value	= 0.015	Area (sqft)	= 1.70
		Velocity (ft/s)	= 6.47
Calculations		Wetted Perim (ft)	= 11.42
Compute by:	Known Q	Crit Depth, Yc (ft)	= 0.35
Known Q (cfs)	= 11.00	Top Width (ft)	= 11.37
		EGL (ft)	= 0.93

(Sta, El, n)-(Sta, El, n)...
(14.91, 616.53)-(19.05, 616.33, 0.015)-(20.00, 616.33, 0.015)-(20.41, 616.19, 0.015)-(23.56, 616.19, 0.015)-(23.97, 616.33, 0.015)-(24.89, 616.33, 0.015)-(28.90, 616.54, 0.015)



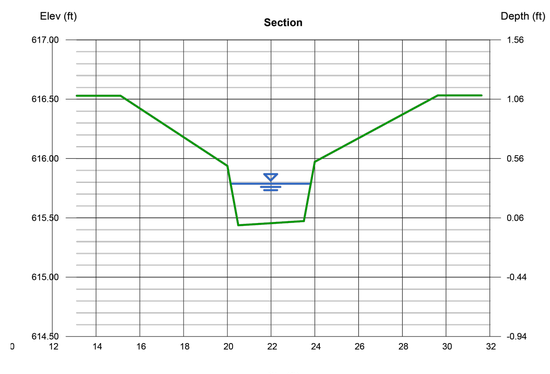
Channel Report

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. — Tuesday, Aug 8 2023

FLUME 2

User-defined		Highlighted	
Invert Elev (ft)	= 615.44	Depth (ft)	= 0.35
Slope (%)	= 5.80	Q (cfs)	= 11.00
N-Value	= 0.015	Area (sqft)	= 1.11
		Velocity (ft/s)	= 9.93
Calculations		Wetted Perim (ft)	= 3.94
Compute by:	Known Q	Crit Depth, Yc (ft)	= 0.75
Known Q (cfs)	= 11.00	Top Width (ft)	= 3.66
		EGL (ft)	= 1.88

(Sta, El, n)-(Sta, El, n)...
(15.12, 616.53)-(20.00, 615.94, 0.015)-(20.50, 615.44, 0.015)-(23.50, 615.47, 0.015)-(24.00, 615.97, 0.015)-(29.62, 616.53, 0.015)



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

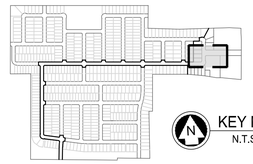


PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- 535 — PROPOSED MAJOR CONTOUR
- 534 — PROPOSED MINOR CONTOUR
- 520 — EXISTING MAJOR CONTOUR
- 519 — EXISTING MINOR CONTOUR
- PROPOSED STORM
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER

NOTES:
1. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES AND STANDARD DETAILS.
2. THE CITY OF AUBREY DESIGN AND CONSTRUCTION STANDARDS APPLY WHETHER INDICATED ON THESE PLANS OR NOT.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
4. ALL T.C.E.Q. PIPE SEPARATION REQUIREMENTS MUST BE MET.
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6. RUBBER GASKETS SHALL BE USED FOR INSTALLATION OF ALL SUBMERGED STORM DRAIN PIPES.



BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM PLAN & PROFILE - SD-A (1+00 TO 6+00)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 — 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 — Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	42
REVIEWER: TRS			

SARATOGA PHASE 1

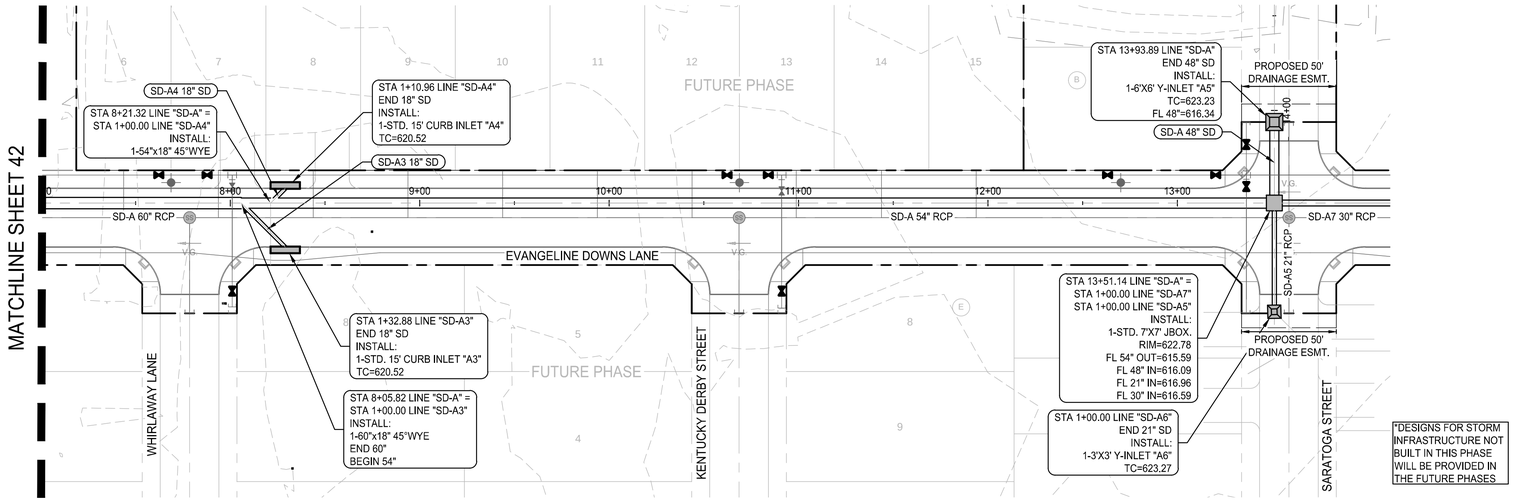
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NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL



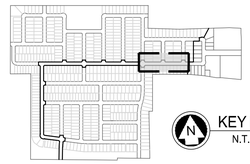
0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

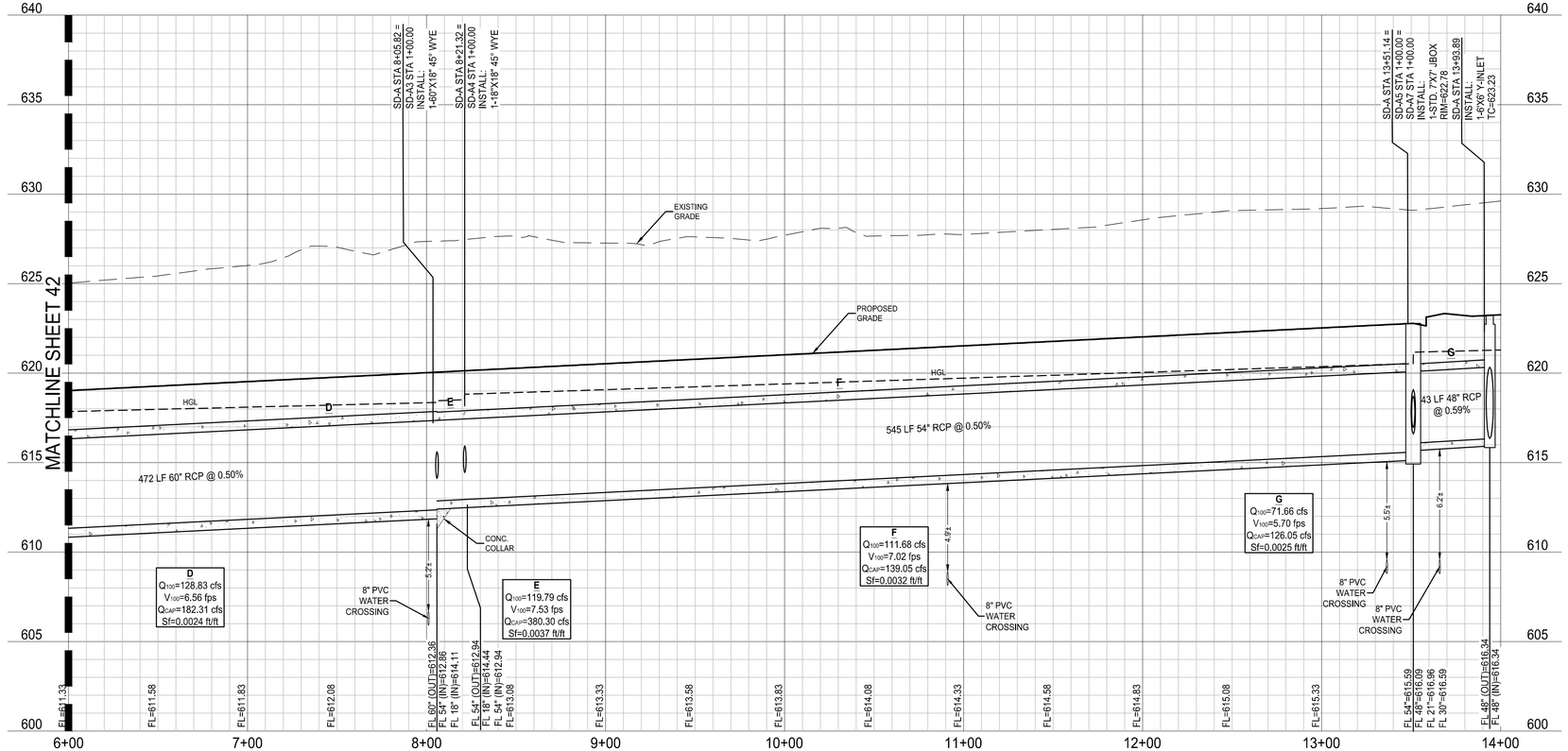
LEGEND

- 535 — PROPOSED MAJOR CONTOUR
- 534 — PROPOSED MINOR CONTOUR
- 520 — EXISTING MAJOR CONTOUR
- 519 — EXISTING MINOR CONTOUR
- PROPOSED STORM
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER

NOTES:
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SD-A



BENCHMARKS

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ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM PLAN & PROFILE - SD-A (6+00 TO 13+00)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

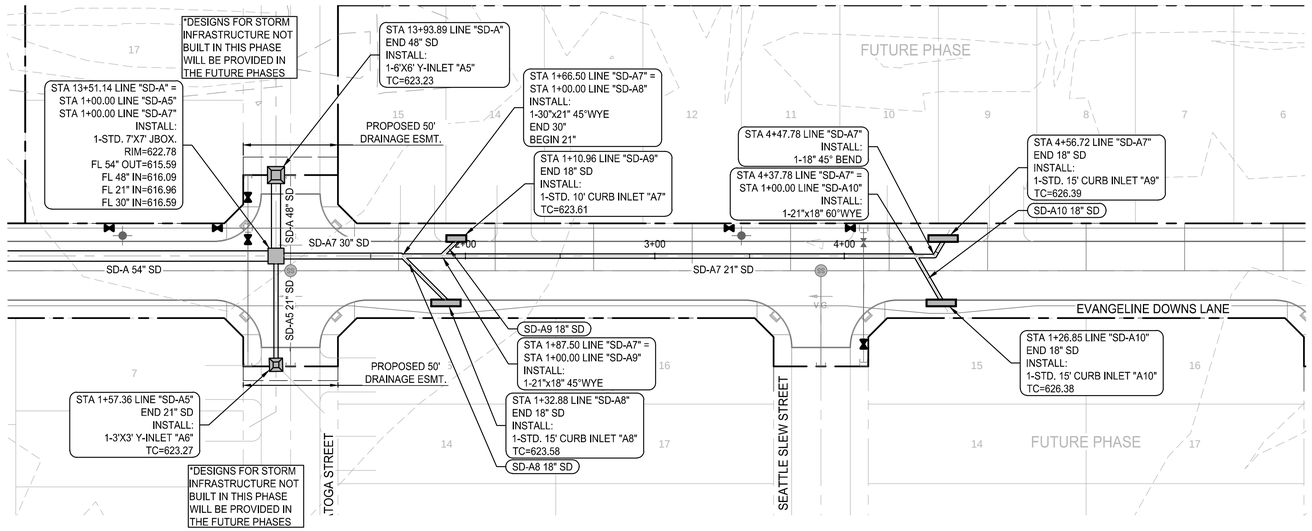
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	43
REVIEWER: TRS			

SARATOGA PHASE 1

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Last Saved Time: 4/30/2024 8:43 AM
Plot Date/Time: 4/30/2024 4:19 PM



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

SCALE: 1" = 40'

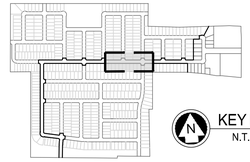
PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

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- 534 — PROPOSED MINOR CONTOUR
- 520 — EXISTING MAJOR CONTOUR
- 519 — EXISTING MINOR CONTOUR
- PROPOSED STORM
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER

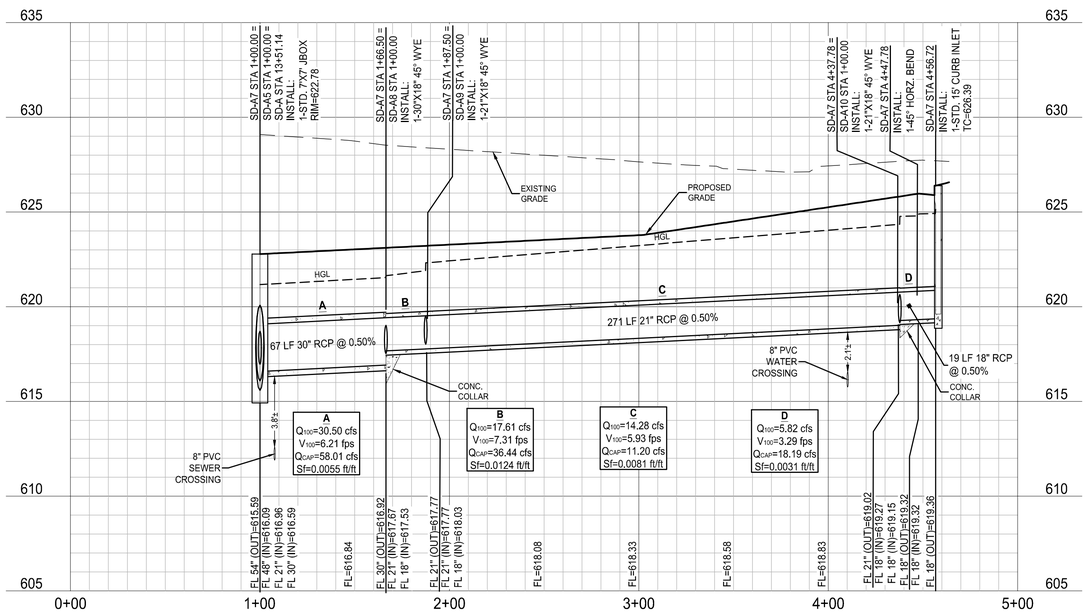
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KEY MAP
N.T.S.

SD-A7



BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM PLAN & PROFILE - SD-A7

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

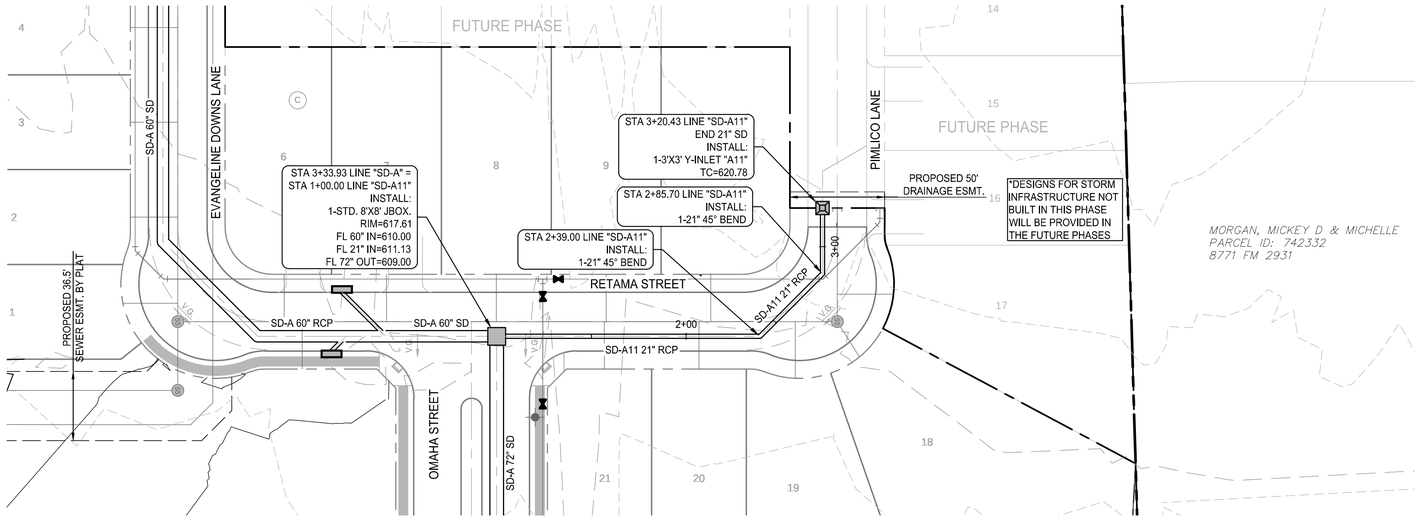
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

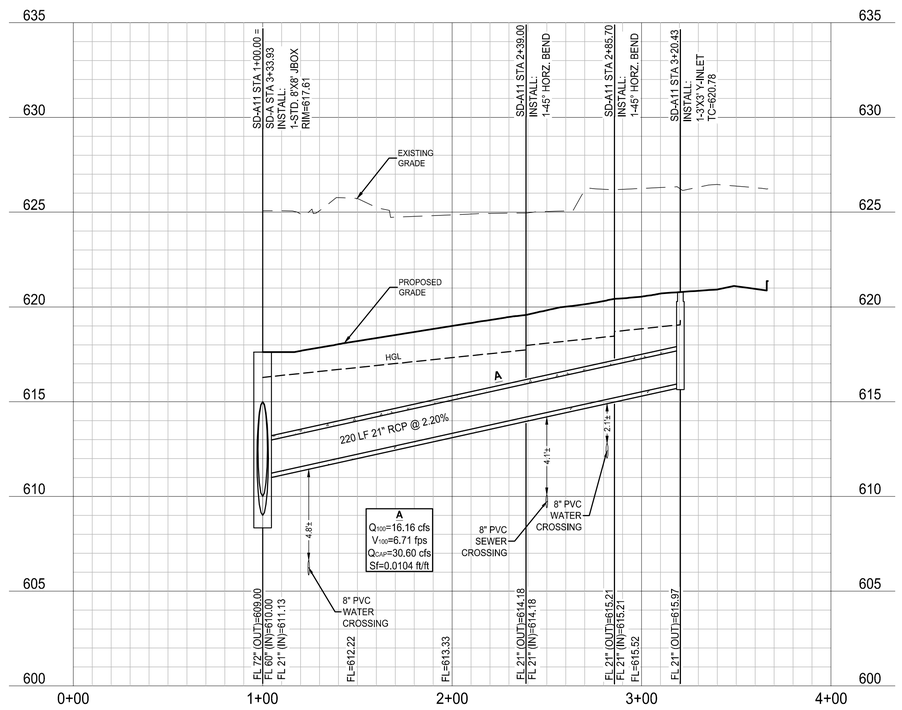
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REVIEWER: TRS			

SARATOGA PHASE 1

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SD-A11



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

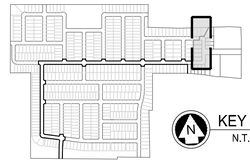
0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- 535 — PROPOSED MAJOR CONTOUR
- 534 — PROPOSED MINOR CONTOUR
- 520 — EXISTING MAJOR CONTOUR
- 519 — EXISTING MINOR CONTOUR
- PROPOSED STORM
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER

NOTES:
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KEY MAP
N.T.S.

BENCHMARKS

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ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM PLAN & PROFILE - SD-A11

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

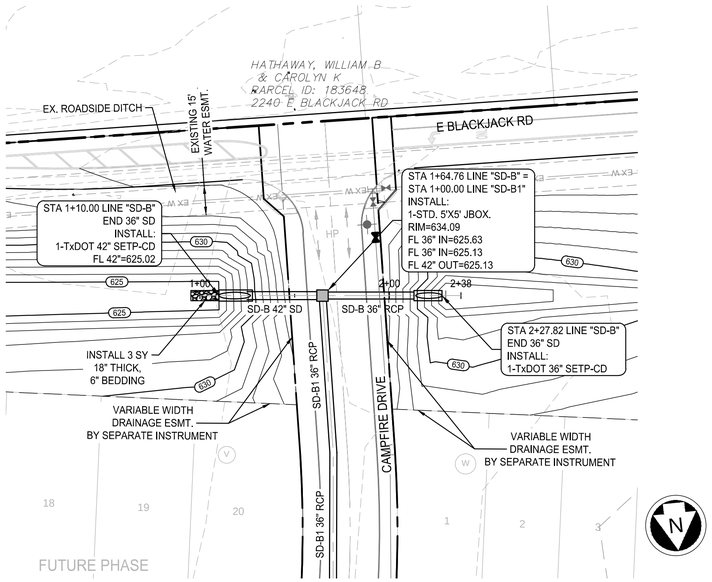
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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REVIEWER: TRS			

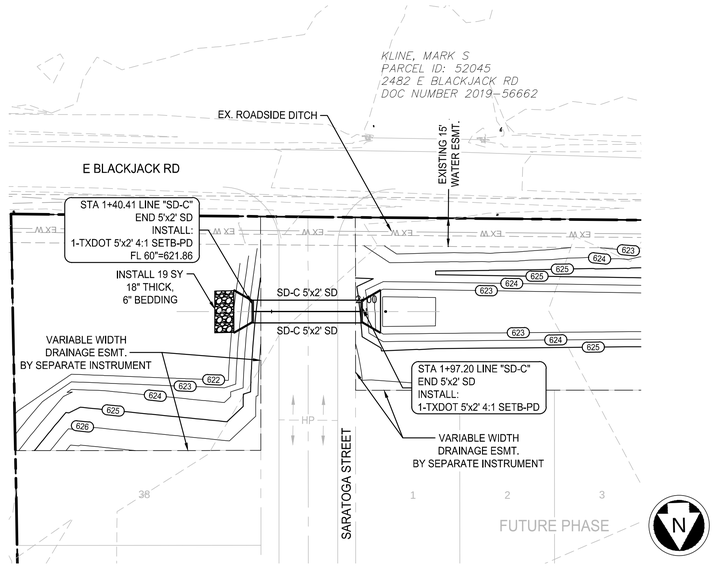
SARATOGA PHASE 1

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Plot Date/Time: 4/30/2024 4:19 PM

LINE SD-B - OUTFALL PROTECTION		
D50 = (v/(1.8(2g(γs-γw)/γw))^0.5)^0.5		
v =	6.89	fps
γ_s =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	**7.41**	in
18" Thick, 6" Bedding		



LINE SD-C		
D50 = (v/(1.8(2g(γs-γw)/γw))^0.5)^0.5		
v =	6.66	fps
γ_s =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	**7.29**	in
18" Thick, 6" Bedding		



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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ONCOR ELECTRIC DELIVERY	888-313-6862
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FIFTH SUBMITTAL

0 40' 80'
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PROFILE SCALES:
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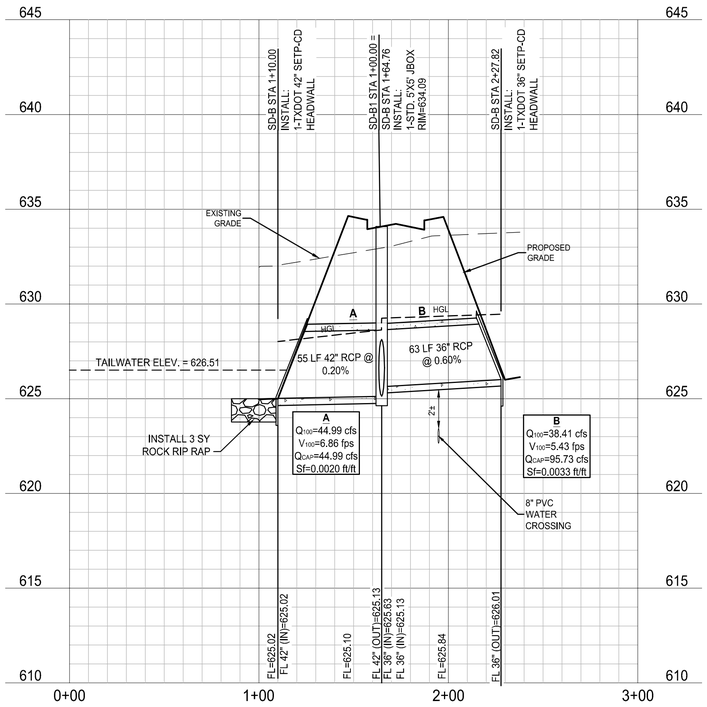
LEGEND

- 535 — PROPOSED MAJOR CONTOUR
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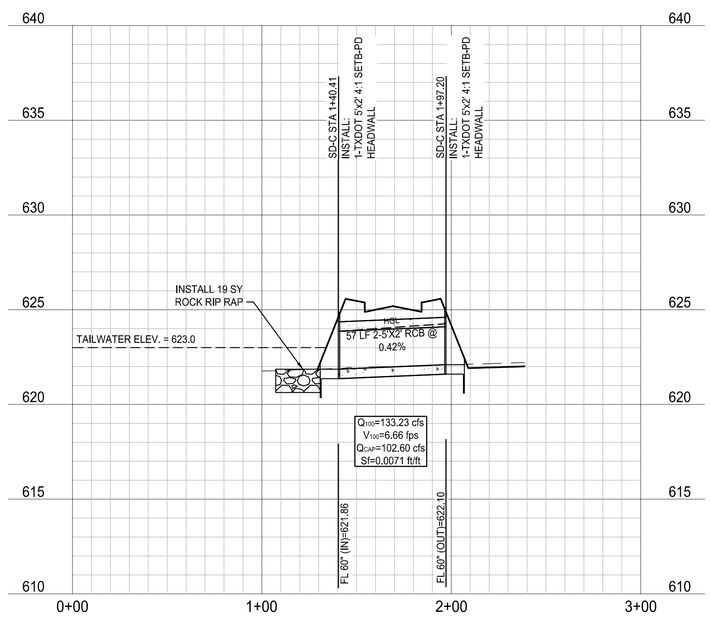
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SD-B



SD-C



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ELEVATION = 624.58'

PRELIMINARY
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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM PLAN & PROFILE - SD-B & SD-C

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

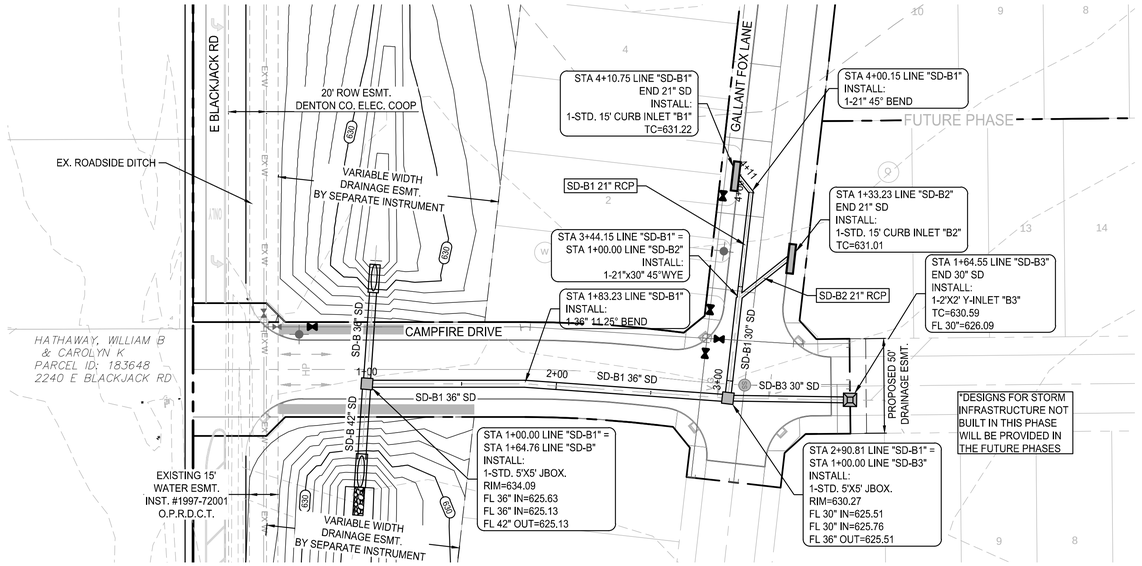
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

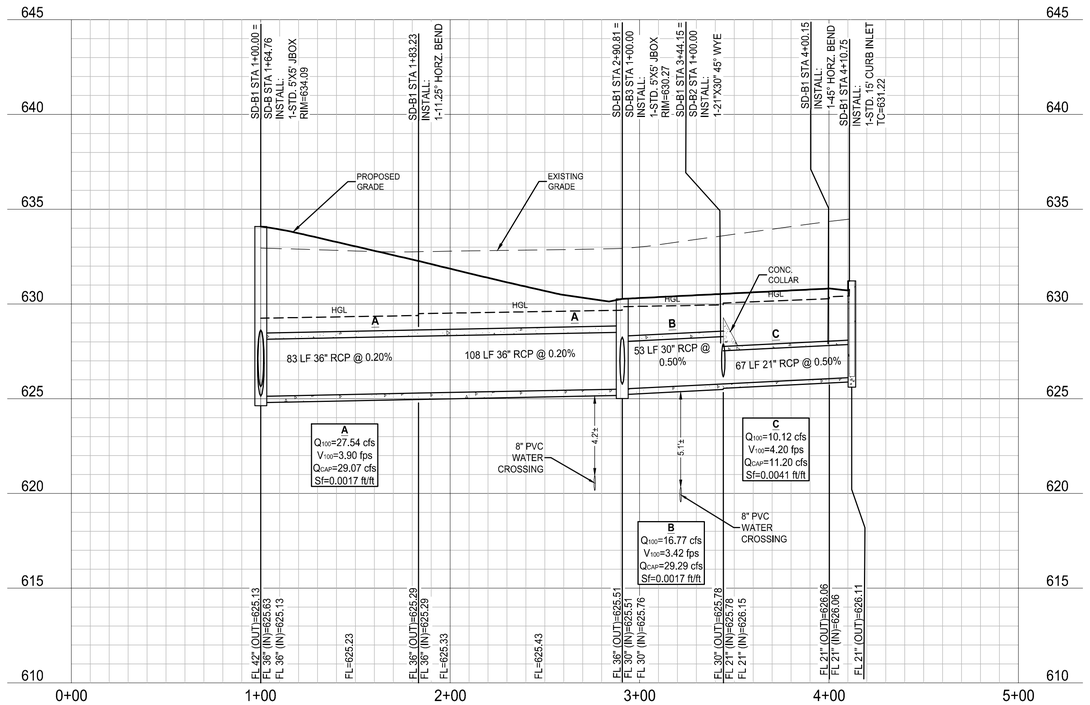
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REVIEWER: TRS			

SARATOGA PHASE 1

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SD-B1



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
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FIFTH SUBMITTAL

0 40' 80'
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PROFILE SCALES:
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LEGEND

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KEY MAP
N.T.S.

BENCHMARKS

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ERIK S. HINKLIN (TYPE OR PRINT NAME) | 100268 (PE #) | 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM PLAN & PROFILE - SD-B1 & SD-B3

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

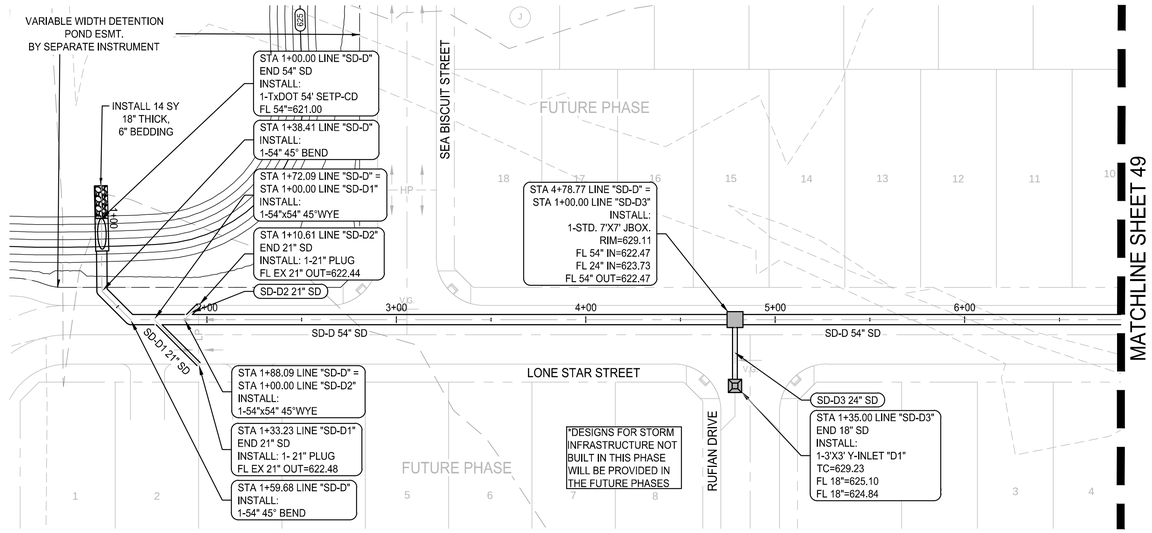
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	47
REVIEWER: TRS			

SARATOGA PHASE 1

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LINE SD-D		
D50 = (v/(1.8(2g(γs-γw)/γw))^0.5)]^0.5		
v =	6.51	fps
γ_s =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	**7.20**	in
18" Thick, 6" Bedding		



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

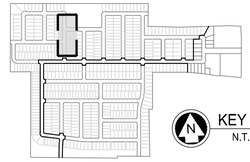
0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

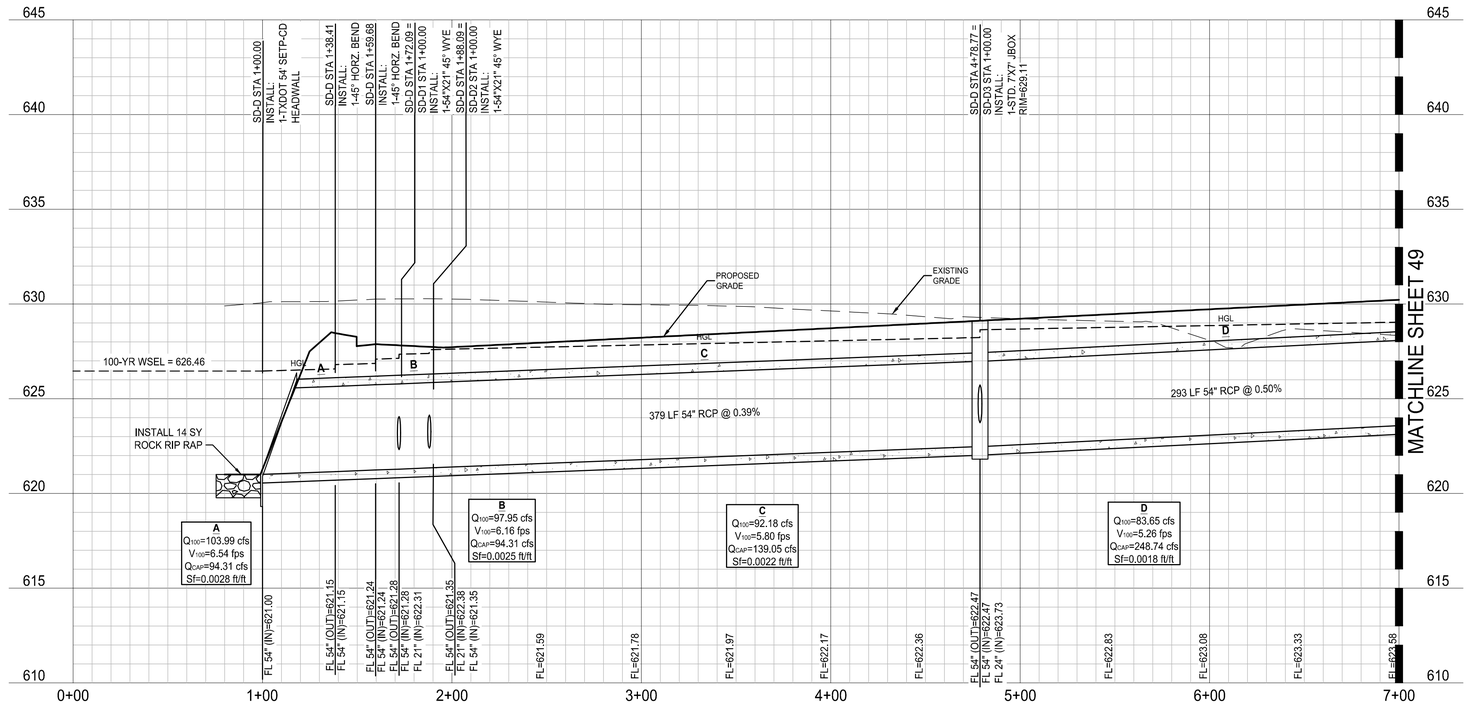
LEGEND

- 535 — PROPOSED MAJOR CONTOUR
- 534 — PROPOSED MINOR CONTOUR
- 520 — EXISTING MAJOR CONTOUR
- 519 — EXISTING MINOR CONTOUR
- PROPOSED STORM
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER

NOTES:
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SD-D



BENCHMARKS

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ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN (TYPE OR PRINT NAME) | 100268 (PE #) | 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM PLAN & PROFILE - SD-D (1+00 TO 7+00)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	48
REVIEWER: TRS			

SARATOGA PHASE 1

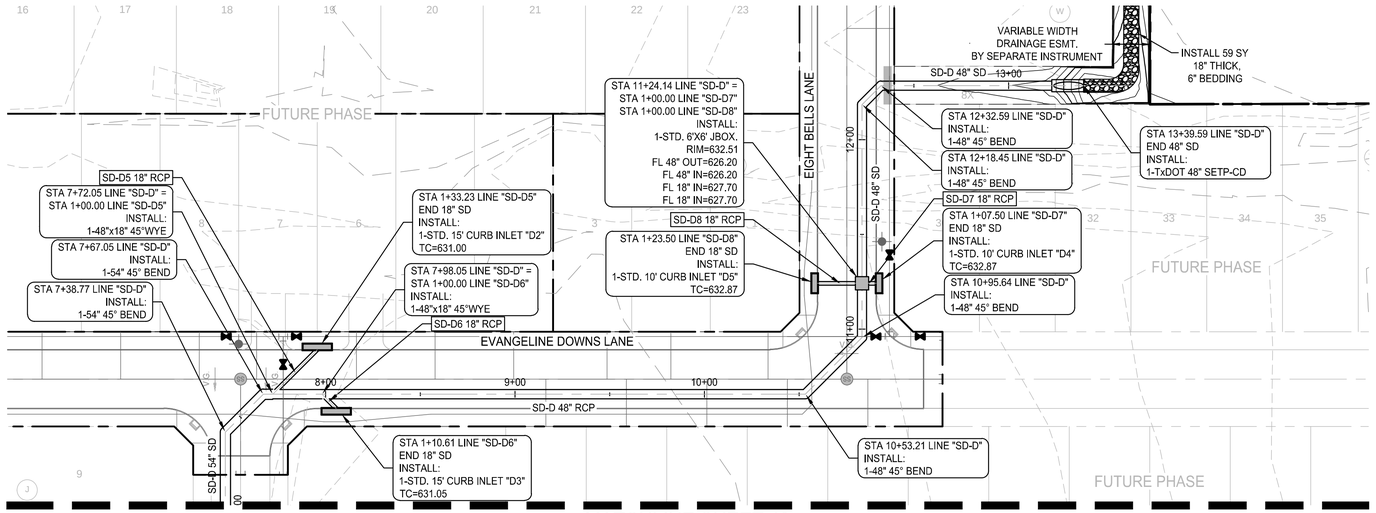
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Plot Date/Time: 4/30/2024 11:11 PM

FIFTH SUBMITTAL

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TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



MATCHLINE SHEET 48

LINE SD-D		
$D50 = (v/(1.8(2g(\gamma_S-\gamma_W)/\gamma_W))^{0.5})^{0.5}$		
v =	4.86	fps
γ_S =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	6.22	in
18" Thick, 6" Bedding		



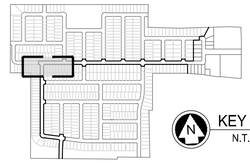
PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- 535 — PROPOSED MAJOR CONTOUR
- 534 — PROPOSED MINOR CONTOUR
- 520 — EXISTING MAJOR CONTOUR
- 519 — EXISTING MINOR CONTOUR
- PROPOSED STORM
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER

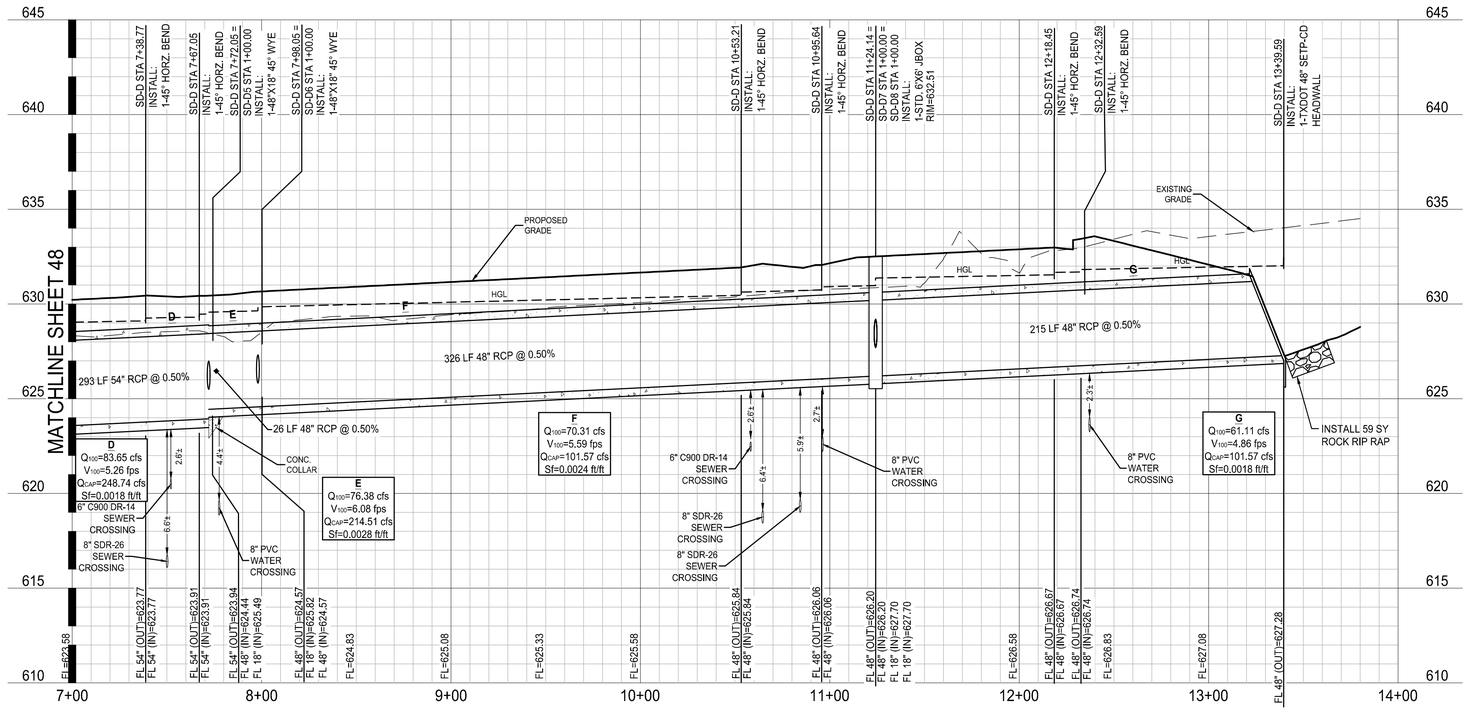
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KEY MAP
N.T.S.

SD-D



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ELEVATION = 624.58'

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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM PLAN & PROFILE - SD-D (7+00 TO 14+00)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	49
REVIEWER: TRS			

SARATOGA PHASE 1

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FIFTH SUBMITTAL

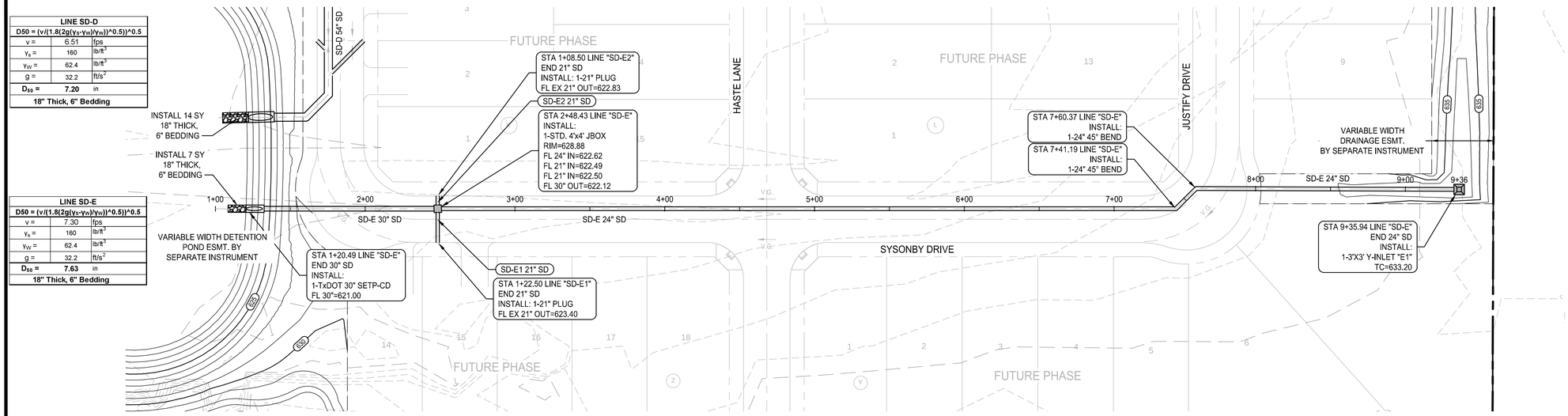
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LINE SD-D		
D50 = (v/(1.8(2g(γs-γw)/γw))^0.5))^0.5		
v =	6.51	fps
γ_s =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	7.20	in
18" Thick, 6" Bedding		

LINE SD-E		
D50 = (v/(1.8(2g(γs-γw)/γw))^0.5))^0.5		
v =	7.30	fps
γ_s =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	7.63	in
18" Thick, 6" Bedding		





PROFILE SCALES:
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1" = 4' VERT.

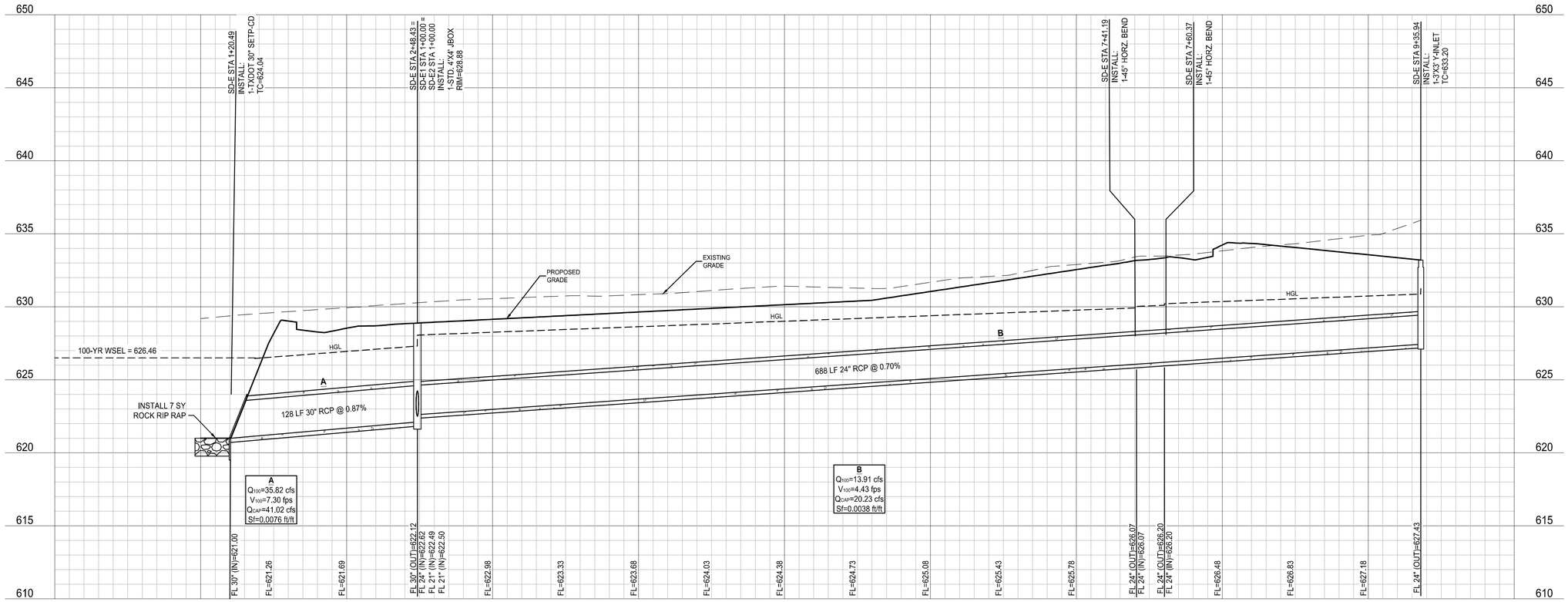
LEGEND

- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED STORM
- PROPOSED WATER LINE
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SD-E





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ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM PLAN & PROFILE - SD-E (1+00 TO END)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

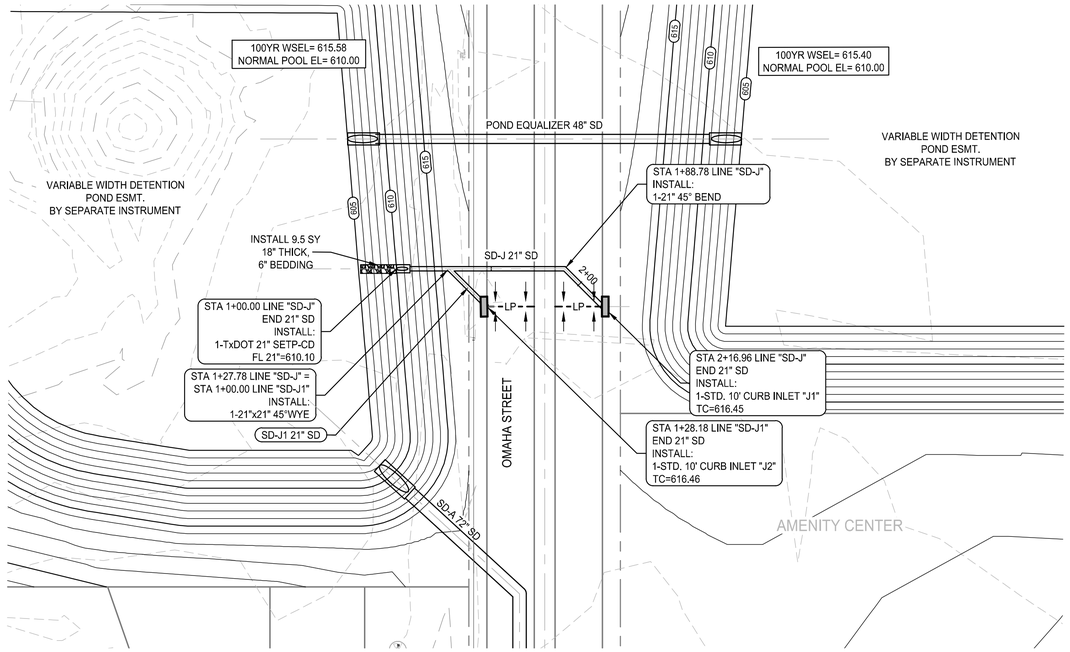
Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

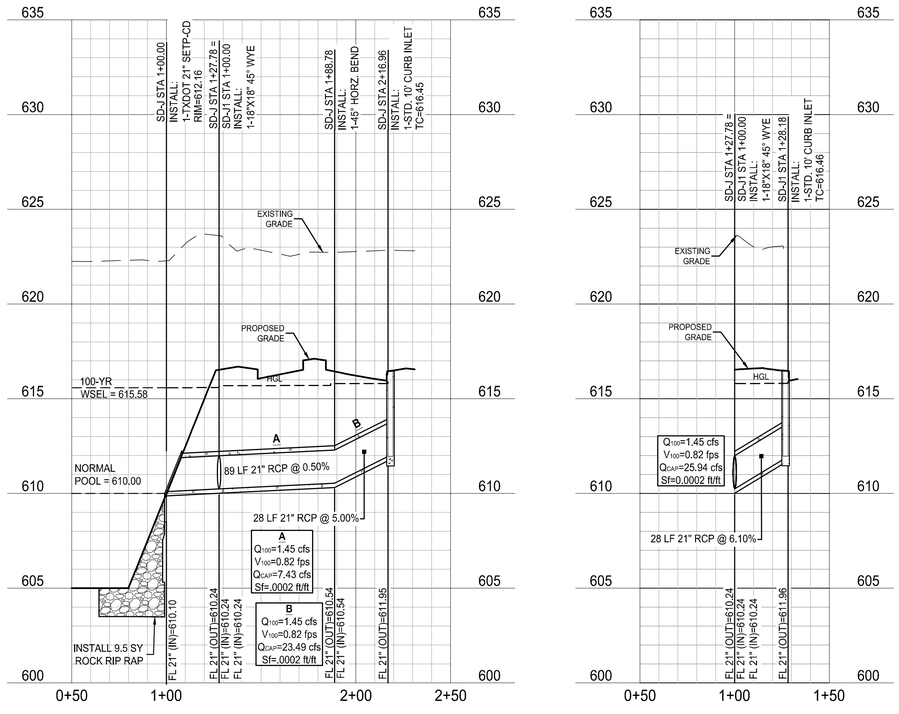
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	50
REVIEWER: TRS			

SARATOGA PHASE 1

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TEXAS 811	1-800-344-8377
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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

N

0 40' 80'

SCALE: 1" = 40'

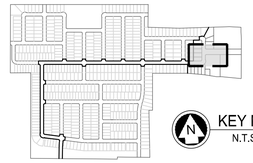
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LEGEND

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KEY MAP
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM PLAN & PROFILE - SD-J

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	51
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

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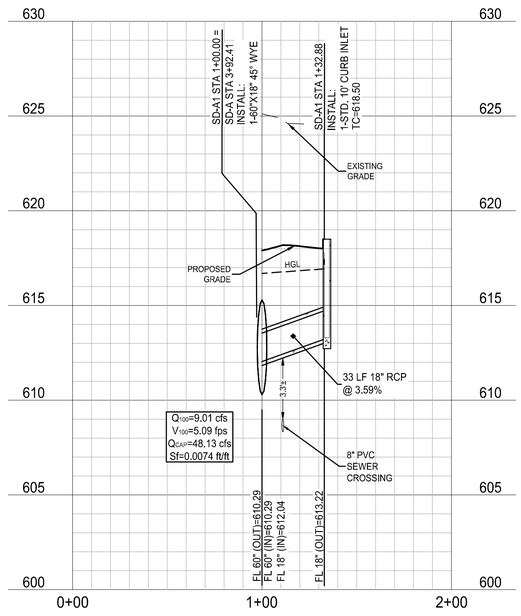
FIFTH SUBMITTAL

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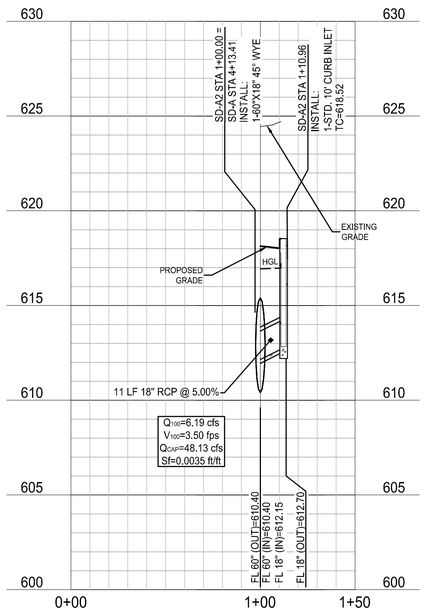
TEXAS 811	1-800-344-8377
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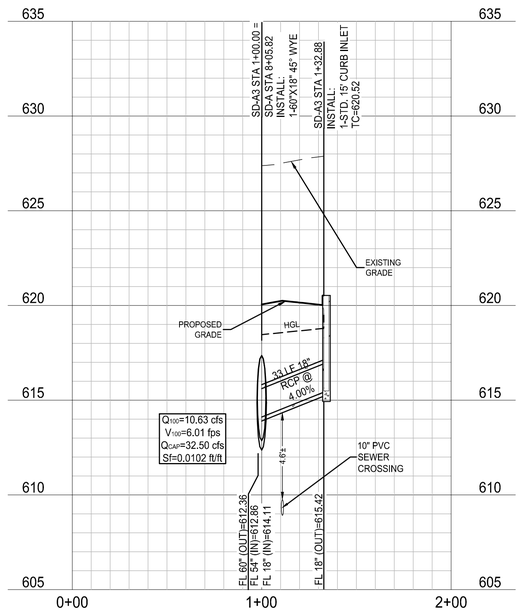
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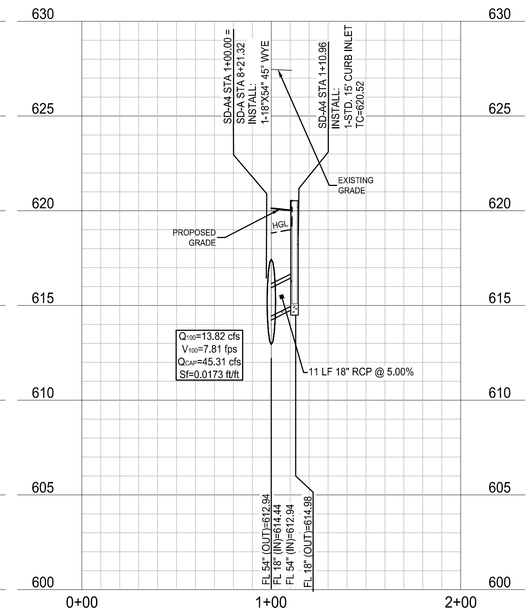
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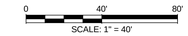


SD-A3



SD-A4





PROFILE SCALES:
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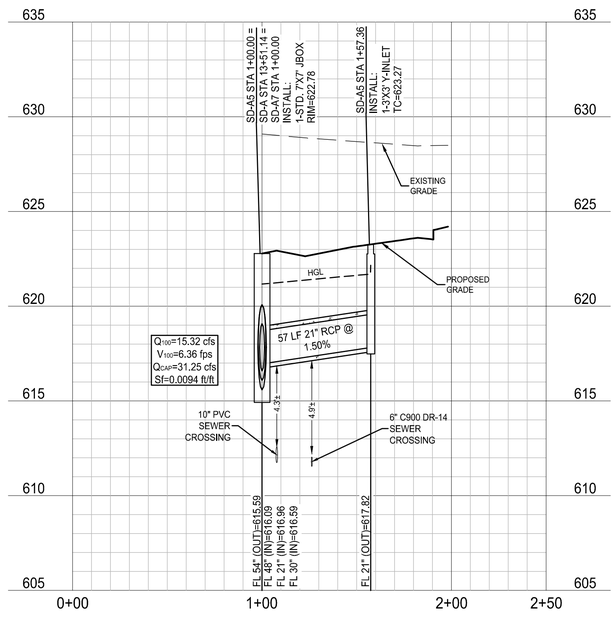
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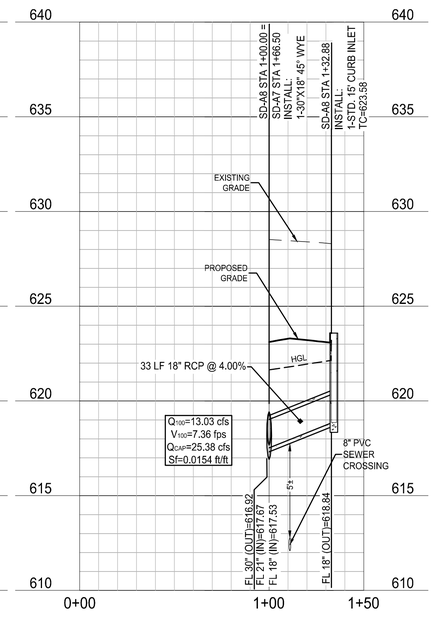
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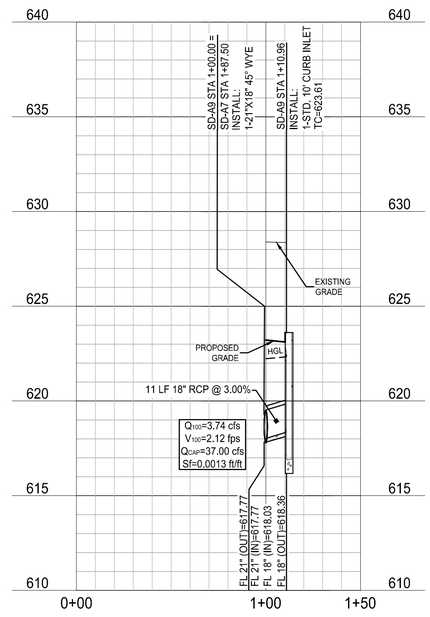
SD-A5



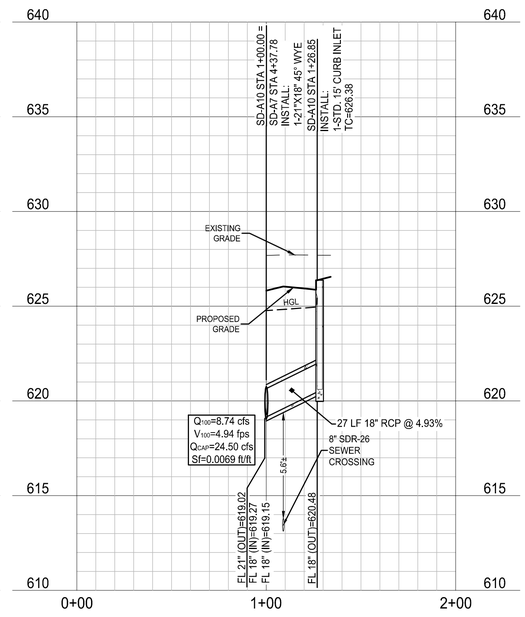
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SD-A9



SD-A10



BENCHMARKS

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM LATERAL PROFILES

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 — 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 — Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	52
REVIEWER: TRS			

SARATOGA PHASE 1

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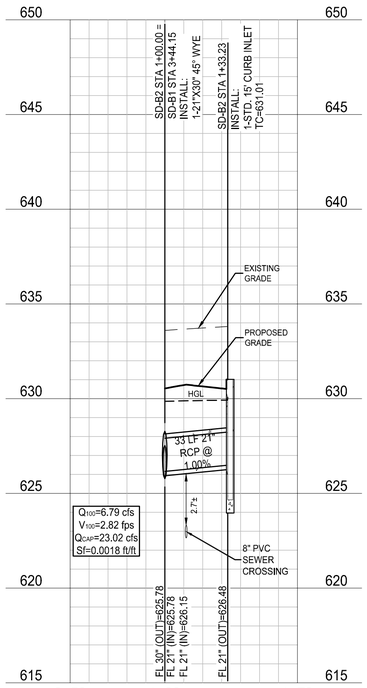
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ONCOR ELECTRIC DELIVERY	888-313-6862
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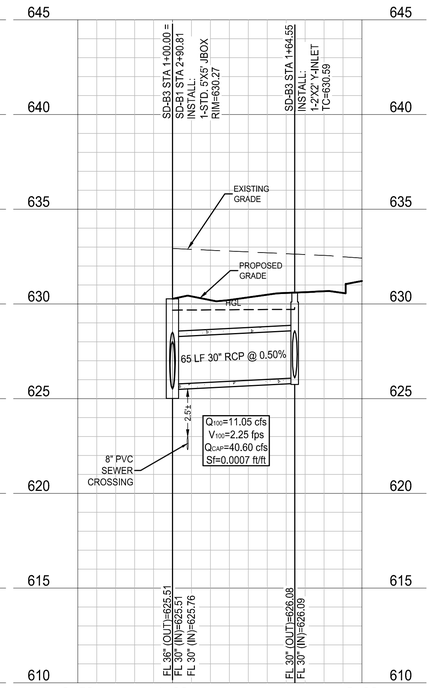
CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

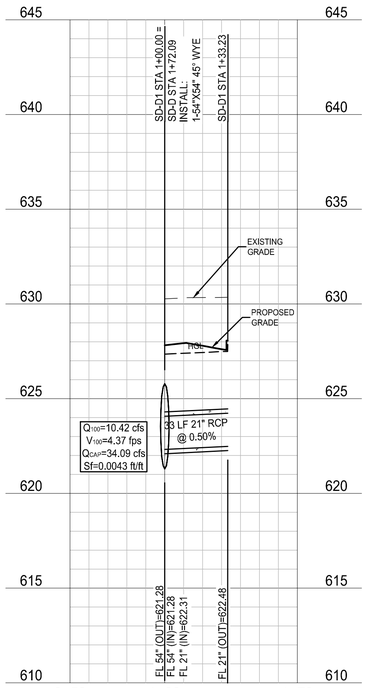
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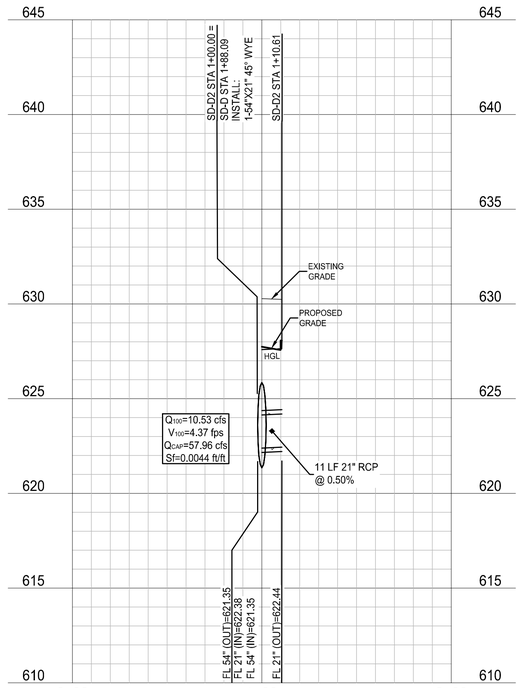
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SD-D1



SD-D2



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SCALE: 1" = 40'

PROFILE SCALES:
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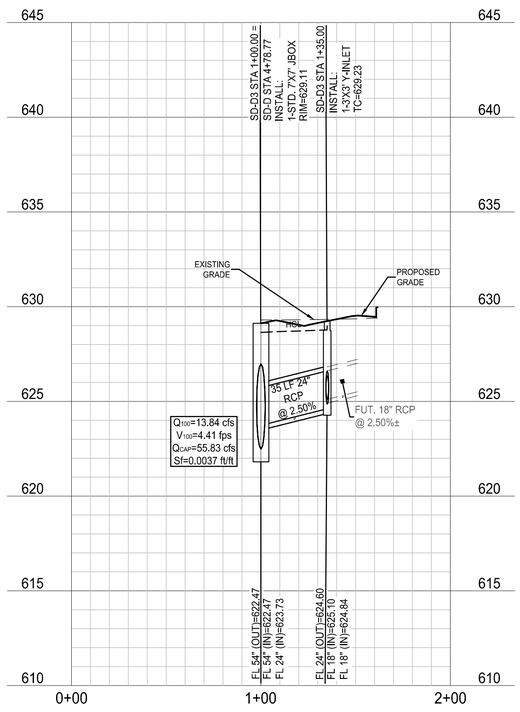
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- PROPOSED WATER LINE
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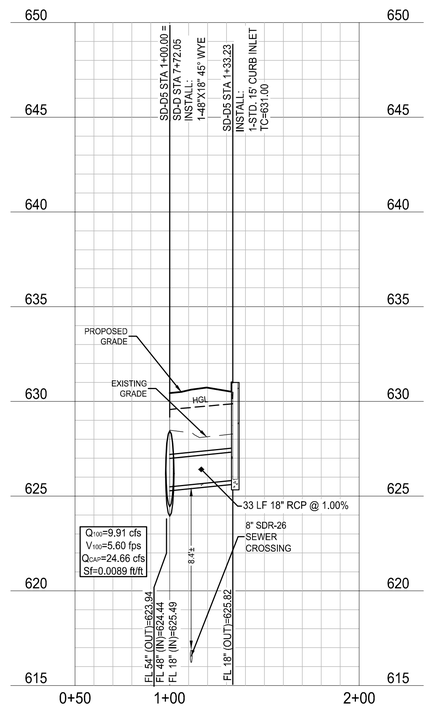
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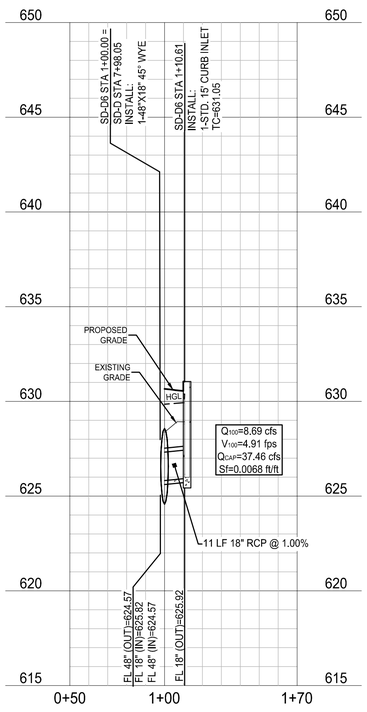
SD-D3



SD-D5



SD-D6



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ERIK S. HINKLIN (TYPE OR PRINT NAME) | 100268 (PE #) | 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM LATERAL PROFILES

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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11000 Frisco Street, Suite 400
Frisco, TX 75033
westwoodps.com

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TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	53
REVIEWER: TRS			

SARATOGA PHASE 1

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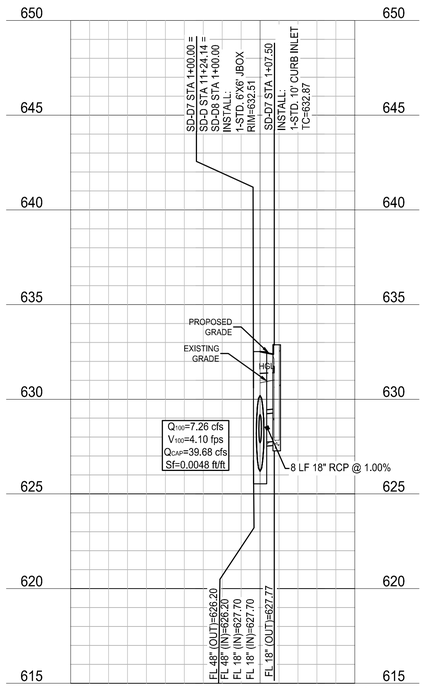
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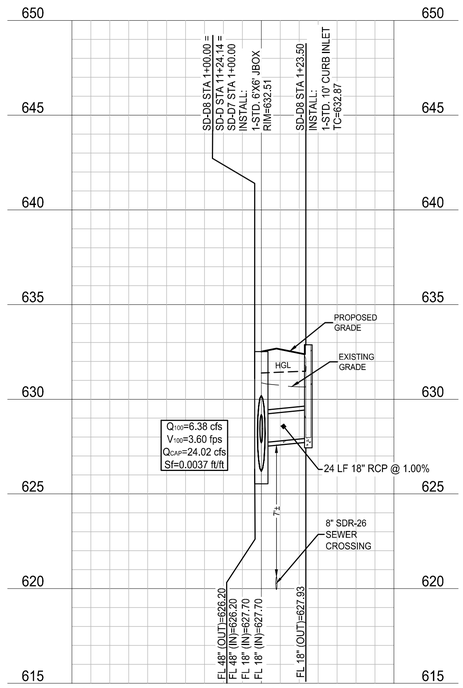
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FIFTH SUBMITTAL

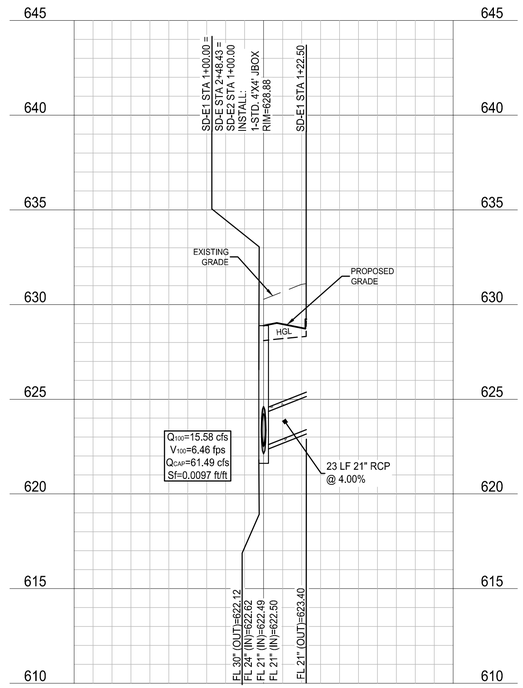
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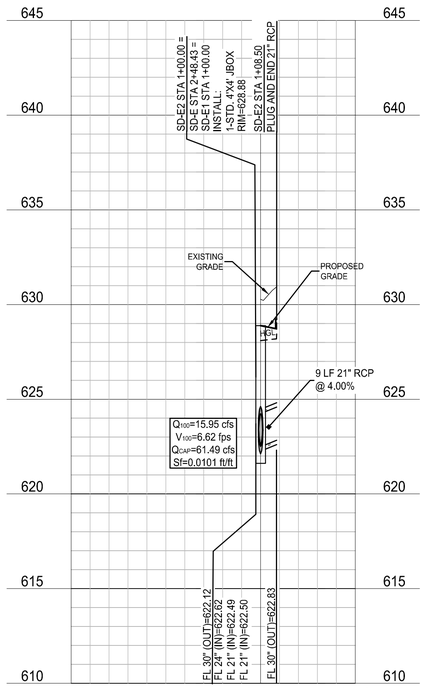
SD-D8



SD-E1



SD-E2



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SCALE: 1" = 40'

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SARATOGA PHASE 1

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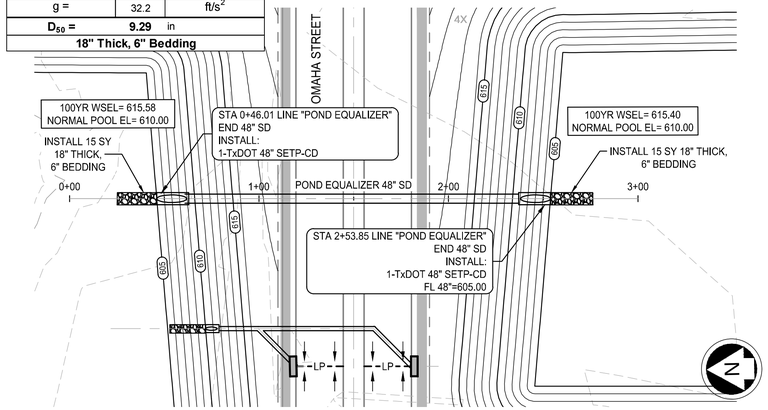
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	54
REVIEWER: TRS			

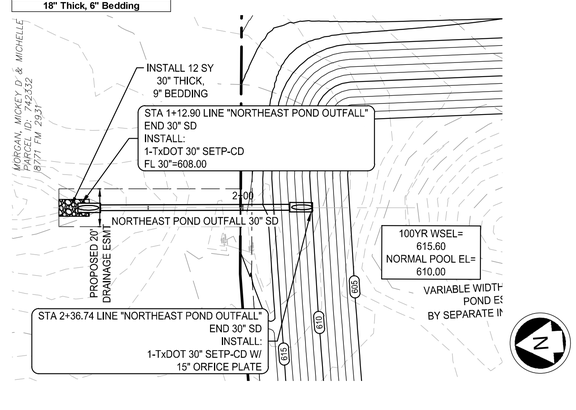
SARATOGA PHASE 1

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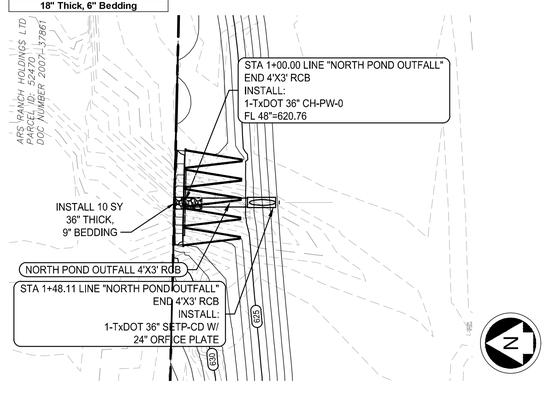
POND EQUALIZER OUTFALL		
Culvert Outfall Protection		
D50 = (v/(1.8(2g(γS-γW)/γW))^0.5)^0.5		
v =	10.83	fps
γ_S =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	9.29	in
18" Thick, 6" Bedding		



NORTHEAST POND OUTFALL		
Culvert Outfall Protection		
D50 = (v/(1.8(2g(γS-γW)/γW))^0.5)^0.5		
v =	11.29	fps
γ_S =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	9.49	in
18" Thick, 6" Bedding		



NORTH POND OUTFALL		
Culvert Outfall Protection		
D50 = (v/(1.8(2g(γS-γW)/γW))^0.5)^0.5		
v =	10.83	fps
γ_S =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	9.29	in
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FIFTH SUBMITTAL

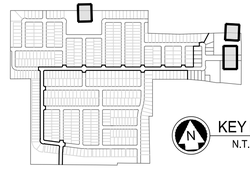
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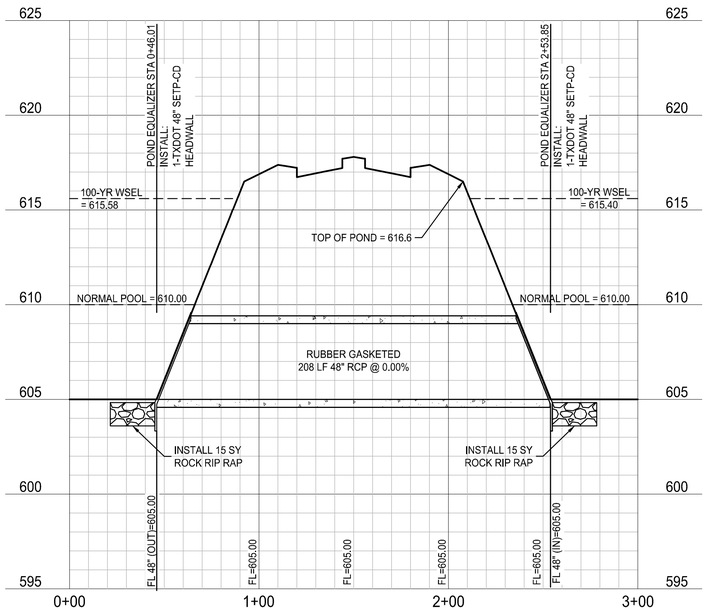
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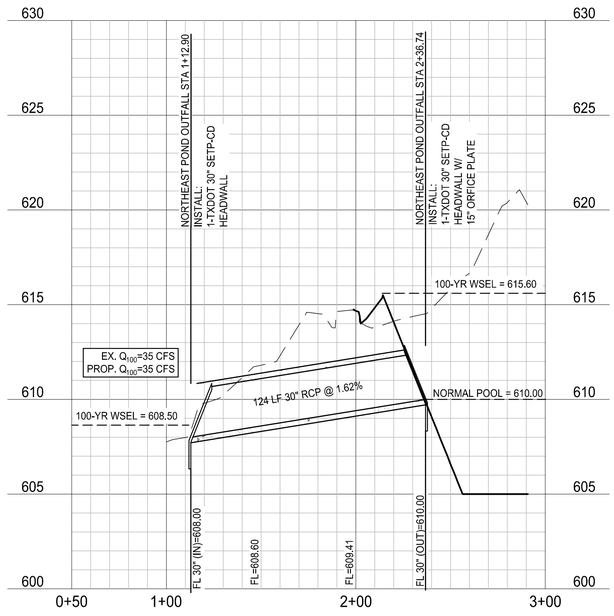
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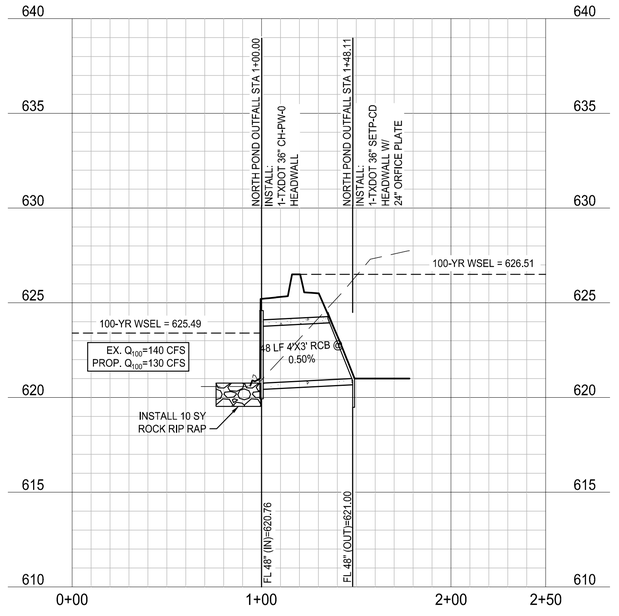
POND EQUALIZER



NORTHEAST POND OUTFALL



NORTH POND OUTFALL



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SARATOGA PHASE 1

POND OUTFALLS

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Westwood

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westwoodps.com

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TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	55
REVIEWER: TRS			

SARATOGA PHASE 1

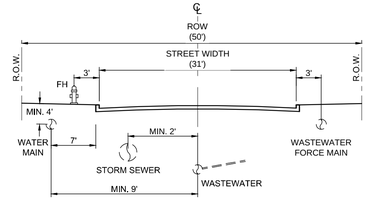
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FIFTH SUBMITTAL

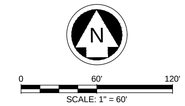
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TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



LEGEND

- PROPOSED SANITARY SEWER LINE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED PLUG
- EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- DENOTES IRREGULAR SERVICE

NOTES:

1. ALL MANHOLES GREATER THAN 11.5 FEET DEEP SHALL BE A MINIMUM OF 5 FEET (60 INCHES) IN DIAMETER.
2. ALL SEWER MAINS SHALL BE CONSTRUCTED UTILIZING SDR-26 PIPE.
3. CONTRACTOR SHALL PRESSURE RATE THE SANITARY SEWER PIPE AT ALL CROSSINGS BETWEEN THE WATERLINE AND THE SANITARY SEWER PIPE IN ACCORDANCE WITH TCEQ REGULATIONS.
4. SEPARATION BETWEEN WATERLINE AND SANITARY SEWER CROSSINGS SHALL CONFORM TO TCEQ'S CHAPTER 290.44(e), AND CHAPTER 317.13 APPENDIX E.
5. SERVICES THAT CONNECT INTO AN SDR-26 MAINLINE 11.5 FEET DEEP WILL BE CONSIDERED DEEP SEWER SERVICES.
6. SEWER MANHOLES IN THE FLOODPLAIN ARE REQUIRED TO HAVE SEALED LIDS THAT CONFORM MUSTANG SUD STANDARDS. EVERY THIRD MANHOLE WITHIN THE FLOODPLAIN SHALL BE VENTED IN ACCORDANCE WITH TCEQ REGULATIONS.
7. CLASS "H" EMBEDMENT.
8. ALL MANHOLES OUTSIDE OF PAVEMENT TO HAVE WATER TIGHT RING AND COVER AND RIM ELEVATION SET 12" ABOVE FINISHED GRADE.
9. NO CORING OF MANHOLES FOR SERVICE CONNECTIONS SHALL BE ALLOWED.
10. ALL DROP MANHOLES TO HAVE EXTERNAL DROP CONNECTIONS



KEY MAP
N.T.S.

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SEWER PLAN

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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	56
REVIEWER: TRS			

SARATOGA PHASE 1

MATCHLINE SHEET 57

MATCHLINE SHEET 58

SARATOGA STREET

KENTUCKY DERBY STREET

WHIRLAWAY LANE

RETAMA STREET

PIMLICO LANE

EVANGELINE DOWNS LANE

OMAHA STREET

F.M. 2931

SARATOGA FUTURE PHASE

SARATOGA FUTURE PHASE

NORTHEAST POND

AMENITY CENTER

SOUTHEAST POND

MORGAN, MICKEY D & MICHELLE
PARCEL ID: 52478
8701 FM 2931
DOC NUMBER 95-0053363

MORGAN, MICKEY D & MICHELLE
PARCEL ID: 742332
8771 FM 2931

FIFER, WILBER E & MARGARET ANN
PARCEL ID: 766099
2381 E BLACKJACK RD
DOC NUMBER 2019-84212

NGATIA, CHARLES M & CAROLINE W
PARCEL ID: 766177
DOC NUMBER 2019-84466

BARKLEY, DEBBIE & NETWIG, CRAIG L
PARCEL ID: 465425
E BLACKJACK RD
DOC NUMBER 2019-89122

VARIABLE WIDTH ACCESS EASEMENT

PROPOSED VARIABLE WIDTH DRAINAGE EASEMENT BY SEPARATE INSTRUMENT

EX. 20' ELECTRIC ROW ESMT. INST. #1954-3267 O.P.R.D.C.T.

PROPOSED VARIABLE WIDTH DRAINAGE EASEMENT BY SEPARATE INSTRUMENT

EX. 15' WATER ESMT. INST. #1998-102073 O.P.R.D.C.T.

PROPOSED 36.5' SEWER EASEMENT BY PLAT

SS-G STA 1+50.50 END 8" SS INSTALL: 8" SS PLUG

SS-G 8" PVC @ 1.30%

SS-G STA 1+50.50 = SS-A STA 11+80.48 INSTALL: 1-4' DIA. EXTERNAL DROP MH SS-L 8" PVC @ 0.50%

SS-L STA 1+50.50 END 8" SS INSTALL: 8" SS PLUG

SS-F STA 1+50.50 END 8" SS INSTALL: 8" SS PLUG

SS-F 8" PVC @ 1.40%

SS-A STA 8+90.16 = SS-F STA 1+00.00 INSTALL: 1-4' DIA. EXTERNAL DROP MH RIM=621.522

SS-A 10" PVC

SS-A STA 6+00.16 = SS-E STA 1+00.00 INSTALL: 1-5' DIA. MH RIM=620.072

SS-E STA 1+50.50 END 8" SS INSTALL: 8" SS PLUG

SS-E 8" PVC @ 1.40%

SS-D STA 5+08.17 END 8" SS INSTALL: 8" SS PLUG

SS-D 8" PVC

SS-D STA 4+48.17 INSTALL: 1-4' DIA. MH WITH WATER-TIGHT RING AND COVER RIM=620.06

SS-D 8" PVC

SS-A STA 3+10.16 = SS-D STA 1+00.00 INSTALL: 1-4' DIA. MH WITH WATER-TIGHT RING AND COVER RIM=618.490

SS-A STA 2+73.82 INSTALL: 1-4' DIA. MH WITH WATER-TIGHT RING AND COVER RIM=618.55

SS-A 10" SDR-26

SS-A 10" SDR-26

LIFT STATION

SS-A STA 1+16.45 INSTALL: 1-5' DIA. MH RIM=621.11

SS-A STA 1+00.00 REMOVE PLUG AND CONNECT TO EX 10" SS BEGIN 10" SS FL 10"=607.00 SEE LIFT STATION PLANS FOR ADDITIONAL DETAIL

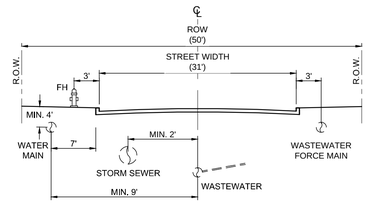
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FIFTH SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

MATCHLINE SHEET 58

MATCHLINE SHEET 56

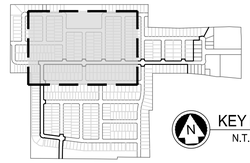


LEGEND

- PROPOSED SANITARY SEWER LINE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED PLUG
- EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- * DENOTES IRREGULAR SERVICE

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KEY MAP
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

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ELEVATION = 624.58'

PRELIMINARY
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ERIK S. HINKLIN — 100268 — 04/30/2024
TYPE OR PRINT NAME — PE # — DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

SEWER PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 — 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 — Frisco, TX 75033
westwoodps.com

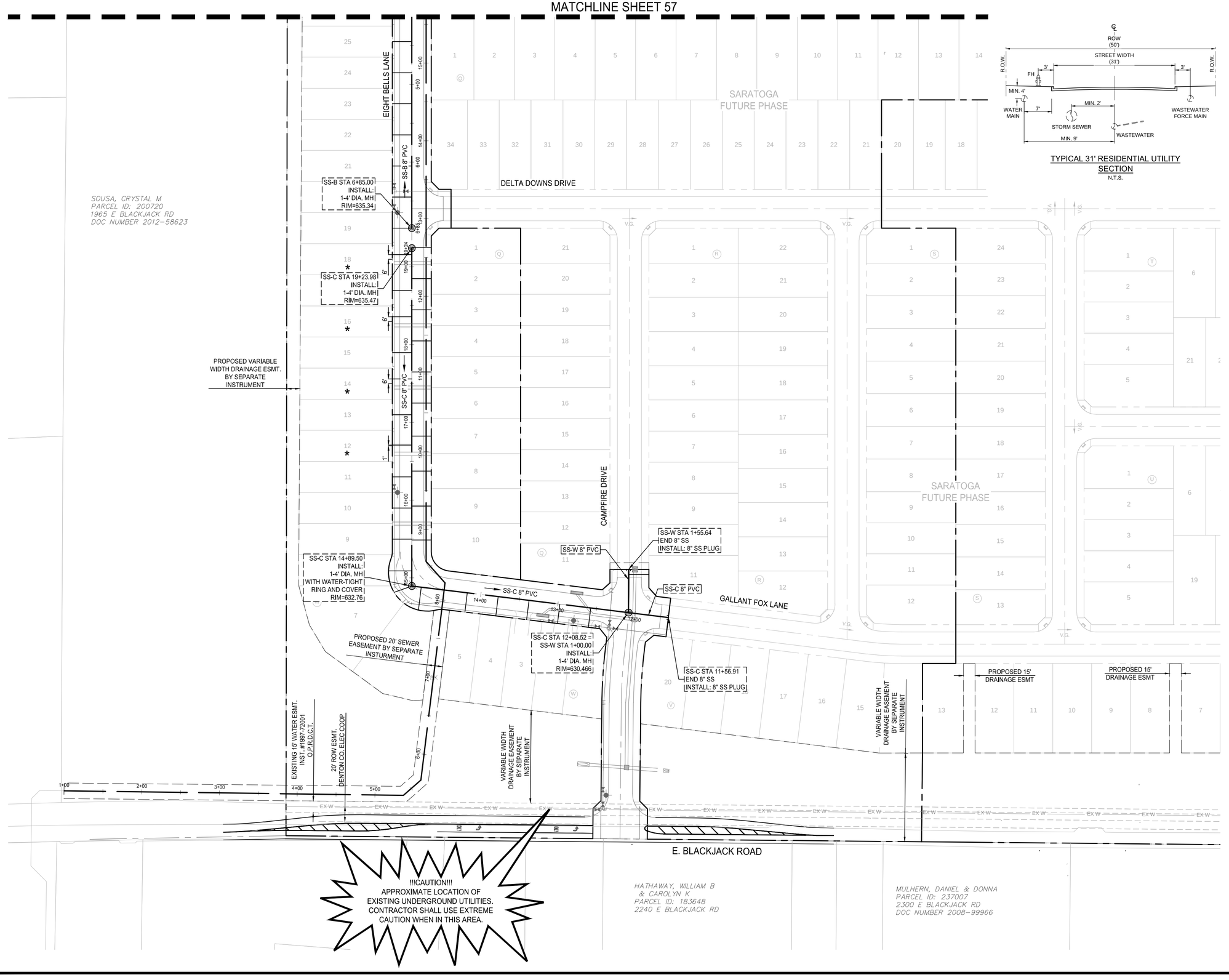
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	57
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: I:\pw.com\Network\Dmee\GU\DB\gee21003-saratoga\master infrastructure\3_Design\35_Civil\01_CAD\Sheets\GEE21003-CASEWER
Last Saved by: LBallard on this
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Plot Date/Time: 4/30/2024 1:43 PM

MATCHLINE SHEET 57



TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

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ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

N

0 60' 120'

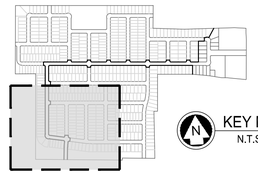
SCALE: 1" = 60'

LEGEND

- PROPOSED SANITARY SEWER LINE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED PLUG
- EX SS — EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EX W — EXISTING WATER LINE
- PROPOSED STORM DRAIN
- * DENOTES IRREGULAR SERVICE

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KEY MAP
N.T.S.

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

SEWER PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

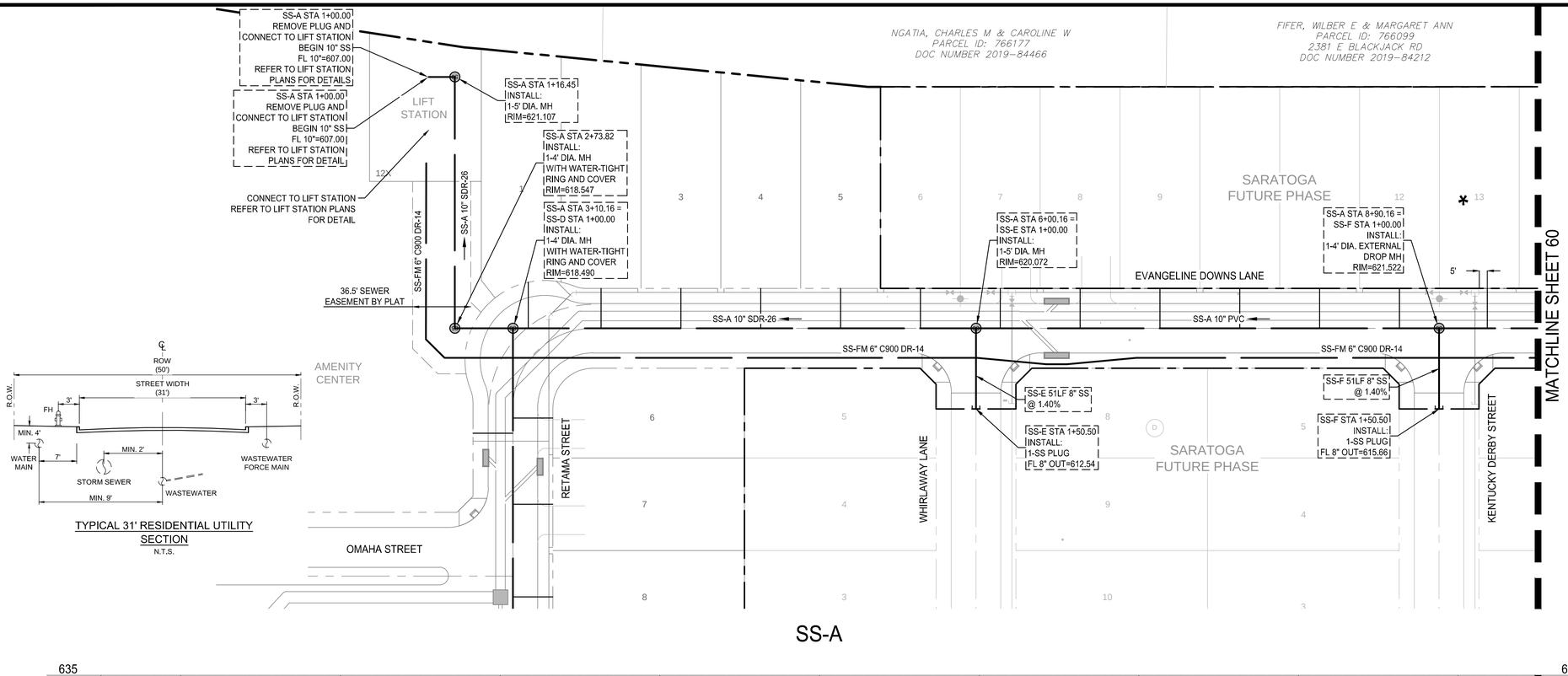
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

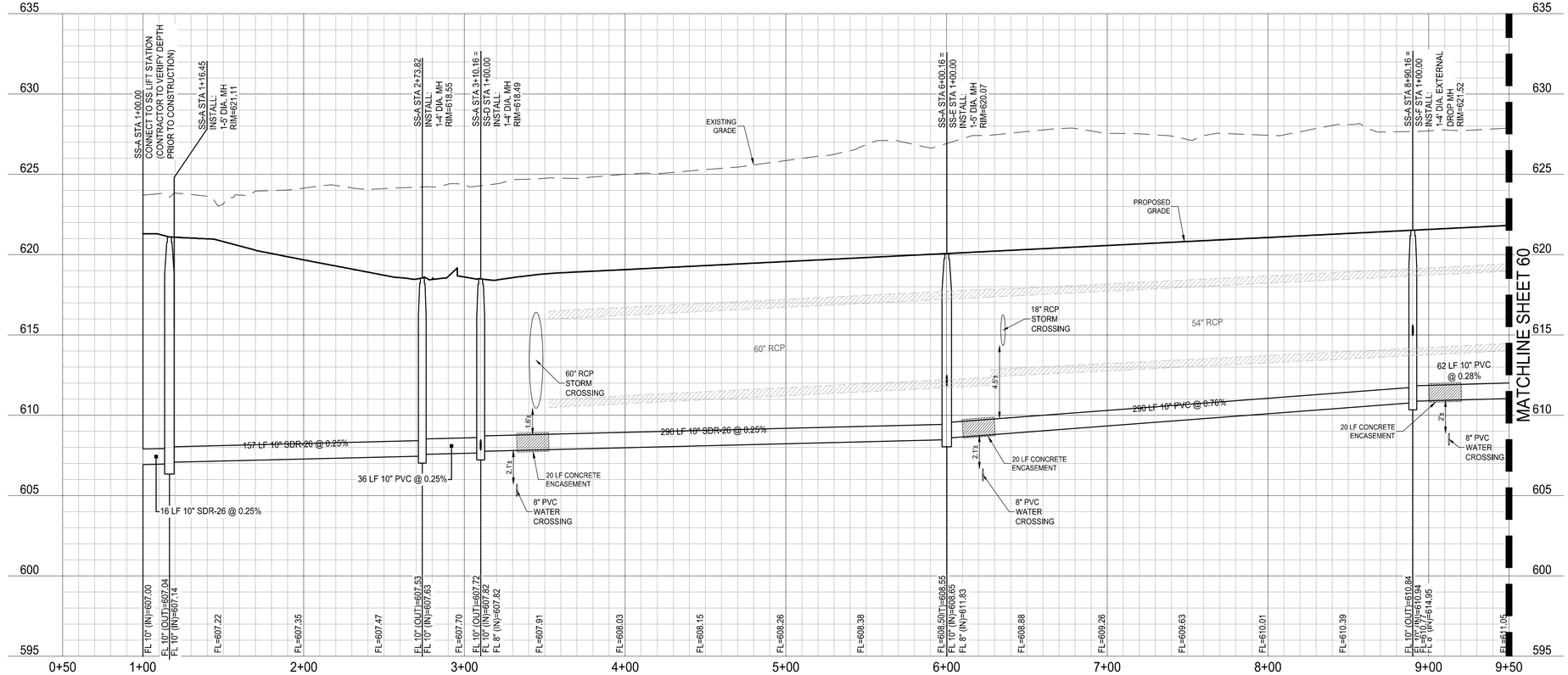
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DESIGNED: CLS	APRIL 2024	GEE21003	58
REVIEWER: TRS			

SARATOGA PHASE 1

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SS-A



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FIFTH SUBMITTAL

0 40' 80'
SCALE: 1" = 40'

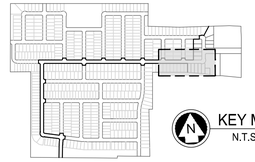
PROFILE SCALES:
1" = 40' HORIZ.
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- PROP. SANITARY SEWER SERVICE
- PROPOSED PLUG
- EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

SEWER PLAN & PROFILE - SS-A (1+00 TO 9+50)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	59
REVIEWER: TRS			

SARATOGA PHASE 1

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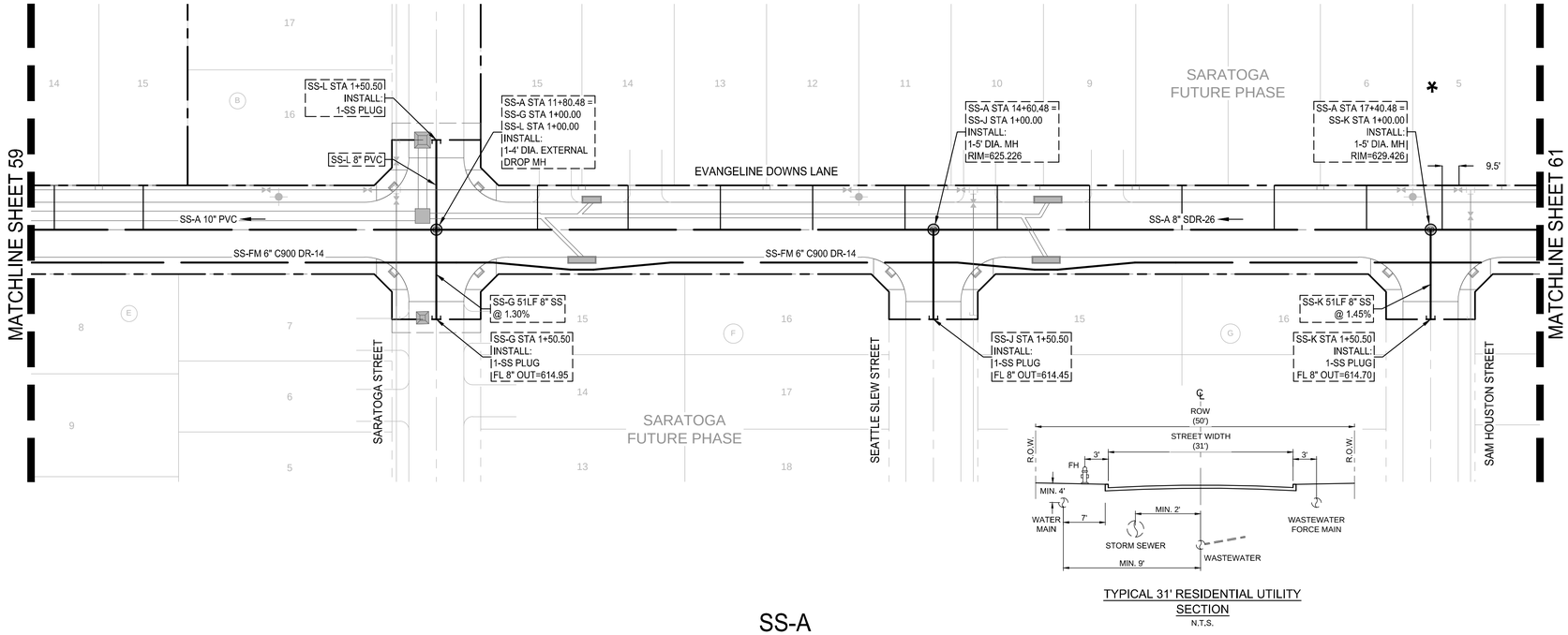
FIFTH SUBMITTAL

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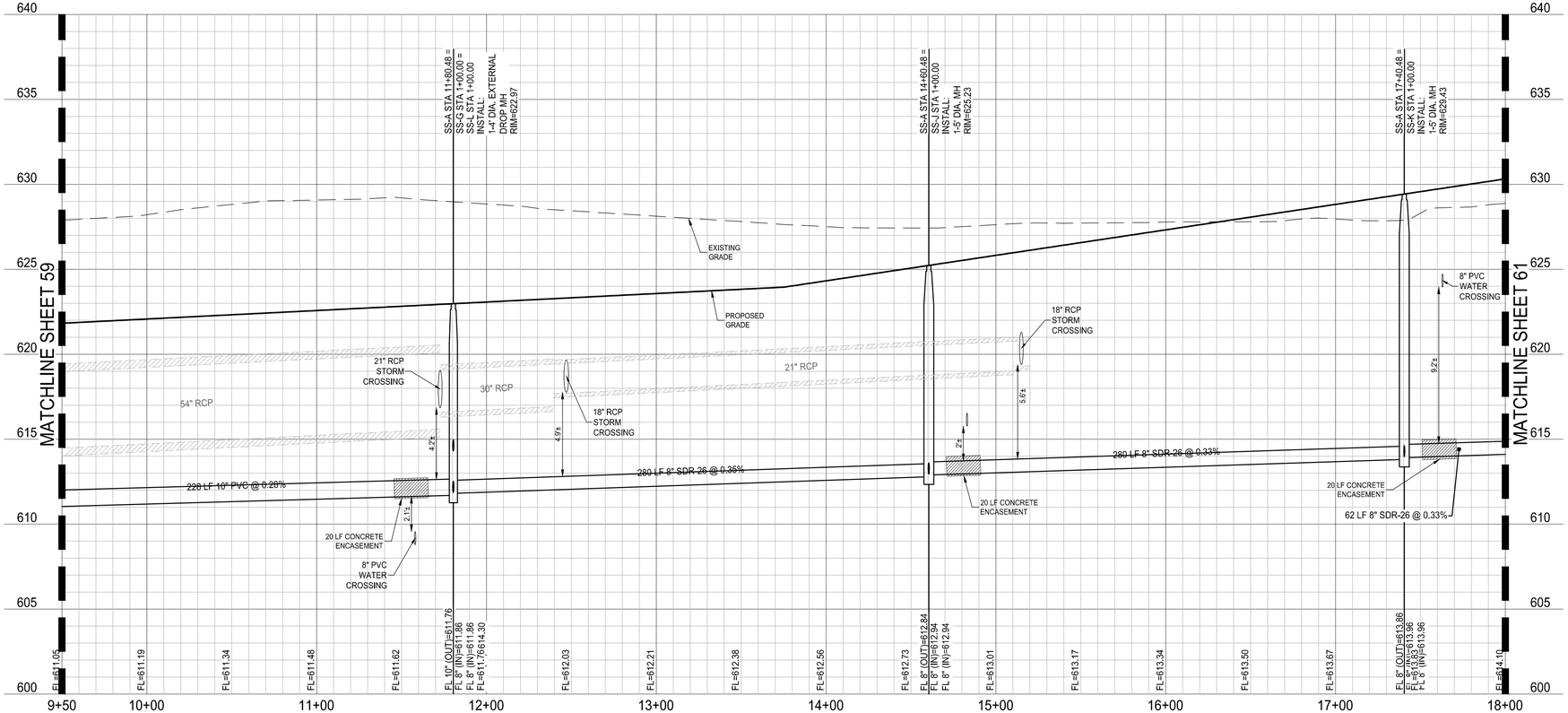
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SS-A

TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



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0 40' 80'
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

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AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	60
REVIEWER: TRS			

SARATOGA PHASE 1

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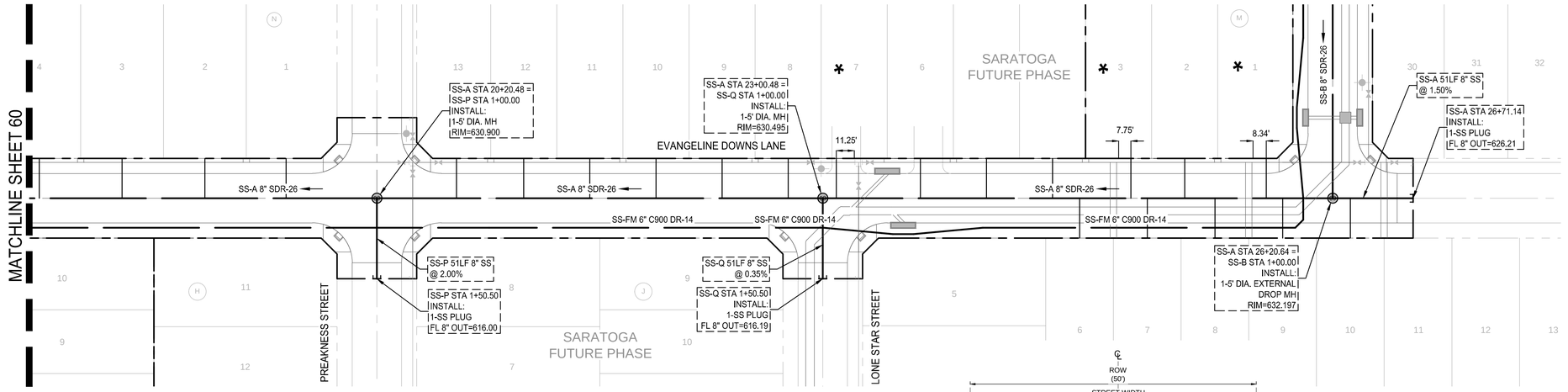
FIFTH SUBMITTAL

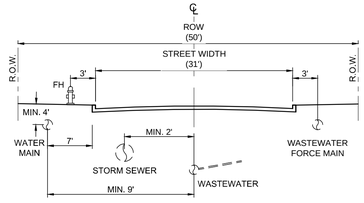
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N.T.S.

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SCALE: 1" = 40'

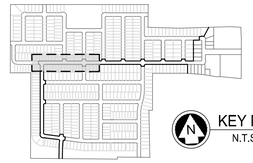
PROFILE SCALES:
1" = 40' HORIZ.
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LEGEND

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- PROP. SANITARY SEWER SERVICE
- PROPOSED PLUG
- EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- SERVICES FOR FUTURE LOTS
- DENOTES IRREGULAR SERVICE

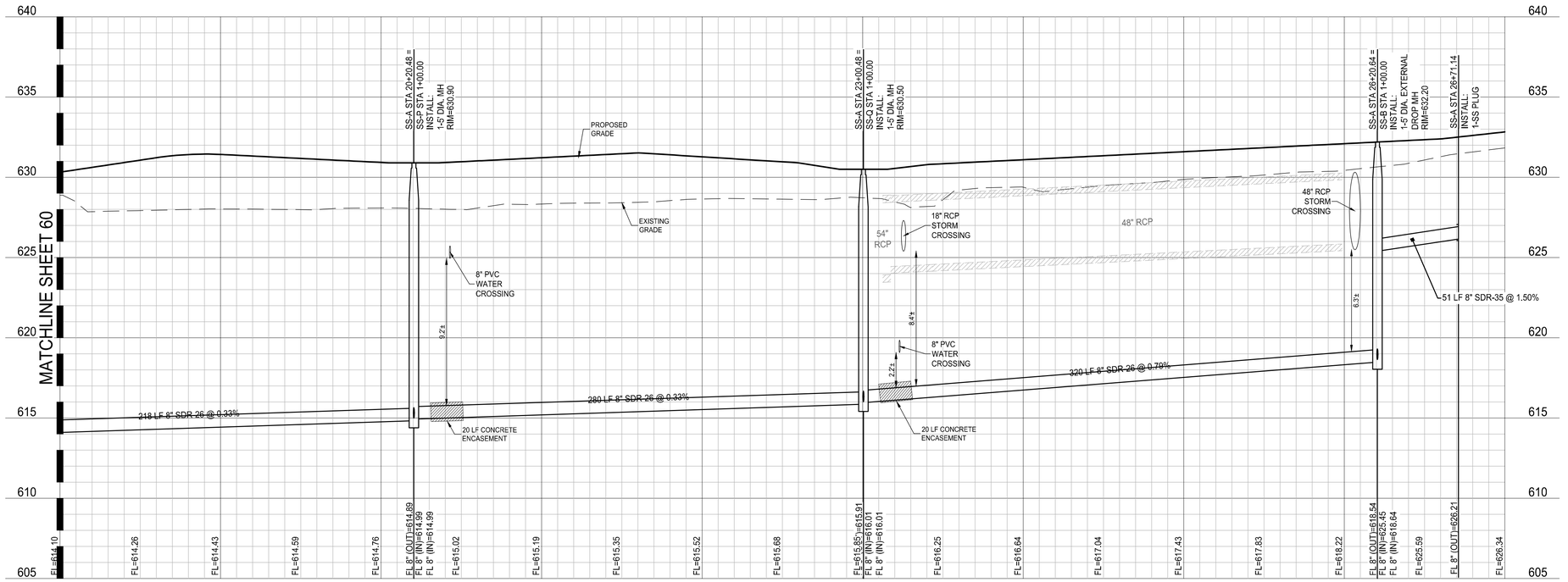
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KEY MAP
N.T.S.

SS-A



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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

SEWER PLAN & PROFILE - SS-A (18+00 TO END)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

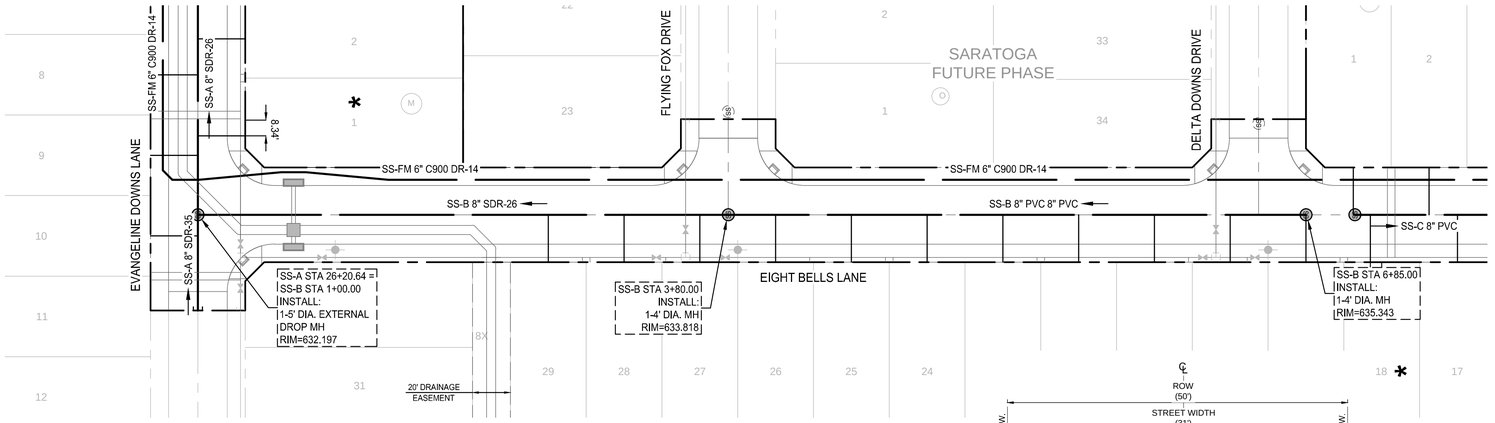
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
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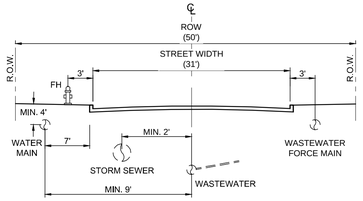
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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	61
REVIEWER: TRS			

SARATOGA PHASE 1

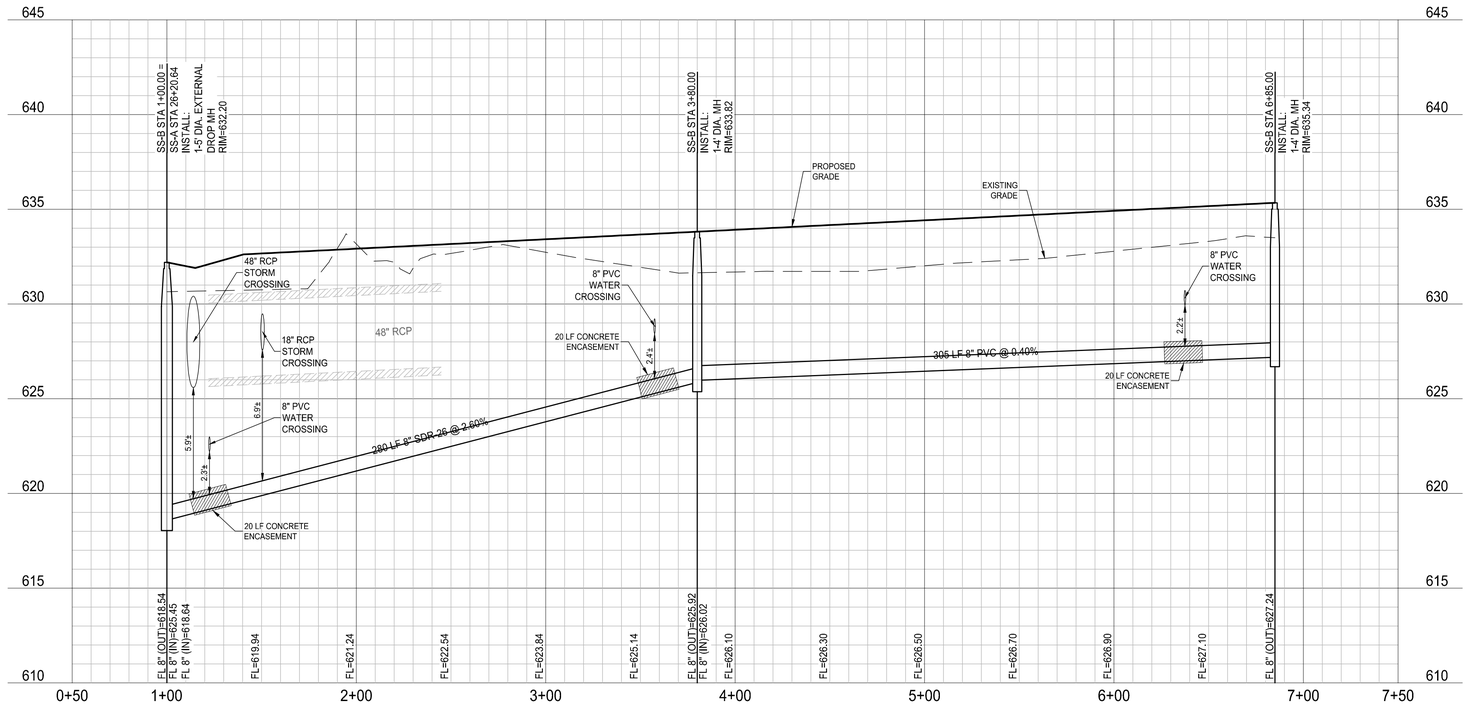
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TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

SS-B



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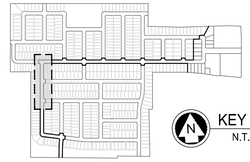
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SARATOGA PHASE 1

SEWER PLAN & PROFILE - SS-B

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Westwood

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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
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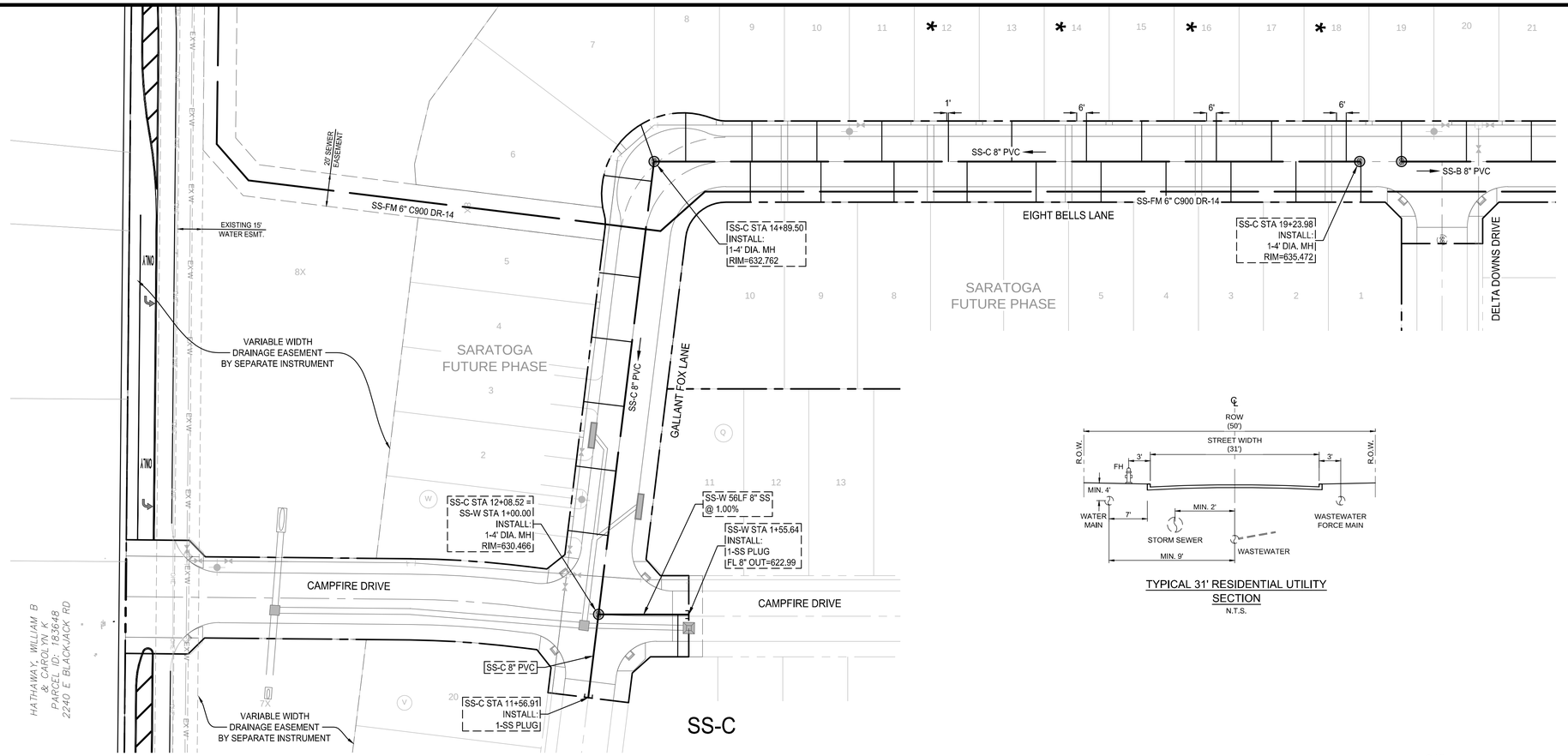
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REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

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FIFTH SUBMITTAL



TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

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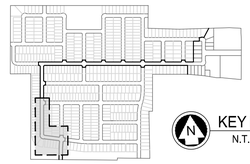
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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

SEWER PLAN & PROFILE - SS-C

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

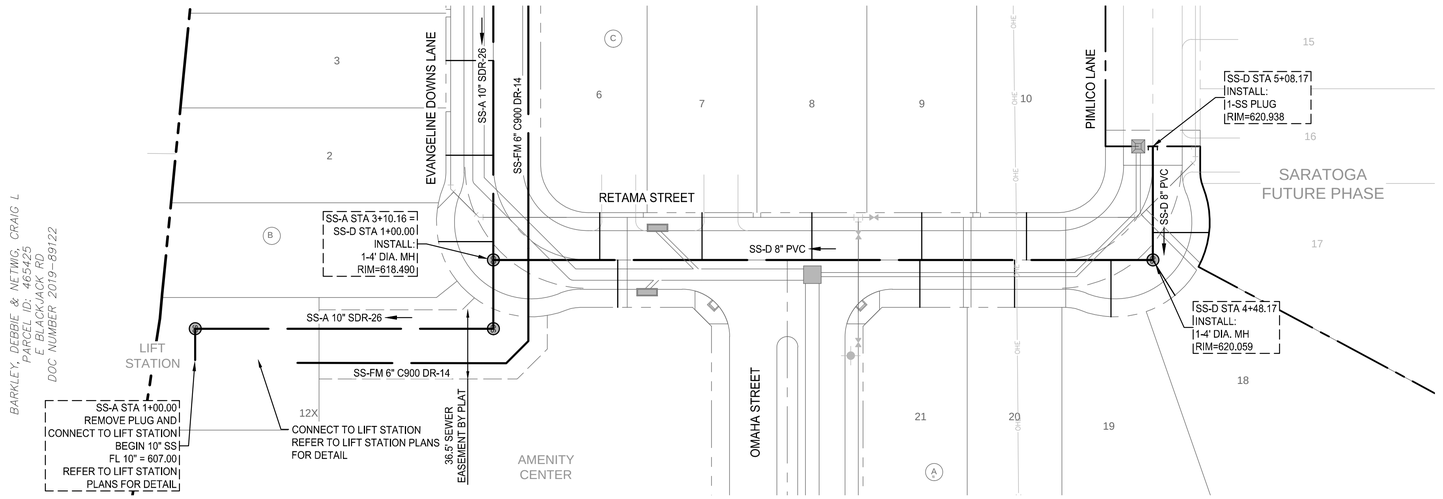
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

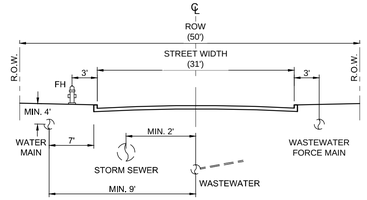
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	63
REVIEWER: TRS			

SARATOGA PHASE 1

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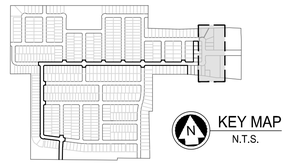
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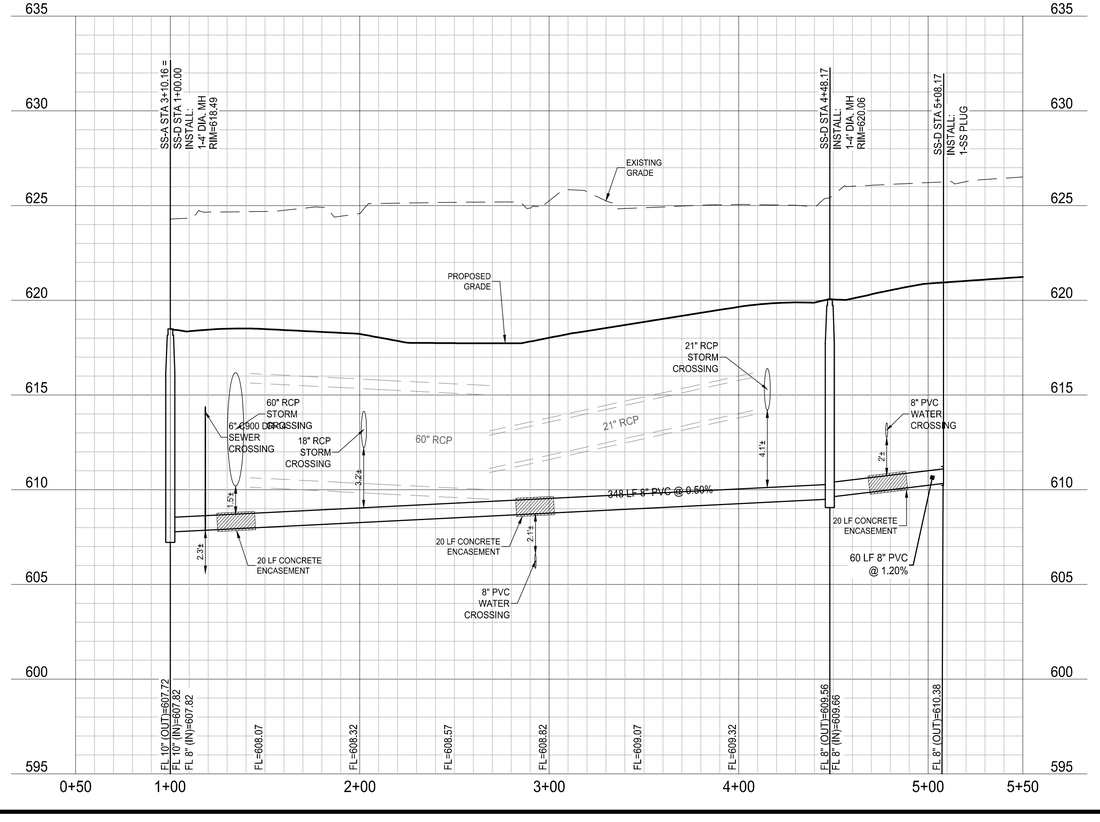
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SS-D



DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	64
REVIEWER: TRS			

SARATOGA PHASE 1

SARATOGA PHASE 1

SEWER PLAN & PROFILE - SS-D

AUBREY ETJ, DENTON COUNTY, TEXAS

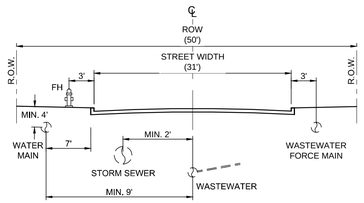
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FIFTH SUBMITTAL

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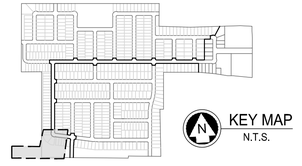
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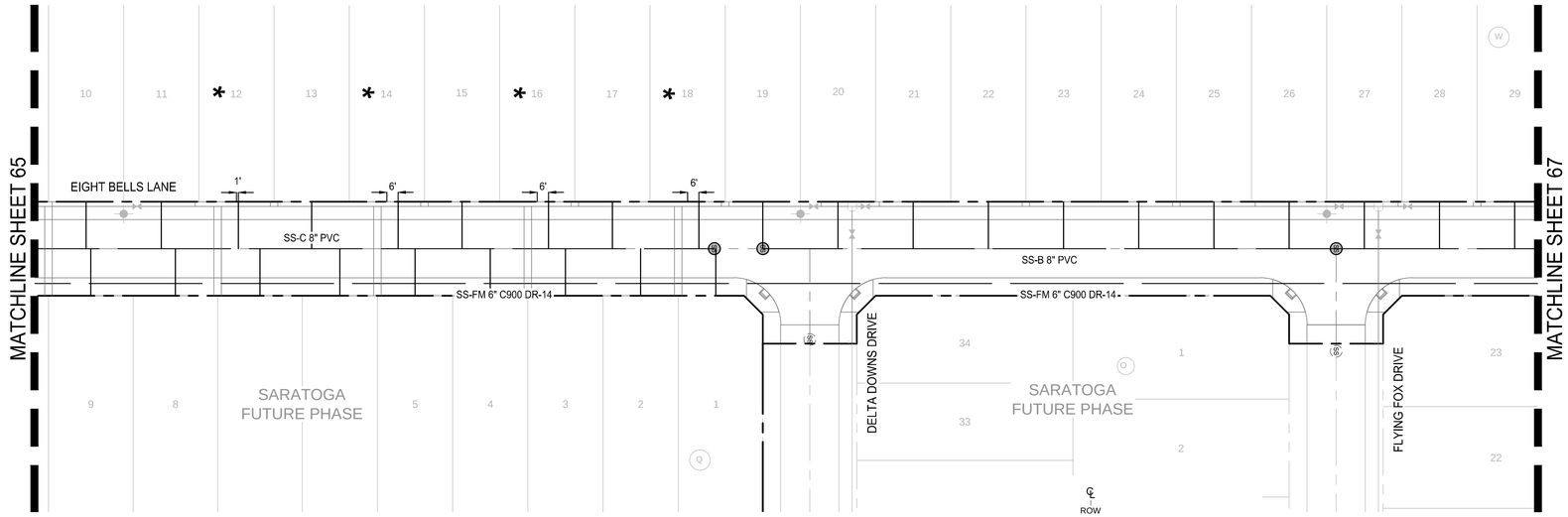
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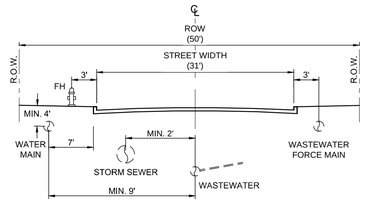
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DESIGNED: CLS	APRIL 2024	GEE21003	65
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

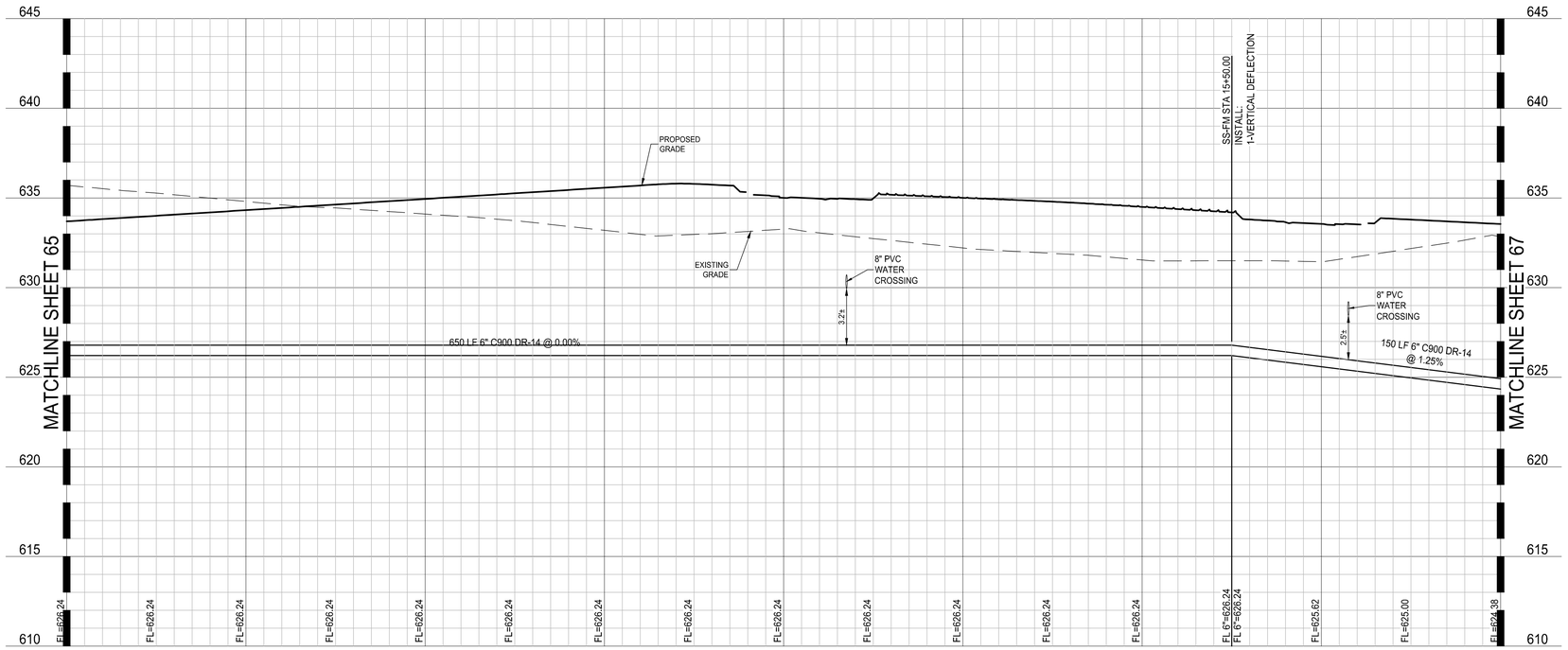
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TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

SS-FM



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

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FIFTH SUBMITTAL

0 40' 80'
SCALE: 1" = 40'

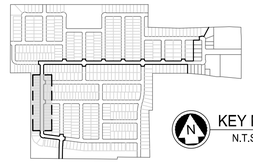
PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED SANITARY SEWER LINE
- PROP. SANITARY SEWER SERVICE
- PROPOSED PLUG
- EXISTING SANITARY SEWER LINE (EX SS)
- PROPOSED WATER LINE
- EXISTING WATER LINE (EX W)
- PROPOSED STORM DRAIN
- SERVICES FOR FUTURE LOTS
- DENOTES IRREGULAR SERVICE

NOTES:

1. ALL MANHOLES GREATER THAN 11.5 FEET DEEP SHALL BE A MINIMUM OF 5 FEET (60 INCHES) IN DIAMETER.
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KEY MAP
N.T.S.

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ELEVATION = 624.58'

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

SEWER PLAN & PROFILE - SS-FM (9+00 TO 17+00)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	66
REVIEWER: TRS			

SARATOGA PHASE 1

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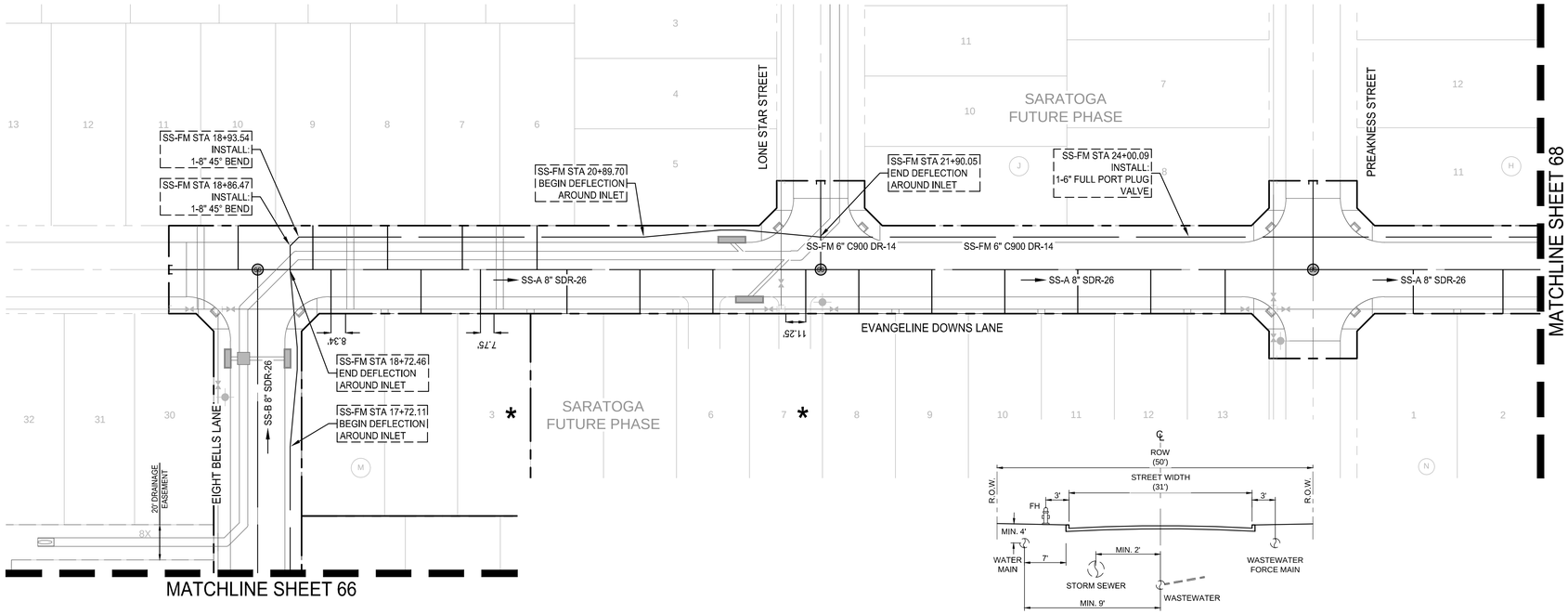
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SS-FM

TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED SANITARY SEWER LINE
- PROP. SANITARY SEWER SERVICE
- PROPOSED PLUG
- EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- SERVICES FOR FUTURE LOTS
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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	67
REVIEWER: TRS			

SARATOGA PHASE 1

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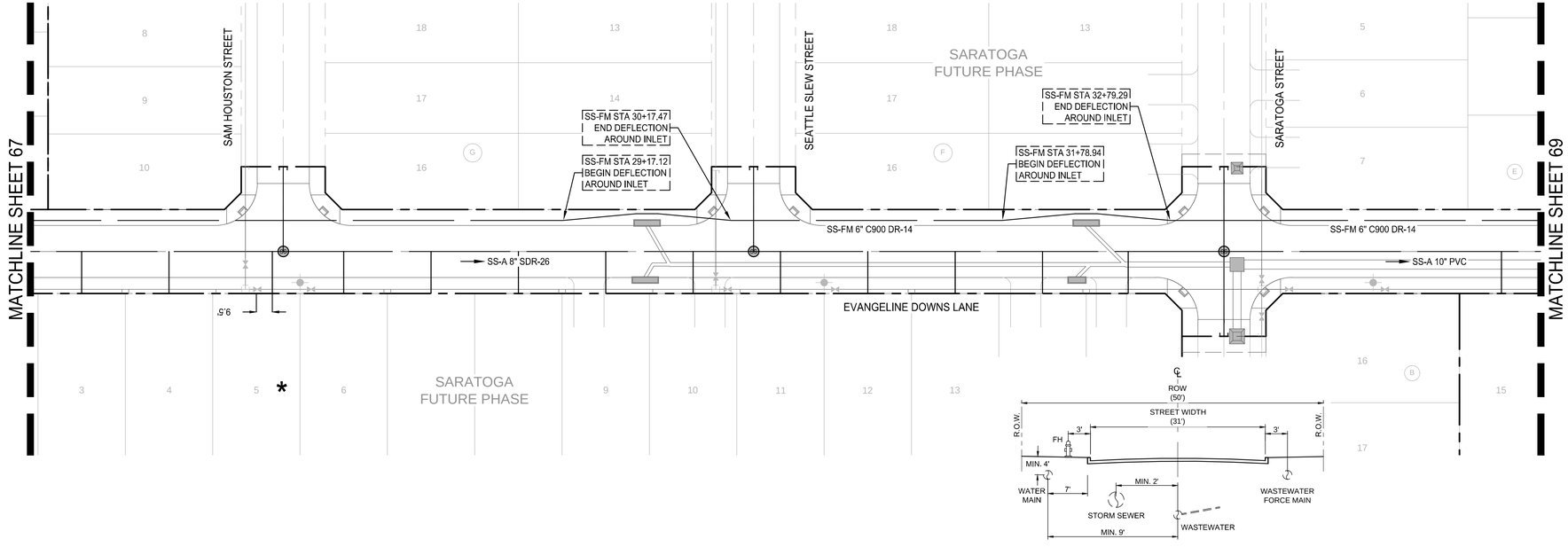
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TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

SCALE: 1" = 40'

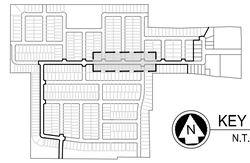
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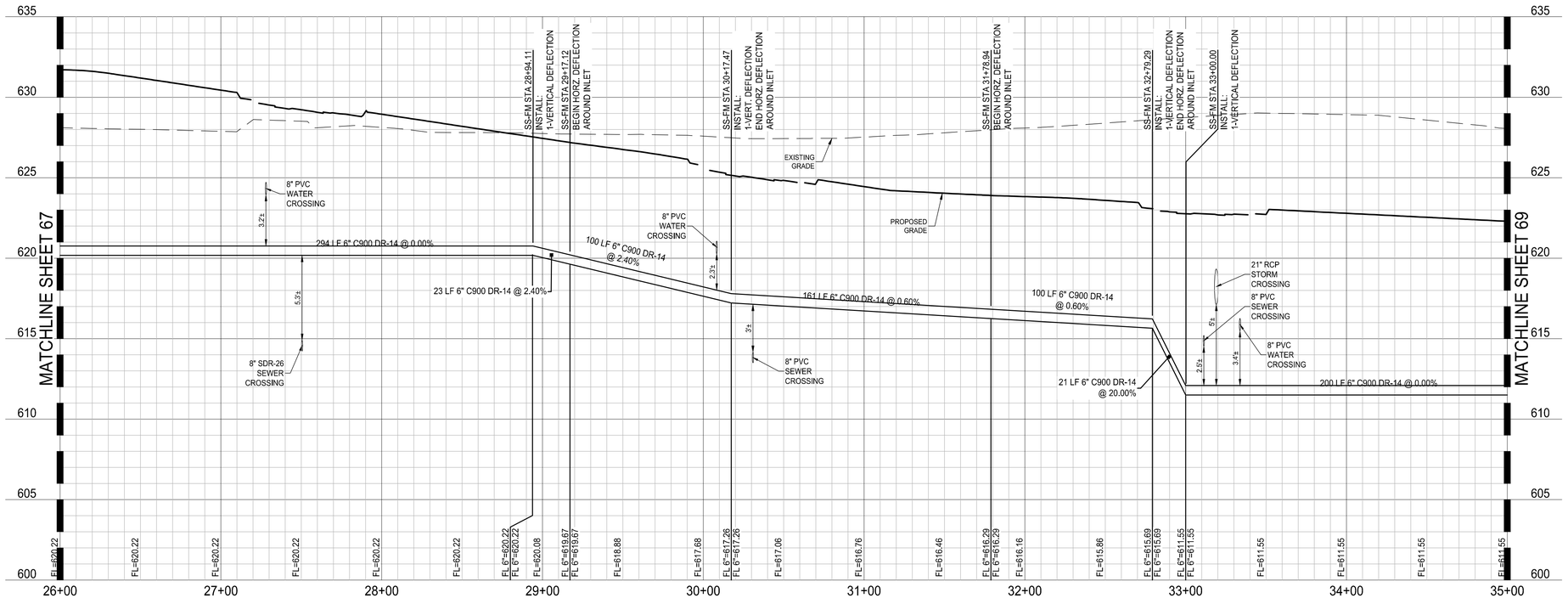
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SS-FM



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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

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SARATOGA PHASE 1

SEWER PLAN & PROFILE - SS-FM (26+00 TO 35+00)

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Westwood

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DESIGNED: CLS	APRIL 2024	GEE21003	68
REVIEWER: TRS			

SARATOGA PHASE 1

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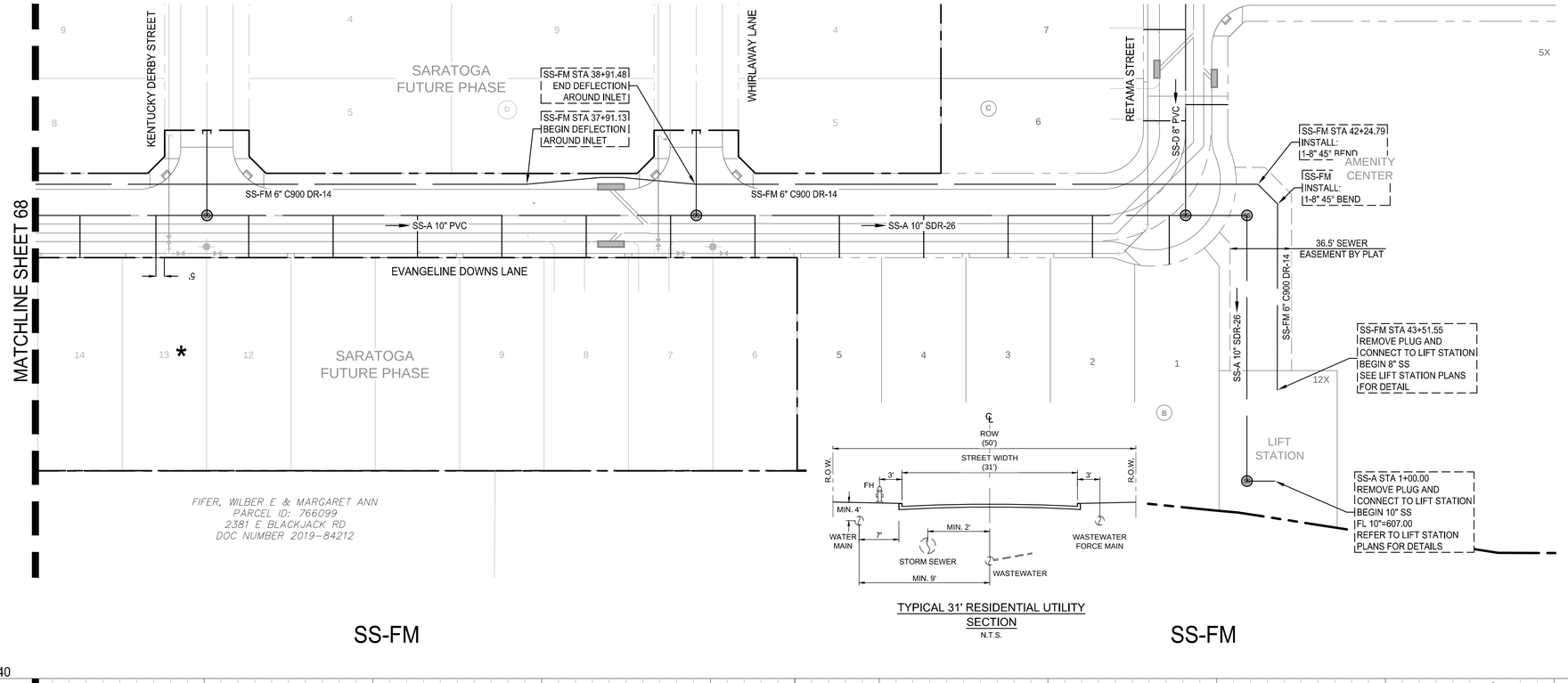
FIFTH SUBMITTAL

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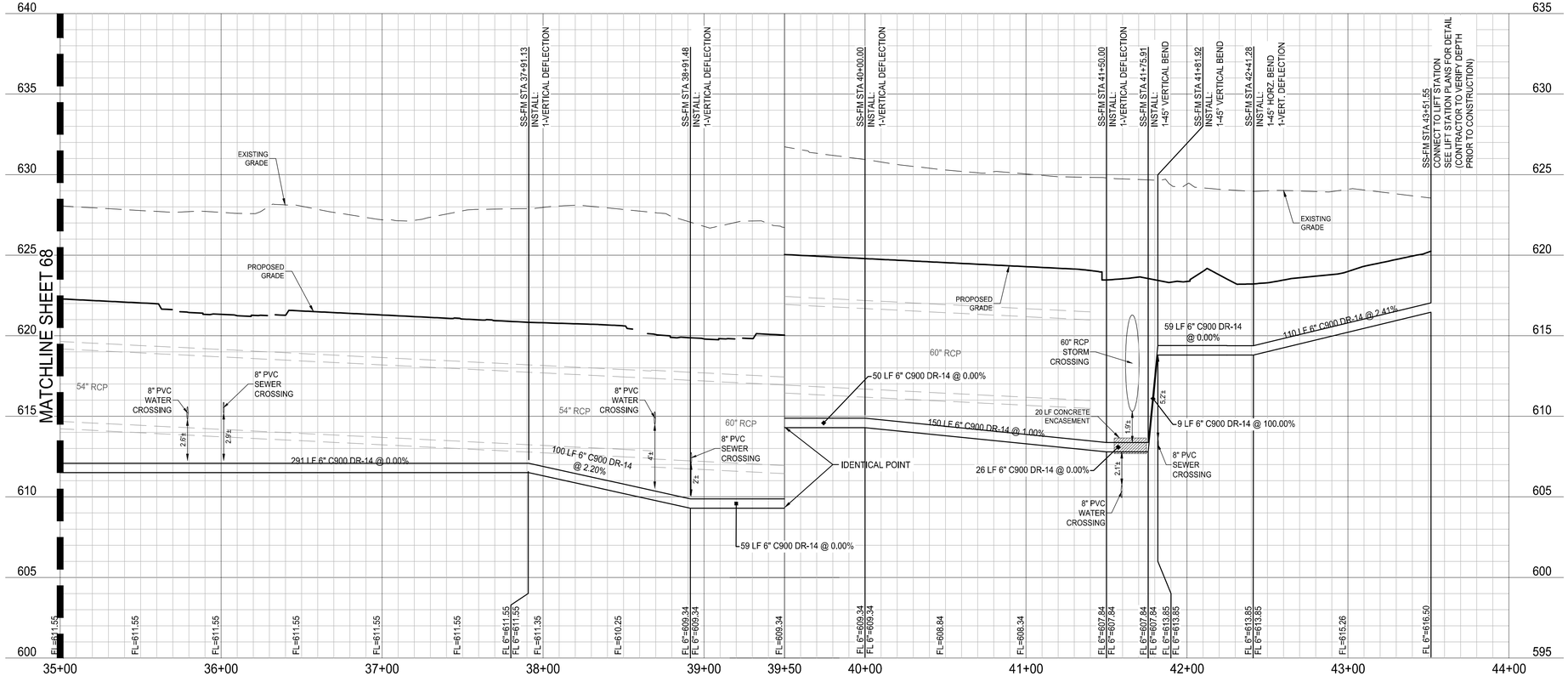
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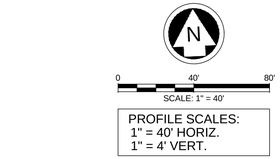
TYPICAL 31' RESIDENTIAL UTILITY SECTION
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SS-FM

SS-FM



SS-FM



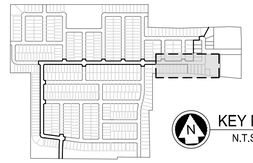
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SARATOGA PHASE 1

SEWER PLAN & PROFILE - SS-FM (35+00 TO END)

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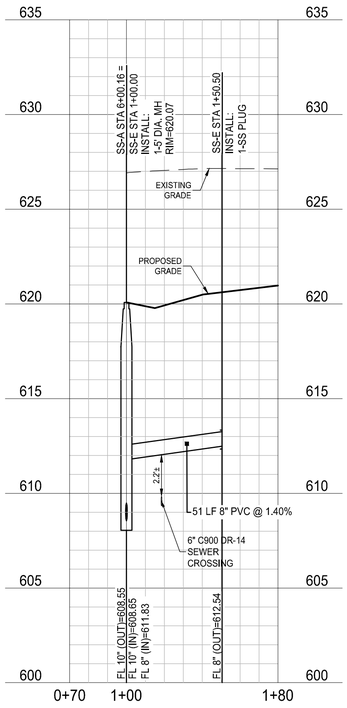
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SARATOGA PHASE 1

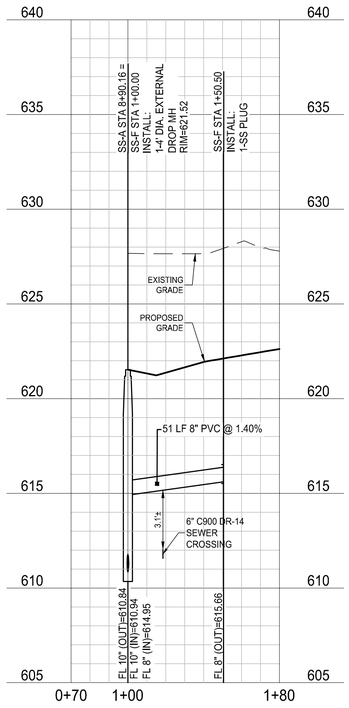
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FIFTH SUBMITTAL

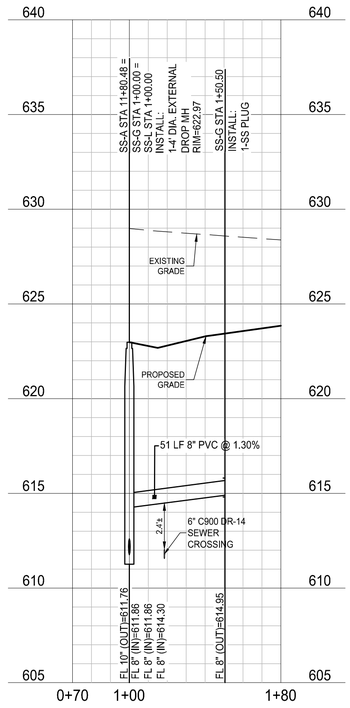
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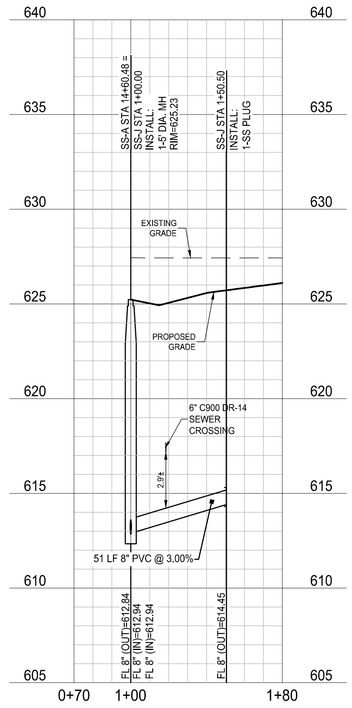
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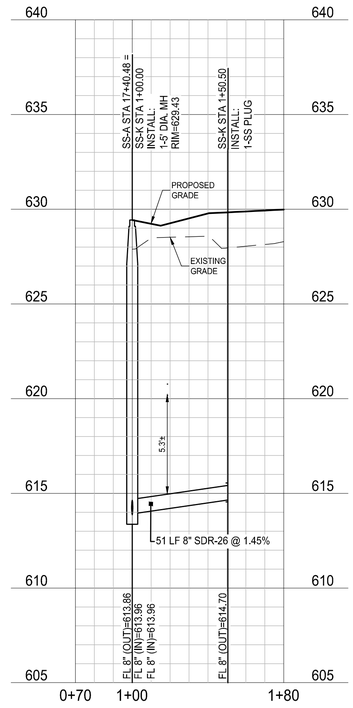
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SS-J



SS-K



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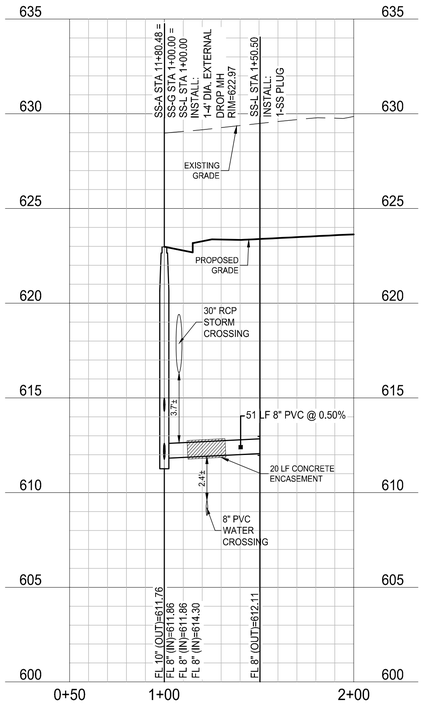
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- SERVICES FOR FUTURE LOTS
- DENOTES IRREGULAR SERVICE

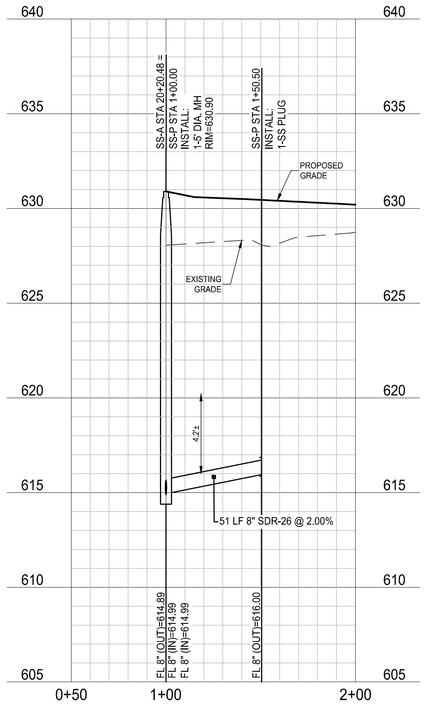
NOTES:

1. ALL MANHOLES GREATER THAN 11.5 FEET DEEP SHALL BE A MINIMUM OF 5 FEET (60 INCHES) IN DIAMETER.
2. ALL SEWER MAINS SHALL BE CONSTRUCTED UTILIZING SDR-26 PIPE.
3. CONTRACTOR SHALL PRESSURE RATE THE SANITARY SEWER PIPE AT ALL CROSSINGS BETWEEN THE WATERLINE AND THE SANITARY SEWER PIPE IN ACCORDANCE WITH TCEQ REGULATIONS.
4. SEPARATION BETWEEN WATERLINE AND SANITARY SEWER CROSSINGS SHALL CONFORM TO TCEQ'S CHAPTER 290.44(e), AND CHAPTER 317.13 APPENDIX E.
5. SERVICES THAT CONNECT INTO AN SDR-26 MAINLINE 11.5 FEET DEEP WILL BE CONSIDERED DEEP SEWER SERVICES.
6. SEWER MANHOLES IN THE FLOODPLAIN ARE REQUIRED TO HAVE SEALED LIDS THAT CONFORM MUSTANG SUD STANDARDS. EVERY THIRD MANHOLE WITHIN THE FLOODPLAIN SHALL BE VENTED IN ACCORDANCE WITH TCEQ REGULATIONS.
7. CLASS "H" EMBEDMENT.
8. ALL MANHOLES OUTSIDE OF PAVEMENT TO HAVE WATER TIGHT RING AND COVER AND RIM ELEVATION SET 12" ABOVE FINISHED GRADE.
9. NO CORING OF MANHOLES FOR SERVICE CONNECTIONS SHALL BE ALLOWED.
10. ALL DROP MANHOLES TO HAVE EXTERNAL DROP CONNECTIONS

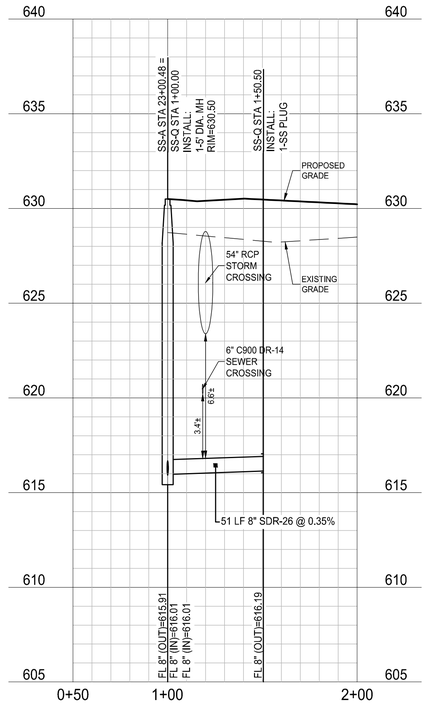
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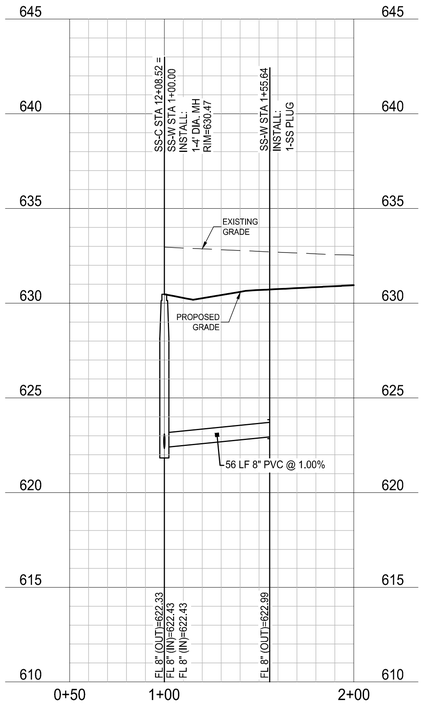
SS-P



SS-Q



SS-W



BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN (TYPE OR PRINT NAME) | 100268 (PE #) | 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

SEWER PROFILES

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

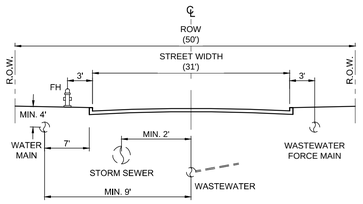
Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	70
REVIEWER: TRS			

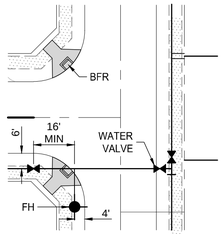
SARATOGA PHASE 1

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TYPICAL 31' RESIDENTIAL UTILITY SECTION

N.T.S.



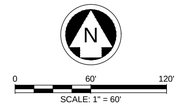
NON-TYPICAL WATER VALVE LOCATION DETAIL

N.T.S.

MATCHLINE SHEET 72

MATCHLINE SHEET 73





NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

LEGEND

- PROPOSED SANITARY SEWER LINE
- EX SS — EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EX W — EXISTING WATER LINE
- PROPOSED STORM DRAIN
- * DENOTES IRREGULAR SERVICE

NOTES:

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BENCHMARKS

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	P.E.#	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

WATER PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. P-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	71
REVIEWER: TRS			

FIFTH SUBMITTAL

SARATOGA PHASE 1

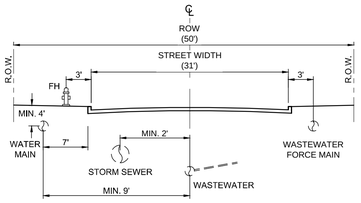
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FIFTH SUBMITTAL

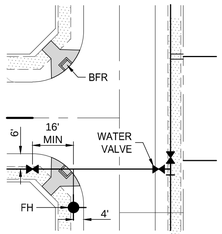
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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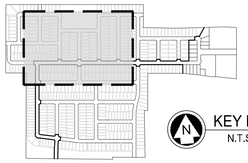
CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



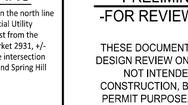
NON-TYPICAL WATER VALVE LOCATION DETAIL
N.T.S.



KEY MAP
N.T.S.

MATCHLINE SHEET 71

MATCHLINE SHEET 73



LEGEND

- PROPOSED SANITARY SEWER LINE
- EX SS — EXISTING SANITARY SEWER LINE
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ERIK S. HINKLIN — 100268 (PE #) — 04/30/2024 (DATE)
TYPE OR PRINT NAME

NO.	DATE	REVISION

SARATOGA PHASE 1

WATER PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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Toll Free (888) 937-5150 — Frisco, TX 75033
westwoodps.com

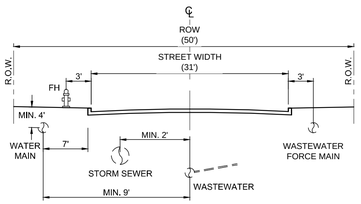
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO: F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	72
REVIEWER: TRS			

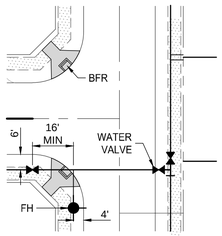
SARATOGA PHASE 1

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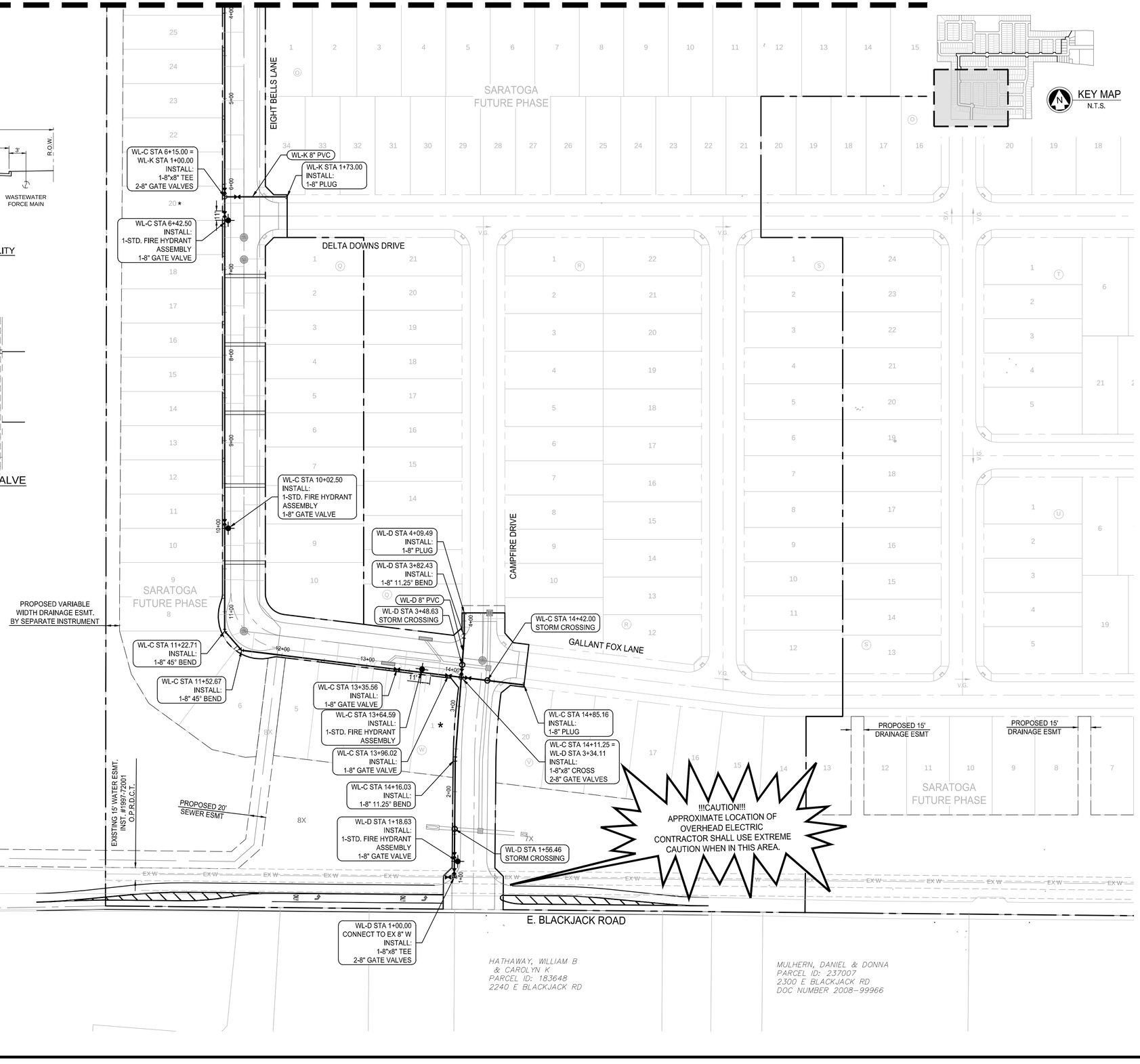
MATCHLINE SHEET 72



TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



NON-TYPICAL WATER VALVE LOCATION DETAIL
N.T.S.



0 60' 120'
SCALE: 1" = 60'

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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ONCOR ELECTRIC DELIVERY	888-313-6862
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MUSTANG SUD	940-440-9561

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- PROPOSED SANITARY SEWER LINE
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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

WATER PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	73
REVIEWER: TRS			

SARATOGA PHASE 1

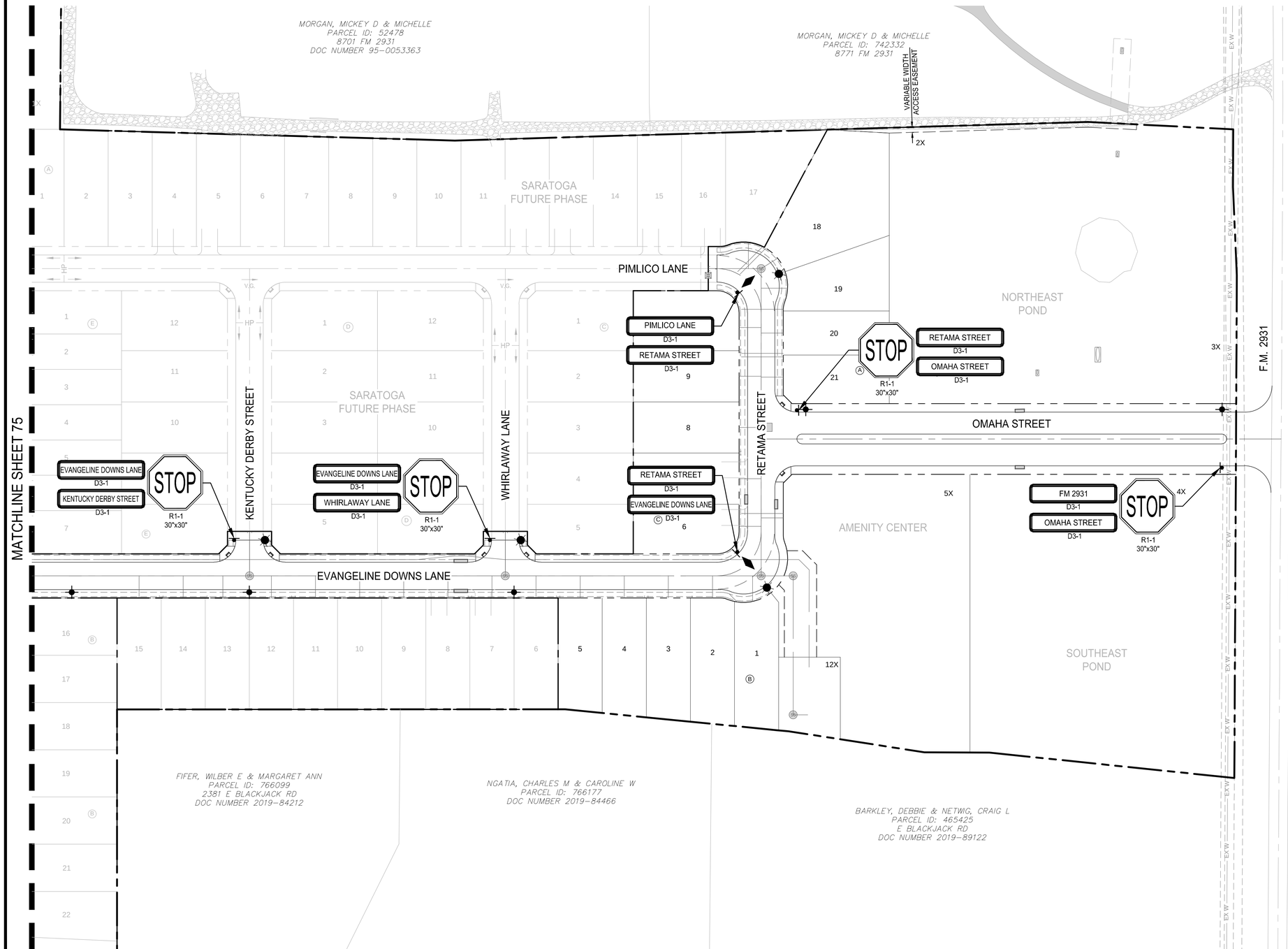
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FIFTH SUBMITTAL

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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



0 60' 120'
SCALE: 1" = 60'

LEGEND

- PROPOSED LIGHT POLE 1-FIXTURE
- PROPOSED STREET SIGN
- PROPOSED STOP SIGN
- PROPOSED FIRE HYDRANT
- PROPOSED CURB INLET
- STREET NAME CHANGE
- 1-INCH IRRIGATION SLEEVES

NOTES:

1. CENTER OF LIGHT POLES AND STREET SIGNS TO BE LOCATED 1.5' OFF BACK OF CURB.
2. CONTRACTOR SHALL SEQUENCE CONSTRUCTION SO THAT A MINIMUM OF ONE OPEN LANE IN EACH DIRECTION IS MAINTAINED AT ALL TIMES. TRAFFIC SHALL NOT BE MADE TO CROSS THE MEDIAN.
3. TRAFFIC SHALL NOT BE MADE TO CROSS THE MEDIAN.

KEY MAP
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

LIGHTING AND SIGNAGE PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	74
REVIEWER: TRS			

SARATOGA PHASE 1

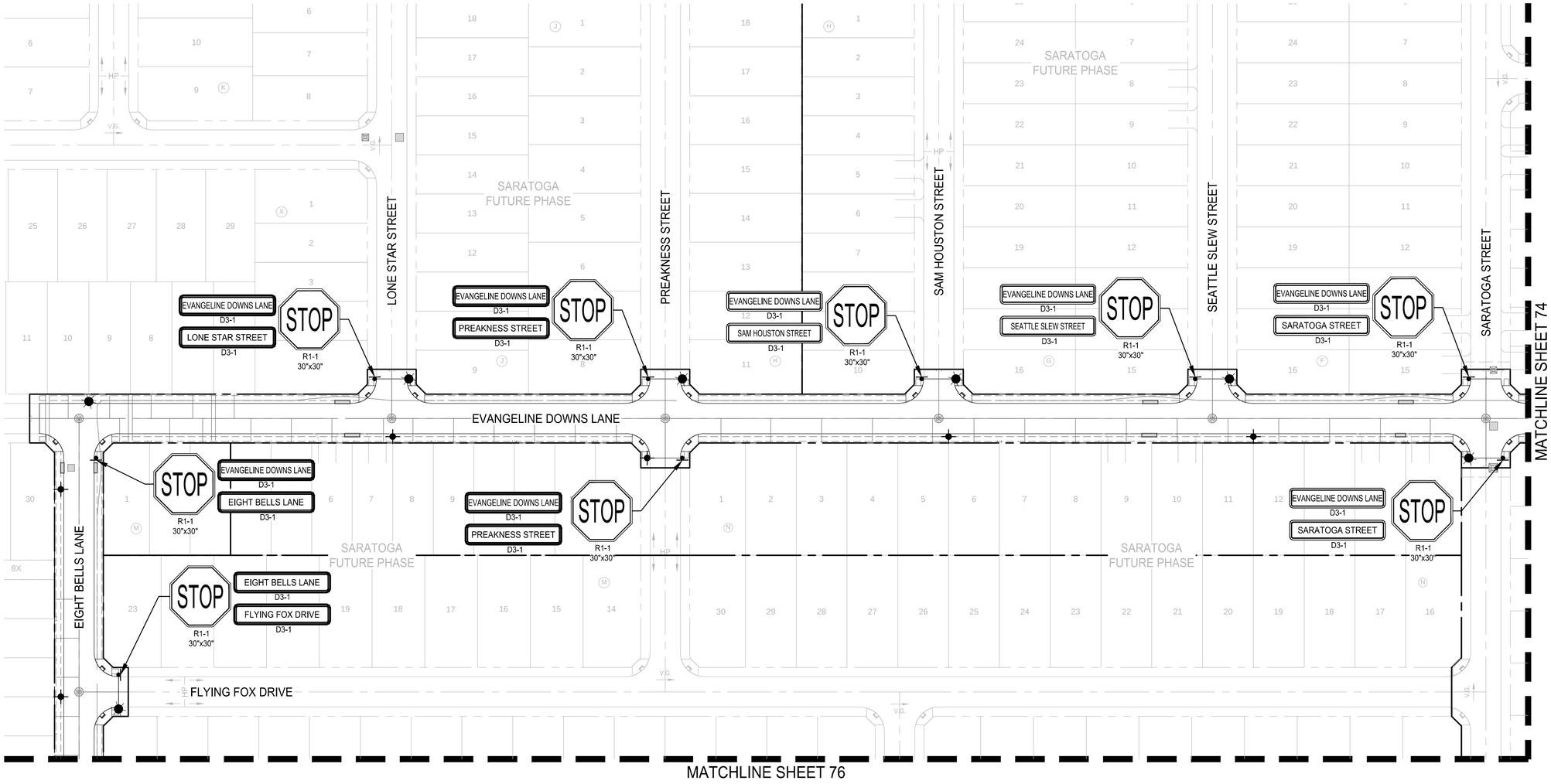
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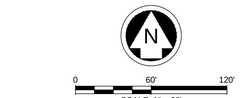
FIFTH SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



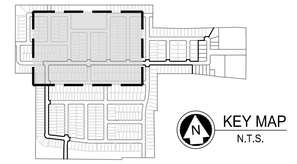


LEGEND

- PROPOSED LIGHT POLE 1-FIXTURE
- PROPOSED STREET SIGN
- PROPOSED STOP SIGN
- PROPOSED FIRE HYDRANT
- PROPOSED CURB INLET
- STREET NAME CHANGE
- 1-INCH IRRIGATION SLEEVES

NOTES:

1. CENTER OF LIGHT POLES AND STREET SIGNS TO BE LOCATED 1.5' OFF BACK OF CURB.
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SARATOGA PHASE 1

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AUBREY ETJ, DENTON COUNTY, TEXAS

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westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	75
REVIEWER: TRS			

SARATOGA PHASE 1

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Plot Date/Time: 4/30/2024 1:49 PM

MATCHLINE SHEET 75

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

FIFTH SUBMITTAL

SARATOGA FUTURE PHASE

SARATOGA FUTURE

DELTA DOWNS DRIVE

EIGHT BELLS LANE

CAMPFIRE DRIVE

SECRETARIAT STREET

PHAR LAP LANE

GALLANT FOX LANE

E. BLACKJACK ROAD

STOP
R1-1
30"x30"

EIGHT BELLS LANE
D3-1

DELTA DOWNS DRIVE
D3-1

GALLANT FOX LANE
D3-1

CAMPFIRE DRIVE
D3-1

E. BLACKJACK ROAD
D3-1

PROPOSED VARIABLE WIDTH DRAINAGE ESMT. BY SEPARATE INSTRUMENT

PROPOSED 20' SEWER ESMT

EXISTING 15' WATER ESMT. INST.#1997-72001 O.P.R.D.C.T.

PROPOSED 15' DRAINAGE ESMT

PROPOSED 15' DRAINAGE ESMT

SOUSA, CRYSTAL M
PARCEL ID: 200720
1965 E BLACKJACK RD
DOC NUMBER 2012-58623

HATHAWAY, WILLIAM B & CAROLYN K
PARCEL ID: 183648
2240 E BLACKJACK RD

MULHERN, DANIEL & DONNA
PARCEL ID: 237007
2300 E BLACKJACK RD
DOC NUMBER 2008-99966

KLINE, MARK S
PARCEL ID: 52045
2482 E BLACKJACK RD
DOC NUMBER 2019-56662

N

0 60' 120'
SCALE: 1" = 60'

LEGEND

- PROPOSED LIGHT POLE 1-FIXTURE
- PROPOSED LIGHT POLE 2-FIXTURE
- PROPOSED STREET SIGN
- PROPOSED STOP SIGN
- PROPOSED FIRE HYDRANT
- PROPOSED CURB INLET
- PROPOSED RAMP

NOTES:

1. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES AND STANDARD DETAILS.
2. THE CITY OF AUBREY DESIGN AND CONSTRUCTION STANDARDS APPLY WHETHER INDICATED ON THESE PLANS OR NOT.
3. CENTER OF LIGHT POLES AND STREET SIGNS TO BE LOCATED 1.5' OFF BACK OF CURB.
4. REFER TO IRRIGATION PLANS FOR SLEEVE LOCATIONS
5. SIGN PLACEMENT AS REPRESENTATION ONLY, SEE CITY OF AUBREY DETAILS FOR EXACT LOCATION.

KEY MAP
N.T.S.

BENCHMARKS

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TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	76
REVIEWER: TRS			

SARATOGA PHASE 1

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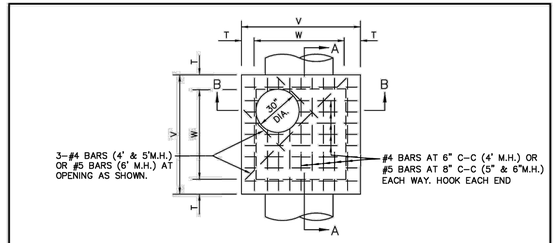
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ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
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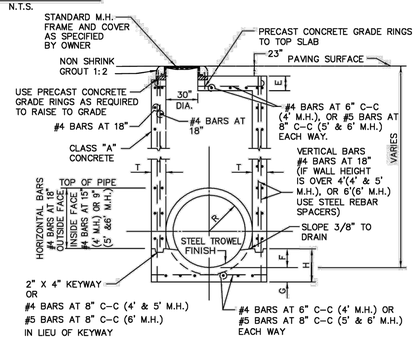
FIFTH SUBMITTAL



PLAN
N.T.S.

M.H. SIZE(W)	V	T	E	F	G	H
4'	5'–4"	8"	6"	9"	6"	1'–3"
5'	6'–4"	8"	6"	12"	8"	1'–8"
6'	7'–6"	9"	9"	16"	10"	2'–2"

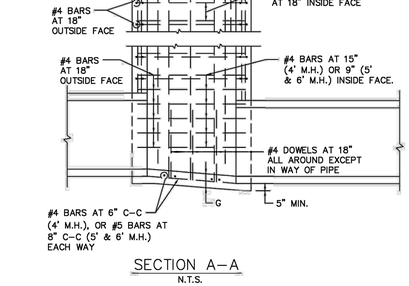
TABLE OF DIMENSIONS
N.T.S.



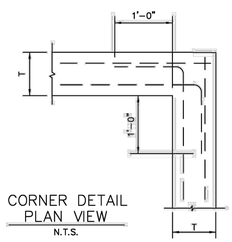
SECTION B–B
N.T.S.

STORM WATER MANHOLE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.1.4.1*	
4', 5', OR 6' SQUARE		DATE OCT. '04	STANDARD DRAWING NO. 6010A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



SECTION A–A
N.T.S.



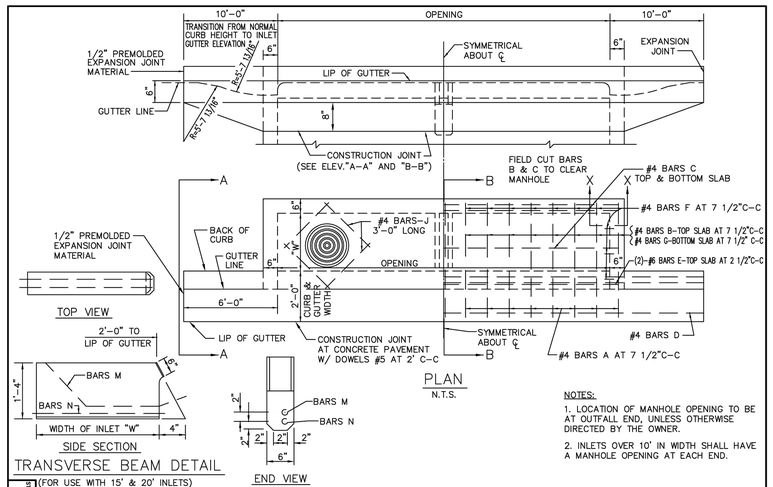
CORNER DETAIL PLAN VIEW
N.T.S.

NOTES:

1. SLOPE INVERT OF MANHOLE AS INDICATED ON PLAN–PROFILE SHEET.
2. LAYERS OF REINFORCING STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACE SHALL HAVE A COVER OF 2" TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
3. CONCRETE SHALL BE CLASS "A".

STORM WATER MANHOLE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.1.4.1*	
4', 5', OR 6' SQUARE		DATE OCT. '04	STANDARD DRAWING NO. 6010B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



PLAN
N.T.S.

NOTES:

1. LOCATION OF MANHOLE OPENING TO BE AT OUTFALL END, UNLESS OTHERWISE DIRECTED BY THE OWNER.
2. INLETS OVER 10' IN WIDTH SHALL HAVE A MANHOLE OPENING AT EACH END.

6020A (NCTCOG STANDARD DRAWING NO.)	CURB INLET 5', 10', 15' OR 20' OPENING	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702	
			DATE OCT. '04	STANDARD DRAWING NO. 6020A

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ERIK S. HINKLIN (TYPE OR PRINT NAME) 100268 (PE #) 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	77
REVIEWER: TRS			

SARATOGA PHASE 1

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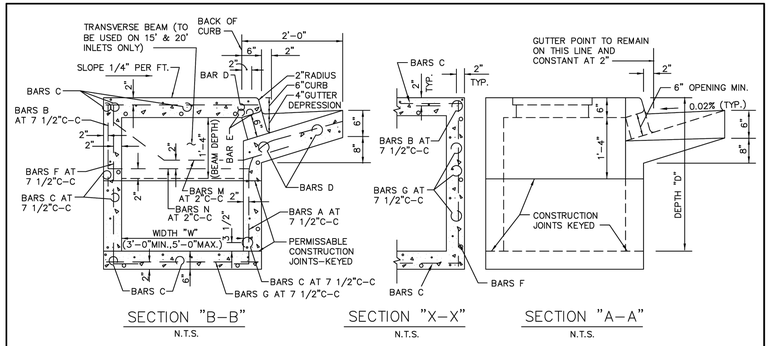
FIFTH SUBMITTAL

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ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
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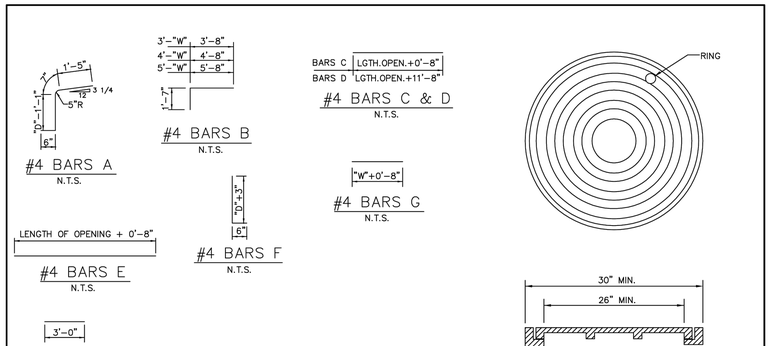
SECTION "B-B" N.T.S. SECTION "X-X" N.T.S. SECTION "A-A" N.T.S.

GENERAL NOTES:

1. ALL CONCRETE SHALL BE CLASS "A" CONCRETE.
2. REINFORCING BARS SHALL BE STANDARD GRADE STEEL, DEFORMED REINFORCING BARS OF A DIAMETER AND LENGTH AS SHOWN.
3. CHAMFER ALL EXPOSED CORNERS 3/4" EXCEPT WHERE OTHERWISE NOTED.
4. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
5. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMODATE STORM SEWER PIPE.
6. RING AND COVER SHALL BE APPROVED BY THE OWNER AND INSTALLED BY THE CONTRACTOR.

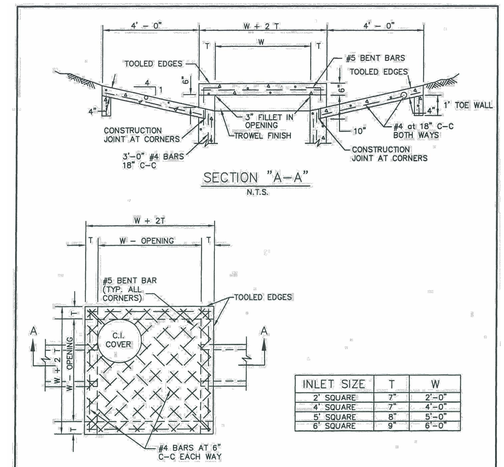
STANDARD DRAWING NO. 6020B

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702
CROSS SECTION & INLET THROAT		DATE OCT. '04 / STANDARD DRAWING NO. 6020B



STANDARD DRAWING NO. 6020C

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702
REBAR & M.H. FRAME & COVER		DATE OCT. '04 / STANDARD DRAWING NO. 6020C



SECTION "A-A" N.T.S.

PLAN OF TOP SLAB N.T.S.

INLET SIZE	T	W
2' SQUARE	7"	2'-0"
4' SQUARE	7"	4'-0"
5' SQUARE	8"	5'-0"
6' SQUARE	9"	6'-0"

NOTES:

1. MATERIAL AND WORKMANSHIP SHALL CONFORM WITH THE REQUIREMENTS OF NCTCOG STANDARD SPECIFICATIONS FOR STANDARD CONCRETE MANHOLES. MINIMUM CLASS "A" CONCRETE.
2. LAYERS OF REINFORCING STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACES SHALL HAVE A COVER OF 2" TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
3. FOR DETAILS OF REINFORCING OF LOWER PORTIONS OF INLET SEE APPROPRIATE SQUARE MANHOLE DETAILS.
4. DEPTH OF DROP INLET FROM FINISHED GRADE TO FLOW LINE OF INLET IS VARIABLE. APPROXIMATE DEPTH WILL BE SHOWN ON PLANS AT LOCATION OF INLET.
5. ALL STANDARD DROP INLETS SHALL HAVE ONE OPENING ON EACH SIDE UNLESS OTHERWISE SHOWN ON PLANS.
6. DECK MAY BE REINFORCED SAME AS 4' SQUARE MANHOLE.

DROP INLET 2', 4', 5' OR 6' SQUARE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702
		DATE OCT. '04 / STANDARD DRAWING NO. 6040

BILL OF REINFORCING STEEL

DEPTH "D"	ALL AND	WIDTHS LENGTHS	OPENING LENGTH "L" = 5ft Widths "W" 3ft		4ft	5ft	OPENING LENGTH "L" = 10ft Widths "W" 3ft		4ft	5ft	OPENING LENGTH "L" = 15 ft Widths "W" 3ft		4ft	5ft	OPENING LENGTH "L" = 20 ft Widths "W" 3ft		4ft	5ft	
	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS
	C	D	E	J	F	F	F	A	B	G	F	F	F	A	B	G	F	F	F
3'-6"	17	3	2	4	20	24	28	10	10	20	28	32	36	18	18	28	36	40	44
3'-9"	18	"	"	"	"	"	"	"	"	20	"	"	"	"	"	28	"	"	"
4'-0"	19	"	"	"	"	"	"	"	"	24	"	"	"	"	"	32	"	"	"
4'-3"	19	"	"	"	"	"	"	"	"	24	"	"	"	"	"	32	"	"	"
4'-6"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"
4'-9"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"
5'-0"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"
5'-3"	23	"	"	"	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"
5'-6"	23	"	"	"	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"
5'-9"	25	"	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"
6'-0"	25	"	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"
6'-3"	26	"	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"
6'-6"	27	"	"	"	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"
6'-9"	27	"	"	"	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"
7'-0"	29	"	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"
7'-3"	29	"	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"
7'-6"	30	"	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"
7'-9"	31	"	"	"	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"
8'-0"	31	"	"	"	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"
8'-3"	32	"	"	"	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"
8'-6"	33	"	"	"	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"
8'-9"	34	"	"	"	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"
9'-0"	35	"	"	"	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"
9'-3"	36	"	"	"	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"
9'-6"	37	"	"	"	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"
10'-0"	38	"	"	"	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"

DEPTH "D"	OPENING LENGTH "L" = 5ft Widths "W" 3ft		4ft		5ft		OPENING LENGTH "L" = 10ft Widths "W" 3ft		4ft		5ft		OPENING LENGTH "L" = 15 ft Widths "W" 3ft		4ft		5ft		OPENING LENGTH "L" = 20 ft Widths "W" 3ft		4ft		5ft	
	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS	BARS
	G	M	N	F	F	F	A	B	G	M	N	F	F	F	A	B	G	M	N	F	F	F	A	B	G	M	N
3'-6"	44	2	2	44	48	52	34	34	44	2	2													
3'-9"	44	"	"	"	"	"	"	"	"	"	"													
4'-0"	48	"	"	"	"	"	"	"	"	"	"													
4'-3"	48	"	"	"	"	"	"	"	"	"	"													
4'-6"	50	"	"	"	"	"	"	"	"	"	"													
4'-9"	50	"	"	"	"	"	"	"	"	"	"													
5'-0"	50	"	"	"	"	"	"	"	"	"	"													
5'-3"	52	"	"	"	"	"	"	"	"	"	"													
5'-6"	52	"	"	"	"	"	"	"	"	"	"													
5'-9"	54	"	"	"	"	"	"	"	"	"	"													
6'-0"	54	"	"	"	"	"	"	"	"	"	"													
6'-3"	54	"	"	"	"	"	"	"	"	"	"													
6'-6"	56	"	"	"	"	"	"	"	"	"	"													
6'-9"	56	"	"	"	"	"	"	"	"	"	"													
7'-0"	58	"	"	"	"	"	"	"	"	"	"													
7'-3"	58	"	"	"	"	"	"	"	"	"	"													
7'-6"	58	"	"	"	"	"	"	"	"	"	"													
7'-9"	60	"	"	"	"	"	"	"	"	"	"													
8'-0"	60	"	"	"	"	"	"	"	"	"	"													
8'-3"	60	"	"	"	"	"	"	"	"	"	"													
8'-6"	62	"	"	"	"	"	"	"	"	"	"													
8'-9"	62	"	"	"	"	"	"	"	"	"	"													
9'-0"	64	"	"	"	"	"	"	"	"	"	"													
9'-3"	64	"	"	"	"	"	"	"	"	"	"													
9'-6"	66	"	"	"	"	"	"	"	"	"	"													
10'-0"	66	"	"	"	"	"	"	"	"	"	"													

NOTE:
FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLES ARE IN INCREMENTS OF 3 INCHES BUT ANY DEPTHS OTHER THAN THOSE SHOWN ABOVE MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS FALLING WITHIN THE LIMITS OF THE TABLE MAY BE FOUND BY INTERPOLATION.

STANDARD DRAWING NO. 6020D

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702
BILL OF REINFORCING STEEL		DATE OCT. '04 / STANDARD DRAWING NO. 6020D

SUMMARY OF QUANTITIES FOR CURB INLETS

DEPTH "D"	5'-0" OPENING WIDTH 3'-0" CONC C.Y.	STEEL LBS.	WIDTH 4'-0" CONC C.Y.	STEEL LBS.	WIDTH 5'-0" CONC C.Y.	STEEL LBS.	10'-0" OPENING WIDTH 3'-0" CONC C.Y.	STEEL LBS.	WIDTH 4'-0" CONC C.Y.	STEEL LBS.	WIDTH 5'-0" CONC C.Y.	STEEL LBS.	15'-0" OPENING WIDTH 3'-0" CONC C.Y.	STEEL LBS.	WIDTH 4'-0" CONC C.Y.	STEEL LBS.	WIDTH 5'-0" CONC C.Y.	STEEL LBS.	20'-0" OPENING WIDTH 3'-0" CONC C.Y.	STEEL LBS.	WIDTH 4'-0" CONC C.Y.	STEEL LBS.	WIDTH 5'-0" CONC C.Y.	STEEL LBS.
3'-6"	2.62	306	2.95	332	3.28	373	4.12	479	4.64	521	5.20	564	5.69	667	6.40	721	7.10	775	7.20	846	8.11	909	9.03	976
3'-9"	2.70	309	3.04	341	3.39	373	4.25	494	4.78	536	5.34	579	5.87	687	6.58	741	7.30	796	7.42	874	8.34	937	9.27	1010
4'-0"	2.78	328	3.14	364	3.49	399	4.38	518	4.92	565	5.49	610	6.05	718	6.77	776	7.49	835	7.64	909	8.58	976	9.51	1046
4'-3"	2.87	334	3.23	370	3.59	406	4.51	526	5.06	573	5.64	619	6.22	729	6.95	787	7.69	847	7.87	922	8.81	990	9.75	1061
4'-6"	2.95	356	3.32	394	3.69	431	4.64	558	5.20	607	5.79	656	6.40	770	7.14	830	7.88	891	8.09	973	9.04	1043	9.99	1115
4'-9"	3.03	361	3.41	410	3.79	438	4.77	566	5.34	616	5.94	665	6.57	780	7.32	841	8.07	903	8.31	986	9.27	1056	10.23	1129
5'-0"	3.12	367	3.51	416	3.90	445	4.90	574	5.47	624	6.09	674	6.75	791	7.51	853	8.27	915	8.53	999	9.50	1070	10.47	1144
5'-3"	3.20	383	3.60	424	4.00	465	5.03	600	5.61	652	6.23	704	6.93	827	7.69	890	8.46	955	8.76	1044	9.73	1118	10.71	1194
5'-6"	3.28	389	3.69	430	4.10	472	5.16	608	5.75	661	6.38	713	7.11	837	7.88	901	8.66	967	8.98	1057	9.97	1131	10.95	1208
5'-9"	3.37	405	3.78	451	4.20	495	5.29	635	5.89	690	6.53	744	7.28	874	8.07	940	8.85	1007	9.20	1102	10.20	1178	11.19	1258
6'-0"	3.45	415	3.88	460	4.30	504	5.42	646	6.03	702	6.68	757	7.45	888	8.25	954	9.05	1022	9.42	1119	10.43	1196	11.43	1276
6'-3"	3.53	425	3.97	470	4.41	515	5.55	661	6.17	718	6.83	773	7.63	908	8.44	975	9.24	1044	9.64	1147	10.66	1223	11.67	1305
6'-6"	3.62	437	4.06	486	4.51	532	5.68	681	6.31	739	6.97	797	7.81	935	8.62	1005	9.43	1057	9.87	1178	10.89	1258	11.92	1340
6'-9"	3.70	441	4.15	490	4.61	537	5.81	688	6.45	747	7.12	806	7.98	945	8.81	1015	9.63	1066	10.09	1191	11.12	1272	12.15	1355
7'-0"	3.78	460	4.25	510	4.71	560	5.94	716	6.59	777	7.27	837	8.16	981	8.99	1053	9.82	1126	10.31	1237	11.35	1319	12.40	1404
7'-3"	3.86	465	4.34	516	4.81	567	6.07	724	6.72	785	7.42	846	8.33	992	9.18	1065	10.02	1138	10.53	1249	11.59	1333	12.64	1418
7'-6"	3.95	477	4.43	529	4.91	570	6.20	742	6.86	804	7.57	866	8.51	1016	9.36	1089	10.21	1163	10.75	1290	11.82	1365	12.88	1451
7'-9"	4.03	491	4.53	544	5.02	597	6.33	762	7.00	826	7.71	890	8.67	1040	9.55	1116	10.41	1193	10.98	1313	12.05	1399	13.12	1498
8'-0"	4.12	496	4.62	550	5.12	604	6.46	770	7.14	834	7.86	899	8.86	1051	9.73	1129	10.60	1205	11.20	1325	12.28	1412	13.36	1510
8'-3"	4.20	504	4.71	559	5.22	613	6.59	784	7.28	849	8.01	915	9.04	1069	9.92	1149	10.80	1228	11.42	1353	12.51	1440	13.60	1529
8'-6"	4.28	519	4.80	576	5.32	632	6.71	804	7.42	871	8.16	938	9.21	1107	10.10	1176	10.99	1257	11.64	1385	12.74	1474	13.84	1565
8'-9"	4.37	528	4.90	586	5.42	643	6.84	819	7.56	886	8.31	954	9.39	1119	10.29	1199	11.18	1280	11.87	1410	12.97	1500	14.08	1592
9'-0"	4.45	545	4.99	605	5.53	664	6.97	842	7.70	912	8.46	982	9.56	1148	10.47	1231	11.38	1313	12.09	1447	13.21	1539	14.32	1631
9'-3"	4.53	554	5.08	614	5.63	674	7.10	858	7.84	929	8.60	999	9.74	1169	10.66	1252	11.57	1335	12.31	1474	13.44	1563	14.56	1660
9'-6"	4.62	568	5.17	630	5.73	692	7.23	878	7.97	950	8.75	1022	9.92	1195	10.84	1280	11.77	1365	12.53	1505	13.67	1600	14.80	1696
10'-0"	4.78	582	5.36	645	5.93	708	7.49	900	8.11	974	9.05	1048	10.27	1227	11.21	1312	12.16	1399	12.98	1546	14.13	1642	15.29	1739

NOTE:
FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLES ARE IN INCREMENTS OF 3 INCHES BUT ANY DEPTHS OTHER THAN THOSE SHOWN ABOVE MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS FALLING WITHIN THE LIMITS OF THE TABLE MAY BE FOUND BY INTERPOLATION.

STANDARD DRAWING NO. 6020E

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702
SUMMARY OF QUANTITIES		DATE OCT. '04 / STANDARD DRAWING NO. 6020E

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	78
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: I:\pw.com\Network\Drives\DUR\Projects\1003-saratoga\master infrastructure\3_Design\05_Civil\01_CAD\Sheets\GEE21003-CADETAILS
Last Saved By: BoduH
Last Saved Time: 4/30/2024 4:48 PM
Plot Date/Time: 4/30/2024 4:29 PM

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

FIFTH SUBMITTAL

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE:
FILE:

TABLE OF DIMENSIONS AND REINFORCING STEEL
(Wings for one structure end)

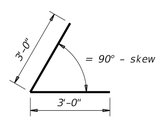
Dimensions					Variable Reinforcing				Estimated Quantities per ft of wing (2–wings) (4)		Estimated Quantities per ft of Toewall (1–toewall)	
					Bars J1		Bars J2					
Maximum Wingwall Height Hw	W	X	Y	Z	Size	Spa	Size	Spa	Reinf (Lb/Ft)	Conc (CY/Ft)	Reinf (Lb/Ft)	Conc (CY/Ft)
2'–6"	2'–10"	10"	1'–0"	7"	#4	1'–0"	#4	1'–0"	48.64	0.406	6.85	0.071
2'–9"	2'–10"	10"	1'–0"	7"	#4	1'–0"	#4	1'–0"	49.31	0.424	6.85	0.071
3'–0"	2'–10"	10"	1'–0"	7"	#4	1'–0"	#4	1'–0"	49.98	0.444	6.85	0.071
3'–3"	2'–10"	10"	1'–0"	7"	#4	1'–0"	#4	1'–0"	53.32	0.462	6.85	0.071
3'–6"	2'–10"	10"	1'–0"	7"	#4	1'–0"	#4	1'–0"	53.98	0.480	6.85	0.071
4'–0"	3'–2"	1'–2"	1'–0"	7"	#4	1'–0"	#4	1'–0"	55.77	0.532	6.85	0.071
4'–6"	3'–2"	1'–2"	1'–0"	7"	#4	1'–0"	#4	1'–0"	59.77	0.568	6.85	0.071
5'–0"	3'–9"	1'–7"	1'–2"	7"	#4	1'–0"	#4	1'–0"	63.45	0.632	6.96	0.075
5'–6"	3'–9"	1'–7"	1'–2"	7"	#4	1'–0"	#4	1'–0"	67.46	0.668	6.96	0.075
6'–0"	4'–4"	2'–0"	1'–4"	7"	#5	1'–0"	#5	1'–0"	80.67	0.730	7.07	0.078
6'–6"	4'–4"	2'–0"	1'–4"	7"	#5	1'–0"	#5	1'–0"	85.05	0.768	7.07	0.078
7'–0"	5'–0"	2'–3"	1'–9"	8"	#5	1'–0"	#5	1'–0"	92.15	0.864	8.07	0.093
7'–6"	5'–0"	2'–3"	1'–9"	8"	#5	1'–0"	#5	1'–0"	96.54	0.902	8.07	0.093
8'–0"	5'–6"	2'–8"	1'–10"	8"	#5	6"	#5	6"	139.04	0.962	8.13	0.095
8'–6"	5'–6"	2'–8"	1'–10"	8"	#5	6"	#5	6"	144.47	1.000	8.13	0.095
9'–6"	6'–0"	2'–10"	2'–2"	9"	#5	6"	#5	6"	156.93	1.136	8.41	0.110
10'–6"	6'–5"	3'–0"	2'–5"	9"	#6	6"	#5	6"	196.27	1.234	8.57	0.117
11'–6"	7'–2"	3'–6"	2'–8"	11"	#6	6"	#6	6"	230.13	1.438	9.52	0.140
12'–6"	7'–8"	3'–9"	2'–11"	1'–0"	#7	6"	#6	6"	283.41	1.592	9.74	0.157
13'–6"	8'–2"	4'–0"	3'–2"	1'–2"	#8	6"	#6	6"	348.72	1.804	10.02	0.186
14'–6"	8'–10"	4'–5"	3'–5"	1'–4"	#9	6"	#6	6"	432.94	2.046	10.30	0.218
15'–6"	9'–6"	4'–10"	3'–8"	1'–6"	#9	6"	#7	6"	489.52	2.302	11.24	0.253
16'–0"	9'–11"	5'–0"	3'–11"	1'–7"	#9	6"	#7	6"	505.72	2.448	11.47	0.279

TABLE OF WINGWALL REINFORCING
(2–wings)

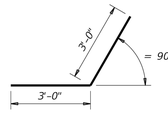
Bar	Size	No.	Spa
D1	#6	~	1'–0"
D2	#6	~	1'–0"
E1	#4	~	1'–0"
F	#4	~	1'–0"
G	#6	~	8"
M1	#4	4	~
P	#4	~	1'–0"
V	#4	~	1'–0"

TABLE OF TOEWALL REINFORCING

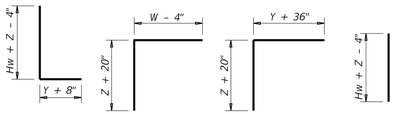
Bar	Size	No.	Spa
J3	#4	~	1'–0"
M2	#4	2	~
E2	#4	~	1'–0"



BARS D1



BARS D2



BARS J1 BARS J2 BARS J3 BARS V

WING DIMENSION FORMULAS:
(All values are in feet.)

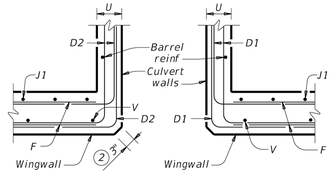
Hw = H + T + C
Lw = (Hw) (SL) ÷ cosine (θ) for Type PW–1
= (Hw – 1') (SL) ÷ cosine (θ) for Type PW–2 and Hw ≥ 4'
= (Hw – 0.5') (SL) ÷ cosine (θ) for Type PW–2 and Hw < 4'

For cast–in–place culverts:
Ltw = [(N) (S) + (N + 1) (U)] ÷ cosine (θ)

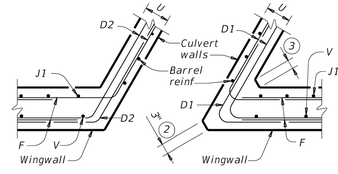
For precast culverts:
Ltw = [(N) (2 U + S) + (N – 1) (0.5')] ÷ cosine (θ)
Total Wingwall Area (two wings ~ SF)
= (2)(Hw)(Lw) for Type PW–1
= (2)(Hw)(Lw) – 6 SF for Type PW–2 and Hw ≥ 4'
= (2)(Hw)(Lw) – 1.5 SF for Type PW–2 and Hw < 4'

Hw = Height of wingwall
Lw = Length of wingwall
Ltw = Culvert toewall length
N = Number of culvert spans
SL:1 = Channel slope ratio. (horizontal: 1 vertical, usual value is 2:1)
θ = Culvert skew

See applicable box culvert standard sheet for S, H, T, and U values.



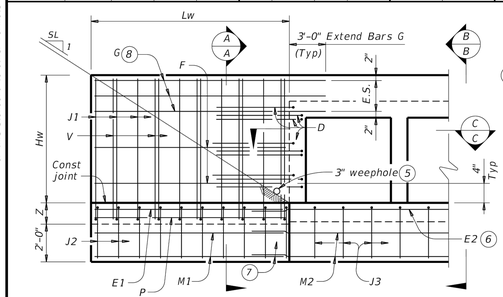
SECTION C-C - PW-1



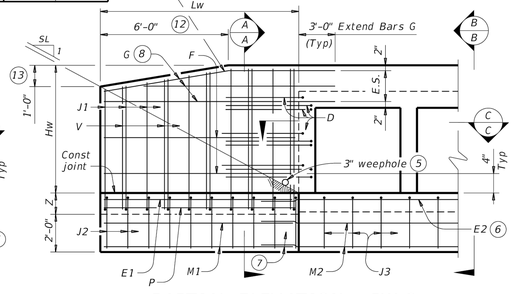
SECTION C-C - PW-2

1. Skew = 0°
2. At discharge end, chamfer may be ¾" minimum.
3. For 15° skew ~ 1"
   For 30° skew ~ 2"
   For 45° skew ~ 3"
4. Quantities shown are for two Type PW–1 wings. Adjust concrete volume for Type PW–2 wings. To determine estimated quantities for two wings, multiply the tabulated values by Lw. Quantities shown do not include weight of Bars D.
5. Provide weepholes for Hw = 5'–0" and greater. Fill around weepholes with coarse gravel.
6. Extend Bars E2 1'–6" minimum into the wingwall footing.
7. Lap Bars M1 1'–6" minimum with Bars M2.
8. Place Bars G as shown, equally spaced at 8" maximum. Provide at least two pairs of Bars G per wing.
9. 0" Min to 5'–0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 1'–0, refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631–CM) standard sheet. Refer to the Box Culvert Rail Mounting Details (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.
10. For vehicle safety, the following requirements must be met:
    - For structures without bridge rail, construct curbs no more than 3" above finished grade.
    - For structures with bridge rail, construct curbs flush with finished grade.

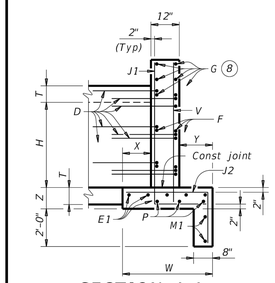
    Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
11. 1'–0" typical. 2'–3" when the Box Culvert Rail Mounting Details (RAC) standard sheet is referred to elswhere in the plans.
12. 3'–0" for Hw < 4'.
13. 6" for Hw < 4'.



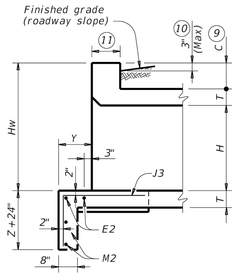
PARTIAL ELEVATION - PW-1



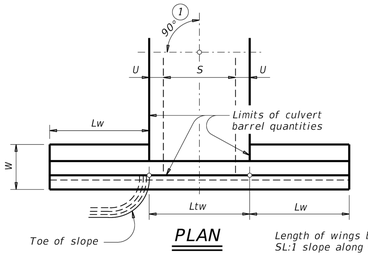
PARTIAL ELEVATION - PW-2



SECTION A-A
(Showing wing reinforcement.)

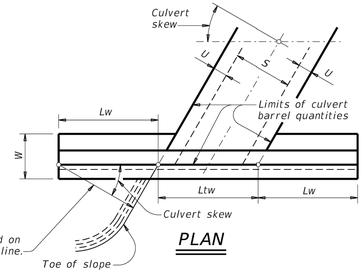


SECTION B-B
(Showing wing reinforcement.)



PLAN

DETAILS FOR NON-SKEWED BOX CULVERTS



PLAN

DETAILS FOR SKEWED BOX CULVERTS
(Showing 30° skew.)

DESIGNER NOTES:
Type PW–1 can be used for all applications and must be used if railing is to be mounted to the wingwall.
Type PW–2 can only be used for applications without a railing mounted to the wingwall.

MATERIAL NOTES:
Provide Class C concrete (f'c=3,600 psi).
Provide Grade 60 reinforcing steel.
Provide galvanized reinforing steel if required elsewhere in the plans.

GENERAL NOTES:
Designed in accordance with AASHTO LRFD Bridge Design Specifications.
Depth of toewalls for wingwalls and culverts may be reduced or eliminated when founded on solid rock, when directed by the Engineer.
See Box Culvert Supplement (BCS) standard sheet for wingwall type and additional dimensions and information.
Quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for the Contractor's information only.

Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out–to–out of bars.

BENCHMARKS

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ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

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Texas Department of Transportation — Bridge Division Standard

CONCRETE WINGWALLS
WITH PARALLEL WINGS FOR BOX CULVERTS TYPES PW-1 AND PW-2

PW

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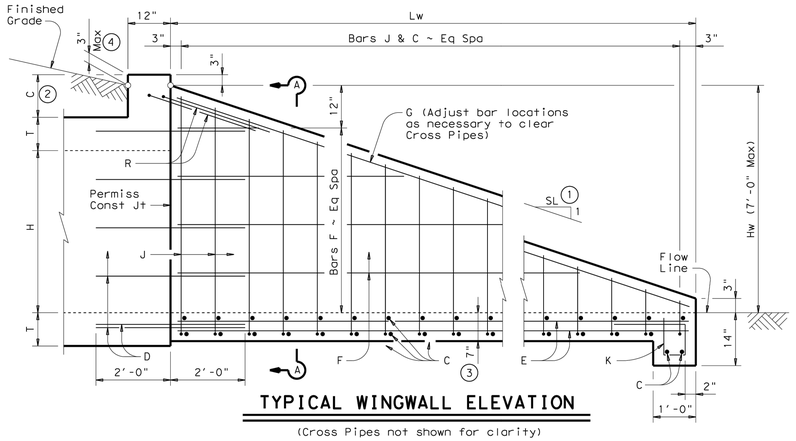
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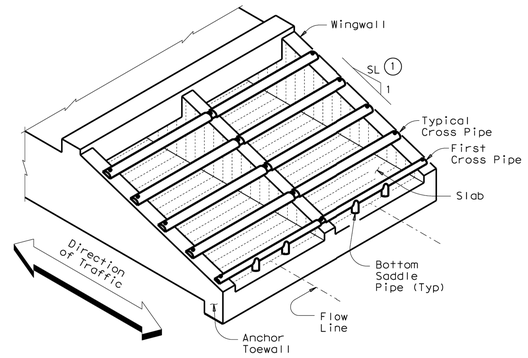
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TYPICAL WINGWALL ELEVATION

(Cross Pipes not shown for clarity)



ISOMETRIC VIEW OF TYPICAL INSTALLATION

(Showing Bolted Anchor Option)

Formulas: (All values are in Feet)

Hw = H + T + C - 0.250'
Lw = (Hw - 0.250') (SL)

For Cast-in-place culverts:
Atw = (N) (S) + (N + 1) (U)
For Precast culverts:
Atw = (N) (2U + S) + (N - 1) (0.500')

Total Wingwall Area (S.F.)
= (0.5) (Hw + 0.250') (Lw) (N + 1)
Total Concrete Volume (C.Y.)
= [(Wingwall Area) (0.583') +
(Lw) (Atw) (0.583') +
(Atw) (1.000') (1.167' - 0.583')] ÷ (27)
Total Reinforcing (Lbs)
= (1.55) (Lw) (Atw) +
(4.43) (Atw) +
(K) (Hw) (N + 1) ($\sqrt{Lw}$)

C = Height of Curb above top of Top Slab
Hw = Height of Wingwall
K = Constant Value for use in formulas

Slope SL:1	K
6:1	~ 10.41

Atw = Anchor Toewall Length
Lw = Length of Wingwall
N = Number of Culvert Barrels
S = Clear Span of each Barrel
SL:1 = Side Slope Ratio (Horizontal : 1 Vertical)

See applicable box culvert standard for H, S, T, and U values.

GENERAL NOTES:

Designed according to AASHTO LRFD Specifications.

The Safety End Treatments shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the Cross Pipes.

Cross Pipes are designed for a traversing load of 10,000 pounds at yield as recommended by Research Report 280-2F, "Safety Treatment of Roadside Parallel-Drainage Structures", Texas Transportation Institute, March 1981.

All concrete shall be Class "C" and shall have a minimum compressive strength of 3600 psi.

All reinforcing steel shall be Grade 60. All reinforcing shall be adjusted as necessary to provide a minimum clear cover of 1 ¼".

The quantities for concrete, reinforcing steel, and Cross Pipes resulting from the formulas given herein are for Contractor's information only.

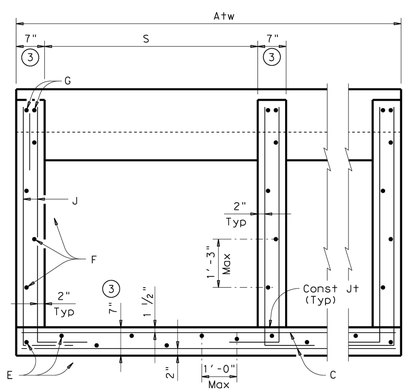
Cross Pipes, Sleeve Pipes, and Saddle Pipes shall conform to the requirements of ASTM A53 (Type E or S, Grade B), ASTM A500 (Grade B), or API 5LX52.

Bolts and nuts shall conform to ASTM A307.

All steel components, except the concrete reinforcing, shall be galvanized after fabrication. Galvanizing damaged during transport or construction shall be repaired in accordance with the specifications.

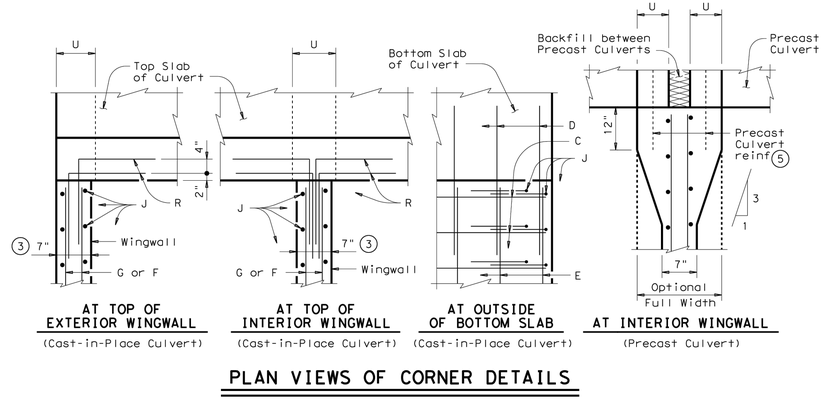
See BCS standard sheet for additional dimensions and information.

Alternate design drawings bearing the seal of a professional engineer will be acceptable for precast construction of the Safety End Treatments.



SECTION A-A

(Showing typical Wingwall and Wing Slab reinforcing)
(Pipe Runners not shown for clarity)



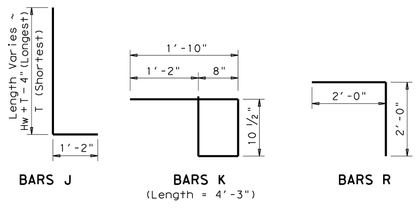
AT TOP OF EXTERIOR WINGWALL (Cast-in-Place Culvert)

AT TOP OF INTERIOR WINGWALL (Cast-in-Place Culvert)

AT OUTSIDE OF BOTTOM SLAB (Cast-in-Place Culvert)

AT INTERIOR WINGWALL (Precast Culvert)

PLAN VIEWS OF CORNER DETAILS



BARS J

BARS K (Length = 4'-3")

BARS R

TABLE OF REINFORCING BAR SIZES & SPACING		
Bar	Size	Spacing
C	#4	10" Max
D	#4	match F & E
E	#4	1'- 0" Max
F	#4	1'- 3" Max
G	#6	Shown
J	#4	10" Max
K	#4	1'- 0" Max
R	#4	Shown

1. Slope will be 6:1 or flatter.
2. 0" min to 5'-0" max. Estimated curb heights are shown elsewhere in the plans. For structures without railing and curbs taller than 1'-0", refer to ECD standard.
3. Wingwall and slab thicknesses may be the same as the adjacent culvert wall and slab thicknesses (7" Minimum). If thicknesses greater than the minimum (7") are used, no changes will be made in quantities and no additional compensation will be allowed.
4. For vehicle safety, curbs shall project no more than 3" above finished grade. Curb heights shall be reduced, if necessary, to meet these requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.
5. For Culverts with C = 0", the precast culvert reinforcing may extend 1'-0" minimum into Wingwall. Wingwall Bars D and R may be omitted. Otherwise, refer to the "Wingwall Connection Detail" on the SCP-MD standard.

SHEET 1 OF 2

Texas Department of Transportation — Bridge Division Standard

SAFETY END TREATMENT

FOR BOX CULVERTS
(MAXIMUM Hw = 7'-0")
TYPE I ~ PARALLEL DRAINAGE

SETB-PD

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BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

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ELEVATION = 624.58'

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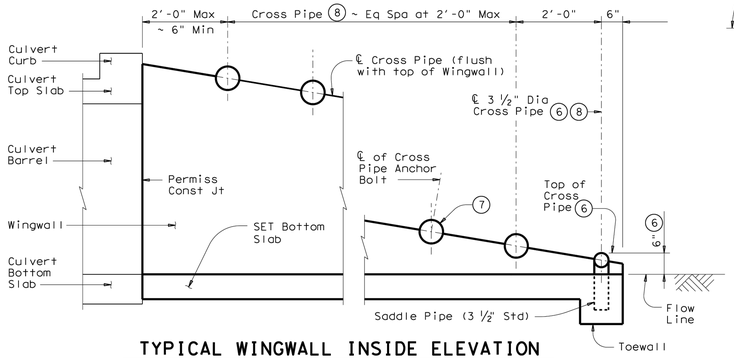
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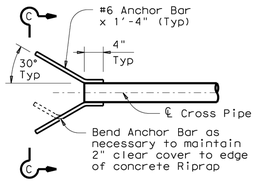
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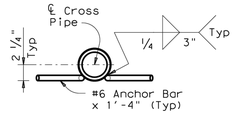


TYPICAL WINGWALL INSIDE ELEVATION

(Showing installation of Cross Pipes)

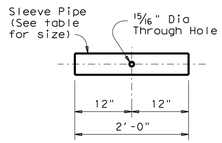


PART PLAN

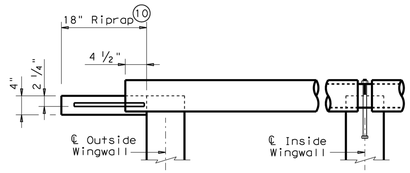


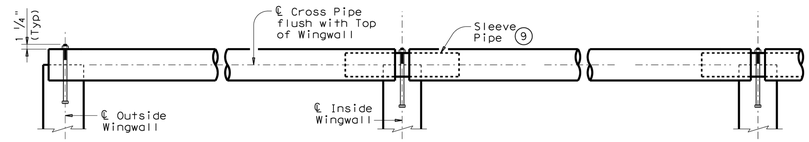
SECTION C-C

OPTIONAL ANCHOR BAR DETAILS



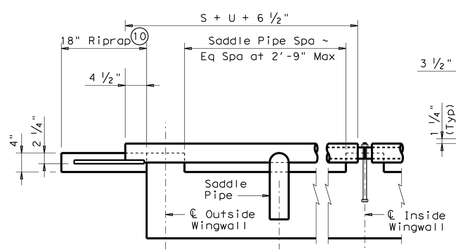
SLEEVE PIPE DETAILS (9)

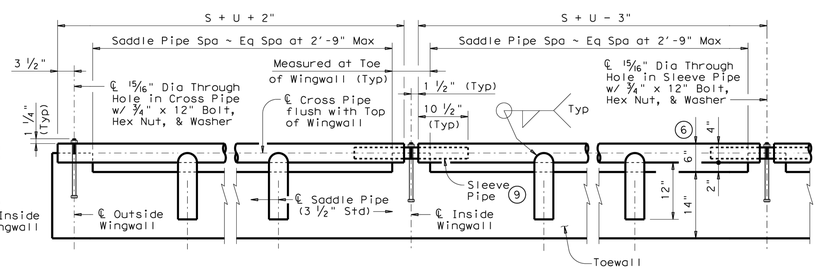




SECTION THROUGH INSTALLATION OF TYPICAL FULL CROSS PIPE

(Anchor details and dimensions are similar to those shown below in SECTION THROUGH INSTALLATION OF 3 ½" FIRST CROSS PIPE detail.)





SECTION THROUGH INSTALLATION OF 3 ½" FIRST CROSS PIPE

OUTSIDE CULVERT BARREL WITH OPTIONAL ANCHOR BARS & RIPRAP

OUTSIDE CULVERT BARREL WITH BOLTED ANCHOR

INSIDE CULVERT BARREL

CROSS PIPE INSTALLATION DETAILS

REQUIRED PIPE SIZES (8)		
Culvert Span Sizes	Cross Pipe Size	Sleeve Pipe Size (9)
First Pipe	3 ½" STD	2 ½" STD
30" to 42"	4" STD	3" STD
48" to 72"	5" STD	4" STD
78" to 120"	6" STD	5" STD

STANDARD PIPE SIZES		
Pipe Size	Pipe O.D.	Pipe I.D.
2 ½" STD	2.875"	2.469"
3" STD	3.500"	3.068"
3 ½" STD	4.000"	3.548"
4" STD	4.500"	4.026"
5" STD	5.563"	5.047"
6" STD	6.625"	6.065"

(6) The proper installation of the first Cross Pipe is critical for vehicle safety. The top of the first Cross Pipe must be placed at no more than 6" above the flow line.

(7) The third Cross Pipe from the bottom of the Culvert shall always be installed using a bolted connection. Care shall be taken to ensure that concrete does not flow into this Cross Pipe so as to permit disassembly of the bolted connection to allow cleanout access.

(8) Cross Pipes and Sleeve Pipes (if required) shall be as shown in the REQUIRED PIPE SIZES table. Saddle Pipes for the 3 ½" first Cross Pipe shall also be 3 ½".

(9) At Contractor's option, the Cross Pipe may be continuous across the Inside Wingwalls. If such option is selected, the Sleeve Pipe shall be omitted and a 15/16" diameter through hole made in the Cross Pipe to accept the anchor bolt at the centerline of each Interior Wingwall.

(10) Riprap will be required when using the optional Anchor Bar details and shall be included in the Price Bid for Safety End Treatment. Such Riprap shall be concrete Riprap in accordance with Item 432, "Riprap".

SHEET 2 OF 2

Texas Department of Transportation — Bridge Division Standard

SAFETY END TREATMENT

FOR BOX CULVERTS
(MAXIMUM Hw = 7'-0")
TYPE I ~ PARALLEL DRAINAGE

SETB-PD

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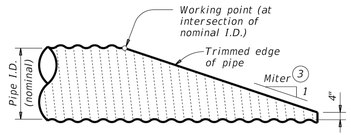
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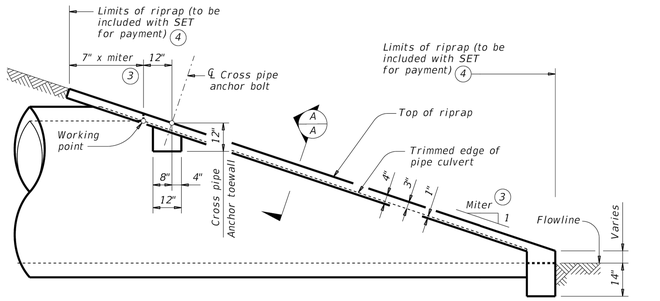
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NOTE: All pipe runners, calculations, and dimensions are based on the pipe culverts mitered as shown in this detail. Alternate styles of mitered ends will require that appropriate adjustments be made to the values presented on this standard.

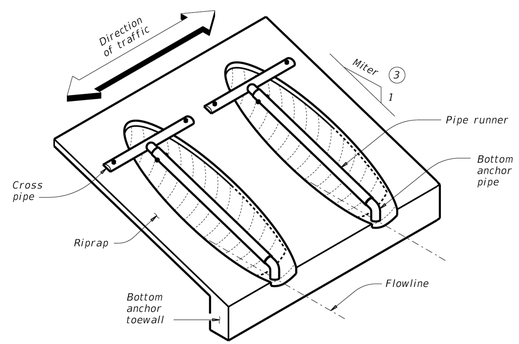
SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(Showing corrugated metal pipe (CMP) culvert. Details of reinforced concrete pipe (RCP) culvert are similar.)



SIDE ELEVATION OF CAST-IN-PLACE CONCRETE

(Showing reinforced concrete pipe (RCP) culvert. Details of corrugated metal pipe (CMP) culvert are similar. Pipe runners not shown for clarity)



ISOMETRIC VIEW OF TYPICAL INSTALLATION

(Showing installation with no skew.)

CROSS PIPE LENGTHS AND PIPE RUNNER LENGTHS (1) (2)

Nominal Culvert I.D.	Pipe Culvert Spa ~ G	Cross Pipe Length	Pipe Runner Length											
			3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
			0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
24"	1' – 7"	3' – 5"	N/A	N/A	N/A	5' – 10"	N/A	N/A	N/A	8' – 1"	N/A	N/A	N/A	12' – 9"
27"	1' – 8"	3' – 8"	N/A	N/A	5' – 5"	6' – 11"	N/A	N/A	7' – 7"	9' – 7"	N/A	N/A	11' – 11"	14' – 11"
30"	1' – 10"	3' – 11"	N/A	N/A	6' – 4"	8' – 0"	N/A	N/A	8' – 9"	11' – 0"	N/A	N/A	13' – 8"	17' – 0"
33"	1' – 11"	4' – 2"	6' – 2"	6' – 5"	7' – 3"	9' – 1"	8' – 6"	8' – 10"	10' – 0"	12' – 5"	13' – 3"	13' – 9"	15' – 5"	19' – 2"
36"	2' – 1"	4' – 5"	6' – 11"	7' – 3"	8' – 2"	10' – 2"	9' – 6"	9' – 11"	11' – 2"	13' – 10"	14' – 9"	15' – 3"	17' – 2"	21' – 3"
42"	2' – 4"	4' – 11"	8' – 6"	8' – 10"	9' – 11"	12' – 4"	11' – 7"	12' – 0"	13' – 6"	16' – 8"	17' – 9"	18' – 5"	20' – 8"	25' – 7"
48"	2' – 7"	5' – 5"	10' – 1"	10' – 5"	11' – 9"	N/A	13' – 7"	14' – 2"	15' – 10"	N/A	20' – 9"	21' – 6"	24' – 2"	N/A
54"	3' – 0"	5' – 11"	11' – 8"	12' – 1"	N/A	N/A	15' – 8"	16' – 3"	N/A	N/A	23' – 10"	24' – 8"	N/A	N/A
60"	3' – 3"	6' – 5"	13' – 3"	N/A	N/A	N/A	17' – 9"	N/A	N/A	N/A	26' – 10"	N/A	N/A	N/A

TYPICAL PIPE CULVERT MITERS (3)

Side Slope	0° Skew	15° Skew	30° Skew	45° Skew
3:1	3:1	3.106:1	3.464:1	4.243:1
4:1	4:1	4.141:1	4.619:1	5.657:1
6:1	6:1	6.212:1	6.928:1	8.485:1

CONDITIONS WHERE PIPE RUNNERS ARE NOT REQUIRED (2)

Nominal Culvert I.D.	Single Pipe Culvert	Multiple Pipe Culverts
12" thru 21"	Skews thru 45°	Skews thru 45°
24"	Skews thru 45°	Skews thru 30°
27"	Skews thru 30°	Skews thru 15°
30"	Skews thru 15°	Skews thru 15°
33"	Skews thru 15°	Always required
36"	Normal (no skew)	Always required
42" thru 60"	Always required	Always required

STANDARD PIPE SIZES AND MAX PIPE RUNNER LENGTHS (1)

Pipe Size	Pipe O.D.	Pipe I.D.	Max Pipe Runner Length
2" STD	2.375"	2.067"	N/A
3" STD	3.500"	3.068"	10' – 0"
4" STD	4.500"	4.026"	19' – 8"
5" STD	5.563"	5.047"	34' – 2"

ESTIMATED CONCRETE RIPRAP QUANTITIES (CY) (5)

Nominal Culvert I.D.	3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
12"	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8
15"	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9
18"	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	1.0
21"	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.2
24"	0.6	0.7	0.7	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.1	1.3
27"	0.7	0.7	0.8	0.9	0.8	0.9	0.9	1.1	1.1	1.1	1.2	1.4
30"	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.2	1.2	1.2	1.3	1.6
33"	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.3	1.3	1.4	1.5	1.7
36"	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.4	1.4	1.5	1.6	1.8
42"	1.0	1.0	1.1	1.3	1.2	1.3	1.3	1.6	1.6	1.7	1.8	2.1
48"	1.1	1.1	1.2	N/A	1.4	1.4	1.5	N/A	1.9	1.9	2.1	N/A
54"	1.3	1.3	N/A	N/A	1.6	1.6	N/A	N/A	2.1	2.1	N/A	N/A
60"	1.4	N/A	N/A	N/A	1.7	N/A	N/A	N/A	2.3	N/A	N/A	N/A

(1) Provide pipe runner of the size shown in the tables. Provide cross pipe of the same size as the pipe runner. Provide cross pipe stub out and bottom anchor pipe of the next smaller size pipe as shown in the Standard Pipe Sizes and Max Pipe Runner Lengths table.

(2) This standard allows for the placement of only one pipe runner across each culvert pipe opening. In order to limit the clear opening to be traversed by an errant vehicle, the following conditions must be met:

For 60" culvert pipes, the skew must not exceed 0°.
For 54" culvert pipes, the skew must not exceed 15°.
For 48" culvert pipes, the skew must not exceed 30°.
For all culvert pipe sizes 42" and less, the skew must not exceed 45°.

If the above conditions cannot be met, the designer should consider using a safety end treatment with flared wings. For further information, refer to the TxDOT Roadway Design Manual.

(3) Miter = slope of mitered end of pipe culvert.

(4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap."

(5) Quantities shown are for one end of one reinforced concrete pipe (RCP) culvert. For multiple pipe culverts or for corrugated metal pipe (CMP) culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.

SHEET 1 OF 2

Texas Department of Transportation — Bridge Division Standard

SAFETY END TREATMENT
FOR 12" DIA TO 60" DIA PIPE CULVERTS TYPE II ~ CROSS DRAINAGE
SETP-CD

FILE: CD-SETP-CD-20.dgn	DN: GAF	CK: CAT	DW: JRP	CK: GAF
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ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

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FIFTH SUBMITTAL

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 — 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 — Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
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DESIGNED: CLS	APRIL 2024	GEE21003	82
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: \\pw.com\Network\Drives\DUP\Projects\193\saratoga\master infrastructure\3_Design\05_Civil\51_CAD\Sheets\GEE21003-CADETAIL5

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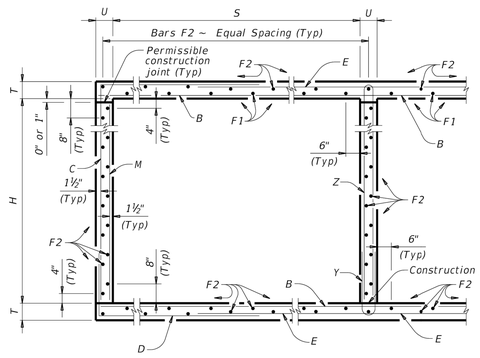
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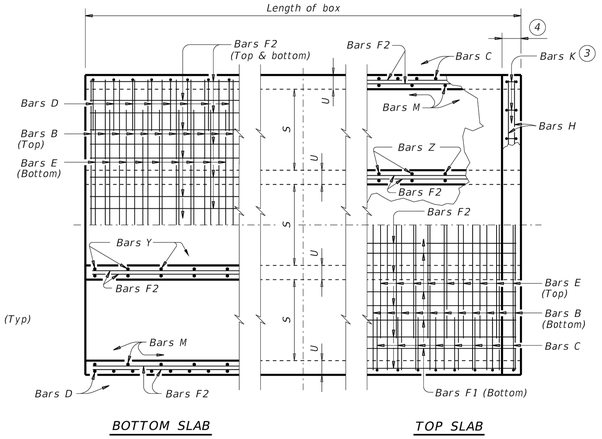
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TYPICAL SECTION



PART PLANS

(1) 0" Min to 5'-0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 1'-0", refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631-CM) standard sheet. Refer to the Rail Anchorage Curb (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.

(2) For vehicle safety, the following requirements must be met:
- For structures without bridge rail, construct curbs no more than 3" above finished grade.
- For structures with bridge rail, construct curbs flush with finished grade.

Reduce curb heights, if necessary, to meet the above requirements. No changes will be made in quantities and no additional compensation will be allowed for this work.

(3) For curbs less than 1'-0" high, tilt Bars K or reduce bar height as necessary to maintain cover. For curbs less than 3" high, Bars K may be omitted.

(4) 1'-0" typical. 2'-3" when the Rail Anchorage Curb (RAC) standard sheet is referred to elsewhere in the plans.

The Contractor may replace Bars B, C, D, E, F1, F2, M, Y, and/or Z with deformed welded wire reinforcement (WWR) meeting the requirements of ASTM A1064. The area of required reinforcement may be reduced by the ratio of 60 ksi / 70 ksi. Spacing of WWR is limited to 4" Min and 18" Max. When required, provide lap splices in the WWR of the same length required for the equivalent bar size, rounded up for wire sizes between conventional bar sizes. The lap length required for WWR is never less than the lap length required for uncoated #4 bars.

Example conversion: Replacing No. 6 Gr 60 at 6" Spacing with WWR
Required WWR = (0.44 sq. in. per 0.5 ft.) x (60 ksi / 70 ksi) = 0.755 sq. in. per ft.
If D30.6 wire is used to meet the 0.755 sq. in. per ft. requirement in this example, the required spacing = (0.306 sq. in.) / (0.755 sq. in. per ft.) x (12 in. per ft.) = 4.86" Max spacing. Required lap length for the provided D30.6 wire is 2'-1" (the same minimum lap length required for uncoated #5 bars, as listed under MATERIAL NOTES).

CONSTRUCTION NOTES:

Do not use permanent forms.
Chamfer the bottom edge of the top slab 3" at the entrance.
Optionally, raise construction joints shown at the flow line by a maximum of 6". If this option is taken, Bars M may be cut off or raised, Bars C and D may be reversed, and Bars Y and Z may be reversed.

MATERIAL NOTES:

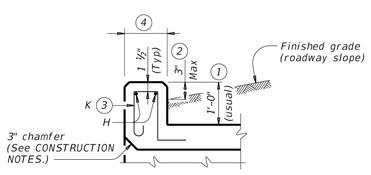
Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.
Provide Class C concrete (f'_c = 3,600 psi) for culvert barrel and curb, with the following exceptions: provide Class S concrete (f'_c = 4,000 psi) for top slabs of:
- culverts with overlay,
- culverts with 1-to-2 course surface treatment, or
- culverts with the top slab as the final riding surface.

Provide bar laps, where required, as follows:
- Uncoated or galvanized ~ #4 = 1'-8" Min
- Uncoated or galvanized ~ #5 = 2'-1" Min
- Uncoated or galvanized ~ #6 = 2'-6" Min

GENERAL NOTES:

Designed according to AASHTO LRFD Bridge Design Specifications for the range of fill heights shown.
See the Multiple Box Culverts Cast-In-Place Miscellaneous Detail (MC-MD) standard sheet for details pertaining to skewed ends, angle sections, and lengthening.

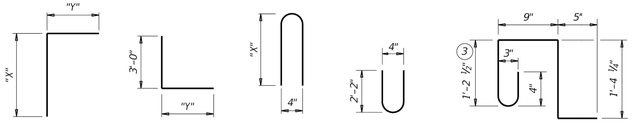
Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bar dimensions shown are out-to-out of bar.



SECTION THRU CURB

TABLE OF BAR DIMENSIONS

H	"X"	"Y"
3'-0"	3'-6 ½"	5'-1"
4'-0"	4'-6 ½"	5'-1"
5'-0"	5'-6 ½"	5'-1"
6'-0"	6'-6 ½"	5'-1"
7'-0"	7'-6 ½"	5'-1"
8'-0"	8'-6 ½"	5'-1"



BARS C | BARS D | BARS Z | BARS Y | BARS K (#4) (Spa = 1'-0" Max) (Length = 4'-2")

HL93 LOADING SHEET 1 OF 2

Texas Department of Transportation — Bridge Division Standard

MULTIPLE BOX CULVERTS CAST-IN-PLACE
8'-0" SPAN
0' TO 13' FILL

MC-8-13

FILE: mc813ste-20.dgn	DN: TBE	CK: BMP	DW: TxDOT	CK: TxDOT	
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DESIGNED: CLS	APRIL 2024	GEE21003	83
REVIEWER: TRS			

SARATOGA PHASE 1

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NUMBER OF SPANS	SECTION DIMENSIONS				BILLS OF REINFORCING STEEL (For Box Length = 40 feet)																																		QUANTITIES					
					Bars B					Bars C & D							Bars E					Bars F1 ~ #4				Bars F2 ~ #4				Bars M ~ #4				Bars Y & Z ~ #4								Bars H 4 ~ #4		Bars K		Per Foot of Barrel		Curb		Total	
	S	H	T	U	No.	Size	Spa	Length	Wt	No.	Size	Spa	Bars C		Bars D		No.	Size	Spa	Length	Wt	No.	Spa	Length	Wt	No.	Spa	Length	Wt	No.	Spa	Length	Wt	No.	Spa	Bars Y		Bars Z		Length	Wt	No.	Wt	Conc (CY)	Renf (Lb)	Conc (CY)	Renf (Lb)	Conc (CY)	Renf (Lb)
													Length	Wt	Length	Wt																				Length	Wt	Length	Wt								
2	8' – 0"	3' – 0"	8"	7"	162	#6	6"	17' – 6"	4,258	108	#6	9"	8' – 8"	1,406	8' – 2"	1,325	162	#6	6"	12' – 9"	3,102	12	18"	39' – 9"	319	56	18"	39' – 9"	1,487	108	9"	3' – 0"	216	54	9"	4' – 7"	165	7' – 3"	262	17' – 6"	47	38	106	1.071	313.5	1.3	153	44.2	12,693
3	8' – 0"	3' – 0"	8"	7"	162	#6	6"	26' – 1"	6,347	108	#6	9"	8' – 8"	1,406	8' – 2"	1,325	162	#6	6"	21' – 4"	5,191	18	18"	39' – 9"	478	80	18"	39' – 9"	2,124	108	9"	3' – 0"	216	108	9"	4' – 7"	331	7' – 3"	523	26' – 1"	70	56	156	1.560	448.5	1.9	226	64.3	18,167
4	8' – 0"	3' – 0"	8"	7"	162	#6	6"	34' – 8"	8,435	108	#6	9"	8' – 8"	1,406	8' – 2"	1,325	162	#6	6"	29' – 11"	7,279	24	18"	39' – 9"	637	104	18"	39' – 9"	2,762	108	9"	3' – 0"	216	162	9"	4' – 7"	496	7' – 3"	785	34' – 8"	93	72	200	2.048	583.5	2.6	293	84.5	23,634
5	8' – 0"	3' – 0"	8"	7"	162	#6	6"	43' – 3"	10,524	108	#6	9"	8' – 8"	1,406	8' – 2"	1,325	162	#6	6"	38' – 6"	9,368	30	18"	39' – 9"	797	128	18"	39' – 9"	3,399	108	9"	3' – 0"	216	216	9"	4' – 7"	661	7' – 3"	1,046	43' – 3"	116	90	251	2.537	718.6	3.2	367	104.7	29,109
6	8' – 0"	3' – 0"	8"	7"	162	#6	6"	51' – 10"	12,612	108	#6	9"	8' – 8"	1,406	8' – 2"	1,325	162	#6	6"	47' – 1"	11,457	36	18"	39' – 9"	956	152	18"	39' – 9"	4,036	108	9"	3' – 0"	216	270	9"	4' – 7"	827	7' – 3"	1,308	51' – 10"	138	106	295	3.026	853.6	3.8	433	124.9	34,576
2	8' – 0"	4' – 0"	8"	7"	162	#6	6"	17' – 6"	4,258	108	#6	9"	9' – 8"	1,568	8' – 2"	1,325	162	#6	6"	12' – 9"	3,102	12	18"	39' – 9"	319	56	18"	39' – 9"	1,487	108	9"	4' – 0"	289	54	9"	4' – 7"	165	9' – 3"	334	17' – 6"	47	38	106	1.136	321.2	1.3	153	46.8	13,000
3	8' – 0"	4' – 0"	8"	7"	162	#6	6"	26' – 1"	6,347	108	#6	9"	9' – 8"	1,568	8' – 2"	1,325	162	#6	6"	21' – 4"	5,191	18	18"	39' – 9"	478	80	18"	39' – 9"	2,124	108	9"	4' – 0"	289	108	9"	4' – 7"	331	9' – 3"	667	26' – 1"	70	56	156	1.646	458.0	1.9	226	67.8	18,546
4	8' – 0"	4' – 0"	8"	7"	162	#6	6"	34' – 8"	8,435	108	#6	9"	9' – 8"	1,568	8' – 2"	1,325	162	#6	6"	29' – 11"	7,279	24	18"	39' – 9"	637	104	18"	39' – 9"	2,762	108	9"	4' – 0"	289	162	9"	4' – 7"	496	9' – 3"	1,001	34' – 8"	93	72	200	2.156	594.8	2.6	293	88.8	24,085
5	8' – 0"	4' – 0"	8"	7"	162	#6	6"	43' – 3"	10,524	108	#6	9"	9' – 8"	1,568	8' – 2"	1,325	162	#6	6"	38' – 6"	9,368	30	18"	39' – 9"	797	128	18"	39' – 9"	3,399	108	9"	4' – 0"	289	216	9"	4' – 7"	661	9' – 3"	1,335	43' – 3"	116	90	251	2.667	731.7	3.2	367	109.9	29,633
6	8' – 0"	4' – 0"	8"	7"	162	#6	6"	51' – 10"	12,612	108	#6	9"	9' – 8"	1,568	8' – 2"	1,325	162	#6	6"	47' – 1"	11,457	36	18"	39' – 9"	956	152	18"	39' – 9"	4,036	108	9"	4' – 0"	289	270	9"	4' – 7"	827	9' – 3"	1,668	51' – 10"	138	106	295	3.177	868.5	3.8	433	130.9	35,171
2	8' – 0"	5' – 0"	8"	7"	162	#6	6"	17' – 6"	4,258	108	#6	9"	10' – 8"	1,730	8' – 2"	1,325	162	#6	6"	12' – 9"	3,102	12	18"	39' – 9"	319	62	18"	39' – 9"	1,646	108	9"	5' – 0"	361	54	9"	4' – 7"	165	11' – 3"	406	17' – 6"	47	38	106	1.201	332.8	1.3	153	49.4	13,465
3	8' – 0"	5' – 0"	8"	7"	162	#6	6"	26' – 1"	6,347	108	#6	9"	10' – 8"	1,730	8' – 2"	1,325	162	#6	6"	21' – 4"	5,191	18	18"	39' – 9"	478	88	18"	39' – 9"	2,337	108	9"	5' – 0"	361	108	9"	4' – 7"	331	11' – 3"	812	26' – 1"	70	56	156	1.733	472.8	1.9	226	71.3	19,138
4	8' – 0"	5' – 0"	8"	7"	162	#6	6"	34' – 8"	8,435	108	#6	9"	10' – 8"	1,730	8' – 2"	1,325	162	#6	6"	29' – 11"	7,279	24	18"	39' – 9"	637	114	18"	39' – 9"	3,027	108	9"	5' – 0"	361	162	9"	4' – 7"	496	11' – 3"	1,217	34' – 8"	93	72	200	2.264	612.7	2.6	293	93.1	24,800
5	8' – 0"	5' – 0"	8"	7"	162	#6	6"	43' – 3"	10,524	108	#6	9"	10' – 8"	1,730	8' – 2"	1,325	162	#6	6"	38' – 6"	9,368	30	18"	39' – 9"	797	140	18"	39' – 9"	3,717	108	9"	5' – 0"	361	216	9"	4' – 7"	661	11' – 3"	1,623	43' – 3"	116	90	251	2.796	752.7	3.2	367	115.1	30,473
6	8' – 0"	5' – 0"	8"	7"	162	#6	6"	51' – 10"	12,612	108	#6	9"	10' – 8"	1,730	8' – 2"	1,325	162	#6	6"	47' – 1"	11,457	36	18"	39' – 9"	956	166	18"	39' – 9"	4,408	108	9"	5' – 0"	361	270	9"	4' – 7"	827	11' – 3"	2,029	51' – 10"	138	106	295	3.328	892.6	3.8	433	137.0	36,138
2	8' – 0"	6' – 0"	8"	7"	162	#6	6"	17' – 6"	4,258	108	#6	9"	11' – 8"	1,893	8' – 2"	1,325	162	#6	6"	12' – 9"	3,102	12	18"	39' – 9"	319	68	18"	39' – 9"	1,806	108	9"	6' – 0"	433	54	9"	4' – 7"	165	13' – 3"	478	17' – 6"	47	38	106	1.265	344.5	1.3	153	51.9	13,932
3	8' – 0"	6' – 0"	8"	7"	162	#6	6"	26' – 1"	6,347	108	#6	9"	11' – 8"	1,893	8' – 2"	1,325	162	#6	6"	21' – 4"	5,191	18	18"	39' – 9"	478	96	18"	39' – 9"	2,549	108	9"	6' – 0"	433	108	9"	4' – 7"	331	13' – 3"	956	26' – 1"	70	56	156	1.819	487.6	1.9	226	74.7	19,729
4	8' – 0"	6' – 0"	8"	7"	162	#6	6"	34' – 8"	8,435	108	#6	9"	11' – 8"	1,893	8' – 2"	1,325	162	#6	6"	29' – 11"	7,279	24	18"	39' – 9"	637	124	18"	39' – 9"	3,293	108	9"	6' – 0"	433	162	9"	4' – 7"	496	13' – 3"	1,434	34' – 8"	93	72	200	2.372	630.6	2.6	293	97.5	25,518
5	8' – 0"	6' – 0"	8"	7"	162	#6	6"	43' – 3"	10,524	108	#6	9"	11' – 8"	1,893	8' – 2"	1,325	162	#6	6"	38' – 6"	9,368	30	18"	39' – 9"	797	152	18"	39' – 9"	4,036	108	9"	6' – 0"	433	216	9"	4' – 7"	661	13' – 3"	1,912	43' – 3"	116	90	251	2.926	773.7	3.2	367	120.3	31,316
6	8' – 0"	6' – 0"	8"	7"	162	#6	6"	51' – 10"	12,612	108	#6	9"	11' – 8"	1,893	8' – 2"	1,325	162	#6	6"	47' – 1"	11,457	36	18"	39' – 9"	956	180	18"	39' – 9"	4,780	108	9"	6' – 0"	433	270	9"	4' – 7"	827	13' – 3"	2,390	51' – 10"	138	106	295	3.479	916.8	3.8	433	143.0	37,106
2	8' – 0"	7' – 0"	8"	7"	162	#6	6"	17' – 6"	4,258	108	#6	9"	12' – 8"	2,055	8' – 2"	1,325	162	#6	6"	12' – 9"	3,102	12	18"	39' – 9"	319	68	18"	39' – 9"	1,806	108	9"	7' – 0"	505	54	9"	4' – 7"	165	15' – 3"	550	17' – 6"	47	38	106	1.330	352.1	1.3	153	54.5	14,238
3	8' – 0"	7' – 0"	8"	7"	162	#6	6"	26' – 1"	6,347	108	#6	9"	12' – 8"	2,055	8' – 2"	1,325	162	#6	6"	21' – 4"	5,191	18	18"	39' – 9"	478	96	18"	39' – 9"	2,549	108	9"	7' – 0"	505	108	9"	4' – 7"	331	15' – 3"	1,100	26' – 1"	70	56	156	1.905	497.0	1.9	226	78.1	20,107
4	8' – 0"	7' – 0"	8"	7"	162	#6	6"	34' – 8"	8,435	108	#6	9"	12' – 8"	2,055	8' – 2"	1,325	162	#6	6"	29' – 11"	7,279	24	18"	39' – 9"	637	124	18"	39' – 9"	3,293	108	9"	7' – 0"	505	162	9"	4' – 7"	496	15' – 3"	1,650	34' – 8"	93	72	200	2.480	641.9	2.6	293	101.8	25,968
5	8' – 0"	7' – 0"	8"	7"	162	#6	6"	43' – 3"	10,524	108	#6	9"	12' – 8"	2,055	8' – 2"	1,325	162	#6	6"	38' – 6"	9,368	30	18"	39' – 9"	797	152	18"	39' – 9"	4,036	108	9"	7' – 0"	505	216	9"	4' – 7"	661	15' – 3"	2,200	43' – 3"	116	90	251	3.056	786.8	3.2	367	125.5	31,838
6	8' – 0"	7' – 0"	8"	7"	162	#6	6"	51' – 10"	12,612	108	#6	9"	12' – 8"	2,055	8' – 2"	1,325	162	#6	6"	47' – 1"	11,457	36	18"	39' – 9"	956	180	18"	39' – 9"	4,780	108	9"	7' – 0"	505	270	9"	4' – 7"	827	15' – 3"	2,750	51' – 10"	138	106	295	3.631	931.7	3.8	433	149.1	37,700
2	8' – 0"	8' – 0"	8"	7"	162	#6	6"	17' – 6"	4,258	108	#6	9"	13' – 8"	2,217	8' – 2"	1,325	162	#6	6"	12' – 9"	3,102	12	18"	39' – 9"	319	74	18"	39' – 9"	1,965	108	9"	8' – 0"	577	54	9"	4' – 7"	165	17' – 3"	622	17' – 6"	47	38	106	1.395	363.8	1.3	153	57.1	14,703
3	8' – 0"	8' – 0"	8"	7"	162	#6	6"	26' – 1"	6,347	108	#6	9"	13' – 8"	2,217	8' – 2"	1,325	162	#6	6"	21' – 4"	5,191	18	18"	39' – 9"	478	104	18"	39' – 9"	2,762	108	9"	8' – 0"	577	108	9"	4' – 7"	331	17' – 3"	1,244	26' – 1"	70	56	156	1.992	511.8	1.9	226	81.6	20,698
4	8' – 0"	8' – 0"	8"	7"	162	#6	6"	34' – 8"	8,435	108	#6	9"	13' – 8"	2,217	8' – 2"	1,325	162	#6	6"	29' – 11"	7,279	24	18"	39' – 9"	637	134	18"	39' – 9"	3,558	108	9"	8' – 0"	577	162	9"	4' – 7"	496	17' – 3"	1,867	34' – 8"	93	72	200	2.588	659.8	2.6	293	106.1	26,684
5	8' – 0"	8' – 0"	8"	7"	162	#6	6"	43' – 3"	10,524	108	#6	9"	13' – 8"	2,217	8' – 2"	1,325	162	#6	6"	38' – 6"	9,368	30	18"	39' – 9"	797	164	18"	39' – 9"	4,355	108	9"	8' – 0"	577	216	9"	4' – 7"	661	17' – 3"	2,489	43' – 3"	116	90	251	3.185	807.8	3.2	367	130.6	32,680
6	8' – 0"	8' – 0"	8"	7"	162	#6	6"	51' – 10"	12,612	108	#6	9"	13' – 8"	2,217	8' – 2"	1,325	162	#6	6"	47' – 1"	11,457	36	18"	39' – 9"	956	194	18"	39' – 9"	5,151	108	9"	8' – 0"	577	270	9"	4' – 7"	827	17' – 3"	3,111	51' – 10"	138	106	295	3.782	955.8	3.8	433	155.1	38,666

HL93 LOADING SHEET 2 OF 2

Texas Department of Transportation — Bridge Division Standard

MULTIPLE BOX CULVERTS CAST-IN-PLACE
8'-0" SPAN
0' TO 13' FILL

MC-8-13

FILE: mc813ste-20.dgn	DN: TBE	CK: BMP	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN (TYPE OR PRINT NAME) | 100268 (PE #) | 04/30/2024 (DATE)

NO.	DATE	REVISION

SARATOGA PHASE 1

STORM DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	84
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: I:\pw.com\Network\Drives\OUO\Byers\21003-saratoga\master infrastructure\3_Design\35_Civil\351_CAD\Sheets\GEE21003-CDET46.3
Last Saved by: BcoKen
Last Saved On: 4/30/2024 3:48 PM
Plot Date/Time: 4/30/2024 4:21 PM

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

FIFTH SUBMITTAL

MSUD GENERAL NOTES

1. All construction shall be in accordance with the standard specifications of Mustang Special Utility District, which has also adopted the latest edition of the "Standard Specifications For Public Works Construction - North Central Texas" herein referred to as "NCTCOG" specifications. Copies may be obtained from the North Central Texas Council of Governments, 616 Six Flags Drive, Suite 200, Arlington, Texas 76011.
2. Where specified name brands are indicated, products of equal or better may be considered for approval upon submittal of all supporting data to the MSUD Engineer for review.
3. The contractor shall provide for temporary 3" Cold Mix Asphaltic Concrete as per NCTCOG Item 302.3 to be placed over all vehicular traveled areas until the final repairs/improvements are made.
4. All newly installed pipes and fittings must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by an organization accredited by ANSI.
5. The existence and locations of all underground utilities shown on the drawings were obtained from available records and are approximate. Neither the owner nor the engineer assumes any responsibility for utilities not shown or not in the location shown. The contractor shall determine the depth and location of existing underground utilities prior to trenching and shall be required to take any precautionary measures to protect all lines shown and/or any other underground utilities not of record or not shown on the plans.
6. Any contractor/subcontractor performing work on this project shall familiarize himself with the site and shall be solely responsible for any damage to existing facilities resulting directly or indirectly from operations. Said existing improvements shall include but not be limited to berms, ditches, fences, plants, irrigation. Any removal or damage to existing improvements shall be replaced or repaired by the contractor at his expense and shall be approved by the engineer.
7. Contractor shall shore all trenches and conduct all construction and operations in accordance with Occupation Safety and Health Administration (OSHA) requirements.
8. All construction and materials shall comply with Mustang SUD specifications. Any construction and/or materials not covered in Mustang SUD specifications shall be in accordance with NCTCOG specifications or the AWWA.
9. It shall be the contractor's responsibility to provide adequate record drawings to the engineer/Mustang SUD immediately after construction.
10. It shall be contractor's responsibilities to verify location, elevation and dimensions of adjacent and/or conflicting utilities in advance of construction in order that adjustments can be made to provide adequate clearance, if required. The contractor shall preserve and protect public utilities at all times during construction. Any damage to utilities resulting from the contractor's operation shall be restored at his expense. The engineer shall be notified when proposed facility's grades conflict with existing utility's grades.
11. All materials for water and wastewater shall be domestic. Any exceptions made will be at Mustang's or the Engineer's discretion.

MSUD WATER NOTES:

GENERAL:

1. All water lines and appurtenances shall be constructed in accordance with TCEQ requirements Chapter 290.
2. All water lines shall be designed, manufactured, and installed in accordance with current Mustang SUD water standards details.
3. All pipes and appurtenances shall conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by ANSI.
4. All pipes and appurtenances shall be installed in accordance with manufacturer's instruction.
5. Contractor to provide a curve in waterline to avoid storm drain inlets at all locations.
6. Franchise Utility Note: Other utilities such as gas, electric, telephone, cable, etc. shall not be installed in the same trench as water service lines. Other utilities such as gas, electric, telephone, cable, etc. may share the wastewater service line trench provided such utilities are offset a minimum of 5' from the wastewater service line.

PIPE:

7. All PVC water pipe shall be BLUE in color for potable and PURPLE in color for non-potable.
8. All PVC pipe shall be installed with metallic detector tape.
9. Water mains up to and including 12" diameter shall be AWWA C900-16 DR18 (Pressure Class 235). Mustang SUD reserves the right to require AWWA C900-16 DR14 (Pressure Class 305) for higher pressure applications as determined by Mustang SUD's Engineer. Water mains greater than 12" diameter may be AWWA C900-16 DR18 (Pressure Class 235) OR one of the following:
   9.1. Reinforced Concrete Cylinder Pipe (RCCP) C303 pressure class 150 or greater as specified by the Engineer.
   9.2. Ductile Iron pipe with Polywrap and cement mortar lining (AWWA C104), thickness class 51 or greater.
10. Embedment: For Pipe sizes 12" and smaller, the Embedment shall be as per the MSUD "Pipe Embedment Detail".
11. Cover
    11.1. The following minimum covers over the waterline is required:
    11.1.1. 48" of cover over waterlines up to and including 12" diameter.
    11.1.2. 60" to 72" of cover over waterlines larger than 12" in diameter.
    11.2. Water mains buried with over 72" of cover shall be approved by the MSUD Engineer.
    11.3. The minimum cover over all Water mains is 4 feet, unless approved otherwise by the MSUD Engineer. Approved mains with less than 3.5 feet of cover shall be capped as per the MSUD "Cap Detail".
12. Storage: PVC water pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and to be protected from other elements.
13. The Contractor is responsible to install the pipe in a way that the writing on the pipe is installed on the side up and is readable from the top of the ditch.
17. All ductile iron pipe, fittings and restraints shall be manufactured domestically.
18. All ductile iron pipe, fittings, valves, etc. shall be encased with polyethylene wrap 8 mils thick.
19. The pipe shall have beveled or chamfered ends according to manufacturer recommendations when using in MJ fittings.
20. When PVC water pipe is installed in casing, casing spacers must be used to prevent damage to the pipe and bell during installation. PVC pipe shall not rest on the Bells. Plastic spacers such as RACI or approved equal shall be used.
21. Pipe shall be handled so as to protect pipe and pipe joints and carefully bedded to provide continuous bearing and prevent uneven settlement. Pipe shall be protected against flotation at all times. Open ends of installed pipe shall be sealed at all times when construction is not in progress.

FITTINGS:

22. The Contractor shall use cast iron or ductile iron fittings, complete with Polywrap.
23. All fittings shall be MJ unless specified otherwise.
24. All fittings shall be blocked per the MSUD Water Standard Details.
25. Tapping sleeves shall be ductile iron and manufactured by Mueller, Tyler Union or approved equal.
26. Please also refer to NCTCOG Item 502.5.2 specifications.
27. The use of 90° bends in water mains is prohibited without approval of MSUD Engineer. Two 45° bends are allowed.
28. Install 12"X12"X3" concrete block under fittings installed on PVC pipe.
29. Restrained joints such as Mega-Lug or equal are required at all fittings.
30. All ductile iron fittings and restraints shall manufactured domestically.

VALVES:

31. Valves installed on waterlines 12" in diameter or less shall be vertical gate valves.
32. Valves installed on waterlines larger than 12" in diameter shall be butterfly valves. An offset vault shall be installed at the butterfly valve operator.
33. All gate valves shall have non-rising stems and resilient sealed wedge.
34. All potable-water pipe air release valve stabilization poles shall be painted blue in color.
35. All valves and fire hydrants shall be in line with the property line, where possible.
36. All valve locations shall be marked with "V" stamped or cut on the curb.
37. Install 12"x12"x3" concrete block under valves installed on PVC pipe.
38. Contractor to provide extensions for all valve stacks and fire hydrant leads/risers for all water lines deeper than 48" depth.

TESTING:

39. Hydrostatic test as per NCTCOG Item 506.5 specifications shall be performed
40. Water system shall be disinfected in accordance with American Water Works Association (AWWA) C651 (current edition) and then flushed and sampled before being placed in service. Samples shall be collected in accordance with Mustang SUD testing requirements.
41. All temporary test points to have corporation stops at the main. All temporary testing & chlorination points shall be removed at the corporation stop prior to final acceptance.
42. The Contractor shall take a sample of water from a tap on a sterilized main in the presence of a MSUD Representative and submit the sample(s) to an approved Testing Laboratory for analysis. After receiving approved sample, the Contractor, along with MSUD Representative, shall place sterilized lines into service.
43. All fire hydrants shall be flow and pressure tested and marked (tag and color coded paint) in accordance with NFPA 291 "Recommended Practice for Fire Flow Testing and Marking of Hydrants", latest edition. Copies of each test report for each fire hydrant, including a map showing the location of the fire hydrant being flow tested and the location of the pressure hydrant, shall be provided to Mustang SUD prior to acceptance of the system and the beginning of service. See WATER STANDARD DETAILS (1 OF 2) for Fire Hydrant Flow Test Report form.

MSUD WASTEWATER NOTES:

GENERAL:

1. All wastewater lines and appurtenances shall be constructed in accordance with TCEQ requirements Chapter 217.
2. All wastewater lines shall be designed, manufactured, and installed per Mustang SUD wastewater standard details.
3. All pipes and appurtenances shall be installed in accordance with manufacturer's instruction.
4. Wastewater system shall be tested in accordance with TCEQ for allowable leakage and pipe deflection before being placed in service. Test results shall be provided to Mustang SUD.
5. All wastewater manholes, drop manholes, wet wells, and force-main-to-gravity transition manholes shall be lined with Quadex ultra-high build epoxy or approved equal.
6. All force main ductile iron pipe and fittings shall be lined with Protecto 401 (P401) ceramic epoxy or approved equal.
7. Franchise Utility Note: Other utilities such as gas, electric, telephone, cable, etc. may share the wastewater service line trench provided such utilities are offset a minimum of 5' from the wastewater service line.
8. All curvature shall be accomplished by the manual bending of the pipe lengths in the trench. Mechanical means will not be allowed to accomplish design radii. No deflection of joints will be allowed.
9. All ductile iron pipe, fittings, valves, etc. shall be encased with polyethylene wrap 8 mils thick.
10. All ductile iron pipe, fittings and restraints shall be manufactured domestically.
11. All gravity main fittings shall be rubber gasket push on type.

PIPE:

12. All PVC pipe shall be installed with metallic detector tape.
13. All PVC gravity or pressure wastewater pipe shall be green in color.
14. Wastewater mains shall be Polyvinyl Chloride PVC SDR-35 for depths of burial up to 11.5'. Wastewater mains placed deeper than 11.5' shall be PVC SDR-26 unless specified and approved otherwise by the MSUD Engineer.
15. For creek crossings, the pipe shall be Ductile Iron Class 52.
16. Nominal diameter for sanitary sewer pipeline shall be 8" minimum. Residential and commercial service lines are excluded from this requirement.
17. Embedment shall be as per the "Wastewater Pipe Embedment Detail" on this sheet.
18. The minimum cover over all Wastewater mains is 4 feet, unless approved otherwise by the MSUD Engineer. Approved mains with less than 3.5 feet of cover shall be capped as per the "Cap Detail" on this sheet.
19. Clay cut-off walls shall be constructed as per the details and specifications on this sheet.
20. PVC wastewater pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and protected from other elements.
21. When PVC wastewater pipe is installed in casing, casing spacers shall be used to prevent damage to the pipe and bell during installation. PVC pipe shall not rest on the bells. Plastic spacers such as RACI or approved equal shall be used.
22. Pipe shall be handled so as to protect pipe and pipe joints and carefully bedded to provide continuous bearing and prevent uneven settlement. Pipe shall be protected against flotation at all times. Open ends of installed pipe shall be sealed at all times when construction is not in progress.

WASTEWATER SERVICE NOTES:

23. All property corners shall be staked with iron pins prior to the installation of any wastewater services. The locations of the wastewater service shall be staked according to the plans.
24. Wastewater services to be marked with "|" stamped or cut in the curb and painted green.
25. Contractor shall install locator pads or balls on the end of sewer services.

TESTING:

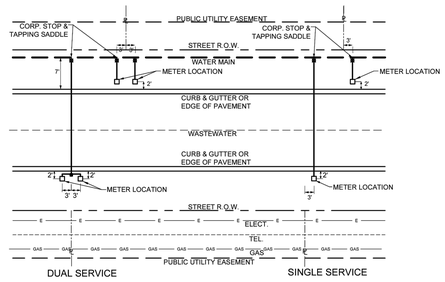
The following tests shall be performed and a written report provided to Mustang SUD:

26. Televising as per NTCOG Item 507.5.2 specifications. Camera shall pan around to show service connections.
27. Low pressure air testing as per TCEQ 31 TAC 217.57.
28. Mandrel deflection test as per TCEQ 31 TAC 217.57
29. Infiltration/Exfiltration test as per TCEQ 31 TAC 217.57.
30. Manholes shall be tested per TCEQ 31 TAC 217.58.
31. Provide final air test and clean prior to project acceptance or final walk-through.

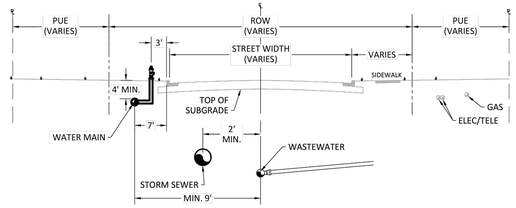
SYSTEM DESIGN VALUES:

WATER:
Average Day Demand = 288 GPD/Connection
Maximum Day Demand = 0.6 gpm
Peak Hour Demand = 1.032 gpm
Single-family Residential = 3.2 people per unit
Multi-family Residential = 2.25 people per unit

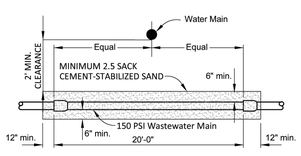
WASTEWATER:
SF Average Day Generation = 250 gpd/connection
MF Average Day Generation = 175 gpd/connection
SF Maximum Day Generation = 1000 gpd/connection
MF Maximum Day Generation = 700 gpd/connection
Single-family Residential = 3.2 people per unit
Multi-family Residential = 2.25 people per unit



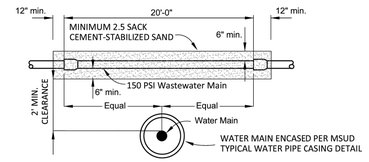
TYPICAL WATER LINE/SERVICE LOCATION LAYOUT DETAIL
N.T.S



TYPICAL UTILITY PROFILE
CURB & GUTTER ROAD SECTION
N.T.S.



WATER OVER WASTEWATER CROSSING
N.T.S.



WATER UNDER WASTEWATER CROSSING
N.T.S.

NOTES:
1. WHERE A WATER MAIN CROSSES A WASTEWATER MAIN OR LATERAL AND NINE-FOOT SEPARATION CANNOT BE ACHIEVED, A FULL JOINT (20') OF PRESSURE-RATED PVC PIPE (150 PSI MIN.) SHALL BE USED ON THE WASTEWATER MAIN OR LATERAL, CENTERED ABOUT THE WATER MAIN.
2. ADDITIONALLY, WHERE A WASTEWATER MAIN CROSSES OVER A WATER MAIN, AND NINE-FOOT SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN SHALL BE ENCASED IN AN 18-FOOT (OR LONGER) SECTION OF PIPE CENTERED ABOUT THE WASTEWATER MAIN.

NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD
GENERAL MANAGER: C. BOYD DATE: 2020-09-14

GENERAL NOTES

CERTIFICATION:
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

UTILITY DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	85
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: T:\pw.com\Network\Drives\CIVDFS\gee21003-saratoga\master info\Infrastructure\3_Design\05_Civil\301_CAD\Sheets\GEE21003-C-DETAILS
Last Saved By: Booker
Last Saved On: 4/30/2024 1:48 PM
Plot Date/Time: 4/30/2024 1:21 PM

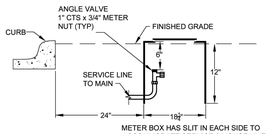
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

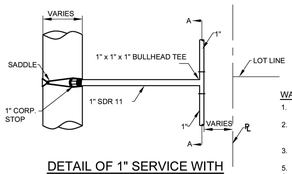
ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

FIFTH SUBMITTAL

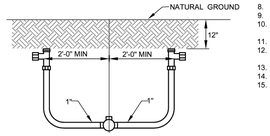


STD. METER BOX INST.

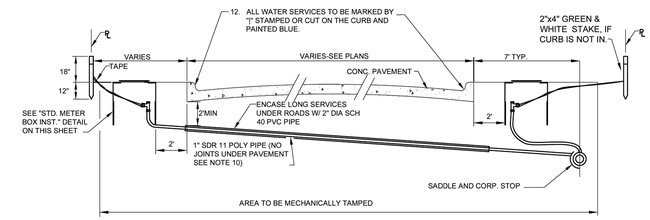
N.T.S.



DETAIL OF 1" SERVICE WITH BULLHEAD TEE



SECTION 'A - A' (ROTATED 90°)

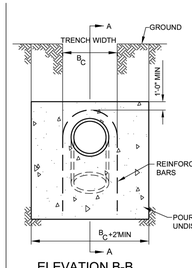


URBAN WATER SERVICE DETAIL

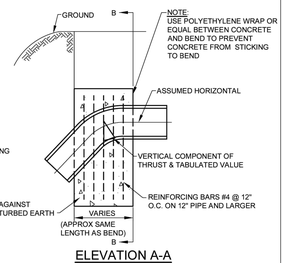
N.T.S.

WATER SERVICE NOTES:

1. ALL PROPERTY CORNERS SHALL BE STAKED WITH IRON RODS PRIOR TO THE INSTALLATION OF WATER SERVICES. THE LOCATIONS OF SERVICES SHALL BE STAKED ACCORDING TO THE PLANS.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL THE CORPORATION STOP, WATER SERVICE PIPE, ANGLE VALVE, CONNECTOR PIPE, AND METER BOX AS PER THE DETAILS ON THIS SHEET.
3. DIRECT TAPS ARE NOT ALLOWED. STAINLESS STEEL EPOXY COATED TAP SADDLES WITH IP THREADS SHALL BE USED FOR 1" TO 2" TAPS.
4. ALL TAPS LARGER THAN 2" SHALL BE MADE USING TAPPING TEES.
5. CUTTER FOR TAPS TO BE OF THE DOUBLE SLOTTED TYPE.
6. 1" TO 2" TAPS SHALL BE A MINIMUM OF 1' APART WITH TAPS NO CLOSER THAN 1' FROM THE END OF THE PIPE.
7. HOUSE SERVICES ON COMMON LOT LINES SHALL BE 1" WITH BULLHEAD.
8. CONTRACTOR MAY USE EITHER FLARED OR COMPRESSION FITTINGS WITH RESTRAINED UNIONS.
9. NO SPLICES OF WATER SERVICES SHALL BE PERMITTED UNDER PAVEMENT UNLESS APPROVED BY THE MSUD ENGINEER.
10. METER BOX SHALL BE SET 2 FT BEHIND CURB, OUTSIDE OF DRIVEWAYS AND PAVED AREAS.
11. ALL METERS 2" AND SMALLER SHALL HAVE A BFP INSTALLED WITH THE METER ASSEMBLY. ALL WATER METER ASSEMBLIES ARE SUPPLIED BY MSUD.
12. SERVICE TO BE STAKED BEFORE PAVING. METER BOX TO BE STAKED AFTER PAVING.
13. ALL RESIDENTIAL METERS SHALL BE BADGER E SERIES.
14. ALL SERVICE BRASS COMPONENTS SHALL BE FORD WATER PRODUCTS (OR APPROVED EQUAL) AND 150-PSI PRESSURE RATED.



ELEVATION B-B



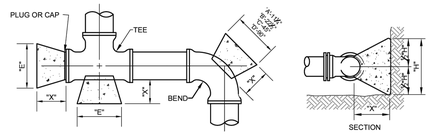
ELEVATION A-A

△	11¼°	22½°	45°
I.D. (IN.)	VOL. C.Y.	VOL. C.Y.	VOL. C.Y.
4	0.3	0.5	1.0
6	0.6	1.1	2.1
8	1.0	2.0	3.6
10	1.5	2.9	5.4
12	2.1	4.2	7.7
14	2.8	5.6	10.3
16	3.7	7.2	13.3
18	4.6	9.1	16.8
20	5.7	11.1	20.6
24	8.1	15.9	29.3
30	9.3	18.3	33.9
36	13.4	26.2	48.5

DIMENSIONS OF CONCRETE FOR VERTICAL THRUST BLOCKS AT FITTINGS

VERTICAL THRUST BLOCK NOTES:

1. CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 P.S.I. FOR 24" I.D. PIPE AND SMALLER AND 150 P.S.I. ON 30" I.D. AND LARGER.
2. CALCULATIONS ARE BASED ON WEIGHT OF CONCRETE OF 140 LBS PER CUBIC FOOT, SAFETY FACTOR OF 1.5 AND AN ALLOWABLE SOIL BEARING VALUE OF 2,500 POUNDS PER SQUARE FOOT.
3. VOLUMES OF VERTICAL BEND THRUST BLOCKS ARE NET VOLUMES OF CONCRETE TO BE FURNISHED. THE CORRESPONDING WEIGHT OF THE CONCRETE IS EQUAL TO OR GREATER THAN THE VERTICAL COMPONENT OF THRUST ON THE VERTICAL BEND.
4. CONCRETE FOR BLOCKING SHALL BE 2500 P.S.I. CONCRETE AT 28 DAYS.
5. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN HERE.
6. ALL CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED TRENCH WALLS.
7. KEEP CONCRETE CLEAR OF ALL JOINTS & ACCESSORIES. INSTALL 12 MIL POLYETHYLENE SHEETING AROUND FITTINGS. SECURE ENDS TO PREVENT INFILTRATION OF SOIL BETWEEN SHEETING AND PIPE FITTING PRIOR TO POURING THRUST BLOCK. PROTECT MECHANICAL JOINTS, FOLLOWERS, AND BOLTS FROM CONCRETE WITH TEMPORARY FORMS AND POLYETHYLENE.
8. ALL CONCRETE THRUST BLOCKS SHALL CONSIST OF A MIXTURE OF 1:2:6 OF CEMENT TO WASHED SAND TO GRAVEL AND SHALL BE CURED A MINIMUM OF 24 HOURS.

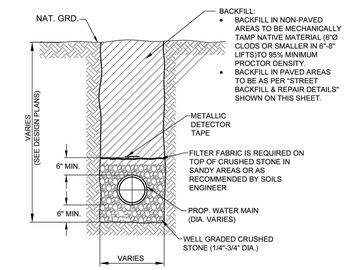


PIPE SIZE	"X" FT.	"H" FT.	11¼° "A" FT.	11¼° MIN. AREA	22½° "B" FT.	22½° MIN. AREA	45° "C" FT.	45° MIN. AREA	90° "D" FT.	90° MIN. AREA	TEE & PLUG "E" FT.	TEE & PLUG MIN. AREA
4"	1.5	1.2	1.2	1.4	1.2	1.4	1.2	1.4	1.9	2.3	1.4	1.7
6"	1.5	1.3	1.3	1.7	1.3	1.7	2.0	2.6	3.7	4.8	2.6	3.4
8"	1.5	1.3	1.3	1.7	1.8	2.3	3.4	4.4	6.3	8.2	4.5	5.9
10"	1.5	1.4	1.4	2.0	2.4	3.4	4.8	6.7	8.8	12.3	6.2	8.7
12"	1.5	1.6	1.6	2.6	3.0	4.8	5.9	9.4	10.9	17.4	7.7	12.3
14"	1.5	1.8	1.8	3.2	3.6	6.5	7.1	12.8	13.0	23.4	9.2	16.5
16"	2.0	2.1	2.1	4.4	4.0	8.4	7.8	16.4	14.5	30.5	10.2	21.4
18"	2.0	2.3	2.3	5.3	4.6	10.6	9.0	20.7	16.5	38.0	11.7	26.9
20"	2.0	2.6	2.6	6.8	5.0	13.0	9.7	25.2	18.0	46.8	12.7	33.0
24"	2.0	3.1	3.1	9.6	6.0	18.6	11.6	36.0	21.2	65.7	15.2	47.1
30"	2.5	3.8	3.8	14.4	7.5	28.5	14.6	55.5	27.0	102.6	19.1	72.6
36"	2.5	4.5	4.5	20.3	9.0	40.5	17.7	79.7	32.6	146.7	23.1	104.0

DIMENSIONS OF CONCRETE FOR HORIZONTAL THRUST BLOCKS AT FITTINGS

HORIZONAL THRUST BLOCK NOTES:

1. RETAINER GLANDS OR OTHER RESTRAINING DEVICES MAY BE REQUIRED AS NEEDED.
2. CALCULATIONS ARE BASED ON A TEST PRESSURE OF 150 PSI, WEIGHT OF CONCRETE OF 140 LBS PER CUBIC FOOT, SAFETY FACTOR OF 1.5 AND AN ALLOWABLE SOIL BEARING VALUE OF 2,500 POUNDS PER SQUARE FOOT. FOR OTHER PRESSURES AND SOIL STRENGTHS, AREAS AND VOLUMES MUST BE ADJUSTED ACCORDINGLY.
3. 2500 PSI CONCRETE AT 28 DAYS SHALL BE USED FOR ALL BLOCKING.
4. ALL MINIMUM AREAS ARE IN SQUARE FEET.
5. ALL CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED TRENCH WALLS. THE DISTANCE FROM PIPE FITTINGS TO TRENCH WALL SHALL BE A MINIMUM OF 12" AT THRUST BLOCK.
6. KEEP CONCRETE CLEAR OF ALL JOINTS & ACCESSORIES. INSTALL 12 MIL POLYETHYLENE SHEETING AROUND FITTINGS. SECURE ENDS TO PREVENT INFILTRATION OF SOIL BETWEEN SHEETING AND PIPE FITTING PRIOR TO POURING THRUST BLOCK. PROTECT MECHANICAL JOINTS, FOLLOWERS, AND BOLTS FROM CONCRETE WITH TEMPORARY FORMS AND POLYETHYLENE.
7. ALL CONCRETE THRUST BLOCKS SHALL CONSIST OF A MIXTURE OF 1:2:6 OF CEMENT TO WASHED SAND TO GRAVEL AND SHALL BE CURED A MINIMUM OF 24 HOURS.
8. ALL JOINTS SHALL BE TEMPORARILY JACKED WHEN POURING THRUST BLOCKS.
9. CONCRETE THRUST BLOCKS SHALL APPLY TO ALL PIPE FITTINGS.



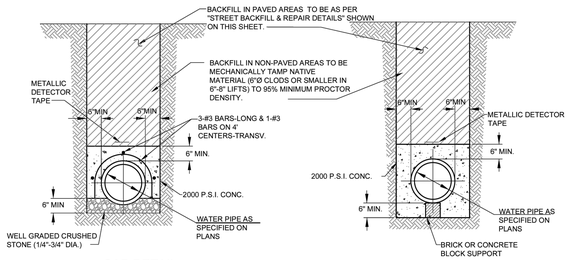
PIPE EMBEDMENT DETAIL

N.T.S.

TABLE OF DIMENSIONS FOR WIDTH OF TRENCH AND PAVEMENT REPLACEMENT

NORMAL SIZE OF PIPE IN INCHES	O.D. OF PIPEBELL IN INCHES (PVC-DR18)	MINIMUM TRENCH WALL CLEARANCE "A" IN INCHES	WIDTH OF TRENCH ('X') MAXIMUM ** IN INCHES	WIDTH OF TRENCH ('X') MINIMUM ** IN INCHES	WIDTH OF PVMT. REPLACEMENT * (W) CONC& ASPHALT **
6	6.9	6	24	19	48
8	9.05	6	24	21	48
10	11.10	6	28	24	48
12	13.20	6	30	26	50
16+	VARIES	8	*	*	*

NOTE: * REFER TO THE PLANS FOR SPECIFIED WIDTH OF REPLACEMENT.
** RECOMMENDED WIDTHS - VARIES BASED ON DEPTH. AND SOIL MATERIAL.



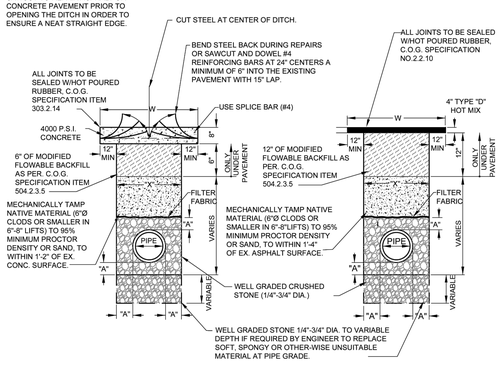
CAP DETAIL

N.T.S.

ENCASEMENT DETAIL

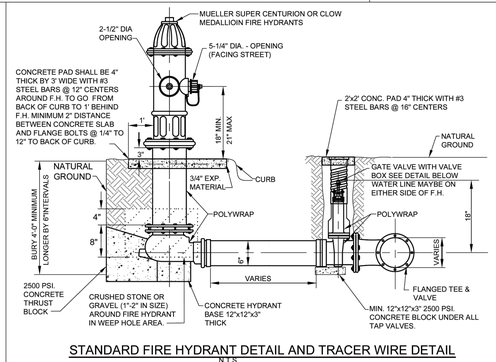
N.T.S.

NOTE:
SAWCUT TO REPAIR ASPHALT OR CONCRETE PAVEMENT PRIOR TO OPENING THE DITCH IN ORDER TO ENSURE A NEAT STRAIGHT EDGE.



STREET BACKFILL & REPAIR

N.T.S.



STANDARD FIRE HYDRANT DETAIL AND TRACER WIRE DETAIL

N.T.S.

Sample Fire Hydrant Flow Test Report

Fire Hydrant Flow Test Report (NFPA 291)

Location_____ Date_____

Test Performed By_____ Time_____M.

Representative of_____

Mustang SUD Witness_____

Purpose of Test_____

If Pumps Affect Test, Indicate Pumps Operating_____

Fire Hydrant	A_1	A_2	A_3	A_4
Nozzle Size				
Pitot Reading				
Elev. Difference from Test Hydrant (ft)				
Discharge Coeff.				
Flow (gpm)				

Static B_____psi Residual B_____psi

Projected Results @ 20 psi Residual _____gpm; or @ _____ psi Residual _____ gpm

Remarks_____

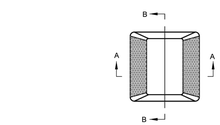
Location map: Show line sizes and distance to next distribution system intersection. Show valves and hydrant branch size. Indicate north. Show flowing hydrants – Label A_1, A_2, A_3, A_4. Show location of static and residual – Label B.

Indicate B Hydrant_____ Sprinkler_____ Other (identify)_____

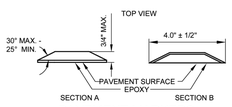
NOTE: Mail, hand-deliver or otherwise provide this completed report to the Mustang Special Utility District prior to acceptance of the system and beginning of service.

FIRE HYDRANT NOTES:

1. FIRE HYDRANTS SHALL BE LOCATED 3' OFF BACK OF CURB IN RESIDENTIAL, & 4' OFF BACK OF CURB IN INDUSTRIAL.
2. FIRE HYDRANTS SHALL BE COATED WITH KEM-LUSTRAL OR AN EQUIVALENT COATING.
3. FIRE HYDRANT LOCATION WILL BE MARKED BY PLACING A TYPE II PAVEMENT MARKER REFLECTORIZED BLUE 4" OFF OF THE TRAFFIC LANE BUTTONS. THE MARKER WILL BE IN THE LANE NEAREST TO THE FIRE HYDRANT. ALL MARKERS AT INTERSECTIONS SHOULD BE 10 FEET BACK FROM THE INTERSECTION. HYDRANT MARKERS SHOULD BE PLACED 4" OFF THE CENTER STRIPE OR OTHER TRAFFIC BUTTONS AS PER DRAWINGS.
4. FIRE HYDRANT LEAD SHALL BE NO LONGER THAN 10' IN LENGTH.



TYPE II



PAVEMENT MARKERS (REFLECTORIZED) TYPE II

NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD GENERAL MANAGER: Chris Boyd DATE: 7/27/2020

WATER STANDARD DETAILS (1 OF 2)

CERTIFICATION:
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN 100268 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

UTILITY DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	86
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: \\pw.com\Network\Drive\GIS\Projects\21003-sara\sgt\master infrastructure\3_Design\35_Civil\01_CAD\Sheets\GEE21003-CAE\TAILS
Last Saved by: Brooke Lee
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Plot Date/Time: 4/30/2024 1:42 PM

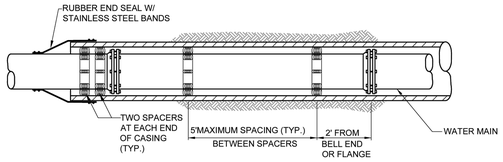
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

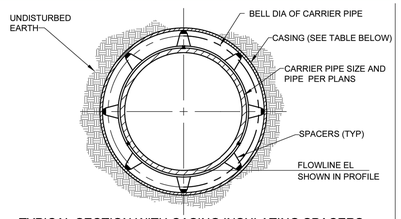
TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

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FIFTH SUBMITTAL





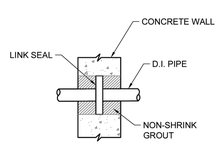
TYPICAL SECTION WITH CASING INSULATING SPACERS
N.T.S.

CASING NOTES:
1. CASING MATERIAL SHALL BE STEEL PER TxDOT REQUIREMENTS AT ALL TxDOT ROAD CROSSINGS.
2. CASING MATERIAL SHALL BE SDR-26/PS115 PVC AT ALL OTHER CROSSINGS UNLESS SPECIFICALLY REQUIRED BY MSUD ENGINEER.
3. CASING SIZE SHALL BE PER THE TABLE PROVIDED HEREON.
4. CASING SPACERS SHALL BE USED TO INSTALL CARRIER PIPE INSIDE THE ENCASEMENT PIPE. TO PROVIDE SUPPORT AROUND THE PERIPHERY OF THE PIPE SHOULD THE PIPE TWIST AS IT IS PUSHED THROUGH THE CASING, THE SPACERS SHALL BE OF A PROJECTION TYPE THAT HAS A MINIMUM NUMBER OF PROJECTIONS AROUND THE CIRCUMFERENCE TOTALING THE NUMBER OF DIAMETER INCHES. FOR EXAMPLE, 8" PIPE SHALL HAVE A MINIMUM OF 8 PROJECTIONS AND 18" PIPE SHALL HAVE A MINIMUM NUMBER OF 18 PROJECTIONS.
5. CASING SPACERS SHALL HAVE A MAXIMUM SPACING SPAN OF 5 FEET. THE SPAN BETWEEN SPACERS SHOULD RESULT IN CONSERVATIVE LONG-TERM SAFETY FACTOR PROVIDED TOTAL LOAD PER SPACERS DOES NOT EXCEED THE MAXIMUM LOAD FOR PIPE FULL OF LIQUID PER SPACER LISTED IN THE LITERATURE FOR CLASS SPACER USED. SPACERS SHALL HAVE A MINIMUM HEIGHT THAT CLEARS THE PIPE BELL OR AS OTHERWISE INDICATED ON PLANS. CASING SPACERS SHALL USE DOUBLE BACKED TAPE PROVIDED WITH THE SPACERS, TO FASTEN TIGHTLY ONTO THE CARRIER PIPE, SO THAT THE SPACERS DO NOT MOVE DURING INSTALLATION.
6. SPACERS SHALL BE RACI HIGH DENSITY POLYETHYLENE OR AS APPROVED BY MSUD ENGINEER.

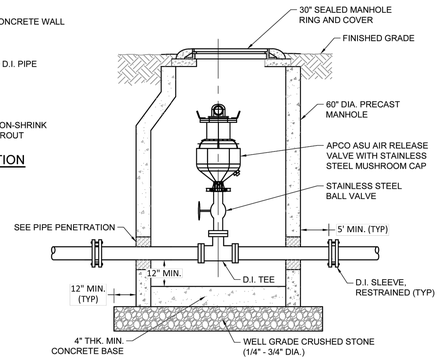
TYPICAL WATER PIPE CASING DETAIL
(AT ROADWAYS AND/OR STORM DRAIN CROSSINGS)
N.T.S.

CASING SCHEDULE

WATER LINE NOMINAL SIZE (IN)	CASING NOMINAL SIZE (IN)
2	4
4	6
6	8
8	12
10	16
12	18
14 & 16	24
18	30
20	30
24	36
27	36
30	42
36	48

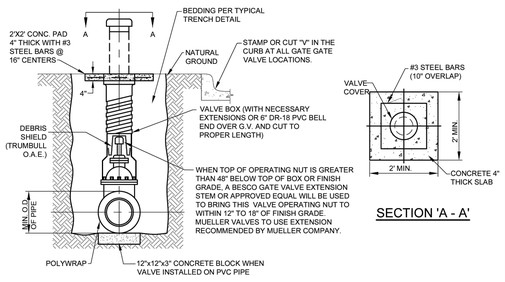


PIPE PENETRATION
N.T.S.



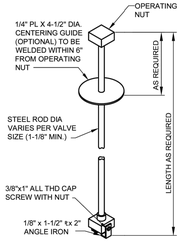
NOTES:
1. ALL PIPING, EXCEPT AS NOTED, TO BE DUCTILE IRON WITH FLANGED JOINTS AND STAINLESS STEEL BOLTS AND NUTS.
2. RIM ELEVATION SHALL BE SET 12" ABOVE FINISHED GRADE UNLESS INSTALLED IN PAVED AREA

COMBINATION AIR RELEASE VALVE AND VAULT DETAIL
N.T.S.

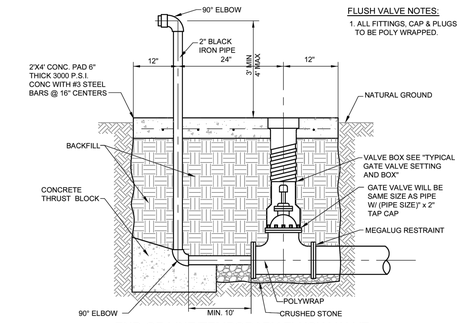


TYPICAL VALVE SETTING AND BOX
N.T.S.

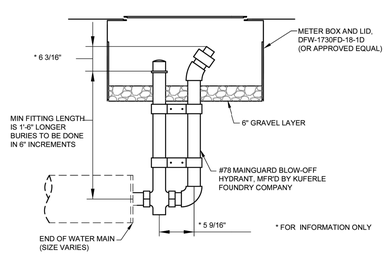
SECTION 'A - A'



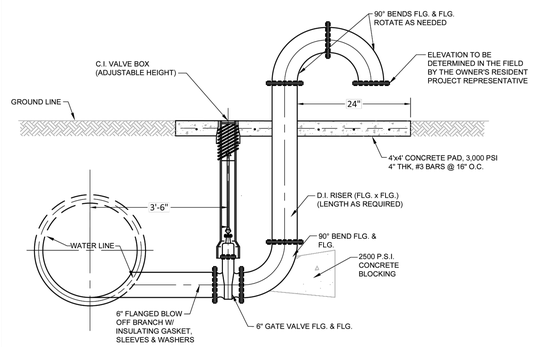
VALVE EXTENSION STEM
N.T.S.



END-OF-LINE/TEMPORARY FLUSH VALVE
N.T.S.



RESIDENTIAL FLUSH VALVE
N.T.S.



MAIN LINE FLUSH VALVE
N.T.S.

NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD
GENERAL MANAGER: C. BOYD DATE: 2020-09-14

WATER DETAILS (2 OF 2)

CERTIFICATION:
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

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-FOR REVIEW ONLY-

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

UTILITY DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	87
REVIEWER: TRS			

SARATOGA PHASE 1

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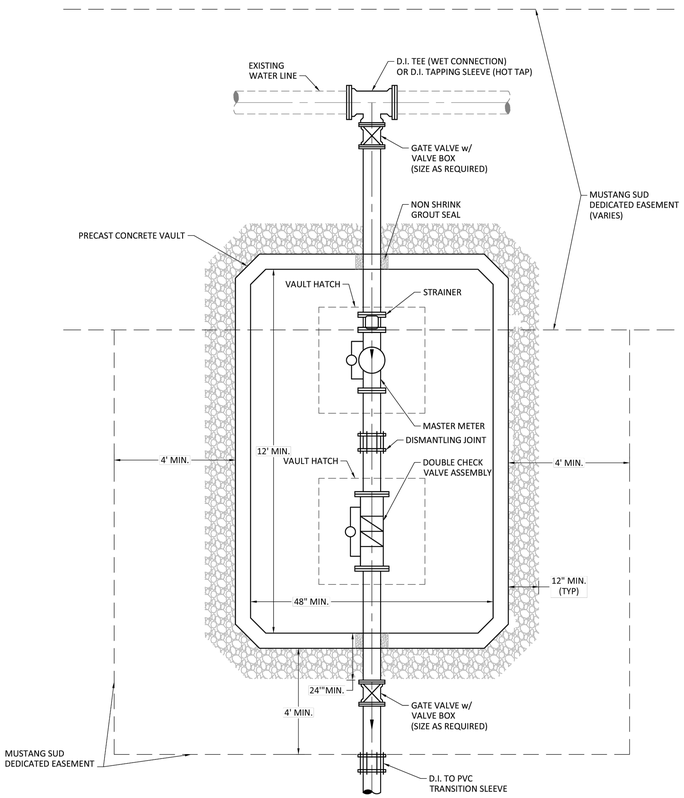
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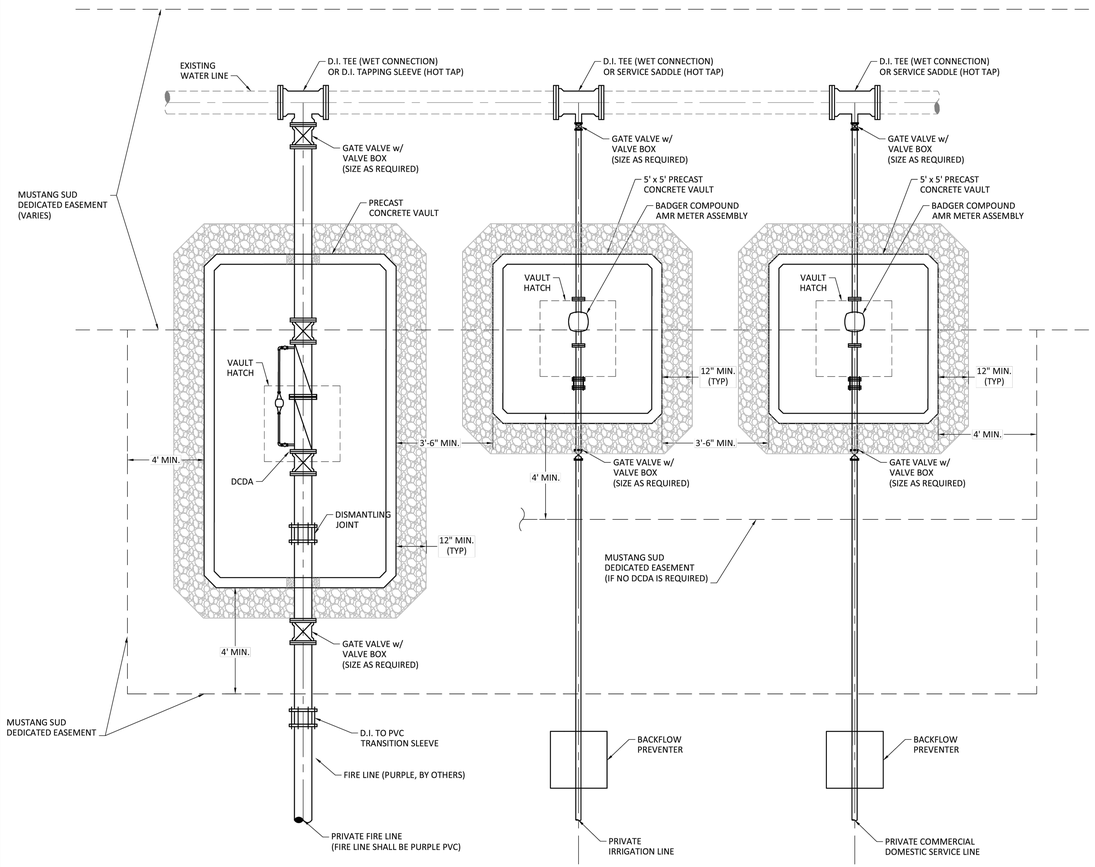
FIFTH SUBMITTAL



NOTES:

1. ALL WORK NOT SPECIFICALLY IDENTIFIED AS BEING SUPPLIED BY MUSTANG S.U.D. SHALL BE COMPLETED AT OWNER'S EXPENSE.
2. SIZE ON SIZE HOT TAPS SHALL NOT BE ALLOWED.
3. CONCRETE VAULTS SHALL BE EQUAL TO THAT AS DESIGNED AND MANUFACTURED BY CAPITAL PRECAST, INC.
4. CONCRETE VAULT LID AND HATCHES SHALL BE TRAFFIC RATED.
5. VAULT HATCHES SHALL BE 42"x42" ALUMINUM WITH LIFT ASSIST AND SLAM LOCK.
6. MASTER METER SHALL BE BADGER RECORDALL.
7. MASTER METER SHALL BE EQUIPPED WITH AN AMR/AMI REMOTE METER READING SYSTEM AS MANUFACTURED BY BADGER METER COMPATIBLE FOR USE WITH THE SPECIFIED METER. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, ELECTRICAL AND SERVICE REQUIRED FOR A COMPLETE, OPERATING SYSTEM.
8. DOUBLE CHECK VALVE ASSEMBLY SHALL BE WATTS 775 OR APPROVED EQUAL.
9. CONCRETE VAULT SHALL HAVE NO BOTTOM.
10. VAULT SHALL BE SET ON 12" OF 1"-2"Ø WASHED GRAVEL.
11. VAULT SHALL BE MINIMUM 72" DEEP AND INCLUDE AN ALUMINUM OR STAINLESS STEEL LADDER WITH SAFETY EXTENSION.
12. VAULTS LIDS SHALL BE 6" TO 12" ABOVE FINISHED GRADE IN UNPAVED AREAS.
13. CLEARANCE BETWEEN PIPING AND VAULT FLOOR SHALL BE 12" MINIMUM.
14. ADJUSTABLE PIPE SUPPORTS SHALL BE PROVIDED UNDER THE MASTER METER AND CHECK VALVE ASSEMBLY.
15. ALL MECHANICAL JOINT FITTINGS SHALL BE MECHANICALLY RESTRAINED WITH MEGA-LUG OR EQUAL.
16. ALL PIPING THROUGH THE VAULT SHALL BE DUCTILE IRON.

MASTER METER WITH DOUBLE CHECK INSTALLATION
N.T.S.



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3. VAULT SIZE MAY VARY DEPENDING UPON METER SIZE.
4. MUSTANG S.U.D. SHALL SUPPLY METERS UP TO 2".
5. MUSTANG S.U.D. SHALL SUPPLY A CHECK VALVE FOR RESIDENTIAL METERS ONLY.
6. MUSTANG S.U.D. DOES NOT SUPPLY ANY TYPE OF DOUBLE CHECK DETECTOR ASSEMBLY (DCDA).
7. ALL MECHANICAL JOINT FITTINGS SHALL BE MECHANICALLY RESTRAINED WITH MEGA-LUG OR EQUAL.
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9. CONCRETE VAULTS SHALL HAVE NO BOTTOM.
10. VAULT SHALL BE SET ON 12" OF 1"-2" Ø WASHED GRAVEL.
11. ALL PIPING THROUGH DCDA VAULT SHALL BE DUCTILE IRON.

DOUBLE CHECK DETECTOR ASSEMBLY, IRRIGATION AND COMMERCIAL DOMESTIC METER INSTALLATION
N.T.S.

NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD
GENERAL MANAGER: C. BOYD DATE: 2020-09-14

COMMERCIAL AND DCDA DETAILS

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

UTILITY DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	88
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: \\tw.com\Network\Drives\OU\DFW\prof\1003-saratoga\master infrastructure\2_Design\05_Civil\SS_CAD\Sheets\[GEE21003-CSETAIL3.
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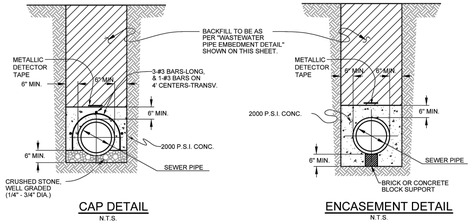
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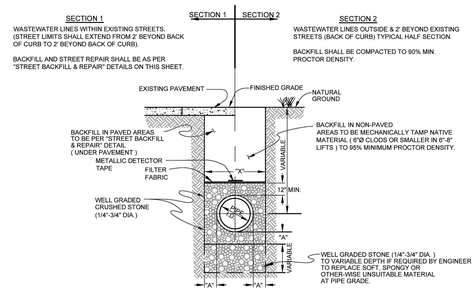
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FIFTH SUBMITTAL

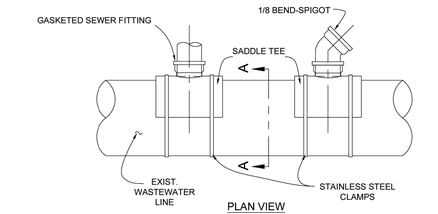


CAP DETAIL
N.T.S.

ENCASEMENT DETAIL
N.T.S.



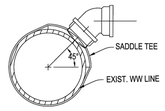
WASTEWATER PIPE LINE EMBEDMENT DETAIL PVC SDR-26 & SDR-35
N.T.S.



PLAN VIEW

SADDLE TEE					
PART NO.	SIZE	L1	H	P	
52535	8"X6"	5.625	5.659	1.448	

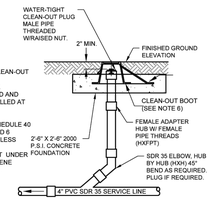
PLASTIC TRENDS INC. - 1/8 BEND - SPIGOT					
PART NO.	SIZE	A	B	C	D
G 406	6	11.270	6.146	1.870	6.090



SECTION A-A

GASKETED SEWER FITTING FOR SEWER SERVICE CONNECTIONS TO EXISTING MAINS
N.T.S.

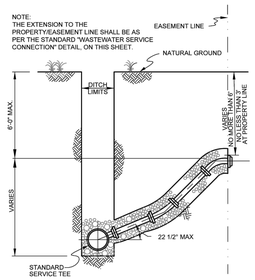
NOTES:
1. FLEXIBLE SADDLE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
2. SADDLE TEE SHALL BE ORIENTATED 45° TO MAIN.
3. EXCAVATE AROUND EXISTING 8-INCH PIPE, EXPOSING SUFFICIENT ROOM FOR S.S. CLAMPS.
4. THOROUGHLY CLEAN AND DRY THE MATING SURFACE WITH RAG OR PAPER TOWEL MAKE SURE THEY ARE FREE OF DUST AND MOISTURE.
5. MARK THE SIZE OF THE HOLE TO BE CUT USING THE GASKET SKIRT OR THE SADDLE ITSELF AS THE TEMPLATE.
6. SAW OUT THE SECTION OF THE PIPE WHERE THE SADDLE WILL BE LOCATED, WITH A SABER OR KEY HOLE SAW.
7. TEST TO MAKE SURE SADDLE FITS HOLE PROPERLY.
8. SERVICE PIPE SHALL NOT EXTEND MORE THAN ONE-HALF INCH INTO THE MAIN.
9. PLACE GASKET SKIRT AND SADDLE OVER OPENING AND TIGHTEN BAND CLAMPS EVENLY UNTIL SADDLE IS FIRMLY ATTACHED TO THE PIPE. APPLY PRESSURE ON THE SADDLE AGAINST THE PIPE WHILE TIGHTENING THE CLAMPS AS INDICATED ABOVE. DO NOT OVER TIGHTEN, DO NOT STRIP THREAD.
10. REPLACE THE BEDDING AND BACKFILL IN ACCORDANCE WITH THE TRENCH EMBEDMENT DETAIL.



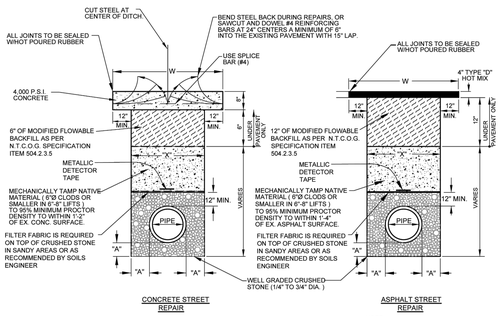
WASTEWATER SERVICE CLEAN-OUT NOTES:

1. FOR NEW DEVELOPMENT EXTEND 4" PVC CLEAN-OUT 24" ABOVE FINISHED GRADE WITH 4" PLUG.
2. AT THE TIME OF SERVICE CONNECTION THE CLEAN-OUT EXTENTION SHALL BE ADJUSTED AND THE APPROPRIATE CLEAN-OUT BOOT INSTALLED AT THE FINISHED GROUND ELEVATION.
3. ALL FITTINGS SHALL BE SOLVENT WELD
4. ALL FITTINGS SHALL BE PVC SDR 35 OR SCHEDULE 40
5. CENTER LINE OF CLEAN-OUTS TO BE PLACED 6 INCHES INSIDE CITY RIGHT-OF-WAY LINE UNLESS SPECIFIED OTHERWISE.
6. USE CAST IRON SANITARY CLEAN-OUT BOOT UNDER PAVED SURFACES ONLY. USE POLYPROPYLENE CLEAN-OUT BOOT UNDER UNPAVED AREAS.

WASTEWATER SERVICE CLEAN-OUT DETAIL
N.T.S.



STANDARD DEEP CUT CONNECTION
N.T.S.



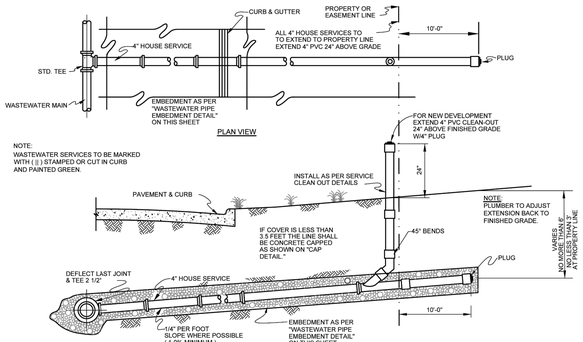
STREET BACKFILL & REPAIR
N.T.S.

NOTE: SAWCUT TO REPAIR ASPHALT OR CONCRETE PAVEMENT PRIOR TO OPENING THE DITCH IN ORDER TO ENSURE A NEAT STRAIGHT EDGE.

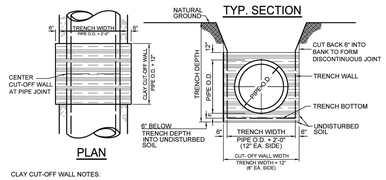
NORMAL SIZE OF PIPE IN INCHES	O.D. OF PIPE BELL IN INCHES (PVC-SDR35)	MINIMUM TRENCH WALL CLEARANCE "A" IN INCHES	WIDTH OF TRENCH ('X')		WIDTH OF PVMT. REPLACEMENT *
			MAXIMUM ** IN INCHES	MINIMUM ** IN INCHES	('W') CONC. & ASPHALT **
4	4.67	6	24	18	42
6	6.74	6	24	19	48
8	8.99	6	24	21	48
10	11.27	6	28	24	48
12	13.27	6	30	26	50
15	16.45	8	37	33	57
18	20.73	8	41	37	61
21	24.42	8	45	41	65
24	27.21	8	48	44	68
27	30.61	8	51	47	71

NOTE: * REFER TO THE PLANS FOR SPECIFIED WIDTH OF REPLACEMENT.
** RECOMMENDED WIDTHS - VARIES BASED ON DEPTH, AND SOIL MATERIAL.

TABLE OF DIMENSIONS FOR WIDTH OF TRENCH AND PAVEMENT REPLACEMENT



STANDARD WASTEWATER SERVICE CONNECTION
N.T.S.



CLAY CUT-OFF WALL NOTES:

1. CLAY CUT-OFF WALLS SHALL BE CONSTRUCTED AT 250 FOOT INTERVALS ALONG ALL WASTEWATER MAIN INSTALLATIONS BETWEEN MANHOLES.
2. THE CLAY CUT-OFF WALL SHALL BE PLACED AT THE MID POINT OF THE LENGTH OF THE PIPE BEING PLACED, BUT NOT AT A LOCATION WHERE A LATERAL OR SERVICE CONNECTS TO THE MAIN. THE MINIMUM CLEARING IS 10 FEET.
3. MATERIAL FOR CLAY CUT-OFF WALL TO BE CLEAN MATERIAL WITH NO LUMPS LARGER THAN 3". CLAY TO HAVE P.I. OF 30 TO 40. MATERIAL TO BE PLACED IN 6" LIFTS, MOISTENED TO OPTIMUM MOISTURE CONTENT AND COMPACTED WITH HAND HELD MECHANICAL TAMPERS, WITHOUT DAMAGING THE PIPE.

CLAY CUT-OFF WALL
N.T.S.

NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD GENERAL MANAGER: Chris Boyd DATE: 7/27/2020

WASTEWATER STANDARD DETAILS (1 OF 2)

CERTIFICATION:
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

UTILITY DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | Toll Free (888) 937-5150
11000 Frisco Street, Suite 400
Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	89
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: \\pw.com\Network\Drives\CLOS\Projects\21003-saratoga\master infrastructure\3_Design\35_Civil\01_CAD\Sheets\GEE21003-CADETAILS
Last Saved by: Bcollum
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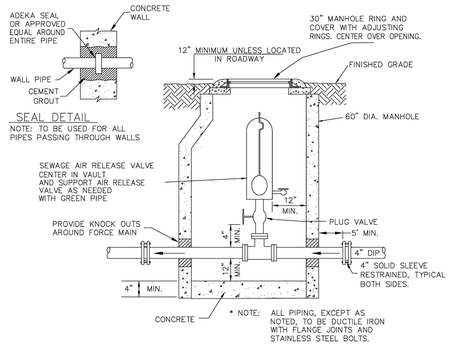
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
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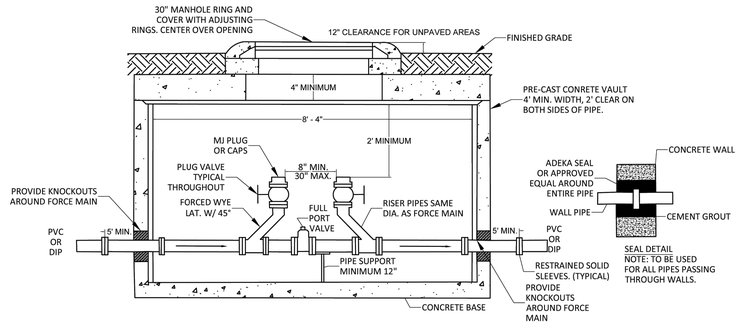
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FIFTH SUBMITTAL



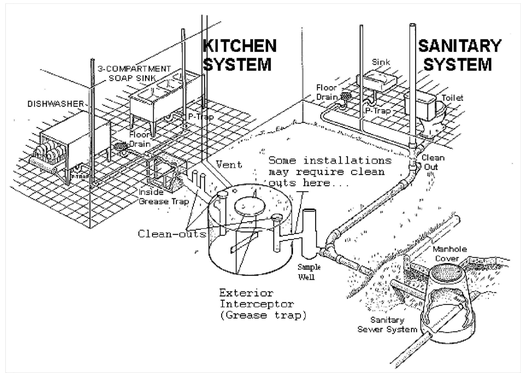
SEWER AIR RELEASE VALVE
N.T.S.



NOTES:
1. ALL PIPING 4" AND LARGER IN CLEAN-OUT CHAMBER, EXCEPT AS NOTED, TO BE DUCTILE IRON CONNECTED WITH FLANGED HOINTS AND STAINLESS STEEL BOLTS.

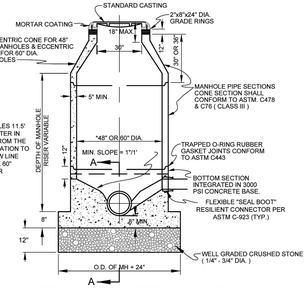
2. ALL VAULTS DEEPER THAN 5' MUST HAVE STAINLESS STEEL LADDER BOLTED IN PLACE.

TWO-WAY FORCE MAIN CLEAN-OUT
N.T.S.

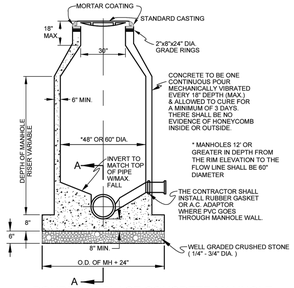


Typical Plumbing Layout
N.T.S.

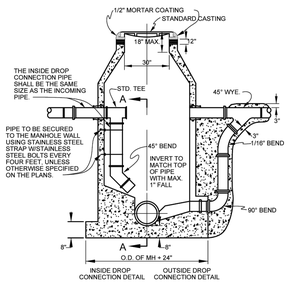
NOTE:
MUSTANG SPECIAL UTILITY DISTRICT REQUIRES RESTAURANTS, FOOD PROCESSING FACILITIES, AUTOMOTIVE REPAIR FACILITIES, CAR WASHES, COMMERCIAL LAUNDRIES, AND ALL OTHER FACILITIES THAT THE DISTRICT DEEMS NECESSARY TO INSTALL AND MAINTAIN GREASE OR GRIT TRAPS. IT IS THE RESPONSIBILITY OF THE GENERATORS TO ENSURE THAT THEIR GREASE TRAPS, AND THE WASTEWATER DISCHARGED FROM THEM, ARE IN COMPLIANCE WITH ALL DISTRICT REQUIREMENTS.



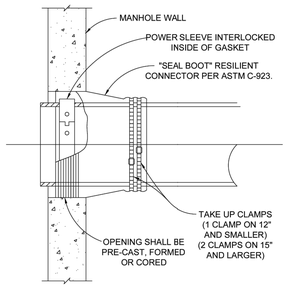
PRECAST CONCRETE MANHOLE
N.T.S. SEE CONCRETE MANHOLE NOTES.



POURED IN PLACE CONCRETE MANHOLE
N.T.S. SEE CONCRETE MANHOLE NOTES.



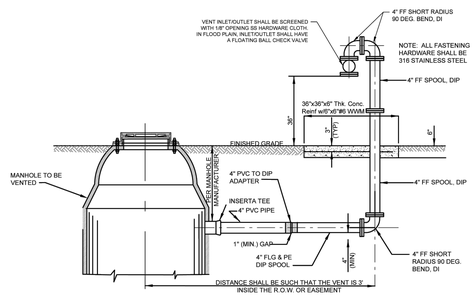
STANDARD DROP CONNECTION TO MANHOLE
N.T.S.



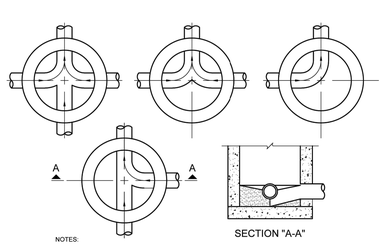
FLEXIBLE "SEAL BOOT" CONNECTOR
N.T.S.

CONCRETE MANHOLE NOTES:

1. CONCRETE FOR ALL PRECAST AND POURED IN PLACE MANHOLES SHALL BE 6.5 SACK, 4200 P.S.I. SULPHATE RESISTANT CONCRETE.
2. THE DIAMETER OF THE CONCRETE BASE SHALL NOT BE LESS THAN THE INSIDE DIAMETER OF THE MANHOLE PLUS 2 FT.
3. STEPS SHALL NOT BE I NSTALLED IN MANHOLE.
4. ALL NEW MANHOLES SHALL BE MARKED WITH "MH" STAMPED OR CUT IN THE CURB.
5. USE DROP CONNECTIONS WHEN CONNECTING LINE EXCEEDS 24" ABOVE THE MANHOLE FLOWLINE.
6. USE OUTSIDE DROP CO NNECTIONS ON ALL NEW MANHOLES.
7. USE INSIDE DROP CONNECTION ON EXISTING MANHOLES ONLY.
8. PROVIDE RAIN PANS INTEGRATED WITH RIM.
9. MANHOLES IN OFFSITE/UNPAVED AREAS SHALL BE SET WITH TOP OF MANHOLE 12" ABOVE FINISHED GRADE (CANNOT BE ACHIEVED WITH GRADE RINGS)
10. MANHOLES IN OFFSITE/UNPAVED AREAS ALL SHALL HAVE TYPE "S" RING AND COVER AND MAINTAIN MINIMUM 12" CLEARANCE WITHOUT GRADE RINGS.
11. ALL MANHOLE LADDERS MUST BE STAINLESS STEEL AND BOLTED IN PLACE.



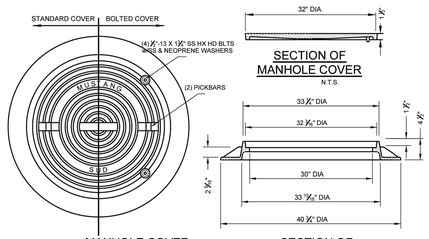
MANHOLE VENT DETAIL
N.T.S.



SECTION "A-A"

NOTES:
1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOW.
3. CHANNELS FOR FUTURE CONSTRUCTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND, AND COVERED WITH 1" OF MORTAR.
4. SLOPE MANHOLE ITSELF WITH A 1:2 SLOPE FROM MANHOLE WALL TO CHANNEL.
5. INVERT SHALL BE A MINIMUM OF 1/2 THE DIAMETER OF THE LARGEST PIPE OR 4" DEEP.

MANHOLE FLOOR PLAN
N.T.S.



MANHOLE COVER
N.T.S.

SECTION OF MANHOLE COVER
N.T.S.

SECTION OF MANHOLE RING
N.T.S.

MANHOLE RING AND COVER NOTES:
1. MANHOLE LIDS SHALL HAVE PICK SLOTS ONLY.
2. MH RING & COVERS SHALL BE HEAVY DUTY LOAD RATED CONFORMING TO AASHTO M-306.

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ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD GENERAL MANAGER: Chris Boyd DATE: 7/27/2020

WASTEWATER STANDARD DETAILS (2 OF 2)

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SARATOGA PHASE 1

UTILITY DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

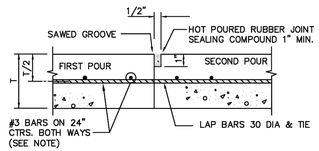
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	90
REVIEWER: TRS			

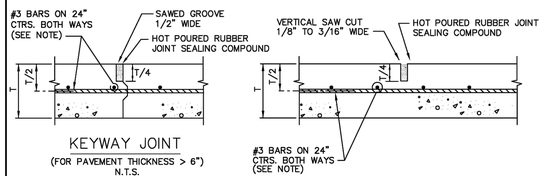
SARATOGA PHASE 1

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Plot Date/Time: 4/30/2024 1:41 PM



CONSTRUCTION JOINT

N.T.S.



KEYWAY JOINT

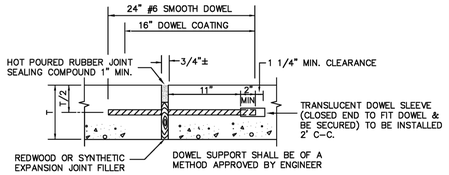
(FOR PAVEMENT THICKNESS > 6")

N.T.S.

SAWED CONTRACTION JOINT

N.T.S.

NOTE:
ALTERNATE REINFORCEMENT
#4 BARS ON 30" CTRS.
BOTH WAYS.

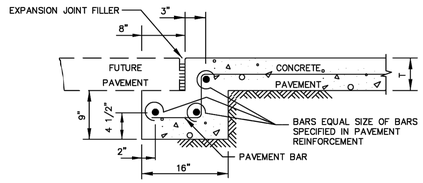


EXPANSION JOINT

(SPACED 600 FT. MAXIMUM; LOCATE AT STRUCTURES AND AT INTERSECTION P.C.'S & P.T.'S)

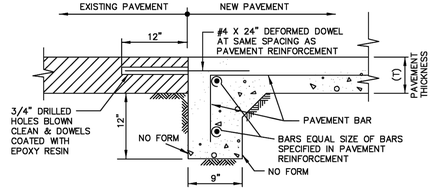
N.T.S.

REINFORCED CONCRETE PAVEMENT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 303.5.4.	
JOINTS		DATE OCT. '04	STANDARD DRAWING NO. 2050



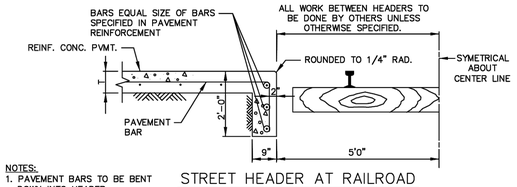
STREET HEADER FOR FUTURE PAVEMENT

N.T.S.



STREET HEADER AT EXISTING PAVEMENT

N.T.S.

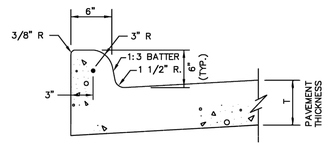


NOTES:
1. PAVEMENT BARS TO BE BENT DOWN INTO HEADER.
2. HEADER AND PAVEMENT TO BE MONOLITHIC.

STREET HEADER AT RAILROAD

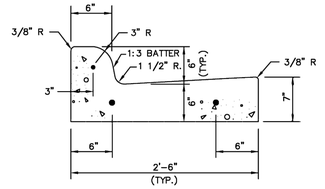
N.T.S.

REINFORCED CONCRETE PAVEMENT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.4	
STREET HEADERS		DATE OCT. '04	STANDARD DRAWING NO. 2070



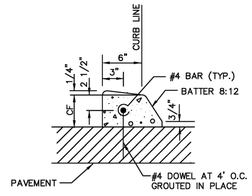
INTEGRAL CURB & GUTTER

N.T.S.



SEPARATE CURB & GUTTER

N.T.S.

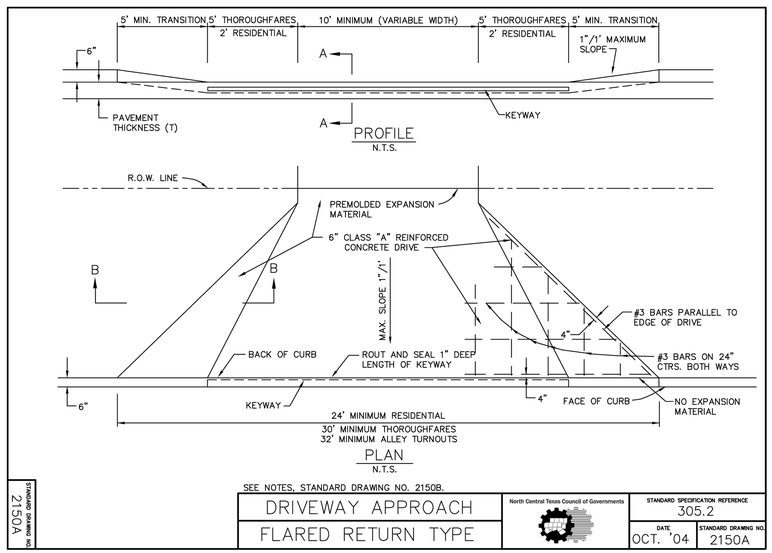


DOWELED CURB

N.T.S.

NOTES:
1. REINFORCEMENT SHALL BE NO. 4 BARS, UNLESS OTHERWISE SPECIFIED.
2. CONCRETE SHALL BE CLASS "C" OR "PC".
3. "CF" IS 6" UNLESS OTHERWISE SPECIFIED.
4. ALL CURBS ARE CONSTRUCTED OF PORTLAND CEMENT CONCRETE UNLESS OTHERWISE SHOWN.
5. GRADE SHALL BE MEASURED AT BACK OF CURB.

CONCRETE CURB & GUTTER	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.1	
INTEGRAL, SEPARATE, & DOWELED		DATE OCT. '04	STANDARD DRAWING NO. 2120



SEE NOTES, STANDARD DRAWING NO. 2150B.

STANDARD DRAWING NO. 2150A	DRIVEWAY APPROACH FLARED RETURN TYPE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.2	
			DATE OCT. '04	STANDARD DRAWING NO. 2150A

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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ONCOR ELECTRIC DELIVERY	888-313-6862
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MUSTANG SUD	940-440-9561

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FIFTH SUBMITTAL

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TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

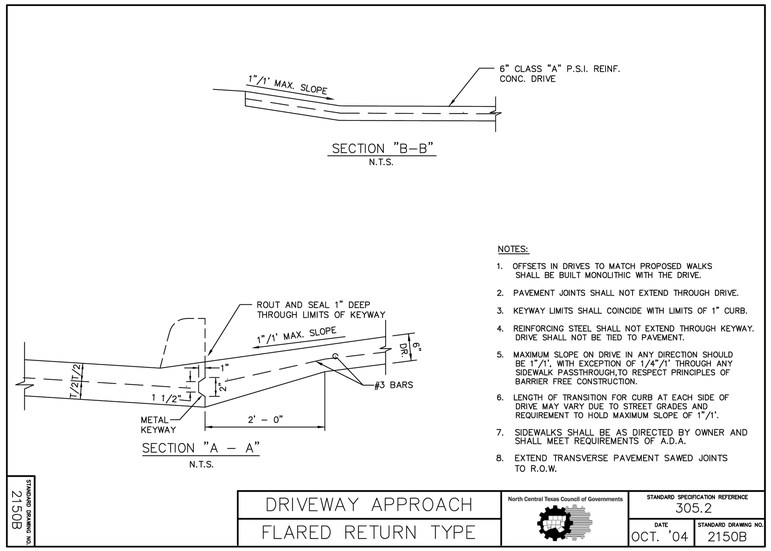
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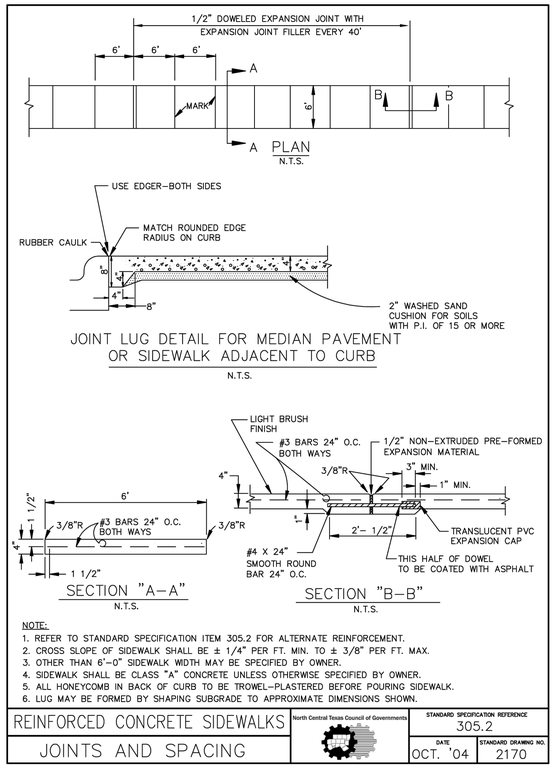
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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	91
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: I:\pw.com\Network\Drives\CIVD\Projects\21003-saratoga\master info\arch\cad\v3_Design\05_CivSht\01_CAD\Sheets\GEE21003-C-DETAILS
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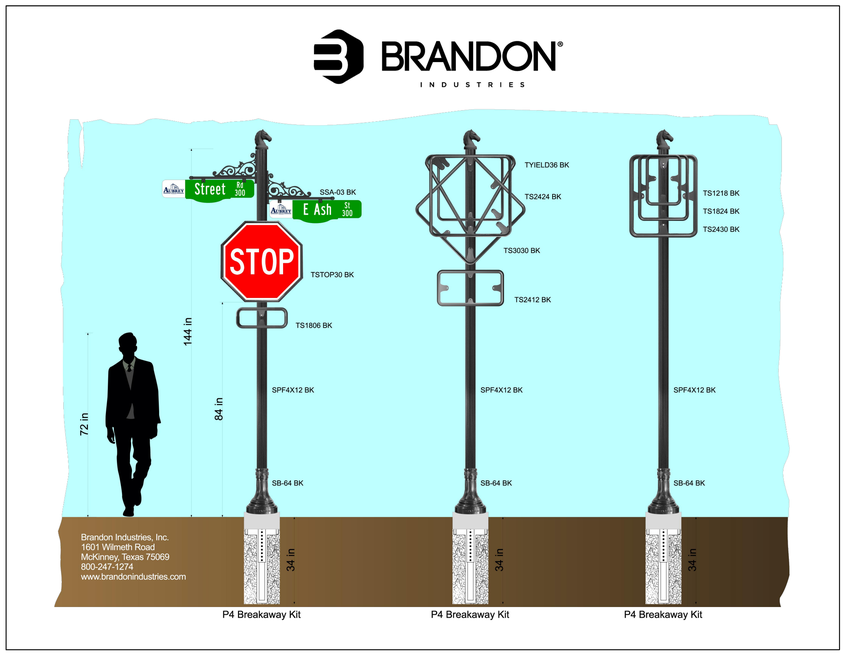
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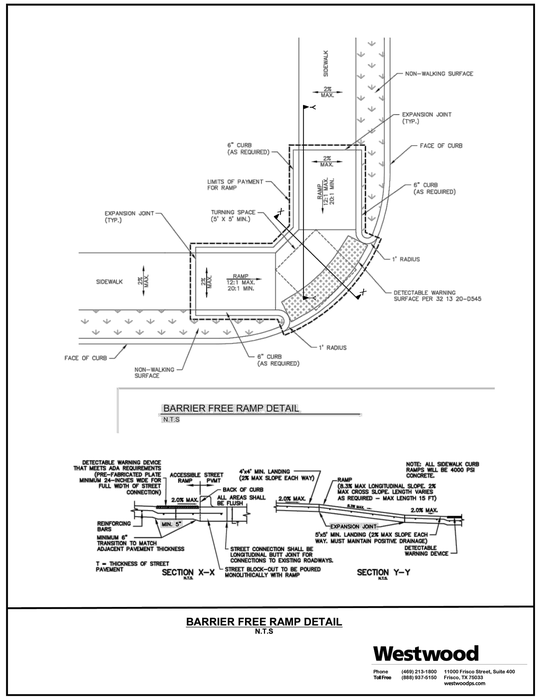
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PAVING DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 | 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 | Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. P-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	92
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: I:\pw-cust\Network\Drives\DOS\Spec21003-saratoga\master infrastructure\3_Design\35_Civil\01_CAD\Sheets\GEE21003-A-DETAILS
Last Saved by: Brooke Lee
Last Plotted: 4/30/2024 1:48 PM
Plot Date/Time: 4/30/2024 1:47 PM

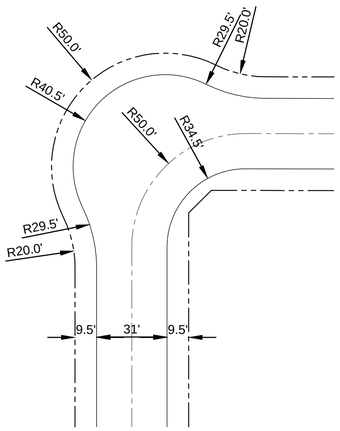
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

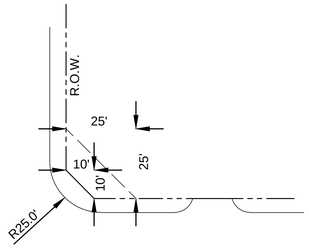
CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

FIFTH SUBMITTAL

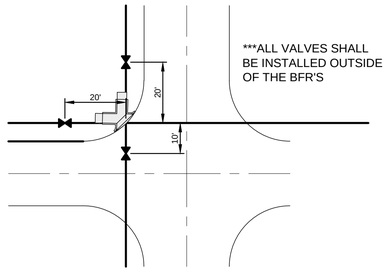


TYPICAL KNUCKLE LAYOUT
N.T.S.

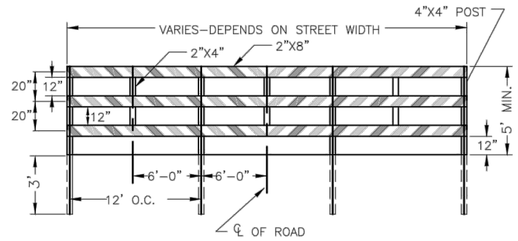


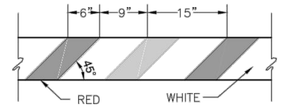
INTERSECTING LOCAL (RESIDENTIAL)

CORNER CLIP DETAIL
N.T.S.



GATE VALVE DETAIL
N.T.S.

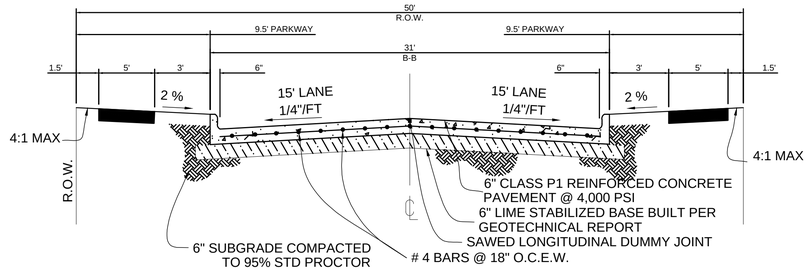




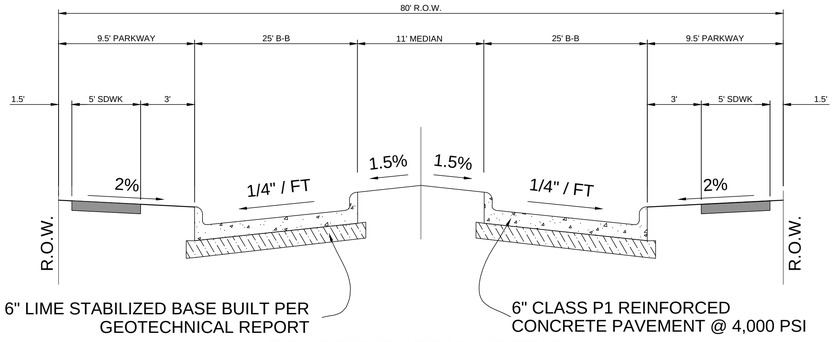
END OF ROAD BARRICADE DETAIL
NOT TO SCALE

NOTES:

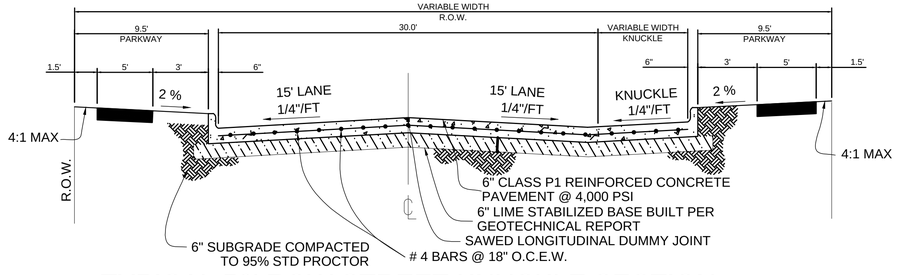
1. REFLECTIVE SHEETING FOR ALL TRAFFIC CONTROL DEVICES SHALL BE OF HIGH INTENSITY PRISMATIC (TYPE IIIA OR IIIB) ALL CHANNELIZATION DEVICES SHALL USE TYPE IIIA REBOUNDABLE SHEETING.
2. ATTACH 2"X 8" BOARDS TO 4"X 4" PRESSURE TREATED POST WITH LAG BOLTS.
3. ATTACH 2"X 4" BRACES TO 2"X 8" BOARDS WITH 10d–NAILS.
4. BARRICADE TO BE FULL WIDTH OF STREET BACK OF CURB TO BACK OF CURB.
5. IF BARRICADE IS USED TO DENOTE END OF ROADWAY, DIAGONAL STRIPES USED SHALL BE RED AND WHITE.



TYPICAL 50' ROW STREET SECTION
N.T.S.



DIVIDED ENTRY SECTION
N.T.S.



TYPICAL 50' ROW STREET KNUCKLE SECTION
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK S. HINKLIN	100268	04/30/2024
TYPE OR PRINT NAME	PE #	DATE

NO.	DATE	REVISION

SARATOGA PHASE 1

PAVING DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

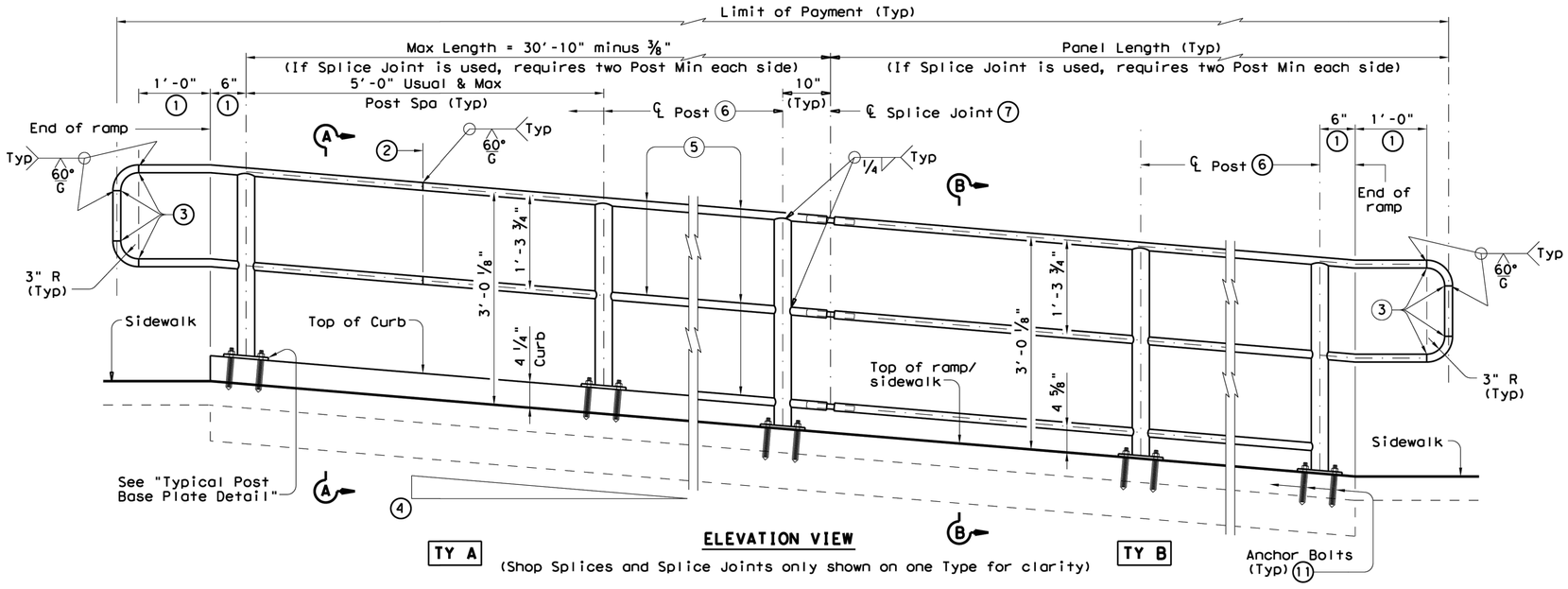
DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	93
REVIEWER: TRS			

SARATOGA PHASE 1

Drawing: \\pw.com\Network\Drives\CDOS\gee21003-saratoga\master infrastructure\3_Design\35_Civil\351_CAD\Sheet\GEE21003-A-DETAILS
Last Saved By: Bookum
Last Saved At: 4/30/2024 1:48 PM
Plot Date/Time: 4/30/2024 1:47 PM

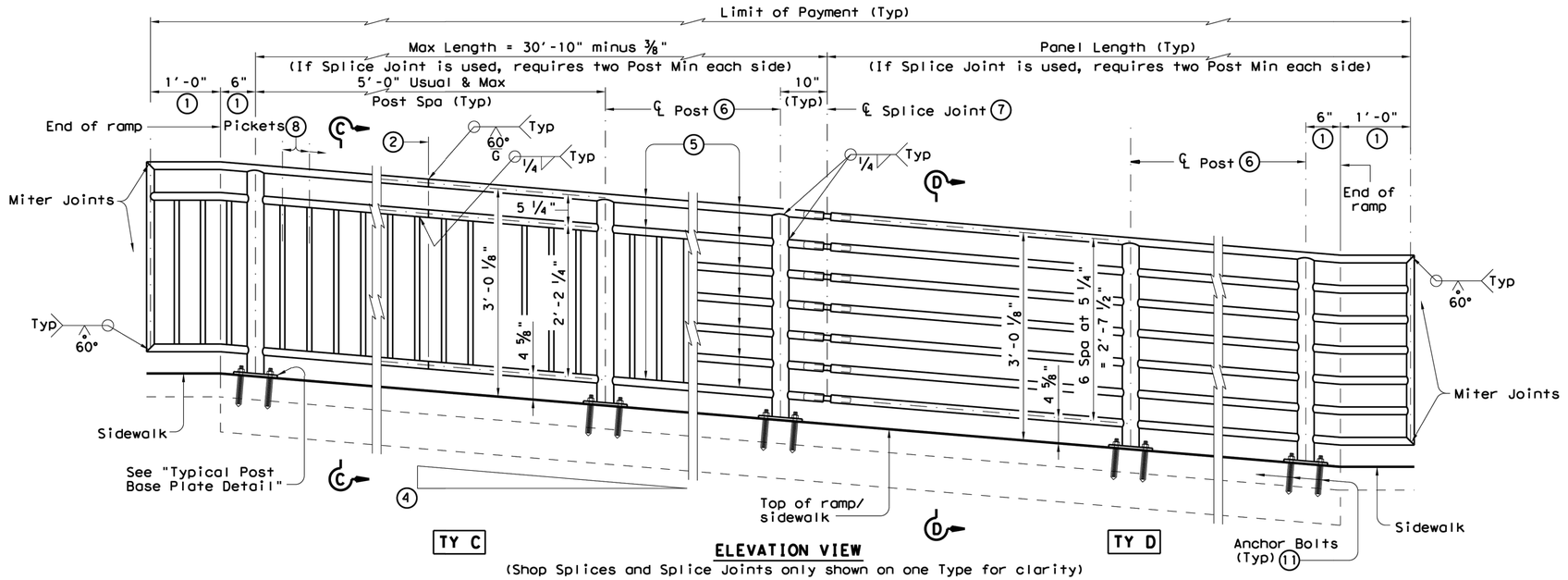
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DATE:
FILE:



ELEVATION VIEW

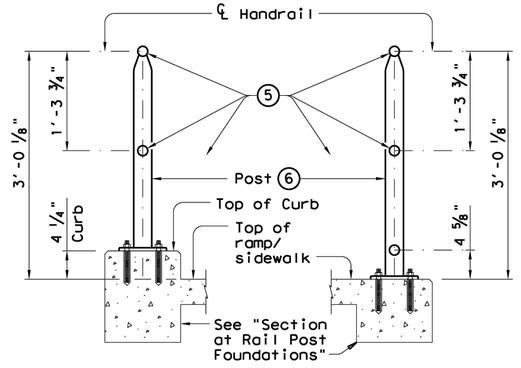
(Shop Splices and Splice Joints only shown on one Type for clarity)



ELEVATION VIEW

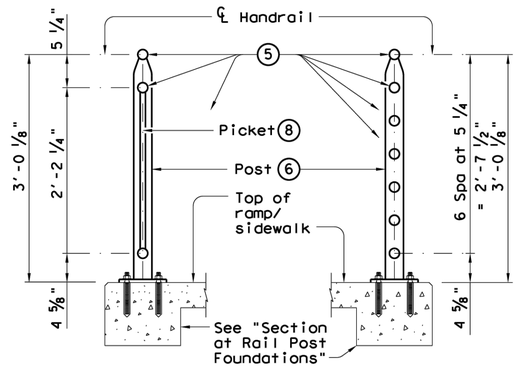
(Shop Splices and Splice Joints only shown on one Type for clarity)

RECOMMENDED USAGE (9) (10)	
Dropoff Height/ Condition	Recommended Rail Options
<30" dropoff	TY A, TY B, TY C, or TY D
≥ 30" dropoff, or along Bike Path	TY E or TY F



SECTION A-A
(Showing Handrail **TY A**)

SECTION B-B
(Showing Handrail **TY B**)



SECTION C-C
(Showing Handrail **TY C**)

SECTION D-D
(Showing Handrail **TY D**)

(1) Parallel to ground.

(2) One shop splice per panel is permitted with minimum 85 percent penetration. The weld may be square groove or single vee groove. Grind smooth.

(3) Shop splice is permitted with minimum 85 percent penetration. The weld may be square groove or single vee groove. Grind smooth.

(4) See Ramp Details located elsewhere in plans for ramp slope and dimensions. Maximum ramp slope will not exceed 8.3 percent. Level landing required for each 30" rise if grade exceeds 5 percent.

(5) 1 ½" Dia. Standard Pipe (1.900" O.D., 0.145" wall thickness). Parallel to ramp / sidewalk. Provide holes as needed in 1 ½" Dia. pipe for galvanizing drainage and venting.

(6) 2 ½" Dia. Standard Pipe (2.875" O.D., 0.203" wall thickness). See "Post Mount Detail" for crimping and trimming post to fit Dia. of top rail. Provide holes as needed in post for galvanizing drainage and venting. Plumb all posts.

(7) See "Handrail Fabrication Details" for Splice Joints.

(8) ℄ ⅝" Dia. Round Bar equal spacing at 4 ½" Max. Plumb all pickets.

(9) When needed for accessibility (grade > 5 percent) or as needed for pedestrian safety.

(10) Not to be used on bridges.

(11) See "General Notes" for anchor bolt information.

SHEET 1 OF 3

Texas Department of Transportation

Design Division Standard

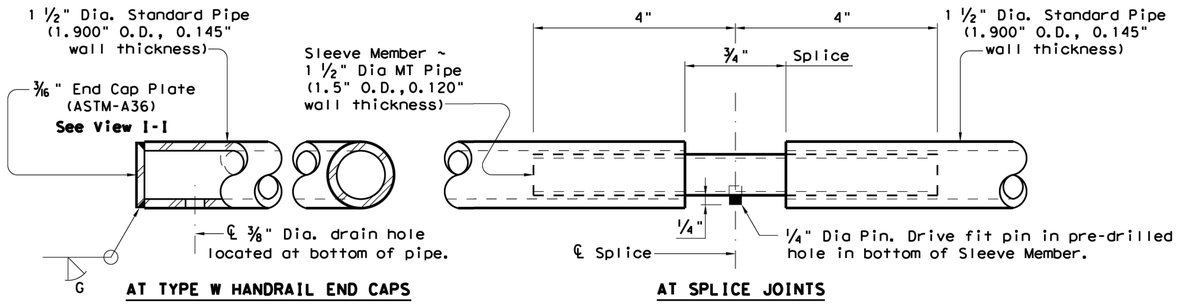
PEDESTRIAN HANDRAIL DETAILS

PRD-13

FILE: prd13.dgn	DN: TxDOT	CK: AM	DW: JTR	CK: CGL
©TxDOT Decmeber 2006	CONT	SECT	JOB	HIGHWAY
REVISIONS REVISED MAY, 2013 (VP)	DIST	COUNTY		SHEET NO. 94

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The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

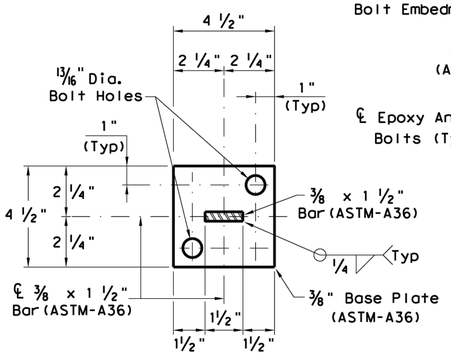
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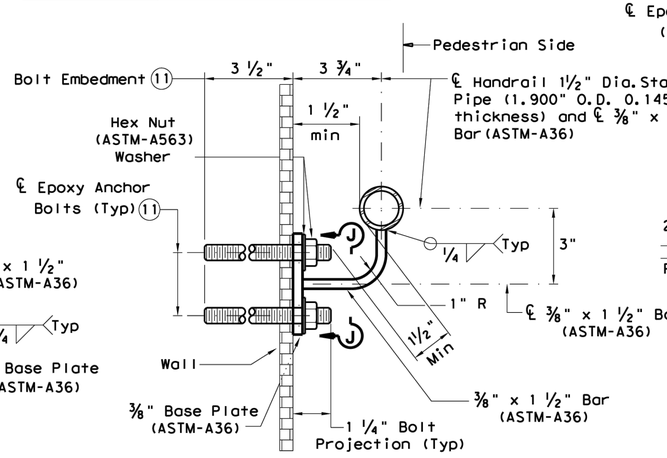
AT TYPE W HANDRAIL END CAPS

AT SPLICE JOINTS

HANDRAIL FABRICATION DETAILS

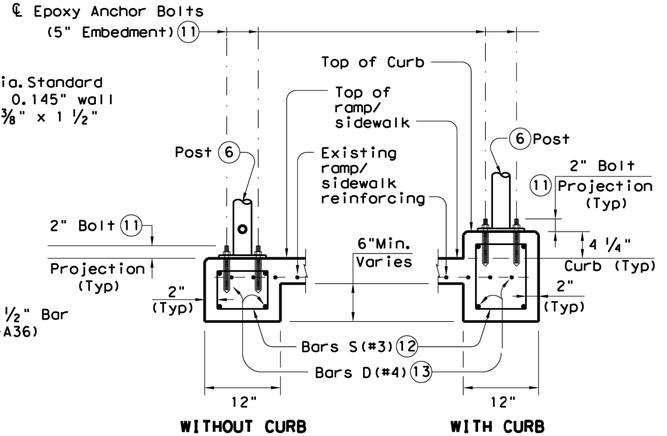


SECTION J-J
(Anchor Bolts not shown for clarity)



SECTION AT WALL MOUNT

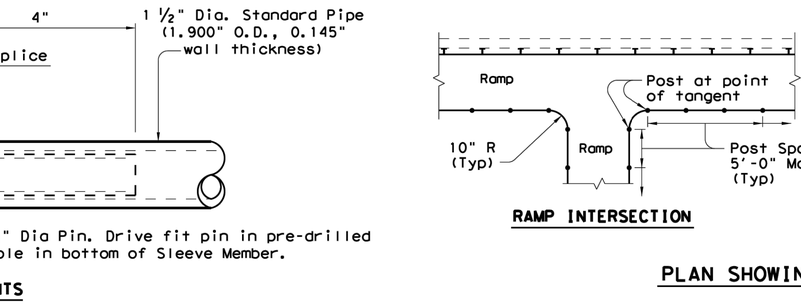
TYPICAL WALL MOUNT DETAILS



WITHOUT CURB

WITH CURB

SECTION AT RAIL POST FOUNDATIONS



RAMP INTERSECTION

MULTI-LEVEL RAMP

SINGLE-LEVEL RAMP

PLAN SHOWING RAIL AT RAMP CONDITIONS

GENERAL NOTES

Designed according to ADAAG, Texas Accessibility Standards, Uniform Building Code, and AASHTO LRFD Specifications.

Handrail anchorage details shown on this standard may require modification for select structure types. See appropriate details elsewhere in plans for these modifications.

Pipe will conform to ASTM-A53 Grade B or A500 Grade B. Steel plates and steel bars will conform to ASTM-A36. Mechanical tubing (MT) will conform to ASTM A513 Grade 1015 or higher. Galvanize all steel components except reinforcing steel unless noted otherwise.

Concrete for foundations will be in accordance with Item 531 "Sidewalks". All reinforcing steel must be Grade 60. Bar laps, where required, will be as follows: Uncoated ~ #4 = 1'-5" Epoxy coated ~ #4 = 2'-1"

When the plans require painted steel, follow the requirements for painting galvanized steel in Item 446, "Cleaning and Painting Steel". Sleeve Members will receive galvanization and only get field painted after installation unless directed otherwise by Engineer.

Epoxy Anchor bolts for wall mount and post base plate will be ⅝" Dia. ASTM A36 threaded rods with one hex nut and one hardened steel washer at each bolt. ⅝" Dia. threaded rod embedment depth for wall mounts is 3 ½" and embedment depth for post base plate is 5".

Embed threaded rods into concrete with a Type III (Class C) epoxy meeting the requirements of DMS-6100, "Epoxies and Adhesives". Mix and dispense adhesive with the manufacturer's static mixing nozzle/dual cartridge system. Core drill holes (percussion drilling not permitted).

At the contractor's option the post base plate anchor bolts may be cast with the Ramp/Sidewalk (See Cast-in-Place Anchor Bolt Options).

Optional cast-in-place anchor bolts will be ⅝" Dia ASTM A307 Grade A bolts (or A36 threaded rods with one tack welded hex nut each) with one hex nut and one hardened steel washer at each bolt. Embedment depth of cast-in-place bolt will be 8" for post base plate.

Handrails and any wall or other surface adjacent to them will be free of any sharp or abrasive elements.

Submit shop drawings to the Engineer unless otherwise noted. For curved handrail applications, fabricate the handrail to the curve if radius is less than 600 ft. Shop drawings are required when rail is fabricated to the curve.

For all handrails, erection drawings will be submitted to the Engineer for approval to ensure proper installation.

Drawings will show handrail mount locations with bolts setting, spacing, ramp slope, and/or splice joint locations, and handrail lengths with identification showing where each handrail goes on the layout.

Payment for concrete sidewalks or curb ramps will be paid for in accordance with Item 531 "Sidewalks".

Payment for all items shown is to be included in unit price bid in accordance with Item 450 "Railing" of the type specified.

All exposed edges will be rounded or chamfered to approximately ⅛" by grinding.

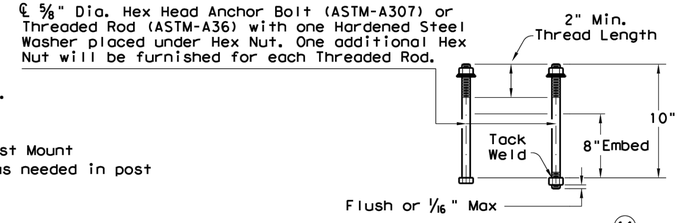
(5) 1 ½" Dia. Standard Pipe (1.900" O.D., 0.145" wall thickness). Parallel to ramp/sidewalk. Provide holes as needed in 1 ½" Dia. pipe for galvanizing drainage and venting.

(6) 2 ½" Dia. Standard Pipe (2.875" O.D., 0.203" wall thickness). Plumb all posts. See "Post Mount Detail" for crimping and trimming post to fit the diamenter of top rail. Provide holes as needed in post for galvanizing drainage and venting.

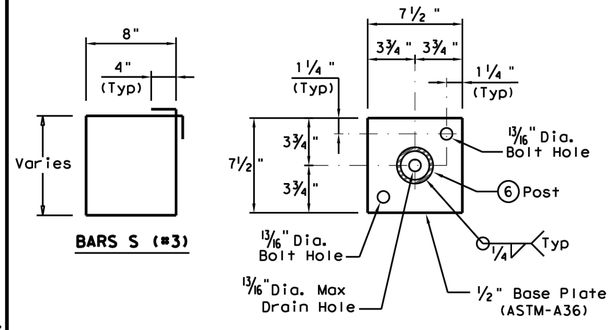
(11) See "General Notes" for anchor bolt information.

(12) Bars S(#3) spaced at 12" Max (Spaced 3" from outside edge of overall length of Ramp/Sidewalk).

(13) Provide 1 ½" end cover to Bars D(#4) from outside edge of overall length of Ramp/Sidewalk.

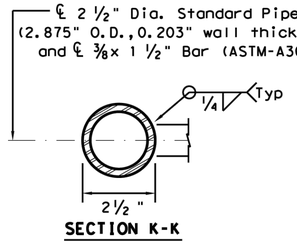


CAST-IN-PLACE ANCHOR BOLT OPTIONS
(Used for Post Base Plate only)



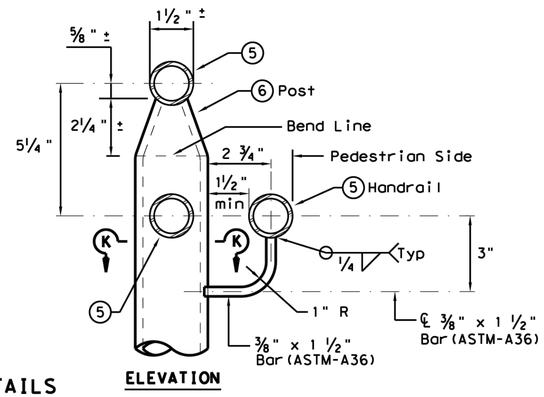
BARS S (#3)

TYPICAL POST BASE PLATE DETAIL



SECTION K-K

POST MOUNT DETAILS



ELEVATION

SHEET 3 OF 3

Texas Department of Transportation

Design Division Standard

PEDESTRIAN HANDRAIL DETAILS

PRD-13

FILE: prd13.dgn	DN: TxDOT	CK: AM	DW: JTR	CK: CGL
©TxDOT December 2006	CONT	SECT	JOB	HIGHWAY
REVISIONS				
REVISED MAY, 2013 (VP)	DIST	COUNTY		SHEET NO.
				95

VG-19-2022-99800

Denton County
Juli Luke
County Clerk

Instrument Number: 99800

Real Property Recordings

AGREEMENT

Recorded On: July 07, 2022 11:38 AM

Number of Pages: 58

" Examined and Charged as Follows: "

Total Recording: $254.00

********** **THIS PAGE IS PART OF THE INSTRUMENT** **********
Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of color or race is invalid and unenforceable under federal law.

File Information:

Document Number:	99800
Receipt Number:	20220707000344
Recorded Date/Time:	July 07, 2022 11:38 AM
User:	Patty M
Station:	Station 5

Record and Return To:

CITY OF AUBREY
ATTN: CITY SECRETARY
107 S MAIN ST
AUBREY TX 76227

STATE OF TEXAS
COUNTY OF DENTON

I hereby certify that this Instrument was FILED In the File Number sequence on the date/time printed hereon, and was duly RECORDED in the Official Records of Denton County, Texas.

Juli Luke
County Clerk
Denton County, TX

After recording, return to:
Jenny Huckabee
107 S Main St
Aubrey TX 76227

DEVELOPMENT AGREEMENT

This **DEVELOPMENT AGREEMENT** (this "Agreement") is made this 26 day of April, 2022 (the "Effective Date"), by and between the **City of Aubrey, Texas**, a general law municipality organized under the laws of the State of Texas (the "City"), and **Aubrey 54 South LP**, a Texas limited partnership ("Aubrey 54"), **Aubrey Plant LP**, a Texas limited partnership ("Aubrey Plant"), and **Aubrey 64 North LP**, a Texas limited partnership ("Aubrey 64") (Aubrey 54, Aubrey Plant, and Aubrey 64 are collectively referred to herein as "Owner"). The City and Owner are hereinafter sometimes referred to, individually, as a "Party" and, collectively, as the "Parties."

ARTICLE I
RECITALS

WHEREAS, Aubrey 54 and Aubrey Plant are the owners of a tract of land containing approximately 131.531 acres of land in Denton County (the "County"), being more particularly described in **Exhibit A** attached hereto and incorporated herein for all purposes ("Tract 1"), located wholly within the City's extraterritorial jurisdiction ("ETJ"); and

WHEREAS, Aubrey 64 is the owner of a tract of land containing approximately 54.946 acres of land in the County, being more particularly described in **Exhibit B** attached hereto and incorporated herein for all purposes ("Tract 2"), located wholly within the City's ETJ; and

WHEREAS, Aubrey 64 is also the owner of a tract of land containing approximately 57.865 acres of land in the County, being more particularly described in **Exhibit C** attached hereto and incorporated herein for all purposes ("Tract 3"), not located within the City's ETJ or within the corporate limits or ETJ of any city, town or village; and

WHEREAS, the total approximately 244.342 acres of land comprised of Tract 1, Tract 2 and Tract 3 may collectively be referred to herein as the "Property;" and

WHEREAS, public roads, public water facilities, public sewer facilities and public drainage facilities (individually or collectively, the "Public Infrastructure") are not currently available to serve the Property; and

WHEREAS, the City is not presently able to solely provide, or directly contribute to, the cost of the Public Infrastructure that will facilitate Owner's proposed development of the Property; and

WHEREAS, in order to facilitate Owner's proposed development of Tract 3 in a market-competitive manner, Clear Sky Municipal Utility District of Denton County (the "District") was created by House Bill No. 4627, 87th Texas Legislature, Regular Session, codified at Chapter 7948A, Texas Special District Local Laws Code, effective September 1, 2021, encompassing Tract 3; and

WHEREAS, in order to facilitate Owner's proposed development of Tract 1 and Tract 2, Owner seeks to annex Tract 1 and Tract 2 into the District, pursuant to the terms of this Agreement; and

WHEREAS, Owner has submitted a petition to the City seeking City consent to the inclusion of Tract 1 and Tract 2 within the District; and

WHEREAS, the City supports the inclusion of the Property within the District under appropriate parameters, as set forth herein; and

WHEREAS, as evidence of the City's consent to the annexation of Tract 1 and Tract 2 into the District, the City shall consider adoption of a Consent Resolution substantially in the form attached hereto as **Exhibit D** (the "Consent Resolution"), demonstrating the City's consent, pursuant to Section 42.0425 of the Texas Local Government Code and Section 54.016 of the Texas Water Code, to the inclusion of Tract 1 and Tract 2 within the District; and

WHEREAS, pursuant to the terms of this Agreement, the City intends to expand its ETJ to include Tract 3 not currently located in the City's ETJ, and Owner supports such expansion; and

WHEREAS, it is the intent of the Parties that the Property will be developed in accordance with the hereinafter defined **Concept Plan**; and

WHEREAS, the Parties have the authority to enter into this Agreement pursuant to Section 212.171, *et seq.*, of the Texas Local Government Code; and

WHEREAS, the Parties intend that this Agreement be a development agreement as provided for by Section 212.172 of the Texas Local Government Code; and

NOW, THEREFORE, for and in consideration of the mutual covenants of the Parties set forth in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and agreed by the Parties, the Parties agree as follows:

ARTICLE II.
CONSENT TO INCLUSION OF THE PROPERTY WITHIN THE DISTRICT

2.1 Consent to Annexation. This Agreement, and the Consent Resolution, a proposed form of which is attached hereto as **Exhibit D** that the City intends to consider adopting simultaneously with its approval of this Agreement, constitutes the irrevocable and unconditional consent of the City to the inclusion of Tract 1 and Tract 2 within the District created by House Bill No. 4627, 87th Texas Legislature, Regular Session, codified at Chapter 7948A, Texas Special District Local Laws Code, effective September 1, 2021, pursuant to the authority of Article III, Section 52 and Article XVI, Section 59 of the Texas Constitution and Chapters 49 and 54, Texas Water Code, as amended. **Exhibit D** shall be superseded by the Consent Resolution finally approved by the City Council, and this Agreement shall not be construed as supplanting the legislative authority of the City by contractually obligating the City Council to approve the exact terms of the Consent Resolution specified in **Exhibit D**. Final approval of a Consent Resolution lies within the exclusive legislative discretion of the City Council.

2.2 Consent Resolution; Other Documents. The City agrees to adopt such further ordinances and execute such further documents as may reasonably be requested by Owner, the TCEQ, the Texas Attorney General ("AG"), or the District to evidence the City's consents as set forth in this Agreement and in the final City Council approved Consent Resolution.

2.3 No Limitation of Powers. Nothing herein is intended to limit, impair, or conflict with the authority of, or powers granted to the District by the Texas Constitution, Texas Water Code, Texas

Local Government Code, or any other current or future statute applicable to such districts. Likewise, nothing herein is intended to limit, impair or conflict with the authority of or powers granted to the City by the Texas Constitution, Texas Water Code, Texas Local Government Code, or any other current or future statute applicable to City.

2.4 Full Satisfaction. Subject to and limited by the terms of this Agreement and the conditions set forth in the City approved Consent Resolution, the consents contained in this Article II and in the Consent Resolution (the "District Consents") are given by the City: (a) in full satisfaction of any requirements for District consents contained in any statute or otherwise required by law, rule, regulation or policy including, but not limited to, consents required by the Texas Water Code, as amended, the Texas Local Government Code, as amended, any rules, regulations, or policies of the TCEQ, or any rules, regulations, or policies of the Texas AG; (b) with the understanding that City and Owner have relied on the District Consents to their individual material detriment and but for the District Consents Owner would not have entered into this Agreement and but for the conditions and limitations on the District Consents, City would not have entered into this Agreement.

2.5 Limitation on Bonds. Bonds issued by the District shall have a maximum maturity of thirty (30) years for any one series of bonds, unless otherwise agreed to by the City and shall be issued for the purposes of paying for costs of development of Public Infrastructure which include Onsite improvements and Offsite Improvements, including the costs of maintenance and operation of the Public Infrastructure. The District may issue bonds for the purchase, construction, acquisition, repair, extension and improvement of capital infrastructure, easements, works, improvements, facilities, plants, equipment, and appliances necessary for the construction of such Public Infrastructure.

ARTICLE III.
ANNEXATION & ETJ EXPANSION

3.1 Expansion of City ETJ. Owner hereby requests that Tract 3, not currently located within the City's ETJ, be included in the City's ETJ as soon as is practicable. Owner agrees that on or before the Effective Date of this Agreement, Owner has submitted to the City a petition requesting that the City expand its ETJ to include Tract 3 in the City's ETJ. The City agrees that it shall not annex Tract 3 into its corporate limits for full purposes except as expressly authorized by this Agreement and with a fully executed strategic partnership agreement between the City and the District. In all matters requiring the interpretation of this Agreement, including but not limited to the addition of Tract 3 into the ETJ of the City, Owner irrevocably declares that all of the Property shall be bound by the terms of this Agreement as if being at all pertinent times within the contiguous ETJ of the City for purposes of Texas Local Government Code § 212.172 and provisions citing that statute.

3.2 Immunity From Full Purpose Annexation. Except as provided in a fully executed strategic partnership agreement and after Tract 3 is included in the ETJ of the City as provided for in Section 3.1 herein, the Property shall remain in the ETJ of the City and be immune from full purpose annexation until such time that Owner has constructed, or caused to be constructed, at least ninety percent (90%) of the Public Infrastructure and Owner has been fully reimbursed for all of the costs of such Public Infrastructure. Pursuant to Texas Local Government Code Section 43.0715(b), if the District has not yet issued bonds to reimburse Owner in full for the bond eligible costs and expenses incurred by Owner at the time the Property is annexed for full purposes by the City, the City hereby

agrees that it shall, prior to the effective date of the annexation, pay to Owner a sum equal to any and all outstanding actual costs and expenses incurred by Owner in connection with the District that the District has, in writing, agreed to pay and that would otherwise have been eligible for reimbursement from bond proceeds. The timing, delivery, and other ancillary conditions of any such payment shall be controlled by the terms of a fully executed strategic partnership agreement between the City and the District and shall be in accordance with Texas Local Government Code Section 43.0715(b). Final terms of a Strategic Partnership Agreement shall be negotiated by the Parties on a mutually agreeable date, and City approval of participation in such agreement shall be within the exclusive legislative discretion of the City Council

3.3 **CONSENT TO FULL PURPOSE ANNEXATION. OWNER AND ALL FUTURE OWNERS OF THE PROPERTY (INCLUDING END-BUYERS) AND FUTURE DEVELOPERS OF THE PROPERTY IRREVOCABLY AND UNCONDITIONALLY CONSENT TO THE FULL PURPOSE ANNEXATION OF THE PROPERTY INTO THE CORPORATE LIMITS OF THE CITY IN ACCORDANCE WITH THIS AGREEMENT AND A FINALLY APPROVED AND FULLY EXECUTED STRATEGIC PARTNERSHIP AGREEMENT BETWEEN THE CITY AND THE DISTRICT AND WAIVE ALL OBJECTIONS, ELECTIONS AND PROTESTS TO SUCH ANNEXATION. THIS AGREEMENT SHALL SERVE AS THE PETITION OF OWNER AND ALL FUTURE OWNERS AND FUTURE DEVELOPERS FOR FULL PURPOSE ANNEXATION OF THE PROPERTY IN ACCORDANCE WITH THIS AGREEMENT AND SPECIFICALLY THE RESTRICTIONS IN SECTION 3.2 OF THIS AGREEMENT.**

3.4 Limited Purpose Annexation. Owner agrees that the City shall have the right to, but is not obligated to, annex those areas of the Property that are used for, or intended to be used for, commercial development for the sole and limited purpose of allowing the City to impose sales and use taxes within the boundaries of such commercial and/or retail areas to the extent permitted by State law. The terms and conditions upon which such limited purpose annexations may occur shall be set forth in a strategic partnership agreement executed by the Parties prior to the first limited purpose annexation by the City, pursuant to Section 43.0751 of the Texas Local Government Code. No limited purpose annexation pursuant to a strategic partnership agreement shall affect, in any way, the ETJ status of the Property; and, notwithstanding any limited purpose annexation, the areas annexed, as well as the remainder of the Property, shall continue to be located within the ETJ of the City, for the purposes of this Agreement.

ARTICLE IV
GOVERNING REGULATIONS & DEVELOPMENT PROCESS

4.1 Governing Regulations. Development of the Property shall be governed solely by the regulations listed below in this Section 4.1 (collectively, the "Governing Regulations").

(a) Applicable City regulations, as may lawfully be amended at any time, solely for the purpose of preventing imminent destruction of property or injury to persons and that are uniformly enforced within the City's corporate boundaries, unless otherwise included in this Section 4.1 or a subsequent amendment thereto but only if the regulations (i) do not conflict with any provision of this Agreement; (ii) do not regulate, impact or affect landscaping or tree requirements or preservation, open space, parks, the dedication of open spaces or parks, lot size, lot dimensions, lot coverage, setbacks, house or building size or height, exterior or interior design of residences, building materials,

amenity centers or other buildings, residential or commercial density, or the timing of a project do not change development permitted by a restrictive covenant.

(b) The draft Concept Plan attached hereto as **Exhibit E**, as amended from time to time in accordance with this Agreement (the "Concept Plan") and compatible with the City's thoroughfare plan in place as of the Effective Date of this Agreement, which Concept Plan is considered to be a development plan as provided for in Section 212.172 of the Texas Local Government Code. In the event of a conflict between the Concept Plan and the City's thoroughfare plan, the Concept Plan shall control provided however that all roadways shall comply with the final plat

(c) Subdivision regulations of the City in effect on the Effective Date (the "Subdivision Regulations"), as amended by the special regulations set forth on **Exhibit F** attached hereto (the "Special Regulations").

(d) Duly adopted building codes of the City, as amended, provided such building codes are adopted by ordinance and uniformly applied throughout the City (the "Building Codes").

(e) Final plats for portions of the Property that are approved, from time to time, by the City.

4.2 Concept Plan Amendments. The Parties agree the Concept Plan attached hereto as **Exhibit E** was created by Owner for illustrating the boundary, lot mix and general layout of the project. Any amendment to the Concept Plan shall be considered an amendment to this Agreement and shall replace the attached Concept Plan and become a part of this Agreement. The City Administrator of the City may administratively approve any amendments to the Concept Plan that the City Administrator deems in his reasonable discretion to be minor in nature. If the City Administrator deems an amendment to not be minor in nature, the Concept Plan may be amended as set forth in applicable City regulations.

4.3 Provisions for Administration of District.

(a) Manufactured Homes. One (1) manufactured home shall be temporarily permitted on the Property at any time as necessary to satisfy on-site voter requirements of the TCEQ. Owner shall provide names and contact information for any persons establishing a residence in the home permitted under this Agreement upon written request by the City. No approved plat, building permit, certificate of occupancy, or other permit shall be required to establish such residence.

(b) Director Qualifying Lots. Notwithstanding any other provision of this Agreement to the contrary, the conveyance, from time to time, by metes and bounds or otherwise of any portion of the Property to any person for the purpose of qualifying such person to be a member of the board of directors of the District shall not be considered a subdivision of land requiring a plat or otherwise requiring the approval of the City; provided, however, no structure, other than the temporary manufactured housing authorized by Section 4.3(a), shall be constructed on any property conveyed for such purpose unless and until a plat of such portion has been approved by the City in accordance with this Agreement. Such temporary manufactured housing shall be removed from the Property when no longer necessary for the purpose of satisfying the on-site voter requirements of the TCEQ.

4.4 Permits & Fees. Except as otherwise provided in Section 4.3, Owner, or any

subsequent owner of any portion of the Property, as appropriate, shall request and obtain a building permit from the City for every structure that is constructed on the Property. All fees charged to Owner, or any subsequent owner of any portion of the Property, for building permits shall be the fees that the City charges for building permits inside the corporate boundaries of the City pursuant to its lawfully adopted fee schedule. Additionally, the City of Aubrey shall assess a library services fee of $5.00 per lot per year in accordance with the City's current Ordinances which shall be collected by the Homeowner's Association and remitted to the City annually. The Owner and/or builders, as applicable, shall pay roadway impact fees in accordance with applicable City Ordinances.

4.5 Conflicts. In the event of any conflict between this Agreement and any other ordinance, rule, regulation, standard, policy, order, guideline or other City-adopted or City-enforced requirement, whether existing on the Effective Date or hereinafter adopted, this Agreement shall control. In any instance of conflict between the Governing Regulations (as amended) and this Agreement (as amended), the terms set forth in this Agreement shall have controlling effect. In the event of any conflict between the Special Regulations and any of the other Governing Regulations, the Special Regulations shall control. In any instance of conflict between other subparts of the Governing Regulations which address the same subject matter, the more restrictive provision shall control unless otherwise agreed in writing by the Parties. Notwithstanding the foregoing, Owner shall comply with all applicable state and federal regulations.

4.6 Timing of Development Applications. Owner shall coordinate with City staff to ensure that the timing of the filing of any plats and other plans within the scope of Texas Local Government Code Chapter 212, and which are to be reviewed by any City board, commission, or the City Council, shall only occur within an appropriate application filing window that allows for timely review without the necessity of calling special meetings. Pre-application-filing review and City staff assistance will be made available to assist the applicant with assuring completeness and compliance with this Agreement and other applicable City regulations and minimize delays in approval by the reviewing body; provided however, no such pre-application process shall be deemed to constitute the filing of a permit. Upon reasonable request by the City, applicants developing any property subject to this Agreement shall provide the City with written verification of the official filing date assigned to the application materials.

4.7 Public Infrastructure. In addition to being subject to the regulations set forth in Section 4.1 above, all improvements to real property within the Property must be compatible with the design standards established by the CCN holder for the area to be served (for water and sewer) and be suitable for dedication to a public entity (e.g., City or District) and integrated into a utility system. Public Infrastructure shall be timely dedicated by plat and further memorialized by conveyance deeds upon reasonable request of the receiving public entity. The Owner shall prepare, or cause to be prepared, plans and specifications for all Public Infrastructure and have them submitted to the City for approval of storm drainage and roadway improvements. All Public Infrastructure required for the development of the Property shall be constructed and inspected in accordance with applicable state law, City/CCN Holder Regulations and other development requirements, including those imposed by the City and any other governing body or entity with jurisdiction over the Public Infrastructure but only to the extent that the City or other governing body has jurisdiction over such Public Infrastructure. All applicable fees, including permit fees and inspection fees, shall be paid by the Developer.

4.8 Open Space Requirements. The Owner shall include a minimum of 10% open space

including parks, amenity centers, trails and landscape areas,

4.9 Jurisdiction. Pursuant to the Interlocal Cooperation Agreement entered between the City and Denton County, Texas and effective August 13, 2002 (the "Platting ILA"), which grants exclusive authority to the City pursuant to Section 242.001(d)(1) of the Texas Local Government Code, and Section 242.001(a)(3) of the Texas Local Government Code, the City shall have and exercise exclusive jurisdiction over the review and approval of preliminary and final plats, amending plats, replats and minor replats, and approval of plans for Public Infrastructure over which the City has jurisdiction such as storm drainage and roadway improvements, for the Property once Tract 3 is included within the City's ETJ, and the County shall have and exercise no jurisdiction over such matters for the Property. Jurisdiction over plats and plans not controlled by the Platting ILA shall be governed by Texas law.

4.10. Homeowner's Association Required.

(a) Owners shall create a sustainable and mandatory homeowner's association ("HOA") for the Property that requires membership by all of the owners of a residential lot within the Property.

(b) The HOA shall own and be responsible for the maintenance of any private facilities, appurtenances, and open spaces/common areas and facilities within the Property, unless specifically designated to be owned and maintained by the District.

(c) The HOA shall have covenants and bylaws and shall require the payment of dues and assessments to maintain any private streets and common areas and facilities. The HOA covenants shall provide for assessments and liens for nonpayment of dues or assessments. The approved covenants of the HOA must be recorded with the County Clerk for Denton County.

4.11 Ownership and Maintenance of Roadways. The Parties agree that the District will construct, own and maintain all roadways within the Property, and the City shall have no maintenance obligations relating to the roadways within the Property until such time that the Property is annexed for full purposes in accordance with the terms of this Agreement. Owner agrees to provide the City with copies of all maintenance bonds associated with all roadways constructed within the Property.

ARTICLE V.
FIRE PROTECTION SERVICES AND POLICE AND EMERGENCY RESPONSE SERVICES

5.1 Interlocal Cooperation Agreements. Owner shall cause the District to enter into Interlocal Cooperation Agreements ("ILAs") wherein the City shall provide fire protection services and police and emergency response services to the Property. From and after the effective date of said ILAs and continuing until the full purpose annexation of the Property into the corporate limits of the City, the City will provide to the Property police and fire services described in this Article in accordance with the terms of such ILAs and all applicable emergency dispatch agreements with Denton County and other agencies. Unless separately authorized by the City Council or required by state law, the City's obligation to provide such services shall end immediately if this Agreement is terminated for any reason prior to the City's full purpose annexation of the Property.

5.2 Police, Fire Fighting and EMS Services. The Owner or the District shall pay a fee in

the amount specified in each ILA for the City's provision of (i) police and patrol services (the "Police ILA") and (ii) firefighting and EMS services (the "Fire/EMS ILA"). The amount of the fee shall be stated in each ILA as a flat monthly rate charged for each Residential Unit in the District connected to and receiving water utility service from a water supply system. A "Residential Unit" shall mean a residential dwelling. If a multi-family residential structure in the District receives water utility service, the number of Residential Units will correspond to the number of dwelling units in the structure. Any non-residential structures intended for human use or occupancy shall also be deemed a Residential Unit based on the number of water meters at the structure. The initial rate per Residential Unit under the Police ILA shall be $25.00, and the initial rate per Residential Unit under the Fire/EMS ILA shall be $30.00. Beginning on the second anniversary of the Effective Date for each ILA, the City may increase the rate charged under each ILA per Residential Unit based on its cost of providing services pursuant to the respective ILA. The City will provide the District with written notice, no later than thirty (30) days prior to the anniversary of the Effective Date each subsequent year, of its intent to increase the rate per Residential Unit. The District may, at its option upon a reasonable belief that the rate increase is overly burdensome, reject the rate increase by written notice no later than ten (10) days prior to the anniversary of the Effective Date of that year. A rejection of a rate increase shall be regarded as a notice of the District's intent not to renew the ILA, and the ILA shall terminate on the next anniversary of the Effective Date. The Parties agree that the Fire/EMS ILA shall contain provisions stating that it shall not be effective until the District has (i) developed a fire plan in accordance with Section 49.351 of the Texas Water Code and the rules of the TCEQ (the "Fire Plan"), (ii) submitted the Fire Plan to the TCEQ for its approval, (iii) obtained TCEQ approval of the Fire Plan, and (iv) obtained approval of the Fire Plan from the voters of the District at an election held for that purpose.

5.3 Other Provisions. The ILA must include terms binding the District to perform obligations associated with the District in this Agreement and all obligations of Owner which can only be performed through or with the assistance of the District. Any modification of the terms of this Agreement (including but not limited to the content of its exhibits) desired by the District must be (a) separately negotiated, and (b) agreed in writing by the City.

ARTICLE VI.
TERM OF AGREEMENT

The term of this Agreement shall commence on the Effective Date and shall continue for a period of thirty (30) years (the "Term"). Notwithstanding any other provision of this Agreement: (a) the validity of any consent to annexation of any portion of the Property, and the limitations in this Agreement on any such annexation, shall not be affected in any way by the expiration of the Term. The total duration of this Agreement and any successive renewals or extensions shall not exceed forty-five (45) years following its Effective Date.

ARTICLE VII.
EVENTS OF DEFAULT; REMEDIES

7.1 Events of Default. No Party shall be in default under this Agreement until notice of the alleged failure of such Party to perform has been given in writing (which notice shall set forth in reasonable detail the nature of the alleged failure) and until such Party has been given a reasonable time to cure the alleged failure (such reasonable time determined based on the nature of the alleged failure, but in no event less than thirty (30) days after written notice of the alleged failure has been

given). In addition, no Party shall be in default under this Agreement if, within the applicable cure period, the Party to whom the notice was given begins performance and thereafter diligently and continuously pursues performance until the alleged failure has been cured and within such 30-day period gives written notice to the non-defaulting Party providing in detail the reasons that the cure will take longer than thirty (30) days with a statement of the number of days requested to cure.

7.2 Remedies. If a Party is in default, the aggrieved Party may, at its option and without prejudice to any other right or remedy under this Agreement, seek any relief available at law or in equity, including, but not limited to, an action under the Uniform Declaratory Judgment Act, specific performance, mandamus and injunctive relief. NOTWITHSTANDING THE FOREGOING, HOWEVER, NO DEFAULT UNDER THIS AGREEMENT SHALL ENTITLE THE AGGRIEVED PARTY TO TERMINATE THIS AGREEMENT OR LIMIT THE TERM OF THIS AGREEMENT. The remedies set forth in this section are the sole and exclusive remedies for a default under this Agreement.

7.3 No Waiver of Immunity. No waiver of government immunity by the City is intended or implied by entrance into this Agreement, and the City expressly reserves all available claims and defenses, including but not limited to immunity defenses, against any and all claims by third parties and any cause of action other than a breach of contract claim by Owner.

ARTICLE VIII.
ASSIGNMENT, AMENDMENT AND ENCUMBRANCE

8.1 Amendment. This Agreement may be amended only upon written amendment executed by the City and Owner. In the event Owner sells any portion of the Property, Owner may assign to such purchaser the right to amend the Agreement as to such purchased property by written assignment and notice thereof to the City. Such assignment shall not grant such purchaser the authority to amend this Agreement as to any other portions of the Property.

8.2 Assignment by Owner to Successor Owners. Owner has the right (from time to time without the consent of the City, but upon written notice to the City) to assign this Agreement, in whole or in part, and including any obligation, right, title, or interest of Owner under this Agreement, to any person or entity (an "Assignee") that (i) is an affiliated entity that controls Owner or that is controlled by or under common control with Owner, or (ii) is a non-affiliated party that is or will become an owner of any portion of the Property and that has provided documentation of financial ability acceptable to the City to demonstrate that Owner Assignee is qualified to comply with all of the terms of this Agreement applicable to Owners, provided that Owners are not in breach of this Agreement at the time of such assignment. Each assignment shall be in writing executed by Owner and the Assignee and shall obligate the Assignee to be bound by this Agreement to the extent this Agreement applies or relates to the obligations, rights, title or interests being assigned (including but not limited to consent to inclusion in City jurisdiction). A copy of each assignment shall be provided to all Parties within fifteen (15) days after execution, and such copy shall identify a contact person representing the Assignee, and such person's address, telephone number, and email address. From and after such assignment, the City agrees to look solely to the Assignee for the performance of all obligations assigned to the Assignee and agrees that Owner shall be released from subsequently performing the assigned obligations and from any liability that results from the Assignee's failure to perform the assigned obligations; provided, however, if a copy of the assignment is not received by the City within fifteen (15) days after execution, Owner shall not be released until the City receives such assignment.

No assignment by Owner shall release Owner from any liability that resulted from an act or omission by Owner that occurred prior to the effective date of the assignment unless the City approves the release in writing. Owner shall maintain written records of all assignments made by Owner to Assignees, including a copy of each executed assignment and the Assignee's Notice information as required by this Agreement, and, upon written request from any Party or Assignee, shall provide a copy of such records to the requesting person or entity. Failure of Owner to strictly comply with the terms of this paragraph shall constitute as material breach of this Agreement.

8.4 Encumbrance by Owner and Assignees. Owner and Assignees have the right, from time to time, to collaterally assign, pledge, grant a lien or security interest in or otherwise encumber any of their respective rights, title or interest under this Agreement for the benefit of their respective lenders without the consent of, but with written notice to, the City. The collateral assignment, pledge, grant of lien or security interest or other encumbrance shall not, however, obligate any lender to perform any obligations or incur any liability under this Agreement unless the lender agrees in writing to perform such obligations or incur such liability. Provided the City has been given a copy of the documents creating the lender's interest, including Notice information for the lender, then that lender shall have the right, but not the obligation, to cure any default under this Agreement and shall be given a reasonable time to do so in addition to the cure periods otherwise provided to the defaulting Party by this Agreement; and the City agrees to accept a cure offered by the lender as if offered by the defaulting Party. A lender is not a Party to this Agreement unless this Agreement is amended, with the consent of the lender, to add the lender as a Party. Notwithstanding the foregoing, however, this Agreement shall continue to bind the Property and shall survive any transfer, conveyance, or assignment occasioned by the exercise of foreclosure or other rights by a lender, whether judicial or non-judicial. Any purchaser from or successor owner through a lender of any portion of the Property shall be bound by this Agreement and shall not be entitled to the rights and benefits of this Agreement with respect to the acquired portion of the Property until all defaults under this Agreement with respect to the acquired portion of the Property have been cured.

8.5 Assignees as Parties. An Assignee authorized in accordance with this Agreement and for which notice of assignment has been provided in accordance with this Agreement shall be considered a "Party" for the purposes of this Agreement. With the exception of the End-Buyer (defined below) of a lot within the Property, any person or entity upon becoming an owner of land or upon obtaining an ownership interest in any part of the Property shall be deemed to be an "Owner" and have all of the obligations of the Owners as set forth in this Agreement and all related documents to the extent of said ownership or ownership interest.

ARTICLE IX.
RECORDATION; ESTOPPEL CERTIFICATES

9.1 Recordation. Pursuant to the requirements of Section 212.172(f) of the Texas Local Government Code, this Agreement and all amendments hereto shall be recorded in the real property records of Denton County. In addition, all assignments to this Agreement shall be recorded in the real property records of Denton County. This Agreement, when recorded, shall be binding upon the Parties and their successors and assigns permitted by this Agreement and upon the Property as a covenant running with the land; however, this Agreement shall not be binding upon, and shall not constitute any encumbrance to title as to, any End-Buyer (hereinafter defined) except for land use and development regulations that apply to specific lots. For purposes of this Agreement, the Parties

agree: (a) that the term "End-Buyer" means any owner, tenant, user, or occupant; (b) that the term "fully developed and improved lot" means any lot, regardless of proposed use, for which a final plat has been approved by the City and recorded in the deed records; and (c) that the term "land use and development regulations that apply to specific lots" means all of the Governing Regulations that apply to an individual, final platted lot.

9.2 Estoppels. From time to time upon request of Owner, the District or any successor or assign of Owner or the District (including, without limitation, any Assignee), an authorized representative of the City will, in such person's official capacity, upon payment to the City of a $300.00 fee plus all reasonable cost incurred execute a written estoppel that certifies, to his knowledge and belief, that such Party is not in default of its obligations under this Agreement or that identifies any obligations that are in default.

ARTICLE X.
ADDITIONAL PROVISIONS

10.1 Recitals. The recitals contained in this Agreement: (a) are true and correct as of the Effective Date; (b) form the basis upon which the Parties negotiated and entered into this Agreement; (c) are legislative findings of the City Council; and (d) reflect the final intent of the Parties with regard to the subject matter of this Agreement. In the event it becomes necessary to interpret any provision of this Agreement, the intent of the Parties, as evidenced by the recitals, shall be taken into consideration and, to the maximum extent possible, given full effect. The Parties have relied upon the recitals as part of the consideration for entering into this Agreement and, but for the intent of the Parties reflected by the recitals, would not have entered into this Agreement.

10.2 Notices. All notices required or contemplated by this Agreement (or otherwise given in connection with this Agreement) (a "Notice") shall be in writing, shall be signed by or on behalf of the Party giving the Notice and shall be effective as follows: (a) on or after the 3rd business day after being deposited with the United States mail service, Certified Mail, Return Receipt Requested with a confirming copy sent by e-mail; or (b) on the day delivered by a private delivery or private messenger service (such as FedEx or UPS) as evidenced by a receipt signed by any person at the delivery address (whether or not such person is the person to whom the Notice is addressed). Notices given pursuant to this section shall be addressed as follows:

CITY: City of Aubrey
107 S. Main St.
Aubrey, TX 76227
Attention: City Secretary
Email: citysecretary@aubreytx.gov

With copy to:

Messer, Fort, McDonald
ATTN: Patricia Adams
6371 Preston Road, Suite 200
Frisco, TX 75034
Email: patricia@txmunicipallaw.com

OWNER: Aubrey 54 South LP
2727 Routh Street
Dallas, Texas 75201
Attention: Bob Ladd
Email: bladd@laddholdings.com

Aubrey 54 South LP
793 Parkside Court
Highland Village, Texas 75207
Attention: Steve Gee
stevegee@gfb-tx.com

Aubrey Plant LP
2727 Routh Street
Dallas, Texas 75201
Attention: Bob Ladd and Steve Gee
Email: bladd@laddholdings.com

Aubrey Plant LP
793 Parkside Court
Highland Village, Texas 75207
Attention: Steve Gee
stevegee@gfb-tx.com

Aubrey 64 North LP
2727 Routh Street
Dallas, Texas 75201
Attention: Bob Ladd and Steve Gee
Email: bladd@laddholdings.com

Aubrey 64 North LP
793 Parkside Court
Highland Village, Texas 75207
Attention: Steve Gee
stevegee@gfb-tx.com

With a copy to:

Coats Rose P.C.
14755 Preston Road, Suite 600
Dallas, Texas 75254
Attention: Mindy L. Koehne
Email: mkoehne@coatsrose.com

10.3 Exhibits. The following exhibits are attached to this Agreement and are incorporated herein for all purposes:

Exhibit A Tract 1 Depiction and Legal Description

Exhibit B	Tract 2 Depiction and Legal Description
Exhibit C	Tract 3 Depiction and Legal Description
Exhibit D	Proposed Consent Resolution (To be superseded by Final City Approved Consent Resolution
Exhibit E	Concept Plan
Exhibit F	Special Regulations

10.4 Interpretation. In all clauses of this Agreement, a designation of a party by proper name or a defined term (e.g., "Party", "City", "Owner", etc.) is intended to be and shall be construed as inclusive of all employees, officials, officers, owners, agents, heirs, successors in interest, assigns, and other authorized representatives that are implicated in the duties to act or to refrain from action relating to its subject matter. The Parties acknowledge that each of them has been actively involved in negotiating this Agreement. Accordingly, the rule of construction that any ambiguities are to be resolved against the drafting Party will not apply to interpreting this Agreement. In the event of any dispute over the meaning or application of any provision of this Agreement, the provision will be interpreted fairly and reasonably and neither more strongly for or against any Party, regardless of which Party originally drafted the provision or the Party's respective contributions to the editing process.

10.5 Authority and Enforceability. The City represents and warrants that this Agreement has been approved by the City Council in accordance with all applicable public notice requirements (including, but not limited to, notices required by the Texas Open Meetings Act) and that the individual executing this Agreement on behalf of the City has been duly authorized to do so. Owner represents and warrants that this Agreement has been approved by appropriate action of Owner, that the individual(s) executing this Agreement on behalf of Owner has been duly authorized to do so on behalf of their respective principal(s). Owner further represents and warrants that its undersigned representative represents each and every owner of the Property as of the date of its execution. Each Party acknowledges and agrees that this Agreement is binding upon such Party and enforceable against such Party in accordance with its terms and conditions and that the performance by the Parties under this Agreement is authorized by Section 212.172 of the Texas Local Government Code to the extent the Property is located in the City's ETJ at the time of such performance.

10.6 Entire Agreement: Severability. This Agreement constitutes the entire agreement between the Parties and supersedes all prior agreements, whether oral or written, covering the subject matter of this Agreement. This Agreement shall not be modified or amended except in writing signed by the Parties. If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable for any reason, then (a) such unenforceable provision shall be deleted from this Agreement; (b) the unenforceable provision shall, to the extent possible, be rewritten to be enforceable and to give effect to the intent of the Parties; and (c) and the remainder of this Agreement shall remain in full force and effect and shall be interpreted to give effect to the intent of the Parties. Without limiting the generality of the foregoing, if it is determined that, as of the Effective Date, Owner does not own any portion of the Property, this Agreement shall remain in full force and effect with respect to all of the Property that Owner does then own.

10.7 Applicable Law; Venue. This Agreement is entered into under and pursuant to, and is to be construed and enforceable in accordance with, the laws of the State of Texas, and all obligations of the parties are performable in the County. Venue for any action to enforce or construe this agreement shall be the County.

10.8 No Waiver. Any failure by a Party to insist upon strict performance by another Party of any material provision of this Agreement shall not be deemed a waiver thereof, and the Party shall have the right at any time thereafter to insist upon strict performance of any and all provisions of this Agreement. No provision of this Agreement may be waived except by writing signed by the Party waiving such provision. Any waiver shall be limited to the specific purposes for which it is given. No waiver by any Party of any term or condition of this Agreement shall be deemed or construed to be a waiver of any other term or condition or subsequent waiver of the same term or condition.

10.9 No Third-Party Beneficiaries. Except as provided in this section, this Agreement only inures to the benefit of, and may only be enforced by, the entities expressly named and designated as part of the collectively "Parties.". If the District is not an Assignee, or does not exist on the date this Agreement is first executed, the District shall be considered a third-party beneficiary of this Agreement for the limited purposes of seeking specific performance of the obligations set forth herein. An End-Buyer shall be considered a third-party beneficiary of this Agreement but only for the limited purposes for which an End-Buyer is bound by this Agreement (including but not necessarily limited to those obligations applicable to End-Buyer by virtue of covenants running with the land prior to acquisition of ownership interest, e.g., consent to full purpose annexation). No other person or entity shall have any right, title or interest under this Agreement or otherwise be deemed to be a third-party beneficiary of this Agreement.

10.10 Force Majeure. Each Party shall use good faith, due diligence and reasonable care in the performance of its respective obligations under this Agreement, and time shall be of the essence in such performance; however, in the event a Party is unable, due to force majeure, to perform its obligations under this Agreement, then the obligations affected by the force majeure shall be temporarily suspended. Within three (3) business days after the occurrence of a force majeure, the Party claiming the right to temporarily suspend its performance, shall give Notice to all the Parties, including a detailed explanation of the force majeure and a description of the action that will be taken to remedy the force majeure and resume full performance at the earliest possible time. The term, "force majeure," shall include events or circumstances that are not within the reasonable control of the Party whose performance is suspended and that could not have been avoided by such Party with the exercise of good faith, due diligence and reasonable care.

10.11 Counterparts. This Agreement may be executed in any number of counterparts with duplicative signature pages, each of which shall be deemed an original and constitute one and the same instrument having identical material terms.

10.12 Litigation Expenses. Either Party to this Agreement who is the prevailing party in any legal proceeding against the other Party, brought in relation to this Agreement, shall be entitled to recover court costs and reasonable attorneys' fees from the non-prevailing Party to the extent permissible under law.

10.13 Further Documents. Each Party shall, upon written request of the other Party, execute and deliver such further documents and perform such further acts (e.g., provide written memorialization of agreement, consent, approval, request, etc.) as may be requested to effectuate the terms of this Agreement and achieve the intent of the Parties, and such further performance, documentation, or consents shall not be unreasonably withheld. Written requests may be directed only to a person listed in Section 10.2 above or as may be designated in writing by the receiving

Party. This provision shall not be construed as limiting or otherwise hindering the legislative discretion of the City Council of Aubrey, Texas ("City Council") seated at the time that this Agreement is executed or any future City Council.

10.14 Anti-Boycott Verification. Owner hereby verifies that it and its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, do not boycott Israel and, to the extent this Agreement is a contract for goods or services, will not boycott Israel during the term of this Agreement. The foregoing verification is made solely to comply with Section 2270.002, Texas Government Code, and to the extent such Section does not contravene applicable Federal law. As used in the foregoing verification, 'boycott Israel' means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes. Owner understands 'affiliate' to mean an entity that controls, is controlled by, or is under common control with Owner and exists to make a profit.

10.15 Iran, Sudan and Foreign Terrorist Organizations. Owner represents that neither it nor any of its parent company, wholly- or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, and posted on any of the following pages of such officer's internet website: https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf, https://comptroller.texas.gov/purchasing/docs/iran-list.pdf, or https://comptroller.texas.gov/purchasing/docs/fto-list.pdf, The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, and to the extent such Section does not contravene applicable Federal law and excludes the Developer and each of its parent company, wholly-or majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. Owner understands "affiliate" to mean any entity that controls, is controlled by, or is under common control with Owner and exists to make a profit.

10.16 Fossil Fuels Boycott Verification. As required by 2274.002, Texas Government Code (as added by Senate Bill 13, 87th Texas Legislature, Regular Session), as amended, Owner hereby verifies that Owner, including any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of the same, does not boycott energy companies, and will not boycott energy companies during the term of this Agreement. As used in the foregoing verification, "boycott energy companies" shall have the meaning assigned to the term "boycott energy company" in Section 809.001, Texas Government Code, as amended.

10.17 Firearms Discrimination Verification. As required by Section 2274.002, Texas Government Code (as added by Senate Bill 19, 87th Texas Legislature, Regular Session, "SB 19"), as amended, Owner hereby verifies that Owner, including any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of the same, (i) does not have a practice, policy, guidance or directive that discriminates against a firearm entity or firearm trade association, and (ii) will not discriminate against a firearm entity or firearm trade association during the term of this Agreement. As used in the foregoing verification, "discriminate against a firearm entity or trade association" shall have the meaning assigned to such term in Section 2274.001(3), Texas Government

Code (as added by SB 19), as amended.

10.18 Form 1295. Submitted herewith is a completed Form 1295 generated by the Texas Ethics Commission's (the "TEC") electronic filing application in accordance with the provisions of Section 2252.908 of the Texas Government Code and the rules promulgated by the TEC (the "Form 1295"). The City hereby confirms receipt of the Form 1295 from the Owner, and the City agrees to acknowledge such form with the TEC through its electronic filing application not later than the 30th day after the receipt of such form. The Parties understand and agree that, with the exception of information identifying the City and the contract identification number, neither the City nor its consultants are responsible for the information contained in the Form 1295; that the information contained in the Form 1295 has been provided solely by the Owner; and, neither the City nor its consultants have verified such information.

[Signatures follow on the next pages]

EXECUTED by the authorized representatives of Owner and the City to be effective as of the Effective Date.

CITY OF AUBREY, TEXAS,
a Type A general law municipality of the State of Texas

By: _____
Name: Chris Rich
Title: Mayor

ATTEST:

By: _____
Name: Jenny Huckabee
Title: City Secretary

STATE OF TEXAS §
§
COUNTY OF DENTON §

This instrument was acknowledged before me this 26 day of APRIL, 2022, by Chris Rich, Mayor of the City of Aubrey, Texas, a general law municipality of the State of Texas, on behalf of said city.

JENNIFER D. HUCKABEE
Notary Public, State of Texas
Comm. Expires 07-05-2024
Notary ID 129043943

_____
Notary Public in and for the State of Texas

AUBREY 54:

AUBREY 54 SOUTH LP,
a Texas limited partnership

By: AUBREY 54 SOUTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
as Manager of
Aubrey 54 South GP LLC.

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 30TH day of JUNE, 2022, by Bob C. Ladd, as Manager of Aubrey 54 South GP LLC., a Texas limited liability company, General Partner of Aubrey 54 South LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

NOTARY PUBLIC STATE OF TEXAS
CECILIA TRAN
ID #130102672
My Commission Expires
February 04, 2023

_____
Notary Public in and for the State of Texas

AUBREY PLANT:

AUBREY PLANT LP,
a Texas limited partnership

By: AUBREY PLANT GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey Plant GP LLC.

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 30TH day of JUNE, 2022, by Bob C. Ladd, as Manager of Aubrey Plant GP LLC., a Texas limited liability company, General Partner of Aubrey Plant LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

CECILIA TRAN
ID #130102672
My Commission Expires
February 04, 2023

_____
Notary Public in and for the State of Texas

AUBREY 64:

AUBREY 64 NORTH LP,
a Texas limited partnership

By: AUBREY 64 NORTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey 64 North GP LLC.

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 30TH day of JUNE, 2022, by Bob C. Ladd, as Manager of Aubrey 64 North GP LLC., a Texas limited liability company, General Partner of Aubrey 64 North LP, a Texas limited partnership, on behalf of said limited partnership.

CECILIA TRAN
ID #130102672
My Commission Expires
February 04, 2023

(SEAL)

_____
Notary Public in and for the State of Texas

EXHIBIT A

TRACT 1
(Depiction and Legal Description)

EXHIBIT A

BOUNDARY SURVEY

64.05 ACRES
F. TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions, Inc.
Professional Land Surveyors
COMMERCIAL AND RESIDENTIAL
BOUNDARY DEPICTIONS & ALTA/ACSM LAND TITLE SURVEYS
P.O. BOX 290
CROSS ROADS, TEXAS 76227
OFFICE 214-499-8472
FAX 972-782-7811
EMAIL mbusby_bs@yahoo.com

CLIENT: JC Land Group

S.U.# 9001222/0086
Address: 2085 Spring Hill Road

Drawn by: mjb
B.S.I. Job # 2101-031

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DESCRIPTION

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the F. Trevino Survey, A-1243, and being part of that called 74.010 acres of land described in deed to Teela K. Stamp as recorded under Document No. 2005-86757 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 1/2 inch steel rod found on the North line of Spring Hill Road (F.M. Highway No. 428), at the Southeast corner of said 74.010 acres, and at the Southwest corner of that called 53.600 acres of land described in deed to Alden 34 South, LLC as recorded under Document No. 2019-163047 of the Official Public Records of Denton County, Texas;

THENCE North 88 degrees 35 minutes 38 seconds West, 951.08 feet along the North line of said Spring Hill Road to a 5/8 inch steel rod found at the Southeast corner of that called 9.971 acres of land described in deed to L.E. Tother and Claudia E. Tother as recorded under Document No. 2000-4209 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 12 minutes 57 seconds West, 967.57 feet along the East line of said 9.971 acres to a 1/2 inch steel rod found at the Northeast corner of said 9.971 acres;

THENCE North 88 degrees 43 minutes 43 seconds West, 449.42 feet along the North line of said 9.971 acres to a 5/8 inch steel rod found at the Northwest corner of said 9.971 acres, on the East line of that called 37.89 acres of land described in deed to Stephanie Owens and Alan Taylor Owens as recorded under Document No. 2018-42238 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 13 minutes 46 seconds West, 1254.40 feet to a 1/2 inch steel rod found at the Northeast corner of said 37.89 acres, and on the South line of that called 24.237 acres, and on the South line of that called 24.010 acres of land described in deed to Stephanie Owens and Alan Taylor Owens as recorded under Document No. 2018-42238 of the Official Public Records of Denton County, Texas;

THENCE South 88 degrees 38 minutes 31 seconds East (Bearings Basis), 1558.83 feet along the North line of said 74.010 acres to a 1/2 inch steel rod found at the Northeast corner of said 74.010 acres;

THENCE along the East line of said 74.010 acres and generally along a fence as follows:

South 00 degrees 39 minutes 28 seconds West, 708.16 feet;
South 05 degrees 24 minutes 52 seconds West, 337.33 feet;
South 03 degrees 01 minutes 37 seconds East, 162.14 feet;
South 02 degrees 55 minutes 56 seconds West, 1015.96 feet to the POINT OF BEGINNING, containing 64.05 acres of land.

FLOOD ZONE DEFINITIONS:
FIRM #48121C0260G, dated April 18, 2011

Zone "X" – "Areas determined to be outside the 0.2% annual chance floodplain."

Zone "A" – "Special Flood Hazard Areas subject to inundation by the 1% annual chance flood. No Base Flood Elevations determined."

Notes Corresponding to Schedule B:

10) Easement to TXU Elec. Del. Co., Vol. 181, Pg. 16 – may affect, not plottable due to vague description. Above ground and visible evidence of electric lines shown hereon.
11) Easement to Denton County Electric, Vol. 402, Pg. 78 – Blanket. Above ground and visible evidence of electric lines shown hereon.

Note: Bearings based on Texas State Coordinate System, Texas North Central Zone 4202, NAD83

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"

CERTIFIED TO: Arnold G. Stamp & Linda A. Stamp, JC Land Group, LLC, and Priority National Title Insurance Company

The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of January, 2021. The visible improvements on the ground are as shown on the survey. There are no visible improvements, encroachments, overlapping of improvements or conflicts found except as shown on the survey plat.

January 21, 2021
Revised, 1-25-2021
and 2-5-2021

Matthew Busby
R.P.L.S. No. 5761

Spring Hill Road
(F.M. Highway No. 428)

Zone "X"

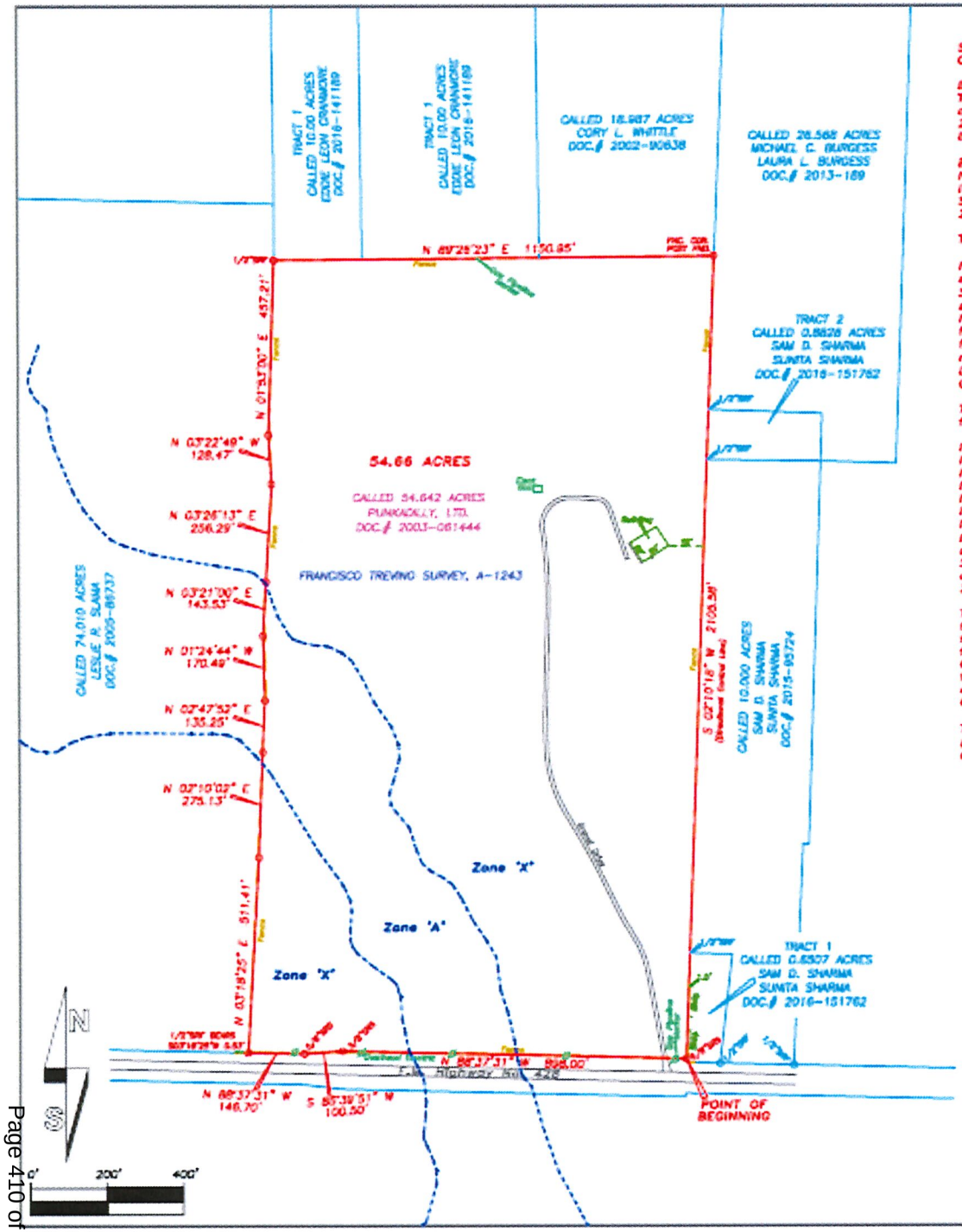
Zone "A"

84.05 ACRES

POINT OF BEGINNING

N

S



DESCRIPTION

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the Francisco Trevino Survey, A-1243, and being all of that called 54.642 acres of land described in deed to Punkadilly, Ltd. as recorded under Document No. 2003-081444 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 5/8 inch steel rod set on the North line of F.M. Highway No. 426, at the Southeast corner of said 54.642 acres, and on the West line of that called 0.6507 acres of land described as Tract 1 in a deed to Sam D. Sharma and Sunita Sharma as recorded under Document No. 2016-151762 of the Official Public Records of Denton County, Texas;

THENCE along the North line of said F.M. Highway No. 426 as follows:

North 88 degrees 37 minutes 31 seconds West, 868.00 feet to a 5/8 inch steel rod set;
South 85 degrees 39 minutes 51 seconds West, 100.50 feet to a 5/8 inch steel rod set;
North 88 degrees 37 minutes 31 seconds West, 146.70 feet to a point at the Southwest corner of said 54.642 acres, and at the Southeast corner of that called 74.010 acres of land described in deed to Leslie R. Slama as recorded under Document No. 2005-88737 of the Official Public Records of Denton County, Texas, from which a 1/2 inch steel rod found bears South 03 degrees 18 minutes 25 seconds West, 0.53 feet for witness;

THENCE along the West line of said 54.642 acres and generally along a fence as follows:

North 03 degrees 18 minutes 25 seconds East, 511.41 feet;
North 02 degrees 10 minutes 02 seconds East, 275.13 feet;
North 02 degrees 47 minutes 52 seconds East, 135.25 feet;
North 01 degrees 24 minutes 44 seconds West, 170.49 feet;
North 03 degrees 21 minutes 00 seconds East, 143.53 feet;
North 03 degrees 26 minutes 13 seconds East, 256.29 feet;
North 03 degrees 22 minutes 49 seconds West, 128.47 feet;
North 01 degrees 13 minutes 00 seconds East, 437.21 feet to a 1/2 inch steel rod found at the Northwest corner of said 54.642 acres, and at the Southwest corner of that called 10.00 acres of land described as Tract 1 in a deed to Eddie Leon Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas;

THENCE North 89 degrees 28 minutes 23 seconds East, 1150.85 feet to a fence corner post found at the Northeast corner of said 54.642 acres, at the Southeast corner of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded under Document No. 2002-90638 of the Official Public Records of Denton County, Texas, and on the West line of that called 26.568 acres of land described in deed to Michael C. Burgess and Laura L. Burgess as recorded under Document No. 2013-189 of the Official Public Records of Denton County, Texas;

THENCE South 02 degrees 10 minutes 18 seconds West (Directional Control Line), 2105.58 feet along the East line of said 54.642 acres to the POINT OF BEGINNING, containing 54.66 acres of land.

FLOOD ZONE DEFINITIONS
F.I.R.M. 48121C0265G, dated April 18, 2011

Zone "X" – "Areas determined to be outside the 0.2% annual chance floodplain."

Zone "A" – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."

SFD = STEEL ROD SET
SFF = STEEL ROD FOUND

Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"

Note: Survey performed without benefit of title commitment, no easements furnished or researched by surveyor.

The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of December, 2019; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.

December 2, 2019

STATE OF TEXAS
5751
REGISTERED
LAND SURVEYOR

Matthew Busby
R.P.L.S. No. 5751

BOUNDARY SURVEY

54.66 ACRES
FRANCISCO TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 250
CADDO MILLS, TX 75135
OFFICE: 214-495-8472
FAX: 972-782-7611
EMAIL: mbusby_bsi@yahoo.com
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, &
ALTA/ACSM LAND TITLE
SURVEYS

CLIENT:
2727 Development 1, LP

No Schedule B Provided

Drawn by: mjb
B.S.I. Job# 1911-017

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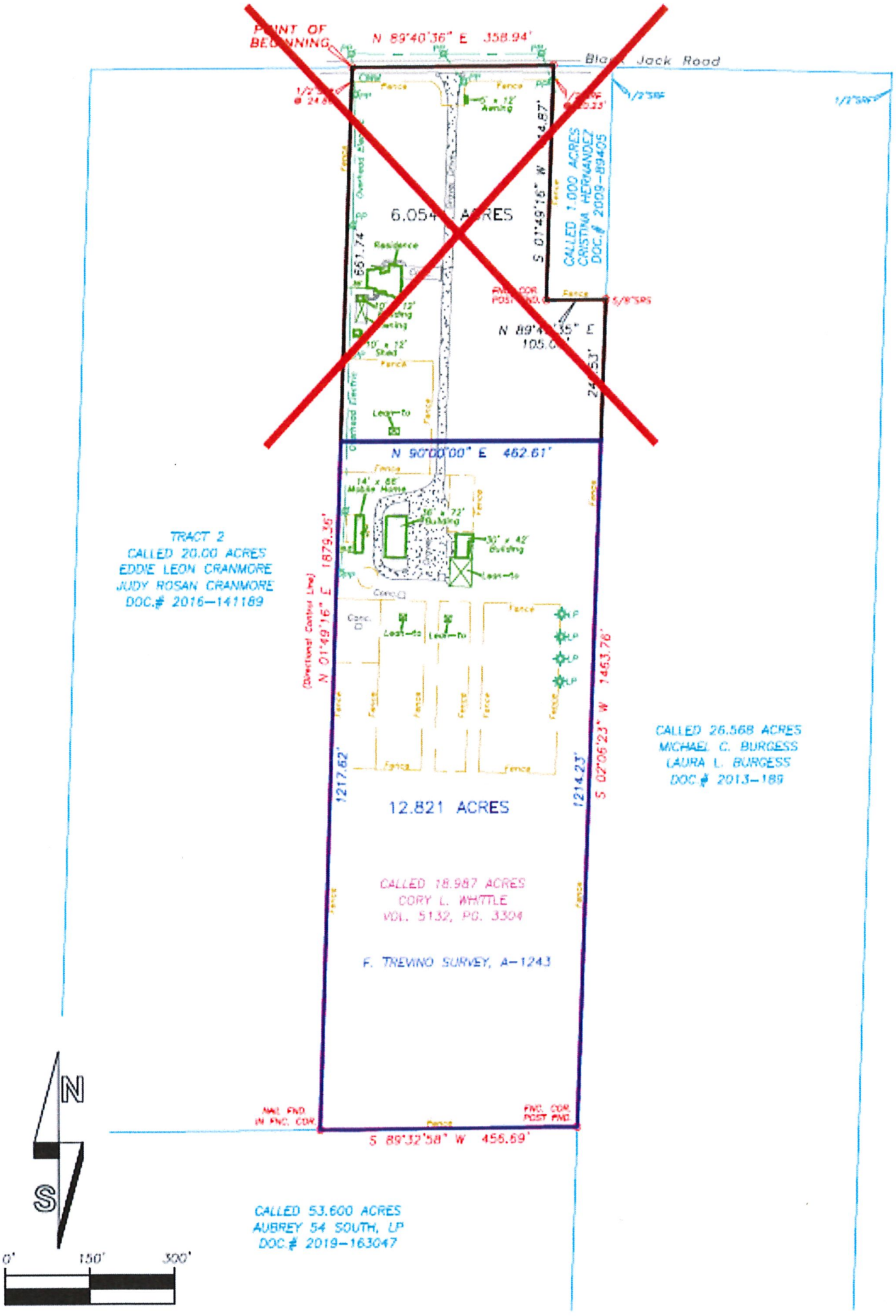

POINT OF BEGINNING
N 89°40'36" E 358.94'
Black Jack Road
6.054 ACRES
Residence
14' x 66' Mobile Home
16' x 72' Building
30' x 48' Building
Lean-to
Fence
Overhead Electric
Conc.
Aerial
S 01°49'16" W 651.74'
N 01°49'16" E 1879.36'
(Directional Control Line)
N 90°00'00" E 462.61'
S 01°49'16" W 14.87'
CALLED 1.000 ACRES
CRISTINA HERNANDEZ
DOC.# 2009-89405
N 89°40'36" E 105.00'
24.53'
TRACT 2
CALLED 20.00 ACRES
EDDIE LEON CRANMORE
JUDY ROSAN CRANMORE
DOC.# 2016-141189
1217.62'
1214.23'
S 02°06'23" W 1463.76'
12.821 ACRES
CALLED 26.568 ACRES
MICHAEL C. BURGESS
LAURA L. BURGESS
DOC.# 2013-189
CALLED 18.987 ACRES
CORY L. WHITTLE
VOL. 5132, PG. 3304
F. TREVINO SURVEY, A-1243
NAIL FND IN FNC. COR.
FNC. COR. POST FND.
S 89°32'58" W 456.69'
CALLED 53.600 ACRES
AUBREY 54 SOUTH, LP
DOC.# 2019-163047
N
S
0'
150'
300'

EXHIBIT "A"

Legal Description

Being all the tract of land in Denton County, Texas, out of the f. Trevino Survey, A-1243, and being part of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded in Volume 5132, page 3304 of the Official Public Records of Denton County, Texas, and being further described as follows:

COMMENCING at a point in the center of Black Jack Road, at the Northwest corner of said 18.987 acre, and at the Northeast corner of that called 20.00 acres of land described as Tract 2 in deed to Eddie Leon Cranmore and Judy Rosan Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas, from which a ½ inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.86 feet for Witness;

THENCE South 01 degrees 49 minutes 16 seconds West, 661.74 feet along the West line of said 18.987 acre to the POINT OF BEGINNING.

THENCE North 90 degrees 00 minutes 00 seconds East, 462.61 feet to a point on the East line of said 18.987 acres;

THENCE South 02 degrees 06 minutes 23 seconds West, 1214.23 feet to a fence corner post found at the southeast corner of said 18.987 acre, and at an angle point of said 26.568 acres;

THENCE South 89 degrees 32 minutes 58 seconds West, 456.69 feet a nail found in fence corner at the Southwest corner of said 18.987 acres, and at the Southeast corner of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East (Directional Control Line), 1217.62 feet along the West line of said 18.987 acre to the POINT OF BEGINNING, containing 12.821 acre of land.

NOTE: COMPANY DOES NOT REPRESENT THAT THE ABOVE ACREAGE AND/OR SQUARE FOOTAGE CALCULATIONS ARE CORRECT.

EXHIBIT B

TRACT 2
(Depiction and Legal Description)

EXHIBIT B

BOUNDARY SURVEY

47.947 AC RES
T. CHAMBERS SURVEY, A-223
DENTON COUNTY, TEXAS

Boundary Solutions Inc.
Professional Land Surveyors
PO. BOX 536
CADDO MILLS, TX 75135
OFFICE: 214.609.0672
FAX: 972.523.2181
EMAIL: mbailey.bs@yahoo.com

COMMERCIAL MORTGAGE BANK
ROUND ROCK, TEXAS
ATTN: CHRIS LAND TITLE
SURVEY

CLIENT:
LD Land Group, LLC
Denton, Texas

LINE TABLE
NO.
BEARING
LENGTH
L1
L2
L3
L4
L5
L6
N13°32'06"E
60.97'
N88°30'27"W
2,445.53'
S88°35'50"E
3,237.22'
N88°30'27"W
95.39'
S01°38'33"W
160.93'
POINT OF BEGINNING
304,864 SQUARE FEET
6.999 ACRES
R=5280.00'
CH=S88°19'25"E 62.71'
F.M. Highway No. 2181
(a paved traveled right-of-way
of undetermined width)
(no record found)
T. Chambers
Survey Number 223
AN EXHIBIT
OF 6.999 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS
PELOTON
LAND SOLUTIONS
JOB # GE619006
DRAWN BY: MYOST
CHECKED BY: SRAMSEY
DATE: 03/03/2021
PAGE # 1 OF 1

DESCRIPTION OF 6.999 ACRES

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY SOUTHEAST CORNER OF SAID AUBREY TRACT AND BEING IN THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH);

THENCE DEPARTING SAID WEST RIGHT-OF-WAY LINE OVER AND ACROSS SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

N 82° 51' 17" W, 278.95 FEET;

N 88° 26' 38" W, 73.62 FEET;

N 79° 50' 22" W, 156.02 FEET;

N 83° 34' 37" W, 13.51 FEET;

N 83° 03' 16" W, 114.91 FEET;

N 83° 02' 03" W, 125.94 FEET;

N 88° 30' 27" W, 95.39 FEET TO THE SOUTH LINE OF SAID AUBREY TRACT AND BEING THE MOST NORTHERLY NORTHEAST CORNER OF A TRACT OF LAND TO CHARLES NGATIA RECORDED IN INSTRUMENT NUMBER 2019-84466 OF SAID O.P.R.D.C.T;

THENCE N 88° 30' 27" W, 2445.53 FEET ALONG SAID SOUTH LINE TO THE SOUTHWEST CORNER OF SAID AUBREY TRACT;

THENCE N 01° 32' 58" E, 80.97 FEET ALONG THE WEST LINE OF SAID AUBREY TRACT;

THENCE DEPARTING THE WEST LINE OF SAID AUBREY TRACT OVER AND ACROSS THE FOLLOWING BEARINGS AND DISTANCES:

S 88° 35' 50" E, 3237.22 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT;

WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 62.71 FEET, THROUGH A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5280.00 FEET, AND A LONG CHORD WHICH BEARS S 88° 15' 25" E, 62.71 FEET TO THE WEST LINE OF SAID F.M. 2931;

THENCE S 01° 38' 33" W, 160.93 FEET TO THE POINT OF BEGINNING AND CONTAINING 304,864 SQUARE FEET OR 6.999 ACRES MORE OR LESS.

"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

EXHIBIT C

TRACT 3

(Depiction and Legal Description)

Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83

"Several pages of this document"
1 Exhibit - 1 Page

DESCRIPTION

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING IN THE EAST LINE OF SAID AUBREY TRACT AND THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH) BEING THE BEGINNING OF A CURVE TO THE LEFT;

THENCE WITH SAID CURVE TO THE LEFT OVER AND ACROSS SAID AUBREY TRACT, HAVING AN ARC DISTANCE OF 62.71 FEET, A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5,280.00 FEET, AND A LONG CHORD WHICH BEARS N 88° 15' 25" W, 62.71 FEET;

THENCE N 88° 35' 50" W, 3,237.22 FEET, CONTINUING ACROSS SAID AUBREY TRACT TO THE WEST LINE;

THENCE N 01° 32' 58" E, 894.59 FEET, CONTINUING ALONG THE WEST LINE OF SAID AUBREY TRACT TO THE NORTH LINE;

THENCE CONTINUING ALONG THE NORTH LINE OF SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

CONTINUING

S 88° 39' 54" E, 1,967.25 FEET;

S 01° 48' 01" W, 325.45 FEET;

S 87° 02' 21" E, 447.69 FEET;

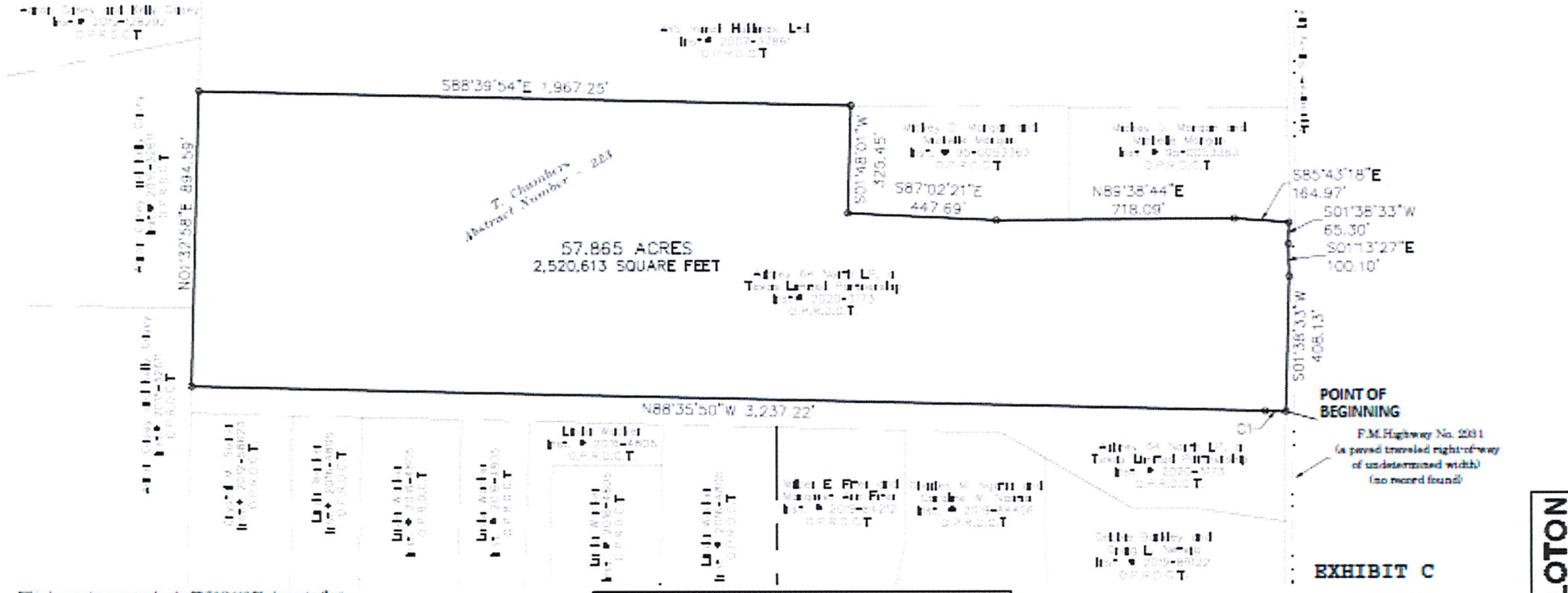
N 89° 38' 44" E, 718.09 FEET;

S 85° 43' 18" E, 164.97 FEET TO THE WEST RIGHT-OF-WAY LINE OF SAID FARM TO MARKET ROAD NO. 2931;

THENCE S 01° 38' 33" W, 65.30 FEET, ALONG SAID WEST RIGHT-OF-WAY LINE;

THENCE S 01° 13' 27" E, 100.10 FEET, CONTINUING ALONG SAID WEST RIGHT-OF-WAY LINE;

THENCE S 01° 38' 33" W, 408.13 FEET TO THE POINT OF BEGINNING AND CONTAINING 2,520,613 SQUARE FEET OR 57.865 ACRES OF LAND MORE OR LESS.



CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	0°40'50"	5280.00'	62.71'	N88°15'25"W	62.71'

"This document was prepared under 22 TAC 663.21, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

TBPELS Firm Reg. No. 10194469

EXHIBIT C

AN EXHIBIT
OF 57.865 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS

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PELOTON LAND SOLUTIONS

JOB # 021906 | DRAWN BY MYOST | CHECKED BY SRAMEY | DATE 10/5/2021 | PAGE 1 OF 1

EXHIBIT D
PROPOSED CONSENT RESOLUTION
(To be Superseded by final City Council approved Consent Resolution)

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS CONSENTING TO THE ANNEXATION OF CERTAIN LAND INTO CLEAR SKY MUNICIPAL UTILITY DISTRICT OF DENTON COUNTY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, on March 15, 2022, the City of Aubrey, Texas (the "City") received a Petition for Consent to Annexation of Land into Clear Sky Municipal Utility District of Denton County (the "Petition") executed by Aubrey 54 South LP, a Texas limited partnership, Aubrey Plant LP, a Texas limited partnership, and Aubrey 64 North LP, a Texas limited partnership (collectively, the "Petitioner"), dated January 24, 2022, attached hereto as **Exhibit "A";** and

WHEREAS, the Petition seeks to add that certain 186.477-acre tract of land described therein (the "Property") to Clear Sky Municipal Utility District of Denton County (the "District"), the Property being wholly located in the extraterritorial jurisdiction of the City; and

WHEREAS, Texas Local Government Code, Section 42.0425, provides that land within the extraterritorial jurisdiction of a city, town or village may not be added to the District without the written consent of such city, town, or village; and

WHEREAS, the City Council of the City desires to adopt a Resolution for the purpose of consenting to the inclusion of the Property in the District.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OFAUBREY, TEXAS:

Section 1. That the facts set out in the preamble are true and correct and are incorporated herein for all purposes.

Section 2. That the City Council hereby gives written consent, pursuant to Section 42.0425, Texas Local Government Code, to the addition of that portion of the Property described in **Exhibit "B"** by metes and bounds and located wholly within the extraterritorial jurisdiction of the City of Aubrey and to consent to the issuance of bonds for the construction of a waterworks system, a sanitary sewer system, a storm water drainage system and roadway system, subject to the following are conditions:

(a) The City's consent to annexation of the Property into the District is provided only for the Property boundaries described in the Agreement and is not for the District's annexation of additional land in the City's extraterritorial jurisdiction.

(b) District will acquire easements, construct and provide infrastructure for onsite and offsite improvements to allow the District to provide water and wastewater utilities, and other public utilities to the Property for domestic uses and commercial purposes.

(c) District may not collect, transport, process, dispose of and/or control industrial,

commercial, or residential wastes whether in fluid, solid, or composite state.

(d) The District may not gather, convey, divert and/or control local storm water runoff or other local harmful excesses of water in the District without prior approval from the City. The District may not assess storm drainage utility fees for capital improvements, organization expenses, operation and maintenance expenses or any other storm water related expense.

(e) Amount of bonded indebtedness issued by the District shall be limited to bonds with maturities of thirty (30) years or less and up to an amount not to exceed the costs of onsite and offsite infrastructure improvements for the Property for the purchase, construction, acquisition, repair, extension and improvement of capital infrastructure, easements, works, improvements, facilities, plants, equipment, and appliances necessary for the construction of the onsite and offsite improvements to the Property during the development phases of the Property, along with any and all soft costs and creation and operation costs associated with the District.

Section 3. The City Council of the City officially finds, determines, recites, and declares that a sufficient written notice of the date, hour, place, and subject of this meeting of the City Council was posted at a place convenient to the public at the City Hall and on the official website of the City in the manner and for the time required by law preceding this meeting, as required by the Open Meetings Act, Chapter 551,Texas Government Code, and that this meeting was open to the public as required by law at all times during which this Resolution and the subject matter thereof was discussed, considered, andformally acted upon. The City Council further ratifies, approves, and confirms such written notice and the contents and posting thereof.

Section 4. This Resolution shall take effect immediately from and after its passage, and it is, accordingly, so resolved.

PASSED AND APPROVED by the City Council of the City of Aubrey, Texas on the 26th day of April, 2022.

_____
Chris Rich. Mayor

ATTEST:

_____
Jenny Huckabee, City Secretary

(CITY SEAL)

Approved as to Form:

_____
Patricia A. Adams, City Attorney

Exhibit "A" to Consent Resolution

Petition

MAR 15 2022 AM10:37

PETITION FOR CONSENT TO ADDITION OF LAND
TO A MUNICIPAL UTILITY DISTRICT

THE STATE OF TEXAS §

COUNTY OF DENTON §

TO THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF AUBREY:

The undersigned (collectively, the "Petitioner"), acting pursuant to the provisions of Chapters 49 and 54 of the Texas Water Code, and Section 42.042 of the Texas Local Government Code, respectfully petitions the City of Aubrey, Texas for its consent to the addition of land to Clear Sky Municipal Utility District of Denton County (the "District"), and in support of this Petition would respectfully show the following:

I.

The land sought to be added to the District (the "Tract") consists of the approximately 186.477 acres described by metes and bounds in Exhibit "A," attached hereto and made a part hereof for all purposes.

II.

The Tract lies within Denton County, and not within the boundaries of any incorporated city or town. The Tract lies wholly within the extraterritorial jurisdictions of the City of Aubrey, Texas, as such term is determined pursuant to Chapter 42 V.T.C.A. Local Government Code.

III.

The Petitioner constitutes the holder of title to more than fifty percent (50%) of the value of the Tract, as indicated by the tax rolls of the central appraisal district of Denton County, Texas, and by conveyances of record since the date of preparation of said tax rolls. There are no lienholders on the Tract.

IV.

The District was organized, created and established pursuant to House Bill 4627, Acts of the 87th Texas Legislature, Regular Session, 2021 (codified at Chapter 7948A, Texas Special District Local Laws Code) effective September 1, 2021, in accordance with Article III, Section 52, and Article XVI, Section 59 of the Texas Constitution and operates pursuant to Chapters 49 and 54, Texas Water Code, as amended. The District generally is empowered and authorized to purchase, construct, acquire, own, operate, maintain, repair, improve, or extend inside and outside

its boundaries any and all works, improvements, facilities, plants, equipment, and appliances necessary to accomplish the purposes of its creation.

V.

The general nature of the work anticipated to be done within the Tract at the present time is the construction, maintenance and operation of a waterworks system for residential purposes; the construction, maintenance and operation of a sanitary sewer collection system; the control, abatement and amendment of the harmful excess of waters and the reclamation and drainage of overflowed lands within the Tract; and the construction of roads and of such additional facilities, systems, plants and enterprises as shall be consistent with the purposes for which the District is organized.

VI.

There is a necessity for the improvements above described because the Tract is located within an area experiencing substantial and sustained residential growth, is urban in nature and is not supplied with adequate water, sanitary sewer, and drainage facilities and roads. The health and welfare of the future inhabitants of the Tract require the acquisition and installation of an adequate waterworks, sanitary sewer and storm drainage system and roads. The purchase, construction, extension, improvement, maintenance and operation of such waterworks system and storm and sanitary sewer collection and disposal systems and roads will conserve and preserve the natural resources of this State by promoting and protecting the purity and sanitary condition of the State's waters and will promote and protect the public health and welfare of the community; therefore, a public necessity exists for the inclusion of the Tract within the District.

VII.

The proposed improvements are practicable and feasible, in that the terrain of the Tract is of such nature that a waterworks system and sanitary and storm sewer systems and roads can be constructed at a reasonable cost; and said land will be rapidly developed for residential purposes.

VIII.

A preliminary investigation has been instituted to determine the cost of the proposed improvements attributable to the Tract, and it is now estimated by those filing this petition, from such information as they have at this time, that the ultimate cost of the development contemplated on the Tract will be approximately $21,500,000.

WHEREFORE, the undersigned respectfully pray that this Petition be granted in all respects and that the City Council of the City of Aubrey, Texas, adopt a resolution giving its written consent to the addition of the Tract to the District.

RESPECTFULLY SUBMITTED this the 24th day of January, 2022.

PETITIONER:

AUBREY 54:

AUBREY 54 SOUTH LP,
a Texas limited partnership

By: AUBREY 54 SOUTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
as Manager of
Aubrey 54 South GP LLC

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 24th day of JANUARY, 2022, by Bob C. Ladd, as Manager of Aubrey 54 South GP LLC., a Texas limited liability company, General Partner of Aubrey 54 South LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

JANEY ARISTA
Notary ID #1120165
My Commission Expires
July 13, 2022

_____
Notary Public in and for the State of Texas

PETITIONER:

AUBREY PLANT:

AUBREY PLANT LP,
a Texas limited partnership

By: AUBREY PLANT GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey Plant GP LLC

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 24th day of JANUARY, 2022, by Bob C. Ladd, as Manager of Aubrey Plant GP LLC., a Texas limited liability company, General Partner of Aubrey Plant LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

JANEY ARISTA
Notary ID #1120165
My Commission Expires
July 13, 2022

_____
Notary Public in and for the State of Texas

PETITIONER:

AUBREY 64:

AUBREY 64 NORTH LP,
a Texas limited partnership

By: AUBREY 64 NORTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey 64 North GP LLC

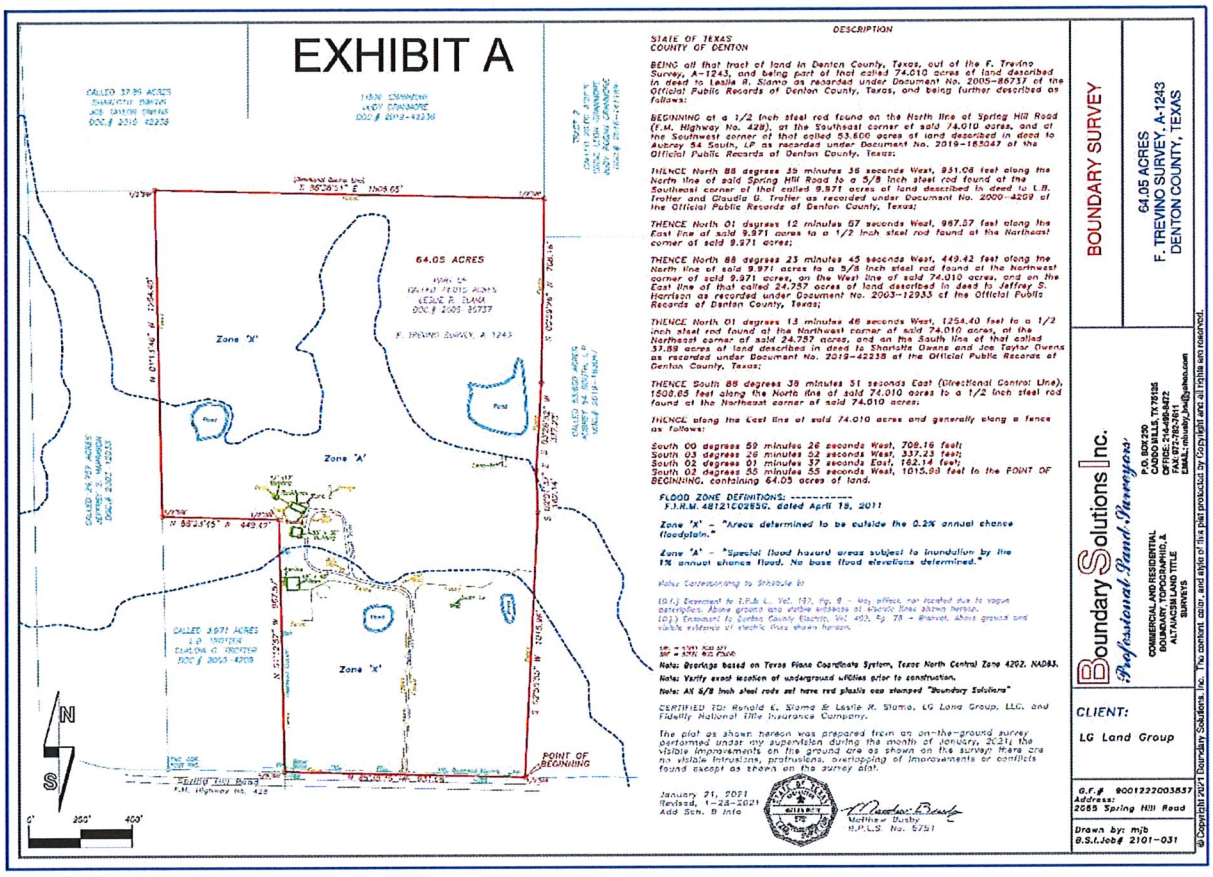
STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 24th day of JANUARY, 2022, by Bob C. Ladd, as Manager of Aubrey 64 North GP LLC., a Texas limited liability company, General Partner of Aubrey 64 North LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

JANEY ARISTA
Notary ID #1120165
My Commission Expires
July 13, 2022

_____
Notary Public in and for the State of Texas



DESCRIPTION

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the F. Trevino Survey, A-1243, and being part of that called 74.010 acres of land described in deed to Leslie R. Slama as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 1/2 inch steel rod found on the North line of Spring Hill Road (F.M. Highway No. 428), at the Southeast corner of said 74.010 acres, and at the Southwest corner of that called 53.600 acres of land described in deed to Aubrey 84 South, LP as recorded under Document No. 2019-185047 of the Official Public Records of Denton County, Texas;

THENCE North 88 degrees 35 minutes 38 seconds West, 951.08 feet along the North line of said Spring Hill Road to a 5/8 inch steel rod found at the Southeast corner of that called 9.971 acres of land described in deed to L.B. Trotter and Claudia B. Trotter as recorded under Document No. 2000-4209 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 12 minutes 57 seconds West, 987.37 feet along the East line of said 9.971 acres to a 1/2 inch steel rod found at the Northeast corner of said 9.971 acres;

THENCE North 88 degrees 23 minutes 45 seconds West, 449.42 feet along the North line of said 9.971 acres to a 5/8 inch steel rod found at the Northwest corner of said 9.971 acres, on the West line of said 74.010 acres, and on the East line of that called 24.757 acres of land described in deed to Jeffrey S. Harrison as recorded under Document No. 2003-12933 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 13 minutes 48 seconds West, 1254.40 feet to a 1/2 inch steel rod found at the Northwest corner of said 74.010 acres, at the Northeast corner of said 24.757 acres, and on the South line of that called 37.89 acres of land described in deed to Sharlette Owens and Joe Taylor Owens as recorded under Document No. 2019-42238 of the Official Public Records of Denton County, Texas;

THENCE South 88 degrees 38 minutes 51 seconds East (Directional Control Line), 1508.65 feet along the North line of said 74.010 acres to a 1/2 inch steel rod found at the Northeast corner of said 74.010 acres;

THENCE along the East line of said 74.010 acres and generally along a fence as follows:

South 00 degrees 59 minutes 26 seconds West, 708.16 feet;
South 03 degrees 28 minutes 52 seconds West, 337.23 feet;
South 02 degrees 01 minutes 37 seconds East, 162.14 feet;
South 02 degrees 35 minutes 55 seconds West, 1015.98 feet to the POINT OF BEGINNING, containing 64.05 acres of land.

FLOOD ZONE DEFINITIONS: ----------
F.I.R.M. 48121C0285G, dated April 18, 2011

Zone 'X' - "Areas determined to be outside the 0.2% annual chance floodplain."

Zone 'A' - "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."

Note: Corresponding to Schedule B:

(B.I.) Easement to T.P.& L., Vol. 157, Pg. 9 - May affect, not located due to vague description. Above ground and visible evidence of electric lines shown hereon.
(B.J.) Easement to Cooke County Electric, Vol. 493, Pg. 78 - Blanket. Above ground and visible evidence of electric lines shown hereon.

Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"

CERTIFIED TO: Ronald K. Slama & Leslie R. Slama, LG Land Group, LLC, and Fidelity National Title Insurance Company.

The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of January, 2021; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.

January 21, 2021
Revised, 1-28-2021
Add Sch. B Info

Matthew Bushy
R.P.L.S. No. 5751

BOUNDARY SURVEY

64.05 ACRES
F. TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 220
ROANOKE, TX 76262
OFFICE: 214-455-8472
FAX: 972-783-7611
EMAIL: mbushy@sbcglobal.net

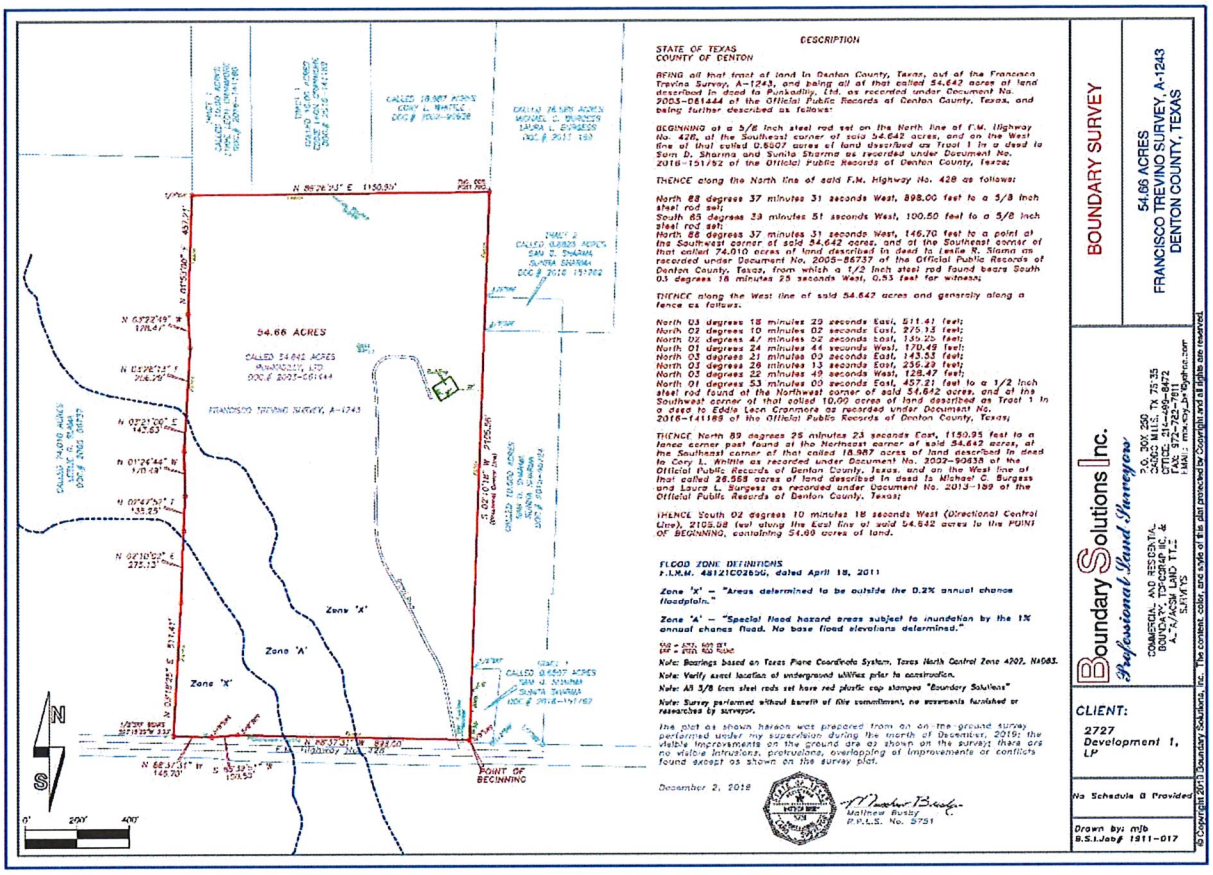
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, & ALTA/ACSM LAND TITLE SURVEYS

CLIENT:
LG Land Group

G.F.# 9001222003837
Address:
2085 Spring Hill Road

Drawn by: mjb
B.S.I. Job# 2101-031

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54.66 ACRES
CALLED 54.642 ACRES
FRANCISCO TREVINO SURVEY, A-1243
Zone 'X'
Zone 'A'
Zone 'X'
POINT OF BEGINNING
N 88°28'33" E 1150.95'
N 02°10'18" W 2105.58'
S 88°33'51" E 898.00'
N 88°37'31" W 146.70'
N 88°37'31" W 898.00'
S 88°33'51" E 100.50'
N 88°37'31" W 146.70'
0'
200'
400'
DESCRIPTION
STATE OF TEXAS
COUNTY OF DENTON
BEING all that tract of land in Denton County, Texas, out of the Francisco Trevino Survey, A-1243, and being all of that called 54.642 acres of land described in deed to Punkadilly, Ltd. as recorded under Document No. 2003-081444 of the Official Public Records of Denton County, Texas, and being further described as follows:
BEGINNING at a 5/8 inch steel rod set on the North line of F.M. Highway No. 428, at the Southeast corner of said 54.642 acres, and on the West line of that called 0.6507 acres of land described as Tract 1 in a deed to Sam D. Sharma and Sunita Sharma as recorded under Document No. 2016-151752 of the Official Public Records of Denton County, Texas;
THENCE along the North line of said F.M. Highway No. 428 as follows:
North 88 degrees 37 minutes 31 seconds West, 898.00 feet to a 5/8 inch steel rod set;
South 85 degrees 33 minutes 51 seconds West, 100.50 feet to a 5/8 inch steel rod set;
North 88 degrees 37 minutes 31 seconds West, 146.70 feet to a point at the Southwest corner of said 54.642 acres, and at the Southeast corner of that called 74.010 acres of land described in deed to Leslie R. Sloma as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, from which a 1/2 inch steel rod found bears South 03 degrees 18 minutes 25 seconds West, 0.55 feet for witness;
THENCE along the West line of said 54.642 acres and generally along a fence as follows:
North 03 degrees 18 minutes 25 seconds East, 511.41 feet;
North 02 degrees 10 minutes 02 seconds East, 275.13 feet;
North 02 degrees 47 minutes 52 seconds East, 159.25 feet;
North 01 degrees 24 minutes 44 seconds West, 170.49 feet;
North 03 degrees 21 minutes 03 seconds East, 143.53 feet;
North 03 degrees 29 minutes 13 seconds East, 236.49 feet;
North 03 degrees 22 minutes 49 seconds West, 128.47 feet;
North 01 degrees 53 minutes 09 seconds East, 457.21 feet to a 1/2 inch steel rod found at the Northwest corner of said 54.642 acres, and at the Southwest corner of that called 10.00 acres of land described as Tract 1 in a deed to Eddie Leon Cranmore as recorded under Document No. 2016-141188 of the Official Public Records of Denton County, Texas;
THENCE North 89 degrees 25 minutes 23 seconds East, 1150.95 feet to a fence corner post found at the Northeast corner of said 54.642 acres, at the Southeast corner of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded under Document No. 2007-90838 of the Official Public Records of Denton County, Texas, and on the West line of that called 26.568 acres of land described in deed to Michael C. Burgess and Laura L. Burgess as recorded under Document No. 2013-139 of the Official Public Records of Denton County, Texas;
THENCE South 02 degrees 10 minutes 18 seconds West (Directional Control Line), 2105.58 feet along the East line of said 54.642 acres to the POINT OF BEGINNING, containing 54.66 acres of land.
FLOOD ZONE DEFINITIONS
F.I.R.M. 48121C0265G, dated April 18, 2011
Zone 'X' – "Areas determined to be outside the 0.2% annual chance floodplain."
Zone 'A' – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."
Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.
Note: Verify exact location of underground utilities prior to construction.
Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"
Note: Survey performed without benefit of title commitment, no easements furnished or researches by surveyor.
The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of December, 2018; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.
December 2, 2018
Matthew Busby
R.P.L.S. No. 5751
BOUNDARY SURVEY
54.66 ACRES
FRANCISCO TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
Professional Land Surveyors
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC &
AS-BUILT SURVEYS
P.O. BOX 150
ARGYLE, TX 76226
OFFICE: 214-906-8472
FAX: 972-723-7911
EMAIL: mbusby@tgbnet.com
CLIENT:
2727 Development 1, LP
No Schedule B Provided
Drawn by: mjb
B.S.I.Job# 1911-017
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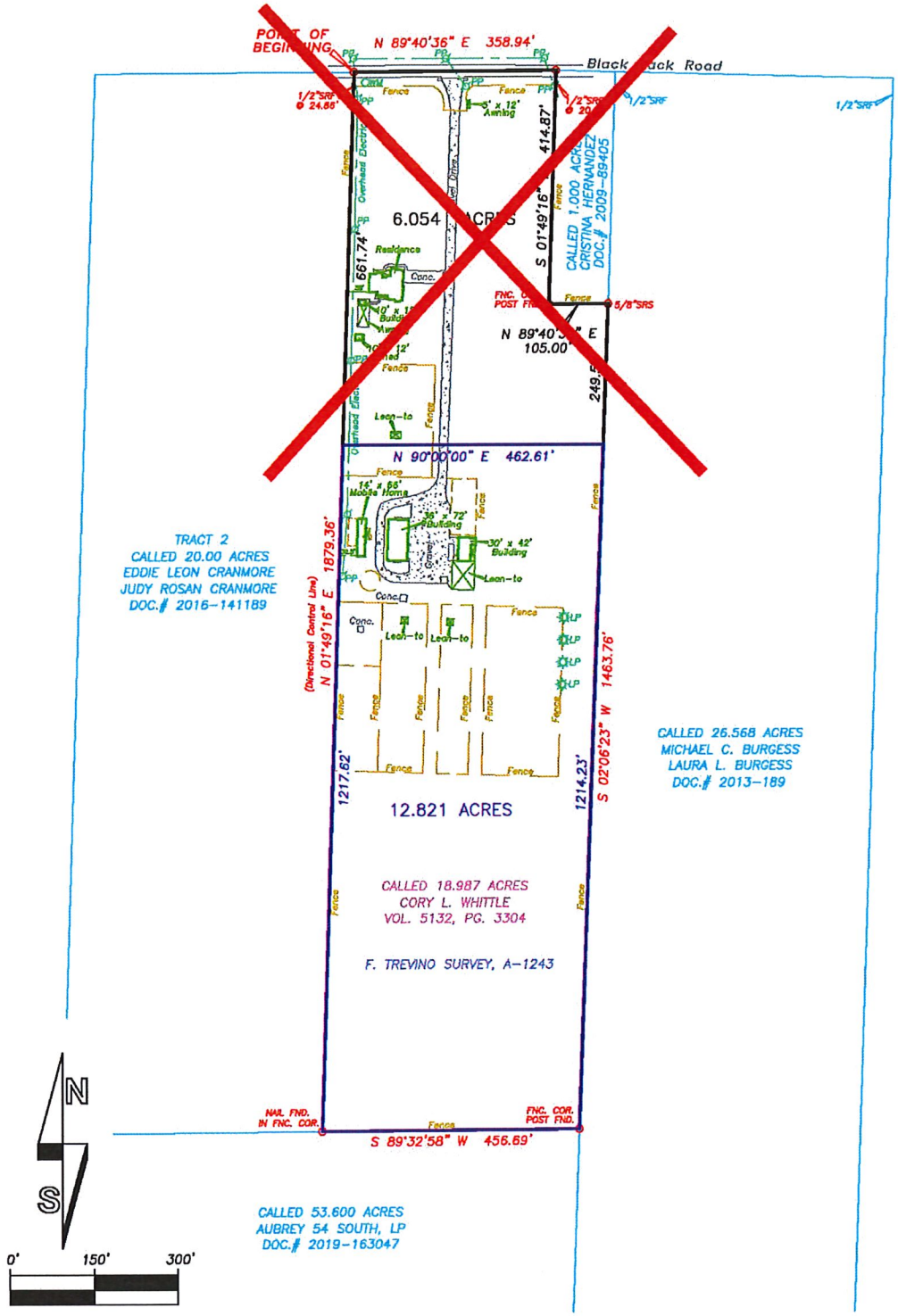

POINT OF BEGINNING
N 89°40'36" E 358.94'
Black Jack Road
1/2"SRF
1/2"SRF
1/2"SRF
414.87'
S 01°49'16" W
CALLED 1.000 ACRES
CRISTINA HERNANDEZ
DOC.# 2009-89405
6.054 ACRES
Residence
Conc.
Fence
Overhead Electric
Ditch
N 661.74'
5/8"SRS
N 89°40'36" E
105.00'
249.5'
Lean-to
N 90°00'00" E 462.61'
14' x 66' Mobile Home
36' x 72' Building
30' x 42' Building
Lean-to
Conc.
Lean-to
Lean-to
LP
TRACT 2
CALLED 20.00 ACRES
EDDIE LEON CRANMORE
JUDY ROSAN CRANMORE
DOC.# 2016-141189
(Directional Control Line)
N 01°49'16" E 1879.36'
1217.62'
1214.23'
S 02°06'23" W 1463.76'
12.821 ACRES
CALLED 26.568 ACRES
MICHAEL C. BURGESS
LAURA L. BURGESS
DOC.# 2013-189
CALLED 18.987 ACRES
CORY L. WHITTLE
VOL. 5132, PG. 3304
F. TREVINO SURVEY, A-1243
NAIL FND. IN FNC. COR.
FNC. COR. POST FND.
S 89°32'58" W 456.69'
CALLED 53.600 ACRES
AUBREY 54 SOUTH, LP
DOC.# 2019-163047
N
S
0'
150'
300'

EXHIBIT "A"
Legal Description

Being all the tract of land in Denton County, Texas, out of the I. Trevino Survey, A-1243, and being part of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded in Volume 5132, page 3304 of the Official Public Records of Denton County, Texas, and being further described as follows:

COMMENCING at a point in the center of Black Jack Road, at the Northwest corner of said 18.987 acre, and at the Northeast corner of that called 20.00 acres of land described as Tract 2 in deed to Eddie Leon Cranmore and Judy Rosan Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas, from which a ½ inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.86 feet for Witness;

THENCE South 01 degrees 49 minutes 16 seconds West, 661.74 feet along the West line of said 18.987 acre to the POINT OF BEGINNING.

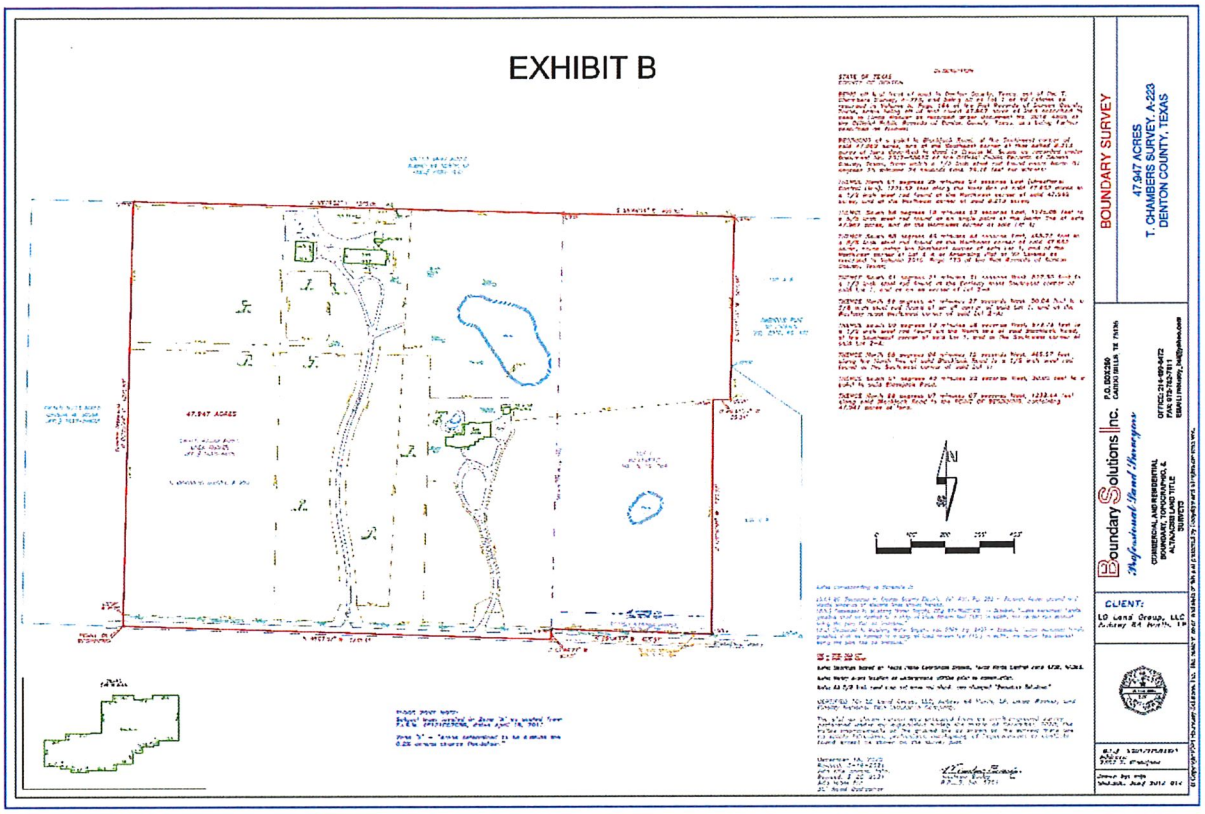
THENCE North 90 degrees 00 minutes 00 seconds East, 462.61 feet to a point on the East line of said 18.987 acres;

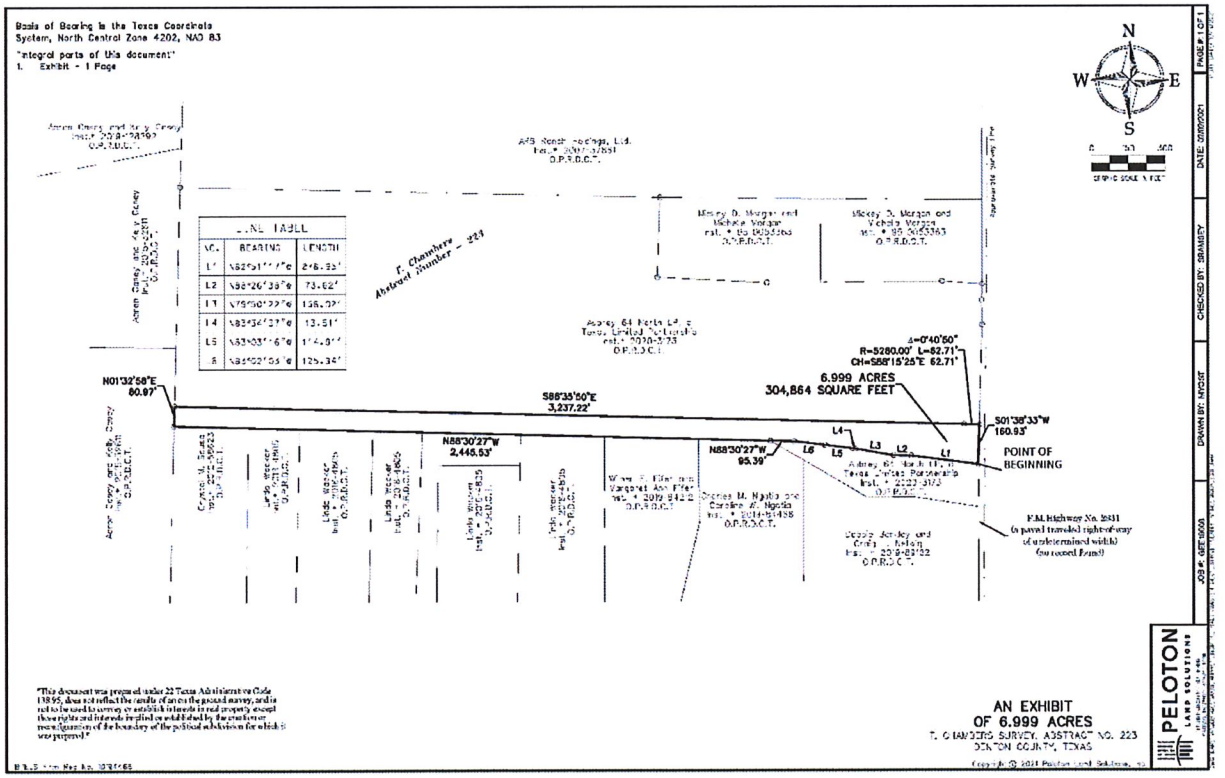
THENCE South 02 degrees 06 minutes 23 seconds West, 1214.23 feet to a fence corner post found at the southeast corner of said 18.987 acre, and at an angle point of said 25.588 acres;

THENCE South 89 degrees 32 minutes 58 seconds West, 456.69 feet a nail found in fence corner at the Southwest corner of said 18.987 acres, and at the Southeast corner of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East (Directional Control Line), 1217.62 feet along the West line of said 18.987 acre to the POINT OF BEGINNING, containing 12.821 acre of land.

NOTE: COMPANY DOES NOT REPRESENT THAT THE ABOVE ACREAGE AND/OR SQUARE FOOTAGE CALCULATIONS ARE CORRECT.


EXHIBIT B
BOUNDARY SURVEY
47.947 ACRES
T. CHAMBERS SURVEY, A-223
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
CLIENT:


Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83
"Integral parts of this document"
1. Exhibit - 1 Page
LINE TABLE
NO. BEARING LENGTH
L1 S82°51'17"E 246.93'
L2 S88°26'39"E 73.62'
L3 N75°50'22"E 136.02'
L4 S83°34'27"E 13.51'
L5 S83°03'16"E 114.87'
L6 S85°02'03"E 125.34'
T. Chambers Abstract Number - 223
N01°32'58"E 80.97'
S88°35'50"E 3,237.22'
N88°30'27"W 2,446.53'
N88°30'27"W 95.39'
Δ=0°40'50"
R=5280.00' L=62.71'
CH=S88°15'25"E 62.71'
6.999 ACRES
304,864 SQUARE FEET
S01°38'33"W 160.93'
POINT OF BEGINNING
F.M. Highway No. 2931
(a panel traveled right-of-way of undetermined width)
(no record found)
"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."
AN EXHIBIT
OF 6.999 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS
PELOTON
LAND SOLUTIONS

DESCRIPTION OF 6.999 ACRES

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY SOUTHEAST CORNER OF SAID AUBREY TRACT AND BEING IN THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH);

THENCE DEPARTING SAID WEST RIGHT-OF-WAY LINE OVER AND ACROSS SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

N 82° 51' 17" W, 278.95 FEET;

N 88° 26' 38" W, 73.62 FEET;

N 79° 50' 22" W, 156.02 FEET;

N 83° 34' 37" W, 13.51 FEET;

N 83° 03' 16" W, 114.91 FEET;

N 83° 02' 03" W, 125.94 FEET;

N 88° 30' 27" W, 95.39 FEET TO THE SOUTH LINE OF SAID AUBREY TRACT AND BEING THE MOST NORTHERLY NORTHEAST CORNER OF A TRACT OF LAND TO CHARLES NGATIA RECORDED IN INSTRUMENT NUMBER 2019-84466 OF SAID O.P.R.D.C.T;

THENCE N 88° 30' 27" W, 2445.53 FEET ALONG SAID SOUTH LINE TO THE SOUTHWEST CORNER OF SAID AUBREY TRACT;

THENCE N 01° 32' 58" E, 80.97 FEET ALONG THE WEST LINE OF SAID AUBREY TRACT;

THENCE DEPARTING THE WEST LINE OF SAID AUBREY TRACT OVER AND ACROSS THE FOLLOWING BEARINGS AND DISTANCES:

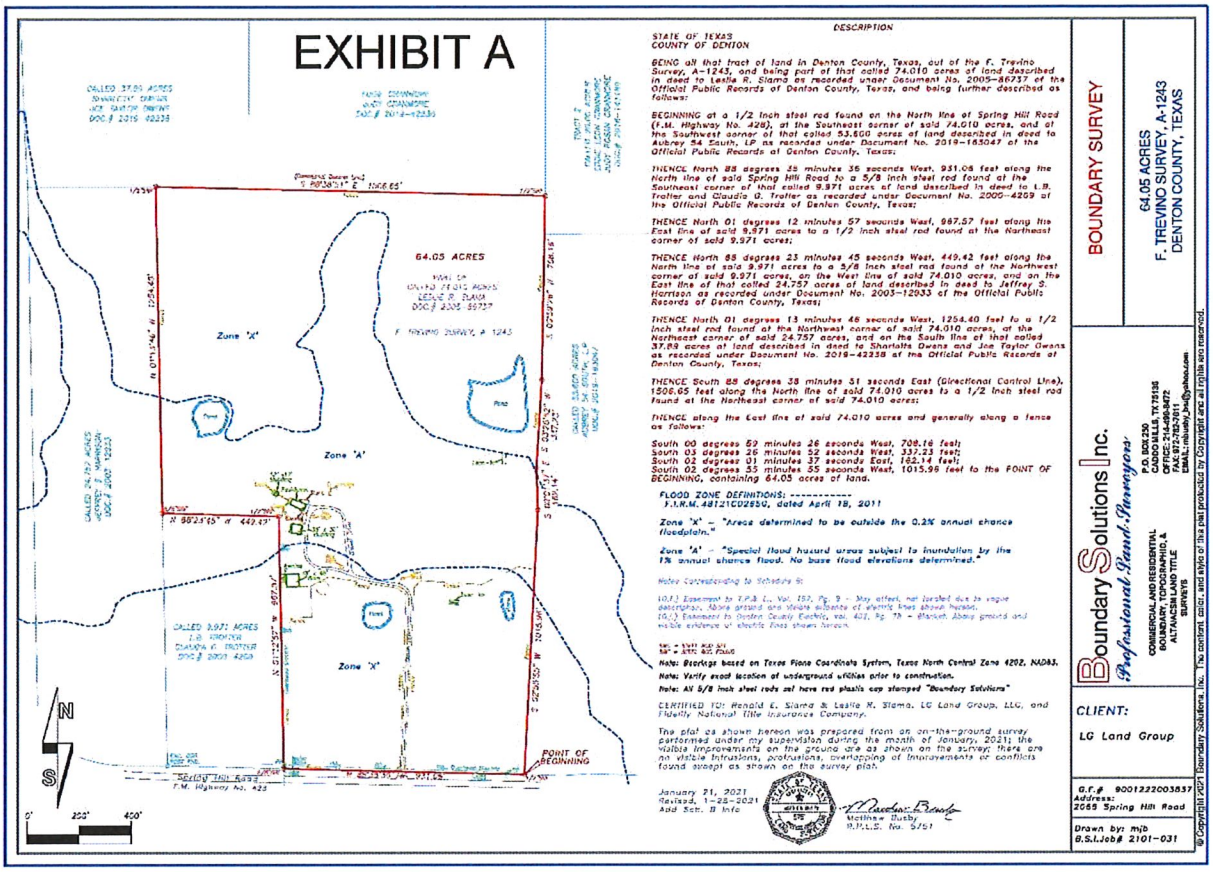
S 88° 35' 50" E, 3237.22 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT;

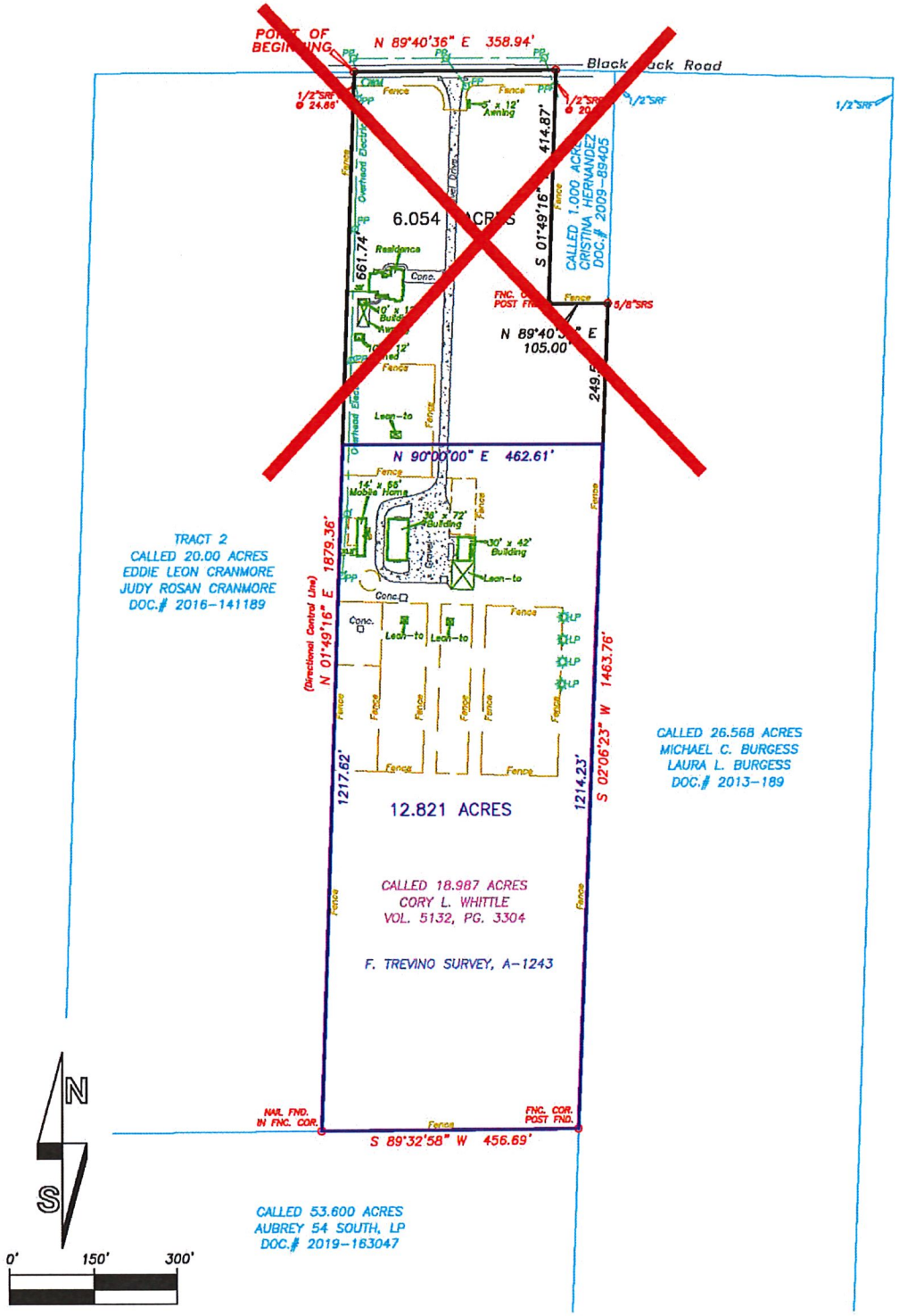
WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 62.71 FEET, THROUGH A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5280.00 FEET, AND A LONG CHORD WHICH BEARS S 88° 15' 25" E, 62.71 FEET TO THE WEST LINE OF SAID F.M. 2931;

THENCE S 01° 38' 33" W, 160.93 FEET TO THE POINT OF BEGINNING AND CONTAINING 304,864 SQUARE FEET OR 6.999 ACRES MORE OR LESS.

"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

Exhibit "B" to Consent Resolution
Property Description


EXHIBIT A
64.05 ACRES
F. TREVINO SURVEY, A-1243
Zone 'A'
Zone 'X'
POINT OF BEGINNING
DESCRIPTION
STATE OF TEXAS
COUNTY OF DENTON
BEING all that tract of land in Denton County, Texas, out of the F. Trevino Survey, A-1243, and being part of that called 74.010 acres of land described in deed to Leslie R. Slama as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, and being further described as follows:
BEGINNING at a 1/2 inch steel rod found on the North line of Spring Hill Road (F.M. Highway No. 428), at the Southeast corner of said 74.010 acres, and at the Southwest corner of that called 53.600 acres of land described in deed to Aubrey 84 South, LP as recorded under Document No. 2019-163047 of the Official Public Records of Denton County, Texas;
THENCE North 88 degrees 25 minutes 35 seconds West, 931.08 feet along the North line of said Spring Hill Road to a 5/8 inch steel rod found at the Southeast corner of that called 9.971 acres of land described in deed to L.B. Trotter and Claudia G. Trotter as recorded under Document No. 2005-4259 of the Official Public Records of Denton County, Texas;
THENCE North 01 degrees 12 minutes 57 seconds West, 987.57 feet along the East line of said 9.971 acres to a 1/2 inch steel rod found at the Northeast corner of said 9.971 acres;
THENCE North 88 degrees 23 minutes 45 seconds West, 449.42 feet along the North line of said 9.971 acres to a 5/8 inch steel rod found at the Northwest corner of said 9.971 acres, on the West line of said 74.010 acres, and on the East line of that called 24.757 acres of land described in deed to Jeffrey S. Harrison as recorded under Document No. 2003-12933 of the Official Public Records of Denton County, Texas;
THENCE North 01 degrees 13 minutes 46 seconds West, 1254.40 feet to a 1/2 inch steel rod found at the Northwest corner of said 74.010 acres, at the Northeast corner of said 24.757 acres, and on the South line of that called 37.88 acres of land described in deed to Charlotte Owens and Joe Taylor Owens as recorded under Document No. 2019-42358 of the Official Public Records of Denton County, Texas;
THENCE South 88 degrees 38 minutes 51 seconds East (Directional Control Line), 1506.65 feet along the North line of said 74.010 acres to a 1/2 inch steel rod found at the Northeast corner of said 74.010 acres;
THENCE along the East line of said 74.010 acres and generally along a fence as follows:
South 00 degrees 59 minutes 26 seconds West, 708.16 feet;
South 03 degrees 26 minutes 52 seconds West, 337.23 feet;
South 02 degrees 01 minutes 37 seconds East, 182.14 feet;
South 02 degrees 35 minutes 55 seconds West, 1015.98 feet to the POINT OF BEGINNING, containing 64.05 acres of land.
FLOOD ZONE DEFINITIONS:
F.I.R.M. 48121C0225G, dated April 18, 2011
Zone 'X' – "Areas determined to be outside the 0.2% annual chance floodplain."
Zone 'A' – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."
Notes Corresponding to Schedule B:
10.1) Easement to T.P.S. (L. Vol. 157, Pg. 9 - May affect, not located due to vague description, fence ground and visible evidence of electric lines shown hereon.
10.3) Easement to Denton County Electric, Vol. 421, Pg. 79 - Blanket. Above ground and visible evidence of electric lines shown hereon.
Note: Bearings based on Texas State Coordinate System, Texas North Central Zone 4202, NAD83.
Note: Verify exact location of underground utilities prior to construction.
Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"
CERTIFIED TO: Ronald E. Slama & Leslie R. Slama, LG Land Group, LLC, and Fidelity National Title Insurance Company.
The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of January, 2021; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.
January 21, 2021
Revised, 1-25-2021
Add Sch. B Info
Matthew Busby
R.P.L.S. No. 5751
BOUNDARY SURVEY
64.05 ACRES
F. TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 220
AUBREY, TEXAS 76227
OFFICE: 940.440.4272
FAX: 972-782-7611
EMAIL: mbusby_bs@yahoo.com
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, &
ALTA/ACSM LAND TITLE
SURVEYS
CLIENT:
LG Land Group
G.F.# 9001222003837
Address:
2065 Spring Hill Road
Drawn by: mjb
B.S.I.Job# 2101-031
© Copyright 2021 Boundary Solutions, Inc. The content, color, and style of this plat produced by Copyright are all rights reserved.


POINT OF BEGINNING
N 89°40'36" E 358.94'
Black Jack Road
1/2"SRF
1/2"SRF
1/2"SRF
414.87'
S 01°49'16" E
CALLED 1.000 ACRES
CRISTINA HERNANDEZ
DOC.# 2009-89405
6.054 ACRES
661.74'
Residence
Conc.
Fence
Overhead Electric
5/8"SRS
N 89°40'36" E
105.00'
249.5'
N 90°00'00" E 462.61'
14' x 56' Mobile Home
30' x 72' Building
30' x 42' Building
Lean-to
Conc.
Gravel
TRACT 2
CALLED 20.00 ACRES
EDDIE LEON CRANMORE
JUDY ROSAN CRANMORE
DOC.# 2016-141189
(Directional Control Line)
N 01°49'16" E 1879.36'
1217.62'
1214.23'
S 02°06'23" W 1463.76'
12.821 ACRES
CALLED 26.568 ACRES
MICHAEL C. BURGESS
LAURA L. BURGESS
DOC.# 2013-189
CALLED 18.987 ACRES
CORY L. WHITTLE
VOL. 5132, PG. 3304
F. TREVINO SURVEY, A-1243
NAIL FND. IN FNC. COR.
FNC. COR. POST FND.
S 89°32'58" W 456.69'
CALLED 53.600 ACRES
AUBREY 54 SOUTH, LP
DOC.# 2019-163047
N
S
0'
150'
300'

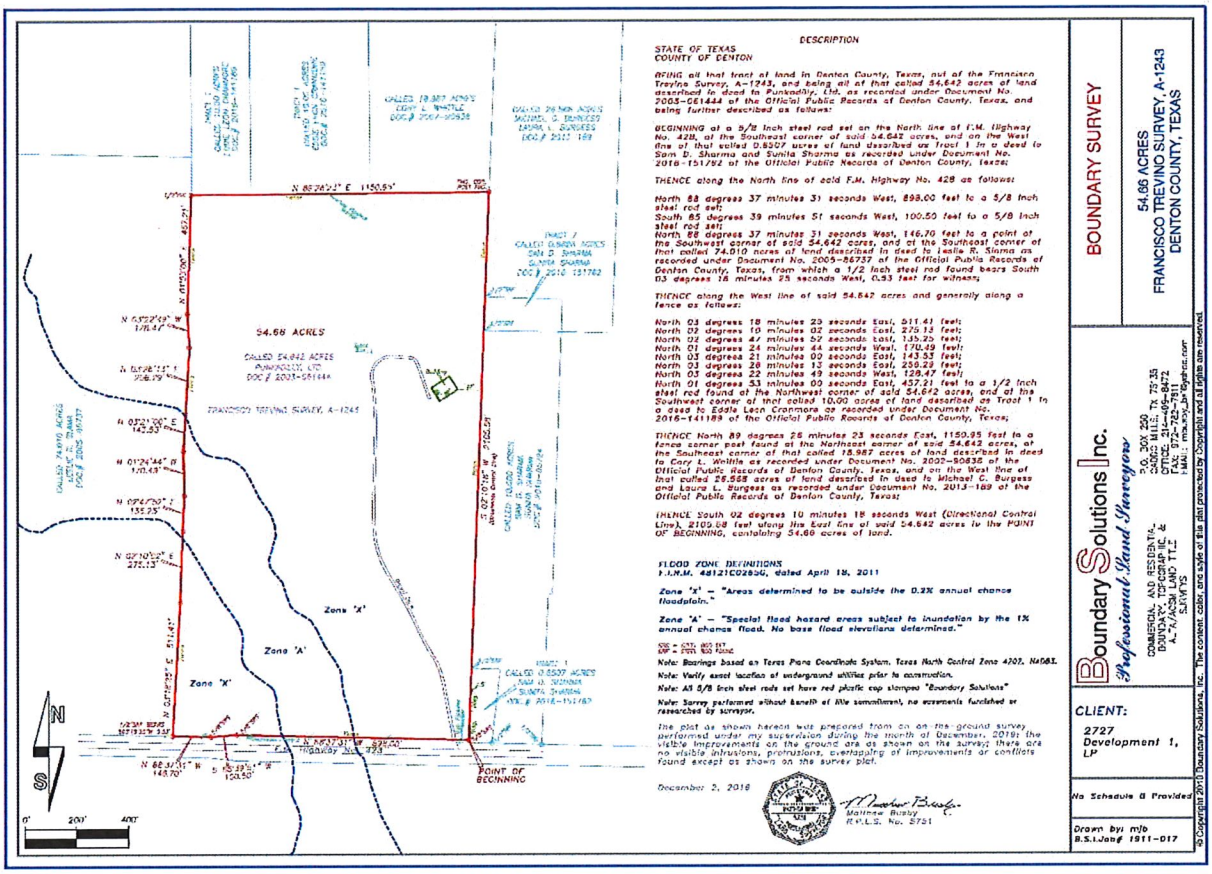

54.66 ACRES
CALLED 54.642 ACRES
PUNKADILLY, LTD.
DOC.# 2007-95144R
FRANCISCO TREVINO SURVEY, A-1243
Zone 'X'
Zone 'X'
Zone 'X'
N 88°26'23" E 1150.95'
POINT OF BEGINNING
FM Highway No. 428
0'
200'
400'
DESCRIPTION
STATE OF TEXAS
COUNTY OF DENTON
BEING all that tract of land in Denton County, Texas, out of the Francisco Trevino Survey, A-1243, and being all of that called 54.642 acres of land described in deed to Punkadilly, Ltd. as recorded under Document No. 2007-CE1444 of the Official Public Records of Denton County, Texas, and being further described as follows:
BEGINNING at a 5/8 inch steel rod set on the North line of F.M. Highway No. 428, at the Southeast corner of said 54.642 acres, and on the West line of that called 0.8507 acres of land described as Tract 1 in a deed to Sam D. Sharma and Sunita Sharma as recorded under Document No. 2016-151782 of the Official Public Records of Denton County, Texas;
THENCE along the North line of said F.M. Highway No. 428 as follows:
North 88 degrees 37 minutes 31 seconds West, 898.00 feet to a 5/8 inch steel rod set;
South 85 degrees 39 minutes 51 seconds West, 100.50 feet to a 5/8 inch steel rod set;
North 88 degrees 37 minutes 31 seconds West, 146.70 feet to a point at the Southwest corner of said 54.642 acres, and at the Southeast corner of that called 74.010 acres of land described in deed to Leslie R. Sharma as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, from which a 1/2 inch steel rod found bears South 03 degrees 16 minutes 25 seconds West, 0.53 feet for witness;
THENCE along the West line of said 54.642 acres and generally along a fence as follows:
North 03 degrees 18 minutes 25 seconds East, 511.41 feet;
North 02 degrees 10 minutes 02 seconds East, 275.15 feet;
North 02 degrees 47 minutes 52 seconds East, 185.25 feet;
North 01 degrees 24 minutes 44 seconds West, 170.49 feet;
North 03 degrees 21 minutes 00 seconds East, 143.53 feet;
North 03 degrees 28 minutes 13 seconds East, 259.29 feet;
North 03 degrees 22 minutes 49 seconds West, 128.47 feet;
North 01 degrees 53 minutes 00 seconds East, 457.21 feet to a 1/2 inch steel rod found at the Northwest corner of said 54.642 acres, and at the Southwest corner of that called 10.00 acres of land described as Tract 1 in a deed to Eddie Lee Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas;
THENCE North 89 degrees 28 minutes 23 seconds East, 1150.95 feet to a fence corner post found at the Northeast corner of said 54.642 acres, at the Southeast corner of that called 18.987 acres of land described in deed to Cary L. Wrinkle as recorded under Document No. 2007-80838 of the Official Public Records of Denton County, Texas, and on the West line of that called 25.568 acres of land described in deed to Michael C. Burgess and Laura L. Burgess as recorded under Document No. 2013-189 of the Official Public Records of Denton County, Texas;
THENCE South 02 degrees 10 minutes 18 seconds West (Directional Control Line), 2109.08 feet along the East line of said 54.642 acres to the POINT OF BEGINNING, containing 54.66 acres of land.
FLOOD ZONE DEFINITIONS
F.I.R.M. 48121C0280G, dated April 18, 2011
Zone 'X' – "Areas determined to be outside the 0.2% annual chance floodplain."
Zone 'A' – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."
Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.
Note: Verify exact location of underground utilities prior to construction.
Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"
Note: Survey performed without benefit of title commitment, no easements furnished or researched by surveyor.
The plot as shown hereon was prepared from an on the ground survey performed under my supervision during the month of December, 2018; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.
December 2, 2018
Matthew Bisby
R.P.L.S. No. 5751
BOUNDARY SURVEY
54.66 ACRES
FRANCISCO TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
Professional Land Surveyors
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, &
A.L.T.A./ACSM LAND TITLE
SURVEYS
P.O. BOX 250
ARGYLE, TX 76226
OFFICE: 214-906-8472
FAX: 972-752-7811
EMAIL: mbisby@bsurveyors.com
CLIENT:
2727 Development 1, LP
No Schedule B Provided
Drawn by: mlb
B.S.I.Job# 1911-017
© Copyright 2019 Boundary Solutions, Inc. The content, color, and style of this plat protected by Copyright and all rights are reserved.

EXHIBIT "A"
Legal Description

Being all the tract of land in Denton County, Texas, out of the I. Trevino Survey, A-1243, and being part of that called 18.987 acres of land described in deed to Cory L. Wittle as recorded in Volume 5132, page 3304 of the Official Public Records of Denton County, Texas, and being further described as follows:

COMMENCING at a point in the center of Black Jack Road, at the Northwest corner of said 18.987 acre, and at the Northeast corner of that called 20.00 acres of land described as Tract 2 in deed to Eddie Leon Cranmore and Judy Rosan Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas, from which a ½ inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.85 feet for Witness;

THENCE South 01 degrees 49 minutes 16 seconds West, 661.74 feet along the West line of said 18.987 acre to the POINT OF BEGINNING.

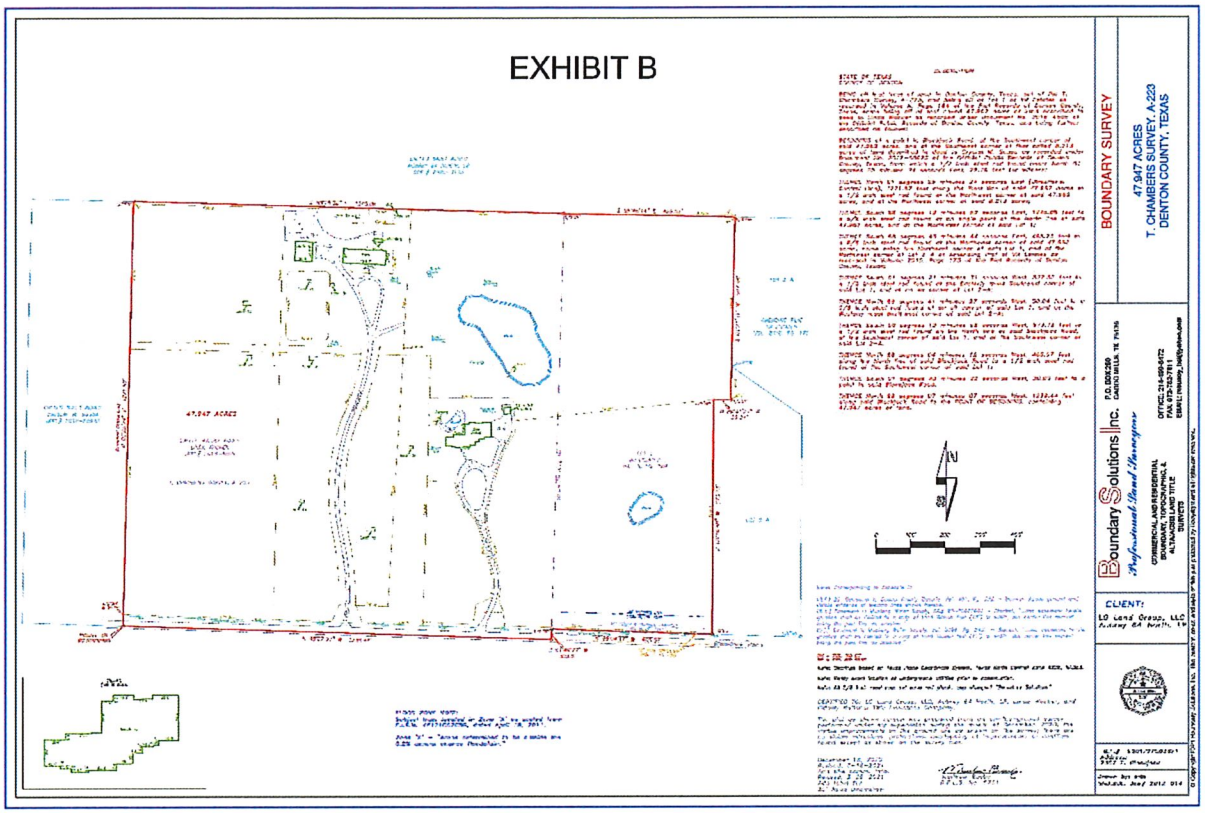
THENCE North 90 degrees 00 minutes 00 seconds East, 462.61 feet to a point on the East line of said 18.987 acres;

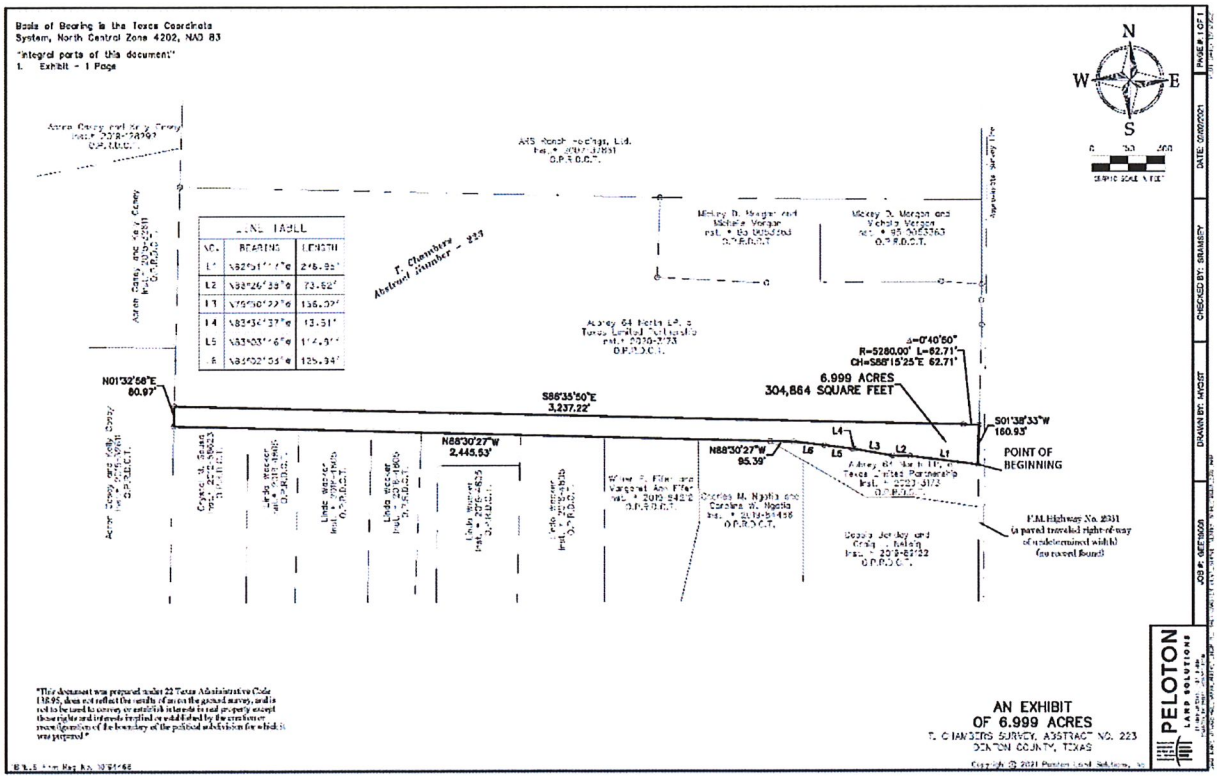
THENCE South 02 degrees 06 minutes 23 seconds West, 1214.23 feet to a fence corner post found at the southeast corner of said 18.987 acre, and at an angle point of said 26.588 acres;

THENCE South 89 degrees 32 minutes 58 seconds West, 456.69 feet a nail found in fence corner at the Southwest corner of said 18.987 acres, and at the Southeast corner of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East (Directional Control Line), 1217.62 feet along the West line of said 18.987 acre to the POINT OF BEGINNING, containing 12.821 acre of land.

NOTE: COMPANY DOES NOT REPRESENT THAT THE ABOVE ACREAGE AND/OR SQUARE FOOTAGE CALCULATIONS ARE CORRECT.


EXHIBIT B
BOUNDARY SURVEY
47.947 ACRES
T. CHAMBERS SURVEY, A-223
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
Professional Land Surveyors
CLIENT:
LO Land Group, LLC
Survey 64 North, LP


Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83
"Integral parts of this document"
1. Exhibit - 1 Page
LINE TABLE
NO. BEARING LENGTH
L1 S82°51'17"E 246.93'
L2 S38°26'39"E 73.62'
L3 S75°50'22"E 136.09'
L4 S83°34'37"E 13.51'
L5 S83°03'16"E 174.91'
L6 S85°02'03"E 125.94'
T. Chambers Abstract Number - 223
Survey 64 North LP, a Texas Limited Partnership
Inst. # 2020-3773
O.P.R.D.C.T.
Mikey D. Morgan and Debbie Morgan
Vol. # 95-00025
O.P.R.D.C.T.
Mikey D. Morgan and Debbie Morgan
Vol. # 95-00025363
O.P.R.D.C.T.
A45 North Holdings, Ltd.
Inst. # 2017-31691
O.P.R.D.C.T.
Aztec Corey and Kelly Corey
Inst. # 2018-104169
O.P.R.D.C.T.
Aztec Corey and Kelly Corey
Inst. # 2018-104169
O.P.R.D.C.T.
Aztec Corey and Kelly Corey
Inst. # 2018-104169
O.P.R.D.C.T.
Crystal M. Beard
Inst. # 2018-58023
O.P.R.D.C.T.
Linda Wacker
Inst. # 2016-1460
O.P.R.D.C.T.
Linda Wacker
Inst. # 2016-1460
O.P.R.D.C.T.
Linda Wacker
Inst. # 2016-1460
O.P.R.D.C.T.
Linda Wacker
Inst. # 2016-1460
O.P.R.D.C.T.
Linda Wacker
Inst. # 2016-1460
O.P.R.D.C.T.
Wilma T. Ellis and Vergeal Ann Ellis
Vol. # 2016-6423
O.P.R.D.C.T.
Charles M. Nguta and Caroline W. Nguta
Inst. # 2016-61456
O.P.R.D.C.T.
Gregory Jerdon and Cindy Jerdon
Inst. # 2018-62732
O.P.R.D.C.T.
Δ=0°40'50"
R=5280.00' L=62.71'
CH=S88°15'25"E 62.71'
6.999 ACRES
304,864 SQUARE FEET
N01°32'56"E
80.97'
S88°35'50"E
3,237.22'
S01°38'33"W
160.93'
N88°30'27"W
2,445.53'
N88°30'27"W
95.39'
POINT OF BEGINNING
F.M. Highway No. 2931
(a paved tracked right-of-way of undetermined width) (no record found)
"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared"
AN EXHIBIT
OF 6.999 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS
PELOTON LAND SOLUTIONS

DESCRIPTION OF 6.999 ACRES

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY SOUTHEAST CORNER OF SAID AUBREY TRACT AND BEING IN THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH);

THENCE DEPARTING SAID WEST RIGHT-OF-WAY LINE OVER AND ACROSS SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

N 82° 51' 17" W, 278.95 FEET;

N 88° 26' 38" W, 73.62 FEET;

N 79° 50' 22" W, 156.02 FEET;

N 83° 34' 37" W, 13.51 FEET;

N 83° 03' 16" W, 114.91 FEET;

N 83° 02' 03" W, 125.94 FEET;

N 88° 30' 27" W, 95.39 FEET TO THE SOUTH LINE OF SAID AUBREY TRACT AND BEING THE MOST NORTHERLY NORTHEAST CORNER OF A TRACT OF LAND TO CHARLES NGATIA RECORDED IN INSTRUMENT NUMBER 2019-84466 OF SAID O.P.R.D.C.T;

THENCE N 88° 30' 27" W, 2445.53 FEET ALONG SAID SOUTH LINE TO THE SOUTHWEST CORNER OF SAID AUBREY TRACT;

THENCE N 01° 32' 58" E, 80.97 FEET ALONG THE WEST LINE OF SAID AUBREY TRACT;

THENCE DEPARTING THE WEST LINE OF SAID AUBREY TRACT OVER AND ACROSS THE FOLLOWING BEARINGS AND DISTANCES:

S 88° 35' 50" E, 3237.22 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT;

WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 62.71 FEET, THROUGH A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5280.00 FEET, AND A LONG CHORD WHICH BEARS S 88° 15' 25" E, 62.71 FEET TO THE WEST LINE OF SAID F.M. 2931;

THENCE S 01° 38' 33" W, 160.93 FEET TO THE POINT OF BEGINNING AND CONTAINING 304,864 SQUARE FEET OR 6.999 ACRES MORE OR LESS.

"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

EXHIBIT E

CONCEPT PLAN

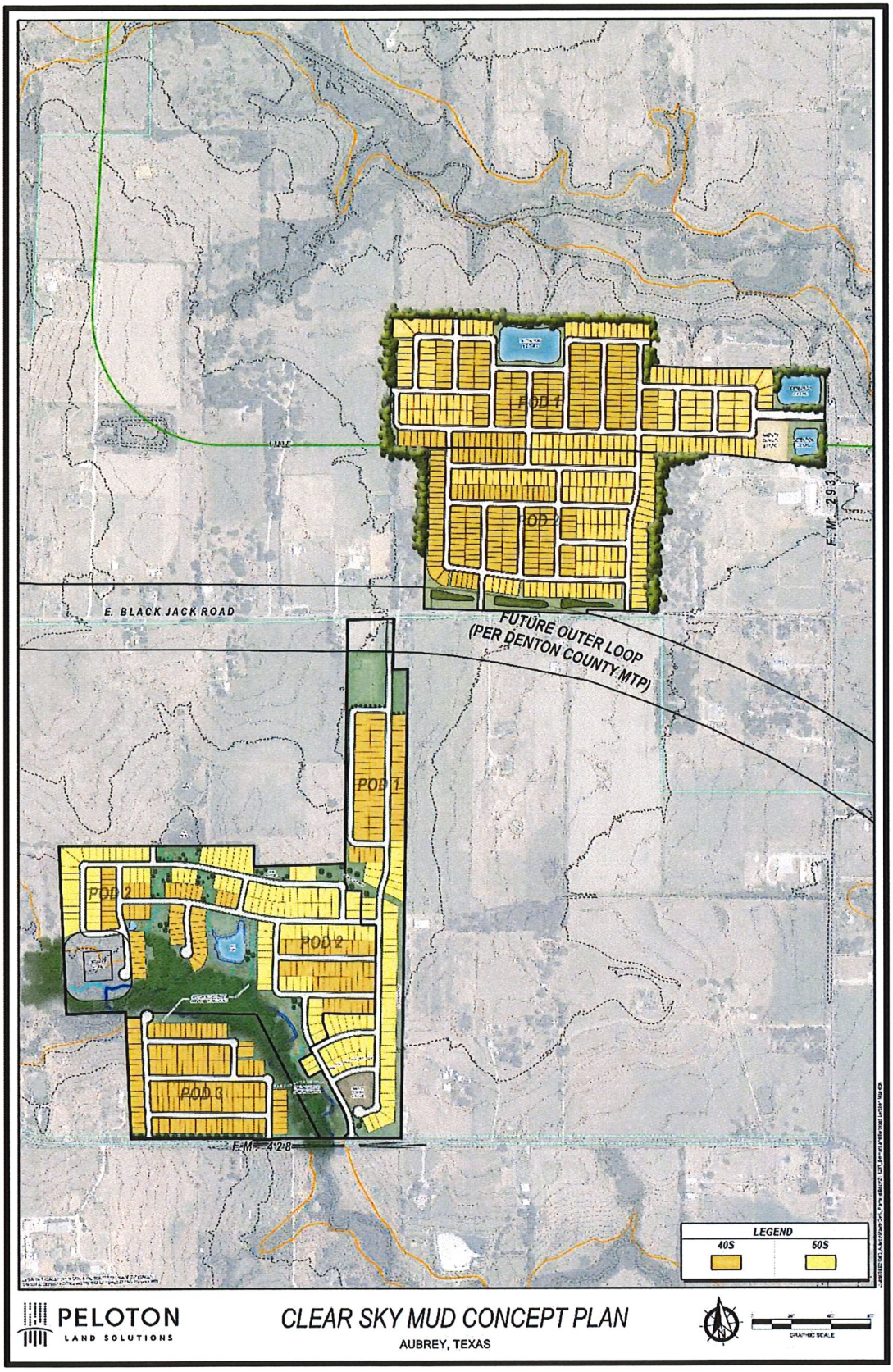

POD 1
POD 2
F.M. 2931
E. BLACK JACK ROAD
FUTURE OUTER LOOP
(PER DENTON COUNTY MTP)
POD 1
POD 2
POD 2
POD 3
F.M. 428
LEGEND
40S
60S
PELOTON
LAND SOLUTIONS
CLEAR SKY MUD CONCEPT PLAN
AUBREY, TEXAS

EXHIBIT F
SPECIAL REGULATIONS

1. Development Standards

1.1 Purpose is to provide suitable areas for the development of single-family residential structures.

1.2 Lot Standards for 40' wide lots Fee-Simple, Detached Single-Family Homes):
- a) Minimum Lot width of 40'
- b) Minimum Lot Depth of 110'
- c) Front Yard Setback of 20'
- d) Rear Yard Setback of 10'
- e) Side Yard Setback of 5'

1.3 Lot Standards for 50' wide lots Fee-Simple, Detached Single-Family Homes):
- a) Minimum Lot width of 50'
- b) Minimum Lot Depth of 110'
- c) Front Yard Setback of 20'
- d) Rear Yard Setback of 10'
- e) Side Yard Setback of 5'

1.4 Maximum Lot Coverage:
(a) 40' Wide Lots 55%
b) 50' Wide Lots: 60%

1.5 Minimum Floor Area per Housing Type:a) 40' Wide Lots: 1,200 sf
b) 50' Wide Lots 1,400 sf

1.6 Maximum Structure Height: 2 stories or a maximum of 45 feet as measured to the midpoint of the pitched roof. Architectural projections above the 45 foot level may be allowed however these may not exceed 60 feet in height.

1.7 Minimum parking requirements: 2 parking spaces per lot to be provided as off-street parking.

1.8 Exterior Construction: 75% percent masonry veneers on all exterior façades of buildings, shall be provided. This requirement may be met using a combination of stucco, stone, brick, split face block, cultured stone, fiber cement siding, or other city approved material (area containing glass shall be included in the 75 percent calculation, except that the front façade of each building shall only use brick and or stone to meet the 75% requirement).

1.9 Architectural Features

2.10.1 Primary Building Structures and Accessory Structures
- a) Building Orientation. Where possible, buildings shall be oriented along public streets so as to create a pleasant walking environment along public sidewalks
- b) Buildings should incorporate a front yard transitional space between the adjacent street(s) and the building(s). This may include a landscape front yard and/or landscape entry court.
- c) Primary entrance should be architecturally significant and separate in height from the remainder of the property.

d) A 2-car garage shall be provided for each unit.

i. 40' Wide Lots: Garages shall be attached or detached. Detached garages shall only be incorporated into a courtyard type model. Attached garages shall be situated so that they are offset from another architectural component (living area or porch). Offsets shall be no more than 5' in front of another architectural component. All garages shall include at least two architectural design elements including, but not limited to: decorative overhang, banding or molding, detailed door design, decorative hardware, double doors, and windows.

ii. 50' Wide Lots: Garages shall be attached and be situated so that they are offset from another architectural component (living area or porch). Offset shall be no more than 5' in front of another architectural component. Garages shall include at least two architectural design elements including, but not limitedto: decorative overhang, banding or molding, detailed door design, decorativehardware, double doors, and windows.

2.10.2 Required Architectural Features

a) Gabled roofs or hipped roofs are allowed. Gabled roofs or hipped roofs shall have a minimum pitch of 6:12 excluding porches and patios.

b) Roof material shall use architectural grade asphalt shingles, or better, such as tile,state or standing seam metal roof.

c) Shutters shall be the same height as the associated window. All shutters shall be louvered, paneled, or constructed of boards as appropriate to the style of the building. Shutters do not need to be operable.

d) Chimneys shall be sheathed in brick, stucco, or cementitious siding.

e) Wooden Posts exposed on the street wall shall be no less than 6 inch by 6 inch in cross section and limited to front and rear porches only.

f) For columns at the front façade, column bases shall not protrude beyond the bottom edge of the porch, stoop, or patio flooring.

1.10 Landscape/Hardscape:

2.11.1 Landscaping: Each lot shall provide one (1) 3" caliper tree and 1 large ornamental (50gallon).

2.11.2 Open Space:

a) All open space lots shall be owned and maintained by the Homeowners Associationunless otherwise noted on a city approved plat.

2.11.3 Entry Features shall be allowed to be constructed in HOA owned and maintainedmedians within the platted subdivision.

2.11.4 The developer shall be allowed, but not required, to include concrete trails, community clubhouse, and playgrounds as deemed suitable for the development.

Case Report –Final Plat Application – Saratoga Phase 2A
Planning and Zoning Commission –May 9, 2024
City Council – May 23, 2024

To: Mayor, City Council, Planning and Zoning Commission

From: Helen-Eve Beadle, AICP, HE Planning+Design, LLC

Request: Consider and make a recommendation to City Council regarding a Final Plat for Saratoga Phase 1A containing 162 residential lots and one (1) open space lots in 25.729 acres of land out of the T. Chambers Survey, Abstract No. 223, within the Extraterritorial Jurisdiction of the City of Aubrey, Denton County, Texas (*HMH Saratoga Land LLC*)

Owner:	550 Belmont Development, LP
Engineer:	Westwood Professional Services, Inc. (Erik Hinklin, P.E.)
Application Date:	April 10, 2024
Location:	The property is generally located north of Blackjack Road and west of FM 2931
Zoning:	N/A, the property is in the ETJ (Clear Sky MUD)
Future Land Use Plan:	Rural Residential and Agricultural
Current Use:	Undeveloped
Analysis:	On September 22, 2022 the Aubrey City Council approved a Preliminary Plat for 122.234 acres, 554 single family residential lots, and open space lots. The ±122 acres are being final platted in phases. Phase 1A encompasses 162 residential lots and one (1) open space lot. The property is within ETJ Development Agreement for Clear Sky MUD and the plat is generally consistent with the approved agreement standards. Utilities: Water and sanitary sewer service will be provided by Mustang Special Utility District. CoServ and AT&T are providers for this property. Engineer Review: The City Engineer has reviewed the civil construction plans and the latest review letter is included in this report.
Recommendation:	The Final Plat for Saratoga Phase 1 is recommended for approval subject to the following conditions: 1. Final engineering approval of civil plans is needed by the City Engineer (review letter included in report); 2. Drainage and access easements identified but not complete with

recording information are to be added to the Final Plat prior to filing;
3. HOA documents shall be submitted and approved by the City Attorney and filed in conjunction with the Final Plat;
4. Landscape, Screening, retaining walls, and irrigation plans shall be submitted and approved prior to referenced work commencing;
5. Any existing structures on the property shall be removed prior to site development.

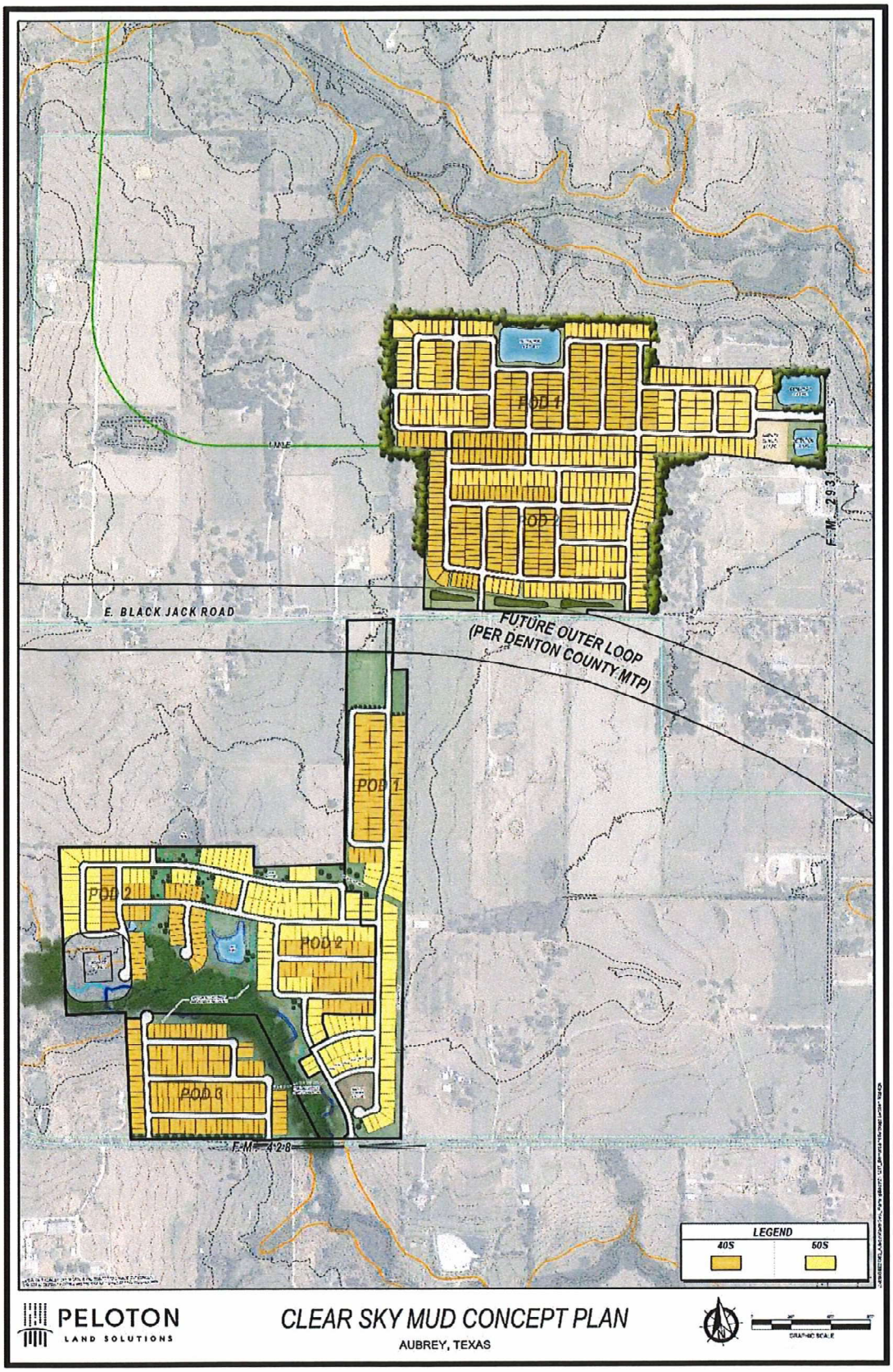
Other requirements for filing: Signed Final Plat, tax certificate for filing, completion of improvements, and filing fees.

The Planning and Zoning Commission may recommend to the City Council

1. Approve the Final Plat;
2. Approve the Final Plat with conditions; or
3. Deny the Final Plat.

Attachments:

1. Clear Sky MUD Saratoga Belmont Concept Plan
2. Engineer's Review Letter
3. Saratoga Phase 1A Final Plat and Civil Engineering Plans
4. ETJ Development Agreement


POD 1
POD 2
POD 1
POD 2
POD 3
E. BLACK JACK ROAD
FUTURE OUTER LOOP
(PER DENTON COUNTY MTP)
F.M. 2931
F.M. 428
LEGEND
40S
50S
PELOTON
LAND SOLUTIONS
CLEAR SKY MUD CONCEPT PLAN
AUBREY, TEXAS

Kimley»Horn

April 17, 2024

Mrs. Leanne Wilson
City of Aubrey, Texas
107 South Main Street
Aubrey, Texas 76227

RE: ***City of Aubrey Development Review Services – Saratoga-Phase 1A***
Final Plat, Construction Plans for Infrastructure-4th Review
KHA No. 061296302

Dear Mrs. Wilson,

We have completed our review of the above referenced project and the following comments are based upon the City's requirements and standard engineering practices.

Construction Plans

1. Previous Comment: Phase 1 will need to be approved prior to Phase 1A since Phase 1 is providing access to the site.
2. Please make sure all separate instruments are executed and provided to the City.
3. Previous Comment: Provide a copy of the geotechnical report and recommendations for the pavement design of the roadways for a 30-year design life and show the assumptions for truck traffic and axial loadings. Please submit this with this phase as well so the submittal is a complete submittal. *The geotechnical study was provided, however, the report did not appear to provide a pavement design. Please clarify. The typical section references a geotechnical report providing a recommendation.*
4. Previous Comment: The lift station will need to be approved prior to this Phase being approved.
5. Previous Comment: The detention pond will need to be approved and installed prior to this phase.
6. Previous Comment: Directional ramps shall be installed at all the crosswalks, unless documentation from the City is provided that directional ramps are not needed. *The City said for future developments, directional ramps shall be provided. For this phase, the ramps as shown are acceptable.*

Traffic Impact Analysis

1. See comments on previous review. Lee Engineering is performing the review of the TIA.

Please provide a response letter with the next submittal. Additional comments will be provided on the next submittal (due to the number of current comments and anticipated responses). Should you have any questions or comments, please do not hesitate to contact me at misty.christian@kimley-horn.com

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.
State of Texas Registered Firm #928

Misty Christian, P.E., CFM
MDC:mdc
K:\FTW_Roadway_Marketing\Aubrey\Saratoga\Phase 1A\third submittal\saratogo_phase1A_3.docx

SECOND SUBMITTAL

PLANS FOR THE CONSTRUCTION OF

WATER, SANITARY SEWER, STORM DRAIN, & PAVING TO SERVE

SARATOGA PHASE 1A

CITY OF AUBREY ETJ, CLEARSKY MUD 01, DENTON COUNTY, TEXAS

CERTIFICATE OF APPROVAL

Approved this _____ day of _____, _____ by the City Council of the City of Aubrey, Texas.

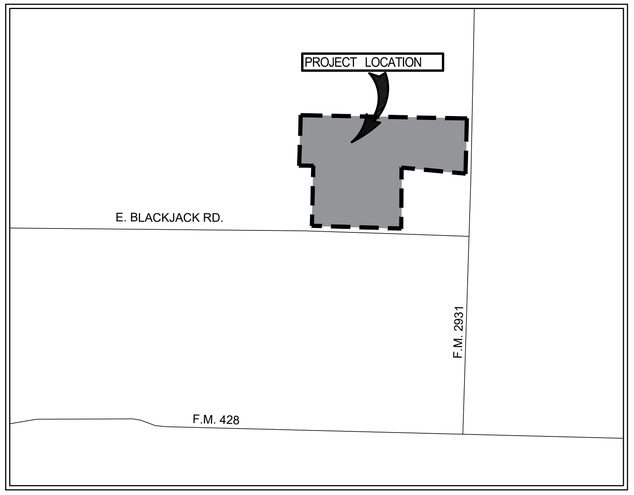
_____
Mayor

_____
City Secretary or City Manager

APPROVAL:

_____
MUSTANG S.U.D. DATE

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS, MUSTANG SPECIAL UTILITY DISTRICT MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.



LOCATION MAP

SCALE : N.T.S.

N

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

ERIK H. HINKLIN	100268	4/30/2024
TYPE OR PRINT NAME	PE #	DATE

SHEET INDEX

Sheet Number	Sheet Title
01	COVER SHEET
02	PLAT
03	PLAT
04	GENERAL NOTES
05	PHASING PLAN
06	OVERALL ENGINEERING PLAN
07	OVERALL ENGINEERING PLAN
08	OVERALL ENGINEERING PLAN
09	EROSION CONTROL PLAN
10	EROSION CONTROL PLAN
11	GRADING PLAN
12	GRADING PLAN
13	GRADING PLAN
14	GRADING DETAILS
15	PAVING PLAN & PROFILE - WHIRLAWAY LANE
16	PAVING PLAN & PROFILE - KENTUCKY DERBY STREET
17	PAVING PLAN & PROFILE - SARATOGA STREET
18	PAVING PLAN & PROFILE - SEATTLE SLEW STREET
19	PAVING PLAN & PROFILE - SAM HOUSTON STREET
20	PAVING PLAN & PROFILE - PIMLICO LANE
21	PAVING PLAN & PROFILE - SUN BRIAR LANE
22	PAVING PLAN & PROFILE - SEA BISCUIT STREET
23	EXISTING DRAINAGE AREA
24	ULTIMATE DRAINAGE AREA MAP
25	HYDRAULIC CALCULATIONS
26	STORM DRAIN PLAN & PROFILE - SD-A5, A6, A11 & A12
27	STORM DRAIN PLAN & PROFILE - SD-G & G1
28	SEWER PLAN
29	SEWER PLAN & PROFILE - SS-D
30	SEWER PLAN & PROFILE - SS-E & SS-F
31	SEWER PLAN & PROFILE - SS-G
32	SEWER PLAN & PROFILE - SS-H
33	SEWER PLAN & PROFILE - SS-J
34	SEWER PLAN & PROFILE - SS-K
35	WATER PLAN
36	STREET LIGHT & SIGNAGE PLAN
37	EROSION CONTROL DETAILS
38	STORM DETAILS
39	STORM DETAILS
40	PAVING DETAILS
41	PAVING DETAILS
42	PAVING DETAILS
43	UTILITY DETAILS
44	UTILITY DETAILS
45	UTILITY DETAILS
46	UTILITY DETAILS
47	UTILITY DETAILS
48	STORM DETAILS
49	STORM DETAILS

OWNER/DEVELOPER
550 BEAZER HOMES TEXAS
CONTACT: MARTHA CREIGHTON
MARTHA.CREIGHTON@BEAZER.COM
1501 LYNDON B JOHNSON FWY #300
FARMERS BRANCH, TX 75234
972-250-3821

Westwood

Phone (469) 213-1800 1110 Frisco Parkway, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75093
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

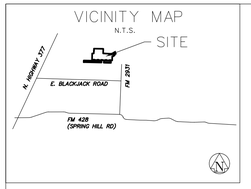
APRIL 2024

PLS PROJECT #: GEE21003
CITY PROJECT #:

SARATOGA PHASE 1A

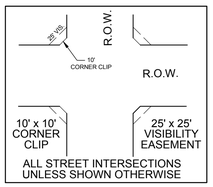
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Last Saved at: 4/30/2024 3:53 PM
Plot Date/Time: 4/30/2024 3:54 PM

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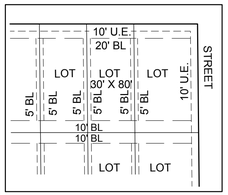


LEGEND

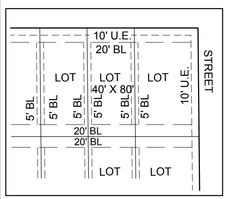
B.L. BUILDING LINE
U.E. UTILITY EASEMENT
IRF IRON ROD FOUND
IRS 1/2" IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET
STREET NAME CHANGE
C.M. CONTROLLING MONUMENT
O.P.R.D.C.T. OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS
P.R.D.C.T. PLAT RECORDS DENTON COUNTY, TEXAS
UTILITY LINE — — — — — — — — — —
BUILDING LINE — — — — — — — —



10'x10' CORNER CLIP & 25'x25' VISIBILITY ACCESS EASEMENT AT STREET INTERSECTIONS (TYP.) N.T.S.



PD-SF-4 BUILDING SETBACKS (TYP.) N.T.S.



PD-SF-5 BUILDING SETBACKS (TYP.) N.T.S.

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
Block A, Lot 1	7251	0.17
Block A, Lot 1X	7888	0.18
Block A, Lot 2	6596	0.15
Block A, Lot 3	6525	0.15
Block A, Lot 4	6454	0.15
Block A, Lot 5	6383	0.15
Block A, Lot 6	6312	0.14
Block A, Lot 7	6241	0.14
Block A, Lot 8	6170	0.14
Block A, Lot 9	6099	0.14
Block A, Lot 10	6029	0.14
Block A, Lot 11	6050	0.14
Block A, Lot 12	6124	0.14
Block A, Lot 13	6197	0.14
Block A, Lot 14	6271	0.14
Block A, Lot 15	6345	0.15
Block A, Lot 16	6417	0.15
Block A, Lot 17	10236	0.23
Block B, Lot 6	6309	0.14
Block B, Lot 7	6310	0.14
Block B, Lot 8	6310	0.14
Block B, Lot 9	6311	0.14

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
Block B, Lot 10	6311	0.14
Block B, Lot 11	6311	0.14
Block B, Lot 12	6312	0.14
Block B, Lot 13	6312	0.14
Block B, Lot 14	6313	0.14
Block B, Lot 15	6313	0.14
Block C, Lot 1	8110	0.19
Block C, Lot 2	6960	0.16
Block C, Lot 3	6960	0.16
Block C, Lot 4	6960	0.16
Block C, Lot 5	6690	0.15
Block D, Lot 1	8110	0.19
Block D, Lot 2	6960	0.16
Block D, Lot 3	6960	0.16
Block D, Lot 4	6960	0.16
Block D, Lot 5	6690	0.15
Block D, Lot 6	6691	0.15
Block D, Lot 7	6960	0.16
Block D, Lot 8	6960	0.16
Block D, Lot 9	6960	0.16
Block D, Lot 10	8110	0.19
Block E, Lot 1	5858	0.13

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
Block E, Lot 2	4806	0.11
Block E, Lot 3	4806	0.11
Block E, Lot 4	4806	0.11
Block E, Lot 5	4806	0.11
Block E, Lot 6	4806	0.11
Block E, Lot 7	5838	0.13
Block E, Lot 8	6699	0.15
Block E, Lot 9	6969	0.16
Block E, Lot 10	6969	0.16
Block E, Lot 11	6969	0.16
Block E, Lot 12	8121	0.19
Block F, Lot 1	5125	0.12
Block F, Lot 2	4830	0.11
Block F, Lot 3	4830	0.11
Block F, Lot 4	4830	0.11
Block F, Lot 5	4830	0.11
Block F, Lot 6	4830	0.11
Block F, Lot 7	4830	0.11
Block F, Lot 8	4830	0.11
Block F, Lot 9	4830	0.11
Block F, Lot 10	4830	0.11
Block F, Lot 11	4830	0.11

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
Block F, Lot 12	4830	0.11
Block F, Lot 13	4830	0.11
Block F, Lot 14	4830	0.11
Block F, Lot 15	5167	0.12
Block F, Lot 16	5167	0.12
Block F, Lot 17	4830	0.11
Block F, Lot 18	4830	0.11
Block F, Lot 19	4830	0.11
Block F, Lot 20	4830	0.11
Block F, Lot 21	4830	0.11
Block F, Lot 22	4830	0.11
Block F, Lot 23	4830	0.11
Block F, Lot 24	4830	0.11
Block F, Lot 25	4830	0.11
Block F, Lot 26	4830	0.11
Block F, Lot 27	4830	0.11
Block F, Lot 28	4830	0.11
Block F, Lot 29	4830	0.11
Block F, Lot 30	5125	0.12
Block G, Lot 1	5125	0.12
Block G, Lot 2	4830	0.11
Block G, Lot 3	4830	0.11

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
Block G, Lot 4	4830	0.11
Block G, Lot 5	4830	0.11
Block G, Lot 6	4830	0.11
Block G, Lot 7	4830	0.11
Block G, Lot 8	4830	0.11
Block G, Lot 9	4830	0.11
Block G, Lot 10	4830	0.11
Block G, Lot 11	4830	0.11
Block G, Lot 12	4830	0.11
Block G, Lot 13	4830	0.11
Block G, Lot 14	4830	0.11
Block G, Lot 15	5167	0.12
Block G, Lot 16	5167	0.12
Block G, Lot 17	4830	0.11
Block G, Lot 18	4830	0.11
Block G, Lot 19	4830	0.11
Block G, Lot 20	4830	0.11
Block G, Lot 21	4830	0.11
Block G, Lot 22	4830	0.11
Block G, Lot 23	4830	0.11
Block G, Lot 24	4830	0.11
Block G, Lot 25	4830	0.11

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
Block G, Lot 26	4830	0.11
Block G, Lot 27	4830	0.11
Block G, Lot 28	4830	0.11
Block G, Lot 29	4830	0.11
Block G, Lot 30	5125	0.12
Block H, Lot 1	5261	0.12
Block H, Lot 2	4600	0.11
Block H, Lot 3	4600	0.11
Block H, Lot 4	4600	0.11
Block H, Lot 5	4600	0.11
Block H, Lot 6	4600	0.11
Block H, Lot 7	4600	0.11
Block H, Lot 8	4600	0.11
Block H, Lot 9	4600	0.11
Block H, Lot 10	5125	0.12
Block M, Lot 4	4773	0.11
Block M, Lot 5	4773	0.11
Block M, Lot 6	4772	0.11
Block M, Lot 7	4773	0.11
Block M, Lot 8	4772	0.11
Block M, Lot 9	4772	0.11
Block M, Lot 10	4772	0.11

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
Block M, Lot 11	4772	0.11
Block M, Lot 12	4773	0.11
Block M, Lot 13	5298	0.12
Block N, Lot 1	6505	0.15
Block N, Lot 2	5980	0.14
Block N, Lot 3	5980	0.14
Block N, Lot 4	5980	0.14
Block N, Lot 5	5980	0.14
Block N, Lot 6	5980	0.14
Block N, Lot 7	5980	0.14
Block N, Lot 8	5980	0.14
Block N, Lot 9	5980	0.14
Block N, Lot 10	5980	0.14
Block N, Lot 11	5980	0.14
Block N, Lot 12	5980	0.14
Block N, Lot 13	5980	0.14
Block N, Lot 14	5980	0.14
Block N, Lot 15	6505	0.15
Block Z, Lot 1	6911	0.16
Block Z, Lot 2	6000	0.14
Block Z, Lot 3	6000	0.14
Block Z, Lot 4	6000	0.14

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
Block Z, Lot 5	6000	0.14
Block Z, Lot 6	6000	0.14
Block Z, Lot 7	6000	0.14
Block Z, Lot 8	6000	0.14
Block Z, Lot 9	6000	0.14
Block Z, Lot 10	6000	0.14
Block Z, Lot 11	6000	0.14
Block Z, Lot 12	5972	0.14
Block Z, Lot 13	5945	0.14

PD-SF-4	
BLOCK NO.	LOT NO.
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F	1–30
G	1–30
H	1–10
M	4–13

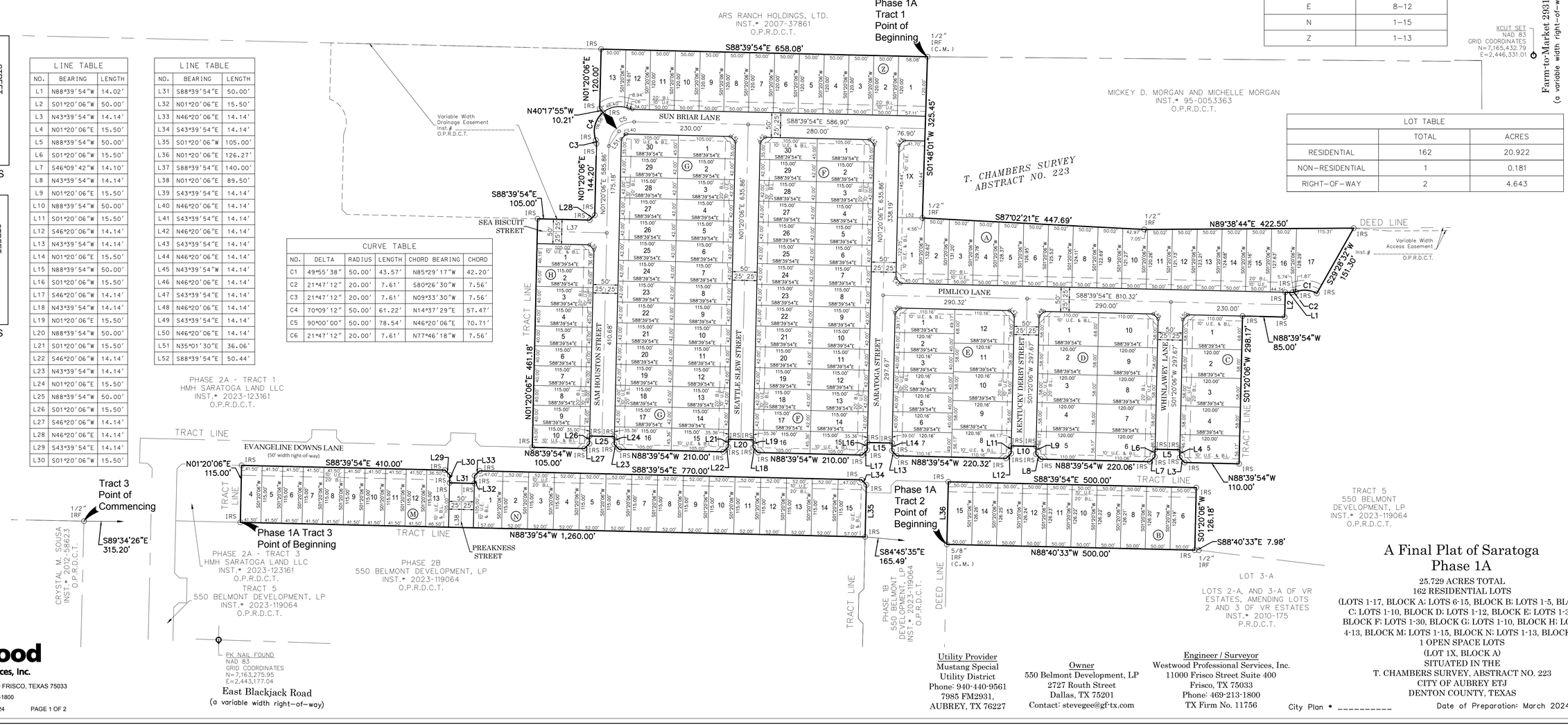
PD-SF-5	
BLOCK NO.	LOT NO.
A	1–17
B	6–15
C	1–5
D	1–10
E	8–12
N	1–15
Z	1–13

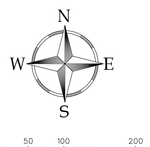
LOT TABLE		
	TOTAL	ACRES
RESIDENTIAL	162	20.922
NON–RESIDENTIAL	1	0.181
RIGHT–OF–WAY	2	4.643

LINE TABLE		
NO.	BEARING	LENGTH
L1	N88°39'54"W	14.02'
L2	S01°20'06"W	50.00'
L3	N43°39'54"W	14.14'
L4	N01°20'06"E	15.50'
L5	N88°39'54"W	50.00'
L6	S01°20'06"W	15.50'
L7	S46°09'42"W	14.10'
L8	N43°39'54"W	14.14'
L9	N01°20'06"E	15.50'
L10	N88°39'54"W	50.00'
L11	S01°20'06"W	15.50'
L12	S46°20'06"W	14.14'
L13	N43°39'54"W	14.14'
L14	N01°20'06"E	15.50'
L15	N88°39'54"W	50.00'
L16	S01°20'06"W	15.50'
L17	S46°20'06"W	14.14'
L18	N43°39'54"W	14.14'
L19	N01°20'06"E	15.50'
L20	N88°39'54"W	50.00'
L21	S01°20'06"W	15.50'
L22	S46°20'06"W	14.14'
L23	N43°39'54"W	14.14'
L24	N01°20'06"E	15.50'
L25	N88°39'54"W	50.00'
L26	S01°20'06"W	15.50'
L27	S46°20'06"W	14.14'
L28	N46°20'06"E	14.14'
L29	S43°39'54"E	14.14'
L30	S01°20'06"W	15.50'

LINE TABLE		
NO.	BEARING	LENGTH
L31	S88°39'54"E	50.00'
L32	N01°20'06"E	15.50'
L33	N46°20'06"E	14.14'
L34	S43°39'54"E	14.14'
L35	S01°20'06"W	105.00'
L36	N01°20'06"E	126.27'
L37	S88°39'54"E	140.00'
L38	N01°20'06"E	89.50'
L39	S43°39'54"E	14.14'
L40	N46°20'06"E	14.14'
L41	S43°39'54"E	14.14'
L42	N46°20'06"E	14.14'
L43	S43°39'54"E	14.14'
L44	N46°20'06"E	14.14'
L45	N43°39'54"W	14.14'
L46	N46°20'06"E	14.14'
L47	S43°39'54"E	14.14'
L48	N46°20'06"E	14.14'
L49	S43°39'54"E	14.14'
L50	N46°20'06"E	14.14'
L51	N35°01'30"E	36.06'
L52	S88°39'54"E	50.44'

CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	49°55'38"	50.00'	43.57'	N85°29'17"W	42.20'
C2	21°47'12"	20.00'	7.61'	S80°26'30"W	7.56'
C3	21°47'12"	20.00'	7.61'	N09°33'30"W	7.56'
C4	70°09'12"	50.00'	61.22'	N14°37'29"E	57.47'
C5	90°00'00"	50.00'	78.54'	N46°20'06"E	70.71'
C6	21°47'12"	20.00'	7.61'	N77°46'18"W	7.56'





0 50 100 200
GRAPHIC SCALE IN FEET

A Final Plat of Saratoga Phase 1A

25.729 ACRES TOTAL
162 RESIDENTIAL LOTS
(LOTS 1-17, BLOCK A; LOTS 6-15, BLOCK B; LOTS 1-5, BLOCK C; LOTS 1-10, BLOCK D; LOTS 1-12, BLOCK E; LOTS 1-30, BLOCK F; LOTS 1-30, BLOCK G; LOTS 1-10, BLOCK H; LOTS 4-13, BLOCK M; LOTS 1-15, BLOCK N; LOTS 1-13, BLOCK Z)
1 OPEN SPACE LOTS
(LOT 1X, BLOCK A)
SITUATED IN THE
T. CHAMBERS SURVEY, ABSTRACT NO. 223
CITY OF AUBREY ETJ
DENTON COUNTY, TEXAS

City Plan • _____ Date of Preparation: March 2024

Westwood
Professional Services, Inc.
11000 FRISCO STREET, SUITE 400 FRISCO, TEXAS 75033
TBPELS # 10074301 PH.# 469-213-1800
JOB# GEE21003 April 2, 2024 PAGE 1 OF 2

Utility Provider
Mustang Special Utility District
Phone: 940-440-9561
7985 FM2931,
AUBREY, TX 76227

Owner
550 Belmont Development, LP
2727 Routh Street
Dallas, TX 75201
Contact: stevegee@gf-tx.com

Engineer / Surveyor
Westwood Professional Services, Inc.
11000 Frisco Street Suite 400
Frisco, TX 75033
Phone: 469-213-1800
TX Firm No. 11756

DWG NAME: G:\JOB\GEE21000-Aubrey\MasterDwg\...\Sur\...GEE21003_Saratoga\GEE21003_PA2-1A.dwg

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STATE OF TEXAS
COUNTY OF DENTON

Phase 1A TRACT 1

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS AND BEING ALL OF A TRACT OF LAND DESCRIBED BY DEED TO 550 BELMONT DEVELOPMENT, LP RECORDED IN INSTRUMENT NUMBER 2023-119064 KNOWN AS PHASE 1A – TRACT 1 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.) AND BEING MORE PARTICULARY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 1/2 INCH IRON ROD FOUND FOR THE NORTHEAST CORNER OF SAID PHASE 1A – TRACT 1, THE NORHTWEST CORNER OF A TRACT OF LAND TO MICKEY D. MORGAN AND MICHELLE MORGAN RECORDED IN INSTRUMENT NUMBER 95-0053363 OF THE O.P.R.D.C.T. AND BEING IN THE SOUTH LINE OF A TRACT OF LAND TO ARS RANCH HOLDINGS, LTD. RECORDED IN INSTRUMENT NUMBER 2007-37861 OF THE O.P.R.D.C.T.:

THENCE S 01° 48′ 01″ W. 325.45 FEET DEPARTING SAID SOUTH LINE, WITH THE EAST LINE OF SAID PHASE 1A – TRACT 1 TO A 1/2 INCH IRON ROD FOUND FOR THE SOUTHWEST CORNER OF SAID MICKEY D. MORGAN AND MICHELLE MORGAN TRACT:

THENCE S 87° 02′ 21″ E. 447.69 FEET CONTINUING WITH SAID EAST LINE AND THE SOUTH LINE OF SAID MICKEY D. MORGAN AND MICHELLE MORGAN TRACT TO A 1/2 INCH IRON ROD FOUND:

THENCE N 89° 38′ 44″ E. 422.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET IN SAID SOUTH LINE AND BEING THE NORTHWEST CORNER OF TRACT 5 OF SAID 550 BELMONT DEVELOPMENT, LP TRACT:

THENCE DEPARTING SAID SOUTH LINE, WITH THE COMMON LINE OF SAID EAST LINE AND THE WEST LINE OF SAID TRACT 5 THE FOLLOWING COURSES AND DISTANCES:

S 29° 28′ 32″ W. 151.30 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT:

WITH SAID NON-TANGENT CURVE TO THE LEFT, AN ARC DISTANCE OF 43.57 FEET, THROUGH A CENTRAL ANGLE OF 49° 55′ 38″, HAVING A RADIUS OF 50.00 FEET, AND A LONG CHORD WHICH BEARS N 85° 29′ 17″ W. 42.20 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A NON-TANGENT CURVE TO THE RIGHT:

WITH SAID NON-TANGENT CURVE TO THE RIGHT, AN ARC DISTANCE OF 7.61 FEET, THROUGH A CENTRAL ANGLE OF 21° 47′ 12″, HAVING A RADIUS OF 20.00 FEET, AND A LONG CHORD WHICH BEARS S 80° 26′ 30″ W. 7.56 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 88° 39′ 54″ W. 14.02 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 01° 20′ 06″ W. 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 88° 39′ 54″ W. 85.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 01° 20′ 06″ W. 298.17 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET FOR THE SOUTHEAST CORNER OF SAID PHASE 1 – TRACT 1:

THENCE DEPARTING SAID SOUTHEAST CORNER, WITH THE COMMON LINE BEING THE SOUTH LINE OF SAID PHASE 1A – TRACT 1 AND THE WEST LINE OF SAID TRACT 5 THE FOLLOWING COUSES AND DISTANCES:

N 88° 39′ 54″ W. 110.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 43° 39′ 54″ W. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 01° 20′ 06″ E. 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 88° 39′ 54″ W. 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 01° 20′ 06″ W. 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 46° 09′ 42″ W. 14.10 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 88° 39′ 54″ W. 220.06 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 43° 39′ 54″ W. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 01° 20′ 06″ E. 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 88° 39′ 54″ W. 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 01° 20′ 06″ W. 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 46° 20′ 06″ W. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 88° 39′ 54″ W. 220.32 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 43° 39′ 54″ W. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 01° 20′ 06″ E. 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 88° 39′ 54″ W. 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 01° 20′ 06″ W. 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 46° 20′ 06″ W. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 88° 39′ 54″ W. 210.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 43° 39′ 54″ W. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 01° 20′ 06″ E. 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 88° 39′ 54″ W. 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 01° 20′ 06″ W. 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 46° 20′ 06″ W. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 88° 39′ 54″ W. 105.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET FOR THE SOUTHWEST CORNER OF SAID PHASE 1A – TRACT 1 AND BEING IN THE EAST LINE OF A TRACT OF LAND TO HMH SARATOGA LAND LLC RECORDED IN INSTRUMENT NUMBER 2023-123161 KNOWN AS PHASE 2A – TRACT 1 OF THE O.P.R.D.C.T.:

THENCE DEPARTING SAID SOUTHWEST CORNER, WITH THE COMMON LINE BEING THE WEST LINE OF SAID PHASE 1A – TRACT 1 AND SAID EAST LINE THE FOLLOWING COURSES AND DISTANCES:

N 01° 20′ 06″ E. 461.18 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 88° 39′ 54″ E. 105.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 46° 20′ 06″ E. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 01° 20′ 06″ E. 144.20 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A CURVE TO THE LEFT:

WITH SAID CURVE TO THE LEFT, AN ARC DISTANCE OF 7.61 FEET, THROUGH A CENTRAL ANGLE OF 21° 47′ 12″, HAVING A RADIUS OF 20.00 FEET, AND A LONG CHORD WHICH BEARS N 09° 33′ 30″ W. 7.56 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET AND THE BEGINNING OF A NON-TANGENT CURVE TO THE RIGHT:

WITH SAID NON-TANGENT CURVE TO THE RIGHT, AN ARC DISTANCE OF 61.22 FEET, THROUGH A CENTRAL ANGLE OF 70° 09′ 12″, HAVING A RADIUS OF 50.00 FEET, AND A LONG CHORD WHICH BEARS N 14° 37′ 29″ E, 57.47 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 40° 17′ 55″ W. 10.21 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 01° 20′ 06″ E. 120.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET FO R THE NOTHWEST CORNER OF SAID PHASE 1 –1A TRACT AND IN THE SOUTH LINE OF SAID ARS RANCH HOLDINGS, LTD.:

THENCE S 88° 39′ 54″ E. 658.08 FEET TO THE POINT OF BEGINNING AND CONTAINING 914.171 SQUARE FEET OR 20.986 ACRES MORE OR LESS.

Phase 1A TRACT 2

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS AND BEING ALL OF A TRACT OF LAND DESCRIBED BY DEED TO 550 BELMONT DEVELOPMENT, LP RECORDED IN INSTRUMENT NUMBER 2023-119064 KNOWN AS PHASE 1A – TRACT 2 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.) AND BEING MORE PARTICULARY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A 5/8 INCH IRON ROD WITH SILVER CAP FOUND IN THE SOUTHWEST CORNER OF SAID PHASE 1A TRACT 2 AND THE NORTHWEST CORNER OF LOT 3-A AS SHOWN ON THE PLAT LOTS 2-A, AND 3-A OF VR ESTATES, AMENDING LOTS 2 AND 3 OF VR ESTATES RECORDED IN INSTRUMENT NUMBER 2010-175 OF THE PLAT RECORDS DENTON COUNTY, TEXAS (P.R.D.C.T.):

THENCE N 01° 20′ 06″ E. 126.27 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET IN THE NORTHWEST CORNER OF SAID PHASE 1A –TRACT 2 AND IN THE EAST LINE OF TRACT 5 RECORDED IN SAID 550 BELMONT DEVELOPMENT, LP TRACT:

THENCE S 88° 39′ 54″ E. 500.00 FEET WITH THE COMMON LINE, BEING THE NORTH LINE OF SAID PHASE 1A –TRACT 2 AND SAID EAST LINE TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET FOR THE NORTHWEST CORNER OF SAID PHASE 1A – TRACT 2:

THENCE S 01° 20′ 06″ W. 126.18 FEET WITH THE EAST LINE OF SAID PHASE 1A – TRACT 2 AND CONTINUING WITH SAID EAST LINE TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET FOR THE SOUTHWEST CORNER OF SAID PHASE 1A – TRACT 2 FROM WHICH A 1/2 INCH IRON ROD FOUND BEARS S 88° 40′ 33″ E. 7.98 FEET IN SAID EAST LINE AND IN THE NORTH LINE OF SAID LOTS 2-A, AND 3-A OF VR ESTATES, AMENDING LOTS 2 AND 3 OF VR ESTATES PLAT:

THENCE N 88° 40′ 33″ W. 500.00 FEET TO THE POINT OF BEGINNING AND CONTAINING 63,112 SQUARE FEET OR 1.449 ACRES MORE OR LESS.

Phase 1A TRACT 3

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS AND BEING ALL OF A TRACT OF LAND DESCRIBED BY DEED TO 550 BELMONT DEVELOPMENT, LP RECORDED IN INSTRUMENT NUMBER 2023-119064 KNOWN AS PHASE 1A – TRACT 3 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.) AND BEING MORE PARTICULARY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

COMMENCING AT A 1/2 INCH IRON ROD FOUND FOR THE NORTHEAST CORNER OF A TRACT OF LAND TO CRYSTAL M. SOUSA RECORDED IN INSTRUMENT NUMBER 2012-58623 OF THE O.P.R.D.C.T. AND BEING IN THE WEST LINE OF A TRACT LAND TO HMH SARATOGA LAND LLC RECORDED IN INSTRUMENT NUMBER 2023-123161 KNOWN AS PHASE 2A – TRACT 1 OF THE O.P.R.D.C.T.:

THENCE S 89° 34′ 26″ E. 315.20 FEET DEPARTING SAID NORTHEAST TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET FOR THE SOUTHWEST CORNER OF SAID PHASE 1A – TRACT 3, THE SOUTHEAST CORNER OF PHASE 2A – TRACT 3 RECORDED IN SAID HMH SARATOGA LAND LLC, AND BEING THE POINT OF BEGINNING:

THENCE N 01° 20′ 06″ E. 115.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET FOR THE NORTHWEST CORNER OF SAID PHASE 1A –TRACT 3, THE NORTHEAST CORNER OF SAID PHASE 2A – TRACT 3 AND BEING IN THE EAST LINE OF TRACT 5 RECORDED IN SAID 550 BELMONT DEVELOPMENT, LP TRACT:

THENCE WITH THE COMMON LINE, BEING SAID EAST LINE AND THE NORTH LINE OF SAID PHASE 1A – TRACT 3 THE FOLLOWING COURSES AND DISTANCES:

S 88° 39′ 54″ E. 410.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 43° 39′ 54″ E. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 01° 20′ 06″ W. 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 88° 39′ 54″ E. 50.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 01° 20′ 06″ E. 15.50 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

N 46° 20′ 06″ E. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 88° 39′ 54″ E. 770.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET:

S 43° 39′ 54″ E. 14.14 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET FOR THE NORTHEAST CORNER OF SAID PHASE 1A – TRACT 3:

THENCE S 01° 20′ 06″ W. 105.00 FEET TO A 1/2 INCH IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET FOR THE SOUTHWEST CORNER OF SAID PHASE 1A –TRACT 3 AND BEING THE NORTHWEST CORNER OF PHASE 2B RECORDED IN SAID 550 BELMONT DEVELOPMENT, LP TRACT FROM WHICH A 5/8 INCH IRON ROD WITH SILVER CAP FOUND IN THE SOUTHWEST CORNER OF PHASE 1A TRACT 2 RECORDED IN SAID 550 BELMONT DEVELOMENT, LP TRACT AND BEING IN THE NORTHWEST CORNER OF LOT 3-A AS SHOWN ON THE PLAT LOTS 2-A, AND 3-A OF VR ESTATES, AMENDING LOTS 2 AND 3 OF VR ESTATES RECORDED IN INSTRUMENT NUMBER 2010-175 OF THE PLAT RECORDS DENTON COUNTY, TEXAS (P.R.D.C.T.) BEARS S 84° 45′ 35″ E. 165.49 FEET:

THENCE N 88° 39′ 54″ W. 1,260.00 FEET TO THE POINT OF BEGINNING AND CONTAINING 143.475 SQUARE FEET OR 3.294 ACRES MORE OR LESS.

SURVEYOR'S CERTIFICATION:

THAT I, ADAM T. JOHNSON DO HEREBY CERTIFY THAT I PREPARED THIS PLAT FROM AN ACTUAL AND ACCURATE SURVEY OF THE LAND AND THAT THE CORNER MONUMENTS SHOWN THEREON AS "SET" WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION IN ACCORDANCE WITH THE SUBDIVISION ORDINANCE OF THE CITY OF AUBREY.

"Preliminary, this document shall not be recorded for any purpose and shall not be used or viewed or relied upon as a final survey document" TAC 22 138.33e
Adam T. Johnson, RPLS 6664
Date:4/19/2024

ADAM T. JOHNSON
TEXAS REGISTRATION NO. 6664

STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS, ON THIS DAY PERSONALLY APPEARED ADAM T. JOHNSON, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSE AND CONSIDERATIONS THEREIN EXPRESSED.

GIVEN UNDER MY AND SEAL OF OFFICE, THIS ____ DAY OF _____, 2024.

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS

MY COMMISSION EXPIRES ON:_____

OWNER'S CERTIFICATIONS:

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT 550 BELMONT DEVELOPMENT, LP ACTING HEREIN BY AND THROUGH ITS DULY AUTHORIZED OFFICERS, DOES HEREBY ADOPT THIS PLAT DESIGNATING THE HEREIN ABOVE DESCRIBED PROPERTY AS SARATOGA PHASE 1A, AN ADDITION TO THE CITY OF AUBREY, TEXAS, AND DOES HEREBY DEDICATE, IN FEE SIMPLE, TO THE PUBLIC USE FOREVER, THE STREETS AND ALLEYS SHOWN THEREON. THE STREETS AND ALLEYS ARE DEDICATED FOR STREET PURPOSES. THE EASEMENTS AND PUBLIC USE AREAS, AS SHOWN, ARE DEDICATED FOR THE PUBLIC USE FOREVER, FOR THE PURPOSES INDICATED ON THIS PLAT. IN ADDITION, UTILITY EASEMENTS MAY ALSO BE USED FOR THE MUTUAL USE AND ACCOMMODATION OF ALL PUBLIC UTILITIES DESIRING TO USE OR USING THE SAME UNLESS THE EASEMENT LIMITS THE USE TO PARTICULAR UTILITIES, SAID USE BY PUBLIC UTILITIES BEING SUBORDINATE TO THE PUBLIC'S AND CITY OF AUBREY'S USE THEREOF. THE CITY OF AUBREY AND PUBLIC UTILITY ENTITIES SHALL HAVE THE RIGHT TO REMOVE AND KEEP REMOVED ALL OR PARTS OF ANY BUILDINGS, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR GROWTHS WHICH MAY IN ANY WAY ENDANGER OR INTERFERE WITH THE CONSTRUCTION, MAINTENANCE, OR EFFICIENCY OF THEIR RESPECTIVE SYSTEMS IN SAID EASEMENTS. THE CITY OF AUBREY AND PUBLIC UTILITY ENTITIES SHALL AT ALL TIMES HAVE THE FULL RIGHT OF INGRESS AND EGRESS TO OR FROM THEIR RESPECTIVE EASEMENTS FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING, PATROLLING, MAINTAINING, READING METERS, AND ADDING TO OR REMOVING ALL OR PARTS OF THEIR RESPECTIVE SYSTEMS WITHOUT THE NECESSITY AT ANY TIME OF PROCURING PERMISSION FROM ANYONE.

THAT THE UNDERSIGNED DOES HEREBY COVENANT AND AGREE THAT HE (THEY) SHALL CONSTRUCT UPON THE FIRE LANE EASEMENTS, AS DEDICATED AND SHOWN HEREON, A HARD SURFACE AND THAT HE (THEY) SHALL MAINTAIN THE SAME IN A STATE OF GOOD REPAIR AT ALL TIMES AND KEEP THE SAME FREE AND CLEAR OF ANY STRUCTURES, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR OBSTRUCTION, INCLUDING BUT NOT LIMITED TO THE PARKING OF MOTOR VEHICLES, TRAILERS, BOATS, OR OTHER IMPEDIMENTS TO THE ACCESS OF FIRE APPARATUS. THE MAINTENANCE OF PAVING ON THE FIRE LANE EASEMENTS IS THE RESPONSIBILITY OF THE OWNER, AND THE OWNER SHALL POST AND MAINTAIN APPROPRIATE SIGNS IN CONSPICUOUS PLACES ALONG SUCH FIRE LANES, STATING "FIRE LANE, NO PARKING." THE POLICE OR HIS DULY AUTHORIZED REPRESENTATIVE IS HEREBY AUTHORIZED TO CAUSE SUCH FIRE LANES AND UTILITY EASEMENTS TO BE MAINTAINED FREE AND UNOBSTRUCTED AT ALL TIMES FOR FIRE DEPARTMENT AND EMERGENCY USE.

THE UNDERSIGNED DOES COVENANT AND AGREE THAT THE ACCESS EASEMENT MAY BE UTILIZED BY ANY PERSON OR THE GENERAL PUBLIC FOR INGRESS AND EGRESS TO OTHER REAL PROPERTY, AND FOR THE PURPOSE OF GENERAL PUBLIC VEHICULAR AND PEDESTRIAN USE AND ACCESS, AND FOR FIRE DEPARTMENT AND EMERGENCY USE, IN, ALONG, UPON, AND ACROSS SAID PREMISES, WITH THE RIGHT AND PRIVILEGE AT ALL TIMES OF THE CITY OF AUBREY, ITS AGENTS, EMPLOYEES, WORKMEN, AND REPRESENTATIVES HAVING INGRESS, EGRESS, AND REGRESS IN, ALONG, UPON, AND ACROSS SAID PREMISES.

THIS APPROVED SUBJECT TO ALL PLATTING ORDINANCES, RULES, AND REGULATIONS OF THE CITY OF AUBREY, TEXAS.

WITNESS MY HAND THIS THE _____ DAY OF _____, 2024.

BY: 550 BELMONT DEVELOPMENT, LP

BY:_____

STATE OF: TEXAS

COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED _____, KNOWN TO ME TO BE THE PERSON OR PERSONS WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN THE CAPACITY HEREIN STATED AND THE ACT AND DEED OF SAID COMPANY.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ DAY OF _____, 2024.

NOTARY PUBLIC IN AND FOR _____ COUNTY

MY COMMISSION EXPIRES: _____

WITNESS MY HAND THIS THE _____ DAY OF _____, 2024.

NOTES:

1. ALL LOTS COMPLY WITH THE DEVELOPMENT STANDARDS IN THE RECORDED DEVELOPMENT AGREEMENT WITH THE CITY OF AUBREY, INSTRUMENT NO. 234344 RECORDED WITH THE DENTON COUNTY CLERK DECEMBER 2021.
2. THIS PROPERTY MAY BE SUBJECT TO CHARGES RELATED TO IMPACT FEES AND THE APPLICANT SHOULD CONTACT THE CITY REGARDING ANY APPLICABLE FEES DUE.
3. ALL COMMON AREAS, DRAINAGE EASEMENTS, AND DETENTION FACILITIES WILL BE OWNED AND MAINTAINED BY THE MUD.
4. NOTICE-SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS IS A VIOLATION OF CITY ORDINANCE AND STATE LAW AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
5. THIS PLAT DOES NOT ALTER OR REMOVE EXISTING DEED RESTRICTIONS, IF ANY, ON THIS PROPERTY.
6. ACCORDING TO THE FLOOD INSURANCE RATE MAPS (FIRM) NO. 48121C0255G DATED APRIL 18, 2011 PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FOR DENTON COUNTY, TEXAS THIS PROPERTY IS WITHIN "ZONE X SHADED- OTHER AREAS", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. THE SURVEYOR ASSUMES NO LIABILITY FOR THE ACCURACY OF THAT MAPS.
7. BEARINGS ARE BASED ON THE TEXAS COORDINATE SYSTEM, NORTH CENTRAL ZONE (4202), NORTH AMERICAN DATUM OF 1983 (NAD' 83).
8. ALL CORNERS SET ARE 1/2 INCH IRON RODS WITH PLASTIC CAPS STAMPED "WESTWOOD PS) UNLESS OTHERWISE NOTED.
9. NO OVERHEAD UTILITIES ARE PERMITTED ON THE SUBJECT PROPERTY.
10. LOTS DESIGNATED AS 'X' TO BE USED FOR OPEN SPACE AND/OR DRAINAGE AND ARE OWNED AND MAINTAINED BY THE MUD.

UTILITY CERTIFICATE

THIS PLAT CORRECTLY PRESENTS THE REQUIRED EASEMENTS FOR THIS DEVELOPMENT.

MUSTANG SPECIAL UTILITY DISTRICT _____
NAME/TITLE

CERTIFICATE OF APPROVAL

Approved this _____ day of _____, _____ by the City Council of the City of Aubrey Texas

_____
Mayor

_____
City Secretary or City Manager

A Final Plat of Saratoga Phase 1A

25.729 ACRES TOTAL
162 RESIDENTIAL LOTS
(LOTS 1-17, BLOCK A; LOTS 6-15, BLOCK B; LOTS 1-5, BLOCK C; LOTS 1-10, BLOCK D; LOTS 1-12, BLOCK E; LOTS 1-30, BLOCK F; LOTS 1-30, BLOCK G; LOTS 1-10, BLOCK H; LOTS 4-13, BLOCK M; LOTS 1-15, BLOCK N; LOTS 1-13, BLOCK Z)
1 OPEN SPACE LOTS
(LOT 1X, BLOCK A)
SITUATED IN THE
T. CHAMBERS SURVEY, ABSTRACT NO. 223
CITY OF AUBREY ETJ
DENTON COUNTY, TEXAS

City Plan • _____ Date of Preparation: March 2024

Westwood
Professional Services, Inc.
11000 FRISCO STREET, SUITE 400 FRISCO, TEXAS 75033
TBPELS # 10074301 PH.# 469-213-1800

JOB# GEE21003 April 2, 2024 PAGE 2 OF 2

Utility Provider
Mustang Special
Utility District
Phone: 940-440-9561
7985 FM2931,
AUBREY, TX 76227

Owner
550 Belmont Development, LP
2727 Routh Street
Dallas, TX 75201
Contact: stevegee@gf-tx.com

Engineer / Surveyor
Westwood Professional Services, Inc.
11000 Frisco Street Suite 400
Frisco, TX 75033
Phone: 469-213-1800
TX Firm No. 11756

DWG NAME: G:\JOB\GEE21000_Aubrey\MasterDwr_Sur_GEE21003_Saratoga\GEE21003_PAGE 1A.dwg

SECOND SUBMITTAL

PROJECT NOTES:

1. THE TERM GOVERNING AUTHORITY REFERS TO THE CITY OF AUBREY.
2. ALL MATERIALS, CONSTRUCTION METHODS, WORKMANSHIP, EQUIPMENT, SERVICES AND TESTING FOR ALL PUBLIC IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' ORDINANCES, REGULATIONS, REQUIREMENTS, STATUTES, SPECIFICATIONS AND DETAILS, LATEST PRINTING AND AMENDMENTS THERETO. THE GOVERNING AUTHORITIES' PUBLIC WORKS AND WATER DEPARTMENT REQUIREMENTS, PLUMBING CODES, AND FIRE DEPARTMENT REGULATIONS SHALL TAKE PRECEDENT FOR ALL PRIVATE IMPROVEMENTS WHERE APPLICABLE. ALL OTHER PRIVATE CONSTRUCTION, NOT REGULATED BY THE GOVERNING AUTHORITY, SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, LATEST PRINTING AND AMENDMENTS THERETO, EXCEPT AS MODIFIED BY THE PROJECT CONTRACT DOCUMENTS.
3. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PROVISIONS OUTLINED IN F.H.A. DATA SHEET 79G AND SPECIFICATIONS PREPARED BY SOILS ENGINEER, HOWEVER, ANY CITY OF AUBREY STANDARD AND/OR SPECIFICATION SHALL SUPERSEDE THE ABOVE.
4. PRIOR TO COMMENCING ANY CONSTRUCTION, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS. FAILURE ON THE PART OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THE WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
5. THE CONTRACTOR, HIS AGENTS AND SUB-CONTRACTOR ARE COMPLETELY RESPONSIBLE FOR THE VERIFICATION OF THE ACCURACY OF THE GEOSPATIAL CONTROL FURNISHED HEREIN. THE OWNER, ENGINEER AND THEIR AGENTS ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE COORDINATES FURNISHED. THE CONTRACTOR IS REQUIRED TO VERIFY ALL COORDINATES FOR ACCURACY AND CONFIRM THE LOCATIONS OF ALL UTILITIES TO BE CONSTRUCTED, BOTH HORIZONTALLY AND VERTICALLY. DISCREPANCIES FOUND BY THE CONTRACTOR SHALL BE REPORTED, IN WRITING, TO THE OWNER AND ENGINEER IMMEDIATELY FOR RECONCILIATION.
6. TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THE PLANS IS PROVIDED FOR INFORMATIONAL PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT THE INFORMATION SHOWN IS CORRECT, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY ERRORS, DISCREPANCIES, OR OMISSIONS TO THE SURVEY INFORMATION PROVIDED.
7. CONTRACTOR TO OBTAIN A COPY OF GEOTECHNICAL REPORT PREPARED BY GEOTECHNICAL ENGINEER & IMPLEMENT ALL RECOMMENDATIONS IN IT (OR AS AMENDED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION), ALL DENSITY REPORTS ARE TO BE FURNISHED TO CITY INSPECTOR AT THE PRE-CONSTRUCTION MEETING. THE ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY, TRUE LOCATION AND EXTENT OF THE SOILS INFORMATION PREPARED BY OTHERS.
8. THE CONTRACTOR SHALL HAVE AT LEAST ONE COMPLETE SET OF APPROVED PLANS ON SITE AT ALL TIMES.
9. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. MATERIALS STORED ON THE WORK SITE SHALL BE PLACED, AND THE WORK SHALL AT ALL TIMES BE SO CONDUCTED, AS TO CAUSE NO GREATER OBSTRUCTION TO THE TRAVELING PUBLIC THAN IS CONSIDERED ACCEPTABLE BY THE GOVERNING AUTHORITIES AND THE OWNER AND ALLOW UNINTERRUPTED ACCESS TO ALL FIRE HYDRANTS, WATER VALVES, GAS VALVES, MANHOLES AND FIRE ALARM OR POLICE CALL BOXES IN THE VICINITY.
10. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND LICENSES NECESSARY FOR THE EXECUTION OF THE WORK AND SHALL FULLY COMPLY WITH ALL THEIR TERMS AND CONDITIONS. WHENEVER THE WORK UNDER THIS CONTRACT REQUIRES THE OBTAINING OF PERMITS FROM THE GOVERNING AUTHORITIES, THE CONTRACTOR SHALL FURNISH DUPLICATE COPIES OF SUCH PERMITS TO THE OWNER BEFORE THE WORK COVERED THEREBY IS STARTED. NO WORK WILL BE ALLOWED TO PROCEED BEFORE SUCH PERMITS HAVE BEEN OBTAINED. COSTS ASSOCIATED WITH PERMITS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
11. THE GOVERNING AUTHORITIES AND/OR THE OWNER WILL PROVIDE INSPECTION OF THE PROPOSED CONSTRUCTION. THE OWNER WILL PAY THE COSTS FOR INSPECTION SERVICES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE WELL IN ADVANCE OF PENDING CONSTRUCTION ACTIVITIES TO THE GOVERNING AUTHORITIES AND/OR OWNER FOR SCHEDULING OF INSPECTION SERVICES, WORK MAY NOT BE BACKFILLED OR COVERED UNTIL IT HAS BEEN INSPECTED BY THE GOVERNING AUTHORITY.
12. THE CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCHMARKS. WHEN ANY SUCH MARKERS OR MONUMENTS ARE IN DANGER OF BEING DISTURBED, THEY SHALL BE PROPERLY REFERENCED AND IF DISTURBED SHALL BE RESET BY A REGISTERED PUBLIC SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
13. ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE GOVERNING AUTHORITIES AND/OR OWNER.
14. AT NIGHT AND DURING ALL PERIODS OF TIME WHEN EQUIPMENT IS NOT BEING ACTIVELY USED FOR THE CONSTRUCTION WORK, THE CONTRACTOR SHALL PARK THE EQUIPMENT AT LOCATIONS WHICH ARE APPROVED BY THE OWNER. DURING THE CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH THE PRESENT ZONING REQUIREMENTS OF THE GOVERNING AUTHORITIES IN THE USE OF VACANT PROPERTY FOR STORAGE PURPOSES. THE CONTRACTOR SHALL ALSO PROVIDE ADEQUATE BARRICADES, MARKERS, AND LIGHTS TO PROTECT THE OWNER, THE GOVERNING AUTHORITIES, AND THE PUBLIC. ALL BARRICADES, LIGHTS, AND MARKERS MUST MEET THE REQUIREMENTS OF THE GOVERNING AUTHORITIES' REGULATIONS.
15. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR PURCHASING WATER FROM THE GOVERNING AUTHORITY FOR USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
16. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR THE INSTALLATION AND PURCHASING OF TEMPORARY ELECTRIC AND COMMUNICATIONS SERVICES FROM THE AVAILABLE PROVIDERS FOR HIS USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
17. IN THE EVENT THAT OTHER CONTRACTORS ARE DOING WORK IN THE SAME AREA SIMULTANEOUSLY WITH THE PROJECT, THE CONTRACTOR SHALL COORDINATE HIS PROPOSED CONSTRUCTION WITH THAT OF THE OTHER CONTRACTORS.
18. PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH REPRESENTATIVES FROM ALL CONTRACTORS, THE ENGINEER, THE OWNER, AND THE GOVERNING AUTHORITY.
19. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER IF ANY DISCREPANCIES ARISE BETWEEN EXISTING CONDITIONS AND THE CONSTRUCTION DOCUMENTS.
20. THE CONTRACTOR SHALL KEEP THE SITE OF THE WORK AND ADJACENT PREMISES AS FREE FROM MATERIAL, DEBRIS AND RUBBISH AS IS PRACTICABLE. THE CONTRACTOR SHALL REMOVE MATERIAL, DEBRIS, AND RUBBISH FROM ANY PORTION OF THE SITE IF, IN THE OPINION OF THE OWNER, SUCH MATERIAL, DEBRIS, AND RUBBISH CONSTITUTES A NUISANCE OR IS OBJECTIONABLE.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF EXISTING PAVED ROADS ADJACENT TO OR WITHIN THE SITE. COSTS ASSOCIATED WITH MAINTAINING THE CLEANLINESS OF EXISTING ROADS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
22. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO CONTROL DUST ON THE PROJECT SITE BY SPRINKLING OF WATER, OR ANY OTHER METHODS APPROVED BY THE GOVERNING AUTHORITIES. COSTS ASSOCIATED WITH DUST CONTROL SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
23. DUST CONTROL SHALL BE ACCOMPLISHED BY WATERING DRY, EXPOSED AREAS ON A REGULAR BASIS. SPRAYING OF PETROLEUM BASED OR TOXIC LIQUIDS FOR THIS IS PROHIBITED.
24. THE CONTRACTOR SHALL CLEAN UP ALL PARTS OF THE WORK BEFORE ACCEPTANCE BY THE OWNER. THIS CLEAN UP SHALL INCLUDE REMOVAL OF ALL OBJECTIONABLE MATERIALS AND, IN GENERAL, PREPARING THE SITE OF THE WORK IN AN ORDERLY MANNER OF APPEARANCE.
25. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK: ALL WORK WHICH HAS BEEN REJECTED OR CONDEMNED SHALL BE REPAIRED, OR IF IT CANNOT BE REPAIRED SATISFACTORILY, IT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. DEFECTIVE MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE WORK SITE. WORK DONE BEYOND THE LINE OR NOT IN CONFORMITY WITH THE GRADES SHOWN ON THE DRAWINGS OR AS WRITTEN AUTHORITY AND PRIOR AGREEMENT IN WRITING AS TO PRICES, SHALL BE AT THE CONTRACTOR'S RISK AND WILL BE CONSIDERED UNAUTHORIZED, AND THE OPTION OF THE OWNER MAY NOT BE MEASURED AND PAID FOR AND MAY BE ORDERED REMOVED AT THE CONTRACTOR'S EXPENSE. UPON FAILURE OF THE CONTRACTOR TO REPAIR SATISFACTORILY OR TO REMOVE AND REPLACE, IF SO DIRECTED, REJECTED, UNAUTHORIZED, OR CONDEMNED WORK OR MATERIALS IMMEDIATELY AFTER RECEIVING NOTICE FROM THE OWNER, THE OWNER WILL, AFTER GIVING WRITTEN NOTICE TO THE CONTRACTOR, HAVE THE AUTHORITY TO CAUSE DEFECTIVE WORK TO BE REMEDIED, OR REMOVED AND REPLACED, OR TO CAUSE UNAUTHORIZED WORK TO BE REMOVED AND TO DEDUCT THE COST THEREOF FROM ANY MONIES DUE OR TO BECOME DUE THE CONTRACTOR.
26. THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF ALL MATERIALS AND SYSTEMS COVERED BY THE PROJECT CONTRACT DOCUMENTS. THE COMPLETE SET OF "RECORD DRAWINGS" MUST BE DELIVERED TO THE OWNER AND/OR ENGINEER BEFORE REQUESTING FINAL PAYMENT.
27. ALL MATERIALS TO BE REMOVED FROM THE SITE INCLUDED, BUT NOT LIMITED TO, EXCESS MATERIAL AND UNSUITABLE MATERIALS SUCH AS CONCRETE, ASPHALT, LARGE ROCKS, REFUSE, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT. CONTRACTOR SHALL ALSO COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE. COSTS ASSOCIATED WITH THE DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
28. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE WITH ALL HANDICAPPED ACCESSIBILITY REQUIREMENTS INCLUDING SIGNAGE, TEXTURES, COLORING, MARKINGS, AND SLOPES OF ADA/TAS 2012 ACCESSIBLE ROUTES & RAMPS, AND PARKING SPACES.
29. ALL CONSTRUCTION MUST ADHERE TO THE TREE PRESERVATION REQUIREMENTS OF THE GOVERNING AUTHORITY.
30. INDIVIDUAL WATER AND SEWER SERVICES AND WATER VALVES SHALL BE MARKED IN ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
31. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION. THE PONDING OF WATER IN STREETS, DRIVES, TRENCHES, ETC, WILL NOT BE ALLOWED.
32. THE CONTRACTOR SHALL MAINTAIN EXISTING DRIVEWAYS ACCESS AT ALL TIME. THE CONTRACTOR MUST CEASE ALL CONSTRUCTION OPERATIONS IMMEDIATELY IF A SUSPECTED ARCHEOLOGICAL OBJECT/ARTIFACT IS UNCOVERED DURING CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY CONTACT THE TEXAS HISTORICAL COMMISSION AND THE GOVERNING AUTHORITY. PROJECT WORK SHALL NOT COMMENCE UNTIL PROPER PERMITS ARE IN PLACE AND PROVIDED TO THE GOVERNING AUTHORITY.

EXISTING FACILITIES AND EXISTING UTILITIES NOTES:

33. AS REQUIRED BY "THE TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT". TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4545) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS BEING PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED ON THE RECORDS AND/OR FIELD INFORMATION AVAILABLE AND ARE NOT GUARANTEED BY THE OWNER OR ENGINEER TO BE ACCURATE AS TO THE LOCATION AND DEPTH. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF HIS ACTIVITIES IN ORDER THAT HE MAY NEGOTIATE SUCH LOCAL ADJUSTMENTS AS NECESSARY IN THE CONSTRUCTION PROCESS TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL EXISTING UTILITIES, SERVICES, AND STRUCTURES ENCOUNTERED WHETHER OR NOT THEY ARE ON THE PLANS. ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT HIS EXPENSE. TO AVOID UNNECESSARY INTERFERENCES OR DELAYS, THE CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVALS, REPLACEMENTS, AND CONSTRUCTION WITH THE APPROPRIATE GOVERNING AUTHORITIES. THE OWNER WILL NOT BE LIABLE FOR DAMAGES DUE TO DELAY BECAUSE OF THE ABOVE. DIFFERENCES IN HORIZONTAL OR VERTICAL LOCATIONS OF EXISTING UTILITIES SHALL NOT BE BASIS FOR ADDITIONAL COMPENSATIONS TO THE CONTRACTOR.
34. WHERE EXISTING UTILITIES, SERVICE LINES, OR IRRIGATION LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITIES, SERVICE LINES, OR IRRIGATION LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION, OR BETTER, UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS, AT HIS OWN COST AND EXPENSE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICTS OR DISCREPANCIES.
35. ALL FENCES AND LANDSCAPING ENCOUNTERED AND REMOVED DURING CONSTRUCTION, EXCEPT THOSE DESIGNATED TO BE REMOVED OR RELOCATED, SHALL BE RESTORED TO THE ORIGINAL (OR BETTER) CONDITION UPON COMPLETION OF THE PROJECT. WHERE WIRE FENCING, EITHER WIRE MESH OR BARBED WIRE, IS TO BE CROSSED, THE CONTRACTOR SHALL SET CROSS-BRACED POSTS ON EITHER SIDE OF THE CROSSING. TEMPORARY FENCING SHALL BE ERECTED IN PLACE OF THE FENCING REMOVED WHENEVER THE WORK IS NOT IN PROGRESS AND WHEN THE SITE IS VACATED OVERNIGHT AND/OR AT ALL TIMES TO PREVENT PERSONS AND/OR LIVESTOCK FROM ENTERING THE CONSTRUCTION AREA. THE COST OF FENCE REMOVAL, TEMPORARY CLOSURES AND REPLACEMENT SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

STORMWATER POLLUTION PREVENTION PLAN AND EROSION CONTROL NOTES:

36. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH THE CONDITIONS OF THE S.W.P.P.P. AND T.C.E.Q. WHILE CONDUCTING HIS ACTIVITIES ON THE PROJECT.
37. ALL AREAS DISTURBED BY CHANNEL EXCAVATION SHALL BE REVEGETATED AS SET FORTH IN THE S.W.P.P.P., WHICH WAS PREPARED SPECIFICALLY FOR THIS PROJECT, OR OTHERWISE PROTECTED AGAINST EROSION BY THE USE OF RIP RAP, GABIONS, OR GEOTEXTILES.
38. THE GENERAL CONTRACTOR, AS THE T.C.E.Q. DEFINED "OPERATOR," SHALL PERFORM ALL REQUIRED INSPECTIONS OF STORM WATER CONTROLS AND PRACTICES AT FREQUENCIES OUTLINED IN THE T.P.D.E.S. GENERAL PERMIT AND SHALL FILL OUT APPROPRIATE INSPECTION FORMS (AS PROVIDED IN THE S.W.P.P.P.).
39. THE CONTRACTOR SHALL MODIFY THIS PLAN TO SHOW LOCATIONS OF TEMPORARY WASHDOWN AREA, PORTABLE TOILETS, EQUIPMENT MAINTENANCE/REPAIR AREAS, STOCKPILE AREAS, FUEL STORAGE AREAS, ETC, AND POLLUTANT CONTROLS FOR EACH.
40. ALL PRIVATE HAUL ROADS AND ACCESS ROUTES AND THE LOCATION OF ALL STAGING AREAS AND STORAGE AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIRING ALL ROADS AND OTHER FACILITIES USED DURING CONSTRUCTION. UPON COMPLETION OF THE PROJECT, ALL HAUL ROADS, ACCESS ROADS, STAGING AREAS, AND STORAGE AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE CONDITION AT THE TIME THE CONTRACTOR COMMENCES WORK ON THE PROJECT.
41. USE OF ON-SITE FUEL STORAGE TANKS IS DISCOURAGED. HOWEVER, IF USED, THE PREVENTION OF HAZARDS TO THE GROUND WATER IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR UTILIZING SAID STORAGE. SEE N.C.T.C.O.G. CONSTRUCTION BMP MANUAL SECTION 4 HAZARDOUS WASTE MANAGEMENT.
42. CONSTRUCTION ENTRANCES ARE TO BE INSTALLED AT ALL POINTS WHERE EQUIPMENT ENTERS OR LEAVES THE SITE. THE LOCATION OF SAME IS TO BE APPROVED BY THE OWNER OR HIS REPRESENTATIVE.
43. THIS EROSION CONTROL PLAN IS A SUPPLEMENT TO THE S.W.P.P.P. PREPARED BY OTHERS. REFER TO THE S.W.P.P.P. FOR ADDITIONAL REQUIREMENTS.
44. ADDITIONAL EROSION CONTROL MEASURES MAY BE IMPLEMENTED BY THE CONTRACTOR AT HIS DISCRETION AT NO ADDITIONAL EXPENSE TO THE OWNER. THE ADDITION OR DELETION OF ANY EROSION CONTROL MEASURE MAY REQUIRE THAT THE S.W.P.P.P. BE MODIFIED IN ACCORDANCE WITH THE T.C.E.Q.'S T.P.D.E.S. GENERAL PERMIT GUIDELINES.
45. PLANTING AND/OR SEEDING OF VEGETATED AREAS TO ACCOMPLISH STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LANDSCAPING PLAN. AREAS BEYOND THE LIMITS OF THE LANDSCAPING PLAN (OR WHEN A LANDSCAPING PLAN DOES NOT EXIST) SHALL BE HYDROMULCHED WITH HIGHWAY MIX AND WATERED WITH TEMPORARY ABOVE GROUND IRRIGATION UNTIL THE VEGETATION IS ESTABLISHED.
46. THE CONTRACTOR SHALL ASSUME LIABILITY FOR DAMAGE TO ADJACENT PROPERTIES AND/OR PUBLIC RIGHT OF WAY RESULTING FROM FAILURE TO FULLY IMPLEMENT AND EXECUTE ALL EROSION CONTROL PROCEDURES SHOWN AND NOTED IN THESE PLANS.
47. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO USE WHATEVER MEANS ARE NECESSARY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE, SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREETS, ALLEYS, STREAMS, STORM DRAIN SYSTEMS AND INLETS FROM EROSION DEPOSITS.
48. EROSION CONTROLS TO REMAIN IN PLACE AND TO BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
49. SILT FENCES SHALL BE PLACED AROUND ANY STOCKPILES USED ON THE SITE.
50. ALL TEMPORARY EROSION CONTROL DEVICES (SILT FENCE, ETC.) SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF SITE WITHIN THIRTY DAYS AFTER STABILIZATION OF ALL DISTURBED SURFACES IS COMPLETE.
51. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES ALREADY IN PLACE. CONTRACTOR SHALL REMOVE AND REPLACE EROSION CONTROL AS NEEDED FOR CONSTRUCTION OR ACCESS. CONTRACTOR SHALL REPLACE ANY EROSION CONTROL MATERIALS AT THE END OF EACH WORKDAY IF SAID MATERIALS WERE REMOVED DURING THE DAY FOR EASE OF CONSTRUCTION OR ACCESS.
52. EROSION CONTROL MEASURES MAY ONLY BE PLACED IN FRONT OF INLETS OR IN CHANNELS, DRAINAGEWAYS OR BORROW DITCHES AT RISK OF CONTRACTOR. CONTRACTOR SHALL REMAIN LIABLE FOR ANY DAMAGE CAUSED BY MEASURES, INCLUDING FLOODING DAMAGE WHICH MAY OCCUR DUE TO BLOCKED DRAINAGE, AT THE CONCLUSION OF ANY PROJECT, ALL CHANNELS, DRAINAGEWAYS AND BORROW DITCHES IN THE WORK ZONE SHALL BE DREDGED OF ANY SEDIMENT GENERATED BY THE PROJECT OR DEPOSITED AS A RESULT OF EROSION CONTROL MEASURES.
53. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY THE GOVERNING AUTHORITIES.
54. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED SHALL BE PERMANENTLY PLANTED AND/OR SEEDED WITHIN 14 DAYS.
55. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 14 DAYS SHALL BE TEMPORARILY PLANTED AND/OR SEEDED AND WATERED.
56. ALL WASH WATER SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN WASH WATER POLLUTANTS AND STORM RUNOFF DISCHARGED FROM THIS SITE.
57. ALL VEHICLES SHALL BE CLEANED AT THE CONSTRUCTION EXIT POINT(S) BEFORE LEAVING THE SITE.
58. A CENTRALIZED PIT/WASH BASIN SHALL BE CONSTRUCTED ON-SITE FOR THE PURPOSE OF CONCRETE TRUCK WASHING. SEE N.C.T.C.O.G. CONSTRUCTION BMP MANUAL SECTION 4 CONCRETE WASTE MANAGEMENT.
59. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SILT IN ANY STORM SEWER INLETS AND PIPES, AND ALONG SILT FENCES WITHIN 48 HOURS AFTER INSPECTION OF DEVICES REVEALS THE PRESENCE OF EXCESS SILTATION.
60. OIL AND GREASE ABSORBING MATERIALS SHALL BE READILY AVAILABLE ON-SITE AND SHALL BE PROMPTLY USED TO CONTAIN AND/OR CLEAN UP ALL FUEL OR CHEMICAL SPILLS OR LEAKS.
61. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO ADJACENT ROADWAYS BY ANY VEHICLES EXITING THE SITE SHALL BE CLEANED OR REMOVED IMMEDIATELY.
62. IF DIRT OR ROCK IS EXPORTED FROM THIS SITE, OR IF DIRT OR ROCK IS IMPORTED FROM AN OFF SITE BORROW LOCATION, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR COMPLIANCE WITH ALL T.C.E.Q. STORM WATER REQUIREMENTS FOR THE REMOTE SITE. THE CONTRACTOR SHALL FURNISH THE OWNER WITH A COPY OF THE WRITTEN AGREEMENT WITH THE LANDOWNER OF THE REMOTE SITE INDICATING PERMITTING/PERMISSION AND EROSION CONTROL MEASURES WILL BE IMPLEMENTED THEREON.
63. THE CONTRACTOR SHALL RESTORE ALL AREAS, ONSITE AND OFFSITE, DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO: TRENCH BACKFILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE SWALES, STAGING AREAS, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS. UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE DRAWINGS, RESTORATION SHALL INCLUDE HYDROMULCHING ALL DISTURBED AREAS WITH A SLOPE OF LESS THAN 20% (1:5) AND SODDING AREAS WITH A SLOPE OF 20% (1:5) OR GREATER. ESTABLISHMENT OF GRASS THROUGH PROPER WATERING IS LEFT UP TO THE CONTRACTOR'S MEANS AND METHODS, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE/IRRIGATION DRAWINGS.

UTILITY NOTES:

64. ALL PIPE LENGTHS MEASURED FROM STATION TO STATION BASED ON THE CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
65. PIPE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
66. THE CONTRACTOR SHALL NOT REMOVE, DISABLE OR DISRUPT EXISTING FIRE OR LIFE SAFETY SYSTEMS WITHOUT RECEIVING PRIOR WRITTEN PERMISSION FROM THE GOVERNING AUTHORITY.
67. FIRE HYDRANTS AND VALVES AS SHOWN ON THIS PLAN ARE SYMBOLIC ONLY. INSTALLATION OF SAME IS TO BE IN ACCORDANCE WITH THE DETAIL AND/OR AT THE STATIONS AS NOTED.
68. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS GOVERNING EXCAVATION. THE CONTRACTOR SHALL PROVIDE DETAILED PLANS AND SPECIFICATION FOR TRENCH SAFETY SYSTEMS THAT COMPLY WITH APPLICABLE LAWS GOVERNING EXCAVATION. THESE PLANS SHALL BE SEALED BY AN ENGINEER EXPERIENCED IN THE DESIGN OF TRENCH SAFETY SYSTEM, REGISTERED IN THE STATE OF TEXAS. THE CONTRACTOR SHALL SUBMIT COMPLETED TRENCH SAFETY PLANS TO THE GOVERNING AUTHORITY PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL ASPECTS OF WORK RELATED TO EXCAVATION. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U.S. DEPARTMENT OF LABOR, O.S.H.A., "CONSTRUCTION SAFETY AND HEALTH REGULATIONS".
69. ALL TRENCH BACKFILL SHALL BE PER GOVERNING AUTHORITY REQUIREMENTS UNLESS OTHERWISE NOTED.
70. SEE WATER CONSTRUCTION DETAILS SHEET FOR CONSTRUCTION DETAILS.
71. ALL CLEAN-OUTS TO BE PROVIDED PER GOVERNING AUTHORITY REQUIREMENTS.
72. THE CONTRACTOR SHALL MAINTAIN EXISTING SANITARY SEWER AND WATER SERVICES AT ALL TIMES DURING CONSTRUCTION.
73. AT ALL LOCATIONS IN THE PROFILES WHERE SDR-26 PVC PIPE IS SPECIFIED BENEATH WATER LINES, IT IS TO BE BACKFILLED WITH CEMENT STABILIZED SAND AS REQUIRED BY T.C.E.Q. REGULATION 217.53 (d) (3) FOR A DISTANCE OF 10' EITHER SIDE OF THE WATER LINE. AT OTHER LOCATIONS WHERE SDR-26 IS SPECIFIED, IT IS TO BE BACKFILLED AS NOTED.
74. ANY CONNECTION TIE-IN TO AN EXISTING MANHOLE MUST BE CORED.
75. ALL CURVED STORM DRAIN IS TO BE CONSTRUCTED WITH RADIUS PIPE OR BY METHOD OF PULLED JOINTS AND IS TO HAVE ALL JOINTS GROUTED, AS NECESSARY. IT SHALL BE THE CONTRACTORS OPTION AS TO WHICH METHOD TO USE. THERE SHALL BE NO SEPARATE PAY.
76. AFTER COMPLETION OF ALL STORM SEWER INSTALLATION, THE CONTRACTOR SHALL ENSURE THAT ALL DEBRIS AND SILT HAS BEEN REMOVED

TRAFFIC CONTROL NOTES:

77. THE CONTRACTOR SHALL PREPARE ALL TRAFFIC CONTROL PLANS AND SUBMIT TO THE GOVERNING AUTHORITY PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMITS FOR WORK WITHIN THE GOVERNING AUTHORITY. THE PLAN SHALL BE PREPARED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS M.U.T.C.D. AND AS MODIFIED BY THE T.X.D.O.T. SUPPLEMENT TO THE M.U.T.C.D. THE PLAN SHALL ADDRESS THE REQUIREMENTS FOR ALL SIGNS, BARRICADES, FLAGMEN, SIGNAL, PAVEMENT MARKING, LIGHTS, HOURS OF CONSTRUCTION, AND OTHER DEVICES AS NECESSARY FOR SAFE TRAFFIC CONTROL. THE COSTS ASSOCIATED WITH THE PREPARATION AND IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

GRADING NOTES:

78. IF ROCK IS ENCOUNTERED IN THE PAVEMENT SUBGRADE, REFER TO THE GEOTECHNICAL REPORT (NO G20-3956) FOR RECOMMENDATIONS AND PROCEDURES. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THIS CONTRACT.
79. MANHOLE RIM ELEVATIONS, CLEAN-OUTS, VALVE BOXES, FIRE HYDRANTS, ETC., SHALL BE ADJUSTED TO FINISHED GRADE BY THE PAVING CONTRACTOR AT THE TIME OF PAVING.
80. THE SUBGRADE SHALL BE PROOF ROLLED AND OBSERVED BY THE CONSTRUCTION INSPECTOR PRIOR TO AND AFTER SUB-GRADE STABILIZATION.
81. ROUGH SITE GRADING SHALL BE COMPLETED TO A TOLERANCE OF PLUS OR MINUS ONE TENTH OF ONE FOOT IN STREETS AND PLUS OR MINUS THREE TENTHS OF ONE FOOT FOR BUILDING PADS. FINAL LOT GRADING, TO BE DONE UPON COMPLETION OF PAVING AND UTILITY FACILITIES, SHALL BE PROVIDED TO A TOLERANCE OF PLUS OR MINUS ONE TENTH OF ONE FOOT AT ALL FO

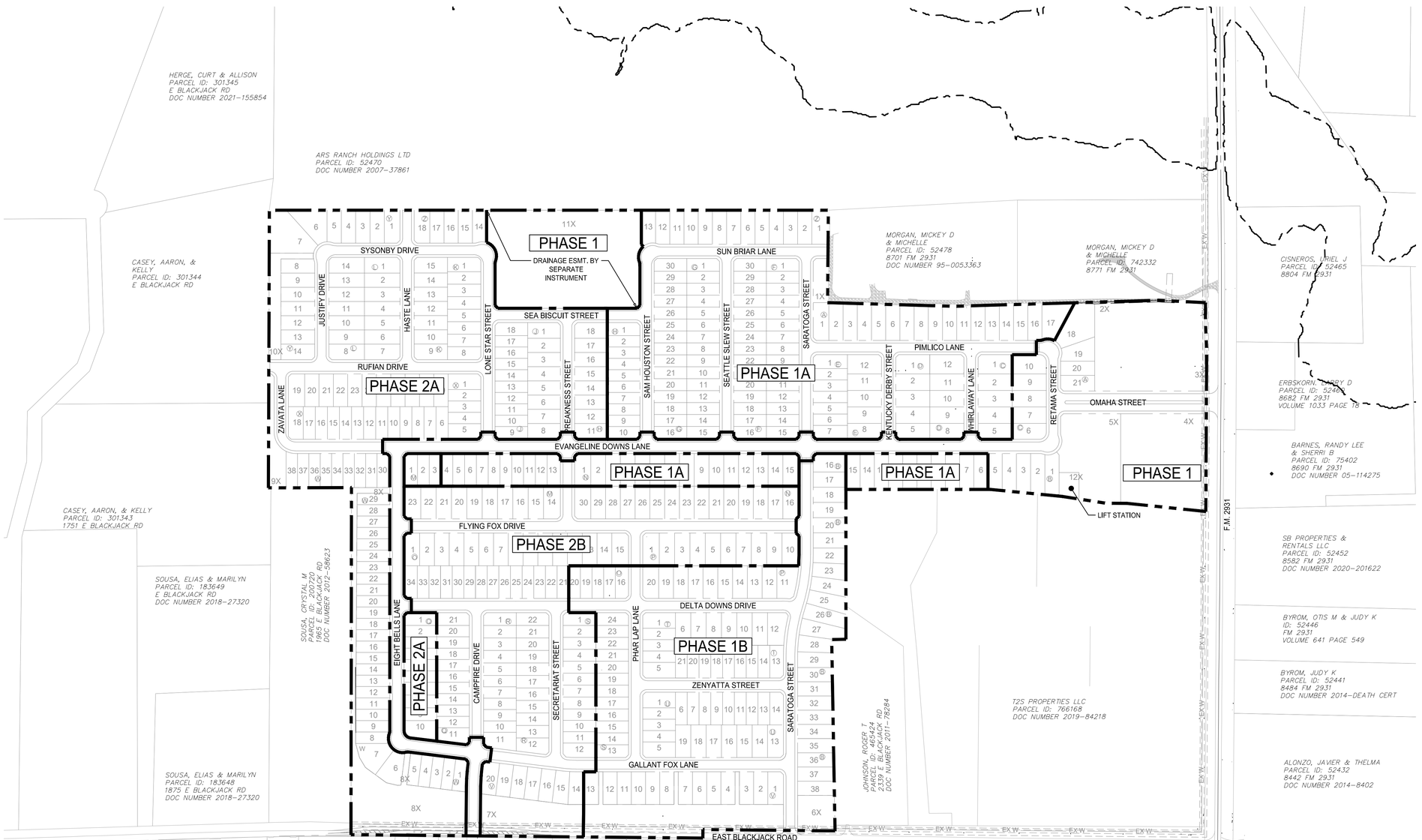
SECOND SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

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BENCHMARKS

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ELEVATION = 624.58'

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

PHASING PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	05
REVIEWER: NVT			

SARATOGA PHASE 1A

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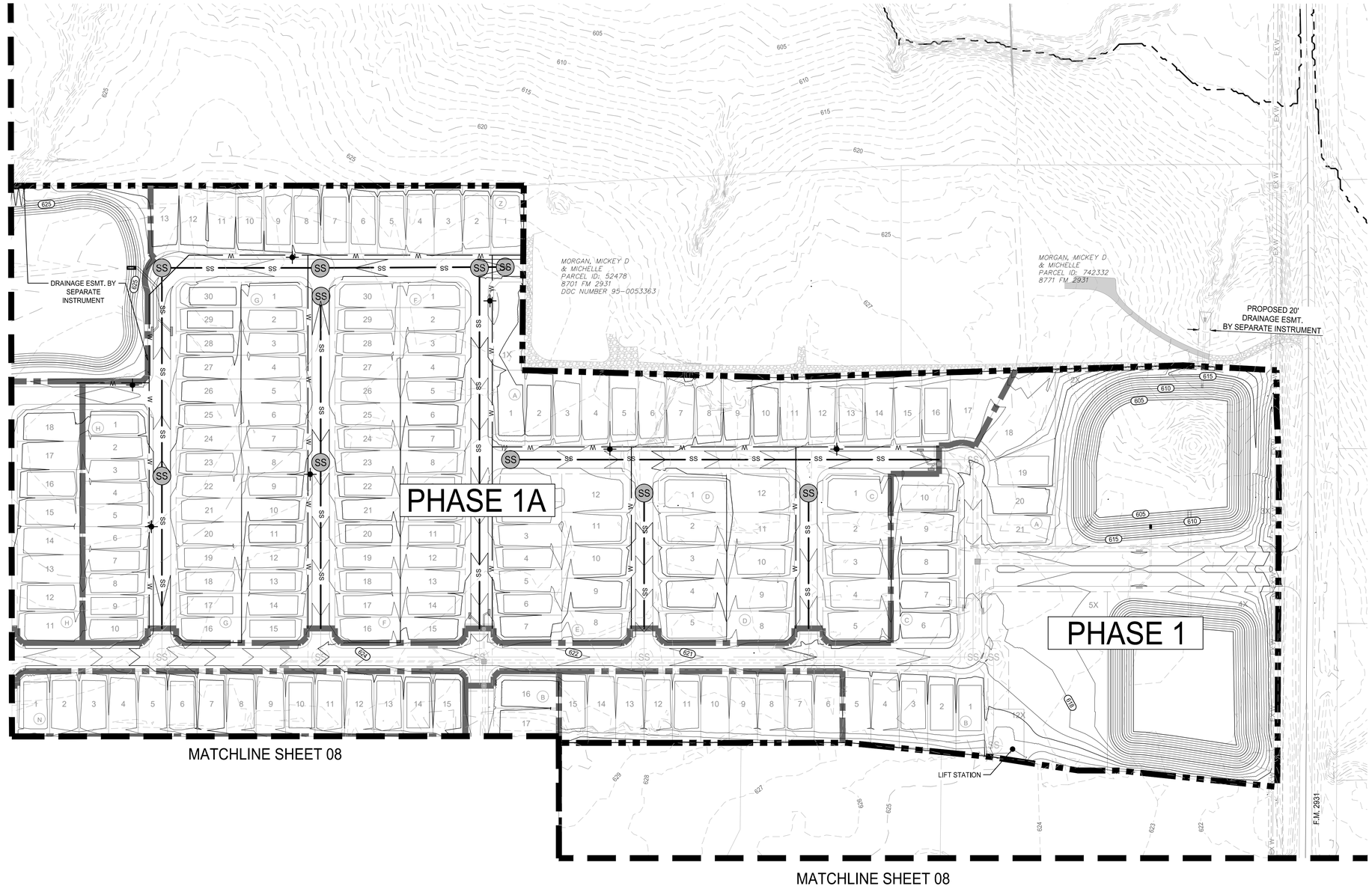
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N

0 100' 200'

SCALE: 1" = 100'

- PHASE BOUNDARY
- PROPERTY BOUNDARY
- SS — SANITARY SEWER PIPE
- W — WATER PIPE
- STORM DRAIN
- EXISTING SANITARY SEWER PIPE
- EXISTING WATER PIPE
- EXISTING STORM DRAIN
- 135 — PROPOSED MAJOR CONTOUR
- 133 — PROPOSED MINOR CONTOUR
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- 133 — EXISTING MINOR CONTOUR



KEY MAP
N.T.S.

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SARATOGA PHASE 1A

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Westwood

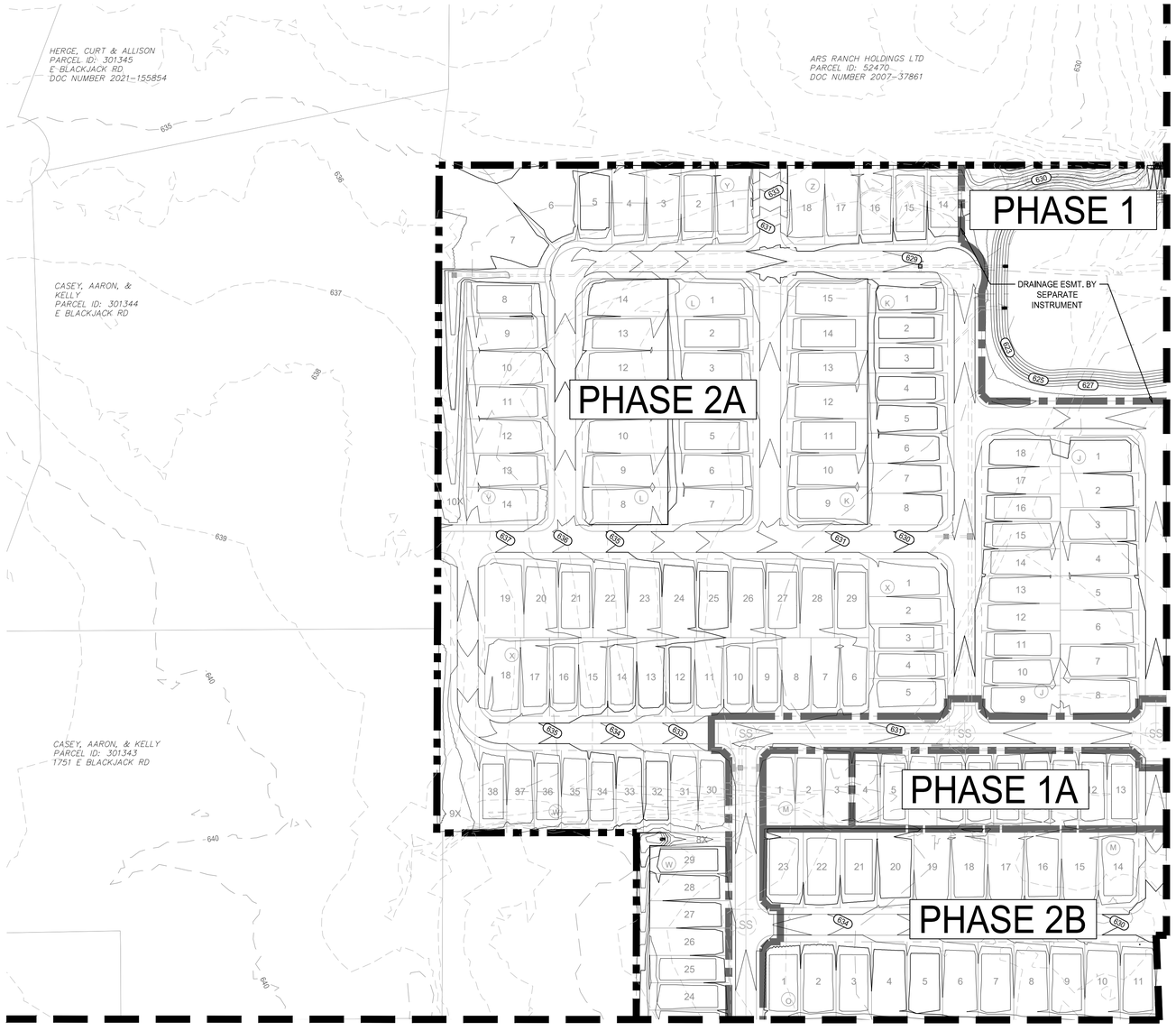
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DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	06
REVIEWER: NVT			

SARATOGA PHASE 1A

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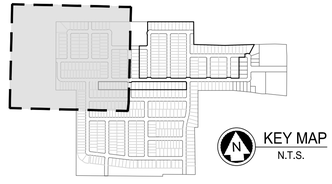
SECOND SUBMITTAL

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	07
REVIEWER: NVT			

SARATOGA PHASE 1A

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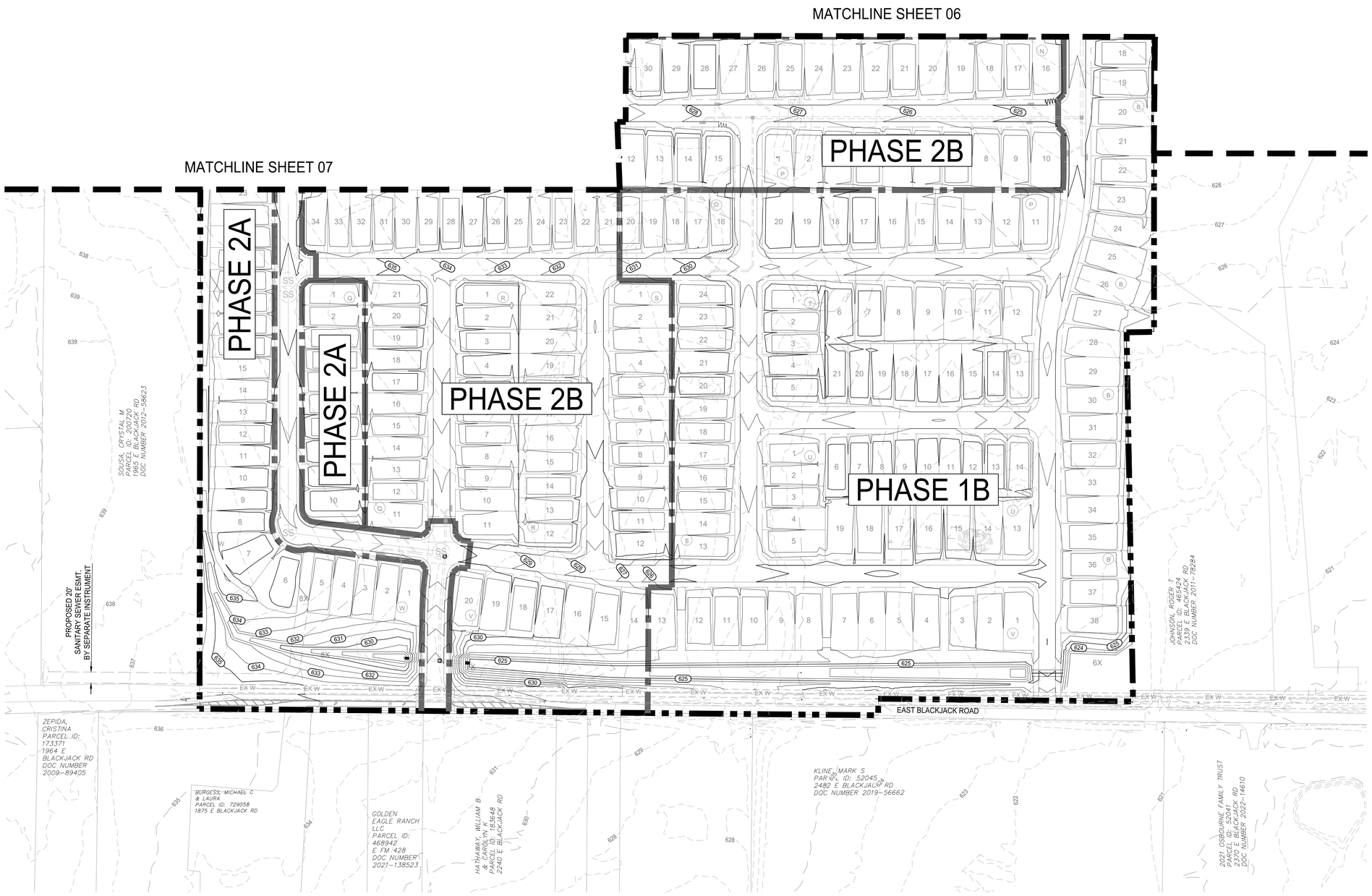
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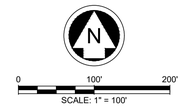
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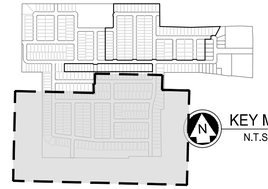
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Toll Free (888) 937-5150
11000 Frisco Street, Suite 400
Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	08
REVIEWER: NVT			

SARATOGA PHASE 1A

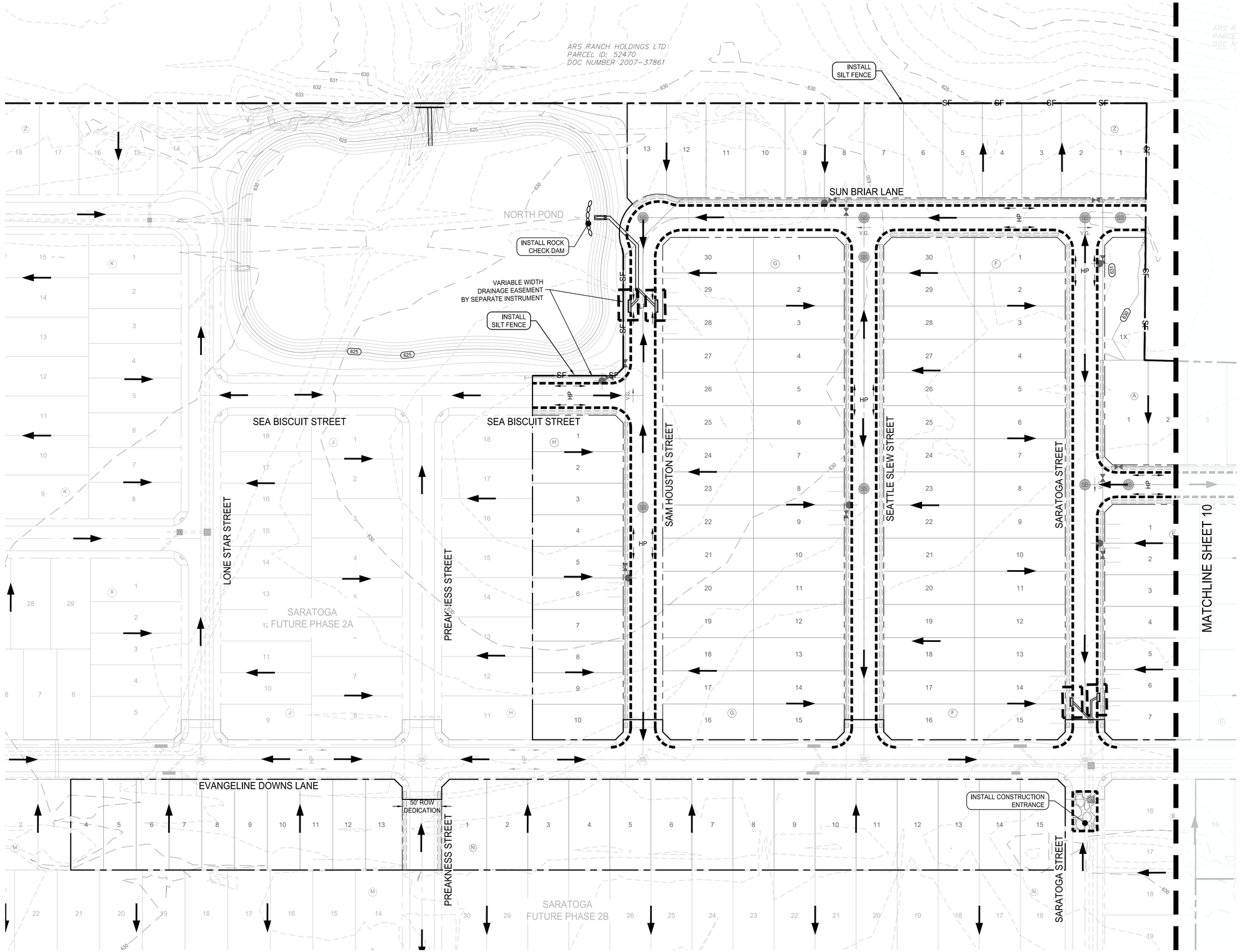
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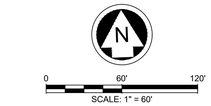
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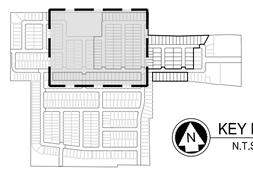


LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SILT FENCE
- PROPOSED CURLEX (4' OR 8') & SILT FENCE (TO BE APPLIED AFTER PAVING AT ROW)
- PROPOSED CHECK DAM
- INLET PROTECTION
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE

NOTES:

1. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES AND STANDARD DETAILS.
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KEY MAP
N.T.S.

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SARATOGA PHASE 1A

EROSION CONTROL PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

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TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
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REVIEWER: NVT			

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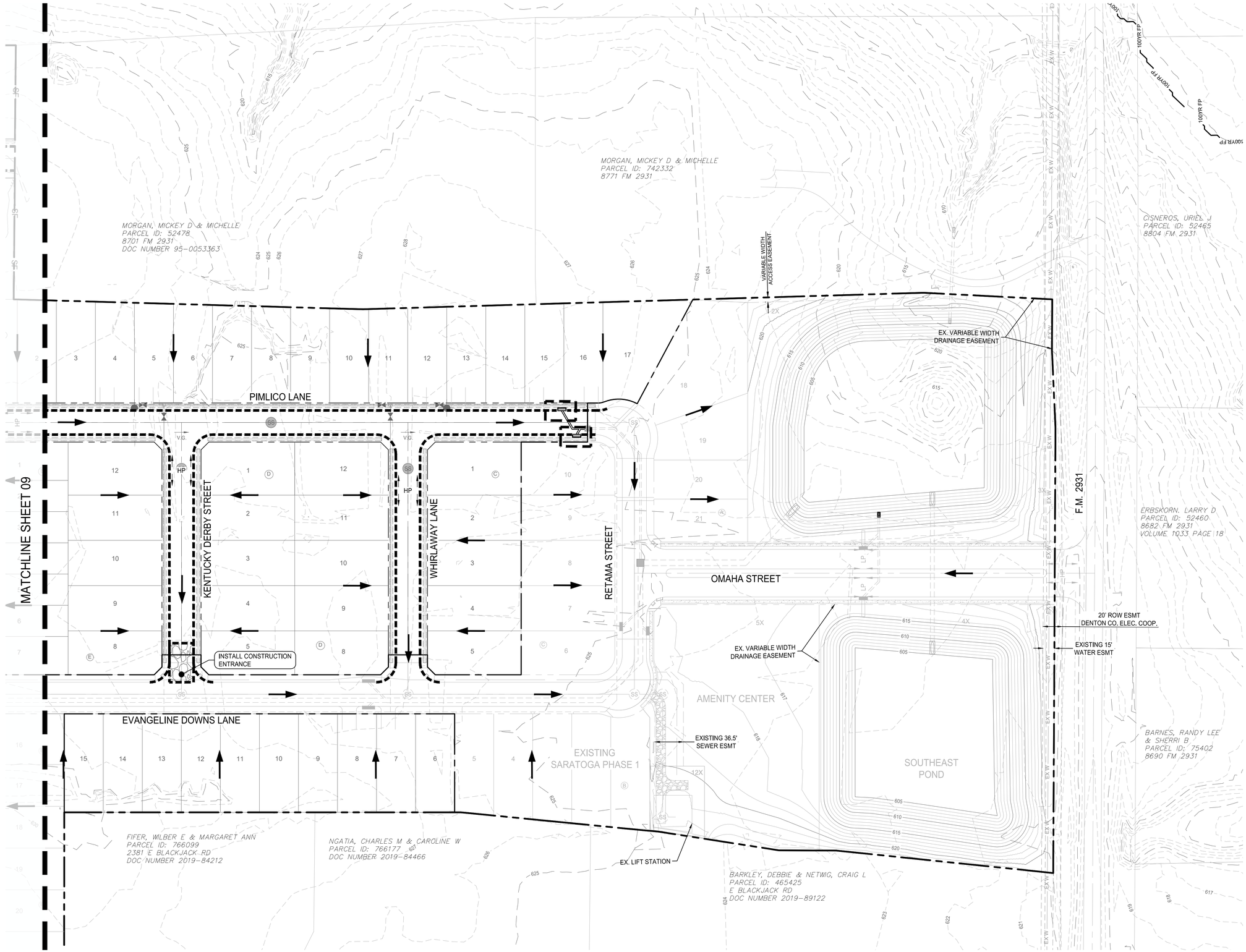
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0 60' 120'
SCALE: 1" = 60'

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REVIEWER: NVT			

SARATOGA PHASE 1A

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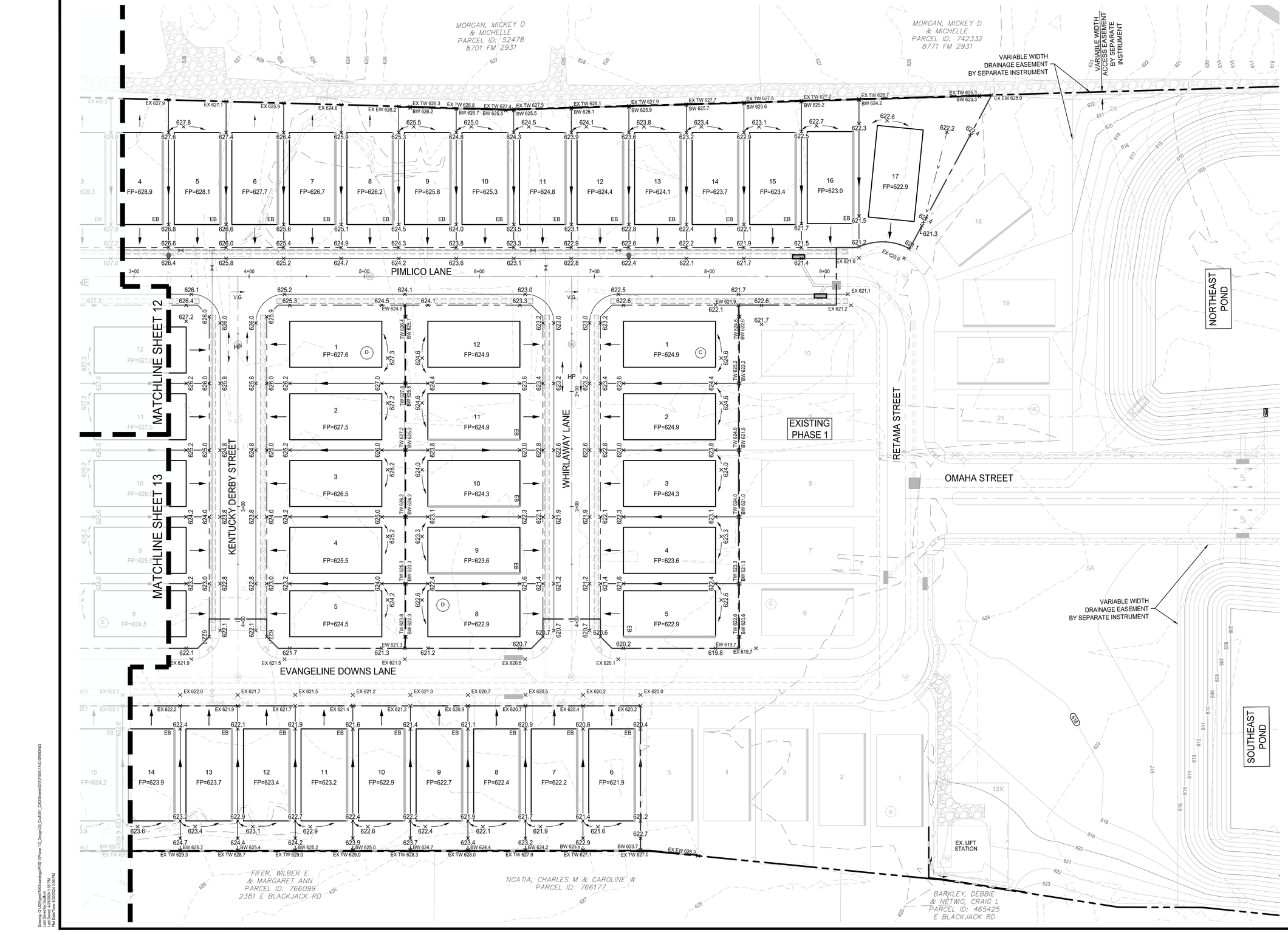
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0 40' 80'
SCALE: 1" = 40'

LEGEND

645	PROPOSED MAJOR CONTOUR
644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
	GRADE BREAK
	DRAINAGE SWALE
EX 532.5	EXISTING SPOT ELEVATION
532.5	PROPOSED SPOT ELEVATION
FP 532.5	FINISHED PAD
TW 519.2 / BW 518.7	TOP OF WALL / BOTTOM OF WALL
EW 518.7	END OF WALL
HP	HIGH POINT
LP	LOW POINT

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KEY MAP
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

GRADING PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	11
REVIEWER: NVT			

SARATOGA PHASE 1A

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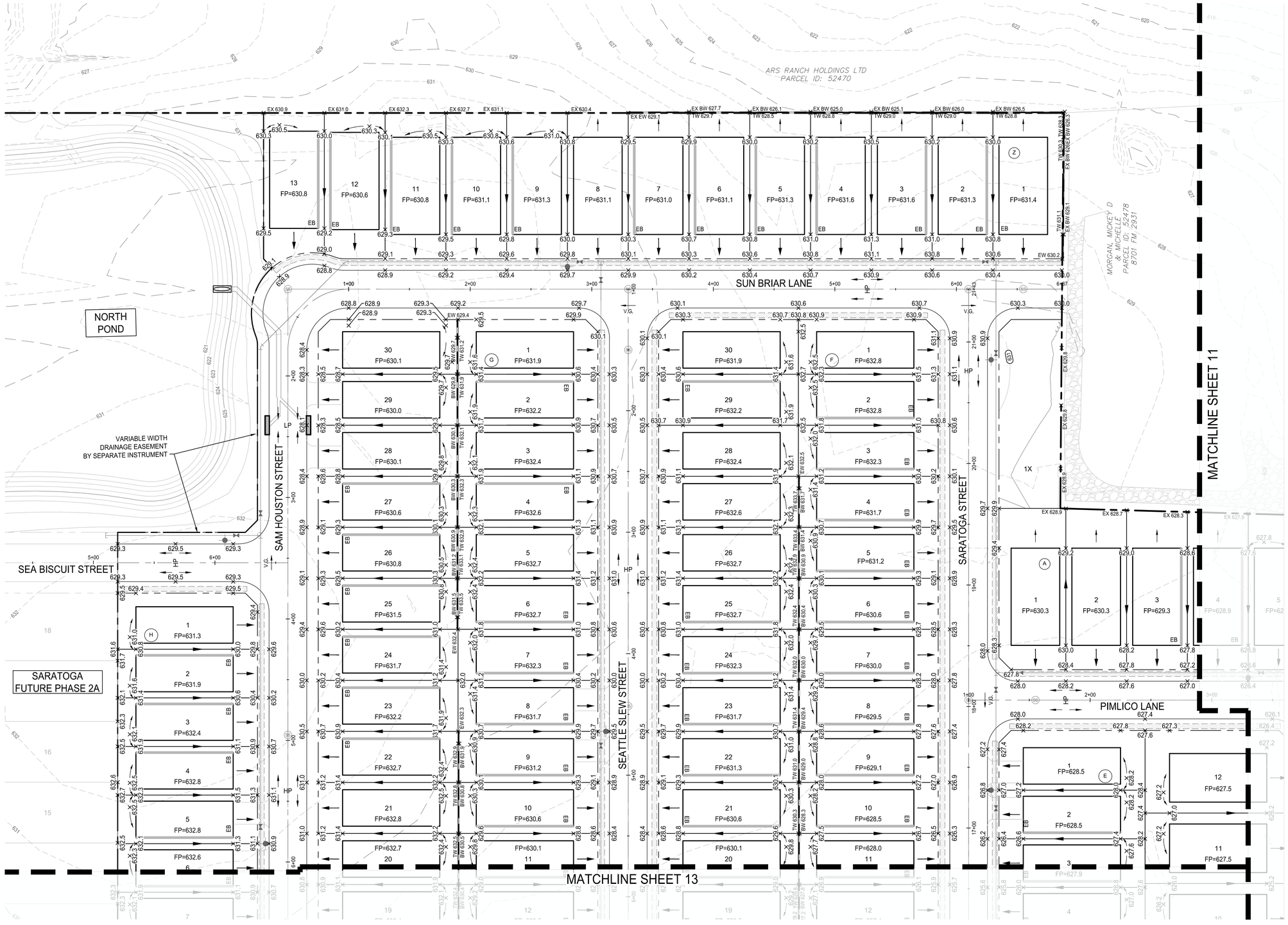
SECOND SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

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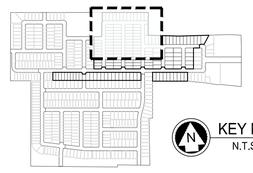


0 40' 80'
SCALE: 1" = 40'

LEGEND

645	PROPOSED MAJOR CONTOUR
644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
	GRADE BREAK
	DRAINAGE SWALE
×EX 532.5	EXISTING SPOT ELEVATION
×532.5	PROPOSED SPOT ELEVATION
FP 532.5	FINISHED PAD
TW 519.2 / BW 518.7 ×	TOP OF WALL / BOTTOM OF WALL
EW 518.7 ×	END OF WALL
HP	HIGH POINT
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DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	12
REVIEWER: NVT			

SARATOGA PHASE 1A

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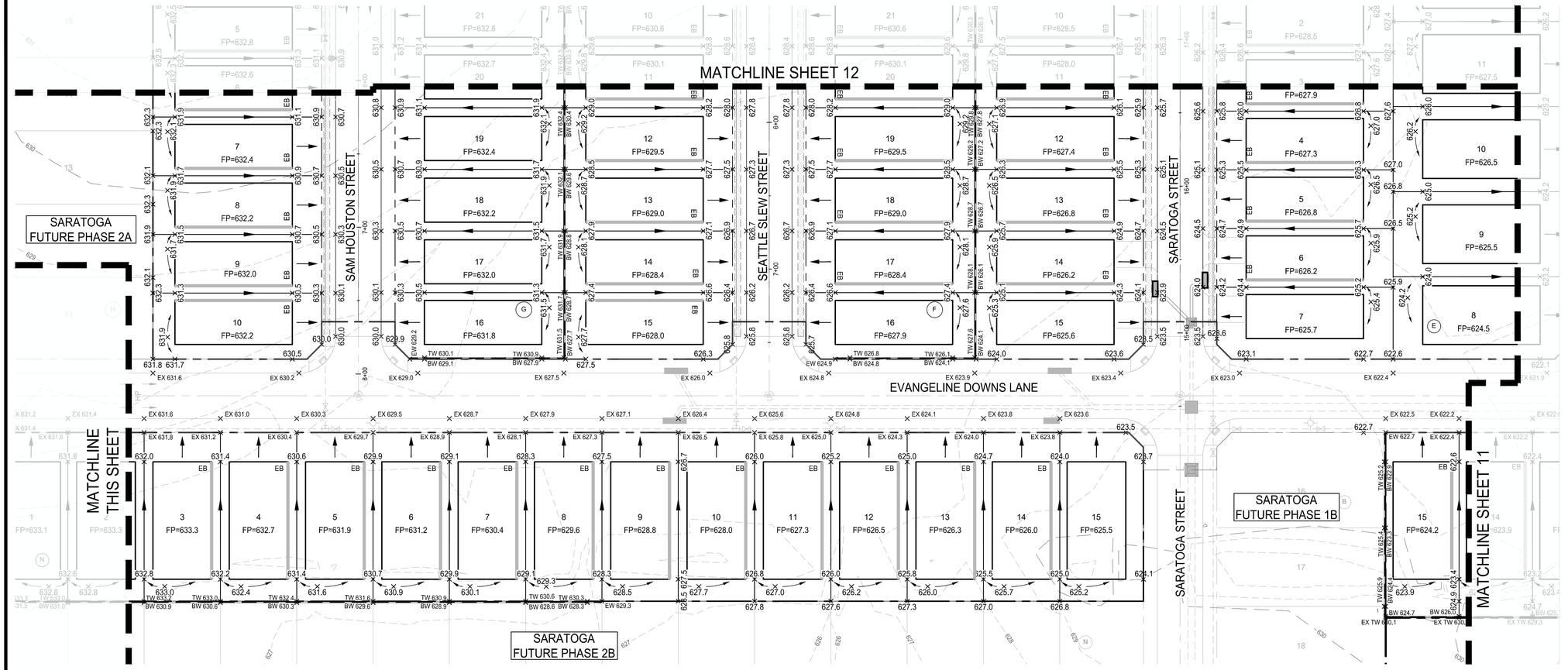
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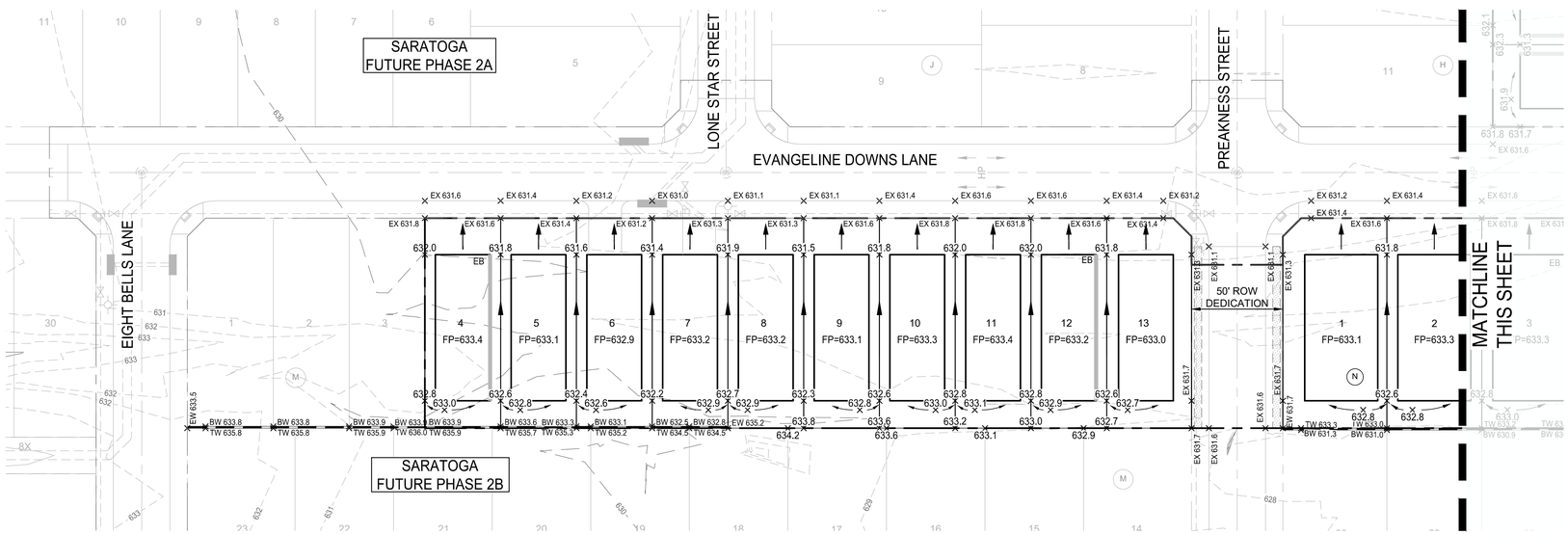
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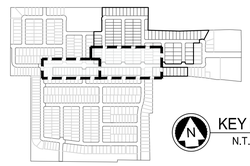


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SARATOGA PHASE 1A

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DESIGNED: CLS	APRIL 2024	GEE21003	13
REVIEWER: NVT			

SARATOGA PHASE 1A

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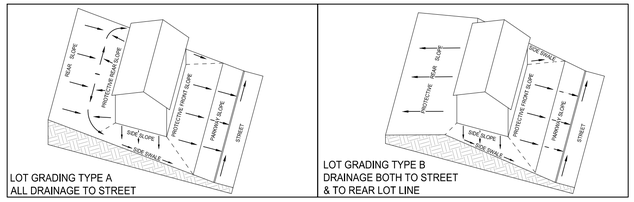
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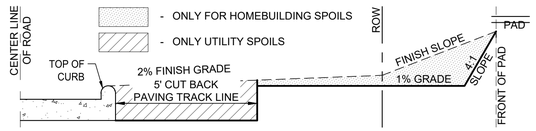
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SECOND SUBMITTAL



LOT GRADING TYPE A
ALL DRAINAGE TO STREET

LOT GRADING TYPE B
DRAINAGE BOTH TO STREET
& TO REAR LOT LINE

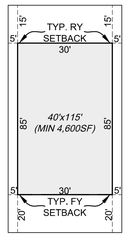


CONTRACTOR TO SLOPE FRONT YARD FROM ROW AT 1% THEN UP 4:1 TO FINAL PAD ELEVATION

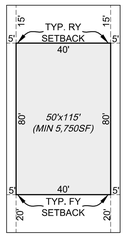
TYPICAL GRADING CROSS SECTION

N.T.S.

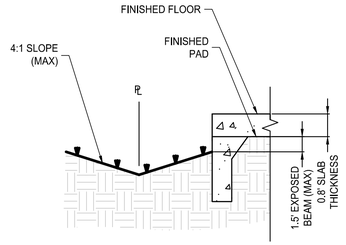
TYPICAL PAD DETAIL



40'X115' LOT
N.T.S.



50'X115' LOT
N.T.S.



EXPOSED BEAM

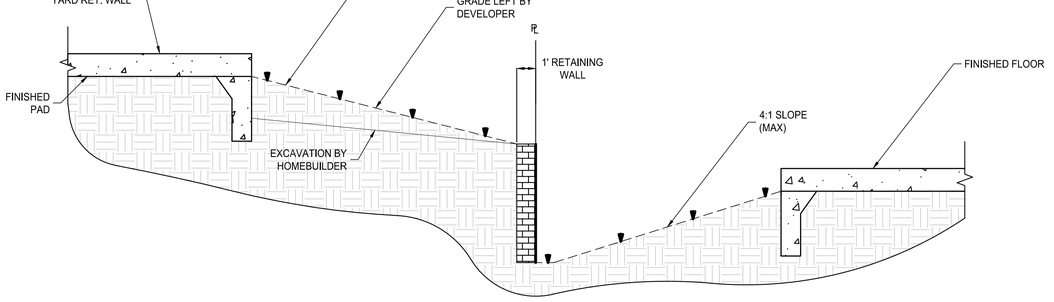
N.T.S.

LOT GRADING NOTES:
- EXPOSED BEAMS WILL BE ALLOWED IN SIDE YARD AND/OR FRONT YARD.
- IF BACKYARD DEPTH IS GREATER THAN 15', THE LAST 10' OF BACKYARD GRADING CAN EXCEED MINIMUM REAR YARD SLOPE, BUT NOT TO EXCEED 5:1
- IRREGULAR PADS TO BE INDICATED WITH AN "X" AND DIMENSIONS PROVIDED ON THE GRADING PLAN
- "X" - DENOTES DESIGN POINT ON GRADING PLAN
- WHERE A DROP GARAGE IS REQUIRED TO MAINTAIN MAXIMUM DRIVEWAY SLOPE A DROP GARAGE NOTE SHALL BE INDICATED WITH A "DG" ON THE GRADING PLAN FOR THAT LOT
- TYPE A = BACK TO FRONT. B = SPLIT DRAINAGE, C = FRONT TO BACK
- LOT TO LOT DRAINAGE IS TO BE AVOIDED, EVEN IF PERMISSIBLE BY THE CITY
- ANY DEVIATIONS FROM THE CRITERIA SHOULD BE NOTED ON THE GRADING PLANS
- FOR ALL TYPES - PAD IS 0.3' ABOVE HIGH POINT
- SLAB THICKNESS = 0.8'

FRONT ENTRY NOTES:
- NO SWALES IN THE DRIVEWAYS WITH TYPE-C GRADING
- MAX 12% GRADE ON DRIVEWAY
- MAX 12% GRADE IN REAR YARD, 10% IS OPTIMAL
- MAX 25% GRADE ON FRONT YARD
- MIN 1% GRADE IN THE SIDE YARD SWALES FROM FRONT TO BACK 1.25% PREFERRED
- PAD IS TO BE BUILT FROM THE FRONT YARD SETBACK

REAR YARD NOTES:
- WITH TYPE-A DRAINAGE, REAR SWALE = 8' FROM PAD THEN AROUND TO SIDE SWALES. (MAXIMUM REAR YARD SLOPE FROM SWALE TO REAR PROPERTY LINE = 12%)

SIDE YARD NOTES:
- MAX SLOPE FROM PAD TO SWALE = 25%
- MAX SIDE YARD RETAINING WALLS = 4'
- MAX BEAM EXPOSURE (FROM FINISHED PAD TO SWALE) = 1.5'
- DROPPED BRICK LEDGES WHEN EXPOSURE EXCEEDS 0.8"



GRADING AT SIDE YARD WALL

N.T.S.

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
CALL 811

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NATHANIEL V. THOMPSON 95918 04/30/2024
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SARATOGA PHASE 1A

GRADING DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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TollFree (888) 937-5150 Frisco, TX 75033
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DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	14
REVIEWER: NVT			

SARATOGA PHASE 1A

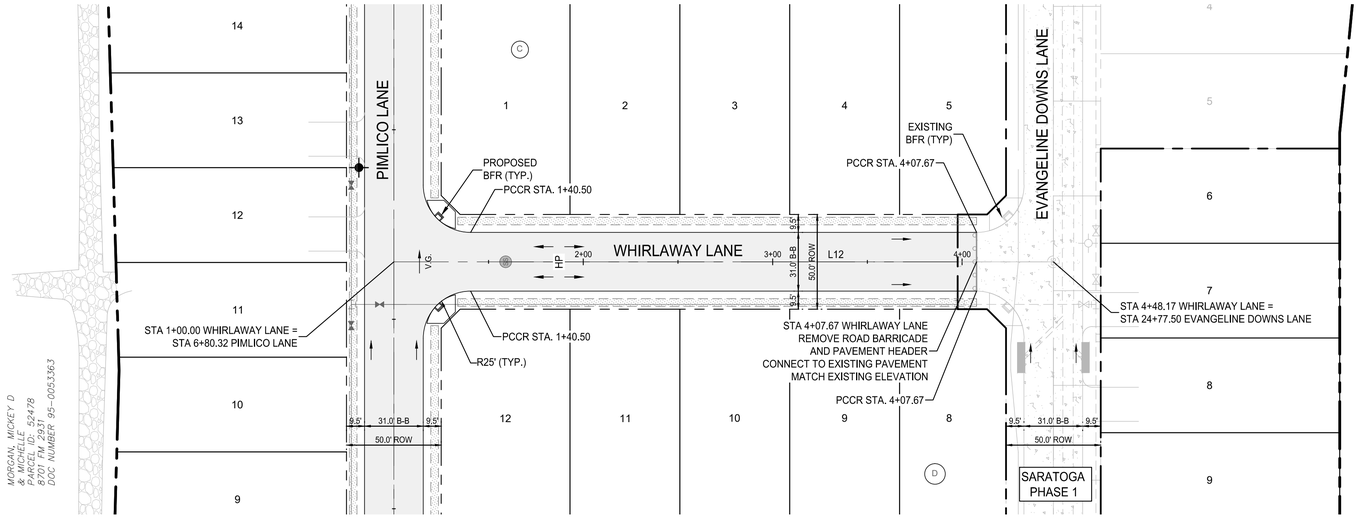
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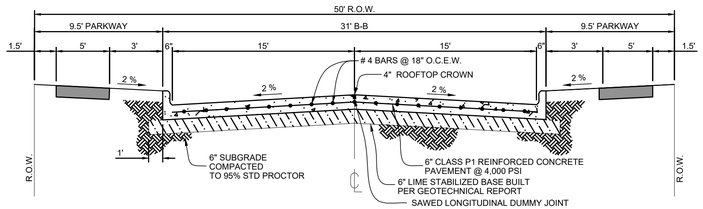
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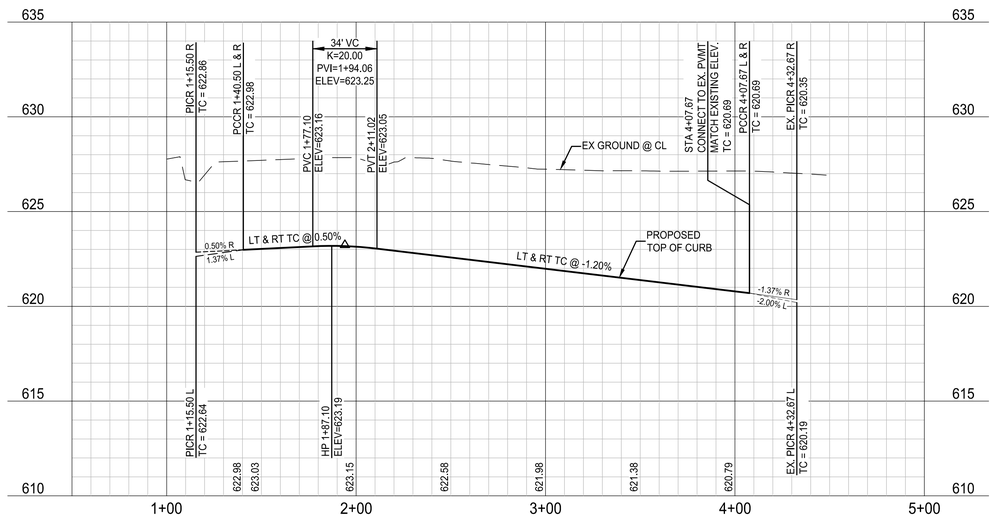


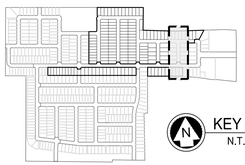
TYPICAL 50' ROW STREET SECTION

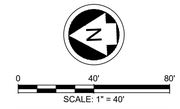
N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L12	348.17'	S01° 20' 06"W

WHIRLAWAY LANE







PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

NOTES:
1. FOR TYPICAL PAVEMENT SECTIONS SEE SHEET 42.
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4. REFER TO LANDSCAPE/HARDSCAPE PLANS FOR SIDEWALKS TO BE BUILT BY DEVELOPER.
5. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.
6. ALL ELEVATIONS REFER TO TOP OF CURB UNLESS OTHERWISE NOTED.
7. BARRIER FREE RAMPS SHALL BE CONSTRUCTED BY PAVING CONTRACTOR.
8. STREETS ARE DESIGNED TO HAVE A SPEED LIMIT OF 25 MPH

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PAVING PLAN & PROFILE - WHIRLAWAY LANE

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SARATOGA PHASE 1A

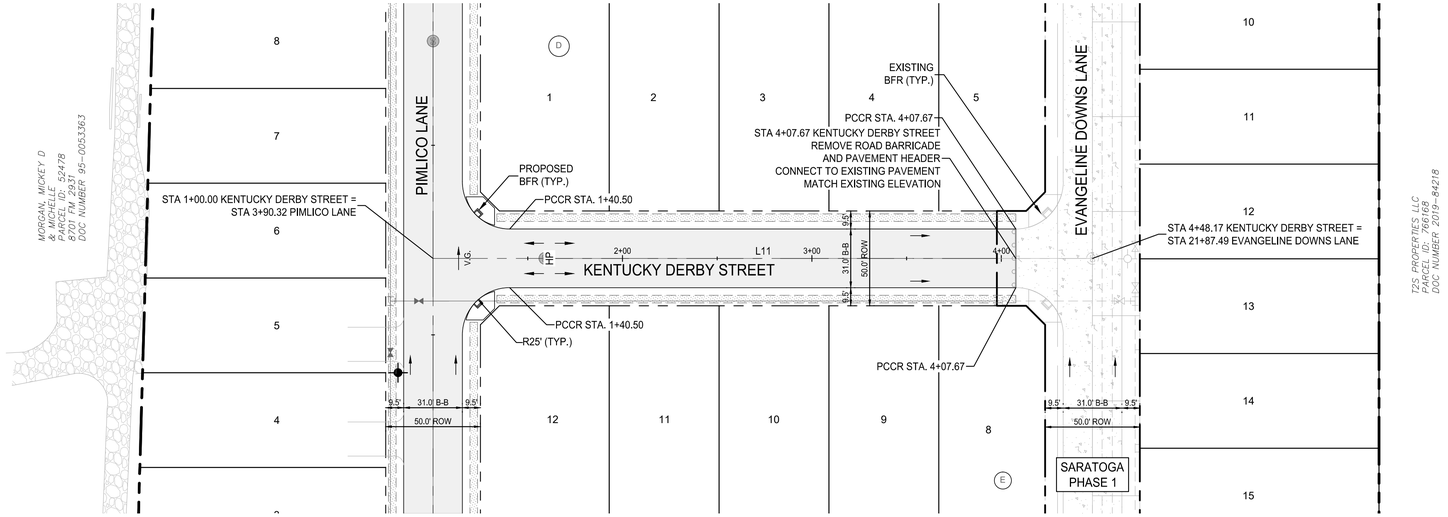
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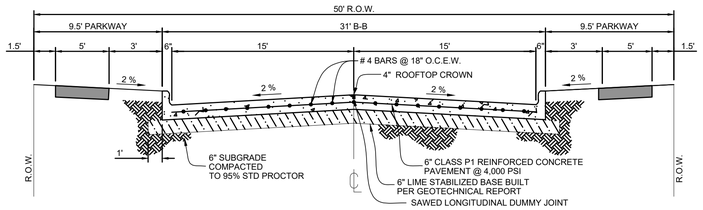
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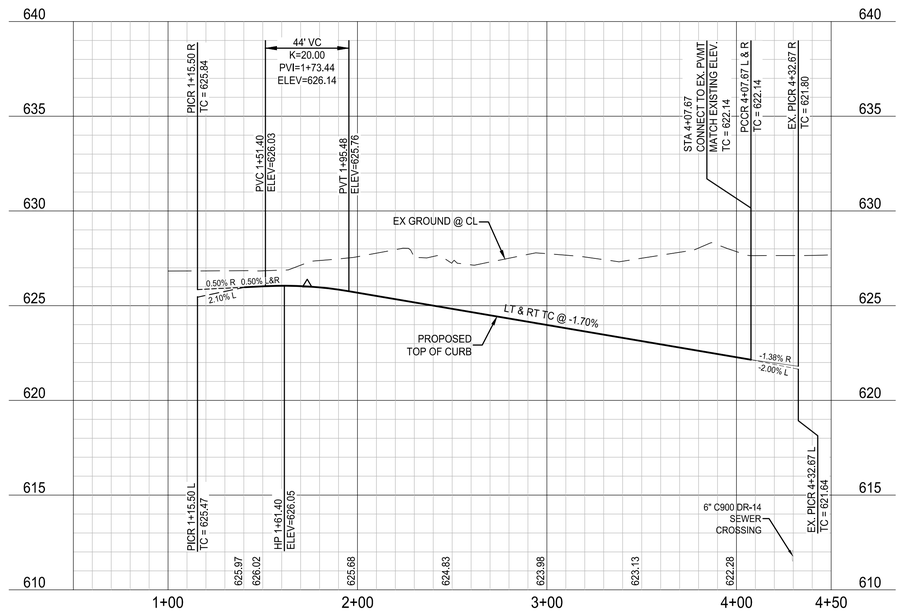


TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L11	348.17'	S01° 20' 06"W

KENTUCKY DERBY STREET



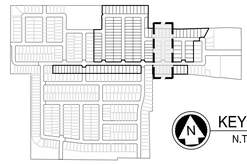


PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

NOTES:
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7. BARRIER FREE RAMPS SHALL BE CONSTRUCTED BY PAVING CONTRACTOR.
8. STREETS ARE DESIGNED TO HAVE A SPEED LIMIT OF 25 MPH



KEY MAP
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

PAVING PLAN & PROFILE - KENTUCKY DERBY STREET

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	16
REVIEWER: NVT			

SARATOGA PHASE 1A

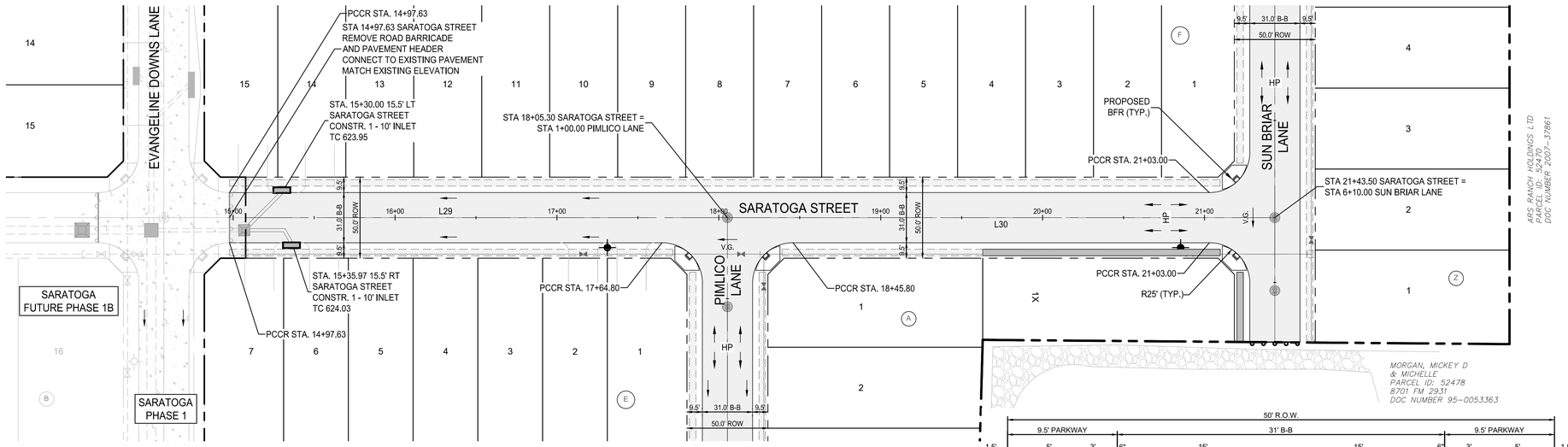
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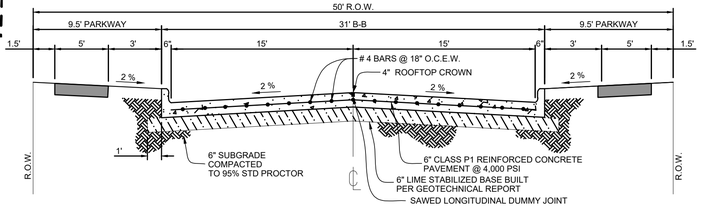
SECOND SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

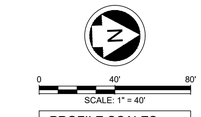
CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.





TYPICAL 50' ROW STREET SECTION

N.T.S.



PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

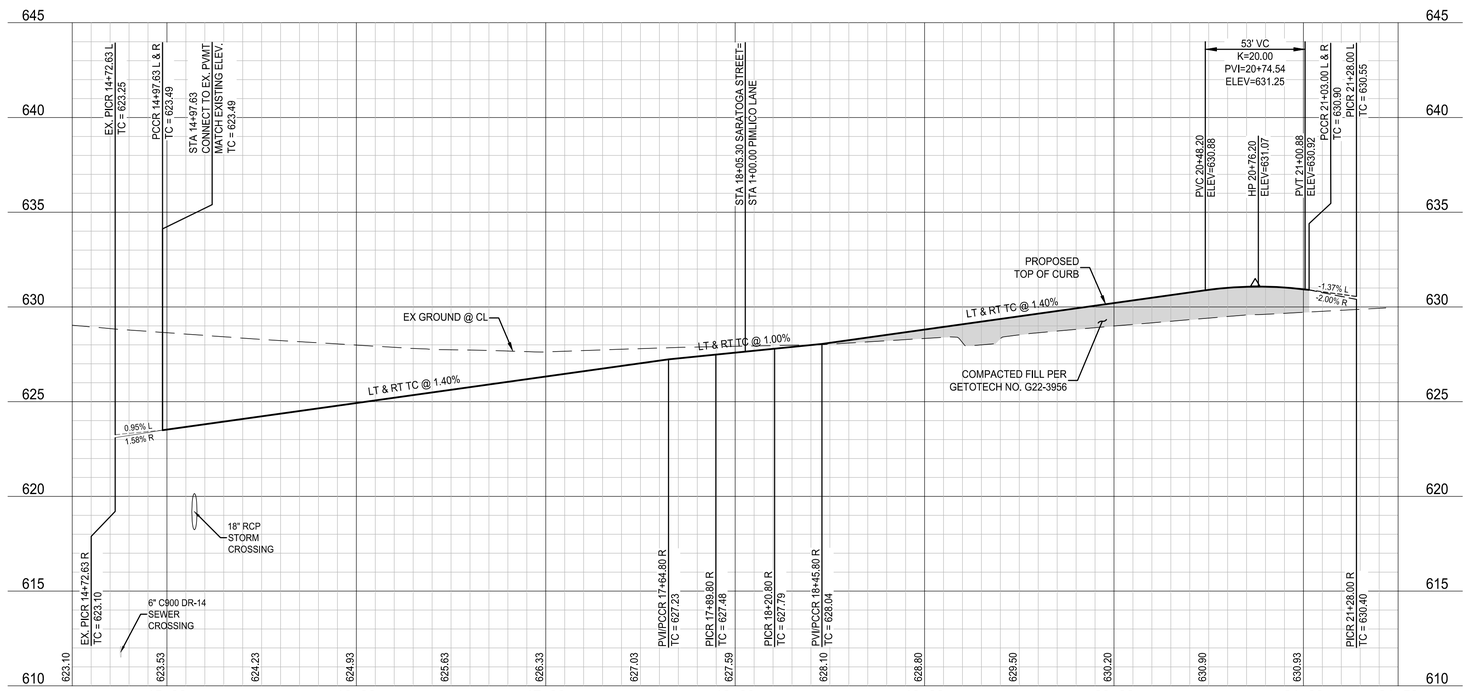
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LINE TABLE		
LINE	LENGTH	BEARING
L29	348.17'	N01° 20' 06"E
L30	338.19'	S01° 20' 06"W

SARATOGA STREET





KEY MAP
N.T.S.

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

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SARATOGA PHASE 1A

PAVING PLAN & PROFILE - SARATOGA STREET

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	17
REVIEWER: NVT			

SARATOGA PHASE 1A

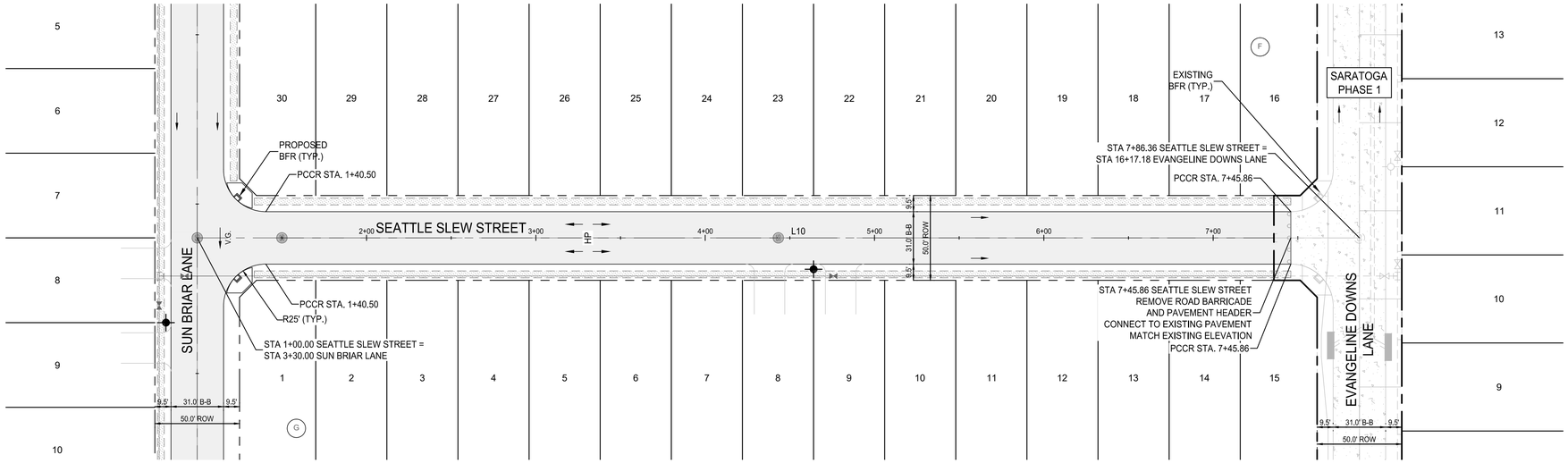
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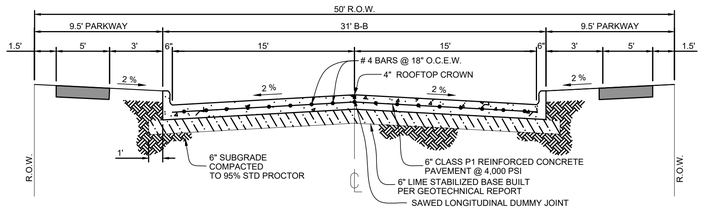
SECOND SUBMITTAL

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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



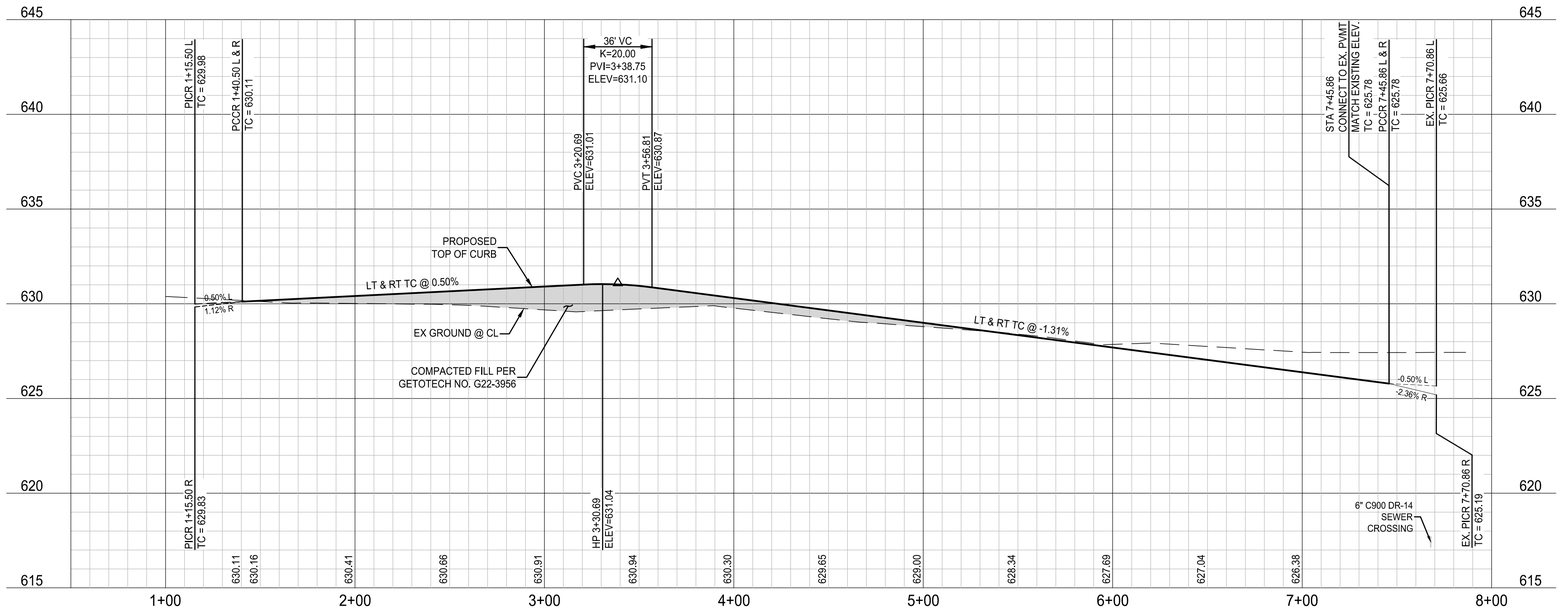


TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L10	686.36'	S01° 20' 06"W

SEATTLE SLEW STREET



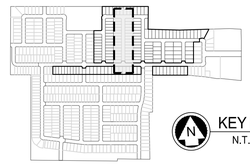
0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
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ELEVATION = 624.58'

PRELIMINARY
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

PAVING PLAN & PROFILE - SEATTLE SLEW STREET

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	18
REVIEWER: NVT			

SARATOGA PHASE 1A

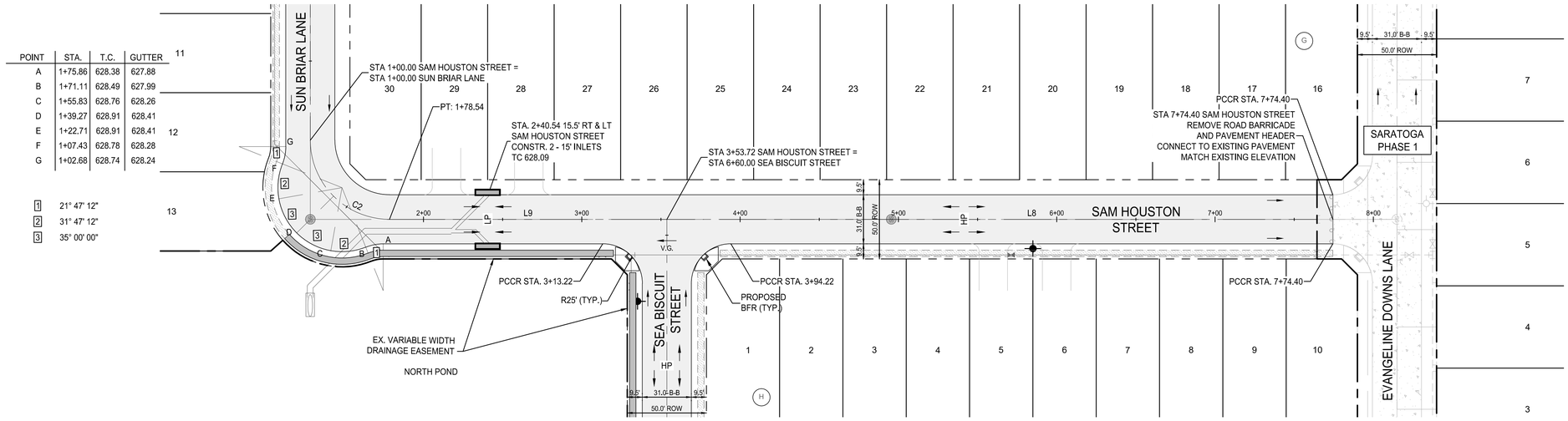
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Last Saved Time: 4/30/2024 3:15 PM
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SECOND SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

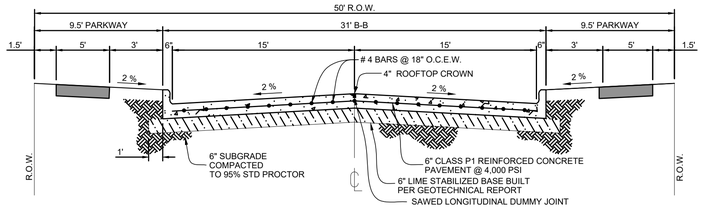
TEXAS 811	1-800-344-8377
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CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



POINT	STA.	T.C.	GUTTER
A	1+75.86	628.38	627.88
B	1+71.11	628.49	627.99
C	1+55.83	628.76	628.26
D	1+39.27	628.91	628.41
E	1+22.71	628.91	628.41
F	1+07.43	628.78	628.28
G	1+02.68	628.74	628.24

1	21° 47' 12"
2	31° 47' 12"
3	35° 00' 00"



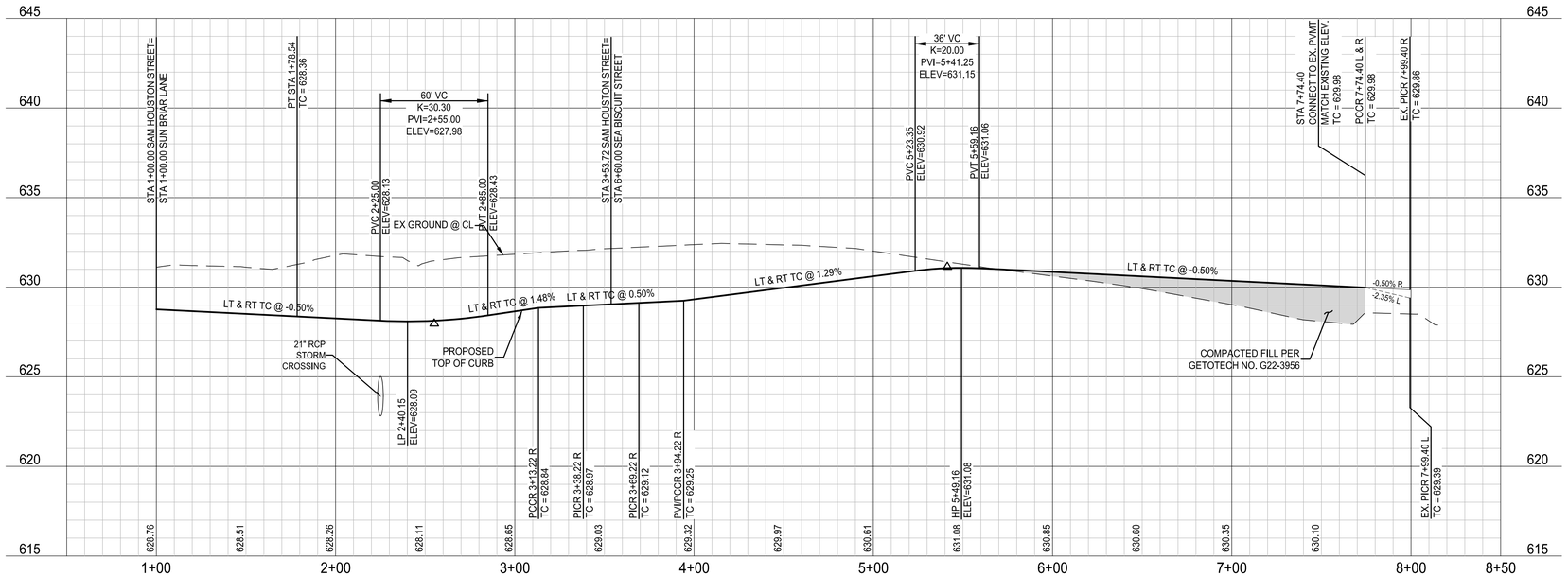
TYPICAL 50' ROW STREET SECTION

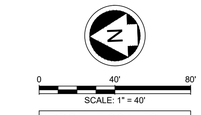
N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L8	461.18'	S01° 20' 06"W
L9	175.18'	S01° 20' 06"W

CURVE TABLE						
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD	BEARING
C2	090° 00' 00"	50.00'	50.00'	78.54'	70.71'	S46° 20' 06"W

SAM HOUSTON STREET



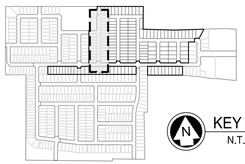


PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

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- PROPOSED PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
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NATHANIEL V. THOMPSON 95918 04/30/2024
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SARATOGA PHASE 1A

PAVING PLAN & PROFILE - SAM HOUSTON STREET

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

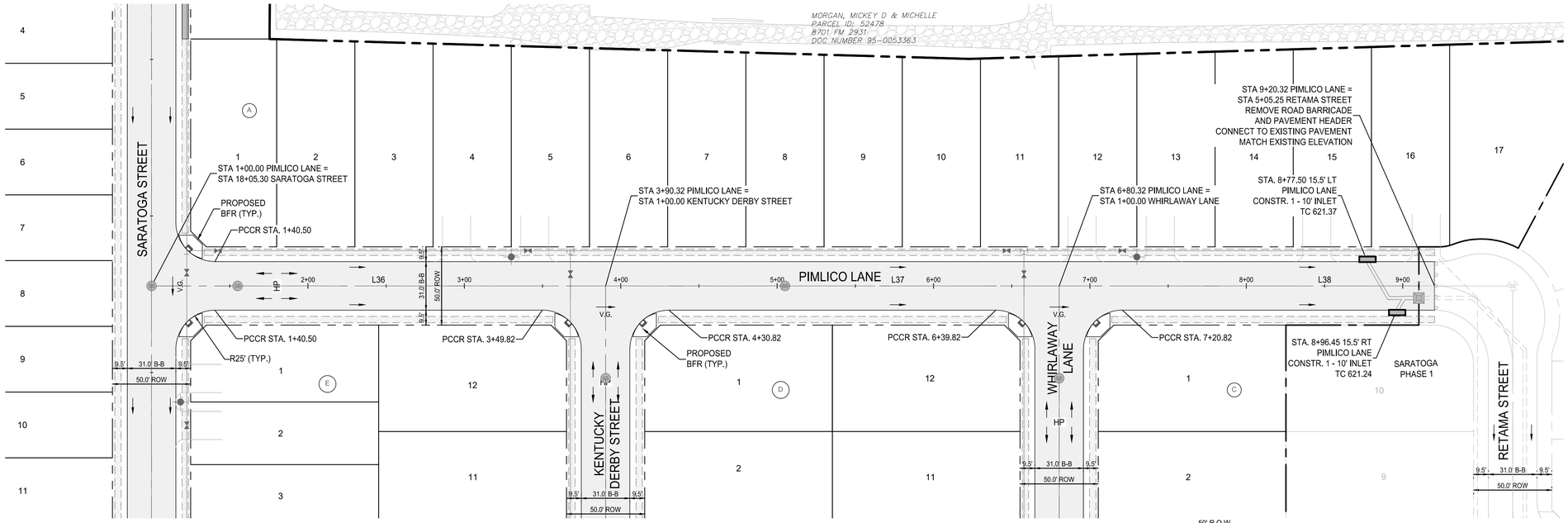
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Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

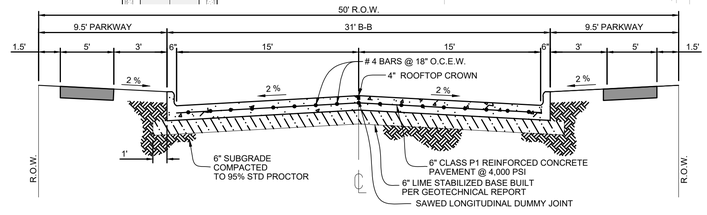
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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	19
REVIEWER: NVT			

SARATOGA PHASE 1A

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Plot Date/Time: 4/30/2024 3:58 PM



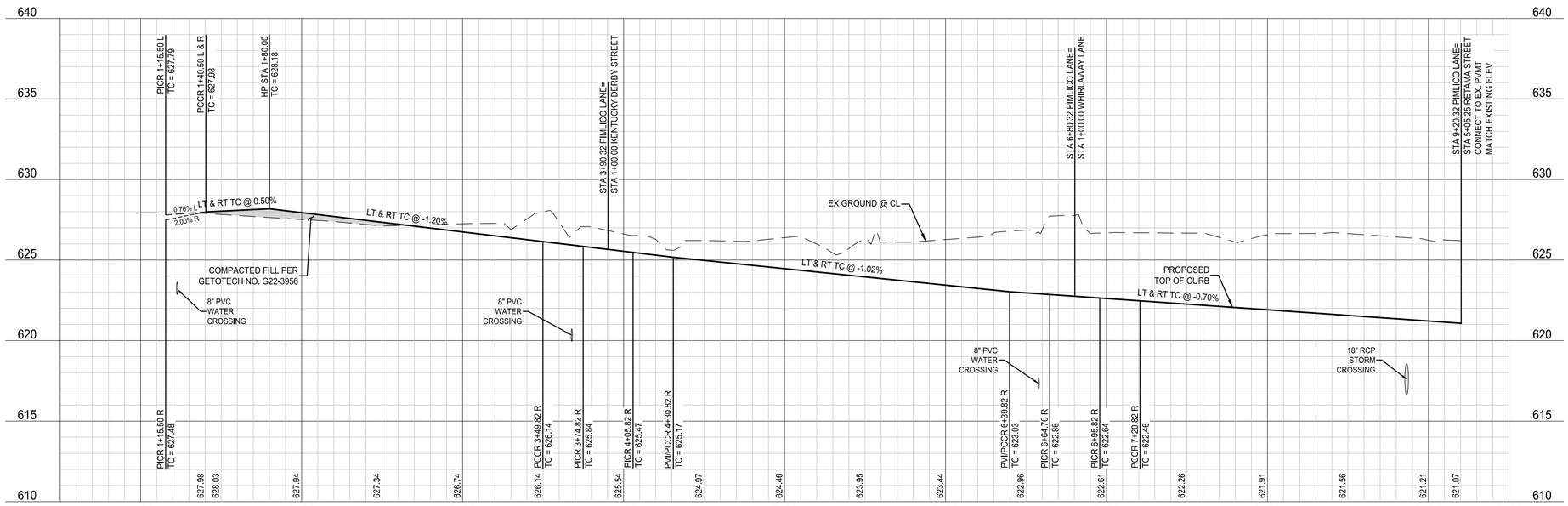


TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L36	290.32'	S88° 39' 54"E
L37	290.00'	S88° 39' 54"E
L38	240.00'	S88° 39' 54"E

PIMLICO LANE



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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SECOND SUBMITTAL

N

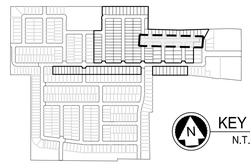
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PAVING PLAN & PROFILE - PIMLICO LANE

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

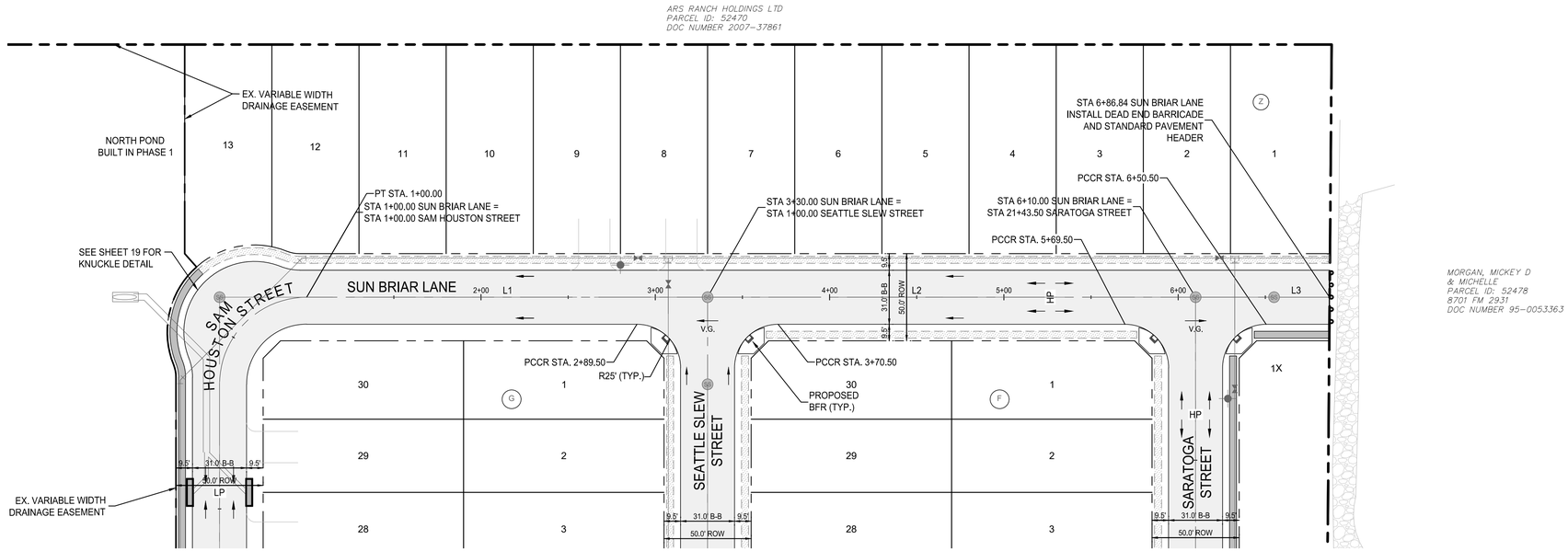
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

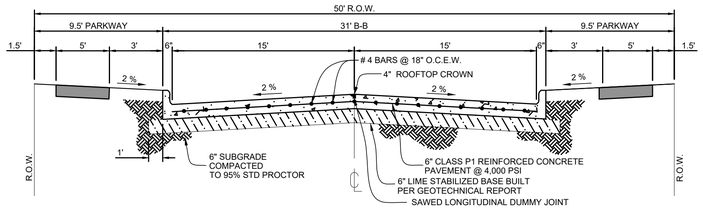
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	20
REVIEWER: NVT			

SARATOGA PHASE 1A

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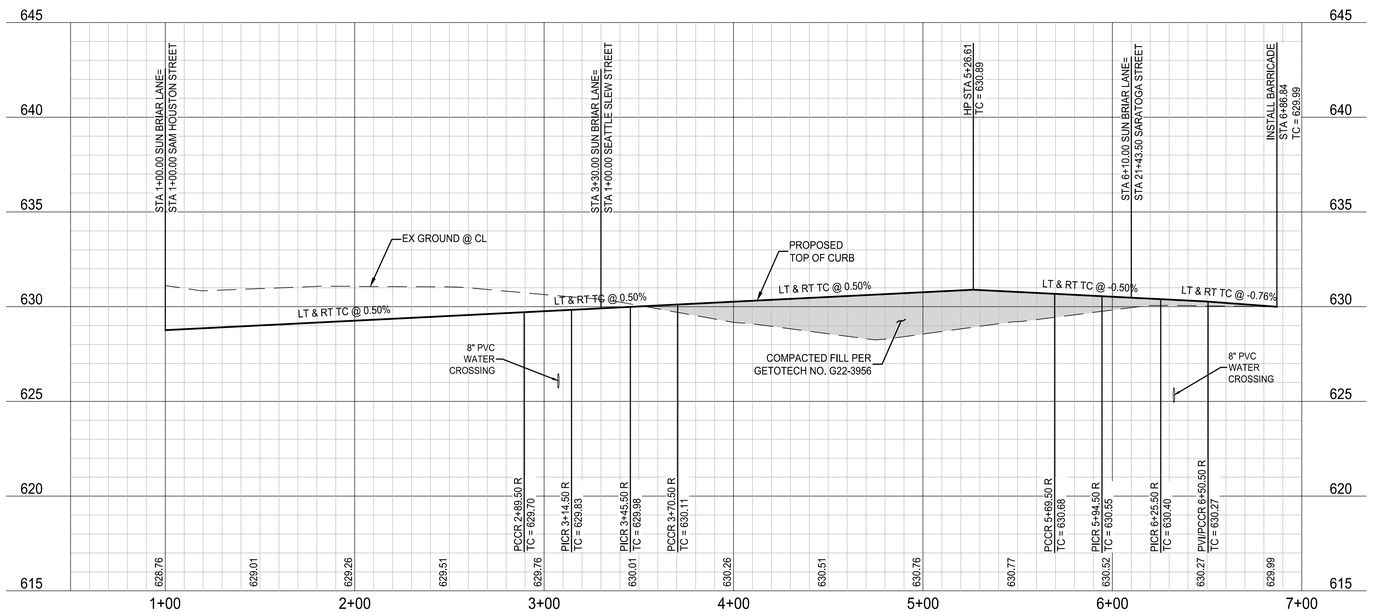


TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L1	230.00'	S88° 39' 54"E
L2	280.00'	S88° 39' 54"E
L3	76.90'	S88° 39' 54"E

SUN BRIAR LANE



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

SECOND SUBMITTAL

0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

NOTES:
1. FOR TYPICAL PAVEMENT SECTIONS SEE SHEET 42.
2. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES AND STANDARD DETAILS.
3. THE CITY OF AUBREY DESIGN AND CONSTRUCTION STANDARDS APPLY WHETHER INDICATED ON THESE PLANS OR NOT.
4. REFER TO LANDSCAPE/HARDSCAPE PLANS FOR SIDEWALKS TO BE BUILT BY DEVELOPER.
5. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.
6. ALL ELEVATIONS REFER TO TOP OF CURB UNLESS OTHERWISE NOTED.
7. BARRIER FREE RAMPS SHALL BE CONSTRUCTED BY PAVING CONTRACTOR.
8. STREETS ARE DESIGNED TO HAVE A SPEED LIMIT OF 25 MPH



KEY MAP
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME | PE # | DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

PAVING PLAN & PROFILE - SUN BRIAR LANE

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

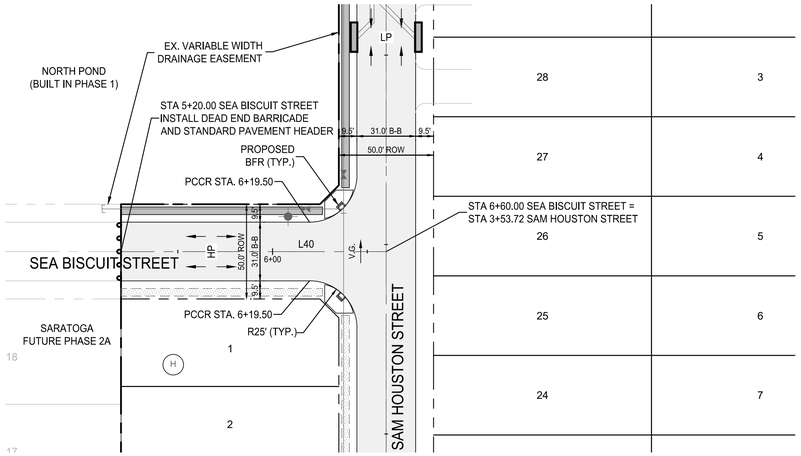
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
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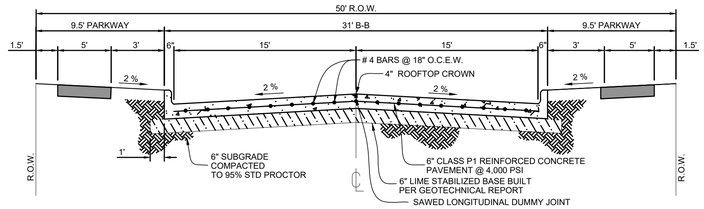
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	21
REVIEWER: NVT			

SARATOGA PHASE 1A

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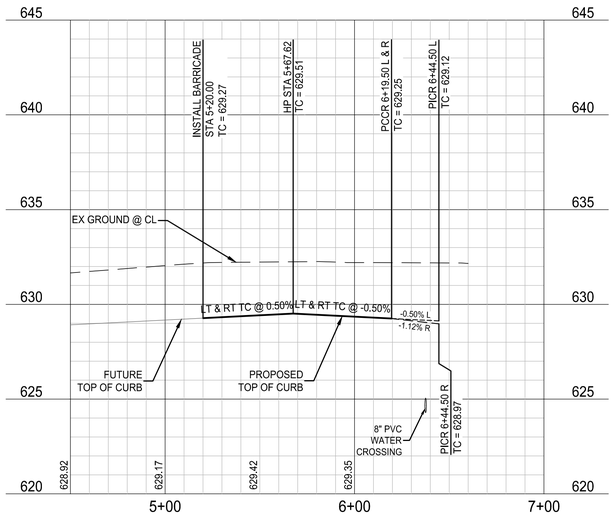


TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L40	560.00'	S88° 39' 54"E

SEA BISCUIT STREET



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

SECOND SUBMITTAL

N

0 40' 80'

SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

NOTES:
1. FOR TYPICAL PAVEMENT SECTIONS SEE SHEET 42.
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8. STREETS ARE DESIGNED TO HAVE A SPEED LIMIT OF 25 MPH



KEY MAP
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

PAVING PLAN & PROFILE - SEA BISCUIT STREET

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

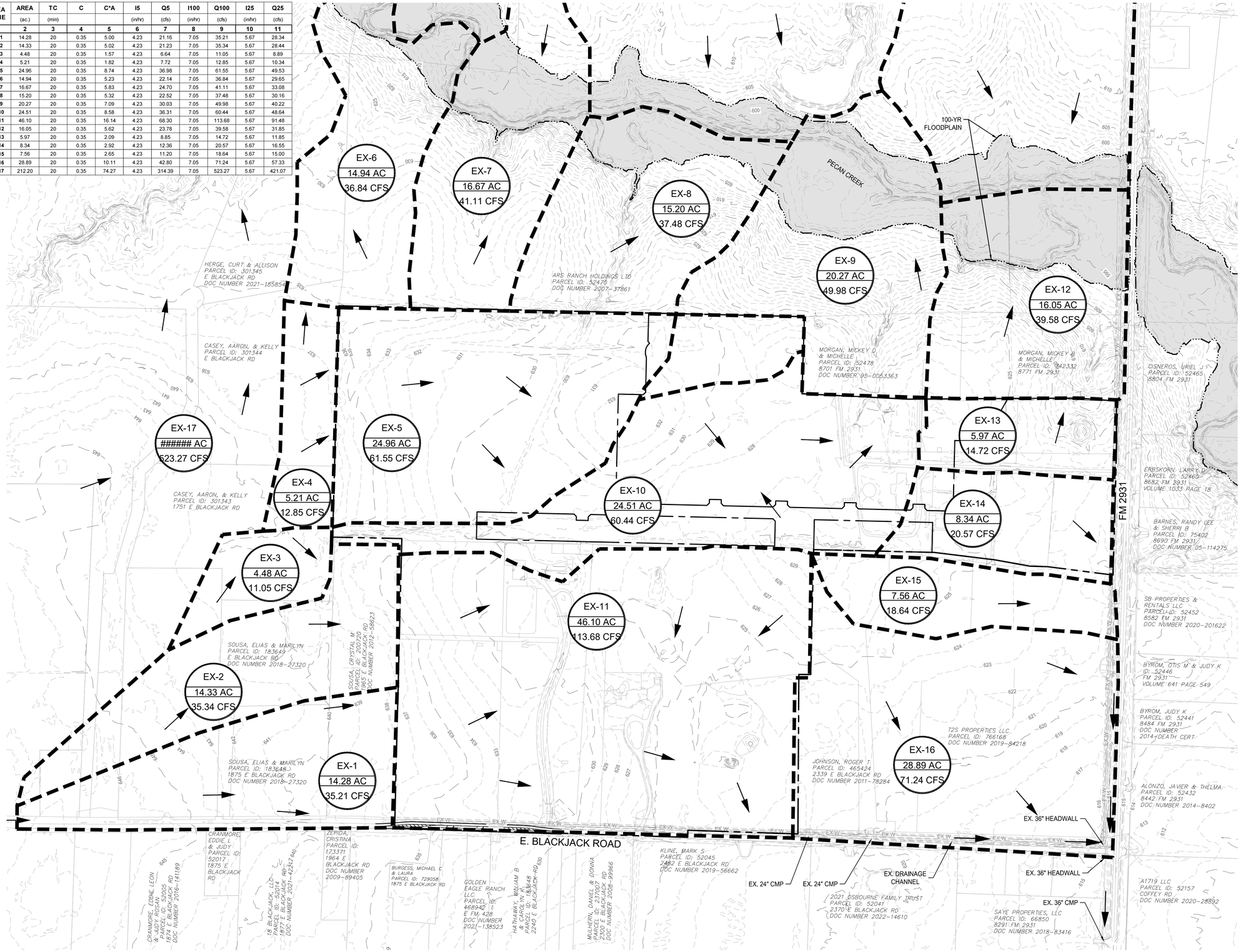
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DESIGNED: CLS	APRIL 2024	GEE21003	22
REVIEWER: NVT			

SARATOGA PHASE 1A

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Last Saved By: BSC/RJ
Last Saved Time: 4/30/2024 3:15 PM
Plot Date/Time: 4/30/2024 3:59 PM

SARATOGA - EXISTING CONDITION
RATIONAL METHOD RUNOFF CALCULATIONS

AREA NAME	AREA (ac.)	TC (min)	C	C*A	I5 (in/hr)	Q5 (cfs)	I100 (in/hr)	Q100 (cfs)	I25 (in/hr)	Q25 (cfs)
1	2	3	4	5	6	7	8	9	10	11
EX-1	14.28	20	0.35	5.00	4.23	21.16	7.05	35.21	5.67	28.34
EX-2	14.33	20	0.35	5.02	4.23	21.23	7.05	35.34	5.67	28.44
EX-3	4.48	20	0.35	1.57	4.23	6.64	7.05	11.05	5.67	8.89
EX-4	5.21	20	0.35	1.82	4.23	7.72	7.05	12.85	5.67	10.34
EX-5	24.96	20	0.35	8.74	4.23	36.98	7.05	61.55	5.67	49.53
EX-6	14.94	20	0.35	5.23	4.23	22.14	7.05	36.84	5.67	29.65
EX-7	16.67	20	0.35	5.83	4.23	24.70	7.05	41.11	5.67	33.08
EX-8	15.20	20	0.35	5.32	4.23	22.52	7.05	37.48	5.67	30.16
EX-9	20.27	20	0.35	7.09	4.23	30.03	7.05	49.98	5.67	40.22
EX-10	24.51	20	0.35	8.58	4.23	36.31	7.05	60.44	5.67	48.64
EX-11	46.10	20	0.35	16.14	4.23	68.30	7.05	113.68	5.67	91.48
EX-12	16.05	20	0.35	5.62	4.23	23.78	7.05	39.58	5.67	31.85
EX-13	5.97	20	0.35	2.09	4.23	8.85	7.05	14.72	5.67	11.85
EX-14	8.34	20	0.35	2.92	4.23	12.36	7.05	20.57	5.67	16.55
EX-15	7.56	20	0.35	2.65	4.23	11.20	7.05	18.64	5.67	15.00
EX-16	28.89	20	0.35	10.11	4.23	42.80	7.05	71.24	5.67	57.33
EX-17	212.20	20	0.35	74.27	4.23	314.39	7.05	523.27	5.67	421.07



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

0 200' 400'
SCALE: 1" = 200'

LEGEND

- MAJOR CONTOUR (520)
- MINOR CONTOUR (519)
- DRAINAGE DIVIDE
- DRAINAGE FLOW DIRECTION
- 100 YEAR FLOODPLAIN ZONE
- DRAINAGE AREA NAME (A1-A2)
- DRAINAGE AREA (ACRES) (1.00)
- 100 YEAR FLOW (C.F.S.) (5.50)

NOTES:
1. REFER TO PELOTON FLOOD STUDY FOR EXISTING DRAINAGE AREA MAP/ CONDITION DETAILS.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

EXISTING DRAINAGE AREA

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	23
REVIEWER: NVT			

SECOND SUBMITTAL

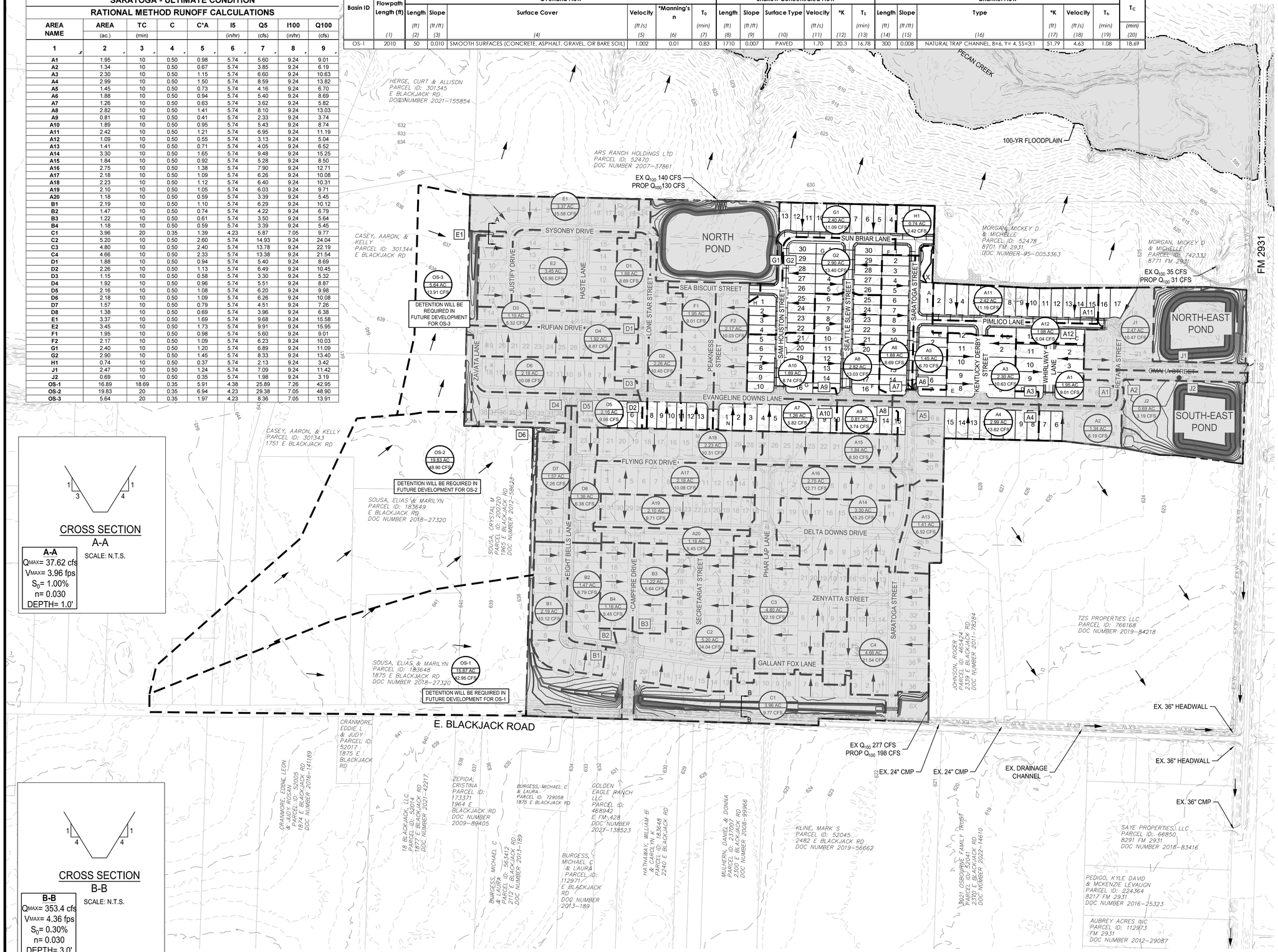
SARATOGA PHASE 1A

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Last Saved by: BSadkins
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SARATOGA - ULTIMATE CONDITION
RATIONAL METHOD RUNOFF CALCULATIONS

AREA NAME	AREA (ac.)	TC (min)	C	C*A	I5 (in/hr)	Q5 (cfs)	I100 (in/hr)	Q100 (cfs)
1	2	3	4	5	6	7	8	9
A1	1.95	10	0.50	0.98	5.74	5.60	9.24	9.01
A2	1.34	10	0.50	0.67	5.74	3.85	9.24	6.19
A3	2.30	10	0.50	1.15	5.74	6.60	9.24	10.63
A4	2.99	10	0.50	1.50	5.74	8.59	9.24	13.82
A5	1.45	10	0.50	0.73	5.74	4.16	9.24	6.70
A6	1.88	10	0.50	0.94	5.74	5.40	9.24	8.69
A7	1.26	10	0.50	0.63	5.74	3.62	9.24	5.82
A8	2.82	10	0.50	1.41	5.74	8.10	9.24	13.03
A9	0.81	10	0.50	0.41	5.74	2.33	9.24	3.74
A10	1.89	10	0.50	0.95	5.74	5.43	9.24	8.74
A11	2.42	10	0.50	1.21	5.74	6.95	9.24	11.19
A12	1.09	10	0.50	0.55	5.74	3.13	9.24	5.04
A13	1.41	10	0.50	0.71	5.74	4.05	9.24	6.52
A14	3.30	10	0.50	1.65	5.74	9.48	9.24	15.25
A15	1.84	10	0.50	0.92	5.74	5.28	9.24	8.50
A16	2.75	10	0.50	1.38	5.74	7.90	9.24	12.71
A17	2.18	10	0.50	1.09	5.74	6.26	9.24	10.08
A18	2.23	10	0.50	1.12	5.74	6.40	9.24	10.31
A19	2.10	10	0.50	1.05	5.74	6.03	9.24	9.71
A20	1.18	10	0.50	0.59	5.74	3.39	9.24	5.45
B1	2.19	10	0.50	1.10	5.74	6.29	9.24	10.12
B2	1.47	10	0.50	0.74	5.74	4.22	9.24	6.79
B3	1.22	10	0.50	0.61	5.74	3.50	9.24	5.64
B4	1.18	10	0.50	0.59	5.74	3.39	9.24	5.45
C1	3.96	20	0.35	1.39	4.23	5.87	7.05	9.77
C2	5.20	10	0.50	2.60	5.74	14.93	9.24	24.04
C3	4.80	10	0.50	2.40	5.74	13.78	9.24	22.19
C4	4.66	10	0.50	2.33	5.74	13.38	9.24	21.54
D1	1.88	10	0.50	0.94	5.74	5.40	9.24	8.69
D2	2.26	10	0.50	1.13	5.74	6.49	9.24	10.45
D3	1.15	10	0.50	0.58	5.74	3.30	9.24	5.32
D4	1.92	10	0.50	0.96	5.74	5.51	9.24	8.87
D5	2.16	10	0.50	1.08	5.74	6.20	9.24	9.98
D6	2.18	10	0.50	1.09	5.74	6.26	9.24	10.08
D7	1.57	10	0.50	0.79	5.74	4.51	9.24	7.26
D8	1.38	10	0.50	0.69	5.74	3.96	9.24	6.38
E1	3.37	10	0.50	1.69	5.74	9.68	9.24	15.58
E2	3.45	10	0.50	1.73	5.74	9.91	9.24	15.95
F1	1.95	10	0.50	0.98	5.74	5.60	9.24	9.01
F2	2.17	10	0.50	1.09	5.74	6.23	9.24	10.03
G1	2.40	10	0.50	1.20	5.74	6.89	9.24	11.09
G2	2.90	10	0.50	1.45	5.74	8.33	9.24	13.40
H1	0.74	10	0.50	0.37	5.74	2.13	9.24	3.42
J1	2.47	10	0.50	1.24	5.74	7.09	9.24	11.42
J2	0.69	10	0.50	0.35	5.74	1.98	9.24	3.19
OS-1	16.89	18.69	0.35	5.91	4.38	25.89	7.26	42.95
OS-2	19.83	20	0.35	6.94	4.23	29.38	7.05	48.90
OS-3	5.64	20	0.35	1.97	4.23	8.36	7.05	13.91

Basin ID	Flowpath Length (ft)	Overland Flow: Length	Slope	Surface Cover	Velocity	*Manning's n	T_0	Shallow Concentrated Flow: Length	Slope	Surface Type	Velocity	*K	T_S	Channel Flow: Length	Slope	Type	*K	Velocity	T_h	T_C
	(1)	(ft) (2)	(ft/ft) (3)	(4)	(ft/s) (5)	(6)	(min) (7)	(ft) (8)	(ft/ft) (9)	(10)	(ft/s) (11)	(12)	(min) (13)	(ft) (14)	(ft/ft) (15)	(16)	(ft) (17)	(ft/s) (18)	(min) (19)	(min) (20)
OS-1	2010	50	0.010	SMOOTH SURFACES (CONCRETE, ASPHALT, GRAVEL, OR BARE SOIL)	1.002	0.01	0.83	1710	0.007	PAVED	1.70	20.3	16.78	300	0.008	NATURAL TRAP CHANNEL, B=6, Y= 4, SS=3:1	51.79	4.63	1.08	18.69



CROSS SECTION
A-A
SCALE: N.T.S.

A-A
Q_{MAX}= 37.62 cfs
V_{MAX}= 3.96 fps
S_0= 1.00%
n= 0.030
DEPTH= 1.0'

CROSS SECTION
B-B
SCALE: N.T.S.

B-B
Q_{MAX}= 353.4 cfs
V_{MAX}= 4.36 fps
S_0= 0.30%
n= 0.030
DEPTH= 3.0'

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

LEGEND

- MAJOR CONTOUR (520)
- MINOR CONTOUR (519)
- PROPOSED STORM
- DRAINAGE DIVIDE
- DRAINAGE FLOW DIRECTION
- CURB INLET
- F4 — INLET NUMBER
- PROPOSED SWALE
- 100 YEAR FLOODPLAIN ZONE
- A1-A2 / 1.00 / 5.50 — DRAINAGE AREA NAME / DRAINAGE AREA (ACRES) / 100 YEAR FLOW (C.F.S.)

*ALL PONDS WILL BE CONSTRUCTED DURING PHASE 1

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

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-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

ULTIMATE DRAINAGE AREA MAP

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
TollFree (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	24
REVIEWER: NVT			

SECOND SUBMITTAL

SARATOGA PHASE 1A

Drawing: G:\JOB\gee21003-saratoga\PDD 1\Phase 1\3_Design\35_Civil\351_CAD\Sheets\GEE21003.1A-ULTIMATE DRAINAGE AREA MAP.dwg
Last Saved By: BSC/RJ
Xref Saved By: BSC/RJ
Plot Date/Time: 4/30/2024 4:39 PM

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

SECOND SUBMITTAL

SARATOGA CAPACITY OF CURB OPENING INLETS AND DROP INLETS IN SUMPS

Inlet No	Area No	Gutter Slope "So" (ft./ft.)	Crown Slope of Pavement	100 Year Carry Over Flow (c.f.s.)	D Area "Q" (c.f.s.)	100 Year Total Gutter Flow "Q" (c.f.s.)	100 Year Total "Q" (c.f.s.)	Depth of Gutter "Yo" (ft.)	Depth of Depression "a" (ft.)	Depth of Flow at Opening "y" (ft.)	Capacity Inlet / Foot of Length "Q/L" (c.f.s./ft.)	Length of Inlet Opening "L" (ft.)	Capacity of Inlet "Q" (c.f.s.)	Bypass to Over Flow (c.f.s.)	Percent Q100 Captured
0	1	2	3	4	5a	5	6	7	8	9	10	11	12	13	
G1	**G1+G2/2**	0.008	0.0200	0.00	12.25	12.25	0.41	0.33	0.56	1.795	**15**	13.46	-	110%	
G2	**G1+G2/2**	0.008	0.0200	0.00	12.25	12.25	0.41	0.33	0.56	1.795	**15**	13.46	-	110%	

SARATOGA ON-GRADE INLET CAPACITY CALCULATION TABLE

Inlet No.	Area No	Area (ac.)	Runoff Coeff "C"	Time of Concen. (min.)	Street Long Slope "So" (ft./ft.)	Cross Slope of Pavement "Sx" (ft./ft.)	Cross Slope of Gutter "Sw" (ft./ft.)	5 Year Depth of Flow "Yo"* (ft.)	5 Year Spread of Flow "T"** (ft.)	100 Year Depth of Flow "Yo"* (ft.)	100 Year Spread of Flow "T"** (ft.)	Equivalent Cross Section "Se" (ft./ft.)	Street Section (type)	Manning Coefficient for Pavement "n"	5 Year Intensity (in./hr)	5 Year Runoff Flow (c.f.s.)	5 Year Carry Over Flow (c.f.s.)	5 Year Total Gutter Flow "Q" (c.f.s.)	100 Year Intensity (in./hr.)	100 Year Runoff Flow (c.f.s.)	100 Year Carry Over Flow (c.f.s.)	100 Year Total Gutter Flow "Q" (c.f.s.)	R.O.W. Capacity (c.f.s.)	Design Storm***	Length Required "Lo" (ft.)	Length Provided "L" (ft.)	"L/Lo"	Efficiency "E"	Inlet Capacity "Qi" (c.f.s.)	5 Year Bypass Flow (c.f.s.)	100 Year Bypass Flow (c.f.s.)
2	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
A6	**A5**	1.45	0.50	10.0	**0.0140**	0.0200	0.220	0.25	12.32	0.29	14.73	0.240	Rooftop	0.019	5.74	4.16	-	4.16	9.24	6.70	-	6.70	41.92	**100 yr**	9.41	**10**	1.00	1.06	6.70	-	-
A7	**A6**	1.88	0.50	10.0	**0.0140**	0.0200	0.220	0.27	13.58	0.32	16.24	0.240	Rooftop	0.019	5.74	5.40	-	5.40	9.24	8.69	-	8.69	41.92	**100 yr**	10.50	**10**	0.95	1.00	8.65	0.02	0.04
A11	**A11**	2.42	0.50	10.0	**0.0070**	0.0200	0.220	0.34	17.01	0.41	20.33	0.127	Rooftop	0.019	5.74	6.95	-	6.95	9.24	11.19	-	11.19	29.64	**100 yr**	13.86	**10**	0.72	0.90	10.06	0.70	1.12
A12	**A12**	1.09	0.35	10.0	**0.0070**	0.0200	0.220	0.22	11.07	0.26	13.24	0.127	Rooftop	0.019	5.74	2.19	0.02	2.21	9.24	3.53	0.04	3.57	29.64	**100 yr**	8.58	**10**	1.17	1.00	3.57	-	-

SARATOGA - HYDRAULIC CALCULATIONS (FUTURE / ULTIMATE)

Runoff Design Point Upstrm Station	Runoff Design Point Dwnstrm Station	Pipe Length Between Points	Drainage Area Incremental Area No.	Area "A" (Acres)	Total Area "A" (Acres)	Runoff Coeff "C"	Incr. Area "CA"	Total "CA"	Time of Concentration Inlet Time (min.)	Travel Time (min.)	Total Time (min.)	I5 YR Intensity "I" (in./hr)	I100 YR Intensity "I" (in./hr)	Q5 YR Runoff "Q" (c.f.s.)	Q100 YR Runoff "Q" (c.f.s.)	Desgin Storm	Q100 YR Inlet Bypass "Q" (c.f.s.)	Q100 YR Inlet Carryover "Q" (c.f.s.)	Q100 YR Inc. Delta "Q" (c.f.s.)	Q in Pipe "Q" (c.f.s.)	Box Culvert Storm Pipe (in.)	No. of SD Spans	Storm Drain Width (ft)	Storm Drain Heigth (ft)	Manning n Value	Hydr Grade "Sf" (ft./ft.)	Hydraulic Grade Line Elevation Dwnstrm	Hydraulic Grade Line Elevation Upstrm	V1 Flow (In) (f.p.s.)	V2 Flow (Out) (f.p.s.)	Head Loss Calculations V1^2 / 2g (feet)	V2^2 / 2g (feet)	Loss Coeff (Kj)	Loss KjV1^2 / 2g (feet)	Head Loss at Structure "Hk" (feet)	Design HGL Elevation (feet)	Invert Elevation Dwnstrm (feet)	Invert Elevation Upstrm (feet)	TC / FG Elev (feet)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		17	17a	17b	18	19	19a	19b	19c	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
STORM DRAIN LINE SD-A5																																						
01+91.06	01+82.11	8.95	A5	1.45	1.45	0.50	0.73	0.73	10.00	-	10.00	5.74	9.24	4.16	6.70	**100 yr**	-	-	-	6.70	18	1			0.013	0.0041	621.57	621.61		3.79		0.22	1.25		0.28	621.88	619.10	619.51	624.00
01+82.11	01+57.36	24.75		-	1.45	-	-	0.73	-	0.04	10.04	5.74	9.24	4.16	6.70	**100 yr**	-	-	-	6.70	18	1			0.013	0.0041	621.37	621.47	3.79	3.79	0.22	0.22	0.35	0.08	0.10	621.57	618.07	619.10	623.60
01+57.36	01+00.00	57.36	A6	1.88	3.33	0.50	0.94	1.67	10.00	0.11	10.15	5.71	9.20	9.51	15.32	**100 yr**	-	-	-	15.32	21	1			0.013	0.0093	***620.37***	620.91	3.79	6.36	0.22	0.63	0.75	0.17	0.46	621.37	616.96	617.82	623.30
STORM DRAIN LINE SD-A6																																						
01+32.88	01+00.00	32.88	A6	1.88	1.88	0.50	0.94	0.94	10.00	-	10.00	5.74	9.24	5.40	8.69	**100 yr**	-	-	-	8.69	18	1			0.013	0.0068	***621.37***	621.59	0.00	4.91	0.00	0.37	1.25	0.00	0.47	622.06	617.82	619.44	623.90
STORM DRAIN LINE SD-A11																																						
03+66.67	03+39.83	26.84	A11	2.42	2.42	0.50	1.21	1.21	10.00	-	10.00	5.74	9.24	6.95	11.19	**100 yr**	-	-	-	11.19	18	1			0.013	0.0113	619.03	619.33		6.32		0.62	1.25		0.78	620.11	616.65	617.24	621.40
03+39.83	03+20.43	19.40		-	2.42	-	-	1.21	-	0.07	10.07	5.74	9.24	6.95	11.19	**100 yr**	-	-	-	11.19	18	1			0.013	0.0113	618.59	618.81	6.32	6.32	0.62	0.62	0.35	0.22	0.22	619.03	616.18	616.65	620.90
03+20.43	02+85.70	34.73	A12	1.09	3.51	0.35	0.38	1.59	10.00	0.05	10.12	5.72	9.21	9.10	14.65	**100 yr**	-	-	-	14.65	21	1			0.013	0.0086	618.18	618.48	6.32	6.08	0.62	0.57	0.75	0.47	0.11	618.59	615.21	616.18	620.80
02+85.70	02+39.00	46.70		-	3.51	-	-	1.59	-	0.10	10.22	5.72	9.21	9.10	14.65	**100 yr**	-	-	-	14.65	21	1			0.013	0.0086	617.58	617.98	6.08	6.08	0.57	0.57	0.35	0.20	0.20	618.18	614.18	615.21	620.40
02+39.00	01+00.00	139.00		-	3.51	-	-	1.59	-	0.13	10.35	5.72	9.21	9.10	14.65	**100 yr**	-	-	-	14.65	21	1			0.013	0.0086	**616.19**	617.38	6.08	6.08	0.57	0.57	0.35	0.20	0.20	617.58	609.00	614.18	619.60
STORM DRAIN LINE SD-A12																																						
01+08.95	01+00.00	8.95	A12	1.09	1.09	0.35	0.38	0.38	10.00	-	10.00	5.74	9.24	2.19	3.53	**100 yr**	-	-	-	3.53	18	1			0.013	0.0011	***618.59***	618.60	0.00	1.99	0.00	0.06	1.25	0.00	0.10	618.70	616.18	616.74	621.20
																																				20.00		
STORM DRAIN LINE SD-G																																						
02+48.80	02+37.49	11.31	G1	2.40	2.40	0.50	1.20	1.20	10.00	-	10.00	5.74	9.24	6.89	11.09	**100 yr**	-	-	-	11.09	21	1			0.013	0.0049	627.15	627.21		4.60		0.33	1.25		0.41	627.62	623.51	623.58	628.09
02+37.49	02+22.49	15.00		-	2.40	-	-	1.20	-	0.04	10.04	5.74	9.24	6.89	11.09	**100 yr**	-	-	-	11.09	21	1			0.013	0.0049	626.96	627.04	4.60	4.60	0.33	0.33	0.35	0.12	0.12	627.15	623.41	623.51	627.80
02+22.49	01+68.43	54.06	G2	2.90	5.30	0.50	1.45	2.65	10.00	0.05	10.10	5.72	9.22	15.17	24.42	**100 yr**	-	-	-	24.42	36	1			0.013	0.0013	626.79	626.86	4.60	3.45	0.33	0.19	0.75	0.25	0.10	626.96	621.65	622.16	627.80
01+68.43	01+18.88	49.55		-	5.30	-	-	2.65	-	0.26	10.36	5.72	9.22	15.17	24.42	**100 yr**	-	-	-	24.42	36	1			0.013	0.0013	626.63	626.69	3.45	3.45	0.19	0.19	0.35	0.06	0.10	626.79	621.18	621.65	628.00
01+18.88	01+00.00	18.88		-	5.30	-	-	2.65	-	0.24	10.60	5.72	9.22	15.17	24.42	**100 yr**	-	-	-	24.42	36	1			0.013	0.0013	**626.50**	626.53	3.45	3.45	0.19	0.19	0.35	0.06	0.10	626.63	621.00	621.18	
STORM DRAIN LINE SD-G1																																						
01+32.53	01+00.00	32.53	G2	2.90	2.90	0.50	1.45	1.45	10.00	-	10.00	5.74	9.24	8.33	13.40	**100 yr**	-	-	-	13.40	21	1			0.013	0.0072	***626.96***	627.20	0.00	5.56	0.00	0.48	1.00	0.00	0.48	627.68	622.79	623.58	628.09

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

HYDRAULIC CALCULATIONS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

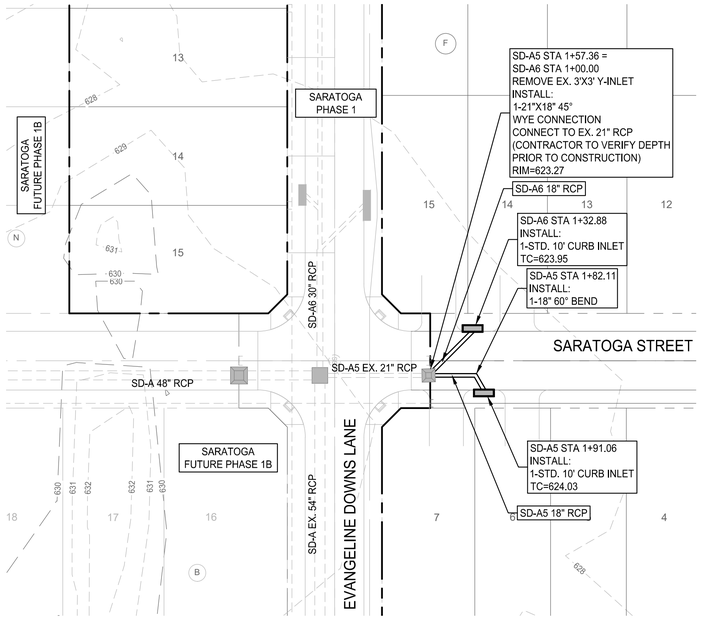
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

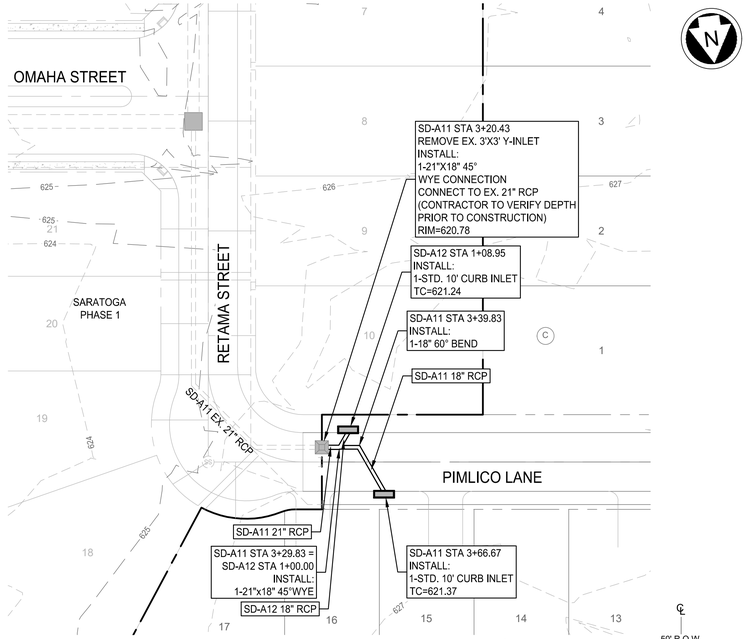
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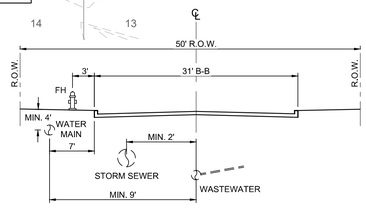
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DESIGNED: CLS	APRIL 2024	GEE21003	25
REVIEWER: NVT			

SARATOGA PHASE 1A

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TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
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MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

SECOND SUBMITTAL

SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

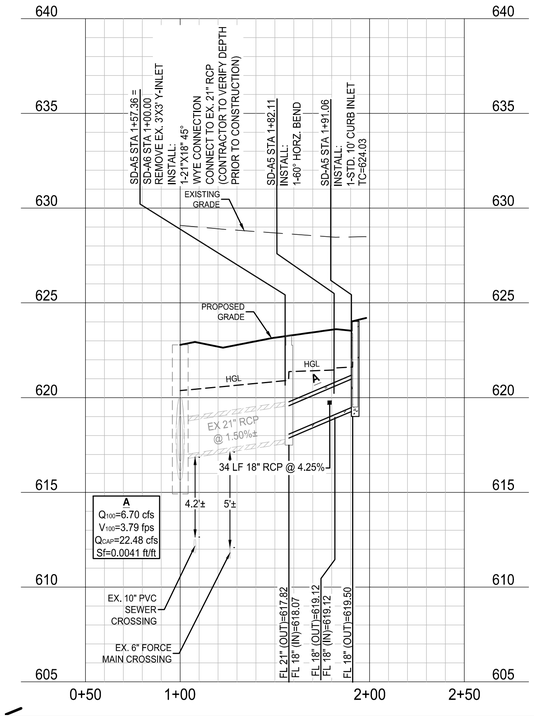
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED STORM
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER

NOTES:
1. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES AND STANDARD DETAILS.
2. THE CITY OF AUBREY DESIGN AND CONSTRUCTION STANDARDS APPLY WHETHER INDICATED ON THESE PLANS OR NOT.
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6. RUBBER GASKETS SHALL BE USED FOR INSTALLATION OF ALL SUBMERGED STORM DRAIN PIPES.

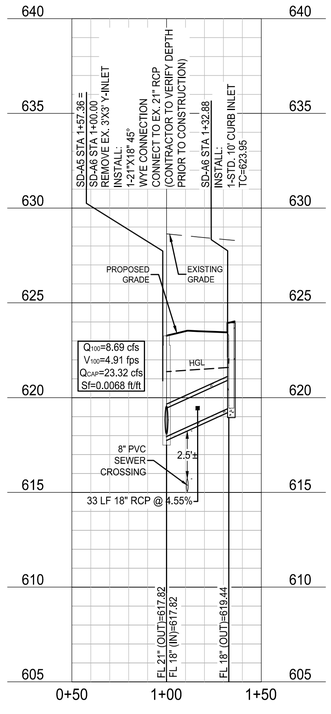


KEY MAP
N.T.S.

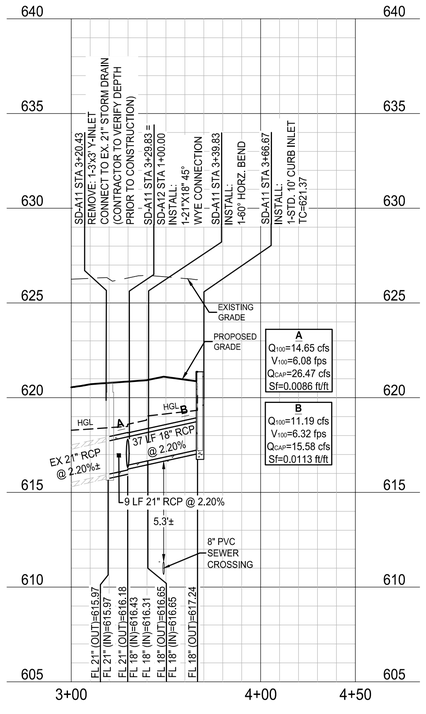
SD-A5



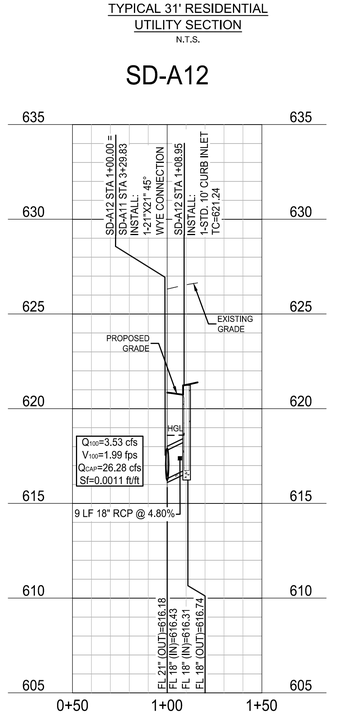
SD-A6



SD-A11



SD-A12



BENCHMARKS

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

STORM DRAIN PLAN & PROFILE - SD-A5, A6, A11 & A12

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	26
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SARATOGA PHASE 1A

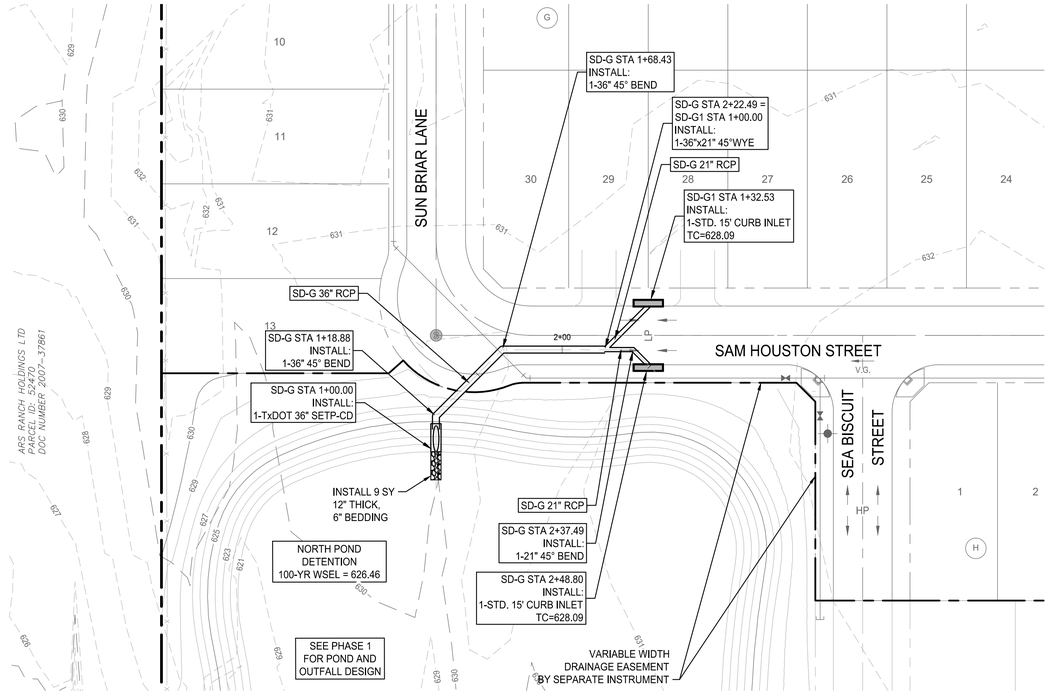
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SECOND SUBMITTAL

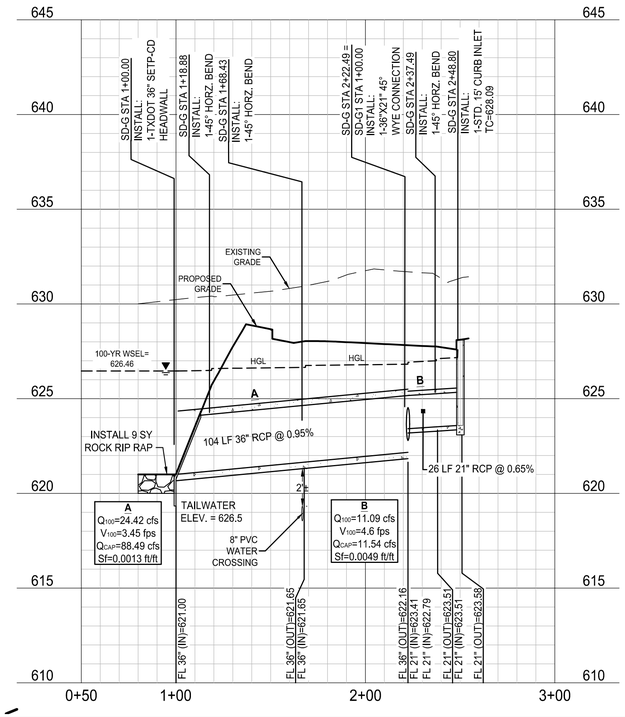
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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



LINE SD-G		
D50 = (v/(1.8(2g(γs-γw)/γw))^0.5))^0.5		
v =	3.45	fps
γ_s =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	5.24	in
12" Thick, 6" Bedding		





PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- 535 — PROPOSED MAJOR CONTOUR
- 534 — PROPOSED MINOR CONTOUR
- 520 — EXISTING MAJOR CONTOUR
- 519 — EXISTING MINOR CONTOUR
- PROPOSED STORM
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER

NOTES:

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5. STORM CONSTRUCTION WILL INCLUDE FURNISHING AND INSTALLING THE MATERIALS AND ALL STORM DRAIN PIPES, BOXES, INLETS, APPURTENANCES, INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL, AS SHOWN ON THESE PLANS.
6. RUBBER GASKETS SHALL BE USED FOR INSTALLATION OF ALL SUBMERGED STORM DRAIN PIPES.



BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

STORM DRAIN PLAN & PROFILE - SD-G & G1

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	27
REVIEWER: NVT			

SARATOGA PHASE 1A

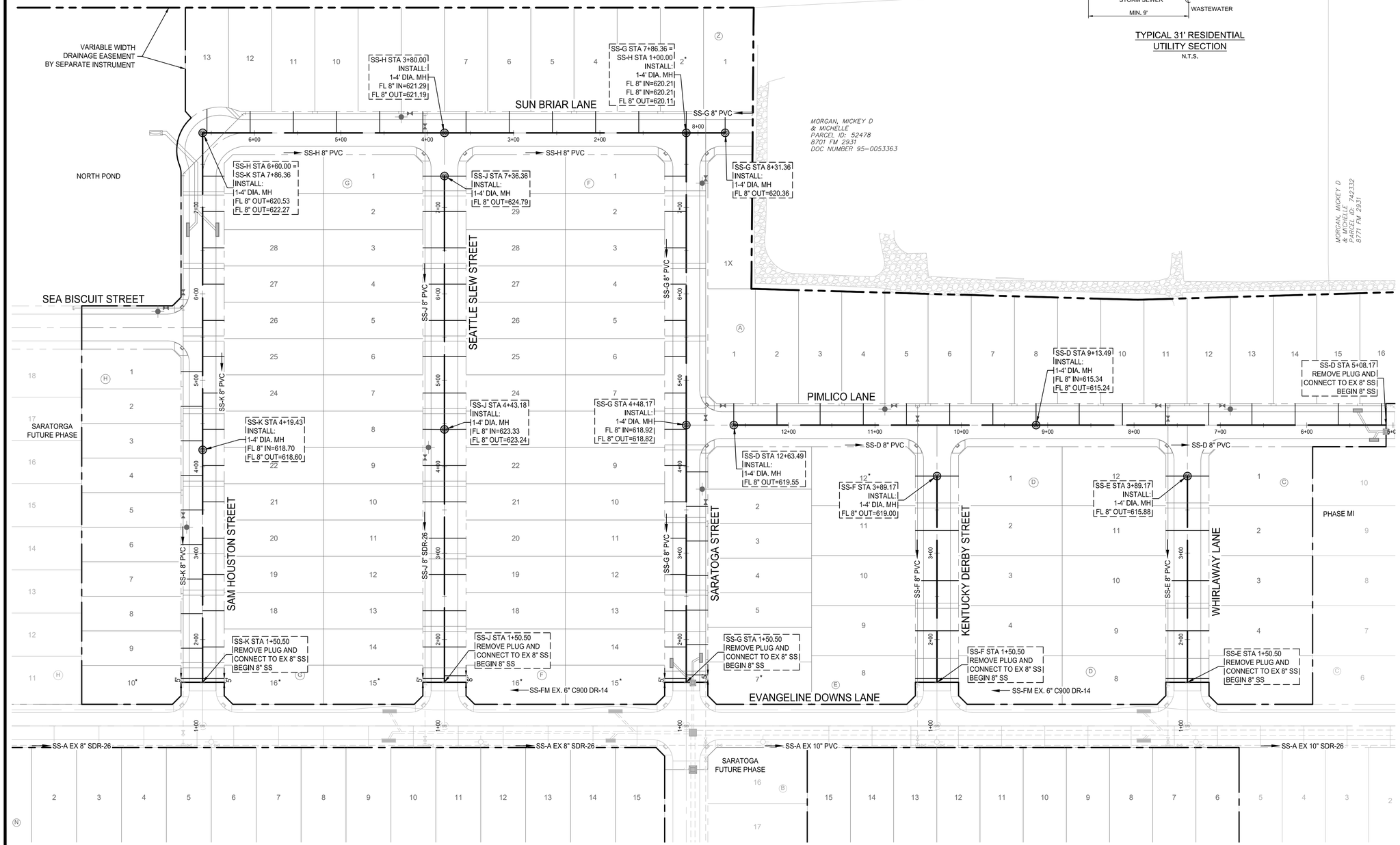
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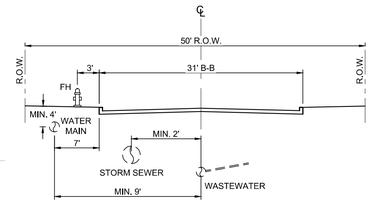
SECOND SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.





TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED SANITARY SEWER LINE
- PROP. SANITARY SEWER SERVICE
- PROPOSED PLUG
- EX SS — EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EX W — EXISTING WATER LINE
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NOTES:

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SARATOGA PHASE 1A

SEWER PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

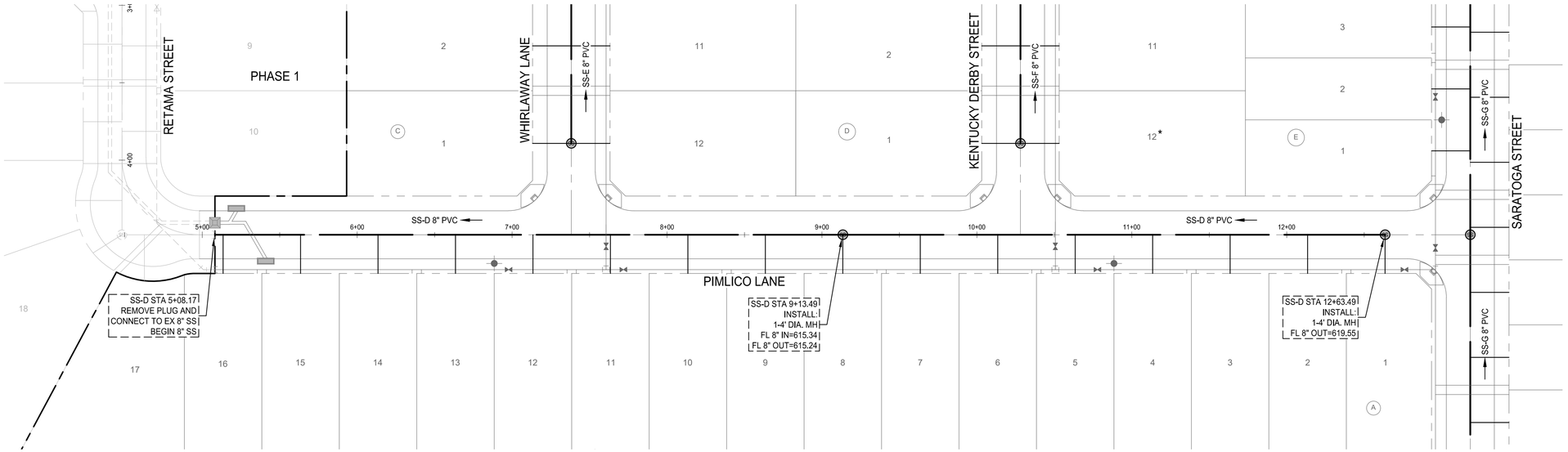
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

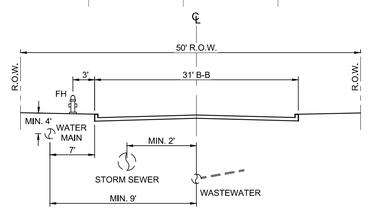
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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	28
REVIEWER: NVT			

SARATOGA PHASE 1A

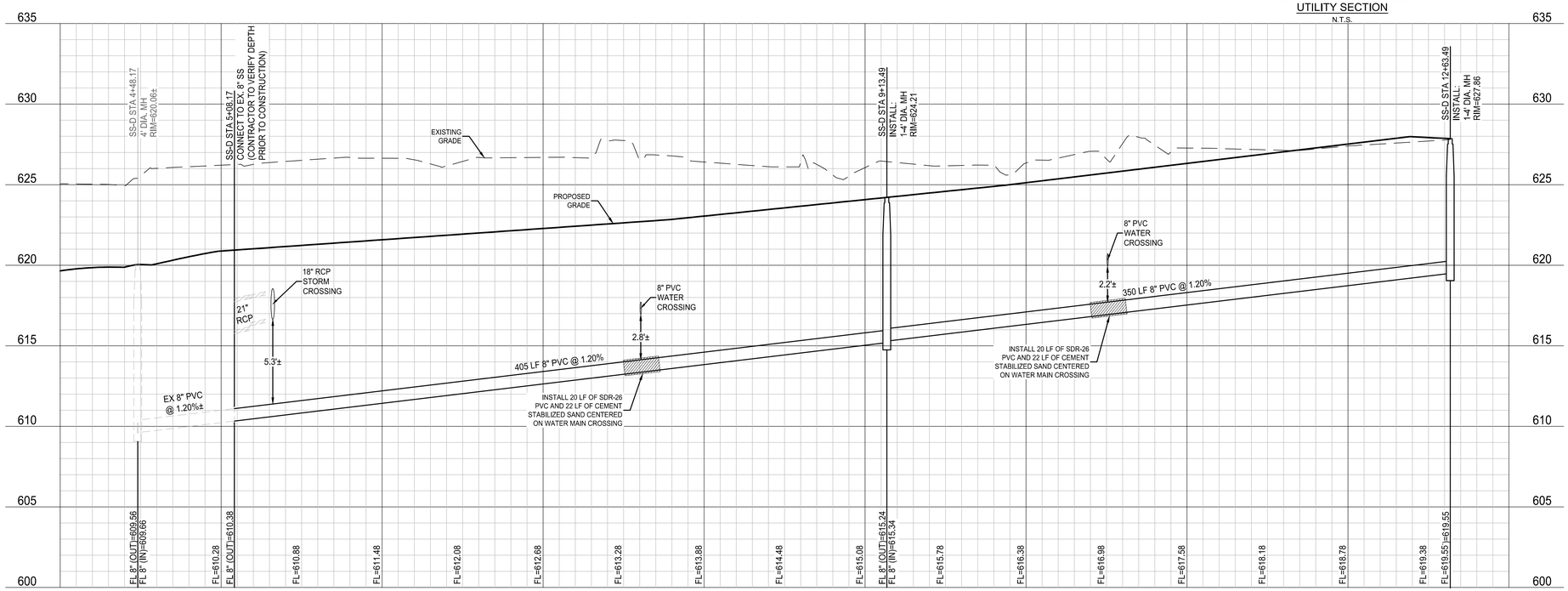
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TYPICAL 31' RESIDENTIAL
UTILITY SECTION
N.T.S.

SS-D



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ONCOR ELECTRIC DELIVERY	888-313-6862
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MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

SECOND SUBMITTAL

0 40' 80'
SCALE: 1" = 40'

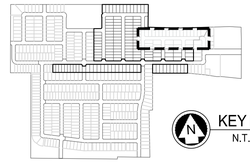
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SARATOGA PHASE 1A

SEWER PLAN & PROFILE - SS-D

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

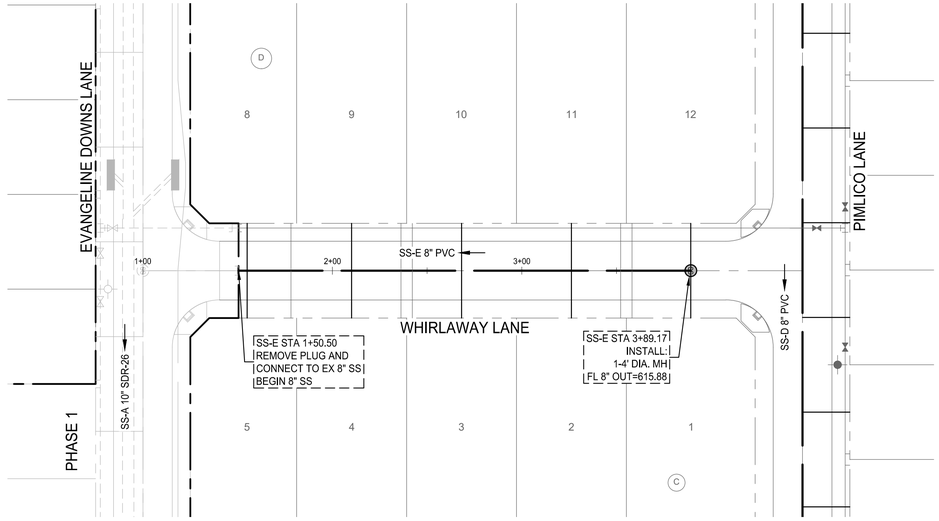
Phone (469) 213-1800 11000 Frisco Street, Suite 400
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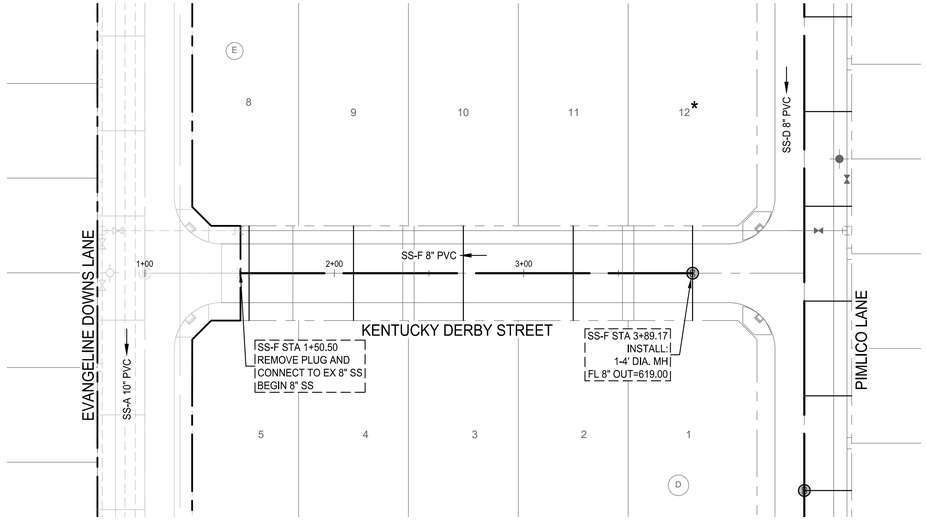
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TBPLS FIRM REGISTRATION NO. 10074301

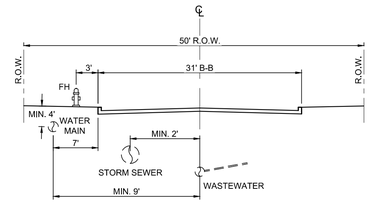
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REVIEWER: NVT			

SARATOGA PHASE 1A

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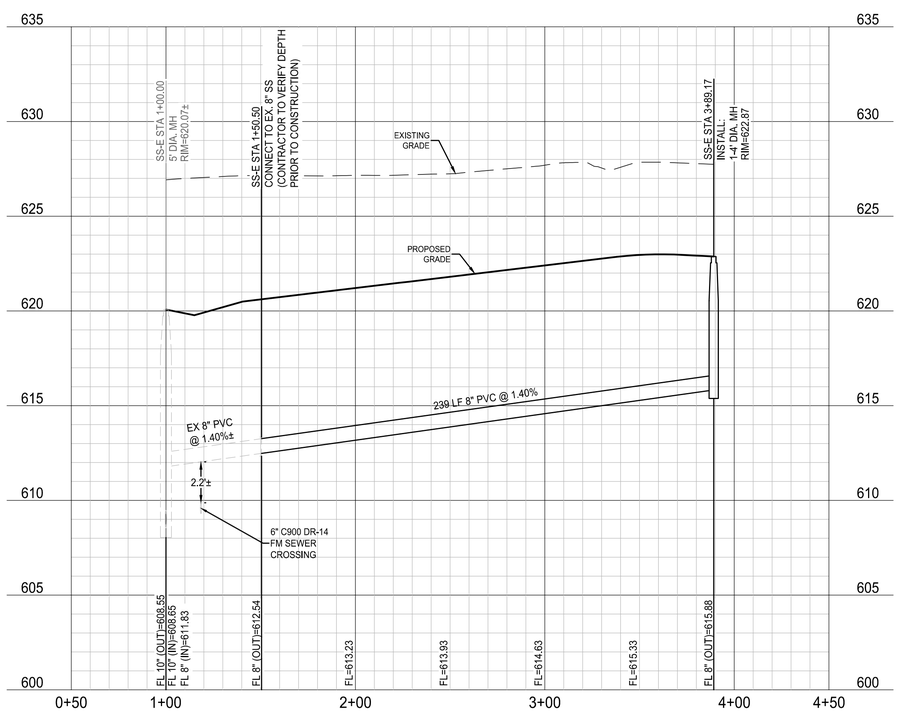




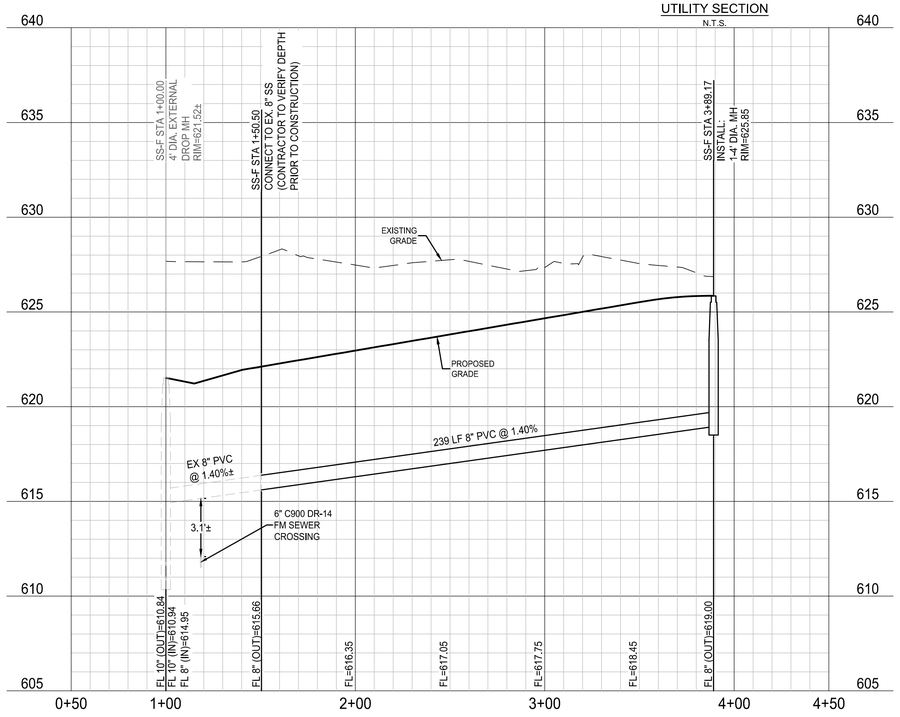


TYPICAL 31' RESIDENTIAL
UTILITY SECTION
N.T.S.

SS-E



SS-F



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SARATOGA PHASE 1A

SEWER PLAN & PROFILE - SS-E & SS-F

AUBREY ETJ, DENTON COUNTY, TEXAS

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DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	30
REVIEWER: NVT			

SARATOGA PHASE 1A

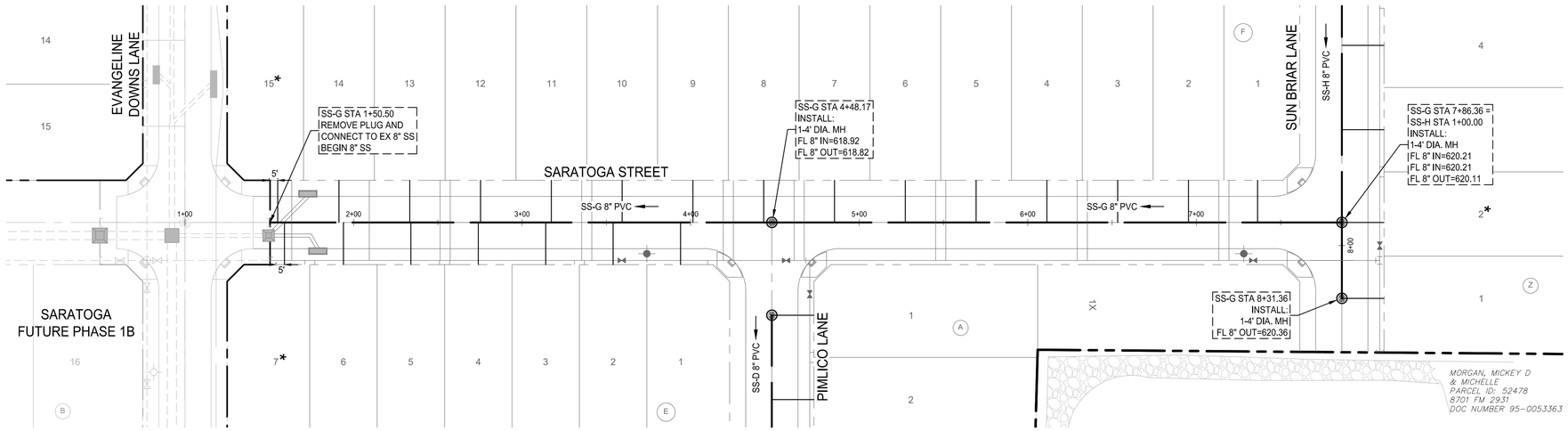
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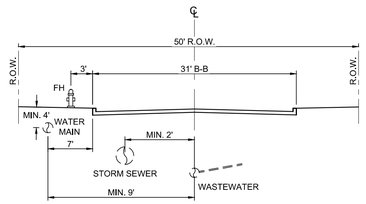
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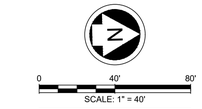
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SECOND SUBMITTAL





TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



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SARATOGA PHASE 1A

SEWER PLAN & PROFILE - SS-G

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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DESIGNED: CLS	APRIL 2024	GEE21003	31
REVIEWER: NVT			

SARATOGA PHASE 1A

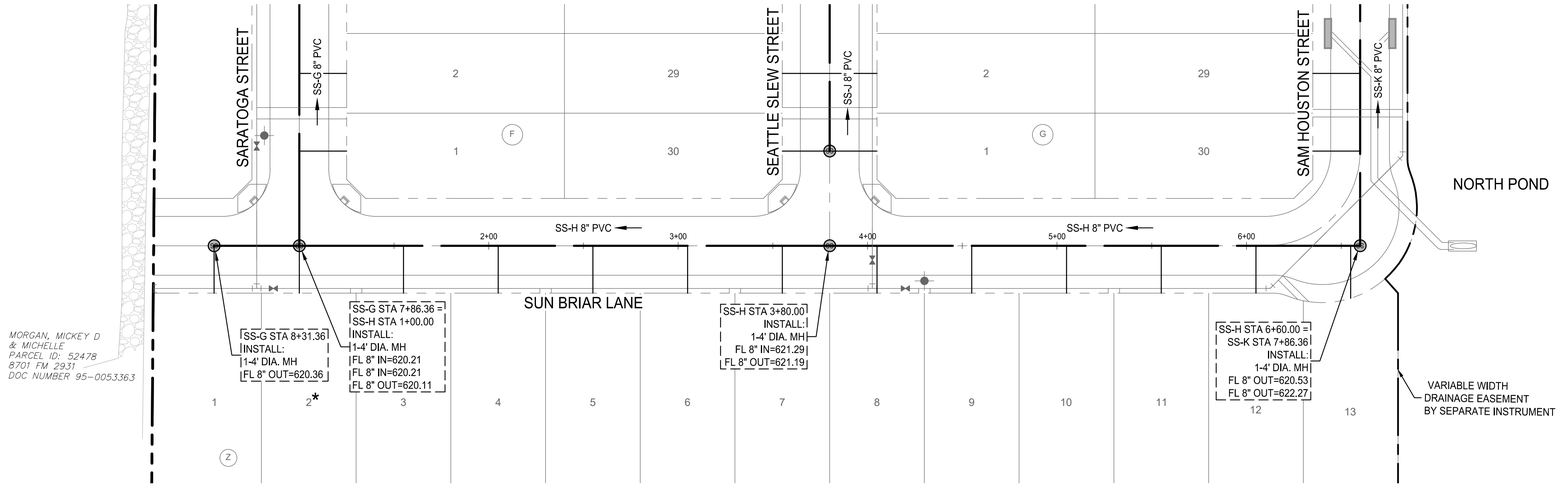
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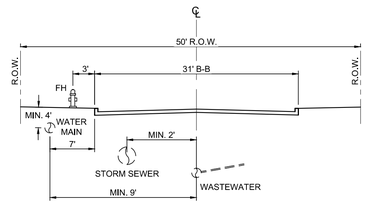
SECOND SUBMITTAL

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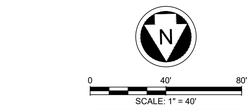
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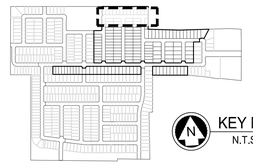
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1. ALL MANHOLES GREATER THAN 12 FEET DEEP SHALL BE A MINIMUM OF 5 FEET (60 INCHES) IN DIAMETER AND SHALL HAVE AN EXTERIOR DROP CONNECTION.
2. ALL SEWER MAINS 12 FEET DEEP OR GREATER SHALL BE CONSTRUCTED UTILIZING SDR-26 PIPE.
3. CONTRACTOR SHALL PRESSURE RATE THE SANITARY SEWER PIPE AT ALL CROSSINGS BETWEEN THE WATERLINE AND THE SANITARY SEWER PIPE IN ACCORDANCE WITH TCEQ REGULATIONS.
4. SEPARATION BETWEEN WATERLINE AND SANITARY SEWER CROSSINGS SHALL CONFORM TO TCEQ'S CHAPTER 290.44(e), AND CHAPTER 317.13 APPENDIX E.
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7. CLASS "H" EMBEDMENT.
8. REFER TO SARATOGA PHASE 1 PLANS FOR THE EXISTING SERVICES EXTENDING INTO BLOCK B, LOTS 6-15, BLOCK N, LOTS 1-15, AND BLOCK M, LOTS 4-13.



KEY MAP
N.T.S.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

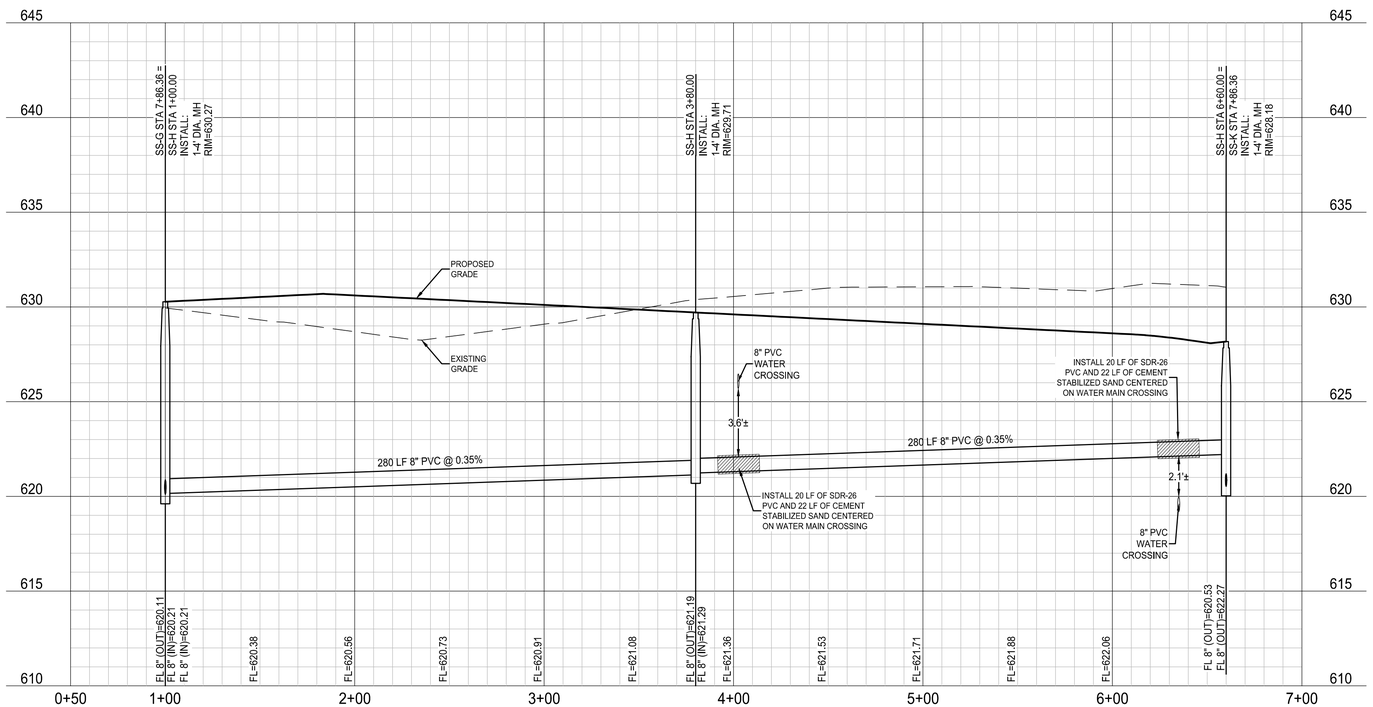
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SS-H



DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	32
REVIEWER: NVT			

SARATOGA PHASE 1A

SARATOGA PHASE 1A

SEWER PLAN & PROFILE - SS-H

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

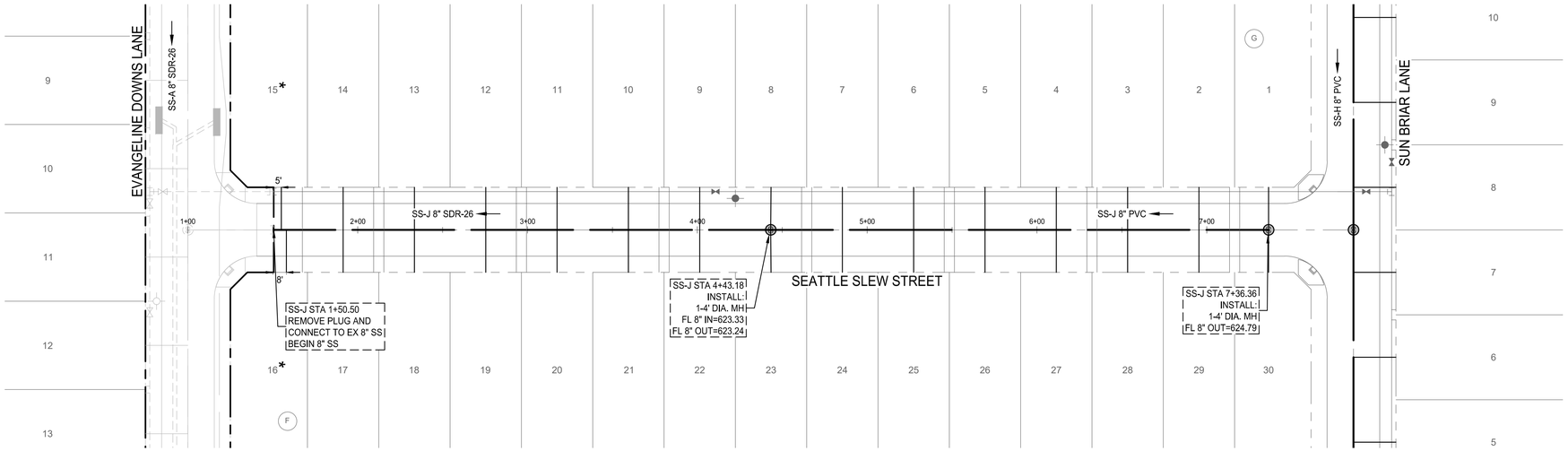
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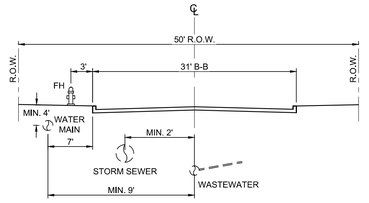
SECOND SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.





TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

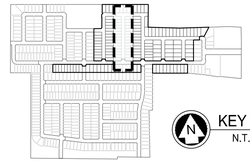
PROFILE SCALES:
1" = 40' HORIZ.
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LEGEND

- PROPOSED SANITARY SEWER LINE
- PROP. SANITARY SEWER SERVICE
- PROPOSED PLUG
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- PROPOSED WATER LINE
- EXISTING WATER LINE
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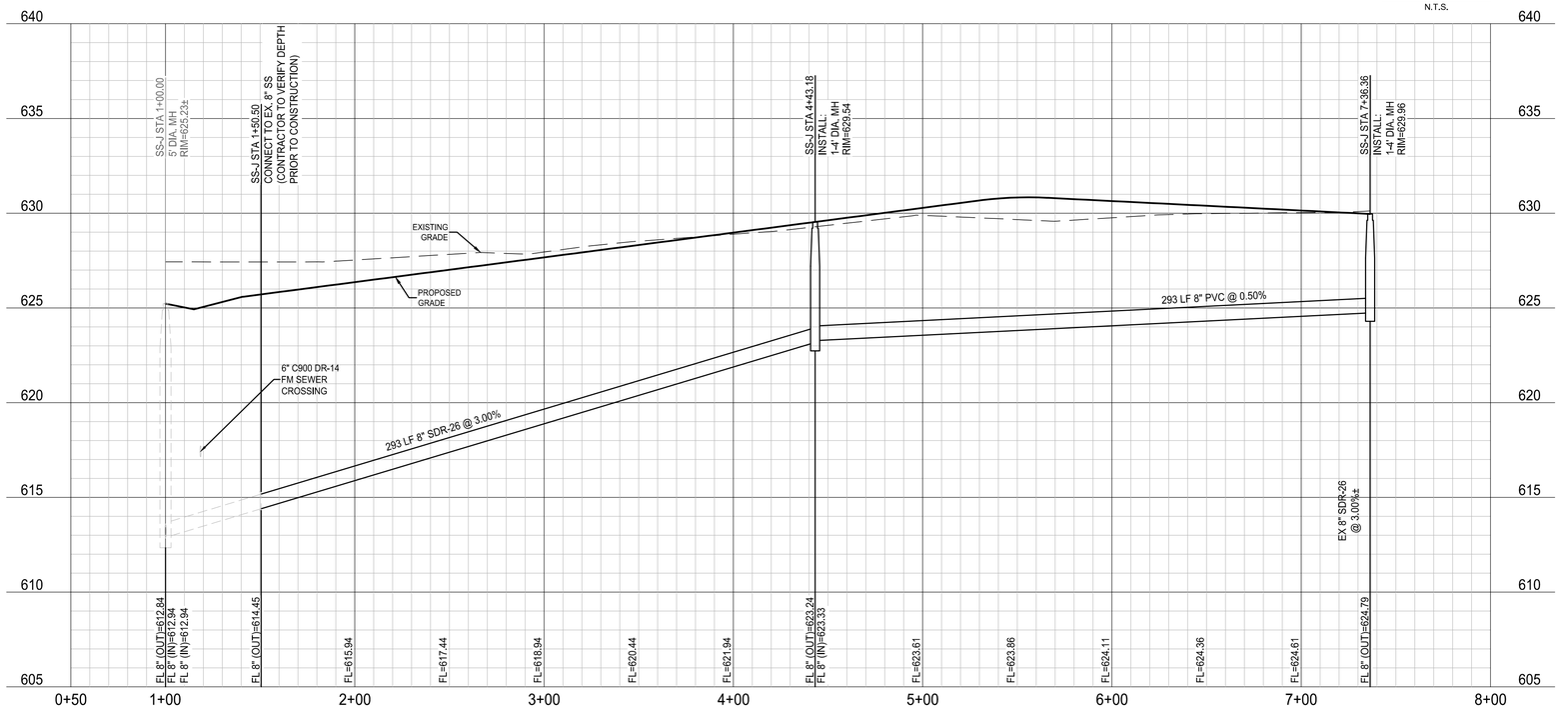
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REVIEWER: NVT			

SARATOGA PHASE 1A

SARATOGA PHASE 1A

SEWER PLAN & PROFILE - SS-J

AUBREY ETJ, DENTON COUNTY, TEXAS

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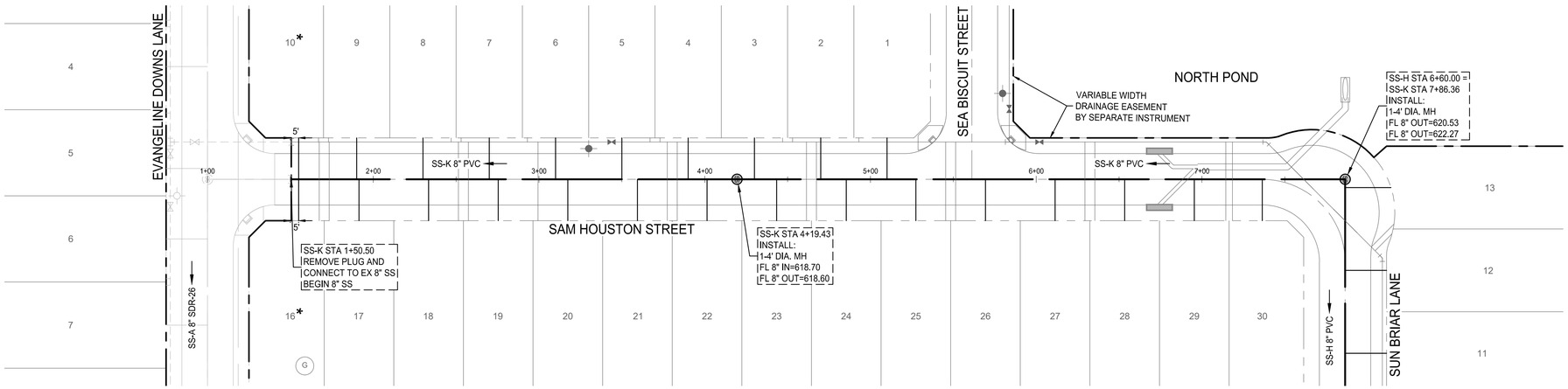
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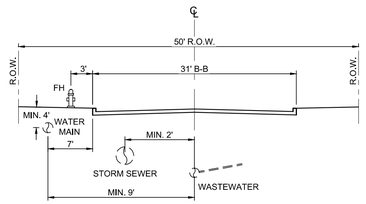
SECOND SUBMITTAL

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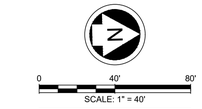
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TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



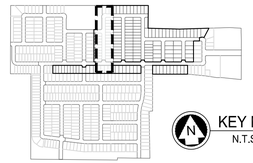
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- PROPOSED SANITARY SEWER LINE
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- PROPOSED PLUG
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- PROPOSED WATER LINE
- EXISTING WATER LINE
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SARATOGA PHASE 1A

SEWER PLAN & PROFILE - SS-K

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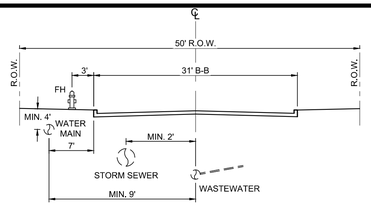
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TBPLS FIRM REGISTRATION NO. 10074301

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REVIEWER: NVT			

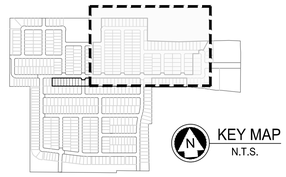
SARATOGA PHASE 1A

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SECOND SUBMITTAL



TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

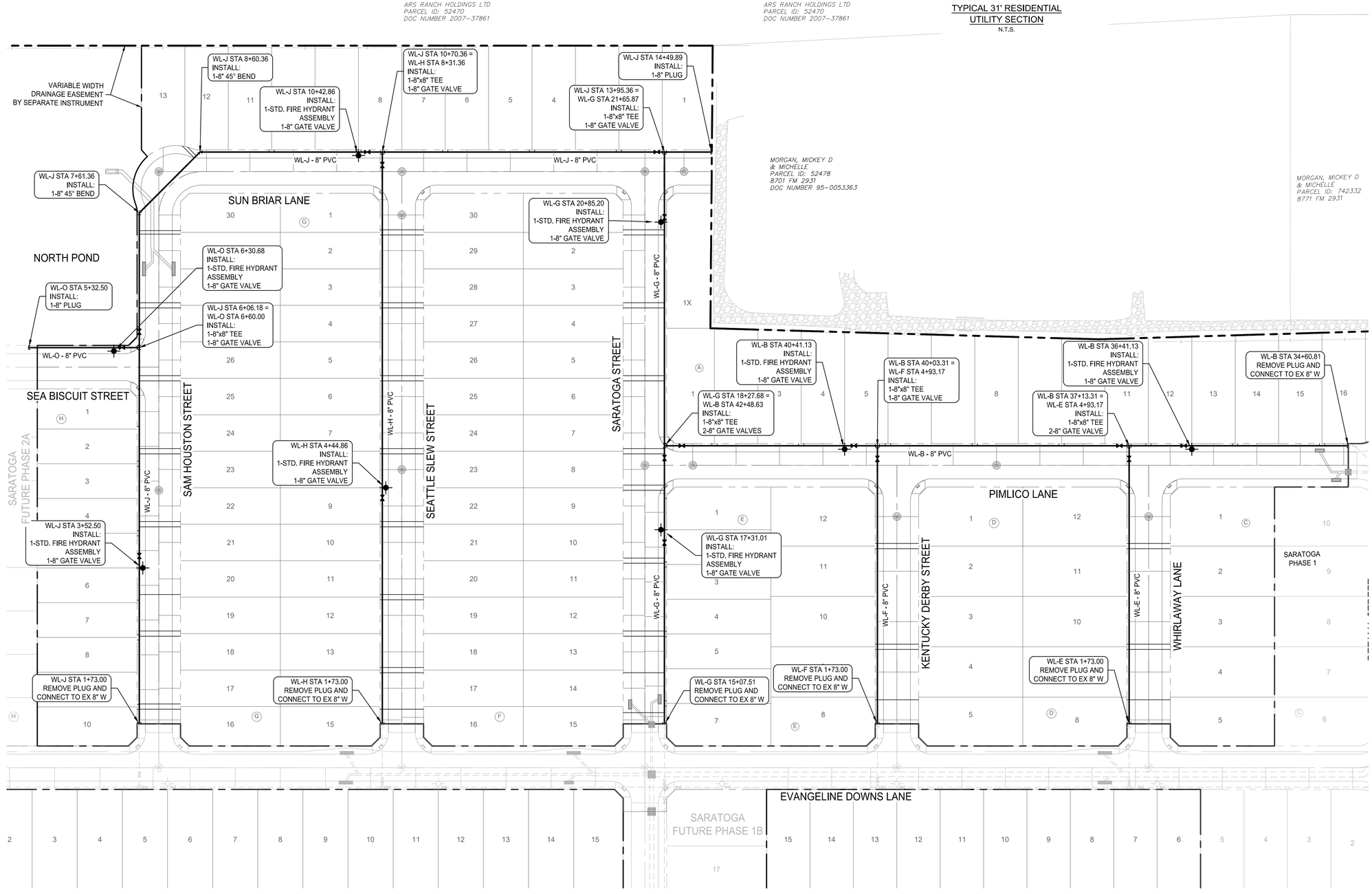


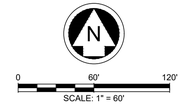
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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.





LEGEND

- PROPOSED SANITARY SEWER LINE
- EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPOSED STORM DRAIN
- * DENOTES IRREGULAR SERVICE

NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS AND CITY STANDARD SPECIFICATIONS EXCEPT AS NOTED HEREIN OR APPROVED BY THE CITY.
2. THE CONTRACTOR SHALL COORDINATE ALL PHASES OF INSPECTION OF UTILITIES WITH THE CITY PRIOR TO CONSTRUCTION AND/OR INSTALLATION. ALL PIPES AND PIPE FITTINGS SHALL BE INSPECTED BY THE CITY PRIOR TO COVERING AND/OR BACKFILLING OF UTILITY TRENCHES.
3. THE CONTRACTOR SHALL MAKE APPLICATION FOR SERVICES, OBTAIN ALL PERMITS AND PAY ALL CHARGES, FEES, AND CONNECTION COSTS FOR EACH UTILITY SERVICE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING "AS-BUILT" PLANS TO THE ENGINEER OF RECORD SHOWING ALL UTILITY INSTALLATION VARIANCES FROM THE FINAL CONSTRUCTION DOCUMENTS. FIELD CHANGES SHALL BE LOCATED ON THE "AS-BUILT" PLANS BY DISTANCE TO THE LOT LINES OR PROPERTY LINES.
5. UNLESS OTHERWISE NOTED, ALL CONCRETE USED IN UTILITY INSTALLATION SHALL BE CLASS "A" (3000 PSI).
6. ALL WATER MAINS SHALL BE A MINIMUM OF PVC C900, DR 18, CLASS 150. FIRE PROTECTION SERVICES SHALL BE PVC C900, DR 14, CLASS 200 AND INSTALLED IN ACCORDANCE WITH THE DESIGN AND SPECIFICATIONS OF THE FIRE PROTECTION PLANS TO BE PREPARED BY A LICENSED FIRE PROTECTION ENGINEER.
7. WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
8. ALL WATER MAINS, UNLESS OTHERWISE NOTED, SHALL HAVE A MINIMUM COVER OF 48" BELOW FINISHED GRADE.
9. WHEN WATER MAINS AND SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET HORIZONTALLY IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES.
10. ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS.
11. TRENCH BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED IN 6" LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE CITY SPECIFICATIONS.
12. ALL BORE PITS, TRENCHES, AND INSPECTION HOLES SHALL BE BACKFILLED WITHIN 48 HOURS OF THE INSTALLATION OF UTILITY LINES. THE METHOD OF COMPACTION SHALL BE SUCH THAT A SOIL DENSITY EQUAL TO THAT EXISTING PRIOR TO THE START OF CONSTRUCTION WILL BE REQUIRED AS VERIFIED BY AN APPROVED TESTING LABORATORY. ANY EXCESS OR SURPLUS MATERIAL RESULTING DUE TO DISPLACEMENT OF UTILITY LINES AND CONDUITS SHALL BE DISPOSED OF IN A MANNER ACCEPTABLE TO THE CITY.
13. MUSTANG TO REVIEW, APPROVE, & MAINTAIN WATER SYSTEM.
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SARATOGA PHASE 1A

WATER PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	35
REVIEWER: NVT			

SARATOGA PHASE 1A

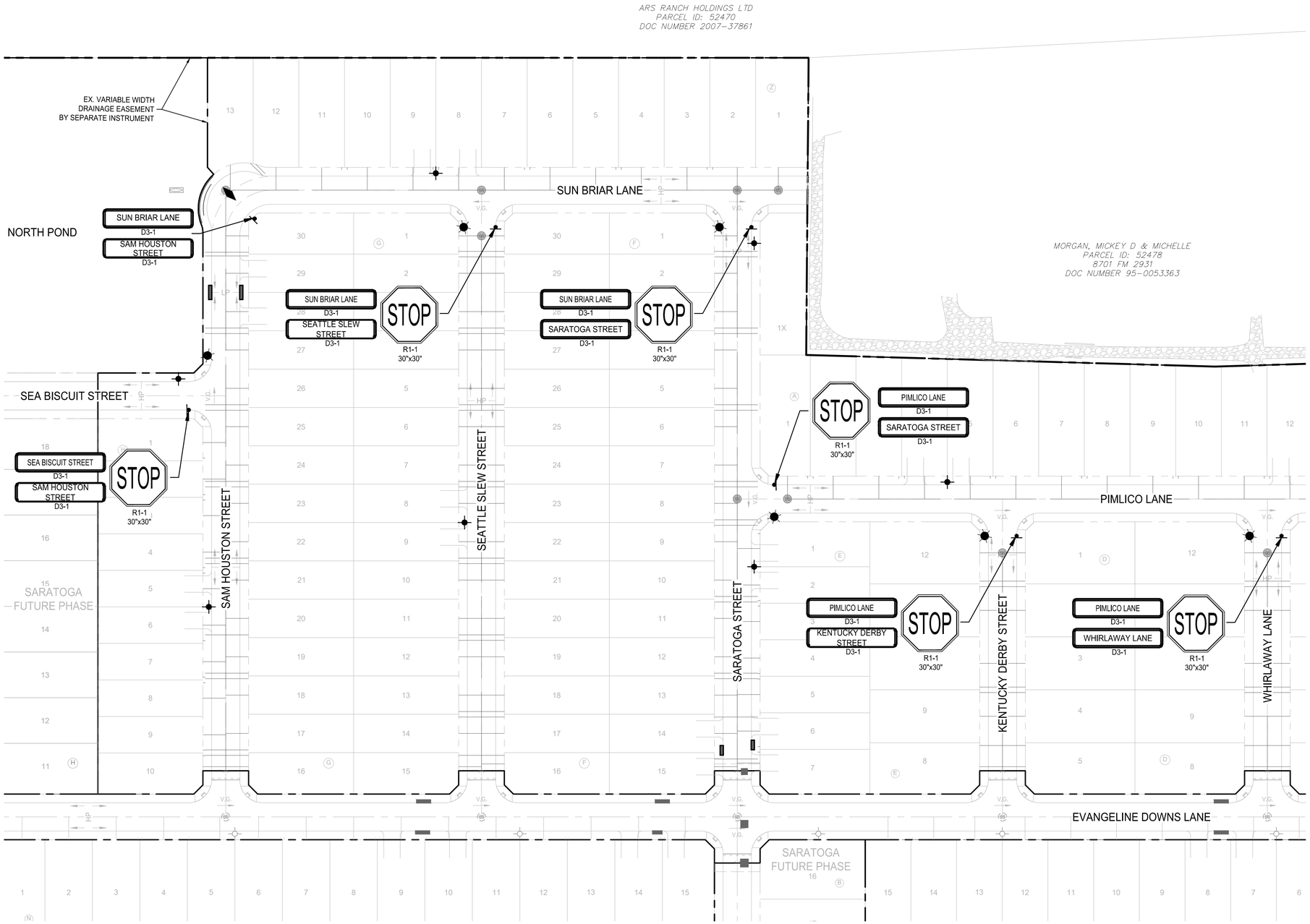
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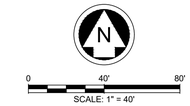
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SECOND SUBMITTAL





LEGEND

- PROPOSED LIGHT POLE 1-FIXTURE
- PROPOSED STREET SIGN
- PROPOSED STOP SIGN
- PROPOSED FIRE HYDRANT
- PROPOSED CURB INLET
- STREET NAME CHANGE
- 1-INCH IRRIGATION SLEEVES
- TRAFFIC FLOW DIRECTION

NOTES:

1. CENTER OF LIGHT POLES AND STREET SIGNS TO BE LOCATED 1.5' OFF BACK OF CURB.
2. CONTRACTOR SHALL SEQUENCE CONSTRUCTION SO THAT A MINIMUM OF ONE OPEN LANE IN EACH DIRECTION IS MAINTAINED AT ALL TIMES. TRAFFIC SHALL NOT BE MADE TO CROSS THE MEDIAN.
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SARATOGA PHASE 1A

STREET LIGHT & SIGNAGE PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

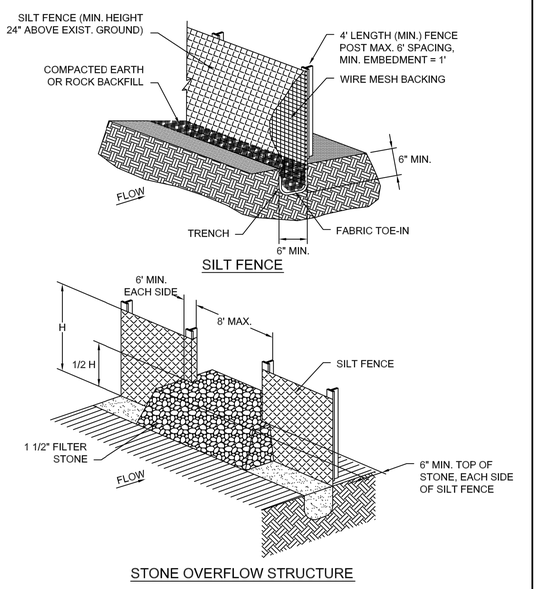
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DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	36
REVIEWER: NVT			

SARATOGA PHASE 1A

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Plot Date/Time: 4/30/2024 4:03 PM



SILT FENCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.5 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1020A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

SILT FENCE GENERAL NOTES:

1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WIRE BACKING, WHICH IN TURN IS ATTACHED TO THE FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

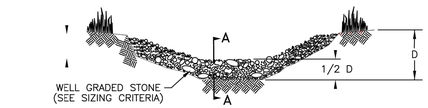
5. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN FINAL STABILIZATION IS ACHIEVED OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED.

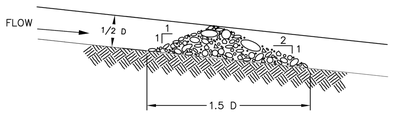
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

SILT FENCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.5 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1020B

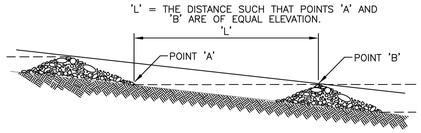
*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



VIEW LOOKING UPSTREAM



SECTION A – A



SPACING BETWEEN CHECK DAMS

ROCK CHECK DAM	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.9 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1060A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

ROCK CHECK DAM GENERAL NOTES:

1. STONE SHALL BE WELL GRADED WITH SIZE RANGE FROM 1½ TO 3½ INCHES IN DIAMETER DEPENDING ON EXPECTED FLOWS.

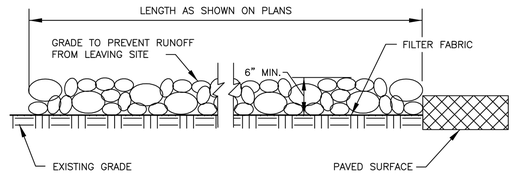
2. THE CHECK DAM SHALL BE INSPECTED AS SPECIFIED IN THE SWPPP AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

3. WHEN SILT REACHES A DEPTH EQUAL TO ONE–THIRD OF THE HEIGHT OF THE CHECK DAM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.

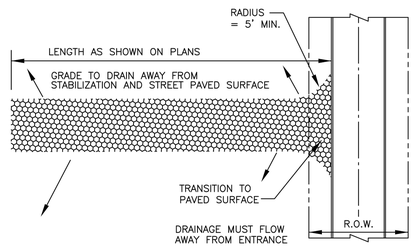
4. WHEN THE SITE HAS ACHIEVED FINAL STABILIZATION OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED, THE CHECK DAM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

ROCK CHECK DAM	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.9 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1060B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



PROFILE VIEW
N.T.S.



PLAN VIEW
N.T.S.

STABILIZED CONSTRUCTION ENTRANCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.11 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1070A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES:

1. STONE SHALL BE 3 TO 5 INCH DIAMETER COARSE AGGREGATE.

2. LENGTH SHALL BE AS SPECIFIED IN THE SWPPP.

3. THE THICKNESS SHALL NOT BE LESS THAN 12 INCHES.

4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.

5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.

6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.

7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

8. PREVENT SHORTCUTTING OF THE FULL LENGTH OF THE CONSTRUCTION ENTRANCE BY INSTALLING BARRIERS AS NECESSARY.

9. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP.

STABILIZED CONSTRUCTION ENTRANCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.11 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1070B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

SECOND SUBMITTAL

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

EROSION CONTROL DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	37
REVIEWER: NVT			

SARATOGA PHASE 1A

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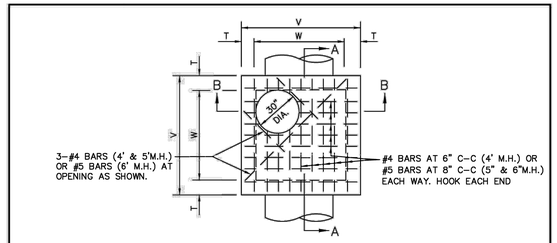
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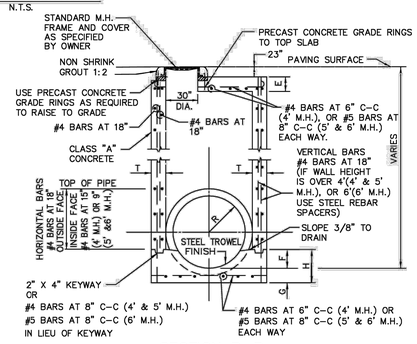
SECOND SUBMITTAL



PLAN
N.T.S.

M.H. SIZE(W)	V	T	E	F	G	H
4'	5'–4"	8"	6"	9"	6"	1'–3"
5'	6'–4"	8"	6"	12"	8"	1'–8"
6'	7'–6"	9"	9"	16"	10"	2'–2"

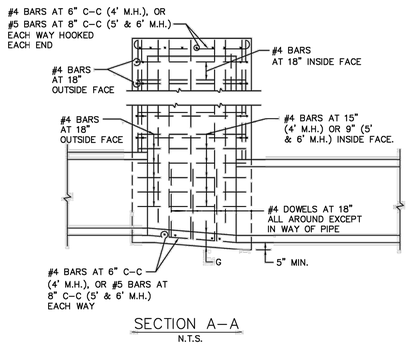
TABLE OF DIMENSIONS
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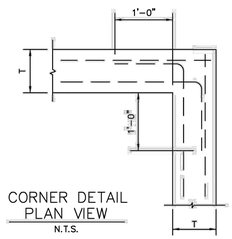
SECTION B–B
N.T.S.

STORM WATER MANHOLE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.1.4.1*	
4', 5', OR 6' SQUARE		DATE OCT. '04	STANDARD DRAWING NO. 6010A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



SECTION A–A
N.T.S.



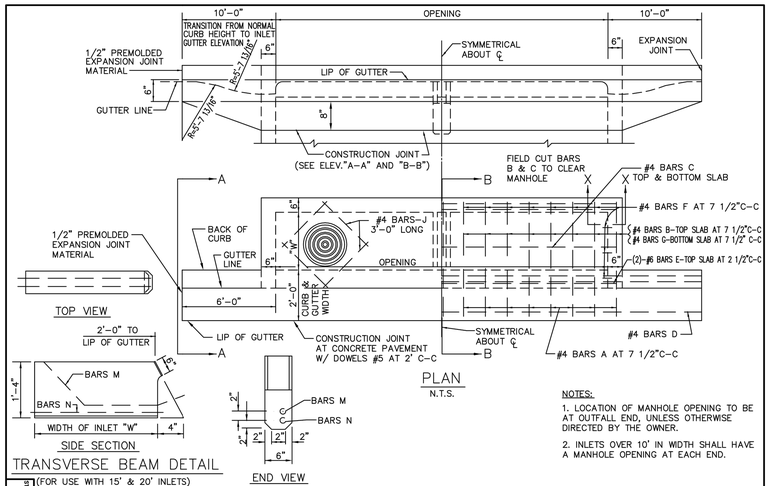
CORNER DETAIL PLAN VIEW
N.T.S.

NOTES:

1. SLOPE INVERT OF MANHOLE AS INDICATED ON PLAN–PROFILE SHEET.
2. LAYERS OF REINFORCING STEEL NEAREST THE INTERIOR AND EXTERIOR SURFACE SHALL HAVE A COVER OF 2" TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
3. CONCRETE SHALL BE CLASS "A".

STORM WATER MANHOLE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 502.1.4.1*	
4', 5', OR 6' SQUARE		DATE OCT. '04	STANDARD DRAWING NO. 6010B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



NOTES:

1. LOCATION OF MANHOLE OPENING TO BE AT OUTFALL END, UNLESS OTHERWISE DIRECTED BY THE OWNER.
2. INLETS OVER 10' IN WIDTH SHALL HAVE A MANHOLE OPENING AT EACH END.

6020A (NCTCOG STANDARD DRAWING)	CURB INLET 5', 10', 15' OR 20' OPENING	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702	
			DATE OCT. '04	STANDARD DRAWING NO. 6020A

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

STORM DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	38
REVIEWER: NVT			

SARATOGA PHASE 1A

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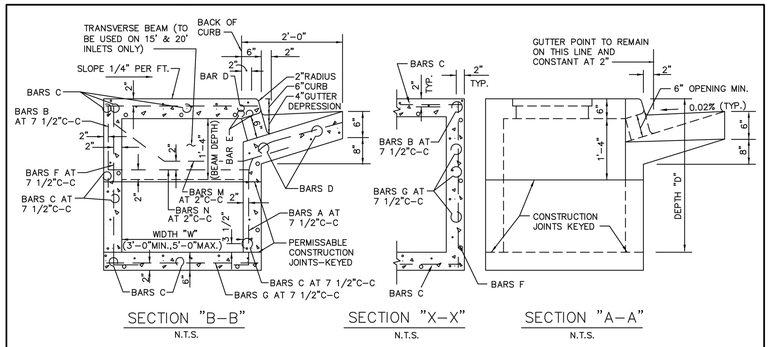
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

SECOND SUBMITTAL

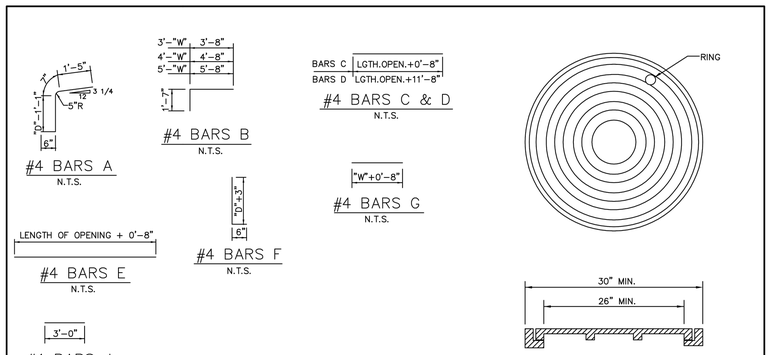


GENERAL NOTES:

1. ALL CONCRETE SHALL BE CLASS "A" CONCRETE.
2. REINFORCING BARS SHALL BE STANDARD GRADE STEEL, DEFORMED REINFORCING BARS OF A DIAMETER AND LENGTH AS SHOWN.
3. CHAMFER ALL EXPOSED CORNERS 3/4" EXCEPT WHERE OTHERWISE NOTED.
4. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
5. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMODATE STORM SEWER PIPE.
6. RING AND COVER SHALL BE APPROVED BY THE OWNER AND INSTALLED BY THE CONTRACTOR.

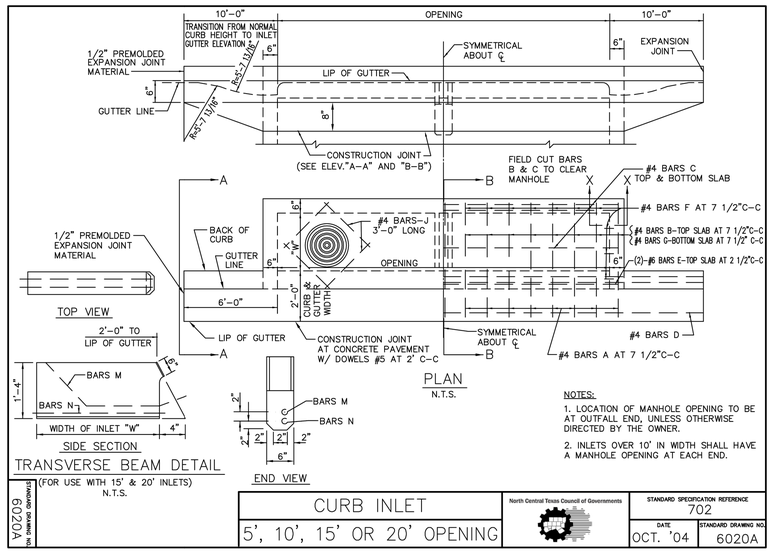
STANDARD DRAWING NO. 6020B

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702
CROSS SECTION & INLET THROAT		DATE OCT. '04 / STANDARD DRAWING NO. 6020B



STANDARD DRAWING NO. 6020C

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702
REBAR & M.H. FRAME & COVER		DATE OCT. '04 / STANDARD DRAWING NO. 6020C



NOTES:

1. LOCATION OF MANHOLE OPENING TO BE AT OUTFALL END, UNLESS OTHERWISE DIRECTED BY THE OWNER.
2. INLETS OVER 10' IN WIDTH SHALL HAVE A MANHOLE OPENING AT EACH END.

STANDARD DRAWING NO. 6020A

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702
5', 10', 15' OR 20' OPENING		DATE OCT. '04 / STANDARD DRAWING NO. 6020A

BILL OF REINFORCING STEEL

DEPTH "D"	ALL AND	WIDTHS LENGTHS	OPENING LENGTH "L" = 5ft Widths "W" 3ft	4ft	5ft				OPENING LENGTH "L" = 10ft Widths "W" 3ft	4ft	5ft				OPENING LENGTH "L" = 15 ft Widths "W" 3ft	4ft	5ft				OPENING LENGTH "L" = 20 ft Widths "W" 3ft	4ft	5ft			
	BARS C	BARS D	BARS E	BARS J	BARS F	BARS F	BARS A	BARS B	BARS 10	BARS 20	BARS 28	BARS 32	BARS 36	BARS 18	BARS 28	BARS 36	BARS 40	BARS 44	BARS 26	BARS 26	BARS 36	BARS 2	BARS 2	BARS 44	BARS 48	BARS 52	BARS 34	BARS 34	BARS 44	BARS 2	BARS 2
	C	D	E	J	F	F	A	B	G	F	F	F	A	B	G	F	F	F	A	B	G	M	N	F	F	F	A	B	G	M	N
3'-6"	17	3	2	4	20	24	28	10	10	20	28	32	36	18	28	36	40	44	26	26	36	2	2	44	48	52	34	34	44	2	2
3'-9"	18	"	"	"	"	"	"	"	"	20	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"	"	"	"	"	"	"	"	"
4'-0"	19	"	"	"	"	"	"	"	24	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"	"	"	"	"	"	48	"	"
4'-3"	19	"	"	"	"	"	"	"	24	"	"	"	"	"	32	"	"	"	"	"	40	"	"	"	"	"	"	"	"	48	"	"
4'-6"	21	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	"	"	"	50	"	"
4'-9"	21	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	"	"	"	50	"	"
5'-0"	21	"	"	"	"	"	"	"	26	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	"	"	"	50	"	"
5'-3"	23	"	"	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	"	"	"	52	"	"
5'-6"	23	"	"	"	"	"	"	"	28	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	"	"	"	52	"	"
5'-9"	25	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	"	"	"	54	"	"
6'-0"	25	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	"	"	"	54	"	"
6'-3"	26	"	"	"	"	"	"	"	30	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	"	"	"	54	"	"
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7'-0"	29	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	"	"	"	58	"	"
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7'-6"	30	"	"	"	"	"	"	"	34	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	"	"	"	58	"	"
7'-9"	31	"	"	"	"	"	"	"	36	"	"	"	"	"	44	"	"	"	"	"	52	"	"	"	"	"	"	"	"	60	"	"
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8'-6"	33	"	"	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	54	"	"	"	"	"	"	"	"	62	"	"
8'-9"	34	"	"	"	"	"	"	"	38	"	"	"	"	"	46	"	"	"	"	"	54	"	"	"	"	"	"	"	"	62	"	"
9'-0"	35	"	"	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"	"	"	56	"	"	"	"	"	"	"	"	64	"	"
9'-3"	36	"	"	"	"	"	"	"	40	"	"	"	"	"	48	"	"	"	"	"	56	"	"	"	"	"	"	"	"	64	"	"
9'-6"	37	"	"	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	58	"	"	"	"	"	"	"	"	66	"	"
10'-0"	38	"	"	"	"	"	"	"	42	"	"	"	"	"	50	"	"	"	"	"	58	"	"	"	"	"	"	"	"	66	"	"

NOTE:
FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLES ARE IN INCREMENTS OF 3 INCHES BUT ANY DEPTHS OTHER THAN THOSE SHOWN ABOVE MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS FALLING WITHIN THE LIMITS OF THE TABLE MAY BE FOUND BY INTERPOLATION.

STANDARD DRAWING NO. 6020D

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702
BILL OF REINFORCING STEEL		DATE OCT. '04 / STANDARD DRAWING NO. 6020D

SUMMARY OF QUANTITIES FOR CURB INLETS

DEPTH "D"	5'-0" OPENING						10'-0" OPENING						15'-0" OPENING						20'-0" OPENING					
	WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"	
	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.
3'-6"	2.62	306	2.95	332	3.28	373	4.12	479	4.64	521	5.20	564	5.69	667	6.40	721	7.10	775	7.20	846	8.11	909	9.03	976
3'-9"	2.70	309	3.04	341	3.39	373	4.25	494	4.78	536	5.34	579	5.87	687	6.58	741	7.30	796	7.42	874	8.34	937	9.27	1010
4'-0"	2.78	328	3.14	364	3.49	399	4.38	518	4.92	565	5.49	610	6.05	718	6.77	776	7.49	835	7.64	909	8.58	976	9.51	1046
4'-3"	2.87	334	3.23	370	3.59	406	4.51	526	5.06	573	5.64	619	6.22	729	6.95	787	7.69	847	7.87	922	8.81	990	9.75	1061
4'-6"	2.95	356	3.32	394	3.69	431	4.64	558	5.20	607	5.79	656	6.40	770	7.14	830	7.88	891	8.09	973	9.04	1043	9.99	1115
4'-9"	3.03	361	3.41	410	3.79	438	4.77	566	5.34	616	5.94	665	6.57	780	7.32	841	8.07	903	8.31	986	9.27	1056	10.23	1129
5'-0"	3.12	367	3.51	416	3.90	445	4.90	574	5.47	624	6.09	674	6.75	791	7.51	853	8.27	915	8.53	999	9.50	1070	10.47	1144
5'-3"	3.20	383	3.60	424	4.00	465	5.03	600	5.61	652	6.23	704	6.93	827	7.69	890	8.46	955	8.76	1044	9.73	1118	10.71	1194
5'-6"	3.28	389	3.69	430	4.10	472	5.16	608	5.75	661	6.38	713	7.11	837	7.88	901	8.66	967	8.98	1057	9.97	1131	10.95	1208
5'-9"	3.37	405	3.78	451	4.20	495	5.29	635	5.89	690	6.53	744	7.28	874	8.07	940	8.85	1007	9.20	1102	10.20	1178	11.19	1258
6'-0"	3.45	415	3.88	460	4.30	504	5.42	646	6.03	702	6.68	757	7.45	888	8.25	954	9.05	1022	9.42	1119	10.43	1196	11.43	1276
6'-3"	3.53	425	3.97	470	4.41	515	5.55	661	6.17	718	6.83	773	7.63	908	8.44	975	9.24	1044	9.64	1147	10.66	1223	11.67	1305
6'-6"	3.62	437	4.06	486	4.51	532	5.68	681	6.31	739	6.97	797	7.81	935	8.62	1005	9.43	1057	9.87	1178	10.89	1258	11.92	1340
6'-9"	3.70	441	4.15	490	4.61	537	5.81	688	6.45	747	7.12	806	7.98	945	8.81	1015	9.63	1066	10.09	1191	11.12	1272	12.15	1355
7'-0"	3.78	460	4.25	510	4.71	560	5.94	716	6.59	777	7.27	837	8.16	981	8.99	1053	9.82	1126	10.31	1237	11.35	1319	12.40	1404
7'-3"	3.86	465	4.34	516	4.81	567	6.07	724	6.72	785	7.42	846	8.33	992	9.18	1065	10.02	1138	10.53	1249	11.59	1333	12.64	1418
7'-6"	3.95	477	4.43	529	4.91	570	6.20	742	6.86	804	7.57	866	8.51	1016	9.36	1089	10.21	1163	10.75	1290	11.82	1365	12.88	1451
7'-9"	4.03	491	4.53	544	5.02	597	6.33	762	7.00	826	7.71	890	8.67	1040	9.55	1116	10.41	1193	10.98	1313	12.05	1399	13.12	1498
8'-0"	4.12	496	4.62	550	5.12	604	6.46	770	7.14	834	7.86	899	8.86	1051	9.73	1129	10.60	1205	11.20	1325	12.28	1412	13.36	1510
8'-3"	4.20	504	4.71	559	5.22	613	6.59	784	7.28	849	8.01	915	9.04	1069	9.92	1149	10.80	1228	11.42	1353	12.51	1440	13.60	1529
8'-6"	4.28	519	4.80	576	5.32	632	6.71	804	7.42	871	8.16	938	9.21	1107	10.10	1176	10.99	1257	11.64	1385	12.74	1474	13.84	1565
8'-9"	4.37	528	4.90	586	5.42	643	6.84	819	7.56	886	8.31	954	9.39	1119	10.29	1199	11.18	1280	11.87	1410	12.97	1500	14.08	1592
9'-0"	4.45	545	4.99	605	5.53	664	6.97	842	7.70	912	8.46	982	9.56	1148	10.47	1231	11.38	1313	12.09	1447	13.21	1539	14.32	1631
9'-3"	4.53	554	5.08	614	5.63	674	7.10	858	7.84	929	8.60	999	9.74	1169	10.66	1252	11.57	1335	12.31	1474	13.44	1563	14.56	1660
9'-6"	4.62	568	5.17	630	5.73	692	7.23	878	7.97	950	8.75	1022	9.92	1195	10.84	1280	11.77	1365	12.53	1505	13.67	1600	14.80	1696
10'-0"	4.78	582	5.36	645	5.93	708	7.49	900	8.11	974	9.05	1048	10.27	1227	11.21	1312	12.16	1399	12.98	1546	14.13	1642	15.29	1739

NOTE:
FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLES ARE IN INCREMENTS OF 3 INCHES BUT ANY DEPTHS OTHER THAN THOSE SHOWN ABOVE MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS FALLING WITHIN THE LIMITS OF THE TABLE MAY BE FOUND BY INTERPOLATION.

STANDARD DRAWING NO. 6020E

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702
SUMMARY OF QUANTITIES		DATE OCT. '04 / STANDARD DRAWING NO. 6020E

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

STORM DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

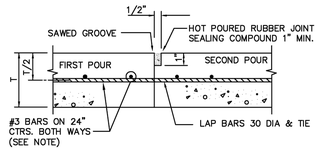
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	39
REVIEWER: NVT			

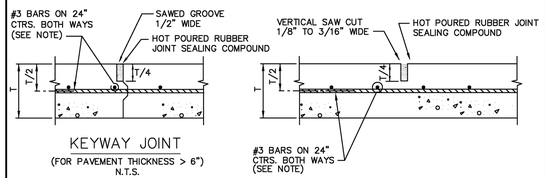
SARATOGA PHASE 1A

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Last Saved By: BSchick
Last Saved Time: 4/30/2024 3:17 PM
Plot Date/Time: 4/30/2024 4:04 PM



CONSTRUCTION JOINT

N.T.S.



KEYWAY JOINT

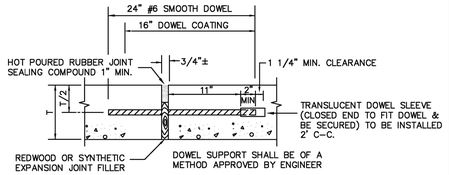
(FOR PAVEMENT THICKNESS > 6")

N.T.S.

SAWED CONTRACTION JOINT

N.T.S.

NOTE:
ALTERNATE REINFORCEMENT
#4 BARS ON 30" CTRS.
BOTH WAYS.

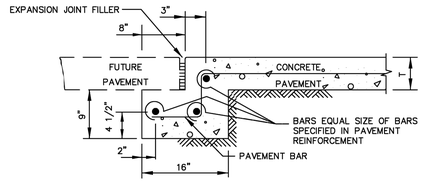


EXPANSION JOINT

(SPACED 600 FT. MAXIMUM; LOCATE AT STRUCTURES AND AT INTERSECTION P.C.'S & P.T.'S)

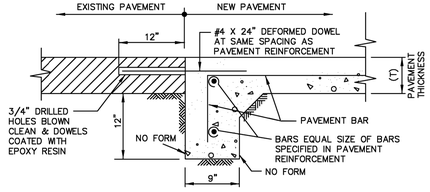
N.T.S.

REINFORCED CONCRETE PAVEMENT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 303.5.4.	
JOINTS		DATE OCT. '04	STANDARD DRAWING NO. 2050



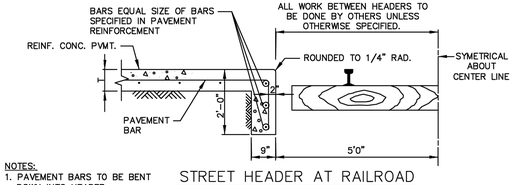
STREET HEADER FOR FUTURE PAVEMENT

N.T.S.



STREET HEADER AT EXISTING PAVEMENT

N.T.S.

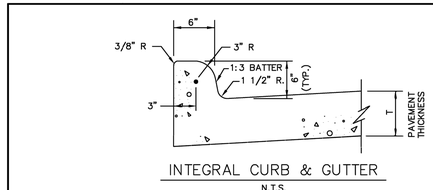


NOTES:
1. PAVEMENT BARS TO BE BENT DOWN INTO HEADER.
2. HEADER AND PAVEMENT TO BE MONOLITHIC.

STREET HEADER AT RAILROAD

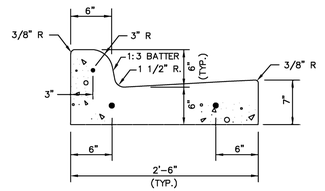
N.T.S.

REINFORCED CONCRETE PAVEMENT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.4	
STREET HEADERS		DATE OCT. '04	STANDARD DRAWING NO. 2070



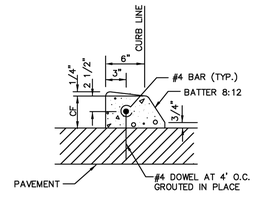
INTEGRAL CURB & GUTTER

N.T.S.



SEPARATE CURB & GUTTER

N.T.S.

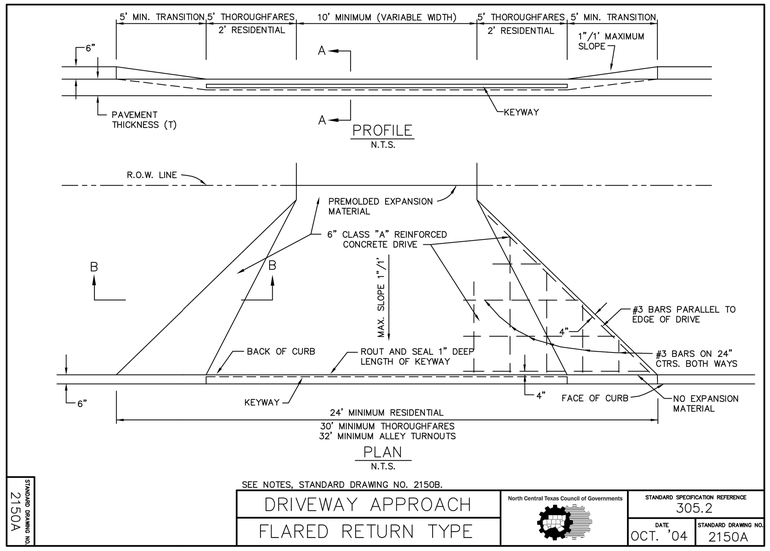


DOWELED CURB

N.T.S.

NOTES:
1. REINFORCEMENT SHALL BE NO. 4 BARS, UNLESS OTHERWISE SPECIFIED.
2. CONCRETE SHALL BE CLASS "C" OR "PC".
3. "CF" IS 6" UNLESS OTHERWISE SPECIFIED.
4. ALL CURBS ARE CONSTRUCTED OF PORTLAND CEMENT CONCRETE UNLESS OTHERWISE SHOWN.
5. GRADE SHALL BE MEASURED AT BACK OF CURB.

CONCRETE CURB & GUTTER	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.1	
INTEGRAL, SEPARATE, & DOWELED		DATE OCT. '04	STANDARD DRAWING NO. 2120



STANDARD DRAWING NO. 2150A

SEE NOTES, STANDARD DRAWING NO. 2150B.

DRIVEWAY APPROACH	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.2	
FLARED RETURN TYPE		DATE OCT. '04	STANDARD DRAWING NO. 2150A

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

SECOND SUBMITTAL

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

PAVING DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

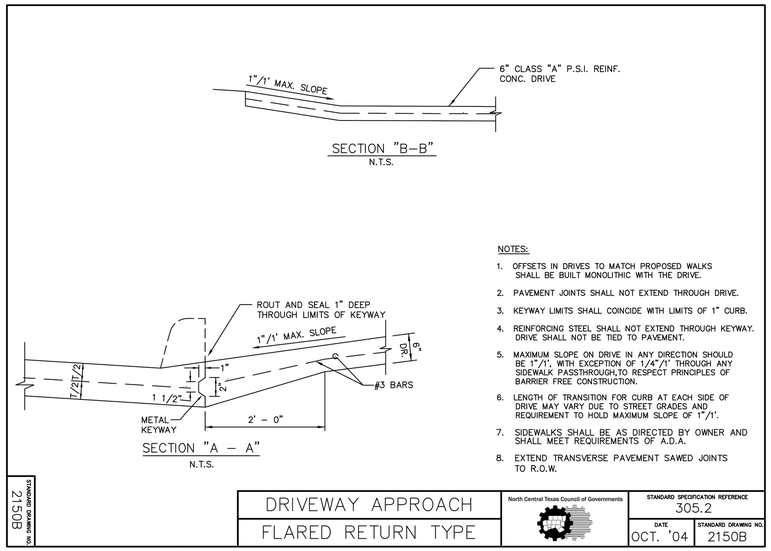
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

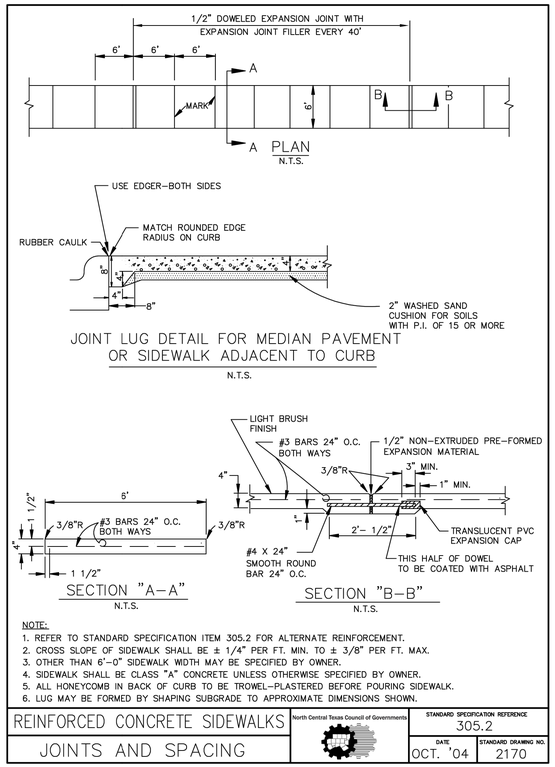
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	40
REVIEWER: NVT			

SARATOGA PHASE 1A

Drawing: G:\JOB\gee21003-saratoga\POD 1\Phase 1\3_Design\05_Civil\301_CAD\Sheets\GEE21003-1A-CVDET4&5.dwg
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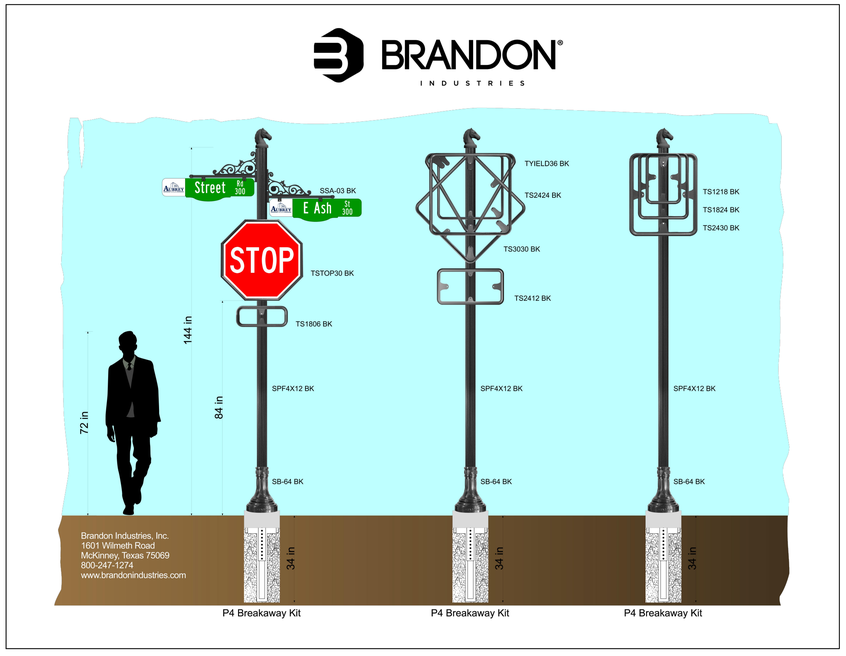
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

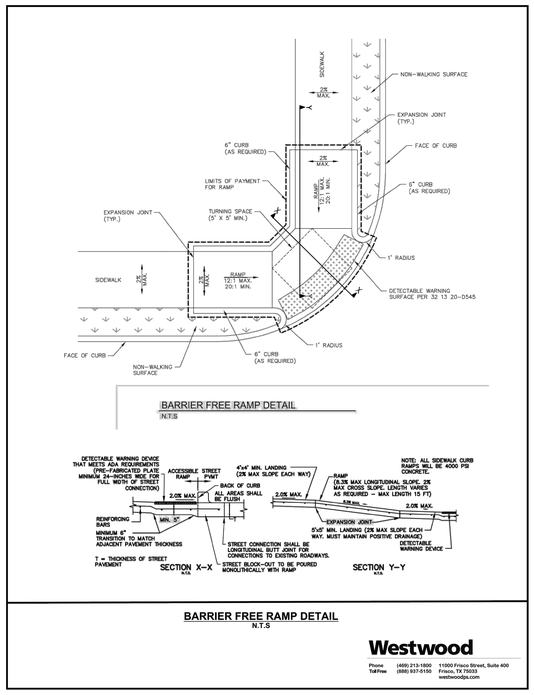
TEXAS 811	1-800-344-8377
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

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SECOND SUBMITTAL





BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

PAVING DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800
Toll Free (888) 937-5150
11000 Frisco Street, Suite 400
Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	41
REVIEWER: NVT			

SARATOGA PHASE 1A

Drawing: G:\GEI\gee21003-saratoga\PDD 1\Phase 1\3_Design\35_Civil\ESF_CAD\Sheets\GEE21003.1A-CIDETAILS
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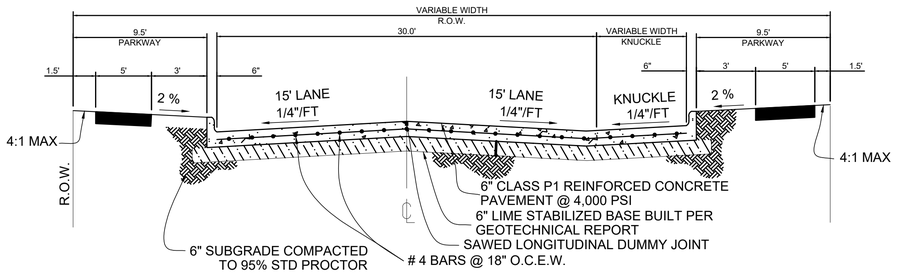
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MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

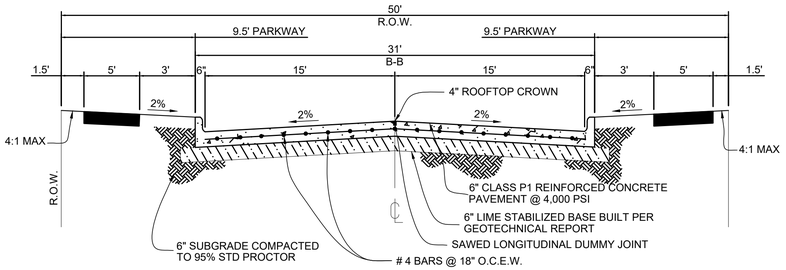
ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

SECOND SUBMITTAL



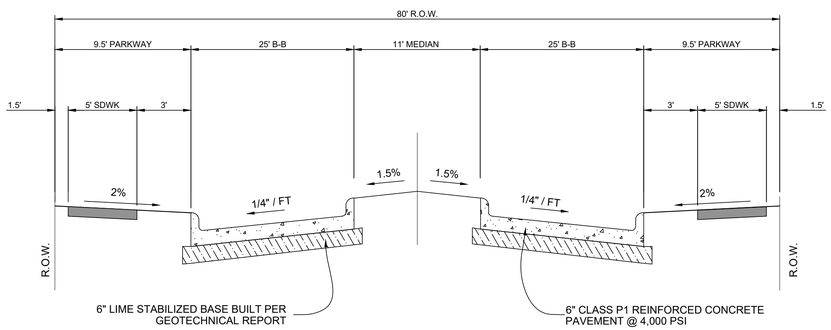
TYPICAL 50' ROW STREET KNUCKLE SECTION

N.T.S.



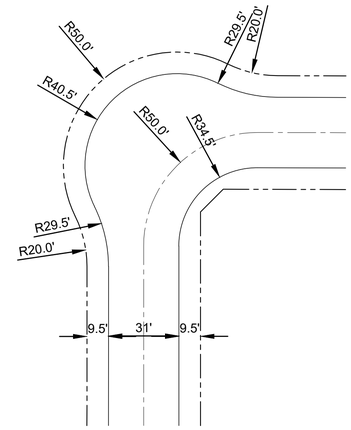
TYPICAL 50' ROW STREET SECTION

N.T.S.



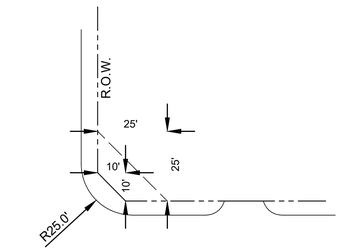
DIVIDED ENTRY SECTION

N.T.S.



TYPICAL KNUCKLE LAYOUT

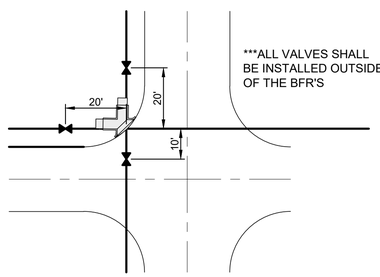
N.T.S.



INTERSECTING LOCAL (RESIDENTIAL)

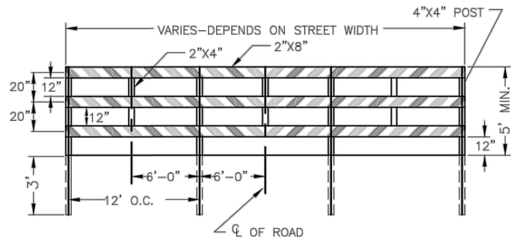
CORNER CLIP DETAIL

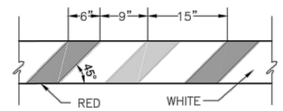
N.T.S.



GATE VALVE DETAIL

N.T.S.





END OF ROAD BARRICADE DETAIL

NOT TO SCALE

NOTES:

1. REFLECTIVE SHEETING FOR ALL TRAFFIC CONTROL DEVICES SHALL BE OF HIGH INTENSITY PRISMATIC (TYPE IIIA OR IIIB) ALL CHANNELIZATION DEVICES SHALL USE TYPE IIIA REBOUNDABLE SHEETING.
2. ATTACH 2"X 8" BOARDS TO 4"X 4" PRESSURE TREATED POST WITH LAG BOLTS.
3. ATTACH 2"X 4" BRACES TO 2"X 8" BOARDS WITH 10d–NAILS.
4. BARRICADE TO BE FULL WIDTH OF STREET BACK OF CURB TO BACK OF CURB.
5. IF BARRICADE IS USED TO DENOTE END OF ROADWAY, DIAGONAL STRIPES USED SHALL BE RED AND WHITE.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 1A

PAVING DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: BSC/RJ	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	42
REVIEWER: NVT			

SARATOGA PHASE 1A

Drawing G:\JOBS\gee21003-saratoga\PDO FPhase 1\3_Design\3b_Civil\351_CAD\Sheets\GEE21003-1A-DETAILS
Last Saved By: BSchaick
Last Saved On: 4/30/2024 3:17 PM
Plot Date/Time: 4/30/2024 4:04 PM

MSUD GENERAL NOTES

1. All construction shall be in accordance with the standard specifications of Mustang Special Utility District, which has also adopted the latest edition of the "Standard Specifications For Public Works Construction - North Central Texas" herein referred to as "NCTCOG" specifications. Copies may be obtained from the North Central Texas Council of Governments, 616 Six Flags Drive, Suite 200, Arlington, Texas 76011.
2. Where specified name brands are indicated, products of equal or better may be considered for approval upon submittal of all supporting data to the MSUD Engineer for review.
3. The contractor shall provide for temporary 3" Cold Mix Asphaltic Concrete as per NCTCOG Item 302.3 to be placed over all vehicular traveled areas until the final repairs/improvements are made.
4. All newly installed pipes and fittings must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by an organization accredited by ANSI.
5. The existence and locations of all underground utilities shown on the drawings were obtained from available records and are approximate. Neither the owner nor the engineer assumes any responsibility for utilities not shown or not in the location shown. The contractor shall determine the depth and location of existing underground utilities prior to trenching and shall be required to take any precautionary measures to protect all lines shown and/or any other underground utilities not of record or not shown on the plans.
6. Any contractor/subcontractor performing work on this project shall familiarize himself with the site and shall be solely responsible for any damage to existing facilities resulting directly or indirectly from operations. Said existing improvements shall include but not be limited to berms, ditches, fences, plants, irrigation. Any removal or damage to existing improvements shall be replaced or repaired by the contractor at his expense and shall be approved by the engineer.
7. Contractor shall shore all trenches and conduct all construction and operations in accordance with Occupation Safety and Health Administration (OSHA) requirements.
8. All construction and materials shall comply with Mustang SUD specifications. Any construction and/or materials not covered in Mustang SUD specifications shall be in accordance with NCTCOG specifications or the AWWA.
9. It shall be the contractor's responsibility to provide adequate record drawings to the engineer/Mustang SUD immediately after construction.
10. It shall be contractor's responsibilities to verify location, elevation and dimensions of adjacent and/or conflicting utilities in advance of construction in order that adjustments can be made to provide adequate clearance, if required. The contractor shall preserve and protect public utilities at all times during construction. Any damage to utilities resulting from the contractor's operation shall be restored at his expense. The engineer shall be notified when proposed facility's grades conflict with existing utility's grades.
11. All materials for water and wastewater shall be domestic. Any exceptions made will be at Mustang's or the Engineer's discretion.

MSUD WATER NOTES:

GENERAL:

1. All water lines and appurtenances shall be constructed in accordance with TCEQ requirements Chapter 290.
2. All water lines shall be designed, manufactured, and installed in accordance with current Mustang SUD water standards details.
3. All pipes and appurtenances shall conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by ANSI.
4. All pipes and appurtenances shall be installed in accordance with manufacturer's instruction.
5. Contractor to provide a curve in waterline to avoid storm drain inlets at all locations.
6. Franchise Utility Note: Other utilities such as gas, electric, telephone, cable, etc. shall not be installed in the same trench as water service lines. Other utilities such as gas, electric, telephone, cable, etc. may share the wastewater service line trench provided such utilities are offset a minimum of 5' from the wastewater service line.

PIPE:

7. All PVC water pipe shall be BLUE in color for potable and PURPLE in color for non-potable.
8. All PVC pipe shall be installed with metallic detector tape.
9. Water mains up to and including 12" diameter shall be AWWA C900-16 DR18 (Pressure Class 235). Mustang SUD reserves the right to require AWWA C900-16 DR14 (Pressure Class 305) for higher pressure applications as determined by Mustang SUD's Engineer. Water mains greater than 12" diameter may be AWWA C900-16 DR18 (Pressure Class 235) OR one of the following:
   - 9.1. Reinforced Concrete Cylinder Pipe (RCCP) C303 pressure class 150 or greater as specified by the Engineer.
   - 9.2. Ductile Iron pipe with Polywrap and cement mortar lining (AWWA C104), thickness class 51 or greater.
10. Embedment: For Pipe sizes 12" and smaller, the Embedment shall be as per the MSUD "Pipe Embedment Detail".
11. Cover
    - 11.1. The following minimum covers over the waterline is required:
      - 11.1.1. 48" of cover over waterlines up to and including 12" diameter.
      - 11.1.2. 60" to 72" of cover over waterlines larger than 12" in diameter.
    - 11.2. Water mains buried with over 72" of cover shall be approved by the MSUD Engineer.
    - 11.3. The minimum cover over all Water mains is 4 feet, unless approved otherwise by the MSUD Engineer. Approved mains with less than 3.5 feet of cover shall be capped as per the MSUD "Cap Detail".
12. Storage: PVC water pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and to be protected from other elements.
13. The Contractor is responsible to install the pipe in a way that the writing on the pipe is installed on the side up and is readable from the top of the ditch.
17. All ductile iron pipe, fittings and restraints shall be manufactured domestically.
18. All ductile iron pipe, fittings, valves, etc. shall be encased with polyethylene wrap 8 mils thick.
19. The pipe shall have beveled or chamfered ends according to manufacturer recommendations when using in MJ fittings.
20. When PVC water pipe is installed in casing, casing spacers must be used to prevent damage to the pipe and bell during installation. PVC pipe shall not rest on the Bells. Plastic spacers such as RACI or approved equal shall be used.
21. Pipe shall be handled so as to protect pipe and pipe joints and carefully bedded to provide continuous bearing and prevent uneven settlement. Pipe shall be protected against flotation at all times. Open ends of installed pipe shall be sealed at all times when construction is not in progress.

FITTINGS:

22. The Contractor shall use cast iron or ductile iron fittings, complete with Polywrap.
23. All fittings shall be MJ unless specified otherwise.
24. All fittings shall be blocked per the MSUD Water Standard Details.
25. Tapping sleeves shall be ductile iron and manufactured by Mueller, Tyler Union or approved equal.
26. Please also refer to NCTCOG Item 502.5.2 specifications.
27. The use of 90° bends in water mains is prohibited without approval of MSUD Engineer. Two 45° bends are allowed.
28. Install 12"X12"X3" concrete block under fittings installed on PVC pipe.
29. Restrained joints such as Mega-Lug or equal are required at all fittings.
30. All ductile iron fittings and restraints shall manufactured domestically.

VALVES:

31. Valves installed on waterlines 12" in diameter or less shall be vertical gate valves.
32. Valves installed on waterlines larger than 12" in diameter shall be butterfly valves. An offset vault shall be installed at the butterfly valve operator.
33. All gate valves shall have non-rising stems and resilient sealed wedge.
34. All potable-water pipe air release valve stabilization poles shall be painted blue in color.
35. All valves and fire hydrants shall be in line with the property line, where possible.
36. All valve locations shall be marked with "V" stamped or cut on the curb.
37. Install 12"x12"x3" concrete block under valves installed on PVC pipe.
38. Contractor to provide extensions for all valve stacks and fire hydrant leads/risers for all water lines deeper than 48" depth.

TESTING:

39. Hydrostatic test as per NCTCOG Item 506.5 specifications shall be performed
40. Water system shall be disinfected in accordance with American Water Works Association (AWWA) C651 (current edition) and then flushed and sampled before being placed in service. Samples shall be collected in accordance with Mustang SUD testing requirements.
41. All temporary test points to have corporation stops at the main. All temporary testing & chlorination points shall be removed at the corporation stop prior to final acceptance.
42. The Contractor shall take a sample of water from a tap on a sterilized main in the presence of a MSUD Representative and submit the sample(s) to an approved Testing Laboratory for analysis. After receiving approved sample, the Contractor, along with MSUD Representative, shall place sterilized lines into service.
43. All fire hydrants shall be flow and pressure tested and marked (tag and color coded paint) in accordance with NFPA 291 "Recommended Practice for Fire Flow Testing and Marking of Hydrants", latest edition. Copies of each test report for each fire hydrant, including a map showing the location of the fire hydrant being flow tested and the location of the pressure hydrant, shall be provided to Mustang SUD prior to acceptance of the system and the beginning of service. See WATER STANDARD DETAILS (1 OF 2) for Fire Hydrant Flow Test Report form.

MSUD WASTEWATER NOTES:

GENERAL:

1. All wastewater lines and appurtenances shall be constructed in accordance with TCEQ requirements Chapter 217.
2. All wastewater lines shall be designed, manufactured, and installed per Mustang SUD wastewater standard details.
3. All pipes and appurtenances shall be installed in accordance with manufacturer's instruction.
4. Wastewater system shall be tested in accordance with TCEQ for allowable leakage and pipe deflection before being placed in service. Test results shall be provided to Mustang SUD.
5. All wastewater manholes, drop manholes, wet wells, and force-main-to-gravity transition manholes shall be lined with Quadex ultra-high build epoxy or approved equal.
6. All force main ductile iron pipe and fittings shall be lined with Protecto 401 (P401) ceramic epoxy or approved equal.
7. Franchise Utility Note: Other utilities such as gas, electric, telephone, cable, etc. may share the wastewater service line trench provided such utilities are offset a minimum of 5' from the wastewater service line.
8. All curvature shall be accomplished by the manual bending of the pipe lengths in the trench. Mechanical means will not be allowed to accomplish design radii. No deflection of joints will be allowed.
9. All ductile iron pipe, fittings, valves, etc. shall be encased with polyethylene wrap 8 mils thick.
10. All ductile iron pipe, fittings and restraints shall be manufactured domestically.
11. All gravity main fittings shall be rubber gasket push on type.

PIPE:

12. All PVC pipe shall be installed with metallic detector tape.
13. All PVC gravity or pressure wastewater pipe shall be green in color.
14. Wastewater mains shall be Polyvinyl Chloride PVC SDR-35 for depths of burial up to 11.5'. Wastewater mains placed deeper than 11.5' shall be PVC SDR-26 unless specified and approved otherwise by the MSUD Engineer.
15. For creek crossings, the pipe shall be Ductile Iron Class 52.
16. Nominal diameter for sanitary sewer pipeline shall be 8" minimum. Residential and commercial service lines are excluded from this requirement.
17. Embedment shall be as per the "Wastewater Pipe Embedment Detail" on this sheet.
18. The minimum cover over all Wastewater mains is 4 feet, unless approved otherwise by the MSUD Engineer. Approved mains with less than 3.5 feet of cover shall be capped as per the "Cap Detail" on this sheet.
19. Clay cut-off walls shall be constructed as per the details and specifications on this sheet.
20. PVC wastewater pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and protected from other elements.
21. When PVC wastewater pipe is installed in casing, casing spacers shall be used to prevent damage to the pipe and bell during installation. PVC pipe shall not rest on the bells. Plastic spacers such as RACI or approved equal shall be used.
22. Pipe shall be handled so as to protect pipe and pipe joints and carefully bedded to provide continuous bearing and prevent uneven settlement. Pipe shall be protected against flotation at all times. Open ends of installed pipe shall be sealed at all times when construction is not in progress.

WASTEWATER SERVICE NOTES:

23. All property corners shall be staked with iron pins prior to the installation of any wastewater services. The locations of the wastewater service shall be staked according to the plans.
24. Wastewater services to be marked with "||" stamped or cut in the curb and painted green.
25. Contractor shall install locator pads or balls on the end of sewer services.

TESTING:

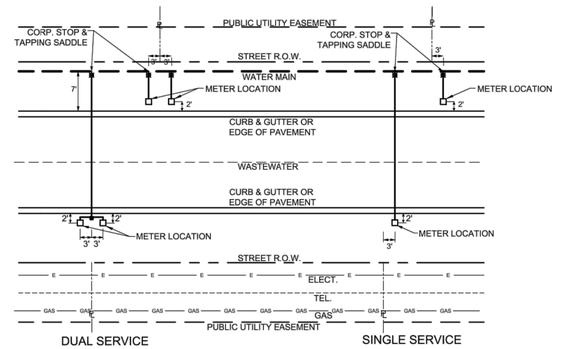
The following tests shall be performed and a written report provided to Mustang SUD:

26. Televising as per NTCOG Item 507.5.2 specifications. Camera shall pan around to show service connections.
27. Low pressure air testing as per TCEQ 31 TAC 217.57.
28. Mandrel deflection test as per TCEQ 31 TAC 217.57
29. Infiltration/Exfiltration test as per TCEQ 31 TAC 217.57.
30. Manholes shall be tested per TCEQ 31 TAC 217.58.
31. Provide final air test and clean prior to project acceptance or final walk-through.

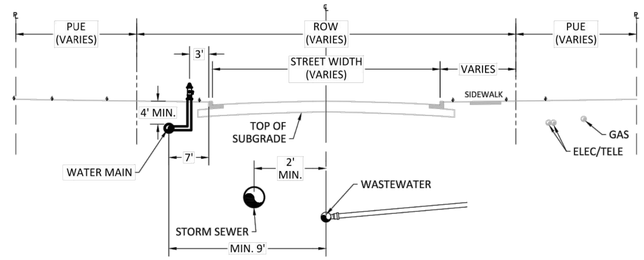
SYSTEM DESIGN VALUES:

WATER:
Average Day Demand = 288 GPD/Connection
Maximum Day Demand = 0.6 gpm
Peak Hour Demand = 1.032 gpm
Single-family Residential = 3.2 people per unit
Multi-family Residential = 2.25 people per unit

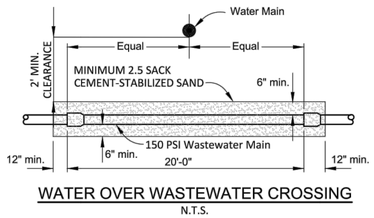
WASTEWATER:
SF Average Day Generation = 250 gpd/connection
MF Average Day Generation = 175 gpd/connection
SF Maximum Day Generation = 1000 gpd/connection
MF Maximum Day Generation = 700 gpd/connection
Single-family Residential = 3.2 people per unit
Multi-family Residential = 2.25 people per unit



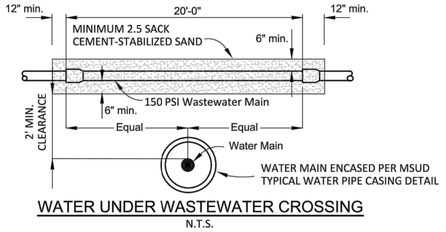
TYPICAL WATER LINE/SERVICE LOCATION LAYOUT DETAIL
N.T.S



TYPICAL UTILITY PROFILE
CURB & GUTTER ROAD SECTION
N.T.S.



WATER OVER WASTEWATER CROSSING
N.T.S.



WATER UNDER WASTEWATER CROSSING
N.T.S.

NOTES:
1. WHERE A WATER MAIN CROSSES A WASTEWATER MAIN OR LATERAL AND NINE-FOOT SEPARATION CANNOT BE ACHIEVED, A FULL JOINT (20') OF PRESSURE-RATED PVC PIPE (150 PSI MIN.) SHALL BE USED ON THE WASTEWATER MAIN OR LATERAL, CENTERED ABOUT THE WATER MAIN.
2. ADDITIONALLY, WHERE A WASTEWATER MAIN CROSSES OVER A WATER MAIN, AND NINE-FOOT SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN SHALL BE ENCASED IN AN 18-FOOT (OR LONGER) SECTION OF PIPE CENTERED ABOUT THE WASTEWATER MAIN.

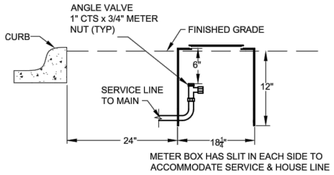
NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD
GENERAL MANAGER: C. BOYD DATE: 2020-09-14

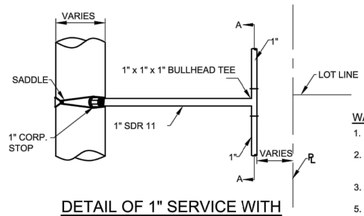
GENERAL NOTES

CERTIFICATION:
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

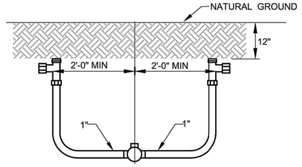


STD. METER BOX INST.

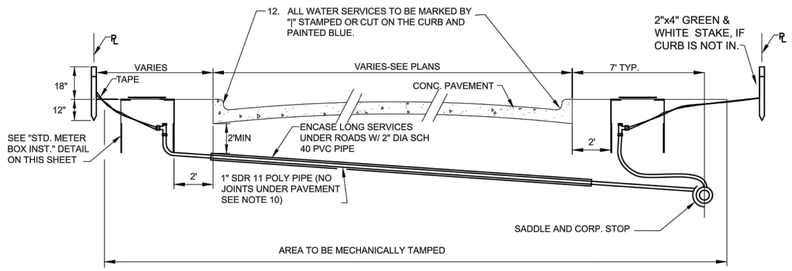
N.T.S.



DETAIL OF 1" SERVICE WITH BULLHEAD TEE



SECTION 'A - A' (ROTATED 90°)

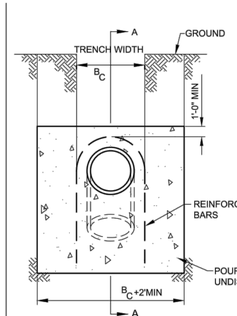


URBAN WATER SERVICE DETAIL

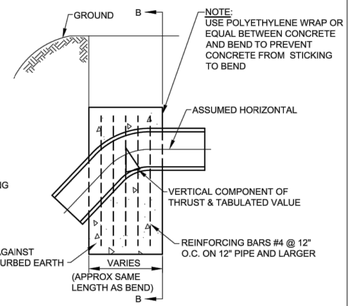
N.T.S.

WATER SERVICE NOTES:

1. ALL PROPERTY CORNERS SHALL BE STAKED WITH IRON RODS PRIOR TO THE INSTALLATION OF WATER SERVICES. THE LOCATIONS OF SERVICES SHALL BE STAKED ACCORDING TO THE PLANS.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL THE CORPORATION STOP, WATER SERVICE PIPE, ANGLE VALVE, CONNECTOR PIPE, AND METER BOX AS PER THE DETAILS ON THIS SHEET.
3. DIRECT TAPS ARE NOT ALLOWED. STAINLESS STEEL EPOXY COATED TAP SADDLES WITH IP THREADS SHALL BE USED FOR 1" TO 2" TAPS.
5. ALL TAPS LARGER THAN 2" SHALL BE MADE USING TAPPING TEES.
6. CUTTER FOR TAPS TO BE OF THE DOUBLE SLOTTED TYPE.
7. 1" TO 2" TAPS SHALL BE A MINIMUM OF 1' APART WITH TAPS NO CLOSER THAN 1' FROM THE END OF THE PIPE.
8. HOUSE SERVICES ON COMMON LOT LINES SHALL BE 1" WITH BULLHEAD.
9. CONTRACTOR MAY USE EITHER FLARED OR COMPRESSION FITTINGS WITH RESTRAINED UNIONS.
10. NO SPLICES OF WATER SERVICES SHALL BE PERMITTED UNDER PAVEMENT UNLESS APPROVED BY THE MSUD ENGINEER.
11. METER BOX SHALL BE SET 2 FT BEHIND CURB, OUTSIDE OF DRIVEWAYS AND PAVED AREAS.
12. ALL METERS 2" AND SMALLER SHALL HAVE A BFP INSTALLED WITH THE METER ASSEMBLY. ALL WATER METER ASSEMBLIES ARE SUPPLIED BY MSUD.
13. SERVICE TO BE STAKED BEFORE PAVING. METER BOX TO BE STAKED AFTER PAVING.
14. ALL RESIDENTIAL METERS SHALL BE BADGER E SERIES.
15. ALL SERVICE BRASS COMPONENTS SHALL BE FORD WATER PRODUCTS (OR APPROVED EQUAL) AND 150-PSI PRESSURE RATED.



ELEVATION B-B



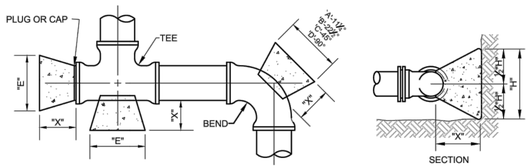
ELEVATION A-A

Δ	11¼°	22½°	45°
I.D. (IN.)	VOL. C.Y.	VOL. C.Y.	VOL. C.Y.
4	0.3	0.5	1.0
6	0.6	1.1	2.1
8	1.0	2.0	3.6
10	1.5	2.9	5.4
12	2.1	4.2	7.7
14	2.8	5.6	10.3
16	3.7	7.2	13.3
18	4.6	9.1	16.8
20	5.7	11.1	20.6
24	8.1	15.9	29.3
30	9.3	18.3	33.9
36	13.4	26.2	48.5

DIMENSIONS OF CONCRETE FOR VERTICAL THRUST BLOCKS AT FITTINGS

VERTICAL THRUST BLOCK NOTES:

1. CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 P.S.I. FOR 24" I.D. PIPE AND SMALLER AND 150 P.S.I. ON 30" I.D. AND LARGER.
2. CALCULATIONS ARE BASED ON WEIGHT OF CONCRETE OF 140 LBS PER CUBIC FOOT, SAFETY FACTOR OF 1.5 AND AN ALLOWABLE SOIL BEARING VALUE OF 2,500 POUNDS PER SQUARE FOOT.
3. VOLUMES OF VERTICAL BEND THRUST BLOCKS ARE NET VOLUMES OF CONCRETE TO BE FURNISHED. THE CORRESPONDING WEIGHT OF THE CONCRETE IS EQUAL TO OR GREATER THAN THE VERTICAL COMPONENT OF THRUST ON THE VERTICAL BEND.
4. CONCRETE FOR BLOCKING SHALL BE 2500 P.S.I. CONCRETE AT 28 DAYS.
5. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN HERE.
6. ALL CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED TRENCH WALLS.
7. KEEP CONCRETE CLEAR OF ALL JOINTS & ACCESSORIES. INSTALL 12 MIL POLYETHYLENE SHEETING AROUND FITTINGS. SECURE ENDS TO PREVENT INFILTRATION OF SOIL BETWEEN SHEETING AND PIPE FITTING PRIOR TO POURING THRUST BLOCK. PROTECT MECHANICAL JOINTS, FOLLOWERS, AND BOLTS FROM CONCRETE WITH TEMPORARY FORMS AND POLYETHYLENE.
8. ALL CONCRETE THRUST BLOCKS SHALL CONSIST OF A MIXTURE OF 1:2:6 OF CEMENT TO WASHED SAND TO GRAVEL AND SHALL BE CURED A MINIMUM OF 24 HOURS.

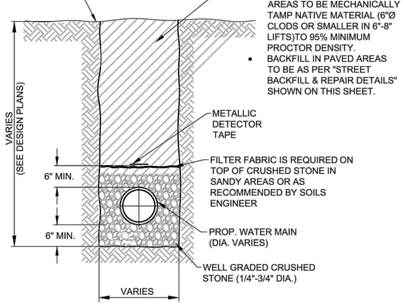


PIPE SIZE	"X" FT.	"H" FT.	11¼°		22½°		45°		90°		TEE & PLUG	
			"A" FT.	MIN. AREA	"B" FT.	MIN. AREA	"C" FT.	MIN. AREA	"D" FT.	MIN. AREA	"E" FT.	MIN. AREA
4"	1.5	1.2	1.2	1.4	1.2	1.4	1.2	1.4	1.9	2.3	1.4	1.7
6"	1.5	1.3	1.3	1.7	1.3	1.7	2.0	2.6	3.7	4.8	2.6	3.4
8"	1.5	1.3	1.3	1.7	1.8	2.3	3.4	4.4	6.3	8.2	4.5	5.9
10"	1.5	1.4	1.4	2.0	2.4	3.4	4.8	6.7	8.8	12.3	6.2	8.7
12"	1.5	1.6	1.6	2.6	3.0	4.8	5.9	9.4	10.9	17.4	7.7	12.3
14"	1.5	1.8	1.8	3.2	3.6	6.5	7.1	12.8	13.0	23.4	9.2	16.5
16"	2.0	2.1	2.1	4.4	4.0	8.4	7.8	16.4	14.5	30.5	10.2	21.4
18"	2.0	2.3	2.3	5.3	4.6	10.6	9.0	20.7	16.5	38.0	11.7	26.9
20"	2.0	2.6	2.6	6.8	5.0	13.0	9.7	25.2	18.0	46.8	12.7	33.0
24"	2.0	3.1	3.1	9.6	6.0	18.6	11.6	36.0	21.2	65.7	15.2	47.1
30"	2.5	3.8	3.8	14.4	7.5	28.5	14.6	55.5	27.0	102.6	19.1	72.6
36"	2.5	4.5	4.5	20.3	9.0	40.5	17.7	79.7	32.6	146.7	23.1	104.0

HORIZONAL THRUST BLOCK NOTES:

1. RETAINER GLANDS OR OTHER RESTRAINING DEVICES MAY BE REQUIRED AS NEEDED.
2. CALCULATIONS ARE BASED ON A TEST PRESSURE OF 150 PSI, WEIGHT OF CONCRETE OF 140 LBS PER CUBIC FOOT, SAFETY FACTOR OF 1.5 AND AN ALLOWABLE SOIL BEARING VALUE OF 2,500 POUNDS PER SQUARE FOOT. FOR OTHER PRESSURES AND SOIL STRENGTHS, AREAS AND VOLUMES MUST BE ADJUSTED ACCORDINGLY.
3. 2500 PSI CONCRETE AT 28 DAYS SHALL BE USED FOR ALL BLOCKING.
4. ALL MINIMUM AREAS ARE IN SQUARE FEET.
5. ALL CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED TRENCH WALLS. THE DISTANCE FROM PIPE FITTINGS TO TRENCH WALL SHALL BE A MINIMUM OF 12" AT THRUST BLOCK.
6. KEEP CONCRETE CLEAR OF ALL JOINTS & ACCESSORIES. INSTALL 12 MIL POLYETHYLENE SHEETING AROUND FITTINGS. SECURE ENDS TO PREVENT INFILTRATION OF SOIL BETWEEN SHEETING AND PIPE FITTING PRIOR TO POURING THRUST BLOCK. PROTECT MECHANICAL JOINTS, FOLLOWERS, AND BOLTS FROM CONCRETE WITH TEMPORARY FORMS AND POLYETHYLENE.
7. ALL CONCRETE THRUST BLOCKS SHALL CONSIST OF A MIXTURE OF 1:2:6 OF CEMENT TO WASHED SAND TO GRAVEL AND SHALL BE CURED A MINIMUM OF 24 HOURS.
8. ALL JOINTS SHALL BE TEMPORARILY JACKED WHEN POURING THRUST BLOCKS.
9. CONCRETE THRUST BLOCKS SHALL APPLY TO ALL PIPE FITTINGS.

DIMENSIONS OF CONCRETE FOR HORIZONTAL THRUST BLOCKS AT FITTINGS



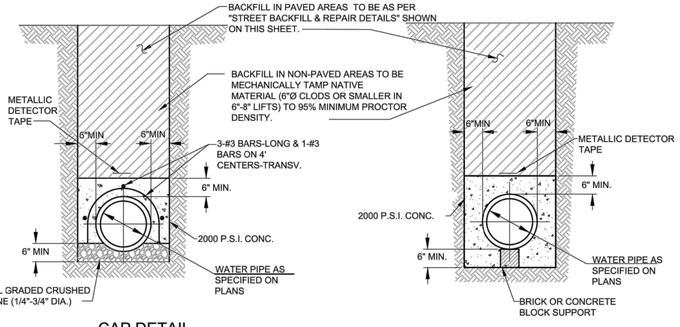
PIPE EMBEDMENT DETAIL

N.T.S.

TABLE OF DIMENSIONS FOR WIDTH OF TRENCH AND PAVEMENT REPLACEMENT

NORMAL SIZE OF PIPE IN INCHES	O.D. OF PIPEBELL IN INCHES (PVC-DR18)	MINIMUM TRENCH WALL CLEARANCE "A" IN INCHES	WIDTH OF TRENCH ('X')		WIDTH OF PVMT. REPLACEMENT *
			MAXIMUM ** IN INCHES	MINIMUM ** IN INCHES	('W') CONC& ASPHALT **
6	6.9	6	24	19	48
8	9.05	6	24	21	48
10	11.10	6	28	24	48
12	13.20	6	30	26	50
16+	VARIES	8	*	*	*

NOTE: * REFER TO THE PLANS FOR SPECIFIED WIDTH OF REPLACEMENT.
** RECOMMENDED WIDTHS - VARIES BASED ON DEPTH. AND SOIL MATERIAL.



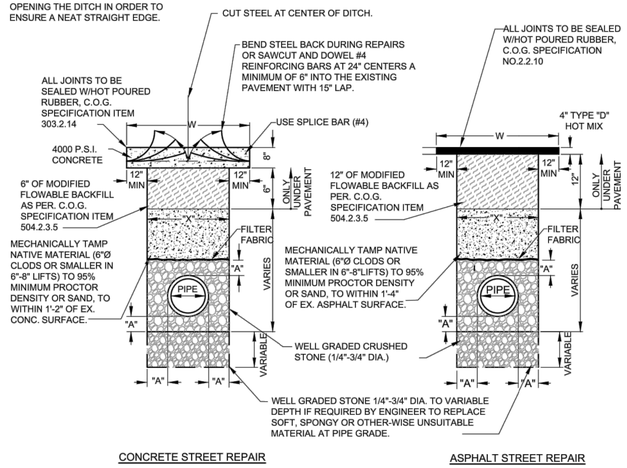
CAP DETAIL

N.T.S.

ENCASEMENT DETAIL

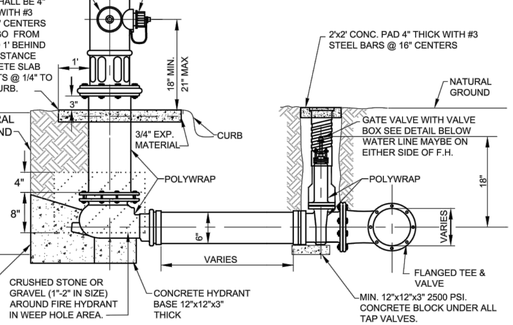
N.T.S.

NOTE:
SAWCUT TO REPAIR ASPHALT OR CONCRETE PAVEMENT PRIOR TO OPENING THE DITCH IN ORDER TO ENSURE A NEAT STRAIGHT EDGE.



STREET BACKFILL & REPAIR

N.T.S.

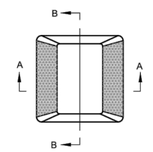


STANDARD FIRE HYDRANT DETAIL AND TRACER WIRE DETAIL

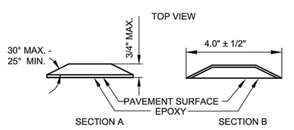
N.T.S.

FIRE HYDRANT NOTES:

1. FIRE HYDRANTS SHALL BE LOCATED 3' OFF BACK OF CURB IN RESIDENTIAL, & 4' OFF BACK OF CURB IN INDUSTRIAL.
2. FIRE HYDRANTS SHALL BE COATED WITH KEM-LUSTRAL OR AN EQUIVALENT COATING.
3. FIRE HYDRANT LOCATION WILL BE MARKED BY PLACING A TYPE II PAVEMENT MARKER REFLECTORIZED BLUE 4" OFF OF THE TRAFFIC LANE BUTTONS. THE MARKER WILL BE IN THE LANE NEAREST TO THE FIRE HYDRANT. ALL MARKERS AT INTERSECTIONS SHOULD BE 10 FEET BACK FROM THE INTERSECTION. HYDRANT MARKERS SHOULD BE PLACED 4" OFF THE CENTER STRIPE OR OTHER TRAFFIC BUTTONS AS PER DRAWINGS.
4. FIRE HYDRANT LEAD SHALL BE NO LONGER THAN 10' IN LENGTH.



TYPE II



PAVEMENT MARKERS (REFLECTORIZED) TYPE II

Sample Fire Hydrant Flow Test Report

Fire Hydrant Flow Test Report (NFPA 291)

Location_____ Date_____

Test Performed By_____ Time_____M.

Representative of_____

Mustang SUD Witness_____

Purpose of Test_____

If Pumps Affect Test, Indicate Pumps Operating_____

Fire Hydrant	A_1	A_2	A_3	A_4
Nozzle Size				
Pitot Reading				
Elev. Difference from Test Hydrant (B)				
Discharge Coeff.				
Flow (gpm)				

Static B_____psi Residual B_____psi

Projected Results @ 20 psi Residual _____gpm; or @ _____ psi Residual _____ gpm

Remarks_____

Location map: Show line sizes and distance to next distribution system intersection. Show valves and hydrant branch size. Indicate north. Show flowing hydrants – Label A_1, A_2, A_3, A_4. Show location of static and residual – Label B.

Indicate B Hydrant_____ Sprinkler_____ Other (identify)_____

NOTE: Mail, hand-deliver or otherwise provide this completed report to the Mustang Special Utility District prior to acceptance of the system and beginning of service.

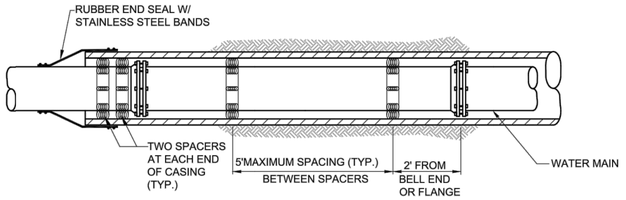
NO.	REVISION	BY	DATE

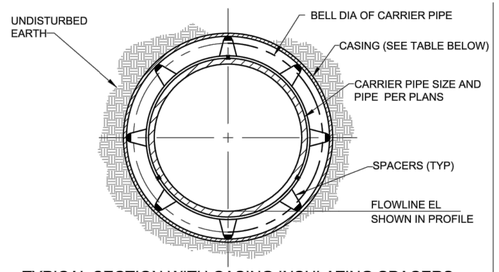
MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD GENERAL MANAGER: Chris Boyd DATE: 7/27/2020

WATER STANDARD DETAILS (1 OF 2)

CERTIFICATION:
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.





TYPICAL SECTION WITH CASING INSULATING SPACERS

N.T.S.

CASING NOTES:

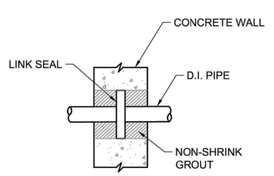
1. CASING MATERIAL SHALL BE STEEL PER TxDOT REQUIREMENTS AT ALL TxDOT ROAD CROSSINGS.
2. CASING MATERIAL SHALL BE SDR-26/PS115 PVC AT ALL OTHER CROSSINGS UNLESS SPECIFICALLY REQUIRED BY MSUD ENGINEER.
3. CASING SIZE SHALL BE PER THE TABLE PROVIDED HEREON.
4. CASING SPACERS SHALL BE USED TO INSTALL CARRIER PIPE INSIDE THE ENCASEMENT PIPE. TO PROVIDE SUPPORT AROUND THE PERIPHERY OF THE PIPE SHOULD THE PIPE TWIST AS IT IS PUSHED THROUGH THE CASING, THE SPACERS SHALL BE OF A PROJECTION TYPE THAT HAS A MINIMUM NUMBER OF PROJECTIONS AROUND THE CIRCUMFERENCE TOTALING THE NUMBER OF DIAMETER INCHES. FOR EXAMPLE, 8" PIPE SHALL HAVE A MINIMUM OF 8 PROJECTIONS AND 18" PIPE SHALL HAVE A MINIMUM NUMBER OF 18 PROJECTIONS.
5. CASING SPACERS SHALL HAVE A MAXIMUM SPACING SPAN OF 5 FEET. THE SPAN BETWEEN SPACERS SHOULD RESULT IN CONSERVATIVE LONG-TERM SAFETY FACTOR PROVIDED TOTAL LOAD PER SPACERS DOES NOT EXCEED THE MAXIMUM LOAD FOR PIPE FULL OF LIQUID PER SPACER LISTED IN THE LITERATURE FOR CLASS SPACER USED. SPACERS SHALL HAVE A MINIMUM HEIGHT THAT CLEARS THE PIPE BELL OR AS OTHERWISE INDICATED ON PLANS. CASING SPACERS SHALL USE DOUBLE BACKED TAPE PROVIDED WITH THE SPACERS, TO FASTEN TIGHTLY ONTO THE CARRIER PIPE, SO THAT THE SPACERS DO NOT MOVE DURING INSTALLATION.
6. SPACERS SHALL BE RACI HIGH DENSITY POLYETHYLENE OR AS APPROVED BY MSUD ENGINEER.

CASING SCHEDULE	
WATER LINE NOMINAL SIZE (IN)	CASING NOMINAL SIZE (IN)
2	4
4	6
6	8
8	12
10	16
12	18
14 & 16	24
18	30
20	30
24	36
27	36
30	42
36	48

TYPICAL WATER PIPE CASING DETAIL

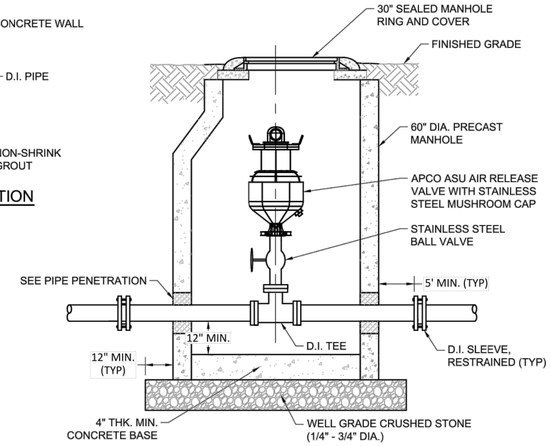
(AT ROADWAYS AND/OR STORM DRAIN CROSSINGS)

N.T.S.



PIPE PENETRATION

N.T.S.

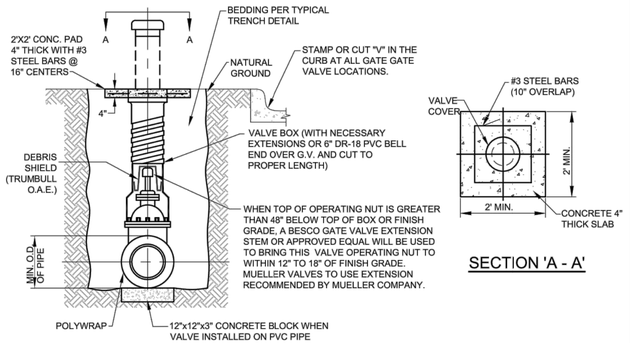


NOTES:

1. ALL PIPING, EXCEPT AS NOTED, TO BE DUCTILE IRON WITH FLANGED JOINTS AND STAINLESS STEEL BOLTS AND NUTS.
2. RIM ELEVATION SHALL BE SET 12" ABOVE FINISHED GRADE UNLESS INSTALLED IN PAVED AREA

COMBINATION AIR RELEASE VALVE AND VAULT DETAIL

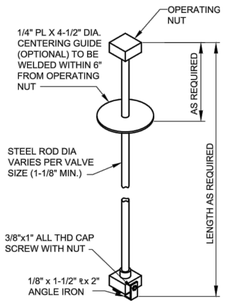
N.T.S.



SECTION 'A - A'

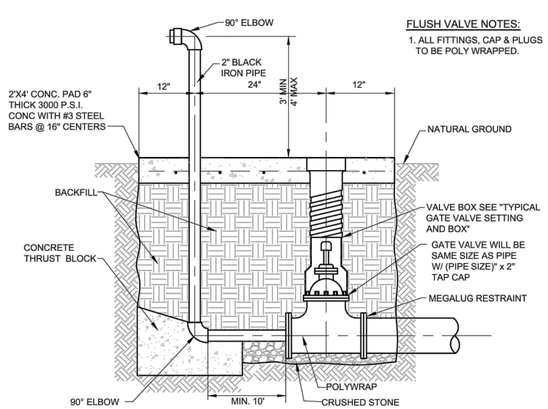
TYPICAL VALVE SETTING AND BOX

N.T.S.



VALVE EXTENSION STEM

N.T.S.

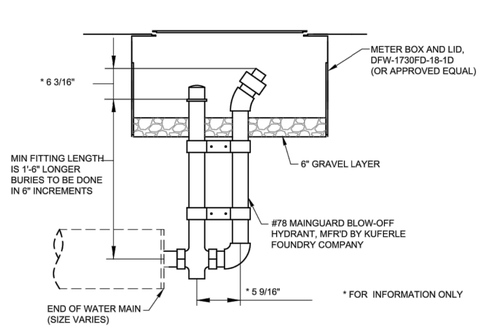


FLUSH VALVE NOTES:

1. ALL FITTINGS, CAP & PLUGS TO BE POLY WRAPPED.

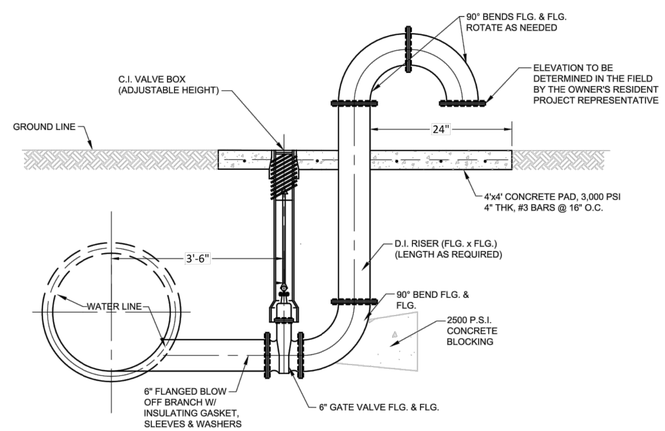
END-OF-LINE/TEMPORARY FLUSH VALVE

N.T.S.



RESIDENTIAL FLUSH VALVE

N.T.S.



MAIN LINE FLUSH VALVE

N.T.S.

NO.	REVISION	BY	DATE

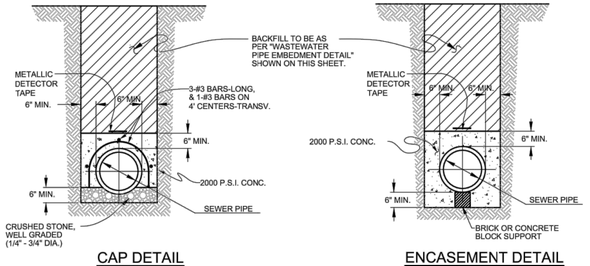
MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD
GENERAL MANAGER: C. BOYD DATE: 2020-09-14

WATER DETAILS (2 OF 2)

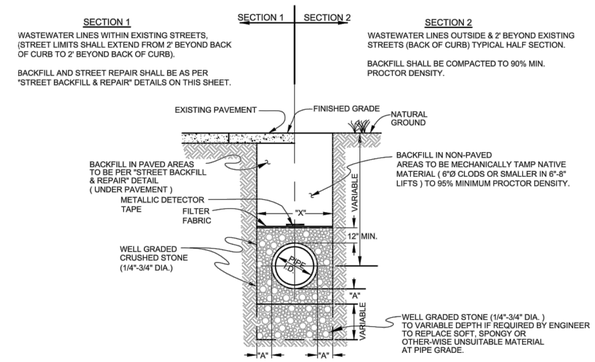
CERTIFICATION:
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

L:\PROJECTS 2006\21544 Mustang SUD General Engineering_Standard Details and General Notes\MSUD Standard Details - DWG and Draft Files\MSUD General Notes and Standard Detail 2020.dwg, Water Details (2 of 2), 10/7/2020 2:35:51 PM, SAMD, 1:1



CAP DETAIL
N.T.S.

ENCASEMENT DETAIL
N.T.S.



SECTION 1

WASTEWATER LINES WITHIN EXISTING STREETS, (STREET LIMITS SHALL EXTEND FROM 2' BEYOND BACK OF CURB TO 2' BEYOND BACK OF CURB).

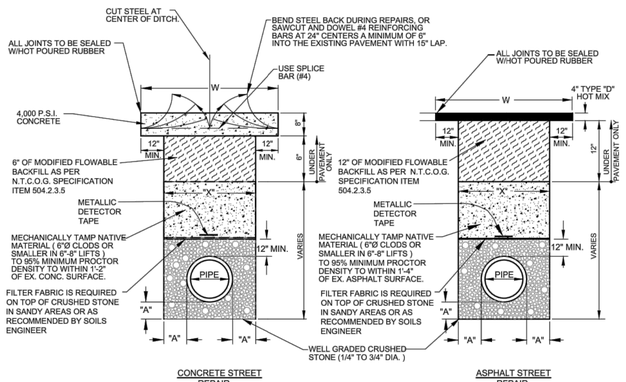
BACKFILL AND STREET REPAIR SHALL BE AS PER "STREET BACKFILL & REPAIR" DETAILS ON THIS SHEET.

SECTION 2

WASTEWATER LINES OUTSIDE & 2' BEYOND EXISTING STREETS (BACK OF CURB) TYPICAL HALF SECTION.

BACKFILL SHALL BE COMPACTED TO 90% MIN. PROCTOR DENSITY.

WASTEWATER PIPE LINE EMBEDMENT DETAIL PVC SDR-26 & SDR-35
N.T.S.



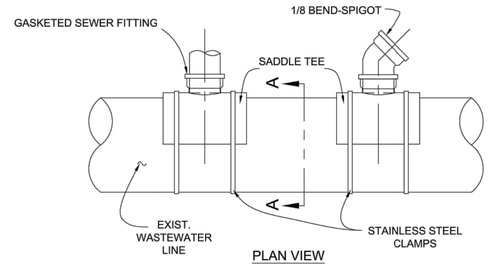
NOTE:
SAWCUT TO REPAIR ASPHALT OR CONCRETE PAVEMENT PRIOR TO OPENING THE DITCH IN ORDER TO ENSURE A NEAT STRAIGHT EDGE.

STREET BACKFILL & REPAIR
N.T.S.

NORMAL SIZE OF PIPE IN INCHES	O.D. OF PIPE BELL IN INCHES (PVC-SDR35)	MINIMUM TRENCH WALL CLEARANCE "A" IN INCHES	WIDTH OF TRENCH ('X')		WIDTH OF PVMT. REPLACEMENT *
			MAXIMUM ** IN INCHES	MINIMUM ** IN INCHES	('W') CONC. & ASPHALT **
4	4.67	6	24	18	42
6	6.74	6	24	19	48
8	8.99	6	24	21	48
10	11.27	6	28	24	48
12	13.27	6	30	26	50
15	16.45	8	37	33	57
18	20.73	8	41	37	61
21	24.42	8	45	41	65
24	27.21	8	48	44	68
27	30.61	8	51	47	71

NOTE: * REFER TO THE PLANS FOR SPECIFIED WIDTH OF REPLACEMENT.
** RECOMMENDED WIDTHS - VARIES BASED ON DEPTH, AND SOIL MATERIAL.

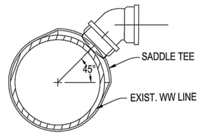
TABLE OF DIMENSIONS FOR WIDTH OF TRENCH AND PAVEMENT REPLACEMENT



PLAN VIEW

SADDLE TEE				
PART NO.	SIZE	L1	H	P
52635	8"X6"	5.625	5.659	1.448

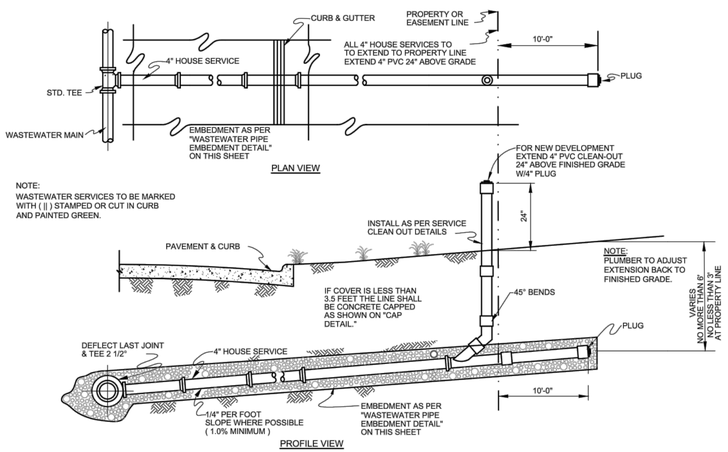
PLASTIC TRENDS INC. - 1/8 BEND - SPIGOT					
PART NO.	SIZE	A	B	C	D
G 406	6	11.270	6.146	1.870	6.090



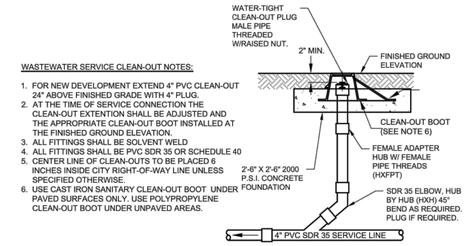
SECTION A-A

GASKETED SEWER FITTING FOR SEWER SERVICE CONNECTIONS TO EXISTING MAINS
N.T.S.

NOTES:
1. FLEXIBLE SADDLE TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
2. SADDLE TEE SHALL BE ORIENTATED 45° TO MAIN.
3. EXCAVATE AROUND EXISTING 8-INCH PIPE, EXPOSING SUFFICIENT ROOM FOR S.S. CLAMPS.
4. THOROUGHLY CLEAN AND DRY THE MATING SURFACE WITH RAG OR PAPER TOWEL MAKE SURE THEY ARE FREE OF DUST AND MOISTURE.
5. MARK THE SIZE OF THE HOLE TO BE CUT USING THE GASKET SKIRT OR THE SADDLE ITSELF AS THE TEMPLATE.
6. SAW OUT THE SECTION OF THE PIPE WHERE THE SADDLE WILL BE LOCATED, WITH A SABER OR KEY HOLE SAW.
7. TEST TO MAKE SURE SADDLE FITS HOLE PROPERLY.
8. SERVICE PIPE SHALL NOT EXTEND MORE THAN ONE-HALF INCH INTO THE MAIN.
9. PLACE GASKET SKIRT AND SADDLE OVER OPENING AND TIGHTEN BAND CLAMPS EVENLY UNTIL SADDLE IS FIRMLY ATTACHED TO THE PIPE. APPLY PRESSURE ON THE SADDLE AGAINST THE PIPE WHILE TIGHTENING THE CLAMPS AS INDICATED ABOVE. DO NOT OVER TIGHTEN, DO NOT STRIP THREAD.
10. REPLACE THE BEDDING AND BACKFILL IN ACCORDANCE WITH THE TRENCH EMBEDMENT DETAIL.



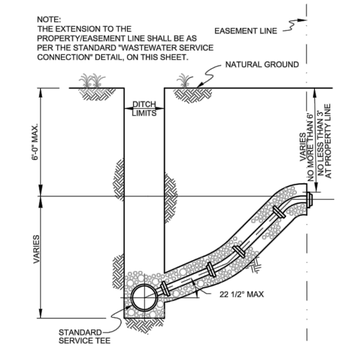
STANDARD WASTEWATER SERVICE CONNECTION
N.T.S.



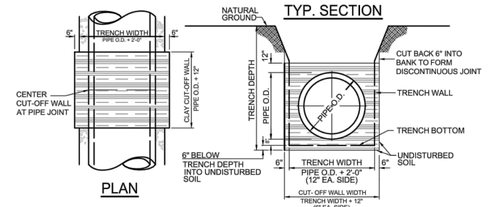
WASTEWATER SERVICE CLEAN-OUT NOTES:

1. FOR NEW DEVELOPMENT EXTEND 4" PVC CLEAN-OUT 24" ABOVE FINISHED GRADE WITH 4" PLUG.
2. AT THE TIME OF SERVICE CONNECTION THE CLEAN-OUT EXTENTION SHALL BE ADJUSTED AND THE APPROPRIATE CLEAN-OUT BOOT INSTALLED AT THE FINISHED GROUND ELEVATION.
3. ALL FITTINGS SHALL BE SOLVENT WELD
4. ALL FITTINGS SHALL BE PVC SDR 35 OR SCHEDULE 40
5. CENTER LINE OF CLEAN-OUTS TO BE PLACED 6 INCHES INSIDE CITY RIGHT-OF-WAY LINE UNLESS SPECIFIED OTHERWISE.
6. USE CAST IRON SANITARY CLEAN-OUT BOOT UNDER PAVED SURFACES ONLY. USE POLYPROPYLENE CLEAN-OUT BOOT UNDER UNPAVED AREAS.

WASTEWATER SERVICE CLEAN-OUT DETAIL
N.T.S.



STANDARD DEEP CUT CONNECTION
N.T.S.



CLAY CUT-OFF WALL NOTES:

1. CLAY CUT-OFF WALLS SHALL BE CONSTRUCTED AT 250 FOOT INTERVALS ALONG ALL WASTEWATER MAIN INSTALLATIONS BETWEEN MANHOLES.
2. THE CLAY CUT-OFF WALL SHALL BE PLACED AT THE MID POINT OF THE LENGTH OF THE PIPE BEING PLACED, BUT NOT AT A LOCATION WHERE A LATERAL OR SERVICE CONNECTS TO THE MAIN. THE MINIMUM CLEARING IS 10 FEET.
3. MATERIAL FOR CLAY CUT-OFF WALL TO BE CLEAN MATERIAL WITH NO LUMPS LARGER THAN 3". CLAY TO HAVE P.I. OF 30 TO 40. MATERIAL TO BE PLACED IN 6" LIFTS, MOISTENED TO OPTIMUM MOISTURE CONTENT AND COMPACTED WITH HAND HELD MECHANICAL TAMPERS, WITHOUT DAMAGING THE PIPE.

CLAY CUT-OFF WALL
N.T.S.

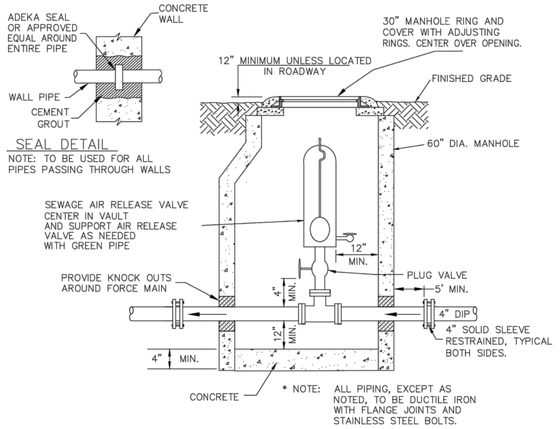
NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD GENERAL MANAGER: Chris Boyd DATE: 7/27/2020

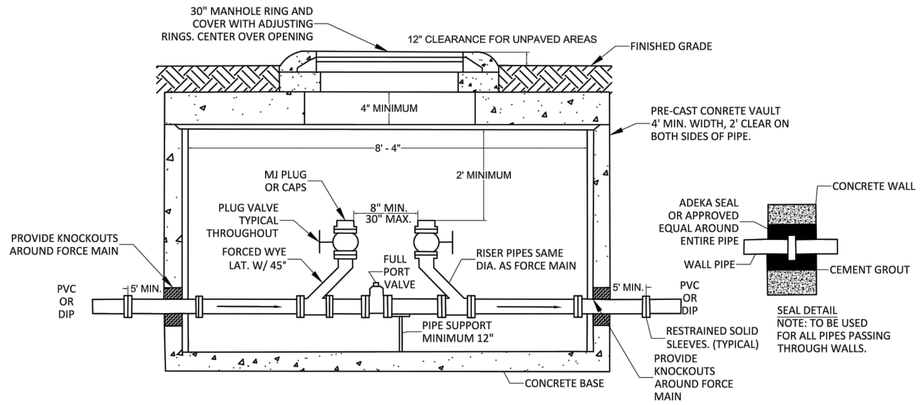
WASTEWATER STANDARD DETAILS (1 OF 2)

CERTIFICATION:
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SEWER AIR RELEASE VALVE

N.T.S.

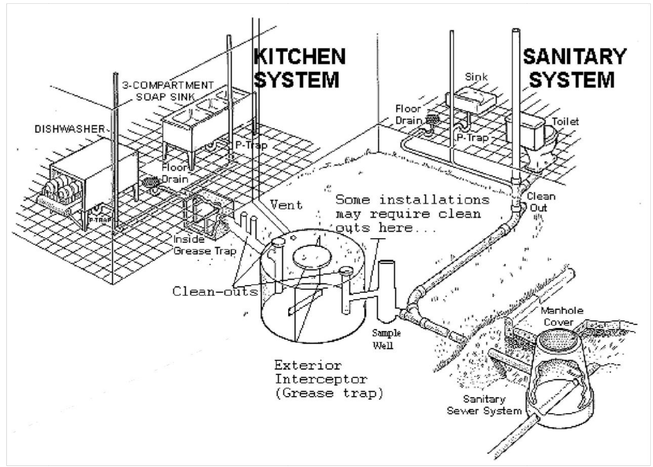


NOTES:
1. ALL PIPING 4" AND LARGER IN CLEAN-OUT CHAMBER, EXCEPT AS NOTED, TO BE DUCTILE IRON CONNECTED WITH FLANGED HOINTS AND STAINLESS STEEL BOLTS.

2. ALL VAULTS DEEPER THAN 5' MUST HAVE STAINLESS STEEL LADDER BOLTED IN PLACE.

TWO-WAY FORCE MAIN CLEAN-OUT

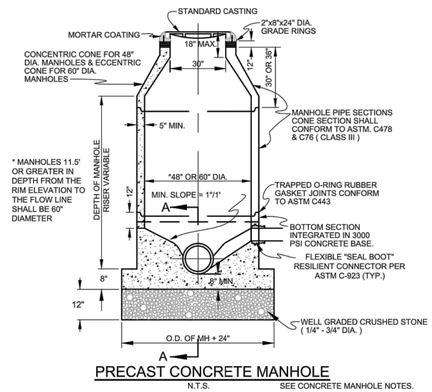
N.T.S.



Typical Plumbing Layout

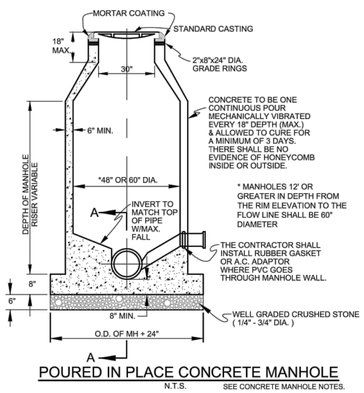
N.T.S.

NOTE:
MUSTANG SPECIAL UTILITY DISTRICT REQUIRES RESTAURANTS, FOOD PROCESSING FACILITIES, AUTOMOTIVE REPAIR FACILITIES, CAR WASHES, COMMERCIAL LAUNDRIES, AND ALL OTHER FACILITIES THAT THE DISTRICT DEEMS NECESSARY TO INSTALL AND MAINTAIN GREASE OR GRIT TRAPS. IT IS THE RESPONSIBILITY OF THE GENERATORS TO ENSURE THAT THEIR GREASE TRAPS, AND THE WASTEWATER DISCHARGED FROM THEM, ARE IN COMPLIANCE WITH ALL DISTRICT REQUIREMENTS.



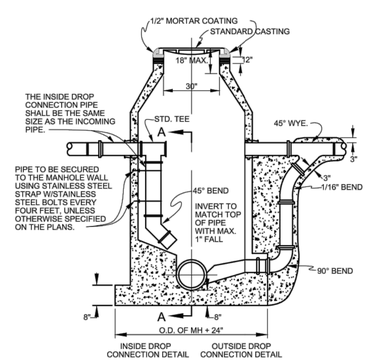
PRECAST CONCRETE MANHOLE

N.T.S. SEE CONCRETE MANHOLE NOTES.



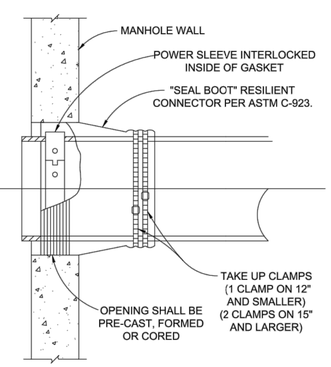
POURED IN PLACE CONCRETE MANHOLE

N.T.S. SEE CONCRETE MANHOLE NOTES.



STANDARD DROP CONNECTION TO MANHOLE

N.T.S.

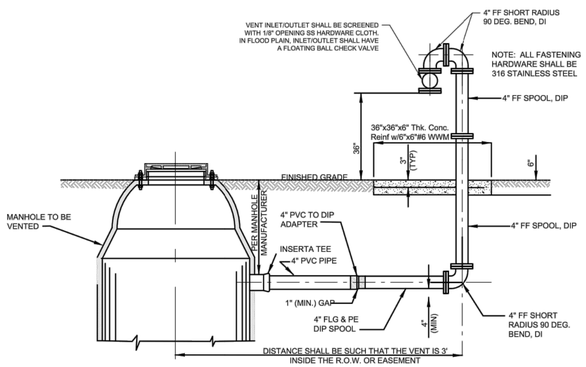


FLEXIBLE "SEAL BOOT" CONNECTOR

N.T.S.

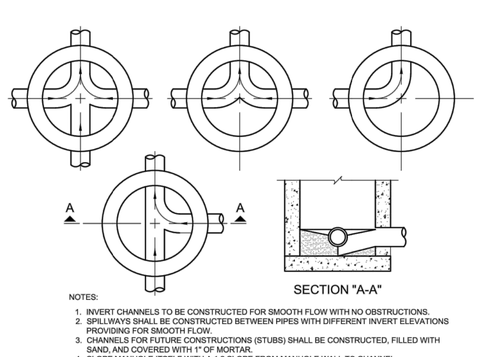
CONCRETE MANHOLE NOTES:

1. CONCRETE FOR ALL PRECAST AND POURED IN PLACE MANHOLES SHALL BE 6.5 SACK, 4200 P.S.I. SULPHATE RESISTANT CONCRETE.
2. THE DIAMETER OF THE CONCRETE BASE SHALL NOT BE LESS THAN THE INSIDE DIAMETER OF THE MANHOLE PLUS 2 FT.
3. STEPS SHALL NOT BE I NSTALLED IN MANHOLE.
4. ALL NEW MANHOLES SHALL BE MARKED WITH "MH" STAMPED OR CUT IN THE CURB.
5. USE DROP CONNECTIONS WHEN CONNECTING LINE EXCEEDS 24" ABOVE THE MANHOLE FLOWLINE.
6. USE OUTSIDE DROP CO NNECTIONS ON ALL NEW MANHOLES.
7. USE INSIDE DROP CONNECTION ON EXISTING MANHOLES ONLY.
8. PROVIDE RAIN PANS INTEGRATED WITH RIM.
9. MANHOLES IN OFFSITE/UNPAVED AREAS SHALL BE SET WITH TOP OF MANHOLE 12" ABOVE FINISHED GRADE (CANNOT BE ACHIEVED WITH GRADE RINGS)
10. MANHOLES IN OFFSITE/UNPAVED AREAS ALL SHALL HAVE TYPE "S" RING AND COVER AND MAINTAIN MINIMUM 12" CLEARANCE WITHOUT GRADE RINGS.
11. ALL MANHOLE LADDERS MUST BE STAINLESS STEEL AND BOLTED IN PLACE.



MANHOLE VENT DETAIL

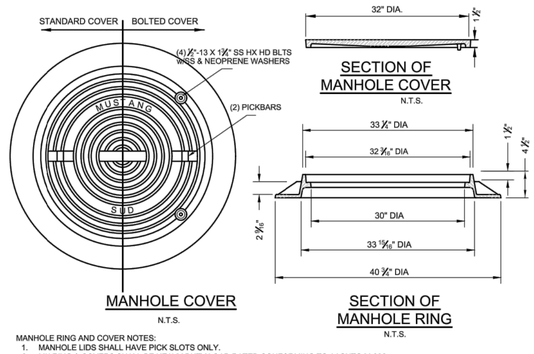
N.T.S.



NOTES:
1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOW.
3. CHANNELS FOR FUTURE CONSTRUCTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND, AND COVERED WITH 1" OF MORTAR.
4. SLOPE MANHOLE ITSELF WITH A 1:2 SLOPE FROM MANHOLE WALL TO CHANNEL.
5. INVERT SHALL BE A MINIMUM OF 1/2 THE DIAMETER OF THE LARGEST PIPE OR 4" DEEP.

MANHOLE FLOOR PLAN

N.T.S.



N.T.S.

MANHOLE RING AND COVER NOTES:
1. MANHOLE LIDS SHALL HAVE PICK SLOTS ONLY.
2. MH RING & COVERS SHALL BE HEAVY DUTY LOAD RATED CONFORMING TO AASHTO M-306.

NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

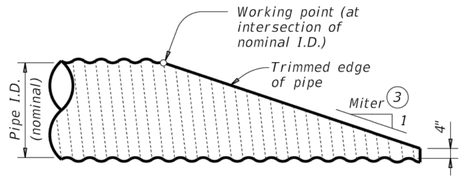
APPROVED BY MSUD GENERAL MANAGER: Chris Boyd DATE: 7/27/2020

WASTEWATER STANDARD DETAILS (2 OF 2)

CERTIFICATION:
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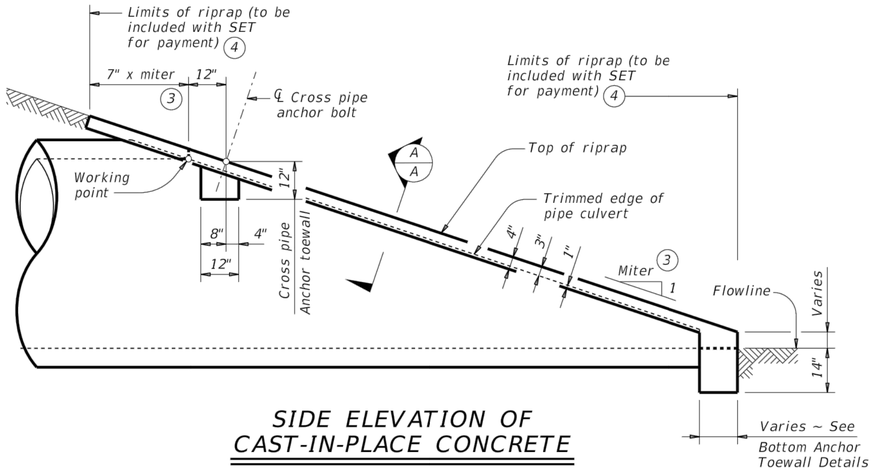
DATE:
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NOTE: All pipe runners, calculations, and dimensions are based on the pipe culverts mitered as shown in this detail. Alternate styles of mitered ends will require that appropriate adjustments be made to the values presented on this standard.

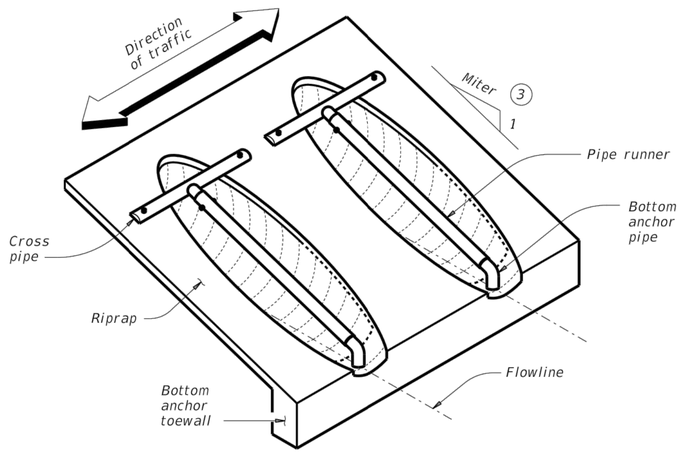
SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(Showing corrugated metal pipe (CMP) culvert.
Details of reinforced concrete pipe (RCP) culvert are similar.)



SIDE ELEVATION OF CAST-IN-PLACE CONCRETE

(Showing reinforced concrete pipe (RCP) culvert.
Details of corrugated metal pipe (CMP) culvert
are similar. Pipe runners not shown for clarity)



ISOMETRIC VIEW OF TYPICAL INSTALLATION

(Showing installation with no skew.)

CROSS PIPE LENGTHS AND PIPE RUNNER LENGTHS (1) (2)

Nominal Culvert I.D.	Pipe Culvert Spa ~ G	Cross Pipe Length	Pipe Runner Length											
			3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
			0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
24"	1' – 7"	3' – 5"	N/A	N/A	N/A	5' – 10"	N/A	N/A	N/A	8' – 1"	N/A	N/A	N/A	12' – 9"
27"	1' – 8"	3' – 8"	N/A	N/A	5' – 5"	6' – 11"	N/A	N/A	7' – 7"	9' – 7"	N/A	N/A	11' – 11"	14' – 11"
30"	1' – 10"	3' – 11"	N/A	N/A	6' – 4"	8' – 0"	N/A	N/A	8' – 9"	11' – 0"	N/A	N/A	13' – 8"	17' – 0"
33"	1' – 11"	4' – 2"	6' – 2"	6' – 5"	7' – 3"	9' – 1"	8' – 6"	8' – 10"	10' – 0"	12' – 5"	13' – 3"	13' – 9"	15' – 5"	19' – 2"
36"	2' – 1"	4' – 5"	6' – 11"	7' – 3"	8' – 2"	10' – 2"	9' – 6"	9' – 11"	11' – 2"	13' – 10"	14' – 9"	15' – 3"	17' – 2"	21' – 3"
42"	2' – 4"	4' – 11"	8' – 6"	8' – 10"	9' – 11"	12' – 4"	11' – 7"	12' – 0"	13' – 6"	16' – 8"	17' – 9"	18' – 5"	20' – 8"	25' – 7"
48"	2' – 7"	5' – 5"	10' – 1"	10' – 5"	11' – 9"	N/A	13' – 7"	14' – 2"	15' – 10"	N/A	20' – 9"	21' – 6"	24' – 2"	N/A
54"	3' – 0"	5' – 11"	11' – 8"	12' – 1"	N/A	N/A	15' – 8"	16' – 3"	N/A	N/A	23' – 10"	24' – 8"	N/A	N/A
60"	3' – 3"	6' – 5"	13' – 3"	N/A	N/A	N/A	17' – 9"	N/A	N/A	N/A	26' – 10"	N/A	N/A	N/A

TYPICAL PIPE CULVERT MITERS (3)

Side Slope	0° Skew	15° Skew	30° Skew	45° Skew
3:1	3:1	3.106:1	3.464:1	4.243:1
4:1	4:1	4.141:1	4.619:1	5.657:1
6:1	6:1	6.212:1	6.928:1	8.485:1

CONDITIONS WHERE PIPE RUNNERS ARE NOT REQUIRED (2)

Nominal Culvert I.D.	Single Pipe Culvert	Multiple Pipe Culverts
12" thru 21"	Skews thru 45°	Skews thru 45°
24"	Skews thru 45°	Skews thru 30°
27"	Skews thru 30°	Skews thru 15°
30"	Skews thru 15°	Skews thru 15°
33"	Skews thru 15°	Always required
36"	Normal (no skew)	Always required
42" thru 60"	Always required	Always required

STANDARD PIPE SIZES AND MAX PIPE RUNNER LENGTHS (1)

Pipe Size	Pipe O.D.	Pipe I.D.	Max Pipe Runner Length
2" STD	2.375"	2.067"	N/A
3" STD	3.500"	3.068"	10' – 0"
4" STD	4.500"	4.026"	19' – 8"
5" STD	5.563"	5.047"	34' – 2"

ESTIMATED CONCRETE RIPRAP QUANTITIES (CY) (5)

Nominal Culvert I.D.	3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
12"	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8
15"	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9
18"	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	1.0
21"	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.2
24"	0.6	0.7	0.7	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.1	1.3
27"	0.7	0.7	0.8	0.9	0.8	0.9	0.9	1.1	1.1	1.1	1.2	1.4
30"	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.2	1.2	1.2	1.3	1.6
33"	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.3	1.3	1.4	1.5	1.7
36"	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.4	1.4	1.5	1.6	1.8
42"	1.0	1.0	1.1	1.3	1.2	1.3	1.3	1.6	1.6	1.7	1.8	2.1
48"	1.1	1.1	1.2	N/A	1.4	1.4	1.5	N/A	1.9	1.9	2.1	N/A
54"	1.3	1.3	N/A	N/A	1.6	1.6	N/A	N/A	2.1	2.1	N/A	N/A
60"	1.4	N/A	N/A	N/A	1.7	N/A	N/A	N/A	2.3	N/A	N/A	N/A

(1) Provide pipe runner of the size shown in the tables. Provide cross pipe of the same size as the pipe runner. Provide cross pipe stub out and bottom anchor pipe of the next smaller size pipe as shown in the Standard Pipe Sizes and Max Pipe Runner Lengths table.

(2) This standard allows for the placement of only one pipe runner across each culvert pipe opening. In order to limit the clear opening to be traversed by an errant vehicle, the following conditions must be met:

For 60" culvert pipes, the skew must not exceed 0°.
For 54" culvert pipes, the skew must not exceed 15°.
For 48" culvert pipes, the skew must not exceed 30°.
For all culvert pipe sizes 42" and less, the skew must not exceed 45°.

If the above conditions cannot be met, the designer should consider using a safety end treatment with flared wings. For further information, refer to the TxDOT Roadway Design Manual.

(3) Miter = slope of mitered end of pipe culvert.

(4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap."

(5) Quantities shown are for one end of one reinforced concrete pipe (RCP) culvert. For multiple pipe culverts or for corrugated metal pipe (CMP) culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.

Texas Department of Transportation

Bridge Division Standard

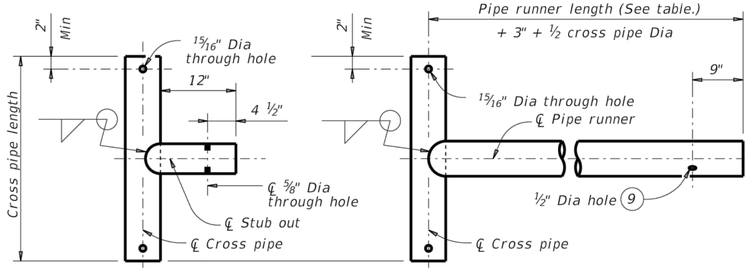
SAFETY END TREATMENT
FOR 12" DIA TO 60" DIA PIPE CULVERTS
TYPE II ~ CROSS DRAINAGE

SETP-CD

FILE: CD-SETP-CD-20.dgn	DN: GAF	CK: CAT	DW: JRP	CK: GAF
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.
				48

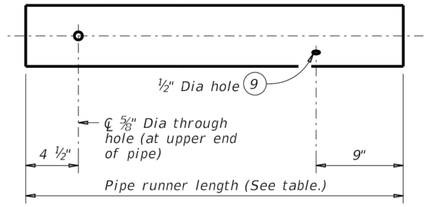
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OPTION A1 OPTION A2

CROSS PIPE AND CONNECTIONS DETAILS

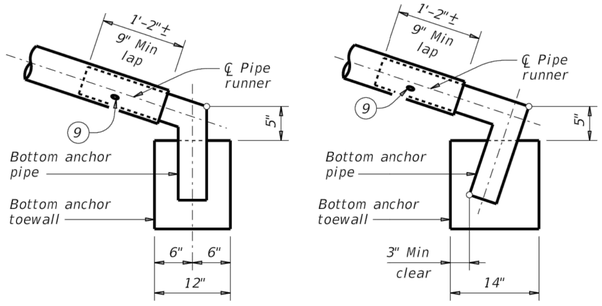


NOTE: The separate pipe runner shown is required when Cross Pipe Connection Option A1 is used.

PIPE RUNNER DETAILS

OPTION B1 OPTION B2

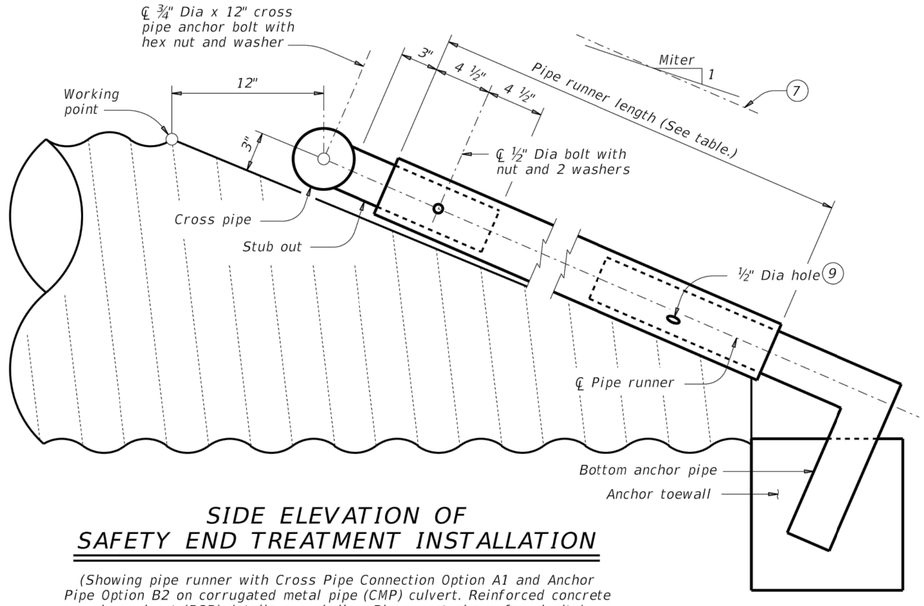
BOTTOM ANCHOR PIPE DETAILS (10)



OPTION B1 OPTION B2

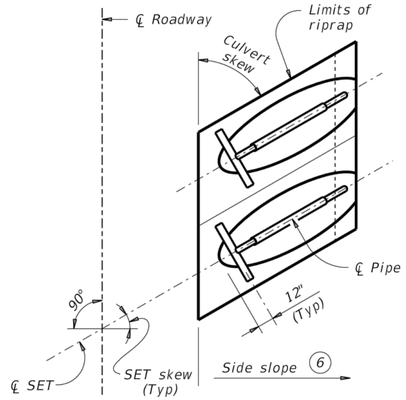
BOTTOM ANCHOR TOEWALL DETAILS

(Culvert and riprap not shown for clarity.)

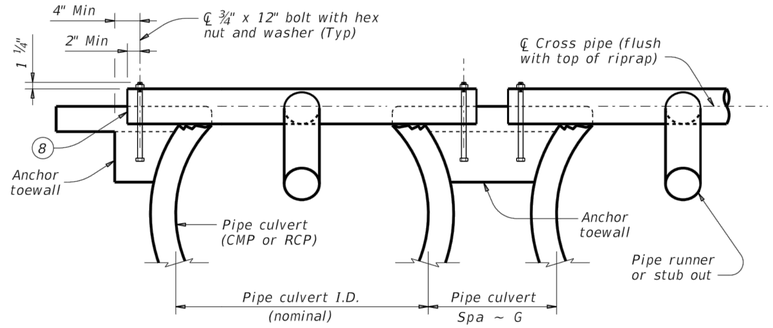


SIDE ELEVATION OF SAFETY END TREATMENT INSTALLATION

(Showing pipe runner with Cross Pipe Connection Option A1 and Anchor Pipe Option B2 on corrugated metal pipe (CMP) culvert. Reinforced concrete pipe culvert (RCP) details are similar. Riprap not shown for clarity)

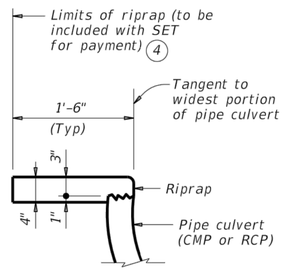


PLAN OF SKEWED INSTALLATION



SECTION A-A

SHOWING CROSS PIPE AND ANCHOR TOEWALL



SHOWING TYPICAL PIPE CULVERT AND RIPRAP

(4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap."

(6) Recommended values of side slope are 3:1, 4:1, and 6:1. All quantities, calculations, and dimensions shown herein are based on these recommended values. Slope of 3:1 or flatter is required for vehicle safety.

(7) Note that actual slope of pipe runner may vary slightly from side slope of riprap and trimmed culvert pipe edge.

(8) Ensure that riprap concrete does not flow into the cross pipe so as to permit disassembly of the bolted connection to allow cleanout access.

(9) After installation, inspect the ½" hole to ensure that the lap of the pipe runner with the bottom anchor pipe is adequate.

(10) At fabricator's option, a heat bend to a smooth 5" radius or a manufactured elbow (of the same material as the runner) may be substituted for the mitered and welded joint in the bottom anchor pipe.

MATERIAL NOTES:

Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Provide pipe runners, cross pipes, and anchor pipes conforming to the requirements of ASTM A53 (Type E or S, Gr B), ASTM A500 Gr B, or API 5LX52.

Provide ASTM A307 bolts and nuts.

Galvanize all steel components, except concrete reinforcing, after fabrication.

Repair galvanizing damaged during transport or construction in accordance with the specifications.

GENERAL NOTES:

Pipe runners are designed for a traversing load of 1,800 pounds at yield as recommended by Research Report 280-1, "Safety Treatment of Roadside Cross-Drainage Structures", Texas Transportation Institute, March 1981.

Safety end treatments (SET) shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the pipe runners.

Payment for riprap and toewall is included in the price bid for each safety end treatment.

Construct concrete riprap and all necessary inverts in accordance with the requirements of Item 432, "Riprap."

SHEET 2 OF 2

Texas Department of Transportation

Bridge Division Standard

SAFETY END TREATMENT
FOR 12" DIA TO 60" DIA PIPE CULVERTS
TYPE II ~ CROSS DRAINAGE

SETP-CD

FILE: CD-SETP-CD-20.dgn	DN: GAF	CK: CAT	DW: JRP	CK: GAF
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.
				49

VG-19-2022-99800

Denton County
Juli Luke
County Clerk

Instrument Number: 99800

Real Property Recordings

AGREEMENT

Recorded On: July 07, 2022 11:38 AM

Number of Pages: 58

" Examined and Charged as Follows: "

Total Recording: $254.00

********** **THIS PAGE IS PART OF THE INSTRUMENT** **********
Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of color or race is invalid and unenforceable under federal law.

File Information:

Document Number:	99800
Receipt Number:	20220707000344
Recorded Date/Time:	July 07, 2022 11:38 AM
User:	Patty M
Station:	Station 5

Record and Return To:

CITY OF AUBREY
ATTN: CITY SECRETARY
107 S MAIN ST
AUBREY TX 76227

STATE OF TEXAS
COUNTY OF DENTON

I hereby certify that this Instrument was FILED In the File Number sequence on the date/time printed hereon, and was duly RECORDED in the Official Records of Denton County, Texas.

Juli Luke
County Clerk
Denton County, TX

After recording, return to:
Jenny Huckabee
107 S Main St
Aubrey TX 76227

DEVELOPMENT AGREEMENT

This **DEVELOPMENT AGREEMENT** (this "Agreement") is made this 26 day of April, 2022 (the "Effective Date"), by and between the **City of Aubrey, Texas**, a general law municipality organized under the laws of the State of Texas (the "City"), and **Aubrey 54 South LP**, a Texas limited partnership ("Aubrey 54"), **Aubrey Plant LP**, a Texas limited partnership ("Aubrey Plant"), and **Aubrey 64 North LP**, a Texas limited partnership ("Aubrey 64") (Aubrey 54, Aubrey Plant, and Aubrey 64 are collectively referred to herein as "Owner"). The City and Owner are hereinafter sometimes referred to, individually, as a "Party" and, collectively, as the "Parties."

ARTICLE I
RECITALS

WHEREAS, Aubrey 54 and Aubrey Plant are the owners of a tract of land containing approximately 131.531 acres of land in Denton County (the "County"), being more particularly described in **Exhibit A** attached hereto and incorporated herein for all purposes ("Tract 1"), located wholly within the City's extraterritorial jurisdiction ("ETJ"); and

WHEREAS, Aubrey 64 is the owner of a tract of land containing approximately 54.946 acres of land in the County, being more particularly described in **Exhibit B** attached hereto and incorporated herein for all purposes ("Tract 2"), located wholly within the City's ETJ; and

WHEREAS, Aubrey 64 is also the owner of a tract of land containing approximately 57.865 acres of land in the County, being more particularly described in **Exhibit C** attached hereto and incorporated herein for all purposes ("Tract 3"), not located within the City's ETJ or within the corporate limits or ETJ of any city, town or village; and

WHEREAS, the total approximately 244.342 acres of land comprised of Tract 1, Tract 2 and Tract 3 may collectively be referred to herein as the "Property;" and

WHEREAS, public roads, public water facilities, public sewer facilities and public drainage facilities (individually or collectively, the "Public Infrastructure") are not currently available to serve the Property; and

WHEREAS, the City is not presently able to solely provide, or directly contribute to, the cost of the Public Infrastructure that will facilitate Owner's proposed development of the Property; and

WHEREAS, in order to facilitate Owner's proposed development of Tract 3 in a market-competitive manner, Clear Sky Municipal Utility District of Denton County (the "District") was created by House Bill No. 4627, 87th Texas Legislature, Regular Session, codified at Chapter 7948A, Texas Special District Local Laws Code, effective September 1, 2021, encompassing Tract 3; and

WHEREAS, in order to facilitate Owner's proposed development of Tract 1 and Tract 2, Owner seeks to annex Tract 1 and Tract 2 into the District, pursuant to the terms of this Agreement; and

WHEREAS, Owner has submitted a petition to the City seeking City consent to the inclusion of Tract 1 and Tract 2 within the District; and

WHEREAS, the City supports the inclusion of the Property within the District under appropriate parameters, as set forth herein; and

WHEREAS, as evidence of the City's consent to the annexation of Tract 1 and Tract 2 into the District, the City shall consider adoption of a Consent Resolution substantially in the form attached hereto as **Exhibit D** (the "Consent Resolution"), demonstrating the City's consent, pursuant to Section 42.0425 of the Texas Local Government Code and Section 54.016 of the Texas Water Code, to the inclusion of Tract 1 and Tract 2 within the District; and

WHEREAS, pursuant to the terms of this Agreement, the City intends to expand its ETJ to include Tract 3 not currently located in the City's ETJ, and Owner supports such expansion; and

WHEREAS, it is the intent of the Parties that the Property will be developed in accordance with the hereinafter defined **Concept Plan**; and

WHEREAS, the Parties have the authority to enter into this Agreement pursuant to Section 212.171, *et seq.*, of the Texas Local Government Code; and

WHEREAS, the Parties intend that this Agreement be a development agreement as provided for by Section 212.172 of the Texas Local Government Code; and

NOW, THEREFORE, for and in consideration of the mutual covenants of the Parties set forth in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and agreed by the Parties, the Parties agree as follows:

ARTICLE II.
CONSENT TO INCLUSION OF THE PROPERTY WITHIN THE DISTRICT

2.1 Consent to Annexation. This Agreement, and the Consent Resolution, a proposed form of which is attached hereto as **Exhibit D** that the City intends to consider adopting simultaneously with its approval of this Agreement, constitutes the irrevocable and unconditional consent of the City to the inclusion of Tract 1 and Tract 2 within the District created by House Bill No. 4627, 87th Texas Legislature, Regular Session, codified at Chapter 7948A, Texas Special District Local Laws Code, effective September 1, 2021, pursuant to the authority of Article III, Section 52 and Article XVI, Section 59 of the Texas Constitution and Chapters 49 and 54, Texas Water Code, as amended. **Exhibit D** shall be superseded by the Consent Resolution finally approved by the City Council, and this Agreement shall not be construed as supplanting the legislative authority of the City by contractually obligating the City Council to approve the exact terms of the Consent Resolution specified in **Exhibit D**. Final approval of a Consent Resolution lies within the exclusive legislative discretion of the City Council.

2.2 Consent Resolution; Other Documents. The City agrees to adopt such further ordinances and execute such further documents as may reasonably be requested by Owner, the TCEQ, the Texas Attorney General ("AG"), or the District to evidence the City's consents as set forth in this Agreement and in the final City Council approved Consent Resolution.

2.3 No Limitation of Powers. Nothing herein is intended to limit, impair, or conflict with the authority of, or powers granted to the District by the Texas Constitution, Texas Water Code, Texas

Local Government Code, or any other current or future statute applicable to such districts. Likewise, nothing herein is intended to limit, impair or conflict with the authority of or powers granted to the City by the Texas Constitution, Texas Water Code, Texas Local Government Code, or any other current or future statute applicable to City.

2.4 Full Satisfaction. Subject to and limited by the terms of this Agreement and the conditions set forth in the City approved Consent Resolution, the consents contained in this Article II and in the Consent Resolution (the "District Consents") are given by the City: (a) in full satisfaction of any requirements for District consents contained in any statute or otherwise required by law, rule, regulation or policy including, but not limited to, consents required by the Texas Water Code, as amended, the Texas Local Government Code, as amended, any rules, regulations, or policies of the TCEQ, or any rules, regulations, or policies of the Texas AG; (b) with the understanding that City and Owner have relied on the District Consents to their individual material detriment and but for the District Consents Owner would not have entered into this Agreement and but for the conditions and limitations on the District Consents, City would not have entered into this Agreement.

2.5 Limitation on Bonds. Bonds issued by the District shall have a maximum maturity of thirty (30) years for any one series of bonds, unless otherwise agreed to by the City and shall be issued for the purposes of paying for costs of development of Public Infrastructure which include Onsite improvements and Offsite Improvements, including the costs of maintenance and operation of the Public Infrastructure. The District may issue bonds for the purchase, construction, acquisition, repair, extension and improvement of capital infrastructure, easements, works, improvements, facilities, plants, equipment, and appliances necessary for the construction of such Public Infrastructure.

ARTICLE III.
ANNEXATION & ETJ EXPANSION

3.1 Expansion of City ETJ. Owner hereby requests that Tract 3, not currently located within the City's ETJ, be included in the City's ETJ as soon as is practicable. Owner agrees that on or before the Effective Date of this Agreement, Owner has submitted to the City a petition requesting that the City expand its ETJ to include Tract 3 in the City's ETJ. The City agrees that it shall not annex Tract 3 into its corporate limits for full purposes except as expressly authorized by this Agreement and with a fully executed strategic partnership agreement between the City and the District. In all matters requiring the interpretation of this Agreement, including but not limited to the addition of Tract 3 into the ETJ of the City, Owner irrevocably declares that all of the Property shall be bound by the terms of this Agreement as if being at all pertinent times within the contiguous ETJ of the City for purposes of Texas Local Government Code § 212.172 and provisions citing that statute.

3.2 Immunity From Full Purpose Annexation. Except as provided in a fully executed strategic partnership agreement and after Tract 3 is included in the ETJ of the City as provided for in Section 3.1 herein, the Property shall remain in the ETJ of the City and be immune from full purpose annexation until such time that Owner has constructed, or caused to be constructed, at least ninety percent (90%) of the Public Infrastructure and Owner has been fully reimbursed for all of the costs of such Public Infrastructure. Pursuant to Texas Local Government Code Section 43.0715(b), if the District has not yet issued bonds to reimburse Owner in full for the bond eligible costs and expenses incurred by Owner at the time the Property is annexed for full purposes by the City, the City hereby

agrees that it shall, prior to the effective date of the annexation, pay to Owner a sum equal to any and all outstanding actual costs and expenses incurred by Owner in connection with the District that the District has, in writing, agreed to pay and that would otherwise have been eligible for reimbursement from bond proceeds. The timing, delivery, and other ancillary conditions of any such payment shall be controlled by the terms of a fully executed strategic partnership agreement between the City and the District and shall be in accordance with Texas Local Government Code Section 43.0715(b). Final terms of a Strategic Partnership Agreement shall be negotiated by the Parties on a mutually agreeable date, and City approval of participation in such agreement shall be within the exclusive legislative discretion of the City Council

3.3 **CONSENT TO FULL PURPOSE ANNEXATION. OWNER AND ALL FUTURE OWNERS OF THE PROPERTY (INCLUDING END-BUYERS) AND FUTURE DEVELOPERS OF THE PROPERTY IRREVOCABLY AND UNCONDITIONALLY CONSENT TO THE FULL PURPOSE ANNEXATION OF THE PROPERTY INTO THE CORPORATE LIMITS OF THE CITY IN ACCORDANCE WITH THIS AGREEMENT AND A FINALLY APPROVED AND FULLY EXECUTED STRATEGIC PARTNERSHIP AGREEMENT BETWEEN THE CITY AND THE DISTRICT AND WAIVE ALL OBJECTIONS, ELECTIONS AND PROTESTS TO SUCH ANNEXATION. THIS AGREEMENT SHALL SERVE AS THE PETITION OF OWNER AND ALL FUTURE OWNERS AND FUTURE DEVELOPERS FOR FULL PURPOSE ANNEXATION OF THE PROPERTY IN ACCORDANCE WITH THIS AGREEMENT AND SPECIFICALLY THE RESTRICTIONS IN SECTION 3.2 OF THIS AGREEMENT.**

3.4 Limited Purpose Annexation. Owner agrees that the City shall have the right to, but is not obligated to, annex those areas of the Property that are used for, or intended to be used for, commercial development for the sole and limited purpose of allowing the City to impose sales and use taxes within the boundaries of such commercial and/or retail areas to the extent permitted by State law. The terms and conditions upon which such limited purpose annexations may occur shall be set forth in a strategic partnership agreement executed by the Parties prior to the first limited purpose annexation by the City, pursuant to Section 43.0751 of the Texas Local Government Code. No limited purpose annexation pursuant to a strategic partnership agreement shall affect, in any way, the ETJ status of the Property; and, notwithstanding any limited purpose annexation, the areas annexed, as well as the remainder of the Property, shall continue to be located within the ETJ of the City, for the purposes of this Agreement.

ARTICLE IV
GOVERNING REGULATIONS & DEVELOPMENT PROCESS

4.1 Governing Regulations. Development of the Property shall be governed solely by the regulations listed below in this Section 4.1 (collectively, the "Governing Regulations").

(a) Applicable City regulations, as may lawfully be amended at any time, solely for the purpose of preventing imminent destruction of property or injury to persons and that are uniformly enforced within the City's corporate boundaries, unless otherwise included in this Section 4.1 or a subsequent amendment thereto but only if the regulations (i) do not conflict with any provision of this Agreement; (ii) do not regulate, impact or affect landscaping or tree requirements or preservation, open space, parks, the dedication of open spaces or parks, lot size, lot dimensions, lot coverage, setbacks, house or building size or height, exterior or interior design of residences, building materials,

amenity centers or other buildings, residential or commercial density, or the timing of a project do not change development permitted by a restrictive covenant.

(b) The draft Concept Plan attached hereto as **Exhibit E**, as amended from time to time in accordance with this Agreement (the "Concept Plan") and compatible with the City's thoroughfare plan in place as of the Effective Date of this Agreement, which Concept Plan is considered to be a development plan as provided for in Section 212.172 of the Texas Local Government Code. In the event of a conflict between the Concept Plan and the City's thoroughfare plan, the Concept Plan shall control provided however that all roadways shall comply with the final plat

(c) Subdivision regulations of the City in effect on the Effective Date (the "Subdivision Regulations"), as amended by the special regulations set forth on **Exhibit F** attached hereto (the "Special Regulations").

(d) Duly adopted building codes of the City, as amended, provided such building codes are adopted by ordinance and uniformly applied throughout the City (the "Building Codes").

(e) Final plats for portions of the Property that are approved, from time to time, by the City.

4.2 Concept Plan Amendments. The Parties agree the Concept Plan attached hereto as **Exhibit E** was created by Owner for illustrating the boundary, lot mix and general layout of the project. Any amendment to the Concept Plan shall be considered an amendment to this Agreement and shall replace the attached Concept Plan and become a part of this Agreement. The City Administrator of the City may administratively approve any amendments to the Concept Plan that the City Administrator deems in his reasonable discretion to be minor in nature. If the City Administrator deems an amendment to not be minor in nature, the Concept Plan may be amended as set forth in applicable City regulations.

4.3 Provisions for Administration of District.

(a) Manufactured Homes. One (1) manufactured home shall be temporarily permitted on the Property at any time as necessary to satisfy on-site voter requirements of the TCEQ. Owner shall provide names and contact information for any persons establishing a residence in the home permitted under this Agreement upon written request by the City. No approved plat, building permit, certificate of occupancy, or other permit shall be required to establish such residence.

(b) Director Qualifying Lots. Notwithstanding any other provision of this Agreement to the contrary, the conveyance, from time to time, by metes and bounds or otherwise of any portion of the Property to any person for the purpose of qualifying such person to be a member of the board of directors of the District shall not be considered a subdivision of land requiring a plat or otherwise requiring the approval of the City; provided, however, no structure, other than the temporary manufactured housing authorized by Section 4.3(a), shall be constructed on any property conveyed for such purpose unless and until a plat of such portion has been approved by the City in accordance with this Agreement. Such temporary manufactured housing shall be removed from the Property when no longer necessary for the purpose of satisfying the on-site voter requirements of the TCEQ.

4.4 Permits & Fees. Except as otherwise provided in Section 4.3, Owner, or any

subsequent owner of any portion of the Property, as appropriate, shall request and obtain a building permit from the City for every structure that is constructed on the Property. All fees charged to Owner, or any subsequent owner of any portion of the Property, for building permits shall be the fees that the City charges for building permits inside the corporate boundaries of the City pursuant to its lawfully adopted fee schedule. Additionally, the City of Aubrey shall assess a library services fee of $5.00 per lot per year in accordance with the City's current Ordinances which shall be collected by the Homeowner's Association and remitted to the City annually. The Owner and/or builders, as applicable, shall pay roadway impact fees in accordance with applicable City Ordinances.

4.5 Conflicts. In the event of any conflict between this Agreement and any other ordinance, rule, regulation, standard, policy, order, guideline or other City-adopted or City-enforced requirement, whether existing on the Effective Date or hereinafter adopted, this Agreement shall control. In any instance of conflict between the Governing Regulations (as amended) and this Agreement (as amended), the terms set forth in this Agreement shall have controlling effect. In the event of any conflict between the Special Regulations and any of the other Governing Regulations, the Special Regulations shall control. In any instance of conflict between other subparts of the Governing Regulations which address the same subject matter, the more restrictive provision shall control unless otherwise agreed in writing by the Parties. Notwithstanding the foregoing, Owner shall comply with all applicable state and federal regulations.

4.6 Timing of Development Applications. Owner shall coordinate with City staff to ensure that the timing of the filing of any plats and other plans within the scope of Texas Local Government Code Chapter 212, and which are to be reviewed by any City board, commission, or the City Council, shall only occur within an appropriate application filing window that allows for timely review without the necessity of calling special meetings. Pre-application-filing review and City staff assistance will be made available to assist the applicant with assuring completeness and compliance with this Agreement and other applicable City regulations and minimize delays in approval by the reviewing body; provided however, no such pre-application process shall be deemed to constitute the filing of a permit. Upon reasonable request by the City, applicants developing any property subject to this Agreement shall provide the City with written verification of the official filing date assigned to the application materials.

4.7 Public Infrastructure. In addition to being subject to the regulations set forth in Section 4.1 above, all improvements to real property within the Property must be compatible with the design standards established by the CCN holder for the area to be served (for water and sewer) and be suitable for dedication to a public entity (e.g., City or District) and integrated into a utility system. Public Infrastructure shall be timely dedicated by plat and further memorialized by conveyance deeds upon reasonable request of the receiving public entity. The Owner shall prepare, or cause to be prepared, plans and specifications for all Public Infrastructure and have them submitted to the City for approval of storm drainage and roadway improvements. All Public Infrastructure required for the development of the Property shall be constructed and inspected in accordance with applicable state law, City/CCN Holder Regulations and other development requirements, including those imposed by the City and any other governing body or entity with jurisdiction over the Public Infrastructure but only to the extent that the City or other governing body has jurisdiction over such Public Infrastructure. All applicable fees, including permit fees and inspection fees, shall be paid by the Developer.

4.8 Open Space Requirements. The Owner shall include a minimum of 10% open space

including parks, amenity centers, trails and landscape areas,

4.9 Jurisdiction. Pursuant to the Interlocal Cooperation Agreement entered between the City and Denton County, Texas and effective August 13, 2002 (the "Platting ILA"), which grants exclusive authority to the City pursuant to Section 242.001(d)(1) of the Texas Local Government Code, and Section 242.001(a)(3) of the Texas Local Government Code, the City shall have and exercise exclusive jurisdiction over the review and approval of preliminary and final plats, amending plats, replats and minor replats, and approval of plans for Public Infrastructure over which the City has jurisdiction such as storm drainage and roadway improvements, for the Property once Tract 3 is included within the City's ETJ, and the County shall have and exercise no jurisdiction over such matters for the Property. Jurisdiction over plats and plans not controlled by the Platting ILA shall be governed by Texas law.

4.10. Homeowner's Association Required.

(a) Owners shall create a sustainable and mandatory homeowner's association ("HOA") for the Property that requires membership by all of the owners of a residential lot within the Property.

(b) The HOA shall own and be responsible for the maintenance of any private facilities, appurtenances, and open spaces/common areas and facilities within the Property, unless specifically designated to be owned and maintained by the District.

(c) The HOA shall have covenants and bylaws and shall require the payment of dues and assessments to maintain any private streets and common areas and facilities. The HOA covenants shall provide for assessments and liens for nonpayment of dues or assessments. The approved covenants of the HOA must be recorded with the County Clerk for Denton County.

4.11 Ownership and Maintenance of Roadways. The Parties agree that the District will construct, own and maintain all roadways within the Property, and the City shall have no maintenance obligations relating to the roadways within the Property until such time that the Property is annexed for full purposes in accordance with the terms of this Agreement. Owner agrees to provide the City with copies of all maintenance bonds associated with all roadways constructed within the Property.

ARTICLE V.
FIRE PROTECTION SERVICES AND POLICE AND EMERGENCY RESPONSE SERVICES

5.1 Interlocal Cooperation Agreements. Owner shall cause the District to enter into Interlocal Cooperation Agreements ("ILAs") wherein the City shall provide fire protection services and police and emergency response services to the Property. From and after the effective date of said ILAs and continuing until the full purpose annexation of the Property into the corporate limits of the City, the City will provide to the Property police and fire services described in this Article in accordance with the terms of such ILAs and all applicable emergency dispatch agreements with Denton County and other agencies. Unless separately authorized by the City Council or required by state law, the City's obligation to provide such services shall end immediately if this Agreement is terminated for any reason prior to the City's full purpose annexation of the Property.

5.2 Police, Fire Fighting and EMS Services. The Owner or the District shall pay a fee in

the amount specified in each ILA for the City's provision of (i) police and patrol services (the "Police ILA") and (ii) firefighting and EMS services (the "Fire/EMS ILA"). The amount of the fee shall be stated in each ILA as a flat monthly rate charged for each Residential Unit in the District connected to and receiving water utility service from a water supply system. A "Residential Unit" shall mean a residential dwelling. If a multi-family residential structure in the District receives water utility service, the number of Residential Units will correspond to the number of dwelling units in the structure. Any non-residential structures intended for human use or occupancy shall also be deemed a Residential Unit based on the number of water meters at the structure. The initial rate per Residential Unit under the Police ILA shall be $25.00, and the initial rate per Residential Unit under the Fire/EMS ILA shall be $30.00. Beginning on the second anniversary of the Effective Date for each ILA, the City may increase the rate charged under each ILA per Residential Unit based on its cost of providing services pursuant to the respective ILA. The City will provide the District with written notice, no later than thirty (30) days prior to the anniversary of the Effective Date each subsequent year, of its intent to increase the rate per Residential Unit. The District may, at its option upon a reasonable belief that the rate increase is overly burdensome, reject the rate increase by written notice no later than ten (10) days prior to the anniversary of the Effective Date of that year. A rejection of a rate increase shall be regarded as a notice of the District's intent not to renew the ILA, and the ILA shall terminate on the next anniversary of the Effective Date. The Parties agree that the Fire/EMS ILA shall contain provisions stating that it shall not be effective until the District has (i) developed a fire plan in accordance with Section 49.351 of the Texas Water Code and the rules of the TCEQ (the "Fire Plan"), (ii) submitted the Fire Plan to the TCEQ for its approval, (iii) obtained TCEQ approval of the Fire Plan, and (iv) obtained approval of the Fire Plan from the voters of the District at an election held for that purpose.

5.3 Other Provisions. The ILA must include terms binding the District to perform obligations associated with the District in this Agreement and all obligations of Owner which can only be performed through or with the assistance of the District. Any modification of the terms of this Agreement (including but not limited to the content of its exhibits) desired by the District must be (a) separately negotiated, and (b) agreed in writing by the City.

ARTICLE VI.
TERM OF AGREEMENT

The term of this Agreement shall commence on the Effective Date and shall continue for a period of thirty (30) years (the "Term"). Notwithstanding any other provision of this Agreement: (a) the validity of any consent to annexation of any portion of the Property, and the limitations in this Agreement on any such annexation, shall not be affected in any way by the expiration of the Term. The total duration of this Agreement and any successive renewals or extensions shall not exceed forty-five (45) years following its Effective Date.

ARTICLE VII.
EVENTS OF DEFAULT; REMEDIES

7.1 Events of Default. No Party shall be in default under this Agreement until notice of the alleged failure of such Party to perform has been given in writing (which notice shall set forth in reasonable detail the nature of the alleged failure) and until such Party has been given a reasonable time to cure the alleged failure (such reasonable time determined based on the nature of the alleged failure, but in no event less than thirty (30) days after written notice of the alleged failure has been

given). In addition, no Party shall be in default under this Agreement if, within the applicable cure period, the Party to whom the notice was given begins performance and thereafter diligently and continuously pursues performance until the alleged failure has been cured and within such 30-day period gives written notice to the non-defaulting Party providing in detail the reasons that the cure will take longer than thirty (30) days with a statement of the number of days requested to cure.

7.2 Remedies. If a Party is in default, the aggrieved Party may, at its option and without prejudice to any other right or remedy under this Agreement, seek any relief available at law or in equity, including, but not limited to, an action under the Uniform Declaratory Judgment Act, specific performance, mandamus and injunctive relief. NOTWITHSTANDING THE FOREGOING, HOWEVER, NO DEFAULT UNDER THIS AGREEMENT SHALL ENTITLE THE AGGRIEVED PARTY TO TERMINATE THIS AGREEMENT OR LIMIT THE TERM OF THIS AGREEMENT. The remedies set forth in this section are the sole and exclusive remedies for a default under this Agreement.

7.3 No Waiver of Immunity. No waiver of government immunity by the City is intended or implied by entrance into this Agreement, and the City expressly reserves all available claims and defenses, including but not limited to immunity defenses, against any and all claims by third parties and any cause of action other than a breach of contract claim by Owner.

ARTICLE VIII.
ASSIGNMENT, AMENDMENT AND ENCUMBRANCE

8.1 Amendment. This Agreement may be amended only upon written amendment executed by the City and Owner. In the event Owner sells any portion of the Property, Owner may assign to such purchaser the right to amend the Agreement as to such purchased property by written assignment and notice thereof to the City. Such assignment shall not grant such purchaser the authority to amend this Agreement as to any other portions of the Property.

8.2 Assignment by Owner to Successor Owners. Owner has the right (from time to time without the consent of the City, but upon written notice to the City) to assign this Agreement, in whole or in part, and including any obligation, right, title, or interest of Owner under this Agreement, to any person or entity (an "Assignee") that (i) is an affiliated entity that controls Owner or that is controlled by or under common control with Owner, or (ii) is a non-affiliated party that is or will become an owner of any portion of the Property and that has provided documentation of financial ability acceptable to the City to demonstrate that Owner Assignee is qualified to comply with all of the terms of this Agreement applicable to Owners, provided that Owners are not in breach of this Agreement at the time of such assignment. Each assignment shall be in writing executed by Owner and the Assignee and shall obligate the Assignee to be bound by this Agreement to the extent this Agreement applies or relates to the obligations, rights, title or interests being assigned (including but not limited to consent to inclusion in City jurisdiction). A copy of each assignment shall be provided to all Parties within fifteen (15) days after execution, and such copy shall identify a contact person representing the Assignee, and such person's address, telephone number, and email address. From and after such assignment, the City agrees to look solely to the Assignee for the performance of all obligations assigned to the Assignee and agrees that Owner shall be released from subsequently performing the assigned obligations and from any liability that results from the Assignee's failure to perform the assigned obligations; provided, however, if a copy of the assignment is not received by the City within fifteen (15) days after execution, Owner shall not be released until the City receives such assignment.

No assignment by Owner shall release Owner from any liability that resulted from an act or omission by Owner that occurred prior to the effective date of the assignment unless the City approves the release in writing. Owner shall maintain written records of all assignments made by Owner to Assignees, including a copy of each executed assignment and the Assignee's Notice information as required by this Agreement, and, upon written request from any Party or Assignee, shall provide a copy of such records to the requesting person or entity. Failure of Owner to strictly comply with the terms of this paragraph shall constitute as material breach of this Agreement.

8.4 Encumbrance by Owner and Assignees. Owner and Assignees have the right, from time to time, to collaterally assign, pledge, grant a lien or security interest in or otherwise encumber any of their respective rights, title or interest under this Agreement for the benefit of their respective lenders without the consent of, but with written notice to, the City. The collateral assignment, pledge, grant of lien or security interest or other encumbrance shall not, however, obligate any lender to perform any obligations or incur any liability under this Agreement unless the lender agrees in writing to perform such obligations or incur such liability. Provided the City has been given a copy of the documents creating the lender's interest, including Notice information for the lender, then that lender shall have the right, but not the obligation, to cure any default under this Agreement and shall be given a reasonable time to do so in addition to the cure periods otherwise provided to the defaulting Party by this Agreement; and the City agrees to accept a cure offered by the lender as if offered by the defaulting Party. A lender is not a Party to this Agreement unless this Agreement is amended, with the consent of the lender, to add the lender as a Party. Notwithstanding the foregoing, however, this Agreement shall continue to bind the Property and shall survive any transfer, conveyance, or assignment occasioned by the exercise of foreclosure or other rights by a lender, whether judicial or non-judicial. Any purchaser from or successor owner through a lender of any portion of the Property shall be bound by this Agreement and shall not be entitled to the rights and benefits of this Agreement with respect to the acquired portion of the Property until all defaults under this Agreement with respect to the acquired portion of the Property have been cured.

8.5 Assignees as Parties. An Assignee authorized in accordance with this Agreement and for which notice of assignment has been provided in accordance with this Agreement shall be considered a "Party" for the purposes of this Agreement. With the exception of the End-Buyer (defined below) of a lot within the Property, any person or entity upon becoming an owner of land or upon obtaining an ownership interest in any part of the Property shall be deemed to be an "Owner" and have all of the obligations of the Owners as set forth in this Agreement and all related documents to the extent of said ownership or ownership interest.

ARTICLE IX.
RECORDATION; ESTOPPEL CERTIFICATES

9.1 Recordation. Pursuant to the requirements of Section 212.172(f) of the Texas Local Government Code, this Agreement and all amendments hereto shall be recorded in the real property records of Denton County. In addition, all assignments to this Agreement shall be recorded in the real property records of Denton County. This Agreement, when recorded, shall be binding upon the Parties and their successors and assigns permitted by this Agreement and upon the Property as a covenant running with the land; however, this Agreement shall not be binding upon, and shall not constitute any encumbrance to title as to, any End-Buyer (hereinafter defined) except for land use and development regulations that apply to specific lots. For purposes of this Agreement, the Parties

agree: (a) that the term "End-Buyer" means any owner, tenant, user, or occupant; (b) that the term "fully developed and improved lot" means any lot, regardless of proposed use, for which a final plat has been approved by the City and recorded in the deed records; and (c) that the term "land use and development regulations that apply to specific lots" means all of the Governing Regulations that apply to an individual, final platted lot.

9.2 Estoppels. From time to time upon request of Owner, the District or any successor or assign of Owner or the District (including, without limitation, any Assignee), an authorized representative of the City will, in such person's official capacity, upon payment to the City of a $300.00 fee plus all reasonable cost incurred execute a written estoppel that certifies, to his knowledge and belief, that such Party is not in default of its obligations under this Agreement or that identifies any obligations that are in default.

ARTICLE X.
ADDITIONAL PROVISIONS

10.1 Recitals. The recitals contained in this Agreement: (a) are true and correct as of the Effective Date; (b) form the basis upon which the Parties negotiated and entered into this Agreement; (c) are legislative findings of the City Council; and (d) reflect the final intent of the Parties with regard to the subject matter of this Agreement. In the event it becomes necessary to interpret any provision of this Agreement, the intent of the Parties, as evidenced by the recitals, shall be taken into consideration and, to the maximum extent possible, given full effect. The Parties have relied upon the recitals as part of the consideration for entering into this Agreement and, but for the intent of the Parties reflected by the recitals, would not have entered into this Agreement.

10.2 Notices. All notices required or contemplated by this Agreement (or otherwise given in connection with this Agreement) (a "Notice") shall be in writing, shall be signed by or on behalf of the Party giving the Notice and shall be effective as follows: (a) on or after the 3rd business day after being deposited with the United States mail service, Certified Mail, Return Receipt Requested with a confirming copy sent by e-mail; or (b) on the day delivered by a private delivery or private messenger service (such as FedEx or UPS) as evidenced by a receipt signed by any person at the delivery address (whether or not such person is the person to whom the Notice is addressed). Notices given pursuant to this section shall be addressed as follows:

CITY: City of Aubrey
107 S. Main St.
Aubrey, TX 76227
Attention: City Secretary
Email: citysecretary@aubreytx.gov

With copy to:

Messer, Fort, McDonald
ATTN: Patricia Adams
6371 Preston Road, Suite 200
Frisco, TX 75034
Email: patricia@txmunicipallaw.com

OWNER: Aubrey 54 South LP
2727 Routh Street
Dallas, Texas 75201
Attention: Bob Ladd
Email: bladd@laddholdings.com

Aubrey 54 South LP
793 Parkside Court
Highland Village, Texas 75207
Attention: Steve Gee
stevegee@gfb-tx.com

Aubrey Plant LP
2727 Routh Street
Dallas, Texas 75201
Attention: Bob Ladd and Steve Gee
Email: bladd@laddholdings.com

Aubrey Plant LP
793 Parkside Court
Highland Village, Texas 75207
Attention: Steve Gee
stevegee@gfb-tx.com

Aubrey 64 North LP
2727 Routh Street
Dallas, Texas 75201
Attention: Bob Ladd and Steve Gee
Email: bladd@laddholdings.com

Aubrey 64 North LP
793 Parkside Court
Highland Village, Texas 75207
Attention: Steve Gee
stevegee@gfb-tx.com

With a copy to:

Coats Rose P.C.
14755 Preston Road, Suite 600
Dallas, Texas 75254
Attention: Mindy L. Koehne
Email: mkoehne@coatsrose.com

10.3 Exhibits. The following exhibits are attached to this Agreement and are incorporated herein for all purposes:

Exhibit A Tract 1 Depiction and Legal Description

Exhibit B	Tract 2 Depiction and Legal Description
Exhibit C	Tract 3 Depiction and Legal Description
Exhibit D	Proposed Consent Resolution (To be superseded by Final City Approved Consent Resolution
Exhibit E	Concept Plan
Exhibit F	Special Regulations

10.4 Interpretation. In all clauses of this Agreement, a designation of a party by proper name or a defined term (e.g., "Party", "City", "Owner", etc.) is intended to be and shall be construed as inclusive of all employees, officials, officers, owners, agents, heirs, successors in interest, assigns, and other authorized representatives that are implicated in the duties to act or to refrain from action relating to its subject matter. The Parties acknowledge that each of them has been actively involved in negotiating this Agreement. Accordingly, the rule of construction that any ambiguities are to be resolved against the drafting Party will not apply to interpreting this Agreement. In the event of any dispute over the meaning or application of any provision of this Agreement, the provision will be interpreted fairly and reasonably and neither more strongly for or against any Party, regardless of which Party originally drafted the provision or the Party's respective contributions to the editing process.

10.5 Authority and Enforceability. The City represents and warrants that this Agreement has been approved by the City Council in accordance with all applicable public notice requirements (including, but not limited to, notices required by the Texas Open Meetings Act) and that the individual executing this Agreement on behalf of the City has been duly authorized to do so. Owner represents and warrants that this Agreement has been approved by appropriate action of Owner, that the individual(s) executing this Agreement on behalf of Owner has been duly authorized to do so on behalf of their respective principal(s). Owner further represents and warrants that its undersigned representative represents each and every owner of the Property as of the date of its execution. Each Party acknowledges and agrees that this Agreement is binding upon such Party and enforceable against such Party in accordance with its terms and conditions and that the performance by the Parties under this Agreement is authorized by Section 212.172 of the Texas Local Government Code to the extent the Property is located in the City's ETJ at the time of such performance.

10.6 Entire Agreement: Severability. This Agreement constitutes the entire agreement between the Parties and supersedes all prior agreements, whether oral or written, covering the subject matter of this Agreement. This Agreement shall not be modified or amended except in writing signed by the Parties. If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable for any reason, then (a) such unenforceable provision shall be deleted from this Agreement; (b) the unenforceable provision shall, to the extent possible, be rewritten to be enforceable and to give effect to the intent of the Parties; and (c) and the remainder of this Agreement shall remain in full force and effect and shall be interpreted to give effect to the intent of the Parties. Without limiting the generality of the foregoing, if it is determined that, as of the Effective Date, Owner does not own any portion of the Property, this Agreement shall remain in full force and effect with respect to all of the Property that Owner does then own.

10.7 Applicable Law; Venue. This Agreement is entered into under and pursuant to, and is to be construed and enforceable in accordance with, the laws of the State of Texas, and all obligations of the parties are performable in the County. Venue for any action to enforce or construe this agreement shall be the County.

10.8 No Waiver. Any failure by a Party to insist upon strict performance by another Party of any material provision of this Agreement shall not be deemed a waiver thereof, and the Party shall have the right at any time thereafter to insist upon strict performance of any and all provisions of this Agreement. No provision of this Agreement may be waived except by writing signed by the Party waiving such provision. Any waiver shall be limited to the specific purposes for which it is given. No waiver by any Party of any term or condition of this Agreement shall be deemed or construed to be a waiver of any other term or condition or subsequent waiver of the same term or condition.

10.9 No Third-Party Beneficiaries. Except as provided in this section, this Agreement only inures to the benefit of, and may only be enforced by, the entities expressly named and designated as part of the collectively "Parties.". If the District is not an Assignee, or does not exist on the date this Agreement is first executed, the District shall be considered a third-party beneficiary of this Agreement for the limited purposes of seeking specific performance of the obligations set forth herein. An End-Buyer shall be considered a third-party beneficiary of this Agreement but only for the limited purposes for which an End-Buyer is bound by this Agreement (including but not necessarily limited to those obligations applicable to End-Buyer by virtue of covenants running with the land prior to acquisition of ownership interest, e.g., consent to full purpose annexation). No other person or entity shall have any right, title or interest under this Agreement or otherwise be deemed to be a third-party beneficiary of this Agreement.

10.10 Force Majeure. Each Party shall use good faith, due diligence and reasonable care in the performance of its respective obligations under this Agreement, and time shall be of the essence in such performance; however, in the event a Party is unable, due to force majeure, to perform its obligations under this Agreement, then the obligations affected by the force majeure shall be temporarily suspended. Within three (3) business days after the occurrence of a force majeure, the Party claiming the right to temporarily suspend its performance, shall give Notice to all the Parties, including a detailed explanation of the force majeure and a description of the action that will be taken to remedy the force majeure and resume full performance at the earliest possible time. The term, "force majeure," shall include events or circumstances that are not within the reasonable control of the Party whose performance is suspended and that could not have been avoided by such Party with the exercise of good faith, due diligence and reasonable care.

10.11 Counterparts. This Agreement may be executed in any number of counterparts with duplicative signature pages, each of which shall be deemed an original and constitute one and the same instrument having identical material terms.

10.12 Litigation Expenses. Either Party to this Agreement who is the prevailing party in any legal proceeding against the other Party, brought in relation to this Agreement, shall be entitled to recover court costs and reasonable attorneys' fees from the non-prevailing Party to the extent permissible under law.

10.13 Further Documents. Each Party shall, upon written request of the other Party, execute and deliver such further documents and perform such further acts (e.g., provide written memorialization of agreement, consent, approval, request, etc.) as may be requested to effectuate the terms of this Agreement and achieve the intent of the Parties, and such further performance, documentation, or consents shall not be unreasonably withheld. Written requests may be directed only to a person listed in Section 10.2 above or as may be designated in writing by the receiving

Party. This provision shall not be construed as limiting or otherwise hindering the legislative discretion of the City Council of Aubrey, Texas ("City Council") seated at the time that this Agreement is executed or any future City Council.

10.14 Anti-Boycott Verification. Owner hereby verifies that it and its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, do not boycott Israel and, to the extent this Agreement is a contract for goods or services, will not boycott Israel during the term of this Agreement. The foregoing verification is made solely to comply with Section 2270.002, Texas Government Code, and to the extent such Section does not contravene applicable Federal law. As used in the foregoing verification, 'boycott Israel' means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes. Owner understands 'affiliate' to mean an entity that controls, is controlled by, or is under common control with Owner and exists to make a profit.

10.15 Iran, Sudan and Foreign Terrorist Organizations. Owner represents that neither it nor any of its parent company, wholly- or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, and posted on any of the following pages of such officer's internet website: https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf, https://comptroller.texas.gov/purchasing/docs/iran-list.pdf, or https://comptroller.texas.gov/purchasing/docs/fto-list.pdf, The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, and to the extent such Section does not contravene applicable Federal law and excludes the Developer and each of its parent company, wholly-or majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. Owner understands "affiliate" to mean any entity that controls, is controlled by, or is under common control with Owner and exists to make a profit.

10.16 Fossil Fuels Boycott Verification. As required by 2274.002, Texas Government Code (as added by Senate Bill 13, 87th Texas Legislature, Regular Session), as amended, Owner hereby verifies that Owner, including any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of the same, does not boycott energy companies, and will not boycott energy companies during the term of this Agreement. As used in the foregoing verification, "boycott energy companies" shall have the meaning assigned to the term "boycott energy company" in Section 809.001, Texas Government Code, as amended.

10.17 Firearms Discrimination Verification. As required by Section 2274.002, Texas Government Code (as added by Senate Bill 19, 87th Texas Legislature, Regular Session, "SB 19"), as amended, Owner hereby verifies that Owner, including any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of the same, (i) does not have a practice, policy, guidance or directive that discriminates against a firearm entity or firearm trade association, and (ii) will not discriminate against a firearm entity or firearm trade association during the term of this Agreement. As used in the foregoing verification, "discriminate against a firearm entity or trade association" shall have the meaning assigned to such term in Section 2274.001(3), Texas Government

Code (as added by SB 19), as amended.

10.18 Form 1295. Submitted herewith is a completed Form 1295 generated by the Texas Ethics Commission's (the "TEC") electronic filing application in accordance with the provisions of Section 2252.908 of the Texas Government Code and the rules promulgated by the TEC (the "Form 1295"). The City hereby confirms receipt of the Form 1295 from the Owner, and the City agrees to acknowledge such form with the TEC through its electronic filing application not later than the 30th day after the receipt of such form. The Parties understand and agree that, with the exception of information identifying the City and the contract identification number, neither the City nor its consultants are responsible for the information contained in the Form 1295; that the information contained in the Form 1295 has been provided solely by the Owner; and, neither the City nor its consultants have verified such information.

[Signatures follow on the next pages]

EXECUTED by the authorized representatives of Owner and the City to be effective as of the Effective Date.

CITY OF AUBREY, TEXAS,
a Type A general law municipality of the State of Texas

By: _____
Name: Chris Rich
Title: Mayor

CITY OF AUBREY OFFICIAL SEAL AUBREY, TEXAS

ATTEST:

By: _____
Name: Jenny Huckabee
Title: City Secretary

STATE OF TEXAS §
§
COUNTY OF DENTON §

This instrument was acknowledged before me this 26 day of APRIL, 2022, by Chris Rich, Mayor of the City of Aubrey, Texas, a general law municipality of the State of Texas, on behalf of said city.

JENNIFER D. HUCKABEE
Notary Public, State of Texas
Comm. Expires 07-05-2024
Notary ID 129043943

_____
Notary Public in and for the State of Texas

AUBREY 54:

AUBREY 54 SOUTH LP,
a Texas limited partnership

By: AUBREY 54 SOUTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
as Manager of
Aubrey 54 South GP LLC.

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 30TH day of JUNE, 2022, by Bob C. Ladd, as Manager of Aubrey 54 South GP LLC., a Texas limited liability company, General Partner of Aubrey 54 South LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

NOTARY PUBLIC STATE OF TEXAS
CECILIA TRAN
ID #130102672
My Commission Expires
February 04, 2023

_____
Notary Public in and for the State of Texas

AUBREY PLANT:

AUBREY PLANT LP,
a Texas limited partnership

By: AUBREY PLANT GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey Plant GP LLC.

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 30TH day of JUNE, 2022, by Bob C. Ladd, as Manager of Aubrey Plant GP LLC., a Texas limited liability company, General Partner of Aubrey Plant LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

CECILIA TRAN
ID #130102672
My Commission Expires
February 04, 2023

_____
Notary Public in and for the State of Texas

AUBREY 64:

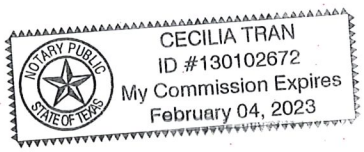
AUBREY 64 NORTH LP,
a Texas limited partnership

By: AUBREY 64 NORTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey 64 North GP LLC.

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 30TH day of JUNE, 2022, by Bob C. Ladd, as Manager of Aubrey 64 North GP LLC., a Texas limited liability company, General Partner of Aubrey 64 North LP, a Texas limited partnership, on behalf of said limited partnership.



(SEAL)

_____
Notary Public in and for the State of Texas

EXHIBIT A

TRACT 1
(Depiction and Legal Description)

EXHIBIT A

BOUNDARY SURVEY

64.05 ACRES
F. TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions, Inc.
Professional Land Surveyors
P.O. BOX 290
CROSS ROADS, TEXAS 76227
OFFICE 214.499.8472
FAX 972-782-7811
EMAIL mbusby_bs@yahoo.com

COMMERCIAL AND RESIDENTIAL
BOUNDARY TOPOGRAPHIC &
ALTA/ACSM LAND TITLE
SURVEYS

CLIENT:
JC Land Group

S/A # 9001222/0086
Address:
2085 Spring Hill Road

Drawn by: mjb
Rev. Job # 2101-031

© Copyright 2021 Boundary Solutions, Inc. The content, color, and style of this plat are protected by Copyright and all rights are reserved

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the I. Travis Survey, A-1243, and being part of that called 74.010 acres of land described in deed to Teela K. Stamp as recorded under Document No. 2005-86757 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 1/2 inch steel rod found on the North line of Spring Hill Road (F.M. Highway No. 428), at the Southeast corner of said 74.010 acres, and at the Southwest corner of that called 53.600 acres of land described in deed to Alden 34 South, LLC as recorded under Document No. 2019-163047 of the Official Public Records of Denton County, Texas;

THENCE North 88 degrees 35 minutes 38 seconds West, 951.08 feet along the North line of said Spring Hill Road to a 5/8 inch steel rod found at the Southeast corner of that called 9.971 acres of land described in deed to L.E. Tother and Claudia E. Tother as recorded under Document No. 2000-4209 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 12 minutes 57 seconds West, 967.57 feet along the East line of said 9.971 acres to a 1/2 inch steel rod found at the Northeast corner of said 9.971 acres;

THENCE North 88 degrees 43 minutes 43 seconds West, 449.42 feet along the North line of said 9.971 acres to a 5/8 inch steel rod found at the Northwest corner of said 9.971 acres, on the East line of that called 37.89 acres of land described in deed to Stephanie Owens and Alan Taylor Owens as recorded under Document No. 2018-42238 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 13 minutes 46 seconds West, 1254.40 feet to a 1/2 inch steel rod found at the Northwest corner of said 74.010 acres, at the Northeast corner of said 24.237 acres, and on the South line of that called 37.89 acres of land described in deed to Stephanie Owens and Alan Taylor Owens as recorded under Document No. 2018-42238 of the Official Public Records of Denton County, Texas;

THENCE South 88 degrees 38 minutes 31 seconds East (Bearings Basis), 1556.83 feet along the North line of said 74.010 acres to a 1/2 inch steel rod found at the Northeast corner of said 74.010 acres;

THENCE along the East line of said 74.010 acres and generally along a fence as follows:

South 00 degrees 39 minutes 28 seconds West, 708.16 feet;
South 01 degrees 24 minutes 52 seconds West, 537.33 feet;
South 02 degrees 01 minutes 37 seconds East, 162.14 feet;
South 02 degrees 55 minutes 56 seconds West, 1015.96 feet to the POINT OF BEGINNING, containing 64.05 acres of land.

FLOOD ZONE DEFINITIONS:
(FIRM #48121C0260G, dated April 18, 2011

Zone "X" – "Areas determined to be outside the 0.2% annual chance floodplain."

Zone "A" – "Special Flood Hazard Areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."

Notes Corresponding to Schedule B:

10) Easement to TXU Electric Co., Vol. 181, Pg. 16 – may affect, not plottable due to vague description. Above ground and visible evidence of electric lines shown hereon.

11) Easement to Denton County Electric, Vol. 402, Pg. 78 – Blanket. Above ground and visible evidence of electric lines shown hereon.

Note: Bearings based on Texas State Coordinate System, Texas North Central Zone 4202, NAD83

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods per have red plastic cap stamped "Boundary Solutions"

CERTIFIED TO: Arnold G. Stamp & Linda A. Stamp, JC Land Group, LLC, and Priority National Title Insurance Company

The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of January, 2021. The visible improvements on the ground are as shown on the survey. There are no visible intrusions, encroachments, overlapping of improvements or conflicts found except as shown on the survey plat.

January 21, 2021
Revised, 1-25-2021
Last Sch. B Info

Matthew Busby
R.P.L.S. No. 5761

Zone "X"

Zone "A"

Zone "X"

Zone "X"

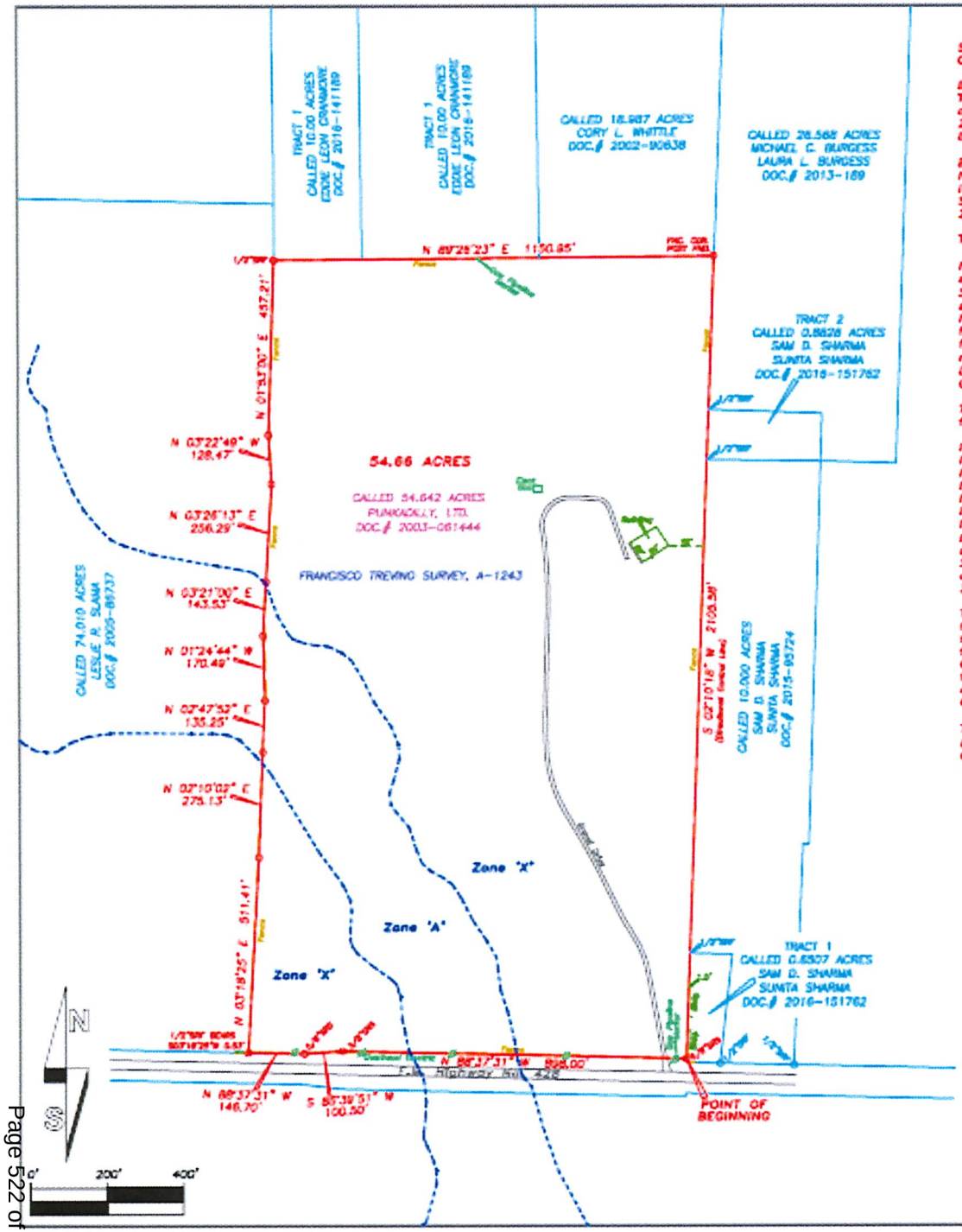
POINT OF BEGINNING

84.05 ACRES

Spring Hill Road
(FM Highway No. 428)

N

S



DESCRIPTION

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the Francisco Trevino Survey, A-1243, and being all of that called 54.642 acres of land described in deed to Punkadilly, Ltd. as recorded under Document No. 2003-081444 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 5/8 inch steel rod set on the North line of F.M. Highway No. 426, at the Southeast corner of said 54.642 acres, and on the West line of that called 0.6507 acres of land described as Tract 1 in a deed to Sam D. Sharma and Sunita Sharma as recorded under Document No. 2016-151762 of the Official Public Records of Denton County, Texas;

THENCE along the North line of said F.M. Highway No. 426 as follows:

North 88 degrees 37 minutes 31 seconds West, 868.00 feet to a 5/8 inch steel rod set;
South 85 degrees 39 minutes 51 seconds West, 100.50 feet to a 5/8 inch steel rod set;
North 88 degrees 37 minutes 31 seconds West, 146.70 feet to a point at the Southwest corner of said 54.642 acres, and at the Southeast corner of that called 74.010 acres of land described in deed to Leslie R. Slama as recorded under Document No. 2005-88737 of the Official Public Records of Denton County, Texas, from which a 1/2 inch steel rod found bears South 03 degrees 18 minutes 25 seconds West, 0.53 feet for witness;

THENCE along the West line of said 54.642 acres and generally along a fence as follows:

North 03 degrees 18 minutes 25 seconds East, 511.41 feet;
North 02 degrees 10 minutes 02 seconds East, 275.13 feet;
North 02 degrees 47 minutes 52 seconds East, 135.25 feet;
North 01 degrees 24 minutes 44 seconds West, 170.49 feet;
North 03 degrees 21 minutes 00 seconds East, 143.53 feet;
North 03 degrees 26 minutes 13 seconds East, 256.29 feet;
North 03 degrees 22 minutes 49 seconds West, 128.47 feet;
North 01 degrees 51 minutes 00 seconds East, 437.21 feet to a 1/2 inch steel rod found at the Northwest corner of said 54.642 acres, and at the Southwest corner of that called 10.00 acres of land described as Tract 1 in a deed to Eddie Leon Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas;

THENCE North 89 degrees 28 minutes 23 seconds East, 1150.85 feet to a fence corner post found at the Northeast corner of said 54.642 acres, at the Southeast corner of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded under Document No. 2002-90638 of the Official Public Records of Denton County, Texas, and on the West line of that called 26.568 acres of land described in deed to Michael C. Burgess and Laura L. Burgess as recorded under Document No. 2013-189 of the Official Public Records of Denton County, Texas;

THENCE South 02 degrees 10 minutes 18 seconds West (Directional Control Line), 2105.58 feet along the East line of said 54.642 acres to the POINT OF BEGINNING, containing 54.66 acres of land.

FLOOD ZONE DEFINITIONS
F.I.R.M. 48121C0265G, dated April 18, 2011

Zone "X" – "Areas determined to be outside the 0.2% annual chance floodplain."

Zone "A" – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."

SFD = STEEL ROD SET
SFF = STEEL ROD FOUND

Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"

Note: Survey performed without benefit of title commitment, no easements furnished or researched by surveyor.

The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of December, 2019; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.

December 2, 2019

STATE OF TEXAS
MATTHEW BUSBY
5751
REGISTERED
LAND SURVEYOR

Matthew Busby
R.P.L.S. No. 5751

BOUNDARY SURVEY

54.66 ACRES
FRANCISCO TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 250
CADDO MILLS, TX 75135
OFFICE: 214-495-8472
FAX: 972-782-7611
EMAIL: mbusby_bsi@yahoo.com

COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, &
ALTA/ACSM LAND TITLE
SURVEYS

CLIENT:
2727 Development 1, LP

No Schedule B Provided

Drawn by: mjb
B.S.I. Job# 1911-017

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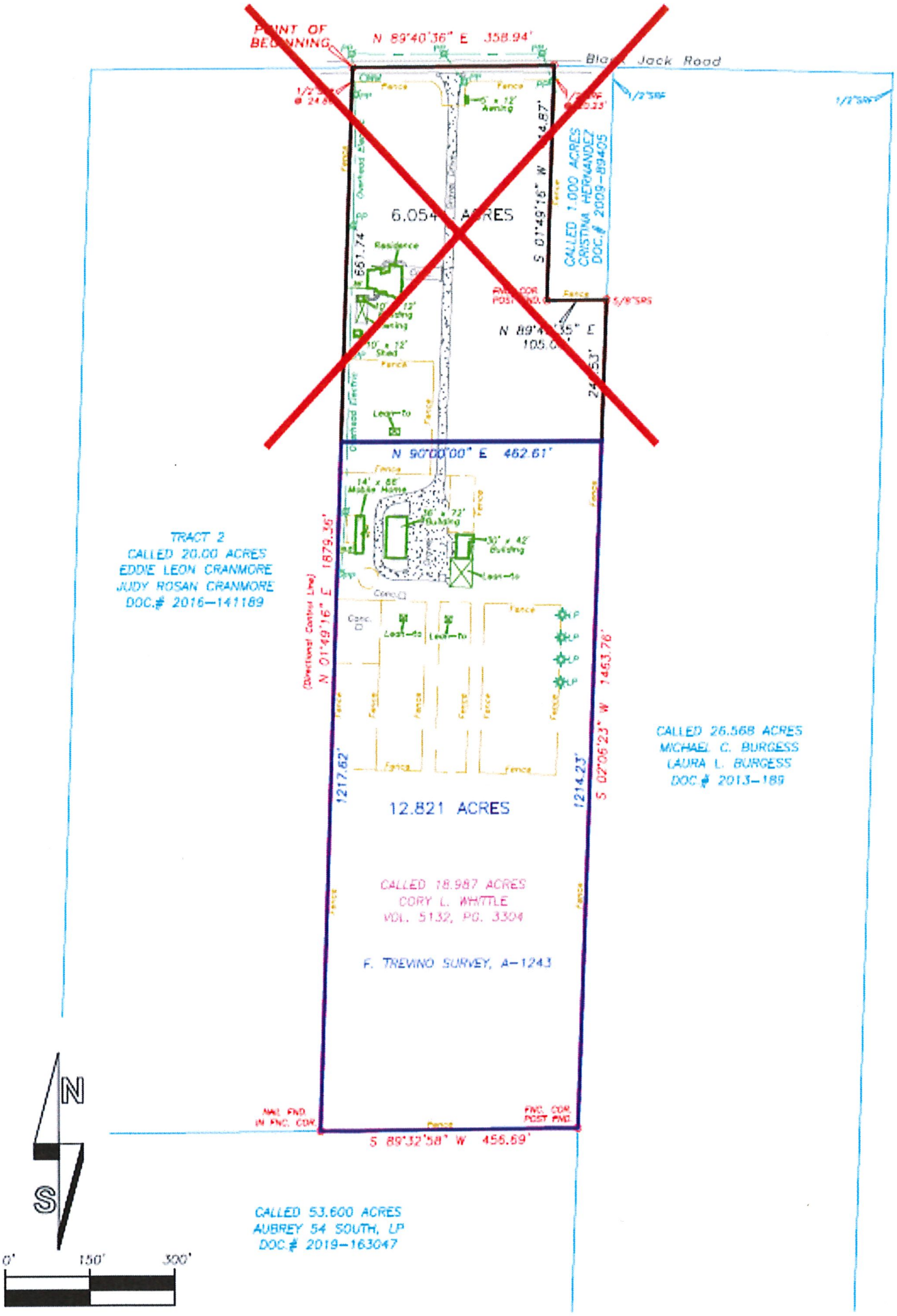

POINT OF BEGINNING
N 89°40'36" E 358.94'
Black Jack Road
6.054 ACRES
Residence
S 01°49'16" W 14.87'
CALLED 1.000 ACRES
CRISTINA HERNANDEZ
DOC.# 2009-89405
N 89°40'36" E 105.00'
24.53'
N 90°00'00" E 462.61'
TRACT 2
CALLED 20.00 ACRES
EDDIE LEON CRANMORE
JUDY ROSAN CRANMORE
DOC.# 2016-141189
(Directional Control Line)
N 01°49'16" E 1879.36'
1217.62'
12.821 ACRES
1214.23'
S 02°06'23" W 1463.76'
CALLED 26.568 ACRES
MICHAEL C. BURGESS
LAURA L. BURGESS
DOC.# 2013-189
CALLED 18.987 ACRES
CORY L. WHITTLE
VOL. 5132, PG. 3304
F. TREVINO SURVEY, A-1243
NAIL FND IN FNC. COR.
FNC. COR. POST FND.
S 89°32'58" W 456.69'
CALLED 53.600 ACRES
AUBREY 54 SOUTH, LP
DOC.# 2019-163047
N
S
0'
150'
300'

EXHIBIT "A"

Legal Description

Being all the tract of land in Denton County, Texas, out of the f. Trevino Survey, A-1243, and being part of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded in Volume 5132, page 3304 of the Official Public Records of Denton County, Texas, and being further described as follows:

COMMENCING at a point in the center of Black Jack Road, at the Northwest corner of said 18.987 acre, and at the Northeast corner of that called 20.00 acres of land described as Tract 2 in deed to Eddie Leon Cranmore and Judy Rosan Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas, from which a ½ inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.86 feet for Witness;

THENCE South 01 degrees 49 minutes 16 seconds West, 661.74 feet along the West line of said 18.987 acre to the POINT OF BEGINNING.

THENCE North 90 degrees 00 minutes 00 seconds East, 462.61 feet to a point on the East line of said 18.987 acres;

THENCE South 02 degrees 06 minutes 23 seconds West, 1214.23 feet to a fence corner post found at the southeast corner of said 18.987 acre, and at an angle point of said 26.568 acres;

THENCE South 89 degrees 32 minutes 58 seconds West, 456.69 feet a nail found in fence corner at the Southwest corner of said 18.987 acres, and at the Southeast corner of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East (Directional Control Line), 1217.62 feet along the West line of said 18.987 acre to the POINT OF BEGINNING, containing 12.821 acre of land.

NOTE: COMPANY DOES NOT REPRESENT THAT THE ABOVE ACREAGE AND/OR SQUARE FOOTAGE CALCULATIONS ARE CORRECT.

EXHIBIT B

TRACT 2
(Depiction and Legal Description)

EXHIBIT B

BOUNDARY SURVEY

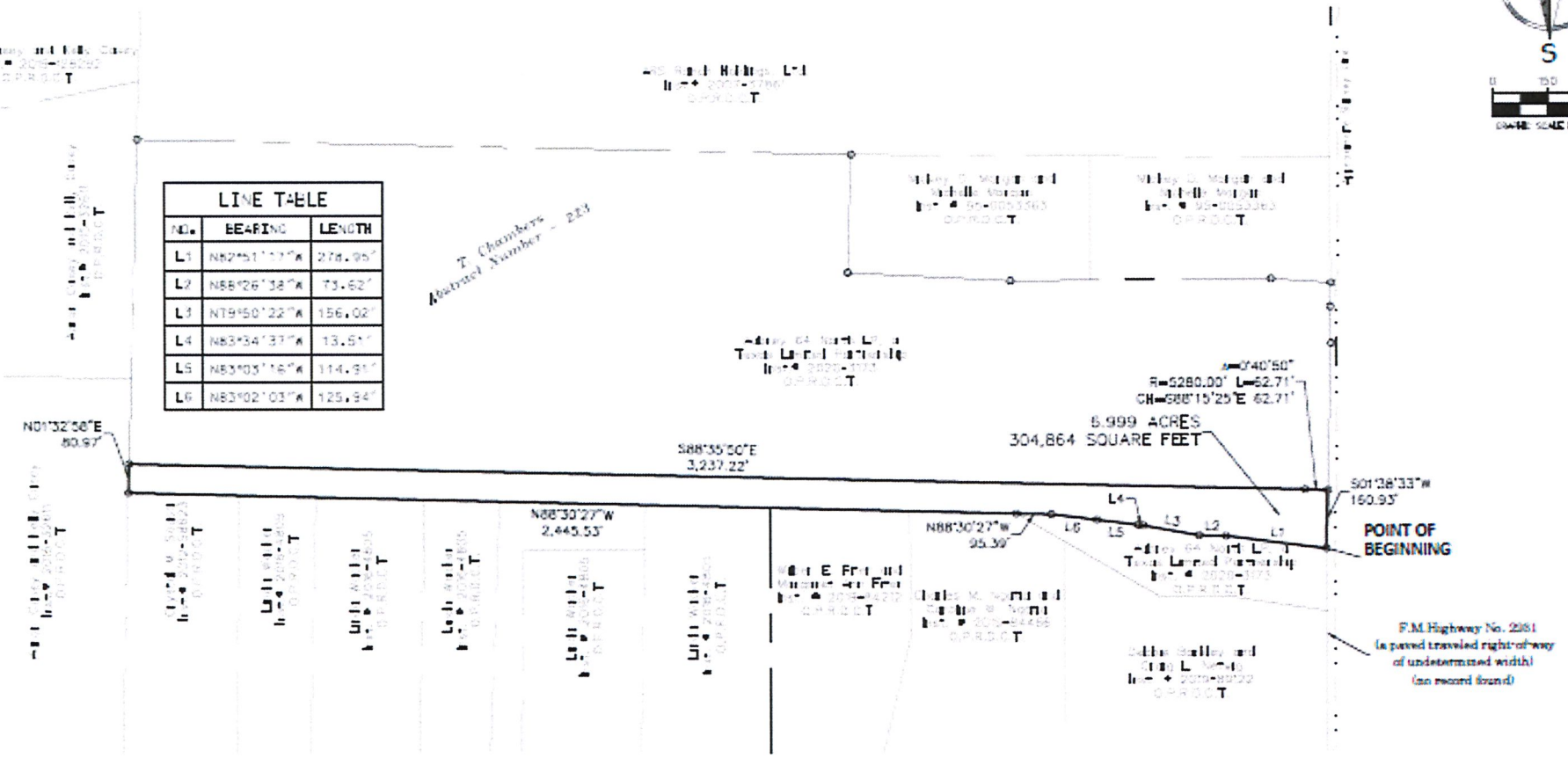
47.947 AC RES
T. CHAMBERS SURVEY, A-223
DENTON COUNTY, TEXAS

Boundary Solutions Inc.
Professional Land Surveyors

CLIENT:

Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83

"Integral parts of this document"
1. Exhibit - 1 Page



"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

AN EXHIBIT
OF 6.999 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS

JOB #: CE81008 | DRAWN BY: MYOST | CHECKED BY: BRAMLEY | DATE: 03/03/2021 | PAGE 1 OF 1

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TBPELS Firm Reg No. 10194408

DESCRIPTION OF 6.999 ACRES

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY SOUTHEAST CORNER OF SAID AUBREY TRACT AND BEING IN THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH);

THENCE DEPARTING SAID WEST RIGHT-OF-WAY LINE OVER AND ACROSS SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

N 82° 51' 17" W, 278.95 FEET;

N 88° 26' 38" W, 73.62 FEET;

N 79° 50' 22" W, 156.02 FEET;

N 83° 34' 37" W, 13.51 FEET;

N 83° 03' 16" W, 114.91 FEET;

N 83° 02' 03" W, 125.94 FEET;

N 88° 30' 27" W, 95.39 FEET TO THE SOUTH LINE OF SAID AUBREY TRACT AND BEING THE MOST NORTHERLY NORTHEAST CORNER OF A TRACT OF LAND TO CHARLES NGATIA RECORDED IN INSTRUMENT NUMBER 2019-84466 OF SAID O.P.R.D.C.T;

THENCE N 88° 30' 27" W, 2445.53 FEET ALONG SAID SOUTH LINE TO THE SOUTHWEST CORNER OF SAID AUBREY TRACT;

THENCE N 01° 32' 58" E, 80.97 FEET ALONG THE WEST LINE OF SAID AUBREY TRACT;

THENCE DEPARTING THE WEST LINE OF SAID AUBREY TRACT OVER AND ACROSS THE FOLLOWING BEARINGS AND DISTANCES:

S 88° 35' 50" E, 3237.22 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT;

WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 62.71 FEET, THROUGH A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5280.00 FEET, AND A LONG CHORD WHICH BEARS S 88° 15' 25" E, 62.71 FEET TO THE WEST LINE OF SAID F.M. 2931;

THENCE S 01° 38' 33" W, 160.93 FEET TO THE POINT OF BEGINNING AND CONTAINING 304,864 SQUARE FEET OR 6.999 ACRES MORE OR LESS.

"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

EXHIBIT C

TRACT 3

(Depiction and Legal Description)

Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83

"Several pages of this document"
1 Exhibit - 1 Page

DESCRIPTION

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING IN THE EAST LINE OF SAID AUBREY TRACT AND THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH) BEING THE BEGINNING OF A CURVE TO THE LEFT;

THENCE WITH SAID CURVE TO THE LEFT OVER AND ACROSS SAID AUBREY TRACT, HAVING AN ARC DISTANCE OF 62.71 FEET, A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5,280.00 FEET, AND A LONG CHORD WHICH BEARS N 88° 15' 25" W, 62.71 FEET;

THENCE N 88° 35' 50" W, 3,237.22 FEET, CONTINUING ACROSS SAID AUBREY TRACT TO THE WEST LINE;

THENCE N 01° 32' 58" E, 894.59 FEET, CONTINUING ALONG THE WEST LINE OF SAID AUBREY TRACT TO THE NORTH LINE;

THENCE CONTINUING ALONG THE NORTH LINE OF SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

CONTINUING

S 88° 39' 54" E, 1,967.25 FEET;

S 01° 48' 01" W, 325.45 FEET;

S 87° 02' 21" E, 447.69 FEET;

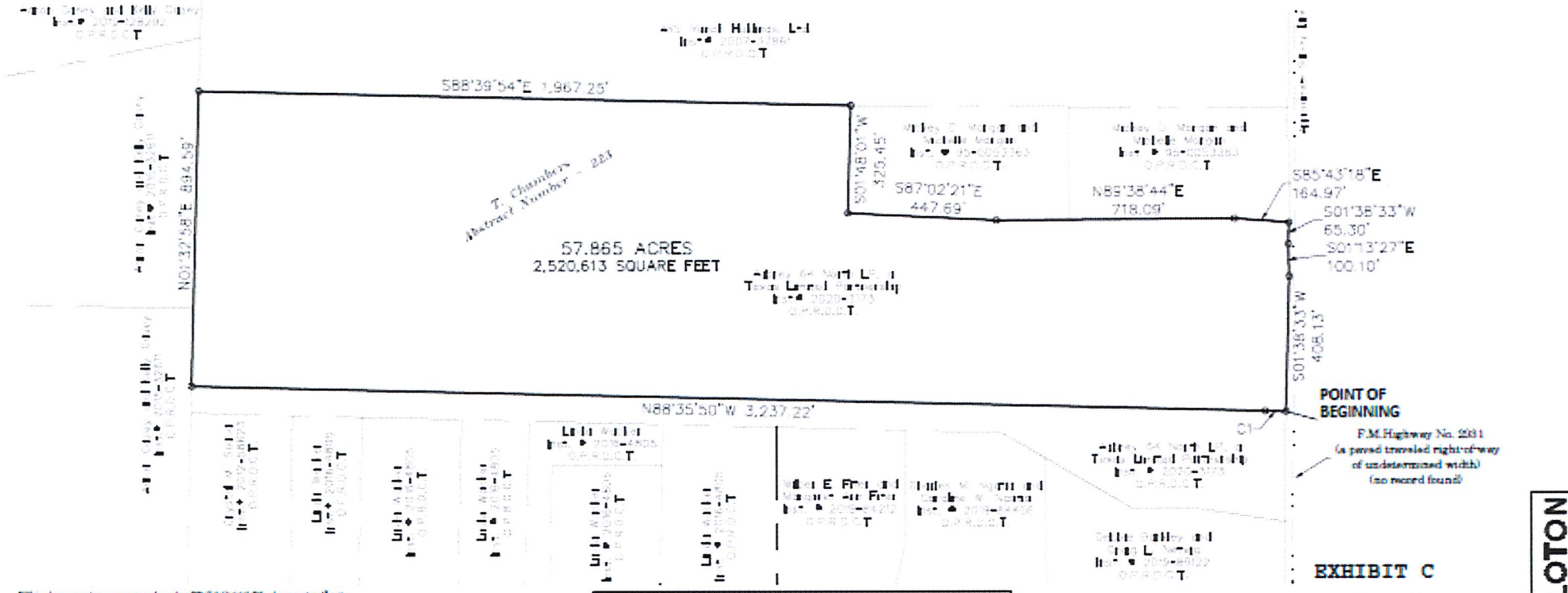
N 89° 38' 44" E, 718.09 FEET;

S 85° 43' 18" E, 164.97 FEET TO THE WEST RIGHT-OF-WAY LINE OF SAID FARM TO MARKET ROAD NO. 2931;

THENCE S 01° 38' 33" W, 65.30 FEET, ALONG SAID WEST RIGHT-OF-WAY LINE;

THENCE S 01° 13' 27" E, 100.10 FEET, CONTINUING ALONG SAID WEST RIGHT-OF-WAY LINE;

THENCE S 01° 38' 33" W, 408.13 FEET TO THE POINT OF BEGINNING AND CONTAINING 2,520,613 SQUARE FEET OR 57.865 ACRES OF LAND MORE OR LESS.



CURVE TABLE

NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	0°40'50"	5280.00'	62.71'	N88°15'25"W	62.71'

"This document was prepared under 22 TAC 663.21, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

TBPELS Firm Reg. No. 10194489

N
W E
S

0 150 300
GRAPHIC SCALE IN FEET

EXHIBIT C

AN EXHIBIT
OF 57.865 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS

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PELOTON LAND SOLUTIONS

JOB # 021806 | DRAWN BY: MYOST | CHECKED BY: SRAWLEY | DATE: 10/20/2021 | PAGE 1 OF 1

EXHIBIT D
PROPOSED CONSENT RESOLUTION
(To be Superseded by final City Council approved Consent Resolution)

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS CONSENTING TO THE ANNEXATION OF CERTAIN LAND INTO CLEAR SKY MUNICIPAL UTILITY DISTRICT OF DENTON COUNTY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, on March 15, 2022, the City of Aubrey, Texas (the "City") received a Petition for Consent to Annexation of Land into Clear Sky Municipal Utility District of Denton County (the "Petition") executed by Aubrey 54 South LP, a Texas limited partnership, Aubrey Plant LP, a Texas limited partnership, and Aubrey 64 North LP, a Texas limited partnership (collectively, the "Petitioner"), dated January 24, 2022, attached hereto as **Exhibit "A";** and

WHEREAS, the Petition seeks to add that certain 186.477-acre tract of land described therein (the "Property") to Clear Sky Municipal Utility District of Denton County (the "District"), the Property being wholly located in the extraterritorial jurisdiction of the City; and

WHEREAS, Texas Local Government Code, Section 42.0425, provides that land within the extraterritorial jurisdiction of a city, town or village may not be added to the District without the written consent of such city, town, or village; and

WHEREAS, the City Council of the City desires to adopt a Resolution for the purpose of consenting to the inclusion of the Property in the District.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OFAUBREY, TEXAS:

Section 1. That the facts set out in the preamble are true and correct and are incorporated herein for all purposes.

Section 2. That the City Council hereby gives written consent, pursuant to Section 42.0425, Texas Local Government Code, to the addition of that portion of the Property described in **Exhibit "B"** by metes and bounds and located wholly within the extraterritorial jurisdiction of the City of Aubrey and to consent to the issuance of bonds for the construction of a waterworks system, a sanitary sewer system, a storm water drainage system and roadway system, subject to the following are conditions:

(a) The City's consent to annexation of the Property into the District is provided only for the Property boundaries described in the Agreement and is not for the District's annexation of additional land in the City's extraterritorial jurisdiction.

(b) District will acquire easements, construct and provide infrastructure for onsite and offsite improvements to allow the District to provide water and wastewater utilities, and other public utilities to the Property for domestic uses and commercial purposes.

(c) District may not collect, transport, process, dispose of and/or control industrial,

commercial, or residential wastes whether in fluid, solid, or composite state.

(d) The District may not gather, convey, divert and/or control local storm water runoff or other local harmful excesses of water in the District without prior approval from the City. The District may not assess storm drainage utility fees for capital improvements, organization expenses, operation and maintenance expenses or any other storm water related expense.

(e) Amount of bonded indebtedness issued by the District shall be limited to bonds with maturities of thirty (30) years or less and up to an amount not to exceed the costs of onsite and offsite infrastructure improvements for the Property for the purchase, construction, acquisition, repair, extension and improvement of capital infrastructure, easements, works, improvements, facilities, plants, equipment, and appliances necessary for the construction of the onsite and offsite improvements to the Property during the development phases of the Property, along with any and all soft costs and creation and operation costs associated with the District.

Section 3. The City Council of the City officially finds, determines, recites, and declares that a sufficient written notice of the date, hour, place, and subject of this meeting of the City Council was posted at a place convenient to the public at the City Hall and on the official website of the City in the manner and for the time required by law preceding this meeting, as required by the Open Meetings Act, Chapter 551,Texas Government Code, and that this meeting was open to the public as required by law at all times during which this Resolution and the subject matter thereof was discussed, considered, andformally acted upon. The City Council further ratifies, approves, and confirms such written notice and the contents and posting thereof.

Section 4. This Resolution shall take effect immediately from and after its passage, and it is, accordingly, so resolved.

PASSED AND APPROVED by the City Council of the City of Aubrey, Texas on the 26th day of April, 2022.

_____
Chris Rich. Mayor

ATTEST:

_____
Jenny Huckabee, City Secretary

(CITY SEAL)

Approved as to Form:

_____
Patricia A. Adams, City Attorney

Exhibit "A" to Consent Resolution

Petition

MAR 15 2022 AM10:37

PETITION FOR CONSENT TO ADDITION OF LAND
TO A MUNICIPAL UTILITY DISTRICT

THE STATE OF TEXAS §

COUNTY OF DENTON §

TO THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF AUBREY:

The undersigned (collectively, the "Petitioner"), acting pursuant to the provisions of Chapters 49 and 54 of the Texas Water Code, and Section 42.042 of the Texas Local Government Code, respectfully petitions the City of Aubrey, Texas for its consent to the addition of land to Clear Sky Municipal Utility District of Denton County (the "District"), and in support of this Petition would respectfully show the following:

I.

The land sought to be added to the District (the "Tract") consists of the approximately 186.477 acres described by metes and bounds in Exhibit "A," attached hereto and made a part hereof for all purposes.

II.

The Tract lies within Denton County, and not within the boundaries of any incorporated city or town. The Tract lies wholly within the extraterritorial jurisdictions of the City of Aubrey, Texas, as such term is determined pursuant to Chapter 42 V.T.C.A. Local Government Code.

III.

The Petitioner constitutes the holder of title to more than fifty percent (50%) of the value of the Tract, as indicated by the tax rolls of the central appraisal district of Denton County, Texas, and by conveyances of record since the date of preparation of said tax rolls. There are no lienholders on the Tract.

IV.

The District was organized, created and established pursuant to House Bill 4627, Acts of the 87th Texas Legislature, Regular Session, 2021 (codified at Chapter 7948A, Texas Special District Local Laws Code) effective September 1, 2021, in accordance with Article III, Section 52, and Article XVI, Section 59 of the Texas Constitution and operates pursuant to Chapters 49 and 54, Texas Water Code, as amended. The District generally is empowered and authorized to purchase, construct, acquire, own, operate, maintain, repair, improve, or extend inside and outside

its boundaries any and all works, improvements, facilities, plants, equipment, and appliances necessary to accomplish the purposes of its creation.

V.

The general nature of the work anticipated to be done within the Tract at the present time is the construction, maintenance and operation of a waterworks system for residential purposes; the construction, maintenance and operation of a sanitary sewer collection system; the control, abatement and amendment of the harmful excess of waters and the reclamation and drainage of overflowed lands within the Tract; and the construction of roads and of such additional facilities, systems, plants and enterprises as shall be consistent with the purposes for which the District is organized.

VI.

There is a necessity for the improvements above described because the Tract is located within an area experiencing substantial and sustained residential growth, is urban in nature and is not supplied with adequate water, sanitary sewer, and drainage facilities and roads. The health and welfare of the future inhabitants of the Tract require the acquisition and installation of an adequate waterworks, sanitary sewer and storm drainage system and roads. The purchase, construction, extension, improvement, maintenance and operation of such waterworks system and storm and sanitary sewer collection and disposal systems and roads will conserve and preserve the natural resources of this State by promoting and protecting the purity and sanitary condition of the State's waters and will promote and protect the public health and welfare of the community; therefore, a public necessity exists for the inclusion of the Tract within the District.

VII.

The proposed improvements are practicable and feasible, in that the terrain of the Tract is of such nature that a waterworks system and sanitary and storm sewer systems and roads can be constructed at a reasonable cost; and said land will be rapidly developed for residential purposes.

VIII.

A preliminary investigation has been instituted to determine the cost of the proposed improvements attributable to the Tract, and it is now estimated by those filing this petition, from such information as they have at this time, that the ultimate cost of the development contemplated on the Tract will be approximately $21,500,000.

WHEREFORE, the undersigned respectfully pray that this Petition be granted in all respects and that the City Council of the City of Aubrey, Texas, adopt a resolution giving its written consent to the addition of the Tract to the District.

RESPECTFULLY SUBMITTED this the 24th day of January, 2022.

PETITIONER:

AUBREY 54:

AUBREY 54 SOUTH LP,
a Texas limited partnership

By: AUBREY 54 SOUTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
as Manager of
Aubrey 54 South GP LLC

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 24th day of JANUARY, 2022, by Bob C. Ladd, as Manager of Aubrey 54 South GP LLC., a Texas limited liability company, General Partner of Aubrey 54 South LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

JANEY ARISTA
Notary ID #1120165
My Commission Expires
July 13, 2022

_____
Notary Public in and for the State of Texas

PETITIONER:

AUBREY PLANT:

AUBREY PLANT LP,
a Texas limited partnership

By: AUBREY PLANT GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey Plant GP LLC

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 24th day of JANUARY, 2022, by Bob C. Ladd, as Manager of Aubrey Plant GP LLC., a Texas limited liability company, General Partner of Aubrey Plant LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

JANEY ARISTA
Notary ID #1120165
My Commission Expires
July 13, 2022

_____
Notary Public in and for the State of Texas

PETITIONER:

AUBREY 64:

AUBREY 64 NORTH LP,
a Texas limited partnership

By: AUBREY 64 NORTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey 64 North GP LLC

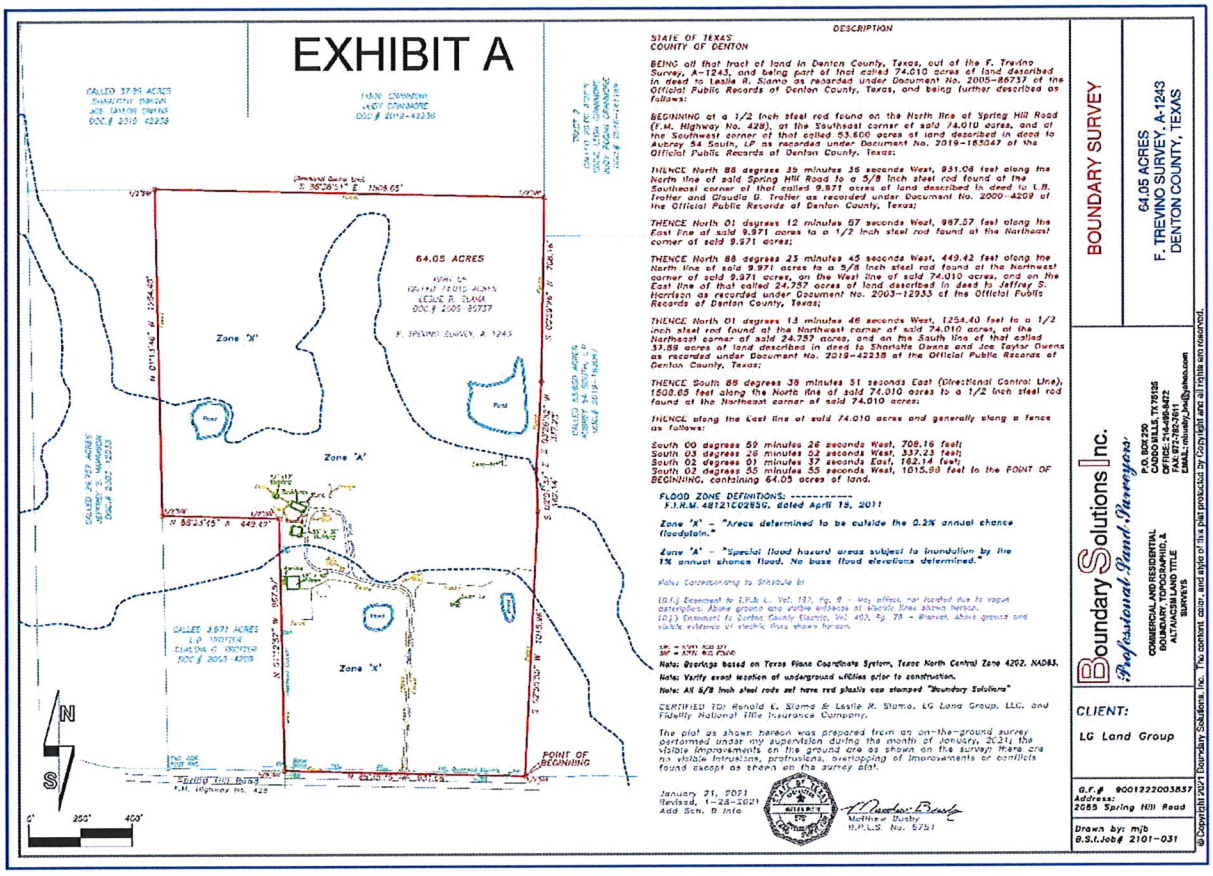
STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 24th day of JANUARY, 2022, by Bob C. Ladd, as Manager of Aubrey 64 North GP LLC., a Texas limited liability company, General Partner of Aubrey 64 North LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

JANEY ARISTA
Notary ID #1120165
My Commission Expires
July 13, 2022

_____
Notary Public in and for the State of Texas



DESCRIPTION

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the F. Trevino Survey, A-1243, and being part of that called 74.010 acres of land described in deed to Leslie R. Slama as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 1/2 inch steel rod found on the North line of Spring Hill Road (F.M. Highway No. 428), at the Southeast corner of said 74.010 acres, and at the Southwest corner of that called 53.600 acres of land described in deed to Aubrey 84 Souin, LP as recorded under Document No. 2019-185047 of the Official Public Records of Denton County, Texas;

THENCE North 88 degrees 35 minutes 36 seconds West, 951.08 feet along the North line of said Spring Hill Road to a 5/8 inch steel rod found at the Southeast corner of that called 9.971 acres of land described in deed to L.B. Trotter and Claudia B. Trotter as recorded under Document No. 2000-4209 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 12 minutes 57 seconds West, 987.37 feet along the East line of said 9.971 acres to a 1/2 inch steel rod found at the Northeast corner of said 9.971 acres;

THENCE North 88 degrees 23 minutes 45 seconds West, 449.42 feet along the North line of said 9.971 acres to a 5/8 inch steel rod found at the Northwest corner of said 9.971 acres, on the West line of said 74.010 acres, and on the East line of that called 24.757 acres of land described in deed to Jeffrey S. Harrison as recorded under Document No. 2003-12933 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 13 minutes 48 seconds West, 1254.40 feet to a 1/2 inch steel rod found at the Northwest corner of said 74.010 acres, at the Northeast corner of said 24.757 acres, and on the South line of that called 37.89 acres of land described in deed to Sharlette Owens and Joe Taylor Owens as recorded under Document No. 2019-42238 of the Official Public Records of Denton County, Texas;

THENCE South 88 degrees 38 minutes 51 seconds East (Directional Control Line), 1508.65 feet along the North line of said 74.010 acres to a 1/2 inch steel rod found at the Northeast corner of said 74.010 acres;

THENCE along the East line of said 74.010 acres and generally along a fence as follows:

South 00 degrees 59 minutes 26 seconds West, 708.16 feet;
South 03 degrees 28 minutes 52 seconds West, 337.23 feet;
South 02 degrees 01 minutes 37 seconds East, 162.14 feet;
South 02 degrees 35 minutes 55 seconds West, 1015.98 feet to the POINT OF BEGINNING, containing 64.05 acres of land.

FLOOD ZONE DEFINITIONS: ----------
F.I.R.M. 48121C0285G, dated April 18, 2011

Zone 'X' - "Areas determined to be outside the 0.2% annual chance floodplain."

Zone 'A' - "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."

Note: Corresponding to Schedule B:

(B.I.) Easement to T.P.& L., Vol. 157, Pg. 9 - May affect, not located due to vague description. Above ground and visible evidence of electric lines shown hereon.
(B.J.) Easement to Cooke County Electric, Vol. 493, Pg. 78 - Blanket. Above ground and visible evidence of electric lines shown hereon.

Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"

CERTIFIED TO: Ronald K. Slama & Leslie R. Slama, LG Land Group, LLC, and Fidelity National Title Insurance Company.

The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of January, 2021; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.

January 21, 2021
Revised, 1-28-2021
Add Sch. B Info

Matthew Bushy
R.P.L.S. No. 5751

BOUNDARY SURVEY

64.05 ACRES
F. TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

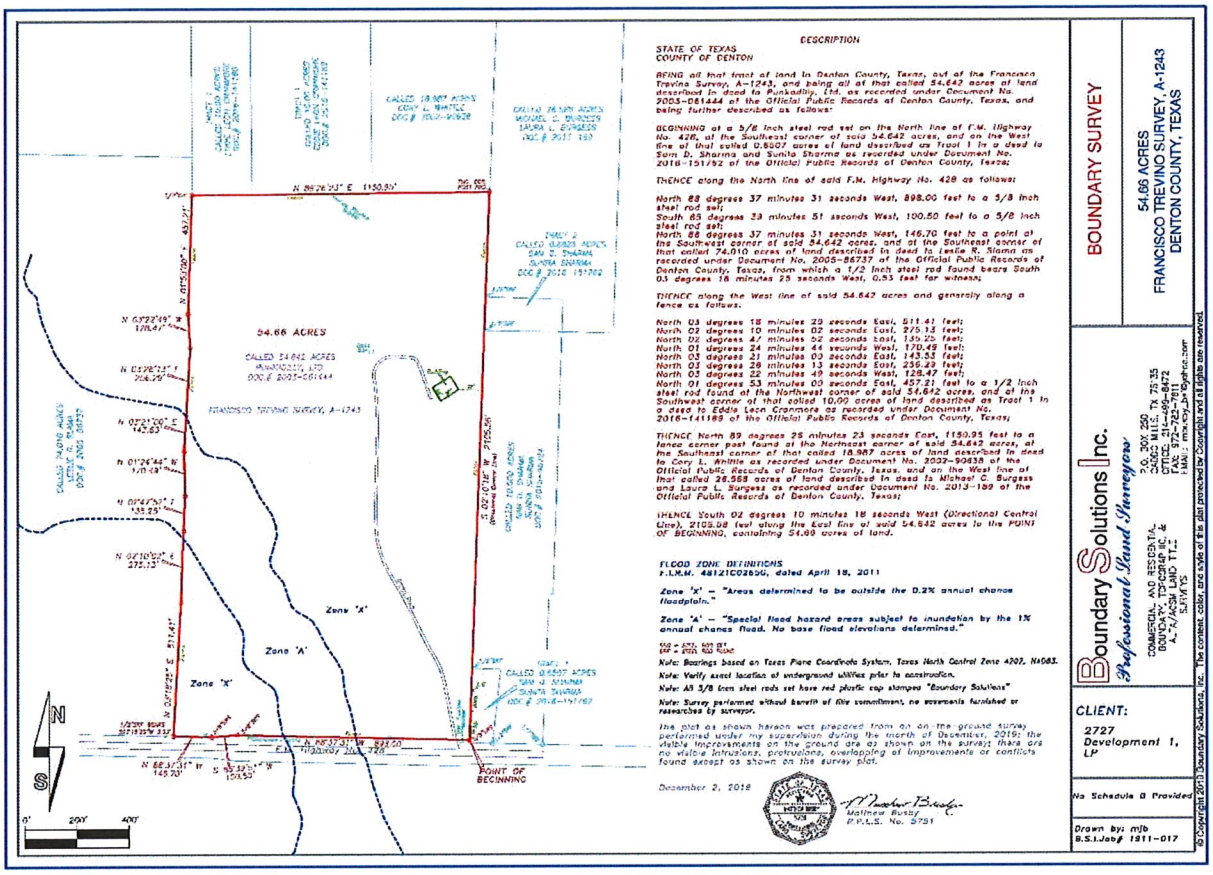
Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 220
CORINTH, TX 76205
OFFICE: 214-455-8472
FAX: 972-780-7611
EMAIL: mbushy@sbcglobal.net
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, & ALTA/ACSM LAND TITLE SURVEYS

CLIENT:
LG Land Group

G.F.# 9001222003837
Address:
2085 Spring Hill Road

Drawn by: mjb
B.S.I. Job# 2101-031

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DESCRIPTION
STATE OF TEXAS
COUNTY OF DENTON
BEING all that tract of land in Denton County, Texas, out of the Francisco Trevino Survey, A-1243, and being all of that called 54.642 acres of land described in deed to Punkadilly, Ltd. as recorded under Document No. 2003-081444 of the Official Public Records of Denton County, Texas, and being further described as follows:
BEGINNING at a 5/8 inch steel rod set on the North line of F.M. Highway No. 428, at the Southeast corner of said 54.642 acres, and on the West line of that called 0.5507 acres of land described as Tract 1 in a deed to Sam D. Sharma and Sunita Sharma as recorded under Document No. 2016-151752 of the Official Public Records of Denton County, Texas;
THENCE along the North line of said F.M. Highway No. 428 as follows:
North 88 degrees 37 minutes 31 seconds West, 898.00 feet to a 5/8 inch steel rod set;
South 85 degrees 33 minutes 51 seconds West, 100.50 feet to a 5/8 inch steel rod set;
North 88 degrees 37 minutes 31 seconds West, 146.70 feet to a point at the Southwest corner of said 54.642 acres, and at the Southeast corner of that called 74.010 acres of land described in deed to Leslie R. Sloma as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, from which a 1/2 inch steel rod found bears South 03 degrees 18 minutes 25 seconds West, 0.55 feet for witness;
THENCE along the West line of said 54.642 acres and generally along a fence as follows:
North 03 degrees 18 minutes 29 seconds East, 511.41 feet;
North 02 degrees 10 minutes 02 seconds East, 275.13 feet;
North 02 degrees 47 minutes 52 seconds East, 139.25 feet;
North 01 degrees 24 minutes 44 seconds West, 170.49 feet;
North 03 degrees 21 minutes 03 seconds East, 143.53 feet;
North 03 degrees 29 minutes 13 seconds East, 256.49 feet;
North 03 degrees 22 minutes 49 seconds West, 128.47 feet;
North 01 degrees 53 minutes 09 seconds East, 457.21 feet to a 1/2 inch steel rod found at the Northwest corner of said 54.642 acres, and at the Southwest corner of that called 10.00 acres of land described as Tract 1 in a deed to Eddie Leon Cranmore as recorded under Document No. 2016-141188 of the Official Public Records of Denton County, Texas;
THENCE North 89 degrees 25 minutes 23 seconds East, 1150.95 feet to a fence corner post found at the Northeast corner of said 54.642 acres, at the Southeast corner of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded under Document No. 2007-90838 of the Official Public Records of Denton County, Texas, and on the West line of that called 26.568 acres of land described in deed to Michael C. Burgess and Laura L. Burgess as recorded under Document No. 2013-139 of the Official Public Records of Denton County, Texas;
THENCE South 02 degrees 10 minutes 18 seconds West (Directional Control Line), 2105.58 feet along the East line of said 54.642 acres to the POINT OF BEGINNING, containing 54.66 acres of land.
FLOOD ZONE DEFINITIONS
F.I.R.M. 48121C0265G, dated April 18, 2011
Zone 'X' – "Areas determined to be outside the 0.2% annual chance floodplain."
Zone 'A' – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."
Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.
Note: Verify exact location of underground utilities prior to construction.
Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"
Note: Survey performed without benefit of title commitment, no easements furnished or researches by surveyor.
The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of December, 2018; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.
December 2, 2018
Matthew Busby
R.P.L.S. No. 5751
54.66 ACRES
CALLED 54.642 ACRES
PUNKADILLY, LTD
DOC.# 2003-081444
FRANCISCO TREVINO SURVEY, A-1243
Zone 'X'
Zone 'A'
POINT OF BEGINNING
BOUNDARY SURVEY
54.66 ACRES
FRANCISCO TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 250
ARGYLE, TX 76235
OFFICE: 214-686-8472
FAX: 972-723-7911
EMAIL: mike@bsitexas.com
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC &
A.L.T.A./ACSM LAND TITLE
SURVEYS
CLIENT:
2727 Development 1, LP
No Schedule B Provided
Drawn by: mjb
B.S.I.Job# 1911-017
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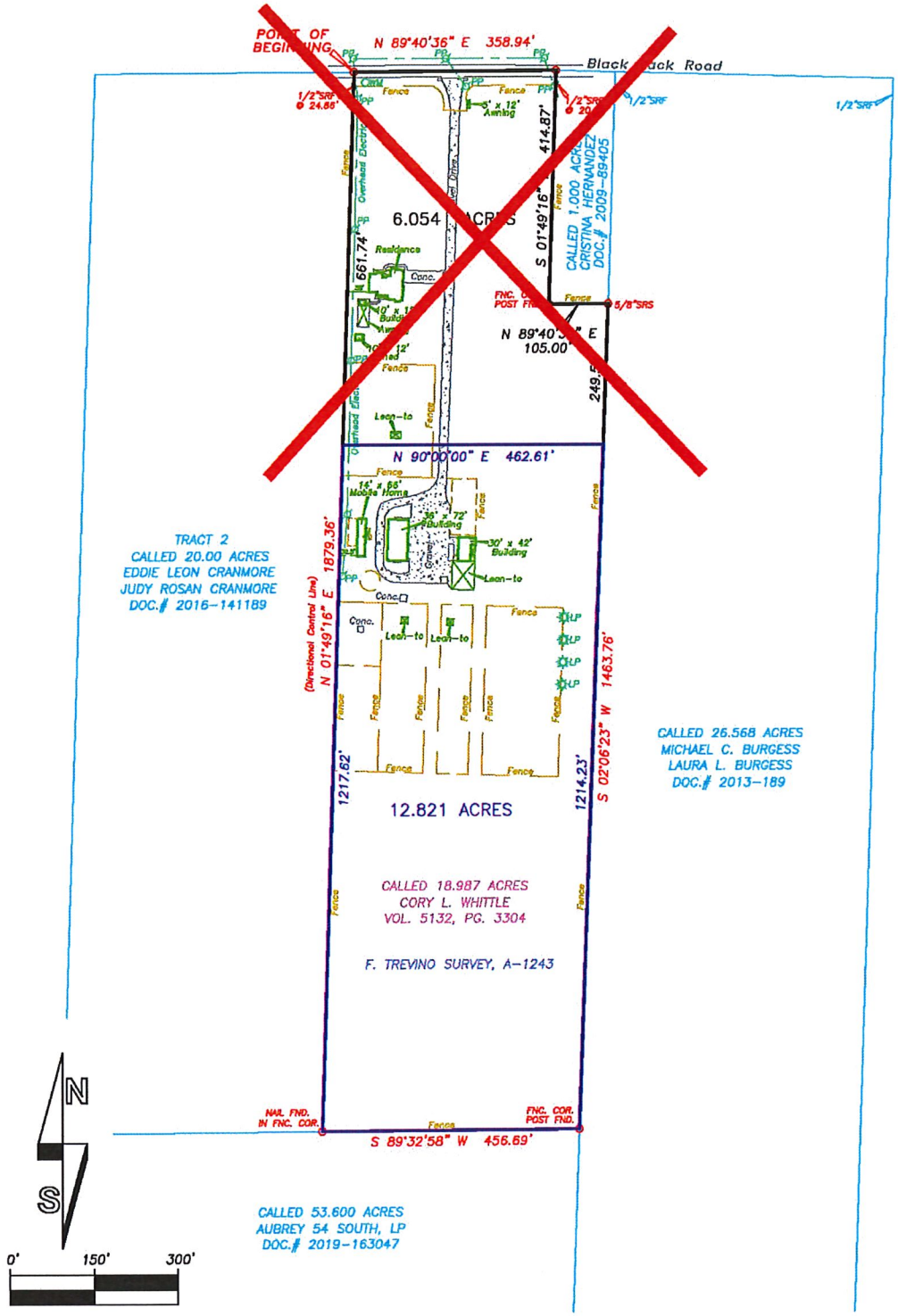

POINT OF BEGINNING
N 89°40'36" E 358.94'
Black Jack Road
1/2"SRF
1/2"SRF
1/2"SRF
414.87'
S 01°49'16" E
CALLED 1.000 ACRE
CRISTINA HERNANDEZ
DOC.# 2009-89405
6.054 ACRES
Residence
Conc.
Fence
Overhead Electric
Ditch
661.74'
5/8"SRS
N 89°40'36" E
105.00'
249.5'
Lean-to
N 90°00'00" E 462.61'
14' x 66' Mobile Home
36' x 72' Building
30' x 42' Building
Lean-to
Conc.
Lean-to
Lean-to
LP
TRACT 2
CALLED 20.00 ACRES
EDDIE LEON CRANMORE
JUDY ROSAN CRANMORE
DOC.# 2016-141189
(Directional Control Line)
N 01°49'16" E 1879.36'
1217.62'
1214.23'
S 02°06'23" W 1463.76'
12.821 ACRES
CALLED 26.568 ACRES
MICHAEL C. BURGESS
LAURA L. BURGESS
DOC.# 2013-189
CALLED 18.987 ACRES
CORY L. WHITTLE
VOL. 5132, PG. 3304
F. TREVINO SURVEY, A-1243
NAIL FND. IN FNC. COR.
FNC. COR. POST FND.
S 89°32'58" W 456.69'
CALLED 53.600 ACRES
AUBREY 54 SOUTH, LP
DOC.# 2019-163047
N
S
0'
150'
300'

EXHIBIT "A"
Legal Description

Being all the tract of land in Denton County, Texas, out of the I. Trevino Survey, A-1243, and being part of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded in Volume 5132, page 3304 of the Official Public Records of Denton County, Texas, and being further described as follows:

COMMENCING at a point in the center of Black Jack Road, at the Northwest corner of said 18.987 acre, and at the Northeast corner of that called 20.00 acres of land described as Tract 2 in deed to Eddie Leon Cranmore and Judy Rosan Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas, from which a ½ inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.86 feet for Witness;

THENCE South 01 degrees 49 minutes 16 seconds West, 661.74 feet along the West line of said 18.987 acre to the POINT OF BEGINNING.

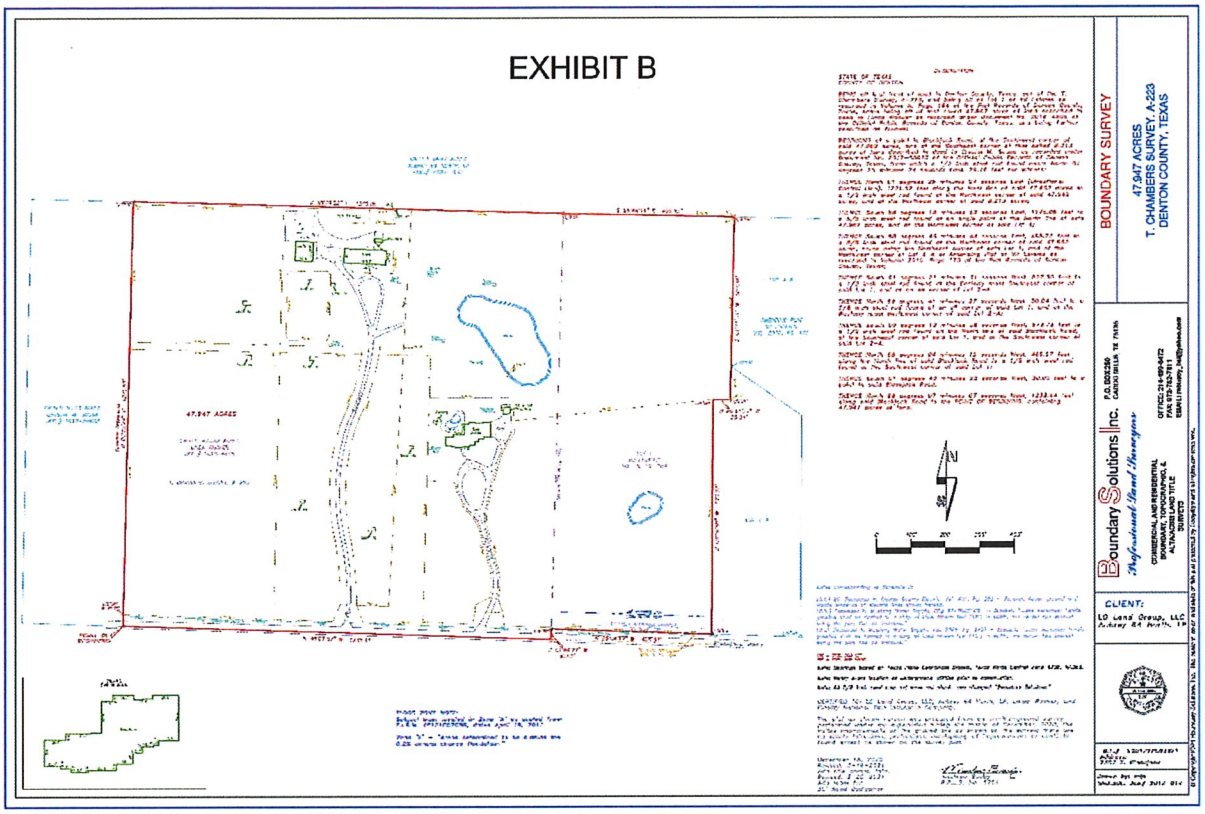
THENCE North 90 degrees 00 minutes 00 seconds East, 462.61 feet to a point on the East line of said 18.987 acres;

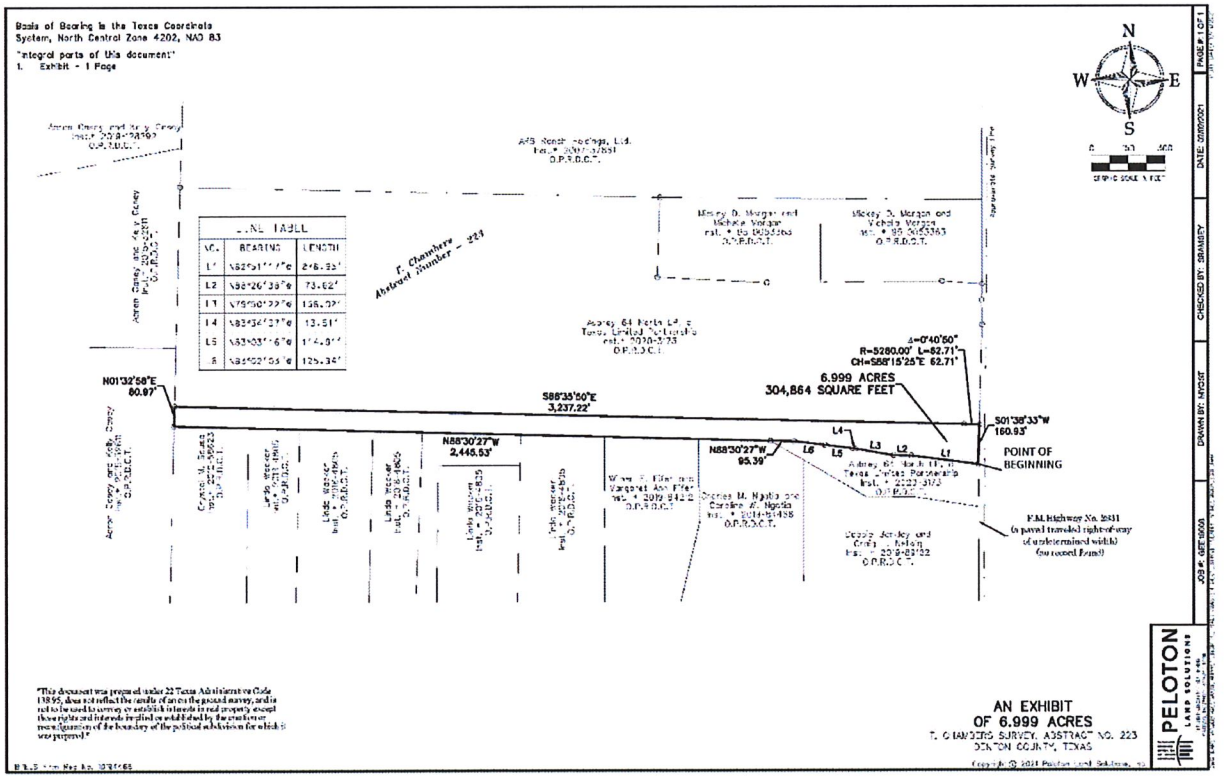
THENCE South 02 degrees 06 minutes 23 seconds West, 1214.23 feet to a fence corner post found at the southeast corner of said 18.987 acre, and at an angle point of said 25.588 acres;

THENCE South 89 degrees 32 minutes 58 seconds West, 456.69 feet a nail found in fence corner at the Southwest corner of said 18.987 acres, and at the Southeast corner of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East (Directional Control Line), 1217.62 feet along the West line of said 18.987 acre to the POINT OF BEGINNING, containing 12.821 acre of land.

NOTE: COMPANY DOES NOT REPRESENT THAT THE ABOVE ACREAGE AND/OR SQUARE FOOTAGE CALCULATIONS ARE CORRECT.


EXHIBIT B
BOUNDARY SURVEY
47.947 ACRES
T. CHAMBERS SURVEY, A-223
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
CLIENT:


Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83
"integral parts of this document"
1. Exhibit - 1 Page
LINE TABLE
NO. BEARING LENGTH
L1 S82°51'17"E 246.93'
L2 S88°26'39"E 73.62'
L3 N75°50'22"E 136.02'
L4 S83°34'27"E 13.51'
L5 S83°03'16"E 114.87'
L6 S85°02'03"E 125.34'
T. Chambers Abstract Number - 223
N01°32'58"E 80.97'
S88°35'50"E 3,237.22'
N88°30'27"W 2,446.53'
N88°30'27"W 95.39'
Δ=0°40'50"
R=5280.00' L=62.71'
CH=S88°15'25"E 62.71'
6.999 ACRES
304,864 SQUARE FEET
S01°38'33"W 160.93'
POINT OF BEGINNING
F.M. Highway No. 2931
(a panel traveled right-of-way of undetermined width)
(no record found)
N
W
E
S
AN EXHIBIT
OF 6.999 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS
PELOTON
LAND SOLUTIONS

DESCRIPTION OF 6.999 ACRES

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY SOUTHEAST CORNER OF SAID AUBREY TRACT AND BEING IN THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH);

THENCE DEPARTING SAID WEST RIGHT-OF-WAY LINE OVER AND ACROSS SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

N 82° 51' 17" W, 278.95 FEET;

N 88° 26' 38" W, 73.62 FEET;

N 79° 50' 22" W, 156.02 FEET;

N 83° 34' 37" W, 13.51 FEET;

N 83° 03' 16" W, 114.91 FEET;

N 83° 02' 03" W, 125.94 FEET;

N 88° 30' 27" W, 95.39 FEET TO THE SOUTH LINE OF SAID AUBREY TRACT AND BEING THE MOST NORTHERLY NORTHEAST CORNER OF A TRACT OF LAND TO CHARLES NGATIA RECORDED IN INSTRUMENT NUMBER 2019-84466 OF SAID O.P.R.D.C.T;

THENCE N 88° 30' 27" W, 2445.53 FEET ALONG SAID SOUTH LINE TO THE SOUTHWEST CORNER OF SAID AUBREY TRACT;

THENCE N 01° 32' 58" E, 80.97 FEET ALONG THE WEST LINE OF SAID AUBREY TRACT;

THENCE DEPARTING THE WEST LINE OF SAID AUBREY TRACT OVER AND ACROSS THE FOLLOWING BEARINGS AND DISTANCES:

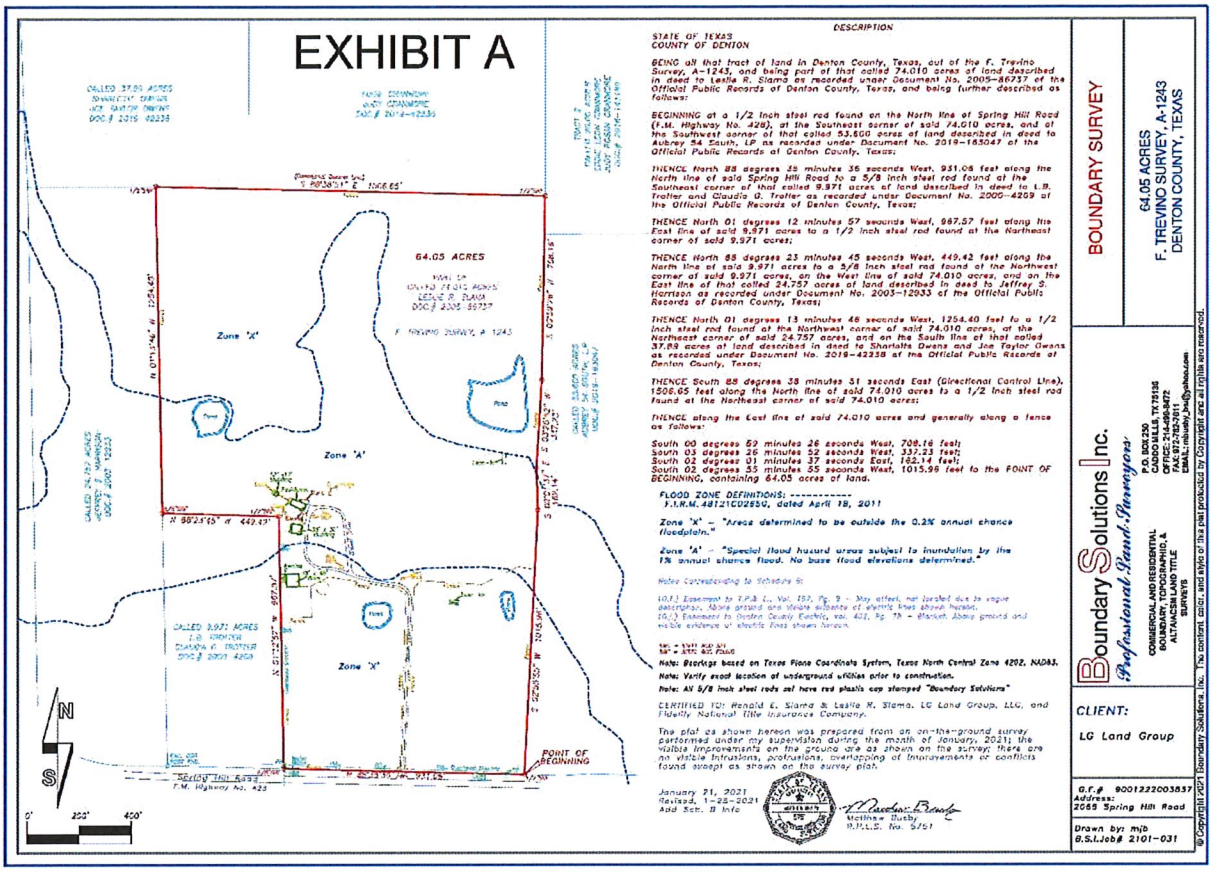
S 88° 35' 50" E, 3237.22 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT;

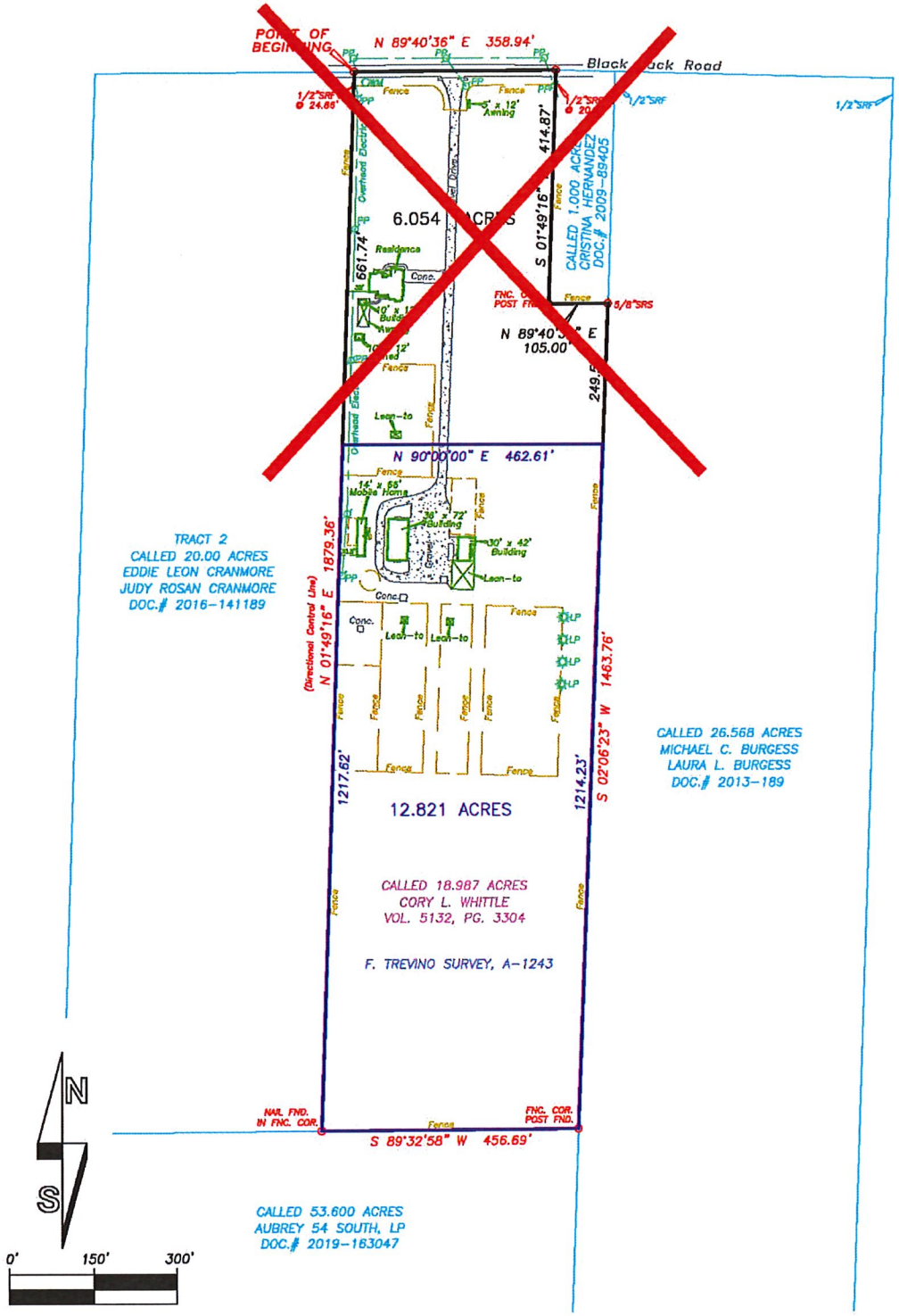
WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 62.71 FEET, THROUGH A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5280.00 FEET, AND A LONG CHORD WHICH BEARS S 88° 15' 25" E, 62.71 FEET TO THE WEST LINE OF SAID F.M. 2931;

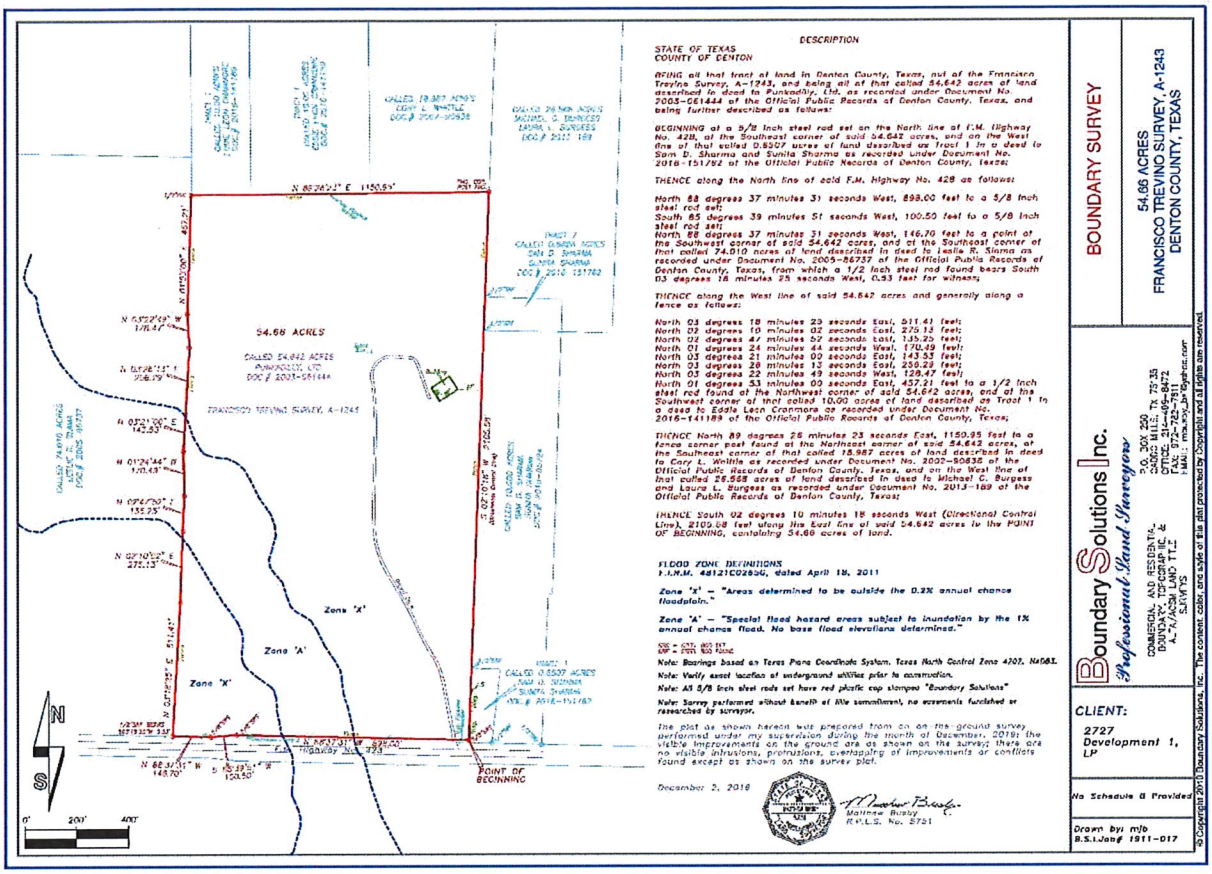
THENCE S 01° 38' 33" W, 160.93 FEET TO THE POINT OF BEGINNING AND CONTAINING 304,864 SQUARE FEET OR 6.999 ACRES MORE OR LESS.

"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

Exhibit "B" to Consent Resolution
Property Description


EXHIBIT A
64.05 ACRES
F. TREVINO SURVEY, A-1243
Zone 'A'
Zone 'X'
POINT OF BEGINNING
DESCRIPTION
STATE OF TEXAS
COUNTY OF DENTON
BEING all that tract of land in Denton County, Texas, out of the F. Trevino Survey, A-1243, and being part of that called 74.010 acres of land described in deed to Leslie R. Slama as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, and being further described as follows:
BEGINNING at a 1/2 inch steel rod found on the North line of Spring Hill Road (F.M. Highway No. 428), at the Southeast corner of said 74.010 acres, and at the Southwest corner of that called 53.600 acres of land described in deed to Aubrey 84 South, LP as recorded under Document No. 2019-163047 of the Official Public Records of Denton County, Texas;
THENCE North 88 degrees 25 minutes 35 seconds West, 931.08 feet along the North line of said Spring Hill Road to a 5/8 inch steel rod found at the Southeast corner of that called 9.971 acres of land described in deed to L.B. Trotter and Claudia G. Trotter as recorded under Document No. 2005-4259 of the Official Public Records of Denton County, Texas;
THENCE North 01 degrees 12 minutes 57 seconds West, 987.57 feet along the East line of said 9.971 acres to a 1/2 inch steel rod found at the Northeast corner of said 9.971 acres;
THENCE North 88 degrees 23 minutes 45 seconds West, 449.42 feet along the North line of said 9.971 acres to a 5/8 inch steel rod found at the Northwest corner of said 9.971 acres, on the West line of said 74.010 acres, and on the East line of that called 24.757 acres of land described in deed to Jeffrey S. Harrison as recorded under Document No. 2003-12933 of the Official Public Records of Denton County, Texas;
THENCE North 01 degrees 13 minutes 46 seconds West, 1254.40 feet to a 1/2 inch steel rod found at the Northwest corner of said 74.010 acres, at the Northeast corner of said 24.757 acres, and on the South line of that called 37.88 acres of land described in deed to Charlotte Owens and Joe Taylor Owens as recorded under Document No. 2019-42358 of the Official Public Records of Denton County, Texas;
THENCE South 88 degrees 38 minutes 51 seconds East (Directional Control Line), 1506.65 feet along the North line of said 74.010 acres to a 1/2 inch steel rod found at the Northeast corner of said 74.010 acres;
THENCE along the East line of said 74.010 acres and generally along a fence as follows:
South 00 degrees 59 minutes 26 seconds West, 708.16 feet;
South 03 degrees 26 minutes 52 seconds West, 337.23 feet;
South 02 degrees 01 minutes 37 seconds East, 182.14 feet;
South 02 degrees 35 minutes 55 seconds West, 1015.98 feet to the POINT OF BEGINNING, containing 64.05 acres of land.
FLOOD ZONE DEFINITIONS:
F.I.R.M. 48121C0225G, dated April 18, 2011
Zone 'X' – "Areas determined to be outside the 0.2% annual chance floodplain."
Zone 'A' – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."
Notes Corresponding to Schedule B:
10.) Easement to T.P.S. (L. Vol. 157, Pg. 9 - May affect, not located due to vague description, above ground and visible evidence of electric lines shown hereon.
15.) Easement to Denton County Electric, Vol. 421, Pg. 79 - Blanket. Above ground and visible evidence of electric lines shown hereon.
Note: Bearings based on Texas State Coordinate System, Texas North Central Zone 4202, NAD83.
Note: Verify exact location of underground utilities prior to construction.
Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"
CERTIFIED TO: Ronald E. Slama & Leslie R. Slama, LG Land Group, LLC, and Fidelity National Title Insurance Company.
The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of January, 2021; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.
January 21, 2021
Revised, 1-25-2021
Add Sch. B Info
Matthew Busby
R.P.L.S. No. 5751
BOUNDARY SURVEY
64.05 ACRES
F. TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 220
AUBREY, TEXAS 76227
OFFICE: 940.440.1272
FAX: 972-782-7611
EMAIL: mbusby_bs@yahoo.com
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, &
ALTA/ACSM LAND TITLE
SURVEYS
CLIENT:
LG Land Group
G.F.# 9001222003837
Address:
2065 Spring Hill Road
Drawn by: mjb
B.S.I.Job# 2101-031
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POINT OF BEGINNING
N 89°40'36" E 358.94'
Black Jack Road
1/2"SRF @ 24.65'
1/2"SRF
1/2"SRF
414.87'
S 01°49'16" E
CALLED 1.000 ACRES
CRISTINA HERNANDEZ
DOC.# 2009-89405
6.054 ACRES
661.74'
Residence
Conc.
5/8"SRS
N 89°40'36" E
105.00'
249.5'
N 90°00'00" E 462.61'
14' x 56' Mobile Home
30' x 72' Building
30' x 42' Building
Lean-to
Conc.
Gravel
1879.36'
N 01°49'16" E
(Directional Control Line)
1463.76'
S 02°06'23" W
1217.62'
1214.23'
12.821 ACRES
TRACT 2
CALLED 20.00 ACRES
EDDIE LEON CRANMORE
JUDY ROSAN CRANMORE
DOC.# 2016-141189
CALLED 26.568 ACRES
MICHAEL C. BURGESS
LAURA L. BURGESS
DOC.# 2013-189
CALLED 18.987 ACRES
CORY L. WHITTLE
VOL. 5132, PG. 3304
F. TREVINO SURVEY, A-1243
NAIL FND. IN FNC. COR.
FNC. COR. POST FND.
S 89°32'58" W 456.69'
CALLED 53.600 ACRES
AUBREY 54 SOUTH, LP
DOC.# 2019-163047
N
S
0'
150'
300'



DESCRIPTION

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the Francisco Trevino Survey, A-1243, and being all of that called 54.642 acres of land described in deed to Punkadilly, Ltd. as recorded under Document No. 2003-261444 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 5/8 inch steel rod set on the North line of F.M. Highway No. 428, at the Southeast corner of said 54.642 acres, and on the West line of that called 0.8507 acres of land described as Tract 1 in a deed to Sam D. Sharma and Sunita Sharma as recorded under Document No. 2016-151782 of the Official Public Records of Denton County, Texas;

THENCE along the North line of said F.M. Highway No. 428 as follows:

North 88 degrees 37 minutes 31 seconds West, 898.00 feet to a 5/8 inch steel rod set;
South 85 degrees 39 minutes 51 seconds West, 100.50 feet to a 5/8 inch steel rod set;
North 88 degrees 37 minutes 31 seconds West, 146.70 feet to a point at the Southwest corner of said 54.642 acres, and at the Southeast corner of that called 74.010 acres of land described in deed to Leslie R. Sharma as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, from which a 1/2 inch steel rod found bears South 03 degrees 18 minutes 25 seconds West, 0.53 feet for witness;

THENCE along the West line of said 54.642 acres and generally along a fence as follows:

North 03 degrees 18 minutes 25 seconds East, 511.41 feet;
North 02 degrees 10 minutes 02 seconds East, 275.15 feet;
North 02 degrees 47 minutes 52 seconds East, 145.23 feet;
North 01 degrees 24 minutes 44 seconds West, 170.49 feet;
North 03 degrees 21 minutes 00 seconds East, 143.53 feet;
North 03 degrees 26 minutes 13 seconds East, 258.29 feet;
North 03 degrees 22 minutes 49 seconds West, 128.47 feet;
North 01 degrees 53 minutes 00 seconds East, 457.21 feet to a 1/2 inch steel rod found at the Northwest corner of said 54.642 acres, and at the Southwest corner of that called 10.00 acres of land described as Tract 1 in a deed to Eddie Lee Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas;

THENCE North 89 degrees 28 minutes 23 seconds East, 1150.95 feet to a fence corner post found at the Northeast corner of said 54.642 acres, at the Southeast corner of that called 15.987 acres of land described in deed to Cary L. Wrinkle as recorded under Document No. 2003-80838 of the Official Public Records of Denton County, Texas, and on the West line of that called 29.969 acres of land described in deed to Michael C. Burgess and Laura L. Burgess as recorded under Document No. 2013-169 of the Official Public Records of Denton County, Texas;

THENCE South 02 degrees 10 minutes 18 seconds West (Directional Control Line), 2109.08 feet along the East line of said 54.642 acres to the POINT OF BEGINNING, containing 54.66 acres of land.

FLOOD ZONE DEFINITIONS
F.I.R.M. 48121C0280G, dated April 18, 2011

Zone 'X' – "Areas determined to be outside the 0.2% annual chance floodplain."

Zone 'A' – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."

SSE = GRID BRG INT
SSF = GRID BRG DIST

Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"

Note: Survey performed without benefit of title commitment, no easements furnished or researched by surveyor.

The plot as shown hereon was prepared from an on the ground survey performed under my supervision during the month of December, 2018; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.

December 2, 2018

Matthew Bisby
R.P.L.S. No. 5751

BOUNDARY SURVEY

54.66 ACRES
FRANCISCO TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions Inc.
Professional Land Surveyors
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC &
A.L.T.A./ACSM LAND TITLE
SURVEYS

P.O. BOX 250
ADDIE, TEXAS 76351
OFFICE: 940-498-8472
FAX: 972-782-7811
EMAIL: mbisby_bs@yahoo.com

CLIENT:
2727 Development 1, LP

No Schedule B Provided

Drawn by: mlb
B.S.I.Job# 1911-017

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EXHIBIT "A"
Legal Description

Being all the tract of land in Denton County, Texas, out of the I. Trevino Survey, A-1243, and being part of that called 18.987 acres of land described in deed to Cory L. Wittle as recorded in Volume 5132, page 3304 of the Official Public Records of Denton County, Texas, and being further described as follows:

COMMENCING at a point in the center of Black Jack Road, at the Northwest corner of said 18.987 acre, and at the Northeast corner of that called 20.00 acres of land described as Tract 2 in deed to Eddie Leon Cranmore and Judy Rosan Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas, from which a ½ inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.85 feet for Witness;

THENCE South 01 degrees 49 minutes 16 seconds West, 661.74 feet along the West line of said 18.987 acre to the POINT OF BEGINNING.

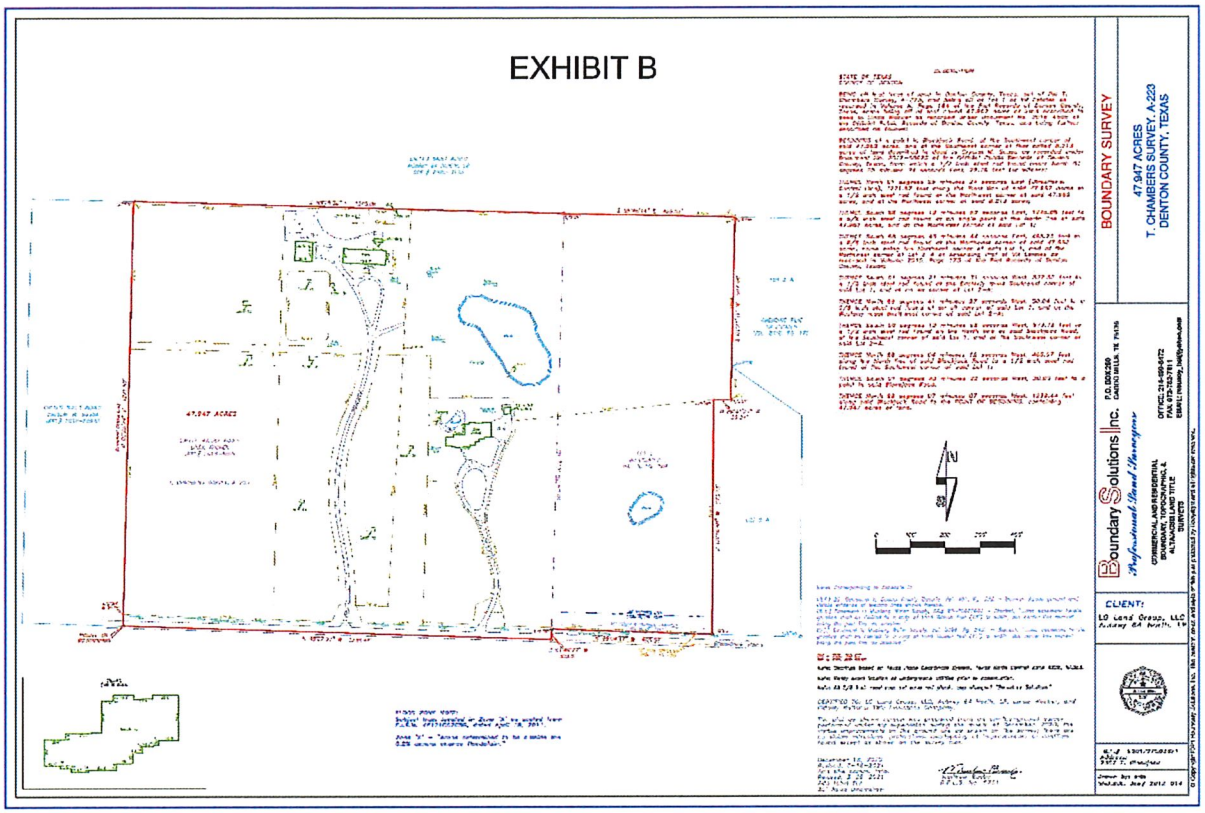
THENCE North 90 degrees 00 minutes 00 seconds East, 462.61 feet to a point on the East line of said 18.987 acres;

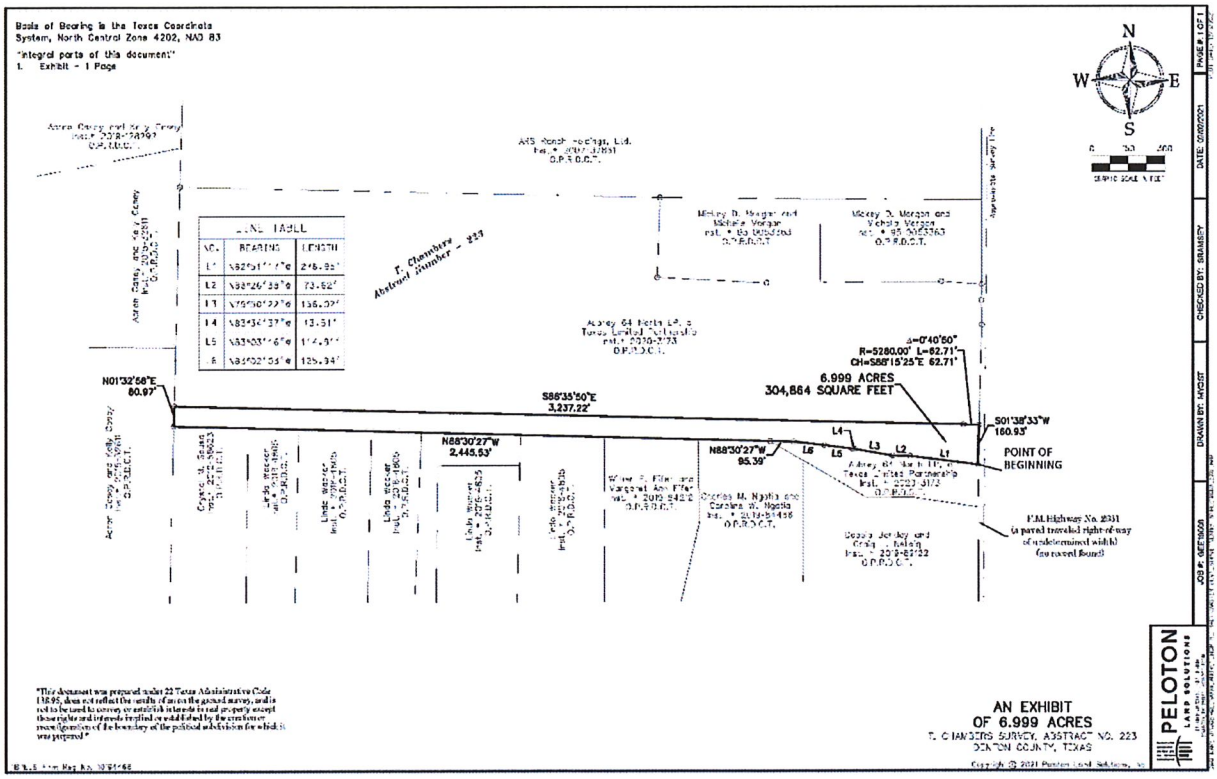
THENCE South 02 degrees 06 minutes 23 seconds West, 1214.23 feet to a fence corner post found at the southeast corner of said 18.987 acre, and at an angle point of said 26.588 acres;

THENCE South 89 degrees 32 minutes 58 seconds West, 456.69 feet a nail found in fence corner at the Southwest corner of said 18.987 acres, and at the Southeast corner of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East (Directional Control Line), 1217.62 feet along the West line of said 18.987 acre to the POINT OF BEGINNING, containing 12.821 acre of land.

NOTE: COMPANY DOES NOT REPRESENT THAT THE ABOVE ACREAGE AND/OR SQUARE FOOTAGE CALCULATIONS ARE CORRECT.


EXHIBIT B
BOUNDARY SURVEY
47.947 ACRES
T. CHAMBERS SURVEY, A-223
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
Professional Land Surveyors
CLIENT:
LO Land Group, LLC
Abstract 64 Parts 1 &
47.947 ACRES


Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83
"Integral parts of this document"
1. Exhibit - 1 Page
LINE TABLE
NO. BEARING LENGTH
L1 S82°51'17"E 246.93'
L2 S38°26'39"E 73.62'
L3 S75°50'22"E 136.09'
L4 S83°34'37"E 13.51'
L5 S83°03'16"E 114.91'
L6 S85°02'03"E 125.94'
T. Chambers Abstract Number - 223
Abney 64 Parts 1&2, a Texas Limited Partnership
Inst. # 2020-3773
O.P.R.D.C.T.
N01°32'56"E 80.97'
S88°35'50"E 3,237.22'
N88°30'27"W 2,445.53'
N88°30'27"W 95.39'
S01°38'33"W 160.93'
R=5280.00' L=82.71'
CH=S88°15'25"E 82.71'
6.999 ACRES
304,864 SQUARE FEET
POINT OF BEGINNING
F.M. Highway No. 2931
(a paved two-lane right-of-way of undetermined width) (no gravel found)
"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."
AN EXHIBIT
OF 6.999 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS
PELOTON LAND SOLUTIONS

DESCRIPTION OF 6.999 ACRES

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY SOUTHEAST CORNER OF SAID AUBREY TRACT AND BEING IN THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH);

THENCE DEPARTING SAID WEST RIGHT-OF-WAY LINE OVER AND ACROSS SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

N 82° 51' 17" W, 278.95 FEET;

N 88° 26' 38" W, 73.62 FEET;

N 79° 50' 22" W, 156.02 FEET;

N 83° 34' 37" W, 13.51 FEET;

N 83° 03' 16" W, 114.91 FEET;

N 83° 02' 03" W, 125.94 FEET;

N 88° 30' 27" W, 95.39 FEET TO THE SOUTH LINE OF SAID AUBREY TRACT AND BEING THE MOST NORTHERLY NORTHEAST CORNER OF A TRACT OF LAND TO CHARLES NGATIA RECORDED IN INSTRUMENT NUMBER 2019-84466 OF SAID O.P.R.D.C.T;

THENCE N 88° 30' 27" W, 2445.53 FEET ALONG SAID SOUTH LINE TO THE SOUTHWEST CORNER OF SAID AUBREY TRACT;

THENCE N 01° 32' 58" E, 80.97 FEET ALONG THE WEST LINE OF SAID AUBREY TRACT;

THENCE DEPARTING THE WEST LINE OF SAID AUBREY TRACT OVER AND ACROSS THE FOLLOWING BEARINGS AND DISTANCES:

S 88° 35' 50" E, 3237.22 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT;

WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 62.71 FEET, THROUGH A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5280.00 FEET, AND A LONG CHORD WHICH BEARS S 88° 15' 25" E, 62.71 FEET TO THE WEST LINE OF SAID F.M. 2931;

THENCE S 01° 38' 33" W, 160.93 FEET TO THE POINT OF BEGINNING AND CONTAINING 304,864 SQUARE FEET OR 6.999 ACRES MORE OR LESS.

"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

EXHIBIT E

CONCEPT PLAN

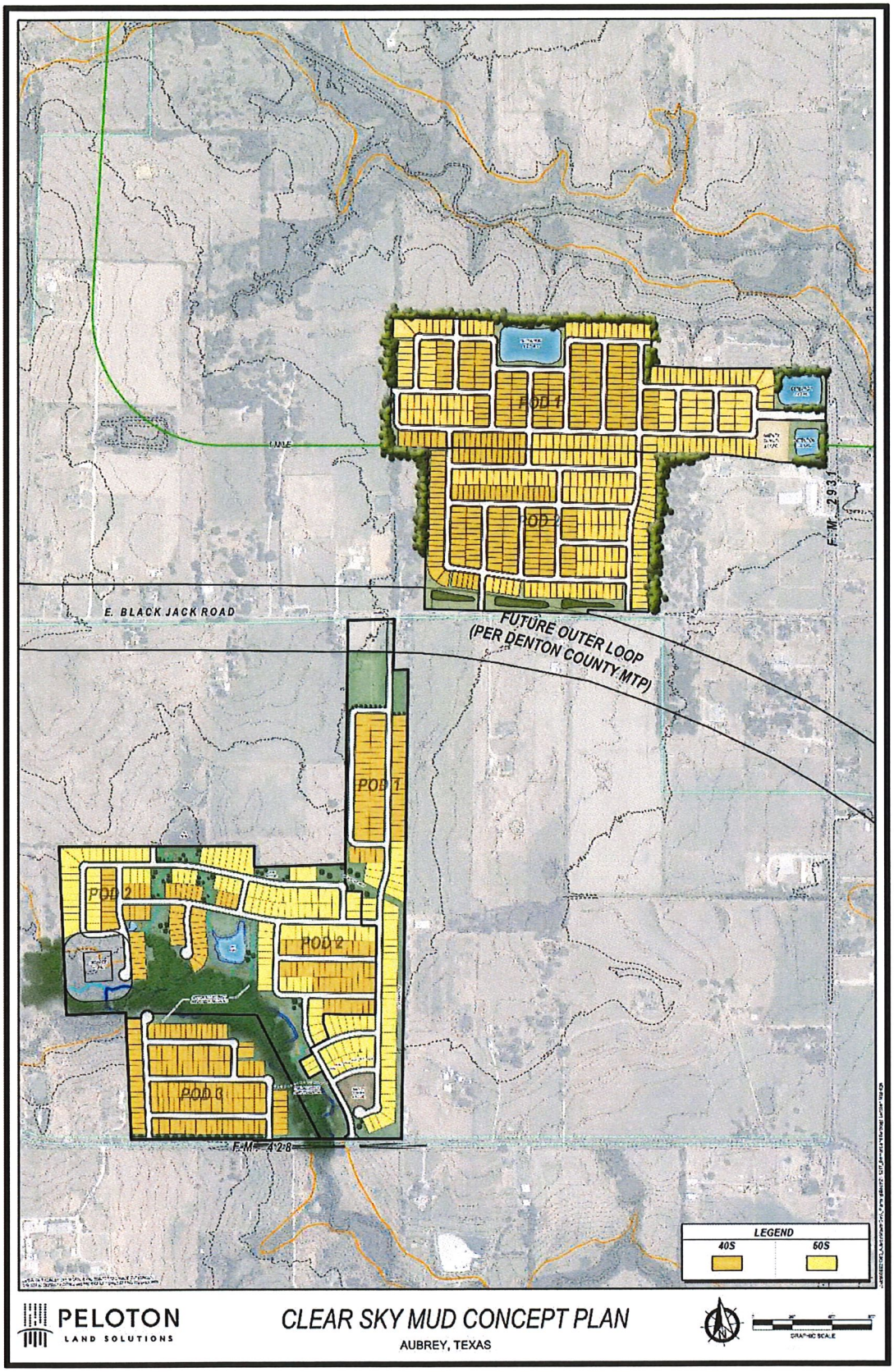

POD 1
POD 2
E. BLACK JACK ROAD
FUTURE OUTER LOOP
(PER DENTON COUNTY MTP)
F.M. 2931
POD 1
POD 2
POD 2
POD 3
F.M. 428
LEGEND
40S
60S
PELOTON
LAND SOLUTIONS
CLEAR SKY MUD CONCEPT PLAN
AUBREY, TEXAS

EXHIBIT F
SPECIAL REGULATIONS

1. Development Standards

1.1 Purpose is to provide suitable areas for the development of single-family residential structures.

1.2 Lot Standards for 40' wide lots Fee-Simple, Detached Single-Family Homes):
- a) Minimum Lot width of 40'
- b) Minimum Lot Depth of 110'
- c) Front Yard Setback of 20'
- d) Rear Yard Setback of 10'
- e) Side Yard Setback of 5'

1.3 Lot Standards for 50' wide lots Fee-Simple, Detached Single-Family Homes):
- a) Minimum Lot width of 50'
- b) Minimum Lot Depth of 110'
- c) Front Yard Setback of 20'
- d) Rear Yard Setback of 10'
- e) Side Yard Setback of 5'

1.4 Maximum Lot Coverage:
(a) 40' Wide Lots 55%
b) 50' Wide Lots: 60%

1.5 Minimum Floor Area per Housing Type:a) 40' Wide Lots: 1,200 sf
b) 50' Wide Lots 1,400 sf

1.6 Maximum Structure Height: 2 stories or a maximum of 45 feet as measured to the midpoint of the pitched roof. Architectural projections above the 45 foot level may be allowed however these may not exceed 60 feet in height.

1.7 Minimum parking requirements: 2 parking spaces per lot to be provided as off-street parking.

1.8 Exterior Construction: 75% percent masonry veneers on all exterior façades of buildings, shall be provided. This requirement may be met using a combination of stucco, stone, brick, split face block, cultured stone, fiber cement siding, or other city approved material (area containing glass shall be included in the 75 percent calculation, except that the front façade of each building shall only use brick and or stone to meet the 75% requirement).

1.9 Architectural Features

2.10.1 Primary Building Structures and Accessory Structures
- a) Building Orientation. Where possible, buildings shall be oriented along public streets so as to create a pleasant walking environment along public sidewalks
- b) Buildings should incorporate a front yard transitional space between the adjacent street(s) and the building(s). This may include a landscape front yard and/or landscape entry court.
- c) Primary entrance should be architecturally significant and separate in height from the remainder of the property.

d) A 2-car garage shall be provided for each unit.

i. 40' Wide Lots: Garages shall be attached or detached. Detached garages shall only be incorporated into a courtyard type model. Attached garages shall be situated so that they are offset from another architectural component (living area or porch). Offsets shall be no more than 5' in front of another architectural component. All garages shall include at least two architectural design elements including, but not limited to: decorative overhang, banding or molding, detailed door design, decorative hardware, double doors, and windows.

ii. 50' Wide Lots: Garages shall be attached and be situated so that they are offset from another architectural component (living area or porch). Offset shall be no more than 5' in front of another architectural component. Garages shall include at least two architectural design elements including, but not limitedto: decorative overhang, banding or molding, detailed door design, decorativehardware, double doors, and windows.

2.10.2 Required Architectural Features

a) Gabled roofs or hipped roofs are allowed. Gabled roofs or hipped roofs shall have a minimum pitch of 6:12 excluding porches and patios.

b) Roof material shall use architectural grade asphalt shingles, or better, such as tile,state or standing seam metal roof.

c) Shutters shall be the same height as the associated window. All shutters shall be louvered, paneled, or constructed of boards as appropriate to the style of the building. Shutters do not need to be operable.

d) Chimneys shall be sheathed in brick, stucco, or cementitious siding.

e) Wooden Posts exposed on the street wall shall be no less than 6 inch by 6 inch in cross section and limited to front and rear porches only.

f) For columns at the front façade, column bases shall not protrude beyond the bottom edge of the porch, stoop, or patio flooring.

1.10 Landscape/Hardscape:

2.11.1 Landscaping: Each lot shall provide one (1) 3" caliper tree and 1 large ornamental (50gallon).

2.11.2 Open Space:

a) All open space lots shall be owned and maintained by the Homeowners Associationunless otherwise noted on a city approved plat.

2.11.3 Entry Features shall be allowed to be constructed in HOA owned and maintainedmedians within the platted subdivision.

2.11.4 The developer shall be allowed, but not required, to include concrete trails, community clubhouse, and playgrounds as deemed suitable for the development.

Case Report –Final Plat Application – Saratoga Phase 2A
Planning and Zoning Commission –May 9, 2024
City Council – May 23, 2024

To: Mayor, City Council, Planning and Zoning Commission

From: Helen-Eve Beadle, AICP, HE Planning+Design, LLC

Request: Consider and make a recommendation to City Council regarding a Final Plat for Saratoga Phase 2A containing 154 residential lots and four (4) open space lots in 31.60 acres of land out of the T. Chambers Survey, Abstract No. 223, within the Extraterritorial Jurisdiction of the City of Aubrey, Denton County, Texas (*HMH Saratoga Land LLC*)

Owner:	HMH Saratoga Land LLC
Engineer:	Westwood Professional Services, Inc. (Erik Hinklin, P.E.)
Application Date:	April 10, 2024
Location:	The property is generally located north of Blackjack Road and west of FM 2931
Zoning:	N/A, the property is in the ETJ (Clear Sky MUD)
Future Land Use Plan:	Rural Residential and Agricultural
Current Use:	Undeveloped

Analysis:

On September 22, 2022 the Aubrey City Council approved a Preliminary Plat for 122.234 acres, 554 single family residential lots, and open space lots. The ±122 acres are being final platted in phases. Phase 2A encompasses 154 residential lots, four (4) open space lots, and one (1) lift station lot.

The property is within ETJ Development Agreement for Clear Sky MUD and the plat is generally consistent with the approved agreement standards.

Utilities:
Water and sanitary sewer service will be provided by Mustang Special Utility District. CoServ and AT&T are providers for this property.

Engineer Review:
The City Engineer has reviewed the civil construction plans and the latest review letter is included in this report.

Recommendation:

The Final Plat for Saratoga Phase 1 is recommended for approval subject to the following conditions:

1. Final engineering approval of civil plans is needed by the City Engineer (review letter included in report);

2. Drainage and access easements identified but not complete with recording information are to be added to the Final Plat prior to filing;
3. HOA documents shall be submitted and approved by the City Attorney and filed in conjunction with the Final Plat;
4. Landscape, Screening, retaining walls, and irrigation plans shall be submitted and approved prior to referenced work commencing;
5. Any existing structures on the property shall be removed prior to site development.

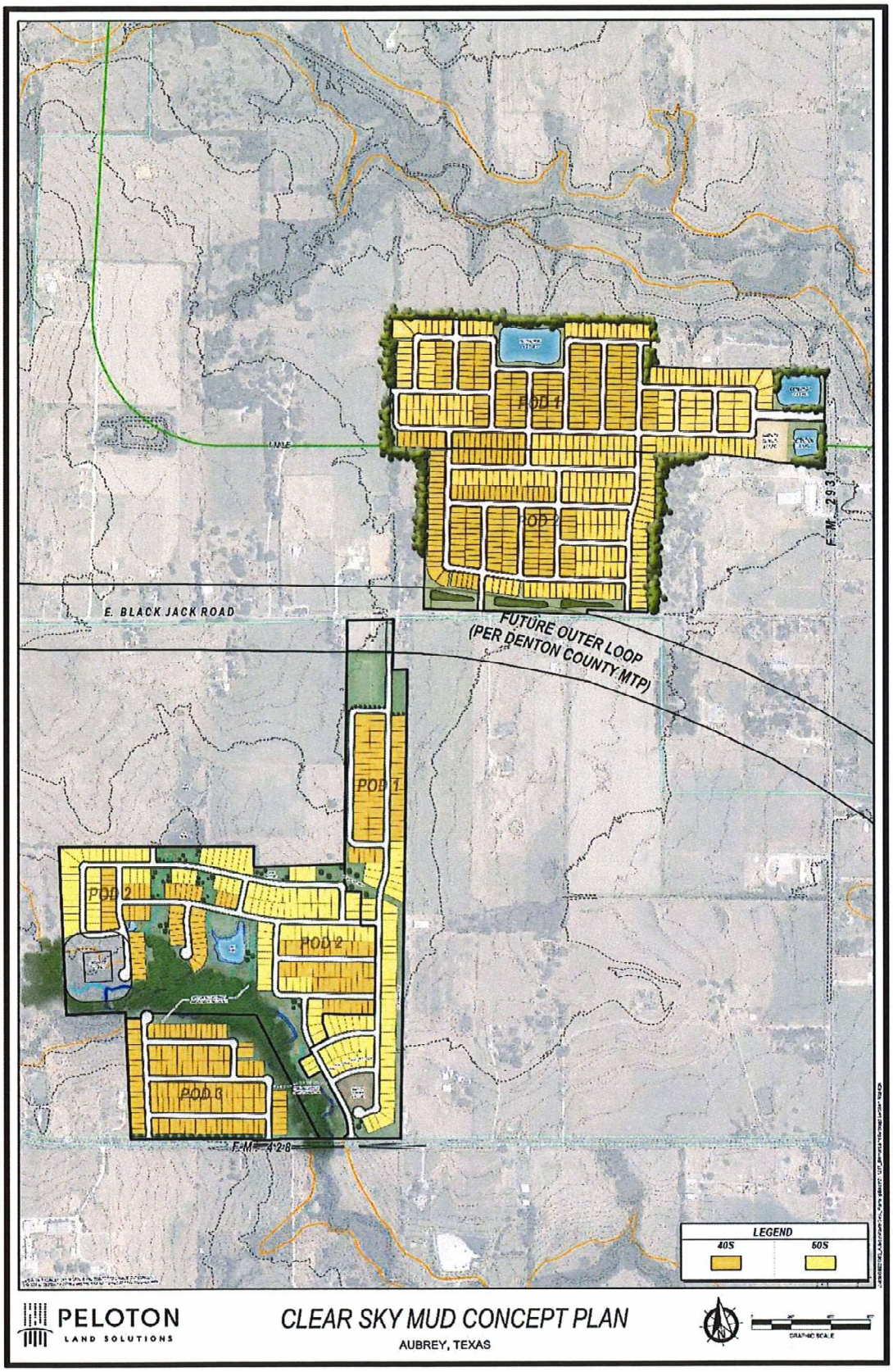
Other requirements for filing: Signed Final Plat, tax certificate for filing, completion of improvements, and filing fees.

The Planning and Zoning Commission may recommend to the City Council

1. Approve the Final Plat;
2. Approve the Final Plat with conditions; or
3. Deny the Final Plat.

Attachments:

1. Clear Sky MUD Saratoga Belmont Concept Plan
2. Engineer's Review Letter
3. Saratoga Phase 2A Final Plat and Civil Engineering Plans
4. ETJ Development Agreement


POD 1
POD 2
POD 1
POD 2
POD 3
E. BLACK JACK ROAD
FUTURE OUTER LOOP
(PER DENTON COUNTY MTP)
F.M. 2931
F.M. 428
LEGEND
40S
50S
PELOTON
LAND SOLUTIONS
CLEAR SKY MUD CONCEPT PLAN
AUBREY, TEXAS

Kimley»Horn

April 17, 2024

Mrs. Leanne Wilson
City of Aubrey, Texas
107 South Main Street
Aubrey, Texas 76227

RE: ***City of Aubrey Development Review Services – Saratoga-Phase 2A***
Final Plat, Construction Plans for Infrastructure-3rd Review
KHA No. 061296302

Dear Mrs. Wilson,

We have completed our review of the above referenced project and the following comments are based upon the City's requirements and standard engineering practices.

Construction Plans

1. Previous Comment: Phase 2 will need to come after Phase 1 being approved and the infrastructure being installed.
2. Previous Comment: Provide a copy of the geotechnical report and recommendations for the pavement design of the roadways for a 30-year design life and show the assumptions for truck traffic and axial loadings. Please submit this with this phase as well so the submittal is a complete submittal. *The geotechnical study was provided, however, the report did not appear to provide a pavement design. Please clarify. The typical section references a geotechnical report providing a recommendation.*
3. Previous Comment: The lift station will need to be approved prior to this Phase being approved.
4. Previous Comment: The detention pond will need to be approved and installed prior to this phase.
5. Previous Comment (combined comment): Show the storm, water and sewer on all sheets including the roadway, grading, detention pond and channel sheets. This was discussed during the 2-29-24 call. The utility sheets show all the elements and it is legible. Show water, sewer and storm lines on all sheets unless it is documented that the paving contractor will be the same contractor to perform the utility construction.
6. Previous Comment: Directional ramps shall be installed at all the crosswalks, unless documentation from the City is provided that directional ramps are not needed. *The City said for future developments, directional ramps shall be provided. For this phase, the ramps as shown are acceptable.*
7. Previous Comment: Verify the City does not want 5' sidewalks. *The response indicates 4' sidewalks are provided. Please ensure a 5'x5' turnaround are provided every 200' to meet ADA requirements.*

Traffic Impact Analysis

1. See comments on previous review.

Please provide a response letter with the next submittal. Additional comments will be provided on the next submittal (due to the number of current comments and anticipated responses). Should you have any questions or comments, please do not hesitate to contact me at misty.christian@kimley-horn.com

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.
State of Texas Registered Firm #928



Misty Christian, P.E., CFM
MDC:mdc
K:\FTW_Roadway_Marketing\Aubrey\Saratoga\Phase 2A\third submittal\saratogo_phase2A_3.docx

SECOND SUBMITTAL

PLANS FOR THE CONSTRUCTION OF

WATER, SANITARY SEWER, STORM DRAIN, & PAVING TO SERVE

SARATOGA PHASE 2A

CITY OF AUBREY ETJ, CLEARSKY MUD 01, DENTON COUNTY, TEXAS

CERTIFICATE OF APPROVAL

Approved this _____ day of _____, _____ by the City Council of the City of Aubrey, Texas.

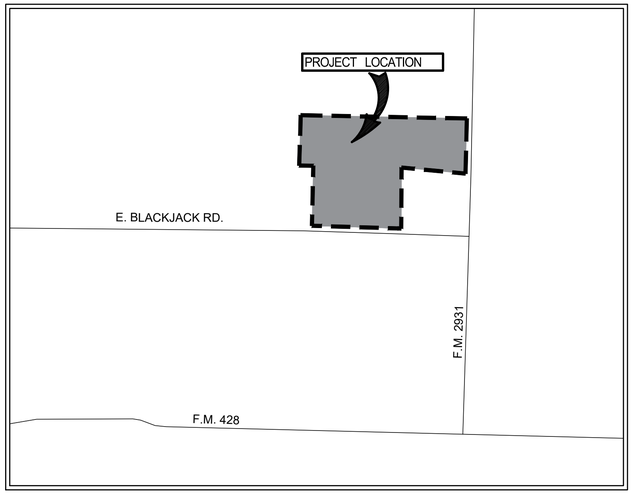
_____
Mayor

_____
City Secretary or City Manager

APPROVAL:

_____
MUSTANG S.U.D. DATE

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS, MUSTANG SPECIAL UTILITY DISTRICT MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.



LOCATION MAP

SCALE : N.T.S.

OWNER/DEVELOPER
HMH SARATOGA LAND, LLC
CONTACT: TWYLA BECKHAM
TWYLA.BECKHAM@HISTORYMAKER.COM
1038 TEXAN TRAIL
GRAPEVINE, TX 76051
866-409-1949

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

NATHANIEL V. THOMPSON	95918	4/30/2024
TYPE OR PRINT NAME	PE #	DATE

Westwood

Westwood Professional Services, Inc.

11000 Frisco Street, Suite 400
Frisco, TX 75033
Phone (469) 213-1800
Toll Free (888) 937-5150
TBPE FIRM NO. F-11756

westwoodps.com

SHEET INDEX

Sheet Number	Sheet Title
01	COVER SHEET
02	PLAT
03	PLAT
04	GENERAL NOTES
05	PHASING PLAN
06	OVERALL ENGINEERING PLAN
07	OVERALL ENGINEERING PLAN
08	OVERALL ENGINEERING PLAN
09	EROSION CONTROL PLAN
10	EROSION CONTROL PLAN
11	GRADING PLAN
12	GRADING PLAN
13	GRADING PLAN
14	GRADING DETAILS
15	PAVING PLAN & PROFILE - HASTE LANE
16	PAVING PLAN & PROFILE - EVANGELINE DOWNS LANE
17	PAVING PLAN & PROFILE - LONE STAR STREET
18	PAVING PLAN & PROFILE - PREAKNESS STREET
19	PAVING PLAN & PROFILE - JUSTIFY DRIVE
20	PAVING PLAN & PROFILE - RUFIAN DRIVE
21	PAVING PLAN & PROFILE - ZAVATA LANE
22	PAVING PLAN & PROFILE - SEA BISCUIT STREET
23	PAVING PLAN & PROFLE - SYSONBY DRIVE
24	EXISTING DRAINAGE AREA MAP
25	PROPOSED DRAINAGE AREA MAP
26	HYDRAULIC CALCULATIONS
27	STORM DRAIN PLAN & PROFILE - SD-D1 & SD-D4
28	STORM DRAIN PLAN & PROFILE - SD-E1 & SD-E2
29	STORM DRAIN PLAN & PROFILE - SD-F & SD-F1
30	SEWER PLAN
31	SEWER PLAN & PROFILE - SS-A
32	SEWER PLAN & PROFILE - SS-P
33	SEWER PLAN & PROFILE - SS-Q (1+00 TO 7+00)
34	SEWER PLAN & PROFILE - SS-Q (7+00 TO END)
35	SEWER PLAN & PROFILE - SS-R
36	SEWER PLAN & PROFILE - SS-S
37	SEWER PLAN & PROFILE - SS-T
38	WATER PLAN
39	STREET LIGHT & SIGNAGE PLAN
40	EROSION CONTROL DETAILS
41	EROSION CONTROL DETAILS
42	STORM DETAILS
43	STORM DETAILS
44	STORM DETAILS
45	UTILITY DETAILS
46	UTILITY DETAILS
47	UTILITY DETAILS
48	UTILITY DETAILS
49	UTILITY DETAILS
50	UTILITY DETAILS
51	PAVING DETAILS
52	PAVING DETAILS
53	PAVING DETAILS

APRIL 2024

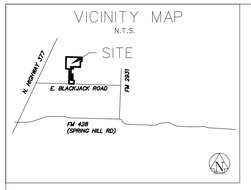
PLS PROJECT #: GEE21003
CITY PROJECT #:

SARATOGA PHASE 2A

Drawing: G:\Off[jwa]\1003-saratoga\P02.2\Phase 1\3_Design\05_Civil\301_CAD\civil_plans\GEE21003-COVER
Last Saved by: WWood
Last Saved Time: 4/30/2024 3:04 PM
Plot Date/Time: 4/30/2024 3:57 PM

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VICINITY MAP
N.T.S.



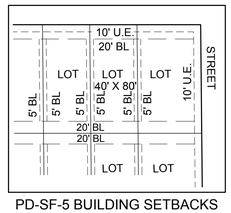
LEGEND

B.L. BUILDING LINE
U.E. UTILITY EASEMENT
IRF IRON ROD FOUND
IRS 1/2" IRON ROD WITH CAP STAMPED "WESTWOOD PS" SET
STREET NAME CHANGE
C.M. CONTROLLING MONUMENT
O.P.R.D.C.T. OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS
P.R.D.C.T. PLAT RECORDS DENTON COUNTY, TEXAS
UTILITY LINE
BUILDING LINE

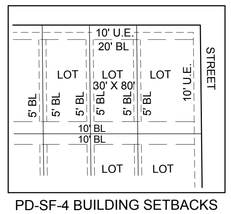
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NO.	BEARING	LENGTH
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L3	N43°39'54"W	14.14'
L4	N01°20'06"E	15.50'
L5	N88°39'54"W	50.00'
L6	S01°20'06"W	15.50'
L7	S46°20'06"W	14.14'
L8	N43°39'54"W	14.14'
L9	N01°20'06"E	15.50'
L10	N88°39'54"W	50.00'
L11	S01°20'06"W	15.50'
L12	S46°20'06"W	14.14'
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L15	S43°39'54"E	14.14'
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L22	N46°20'06"E	14.14'
L23	S43°39'54"E	14.14'

LINE TABLE		
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L27	S43°39'54"E	14.14'
L28	N46°20'06"E	14.14'
L29	S43°39'54"E	14.14'
L30	N46°20'06"E	14.14'
L31	S46°20'06"W	14.14'
L32	S43°39'54"E	14.14'
L33	S29°33'52"E	40.00'
L34	S13°51'34"E	52.06'
L35	N43°39'54"W	14.14'
L36	S88°39'54"E	9.01'
L37	S43°39'54"E	14.14'
L38	N46°20'06"E	14.14'
L39	N46°20'06"E	14.14'
L40	N43°39'54"W	14.14'
L41	N46°20'06"W	14.14'
L42	S46°20'06"W	14.14'
L43	N43°39'54"W	14.14'

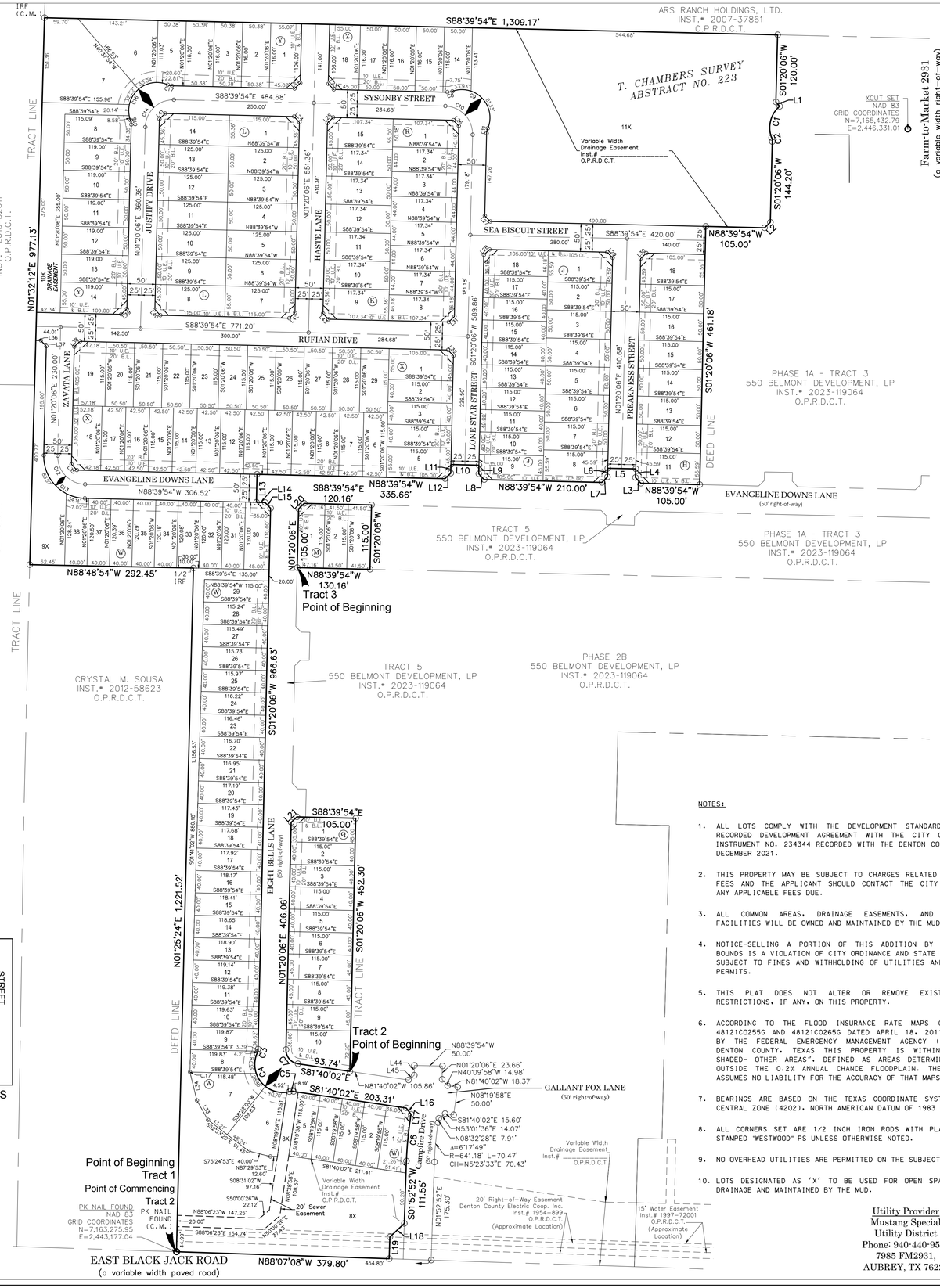
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C2	21°47'12"	20.00'	7.61'	S09°33'30"E	7.56'
C3	21°47'12"	20.00'	7.61'	S12°13'42"W	7.56'
C4	126°34'33"	50.00'	110.46'	S40°09'58"E	89.33'
C5	21°47'12"	20.00'	7.61'	N87°26'22"E	7.56'
C6	7°01'22"	625.00'	76.61'	S05°23'33"W	76.56'
C7	83°00'08"	25.00'	36.22'	N40°09'58"W	33.13'
C8	21°02'22"	25.00'	9.18'	N80°48'55"E	9.13'
C9	132°04'44"	50.00'	115.26'	S43°39'54"E	91.38'
C10	90°00'00"	50.00'	78.54'	S43°39'54"E	70.71'
C11	21°02'21"	25.00'	9.18'	S11°51'17"W	9.13'
C12	90°00'00"	50.00'	78.54'	N43°39'54"W	70.71'
C13	90°00'00"	75.00'	117.81'	S43°39'54"E	106.07'
C14	90°00'00"	50.00'	78.54'	N46°20'06"E	70.71'
C15	21°47'12"	20.00'	7.61'	N09°33'30"W	7.56'
C16	133°34'25"	50.00'	116.56'	N46°20'06"E	91.90'
C17	21°47'12"	20.00'	7.61'	S77°46'18"E	7.56'



PD-SF-5 BUILDING SETBACKS
(TYP.) N.T.S.



PD-SF-4 BUILDING SETBACKS
(TYP.) N.T.S.



NOTES:

1. ALL LOTS COMPLY WITH THE DEVELOPMENT STANDARDS IN THE RECORDED DEVELOPMENT AGREEMENT WITH THE CITY OF AUBREY, INSTRUMENT NO. 234344 RECORDED WITH THE DENTON COUNTY CLERK DECEMBER 2021.
2. THIS PROPERTY MAY BE SUBJECT TO CHARGES RELATED TO IMPACT FEES AND THE APPLICANT SHOULD CONTACT THE CITY REGARDING ANY APPLICABLE FEES DUE.
3. ALL COMMON AREAS, DRAINAGE EASEMENTS, AND DETENTION FACILITIES WILL BE OWNED AND MAINTAINED BY THE MUD.
4. NOTICE-SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS IS A VIOLATION OF CITY ORDINANCE AND STATE LAW AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
5. THIS PLAT DOES NOT ALTER OR REMOVE EXISTING DEED RESTRICTIONS, IF ANY, ON THIS PROPERTY.
6. ACCORDING TO THE FLOOD INSURANCE RATE MAPS (FIRM) NO. 48121C0255G AND 48121C0265G DATED APRIL 18, 2011 PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FOR DENTON COUNTY, TEXAS THIS PROPERTY IS WITHIN "ZONE X SHADED- OTHER AREAS", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. THE SURVEYOR ASSUMES NO LIABILITY FOR THE ACCURACY OF THAT MAPS.
7. BEARINGS ARE BASED ON THE TEXAS COORDINATE SYSTEM, NORTH CENTRAL ZONE (4202), NORTH AMERICAN DATUM OF 1983 (NAD' 83).
8. ALL CORNERS SET ARE 1/2 INCH IRON RODS WITH PLASTIC CAPS STAMPED "WESTWOOD" PS UNLESS OTHERWISE NOTED.
9. NO OVERHEAD UTILITIES ARE PERMITTED ON THE SUBJECT PROPERTY.
10. LOTS DESIGNATED AS 'X' TO BE USED FOR OPEN SPACE AND/OR DRAINAGE AND MAINTAINED BY THE MUD.

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
BLOCK H, LOT 11	6343	0.15
BLOCK H, LOT 12	5750	0.13
BLOCK H, LOT 13	5750	0.13
BLOCK H, LOT 14	5750	0.13
BLOCK H, LOT 15	5750	0.13
BLOCK H, LOT 16	5750	0.13
BLOCK H, LOT 17	5750	0.13
BLOCK H, LOT 18	6343	0.15
BLOCK J, LOT 1	6343	0.15
BLOCK J, LOT 2	5750	0.13
BLOCK J, LOT 3	5750	0.13
BLOCK J, LOT 4	5750	0.13
BLOCK J, LOT 5	5750	0.13
BLOCK J, LOT 6	5750	0.13
BLOCK J, LOT 7	5750	0.13
BLOCK J, LOT 8	6343	0.15
BLOCK J, LOT 9	5125	0.12
BLOCK J, LOT 10	4600	0.11
BLOCK J, LOT 11	4600	0.11
BLOCK J, LOT 12	4600	0.11

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
BLOCK J, LOT 13	4600	0.11
BLOCK J, LOT 14	4600	0.11
BLOCK J, LOT 15	4600	0.11
BLOCK J, LOT 16	4600	0.11
BLOCK J, LOT 17	4600	0.11
BLOCK J, LOT 18	5261	0.12
BLOCK K, LOT 1	5838	0.13
BLOCK K, LOT 2	5163	0.12
BLOCK K, LOT 3	5163	0.12
BLOCK K, LOT 4	5163	0.12
BLOCK K, LOT 5	5163	0.12
BLOCK K, LOT 6	5163	0.12
BLOCK K, LOT 7	5163	0.12
BLOCK K, LOT 8	5369	0.12
BLOCK K, LOT 9	6446	0.15
BLOCK K, LOT 10	5867	0.13
BLOCK K, LOT 11	5867	0.13
BLOCK K, LOT 12	5867	0.13
BLOCK K, LOT 13	5867	0.13
BLOCK K, LOT 14	5867	0.13

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
BLOCK K, LOT 15	6404	0.15
BLOCK L, LOT 1	6870	0.16
BLOCK L, LOT 2	6250	0.14
BLOCK L, LOT 3	6250	0.14
BLOCK L, LOT 4	6250	0.14
BLOCK L, LOT 5	6250	0.14
BLOCK L, LOT 6	6250	0.14
BLOCK L, LOT 7	6825	0.16
BLOCK L, LOT 8	6825	0.16
BLOCK L, LOT 9	6250	0.14
BLOCK L, LOT 10	6250	0.14
BLOCK L, LOT 11	6250	0.14
BLOCK L, LOT 12	6250	0.14
BLOCK L, LOT 13	6250	0.14
BLOCK L, LOT 14	6870	0.16
BLOCK M, LOT 1	5373	0.12
BLOCK M, LOT 2	4772	0.11
BLOCK M, LOT 3	4772	0.11
BLOCK Q, LOT 1	5125	0.12
BLOCK Q, LOT 2	4600	0.11

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
BLOCK Q, LOT 3	4600	0.11
BLOCK Q, LOT 4	4600	0.11
BLOCK Q, LOT 5	4600	0.11
BLOCK Q, LOT 6	4600	0.11
BLOCK Q, LOT 7	5175	0.12
BLOCK Q, LOT 8	5175	0.12
BLOCK Q, LOT 9	5175	0.12
BLOCK Q, LOT 10	7402	0.17
BLOCK W, LOT 1	5333	0.12
BLOCK W, LOT 2	4600	0.11
BLOCK W, LOT 3	4600	0.11
BLOCK W, LOT 4	4600	0.11
BLOCK W, LOT 5	4600	0.11
BLOCK W, LOT 6	7996	0.18
BLOCK W, LOT 7	9299	0.21
BLOCK W, LOT 8	4666	0.11
BLOCK W, LOT 8X	97186	2.23
BLOCK W, LOT 9	4799	0.11
BLOCK W, LOT 9X	14048	0.32
BLOCK W, LOT 10	4790	0.11

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
BLOCK W, LOT 11	4780	0.11
BLOCK W, LOT 12	4770	0.11
BLOCK W, LOT 13	4761	0.11
BLOCK W, LOT 14	4751	0.11
BLOCK W, LOT 15	4741	0.11
BLOCK W, LOT 16	4731	0.11
BLOCK W, LOT 17	4722	0.11
BLOCK W, LOT 18	4712	0.11
BLOCK W, LOT 19	4702	0.11
BLOCK W, LOT 20	4693	0.11
BLOCK W, LOT 21	4683	0.11
BLOCK W, LOT 22	4673	0.11
BLOCK W, LOT 23	4663	0.11
BLOCK W, LOT 24	4654	0.11
BLOCK W, LOT 25	4644	0.11
BLOCK W, LOT 26	4634	0.11
BLOCK W, LOT 27	4624	0.11
BLOCK W, LOT 28	4615	0.11
BLOCK W, LOT 29	4605	0.11
BLOCK W, LOT 30	5350	0.12

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
BLOCK W, LOT 31	4800	0.11
BLOCK W, LOT 32	4800	0.11
BLOCK W, LOT 33	4801	0.11
BLOCK W, LOT 34	4805	0.11
BLOCK W, LOT 35	4809	0.11
BLOCK W, LOT 36	4814	0.11
BLOCK W, LOT 37	4818	0.11
BLOCK W, LOT 38	4904	0.11
BLOCK X, LOT 1	6275	0.14
BLOCK X, LOT 2	4600	0.11
BLOCK X, LOT 3	4600	0.11
BLOCK X, LOT 4	4600	0.11
BLOCK X, LOT 5	6275	0.14
BLOCK X, LOT 6	4888	0.11
BLOCK X, LOT 7	4887	0.11
BLOCK X, LOT 8	4887	0.11
BLOCK X, LOT 9	4888	0.11
BLOCK X, LOT 10	4887	0.11
BLOCK X, LOT 11	4888	0.11
BLOCK X, LOT 12	4888	0.11

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
BLOCK X, LOT 13	4888	0.11
BLOCK X, LOT 14	4888	0.11
BLOCK X, LOT 15	4888	0.11
BLOCK X, LOT 16	4888	0.11
BLOCK X, LOT 17	4888	0.11
BLOCK X, LOT 18	5951	0.14
BLOCK X, LOT 19	6526	0.15
BLOCK X, LOT 20	5808	0.13
BLOCK X, LOT 21	5807	0.13
BLOCK X, LOT 22	5807	0.13
BLOCK X, LOT 23	5807	0.13
BLOCK X, LOT 24	5808	0.13
BLOCK X, LOT 25	5807	0.13
BLOCK X, LOT 26	5807	0.13
BLOCK X, LOT 27	5808	0.13
BLOCK X, LOT 28	5808	0.13
BLOCK X, LOT 29	5808	0.13
BLOCK Y, LOT 1	6338	0.15
BLOCK Y, LOT 2	5844	0.13
BLOCK Y, LOT 3	5844	0.13

LOT AREA TABLE		
LOT #	SQ. FT.	ACRES
BLOCK Y, LOT 4	5844	0.13
BLOCK Y, LOT 5	5762	0.13
BLOCK Y, LOT 6	10564	0.24
BLOCK Y, LOT 7	18767	0.43
BLOCK Y, LOT 8	5924	0.14
BLOCK Y, LOT 9	5950	0.14
BLOCK Y, LOT 10	5950	0.14
BLOCK Y, LOT 10X	17918	0.41
BLOCK Y, LOT 11	5950	0.14
BLOCK Y, LOT 12	5950	0.14
BLOCK Y, LOT 13	5950	0.14
BLOCK Y, LOT 14	6495	0.15
BLOCK Z, LOT 11X	180031	4.13
BLOCK Z, LOT 14	5661	0.13
BLOCK Z, LOT 15	5800	0.13
BLOCK Z, LOT 16	5800	0.13
BLOCK Z, LOT 17	5800	0.13
BLOCK Z, LOT 18	6330	0.15

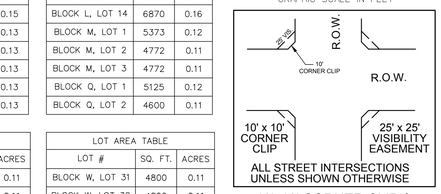
PD-SF-4	
BLOCK NO.	LOT NO.
J	9-18
K	1-8
M	1-3
Q	1-10
W	1-38
X	1-18

PD-SF-5	
BLOCK NO.	LOT NO.
H	11-18
J	1-8
K	9-15
L	1-14
X	19-29
Y	1-14
Z	14-18

LOT TABLE		
	TOTAL	ACRES
RESIDENTIAL	154	19.663
NON-RESIDENTIAL	4	7.11
RIGHT-OF-WAY	1	4.847



0 50 100 200
GRAPHIC SCALE IN FEET



ALL STREET INTERSECTIONS UNLESS SHOWN OTHERWISE

10'x10' CORNER CLIP & 25'x25' VISIBILITY ACCESS EASEMENT AT STREET INTERSECTIONS
(TYP.) N.T.S.

A Final Plat of Saratoga Phase 2A

31.60 ACRES TOTAL
154 RESIDENTIAL LOTS
(LOTS 11-18, BLOCK H; LOTS 1-18, BLOCK J; LOTS 1-15, BLOCK K; LOTS 1-14, BLOCK L; LOTS 1-3, BLOCK M; 1-10, BLOCK Q; LOTS 1-38, BLOCK W; LOTS 1-29, BLOCK X; LOTS 1-14, BLOCK Y; LOTS 14-18, BLOCK Z)
4 OPEN SPACE LOTS
(LOT 8X-9X, BLOCK W; LOT 10X, BLOCK Y; LOT 11X, BLOCK Z)
SITUATED IN THE
T. CHAMBERS SURVEY, ABSTRACT NO. 223
CITY OF AUBREY ETJ
DENTON COUNTY, TEXAS

Date of Preparation: March 2024

City Plan • _____

Westwood
Professional Services, Inc.
11000 FRISCO STREET, SUITE 400 FRISCO, TEXAS 75033
TBPELS # 10074301 PH.# 469-213-1800
JOB# GEE21003 April 19, 2024 PAGE 1 OF 2

Utility Provider
Mustang Special Utility District
Phone: 940-440-9561
7985 FM2931,
AUBREY, TX 76227

Owner
HMH Saratoga Land, LLC
1038 Texan Trail
Grapevine, TX 76051
Phone: 866-409-1949

Engineer / Surveyor
Westwood Professional Services, Inc.
11000 Frisco Street Suite 400
Frisco, TX 75033
Phone: 469-213-1800
TX Firm No. 11756

DWG NAME: G:\JOB\GEE21000_Aubrey\Master\Dwg\...\Sar\...\GEE21003_Saratoga\GEE21003_P-A2-2A.dwg

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TRACT 1

BEING A 30.086 ACRE TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NO. 223, DENTON COUNTY, TEXAS, BEING PART OF THAT TRACT OF LAND DESCRIBED AS PHASE 2A, TRACT 1 IN DEED TO HMH SARATOGA LAND, LLC, RECORD IN INSTRUMENT NO. 2023-123161, OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A "PK" NAIL FOUND FOR CORNER IN THE NORTH RIGHT-OF-WAY LINE OF EAST BLACK JACK ROAD, (A VARIABLE WIDTH RIGHT-OF-WAY), AT THE SOUTHEAST CORNER OF A TRACT OF LAND DESCRIBED BY DEED TO CRYSTAL M. SOUSA, RECORD IN INSTRUMENT NO. 2012-58623, OF SAID OFFICIAL PUBLIC RECORDS, AT A SOUTHWEST CORNER OF SAID PHASE 2A-TTRACT 1, RECORDED IN INSTRUMENT NO. 2023-123161;

THENCE NORTH 01 DEGREE 25 MINUTES 24 SECONDS EAST, ALONG THE WEST LINE OF SAID PHASE 2A-TRACT 1 AND THE EAST LINE OF SAID SOUSA TRACT, A DISTANCE OF 1,221.52 FEET TO A 1/2" IRON ROD FOUND FOR THE NORTHEAST CORNER OF SAID SOUSA TRACT;

THENCE NORTH 88 DEGREES 48 MINUTES 54 SECONDS WEST, CONTINUING WITH THE WEST LINE OF SAID PHASE 2A-TRACT 1 A DISTANCE OF 292.45 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET FOR CORNER AT THE NORTHWEST CORNER OF SAID SOUSA TRACT, AND BEING IN THE EAST LINE OF THAT TRACT OF LAND DESCRIBED BY DEED TO ELIAS AND MARILYN SOUSA RECORDED IN INSTRUMENT NUMBER 2018-27320 OF SAID OFFICIAL PUBLIC RECORDS;

THENCE NORTH 01 DEGREE 32 MINUTES 12 SECONDS EAST, WITH THE EAST LINE OF SAID ELIAS AND MARILYN SOUSA TRACT, CONTINUING WITH THE EAST LINE OF THAT TRACT OF LAND DESCRIBED BY DEED TO AARON AND KELLY CASEY RECORDED IN INSTRUMENT NUMBER 2015-32611 OF SAID OFFICIAL PUBLIC RECORDS AND CONTINUING WITH THE WITH THE WEST LINE OF SAID PHASE 2A-TRACT 1, A DISTANCE OF 977.13 FEET TO A 1/2" IRON ROD FOUND AT THE SOUTHWEST CORNER OF A TRACT OF LAND DESCRIBED BY DEED TO ARS RANCH HOLDINGS, LTD., RECORDED IN INSTRUMENT NO. 2007-37861, OF SAID OFFICIAL PUBLIC RECORDS AND BEING THE NORTHWEST CORNER OF SAID PHASE 2A-TRACT 1;

THENCE SOUTH 88 DEGREES 39 MINUTES 54 SECONDS EAST, WITH THE SOUTH LINE OF SAID ARS RANCH HOLDINGS, LTD. TRACT AND THE NORTH LINE OF SAID PHASE 2A-TRACT 1, A DISTANCE OF 1,309.17 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET FOR THE NORTHEAST CORNER OF SAID PHASE 2A-TRACT 1, BEING THE NORTHWEST CORNER OF THAT TRACT OF LAND DESCRIBED AS PHASE 1A-TRACT 3 IN DEED TO 550 BELMONT DEVELOPMENT, LP RECORDED IN INSTRUMENT NUMBER 2023-119064 OF SAID OFFICIAL PUBLIC RECORDS;

THENCE DEPARTING THE SAID SOUTH LINE OF THE ARS RANCH HOLDINGS, LTD. TRACT AND WITH THE EAST LINE OF SAID PHASE 2A-TRACT 1, WITH THE WEST LINE OF SAID PHASE 1A - TRACT 3 THE FOLLOWING COURSES AND DISTANCES:

SOUTH 01 DEGREE 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 120.00 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 40 DEGREES 17 MINUTES 55 SECONDS EAST, A DISTANCE OF 10.21 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT;

ALONG SAID NON-TANGENT CURVE TO THE LEFT HAVING A CENTRAL ANGLE OF 70 DEGREES 09 MINUTES 12 SECONDS, A RADIUS OF 50.00 FEET, AND AN ARC LENGTH OF 61.22 FEET (CHORD BEARS SOUTH 14 DEGREES 37 MINUTES 29 SECONDS WEST, 57.47 FEET) TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE BEGINNING OF A REVERSE CURVE TO THE RIGHT;

ALONG SAID REVERSE CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 21 DEGREES 47 MINUTES 12 SECONDS, A RADIUS OF 20.00 FEET, AND AN ARC LENGTH OF 7.61 FEET (CHORD BEARS SOUTH 09 DEGREES 33 MINUTES 30 SECONDS EAST, 7.56 FEET) TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE END OF SAID CURVE;

SOUTH 01 DEGREE 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 144.20 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 46 DEGREES 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 14.14 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 88 DEGREES 39 MINUTES 54 SECONDS WEST, A DISTANCE OF 105.00 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 01 DEGREE 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 461.18 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET FOR THE SOUTHWEST CORNER OF SAID PHASE 1A - TRACT 3, BEING IN THE NORTH LINE OF THAT TRACT OF LAND DESCRIBED AS TRACT 5 IN SAID INSTRUMENT NUMBER 2023-119064 OF SAID OFFICIAL PUBLIC RECORDS;

THENCE WITH THE COMMON EAST LINE OF SAID PHASE 2A-TRACT 1 AND THE NORTH AND WEST LINES OF SAID TRACT 5 THE FOLLOWING COURSES AND DISTANCES:

NORTH 88 DEGREES 39 MINUTES 54 SECONDS WEST, A DISTANCE OF 105.00 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 43 DEGREES 39 MINUTES 54 SECONDS WEST, A DISTANCE OF 14.14 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 01 DEGREE 20 MINUTES 06 SECONDS EAST, A DISTANCE OF 15.50 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 88 DEGREES 39 MINUTES 54 SECONDS WEST, A DISTANCE OF 50.00 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 01 DEGREE 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 15.50 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 46 DEGREES 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 14.14 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 88 DEGREES 39 MINUTES 54 SECONDS WEST, A DISTANCE OF 210.00 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 43 DEGREES 39 MINUTES 54 SECONDS WEST, A DISTANCE OF 14.14 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 01 DEGREE 20 MINUTES 06 SECONDS EAST, A DISTANCE OF 15.50 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 88 DEGREES 39 MINUTES 54 SECONDS WEST, A DISTANCE OF 50.00 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 01 DEGREE 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 15.50 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 01 DEGREE 20 MINUTES 06 SECONDS EAST, A DISTANCE OF 15.50 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 88 DEGREES 39 MINUTES 54 SECONDS WEST, A DISTANCE OF 50.00 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 01 DEGREE 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 15.50 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 46 DEGREES 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 14.14 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 88 DEGREES 39 MINUTES 54 SECONDS WEST, A DISTANCE OF 335.66 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 01 DEGREE 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 50.00 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 88 DEGREES 39 MINUTES 54 SECONDS EAST, A DISTANCE OF 15.50 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 43 DEGREES 39 MINUTES 54 SECONDS EAST, A DISTANCE OF 14.14 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 01 DEGREE 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 966.63 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE BEGINNING OF A TANGENT CURVE TO THE RIGHT;

ALONG SAID TANGENT CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 21 DEGREES 47 MINUTES 12 SECONDS, A RADIUS OF 20.00 FEET, AND AN ARC LENGTH OF 7.61 FEET (CHORD BEARS SOUTH 12 DEGREES 13 MINUTES 42 SECONDS WEST, 7.56 FEET) TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE BEGINNING OF A REVERSER CURVE TO THE LEFT;

ALONG SAID REVERSE CURVE TO THE LEFT HAVING A CENTRAL ANGLE OF 126 DEGREES 34 MINUTES 33 SECONDS, A RADIUS OF 50.00 FEET, AND AN ARC LENGTH OF 110.46 FEET (CHORD BEARS SOUTH 40 DEGREES 09 MINUTES 58 SECONDS EAST, 89.33 FEET) TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE BEGINNING OF A REVERSE CURVE TO THE RIGHT;

ALONG SAID TANGENT CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 22 DEGREES 06 MINUTES 27 SECONDS, A RADIUS OF 20.01 FEET, AND AN ARC LENGTH OF 7.72 FEET (CHORD BEARS NORTH 87 DEGREES 36 MINUTES 08 SECONDS EAST, 7.67 FEET) TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE END OF SAID CURVE;

SOUTH 81 DEGREES 40 MINUTES 02 SECONDS EAST, A DISTANCE OF 203.19 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 37 DEGREES 00 MINUTES 02 SECONDS EAST, A DISTANCE OF 14.22 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

SOUTH 08 DEGREES 32 MINUTES 03 SECONDS WEST, A DISTANCE OF 7.42 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT;

ALONG SAID NON-TANGENT CURVE TO THE LEFT HAVING A CENTRAL ANGLE OF 07 DEGREES 01 MINUTE 22 SECONDS, A RADIUS OF 625.00 FEET, AND AN ARC LENGTH OF 76.61 FEET (CHORD BEARS SOUTH 05 DEGREES 23 MINUTES 33 SECONDS WEST, 76.56 FEET) TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE END OF SAID CURVE;

SOUTH 01 DEGREE 52 MINUTES 52 SECONDS WEST, A DISTANCE OF 111.55 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

THENCE SOUTH 46 DEGREES 52 MINUTES 19 SECONDS WEST, A DISTANCE OF 35.36 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

THENCE SOUTH 01 DEGREES 52 MINUTES 52 SECONDS WEST, A DISTANCE OF 38.74 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET FOR CORNER IN THE SAID NORTH LINE OF EAST BLACK JACK ROAD;

THENCE NORTH 88 DEGREES 07 MINUTES 08 SECONDS WEST, A DISTANCE OF 379.80 FEET WITH SAID NORTH LINE OF BLACK JACK ROAD TO THE POINT-OF-BEGINNING, CONTAINING 1,310,565 SQUARE FEET OR 30.086 ACRES OF LAND.

TRACT 2

BEING A 1.172 ACRE TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NO. 223, DENTON COUNTY, TEXAS, AND BEING ALL OF THAT TRACT OF LAND DESCRIBED AS PHASE 2A - TRACT 2 IN DEED TO HMH SARATOGA LAND, LLC, RECORDED IN INSTRUMENT NO. 2023-123161, OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS:

COMMENCING AT A "PK" NAIL FOUND IN THE NORTH RIGHT-OF-WAY LINE OF EAST BLACK JACK ROAD, A VARIABLE WIDTH RIGHT-OF-WAY, AT THE SOUTHEAST CORNER OF A TRACT OF LAND CONVEYED TO CRYSTAL M. SOUSA, BY DEED OF RECORD IN INSTRUMENT NO. 2012-58623, OF SAID OFFICIAL PUBLIC RECORDS, AT A SOUTHWEST CORNER OF THAT TRACT OF LAND DESCRIBED AS PHASE 2A - TRACT 1 IN SAID INSTRUMENT NO. 2023-123161 OF SAID OFFICIAL PUBLIC RECORDS;

THENCE SOUTH 88 DEGREE 07 MINUTES 08 SECONDS EAST, A DISTANCE OF 454.80 FEET WITH THE NORTH LINE OF SAID EAST BLACK JACK ROAD TO THE SOUTHEAST CORNER OF THAT TRACT OF LAND DESCRIBED AS TRACT 5 AND THE SOUTHWEST CORNER OF THAT TRACT OF LAND DESCRIBED AS PHASE 2B, IN DEED TO 550 BELMONT DEVELOPMENT LP RECORDED IN INSTRUMENT NUMBER 2023-119064 OF SAID OFFICIAL PUBLIC RECORDS;

THENCE WITH THE WEST LINE OF SAID PHASE 2B AND THE EAST LINE OF SAID TRACT 5 THE FOLLOWING COURSES AND DISTANCES:

NORTH 01° 52' 52" EAST, 175.30 FEET WITH THE COMMON LINE OF TRACT 5 TO THE BEGINNING OF A NON-TANGENT CURVE TO THE RIGHT;

WITH SAID NON-TANGENT CURVE TO THE RIGHT, AN ARC DISTANCE OF 70.47 FEET, THROUGH A CENTRAL ANGLE OF 06° 17' 49", HAVING A RADIUS OF 641.18 FEET, AND A LONG CHORD WHICH BEARS N 05° 23' 33" E, 70.43 FEET;

NORTH 08° 32' 28" EAST, 7.91 FEET;

NORTH 53° 01' 36" EAST, 14.07 FEET;

SOUTH 81° 40' 02" EAST, 15.60 FEET;

NORTH 08° 19' 58" EAST, 50.00 FEET;

NORTH 81° 40' 02" WEST, 18.37 FEET;

NORTH 40° 09' 58" WEST, 14.98 FEET;

NORTH 01° 20' 06" EAST, 23.66 FEET;

NORTH 88° 39' 54" WEST, 50.00 FEET;

SOUTH 01° 20' 06" WEST, 17.52 FEET;

SOUTH 49° 50' 02" WEST, 13.25 FEET

NORTH 81° 40' 02" WEST, 105.86 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET FOR THE SOUTHEAST CORNER OF SAID PHASE 2A - TRACT 2 FOR THE POINT-OF-BEGINNING:

THENCE CONTINUING WITH THE EAST LINE OF SAID TRACT 5 AND THE SOUTH AND WEST LINES OF SAID PHASE 2A - TRACT 2 THE FOLLOWING COURSES AND DISTANCES:

NORTH 81 DEGREES 40 MINUTES 02 SECONDS WEST, A DISTANCE OF 93.74 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE BEGINNING OF A TANGENT CURVE TO THE RIGHT;

ALONG SAID TANGENT CURVE TO THE RIGHT HAVING A CENTRAL ANGLE OF 83 DEGREES 00 MINUTES 08 SECONDS, A RADIUS OF 25.00 FEET, AND AN ARC LENGTH OF 36.22 FEET (CHORD BEARS NORTH 40 DEGREES 09 MINUTES 58 SECONDS WEST, 33.13 FEET) TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET AT THE END OF SAID CURVE;

NORTH 01 DEGREE 20 MINUTES 06 SECONDS EAST, A DISTANCE OF 406.06 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

NORTH 46 DEGREES 20 MINUTES 06 SECONDS EAST, A DISTANCE OF 14.14 FEET TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

THENCE SOUTH 88 DEGREES 39 MINUTES 54 SECONDS EAST, A DISTANCE OF 105.00 FEET PASSING A COMMON CORNER OF SAID TRACT 5 AND SAID PHASE 2B, TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET FOR THE NORTHEAST CORNER OF SAID PHASE 2A - TRACT 2;

THENCE SOUTH 01 DEGREE 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 452.30 FEET WITH THE COMMON LINE OF SAID PHASE 2A - TRACT 2 AND SAID PHASE 2B TO THE POINT-OF-BEGINNING, CONTAINING 51,052 SQUARE FEET OR 1.172 ACRES OF LAND.

TRACT 3

BEING A 0.342 ACRE TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NO. 223, DENTON COUNTY, TEXAS, AND BEING ALL OF THAT TRACT OF LAND DESCRIBED AS PHASE 2A - TRACT 3 TO HMH SARATOGA LAND, LLC RECORDED IN INSTRUMENT NO. 2023-123161, OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS; SAID 0.342 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET IN THE EAST LINE OF THAT TRACT OF LAND DESCRIBED AS TRACT 5 IN DEED TO 550 BELMONT DEVELOPMENT LP RECORDED IN INSTRUMENT NUMBER 2023-119064 OF SAID OFFICIAL PUBLIC RECORDS AND FOR THE SOUTHWEST CORNER OF SAID PHASE 2A - TRACT 3;

THENCE NORTH 01 DEGREE 20 MINUTES 06 SECONDS EAST, A DISTANCE OF 105.00 FEET WITH THE EAST LINE OF SAID TRACT 5 TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

THENCE NORTH 46 DEGREES 20 MINUTES 06 SECONDS EAST, A DISTANCE OF 14.14 FEET CONTINUING WITH SAID EAST LINE TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET;

THENCE SOUTH 88 DEGREES 39 MINUTES 54 SECONDS EAST, A DISTANCE OF 120.16 FEET CONTINUING WITH SAID EAST LINE AND THE NORTH LINE OF SAID PHASE 2A - TRACT 3, TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET FOR THE NORTHEAST CORNER OF SAID PHASE 2A - TRACT 3 AND THE NORTHWEST CORNER OF THAT TRACT OF LAND DESCRIBED AS PHASE 1A - TRACT 3 IN SAID DEED TO 550 BELMONT DEVELOPMENT LP;

THENCE SOUTH 01 DEGREE 20 MINUTES 06 SECONDS WEST, A DISTANCE OF 115.00 FEET WITH THE EAST LINE OF SAID PHASE 2A - TRACT 3 AND THE WEST LINE OF SAID PHASE 1A - TRACT 3, TO A 1/2" IRON ROD WITH A PLASTIC CAP STAMPED "WESTWOOD PS" SET FOR THE SOUTHEAST CORNER OF SAID PHASE 2A - TRACT 3 AND THE SOUTHWEST CORNER OF SAID PHASE 1A - TRACT 3 AND BEING IN THE NORTH LINE OF SAID PHASE 2B TRACT OF LAND;

THENCE NORTH 88 DEGREES 39 MINUTES 54 SECONDS WEST, A DISTANCE OF 130.16 FEET WITH THE SOUTH LINE OF SAID PHASE 2A - TRACT 3 AND THE NORTH LINE OF SAID PHASE 2B TO THE POINT-OF-BEGINNING, CONTAINING 14,918 SQUARE FEET OR 0.342 ACRES OF LAND.

SURVEYOR'S CERTIFICATION:

THAT I, ADAM T. JOHNSON DO HEREBY CERTIFY THAT I PREPARED THIS PLAT FROM AN ACTUAL AND ACCURATE SURVEY OF THE LAND AND THAT THE CORNER MONUMENTS SHOWN THEREON AS "SET" WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION IN ACCORDANCE WITH THE SUBDIVISION ORDINANCE OF THE CITY OF AUBREY.

'Preliminary, this document shall not be recorded for any purpose and shall not be used or viewed or relied upon as a final survey document' TAC 22 138.33e
Adam T. Johnson, RPLS 6664
Dated:4/19/2024

ADAM T. JOHNSON
TEXAS REGISTRATION NO. 6664

STATE OF TEXAS
COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS, ON THIS DAY PERSONALLY APPEARED ADAM T. JOHNSON, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSE AND CONSIDERATIONS THEREIN EXPRESSED.

GIVEN UNDER MY AND SEAL OF OFFICE, THIS ____ DAY OF _____, 2024.

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS

MY COMMISSION EXPIRES ON:_____

CERTIFICATE OF APPROVAL

Approved this _____ day of _____ by the City Council of the City of Aubrey Texas

Mayor

City Secretary or City Manager

OWNER'S CERTIFICATIONS:

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

THAT HMH SARATOGA LAND, LLC ACTING HEREIN BY AND THROUGH ITS DULY AUTHORIZED OFFICERS, DOES HEREBY ADOPT THIS PLAT DESIGNATING THE HEREIN ABOVE DESCRIBED PROPERTY AS SARATOGA PHASE 2A, AN ADDITION TO THE CITY OF AUBREY, TEXAS, AND DOES HEREBY DEDICATE, IN FEE SIMPLE, TO THE PUBLIC USE FOREVER, THE STREETS AND ALLEYS SHOWN THEREON. THE STREETS AND ALLEYS ARE DEDICATED FOR STREET PURPOSES. THE EASEMENTS AND PUBLIC USE AREAS, AS SHOWN, ARE DEDICATED FOR THE PUBLIC USE FOREVER, FOR THE PURPOSES INDICATED ON THIS PLAT. IN ADDITION, UTILITY EASEMENTS MAY ALSO BE USED FOR THE MUTUAL USE AND ACCOMMODATION OF ALL PUBLIC UTILITIES DESIRING TO USE OR USING THE SAME UNLESS THE EASEMENT LIMITS THE USE TO PARTICULAR UTILITIES, SAID USE BY PUBLIC UTILITIES BEING SUBORDINATE TO THE PUBLIC'S AND CITY OF AUBREY'S USE THEREOF. THE CITY OF AUBREY AND PUBLIC UTILITY ENTITIES SHALL HAVE THE RIGHT TO REMOVE AND KEEP REMOVED ALL OR PARTS OF ANY BUILDINGS, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR GROWTHS WHICH MAY IN ANY WAY ENDANGER OR INTERFERE WITH THE CONSTRUCTION, MAINTENANCE, OR EFFICIENCY OF THEIR RESPECTIVE SYSTEMS IN SAID EASEMENTS. THE CITY OF AUBREY AND PUBLIC UTILITY ENTITIES SHALL AT ALL TIMES HAVE THE FULL RIGHT OF INGRESS AND EGRESS TO OR FROM THEIR RESPECTIVE EASEMENTS FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING, PATROLLING, MAINTAINING, READING METERS, AND ADDING TO OR REMOVING ALL OR PARTS OF THEIR RESPECTIVE SYSTEMS WITHOUT THE NECESSITY AT ANY TIME OF PROCURING PERMISSION FROM ANYONE.

THAT THE UNDERSIGNED DOES HEREBY COVENANT AND AGREE THAT HE (THEY) SHALL CONSTRUCT UPON THE FIRE LANE EASEMENTS, AS DEDICATED AND SHOWN HEREON, A HARD SURFACE AND THAT HE (THEY) SHALL MAINTAIN THE SAME IN A STATE OF GOOD REPAIR AT ALL TIMES AND KEEP THE SAME FREE AND CLEAR OF ANY STRUCTURES, FENCES, TREES, SHRUBS, OR OTHER IMPROVEMENTS OR OBSTRUCTION, INCLUDING BUT NOT LIMITED TO THE PARKING OF MOTOR VEHICLES, TRAILERS, BOATS, OR OTHER IMPEDIMENTS TO THE ACCESS OF FIRE APPARATUS. THE MAINTENANCE OF PAVING ON THE FIRE LANE EASEMENTS IS THE RESPONSIBILITY OF THE OWNER. AND THE OWNER SHALL POST AND MAINTAIN APPROPRIATE SIGNS IN CONSPICUOUS PLACES ALONG SUCH FIRE LANES, STATING "FIRE LANE, NO PARKING." THE POLICE OR HIS DULY AUTHORIZED REPRESENTATIVE IS HEREBY AUTHORIZED TO CAUSE SUCH FIRE LANES AND UTILITY EASEMENTS TO BE MAINTAINED FREE AND UNOBSTRUCTED AT ALL TIMES FOR FIRE DEPARTMENT AND EMERGENCY USE.

THE UNDERSIGNED DOES COVENANT AND AGREE THAT THE ACCESS EASEMENT MAY BE UTILIZED BY ANY PERSON OR THE GENERAL PUBLIC FOR INGRESS AND EGRESS TO OTHER REAL PROPERTY, AND FOR THE PURPOSE OF GENERAL PUBLIC VEHICULAR AND PEDESTRIAN USE AND ACCESS, AND FOR FIRE DEPARTMENT AND EMERGENCY USE, IN, ALONG, UPON, AND ACROSS SAID PREMISES, WITH THE RIGHT AND PRIVILEGE AT ALL TIMES OF THE CITY OF AUBREY, ITS AGENTS, EMPLOYEES, WORKMEN, AND REPRESENTATIVES HAVING INGRESS, EGRESS, AND REGRESS IN, ALONG, UPON, AND ACROSS SAID PREMISES.

THIS APPROVED SUBJECT TO ALL PLATTING ORDINANCES, RULES, AND REGULATIONS OF THE CITY OF AUBREY, TEXAS.

WITNESS MY HAND THIS THE _____ DAY OF _____, 2024.

BY: 550 BELMONT DEVELOPMENT, LP

BY:_____

STATE OF: TEXAS

COUNTY OF DENTON

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED _____, KNOWN TO ME TO BE THE PERSON OR PERSONS WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN THE CAPACITY HEREIN STATED AND THE ACT AND DEED OF SAID COMPANY.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS _____ DAY OF _____, 2024.

NOTARY PUBLIC IN AND FOR _____ COUNTY

MY COMMISSION EXPIRES: _____

WITNESS MY HAND THIS THE _____ DAY OF _____, 2024.

NOTES:

1. ALL LOTS COMPLY WITH THE DEVELOPMENT STANDARDS IN THE RECORDED DEVELOPMENT AGREEMENT WITH THE CITY OF AUBREY, INSTRUMENT NO. 234344 RECORDED WITH THE DENTON COUNTY CLERK DECEMBER 2021.
2. THIS PROPERTY MAY BE SUBJECT TO CHARGES RELATED TO IMPACT FEES AND THE APPLICANT SHOULD CONTACT THE CITY REGARDING ANY APPLICABLE FEES DUE.
3. ALL COMMON AREAS, DRAINAGE EASEMENTS, AND DETENTION FACILITIES WILL BE OWNED AND MAINTAINED BY THE HOA/POA. ANY COMMON AREA WITHIN THE CITY RIGHT-OF-WAY WILL REQUIRE A FACILITIES AGREEMENT TO BE REVIEWED AND APPROVED BY THE CITY.
4. NOTICE-SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS IS A VIOLATION OF CITY ORDINANCE AND STATE LAW AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.
5. THIS PLAT DOES NOT ALTER OR REMOVE EXISTING DEED RESTRICTIONS, IF ANY, ON THIS PROPERTY.
6. ACCORDING TO THE FLOOD INSURANCE RATE MAPS (FIRM) NO. 48121C0255G DATED APRIL 18, 2011 PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FOR DENTON COUNTY, TEXAS THIS PROPERTY IS WITHIN "ZONE X SHADED- OTHER AREAS", DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN. THE SURVEYOR ASSUMES NO LIABILITY FOR THE ACCURACY OF THAT MAPS.
7. BEARINGS ARE BASED ON THE TEXAS COORDINATE SYSTEM, NORTH CENTRAL ZONE (4202), NORTH AMERICAN DATUM OF 1983 (NAD' 83).
8. ALL CORNERS SET ARE 1/2 INCH IRON RODS WITH PLASTIC CAPS STAMPED "WESTWOOD PS) UNLESS OTHERWISE NOTED.
9. NO OVERHEAD UTILITIES ARE PERMITTED ON THE SUBJECT PROPERTY.
10. LOTS DESIGNATED AS 'X' TO BE USED FOR OPEN SPACE AND/OR DRAINAGE AND ARE OWNED AND MAINTAINED BY THE HOA.

UTILITY CERTIFICATE

THIS PLAT CORRECTLY PRESENTS THE REQUIRED EASEMENTS FOR THIS DEVELOPMENT.

MUSTANG SPECIAL UTILITY DISTRICT _____
NAME/TITLE

A Final Plat of Saratoga Phase 2A

31.60 ACRES TOTAL
154 RESIDENTIAL LOTS
(LOTS 11-18, BLOCK H; LOTS 1-18, BLOCK J; LOTS 1-15, BLOCK K; LOTS 1-14, BLOCK L; LOTS 1-3, BLOCK M; 1-10, BLOCK Q; LOTS 1-38, BLOCK W; LOTS 1-29, BLOCK X; LOTS 1-14, BLOCK Y; LOTS 14-18, BLOCK Z)
4 OPEN SPACE LOTS
(LOT 8X-9X, BLOCK W; LOT 10X, BLOCK Y; LOT 11X, BLOCK Z)
SITUATED IN THE
T. CHAMBERS SURVEY, ABSTRACT NO. 223
CITY OF AUBREY ETJ
DENTON COUNTY, TEXAS

Date of Preparation: March 2024

City Plan # _____

Westwood
Professional Services, Inc.
11000 FRISCO STREET, SUITE 400 FRISCO, TEXAS 75033
TBPELS # 10074301 PH.# 469-213-1800

JOB# GEE21003 April 19, 2024 PAGE 2 OF 2

Utility Provider	Owner	Engineer / Surveyor
Mustang Special Utility District Phone: 940-440-9561 7985 FM2931, AUBREY, TX 76227	HMH Saratoga Land, LLC 1038 Texan Trail Grapevine, TX 76051 Phone: 866-409-1949	Westwood Professional Services, Inc. 11000 Frisco Street Suite 400 Frisco, TX 75033 Phone: 469-213-1800 TX Firm No. 11756

DWG NAME: G:\JOB\GEE21000_Aubrey\Master\Dwg_Sur_GEE21003_Saratoga\GEE21003_PA2-2A.dwg

PROJECT NOTES:

1. THE TERM GOVERNING AUTHORITY REFERS TO THE CITY OF AUBREY.
2. ALL MATERIALS, CONSTRUCTION METHODS, WORKMANSHIP, EQUIPMENT, SERVICES AND TESTING FOR ALL PUBLIC IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE GOVERNING AUTHORITIES' ORDINANCES, REGULATIONS, REQUIREMENTS, STATUTES, SPECIFICATIONS AND DETAILS, LATEST PRINTING AND AMENDMENTS THERETO. THE GOVERNING AUTHORITIES' PUBLIC WORKS AND WATER DEPARTMENT REQUIREMENTS, PLUMBING CODES, AND FIRE DEPARTMENT REGULATIONS SHALL TAKE PRECEDENT FOR ALL PRIVATE IMPROVEMENTS WHERE APPLICABLE. ALL OTHER PRIVATE CONSTRUCTION, NOT REGULATED BY THE GOVERNING AUTHORITY, SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, LATEST PRINTING AND AMENDMENTS THERETO, EXCEPT AS MODIFIED BY THE PROJECT CONTRACT DOCUMENTS.
3. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH PROVISIONS OUTLINED IN F.H.A. DATA SHEET 79G AND SPECIFICATIONS PREPARED BY SOILS ENGINEER, HOWEVER, ANY CITY OF AUBREY STANDARD AND/OR SPECIFICATION SHALL SUPERSEDE THE ABOVE.
4. PRIOR TO COMMENCING ANY CONSTRUCTION, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS. FAILURE ON THE PART OF THE CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THE WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
5. THE CONTRACTOR, HIS AGENTS AND SUB-CONTRACTOR ARE COMPLETELY RESPONSIBLE FOR THE VERIFICATION OF THE ACCURACY OF THE GEOSPATIAL CONTROL FURNISHED HEREIN. THE OWNER, ENGINEER AND THEIR AGENTS ARE NOT RESPONSIBLE FOR THE ACCURACY OF THE COORDINATES FURNISHED. THE CONTRACTOR IS REQUIRED TO VERIFY ALL COORDINATES FOR ACCURACY AND CONFIRM THE LOCATIONS OF ALL UTILITIES TO BE CONSTRUCTED, BOTH HORIZONTALLY AND VERTICALLY. DISCREPANCIES FOUND BY THE CONTRACTOR SHALL BE REPORTED, IN WRITING, TO THE OWNER AND ENGINEER IMMEDIATELY FOR RECONCILIATION.
6. TOPOGRAPHIC SURVEY INFORMATION SHOWN ON THE PLANS IS PROVIDED FOR INFORMATIONAL PURPOSES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT THE INFORMATION SHOWN IS CORRECT, AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY ERRORS, DISCREPANCIES, OR OMISSIONS TO THE SURVEY INFORMATION PROVIDED.
7. CONTRACTOR TO OBTAIN A COPY OF GEOTECHNICAL REPORT PREPARED BY GEOTECHNICAL ENGINEER & IMPLEMENT ALL RECOMMENDATIONS IN IT (OR AS AMENDED BY GEOTECHNICAL ENGINEER DURING CONSTRUCTION). ALL DENSITY REPORTS ARE TO BE FURNISHED TO CITY INSPECTOR AT THE PRE-CONSTRUCTION MEETING. THE ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY, TRUE LOCATION AND EXTENT OF THE SOILS INFORMATION PREPARED BY OTHERS.
8. THE CONTRACTOR SHALL HAVE AT LEAST ONE COMPLETE SET OF APPROVED PLANS ON SITE AT ALL TIMES.
9. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. MATERIALS STORED ON THE WORK SITE SHALL BE PLACED, AND THE WORK SHALL AT ALL TIMES BE SO CONDUCTED, AS TO CAUSE NO GREATER OBSTRUCTION TO THE TRAVELING PUBLIC THAN IS CONSIDERED ACCEPTABLE BY THE GOVERNING AUTHORITIES AND THE OWNER AND ALLOW UNINTERRUPTED ACCESS TO ALL FIRE HYDRANTS, WATER VALVES, GAS VALVES, MANHOLES AND FIRE ALARM OR POLICE CALL BOXES IN THE VICINITY.
10. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND LICENSES NECESSARY FOR THE EXECUTION OF THE WORK AND SHALL FULLY COMPLY WITH ALL THEIR TERMS AND CONDITIONS. WHENEVER THE WORK UNDER THIS CONTRACT REQUIRES THE OBTAINING OF PERMITS FROM THE GOVERNING AUTHORITIES, THE CONTRACTOR SHALL FURNISH DUPLICATE COPIES OF SUCH PERMITS TO THE OWNER BEFORE THE WORK COVERED THEREBY IS STARTED. NO WORK WILL BE ALLOWED TO PROCEED BEFORE SUCH PERMITS HAVE BEEN OBTAINED. COSTS ASSOCIATED WITH PERMITS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
11. THE GOVERNING AUTHORITIES AND/OR THE OWNER WILL PROVIDE INSPECTION OF THE PROPOSED CONSTRUCTION. THE OWNER WILL PAY THE COSTS FOR INSPECTION SERVICES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE WELL IN ADVANCE OF PENDING CONSTRUCTION ACTIVITIES TO THE GOVERNING AUTHORITIES AND/OR OWNER FOR SCHEDULING OF INSPECTION SERVICES, WORK MAY NOT BE BACKFILLED OR COVERED UNTIL IT HAS BEEN INSPECTED BY THE GOVERNING AUTHORITY.
12. THE CONTRACTOR SHALL PROTECT ALL PROPERTY CORNER MARKERS AND BENCHMARKS. WHEN ANY SUCH MARKERS OR MONUMENTS ARE IN DANGER OF BEING DISTURBED, THEY SHALL BE PROPERLY REFERENCED AND IF DISTURBED SHALL BE RESET BY A REGISTERED PUBLIC SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
13. ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE GOVERNING AUTHORITIES AND/OR OWNER.
14. AT NIGHT AND DURING ALL PERIODS OF TIME WHEN EQUIPMENT IS NOT BEING ACTIVELY USED FOR THE CONSTRUCTION WORK, THE CONTRACTOR SHALL PARK THE EQUIPMENT AT LOCATIONS WHICH ARE APPROVED BY THE OWNER. DURING THE CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH THE PRESENT ZONING REQUIREMENTS OF THE GOVERNING AUTHORITIES IN THE USE OF VACANT PROPERTY FOR STORAGE PURPOSES. THE CONTRACTOR SHALL ALSO PROVIDE ADEQUATE BARRICADES, MARKERS, AND LIGHTS TO PROTECT THE OWNER, THE GOVERNING AUTHORITIES, AND THE PUBLIC. ALL BARRICADES, LIGHTS, AND MARKERS MUST MEET THE REQUIREMENTS OF THE GOVERNING AUTHORITIES' REGULATIONS.
15. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR PURCHASING WATER FROM THE GOVERNING AUTHORITY FOR USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
16. THE CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR THE INSTALLATION AND PURCHASING OF TEMPORARY ELECTRIC AND COMMUNICATIONS SERVICES FROM THE AVAILABLE PROVIDERS FOR HIS USE ON THE PROJECT SITE. COSTS ASSOCIATED WITH THIS SERVICE SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
17. IN THE EVENT THAT OTHER CONTRACTORS ARE DOING WORK IN THE SAME AREA SIMULTANEOUSLY WITH THE PROJECT, THE CONTRACTOR SHALL COORDINATE HIS PROPOSED CONSTRUCTION WITH THAT OF THE OTHER CONTRACTORS.
18. PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH REPRESENTATIVES FROM ALL CONTRACTORS, THE ENGINEER, THE OWNER, AND THE GOVERNING AUTHORITY.
19. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER IF ANY DISCREPANCIES ARISE BETWEEN EXISTING CONDITIONS AND THE CONSTRUCTION DOCUMENTS.
20. THE CONTRACTOR SHALL KEEP THE SITE OF THE WORK AND ADJACENT PREMISES AS FREE FROM MATERIAL, DEBRIS AND RUBBISH AS IS PRACTICABLE. THE CONTRACTOR SHALL REMOVE MATERIAL, DEBRIS, AND RUBBISH FROM ANY PORTION OF THE SITE IF, IN THE OPINION OF THE OWNER, SUCH MATERIAL, DEBRIS, AND RUBBISH CONSTITUTES A NUISANCE OR IS OBJECTIONABLE.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE CLEANLINESS OF EXISTING PAVED ROADS ADJACENT TO OR WITHIN THE SITE. COSTS ASSOCIATED WITH MAINTAINING THE CLEANLINESS OF EXISTING ROADS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
22. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO CONTROL DUST ON THE PROJECT SITE BY SPRINKLING OF WATER, OR ANY OTHER METHODS APPROVED BY THE GOVERNING AUTHORITIES. COSTS ASSOCIATED WITH DUST CONTROL SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
23. DUST CONTROL SHALL BE ACCOMPLISHED BY WATERING DRY, EXPOSED AREAS ON A REGULAR BASIS. SPRAYING OF PETROLEUM BASED OR TOXIC LIQUIDS FOR THIS IS PROHIBITED.
24. THE CONTRACTOR SHALL CLEAN UP ALL PARTS OF THE WORK BEFORE ACCEPTANCE BY THE OWNER. THIS CLEAN UP SHALL INCLUDE REMOVAL OF ALL OBJECTIONABLE MATERIALS AND, IN GENERAL, PREPARING THE SITE OF THE WORK IN AN ORDERLY MANNER OF APPEARANCE.
25. REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK: ALL WORK WHICH HAS BEEN REJECTED OR CONDEMNED SHALL BE REPAIRED, OR IF IT CANNOT BE REPAIRED SATISFACTORILY, IT SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. DEFECTIVE MATERIALS SHALL BE IMMEDIATELY REMOVED FROM THE WORK SITE. WORK DONE BEYOND THE LINE OR NOT IN CONFORMITY WITH THE GRADES SHOWN ON THE DRAWINGS OR AS WRITTEN AUTHORITY AND PRIOR AGREEMENT IN WRITING AS TO PRICES, SHALL BE AT THE CONTRACTOR'S RISK AND WILL BE CONSIDERED UNAUTHORIZED, AND THE OPTION OF THE OWNER MAY NOT BE MEASURED AND PAID FOR AND MAY BE ORDERED REMOVED AT THE CONTRACTOR'S EXPENSE. UPON FAILURE OF THE CONTRACTOR TO REPAIR SATISFACTORILY OR TO REMOVE AND REPLACE, IF SO DIRECTED, REJECTED, UNAUTHORIZED, OR CONDEMNED WORK OR MATERIALS IMMEDIATELY AFTER RECEIVING NOTICE FROM THE OWNER, THE OWNER WILL, AFTER GIVING WRITTEN NOTICE TO THE CONTRACTOR, HAVE THE AUTHORITY TO CAUSE DEFECTIVE WORK TO BE REMEDIED, OR REMOVED AND REPLACED, OR TO CAUSE UNAUTHORIZED WORK TO BE REMOVED AND TO DEDUCT THE COST THEREOF FROM ANY MONIES DUE OR TO BECOME DUE THE CONTRACTOR.
26. THE CONTRACTOR SHALL MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF ALL MATERIALS AND SYSTEMS COVERED BY THE PROJECT CONTRACT DOCUMENTS. THE COMPLETE SET OF "RECORD DRAWINGS" MUST BE DELIVERED TO THE OWNER AND/OR ENGINEER BEFORE REQUESTING FINAL PAYMENT.
27. ALL MATERIALS TO BE REMOVED FROM THE SITE INCLUDED, BUT NOT LIMITED TO, EXCESS MATERIAL AND UNSUITABLE MATERIALS SUCH AS CONCRETE, ASPHALT, LARGE ROCKS, REFUSE, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT. CONTRACTOR SHALL ALSO COMPLY WITH ALL APPLICABLE LAWS GOVERNING SPILLAGE OF DEBRIS WHILE TRANSPORTING TO A DISPOSAL SITE. COSTS ASSOCIATED WITH THE DISPOSAL OF EXCESS AND UNSUITABLE MATERIALS SHALL BE INCLUDED IN THE CONTRACT AMOUNT.
28. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE WITH ALL HANDICAPPED ACCESSIBILITY REQUIREMENTS INCLUDING SIGNAGE, TEXTURES, COLORING, MARKINGS, AND SLOPES OF ADA/TAS 2012 ACCESSIBLE ROUTES & RAMPS, AND PARKING SPACES.
29. ALL CONSTRUCTION MUST ADHERE TO THE TREE PRESERVATION REQUIREMENTS OF THE GOVERNING AUTHORITY.
30. INDIVIDUAL WATER AND SEWER SERVICES AND WATER VALVES SHALL BE MARKED IN ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
31. THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION. THE PONDING OF WATER IN STREETS, DRIVES, TRENCHES, ETC, WILL NOT BE ALLOWED.
32. THE CONTRACTOR SHALL MAINTAIN EXISTING DRIVEWAYS ACCESS AT ALL TIME. THE CONTRACTOR MUST CEASE ALL CONSTRUCTION OPERATIONS IMMEDIATELY IF A SUSPECTED ARCHEOLOGICAL OBJECT/ARTIFACT IS UNCOVERED DURING CONSTRUCTION. THE CONTRACTOR MUST IMMEDIATELY CONTACT THE TEXAS HISTORICAL COMMISSION AND THE GOVERNING AUTHORITY. PROJECT WORK SHALL NOT COMMENCE UNTIL PROPER PERMITS ARE IN PLACE AND PROVIDED TO THE GOVERNING AUTHORITY.

EXISTING FACILITIES AND EXISTING UTILITIES NOTES:

33. AS REQUIRED BY "THE TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT". TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4545) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS BEING PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS ARE BASED ON THE RECORDS AND/OR FIELD INFORMATION AVAILABLE AND ARE NOT GUARANTEED BY THE OWNER OR ENGINEER TO BE ACCURATE AS TO THE LOCATION AND DEPTH. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY LOCATIONS OF ADJACENT AND/OR CONFLICTING UTILITIES SUFFICIENTLY IN ADVANCE OF HIS ACTIVITIES IN ORDER THAT HE MAY NEGOTIATE SUCH LOCAL ADJUSTMENTS AS NECESSARY IN THE CONSTRUCTION PROCESS TO PROVIDE ADEQUATE CLEARANCES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS IN ORDER TO PROTECT ALL EXISTING UTILITIES, SERVICES, AND STRUCTURES ENCOUNTERED WHETHER OR NOT THEY ARE ON THE PLANS. ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AT HIS EXPENSE. TO AVOID UNNECESSARY INTERFERENCES OR DELAYS, THE CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVALS, REPLACEMENTS, AND CONSTRUCTION WITH THE APPROPRIATE GOVERNING AUTHORITIES. THE OWNER WILL NOT BE LIABLE FOR DAMAGES DUE TO DELAY BECAUSE OF THE ABOVE. DIFFERENCES IN HORIZONTAL OR VERTICAL LOCATIONS OF EXISTING UTILITIES SHALL NOT BE BASIS FOR ADDITIONAL COMPENSATIONS TO THE CONTRACTOR.
34. WHERE EXISTING UTILITIES, SERVICE LINES, OR IRRIGATION LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITIES, SERVICE LINES, OR IRRIGATION LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION, OR BETTER, UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS, AT HIS OWN COST AND EXPENSE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICTS OR DISCREPANCIES.
35. ALL FENCES AND LANDSCAPING ENCOUNTERED AND REMOVED DURING CONSTRUCTION, EXCEPT THOSE DESIGNATED TO BE REMOVED OR RELOCATED, SHALL BE RESTORED TO THE ORIGINAL (OR BETTER) CONDITION UPON COMPLETION OF THE PROJECT. WHERE WIRE FENCING, EITHER WIRE MESH OR BARBED WIRE, IS TO BE CROSSED, THE CONTRACTOR SHALL SET CROSS-BRACED POSTS ON EITHER SIDE OF THE CROSSING. TEMPORARY FENCING SHALL BE ERECTED IN PLACE OF THE FENCING REMOVED WHENEVER THE WORK IS NOT IN PROGRESS AND WHEN THE SITE IS VACATED OVERNIGHT AND/OR AT ALL TIMES TO PREVENT PERSONS AND/OR LIVESTOCK FROM ENTERING THE CONSTRUCTION AREA. THE COST OF FENCE REMOVAL, TEMPORARY CLOSURES AND REPLACEMENT SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

STORMWATER POLLUTION PREVENTION PLAN AND EROSION CONTROL NOTES:

36. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH THE CONDITIONS OF THE S.W.P.P.P. AND T.C.E.Q. WHILE CONDUCTING HIS ACTIVITIES ON THE PROJECT.
37. ALL AREAS DISTURBED BY CHANNEL EXCAVATION SHALL BE REVEGETATED AS SET FORTH IN THE S.W.P.P.P., WHICH WAS PREPARED SPECIFICALLY FOR THIS PROJECT, OR OTHERWISE PROTECTED AGAINST EROSION BY THE USE OF RIP RAP, GABIONS, OR GEOTEXTILES.
38. THE GENERAL CONTRACTOR, AS THE T.C.E.Q. DEFINED "OPERATOR," SHALL PERFORM ALL REQUIRED INSPECTIONS OF STORM WATER CONTROLS AND PRACTICES AT FREQUENCIES OUTLINED IN THE T.P.D.E.S. GENERAL PERMIT AND SHALL FILL OUT APPROPRIATE INSPECTION FORMS (AS PROVIDED IN THE S.W.P.P.P.).
39. THE CONTRACTOR SHALL MODIFY THIS PLAN TO SHOW LOCATIONS OF TEMPORARY WASHDOWN AREA, PORTABLE TOILETS, EQUIPMENT MAINTENANCE/REPAIR AREAS, STOCKPILE AREAS, FUEL STORAGE AREAS, ETC, AND POLLUTANT CONTROLS FOR EACH.
40. ALL PRIVATE HAUL ROADS AND ACCESS ROUTES AND THE LOCATION OF ALL STAGING AREAS AND STORAGE AREAS SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND REPAIRING ALL ROADS AND OTHER FACILITIES USED DURING CONSTRUCTION. UPON COMPLETION OF THE PROJECT, ALL HAUL ROADS, ACCESS ROADS, STAGING AREAS, AND STORAGE AREAS SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE CONDITION AT THE TIME THE CONTRACTOR COMMENCES WORK ON THE PROJECT.
41. USE OF ON-SITE FUEL STORAGE TANKS IS DISCOURAGED. HOWEVER, IF USED, THE PREVENTION OF HAZARDS TO THE GROUND WATER IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR UTILIZING SAID STORAGE. SEE N.C.T.C.O.G. CONSTRUCTION BMP MANUAL SECTION 4 HAZARDOUS WASTE MANAGEMENT.
42. CONSTRUCTION ENTRANCES ARE TO BE INSTALLED AT ALL POINTS WHERE EQUIPMENT ENTERS OR LEAVES THE SITE. THE LOCATION OF SAME IS TO BE APPROVED BY THE OWNER OR HIS REPRESENTATIVE.
43. THIS EROSION CONTROL PLAN IS A SUPPLEMENT TO THE S.W.P.P.P. PREPARED BY OTHERS. REFER TO THE S.W.P.P.P. FOR ADDITIONAL REQUIREMENTS.
44. ADDITIONAL EROSION CONTROL MEASURES MAY BE IMPLEMENTED BY THE CONTRACTOR AT HIS DISCRETION AT NO ADDITIONAL EXPENSE TO THE OWNER. THE ADDITION OR DELETION OF ANY EROSION CONTROL MEASURE MAY REQUIRE THAT THE S.W.P.P.P. BE MODIFIED IN ACCORDANCE WITH THE T.C.E.Q.'S T.P.D.E.S. GENERAL PERMIT GUIDELINES.
45. PLANTING AND/OR SEEDING OF VEGETATED AREAS TO ACCOMPLISH STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LANDSCAPING PLAN. AREAS BEYOND THE LIMITS OF THE LANDSCAPING PLAN (OR WHEN A LANDSCAPING PLAN DOES NOT EXIST) SHALL BE HYDROMULCHED WITH HIGHWAY MIX AND WATERED WITH TEMPORARY ABOVE GROUND IRRIGATION UNTIL THE VEGETATION IS ESTABLISHED.
46. THE CONTRACTOR SHALL ASSUME LIABILITY FOR DAMAGE TO ADJACENT PROPERTIES AND/OR PUBLIC RIGHT OF WAY RESULTING FROM FAILURE TO FULLY IMPLEMENT AND EXECUTE ALL EROSION CONTROL PROCEDURES SHOWN AND NOTED IN THESE PLANS.
47. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO USE WHATEVER MEANS ARE NECESSARY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THE SITE, SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREETS, ALLEYS, STREAMS, STORM DRAIN SYSTEMS AND INLETS FROM EROSION DEPOSITS.
48. EROSION CONTROLS TO REMAIN IN PLACE AND TO BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED.
49. SILT FENCES SHALL BE PLACED AROUND ANY STOCKPILES USED ON THE SITE.
50. ALL TEMPORARY EROSION CONTROL DEVICES (SILT FENCE, ETC.) SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF SITE WITHIN THIRTY DAYS AFTER STABILIZATION OF ALL DISTURBED SURFACES IS COMPLETE.
51. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES ALREADY IN PLACE. CONTRACTOR SHALL REMOVE AND REPLACE EROSION CONTROL AS NEEDED FOR CONSTRUCTION OR ACCESS. CONTRACTOR SHALL REPLACE ANY EROSION CONTROL MATERIALS AT THE END OF EACH WORKDAY IF SAID MATERIALS WERE REMOVED DURING THE DAY FOR EASE OF CONSTRUCTION OR ACCESS.
52. EROSION CONTROL MEASURES MAY ONLY BE PLACED IN FRONT OF INLETS OR IN CHANNELS, DRAINAGEWAYS OR BORROW DITCHES AT RISK OF CONTRACTOR. CONTRACTOR SHALL REMAIN LIABLE FOR ANY DAMAGE CAUSED BY MEASURES, INCLUDING FLOODING DAMAGE WHICH MAY OCCUR DUE TO BLOCKED DRAINAGE. AT THE CONCLUSION OF ANY PROJECT, ALL CHANNELS, DRAINAGEWAYS AND BORROW DITCHES IN THE WORK ZONE SHALL BE DREDGED OF ANY SEDIMENT GENERATED BY THE PROJECT OR DEPOSITED AS A RESULT OF EROSION CONTROL MEASURES.
53. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY THE GOVERNING AUTHORITIES.
54. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED SHALL BE PERMANENTLY PLANTED AND/OR SEEDED WITHIN 14 DAYS.
55. DISTURBED AREAS ON THE SITE WHERE CONSTRUCTION ACTIVITY HAS CEASED FOR AT LEAST 14 DAYS SHALL BE TEMPORARILY PLANTED AND/OR SEEDED AND WATERED.
56. ALL WASH WATER SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN WASH WATER POLLUTANTS AND STORM RUNOFF DISCHARGED FROM THIS SITE.
57. ALL VEHICLES SHALL BE CLEANED AT THE CONSTRUCTION EXIT POINT(S) BEFORE LEAVING THE SITE.
58. A CENTRALIZED PIT/WASH BASIN SHALL BE CONSTRUCTED ON-SITE FOR THE PURPOSE OF CONCRETE TRUCK WASHING. SEE N.C.T.C.O.G. CONSTRUCTION BMP MANUAL SECTION 4 CONCRETE WASTE MANAGEMENT.
59. THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SILT IN ANY STORM SEWER INLETS AND PIPES, AND ALONG SILT FENCES WITHIN 48 HOURS AFTER INSPECTION OF DEVICES REVEALS THE PRESENCE OF EXCESS SILTATION.
60. OIL AND GREASE ABSORBING MATERIALS SHALL BE READILY AVAILABLE ON-SITE AND SHALL BE PROMPTLY USED TO CONTAIN AND/OR CLEAN UP ALL FUEL OR CHEMICAL SPILLS OR LEAKS.
61. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ONTO ADJACENT ROADWAYS BY ANY VEHICLES EXITING THE SITE SHALL BE CLEANED OR REMOVED IMMEDIATELY.
62. IF DIRT OR ROCK IS EXPORTED FROM THIS SITE, OR IF DIRT OR ROCK IS IMPORTED FROM AN OFF SITE BORROW LOCATION, THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR COMPLIANCE WITH ALL T.C.E.Q. STORM WATER REQUIREMENTS FOR THE REMOTE SITE. THE CONTRACTOR SHALL FURNISH THE OWNER WITH A COPY OF THE WRITTEN AGREEMENT WITH THE LANDOWNER OF THE REMOTE SITE INDICATING PERMITTING/PERMISSION AND EROSION CONTROL MEASURES WILL BE IMPLEMENTED THEREON.
63. THE CONTRACTOR SHALL RESTORE ALL AREAS, ONSITE AND OFFSITE, DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO: TRENCH BACKFILL, SIDE SLOPES, FENCES, CULVERT PIPES, DRAINAGE SWALES, STAGING AREAS, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS. UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE DRAWINGS, RESTORATION SHALL INCLUDE HYDROMULCHING ALL DISTURBED AREAS WITH A SLOPE OF LESS THAN 20% (1:5) AND SODDING AREAS WITH A SLOPE OF 20% (1:5) OR GREATER. ESTABLISHMENT OF GRASS THROUGH PROPER WATERING IS LEFT UP TO THE CONTRACTOR'S MEANS AND METHODS, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE/IRRIGATION DRAWINGS.

UTILITY NOTES:

64. ALL PIPE LENGTHS MEASURED FROM STATION TO STATION BASED ON THE CENTER OF STRUCTURE UNLESS OTHERWISE NOTED.
65. PIPE SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH GOVERNING AUTHORITY REQUIREMENTS.
66. THE CONTRACTOR SHALL NOT REMOVE, DISABLE OR DISRUPT EXISTING FIRE OR LIFE SAFETY SYSTEMS WITHOUT RECEIVING PRIOR WRITTEN PERMISSION FROM THE GOVERNING AUTHORITY.
67. FIRE HYDRANTS AND VALVES AS SHOWN ON THIS PLAN ARE SYMBOLIC ONLY. INSTALLATION OF SAME IS TO BE IN ACCORDANCE WITH THE DETAIL AND/OR AT THE STATIONS AS NOTED.
68. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS GOVERNING EXCAVATION. THE CONTRACTOR SHALL PROVIDE DETAILED PLANS AND SPECIFICATION FOR TRENCH SAFETY SYSTEMS THAT COMPLY WITH APPLICABLE LAWS GOVERNING EXCAVATION. THESE PLANS SHALL BE SEALED BY AN ENGINEER EXPERIENCED IN THE DESIGN OF TRENCH SAFETY SYSTEM, REGISTERED IN THE STATE OF TEXAS. THE CONTRACTOR SHALL SUBMIT COMPLETED TRENCH SAFETY PLANS TO THE GOVERNING AUTHORITY PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL ASPECTS OF WORK RELATED TO EXCAVATION. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U.S. DEPARTMENT OF LABOR, O.S.H.A., "CONSTRUCTION SAFETY AND HEALTH REGULATIONS".
69. ALL TRENCH BACKFILL SHALL BE PER GOVERNING AUTHORITY REQUIREMENTS UNLESS OTHERWISE NOTED.
70. SEE WATER CONSTRUCTION DETAILS SHEET FOR CONSTRUCTION DETAILS.
71. ALL CLEAN-OUTS TO BE PROVIDED PER GOVERNING AUTHORITY REQUIREMENTS.
72. THE CONTRACTOR SHALL MAINTAIN EXISTING SANITARY SEWER AND WATER SERVICES AT ALL TIMES DURING CONSTRUCTION.
73. AT ALL LOCATIONS IN THE PROFILES WHERE SDR-26 PVC PIPE IS SPECIFIED BENEATH WATER LINES, IT IS TO BE BACKFILLED WITH CEMENT STABILIZED SAND AS REQUIRED BY T.C.E.Q. REGULATION 217.53 (d) (3) FOR A DISTANCE OF 10' EITHER SIDE OF THE WATER LINE. AT OTHER LOCATIONS WHERE SDR-26 IS SPECIFIED, IT IS TO BE BACKFILLED AS NOTED.
74. ANY CONNECTION TIE-IN TO AN EXISTING MANHOLE MUST BE CORED.
75. ALL CURVED STORM DRAIN IS TO BE CONSTRUCTED WITH RADIUS PIPE OR BY METHOD OF PULLED JOINTS AND IS TO HAVE ALL JOINTS GROUTED, AS NECESSARY. IT SHALL BE THE CONTRACTORS OPTION AS TO WHICH METHOD TO USE. THERE SHALL BE NO SEPARATE PAY.
76. AFTER COMPLETION OF ALL STORM SEWER INSTALLATION, THE CONTRACTOR SHALL ENSURE THAT ALL DEBRIS AND SILT HAS BEEN REMOVED

TRAFFIC CONTROL NOTES:

77. THE CONTRACTOR SHALL PREPARE ALL TRAFFIC CONTROL PLANS AND SUBMIT TO THE GOVERNING AUTHORITY PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMITS FOR WORK WITHIN THE GOVERNING AUTHORITY. THE PLAN SHALL BE PREPARED IN ACCORDANCE WITH THE CURRENT EDITION OF THE TEXAS M.U.T.C.D. AND AS MODIFIED BY THE T.X.D.O.T. SUPPLEMENT TO THE M.U.T.C.D. THE PLAN SHALL ADDRESS THE REQUIREMENTS FOR ALL SIGNS, BARRICADES, FLAGMEN, SIGNAL, PAVEMENT MARKING, LIGHTS, HOURS OF CONSTRUCTION, AND OTHER DEVICES AS NECESSARY FOR SAFE TRAFFIC CONTROL. THE COSTS ASSOCIATED WITH THE PREPARATION AND IMPLEMENTATION OF THE TRAFFIC CONTROL PLAN SHALL BE INCLUDED IN THE CONTRACT AMOUNT.

GRADING NOTES:

78. IF ROCK IS ENCOUNTERED IN THE PAVEMENT SUBGRADE, REFER TO THE GEOTECHNICAL REPORT (NO G20-3956) FOR RECOMMENDATIONS AND PROCEDURES. THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO THIS CONTRACT.
79. MANHOLE RIM ELEVATIONS, CLEAN-OUTS, VALVE BOXES, FIRE HYDRANTS, ETC., SHALL BE ADJUSTED TO FINISHED GRADE BY THE PAVING CONTRACTOR AT THE TIME OF PAVING.
80. THE SUBGRADE SHALL BE PROOF ROLLED AND OBSERVED BY THE CONSTRUCTION INSPECTOR PRIOR TO AND AFTER SUB-GRADE STABILIZATION.
81. ROUGH SITE GRADING SHALL BE COMPLETED TO A TOLERANCE OF PLUS OR MINUS ONE TENTH OF ONE FOOT IN STREETS AND PLUS OR MINUS THREE TENTHS OF ONE FOOT FOR BUILDING PADS. FINAL LOT GRADING, TO BE DONE UPON COMPLETION OF PAVING AND UTILITY FACILITIES, SHALL BE PROVIDED TO A TOLERANCE OF PLUS OR MINUS ONE TENTH OF ONE FOOT AT ALL FOUR CORNERS AND CENTER

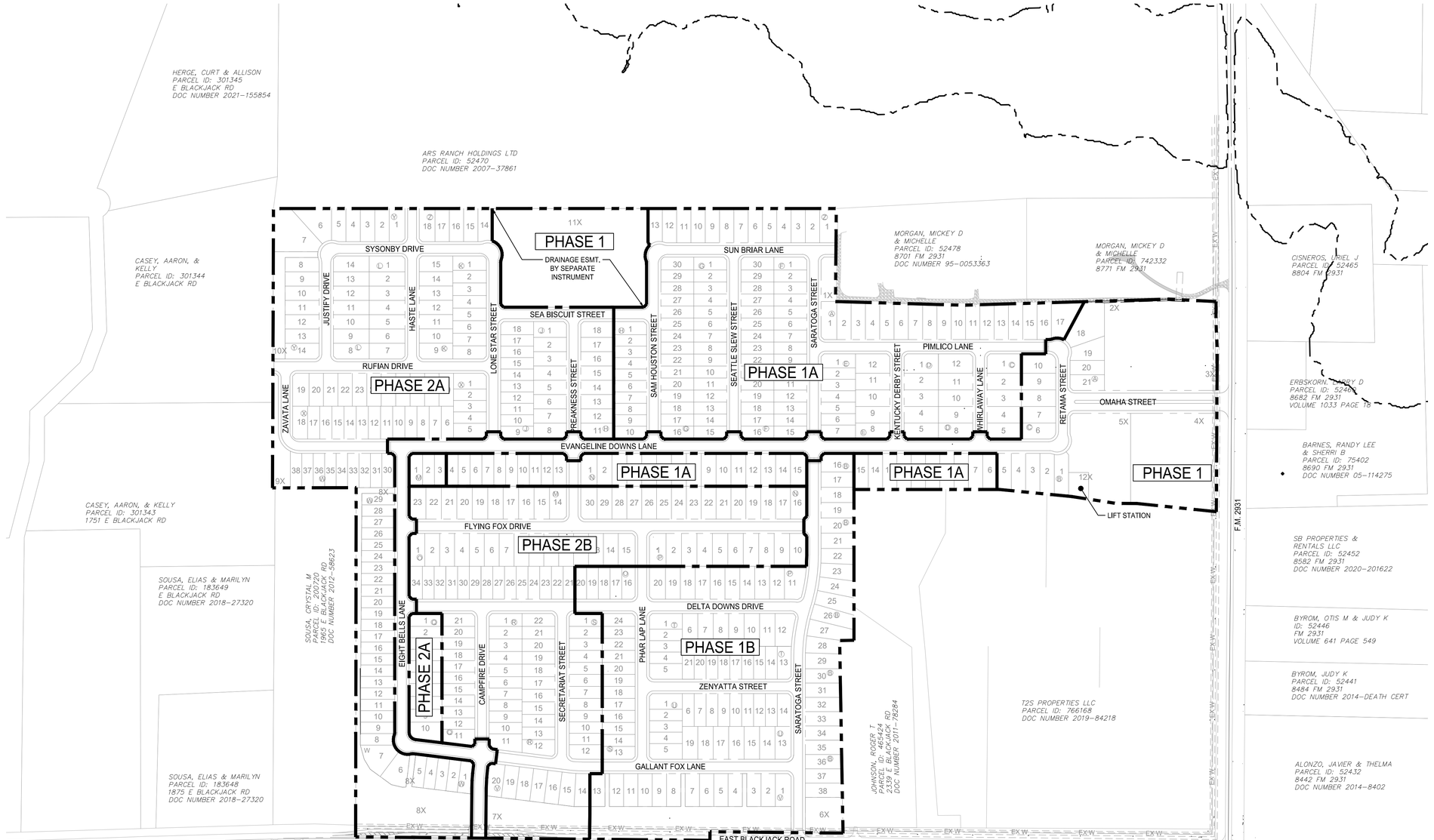
SECOND SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

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0 200' 400'
SCALE: 1" = 200'

PHASE BOUNDARY
PROPERTY BOUNDARY

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

PHASING PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	05
REVIEWER: NVT			

SARATOGA PHASE 2A

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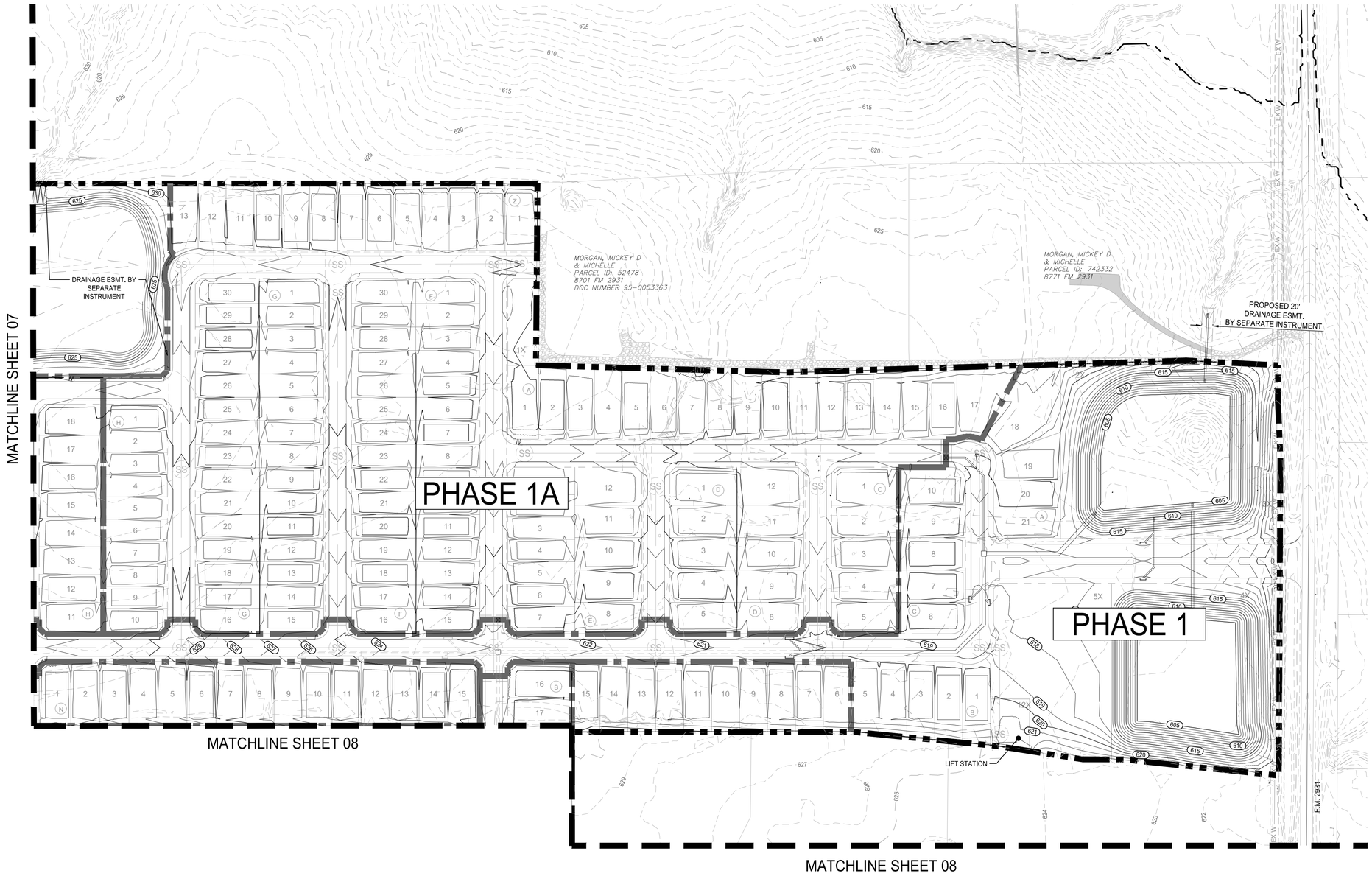
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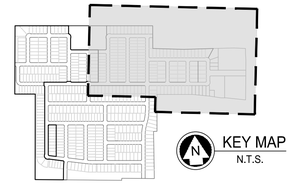
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0 100' 200'
SCALE: 1" = 100'

- PHASE BOUNDARY
- PROPERTY BOUNDARY
- SS — SANITARY SEWER PIPE
- W — WATER PIPE
- STORM DRAIN
- EXISTING SANITARY SEWER PIPE
- EXISTING WATER PIPE
- EXISTING STORM DRAIN
- 135 — PROPOSED MAJOR CONTOUR
- 133 — PROPOSED MINOR CONTOUR
- 135 — EXISTING MAJOR CONTOUR
- 133 — EXISTING MINOR CONTOUR



KEY MAP
N.T.S.

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OVERALL ENGINEERING PLAN

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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	06
REVIEWER: NVT			

SARATOGA PHASE 2A

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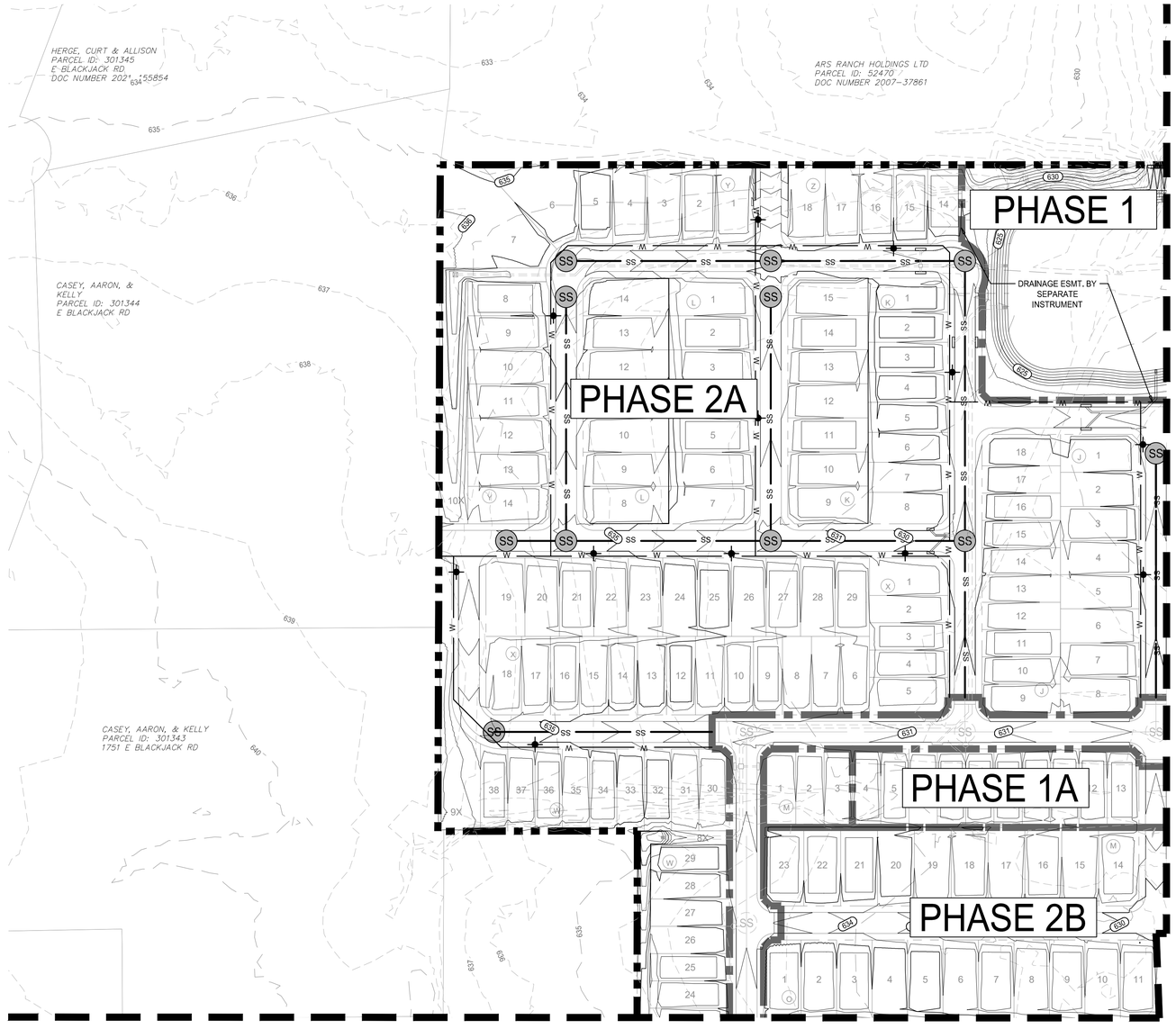
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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	##
REVIEWER: NVT			

SARATOGA PHASE 2A

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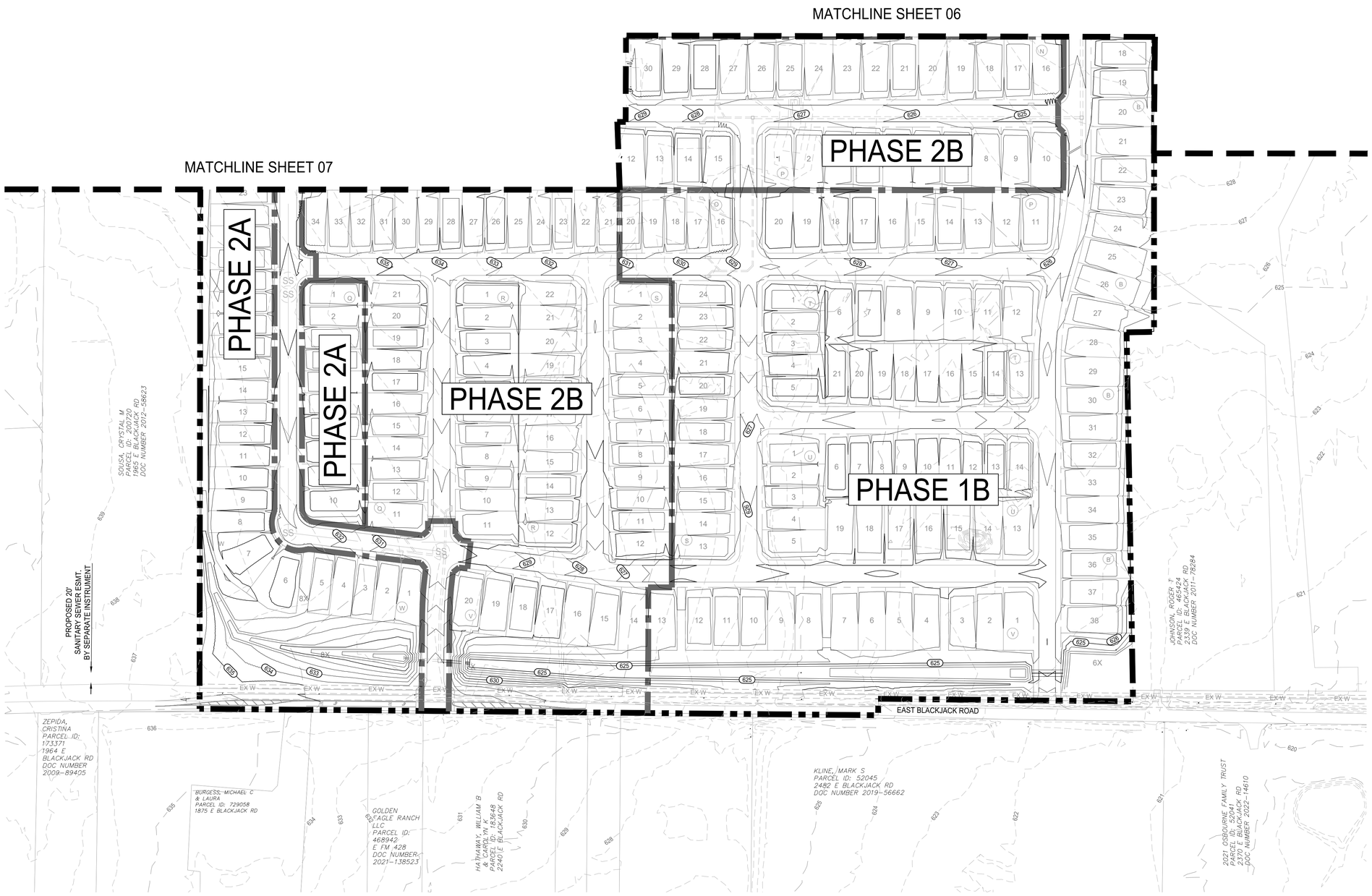
SECOND SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

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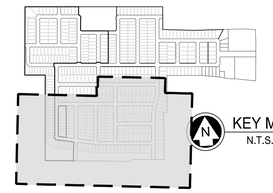


N

0 100' 200'

SCALE: 1" = 100'

- PHASE BOUNDARY
- PROPERTY BOUNDARY
- SS — SANITARY SEWER PIPE
- W — WATER PIPE
- STORM DRAIN
- EXISTING SANITARY SEWER PIPE
- EXISTING WATER PIPE
- EXISTING STORM DRAIN
- 135 — PROPOSED MAJOR CONTOUR
- 133 — PROPOSED MINOR CONTOUR
- 135 — EXISTING MAJOR CONTOUR
- 133 — EXISTING MINOR CONTOUR



BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

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ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

OVERALL ENGINEERING PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	08
REVIEWER: NVT			

SARATOGA PHASE 2A

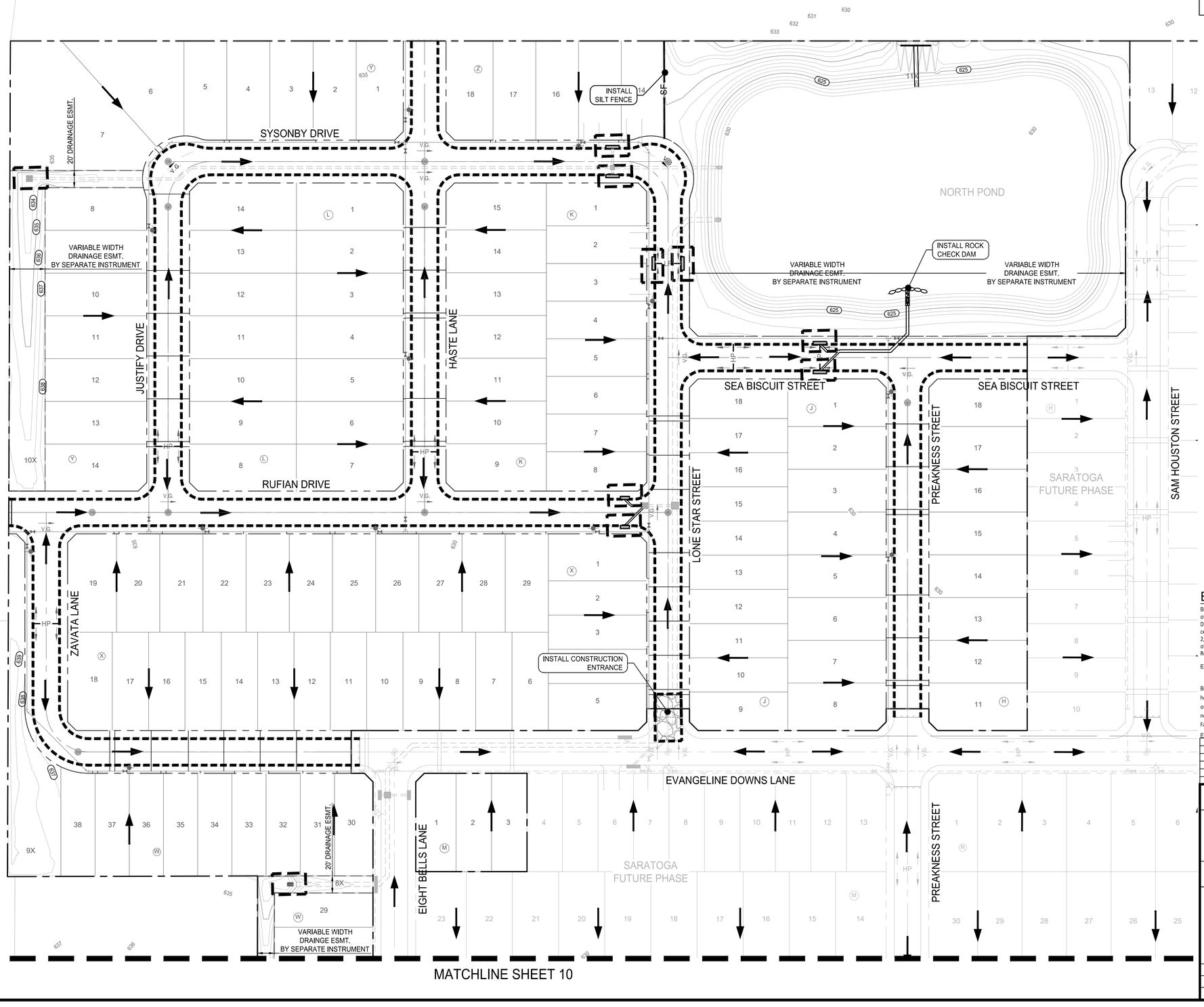
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CASEY, AARON, & KELLY
PARCEL ID: 301344
E BLACKJACK RD

CASEY, AARON, & KELLY
PARCEL ID: 301343
1751 E BLACKJACK RD

0 60' 120'
SCALE: 1" = 60'

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SILT FENCE
- PROPOSED CURLEX (4' OR 8') & SILT FENCE (TO BE APPLIED AFTER PAVING AT ROW)
- PROPOSED CHECK DAM
- INLET PROTECTION
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE

NOTES:

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KEY MAP
N.T.S.

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SARATOGA PHASE 2A

EROSION CONTROL PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
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TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	09
REVIEWER: NVT			

SARATOGA PHASE 2A

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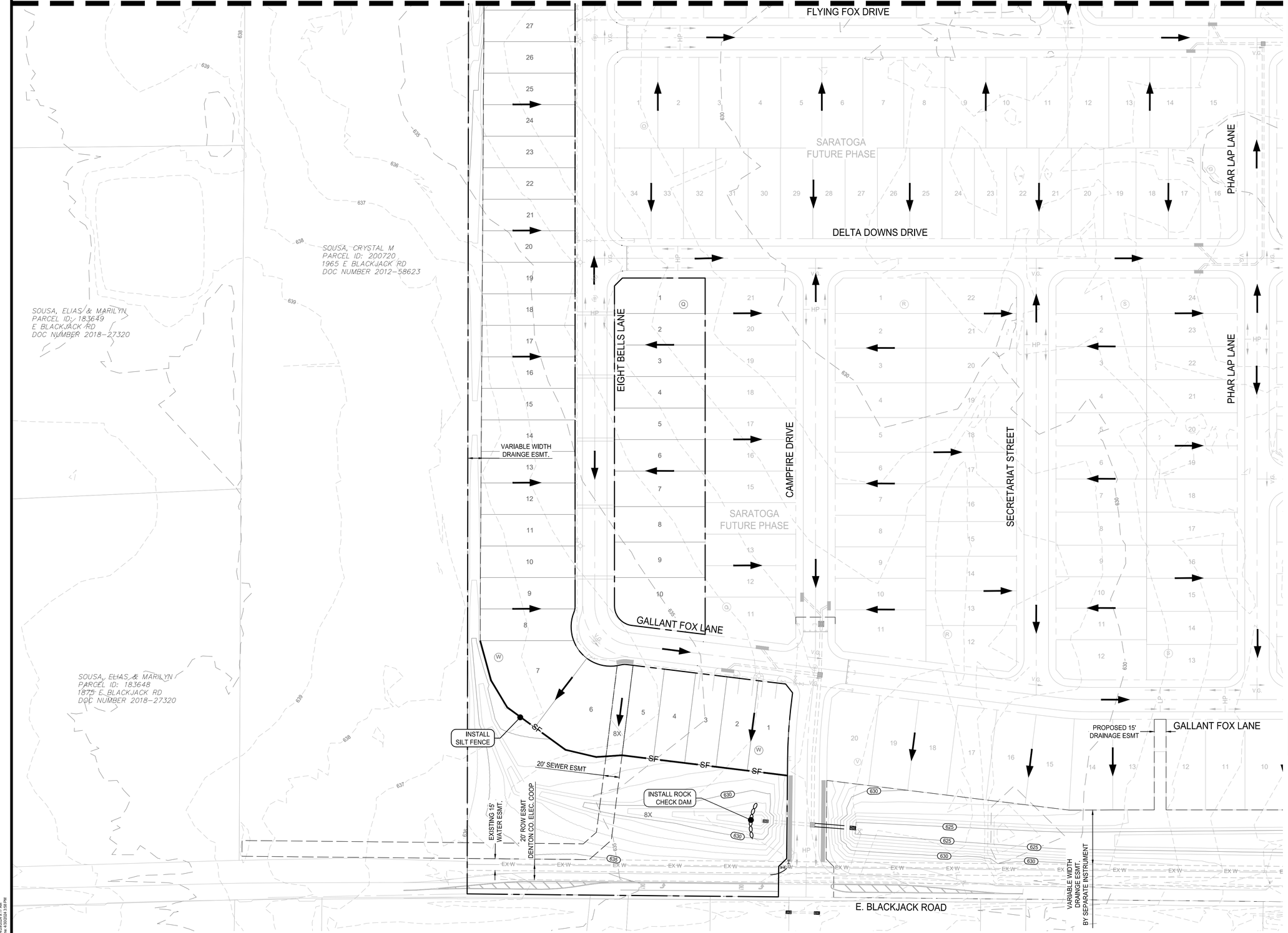
SECOND SUBMITTAL

MATCHLINE SHEET 09

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N

0 60' 120'

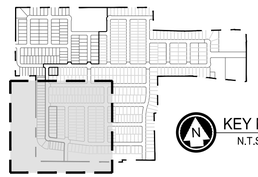
SCALE: 1" = 60'

LEGEND

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SARATOGA PHASE 2A

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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	10
REVIEWER: NVT			

SARATOGA PHASE 2A

Drawing: G:\Off\gee21003-saratoga\PhD\29Phase 1\3_Design\35_Civil\01_CAD\civil_plans\GEE21003-C-ECP
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Last Saved On: 4/30/2024 8:17 AM
Plot Date/Time: 4/30/2024 3:58 PM

SECOND SUBMITTAL

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N

0 40' 80'

SCALE: 1" = 40'

LEGEND

645	PROPOSED MAJOR CONTOUR
644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
	GRADE BREAK
	DRAINAGE SWALE
×EX 532.5	EXISTING SPOT ELEVATION
×532.5	PROPOSED SPOT ELEVATION
FP 532.5	FINISHED PAD
TW 519.2 / BW 518.7 ×	TOP OF WALL / BOTTOM OF WALL
EW 518.7 ×	END OF WALL
HP	HIGH POINT
LP	LOW POINT

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SARATOGA PHASE 2A

GRADING PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
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TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	11
REVIEWER: NVT			

SARATOGA PHASE 2A

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Last Saved On: 4/30/2024 8:35 AM
Plot Date/Time: 4/30/2024 2:39 PM

SECOND SUBMITTAL

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0 40' 80'
SCALE: 1" = 40'

LEGEND

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644	PROPOSED MINOR CONTOUR
520	EXISTING MAJOR CONTOUR
519	EXISTING MINOR CONTOUR
	RETAINING WALL
EB	EXPOSED GRADE BEAM
	GRADE BREAK
	DRAINAGE SWALE
EX 532.5	EXISTING SPOT ELEVATION
532.5	PROPOSED SPOT ELEVATION
FP 532.5	FINISHED PAD
TW 519.2 / BW 518.7	TOP OF WALL / BOTTOM OF WALL
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HP	HIGH POINT
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SARATOGA PHASE 2A

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AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

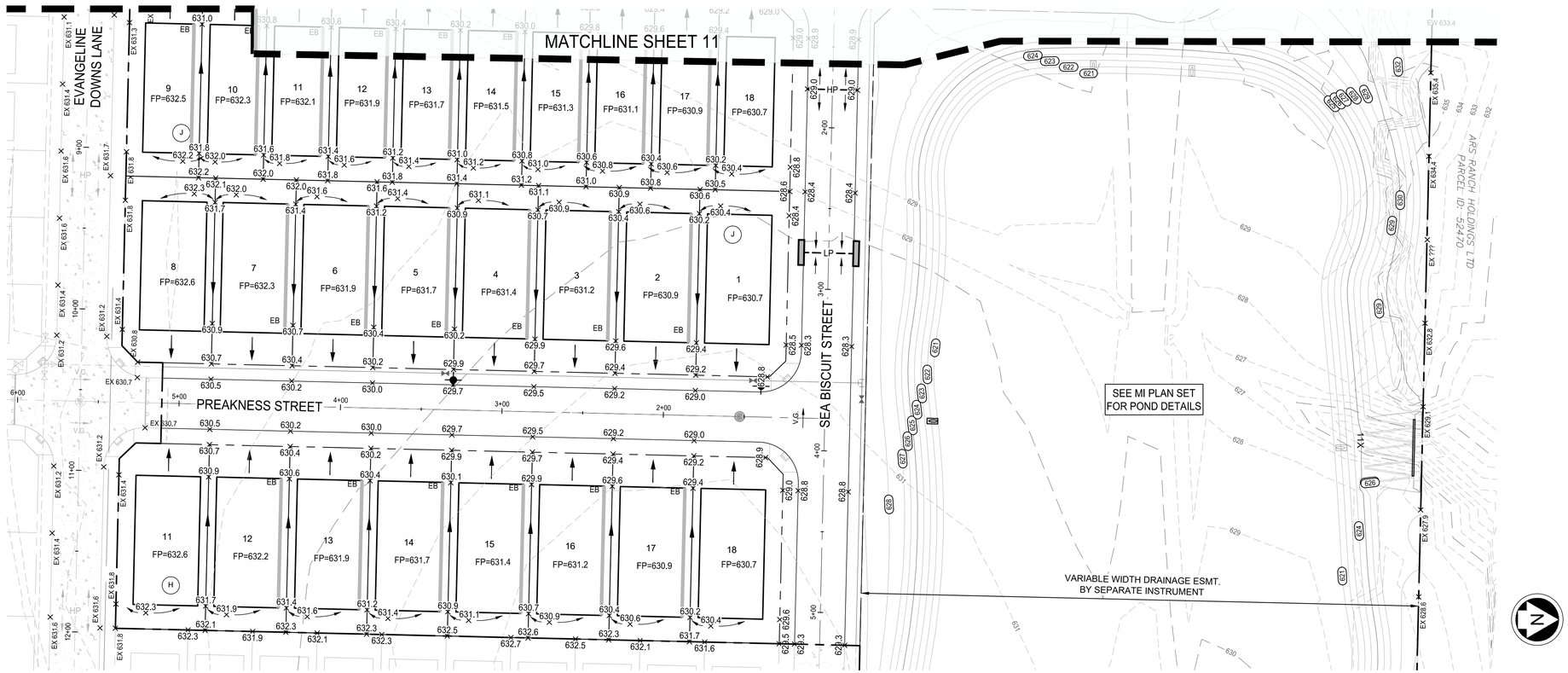
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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	12
REVIEWER: NVT			

SARATOGA PHASE 2A

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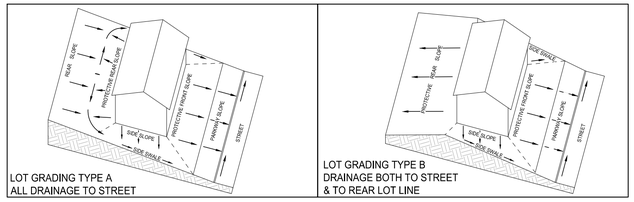
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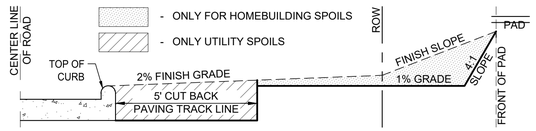
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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	13
REVIEWER: NVT			

SARATOGA PHASE 2A

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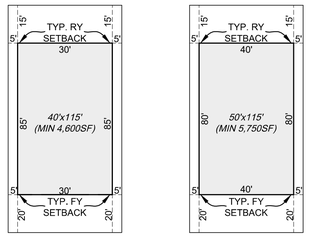


CONTRACTOR TO SLOPE FRONT YARD FROM ROW AT 1% THEN UP 4:1 TO FINAL PAD ELEVATION

TYPICAL GRADING CROSS SECTION

N.T.S.

TYPICAL PAD DETAIL

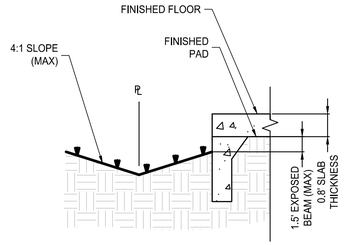


40'X115' LOT

N.T.S.

50'X115' LOT

N.T.S.



EXPOSED BEAM

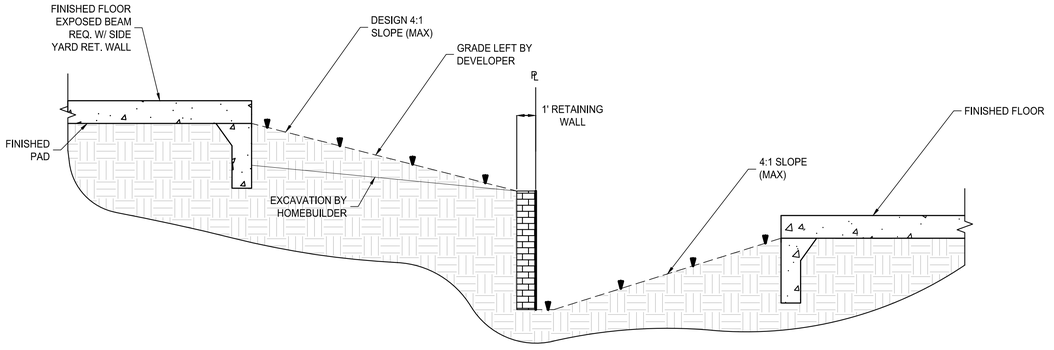
N.T.S.

LOT GRADING NOTES:
- EXPOSED BEAMS WILL BE ALLOWED IN SIDE YARD AND/OR FRONT YARD.
- IF BACKYARD DEPTH IS GREATER THAN 15', THE LAST 10' OF BACKYARD GRADING CAN EXCEED MINIMUM REAR YARD SLOPE, BUT NOT TO EXCEED 5:1
- IRREGULAR PADS TO BE INDICATED WITH AN "X" AND DIMENSIONS PROVIDED ON THE GRADING PLAN
- "X" - DENOTES DESIGN POINT ON GRADING PLAN
- WHERE A DROP GARAGE IS REQUIRED TO MAINTAIN MAXIMUM DRIVEWAY SLOPE A DROP GARAGE NOTE SHALL BE INDICATED WITH A "DG" ON THE GRADING PLAN FOR THAT LOT
- TYPE A = BACK TO FRONT. B = SPLIT DRAINAGE, C = FRONT TO BACK
- LOT TO LOT DRAINAGE IS TO BE AVOIDED, EVEN IF PERMISSIBLE BY THE CITY
- ANY DEVIATIONS FROM THE CRITERIA SHOULD BE NOTED ON THE GRADING PLANS
- FOR ALL TYPES - PAD IS 0.3' ABOVE HIGH POINT
- SLAB THICKNESS = 0.8'

FRONT ENTRY NOTES:
- NO SWALES IN THE DRIVEWAYS WITH TYPE-C GRADING
- MAX 12% GRADE ON DRIVEWAY
- MAX 12% GRADE IN REAR YARD, 10% IS OPTIMAL
- MAX 25% GRADE ON FRONT YARD
- MIN 1% GRADE IN THE SIDE YARD SWALES FROM FRONT TO BACK 1.25% PREFERRED
- PAD IS TO BE BUILT FROM THE FRONT YARD SETBACK

REAR YARD NOTES:
- WITH TYPE-A DRAINAGE, REAR SWALE = 8' FROM PAD THEN AROUND TO SIDE SWALES. (MAXIMUM REAR YARD SLOPE FROM SWALE TO REAR PROPERTY LINE = 12%)

SIDE YARD NOTES:
- MAX SLOPE FROM PAD TO SWALE = 25%
- MAX SIDE YARD RETAINING WALLS = 4'
- MAX BEAM EXPOSURE (FROM FINISHED PAD TO SWALE) = 1.5'
- DROPPED BRICK LEDGES WHEN EXPOSURE EXCEEDS 0.8"



GRADING AT SIDE YARD WALL

N.T.S.

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

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SECOND SUBMITTAL

CALL BEFORE YOU DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
CALL 811

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME | PE # | DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

GRADING DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

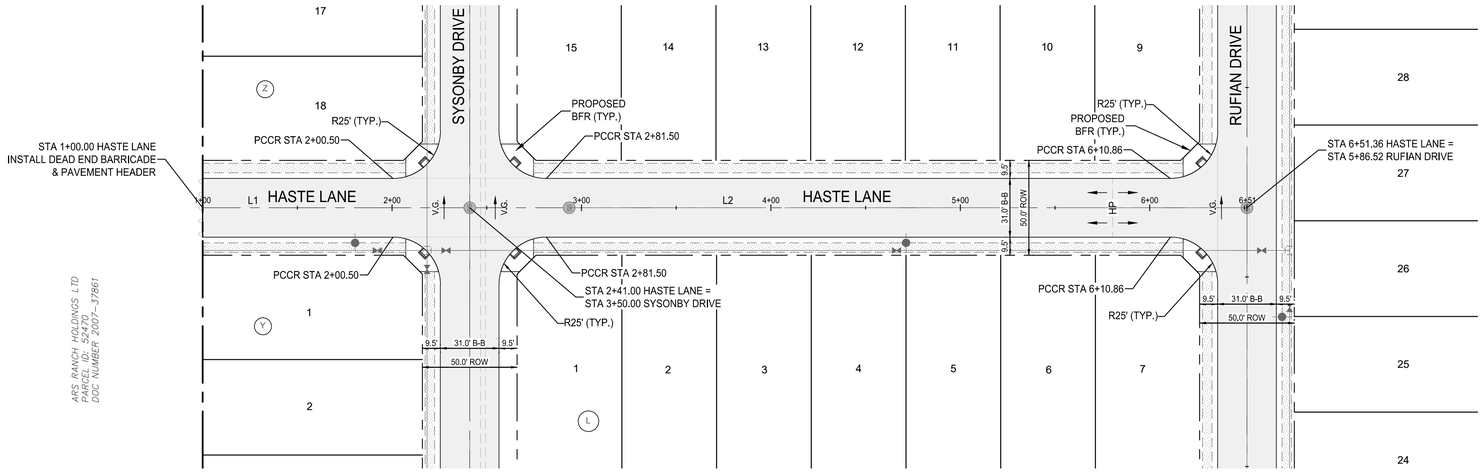
Phone (469) 213-1800 11000 Frisco Street, Suite 400
TollFree (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

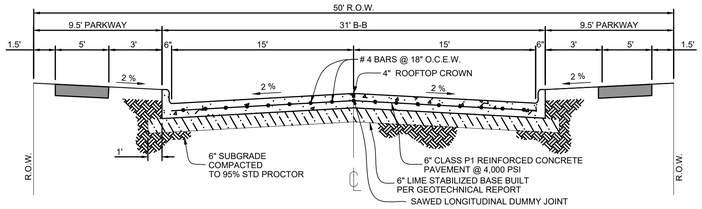
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DESIGNED: CLS	APRIL 2024	GEE21003	14
REVIEWER: NVT			

SARATOGA PHASE 2A

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ARS RANCH HOLDINGS LTD
ABSTRACT 1327
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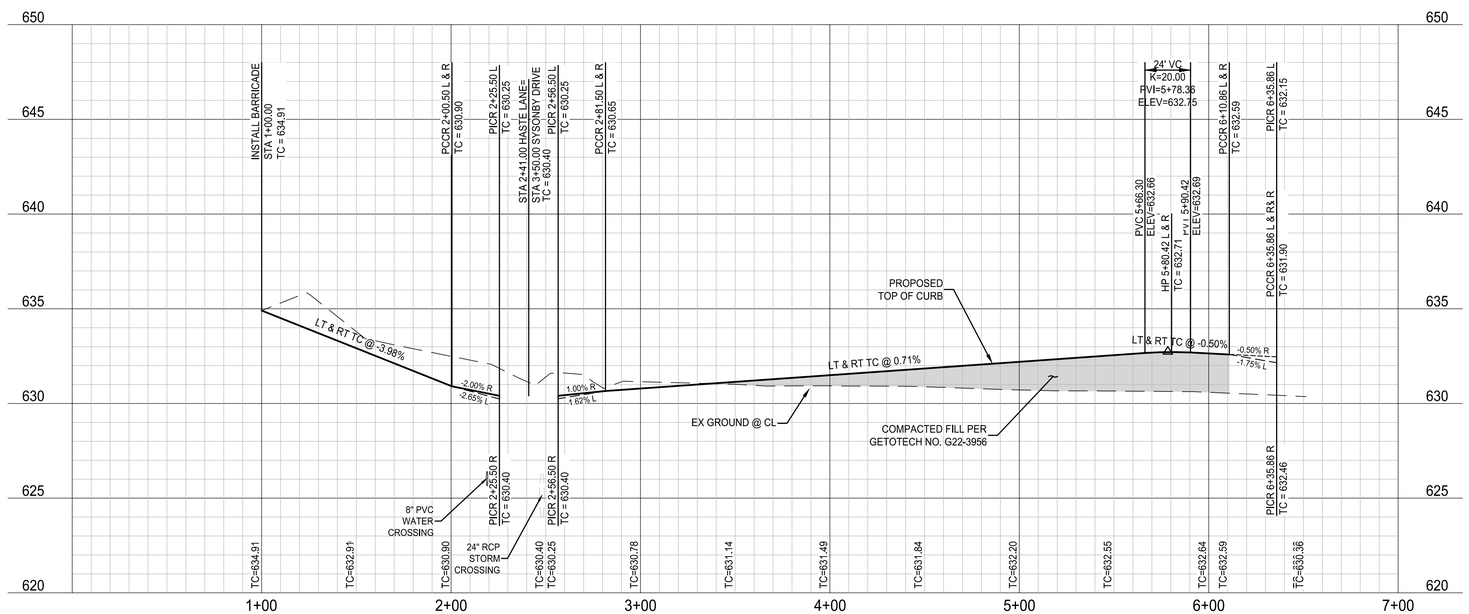


TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L1	145.00'	S01° 20' 06"W
L2	406.36'	S01° 20' 06"W

HASTE LANE



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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SECOND SUBMITTAL



PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

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TYPE OR PRINT NAME PE # DATE

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SARATOGA PHASE 2A

PAVING PLAN & PROFILE - HASTE LANE

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

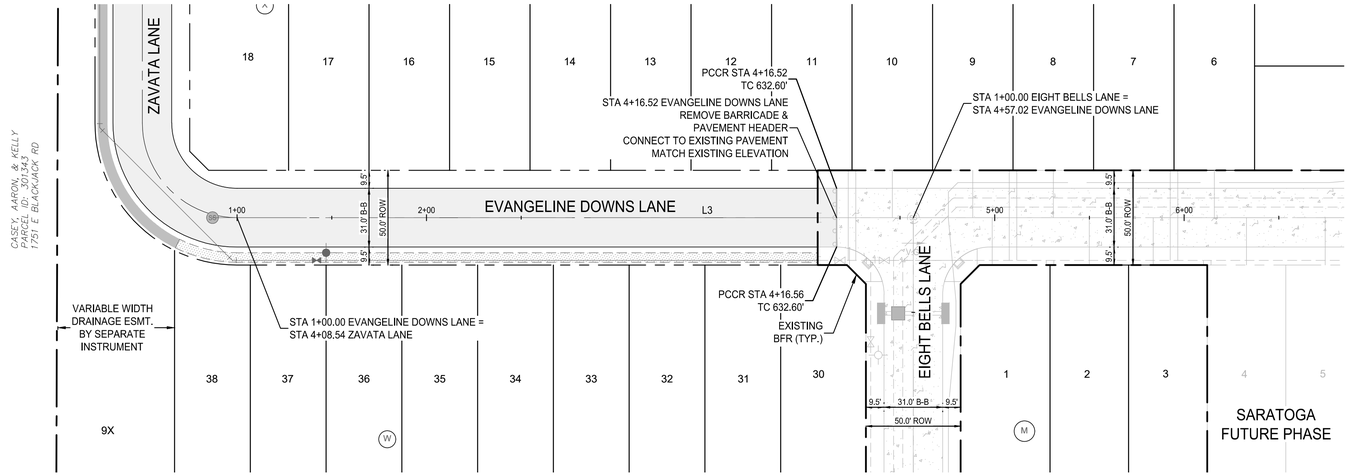
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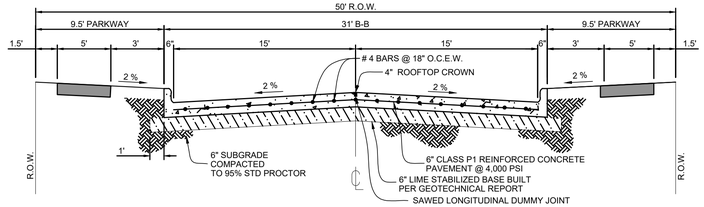
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TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	15
REVIEWER: NVT			

SARATOGA PHASE 2A

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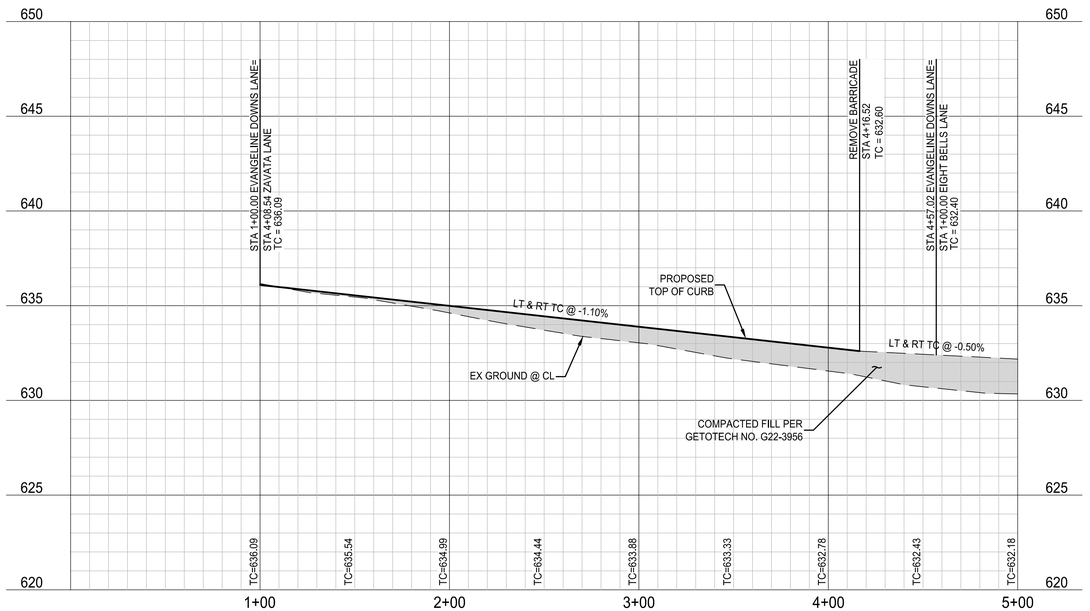


TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L3	357.02'	S88° 39' 54"E

EVANGELINE DOWNS LANE



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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ATMOS GAS	972-881-4161
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SECOND SUBMITTAL

N

0 40' 80'

SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
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- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

NOTES:

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SARATOGA PHASE 2A

PAVING PLAN & PROFILE - EVANGELINE DOWNS LANE

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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westwoodps.com

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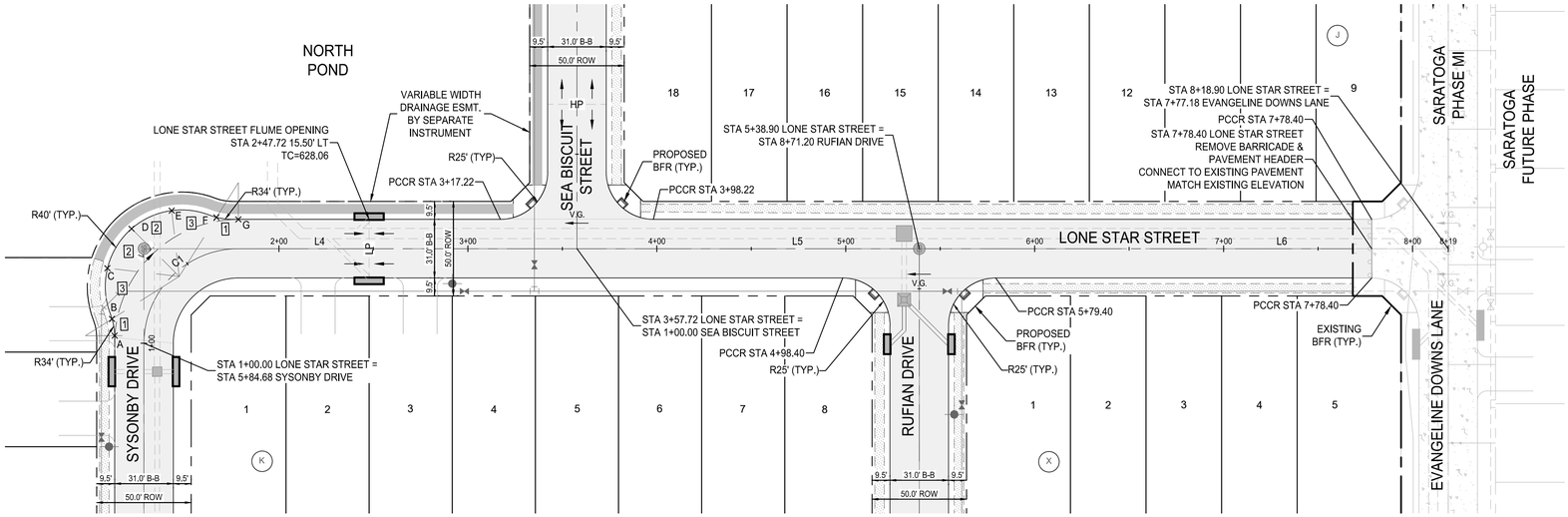
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REVIEWER: NVT			

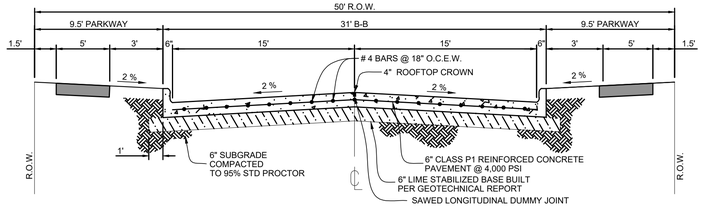
SARATOGA PHASE 2A

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POINT	STA.	T.C.	GUTTER
A	1+03.06	629.12	628.62
B	1+09.50	629.11	628.61
C	1+25.99	629.18	628.68
D	1+40.98	629.09	628.59
E	1+55.22	628.86	628.36
F	1+69.90	628.49	627.99
G	1+78.53	627.91	627.41

1	32° 17' 52"
2	38° 47' 52"
3	38° 30' 00"





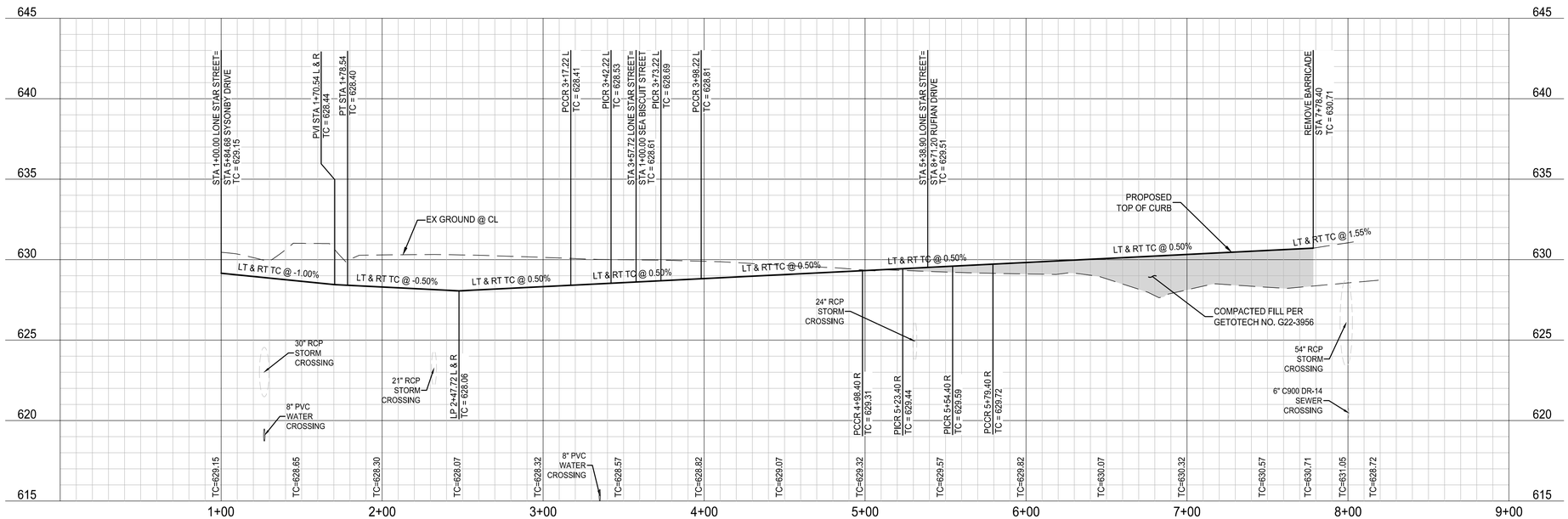
TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L4	179.18'	S01° 20' 06"W
L5	181.18'	S01° 20' 06"W
L6	280.00'	S01° 20' 06"W

CURVE TABLE						
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD	BEARING
C1	090° 00' 00"	50.00'	50.00'	78.54'	70.71'	S43° 39' 54"E

LONE STAR STREET



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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ATMOS GAS	972-881-4161
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SECOND SUBMITTAL

0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

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SARATOGA PHASE 2A

PAVING PLAN & PROFILE - LONE STAR STREET

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	17
REVIEWER: NVT			

SARATOGA PHASE 2A

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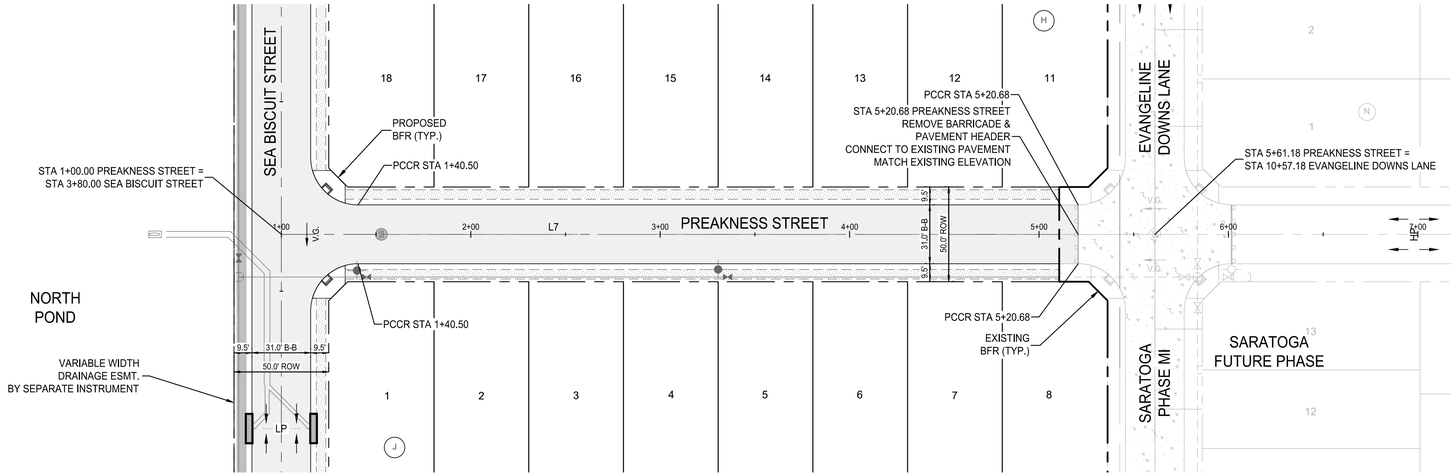
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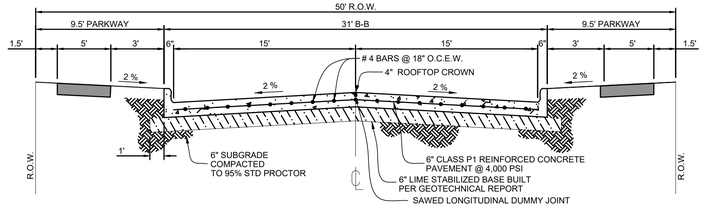
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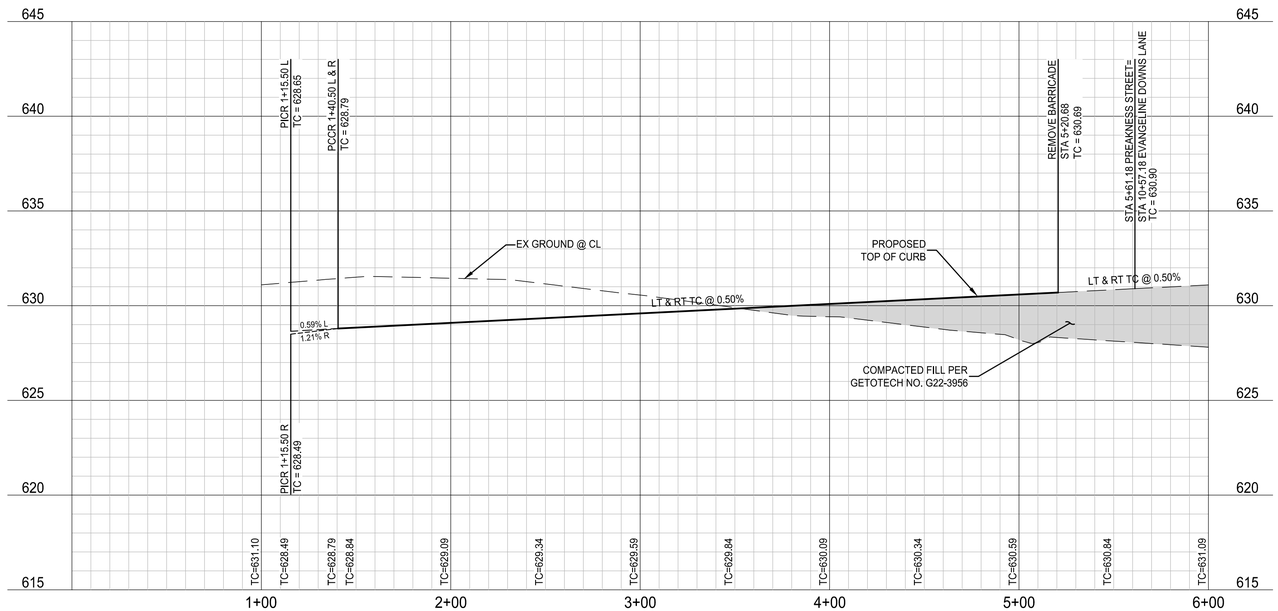


TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L7	461.18'	S01° 20' 06"W

PREAKNESS STREET





PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
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SARATOGA PHASE 2A

PAVING PLAN & PROFILE - PREAKNESS STREET

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

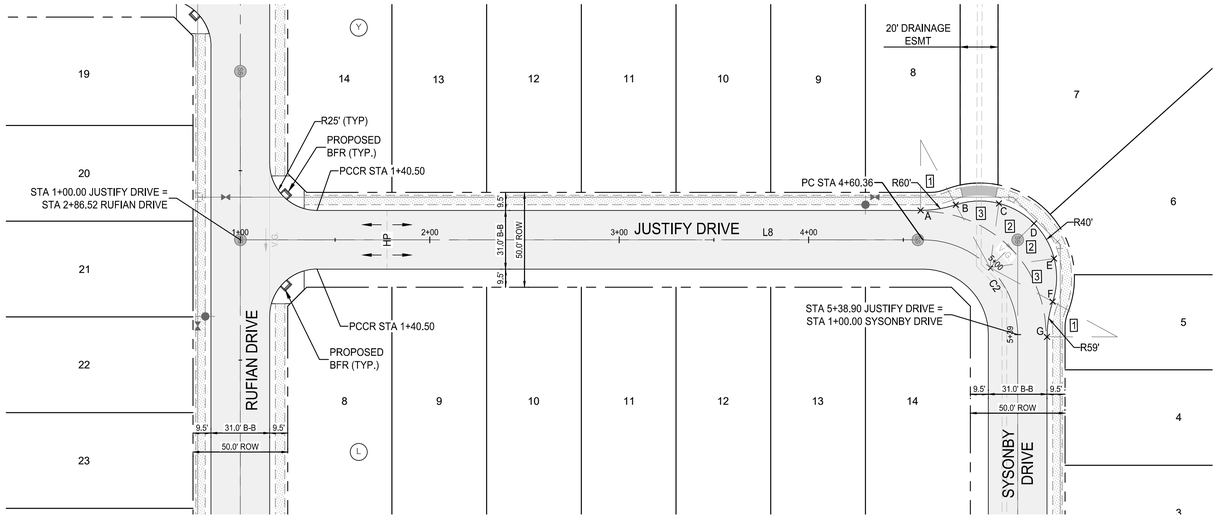
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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	18
REVIEWER: NVT			

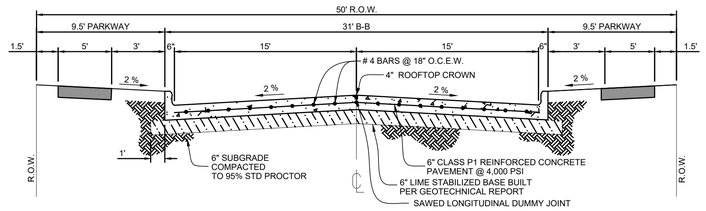
SARATOGA PHASE 2A

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Last Saved Time: 4/30/2024 3:12 PM
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POINT	STA.	T.C.	GUTTER
A	4+59.14	633.95	633.45
B	4+72.77	633.92	633.42
C	4+86.62	633.97	633.47
D	4+99.63	633.90	633.40
E	5+12.64	633.71	633.21
F	5+26.49	633.38	632.88
G	5+38.90	633.14	632.64

[1] 28° 31' 31"
[2] 37° 00' 00"
[3] 36° 31' 31"



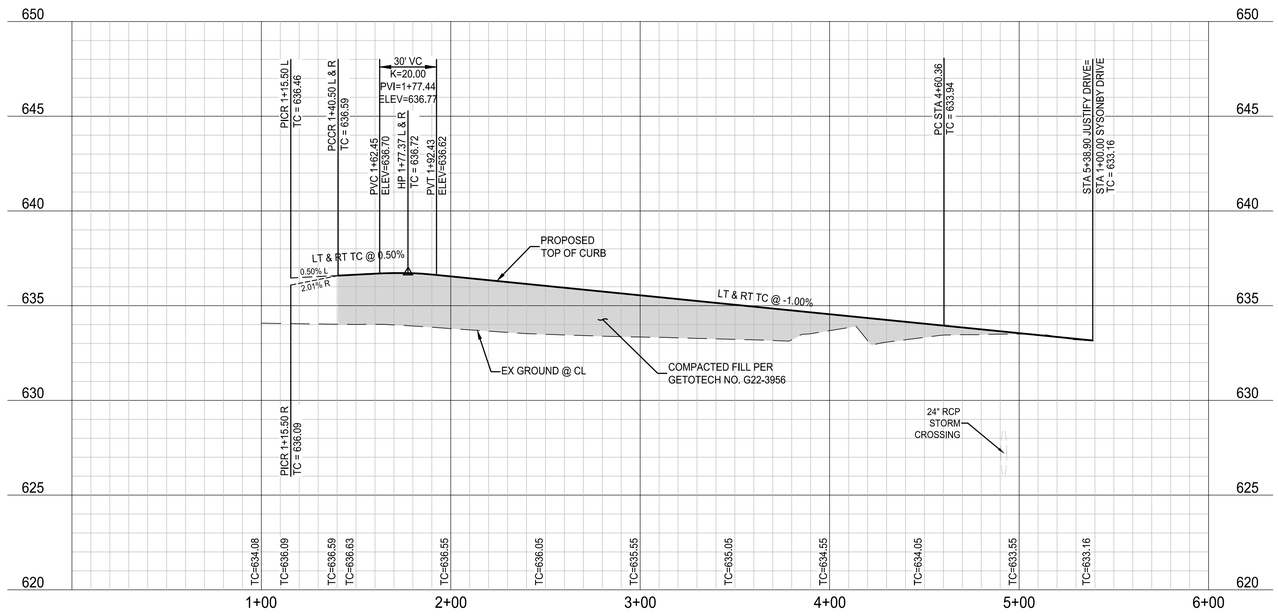
TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L8	360.36'	N01° 20' 06"E

CURVE TABLE						
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD	BEARING
C2	090° 00' 00"	50.00'	50.00'	78.54'	70.71'	N46° 20' 06"E

JUSTIFY DRIVE



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

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SECOND SUBMITTAL

N

0 40' 80'

SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
- PROPOSED SIDEWALK (DEVELOPER)
- PROPOSED SIDEWALK (HOME BUILDER)

NOTES:
1. FOR TYPICAL PAVEMENT SECTIONS SEE SHEET 53.
2. REFER TO CITY OF AUBREY CONSTRUCTION STANDARD DETAILS FOR CONSTRUCTION NOTES AND STANDARD DETAILS.
3. THE CITY OF AUBREY DESIGN AND CONSTRUCTION STANDARDS APPLY WHETHER INDICATED ON THESE PLANS OR NOT.
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7. BARRIER FREE RAMPS SHALL BE CONSTRUCTED BY PAVING CONTRACTOR.
8. STREETS ARE DESIGNED TO HAVE A SPEED LIMIT OF 25 MPH



BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

PAVING PLAN & PROFILE - JUSTIFY DRIVE

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

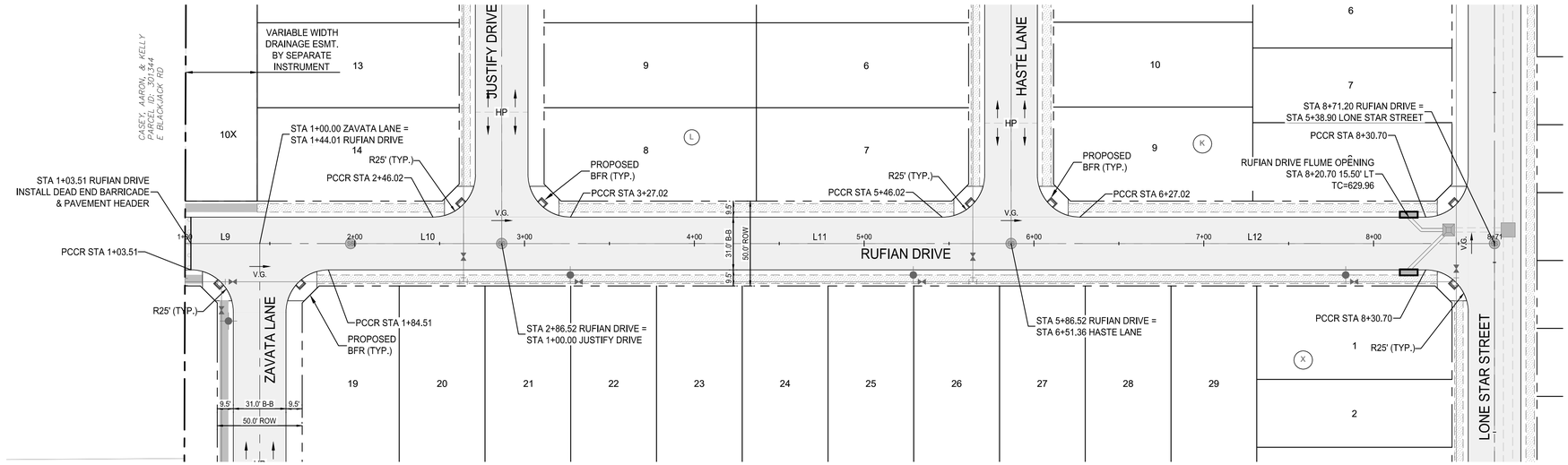
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

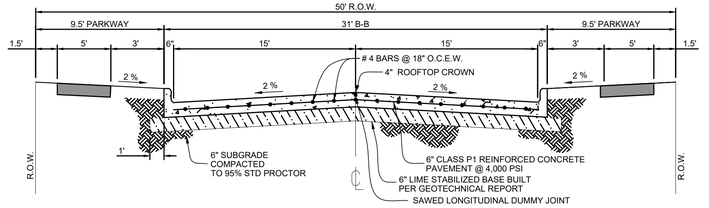
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DESIGNED: CLS	APRIL 2024	GEE21003	19
REVIEWER: NVT			

SARATOGA PHASE 2A

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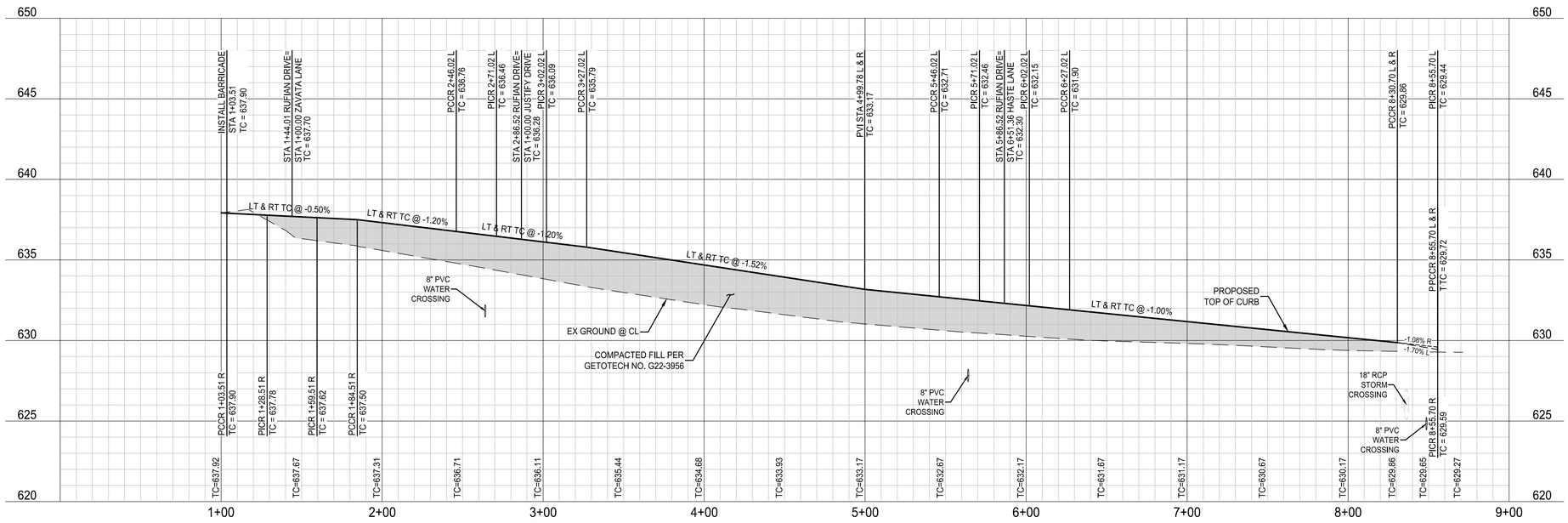
LINE TABLE		
LINE	LENGTH	BEARING
L9	44.01'	S88° 39' 54"E
L10	142.50'	S88° 39' 54"E
L11	300.00'	S88° 39' 54"E
L12	284.68'	S88° 39' 54"E



TYPICAL 50' ROW STREET SECTION

N.T.S.

RUFIAN DRIVE



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
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SECOND SUBMITTAL

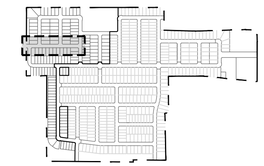
0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
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- PROPOSED SIDEWALK (DEVELOPER)
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NOTES:
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TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

PAVING PLAN & PROFILE - RUFIAN DRIVE

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

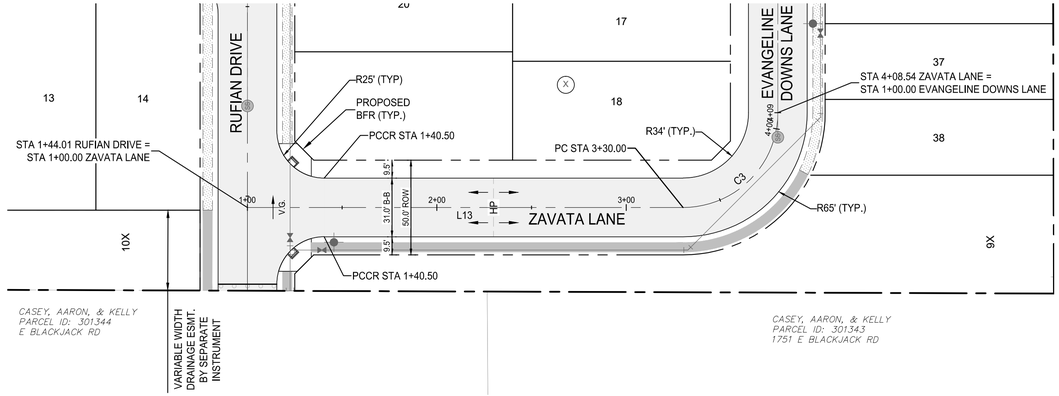
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

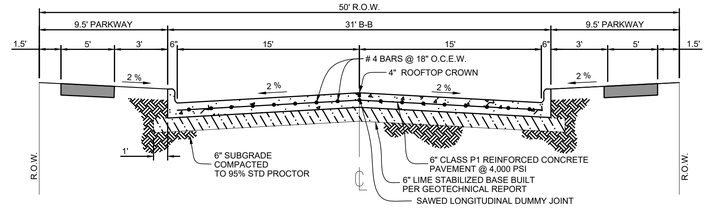
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	20
REVIEWER: NVT			

SARATOGA PHASE 2A

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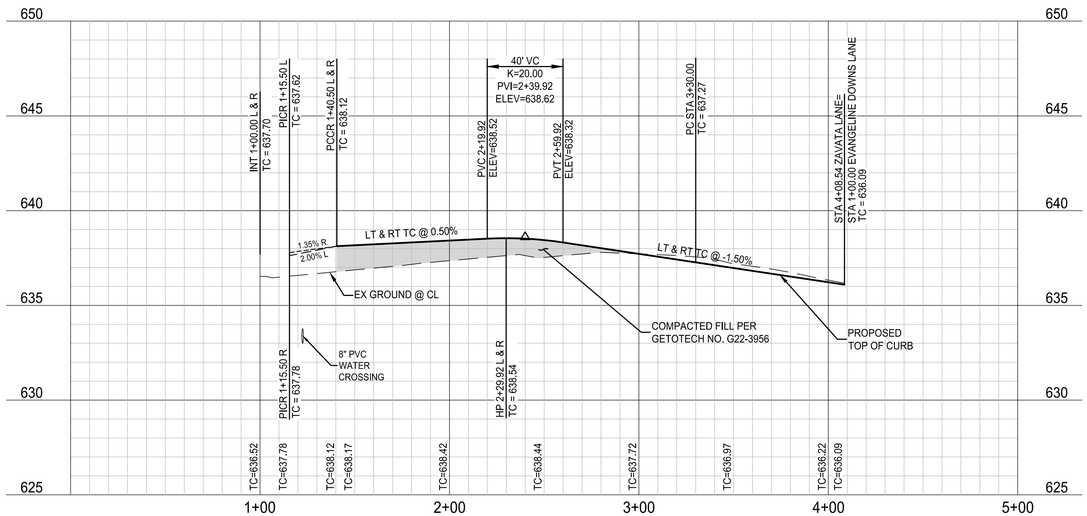
TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L13	230.00'	S01° 20' 06"W

CURVE TABLE						
CURVE	DELTA	RADIUS	TANGENT	LENGTH	CHORD	BEARING
C3	090° 00' 00"	50.00'	50.00'	78.54'	70.71'	S43° 39' 54"E

ZAVATA LANE



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
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CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

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SECOND SUBMITTAL

0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
- PROPOSED SIDEWALK (DEVELOPER)
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NOTES:
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

PAVING PLAN & PROFILE - ZAVATA LANE

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	21
REVIEWER: NVT			

SARATOGA PHASE 2A

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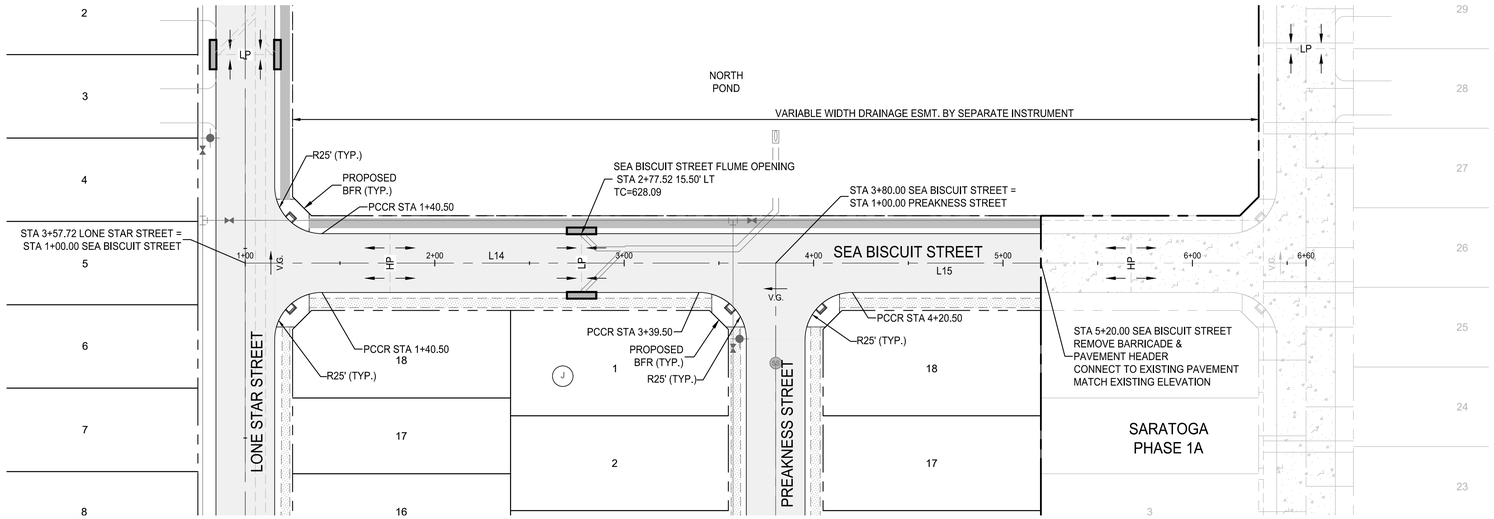
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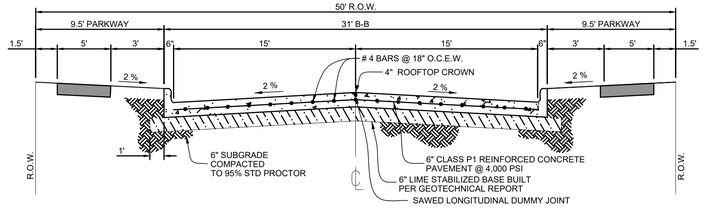
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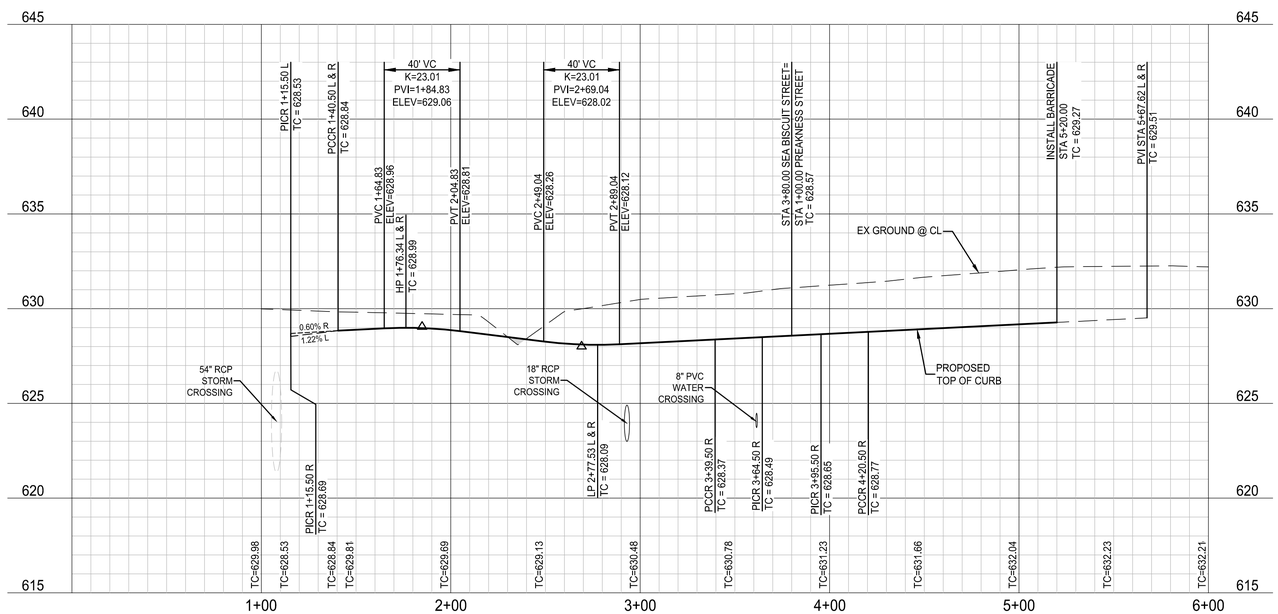


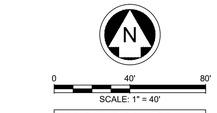
TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L14	560.00'	S88° 39' 54"E
L15	560.00'	S88° 39' 54"E

SEA BISCUIT STREET





PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
- INDICATES SIDE OF LOT WHERE DRIVEWAY MUST BE LOCATED
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

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SARATOGA PHASE 2A

PAVING PLAN & PROFILE - SEA BISCUIT STREET

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

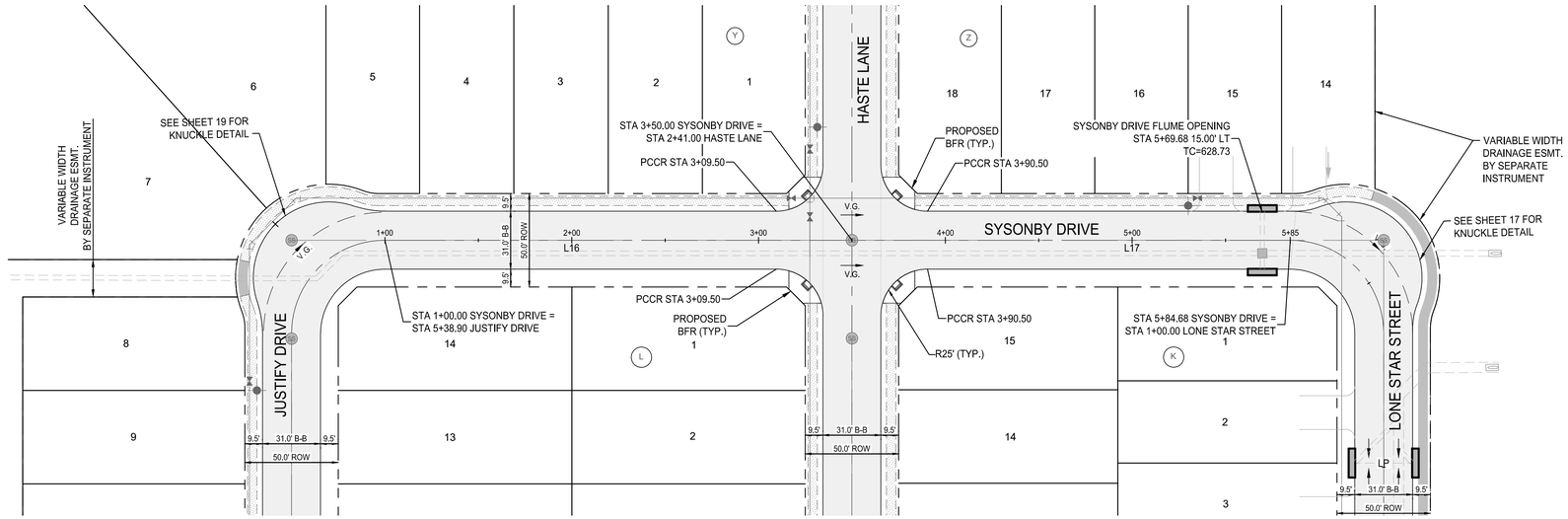
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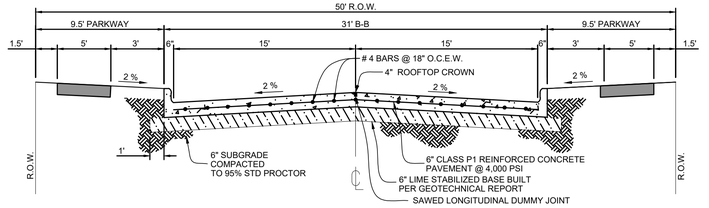
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	22
REVIEWER: NVT			

SARATOGA PHASE 2A

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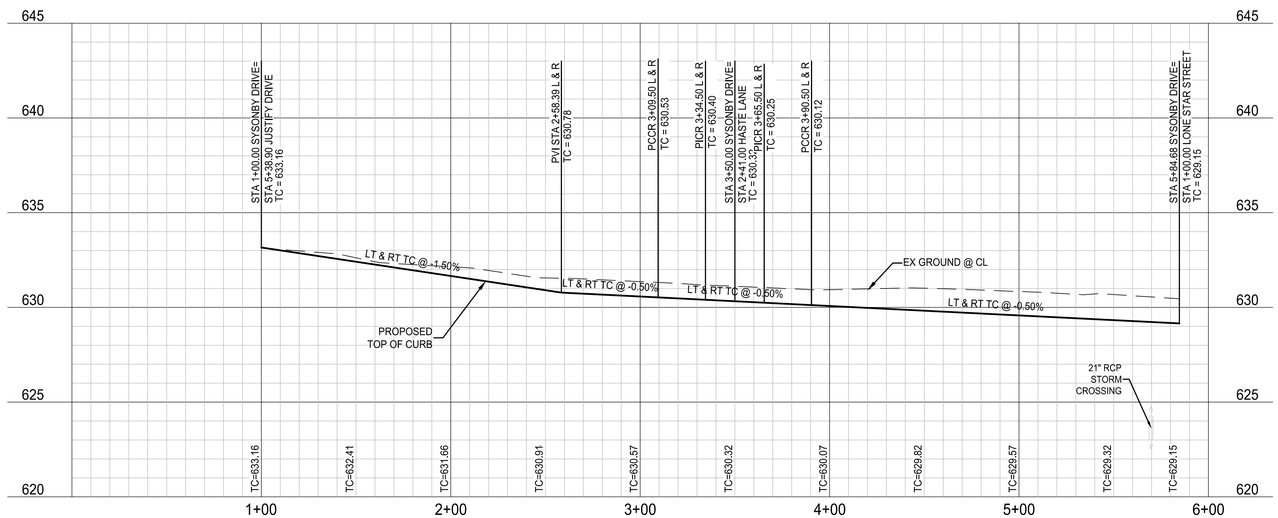


TYPICAL 50' ROW STREET SECTION

N.T.S.

LINE TABLE		
LINE	LENGTH	BEARING
L16	250.00'	S88° 39' 54"E
L17	234.68'	S88° 39' 54"E

SYSONBY DRIVE



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PROFILE SCALES:
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- EXISTING PAVEMENT
- PROPOSED CURB INLET
- PROPOSED RAMP
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ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

PAVING PLAN & PROFLE - SYSONBY DRIVE

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	23
REVIEWER: NVT			

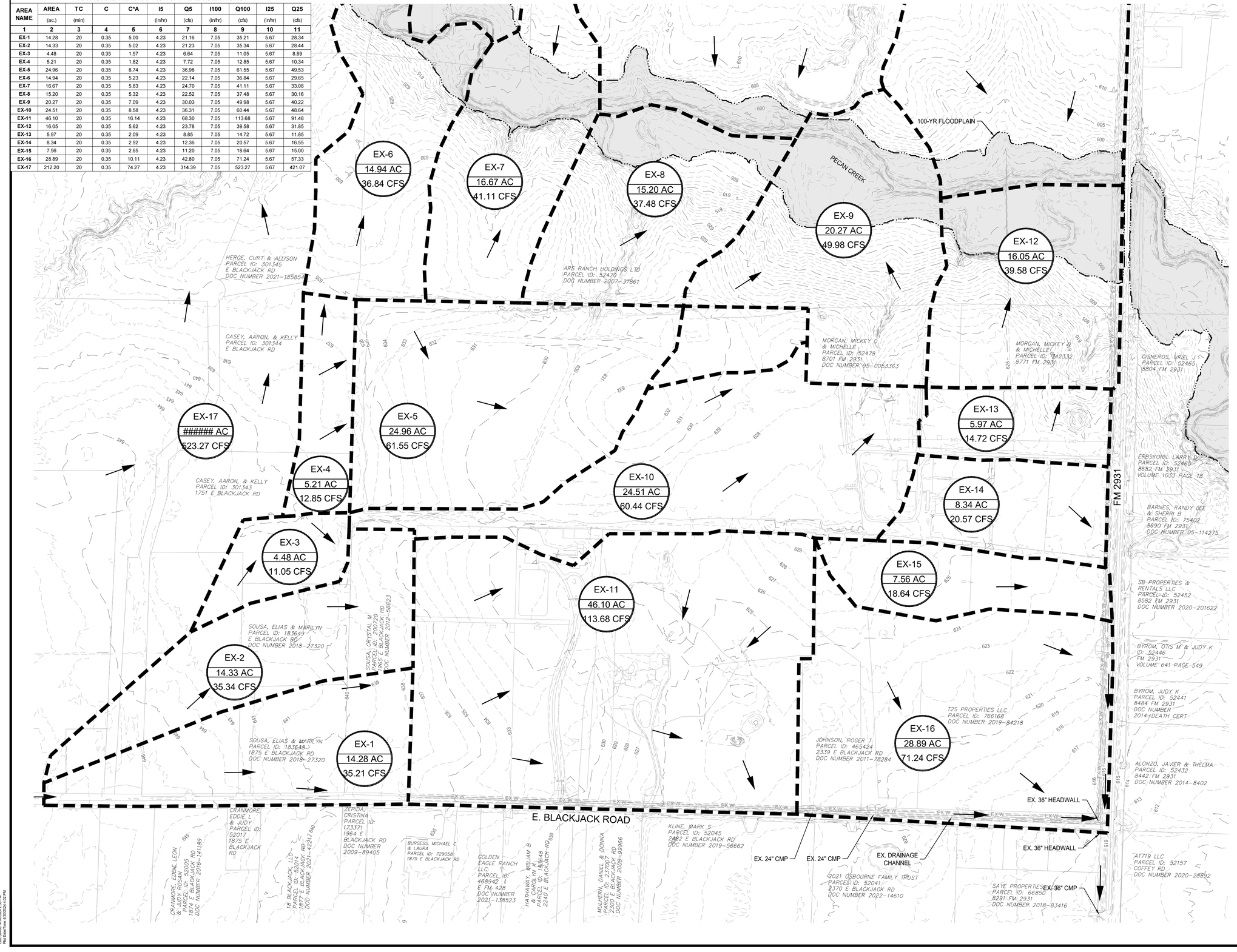
SECOND SUBMITTAL

SARATOGA PHASE 2A

Drawing: G:\JOB\gee21003-saratoga\P00 2\Phase 1\3_Design\05_Civil\01_CAD\civil_plans\GEE21003-CP-PAVING-P4P
Last Saved by: BobbiA
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Plot Date/Time: 4/30/2024 4:02 PM

SARATOGA - EXISTING CONDITION
RATIONAL METHOD RUNOFF CALCULATIONS

AREA NAME	AREA (ac.)	TC (min)	C	C*A	I5 (in/hr)	Q5 (cfs)	I100 (in/hr)	Q100 (cfs)	I25 (in/hr)	Q25 (cfs)
1	2	3	4	5	6	7	8	9	10	11
EX-1	14.28	20	0.35	5.00	4.23	21.16	7.05	35.21	5.67	28.34
EX-2	14.33	20	0.35	5.02	4.23	21.23	7.05	35.34	5.67	28.44
EX-3	4.48	20	0.35	1.57	4.23	6.64	7.05	11.05	5.67	8.89
EX-4	5.21	20	0.35	1.82	4.23	7.72	7.05	12.85	5.67	10.34
EX-5	24.96	20	0.35	8.74	4.23	36.98	7.05	61.55	5.67	49.53
EX-6	14.94	20	0.35	5.23	4.23	22.14	7.05	36.84	5.67	29.65
EX-7	16.67	20	0.35	5.83	4.23	24.70	7.05	41.11	5.67	33.08
EX-8	15.20	20	0.35	5.32	4.23	22.52	7.05	37.48	5.67	30.16
EX-9	20.27	20	0.35	7.09	4.23	30.03	7.05	49.98	5.67	40.22
EX-10	24.51	20	0.35	8.58	4.23	36.31	7.05	60.44	5.67	48.64
EX-11	46.10	20	0.35	16.14	4.23	68.30	7.05	113.68	5.67	91.48
EX-12	16.05	20	0.35	5.62	4.23	23.78	7.05	39.58	5.67	31.85
EX-13	5.97	20	0.35	2.09	4.23	8.85	7.05	14.72	5.67	11.85
EX-14	8.34	20	0.35	2.92	4.23	12.36	7.05	20.57	5.67	16.55
EX-15	7.56	20	0.35	2.65	4.23	11.20	7.05	18.64	5.67	15.00
EX-16	28.89	20	0.35	10.11	4.23	42.80	7.05	71.24	5.67	57.33
EX-17	212.20	20	0.35	74.27	4.23	314.39	7.05	523.27	5.67	421.07



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

N

0 200' 400'

SCALE: 1" = 200'

LEGEND

- MAJOR CONTOUR
- MINOR CONTOUR
- DRAINAGE DIVIDE
- DRAINAGE FLOW DIRECTION
- 100 YEAR FLOODPLAIN ZONE
- A1-A2 / 1.00 / 5.50 — DRAINAGE AREA NAME / DRAINAGE AREA (ACRES) / 100 YEAR FLOW (C.F.S.)

NOTES:
1. REFER TO PELOTON FLOOD STUDY FOR EXISTING DRAINAGE AREA MAP/ CONDITION DETAILS.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

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TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

EXISTING DRAINAGE AREA MAP

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	24
REVIEWER: NVT			

SECOND SUBMITTAL

SARATOGA PHASE 2A

Drawing: G:\JOB\gee21003-saratoga\PO03 3\Phase 1\3_Design\35_Civil\01_CAD\civil_plans\GEE21003-CNAME
Last Saved by: Bcollura
Last Saved On: 4/30/2024 4:06:58 PM
Plot Date/Time: 4/30/2024 4:02 PM

SECOND SUBMITTAL

SARATOGA - ULTIMATE CONDITION
RATIONAL METHOD RUNOFF CALCULATIONS

AREA NAME	AREA (ac.)	TC (min)	C	C*A	I5 (in/hr)	Q5 (cfs)	I100 (in/hr)	Q100 (cfs)
1	2	3	4	5	6	7	8	9
A1	1.95	10	0.50	0.98	5.74	5.60	9.24	9.01
A2	1.34	10	0.50	0.67	5.74	3.85	9.24	6.19
A3	2.30	10	0.50	1.15	5.74	6.60	9.24	10.63
A4	2.99	10	0.50	1.50	5.74	8.59	9.24	13.82
A5	1.45	10	0.50	0.73	5.74	4.16	9.24	6.70
A6	1.88	10	0.50	0.94	5.74	5.40	9.24	8.69
A7	1.26	10	0.50	0.63	5.74	3.62	9.24	5.82
A8	2.82	10	0.50	1.41	5.74	8.10	9.24	13.03
A9	0.81	10	0.50	0.41	5.74	2.33	9.24	3.74
A10	1.89	10	0.50	0.95	5.74	5.43	9.24	8.74
A11	2.42	10	0.50	1.21	5.74	6.95	9.24	11.19
A12	1.09	10	0.50	0.55	5.74	3.13	9.24	5.04
A13	1.41	10	0.50	0.71	5.74	4.05	9.24	6.52
A14	3.30	10	0.50	1.65	5.74	9.48	9.24	15.25
A15	1.84	10	0.50	0.92	5.74	5.28	9.24	8.50
A16	2.75	10	0.50	1.38	5.74	7.90	9.24	12.71
A17	2.18	10	0.50	1.09	5.74	6.26	9.24	10.08
A18	2.23	10	0.50	1.12	5.74	6.40	9.24	10.31
A19	2.10	10	0.50	1.05	5.74	6.03	9.24	9.71
A20	1.18	10	0.50	0.59	5.74	3.39	9.24	5.45
B1	2.19	10	0.50	1.10	5.74	6.29	9.24	10.12
B2	1.47	10	0.50	0.74	5.74	4.22	9.24	6.79
B3	1.22	10	0.50	0.61	5.74	3.50	9.24	5.64
B4	1.18	10	0.50	0.59	5.74	3.39	9.24	5.45
C1	3.96	20	0.35	1.39	4.23	5.87	7.05	9.77
C2	5.20	10	0.50	2.60	5.74	14.93	9.24	24.04
C3	4.80	10	0.50	2.40	5.74	13.78	9.24	22.19
C4	4.66	10	0.50	2.33	5.74	13.38	9.24	21.54
D1	1.88	10	0.50	0.94	5.74	5.40	9.24	8.69
D2	2.26	10	0.50	1.13	5.74	6.49	9.24	10.45
D3	1.15	10	0.50	0.58	5.74	3.30	9.24	5.32
D4	1.92	10	0.50	0.96	5.74	5.51	9.24	8.87
D5	2.16	10	0.50	1.08	5.74	6.20	9.24	9.98
D6	2.18	10	0.50	1.09	5.74	6.26	9.24	10.08
D7	1.57	10	0.50	0.79	5.74	4.51	9.24	7.26
D8	1.38	10	0.50	0.69	5.74	3.96	9.24	6.38
E1	3.37	10	0.50	1.69	5.74	9.68	9.24	15.58
E2	3.45	10	0.50	1.73	5.74	9.91	9.24	15.95
F1	1.95	10	0.50	0.98	5.74	5.60	9.24	9.01
F2	2.17	10	0.50	1.09	5.74	6.23	9.24	10.03
G1	2.40	10	0.50	1.20	5.74	6.89	9.24	11.09
G2	2.90	10	0.50	1.45	5.74	8.33	9.24	13.40
H1	0.74	10	0.50	0.37	5.74	2.13	9.24	3.42
J1	2.47	10	0.50	1.24	5.74	7.09	9.24	11.42
J2	0.69	10	0.50	0.35	5.74	1.98	9.24	3.19
OS-1	16.89	18.69	0.35	5.91	4.38	25.89	7.26	42.95
OS-2	19.83	20	0.35	6.94	4.23	29.38	7.05	48.90
OS-3	5.64	20	0.35	1.97	4.23	8.36	7.05	13.91

Basin ID	Flowpath Length (ft)	Overland Flow: Length	Slope	Surface Cover	Velocity	*Manning's n	T_0	Shallow Concentrated Flow: Length	Slope	Surface Type	Velocity	*K	T_S	Channel Flow: Length	Slope	Type	*K	Velocity	T_h	T_C
	(1)	(ft) (2)	(ft/ft) (3)	(4)	(ft/s) (5)	(6)	(min) (7)	(ft) (8)	(ft/ft) (9)	(10)	(ft/s) (11)	(12)	(min) (13)	(ft) (14)	(ft/ft) (15)	(16)	(ft) (17)	(ft/s) (18)	(min) (19)	(min) (20)
OS-1	2010	50	0.010	SMOOTH SURFACES (CONCRETE, ASPHALT, GRAVEL, OR BARE SOIL)	1.002	0.01	0.83	1710	0.007	PAVED	1.70	20.3	16.78	300	0.008	NATURAL TRAP CHANNEL, B=6, Y= 4, SS=3:1	51.79	4.63	1.08	18.69

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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



N

0 60' 120'

SCALE: 1" = 60'

LEGEND

- MAJOR CONTOUR
- MINOR CONTOUR
- PROPOSED STORM
- DRAINAGE DIVIDE
- DRAINAGE FLOW DIRECTION
- CURB INLET
- F4 — INLET NUMBER
- PROPOSED SWALE
- 100 YEAR FLOODPLAIN ZONE
- A1-A2 / 1.00 / 5.50 — DRAINAGE AREA NAME / DRAINAGE AREA (ACRES) / 100 YEAR FLOW (C.F.S.)

*ALL PONDS WILL BE CONSTRUCTED DURING PHASE 1

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SARATOGA PHASE 2A

PROPOSED DRAINAGE AREA MAP

AUBREY ETJ, DENTON COUNTY, TEXAS

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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	25
REVIEWER: NVT			

SARATOGA PHASE 2A

Drawing: G:\JOBS\gee21003-saratoga\PSD\ 2\Phase 1\3_Design\35_Civil\351_CAD\civil_pl\dwg\GEE21003-CADMAP
Last Saved By: BradleyA
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Plot Date/Time: 4/30/2024 4:13 PM

SARATOGA CAPACITY OF CURB OPENING INLETS AND DROP INLETS IN SUMPS

			Gutter	Crown	100 Year	100 Year	100 Year	Depth	Depth	Depth	Capacity	Length of	Capacity	Bypass	Percent	Comments
			Slope	Slope	Carry Over	D Area	Total	of Gutter	of	of Flow	Inlet / Foot	Inlet	of Inlet	to	Q100	
			"So"	of	Flow	Gutter Flow	Gutter Flow	Flow	Depression	at Opening	of Length	Opening		Over Flow	Captured	
Inlet	Area			Pavement		"Q"	"Q"	"Yo"	"a"	"y"	"Q/L"	"L"	"Q"			
No	No	(ft./ft.)			(c.f.s.)	(c.f.s.)	(c.f.s.)	(ft.)	(ft.)	(ft.)	(c.f.s./ft.)	(ft.)	(c.f.s.)	(c.f.s.)		
0	1	2	3	4	5a	5	6	7	8	9	10	11	12	13	14	
G1	**G1+G2/2**	0.008	0.0200	0.00	12.25	12.25	0.41	0.33	0.56	1.795	**15**	13.46	-	110%		
G2	**G1+G2/2**	0.008	0.0200	0.00	12.25	12.25	0.41	0.33	0.56	1.795	**15**	13.46	-	110%		

SARATOGA ON-GRADE INLET CAPACITY CALCULATION TABLE

					Street	Cross Slope	Cross Slope	5 Year	5 Year	100 Year	100 Year	Equivalent		Manning			5 Year	5 Year			100 Year	100 Year									
Inlet	Area	Area	Runoff	Time of	Long	of Pavement	of Gutter	Depth	Spread	Depth	Spread	Cross	Street	Coefficient	5 Year	5 Year	Carry Over	Total	100 Year	100 Year	Carry Over	Total	R.O.W.	Design	Length	Length		Efficiency	Inlet	5 Year	100 Year
No.	No		Coeff	Concen.	Slope			of Flow	of Flow	of Flow	of Flow	Section	Section	for	Intensity	Runoff	Flow	Gutter Flow	Intensity	Runoff	Flow	Gutter Flow	Capacity	Storm***	Required	Provided			Capacity	Bypass	Bypass
			"C"		"So"	"Sx"	"Sw"	"Yo"*	"T"**	"Yo"*	"T"**	"Se"		Pavement		Flow		"Q"				"Q"			"Lo"	"L"	"L/Lo"	"E"	"Qi"	Flow	Flow
		(ac.)		(min.)	(ft./ft.)	(ft./ft.)	(ft./ft.)	(ft.)	(ft.)	(ft.)	(ft.)	(ft./ft.)	(type)	"n"	(in./hr)	(c.f.s.)	(c.f.s.)	(c.f.s.)	(in./hr.)	(c.f.s.)	(c.f.s.)	(c.f.s.)	(c.f.s.)		(ft.)	(ft.)			(c.f.s.)	(c.f.s.)	(c.f.s.)
2	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
D3	**D3**	1.15	0.50	10.0	**0.0100**	0.0200	0.220	0.24	12.03	0.29	14.38	0.109	Rooftop	0.019	5.74	3.30	-	3.30	9.24	5.32	-	5.32	35.43	**100 yr**	12.41	**10**	0.81	0.95	5.04	0.17	0.28
D4	**D4**	1.92	0.50	10.0	**0.0100**	0.0200	0.220	0.29	14.58	0.35	17.43	0.109	Rooftop	0.019	5.74	5.51	-	5.51	9.24	8.87	-	8.87	35.43	**100 yr**	15.39	**10**	0.65	0.85	7.53	0.84	1.34
E1	**E1**	3.37	0.50	10.0	**0.0050**	0.0200	0.220	0.43	21.55	0.49	24.52	0.109	Rooftop	0.019	5.74	9.68	1.37	11.05	9.24	15.58	-	15.58	25.05	**100 yr**	15.84	**15**	0.95	0.99	15.50	0.06	0.08
E2	**E2**	3.45	0.50	10.0	**0.0050**	0.0200	0.220	0.43	21.40	0.49	24.73	0.109	Rooftop	0.019	5.74	9.91	0.93	10.84	9.24	15.95	-	15.95	25.05	**100 yr**	15.99	**15**	0.94	0.99	15.84	0.07	0.11

SARATOGA - HYDRAULIC CALCULATIONS (FUTURE / ULTIMATE)

Runoff		Pipe	Drainage Area					Time of Concentration								Q100 YR	Q100 YR	Q100 YR	Box Culvert						Head Loss Calculations								Invert Elevation			
Design Point		Length	Incremental		Total	Runoff	Incr.	Total	Inlet	Travel	Total	I5 YR	I100 YR	Q5 YR	Q100 YR	**Design**	Inlet	Inlet	Inc.	Q	Storm	No. of	Storm	Storm	Manning	Hydr	Hydraulic Grade					Head Loss	Design	Dwnstrm	Upstrm	TC / FG
Upstrm	Dwnstrm	Between	Area	Area	Area	Coeff			Time	Time	Time	Intensity	Intensity	Runoff	Runoff	**Storm**	Bypass	Carryover	Delta	in Pipe	Pipe	SD	Drain	Drain	n	Grade	Line Elevation		V1	V2			Loss		at Structure	HGL			Elev
Station	Station	Points	No.	(Acres)	(Acres)							"I"	"I"	"Q"	"Q"		"Q"	"Q"	"Q"	"Q"	Diameter	Spans	Width	Heigth	Value	"SF"	Dwnstrm	Upstrm	Flow (In)	Flow (Out)	V1*2 / 2g	V2*2 / 2g	Coeff	K(V1*2 / 2g	"Hk"	Elevation			
				"A"	"A"	"C"	"CA"	"CA"	(min.)	(min.)	(min.)	(in./hr)	(in./hr)	(c.f.s.)	(c.f.s.)		(c.f.s.)	(c.f.s.)	(c.f.s.)	(c.f.s.)	(in.)		(ft)	(ft)		(ft./ft.)			(f.p.s.)	(f.p.s.)	(feet)	(feet)	(Kj)	(feet)	(feet)	(feet)	(feet)	(feet)	(feet)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		17	17a	17b	18	19	19a	19b	19c	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
STORM DRAIN LINE SD-D1																																						
01+33.23	01+00.00	33.23	D1	1.88	1.88	0.50	0.94	0.94	10.00	-	10.00	5.74	9.24	5.40	8.69	**100 yr**	-	1.73	1.73	10.42	21	1			0.013	0.0043	***627.35***	627.49	0.00	4.32	0.00	0.29	1.25	0.00	0.36	627.86	620.94	622.48	628.10
STORM DRAIN LINE SD-D2																																						
01+10.61	01+00.00	10.61	D2	2.26	2.26	0.50	1.13	1.13	10.00	-	10.00	5.74	9.24	6.49	10.45	**100 yr**	-	0.08	0.08	10.53	21	1			0.013	0.0044	***627.59***	627.63	0.00	4.37	0.00	0.30	1.25	0.00	0.37	628.00	621.02	622.44	628.10
STORM DRAIN LINE SD-D3																																						
01+61.61	01+51.00	10.61	D3	1.15	1.15	0.50	0.58	0.58	10.00	-	10.00	5.74	9.24	3.30	5.32	**100 yr**	0.28	-	-0.28	5.04	18	1			0.013	0.0023	629.11	629.14		2.84		0.13	1.25		0.16	629.30	625.50	625.77	630.00
01+51.00	01+35.00	16.00		-	1.15	-	-	0.58	-	0.06	10.06	5.74	9.24	3.30	5.32	**100 yr**	-	-	-0.28	5.04	18	1			0.013	0.0023	628.98	629.01	2.84	2.84	0.13	0.13	0.35	0.04	0.10	629.11	624.60	625.50	629.50
01+35.00	01+00.00	35.00	D4	1.92	3.07	0.50	0.96	1.54	10.00	0.09	10.16	5.71	9.20	8.77	14.12	**100 yr**	-	-	-0.28	13.84	24	1			0.013	0.0037	***628.64***	628.77	2.84	4.41	0.13	0.30	0.75	0.09	0.21	628.98	622.47	624.60	629.20
STORM DRAIN LINE SD-D4																																						
01+33.23	01+00.00	33.23	D4	1.92	1.92	0.50	0.96	0.96	10.00	-	10.00	5.74	9.24	5.51	8.87	**100 yr**	1.34	-	-1.34	7.53	18	1			0.013	0.0051	***628.98***	629.15	0.00	4.26	0.00	0.28	1.25	0.00	0.35	629.50	624.60	626.10	630.00
STORM DRAIN LINE SD-E																																						
09+35.94	07+60.37	175.57	OS-3	5.64	5.64	0.35	1.97	1.97	20.00	-	20.00	4.23	7.05	8.36	13.91	**100 yr**	-	-	-	13.91	24	1			0.013	0.0038	630.21	630.87		4.43		0.30	1.25		0.38	631.25	626.20	627.43	633.20
07+60.37	07+41.19	19.18		-	5.64	-	-	1.97	-	0.66	20.66	4.23	7.05	8.36	13.91	**100 yr**	-	-	-	13.91	24	1			0.013	0.0038	630.03	630.10	4.43	4.43	0.30	0.30	0.35	0.11	0.11	630.21	626.07	626.20	633.30
07+41.19	02+48.43	492.76		-	5.64	-	-	1.97	-	0.07	20.73	4.23	7.05	8.36	13.91	**100 yr**	-	-	-	13.91	24	1			0.013	0.0038	628.06	629.92	4.43	4.43	0.30	0.30	0.35	0.11	0.11	630.03	622.12	626.07	633.20
02+48.43	01+36.83	111.60	E1+2	6.82	12.46	0.50	3.41	5.38	10.00	1.85	22.59	3.97	6.65	21.39	35.82	**100 yr**	-	-	-	35.82	30	1			0.013	0.0076	***626.46***	627.31	4.43	7.30	0.30	0.83	0.25	0.08	0.75	628.06	621.00	622.12	628.90
STORM DRAIN LINE SD-E1																																						
01+22.50	01+00.00	22.50	E1	3.37	3.37	0.50	1.69	1.69	10.00	-	10.00	5.74	9.24	9.68	15.58	**100 yr**	0.08	-	-0.08	15.50	21	1			0.013	0.0096	***628.06***	628.28	0.00	6.43	0.00	0.64	1.25	0.00	0.80	629.08	622.12	622.83	629.20
STORM DRAIN LINE SD-E2																																						
01+08.50	01+00.00	8.50	E2	3.45	3.45	0.50	1.73	1.73	10.00	-	10.00	5.74	9.24	9.91	15.95	**100 yr**	0.11	-	-0.11	15.84	21	1			0.013	0.0100	***628.06***	628.15	0.00	6.57	0.00	0.67	1.25	0.00	0.84	628.98	622.12	623.40	629.20
STORM DRAIN LINE SD-F																																						
02+56.53	02+45.20	11.33	F2	2.17	2.17	0.50	1.09	1.09	10.00	-	10.00	5.74	9.24	6.23	10.03	**100 yr**	-	-	-	10.03	21	1			0.013	0.0040	627.24	627.28		4.16		0.27	1.25		0.34	627.62	623.61	623.75	626.10
02+45.20	02+30.24	14.96		-	2.17	-	-	1.09	-	0.05	10.05	5.74	9.24	6.23	10.03	**100 yr**	-	-	-	10.03	21	1			0.013	0.0040	627.08	627.14	4.16	4.16	0.27	0.27	0.35	0.09	0.10	627.24	622.66	623.61	
02+30.24	01+70.74	59.50	F1	1.95	4.12	0.50	0.98	2.06	10.00	0.06	10.11	5.72	9.21	11.79	18.98	**100 yr**	-	-	-	18.98	30	1			0.013	0.0021	626.85	626.98	4.16	3.87	0.27	0.23	0.75	0.20	0.10	627.08	621.90	622.66	
01+70.74	01+42.46	28.28		-	4.12	-	-	2.06	-	0.26	10.36	5.72	9.21	11.79	18.98	**100 yr**	-	-	-	18.98	30	1			0.013	0.0021	626.69	626.75	3.87	3.87	0.23	0.23	0.35	0.08	0.10	626.85	621.54	621.90	
01+42.46	01+00.00	42.46		-	4.12	-	-	2.06	-	0.12	10.48	5.72	9.21	11.79	18.98	**100 yr**	-	-	-	18.98	30	1			0.013	0.0021	***626.50***	626.59	3.87	3.87	0.23	0.23	0.35	0.08	0.10	626.69	621.00	621.54	
STORM DRAIN LINE SD-F1																																						
01+32.50	01+00.00	32.50	F1	1.95	1.95	0.50	0.98	0.98	10.00	-	10.00	5.74	9.24	5.60	9.01	**100 yr**	-	-	-	9.01	18	1			0.013	0.0074	***627.08***	627.32	0.00	5.09	0.00	0.40	1.25	0.00	0.50	627.82	622.59	623.42	628.10

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SECOND SUBMITTAL

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

HYDRAULIC CALCULATIONS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

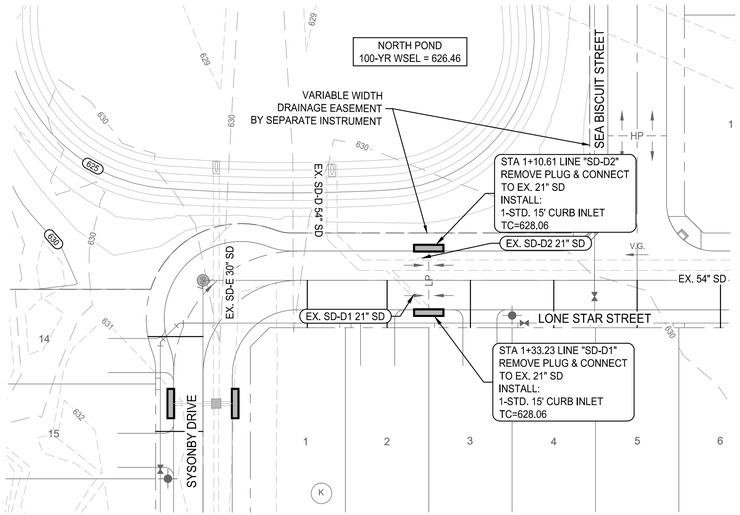
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
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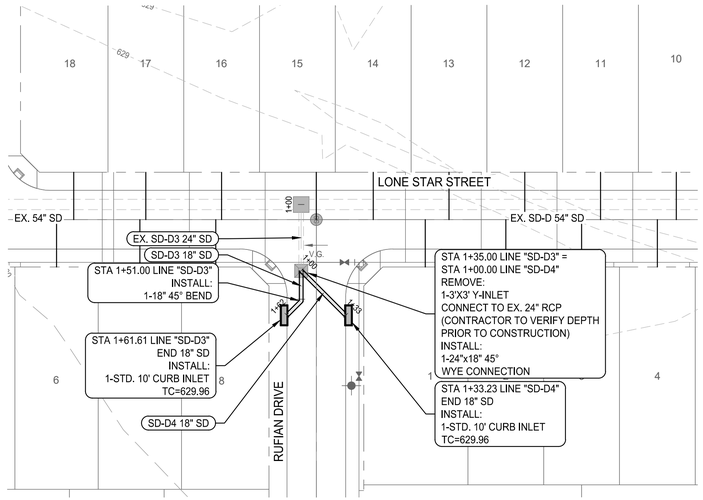
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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

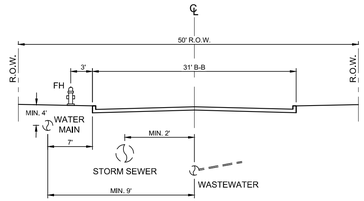
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DESIGNED: CLS	APRIL 2024	GEE21003	26
REVIEWER: NVT			

SARATOGA PHASE 2A

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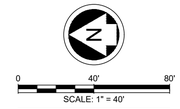
TYPICAL 31' RESIDENTIAL
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SECOND SUBMITTAL



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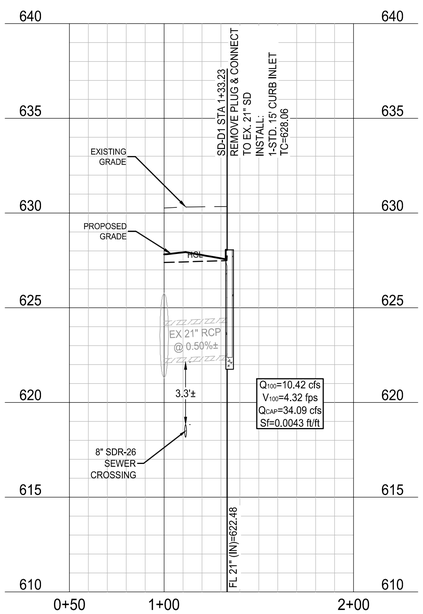
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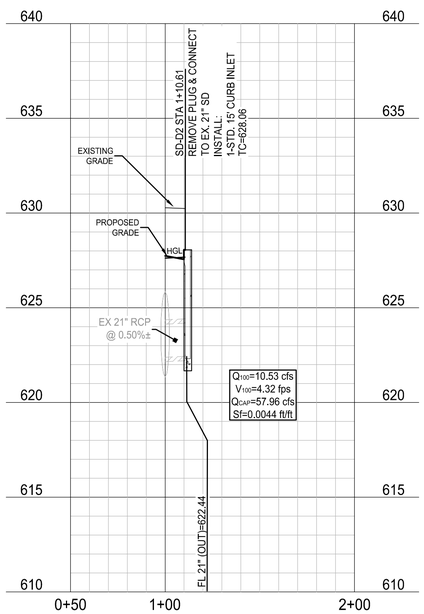
NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME | PE # | DATE

NO.	DATE	REVISION

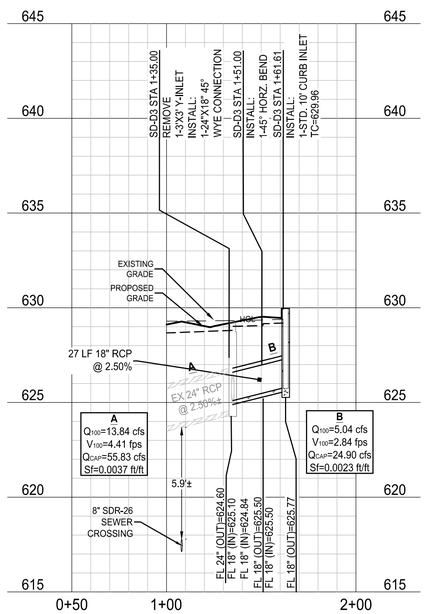
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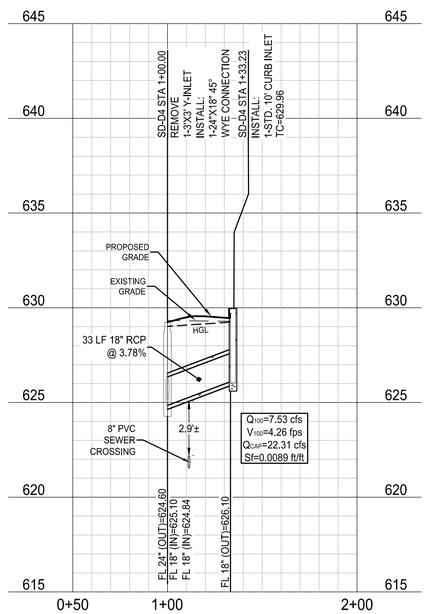
SD-D2



SD-D3



SD-D4



SARATOGA PHASE 2A

STORM DRAIN PLAN & PROFILE - SD-D1 & SD-D4

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

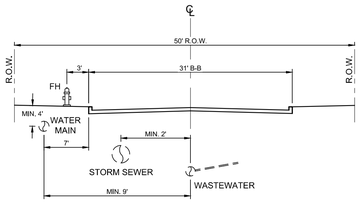
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	27
REVIEWER: NVT			

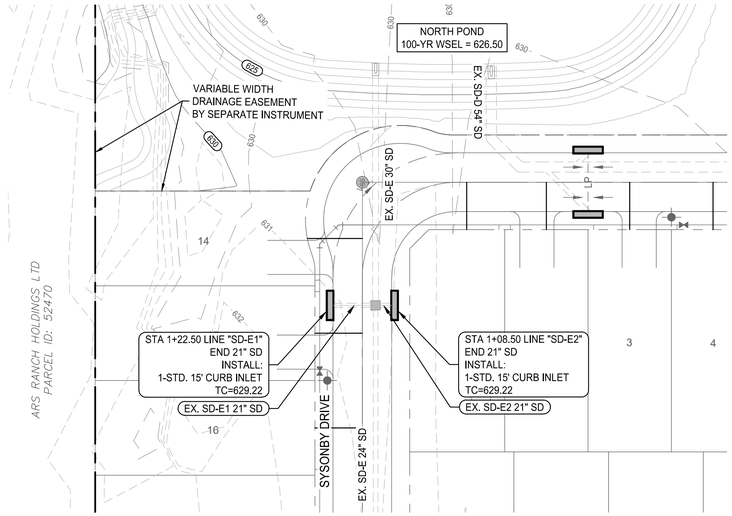
SARATOGA PHASE 2A

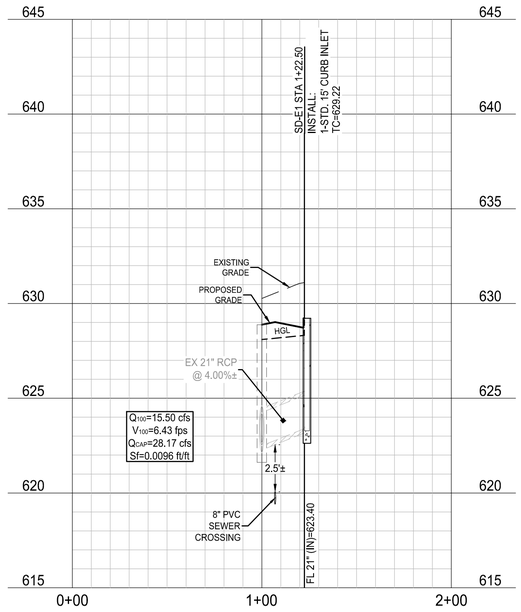
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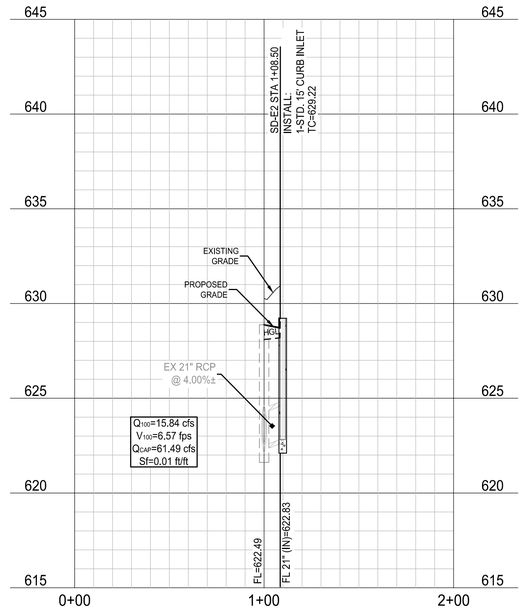


TYPICAL 31' RESIDENTIAL UTILITY SECTION

N.T.S.







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SECOND SUBMITTAL



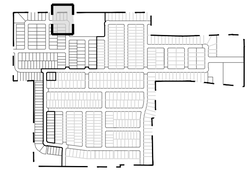
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SARATOGA PHASE 2A

STORM DRAIN PLAN & PROFILE - SD-E1 & SD-E2

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

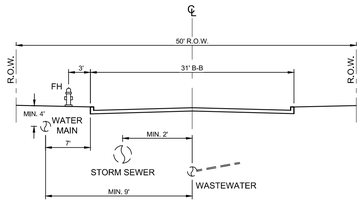
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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	28
REVIEWER: NVT			

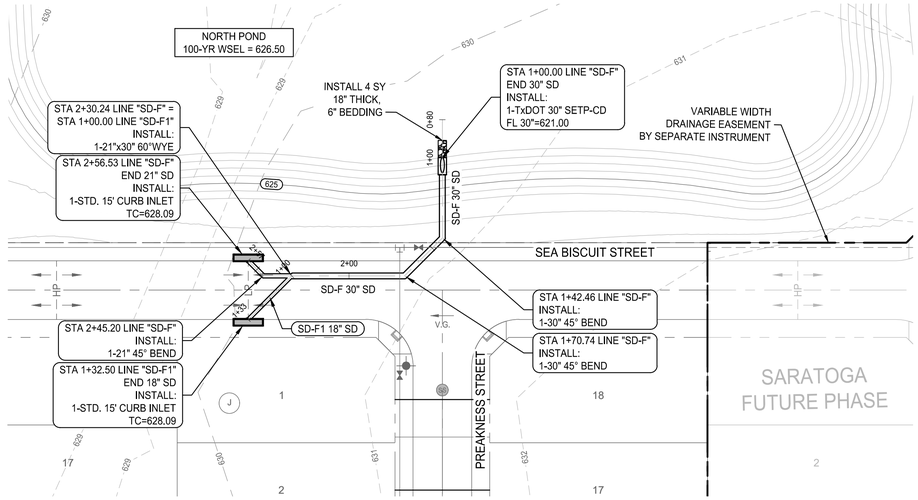
SARATOGA PHASE 2A

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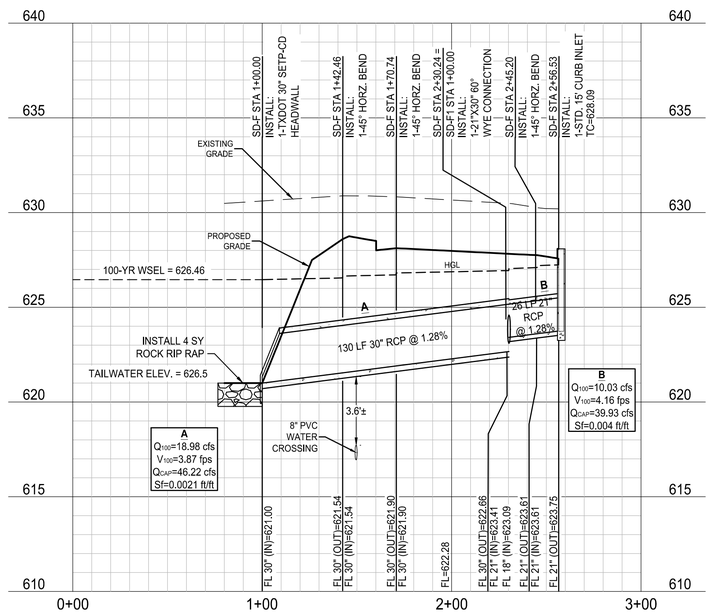


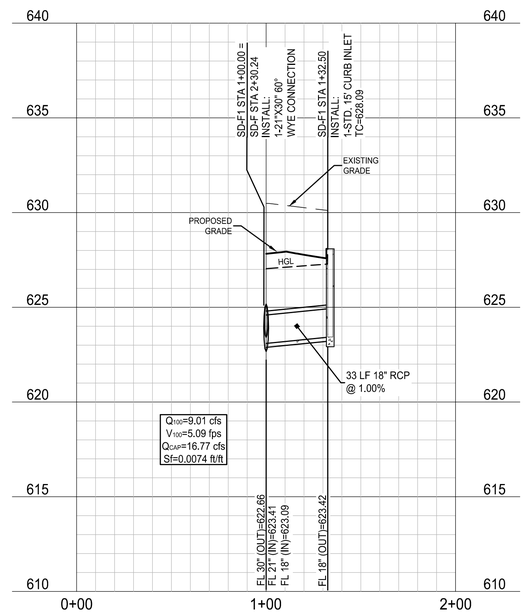
TYPICAL 31' RESIDENTIAL UTILITY SECTION

N.T.S.



LINE SD-F		
D50 = (v/(1.8(2g(γs-γw)/γw))^0.5))^0.5		
v =	3.87	fps
γ_s =	160	lb/ft^3
γ_W =	62.4	lb/ft^3
g =	32.2	ft/s^2
D_{50} =	5.55	in
18" Thick, 6" Bedding		



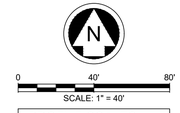


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5. STORM CONSTRUCTION WILL INCLUDE FURNISHING AND INSTALLING THE MATERIALS AND ALL STORM DRAIN PIPES, BOXES, INLETS, APPURTENANCES, INCLUDING EXCAVATION, EMBEDMENT AND BACKFILL, AS SHOWN ON THESE PLANS.
6. RUBBER GASKETS SHALL BE USED FOR INSTALLATION OF ALL SUBMERGED STORM DRAIN PIPES.



BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

STORM DRAIN PLAN & PROFILE - SD-F & SD-F1

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	29
REVIEWER: NVT			

SARATOGA PHASE 2A

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Plot Date/Time: 4/30/2024 4:05 PM

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

SECOND SUBMITTAL

ARS RANCH HOLDINGS LTD
PARCEL ID: 52470

CASEY, AARON, & KELLY
PARCEL ID: 301344
E BLACKJACK RD

CASEY, AARON, & KELLY
PARCEL ID: 301343
1751 E BLACKJACK RD

SOUSA, CRYSTAL M
PARCEL ID: 200720
1965 E BLACKJACK RD
DOC NUMBER 2012-58623

SYSONBY DRIVE
JUSTIFY DRIVE
HASTE LANE
LONE STAR STREET
SUN BRIAR LANE
SEA BISCUIT STREET
RUFIAN DRIVE
RUFIAN DRIVE
ZAVATA LANE
LONE STAR STREET
PREAKNESS STREET
SAM HOUSTON STREET
EVANGELINE DOWNS LANE
EIGHT BELLS LANE
FLYING FOX DRIVE

NORTH POND

SARATOGA FUTURE PHASE

SARATOGA FUTURE PHASE

SS-Q STA 13+75.04
INSTALL:
1-4' DIA. MH
RIM=633.164

SS-Q STA 7+90.36
INSTALL:
1-4' DIA. MH
RIM=628.372

SS-T STA 4+57.68
INSTALL:
1-4' DIA. MH
RIM=633.769

SS-S STA 4+57.86
INSTALL:
1-4' DIA. MH
RIM=630.539

SS-Q STA 10+75.04
INSTALL:
1-4' DIA. MH
RIM=630.123

VARIABLE WIDTH DRAINAGE EASEMENT BY SEPARATE INSTRUMENT

VARIABLE WIDTH DRAINAGE EASEMENT BY SEPARATE INSTRUMENT

SS-R STA 7+73.59
INSTALL:
1-4' DIA. MH
RIM=637.143

SS-P STA 5+08.38
INSTALL:
1-4' DIA. MH
RIM=628.656

SS-Q STA 3+80.00 =
SS-R STA 1+00.00
INSTALL:
1-5' DIA. MH
RIM=629.315

SS-R STA 6+84.68 =
SS-T STA 1+00.00
INSTALL:
1-4' DIA. MH
RIM=636.076

SS-R STA 3+84.68 =
SS-S STA 1+00.00
INSTALL:
1-4' DIA. MH
RIM=632.104

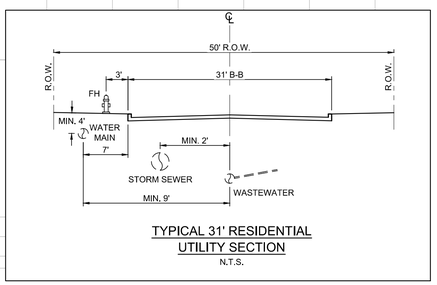
SS-A STA 29+90.64
INSTALL:
1-4' DIA. MH
RIM=636.046

SS-A STA 26+71.14
REMOVE PLUG AND
CONNECT TO EX 8" SS
FL 8"=626.21

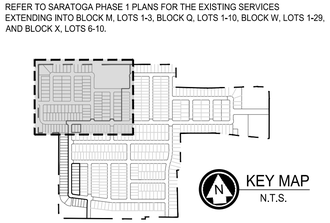
SS-Q STA 1+50.50
REMOVE PLUG AND
CONNECT TO EX 8" SS
FL 8"=616.19

SS-P STA 1+50.50
REMOVE PLUG AND
CONNECT TO EX 8" SS
FL 8"=616.00

SS-Q 8" PVC
SS-R 8" PVC
SS-T 8" PVC
SS-S 8" PVC
SS-Q 8" SDR-26
SS-P 8" SDR-26
SS-A 8" PVC
SS-B 8" SDR-26
EX. SS-A 8" SDR-26



TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED SANITARY SEWER LINE
- PROP. SANITARY SEWER SERVICE
- PROPOSED PLUG
- EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

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SARATOGA PHASE 2A

SEWER PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

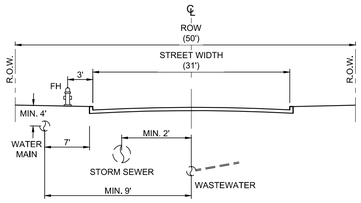
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	30
REVIEWER: NVT			

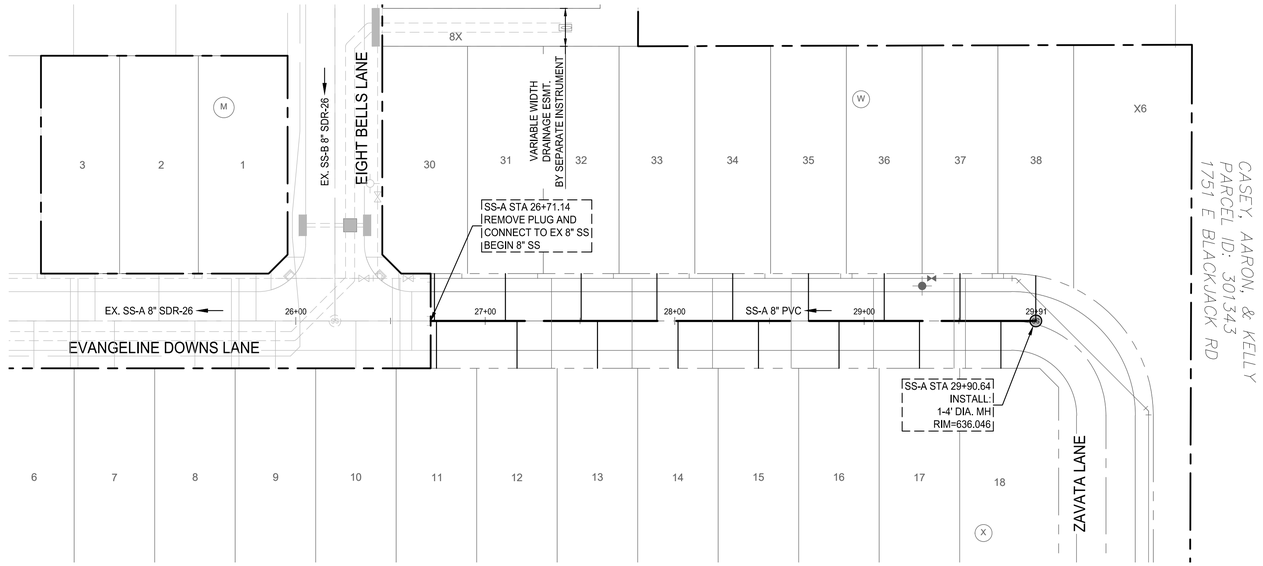
SARATOGA PHASE 2A

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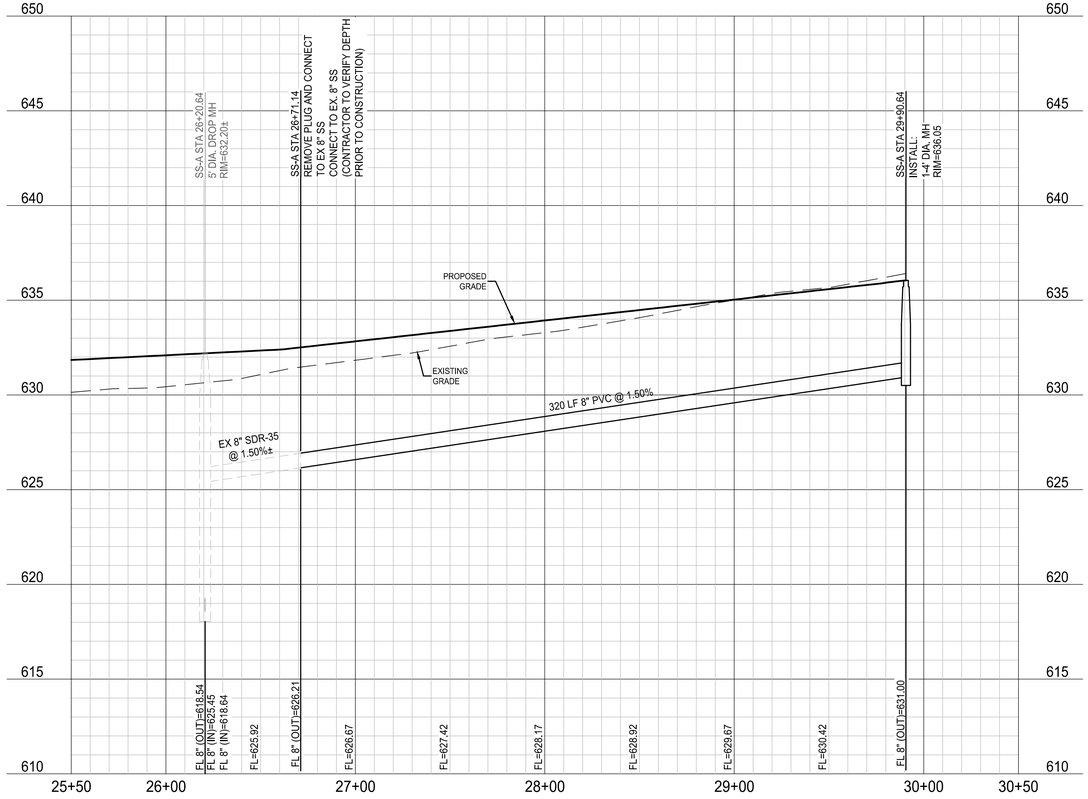


TYPICAL 31' RESIDENTIAL UTILITY SECTION

N.T.S.



SS-A



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SECOND SUBMITTAL

0 40' 80'

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PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

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- PROP. SANITARY SEWER SERVICE
- PROPOSED PLUG
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- EX W — EXISTING WATER LINE
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KEY MAP
N.T.S.

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

SEWER PLAN & PROFILE - SS-A

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

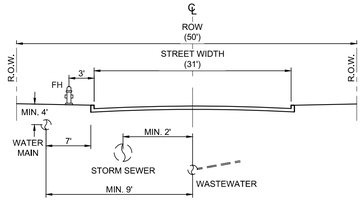
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	31
REVIEWER: NVT			

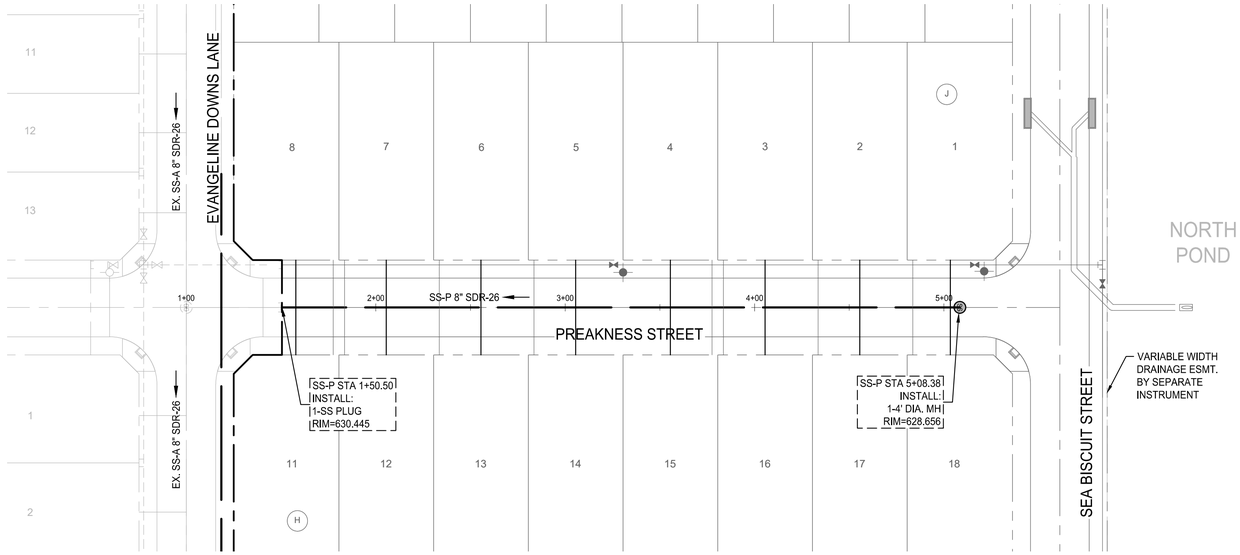
SARATOGA PHASE 2A

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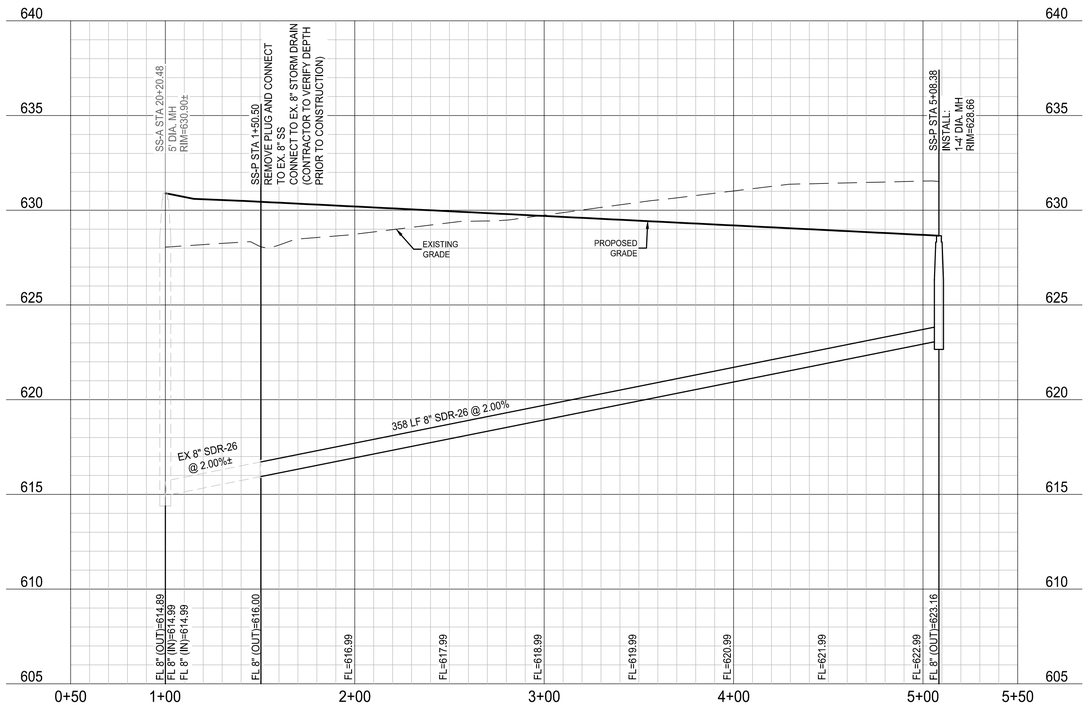


TYPICAL 31' RESIDENTIAL UTILITY SECTION

N.T.S.



SS-P



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0 40' 80'

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

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SARATOGA PHASE 2A

SEWER PLAN & PROFILE - SS-P

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

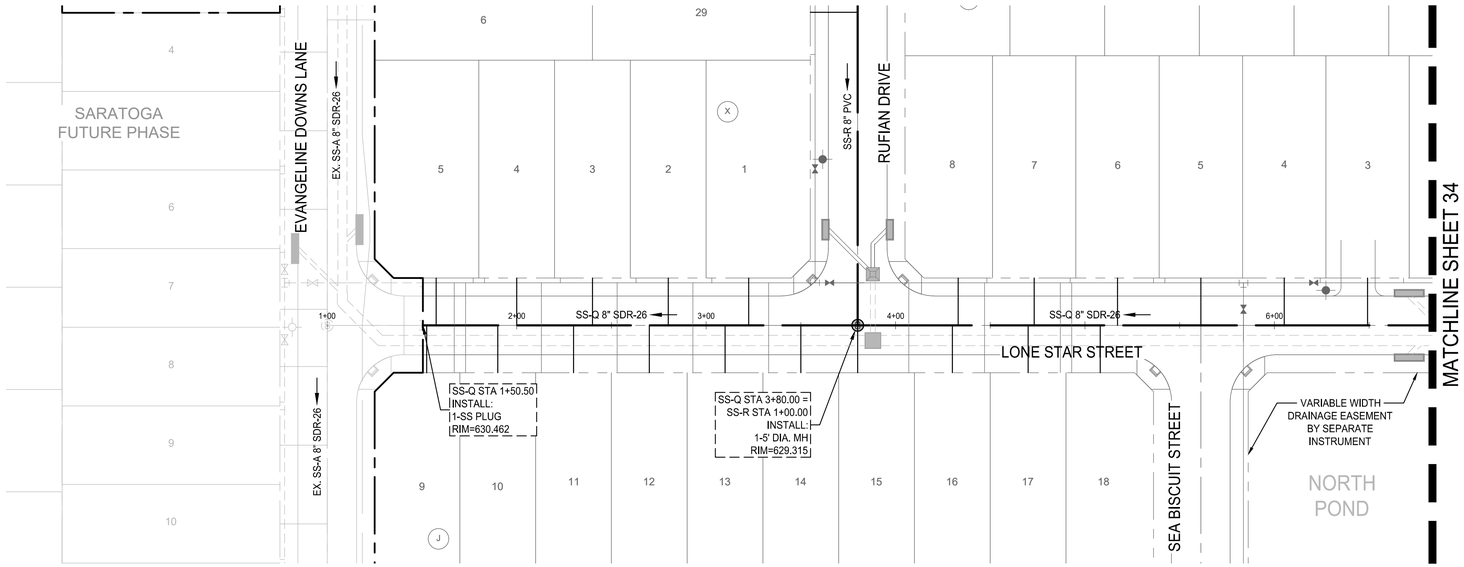
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

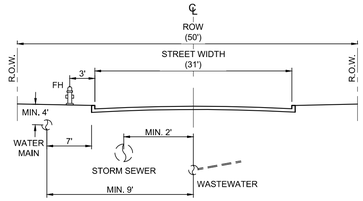
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	32
REVIEWER: NVT			

SARATOGA PHASE 2A

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Plot Date/Time: 4/30/2024 4:58 PM





TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

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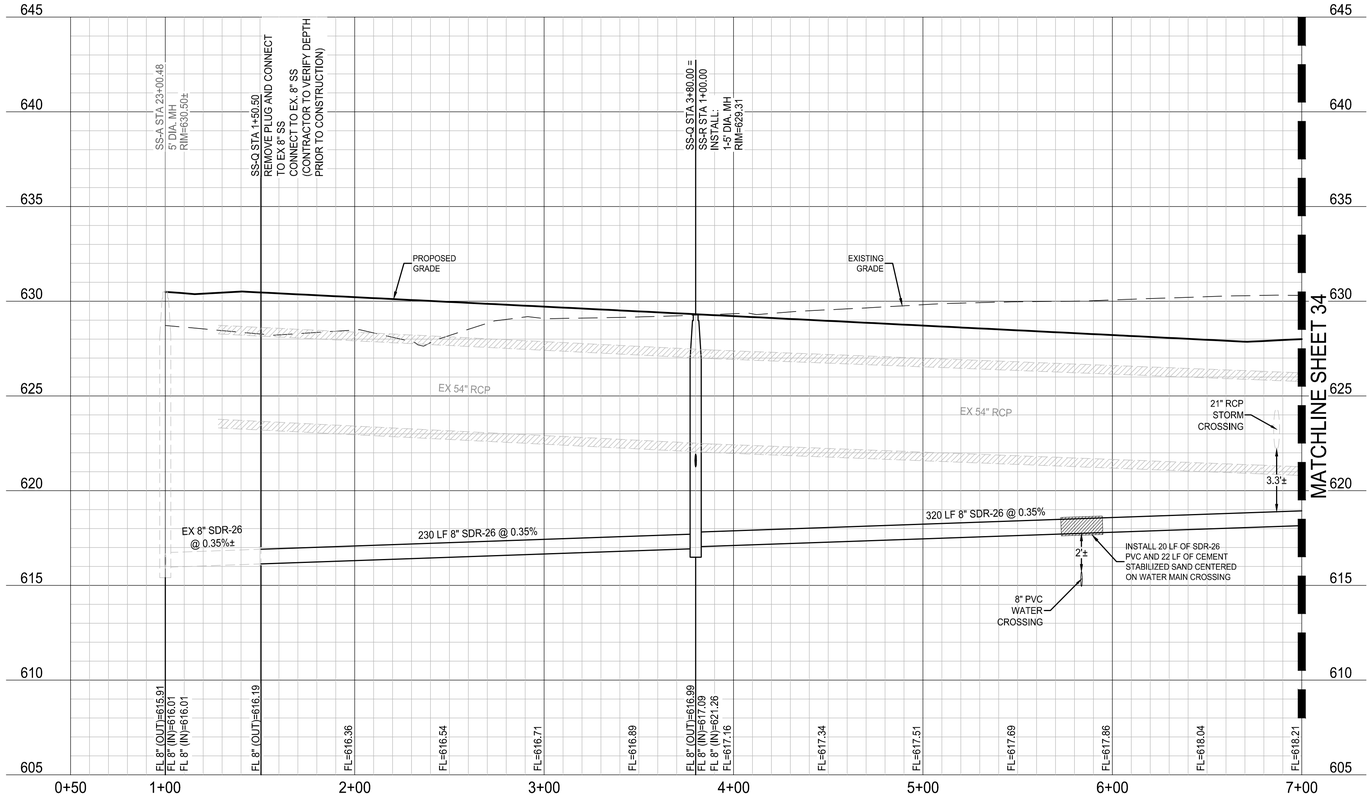
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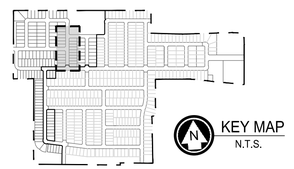
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SS-Q





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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

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SARATOGA PHASE 2A

SEWER PLAN & PROFILE - SS-Q (1+00 TO 7+00)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

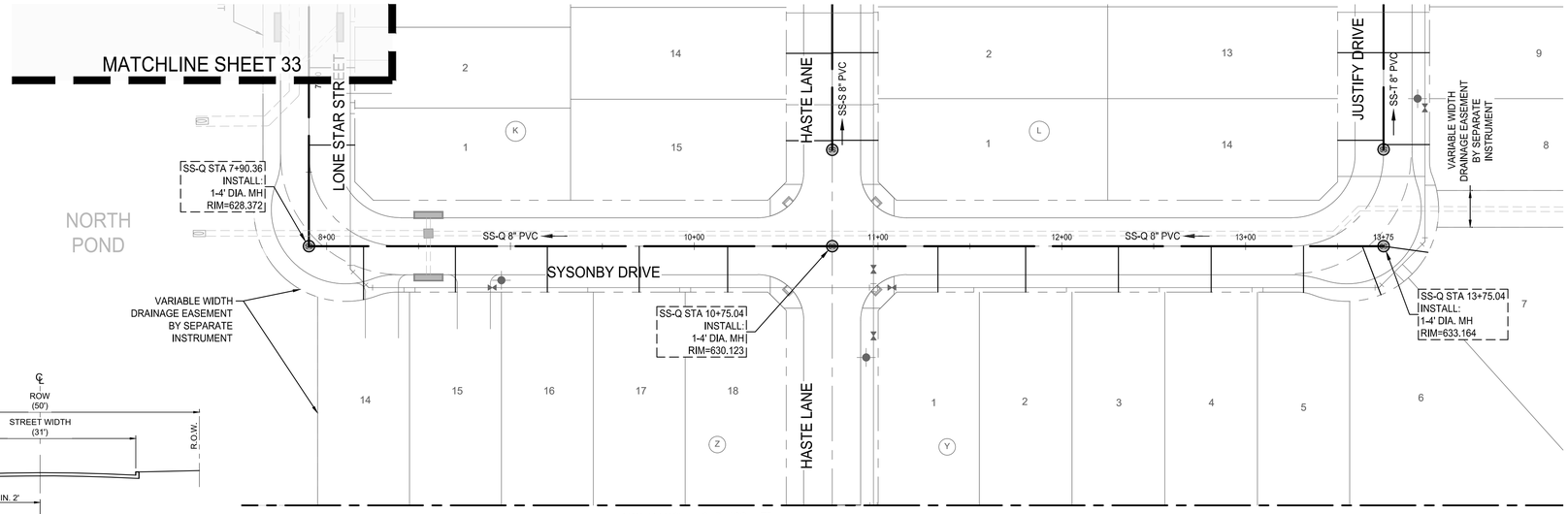
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westwoodps.com

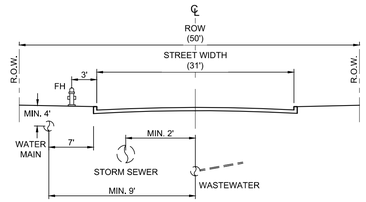
Westwood Professional Services, Inc.
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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	33
REVIEWER: NVT			

SARATOGA PHASE 2A

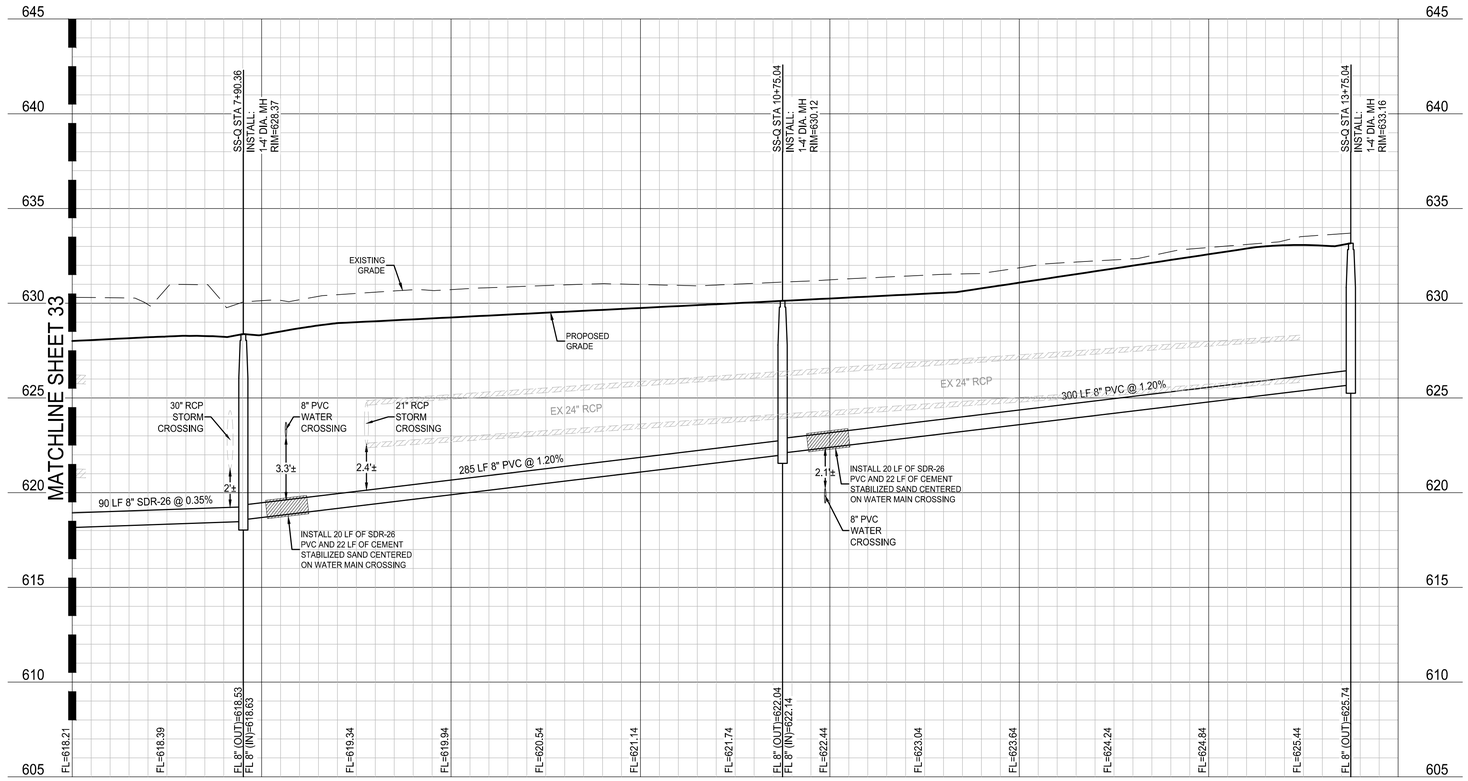
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TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

SS-Q



NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

SECOND SUBMITTAL

0 40' 80'
SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED SANITARY SEWER LINE
- PROP. SANITARY SEWER SERVICE
- PROPOSED PLUG
- EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
- PROPOSED STORM DRAIN

NOTES:

1. ALL MANHOLES GREATER THAN 12 FEET DEEP SHALL BE A MINIMUM OF 5 FEET (60 INCHES) IN DIAMETER AND SHALL HAVE AN EXTERIOR DROP CONNECTION.
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3. CONTRACTOR SHALL PRESSURE RATE THE SANITARY SEWER PIPE AT ALL CROSSINGS BETWEEN THE WATERLINE AND THE SANITARY SEWER PIPE IN ACCORDANCE WITH TCEQ REGULATIONS.
4. SEPARATION BETWEEN WATERLINE AND SANITARY SEWER CROSSINGS SHALL CONFORM TO TCEQ'S CHAPTER 290.44(e), AND CHAPTER 317.13 APPENDIX E.
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BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

SERVICES FOR FUTURE LOTS
PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

SEWER PLAN & PROFILE - SS-Q (7+00 TO END)

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	34
REVIEWER: NVT			

SARATOGA PHASE 2A

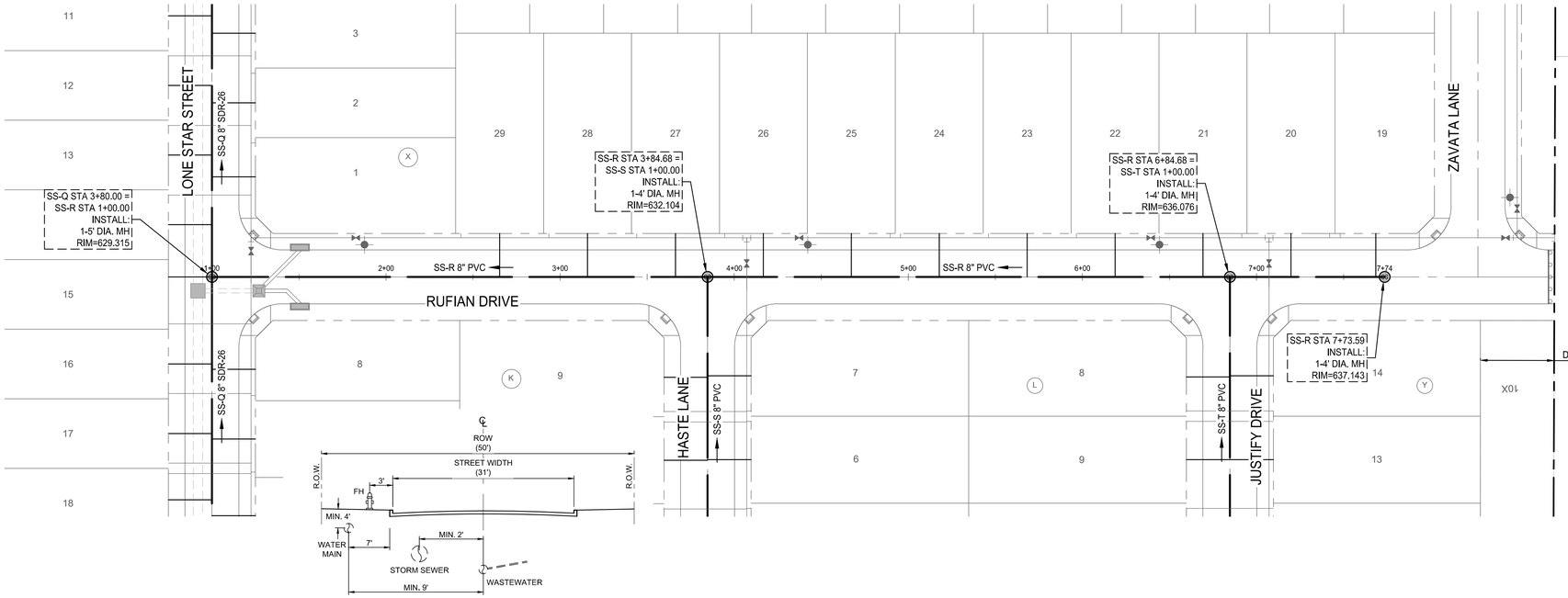
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SECOND SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

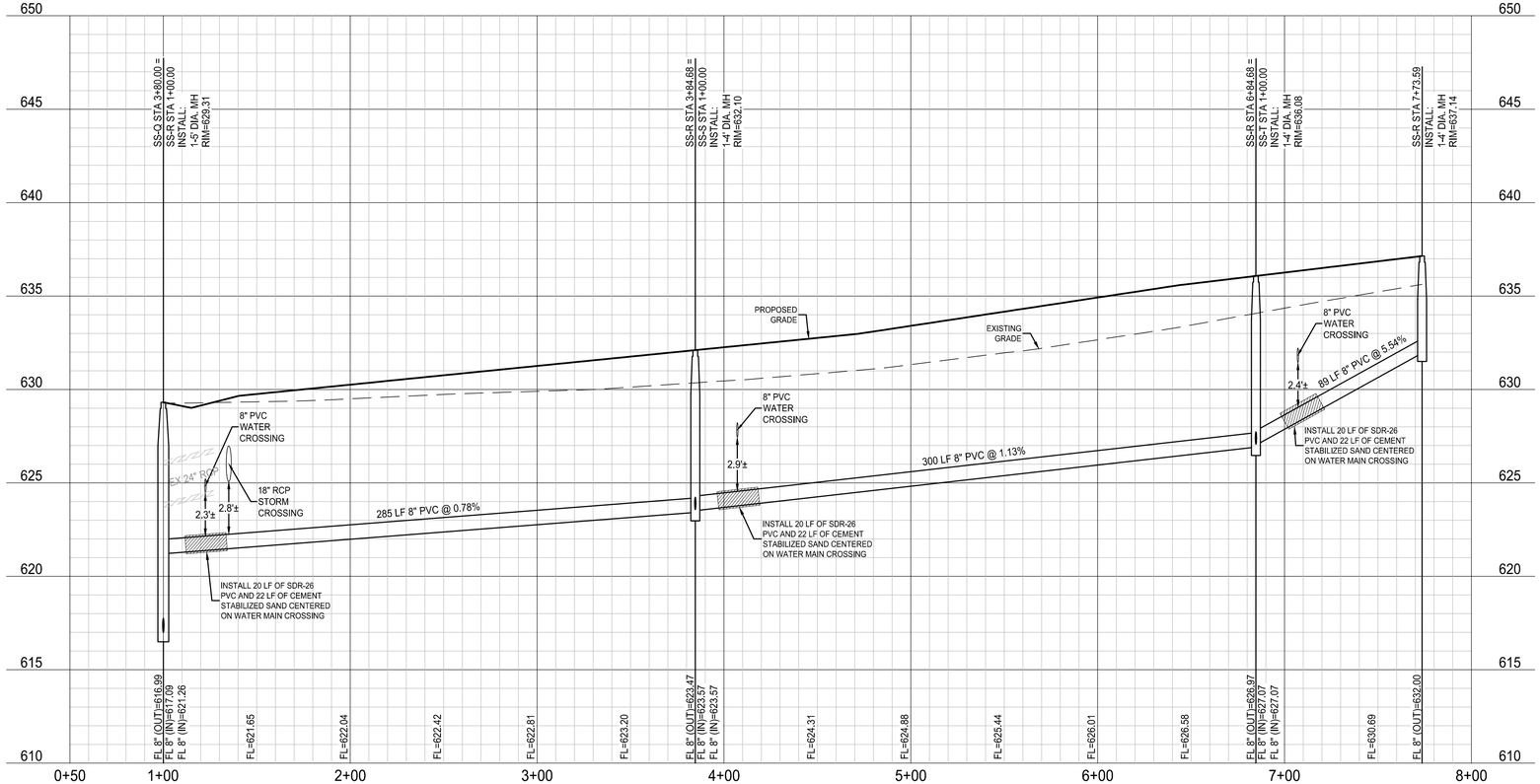
TEXAS 811	1-800-344-8377
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ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
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CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.

SS-R



SCALE: 1" = 40'

PROFILE SCALES:
1" = 40' HORIZ.
1" = 4' VERT.

LEGEND

- PROPOSED SANITARY SEWER LINE
- PROP. SANITARY SEWER SERVICE
- PROPOSED PLUG
- EXISTING SANITARY SEWER LINE
- PROPOSED WATER LINE
- EXISTING WATER LINE
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NOTES:

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SERVICES FOR FUTURE LOTS
PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

SEWER PLAN & PROFILE - SS-R

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

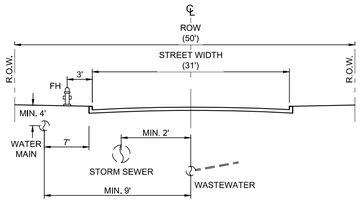
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

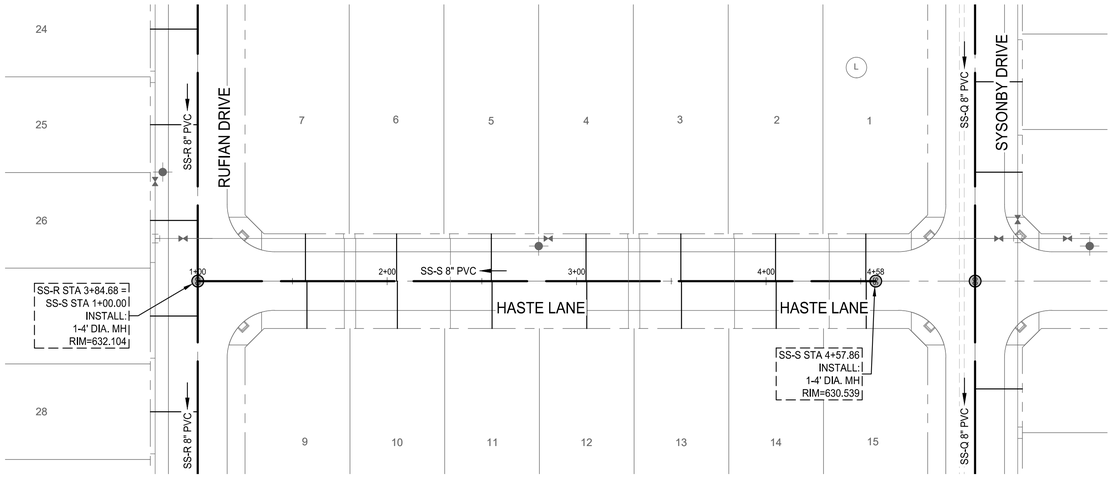
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REVIEWER: NVT			

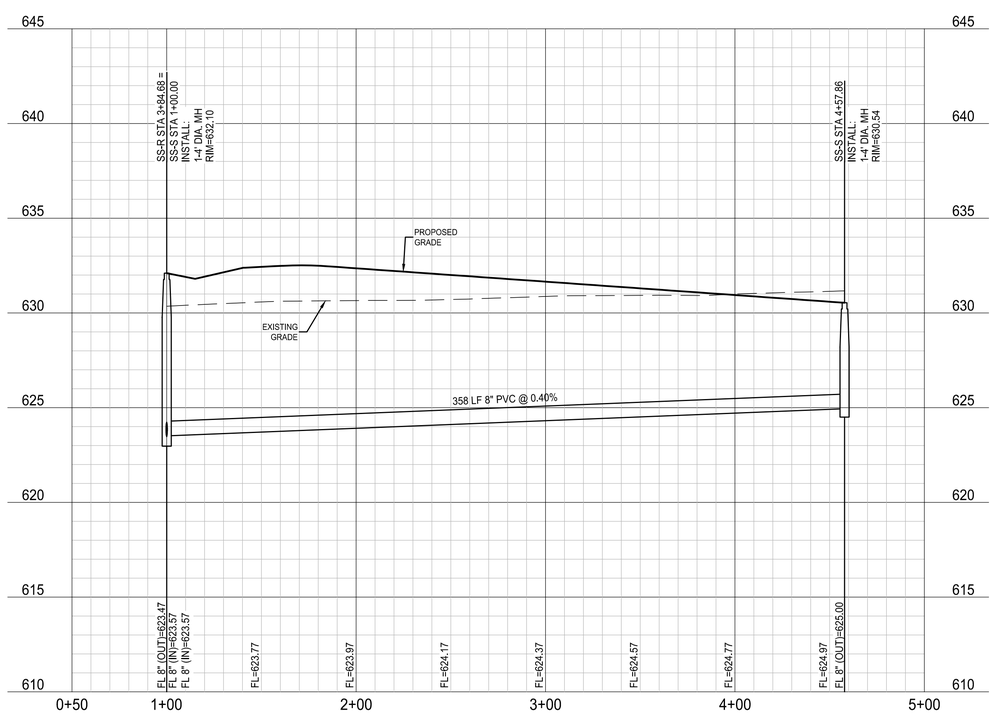
SARATOGA PHASE 2A

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TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.





NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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SECOND SUBMITTAL

N

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KEY MAP
N.T.S.

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

SEWER PLAN & PROFILE - SS-S

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

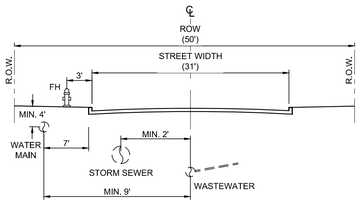
Phone (469) 213-1800 11000 Frisco Street, Suite 400
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TBPLS FIRM REGISTRATION NO. 10074301

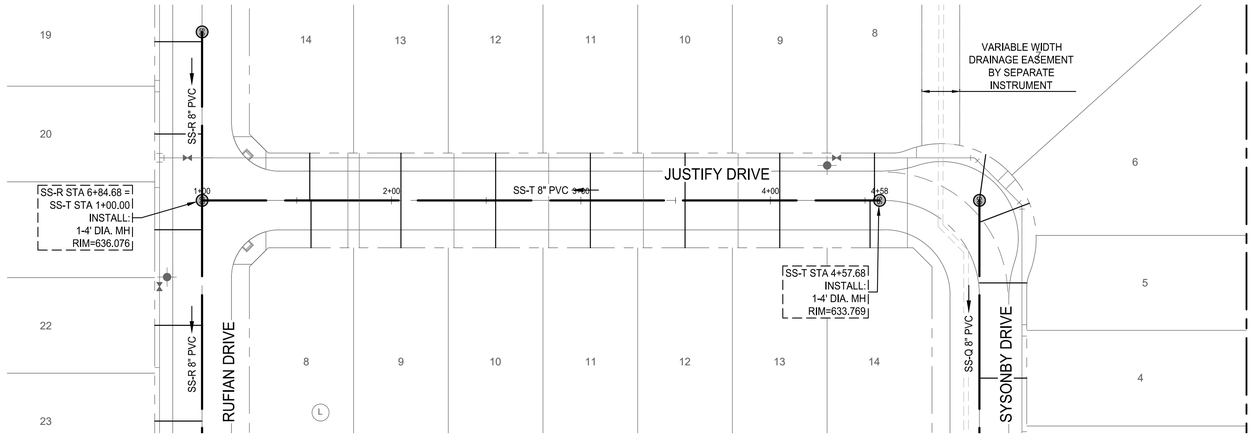
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REVIEWER: NVT			

SARATOGA PHASE 2A

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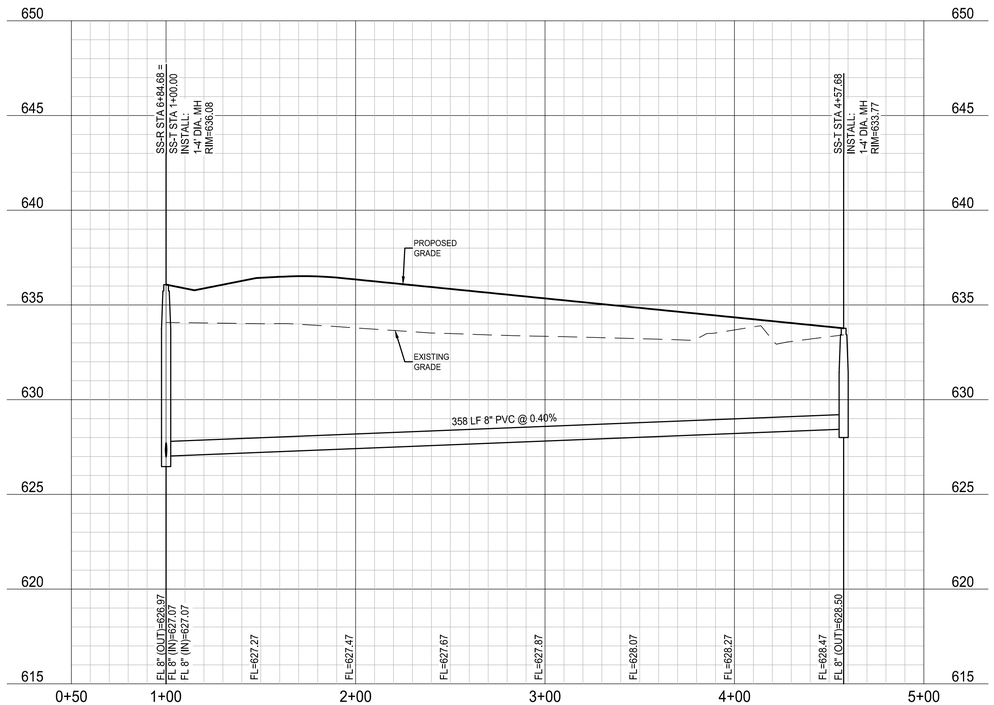


TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



APS RANCH HOLDINGS LTD
PARCEL ID: 524470

SS-T



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TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME | PE # | DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

SEWER PLAN & PROFILE - SS-T

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

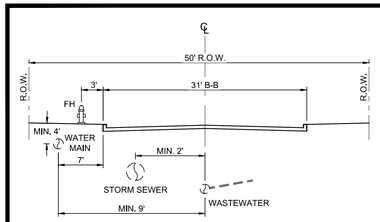
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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
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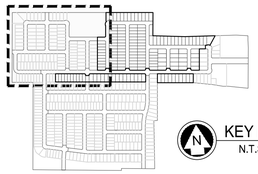
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DESIGNED: CLS	APRIL 2024	GEE21003	37
REVIEWER: NVT			

SARATOGA PHASE 2A

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Last Saved by: LSalas-Smith
Last Plotted: 4/30/2024 4:58 PM
Plot Date/Time: 4/30/2024 4:58 PM



TYPICAL 31' RESIDENTIAL UTILITY SECTION
N.T.S.



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SECOND SUBMITTAL

ARS RANCH HOLDINGS LTD
PARCEL ID: 52470
DOC NUMBER 2007-37861

CASEY, AARON, & KELLY
PARCEL ID: 301344
E BLACKJACK RD

CASEY, AARON, & KELLY
PARCEL ID: 301343
1751 E BLACKJACK RD

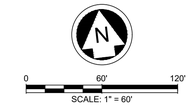
WL-Q STA 6+73.86 INSTALL: 1-8" PLUG
WL-Q STA 5+93.36 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-P STA 9+11.68 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-P STA 11+14.18 = WL-Q STA 5+55.36 INSTALL: 1-8"x8" CROSS 2-8" GATE VALVES
WL-P STA 8+39.50 INSTALL: 1-8" 45° BEND
WL-P STA 8+25.36 INSTALL: 1-8" 45° BEND
WL-P STA 13+89.18 INSTALL: 1-8" 45° BEND
WL-P STA 14+24.54 INSTALL: 1-8" 45° BEND
WL-P STA 15+02.40 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-P STA 6+49.68 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-P STA 6+06.18 = WL-O STA 1+00.00 INSTALL: 1-8"x8" TEE 1-8" GATE VALVES
WL-O STA 3+80.00 = WL-N STA 8+41.18 INSTALL: 1-8"x8" TEE 1-8" GATE VALVE
WL-O STA 5+42.50 REMOVE PLUG AND CONNECT TO EX 8" W
WL-Q STA 3+02.50 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-N STA 7+78.72 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-P STA 18+54.90 = WL-R STA 2+64.02 INSTALL: 1-8"x8" TEE 1-8" GATE VALVES
WL-R STA 7+83.57 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-B STA 1+00.00 = WL-R STA 1+21.51 INSTALL: 1-8"x8" TEE 2-8" GATE VALVES
WL-R STA 1+00.00 INSTALL: 1-8" PLUG
WL-B STA 1+23.15 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-R STA 3+26.95 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-R STA 5+28.95 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-Q STA 1+00.00 = WL-R STA 5+64.02 INSTALL: 1-8"x8" TEE 1-8" GATE VALVE
WL-P STA 3+80.00 = WL-R STA 8+48.70 INSTALL: 1-8"x8" TEE 2-8" GATE VALVES
WL-N STA 5+88.09 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-B STA 3+10.00 INSTALL: 1-8" 45° BEND
WL-P STA 1+73.00 REMOVE PLUG AND CONNECT TO EX 8" W
WL-N STA 4+08.00 REMOVE PLUG AND CONNECT TO EX 8" W
WL-B STA 4+08.99 INSTALL: 1-8" 45° BEND
WL-B STA 4+58.52 INSTALL: 1-STD. FIRE HYDRANT ASSEMBLY 1-8" GATE VALVE
WL-B STA 7+18.02 REMOVE PLUG AND CONNECT TO EX 8" W

WL-P - 8" PVC
WL-Q - 8" PVC
WL-O - 8" PVC
WL-N - 8" PVC
WL-R - 8" PVC
WL-B - 8" PVC

SYSONBY DRIVE
JUSTIFY DRIVE
HASTE LANE
RUFIAN DRIVE
ZAVATA LANE
EVANGELINE DOWNS LANE
EIGHT BELLS LANE
SEA BISCUIT STREET
PREAKNESS STREET
LONE STAR STREET
SAM HOUSTON STREET

NORTH POND
SARATOGA FUTURE PHASE
SARATOGA FUTURE PHASE

VARIABLE WIDTH DRAINAGE EASEMENT BY SEPARATE INSTRUMENT
VARIABLE WIDTH DRAINAGE EASEMENT BY SEPARATE INSTRUMENT



LEGEND

- PROPOSED SANITARY SEWER LINE
- EXISTING SANITARY SEWER LINE
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- EXISTING WATER LINE
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- * DENOTES IRREGULAR SERVICE

NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS AND CITY STANDARD SPECIFICATIONS EXCEPT AS NOTED HEREIN OR APPROVED BY THE CITY.
2. THE CONTRACTOR SHALL COORDINATE ALL PHASES OF INSPECTION OF UTILITIES WITH THE CITY PRIOR TO CONSTRUCTION AND/OR INSTALLATION. ALL PIPES AND PIPE FITTINGS SHALL BE INSPECTED BY THE CITY PRIOR TO COVERING AND/OR BACKFILLING OF UTILITY TRENCHES.
3. THE CONTRACTOR SHALL MAKE APPLICATION FOR SERVICES, OBTAIN ALL PERMITS AND PAY ALL CHARGES, FEES, AND CONNECTION COSTS FOR EACH UTILITY SERVICE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING "AS-BUILT" PLANS TO THE ENGINEER OF RECORD SHOWING ALL UTILITY INSTALLATION VARIANCES FROM THE FINAL CONSTRUCTION DOCUMENTS. FIELD CHANGES SHALL BE LOCATED ON THE "AS-BUILT" PLANS BY DISTANCE TO THE LOT LINES OR PROPERTY LINES.
5. UNLESS OTHERWISE NOTED, ALL CONCRETE USED IN UTILITY INSTALLATION SHALL BE CLASS "A" (3000 PSI).
6. ALL WATER MAINS SHALL BE A MINIMUM OF PVC C900, DR 18, CLASS 150. FIRE PROTECTION SERVICES SHALL BE PVC C900, DR 14, CLASS 200 AND INSTALLED IN ACCORDANCE WITH THE DESIGN AND SPECIFICATIONS OF THE FIRE PROTECTION PLANS TO BE PREPARED BY A LICENSED FIRE PROTECTION ENGINEER.
7. WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
8. ALL WATER MAINS, UNLESS OTHERWISE NOTED, SHALL HAVE A MINIMUM COVER OF 48" BELOW FINISHED GRADE.
9. WHEN WATER MAINS AND SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET HORIZONTALLY IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES.
10. ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS.
11. TRENCH BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED IN 6" LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE CITY SPECIFICATIONS.
12. ALL BORE PITS, TRENCHES, AND INSPECTION HOLES SHALL BE BACKFILLED WITHIN 48 HOURS OF THE INSTALLATION OF UTILITY LINES. THE METHOD OF COMPACTION SHALL BE SUCH THAT A SOIL DENSITY EQUAL TO THAT EXISTING PRIOR TO THE START OF CONSTRUCTION WILL BE REQUIRED AS VERIFIED BY AN APPROVED TESTING LABORATORY. ANY EXCESS OR SURPLUS MATERIAL RESULTING DUE TO DISPLACEMENT OF UTILITY LINES AND CONDUITS SHALL BE DISPOSED OF IN A MANNER ACCEPTABLE TO THE CITY.
13. MUSTANG TO REVIEW, APPROVE, & MAINTAIN WATER SYSTEM.
7. REFER TO SARATOGA PHASE 1 PLANS FOR THE EXISTING SERVICES EXTENDING INTO BLOCK M, LOTS 1-3, BLOCK Q, LOTS 1-10, BLOCK W, LOTS 1-29, AND BLOCK X, LOTS 6-10.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

WATER PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	38
REVIEWER: NVT			

SARATOGA PHASE 2A

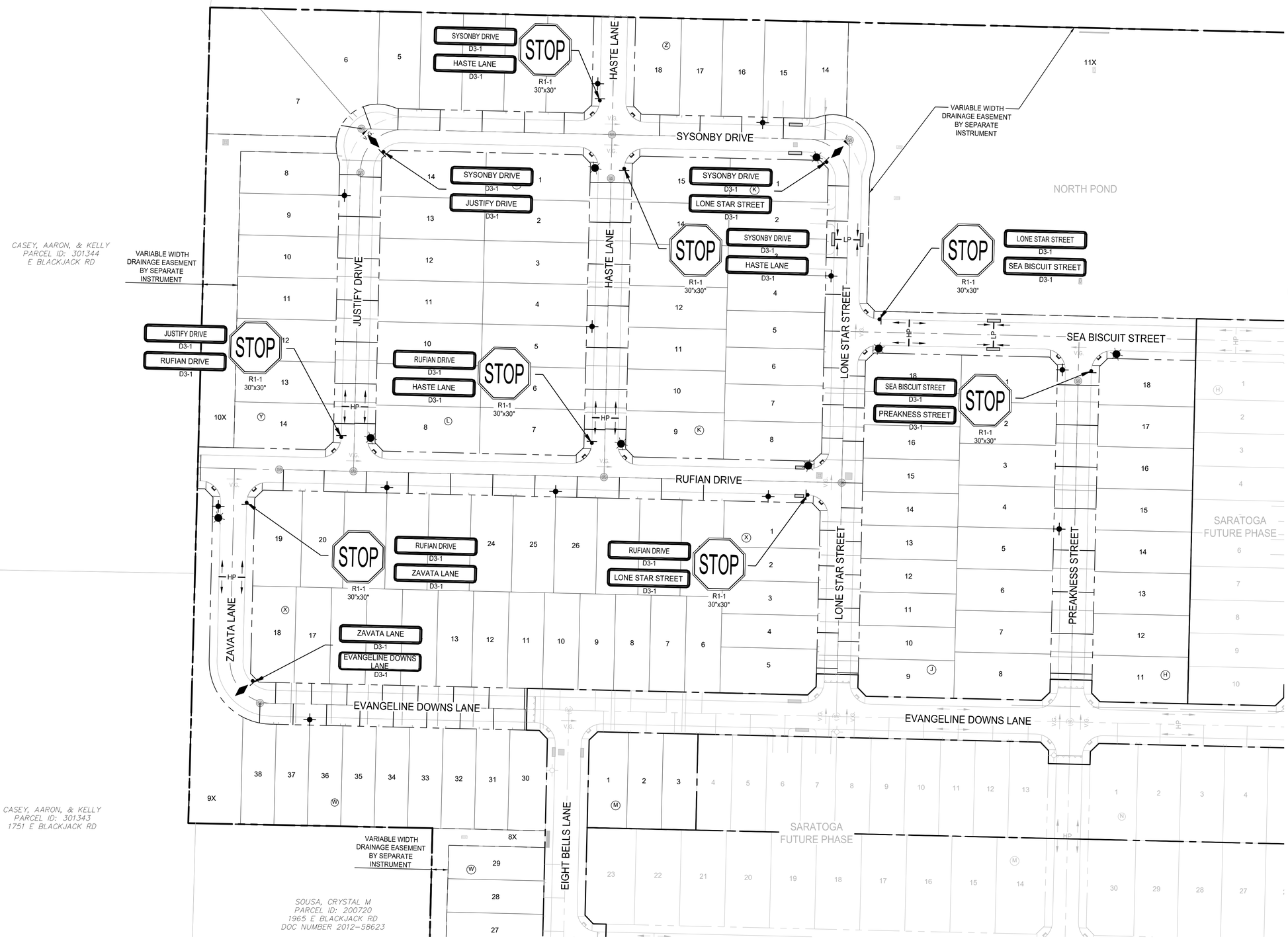
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SECOND SUBMITTAL

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.



0 40' 80'
SCALE: 1" = 40'

LEGEND

- PROPOSED LIGHT POLE 1-FIXTURE
- PROPOSED STREET SIGN
- PROPOSED STOP SIGN
- PROPOSED FIRE HYDRANT
- PROPOSED CURB INLET
- STREET NAME CHANGE
- 1-INCH IRRIGATION SLEEVES
- TRAFFIC FLOW DIRECTION

NOTES:

1. CENTER OF LIGHT POLES AND STREET SIGNS TO BE LOCATED 1.5' OFF BACK OF CURB.
2. CONTRACTOR SHALL SEQUENCE CONSTRUCTION SO THAT A MINIMUM OF ONE OPEN LANE IN EACH DIRECTION IS MAINTAINED AT ALL TIMES. TRAFFIC SHALL NOT BE MADE TO CROSS THE MEDIAN.
3. TRAFFIC SHALL NOT BE MADE TO CROSS THE MEDIAN.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

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NATHANIEL V. THOMPSON 95918 04/30/2024
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SARATOGA PHASE 2A

STREET LIGHT & SIGNAGE PLAN

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

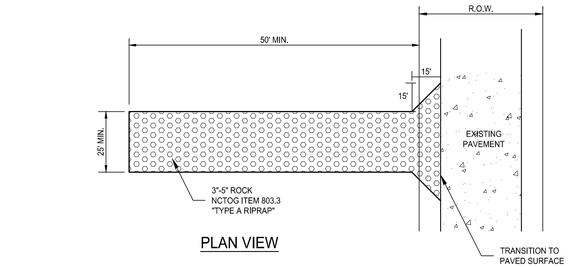
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

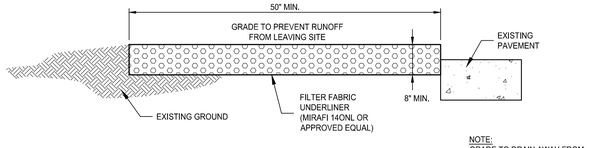
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DESIGNED: CLS	APRIL 2024	GEE21003	39
REVIEWER: NVT			

SARATOGA PHASE 2A

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PLAN VIEW

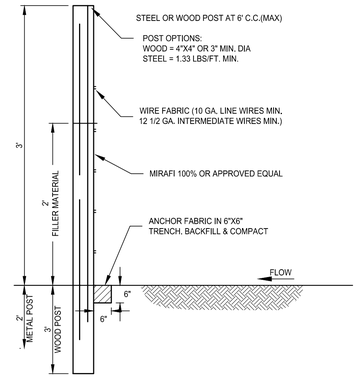


PROFILE

NOTE:
GRADE TO DRAIN AWAY FROM STABILIZATION AND STREET PAVED SURFACE. DRAINAGE MUST FLOW AWAY FROM ENTRANCE.

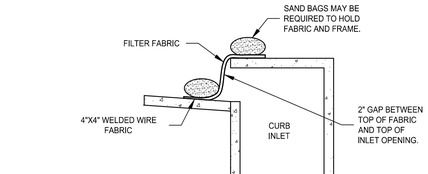
1 STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



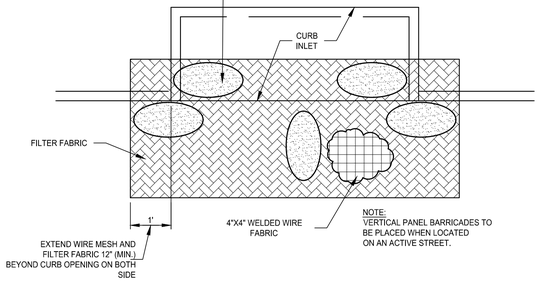
2 SILT FENCE

NOT TO SCALE



SAND BAGS FILLED WITH FILTER STONE. ONE AT EACH END AND ENOUGH IN BETWEEN TO PREVENT GAPS BETWEEN THE PAVEMENT AND THE FILTERED FABRIC. LAY BAGS LONGITUDINALLY IN THE GUTTER AT THE ENDS, TRANSVERSE TO GUTTER IN BETWEEN.

CROSS SECTION

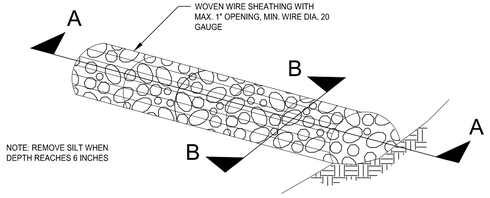


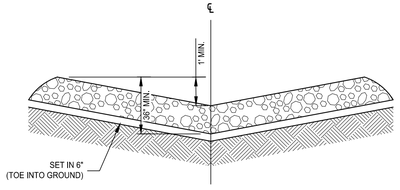
NOTE:
VERTICAL PANEL BARRICADES TO BE PLACED WHEN LOCATED ON AN ACTIVE STREET.

PLAN VIEW

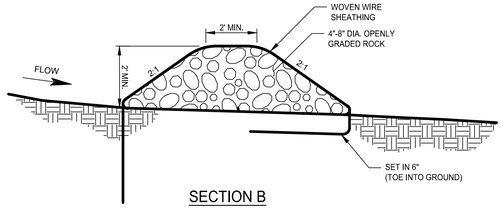
3 CURB INLET PROTECTION

NOT TO SCALE





SECTION A: SWALE OR CHANNEL



SECTION B

4 ROCK CHECK DAM

NOT TO SCALE

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:	
TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561
CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.	

NOTES:

1. SOIL EROSION AND SEDIMENT CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH CITY OF FORT WORTH EROSION REGULATIONS.
2. RESPONSIBILITY FOR INSTALLATION, ROUTINE INSPECTION, AND MAINTENANCE OF EROSION CONTROL SHOULD BE DEFINED AND ASSIGNED TO APPROPRIATE PERSON(S) PRIOR TO COMMENCEMENT OF ANY SOIL DISTURBING ACTIVITY.
3. EROSION CONTROL MEASURES MUST BE CONSTRUCTED AND FUNCTION BEFORE ANY GRADING OR LAND DISTURBANCE TAKES PLACE.
4. TEMPORARY OR PERMANENT SOIL STABILIZATION MUST BE APPLIED TO DISTURBED AREA LEFT DORMANT FOR 14 DAYS.
5. IN THE EVENT THAT MEASURES BEING USED ARE DEEMED TO BE INEFFECTIVE BY CITY INSPECTORS, ADDITIONAL MEASURES OR CHANGES IN THE ORIGINAL PLAN MAY BE REQUIRED BY THE CITY OF FORT WORTH.
6. ALL EROSION CONTROL DEVICES SHALL BE INSPECTED BY THE SITE FOREMAN DAILY. ANY STRUCTURE OR CONTROL DEVICES WHICH IS DAMAGED OR INOPERATIVE WILL BE REPAIRED OR REPLACED IMMEDIATELY.
7. SANITARY FACILITIES SHALL BE PROVIDED ON THE SITE & REGULARLY SERVICED AS RECOMMENDED BY THE SUPPLIER. TRASH & DEBRIS SHALL BE STORED IN COVERED BINS OR ENCLOSURES.
8. CONSTRUCTION ENTRANCES/EXITS SHOULD BE LIMITED AND PROTECTION PROVIDED TO PREVENT TRACKING OF SOILS ONTO CITY STREETS.
9. REMOVE SILT OR SEDIMENTS FROM STREETS, CURBS, GUTTERS, FLUMES, HANDICAP ACCESS RAMPS, CURB INLETS, STORM DRAINS, AND ANY OTHER PUBLIC DRAINAGE FACILITIES DAILY OR AS ACCUMULATION OCCURS.
10. EROSION CONTROL SHOULD BE EVALUATED TO DETERMINE THE EFFECTIVENESS OF THOSE DEVICES BY THE PERSON ASSIGNED TO INSPECT EROSION CONTROL DEVICES, AND CHANGES MADE IF NECESSARY.
11. SOIL TRACKED ONTO PUBLIC ROADS SHALL BE REMOVED DAILY IF FEASIBLE, OR WHEN VISIBLY ACCUMULATED SEDIMENT HAS BEEN DEPOSITED. DISCHARGED SEDIMENT SHALL BE REMOVED AS SOON AS POSSIBLE.
12. USING WASH WATER TO WASH SEDIMENT FORM STREETS IS PROHIBITED.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

EROSION CONTROL DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

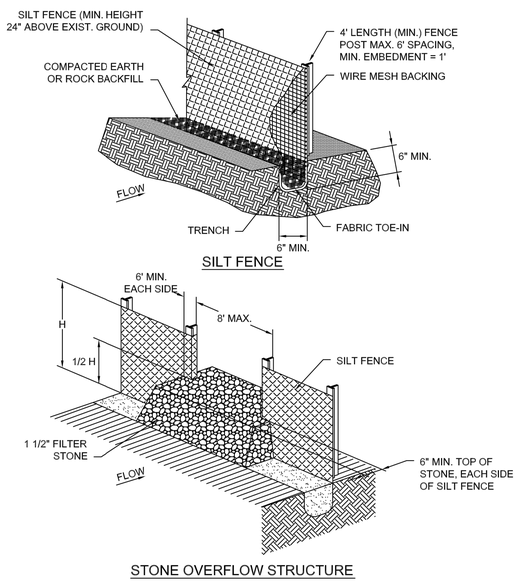
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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REVIEWER: NVT			

SECOND SUBMITTAL

SARATOGA PHASE 2A

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Last Saved at: 4/30/2024 8:17 AM
Plot Date/Time: 4/30/2024 4:08 PM



SILT FENCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.5 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1020A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

SILT FENCE GENERAL NOTES:

1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.

2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.

3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WIRE BACKING, WHICH IN TURN IS ATTACHED TO THE FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.

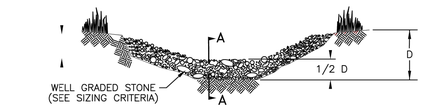
5. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN FINAL STABILIZATION IS ACHIEVED OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED.

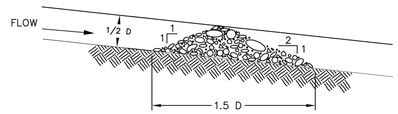
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

SILT FENCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.5 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1020B

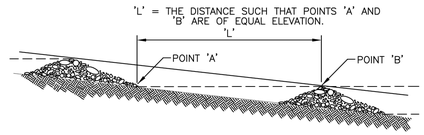
*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



VIEW LOOKING UPSTREAM



SECTION A – A



SPACING BETWEEN CHECK DAMS

ROCK CHECK DAM	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.9 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1060A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

ROCK CHECK DAM GENERAL NOTES:

1. STONE SHALL BE WELL GRADED WITH SIZE RANGE FROM 1½ TO 3½ INCHES IN DIAMETER DEPENDING ON EXPECTED FLOWS.

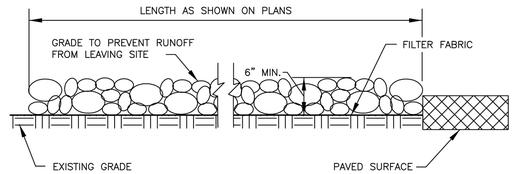
2. THE CHECK DAM SHALL BE INSPECTED AS SPECIFIED IN THE SWPPP AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

3. WHEN SILT REACHES A DEPTH EQUAL TO ONE–THIRD OF THE HEIGHT OF THE CHECK DAM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.

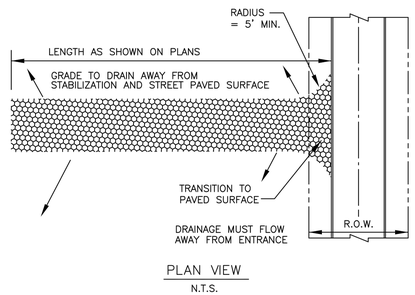
4. WHEN THE SITE HAS ACHIEVED FINAL STABILIZATION OR ANOTHER EROSION OR SEDIMENT CONTROL DEVICE IS EMPLOYED, THE CHECK DAM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

ROCK CHECK DAM	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.9 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1060B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*



PROFILE VIEW
N.T.S.



PLAN VIEW
N.T.S.

STABILIZED CONSTRUCTION ENTRANCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.11 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1070A

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES:

1. STONE SHALL BE 3 TO 5 INCH DIAMETER COARSE AGGREGATE.

2. LENGTH SHALL BE AS SPECIFIED IN THE SWPPP.

3. THE THICKNESS SHALL NOT BE LESS THAN 12 INCHES.

4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.

5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.

6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.

7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

8. PREVENT SHORTCUTTING OF THE FULL LENGTH OF THE CONSTRUCTION ENTRANCE BY INSTALLING BARRIERS AS NECESSARY.

9. INSPECTION SHALL BE AS SPECIFIED IN THE SWPPP.

STABILIZED CONSTRUCTION ENTRANCE	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 202.11 *	
		DATE OCT. '04	STANDARD DRAWING NO. 1070B

*Section II Standard Drawings as of October 2004. Reference number only has been updated for Fifth Edition Specifications. *Public Works Construction Standards North Central Texas, Fifth Edition.*

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

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ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

SECOND SUBMITTAL

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

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-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

EROSION CONTROL DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	41
REVIEWER: NVT			

SARATOGA PHASE 2A

Drawing: G:\Off\gee21003-saratoga\PDO 2\Phase 1\3_Design\35_Civil\301_DA\Civil_plans\GEE21003-C-DETAILS-2A
Last Saved by: BobBurk
Last Saved On: 5/2/2024 1:10 PM
Plot Date/Time: 4/30/2024 4:08 PM

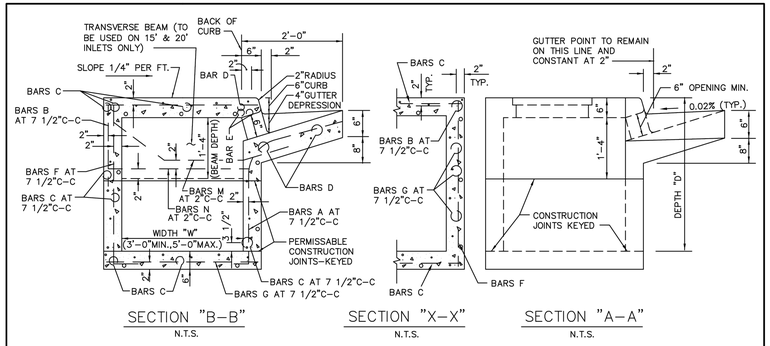
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

SECOND SUBMITTAL



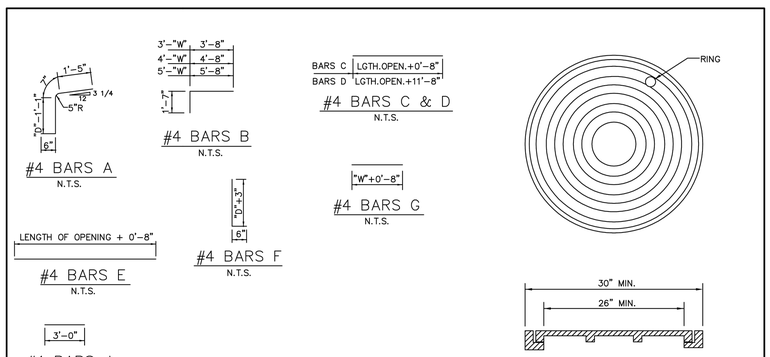
SECTION "B-B" N.T.S. SECTION "X-X" N.T.S. SECTION "A-A" N.T.S.

GENERAL NOTES:

1. ALL CONCRETE SHALL BE CLASS "A" CONCRETE.
2. REINFORCING BARS SHALL BE STANDARD GRADE STEEL, DEFORMED REINFORCING BARS OF A DIAMETER AND LENGTH AS SHOWN.
3. CHAMFER ALL EXPOSED CORNERS 3/4" EXCEPT WHERE OTHERWISE NOTED.
4. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.
5. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMODATE STORM SEWER PIPE.
6. RING AND COVER SHALL BE APPROVED BY THE OWNER AND INSTALLED BY THE CONTRACTOR.

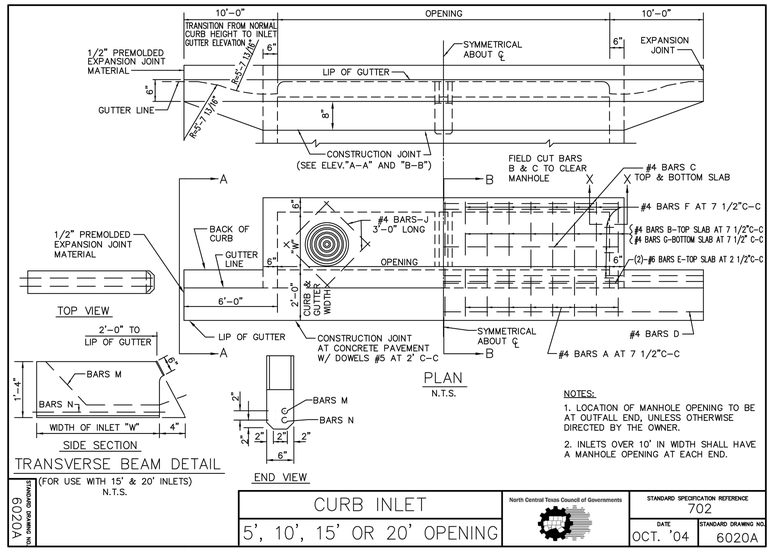
STANDARD DRAWING NO. 6020B

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702	
CROSS SECTION & INLET THROAT		DATE OCT. '04	STANDARD DRAWING NO. 6020B



STANDARD DRAWING NO. 6020C

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702	
REBAR & M.H. FRAME & COVER		DATE OCT. '04	STANDARD DRAWING NO. 6020C



TRANSVERSE BEAM DETAIL (FOR USE WITH 15' & 20' INLETS) N.T.S.

NOTES:

1. LOCATION OF MANHOLE OPENING TO BE AT OUTFALL END, UNLESS OTHERWISE DIRECTED BY THE OWNER.
2. INLETS OVER 10' IN WIDTH SHALL HAVE A MANHOLE OPENING AT EACH END.

STANDARD DRAWING NO. 6020A

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702	
5', 10', 15' OR 20' OPENING		DATE OCT. '04	STANDARD DRAWING NO. 6020A

BILL OF REINFORCING STEEL

DEPTH "D"	ALL AND	WIDTHS LENGTHS	OPENING LENGTH "L" = 5ft Widths "W" 3ft	4ft	5ft				OPENING LENGTH "L" = 10ft Widths "W" 3ft	4ft	5ft				OPENING LENGTH "L" = 15 ft Widths "W" 3ft	4ft	5ft				OPENING LENGTH "L" = 20 ft Widths "W" 3ft	4ft	5ft			
	BARS C	BARS D	BARS E	BARS J	BARS F	BARS F	BARS A	BARS B	BARS G	BARS F	BARS F	BARS A	BARS B	BARS G	BARS F	BARS F	BARS A	BARS B	BARS G	BARS M	BARS N	BARS F	BARS F	BARS A	BARS G	BARS M	BARS N
3'-6"	17	3	2	4	20	24	28	10	10	20	28	32	36	18	18	28	36	40	44	26	26	36	2	2	44	48	52	34	34	44	2	2
3'-9"	18	"	"	"	"	"	"	"	"	20	"	"	"	"	"	"	28	"	"	"	"	36	"	"	"	"	"	"	"	"	"	"	"
4'-0"	19	"	"	"	"	"	"	"	"	24	"	"	"	"	"	"	32	"	"	"	"	40	"	"	"	"	"	"	"	"	48	"	"
4'-3"	19	"	"	"	"	"	"	"	"	24	"	"	"	"	"	"	32	"	"	"	"	40	"	"	"	"	"	"	"	"	48	"	"
4'-6"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	"	34	"	"	"	"	42	"	"	"	"	"	"	"	"	50	"	"
4'-9"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	"	34	"	"	"	"	42	"	"	"	"	"	"	"	"	50	"	"
5'-0"	21	"	"	"	"	"	"	"	"	26	"	"	"	"	"	"	34	"	"	"	"	42	"	"	"	"	"	"	"	"	50	"	"
5'-3"	23	"	"	"	"	"	"	"	"	28	"	"	"	"	"	"	36	"	"	"	"	44	"	"	"	"	"	"	"	"	52	"	"
5'-6"	23	"	"	"	"	"	"	"	"	28	"	"	"	"	"	"	36	"	"	"	"	44	"	"	"	"	"	"	"	"	52	"	"
5'-9"	25	"	"	"	"	"	"	"	"	30	"	"	"	"	"	"	38	"	"	"	"	46	"	"	"	"	"	"	"	"	54	"	"
6'-0"	25	"	"	"	"	"	"	"	"	30	"	"	"	"	"	"	38	"	"	"	"	46	"	"	"	"	"	"	"	"	54	"	"
6'-3"	26	"	"	"	"	"	"	"	"	30	"	"	"	"	"	"	38	"	"	"	"	46	"	"	"	"	"	"	"	"	54	"	"
6'-6"	27	"	"	"	"	"	"	"	"	32	"	"	"	"	"	"	40	"	"	"	"	48	"	"	"	"	"	"	"	"	56	"	"
6'-9"	27	"	"	"	"	"	"	"	"	32	"	"	"	"	"	"	40	"	"	"	"	48	"	"	"	"	"	"	"	"	56	"	"
7'-0"	29	"	"	"	"	"	"	"	"	34	"	"	"	"	"	"	42	"	"	"	"	50	"	"	"	"	"	"	"	"	58	"	"
7'-3"	29	"	"	"	"	"	"	"	"	34	"	"	"	"	"	"	42	"	"	"	"	50	"	"	"	"	"	"	"	"	58	"	"
7'-6"	30	"	"	"	"	"	"	"	"	34	"	"	"	"	"	"	42	"	"	"	"	50	"	"	"	"	"	"	"	"	58	"	"
7'-9"	31	"	"	"	"	"	"	"	"	36	"	"	"	"	"	"	44	"	"	"	"	52	"	"	"	"	"	"	"	"	60	"	"
8'-0"	31	"	"	"	"	"	"	"	"	36	"	"	"	"	"	"	44	"	"	"	"	52	"	"	"	"	"	"	"	"	60	"	"
8'-3"	32	"	"	"	"	"	"	"	"	36	"	"	"	"	"	"	44	"	"	"	"	52	"	"	"	"	"	"	"	"	60	"	"
8'-6"	33	"	"	"	"	"	"	"	"	38	"	"	"	"	"	"	46	"	"	"	"	54	"	"	"	"	"	"	"	"	62	"	"
8'-9"	34	"	"	"	"	"	"	"	"	38	"	"	"	"	"	"	46	"	"	"	"	54	"	"	"	"	"	"	"	"	62	"	"
9'-0"	35	"	"	"	"	"	"	"	"	40	"	"	"	"	"	"	48	"	"	"	"	56	"	"	"	"	"	"	"	"	64	"	"
9'-3"	36	"	"	"	"	"	"	"	"	40	"	"	"	"	"	"	48	"	"	"	"	56	"	"	"	"	"	"	"	"	64	"	"
9'-6"	37	"	"	"	"	"	"	"	"	42	"	"	"	"	"	"	50	"	"	"	"	58	"	"	"	"	"	"	"	"	66	"	"
10'-0"	38	"	"	"	"	"	"	"	"	42	"	"	"	"	"	"	50	"	"	"	"	58	"	"	"	"	"	"	"	"	66	"	"

NOTE:
FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLES ARE IN INCREMENTS OF 3 INCHES BUT ANY DEPTHS OTHER THAN THOSE SHOWN ABOVE MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS FALLING WITHIN THE LIMITS OF THE TABLE MAY BE FOUND BY INTERPOLATION.

STANDARD DRAWING NO. 6020D

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702	
BILL OF REINFORCING STEEL		DATE OCT. '04	STANDARD DRAWING NO. 6020D

SUMMARY OF QUANTITIES FOR CURB INLETS

DEPTH "D"	5'-0" OPENING						10'-0" OPENING						15'-0" OPENING						20'-0" OPENING					
	WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"		WIDTH 3'-0"		WIDTH 4'-0"		WIDTH 5'-0"	
	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.	CONC C.Y.	STEEL LBS.
3'-6"	2.62	306	2.95	332	3.28	373	4.12	479	4.64	521	5.20	564	5.69	667	6.40	721	7.10	775	7.20	846	8.11	909	9.03	976
3'-9"	2.70	309	3.04	341	3.39	373	4.25	494	4.78	536	5.34	579	5.87	687	6.58	741	7.30	796	7.42	874	8.34	937	9.27	1010
4'-0"	2.78	328	3.14	364	3.49	399	4.38	518	4.92	565	5.49	610	6.05	718	6.77	776	7.49	835	7.64	909	8.58	976	9.51	1046
4'-3"	2.87	334	3.23	370	3.59	406	4.51	526	5.06	573	5.64	619	6.22	729	6.95	787	7.69	847	7.87	922	8.81	990	9.75	1061
4'-6"	2.95	356	3.32	394	3.69	431	4.64	558	5.20	607	5.79	656	6.40	770	7.14	830	7.88	891	8.09	973	9.04	1043	9.99	1115
4'-9"	3.03	361	3.41	410	3.79	438	4.77	566	5.34	616	5.94	665	6.57	780	7.32	841	8.07	903	8.31	986	9.27	1056	10.23	1129
5'-0"	3.12	367	3.51	416	3.90	445	4.90	574	5.47	624	6.09	674	6.75	791	7.51	853	8.27	915	8.53	999	9.50	1070	10.47	1144
5'-3"	3.20	383	3.60	424	4.00	465	5.03	600	5.61	652	6.23	704	6.93	827	7.69	890	8.46	955	8.76	1044	9.73	1118	10.71	1194
5'-6"	3.28	389	3.69	430	4.10	472	5.16	608	5.75	661	6.38	713	7.11	837	7.88	901	8.66	967	8.98	1057	9.97	1131	10.95	1208
5'-9"	3.37	405	3.78	451	4.20	495	5.29	635	5.89	690	6.53	744	7.28	874	8.07	940	8.85	1007	9.20	1102	10.20	1178	11.19	1258
6'-0"	3.45	415	3.88	460	4.30	504	5.42	646	6.03	702	6.68	757	7.45	888	8.25	954	9.05	1022	9.42	1119	10.43	1196	11.43	1276
6'-3"	3.53	425	3.97	470	4.41	515	5.55	661	6.17	718	6.83	773	7.63	908	8.44	975	9.24	1044	9.64	1147	10.66	1223	11.67	1305
6'-6"	3.62	437	4.06	486	4.51	532	5.68	681	6.31	739	6.97	797	7.81	935	8.62	1005	9.43	1057	9.87	1178	10.89	1258	11.92	1340
6'-9"	3.70	441	4.15	490	4.61	537	5.81	688	6.45	747	7.12	806	7.98	945	8.81	1015	9.63	1066	10.09	1191	11.12	1272	12.15	1355
7'-0"	3.78	460	4.25	510	4.71	560	5.94	716	6.59	777	7.27	837	8.16	981	8.99	1053	9.82	1126	10.31	1237	11.35	1319	12.40	1404
7'-3"	3.86	465	4.34	516	4.81	567	6.07	724	6.72	785	7.42	846	8.33	992	9.18	1065	10.02	1138	10.53	1249	11.59	1333	12.64	1418
7'-6"	3.95	477	4.43	529	4.91	570	6.20	742	6.86	804	7.57	866	8.51	1016	9.36	1089	10.21	1163	10.75	1290	11.82	1365	12.88	1451
7'-9"	4.03	491	4.53	544	5.02	597	6.33	762	7.00	826	7.71	890	8.67	1040	9.55	1116	10.41	1193	10.98	1313	12.05	1399	13.12	1498
8'-0"	4.12	496	4.62	550	5.12	604	6.46	770	7.14	834	7.86	899	8.86	1051	9.73	1129	10.60	1205	11.20	1325	12.28	1412	13.36	1510
8'-3"	4.20	504	4.71	559	5.22	613	6.59	784	7.28	849	8.01	915	9.04	1069	9.92	1149	10.80	1228	11.42	1353	12.51	1440	13.60	1529
8'-6"	4.28	519	4.80	576	5.32	632	6.71	804	7.42	871	8.16	938	9.21	1107	10.10	1176	10.99	1257	11.64	1385	12.74	1474	13.84	1565
8'-9"	4.37	528	4.90	586	5.42	643	6.84	819	7.56	886	8.31	954	9.39	1119	10.29	1199	11.18	1280	11.87	1410	12.97	1500	14.08	1592
9'-0"	4.45	545	4.99	605	5.53	664	6.97	842	7.70	912	8.46	982	9.56	1148	10.47	1231	11.38	1313	12.09	1447	13.21	1539	14.32	1631
9'-3"	4.53	554	5.08	614	5.63	674	7.10	858	7.84	929	8.60	999	9.74	1169	10.66	1252	11.57	1335	12.31	1474	13.44	1563	14.56	1660
9'-6"	4.62	568	5.17	630	5.73	692	7.23	878	7.97	950	8.75	1022	9.92	1195	10.84	1280	11.77	1365	12.53	1505	13.67	1600	14.80	1696
10'-0"	4.78	582	5.36	645	5.93	708	7.49	900	8.11	974	9.05	1048	10.27	1227	11.21	1312	12.16	1399	12.98	1546	14.13	1642	15.29	1739

NOTE:
FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLES ARE IN INCREMENTS OF 3 INCHES BUT ANY DEPTHS OTHER THAN THOSE SHOWN ABOVE MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS FALLING WITHIN THE LIMITS OF THE TABLE MAY BE FOUND BY INTERPOLATION.

STANDARD DRAWING NO. 6020E

CURB INLET	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 702	
SUMMARY OF QUANTITIES		DATE OCT. '04	STANDARD DRAWING NO. 6020E

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

STORM DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

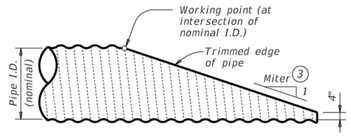
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	42
REVIEWER: NVT			

SARATOGA PHASE 2A

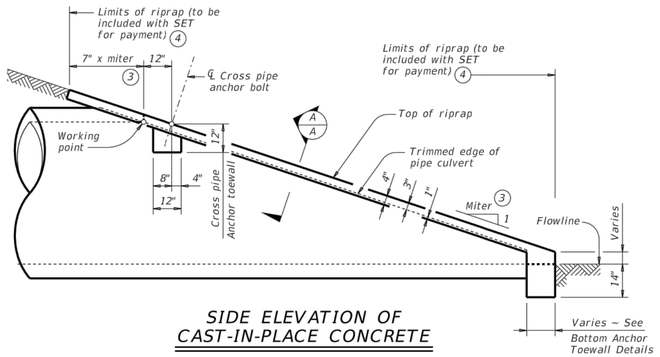
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Last Saved By: BCollins
Last Saved Time: 4/30/2024 1:10 PM
Plot Date/Time: 4/30/2024 1:08 PM



NOTE: All pipe runners, calculations, and dimensions are based on the pipe culverts mitered as shown in this detail. Alternate styles of mitered ends will require that appropriate adjustments be made to the values presented on this standard.

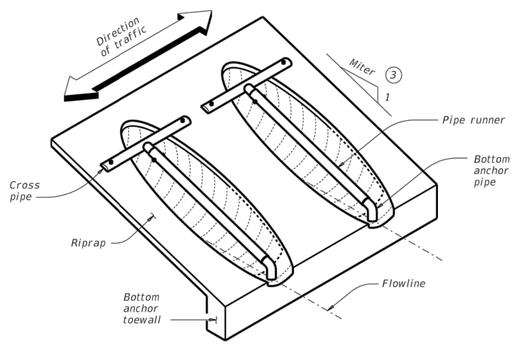
SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(Showing corrugated metal pipe (CMP) culvert. Details of reinforced concrete pipe (RCP) culvert are similar.)



SIDE ELEVATION OF CAST-IN-PLACE CONCRETE

(Showing reinforced concrete pipe (RCP) culvert. Details of corrugated metal pipe (CMP) culvert are similar. Pipe runners not shown for clarity)



ISOMETRIC VIEW OF TYPICAL INSTALLATION

(Showing installation with no skew.)

CROSS PIPE LENGTHS AND PIPE RUNNER LENGTHS (1) (2)

Nominal Culvert I.D.	Pipe Culvert Spa ~ G	Cross Pipe Length	Pipe Runner Length											
			3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
			0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
24"	1' – 7"	3' – 5"	N/A	N/A	N/A	5' – 10"	N/A	N/A	N/A	8' – 1"	N/A	N/A	N/A	12' – 9"
27"	1' – 8"	3' – 8"	N/A	N/A	5' – 5"	6' – 11"	N/A	N/A	7' – 7"	9' – 7"	N/A	N/A	11' – 11"	14' – 11"
30"	1' – 10"	3' – 11"	N/A	N/A	6' – 4"	8' – 0"	N/A	N/A	8' – 9"	11' – 0"	N/A	N/A	13' – 8"	17' – 0"
33"	1' – 11"	4' – 2"	6' – 2"	6' – 5"	7' – 3"	9' – 1"	8' – 6"	8' – 10"	10' – 0"	12' – 5"	13' – 3"	13' – 9"	15' – 5"	19' – 2"
36"	2' – 1"	4' – 5"	6' – 11"	7' – 3"	8' – 2"	10' – 2"	9' – 6"	9' – 11"	11' – 2"	13' – 10"	14' – 9"	15' – 3"	17' – 2"	21' – 3"
42"	2' – 4"	4' – 11"	8' – 6"	8' – 10"	9' – 11"	12' – 4"	11' – 7"	12' – 0"	13' – 6"	16' – 8"	17' – 9"	18' – 5"	20' – 8"	25' – 7"
48"	2' – 7"	5' – 5"	10' – 1"	10' – 5"	11' – 9"	N/A	13' – 7"	14' – 2"	15' – 10"	N/A	20' – 9"	21' – 6"	24' – 2"	N/A
54"	3' – 0"	5' – 11"	11' – 8"	12' – 1"	N/A	N/A	15' – 8"	16' – 3"	N/A	N/A	23' – 10"	24' – 8"	N/A	N/A
60"	3' – 3"	6' – 5"	13' – 3"	N/A	N/A	N/A	17' – 9"	N/A	N/A	N/A	26' – 10"	N/A	N/A	N/A

TYPICAL PIPE CULVERT MITERS (3)

Side Slope	0° Skew	15° Skew	30° Skew	45° Skew
3:1	3:1	3.106:1	3.464:1	4.243:1
4:1	4:1	4.141:1	4.619:1	5.657:1
6:1	6:1	6.212:1	6.928:1	8.485:1

CONDITIONS WHERE PIPE RUNNERS ARE NOT REQUIRED (2)

Nominal Culvert I.D.	Single Pipe Culvert	Multiple Pipe Culverts
12" thru 21"	Skews thru 45°	Skews thru 45°
24"	Skews thru 45°	Skews thru 30°
27"	Skews thru 30°	Skews thru 15°
30"	Skews thru 15°	Skews thru 15°
33"	Skews thru 15°	Always required
36"	Normal (no skew)	Always required
42" thru 60"	Always required	Always required

STANDARD PIPE SIZES AND MAX PIPE RUNNER LENGTHS (1)

Pipe Size	Pipe O.D.	Pipe I.D.	Max Pipe Runner Length
2" STD	2.375"	2.067"	N/A
3" STD	3.500"	3.068"	10' – 0"
4" STD	4.500"	4.026"	19' – 8"
5" STD	5.563"	5.047"	34' – 2"

ESTIMATED CONCRETE RIPRAP QUANTITIES (CY) (5)

Nominal Culvert I.D.	3:1 Side Slope				4:1 Side Slope				6:1 Side Slope			
	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew	0° Skew	15° Skew	30° Skew	45° Skew
12"	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8
15"	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9
18"	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	1.0
21"	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.2
24"	0.6	0.7	0.7	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.1	1.3
27"	0.7	0.7	0.8	0.9	0.8	0.9	0.9	1.1	1.1	1.1	1.2	1.4
30"	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.2	1.2	1.2	1.3	1.6
33"	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.3	1.3	1.4	1.5	1.7
36"	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.4	1.4	1.5	1.6	1.8
42"	1.0	1.0	1.1	1.3	1.2	1.3	1.3	1.6	1.6	1.7	1.8	2.1
48"	1.1	1.1	1.2	N/A	1.4	1.4	1.5	N/A	1.9	1.9	2.1	N/A
54"	1.3	1.3	N/A	N/A	1.6	1.6	N/A	N/A	2.1	2.1	N/A	N/A
60"	1.4	N/A	N/A	N/A	1.7	N/A	N/A	N/A	2.3	N/A	N/A	N/A

(1) Provide pipe runner of the size shown in the tables. Provide cross pipe of the same size as the pipe runner. Provide cross pipe stub out and bottom anchor pipe of the next smaller size pipe as shown in the Standard Pipe Sizes and Max Pipe Runner Lengths table.

(2) This standard allows for the placement of only one pipe runner across each culvert pipe opening. In order to limit the clear opening to be traversed by an errant vehicle, the following conditions must be met:

For 60" culvert pipes, the skew must not exceed 0°.
For 54" culvert pipes, the skew must not exceed 15°.
For 48" culvert pipes, the skew must not exceed 30°.
For all culvert pipe sizes 42" and less, the skew must not exceed 45°.

If the above conditions cannot be met, the designer should consider using a safety end treatment with flared wings. For further information, refer to the TxDOT Roadway Design Manual.

(3) Miter = slope of mitered end of pipe culvert.

(4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap."

(5) Quantities shown are for one end of one reinforced concrete pipe (RCP) culvert. For multiple pipe culverts or for corrugated metal pipe (CMP) culverts, quantities will need to be adjusted. Riprap quantities are for Contractor's information only.

SHEET 1 OF 2

Texas Department of Transportation — Bridge Division Standard

SAFETY END TREATMENT
FOR 12" DIA TO 60" DIA PIPE CULVERTS
TYPE II ~ CROSS DRAINAGE
SETP-CD

FILE: CD-SETP-CD-20.dgn	DN: GAF	CK: CAT	DW: JRP	CK: GAF
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
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	DIST	COUNTY		SHEET NO.

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DATE:
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NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

SECOND SUBMITTAL

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

STORM DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	43
REVIEWER: NVT			

SARATOGA PHASE 2A

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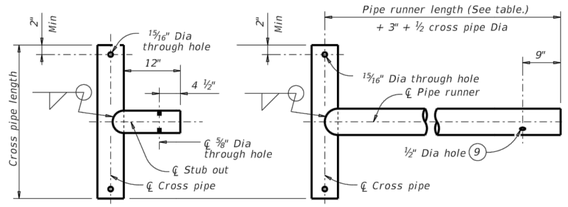
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SECOND SUBMITTAL

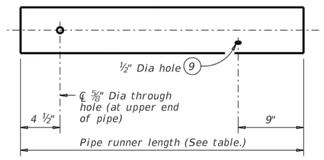
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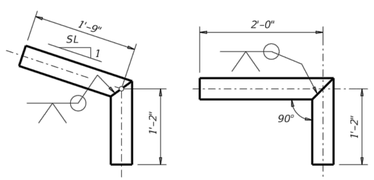
OPTION A1 OPTION A2

CROSS PIPE AND CONNECTIONS DETAILS



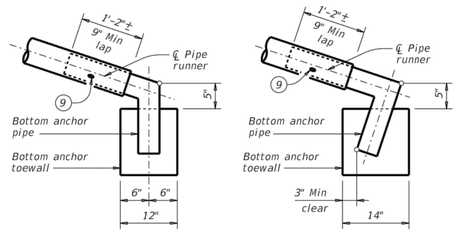
NOTE: The separate pipe runner shown is required when Cross Pipe Connection Option A1 is used.

PIPE RUNNER DETAILS



OPTION B1 OPTION B2

BOTTOM ANCHOR PIPE DETAILS (10)



OPTION B1 OPTION B2

BOTTOM ANCHOR TOEWALL DETAILS

(Culvert and riprap not shown for clarity.)

(4) Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap."

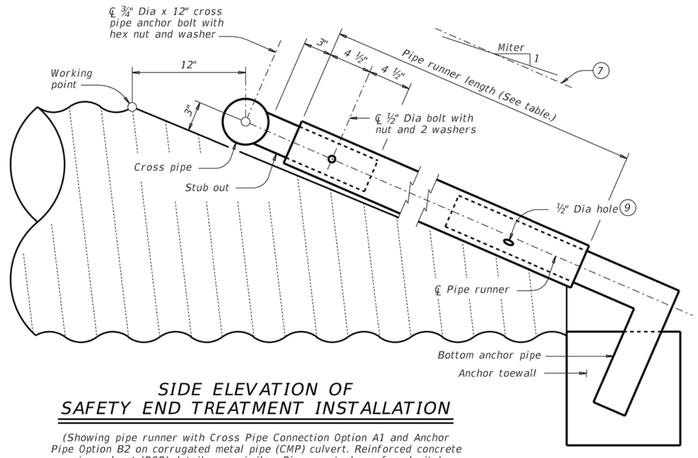
(6) Recommended values of side slope are 3:1, 4:1, and 6:1. All quantities, calculations, and dimensions shown herein are based on these recommended values. Slope of 3:1 or flatter is required for vehicle safety.

(7) Note that actual slope of pipe runner may vary slightly from side slope of riprap and trimmed culvert pipe edge.

(8) Ensure that riprap concrete does not flow into the cross pipe so as to permit disassembly of the bolted connection to allow cleanout access.

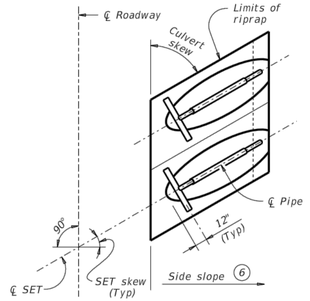
(9) After installation, inspect the ½" hole to ensure that the lap of the pipe runner with the bottom anchor pipe is adequate.

(10) At fabricator's option, a heat bend to a smooth 5" radius or a manufactured elbow (of the same material as the runner) may be substituted for the mitered and welded joint in the bottom anchor pipe.

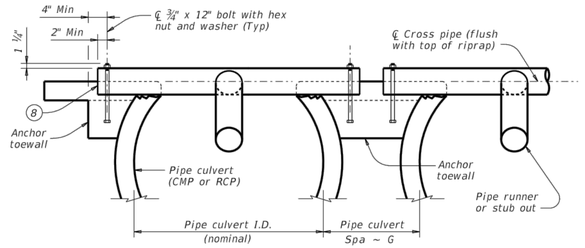


SIDE ELEVATION OF SAFETY END TREATMENT INSTALLATION

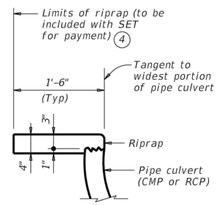
(Showing pipe runner with Cross Pipe Connection Option A1 and Anchor Pipe Option B2 on corrugated metal pipe (CMP) culvert. Reinforced concrete pipe culvert (RCP) details are similar. Riprap not shown for clarity)



PLAN OF SKEWED INSTALLATION



SHOWING CROSS PIPE AND ANCHOR TOEWALL



SHOWING TYPICAL PIPE CULVERT AND RIPRAP

SECTION A-A

MATERIAL NOTES:

Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Provide pipe runners, cross pipes, and anchor pipes conforming to the requirements of ASTM A53 (Type E or S, Gr B), ASTM A500 Gr B, or API 5LX52.

Provide ASTM A307 bolts and nuts.

Galvanize all steel components, except concrete reinforcing, after fabrication.

Repair galvanizing damaged during transport or construction in accordance with the specifications.

GENERAL NOTES:

Pipe runners are designed for a traversing load of 1,800 pounds at yield as recommended by Research Report 280-1, "Safety Treatment of Roadside Cross-Drainage Structures", Texas Transportation Institute, March 1981.

Safety end treatments (SET) shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the pipe runners.

Payment for riprap and toewall is included in the price bid for each safety end treatment.

Construct concrete riprap and all necessary inverts in accordance with the requirements of Item 432, "Riprap."

SHEET 2 OF 2

Texas Department of Transportation — Bridge Division Standard

SAFETY END TREATMENT
FOR 12" DIA TO 60" DIA PIPE CULVERTS TYPE II ~ CROSS DRAINAGE
SETP-CD

FILE: CD-SETP-CD-20.dgn	DN: GAF	CK: CAT	DW: JRP	CK: GAF
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

STORM DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	44
REVIEWER: NVT			

SARATOGA PHASE 2A

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ATMOS GAS	972-881-4161
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SECOND SUBMITTAL

MSUD GENERAL NOTES

1. All construction shall be in accordance with the standard specifications of Mustang Special Utility District, which has also adopted the latest edition of the "Standard Specifications For Public Works Construction - North Central Texas" herein referred to as "NCTCOG" specifications. Copies may be obtained from the North Central Texas Council of Governments, 616 Six Flags Drive, Suite 200, Arlington, Texas 76011.
2. Where specified name brands are indicated, products of equal or better may be considered for approval upon submittal of all supporting data to the MSUD Engineer for review.
3. The contractor shall provide for temporary 3" Cold Mix Asphaltic Concrete as per NCTCOG Item 302.3 to be placed over all vehicular traveled areas until the final repairs/improvements are made.
4. All newly installed pipes and fittings must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by an organization accredited by ANSI.
5. The existence and locations of all underground utilities shown on the drawings were obtained from available records and are approximate. Neither the owner nor the engineer assumes any responsibility for utilities not shown or not in the location shown. The contractor shall determine the depth and location of existing underground utilities prior to trenching and shall be required to take any precautionary measures to protect all lines shown and/or any other underground utilities not of record or not shown on the plans.
6. Any contractor/subcontractor performing work on this project shall familiarize himself with the site and shall be solely responsible for any damage to existing facilities resulting directly or indirectly from operations. Said existing improvements shall include but not be limited to berms, ditches, fences, plants, irrigation. Any removal or damage to existing improvements shall be replaced or repaired by the contractor at his expense and shall be approved by the engineer.
7. Contractor shall shore all trenches and conduct all construction and operations in accordance with Occupation Safety and Health Administration (OSHA) requirements.
8. All construction and materials shall comply with Mustang SUD specifications. Any construction and/or materials not covered in Mustang SUD specifications shall be in accordance with NCTCOG specifications or the AWWA.
9. It shall be the contractor's responsibility to provide adequate record drawings to the engineer/Mustang SUD immediately after construction.
10. It shall be contractor's responsibilities to verify location, elevation and dimensions of adjacent and/or conflicting utilities in advance of construction in order that adjustments can be made to provide adequate clearance, if required. The contractor shall preserve and protect public utilities at all times during construction. Any damage to utilities resulting from the contractor's operation shall be restored at his expense. The engineer shall be notified when proposed facility's grades conflict with existing utility's grades.
11. All materials for water and wastewater shall be domestic. Any exceptions made will be at Mustang's or the Engineer's discretion.

MSUD WATER NOTES:

GENERAL:

1. All water lines and appurtenances shall be constructed in accordance with TCEQ requirements Chapter 290.
2. All water lines shall be designed, manufactured, and installed in accordance with current Mustang SUD water standards details.
3. All pipes and appurtenances shall conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by ANSI.
4. All pipes and appurtenances shall be installed in accordance with manufacturer's instruction.
5. Contractor to provide a curve in waterline to avoid storm drain inlets at all locations.
6. Franchise Utility Note: Other utilities such as gas, electric, telephone, cable, etc. shall not be installed in the same trench as water service lines. Other utilities such as gas, electric, telephone, cable, etc. may share the wastewater service line trench provided such utilities are offset a minimum of 5' from the wastewater service line.

PIPE:

7. All PVC water pipe shall be BLUE in color for potable and PURPLE in color for non-potable.
8. All PVC pipe shall be installed with metallic detector tape.
9. Water mains up to and including 12" diameter shall be AWWA C900-16 DR18 (Pressure Class 235). Mustang SUD reserves the right to require AWWA C900-16 DR14 (Pressure Class 305) for higher pressure applications as determined by Mustang SUD's Engineer. Water mains greater than 12" diameter may be AWWA C900-16 DR18 (Pressure Class 235) OR one of the following:
   9.1. Reinforced Concrete Cylinder Pipe (RCCP) C303 pressure class 150 or greater as specified by the Engineer.
   9.2. Ductile Iron pipe with Polywrap and cement mortar lining (AWWA C104), thickness class 51 or greater.
10. Embedment: For Pipe sizes 12" and smaller, the Embedment shall be as per the MSUD "Pipe Embedment Detail".
11. Cover
    11.1. The following minimum covers over the waterline is required:
    11.1.1. 48" of cover over waterlines up to and including 12" diameter.
    11.1.2. 60" to 72" of cover over waterlines larger than 12" in diameter.
    11.2. Water mains buried with over 72" of cover shall be approved by the MSUD Engineer.
    11.3. The minimum cover over all Water mains is 4 feet, unless approved otherwise by the MSUD Engineer. Approved mains with less than 3.5 feet of cover shall be capped as per the MSUD "Cap Detail".
12. Storage: PVC water pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and to be protected from other elements.
13. The Contractor is responsible to install the pipe in a way that the writing on the pipe is installed on the side up and is readable from the top of the ditch.
17. All ductile iron pipe, fittings and restraints shall be manufactured domestically.
18. All ductile iron pipe, fittings, valves, etc. shall be encased with polyethylene wrap 8 mils thick.
19. The pipe shall have beveled or chamfered ends according to manufacturer recommendations when using in MJ fittings.
20. When PVC water pipe is installed in casing, casing spacers must be used to prevent damage to the pipe and bell during installation. PVC pipe shall not rest on the Bells. Plastic spacers such as RACI or approved equal shall be used.
21. Pipe shall be handled so as to protect pipe and pipe joints and carefully bedded to provide continuous bearing and prevent uneven settlement. Pipe shall be protected against flotation at all times. Open ends of installed pipe shall be sealed at all times when construction is not in progress.

FITTINGS:

22. The Contractor shall use cast iron or ductile iron fittings, complete with Polywrap.
23. All fittings shall be MJ unless specified otherwise.
24. All fittings shall be blocked per the MSUD Water Standard Details.
25. Tapping sleeves shall be ductile iron and manufactured by Mueller, Tyler Union or approved equal.
26. Please also refer to NCTCOG Item 502.5.2 specifications.
27. The use of 90° bends in water mains is prohibited without approval of MSUD Engineer. Two 45° bends are allowed.
28. Install 12"X12"X3" concrete block under fittings installed on PVC pipe.
29. Restrained joints such as Mega-Lug or equal are required at all fittings.
30. All ductile iron fittings and restraints shall manufactured domestically.

VALVES:

31. Valves installed on waterlines 12" in diameter or less shall be vertical gate valves.
32. Valves installed on waterlines larger than 12" in diameter shall be butterfly valves. An offset vault shall be installed at the butterfly valve operator.
33. All gate valves shall have non-rising stems and resilient sealed wedge.
34. All potable-water pipe air release valve stabilization poles shall be painted blue in color.
35. All valves and fire hydrants shall be in line with the property line, where possible.
36. All valve locations shall be marked with "V" stamped or cut on the curb.
37. Install 12"x12"x3" concrete block under valves installed on PVC pipe.
38. Contractor to provide extensions for all valve stacks and fire hydrant leads/risers for all water lines deeper than 48" depth.

TESTING:

39. Hydrostatic test as per NCTCOG Item 506.5 specifications shall be performed
40. Water system shall be disinfected in accordance with American Water Works Association (AWWA) C651 (current edition) and then flushed and sampled before being placed in service. Samples shall be collected in accordance with Mustang SUD testing requirements.
41. All temporary test points to have corporation stops at the main. All temporary testing & chlorination points shall be removed at the corporation stop prior to final acceptance.
42. The Contractor shall take a sample of water from a tap on a sterilized main in the presence of a MSUD Representative and submit the sample(s) to an approved Testing Laboratory for analysis. After receiving approved sample, the Contractor, along with MSUD Representative, shall place sterilized lines into service.
43. All fire hydrants shall be flow and pressure tested and marked (tag and color coded paint) in accordance with NFPA 291 "Recommended Practice for Fire Flow Testing and Marking of Hydrants", latest edition. Copies of each test report for each fire hydrant, including a map showing the location of the fire hydrant being flow tested and the location of the pressure hydrant, shall be provided to Mustang SUD prior to acceptance of the system and the beginning of service. See WATER STANDARD DETAILS (1 OF 2) for Fire Hydrant Flow Test Report form.

MSUD WASTEWATER NOTES:

GENERAL:

1. All wastewater lines and appurtenances shall be constructed in accordance with TCEQ requirements Chapter 217.
2. All wastewater lines shall be designed, manufactured, and installed per Mustang SUD wastewater standard details.
3. All pipes and appurtenances shall be installed in accordance with manufacturer's instruction.
4. Wastewater system shall be tested in accordance with TCEQ for allowable leakage and pipe deflection before being placed in service. Test results shall be provided to Mustang SUD.
5. All wastewater manholes, drop manholes, wet wells, and force-main-to-gravity transition manholes shall be lined with Quadex ultra-high build epoxy or approved equal.
6. All force main ductile iron pipe and fittings shall be lined with Protecto 401 (P401) ceramic epoxy or approved equal.
7. Franchise Utility Note: Other utilities such as gas, electric, telephone, cable, etc. may share the wastewater service line trench provided such utilities are offset a minimum of 5' from the wastewater service line.
8. All curvature shall be accomplished by the manual bending of the pipe lengths in the trench. Mechanical means will not be allowed to accomplish design radii. No deflection of joints will be allowed.
9. All ductile iron pipe, fittings, valves, etc. shall be encased with polyethylene wrap 8 mils thick.
10. All ductile iron pipe, fittings and restraints shall be manufactured domestically.
11. All gravity main fittings shall be rubber gasket push on type.

PIPE:

12. All PVC pipe shall be installed with metallic detector tape.
13. All PVC gravity or pressure wastewater pipe shall be green in color.
14. Wastewater mains shall be Polyvinyl Chloride PVC SDR-35 for depths of burial up to 11.5'. Wastewater mains placed deeper than 11.5' shall be PVC SDR-26 unless specified and approved otherwise by the MSUD Engineer.
15. For creek crossings, the pipe shall be Ductile Iron Class 52.
16. Nominal diameter for sanitary sewer pipeline shall be 8" minimum. Residential and commercial service lines are excluded from this requirement.
17. Embedment shall be as per the "Wastewater Pipe Embedment Detail" on this sheet.
18. The minimum cover over all Wastewater mains is 4 feet, unless approved otherwise by the MSUD Engineer. Approved mains with less than 3.5 feet of cover shall be capped as per the "Cap Detail" on this sheet.
19. Clay cut-off walls shall be constructed as per the details and specifications on this sheet.
20. PVC wastewater pipe is allowed to be stored a maximum of six (6) months without cover. Thereafter all pipe should be covered or kept away from sunlight and protected from other elements.
21. When PVC wastewater pipe is installed in casing, casing spacers shall be used to prevent damage to the pipe and bell during installation. PVC pipe shall not rest on the bells. Plastic spacers such as RACI or approved equal shall be used.
22. Pipe shall be handled so as to protect pipe and pipe joints and carefully bedded to provide continuous bearing and prevent uneven settlement. Pipe shall be protected against flotation at all times. Open ends of installed pipe shall be sealed at all times when construction is not in progress.

WASTEWATER SERVICE NOTES:

23. All property corners shall be staked with iron pins prior to the installation of any wastewater services. The locations of the wastewater service shall be staked according to the plans.
24. Wastewater services to be marked with "|" stamped or cut in the curb and painted green.
25. Contractor shall install locator pads or balls on the end of sewer services.

TESTING:

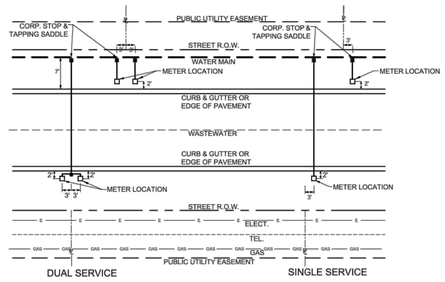
The following tests shall be performed and a written report provided to Mustang SUD:

26. Televising as per NTCOG Item 507.5.2 specifications. Camera shall pan around to show service connections.
27. Low pressure air testing as per TCEQ 31 TAC 217.57.
28. Mandrel deflection test as per TCEQ 31 TAC 217.57
29. Infiltration/Exfiltration test as per TCEQ 31 TAC 217.57.
30. Manholes shall be tested per TCEQ 31 TAC 217.58.
31. Provide final air test and clean prior to project acceptance or final walk-through.

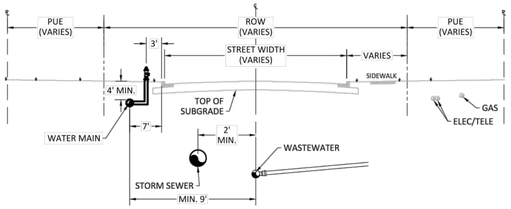
SYSTEM DESIGN VALUES:

WATER:
Average Day Demand = 288 GPD/Connection
Maximum Day Demand = 0.6 gpm
Peak Hour Demand = 1.032 gpm
Single-family Residential = 3.2 people per unit
Multi-family Residential = 2.25 people per unit

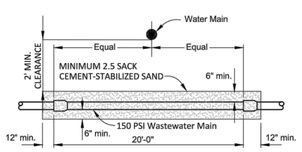
WASTEWATER:
SF Average Day Generation = 250 gpd/connection
MF Average Day Generation = 175 gpd/connection
SF Maximum Day Generation = 1000 gpd/connection
MF Maximum Day Generation = 700 gpd/connection
Single-family Residential = 3.2 people per unit
Multi-family Residential = 2.25 people per unit



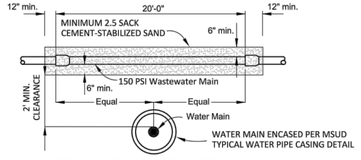
TYPICAL WATER LINE/SERVICE LOCATION LAYOUT DETAIL
N.T.S



TYPICAL UTILITY PROFILE
CURB & GUTTER ROAD SECTION
N.T.S.



WATER OVER WASTEWATER CROSSING
N.T.S.



WATER UNDER WASTEWATER CROSSING
N.T.S.

NOTES:
1. WHERE A WATER MAIN CROSSES A WASTEWATER MAIN OR LATERAL AND NINE-FOOT SEPARATION CANNOT BE ACHIEVED, A FULL JOINT (20') OF PRESSURE-RATED PVC PIPE (150 PSI MIN.) SHALL BE USED ON THE WASTEWATER MAIN OR LATERAL, CENTERED ABOUT THE WATER MAIN.
2. ADDITIONALLY, WHERE A WASTEWATER MAIN CROSSES OVER A WATER MAIN, AND NINE-FOOT SEPARATION CANNOT BE ACHIEVED, THE WATER MAIN SHALL BE ENCASED IN AN 18-FOOT (OR LONGER) SECTION OF PIPE CENTERED ABOUT THE WASTEWATER MAIN.

NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD
GENERAL MANAGER: C. BOYD DATE: 2020-09-14

GENERAL NOTES

CERTIFICATION:
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

UTILITY DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	45
REVIEWER: NVT			

SARATOGA PHASE 2A

Drawing: O:\OBJ\proj\2103-saratoga\POD 2\Phase 1\3_Design\35_Civil\351_CAD\civil_plan\GEE21003-CIDETAILS-2A
Last Saved by: Brooks
Last Plotted: 4/30/2024 1:10 PM
Plot Date/Time: 4/30/2024 4:08 PM

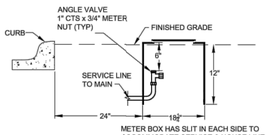
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

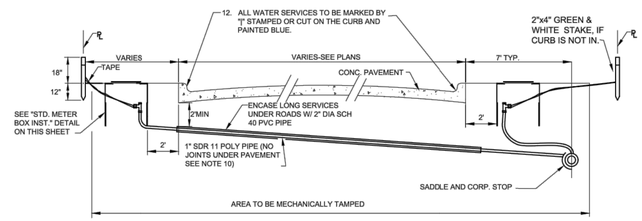
ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

SECOND SUBMITTAL



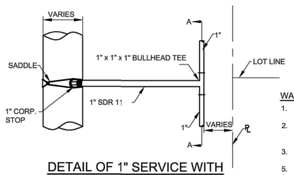
STD. METER BOX INST.

N.T.S.

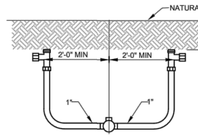


URBAN WATER SERVICE DETAIL

N.T.S.



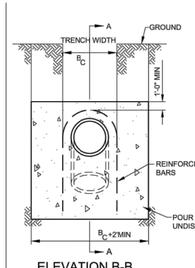
DETAIL OF 1" SERVICE WITH BULLHEAD TEE



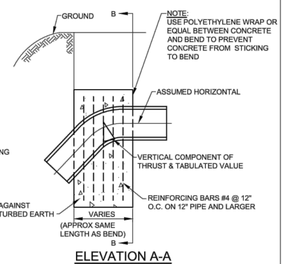
SECTION 'A - A' (ROTATED 90°)

WATER SERVICE NOTES:

1. ALL PROPERTY CORNERS SHALL BE STAKED WITH IRON RODS PRIOR TO THE INSTALLATION OF WATER SERVICES. THE LOCATIONS OF SERVICES SHALL BE STAKED ACCORDING TO THE PLANS.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH AND INSTALL THE CORPORATION STOP, WATER SERVICE PIPE, ANGLE VALVE, CONNECTOR PIPE, AND METER BOX AS PER THE DETAILS ON THIS SHEET.
3. DIRECT TAPS ARE NOT ALLOWED. STAINLESS STEEL EPOXY COATED TAP SADDLES WITH IP THREADS SHALL BE USED FOR 1" TO 2" TAPS.
5. ALL TAPS LARGER THAN 2" SHALL BE MADE USING TAPPING TEES.
6. CUTTER FOR TAPS TO BE OF THE DOUBLE SLOTTED TYPE.
7. 1" TO 2" TAPS SHALL BE A MINIMUM OF 1' APART WITH TAPS NO CLOSER THAN 1' FROM THE END OF THE PIPE.
8. HOUSE SERVICES ON COMMON LOT LINES SHALL BE 1" WITH BULLHEAD.
9. CONTRACTOR MAY USE EITHER FLARED OR COMPRESSION FITTINGS WITH RESTRAINED UNIONS.
10. NO SPLICES OF WATER SERVICES SHALL BE PERMITTED UNDER PAVEMENT UNLESS APPROVED BY THE MSUD ENGINEER.
11. METER BOX SHALL BE SET 2 FT BEHIND CURB, OUTSIDE OF DRIVEWAYS AND PAVED AREAS.
12. ALL METERS 2" AND SMALLER SHALL HAVE A BFP INSTALLED WITH THE METER ASSEMBLY. ALL WATER METER ASSEMBLIES ARE SUPPLIED BY MSUD.
13. SERVICE TO BE STAKED BEFORE PAVING. METER BOX TO BE STAKED AFTER PAVING.
14. ALL RESIDENTIAL METERS SHALL BE BADGER E SERIES.
15. ALL SERVICE BRASS COMPONENTS SHALL BE FORD WATER PRODUCTS (OR APPROVED EQUAL) AND 150-PSI PRESSURE RATED.



ELEVATION B-B



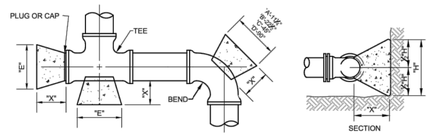
ELEVATION A-A

Δ	11¼°	22½°	45°
I.D. (IN.)	VOL. C.Y.	VOL. C.Y.	VOL. C.Y.
4	0.3	0.5	1.0
6	0.6	1.1	2.1
8	1.0	2.0	3.6
10	1.5	2.9	5.4
12	2.1	4.2	7.7
14	2.8	5.6	10.3
16	3.7	7.2	13.3
18	4.6	9.1	16.8
20	5.7	11.1	20.6
24	8.1	15.9	29.3
30	9.3	18.3	33.9
36	13.4	26.2	48.5

VERTICAL THRUST BLOCK NOTES:

1. CALCULATIONS ARE BASED ON INTERNAL PRESSURE OF 200 P.S.I. FOR 24" I.D. PIPE AND SMALLER AND 150 P.S.I. ON 30" I.D. AND LARGER.
2. CALCULATIONS ARE BASED ON WEIGHT OF CONCRETE OF 140 LBS PER CUBIC FOOT, SAFETY FACTOR OF 1.5 AND AN ALLOWABLE SOIL BEARING VALUE OF 2,500 POUNDS PER SQUARE FOOT.
3. VOLUMES OF VERTICAL BEND THRUST BLOCKS ARE NET VOLUMES OF CONCRETE TO BE FURNISHED. THE CORRESPONDING WEIGHT OF THE CONCRETE IS EQUAL TO OR GREATER THAN THE VERTICAL COMPONENT OF THRUST ON THE VERTICAL BEND.
4. CONCRETE FOR BLOCKING SHALL BE 2500 P.S.I. CONCRETE AT 28 DAYS.
5. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS WHERE AND AS DIRECTED BY THE ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN HERE.
6. ALL CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED TRENCH WALLS.
7. KEEP CONCRETE CLEAR OF ALL JOINTS & ACCESSORIES. INSTALL 12 MIL POLYETHYLENE SHEETING AROUND FITTINGS. SECURE ENDS TO PREVENT INFILTRATION OF SOIL BETWEEN SHEETING AND PIPE FITTING PRIOR TO POURING THRUST BLOCK. PROTECT MECHANICAL JOINTS, FOLLOWERS, AND BOLTS FROM CONCRETE WITH TEMPORARY FORMS AND POLYETHYLENE.
8. ALL CONCRETE THRUST BLOCKS SHALL CONSIST OF A MIXTURE OF 1:2:6 OF CEMENT TO WASHED SAND TO GRAVEL AND SHALL BE CURED A MINIMUM OF 24 HOURS.

DIMENSIONS OF CONCRETE FOR VERTICAL THRUST BLOCKS AT FITTINGS

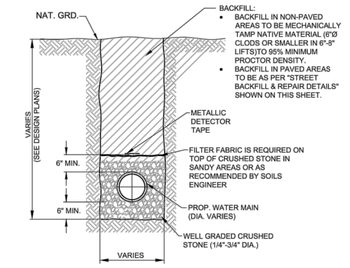


PIPE SIZE	"X" FT.	"E" FT.	11¼° "A" FT.	11¼° MIN. AREA	22½° "B" FT.	22½° MIN. AREA	45° "C" FT.	45° MIN. AREA	90° "D" FT.	90° MIN. AREA	TEE & PLUG "E" FT.	TEE & PLUG MIN. AREA
4"	1.5	1.2	1.2	1.4	1.2	1.4	1.2	1.4	1.9	2.3	1.4	1.7
6"	1.5	1.3	1.3	1.7	1.3	1.7	2.0	2.6	3.7	4.8	2.6	3.4
8"	1.5	1.3	1.3	1.7	1.8	2.3	3.4	4.4	6.3	8.2	4.5	5.9
10"	1.5	1.4	1.4	2.0	2.4	3.4	4.8	6.7	8.8	12.3	6.2	8.7
12"	1.5	1.6	1.6	2.6	3.0	4.8	5.9	9.4	10.9	17.4	7.7	12.3
14"	1.5	1.8	1.8	3.2	3.6	6.5	7.1	12.8	13.0	23.4	9.2	16.5
16"	2.0	2.1	2.1	4.4	4.0	8.4	7.8	16.4	14.5	30.5	10.2	21.4
18"	2.0	2.3	2.3	5.3	4.6	10.6	9.0	20.7	16.5	38.0	11.7	26.9
20"	2.0	2.6	2.6	6.8	5.0	13.0	9.7	25.2	18.0	46.8	12.7	33.0
24"	2.0	3.1	3.1	9.6	6.0	18.6	11.6	36.0	21.2	65.7	15.2	47.1
30"	2.5	3.8	3.8	14.4	7.5	28.5	14.6	55.5	27.0	102.6	19.1	72.6
36"	2.5	4.5	4.5	20.3	9.0	40.5	17.7	79.7	32.6	146.7	23.1	104.0

HORIZONAL THRUST BLOCK NOTES:

1. RETAINER GLANDS OR OTHER RESTRAINING DEVICES MAY BE REQUIRED AS NEEDED.
2. CALCULATIONS ARE BASED ON A TEST PRESSURE OF 150 PSI, WEIGHT OF CONCRETE OF 140 LBS PER CUBIC FOOT, SAFETY FACTOR OF 1.5 AND AN ALLOWABLE SOIL BEARING VALUE OF 2,500 POUNDS PER SQUARE FOOT. FOR OTHER PRESSURES AND SOIL STRENGTHS, AREAS AND VOLUMES MUST BE ADJUSTED ACCORDINGLY.
3. 2500 PSI CONCRETE AT 28 DAYS SHALL BE USED FOR ALL BLOCKING.
4. ALL MINIMUM AREAS ARE IN SQUARE FEET.
5. ALL CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED TRENCH WALLS. THE DISTANCE FROM PIPE FITTINGS TO TRENCH WALL SHALL BE A MINIMUM OF 12" AT THRUST BLOCK.
6. KEEP CONCRETE CLEAR OF ALL JOINTS & ACCESSORIES. INSTALL 12 MIL POLYETHYLENE SHEETING AROUND FITTINGS. SECURE ENDS TO PREVENT INFILTRATION OF SOIL BETWEEN SHEETING AND PIPE FITTING PRIOR TO POURING THRUST BLOCK. PROTECT MECHANICAL JOINTS, FOLLOWERS, AND BOLTS FROM CONCRETE WITH TEMPORARY FORMS AND POLYETHYLENE.
7. ALL CONCRETE THRUST BLOCKS SHALL CONSIST OF A MIXTURE OF 1:2:6 OF CEMENT TO WASHED SAND TO GRAVEL AND SHALL BE CURED A MINIMUM OF 24 HOURS.
8. ALL JOINTS SHALL BE TEMPORARILY JACKED WHEN POURING THRUST BLOCKS.
9. CONCRETE THRUST BLOCKS SHALL APPLY TO ALL PIPE FITTINGS.

DIMENSIONS OF CONCRETE FOR HORIZONTAL THRUST BLOCKS AT FITTINGS



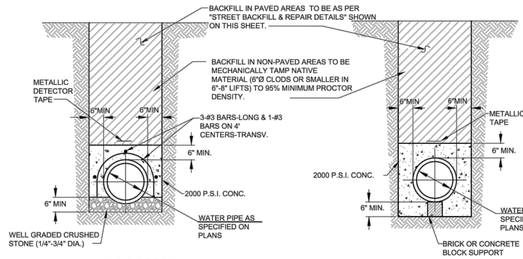
PIPE EMBEDMENT DETAIL

N.T.S.

TABLE OF DIMENSIONS FOR WIDTH OF TRENCH AND PAVEMENT REPLACEMENT

NORMAL SIZE OF PIPE IN INCHES	O.D. OF PIPEBELL IN INCHES (PVC-DR18)	MINIMUM TRENCH WALL CLEARANCE "A" IN INCHES	WIDTH OF TRENCH ("X") MAXIMUM ** IN INCHES	WIDTH OF TRENCH ("X") MINIMUM ** IN INCHES	WIDTH OF PVMT. REPLACEMENT * ('W') CONC& ASPHALT **
6	6.9	6	24	19	48
8	9.05	6	24	21	48
10	11.10	6	28	24	48
12	13.20	6	30	26	50
16+	VARIES	8	*	*	*

NOTE: * REFER TO THE PLANS FOR SPECIFIED WIDTH OF REPLACEMENT.
** RECOMMENDED WIDTHS - VARIES BASED ON DEPTH. AND SOIL MATERIAL.

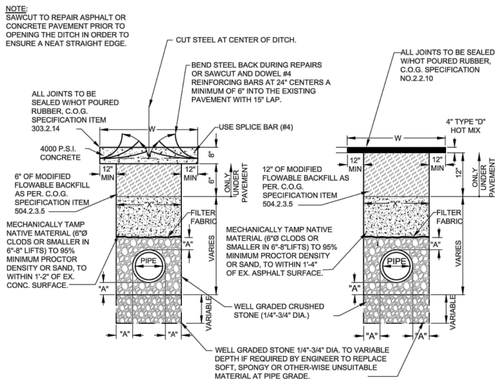


CAP DETAIL

N.T.S.

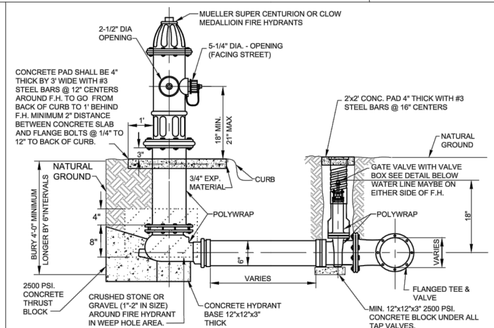
ENCASEMENT DETAIL

N.T.S.



STREET BACKFILL & REPAIR

N.T.S.

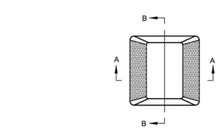


STANDARD FIRE HYDRANT DETAIL AND TRACER WIRE DETAIL

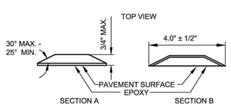
N.T.S.

FIRE HYDRANT NOTES:

1. FIRE HYDRANTS SHALL BE LOCATED 3' OFF BACK OF CURB IN RESIDENTIAL, & 4' OFF BACK OF CURB IN INDUSTRIAL.
2. FIRE HYDRANTS SHALL BE COATED WITH KEM-LUSTRAL OR AN EQUIVALENT COATING.
3. FIRE HYDRANT LOCATION WILL BE MARKED BY PLACING A TYPE II PAVEMENT MARKER REFLECTORIZED BLUE 4" OFF OF THE TRAFFIC LANE BUTTONS. THE MARKER WILL BE IN THE LANE NEAREST TO THE FIRE HYDRANT. ALL MARKERS AT INTERSECTIONS SHOULD BE 10 FEET BACK FROM THE INTERSECTION. HYDRANT MARKERS SHOULD BE PLACED 4" OFF THE CENTER STRIPE OR OTHER TRAFFIC BUTTONS AS PER DRAWINGS.
4. FIRE HYDRANT LEAD SHALL BE NO LONGER THAN 10' IN LENGTH.



TYPE II



PAVEMENT MARKERS (REFLECTORIZED) TYPE II

Sample Fire Hydrant Flow Test Report

Fire Hydrant Flow Test Report (NFPA 291)

Location_____ Date_____

Test Performed By_____ Time_____M.

Representative of_____

Mustang SUD Witness_____

Purpose of Test_____

If Pumps Affect Test, Indicate Pumps Operating_____

Fire Hydrant	A_1	A_2	A_3	A_4
Nozzle Size				
Pitot Reading				
Elev. Difference from Test Hydrant (ft)				
Discharge Coeff.				
Flow (gpm)				

Static B_____psi Residual B_____psi

Projected Results @ 20 psi Residual _____gpm; or @ _____psi Residual _____ gpm

Remarks_____

Location map: Show line sizes and distance to next distribution system intersection. Show valves and hydrant branch size. Indicate north. Show flowing hydrants – Label A_1, A_2, A_3, A_4. Show location of static and residual – Label B.

Indicate B Hydrant_____ Sprinkler_____ Other (identify)_____

NOTE: Mail, hand-deliver or otherwise provide this completed report to the Mustang Special Utility District prior to acceptance of the system and beginning of service.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

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ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	REVISION	BY	DATE

NO.	DATE	REVISION

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD GENERAL MANAGER: Chris Boyd DATE: 7/27/2020

WATER STANDARD DETAILS (1 OF 2)

CERTIFICATION:
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

SARATOGA PHASE 2A

UTILITY DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	46
REVIEWER: NVT			

SARATOGA PHASE 2A

Drawing: G:\Off\gee21003-saratoga\PSO 2\Phase 1\3_Design\3S_Civil\3D1_CAD\civil_dt\exhibit\GEE21003-CVDETAILS-2A
Last Saved By: BradLee
Last Saved On: 4/30/2024 1:19 PM
Plot Date/Time: 4/30/2024 4:08 PM

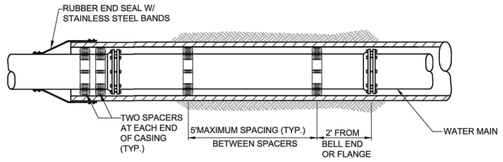
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

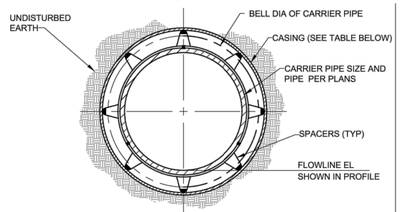
TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

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SECOND SUBMITTAL





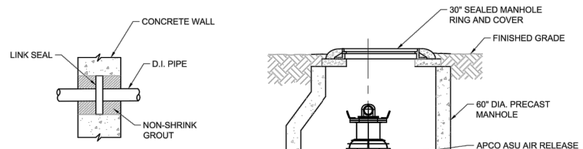
TYPICAL SECTION WITH CASING INSULATING SPACERS
N.T.S.

CASING NOTES:
1. CASING MATERIAL SHALL BE STEEL PER TxDOT REQUIREMENTS AT ALL TxDOT ROAD CROSSINGS.
2. CASING MATERIAL SHALL BE SDR-26/PS115 PVC AT ALL OTHER CROSSINGS UNLESS SPECIFICALLY REQUIRED BY MSUD ENGINEER.
3. CASING SIZE SHALL BE PER THE TABLE PROVIDED HEREON.
4. CASING SPACERS SHALL BE USED TO INSTALL CARRIER PIPE INSIDE THE ENCASEMENT PIPE. TO PROVIDE SUPPORT AROUND THE PERIPHERY OF THE PIPE SHOULD THE PIPE TWIST AS IT IS PUSHED THROUGH THE CASING, THE SPACERS SHALL BE OF A PROJECTION TYPE THAT HAS A MINIMUM NUMBER OF PROJECTIONS AROUND THE CIRCUMFERENCE TOTALING THE NUMBER OF DIAMETER INCHES. FOR EXAMPLE, 8" PIPE SHALL HAVE A MINIMUM OF 8 PROJECTIONS AND 18" PIPE SHALL HAVE A MINIMUM NUMBER OF 18 PROJECTIONS.
5. CASING SPACERS SHALL HAVE A MAXIMUM SPACING SPAN OF 5 FEET. THE SPAN BETWEEN SPACERS SHOULD RESULT IN CONSERVATIVE LONG-TERM SAFETY FACTOR PROVIDED TOTAL LOAD PER SPACERS DOES NOT EXCEED THE MAXIMUM LOAD FOR PIPE FULL OF LIQUID PER SPACER LISTED IN THE LITERATURE FOR CLASS SPACER USED. SPACERS SHALL HAVE A MINIMUM HEIGHT THAT CLEARS THE PIPE BELL OR AS OTHERWISE INDICATED ON PLANS. CASING SPACERS SHALL USE DOUBLE BACKED TAPE PROVIDED WITH THE SPACERS, TO FASTEN TIGHTLY ONTO THE CARRIER PIPE, SO THAT THE SPACERS DO NOT MOVE DURING INSTALLATION.
6. SPACERS SHALL BE RACI HIGH DENSITY POLYETHYLENE OR AS APPROVED BY MSUD ENGINEER.

TYPICAL WATER PIPE CASING DETAIL
(AT ROADWAYS AND/OR STORM DRAIN CROSSINGS)
N.T.S.

CASING SCHEDULE

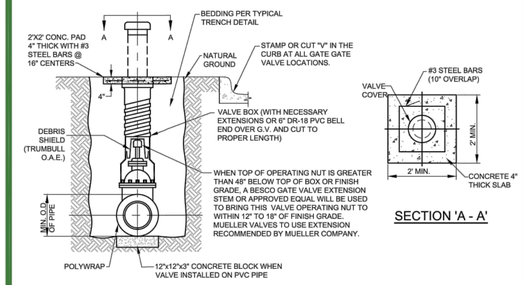
WATER LINE NOMINAL SIZE (IN)	CASING NOMINAL SIZE (IN)
2	4
4	6
6	8
8	12
10	16
12	18
14 & 16	24
18	30
20	30
24	36
27	36
30	42
36	48



PIPE PENETRATION
N.T.S.

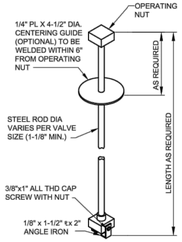
NOTES:
1. ALL PIPING, EXCEPT AS NOTED, TO BE DUCTILE IRON WITH FLANGED JOINTS AND STAINLESS STEEL BOLTS AND NUTS.
2. RIM ELEVATION SHALL BE SET 12" ABOVE FINISHED GRADE UNLESS INSTALLED IN PAVED AREA

COMBINATION AIR RELEASE VALVE AND VAULT DETAIL
N.T.S.

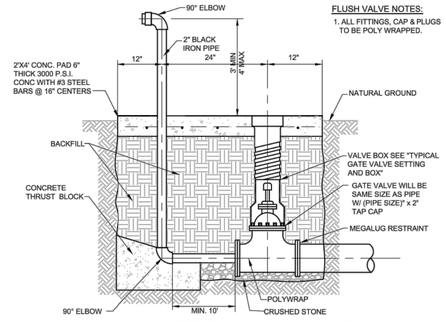


TYPICAL VALVE SETTING AND BOX
N.T.S.

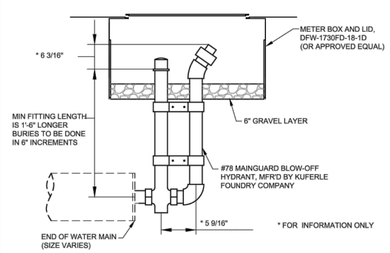
SECTION 'A - A'



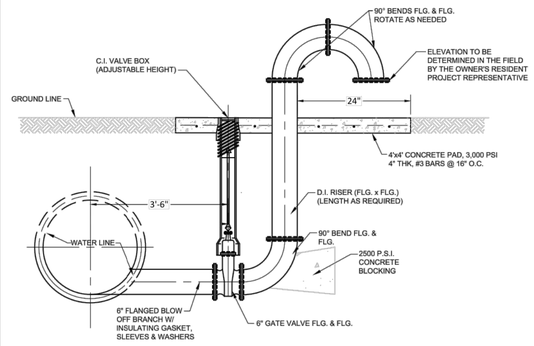
VALVE EXTENSION STEM
N.T.S.



END-OF-LINE/TEMPORARY FLUSH VALVE
N.T.S.



RESIDENTIAL FLUSH VALVE
N.T.S.



MAIN LINE FLUSH VALVE
N.T.S.

NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD
GENERAL MANAGER: C. BOYD DATE: 2020-09-14

WATER DETAILS (2 OF 2)

CERTIFICATION:
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

UTILITY DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

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Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	47
REVIEWER: NVT			

SARATOGA PHASE 2A

Drawing: G:\JOBS\gee21003-saratoga\POD 2\Phase 1\3_Design\35_Civil\51_CAD\civil_plans\GEE21003-CIVDETAILS-2A
Last Saved By: BCollins
Last Plotted: 4/30/2024 1:10 PM
Plot Date/Time: 4/30/2024 1:08 PM

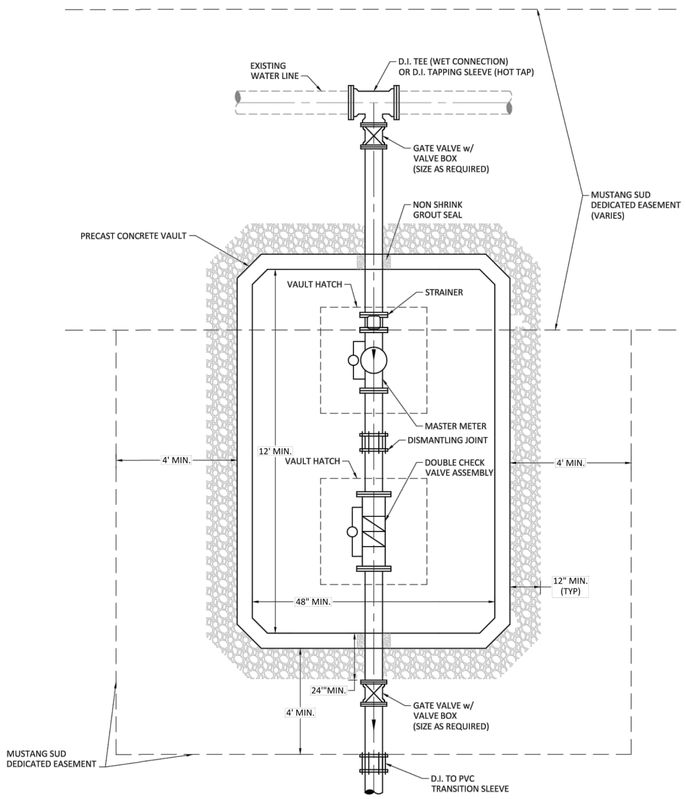
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ATMOS GAS	972-881-4161
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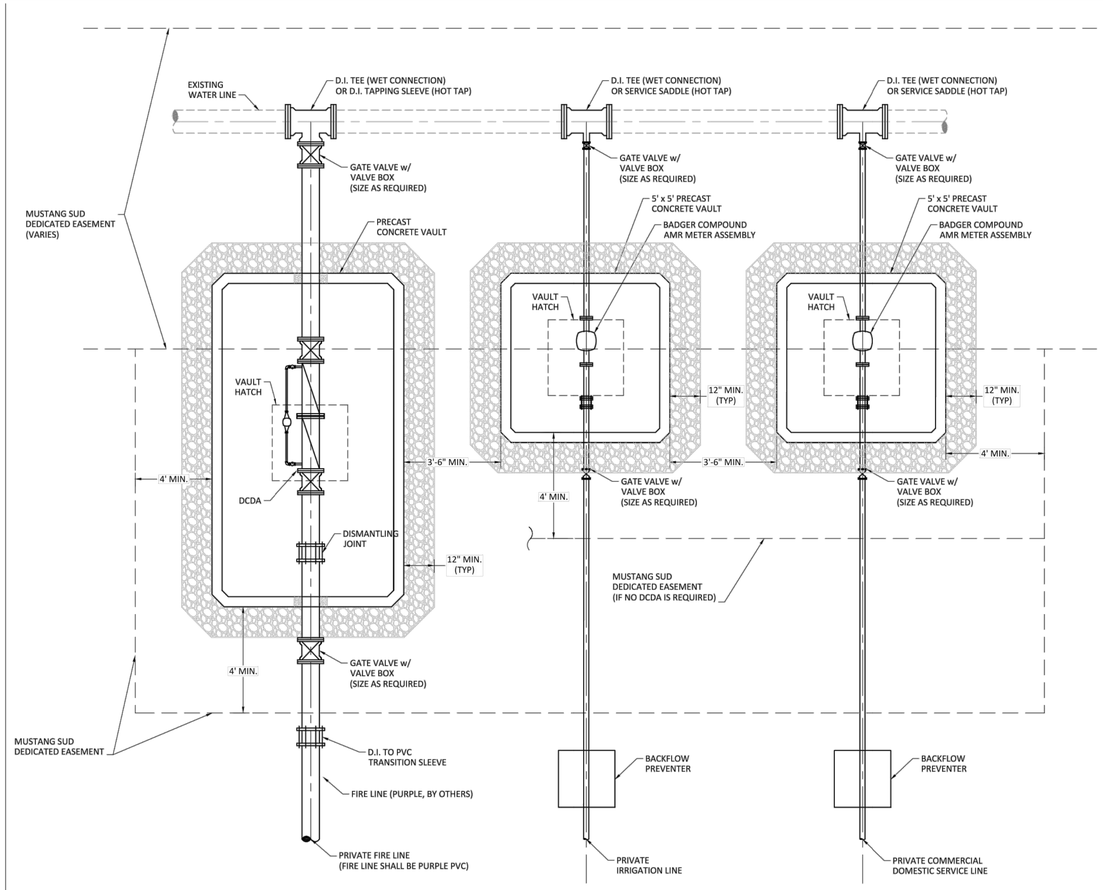
SECOND SUBMITTAL



NOTES:

1. ALL WORK NOT SPECIFICALLY IDENTIFIED AS BEING SUPPLIED BY MUSTANG S.U.D. SHALL BE COMPLETED AT OWNER'S EXPENSE.
2. SIZE ON SIZE HOT TAPS SHALL NOT BE ALLOWED.
3. CONCRETE VAULTS SHALL BE EQUAL TO THAT AS DESIGNED AND MANUFACTURED BY CAPITAL PRECAST, INC.
4. CONCRETE VAULT LID AND HATCHES SHALL BE TRAFFIC RATED.
5. VAULT HATCHES SHALL BE 42"x42" ALUMINUM WITH LIFT ASSIST AND SLAM LOCK.
6. MASTER METER SHALL BE BADGER RECORDALL.
7. MASTER METER SHALL BE EQUIPPED WITH AN AMR/AMI REMOTE METER READING SYSTEM AS MANUFACTURED BY BADGER METER COMPATIBLE FOR USE WITH THE SPECIFIED METER. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, ELECTRICAL AND SERVICE REQUIRED FOR A COMPLETE, OPERATING SYSTEM.
8. DOUBLE CHECK VALVE ASSEMBLY SHALL BE WATTS 775 OR APPROVED EQUAL.
9. CONCRETE VAULT SHALL HAVE NO BOTTOM.
10. VAULT SHALL BE SET ON 12" OF 1"-2"Ø WASHED GRAVEL.
11. VAULT SHALL BE MINIMUM 72" DEEP AND INCLUDE AN ALUMINUM OR STAINLESS STEEL LADDER WITH SAFETY EXTENSION.
12. VAULTS LIDS SHALL BE 6" TO 12" ABOVE FINISHED GRADE IN UNPAVED AREAS.
13. CLEARANCE BETWEEN PIPING AND VAULT FLOOR SHALL BE 12" MINIMUM.
14. ADJUSTABLE PIPE SUPPORTS SHALL BE PROVIDED UNDER THE MASTER METER AND CHECK VALVE ASSEMBLY.
15. ALL MECHANICAL JOINT FITTINGS SHALL BE MECHANICALLY RESTRAINED WITH MEGA-LUG OR EQUAL.
16. ALL PIPING THROUGH THE VAULT SHALL BE DUCTILE IRON.

MASTER METER WITH DOUBLE CHECK INSTALLATION
N.T.S.



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3. VAULT SIZE MAY VARY DEPENDING UPON METER SIZE.
4. MUSTANG S.U.D. SHALL SUPPLY METERS UP TO 2".
5. MUSTANG S.U.D. SHALL SUPPLY A CHECK VALVE FOR RESIDENTIAL METERS ONLY.
6. MUSTANG S.U.D. DOES NOT SUPPLY ANY TYPE OF DOUBLE CHECK DETECTOR ASSEMBLY (DCDA).
7. ALL MECHANICAL JOINT FITTINGS SHALL BE MECHANICALLY RESTRAINED WITH MEGA-LUG OR EQUAL.
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9. CONCRETE VAULTS SHALL HAVE NO BOTTOM.
10. VAULT SHALL BE SET ON 12" OF 1"-2" Ø WASHED GRAVEL.
11. ALL PIPING THROUGH DCDA VAULT SHALL BE DUCTILE IRON.

DOUBLE CHECK DETECTOR ASSEMBLY, IRRIGATION AND COMMERCIAL DOMESTIC METER INSTALLATION
N.T.S.

NO.	REVISION	BY	DATE

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD
GENERAL MANAGER: C. BOYD DATE: 2020-09-14

COMMERCIAL AND DCDA DETAILS

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SARATOGA PHASE 2A

UTILITY DETAILS

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DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	48
REVIEWER: NVT			

SARATOGA PHASE 2A

Drawing: G:\JOBS\gee21003-saratoga\POD 2\Phase 1\3_Design\05_Civil\01_CAD\civil_plans\GEE21003-CIVDETAILS-2A
Last Saved By: RodkeJ
Last Saved: 10/13/2020 1:10 PM
Plot Date/Time: 4/30/2024 1:08 PM
L:\PROJECTS 2020\21044 Mustang SUD General Engineering\3_Standard Details and General Notes\MSUD Standard Details - DWG and Draft Files\MSUD General Notes and Standard Detail 2020.dwg, Master Meter Double Check Detail, 10/13/2020 4:53:48 PM, SAMD, 1:1

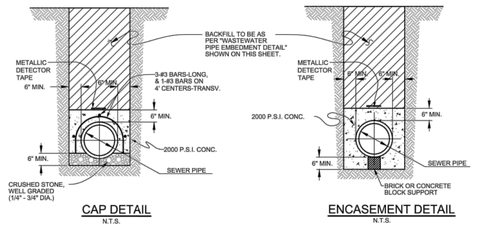
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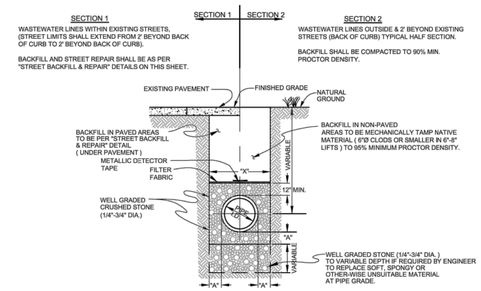
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SECOND SUBMITTAL

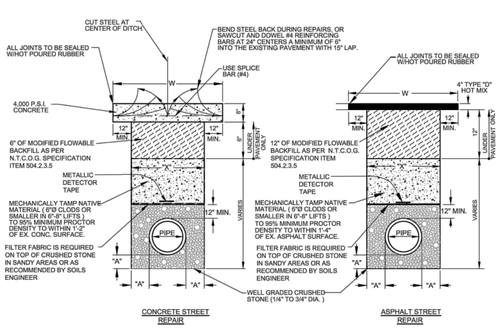


CAP DETAIL
N.T.S.

ENCASEMENT DETAIL
N.T.S.



WASTEWATER PIPE LINE EMBEDMENT DETAIL PVC SDR-26 & SDR-35
N.T.S.


CUT STEEL AT CENTER OF DITCH
BEND STEEL BACK DURING REPAIRS, OR SAWCUT AND DOWEL #4 REINFORCING BARS AT 24" CENTERS A MINIMUM OF 6" INTO THE EXISTING PAVEMENT WITH 10" LAP.
ALL JOINTS TO BE SEALED W/HOT POURED RUBBER
USE SPLICE BAR (#4)
W
4,000 P.S.I. CONCRETE
12" MIN.
12" MIN.
6" OF MODIFIED FLOWABLE BACKFILL AS PER N.T.C.O.G. SPECIFICATION ITEM 504.2.3.5
METALLIC DETECTOR TAPE
MECHANICALLY TAMP NATIVE MATERIAL (6"/8 CLODS OR SMALLER IN 6"-8" LIFTS) TO 95% MINIMUM PROCTOR DENSITY TO WITHIN 1'-2' OF EX. CONC. SURFACE
12" MIN.
VARIES
PIPE
FILTER FABRIC IS REQUIRED ON TOP OF CRUSHED STONE IN SANDY AREAS OR AS RECOMMENDED BY SOILS ENGINEER
"A"
"A"
"A"
WELL GRADED CRUSHED STONE (1/4" TO 3/4" DIA.)
CONCRETE STREET REPAIR
ALL JOINTS TO BE SEALED W/HOT POURED RUBBER
W
4" TYPE "D" HOT MIX
12" MIN.
12" MIN.
12" MIN.

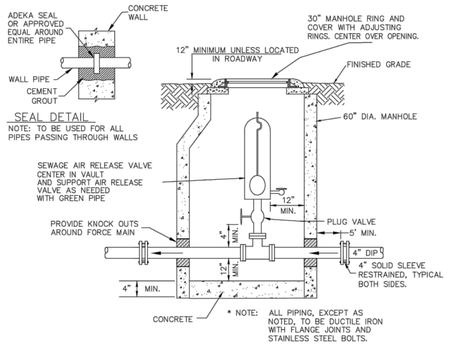
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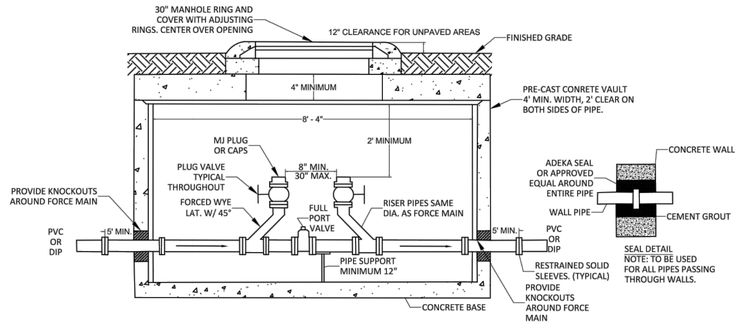
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SECOND SUBMITTAL



SEWER AIR RELEASE VALVE

N.T.S.

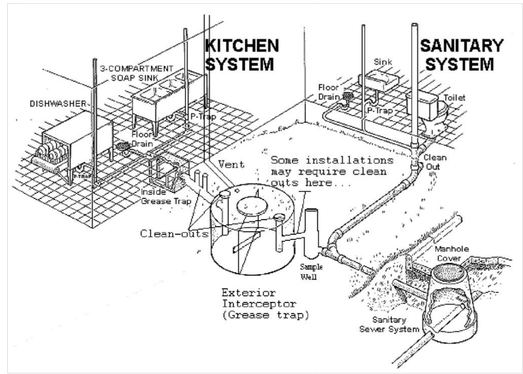


NOTES:
1. ALL PIPING 4" AND LARGER IN CLEAN-OUT CHAMBER, EXCEPT AS NOTED, TO BE DUCTILE IRON CONNECTED WITH FLANGED HOINTS AND STAINLESS STEEL BOLTS.

2. ALL VAULTS DEEPER THAN 5' MUST HAVE STAINLESS STEEL LADDER BOLTED IN PLACE.

TWO-WAY FORCE MAIN CLEAN-OUT

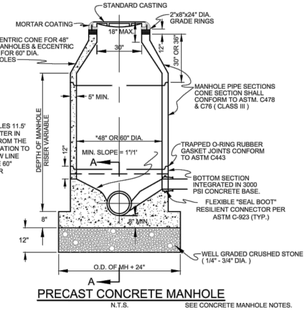
N.T.S.



Typical Plumbing Layout

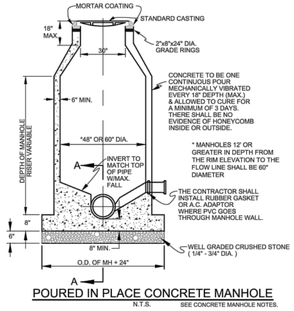
N.T.S.

NOTE:
MUSTANG SPECIAL UTILITY DISTRICT REQUIRES RESTAURANTS, FOOD PROCESSING FACILITIES, AUTOMOTIVE REPAIR FACILITIES, CAR WASHES, COMMERCIAL LAUNDRIES, AND ALL OTHER FACILITIES THAT THE DISTRICT DEEMS NECESSARY TO INSTALL AND MAINTAIN GREASE OR GRIT TRAPS. IT IS THE RESPONSIBILITY OF THE GENERATORS TO ENSURE THAT THEIR GREASE TRAPS, AND THE WASTEWATER DISCHARGED FROM THEM, ARE IN COMPLIANCE WITH ALL DISTRICT REQUIREMENTS.



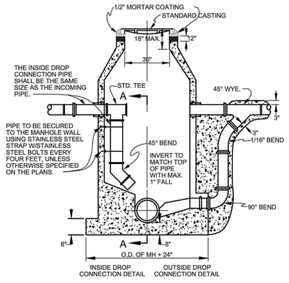
PRECAST CONCRETE MANHOLE

N.T.S. SEE CONCRETE MANHOLE NOTES.



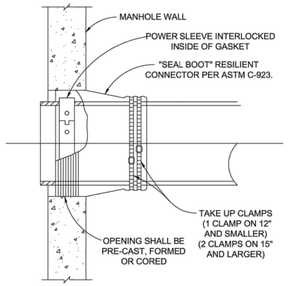
POURED IN PLACE CONCRETE MANHOLE

N.T.S. SEE CONCRETE MANHOLE NOTES.



STANDARD DROP CONNECTION TO MANHOLE

N.T.S.

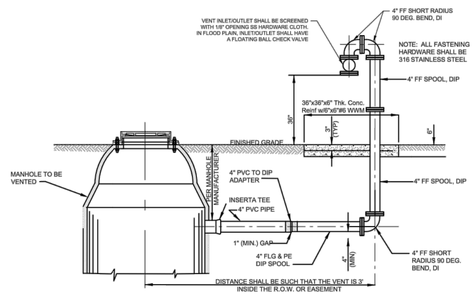


FLEXIBLE "SEAL BOOT" CONNECTOR

N.T.S.

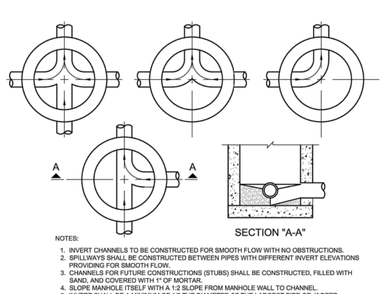
CONCRETE MANHOLE NOTES:

1. CONCRETE FOR ALL PRECAST AND POURED IN PLACE MANHOLES SHALL BE 6.5 SACK, 4200 P.S.I. SULPHATE RESISTANT CONCRETE.
2. THE DIAMETER OF THE CONCRETE BASE SHALL NOT BE LESS THAN THE INSIDE DIAMETER OF THE MANHOLE PLUS 2 FT.
3. STEPS SHALL NOT BE I NSTALLED IN MANHOLE.
4. ALL NEW MANHOLES SHALL BE MARKED WITH "MH" STAMPED OR CUT IN THE CURB.
5. USE DROP CONNECTIONS WHEN CONNECTING LINE EXCEEDS 24" ABOVE THE MANHOLE FLOWLINE.
6. USE OUTSIDE DROP CO NNECTIONS ON ALL NEW MANHOLES.
7. USE INSIDE DROP CONNECTION ON EXISTING MANHOLES ONLY.
8. PROVIDE RAIN PANS INTEGRATED WITH RIM.
9. MANHOLES IN OFFSITE/UNPAVED AREAS SHALL BE SET WITH TOP OF MANHOLE 12" ABOVE FINISHED GRADE (CANNOT BE ACHIEVED WITH GRADE RINGS)
10. MANHOLES IN OFFSITE/UNPAVED AREAS ALL SHALL HAVE TYPE "S" RING AND COVER AND MAINTAIN MINIMUM 12" CLEARANCE WITHOUT GRADE RINGS.
11. ALL MANHOLE LADDERS MUST BE STAINLESS STEEL AND BOLTED IN PLACE.



MANHOLE VENT DETAIL

N.T.S.

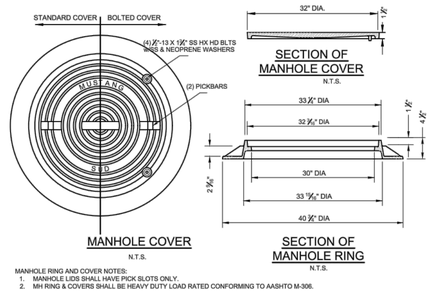


SECTION "A-A"

NOTES:
1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOW.
3. CHANNELS FOR FUTURE CONSTRUCTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND, AND COVERED WITH 1" OF MORTAR.
4. SLOPE MANHOLE ITSELF WITH A 1:2 SLOPE FROM MANHOLE WALL TO CHANNEL.
5. INVERT SHALL BE A MINIMUM OF 1/2 THE DIAMETER OF THE LARGEST PIPE OR 4" DEEP.

MANHOLE FLOOR PLAN

N.T.S.



MANHOLE COVER

N.T.S.

SECTION OF MANHOLE RING

N.T.S.

MANHOLE RING AND COVER NOTES:
1. MANHOLE LIDS SHALL HAVE PICK SLOTS ONLY.
2. MH RING & COVERS SHALL BE HEAVY DUTY LOAD RATED CONFORMING TO AASHTO M-306.

BENCHMARKS

BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

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ELEVATION = 624.58'

PRELIMINARY
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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	REVISION	BY	DATE

NO.	DATE	REVISION

MUSTANG SPECIAL UTILITY DISTRICT

APPROVED BY MSUD GENERAL MANAGER: Chris Boyd DATE: 7/27/2020

WASTEWATER STANDARD DETAILS (2 OF 2)

CERTIFICATION:
THIS MUSTANG SPECIAL UTILITY DISTRICT STANDARD DETAIL SHEET IS AUTHORIZED FOR USE IN THIS PROJECT BY THE ENGINEER WHOSE SEAL APPEARS ON THIS SHEET. THIS ENGINEER IS ALSO CERTIFYING THAT THE CONTENT OF THE DETAILS AND NOTES ON THIS SHEET HAVE NOT BEEN ALTERED FROM THAT RECEIVED FROM MUSTANG SPECIAL UTILITY DISTRICT.

SARATOGA PHASE 2A

UTILITY DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

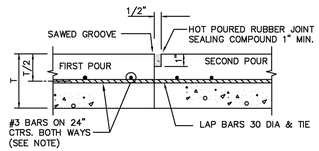
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	50
REVIEWER: NVT			

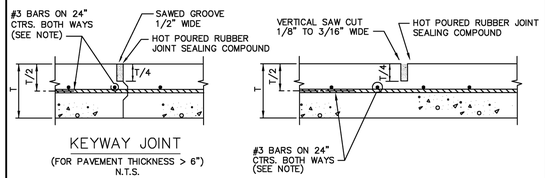
SARATOGA PHASE 2A

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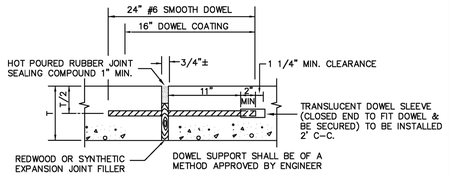


CONSTRUCTION JOINT

N.T.S.



NOTE:
ALTERNATE REINFORCEMENT
#4 BARS ON 30" CTRS.
BOTH WAYS.

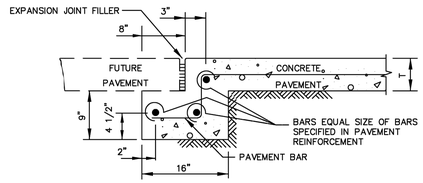


EXPANSION JOINT

(SPACED 600 FT. MAXIMUM; LOCATE AT STRUCTURES AND AT INTERSECTION P.C.'S & P.T.'S)

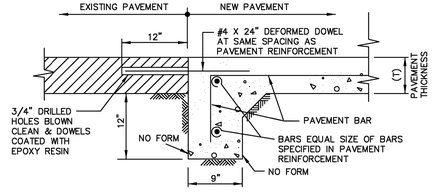
N.T.S.

REINFORCED CONCRETE PAVEMENT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 303.5.4.	
JOINTS		DATE OCT. '04	STANDARD DRAWING NO. 2050



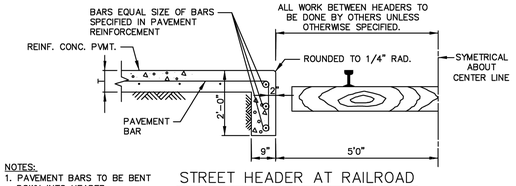
STREET HEADER FOR FUTURE PAVEMENT

N.T.S.



STREET HEADER AT EXISTING PAVEMENT

N.T.S.

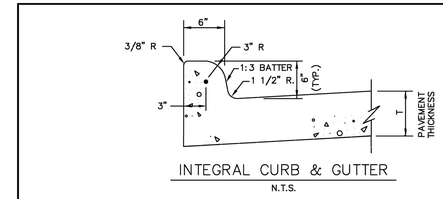


NOTES:
1. PAVEMENT BARS TO BE BENT DOWN INTO HEADER.
2. HEADER AND PAVEMENT TO BE MONOLITHIC.

STREET HEADER AT RAILROAD

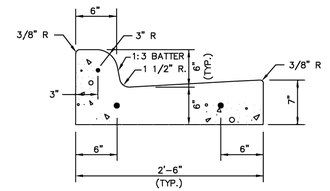
N.T.S.

REINFORCED CONCRETE PAVEMENT	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.4	
STREET HEADERS		DATE OCT. '04	STANDARD DRAWING NO. 2070



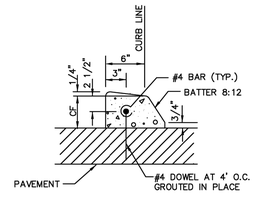
INTEGRAL CURB & GUTTER

N.T.S.



SEPARATE CURB & GUTTER

N.T.S.

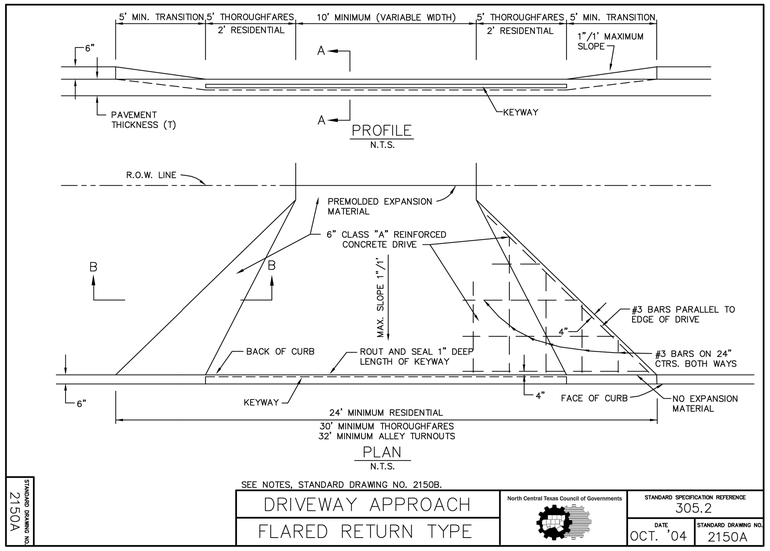


DOWELED CURB

N.T.S.

NOTES:
1. REINFORCEMENT SHALL BE NO. 4 BARS, UNLESS OTHERWISE SPECIFIED.
2. CONCRETE SHALL BE CLASS "C" OR "PC".
3. "CF" IS 6" UNLESS OTHERWISE SPECIFIED.
4. ALL CURBS ARE CONSTRUCTED OF PORTLAND CEMENT CONCRETE UNLESS OTHERWISE SHOWN.
5. GRADE SHALL BE MEASURED AT BACK OF CURB.

CONCRETE CURB & GUTTER	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.1	
INTEGRAL, SEPARATE, & DOWELED		DATE OCT. '04	STANDARD DRAWING NO. 2120



SEE NOTES, STANDARD DRAWING NO. 2150B.

STANDARD DRAWING NO. 2150A

DRIVEWAY APPROACH	North Central Texas Council of Governments	STANDARD SPECIFICATION REFERENCE 305.2	
FLARED RETURN TYPE		DATE OCT. '04	STANDARD DRAWING NO. 2150A

NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

TEXAS 811	1-800-344-8377
ATMOS GAS	972-881-4161
ONCOR ELECTRIC DELIVERY	888-313-6862
CITY OF AUBREY	940-440-9343
MUSTANG SUD	940-440-9561

CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION.

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SECOND SUBMITTAL

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NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

PAVING DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

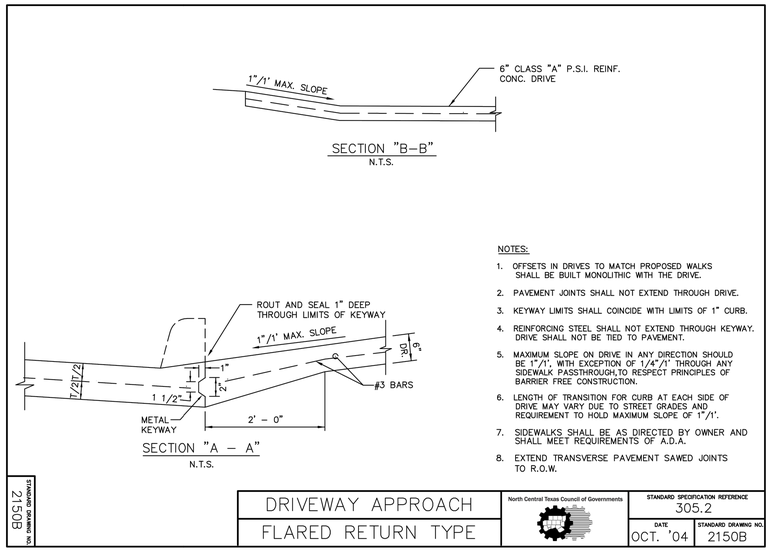
Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

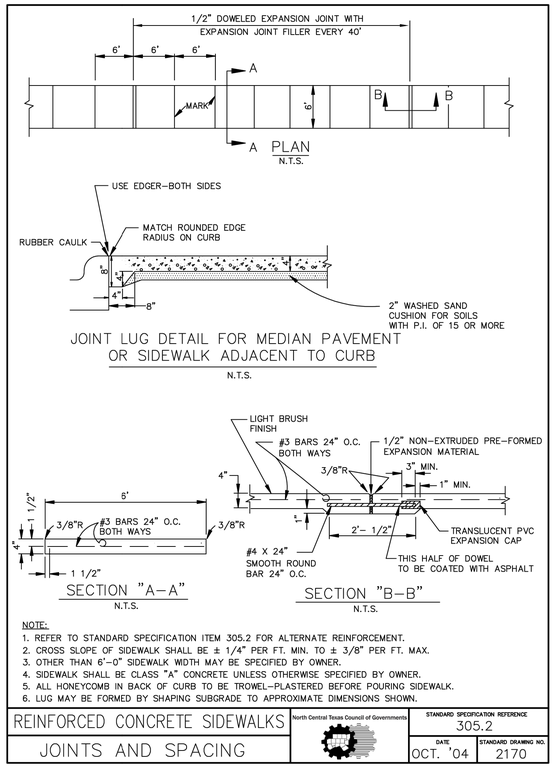
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

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DESIGNED: CLS	APRIL 2024	GEE21003	51
REVIEWER: NVT			

SARATOGA PHASE 2A

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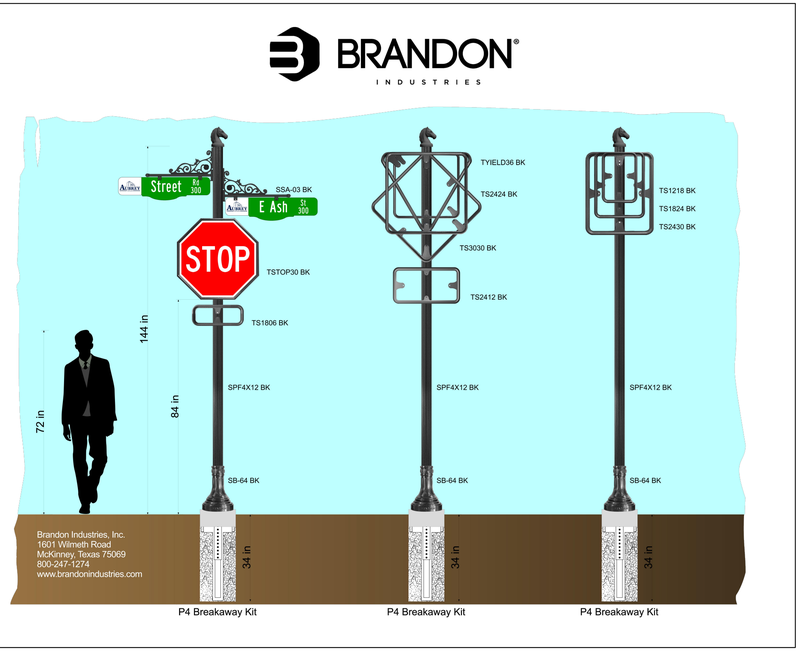
NOTE: THE CONTRACTOR SHALL CONTACT THE FOLLOWING AT LEAST 48 HOURS PRIOR TO EXCAVATING IN THIS AREA:

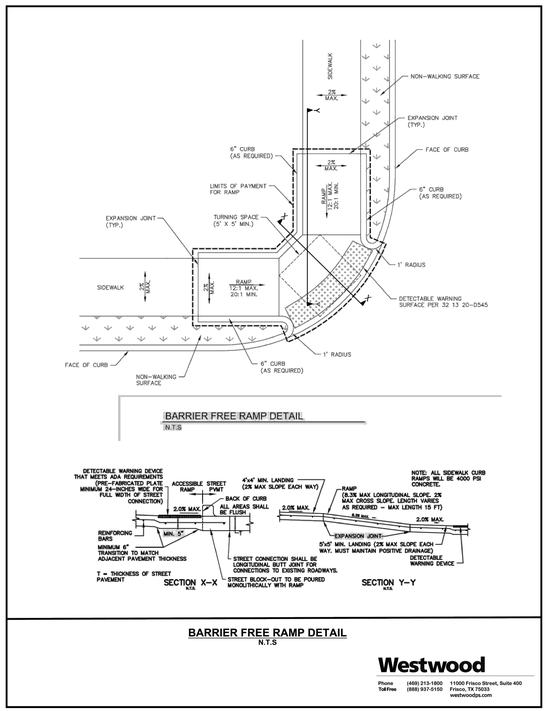
TEXAS 811	1-800-344-8377
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SARATOGA PHASE 2A

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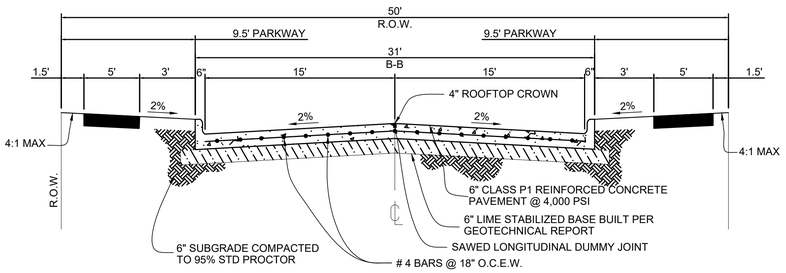
AUBREY ETJ, DENTON COUNTY, TEXAS

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DESIGNED: CLS	APRIL 2024	GEE21003	52
REVIEWER: NVT			

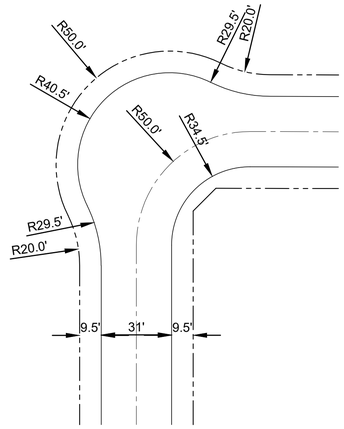
SARATOGA PHASE 2A

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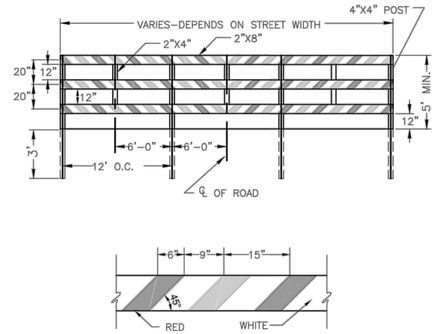
TYPICAL 50' ROW STREET SECTION

N.T.S.



TYPICAL KNUCKLE LAYOUT

N.T.S.

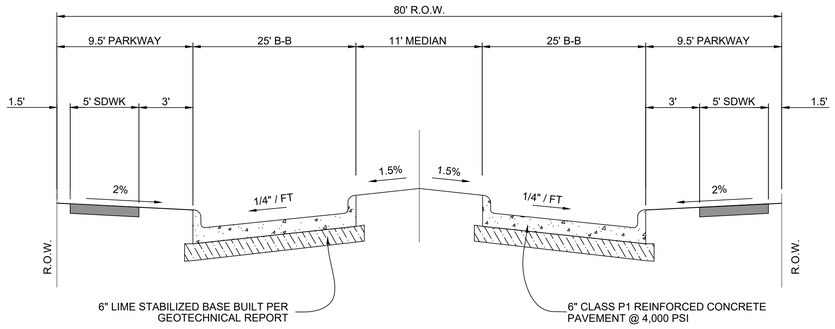


END OF ROAD BARRICADE DETAIL

NOT TO SCALE

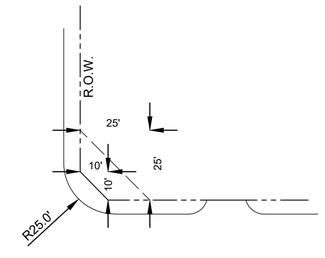
NOTES:

1. REFLECTIVE SHEETING FOR ALL TRAFFIC CONTROL DEVICES SHALL BE OF HIGH INTENSITY PRISMATIC (TYPE IIIA OR IIIB) ALL CHANNELIZATION DEVICES SHALL USE TYPE IIIA REBOUNDABLE SHEETING.
2. ATTACH 2"X 8" BOARDS TO 4"X 4" PRESSURE TREATED POST WITH LAG BOLTS.
3. ATTACH 2"X 4" BRACES TO 2"X 8" BOARDS WITH 10d--NAILS.
4. BARRICADE TO BE FULL WIDTH OF STREET BACK OF CURB TO BACK OF CURB.
5. IF BARRICADE IS USED TO DENOTE END OF ROADWAY, DIAGONAL STRIPES USED SHALL BE RED AND WHITE.



DIVIDED ENTRY SECTION

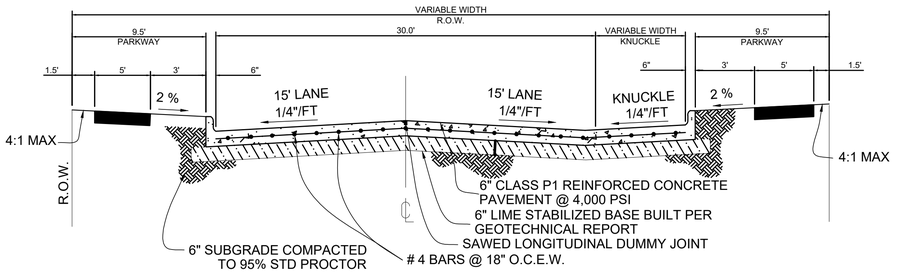
N.T.S.



INTERSECTING LOCAL (RESIDENTIAL)

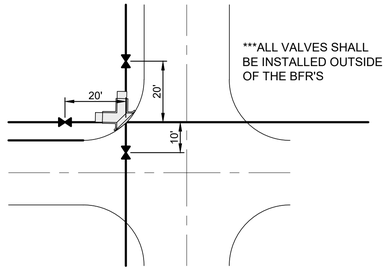
CORNER CLIP DETAIL

N.T.S.



TYPICAL 50' ROW STREET KNUCKLE SECTION

N.T.S.



GATE VALVE DETAIL

N.T.S.

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BM #1 - Iron Rod located in the north line of a road to Mustang Special Utility District located +/- 40' west from the centerline of Farm-to-Market 2931, +/- 2,200' northwest from the intersection of Farm-to-Market 2931 and Spring Hill Road.

ELEVATION = 610.85'

BM #2 - XCUT on the northeast side of a headwall +/- 30' east from the centerline of Farm-to-Market 2931 and +/- 100' northeast from the intersection of Farm-to-Market 2931 and Bell Road.

ELEVATION = 624.58'

PRELIMINARY
-FOR REVIEW ONLY-

THESE DOCUMENTS ARE FOR DESIGN REVIEW ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSE. THEY ARE PREPARED BY, OR UNDER THE SUPERVISION OF:

NATHANIEL V. THOMPSON 95918 04/30/2024
TYPE OR PRINT NAME PE # DATE

NO.	DATE	REVISION

SARATOGA PHASE 2A

PAVING DETAILS

AUBREY ETJ, DENTON COUNTY, TEXAS

Westwood

Phone (469) 213-1800 11000 Frisco Street, Suite 400
Toll Free (888) 937-5150 Frisco, TX 75033
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. 10074301

DRAWN: CLS	DATE	PROJECT #	SHEET
DESIGNED: CLS	APRIL 2024	GEE21003	53
REVIEWER: NVT			

SARATOGA PHASE 2A

Drawing: G:\Off\gee21003-saratoga\POD 2\Phase 1\3_Design\35_Civil\301_CAD\civil_plans\GEE21003-CIDETAILS-2A
Last Saved By: BoBurn
Last Saved On: 4/30/2024 1:10 PM
Plot Date/Time: 4/30/2024 4:09 PM

VG-19-2022-99800

Denton County
Juli Luke
County Clerk

Instrument Number: 99800

Real Property Recordings

AGREEMENT

Recorded On: July 07, 2022 11:38 AM

Number of Pages: 58

" Examined and Charged as Follows: "

Total Recording: $254.00

********** **THIS PAGE IS PART OF THE INSTRUMENT** **********
Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY because of color or race is invalid and unenforceable under federal law.

File Information:

Document Number:	99800
Receipt Number:	20220707000344
Recorded Date/Time:	July 07, 2022 11:38 AM
User:	Patty M
Station:	Station 5

Record and Return To:

CITY OF AUBREY
ATTN: CITY SECRETARY
107 S MAIN ST
AUBREY TX 76227

STATE OF TEXAS
COUNTY OF DENTON

I hereby certify that this Instrument was FILED In the File Number sequence on the date/time printed hereon, and was duly RECORDED in the Official Records of Denton County, Texas.

Juli Luke
County Clerk
Denton County, TX

After recording, return to:
Jenny Huckabee
107 S Main St
Aubrey TX 76227

DEVELOPMENT AGREEMENT

This **DEVELOPMENT AGREEMENT** (this "Agreement") is made this 26 day of April, 2022 (the "Effective Date"), by and between the **City of Aubrey, Texas**, a general law municipality organized under the laws of the State of Texas (the "City"), and **Aubrey 54 South LP**, a Texas limited partnership ("Aubrey 54"), **Aubrey Plant LP**, a Texas limited partnership ("Aubrey Plant"), and **Aubrey 64 North LP**, a Texas limited partnership ("Aubrey 64") (Aubrey 54, Aubrey Plant, and Aubrey 64 are collectively referred to herein as "Owner"). The City and Owner are hereinafter sometimes referred to, individually, as a "Party" and, collectively, as the "Parties."

ARTICLE I
RECITALS

WHEREAS, Aubrey 54 and Aubrey Plant are the owners of a tract of land containing approximately 131.531 acres of land in Denton County (the "County"), being more particularly described in **Exhibit A** attached hereto and incorporated herein for all purposes ("Tract 1"), located wholly within the City's extraterritorial jurisdiction ("ETJ"); and

WHEREAS, Aubrey 64 is the owner of a tract of land containing approximately 54.946 acres of land in the County, being more particularly described in **Exhibit B** attached hereto and incorporated herein for all purposes ("Tract 2"), located wholly within the City's ETJ; and

WHEREAS, Aubrey 64 is also the owner of a tract of land containing approximately 57.865 acres of land in the County, being more particularly described in **Exhibit C** attached hereto and incorporated herein for all purposes ("Tract 3"), not located within the City's ETJ or within the corporate limits or ETJ of any city, town or village; and

WHEREAS, the total approximately 244.342 acres of land comprised of Tract 1, Tract 2 and Tract 3 may collectively be referred to herein as the "Property;" and

WHEREAS, public roads, public water facilities, public sewer facilities and public drainage facilities (individually or collectively, the "Public Infrastructure") are not currently available to serve the Property; and

WHEREAS, the City is not presently able to solely provide, or directly contribute to, the cost of the Public Infrastructure that will facilitate Owner's proposed development of the Property; and

WHEREAS, in order to facilitate Owner's proposed development of Tract 3 in a market-competitive manner, Clear Sky Municipal Utility District of Denton County (the "District") was created by House Bill No. 4627, 87th Texas Legislature, Regular Session, codified at Chapter 7948A, Texas Special District Local Laws Code, effective September 1, 2021, encompassing Tract 3; and

WHEREAS, in order to facilitate Owner's proposed development of Tract 1 and Tract 2, Owner seeks to annex Tract 1 and Tract 2 into the District, pursuant to the terms of this Agreement; and

WHEREAS, Owner has submitted a petition to the City seeking City consent to the inclusion of Tract 1 and Tract 2 within the District; and

WHEREAS, the City supports the inclusion of the Property within the District under appropriate parameters, as set forth herein; and

WHEREAS, as evidence of the City's consent to the annexation of Tract 1 and Tract 2 into the District, the City shall consider adoption of a Consent Resolution substantially in the form attached hereto as **Exhibit D** (the "Consent Resolution"), demonstrating the City's consent, pursuant to Section 42.0425 of the Texas Local Government Code and Section 54.016 of the Texas Water Code, to the inclusion of Tract 1 and Tract 2 within the District; and

WHEREAS, pursuant to the terms of this Agreement, the City intends to expand its ETJ to include Tract 3 not currently located in the City's ETJ, and Owner supports such expansion; and

WHEREAS, it is the intent of the Parties that the Property will be developed in accordance with the hereinafter defined **Concept Plan**; and

WHEREAS, the Parties have the authority to enter into this Agreement pursuant to Section 212.171, *et seq.*, of the Texas Local Government Code; and

WHEREAS, the Parties intend that this Agreement be a development agreement as provided for by Section 212.172 of the Texas Local Government Code; and

NOW, THEREFORE, for and in consideration of the mutual covenants of the Parties set forth in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and agreed by the Parties, the Parties agree as follows:

ARTICLE II.
CONSENT TO INCLUSION OF THE PROPERTY WITHIN THE DISTRICT

2.1 Consent to Annexation. This Agreement, and the Consent Resolution, a proposed form of which is attached hereto as **Exhibit D** that the City intends to consider adopting simultaneously with its approval of this Agreement, constitutes the irrevocable and unconditional consent of the City to the inclusion of Tract 1 and Tract 2 within the District created by House Bill No. 4627, 87th Texas Legislature, Regular Session, codified at Chapter 7948A, Texas Special District Local Laws Code, effective September 1, 2021, pursuant to the authority of Article III, Section 52 and Article XVI, Section 59 of the Texas Constitution and Chapters 49 and 54, Texas Water Code, as amended. **Exhibit D** shall be superseded by the Consent Resolution finally approved by the City Council, and this Agreement shall not be construed as supplanting the legislative authority of the City by contractually obligating the City Council to approve the exact terms of the Consent Resolution specified in **Exhibit D**. Final approval of a Consent Resolution lies within the exclusive legislative discretion of the City Council.

2.2 Consent Resolution; Other Documents. The City agrees to adopt such further ordinances and execute such further documents as may reasonably be requested by Owner, the TCEQ, the Texas Attorney General ("AG"), or the District to evidence the City's consents as set forth in this Agreement and in the final City Council approved Consent Resolution.

2.3 No Limitation of Powers. Nothing herein is intended to limit, impair, or conflict with the authority of, or powers granted to the District by the Texas Constitution, Texas Water Code, Texas

Local Government Code, or any other current or future statute applicable to such districts. Likewise, nothing herein is intended to limit, impair or conflict with the authority of or powers granted to the City by the Texas Constitution, Texas Water Code, Texas Local Government Code, or any other current or future statute applicable to City.

2.4 Full Satisfaction. Subject to and limited by the terms of this Agreement and the conditions set forth in the City approved Consent Resolution, the consents contained in this Article II and in the Consent Resolution (the "District Consents") are given by the City: (a) in full satisfaction of any requirements for District consents contained in any statute or otherwise required by law, rule, regulation or policy including, but not limited to, consents required by the Texas Water Code, as amended, the Texas Local Government Code, as amended, any rules, regulations, or policies of the TCEQ, or any rules, regulations, or policies of the Texas AG; (b) with the understanding that City and Owner have relied on the District Consents to their individual material detriment and but for the District Consents Owner would not have entered into this Agreement and but for the conditions and limitations on the District Consents, City would not have entered into this Agreement.

2.5 Limitation on Bonds. Bonds issued by the District shall have a maximum maturity of thirty (30) years for any one series of bonds, unless otherwise agreed to by the City and shall be issued for the purposes of paying for costs of development of Public Infrastructure which include Onsite improvements and Offsite Improvements, including the costs of maintenance and operation of the Public Infrastructure. The District may issue bonds for the purchase, construction, acquisition, repair, extension and improvement of capital infrastructure, easements, works, improvements, facilities, plants, equipment, and appliances necessary for the construction of such Public Infrastructure.

ARTICLE III.
ANNEXATION & ETJ EXPANSION

3.1 Expansion of City ETJ. Owner hereby requests that Tract 3, not currently located within the City's ETJ, be included in the City's ETJ as soon as is practicable. Owner agrees that on or before the Effective Date of this Agreement, Owner has submitted to the City a petition requesting that the City expand its ETJ to include Tract 3 in the City's ETJ. The City agrees that it shall not annex Tract 3 into its corporate limits for full purposes except as expressly authorized by this Agreement and with a fully executed strategic partnership agreement between the City and the District. In all matters requiring the interpretation of this Agreement, including but not limited to the addition of Tract 3 into the ETJ of the City, Owner irrevocably declares that all of the Property shall be bound by the terms of this Agreement as if being at all pertinent times within the contiguous ETJ of the City for purposes of Texas Local Government Code § 212.172 and provisions citing that statute.

3.2 Immunity From Full Purpose Annexation. Except as provided in a fully executed strategic partnership agreement and after Tract 3 is included in the ETJ of the City as provided for in Section 3.1 herein, the Property shall remain in the ETJ of the City and be immune from full purpose annexation until such time that Owner has constructed, or caused to be constructed, at least ninety percent (90%) of the Public Infrastructure and Owner has been fully reimbursed for all of the costs of such Public Infrastructure. Pursuant to Texas Local Government Code Section 43.0715(b), if the District has not yet issued bonds to reimburse Owner in full for the bond eligible costs and expenses incurred by Owner at the time the Property is annexed for full purposes by the City, the City hereby

agrees that it shall, prior to the effective date of the annexation, pay to Owner a sum equal to any and all outstanding actual costs and expenses incurred by Owner in connection with the District that the District has, in writing, agreed to pay and that would otherwise have been eligible for reimbursement from bond proceeds. The timing, delivery, and other ancillary conditions of any such payment shall be controlled by the terms of a fully executed strategic partnership agreement between the City and the District and shall be in accordance with Texas Local Government Code Section 43.0715(b). Final terms of a Strategic Partnership Agreement shall be negotiated by the Parties on a mutually agreeable date, and City approval of participation in such agreement shall be within the exclusive legislative discretion of the City Council

3.3 **CONSENT TO FULL PURPOSE ANNEXATION. OWNER AND ALL FUTURE OWNERS OF THE PROPERTY (INCLUDING END-BUYERS) AND FUTURE DEVELOPERS OF THE PROPERTY IRREVOCABLY AND UNCONDITIONALLY CONSENT TO THE FULL PURPOSE ANNEXATION OF THE PROPERTY INTO THE CORPORATE LIMITS OF THE CITY IN ACCORDANCE WITH THIS AGREEMENT AND A FINALLY APPROVED AND FULLY EXECUTED STRATEGIC PARTNERSHIP AGREEMENT BETWEEN THE CITY AND THE DISTRICT AND WAIVE ALL OBJECTIONS, ELECTIONS AND PROTESTS TO SUCH ANNEXATION. THIS AGREEMENT SHALL SERVE AS THE PETITION OF OWNER AND ALL FUTURE OWNERS AND FUTURE DEVELOPERS FOR FULL PURPOSE ANNEXATION OF THE PROPERTY IN ACCORDANCE WITH THIS AGREEMENT AND SPECIFICALLY THE RESTRICTIONS IN SECTION 3.2 OF THIS AGREEMENT.**

3.4 Limited Purpose Annexation. Owner agrees that the City shall have the right to, but is not obligated to, annex those areas of the Property that are used for, or intended to be used for, commercial development for the sole and limited purpose of allowing the City to impose sales and use taxes within the boundaries of such commercial and/or retail areas to the extent permitted by State law. The terms and conditions upon which such limited purpose annexations may occur shall be set forth in a strategic partnership agreement executed by the Parties prior to the first limited purpose annexation by the City, pursuant to Section 43.0751 of the Texas Local Government Code. No limited purpose annexation pursuant to a strategic partnership agreement shall affect, in any way, the ETJ status of the Property; and, notwithstanding any limited purpose annexation, the areas annexed, as well as the remainder of the Property, shall continue to be located within the ETJ of the City, for the purposes of this Agreement.

ARTICLE IV
GOVERNING REGULATIONS & DEVELOPMENT PROCESS

4.1 Governing Regulations. Development of the Property shall be governed solely by the regulations listed below in this Section 4.1 (collectively, the "Governing Regulations").

(a) Applicable City regulations, as may lawfully be amended at any time, solely for the purpose of preventing imminent destruction of property or injury to persons and that are uniformly enforced within the City's corporate boundaries, unless otherwise included in this Section 4.1 or a subsequent amendment thereto but only if the regulations (i) do not conflict with any provision of this Agreement; (ii) do not regulate, impact or affect landscaping or tree requirements or preservation, open space, parks, the dedication of open spaces or parks, lot size, lot dimensions, lot coverage, setbacks, house or building size or height, exterior or interior design of residences, building materials,

amenity centers or other buildings, residential or commercial density, or the timing of a project do not change development permitted by a restrictive covenant.

(b) The draft Concept Plan attached hereto as **Exhibit E**, as amended from time to time in accordance with this Agreement (the "Concept Plan") and compatible with the City's thoroughfare plan in place as of the Effective Date of this Agreement, which Concept Plan is considered to be a development plan as provided for in Section 212.172 of the Texas Local Government Code. In the event of a conflict between the Concept Plan and the City's thoroughfare plan, the Concept Plan shall control provided however that all roadways shall comply with the final plat

(c) Subdivision regulations of the City in effect on the Effective Date (the "Subdivision Regulations"), as amended by the special regulations set forth on **Exhibit F** attached hereto (the "Special Regulations").

(d) Duly adopted building codes of the City, as amended, provided such building codes are adopted by ordinance and uniformly applied throughout the City (the "Building Codes").

(e) Final plats for portions of the Property that are approved, from time to time, by the City.

4.2 Concept Plan Amendments. The Parties agree the Concept Plan attached hereto as **Exhibit E** was created by Owner for illustrating the boundary, lot mix and general layout of the project. Any amendment to the Concept Plan shall be considered an amendment to this Agreement and shall replace the attached Concept Plan and become a part of this Agreement. The City Administrator of the City may administratively approve any amendments to the Concept Plan that the City Administrator deems in his reasonable discretion to be minor in nature. If the City Administrator deems an amendment to not be minor in nature, the Concept Plan may be amended as set forth in applicable City regulations.

4.3 Provisions for Administration of District.

(a) Manufactured Homes. One (1) manufactured home shall be temporarily permitted on the Property at any time as necessary to satisfy on-site voter requirements of the TCEQ. Owner shall provide names and contact information for any persons establishing a residence in the home permitted under this Agreement upon written request by the City. No approved plat, building permit, certificate of occupancy, or other permit shall be required to establish such residence.

(b) Director Qualifying Lots. Notwithstanding any other provision of this Agreement to the contrary, the conveyance, from time to time, by metes and bounds or otherwise of any portion of the Property to any person for the purpose of qualifying such person to be a member of the board of directors of the District shall not be considered a subdivision of land requiring a plat or otherwise requiring the approval of the City; provided, however, no structure, other than the temporary manufactured housing authorized by Section 4.3(a), shall be constructed on any property conveyed for such purpose unless and until a plat of such portion has been approved by the City in accordance with this Agreement. Such temporary manufactured housing shall be removed from the Property when no longer necessary for the purpose of satisfying the on-site voter requirements of the TCEQ.

4.4 Permits & Fees. Except as otherwise provided in Section 4.3, Owner, or any

subsequent owner of any portion of the Property, as appropriate, shall request and obtain a building permit from the City for every structure that is constructed on the Property. All fees charged to Owner, or any subsequent owner of any portion of the Property, for building permits shall be the fees that the City charges for building permits inside the corporate boundaries of the City pursuant to its lawfully adopted fee schedule. Additionally, the City of Aubrey shall assess a library services fee of $5.00 per lot per year in accordance with the City's current Ordinances which shall be collected by the Homeowner's Association and remitted to the City annually. The Owner and/or builders, as applicable, shall pay roadway impact fees in accordance with applicable City Ordinances.

4.5 Conflicts. In the event of any conflict between this Agreement and any other ordinance, rule, regulation, standard, policy, order, guideline or other City-adopted or City-enforced requirement, whether existing on the Effective Date or hereinafter adopted, this Agreement shall control. In any instance of conflict between the Governing Regulations (as amended) and this Agreement (as amended), the terms set forth in this Agreement shall have controlling effect. In the event of any conflict between the Special Regulations and any of the other Governing Regulations, the Special Regulations shall control. In any instance of conflict between other subparts of the Governing Regulations which address the same subject matter, the more restrictive provision shall control unless otherwise agreed in writing by the Parties. Notwithstanding the foregoing, Owner shall comply with all applicable state and federal regulations.

4.6 Timing of Development Applications. Owner shall coordinate with City staff to ensure that the timing of the filing of any plats and other plans within the scope of Texas Local Government Code Chapter 212, and which are to be reviewed by any City board, commission, or the City Council, shall only occur within an appropriate application filing window that allows for timely review without the necessity of calling special meetings. Pre-application-filing review and City staff assistance will be made available to assist the applicant with assuring completeness and compliance with this Agreement and other applicable City regulations and minimize delays in approval by the reviewing body; provided however, no such pre-application process shall be deemed to constitute the filing of a permit. Upon reasonable request by the City, applicants developing any property subject to this Agreement shall provide the City with written verification of the official filing date assigned to the application materials.

4.7 Public Infrastructure. In addition to being subject to the regulations set forth in Section 4.1 above, all improvements to real property within the Property must be compatible with the design standards established by the CCN holder for the area to be served (for water and sewer) and be suitable for dedication to a public entity (e.g., City or District) and integrated into a utility system. Public Infrastructure shall be timely dedicated by plat and further memorialized by conveyance deeds upon reasonable request of the receiving public entity. The Owner shall prepare, or cause to be prepared, plans and specifications for all Public Infrastructure and have them submitted to the City for approval of storm drainage and roadway improvements. All Public Infrastructure required for the development of the Property shall be constructed and inspected in accordance with applicable state law, City/CCN Holder Regulations and other development requirements, including those imposed by the City and any other governing body or entity with jurisdiction over the Public Infrastructure but only to the extent that the City or other governing body has jurisdiction over such Public Infrastructure. All applicable fees, including permit fees and inspection fees, shall be paid by the Developer.

4.8 Open Space Requirements. The Owner shall include a minimum of 10% open space

including parks, amenity centers, trails and landscape areas,

4.9 Jurisdiction. Pursuant to the Interlocal Cooperation Agreement entered between the City and Denton County, Texas and effective August 13, 2002 (the "Platting ILA"), which grants exclusive authority to the City pursuant to Section 242.001(d)(1) of the Texas Local Government Code, and Section 242.001(a)(3) of the Texas Local Government Code, the City shall have and exercise exclusive jurisdiction over the review and approval of preliminary and final plats, amending plats, replats and minor replats, and approval of plans for Public Infrastructure over which the City has jurisdiction such as storm drainage and roadway improvements, for the Property once Tract 3 is included within the City's ETJ, and the County shall have and exercise no jurisdiction over such matters for the Property. Jurisdiction over plats and plans not controlled by the Platting ILA shall be governed by Texas law.

4.10. Homeowner's Association Required.

(a) Owners shall create a sustainable and mandatory homeowner's association ("HOA") for the Property that requires membership by all of the owners of a residential lot within the Property.

(b) The HOA shall own and be responsible for the maintenance of any private facilities, appurtenances, and open spaces/common areas and facilities within the Property, unless specifically designated to be owned and maintained by the District.

(c) The HOA shall have covenants and bylaws and shall require the payment of dues and assessments to maintain any private streets and common areas and facilities. The HOA covenants shall provide for assessments and liens for nonpayment of dues or assessments. The approved covenants of the HOA must be recorded with the County Clerk for Denton County.

4.11 Ownership and Maintenance of Roadways. The Parties agree that the District will construct, own and maintain all roadways within the Property, and the City shall have no maintenance obligations relating to the roadways within the Property until such time that the Property is annexed for full purposes in accordance with the terms of this Agreement. Owner agrees to provide the City with copies of all maintenance bonds associated with all roadways constructed within the Property.

ARTICLE V.
FIRE PROTECTION SERVICES AND POLICE AND EMERGENCY RESPONSE SERVICES

5.1 Interlocal Cooperation Agreements. Owner shall cause the District to enter into Interlocal Cooperation Agreements ("ILAs") wherein the City shall provide fire protection services and police and emergency response services to the Property. From and after the effective date of said ILAs and continuing until the full purpose annexation of the Property into the corporate limits of the City, the City will provide to the Property police and fire services described in this Article in accordance with the terms of such ILAs and all applicable emergency dispatch agreements with Denton County and other agencies. Unless separately authorized by the City Council or required by state law, the City's obligation to provide such services shall end immediately if this Agreement is terminated for any reason prior to the City's full purpose annexation of the Property.

5.2 Police, Fire Fighting and EMS Services. The Owner or the District shall pay a fee in

the amount specified in each ILA for the City's provision of (i) police and patrol services (the "Police ILA") and (ii) firefighting and EMS services (the "Fire/EMS ILA"). The amount of the fee shall be stated in each ILA as a flat monthly rate charged for each Residential Unit in the District connected to and receiving water utility service from a water supply system. A "Residential Unit" shall mean a residential dwelling. If a multi-family residential structure in the District receives water utility service, the number of Residential Units will correspond to the number of dwelling units in the structure. Any non-residential structures intended for human use or occupancy shall also be deemed a Residential Unit based on the number of water meters at the structure. The initial rate per Residential Unit under the Police ILA shall be $25.00, and the initial rate per Residential Unit under the Fire/EMS ILA shall be $30.00. Beginning on the second anniversary of the Effective Date for each ILA, the City may increase the rate charged under each ILA per Residential Unit based on its cost of providing services pursuant to the respective ILA. The City will provide the District with written notice, no later than thirty (30) days prior to the anniversary of the Effective Date each subsequent year, of its intent to increase the rate per Residential Unit. The District may, at its option upon a reasonable belief that the rate increase is overly burdensome, reject the rate increase by written notice no later than ten (10) days prior to the anniversary of the Effective Date of that year. A rejection of a rate increase shall be regarded as a notice of the District's intent not to renew the ILA, and the ILA shall terminate on the next anniversary of the Effective Date. The Parties agree that the Fire/EMS ILA shall contain provisions stating that it shall not be effective until the District has (i) developed a fire plan in accordance with Section 49.351 of the Texas Water Code and the rules of the TCEQ (the "Fire Plan"), (ii) submitted the Fire Plan to the TCEQ for its approval, (iii) obtained TCEQ approval of the Fire Plan, and (iv) obtained approval of the Fire Plan from the voters of the District at an election held for that purpose.

5.3 Other Provisions. The ILA must include terms binding the District to perform obligations associated with the District in this Agreement and all obligations of Owner which can only be performed through or with the assistance of the District. Any modification of the terms of this Agreement (including but not limited to the content of its exhibits) desired by the District must be (a) separately negotiated, and (b) agreed in writing by the City.

ARTICLE VI.
TERM OF AGREEMENT

The term of this Agreement shall commence on the Effective Date and shall continue for a period of thirty (30) years (the "Term"). Notwithstanding any other provision of this Agreement: (a) the validity of any consent to annexation of any portion of the Property, and the limitations in this Agreement on any such annexation, shall not be affected in any way by the expiration of the Term. The total duration of this Agreement and any successive renewals or extensions shall not exceed forty-five (45) years following its Effective Date.

ARTICLE VII.
EVENTS OF DEFAULT; REMEDIES

7.1 Events of Default. No Party shall be in default under this Agreement until notice of the alleged failure of such Party to perform has been given in writing (which notice shall set forth in reasonable detail the nature of the alleged failure) and until such Party has been given a reasonable time to cure the alleged failure (such reasonable time determined based on the nature of the alleged failure, but in no event less than thirty (30) days after written notice of the alleged failure has been

given). In addition, no Party shall be in default under this Agreement if, within the applicable cure period, the Party to whom the notice was given begins performance and thereafter diligently and continuously pursues performance until the alleged failure has been cured and within such 30-day period gives written notice to the non-defaulting Party providing in detail the reasons that the cure will take longer than thirty (30) days with a statement of the number of days requested to cure.

7.2 Remedies. If a Party is in default, the aggrieved Party may, at its option and without prejudice to any other right or remedy under this Agreement, seek any relief available at law or in equity, including, but not limited to, an action under the Uniform Declaratory Judgment Act, specific performance, mandamus and injunctive relief. NOTWITHSTANDING THE FOREGOING, HOWEVER, NO DEFAULT UNDER THIS AGREEMENT SHALL ENTITLE THE AGGRIEVED PARTY TO TERMINATE THIS AGREEMENT OR LIMIT THE TERM OF THIS AGREEMENT. The remedies set forth in this section are the sole and exclusive remedies for a default under this Agreement.

7.3 No Waiver of Immunity. No waiver of government immunity by the City is intended or implied by entrance into this Agreement, and the City expressly reserves all available claims and defenses, including but not limited to immunity defenses, against any and all claims by third parties and any cause of action other than a breach of contract claim by Owner.

ARTICLE VIII.
ASSIGNMENT, AMENDMENT AND ENCUMBRANCE

8.1 Amendment. This Agreement may be amended only upon written amendment executed by the City and Owner. In the event Owner sells any portion of the Property, Owner may assign to such purchaser the right to amend the Agreement as to such purchased property by written assignment and notice thereof to the City. Such assignment shall not grant such purchaser the authority to amend this Agreement as to any other portions of the Property.

8.2 Assignment by Owner to Successor Owners. Owner has the right (from time to time without the consent of the City, but upon written notice to the City) to assign this Agreement, in whole or in part, and including any obligation, right, title, or interest of Owner under this Agreement, to any person or entity (an "Assignee") that (i) is an affiliated entity that controls Owner or that is controlled by or under common control with Owner, or (ii) is a non-affiliated party that is or will become an owner of any portion of the Property and that has provided documentation of financial ability acceptable to the City to demonstrate that Owner Assignee is qualified to comply with all of the terms of this Agreement applicable to Owners, provided that Owners are not in breach of this Agreement at the time of such assignment. Each assignment shall be in writing executed by Owner and the Assignee and shall obligate the Assignee to be bound by this Agreement to the extent this Agreement applies or relates to the obligations, rights, title or interests being assigned (including but not limited to consent to inclusion in City jurisdiction). A copy of each assignment shall be provided to all Parties within fifteen (15) days after execution, and such copy shall identify a contact person representing the Assignee, and such person's address, telephone number, and email address. From and after such assignment, the City agrees to look solely to the Assignee for the performance of all obligations assigned to the Assignee and agrees that Owner shall be released from subsequently performing the assigned obligations and from any liability that results from the Assignee's failure to perform the assigned obligations; provided, however, if a copy of the assignment is not received by the City within fifteen (15) days after execution, Owner shall not be released until the City receives such assignment.

No assignment by Owner shall release Owner from any liability that resulted from an act or omission by Owner that occurred prior to the effective date of the assignment unless the City approves the release in writing. Owner shall maintain written records of all assignments made by Owner to Assignees, including a copy of each executed assignment and the Assignee's Notice information as required by this Agreement, and, upon written request from any Party or Assignee, shall provide a copy of such records to the requesting person or entity. Failure of Owner to strictly comply with the terms of this paragraph shall constitute as material breach of this Agreement.

8.4 Encumbrance by Owner and Assignees. Owner and Assignees have the right, from time to time, to collaterally assign, pledge, grant a lien or security interest in or otherwise encumber any of their respective rights, title or interest under this Agreement for the benefit of their respective lenders without the consent of, but with written notice to, the City. The collateral assignment, pledge, grant of lien or security interest or other encumbrance shall not, however, obligate any lender to perform any obligations or incur any liability under this Agreement unless the lender agrees in writing to perform such obligations or incur such liability. Provided the City has been given a copy of the documents creating the lender's interest, including Notice information for the lender, then that lender shall have the right, but not the obligation, to cure any default under this Agreement and shall be given a reasonable time to do so in addition to the cure periods otherwise provided to the defaulting Party by this Agreement; and the City agrees to accept a cure offered by the lender as if offered by the defaulting Party. A lender is not a Party to this Agreement unless this Agreement is amended, with the consent of the lender, to add the lender as a Party. Notwithstanding the foregoing, however, this Agreement shall continue to bind the Property and shall survive any transfer, conveyance, or assignment occasioned by the exercise of foreclosure or other rights by a lender, whether judicial or non-judicial. Any purchaser from or successor owner through a lender of any portion of the Property shall be bound by this Agreement and shall not be entitled to the rights and benefits of this Agreement with respect to the acquired portion of the Property until all defaults under this Agreement with respect to the acquired portion of the Property have been cured.

8.5 Assignees as Parties. An Assignee authorized in accordance with this Agreement and for which notice of assignment has been provided in accordance with this Agreement shall be considered a "Party" for the purposes of this Agreement. With the exception of the End-Buyer (defined below) of a lot within the Property, any person or entity upon becoming an owner of land or upon obtaining an ownership interest in any part of the Property shall be deemed to be an "Owner" and have all of the obligations of the Owners as set forth in this Agreement and all related documents to the extent of said ownership or ownership interest.

ARTICLE IX.
RECORDATION; ESTOPPEL CERTIFICATES

9.1 Recordation. Pursuant to the requirements of Section 212.172(f) of the Texas Local Government Code, this Agreement and all amendments hereto shall be recorded in the real property records of Denton County. In addition, all assignments to this Agreement shall be recorded in the real property records of Denton County. This Agreement, when recorded, shall be binding upon the Parties and their successors and assigns permitted by this Agreement and upon the Property as a covenant running with the land; however, this Agreement shall not be binding upon, and shall not constitute any encumbrance to title as to, any End-Buyer (hereinafter defined) except for land use and development regulations that apply to specific lots. For purposes of this Agreement, the Parties

agree: (a) that the term "End-Buyer" means any owner, tenant, user, or occupant; (b) that the term "fully developed and improved lot" means any lot, regardless of proposed use, for which a final plat has been approved by the City and recorded in the deed records; and (c) that the term "land use and development regulations that apply to specific lots" means all of the Governing Regulations that apply to an individual, final platted lot.

9.2 Estoppels. From time to time upon request of Owner, the District or any successor or assign of Owner or the District (including, without limitation, any Assignee), an authorized representative of the City will, in such person's official capacity, upon payment to the City of a $300.00 fee plus all reasonable cost incurred execute a written estoppel that certifies, to his knowledge and belief, that such Party is not in default of its obligations under this Agreement or that identifies any obligations that are in default.

ARTICLE X.
ADDITIONAL PROVISIONS

10.1 Recitals. The recitals contained in this Agreement: (a) are true and correct as of the Effective Date; (b) form the basis upon which the Parties negotiated and entered into this Agreement; (c) are legislative findings of the City Council; and (d) reflect the final intent of the Parties with regard to the subject matter of this Agreement. In the event it becomes necessary to interpret any provision of this Agreement, the intent of the Parties, as evidenced by the recitals, shall be taken into consideration and, to the maximum extent possible, given full effect. The Parties have relied upon the recitals as part of the consideration for entering into this Agreement and, but for the intent of the Parties reflected by the recitals, would not have entered into this Agreement.

10.2 Notices. All notices required or contemplated by this Agreement (or otherwise given in connection with this Agreement) (a "Notice") shall be in writing, shall be signed by or on behalf of the Party giving the Notice and shall be effective as follows: (a) on or after the 3rd business day after being deposited with the United States mail service, Certified Mail, Return Receipt Requested with a confirming copy sent by e-mail; or (b) on the day delivered by a private delivery or private messenger service (such as FedEx or UPS) as evidenced by a receipt signed by any person at the delivery address (whether or not such person is the person to whom the Notice is addressed). Notices given pursuant to this section shall be addressed as follows:

CITY: City of Aubrey
107 S. Main St.
Aubrey, TX 76227
Attention: City Secretary
Email: citysecretary@aubreytx.gov

With copy to:

Messer, Fort, McDonald
ATTN: Patricia Adams
6371 Preston Road, Suite 200
Frisco, TX 75034
Email: patricia@txmunicipallaw.com

OWNER: Aubrey 54 South LP
2727 Routh Street
Dallas, Texas 75201
Attention: Bob Ladd
Email: bladd@laddholdings.com

Aubrey 54 South LP
793 Parkside Court
Highland Village, Texas 75207
Attention: Steve Gee
stevegee@gfb-tx.com

Aubrey Plant LP
2727 Routh Street
Dallas, Texas 75201
Attention: Bob Ladd and Steve Gee
Email: bladd@laddholdings.com

Aubrey Plant LP
793 Parkside Court
Highland Village, Texas 75207
Attention: Steve Gee
stevegee@gfb-tx.com

Aubrey 64 North LP
2727 Routh Street
Dallas, Texas 75201
Attention: Bob Ladd and Steve Gee
Email: bladd@laddholdings.com

Aubrey 64 North LP
793 Parkside Court
Highland Village, Texas 75207
Attention: Steve Gee
stevegee@gfb-tx.com

With a copy to:

Coats Rose P.C.
14755 Preston Road, Suite 600
Dallas, Texas 75254
Attention: Mindy L. Koehne
Email: mkoehne@coatsrose.com

10.3 Exhibits. The following exhibits are attached to this Agreement and are incorporated herein for all purposes:

Exhibit A Tract 1 Depiction and Legal Description

Exhibit B	Tract 2 Depiction and Legal Description
Exhibit C	Tract 3 Depiction and Legal Description
Exhibit D	Proposed Consent Resolution (To be superseded by Final City Approved Consent Resolution
Exhibit E	Concept Plan
Exhibit F	Special Regulations

10.4 Interpretation. In all clauses of this Agreement, a designation of a party by proper name or a defined term (e.g., "Party", "City", "Owner", etc.) is intended to be and shall be construed as inclusive of all employees, officials, officers, owners, agents, heirs, successors in interest, assigns, and other authorized representatives that are implicated in the duties to act or to refrain from action relating to its subject matter. The Parties acknowledge that each of them has been actively involved in negotiating this Agreement. Accordingly, the rule of construction that any ambiguities are to be resolved against the drafting Party will not apply to interpreting this Agreement. In the event of any dispute over the meaning or application of any provision of this Agreement, the provision will be interpreted fairly and reasonably and neither more strongly for or against any Party, regardless of which Party originally drafted the provision or the Party's respective contributions to the editing process.

10.5 Authority and Enforceability. The City represents and warrants that this Agreement has been approved by the City Council in accordance with all applicable public notice requirements (including, but not limited to, notices required by the Texas Open Meetings Act) and that the individual executing this Agreement on behalf of the City has been duly authorized to do so. Owner represents and warrants that this Agreement has been approved by appropriate action of Owner, that the individual(s) executing this Agreement on behalf of Owner has been duly authorized to do so on behalf of their respective principal(s). Owner further represents and warrants that its undersigned representative represents each and every owner of the Property as of the date of its execution. Each Party acknowledges and agrees that this Agreement is binding upon such Party and enforceable against such Party in accordance with its terms and conditions and that the performance by the Parties under this Agreement is authorized by Section 212.172 of the Texas Local Government Code to the extent the Property is located in the City's ETJ at the time of such performance.

10.6 Entire Agreement: Severability. This Agreement constitutes the entire agreement between the Parties and supersedes all prior agreements, whether oral or written, covering the subject matter of this Agreement. This Agreement shall not be modified or amended except in writing signed by the Parties. If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable for any reason, then (a) such unenforceable provision shall be deleted from this Agreement; (b) the unenforceable provision shall, to the extent possible, be rewritten to be enforceable and to give effect to the intent of the Parties; and (c) and the remainder of this Agreement shall remain in full force and effect and shall be interpreted to give effect to the intent of the Parties. Without limiting the generality of the foregoing, if it is determined that, as of the Effective Date, Owner does not own any portion of the Property, this Agreement shall remain in full force and effect with respect to all of the Property that Owner does then own.

10.7 Applicable Law; Venue. This Agreement is entered into under and pursuant to, and is to be construed and enforceable in accordance with, the laws of the State of Texas, and all obligations of the parties are performable in the County. Venue for any action to enforce or construe this agreement shall be the County.

10.8 No Waiver. Any failure by a Party to insist upon strict performance by another Party of any material provision of this Agreement shall not be deemed a waiver thereof, and the Party shall have the right at any time thereafter to insist upon strict performance of any and all provisions of this Agreement. No provision of this Agreement may be waived except by writing signed by the Party waiving such provision. Any waiver shall be limited to the specific purposes for which it is given. No waiver by any Party of any term or condition of this Agreement shall be deemed or construed to be a waiver of any other term or condition or subsequent waiver of the same term or condition.

10.9 No Third-Party Beneficiaries. Except as provided in this section, this Agreement only inures to the benefit of, and may only be enforced by, the entities expressly named and designated as part of the collectively "Parties.". If the District is not an Assignee, or does not exist on the date this Agreement is first executed, the District shall be considered a third-party beneficiary of this Agreement for the limited purposes of seeking specific performance of the obligations set forth herein. An End-Buyer shall be considered a third-party beneficiary of this Agreement but only for the limited purposes for which an End-Buyer is bound by this Agreement (including but not necessarily limited to those obligations applicable to End-Buyer by virtue of covenants running with the land prior to acquisition of ownership interest, e.g., consent to full purpose annexation). No other person or entity shall have any right, title or interest under this Agreement or otherwise be deemed to be a third-party beneficiary of this Agreement.

10.10 Force Majeure. Each Party shall use good faith, due diligence and reasonable care in the performance of its respective obligations under this Agreement, and time shall be of the essence in such performance; however, in the event a Party is unable, due to force majeure, to perform its obligations under this Agreement, then the obligations affected by the force majeure shall be temporarily suspended. Within three (3) business days after the occurrence of a force majeure, the Party claiming the right to temporarily suspend its performance, shall give Notice to all the Parties, including a detailed explanation of the force majeure and a description of the action that will be taken to remedy the force majeure and resume full performance at the earliest possible time. The term, "force majeure," shall include events or circumstances that are not within the reasonable control of the Party whose performance is suspended and that could not have been avoided by such Party with the exercise of good faith, due diligence and reasonable care.

10.11 Counterparts. This Agreement may be executed in any number of counterparts with duplicative signature pages, each of which shall be deemed an original and constitute one and the same instrument having identical material terms.

10.12 Litigation Expenses. Either Party to this Agreement who is the prevailing party in any legal proceeding against the other Party, brought in relation to this Agreement, shall be entitled to recover court costs and reasonable attorneys' fees from the non-prevailing Party to the extent permissible under law.

10.13 Further Documents. Each Party shall, upon written request of the other Party, execute and deliver such further documents and perform such further acts (e.g., provide written memorialization of agreement, consent, approval, request, etc.) as may be requested to effectuate the terms of this Agreement and achieve the intent of the Parties, and such further performance, documentation, or consents shall not be unreasonably withheld. Written requests may be directed only to a person listed in Section 10.2 above or as may be designated in writing by the receiving

Party. This provision shall not be construed as limiting or otherwise hindering the legislative discretion of the City Council of Aubrey, Texas ("City Council") seated at the time that this Agreement is executed or any future City Council.

10.14 Anti-Boycott Verification. Owner hereby verifies that it and its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, do not boycott Israel and, to the extent this Agreement is a contract for goods or services, will not boycott Israel during the term of this Agreement. The foregoing verification is made solely to comply with Section 2270.002, Texas Government Code, and to the extent such Section does not contravene applicable Federal law. As used in the foregoing verification, 'boycott Israel' means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes. Owner understands 'affiliate' to mean an entity that controls, is controlled by, or is under common control with Owner and exists to make a profit.

10.15 Iran, Sudan and Foreign Terrorist Organizations. Owner represents that neither it nor any of its parent company, wholly- or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, and posted on any of the following pages of such officer's internet website: https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf, https://comptroller.texas.gov/purchasing/docs/iran-list.pdf, or https://comptroller.texas.gov/purchasing/docs/fto-list.pdf, The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, and to the extent such Section does not contravene applicable Federal law and excludes the Developer and each of its parent company, wholly-or majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. Owner understands "affiliate" to mean any entity that controls, is controlled by, or is under common control with Owner and exists to make a profit.

10.16 Fossil Fuels Boycott Verification. As required by 2274.002, Texas Government Code (as added by Senate Bill 13, 87th Texas Legislature, Regular Session), as amended, Owner hereby verifies that Owner, including any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of the same, does not boycott energy companies, and will not boycott energy companies during the term of this Agreement. As used in the foregoing verification, "boycott energy companies" shall have the meaning assigned to the term "boycott energy company" in Section 809.001, Texas Government Code, as amended.

10.17 Firearms Discrimination Verification. As required by Section 2274.002, Texas Government Code (as added by Senate Bill 19, 87th Texas Legislature, Regular Session, "SB 19"), as amended, Owner hereby verifies that Owner, including any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of the same, (i) does not have a practice, policy, guidance or directive that discriminates against a firearm entity or firearm trade association, and (ii) will not discriminate against a firearm entity or firearm trade association during the term of this Agreement. As used in the foregoing verification, "discriminate against a firearm entity or trade association" shall have the meaning assigned to such term in Section 2274.001(3), Texas Government

Code (as added by SB 19), as amended.

10.18 Form 1295. Submitted herewith is a completed Form 1295 generated by the Texas Ethics Commission's (the "TEC") electronic filing application in accordance with the provisions of Section 2252.908 of the Texas Government Code and the rules promulgated by the TEC (the "Form 1295"). The City hereby confirms receipt of the Form 1295 from the Owner, and the City agrees to acknowledge such form with the TEC through its electronic filing application not later than the 30th day after the receipt of such form. The Parties understand and agree that, with the exception of information identifying the City and the contract identification number, neither the City nor its consultants are responsible for the information contained in the Form 1295; that the information contained in the Form 1295 has been provided solely by the Owner; and, neither the City nor its consultants have verified such information.

[Signatures follow on the next pages]

EXECUTED by the authorized representatives of Owner and the City to be effective as of the Effective Date.

CITY OF AUBREY, TEXAS,
a Type A general law municipality of the State of Texas

By: _____
Name: Chris Rich
Title: Mayor

ATTEST:

By: _____
Name: Jenny Huckabee
Title: City Secretary

STATE OF TEXAS §
§
COUNTY OF DENTON §

This instrument was acknowledged before me this 26 day of APRIL, 2022, by Chris Rich, Mayor of the City of Aubrey, Texas, a general law municipality of the State of Texas, on behalf of said city.

JENNIFER D. HUCKABEE
Notary Public, State of Texas
Comm. Expires 07-05-2024
Notary ID 129043943

_____
Notary Public in and for the State of Texas

AUBREY 54:

AUBREY 54 SOUTH LP,
a Texas limited partnership

By: AUBREY 54 SOUTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
as Manager of
Aubrey 54 South GP LLC.

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 30TH day of JUNE, 2022, by Bob C. Ladd, as Manager of Aubrey 54 South GP LLC., a Texas limited liability company, General Partner of Aubrey 54 South LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

NOTARY PUBLIC STATE OF TEXAS
CECILIA TRAN
ID #130102672
My Commission Expires
February 04, 2023

_____
Notary Public in and for the State of Texas

AUBREY PLANT:

AUBREY PLANT LP,
a Texas limited partnership

By: AUBREY PLANT GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey Plant GP LLC.

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 30TH day of JUNE, 2022, by Bob C. Ladd, as Manager of Aubrey Plant GP LLC., a Texas limited liability company, General Partner of Aubrey Plant LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

CECILIA TRAN
ID #130102672
My Commission Expires
February 04, 2023

_____
Notary Public in and for the State of Texas

AUBREY 64:

AUBREY 64 NORTH LP,
a Texas limited partnership

By: AUBREY 64 NORTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey 64 North GP LLC.

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 30TH day of JUNE, 2022, by Bob C. Ladd, as Manager of Aubrey 64 North GP LLC., a Texas limited liability company, General Partner of Aubrey 64 North LP, a Texas limited partnership, on behalf of said limited partnership.

CECILIA TRAN
ID #130102672
My Commission Expires
February 04, 2023

(SEAL)

_____
Notary Public in and for the State of Texas

EXHIBIT A

TRACT 1
(Depiction and Legal Description)

EXHIBIT A

BOUNDARY SURVEY

64.05 ACRES
F. TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions, Inc.
Professional Land Surveyors

COMMERCIAL AND RESIDENTIAL
BOUNDARY DEPOGRAPHIC &
ALTA/ACSM LAND TITLE
SURVEYS

P.O. BOX 290
CROSS ML.S. TX75135
OFFICE 214.499.8472
FAX 972-782-7811
EMAIL mbusby_bs@yahoo.com

CLIENT:
JC Land Group

S.U.# 9001222/0064
Address:
2089 Spring Hill Road

Drawn by: mb
B.S.I. Job # 2101-031

© Copyright 2021 Boundary Solutions, Inc. The content, color, and style of this plat are protected by Copyright and all rights are reserved

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the F. Trevino Survey, A-1243, and being part of that called 74.010 acres of land described in deed to Teela K. Stamp as recorded under Document No. 2005-86757 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 1/2 inch steel rod found on the North line of Spring Hill Road (F.M. Highway No. 428), at the Southeast corner of said 74.010 acres, and at the Southwest corner of that called 53.600 acres of land described in deed to Alberto Sotelo as recorded under Document No. 2019-45304 of the Official Public Records of Denton County, Texas;

THENCE North 88 degrees 35 minutes 38 seconds West, 951.08 feet along the North line of said Spring Hill Road to a 5/8 inch steel rod found at the Southeast corner of that called 9.971 acres of land described in deed to L.E. Trother and Claudia G. Trother as recorded under Document No. 2000-4209 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 12 minutes 57 seconds West, 967.57 feet along the East line of said 9.971 acres to a 1/2 inch steel rod found at the Northeast corner of said 9.971 acres;

THENCE North 88 degrees 43 minutes 43 seconds West, 449.42 feet along the North line of said 9.971 acres to a 5/8 inch steel rod found at the Northwest corner of said 9.971 acres, on the East line of said 74.010 acres, and on the East line of that called 24.797 acres of land described in deed to Stephanie Owens and Alan Taylor Owens as recorded under Document No. 2018-42238 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 13 minutes 46 seconds West, 1254.40 feet to a 1/2 inch steel rod found at the Northeast corner of said 24.797 acres, and on the South line of that called 37.89 acres of land described in deed to Stephanie Owens and Alan Taylor Owens as recorded under Document No. 2018-42238 of the Official Public Records of Denton County, Texas;

THENCE South 88 degrees 38 minutes 31 seconds East (Bearings Basis), 1558.83 feet along the North line of said 74.010 acres to a 1/2 inch steel rod found at the Northeast corner of said 74.010 acres;

THENCE along the East line of said 74.010 acres and generally along a fence as follows:

South 00 degrees 39 minutes 28 seconds West, 708.16 feet;
South 01 degrees 24 minutes 52 seconds West, 537.33 feet;
South 02 degrees 01 minutes 37 seconds East, 162.14 feet;
South 02 degrees 55 minutes 56 seconds West, 1015.96 feet to the POINT OF BEGINNING, containing 64.05 acres of land.

FLOOD ZONE DEFINITIONS:
F.I.R.M. #48121C0260G, dated April 18, 2011

Zone "X" – "Areas determined to be outside the 0.2% annual chance floodplain."

Zone "A" – "Special Flood Hazard Areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."

Notes Corresponding to Schedule B:

10.) Easement to TXU Electric, Vol. 181, Pg. 16 – may affect, not plottable due to vague description. Above ground and visible evidence of electric lines shown hereon.

11.) Easement to Denton County Electric, Vol. 402, Pg. 78 – Blanket easement. Above ground and visible evidence of electric lines shown hereon.

Note: Bearings based on Texas State Coordinate System, Texas North Central Zone 4202, NAD83

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"

CERTIFIED TO: Arnold G. Stamp & Linda A. Stamp, JC Land Group, LLC, and Priority National Title Insurance Company

The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of January, 2021. The visible improvements on the ground are as shown on the survey. There are no visible intrusions, encroachments, overlapping of improvements or conflicts found except as shown on the survey plat.

January 21, 2021
Revised, 1-25-2021
Add Sch. B info

Matthew Busby
R.P.L.S. No. 5761

Zone "X"

Zone "A"

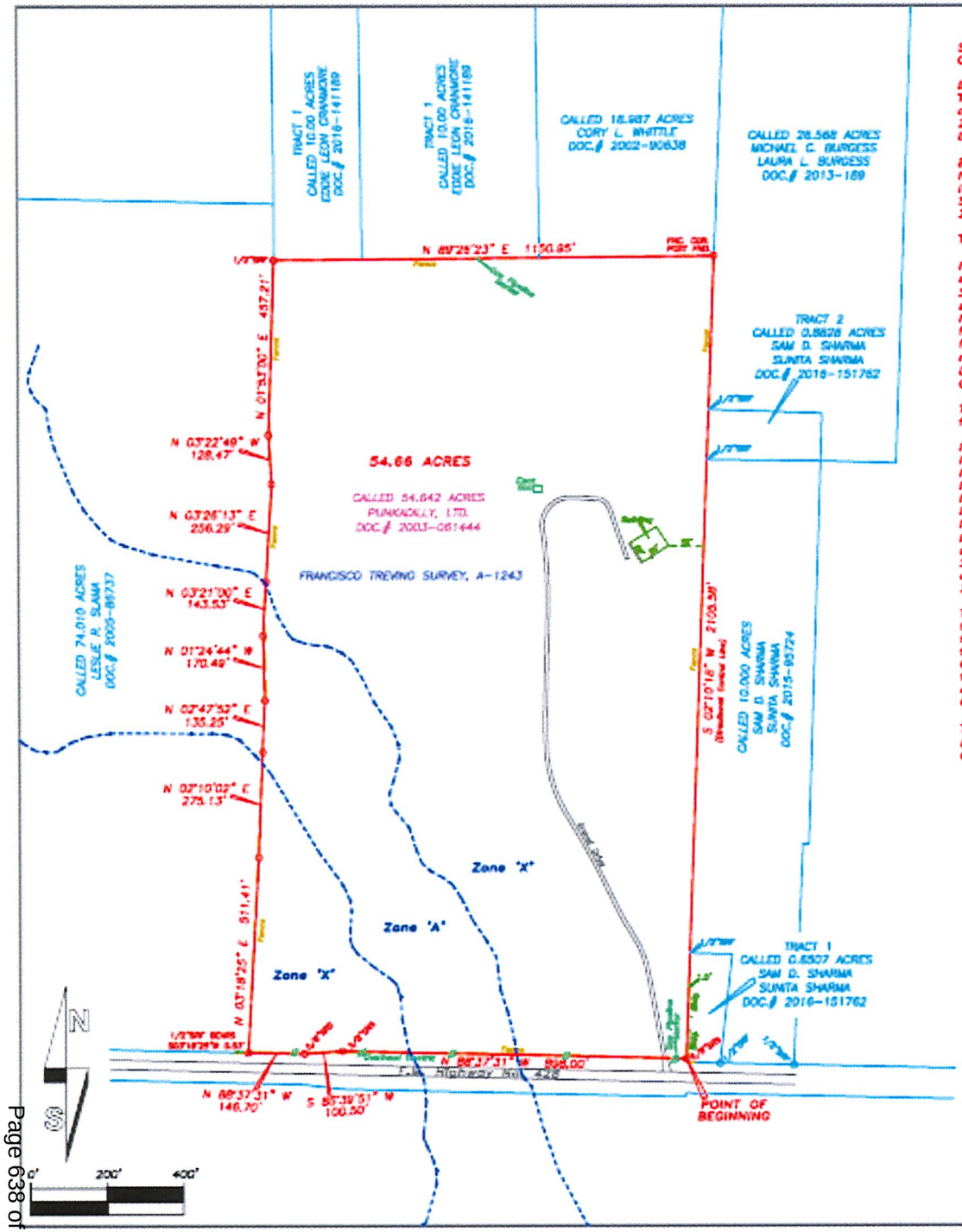
64.05 ACRES

POINT OF BEGINNING

Spring Hill Road
(FM Highway No. 428)

N

S



DESCRIPTION

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the Francisco Trevino Survey, A-1243, and being all of that called 54.642 acres of land described in deed to Punkadilly, Ltd. as recorded under Document No. 2003-081444 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 5/8 inch steel rod set on the North line of F.M. Highway No. 426, at the Southeast corner of said 54.642 acres, and on the West line of that called 0.6507 acres of land described as Tract 1 in a deed to Sam D. Sharma and Sunita Sharma as recorded under Document No. 2016-151762 of the Official Public Records of Denton County, Texas;

THENCE along the North line of said F.M. Highway No. 426 as follows:

North 88 degrees 37 minutes 31 seconds West, 868.00 feet to a 5/8 inch steel rod set;
South 85 degrees 39 minutes 51 seconds West, 100.50 feet to a 5/8 inch steel rod set;
North 88 degrees 37 minutes 31 seconds West, 146.70 feet to a point at the Southwest corner of said 54.642 acres, and at the Southeast corner of that called 74.010 acres of land described in deed to Leslie R. Slama as recorded under Document No. 2005-88737 of the Official Public Records of Denton County, Texas, from which a 1/2 inch steel rod found bears South 03 degrees 18 minutes 25 seconds West, 0.53 feet for witness;

THENCE along the West line of said 54.642 acres and generally along a fence as follows:

North 03 degrees 18 minutes 25 seconds East, 511.41 feet;
North 02 degrees 10 minutes 02 seconds East, 275.13 feet;
North 02 degrees 47 minutes 52 seconds East, 135.25 feet;
North 01 degrees 24 minutes 44 seconds West, 170.49 feet;
North 03 degrees 21 minutes 00 seconds East, 143.53 feet;
North 03 degrees 26 minutes 13 seconds East, 256.29 feet;
North 03 degrees 22 minutes 49 seconds West, 128.47 feet;
North 01 degrees 53 minutes 00 seconds East, 437.21 feet to a 1/2 inch steel rod found at the Northwest corner of said 54.642 acres, and at the Southwest corner of that called 10.00 acres of land described as Tract 1 in a deed to Eddie Leon Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas;

THENCE North 89 degrees 28 minutes 23 seconds East, 1150.85 feet to a fence corner post found at the Northeast corner of said 54.642 acres, at the Southeast corner of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded under Document No. 2002-90638 of the Official Public Records of Denton County, Texas, and on the West line of that called 26.568 acres of land described in deed to Michael C. Burgess and Laura L. Burgess as recorded under Document No. 2013-189 of the Official Public Records of Denton County, Texas;

THENCE South 02 degrees 10 minutes 18 seconds West (Directional Control Line), 2105.58 feet along the East line of said 54.642 acres to the POINT OF BEGINNING, containing 54.66 acres of land.

FLOOD ZONE DEFINITIONS
F.I.R.M. 48121C0265G, dated April 18, 2011

Zone "X" – "Areas determined to be outside the 0.2% annual chance floodplain."

Zone "A" – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."

SFND = STEEL ROD SET
SFRF = STEEL ROD FOUND

Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"

Note: Survey performed without benefit of title commitment, no easements furnished or researched by surveyor.

The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of December, 2019; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.

December 2, 2019

STATE OF TEXAS
MATTHEW BUSBY
5751
REGISTERED
LAND SURVEYOR

Matthew Busby
R.P.L.S. No. 5751

BOUNDARY SURVEY

54.66 ACRES
FRANCISCO TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions Inc.
Professional Land Surveyors
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, &
ALTA/ACSM LAND TITLE
SURVEYS
P.O. BOX 250
CADDO MILLS, TX 75135
OFFICE: 214-495-8472
FAX: 972-782-7611
EMAIL: mbusby_bsi@yahoo.com

CLIENT:
2727 Development 1, LP

No Schedule B Provided

Drawn by: mjb
B.S.I. Job# 1911-017

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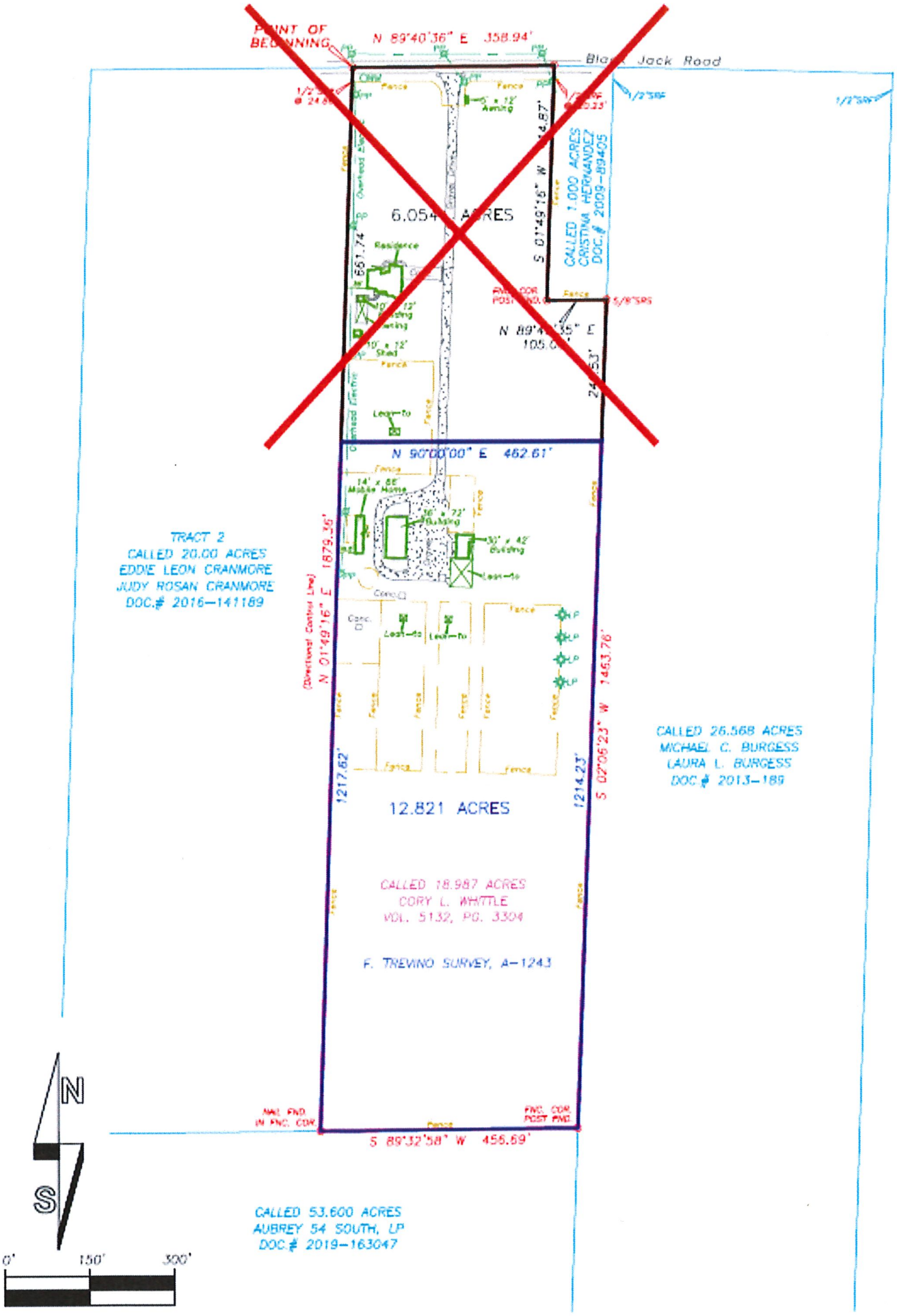

POINT OF BEGINNING
N 89°40'36" E 358.94'
Black Jack Road
6.054 ACRES
Residence
14' x 66' Mobile Home
16' x 72' Building
30' x 48' Building
Lean-to
Fence
Overhead Electric
Conc.
S 01°49'16" W 651.74'
CALLED 1.000 ACRES
CRISTINA HERNANDEZ
DOC.# 2009-89405
N 89°40'35" E
105.00'
24.53'
N 90°00'00" E 462.61'
TRACT 2
CALLED 20.00 ACRES
EDDIE LEON CRANMORE
JUDY ROSAN CRANMORE
DOC.# 2016-141189
(Directional Control Line)
N 01°49'16" E 1879.36'
1217.62'
1214.23'
S 02°06'23" W 1463.76'
12.821 ACRES
CALLED 26.568 ACRES
MICHAEL C. BURGESS
LAURA L. BURGESS
DOC.# 2013-189
CALLED 18.987 ACRES
CORY L. WHITTLE
VOL. 5132, PG. 3304
F. TREVINO SURVEY, A-1243
NAIL FND IN FNC. COR.
FNC. COR. POST FND.
S 89°32'58" W 456.69'
CALLED 53.600 ACRES
AUBREY 54 SOUTH, LP
DOC.# 2019-163047
N
S
0'
150'
300'

EXHIBIT "A"

Legal Description

Being all the tract of land in Denton County, Texas, out of the f. Trevino Survey, A-1243, and being part of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded in Volume 5132, page 3304 of the Official Public Records of Denton County, Texas, and being further described as follows:

COMMENCING at a point in the center of Black Jack Road, at the Northwest corner of said 18.987 acre, and at the Northeast corner of that called 20.00 acres of land described as Tract 2 in deed to Eddie Leon Cranmore and Judy Rosan Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas, from which a ½ inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.86 feet for Witness;

THENCE South 01 degrees 49 minutes 16 seconds West, 661.74 feet along the West line of said 18.987 acre to the POINT OF BEGINNING.

THENCE North 90 degrees 00 minutes 00 seconds East, 462.61 feet to a point on the East line of said 18.987 acres;

THENCE South 02 degrees 06 minutes 23 seconds West, 1214.23 feet to a fence corner post found at the southeast corner of said 18.987 acre, and at an angle point of said 26.568 acres;

THENCE South 89 degrees 32 minutes 58 seconds West, 456.69 feet a nail found in fence corner at the Southwest corner of said 18.987 acres, and at the Southeast corner of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East (Directional Control Line), 1217.62 feet along the West line of said 18.987 acre to the POINT OF BEGINNING, containing 12.821 acre of land.

NOTE: COMPANY DOES NOT REPRESENT THAT THE ABOVE ACREAGE AND/OR SQUARE FOOTAGE CALCULATIONS ARE CORRECT.

EXHIBIT B

TRACT 2
(Depiction and Legal Description)

EXHIBIT B

BOUNDARY SURVEY

47.947 AC RES
T. CHAMBERS SURVEY, A-223
DENTON COUNTY, TEXAS

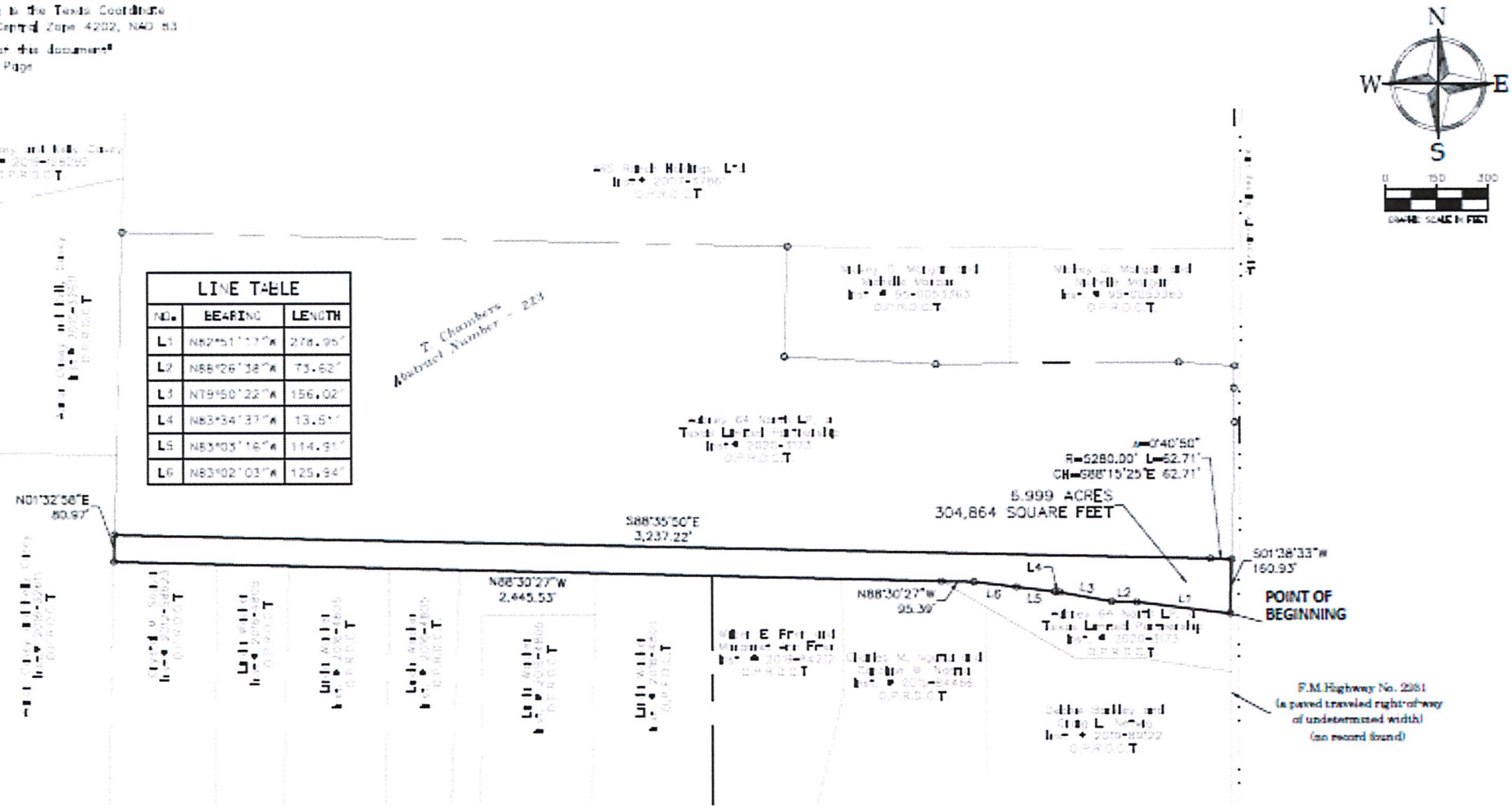
Boundary Solutions Inc.
Professional Land Surveyors
PO. BOX 530
CADDO MILLS, TX 75135
OFFICE: 214.609.0672
FAX: 972.523.2181
EMAIL: mbailey.bs@yahoo.com

COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, &
ALTA/NSPS LAND TITLE
SURVEYS

CLIENT:
LD Land Group, LLC
Attn: Bill Morris, P.E.

Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83

"Integral parts of this document"
1. Exhibit - 1 Page



"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

AN EXHIBIT
OF 6.999 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS

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PELOTON LAND SOLUTIONS

JOB #: 0220100 | DRAWN BY: MYOST | CHECKED BY: BRANLEY | DATE: 03/03/2021 | PAGE 1 OF 1

TBPELS Firm Reg No. 10194468

DESCRIPTION OF 6.999 ACRES

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY SOUTHEAST CORNER OF SAID AUBREY TRACT AND BEING IN THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH);

THENCE DEPARTING SAID WEST RIGHT-OF-WAY LINE OVER AND ACROSS SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

N 82° 51' 17" W, 278.95 FEET;

N 88° 26' 38" W, 73.62 FEET;

N 79° 50' 22" W, 156.02 FEET;

N 83° 34' 37" W, 13.51 FEET;

N 83° 03' 16" W, 114.91 FEET;

N 83° 02' 03" W, 125.94 FEET;

N 88° 30' 27" W, 95.39 FEET TO THE SOUTH LINE OF SAID AUBREY TRACT AND BEING THE MOST NORTHERLY NORTHEAST CORNER OF A TRACT OF LAND TO CHARLES NGATIA RECORDED IN INSTRUMENT NUMBER 2019-84466 OF SAID O.P.R.D.C.T;

THENCE N 88° 30' 27" W, 2445.53 FEET ALONG SAID SOUTH LINE TO THE SOUTHWEST CORNER OF SAID AUBREY TRACT;

THENCE N 01° 32' 58" E, 80.97 FEET ALONG THE WEST LINE OF SAID AUBREY TRACT;

THENCE DEPARTING THE WEST LINE OF SAID AUBREY TRACT OVER AND ACROSS THE FOLLOWING BEARINGS AND DISTANCES:

S 88° 35' 50" E, 3237.22 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT;

WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 62.71 FEET, THROUGH A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5280.00 FEET, AND A LONG CHORD WHICH BEARS S 88° 15' 25" E, 62.71 FEET TO THE WEST LINE OF SAID F.M. 2931;

THENCE S 01° 38' 33" W, 160.93 FEET TO THE POINT OF BEGINNING AND CONTAINING 304,864 SQUARE FEET OR 6.999 ACRES MORE OR LESS.

"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

EXHIBIT C

TRACT 3

(Depiction and Legal Description)

Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83

"Several pages of this document"
1 Exhibit - 1 Page

DESCRIPTION

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING IN THE EAST LINE OF SAID AUBREY TRACT AND THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH) BEING THE BEGINNING OF A CURVE TO THE LEFT;

THENCE WITH SAID CURVE TO THE LEFT OVER AND ACROSS SAID AUBREY TRACT, HAVING AN ARC DISTANCE OF 62.71 FEET, A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5,280.00 FEET, AND A LONG CHORD WHICH BEARS N 88° 15' 25" W, 62.71 FEET;

THENCE N 88° 35' 50" W, 3,237.22 FEET, CONTINUING ACROSS SAID AUBREY TRACT TO THE WEST LINE;

THENCE N 01° 32' 58" E, 884.59 FEET, CONTINUING ALONG THE WEST LINE OF SAID AUBREY TRACT TO THE NORTH LINE;

THENCE CONTINUING ALONG THE NORTH LINE OF SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

CONTINUING

S 88° 39' 54" E, 1,967.25 FEET;

S 01° 48' 01" W, 325.45 FEET;

S 87° 02' 21" E, 447.69 FEET;

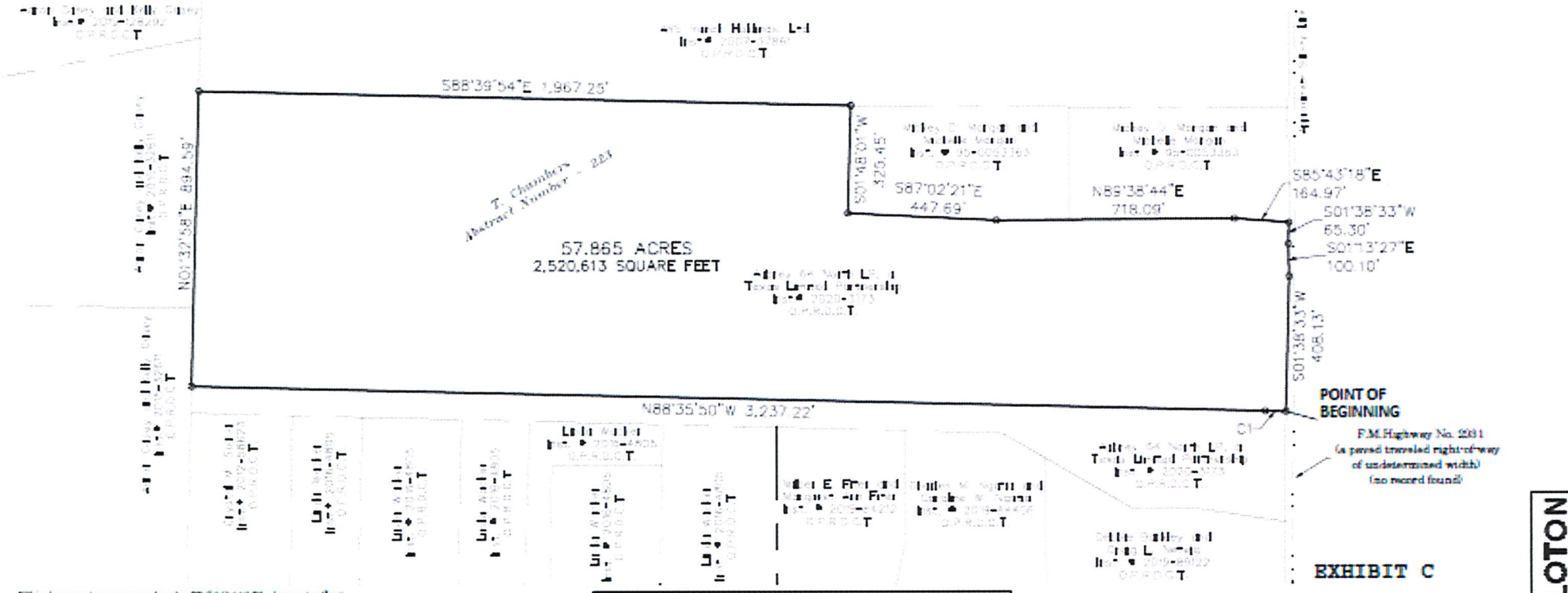
N 89° 38' 44" E, 718.09 FEET;

S 85° 43' 18" E, 164.97 FEET TO THE WEST RIGHT-OF-WAY LINE OF SAID FARM TO MARKET ROAD NO. 2931;

THENCE S 01° 38' 33" W, 65.30 FEET, ALONG SAID WEST RIGHT-OF-WAY LINE;

THENCE S 01° 13' 27" E, 100.10 FEET, CONTINUING ALONG SAID WEST RIGHT-OF-WAY LINE;

THENCE S 01° 38' 33" W, 408.13 FEET TO THE POINT OF BEGINNING AND CONTAINING 2,520,613 SQUARE FEET OR 57.865 ACRES OF LAND MORE OR LESS.



CURVE TABLE					
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	0°40'50"	5280.00'	62.71'	N88°15'25"W	62.71'

"This document was prepared under 22 TAC 663.21, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

EXHIBIT C

AN EXHIBIT
OF 57.865 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS

PELOTON LAND SOLUTIONS

JOB # 2021006 | DRAWN BY: MYOST | CHECKED BY: SRAMSEY | DATE: 10/5/2021 | PAGE 1 OF 1

TBPELS Firm Reg. No. 10194489

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EXHIBIT D
PROPOSED CONSENT RESOLUTION
(To be Superseded by final City Council approved Consent Resolution)

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS CONSENTING TO THE ANNEXATION OF CERTAIN LAND INTO CLEAR SKY MUNICIPAL UTILITY DISTRICT OF DENTON COUNTY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, on March 15, 2022, the City of Aubrey, Texas (the "City") received a Petition for Consent to Annexation of Land into Clear Sky Municipal Utility District of Denton County (the "Petition") executed by Aubrey 54 South LP, a Texas limited partnership, Aubrey Plant LP, a Texas limited partnership, and Aubrey 64 North LP, a Texas limited partnership (collectively, the "Petitioner"), dated January 24, 2022, attached hereto as **Exhibit "A";** and

WHEREAS, the Petition seeks to add that certain 186.477-acre tract of land described therein (the "Property") to Clear Sky Municipal Utility District of Denton County (the "District"), the Property being wholly located in the extraterritorial jurisdiction of the City; and

WHEREAS, Texas Local Government Code, Section 42.0425, provides that land within the extraterritorial jurisdiction of a city, town or village may not be added to the District without the written consent of such city, town, or village; and

WHEREAS, the City Council of the City desires to adopt a Resolution for the purpose of consenting to the inclusion of the Property in the District.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OFAUBREY, TEXAS:

Section 1. That the facts set out in the preamble are true and correct and are incorporated herein for all purposes.

Section 2. That the City Council hereby gives written consent, pursuant to Section 42.0425, Texas Local Government Code, to the addition of that portion of the Property described in **Exhibit "B"** by metes and bounds and located wholly within the extraterritorial jurisdiction of the City of Aubrey and to consent to the issuance of bonds for the construction of a waterworks system, a sanitary sewer system, a storm water drainage system and roadway system, subject to the following are conditions:

(a) The City's consent to annexation of the Property into the District is provided only for the Property boundaries described in the Agreement and is not for the District's annexation of additional land in the City's extraterritorial jurisdiction.

(b) District will acquire easements, construct and provide infrastructure for onsite and offsite improvements to allow the District to provide water and wastewater utilities, and other public utilities to the Property for domestic uses and commercial purposes.

(c) District may not collect, transport, process, dispose of and/or control industrial,

commercial, or residential wastes whether in fluid, solid, or composite state.

(d) The District may not gather, convey, divert and/or control local storm water runoff or other local harmful excesses of water in the District without prior approval from the City. The District may not assess storm drainage utility fees for capital improvements, organization expenses, operation and maintenance expenses or any other storm water related expense.

(e) Amount of bonded indebtedness issued by the District shall be limited to bonds with maturities of thirty (30) years or less and up to an amount not to exceed the costs of onsite and offsite infrastructure improvements for the Property for the purchase, construction, acquisition, repair, extension and improvement of capital infrastructure, easements, works, improvements, facilities, plants, equipment, and appliances necessary for the construction of the onsite and offsite improvements to the Property during the development phases of the Property, along with any and all soft costs and creation and operation costs associated with the District.

Section 3. The City Council of the City officially finds, determines, recites, and declares that a sufficient written notice of the date, hour, place, and subject of this meeting of the City Council was posted at a place convenient to the public at the City Hall and on the official website of the City in the manner and for the time required by law preceding this meeting, as required by the Open Meetings Act, Chapter 551,Texas Government Code, and that this meeting was open to the public as required by law at all times during which this Resolution and the subject matter thereof was discussed, considered, andformally acted upon. The City Council further ratifies, approves, and confirms such written notice and the contents and posting thereof.

Section 4. This Resolution shall take effect immediately from and after its passage, and it is, accordingly, so resolved.

PASSED AND APPROVED by the City Council of the City of Aubrey, Texas on the 26th day of April, 2022.

_____
Chris Rich. Mayor

ATTEST:

_____
Jenny Huckabee, City Secretary

(CITY SEAL)

Approved as to Form:

_____
Patricia A. Adams, City Attorney

Exhibit "A" to Consent Resolution

Petition

MAR 15 2022 AM10:37

PETITION FOR CONSENT TO ADDITION OF LAND
TO A MUNICIPAL UTILITY DISTRICT

THE STATE OF TEXAS §

COUNTY OF DENTON §

TO THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF AUBREY:

The undersigned (collectively, the "Petitioner"), acting pursuant to the provisions of Chapters 49 and 54 of the Texas Water Code, and Section 42.042 of the Texas Local Government Code, respectfully petitions the City of Aubrey, Texas for its consent to the addition of land to Clear Sky Municipal Utility District of Denton County (the "District"), and in support of this Petition would respectfully show the following:

I.

The land sought to be added to the District (the "Tract") consists of the approximately 186.477 acres described by metes and bounds in Exhibit "A," attached hereto and made a part hereof for all purposes.

II.

The Tract lies within Denton County, and not within the boundaries of any incorporated city or town. The Tract lies wholly within the extraterritorial jurisdictions of the City of Aubrey, Texas, as such term is determined pursuant to Chapter 42 V.T.C.A. Local Government Code.

III.

The Petitioner constitutes the holder of title to more than fifty percent (50%) of the value of the Tract, as indicated by the tax rolls of the central appraisal district of Denton County, Texas, and by conveyances of record since the date of preparation of said tax rolls. There are no lienholders on the Tract.

IV.

The District was organized, created and established pursuant to House Bill 4627, Acts of the 87th Texas Legislature, Regular Session, 2021 (codified at Chapter 7948A, Texas Special District Local Laws Code) effective September 1, 2021, in accordance with Article III, Section 52, and Article XVI, Section 59 of the Texas Constitution and operates pursuant to Chapters 49 and 54, Texas Water Code, as amended. The District generally is empowered and authorized to purchase, construct, acquire, own, operate, maintain, repair, improve, or extend inside and outside

its boundaries any and all works, improvements, facilities, plants, equipment, and appliances necessary to accomplish the purposes of its creation.

V.

The general nature of the work anticipated to be done within the Tract at the present time is the construction, maintenance and operation of a waterworks system for residential purposes; the construction, maintenance and operation of a sanitary sewer collection system; the control, abatement and amendment of the harmful excess of waters and the reclamation and drainage of overflowed lands within the Tract; and the construction of roads and of such additional facilities, systems, plants and enterprises as shall be consistent with the purposes for which the District is organized.

VI.

There is a necessity for the improvements above described because the Tract is located within an area experiencing substantial and sustained residential growth, is urban in nature and is not supplied with adequate water, sanitary sewer, and drainage facilities and roads. The health and welfare of the future inhabitants of the Tract require the acquisition and installation of an adequate waterworks, sanitary sewer and storm drainage system and roads. The purchase, construction, extension, improvement, maintenance and operation of such waterworks system and storm and sanitary sewer collection and disposal systems and roads will conserve and preserve the natural resources of this State by promoting and protecting the purity and sanitary condition of the State's waters and will promote and protect the public health and welfare of the community; therefore, a public necessity exists for the inclusion of the Tract within the District.

VII.

The proposed improvements are practicable and feasible, in that the terrain of the Tract is of such nature that a waterworks system and sanitary and storm sewer systems and roads can be constructed at a reasonable cost; and said land will be rapidly developed for residential purposes.

VIII.

A preliminary investigation has been instituted to determine the cost of the proposed improvements attributable to the Tract, and it is now estimated by those filing this petition, from such information as they have at this time, that the ultimate cost of the development contemplated on the Tract will be approximately $21,500,000.

WHEREFORE, the undersigned respectfully pray that this Petition be granted in all respects and that the City Council of the City of Aubrey, Texas, adopt a resolution giving its written consent to the addition of the Tract to the District.

RESPECTFULLY SUBMITTED this the 24th day of January, 2022.

PETITIONER:

AUBREY 54:

AUBREY 54 SOUTH LP,
a Texas limited partnership

By: AUBREY 54 SOUTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
as Manager of
Aubrey 54 South GP LLC

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 24th day of JANUARY, 2022, by Bob C. Ladd, as Manager of Aubrey 54 South GP LLC., a Texas limited liability company, General Partner of Aubrey 54 South LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

JANEY ARISTA
Notary ID #1120165
My Commission Expires
July 13, 2022

_____
Notary Public in and for the State of Texas

PETITIONER:

AUBREY PLANT:

AUBREY PLANT LP,
a Texas limited partnership

By: AUBREY PLANT GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey Plant GP LLC

STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 24th day of JANUARY, 2022, by Bob C. Ladd, as Manager of Aubrey Plant GP LLC., a Texas limited liability company, General Partner of Aubrey Plant LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

JANEY ARISTA
Notary ID #1120165
My Commission Expires
July 13, 2022

_____
Janey Arista
Notary Public in and for the State of Texas

PETITIONER:

AUBREY 64:

AUBREY 64 NORTH LP,
a Texas limited partnership

By: AUBREY 64 NORTH GP LLC.,
a Texas limited liability company,
its General Partner

By: _____
Bob C. Ladd,
As Manager of
Aubrey 64 North GP LLC

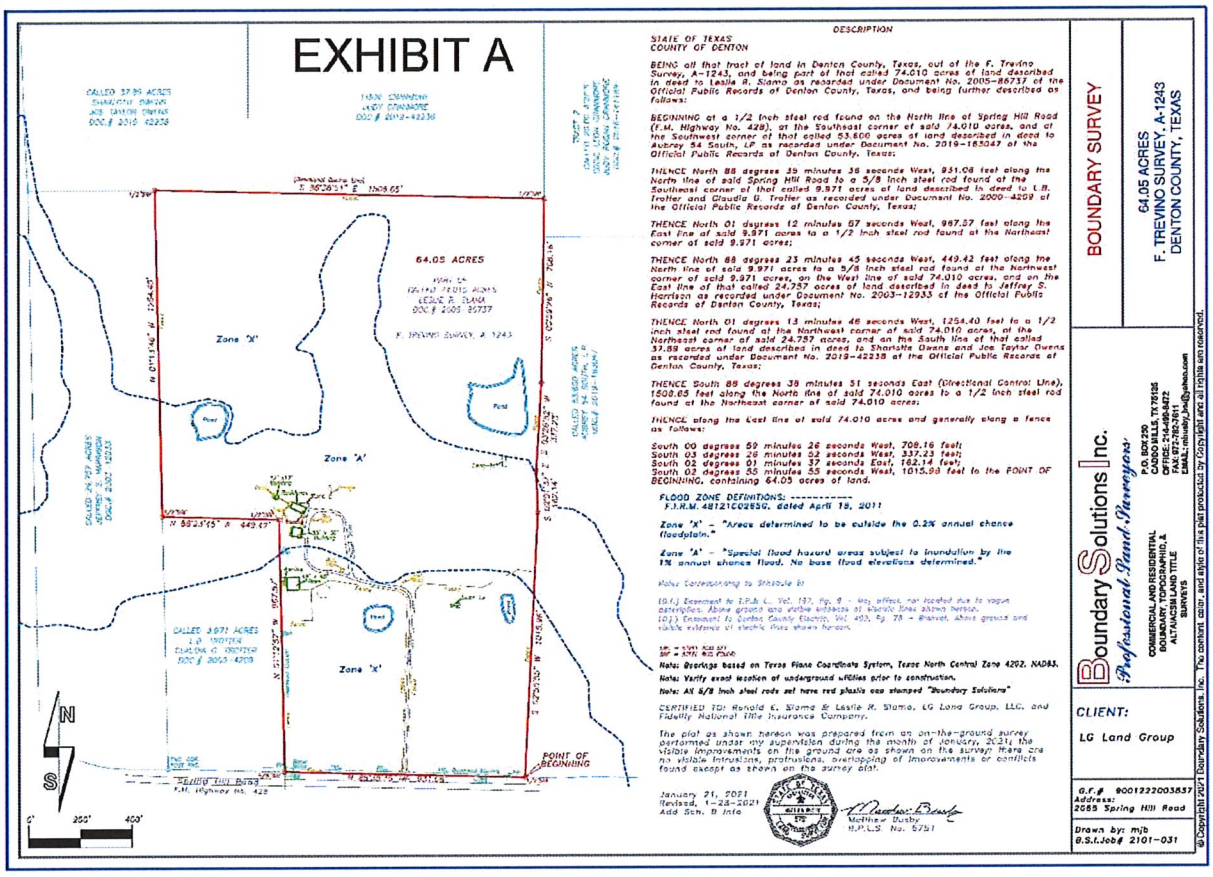
STATE OF TEXAS §
§
COUNTY OF DALLAS §

This instrument was acknowledged before me this 24th day of JANUARY, 2022, by Bob C. Ladd, as Manager of Aubrey 64 North GP LLC., a Texas limited liability company, General Partner of Aubrey 64 North LP, a Texas limited partnership, on behalf of said limited partnership.

(SEAL)

JANEY ARISTA
Notary ID #1120165
My Commission Expires
July 13, 2022

_____
Notary Public in and for the State of Texas



DESCRIPTION

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the F. Trevino Survey, A-1243, and being part of that called 74.010 acres of land described in deed to Leslie R. Slama as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 1/2 inch steel rod found on the North line of Spring Hill Road (F.M. Highway No. 428), at the Southeast corner of said 74.010 acres, and at the Southwest corner of that called 53.600 acres of land described in deed to Aubrey 84 Souin, LP as recorded under Document No. 2019-185047 of the Official Public Records of Denton County, Texas;

THENCE North 88 degrees 35 minutes 36 seconds West, 951.08 feet along the North line of said Spring Hill Road to a 5/8 inch steel rod found at the Southeast corner of that called 9.971 acres of land described in deed to L.B. Trotter and Claudia B. Trotter as recorded under Document No. 2000-4209 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 12 minutes 57 seconds West, 987.37 feet along the East line of said 9.971 acres to a 1/2 inch steel rod found at the Northeast corner of said 9.971 acres;

THENCE North 88 degrees 23 minutes 45 seconds West, 449.42 feet along the North line of said 9.971 acres to a 5/8 inch steel rod found at the Northwest corner of said 9.971 acres, on the West line of said 74.010 acres, and on the East line of that called 24.757 acres of land described in deed to Jeffrey S. Harrison as recorded under Document No. 2003-12933 of the Official Public Records of Denton County, Texas;

THENCE North 01 degrees 13 minutes 48 seconds West, 1254.40 feet to a 1/2 inch steel rod found at the Northwest corner of said 74.010 acres, at the Northeast corner of said 24.757 acres, and on the South line of that called 37.89 acres of land described in deed to Sharlette Owens and Joe Taylor Owens as recorded under Document No. 2019-42238 of the Official Public Records of Denton County, Texas;

THENCE South 88 degrees 39 minutes 51 seconds East (Directional Control Line), 1508.65 feet along the North line of said 74.010 acres to a 1/2 inch steel rod found at the Northeast corner of said 74.010 acres;

THENCE along the East line of said 74.010 acres and generally along a fence as follows:

South 00 degrees 59 minutes 26 seconds West, 708.16 feet;
South 03 degrees 28 minutes 52 seconds West, 337.23 feet;
South 02 degrees 01 minutes 37 seconds East, 162.14 feet;
South 02 degrees 35 minutes 55 seconds West, 1015.98 feet to the POINT OF BEGINNING, containing 64.05 acres of land.

FLOOD ZONE DEFINITIONS: ----------
F.I.R.M. 48121C0285G, dated April 18, 2011

Zone 'X' - "Areas determined to be outside the 0.2% annual chance floodplain."

Zone 'A' - "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."

Note: Corresponding to Schedule B:

(B.I.) Easement to T.P.& L., Vol. 157, Pg. 9 - May affect, not located due to vague description. Above ground and visible evidence of electric lines shown hereon.
(B.J.) Easement to Cooke County Electric, Vol. 493, Pg. 78 - Blanket. Above ground and visible evidence of electric lines shown hereon.

Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"

CERTIFIED TO: Ronald K. Slama & Leslie R. Slama, LG Land Group, LLC, and Fidelity National Title Insurance Company.

The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of January, 2021; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.

January 21, 2021
Revised, 1-28-2021
Add Sch. B Info

Matthew Bushy
R.P.L.S. No. 5751

BOUNDARY SURVEY

64.05 ACRES
F. TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 220
ARGYLE, TX 76226
OFFICE: 214-456-8472
FAX: 972-760-7611
EMAIL: mbushy@sbcglobal.net

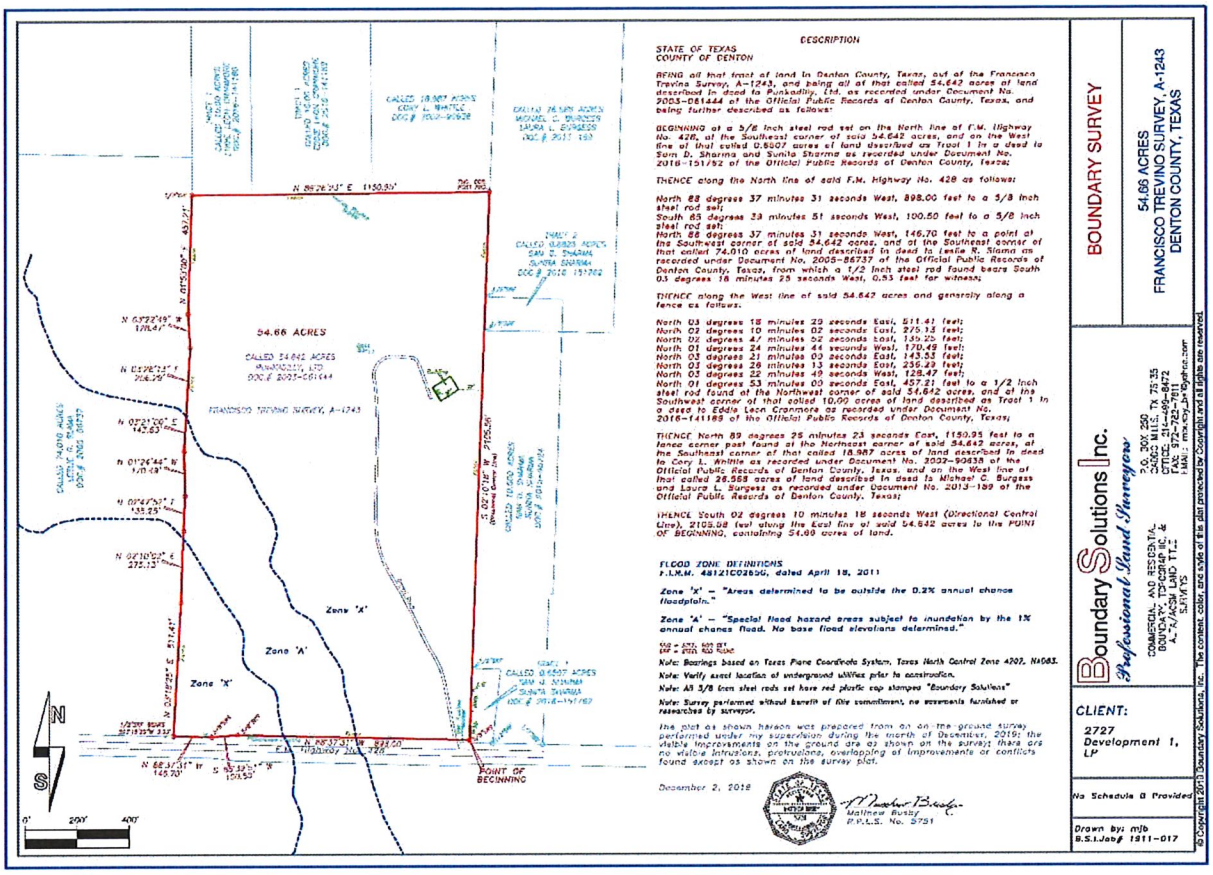
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, & ALTA/ACSM LAND TITLE SURVEYS

CLIENT:
LG Land Group

G.F.# 9001222003837
Address:
2085 Spring Hill Road

Drawn by: mjb
B.S.I.Job# 2101-031

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54.66 ACRES
CALLED 54.642 ACRES
FRANCISCO TREVINO SURVEY, A-1243
Zone 'X'
Zone 'A'
Zone 'X'
POINT OF BEGINNING
N 88°28'33" E 1150.95'
N 02°10'18" W 2105.58'
S 89°25'23" E 457.21'
N 88°37'31" W 898.00'
S 89°33'51" W 100.50'
N 88°37'31" W 146.70'
0' 200' 400'
DESCRIPTION
STATE OF TEXAS
COUNTY OF DENTON
BEING all that tract of land in Denton County, Texas, out of the Francisco Trevino Survey, A-1243, and being all of that called 54.642 acres of land described in deed to Punkadilly, Ltd. as recorded under Document No. 2003-081444 of the Official Public Records of Denton County, Texas, and being further described as follows:
BEGINNING at a 5/8 inch steel rod set on the North line of F.M. Highway No. 428, at the Southeast corner of said 54.642 acres, and on the West line of that called 0.6507 acres of land described as Tract 1 in a deed to Sam D. Sharma and Sunita Sharma as recorded under Document No. 2016-151752 of the Official Public Records of Denton County, Texas;
THENCE along the North line of said F.M. Highway No. 428 as follows:
North 88 degrees 37 minutes 31 seconds West, 898.00 feet to a 5/8 inch steel rod set;
South 85 degrees 33 minutes 51 seconds West, 100.50 feet to a 5/8 inch steel rod set;
North 88 degrees 37 minutes 31 seconds West, 146.70 feet to a point at the Southwest corner of said 54.642 acres, and at the Southeast corner of that called 74.010 acres of land described in deed to Leslie R. Sloma as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, from which a 1/2 inch steel rod found bears South 03 degrees 18 minutes 25 seconds West, 0.55 feet for witness;
THENCE along the West line of said 54.642 acres and generally along a fence as follows:
North 03 degrees 18 minutes 25 seconds East, 511.41 feet;
North 02 degrees 10 minutes 02 seconds East, 275.13 feet;
North 02 degrees 47 minutes 52 seconds East, 159.25 feet;
North 01 degrees 24 minutes 44 seconds West, 170.49 feet;
North 03 degrees 21 minutes 03 seconds East, 143.53 feet;
North 03 degrees 29 minutes 13 seconds East, 236.49 feet;
North 03 degrees 22 minutes 49 seconds West, 128.47 feet;
North 01 degrees 53 minutes 09 seconds East, 457.21 feet to a 1/2 inch steel rod found at the Northwest corner of said 54.642 acres, and at the Southwest corner of that called 10.00 acres of land described as Tract 1 in a deed to Eddie Leon Cranmore as recorded under Document No. 2016-141188 of the Official Public Records of Denton County, Texas;
THENCE North 89 degrees 25 minutes 23 seconds East, 1150.95 feet to a fence corner post found at the Northeast corner of said 54.642 acres, at the Southeast corner of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded under Document No. 2007-90838 of the Official Public Records of Denton County, Texas, and on the West line of that called 28.568 acres of land described in deed to Michael C. Burgess and Laura L. Burgess as recorded under Document No. 2013-139 of the Official Public Records of Denton County, Texas;
THENCE South 02 degrees 10 minutes 18 seconds West (Directional Control Line), 2105.58 feet along the East line of said 54.642 acres to the POINT OF BEGINNING, containing 54.66 acres of land.
FLOOD ZONE DEFINITIONS
F.I.R.M. 48121C0265G, dated April 18, 2011
Zone 'X' – "Areas determined to be outside the 0.2% annual chance floodplain."
Zone 'A' – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."
Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.
Note: Verify exact location of underground utilities prior to construction.
Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"
Note: Survey performed without benefit of title commitment, no easements furnished or researches by surveyor.
The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of December, 2018; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.
December 2, 2018
Matthew Busby
R.P.L.S. No. 5751
BOUNDARY SURVEY
54.66 ACRES
FRANCISCO TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 1250
ARGYLE, TX 76235
OFFICE: 214-686-8472
FAX: 972-723-7911
EMAIL: mbusby@bsitx.com
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC & AS-BUILT SURVEYS
CLIENT:
2727 Development 1, LP
No Schedule B Provided
Drawn by: mjb
B.S.I.Job# 1911-017
© Copyright 2019 Boundary Solutions, Inc. The content, color, and style of this plat protected by Copyright and all rights are reserved.

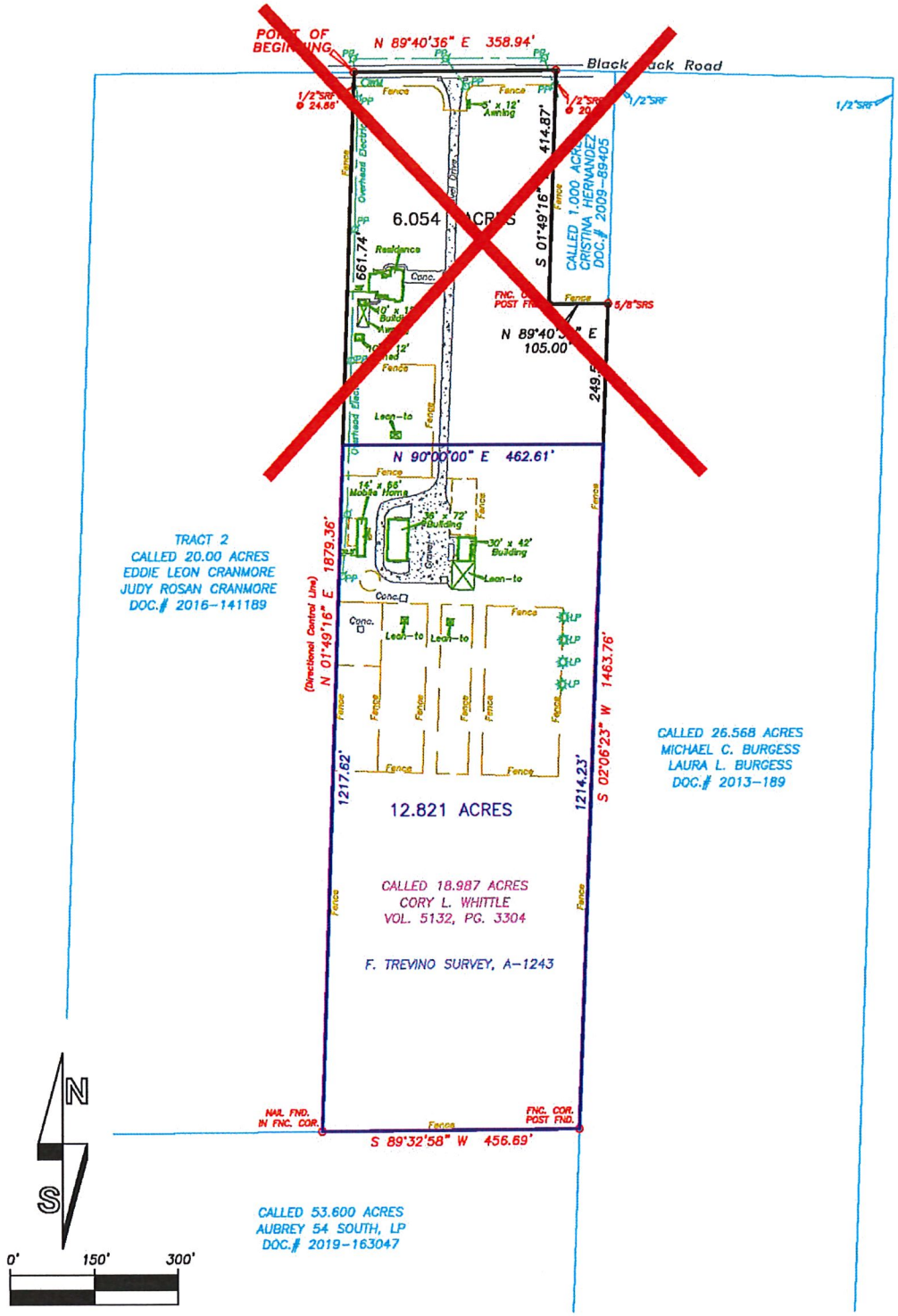

POINT OF BEGINNING
N 89°40'36" E 358.94'
Black Jack Road
1/2"SRF
1/2"SRF
1/2"SRF
414.87'
S 01°49'16" E
CALLED 1.000 ACRES
CRISTINA HERNANDEZ
DOC.# 2009-89405
6.054 ACRES
Residence
Conc.
Fence
5/8"SRS
N 89°40'36" E
105.00'
249.5'
N 661.74'
Lean-to
N 90°00'00" E 462.61'
14' x 66' Mobile Home
36' x 72' Building
30' x 42' Building
Lean-to
Conc.
Lean-to
Lean-to
TRACT 2
CALLED 20.00 ACRES
EDDIE LEON CRANMORE
JUDY ROSAN CRANMORE
DOC.# 2016-141189
(Directional Control Line)
N 01°49'16" E 1879.36'
1217.62'
1214.23'
S 02°06'23" W 1463.76'
12.821 ACRES
CALLED 26.568 ACRES
MICHAEL C. BURGESS
LAURA L. BURGESS
DOC.# 2013-189
CALLED 18.987 ACRES
CORY L. WHITTLE
VOL. 5132, PG. 3304
F. TREVINO SURVEY, A-1243
NAIL FND. IN FNC. COR.
FNC. COR. POST FND.
S 89°32'58" W 456.69'
CALLED 53.600 ACRES
AUBREY 54 SOUTH, LP
DOC.# 2019-163047
N
S
0'
150'
300'

EXHIBIT "A"
Legal Description

Being all the tract of land in Denton County, Texas, out of the I. Trevino Survey, A-1243, and being part of that called 18.987 acres of land described in deed to Cory L. Whittle as recorded in Volume 5132, page 3304 of the Official Public Records of Denton County, Texas, and being further described as follows:

COMMENCING at a point in the center of Black Jack Road, at the Northwest corner of said 18.987 acre, and at the Northeast corner of that called 20.00 acres of land described as Tract 2 in deed to Eddie Leon Cranmore and Judy Rosan Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas, from which a ½ inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.86 feet for Witness;

THENCE South 01 degrees 49 minutes 16 seconds West, 661.74 feet along the West line of said 18.987 acre to the POINT OF BEGINNING.

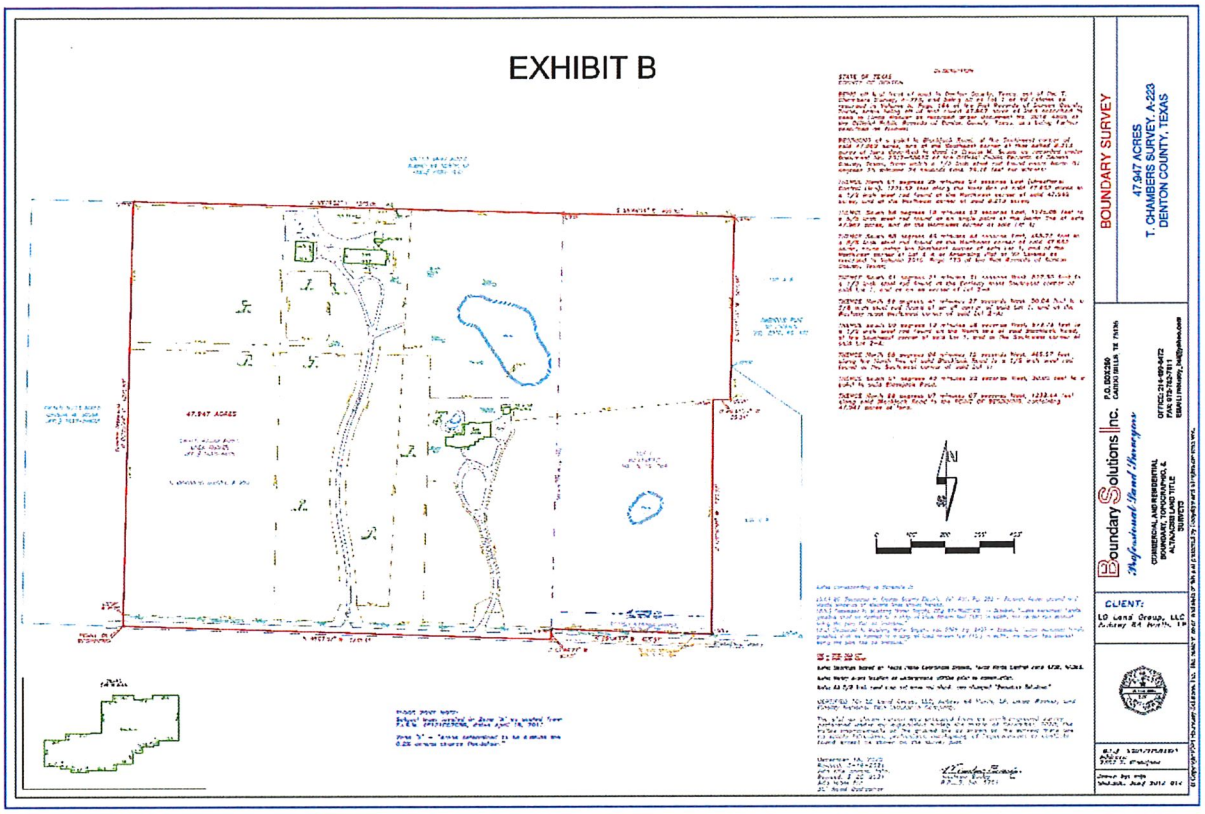
THENCE North 90 degrees 00 minutes 00 seconds East, 462.61 feet to a point on the East line of said 18.987 acres;

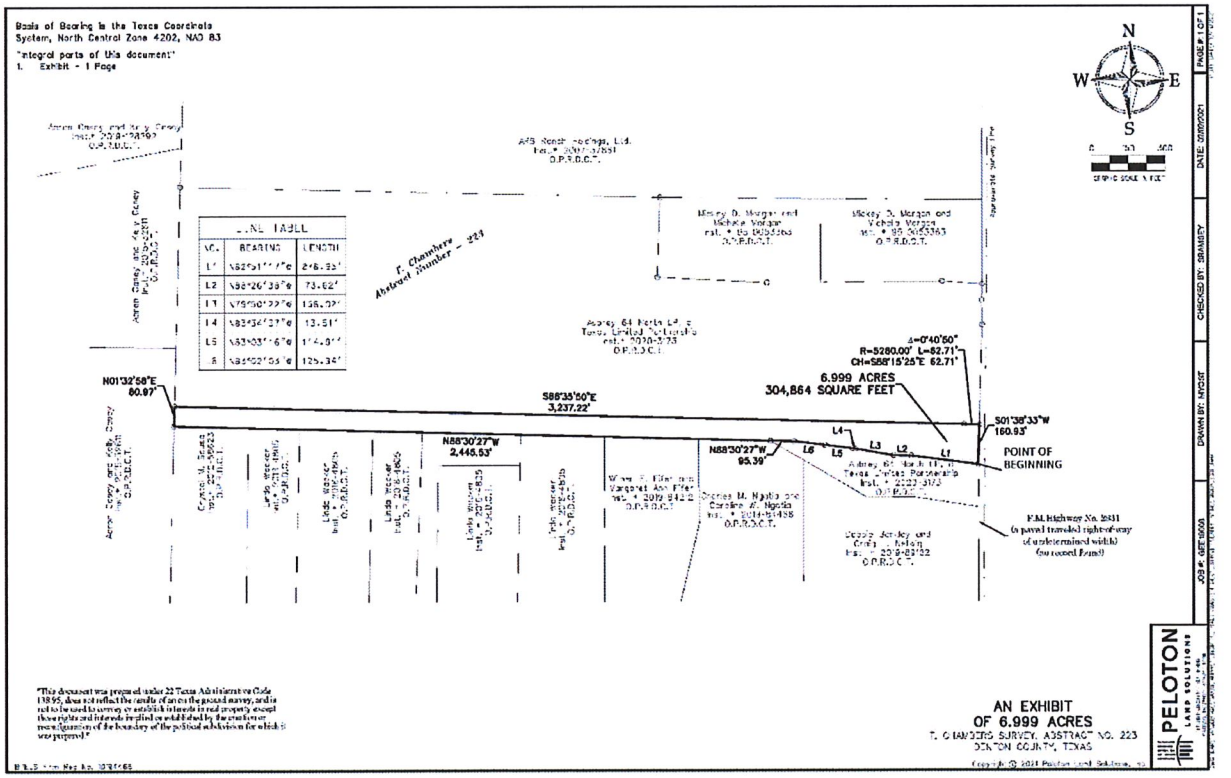
THENCE South 02 degrees 06 minutes 23 seconds West, 1214.23 feet to a fence corner post found at the southeast corner of said 18.987 acre, and at an angle point of said 25.588 acres;

THENCE South 89 degrees 32 minutes 58 seconds West, 456.69 feet a nail found in fence corner at the Southwest corner of said 18.987 acres, and at the Southeast corner of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East (Directional Control Line), 1217.62 feet along the West line of said 18.987 acre to the POINT OF BEGINNING, containing 12.821 acre of land.

NOTE: COMPANY DOES NOT REPRESENT THAT THE ABOVE ACREAGE AND/OR SQUARE FOOTAGE CALCULATIONS ARE CORRECT.


EXHIBIT B
BOUNDARY SURVEY
47.947 ACRES
T. CHAMBERS SURVEY, A-223
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
CLIENT:


Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83
"Integral parts of this document"
1. Exhibit - 1 Page
LINE TABLE
NO. BEARING LENGTH
L1 S82°51'17"E 246.93'
L2 S88°26'39"E 73.62'
L3 N75°50'22"E 136.02'
L4 S83°34'27"E 13.51'
L5 S83°03'16"E 114.87'
L6 S85°02'03"E 125.34'
T. Chambers Abstract Number - 223
N01°32'58"E 80.97'
S88°35'50"E 3,237.22'
N88°30'27"W 2,446.53'
N88°30'27"W 95.39'
Δ=0°40'50"
R=5280.00' L=62.71'
CH=S88°15'25"E 62.71'
6.999 ACRES
304,864 SQUARE FEET
S01°38'33"W 160.93'
POINT OF BEGINNING
F.M. Highway No. 2931
(a panel traveled right-of-way of undetermined width)
(no record found)
AN EXHIBIT
OF 6.999 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS
PELOTON
LAND SOLUTIONS

DESCRIPTION OF 6.999 ACRES

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY SOUTHEAST CORNER OF SAID AUBREY TRACT AND BEING IN THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH);

THENCE DEPARTING SAID WEST RIGHT-OF-WAY LINE OVER AND ACROSS SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

N 82° 51' 17" W, 278.95 FEET;

N 88° 26' 38" W, 73.62 FEET;

N 79° 50' 22" W, 156.02 FEET;

N 83° 34' 37" W, 13.51 FEET;

N 83° 03' 16" W, 114.91 FEET;

N 83° 02' 03" W, 125.94 FEET;

N 88° 30' 27" W, 95.39 FEET TO THE SOUTH LINE OF SAID AUBREY TRACT AND BEING THE MOST NORTHERLY NORTHEAST CORNER OF A TRACT OF LAND TO CHARLES NGATIA RECORDED IN INSTRUMENT NUMBER 2019-84466 OF SAID O.P.R.D.C.T;

THENCE N 88° 30' 27" W, 2445.53 FEET ALONG SAID SOUTH LINE TO THE SOUTHWEST CORNER OF SAID AUBREY TRACT;

THENCE N 01° 32' 58" E, 80.97 FEET ALONG THE WEST LINE OF SAID AUBREY TRACT;

THENCE DEPARTING THE WEST LINE OF SAID AUBREY TRACT OVER AND ACROSS THE FOLLOWING BEARINGS AND DISTANCES:

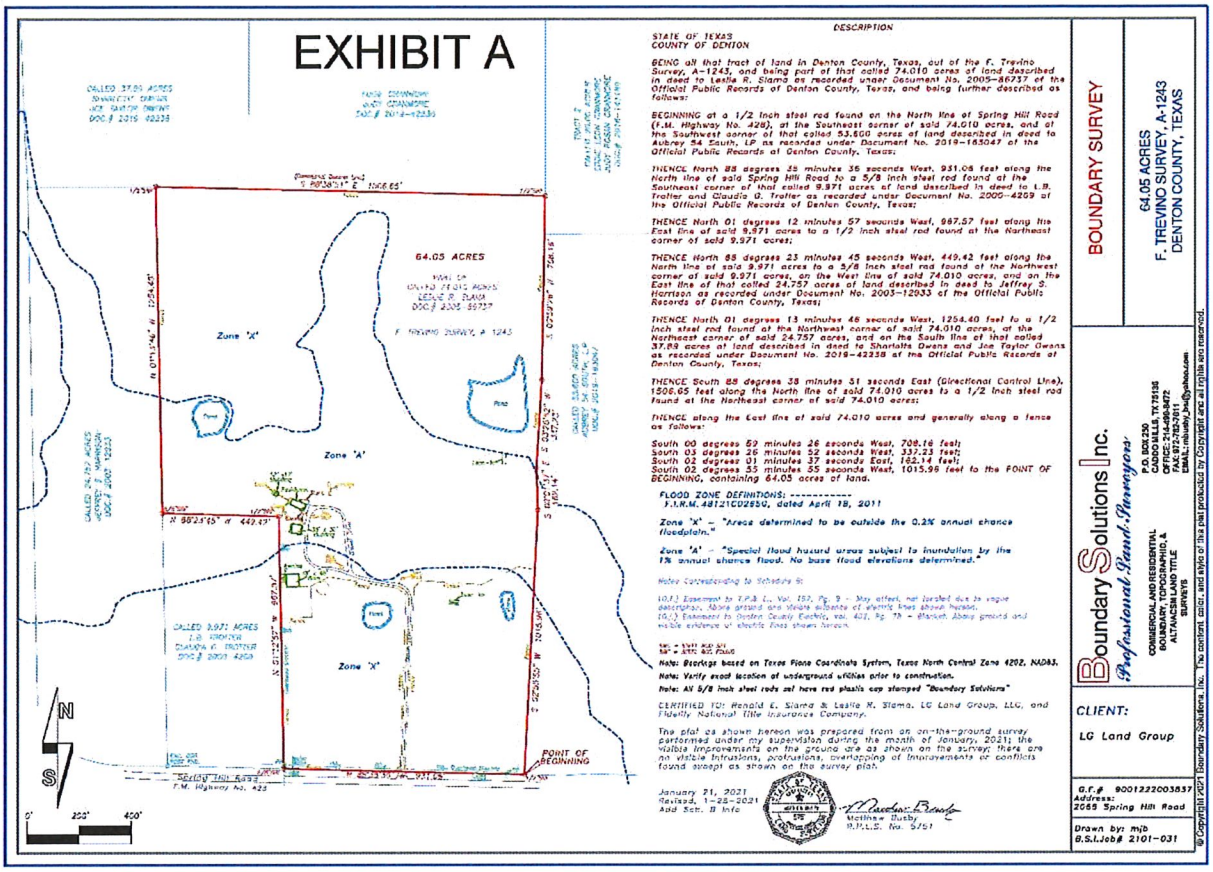
S 88° 35' 50" E, 3237.22 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT;

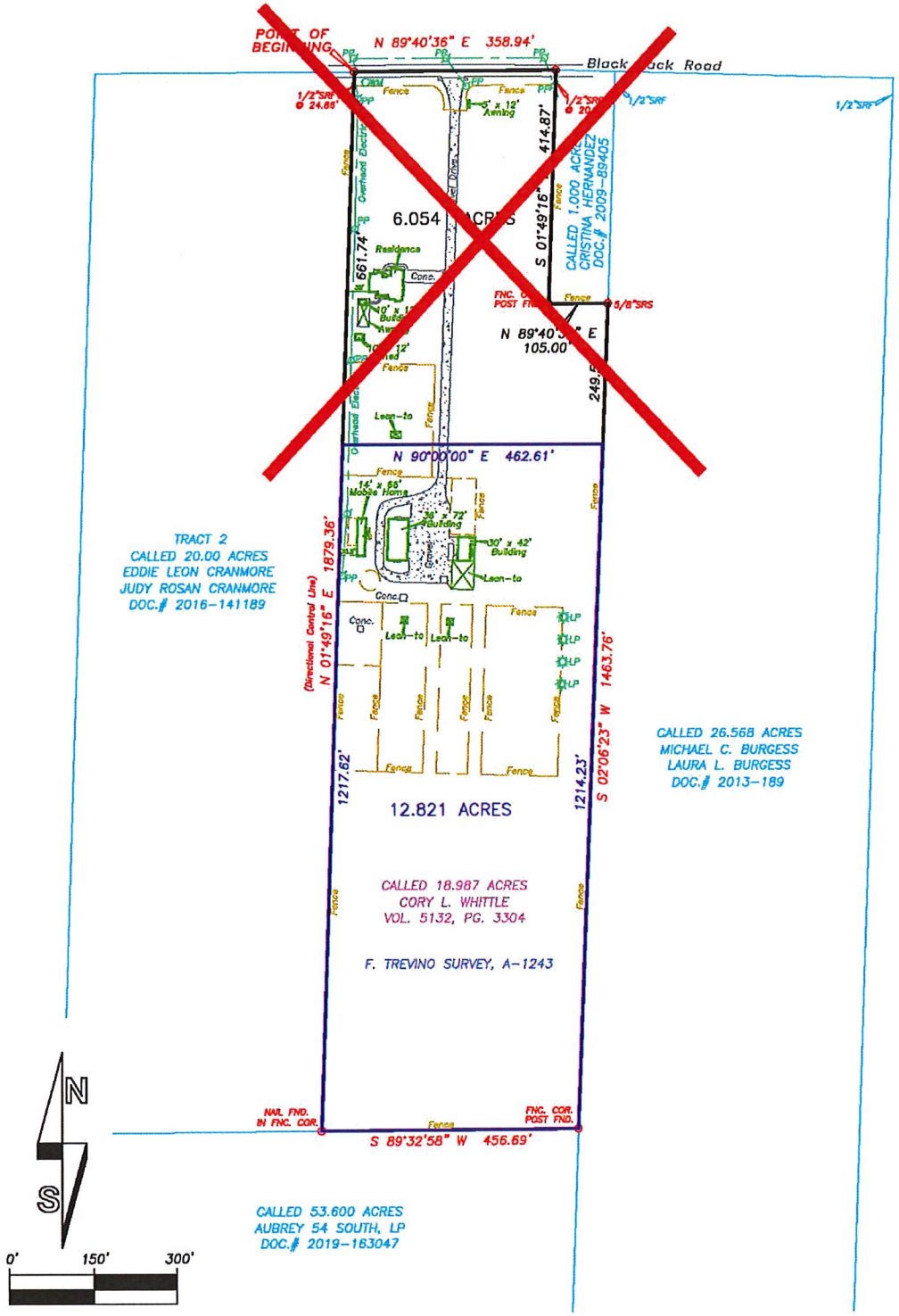
WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 62.71 FEET, THROUGH A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5280.00 FEET, AND A LONG CHORD WHICH BEARS S 88° 15' 25" E, 62.71 FEET TO THE WEST LINE OF SAID F.M. 2931;

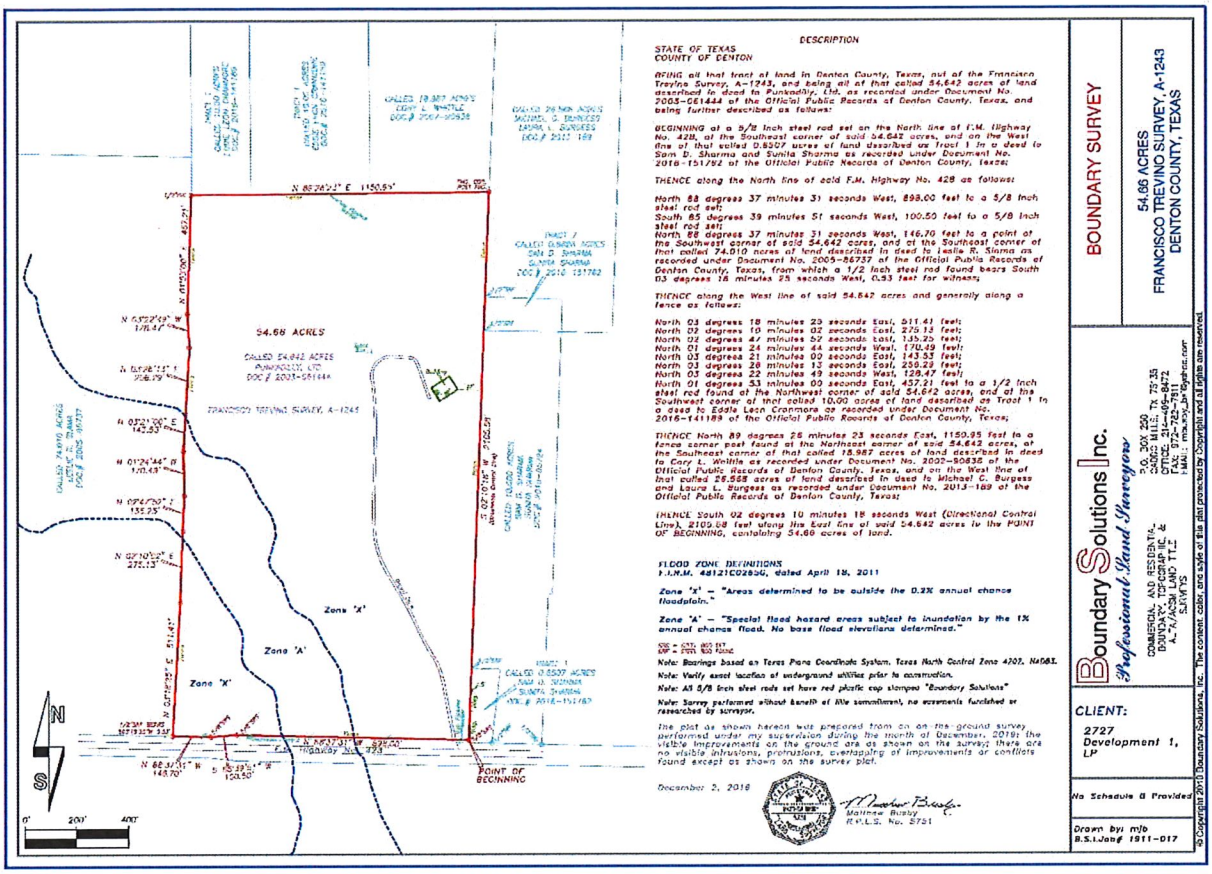
THENCE S 01° 38' 33" W, 160.93 FEET TO THE POINT OF BEGINNING AND CONTAINING 304,864 SQUARE FEET OR 6.999 ACRES MORE OR LESS.

"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

Exhibit "B" to Consent Resolution
Property Description


EXHIBIT A
64.05 ACRES
F. TREVINO SURVEY, A-1243
Zone 'A'
Zone 'X'
POINT OF BEGINNING
DESCRIPTION
STATE OF TEXAS
COUNTY OF DENTON
BEING all that tract of land in Denton County, Texas, out of the F. Trevino Survey, A-1243, and being part of that called 74.010 acres of land described in deed to Leslie R. Slama as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, and being further described as follows:
BEGINNING at a 1/2 inch steel rod found on the North line of Spring Hill Road (F.M. Highway No. 428), at the Southeast corner of said 74.010 acres, and at the Southwest corner of that called 53.600 acres of land described in deed to Aubrey 84 South, LP as recorded under Document No. 2019-163047 of the Official Public Records of Denton County, Texas;
THENCE North 88 degrees 25 minutes 35 seconds West, 931.08 feet along the North line of said Spring Hill Road to a 5/8 inch steel rod found at the Southeast corner of that called 9.971 acres of land described in deed to L.B. Trotter and Claudia O. Trotter as recorded under Document No. 2005-4259 of the Official Public Records of Denton County, Texas;
THENCE North 01 degrees 12 minutes 57 seconds West, 987.57 feet along the East line of said 9.971 acres to a 1/2 inch steel rod found at the Northeast corner of said 9.971 acres;
THENCE North 88 degrees 23 minutes 45 seconds West, 449.42 feet along the North line of said 9.971 acres to a 5/8 inch steel rod found at the Northwest corner of said 9.971 acres, on the West line of said 74.010 acres, and on the East line of that called 24.757 acres of land described in deed to Jeffrey S. Harrison as recorded under Document No. 2003-12933 of the Official Public Records of Denton County, Texas;
THENCE North 01 degrees 13 minutes 46 seconds West, 1254.40 feet to a 1/2 inch steel rod found at the Northwest corner of said 74.010 acres, at the Northeast corner of said 24.757 acres, and on the South line of that called 37.88 acres of land described in deed to Charlotte Owens and Joe Taylor Owens as recorded under Document No. 2019-42358 of the Official Public Records of Denton County, Texas;
THENCE South 88 degrees 38 minutes 51 seconds East (Directional Control Line), 1506.65 feet along the North line of said 74.010 acres to a 1/2 inch steel rod found at the Northeast corner of said 74.010 acres;
THENCE along the East line of said 74.010 acres and generally along a fence as follows:
South 00 degrees 59 minutes 26 seconds West, 708.16 feet;
South 03 degrees 26 minutes 52 seconds West, 337.23 feet;
South 02 degrees 01 minutes 37 seconds East, 182.14 feet;
South 02 degrees 35 minutes 55 seconds West, 1015.98 feet to the POINT OF BEGINNING, containing 64.05 acres of land.
FLOOD ZONE DEFINITIONS:
F.I.R.M. 48121C0225G, dated April 18, 2011
Zone 'X' – "Areas determined to be outside the 0.2% annual chance floodplain."
Zone 'A' – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."
Notes Corresponding to Schedule B:
10.) Easement to T.P.S. (L. Vol. 157, Pg. 9 - May affect, not located due to vague description, above ground and visible evidence of electric lines shown hereon.
15.) Easement to Denton County Electric, Vol. 421, Pg. 79 - Blanket. Above ground and visible evidence of electric lines shown hereon.
Note: Bearings based on Texas State Coordinate System, Texas North Central Zone 4202, NAD83.
Note: Verify exact location of underground utilities prior to construction.
Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"
CERTIFIED TO: Ronald E. Slama & Leslie R. Slama, LG Land Group, LLC, and Fidelity National Title Insurance Company.
The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of January, 2021; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.
January 21, 2021
Revised, 1-25-2021
Add Sch. B Info
Matthew Busby
R.P.L.S. No. 5751
BOUNDARY SURVEY
64.05 ACRES
F. TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 220
ARGYLE, TEXAS 76226
OFFICE: 214.415.4272
FAX: 972-787-7611
EMAIL: mbusby_bs@yahoo.com
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, &
ALTA/ACSM LAND TITLE
SURVEYS
CLIENT:
LG Land Group
G.F.# 9001222003837
Address:
2065 Spring Hill Road
Drawn by: mjb
B.S.I.Job# 2101-031
© Copyright 2021 Boundary Solutions, Inc. The content, color, and style of this plat produced by Copyright are all rights reserved.


POINT OF BEGINNING
N 89°40'36" E 358.94'
Black Jack Road
1/2"SRF @ 24.65'
1/2"SRF
1/2"SRF
5' x 12' Awning
414.87'
S 01°49'16" E
CALLED 1.000 ACRES
CRISTINA HERNANDEZ
DOC.# 2009-89405
6.054 ACRES
661.74'
Residence
Conc.
16' x 12' Building
Fence
Lean-to
5/8"SRS
N 89°40'36" E
105.00'
249.5'
N 90°00'00" E 462.61'
14' x 56' Mobile Home
36' x 72' Building
30' x 42' Building
Lean-to
Conc.
Gravel
TRACT 2
CALLED 20.00 ACRES
EDDIE LEON CRANMORE
JUDY ROSAN CRANMORE
DOC.# 2016-141189
(Directional Control Line)
N 01°49'16" E 1879.36'
Fence
LP
1217.62'
1214.23'
S 02°06'23" W 1463.76'
12.821 ACRES
CALLED 26.568 ACRES
MICHAEL C. BURGESS
LAURA L. BURGESS
DOC.# 2013-189
CALLED 18.987 ACRES
CORY L. WHITTLE
VOL. 5132, PG. 3304
F. TREVINO SURVEY, A-1243
NAIL FND. IN FNC. COR.
FNC. COR. POST FND.
S 89°32'58" W 456.69'
CALLED 53.600 ACRES
AUBREY 54 SOUTH, LP
DOC.# 2019-163047
N
S
0'
150'
300'



DESCRIPTION

STATE OF TEXAS
COUNTY OF DENTON

BEING all that tract of land in Denton County, Texas, out of the Francisco Trevino Survey, A-1243, and being all of that called 54.642 acres of land described in deed to Punkadilly, Ltd. as recorded under Document No. 2003-GE1444 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a 5/8 inch steel rod set on the North line of F.M. Highway No. 428, at the Southeast corner of said 54.642 acres, and on the West line of that called 0.8507 acres of land described as Tract 1 in a deed to Sam D. Sharma and Sunita Sharma as recorded under Document No. 2016-151782 of the Official Public Records of Denton County, Texas;

THENCE along the North line of said F.M. Highway No. 428 as follows:

North 88 degrees 37 minutes 31 seconds West, 898.00 feet to a 5/8 inch steel rod set;
South 85 degrees 39 minutes 51 seconds West, 100.50 feet to a 5/8 inch steel rod set;
North 88 degrees 37 minutes 31 seconds West, 146.70 feet to a point at the Southwest corner of said 54.642 acres, and at the Southeast corner of that called 74.010 acres of land described in deed to Leslie R. Sharma as recorded under Document No. 2005-86737 of the Official Public Records of Denton County, Texas, from which a 1/2 inch steel rod found bears South 03 degrees 16 minutes 25 seconds West, 0.53 feet for witness;

THENCE along the West line of said 54.642 acres and generally along a fence as follows:

North 03 degrees 18 minutes 25 seconds East, 511.41 feet;
North 02 degrees 10 minutes 02 seconds East, 275.15 feet;
North 02 degrees 47 minutes 52 seconds East, 185.25 feet;
North 01 degrees 24 minutes 44 seconds West, 170.49 feet;
North 03 degrees 21 minutes 00 seconds East, 143.53 feet;
North 03 degrees 26 minutes 13 seconds East, 259.29 feet;
North 03 degrees 22 minutes 49 seconds West, 128.47 feet;
North 01 degrees 53 minutes 00 seconds East, 457.21 feet to a 1/2 inch steel rod found at the Northwest corner of said 54.642 acres, and at the Southwest corner of that called 10.00 acres of land described as Tract 1 in a deed to Eddie Lee Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas;

THENCE North 89 degrees 28 minutes 23 seconds East, 1150.95 feet to a fence corner post found at the Northeast corner of said 54.642 acres, at the Southeast corner of that called 18.987 acres of land described in deed to Cary L. Wrinkle as recorded under Document No. 2003-90838 of the Official Public Records of Denton County, Texas, and on the West line of that called 26.868 acres of land described in deed to Michael C. Burgess and Laura L. Burgess as recorded under Document No. 2013-169 of the Official Public Records of Denton County, Texas;

THENCE South 02 degrees 10 minutes 18 seconds West (Directional Control Line), 2109.68 feet along the East line of said 54.642 acres to the POINT OF BEGINNING, containing 54.66 acres of land.

FLOOD ZONE DEFINITIONS
F.I.R.M. 48121C0280G, dated April 18, 2011

Zone 'X' – "Areas determined to be outside the 0.2% annual chance floodplain."

Zone 'A' – "Special flood hazard areas subject to inundation by the 1% annual chance flood. No base flood elevations determined."

SSE = CATV, BOS INT
WM = FOS, BOS RING

Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.

Note: Verify exact location of underground utilities prior to construction.

Note: All 5/8 inch steel rods set have red plastic cap stamped "Boundary Solutions"

Note: Survey performed without benefit of title commitment, no easements furnished or researched by surveyor.

The plat as shown hereon was prepared from an on the ground survey performed under my supervision during the month of December, 2016; the visible improvements on the ground are as shown on the survey; there are no visible intrusions, protrusions, overlapping of improvements or conflicts found except as shown on the survey plat.

December 2, 2016

Matthew Bisby
R.P.L.S. No. 5751

BOUNDARY SURVEY

54.66 ACRES
FRANCISCO TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions Inc.
Professional Land Surveyors
COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC &
A.L.T.A./ACSM LAND TITLE
SURVEYS
P.O. BOX 250
ARGYLE, TX 76226
OFFICE: 214-906-8472
FAX: 972-752-7811
EMAIL: mbisby_bs@sbcglobal.net

CLIENT:
2727 Development 1, LP

No Schedule B Provided

Drawn by: mlb
B.S.I.Job# 1911-017

© Copyright 2016 Boundary Solutions, Inc. The content, color, and style of this plat protected by Copyright and all rights are reserved.

EXHIBIT "A"
Legal Description

Being all the tract of land in Denton County, Texas, out of the I. Trevino Survey, A-1243, and being part of that called 18.987 acres of land described in deed to Cory L. Wittle as recorded in Volume 5132, page 3304 of the Official Public Records of Denton County, Texas, and being further described as follows:

COMMENCING at a point in the center of Black Jack Road, at the Northwest corner of said 18.987 acre, and at the Northeast corner of that called 20.00 acres of land described as Tract 2 in deed to Eddie Leon Cranmore and Judy Rosan Cranmore as recorded under Document No. 2016-141189 of the Official Public Records of Denton County, Texas, from which a ½ inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.85 feet for Witness;

THENCE South 01 degrees 49 minutes 16 seconds West, 661.74 feet along the West line of said 18.987 acre to the POINT OF BEGINNING.

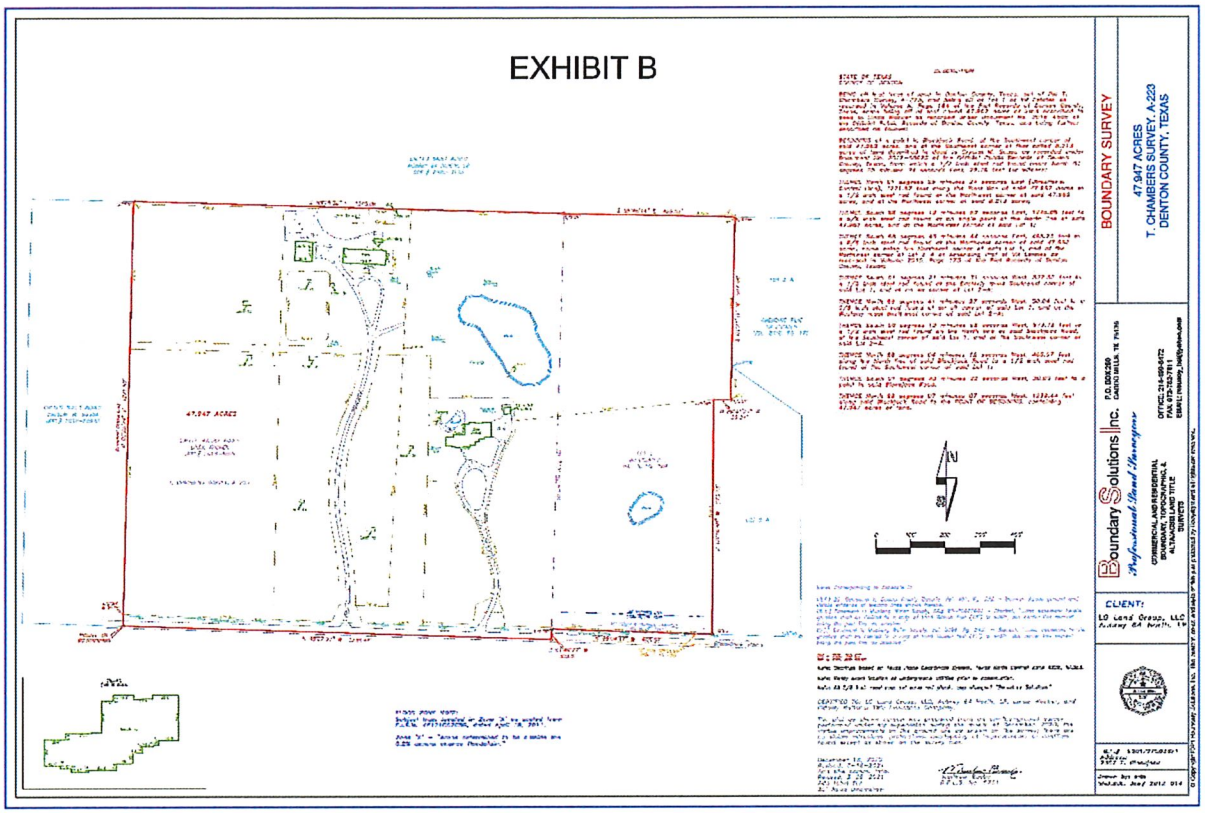
THENCE North 90 degrees 00 minutes 00 seconds East, 462.61 feet to a point on the East line of said 18.987 acres;

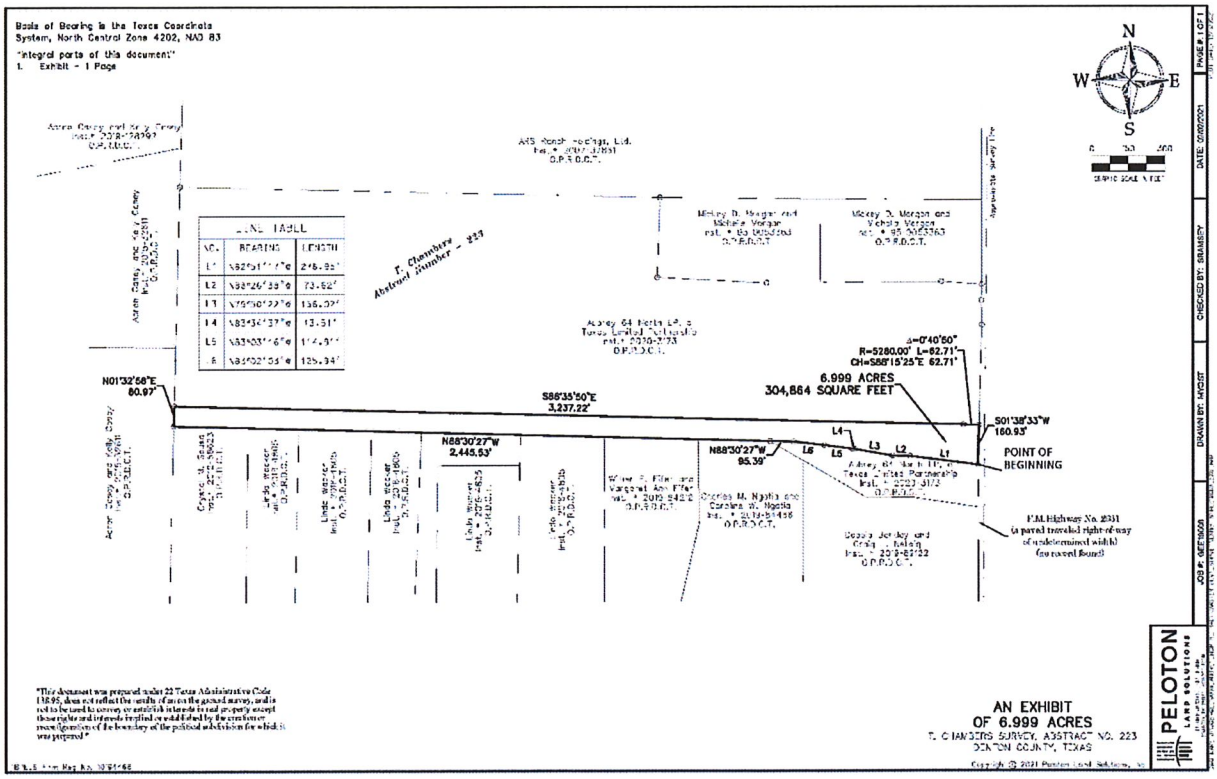
THENCE South 02 degrees 06 minutes 23 seconds West, 1214.23 feet to a fence corner post found at the southeast corner of said 18.987 acre, and at an angle point of said 26.588 acres;

THENCE South 89 degrees 32 minutes 58 seconds West, 456.69 feet a nail found in fence corner at the Southwest corner of said 18.987 acres, and at the Southeast corner of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East (Directional Control Line), 1217.62 feet along the West line of said 18.987 acre to the POINT OF BEGINNING, containing 12.821 acre of land.

NOTE: COMPANY DOES NOT REPRESENT THAT THE ABOVE ACREAGE AND/OR SQUARE FOOTAGE CALCULATIONS ARE CORRECT.


EXHIBIT B
BOUNDARY SURVEY
47.917 ACRES
T. CHAMBERS SURVEY, A-223
DENTON COUNTY, TEXAS
Boundary Solutions Inc.
Professional Land Surveyors
CLIENT:
LD Land Group, LLC
Abstract Number - 223


Basis of Bearing is the Texas Coordinate System, North Central Zone 4202, NAD 83
"Integral parts of this document"
1. Exhibit - 1 Page
LINE TABLE
NO. BEARING LENGTH
L1 S82°51'17"E 246.93'
L2 S38°26'39"E 73.62'
L3 S75°50'22"E 136.09'
L4 S83°34'37"E 13.51'
L5 S83°03'16"E 114.91'
L6 S85°02'03"E 125.94'
N01°32'56"E 80.97'
S88°35'50"E 3,237.22'
N88°30'27"W 2,445.53'
N88°30'27"W 95.39'
S01°38'33"W 160.93'
R=5280.00' L=62.71'
CH=S88°15'25"E 62.71'
6.999 ACRES
304,864 SQUARE FEET
POINT OF BEGINNING
T. Chambers Abstract Number - 223
FM Highway No. 2931
AN EXHIBIT
OF 6.999 ACRES
T. CHAMBERS SURVEY, ABSTRACT NO. 223
DENTON COUNTY, TEXAS
PELOTON LAND SOLUTIONS

DESCRIPTION OF 6.999 ACRES

BEING THAT CERTAIN TRACT OF LAND SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, BEING A PORTION OF THAT TRACT OF LAND DESCRIBED BY DEED TO AUBREY 64 NORTH LP, A TEXAS LIMITED PARTNERSHIP, RECORDED IN INSTRUMENT NUMBER 2020-3173 OF THE OFFICIAL PUBLIC RECORDS OF DENTON COUNTY, TEXAS (O.P.R.D.C.T.), AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT THE MOST WESTERLY SOUTHEAST CORNER OF SAID AUBREY TRACT AND BEING IN THE WEST RIGHT-OF-WAY LINE OF FARM-TO-MARKET NO. 2931 (A PAVED WELL TRAVELED ROADWAY OF UNDETERMINED WIDTH);

THENCE DEPARTING SAID WEST RIGHT-OF-WAY LINE OVER AND ACROSS SAID AUBREY TRACT THE FOLLOWING BEARINGS AND DISTANCES:

N 82° 51' 17" W, 278.95 FEET;

N 88° 26' 38" W, 73.62 FEET;

N 79° 50' 22" W, 156.02 FEET;

N 83° 34' 37" W, 13.51 FEET;

N 83° 03' 16" W, 114.91 FEET;

N 83° 02' 03" W, 125.94 FEET;

N 88° 30' 27" W, 95.39 FEET TO THE SOUTH LINE OF SAID AUBREY TRACT AND BEING THE MOST NORTHERLY NORTHEAST CORNER OF A TRACT OF LAND TO CHARLES NGATIA RECORDED IN INSTRUMENT NUMBER 2019-84466 OF SAID O.P.R.D.C.T;

THENCE N 88° 30' 27" W, 2445.53 FEET ALONG SAID SOUTH LINE TO THE SOUTHWEST CORNER OF SAID AUBREY TRACT;

THENCE N 01° 32' 58" E, 80.97 FEET ALONG THE WEST LINE OF SAID AUBREY TRACT;

THENCE DEPARTING THE WEST LINE OF SAID AUBREY TRACT OVER AND ACROSS THE FOLLOWING BEARINGS AND DISTANCES:

S 88° 35' 50" E, 3237.22 FEET TO THE BEGINNING OF A CURVE TO THE RIGHT;

WITH SAID CURVE TO THE RIGHT, AN ARC DISTANCE OF 62.71 FEET, THROUGH A CENTRAL ANGLE OF 00° 40' 50", HAVING A RADIUS OF 5280.00 FEET, AND A LONG CHORD WHICH BEARS S 88° 15' 25" E, 62.71 FEET TO THE WEST LINE OF SAID F.M. 2931;

THENCE S 01° 38' 33" W, 160.93 FEET TO THE POINT OF BEGINNING AND CONTAINING 304,864 SQUARE FEET OR 6.999 ACRES MORE OR LESS.

"This document was prepared under 22 Texas Administrative Code 138.95, does not reflect the results of an on the ground survey, and is not to be used to convey or establish interests in real property except those rights and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared."

EXHIBIT E

CONCEPT PLAN

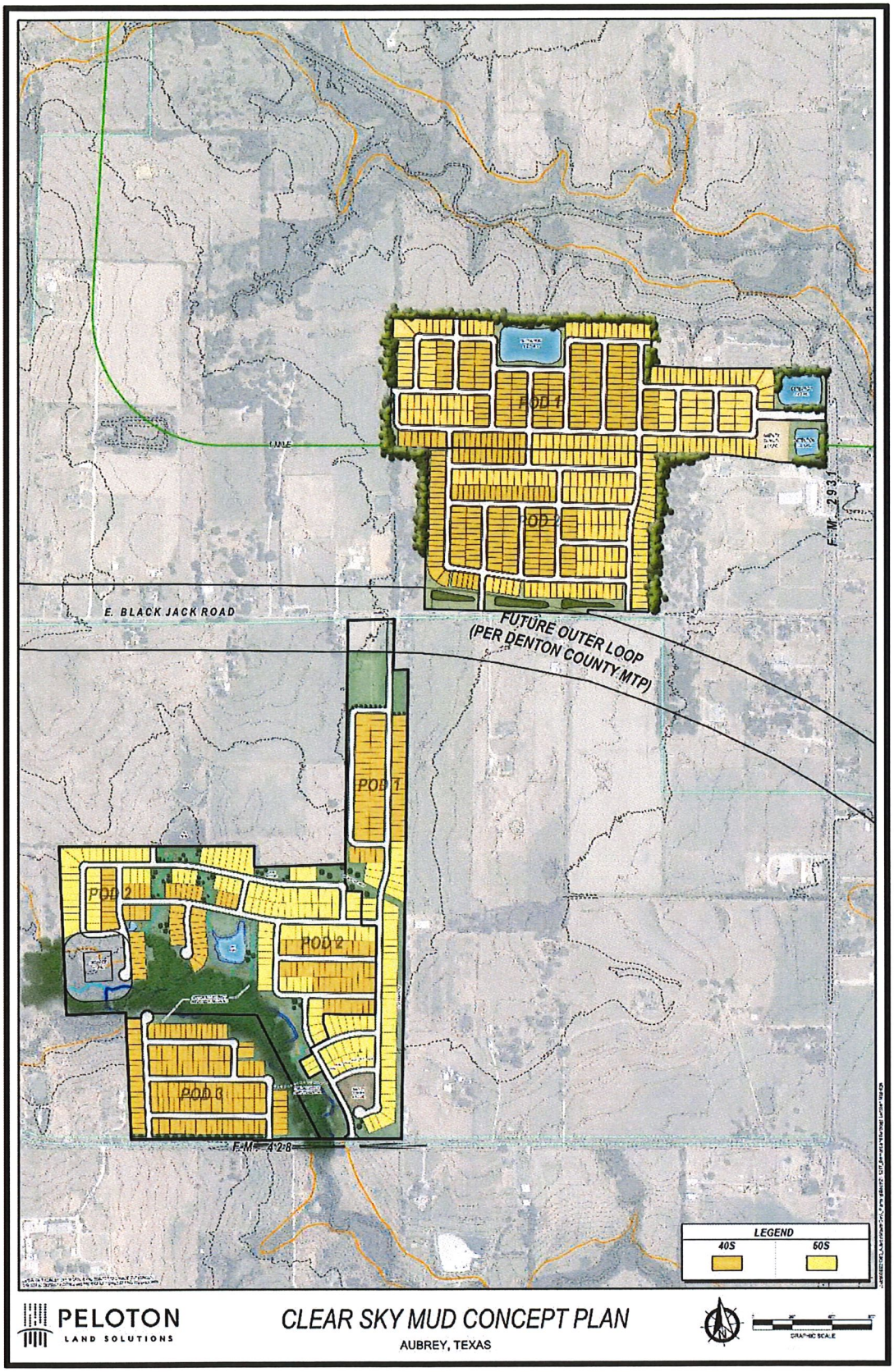

POD 1
POD 2
E. BLACK JACK ROAD
FUTURE OUTER LOOP
(PER DENTON COUNTY MTP)
F.M. 2931
POD 1
POD 2
POD 2
POD 3
F.M. 428
LEGEND
40S
60S
PELOTON
LAND SOLUTIONS
CLEAR SKY MUD CONCEPT PLAN
AUBREY, TEXAS

EXHIBIT F
SPECIAL REGULATIONS

1. Development Standards

1.1 Purpose is to provide suitable areas for the development of single-family residential structures.

1.2 Lot Standards for 40' wide lots Fee-Simple, Detached Single-Family Homes):
- a) Minimum Lot width of 40'
- b) Minimum Lot Depth of 110'
- c) Front Yard Setback of 20'
- d) Rear Yard Setback of 10'
- e) Side Yard Setback of 5'

1.3 Lot Standards for 50' wide lots Fee-Simple, Detached Single-Family Homes):
- a) Minimum Lot width of 50'
- b) Minimum Lot Depth of 110'
- c) Front Yard Setback of 20'
- d) Rear Yard Setback of 10'
- e) Side Yard Setback of 5'

1.4 Maximum Lot Coverage:
(a) 40' Wide Lots 55%
b) 50' Wide Lots: 60%

1.5 Minimum Floor Area per Housing Type:a) 40' Wide Lots: 1,200 sf
b) 50' Wide Lots 1,400 sf

1.6 Maximum Structure Height: 2 stories or a maximum of 45 feet as measured to the midpoint of the pitched roof. Architectural projections above the 45 foot level may be allowed however these may not exceed 60 feet in height.

1.7 Minimum parking requirements: 2 parking spaces per lot to be provided as off-street parking.

1.8 Exterior Construction: 75% percent masonry veneers on all exterior façades of buildings, shall be provided. This requirement may be met using a combination of stucco, stone, brick, split face block, cultured stone, fiber cement siding, or other city approved material (area containing glass shall be included in the 75 percent calculation, except that the front façade of each building shall only use brick and or stone to meet the 75% requirement).

1.9 Architectural Features

2.10.1 Primary Building Structures and Accessory Structures
- a) Building Orientation. Where possible, buildings shall be oriented along public streets so as to create a pleasant walking environment along public sidewalks
- b) Buildings should incorporate a front yard transitional space between the adjacent street(s) and the building(s). This may include a landscape front yard and/or landscape entry court.
- c) Primary entrance should be architecturally significant and separate in height from the remainder of the property.

d) A 2-car garage shall be provided for each unit.

i. 40' Wide Lots: Garages shall be attached or detached. Detached garages shall only be incorporated into a courtyard type model. Attached garages shall be situated so that they are offset from another architectural component (living area or porch). Offsets shall be no more than 5' in front of another architectural component. All garages shall include at least two architectural design elements including, but not limited to: decorative overhang, banding or molding, detailed door design, decorative hardware, double doors, and windows.

ii. 50' Wide Lots: Garages shall be attached and be situated so that they are offset from another architectural component (living area or porch). Offset shall be no more than 5' in front of another architectural component. Garages shall include at least two architectural design elements including, but not limitedto: decorative overhang, banding or molding, detailed door design, decorativehardware, double doors, and windows.

2.10.2 Required Architectural Features

a) Gabled roofs or hipped roofs are allowed. Gabled roofs or hipped roofs shall have a minimum pitch of 6:12 excluding porches and patios.

b) Roof material shall use architectural grade asphalt shingles, or better, such as tile,state or standing seam metal roof.

c) Shutters shall be the same height as the associated window. All shutters shall be louvered, paneled, or constructed of boards as appropriate to the style of the building. Shutters do not need to be operable.

d) Chimneys shall be sheathed in brick, stucco, or cementitious siding.

e) Wooden Posts exposed on the street wall shall be no less than 6 inch by 6 inch in cross section and limited to front and rear porches only.

f) For columns at the front façade, column bases shall not protrude beyond the bottom edge of the porch, stoop, or patio flooring.

1.10 Landscape/Hardscape:

2.11.1 Landscaping: Each lot shall provide one (1) 3" caliper tree and 1 large ornamental (50gallon).

2.11.2 Open Space:

a) All open space lots shall be owned and maintained by the Homeowners Associationunless otherwise noted on a city approved plat.

2.11.3 Entry Features shall be allowed to be constructed in HOA owned and maintainedmedians within the platted subdivision.

2.11.4 The developer shall be allowed, but not required, to include concrete trails, community clubhouse, and playgrounds as deemed suitable for the development.

Case Report –Amending Plat Application – Chase Oaks, Lots 5R1 and 4, Block 1 to Lots 5R1-A and 4-A, Block 1
Planning and Zoning Commission –May 9, 2024
City Council – May 23, 2024

To: Mayor, City Council, Planning and Zoning Commission

From: Helen-Eve Beadle, AICP, HE Planning+Design, LLC

Request: Consider and make a recommendation to City Council regarding an Amending Plat for Chase Oaks, Lots 5R1 and 4, Block 1 to Lots 5R1-A and 4-A, Block 1, containing two (2) lots in 15.00 acres of land out of the H. White Survey, Abstract No. 1332, within the City of Aubrey Extraterritorial Jurisdiction and jurisdiction of Denton County, Texas (*H&L Partners, LLC & Monica J. Lucibello*)

Owner:	H&L Partners, LLC & Monica J. Lucibello
Engineer:	Landmark Surveyors, LLC (Brad Hamilton, RPLS)
Application Date:	April 10, 2024
Location:	The property is located at the northwest corner of New Hope Road and Arvin Hill Road
Zoning:	N/A, the property is in the ETJ
Future Land Use Plan:	Rural Residential and Agricultural
Current Use:	Undeveloped

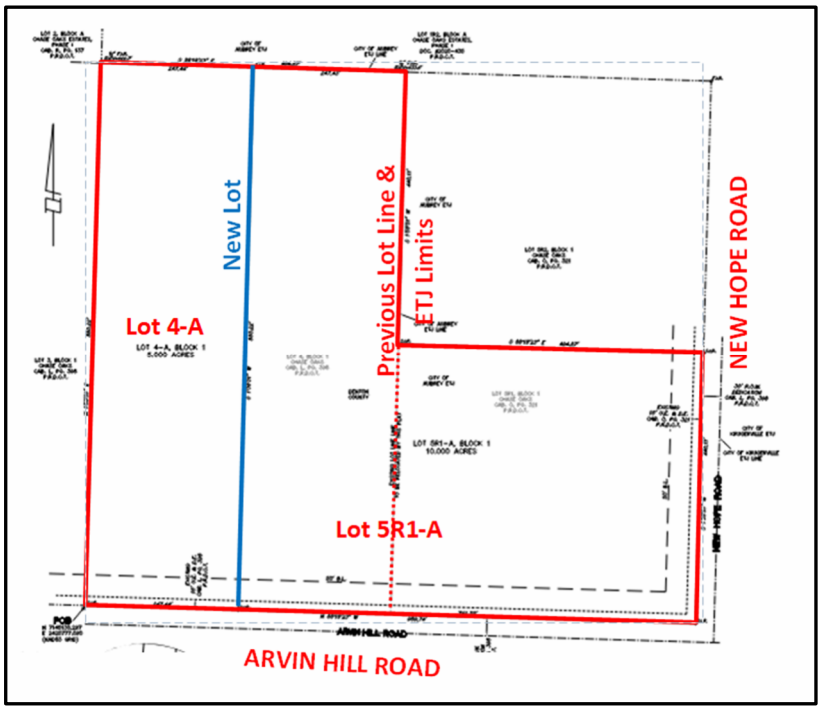
Analysis:

The applicant has submitted an Amending Plat application to relocate a lot line between two (2) existing lots. The Subdivision Ordinance states and Amending Plat may be used to "Relocate one or more lot lines between one or more adjacent lots if:

(i) The owners of all those lots join in the application for amending the Plat ...".

Lot 5R1-A is within the City's ETJ and Denton County's jurisdiction. Lot 4-A is solely within Denton County's jurisdiction. The plat provides for two (2) approval blocks for each jurisdiction. Staff are working with the applicant and county to ensure processing is appropriate.

Utilities:
Sanitary sewer service will be provided through Denton County Health Department and water is being provided by Black Rock Water Supply Corporation. CoServ is the electric provider.



Recommendation:

The Amending Plat for Chase Oaks Lots 5R-1 and 4-A, Block 1 is recommended for approval subject to the following conditions:

1. The plat shall be retitled Amending Plat;
2. The County and City need to determine how plat in two (2) jurisdictions will be processed; and
3. The application is not signed by Monica J. Lucibello, Trustee for Monica J. Lucibello Family Trust. The application is signed by Christopher Hall. Authorizations are forthcoming and will be provided prior to City Council consideration.

Other requirements for filing: Signed Amending Plat, tax certificate for filing, completion of improvements, and filing fees.

The Planning and Zoning Commission may recommend to the City Council

1. Approve the Amending Plat;
2. Approve the Amending Plat with conditions; or
3. Deny the Amending Plat.

Attachments:

4. Amending Plat for Chase Oaks, Lots 5R1 and 4 creating Lots 5R1-A and 4-A, Block 1



OWNER'S CERTIFICATE AND DEDICATION

STATE OF TEXAS
COUNTY OF DENTON; WHEREAS WE, H & L Partners, LLC, and Monica J. Lucibello Family Trust are the owners of that certain lot, tract, or parcel of land situated in the H. White Survey Abstract Number 1332 in the Extraterritorial Jurisdiction of the City of Aubrey, Denton County, Texas and in Denton County, Texas, being all of Lot 4, Block 1 of Chase Oaks, an addition to Denton County, Texas, according to the plat thereof recorded in Cabinet L, Page 398, Plat Records, Denton County, Texas, and being all of Lot 5R1, Block 1 of Chase Oaks, an addition to Denton County, Texas according to the replat thereof recorded in Cabinet O, Page 321, Plat Records, Denton County, Texas and being more particularly described as follows:

BEGINNING at a capped iron rod marked RPLS 4561 set for corner in the north line of Arvin Hill Road, a public roadway, said point being the southeast corner of Lot 3 in Block 1 of said Chase Oaks recorded in Cabinet L, Page 398, Plat Records, Denton County, Texas;

THENCE N 01° 38' 51" E, 880.22 feet with the east line of said Lot 3 to a, said point being the southwest corner of Lot 1R2, Block A of Chase Oaks Estates, Phase I, an addition to Denton County, Texas according to the replat thereof recorded in Document Number 2020-435, Plat Records, Denton County, Texas;

THENCE S 88° 18' 23" E, 494.87 feet with the south line of said Lot 1R2, Block A of said Chase Oaks Estates to ½ inch iron rod found for corner, said point being the northwest corner of Lot 5R2 in said Block 1 of said replat of Chase Oaks, recorded in Cabinet O, Page 321, Plat Records, Denton County, Texas

THENCE S 01° 38' 51" W, 440.11 feet with the west line of said Lot 5R2 to a capped iron rod marked RPLS 4561 set for corner, said point being the southwest corner of said Lot 5R2;

THENCE S 88° 18' 23" E, 494.87 feet with the south line of said Lot 5R2 to a capped iron rod marked RPLS 4561 set for corner in the west line of New Hope Road, a public roadway;

THENCE S 01° 38' 51" W, 440.11 feet with said west line of said New Hope Road to a capped iron rod marked RPLS 4561 set for corner in said north line of said Arvin Hill Road;

THENCE N 88° 18' 23" W, 989.74 feet with said north line of said Arvin Hill Road to the **PLACE OF BEGINNING** and containing 15.000 acres of land.

NOW THEREFORE, KNOW ALL MEN BY THESE PRESENTS THAT WE, the aforesaid do hereby adopt this plat designating the herein above tract as **LOT 4-A AND LOT 5R1-A, BLOCK 1, CHASE OAKS, AMENDING Lot 4 and Lot 5R1, BLOCK 1 Chase Oaks,** an addition to the Extraterritorial Jurisdiction of the City of Aubrey, Denton County, Texas, and Denton County, Texas and do hereby dedicate to the public use forever all utility easements, drainage easements, and streets as shown hereon. All and any public utilities shall have the full right to remove and keep removed all growths which may endanger or interfere with the construction, maintenance, or efficiency of its respective system on the utility easement for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining, and adding to or removing all or part of its respective systems without the necessity at anytime of procuring the permission of anyone.

WITNESS MY HAND this _____ day of _____, 2024.

_____
Dina Hall, Managing Partner, H & L Partners, LLC

STATE OF TEXAS
COUNTY OF DENTON:
This instrument was acknowledged before me on _____, 2024 by Dina Hall.

_____
NOTARY PUBLIC
STATE OF TEXAS

WITNESS MY HAND this _____ day of _____, 2024.

_____
Monica J. Lucibello, Trustee, Monica J. Lucibello Family Trust

STATE OF TEXAS
COUNTY OF DENTON:
This instrument was acknowledged before me on _____, 2024 by Monica J. Lucibello.

_____
NOTARY PUBLIC
STATE OF TEXAS

CERTIFICATE OF APPROVAL
This plat has been submitted to and considered by the **PLANNING AND ZONING COMMISSION** of the City of Aubrey, Texas, and is hereby approved by such commission.
Approved this _____ day of _____ A. D. 2024

_____
Chairperson, Planning and Zoning Commission

ATTESTED

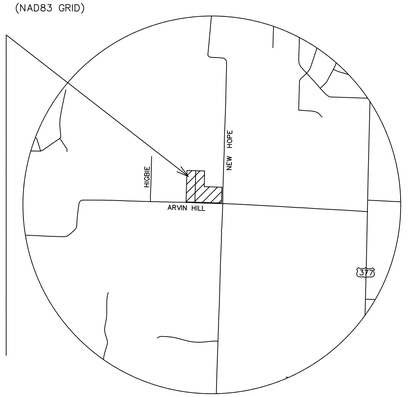
_____
City Secretary

The **CITY COUNCIL** of Aubrey, Texas, on _____, 2024 Voted affirmatively to adopt this plat and approve it for filing of record.

BY: _____
Mayor, City of Aubrey

BY: _____
City Secretary

PROJECT LOCATION



VICINITY MAP
SCALE 1" = 2000'

CERTIFICATE OF SURVEYOR

I, the undersigned, a registered professional land surveyor in the State of Texas, do hereby certify that this plat is true and correct and was prepared from an actual survey of the property made under my supervision on the ground.

_____
Jerald D. Yensan
Registered Professional Land Surveyor No. 4561

Water service is provided by:

Black Rock Water Supply Corporation
5901 New Hope Road
Aubrey, Texas 76227
(940) 365-0963

Electric service is provided by:

Coserv
7701 S. Stemmons
Corinth, Texas 76210
(940) 274-4014

GRAPHIC SCALE 1"=60'

0 30 60 120 180 240 300

NOTES:
1. The purpose of this plat is to relocate an existing lot line between two existing platted lots.
2. Sanitary Sewer is handled by facilities approved by the Denton County Public Health Department.
3. Construction not complete within two years of the Commissioners Court approval shall be subject to current Subdivision Rules and Regulations.
4. A driveway culvert permit must be obtained from Road and Bridge Department by the owner of each lot prior to the construction, installation, or placement of any driveway access improvements within the dedicated right-of-way.
5. No construction without written approval from Denton County shall be allowed within an identified "FIRM" floodplain area, and then only after a detailed floodplain development permit including engineering plans and studies showing that no rise to the Base Flood Elevation (BFE) will result, and subject to all owners of the property affected by such construction becoming a party to the request. Where construction is permitted, all finished floor elevations shall be a minimum of two feet above the 100-year flood elevation.
6. All surface drainage easements shall be kept clear of fences, buildings, foundations, plantings and other obstructions to the operation and maintenance of the drainage facility.
7. The maintenance of paving, grading, and drainage improvements and/or easements shown on this plat are the responsibility of the individual property owners and do not constitute acceptance of same for maintenance purposes by Denton County.
8. Blocking the flow of water or construction of improvements in surface drainage easements, and filling or obstructing the floodway is prohibited.
9. Denton County will not be responsible for any damage, personal injury, or loss of life or property occasioned by flooding or flooding conditions.
10. Any existing creeks or drainage channels traversing along or across the addition will remain as open channels and will be maintained by the individual property owners of the lot or lots that are traversed by or adjacent to the drainage courses along or across the lots.
11. Denton County shall not be responsible for maintenance of private streets, drives, emergency access easements, recreation areas and open spaces; and the owners shall be responsible for the maintenance of private streets, drives, emergency access easements, recreation areas and open spaces, and said owners agree to indemnify and hold harmless Denton County from all claims, damages and losses arising out of or resulting from performance of the obligations of said owners set forth in this paragraph.
12. No portion of subject property lies within a special flood hazard area according to the FLOOD INSURANCE RATE MAP for Denton County and Incorporated Area, Map Number 48121CO245G, dated April 18, 2011. (Subject property lies in Zone X)
13. Basis of Bearing is the State Plane Coordinate System, Texas North Central Zone (4202), North American Datum of 1983, as determined from GPS observations.

The purpose of this plat is to relocate an existing lot line between two existing platted lots.

CERTIFICATE OF APPROVAL
Approved this _____ day of _____ A. D. 2024
By the Commissioners Court, County of Denton

_____
County Judge

LEGEND
B.L. = BUILDING LINE
D.E. = DRAINAGE EASEMENT
F.I.R. = FOUND IRON ROD
S.I.R = SET CAPPED 1/2" RPLS 4561 IRON ROD
P.U.E. = PUBLIC UTILITY EASEMENT
R.P.R.D.C.T.= REAL PROPERTY RECORDS DENTON COUNTY TEXAS
P.R.D.C.T.= PLAT RECORDS DENTON COUNTY TEXAS
POB = PLACE OF BEGINNING
R.O.W. = RIGHT OF WAY
C.F. = CLERK'S FILE
R = RADIUS
L = LENGTH
CD = CHORD DISTANCE
CB = CHORD BEARING
Δ = DELTA
CL = CENTERLINE OF ROAD
= PROPERTY LINE
= CENTER LINE OF ROAD
= EASEMENT LINE
= TRACT LINE

FINAL PLAT
LOTS 5R1-A AND 4-A, BLOCK 1 OF CHASE OAKS, AMENDING LOTS 5R1 AND 4, BLOCK 1 OF CHASE OAKS BEING 15.000 ACRES IN THE H. WHITE SURVEY A-1332 CITY OF AUBREY ETJ AND DENTON COUNTY, TEXAS

OWNER/DEVELOPER
H & L PARTNERS, LLC.
DINA HALL
9350 ARVIN HILL ROAD
AUBREY, TX 76227
630-222-0180

OWNER/DEVELOPER
MONICA J. LUCIBELLO
200 S. LOOMIS
NAPERVILLE, IL 60540

SURVEYOR
LANDMARK SURVEYORS
4238 I-35 N
DENTON, TEXAS 76207
(940) 382-4016

LANDMARK SURVEYORS, LLC.
TX FIRM REGISTRATION NO. 10098600
4238 I-35 NORTH
DENTON, TEXAS 76207
(940) 382-4016
FAX (940) 387-9784

DRAWN BY: BTH SCALE: 1"=60' DATE: 21 MARCH, 2024 JOB NO: 247338

Case Report –Amending Plat Application – Chase Oaks, Lots 5R1 and 4, Block 1 to Lots 5R1-A and 4-A, Block 1
Planning and Zoning Commission –May 9, 2024
City Council – May 23, 2024

To: Mayor, City Council, Planning and Zoning Commission

From: Helen-Eve Beadle, AICP, HE Planning+Design, LLC

Request: Consider and make a recommendation to City Council regarding an Amending Plat for Blackjack Addition Lots 3R and 2R, Block A to Lots 2R1 & 3R-1, Block A, containing two (2) lots in 27.847 acres of the Thomas White Survey, Abstract No. 223, within the City of Aubrey Extraterritorial Jurisdiction, Denton County, Texas (*Wade L. & Judi K. Veeder and 1555 Blackjack, LLC*)

Owner:	Wade L. & Judi K. Veeder and 1555 Blackjack, LLC
Engineer:	Metroplex Surveying, Inc. (Brad Shelton, RPLS)
Application Date:	April 10, 2024
Location:	The property is located north of Blackjack Road and west of FM 2931
Zoning:	N/A, the property is in the ETJ
Future Land Use Plan:	Rural Residential and Agricultural
Current Use:	Undeveloped

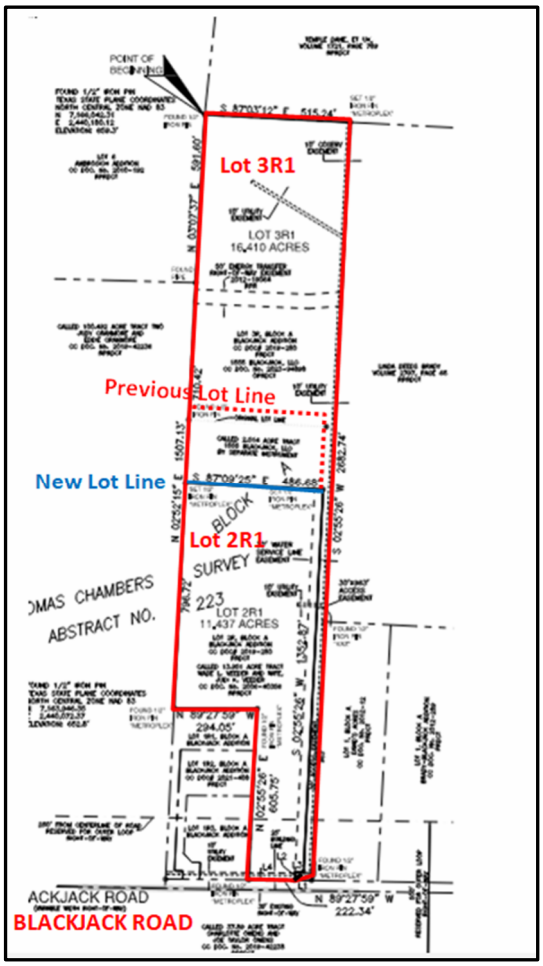
Analysis:

The applicant has submitted an Amending Plat application to relocate a lot line between two (2) existing lots. The Subdivision Ordinance states and Amending Plat may be used to "Relocate one or more lot lines between one or more adjacent lots if:

(i) The owners of all those lots join in the application for amending the Plat ...".

The plat provides a waterline easement and an access easement serving the lots.

Utilities:
Sanitary sewer service will be provided through Denton County Health Department and water is being provided by Mustang Special Utility District CoServ is the electric provider.



Recommendation:

The Amending Plat for Blackjack Addition Lots 2R1 & 3R1, Block A is recommended for approval subject to the following conditions:

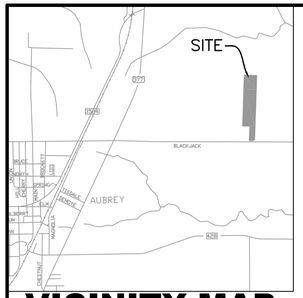
1. Requirements for filing: Signed Amending Plat, tax certificate for filing, completion of improvements, and filing fees shall be provided.

The Planning and Zoning Commission may recommend to the City Council

1. Approve the Amending Plat;
2. Approve the Amending Plat with conditions; or
3. Deny the Amending Plat.

Attachments:

4. Amending Plat for Blackjack Addition Lots 3R and 2R, Block A to Lots 2R1 & 3R-1, Block A



VICINITY MAP
NOT TO SCALE



LEGEND

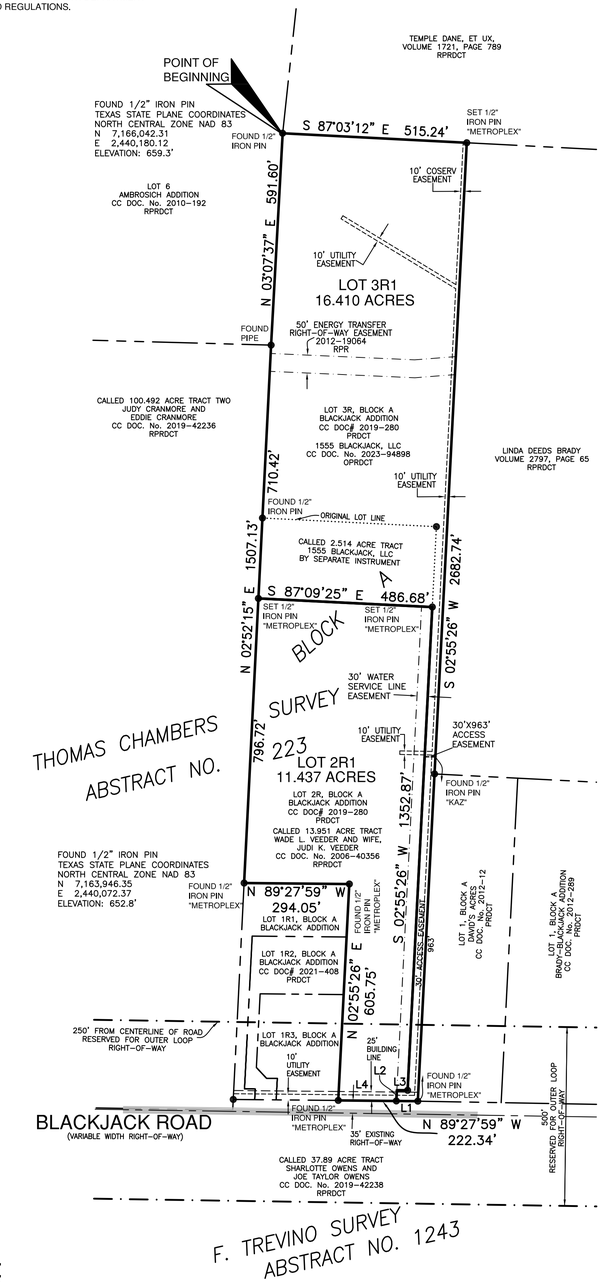
PRDCT = PLAT RECORDS DENTON COUNTY TEXAS
RPRDCT = REAL PROPERTY RECORDS DENTON COUNTY TEXAS
OPRDCT = OFFICIAL PUBLIC RECORDS DENTON COUNTY TEXAS
CM = CONTROLLING MONUMENT
FIP = FOUND IRON PIN
SIP = SET IRON PIN
C_L = CENTERLINE
DEED CALLS = "( )"

WATER:
MUSTANG SPECIAL
UTILITY DISTRICT
7985 F.M. 2931
AUBREY, TX 76227
PH:(940)440-9561

ELECTRIC-
COSERV ELECTRIC
7701 S. STEMMONS
CORINTH, TX 76210
PH:(800) 274-4014

TELEPHONE-
SPRINT
P.O. BOX 629023
EL DORADO HILLS, CA 95752
PH:(888)211-4727

SEWER:
SANITARY SEWER TO BE INDIVIDUAL
SEPTIC SYSTEMS ON EACH LOT. ALL
SEPTIC SYSTEMS SHALL CONFORM
TO DENTON COUNTY HEALTH DEPARTMENT
RULES AND REGULATIONS.



GENERAL NOTES:

1. SELLING A PORTION OF THIS ADDITION BY METES AND BOUNDS IS A VIOLATION OF THE CITY ORDINANCE AND STATE LAW AND IS SUBJECT TO FINES AND WITHHOLDING OF UTILITIES AND BUILDING PERMITS.

2. 1/2 INCH IRON RODS SET AT LOT CORNERS WITH YELLOW PLASTIC CAP STAMPED WITH METROPLEX 10023300, UNLESS OTHERWISE NOTED.

3. THE PURPOSE OF THIS PLAT IS TO CREATE TWO RESIDENTIAL LOTS.

4. BEARINGS ARE BASED ON GPS OBSERVATIONS USING TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83 NORTH CENTRAL TEXAS ZONE.

5. SANITARY SEWER TO BE HANDLED BY FACILITIES APPROVED BY THE DENTON COUNTY PUBLIC HEALTH DEPARTMENT.

6. CONSTRUCTION NOT COMPLETE WITHIN TWO YEARS OF THE COMMISSIONERS COURT APPROVAL SHALL BE SUBJECT TO CURRENT COUNTY SUBDIVISION RULES AND REGULATIONS.

7. A DRIVEWAY CULVERT MUST BE OBTAINED FROM DEVELOPMENT SERVICES BY THE OWNER OF EACH LOT PRIOR TO THE CONSTRUCTION, INSTALLATION OR PLACEMENT OF ANY DRIVEWAY ACCESS IMPROVEMENTS WITHIN THE DEDICATED RIGHT-OF-WAY.

8. 30' WATERLINE EASEMENT ALONG EAST LINE OF LOT 2R1 IS INTENDED TO PROVIDE WATER SERVICE FOR LOT 3R1.

9. ACCESS EASEMENT ACROSS THE SOUTH 963' OF LOT 3R1 IS INTENDED TO PROVIDE ACCESS TO EXISTING DRIVEWAYS FOR LOT 2R1.

10. BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS WITHIN ZONE "X", AREAS DETERMINED TO BE OUTSIDE OF A DESIGNATED 100 YEAR OR 500 YEAR FLOOD PLAIN AS SHOWN BY FIRM MAP COMMUNITY-PANEL NUMBER 48121C0265G, DATED APRIL 18, 2011. NO SURVEYING WAS PERFORMED TO DETERMINE THIS FLOOD ZONE.

11. NO CONSTRUCTION, WITHOUT WRITTEN APPROVAL FROM DENTON COUNTY SHALL BE ALLOWED WITHIN AN IDENTIFIED "FIRM" FLOODPLAIN AREA, AND THEN ONLY AFTER A DETAILED FLOODPLAIN DEVELOPMENT PERMIT INCLUDING ENGINEERING PLANS AND STUDIES SHOW THAT NO RISE IN THE BASE FLOOD ELEVATION (BFE) WILL RESULT, THAT NO FLOODING WILL RESULT, THAT NO OBSTRUCTION TO THE NATURAL FLOW OF WATER WILL RESULT; AND SUBJECT TO ALL OWNERS OF THE PROPERTY AFFECTED BY SUCH CONSTRUCTION BECOMING A PARTY TO THE REQUEST. WHERE CONSTRUCTION IS PERMITTED, ALL FINISHED FLOOR ELEVATIONS SHALL BE A MINIMUM OF TWO-FOOT ABOVE THE 100-YEAR FLOOD ELEVATION.

12. ALL SURFACE DRAINAGE EASEMENTS SHALL BE KEPT CLEAR OF FENCES, BUILDINGS, FOUNDATIONS, PLANTINGS, AND OTHER OBSTRUCTIONS TO THE OPERATION AND MAINTENANCE OF THE DRAINAGE FACILITY.

13. THE MAINTENANCE OF PAVING, GRADING AND DRAINAGE IMPROVEMENTS AND/OR EASEMENTS SHOW ON THIS PLAT ARE THE RESPONSIBILITY OF THE INDIVIDUAL PROPERTY OWNERS AND DO NOT CONSTITUTE ACCEPTANCE OF SAME FOR MAINTENANCE PURPOSES BY DENTON COUNTY.

14. BLOCKING THE FLOW OF WATER OR CONSTRUCTION IMPROVEMENTS IN SURFACE DRAINAGE EASEMENTS, AND FILLING OR OBSTRUCTING THE FLOODWAY IS PROHIBITED.

15. DENTON COUNTY WILL NOT BE RESPONSIBLE FOR ANY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE OR PROPERTY OCCASIONED BY FLOODING OR FLOODING CONDITIONS.

16. THE EXISTING CREEKS OR DRAINAGE CHANNELS TRAVERSING ALONG OR ACROSS THE ADDITION WILL REMAIN AS OPEN CHANNELS AND WILL BE MAINTAINED BY THE INDIVIDUAL PROPERTY OWNERS OF THE LOT OR LOTS THAT ARE TRAVERSED BY OR ADJACENT TO THE DRAINAGE COURSES ALONG OR ACROSS THE LOTS.

17. DENTON COUNTY SHALL NOT BE RESPONSIBLE FOR MAINTENANCE OF PRIVATE STREETS, DRIVES, EMERGENCY ACCESS EASEMENTS, RECREATION AREAS AND OPEN SPACES; AND THE OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF PRIVATE STREETS, DRIVES, EMERGENCY ACCESS EASEMENTS, RECREATION AREAS AND OPEN SPACES, AND SAID OWNERS AGREE TO INDEMNIFY AND HOLD HARMLESS DENTON COUNTY, FROM ALL CLAIMS, DAMAGES ND LOSSES ARISING OUT OF OR RESULTING FROM PERFORMANCE OF THE OBLIGATIONS OF SAID OWNERS SET FORTH IN THIS PARAGRAPH.

CALL AT LEAST 48 HOURS BEFORE DIGGING
(800) 545-6005 OR 811
Know what's **below.** **Call** before you dig.

A FEDERAL LAW NOW IN EFFECT ALSO STATES THAT ANY PERSON WHO ENGAGES IN EXCAVATION ACTIVITIES WITHOUT FIRST USING AS AVAILABLE ONE-CALL NOTIFICATION SYSTEM TO DETERMINE LOCATIONS OF UNDERGROUND FACILITIES; OR WITHOUT HEEDING LOCATION INFORMATION OR MARKINGS AND SUBSEQUENTLY DAMAGES A PIPELINE FACILITY SHALL BE SUBJECT TO A FINE, IMPRISONMENT, OR BOTH, THE LAW ALSO STATES THAT OSHA MAY BE NOTIFIED OF ANY ACCIDENT CAUSED BY AN EXCAVATOR.

LINE TABLE

L1	N89°27'59"W	60.05'
L2	N02°55'26"E	30.00'
L3	S89°27'59"E	30.03'
L4	N89°27'59"W	162.28'

STATE OF TEXAS XX
COUNTY OF DENTON XX

WHEREAS, WE, WADE L. VEEDER, JUDI K. VEEDER, AND 1555 BLACKJACK, LLC ARE THE OWNERS OF A 27.847 ACRE TRACT OR PARCEL OF LAND LYING AND BEING SITUATED IN THE THOMAS CHAMBERS SURVEY, ABSTRACT NUMBER 223, DENTON COUNTY, TEXAS, AND BEING ALL OF LOTS 2R AND 3R, BLOCK A, BLACKJACK ADDITION, RECORDED UNDER COUNTY CLERKS DOCUMENT NUMBER 2019-280, PLAT RECORDS, DENTON COUNTY, TEXAS, AND BEING ALL OF A CALLED 13.951 ACRE TRACT DESCRIBED IN A DEED TO WADE L. VEEDER AND WIFE, JUDI K. VEEDER, RECORDED UNDER COUNTY CLERK'S DOCUMENT NUMBER 2006-40356, REAL PROPERTY RECORDS, DENTON COUNTY, TEXAS, ALSO BEING ALL OF LOT 3R, BLOCK A, OF SAID BLACKJACK ADDITION AS DESCRIBED IN A DEED TO 1555 BLACKJACK, LLC, RECORDED UNDER COUNTY CLERK'S DOCUMENT NUMBER 2023-94898, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 1/2 INCH IRON PIN FOUND AT THE NORTHWEST CORNER OF SAID LOT 3R, BLACKJACK ADDITION AND A SOUTHWEST CORNER OF A TRACT DESCRIBED IN A DEED TO TEMPLE DANE, ET UX, RECORDED IN VOLUME 1721, PAGE 789, REAL PROPERTY RECORDS, DENTON COUNTY, TEXAS, AND ON THE EAST LINE OF LOT 6, AMBROSICH ADDITION, RECORDED UNDER COUNTY CLERK'S FILE NUMBER 2010-192, PLAT RECORDS, DENTON COUNTY, TEXAS;

THENCE SOUTH 87 DEGREES 03 MINUTES 12 SECONDS EAST WITH THE NORTH LINE OF SAID LOT 3R, BLACKJACK ADDITION, A DISTANCE OF 515.24 FEET TO A SET 1/2 INCH IRON PIN MARKED "METROPLEX 10023300" AT THE NORTHEAST CORNER OF SAID LOT 3R, BLACKJACK ADDITION AND THE NORTHWEST CORNER OF A TRACT DESCRIBED IN A DEED TO LINDA DEEDS BRADY, RECORDED IN VOLUME 2797, PAGE 65, REAL PROPERTY RECORDS, DENTON COUNTY, TEXAS, SAID PIN ALSO BEING ON THE SOUTH LINE OF SAID DANE TRACT;

THENCE SOUTH 02 DEGREES 55 MINUTES 26 SECONDS WEST WITH THE EAST LINE OF SAID LOT 3R, BLACKJACK ADDITION, A DISTANCE OF 2682.74 FEET TO A 1/2 INCH IRON PIN FOUND WITH A YELLOW PLASTIC CAP MARKED "METROPLEX", AT THE SOUTHEAST CORNER OF SAID LOT 3R, BLACKJACK ADDITION AND AT THE SOUTHWEST CORNER OF LOT 1, BLOCK A, DAVID'S ACRES, RECORDED UNDER COUNTY CLERK'S DOCUMENT NUMBER 2012-12, PLAT RECORDS, DENTON COUNTY, TEXAS, SAID NAIL ALSO BEING ON THE NORTH LINE OF BLACKJACK ROAD;

THENCE NORTH 89 DEGREES 27 MINUTES 59 SECONDS WEST WITH THE NORTH LINE OF BLACKJACK ROAD, A DISTANCE OF 222.34 FEET TO A 1/2 INCH IRON PIN FOUND WITH A YELLOW PLASTIC CAP MARKED "METROPLEX", AT THE SOUTHERNMOST SOUTHWEST CORNER OF SAID LOT 2R, BLACKJACK ADDITION AND THE SOUTHEAST CORNER OF LOT 1R3, BLOCK A, BLACKJACK ADDITION, RECORDED UNDER COUNTY CLERKS DOCUMENT NUMBER 2021-408, PLAT RECORDS, DENTON COUNTY, TEXAS, SAID NAIL ALSO BEING ON THE NORTH LINE OF BLACKJACK ROAD;

THENCE NORTH 02 DEGREES 55 MINUTES 26 SECONDS EAST WITH THE EAST LINE OF SAID LOT 1R3, BLACKJACK ADDITION, A DISTANCE OF 605.75 FEET TO A 1/2 INCH IRON PIN FOUND WITH A YELLOW PLASTIC CAP MARKED "METROPLEX", AT THE NORTHEAST CORNER OF LOT 1R1, BLOCK A, OF SAID BLACKJACK ADDITION (2021-408) AND AN INNER ELL CORNER OF SAID LOT 2R, BLACKJACK ADDITION;

THENCE NORTH 89 DEGREES 27 MINUTES 59 SECONDS WEST WITH A SOUTH LINE OF SAID LOT 2R, BLACKJACK ADDITION AND THE NORTH LINE OF LOT 1R1, BLACKJACK ADDITION, A DISTANCE OF 294.05 FEET TO A 1/2 INCH IRON PIN FOUND WITH A YELLOW PLASTIC CAP MARKED "METROPLEX", AT THE NORTHWEST CORNER OF SAID LOT 1R1, BLACKJACK ADDITION AND AT THE WESTERNMOST SOUTHWEST CORNER OF SAID LOT 2R, BLACKJACK ADDITION, SAID PIN ALSO BEING ON THE EAST LINE OF A CALLED 100.492 ACRE TRACT TWO DESCRIBED IN A DEED TO JUDY CRANMORE AND EDDIE CRANMORE, RECORDED UNDER COUNTY CLERK'S DOCUMENT NUMBER 2019-42236, REAL PROPERTY RECORDS, DENTON COUNTY, TEXAS;

THENCE NORTH 02 DEGREES 52 MINUTES 15 SECONDS EAST WITH THE EAST LINE OF SAID TRACT TWO, A DISTANCE OF 1507.13 FEET TO A PIPE FOUND FOR THE NORTHEAST CORNER OF SAID TRACT TWO AND THE SOUTHEAST CORNER OF SAID LOT 6, AMBROSICH ADDITION, SAID PIPE ALSO BEING ON THE WEST LINE OF SAID LOT 3R, BLACKJACK ADDITION;

THENCE NORTH 03 DEGREES 07 MINUTES 37 SECONDS EAST WITH THE WEST LINE OF SAID LOT 3, BLACKJACK ADDITION AND THE EAST LINE OF SAID LOT 6, AMBROSICH ADDITION, A DISTANCE OF 591.60 FEET TO THE POINT OF BEGINNING AND CONTAINING IN ALL 27.847 ACRES OF LAND.

SURVEYORS CERTIFICATE

THAT I, BRAD G. SHELTON DO HEREBY CERTIFY THAT A SURVEY WAS MADE ON THE GROUND UNDER MY PERSONAL SUPERVISION OF THE PROPERTY DESCRIBED HEREON AND THAT THE IRON RODS WERE PLACED IN ACCORDANCE WITH THE SUBDIVISION RULES AND REGULATIONS OF THE CITY OF AUBREY, TEXAS

PRELIMINARY FOR REVIEW ONLY
THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

BRAD G. SHELTON R.P.L.S. NO. 5362

CERTIFICATE OF APPROVAL

APPROVED THIS _____ DAY OF _____, 2024 BY THE CITY OF AUBREY, TEXAS.

MAYOR
CITY OF AUBREY, TEXAS

CITY SECRETARY OR CITY MANAGER
CITY OF AUBREY, TEXAS

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT WE, WADE L. VEEDER, JUDI K. VEEDER AND 1555 BLACKJACK, LLC, DO HEREBY ADOPT THIS AMENDING PLAT, DESIGNATING THE HEREIN DESCRIBED PROPERTY AS LOTS 2R1 & 3R1, BLOCK A, BLACKJACK ADDITION, AN ADDITION TO THE CITY OF AUBREY ETJ, DENTON COUNTY, TEXAS AND DO HEREBY DEDICATE TO PUBLIC USE FOREVER THE STREETS AND EASEMENTS AS SHOWN HEREON.

_____
WADE L. VEEDER DATE

_____
JUDI K. VEEDER DATE

_____
1555 BLACKJACK, LLC DATE

STATE OF TEXAS XX
COUNTY OF DENTON XX

BEFORE ME, THE UNDERSIGNED AUTHORITY IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED WADE L. VEEDER, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND THE CAPACITY THEREIN STATED;

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS _____ DAY OF _____, 2024.

_____
NOTARY PUBLIC, STATE OF TEXAS

STATE OF TEXAS XX
COUNTY OF DENTON XX

BEFORE ME, THE UNDERSIGNED AUTHORITY IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED JUDI K. VEEDER, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT SHE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND THE CAPACITY THEREIN STATED;

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS _____ DAY OF _____, 2024.

_____
NOTARY PUBLIC, STATE OF TEXAS

STATE OF TEXAS XX
COUNTY OF DENTON XX

BEFORE ME, THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED _____, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME ON THE BEHALF OF 1555 BLACKJACK, LLC, FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED AND IN THE CAPACITY THEREIN STATED;

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS _____ DAY OF _____, 2024.

_____
NOTARY PUBLIC, STATE OF TEXAS

AMENDING PLAT
OF
LOTS 2R1 & 3R1, BLOCK A
BLACKJACK ADDITION
BEING A 27.847 ACRE TRACT IN THE THOMAS CHAMBERS SURVEY, ABSTRACT No. 223 CITY OF AUBREY ETJ DENTON COUNTY, TEXAS

FIRM NO. 10023300

DATE	REVISIONS	BY:
04/22/2024	ADDRESSED CITY OF AUBREY COMMENTS	BGS

DWN. BGS | SCALE 1"=200'
CKD. DMS | DATE 03/08/24

Metroplex Surveying, Inc.
940-387-0506 223 W. HICKORY, DENTON, TEXAS 76201 info@metroplexsurveying.com

OWNER:
WADE L. &
JUDI K. VEEDER
1559 BLACKJACK RD.
PILOT POINT, TX 76258

OWNER:
1555 BLACKJACK, LLC
13850 GRAHAM AVE.
FRISCO, TX 75035

SURVEYOR:
BRAD G. SHELTON
223 W. HICKORY ST.
DENTON, TX. 76201
PH:(940)387-0506

SHEET 1 OF 1
JOB No. 38330

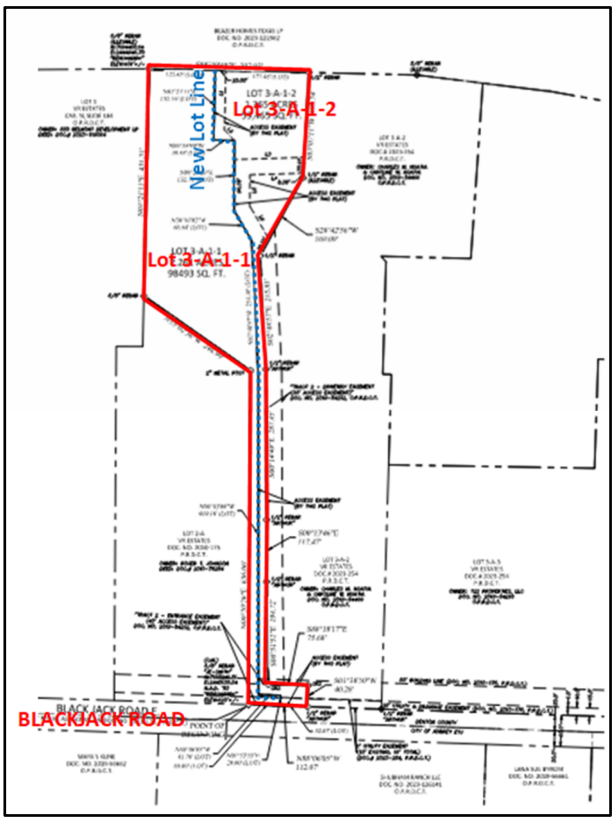
Case Report - Replat Application – VR Estates, Lot 3-A-1 to Lots 3-A-1-1 and 3-A-1-2
Planning and Zoning Commission –May 9, 2024
City Council – May 23, 2024

To: Mayor, City Council, Planning and Zoning Commission

From: Helen-Eve Beadle, AICP, HE Planning+Design, LLC

Request: Consider and make a recommendation to City Council regarding a Replat for VR Estates, Lot 3-A-1 to Lots 3-A-1-1 and 3-A-1-2, containing two (2) lots in 3.626 acres of the T. Chambers Survey, Abstract No. 223, within the City of Aubrey Extraterritorial Jurisdiction, Denton County, Texas (*Wilber E. Fifer & Margaret Ann Fifer*)

Owner:	Wilber E. Fifer & Margaret Ann Fifer Wade
Engineer:	HKS Engineering (Kyle McCage, P.E.)
Application Date:	April 10, 2024
Location:	The property is located north of E Blackjack Road and west of FM 2931
Zoning:	N/A, the property is in the ETJ
Future Land Use Plan:	Rural Residential and Agricultural
Current Use:	Undeveloped
Analysis:	The applicant has submitted a Replat application to divide Lot 3-A-1 into two (2) lots. Access easements are provided for the new lot being created. Utilities: Sanitary sewer service will be provided through Denton County Health Department and water is being provided by Mustang Special Utility District. CoServ is the electric provider.



Recommendation:

The Replat for VR Estates, Lots 3-A-1-1 and 3-A-1-2 is recommended for approval subject to the following conditions:

1. Requirements for filing: Signed Amending Plat, tax certificate for filing, completion of improvements, and filing fees shall be provided.

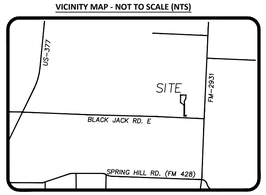
The Planning and Zoning Commission may recommend to the City Council

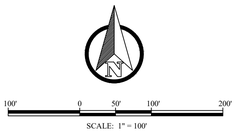
1. Approve the Replat Plat;
2. Approve the Replat Plat with conditions; or
3. Deny the Replat Plat.

Attachments:

4. Amending Plat for VR Estates, Lots 3-A-1-1 and 3-A-1-2

VICINITY MAP - NOT TO SCALE (NTS)



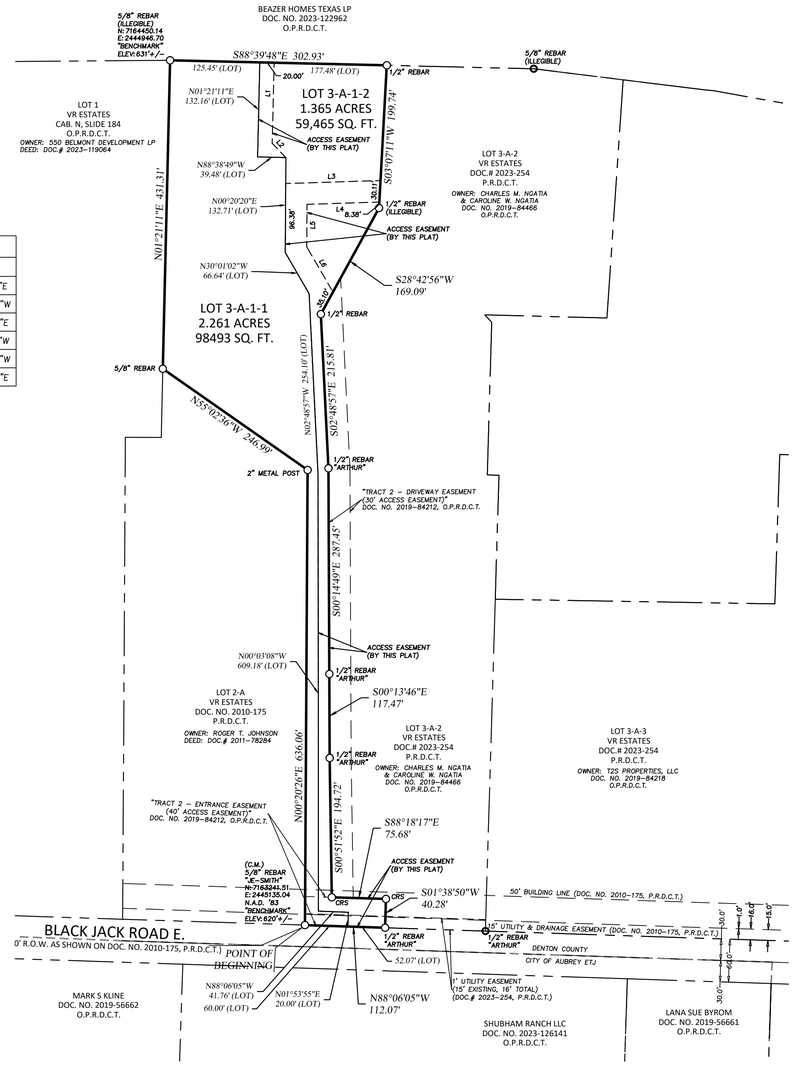


SURVEYOR'S NOTES:

1. Bearings and coordinates are based on the State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83), distances are surface with a combined scale factor of 1.00015063.
2. Monuments are found unless specifically designated as set.
3. This property lies within Zone X of the Flood Insurance Rate Map for Denton County, Texas and Incorporated Areas, map no. 48121C0255G, map no. 48121C0265G, map no. 48121C0270G, all with an effective date of 4/18/2011, via scaled map location and graphic plotting.
4. Elevations (if shown) are North American Vertical Datum of 1988 (NAVD '88).
5. Water Service to be provided by Mustang Special Utility District (7985 FM 2931, Aubrey TX 76227, 940-440-9561).
6. Sanitary Sewer to be handled by facilities approved by the Denton County Public Health Department.
7. The maintenance of paving, grading and drainage improvements and/or easements shown on this plat are the responsibility of the individual property owners and does not constitute acceptance of same for maintenance purposes by Denton County.
8. All surface drainage easements shall be kept clear of fences, buildings, foundations, plantings, and other obstructions to the operation and maintenance of the drainage facility.
9. Blocking the flow of water or construction improvements in surface drainage easements, and filling or obstructing the floodway is prohibited.
10. Denton County and the City of Aubrey will not be responsible for any damage, personal injury or loss of life or property occasioned by flooding or flooding conditions.
11. The existing creeks or drainage channels traversing along or across the addition will remain as open channels and will be maintained by the individual property owners of the Denton County lot or lots that are traversed by or adjacent to the drainage courses along or across the lots.
12. Construction not complete within two years of the Commissioners Court approval shall be subject to current County Subdivision Rules and Regulations.
13. A driveway culvert must be obtained from Development Services by the owner of each lot prior to the construction, installation or placement of any driveway access improvements within the dedicated right-of-way.
14. Plats within the ETJ of the City of Aubrey are required to comply with the City's Subdivision Regulations.
15. The City of Denton does not approve plats for property located in their Division 2 ETJ based on an ICA with Denton County regarding platting in the ETJ.
16. No construction, without written approval from Denton County shall be allowed within an identified "FIRM" floodplain area, and then only after a detailed floodplain development permit including engineering plans and studies show that no rise in the Base Flood Elevation (BFE) will result, that no flooding will result, that no obstruction to the natural flow of water will result; and subject to all owners of the property affected by such construction becoming a party to the request. Where construction is permitted, all finished floor elevations shall be a minimum of two feet above the 100-year flood elevation.
17. Denton County shall not be responsible for maintenance of private streets, drives, emergency access easements, recreation areas, and open spaces; and the owners shall be responsible for the maintenance of private streets, drives, emergency access easements, recreation areas, and open spaces, and said owners agree to indemnify and hold harmless Denton County from all claims, damages, and losses arising out of or resulting from performance of the obligations of said owners set forth in this paragraph.

PLAT NOTES

1. Selling a portion of this addition by metes and bounds is a violation of State law and is subject to fines and withholding of utilities and permits.



Line Data Table		
Line #	Distance	Bearing
L1	112.68'	N01°21'11"E
L2	27.55'	N43°38'49"W
L3	132.58'	N88°10'01"E
L4	101.10'	S88°10'01"W
L5	59.36'	S00°20'20"W
L6	73.09'	S30°01'02"E

LEGEND OF ABBREVIATIONS

- D.R.D.C.T. DEED RECORDS, DENTON COUNTY, TEXAS
- P.R.D.C.T. PLAT RECORDS, DENTON COUNTY, TEXAS
- O.P.R.D.C.T. OFFICIAL PUBLIC RECORDS, DENTON COUNTY, TEXAS
- DOC. NO. DOCUMENT NUMBER
- C.M. CONTROLLING MONUMENT
- SQ. FT. SQUARE FEET
- ROW RIGHT OF WAY
- CRS CAPPED REBAR SET

STATE OF TEXAS §

COUNTY OF DENTON §

WHEREAS WILBER E. FIFER & MARGARET ANN FIFER are the owners of a portion of Lot 3-A of VR Estates, an addition in Denton County, Texas, according to the plat recorded under Document Number 2010-175, Plat Records, Denton County, Texas, situated in the T. Chambers Survey, Abstract Number 223, Denton County, Texas, the subject tract being more particularly described by metes and bounds as follows (bearings are based on State Plane Coordinate System, Texas North Central Zone (4202) North American Datum of 1983 (NAD '83)):

BEGINNING at a 5/8 inch rebar with cap stamped "JE-SMITH" found for the southwest corner of said Lot 3-A;

THENCE with the perimeter and to the corners of said portion of Lot 3-A the following calls:

1. North 00 degrees 20 minutes 26 seconds East, a distance of 636.06 feet to a 2" metal post found;
2. North 55 degrees 02 minutes 36 seconds West, a distance of 246.99 feet to a 5/8 inch rebar found;
3. North 01 degrees 21 minutes 11 seconds East, a distance of 431.31 feet to a 5/8 inch rebar with an illegible cap found;
4. South 88 degrees 39 minutes 48 seconds East, a distance of 302.93 feet to a 1/2 inch rebar found;
5. South 03 degrees 07 minutes 11 seconds West, a distance of 199.74 feet to a 1/2 inch rebar with illegible cap found;
6. South 28 degrees 42 minutes 56 seconds West, a distance of 169.09 feet to a 1/2 inch rebar found;
7. South 02 degrees 48 minutes 57 seconds East, a distance of 215.81 feet to a 1/2 inch rebar with cap stamped "ARTHUR" found;
8. South 00 degrees 14 minutes 49 seconds East, a distance of 287.45 feet to a 1/2 inch rebar with cap stamped "ARTHUR" found;
9. South 00 degrees 13 minutes 46 seconds East, a distance of 117.47 feet to a 1/2 inch rebar with cap stamped "ARTHUR" found;
10. South 00 degrees 51 minutes 52 seconds East, a distance of 194.72 feet to a 1/2 inch rebar with pink cap stamped "BARTON CHAPA" set;
11. South 88 degrees 18 minutes 17 seconds East, a distance of 75.68 feet to a 1/2 inch rebar with pink cap stamped 'BARTON CHAPA" set;
12. South 01 degrees 38 minutes 50 seconds West, a distance of 40.28 feet to a 1/2 inch rebar with cap stamped "ARTHUR" found;
13. North 88 degrees 06 minutes 05 seconds West, a distance of 112.07 feet returning to the **POINT OF BEGINNING** and enclosing 3.626 acres (157,958 square feet) of land, more or less.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

THAT WILBER E. FIFER & MARGARET ANN FIFER owners, acting herein by and through their duly authorized officers, do hereby adopt this plat designating the hereinabove described property as **VR ESTATES ADDITION, LOTS 3-A-1-1, 3-A-1-2**, an addition to the City of Aubrey, Texas, and does hereby dedicate, in fee simple, to the public use forever, the streets and alleys shown thereon. The streets and alleys are dedicated for street purposes. The easements and public use areas, as shown, are dedicated for the public use forever, for the purposes indicated on this plat. In addition, utility easements may also be used for the mutual use and accommodation of all public utilities desiring to use or using the same unless the easement limits the use to particular utilities, said use by public utilities being subordinate to the public's and City of Aubrey's use thereof. The City of Aubrey and public utility entities shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs, or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of their respective systems in said easements. The City of Aubrey and public utility entities shall at all times have the full right of ingress and egress to or from their respective easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining, reading meters, and adding to or removing all or parts of their respective systems without the necessity at any time of procuring permission from anyone. The undersigned does covenant and agree that the access easement may be utilized by any person or the general public for ingress and egress to other real property, and for the purpose of General Public vehicular and pedestrian use and access, and for Fire Department and emergency use, in, along, upon, and across said premises, with the right and privilege at all times of the City of Aubrey, its agents, employees, workmen, and representatives having ingress, egress, and regress in, along, upon, and across said. This approved subject to all platting ordinances, rules, and regulations of the City of Aubrey, Texas.

WITNESS, my hand, this the_____ day of_____, 20_____.

WILBER E. FIFER, OWNER _____

STATE OF TEXAS §

COUNTY OF _____ §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared_____, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this _____day of _____ 20____.

_____

Notary Public in and for the State of Texas

MARGARET ANN FIFER, OWNER _____

STATE OF TEXAS §

COUNTY OF _____ §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared_____, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this _____day of _____ 20____.

_____

Notary Public in and for the State of Texas

SURVEYOR'S CERTIFICATE

That I, John H. Barton, III, do hereby certify that I prepared this plat from an actual and accurate survey of the land and that the corner monuments shown thereon as set were properly placed under my personal supervision in accordance with the platting rules and regulations of the City of Aubrey, Texas.

_____

John H. Barton III, RPLS# 6737

STATE OF TEXAS §

COUNTY OF _____ §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared_____, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this _____day of _____ 20____.

_____

Notary Public in and for the State of Texas

STATE OF TEXAS §

COUNTY OF DENTON §

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BEGINNING at a 5/8 inch rebar with cap stamped "JE-SMITH" found for the southwest corner of said Lot 3-A;

THENCE with the perimeter and to the corners of said portion of Lot 3-A the following calls:

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2. North 55 degrees 02 minutes 36 seconds West, a distance of 246.99 feet to a 5/8 inch rebar found;
3. North 01 degrees 21 minutes 11 seconds East, a distance of 431.31 feet to a 5/8 inch rebar with an illegible cap found;
4. South 88 degrees 39 minutes 48 seconds East, a distance of 302.93 feet to a 1/2 inch rebar found;
5. South 03 degrees 07 minutes 11 seconds West, a distance of 199.74 feet to a 1/2 inch rebar with illegible cap found;
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9. South 00 degrees 13 minutes 46 seconds East, a distance of 117.47 feet to a 1/2 inch rebar with cap stamped "ARTHUR" found;
10. South 00 degrees 51 minutes 52 seconds East, a distance of 194.72 feet to a 1/2 inch rebar with pink cap stamped "BARTON CHAPA" set;
11. South 88 degrees 18 minutes 17 seconds East, a distance of 75.68 feet to a 1/2 inch rebar with pink cap stamped 'BARTON CHAPA" set;
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13. North 88 degrees 06 minutes 05 seconds West, a distance of 112.07 feet returning to the **POINT OF BEGINNING** and enclosing 3.626 acres (157,958 square feet) of land, more or less.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS

THAT WILBER E. FIFER & MARGARET ANN FIFER owners, acting herein by and through their duly authorized officers, do hereby adopt this plat designating the hereinabove described property as **VR ESTATES ADDITION, LOTS 3-A-1-1, 3-A-1-2**, an addition to the City of Aubrey, Texas, and does hereby dedicate, in fee simple, to the public use forever, the streets and alleys shown thereon. The streets and alleys are dedicated for street purposes. The easements and public use areas, as shown, are dedicated for the public use forever, for the purposes indicated on this plat. In addition, utility easements may also be used for the mutual use and accommodation of all public utilities desiring to use or using the same unless the easement limits the use to particular utilities, said use by public utilities being subordinate to the public's and City of Aubrey's use thereof. The City of Aubrey and public utility entities shall have the right to remove and keep removed all or parts of any buildings, fences, trees, shrubs, or other improvements or growths which may in any way endanger or interfere with the construction, maintenance, or efficiency of their respective systems in said easements. The City of Aubrey and public utility entities shall at all times have the full right of ingress and egress to or from their respective easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining, reading meters, and adding to or removing all or parts of their respective systems without the necessity at any time of procuring permission from anyone. The undersigned does covenant and agree that the access easement may be utilized by any person or the general public for ingress and egress to other real property, and for the purpose of General Public vehicular and pedestrian use and access, and for Fire Department and emergency use, in, along, upon, and across said premises, with the right and privilege at all times of the City of Aubrey, its agents, employees, workmen, and representatives having ingress, egress, and regress in, along, upon, and across said. This approved subject to all platting ordinances, rules, and regulations of the City of Aubrey, Texas.

WITNESS, my hand, this the_____ day of_____, 20_____.

WILBER E. FIFER, OWNER _____

STATE OF TEXAS §

COUNTY OF _____ §

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared_____, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this _____day of _____ 20____.

_____

Notary Public in and for the State of Texas

CERTIFICATE OF APPROVAL

Approved this_____ day of_____, 20_____
by the City Council of the City of Aubrey, Texas.

_____

Mayor

_____

City Secretary or City Manager

UTILITY COMPANY APPROVAL

Electric Company: Coserv
7701 S. Stemmons Fwy., Corinth, TX 76210
(940) 321-7800
"WILL SERVE" LETTER PROVIDED WITH PLAT SUBMITTAL

Telephone Company: Speed of Light Broadband
P.O. Box 2927, Denton, TX 76202
(866) 599-7652
"WILL SERVE" LETTER PROVIDED WITH PLAT SUBMITTAL

Water Company: Mustang Special Utility District
7985 FM 2931, Aubrey TX 76227
940.440.9561
"WILL SERVE" LETTER PROVIDED WITH PLAT SUBMITTAL

REPLAT
VR ESTATES
LOTS 3-A-1-1 & 3-A-1-2

BEING A REPLAT OF A 3.626 ACRE PORTION OF LOT 3-A-1, VR ESTATES
AN ADDITION IN CITY OF AUBREY ETJ, DENTON COUNTY, TEXAS
RECORDED IN DOCUMENT NUMBER 2023-254, P.R.D.C.T.
3.626 ACRES SITUATED IN THE T. CHAMBERS SURVEY, ABSTRACT #223
TWO LOTS | PREPARED APRIL 23, 2024

SURVEY PREPARED BY BARTON CHAPA SURVEYING, LLC 5200 STATE HIGHWAY 121, COLLEYVILLE, TX, 76034 TBPLS FIRM # 10194474

P:\Survey\012 - Harris Kocher Smith\2020\013 - Blackjack & FM 2931 - ROW Topo\Drawings

SURVEYOR/PREPARER

BARTON CHAPA SURVEYING
5200 State Highway 121
Colleyville, TX 76034
Phone: 817-864-1957
info@bcsdfw.com
TBPLS Firm #10194474

ENGINEER

HARRIS KOCHER SMITH
DENVER • DALLAS/FORT WORTH
451 S. Main St. Ste. 210
Fort Worth, TX 76104
Contact: Michael Moore
817-769-6279
mmoore@hkseng.com

OWNERS

WILBER E. FIFER &
MARGARET ANN FIFER
2381 BLACK JACK RD E
PILOT POINT, TX 76258

JOB NUMBER:	2020.012.013
DRAWN BY:	SMW
CHECKED BY:	JHB
REV:	

VR ESTATES

SHEET:
1 OF 1

PLANNING AND ZONING COMMISSION MEETING MINUTES

Aubrey City Hall
107 S. Main St
Aubrey, TX 76227
April 11, 2024
6:00 PM

Call to Order - Determine if a Quorum is Present:

The meeting was called to order at 6:00 PM.

Present: Christal Johnson, Donald Smith, Karen Skinner, Candace Stone, Brittney Murray, Sina Tidwell, Nicole Shaw

Absent: Kyle Kennedy, Chuck Fuller

Staff Present: City Attorney Marie Johnson, City Secretary Jenny Hicks, Planners Helen-Eve Beadle and Cate Ball

Invocation & Pledge of Allegiance:

Commissioner Tidwell offered the invocation and Commissioner Murray led the Pledge of Allegiance.

Community Announcements: None

Citizen Input: None

New Business: New items previously requested for consideration.

1. Minutes of the March 14, 2024 meeting.

   P&Z Commissioner Donald Smith made a motion to approve. P&Z Commissioner Christal Johnson seconded. Motion (7:0) .

2. Consideration and action on a Final Plat of High Point Ranch Phase 1C being 32.472 acres in the Francisco Trevino Survey, Abstract No. 1243, City of Aubrey, Denton

County, Texas located immediately east of US 377 between Spring Hill Road (FM 428) on the south and East Blackjack Rd on the north within the city limits of Aubrey. *(Aubrey Blackjack Partners, LLC.)*

Cate Ball provided information.

P&Z Commissioner Christal Johnson made a motion to approve with the following conditions. P&Z Commissioner Brittney Murray seconded. Motion Passed (7:0).

Conditions:

1. Include all recorded instrument numbers for temporary and permanent utility and drainage easements noted on the plat. [Per Chapter 10, Article 2 Procedures, Section 4.08(b)]
2. The plat is missing required signature [Per Article 11, Appendix B, Final Plat Checklist]

3. Consider and make a recommendation to the City Council regarding a Preliminary Plat for the Trivedi Addition for 2 lots in 25.159 acres of land out of the F. Trevino, Abstract No. 1243, within the City of Aubrey, Denton County, Texas. (*Pretium Capital, LLC*)

   Helen-Eve Beadle provided information.

   P&Z Commissioner Donald Smith made a motion to approve with the following conditions. P&Z Commissioner Karen Skinner seconded. Motion Passed (7:0).

   Conditions:

   1. Approval of preliminary engineering plans may be resolved during the final design/final plat stage. The review comments are included in this report;
   2. Sheet 3 shall reference to correct plat name, Trivedi Addition;
   3. Sheet 2 NOTES Section shall match Sheet 1; and
   4. The deed overlap information shall be resolved prior to execution and filing of a Final Plat at the County.

4. Consider and make a recommendation to the City Council regarding a Final Plat for Ribbonwood Phase 1 for 213 residential lots, 4 open space lots in 43.864 acres of land out of the F.H. Pollard Survey, Abstract No. 995, within the Extraterritorial Jurisdiction of the City of Aubrey, Denton County, Texas. (*Clayton Lee Boyd, Investment Trustee under the Boyd 2021 Investment Trust*)

   Helen-Eve Beadle provided information.
   Kirby Logan, Engineer with Kimley Horn, provided information.

   P&Z Commissioner Christal Johnson made a motion to approve with the following conditions. P&Z Commissioner Brittney Murray seconded. Motion Passed (6:1). Commissioner Don Smith opposed.

   Conditions:

   1. Final engineering approval of civil plans is needed by the City Engineer (review included in report);

2. HOA documents shall be submitted and approved by the City Attorney and filed in conjunction with the Final Plat; and
3. Landscape, screening, retaining walls, and irrigation plans shall be submitted and approved prior to the referenced work commencing.

-ADJOURN-

The meeting was adjourned at 6:24 PM.

PASSED and APPROVED by the Planning and Zoning Commission of the City of Aubrey, Texas this 9th day of May, 2024.

_____
Sina Tidwell, Commission Chair

ATTEST:

_____
Jenny Hicks, City Secretary