City Council Meeting

Aubrey City Council Chambers
226 Countryside Dr.
Aubrey, TX 76227
November 20, 2025
6:00 PM

**(Notice of Potential Quorum for Planning & Zoning Commission, 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 Council Members

Pursuant to Section 551.127, Texas Government Code, one or more Council Members may attend this meeting remotely using videoconferencing technology. A quorum of the board will be physically present at the location provided 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.

1. - Christmas Tree Lighting event at Veterans Memorial Park on December 3rd from 5:30-8:30 PM
   - Mayor's Proclamation(s)
   - Swearing-in ceremony for Police Officers John Honea and Bryce Lancaster

Citizen Input: Any person may address the City Council. If your comments are concerning an agenda item, you may wait until the discussion on that item if you prefer. Once recognized by the Mayor, 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 can hear comments and see presentations. 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.

Consent Items: Items placed on the Consent Agenda are considered routine in nature and non-controversial. The Consent Agenda can be acted upon in one motion. Items may be removed from the Consent Agenda by the request of Council, board members or staff. Consideration and action on the following:

2. Approve minutes of the October 23, 2025 and November 12, 2025 meetings.

3. Approve Monthly Staff Reports

4. Approve Monthly Financial Report.

5. Approve the final acceptance of Highpointe Ranch, Phase 2, Public Improvements.

6. Approve Resolution No. 1031-25 ratifying an expenditure of $36,847.50 paid to Minchew Brothers for the emergency repair of a cave-in in the 100 Block of East Sherman Drive; and providing an effective date.

7. Award a bid for Phase 2 Capital Improvement Project — F.M. 428 18-Inch Parallel Force Main to Pittard Construction for an amount not to exceed $1,808,163, and authorize the City Manager to execute necessary documents.

8. Approve Ordinance No. 934-25 amending Ordinance No. 895-25 annexing an approximate 3.243 acres of land as described therein to correct a clerical error by repealing Exhibit B thereto adopting a Written Services Agreement and adopting a new Exhibit B, "Service Plan Agreement Silverado High Country General Retail Tract City of Aubrey, Texas"; directing the City Secretary to file a copy of this Ordinance I the Denton County land records; and providing an effective date.

9. Approve the final acceptance of the Highmeadow Pocket Park Public Improvements and authorize the final payment in the amount of $39,754.34 to Perfect Finish Landscaping.

10. Approve a Job Order Contract purchase through the Interlocal Purchasing System Contract No. 241001 with Minchew Brothers Construction for Dane Street Sewer Repairs, for an amount not to exceed $105,073.50, and authorize the City Manager to execute necessary documents.

New Business: New items requested for consideration.

11. Consideration and action on a Preliminary Plat for Highpointe Ranch Phase 4A, for 86 residential lots and three (3) HOA lots, being approximately 21.615 acres out of the Francisco Trevino Survey, Abstract 1243 generally located south of E Blackjack Road, east of U.S. Highway 377, and north of Springhill Road/FM 428, City of Aubrey, Denton County, Texas. (Aubrey Blackjack Partners, LLC)

12. Consideration and action on a Final Plat application for Highpointe Ranch Phase 4A, for 86 residential lots and three (3) HOA lots, being approximately 21.615 acres out of the Francisco Trevino Survey, Abstract 1243 generally located south of E Blackjack Road, east of U.S. Highway 377, and north of Springhill Road/FM 428, City of Aubrey, Denton County, Texas. (Aubrey Blackjack Partners, LLC)

13. Hold a public hearing, consider, and act on an Ordinance No. 937-25 amending Exhibit 14A, “Zoning Ordinance,” in Chapter 14, “Zoning” of the Code of Ordinances of the City of Aubrey, Texas, and the official Zoning Map of the City as requested in an application for a change of zoning from unzoned land previously located in the City of Aubrey Extraterritorial Jurisdiction to Single-Family Residential 7,500 Square Feet (SF75) on approximately 4.194 acres of land located in the Francisco Trevino Survey, Abstract No. 1243, Tract 18, Denton County, Texas, to allow a Government Use as authorized in the SF75 zoning district. The property is generally located south of Blackjack Road East between FM2931 and US377. DCAD Parcel ID 1074798. (Police Substation Zoning Belmont)

14. Hold a public hearing, consider, and act on an Ordinance amending Exhibit 14A, “Zoning Ordinance,” in Chapter 14, “Zoning” of the Code of Ordinances of the City of Aubrey, Texas, and the official Zoning Map of the City as requested in an application for a change of zoning from unzoned land previously located in the City of Aubrey Extraterritorial Jurisdiction to Single-Family Residential 7,500 Square Feet (SF75) on approximately 2.0 acres of land located in the James Bridges Junior Survey, Abstract No. 36 and the Silverado Addition, Phase 3, Block W, Lot 18A, Denton County, Texas, to allow a Government Use as authorized in the SF-75 zoning district. The property is generally located at the southwest corner of Frontier Parkway and FM 2931. DCAD Parcel ID 773540. (Silverado Fire Station Zoning)

15. Conduct a Public Hearing regarding a request from Republic Services of Lewisville for a CPI rate increase for Residential Solid Waste and Recycling Collection Services and Containers and for Commercial Solid Waste Collection Services and Containers; discussion of same.
    -Presentation of rate increase request from Republic Service
    -Public Comment
    -Discussion by Council

16. Consider and take appropriate action regarding Ordinance No.935-25 amending Chapter 13, “Utilities”, Article 13. 02, “Solid Waste and Recycling”, Section 13.02.005, “Monthly Rates” of the Aubrey Code of Ordinances to amend various rates for solid waste and recycling collection services provided to residential and commercial customers; and providing an effective date of December 1, 2025.

17. Receive a presentation from Birkhoff Hendricks & Carter regarding a proposed Stormwater Master Plan; Discuss and provide direction to staff.

18. Consideration and action on awarding and/or rejecting bids for the Rockhill Pump Station and Ground Storage Tank, and authorize the City Manager to execute necessary documents.

19. Receive a presentation and hold discussion regarding the proposed Aubrey 2045 Comprehensive Plan (the "Plan"), conduct a public hearing on the Plan to receive public comment, and consider and take action on an Ordinance amending Chapter 14, "Zoning" to adopt the proposed "Aubrey 2045 Comprehensive Plan"
    - Consultant Presentation of the Plan and Council Discussion
    - Conduct a Public Hearing regarding the Plan.
    - Consider the adoption of an Ordinance 936-25 amending Chapter 14, Zoning, Article 14.03 of Exhibit 14A, "Zoning Ordinance" of the Code of Ordinances to adopt the Aubrey 2045 Comprehensive Plan.

20. Consider and act on an Ordinance annexing approximately 5.481-acres of land known as a portion of FM 428 (West Sherman Drive), being legally described as being a part of the D. Cowen Survey, Abstract No. 0304 and J.M. Fisher Survey, Abstract No. 0432, and an existing 100-foot right-of-way, Denton County, Texas., Denton County, Texas; and extending the boundary limits of the City so as to include the described property.

21. Consider and act on an Ordinance annexing approximately 10.58-acres of land known as a portion of FM 2931 from the existing Aubrey City Limits line to Blackjack Road, being legally described as being a part of the F. H. Pollard Survey, Abstract No. 995, the F. Trevino Survey, Abstract No. 1243, the J. Ryan Survey, Abstract No. 1069, and the T. Chambers Survey, Abstract No. 223, and an existing variable width right-of-way, Denton County, Texas.; and extending the boundary limits of the City to include the described property.

22. Conduct the second public hearing in accordance with Texas Local Government Code Section 43.063(a) and other applicable law, to consider testimony and provide members of the public an opportunity to be heard on the proposed annexation of a ±13.06-acre tract of land known as a portion of Blackjack Road, legally described as being all of the prescriptive right-of-way of Blackjack Road, generally 30 feet in width along the existing city limits and expanding to a total width of 60 feet after departing the existing city limits, beginning at east right-of-way line of U.S. Highway 377 continuing to FM 2931, being legally described as being a part of the F. Trevino Survey, Abstract No. 1243, and the T. Chambers Survey, Abstract No. 223, Denton County, Texas.

23. Conduct the second public hearing in accordance with Texas Local Government Code Section 43.063(a) and other applicable law, to consider testimony and provide members of the public an opportunity to be heard on the proposed annexation of a ±6.74-acre tract of land known as a portion of McNatt Road, legally described as being all of the 30-foot wide prescriptive right-of-way of McNatt Road, beginning at

the city limits and FM 428, continuing to the Future Ike Byrom Road, being legally described as being a part of the F. Trevino Survey, Abstract No. 1243, , Denton County, Texas. .

24. Consideration and action on a Resolution casting votes for candidates in the election of the Denton Central Appraisal District Board of Directors.

25. Consideration and action on appointing and/or removing members to the Aubrey Planning and Zoning Commission.

26. Consideration and action on appointing and/or removing member(s) to the Aubrey parks and Recreation Board.

Department Updates and Discussion:

27. Administration & Finance:

28. Library:

29. Fire Department:
    - Station Construction Update

30. Police Department:
    - Property Room Update

31. Public Works:
    - Water Updates
    - Wastewater Updates

32. Human Resources:

33. Municipal Development:
    - Information on Aubrey Local Business Accelerator Program

Future Agenda Requests: Council or Board Members, City Staff, and Citizens may request items to be included on future agendas. Discussion is limited to what the request is for, and if and when the item can be put on a future agenda.

*****EXECUTIVE SESSION***** In accordance with Texas Government Code, Section 551.001, et seq., the City Council will recess into Executive Session (closed meeting) to discuss the following:

34. **Section 551.071(1) and (2) Consultation with Attorney.** For Council to seek the advice of its attorney about pending or contemplated litigation or a settlement offer and to consult with the City Attorney on a matter in which the duty of the attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with the Texas Open Meetings Act:

- *City of Aubrey v. Jerry H. Simmon*s, et al, Cause No. PR-2024-01392-B, Denton County, Texas
- School Zone Regulations / Ordinances
- Purchase of Property for Municipal Services
- Downtown Property
- Hidden Lakes
- Trivedi Farms
- Highpointe Commercial
- Onyx Development

35. **Section 551.072 Real Property.**Deliberate the purchase, exchange, lease, or value of real property if deliberation in an open meeting would have a detrimental effect on the position of the governmental body in negotiations with a third person.
    - Property acquisition for municipal purposes

Motion to Recess into Executive Session.

Reconvene into Open Session: In accordance with Texas Government Code, Chapter 551, the City Council will reconvene into Regular Session to consider and take appropriate action, if any, regarding any items discussed in Executive Session.

-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 City Council 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 _____, 2025.

(The City Council 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.

City Council Meeting Minutes

Aubrey City Council Chambers
226 Countryside Dr.
Aubrey, TX 76227
October 23, 2025
6:00 PM

The meeting was called to order at 6:00 PM.

Present: Jeff Perry, Chuck Fikes, Randy Jones, Matt Jones, Mike Browning, Chris Rich

Staff Present: City Attorney Patricia Adams, City Manager Charles Kreidler, City Secretary Jenny Hicks, Finance Director Mike English, Fire Chief Eric Schlotter, Police Chief Richard Brooks, Library Manager Brittany McLain, Municipal Development Director Christine Gossett, Administrative Clerk Kacey Hagen, Assistant to the City Manager Bailey Thompson

Council Member Mike Browning offered the Invocation and led the Pledge of Allegiance.

Community Announcements:

1. **Mayor Rich announced the Aubrey Haunted Harvest that was scheduled for October 25th had been changed due to weather. The hayride and maze have been canceled, the Trunk or Treat has been moved to the new parking lot behind Veteran's Memorial Park from 5:30 to 6:30, and the outdoor movie has been moved inside Fire Station 1 and will start at 6:00 PM.**

   An award was presented to City Council Member Matt Jones from Aubrey Elementary and Middle School Football team members for his donation of Jersey Mikes sandwiches during their games and for being an important part of their school community.

   Aubrey citizen, Denise Vidal, presented an award of appreciation to Fire Department Station 3 crew members, Driver/Engineer Preston Brooks, Firefighter Jordan Craighead, and Battalion Chief Logan Pursur for her life-saving encounter with them during a medical emergency.

   Police Chief Richard Brooks announced new hires:
   Tanya Barnett - Administrative Coordinator (Administration)
   Rachel McClintock - Administrative Coordinator (Criminal Investigations)

Citizen Input: None

Consent Items: Items placed on the Consent Agenda are considered routine in nature and non-controversial. The Consent Agenda can be acted upon in one motion. Items may be removed from the Consent Agenda by the request of Council, board members or staff. Consideration and action on the following:

2. Approve minutes of the September 25, 2025 and October 15, 2025 meetings.
3. Approve Monthly Staff Reports
4. Approve Monthly Financial Report.
5. Approve Quarterly Investment Report
6. Approve an Interlocal Cooperation Agreement with Denton County for Fire Protection and Emergency Ambulance Services.
7. Approve Amendment No. 1 to the Faulkner Ground Storage Tank and Pump Station Engineering Services Agreement with Birkhoff, Hendricks, and Carter for an amount not to exceed $590,500.
8. Ratification of a Development Agreement between the City and SMC Development LLC for the development of an approximate 184.78 acres of land situated in the Ambrosich Addition (Denton County Instrument No. 2010-192) and the Thomas Chambers Survey, Abstract No. 223, Denton County Instrument No. 2025-90236, located within the City's extraterritorial jurisdiction and identified as the Trailhead Development; and authorizing the City Manager to execute necessary documents. (Trailhead)
9. Award a bid to Canary Construction, Inc. for construction of a 16-inch water line, CIP Project W3, for an amount not to exceed $712,254.00, and authorize the City Manager to execute required documents.
10. Approve Resolution No. 1025-25, requesting the United States Postal Service to consider adjusting the zip code boundary and/or city name designation along the northern boundary of the city limits; and authorize the City Manager to execute any necessary documents.
11. Authorize the City Manager to execute a Professional Services Agreement with Parkhill for building assessment services for an MDD Development Project not to exceed $23,000.
12. Approve Resolution No. 1027, repealing Resolution No. 992-24 and adopting the City of Aubrey's Official Investment Policy for Fiscal Year 2026.
13. Approve Resolution No. 1026-25, repealing Resolution No 991-24 and adopting the City of Aubrey's Official Procurement Policy and Procedures for Fiscal Year 2026.
14. Approve Resolution 1028-25 ratifying the City Manager's determination of SSD International/Shoot Straight Inc., as a sole source vendor for Hornady ammunition purchases for the Police Department.

Council Member Chuck Fikes made a motion to approve the consent items. Council Member Jeff Perry seconded. Motion Passed (5:0). None opposed.

New Business: New items requested for consideration.

15. Conduct the second public hearing in accordance with Texas Local Government Code Section 43.063(a) and other applicable law, to consider testimony and provide members of the public an opportunity to be heard on the proposed annexation of a ±10.58-acre tract of land known as a portion of FM 2931 from the existing Aubrey City Limits line to Blackjack Road, being legally described as being a part of the F. H. Pollard Survey, Abstract No. 995, the F. Trevino Survey, Abstract No. 1243, the J.

Ryan Survey, Abstract No. 1069, and the T. Chambers Survey, Abstract No. 223, and an existing variable width right-of-way, Denton County, Texas.

City Manager Charles Kreidler provided information.

The Public Hearing opened at 6:14 p.m. and closed at 6:15 p.m.

No action taken.

16. Conduct the second public hearing in accordance with Texas Local Government Code Section 43.063(a) and other applicable law, to consider testimony and provide members of the public an opportunity to be heard on the proposed annexation of a ±5.481-acre tract of land known as a portion of FM 428 (West Sherman Drive), being legally described as being a part of the D. Cowen Survey, Abstract No. 0304 and J.M. Fisher Survey, Abstract No. 0432, and an existing 100-foot right-of-way, Denton County, Texas.

    City Manager Charles Kreidler provided information.

    The Public Hearing opened at 6:15 p.m. and closed at 6:16 p.m.

    No action taken.

17. Consideration and action on Resolution 1029-25 regarding the proposed annexation of a ±13.06-acre tract of land known as a portion of Blackjack Road, setting public hearings for November 12, 2025 and November 20, 2025 and authorizing the City Secretary to cause notice of said hearing; and authorizing staff to prepare a written services plan.

    City Manager Charles Kreidler provided information.

    Council Member Jeff Perry made a motion to approve the Resolution and set public hearings for November 12, 2025 at 6:00 PM and November 20, 2025 at 6:30 PM at the City Council Chambers, 226 Countryside Dr., Aubrey TX. Council Member Randy Jones seconded. Motion Passed (5:0). None opposed.

18. Consideration and action on Resolution No. 1030-25 regarding the proposed annexation of a ±6.74-acre tract of land known as a portion of McNatt Road, setting public hearings for November 12, 2025 and November 20, 2025 and authorizing the City Secretary to cause notice of said hearing; and authorizing staff to prepare a written services plan.

    City Manager Charles Kreidler provided information.

    Council Member Randy Jones made a motion to approve the Resolution and set public hearings for November 12, 2025 at 6:00 PM and November 20, 2025 at 6:30 PM at the City Council Chambers, 226 Countryside Dr., Aubrey TX. Council Member Matt Jones seconded. Motion Passed (5:0). None opposed.

19. Conduct second reading, consider and act on Resolution 1023-25 approving a Project of the Aubrey Municipal Development District providing a Targeted Improvement grant for building improvements and demolition at 705 W Sherman

Drive for $18,750.

MDD Director Christine Gossett provided information.

Council Member Matt Jones made a motion to approve the Resolution and grant the request for $18,750. City Council Member Mike Browning seconded. Motion Passed (5:0). None opposed.

Department Updates and Discussion:

20. Administration & Finance: None

21. Library: None

22. Fire Department:

    Fire Chief Eric Schlotter provided updates on Fire Station 2 being down to the last couple of weeks of construction, with an expected move-in being mid-November, pending the few punch-list items.

23. Police Department:

    Police Chief Richard Brooks announced Blackjack Station is fully operational. On Monday, the cinder block will be cut in the property room for the much-needed expansion.

24. Public Works:

    Public Works Director Dean Rylant provided the following updates:

    - Water usage is down domestic wise. However, contractors are rushing to get concrete poured.
    - Aubrey Heights should start pouring concrete tomorrow, pending weather. Additional developments are beginning to start up their batch plants.
    -Rockhill Well is still being flushed. Pump Station and Ground Storage Tank bid proposals will be opened November 6th.
    - The Wastewater Treatment Plant Expansion is progressing.

    Parks and Recreation Department Manager Kurt Karnowski provided the following updates:

    - Veterans Memorial Park is about 90% complete, still needing the sunshades for the stage and the roofing to be replaced on the restrooms from architectural to metal. The contractors used shingles because they couldn't get the metal in time to be completed by Peanut Festival. This should be completed by mid-November.

    - Winn Ridge First Responders Park is getting additional elevation surveys due to discrepancies in the plans. The dog park will be completed by mid-December, and the rest of the park should be completed by mid to late-January.

    City Manager Charles Kreidler applauded Kurt Karnowski on his leadership of

the Parks Department and how far it has come. Starting with no department two years ago, Kurt was the first Parks employee and the driving force for the current three-employee team and for the department's success.

25. Human Resources: None

26. Municipal Development: None

Future Agenda Requests: None

*****EXECUTIVE SESSION***** In accordance with Texas Government Code, Section 551.001, et seq., the City Council will recess into Executive Session (closed meeting) to discuss the following:

27. **Section 551.071(1) and (2) Consultation with Attorney.** For Council to seek the advice of its attorney about pending or contemplated litigation or a settlement offer and to consult with the City Attorney on a matter in which the duty of the attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with the Texas Open Meetings Act:
    - *City of Aubrey v. Jerry H. Simmon*s, et al, Cause No. PR-2024-01392-B, Denton County, Texas
    - School Zone Regulations / Ordinances
    - Purchase of Property for Municipal Services
    - Downtown Property
    - Hidden Lakes
    - Trivedi Farms
    - Highpointe Commercial
    - Trailhead Development
    - MDD Grants

28. **Section 551.072 Real Property.** Deliberate the purchase, exchange, lease, or value of real property if deliberation in an open meeting would have a detrimental effect on the position of the governmental body in negotiations with a third person.
    - Property acquisition for municipal purposes

City Council Member Mike Browning made a motion to recess into Executive Session at 6:29 PM. Council Member Randy Jones seconded. Motion Passed (5:0). None opposed.

City Council reconvened into open session at 7:30 PM.

In accordance with Texas Government Code, Chapter 551, the City Council will reconvene into Regular Session to consider and take appropriate action, if any, regarding any items discussed in Executive Session.

Action after Executive Session:

Council Member Randy Jones made a motion to authorize the City Manager to finalize negotiations and execute necessary documents for the purchase of property at 102 Sycamore and 104 Sycamore as discussed in closed session. Council Member Chuck Fikes seconded. Motion Passed (5:0). None opposed.

The meeting was adjourned at 7:30 PM.

PASSED and APPROVED by the City Council of the City of Aubrey, Texas, this 20th day of November, 2025.

Chris Rich, Mayor

ATTEST:

Jenny Hicks, City Secretary

City Council Meeting Minutes

Aubrey City Council Chambers
226 Countryside Dr.
Aubrey, TX 76227
November 12, 2025
6:00 PM

The meeting was called to order at 6:00 PM.

Present: Jeff Perry, Chuck Fikes, Randy Jones, Matt Jones (via videoconference), Mike Browning

Absent: Chris Rich

Staff Present: City Manager Charles Kreidler, City Secretary Jenny Hicks, Administrative Clerk Kacey Hagen

Council Member Mike Browning offered the Invocation and led the Pledge of Allegiance.

Community Announcements: None

Citizen Input: None

New Business: New items requested for consideration.

1. Conduct the first public hearing in accordance with Texas Local Government Code Section 43.063(a) and other applicable law, to consider testimony and provide members of the public an opportunity to be heard on the proposed annexation of a ±13.06-acre tract of land known as a portion of Blackjack Road, legally described as being all of the prescriptive right-of-way of Blackjack Road, generally 30 feet in width along the existing city limits and expanding to a total width of 60 feet after departing the existing city limits, beginning at east right-of-way line of U.S. Highway 377 continuing to FM 2931, being legally described as being a part of the F. Trevino Survey, Abstract No. 1243, and the T. Chambers Survey, Abstract No. 223, Denton County, Texas.

   City Manager Charles Kreidler provided information.

   The Public Hearing opened at 6:03 PM. and closed at 6:04 PM. No citizens spoke during the public hearing.

   No action taken.

2. Conduct the first public hearing in accordance with Texas Local Government Code Section 43.063(a) and other applicable law, to consider testimony and provide members of the public an opportunity to be heard on the proposed annexation of a

±6.74-acre tract of land known as a portion of McNatt Road, legally described as being all of the 30-foot wide prescriptive right-of-way of McNatt Road, beginning at the city limits and FM 428, continuing to the Future Ike Byrom Road, being legally described as being a part of the F. Trevino Survey, Abstract No. 1243, , Denton County, Texas. .

City Manager Charles Kreidler provided information.

The Public Hearing opened at 6:04 PM. and closed at 6:05 PM. No citizens spoke during the public hearing.

No action taken.

The meeting was adjourned at 6:05 PM.

PASSED and APPROVED by the City Council of the City of Aubrey, Texas this 20th day of November, 2025.

_____

Chris Rich, Mayor

ATTEST:

_____

Jenny Hicks, City Secretary

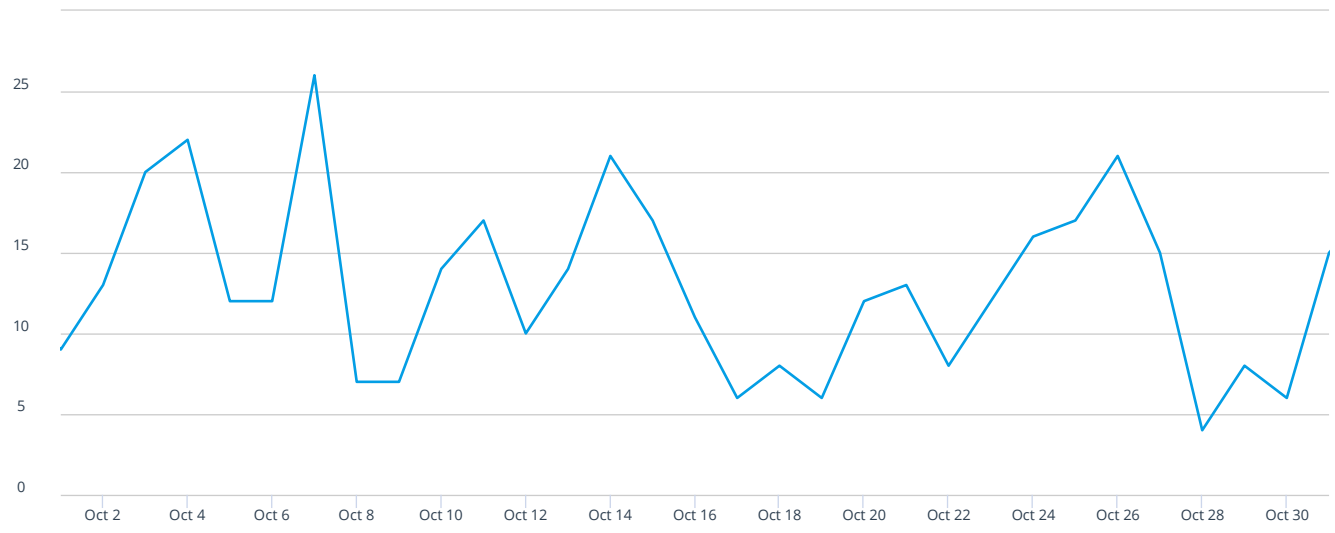
Previous Month Oct 1, 2025 - Oct 31, 2025

31%
FIRE
Percentage of Total Incidents

69%
EMS
Percentage of Total Incidents

399
INCIDENTS
In Selected Time Slice

31
DAYS
In Selected Time Slice



Counts | % Rows | % Columns | % All

Week Ending	10/5/25	10/12/25	10/19/25	10/26/25	11/2/25	11/9/25	11/16/25	11/23/25	11/30/25	12/7/25	12/14/25	12/21/25	12/28/25	Total
Aubrey Fire Station 1	24	19	23	27	20									113
Aubrey Fire Station 2	27	25	27	31	10									120
Aubrey Fire Station 3	25	49	33	41	18									166
Total	76	93	83	99	48									399

City of Aubrey - Development Services
October 2025 Activity Report

No. Permits Issued

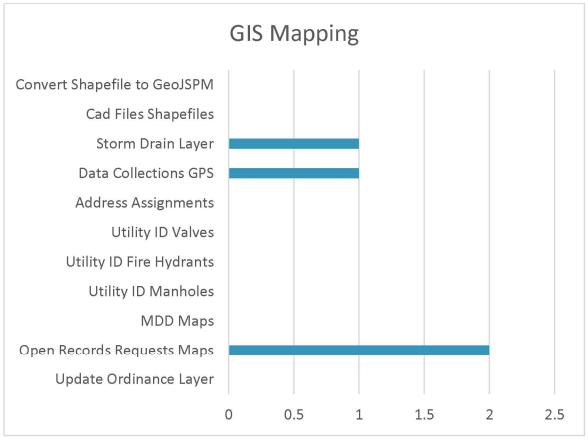
New Single Family	84
Residential Misc	65
Commercial	60
Plat, Re-Plat, Site Plan, or Variance	1
Total	**210**

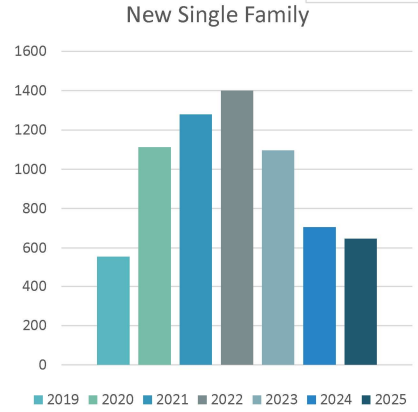
Fees Collected

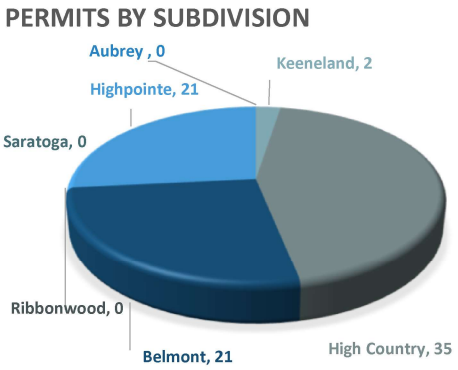
New Single Family	$	902,539.65
Residential Misc	$	10,350.20
Commercial	$	2,210.00
Variance or Zoning	$	2,930.00
Total	**$**	**918,029.85**

Annual New Single Family

2019	556
2020	1,113
2021	1,279
2022	1,400
2023	1,095
2024	706
2025 YTD	647
2019 - 2025 Total:	**6,796**







Total House Count

10021

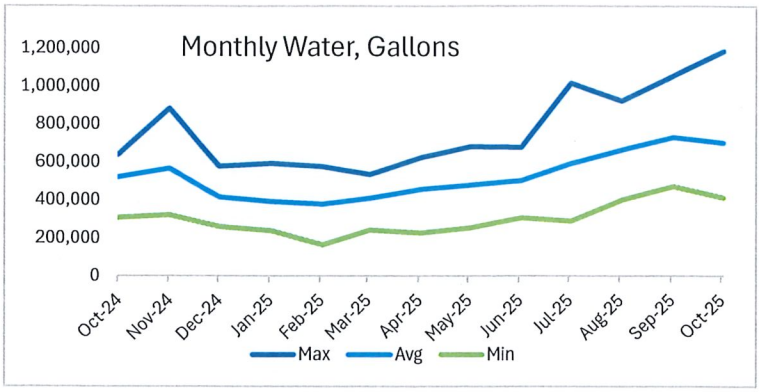
Location	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25
Aubrey Proper	1447	1454	1800	1830	1865	1911
Winn Ridge	1732	1857	1746	1746	1746	1746
Silverado & High Country	3567	3830	3700	3723	3726	3761
Aspen Meadows	308	328	312	312	312	312
Keeneland	78	151	156	164	164	173
Sandbrock	1720	1791	1761	1787	1809	1821
Highpointe	0	178	191	212	238	281
Belmont	0	0	0	0	0	16
Saratoga	0	0	0	0	0	0
Ribbonwood	0	0	0	0	0	0

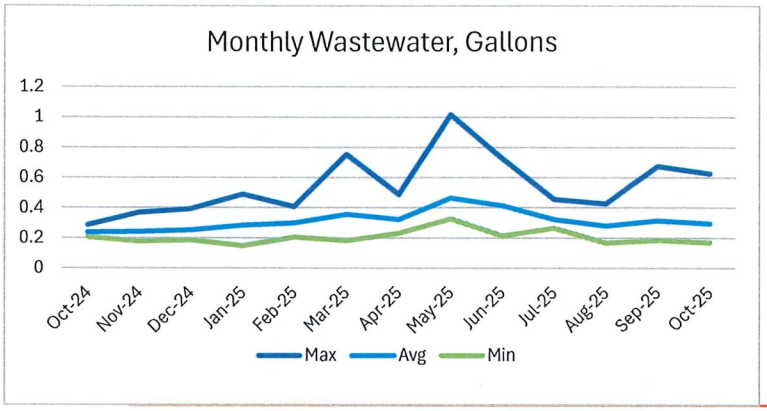
Project Status

Blackjack Rd Roadway Annexation Resolution for Public Hearing	Consideration and action on Resolution 1029-25 regarding the proposed annexation of a ±13.06-acre tract of land known as a portion of Blackjack Road, setting public hearings for November 12, 2025 and November 20, 2025 and authorizing the City Secretary to cause notice of said hearing; and authorizing staff to prepare a written services plan. Motuio
McNatt Rd Roadway Annexation Resolution for Public Hearing	Consideration and action on Resolution No. 1030-25 regarding the proposed annexation of a ±6.74-acre tract of land known as a portion of McNatt Road, setting public hearings for November 12, 2025 and November 20, 2025 and authorizing the City Secretary to cause notice of said hearing; and authorizing staff to prepare a written services plan.

City of Aubrey - Public Works

Oct' 2025 Activity Report





Water Production MG

Oct-25	19,499,000
Sep-25	21,051,800
Aug-25	22,620,500
Daily Average Gal	485,248

Wastewater Treatment MG

Oct-25	8,844,000
Sep-25	9,391,000
Aug-25	8,412,000
Daily Average Gal	197,811

Work Orders

Water & Sewer Maintenance	47
Cut-offs Non Payment	16
Street/Parks	102
Line Locates	48
Billing and Meters	188
Total	354

	Oct-25
Water Impact	$129,204.00
Sewer Impact	$313,186.00
Roadway Impact	$56,373.00
Parks Fee	$198,000.00
Total	$696,763.00

Projects

Highpointe Phase 2	Ready to present to council.
HighPointe Phase 3	Finishing the franchise drains as well as the storm drains.
HighPointe Phase 4A	Ready to begin grading.
HighPointe 4B	Awaiting pre-construction.
HighPointe Amenity Center	Has began the grading phase.
HighPointe East Phase 1	Preparing for paving.
Rockhill Well	Still in the flushing stage.
Dane St	Installed 450ft sewer main, 5 sewer taps, contractor on site running sewer line property line.
Veterans Park Phase 2	Now 90% complete. Sun shades will be installed end of week of Nov 17, re-roofed by Nov 28.
WinnRidge 1st Responder Park	Issues with elevations per the plans; working to correct. Dog park complete mid December.
Aubrey Heights	Paving the streets, started building forms, pouring storm drain outlets, franchise has begun.
Palomino	Electrical Face lift station being installed, franchise conduit through intersections added.
Ribbonwood/Saratoga	Did final walk thru last week. Saratoga finishing franchise & cleaning site for walk-thru.
Blackjack Water Line	Finishing up minor tasks, and boring under the tracks is scheduled for December 1st.
Blackjack Road	Rehabilitation is scheduled to begin on November 14.
Blackjack Phase 2	Has been awarded.
Chaparral Ridge	Work has begun. Dirt is being moved and trees are being removed for building.
Chaparral Corner	Has started grading work.

City of Aubrey - Municipal Court Report

New Cases Filed	
October - Traffic	236
October - Non Traffic	3

Total Fines Collected	
October - State	$17,373.00
October - City	$25,606.00

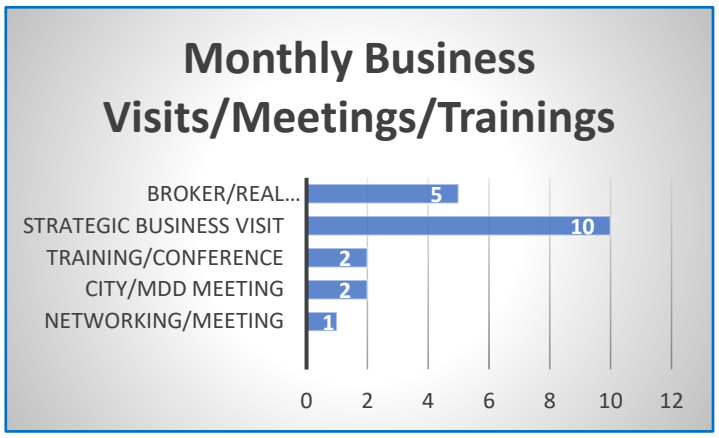
Final Disposition	
October - Traffic	123
October - Non Traffic	2

Fiscal YTD Collected	
YTD - State	$ 17,373.00
YTD - City	$ 25,606.00

Warrants	
Issued	30
Cleared	9
Pending	1299

OCTOBER 2025 STAFF REPORT
Aubrey Municipal Development District

Christine Gossett – Executive Director



Commercial Property for Sale/Lease/Build-to-Suit:

Combined commercial land for sale/lease 150 + acres and combined 15,000 +/- sq ft commercial space available for sale/lease. See Aubrey MDD Real Estate/Sites web page for details:

Real Estate & Maps – Aubrey Municipal Development District

The MDD/Chamber building landscaping/placemaking project was enjoyed by the public during Peanut Fest. It is being utilized during special events, and as a spot to have an outdoor break while in downtown.

Highest performing post was 10/17/25 featuring Aubrey Tire Outlet with 20.442 views on Facebook.

Business Activity and Updates

- No new openings or closings.

Project Updates:

- Started planning the Aubrey Local Business Accelerator with the program facilitator. Applications going online in November.
- Site Selection GIS Map Page: continuous monitoring and updating of properties and photos for commercial sites available in Aubrey City Limits and ETJ. Commercial property listings in business corridors and adjacent areas continue to increase.
- Strategic Plan: Developed a matrix for the workplan, timeline, and outlined priorities for 2025-26 goals and metrics.
- Website – Redesign of site in progress.

Marketing:

- Social Media/Facebook: On-going content management and posts on Aubrey MDD FB page. October 17th's post featuring Aubrey Tire Outlet was the highest performing post generating 20,442 Views; 9,706 Reach; and 2,682 Engagements. MDD social media posts feature businesses, activites, events, and business education.
- Website Statistics: October '25 – 431 Visitors and 699 Views; September '25 – 301 Visitors and 534 Views; August '25 – 255 Visitors and 484 Views.
- Commercial Development: On-going calls and meetings with prospective businesses and developers.

Sales & Use-Tax Allocation:

- Payment received in October: $96,516.77 ($1,791.85 from Gross Audit Collections).

City of Aubrey
Departmental Report
Library

To: City Council Members

From: Brittany McLain, Library Director

RE: Departmental Report - Oct. 2025

Monthly Report		October 2025		Fiscal Year to date
People & Activity	New Cards Issued	94		94
	Number of Patrons	3049		3049
	Patrons per Hour (Average)	16		16
	Volunteer Hours / Persons	22.5/5		22.5/5
	Number of Days Open	23		23
	Number of Hours Open	190		190
Material Usage	Total Items checked out	11217		11217
	Items per Hour (Average)	59		59
	Adult Material Checked Out	1427		1427
	Juvenile Material Checked Out	8103		8103
	Self-Checkout Use	0		0
	Digital Materials Checked Out	1687		1687
	Interlibrary shipped	169		169
	Interlibrary received	142		142
	Reference	201		201
	Computer Sessions	203		203
	Computer Usage (hours)	129		129
Programs	Community Center Event Hrs	0		0
	Total Number of Programs	40		40
	Total Program Attendance	600		600

Monthly Cash Activity

(Unaudited)

October 2025

FUND: ALL
ACCT: ALL
TYPE: ALL CASH
DATES: 10/01/2025-10/31/2025

ACCOUNT NO#	CHECKS	DEPOSITS	SVC CHARGE	INTEREST	MISC.	NET CHANGE	BALANCE
101-11-000-00	0.00	30,080.50	0.00	0.00	770,400.50CR	740,320.00CR	208,504.06
101-11-000-10	0.00	0.00	0.00	0.00	0.00	0.00	200.00
101-11-000-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
101-11-000-58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
101-11-000-84	0.00	2,413,554.96	0.00	0.00	3,006,090.53CR	592,535.57CR	5,871,068.80
101-11-000-90	0.00	204,947.92CR	0.00	0.00	0.00	204,947.92CR	5,420,291.99
101-11-027-87	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200-11-000-84	0.00	0.00	0.00	0.00	0.00	0.00	0.00
201-11-000-00	0.00	19,057.46CR	0.00	0.00	100,412.43CR	119,469.89CR	684,090.75
201-11-000-10	0.00	0.00	0.00	0.00	0.00	0.00	200.00
201-11-000-84	0.00	567,123.81	0.00	0.00	309,884.24CR	257,239.57	8,472,691.74
201-11-000-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
201-11-000-90	0.00	0.00	0.00	0.00	0.00	0.00	259,873.60
201-11-000-91	0.00	0.00	0.00	0.00	0.00	0.00	662,651.04
201-11-000-95	0.00	87,362.89CR	0.00	0.00	0.00	87,362.89CR	3,769,624.03
201-11-000-96	0.00	0.00	0.00	0.00	0.00	0.00	19,666,984.90
201-11-012-73	0.00	0.00	0.00	0.00	0.00	0.00	0.00
201-11-032-89	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202-11-000-84	0.00	2,343,650.49	0.00	0.00	193,221.92CR	2,150,428.57	17,364,643.93
202-11-000-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202-11-000-91	0.00	0.00	0.00	0.00	0.00	0.00	862,963.99
202-11-000-92	0.00	1,844,347.14CR	0.00	0.00	0.00	1,844,347.14CR	34,661,249.15
202-11-036-37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
203-11-000-84	0.00	0.00	0.00	0.00	0.00	0.00	0.00
203-11-000-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
205-11-000-84	0.00	76,213.61	0.00	0.00	208,571.84CR	132,358.23CR	516,513.27CR
205-11-000-85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
301-11-000-00	0.00	0.00	0.00	0.00	0.00	0.00	184,694.11
301-11-000-84	0.00	1,050,000.00CR	0.00	0.00	0.00	1,050,000.00CR	379,577.38CR
301-11-000-90	0.00	1,050,000.00	0.00	0.00	0.00	1,050,000.00	1,125,594.23
401-11-000-00	0.00	176,269.83	0.00	0.00	0.00	176,269.83	222,432.94
401-11-000-70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
401-11-000-84	0.00	174,621.08CR	0.00	0.00	1,712.42	172,908.66CR	138,514.03CR
401-11-058-24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
402-11-000-00	0.00	0.00	0.00	0.00	877,723.94CR	877,723.94CR	31,580.56
403-11-000-00	0.00	147,654.00CR	0.00	0.00	0.00	147,654.00CR	2,570,142.54
403-11-000-10	0.00	492,180.00	0.00	0.00	100.00	492,280.00	492,280.00
404-11-000-00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
404-11-000-50	0.00	261,084.33	0.00	0.00	0.00	261,084.33	1,496,164.07
404-11-000-51	0.00	100.00	0.00	0.00	0.00	100.00	100.00
404-11-000-60	0.00	279,318.69CR	0.00	0.00	0.00	279,318.69CR	3,082,654.10
404-11-000-70	0.00	0.00	0.00	0.00	0.00	0.00	1,997,457.56
404-11-000-90	0.00	0.00	0.00	0.00	0.00	0.00	1,873.14
405-11-000-00	0.00	0.00	0.00	0.00	0.00	0.00	911.18
405-11-000-84	0.00	0.00	0.00	0.00	2,721.80CR	2,721.80CR	17,397.95
406-11-000-00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
406-11-000-10	0.00	100.00	0.00	0.00	100.00CR	0.00	0.00
406-11-000-41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
406-11-000-42	0.00	0.00	0.00	0.00	0.00	0.00	0.00

FUND: ALL
ACCT: ALL
TYPE: ALL CASH
DATES: 10/01/2025-10/31/2025

ACCOUNT NO#	CHECKS	DEPOSITS	SVC CHARGE	INTEREST	MISC.	NET CHANGE	BALANCE
406-11-000-43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
406-11-000-84	0.00	2,500.00	0.00	0.00	31,943.37CR	29,443.37CR	365,667.24
407-11-000-84	0.00	0.00	0.00	0.00	0.00	0.00	0.00
501-11-000-00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
501-11-000-55	0.00	0.00	0.00	0.00	0.00	0.00	663,639.52
501-11-000-56	0.00	0.00	0.00	0.00	0.00	0.00	0.00
501-11-000-58	0.00	0.00	0.00	0.00	0.00	0.00	249,451.75
501-11-000-59	0.00	8,400.00CR	0.00	0.00	0.00	8,400.00CR	61.27
501-11-000-60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
501-11-000-61	0.00	0.00	0.00	0.00	0.00	0.00	10,993.95
501-11-000-62	0.00	407,090.27CR	0.00	0.00	0.00	407,090.27CR	6,588,161.38
501-11-000-63	0.00	1,151,772.57CR	0.00	0.00	0.00	1,151,772.57CR	1,211,529.35
501-11-000-64	0.00	318,714.92CR	0.00	0.00	0.00	318,714.92CR	47,915,295.45
501-11-000-84	0.00	1,885,977.76	0.00	0.00	4,375,866.50CR	2,489,888.74CR	34,356,546.93CR
501-11-000-90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
501-11-008-38	0.00	0.00	0.00	0.00	0.00	0.00	895.09
501-11-026-00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
601-11-000-00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
601-11-000-84	0.00	0.00	0.00	0.00	0.00	0.00	0.00
701-11-000-00	0.00	94,894.48	0.00	0.00	15,060.46CR	79,834.02	2,169,720.71
701-11-000-50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
701-11-000-84	0.00	1,622.29	0.00	0.00	58,851.23CR	57,228.94CR	94,468.21CR
701-11-000-90	0.00	0.00	0.00	0.00	0.00	0.00	1,701,590.26
701-11-088-41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
801-11-000-00	0.00	246,895.70	0.00	0.00	133,654.03CR	113,241.67	626,856.45
801-11-000-02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
801-11-000-84	0.00	246,895.70CR	0.00	0.00	247,065.70	170.00	65,041.42CR
802-11-000-00	0.00	0.00	0.00	0.00	0.00	0.00	295,245.26
802-11-000-01	0.00	0.00	0.00	0.00	0.00	0.00	2,208,324.31
802-11-000-02	0.00	0.00	0.00	0.00	0.00	0.00	0.38CR
802-11-000-05	0.00	0.00	0.00	0.00	0.00	0.00	0.46
802-11-000-06	0.00	0.00	0.00	0.00	0.00	0.00	0.25
802-11-000-07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
803-11-000-01	0.00	0.00	0.00	0.00	0.00	0.00	1,092,783.10
804-11-000-01	0.00	0.00	0.00	0.00	0.00	0.00	114,878.00
804-11-000-02	0.00	0.00	0.00	0.00	0.00	0.00	40,577.00
804-11-000-03	0.00	0.00	0.00	0.00	0.00	0.00	74,808.00
804-11-000-04	0.00	0.00	0.00	0.00	0.00	0.00	8,313.00
804-11-000-05	0.00	0.00	0.00	0.00	0.00	0.00	57,559.00
804-11-000-06	0.00	0.00	0.00	0.00	0.00	0.00	1,109,635.00
804-11-000-07	0.00	0.00	0.00	0.00	0.00	0.00	19,678.00
805-11-000-01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
805-11-000-02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
805-11-000-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
805-11-000-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
805-11-000-05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
805-11-000-06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
805-11-000-07	0.00	0.00	0.00	0.00	0.00	0.00	0.00
901-11-000-00	2,184,664.83CR	5,810,121.50	0.00	0.00	5,782,391.53CR	2,156,934.86CR	463,291.96CR
** TOTALS **	2,184,664.83CR	9,512,186.62	0.00	0.00	15,618,016.20CR	8,290,494.41CR	139,640,030.58

----- AVERAGE DAILY BALANCES -----

ACCOUNT	AVERAGE BALANCE
101 11-000-00	487,529.75

FUND: ALL
ACCT: ALL
TYPE: ALL CASH
DATES: 10/01/2025-10/31/2025

----- AVERAGE DAILY BALANCES -----

ACCOUNT	AVERAGE BALANCE
101 11-000-10	200.00
101 11-000-20	0.00
101 11-000-58	0.00
101 11-000-84	6,490,050.08
101 11-000-90	5,619,680.95
101 11-027-87	0.00
200 11-000-84	0.00
201 11-000-00	745,359.57
201 11-000-10	200.00
201 11-000-84	8,431,000.67
201 11-000-85	0.00
201 11-000-90	259,873.60
201 11-000-91	662,651.04
201 11-000-95	3,794,987.45
201 11-000-96	19,666,984.90
201 11-012-73	0.00
201 11-032-89	0.00
202 11-000-84	16,430,091.21
202 11-000-85	0.00
202 11-000-91	862,963.99
202 11-000-92	35,478,530.62
202 11-036-37	0.00
203 11-000-84	0.00
203 11-000-85	0.00
205 11-000-84	486,863.60CR
205 11-000-85	0.00
301 11-000-00	184,694.11
301 11-000-84	263,971.01
301 11-000-90	482,045.84
401 11-000-00	61,277.44
401 11-000-70	0.00
401 11-000-84	20,813.99
401 11-058-24	0.00
402 11-000-00	173,148.94
403 11-000-00	2,613,009.83
403 11-000-10	138,198.90
404 11-000-00	0.00
404 11-000-50	1,296,639.01
404 11-000-51	77.42
404 11-000-60	3,242,205.46
404 11-000-70	1,997,457.56
404 11-000-90	1,873.14
405 11-000-00	911.18
405 11-000-84	18,100.35
406 11-000-00	0.00
406 11-000-10	6.45
406 11-000-41	0.00
406 11-000-42	0.00
406 11-000-43	0.00

FUND: ALL
ACCT: ALL
TYPE: ALL CASH
DATES: 10/01/2025-10/31/2025

----- AVERAGE DAILY BALANCES -----

ACCOUNT	AVERAGE BALANCE
406 11-000-84	385,363.21
407 11-000-84	0.00
501 11-000-00	0.00
501 11-000-55	663,639.52
501 11-000-56	0.00
501 11-000-58	249,451.75
501 11-000-59	61.27
501 11-000-60	0.00
501 11-000-61	10,993.95
501 11-000-62	6,785,140.54
501 11-000-63	1,904,322.53
501 11-000-64	48,129,347.18
501 11-000-84	33,501,584.44CR
501 11-000-90	0.00
501 11-008-38	895.09
501 11-026-00	0.00
601 11-000-00	0.00
601 11-000-84	0.00
701 11-000-00	2,142,400.25
701 11-000-50	0.00
701 11-000-84	72,769.15CR
701 11-000-90	1,701,590.26
701 11-088-41	0.00
801 11-000-00	619,054.89
801 11-000-02	0.00
801 11-000-84	86,502.92CR
802 11-000-00	295,245.26
802 11-000-01	2,208,324.31
802 11-000-02	0.38CR
802 11-000-05	0.46
802 11-000-06	0.25
802 11-000-07	0.00
803 11-000-01	1,092,783.10
804 11-000-01	114,878.00
804 11-000-02	40,577.00
804 11-000-03	74,808.00
804 11-000-04	8,313.00
804 11-000-05	57,559.00
804 11-000-06	1,109,635.00
804 11-000-07	19,678.00
805 11-000-01	0.00
805 11-000-02	0.00
805 11-000-03	0.00
805 11-000-04	0.00
805 11-000-05	0.00
805 11-000-06	0.00
805 11-000-07	0.00
901 11-000-00	1,097,731.34

		BEGINNING BALANCE	TOTAL DEBITS	TOTAL CREDITS	ENDING BALANCE	AVERAGE DAILY BALANCE
General Fund						
101-11-000-00	General Fund Cas	948,824.06	653,505.34	1,393,825.34CR	208,504.06	487,529.75
101-11-000-10	Cash on hand - C	200.00	0.00	0.00	200.00	200.00
101-11-000-20	EMS Federal Govt	0.00	0.00	0.00	0.00	0.00
101-11-000-58	Cash in bank - T	0.00	0.00	0.00	0.00	0.00
101-11-000-84	Claim on Cash Ge	6,463,604.37	2,465,783.11	3,058,318.68CR	5,871,068.80	6,490,050.08
101-11-000-90	Investment Accou	5,625,239.91	102,235.08	307,183.00CR	5,420,291.99	5,619,680.95
101-11-027-87	Municipal Saving	0.00	0.00	0.00	0.00	0.00
	FUND 101 TOTAL	13,037,868.34	3,221,523.53	4,759,327.02CR	11,500,064.85	12,597,460.78
Utility Fund Pooled						
200-11-000-84	Water/Sewer/Tras	0.00	0.00	0.00	0.00	0.00
	FUND 200 TOTAL	0.00	0.00	0.00	0.00	0.00
Water Fund						
201-11-000-00	Water Fund Cash	803,560.64	0.00	119,469.89CR	684,090.75	745,359.57
201-11-000-10	Cash Drawer	200.00	0.00	0.00	200.00	200.00
201-11-000-84	Claim on Cash Wa	8,215,452.17	622,265.28	365,025.71CR	8,472,691.74	8,431,000.67
201-11-000-85	Water Claim on O	0.00	0.00	0.00	0.00	0.00
201-11-000-90	Investment Accou	259,873.60	0.00	0.00	259,873.60	259,873.60
201-11-000-91	Water Impact Fee	662,651.04	0.00	0.00	662,651.04	662,651.04
201-11-000-95	Cash - CO 2023 P	3,856,986.92	0.00	87,362.89CR	3,769,624.03	3,794,987.45
201-11-000-96	Cash CO 2025 - U	19,666,984.90	0.00	0.00	19,666,984.90	19,666,984.90
201-11-012-73	Cash in bank - W	0.00	0.00	0.00	0.00	0.00
201-11-032-89	Cash in bank - T	0.00	0.00	0.00	0.00	0.00
	FUND 201 TOTAL	33,465,709.27	622,265.28	571,858.49CR	33,516,116.06	33,561,057.23
Sewer Fund						
202-11-000-84	Claim on Cash Se	15,214,215.36	2,345,420.85	194,992.28CR	17,364,643.93	16,430,091.21
202-11-000-85	Sewer Claim on O	0.00	0.00	0.00	0.00	0.00
202-11-000-91	Sewer Impact Fee	862,963.99	0.00	0.00	862,963.99	862,963.99
202-11-000-92	Utility Funding	36,505,596.29	0.00	1,844,347.14CR	34,661,249.15	35,478,530.62
202-11-036-37	Sewer Reserve ca	0.00	0.00	0.00	0.00	0.00
	FUND 202 TOTAL	52,582,775.64	2,345,420.85	2,039,339.42CR	52,888,857.07	52,771,585.82
Drainage Fund						
203-11-000-84	Claim on Cash Dr	0.00	0.00	0.00	0.00	0.00
203-11-000-85	DrainageClaim on	0.00	0.00	0.00	0.00	0.00
	FUND 203 TOTAL	0.00	0.00	0.00	0.00	0.00

		BEGINNING BALANCE	TOTAL DEBITS	TOTAL CREDITS	ENDING BALANCE	AVERAGE DAILY BALANCE
Solid Waste Fund						
205-11-000-84	Claim on Cash Ga	384,155.04CR	77,186.13	209,544.36CR	516,513.27CR	486,863.60CR
205-11-000-85	Trash Claim on O	0.00	0.00	0.00	0.00	0.00
	FUND 205 TOTAL	384,155.04CR	77,186.13	209,544.36CR	516,513.27CR	486,863.60CR
Debt Service Fund						
301-11-000-00	Debt Service Cas	184,694.11	0.00	0.00	184,694.11	184,694.11
301-11-000-84	Claim on Cash De	670,422.62	0.00	1,050,000.00CR	379,577.38CR	263,971.01
301-11-000-90	Investment Accou	75,594.23	1,050,000.00	0.00	1,125,594.23	482,045.84
	FUND 301 TOTAL	930,710.96	1,050,000.00	1,050,000.00CR	930,710.96	930,710.96
Special Revenue Fund						
401-11-000-00	Special Revenue	46,163.11	183,803.00	7,533.17CR	222,432.94	61,277.44
401-11-000-70	Cash in bnk - Ho	0.00	0.00	0.00	0.00	0.00
401-11-000-84	Claim on Cash Sp	34,394.63	10,894.34	183,803.00CR	138,514.03CR	20,813.99
401-11-058-24	Seizure Fund Cas	0.00	0.00	0.00	0.00	0.00
	FUND 401 TOTAL	80,557.74	194,697.34	191,336.17CR	83,918.91	82,091.43
TIRZ Jackson Ridge						
402-11-000-00	TIRZ Cash	909,304.50	0.00	877,723.94CR	31,580.56	173,148.94
	FUND 402 TOTAL	909,304.50	0.00	877,723.94CR	31,580.56	173,148.94
Impact Fees						
403-11-000-00	Impact Fees Cash	2,717,796.54	0.00	147,654.00CR	2,570,142.54	2,613,009.83
403-11-000-10	HPR Capital Fund	0.00	492,280.00	0.00	492,280.00	138,198.90
	FUND 403 TOTAL	2,717,796.54	492,280.00	147,654.00CR	3,062,422.54	2,751,208.73
Development Fees						
404-11-000-00	Development Fees	0.00	0.00	0.00	0.00	0.00
404-11-000-50	Investment Acct-	1,235,079.74	270,000.00	8,915.67CR	1,496,164.07	1,296,639.01
404-11-000-51	Park Fees Accoun	0.00	100.00	0.00	100.00	77.42
404-11-000-60	Investment acct-	3,361,972.79	45,583.00	324,901.69CR	3,082,654.10	3,242,205.46
404-11-000-70	Investment Acct-	1,997,457.56	0.00	0.00	1,997,457.56	1,997,457.56
404-11-000-90	Investment Accou	1,873.14	307,183.00	307,183.00CR	1,873.14	1,873.14
	FUND 404 TOTAL	6,596,383.23	622,866.00	641,000.36CR	6,578,248.87	6,538,252.59

		BEGINNING BALANCE	TOTAL DEBITS	TOTAL CREDITS	ENDING BALANCE	AVERAGE DAILY BALANCE
Grant Fund						
405-11-000-00	Grant Fund Cash	911.18	0.00	0.00	911.18	911.18
405-11-000-84	Claim on Cash Gr	20,119.75	0.00	2,721.80CR	17,397.95	18,100.35
	FUND 405 TOTAL	21,030.93	0.00	2,721.80CR	18,309.13	19,011.53
Holding Acct Dev Agreemts						
406-11-000-00	Developer Cash H	0.00	0.00	0.00	0.00	0.00
406-11-000-10	HPR Capital Acco	0.00	100.00	100.00CR	0.00	6.45
406-11-000-41	Cash - Union Mai	0.00	0.00	0.00	0.00	0.00
406-11-000-42	Cash - Union Lif	0.00	0.00	0.00	0.00	0.00
406-11-000-43	Cash - Union ETJ	0.00	0.00	0.00	0.00	0.00
406-11-000-84	Claim on Cash Ho	395,110.61	2,600.00	32,043.37CR	365,667.24	385,363.21
	FUND 406 TOTAL	395,110.61	2,700.00	32,143.37CR	365,667.24	385,369.66
Fire Dept SAFR						
407-11-000-84	Claim on Cash SA	0.00	0.00	0.00	0.00	0.00
	FUND 407 TOTAL	0.00	0.00	0.00	0.00	0.00
Capital Projects Fund						
501-11-000-00	Capital Projects	0.00	0.00	0.00	0.00	0.00
501-11-000-55	Vehicle Replacem	663,639.52	0.00	0.00	663,639.52	663,639.52
501-11-000-56	Project 38 Fund	0.00	0.00	0.00	0.00	0.00
501-11-000-58	Escrow Cash - AH	249,451.75	0.00	0.00	249,451.75	249,451.75
501-11-000-59	Cash - CO 2022 P	8,461.27	0.00	8,400.00CR	61.27	61.27
501-11-000-60	Cash - CO 2023 P	0.00	0.00	0.00	0.00	0.00
501-11-000-61	Cash - CO 2024 S	10,993.95	208,810.47	208,810.47CR	10,993.95	10,993.95
501-11-000-62	ABP LLC Cash Esc	6,995,251.65	0.00	407,090.27CR	6,588,161.38	6,785,140.54
501-11-000-63	HPR Lennar Escro	2,363,301.92	0.00	1,151,772.57CR	1,211,529.35	1,904,322.53
501-11-000-64	Cash CO 2025 Gov	48,234,010.37	0.00	318,714.92CR	47,915,295.45	48,129,347.18
501-11-000-84	Claim on Cash Ca	31,866,658.19CR	1,899,778.50	4,389,667.24CR	34,356,546.93CR	33,501,584.44CR
501-11-000-90	Investment Accou	0.00	0.00	0.00	0.00	0.00
501-11-008-38	Cash - Water Bon	895.09	0.00	0.00	895.09	895.09
501-11-026-00	Cash in LOGIC -	0.00	0.00	0.00	0.00	0.00
	FUND 501 TOTAL	26,659,347.33	2,108,588.97	6,484,455.47CR	22,283,480.83	24,242,267.39
NAVO FWSD Fund						
601-11-000-00	FWSD Cash	0.00	0.00	0.00	0.00	0.00
601-11-000-84	Claim on Cash NA	0.00	0.00	0.00	0.00	0.00
	FUND 601 TOTAL	0.00	0.00	0.00	0.00	0.00

		BEGINNING BALANCE	TOTAL DEBITS	TOTAL CREDITS	ENDING BALANCE	AVERAGE DAILY BALANCE
MDD						
701-11-000-00	MDD Cash	2,089,886.69	96,516.77	16,682.75CR	2,169,720.71	2,142,400.25
701-11-000-50	Cash Bank Note 2	0.00	0.00	0.00	0.00	0.00
701-11-000-84	Claim on Cash MD	37,239.27CR	1,622.29	58,851.23CR	94,468.21CR	72,769.15CR
701-11-000-90	Investment Accou	1,701,590.26	0.00	0.00	1,701,590.26	1,701,590.26
701-11-088-41	EDC cash	0.00	0.00	0.00	0.00	0.00
	FUND 701 TOTAL	3,754,237.68	98,139.06	75,533.98CR	3,776,842.76	3,771,221.36
Employee Benefit Trust						
801-11-000-00	Employee Benefit	513,614.78	246,895.70	133,654.03CR	626,856.45	619,054.89
801-11-000-02	Cash in Wilmingt	0.00	0.00	0.00	0.00	0.00
801-11-000-84	Claim on Cash EB	65,211.42CR	247,065.70	246,895.70CR	65,041.42CR	86,502.92CR
	FUND 801 TOTAL	448,403.36	493,961.40	380,549.73CR	561,815.03	532,551.97
Jackson Ridge PID						
802-11-000-00	Cash Collection	295,245.26	0.00	0.00	295,245.26	295,245.26
802-11-000-01	Cash in Wilmingt	2,208,324.31	0.00	0.00	2,208,324.31	2,208,324.31
802-11-000-02	Cash in Wilmingt	0.38CR	0.00	0.00	0.38CR	0.38CR
802-11-000-05	Cash in Wilmingt	0.46	0.00	0.00	0.46	0.46
802-11-000-06	Cash in Wilmingt	0.25	0.00	0.00	0.25	0.25
802-11-000-07	Cash in Wilmingt	0.00	0.00	0.00	0.00	0.00
	FUND 802 TOTAL	2,503,569.90	0.00	0.00	2,503,569.90	2,503,569.90
Winn Ridge South PID						
803-11-000-01	Cash in Wilmingt	1,092,783.10	0.00	0.00	1,092,783.10	1,092,783.10
	FUND 803 TOTAL	1,092,783.10	0.00	0.00	1,092,783.10	1,092,783.10
Keeneland PID						
804-11-000-01	Cash in Wilmingt	114,878.00	0.00	0.00	114,878.00	114,878.00
804-11-000-02	Cash in Wilmingt	40,577.00	0.00	0.00	40,577.00	40,577.00
804-11-000-03	Cash In Wilmingt	74,808.00	0.00	0.00	74,808.00	74,808.00
804-11-000-04	Cash in Wilmingt	8,313.00	0.00	0.00	8,313.00	8,313.00
804-11-000-05	Cash in Wilmingt	57,559.00	0.00	0.00	57,559.00	57,559.00
804-11-000-06	Cash in Wilmingt	1,109,635.00	0.00	0.00	1,109,635.00	1,109,635.00
804-11-000-07	Cash in Wilmingt	19,678.00	0.00	0.00	19,678.00	19,678.00
	FUND 804 TOTAL	1,425,448.00	0.00	0.00	1,425,448.00	1,425,448.00

		BEGINNING BALANCE	TOTAL DEBITS	TOTAL CREDITS	ENDING BALANCE	AVERAGE DAILY BALANCE
High Point Ranch PID						
805-11-000-01	Cash in Wilmingt	0.00	0.00	0.00	0.00	0.00
805-11-000-02	Cash in Wilmingt	0.00	0.00	0.00	0.00	0.00
805-11-000-03	Cash in Wilmingt	0.00	0.00	0.00	0.00	0.00
805-11-000-04	Cash in Wilmingt	0.00	0.00	0.00	0.00	0.00
805-11-000-05	Cash in Wilmingt	0.00	0.00	0.00	0.00	0.00
805-11-000-06	Cash in Wilmingt	0.00	0.00	0.00	0.00	0.00
805-11-000-07	Cash in Wilmingt	0.00	0.00	0.00	0.00	0.00
	FUND 805 TOTAL	0.00	0.00	0.00	0.00	0.00
Pooled Cash Fund						
901-11-000-00	Pooled Cash	1,693,642.90	6,483,849.60	8,640,784.46CR	463,291.96CR	1,097,731.34
	FUND 901 TOTAL	1,693,642.90	6,483,849.60	8,640,784.46CR	463,291.96CR	1,097,731.34
	REPORT TOTALS	147,930,524.99	17,813,478.16	26,103,972.57CR	139,640,030.58	143,988,607.13

SELECTION CRITERIA

PRINT CURRENT
FUND: All
ACCOUNT TYPE: ALL CASH
TRANSACTION DATES: 10/01/2025 THRU 10/31/2025
PERIOD 13: EXCLUDE

PRINT OPTIONS

REPORT TYPE: SUMMARY
RECAP ONLY: NO
DESCRIPTIONS: NO

*** END OF REPORT ***

Revenue/Expense by Fund

(Unaudited)

October 2025

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
FINANCIAL SUMMARY % OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Fines and Fees	159,000	5,890.70	5,890.70	0.00	153,109.30	3.70
Taxes	7,404,969	304,536.35	304,536.35	0.00	7,100,432.65	4.11
Grants	137,200	0.00	0.00	0.00	137,200.00	0.00
Donations	3,000	273.65	273.65	0.00	2,726.35	9.12
Charges for Services	9,946,830	414,042.73	414,042.73	0.00	9,532,787.27	4.16
Permits	3,571,838	211,017.65	211,017.65	0.00	3,360,820.35	5.91
Miscellaneous	1,198,540	6,943.36	6,943.36	0.00	1,191,596.64	0.58
TOTAL GENERAL REVENUE	22,421,377	942,704.44	942,704.44	0.00	21,478,672.56	4.20
TOTAL REVENUE	22,421,377	942,704.44	942,704.44	0.00	21,478,672.56	4.20
EXPENSE SUMMARY						
Administration						
Personnel	873,058	66,090.95	66,090.95	0.00	806,967.05	7.57
Materials & Supplies	17,500	4,190.38	4,190.38	0.00	13,309.62	23.95
Repairs & Maintenance	31,500	3,024.46	3,024.46	4,140.98	24,334.56	22.75
Utilities	25,500	1,966.64	1,966.64	0.00	23,533.36	7.71
Contract Services	394,900	31,948.74	31,948.74	0.00	362,951.26	8.09
Fees & Other Services	220,477	61,761.68	61,761.68	51,960.00	106,755.32	51.58
Miscellaneous	29,000	2,686.44	2,686.44	0.00	26,313.56	9.26
TOTAL Administration	1,591,935	171,669.29	171,669.29	56,100.98	1,364,164.73	14.31
Police Department						
Personnel	5,020,557	365,525.53	365,525.53	0.00	4,655,031.47	7.28
Materials & Supplies	270,746	22,122.64	22,122.64	0.00	248,623.36	8.17
Repairs & Maintenance	109,750	19,575.76	19,575.76	(8,548.43)	98,722.67	10.05
Utilities	56,265	4,297.02	4,297.02	0.00	51,967.98	7.64
Contract Services	113,159	17,301.00	17,301.00	0.00	95,858.00	15.29
Fees & Other Services	261,091	36,114.38	36,114.38	(782.25)	225,758.87	13.53
Public Safety	305,957	49,471.33	49,471.33	29,830.32	226,655.35	25.92
Miscellaneous	2,160	42,919.54	42,919.54	136.57	(40,896.11)	1,993.34
TOTAL Police Department	6,139,685	557,327.20	557,327.20	20,636.21	5,561,721.59	9.41
Fire Department						
Personnel	8,122,934	673,488.11	673,488.11	0.00	7,449,445.89	8.29
Materials & Supplies	517,136	66,085.81	66,085.81	17,106.99	433,943.20	16.09
Repairs & Maintenance	570,000	41,974.75	41,974.75	15,724.00	512,301.25	10.12
Utilities	75,180	10,351.39	10,351.39	0.00	64,828.61	13.77
Contract Services	50,450	449.99	449.99	0.00	50,000.01	0.89
Fees & Other Services	140,650	36,668.31	36,668.31	0.00	103,981.69	26.07
Public Safety	133,417	45,611.76	45,611.76	4,665.10	83,140.14	37.68
Miscellaneous	8,600	0.00	0.00	0.00	8,600.00	0.00
TOTAL Fire Department	9,618,367	874,630.12	874,630.12	37,496.09	8,706,240.79	9.48

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
FINANCIAL SUMMARY % OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Engineering						
Personnel	422,834	0.00	0.00	0.00	422,834.00	0.00
Repairs & Maintenance	0	12.96	12.96	0.00	(12.96)	0.00
Contract Services	0	8,500.00	8,500.00	0.00	(8,500.00)	0.00
Fees & Other Services	0	100.00	100.00	0.00	(100.00)	0.00
TOTAL Engineering	422,834	8,612.96	8,612.96	0.00	414,221.04	2.04
Streets Department						
Personnel	204,812	25,685.37	25,685.37	0.00	179,126.63	12.54
Materials & Supplies	46,751	838.18	838.18	1,440.76	44,472.06	4.87
Repairs & Maintenance	82,000	2,491.48	2,491.48	7,979.27	71,529.25	12.77
Utilities	49,270	4,177.03	4,177.03	0.00	45,092.97	8.48
Contract Services	15,000	0.00	0.00	0.00	15,000.00	0.00
Fees & Other Services	6,800	674.82	674.82	0.00	6,125.18	9.92
Miscellaneous	0	0.00	0.00	8,418.00	(8,418.00)	0.00
TOTAL Streets Department	404,633	33,866.88	33,866.88	17,838.03	352,928.09	12.78
Development Services						
Personnel	972,311	66,015.82	66,015.82	0.00	906,295.18	6.79
Materials & Supplies	13,600	748.86	748.86	0.00	12,851.14	5.51
Repairs & Maintenance	6,000	23.00	23.00	0.00	5,977.00	0.38
Contract Services	885,000	113,208.62	113,208.62	0.00	771,791.38	12.79
Fees & Other Services	52,060	1,016.08	1,016.08	3,600.00	47,443.92	8.87
Miscellaneous	600	0.00	0.00	0.00	600.00	0.00
TOTAL Development Services	1,929,571	181,012.38	181,012.38	3,600.00	1,744,958.62	9.57
Court						
Personnel	92,736	7,901.78	7,901.78	0.00	84,834.22	8.52
Materials & Supplies	1,900	99.95	99.95	0.00	1,800.05	5.26
Contract Services	36,800	1,400.00	1,400.00	0.00	35,400.00	3.80
Fees & Other Services	6,550	561.27	561.27	0.00	5,988.73	8.57
TOTAL Court	137,986	9,963.00	9,963.00	0.00	128,023.00	7.22
Parks & Recreation						
Personnel	472,819	34,337.33	34,337.33	0.00	438,481.67	7.26
Materials & Supplies	12,600	586.88	586.88	0.00	12,013.12	4.66
Repairs & Maintenance	40,000	1,611.74	1,611.74	0.00	38,388.26	4.03
Utilities	12,500	5,264.35	5,264.35	0.00	7,235.65	42.11
Contract Services	4,120	0.00	0.00	0.00	4,120.00	0.00
Fees & Other Services	12,100	782.45	782.45	0.00	11,317.55	6.47
Miscellaneous	160,000	17,364.96	17,364.96	0.00	142,635.04	10.85
TOTAL Parks & Recreation	714,139	59,947.71	59,947.71	0.00	654,191.29	8.39
Library						
Personnel	428,930	33,523.03	33,523.03	0.00	395,406.97	7.82
Materials & Supplies	53,960	2,383.68	2,383.68	413.65	51,162.67	5.18
Repairs & Maintenance	13,000	587.00	587.00	0.00	12,413.00	4.52
Utilities	22,548	1,946.74	1,946.74	0.00	20,601.26	8.63
Contract Services	1,800	150.00	150.00	0.00	1,650.00	8.33

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
FINANCIAL SUMMARY % OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Fees & Other Services	45,200	8,480.19	8,480.19	0.00	36,719.81	18.76
Miscellaneous	21,000	771.26	771.26	0.00	20,228.74	3.67
TOTAL Library	586,438	47,841.90	47,841.90	413.65	538,182.45	8.23
Providence Village PD						
Public Safety	0	0.00	0.00	5,079.36	(5,079.36)	0.00
TOTAL Providence Village PD	0	0.00	0.00	5,079.36	(5,079.36)	0.00
Fleet						
Personnel	64,907	23,586.78	23,586.78	0.00	41,320.22	36.34
Materials & Supplies	7,000	0.00	0.00	0.00	7,000.00	0.00
Repairs & Maintenance	2,500	80.00	80.00	0.00	2,420.00	3.20
Fees & Other Services	3,600	174.22	174.22	(174.22)	3,600.00	0.00
Miscellaneous	75	0.00	0.00	0.00	75.00	0.00
TOTAL Fleet	78,082	23,841.00	23,841.00	(174.22)	54,415.22	30.31
HR						
Personnel	257,327	18,040.08	18,040.08	0.00	239,286.92	7.01
Materials & Supplies	850	(5.30)	(5.30)	0.00	855.30	0.62-
Contract Services	16,000	1,269.50	1,269.50	0.00	14,730.50	7.93
Fees & Other Services	13,170	11,993.46	11,993.46	(11,811.47)	12,988.01	1.38
Miscellaneous	47,275	1,605.63	1,605.63	0.00	45,669.37	3.40
TOTAL HR	334,622	32,903.37	32,903.37	(11,811.47)	313,530.10	6.30
TOTAL EXPENSES	21,958,292	2,001,615.81	2,001,615.81	129,178.63	19,827,497.56	9.70
REVENUE OVER/(UNDER) EXPENSES	463,085	(1,058,911.37)	(1,058,911.37)	(129,178.63)	1,651,175.00	256.56-

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Fines and Fees						
101-4000-01-4400 Court Fines and fees	155,000	5,540.70	5,540.70	0.00	149,459.30	3.57
101-4000-01-4410 Warrant Income	4,000	350.00	350.00	0.00	3,650.00	8.75
TOTAL Fines and Fees	159,000	5,890.70	5,890.70	0.00	153,109.30	3.70
Taxes						
101-4000-02-4100 Property Taxes	3,200,000	0.00	0.00	0.00	3,200,000.00	0.00
101-4000-02-4130 Sales Taxes	2,750,000	193,368.73	193,368.73	0.00	2,556,631.27	7.03
101-4000-02-4140 Franchise Tax-Electric	353,000	107,576.69	107,576.69	0.00	245,423.31	30.47
101-4000-02-4141 Franchise Tax-Gas	37,500	3,053.36	3,053.36	0.00	34,446.64	8.14
101-4000-02-4142 Franchise Tax-Telephone	4,000	74.74	74.74	0.00	3,925.26	1.87
101-4000-02-4143 Franchise Tax-Cable TV	10,000	462.83	462.83	0.00	9,537.17	4.63
101-4000-02-4144 Franchise Tax-Water	567,000	0.00	0.00	0.00	567,000.00	0.00
101-4000-02-4145 Franchise Tax-Sewer	75,000	0.00	0.00	0.00	75,000.00	0.00
101-4000-02-4146 Franchise Tax-Garbage	408,469	0.00	0.00	0.00	408,469.00	0.00
TOTAL Taxes	7,404,969	304,536.35	304,536.35	0.00	7,100,432.65	4.11
Grants						
101-4000-03-4391 Grants - Police	137,200	0.00	0.00	0.00	137,200.00	0.00
TOTAL Grants	137,200	0.00	0.00	0.00	137,200.00	0.00
Donations						
101-4000-04-4393 Donations-Library	3,000	273.65	273.65	0.00	2,726.35	9.12
TOTAL Donations	3,000	273.65	273.65	0.00	2,726.35	9.12
Charges for Services						
101-4000-06-4104 Aspen Meadow Police	92,700	3,965.00	3,965.00	0.00	88,735.00	4.28
101-4000-06-4316 Providence Village WCID	605,000	56,705.93	56,705.93	0.00	548,294.07	9.37
101-4000-06-4318 DC FWSD # 10 Elm Ridge	820,000	0.00	0.00	0.00	820,000.00	0.00
101-4000-06-4401 Providence Village Poli	1,822,347	0.00	0.00	0.00	1,822,347.00	0.00
101-4000-06-4402 Silverado Police	1,200,600	47,905.00	47,905.00	0.00	1,152,695.00	3.99
101-4000-06-4403 Sandbrock Police	568,650	48,893.00	48,893.00	0.00	519,757.00	8.60
101-4000-06-4404 DISD SRO	132,670	33,164.92	33,164.92	0.00	99,505.08	25.00
101-4000-06-4420 Accident Reports	500	138.00	138.00	0.00	362.00	27.60
101-4000-06-4480 Library fines & fees	700	204.87	204.87	0.00	495.13	29.27
101-4000-06-4481 Public Services - copie	2,000	831.70	831.70	0.00	1,168.30	41.59
101-4000-06-4482 Denton Co Library Pledg	31,400	0.00	0.00	0.00	31,400.00	0.00
101-4000-06-4483 Krugerville Library ILA	10,000	0.00	0.00	0.00	10,000.00	0.00
101-4000-06-4485 Providence Village Libr	36,200	0.00	0.00	0.00	36,200.00	0.00
101-4000-06-4486 Silverado Library Fee	18,000	18,705.00	18,705.00	0.00	(705.00)	103.92
101-4000-06-4501 Community Building rent	2,500	0.00	0.00	0.00	2,500.00	0.00
101-4000-06-4730 Denton County Pledge Fi	1,062,465	0.00	0.00	0.00	1,062,465.00	0.00
101-4000-06-4741 Krugerville ILA Fire	167,635	42,273.75	42,273.75	0.00	125,361.25	25.22
101-4000-06-4742 Silverado Fire	1,386,720	55,275.00	55,275.00	0.00	1,331,445.00	3.99
101-4000-06-4744 Sandbrock Fire	375,503	8,086.15	8,086.15	0.00	367,416.85	2.15
101-4000-06-4745 Aspen Meadow Fire	111,240	4,575.00	4,575.00	0.00	106,665.00	4.11
101-4000-06-4749 Insurance Billing EMS	1,500,000	93,319.41	93,319.41	0.00	1,406,680.59	6.22
TOTAL Charges for Services	9,946,830	414,042.73	414,042.73	0.00	9,532,787.27	4.16

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Permits						
101-4000-07-4200 Building Permits	1,200,000	91,242.55	91,242.55	0.00	1,108,757.45	7.60
101-4000-07-4210 Plan Review fees	1,719,638	103,315.10	103,315.10	0.00	1,616,322.90	6.01
101-4000-07-4220 Inspection fees	225,000	11,355.00	11,355.00	0.00	213,645.00	5.05
101-4000-07-4225 Street Inspection Fees	400,000	0.00	0.00	0.00	400,000.00	0.00
101-4000-07-4250 Contractor registration	4,000	1,155.00	1,155.00	0.00	2,845.00	28.88
101-4000-07-4260 Other Permit fee	7,000	2,350.00	2,350.00	0.00	4,650.00	33.57
101-4000-07-4290 Health Permits	15,000	1,600.00	1,600.00	0.00	13,400.00	10.67
101-4000-07-4310 Demolition Permits	500	0.00	0.00	0.00	500.00	0.00
101-4000-07-4320 Sign Permit	500	0.00	0.00	0.00	500.00	0.00
101-4000-07-4330 Solicitation permit	200	0.00	0.00	0.00	200.00	0.00
TOTAL Permits	3,571,838	211,017.65	211,017.65	0.00	3,360,820.35	5.91
Miscellaneous						
101-4000-09-4430 All Admin Fees	128,540	1,450.00	1,450.00	0.00	127,090.00	1.13
101-4000-09-4435 City Event Fees	80,000	4,165.68	4,165.68	0.00	75,834.32	5.21
101-4000-09-4500 Interest Income	450,000	0.00	0.00	0.00	450,000.00	0.00
101-4000-09-4550 Gain on sale of assets	40,000	0.00	0.00	0.00	40,000.00	0.00
101-4000-09-4800 Insurance Proceeds	0	1,327.68	1,327.68	0.00	(1,327.68)	0.00
101-4000-09-5626 Transfer In Fire Fund	200,000	0.00	0.00	0.00	200,000.00	0.00
101-4000-09-5628 Transfer In CO 2025	300,000	0.00	0.00	0.00	300,000.00	0.00
TOTAL Miscellaneous	1,198,540	6,943.36	6,943.36	0.00	1,191,596.64	0.58
Contingency/FB						
TOTAL REVENUE	22,421,377	942,704.44	942,704.44	0.00	21,478,672.56	4.20

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Administration % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5101-01-5101 Salaries	666,650	44,432.30	44,432.30	0.00	622,217.70	6.67
101-5101-01-5105 Overtime	5,000	687.39	687.39	0.00	4,312.61	13.75
101-5101-01-5106 Longevity	1,350	0.00	0.00	0.00	1,350.00	0.00
101-5101-01-5107 Retirement - TMRS	104,113	9,514.46	9,514.46	0.00	94,598.54	9.14
101-5101-01-5108 Payroll Tax Expense (me	9,759	1,071.16	1,071.16	0.00	8,687.84	10.98
101-5101-01-5109 Group Health Insurance	71,266	8,972.26	8,972.26	0.00	62,293.74	12.59
101-5101-01-5110 Workers Comp TML	1,920	270.12	270.12	0.00	1,649.88	14.07
101-5101-01-5621 Travel & Training	13,000	1,143.26	1,143.26	0.00	11,856.74	8.79
TOTAL Personnel	873,058	66,090.95	66,090.95	0.00	806,967.05	7.57
Materials & Supplies						
101-5101-03-5050 Office Supplies	15,000	3,736.33	3,736.33	0.00	11,263.67	24.91
101-5101-03-5081 Uniforms	1,000	0.00	0.00	0.00	1,000.00	0.00
101-5101-03-5090 Postage	1,500	454.05	454.05	0.00	1,045.95	30.27
TOTAL Materials & Supplies	17,500	4,190.38	4,190.38	0.00	13,309.62	23.95
Repairs & Maintenance						
101-5101-04-5120 Building Maintenance	30,000	2,846.00	2,846.00	4,140.98	23,013.02	23.29
101-5101-04-5121 Equipment Maintenance	500	0.00	0.00	0.00	500.00	0.00
101-5101-04-5122 Vehicle Maintenance	1,000	178.46	178.46	0.00	821.54	17.85
TOTAL Repairs & Maintenance	31,500	3,024.46	3,024.46	4,140.98	24,334.56	22.75
Utilities						
101-5101-05-5616 Utilities -Electricity	3,000	144.34	144.34	0.00	2,855.66	4.81
101-5101-05-5617 Utilities -Gas	2,500	109.29	109.29	0.00	2,390.71	4.37
101-5101-05-5618 Utilities -Telephone	16,000	1,312.51	1,312.51	0.00	14,687.49	8.20
101-5101-05-5619 Utilities -Water/Sewer	4,000	400.50	400.50	0.00	3,599.50	10.01
TOTAL Utilities	25,500	1,966.64	1,966.64	0.00	23,533.36	7.71
Contract Services						
101-5101-06-5060 Election Services	15,000	0.00	0.00	0.00	15,000.00	0.00
101-5101-06-5230 Contract Labor	1,000	29.00	29.00	0.00	971.00	2.90
101-5101-06-5300 Benefits Administration	26,400	2,170.00	2,170.00	0.00	24,230.00	8.22
101-5101-06-5620 Legal & Professional	350,000	29,405.74	29,405.74	0.00	320,594.26	8.40
101-5101-06-5685 Storage Building	2,500	344.00	344.00	0.00	2,156.00	13.76
TOTAL Contract Services	394,900	31,948.74	31,948.74	0.00	362,951.26	8.09
Fees & Other Services						
101-5101-07-5150 Printing	15,000	0.00	0.00	0.00	15,000.00	0.00
101-5101-07-5190 Insurance - TML	11,000	2,590.48	2,590.48	0.00	8,409.52	23.55
101-5101-07-5220 Advertising & Notices	4,800	611.88	611.88	0.00	4,188.12	12.75
101-5101-07-5260 Dues and Membership	9,000	6,560.10	6,560.10	0.00	2,439.90	72.89
101-5101-07-5280 Copier Maintenance cont	10,000	747.00	747.00	0.00	9,253.00	7.47
101-5101-07-5320 Appraisal District Fees	39,270	0.00	0.00	0.00	39,270.00	0.00
101-5101-07-5540 Bond Insurance	1,407	0.00	0.00	0.00	1,407.00	0.00
101-5101-07-5665 Technology	125,000	51,252.22	51,252.22	51,960.00	21,787.78	82.57
101-5101-07-5666 Bank Fees	5,000	0.00	0.00	0.00	5,000.00	0.00
TOTAL Fees & Other Services	220,477	61,761.68	61,761.68	51,960.00	106,755.32	51.58

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Administration % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Miscellaneous						
101-5101-09-5130 Community Development	15,000	2,334.32	2,334.32	0.00	12,665.68	15.56
101-5101-09-5131 Meetings	5,000	352.12	352.12	0.00	4,647.88	7.04
101-5101-09-5133 Marketing & Promotions	5,000	0.00	0.00	0.00	5,000.00	0.00
101-5101-09-5134 Council Reimbursable Ex	4,000	0.00	0.00	0.00	4,000.00	0.00
TOTAL Miscellaneous	29,000	2,686.44	2,686.44	0.00	26,313.56	9.26
Debt Service						
Contingency/FB						
TOTAL Administration	1,591,935	171,669.29	171,669.29	56,100.98	1,364,164.73	14.31

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Police Department % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5102-01-5101 Salaries	3,580,132	219,315.33	219,315.33	0.00	3,360,816.67	6.13
101-5102-01-5105 Overtime	136,885	17,534.78	17,534.78	0.00	119,350.22	12.81
101-5102-01-5106 Longevity	5,200	0.00	0.00	0.00	5,200.00	0.00
101-5102-01-5107 Retirement - TMRS	575,827	49,094.88	49,094.88	0.00	526,732.12	8.53
101-5102-01-5108 Payroll Tax Expense (me	53,972	5,596.31	5,596.31	0.00	48,375.69	10.37
101-5102-01-5109 Group Health Insurance	496,546	58,305.99	58,305.99	0.00	438,240.01	11.74
101-5102-01-5110 Workers Comp TML	107,088	12,171.87	12,171.87	0.00	94,916.13	11.37
101-5102-01-5621 Travel & Training	64,907	3,506.37	3,506.37	0.00	61,400.63	5.40
TOTAL Personnel	5,020,557	365,525.53	365,525.53	0.00	4,655,031.47	7.28
Materials & Supplies						
101-5102-03-5050 Office Supplies	18,075	4,533.27	4,533.27	0.00	13,541.73	25.08
101-5102-03-5051 Printing	5,000	0.00	0.00	0.00	5,000.00	0.00
101-5102-03-5080 Gas & Oil	175,000	11,903.05	11,903.05	0.00	163,096.95	6.80
101-5102-03-5081 Uniforms	54,812	5,496.43	5,496.43	0.00	49,315.57	10.03
101-5102-03-5082 Ballistic Vests	14,859	189.89	189.89	0.00	14,669.11	1.28
101-5102-03-5090 Postage	3,000	0.00	0.00	0.00	3,000.00	0.00
TOTAL Materials & Supplies	270,746	22,122.64	22,122.64	0.00	248,623.36	8.17
Repairs & Maintenance						
101-5102-04-5120 Building Maintenance	32,000	10,740.93	10,740.93	(8,548.43)	29,807.50	6.85
101-5102-04-5121 Equipment Maintenance	7,250	0.00	0.00	0.00	7,250.00	0.00
101-5102-04-5122 Vehicle Maintenance	70,500	8,834.83	8,834.83	0.00	61,665.17	12.53
TOTAL Repairs & Maintenance	109,750	19,575.76	19,575.76	(8,548.43)	98,722.67	10.05
Utilities						
101-5102-05-5616 Utilities -Electricity	13,500	1,181.96	1,181.96	0.00	12,318.04	8.76
101-5102-05-5617 Utilities -Gas	500	0.00	0.00	0.00	500.00	0.00
101-5102-05-5618 Utilities -Telephone	35,665	2,981.40	2,981.40	0.00	32,683.60	8.36
101-5102-05-5619 Utilities -Water/Sewer	6,600	133.66	133.66	0.00	6,466.34	2.03
TOTAL Utilities	56,265	4,297.02	4,297.02	0.00	51,967.98	7.64
Contract Services						
101-5102-06-5240 Drug testing/background	2,800	0.00	0.00	0.00	2,800.00	0.00
101-5102-06-5610 Power DMS	29,259	17,026.00	17,026.00	0.00	12,233.00	58.19
101-5102-06-5620 Legal and Professional	43,550	275.00	275.00	0.00	43,275.00	0.63
101-5102-06-5621 Childerns' Advocacy Cen	10,500	0.00	0.00	0.00	10,500.00	0.00
101-5102-06-5685 Storage Building - Wils	540	0.00	0.00	0.00	540.00	0.00
101-5102-06-5690 Forensic Testing	26,510	0.00	0.00	0.00	26,510.00	0.00
TOTAL Contract Services	113,159	17,301.00	17,301.00	0.00	95,858.00	15.29
Fees & Other Services						
101-5102-07-5190 Insurance - TML	94,000	22,019.04	22,019.04	0.00	71,980.96	23.42
101-5102-07-5220 Advertising & Notices	300	0.00	0.00	0.00	300.00	0.00
101-5102-07-5260 Dues and Memberships	2,855	0.00	0.00	0.00	2,855.00	0.00
101-5102-07-5280 Maintenance contracts	132,318	8,110.50	8,110.50	0.00	124,207.50	6.13
101-5102-07-5665 Technology	31,618	5,984.84	5,984.84	(782.25)	26,415.41	16.45
TOTAL Fees & Other Services	261,091	36,114.38	36,114.38	(782.25)	225,758.87	13.53

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Police Department % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Public Safety						
101-5102-08-5070 Police Supplies	27,974	1,944.82	1,944.82	0.00	26,029.18	6.95
101-5102-08-5071 Communications Supplies	16,287	0.00	0.00	15,709.92	577.08	96.46
101-5102-08-5072 Promotional Supplies	15,440	19.00	19.00	0.00	15,421.00	0.12
101-5102-08-5625 Ammo/Firearms/Safety Eq	46,962	16,645.73	16,645.73	14,120.40	16,195.87	65.51
101-5102-08-5686 Flock Cameras	72,000	3,500.00	3,500.00	0.00	68,500.00	4.86
101-5102-08-5687 Denton Cty Communicatio	95,643	27,111.78	27,111.78	0.00	68,531.22	28.35
101-5102-08-5688 Code Compliance	31,651	250.00	250.00	0.00	31,401.00	0.79
TOTAL Public Safety	305,957	49,471.33	49,471.33	29,830.32	226,655.35	25.92
Miscellaneous						
101-5102-09-5131 Meetings	2,160	0.00	0.00	0.00	2,160.00	0.00
101-5102-09-5685 Capital - equipment	0	42,919.54	42,919.54	136.57	(43,056.11)	0.00
TOTAL Miscellaneous	2,160	42,919.54	42,919.54	136.57	(40,896.11)	1,993.34
Debt Service						
TOTAL Police Department	6,139,685	557,327.20	557,327.20	20,636.21	5,561,721.59	9.41

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Fire Department % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5103-01-5101 Salaries	5,584,846	347,565.29	347,565.29	0.00	5,237,280.71	6.22
101-5103-01-5105 Overtime	500,000	103,575.19	103,575.19	0.00	396,424.81	20.72
101-5103-01-5106 Longevity	11,650	0.00	0.00	0.00	11,650.00	0.00
101-5103-01-5107 Retirement - TMRS	943,128	92,141.21	92,141.21	0.00	850,986.79	9.77
101-5103-01-5108 Payroll Tax Expense (me	88,399	10,631.48	10,631.48	0.00	77,767.52	12.03
101-5103-01-5109 Group Health Insurance	736,411	95,840.71	95,840.71	0.00	640,570.29	13.01
101-5103-01-5110 Workers Comp TML	170,000	22,921.76	22,921.76	0.00	147,078.24	13.48
101-5103-01-5621 Travel/Training	88,500	812.47	812.47	0.00	87,687.53	0.92
TOTAL Personnel	8,122,934	673,488.11	673,488.11	0.00	7,449,445.89	8.29
Materials & Supplies						
101-5103-03-5050 Office Supplies	10,800	0.00	0.00	0.00	10,800.00	0.00
101-5103-03-5080 Gas & Oil	137,250	7,201.14	7,201.14	0.00	130,048.86	5.25
101-5103-03-5081 Uniforms	153,886	4,066.47	4,066.47	5,013.14	144,806.39	5.90
101-5103-03-5090 Postage	200	21.96	21.96	0.00	178.04	10.98
101-5103-03-5150 Office Supplies Former	0	1,137.15	1,137.15	0.00	(1,137.15)	0.00
101-5103-03-5155 Supplies - Medic	215,000	53,659.09	53,659.09	12,093.85	149,247.06	30.58
TOTAL Materials & Supplies	517,136	66,085.81	66,085.81	17,106.99	433,943.20	16.09
Repairs & Maintenance						
101-5103-04-5120 Building Maintenance	65,000	4,598.21	4,598.21	15,478.00	44,923.79	30.89
101-5103-04-5121 Equipment Maintenace	325,000	24,386.88	24,386.88	0.00	300,613.12	7.50
101-5103-04-5122 Vehicle Maintenance	180,000	12,989.66	12,989.66	246.00	166,764.34	7.35
TOTAL Repairs & Maintenance	570,000	41,974.75	41,974.75	15,724.00	512,301.25	10.12
Utilities						
101-5103-05-5616 Utilities -Electricity	30,000	4,592.14	4,592.14	0.00	25,407.86	15.31
101-5103-05-5617 Utilities -Gas	8,200	67.74	67.74	0.00	8,132.26	0.83
101-5103-05-5618 Utilities -Telephone	27,980	2,605.47	2,605.47	0.00	25,374.53	9.31
101-5103-05-5619 Utilities -Water/Sewer	9,000	2,920.05	2,920.05	0.00	6,079.95	32.45
101-5103-05-5620 Direct TV Navo	0	165.99	165.99	0.00	(165.99)	0.00
TOTAL Utilities	75,180	10,351.39	10,351.39	0.00	64,828.61	13.77
Contract Services						
101-5103-06-5620 Legal and Professional	50,000	47.99	47.99	0.00	49,952.01	0.10
101-5103-06-5658 Fire Extinguishers	450	402.00	402.00	0.00	48.00	89.33
TOTAL Contract Services	50,450	449.99	449.99	0.00	50,000.01	0.89
Fees & Other Services						
101-5103-07-5190 Insurance - TML	86,250	33,568.67	33,568.67	0.00	52,681.33	38.92
101-5103-07-5260 Dues and Memberships	12,400	458.66	458.66	0.00	11,941.34	3.70
101-5103-07-5280 Copier Maintenance Cont	2,000	140.00	140.00	0.00	1,860.00	7.00
101-5103-07-5665 Technology	40,000	2,500.98	2,500.98	0.00	37,499.02	6.25
TOTAL Fees & Other Services	140,650	36,668.31	36,668.31	0.00	103,981.69	26.07

101-General Fund
DEPARTMENT - Fire Department % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Public Safety						
101-5103-08-5070 Firefighting Supplies	82,000	28,005.73	28,005.73	4,665.10	49,329.17	39.84
101-5103-08-5687 Denton Cty Communicatio	51,417	17,606.03	17,606.03	0.00	33,810.97	34.24
TOTAL Public Safety	133,417	45,611.76	45,611.76	4,665.10	83,140.14	37.68
Miscellaneous						
101-5103-09-5131 Meetings	3,600	0.00	0.00	0.00	3,600.00	0.00
101-5103-09-5132 Employee Appreciation	5,000	0.00	0.00	0.00	5,000.00	0.00
TOTAL Miscellaneous	8,600	0.00	0.00	0.00	8,600.00	0.00
Debt Service						
TOTAL Fire Department	9,618,367	874,630.12	874,630.12	37,496.09	8,706,240.79	9.48

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Engineering % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5104-01-5101 Salaries	304,292	0.00	0.00	0.00	304,292.00	0.00
101-5104-01-5105 Overtime	11,500	0.00	0.00	0.00	11,500.00	0.00
101-5104-01-5106 Longevity	300	0.00	0.00	0.00	300.00	0.00
101-5104-01-5107 Retirement - TMRS	48,899	0.00	0.00	0.00	48,899.00	0.00
101-5104-01-5108 Payroll Tax Expense (me	4,583	0.00	0.00	0.00	4,583.00	0.00
101-5104-01-5109 Group Health Insurance	47,510	0.00	0.00	0.00	47,510.00	0.00
101-5104-01-5110 Workers Comp TML	5,750	0.00	0.00	0.00	5,750.00	0.00
TOTAL Personnel	422,834	0.00	0.00	0.00	422,834.00	0.00
Materials & Supplies						
Repairs & Maintenance						
101-5104-04-5122 Vehicle maintenance	0	12.96	12.96	0.00	(12.96)	0.00
TOTAL Repairs & Maintenance	0	12.96	12.96	0.00	(12.96)	0.00
Contract Services						
101-5104-06-5620 Legal and Professional	0	8,500.00	8,500.00	0.00	(8,500.00)	0.00
TOTAL Contract Services	0	8,500.00	8,500.00	0.00	(8,500.00)	0.00
Fees & Other Services						
101-5104-07-5260 Dues and Memberships	0	100.00	100.00	0.00	(100.00)	0.00
TOTAL Fees & Other Services	0	100.00	100.00	0.00	(100.00)	0.00
Public Safety						
Miscellaneous						
TOTAL Engineering	422,834	8,612.96	8,612.96	0.00	414,221.04	2.04

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Streets Department % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5105-01-5101 Salaries	153,800	13,968.39	13,968.39	0.00	139,831.61	9.08
101-5105-01-5105 Overtime	0	1,820.84	1,820.84	0.00	(1,820.84)	0.00
101-5105-01-5106 Longevity	200	0.00	0.00	0.00	200.00	0.00
101-5105-01-5107 Retirement - TMRS	23,824	3,406.40	3,406.40	0.00	20,417.60	14.30
101-5105-01-5108 Payroll Tax Expense (me	2,233	394.54	394.54	0.00	1,838.46	17.67
101-5105-01-5109 Group Health Insurance	23,755	5,485.78	5,485.78	0.00	18,269.22	23.09
101-5105-01-5110 Workers Comp TML	1,000	578.83	578.83	0.00	421.17	57.88
101-5105-01-5121 Travel & Training	0	30.59	30.59	0.00	(30.59)	0.00
TOTAL Personnel	204,812	25,685.37	25,685.37	0.00	179,126.63	12.54
Materials & Supplies						
101-5105-03-5050 Office Supplies	2,000	136.24	136.24	0.00	1,863.76	6.81
101-5105-03-5080 Gas & Oil	8,251	701.94	701.94	0.00	7,549.06	8.51
101-5105-03-5081 Uniforms	2,500	0.00	0.00	0.00	2,500.00	0.00
101-5105-03-5607 Rock, Sand and Gravel	25,000	0.00	0.00	0.00	25,000.00	0.00
101-5105-03-5608 Chemicals Purchased	4,000	0.00	0.00	0.00	4,000.00	0.00
101-5105-03-5630 Tools	5,000	0.00	0.00	1,440.76	3,559.24	28.82
TOTAL Materials & Supplies	46,751	838.18	838.18	1,440.76	44,472.06	4.87
Repairs & Maintenance						
101-5105-04-5121 Equipment Maintenance	10,000	1,167.48	1,167.48	0.00	8,832.52	11.67
101-5105-04-5122 Vehicle Maintenance	12,000	28.00	28.00	0.00	11,972.00	0.23
101-5105-04-5609 Street Signs	40,000	1,296.00	1,296.00	7,979.27	30,724.73	23.19
101-5105-04-5629 Street maintenance	20,000	0.00	0.00	0.00	20,000.00	0.00
TOTAL Repairs & Maintenance	82,000	2,491.48	2,491.48	7,979.27	71,529.25	12.77
Utilities						
101-5105-05-5616 Utilities - Electricity	49,270	4,177.03	4,177.03	0.00	45,092.97	8.48
TOTAL Utilities	49,270	4,177.03	4,177.03	0.00	45,092.97	8.48
Contract Services						
101-5105-06-5620 Legal and Professional	15,000	0.00	0.00	0.00	15,000.00	0.00
TOTAL Contract Services	15,000	0.00	0.00	0.00	15,000.00	0.00
Fees & Other Services						
101-5105-07-5190 Insurance - TML	2,900	674.82	674.82	0.00	2,225.18	23.27
101-5105-07-5220 Advertising & Public No	250	0.00	0.00	0.00	250.00	0.00
101-5105-07-5260 Dues and Memberships	650	0.00	0.00	0.00	650.00	0.00
101-5105-07-5665 Technology	3,000	0.00	0.00	0.00	3,000.00	0.00
TOTAL Fees & Other Services	6,800	674.82	674.82	0.00	6,125.18	9.92
Miscellaneous						
101-5105-09-5689 Capital - streets	0	0.00	0.00	8,418.00	(8,418.00)	0.00
TOTAL Miscellaneous	0	0.00	0.00	8,418.00	(8,418.00)	0.00
TOTAL Streets Department	404,633	33,866.88	33,866.88	17,838.03	352,928.09	12.78

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Development Services % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5107-01-5101 Salaries	707,622	41,060.15	41,060.15	0.00	666,561.85	5.80
101-5107-01-5105 Overtime	11,000	1,538.53	1,538.53	0.00	9,461.47	13.99
101-5107-01-5106 Longevity	900	0.00	0.00	0.00	900.00	0.00
101-5107-01-5107 Retirement - TMRS	111,310	8,608.71	8,608.71	0.00	102,701.29	7.73
101-5107-01-5108 Payroll Tax Expense (me	10,433	983.71	983.71	0.00	9,449.29	9.43
101-5107-01-5109 Group Health Insurance	106,898	11,858.14	11,858.14	0.00	95,039.86	11.09
101-5107-01-5110 Workers Comp TML	14,148	1,526.19	1,526.19	0.00	12,621.81	10.79
101-5107-01-5621 Travel/Training	10,000	440.39	440.39	0.00	9,559.61	4.40
TOTAL Personnel	972,311	66,015.82	66,015.82	0.00	906,295.18	6.79
Materials & Supplies						
101-5107-03-5050 Office Supplies	7,000	242.79	242.79	0.00	6,757.21	3.47
101-5107-03-5080 Gas & Oil	3,000	428.37	428.37	0.00	2,571.63	14.28
101-5107-03-5081 Uniforms	600	77.70	77.70	0.00	522.30	12.95
101-5107-03-5090 Postage	1,500	0.00	0.00	0.00	1,500.00	0.00
101-5107-03-5150 Printing	1,500	0.00	0.00	0.00	1,500.00	0.00
TOTAL Materials & Supplies	13,600	748.86	748.86	0.00	12,851.14	5.51
Repairs & Maintenance						
101-5107-04-5121 Equipment Maintenance	100	0.00	0.00	0.00	100.00	0.00
101-5107-04-5122 Vehicle Maintenance	5,900	23.00	23.00	0.00	5,877.00	0.39
TOTAL Repairs & Maintenance	6,000	23.00	23.00	0.00	5,977.00	0.38
Contract Services						
101-5107-06-5620 Legal and Professional	125,000	2,978.51	2,978.51	0.00	122,021.49	2.38
101-5107-06-5725 Mowing and clean-up	35,000	7,701.20	7,701.20	0.00	27,298.80	22.00
101-5107-06-5763 Inspectors - Bureau Ver	600,000	97,905.58	97,905.58	0.00	502,094.42	16.32
101-5107-06-5764 Planners	125,000	4,623.33	4,623.33	0.00	120,376.67	3.70
TOTAL Contract Services	885,000	113,208.62	113,208.62	0.00	771,791.38	12.79
Fees & Other Services						
101-5107-07-5190 Insurance - TML	2,400	561.27	561.27	0.00	1,838.73	23.39
101-5107-07-5220 Advertising & Notices	1,000	0.00	0.00	3,600.00	(2,600.00)	360.00
101-5107-07-5260 Dues and Memberships	2,160	143.85	143.85	0.00	2,016.15	6.66
101-5107-07-5665 Technology	41,500	95.96	95.96	0.00	41,404.04	0.23
101-5107-07-5762 Filing Fees	5,000	215.00	215.00	0.00	4,785.00	4.30
TOTAL Fees & Other Services	52,060	1,016.08	1,016.08	3,600.00	47,443.92	8.87
Miscellaneous						
101-5107-09-5133 Meetings	600	0.00	0.00	0.00	600.00	0.00
TOTAL Miscellaneous	600	0.00	0.00	0.00	600.00	0.00
Debt Service						
TOTAL Development Services	1,929,571	181,012.38	181,012.38	3,600.00	1,744,958.62	9.57

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Court % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5108-01-5101 Salaries	67,300	4,753.91	4,753.91	0.00	62,546.09	7.06
101-5108-01-5105 Overtime	1,000	220.32	220.32	0.00	779.68	22.03
101-5108-01-5106 Longevity	450	0.00	0.00	0.00	450.00	0.00
101-5108-01-5107 Retirement - TMRS	10,636	1,015.93	1,015.93	0.00	9,620.07	9.55
101-5108-01-5108 Payroll Tax Expense (me	997	116.18	116.18	0.00	880.82	11.65
101-5108-01-5109 Group Health Insurance	11,878	1,622.29	1,622.29	0.00	10,255.71	13.66
101-5108-01-5110 Workers Comp TML	175	23.15	23.15	0.00	151.85	13.23
101-5108-01-5621 Travel/Training	300	150.00	150.00	0.00	150.00	50.00
TOTAL Personnel	92,736	7,901.78	7,901.78	0.00	84,834.22	8.52
Materials & Supplies						
101-5108-03-5050 Office Supplies	200	0.00	0.00	0.00	200.00	0.00
101-5108-03-5051 Court Supplies	600	99.95	99.95	0.00	500.05	16.66
101-5108-03-5090 Postage	1,000	0.00	0.00	0.00	1,000.00	0.00
101-5108-03-5150 Printing	100	0.00	0.00	0.00	100.00	0.00
TOTAL Materials & Supplies	1,900	99.95	99.95	0.00	1,800.05	5.26
Repairs & Maintenance						
Contract Services						
101-5108-06-5620 Legal & Professional	20,000	0.00	0.00	0.00	20,000.00	0.00
101-5108-06-5765 Contract Svcs - Judge	16,800	1,400.00	1,400.00	0.00	15,400.00	8.33
TOTAL Contract Services	36,800	1,400.00	1,400.00	0.00	35,400.00	3.80
Fees & Other Services						
101-5108-07-5190 Insurance - TML	2,400	561.27	561.27	0.00	1,838.73	23.39
101-5108-07-5260 Dues and Memberships	150	0.00	0.00	0.00	150.00	0.00
101-5108-07-5665 Technology	4,000	0.00	0.00	0.00	4,000.00	0.00
TOTAL Fees & Other Services	6,550	561.27	561.27	0.00	5,988.73	8.57
Debt Service						
TOTAL Court	137,986	9,963.00	9,963.00	0.00	128,023.00	7.22

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Parks & Recreation % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5110-01-5101 Salaries	321,800	16,774.92	16,774.92	0.00	305,025.08	5.21
101-5110-01-5105 Overtime	26,000	4,236.01	4,236.01	0.00	21,763.99	16.29
101-5110-01-5106 Longevity	1,150	0.00	0.00	0.00	1,150.00	0.00
101-5110-01-5107 Retirement - TMRS	51,435	4,590.32	4,590.32	0.00	46,844.68	8.92
101-5110-01-5108 Payroll Tax Expense (me	4,821	525.51	525.51	0.00	4,295.49	10.90
101-5110-01-5109 Group Health Insurance	59,388	7,753.57	7,753.57	0.00	51,634.43	13.06
101-5110-01-5110 Workers Comp TML	5,225	426.41	426.41	0.00	4,798.59	8.16
101-5110-01-5121 Travel & Training	3,000	30.59	30.59	0.00	2,969.41	1.02
TOTAL Personnel	472,819	34,337.33	34,337.33	0.00	438,481.67	7.26
Materials & Supplies						
101-5110-03-5050 Office Supplies	1,000	332.04	332.04	0.00	667.96	33.20
101-5110-03-5080 Gas & Oil	3,400	246.35	246.35	0.00	3,153.65	7.25
101-5110-03-5081 Uniforms	1,300	0.00	0.00	0.00	1,300.00	0.00
101-5110-03-5150 Printing	400	0.00	0.00	0.00	400.00	0.00
101-5110-03-5608 Chemicals	3,000	0.00	0.00	0.00	3,000.00	0.00
101-5110-03-5630 Small Tools	3,000	0.00	0.00	0.00	3,000.00	0.00
101-5110-03-5903 Parts and Fittings	500	8.49	8.49	0.00	491.51	1.70
TOTAL Materials & Supplies	12,600	586.88	586.88	0.00	12,013.12	4.66
Repairs & Maintenance						
101-5110-04-5121 Equipment Maintenance	8,000	1,273.46	1,273.46	0.00	6,726.54	15.92
101-5110-04-5122 Vehicle Maintenance	2,000	36.50	36.50	0.00	1,963.50	1.83
101-5110-04-5630 Park Maintenance	30,000	301.78	301.78	0.00	29,698.22	1.01
TOTAL Repairs & Maintenance	40,000	1,611.74	1,611.74	0.00	38,388.26	4.03
Utilities						
101-5110-05-5616 Utilities - Electricity	6,500	1,162.82	1,162.82	0.00	5,337.18	17.89
101-5110-05-5619 Utilities - Water/Sewer	6,000	4,101.53	4,101.53	0.00	1,898.47	68.36
TOTAL Utilities	12,500	5,264.35	5,264.35	0.00	7,235.65	42.11
Contract Services						
101-5110-06-5685 STORAGE BUILDING	4,120	0.00	0.00	0.00	4,120.00	0.00
TOTAL Contract Services	4,120	0.00	0.00	0.00	4,120.00	0.00
Fees & Other Services						
101-5110-07-5190 Insurance - TML	2,800	647.62	647.62	0.00	2,152.38	23.13
101-5110-07-5260 Memberships and Dues	300	0.00	0.00	0.00	300.00	0.00
101-5110-07-5624 Equipment Rental	5,000	0.00	0.00	0.00	5,000.00	0.00
101-5110-07-5665 Technology	4,000	134.83	134.83	0.00	3,865.17	3.37
TOTAL Fees & Other Services	12,100	782.45	782.45	0.00	11,317.55	6.47
Miscellaneous						
101-5110-09-5131 City Events	160,000	17,335.97	17,335.97	0.00	142,664.03	10.83
101-5110-09-5631 Capital - equipment	0	28.99	28.99	0.00	(28.99)	0.00
TOTAL Miscellaneous	160,000	17,364.96	17,364.96	0.00	142,635.04	10.85
TOTAL Parks & Recreation	714,139	59,947.71	59,947.71	0.00	654,191.29	8.39

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Library % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5111-01-5101 Salaries	321,800	21,935.62	21,935.62	0.00	299,864.38	6.82
101-5111-01-5105 Overtime	6,000	24.19	24.19	0.00	5,975.81	0.40
101-5111-01-5106 Longevity	600	0.00	0.00	0.00	600.00	0.00
101-5111-01-5107 Retirement - TMRS	42,140	4,002.03	4,002.03	0.00	38,137.97	9.50
101-5111-01-5108 Payroll Tax Expense (me	4,762	530.26	530.26	0.00	4,231.74	11.14
101-5111-01-5109 Group Health Insurance	49,406	6,915.16	6,915.16	0.00	42,490.84	14.00
101-5111-01-5110 Workers Comp TML	722	115.77	115.77	0.00	606.23	16.03
101-5111-01-5621 Travel/Training	3,500	0.00	0.00	0.00	3,500.00	0.00
TOTAL Personnel	428,930	33,523.03	33,523.03	0.00	395,406.97	7.82
Materials & Supplies						
101-5111-03-5050 Office Supplies	5,460	3.98	3.98	0.00	5,456.02	0.07
101-5111-03-5052 Library Supplies	4,000	326.86	326.86	0.00	3,673.14	8.17
101-5111-03-5090 Postage	500	117.00	117.00	0.00	383.00	23.40
101-5111-03-5661 Collection Development	44,000	1,935.84	1,935.84	413.65	41,650.51	5.34
TOTAL Materials & Supplies	53,960	2,383.68	2,383.68	413.65	51,162.67	5.18
Repairs & Maintenance						
101-5111-04-5120 Building Maintenance	12,000	587.00	587.00	0.00	11,413.00	4.89
101-5111-04-5121 Equipment Maintenance	1,000	0.00	0.00	0.00	1,000.00	0.00
TOTAL Repairs & Maintenance	13,000	587.00	587.00	0.00	12,413.00	4.52
Utilities						
101-5111-05-5616 Utilities - Electricity	16,000	1,513.01	1,513.01	0.00	14,486.99	9.46
101-5111-05-5618 Utilities - Telephone	4,248	183.99	183.99	0.00	4,064.01	4.33
101-5111-05-5619 Utilities - Water/Sewer	2,300	249.74	249.74	0.00	2,050.26	10.86
TOTAL Utilities	22,548	1,946.74	1,946.74	0.00	20,601.26	8.63
Contract Services						
101-5111-06-5620 Legal & Professional	300	0.00	0.00	0.00	300.00	0.00
101-5111-06-5658 Fire Extinguishers	1,500	150.00	150.00	0.00	1,350.00	10.00
TOTAL Contract Services	1,800	150.00	150.00	0.00	1,650.00	8.33
Fees & Other Services						
101-5111-07-5150 Printing	500	0.00	0.00	0.00	500.00	0.00
101-5111-07-5190 Insurance - TML	18,500	4,749.20	4,749.20	0.00	13,750.80	25.67
101-5111-07-5260 Dues and Memberships	6,600	2,380.00	2,380.00	0.00	4,220.00	36.06
101-5111-07-5280 Copier Maintenance Cont	2,600	218.00	218.00	0.00	2,382.00	8.38
101-5111-07-5665 Technology	17,000	1,132.99	1,132.99	0.00	15,867.01	6.66
TOTAL Fees & Other Services	45,200	8,480.19	8,480.19	0.00	36,719.81	18.76
Miscellaneous						
101-5111-09-5130 Community Development	15,500	771.26	771.26	0.00	14,728.74	4.98
101-5111-09-5133 Marketing & Promotions	500	0.00	0.00	0.00	500.00	0.00
101-5111-09-5667 Senior Programs	5,000	0.00	0.00	0.00	5,000.00	0.00
TOTAL Miscellaneous	21,000	771.26	771.26	0.00	20,228.74	3.67
TOTAL Library	586,438	47,841.90	47,841.90	413.65	538,182.45	8.23

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Providence Village PD % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
Materials & Supplies						
Repairs & Maintenance						
Utilities						
Contract Services						
Fees & Other Services						
Public Safety						
101-5114-08-5071 Communications Supplies	0	0.00	0.00	5,079.36	(5,079.36)	0.00
TOTAL Public Safety	0	0.00	0.00	5,079.36	(5,079.36)	0.00
Miscellaneous						
Debt Service						
TOTAL Providence Village PD	0	0.00	0.00	5,079.36	(5,079.36)	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - Fleet % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5115-01-5101 Salaries	42,000	14,745.36	14,745.36	0.00	27,254.64	35.11
101-5115-01-5105 Overtime	2,500	1,722.54	1,722.54	0.00	777.46	68.90
101-5115-01-5107 Retirement - TMRS	6,884	2,783.39	2,783.39	0.00	4,100.61	40.43
101-5115-01-5108 Payroll Tax Expense (me	645	313.36	313.36	0.00	331.64	48.58
101-5115-01-5109 Group Health Insurance	11,878	4,022.13	4,022.13	0.00	7,855.87	33.86
101-5115-01-5110 Workers Comp - TML	400	0.00	0.00	0.00	400.00	0.00
101-5115-01-5621 Travel & Training	600	0.00	0.00	0.00	600.00	0.00
TOTAL Personnel	64,907	23,586.78	23,586.78	0.00	41,320.22	36.34
Materials & Supplies						
101-5115-03-5050 Office Supplies	200	0.00	0.00	0.00	200.00	0.00
101-5115-03-5080 Gas & Oil	1,000	0.00	0.00	0.00	1,000.00	0.00
101-5115-03-5081 Uniforms	250	0.00	0.00	0.00	250.00	0.00
101-5115-03-5090 Postage	50	0.00	0.00	0.00	50.00	0.00
101-5115-03-5121 Equipment Maintenance	2,500	0.00	0.00	0.00	2,500.00	0.00
101-5115-03-5122 Vehicle Maintenance	2,500	0.00	0.00	0.00	2,500.00	0.00
101-5115-03-5630 Tools	500	0.00	0.00	0.00	500.00	0.00
TOTAL Materials & Supplies	7,000	0.00	0.00	0.00	7,000.00	0.00
Repairs & Maintenance						
101-5115-04-5120 Building Maintenance	2,500	80.00	80.00	0.00	2,420.00	3.20
TOTAL Repairs & Maintenance	2,500	80.00	80.00	0.00	2,420.00	3.20
Contract Services						
Fees & Other Services						
101-5115-07-5260 Dues & Memberships	100	0.00	0.00	0.00	100.00	0.00
101-5115-07-5624 Equipment Rental	1,000	0.00	0.00	0.00	1,000.00	0.00
101-5115-07-5665 Technology	2,500	174.22	174.22	(174.22)	2,500.00	0.00
TOTAL Fees & Other Services	3,600	174.22	174.22	(174.22)	3,600.00	0.00
Miscellaneous						
101-5115-09-5131 Meetings	75	0.00	0.00	0.00	75.00	0.00
TOTAL Miscellaneous	75	0.00	0.00	0.00	75.00	0.00
TOTAL Fleet	78,082	23,841.00	23,841.00	(174.22)	54,415.22	30.31

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

101-General Fund
DEPARTMENT - HR % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
101-5117-01-5101 Salaries	192,670	13,059.06	13,059.06	0.00	179,610.94	6.78
101-5117-01-5106 Longevity	100	0.00	0.00	0.00	100.00	0.00
101-5117-01-5107 Retirement - TMRS	29,822	2,692.45	2,692.45	0.00	27,129.55	9.03
101-5117-01-5108 Payroll Tax Expense (me	2,795	313.21	313.21	0.00	2,481.79	11.21
101-5117-01-5109 Group Health Insurance	23,755	1,975.36	1,975.36	0.00	21,779.64	8.32
101-5117-01-5110 Workers Comp TML	400	0.00	0.00	0.00	400.00	0.00
101-5117-01-5621 Travel & Training	7,785	0.00	0.00	0.00	7,785.00	0.00
TOTAL Personnel	257,327	18,040.08	18,040.08	0.00	239,286.92	7.01
Materials & Supplies						
101-5117-03-5050 Office Supplies	300	(5.30)	(5.30)	0.00	305.30	1.77-
101-5117-03-5081 Uniforms	500	0.00	0.00	0.00	500.00	0.00
101-5117-03-5090 Postage	50	0.00	0.00	0.00	50.00	0.00
TOTAL Materials & Supplies	850	(5.30)	(5.30)	0.00	855.30	0.62-
Repairs & Maintenance						
Utilities						
Contract Services						
101-5117-06-5190 Driving Record Monitori	3,500	309.00	309.00	0.00	3,191.00	8.83
101-5117-06-5240 Drug Testing/background	12,500	960.50	960.50	0.00	11,539.50	7.68
TOTAL Contract Services	16,000	1,269.50	1,269.50	0.00	14,730.50	7.93
Fees & Other Services						
101-5117-07-5220 Advertising & Notices	500	0.00	0.00	0.00	500.00	0.00
101-5117-07-5260 Dues and Memberships	670	0.00	0.00	0.00	670.00	0.00
101-5117-07-5665 Technology	12,000	11,993.46	11,993.46	(11,811.47)	11,818.01	1.52
TOTAL Fees & Other Services	13,170	11,993.46	11,993.46	(11,811.47)	12,988.01	1.38
Miscellaneous						
101-5117-09-5131 Meetings	2,275	0.00	0.00	0.00	2,275.00	0.00
101-5117-09-5132 Employee Appreciation	20,000	0.00	0.00	0.00	20,000.00	0.00
101-5117-09-5134 Tuition Reimbursement	25,000	1,605.63	1,605.63	0.00	23,394.37	6.42
TOTAL Miscellaneous	47,275	1,605.63	1,605.63	0.00	45,669.37	3.40
Contingency/FB						
TOTAL HR	334,622	32,903.37	32,903.37	(11,811.47)	313,530.10	6.30
TOTAL EXPENSES	21,958,292	2,001,615.81	2,001,615.81	129,178.63	19,827,497.56	9.70
REVENUE OVER/(UNDER) EXPENSES	463,085	(1,058,911.37)	(1,058,911.37)	(129,178.63)	1,651,175.00	256.56-

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

201-Water Fund
FINANCIAL SUMMARY

% OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Fines and Fees	1,065,500	20,761.36	20,761.36	0.00	1,044,738.64	1.95
Charges for Services	2,817,634	241,733.53	241,733.53	0.00	2,575,900.47	8.58
Miscellaneous	38,722	3,985.00	3,985.00	0.00	34,737.00	10.29
Contingency/FB	1,001,741	0.00	0.00	0.00	1,001,741.00	0.00
TOTAL GENERAL REVENUE	4,923,597	266,479.89	266,479.89	0.00	4,657,117.11	5.41
TOTAL REVENUE	4,923,597	266,479.89	266,479.89	0.00	4,657,117.11	5.41
EXPENSE SUMMARY						
Water						
Personnel	487,452	55,703.92	55,703.92	0.00	431,748.08	11.43
Materials & Supplies	253,000	152,942.03	152,942.03	57,867.00	42,190.97	83.32
Repairs & Maintenance	338,000	13,202.80	13,202.80	0.00	324,797.20	3.91
Utilities	147,200	17,627.73	17,627.73	0.00	129,572.27	11.98
Contract Services	95,000	2,934.24	2,934.24	0.00	92,065.76	3.09
Fees & Other Services	162,900	6,709.38	6,709.38	0.00	156,190.62	4.12
Debt Service	1,752,122	0.00	0.00	0.00	1,752,122.00	0.00
Contingency/FB	898,640	0.00	0.00	13,200.00	885,440.00	1.47
TOTAL Water	4,134,314	249,120.10	249,120.10	71,067.00	3,814,126.90	7.74
TOTAL EXPENSES	4,134,314	249,120.10	249,120.10	71,067.00	3,814,126.90	7.74
REVENUE OVER/(UNDER) EXPENSES	789,283	17,359.79	17,359.79	(71,067.00)	842,990.21	6.80-

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

201-Water Fund

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Fines and Fees						
201-4000-01-4012 Late Penalties-Water	34,000	3,878.36	3,878.36	0.00	30,121.64	11.41
201-4000-01-4013 Application fee	10,000	1,940.00	1,940.00	0.00	8,060.00	19.40
201-4000-01-4014 Reconnects	3,500	915.00	915.00	0.00	2,585.00	26.14
201-4000-01-4630 Bank Fees collected	0	60.00	60.00	0.00	(60.00)	0.00
201-4000-01-4710 Water Impact Fees	1,018,000	13,968.00	13,968.00	0.00	1,004,032.00	1.37
TOTAL Fines and Fees	1,065,500	20,761.36	20,761.36	0.00	1,044,738.64	1.95
Charges for Services						
201-4000-06-4010 Water Billings	2,217,484	229,626.03	229,626.03	0.00	1,987,857.97	10.36
201-4000-06-4011 Water Conection/Tap Fee	350,150	12,107.50	12,107.50	0.00	338,042.50	3.46
201-4000-06-4020 Infrastructure Inspecti	250,000	0.00	0.00	0.00	250,000.00	0.00
TOTAL Charges for Services	2,817,634	241,733.53	241,733.53	0.00	2,575,900.47	8.58
Miscellaneous						
201-4000-09-4500 Interest Income	38,722	0.00	0.00	0.00	38,722.00	0.00
201-4000-09-4540 Other Income	0	3,985.00	3,985.00	0.00	(3,985.00)	0.00
TOTAL Miscellaneous	38,722	3,985.00	3,985.00	0.00	34,737.00	10.29
Contingency/FB						
201-4000-99-4091 Transfers In	1,001,741	0.00	0.00	0.00	1,001,741.00	0.00
TOTAL Contingency/FB	1,001,741	0.00	0.00	0.00	1,001,741.00	0.00
TOTAL REVENUE	4,923,597	266,479.89	266,479.89	0.00	4,657,117.11	5.41

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

201-Water Fund
DEPARTMENT - Water % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
201-5201-01-5101 Salaries	322,042	29,855.84	29,855.84	0.00	292,186.16	9.27
201-5201-01-5105 Overtime	20,000	6,298.78	6,298.78	0.00	13,701.22	31.49
201-5201-01-5106 Longevity	550	0.00	0.00	0.00	550.00	0.00
201-5201-01-5107 TMRS Contribution	51,286	7,176.47	7,176.47	0.00	44,109.53	13.99
201-5201-01-5108 Payroll Tax Expense (me	4,958	823.60	823.60	0.00	4,134.40	16.61
201-5201-01-5109 Group Health Insurance	71,266	9,717.09	9,717.09	0.00	61,548.91	13.63
201-5201-01-5110 Workmens Comp TML	12,600	1,736.50	1,736.50	0.00	10,863.50	13.78
201-5201-01-5621 Travel/Training	4,750	95.64	95.64	0.00	4,654.36	2.01
TOTAL Personnel	487,452	55,703.92	55,703.92	0.00	431,748.08	11.43
Materials & Supplies						
201-5201-03-5050 Office Supplies	7,000	0.00	0.00	0.00	7,000.00	0.00
201-5201-03-5080 Gas & Oil	25,000	2,480.52	2,480.52	0.00	22,519.48	9.92
201-5201-03-5081 Uniforms	6,000	892.36	892.36	0.00	5,107.64	14.87
201-5201-03-5090 Postage	12,000	1,398.92	1,398.92	0.00	10,601.08	11.66
201-5201-03-5150 Printing	5,000	518.94	518.94	0.00	4,481.06	10.38
201-5201-03-5608 Rock, Sand & Gravel	7,000	1,945.08	1,945.08	0.00	5,054.92	27.79
201-5201-03-5630 Tools	6,000	1,828.15	1,828.15	0.00	4,171.85	30.47
201-5201-03-5903 Parts and Fittings	30,000	723.12	723.12	0.00	29,276.88	2.41
201-5201-03-5904 Chlorine	15,000	2,457.94	2,457.94	0.00	12,542.06	16.39
201-5201-03-5905 Meters	140,000	140,697.00	140,697.00	57,867.00	(58,564.00)	141.83
TOTAL Materials & Supplies	253,000	152,942.03	152,942.03	57,867.00	42,190.97	83.32
Repairs & Maintenance						
201-5201-04-5120 Building Maintenance	15,000	465.00	465.00	0.00	14,535.00	3.10
201-5201-04-5121 Equipment Maintenance	45,000	3,518.50	3,518.50	0.00	41,481.50	7.82
201-5201-04-5122 Vehicle Maintenance	8,000	0.00	0.00	0.00	8,000.00	0.00
201-5201-04-5902 Water System Maintenanc	270,000	9,219.30	9,219.30	0.00	260,780.70	3.41
TOTAL Repairs & Maintenance	338,000	13,202.80	13,202.80	0.00	324,797.20	3.91
Utilities						
201-5201-05-5616 Utilities - Electricity	135,000	16,888.45	16,888.45	0.00	118,111.55	12.51
201-5201-05-5617 Utilities - Gas	4,000	224.30	224.30	0.00	3,775.70	5.61
201-5201-05-5618 Utilities - Telephone	7,000	514.98	514.98	0.00	6,485.02	7.36
201-5201-05-5619 Utilities - Water/Sewer	1,200	0.00	0.00	0.00	1,200.00	0.00
TOTAL Utilities	147,200	17,627.73	17,627.73	0.00	129,572.27	11.98
Contract Services						
201-5201-06-5620 Legal & Professional	35,000	2,760.00	2,760.00	0.00	32,240.00	7.89
201-5201-06-5766 Consultant - engineerin	60,000	174.24	174.24	0.00	59,825.76	0.29
TOTAL Contract Services	95,000	2,934.24	2,934.24	0.00	92,065.76	3.09
Fees & Other Services						
201-5201-07-5190 Insurance - TML	9,000	3,885.71	3,885.71	0.00	5,114.29	43.17
201-5201-07-5220 Advertising & Notices	750	0.00	0.00	0.00	750.00	0.00
201-5201-07-5260 Dues & Memberships	4,700	0.00	0.00	0.00	4,700.00	0.00
201-5201-07-5261 Permits-TCEQ	6,100	2,315.69	2,315.69	0.00	3,784.31	37.96

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

201-Water Fund
DEPARTMENT - Water % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
201-5201-07-5262 UTRW membership	3,100	0.00	0.00	0.00	3,100.00	0.00
201-5201-07-5280 Maintenance contract -	0	140.00	140.00	0.00	(140.00)	0.00
201-5201-07-5624 Equipment Rental	6,000	0.00	0.00	0.00	6,000.00	0.00
201-5201-07-5665 Technology	8,250	47.98	47.98	0.00	8,202.02	0.58
201-5201-07-5666 Bank fees	9,000	0.00	0.00	0.00	9,000.00	0.00
201-5201-07-5901 Lab Fees	20,000	320.00	320.00	0.00	19,680.00	1.60
201-5201-07-5906 Groundwater Pumpage Fee	15,000	0.00	0.00	0.00	15,000.00	0.00
201-5201-07-5909 AMR Annual Fees	6,000	0.00	0.00	0.00	6,000.00	0.00
201-5201-07-5931 Franchise Fees 8%	75,000	0.00	0.00	0.00	75,000.00	0.00
TOTAL Fees & Other Services	162,900	6,709.38	6,709.38	0.00	156,190.62	4.12
Debt Service						
201-5201-98-5801 2016 Bond Principal	260,000	0.00	0.00	0.00	260,000.00	0.00
201-5201-98-5866 2016 Bond Interest	109,350	0.00	0.00	0.00	109,350.00	0.00
201-5201-98-5867 2023 CO Bond Principal	65,000	0.00	0.00	0.00	65,000.00	0.00
201-5201-98-5868 2023 CO Bond Interest	316,031	0.00	0.00	0.00	316,031.00	0.00
201-5201-98-5872 2025 CO Interest	1,001,741	0.00	0.00	0.00	1,001,741.00	0.00
TOTAL Debt Service	1,752,122	0.00	0.00	0.00	1,752,122.00	0.00
Contingency/FB						
201-5201-99-4090 Administrative fee	98,640	0.00	0.00	0.00	98,640.00	0.00
201-5201-99-5902 Capital - equipment	0	0.00	0.00	13,200.00	(13,200.00)	0.00
201-5201-99-9900 Depreciation expense	800,000	0.00	0.00	0.00	800,000.00	0.00
TOTAL Contingency/FB	898,640	0.00	0.00	13,200.00	885,440.00	1.47
TOTAL Water	4,134,314	249,120.10	249,120.10	71,067.00	3,814,126.90	7.74
TOTAL EXPENSES	4,134,314	249,120.10	249,120.10	71,067.00	3,814,126.90	7.74
REVENUE OVER/(UNDER) EXPENSES	789,283	17,359.79	17,359.79	(71,067.00)	842,990.21	6.80-

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

202-Sewer Fund
FINANCIAL SUMMARY % OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Fines and Fees	1,735,000	120,266.36	120,266.36	0.00	1,614,733.64	6.93
Charges for Services	1,286,908	103,798.70	103,798.70	0.00	1,183,109.30	8.07
Miscellaneous	680,222	0.00	0.00	0.00	680,222.00	0.00
TOTAL GENERAL REVENUE	3,702,130	224,065.06	224,065.06	0.00	3,478,064.94	6.05
TOTAL REVENUE	3,702,130	224,065.06	224,065.06	0.00	3,478,064.94	6.05
EXPENSE SUMMARY						
Sewer						
Personnel	694,074	62,838.74	62,838.74	0.00	631,235.26	9.05
Materials & Supplies	73,900	5,914.73	5,914.73	0.00	67,985.27	8.00
Repairs & Maintenance	212,000	4,898.91	4,898.91	27,089.68	180,011.41	15.09
Utilities	174,750	17,653.73	17,653.73	0.00	157,096.27	10.10
Contract Services	36,000	2,760.00	2,760.00	0.00	33,240.00	7.67
Fees & Other Services	173,701	12,921.89	12,921.89	0.00	160,779.11	7.44
Debt Service	2,236,650	0.00	0.00	0.00	2,236,650.00	0.00
Contingency/FB	0	0.00	0.00	53,378.70	(53,378.70)	0.00
TOTAL Sewer	3,601,075	106,988.00	106,988.00	80,468.38	3,413,618.62	5.21
TOTAL EXPENSES	3,601,075	106,988.00	106,988.00	80,468.38	3,413,618.62	5.21
REVENUE OVER/(UNDER) EXPENSES	101,055	117,077.06	117,077.06	(80,468.38)	64,446.32	36.23

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

202-Sewer Fund

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Fines and Fees						
202-4000-01-4021 Late Penalties - Sewer	10,000	1,706.36	1,706.36	0.00	8,293.64	17.06
202-4000-01-4710 Sewer Impact Fees	1,725,000	118,560.00	118,560.00	0.00	1,606,440.00	6.87
TOTAL Fines and Fees	1,735,000	120,266.36	120,266.36	0.00	1,614,733.64	6.93
Charges for Services						
202-4000-06-4020 Sewer Billings	1,286,908	103,798.70	103,798.70	0.00	1,183,109.30	8.07
TOTAL Charges for Services	1,286,908	103,798.70	103,798.70	0.00	1,183,109.30	8.07
Miscellaneous						
202-4000-09-4500 Interest Income	680,222	0.00	0.00	0.00	680,222.00	0.00
TOTAL Miscellaneous	680,222	0.00	0.00	0.00	680,222.00	0.00
Contingency/FB						
TOTAL REVENUE	3,702,130	224,065.06	224,065.06	0.00	3,478,064.94	6.05

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

202-Sewer Fund
DEPARTMENT - Sewer % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
202-5202-01-5101 Salaries	479,000	36,475.39	36,475.39	0.00	442,524.61	7.61
202-5202-01-5105 Overtime	30,000	5,116.50	5,116.50	0.00	24,883.50	17.06
202-5202-01-5106 Longevity	1,550	0.00	0.00	0.00	1,550.00	0.00
202-5202-01-5107 Retirement - TMRS	76,429	8,528.47	8,528.47	0.00	67,900.53	11.16
202-5202-01-5108 Payroll Tax Expense (me	7,403	996.99	996.99	0.00	6,406.01	13.47
202-5202-01-5109 Group Health Insurance	83,143	10,194.31	10,194.31	0.00	72,948.69	12.26
202-5202-01-5110 Workers Comp TML	10,549	1,302.57	1,302.57	0.00	9,246.43	12.35
202-5202-01-5621 Travel/training	6,000	224.51	224.51	0.00	5,775.49	3.74
TOTAL Personnel	694,074	62,838.74	62,838.74	0.00	631,235.26	9.05
Materials & Supplies						
202-5202-03-5050 Office Supplies	5,000	282.01	282.01	0.00	4,717.99	5.64
202-5202-03-5080 Gas & Oil	17,000	947.08	947.08	0.00	16,052.92	5.57
202-5202-03-5081 Uniforms	4,000	332.43	332.43	0.00	3,667.57	8.31
202-5202-03-5090 Postage	300	0.00	0.00	0.00	300.00	0.00
202-5202-03-5150 Printing	600	0.00	0.00	0.00	600.00	0.00
202-5202-03-5607 Rock, Sand & Gravel	12,000	953.05	953.05	0.00	11,046.95	7.94
202-5202-03-5608 Chemicals Purchased	10,000	0.00	0.00	0.00	10,000.00	0.00
202-5202-03-5630 Tools	6,000	669.84	669.84	0.00	5,330.16	11.16
202-5202-03-5903 Parts and Fittings	3,000	150.62	150.62	0.00	2,849.38	5.02
202-5202-03-5904 Chlorine	16,000	2,579.70	2,579.70	0.00	13,420.30	16.12
TOTAL Materials & Supplies	73,900	5,914.73	5,914.73	0.00	67,985.27	8.00
Repairs & Maintenance						
202-5202-04-5120 Building Maintenance	5,000	180.00	180.00	0.00	4,820.00	3.60
202-5202-04-5121 Equipment Maintenance	35,000	1,435.56	1,435.56	0.00	33,564.44	4.10
202-5202-04-5122 Vehicle Maintenance	7,000	204.15	204.15	0.00	6,795.85	2.92
202-5202-04-5902 Sewer System Maintenanc	80,000	3,050.70	3,050.70	22,700.00	54,249.30	32.19
202-5202-04-5903 WWTP Maintenance	85,000	28.50	28.50	4,389.68	80,581.82	5.20
TOTAL Repairs & Maintenance	212,000	4,898.91	4,898.91	27,089.68	180,011.41	15.09
Utilities						
202-5202-05-5616 Utilities - Electricity	55,500	5,616.00	5,616.00	0.00	49,884.00	10.12
202-5202-05-5618 Utilities - Telephone	9,250	640.46	640.46	0.00	8,609.54	6.92
202-5202-05-5619 Utilities - Water/Sewer	100,000	11,397.27	11,397.27	0.00	88,602.73	11.40
202-5202-05-5621 Utilities - Sludge Disp	10,000	0.00	0.00	0.00	10,000.00	0.00
TOTAL Utilities	174,750	17,653.73	17,653.73	0.00	157,096.27	10.10
Contract Services						
202-5202-06-5620 Legal & Professional	6,000	2,760.00	2,760.00	0.00	3,240.00	46.00
202-5202-06-5766 Consultant - engineerin	30,000	0.00	0.00	0.00	30,000.00	0.00
TOTAL Contract Services	36,000	2,760.00	2,760.00	0.00	33,240.00	7.67
Fees & Other Services						
202-5202-07-5190 Insurance - TML	15,000	6,476.19	6,476.19	0.00	8,523.81	43.17
202-5202-07-5260 Dues & Memberships	2,185	0.00	0.00	0.00	2,185.00	0.00
202-5202-07-5261 Permits-TCEQ	4,100	0.00	0.00	0.00	4,100.00	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

202-Sewer Fund
DEPARTMENT - Sewer % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
202-5202-07-5540 Bond Insurance	38,416	0.00	0.00	0.00	38,416.00	0.00
202-5202-07-5624 Equipment Rental	15,000	6,445.70	6,445.70	0.00	8,554.30	42.97
202-5202-07-5665 Technology	9,000	0.00	0.00	0.00	9,000.00	0.00
202-5202-07-5901 Lab Fees	15,000	0.00	0.00	0.00	15,000.00	0.00
202-5202-07-5931 Franchise Fees 8%	75,000	0.00	0.00	0.00	75,000.00	0.00
TOTAL Fees & Other Services	173,701	12,921.89	12,921.89	0.00	160,779.11	7.44
Debt Service						
202-5202-98-5845 Interest - 2024A CO	2,236,650	0.00	0.00	0.00	2,236,650.00	0.00
TOTAL Debt Service	2,236,650	0.00	0.00	0.00	2,236,650.00	0.00
Contingency/FB						
202-5202-99-5902 Capital - equipment	0	0.00	0.00	53,378.70	(53,378.70)	0.00
TOTAL Contingency/FB	0	0.00	0.00	53,378.70	(53,378.70)	0.00
TOTAL Sewer	3,601,075	106,988.00	106,988.00	80,468.38	3,413,618.62	5.21
TOTAL EXPENSES	3,601,075	106,988.00	106,988.00	80,468.38	3,413,618.62	5.21
REVENUE OVER/(UNDER) EXPENSES	101,055	117,077.06	117,077.06	(80,468.38)	64,446.32	36.23

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

205-Solid Waste Fund
FINANCIAL SUMMARY

% OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Charges for Services	2,790,000	72,648.52	72,648.52	0.00	2,717,351.48	2.60
TOTAL GENERAL REVENUE	2,790,000	72,648.52	72,648.52	0.00	2,717,351.48	2.60
TOTAL REVENUE	2,790,000	72,648.52	72,648.52	0.00	2,717,351.48	2.60
EXPENSE SUMMARY						
Solid Waste						
Fees & Other Services	2,790,000	193,181.98	193,181.98	0.00	2,596,818.02	6.92
TOTAL Solid Waste	2,790,000	193,181.98	193,181.98	0.00	2,596,818.02	6.92
TOTAL EXPENSES	2,790,000	193,181.98	193,181.98	0.00	2,596,818.02	6.92
REVENUE OVER/(UNDER) EXPENSES	0	(120,533.46)	(120,533.46)	0.00	120,533.46	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

205-Solid Waste Fund

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Charges for Services						
205-4000-06-4025 Garbage Billings	2,790,000	72,648.52	72,648.52	0.00	2,717,351.48	2.60
TOTAL Charges for Services	2,790,000	72,648.52	72,648.52	0.00	2,717,351.48	2.60
Miscellaneous						
Contingency/FB						
TOTAL REVENUE	2,790,000	72,648.52	72,648.52	0.00	2,717,351.48	2.60

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

205-Solid Waste Fund
DEPARTMENT - Solid Waste % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Materials & Supplies						
Fees & Other Services						
205-5205-07-5666 Mustang Collection Fees	120,000	0.00	0.00	0.00	120,000.00	0.00
205-5205-07-5931 Franchise Fees 15%	370,000	0.00	0.00	0.00	370,000.00	0.00
205-5205-07-5941 Republic Waste	2,300,000	193,181.98	193,181.98	0.00	2,106,818.02	8.40
TOTAL Fees & Other Services	2,790,000	193,181.98	193,181.98	0.00	2,596,818.02	6.92
Contingency/FB						
TOTAL Solid Waste	2,790,000	193,181.98	193,181.98	0.00	2,596,818.02	6.92
TOTAL EXPENSES	2,790,000	193,181.98	193,181.98	0.00	2,596,818.02	6.92
REVENUE OVER/(UNDER) EXPENSES	0	(120,533.46)	(120,533.46)	0.00	120,533.46	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

301-Debt Service Fund
FINANCIAL SUMMARY

% OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Taxes	1,464,352	0.00	0.00	0.00	1,464,352.00	0.00
Miscellaneous	770,000	0.00	0.00	0.00	770,000.00	0.00
Contingency/FB	2,107,171	0.00	0.00	0.00	2,107,171.00	0.00
TOTAL GENERAL REVENUE	4,341,523	0.00	0.00	0.00	4,341,523.00	0.00
TOTAL REVENUE	4,341,523	0.00	0.00	0.00	4,341,523.00	0.00
EXPENSE SUMMARY						
Debt Service						
Fees & Other Services	3,500	0.00	0.00	0.00	3,500.00	0.00
Debt Service	4,338,023	0.00	0.00	0.00	4,338,023.00	0.00
TOTAL Debt Service	4,341,523	0.00	0.00	0.00	4,341,523.00	0.00
TOTAL EXPENSES	4,341,523	0.00	0.00	0.00	4,341,523.00	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

301-Debt Service Fund

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Taxes						
301-4000-02-4100 Property Taxes	1,464,352	0.00	0.00	0.00	1,464,352.00	0.00
TOTAL Taxes	1,464,352	0.00	0.00	0.00	1,464,352.00	0.00
Miscellaneous						
301-4000-09-4500 Interest Income	770,000	0.00	0.00	0.00	770,000.00	0.00
TOTAL Miscellaneous	770,000	0.00	0.00	0.00	770,000.00	0.00
Contingency/FB						
301-4000-99-4091 Transfers in	2,107,171	0.00	0.00	0.00	2,107,171.00	0.00
TOTAL Contingency/FB	2,107,171	0.00	0.00	0.00	2,107,171.00	0.00
TOTAL REVENUE	4,341,523	0.00	0.00	0.00	4,341,523.00	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

301-Debt Service Fund
DEPARTMENT - Debt Service % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Fees & Other Services						
301-5301-07-5870 Agent Fees	3,500	0.00	0.00	0.00	3,500.00	0.00
TOTAL Fees & Other Services	3,500	0.00	0.00	0.00	3,500.00	0.00
Debt Service						
301-5301-98-5850 2020 Time Warrant Princ	38,000	0.00	0.00	0.00	38,000.00	0.00
301-5301-98-5851 2020 Time Warrant Inter	8,808	0.00	0.00	0.00	8,808.00	0.00
301-5301-98-5852 2006 CO Principal	45,000	0.00	0.00	0.00	45,000.00	0.00
301-5301-98-5853 2006 CO Interest	3,895	0.00	0.00	0.00	3,895.00	0.00
301-5301-98-5860 2013 GO Refunding Princ	60,000	0.00	0.00	0.00	60,000.00	0.00
301-5301-98-5861 2013 GO Refunding Inter	1,446	0.00	0.00	0.00	1,446.00	0.00
301-5301-98-5864 2019 Time Warrant Princ	612,000	0.00	0.00	0.00	612,000.00	0.00
301-5301-98-5865 2019 Time Warrant Inter	5,722	0.00	0.00	0.00	5,722.00	0.00
301-5301-98-5866 2020 GO Refunding Prini	60,000	0.00	0.00	0.00	60,000.00	0.00
301-5301-98-5867 2020 GO Refunding Inter	3,552	0.00	0.00	0.00	3,552.00	0.00
301-5301-98-5868 2022 CO Public Safety P	290,000	0.00	0.00	0.00	290,000.00	0.00
301-5301-98-5869 2022 CO Public Safety I	441,350	0.00	0.00	0.00	441,350.00	0.00
301-5301-98-5871 Interest - CO 2024 FS#2	228,600	0.00	0.00	0.00	228,600.00	0.00
301-5301-98-5873 2025 CO Interest	2,539,650	0.00	0.00	0.00	2,539,650.00	0.00
TOTAL Debt Service	4,338,023	0.00	0.00	0.00	4,338,023.00	0.00
Contingency/FB						
TOTAL Debt Service	4,341,523	0.00	0.00	0.00	4,341,523.00	0.00
TOTAL EXPENSES	4,341,523	0.00	0.00	0.00	4,341,523.00	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

401-Special Revenue Fund
FINANCIAL SUMMARY

% OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Fines and Fees	16,600	1,712.42	1,712.42	0.00	14,887.58	10.32
Taxes	5,000	1,648.75	1,648.75	0.00	3,351.25	32.98
Grants	4,507	0.00	0.00	0.00	4,507.00	0.00
Miscellaneous	2,000	0.00	0.00	0.00	2,000.00	0.00
TOTAL GENERAL REVENUE	28,107	3,361.17	3,361.17	0.00	24,745.83	11.96
TOTAL REVENUE	28,107	3,361.17	3,361.17	0.00	24,745.83	11.96
EXPENSE SUMMARY						
Officers Training Fund						
Personnel	3,000	0.00	0.00	0.00	3,000.00	0.00
Contract Services	3,500	0.00	0.00	0.00	3,500.00	0.00
Fees & Other Services	4,000	0.00	0.00	1,200.00	2,800.00	30.00
TOTAL Officers Training Fund	10,500	0.00	0.00	1,200.00	9,300.00	11.43
Seizure						
Court Technology						
Court Security						
TOTAL EXPENSES	10,500	0.00	0.00	1,200.00	9,300.00	11.43
REVENUE OVER/(UNDER) EXPENSES	17,607	3,361.17	3,361.17	(1,200.00)	15,445.83	12.27

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

401-Special Revenue Fund

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Fines and Fees						
401-4000-01-4310 Court Security Fee	4,600	899.79	899.79	0.00	3,700.21	19.56
401-4000-01-4421 Child Safety Fees	8,000	75.00	75.00	0.00	7,925.00	0.94
401-4000-01-4710 Court Technology Fee	4,000	737.63	737.63	0.00	3,262.37	18.44
TOTAL Fines and Fees	16,600	1,712.42	1,712.42	0.00	14,887.58	10.32
Taxes						
401-4000-02-4170 Hotel/Motel Tax	5,000	1,648.75	1,648.75	0.00	3,351.25	32.98
TOTAL Taxes	5,000	1,648.75	1,648.75	0.00	3,351.25	32.98
Grants						
401-4000-03-4701 NCTCOG/State Comp/LEOSE	4,507	0.00	0.00	0.00	4,507.00	0.00
TOTAL Grants	4,507	0.00	0.00	0.00	4,507.00	0.00
Miscellaneous						
401-4000-09-4500 Interest Income	2,000	0.00	0.00	0.00	2,000.00	0.00
TOTAL Miscellaneous	2,000	0.00	0.00	0.00	2,000.00	0.00
Contingency/FB						
TOTAL REVENUE	28,107	3,361.17	3,361.17	0.00	24,745.83	11.96

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

401-Special Revenue Fund
DEPARTMENT - Officers Training Fund % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
401-5401-01-5621 Travel/training	3,000	0.00	0.00	0.00	3,000.00	0.00
TOTAL Personnel	3,000	0.00	0.00	0.00	3,000.00	0.00
Materials & Supplies						
Contract Services						
401-5401-06-5677 Child Safety - Child Ad	3,500	0.00	0.00	0.00	3,500.00	0.00
TOTAL Contract Services	3,500	0.00	0.00	0.00	3,500.00	0.00
Fees & Other Services						
401-5401-07-5665 Court Technology	4,000	0.00	0.00	1,200.00	2,800.00	30.00
TOTAL Fees & Other Services	4,000	0.00	0.00	1,200.00	2,800.00	30.00
Public Safety						
Contingency/FB						
TOTAL Officers Training Fund	10,500	0.00	0.00	1,200.00	9,300.00	11.43

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

401-Special Revenue Fund
DEPARTMENT - Seizure

% OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Materials & Supplies						
Contract Services						
Fees & Other Services						

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

401-Special Revenue Fund
DEPARTMENT - Court Technology % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Debt Service						
Contingency/FB						

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

401-Special Revenue Fund
DEPARTMENT - Court Security % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
Contingency/FB						
TOTAL EXPENSES	10,500	0.00	0.00	1,200.00	9,300.00	11.43
REVENUE OVER/(UNDER) EXPENSES	17,607	3,361.17	3,361.17	(1,200.00)	15,445.83	12.27

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

402-TIRZ Jackson Ridge
FINANCIAL SUMMARY

% OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Taxes	1,094,517	0.00	0.00	0.00	1,094,517.00	0.00
Miscellaneous	7,000	0.00	0.00	0.00	7,000.00	0.00
TOTAL GENERAL REVENUE	1,101,517	0.00	0.00	0.00	1,101,517.00	0.00
TOTAL REVENUE	1,101,517	0.00	0.00	0.00	1,101,517.00	0.00
EXPENSE SUMMARY						
TIRZ						
Fees & Other Services	1,094,517	877,723.94	877,723.94	0.00	216,793.06	80.19
TOTAL TIRZ	1,094,517	877,723.94	877,723.94	0.00	216,793.06	80.19
TOTAL EXPENSES	1,094,517	877,723.94	877,723.94	0.00	216,793.06	80.19
REVENUE OVER/(UNDER) EXPENSES	7,000	(877,723.94)	(877,723.94)	0.00	884,723.94	2,538.91-

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

402-TIRZ Jackson Ridge

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Taxes						
402-4000-02-4100 Property Taxes	1,094,517	0.00	0.00	0.00	1,094,517.00	0.00
TOTAL Taxes	1,094,517	0.00	0.00	0.00	1,094,517.00	0.00
Grants						
Donations						
Miscellaneous						
402-4000-09-4500 Interest Income	7,000	0.00	0.00	0.00	7,000.00	0.00
TOTAL Miscellaneous	7,000	0.00	0.00	0.00	7,000.00	0.00
Contingency/FB						
TOTAL REVENUE	1,101,517	0.00	0.00	0.00	1,101,517.00	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

402-TIRZ Jackson Ridge
DEPARTMENT - TIRZ % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Materials & Supplies						
Fees & Other Services						
402-5402-07-5665 Jackson Ridge PID TIRZ	952,460	852,790.19	852,790.19	0.00	99,669.81	89.54
402-5402-07-5670 Keeneland PID TIRZ Cred	72,222	24,933.75	24,933.75	0.00	47,288.25	34.52
402-5402-07-5671 HPR TIRZ	69,835	0.00	0.00	0.00	69,835.00	0.00
TOTAL Fees & Other Services	1,094,517	877,723.94	877,723.94	0.00	216,793.06	80.19
TOTAL TIRZ	1,094,517	877,723.94	877,723.94	0.00	216,793.06	80.19
TOTAL EXPENSES	1,094,517	877,723.94	877,723.94	0.00	216,793.06	80.19
REVENUE OVER/(UNDER) EXPENSES	7,000	(877,723.94)	(877,723.94)	0.00	884,723.94	2,538.91-

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

403-Impact Fees
FINANCIAL SUMMARY % OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Miscellaneous	50,000	0.00	0.00	0.00	50,000.00	0.00
TOTAL GENERAL REVENUE	50,000	0.00	0.00	0.00	50,000.00	0.00
TOTAL REVENUE	50,000	0.00	0.00	0.00	50,000.00	0.00
EXPENSE SUMMARY						
MCTF						
Contract Services	26,000	0.00	0.00	0.00	26,000.00	0.00
TOTAL MCTF	26,000	0.00	0.00	0.00	26,000.00	0.00
TOTAL EXPENSES	26,000	0.00	0.00	0.00	26,000.00	0.00
REVENUE OVER/(UNDER) EXPENSES	24,000	0.00	0.00	0.00	24,000.00	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

403-Impact Fees

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Fines and Fees						
Miscellaneous						
403-4000-09-4500 Interest Income	50,000	0.00	0.00	0.00	50,000.00	0.00
TOTAL Miscellaneous	50,000	0.00	0.00	0.00	50,000.00	0.00
Contingency/FB						
TOTAL REVENUE	50,000	0.00	0.00	0.00	50,000.00	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

403-Impact Fees
DEPARTMENT - MCTF % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Contract Services						
403-5403-06-5766 CONSULTING ENGINEERING	6,000	0.00	0.00	0.00	6,000.00	0.00
403-5403-06-5767 Consulting Eng - Street	20,000	0.00	0.00	0.00	20,000.00	0.00
TOTAL Contract Services	26,000	0.00	0.00	0.00	26,000.00	0.00
Fees & Other Services						
Contingency/FB						
TOTAL MCTF	26,000	0.00	0.00	0.00	26,000.00	0.00
TOTAL EXPENSES	26,000	0.00	0.00	0.00	26,000.00	0.00
REVENUE OVER/(UNDER) EXPENSES	24,000	0.00	0.00	0.00	24,000.00	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

404-Development Fees
FINANCIAL SUMMARY

% OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Fines and Fees	450,000	61,275.00	61,275.00	0.00	388,725.00	13.62
Permits	1,000,000	256,012.00	256,012.00	0.00	743,988.00	25.60
Miscellaneous	300,000	0.00	0.00	0.00	300,000.00	0.00
Contingency/FB	450,000	0.00	0.00	0.00	450,000.00	0.00
TOTAL GENERAL REVENUE	2,200,000	317,287.00	317,287.00	0.00	1,882,713.00	14.42
TOTAL REVENUE	2,200,000	317,287.00	317,287.00	0.00	1,882,713.00	14.42
EXPENSE SUMMARY						
MCSF						
Contract Services	2,200,000	(8,687.16)	(8,687.16)	167,548.30	2,041,138.86	7.22
TOTAL MCSF	2,200,000	(8,687.16)	(8,687.16)	167,548.30	2,041,138.86	7.22
TOTAL EXPENSES	2,200,000	(8,687.16)	(8,687.16)	167,548.30	2,041,138.86	7.22
REVENUE OVER/(UNDER) EXPENSES	0	325,974.16	325,974.16	(167,548.30)	(158,425.86)	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

404-Development Fees

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Fines and Fees						
404-4000-01-4310 Street Impact Fees	450,000	61,275.00	61,275.00	0.00	388,725.00	13.62
TOTAL Fines and Fees	450,000	61,275.00	61,275.00	0.00	388,725.00	13.62
Charges for Services						
Permits						
404-4000-07-4700 Fire Services Fund	200,000	26,512.00	26,512.00	0.00	173,488.00	13.26
404-4000-07-4710 Park Development Fees	800,000	229,500.00	229,500.00	0.00	570,500.00	28.69
TOTAL Permits	1,000,000	256,012.00	256,012.00	0.00	743,988.00	25.60
Miscellaneous						
404-4000-09-4500 Interest Income	300,000	0.00	0.00	0.00	300,000.00	0.00
TOTAL Miscellaneous	300,000	0.00	0.00	0.00	300,000.00	0.00
Contingency/FB						
404-4000-99-4091 Transfers In	450,000	0.00	0.00	0.00	450,000.00	0.00
TOTAL Contingency/FB	450,000	0.00	0.00	0.00	450,000.00	0.00
TOTAL REVENUE	2,200,000	317,287.00	317,287.00	0.00	1,882,713.00	14.42

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

404-Development Fees
DEPARTMENT - MCSF % OF YEAR COMPLETED: 08.33

EXPENSES		CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel							
Contract Services							
404-5404-06-5912 Capital Expenditure -	P	1,200,000	(39,754.34)	(39,754.34)	153,129.76	1,086,624.58	9.45
404-5404-06-5913 Capital Expenditure -	F	1,000,000	31,067.18	31,067.18	14,418.54	954,514.28	4.55
TOTAL Contract Services		2,200,000	(8,687.16)	(8,687.16)	167,548.30	2,041,138.86	7.22
Public Safety							
Contingency/FB							
TOTAL MCSF		2,200,000	(8,687.16)	(8,687.16)	167,548.30	2,041,138.86	7.22
TOTAL EXPENSES		2,200,000	(8,687.16)	(8,687.16)	167,548.30	2,041,138.86	7.22
REVENUE OVER/(UNDER) EXPENSES		0	325,974.16	325,974.16	(167,548.30)	(158,425.86)	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

405-Grant Fund
FINANCIAL SUMMARY % OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
EXPENSE SUMMARY						
Grants						
CDBG Water lines	0	0.00	0.00	55,431.67	(55,431.67)	0.00
TOTAL Grants	0	0.00	0.00	55,431.67	(55,431.67)	0.00
TOTAL EXPENSES	0	0.00	0.00	55,431.67	(55,431.67)	0.00
REVENUE OVER/(UNDER) EXPENSES	0	0.00	0.00	(55,431.67)	55,431.67	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

405-Grant Fund

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Charges for Services						
Miscellaneous						
Tocker Foundation-Libry						
USDOJ PD Vests						
CJD Video,Computers						
CDBG Water Lines						
Grant Revenue						
Contingency/FB						

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

405-Grant Fund
DEPARTMENT - Grants % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Contract Services						
Miscellaneous						
Tocker Foundation Libry						
USDOJ PD Vests						
CJD Video,Computers						
CDBG Water lines						
405-5405-84-5123 ARPA Pump Station Gener	0	0.00	0.00	55,431.67	(55,431.67)	0.00
TOTAL CDBG Water lines	0	0.00	0.00	55,431.67	(55,431.67)	0.00
Contingency/FB						
TOTAL Grants	0	0.00	0.00	55,431.67	(55,431.67)	0.00
TOTAL EXPENSES	0	0.00	0.00	55,431.67	(55,431.67)	0.00
REVENUE OVER/(UNDER) EXPENSES	0	0.00	0.00	(55,431.67)	55,431.67	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

406-Holding Acct Dev Agreemts
FINANCIAL SUMMARY % OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Charges for Services	0	2,500.00	2,500.00	0.00	(2,500.00)	0.00
TOTAL GENERAL REVENUE	0	2,500.00	2,500.00	0.00	(2,500.00)	0.00
TOTAL REVENUE	0	2,500.00	2,500.00	0.00	(2,500.00)	0.00
EXPENSE SUMMARY						
Development Agreements						
Contract Services	0	19,270.95	19,270.95	0.00	(19,270.95)	0.00
TOTAL Development Agreements	0	19,270.95	19,270.95	0.00	(19,270.95)	0.00
TOTAL EXPENSES	0	19,270.95	19,270.95	0.00	(19,270.95)	0.00
REVENUE OVER/(UNDER) EXPENSES	0	(16,770.95)	(16,770.95)	0.00	16,770.95	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

406-Holding Acct Dev Agreemts

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Charges for Services						
406-4000-06-5434 Onyx Land Acquisitions	0	2,500.00	2,500.00	0.00	(2,500.00)	0.00
TOTAL Charges for Services	0	2,500.00	2,500.00	0.00	(2,500.00)	0.00
Miscellaneous						
TOTAL REVENUE	0	2,500.00	2,500.00	0.00	(2,500.00)	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

406-Holding Acct Dev Agreemts
DEPARTMENT - Development Agreements % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Contract Services						
406-5406-06-5720 Silverado (Regatta) Dev	0	530.14	530.14	0.00	(530.14)	0.00
406-5406-06-5723 DA - Aubrey Plant/N/S	0	301.65	301.65	0.00	(301.65)	0.00
406-5406-06-5727 DA - Maylar	0	1,298.68	1,298.68	0.00	(1,298.68)	0.00
406-5406-06-5728 DA - RIBBONWOOD	0	772.62	772.62	0.00	(772.62)	0.00
406-5406-06-5729 Sweet Cow / Aub Hts	0	1,852.33	1,852.33	0.00	(1,852.33)	0.00
406-5406-06-5733 403 S Main Development	0	904.21	904.21	0.00	(904.21)	0.00
406-5406-06-6460 Duck Point MM Aubrey	0	2,286.99	2,286.99	0.00	(2,286.99)	0.00
406-5406-06-6462 Pecan Creek Residential	0	3,815.42	3,815.42	0.00	(3,815.42)	0.00
406-5406-06-6472 ARCK Development (Knuck	0	337.50	337.50	0.00	(337.50)	0.00
406-5406-06-6476 Pretium - 428 Mixed Use	0	984.42	984.42	0.00	(984.42)	0.00
406-5406-06-6483 Bouchie Addition	0	337.50	337.50	0.00	(337.50)	0.00
406-5406-06-6485 Trailhead	0	2,250.00	2,250.00	0.00	(2,250.00)	0.00
406-5406-06-6486 Onyx Land Acquisitions	0	3,599.49	3,599.49	0.00	(3,599.49)	0.00
TOTAL Contract Services	0	19,270.95	19,270.95	0.00	(19,270.95)	0.00
TOTAL Development Agreements	0	19,270.95	19,270.95	0.00	(19,270.95)	0.00
TOTAL EXPENSES	0	19,270.95	19,270.95	0.00	(19,270.95)	0.00
REVENUE OVER/(UNDER) EXPENSES	0	(16,770.95)	(16,770.95)	0.00	16,770.95	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

501-Capital Projects Fund
FINANCIAL SUMMARY

% OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Penalties & Interest	274,912	0.00	0.00	0.00	274,912.00	0.00
Charges for Services	0	464,610.01	464,610.01	0.00	(464,610.01)	0.00
Contingency/FB	85,713,450	0.00	0.00	0.00	85,713,450.00	0.00
TOTAL GENERAL REVENUE	85,988,362	464,610.01	464,610.01	0.00	85,523,751.99	0.54
TOTAL REVENUE	85,988,362	464,610.01	464,610.01	0.00	85,523,751.99	0.54
EXPENSE SUMMARY						
Capital Projects						
Contract Services	0	0.00	0.00	2,063.00	(2,063.00)	0.00
Miscellaneous	84,981,582	3,350,414.52	3,350,414.52	1,237,716.80	80,393,450.68	5.40
Debt Service	1,006,780	0.00	0.00	0.00	1,006,780.00	0.00
TOTAL Capital Projects	85,988,362	3,350,414.52	3,350,414.52	1,239,779.80	81,398,167.68	5.34
TOTAL EXPENSES	85,988,362	3,350,414.52	3,350,414.52	1,239,779.80	81,398,167.68	5.34
REVENUE OVER/(UNDER) EXPENSES	0	(2,885,804.51)	(2,885,804.51)	(1,239,779.80)	4,125,584.31	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

501-Capital Projects Fund

% OF YEAR COMPLETED: 08.33

REVENUES		CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Penalties & Interest							
501-4000-05-4500 Interest Income		274,912	0.00	0.00	0.00	274,912.00	0.00
TOTAL Penalties & Interest		274,912	0.00	0.00	0.00	274,912.00	0.00
Charges for Services							
501-4000-06-4500 Developer Contrib ABP	L	0	407,090.27	407,090.27	0.00	(407,090.27)	0.00
501-4000-06-4510 Developer Cont Lennar	H	0	57,519.74	57,519.74	0.00	(57,519.74)	0.00
TOTAL Charges for Services		0	464,610.01	464,610.01	0.00	(464,610.01)	0.00
Miscellaneous							
Contingency/FB							
501-4000-99-4091 Transfers In		22,637,116	0.00	0.00	0.00	22,637,116.00	0.00
501-4000-99-4092 Capital Carryforward		63,076,334	0.00	0.00	0.00	63,076,334.00	0.00
TOTAL Contingency/FB		85,713,450	0.00	0.00	0.00	85,713,450.00	0.00
TOTAL REVENUE		85,988,362	464,610.01	464,610.01	0.00	85,523,751.99	0.54

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

501-Capital Projects Fund
DEPARTMENT - Capital Projects % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Capital						
Contract Services						
501-5501-06-5765 IT Projects	0	0.00	0.00	2,063.00	(2,063.00)	0.00
TOTAL Contract Services	0	0.00	0.00	2,063.00	(2,063.00)	0.00
Miscellaneous						
501-5501-09-5633 Capital Public Safety E	219,298	0.00	0.00	0.00	219,298.00	0.00
501-5501-09-5650 Capital Public Safety 2	0	(6,875.04)	(6,875.04)	0.00	6,875.04	0.00
501-5501-09-5651 Capital Vehicle Replace	1,895,436	274,210.02	274,210.02	1,072,772.33	548,453.65	71.06
501-5501-09-5658 CO 2024 FS#2	0	(314,320.40)	(314,320.40)	48,498.61	265,821.79	0.00
501-5501-09-5659 Council Chambers 2023	0	0.00	0.00	4,269.58	(4,269.58)	0.00
501-5501-09-5660 HW 377 Utility Relocate	0	47,566.53	47,566.53	0.00	(47,566.53)	0.00
501-5501-09-5661 Blackjack House	0	(3,848.46)	(3,848.46)	0.00	3,848.46	0.00
501-5501-09-5662 Fire Training Land 10 A	0	10,000.00	10,000.00	0.00	(10,000.00)	0.00
501-5501-09-5689 Street Projects	1,900,000	1,447.20	1,447.20	8,532.28	1,890,020.52	0.53
501-5501-09-5690 Admin Projects	343,848	196,646.98	196,646.98	0.00	147,201.02	57.19
501-5501-09-5902 Capex Water	43,000	0.00	0.00	22,002.00	20,998.00	51.17
501-5501-09-5951 Capex Sewer	210,000	0.00	0.00	81,642.00	128,358.00	38.88
501-5501-09-5952 2024 Ph 2 Offsites	0	32,941.21	32,941.21	0.00	(32,941.21)	0.00
501-5501-09-5953 WWTP Expansion	20,000,000	2,064,097.35	2,064,097.35	0.00	17,935,902.65	10.32
501-5501-09-5954 UTRWD Delivery Point	6,000,000	4,929.75	4,929.75	0.00	5,995,070.25	0.08
501-5501-09-5956 Rock Hill Water Well	0	52,093.55	52,093.55	0.00	(52,093.55)	0.00
501-5501-09-5960 Trevedi Well	7,000,000	5,378.00	5,378.00	0.00	6,994,622.00	0.08
501-5501-09-5961 Faulkner Ground Storage	0	7,797.00	7,797.00	0.00	(7,797.00)	0.00
501-5501-09-5963 Frontier St Reconstruct	920,000	19,156.83	19,156.83	0.00	900,843.17	2.08
501-5501-09-5964 McNatt St Extension	3,000,000	0.00	0.00	0.00	3,000,000.00	0.00
501-5501-09-5965 Pecan Ck LS Expand Ph3	3,000,000	8,153.96	8,153.96	0.00	2,991,846.04	0.27
501-5501-09-5966 Storm Water Master Plan	6,500,000	20,000.00	20,000.00	0.00	6,480,000.00	0.31
501-5501-09-5967 Dane St. Project	1,100,000	18,872.92	18,872.92	0.00	1,081,127.08	1.72
501-5501-09-5969 Veterans Park Ph 2	800,000	912,167.12	912,167.12	0.00	(112,167.12)	114.02
501-5501-09-5970 Winn Ridge Park	1,300,000	0.00	0.00	0.00	1,300,000.00	0.00
501-5501-09-5972 Sports Complex	25,000,000	0.00	0.00	0.00	25,000,000.00	0.00
501-5501-09-5974 Trivedi Park	1,850,000	0.00	0.00	0.00	1,850,000.00	0.00
501-5501-09-5975 Main St Ph 2	2,300,000	0.00	0.00	0.00	2,300,000.00	0.00
501-5501-09-5977 Land Purchases	1,500,000	0.00	0.00	0.00	1,500,000.00	0.00
501-5501-09-5978 Dog Park	100,000	0.00	0.00	0.00	100,000.00	0.00
TOTAL Miscellaneous	84,981,582	3,350,414.52	3,350,414.52	1,237,716.80	80,393,450.68	5.40
Debt Service						
501-5501-98-5899 Bond Issue Costs	1,006,780	0.00	0.00	0.00	1,006,780.00	0.00
TOTAL Debt Service	1,006,780	0.00	0.00	0.00	1,006,780.00	0.00
Contingency/FB						
TOTAL Capital Projects	85,988,362	3,350,414.52	3,350,414.52	1,239,779.80	81,398,167.68	5.34
TOTAL EXPENSES	85,988,362	3,350,414.52	3,350,414.52	1,239,779.80	81,398,167.68	5.34
REVENUE OVER/(UNDER) EXPENSES	0	(2,885,804.51)	(2,885,804.51)	(1,239,779.80)	4,125,584.31	0.00

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

701-MDD
FINANCIAL SUMMARY % OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Taxes	1,116,000	96,516.77	96,516.77	0.00	1,019,483.23	8.65
Miscellaneous	168,020	0.00	0.00	0.00	168,020.00	0.00
TOTAL GENERAL REVENUE	1,284,020	96,516.77	96,516.77	0.00	1,187,503.23	7.52
TOTAL REVENUE	1,284,020	96,516.77	96,516.77	0.00	1,187,503.23	7.52
EXPENSE SUMMARY						
MDD						
Personnel	168,663	13,201.13	13,201.13	0.00	155,461.87	7.83
Materials & Supplies	7,000	315.64	315.64	0.00	6,684.36	4.51
Repairs & Maintenance	41,000	1,084.80	1,084.80	0.00	39,915.20	2.65
Utilities	5,320	150.98	150.98	0.00	5,169.02	2.84
Contract Services	72,000	7,814.53	7,814.53	0.00	64,185.47	10.85
Fees & Other Services	72,070	21,514.83	21,514.83	0.00	50,555.17	29.85
Miscellaneous	301,500	240.00	240.00	0.00	301,260.00	0.08
Debt Service	179,926	15,060.46	15,060.46	0.00	164,865.54	8.37
Contingency/FB	367,400	1,450.00	1,450.00	0.00	365,950.00	0.39
TOTAL MDD	1,214,879	60,832.37	60,832.37	0.00	1,154,046.63	5.01
TOTAL EXPENSES	1,214,879	60,832.37	60,832.37	0.00	1,154,046.63	5.01
REVENUE OVER/(UNDER) EXPENSES	69,141	35,684.40	35,684.40	0.00	33,456.60	51.61

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

701-MDD

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Taxes						
701-4000-02-4130 Sales Taxes	1,116,000	96,516.77	96,516.77	0.00	1,019,483.23	8.65
TOTAL Taxes	1,116,000	96,516.77	96,516.77	0.00	1,019,483.23	8.65
Grants						
Miscellaneous						
701-4000-09-4500 Interest Income	150,000	0.00	0.00	0.00	150,000.00	0.00
701-4000-09-4730 Property Rental Income	18,020	0.00	0.00	0.00	18,020.00	0.00
TOTAL Miscellaneous	168,020	0.00	0.00	0.00	168,020.00	0.00
Contingency/FB						
TOTAL REVENUE	1,284,020	96,516.77	96,516.77	0.00	1,187,503.23	7.52

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

701-MDD
DEPARTMENT - MDD % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
701-5176-01-5101 Salaries	121,000	8,320.51	8,320.51	0.00	112,679.49	6.88
701-5176-01-5106 Longevity	100	0.00	0.00	0.00	100.00	0.00
701-5176-01-5107 TMRS Contribution	18,129	1,715.06	1,715.06	0.00	16,413.94	9.46
701-5176-01-5108 Payroll Tax Expense (me	1,756	191.70	191.70	0.00	1,564.30	10.92
701-5176-01-5109 Group Health Insurance	11,878	1,899.23	1,899.23	0.00	9,978.77	15.99
701-5176-01-5110 Workmens Comp TML	300	38.58	38.58	0.00	261.42	12.86
701-5176-01-5621 Travel/training	15,500	1,036.05	1,036.05	0.00	14,463.95	6.68
TOTAL Personnel	168,663	13,201.13	13,201.13	0.00	155,461.87	7.83
Capital						
Materials & Supplies						
701-5176-03-5050 Office Supplies	2,000	5.98	5.98	0.00	1,994.02	0.30
701-5176-03-5060 Promotional Materials	5,000	309.66	309.66	0.00	4,690.34	6.19
TOTAL Materials & Supplies	7,000	315.64	315.64	0.00	6,684.36	4.51
Repairs & Maintenance						
701-5176-04-5120 Building Maintenance	41,000	1,084.80	1,084.80	0.00	39,915.20	2.65
TOTAL Repairs & Maintenance	41,000	1,084.80	1,084.80	0.00	39,915.20	2.65
Utilities						
701-5176-05-5616 Utilities - Electricity	4,500	107.20	107.20	0.00	4,392.80	2.38
701-5176-05-5618 Telephone	820	43.78	43.78	0.00	776.22	5.34
TOTAL Utilities	5,320	150.98	150.98	0.00	5,169.02	2.84
Contract Services						
701-5176-06-5620 Legal & Professional	65,500	7,814.53	7,814.53	0.00	57,685.47	11.93
701-5176-06-5764 Special Services	1,500	0.00	0.00	0.00	1,500.00	0.00
701-5176-06-7862 Maps	5,000	0.00	0.00	0.00	5,000.00	0.00
TOTAL Contract Services	72,000	7,814.53	7,814.53	0.00	64,185.47	10.85
Fees & Other Services						
701-5176-07-5150 Printing	4,000	326.03	326.03	0.00	3,673.97	8.15
701-5176-07-5190 Insurance - TML	1,570	366.98	366.98	0.00	1,203.02	23.37
701-5176-07-5260 Dues & Memberships	15,100	11,850.00	11,850.00	0.00	3,250.00	78.48
701-5176-07-5280 Copier Maintenance Cont	1,400	65.00	65.00	0.00	1,335.00	4.64
701-5176-07-5665 Technology/Promotional	25,000	7,096.57	7,096.57	0.00	17,903.43	28.39
701-5176-07-5667 Marketing and Advertisi	25,000	1,810.25	1,810.25	0.00	23,189.75	7.24
TOTAL Fees & Other Services	72,070	21,514.83	21,514.83	0.00	50,555.17	29.85
Miscellaneous						
701-5176-09-5131 Meetings	1,500	240.00	240.00	0.00	1,260.00	16.00
701-5176-09-5134 Feasibility Studies	150,000	0.00	0.00	0.00	150,000.00	0.00
701-5176-09-5630 Property Purchase	150,000	0.00	0.00	0.00	150,000.00	0.00
TOTAL Miscellaneous	301,500	240.00	240.00	0.00	301,260.00	0.08

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

701-MDD
DEPARTMENT - MDD % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Debt Service						
701-5176-98-5801 Principal Bank Note 202	93,784	7,681.82	7,681.82	0.00	86,102.18	8.19
701-5176-98-5802 Interest Bank Note 2025	86,142	7,378.64	7,378.64	0.00	78,763.36	8.57
TOTAL Debt Service	179,926	15,060.46	15,060.46	0.00	164,865.54	8.37
Contingency/FB						
701-5176-99-4091 Administrative fee	17,400	1,450.00	1,450.00	0.00	15,950.00	8.33
701-5176-99-5700 Grant Match	200,000	0.00	0.00	0.00	200,000.00	0.00
701-5176-99-5750 Economic Incentives	100,000	0.00	0.00	0.00	100,000.00	0.00
701-5176-99-5800 Municipal Projects	50,000	0.00	0.00	0.00	50,000.00	0.00
TOTAL Contingency/FB	367,400	1,450.00	1,450.00	0.00	365,950.00	0.39
TOTAL MDD	1,214,879	60,832.37	60,832.37	0.00	1,154,046.63	5.01
TOTAL EXPENSES	1,214,879	60,832.37	60,832.37	0.00	1,154,046.63	5.01
REVENUE OVER/(UNDER) EXPENSES	69,141	35,684.40	35,684.40	0.00	33,456.60	51.61

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

801-Employee Benefit Trust
FINANCIAL SUMMARY

% OF YEAR COMPLETED: 08.33

	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
REVENUE SUMMARY						
GENERAL REVENUE						
Miscellaneous	1,975,640	246,895.70	246,895.70	0.00	1,728,744.30	12.50
TOTAL GENERAL REVENUE	1,975,640	246,895.70	246,895.70	0.00	1,728,744.30	12.50
TOTAL REVENUE	1,975,640	246,895.70	246,895.70	0.00	1,728,744.30	12.50
EXPENSE SUMMARY						
Insurance Premiums						
Personnel	1,469,000	133,484.03	133,484.03	0.00	1,335,515.97	9.09
TOTAL Insurance Premiums	1,469,000	133,484.03	133,484.03	0.00	1,335,515.97	9.09
TOTAL EXPENSES	1,469,000	133,484.03	133,484.03	0.00	1,335,515.97	9.09
REVENUE OVER/(UNDER) EXPENSES	506,640	113,411.67	113,411.67	0.00	393,228.33	22.39

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

801-Employee Benefit Trust

% OF YEAR COMPLETED: 08.33

REVENUES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Miscellaneous						
801-4000-09-4430 Employer Insurance Prem	1,676,638	209,345.64	209,345.64	0.00	1,467,292.36	12.49
801-4000-09-4440 Employee Insurance Prem	275,690	36,240.79	36,240.79	0.00	239,449.21	13.15
801-4000-09-4480 Flex Spending Account	13,312	1,309.27	1,309.27	0.00	12,002.73	9.84
801-4000-09-4500 Interest Income	10,000	0.00	0.00	0.00	10,000.00	0.00
TOTAL Miscellaneous	1,975,640	246,895.70	246,895.70	0.00	1,728,744.30	12.50
TOTAL REVENUE	1,975,640	246,895.70	246,895.70	0.00	1,728,744.30	12.50

REVENUE & EXPENSE REPORT (UNAUDITED)
AS OF: OCTOBER 31ST, 2025

801-Employee Benefit Trust
DEPARTMENT - Insurance Premiums % OF YEAR COMPLETED: 08.33

EXPENSES	CURRENT BUDGET	CURRENT PERIOD	YEAR TO DATE ACTUAL	TOTAL ENCUMBERED	BUDGET BALANCE	% YTD BUDGET
Personnel						
801-5000-01-4090 Administrative Fee	1,500	164.00	164.00	0.00	1,336.00	10.93
801-5000-01-5111 Health Insurance	1,200,000	110,060.88	110,060.88	0.00	1,089,939.12	9.17
801-5000-01-5112 Dental Insurance	90,000	8,460.28	8,460.28	0.00	81,539.72	9.40
801-5000-01-5113 Vision Insurance	15,000	1,552.41	1,552.41	0.00	13,447.59	10.35
801-5000-01-5115 Life Insurance	95,500	10,028.30	10,028.30	0.00	85,471.70	10.50
801-5000-01-5117 Voluntary Policies	15,000	1,055.76	1,055.76	0.00	13,944.24	7.04
801-5000-01-5118 Flex Spending	20,000	0.00	0.00	0.00	20,000.00	0.00
801-5000-01-5119 New Benefits	23,000	2,162.40	2,162.40	0.00	20,837.60	9.40
801-5000-01-5120 Careflight/PHI	9,000	0.00	0.00	0.00	9,000.00	0.00
TOTAL Personnel	1,469,000	133,484.03	133,484.03	0.00	1,335,515.97	9.09
TOTAL Insurance Premiums	1,469,000	133,484.03	133,484.03	0.00	1,335,515.97	9.09
TOTAL EXPENSES	1,469,000	133,484.03	133,484.03	0.00	1,335,515.97	9.09
REVENUE OVER/(UNDER) EXPENSES	506,640	113,411.67	113,411.67	0.00	393,228.33	22.39

Balance Sheet by Fund

(Unaudited)

October 2025

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

101-General Fund

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
101-11-000-00	General Fund Cash	208,504.06		
101-11-000-10	Cash on hand - Court drawer	200.00		
101-11-000-84	Claim on Cash General	5,871,068.80		
101-11-000-90	Investment Account	5,420,291.99		
101-11-013-10	Accounts Receivable	(40,182.08)		
101-11-013-20	Taxes Receivable	29,733.55		
101-11-013-25	Emergicon EMS AR	2,436,287.00		
101-11-013-33	Allowance for Taxes	(6,317.42)		
101-11-013-35	Allowance for EMS AR	(2,059,539.00)		
101-11-013-37	Sales Tax Receivable	427,606.59		
101-11-015-00	Court Fees Receivable	564,174.24		
101-11-015-50	Allowance for Court Fees	(268,019.12)		
101-11-021-00	Prepaids	1,455,048.00		
101-11-050-00	Inventory	32,450.64		
101-13-000-80	Due from other funds EBT	50,000.00		
101-19-000-00	Net Pension Asset	169,424.00		
			14,290,731.25	
	TOTAL ASSETS			14,290,731.25
LIABILITIES				
101-21-010-00	Accounts Payable Pooled	255,387.40		
101-21-010-01	Accounts Payable-General Fund	12,170.20		
101-21-010-14	Deferred Revenue Taxes	23,416.13		
101-21-010-15	Deferred Revenue Court	296,155.42		
101-21-010-16	Deferred Revenue EMS	376,748.00		
101-21-010-17	Deferred Pension Inflows	293,776.00		
101-21-010-18	Net Pension Liability	200,306.00		
101-21-010-19	Deferred Pension Outflows	(489,970.00)		
101-21-015-40	Child Support Payable	461.28		
101-21-015-60	CHILD SUPPORT - BRAZIL	259.38		
101-21-021-51	Unapplied Credit Liability A/R	450.00		
101-21-023-20	Comm Ctr rental deposits	640.01		
101-21-023-30	Parks rental deposits	(150.00)		
101-21-023-40	Collection fees payable-MVBA	1,091.45		
101-21-023-41	Credit Card Fees Payable	(5,010.11)		
101-21-023-50	Court Cash Bonds	443.30		
101-21-023-70	OMNI fee - court	(463.56)		
101-23-901-00	Due to Payroll Fund	(0.02)		
	TOTAL LIABILITIES		965,710.88	
EQUITY				
101-31-033-00	Fund Balance General Fund	12,212,111.55		
101-31-033-80	Net Pension Obligation	165,312.00		
	TOTAL BEGINNING EQUITY	12,377,423.55		

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

101-General Fund

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
	TOTAL REVENUE	942,704.44		
	TOTAL EXPENSES	2,001,615.81		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	(1,058,911.37)		
	(WILL CLOSE TO FUND BAL.)	2,006,508.19		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		13,325,020.37	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			14,290,731.25

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

201-Water Fund

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
201-11-000-00	Water Fund Cash	684,090.75		
201-11-000-10	Cash Drawer	200.00		
201-11-000-84	Claim on Cash Water	8,472,691.74		
201-11-000-90	Investment Account	259,873.60		
201-11-000-91	Water Impact Fees	662,651.04		
201-11-000-95	Cash - CO 2023 Ph1 Offsites	3,769,624.03		
201-11-000-96	Cash CO 2025 - Utility	19,666,984.90		
201-11-013-00	Accounts receivable - UB	196,647.92		
201-11-013-21	Accounts Receivable - Unbilled	84,488.59		
201-11-013-22	Allowance for Uncollect Water	(29,816.43)		
201-11-027-00	Discount on Bonds	145,094.40		
201-11-050-00	Inventory	458,669.38		
201-12-016-10	Land	83,058.00		
201-12-016-30	Water System	16,012,092.34		
201-12-016-50	Machinery and Equipment	726,638.98		
201-12-016-60	Vehicles	231,031.42		
201-12-016-67	Office Equipment	43,133.09		
201-12-016-80	Buildings and improvements	112,282.54		
201-12-016-90	Construction in Progress	1,038,840.40		
201-12-017-00	Accumulated Depreciation	(6,710,241.34)		
201-13-000-00	Due from other funds	368,290.00		
201-19-000-00	Net Pension Asset	10,700.00		
			46,287,025.35	
	TOTAL ASSETS			46,287,025.35
LIABILITIES				
201-21-010-00	Accounts Payable Pooled	11,793.22		
201-21-010-05	Unapplied Credits	4,349.93		
201-21-010-17	Deferred Pension Inflows	10,300.00		
201-21-010-18	Net Pension Liability	6,500.00		
201-21-010-19	Deferred Pension Outflows	(35,200.00)		
201-21-020-17	Deferred OPEB Inflows	4,100.00		
201-21-020-19	Deferred OPEB Outflows	(1,900.00)		
201-21-021-10	Accrued Vacation Payable- wate	24,067.25		
201-21-021-11	Accrued Sick Leave	36,796.97		
201-21-021-20	Accrued Interest Payable	55,381.75		
201-21-021-60	Unearned Revenue HPR256	174,600.00		
201-21-023-00	Water TMRS Due to state	(881.00)		
201-21-023-41	Credit Card Fees Payable	45,490.60		
201-21-027-00	Bond Premium	174,032.00		
201-21-029-10	Bonds Payable - Series 2016	4,005,000.00		
201-21-029-75	Bonds Payable - Series 2023	8,110,000.00		
201-21-029-76	Bonds Payable - Series 2025	20,000,000.00		
201-21-029-80	Customer Deposits	244,137.88		
201-21-029-81	Customer Refunds Payable	3,222.30		
201-23-901-00	Due to Payroll Fund	(3,102.78)		
	TOTAL LIABILITIES		32,868,688.12	

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

201-Water Fund

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
EQUITY				
======				
201-31-033-02	Fund balance - Water/Sewer	11,413,633.37		
201-31-033-10	Developer Contributions	0.47		
201-31-033-80	Net Pension Benefit Obligation	9,219.00		
	TOTAL BEGINNING EQUITY	11,422,852.84		
	TOTAL REVENUE	266,479.89		
	TOTAL EXPENSES	249,120.10		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	17,359.79		
	(WILL CLOSE TO FUND BAL.)	1,978,124.60		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		13,418,337.23	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			46,287,025.35
				==========

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

202-Sewer Fund

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
202-11-000-84	Claim on Cash Sewer	17,364,643.93		
202-11-000-91	Sewer Impact Fees	862,963.99		
202-11-000-92	Utility Funding Series 2024A	34,661,249.15		
202-11-013-01	Accounts Receivable - UB	99,654.69		
202-11-013-21	Accounts Receivable - Unbilled	42,562.70		
202-11-013-22	Allowance for Doubtful Account	(15,109.98)		
202-11-050-00	Inventory	60,254.36		
202-12-016-40	Sewer System	11,211,866.80		
202-12-016-90	Construction in Progress	975,991.68		
			65,264,077.32	
	TOTAL ASSETS			65,264,077.32
LIABILITIES				
202-21-010-00	Accounts Payable Pooled	14,145.99		
202-21-021-10	Accrued Vacation Payable	14,044.97		
202-21-021-11	Accured Sick Leave	10,562.05		
202-21-021-60	Unearned Revenue HPR256	317,580.00		
202-21-027-00	Bond Premium	2,564,850.30		
202-21-028-80	Bonds Payable - Series 2013	71,920.00		
202-21-029-20	Bonds Payable - Series 2024A	50,095,000.00		
202-23-000-00	Due to other funds	114,820.00		
202-23-901-00	Due to Payroll Fund	(13,116.03)		
	TOTAL LIABILITIES		53,189,807.28	
EQUITY				
202-31-033-00	Fund Balance	7,868,512.55		
202-31-033-10	Developer Contributions	(0.09)		
202-31-033-50	Restricted for Sewer Impact	739,050.73		
	TOTAL BEGINNING EQUITY	8,607,563.19		
	TOTAL REVENUE	224,065.06		
	TOTAL EXPENSES	106,988.00		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	117,077.06		
	(WILL CLOSE TO FUND BAL.)	3,349,629.79		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		12,074,270.04	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			65,264,077.32

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

205-Solid Waste Fund

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
205-11-000-84	Claim on Cash Garbage	(516,513.27)		
205-11-013-00	Accounts Receivable - UB	69,179.63		
205-11-013-10	Accounts receivable	95,428.23		
205-11-013-21	Accounts Receivable - Unbilled	31,429.77		
205-11-013-22	Allowance for Doubtful Account	(10,489.25)		
			(330,964.89)	
	TOTAL ASSETS			(330,964.89)
LIABILITIES				
205-21-010-00	Accounts Payable Pooled	193,181.98		
205-21-021-90	Sales Tax Payable	12,559.68		
205-23-000-00	Due to other funds	16,219.00		
	TOTAL LIABILITIES		221,960.66	
EQUITY				
205-31-033-00	Fund Balance	(266,232.87)		
	TOTAL BEGINNING EQUITY	(266,232.87)		
	TOTAL REVENUE	72,648.52		
	TOTAL EXPENSES	193,181.98		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	(120,533.46)		
	(WILL CLOSE TO FUND BAL.)	(166,159.22)		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		(552,925.55)	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			(330,964.89)

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

301-Debt Service Fund

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
301-11-000-00	Debt Service Cash	184,694.11		
301-11-000-84	Claim on Cash Debt Service	(379,577.38)		
301-11-000-90	Investment Account	1,125,594.23		
301-11-013-00	Property Taxes Receivable	17,494.72		
301-11-013-10	Allowance for Uncollect Taxes	(5,000.38)		
301-13-000-00	Due from other funds	114,820.00		
			1,058,025.30	
	TOTAL ASSETS			1,058,025.30
LIABILITIES				
301-21-029-90	Deferred Taxes-I&S	12,494.34		
	TOTAL LIABILITIES		12,494.34	
EQUITY				
301-31-033-01	Fund Balance - Restricted	418,676.06		
	TOTAL BEGINNING EQUITY	418,676.06		
	(WILL CLOSE TO FUND BAL.)	626,854.90		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		1,045,530.96	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			1,058,025.30

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

401-Special Revenue Fund

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
401-11-000-00	Special Revenue Cash	222,432.94		
401-11-000-84	Claim on Cash Special Revenue	(138,514.03)		
			83,918.91	
	TOTAL ASSETS			83,918.91
LIABILITIES				
EQUITY				
401-31-033-02	Fund Balance - Child Safety	4,021.19		
401-31-033-04	Fund Balance - Court Security	6,920.50		
401-31-033-05	Fund Balance - PD Officers Tra	54,940.59		
401-31-033-06	Fund Balance - Seizure Funds	3,228.17		
401-31-033-07	FUND BALANCE HOT	540.76		
	TOTAL BEGINNING EQUITY	69,651.21		
	TOTAL REVENUE	3,361.17		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	3,361.17		
	(WILL CLOSE TO FUND BAL.)	10,906.53		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		83,918.91	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			83,918.91

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

402-TIRZ Jackson Ridge

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
402-11-000-00	TIRZ Cash	31,580.56		
402-11-000-84	Claim on Cash TIRZ	(81,267.42)		
			(49,686.86)	
	TOTAL ASSETS			(49,686.86)
LIABILITIES				
EQUITY				
402-31-033-06	Fund balance - TIRZ Fund	800,993.31		
	TOTAL BEGINNING EQUITY	800,993.31		
	TOTAL EXPENSES	877,723.94		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	(877,723.94)		
	(WILL CLOSE TO FUND BAL.)	27,043.77		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		(49,686.86)	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			(49,686.86)

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

403-Impact Fees

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
403-11-000-00	Impact Fees Cash	2,570,142.54		
403-11-000-10	HPR Capital Funding	492,280.00		
403-11-000-84	Claim on Cash Impact Fees	(2,643,541.17)		
			418,881.37	
	TOTAL ASSETS			418,881.37
LIABILITIES				
EQUITY				
403-31-033-20	Restricted FB- Street Impact	375,334.51		
	TOTAL BEGINNING EQUITY	375,334.51		
	(WILL CLOSE TO FUND BAL.)	43,546.86		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		418,881.37	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			418,881.37

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

404-Development Fees

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
404-11-000-50	Investment Acct-Park Fees	1,496,164.07		
404-11-000-51	Park Fees Account	100.00		
404-11-000-60	Investment acct-Fire Station	3,082,654.10		
404-11-000-70	Investment Acct-Street Fees	1,997,457.56		
404-11-000-84	Claim on Cash Development Fees	5,720,708.21		
404-11-000-90	Investment Account	1,873.14		
			12,298,957.08	
	TOTAL ASSETS			12,298,957.08
LIABILITIES				
404-21-010-00	Accounts Payable Pooled	28,094.00		
	TOTAL LIABILITIES		28,094.00	
EQUITY				
404-31-033-00	Fund Balance	11,163,523.06		
	TOTAL BEGINNING EQUITY	11,163,523.06		
	TOTAL REVENUE	317,287.00		
	TOTAL EXPENSES	(8,687.16)		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	325,974.16		
	(WILL CLOSE TO FUND BAL.)	781,365.86		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		12,270,863.08	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			12,298,957.08

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

405-Grant Fund

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
405-11-000-00	Grant Fund Cash	911.18		
405-11-000-84	Claim on Cash Grants	17,397.95		
405-11-013-15	AR Due From State	74,767.93		
			93,077.06	
	TOTAL ASSETS			93,077.06
LIABILITIES				
405-21-021-60	Unearned Revenue - Grants	354,759.56		
	TOTAL LIABILITIES		354,759.56	
EQUITY				
405-31-033-04	Fund Balance - Grant Fund	73,343.69		
	TOTAL BEGINNING EQUITY	73,343.69		
	(WILL CLOSE TO FUND BAL.)	(335,026.19)		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		(261,682.50)	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			93,077.06

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

406-Holding Acct Dev Agreemts

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
406-11-000-84	Claim on Cash Holding	365,667.24		
			365,667.24	
	TOTAL ASSETS			365,667.24
LIABILITIES				
406-21-010-00	Accounts Payable Pooled	22,494.98		
406-23-000-00	Due to Other Funds	368,290.00		
	TOTAL LIABILITIES		390,784.98	
EQUITY				
406-31-033-00	Fund Balance	404,676.33		
	TOTAL BEGINNING EQUITY	404,676.33		
	TOTAL REVENUE	2,500.00		
	TOTAL EXPENSES	19,270.95		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	(16,770.95)		
	(WILL CLOSE TO FUND BAL.)	(413,023.12)		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		(25,117.74)	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			365,667.24

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

501-Capital Projects Fund

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
501-11-000-55	Vehicle Replacement Fund	663,639.52		
501-11-000-58	Escrow Cash - AHE	249,451.75		
501-11-000-59	Cash - CO 2022 Public Safety	61.27		
501-11-000-61	Cash - CO 2024 Station 2	10,993.95		
501-11-000-62	ABP LLC Cash Escrow	6,588,161.38		
501-11-000-63	HPR Lennar Escrow	1,211,529.35		
501-11-000-64	Cash CO 2025 Govt	47,915,295.45		
501-11-000-84	Claim on Cash Capital Projects	(34,356,546.93)		
501-11-008-38	Cash - Water Bond S16	895.09		
			22,283,480.83	
	TOTAL ASSETS			22,283,480.83
LIABILITIES				
501-21-010-00	Accounts Payable Pooled	476,860.98		
501-21-010-02	Accounts payable	179,563.00		
501-21-010-11	Accounts Payable - Capital Pro	41,819.00		
501-21-021-60	Unearned Revenue - ABP	6,560,017.41		
501-21-021-61	Unearned Revenue - HPR Lennar	1,468,962.52		
501-21-021-65	Unearned Revenue - AHE	249,451.75		
501-21-028-36	Bonds Payable Series 2025 Govt	50,000,000.00		
	TOTAL LIABILITIES		58,976,674.66	
EQUITY				
501-31-033-03	Restricted FB - Contruction	943,971.38		
	TOTAL BEGINNING EQUITY	943,971.38		
	TOTAL REVENUE	464,610.01		
	TOTAL EXPENSES	3,350,414.52		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	(2,885,804.51)		
	(WILL CLOSE TO FUND BAL.)	(34,751,360.70)		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		(36,693,193.83)	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			22,283,480.83

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

701-MDD

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
701-11-000-00	MDD Cash	2,169,720.71		
701-11-000-84	Claim on Cash MDD	(94,468.21)		
701-11-000-90	Investment Account	1,701,590.26		
701-11-013-37	Sales Tax Receivable	187,664.42		
701-12-015-00	Land	696,835.95		
701-12-015-10	Buildings and improvements	1,516,887.80		
701-12-017-00	Accumulated Depreciation	(56,103.00)		
			6,122,127.93	
	TOTAL ASSETS			6,122,127.93
LIABILITIES				
701-21-010-00	Accounts Payable Pooled	276.14		
701-21-021-10	Accrued Vacation	792.00		
701-21-029-10	Bank Note Payable 2025	1,300,000.00		
	TOTAL LIABILITIES		1,301,068.14	
EQUITY				
701-31-040-10	Fund Balance - MDD	3,712,426.29		
	TOTAL BEGINNING EQUITY	3,712,426.29		
	TOTAL REVENUE	96,516.77		
	TOTAL EXPENSES	60,832.37		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	35,684.40		
	(WILL CLOSE TO FUND BAL.)	1,072,949.10		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		4,821,059.79	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			6,122,127.93

BALANCE SHEET
AS OF: OCTOBER 31ST, 2025

801-Employee Benefit Trust

ACCOUNT #	ACCOUNT DESCRIPTION	BALANCE		
ASSETS				
801-11-000-00	Employee Benefit Trust Cash	626,856.45		
801-11-000-84	Claim on Cash EBT	(65,041.42)		
			561,815.03	
	TOTAL ASSETS			561,815.03
LIABILITIES				
801-21-010-13	Accounts Payable	60.00		
801-23-000-00	Due to other funds	50,000.00		
	TOTAL LIABILITIES		50,060.00	
EQUITY				
801-31-033-00	Fund Balance	(36,849.64)		
	TOTAL BEGINNING EQUITY	(36,849.64)		
	TOTAL REVENUE	246,895.70		
	TOTAL EXPENSES	133,484.03		
	TOTAL REVENUE OVER/(UNDER) EXPENSES	113,411.67		
	(WILL CLOSE TO FUND BAL.)	435,193.00		
	TOTAL EQUITY & REV. OVER/(UNDER) EXP.		511,755.03	
	TOTAL LIABILITIES, EQUITY & REV.OVER/(UNDER) EXP.			561,815.03

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Approve the final acceptance of Highpointe Ranch, Phase 2, Public Improvements.

Staff Contact
Dean Rylant, Public Works Director
drylant@aubreytx.gov

Summary
Highpointe Ranch, Phase 2 consists of 218 residential lots and 3 HOA lots with onsite concrete streets and drainage, water and wastewater utilities, streetlights, and signage. The following includes the actual assets.

Quanity	Unit	Description	Value
6,711	LF	Paving	$1,324,824.90
387	LF	Sidewalk	$
3,734	LF	Drainage Pipe	$
6,824	LF	Water Main	$
6,638	LF	Sewer Main	$
22	Ea	Regulatory Signs	$
18	Ea	Fire Hydrants	$
26	Ea	Sanitary Sewer Manholes	$
		Total:	$4,361,301.90

A final walk-through was conducted on October 30, 2025, and all public improvement punch list items were completed successfully.

The contractor has provided 2-year Maintenance Bonds and a Contractor's Affidavit of Final Payment and Release. As-built file has been received, and the city engineer has provided a letter of recommendation for acceptance.

Financial Summary
NA

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to (accept/deny/table) Highpointe Ranch, Phase 2, Public Improvements

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS

11910 Greenville Ave., Suite 600 Dallas, Texas 75243 Phone (214) 361-7900 www.bhcllp.com

CRAIG M. KERKHOFF, P.E.
GARY C. HENDRICKS, P.E., R.P.L.S.
JOE R. CARTER, P.E.
ANDREW MATA, JR., P.E.

DEREK B. CHANEY, P.E., R.P.L.S.
JUSTIN R. IVY, P.E.
COOPER E. REINBOLD, P.E.
CHASE CRAWFORD, R.P.L.S.

November 5, 2025

Mr. Steven Davis
Utilities Manager
City of Aubrey, TX
107 S. Main Street
Aubrey, TX 76227

Re: High Pointe Ranch Phase 2Addition

Mr. Davis:

Following the final walkthrough conducted on Thursday, October 30, 2025 for the High Pointe Ranch Phase 2 Addition, the City has reported that all punch list items have been addressed. Based on the information available to us, and in accordance with the City of Aubrey, City Code of Ordinances Chapter 10, Article 6, Section 8, the City Engineer accepts the High Pointe Ranch Phase 2 Addition onsite public improvements on behalf of the City of Aubrey. The public improvements include:

1. Onsite concrete streets and storm drainage
2. Onsite water and wastewater utilities
3. Onsite street lights and signs

We are available to discuss this development further at your convenience.

Sincerely,

Cooper Reinbold, P.E.

Docusign Envelope ID: 86FE62E5-AE6A-463E-908B-670576DC04A2

Affidavit of Bills Paid

State of Texas
County of Denton

OWNER: Lennar Homes on behalf of High Pointe Ranch Municipal Utility District No. 1

PROJECT: **Highpointe Ranch Phase 2 Paving Package**

CONTRACTOR: GM Construction TX

All just and lawful invoices against the above named Contractor, for labor, materials and expendable equipment employed in the performance of said Project have been paid in full prior to acceptance of payments from Owner.

The Contractor agrees to indemnify and hold the Owner and Engineers harmless from all liability arising from claims by subcontractors, materialmen and suppliers under Contract.

No claims have been made or filed upon the payment bond, and the Contractor has not received any claims or notice of claims from the subcontractor, materialmen and suppliers.

GM Construction TX
CONTRACTOR

Glenn Midkiff, President
Printed Name & Title

Subscribed and sworn to before me, the undersigned authority, on this the 7th day of October 2025.

LISA BUMP
Notary Public, State of Texas
Comm. Expires 08-31-2029
Notary ID 10740576

Notary Public for State of Texas

MAINTENANCE BOND

BOND $101395142

STATE OF TEXAS)
)
COUNTY OF DENTON)

KNOW ALL BY THESE PRESENTS: That Midkiff Holdings, LLC dba GM Construction TX whose address is P.O. Box 851, Prosper, TX 75078, hereinafter referred to as "Principal," and Merchants Bonding Company (Mutual), a corporate surety/sureties organized under the laws of the State of Iowa and fully licensed to transact business in the State of Texas, as Surety, hereinafter referred to as "Surety" (whether one or more), are held and firmly bound unto the **High Pointe Ranch Municipal Utility District No. 1**, a Texas municipal utility district, hereinafter referred to as "Owner," in the penal sum of ****SEE BELOW Dollars ($ 1,324,824.90), in lawful money of the United States to be paid to Owner, its successors and assigns, for the payment of which sum well and truly to be made, we bind ourselves, our successors, heirs, executors, administrators and successors and assigns, jointly and severally; and firmly by these presents, the condition of this obligation is such that: **** One Million Three Hundred Twenty-Four Thousand Eight Hundred Twenty-Four and 90/100

WHEREAS, Principal entered into a certain written Contract with the Owner, dated on or about the 9th day of April, 20 25, to furnish all permits, licenses, bonds, insurance, products, materials, equipment, labor, supervision, and other accessories necessary for the construction of:

Highpointe Ranch
Phase 2 Paving Package

in Denton County, Texas, as more particularly described and designated in the above-referenced contract, such contract being incorporated herein and made a part hereof as fully and to the same extent as if written herein word for word:

WHEREAS, in said Contract, the Principal binds itself to use first class materials and workmanship and of such kind and quality that for a period of two (2) years from the completion and final acceptance of the improvements by Owner the said improvements shall require no repairs, the necessity for which shall be occasioned by defects in workmanship or materials and during the period of two (2) years following the date of final acceptance of the Work by Owner, Principal binds itself to repair or reconstruct said improvements in whole or in part at any time within said period of time from the date of such notice as the Engineer shall determine to be necessary for the preservation of the public health, safety or welfare. If Principal does not repair or reconstruct the improvements within the time period designated, Owner shall be entitled to have said repairs made and charge Principal and/or Surety the cost of same under the terms of this Maintenance Bond.

NOW, THEREFORE, if Principal will maintain and keep in good repair the Work herein contracted to be done and performed for a period of two (2) years from the date of final

acceptance and do and perform all necessary work and repair any defective condition (it being understood that the purpose of this section is to cover all defective conditions arising by reason of defective materials, work or labor performed by Principal) then this obligation shall be void; otherwise it shall remain in full force and effect and Owner shall have and recover from Principal and its Surety damages in the premises as provided in the Plans and Specifications and Contract.

PROVIDED, however, that Principal hereby holds harmless and indemnifies Owner from and against any claim or liability for personal injury or property damage caused by and occurring during the performance of said maintenance and repair operation.

PROVIDED, further, that if any legal action be filed on this Bond, exclusive venue shall lie in Denton County, Texas.

AND PROVIDED FURTHER, Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work performed thereunder, or the Plans, Specifications, Drawings, etc. accompanying same shall in any way affect its obligation on this Bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder.

The undersigned and designated agent is hereby designated by Surety as the resident agent in Texas for service of process to whom all requisite notice may be delivered and on whom service of process may be had in matters arising out of this suretyship.

IN WITNESS WHEREOF, this instrument is executed in six copies, each one of which shall be deemed an original, on this the 6th day of October, 2025.

ATTEST:

By: _____
Signature

Lisa Bump
Typed/Printed Name

Controller
Title

P.O. Box 851
Address

Propser, TX 75078
City State Zip

(972)809-9253
Phone Fax

PRINCIPAL:

Midkiff Holdings, LLC dba GM Construction TX
Company Name

By: _____
Signature

Glenn Midkiff
Typed/Printed Name

President
Title

P.O. Box 851
Address

Propser, TX 75078
City State Zip

(972)809-9253
Phone Fax

ATTEST:

By: _____
Signature

Troy Key
Printed Name

Agency Representative
Title

5057 Keller Springs Rd, Ste 200
Address

Addison, TX 75001
City State Zip

(972) 201-0100 (972) 201-0123
Phone Fax

SURETY: Merchants Bonding Company (Mutual)

By: _____
Signature

Debra Lee Moon
Printed Name

Attorney-in-Fact
Title

P.O Box 14498
Address

Des Moines, IA 50306
City State Zip

(515) 243-8171
Phone Fax

The Resident Agent of the Surety in Texas, for delivery of notice and service of the process is:

NAME: Acrisure, LLC
STREET ADDRESS: 5057 Keller Springs Rd, Ste 200
CITY, STATE, ZIP: Addison, TX 75001

MERCHANTS BONDING COMPANY™

POWER OF ATTORNEY

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa, d/b/a Merchants National Indemnity Company (in California only) (herein collectively called the "Companies") do hereby make, constitute and appoint, individually,

Allyson W Dean; Andrea Rose Crawford; Andrew Gareth Addison; Andrew Patrick Clark; Brian Paul Bordlee; Bryan Kelly Moore; Colin E Conly; Cory Kiper; Crystal Gail Langhorn; Debra Lee Moon; Faith Ann Hilty; John R Ward; Kelli A Gorham; Mark Robert Adams; Michael Wiggins; Patrick Thomas Coyle; Peggy Gradel Hogan; Ross Rudolph Laris; Sandra Lee Roney; Sheri Renne Allen; Steven Wayne Lewis; Teresa Ayala; Thomas Douglas Moore; Troy Russell Key

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and April 27, 2024 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015 and amended on April 27, 2024.

"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and aut hority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 24th day of April , 2025 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.
d/b/a MERCHANTS NATIONAL INDEMNITY COMPANY

By Larry Taylor
President

STATE OF IOWA
COUNTY OF DALLAS ss.

On this 24th day of April 2025 , before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.

NOTARIAL SEAL IOWA
Penni Miller
Commission Number 787952
My Commission Expires
January 20, 2027

Notary Public

(Expiration of notary's commission does not invalidate this instrument)

I, Elisabeth Sandersfeld, Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 6th day of October , 2025 .

MERCHANTS NATIONAL BONDING, INC. -o- 2003

MERCHANTS BONDING COMPANY (MUTUAL) INCORPORATED -o- 1933

Secretary

POA 0018 (6/24)

MERCHANTS
BONDING COMPANY

IMPORTANT NOTICE

To obtain information or make a complaint:

You may contact your insurance agent at the telephone number provided by your insurance agent.

You may call Merchants Bonding Company's toll-free telephone number for information or to make a complaint at:

1-800-678-8171

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at:

1-800-252-3439

You may write the Texas Department of Insurance at:

P. O. Box 149104
Austin, TX 78714-9104
Fax: (512) 475-1771
Web: http://www.tdi.state.tx.us
E-mail: ConsumerProtection@tdi.state.tx.us

PREMIUM AND CLAIM DISPUTES: Should you have a dispute concerning your premium or about a claim you should contact the agent first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY: This notice is for information only and does not become a part or condition of the attached document.

SUP 0032 TX (1/09)

[Final] Bills-Paid Affidavit
Basic Information

Date: October 2, 2025

Owner: Lennar Homes of Texas Land and Construction, LTD.

Owner's Mailing Address: 1707 MARKET PLACE BLVD STE 210 IRVING, TX 75063

Contractor: Interstate Pipeline Utility Construction, LLC

Contractor's Mailing Address: PO BOX 152957 DALLAS, TX 75315

Affiant: Jason Daniels, President

Affiant's Mailing Address: PO BOX 152957 DALLAS, TX 75315

Property: Highpointe Ranch Phase 2 & 3 (Aubrey #24-083)

Improvements:

Affiant swears individually and on behalf of Contractor that the following statements are true and within the personal knowledge of Affiant:

1. Affiant has personal knowledge of the facts stated in this affidavit. Affiant has full authority to make the agreements in this affidavit on behalf of Contractor.

2. Affiant understands that Owner has required this affidavit as a condition of payment for labor or materials used in construction of the Improvements.

3. Contractor has paid each of Contractor's subcontractors, laborers, and materialmen in full for all labor and materials provided to Owner or Contractor for construction of the Improvements, excepting only the amounts owed to the persons identified below:

Name: N/A

Address:

Telephone number:

Amount owed:

Contractor warrants and represents that the following specified bills or classes of bills will be paid by Contractor from the funds paid to Contractor by Owner in reliance on this affidavit:

Name of payee or description of class: N/A

Amount:

Contractor agrees to indemnify and hold Owner harmless from any loss or expense resulting from false or incorrect information in this affidavit.

[SIGNATURES ON FOLLOWING PAGE]

AFFIANT:

Name (printed): Jason Daniels

SUBSCRIBED AND SWORN TO before me on 20th of October, 2025 by Jason Daniels.

Notary Public, State of Texas

KATHLEEN ANNE DONAHUE
Notary Public, State of Texas
Comm. Expires 05-08-2026
Notary ID 10290589

MAINTENANCE BOND

STATE OF TEXAS)
)
COUNTY OF DENTON)

KNOW ALL BY THESE PRESENTS: That Interstate Pipeline Utility Construction, LLC whose address is P.O. Box 152957, Dallas, TX 75315, hereinafter referred to as "Principal," and Hudson Insurance Company, a corporate surety/sureties organized under the laws of the State of Delaware and fully licensed to transact business in the State of Texas, as Surety, hereinafter referred to as "Surety" (whether one or more), are held and firmly bound unto the **High Pointe Ranch Municipal Utility District No. 1**, a Texas municipal utility district, hereinafter referred to as "Owner," in the penal sum of Three Million Eight Hundred Eighty-Three Thousand Three Hundred One and 00/100 Dollars ($ 3,883,301.00), in lawful money of the United States to be paid to Owner, its successors and assigns, for the payment of which sum well and truly to be made, we bind ourselves, our successors, heirs, executors, administrators and successors and assigns, jointly and severally; and firmly by these presents, the condition of this obligation is such that:

WHEREAS, Principal entered into a certain written Contract with the Owner, dated on or about the 7th day of November, 20 24, to furnish all permits, licenses, bonds, insurance, products, materials, equipment, labor, supervision, and other accessories necessary for the construction of:

Highpointe Ranch
Phase 2 & 3 Utilities Package

in Denton County, Texas, as more particularly described and designated in the above-referenced contract, such contract being incorporated herein and made a part hereof as fully and to the same extent as if written herein word for word:

WHEREAS, in said Contract, the Principal binds itself to use first class materials and workmanship and of such kind and quality that for a period of two (2) years from the completion and final acceptance of the improvements by Owner the said improvements shall require no repairs, the necessity for which shall be occasioned by defects in workmanship or materials and during the period of two (2) years following the date of final acceptance of the Work by Owner, Principal binds itself to repair or reconstruct said improvements in whole or in part at any time within said period of time from the date of such notice as the Engineer shall determine to be necessary for the preservation of the public health, safety or welfare. If Principal does not repair or reconstruct the improvements within the time period designated, Owner shall be entitled to have said repairs made and charge Principal and/or Surety the cost of same under the terms of this Maintenance Bond.

NOW, THEREFORE, if Principal will maintain and keep in good repair the Work herein contracted to be done and performed for a period of two (2) years from the date of final

acceptance and do and perform all necessary work and repair any defective condition (it being understood that the purpose of this section is to cover all defective conditions arising by reason of defective materials, work or labor performed by Principal) then this obligation shall be void; otherwise it shall remain in full force and effect and Owner shall have and recover from Principal and its Surety damages in the premises as provided in the Plans and Specifications and Contract.

PROVIDED, however, that Principal hereby holds harmless and indemnifies Owner from and against any claim or liability for personal injury or property damage caused by and occurring during the performance of said maintenance and repair operation.

PROVIDED, further, that if any legal action be filed on this Bond, exclusive venue shall lie in Denton County, Texas.

AND PROVIDED FURTHER, Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work performed thereunder, or the Plans, Specifications, Drawings, etc. accompanying same shall in any way affect its obligation on this Bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder.

The undersigned and designated agent is hereby designated by Surety as the resident agent in Texas for service of process to whom all requisite notice may be delivered and on whom service of process may be had in matters arising out of this suretyship.

IN WITNESS WHEREOF, this instrument is executed in six copies, each one of which shall be deemed an original, on this the 15th day of October, 20 25.

ATTEST:	**PRINCIPAL:**
	Interstate Pipeline Utility Construction, LLC
	Company Name
By: _____	By: _____
Signature	Signature
_____	_____
Typed/Printed Name	Typed/Printed Name
_____	_____
Title	Title
P.O. Box 152957	P.O. Box 152957
Address	Address
Dallas, TX 75315	Dallas, TX 75315
City State Zip	City State Zip
214-296-9744 N/A	214-296-9744 N/A
Phone Fax	Phone Fax

ATTEST:

By: _____
Signature

Katie Vanikiotis
Printed Name

Witness
Title

500 N Central Expy., Ste 550
Address

Plano,	TX	75074
City	State	Zip
972-331-3759		N/A
Phone		Fax

SURETY: Hudson Insurance Company

By: _____
Signature

Yamillec Ramos
Printed Name

Attorney-in-Fact
Title

100 William Street, 5th Floor
Address

New York,	NY	10038
City	State	Zip
212-978-2800		N/A
Phone		Fax

The Resident Agent of the Surety in Texas, for delivery of notice and service of the process is:

NAME: Brady K. Cox
STREET ADDRESS: 500 N Central Expy., Ste 550
CITY, STATE, ZIP: Plano, TX 75074

HUDSON INSURANCE GROUP®

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That HUDSON INSURANCE COMPANY, a corporation of the State of Delaware, with offices at 100 William Street, New York, New York, 10038, has made, constituted and appointed, and by these presents, does make, constitute and appoint **William D. Baldwin, Darrell B. Allen, Michael B. Hill, Brent E. Baldwin, Brady K. Cox, Neira Hernandez**

Brock A. Baldwin, Russ Frenzel, John A. Aboumrad, Cynthia Alford, Yamillec Ramos, Kristi Meek

of the State of Texas

its true and lawful Attorney(s)-in-Fact, at New York, New York, each of them alone to have full power to act without the other or others, to make, execute and deliver on its behalf, as Surety, bonds and undertakings given for any and all purposes, also to execute and deliver on its behalf as aforesaid renewals, extensions, agreements, waivers, consents or stipulations relating to such bonds or undertakings provided, however, that no single bond or undertaking shall obligate said Company for any portion of the penal sum thereof in excess of the sum of **Twenty Five Million Dollars (25,000,000.00).**

Such bonds and undertakings when duly executed by said Attorney(s)-in-Fact, shall be binding upon said Company as fully and to the same extent as if signed by the President of said Company under its corporate seal attested by its Secretary.

In Witness Whereof, HUDSON INSURANCE COMPANY has caused these presents to be of its Senior Vice President thereunto duly authorized, on this 11th day of July, 20 23 at New York, New York.

: seal)

HUDSON INSURANCE COMPANY

Attest.....
Dina Daskalakis No. 01MU6067553
Corporate Secretary

By.....
Michael P. Cifone
Senior Vice President

STATE OF NEW YORK
COUNTY OF NEW YORK. SS.

On the 11th day of July, 20 23 before me personally came Michael P. Cifone to me known, who being by me duly sworn did depose and say that he is a Senior Vice President of **HUDSON INSURANCE COMPANY**, the corporation described herein and which executed the above instrument, that he knows the seal of said Corporation, that the seal affixed to said instrument is such corporate seal, that it was so affixed by order of the Board of Directors of said Corporation, and that he signed his name thereto by like order.

(Notarial Seal)

ANN M. MURPHY
NOTARY PUBLIC
STATE OF NEW YORK

.....
ANN M. MURPHY
Notary Public, State of New York
No. 01MU6067553
Qualified in Nassau County
Commission Expires December 10, 2025

CERTIFICATION

STATE OF NEW YORK
COUNTY OF NEW YORK SS.

The undersigned **Dina Daskalakis** hereby certifies:

That the original resolution, of which the following is a true and correct copy, was duly adopted by unanimous written consent of the Board of Directors of Hudson Insurance Company dated July 27th, 2007, and has not since been revoked, amended or modified:

"RESOLVED, that the President, the Executive Vice Presidents, the Senior Vice Presidents and the Vice Presidents shall have the authority and discretion, to appoint such agent or agents, or attorney or attorneys-in-fact, for the purpose of carrying on this Company's surety business, and to empower such agent or agents, or attorney or attorneys-in-fact, to execute and deliver, under this Company's seal or otherwise, bonds obligations, and recognizances, whether made by this Company as surety thereon or otherwise, indemnity contracts, contracts and certificates, and any and all other contracts and undertakings made in the course of this Company's surety business, and renewals, extensions, agreements, waivers, consents or stipulations regarding undertakings so made; and

FURTHER RESOVLED, that the signature of any such Officer of the Company and the Company's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seal when so used whether heretofore or hereafter, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed."

THAT the above and foregoing is a full, true and correct copy of Power of Attorney issued by said Company, and of the whole of the original and that the said Power of Attorney is still in full force and effect and has not been revoked, and furthermore that the Resolution of the Board of Directors, set forth in the said Power of Attorney is now in force.

Witness the hand of the undersigned and the seal of said Corporation this 15th day of October, 20 25.

seal)

By.....
Dina Daskalakis, Corporate Secretary

IMPORTANT NOTICE

TO OBTAIN INFORMATION OR TO MAKE A COMPLAINT

You may contract the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at

1-800-252-3439

You may write the Texas Department of Insurance:

P.O. Box 149104
Austin, Texas 78714-9104
Fax No. (512) 475-1771

PREMIUM or CLAIM DISPUTES

Should you have a dispute concerning your premium or about a claim, you should contact the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY

This notice is for information only and does not become a part or condition of the attached document.

Notice of Applicability of Chapter 2253 of the Texas Government Code

These bonds are furnished in an attempt to comply with Chapter 2253 of the Texas Government Code. These bonds shall be construed to comply with such Chapter regarding the rights created, limitations on those rights, and remedies provided. Any provision in the bonds to which this Rider is attached that expands or restricts a right or liability under such Chapter shall be disregarded, and such Chapter shall apply to these bonds.

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Approve Resolution No. 1031-25 ratifying an expenditure of $36,847.50 paid to Minchew Brothers for the emergency repair of a cave-in in the 100 Block of East Sherman Drive; and providing an effective date.

Staff Contact
Dean Rylant, Public Works Director
drylant@aubreytx.gov

Summary
This emergency repair was triggered by a cave-in in the 100 Block of East Sherman Drive at Sycamore Street. Upon excavation of the cave-in, it was discovered that a large section of the drainage pipe was damaged and removed during the installation of the force main and not replaced. The force main was inspected and was found to be undisturbed.

The missing storm drain pipe was receiving drainage and eroding under the surface, causing the cave-in and sinkholes along the shoulder and private property of Sherman Drive.

Coordination was completed with TxDOT on permitting, and the drainage line was repaired. TxDOT has required a concrete culvert end cap that is on order and will be installed once it arrives.

Financial Summary
This expenditure was added to the overall downtown drainage and parking lot along Sycamore Street project funded in the capital plan.

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to (approve/deny/table) the Resolution.

CITY OF AUBREY, TEXAS
RESOLUTION NO. 1031-25

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS RATIFYING AN EMERGENCY EXPENDITURE FOR REPAIR OF A CAVE-IN IN THE RIGHT OF WAY OF THE 100 BLOCK OF EAST SHERMAN DRIVE; FINDING THAT THE REQUIREMENTS OF SECTION 6.2 "PROCEDURE FOR EMERGENCY PURCHASES" OF THE CITY OF AUBREY PROCUREMENT POLICY AS AUTHORIZED BY STATE LAW HAVE BEEN MET; PROVIDING FOR THE INCORPORATION OF PREMISES; RATIFYING THE EXPENDITURE FOR THE COSTS OF REPAIRING THE PIPELINE CAUSING THE CAVE-IN; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Aubrey, Texas is a home rule municipality located in Denton County, Texas ("City"); and

WHEREAS, the City has adopted procedures for compliance with State procurement laws as set forth in the City of Aubrey Procurement Policies and Procedures adopted by City Council pursuant to Resolution No. 1026-25 (the "Procurement Policy"); and

WHEREAS, consistent with State law, the City Procurement Policy authorizes an expenditure of funds outside of the normal purchasing procedures when a situation of such urgency arises that normal purchasing procedures must be modified in the interest of time due to exigent circumstances; and

WHEREAS, on or about October 1, 2025, a date upon which a cave-in created a dangerous situation, resulting in a large hole on the shoulder of the 100 Block of East Sherman Drive; and

WHEREAS, due to the dangerous condition, property damage and disruption of municipal operations, an immediate emergency repair was necessary; and

WHEREAS, the delay that would have resulted from utilizing the normal three to four-week procurement process—advertising, soliciting and evaluating bids, and calling a special Council meeting—posed a threat of further damage and was therefore determined by Staff to constitute an exigent circumstance under Section 6.2 of the Procurement Policy; and

WHEREAS, pursuant to Section 6.2 of the Procurement Policy, the City Manager, after consultation with the Mayor, authorized the expenditure of $36,847.50 to be paid to Minchew Brothers for the necessary repairs on East Sherman Drive, and provided the required written permission to Staff to make that emergency purchase; and

WHEREAS, the repair services have been satisfactorily provided by Minchew Brothers, mitigating further damage; and City Staff has requested ratification of the expenditure as required by Section 6.2 of the Procurement Policy; and

WHEREAS, the City Council finds and determines that the cave-in on East Sherman Drive created an exigent circumstance that justified emergency repairs, that the requirements of Section 6.2 of the Procurement Policy for an emergency expenditure were met, and that the interests of public health, safety, and welfare are served by the ratification of the expenditure for the emergency repair.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS, THAT:

Section 1. Incorporation of Premises/Findings. The Recitals set forth above constitute the legislative findings of the City Council and are incorporated into the body of this Resolution as if fully set forth herein.

Section 2. Ratification of Emergency Expenditure. The City Council has determined that all procedures required by State law and Section 6.2 of the Procurement Policy have been followed, that the cave-in on or about October 1, 2025 constituted an exigent circumstance for which the Procurement Policy and state law allow an emergency expenditure of funds, and that the expenditure of funds in the amount of $36,847.50 for the cost of emergency repairs paid to Minchew Brothers is hereby ratified.

Section 3. Effective Date. This Resolution takes effect immediately upon its passage and approval.

PASSED AND APPROVED by the City Council of the City of Aubrey, Texas this the 20th day of November 2025.

_____
Chris Rich, Mayor

ATTEST:

_____
Jenny Hicks, City Secretary

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Award a bid for Phase 2 Capital Improvement Project — F.M. 428 18-Inch Parallel Force Main to Pittard Construction for an amount not to exceed $1,808,163, and authorize the City Manager to execute necessary documents.

Staff Contact
Dean Rylant, Public Works Director
drylant@aubreytx.gov

Summary
On September 19 and 26, 2025, advertisements for bids were posted in the newspaper and available on CiviCast.

Bids were received on October 14, 2025. A total of six sealed bids were received, opened, and read aloud. Pittard Construction Company, Inc. of Allen, TX submitted the lowest bid in the amount of $1,808,163.00.

According to Birkhoff, Hendricks & Carter Professional Engineers, the contractor's statement of qualifications and references provided were reviewed, and it was decided that Pittard Construction has a record of satisfactorily completing projects similar to those that we are requesting. The references were also checked and found to have overall positive feedback on the projects listed.

Below is a list of the Bid Summary for the City's reference and files for the 18-inch Parallel Force Main project that is to begin on F.M. 428.

1. Pittard Construction Company, Inc **$1,808,163.00**
2. W. Brown Enterprises, Inc. **$2,611,964.85**
3. Hayes Construction, LLC **$2,620,135.00**
4. J&L Construction, LLC **$3,438,117.24**
5. Wilson Contractor Services, LLC **$3,664,322.47**
6. Acadia Services, LLC **$4,594,430.00**

Staff recommends awarding the bid to Pittard Construction.

Financial Summary
The Phase 2 FM 428 Force Main Project (Pecan Creek Sewer Lift Station) was budgeted and funded with the 2025 Bond. Funds are available for this project.

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to (approve/deny/table) award of the bid to Pittard Construction.

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS

11910 Greenville Ave., Suite 600 Dallas, Texas 75243 Phone (214) 361-7900 www.bhcllp.com

GARY C. HENDRICKS, P.E., R.P.L.S.
JOE R. CARTER, P.E.
ANDREW MATA, JR., P.E.
CHASE CRAWFORD, R.P.L.S.

DEREK B. CHANEY, P.E., R.P.L.S.
CRAIG M. KERKHOFF, P.E.
JUSTIN R. IVY, P.E.
COOPER E. REINBOLD, P.E.

October 20, 2025

Ms. Leanne Wilson
Assistant City Manager
City of Aubrey
107 S. Main Street
Aubrey, Texas 76227

Re: F.M. 18-Inch Parallel Force Main
Award Recommendation

Dear Ms. Wilson:

We have checked the bids received at 11:00 a.m., Tuesday, October 14, 2025, for the City of Aubrey F.M. 18-Inch Parallel Force Main project and are enclosing one (1) copy of the Bid Summary and Itemized Bid Tabulation for the City's reference and files. A total of six (6) sealed bids were received, opened, and read aloud.

Pittard Construction Company, Inc. of Allen, Texas submitted the lowest bid in the amount of $1,808,163.00. We have reviewed the Contractor's statement of qualifications and references provided and find that Pittard Construction Company, Inc., has a record of satisfactorily completing projects similar to this project. Our check of the contractor's references found overall positive feedback on the projects listed.

Based on our review of the low bidder's statement of qualifications and their past performance record provided by their references, it is our opinion that Pittard Construction Company, Inc., has the experience and equipment necessary to properly pursue this project. We recommend the City accept the proposal and award Pittard Construction Company, Inc. a construction contract for this project in the amount of $1,808,163.00.

We are available to discuss this project and our recommendation at your convenience.

Sincerely,

Cooper Reinbold, P.E.

Enclosures: Bid Summary
Tabulation of Bids

City of Aubrey
F.M. 428 18-Inch Parallel Force Main

BID SUMMARY
Bids Received at 11:00 a.m., Tuesday, October 14, 2025

	Contractor	Total Amount Bid
1.	Pittard Construction Company, Inc 190 E. Stacy Rd. Suite 306 Box 306 Allen, TX 75002 Rob Pittard (903) 818-2447	$ 1,808,163.00
2.	W. Brown Enterprises, Inc. 2905 N. First Ave. Durant, OK 74701 W. Scott Brown (580) 282-0282	$ 2,611,964.85
3.	Hayes Construction, LLC 205 Cody Lane Sherman, TX 75092 Lara Jackson (469) 512-7290	$ 2,620,135.00
4.	J&L Construction, LLC 2220 San Jacinto Blvd, Suite 320 Denton, TX 76205 Luis Asencio (940) 629-3571	$ 3,438,117.24
5.	Wilson Contractor Services, LLC 3985 Mingo Rd. Denton, TX 76208 A.A. Martinez (940) 243-1174	$ 3,664,322.47
6.	Acadia Services, LLC 351 W. Southlake Blvd. Southlake, TX 76092 Brad Catlett (817) 500-9048	$ 4,594,430.00

TABULATION OF BIDS

Date: October 14, 2025 @ 11:00 a.m.

Project: City of Aubrey
F.M. 428 18-Inch Parallel Force Main

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
Dallas, Texas

Item No.	Approximate Quantities	Unit	Description	**BID OF** Pittard Construction Company, Inc 190 E. Stacy Rd. Suite 306 Box 306 Allen, TX 75002 Rob Pittard (903) 818-2447 rob@pittardcc.com		**BID OF** W. Brown Enterprises, Inc. 2905 N. First Ave. Durant, OK 74701 W. Scott Brown (580) 282-0282 david.wood@w-brown.com		**BID OF** Hayes Construction, LLC 205 Cody Lane Sherman, TX 75092 Lara Jackson (469) 512-7290 laura@hayesconstruction.org		**BID OF** J&L Construction, LLC 2220 San Jacinto Blvd, Suite 320 Denton, TX 76205 Luis Asencio (940) 629-3571 office@constructionjandl.com		**BID OF** Wilson Contractor Services, LLC 3985 Mingo Rd. Denton, TX 76208 A.A. Martinez (940) 243-1174 tony@wilsoncontractorservice.com		**BID OF** Acadia Services, LLC 351 W. Southlake Blvd. Southlake, TX 76092 Brad Catlett (817) 500-9048 brad@acadiatx.com	
				Unit Bid Price	Extension	Unit Bid Price	Extension	Unit Bid Price	Extension	Unit Bid Price	Extension	Unit Bid Price	Extension	Unit Bid Price	Extension
1	1	Ea.	For Mobilization, Bonds, Insurance and Shop Drawings (Max 5.0%)	$40,000.00	$ 40,000.00	$63,491.95	$ 63,491.95	$100,000.00	$ 100,000.00	$72,452.00	$ 72,452.00	$180,500.00	$ 180,500.00	$220,000.00	$ 220,000.00
2	233	L.F.	Furnish & Install 18-Inch PVC Force Main Pipe by Open Cut with Class "B+" Embedment	$95.00	$ 22,135.00	$101.44	$ 23,635.52	$150.00	$ 34,950.00	$228.48	$ 53,235.84	$631.76	$ 147,200.08	$215.00	$ 50,095.00
3	8,133	L.F.	Furnish & Install 18-Inch PVC Force Main Pipe by Horizontal Directional Drilling	$185.00	$ 1,504,605.00	$260.24	$ 2,116,531.92	$265.00	$ 2,155,245.00	$335.55	$ 2,729,028.15	$363.33	$ 2,954,962.89	$474.00	$ 3,855,042.00
4	170	L.F.	Furnish & Install 18-Inch PVC Force Main Pipe by Other than Open Cut with 27-Inch Steel Encasement Pipe (3/8-Inch Thick)	$425.00	$ 72,250.00	$968.60	$ 164,662.00	$650.00	$ 110,500.00	$992.54	$ 168,731.80	$944.85	$ 160,624.50	$1,177.00	$ 200,090.00
5	1	Ea.	Connect to Existing 14-Inch Force Main	$3,500.00	$ 3,500.00	$5,351.24	$ 5,351.24	$6,000.00	$ 6,000.00	$34,560.00	$ 34,560.00	$17,200.00	$ 17,200.00	$5,400.00	$ 5,400.00
6	1	Ea.	Furnish & Install 18-inch Plug with Pipeline Marker	$1,730.00	$ 1,730.00	$2,072.31	$ 2,072.31	$2,500.00	$ 2,500.00	$25,333.00	$ 25,333.00	$6,800.00	$ 6,800.00	$7,200.00	$ 7,200.00
7	3	Ea.	Furnish & Install 2-Inch Air Release & Vacuum Valve with 6-Foot Diameter Manhole	$16,660.00	$ 49,980.00	$21,560.73	$ 64,682.19	$21,600.00	$ 64,800.00	$45,999.67	$ 137,999.01	$23,500.00	$ 70,500.00	$25,000.00	$ 75,000.00
8	5	Ea.	Furnish & Install 18-Inch Resiliant Seated Gate Valve	$21,890.00	$ 109,450.00	$32,436.88	$ 162,184.40	$28,285.00	$ 141,425.00	$34,178.00	$ 170,890.00	$23,100.00	$ 115,500.00	$35,000.00	$ 175,000.00
9	1	L.S.	Furnish Trench Safety Plan	$1,200.00	$ 1,200.00	$745.37	$ 745.37	$750.00	$ 750.00	$16,588.00	$ 16,588.00	$2,200.00	$ 2,200.00	$4,200.00	$ 4,200.00
10	233	L.F.	Implement & Maintain Trench Safety Plan	$1.00	$ 233.00	$18.47	$ 4,303.51	$5.00	$ 1,165.00	$59.62	$ 13,891.46	$25.00	$ 5,825.00	$1.00	$ 233.00
11	14	S.Y.	Remove & Replace Reinforced Concrete Sidewalk	$220.00	$ 3,080.00	$307.46	$ 4,304.44	$200.00	$ 2,800.00	$1,100.57	$ 15,407.98	$215.00	$ 3,010.00	$155.00	$ 2,170.00
			TOTAL AMOUNT BID		**$ 1,808,163.00**		**$ 2,611,964.85**		**$ 2,620,135.00**		**$ 3,438,117.24**		**$ 3,664,322.47**		**$ 4,594,430.00**

CITY OF AUBREY, TEXAS

SPECIFICATIONS, CONTRACT DOCUMENTS, AND CONSTRUCTION PLANS FOR CONSTRUCTION OF THE

F.M. 428 18-INCH PARALLEL FORCE MAIN

PREPARED BY

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
DALLAS, TEXAS
Texas Firm F526

SEPTEMBER 2025

CITY OF AUBREY, TEXAS

CITY COUNCIL

Chris Rich, Mayor

Jeff Perry, Place 1

Matt Jones, Place 2

Mike Browning, Place 3

Randy Jones, Place 4

Chuck Fikes, Place 5

CITY MANAGER

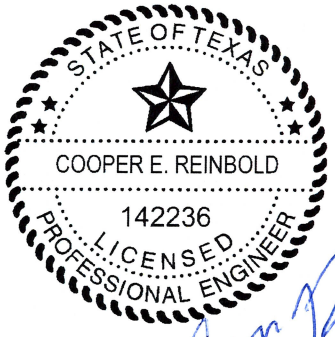
Charles Kreidler

ASSISTANT CITY MANAGER

Leanne Wilson

PUBLIC WORKS DIRECTOR

Dean Rylant



9/12/25

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• GENERAL PROVISIONS

For this contract the following standards, provisions, amendments, etc., are APPROVED as the Official Specifications for this project:

- "Standard Specifications for Public Works Construction, North Central Texas" 5th Edition, 2017, with Latest Amendment.

• CONSTRUCTION METHODS

For this contract the following standards, provisions, amendments, etc., are APPROVED as the Official Specifications for this project:

- "Standard Specifications for Public Works Construction, North Central Texas" 5th Edition, 2017, with Latest Amendment

SPECIAL CONDITIONS

WAGE RATES

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TECHNICAL SPECIFICATIONS

GEOTECHNICAL REPORT

NOTICE TO BIDDERS

F.M. 428 18-INCH PARALLEL FORCE MAIN

Sealed bids will be received in the office of the City Secretary, City Hall, 107 S. Main Street, Aubrey, Texas 76227 until **11:00 A.M., Tuesday, October 14, 2025**, then publicly opened and read at the City Council Chamber, 226 Countryside Drive, Aubrey, Texas 76227 at 11:30 A.M., Tuesday, October 14, 2025, for providing all necessary labor, materials, machinery, equipment, tools, superintendence, and all incidentals and appurtenances required for the construction of the F.M. 428 18-Inch Parallel Force Main project that consist of, but is not limited to, approximately 8,133 linear feet of 18-inch force main by horizontal directional drilling, 233 linear feet of 18-inch force main by open cut, 170 linear feet of 18-inch force main by other than open cut in 27-inch steel encasement pipe, three 2-inch air vacuum valves with 6-foot diameter manholes, and all appurtenances, as shown in the plans.

The successful bidder must furnish Performance Bond and Payment Bond in the amount of one hundred percent (100%) of the total contract price from a Surety Company holding a permit from the State of Texas to act as Surety. Should the total contract price be less than $25,000.00, no performance bond or payment bond will be required.

All lump sum and unit prices must be stated in both script and figures on the forms provided. The City of Aubrey reserves the right to reject any or all bids and to waive formalities. In case of ambiguity or lack of clearness in stating prices in the bids, the City of Aubrey reserves the right to consider the most advantageous construction thereof, or to reject the bid. Unreasonable (or "unbalanced") unit prices will authorize the City of Aubrey to reject any bid.

Bidders are expected to inspect the site of work and to inform themselves regarding all local conditions.

Bidders are required to submit a cashier's or certified check issued by a bank satisfactory to the City of Aubrey, or a Bid Bond (with proper Power of Attorney) from a surety licensed to do business in the State of Texas, payable without recourse to the City of Aubrey, in an amount not less than five (5%) percent of the total amount of the proposal submitted to insure that the successful bidder will enter into a contract and execute all necessary bonds within ten (10) days after notice of award of the contract to him. **This bid security must be included in the bid envelope for the bidder to be considered responsive.** The successful bidder will be required to furnish Performance, Payment and Maintenance Bonds as described in the bidding documents.

Plans, specifications, and bidding documents will be available on CIVCAST at www.civcastusa.com. They may also be purchased at the office of Birkhoff, Hendricks & Carter, L.L.P., located at 11910 Greenville Ave., Suite 600, Dallas, Texas 75243. The cost for the plans and specifications are $35.00 per set (non-refundable). Bidding documents downloaded from plan rooms or third-party websites shall be at the Bidder's sole risk. No guarantee of receipt of addenda or clarifications will be made for third-party downloads. **Cooper Reinbold, P.E.** may be reached with general questions at **creinbold@bhcllp.com (214-361-7900)**. No questions will be answered from questions posted on CIVCAST.

CITY OF AUBREY, TEXAS

Advertisement Dates: **Friday, September 19, 2025**
Friday, September 26, 2025

Questions Deadline: **Thursday, October 2, 2025**

Last Addendum Released: **Monday, October 6, 2025**

PROPOSAL
TO
CITY OF AUBREY (OWNER)

F.M. 428 18-INCH PARALLEL FORCE MAIN

DENTON COUNTY, TEXAS

DATE: _____

The undersigned, as bidder, declares that the only person or parties interested in this proposal as principals are those named herein, that this proposal is made without collusion with any other person, firm, or corporation, that he has carefully examined the Notice to Bidders, Contract Agreement, General Conditions, specifications and the plans therein referred to, and has carefully examined the location, conditions, and classes of materials of the proposed work. The undersigned bidder hereby proposes to do all the work and furnish all necessary superintendence, labor, machinery, equipment, tools, materials, and other items incidental to construction that may be necessary to complete all the work upon which he bids, as provided by the attached specifications and shown on the plans, and binds himself on acceptance of this proposal to execute a contract and bonds (where required), according to the accompanying forms, for performing and completing the said work within the time stated, and maintaining same as required by the detailed specifications for the prices stated on the following forms.

It is understood and agreed to commence work within ten (10) days after the date written notice to do so shall have been given to him and to complete the work within the **One Hundred Eighty (180) calendar days** bid for this project, and as provided in the Special Conditions of the contract.

Accompanying this proposal is a Bid Bond in the amount of:

_____

_____ Dollars ($ _____).

The bidder agrees that this check or bond will be held by the City as security until a contract is awarded or all bids rejected. The City Council will be allowed sixty (60) days from date of bid opening to award the project. In case award is not made on this proposal, the security check or bid bond will be returned to the undersigned bidder.

It is understood that the Owner reserves the right to reject any and all bids.

City of Aubrey
F.M. 428 18-Inch Parallel Force Main

BID SCHEDULE

Item No.	Estimated Quantity	Unit	Description and Price in Words	Price in Figures	Extended Amount
1	1	Ea.	For Mobilization, Bonds, Insurance and Shop Drawings (Max 5.0%) complete in place, the sum of _____ _____ Dollars and _____ Cents per Each		
2	233	L.F.	Furnish & Install 18-Inch PVC Force Main Pipe by Open Cut with Class "B+" Embedment complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
3	8,133	L.F.	Furnish & Install 18-Inch PVC Force Main Pipe by Horizontal Directional Drilling complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
4	170	L.F.	Furnish & Install 18-Inch PVC Force Main Pipe by Other than Open Cut with 27-Inch Steel Encasement Pipe (3/8-Inch Thick) complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
5	1	Ea.	Connect to Existing 14-Inch Force Main complete in place, the sum of _____ _____ Dollars and _____ Cents per Each		
6	1	Ea.	Furnish & Install 18-inch Plug with Pipeline Marker complete in place, the sum of _____ _____ Dollars and _____ Cents per Each		

Item No.	Estimated Quantity	Unit	Description and Price in Words	Price in Figures	Extended Amount
7	3	Ea.	Furnish & Install 2-Inch Air Release & Vacuum Valve with 6-Foot Diameter Manhole complete in place, the sum of _____ _____ Dollars and _____ Cents per Each		
8	5	Ea.	Furnish & Install 18-Inch Resiliant Seated Gate Valve complete in place, the sum of _____ _____ Dollars and _____ Cents per Each		
9	1	L.S.	Furnish Trench Safety Plan complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		
10	233	L.F.	Implement & Maintain Trench Safety Plan complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
11	14	S.Y.	Remove & Replace Reinforced Concrete Sidewalk complete in place, the sum of _____ _____ Dollars and _____ Cents per Square Yard		
TOTAL AMOUNT BID (Items 1 Through 11)					

In the event of the award of a contract to the undersigned, the undersigned will furnish a performance bond and a payment bond for the full amount of the contract, to secure compliance with the terms and provisions of the Contract Documents.

The work proposed to be done shall be accepted when fully completed and finished in accordance with the plans and specifications.

The undersigned certifies that the bid prices contained in this proposal have been carefully checked and are submitted as correct and final.

NOTE: Unit and lump sum prices must be shown in words and figures for each item listed in the proposal and in the event of discrepancy the words shall control.

The right is reserved, as the interest of the Owner may require, to reject any and all bids, and to waive any formality in bids received.

Receipt is hereby acknowledged for the following addenda to the contract documents:

Addendum No. 1 dated	_____	Received	_____
Addendum No. 2 dated	_____	Received	_____
Addendum No. 3 dated	_____	Received	_____
Addendum No. 4 dated	_____	Received	_____
Addendum No. 5 dated	_____	Received	_____

_____
Contractor

By: _____
(please print name)

Signature: _____

Title: _____

Seal and Authorization
(If a Corporation)

_____
Address

_____
City, County, State and Zip

_____
Telephone Fax No.

E-Mail Address: _____

ALL BIDDERS ARE NOTIFIED THAT THE FOLLOWING QUALIFICATION STATEMENT MUST BE COMPLETED AND SUBMITTED WITH THE BID.

Bidder's Qualifications

The bidder shall demonstrate that they have experience with similar projects. Similar projects are public works projects consisting of construction of sanitary sewer force mains in the pipe sizes (or larger) indicated in the plans and installation of water or sewer mains via horizontal directional drilling in the pipe sizes (or larger) indicated in the plans.

The Contractor shall submit a list of Public Works Projects successfully completed within the last five years. This list shall include the names and contact information (include email address) of the Engineer who managed the projects for the Owner.

The information requested in the Qualification Statement of Bidders pages 2 through 6 must be provided along with ALL other information requested in the Bid for evaluation.

QUALIFICATION STATEMENT OF BIDDERS

SUBMITTED TO: City of Aubrey

Reviewed by: _____
Date Received: _____
Contractor: _____

CIRCLE ONE: ☐ Sole Proprietor ☐ Partnership ☐ Corporation ☐ Joint Venture

Name: _____ Partner: _____
Address: _____ Address: _____
City: _____ City: _____
Phone: _____ Phone: _____

PRINCIPAL PLACE OF BUSINESS: PRINCIPAL PLACE OF BUSINESS:

_____ _____
County State County State

IF THE CONTRACTOR IS A CORPORATION, FILL OUT THE FOLLOWING:

State of Incorporation: _____
Location of Principal Office: _____
Contact Persons at Office: _____

PERSON EXECUTING CONTRACTS ON BEHALF OF CORPORATION:

Name: _____ Address: _____
Title: _____ _____
Phone: _____ City State Zip
Email: _____

Names of Officers: (If Applicable) _____

_____

LIST NUMBER OF EMPLOYEES WORKING FOR CONTRACTOR: _____

LIST ALL EQUIPMENT TO BE USED ON THIS PROJECT: ***(PLEASE USE ATTACHMENT)***

NUMBER OF YEARS IN BUSINESS AS A GENERAL CONTRACTOR ON PROJECTS SIMILAR TO THIS PROJECT: _____

TYPE(S) OF WORK COMPLETED: (CIRCLE)

☐ Asphalt Paving ☐ Storm Sewer
☐ Concrete Paving ☐ Earth Work
☐ Channel Lining ☐ Water & Sanitary Sewer Lines
☐ Concrete Inlets/Boxes

Other: _____

COMMENTS: _____

_____

_____

_____

LIST RECENTLY COMPLETED PROJECTS OF THE TYPE OF WORK QUALIFYING FOR OR SIMILAR WORK, PLUS THE FOLLOWING INFORMATION FOR EACH PROJECT:

Project: _____

_____

_____

Owner/Engineer: _____

Year Built: _____ Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Year Built: _____ Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Year Built: _____ Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Year Built: _____ Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

(USE ATTACHMENTS IF NECESSARY)

LIST CURRENT PROJECTS UNDER CONSTRUCTION, PLUS THE FOLLOWING INFORMATION FOR EACH PROJECT LISTED:

Project: _____

_____

_____

Owner/Engineer: _____

Percent Complete: _____ % Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Percent Complete: _____ % Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Percent Complete: _____ % Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Percent Complete: _____ % Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

(USE ATTACHMENTS IF NECESSARY)

IF COMPANY IS UNDER NEW MANAGEMENT, PLEASE LIST NAMES OF STAFF AND QUALIFICATION AND/OR EXPERIENCE OF SAID PERSONS. ***(PLEASE USE ATTACHMENT.)***

HAVE YOU OR ANY PRESENT PARTNER(S) OR OFFICER(S) FAILED TO COMPLETE A CONTRACT?_____

IF SO, NAME OF OWNER AND/OR SURETY:

_____

CONTACT PERSON: _____ PHONE: _____

ARE THERE ANY UNSATISFIED DEMANDS UPON YOU AS TO YOUR ACCOUNTS PAYABLE? Yes ☐ No ☐

IF SO, GIVE NAMES, AMOUNTS, AND EXPLANATIONS:

_____

_____

_____

BANK REFERENCE: Bank: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Person: _____

Contact Email: _____

MUNICIPALITY REFERENCE: City: _____

Contact Person: _____ Position: _____

Address: _____ Phone: _____

In compliance with Invitation to Bid for above mentioned types of projects, the undersigned is submitting the information as required with the understanding that the purpose is only to assist in determining the qualifications for this organization to perform the type and magnitude of work designated, and further, guarantee the truth and accuracy of all statements made, and will accept your determination of qualifications without prejudice. The surety herein named, any other bonding company, bank, sub-contractor, supplier, or any other person(s), firm(s) or corporations with whom I (we) have done business, or who have extended any credit to me (us) are hereby authorized to furnish you with any information you may request concerning performance on previous work and my (our) credit standing with any of them; and I (we) hereby release any and all such parties from any legal responsibility whatsoever on account of having furnished such information to you.

Signed: _____ Title: _____

Company: _____ Date: _____

COPY TO LOCAL UNDERWRITING OFFICE OF PROPOSED SURETY

Name: _____ Phone: _____

Address: _____ City: _____ State: _____

QUALIFICATION STATEMENT OF BIDDER'S SURETY

SUBMITTED TO: City of Aubrey

BIDDER: _____
ADDRESS: _____
PHONE: _____

1. Has this surety furnished contract bonds on contracts now complete? _____

2. Has this surety furnished contract bonds on contracts now incomplete? _____

3. What is the maximum bonding capacity of this Contractor? _____

4. Is the current financial information on this Contractor satisfactory? _____

5. Does information obtained indicate accounts are paid when due? _____
   If not, give details:

   _____

   _____

6. Is it your opinion that the bidder has sufficient experience and financial resources to satisfactory perform the contract? _____

7. Provided this bidder does not assume other commitments or that you do not acquire further information that in your opinion will materially affect the bidder's capacity to perform this contract, will you furnish the bonds as specified?

   _____

REMARKS: _____

_____

_____

_____

SURETY: _____

SIGNED: _____

TITLE: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: _____

(IN DUPLICATE)

VENDORS COMPLIANCE TO STATE LAW

Texas Government Code, Chapter 2252, Subchapter A provides that, in order to be awarded a contract as low bidder, non-resident bidders (out of state Contractors whose corporate offices or principal place of business are outside of the State of Texas) bid projects for construction, improvements, supplies or services in Texas at an amount lower than the lowest Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a non-resident bidder in order to obtain a comparable contract in the state in which the non-resident's principal place of business is located. The appropriate blanks in Section 4 must be filled out by all out-of-state or non-resident bidders in order for your bid to meet specifications. The failure of out-of-state or non-resident Contractors to do so will automatically disqualify that bidder. Resident bidders must check the box in Section B.

A. ☐ Non-resident vendors in _____ (give state), our principal place of business, are required to be _____ percent lower than resident bidders by state law. A copy of the statute is attached.

☐ Non-resident vendors in _____ (give state), our principal place of business, are not required to underbid resident bidders.

B. ☐ Our principal place of business or corporate office is in the State of Texas.

BIDDER/OFFEROR:

_____ By: _____
Company: (please print)

Address: _____ Signature: _____

_____ Title: _____
City State Zip (please print)

Phone: _____

THIS FORM MUST BE RETURNED WITH YOUR QUOTATION

STANDARD FORM OF AGREEMENT

STATE OF TEXAS }

COUNTY OF DENTON }

THIS AGREEMENT, made and entered into this _____ day of _____, A.D. 20____, by and between The City of Aubrey, Texas

of the County of Denton and State of Texas, acting through Its City Manager thereunto duly authorized so to do, Party of the First Part, hereinafter termed OWNER, and _____

of the City of _____, County of _____ and State of _____, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Party of the First Part (OWNER), and under the conditions expressed in the bond bearing even date herewith, the said Party of the Second Part (CONTRACTOR), hereby agrees with the said Party of the First Part (OWNER) to commence and complete the construction of certain improvements described as follows:

F.M. 428 18-INCH PARALLEL FORCE MAIN

and all extra work in connection therewith, under the terms as stated in the General Conditions of the Agreement and at his (or their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto, and in accordance with the Notice to Contractors, General and Special Conditions of Agreement, Plans and other drawings and printed or written explanatory matter thereof, and the Specifications and addenda therefor, as prepared by **Birkhoff, Hendricks & Carter, L.L.P., Professional Engineers, 11910 Greenville Ave., Suite 600, Dallas, Texas 75243** herein entitled the ENGINEER, each of which has been identified by the CONTRACTOR and the ENGINEER, together with the CONTRACTOR'S written Proposal, the General Conditions of the Agreement, and the Performance and Payment Bonds hereto attached; all of which are made a part hereof and collectively evidence and constitute the entire contract.

The CONTRACTOR hereby agrees to commence work within ten (10) days after the date written notice to do so shall have been given to him, and to complete the same, within **One Hundred Eighty (180) consecutive calendar days,** after the date of the written notice to commence work for the respective sections, subject to such extensions of time as are provided by the General and Special Conditions.

THE OWNER agrees to pay the CONTRACTOR in current funds the price or prices shown in the proposal, which forms a part of this contract, such payments to be subject to the General and Special Conditions of the contract.

IN WITNESS WHEREOF, the parties to these presents have executed this Agreement in the year and day first above written.

City of Aubrey, Texas	
Party of the First Part (OWNER)	Party of the Second Part (CONTRACTOR)
By: _____	**By:** _____
Attest: _____	**Attest:** _____

PERFORMANCE BOND

STATE OF TEXAS }
COUNTY OF DENTON }

Bond #_____

That _____, of the City of _____, County of _____, and State of _____, as principal, , and _____ authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (Owner), in the penal sum of _____ Dollars ($_____) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

Principal has entered into a certain written contract with the Owner, dated the _____ Day of _____, 20_____, to

F.M. 428 18-INCH PARALLEL FORCE MAIN

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform said Contract and shall in all respects duly and faithfully observe and perform all and singular the covenants, conditions and agreements in and by said contract agreed and covenanted by the Principal to be observed and performed, and according to the true intent and meaning of said Contract and the Plans and Specifications hereto annexed, then this obligation shall be void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Texas Government Code, Chapter 2253, as amended, and Article 7.19-1 of the Insurance Code, as amended, and all liabilities on this bond shall be determined in accordance with the provisions of said Article to the same extent as if it were copied at length herein.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed thereunder, or the plans, specifications, or drawings accompanying the same, shall in anyway affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20_____.

Principal	Surety
By: _____	**By:** _____
Title: _____	**Title:** _____
Address: _____	**Address:** _____
_____	_____

The name and address of the Resident Agent of Surety is _____

_____

* Not applicable for federal work. See "The Miller Act," 40 U.S.C. §270.

PAYMENT BOND

STATE OF TEXAS }
COUNTY OF DENTON }

Bond #_____

That _____, of the City of _____, County of _____, and State of _____, as principal, , and _____ authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (Owner), in the penal sum of _____ Dollars ($_____) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

Principal has entered into a certain written contract with the Owner, dated the _____ Day of _____, 20_____, to

F.M. 428 18-INCH PARALLEL FORCE MAIN

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then, this obligation shall be void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Texas Government Code, Chapter 2253, as amended, and Article 7.19-1 of the Insurance Code, as amended, and all liabilities on this bond shall be determined in accordance with the provisions of said Article to the same extent as if it were copied at length herein.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed thereunder, or the plans, specifications or drawings accompanying the same, shall in anywise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20_____.

Principal	Surety
By: _____	**By:** _____
Title: _____	**Title:** _____
Address: _____	**Address:** _____
_____	_____

The name and address of the Resident Agent of Surety is _____

_____

MAINTENANCE BOND

Bond #_____

THE STATE OF TEXAS }
COUNTY OF DENTON }

THAT _____, as Principal, and _____, a Corporation organized under the laws of _____, as sureties, do hereby expressly acknowledge themselves to be held and bound to pay unto the City of Aubrey, a Municipal Corporation, Texas, the sum of _____ Dollars and _____ Cents ($ _____), which this amount is **100** **%** of the total contract amount of ($ _____), for the payment of which sum will and truly be made unto said City of Aubrey, Texas, and its successors, said principal and sureties do hereby bind themselves, their assigns and successors jointly and severally.

THIS obligation is conditioned; however, that whereas, the said _____ has this day entered into a written contract with the said City of Aubrey, Texas to build and construct _____

F.M. 428 18-INCH PARALLEL FORCE MAIN

which contract and the plans and specifications therein mentioned, adopted by the City of Aubrey, Texas are hereby expressly made a part thereof as through the same were written and embodied herein.

WHEREAS, under the plans, specifications, and contract, it is provided that the Contractor will maintain and keep in good repair, the work herein contracted to be done and performed, for a period of two (2) years from the date of final acceptance by the **City of Aubrey, Texas** of said work, and to do all necessary repairs and/or reconstructing in whole or in part of said improvements that should be occasioned by settlement of foundation, defective workmanship or materials furnished in the construction or any part thereof or any of the accessories thereto constructed by the Contractor. It being understood that the purpose of this section is to cover all defective conditions arising by reason of defective material and charge the same against the said Contractor, and sureties on this obligation, and the said Contractor and sureties hereon shall be subject to the liquidation damages mentioned in said contract for each day's failure on its' part to comply with the terms of said provisions of said contract. Now, therefore, if the said Contractor shall keep and perform its' said agreement to maintain said work and keep the same in repair for the said maintenance period of two (2) years, as provided, then these presents shall be null and void, and have not further effect, but if default shall be made by the said Contractor in the performance of its' contract to so maintain and repair said work, then these presents shall have full force and effect, and said **City of Aubrey, Texas** shall have and receive from the said Contractor and its' principal and sureties damages in the premises, as provided; and it is further agreed that this obligation shall be a continuing one against the principal and sureties, hereon, and that successive recoveries may be and had hereon for successive branches until the full amount shall have been exhausted; and it is further understood that the obligation herein to maintain said work shall continue throughout said maintenance period, and the same shall not be changed, diminished or in any manner affected from any cause during said time.

IN WITNESS THEREOF, the said _____ has caused these presents to be executed by _____ and the said _____ has caused these presents to be executed by its' Attorney in fact and the said Attorney in fact _____, has hereunto set his hand, the _____ day of _____, 20_____.

SURETY:

_____

By: _____

WITNESS:

_____

PRINCIPAL:

_____

By: _____

ATTEST:

_____
Secretary

NOTE: Date of Maintenance Bond must not be prior to date of Contract.

CONTRACTOR'S AFFIDAVIT OF FINAL PAYMENT AND RELEASE

THE STATE OF TEXAS §
§
COUNTY OF _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ ("Affiant"), who, after being by me duly sworn, deposes and says that he is _____, of _____ (corporation, partnership, trade name) of _____ County, State of Texas (the "Contractor"), which said Contractor was awarded the contract dated the _____ day of _____ 20 _____, for the construction of **F.M. 428 18-INCH PARALLEL FORCE MAIN** in _____ (the "Work"), for a total consideration of _____ Dollars to be paid to the said Contractor (the "Contract"), and that Affiant has full power of authority to make this affidavit.

That _____ (the "Owner") has approved the final estimate on said Work, and that the said Contractor has fully satisfied and paid any and all claims that may be covered by Chapter 53 of the Texas Property Code, and Article 5160 of the Revised Civil Statutes of the State of Texas, or any other applicable statutes or charter provisions, and that all just bills for labor and materials have been paid and discharged by said Contractor insofar as they pertain to the Work in question.

That in addition to any funds which may have been previously paid by the Owner, the Contractor hereby accepts the amount of _____ Dollars as **FULL AND FINAL PAYMENT** under the aforementioned Contract, and hereby waives and releases any right Affiant and/or the Contractor may have to pursue claims of any nature against the Owner arising out of or in any manner connected with the performance of the Work and/or the Contract, including but not limited to claims of third parties that supplied material and/or labor for the Work for or through the Contractor ("Subcontractors"), as well as claims for delay, additional compensation or for recovery of liquidated damages which may have been withheld by the Owner. The Contractor shall defend, hold harmless and indemnify the Owner from any such claims of such Subcontractors. The Contractor further releases the Owner from any claim or liability arising from any act or neglect of the Owner related to or connected with the Contract. This affidavit is given pursuant to the final payment provisions of the Contract, and shall not be deemed to alter or modify the terms and provisions of said Contract.

_____

By _____
(Affiant)

_____
(Printed Name)

SUBSCRIBED AND SWORN TO BEFORE ME, this the _____ day of _____, A.D. 20_____.

_____
(Notary Public, in and for the State of Texas)

_____
(Printed Name of Notary)

My Commission Expires _____

CERTIFICATE OF INSURANCE(S)

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A :	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	☐ CLAIMS-MADE ☐ OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	☐ POLICY ☐ PRO-JECT ☐ LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ☐ NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						☐ WC STATU-TORY LIMITS ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ **(Mandatory in NH)**		N / A				E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

SAMPLE

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER	CANCELLATION
	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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INSURANCE BINDER

DATE (MM/DD/YYYY)

THIS BINDER IS A TEMPORARY INSURANCE CONTRACT, SUBJECT TO THE CONDITIONS SHOWN ON THE REVERSE SIDE OF THIS FORM.

AGENCY	COMPANY	BINDER #

EFFECTIVE DATE	EFFECTIVE TIME	EXPIRATION DATE	EXPIRATION TIME
	☐ AM ☐ PM		☐ 12:01 AM ☐ NOON

PHONE (A/C, No, Ext):
FAX (A/C, No):
CODE:
SUB CODE:
AGENCY CUSTOMER ID:
INSURED

☐ THIS BINDER IS ISSUED TO EXTEND COVERAGE IN THE ABOVE NAMED COMPANY PER EXPIRING POLICY #:

DESCRIPTION OF OPERATIONS/VEHICLES/PROPERTY (Including Location)

COVERAGES — LIMITS

TYPE OF INSURANCE	COVERAGE/FORMS		DEDUCTIBLE	COINS %	AMOUNT
PROPERTY CAUSES OF LOSS ☐ BASIC ☐ BROAD ☐ SPEC					
GENERAL LIABILITY ☐ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS MADE ☐ OCCUR		EACH OCCURRENCE			$
		DAMAGE TO RENTED PREMISES			$
		MED EXP (Any one person)			$
		PERSONAL & ADV INJURY			$
		GENERAL AGGREGATE			$
	RETRO DATE FOR CLAIMS MADE:	PRODUCTS - COMP/OP AGG			$
VEHICLE LIABILITY ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ☐ NON-OWNED AUTOS	**SAMPLE**	COMBINED SINGLE LIMIT			$
		BODILY INJURY (Per person)			$
		BODILY INJURY (Per accident)			$
		PROPERTY DAMAGE			$
		MEDICAL PAYMENTS			$
		PERSONAL INJURY PROT			$
		UNINSURED MOTORIST			$
					$
VEHICLE PHYSICAL DAMAGE DED ☐ COLLISION: ☐ OTHER THAN COL:	☐ ALL VEHICLES ☐ SCHEDULED VEHICLES	☐ ACTUAL CASH VALUE ☐ STATED AMOUNT			$
GARAGE LIABILITY ☐ ANY AUTO		AUTO ONLY - EA ACCIDENT			$
		OTHER THAN AUTO ONLY: EACH ACCIDENT			$
		AGGREGATE			$
EXCESS LIABILITY ☐ UMBRELLA FORM ☐ OTHER THAN UMBRELLA FORM	RETRO DATE FOR CLAIMS MADE:	EACH OCCURRENCE			$
		AGGREGATE			$
		SELF-INSURED RETENTION			$
WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY		☐ WC STATUTORY LIMITS			
		E.L. EACH ACCIDENT			$
		E.L. DISEASE - EA EMPLOYEE			$
		E.L. DISEASE - POLICY LIMIT			$
SPECIAL CONDITIONS / OTHER COVERAGES		FEES			$
		TAXES			$
		ESTIMATED TOTAL PREMIUM			$

NAME & ADDRESS

	☐ MORTGAGEE ☐ ADDITIONAL INSURED
	☐ LOSS PAYEE
	LOAN #
	AUTHORIZED REPRESENTATIVE

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CONDITIONS

This Company binds the kind(s) of insurance stipulated on the reverse side. The Insurance is subject to the terms, conditions and limitations of the policy(ies) in current use by the Company.

This binder may be cancelled by the Insured by surrender of this binder or by written notice to the Company stating when cancellation will be effective. This binder may be cancelled by the Company by notice to the Insured in accordance with the policy conditions. This binder is cancelled when replaced by a policy. If this binder is not replaced by a policy, the Company is entitled to charge a premium for the binder according to the Rules and Rates in use by the Company.

Applicable in California

When this form is used to provide insurance in the amount of one million dollars ($1,000,000) or more, the title of the form is changed from "Insurance Binder" to "Cover Note".

Applicable in Colorado

With respect to binders issued to renters of residential premises, home owners, condo unit owners and mobile home owners, the insurer has thirty (30) business days, commencing from the effective date of coverage, to evaluate the issuance of the insurance policy.

Applicable in Delaware

The mortgagee or Obligee of any mortgage or other instrument given for the purpose of creating a lien on real property shall accept as evidence of insurance a written binder issued by an authorized insurer or its agent if the binder includes or is accompanied by: the name and address of the borrower; the name and address of the lender as loss payee; a description of the insured real property; a provision that the binder may not be canceled within the term of the binder unless the lender and the insured borrower receive written notice of the cancellation at least ten (10) days prior to the cancellation; except in the case of a renewal of a policy subsequent to the closing of the loan, a paid receipt of the full amount of the applicable premium, and the amount of insurance coverage.

Chapter 21 Title 25 Paragraph 2119

Applicable in Florida

Except for Auto Insurance coverage, no notice of cancellation or nonrenewal of a binder is required unless the duration of the binder exceeds 60 days. For auto insurance, the insurer must give 5 days prior notice, unless the binder is replaced by a policy or another binder in the same company.

Applicable in Maryland

The insurer has 45 business days, commencing from the effective date of coverage to confirm eligibility for coverage under the insurance policy.

Applicable in Michigan

The policy may be cancelled at any time at the request of the insured.

Applicable in Nevada

Any person who refuses to accept a binder which provides coverage of less than $1,000,000.00 when proof is required: (A) Shall be fined not more than $500.00, and (B) is liable to the party presenting the binder as proof of insurance for actual damages sustained therefrom.

Applicable in the Virgin Islands

This binder is effective for only ninety (90) days. Within thirty (30) days of receipt of this binder, you should request an insurance policy or certificate (if applicable) from your agent and/or insurance company.

CONFLICT OF INTEREST QUESTIONNAIRE

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor or other person doing business with local governmental entity

This questionnaire is being filed in accordance with chapter 176 of the Local Government Code by a person doing business with the governmental entity.

By law this questionnaire must be filed with the records administrator of the local government not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. *See* Section 176.006, Local Government Code.

A person commits an offense if the person violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of person doing business with local governmental entity.**

2

☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than September 1 of the year for which an activity described in Section 176.006(a), Local Government Code, is pending and not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)

3 **Describe each affiliation or business relationship with an employee or contractor of the local governmental entity who makes recommendations to a local government officer of the local governmental entity with respect to expenditure of money.**

4 **Describe each affiliation or business relationship with a person who is a local government officer and who appoints or employs a local government officer of the local governmental entity that is the subject of this questionnaire.**

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor or other person doing business with local governmental entity

FORM CIQ
Page 2

5 **Name of local government officer with whom filer has affilitation or business relationship. (Complete this section only if the answer to A, B, or C is YES.)**

This section, item 5 including subparts A, B, C & D, must be completed for each officer with whom the filer has affiliation or business relationship. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income from the filer of the questionnaire?

☐ Yes ☐ No

B. Is the filer of the questionnaire receiving or likely to receive taxable income from or at the direction of the local government officer named in this section AND the taxable income is not from the local governmental entity?

☐ Yes ☐ No

C. Is the filer of this questionnaire affiliated with a corporation or other business entity that the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?

☐ Yes ☐ No

D. Describe each affiliation or business relationship.

6 **Describe any other affiliation or business relationship that might cause a conflict of interest.**

7

_____ _____

Signature of person doing business with the governmental entity Date

FORM 1295 INSTRUCTIONS

Certificate of Interested Parties

www.ethics.state.tx.us/File

Implementation of House Bill 1295

Certificate of Interested Parties (Form 1295):

In 2015, the Texas Legislature adopted House Bill 1295, which added section 2252.908 of the Government Code. The law states that a governmental entity or state agency may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency.

The law applies (with a few exceptions) only to a contract between a business entity and a governmental entity or state agency that either (1) requires an action or vote by the governing body of the entity or agency before the contract may be signed or (2) has a value of at least $1 million. The disclosure requirement applies to a contract entered into on or after January 1, 2016.

Changed or Amended Contracts:

Form 1295 is only required for a change made to an existing contract in certain circumstances: (1) if a Form 1295 was not filed for the existing contract, then a filing is only required if the changed contract either requires an action or vote by the governing body or the value of the changed contract is at least $1 million; or (2) if a Form 1295 was filed for the existing contract, then another filing is only required for the changed contract if there is a change to the information disclosed in the Form 1295, the changed contract requires an action or vote by the governing body, or the value of the changed contract increases by at least $1 million.

As required by law, the Commission adopted the Certificate of Interested Parties form (Form 1295) on October 5, 2015. The Commission also adopted rules (Chapter 46) to implement the law. The Commission does not have any additional authority to enforce or interpret section 2252.908 of the Government Code.

Filing Process:

A business entity must use the Form 1295 filing application the Commission created to enter the required information on Form 1295 and print a copy of the completed form. Once entered into the filing application, the completed form will include a unique certification number, called a “certification of filing.”

An authorized agent of the business entity must sign the printed copy of the form affirming under the penalty of perjury that the completed form is true and correct.

The completed, printed, and signed Form 1295 bearing the unique certification of filing number must be filed with the governmental body or state agency with which the business entity is entering into the contract.

Acknowledgement by State Agency or Governmental Entity:

The governmental entity or state agency must acknowledge receipt of the filed Form 1295 with the certification of filing, using the Commission's filing application, not later than the 30th day after the date the governing body or state agency receives the Form 1295. The Commission will post the completed Form 1295 to its website within seven business days after the governmental entity or state agency acknowledges receipt of the form.

Additional Information:

Section 2252.908, Government Code.

Certificate of Interested Parties (Form 1295)**
****This is a sample form for illustration purposes only. DO NOT FILL OUT THIS SAMPLE FORM. Form 1295 MUST BE FILED ELECTRONICALLY! Paper copies and PDF copies of this sample form are not accepted!**

Chapter 46, Ethics Commission Rules (includes new rule 46.4, regarding changes to contracts, which went into effect on January 1, 2017)

Frequently Asked Questions

Last Revision: December 21, 2017

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. ☐

6 UNSWORN DECLARATION

My name is _____, and my date of birth is _____.

My address is _____, _____, _____, _____, _____.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in _____ County, State of _____ , on the _____ day of _____, 20_____.
(month) (year)

_____
Signature of authorized agent of contracting business entity
(Declarant)

ADD ADDITIONAL PAGES AS NECESSARY

Must file online at www.ethics.state.tx.us/File

CONSTRUCTION STAKING CERTIFICATION

CONSTRUCTION STAKING

Control for the project has been set by the Engineer and control is shown in the Construction Plans.

Contractor shall complete all construction staking. Cut sheets shall be provided to the inspector.

Prior to commencement of the work by the Contractor, the Contractor shall submit an electronic digital file (.DWG or .DXF format) containing a minimum of two Birkhoff, Hendricks & Carter, L.L.P. control points and this certification form stating that the construction staking is tied to the project control points established in the Plans.

The Engineer will review Contractor's electronic survey file to verify that the survey file is tied to the project control.

I, _____ of _____
(Surveyor's Name *(Company)*

certifies that all construction staking is tied to the project control system.

_____	_____	_____
Signature	Date	Printed Name

Note: To be submitted when construction staking control and cut sheet staking commences.

CITY OF AUBREY, TEXAS

GENERAL PROVISIONS
TO THE
NORTH CENTRAL TEXAS STANDARD SPECIFICATIONS
FOR PUBLIC WORKS CONSTRUCTION

PART I - GENERAL PROVISIONS

DIVISION 1: PROPOSAL REQUIREMENTS AND OTHER GENERAL CONDITIONS

The General Provisions of the North Central Texas Standard Specifications shall be modified and clarified by the addition to the following requirements to the various items. Except when specifically stated, none of the requirements of the General Provisions shall be deleted.

ITEM 102.11. REJECTION OF PROPOSALS

Change the second sentence of Item 102.11 to read: "Proposal shall be rejected for any of the following specific reasons, but not necessarily limited thereto:"

ITEM 102.12. DISQUALIFICATION OF BIDDERS

Change the first sentence of Item 102.12 to read, "Bidders may be disqualified and their proposal not considered for any of the following specific reasons, but not necessarily limited thereto:"

ITEM 103.2. AWARD OF CONTRACT

It is the intention of the Owner to award a contract for the work included in this project on the basis of the lowest acceptable bid submitted by a qualified bidder, as determined by the Owner.

Within ten (10) working days after the bid opening, the low bidder shall submit such evidence as the Owner may require establishing the bidder's qualifications to satisfactorily perform the work included in this project. Information that may be required shall include the following:

(1) Current Financial Statement.

(2) Letter of Auditor's opinion.

(3) Previous years Balance Sheet, Income Statement and Change of Financial Position.

(4) List of projects that have been satisfactorily completed by the Bidder that are of the same general type as included in this contract, together with names, addresses and phone numbers or persons familiar with this work.

(5) Other information that may be pertinent to the Bidder's Qualifications.

Should the bidder fail to produce evidence satisfactory to the Owner on any of the foregoing points he may be disqualified and the work awarded to the next bidder so qualifying.

The Owner will notify the successful bidder, in writing, within sixty (60) days after the date of receiving bids, of the acceptance of the proposal. The Contractor or Contractors shall complete execution of the required Bonds and Contract within ten (10) days of such notice.

ITEM 103.3. SURETY BONDS

Performance Payment and Other Bonds

Contractor shall furnish Performance and Payment Bonds as security for the faithful performance and payment of all his obligations under the Contract Documents. These Bonds shall be, at all times, in amounts equal to the total Contract Price (100%), and in such form as set forth in the Contract Documents and with such corporate sureties as are licensed to conduct business in the state where the Project is located and, are named in the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Department. The Performance and Payment Bonds shall be expanded to include any extension of the Contract Period of total Price.

If the surety on any Bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business in terminated in any state where any part of the Project is located in revoked, Contractor shall within five (5) days thereafter substitute another Bond and surety, both of which may be acceptable to the City.

Additional Bonds

Prior to delivery of the executed Contract by City to the Contractor, City may require CONTRACTOR to furnish such other Bonds in such form and with such sureties as the City may require.

ITEM 103.4. INSURANCE

Add the following:

Additional Insurance

Prior to delivery of the executed Contract by City to the Contractor, City may require CONTRACTOR to furnish such additional insurance in such form and with such insurers as the City may require.

ITEM 103.6. NOTICE TO PROCEED AND COMMENCEMENT OF WORK

Upon Owner's receipt of the executed Contract and the required insurance and surety bonds, a Notice to Proceed shall be issued by the Owner indicating the date upon which the Contract time shall start and the projected date of completion. The Owner will attempt to provide the work order within the time specified in the Specifications. The Contractor shall commence work within 10-days from the date specified in the written work order. No work shall commence before the notice to proceed has been issued.

ITEM 104.2. CHANGE OF MODIFICATION OF CONTRACT

Item 104.2.3. Extra Work

No work shall be undertaken which requires extra payment without having an executed change order approved by the Contractor and the Owner, except when so ordered in writing.

ITEM 105.1. CONTRACT OF DOCUMENTS

Item 105.1.1. Priority of Contract Documents

Revise this item to read:

In case of conflict between contract documents, priority of interpretation shall be in the following order: signed agreement, performance and payment bonds, addenda, special conditions, project drawings and specifications, City of Aubrey

Special Provisions to the Standard Specifications for Public Works Construction - North Central Texas, standard drawings, advertisement for bids, contractor's bid proposal and bid form.

Item 105.1.3. Contract Drawings and Specifications

In general, the number of copies of the plans and specifications furnished to the Contractor shall be limited to five (5). Additional copies may be obtained at cost of reproduction.

ITEM 105.2. WORKMANSHIP, WARRANTIES AND GUARANTEES

Item 105.2.2. Special Warranty

Add the following:

The Contractor shall provide a Maintenance Bond in the amount of one hundred percent (100%) of the total amount of the contract guaranteeing the work in accordance with the plans and specifications for a period of two (2) years after acceptance by the City of Aubrey. This bond shall provide for repair and/or replacement of all. defects due to faulty material and workmanship that appear within a period of two (2) years from the date of completion and acceptance of the improvements by the City of Aubrey.

ITEM 105.3 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

Review of Shop Drawings by the Engineer shall be of the sole purpose of determining the sufficiency of the said drawings or schedules to result in finished improvements in conformance with the plans and specifications, and shall not relieve the Contractor of his duty as an independent contractor. It being understood and agreed that the Engineer does not assume any duty to pass upon the propriety or adequacy of such drawings or schedules or any means or methods reflected thereby in relation to the safety of either person or property during the Contractor's performance hereunder.

ITEM 105.4 CONSTRUCTION STAKES

Delete this section in its entirety. The Contractor shall be responsible for setting any field construction staking.

ITEM 105.9. INSPECTION

Item 105.9.2 Final Inspection

Within ten (10) days after the Contractor has given the Engineer written notice that the work has been completed, or substantially completed, the Engineer and the Owner shall inspect the work and within said time, if the work be found to be completed or substantially completed in accordance with the Contract Documents, the Engineer shall issue to the Owner and the Contractor his Certificate of Completion, and there upon it shall be the duty of the Owner within ten (10) days to insure a Certificate of acceptance of the work to the Contractor or to advise the Contractor in writing of the reason for non-acceptance.

ITEM 105.10 ACCEPTANCE

Within ten (10) days after the Contractor has given the Engineer written notice that the work has been completed, or substantially completed, the Engineer and the Owner shall inspect the work and within said time, if the work be found to be completed or substantially completed in accordance with the Contract Documents, the Engineer shall issue to the Owner and the Contractor his Certificate of Completion, and there upon it shall be the duty of the Owner within

ten (10) days to insure a Certificate of acceptance of the work to the Contractor or to advise the Contractor in writing of the reason for non-acceptance.

Definition of Substantially Complete: The date of substantial completion of a project or specified area of a project is the date when the construction is sufficiently completed, in accordance with the contract documents, as modified by any change order agreed to by the parties, so that the Owner can occupy or utilize the project or specified area of the project for the use for which it was intended.

ITEM 107.2. INDEMNIFICATION

Delete Item 1.22.2 in its entirety and substitute therefore the following:

The Contractor and his sureties shall indemnify, defend and save harmless the OWNER and all of its officers, agents and employees, ENGINEER and all of its officers and employees from all suits, actions or claims of any character, name and description brought for or on account of any injuries, including death or damages received or sustained by any person, persons or property on account of the operations of the Contractor, his agents, employees or subcontractors; or on account of any negligent act or fault of the Contractor, his agents, employees or subcontractors in the execution of said contract; or on account of the failure of the Contractor to provide the necessary barricades, warning lights or signs; and shall be required to pay any judgment, with cost, which may be obtained against the Owner or Engineer growing out of such injury, including death or damage.

ITEM 107.9. PERFORMANCE OF THE WORK

Add the following to the end of the first paragraph: "regardless of the expected completion date set forth in the Contract Documents."

At such time as actual construction has been started, the work will not be stopped or delayed without written permission of the Owner, excluding delays caused by adverse weather conditions. The Contractor shall maintain at all times sufficient equipment and personnel on the project to produce satisfactory progress during the construction period.

ITEM 107.13. EQUAL EMPLOYMENT OPPORTUNITY

Delete the last paragraph in this item in its entirety (107.13.5. – Reports).

ITEM 107.14. STATE AND LOCAL SALES AND USE TAXES

The OWNER qualifies for exemption from the state and local sales and use taxes, pursuant to the provisions of Section 151.309 of the Texas Limited Sales, Excise and Use Tax Act. Therefore, the Contractor shall not pay such taxes which would otherwise be payable in connection with the performance of this contract.

The Contractor shall issue an exemption certificate in lieu of the tax on the purchase, rental or lease of:

a) all materials, supplies, equipment and other tangible personal property incorporated into the real property being improved; and

b) all materials, supplies, equipment and other tangible personal property used or consumed by the Contractor in performing the contract with the Owner.

Materials and supplies "used in the performance of a contract" include only those materials actually incorporated into the property being improved and those supplies directly used to incorporate such materials into the property being improved. Overhead supplies and supplies

used indirectly or only incidental to the performance of the contract with the Owner are not included in the exemption.

Under "reasons said purchaser is claiming this exemption: in the exemption certificate, the Contractor must name the Owner and the project for which the equipment, materials and supplies are being purchased, leased or rented.

ITEM 107.19. PROTECTION OF WORK AND OF PERSONS AND PROPERTY

Item 107.19.2. Protection of Persons and Property

The Contractor shall at all times exercise reasonable precautions for the safety of employees and others on or near the work and shall comply with all applicable provisions of Federal, State, and Municipal safety laws and building and construction codes. All machinery and equipment and other physical hazards shall be guarded in accordance with the "Manual of Accident Prevention in Construction" of the Associated General Contractors of America except where incompatible with Federal, State, and Municipal laws or regulations. The Contractor shall provide such machinery, guards, safe walkways, ladders, bridges, gangplanks, and other safety devices. The safety precautions actually taken and their adequacy shall be the sole responsibility, of the Contractor, acting at his discretion as an independent contractor.

MATERIALS AND CONSTRUCTION METHODS

STANDARDS:

All work included as a part of this contract shall be performed in accordance with the Standard Specifications for Public Works Construction - North Central Texas, 4"' Edition, dated 2004, except where noted otherwise in the City of Aubrey's supplemental "Special Provisions", the Special Conditions, and the Special Specifications included in these Specifications and Contract Documents.

NOTE: The * symbol specifies that this item is also covered in the City of City of Aubrey's "Special Provisions" to the "Standard Specifications for Public Works Construction, North Central Texas". These Special Provisions are additional and modify the "Standard Specifications".

Item # Subject

DIVISION 200 – SITE PROTECTION & PREPARATION

201. Temporary Erosion, Sedimentation & Water Pollution Prevention & Control

201.1. Description
201.2. Items of Work and Materials
201.3. Pre-construction Submittals
201.4. Construction Requirements
201.5. Silt Fence
201.6. Interceptor Swale
201.7. Diversion Dike
201.8. Triangular Sediment Filter Dike
201.9. Check Dam (Rock)
201.10. Check Dam (Sandbag)
201.11. Stabilized Construction Entrance
201.12. Stone Outlet Sediment Trap
201.13. Pipe Slope Drain
201.14. Inlet Protection
201.15. Erosion Control Blankets
201.16.*Mulching
201.17. Measurement and Payment

202. Landscaping

202.1. Removal, Protection & Replacement of Trees, Shrubbery, Plants, Sod, and Other Vegetation
202.2. Topsoil
202.3. Soil Amendments
202.4. Fertilizer
202.5. Sodding
202.6.* Seeding Turf-grass
202.7. Rejection

203. Site Preparation

203.1. Determining Location & Protection of Existing Structures and Utilities
203.2. Maintenance of Streets During Construction
203.3. General Site Preparation
203.4. Unclassified Street Excavation

Item # Subject

203.5. Unclassified Channel Excavation
203.6. Borrow
203.7.* Embankment
203.8 Dust Control

DIVISION 300 — ROADWAY CONSTRUCTION

301. Subgrade, Subbase & Base Preparation

301.1. General
301.2.* Lime Treatment
301.3.* Portland Cement Treatment
301.4. Asphalt Emulsion Treatment
301.5. Flexible Sub-base or Base (Crushed Stone / Concrete)
301.6. Geo-textiles Used in Paving Applications

302. Asphalt Pavement

302.1. Description
302.2. Aggregates for Hot-Mix Asphalt pavement
302.3. Bituminous Materials
302.4. Fibrous Reinforcement for Asphalt
302.5. Storage, Heating & Application Temperature of Bituminous Materials
302.6. Emulsified Asphalt Treatment
302.7. Prime Coat
302.8. Asphalt Base Course
302.9. Hot-Mix Asphalt Pavement
302.10. Measurement and Payment

303. Portland Cement Concrete Pavement

303.1. Description
303.2.* Portland Cement Concrete Pavement Materials
303.3. Mix Design and Mixing Concrete
303.4. Equipment
303.5. Construction Methods
303.6. Alley Paving
303.7. Pavement Leave-outs
303.8.* Pavement Testing and Evaluation
303.9. Measurement and Payment

Item # Subject

304. PAVING UNITS
304.1. Solid Concrete Interlocking Paving Units
305. Miscellaneous Roadway Construction
305.1.* Concrete Curb and Gutter
305.2. Concrete Sidewalks, Driveway Approaches, and Barrier Free Ramps
305.3. Concrete Medians
305.4. Reinforced Concrete Headers

DIVISION 400 – ROADWAY MAINTENANCE & REHABILITATION

401. Crack Sealing
401.1. General
401.2. Materials
401.3. Methods
402. Pavement Cut, Excavation and Repair
402.1. General Requirements
402.2. Minimum Size of Repair
402.3. Sawing
402.4. Replacing Paved Surfaces
403. Asphaltic Pavement Repair
403.1. Description
403.2. Materials and Mixing
403.3. Methods
403.4. Measurement and Payment
404. Surface Treatment
404.1. Description
404.2. General
404.3. Slurry Seals and Micro-(Re)Surfacing
404.4. Bituminous Surface Treatment (Chip Seal)
405 Ultra-Thin Concrete Paving (White Topping)
405.1. Description
405.2. Materials
405.3. Construction Methods
405.4. Measurement
405.5. Payment

DIVISION 500 – UNDERGROUND CONSTRUCTION & APPURTENANCES

501.* Underground Conduit Materials
501.1. General
501.2. Clay Wastewater Pipe
501.3. Vitrified Clay Pipe for Micro-tunneling, slip-lining, Pipe Bursting, and Tunnels
501.4.* Concrete Pressure Pipe and Fittings
501.5.* Reinforced Concrete Wastewater Pipe with Rubber Gasket Joints
501.6. Reinforced Concrete Culvert, Storm Drain, Pipe and Box Section

Item # Subject

501.7.* Ductile-Iron Pressure Pipe and Fittings
501.8. Ductile-Iron Pipe for Pipe Rehabilitation
501.9.* Steel Pipe and Fittings
501.10. Seamless Copper Tubing
501.11. Corrugated Metal Pipe or Arch Shapes
501.12. Structural Plate Structures
501.13. Tunnel Liner Plates
501.14. Polyvinyl Chloride (PVC) Water Pipe
501.15. Polyvinyl Chloride (PVC) Pressure-Rated Pipe (SDR Series)
501.16. Molecularly Oriented Polyvinyl Chloride (PVCO) Water Pipe
501.17. Polyvinyl Chloride (PVC) Wastewater Pipe & Fittings with Dimension Control
501.18. Polyvinyl Chloride (PVC) Profile Gravity Wastewater Pipe and fittings – for Direct Bury and Slip-lining Applications
501.19. PVC Composite Pipe for Wastewater Conduits
501.20. Polyvinyl Chloride (PVC) Corrugated Storm Water Pipe with Smooth Interior and Fittings
501.21. Solid Wall Polyethylene Plastic Pipe for Water, Wastewater, and Pipe Rehabilitation
501.22. Polyethylene (PE) Large Diameter Wastewater Pipe with Modified Wall Profiles & Performance Standards
501.23. Polyethylene (PE) Corrugated Drainage Tubing and Corrugated Smooth Lined Storm Water Pipe and Fittings
501.24. Fiberglass (Glass-Fiber-Reinforced Thermosetting-Resin) Wastewater Pipe
502. Appurtenances
502.1. Manholes
502.2. Wastewater Main Cleanouts
502.4. Thrust Restraint
502.5. Fittings
502.6* Valves
502.7. Performed Flexible Conduit Joint Sealant
502.8. Polyethylene Wrap for Metal Pipe Fittings
502.9. Corrosion-Resistant Coatings and Liners for Wastewater Conduit and Appurtenances
502.10. Connections to Conduit for Service
502.11. Miscellaneous Conduit Connections
502.12 Structures
503. Trenchless Installation
503.1. Conduit Materials
503.2. Tunnel/Chasing Pipe Spacers
503.3. Methods of Jacking, Boring or Tunneling

Item # Subject
503.4. Measurement and Payment
504 Open Cut - Backfill
504.1. General
504.2. Materials
504.3.* Excavation and Foundation
504.4.* Backfill-General Requirements
504.5. Embedment
504.6. Final Backfill
504.7. Measurement and Payment
505. Open Cut – General Conduit Installation
505.1. General
505.2. General Installation Requirements for Pipe Types
506.* Open Cut – Water Conduit Installation
506.1. General
506.2. General Installation Requirements for Pipe Types
506.3. Laying Water Conduit
506.4. Pipe Joints
506.5. Hydrostatic Test
506.6. Connections to Existing Water Conduits
506.7. Purging and Disinfection of Water Conduits
506.8. Plugs
506.9. Measurements and Payment
507. Open Cut – Wastewater Conduit Installation
507.1. Description
507.2. Materials
507.3. Laying Wastewater Conduit
507.4. Wastewater Conduit Joints
507.5. Test and Inspection
507.6. Measurement and Payment for Wastewater Conduit Installation
508. Open Cut – Storm Water Conduit Installation
508.1. Description
508.2. General
508.3. Reinforced Concrete pipe for Storm Water
508.4. Corrugated Metal Pipe
508.5. Structural Plate Conduit
508.6. Measurement and Payment for Storm Water Conduit Installation
509. Crossings
509.1. General
509.2. State Highway Crossings

Item # Subject
509.3. Street and Alley Crossings
509.4. Railroad Crossings
509.5. Creek and River Crossings
509.6. Measurement and Payment of Crossings
DIVISION 800 – MISCELLANEOUS CONSTRUCTION & MATERIALS
801. Barriers, Warning & Detour Signs & Fences
801.1. Barriers and Warning and/or Detour Signs
801.2. Metal Beam Guard Fence
801.4. Chain Link Fence
801.5* Wire Fence
802. Steps and Retaining Walls
802.1. Concrete Steps
802.2. Concrete Retaining Walls
802.3. Segmental Retaining Wall Systems
802.4. Cofferdams
803. Slope and Channel Protection
803.1. Articulating Concrete Block
803.3. Riprap
803.4. Geotextiles Used in Drainage and Stabilization Applications
804. Painting and Other Protective Treatments; Pavement Marking
804.1. Description
804.2. Painting and Marking
804.3. Galvanizing
804.4. Measurement and Payment
805.* Electrical Components and Conduit
805.1. Description
805.2. General Requirements for Electrical Components
805.3* Materials
805.4. Conduit Construction Methods
805.5. Measurement and Payment
806 Metals Materials
806.1. General
806.2. Structural Steel
806.3. Forgings
806.4. Castings
806.5. Copper
806.6. Bolts, Nuts, and Washers

CITY OF AUBREY, TEXAS

GENERAL PROVISIONS
TO THE
NORTH CENTRAL TEXAS STANDARD SPECIFICATIONS
FOR PUBLIC WORKS CONSTRUCTION

MATERIALS AND CONSTRUCTION METHODS

The North Central Texas Standard Specifications shall be modified and clarified by the addition of the following requirements to the various items. Except when specifically stated, none of the requirements shall be deleted.

DIVISION 200 – SITE PROTECTION AND PREPARATION

ITEM 201.16 MULCHING

Slope and drainage channel seeding shall be in conformance with Item 201.16. Hydromulch Seeding mixture and rate shall be as required under Item 202.6:

ITEM 202.2 TOPSOIL

202.2.3. Construction Methods

Add the following:

A minimum of four (4) inches of topsoil shall be provided on all major thoroughfare medians and rights-of-way and on all earthen channel slopes. This will be material imported from off site. The City will approve material prior to placement.

ITEM 202.6 SEEDING TURF-GRASS

Delete the mixture, rate, and planting dates and substitute:

Type I Unhulled Perennial Bermuda: Reserve and Spangle Top Grass Seeds (September – March)

Type II: Perennial Bermuda Grass – Unhulled: (April – August)

A mix of seed shall be used in overlapping seasons.

202.6.4 Construction Methods

Add as follows:

All seeding operations shall be performed by either "Drilling" or "Cultipacker" process or approved equivalent. Seed shall be covered by + ¼" Topsoil.

202.6.4.1 Description

Add the following:

The Contractor shall maintain the seeded areas including watering until a "Stand of Grass" is obtained. A "Stand of Grass" shall consist of **75% to 80%** coverage, a minimum of one (1) inch in height. Re-seeding will be required in washed areas.

ITEM 203.3 GENERAL SITE PREPARATION

203.3.2 Construction Methods

Add the following: Unless otherwise approved in writing by the City of Aubrey, where excavation to grade established in the field by the Owner terminates in loose or solid rock, the Contractor shall excavate 6-inches below the required subgrade elevations for the entire roadbed width and shall backfill with suitable selected materials as indicated on the plans. Suitable selected material shall include lime treated subgrade or a base material having a plasticity, index not greater than 12. Payment for such work will be made under the items of unclassified street excavation, lime treated subgrade and hydrated lime. The 6-inch lime treated subgrade or base shall be compacted to 95% density.

ITEM 203.7 EMBANKMENT

203.7.2 Construction Methods

Add the following paragraph: Excavated material from the channel which is used as embankment to complete the established alignment, grade and cross-section of the channel shall be compacted to 95% density.

203.7.3 Density

Add: Embankment in the City of Aubrey shall be compacted to not less than 95% of the maximum density.

DIVISION 300 – ROADWAY CONSTRUCTION

ITEM 301 SUBGRADE, SUB-BASE & BASE PREPARATION

301.1 General

Construction Methods

Add the following: Prior to final compaction of subgrade, samples of the subgrade material shall be collected by a testing laboratory approved by the City, and laboratory tests made to determine the amount of lime required.

The application rate for hydrated lime shall be selected to obtain at least the optimum lime percentage indicated by test method ASTM C977-83a, Appendix Xl; however, not less than 27 lbs. per S.Y. shall be applied. A Geotechnical Engineer's report reflecting the recommended application rate and including supporting test data shall be submitted in writing to the City, for approval prior to beginning any lime treatment. Laboratory test may be waived provided a minimum of 36 lbs. per S.Y. is applied.

ITEM 301.2 LIME TREATMENT (Add the following)

The lime treated subgrade shall be moist cured until covered by other base or pavement up to fourteen (14) days after final compaction. After 14 days without covering an application of 0.10 to 0.20 gallons per square yard emulsified asphalt shall be applied at the Contractor's expense. Reapplication of emulsified asphalt may be required if lime treated subgrade is not covered shortly after first application. Lime treated subgrade may be covered by other base or Pavement when density of 95% of maximum at optimum moisture content is obtained.

301.2.1.2 Quicklime (dry) shall not be used in the construction of roadway work in the City.

ITEM 301.3 PORTLAND CEMENT TREATMENT

Add the following: Portland cement modification of subgrade soils is not approved in Aubrey. Subgrade soils means natural ground or embankment encountered in the construction.

ITEM 301.5 FLEXIBLE SUB-BASE OR BASE (CRUSHED STONE / CONCRETE)

General: Add the sentence: No local limestone material shall be used as flexible base (crushed limestone) on Aubrey paving projects, unless. otherwise shown on the plans.

ITEM 302 ASPHALT PAVEMENT

ITEM 302.2 AGGREGATE FOR HOT-MIX ASPHALT PAVEMENT

Central Mixing Plant

Add the following: When a fly ash admixture is used with Type I cement in the production of Portland cement concrete, separate silos shall be provided for fly ash and cement and provisions shall be made for individual measurements.

Finishing

Add the following: The finished concrete pavement construction under these specifications is expected to meet certain quality standards for surface of the concrete including the durability, texture, riding surface and appearance. The surface must be durable, firm, dense and well bonded to the aggregate to maintain an appearance and texture which is satisfactory to the Owner. Concrete pavement having a poor surface which has spalled (exposed aggregate) due to poor quality paste, high water-cement ratio, over-vibration, improper curing, extreme weather or any other reason, or does not have a satisfactory riding surface shall be removed and replaced at the Contractor's expense. It is extremely important that the Pavement have a good rideable surface, free from undulations and rough joints. The City Engineer shall determine the acceptability of the Pavement.

- Machine Finishing

  Machine finishing of pavement shall include the use of power-driven spreaders, reciprocating type power-driven vibrators, power-driven transverse strike-off, and screed.

  The concrete pavement shall be consolidated by a reciprocating type mechanical vibrator. As soon as the concrete has been spread between the forms, the mechanical vibrator shall be operated to consolidate the concrete and remove all voids. Hand manipulated vibrators shall be used for areas not covered by the mechanical vibratory unit.

  The transverse finishing machine shall first be operated to compact and finish the pavement to the required section and grade, without surface voids. The machine shall be operated over each area as many times and at such intervals as directed. At least two trips will be required and the last trip over a given area shall be a continuous run of not less than 40 feet. After completion of finishing with the transverse finishing machine a transverse drag float may be used.

  After the floating has been completed and the excess water removed, but while the concrete is still plastic, the surface of the concrete shall be tested for trueness with an approved 10-foot steel straightedge furnished by the Contractor. The straightedge shall be operated from the side of the pavement, placed parallel to the pavement centerline and passed across the slab to reveal any high sports or depressions. The straightedge shall be advanced along the pavement in successive stages of not more than one-half its length. Practically perfect contact of the straightedge with surface will be required, and the pavement shall be leveled to this condition, in order to insure conformity with the surface test required below after the pavement has fully hardened and to insure a smooth rideable surface. Any correction of the surface required shall be accomplished by adding concrete if required and by operating the longitudinal float over the area. The surface test with the straightedge shall then be repeated.

  After completion of the straightedge testing and surface correction the surface of the pavement shall be finished by an approved method. Methods available for pavement surface finish

including a burlap drag finish, a broom finish or a belt finish. Unless otherwise shown on the plans, the pavement surface shall be finished with the burlap drag.

a. Burlap Drag Finish

If the surface texture is to be a drag finish, a drag shall be used; it shall consist of a seamless strip of damp burlap or cotton fabric, and it shall produce a uniform surface of gritty texture after dragging it longitudinally along the full width of pavement. For pavement 16 feet or more in width, the drag shall be mounted on a bridge which travels on the forms. The diameter of the drag shall be such that a strip of burlap or fabric at least 3 feet wide is in contact with the full width of pavement surface while the drag is used. The drag shall consist of not less than two layers of burlap with the bottom layer approximately 6 inches wider than the upper layer. The drag shall be maintained in such a condition that the resultant surface is of uniform appearance and reasonably free from gravels over 1/16-inch in depth. Drags shall be maintained clean and free from encrusted mortar. Drags that cannot be cleaned shall be discarded and new drags substituted.

b. Broom Finish

If the surface texture is to be broom finished, it shall be applied when the water sheen has practically disappeared. The broom shall be drawn from the. center to the edge of the pavement with adjacent strokes slightly overlapping. The broom operation shall be so executed that the corrugation. produced in the surface shall be uniform in appearance and not more than 1/16-inch in depth. Brooming shall be completed before the concrete is in such condition that the surface will be torn or unduly roughened by the operation. The surface thus finished shall be free from rough and porous areas, irregularities, and depressions resulting from improper handling of the broom. Brooms shall be of the quality, size, and construction and shall be operated to produce a surface finish meeting the approval of the Owner. Subject to the approval of the Owner, the Contractor may be permitted to substitute mechanical brooming in lieu of the manual brooming as herein described.

c. Belt Finish

If the surface texture is to be belt finish, when straightedging is completed and after sheen has practically disappeared and just before the concrete becomes non-plastic, the surface shall be belted with a 2-ply canvas belt not less than 8 inches wide and at least 3 feet longer than the pavement width. Hand belts shall have suitable handles to permit controlled, uniform manipulation. The belt shall be operated with short strokes transverse to the centerline and with a rapid advance parallel to the centerline.

- Hand Finishing

Hand finishing of concrete pavement will be' permitted in areas where it is not practical or possible to construct with finishing machines. These areas include, but are not limited to, intersections, left turn, lanes, crossovers, transition areas and where the pavement width is not uniform. In all hand finished areas, one-half (½) extra sack of cement per cubic yard of concrete shall be used in the mix. In hand finished areas, the concrete shall be struck off with an approved strike-off screed to such elevation that when consolidated and finished the surface of the pavement shall conform to the required section and grade. The strike template shall be moved forward with a combined transverse and longitudinal motion in the direction the work is progressing, maintaining a slight excess of material in front of the cutting edge. The concrete shall then be tamped with an approved tamping template to compact the concrete thoroughly and eliminate surface voids and the surface screeded to required section. After completion of a strike-off, consolidation and transverse screeding, a hand-operated longitudinal float shall be operated to test and level the surface to the required grade.

Workmen shall operate the float from approved bridges riding on the forms and spanning the pavement. The longitudinal float shall be held in contact with the surface and parallel to the centerline and operated with short longitudinal strokes while being passed from one side of the pavement to the other. If contact with the pavement is not made at all points, additional concrete shall be placed, if required, and screeded, and the float shall be used to produce a satisfactory surface. Care shall be exercised to keep the ends of the float from digging into the surface of the pavement. After a section has been smoothed so that the float maintains contact with the surface at all points in being passed from one side to the other, the bridges may be moved forward half the length of the float and the operation repeated. Other operations and surfaces tests shall be as required for machine finishing.

- Edging at Forms and Joints

After the final finish, but before the concrete has taken its initial set, the edges of the pavement along each side of each slab, and on each side of transverse expansion joints, formed joints, transverse construction joints, and emergency construction joints shall be worked with an approved tool and rounded to the radius required by the plans. A well-defined and continuous radius shall be produced and a smooth, dense mortar finish obtained. The surface of the slab shall not be unduly disturbed by tilting of the tool during use.

At all joints, any tool marks appearing on the slap adjacent to the joints shall be eliminated by brooming the surface. In doing this, the rounding of the edge shall not be disturbed. All concrete on top of the joint filler shall be completely removed.

All joint shall be tested with a straightedge before the concrete has set, and correction shall be made if one side of the joint is higher than the other or if they are higher or lower than the adjacent slabs.

ITEM 303 PORTLAND CEMENT CONCRETE PAVEMENT

ITEM 303.8 PAVEMENT TESTING AND EVALUATION

303.8.2 Pavement Thickness Test

Delete in its entirety and substitute therefore the following:

Upon completion of the work and before final acceptance and final payment shall be made, pavement thickness tests shall be made by the Contractor. Tests shall be made at 400-foot spacings along the length of the pavement. In the event a deficiency in the thickness of pavement is revealed, two (2) subsequent sets necessary to isolate the deficiency shall be made - one at a jointed section prior to the deficient station and one at a jointed section following the deficient station. Additional tests shall be obtained as necessary, at jointed section intervals to isolate the deficient area. Removal and replacement of concrete shall extend to joint boundaries, the full width of pavement section. If the average thickness of pavement in a particular section is less than called for on the plans, the pavement section shall be removed and replaced with the correct thickness, extending to joint boundaries, the full width of the pavement section, at the Contractor's entire expense. No additional payment over the contract unit price shall be made for any pavement of a thickness exceeding that required on the plans.

303.8.3 Pavement Strength Test

Revise the first paragraph to read: During the progress of the work, the Inspector or a commercial laboratory shall cast test cylinders or beams to maintain a check on the strengths of the concrete being placed. Add the following sentence and table: A table titled "PAVEMENT STRENGTH REQUIREMENTS", is provided showing the required pavement thickness, 7-day strength, 28-day strength, minimum cement factor and

maximum slump for each street type to be constructed in Aubrey. Requirements for high strength pavement and less thickness is also shown if required by the City.

Add to the 5th paragraph: Test cores shall be obtained within five (5) working days after the 28-day test results have been provided by the commercial laboratory. All test cores shall be obtained by a commercial laboratory, at the Contractors expense. One (1) core shall be obtained in the immediate area of the deficiency and two (2) additional cores shall be obtained - one at a jointed section prior to the deficient station and one at a jointed section following the deficient station. Additional cores shall be obtained as necessary, at jointed section intervals to isolate the deficient area. Removal and replacement of concrete shall extend to joint boundaries, the full width of pavement section.

Amend the 2nd paragraph on Page 217 to read "Pavement not meeting the minimum specified 28-day strength after cores have been tested shall be removed and replaced at the Contractor's expense." Delete the table and the paragraph below it.

PAVEMENT STRENGTH REQUIREMENTS

Item No.	Street Type	Street Width (F-F)	Thick-ness	Compr. 7-Day	Strength 28-Day	Mm. Cement	Max. Slump
1.	Principal Arterial, Minor Arterial	2-33' & 2-24'	8"	2940	4,000	6.5	3"
2.	Collector (including office and comm. Street)	44' to 36'	8"	2500	4,000	6.0 ,	3"
3.	Residential •	28'	6"	2500	4,000	6.0	3"

ITEM 305 MISCELLANEOUS ROADWAY CONSTRUCTION

ITEM 305.1 CONCRETE CURB AND GUTTER

305.1.3.2 Reinforcing Steel

All bars at splices shall be lapped a minimum of 30 diameters of the bar or 12-inches, whichever is greater.

ITEM 305.2 CONCRETE SIDEWALKS, DRIVEWAY APPROACHES, & BARRIER FREE RAMPS

305.2.2.2 Reinforcement

Revise the first sentence to read:

Driveway approaches and walk reinforcing shall be No. 3 bars on 24-inch centers.

305.2.3 Construction Methods

General: Add to end of first paragraph:

The drive approach shall have a minimum thickness equal to the thickness of the adjacent street or 8 inches, whichever is greater.

305.2.3.7 Joints

Revise second sentence to read:

Expansion joints shall be placed in the sidewalk at 20-foot intervals or as otherwise specified by the Owner.

DIVISION 500 – UNDERGROUND CONSTRUCTION & APPURTENANCES

ITEM 501 UNDERGROUND CONDUIT MATERIALS

ITEM 501.4 CONCRETE PRESSURE PIPE AND FITTINGS

C302 Reinforced Concrete Pressure Pipe, Non Cylinder Type, for Water and Other Liquids, and C300 Reinforced Concrete Pressure Pipe, Steel Cylinder Type, for Water and Other Liquids are not approved for use in the City, unless otherwise shown in the plans or approved in writing. Reinforced concrete cylinder pipe in sizes 16 inches through 21 inches shall be Pretensioned Pipe Type C303. For pipe 42 inches in diameter and above the pipe shall be Prestressed Pipe Type C301. Between 24 inches and 36 inches the pipe furnished may be either type. All pipe shall be designed to withstand the working pressure and external load as shown in the plans.

ITEM 501.5 REINFORCED CONCRETE WASTEWATER PIPE WITH RUBBER GASKET JOINTS

ASTM Designation C76 and shall be of the Thick Wall Pipe design with aggregates consisting of limestone aggregate in the proportion of at least 75 percent by weight of the total aggregates, unless otherwise provided in the Special Conditions to the Specifications.

ITEM 501.7 DUCTILE-IRON PRESSURE PIPE AND FITTINGS (Add the Following)

Minimum design thickness for all Ductile-Iron Pipe installed shall be Class 50 on sizes 12 inches and smaller, and Class 51 on sizes 14 inches and larger.

ITEM 501.9 STEEL PIPE AND FITTINGS

501.9.2 Applicable Standard Specifications (Add the following)

Contractor shall, submit a written certification that the pipe has been manufactured and tested in accordance with the applicable standards.

The pipe shall be manufactured, fabricated, coated and lined by a single manufacture being a certified member in good standing of the Steel Plate Fabricators Association (SPFA).

501.9.3 Pipe and Fitting Requirements

Substitute the following for the sentence following (2) Wall Thickness: All steel pipe to be furnished for this project shall be designed in accordance with AWWA Ml 1 for the most critical application of internal pressures and external loads. The following design conditions shall apply:

Internal Pressure (Design to account for working and surge together)

1) Working Pressure of 200 psi
2) Surge allowance of 250 psi

External Loading for Buried Pipe

1) External loads shall be comprised of the weight of the backfill together with live and' impact loads. Earth loads shall be calculated based on ditch and positive projecting conduit. The earth load for the pipe design shall be the greater of the above two conditions.
2) External live loads shall be at least equivalent to AASHTO HS-20 loading.
3) Modulus of soil reaction (E') < 1000 psi
4) Unit weight of fill (w)> 120 pcf
5) Deflection lag factor (Dl) (1.0)

6) Bedding constant (K) = 0.100

7) hw = h = depth of cover above top of pipe

8) Maximum deflection in percent of pipe diameter 'shall be ad determined by AWWA Ml 1, latest edition, as calculated using moment of inertia of steel cross section of pipe wall. Moment of inertia of cement mortar shall not be included in calculation of maximum deflection.

Available Deflections

Mortar-lined and coated = 2 percent of pipe diameter

Maximum Working Stress

The maximum combined stress based on working pressure shall be no greater than 50 percent of the minimum yield strength or 18,000 psi, whichever is less.

The maximum combined stress based on test pressure shall be no greater than 75 percent of the minimum yield strength or 24,000 psi, whichever is less.

501.9.4 Joints: Add the following:

In general, pipe joints shall be as follows, as indicated on the Drawings or as specified.

1) Flanged joints shall be provided as a minimum at all flanged valves, meters and other equipment.

   a. Flanges: Unless otherwise noted, flanges shall conform to the requirements of AWWA C207, Table D, E or F as required.

   b. Flange Bolts and Nuts: Shall be furnished in size and numbers stipulated in AWWA C207. Unless otherwise indicated, bolts shall be carbon steel to meet the requirements of ASTM Designation A307, Grade B for regular joints.

2) Restrained Lap-Welded slip joints (expanded bell) with a single fillet weld.

3) Carnegie-Shape Rubber Gasket Joint: Bell and spigot rubber gasket joint will be furnished with the bell end of the pipe mechanically expanded to the required internal diameter and the spigot end furnished as a sized Carnegie shape welded to the opposite end of the pipe. The expanded bell and Carnegie spigot shall be designed such that when the pipe is laid and jointed, it will be self-centered, and the 0-ring rubber gasket will be enclosed tightly on all four sides and confined under compression adequate to ensure watertightness. Gaskets to be full-face for use with flat face flanges and ring type for use with raised face flanges. Gasket material for water service pipe shall be cloth inserted rubber sheet, 1/8-inch thick or red rubber, ASTM D1330, Grade 1. Gasket material for air piping shall be as above, but of EPDM.

4) Mechanical Couplings: Mechanical couplings designed to provide a stress relieving flexible joint shall consist of a cylindrical sleeve, two gaskets, two follower rings and a set of bolts and nuts.

   a. Sleeves: Manufactured of ASTM A53 steel, for sizes 10-inches and smaller. ASTM A36 steel for 12-inches and larger sizes. Minimum sleeve length shall be five inches for pipe 12-inches and smaller, 7-inches for pipe 14-inches through 24-inches, and 10-inches for pipe larger than 24-inches.

   b. Follower Rings: Ductile Iron ASTM A536 or AISI Cl 020 Steel.

c. Bolts and Nuts: High strength low alloy steel with heavy semi-finished hexagon nuts.

d. Gaskets: Shall be of synthetic rubber suitable for operating conditions.

e. Shop Finish: Manufacturer's standard unless otherwise noted.

f. Manufacturer: 'Baker 200, Dresser Style 39, Rockwell Series 411 or approved equal.

ITEM 502.6 VALVES

502.6.2 Resilient-Seated Gate Valves for Ordinary Water Works Service

Unless otherwise approved in writing, all Gate Valves for direct buried service in the City's distribution system, 6 inches through 12 inches in diameter, shall be Resilient Seated Gate Valves that conform strictly with the latest specification C-509 or C-515 of the American Water Works Association Standards and must comply with the following supplementary details, changes or additions.

(a) Body: Gate valves shall be iron body designed for a working pressure of 250 psi. All valves shall be hydrostatically tested at 200 psi and shell tested at 500 psi. Any leakage during testing shall be cause for rejection. For ease of repair the body, bonnet and stuffing box shall be flanged together with ASTM Grade B bolts and nuts. Each valve shall have the maker's initials, pressure rating, and year in which manufactured cast in the body.

(b) Stems: Stems shall be machined from manganese bronze rod with an integral forged thrust collar machined to size. The stems shall be non-rising and equipped for nut operation, which shall be opened by turning to the left.

(c) Stem Seals: The seals shall consist of two "0" rings above and one "0" ring below the thrust collar. An anti-friction washer shall be located above and below the thrust collar for operating torque.

(d) Stem Nut: The stem nut shall be ASTM'B-62 bronze.

(e) Resilient Wedge: The wedge shall be cast iron, fully encapsulated in molded rubber complying with ASTM D2000. Wedge must have molded wedge guides preventing the disc from tilting downstream during operation. Protective guide cap bearings made of polymer bearing material to provide a bearing interface between the wedge guide and valve interior.

(f) Paint and Protective Coatings: All valves furnished under these specifications shall be painted on the exterior as specified in AWWA C509 with asphalt varnish.

All ferrous metal surfaces in the internal part of the valve shall be protected with a fusion epoxy coating 'to a nominal thickness of 10 mils for corrosion protection and shall be of a color that is easily identified as an epoxy coating.

The proguard fusion epoxy coating shall fully comply with AWWA C550 .and certified NSF 61. The coating shall be 'non-toxic and shall not impart taste to water. The coating must be formulated from materials deemed acceptable per the Food & Drug Administration Document Title 21 of the Federal Regulations of Food Additives, Section 121.2514 entitled Resins and Polymeric Coatings. The coating shall 'have a satin finish and shall be suitable for field overcoating and

touchup with the same coating' material without sanding or special surface preparation, or application of heat in excess of room temperature.

(g) Experience and Certification: Valves, furnished under these specifications, shall be manufactured by a firm that has been producing valves of this general type continuously for. the past 'five (5) years. Each company or. manufacturer supplying valves under these specifications shall have on file, with the City of Aubrey, approved records of experience and detailed drawings of the proposed valves. Drawings shall cover the specific valve to be furnished for installation and shall show all dimensions including metal thickness, construction details and materials used in all parts of the valve together with ASTM Designation and Structural properties of these materials.

The manufacturer shall furnish to the City of Aubrey, a Certification that the valve complies with the specifications without any exceptions. This certification shall apply to specific valves being installed within the City water distribution system. The certification shall state (1) the number of valves covered by the certifications, (2) the Addition where valves are being installed or the Project Name, and (3) name of Contractor installing valves.

The City may require the Manufacturer, Supplier or Contractor to dismantle valves at any time to determine compliance with these specifications. Location of any valve within the City system, installed after adoption of these specifications, that does not meet the specifications completely shall be cause for prohibiting the future use of any valves from the same manufacturer.

(h) Tapping Sleeves: The materials for tapping sleeve bodies shall be cast-iron or ductile-iron in accordance with AWWA Standard Cl 10 (ANSI 21.10), in two sections, or halves to be bolted together with high-strength, corrosion resistant, low alloy steel bolts conforming to AWWA Standard C111 (ANSI 21.11).

Cast iron and ductile-iron sleeve shall be mechanical joint, or as specified, or dimensions to secure, proper fit on the type and class of pipe on which they are to be used. Each sleeve shall be furnished with a 3/8-inch test opening so that tests can' be made prior to tapping. Opening shall be provided with a 3/8-inch bronze plug.

ITEM 504 OPEN CUT - BACKFILL

ITEM 504.2 MATERIALS

504.2.2.1 Add the following sentence:

All stone used for pipe embedment shall be standard crushed rock-aggregate, Grade 4, unless otherwise approved in writing.

ITEM 504.3 EXCAVATION AND FOUNDATION

Prior to start of excavation the Contractor shall remove and stockpile the Topsoil and protect the Topsoil from contamination during construction.

After the trench has been refilled, topsoil shall be replaced to the extent that rock, excavated from the trench, will be completely covered and the area is returned to its original condition, except that in cultivated areas a minimum of 12 inches of top soil shall be replaced.

ITEM 504.4 BACKFILL – GENERAL REQUIREMENTS

The material used in the backfill shall be pulverized to the extent necessary to produce, a free flowing material free of clay balls larger than 6-inch diameter.

ITEM 504.5 EMBEDMENT (Add the Following)

Rock Cuttings or Sand will not be permitted in the pipe bedding for sanitary sewer or water lines in the City of Aubrey.

504.5.2.15 Class "H" Embedment:

The embedment consists of a completely encased pipe with Standard Crushed Stone, Grade 4. Class "H" Embedment shall be used on the P.V.C. Sanitary Sewer Pipe installed within the City of Aubrey.

After the trench has been cut to a depth below the barrel of the pipe a distance of 1/8 Bc (3 inches minimum and 6 inches maximum), the bedding layer shall be brought to a point slightly above grade with compacted crushed stone. Bell holes shall be formed and the pipe laid and joined as specified. The stone shall be brought up in uniform layers of six inches to a point six inches over the top of the pipe when compacted. On PVC Pipe 18 inches through 27 inches in diameter the crushed stone shall be brought up in uniform layers to a point nine inches over the top of the pipe when compacted.

ITEM 506 OPEN CUT – WATER CONDUIT INSTALLATION

506.3 Laying Water Conduit

Valves for installation in the City's distribution system shall be installed by direct burial as shown on the standard detail sheets and shall be provided with valve boxes for operation of the valve.

506.5 Hydrostatic Test:

All hydrostatic tests shall be maintained over a period of not less than four hours.

"Before being accepted, all ductile iron, C-900 PVC or concrete cylinder water mains shall be tested with a hydraulic test pressure of not less than four hours. Concrete pressure pipe shall be tested with a hydraulic test pressure of 120 percent of the design pressure. Steel pressure pipe shall be tested with a hydraulic test pressure not to exceed 150 percent and not less than 120 percent of the designed working pressure. The rate of leakage of all pipe tested shall not exceed the amounts shown in the tables titled "Hydrostatic Test-C-900 PVC, Steel or Ductile Iron Water Mains" or "Hydrostatic Test-Concrete Cylinder Water Mains". Water lines of material in combination shall be tested for the type of pipe (material) with the least stringent hydraulic test pressure and maintained over a period of not less than four hours."

HYDROSTATIC TEST

C-900 OR 905 PVC, STEEL OR DUCTILE-IRON WATER MAINS

GALLONS ALLOWED									
L.F. Pipe	Pipe Diameter								
	4"	6"	8"	10"	12"	14"	16"	18"	20"
5	0.016	0.024	0.032	0.039	0.047	0.055	0.063	0.071	0.079
10	0.032	0.047	0.063	0.079	0.095	0.110	0.126	0.142	0.158
20	0.063	0.095	0.126	0.158	0.189	0.221	0.253	0.284	0.316
30	0.095	0.142	0.189	0.237	0.284	0.331	0.379	0.426	0.473
40	0.126	0.189	0.253	0.316	0.379	0.442	0.505	0.568	0.631
50	0.158	0.239	0.316	0.395	0.473	0.552	0.631	0.710	0.789
60	0.189	0.284	0.379	0.473	0.568	0.663	0.758	0.852	0.947
70	0.221	0.331	0.442	0.552	0.663	0.773	0.884	0.994	1.105
80	0.253	0.379	0.505	0.631	0.756	0.884	1.010	1.136	1.263
90	0.284	0.426	0.568	0.710	0.852	0.994	1.136	1.278	1.420
100	0.316	0.473	0.631	0.789	0.947	1.105	1.263	1.420	1.578
200	0.631	0.947	1.263	1.578	1.894	2.210	2.525	2.841	3.157
300	0.947	1.420	1.894	2.367	2.841	3.314	3.788	4.261	4.735
400	1.263	1.894	2.525	3.157	3.788	4.419	5.051	5.682	6.313
500	1.578	2.367	3.157	3.946	4.735	5.524	6.313	7.102	7.891
600	1.894	2.841	3.788	4.735	5.682	6.629	7.576	8.523	9.470
700	2.210	3.314	4.419	5.524	6.629	7.734	8.838	9.943	11.048
800	2.525	3.788	5.051	6.313	7.576	8.838	10.101	11.364	12.626
900	2.841	4.261	5.682	7.102	8.523	9.943	11.364	12.784	14.205
1000	3.157	4.735	6.313	7.891	9.470	11.048	12.626	14.205	15.783

Maximum allowable water loss in 4 hours at 180 pounds per square inch of pressure for a rate of 25 gallons per inch diameter of pipe per mile over a 24-hour period

EQUATION THE ABOVE CHART IS BASED ON:

$$\text{Maximum Loss (Gal.)} = 25 \times \text{Diameter of Pipe in Inches} \times \frac{\text{L.F. of Pipe}}{5280} \times \frac{4}{24}$$

ITEM 506.7 Purging and Disinfection of Water Conduits (Add the following)

On all waterlines installed in the City of Aubrey the Contractor shall be responsible for Purging, Testing and Sterilization of the completed lines.

DIVISION 800 – MISCELLANEOUS CONSTRUCTION & MATERIALS

ITEM 801.5 WIRE FENCING

801.5.2.1 Wire Fencing Fabric: All chain link fencing shall be No. 9 gage copper bearing open-hearth steel wire.

801.5.2.2 Posts

801.5.2.2.1 Metal: All posts shall be heavily galvanized by the hot-dip process after fabrication and shall be fitted with watertight malleable iron caps. All posts shall be of the following size and shape:

Line Posts: "H" Section hot rolled weighing not less than 4.10 pounds per linear foot or 3-1/2-inch O.D. pipe weighing not less than 3.65 pounds per linear foot.

Terminal Posts: Three inch (3") steel pipe weighing not less than 5.79 pounds per linear foot.

Gate Posts: Four inch (4") O.D. steel pipe weighing not less than 9.11 pounds per linear foot.

801.5.2.3 Rails. Gates. Braces and Fittings: Shall be 1-5/8 inch steel pipe weighing not less than 2.27 pounds per linear foot.

ITEM 805 ELECTRICAL COMPONENTS AND CONDUIT

ITEM 805.3 MATERIAL (Add the following)

Pull Box. All pull boxes shall be Quazite precast polymer concrete, or approved equal. Boxes shall be approximately 17" x 30" x 30" and shall be furnished with a concrete cover.

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CITY OF AUBREY, TEXAS
F.M. 428 18-INCH PARALLEL FORCE MAIN
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CITY OF AUBREY, TEXAS
F.M. 428 18-INCH PARALLEL FORCE MAIN

SPECIAL CONDITIONS

SC.01 GENERAL

The provisions of this section of the specifications shall govern in the event of any conflict between them and the "General Conditions of Agreement."

SC.02 ENGINEER OF RECORD

The word "Engineer of Record" in these specifications shall be understood as referring to Birkhoff, Hendricks & Carter, L.L.P., Professional Engineers, 11910 Greenville Ave., Suite 600, Dallas, Texas, 75243, Engineer of the Owner, or such other representatives as may be authorized by said Owner to act in any particular position.

SC.03 LOCATION OF PROJECT

This project is located in the City of Aubrey, Denton County, Texas. A map showing the work areas is included in the plans.

SC.04 SCOPE OF WORK

The work to be performed under the base bid of this this contract consists of furnishing all necessary materials, machinery, equipment, superintendence, and performing all work required for furnishing all materials, labor, supervision, tools, equipment and all incidentals required to install approximately 8,133 linear feet of 18-inch force main by horizontal directional drilling, 233 linear feet of 18-inch force main by open cut, 170 linear feet of 18-inch force main by other than open cut in 27-inch steel encasement pipe, three 2-inch air vacuum valves with 6-foot diameter manholes, together with all necessary appurtenances, as shown in the plans and called for in these specifications for the F.M. 428 18-Inch Parallel Force Main project.

SC.05 FORMS, PLANS & SPECIFICATIONS

Forms of Proposal, Contract and Bonds, and Plans and Specifications may be downloaded from Civcastusa.com.

SC.06 TIME AND ORDER OF COMPLETION

All items of work include under this contract shall be completed **One Hundred Eighty (180) consecutive calendar days** within after the date of the written notice to commence work for the respective sections, subject to such extensions of time as are provided by the General and Special Conditions. The work order shall consist of a written request by the Engineer from the Contractor to proceed with the construction of the project.

SC.07 QUALIFICATION OF BIDDER AND AWARD OF CONTRACT

It is the intention of the Owner to award a contract for the work included in this project on the basis of the lowest acceptable bid submitted by a qualified bidder, as determined by the Owner.

Prior to award of the contract, the bidder shall submit such evidence as the Owner may require to establish the bidder's qualifications to satisfactorily perform the work included in this project. Information that may be required shall include (1) the bidder's current financial statement including amount of funds readily available to commence and carry out the work, (2) a list of equipment available for this project, (3) a list of projects that have been satisfactorily completed by the bidder that are of the same general type as included in this contract, together with the names, addresses and phone numbers of persons familiar with this work, and (4) other information that may be pertinent to the bidder's qualifications.

Should the bidder fail to produce evidence satisfactory to the Owner on any of the foregoing points he may be disqualified and the work awarded to the next bidder so qualifying.

SC.08 ADDENDA

Bidders desiring further information or interpretation of the plans and specifications must make request for such information to the Engineer prior to forty-eight (48) hours before the bid opening. Answers to all such requests will be given in writing to all bidders in addendum form and all addenda will be bound with and made a part of the contract documents. No other explanation or interpretation will be considered official or binding. Should a bidder find discrepancies in, or omissions from the plans, specifications, or contract documents, or should he be in doubt as to their meaning, he is requested to notify the Engineer in order that a written addendum may be sent to all bidders. Any addenda issued prior to forty-eight (48) hours before the opening of bids will be mailed or delivered to each Contractor contemplating

the submission of a proposal on this work. The proposal as submitted by the Contractor will be so constructed as to include any addenda if such are issued by the Engineer prior to twenty-four (24) hours before the opening of bids.

SC.09 LIQUIDATED DAMAGES FOR DELAY BY CONTRACTOR

The Contractor understands and agrees that time is of the essence of this contract and that for each day of delay beyond the date agreed upon for the completion of all items of work herein specified and contracted for (after due allowance of such extension of time as is provided for in the General Conditions of Agreement), the Owner may withhold permanently from the Contractor's total compensation the sum of Five Hundred Dollars ($500.00) per day late for substantial and final completion as stipulated damages for such delay.

SC.10 COPIES OF PLANS AND SPECIFICATIONS FURNISHED

Three (3) sets of plans in half size and specifications shall be furnished to the Contractor, at no charge, for construction purposes. Additional copies may be obtained at cost of reproduction upon request.

SC.11 STATE AND CITY SALES TAXES

The OWNER qualifies for exemption from the state and local sales and use taxes, pursuant to the provisions of Section 151.309 of the Texas Limited Sales, Excise and Use Tax Act. Therefore, the Contractor shall not pay such taxes which would otherwise be payable in connection with the performance of this contract.

The Contractor shall issue an exemption certificate in lieu of the tax on the purchase, rental or lease of:

a) all materials, supplies, equipment and other tangible personal property incorporated into the real property being improved; and

b) all materials, supplies, equipment and other tangible personal property used or consumed by the Contractor in performing the contract with the Owner.

Materials and supplies “used in the performance of a contract” include only those materials actually incorporated into the property being improved and those supplies directly used to incorporate such materials into the property being improved. Overhead supplies and supplies used indirectly or only incidental to the performance of the contract with the Owner are not included in the exemption.

Under “reasons said purchaser is claiming this exemption: in the exemption certificate, the Contractor must name the Owner and the project for which the equipment, materials and supplies are being purchased, leased or rented.

SC.12 REFERENCED SPECIFICATIONS

Where reference is made in these specifications to specifications compiled by others, such reference is made for expediency and standardization from the material supplier's point of view, and such specifications referred to are hereby made a part of these specifications.

SC.13 TRADE NAMES AND MATERIALS

No material which has been used by the Contractor for any temporary purposes whatsoever is to be incorporated in the permanent structure without written consent of the Engineer.

Where materials or equipment are specified by a trade or brand name, it is not the intention of the Owner to discriminate against an equal product of another manufacturer, but rather to set a definite standard of quality or performance, and to establish an equal basis for the evaluation of bids. Where the words "equivalent", "proper", or "equal to" are used, they shall be understood to mean that the thing referred to shall be proper, the equivalent of, or equal to some other thing, in the opinion of judgment of the Engineer. Unless otherwise specified all materials shall be of the best of their respective kinds, shall be in all cases fully equal to approved samples and shall never have been used for any temporary purpose whatsoever. Notwithstanding that the words "or equal to" or other such expressions may be used in the specifications in connection with a material, manufactured article or process, the material, article or process specifically designated shall be used, unless a substitute shall be approved in writing by the Engineer, and the Engineer shall have the right to require the use of such specifically designated material, article or process.

SC.14 PERMITS AND RIGHT-OF-WAY

The Owner will provide rights-of-way for the purpose of construction without cost to the Contractor by securing permits in areas of public dedication or by obtaining easements across privately owned property. It shall be the responsibility of the Contractor, prior to the initiation of construction through private property,

to inform the property owner of his intent to begin construction. Before beginning construction in areas of public dedication, the Contractor shall inform the agency having jurisdiction in the area forty-eight (48) hours prior to initiation of work, unless otherwise specified herein.

SC.15 PROPERTY LINES & MONUMENTS

The Contractor shall protect all property and right-of-way corner markers, and when any such markers or monuments are in danger of being disturbed they shall be properly referenced and if disturbed shall be reset at the expense of the Contractor.

SC.16 EXISTING STRUCTURES

The plans show the location of all known surface and subsurface structures and service lines. However, the Owner assumes no responsibility for failure to show any or all of these structures on the plans, or to show them in their exact location. It is mutually agreed that such failure shall not be considered sufficient basis for claims for additional compensation for extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate changes in the lines or grades, or require the building of such work, provisions for which are not made in the plans and proposal, in which case the provisions in these specification for extra work shall apply.

SC.17 EXISTING UTILITIES AND SERVICE LINES

The Contractor shall be responsible for the protection of all existing utilities or service lines crossed or exposed by his construction operations. Where existing utilities or service lines are cut, broken or damaged, the Contractor shall replace the utilities or service lines with the same type of original construction, or better, at his own cost and expense. The Contractor shall contact the utility company prior to construction near their services.

SC.18 PUBLIC UTILITIES AND OTHER PROPERTY TO BE CHANGED

In case it is necessary to change or move the property of any owner or of a public utility, such property shall not be moved or interfered with until authorized by the utility company and approved by the Engineer. The right is reserved to the owner of public utilities to enter upon the limits of the project for the purpose of making such changes or repairs to their property that may be made necessary by the performance of this contract.

SC.19 FENCES, DRAINAGE CHANNELS AND CROP DAMAGE

Boundary fences or other improvements removed to permit this construction shall be replaced in the same location and left in a condition as good as or better than that in which they were found. No separate pay item has been established for fence removal and replacement. All work and materials required to remove and replace existing fences shall be considered subsidiary to the appropriate bid items.

Where surface drainage channels are disturbed or blocked during construction, they shall be restored to their original condition of grade and cross section after the work of construction is completed.

In locations where the work site is in or adjacent to fields containing crops, the Contractor shall reimburse the Owner of said crops for all damages thereto as a result of activities of the Contractor, except crops which lie within the permanent or construction easement.

SC.20 PROJECT MAINTENANCE

The Contractor shall maintain, and keep in good repair, the improvements covered by these plans and specifications during the life of his contract.

SC.21 CLEANUP

The Contractor shall at all times keep the job site as free from all material, debris and rubbish as is practicable and shall remove same from any portion of the job site as construction of that portion is completed. No item of work will be considered complete for payment purposes until required cleanup has been performed.

Upon completion of the work, the Contractor shall remove from the site all plant, materials, tools and equipment belonging to him and leave the site with an acceptable appearance. The Contractor shall thoroughly clean all equipment and materials installed by him and shall deliver over such materials and equipment in a bright, clean, polished and new-appearing condition.

SC.22 GUARANTY AGAINST DEFECTIVE WORK

The Contractor shall indemnify the Owner against any repairs which may become necessary to any part of the work performed under the contract, arising from defective workmanship or materials used therein, for a period of two (2) years from the date of final acceptance of the work.

SC.23 TESTING AND QUALITY CONTROL

A. Testing Materials

Observation of the Contractor's work to determine compliance with the plans and specifications will include testing of material installed on the project. Testing of work performed and materials furnished shall be done by a commercial laboratory employed by the Owner. The Contractor shall use only materials in the work which meet the requirements of the specifications. The City will employ the services of an Engineering Testing Laboratory to make inspections and to sample and test the materials to be used in the work. The Contractor shall furnish, at his own expense, all necessary specimens for testing of the materials and when requested, shall furnish a complete written statement of the origin, composition, and/or manufacturer of any or all materials that are to be used in the work. All materials not conforming to the requirements of the specifications will be rejected.

B. Quality Control

During the construction, the Owner will retain the Engineering Testing Laboratory to perform services related to checking the quality of the work being performed by the Contractor to determine if the improvements are being constructed in accordance with the plans and specifications. THIS QUALITY CONTROL SERVICE DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY WITH REGARD TO CONSTRUCTING THE WORK IN ACCORDANCE WITH THE CONTRACT. If the Contractor fails to meet specified conditions, by the second test, further tests to demonstrate compliance with the contract shall be at the expense of the Contractor.

THE CONTRACTOR SHALL GIVE THE ON-SITE REPRESENTATIVE OF THE OWNER SUFFICIENT NOTICE OF HIS INTENTION TO CONSTRUCT PORTLAND CEMENT CONCRETE PAVEMENT, STRUCTURAL CONCRETE, OR HOT MIX ASPHALTIC CONCRETE TO ASSURE THE ADEQUATE QUALITY CONTROL OF CONSTRUCTION MATERIALS AND WORKMANSHIP.

C. Testing and Quality Control Services

Testing and Quality Control Services shall include but are not limited to the following:

1) Reinforced Concrete Pavement
   a) Analysis of Aggregates
   b) Decantation Tests
   c) Inspect Aggregate Stockpiles
   d) Prepare or Check Concrete Batch Design
   e) Slump and Air Content Tests
   f) Flexural or Compressive Strength Tests

2) Embankment
   a) Moisture - Density Curves
   b) Field Compaction Tests

3) Flexible Base
   a) Sieve Analysis
   b) Liquid and Plastic Limits of Binder Material
   c) Moisture - Density Curves
   d) Field Density Tests

4) Structural Concrete
   a) Mix Design
   b) Batch Plant Weight and Moisture Checks
   c) Slump and Air Tests
   d) Compressive Strength Tests

5) Coating and Painting

SC.24 COORDINATION WITH OTHERS

In the event other contractors are doing work in the same area simultaneously with this project, the Contractor shall coordinate his proposed construction with that of the other contractors.

SC.25 USE OF EXPLOSIVES

Use of explosives will not be allowed on this project.

SC.26 BARRICADES, LIGHTS & WATCHMEN

Where the work is carried on in or adjacent to any street, alley or public place the Contractor shall, at his own cost and expense, furnish and erect such barricades, fences, lights, and danger signals, shall provide such watchmen, and shall provide such other precautionary measures for the protection of persons or property and of the work as are necessary. Barricades shall be painted in a reflective color that will be visible at night. From sunset to sunrise, the

Contractor shall furnish and maintain at least one light at each barricade and sufficient numbers of barricades shall be erected to keep vehicles from being driven on or into any work under construction. The Contractor shall furnish watchmen in sufficient numbers to protect the work.

The Contractor will be held responsible for all damage to the work due to failure of barricades, signs, lights and watchmen to protect it and whenever evidence is found of such damage the Contractor shall immediately remove the damage portion and replace it at his cost and expense. The Contractor's responsibility for the maintenance of barricades, signs, and lights, and for providing watchmen shall not cease until the project shall have been accepted by the Owner.

SC.27 SANITARY FACILITIES

Contractor shall furnish temporary sanitary facilities at the site, as provided herein, for the needs of all construction workers and other performing work or furnishing services on the project.

Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extenet. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 men. Contractor shall enforce the use of such sanitary facilities by all personnel at the site. IN NO CASE SHALL ANY SANITARY FACILITY BE ALLOWED WITHIN 150 FEET OF THE BOREHOLE.

SC.28 DISPOSAL OF WASTE & SURPLUS EXCAVATION

All trees, stumps, slashings, brush, other debris or deleterious material generated as a part of this work, shall be burned or removed from the property. Any required disposal permits shall be the sole responsibility of the Contractor.

All excavated earth in excess of that required for backfilling shall be removed from the job site and disposed of in a satisfactory manner except in locations where, in the judgment of the Owner, it can be neatly spread over the adjacent area.

SC.29 WATER FOR CONSTRUCTION

The Contractor shall make the necessary arrangements for securing and transporting water for construction, including water for testing, mixing of concrete, sprinkling, flushing, flooding or jetting.

The City of Aubrey will provide water as required at its expense.

Any party requesting use of a temporary water meter, to be attached to a City of Aubrey fire hydrant for the purpose of receiving water for construction, shall use the meter in a proper manner and maintain the meter in working condition.

The Contractor shall apply to the City Water Billing Department to receive a temporary water meter. A deposit of $1,800.00 will be required for use of the meter. If the meter is returned in working condition at the completion of the project, the full deposit of $1,800.00 will be returned. Department regulations govern the extent of refund if the meter is returned in a less than acceptable condition.

Such meter shall be attached to fire hydrants only when water is being discharged from the hydrant. It is unlawful for any party to leave a temporary fire hydrant water meter connected to a fire hydrant at any time when water is not being discharged from said hydrant.

Temporary fire hydrant water meters will be read on a monthly basis by a representative of the Aubrey Utility Meter Department. Water volume used will be reported to, and monitored by, the City Inspector."

SC.30 INSPECTION

The word "Inspection", or other forms of the word, as used in the contract documents for this project shall be understood as meaning the Owner's agent will observe the construction on behalf of the Owner. The Owner's agent will observe and check the construction in sufficient detail to satisfy himself that the work is proceeding in general accordance with the contract documents, but he will not be a guarantor of the Contractor's performance.

SC.31 LIGHTS AND POWER

The Contractor shall provide, at his own expense, temporary lighting and power facilities required for the proper prosecution of the work from utility power.

SC.32 INSURANCE REQUIREMENTS

Before the Contractor commences work in connection with this contract, or before he allows any subcontractor to commence any work, he shall purchase Comprehensive General Liability insurance in the amount of $1,000,000 with Bodily Injury limits of not less than $300,000 each occurrence and $500,000 in the aggregate, and property damage

limits of not less than $100,000 each occurrence and $100,000 in the aggregate.

The Contractor shall purchase and furnish to the Owner, an Owner's and Contractor's Protective Liability policy in the amounts designated above, with the City of Aubrey as insured and the Engineer, their agents and employees as additional insureds.

The Contractor shall furnish a Certificate of Insurance for the above coverage with a provision that the Owner will be notified by the insurance company ten (10) days prior to cancellation of the policy during the term of this contract, and if canceled a new policy must be furnished prior to cancellation. All required insurance shall remain in force through the duration of this contract.

All Subcontractors shall comply with the aforementioned conditions.

Should any person sustain bodily injury or property damage within the limits of this project, the Contractor or his Insurance Agent shall investigate immediately and report his findings in writing to the Owner. If the Contractor fails or refuses to investigate and report such occurrence upon notification of the injuried or damaged party or the Owner, then the Owner shall file for coverage under the Owners' and Contractors' Protective Liabilty policy.

SC.33 LINES AND GRADES

The Owner had the Engineer establish the horizontal control points and benchmarks as shown on the Plans. The Contractor shall give the Owner and Engineer at least three (3) working days' notice prior to the need for establishment of additional control points and benchmarks. Establishment of the horizontal control and benchmarks by the Owner shall in no way relieve the Contractor of the responsibility of constructing the work in accordance with the alignment and grade as shown on the Plans.

The Contractor will be responsible for all field and construction staking. Any work performed without being properly located may be ordered removed and replace the Contractor's expense.

The cost of replacing any stakes or property monuments, which were disturbed by the Contractor, shall be charged against the Contractor and deducted from the payment for the work.

SC.34 SUPERINTENDENCE BY CONTRACTOR

The Contractor shall have on the project at all times, as his agent, a competent Superintendent capable of reading and thoroughly understanding the plans and specifications and thoroughly experienced in the type of work being performed. The Superintendent shall have full authority to execute orders or directions and to promptly supply such materials, equipment, tools, labor and incidentals as may be required. Such superintendence shall be furnished irrespective of the amount of the Work subcontracted.

SC.35 CONNECTIONS TO EXISTING FACILITIES

Connections to existing facilities which are in service shall be thoroughly planned in advance, and all required equipment, materials, and labor shall be on hand at the time of undertaking the connections. Work shall proceed continuously (around the clock if necessary) to complete connections in the minimum time. Operations of valves or other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the Owner.

SC.36 CONSTRUCTION SCHEDULE AND PROJECTION OF PAYMENTS

Prior to starting work, the Contractor shall submit a proposed schedule for the work included herein and shall submit any major revisions to this schedule as the project progresses. This schedule shall provide for completion of the project within the time provided in the specifications.

SC.37 EXAMINATION OF SITE OF PROJECT

Prospective bidders shall make a careful examination of the site of the project, soil and water conditions to be encountered, improvements to be protected, disposal sites for surplus materials not designated to be salvaged materials, and as to method of providing ingress and egress to private properties, and methods of handling traffic during construction of the entire project.

SC.38 PARTIAL PAYMENTS

Section 109.5.2-Retainage, of the General Provisions of Agreement (NCTCOG) shall be revised with the addition to the following:

On projects where the contract price, at the time of execution, is greater than $400,000, the Owner shall retain 10% of the amount due the Contractor until final payment.

SC.39 CONSTRUCTION IN PUBLIC ROADS AND PRIVATE DRIVES

No public road shall be entirely closed overnight. It shall be the responsibility of the Contractor to build and maintain all weather bypasses and detours, if necessary, and to properly light, barricade and mark all bypasses and detours that might be required on and across the roads involved in the work included in this contract.

The Contractor shall make every effort to complete construction and allow immediate access to adjacent property at driveway entrances located along the roads. Owners or tenants of improvements where access and/or entrance drives are located shall be notified at least twenty-four (24) hours prior to the time the construction will be started at their driveins or entrances and informed as to the length of time driveways will be closed, which period shall not exceed six (6) hours.

The Contractor shall be responsible for all road and entrance reconstruction and repairs and maintenance of same for a period of one year from the date of such reconstruction. In the event the repairs and maintenance are not made immediately to the satisfaction of the Owner, and it becomes necessary for the Owner to make such repairs, the Contractor shall reimburse the Owner for the cost of such repairs.

The Contractor shall, at all times, keep a sufficient width of the roadway clear of dirt and other material to allow the free flow of traffic. The Contractor shall assume any and all responsibility for damage, personal or otherwise, that may be caused by the construction along roads and private drives.

SC.40 PROTECTION OF TREES

The Contractor shall make every reasonable effort to protect all trees along the project right-of-way. When crossing private property no tree outside of the permanent right-of-way of the project, six inches (6") in diameter or larger shall be removed or have limbs trimmed without the approval of the Owner. Clipping or sawing of branches shall be done neatly by an approved method to prevent splitting or tearing of the wood. Pruning paint shall be applied to the newly cut branches. Minor adjustments in alignment will be allowed to protect trees.

SC.41 TPDES GENERAL PERMIT APPROVED FOR CONSTRUCTION STORM WATER

TPDES Construction General Permit, Permit No. TXR150000, was approved, signed and became effective on March 5, 2003. It was revised and effective March 5, 20 .

The Texas Pollutant Discharge Elimination System (TPDES) program implements the federal National Pollutant Discharge Elimination System (NPDES) program in the state of Texas. The EPA Region 6 (located in Dallas) has administered the Phase I storm water general permit for construction activities disturbing 5 or more acres within the state of Texas until the TPDES permit has been issued. On March 5, 2003 the TCEQ became the permitting authority for these discharges. This general permit also covers storm water discharges from Phase II construction activities that disturb at least 1 acre and less than 5 acres. Further information may be obtained from the Executive Director's Response to Comments and the TXR150000 Fact Sheet. Contact the TCEQ for the latest forms to be used in this project.

A. ***Work Begun On or After 3/5/2003*** - For construction projects that started after the issuance of the TPDES general permit and that will disturb 5 or more acres:

1) Obtain a copy of the TCEQ CGP (TPDES Permit No. TXR150000).

2) Develop and implement a storm water pollution prevention plan (SWP3).

3) Complete and submit an NOI to the TCEQ (using the TCEQ form) to the address listed on the form prior to the commencement of the construction.

4) Submit an Notice of Termination (NOT) once the site has reached final stabilization.

5) The NOI and NOT Forms and Instructions are attached.

B. **1 to Less Than 5 Acres Disturbed**

For construction projects that will disturb 1 or more acres, but less than 5 acres, including the larger common plan of development:

1) Obtain a copy of the TCEQ CGP (TPDES Permit No. TXR150000).

2) Develop and implement a storm water pollution prevention plan (SWP3).

3) Complete and post a site notice.

4) Before construction begins,

- If the site qualifies, complete and submit a Low Rainfall Erosivity Waiver Form.

- Or complete and post a site notice. (Template at the end of TPDES Permit No. TXR150000)

For construction projects that will disturb 1 or more acres, but less than 5 acres, and are part of a larger common plan of development or sale that will disturb 5 or more acres, refer to 5 or More Acres Disturbed.

C. **Smaller Sites**

For construction projects that will disturb less than one acre and are not part of a larger common plan of development, coverage under this permit is not required.

If the construction activity develops into a larger project, then permit coverage may be required at that time based on the total number of acres that will be disturbed: 5 or More Acres or 1 to Less Than 5 Acres.

All forms should be obtained from the Texas Commission on Environmental Quality at this web address:

https://www.tceq.texas.gov/agency/water_main.html

For Permits and Registrations see the following:

https://www.tceq.texas.gov/permitting/business_permitting.html

SC.42 TRENCH SAFETY SYSTEM

The Contractor may utilize all area within the permanent easements and right-of-way to facilitate trench safety systems. No work shall extend outside of the easements and right-of-way. The Contractor shall provide the Owner an acceptableTrench Safety Plan signed and sealed by a Professional Engineer registered in the State of Texas.

SC.43 COMPLIANCE WITH AIR AND WATER ACTS

In compliance with the Clean Air Act, as amended, 41 U.S.C. Sec. 7401 et. seq., and the regulations of the Environmental Protection Agency with respect thereto the Contractor agrees that.

A. Any facility to be utilized in the performance of this contract or any subcontract shall not be a facility listed on the EPA List of Violating Facilities pursuant to 40 CFR 15.20.

B. He will comply with all requirements of Section 114 of the Clean Air Act, as amended.

SC.44 VIDEO OF PROJECT SITE

The Contractor shall provide a video in MP4 on a USB drive of the entire project site prior to commencement of construction activities. One copy shall be transmitted to the Engineer and one copy retained by the Contractor.

SC.45 PERMANENT EASEMENTS AND TEMPORARY CONSTRUCTION ACCESS

Letters of agreement between the City and the Owners adjacent to the permanent utility easement are being secured by the City of Aubrey. The Contractor agrees to honor the conditions of these agreements and to restore the area, utilized for temporary construction access, to at least the condition the area was found in prior to activity on the site.

SC.46 ANTITRUST

The Contractor hereby assigns to the Owner any and all claims for overcharges associated with this contract, which arise under the antitrust laws of the United States 15 U.S.C.A. Sec. 1, et seq. (1973).

SC.47 CONSTRUCTION DATA

The Contractor shall keep one record copy of all Specifications, Drawings, Addenda, Modifications, and Shop Drawings at the site in good order and annotated to show all changes made during the construction process. These shall be available to Engineer and shall be delivered to him for Owner upon completion of the work.

SC.48 PRE-CONSTRUCTION CONFERENCE

Prior to the commencement of work at the site, a pre-construction conference will be held at a mutually agreed time and place. The conference shall be attended by:

- Contractor and his superintendent
- Principal Subcontractors together with Principal suppliers and manufacturers' representatives
- Engineer
- Representatives of Owner
- Materials Testing Laboratory
- Others as requested by Contractor, Owner or Consulting Engineer

Unless previously submitted to Owner, Contractor shall bring to the conference a tentative schedule for each of the following:

- Progress Schedule
- Cash Flow
- Shop Drawings and other submittals

The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established.

The agenda will include:

- Contractor's tentative schedules
- Transmittal, review and distribution of Contractor's submittals
- Processing applications for payment
- Maintaining record documents
- Critical work sequencing
- Field decisions and Change Orders
- Use of premises, office and storage areas, security, housekeeping, and Owner's needs
- Major equipment deliveries and priorities

Owner will preside at the conference and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.

SC.49 SHOP DRAWINGS & ENGINEERING DATA

Shop drawings and engineering data (submittals) covering all equipment and fabricated materials to be furnished under this contract that will become a permanent part of the Work shall be submitted to Engineer for review. This data shall include drawings and descriptive information in sufficient detail to show the kind, size, arrangement, and operation of component materials and devices; the external connections, anchorages, and supports required; performance characteristics; and dimensions needed for installation and correlation with other materials and equipment.

All submittals regardless of origin, shall be stamped with the approval of Contractor and identified with the name and number of this contract, Contractor's name, and references to applicable specification paragraphs and Contract Drawings. Each submittal shall indicate the intended use of the item in the work and shall verify compliance with the Contract Documents. When catalog pages are submitted, applicable items shall be clearly identified. The current revision, issue number, and date shall be indicated on all drawings and other descriptive data.

The Contractor shall be solely responsible for the completeness of each submittal and shall include a Contractor's stamp of approval as a representation to Owner and Engineer that Contractor accepts full responsibility for determining and verifying all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data, and that he has reviewed or coordinated each submittal with the requirements of the work and the Contract Documents.

Where indicated in the equipment schedule section, each submittal shall include a statement prepared by the originator of the drawings and data, certifying compliance with the Contract Documents except for deviations which are specifically identified.

All deviations from the Contract Documents shall be identified on each submittal and shall be tabulated in Contractor's letter of transmittal. Such submittals shall, as pertinent to the deviation, indicate essential details of all changes proposed by Contractor (including modifications to other facilities that may be required as a result of the deviation) and all required piping and wiring diagrams.

Contractor shall accept full responsibility for the completeness of each submission, and, in the case of a resubmission, shall verify that all exceptions previously noted by Engineer are accounted for.

Electronic (PDF) copies of each original Drawing and necessary data shall be submitted to Engineer at **creinbold@bhcllp.com.** Engineer will not accept submittals from anyone but the Contractor. Submittals shall be consecutively numbered in direct sequence of the submittal without division by subcontracts or trades. Resubmittals shall bear the number of the first submittal followed by a letter (A, B, etc.) to indicate the sequence of the resubmittal.

Electronic (PDF) copies of the reviewed submittals will be returned to the Contractor.

When the drawings and data are returned marked REJECTED or REVISE AND RESUBMIT, the corrections shall be made as noted thereon and as instructed by Engineer and electronic (PDF) copies resubmitted. When the drawings and data are returned marked MAKE CORRECTIONS NOTED or NO EXCEPTIONS TAKEN, no additional copies need be furnished.

Contractor shall verify all corrected data and additional information requested by the Engineer are provided on any resubmittal. Contractor shall direct specific attention to all revisions and shall list separately any revisions made other than those called for by Engineer on previous submissions, in writing.

It will be Contractor’s responsibility to schedule the submission of submittals so as not to impede the scheduled construction activities or affect the completion date.

Any need for more than one resubmission, or any other delay in obtaining Engineer's review of submittals, will not entitle Contractor to extension of the Contract Time unless delay of the work is directly caused by a change in the work authorized by a Change Order or by failure of Engineer to return submittals within 21-days after receipt in Engineer's office. If more than one resubmittal is required due to the Contractor’s failure to provide all previously requested corrected data or additional information, Contractor shall reimburse the Owner for the Engineer’s charges for review of the additional resubmittals. This does not include initial submittal data such as shop tests and field tests that are submitted after the initial submittal.

The Engineer's review of drawings and data submitted by Contractor will cover general conformity to the Drawings and Specifications,

external connections and dimensions, which affect the layout. Engineer's review does not indicate a thorough review of all dimensions, quantities, and details of the material, equipment, device, or items shown. Engineer's review of submittals shall not relieve Contractor from responsibility for errors, omissions, or deviations, nor responsibility for compliance with the Contract Documents.

SC.50 OPERATION AND MAINTENANCE MANUALS

Contractor is required to provide Operation and Maintenance (O&M) Manuals, as part of this contract, to the City.

Manuals are to provide concise descriptions, technical details, operating and maintenance instructions, schedules, records, log books, catalogues, principles of operation, methods of operation and other information that will enable the on-going operation and maintenance of the lift station, material, services and equipment.

O&M Manuals shall be submitted to the Owner with cover letter transmitting the documents. All O&M documents shall be submitted at the same time.

The comprehensive descriptions are to be accompanied by appropriate diagrams and other necessary illustrations so as to facilitate knowledge and understanding about the operation of the lift station and equipment.

Operation and maintenance manuals and associated drawings shall be delivered to the City for equipment furnished and installed at the lift station, at least seven (7) days before the substantial startup of the lift station and in the following format:

- Two (2) hard copies with manufacture's printed data, including associated diagrams, or typed text, in clear, concise English. The three copies shall be bound in 3-ring loose-lead notebooks. Dividers shall be included to separate equipment. All copies shall be originals or copies from originals, and shall be legible.

- Two (2) electronic copies in compact discs (CD or USB Drives or portable hard drive) containing all specified electronic files of the operation and maintenance manuals in PDF format.

SC.51 OVERTIME WORK

No work shall be scheduled between 7:00 p.m. and 7:00 a.m. or on Saturdays, Sundays, or legal City holidays without permission of Owner. Should Contractor desire to work on these days, he shall contact the Owner, in writing, for approval at least 48 hours in advance. However, emergency work may be done without prior permission. Tie-ins and connections to existing facilities will be made at time authorized by the Owner. The City will allow 24-hour operation at certain times during construction; such as when setting the well casing and during the 36-hour pump test. The Contractor shall provide the City with one (1) week's notice for the 24-hour operation for approval and to notify the residents in the area.

SC.52 DUST CONTROL

Contractor shall take responsible measures to prevent unnecessary dust. Earth surfaces subject to creating dust shall be kept moist with water or by application of a chemical dust suppressant. Dusty materials in piles or in transit shall be covered when practical to prevent blowing. Machinery, motors, instrument panels, or similar equipment, shall be protected by suitable dust screens with proper ventilation included.

SC.53 POLLUTION CONTROL

Contractor shall prevent the release of sanitary wastes, sediment, debris and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris or other substance will be permitted to enter sanitary sewers and reasonable measures will be taken to prevent such materials from entering any drain or watercourse.

SC.54 PROJECT ACCESS

Access to the project is limited to public right-of-way and permanent and temporary construction easements. If additional access is required or desired it shall be acquired by the Contractor, with written approval from the affected property owners being provided to the Owner. Such approval shall be received by the Owner prior to use of additional access areas. Contractor shall be responsible for all street repairs necessary for use of unapproved streets.

SC.55 CORE SOIL BORINGS

Any core borings and soil data furnished by the OWNER are for the convenience of the CONTRACTOR. The CONTRACTOR shall be responsible for any additional soil or geotechnical information required. The CONTRACTOR shall be

responsible for properly designed excavation safety systems to be utilized for any type of subsurface condition found on this Project. The furnishing of soil information by the OWNER in no way relieves the CONTRACTOR of this obligation.

If no core borings or soil data are furnished by the OWNER, it shall be the CONTRACTOR's responsibility to obtain whatever geotechnical information required for preparation of the excavation safety systems.

SC.56 NEXT DAY LOOK AHEAD

The Contractor shall email City Inspector, testing laboratory and Birkhoff, Hendricks & Carter, L.L.P. each week the description of work for the preceding week in the format below:

Next Week (Day) Look Ahead

Owner:_____ Today's Date:_____

Project:_____ By:_____

Bid Item Description	Location	Description of Work Limits of Work

SC.57 PAYMENT FOR MATERIALS ON HAND

The City will only consider major items of equipment for payment as materials on hand prior to installation. Major items of equipment will include the following:

- Force Main Pipe
- Valves 12" & Larger
- Air Release Valve Manholes

Equipment to be considered for payment must include the original invoice, serial numbers clearly highlighted and instruction sheet from manufacturer on the proper method for storage. Those materials must be stored along the job, as directed by the City, Site following the manufacturer's instructions for storage, or in a secure storage container one site. The City may at its option allow storage off site at an approved location. Retainage will be held for materials on hand in the monthly pay request. As the materials are installed the contractor shall notify the inspector that the work is now incorporated into the project and can be removed from the material on hand list.

SC.58 WAGE RATES

All employees of the Contractor on the work to be performed under this contract shall be paid the prevailing wage scale in this locality for work of a similar character, and in no event less than the rates shown in the following schedule of minimum wage rates:

WAGE RATES

PREVAILING WAGE RATES FOR MUNICIPAL CONSTRUCTION IN AUBREY, TEXAS

General Decision: TX20240018 07/18/2025
Superseded General Decision Number: TX20240016
State: Texas
Construction Types: Heavy

County: Denton County in Texas.

WATER AND SEWER LINES/UTILITIES (INCLUDING RELATED TUNNELLING WHERE THE TUNNEL IS 48” OR LESS IN DIAMETER).

For other wage rates or for updated rates, please the Texas General Decision County Index located at beta.sam.gov.

"General Decision Number: TX20250016 07/18/2025

Superseded General Decision Number: TX20240016

State: Texas

Construction Type: Heavy

County: Denton County in Texas.

Heavy Construction, Including Treatment Plants (Does not include water/sewer lines)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be

adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025
1	03/07/2025
2	07/04/2025
3	07/18/2025

ASBE0021-003 06/01/2025

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (Includes application of all insulating materials, protective coverings, coatings, and finishings to all types of mechanical systems)	$ 33.23	7.52

ELEC0020-004 12/01/2024

	Rates	Fringes
Electricians:		
Cable Splicer	$ 29.81	8.84
Electrician	$ 38.95	11.56

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* ELEC0220-001 06/02/2024

	Rates	Fringes
Line Construction:		
CABLE SPLICERS	$ 17.12 **	14.5%+3.75
EQUIPMENT OPERATORS	$ 25.83	20.50%+7.75
GROUNDMAN	$ 19.28	4.5%+7.80
LINEMAN	$ 41.31	20.5%+7.25
TRUCK DRIVER	$ 23.14	9.5%+7.25

ENGI0178-001 06/01/2020

	Rates	Fringes
Cranes:		
Hydraulic Crane (35 ton & under)	$ 32.35	13.10
Hydraulic over 35 tons,Derricks, Overhead Gentry,Stiffleg,Tower,etc., and Cranes with Piledriving or Caisson attachements	$ 32.60	13.10

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* IRON0263-010 06/01/2025

	Rates	Fringes
Ironworkers:		
Reinforcing & Structural	$ 29.64	8.43

PLUM0100-002 11/01/2024

	Rates	Fringes
Plumbers and Pipefitters	$ 39.76	14.04

SHEE0068-002 11/01/2012

	Rates	Fringes
Sheet metal worker	$ 27.64	8.84

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* SUTX1990-039 08/01/1990

	Rates	Fringes
CARPENTER	$ 10.536 **	
Concrete Finisher	$ 9.603 **	
Form Builder	$ 8.036 **	
Form Setter	$ 9.578 **	
Laborers:		
Common	$ 7.25 **	
Utility	$ 7.25 **	
Pipelayer	$ 7.961 **	
Power equipment operators:		

Backhoe.....$ 10.971 **
Bulldozer.....$ 9.942 **
Front end loader.....$ 10.771 **
Mechanic.....$ 9.88 **
Motor Grader.....$ 11.633 **
Oiler.....$ 9.183 **
Scraper.....$ 8.00 **

TRUCK DRIVER.....$ 7.465 **

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.75) or 13658 ($13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union

rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch

of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, the FHWA, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of

another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Nondiscrimination provisions of this contract, the Recipient will impose such contract sanctions as it or FHWA may determine to be appropriate, including, but not limited to:
    a. withholding payments to the contractor under the contract until the contractor complies, and/or
    b. cancelling, terminating, or suspending a contract, in whole or in part.
6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Appendix B

Clauses for Deeds Transferring United States Property

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4:

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the (Enter Recipient Name) _____ will accept title to the lands and maintain the project constructed thereon in accordance with all applicable federal statutes, the Regulations for the Administration of all DOT programs, and the policies and procedures prescribed by FHWA of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto (Enter Recipient Name) _____ the all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto (Enter Recipient Name) _____ and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another

purpose involving the provision of similar services or benefits and will be binding on the (Enter Recipient Name) _____, its successors and assigns.

The (Enter Recipient Name) _____, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and]* (2) that the (Enter Recipient Name) _____ will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended [, and (3) that in the event of breach of any of the above-mentioned non-discrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].*

*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.

Appendix C

Clauses for Transfer or Real Property Acquired or Improved Under the Activity, Facility, or Program

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the Recipient pursuant to the provisions of Assurance 7(a):

A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:

   1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.

B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Non-discrimination covenants, (Enter Recipient Name) _____ will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*

C. With respect to a deed, in the event of breach of any of the above Non-discrimination covenants, (Enter Recipient Name) _____ will have the right to enter or re-enter the lands and

*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.

facilities thereon, and the above-described lands and facilities will there upon revert to and vest in and become the absolute property of the (Enter Recipient Name) _____ and its assigns. *

*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.

Appendix D

Clauses for Construction/Use/Access to Real Property Acquired Under the Activity, Facility, or Program

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by the Recipient pursuant to the provisions of Assurance 7(b):

A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.

B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Nondiscrimination covenants, (Enter Recipient Name) _____ will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued. *

C. With respect to deeds, in the event of breach of any of the above non-discrimination covenants, (Enter Recipient Name) _____ will there upon revert to and vest in and become the absolute property of (Enter Recipient Name) _____ and its assigns. *

*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.

Appendix E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 4 71, Section 4 7123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

Appendix E

- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.P.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to -ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

TECHNICAL SPECIFICATIONS

CIVIL

TECHNICAL SPECIFICATIONS - CIVIL

INDEX

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TECHNICAL SPECIFICATIONS

SECTION C1 - PIPE MATERIALS

C1.01 GENERAL

The following force main pipe is acceptable at the contractors option for this project in accordance with the most recent AWWA and NCTCOG Standard Specifications. A single pipe material shall be utilized for the entirety of the project. All pipe diameters shall be based on the inside diameter specified in the construction plans. Unless otherwise specified in the construction plans, pipe design shall be based on a working pressure of 135-psi and test pressure of 160-psi. All force main pipe shall be green in color or include a green stripe in the case of HDPE pipe.

C1.02 ALLOWABLE PIPE MATERIALS

A. 18-inch pipe size by Open Cut

- High Density Polyethylene (HDPE) – AWWA C906 PE4710 (DR 13.5), Ductile Iron Pipe Size
- Fusible Polyvinyl Chloride (PVC) Water Pipe – AWWA C900 (DR25), Ductile Iron Pipe Size

B. 18-inch pipe size by Horizontal Directional Drilling or by Bore

- High Density Polyethylene (HDPE) – AWWA C906 PE4710 (DR 13.5), Ductile Iron Pipe Size
- Fusible Polyvinyl Chloride (PVC) Water Pipe – AWWA C900 (DR25), Ductile Iron Pipe Size

C. Full-faced Red Rubber Gaskets shall be utilized at flanged connections

C1.03 INSTALLATION

Installation of all pipe and materials shall be in accordance with ASTM D2321-74 (89) and as shown on the plans and these specifications.

The specified embedment shall be accurately shaped and trimmed to receive the pipe barrel and each pipe section, when in place, shall have a uniform bearing on the subgrade for the full length of the pipe barrel. Pipe shall not be laid unless the subgrade is free of water and in a satisfactory condition. Adjustments of the pipe to line and grade shall be made by scraping away or filling in with granular material, and not by wedging or blocking up the bell.

The interior of the pipe shall be clean and joint surfaces shall be clean and dry when the pipe is lowered into the trench. Each pipe shall be lowered into the trench carefully and laid true to line and grade.

C1.04 PAYMENT

Force Main pipe, complete in place, will be measured for payment in linear feet along the centerline of the pipe actually installed. Measurement shall be through all fittings, specials, manholes, etc., and no deduction in length shall be made for such appurtenances.

The pipeline will be paid for at the unit contract price per linear foot as provided in the Proposal and Bid Schedule. Payment of the unit contract price for the items of work performed shall be the total compensation for furnishing all labor, materials, tools, equipment, and incidentals, and performing all work that is necessary for the installation, testing, video inspection, and dewatering existing sanitary sewers for connections and for dewatering proposed sanitary sewer if hydrostatic test is utilized in accordance with the plans and the provisions of these specifications.

C1.05 TESTING OF INSTALLED PIPE

All Testing shall be per NCTCOG Item 507.5. The contractor shall rotate the locations of all couplings used to join pipe strings on the as-built markups for record drawing generation.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION C2 - MANHOLE INTERIOR AND EXTERIOR COATINGS

C2.01 INTERIOR AND EXTERIOR COATINGS

The interior surfaces of manholes, shall be coated with an epoxy coating. The epoxy coating shall be a total 125-mil thickness of Raven Lining System's Raven 405 Series Epoxy or Quadex Structure Guard. The concrete surfaces shall be allowed to cure for a minimum of 28 days prior to applying the epoxy coating. After curing and prior to application, the surface shall be blasted to remove laitance, form release agents, curing compounds, sealers and other contaminants to provide a surface profile as required by the manufacturer. The concrete surfaces shall be prepared in accordance with SSPC-SP13/NACE 6 standards prior to applying epoxy coating. Visible voids, bug holes and other cavities should be filled with resurfacing or patching material recommended by the epoxy manufacturer. All steel reinforcement exposed through the surface preparation must be properly cleaned and primed per SSPC-SP10/NACE 2 "Near White Metal Blast Cleaning" and primed using an epoxy primer as recommended by the manufacturer. Outgassing must be considered and the application shall include methods or products to reduce outgassing. All products shall be stored, mixed, handled and applied according to the manufacturer's recommendations, using equipment approved for application by the manufacturer. The epoxy material and shall be tested for thickness during application using a wet film gauge in at least four locations selected by the Owner and in the presence of the Owner. The epoxy material shall be completely tested for holidays using high voltage discontinuity testing performed in accordance with NACE RP0188 and the manufacturer's instructions once the coating has cured in the presence of the Owner.

The exterior of all precast manhole sections shall be factory coated with a 12 to 16 mil dry film thickness of coal tar epoxy paint. Paint shall be as manufactured by Tnemec Company, Inc. or approved equal.

C2.02 MEASUREMENT AND PAYMENT

Interior and Exterior manhole connections will not be paid for separately but the cost thereof shall be included in the appropriate item of the Proposal and Bid Schedule for furnishing and installing manholes.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION C3 - PAINTING

C3.01 GENERAL

The work to be performed under this technical specification shall consist of furnishing all labor, materials, and equipment necessary for coating pipe, valves and fittings, supports, metal work and equipment as specified herein.

All metal surfaces to be painted shall be sound, clean and free of harmful scale, rust, dirt, oil, grease, moisture, or any other foreign matter which might, in any way, lessen the life or usefulness of the coating.

All metal shall be smooth and free from blisters, rough corners, pits, dents, or other imperfections before painting. Pits and dents shall be repaired to the satisfaction of the Owner prior to painting.

Shop coated surfaces shall be thoroughly cleaned and touched up before the application of subsequent paint coats in the field.

Parts inaccessible after assembly or erection shall be given two coats of specified primer. Each coat of primer shall be a different color or shade.

Surfaces which are to be welded after erection shall, where practicable, not receive a shop coat of paint. If painted, such paint shall be removed before field welding, for a distance of at least 2 inches on either side of the joint.

Heads of bolts, surfaces which are unpainted because of welding, and any other areas of structural steel on which the shop coat has been abraded or otherwise damaged shall be touched up with the specified primer after erection. Provide a sufficient quantity of paint specified for touch up at project site.

Paints and similar materials shall be mixed in vessels of adequate capacity. All paints shall be thoroughly stirred before being taken from the containers, shall be kept stirred while using, and all ready-mixed paints shall be applied exactly as received from the manufacturer without addition of any kind of a drier or thinner except in accordance with manufacturer's recommendations and approved by the Engineer.

All painting at the site of the work is hereby defined as field painting and the Owner's Representative shall determine where and when painting may be done. All surfaces to be painted shall have their readiness for painting approved by the Owner before work is started.

Surfaces of exposed members inaccessible after erection shall be cleaned and painted before erection.

No painting shall take place unless the atmospheric temperature is at least 40^{o}F and rising, or when the surface temperature is below the dew point, or when relative humidity is below 85%, unless approved by the Owner. Painting also shall not proceed if the temperature is expected to fall below 45^{o} F before the paint has dried.

Painting found defective shall be removed and the surface repainted as directed by the Owner at the Contractor's expense.

Before final acceptance of the project, any damaged painted surfaces shall be touched up or repainted, as directed by the Owner at the Contractor's expense.

C3.02 SHOP PAINTING

All equipment, valves, piping, motors, structural steel and miscellaneous metal shall receive one (1) shop coat an epoxy of primer compatible with the field coat specified. All shop applied coating shall be on a well prepared surface meeting SSPC requirements.

C3.03 FIELD PAINTING

It is the intent of this section of the specifications that all metal work be properly painted whether or not specific mention is made hereinafter of each individual part of the work.

C3.04 COMPATIBILITY

All primers, inter coats if used, and topcoats applied to any given surface shall be furnished by the same manufacturer and shall form a compatible coating system, as approved. Shop coated equipment shall include, as part of the shop drawing process, certification from the paint manufacturer, the compatibility with the field paint submitted by Contractor and accepted by Owner.

C3.05 COATINGS AND PAINT SCHEDULES

Items to be painted includes, but not limited to, the following:

All exterior surfaces of valves, cast iron fittings and pipe, ductile iron fittings and pipe, steel fittings and pipe, fittings, mechanical equipment, steel members, conduit, appurtenances and the like shall receive one coat of Tnemec Series 435 Perma-Glaze applied at 15-25 mils dry film thickness throughout.

Alternative paint manufactures with equal products can be utilized upon written acceptance. Contractor shall furnish necessary data sheets and experience record on alternate manufacturers. All coating systems prime and topcoats shall be of a single manufacture. Topcoat colors shall be selected and color-coded by the Owner. Contractor shall furnish paint manufacturers standard paint color selection charts.

Aluminum, PVC, hot dipped galvanized steel and brass shall not be painted.

C3.06 PAYMENT

Painting to be completed under this section of the specifications will not be paid for separately, but the *cost thereof shall be included in the Proposal and Bid Schedule, Item Nos. 2,3 and 4.*

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION C4 - HORIZONTAL DIRECTIONAL DRILLING

C4.01 DESCRIPTION

This item defines the acceptable materials, methods, and labor required for the installation of high-density polyethylene (HDPE) or fusible polyvinyl chloride (PVC) pressure pipe installed by horizontal directional drilling (HDD) as shown on the Plans and as provided in the Bid Schedule under Item No. 3.

C4.02 QUALITY ASSURANCE

A. Directional drilling and pipe installation shall be completed only by an experienced Contractor specializing in directional drilling, and whose key personnel have at least five (5) years experience in this work. Furthermore, the Contractor shall have installed directionally drilled pipe at least as large as 8-inches in diameter, borings at least 1000 feet in length, and successfully installed at least 25,000 feet in length.

B. The directional drilling Contractor shall be certified by the particular Directional Drilling Manufacturer, that such firm is a licensed installer of their system.

C. High Density Polyethylene or fusible polyvinyl chloride pipe jointing shall be performed by personnel trained in the use of joint fusion equipment and recommended methods for new pipe connections. Personnel directly involved with installing the new pipe shall have received training in the proper methods for handling and installing the high-density polyethylene. Training shall have been performed by a qualified representative.

C4.03 SUBMITTALS:

A. Submit the following Contractor's Drawings to the Engineer:

1) Shop drawings, catalog data, and manufacturer's technical data showing complete information on material composition, physical properties, and dimensions of new pipe and fittings. Include manufacturer's recommendations for handling, storage, and repair of damaged pipe and fittings.

2) Method of construction and restoration of existing water service connections: This shall include:

a) At least seven (7) days prior to mobilizing equipment, Contractor shall submit his detailed installation plan to the Engineer. The plan shall include a detailed plan of the entry and exit pits and horizontal and vertical alignment, and be plotted at a scale no smaller than 1 inch equals 20 feet horizontal and four (4) feet vertical. Any deviation from the alignment shown in the Construction Drawings must remain within the existing utility easement. The installation plan shall include a listing of major equipment and supervisory personnel and a description of the methods to be used.

b) Dewatering shall be the Contractor's responsibility.

3) Certification of workmen training for installing pipe.

C4.04 DELIVERY, STORAGE AND HANDLING:

A. Transport, handle, and store pipe and fittings as recommended by manufacturer.

B. If new pipe and fittings become damaged before or during installation, it shall be repaired as recommended by the manufacturer or replaced as required by the City at the Contractor's expense, before proceeding further.

C. Deliver, store and handle other materials as required to prevent damage.

C4.05 MATERIALS

A. Polyethylene Piping Material (HDPE) - Polyethylene Plastic Pipe shall be high-density polyethylene pipe and meet the applicable requirements of ASTM F-714 Polyethylene (PE) Plastic Pipe (SDR-PR) based on outside diameter, ASTM D-1248, ASTM D-3035.

1) The body of the pipe produced from this resin shall have a minimum cell classification of 445574 C/E under ASTM D-3350. The value for the Hydrostatic Design basis shall not be less than 1600 PSI per ASTM D-2837.

2) The manufacturer's certification shall state that the pipe was manufactured from one specific resin and shall state the resin used and its source. All pipe shall be made of virgin material. No rework, except that obtained from the manufacturer's own production of the same formulation, shall be used.

3) Pipe supplied under this specification shall have a nominal DIPS (Ductile Iron Pipe Size) outside diameter. The dimension ratio (DR) and minimum pressure rating of the pipe shall be AWWA C906, PE 4710, DR-13.5, 160 psi for 18-inch force main pipe. Pipe with a lower DR ratio and a higher-pressure rating may be used in lieu of the minimum specified.

4) Pipe shall be sized by nominal diameter.

5) Pipe and fittings must be marked as prescribed by ASTM F714. Pipe markings will include nominal size, OD base (ie: 8" ductile iron pipe sizing, DIPS), dimension ratio, pressure class, WPR, ASTM F714, manufacturer's name, manufacturer's production code including day, month, year extruded, and manufacturer's plant and extrusion line.

6) Exterior of pipe shall have a green stripe designating the pipe as a force main.

7) Contractor shall provide all fittings required to connect HDPE pipe to PVC pipe.

B. Fusible Polyvinyl Chloride (PVC) Piping Material - Polyvinyl Chloride Pipe shall conform to AWWA C900, ASTM D2241 or ASTM D1785 for standard dimensions, as applicable. Testing shall be in accordance with NCTCOG Item 506.5 – Hydrostatic Test.

1) The body of the pipe produced from this resin shall have a minimum cell classification of 12454 under ASTM D-1784.

2) The manufacturer's certification shall state that the pipe was manufactured from one specific resin and shall state the resin used and its source. All pipe shall be made of virgin material. No rework, except that obtained from the manufacturer's own production of the same formulation, shall be used.

3) Pipe supplied under this specification shall have a nominal DIPS (Ductile Iron Pipe Size) outside diameter. The dimension ratio (DR) and minimum pressure rating of the pipe shall be AWWA C900, DR-25, 165 psi for 18-inch force main pipe. Pipe with a lower DR ratio and a higher-pressure rating may be used in lieu of the minimum specified.

4) Pipe shall be sized by nominal diameter.

5) Pipe and fittings must be marked as prescribed by ASTM F714. Pipe markings will include nominal size, OD base (ie: 8" ductile iron pipe sizing, DIPS), dimension ratio, pressure class,

WPR, ASTM F714, manufacturer's name, manufacturer's production code including day, month, year extruded, cell classification, and manufacturer's plant and extrusion line.

6) Fusible PVC pipe shall be green in color designating the pipe as a force main.

7) Pipe shall be homogeneous throughout and be free of visible cracks, holes, foreign material, blisters, or other visible deleterious faults.

C4.06 TESTS

The Contractor shall be required to send submittals to the Engineer on the production material.

A. The pipe manufacturer shall provide certification that samples of the production product meets these specifications. The certification will state that production product has been tested in accordance with ASTM D-2837 and validated in accordance with the latest revision of PPI TR-4.

B. The pipe manufacturer shall provide certification that stress regression testing has been performed on the specific product. Certification shall include a stress life curve per ASTM D-2837 and testing shall have been performed in accordance with ASTM D-2837.

C. Rejection: Polyethylene and PVC plastic pipe and fittings may be rejected for failure to meet any of the requirements of this specification.

C4.07 DRILLING FLUIDS AND CUTTINGS

A. Drilling fluid used in the HDD shall be approved by the pipe manufacturer and have no detrimental effect on the pipe or environment. The drilling fluid must meet all EPA requirements and be non-toxic.

B. Mixed fluid shall be used for the hole support, soil suspension pipe, lubricity, and be capable of preserving the in-situ soil permeability and porosity and provide support for the pipe. Pressure and flow rate of the drilling slurry shall be continuously monitored to prevent mud migration.

C. Pits constructed at the entry or exit point area shall be so constructed to completely contain the drill fluid and prevent its escape into street gutters and storm sewers.

D. During the drilling, reaming, or pullback operations, the Contractor shall make adequate provisions for handling the drilling fluids, or cuttings at the entry and exit pits. To the greatest extent possible, these fluids must not be discharged into or allowed to runoff into the storm sewer system.

C4.08 RECEIVING, UNLOADING, AND DISTRIBUTION OF MATERIALS

A. The Contractor shall carefully examine the pipe and other materials delivered before unloading and any defects found shall be brought to the attention of the delivery agent. All materials shall be unloaded at the Contractor's risk.

B. Materials shall be lifted by tackle; not skidded or dumped from the delivery vehicle.

C. All pipe and other material shall be transported to the project site and distributed in such a manner as to be convenient for installation and placed in such a manner as to afford as little inconvenience to the public as possible.

C4.09 INSTALLATION BY HORIZONTAL DIRECTION DRILLING (HDD)

A. The Contractor shall assemble, support, and pretest the pipeline prior to installation in the directional drill tunnel.

B. The required piping shall be assembled in a manner that does not obstruct adjacent roadways, public activities, or cause a disruption to residents.

C. The HDPE pipe shall be installed by HDD at the locations and to the horizontal and vertical alignment shown on the plans in accordance with the pipe manufacturer's recommendations. The drilling operation shall consist of drilling a small diameter pilot hole from one end of the alignment

to the other, followed by enlarging the hole diameter for the pipeline insertion. The exact method and techniques for completing the directionally drilled installation will be determined by the Contractor, subject to the requirements of these Specifications.

D. Proper implements, tools, equipment and facilities shall be provided and used by the Contractor for the safe and convenient prosecution of the work. All pipe and couplings shall be thoroughly cleaned of all dirt and trash before installation and kept as clean as possible during the installation.

E. At the end of each day's work, or anytime the incomplete pipeline is left unattended, the Contractor shall securely plug the ends of the pipe with a suitable "test plug" to prevent the entrance of surface or ground water into the pipe. The end of the pipe and test plug shall be covered over with loose embedment material to a depth of approximately 12-inches to discourage vandalism or easy access by unauthorized persons.

F. The directional drilling equipment shall be capable of providing the appropriate alignment control and thrust/pullback to accomplish the installation indicated on the Plans. The drilling equipment shall have either a fixed or remote directional control system capable of transmitting pitch, roll and azimuth signals. Location sensing system shall be capable of pinpointing the steering tool both horizontally and vertically for azimuth and inclination.

G. Reaming operations shall be conducted to enlarge the pilot after acceptance of the pilot bore by the City. The number and size of such reaming operations shall be conducted at the discretion of the Contractor. The bored (reamed) hole shall not be greater than 1.5 times the O.D. of the pipe couplings.

H. The maximum allowable pullback force exerted on the pipeline shall be measured continuously and shall not exceed the pipe manufacturer's recommendation.

I. A swivel shall be used to connect the pipeline to the drill pipe to prevent torsional stresses from occurring in the pipe. The lead end of the pipe shall be closed during the pullback operation.

J. The Contractor shall plan the work so that the pipe will be installed continuously with minimal pauses to connect joints of the pipe and remove drill stem joints. The pipe installation shall be completed on the same day that it begins.

K. The pipeline shall be adequately supported by rollers and side booms and monitored during installation so as to prevent over stressing or buckling during the pullback operation.

L. The Contractor shall provide a relief pit or pits to contain any spilled or discharged drilling fluid. Upon completion of the installation all expelled drilling fluid shall be collected from the pit(s) and the pit(s) shall be backfilled with soil, compacted and restored to the satisfaction of the City.

M. To the extent practical, the Contractor shall maintain a closed loop drilling fluid system.

C4.10 TOLERANCES

A. Pipe installed by the directional drilled method must be located in plan as shown on the Drawings, and be no shallower than 4-feet, unless otherwise approved. The Contractor shall plot the actual horizontal and vertical alignment of the pilot bore at intervals not exceeding 30 feet. This "as built" plan and profile shall be updated as the pilot bore is advanced. The Contractor shall at all times provide and maintain instrumentation that will accurately locate the pilot hole and measure drilling fluid flow and pressure. The Contractor shall grant the Engineer access to all data and readout pertaining to the position of the bore head and the fluid pressures and flows. When requested, the Contractor shall provide explanations of this position monitoring and steering equipment. The Contractor shall employ experienced personnel to operate the directional drilling equipment and, in particular, the position monitoring and steering equipment. No information pertaining to the position or inclination of the pilot bores shall be withheld from the Engineer.

B. The exit point shall be shown in the Contractor's plan and located such that there is a minimal amount of disturbance and impact to the residents and surrounding property. The actual exit point shall have no more than a two (2) foot longitudinal and one (1) foot transverse variance from that

shown and approved by the Engineer, and with due consideration of the permanent right-of-way and existing utilities.

C4.11 HYDROSTATIC TESTING

The pipe shall be hydrostatically pressure tested in accordance with NCTCOG Item 506.5.1 Hydrostatic Testing Polyethylene Pipe, immediately following (within 24 hours) of the installation of the pipe. Piping failing to meet the required pressure testing shall be immediately removed and replaced or otherwise repaired to the satisfaction of the Owner's Project Representative and then must pass subsequent hydrostatic pressure test.

C4.12 DISINFECTING OF COMPLETED LINE

Upon completion of the installation and hydrostatic testing the pipeline shall be thoroughly flushed and disinfected in accordance with NCTCOG Item 506.7 Purging and Disinfection of Water Conduits.

C4.13 MEASUREMENT AND PAYMENT

A. The linear foot length of the installed pipe shall be measured horizontally from one end of the pipe to the other.

B. Payment shall be made at the price bid per linear foot for the various sizes of the restrained joint PVC pipe or HDPE pipe installed by directional drilling, complete in place and shall be full compensation for furnishing all materials, fittings, transportation, equipment, labor, testing, disinfecting, embedment, and backfill. The cost to backfill entrance and exit bore pits shall be subsidiary to the pipe installation (Not a pay item).

C. The contractor may use horizontal directional drilling in excess of the lengths shown on the plans so long as 90% of the safe pull tension is not exceeded. Work will be paid for based on the bid quantity for open cut and additional boring will be at the contractor's expense.

D. Surface and/or ground restoration shall be subsidiary to the pipe installation (Not a pay item).

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION C5 - BORING, JACKING OR TUNNELING PIPE

C5.01 DESCRIPTION OF WORK

This section of the specifications shall govern for the furnishing and installation of pipe by the methods of boring, jacking or tunneling as shown on the plans and in conformity with the specifications.

The Contractor may, at his option and expense, and with the specific approval of the Owner, utilize boring, jacking or tunneling where the plans otherwise indicate very deep open cuts.

C5.02 MATERIALS

Unless specified on plans, encasement pipe for boring, jacking or tunneling may be either smooth steel pipe, steel liner plate or steel casing pipe. Smooth steel pipe shall have a minimum yield strength of 35,000 psi and shall conform to AASHTO Designation M218-74. The steel casing pipe shall meet the requirements of AASHTO M167-72 and shall meet the requirements of Test Method Tex-708-1. The pipe used shall be installed with an even bearing throughout its length, and all voids between the earth and encasement pipe shall be filled with grout. Contractor shall submit a plan for grouting this space for review by the Owner and Engineer. Smooth steel pipe and steel casing pipe shall be coated inside and outside with 10 mils dft of coal tar epoxy paint.

Steel liner plate may be utilized for other than railroad crossings, shall be fabricated from steel conforming to ASTM A569 with bolts conforming to ASTM A449 for plate equal or greater than 0.209 inches and ASTM A307 for plate less than 0.209 inches. Steel linear plate shall be hot dipped galvanized in accordance with ASTM 123 and asphalt coated per AASHTO M109. The minimum factors of safety for steel liner plate are as follows:

Longitudinal Test Seam Strength	=	6.0
Pipe Wall Buckling	=	4.0
Installation Stiffness	=	4.0

Where encasement pipe is not indicated on the plans, the Contractor may, at his option, utilize encasement pipe in his jacking, tunneling or boring operation. However, no extra payments will be made for such encasement pipe.

C5.03 CONSTRUCTION

a) Jacking

If the grade of the pipe at the jacking end is below the ground surface, suitable pits or trenches shall be excavated for the purpose of conducting the jacking operations and for placing end joints of the pipe. Wherever end trenches are cut in the sides of the embankment or beyond it, such work shall be sheeted securely and braced to prevent earth caving.

The boring, jacking or tunneling shall be made in such a manner that it will not weaken or damage the levee or roadway above. Heavy-duty jacks suitable for forcing the pipe through the embankment shall be provided. In operating jacks, even pressure shall be applied to all jacks used. A suitable jacking head, usually of timber, and suitable bracing between jacks and jacking head shall be provided so that pressure will be applied to the pipe uniformly around the ring of the pipe. A suitable jacking frame or backstop shall be provided. The pipe to be jacked shall be set on guides, properly braced together, to support the section of the pipe and to direct it in proper line and grade. The whole jacking assembly shall be placed so as to line up with the direction and grade of the pipe. In general, embankment materials shall be excavated just ahead of the pipe and material removed through the pipe as the pipe is forced through the embankment with jacks, into the space thus provided.

The Contractor shall furnish for review by the Owner a plan showing his proposed method of handling, including the design for the jacking head, jacking support or backstop, arrangement and position of jacks and pipe guides. The review of the plan by the Owner will not relieve the Contractor from his responsibility to obtain specified results.

When jacking of pipe is once begun, the operation shall be carried on without interruption, insofar as practicable, to prevent the pipe from becoming firmly set in the embankment. Any pipe damaged in jacking operations shall be removed and replaced by the Contractor at his expense. The pits or trenches excavated to facilitate jacking operations shall be backfilled immediately after the jacking of the pipe has been completed.

b) Boring

Boring shall proceed from a pit provided for the boring equipment and workmen. Excavation for pits and installation of shoring shall be as outlined under "Jacking". The locations of such pits shall meet the approval of the Owner and/or Engineer. The holes are to be bored mechanically, and the boring shall be done using a pilot hole. By this method an approximately 2-inch pilot hole shall be bored the entire length of the crossing and shall be checked for line and grade on the opposite end of the bore from the work pit. This pilot hole shall serve as the centerline of the larger diameter hole to be bored. The use of water or other fluids in connection with the boring operation will be permitted to the extent to lubricate cuttings. Jetting will not be permitted. All voids between the undisturbed earth and encasement pipe shall be remedied by pressure grouting all areas overcut by greater than 1-inch or with voids at no additional cost to the Owner. The annular space between the carrier pipe and the encasement pipe shall be filled with flowable fill.

c) Tunneling

Where the characteristics of the soil and size of the proposed pipe would make the use of tunneling more satisfactory than jacking or boring, a tunneling method may be used. The excavation for pits and the installation of shoring shall be as outlined under "Jacking". The lining of the tunnel shall be of steel of sufficient strength to support the over burden. The Contractor shall submit his proposed line or method to the Engineer for approval. Approval by the Owner and/or Engineer will not relieve the Contractor of the responsibility for the adequacy of the liner method. The space between the liner plate or steel encasement pipe and the limits of excavation shall be pressure grouted or mud jacked if greater than 1-inch. The annular space between the carrier pipe and the encasement pipe shall be filled with flowable fill.

C5.04 COMPLIANCE WITH SPECIFICATIONS

The final in-place pipe shall be laid true to the grades shown on the plans and within 1” per 10’ for horizontal alignment and within 0.05% vor vertical grade, and shall meet the exfiltration or pressure test criteria noted in other sections of these specifications. All annular space between the carrier pipe and the encasement pipe shall be pressure grouted and adequate measures shall be taken to prevent carrier pipe from floating due to pressure grouting. No separate payment will be allowed for such pressure grouting.

The Contractor shall present the completed jacked, tunneled or bored section of the sewer line or force main to the Owner or Engineer for approval before backfilling the pits.

C5.05 MEASUREMENT FOR PAYMENT

Measurement for payment for boring, jacking and tunneling will be made at the unit price per linear foot as shown on the plans and as itemized in the Bid Schedule. Measurement shall not be made through any pit or trench.

Payment to the Contractor at the various unit bid prices shall constitute full compensation for furnishing and installing all materials, pipe and liner materials required forboring, jacking or tunneling operations, for all preparation, hauling, and installation of same and for all labor, tools, equipment, and incidentals necessary to complete the work, including but not limited to excavation, backfill and disposal of surplus

material and pumps for dewatering the trench. Payment shall also include all costs for complete restoration of any areas between the limits of the bored installation disturbed by construction activities.

If the Contractor elects boring, jacking or tunneling to install any portion of the work designated on the plans for open cut installation, and obtains specific written approval from the Owner, the Contractor shall be paid for this work as if the work has been done by open cut.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION C6 - ISOLATION VALVES

C6.01 DESCRIPTION OF WORK

The work to be performed under this specification shall consist of furnishing and installing isolation valves on this project.

C6.02 VALVES

A. Resilient Wedge Gate Valves

Resilient wedge gate valves shall be furnished and installed and shall be manufactured in accordance with the latest AWWA C-509 or C-515 and iron shall conform to the latest ASTM A536 or A-126 standards. Gate valves furnished under these specifications shall be of the solid wedge, resilient seat type with cast iron body and stainless-steel stem designed for 200 pounds per square inch working pressure with a non-rising stem. All gate valves shall be tested hydrostatically to 300 pounds per square inch.

The seat shall be made of Stryrene Butadiene rubber and provide a positive watertight seal. The seat shall be permanently bonded or mechanically attached to the wedge with stainless steel screws. If bonded, ASTM P-429 requirements shall be followed.

All bronze castings, except the stem, shall have a tensile strength of not less than 30,000 pounds per square inch. The entire internal valve body surfaces shall be coated with a factory applied 2-component epoxy system or approved equal. The seating surface shall be machined or otherwise constructed to provide a smooth, even surface for the resilient seat. All valves shall open left (counterclockwise) and have a 2-inch square wrench nut unless specified otherwise.

Valves shall be manufactured by J&S Valve and Manufacturing, M&H, Pratt or approved equal.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION C7 - HYDROMULCH SEEDING

C7.01 GENERAL

The work to be performed under this section of the specifications shall consist of furnishing, placing, fertilizing and establishing hydromulch seeding, including all materials, equipment, labor, tools and other incidentals necessary to complete the work as shown on the plans and as specified herein. Areas disturbed by the construction activities shall be hydromulched as shown on the plans and maintained until a "healthy stand of grass has been obtained".

C7.02 SEEDING

All planting shall be done between the dates specified for each type except when specifically authorized in writing. The seeds planted shall be of a type specified with the mixture, rate and planting dates as follows:

Type I - Bermuda Grass - Hulled
50 lbs/acre (April - June)

Type II - Annual Rye Grass and Bermuda Grass – Unhulled*
60 lbs/acre (September - December)

Type III - Bermuda Grass - Unhulled (January - March/July - August)
50 lbs/acre

* At least 50% of the seed shall be perennial seed when a seed mixture is applied.

Fertilizer shall be a commercial product, uniform in composition, free flowing and suitable for application with approved equipment. Fertilizer shall be delivered to the site in fully labeled original containers. Fertilizer that has been exposed to high humidity and moisture, has become caked or otherwise damaged, making it unsuitable for use, shall be rejected.

Fertilizer for the initial planting application shall be of an organic base containing by weight the following (or other approved) percentages of nutrients: 15-10-5 (N-P-K); also containing 10-15 percent sulfate and traces of iron and zinc as required and approved by the Owner. The manufacturer's recommendation as to rate of application of fertilizer for type of grass and season shall be followed.

After the designated areas have been completed to the lines, grades and cross sections shown on the plans and as provided for in other items of this contract, seeding of the type specified shall be performed in accordance with the requirements hereinafter described.

Seed and fertilizer are to be distributed as a water slurry, and the mixture shall be applied to that area to be seeded within 30 minutes after all components are placed in the equipment. Fertilizer shall conform to the requirements of Section 6.3, "Fertilizer." After planting, the seed shall be raked or harrowed into the soil to a depth of approximately 1/4-inch (6mm). The planted area shall then be rolled with a smooth roller, developing 15 to 25 psi (100 to 170 kPa) contact pressure upon the planted surface area and giving a smooth surface without ruts or tracks. After compacting is completed, the planted area shall be watered sufficiently to assure uniform moisture from the surface to a minimum of six inches (150mm) in depth.

After planting, the seed shall be raked or harrowed into the soil to a depth of approximately 1/4-inch. The planted area shall then be rolled with a smooth roller, developing 15 to 25 psi contact pressure upon the planted surface area and giving a smooth surface without ruts or tracks. After compacting is completed, the planted area shall be watered sufficiently to assure uniform moisture from the surface to a minimum of six inches in depth. Seeded areas shall be subsequently watered as needed to prevent washing of the slopes or dislodgment of the seed. Contractor is responsible for obtaining, purchasing and applying water as necessary to obtain a "healthy stand of grass" prior to final project completion. A "healthy stand of grass" consists of at least 75% coverage per square foot, a minimum of 1-inch in height.

C7.03 MEASUREMENT AND PAYMENT

Hydromulch seeding and fertilizing shall be measured for payment in square yards of seeded area completed in accordance with the plans and specifications. Hydromulch shall be paid for at the contract unit price per square yard unless otherwise indicated in the plans, complete in place, as provided in the proposal and contract. The contract unit price shall be the total compensation for furnishing and placing all sod; for all rolling and tamping; for fertilizing; for all water; for disposal of all surplus material; and for all material, labor, equipment, tools and incidentals necessary to complete the work, all in accordance with the plans and these specifications.

END OF SECTION

GEOTECHNICAL REPORT

HENLEY | JOHNSTON
& ASSOCIATES

geotechnical and construction materials consultants

April 4, 2022
Report No. 23517G

Birkhoff, Hendricks & Carter, LLP
11910 North Greenville Avenue, Suite 600
Dallas, Texas 75243
ATTN: Mr. Andrew Mata, P.E.
Phone: 214-361-7900
Email: amata@bhcllp.com

RE: Geotechnical Investigation
Pecan Creek Trunk Sewers and Force Main
Aubrey, Texas

Gentlemen:

Presented herein is the report of a geotechnical investigation conducted by Henley-Johnston & Associates, Inc. for the above referenced project.

We appreciate the opportunity to provide this report to you. If we can be of further service or if you desire any additional information, please do not hesitate to call.

Signed,

HENLEY-JOHNSTON & Associates, Inc.

Jordan Scoville, E.I.T.
Senior Staff Engineer

James F. Phipps, P.E.
Vice President

The seal appearing on this document was authorized by James F. Phipps, P.E. 84778 on April 4, 2022.

Firm Registration No.: F-1238

Copies submitted Birkhoff, Hendricks & Carter, LLP – Mr. Andrew Mata, P.E.

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HENLEY | JOHNSTON
& ASSOCIATES

INVESTIGATION AND ANALYSIS

Introduction

This report presents the results of a subsurface investigation performed for the proposed Pecan Creek Trunk Sanitary Sewer line. The purpose of this investigation was to identify the subsurface materials for installation of below grade utilities.

This report is specific to this project. Persons using the recommendations and information herein for projects and/or designs not covered by this report do so at their own risk.

Field and Laboratory Investigation

Subsurface conditions at this site were to be evaluated using a total of 11 soil borings. Boring locations were dictated by the client and site accessibility, identified in the field by Henley-Johnston & Associates, Inc. (HJA), and are presented on Plate 1. Borings were drilled using both truck and ATV-mounted drilling rigs equipped with continuous flight augers and extended to a depth of 25 feet below existing (March 2022) grades. Drilling and sampling were done in general accordance with ASTM methods and standards. Relatively undisturbed samples of cohesive soil and weathered shale were obtained with three-inch diameter thin-walled Shelby tubes.

Portions of the unweathered shale were evaluated in-situ using the TxDOT Cone Penetration Test (Tex-E-132E). In this test a tapered metal cone is driven into the rock using a 170-pound weight, dropped a distance of 24 inches by a hydraulically driven chain. The cone is initially seated using 12 successive blows and the drill pipe marked to provide a reference to measure from. The weight is dropped for an initial set of 50 blows and the amount of penetration is recorded. A second increment of 50 blows is then done and the corresponding penetration is again recorded. The total amount of penetration is used to empirically evaluate the bearing capacity of the rock. Disturbed samples of rock were gathered from the flight augers.

All samples were transported to the HJA laboratory for visual classification and testing. Soils were visually classified according to the Unified Soil Classification System (USCS). Rock materials were described using standard geological nomenclature. Boring Logs and a key to terms and symbols used on the logs are attached.

Selected samples were tested to confirm visual classification. Tests conducted included Atterberg Limits (ASTM D-4318) and moisture content determinations (ASTM D-2216). Results of these index tests are presented on Plates 2 through 6.

The potential for heave was also evaluated using Free-Swell tests. This test involves placing a 1-inch-thick sample of soil in a 2.5-inch ID confining ring into a consolidation machine and adding weight equal to the load imposed by the overburden soils at the sample depth. The soil is then inundated with water and allowed to swell freely until movement has stopped. Results of these tests are summarized on Plate 6.

The strength of each cohesive sample was estimated using a hand penetrometer. The results of these estimates are recorded graphically on the "Log of Boring" illustrations. The strength properties of selected soil samples were investigated by Unconfined Compression tests. In the Unconfined Compression test, axial load is applied to a laterally unsupported cylindrical sample until failure occurs within the sample. This test is conducted fairly rapidly (failure within about 10 minutes) and generally conforms to ASTM D-2166 for soil samples. Results of the Unconfined Compression tests performed are summarized on Plate 7.

Surface and Subsurface Conditions

Surface Conditions

At the time of the field investigation the borings were generally located within open fields or near existing residences. Some trees were present along the proposed alignment for the sewer line.

Geologic Setting

Review of geologic maps indicates this site is located within alluvial clays associated with deposition from the nearby Pecan Creek over shale of the Woodbine Formation. The depth of the alluvial deposit is dependent upon the amount of flooding that occurred in the geologic past.

Subsurface Conditions

Based on review of the boring logs, the upper materials encountered at each of the boring locations consisted of mostly moderately plastic (CL) clay and sandy clay soils. These clays contained varying amounts of ironstones and iron staining and continued to depths of 9 to 25 feet below existing grades. It should be noted that Boring Nos. S4-3 and S4-4 terminated within these clay soils.

A limited amount of sand was present in Boring No. S2-2. This material was very fine-grained, brown, orangish-brown, and light brown in appearance, contained varying amounts of iron staining, and continued to a depth of 19 feet below existing grades in this boring.

Weathered shale was present below the clay and sand soils in the remaining borings. This weathered shale was soft (rock hardness classification), brown and gray in appearance, with hues of orange, and continued to depths of 16 to 25 feet below existing grades. It should be noted that Boring Nos. S2-2, S2-3, S4-1, S4-2, S4-5, and S4-6 terminated within the weathered shale. The weathered shale contained varying amounts of sand, and possessed the engineering properties of CH clay soils, as noted in the laboratory summary.

Unweathered shale was present below the weathered shale in Boring Nos. S2-1, S6-1, and S6-2. This unweathered shale was firm, dark gray in appearance, and extended through the termination depth in these borings.

Ground Water

Ground water was observed to be present at depths of 7 to 23 feet below existing grades during drilling operations. Based on this information, ground water should be anticipated during construction of the sewer line. The depth to, and volume of, water will vary with seasonal rainfall.

Excavations

Per Federal regulations, any excavation over 20 feet in depth will require an engineered excavation and safety plan prepared by a licensed engineer. If there is sufficient room, the sidewalls of any utility excavation within clay soils and weathered shale may be laid back on a temporary slope of 1 Horizontal to 1 Vertical. Near vertical excavations may be made in the limestone provided there are no visible fractures or joints that intersect with the trench. Water must not be allowed to pond at the top of the slope and any water collecting within the excavation should be immediately discharged. Construction equipment and materials should not be placed within four feet of the edge of the excavation.

On-site soils should be classified as Type B per 29 CFR Part 1926, Chapter 17, Subpart P, Appendix A. Periodic inspections of the rock sidewalls should be conducted by a competent person to identify any adverse faults present within the excavation.

Ground water was noted within the depths investigated for this project. Dewatering should be anticipated in isolated areas along the proposed alignment.

All spoils and construction materials should be kept a minimum of 4 feet from the edge of the trench. Water should not be allowed to pond along the edge of or within the bottom of any excavation.

For any temporary retention system design, the soils and shale may be considered to exert an equivalent fluid pressure of 50 pcf considering active conditions against any shielding or temporary shoring. A vertical surcharge of 250 psf should be applied around the perimeter of the below grade retention system in those areas where vehicular traffic and construction loads will be within a lateral distance equal to one-half the depth of the excavation. The horizontal component of this loading may be determined using a coefficient of 0.5 and should be applied at a depth from the surface equal to 1/3 the height of the trench.

Earthwork Recommendations

On-site soils should be placed in maximum eight-inch loose lifts and compacted to a minimum of 95% of the maximum unit dry weight as determined by ASTM D-698. Moisture content should be at or above optimum moisture content.

Excavated weathered shale used as backfill should be reduced to a nominal diameter of 3 inches and wetted thoroughly to produce a uniform moisture content throughout the material. Weathered shale should be placed in maximum 8-inch loose lifts and compacted to a minimum of 93% of the maximum dry unit weight as determined by ASTM D-698. Moisture contents should be a minimum of +2% of optimum as determined by ASTM D-698.

Construction Testing and Observation

It is recommended that all backfill materials within the trench be tested for moisture and density at a rate of one test per foot of fill for every 500 linear feet of excavation in open areas. Locations where the line will be below paving should be evaluated at a rate of one foot of fill for every 300 liner feet, or for every road crossing, whichever applies.

Testing should commence 1-foot above the top of the pipe or conduit. Field density tests must be conducted during placement of fill. Provisions should be made to permit safe access to the utility trench during placement of fill to allow for testing of the backfill materials for adequate moisture and density.

Field density testing must be conducted during placement of fill. Samples of the fill material should be submitted to the testing laboratory a minimum of 72 hours prior to commencing earthwork operations to allow for evaluation of the maximum density and optimum moisture of the fill soils.

LEGEND

BORING LOCATION

NOT TO SCALE

HENLEY | JOHNSTON & ASSOCIATES
235 MORGAN AVE. DALLAS, TX 75203 I 214.941.3808 I WWW.HJA-ENG.COM
TEXAS FIRM REGISTRATION NO. F-1238

PECAN CREEK TRUNK SEWERS AND FORCE MAIN
VARIOUS LOCATIONS
AUBREY, TEXAS

HJA No.: 23517G

DATE: FEBRUARY 2022

BORING LOCATION PLAN

PLATE 1

GEOTECHNICAL INVESTIGATION
REPORT NO. 23517G
PECAN CREEK TRUNK SEWERS AND FORCE MAIN
VARIOUS LOCATIONS
AUBREY, TEXAS

SUMMARY OF INDEX PROPERTIES

BORING NUMBER	DEPTH (ft.)	LIQUID LIMIT (%)	PLASTIC INDEX	DUW (pcf)	FINER #200 (%)	MOISTURE CONTENT (%)	UNIFIED SOIL CLASSIFICATION
S2-1	0.0 – 1.0					15.7	
S2-1	1.0 – 2.0					29.1	
S2-1	2.0 – 3.0					20.8	
S2-1	3.0 – 4.0	34	22	108.2		18.2	CL
S2-1	4.0 – 5.0					19.3	
S2-1	5.0 – 6.0					19.4	
S2-1	6.0 – 7.0					20.1	
S2-1	7.0 – 8.0					17.9	
S2-1	8.0 – 9.0					16.7	
S2-1	9.0 – 10.0					16.2	
S2-1	14.0 – 15.0					22.5	
S2-1	19.0 – 20.0					24.8	
S2-2	0.0 – 1.0					9.9	
S2-2	1.0 – 2.0					16.7	
S2-2	2.0 – 3.0					16.5	
S2-2	3.0 – 4.0					12.2	
S2-2	5.0 – 6.0					9.1	
S2-2	6.0 – 7.0					12.8	
S2-2	7.0 – 8.0					16.8	
S2-2	8.0 – 9.0					15.8	
S2-2	9.0 – 10.0					20.7	
S2-3	0.0 – 1.0					17.1	
S2-3	1.0 – 2.0					26.7	
S2-3	2.0 – 3.0					19.6	
S2-3	3.0 – 4.0					16.2	
S2-3	4.0 – 5.0					18.7	
S2-3	5.0 – 6.0					16.7	

GEOTECHNICAL INVESTIGATION
REPORT NO. 23517G
PECAN CREEK TRUNK SEWERS AND FORCE MAIN
VARIOUS LOCATIONS
AUBREY, TEXAS

SUMMARY OF INDEX PROPERTIES (CONTD.)

BORING NUMBER	DEPTH (ft.)	LIQUID LIMIT (%)	PLASTIC INDEX	DUW (pcf)	FINER #200 (%)	MOISTURE CONTENT (%)	UNIFIED SOIL CLASSIFICATION
S2-3	6.0 – 7.0					18.2	
S2-3	7.0 – 8.0					17.3	
S2-3	8.0 – 9.0					18.3	
S2-3	9.0 – 10.0					18.1	
S2-3	14.0 – 15.0	82	56			21.0	CH
S2-3	19.0 – 20.0					18.0	
S4-1	0.0 – 1.0					17.2	
S4-1	1.0 – 2.0					18.1	
S4-1	2.0 – 3.0	33	21			19.0	CL
S4-1	3.0 – 4.0					20.8	
S4-1	4.0 – 5.0					21.5	
S4-1	5.0 – 6.0					20.7	
S4-1	6.0 – 7.0					18.3	
S4-1	7.0 – 8.0					30.8	
S4-1	8.0 – 9.0					14.2	
S4-1	9.0 – 10.0					17.1	
S4-2	0.0 – 1.0					32.2	
S4-2	2.0 – 3.0					19.5	
S4-2	3.0 – 4.0					20.6	
S4-2	4.0 – 5.0					17.4	
S4-2	5.0 – 6.0					16.2	
S4-2	6.0 – 7.0					16.9	
S4-2	7.0 – 8.0					16.2	
S4-2	8.0 – 9.0	39	27			17.6	CL
S4-2	9.0 – 10.0					16.5	

GEOTECHNICAL INVESTIGATION
REPORT NO. 23517G
PECAN CREEK TRUNK SEWERS AND FORCE MAIN
VARIOUS LOCATIONS
AUBREY, TEXAS

SUMMARY OF INDEX PROPERTIES (CONTD.)

BORING NUMBER	DEPTH (ft.)	LIQUID LIMIT (%)	PLASTIC INDEX	DUW (pcf)	FINER #200 (%)	MOISTURE CONTENT (%)	UNIFIED SOIL CLASSIFICATION
S4-3	0.0 – 1.0					16.7	
S4-3	1.0 – 2.0					25.4	
S4-3	2.0 – 3.0					20.2	
S4-3	3.0 – 4.0			112.4		18.8	
S4-3	4.0 – 5.0					19.8	
S4-3	5.0 – 6.0					23.5	
S4-3	6.0 – 7.0					21.6	
S4-3	7.0 – 8.0					20.9	
S4-3	8.0 – 9.0					19.0	
S4-3	9.0 – 10.0					17.3	
S4-4	0.0 – 1.0					11.7	
S4-4	1.0 – 2.0					16.1	
S4-4	2.0 – 3.0					16.9	
S4-4	3.0 – 4.0	38	23			14.6	CL
S4-4	4.0 – 5.0					14.2	
S4-4	5.0 – 6.0					14.4	
S4-4	6.0 – 7.0					12.5	
S4-4	7.0 – 8.0					21.5	
S4-4	8.0 – 9.0					20.9	
S4-4	9.0 – 10.0					23.5	
S4-4	14.0 – 15.0					21.8	NONPLASTIC
S4-5	0.0 – 1.0					26.9	
S4-5	1.0 – 2.0					24.4	
S4-5	2.0 – 3.0			96.7		25.5	
S4-5	3.0 – 4.0					18.0	
S4-5	4.0 – 5.0					16.5	
S4-5	5.0 – 6.0					16.1	
S4-5	6.0 – 7.0					15.8	

GEOTECHNICAL INVESTIGATION
REPORT NO. 23517G
PECAN CREEK TRUNK SEWERS AND FORCE MAIN
VARIOUS LOCATIONS
AUBREY, TEXAS

SUMMARY OF INDEX PROPERTIES (CONTD.)

BORING NUMBER	DEPTH (ft.)	LIQUID LIMIT (%)	PLASTIC INDEX	DUW (pcf)	FINER #200 (%)	MOISTURE CONTENT (%)	UNIFIED SOIL CLASSIFICATION
S4-5	7.0 – 8.0					17.1	
S4-5	8.0 – 9.0					17.0	
S4-5	9.0 – 10.0					17.1	
S4-5	14.0 – 15.0			96.7		19.8	
S4-5	19.0 – 20.0					21.9	
S4-5	24.0 – 25.0					25.7	
S4-6	0.0 – 1.0					14.0	
S4-6	1.0 – 2.0			111.7		16.0	
S4-6	2.0 – 3.0					13.7	
S4-6	3.0 – 4.0					17.0	
S4-6	4.0 – 5.0					12.6	
S4-6	5.0 – 6.0	38	21	119.0		13.0	CL
S4-6	6.0 – 7.0					14.4	
S4-6	7.0 – 8.0					15.0	
S4-6	8.0 – 9.0					16.7	
S4-6	9.0 – 10.0					18.1	
S4-6	14.0 – 15.0					20.3	
S4-6	19.0 – 20.0					26.4	
S4-6	24.0 – 25.0					27.9	
S6-1	0.0 – 1.0					14.8	
S6-1	1.0 – 2.0					11.3	
S6-1	2.0 – 3.0	30	19	124.4		10.0	CL
S6-1	3.0 – 4.0					14.4	
S6-1	4.0 – 5.0					14.7	
S6-1	5.0 – 6.0					16.8	
S6-1	6.0 – 7.0					16.9	
S6-1	7.0 – 8.0					16.9	
S6-1	8.0 – 9.0					17.2	

GEOTECHNICAL INVESTIGATION
REPORT NO. 23517G
PECAN CREEK TRUNK SEWERS AND FORCE MAIN
VARIOUS LOCATIONS
AUBREY, TEXAS

SUMMARY OF INDEX PROPERTIES (CONTD.)

BORING NUMBER	DEPTH (ft.)	LIQUID LIMIT (%)	PLASTIC INDEX	DUW (pcf)	FINER #200 (%)	MOISTURE CONTENT (%)	UNIFIED SOIL CLASSIFICATION
S6-1	9.0 – 10.0					18.2	
S6-1	14.0 – 15.0			110.6		21.1	NONPLASTIC
S6-2	0.0 – 1.0					19.6	
S6-2	1.0 – 2.0	36	17	107.5		16.8	CL
S6-2	2.0 – 3.0				48.5	12.2	
S6-2	3.0 – 4.0					11.5	
S6-2	4.0 – 5.0					12.8	
S6-2	5.0 – 6.0					13.6	
S6-2	6.0 – 7.0					17.2	
S6-2	7.0 – 8.0					16.1	
S6-2	8.0 – 9.0					17.8	
S6-2	9.0 – 10.0					24.3	
S6-2	14.0 – 15.0					21.2	
S6-2	19.0 – 20.0					19.4	

SUMMARY OF FREE-SWELL TESTS

BORING NUMBER	DEPTH (ft.)	SWELL PRESSURE (psf)	GAIN IN MOISTURE (%)	PERCENT SWELL (%)	MATERIAL DESCRIPTION
S2-1	3.0 – 4.0	433.0	2.0	0.6	SANDY CLAY, very stiff to hard, reddish-brown to orangish-brown and gray
S4-6	5.0 – 6.0	713.0	4.4	3.1	SANDY CLAY, very stiff to hard, orangish-brown and gray
S6-1	2.0 – 3.0	289.0	6.5	6.9	SANDY CLAY, medium stiff to hard, brown to orangish-brown and gray

GEOTECHNICAL INVESTIGATION
REPORT NO. 23517G
PECAN CREEK TRUNK SEWERS AND FORCE MAIN
VARIOUS LOCATIONS
AUBREY, TEXAS

SUMMARY OF UNCONFINED COMPRESSION TESTS

BORING NUMBER	DEPTH (ft.)	PEAK STRESS (psi)	FAILURE STRAIN (%)	MATERIAL DESCRIPTION
S4-3	3.0 – 4.0	22.5	7.4	CLAY, stiff to very stiff, brown to grayish-brown
S4-5	2.0 – 3.0	12.5	38.8	CLAY, medium stiff to very stiff, dark brown
S4-6	1.0 – 2.0	7.5	3.6	SANDY CLAY, stiff to hard, brown
S6-1	14.0 – 15.0	19.7	7.5	SHALE, weathered
S6-2	1.0 – 2.0	37.8	19.5	SANDY CLAY, stiff to hard, brown to orangish-brown and gray

HENLEY | JOHNSTON & ASSOCIATES

TEXAS FIRM REGISTRATION NO. F-1238

LEGEND, LITHOLOGY, SOIL CONSISTENCY & RELATIVE ROCK HARDNESS

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

OF BORINGS:
PROJECT No.: 23517G
DRILL DATE: 3/8/22
METHOD: Auger to 25'

Strata symbols

LOW PLASTICITY CLAYS, SANDY CLAYS, OR GRAVELLY CLAYS (CL)

SHALE, weathered

SHALE, unweathered

SAND

Misc. Symbols

Ground Water During Drilling (ft)

Pocket Penetrometer (tsf)

TxDOT CPT (inches per 100 blows)

Soil Samplers

Undisturbed thin wall Shelby tube

TxDOT CPT

Auger bag sample

FOR SANDS, GRAVELS, & SANDY SILTS

Modified from Peak, Hanson & Thornburn (1974)

Consistency	Standard Penetration Resistance (N)
Very Loose	Less than 4
Loose	4 to 10
Medium Dense	10 to 30
Dense	30 to 50
Very Dense	Greater than 50

FOR CLAYS AND SANDY CLAYS
(COHESIVE SOILS)

Modified from Peak, Hanson & Thornburn (1974)

Consistency	Unconfined Compression (tsf)	Standard Penetration Resistance (N)
Very Soft	Less than 0.25	Less than 2
Soft	0.25 to 0.5	2 to 4
Medium Stiff	0.5 to 1.0	4 to 8
Stiff	1.0 to 2.0	8 to 15
Very Stiff	2.0 to 4.0	15 to 30
Hard	Greater than 4.0	Greater than 30

RELATIVE HARDNESS MODIFIERS (ROCK)
(RELATED TO FRESH SAMPLE)

Modified from SCS EWP, Tech Guide No. 4

Hardness	Rule of Thumb Test
Soft	Permits denting by moderate finger pressure
Firm	Resists denting by fingers but can be penetrated by pencil point to medium to shallow depth (No. 2 pencil)
Mod. Hard	Very shallow penetration of pencil point, can be scratched by knife and in some instances cut with knife
Hard	No pencil penetration, can be scratched with knife, can be broken by light to moderate hammer blows
Very Hard	Cannot be scratched by knife, can be broken by repeated hammer blows

HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/8/22
METHOD: Auger to 25'

LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

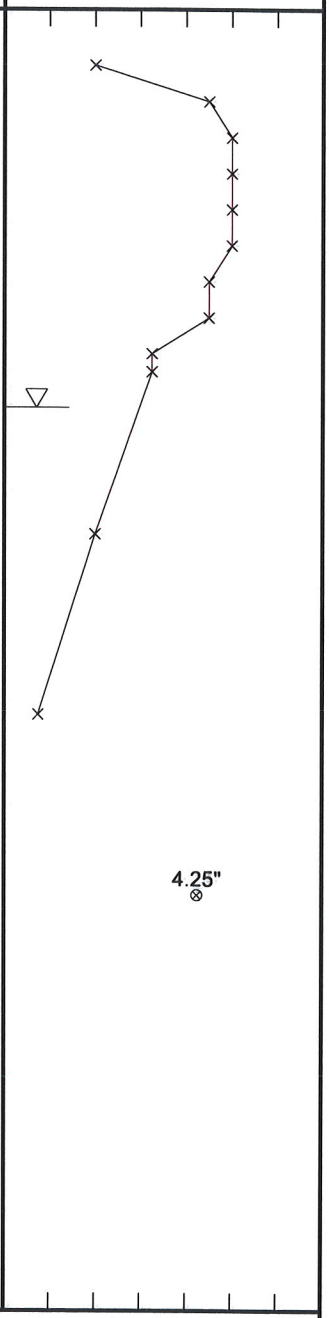
PROJECT No.:	23517G
BORING No.:	S2-1
RIG:	B47
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	666.4

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			SANDY CLAY, with ironstones and iron staining, very stiff to hard, reddish-brown to orangish-brown and gray	665		
5				660		
10				655		
15			SHALE, weathered, with sand, soft, gray	650		
20				645		
25			SHALE, with sand, firm, dark gray TOTAL DEPTH: 25.0'	640		
30				635		
35						

TxDOT CPT ⊗ (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 11'
Ground Water After Drilling (ft.): 10'

Latitude: 33.29960845
Longitude: -96.98180229

HJA HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/3/22
METHOD: Auger to 25'

LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

PROJECT No.:	23517G
BORING No.:	S2-2
RIG:	B42
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	665.8

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			SAND, very fine-grained, brown	665		
			SANDY CLAY, very stiff, brown to orangish-brown			
5			SAND, very fine-grained, with iron staining, loose to medium dense, orangish-brown to light brown	660		
10				655		
15				650		
20			SHALE, sandy, weathered, soft, gray	645		
25			TOTAL DEPTH: 25.0'	640		
30				635		
35				630		

TxDOT CPT Ø (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++

5" ⊗

Ground Water During Drilling (ft.): 12'
Ground Water After Drilling (ft.): 12'

Latitude: 33.29888265
Longitude: -96.97519248

HJA HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/3/22
METHOD: Auger to 25'

LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

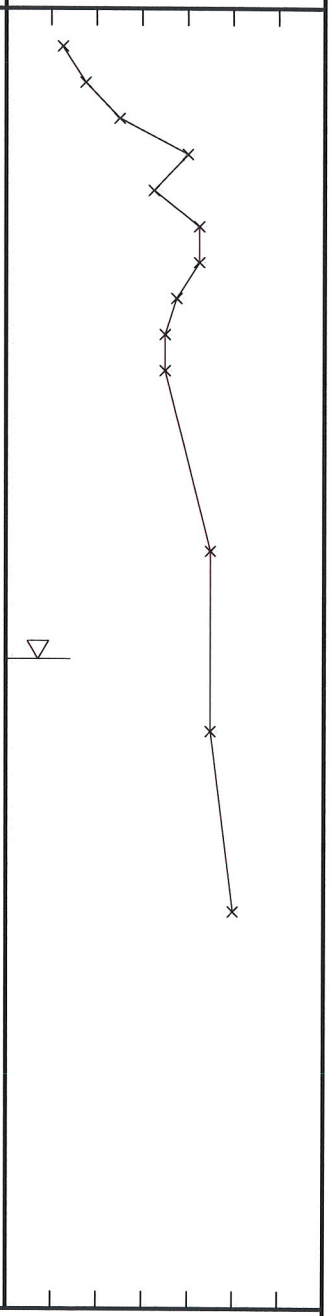
PROJECT No.:	23517G
BORING No.:	S2-3
RIG:	B42
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	627.1

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			SANDY CLAY, with iron staining, stiff to hard, brown to grayish-brown	625		
5				620		
10				615		
15			SHALE, sandy, weathered, with iron staining, soft, brownish-gray to gray	610		
20				605		
25			TOTAL DEPTH: 25.0'	600		
30				595		
35						

TxDOT CPT (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 18'
Ground Water After Drilling (ft.): 18'

Latitude: 33.30062893
Longitude: -96.96382254

HJA HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/3/22
METHOD: Auger to 25'

LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

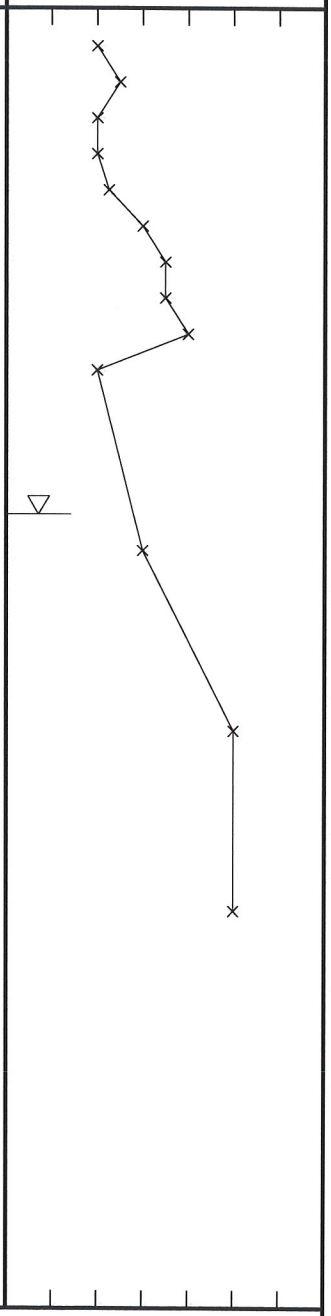
PROJECT No.:	23517G
BORING No.:	S4-1
RIG:	B42
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	657.4

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			CLAY, with silt, very stiff, dark brown	657		
5				655		
			CLAY, with silt and iron staining, very stiff, brown	650		
10			SHALE, weathered, with iron staining and limonite, laminated, soft, grayish- brown	645		
15				640		
20				635		
25			TOTAL DEPTH: 25.0'	630		
30				625		
35						

TxDOT CPT (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 14'
Ground Water After Drilling (ft.): 14'

Latitude: 33.29959662
Longitude: -96.9910096

HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/3/22
METHOD: Auger to 25'

LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

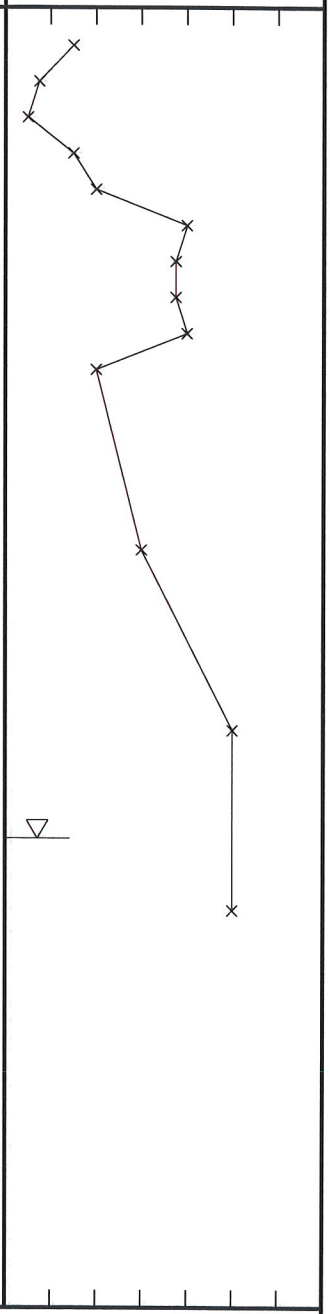
PROJECT No.:	23517G
BORING No.:	S4-2
RIG:	B42
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	662.8

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			SANDY CLAY, medium stiff to stiff, dark brown			
				660		
			CLAY, with silt and iron staining, stiff to hard, light brown and light gray			
5						
				655		
10						
				650		
15						
				645		
20						
				640		
25			SHALE, weathered, with iron staining, laminated, soft, brownish-gray			
			TOTAL DEPTH: 25.0'			
				635		
30						
				630		
35						

TxDOT CPT ⊠ (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 23'
Ground Water After Drilling (ft.): 23'

Latitude: 33.29998176
Longitude: -96.98948754

HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/3/22
METHOD: Auger to 25'

LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

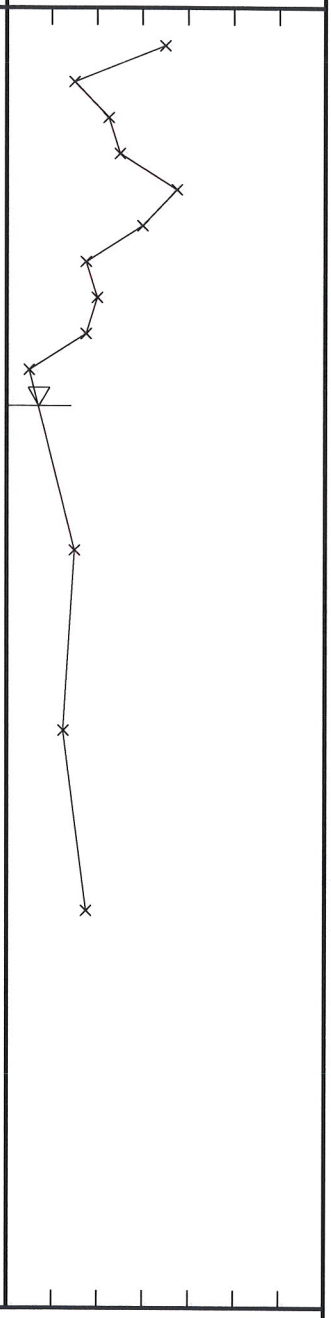
PROJECT No.: 23517G
BORING No.: S4-3
RIG: B42
SHEET: 1 of 1
LOCATION: See Plate 1
GROUND ELEVATION: 671.1

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			CLAY, with silt and iron staining, stiff to very stiff, brown to grayish-brown	670		
5				665		
10			SANDY CLAY, with iron staining, medium stiff to stiff, orangish-brown	660		
15				655		
20				650		
25			TOTAL DEPTH: 25.0'	645		
30				640		
35						

TxDOT CPT (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 11'
Ground Water After Drilling (ft.): 11'

Latitude: 33.30039122
Longitude: -96.98818

HJA HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/3/22
METHOD: Auger to 25'

LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

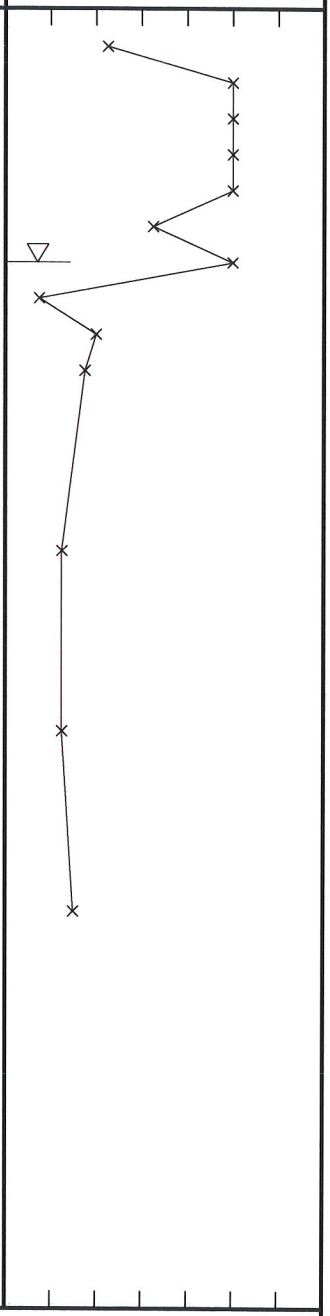
PROJECT No.:	23517G
BORING No.:	S4-4
RIG:	B42
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	669.4

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			SANDY CLAY, with ironstones and iron staining, very stiff to hard, brown to reddish-brown			
5			SANDY CLAY, with iron staining, medium stiff to hard, reddish-brown to orangish-brown	665		
10				660		
15				655		
20				650		
25			TOTAL DEPTH: 25.0'	645		
30				640		
35				635		

TxDOT CPT ⊠ (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 7'
Ground Water After Drilling (ft.): 7'

Latitude: 33.30038324
Longitude: -96.98699548

HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/8/22
METHOD: Auger to 25'

LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

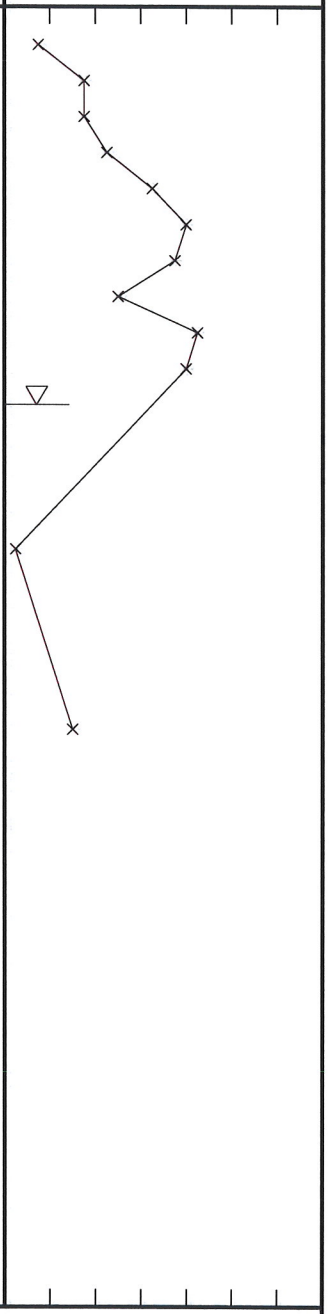
PROJECT No.:	23517G
BORING No.:	S4-5
RIG:	D25-D
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	673.9

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			CLAY, with silt, medium stiff to very stiff, dark brown	670		
5			SANDY CLAY, with iron staining, very stiff to hard, brown to reddish-brown and gray	665		
10			SHALE, weathered, with sand, soft, orangish-brown	660		
15				655		
20				650		
25			TOTAL DEPTH: 25.0'	645		
30				640		
35						

TxDOT CPT Ø (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 11'
Ground Water After Drilling (ft.): 8'

Latitude: 33.30025308
Longitude: -96.98605002

HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/8/22
METHOD: Auger to 25'

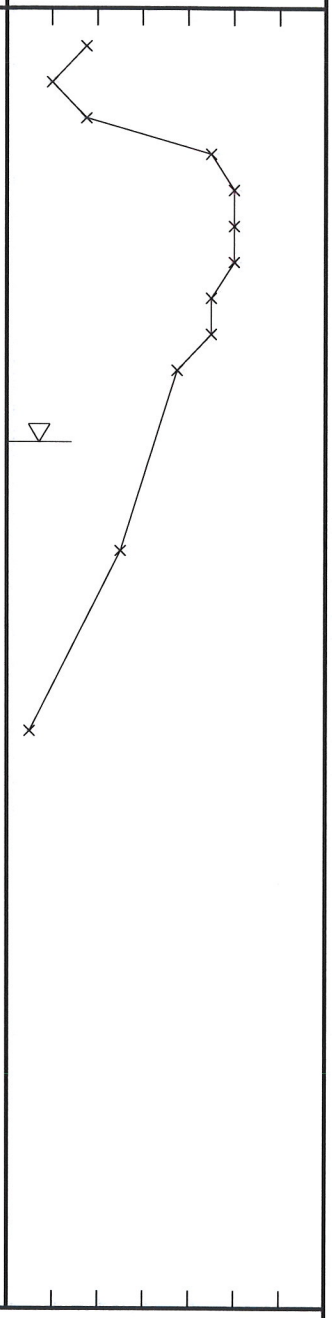
LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

PROJECT No.:	23517G
BORING No.:	S4-6
RIG:	D25-D
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	671.2

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			SANDY CLAY, stiff to hard, brown	670		
5			SANDY CLAY, with iron staining, very stiff to hard, orangish-brown and gray	665		
10				660		
15			SHALE, weathered, with sand, soft, orangish-brown	655		
20				650		
25			TOTAL DEPTH: 25.0'	645		
30				640		
35						

TxDOT CPT ⊠ (inches per 100 blows) 1 2 3 4 5 6
STANDARD PENETRATION (BPF) + 10 20 30 40 50 60
POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 12'
Ground Water After Drilling (ft.): 7'

Latitude: 33.29976211
Longitude: -96.98447167

HJA HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/8/22
METHOD: Auger to 25'

LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

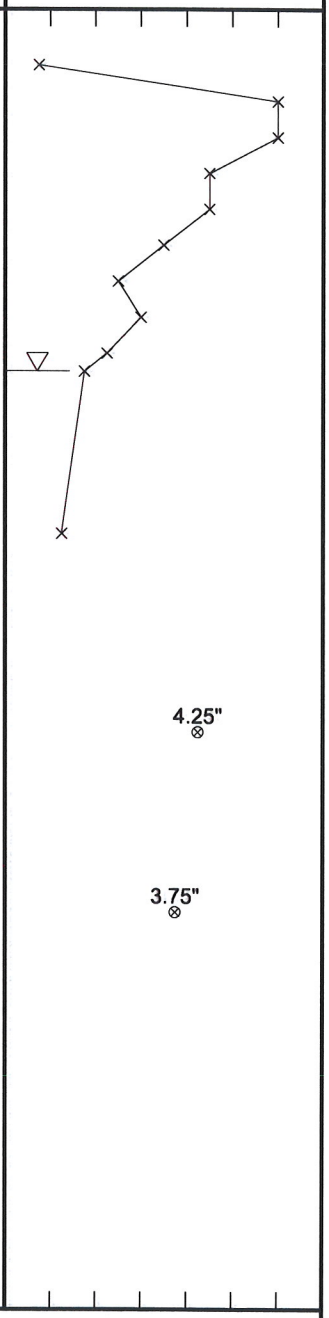
PROJECT No.:	23517G
BORING No.:	S6-1
RIG:	B47
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	634.8

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			SANDY CLAY, with iron stining, medium stiff to hard, brown to orangish-brown and gray			
5				630		
10				625		
15			SHALE, weathered, with sand, soft, orangish-brown	620		
			SHALE, firm, with sand, dark gray			
20				615		
25			TOTAL DEPTH: 25.0'	610		
30				605		
35				600		

TxDOT CPT ⊗ (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 10'
Ground Water After Drilling (ft.): 13'

Latitude: 33.30367964
Longitude: -96.9713927

HENLEY JOHNSTON & ASSOCIATES

DRILL DATE: 3/8/22
METHOD: Auger to 25'

LOG OF BORING

Pecan Creek Trunk Sewers and Force Main
Various Locations
Aubrey, Texas

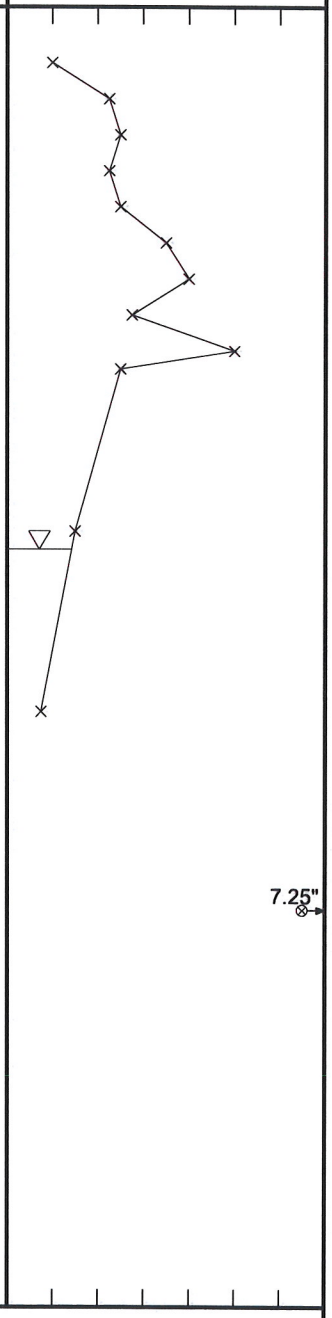
PROJECT No.:	23517G
BORING No.:	S6-2
RIG:	B47
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	631.8

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			SANDY CLAY, with iron staining, stiff to hard, brown to orangish-brown and gray	630		
5				625		
10				620		
15			SHALE, weathered, with sand, soft, light brown to brownish-gray	615		
20				610		
25			SHALE, with sand, firm, dark gray TOTAL DEPTH: 25.0'	605		
30				600		
35						

TxDOT CPT ⊗ (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 15'
Ground Water After Drilling (ft.): 12'

Latitude: 33.30355866
Longitude: -96.96524397

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Approve Ordinance No. 934-25 amending Ordinance No. 895-25 annexing an approximate 3.243 acres of land as described therein to correct a clerical error by repealing Exhibit B thereto adopting a Written Services Agreement and adopting a new Exhibit B, “Service Plan Agreement Silverado High Country General Retail Tract City of Aubrey, Texas”; directing the City Secretary to file a copy of this Ordinance I the Denton County land records; and providing an effective date.

Staff Contact
Leanne Wilson, Assistant City Manager
lwilson@aubreytx.gov

Summary

Executive Summary

Ordinance No. 934-25 is presented to amend Ordinance No. 895-25, which annexed approximately 3.243 acres associated with the Silverado High Country General Retail Tract. After adoption of Ordinance No. 895-25, staff identified a clerical oversight in which the *form* of the Written Services Agreement was attached as Exhibit B rather than the *fully executed* version. The executed agreement contains the same terms as the form; however, accurate filing in the Denton County land records requires the correct document be attached.

This ordinance repeals the incorrect Exhibit B and adopts a new Exhibit B, entitled *“Service Plan Agreement Silverado High Country General Retail Tract City of Aubrey, Texas.”* No substantive changes to the annexation, service plan commitments, or responsibilities of either party are proposed. The amendment solely corrects the attachment to ensure proper documentation and compliance with statutory filing requirements.

Upon approval, the City Secretary will file a certified copy of the corrected ordinance, including the new Exhibit B, in the Denton County land records. This action ensures the official annexation file is complete, accurate, and properly recorded.

Financial Summary

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to (approve/deny/table) ordinance 934-25 amending ordinance 895.25

ORDINANCE NO. 934-25

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS, AMENDING ORDINANCE 895-25 APPROVING THE ANNEXATION OF AN APPROXIMATE 3.24 ACRES OF LAND AS DESCRIBED THEREIN AND APPROVING A WRITTEN SERVICES AGREEMENT FOR THE PROPERTY BY REPEALING EXHIBIT B, "WRITTEN SERVICES AGREEMENT" THERETO AND BY ADOPTING A NEW EXHIBIT "B", "SERVICE PLAN AGREEMENT SILVERADO HIGH COUNTRY GENERAL RETAIL TRACT CITY OF AUBREY, TEXAS", ATTACHED HERETO AS EXHIBIT "B"; PROVIDING FOR THE INCORPORATION OF PREMISES; PROVIDING FOR AMENDMENT; PROVIDING FOR A CUMULATIVE REPEALER/SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE AND FILING.

WHEREAS, the City of Aubrey, Texas (the "City") is a home rule municipality located in Denton County, Texas, created in accordance with the provisions of the Texas Local Government Code and operating pursuant to the enabling legislation of the State of Texas and the Aubrey City Charter; and

WHEREAS, the City received a C-3 voluntary annexation petition (the "Petition") from D.R. Horton – Texas, Ltd., the property owner (the "Owner") requesting the City consider the annexation of an approximate 3.243 acre tract of land more specifically described in City of Aubrey Ordinance No. 895-25 , into the corporate limits of the City (the "Property"); and

WHEREAS, pursuant to Section 43.0673 of the Texas Local Government Code, the notice of the public hearing was published in The Post-Signal, a newspaper of general circulation within the City, on March 14, 2025, such date being not more than twenty (20) days nor less than ten (10) days prior to the public hearing; and

WHEREAS, on March 27, 2025**,** the City Council adopted Ordinance No. 895-25, properly annexing the Property, which Ordinance included **Exhibit "B"** entitled "Written Services Agreement"; and

WHEREAS, subsequent to the adoption of Ordinance No. 895-25, the City determined that Exhibit "B" attached thereto was the Form of the Written Services Agreement instead of the fully executed Services Agreement, that the executed Written Services Agreement contained the same terms as the Form of the Written Services Agreement inadvertently attached to Ordinance No. 895-25, and that an amendment to Ordinance No. 895-25 was necessary to correct the error and to ensure annexation documents filed in the Denton County land records are accurate; and

WHEREAS, the City Council desires to adopt this Ordinance amending Ordinance No. 895-25 to adopt a new **Exhibit "B"** entitled "Service Plan Agreement Silverado High Country General Retail Tract City of Aubrey, Texas"; and

WHEREAS, the City Council finds that adopting this Ordinance amending Ordinance No. 895-25 to adopt the correct **Exhibit "B"** is in the best interest of the health, safety, and welfare of the citizens of Aubrey and is necessary for accurate recording in the land records of Denton County; and

WHEREAS, the City Council hereby directs the City Secretary to file a true and correct certified copy of this Ordinance amending Ordinance No. 895-25 in the land records of Denton County;

NOW, THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS:

SECTION 1. Findings. It is hereby officially determined that the findings and recitations contained above in the preamble of this Ordinance are true and correct legislative findings of the City Council and are incorporated herein by reference.

SECTION 2. Amendment. That Ordinance No. 895-25 is hereby amended to repeal Exhibit "B" thereto, and that **Exhibit "B"** entitled "Service Plan Agreement Silverado High Country General Retail Tract City of Aubrey, Texas" attached hereto and incorporated herein is hereby adopted and amends Ordinance No. 895-25.

SECTION 3. Cumulative Repealer/Savings Clause. This Ordinance shall be cumulative of all provisions of ordinances of the City except where the provisions of this Ordinance are in direct conflict with the provisions of such ordinances, in which event the conflicting provisions of such ordinances are hereby repealed, but such repeal shall not abate any pending prosecution for violation of the repealed ordinance, nor shall the repeal prevent a prosecution from being commenced for any violation if occurring prior to the repeal of the ordinance. Any remaining portions of said ordinances shall remain in full force and effect.

SECTION 4. Severability Clause. It is hereby declared by the City Council of the City of Aubrey that if any of the sections, paragraphs, sentences, clauses, phrases, words, or provisions of this Ordinance should be declared unconstitutional or otherwise invalid for any reason, such event shall not affect any remaining sections, paragraphs, sentences, clauses, phrases, words, or provisions of this Ordinance.

SECTION 5. Effective Date/Filing. This Ordinance shall be in full force and effect immediately upon its passage and approval by the City Council of the City, and the City Secretary is hereby authorized and directed to file a certified copy of this Ordinance adopting the new **Exhibit "B",** entitled "Service Plan Agreement Silverado High Country General Retail Tract City of Aubrey, Texas" with the Denton County Clerk

PASSED AND APPROVED this ___ day of ___2025.

_____
CHRIS RICH
MAYOR

ATTEST:

_____
JENNY HICKS
CITY SECRETARY

APPROVED AS TO FORM:

_____
PATRICIA A. ADAMS
CITY ATTORNEY

SERVICE PLAN AGREEMENT
SILVERADO HIGH COUNTRY GENERAL RETAIL TRACT
CITY OF AUBREY, TEXAS

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

STATE OF TEXAS §
§
COUNTY OF DENTON §

CHAPTER 43 TEXAS LOCAL GOVERNMENT CODE
MUNICIPAL SERVICES AGREEMENT

This Municipal Services Agreement ("Agreement") is entered into pursuant to Section 43.0672 of the Texas Local Government Code by and between the City of Aubrey, Texas (the "City") and the undersigned property owner(s) (the "Owner"). The term "Owner" includes all owners of the Property. City and Owner may be referred individually as a "Party" and collectively referred to as the "Parties."

WHEREAS, the Owner owns a parcel of real property (the "Property") in Denton County, Texas, generally located at the southwest corner of McNatt road and Frontier Parkway, and being an approximate 3.24 acre tract of land situated in the James Bridges, Jr. Survey, Abstract No. 36, Denton County, Texas and being more particularly described and depicted in **Exhibit "A"** attached hereto and incorporated herein; and

WHEREAS, the Parties desire to enter into this Agreement pursuant to Section 43.0672 of the Texas Local Government Code in order to address the provision of municipal services to be offered to the Property on the date of annexation, and a schedule that includes the period within which the City will provide any municipal service that is not provided on the effective date of annexation, as shown in **Exhibit "B"** attached hereto; and

WHEREAS, the Owner and the City acknowledge that this Agreement is binding upon the City and the Owner and their respective successors and assigns for the term (defined below) of this Agreement; and

WHEREAS, this Agreement is to be recorded in the Real Property Records of Denton County.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the Parties hereto agree as follows:

Section 1. The City acknowledges and agrees that it shall provide the municipal services listed in **Exhibit "B"** to the Property pursuant to Chapter 43 of Texas Local Government Code upon annexation of the Property.

Section 2. The Owner acknowledges that each and every owner of the Property must sign this Agreement in order for the Agreement to take full effect, and **the Owner who signs this Agreement covenants and agrees, jointly and severably, to indemnify, hold harmless, and defend the City against any and all legal claims, by any person claiming an ownership interest in the Property who has not signed the Agreement,** arising in any way from the City's reliance on this Agreement.

Section 3. The Owner agrees and stipulates that such annexation of the Property is voluntary, and the Owner has submitted a petition for such annexation to the City. Furthermore, the Owner hereby waives any and all vested rights and claims that they may have under Section 43.002(a)(2) and Chapter 245 of the Texas Local Government Code that would otherwise exist by virtue of any actions Owner has taken. Owner acknowledges and stipulates that this Agreement is not a permit, as defined in Texas Local Government Code, Section 245.001(1), required by the City.

Section 4. The Parties acknowledge and agree that nothing in this Agreement shall require the City to provide a uniform level of full municipal services to each area of the City, including the annexed Property, if different characteristics of topography, land use, and population density are considered a sufficient basis for providing different levels of municipal service. Furthermore, the Parties acknowledge and agree that this Agreement will not provide any fewer services, and it will not provide a lower level of services, than were in existence in the annexed area at the time immediately preceding the annexation process.

Section 5. The Owner acknowledges that the City's codes, ordinances, regulations and policies ("Regulations") that apply throughout the City, including the Property, may be reviewed at City Hall and at the following internet address and that the Regulations shall apply to all development of the Property: https://ecode360.com/AU6231.

Section 6. This Agreement shall be valid for a term of ten (10) years. Renewal of the Agreement shall be at the discretion of the City Council and must be approved by ordinance. The Owner agrees that this Agreement may be amended without the written consent or knowledge of the Owner if the City Council determines at a public hearing that changed conditions or subsequent occurrences make this Agreement unworkable or obsolete. Furthermore, the Owner acknowledges and agrees that the City Council may amend the services provided under this Agreement without the written consent of the Owner in order to conform to the changed conditions, subsequent occurrences, or any other legally sufficient circumstances existing pursuant to the Local Government Code or other Texas or Federal laws that make this Agreement unworkable, obsolete or unlawful.

Section 7. Any notice provided or permitted to be given under this Agreement must be in writing and may be served by depositing same in the United States mail, addressed to

the Party to be notified, postage pre-paid and registered or certified with return receipt requested, or by delivering the same in person to such Party via facsimile or a hand–delivery service, Federal Express or any courier service that provides a return receipt showing the date of actual delivery of same to the addressee thereof. Notice given in accordance herewith shall be effective upon receipt at the address of the addressee. For purposes of notice, the addresses of the Parties shall be as follows:

To City:
City of Aubrey
Attn: Charles Kreidler, City Manager
107 South Main Street
Aubrey, Texas 76227

With Copy to:
Messer & Fort, PLLC
Attn: Patricia Adams, City Attorney
6371 Preston Road, Suite 200
Frisco, Texas 75034

To Owner:
D.R. Horton – Texas, Ltd.
David Booth
Asst Vice President

With Copy to:
Tim McKnight
VP + Asst. Secretary
D.R. Horton - Texas, Ltd.

Section 8. A certified copy of this Agreement shall be recorded in the real property records of Denton County, Texas, and this Agreement shall constitute a covenant that runs with the Property.

Section 9. If a court of competent jurisdiction determines that any covenant of this Agreement is void or unenforceable, including the covenants regarding involuntary annexation, then the remainder of this Agreement shall remain in full force and effect.

Section 10. This Agreement may be enforced by any Owner or the City by any proceeding at law or in equity. Failure to do so shall not be deemed a waiver to enforce the provisions of this Agreement thereafter. Notwithstanding the preceding terms of this section, the City does not waive immunity from suit or liability. Owner acknowledges and agrees that the only recourse against the City for breach or default of the Agreement is disannexation for failure to provide services pursuant to Chapter 43 of the Texas Local Government Code.

Section 11. Owner and City acknowledge and expressly agree that no subsequent change in the law regarding annexation shall affect the enforceability of this Agreement or the City's ability to annex the properties covered herein pursuant to the terms of this Agreement.

Section 12. The validity of this Agreement and any of its terms and provisions, as well as the rights and duties of the Parties, shall be governed by the laws of the State of Texas; and venue for any action concerning this Agreement shall be only in Denton County, Texas.

Section 13. This Agreement may be separately executed in individual counterparts and, upon execution, shall constitute the same instrument.

Section 14. This Agreement shall survive its termination to the extent necessary for the implementation of the provisions of Sections 2, 3, 4, and 10 herein.

Section 15. This Agreement embodies the complete agreement of the Parties hereto, superseding all oral or written, previous and contemporary agreements between the Parties and relating to the matters in this Agreement and except as otherwise provided herein, cannot be modified without the written agreement of the Parties to be attached to and made a part of this Agreement.

Section 16. The determinations recited and declared in the preambles to this Agreement are hereby incorporated herein as part of this Agreement.

Section 17. All exhibits to this Agreement are incorporated herein by reference for all purposes wherever reference is made to the same.

Entered into this 27th day of March **2025**.

SIGNATURES ON FOLLOWING PAGE(S)

CITY OF AUBREY, TEXAS

By: _____

Name: Chris Rich

Title: Mayor

Date: 3/27/2025

THE STATE OF TEXAS §
§
COUNTY OF DENTON §

This instrument was acknowledged before me on March 27, **2025, by** Chris Rich, Mayor **of the City of Aubrey, Texas on behalf of said City.**

_____
Notary Public in and for the State of TEXAS

JENNIFER HICKS
Notary Public, State of Texas
Comm. Expires 07-05-2028
Notary ID 129043943

OWNER: D.R. HORTON – TEXAS, LTD.,
a Texas limited partnership

BY: _____

By: _____

Name: David L. Booth

Title: Asst VP

Date: 7/15/25

THE STATE OF TEXAS §
§
COUNTY OF Dallas §

This instrument was acknowledged before me on July 15, **2025, by** David Booth, **owner of said Property.**

Karen Williams
Notary Public in and for the State of TEXAS

KAREN WILLIAMS
Notary ID #125155758
My Commission Expires
February 7, 2029

Exhibit "A" – Legal Description

EXHIBIT A

Property Description

BEING that certain tract of land situated in the JAMES BRIDGES, JR. SURVEY, ABSTRACT No. 36, in Denton County, Texas, and being part of that certain called 30.312 acre tract of land described in Deed to D.R. Horton - Texas, Ltd. recorded in Instrument No. 2024-132781, of the Real Property Records of Denton County, Texas (RPRDCT), and being more particularly described as follows:

COMMENCING at a 5/8-inch iron rod with cap stamped "BCG 10194538" found on the west right-of-way line of McNatt Road (called 60-foot right-of-way at this point), said right-of-way according to Final Plat of Silverado West, Phase 1, an addition to Denton County, Texas recorded in Document No. 2021-487, PRDCT, said iron rod also being the southeast corner of said D.R. Horton - Texas, Ltd. tract;

THENCE North 88°50'27" West, with the north dedication line of said McNatt Road, a distance of 60.05 feet to a 5/8-inch iron rod with cap stamped "BCG 10194538" set at the northwest corner of the McNatt Road dedication (becoming called 120-foot right-of-way at this point);

THENCE North 88°50'27" West, with the north line of said Silverado West, Phase 1, and the north line of Silverado West, Phase 4, an addition to Denton County, Texas according to Final Plat recorded in Document No. 2022-291, PRDCT, a distance of 580.81 feet to a 5/8-inch iron rod with cap stamped "BCG 10194538" found for corner at the southwest corner of said D.R. Horton - Texas, Ltd. tract, from which a 1/2-inch iron rod with cap stamped "JBI" found at an east corner of a called right-of-way dedication for Frontier Parkway (variable width right-of-way) according to said Silverado West, Phase 4, bears North 88°50'27" West, a distance of 477.29 feet;

THENCE North 38°39'46" West, with the southwest line of the D.R. Horton - Texas, Ltd. tract, a distance of 217.02 feet to a 5/8-inch iron rod with cap stamped "BCG 10194538" set for corner at the beginning of a non-tangent curve to the right, from which a 5/8-inch iron rod with cap stamped "BCG 10194538" found at a southwest corner of the D.R. Horton - Texas, Ltd. tract bears North 38°39'46" West, a distance of 153.26 feet;

THENCE over and across said called 30.312 acre tract, the following courses to 5/8-inch iron rods with cap stamped "BCG 10194538" set for corner:

Northeasterly, with said curve which has a central angle of 20°56'36", a radius of 800.00 feet, a chord which bears North 80°50'53" East, a chord distance of 290.80 feet, and an arc distance of 292.42 feet;

South 88°40'49" East, a distance of 412.62 feet;

South 42°35'04" East, a distance of 41.61 feet;

And South 03°30'41" West, a distance of 187.68 feet to the POINT OF BEGINNING, and containing an area of 3.243 acres of land.

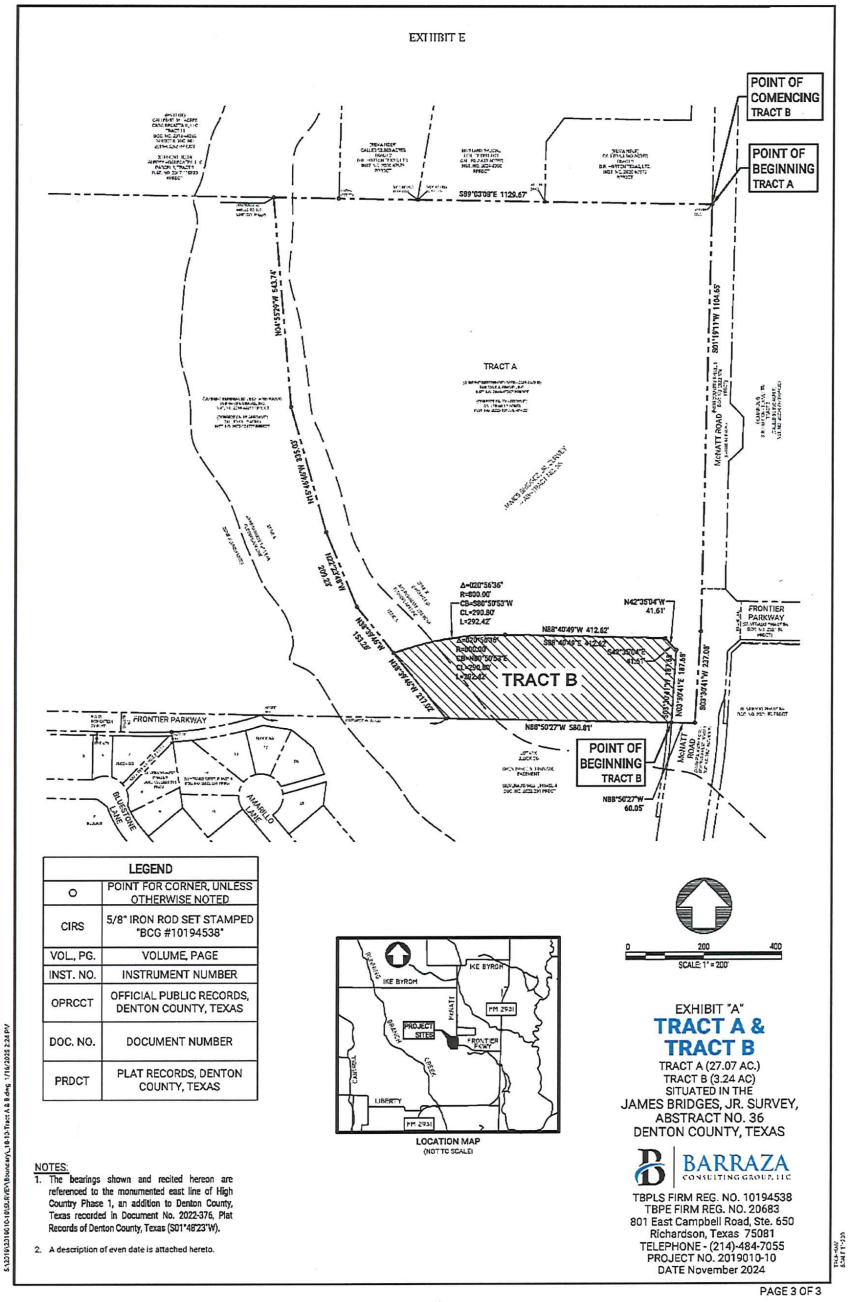


EXHIBIT E
POINT OF COMENCING TRACT B
POINT OF BEGINNING TRACT A
S89°03'08"E 1129.67
TRACT A
TRACT B
POINT OF BEGINNING TRACT B
N88°50'27"W 580.81'
N88°50'27"W 60.05'
FRONTIER PARKWAY
MOHATT ROAD
BLUESTONE LANE
AMARILLO LANE
LEGEND
O POINT FOR CORNER, UNLESS OTHERWISE NOTED
CIRS 5/8" IRON ROD SET STAMPED "BCG #10194538"
VOL., PG. VOLUME, PAGE
INST. NO. INSTRUMENT NUMBER
OPRCCT OFFICIAL PUBLIC RECORDS, DENTON COUNTY, TEXAS
DOC. NO. DOCUMENT NUMBER
PRDCT PLAT RECORDS, DENTON COUNTY, TEXAS
LOCATION MAP
(NOT TO SCALE)
IKE BYRUM
FM 2931
PROJECT SITES
FRONTIER PKWY
LIBERTY
SCALE: 1" = 200'
EXHIBIT "A"
TRACT A & TRACT B
TRACT A (27.07 AC.)
TRACT B (3.24 AC)
SITUATED IN THE
JAMES BRIDGES, JR. SURVEY, ABSTRACT NO. 36
DENTON COUNTY, TEXAS
BARRAZA CONSULTING GROUP, LLC
TBPLS FIRM REG. NO. 10194538
TBPE FIRM REG. NO. 20683
801 East Campbell Road, Ste. 650
Richardson, Texas 75081
TELEPHONE - (214)-484-7055
PROJECT NO. 2019010-10
DATE November 2024
NOTES:
1. The bearings shown and recited hereon are referenced to the monumented east line of High Country Phase 1, an addition to Denton County, Texas recorded in Document No. 2022-376, Plat Records of Denton County, Texas (S01°48'23"W).
2. A description of even date is attached hereto.
PAGE 3 OF 3

Exhibit "B"
MUNICIPAL SERVICE PLAN FOR
SILVERADO HIGH COUNTRY GENERAL RETAIL TRACT

Upon annexation of the area identified above and as identified on Exhibit A, the City of Aubrey will provide City services utilizing methods by which it extends services to any other equivalent area of the City.

SERVICES PROVIDED BY THE EFFECTIVE DATE OF ANNEXATION

1. **Police Protection**
   The City of Aubrey, Texas and its Police Department will provide police protection to newly annexed areas at the same or similar level of service now being provided to other areas of the City with like topography, land use and population density as those found within the newly annexed areas. The Police Department will have the responsibility to respond to all dispatched calls for service or assistance within the newly annexed areas.

2. **Fire Protection and Emergency Medical Services**
   The City of Aubrey, Texas and its Fire Department will provide fire protection to newly annexed areas at the same or similar level of service now being provided to other areas of the City, with like topography, land use and population density as those found within the newly annexed areas. The Fire Department will have the responsibility to respond to all dispatched calls for service or assistance within the newly annexed areas.

   The City of Aubrey, Texas and its Fire Department will provide EMS services to newly annexed areas at the same or similar level of service now being provided to other areas of the City, with like topography, land use and population density as those found within the newly annexed areas. The Fire Department will have the responsibility to respond to all dispatched calls for service or assistance within the newly annexed areas.

3. **Maintenance of Water and Wastewater Facilities**
   All water and wastewater facilities owned or maintained by the City of Aubrey at the time of the proposed annexation shall continue to be maintained by the City of Aubrey. All water and wastewater facilities which may be acquired subsequent to the annexation of the proposed areas shall be maintained by the City of Aubrey to the extent of its ownership. The now existing water and wastewater mains at existing locations shall be available for the point of use extension based upon the City of Aubrey standard extension policy now existing or as may be amended. On-site sewerage systems may be maintained in accordance with the City's Code of Ordinances.

4. **Solid Waste Collection**
   Solid waste collection is contracted through Republic Services and commercial accounts are arranged by each account individually with the City of Aubrey. Solid waste collection will be provided to citizens in the newly annexed areas at the same or similar level of service now being provided to other areas of the City with like topography, land use and density as those found within the newly annexed areas. The City may negotiate with annexed areas to allow continued services with an existing solid waste management provider. After the second anniversary of the annexation date, the City will impose fees and provide the service.

If areas with private roads and/or gates are arranged so that garbage may be collected without creating a safety hazard, the City, at its discretion, may collect the garbage provided proper indemnification is received from the community association or individual property owners. The City will then impose fees and provide the service. Garbage collection locations shall be subject to the approval of the Director of Public Works. In the event the City does not collect garbage within the areas with private roads and/or gates, residents of these areas will not be billed for service after the two-year date.

5. **Maintenance of Roads and Streets**
Any and all public roads, streets or alleyways shall be maintained to the same degree and extent that other public roads, streets, and alleyways are maintained in areas of the City with like topography, land use and density as those found within the newly annexed areas. Private roads will remain under the ownership of the homeowner association and as such maintained by the association.

6. **Maintenance of Parks, Playgrounds, and Swimming Pools**
The City of Aubrey, Texas is not aware of the existence of any publicly owned parks, playgrounds or swimming pools now located in the proposed areas of annexation. In the event any such parks, playgrounds, or swimming pools do exist and are public facilities, the City will maintain such areas and facilities to the extent and degree and to the same or similar level of service now being provided to other such areas and facilities within the corporate limits of the City with like topography, land use and density as those found within the newly annexed areas.

7. **Maintenance of any Publicly owned Facility, Building or Municipal Service**
The City of Aubrey, Texas is not aware of the existence of any publicly owned facility, building, or other municipal service now located in the proposed areas of annexation. In the event any publicly owned facility, building, or other municipal service does exist and are public facilities, the City will maintain such areas and facilities to the extent and degree and to the same or similar level of service now being provided to other such areas and facilities within the corporate limits of the City with like topography, land use and density as those found within the newly annexed areas.

8. **Other Services**
The City of Aubrey, Texas finds and determines that such services as planning, code enforcement, animal control, library, parks and recreation, court and general administration will be made available after the effective date of annexation at the same or similar level of service now being provided to other areas of the City with similar topography, land use and density as those found within the newly annexed areas.

CONSTRUCTION OF ANY CAPITAL IMPROVEMENTS TO BE COMPLETED WITHIN 2 ½ YEARS

1. **Police and Fire Protection and Solid Waste Collection**
The City of Aubrey, Texas, finds and determines it is not necessary to acquire or construct any capital improvements within 2 ½ years of the effective date of the annexation of the particular annexed areas for the purpose of providing police protection, fire protection, emergency medical services or solid waste collection. The City finds and determines that it has at the present time adequate facilities and other resources to provide the same type, kind and level of service and protection which is presently being administered to other

areas already incorporated in the City of Aubrey, Texas with like topography, land use and population density as those found within the newly annexed areas.

2. **Water Facilities**
For the next 2 ½ years, the City of Aubrey, Texas finds and determines that there is sufficient capacity for water to provide services to the annexed areas pursuant to the City of Aubrey extension policies.

3. **Wastewater Facilities**
The City of Aubrey is constructing a sewer lift station and force main that will have sufficient capacity to provide wastewater services to the annexed areas by May 1, 2024.

4. **Roads and Streets**
The City of Aubrey, Texas, finds and determines it is not necessary to acquire or construct any capital improvements within 2 ½ years of the effective date of the annexation of the particular annexed areas.

5. **Maintenance of Parks, Playgrounds, and Swimming Pools and Any Other Publicly Owned Facility, Building, or Service**
The City of Aubrey, Texas, finds and determines it is not necessary to acquire or construct any capital improvements within 2 ½ years of the effective date of the annexation of the particular annexed areas for the purpose of parks maintenance, playgrounds, swimming pools and other publicly owned facility, building or service.

SPECIFIC FINDINGS
The City of Aubrey, Texas, finds and determines that this proposed service plan will not provide any fewer services and will not provide a lower level of service in the areas being considered for annexation that were in existence in the proposed areas at the time immediately preceding the annexation process. Given the proposed annexation areas' topography, land utilization and population density, the service levels to be provided in the newly annexed areas will be equivalent to those provided to other areas of the City with similar characteristics.

TERMS
This plan shall be valid for a term of ten (10) years. Renewal of the Service Plan is at the discretion of the City of Aubrey.

LEVEL OF SERVICE
Nothing in this plan shall require the City to provide a uniform level of full municipal services to each area of the City, including the annexed areas, if different characteristics of topography, land use, and population density are considered a sufficient basis for providing different levels of service.

AMENDMENTS
The plan shall not be amended unless public hearings are held in accordance with Chapter 43 of the Texas Local Government Code.

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Approve the final acceptance of the Highmeadow Pocket Park Public Improvements and authorize the final payment in the amount of $39,754.34 to Perfect Finish Landscaping.

Staff Contact
Kurt Karnowski, Public Works Manager
kkarnowski@aubreytx.gov
940-440-9343

Summary
Highmeadow Pocket Park completed improvements including:

- Installation of new sidewalks, parking lot and concrete curbs
- Installation of play swings and play structures
- Installation of fall surfacing
- Installation of site furnishings and artificial turf
- Installation of irrigation system
- Installation of new landscaping

The total cost of improvements is $397,543.35

A final walk-through was conducted on August 13, 2025 and all public improvement punch list items were completed successfully, minus the installation of the benches. Benches were installed November 6, 2025.

The contractor has provided 2-yr Maintenance Bonds and the Contractors Affidavit of Final Payment and Release. As-built file has been received, and the city engineer has provided a letter of recommendation for acceptance.

Financial Summary

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to (approve, deny, table) acceptance of the Highmeadow Pocket Park.

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Approve a Job Order Contract purchase through the Interlocal Purchasing System Contract No. 241001 with Minchew Brothers Construction for Dane Street Sewer Repairs, for an amount not to exceed $105,073.50, and authorize the City Manager to execute necessary documents.

Staff Contact
Dean Rylant, Public Works Director
drylant@aubreytx.gov

Summary
During the reconstruction of Dane Street, numerous old and some abandoned sewer lines were located. This project includes the proper abandonment of an old, damaged line and provides for a sewer main in compliance with current standards and new services to adjacent homes.

The scope of work includes final installation of the sewer main, one (1) 6-inch sewer tap, and six (6) 4-inch long-side sewer taps. Additionally, the work includes manhole preparation and pouring for three (3) manholes, followed by backfilling and final site restoration.

As a timing and cost savings method, staff is utilizing The Interlocal Purchasing System, Job Order Contract No. 241001, in lieu of soliciting for bids.

Financial Summary
This Project is funded by the 2025 Bond as part of an Inflow and Infiltration Improvement of the sewer system.

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to (approve, deny, table) the Job Order Contract.

TIPS VENDOR AGREEMENT

TIPS RCSP 241001 Job Order Contracting (JOC)

The following Vendor Agreement ("Agreement") creates a legal agreement between The Interlocal Purchasing System ("TIPS"), a government purchasing cooperative and Department of Texas Region 8 Education Service Center and (INSERT ENTITY NAME):

Sterling ELite Enterprise LLC Minchew Brothers Construction

(ENTER ENTITY NAME]

its owners, agents, subsidiaries, and affiliates (together, "Vendor") (individually, "Party", and collectively the "Parties") and this agreement shall exclusively govern the contractual relationship ("Agreement") between the Parties.

TIPS, a governmental entity and a national purchasing cooperative seeks to provide a valuable and necessary solution to public entities and qualifying non-profits by performing the public procurement solicitation process and awarding compliant contracts to qualified vendors. Then, where the law of a customer's jurisdiction allows, instead of public entities and qualifying non-profits expending time, money, and resources on the extensive public procurement process, the use of TIPS allows public entities to quickly select and purchase their preferred products or services from qualified, competitively evaluated vendors through cooperative purchasing.

1. **Purpose.** The purpose of this Agreement is to identify the terms and conditions of the relationship between TIPS and Vendor. Public entities and qualifying non-profits that properly join or utilize TIPS ("TIPS Members") may elect to "piggyback" off of TIPS' procurements and agreements where the laws of their jurisdiction allow. TIPS Members are not contractual parties to this Agreement although terms and conditions of this Agreement may ensure benefits to TIPS Members.

2. **Authority.** The Parties agree that the signatories below are individual authorized to enter into this Agreement on behalf of their entity and that they are acting under due and proper authority under applicable law.

3. **Definitions.**

    a. **TIPS Pricing:** The specific pricing, coefficients, mark-ups, discounts, and other pricing terms and incentives which Vendor submitted and TIPS approved for each respective TIPS Contract awarded to Vendor and all permissible, subsequent pricing updates submitted by Vendor and accepted by TIPS, if any.

4. **Entire Agreement.** This Agreement resulted from TIPS posting a "TIPS Solicitation" (RFP, RCSP, RFQ, or other) and Vendor submitting a proposal in response to that posted TIPS Solicitation for evaluation and award. The Parties agree that this Agreement consists of the provisions set forth herein and: (1) The TIPS solicitation document resulting in this Agreement; (2) Any addenda or clarifications issued in relation to the TIPS solicitation; (3) All solicitation information provided to Vendor by TIPS through the TIPS eBid System; (3) Vendor's entire proposal response to the TIPS solicitation including all accepted required attachments, acknowledged notices and certifications, accepted negotiated terms, pricing, accepted responses to questions, and accepted written clarifications of Vendor's proposal, and; any properly included attachments to this Agreement. All documentation and information listed is hereby incorporated by reference as if set forth herein verbatim. In the event of conflict between the terms herein and one of the incorporated documents the terms and conditions herein shall control.

5. **Vendor's Specific Warranties, Terms, and License Agreements.** Because TIPS serves public entities and non-profits throughout the nation all of which are subject to specific laws and policies of their jurisdiction, as a matter of standard practice, TIPS does not typically accept a Vendor's specific "Sale Terms" (warranties, license agreements, master agreements, terms and conditions, etc.) on behalf of all TIPS Members. TIPS may permit Vendor to attach those to this Agreement to display to interested customers what terms may apply to their Supplemental Agreement with Vendor (if submitted by Vendor for that purpose). However, unless this term of the Agreement is negotiated and modified to state otherwise, those specific Sale Terms are not accepted by TIPS on behalf of all TIPS Members and each Member may choose whether to accept, negotiate, or reject those specific Sale Terms, which must be reflected in a separate agreement between Vendor and the Member in order to be effective.

6. **Vendor Identity and Contact Information.** It is Vendor's sole responsibility to ensure that all identifying vendor information (name, EIN, d/b/a's, etc.) and contact information is updated and current at all times within the TIPS eBid System and the TIPS Vendor Portal. It is Vendor's sole responsibility to confirm that all e-correspondence issued from tips-usa.com, ionwave.net, and tipsconstruction.com to Vendor's contacts are received and are not blocked by firewall or other technology security. Failure to permit receipt of correspondence from these domains and failure to keep vendor identity and contact information current at all times during the life of

the contract may cause loss of TIPS Sales, accumulating TIPS fees, missed rebid opportunities, lapse of TIPS Contract(s), and unnecessary collection or legal actions against Vendor. It is no defense to any of the foregoing or any breach of this Agreement that Vendor was not receiving TIPS' electronic communications issued by TIPS to Vendor's listed contacts.

7. **Initiation of TIPS Sales.** When a public entity initiates a purchase with Vendor, if the Member inquires verbally or in writing whether Vendor holds a TIPS Contract, it is the duty of the Vendor to verify whether the Member is seeking a TIPS purchase. Once verified, Vendor must include the TIPS Contract Number on all purchase communications and sales documents exchanged with the TIPS Member.

8. **TIPS Sales and Supplemental Agreements.** If awarded, when making a sale under this awarded contract, the terms of the specific TIPS order, including but not limited to: shipping, freight, insurance, delivery, fees, bonding, cost, delivery expectations and location, returns, refunds, terms, conditions, cancellations, defects, order assistance, etc., shall be controlled by the purchase agreement (Purchase Order, Contract, AIA Contract, Invoice, etc.) ("Supplemental Agreement" as used herein) entered into between the TIPS Member Customer and Vendor only. TIPS is not a party to any Supplemental Agreement. All Supplemental Agreements shall include Vendor's Name, as known to TIPS, and TIPS Contract Name and Number. Vendor accepts and understands that TIPS is not a legal party to TIPS Sales and Vendor is solely responsible for identifying fraud, mistakes, unacceptable terms, or misrepresentations for the specific order prior to accepting. Vendor agrees that any order issued from a customer to Vendor, even when processed through TIPS, constitutes a legal contract between the customer and Vendor only. When Vendor accepts or fulfills an order, even when processed through TIPS, Vendor is representing that Vendor has carefully reviewed the order for legality, authenticity, and accuracy and TIPS shall not be liable or responsible for the same. In the event of a conflict between the terms of this TIPS Vendor Agreement and those contained in any Supplemental Agreement, the provisions set forth herein shall control unless otherwise agreed to and authorized by the Parties in writing within the Supplemental Agreement. The Supplemental Agreement shall dictate the scope of services, the project delivery expectations, the scheduling of projects and milestones, the support requirements, and all other terms applicable to the specific sale(s) between the Vendor and the TIPS Member.

9. **Right of Refusal.** Vendor has the right not to sell to a TIPS Member under the awarded agreement at Vendor's discretion unless otherwise required by law.

10. **Reporting TIPS Sales**. If awarded on this TIPS Contract, for the duration of the contract, Vendor shall provide a RS Means or Xactimate line-item estimates to TIPS for each anticipated TIPS project or sale. TIPS Vendor shall never charge a TIPS Member a line-item charge or specific fee for providing an RS Means or Xactimate quote or estimate through the TIPS Program. When a TIPS Member Customer seeks a quote or proposal for a TIPS sale, Vendor shall always supply a line-item estimate to TIPS for review and approval. If awarded, Vendor must report all TIPS Sales to TIPS. If a TIPS sale is initiated by Vendor receiving a TIPS Member's purchase order from TIPS directly, Vendor may consider that specific TIPS Sale reported. Otherwise, with the exception of TIPS Automated Vendors, who have signed an exclusive agreement with TIPS regarding reporting, all TIPS Sales must be reported to TIPS by either: (1) Emailing the line item quote and purchase order or similar purchase document (with Vendor's Name, as known to TIPS, the TIPS Contract Name and Number included, and authorized signatures on behalf of both the TIPS Member and Vendor) to TIPS at tipspo@tips-usa.com with "Confirmation Only" in the subject line of the email within three business days of Vendor's acceptance of the order, or; (2) Within 3 business days of the order being accepted by Vendor, Vendor must login to the TIPS Vendor Portal and successfully self-report all necessary sale information within the Vendor Portal and confirm that it shows up accurately on your current Vendor Portal statement. No other method of reporting is acceptable unless agreed to by the Parties in writing. Failure to report all sales pursuant to this provision may result in immediate cancellation of Vendor's TIPS Contract(s) for cause at TIPS' sole discretion. Please refer to the TIPS Accounting FAQ's for more information about reporting sales and if you have further questions, contact the Accounting Team at accounting@tips-usa.com.

11. **TIPS Administration Fees.** The collection of administrative fees by TIPS, a government entity, for performance of these procurement services is required pursuant to Texas Government Code Section 791.011 et. seq. The administration fee ("TIPS Administration Fee") is the amount legally owed by Vendor to TIPS for TIPS Sales made by Vendor. The TIPS Administration Fee amount is typically a set percentage of the amount paid by the TIPS Member for each TIPS Sale, less shipping cost, bond cost, and taxes if applicable and identifiable, which is legally due to TIPS, but the exact TIPS Administration Fee for this Contract is published in the corresponding solicitation and is incorporated herein by reference. TIPS Administration Fees are due to TIPS immediately upon Vendor's receipt of payment, including partial payment, for a TIPS Sale. The TIPS Administration Fee is assessed on the amount paid by the TIPS Member, not on the Vendor's cost or on the amount for which the Vendor sold the item to a dealer or Authorized Reseller. Upon receipt of payment for a TIPS Sale, including partial payment (which renders TIPS Administration Fees immediately due), Vendor shall issue to TIPS the corresponding TIPS Administration Fee payment as soon as possible but not later than thirty-one calendar days following Vendor's receipt of payment. Vendor shall pay TIPS via check unless otherwise agreed to by the Parties in writing. Vendor shall include clear documentation with the issued payment dictating to which sale(s) the amount should be applied. Vendor may create a payment report within their TIPS Vendor Portal which is the preferred documentation dictating to which TIPS Sale(s) the amount

should be applied. Failure to pay all TIPS Administration Fees pursuant to this provision may result in immediate cancellation of Vendor's TIPS Contract(s) for cause at TIPS' sole discretion as well as the initiation of collection and legal actions by TIPS against Vendor to the extent permitted by law. Any overpayment of participation fees to TIPS by Vendor will be refunded to the Vendor within ninety (90) days of receipt of notification if TIPS receives written notification of the overpayment not later than the expiration of six (6) months from the date of overpayment and TIPS determines that the amount was not legally due to TIPS pursuant to this agreement and applicable law. Any notification of overpayment received by TIPS after the expiration of six (6) months from the date that TIPS received the payment will render the overpayment non-refundable. Region 8 ESC and TIPS reserve the right to extend the six (6) month deadline if approved by the Region 8 ESC Board of Directors. TIPS reserves all rights under the law to collect TIPS Administration Fees due to TIPS pursuant to this Agreement.

12. **Term of the Agreement.** If awarded, the resulting Agreement with TIPS is for approximately two years with an option for renewal for an additional two consecutive one-year terms. The first renewal year shall be automatic unless Vendor notifies TIPS of its objection to the first one-year renewal. The second one-year renewal shall only be effective if offered by TIPS at its sole discretion. If TIPS offers the second renewal option, the Vendor will be notified via email issued to Vendor's then-listed Primary Contact. The renewal option shall be deemed accepted by Vendor unless Vendor notifies TIPS of its objection to the renewal option in writing and confirms receipt by TIPS.

Actual Effective Date: Agreement is effective upon signature by authorized representatives of both Parties. The Effective Date does not affect the "Term Calculation Start Date."

Term Calculation Start Date: To keep the contract term consistent for all vendors awarded under a single TIPS contract, Vendor shall calculate the foregoing term as starting on the last day of the month that "Award Notifications" are anticipated as published in the Solicitation, regardless of the actual Effective Date.

Example of Term Calculation Start Date: If the anticipated "Award Date" published in the Solicitation is May 22, 2023, but extended negotiations delay award until June 27, 2023 (Actual Effective Date), the Term Calculation Start Date shall be May 31, 2023 in this example.

Contract Expiration Date: To keep the contract term consistent for all vendors awarded under a single TIPS contract, the term expiration date shall be two-years from the Term Calculation Start Date.

Example of Contract Expiration Date: If the anticipated "Award Date" published in the Solicitation is May 22, 2023, but extended negotiations delay award until June 27, 2023 (Actual Effective Date), the Term Calculation Start Date shall be May 31, 2023 and the Contract Expiration Date of the resulting initial "three-year" term, (which is subject to an extension(s)) will be May 31, 2026 in this example.

Option(s) for Renewal: Any option(s) for renewal shall begin on the Contract Expiration Date, or the date of the expiration of the prior renewal term where applicable, and continue for the duration specified for the renewal option herein.

Example of Option(s) for Renewal: In this example, if TIPS offers the second one-year renewal and the Contract Expiration Date is May 31, 2026, then the one-year renewal is effective from May 31, 2026 to May 31, 2027.

TIPS may offer to extend Vendor Agreements to the fullest extent the TIPS Solicitation resulting in this Agreement permits.

13. **TIPS Pricing.** Vendor agrees and understands that for each TIPS Contract that it is awarded, Vendor submitted, agreed to, and received TIPS' approval for pricing, coefficients, mark-ups, discounts, and other pricing terms and incentives which make up Vendor's TIPS Pricing for that TIPS Contract ("TIPS Pricing"). Vendor confirms that Vendor will not add the TIPS Administration Fee as a charge or line-item in a TIPS Sale. Vendor hereby certifies that Vendor shall only offer goods and services through this TIPS Contract if those goods and services fall within the scope of the TIPS Contract and are priced according to Vendor's TIPS Pricing. TIPS reserves the right to review Vendor's proposals and quotes line-item by line-item to determine compliance. However, Vendor contractually agrees that all TIPS quotes and proposals shall be within the original terms of the Vendor's TIPS Pricing (scope, coefficients, percentage markups, and other pricing terms and incentives originally proposed by Vendor) such that TIPS may approve Vendor's quotes and proposals without additional vetting at TIPS discretion.

14. **Indemnification of TIPS.** **VENDOR AGREES TO INDEMNIFY, HOLD HARMLESS, AND DEFEND TIPS, TIPS MEMBERS, TIPS OFFICERS, TIPS EMPLOYEES, TIPS DIRECTORS, AND TIPS TRUSTEES (THE "TIPS INDEMNITEES") FROM AND AGAINST ALL CLAIMS AND SUITS BY THIRD-PARTIES FOR DAMAGES, INJURIES TO PERSONS (INCLUDING DEATH), PROPERTY DAMAGES, LOSSES,**

EXPENSES, FEES, INCLUDING COURT COSTS, ATTORNEY'S FEES, AND EXPERT FEES, ARISING OUT OF OR RELATING TO VENDOR'S PERFORMANCE UNDER THIS AGREEMENT (INCLUDING THE PERFORMANCE OF VENDOR'S OFFICERS, EMPLOYEES, AGENTS, AUTHORIZED RESELLERS, SUBCONTRACTORS, LICENSEES, OR INVITEES), REGARDLESS OF THE NATURE OF THE CAUSE OF ACTION, INCLUDING WITHOUT LIMITATION CAUSES OF ACTION BASED UPON COMMON, CONSTITUTIONAL, OR STATUTORY LAW OR BASED IN WHOLE OR IN PART UPON ALLEGATIONS OF NEGLIGENT OR INTENTIONAL ACTS OR OMISSIONS ON THE PART OF VENDOR, ITS OFFICERS, EMPLOYEES, AGENTS, AUTHORIZED RESELLERS, SUBCONTRACTORS, LICENSEES, OR INVITEES. NO LIMITATION OF LIABILITY FOR DAMAGES FOR PERSONAL INJURY OR PROPERTY DAMAGE ARE PERMITTED OR AGREED TO BY TIPS. APART FROM THIS INDEMNIFICATION PROVISION REQUIRING INDEMNIFICATION OF THE TIPS INDEMNITEES' ATTORNEY'S FEES AS SET FORTH ABOVE, RECOVERY OF ATTORNEYS' FEES BY THE PREVAILING PARTY IS AUTHORIZED ONLY IF AUTHORIZED BY TEX. EDUC. CODE § 44.032(F).

15. **Indemnification and Assumption of Risk – Vendor Data.** **VENDOR AGREES THAT IT IS VOLUNTARILY PROVIDING DATA (INCLUDING BUT NOT LIMITED TO: VENDOR INFORMATION, VENDOR DOCUMENTATION, VENDOR'S PROPOSALS, VENDOR PRICING SUBMITTED OR PROVIDED TO TIPS, TIPS CONTRACT DOCUMENTS, TIPS CORRESPONDENCE, VENDOR LOGOS AND IMAGES, VENDOR'S CONTACT INFORMATION, VENDOR'S BROCHURES AND COMMERCIAL INFORMATION, VENDOR'S FINANCIAL INFORMATION, VENDOR'S CERTIFICATIONS, AND ANY OTHER VENDOR INFORMATION OR DOCUMENTATION, INCLUDING WITHOUT LIMITATION SOFTWARE AND SOURCE CODE UTILIZED BY VENDOR, SUBMITTED TO TIPS BY VENDOR AND ITS AGENTS) ("VENDOR DATA") TO TIPS. FOR THE SAKE OF CLARITY, AND WITHOUT LIMITING THE BREADTH OF THE INDEMNITY OBLIGATIONS IN SECTION 14 ABOVE, VENDOR AGREES TO PROTECT, INDEMNIFY, AND HOLD THE TIPS INDEMNITEES HARMLESS FROM AND AGAINST ANY AND ALL LOSSES, CLAIMS, ACTIONS, DEMANDS, ALLEGATIONS, SUITS, JUDGMENTS, COSTS, EXPENSES, FEES, INCLUDING COURT COSTS, ATTORNEY'S FEES, AND EXPERT FEES AND ALL OTHER LIABILITY OF ANY NATURE WHATSOEVER ARISING OUT OF OR RELATING TO: (I) ANY UNAUTHORIZED, NEGLIGENT OR WRONGFUL USE OF, OR CYBER DATA BREACH INCIDENT AND VIRUSES OR OTHER CORRUPTING AGENTS INVOLVING, VENDOR'S DATA, PRICING, AND INFORMATION, COMPUTERS, OR OTHER HARDWARE OR SOFTWARE SYSTEMS, AND; (II) ALLEGATIONS OR CLAIMS THAT ANY VENDOR DATA INFRINGES ON THE INTELLECTUAL PROPERTY RIGHTS OF A THIRD-PARTY OR VENDOR.**

16. **Intellectual Property Indemnification by Vendor. Procedures Related to Indemnification.** In the event that an indemnity obligation arises, Vendor shall pay all amounts set forth in Section 14 and 15 above (including any settlements) and – if it has accepted its indemnity obligation without qualification – control the legal defense to such claim or cause of action, including without limitation attorney selection, strategy, discovery, trial, appeal, and settlement, and TIPS shall, at Vendor's cost and expense (with respect to reasonable out of pocket costs and expenses incurred by TIPS which shall be reimbursed to TIPS by Vendor), provide all commercially reasonable assistance requested by Vendor. In controlling any defense, Vendor shall ensure that all assertions of governmental immunity and all applicable pleas and defenses shall be promptly asserted.

17. **Indemnity for Underlying Sales and Supplemental Agreements.** Vendor shall be solely responsible for any customer claims or any disputes arising out of TIPS Sales or any Supplemental Agreement as if sold in the open-market. The Parties agree that TIPS shall not be liable for any claims arising out of Vendor's TIPS Sales or Supplemental Agreements, including but not limited to: allegations of product defect or insufficiency, allegations of service defect or insufficiency, allegations regarding delivery defect or insufficiency, allegations of fraud or misrepresentation, allegations regarding pricing or amounts owed for TIPS sales, and/or allegations regarding payment, over-payment, under-payment, or non-payment for TIPS Sales. Payment/Drafting, overpayment/over-drafting, under-payment/under-drafting, or non-payment for TIPS Sales between customer and Vendor and inspections, rejections, or acceptance of such purchases shall be the exclusive respective obligations of Vendor/Customer, and disputes shall be handled in accordance with the terms of the underlying Supplemental Agreement(s) entered into between Vendor and Customer. Vendor acknowledges that TIPS is not a dealer, subcontractor, agent, or reseller of Vendor's goods and services and shall not be responsible for any claims arising out of alleged insufficiencies or defects in Vendor's goods and services, should any arise.

18. **Confidentiality of Vendor Data.** Vendor understands and agrees that by signing this Agreement, all Vendor Data is hereby released to TIPS, TIPS Members, and TIPS third-party administrators to effectuate Vendor's TIPS Contract except as provided for herein. The Parties agree that Vendor Data is accessible by all TIPS Members as if submitted directly to that TIPS Member Customer for purchase consideration. If Vendor otherwise considers any portion of Vendor's Data to be confidential and not subject to public disclosure pursuant to Chapter 552 Texas Gov't Code (the "Public Information Act") or other law(s) and orders, Vendor must have identified the claimed confidential materials through proper execution of the Confidentiality Claim Form which is required to be submitted as part of Vendor's proposal resulting in this Agreement and incorporated by reference. The Confidentiality Claim Form included in Vendor's proposal and incorporated herein by reference is the sole indicator of whether Vendor considers any Vendor Data confidential in the event TIPS receives a Public Information Request. If TIPS receives a request, any responsive documentation not deemed confidential by you in this manner will be automatically released. For Vendor Data deemed confidential by you in this manner, TIPS will follow procedures of controlling statute(s) regarding any claim of confidentiality and shall not be liable for any release of information required by law, including Attorney General determination and opinion. In the event that TIPS receives a written request for information

pursuant to the Public Information Act that affects Vendor's interest in any information or data furnished to TIPS by Vendor, and TIPS requests an opinion from the Attorney General, Vendor may, at its own option and expense, prepare comments and submit information directly to the Attorney General stating why the requested information is exempt from disclosure pursuant to the requirements of the Public Information Act. Vendor is solely responsible for submitting the memorandum brief and information to the Attorney General within the time period prescribed by the Public Information Act. Notwithstanding any other information provided in this solicitation or Vendor designation of certain Vendor Data as confidential or proprietary, Vendor's acceptance of this TIPS Vendor Agreement constitutes Vendor's consent to the disclosure of Vendor's Data, including any information deemed confidential or proprietary, to TIPS Members or as ordered by a Court or government agency, including without limitation the Texas Attorney General. Vendor agrees that TIPS shall not be responsible or liable for any use or distribution of information or documentation by TIPS Members or as required by law.

19. **Vendor's Subcontractors.** TIPS recognizes that many vendors operate in the open market through the use of subcontractors. For that reason, TIPS permits Vendor to utilize subcontractors as authorized and permitted by the TIPS Member Customer. However, all purchase documents must include: (1) Vendor's Name, as known to TIPS, and; (2) Vendor's TIPS Contract Name and Number under which it is making the TIPS Sale. Vendor must report the sale pursuant to the terms herein and Vendor agrees that it is legally responsible for all reporting and fee payment as described herein for TIPS Sales even when subcontractors are utilized. The TIPS Administration Fee is assessed on the amount paid by the TIPS Member to Vendor. The Parties intend that Vendor shall be responsible and for actions of subcontractors during a TIPS Sale. Vendor agrees that it is voluntarily authorizing subcontractors and in doing so, Vendor agrees that it is doing so at its own risk and agrees to protect, indemnify, and hold TIPS harmless in accordance with Sections 14-17 above related to subcontractor TIPS Sales made pursuant to this Agreement or purporting to be made pursuant to this Agreement that may be asserted against Vendor whether rightfully brought or otherwise. The Parties further agree that it is no defense to Vendor's breach of this Agreement that a subcontractor caused Vendor of breach this Agreement.

20. **Circumvention of TIPS Sales**. When a public entity initiates a purchase with Vendor, if the Member inquires verbally or in writing whether Vendor holds a TIPS Contract, it is the duty of the Vendor to verify whether the Member is seeking a TIPS purchase. Any request for quote, customer communication, or customer purchase initiated through or referencing a TIPS Contract shall be completed through TIPS pursuant to this Agreement. Any encouragement or participation by Vendor in circumventing a TIPS sale being completed may result in immediate termination of Vendor's TIPS Contract(s) for cause as well as preclusion from future TIPS opportunities at TIPS sole discretion.

21. **State of Texas Franchise Tax.** By signature hereon, Vendor hereby certifies that Vendor is not currently delinquent in the payment of any franchise taxes owed to the State of Texas under Chapter 171 of the Texas Tax Code.

22. **Termination.**

A) Termination for Convenience. TIPS may, by written notice to Vendor, terminate this Agreement for convenience, in whole or in part, at any time by giving thirty (30) days' written notice to Vendor of such termination, and specifying the effective date thereof.

B) Termination for Cause. If Vendor fails to materially perform pursuant to the terms of this Agreement, TIPS shall provide written notice to Vendor specifying the default. If Vendor does not cure such default within thirty (30) days, TIPS may terminate this Agreement, in whole or in part, for cause. If TIPS terminates this Agreement for cause, and it is later determined that the termination for cause was wrongful, the termination shall automatically be converted to and treated as a termination for convenience.

C) Vendor's Termination. If TIPS fails to materially perform pursuant to the terms of this Agreement, Vendor shall provide written notice to TIPS specifying the default ("Notice of Default"). If TIPS does not cure such default within thirty (30) days, Vendor may terminate this Agreement, in whole or in part, for cause. If Vendor terminates this Agreement for cause, and it is later determined that the termination for cause was wrongful, the termination shall automatically be converted to and treated as a termination for convenience.

D) Upon termination, all TIPS Sale orders previously accepted by Vendor shall be fulfilled and Vendor shall be paid for all TIPS Sales executed pursuant to the applicable terms. All TIPS Sale orders presented to Vendor but not fulfilled by Vendor, prior to the actual termination of this agreement shall be honored at the option of the TIPS Member. TIPS shall submit to Vendor an invoice for any outstanding TIPS Administration Fees and approved expenses and Vendor shall pay such fees and expenses within 30 calendar days of receipt of such valid

TIPS invoice. Vendor acknowledges and agrees that continued participation in TIPS is subject to TIPS' sole discretion and that any Vendor may be removed from the TIPS program at any time with or without cause. This termination clause does not affect TIPS Sales Supplemental Agreements pursuant to this term regarding termination and the Survival Clause term.

E) Vendor hereby waives any and all claims for damages, including, but not limited, to consequential damages or lost profits, that might arise from TIPS' act of terminating this Agreement.

23. **Survival Clause.** It is the intent of the Parties that this Agreement and procurement method applies to any TIPS Sale made during the life of this Agreement even if made on or near the Contract Expiration Date as defined herein. Thus, all TIPS Sales, including but not limited to: leases, service agreements, license agreements, open purchase orders, warranties, and contracts, even if they extend months or years past the TIPS Contract Expiration Date, shall survive the expiration or termination of this Agreement subject to the terms and conditions of the Supplemental Agreement between Customer and Vendor or unless otherwise specified herein.

24. **Audit Rights.** Due to transparency statutes and public accountability requirements of TIPS and TIPS Members, Vendor shall at their sole expense, maintain documentation of all TIPS Sales for a period of three years from the time of the TIPS Sale. In order to ensure and confirm compliance with this agreement, TIPS shall have authority to conduct audits of Vendor's TIPS Pricing or TIPS Sales with thirty-days' notice unless the audit is ordered by a Court Order or by a Government Agency with authority to do so without said notice. Notwithstanding the foregoing, in the event that TIPS is made aware of any pricing being offered to eligible entities that is materially inconsistent with Vendor's TIPS Pricing, TIPS shall have the ability to conduct the audit internally or may engage a third- party auditing firm to investigate any possible non-compliant conduct or may terminate the Agreement according to the terms of this Agreement. In the event of an audit, the requested materials shall be reasonably provided in the time, format, and at the location acceptable to TIPS. TIPS agrees not to perform a random audit the TIPS transaction documentation more than once per calendar year, but reserves the right to audit for just cause or as required by any governmental agency or court with regulatory authority over TIPS or the TIPS Member. These audit rights shall survive termination of this Agreement for a period of one (1) year from the effective date of termination.

25. **Conflicts of Interest.** The Parties confirm that they have not offered, given, or accepted, nor intend to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, service to the other in connection with this Agreement. Vendor affirms that, to the best of Vendor's knowledge, this Agreement has been arrived at independently, and is awarded without collusion with anyone to obtain information or gain any favoritism that would in any way limit competition or give an unfair advantage over other vendors in the award of this Agreement. Vendor agrees that it has disclosed any necessary affiliations with Region 8 Education Service Center and the TIPS Department, if any, through the Conflict of Interest attachment provided in the solicitation resulting in this Agreement.

26. **Volume of TIPS Sales.** Nothing in this Agreement or any TIPS communication may be construed as a guarantee that TIPS or TIPS Members will submit any TIPS orders to Vendor at any time.

27. **Compliance with the Law.** The Parties agree to comply fully with all applicable federal, state, and local statutes, ordinances, rules, and regulations applicable to their entity in connection with the programs contemplated under this Agreement.

28. **Severability.** If any term(s) or provision(s) of this Agreement are held by a court of competent jurisdiction to be invalid, void, or unenforceable, then such term(s) or provision(s) shall be deemed restated to reflect the original intention of the Parties as nearly as possible in accordance with applicable law and the remainder of this Agreement, and the remainder of the provisions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated, unless such holding causes the obligations of the Parties hereto to be impossible to perform or shall render the terms of this Agreement to be inconsistent with the intent of the Parties hereto.

29. **Force Majeure.** If by reason of Force Majeure, either party hereto shall be rendered unable wholly or in part to carry out its obligations under this Agreement through no fault of its own then such party shall give notice and full particulars of Force Majeure in writing to the other party within a reasonable time after occurrence of the event or cause relied upon. Upon delivering such notice, the obligation of the affected party, so far as it is affected by such Force Majeure as described, shall be suspended during the continuance of the inability then claimed but for no longer period, and such party shall endeavor to remove or overcome such inability with all reasonable dispatch. In the event that Vendor's obligations are suspended by reason of Force Majeure, all TIPS Sales accepted prior to the Force Majeure event shall be the legal responsibility of Vendor and the terms of the TIPS Sale Supplemental Agreement shall control Vendor's failure to fulfill for a Force Majeure event.

30. **Immunity.** Vendor agrees that nothing in this Agreement shall be construed as a waiver of sovereign or government immunity; nor constitute or be construed as a waiver of any of the privileges, rights, defenses, remedies, or immunities available to Region 8 Education Service Center or its TIPS Department. The failure to enforce, or any delay in the enforcement of, any privileges, rights, defenses, remedies, or immunities available to Region 8 Education Service Center or its TIPS Department under this Agreement or under applicable law shall not constitute a waiver of such privileges, rights, defenses, remedies, or immunities or be considered as a basis for estoppel.

31. **Insurance Requirements.** Vendor agrees to maintain the following minimum insurance requirements for the duration of this Agreement. All policies held by Vendor to adhere to this term shall be written by a carrier with a financial size category of VII and at least a rating of "A-" by A.M. Best Key Rating Guide. The coverages and limits are to be considered minimum requirements and in no way limit the liability of the Vendor(s). Any immunity available to TIPS or TIPS Members shall not be used as a defense by the contractor's insurance policy. Only deductibles applicable to property damage are acceptable, unless proof of retention funds to cover said deductibles is provided. "Claims made" policies will not be accepted. Vendor's required minimum coverage shall not be suspended, voided, cancelled, non-renewed or reduced in coverage or in limits unless replaced by a policy that provides the minimum required coverage except after thirty (30) days prior written notice by certified mail, return receipt requested has been given to TIPS or the TIPS Member if a project or pending delivery of an order is ongoing. Upon request, certified copies of all insurance policies shall be furnished to the TIPS or the TIPS Member. Vendor agrees that when Vendor or its subcontractors are liable for any damages or claims, Vendor's policy, shall be primary over any other valid and collectible insurance carried by the Member or TIPS.

General Liability:	$1,000,000 each Occurrence/Aggregate
Automobile Liability:	$300,000 Includes owned, hired & non-owned
Workers' Compensation:	Statutory limits for the jurisdiction in which the Vendor performs under this Agreement. If Vendor performs in multiple jurisdictions, Vendor shall maintain the statutory limits for the jurisdiction with the greatest dollar policy limit requirement.
Umbrella Liability:	$1,000,000 each Occurrence/Aggregate

32. **Waiver.** No waiver of any single breach or multiple breaches of any provision of this Agreement shall be construed to be a waiver of any breach of any other provision. No delay in acting regarding any breach of any provision shall be construed to be a waiver of such breach.

33. **Binding Agreement.** This Agreement shall be binding and inure to the benefit of the Parties hereto and their respective heirs, legal successors, and assigns.

34. **Headings.** The paragraph headings contained in this Agreement are included solely for convenience of reference and shall not in any way affect the meaning or interpretation of any of the provisions of this Agreement.

35. **Choice of Law and Venue.** This Agreement shall be governed by, construed, and enforced in accordance with the laws of the State of Texas. Any proceeding, claim, action, or alternative dispute resolution arising out of or relating to this Agreement or involving TIPS shall be brought in a State Court of competent jurisdiction in Camp County, Texas, or if Federal Court is legally required, a Federal Court of competent jurisdiction in the Eastern District of Texas, and each of the Parties irrevocably submits to the exclusive jurisdiction of said court in any such proceeding, waives any objection it may now or hereafter have to venue or to convenience of forum, agrees that all claims in respect of the proceeding shall be heard and determined only in any such court, and agrees not to bring any proceeding arising out of or relating to this procurement process or any contract resulting from or and contemplated transaction in any other court. The Parties agree that either or both of them may file a copy of this paragraph with any court as written evidence of the knowing, voluntary and freely bargained for agreement between the Parties irrevocably to waive any objections to venue or to convenience of forum.

36. **Relationship of the Parties.** Nothing contained in this Agreement shall be construed to make one Party an agent of the other Party nor shall either party have any authority to bind the other in any respect, unless expressly authorized by the other party in writing. The Parties are independent contractors and nothing in this Agreement creates a relationship of employment, trust, agency or partnership between them.

37. **Assignment.** No assignment of this Agreement or of any duty or obligation of performance hereunder, shall be made in whole or in part by a Party hereto without the prior written consent of the other Party. Written consent of TIPS shall not be unreasonably withheld.

38. **Minimum Condition and Warranty Requirements for TIPS Sales.** All goods quoted or sold through a TIPS Sale shall be new unless clearly stated otherwise in writing. All new goods and services shall include the applicable manufacturers minimum standard warranty unless otherwise agreed to in the Supplemental Agreement.

39. **Minimum Customer Support Requirements for TIPS Sales.** Vendor shall provide timely and commercially reasonable support for TIPS Sales or as agreed to in the applicable Supplemental Agreement.

40. **Minimum Shipping Requirements for TIPS Sales.** Vendor shall ship, deliver, or provide ordered goods and services within a commercially reasonable time after acceptance of the order. If a delay in delivery is anticipated, Vendor shall notify the TIPS Member as to why delivery is delayed and provide an updated estimated time for completion. The TIPS Member may cancel the order if the delay is not commercially acceptable or not consistent with the Supplemental Agreement applicable to the order.

41. **Minimum Vendor License Requirements.** Vendor shall maintain, in current status, all federal, state, and local licenses, bonds and permits required for the operation of the business conducted by Vendor. Vendor shall remain fully informed of and in compliance with all ordinances and regulations pertaining to the lawful provision of goods or services under the TIPS Agreement. TIPS and TIPS Members reserve the right to stop work and/or cancel a TIPS Sale or terminate this or any TIPS Sale Supplemental Agreement involving Vendor if Vendor's license(s) required to perform under this Agreement or under the specific TIPS Sale have expired, lapsed, are suspended or terminated subject to a 30-day cure period unless prohibited by applicable statue or regulation.

42. **Minimum Vendor Legal Requirements.** Vendor shall remain aware of and comply with this Agreement and all local, state, and federal laws governing the sale of products/services offered by Vendor under this contract. Such applicable laws, ordinances, and policies must be complied with even if not specified herein.

43. **Minimum Site Requirements for TIPS Sales (*when applicable to TIPS Sale*).**

Cleanup: When performing work on site at a TIPS Member's property, Vendor shall clean up and remove all debris and rubbish resulting from their work as required or directed by the TIPS Member or as agreed by the parties. Upon completion of work, the premises shall be left in good repair and an orderly, neat, clean and unobstructed condition.

Preparation: Vendor shall not begin a project for which a TIPS Member has not prepared the site, unless Vendor does the preparation work at no cost, or until TIPS Member includes the cost of site preparation in the TIPS Sale Site preparation includes, but is not limited to: moving furniture, installing wiring for networks or power, and similar pre-installation requirements.

Registered Sex Offender Restrictions: For work to be performed at schools, Vendor agrees that no employee of Vendor or a subcontractor who has been adjudicated to be a registered sex offender will perform work at any time when students are, or reasonably expected to be, present unless otherwise agreed by the TIPS Member. Vendor agrees that a violation of this condition shall be considered a material breach and may result in the cancellation of the TIPS Sale at the TIPS Member's discretion. Vendor must identify any additional costs associated with compliance of this term. If no costs are specified, compliance with this term will be provided at no additional charge.

Safety Measures: Vendor shall take all reasonable precautions for the safety of employees on the worksite, and shall erect and properly maintain all necessary safeguards for protection of workers and the public. Vendor shall post warning signs against all hazards created by the operation and work in progress. Proper precautions shall be taken pursuant to state law and standard practices to protect workers, general public and existing structures from injury or damage.

Smoking: Persons working under Agreement shall adhere to the TIPS Member's or local smoking statutes, codes, ordinances, and policies.

44. **Wage Rates:** TIPS Member Customers often have to designate either Davis Bacon Act wage rates or similar wage rates for their construction contracts. The RS Means Unit Price Book accounts for local wage rates and the contractor must comply with RS Means and any additional wage rate requirements of the TIPS Member Customer.

45. **Engineering and Architectural Services:** It is impermissible in Texas and some other jurisdictions for engineering and architectural services (A&E) to be procured or provided through an interlocal cooperative contract such as this one. The TIPS Member Customer, if required by law, must engage independent A&E providers according to the laws of their jurisdiction.

46. **Payment for TIPS Sales.** TIPS Members may make payments for TIPS Sales directly to Vendor, or as otherwise agreed to in the applicable Supplemental Agreement after receipt of the invoice and in compliance with applicable payment statutes. Regardless of how payment is issued or received for a TIPS Sale, Vendor is responsible for all reporting and TIPS Administration Fee payment requirements as stated herein.

47. **Marketing.** Vendor agrees to allow TIPS to use their name and logo within the TIPS website, database, marketing materials, and advertisements unless Vendor negotiates this term to include a specific acceptable-use directive. Any use of TIPS' name and logo or any form of publicity, inclusive of press release, regarding this Agreement by Vendor must have prior approval from TIPS which will not be unreasonably withheld. Request may be made by email to tips@tips-usa.com. For marketing efforts directed to TIPS Members, Vendor must request and execute a separate Joint Marketing Disclaimer, at marketing@tips-usa.com, before TIPS can release contact information for TIPS Member entities for the purpose of marketing your TIPS contract(s). Vendor must adhere to strict Marketing Requirements once a disclaimer is executed. The Joint Marketing Disclaimer is a supplemental agreement specific to joint marketing efforts and has no effect on the terms of the TIPS Vendor Agreement. Vendor agrees that any images, photos, writing, audio, clip art, music, or any other intellectual property ("Property") or Vendor Data utilized, provided, or approved by Vendor during the course of the joint marketing efforts are either the exclusive property of Vendor, or Vendor has all necessary rights, license, and permissions to utilize said Property in the joint marketing efforts. Vendor agrees that they shall indemnify and hold harmless TIPS and its employees, officers, agents, representatives, contractors, assignees, designees, and TIPS Members from any and all claims, damages, and judgments involving infringement of patent, copyright, trade secrets, trade or services marks, and any other intellectual or intangible property rights and/or claims arising from the Vendor's (including Vendor's officers', employees', agents', Authorized Resellers', subcontractors', licensees', or invitees') unauthorized use or distribution of Vendor Data and Property.

48. **Tax Exempt Status of TIPS Members.** Most TIPS Members are tax exempt entities and the laws and regulations applicable to the specific TIPS Member customer shall control.

49. **Automatic Renewal Limitation for TIPS Sales.** No TIPS Sale may incorporate an automatic renewal clause that exceeds month to month terms with which the TIPS Member must comply. All renewal terms incorporated into a TIPS Sale Supplemental Agreement shall only be valid and enforceable when Vendor received written confirmation of acceptance of the renewal term from the TIPS Member for the specific renewal term. The purpose of this clause is to avoid a TIPS Member inadvertently renewing an Agreement during a period in which the governing body of the TIPS Member has not properly appropriated and budgeted the funds to satisfy the Agreement renewal. Any TIPS Sale Supplemental Agreement containing an "Automatic Renewal" clause that conflicts with these terms is rendered void and unenforceable.

50. **Choice of Law Limitation for TIPS Sales.** Vendor agrees that if any "Choice of Law" provision is included in any TIPS Sale agreement/contract between Vendor and a TIPS Member, that clause must provide that the "Choice of Law" applicable to the TIPS Sale agreement/contract between Vendor and TIPS Member shall be the state where the TIPS Member operates unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Choice of Law" clause that conflicts with these terms is rendered void and unenforceable.

51. **Venue Limitation for TIPS Sales.** Vendor agrees that if any "Venue" provision is included in any TIPS Sale Agreement/contract between Vendor and a TIPS Member, that clause must provide that the "Venue" for any litigation or alternative dispute resolution shall be in the state and county where the TIPS Member operates unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Venue" clause that conflicts with these terms is rendered void and unenforceable.

52. **Indemnity Limitation for TIPS Sales.** Texas and other jurisdictions restrict the ability of governmental entities to indemnify others. Vendor agrees that if any "Indemnity" provision which requires the TIPS Member to indemnify Vendor is included in any TIPS sales agreement/contract between Vendor and a TIPS Member, that clause must either be stricken or qualified by including that such indemnity is only permitted, "to the extent permitted by the laws and constitution of [TIPS Member's State]" unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing an "Indemnity" clause that conflicts with these terms is rendered void and unenforceable.

53. **Arbitration Limitation for TIPS Sales.** Vendor agrees that if any "Arbitration" provision is included in any TIPS Sale agreement/contract between Vendor and a TIPS Member, that clause may not require that the arbitration is mandatory or binding. Vendor agrees that if any "Arbitration" provision is included in any TIPS Sale agreement/contract between Vendor and a TIPS Member, that clause provides for only voluntary and non-binding arbitration unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Arbitration" clause that conflicts with these terms is rendered void and unenforceable.

In Witness Whereof, the parties hereto, each acting under due and proper authority, have signed this Agreement.

TIPS VENDOR AGREEMENT SIGNATURE FORM

TIPS 241001 Job Order Contracting (JOC)

Vendor Name: Sterling Elite Enterprise LLC, Minchew Brothers Construction

Vendor Address: 520 Preston Dr.

City: Pottsboro State: Texas Zip Code: 75076

Vendor Authorized Signatory Name: Lane M Minchew

Vendor Authorized Signatory Title: Owner

Vendor Authorized Signatory Phone: 903.624.9233

Vendor Authorized Signatory Email: lane@minchewbros.com

Vendor Authorized Signature: Lane M Minchew Digitally signed by Lane M Minchew Date: 2024.11.06 08:02:50 -06'00' Date: 11.06.2024

(*The following is for TIPS completion only*)

TIPS Authorized Signatory Name: Dr. Fitts

TIPS Authorized Signatory Title: Executive Director

TIPS Authorized Signature: David Wayne Fitts Date: 11/26/24

241001 Addendum 1
Minchew Brothers Construction
Sterling Elite Enterprise
Supplier Response

Event Information

Number: 241001 Addendum 1
Title: Job Order Contracting
Type: Request for Proposal
Issue Date: 10/3/2024
Deadline: 11/15/2024 03:00 PM (CT)
Notes: This is a solicitation issued by The Interlocal Purchasing System (TIPS), a department of Texas Region 8 Education Service Center. It is an Indefinite Delivery, Indefinite Quantity ("IDIQ") solicitation. It will result in contracts that provide, through adoption/"piggyback" an indefinite quantity of supplies/services, during a fixed period of time, to TIPS public entity and qualifying non-profit "TIPS Members" throughout the nation. Thus, there is no specific project or scope of work to review. Rather this solicitation is issued as a prospective award for utilization when any TIPS Member needs the goods or services offered during the life of the agreement.

IF YOU CURRENTLY HOLD TIPS CONTRACT 211001 JOB ORDER CONTRACTING (211001), YOU MUST RESPOND TO THIS SOLICITATION TO PREVENT LAPSE OF CONTRACT UNLESS YOU HOLD ANOTHER CURRENT TIPS CONTRACT THAT COVERS ALL OF YOUR JOC OFFERINGS. THIS AWARDED CONTRACT WILL REPLACE YOUR EXPIRING TIPS CONTRACT 211001.

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IF YOU HOLD ANOTHER TIPS CONTRACT OTHER THAN 211001 WHICH COVERS ALL OF

YOUR JOC OFFERINGS (SUCH AS A TRADES, LABOR, AND MATERIALS CONTRACT) AND YOU ARE SATISFIED WITH IT, THERE IS NO NEED TO RESPOND TO THIS SOLICITATION UNLESS YOU PREFER TO HOLD BOTH CONTRACTS.

Contact Information

Address: Region 8 Education Service Center
4845 US Highway 271 North
Pittsburg, TX 75686
Phone: +1 (866) 839-8477
Email: bids@tips-usa.com

Minchew Brothers Construction Information

Contact: Lane Minchew
Address: 520 Preston dr
Pottsboro, TX 75076
Phone: (903) 624-9233
Email: lane@minchewbros.com
Web Address: www.minchewbros.com

By submitting your response, you certify that you are authorized to represent and bind your company.

Lane Miles Minchew
Signature

lane@minchewbros.com
Email

Submitted at 11/12/2024 11:28:02 AM (CT)

Requested Attachments

Vendor Agreement

241001 Vendor Agreement JOC.pdf

The Vendor Agreement must be downloaded from the “Attachments” section of the IonWave eBid System, reviewed, Vendor Name placed in the line provided at the top, and uploaded to this location. If Vendor has proposed deviations to the Vendor Agreement, Vendor may assert so in the Attribute Questions and those shall be addressed during evaluation.

Vendor Agreement Signature Form

241001 Vendor Agreement Signature Form completed signed.pdf

The Vendor Agreement Signature Form must be downloaded from the “Attachments” section of the IonWave eBid System, reviewed, properly completed, and uploaded to this location. If Vendor has proposed deviations to the Vendor Agreement, Vendor may leave the signature line of this page blank and assert so in the Attribute Questions and those shall be addressed during evaluation.

(3) Required Customer Reference Letters

Minchew Professional Reference.pdf

Vendor is required to upload three Customer Reference Letters from three separate customers as described herein. Vendor will be scored on the aggregate Reference Letters received from customers as described in the solicitation. Vendor must provide three current letters (issued within the 12-months preceding the date on which the solicitation was posted) from its customers verifying Vendor’s customer service and reputation as described herein. (Ex. if the solicitation/bid posted on February 4, 2024, the letters must be dated on or after February 1, 2023). The letters must be issued from customers who have received goods or services from the Vendor or its current corporate officials, on entity/company letterhead, must specify its customer experience with Vendor, and must be signed by an authorized representative of the customer. TIPS Reference Forms from past bids will no longer be accepted.

Required Bonding Capacity Letter

Bonding Letter.docx

Vendor is required to upload a Bonding Capacity Letter from its surety, as described herein, at this location. Please see the attachment entitled “Instructions and Sample – Required Bonding Capacity Letter” for complete instructions. Vendor will be scored on the aggregate bonding capacity displayed in the accepted letter. Vendor must provide a current letter (issued on or after the first day of the month preceding the date on which the solicitation was posted) from its surety verifying Vendor’s bonding capacity as described herein. (Ex. if the solicitation/bid posted on February 4, 2022, the letter must be dated on or after January 1 2022. The letter must be issued from Vendor’s Surety companies, on surety company letterhead, must specify the maximum bonding capacity of the Vendor, and must be signed by an authorized representative of the surety company. The issuing surety must be authorized to do business in the State of Texas and must be listed on the Department of the Treasury's Listing of Approved Sureties (Department Circular 570).

Required Confidentiality Claim Form

241001 Required Confidentiality Claim Form signed.pdf

The Required Confidentiality Claim Form must be downloaded from the “Attachments” section of the IonWave eBid System, reviewed, properly completed, and uploaded to this location. This is the only way for Vendor to assert confidentiality of any information submitted.

Current Form W-9

W9 DEC 2023.pdf

Vendor must upload their current IRS Tax Form W-9. The legal name, EIN, and d/b/a's listed should match the information provided herein exactly. This form will be utilized by TIPS to properly identify your entity.

Optional Xactimate Response Attachment

No response

Optional Additional Xactimate Pricing Form - This pricing method is optional and CANNOT be used instead of the required RS Means Pricing. RS Means Pricing is required but Vendor may submit this pricing option in addition to the required RS Means Pricing and the two pricing scores will be averaged. If desired, the Optional Additional Xactimate Pricing Form may be downloaded from the “Attachments” section of the IonWave eBid System, reviewed, properly completed, and uploaded at this location.

Vendor Logo (Supplemental Vendor Information Only)

No response

Optional. If Vendor desires that their logo be displayed on their public TIPS profile for TIPS and TIPS Member viewing, Vendor may upload that logo at this location. These supplemental documents shall not be considered part of the TIPS Contract. Rather, they are Vendor Supplemental Information for marketing and informational purposes only.

Certificates & Licenses (Supplemental Vendor Information Only)

No response

Optional. If Vendor would like to display any applicable certificates or licenses (including HUB certificates) for TIPS and TIPS Member Customer consideration, Vendor may upload those at this location. These supplemental documents shall not be considered part of the TIPS Contract. Rather, they are Vendor Supplemental Information for marketing and informational purposes only.

Vendor’s Warranties, Terms, and Conditions (Supplemental Vendor Information Only)

No response

Optional. If Vendor would like to display any standard warranties, terms, or conditions which are often applicable to their offerings for TIPS and TIPS Member Customer consideration, Vendor may upload those at this location. These supplemental documents shall not be considered part of the TIPS Contract. Rather, they are Vendor Supplemental Information for marketing and informational purposes only.

Supplemental Vendor Information (Supplemental Vendor Information Only)

No response

Optional. If Vendor would like to display or include any brochures, promotional documents, marketing materials, or other Vendor Information for TIPS and TIPS Member Customer consideration, Vendor may upload those at this location. These supplemental documents shall not be considered part of the TIPS Contract. Rather, they are Vendor Supplemental Information for marketing and informational purposes only.

Disclosure of Lobbying Activities - Standard Form - LLL

No response

Do not upload this form unless Vendor has reportable lobbying activities. There are Attributes entitled, “2 CFR Part 200 or Federal Provision - Byrd Anti-Lobbying Amendment – Continued.” Properly respond to those Attributes and only upload this form if applicable/instructed. If upload is required based on your response to those Attributes, the Disclosure of Lobbying Activities – Standard Form - LLL must be downloaded from the “Attachments” section of the IonWave eBid System, reviewed, properly completed, and uploaded to this location.

Conflict of Interest Questionnaire - Form CIQ

No response

Do not upload this form unless you have a reportable conflict with TIPS. There is an Attribute entitled “Conflict of Interest Questionnaire Requirement” immediately followed by an Attribute entitled “Conflict of Interest Questionnaire Requirement – Form CIQ – Continued.” Properly respond to those Attributes and only upload this form if applicable/instructed. If upload is required based on your response to those Attributes, the Conflict of Interest Questionnaire – Form CIQ must be downloaded from the “Attachments” section of the IonWave eBid System, reviewed, properly completed, and uploaded at this location.

Bid Attributes

1 Disadvantaged/Minority/Women Business & Federal HUBZone

Some participating public entities are required to seek Disadvantaged/Minority/Women Business & Federal HUBZone ("D/M/WBE/Federal HUBZone") vendors. Does Vendor certify that their entity is a D/M/WBE/Federal HUBZone vendor?

If you respond "Yes," you must upload current certification proof in the appropriate "Response Attachments" location.

NO

2 Historically Underutilized Business (HUB)

Some participating public entities are required to seek Historically Underutilized Business (HUB) vendors as defined by the Texas Comptroller of Public Accounts Statewide HUB Program. Does Vendor certify that their entity is a HUB vendor?
If you respond "Yes," you must upload current certification proof in the appropriate "Response Attachments" location.

No

3 National Coverage

Can the Vendor provide its proposed goods and services to all 50 US States?

No

4 States Served

If Vendor answered "No" to the question entitled "National Coverage," please list all states where vendor can provide the goods and services proposed directly below. Your response may dictate which potential TIPS Member customers consider purchasing your offerings.

Texas, Oklahoma, Arkansas, Louisiana

5 Description of Vendor Entity and Vendor's Goods & Services

If awarded, this description of Vendor and Vendor's goods and services will appear on the TIPS website for customer/public viewing.

Utility Construction and repairs, Specializing in Distribution and collection repairs and manhole replacement

6 Primary Contact Name

Please identify the individual who will be primarily responsible for all TIPS matters and inquiries for the duration of the contract.

Lane Minchew

7 Primary Contact Title

Primary Contact Title

Owner

8 Primary Contact Email

Please enter a valid email address that will definitely reach the Primary Contact.

lane@minchewbros.com

9	**Primary Contact Phone** Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477). Please provide the accurate and current phone number where the individual who will be primarily responsible for all TIPS matters and inquiries for the duration of the contract can be reached directly. 9036249233
10	**Primary Contact Fax** Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477). *No response*
11	**Primary Contact Mobile** Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477). 9036249233
12	**Secondary Contact Name** Please identify the individual who will be secondarily responsible for all TIPS matters and inquiries for the duration of the contract. Cass Johnson
13	**Secondary Contact Title** Secondary Contact Title Field Manager
14	**Secondary Contact Email** Please enter a valid email address that will definitely reach the Secondary Contact. cass@minchewbros.com
15	**Secondary Contact Phone** Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477). Please provide the accurate and current phone number where the individual who will be secondarily responsible for all TIPS matters and inquiries for the duration of the contract can be reached directly. 9038218345
16	**Secondary Contact Fax** Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477). *No response*
17	**Secondary Contact Mobile** Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477). *No response*

18 **Administration Fee Contact Name**

Please identify the individual who will be responsible for all payment, accounting, and other matters related to Vendor's TIPS Administration Fee due to TIPS for the duration of the contract.

Lane Minchew

19 **Administration Fee Contact Email**

Please enter a valid email address that will definitely reach the Administration Fee Contact.

lane@minchewbros.com

20 **Administration Fee Contact Phone**

Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477).

9036249233

21 **Purchase Order and Sales Contact Name**

Please identify the individual who will be responsible for receiving and processing purchase orders and sales under the TIPS Contract.

Lane Minchew

22 **Purchase Order and Sales Contact Email**

Please enter a valid email address that will definitely reach the Purchase Order and Sales Contact.

lane@minchewbros.com

23 **Purchase Order and Sales Contact Phone**

Numbers only, no symbols or spaces (Ex. 8668398477). The system will auto-populate your entry with commas once submitted which is appropriate and expected (Ex. 8,668,398,477).

9036249233

24 **Company Website**

Company Website (Format - www.company.com)

No response

25 **Entity D/B/A's and Assumed Names**

You must confirm that you are responding to this solicitation under your legal entity name. Go now to your Supplier Profile in this eBid System and confirm that your profile reflects your "Legal Name" as it is listed on your W9.

In this question, please identify all of your entity's assumed names and D/B/A's. Please note that you will be identified publicly by the Legal Name under which you respond to this solicitation unless you organize otherwise with TIPS after award.

No response

26 **Primary Address**

Primary Address

520 Preston Dr.

27 **Primary Address City**

Primary Address City

Pottsboro

28 **Primary Address State**

Primary Address State (2 Digit Abbreviation)

Texas

29 **Primary Address Zip**

Primary Address Zip

75076

30 **Search Words Identifying Vendor**

Please list all search words and phrases to be included in the TIPS database related to your entity. ***Do not*** list words which are not associated with the bid category/scope (See bid title for general scope). This will help users find you through the TIPS website search function. You may include product names, manufacturers, specialized services, and other words associated with the scope of this solicitation.

Utility Construction, Manholes, Water, Sewer, Distribution, Collection, Camera work, Utilites, storm drain, Water leaks, Sewer main repairs, rehab

31 **Certification of Vendor Residency (Required by the State of Texas)**

Does Vendor's parent company or majority owner:

(A) have its principal place of business in Texas; ***or*** (B) employ at least 500 persons in Texas?

Texas Education Code Section 44.031 requires that this information be considered in evaluation for certain contracts. However, Vendor response does not affect points, scoring, or potential award.

Yes

32 **Vendor's Principal Place of Business (City)**

In what city is Vendor's principal place of business located?

Sherman

33 **Vendor's Principal Place of Business (State)**

In what state is Vendor's principal place of business located?

Texas

34 **Vendor's Years in Business**

How many years has the business submitting this proposal been operating in its current capacity and field of work?

2.5

35 **Certification Regarding Entire TIPS Agreement**

Vendor agrees that, if awarded, Vendor's final TIPS Contract will consist of the provisions set forth in the finalized TIPS Vendor Agreement, Vendor's responses to these attribute questions, and: (1) The TIPS solicitation document resulting in this Agreement; (2) Any addenda or clarifications issued in relation to the TIPS solicitation; (3) All solicitation information provided to Vendor by TIPS through the TIPS eBid System; (3) Vendor's entire proposal response to the TIPS solicitation including all accepted required attachments, acknowledged notices and certifications, accepted negotiated terms, accepted pricing, accepted responses to questions, and accepted written clarifications of Vendor's proposal, and; any properly included attachments to the TIPS Contract.

Does Vendor agree?

Yes, Vendor agrees

36 **REQUIRED - Vendor's Regular Hours RS Means Coefficient**

What is Vendor's Regular Hours RS Means Coefficient?

The RS Means Price Book is a unit price book adjusted for different geographic areas by using the City Cost Index for each location. You may visit https://www.rsmeans.com for more information.

You must review the TIPS RS Means JOC Pricing Explanation & Rubric under the "Attachments" tab prior to responding herein.

To propose the RS Means Price Book pricing exactly, Vendor would insert a 1.0 as their Regular Hours RS Means Coefficient below, to propose a 5% discount off of the RS Means Price Book Vendor would insert a .95 as their Regular Hours RS Means Coefficient below. To see the full scoring rubric and use TIPS scoring calculator, please view the TIPS RS Means JOC Pricing Explanation & Rubric under the "Attachments" tab.

Insert Vendor's Regular Hours RS Means Coefficient below.

1.05

37 **REQUIRED - Vendor's After-Hours RS Means Coefficient**

What is Vendor's After-Hours RS Means Coefficient?

The RS Means Price Book is a unit price book adjusted for different geographic areas by using the City Cost Index for each location. You may visit https://www.rsmeans.com for more information.

You must review the TIPS RS Means JOC Pricing Explanation & Rubric under the "Attachments" tab prior to responding herein.

The most common After-Hours RS Means Coefficient is "time-and-a-half" of the standard RS Means Unit Price Book. For example, if Vendor's Regular Hours Coefficient above is .95, Vendor would assert an After-Hours RS Means Coefficient of 1.45 for "time-and-a-half" pricing. To see the full scoring rubric and use TIPS scoring calculator, please view the TIPS RS Means JOC Pricing Explanation & Rubric under the "Attachments" tab.

Insert Vendor's After-Hours RS Means Coefficient below.

1.55

38 **REQUIRED - Vendor's Percentage Markup of Items not Pre-Priced within the RS Means Price Book**

Here, Vendor must enter a percentage, not a coefficient.

If Vendor sells items which cannot be found in the RS Means Price Book, at what Percentage Markup does Vendor agree to sell those Non Pre-Priced items? This is a maximum Percentage Markup and Vendor may always offer customers a lesser markup.

Example: In this example, Vendor is selling a project to a TIPS Member school district and some of the contract pricing for special materials cannot be verified because it cannot be found in the RS Means Price book. Vendor may sell those specialty items to the Member this percentage markup from cost. In this example, if one of the specialty items cost Vendor $100 from the manufacturer and Vendor proposed a Percentage Markup of 30% here, then Vendor could sell the item to the TIPS Customer for $130.00 or less in this example.

Vendor must provide TIPS with manufacturer documentation reflecting the cost of any non pre-priced item at the time of the TIPS sale so that TIPS can verify that the proposed percentage markup is being honored.

What is Vendor's Percentage Markup of items not Pre-Priced within the RS Means Price Book?

35%

39	**Volume and Additional Discounts** Does Vendor ever expect and intend to offer additional, greater, or volume discounts to TIPS Members? Point(s) may be assigned for your response in the category of "Pricing" during scoring and evaluation. No

40	**TIPS Pricing and Line Item Estimate Pricing Requirements** **This is a requirement of the TIPS Contract and is non-negotiable.** Vendor must respond to the required pricing attributes above seeking RS Means coefficients and a percentage markup. If awarded on this TIPS Contract, for the duration of the contract, Vendor agrees to provide a RS Means line-item estimate to TIPS for each anticipated TIPS project or sale. Or, in limited circumstances in contracts where Xactimate pricing is also expressly permitted and Vendor also submits Xactimate pricing, Vendor may instead provide an Xactimate line-item estimate to TIPS. However, Vendor agrees that when a TIPS Member Customer seeks a quote for a TIPS sale, Vendor will always supply a line-item estimate to TIPS for review and approval. YES

41	**EXCEPTIONS & DEVIATIONS TO TIPS STANDARD TERMS AND CONDITIONS** Vendor agrees that, if awarded, Vendor's final TIPS Contract will consist of the provisions set forth in the finalized TIPS Vendor Agreement, Vendor's responses to these attribute questions, and: (1) The TIPS solicitation document resulting in this Agreement; (2) Any addenda or clarifications issued in relation to the TIPS solicitation; (3) All solicitation information provided to Vendor by TIPS through the TIPS eBid System; (3) Vendor's entire proposal response to the TIPS solicitation including all accepted required attachments, acknowledged notices and certifications, accepted negotiated terms, accepted pricing, accepted responses to questions, and accepted written clarifications of Vendor's proposal, and; any properly included attachments to the TIPS Contract. In the event of conflict between the terms of the finalized Vendor Agreement and one of the incorporated documents the terms and conditions which are in the best interest of governmental/qualifying non-profit TIPS Members shall control at TIPS sole discretion. If Vendor responds, "No, Vendor does not agree" to this Attribute, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration. This is the only proper way to submit proposed deviations for TIPS consideration. TIPS reserves the right to accept, decline, or modify Vendor's requested negotiated terms. For this reason, answering "No, Vendor does not agree" may ultimately delay or prevent award. Does Vendor agree with TIPS standard terms and conditions as presented in the TIPS solicitation document (RFP, RCSP, RFQ, or other) and the TIPS Vendor Agreement document? Yes, Vendor agrees

42	**TIPS Sales Reporting Requirements** **This is a requirement of the TIPS Contract and is non-negotiable.** By submitting this proposal, Vendor certifies that Vendor will properly report all TIPS sales. With the exception of TIPS Automated Vendors, who have signed an exclusive agreement with TIPS regarding reporting, all TIPS Sales must be reported to TIPS by either: (1) Emailing the purchase order or similar purchase document (with Vendor's Name, as known to TIPS, and the TIPS Contract Name and Number included) to TIPS at tipspo@tips-usa.com with "Confirmation Only" in the subject line of the email within three business days of Vendor's acceptance of the order, or; (2) Within 3 business days of the order being accepted by Vendor, Vendor must login to the TIPS Vendor Portal and successfully self-report all necessary sale information within the Vendor Portal and confirm that it shows up accurately on your current Vendor Portal statement. No other method of reporting is acceptable unless agreed to by the Parties in writing. Failure to report all sales pursuant to this provision may result in immediate cancellation of Vendor's TIPS Contract(s) for cause at TIPS' sole discretion.
43	**TIPS Administration Fee Requirement and Acknowledgment** **This is a requirement of the TIPS Contract and is non-negotiable.** The collection of fees by TIPS, a government entity, for performance of these procurement services is required pursuant to Texas Government Code Section 791.011 et. seq. The TIPS Administration Fee is the amount legally owed by Vendor to TIPS for TIPS Sales made by Vendor. The TIPS Administration Fee amount is typically a set percentage of each TIPS Sale legally due to TIPS, but the exact TIPS Administration Fee for this Contract is published in the corresponding RFP or RCSP document. TIPS Administration Fees are due to TIPS immediately upon Vendor's receipt of payment, including partial payment, for a TIPS Sale. By submitting a proposal, Vendor agrees that it has read, understands, and agrees to the published TIPS Administration Fee amount, calculation, and payment requirements. By submitting a proposal Vendor further confirms that all TIPS Pricing includes the TIPS Administration Fee and Vendor will not show adding the TIPS Administration Fee as a charge or line-item in any TIPS Sale.
44	**TIPS Member Access to Vendor Proposal & Documentation** **This is a requirement of the TIPS Contract and is non-negotiable.** Notwithstanding any other information provided in this solicitation or Vendor designation of certain documentation as confidential or proprietary, Vendor's submission of this proposal constitutes Vendor's express consent to the disclosure of Vendor's comprehensive proposal, including any information deemed confidential or proprietary, **to TIPS Members**. The proposing Vendor agrees that TIPS shall not be responsible or liable for any use or distribution of information or documentation to TIPS Members or by TIPS Members. By submitting this proposal, Vendor certifies the foregoing.

45	**Non-Collusive Bidding Certificate** **This is a requirement of the TIPS Contract and is non-negotiable.** By submission of this proposal, the Vendor certifies that: 1) This proposal has been independently arrived at without collusion with any other entity, bidder, or with any competitor; 2) This proposal has not been knowingly disclosed and will not be knowingly disclosed, prior to the opening of bids, or proposals for this project, to any other bidder, competitor or potential competitor: 3) No attempt has been or will be made to induce any other person, partnership or corporation to modify, submit, or not to submit a bid or proposal; and 4) The person signing this bid or proposal certifies that they are duly authorized to execute this proposal/contract on behalf of Vendor and they have fully informed themselves regarding the accuracy of the statements contained in this certification, and under the penalties being applicable to the bidder as well as to the person signing in its behalf;
46	**Antitrust Certification Statements (Tex. Government Code § 2155.005)** **This is a requirement of the TIPS Contract and is non-negotiable.** By submission of this bid or proposal, Vendor certifies under penalty of perjury of the laws of the State of Texas that: (1) I am duly authorized to execute this proposal/contract on my own behalf or on behalf of the company, corporation, firm, partnership or individual (Vendor) identified herein; (2) In connection with this proposal, neither I nor any representative of Vendor has violated any provision of the Texas Free Enterprise and Antitrust Act, Tex. Bus. & Comm. Code Chapter 15; (3) In connection with this proposal, neither I nor any representative of the Vendor has violated any federal antitrust law; (4) Neither I nor any representative of Vendor has directly or indirectly communicated any of the contents of this bid to a competitor of the Company or any other company, corporation, firm, partnership or individual engaged in the same line of business as the Company.
47	**Limitation on Out-of-State Litigation - Texas Business and Commerce Code § 272** **This is a requirement of the TIPS Contract and is non-negotiable.** Texas Business and Commerce Code § 272 prohibits a construction contract, or an agreement collateral to or affecting the construction contract, from containing a provision making the contract or agreement, or any conflict arising under the contract or agreement, subject to another state's law, litigation in the courts of another state, or arbitration in another state. If included in Texas construction contracts, such provisions are voidable by a party obligated by the contract or agreement to perform the work. By submission of this proposal, Vendor acknowledges this law and ***if Vendor enters into a construction contract with a Texas TIPS Member*** under this procurement, Vendor certifies compliance.

48

Required Confidentiality Claim Form

This is a requirement of the TIPS Contract and is non-negotiable.

TIPS provides the required TIPS Confidentiality Claim Form in the "Attachments" section of this solicitation. Vendor must execute this form by either signing and waiving any confidentiality claim, or designating portions of Vendor's proposal confidential. If Vendor considers any portion of Vendor's proposal to be confidential and not subject to public disclosure pursuant to Chapter 552 Texas Gov't Code or other law(s) and orders, Vendor must have identified the claimed confidential materials through proper execution of the Confidentiality Claim Form.
If TIPS receives a public information act or similar request, any responsive documentation not deemed confidential by you in this manner will be automatically released. For Vendor documents deemed confidential by you in this manner, TIPS will follow procedures of controlling statute(s) regarding any claim of confidentiality and shall not be liable for any release of information required by law, including Attorney General determination and opinion.

Notwithstanding any other Vendor designation of Vendor's proposal as confidential or proprietary, Vendor's submission of this proposal constitutes Vendor's agreement that proper execution of the required TIPS Confidentiality Claim Form is the only way to assert any portion of Vendor's proposal as confidential.

49

Non-Discrimination Statement and Certification

This is a requirement of the TIPS Contract and is non-negotiable.

In accordance with Federal civil rights law, all U.S. Departments, including but not limited to the USDA, USDE, FEMA, are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by federal funds (not all bases apply to all programs).
Vendor certifies that Vendor will comply with applicable Non-Discrimination and Equal Opportunity provisions set forth in TIPS Member Customers' policies and other regulations at the local, state, and federal levels of governments.

☑ Yes, I certify

50

Limitation of Vendor Indemnification and Similar Clauses

This is a requirement of the TIPS Contract and is non-negotiable.

TIPS, a department of Region 8 Education Service Center, a political subdivision, and local government entity of the State of Texas, is prohibited from indemnifying third-parties (pursuant to the Article 3, Section 52 of the Texas Constitution) except as otherwise specifically provided for by law or as ordered by a court of competent jurisdiction. Article 3, Section 52 of the Texas Constitution states that "no debt shall be created by or on behalf of the State … " and the Texas Attorney General has opined that a contractually imposed obligation of indemnity creates a "debt" in the constitutional sense. Tex. Att'y Gen. Op. No. MW-475 (1982). Thus, contract clauses which require TIPS to indemnify Vendor, pay liquidated damages, pay attorney's fees, waive Vendor's liability, or waive any applicable statute of limitations must be deleted or qualified with ''to the extent permitted by the Constitution and Laws of the State of Texas."

Does Vendor agree?

☑ Yes, I Agree

51 **Alternative Dispute Resolution Limitations**

This is a requirement of the TIPS Contract and is non-negotiable.

TIPS, a department of Region 8 Education Service Center, a political subdivision, and local government entity of the State of Texas, does not agree to binding arbitration as a remedy to dispute and no such provision shall be permitted in this Agreement with TIPS. Vendor agrees that any claim arising out of or related to this Agreement, except those specifically and expressly waived or negotiated within this Agreement, may be subject to non-binding mediation at the request of either party to be conducted by a mutually agreed upon mediator as prerequisite to the filing of any lawsuit arising out of or related to this Agreement. Mediation shall be held in either Camp or Titus County, Texas. Agreements reached in mediation will be subject to the approval by the Region 8 ESC's Board of Directors, authorized signature of the Parties if approved by the Board of Directors, and, once approved by the Board of Directors and properly signed, shall thereafter be enforceable as provided by the laws of the State of Texas.

Does Vendor agree?

Yes, Vendor agrees

52 **No Waiver of TIPS Immunity**

This is a requirement of the TIPS Contract and is non-negotiable.

Vendor agrees that nothing in this Agreement shall be construed as a waiver of sovereign or government immunity; nor constitute or be construed as a waiver of any of the privileges, rights, defenses, remedies, or immunities available to Region 8 Education Service Center or its TIPS Department. The failure to enforce, or any delay in the enforcement, of any privileges, rights, defenses, remedies, or immunities available to Region 8 Education Service Center or its TIPS Department under this Agreement or under applicable law shall not constitute a waiver of such privileges, rights, defenses, remedies, or immunities or be considered as a basis for estoppel.

Does Vendor agree?

☑ Yes, Vendor agrees

53 **Payment Terms and Funding Out Clause**

This is a requirement of the TIPS Contract and is non-negotiable.

Vendor agrees that TIPS and TIPS Members shall not be liable for interest or late-payment fees on past-due balances at a rate higher than permitted by the laws or regulations of the jurisdiction of the TIPS Member.

Funding-Out Clause: Vendor agrees to abide by the applicable laws and regulations, including but not limited to Texas Local Government Code § 271.903, or any other statutory or regulatory limitation of the jurisdiction of any TIPS Member, which requires that contracts approved by TIPS or a TIPS Member are subject to the budgeting and appropriation of currently available funds by the entity or its governing body.

Does Vendor agree?

☑ Yes, Vendor agrees

54 **Certification Regarding Prohibition of Certain Terrorist Organizations (Tex. Gov. Code 2270)**

Vendor certifies that Vendor is not a company identified on the Texas Comptroller's list of companies known to have contracts with, or provide supplies or services to, a foreign organization designated as a Foreign Terrorist Organization by the U.S. Secretary of State.

Does Vendor certify?

Yes, Vendor certifies

55 **Certification Regarding Prohibition of Boycotting Israel (Tex. Gov. Code 2271)**

If (a) Vendor is not a sole proprietorship; (b) Vendor has ten (10) or more full-time employees; and (c) this Agreement or any agreement with a TIPS Member under this procurement has value of $100,000 or more, the following certification shall apply; otherwise, this certification is not required. Vendor certifies, where applicable, that neither the Vendor, nor any affiliate, subsidiary, or parent company of Vendor, if any, boycotts Israel, and Vendor agrees that Vendor and Vendor Companies will not boycott Israel during the term of this Agreement. For purposes of this Agreement, the term “boycott” shall mean and include 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 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.

When applicable, does Vendor certify?

Yes, Vendor certifies

56 **Certification Regarding Prohibition of Contracts with Certain Foreign-Owned Companies (Tex. Gov. Code 2274)**

Certain public entities are prohibited from entering into a contract or other agreement relating to critical infrastructure that would grant Vendor direct or remote access to or control of critical infrastructure in this state, excluding access specifically allowed by a customer for product warranty and support purposes.

Vendor certifies that neither it nor its parent company nor any affiliate of Vendor or its parent company, is (1) owned by or the majority of stock or other ownership interest of the company is held or controlled by individuals who are citizens of China, Iran, North Korea, Russia, or a designated country; (2) a company or other entity, including governmental entity, that is owned or controlled by citizens of or is directly controlled by the government of China, Iran, North Korea, Russia, or a designated country; or (3) headquartered in China, Iran, North Korea, Russia, or a designated country.

For purposes of this certification, “critical infrastructure” means “a communication infrastructure system, cybersecurity system, electric grid, hazardous waste treatment system, or water treatment facility.” Vendor certifies that Vendor will not grant direct or remote access to or control of critical infrastructure, except for product warranty and support purposes, to prohibited individuals, companies, or entities, including governmental entities, owned, controlled, or headquartered in China, Iran, North Korea, Russia, or a designated country, as determined by the Governor.

When applicable, does Vendor certify?

Yes, Vendor certifies

57 Certification Regarding Prohibition of Discrimination Against Firearm and Ammunition Industries (Tex. Gov. Code 2274)

If (a) Vendor is not a sole proprietorship; (b) Vendor has at least ten (10) full-time employees; and (c) this Agreement or any Supplemental Agreement with certain public entities have a value of at least $100,000 that is paid wholly or partly from public funds; (d) the Agreement is not excepted under Tex. Gov. Code 2274 and (e) the purchasing public entity has determined that Vendor is not a sole-source provider or the purchasing public entity has not received any bids from a company that is able to provide this written verification, the following certification shall apply; otherwise, this certification is not required.

Vendor certifies that Vendor, or association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or limited liability company, including a wholly owned subsidiary, majority-owned subsidiary parent company, or affiliate of these entities or associations, that exists to make a profit, does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate during the term of this contract against a firearm entity or firearm trade association.

For purposes of this Agreement, “discriminate against a firearm entity or firearm trade association” shall mean, with respect to the entity or association, to: “(1) refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association; (2) refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or (3) terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association.”

“Discrimination against a firearm entity or firearm trade association” does not include: “(1) the established policies of a merchant, retail seller, or platform that restrict or prohibit the listing or selling of ammunition, firearms, or firearm accessories; and (2) a company’s refusal to engage in the trade of any goods or services, decision to refrain from continuing an existing business relationship, or decision to terminate an existing business relationship to comply with federal, state, or local law, policy, or regulations or a directive by a regulatory agency, or for any traditional business reason that is specific to the customer or potential customer and not based solely on an entity’s or association’s status as a firearm entity or firearm trade association.”

When applicable, does Vendor certify?

Yes, Vendor certifies

58 Certification Regarding Termination of Contract for Non-Compliance (Tex. Gov. Code 552.374)

If Vendor is not a governmental body and (a) this Agreement or any Supplemental Agreement with a public entity has a stated expenditure of at least $1 million in public funds for the purchase of goods or services by certain public entities; or (b) this Agreement or any Supplemental Agreement results in the expenditure of at least $1 million in public funds for the purchase of goods or services by certain public entities in their fiscal year, the following certification shall apply; otherwise, this certification is not required.

As required by Tex. Gov. Code 552.374, the following statement is included in the RFP and the Agreement (unless the Agreement is (1) related to the purchase or underwriting of a public security; (2) is or may be used as collateral on a loan; or (3) proceeds from which are used to pay debt service of a public security of loan): “The requirements of Subchapter J, Chapter 552, Government Code, may apply to this solicitation and Agreement and the Vendor agrees that this Agreement and any applicable Supplemental Agreement can be terminated if Vendor knowingly or intentionally fails to comply with a requirement of that subchapter.”

Pursuant to Chapter 552 of the Texas Government Code, Vendor certifies that Vendor shall: (1) preserve all contracting information related to this Agreement as provided by the records retention requirements applicable to TIPS or the purchasing TIPS Member for the duration of the Agreement; (2) promptly provide to TIPS or the purchasing TIPS Member any contracting information related to the Agreement that is in the custody or possession of Vendor on request of TIPS or the purchasing TIPS Member; and (3) on completion of the Agreement, either (a) provide at no cost to TIPS or the purchasing TIPS Member all contracting information related to the Agreement that is in the custody or possession of Vendor, or (b) preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to TIPS or the purchasing TIPS Member.

When applicable, does Vendor certify?

Yes, Vendor certifies

59 **Certification Regarding Prohibition of Boycotting Certain Energy Companies (Tex. Gov. Code 2274)**

If (a) Vendor is not a sole proprietorship; (b) Vendor has ten (10) or more full-time employees; and (c) this Agreement or any Supplemental Agreement with certain public entities has a value of $100,000 or more that is to be paid wholly or partly from public funds, the following certification shall apply; otherwise, this certification is not required.

Vendor certifies that Vendor, or any wholly owned subsidiary, majority-owned subsidiary, parent company, or affiliate of these entities or business associations, if any, do not boycott energy companies and will not boycott energy companies during the term of the Agreement or any applicable Supplemental Agreement.

For purposes of this certification the term “company” shall mean an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or limited liability company, that exists to make a profit.

The term “boycott energy company” shall mean “without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company (a) engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law, or (b) does business with a company described by paragraph (a).” (See Tex. Gov. Code 809.001).

When applicable, does Vendor certify?

Yes, Vendor certifies

60 **Felony Conviction Notice - Texas Education Code 44.034**

Texas Education Code, Section 44.034, Notification of Criminal History, Subsection (a), states, "a person or business entity that enters into a contract with a school district must give advance notice to the district if the person or an owner or operator of the business entity has been convicted of a felony. The notice must include a general description of the conduct resulting in the conviction of a felony.”

Subsection (b) states, "a school district may terminate a contract with a person or business entity if the district determines that the person or business entity failed to give notice as required by Subsection (a) or misrepresented the conduct resulting in the conviction. The district must compensate the person or business entity for services performed before the termination of the contract.”

Subsection (c) states, "This section does not apply to a publicly held corporation.

Vendor certifies one of the following:

A. My firm is a publicly held corporation; therefore, this reporting requirement is not applicable, or;

B. My firm is not owned nor operated by anyone who has been convicted of a felony, or;

C. My firm is owned or operated by the following individual(s) who has/have been convicted of a felony.

If Vendor responds with Option (C), Vendor is required to provide information in the next attribute.

B. My firm is not owned nor operated by felon.

61 **Felony Conviction Notice - Texas Education Code 44.034 - Continued**

If Vendor selected Option (C) in the previous attribute, Vendor must provide the following information herein:

1. Name of Felon(s)

2. The Felon(s) title/role in Vendor's entity, and

3. Details of Felon(s) Conviction(s).

No response

62 **Conflict of Interest Questionnaire Requirement**

Vendor agrees that it has looked up, read, and understood the current version of Texas Local Government Code Chapter 176 which generally requires disclosures of conflicts of interests by Vendor hereunder if Vendor:

(1) has an employment or other business relationship with a local government officer of our local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of our local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of our local governmental entity.

(4) Any other financial, commercial, or familial relationship with our local government that may warrant reporting under this statute.

Does Vendor certify that it has NO reportable conflict of interest?

Yes, Vendor certifies - VENDOR HAS NO CONFLICT

63 **Conflict of Interest Questionnaire Requirement - Form CIQ - Continued**

If you responded "No, Vendor does not certify - VENDOR HAS CONFLICT" to the Conflict of Interest Questionnaire question above, you are required by law to fully execute and upload the form attachment entitled "Conflict of Interest Questionnaire - Form CIQ." If you accurately claimed no conflict above, you may disregard the form attachment entitled "Conflict of Interest Questionnaire - Form CIQ."
Have you uploaded this form if applicable?

Not Applicable

64 **Upload of Current W-9 Required**

Vendors are required by TIPS to upload a current, accurate W-9 Internal Revenue Service (IRS) Tax Form for your entity. This form will be utilized by TIPS to properly identify your entity.

You must confirm that you are responding to this solicitation under your legal entity name. Go now to your Supplier Profile in this eBid System and confirm that your profile reflects your "Legal Name" as it is listed on your W9.

65 **Regulatory Good Standing Certification**

Does Vendor certify that its entity is in good standing will all government entities and agencies, whether local, state, or federal, that regulate any aspect of Vendor's field of work or business operations?

If Vendor selects "No", Vendor must provide explanation on the following attribute question.

Yes, Vendor certifies

66 **Regulatory Good Standing Certification - Explanation - Continued**

If Vendor responded to the prior attribute that "No", Vendor is not in good standing, Vendor must provide an explanation of that lack of good standing here for TIPS consideration.

No response

67 **Instructions Only - Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion**

Instructions for Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion

1. By answering yes to the next Attribute question below, the vendor and prospective lower tier participant is providing the certification set out herein in accordance with these instructions.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and / or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms “covered transaction,” “debarred,” “suspended,” “ineligible,” “lower tier covered transaction,” “participants,” “person,” “primary covered transaction,” “principal,” “proposal” and “voluntarily excluded,” as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled “Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction” without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and / or debarment.

68

Suspension or Debarment Certification

Read the instructions in the attribute above and then answer the following accurately.

Vendor certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Does Vendor certify?

Yes, Vendor certifies

69

Vendor Certification of Criminal History - Texas Education Code Chapter 22

Texas Education Code Chapter 22 requires entities that contract with school districts to provide services to obtain criminal history record information regarding covered employees. Contractors must certify to the district that they have complied. Covered employees with disqualifying criminal histories are prohibited from serving at a school district pursuant to this law.

DEFINITIONS

Covered employees: Employees of a contractor or subcontractor who have or will have continuing duties related to the service to be performed at the District and have or will have direct contact with students. The District will be the final arbiter of what constitutes direct contact with students.

Disqualifying criminal history: Any conviction or other criminal history information designated by the District, or one of the following offenses, if at the time of the offense, the victim was under 18 or enrolled in a public school: (a) a felony offense under Title 5, Texas Penal Code; (b) an offense for which a defendant is required to register as a sex offender under Chapter 62, Texas Code of Criminal Procedure; or (c) an equivalent offense under federal law or the laws of another state.

Vendor certifies:

NONE (Section A): None of the employees of Vendor and any subcontractors are covered employees, as defined above. If this box is checked, I further certify that Contractor has taken precautions or imposed conditions to ensure that the employees of Vendor and any subcontractor will not become covered employees. Contractor will maintain these precautions or conditions throughout the time the contracted services are provided under this procurement.

OR

SOME (Section B): Some or all of the employees of Vendor and any subcontractor are covered employees. If this box is checked, I further certify that: (1) Vendor has obtained all required criminal history record information regarding its covered employees. None of the covered employees has a disqualifying criminal history; (2) If Vendor receives information that a covered employee subsequently has a reported criminal history, Vendor will immediately remove the covered employee from contract duties and notify the purchasing entity in writing within 3 business days; (3) Upon request, Vendor will provide the purchasing entity with the name and any other requested information of covered employees so that the purchasing entity may obtain criminal history record information on the covered employees; (4) If the purchasing entity objects to the assignment of a covered employee on the basis of the covered employee's criminal history record information, Vendor agrees to discontinue using that covered employee to provide services at the purchasing entity.

Which option does Vendor certify?

Yes, I certify - NONE (Section A)

70

Certification Regarding "Choice of Law" Terms with TIPS Members

Vendor agrees that if any "Choice of Law" provision is included in any sales agreement/contract between Vendor and a TIPS Member, that clause must provide that the "Choice of Law" applicable to the sales agreement/contract between Vendor and TIPS Member shall be the state where the TIPS Member operates unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Choice of Law" clause that conflicts with these terms is rendered void and unenforceable.

If Vendor disagrees, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration.

Does Vendor agree?

Yes, Vendor agrees

71

Certification Regarding "Venue" Terms with TIPS Members

Vendor agrees that if any "Venue" provision is included in any sales agreement/contract between Vendor and a TIPS Member, that clause must provide that the "Venue" for any litigation or alternative dispute resolution is shall be in the state and county where the TIPS Member operates unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a "Venue" clause that conflicts with these terms is rendered void and unenforceable.

If Vendor disagrees, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration.

Does Vendor agree?

Yes, Vendor agrees

72

Certification Regarding "Automatic Renewal" Terms with TIPS Members

Vendor agrees that no TIPS Sale may incorporate an "Automatic Renewal" clause that exceeds month to month terms with which the TIPS Member must comply. All renewal terms incorporated into a TIPS Sale Supplemental Agreement shall only be valid and enforceable when Vendor received written confirmation of acceptance of the renewal term from the TIPS Member for the specific renewal term. The purpose of this clause is to avoid a TIPS Member inadvertently renewing a Supplemental Agreement during a period in which the governing body of the TIPS Member has not properly appropriated and budgeted the funds to satisfy the Agreement renewal. Any TIPS Sale Supplemental Agreement containing an "Automatic Renewal" clause that conflicts with these terms is rendered void and unenforceable.

If Vendor disagrees, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration.

Does Vendor agree?

Yes, Vendor agrees

73	**Certification Regarding "Indemnity" Terms with TIPS Members** Texas and other jurisdictions restrict the ability of governmental entities to indemnify others. Vendor agrees that if any "Indemnity" provision which requires the TIPS Member to indemnify Vendor is included in any sales agreement/contract between Vendor and a TIPS Member, that clause must either be stricken or qualified by including that such indemnity is only permitted, "to the extent permitted by the laws and constitution of [TIPS Member's State]" unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing an "Indemnity" clause that conflicts with these terms is rendered void and unenforceable. If Vendor disagrees, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration. Does Vendor agree? Yes, Vendor agrees
74	**Certification Regarding "Arbitration" Terms with TIPS Members** Vendor agrees that if any "Arbitration" provision is included in any TIPS Sale agreement/contract between Vendor and a TIPS Member, that clause may ***not*** require that the arbitration is mandatory or binding. Vendor agrees that if any "Arbitration" provision is included in any TIPS Sale agreement/contract between Vendor and a TIPS Member, that clause provides for only voluntary and non-binding arbitration unless the TIPS Member expressly agrees otherwise. Any TIPS Sale Supplemental Agreement containing a “Arbitration” clause that conflicts with these terms is rendered void and unenforceable. If Vendor disagrees, after this solicitation legally closes and TIPS begins evaluating Vendor's file, TIPS will provide Vendor with a draft Word Document version of the Vendor Agreement and will be instructed to include all requested negotiations as redline edits for TIPS consideration. Does Vendor agree? Yes, Vendor agrees
75	**2 CFR PART 200 AND FEDERAL CONTRACT PROVISIONS EXPLANATION** TIPS and TIPS Members will sometimes seek to make purchases with federal funds. In accordance with 2 C.F.R. Part 200 of the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (sometimes referred to as “EDGAR”),Vendor's response to the following questions labeled "2 CFR Part 200 or Federal Provision" will indicate Vendor's willingness and ability to comply with certain requirements which may be applicable to TIPS purchases paid for with federal funds, if accepted by Vendor. Your responses to the following questions labeled "2 CFR Part 200 or Federal Provision" will dictate whether TIPS can list this awarded contract as viable to be considered for a federal fund purchase. **Failure to certify all requirements labeled "2 CFR Part 200 or Federal Provision" will mean that your contract is listed as not viable for the receipt of federal funds. However, it will not prevent award.** If you do enter into a TIPS Sale when you are accepting federal funds, the contract between you and the TIPS Member will likely require these same certifications.

76

2 CFR Part 200 or Federal Provision - Prohibition of Cost Plus

Contracts paid with federal funds which exceed the simplified acquisition threshold currently set at $250,000 (2 CFR 200.320), which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, may not utilize a cost plus percentage of cost and percentage of cost method of contract pricing. Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members for a TIPS Sale resulting from this procurement process which exceeds the simplified acquisition threshold, Vendor shall not utilize a cost plus a percentage of cost and percentage of cost method of contract pricing for that expenditure. If Vendor fails to certify and proposes a Cost Plus Markup Method of pricing anywhere in their proposal, Vendor will **not** be listed as federally/EDGAR compliant for TIPS purposes.

Does Vendor certify?

Yes, Vendor agrees.

77

2 CFR Part 200 or Federal Provision - Vendor Willingness to Accept Federal Funds

This certification is not required by federal law. However, TIPS Members are public entities and qualifying non-profits which often receive federal funding and grants (ESSER, CARES Act, EDGAR, etc.) ***Accepting such funds often requires additional required certifications and responsibilities for Vendor.*** The following attribute questions include these required certifications. Your response to this questions, the following certifications, and other factors will determine whether your contract award will be deemed as eligible for federal fund expenditures by TIPS Members.

If awarded, is Vendor willing to accept payment for goods and services offered under this contract paid for by a TIPS Member with federal funds?

Yes

78

2 CFR Part 200 or Federal Provision - Contracts

Contracts for more than the simplified acquisition threshold currently set at $250,000 (2 CFR § 200.320), which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

Notice: Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserve all rights and privileges under the applicable laws and regulations with respect to this procurement in the event of breach of contract by either party.

Does vendor agree?

Yes, Vendor agrees

79	**2 CFR Part 200 or Federal Provision - Termination** Termination for cause and for convenience by the grantee or subgrantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of $10,000) Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members reserve the right to terminate any agreement in excess of $10,000 resulting from this procurement process for cause after giving the vendor an appropriate opportunity and up to 30 days, to cure the causal breach of terms and conditions. ESC Region 8 and TIPS Members reserve the right to terminate any agreement in excess of $10,000 resulting from this procurement process for convenience with 30 days notice in writing to the awarded vendor. The Vendor would be compensated for work performed and goods procured as of the termination date if for convenience of the ESC Region 8 and TIPS Members. Any award under this procurement process is not exclusive and the ESC Region 8 and TIPS reserves the right to purchase goods and services from other vendors when it is in the best interest of the ESC Region 8 and TIPS. Does vendor agree? Yes, Vendor agrees
80	**2 CFR Part 200 or Federal Provision - Clean Air Act** Clean Air Act (42 U.S.C. 7401-7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended—Contracts and subgrants of amounts in excess of $150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA). Pursuant to the Clean Air Act, et al above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members require that the proposer certify that during the term of an award by the ESC Region 8 and TIPS Members resulting from this procurement process the vendor agrees to comply with all of the above regulations, including all of the terms listed and referenced therein. Does vendor agree? Yes, Vendor agrees
81	**2 CFR Part 200 or Federal Provision - Byrd Anti-Lobbying Amendment** Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding $100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award. Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members require the proposer certify that during the term and during the life of any contract with ESC Region 8 and TIPS Members resulting from this procurement process the vendor certifies that it is in compliance with all applicable provisions of the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352). Does Vendor agree? Yes, Vendor agrees

82

2 CFR Part 200 or Federal Provision - Byrd Anti-Lobbying Amendment - Continued

Applicable to Grants, Subgrants, Cooperative Agreements, and Contracts Exceeding $100,000 in Federal Funds

Submission of this certification is a prerequisite for making or entering into this transaction and is imposed by the Byrd Anti-Lobbying Amendment (31 U.S.C. 1352). This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the awarding of a Federal contract, the making of a Federal grant, the making of a Federal loan, the entering into a cooperative agreement, and the extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “disclosure Form to Report Lobbying,” in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all covered subawards exceeding $100,000 in Federal funds at all appropriate tiers and that all subrecipients shall certify and disclose accordingly.

Does Vendor certify that it has NOT lobbied as described herein?

Yes, Vendor certifies - NO Reportable Lobbying

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2 CFR Part 200 or Federal Provision - Byrd Anti-Lobbying Amendment - Continued

If you answered "No, Vendor does not certify - Lobbying to Report" to the above attribute question, you must download, read, execute, and upload the attachment entitled "Disclosure of Lobbying Activities - Standard Form - LLL", as instructed, to report the lobbying activities you performed or paid others to perform.

84

2 CFR Part 200 or Federal Provision - Federal Rule

Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). (Contracts, subcontracts, and subgrants of amounts in excess of $100,000)

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, ESC Region 8 and TIPS Members requires the proposer certify that in performance of the contracts, subcontracts, and subgrants of amounts in excess of $250,000, the vendor will be in compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15).

Does vendor certify compliance?

Yes, Vendor certifies

85

2 CFR Part 200 or Federal Provision - Procurement of Recovered Materials

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include: (1) procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired during the preceding fiscal year exceeded $10,000; (2) procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

Does vendor certify that it is in compliance with these provisions?

Yes, Vendor certifies

86

2 CFR Part 200 or Federal Provision - Rights to Inventions

If the Federal award meets the definition of “funding agreement” under 37 CFR §401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.
Pursuant to the above, when the foregoing applies to ESC Region 8 and TIPS Members, Vendor certifies that during the term of an award resulting from this procurement process, Vendor agrees to comply with all applicable requirements as referenced in the Federal rule above.
Does vendor certify?

Yes, Vendor certifies

87

2 CFR Part 200 or Federal Provision - Domestic Preferences for Procurements and Compliance with Buy America Provisions

As appropriate and to the extent consistent with law, TIPS Member Customers, to the greatest extent practicable under a Federal award, may provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). Vendor agrees that the requirements of this section will be included in all subawards including all contracts and purchase orders for work or products under this award, to the greatest extent practicable under a Federal award. For purposes of 2 CFR Part 200.322, “Produced in the United States” means, for iron and steel products, that all manufacturing processes, from the initial melting stag through the application of coatings, occurred in the United States. Moreover, for purposes of 2 CFR Part 200.322, “Manufactured products” means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum, plastics and polymer-based products such as polyvinyl chloride pipe, aggregates such as concrete, glass, including optical fiber, and lumber.

Vendor certifies that it is in compliance with all applicable provisions of the Buy America Act. Purchases made in accordance with the Buy America Act must still follow the applicable procurement rules calling for free and open competition. For purposes of 2 CFR Part 200.322,

“Produced in the United States” means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

“Manufactured products” means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, Vendor certifies that to the greatest extent practicable Vendor will provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products).

Does Vendor Certify?

Yes, Vendor certifies

88

2 CFR Part 200 or Federal Provision - Ban on Foreign Telecommunications

ESC 8 and TIPS Members are prohibited from obligating or expending Federal financial assistance, to include loan or grant funds, to: (1) procure or obtain, (2) extend or renew a contract to procure or obtain, or (3) enter into a contract (or extend or renew a contract) to procure or obtain, equipment, services, or systems that use “covered telecommunications” equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. “Covered telecommunications” equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities), and physical security surveillance of critical infrastructure and other national security purposes, and video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities) for the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes detailed in 2 CFR § 200.216.

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, Vendor certifies that Vendor will not purchase equipment, services, or systems that use “covered telecommunications”, as defined by 2 CFR §200.216 equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

Does vendor certify?

Yes, Vendor certifies

89

2 CFR Part 200 or Federal Provision - Contract Cost & Price

For contracts more than the simplified acquisition threshold currently set at $250,000, a TIPS Member may, in very rare circumstances, be required to negotiate profit as a separate element of the price pursuant to 2 C.F.R. 200.324(b). Under those circumstances, Vendor agrees to provide information and negotiate with the TIPS Member regarding profit as a separate element of the price. However, Vendor certifies that the total price charged by the Vendor shall not exceed the Vendor's TIPS pricing and pricing terms proposed.

Does Vendor certify?

Yes, Vendor certifies

90

2 CFR Part 200 or Federal Provision - Equal Employment Opportunity

Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3 must include the equal opportunity clause provided under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members on any federally assisted construction contract, the equal

opportunity clause is incorporated by reference here.

Does Vendor Certify?

Yes, Vendor certifies

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2 CFR Part 200 or Federal Provision - Davis Bacon Act Compliance

Texas Statute requires compliance with Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of $2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146- 3148) as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non- Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland "Anti-Kickback" Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

Pursuant to state and federal requirements, Vendor certifies that it will be in compliance with all applicable Davis-Bacon Act provisions if/when applicable.

Does Vendor certify?

Yes, Vendor certifies

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2 CFR Part 200 or Federal Provision - Contract Work Hours and Safety Standards

Where applicable, all contracts awarded by ESC 8 and TIPS Members in excess of $100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
Pursuant to the above, when federal funds are expended by ESC Region 8 and TIPS Members, Vendor certifies that during the term of an award for all contracts resulting from this procurement process, Vendor will be in compliance with all applicable provisions of the Contract Work Hours and Safety Standards Act.

Does Vendor certify?

Yes, Vendor certifies

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2 CFR Part 200 or Federal Provision - FEMA Fund Certification & Certification of Access to Records

If and when Vendor accepts a TIPS purchase paid for in full or part with FEMA funds, Vendor certifies that:

(1) Vendor agrees to provide the TIPS Member, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to and rights to reproduce any books, documents, papers, and records of the Contractor which are directly pertinent to this contract, or any contract resulting from this procurement, for the purposes of making audits, examinations, excerpts, and transcriptions. This right also includes timely and reasonable access to Vendor's personnel for the purpose of interview and discussion relating to such documents. Vendor agrees to provide the FEMA Administrator or an authorized representatives access to construction or other work sites pertaining to the work being completed under the contract. Vendor acknowledges and agrees that no language in this contract or the contract with the TIPS Member is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

(2) The Vendor shall not use the Department of Homeland Security's seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.

(3) The Vendor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives.

(4) The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

(5) The Vendor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Vendor's actions pertaining to this contract.

Does Vendor certify?

Yes, Vendor certifies

94

2 CFR Part 200 or Federal Provision - Certification of Compliance with the Energy Policy and Conservation Act

When appropriate and to the extent consistent with the law, Vendor certifies that it will comply with the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq; 49 C.F.R. Part 18) and any state mandatory standards and policies relating to energy efficiency which are contained in applicable state energy conservation plans issued in compliance with the Act.

Does Vendor certify?

Yes, Vendor certifies

95 **2 CFR Part 200 or Federal Provision - Certification of Compliance with Never Contract with the Enemy**

Where applicable, all contracts awarded by ESC 8 and TIPS Members in excess of $50,000.00, within the period of performance, and which are performed outside of the United States, including U.S. territories, are subject to the regulations implementing Never Contract with the Enemy in 2 CFR part 183. Per 2 CFR part 183, in the situation specified, ESC 8 and TIPS Members shall terminate any contract or agreement resulting from this procurement which violates the Never Contract with the Enemy regulation in 2 CFR part 183, including if Vendor is actively opposing the United States or coalition forces involved in a contingency operation in which members of the the Armed Forces are actively engaged in hostilities. Vendor certifies that it is neither an excluded entity under the System for Award Management (SAM) nor Federal Awardee Performance and Integrity Information System (FAPIIS) for any contract terminated due to Never Contract with the Enemy as a Termination for Material Failure to Comply.

Does Vendor certify?

Yes, Vendor certifies

96 **2 CFR Part 200 or Federal Provision - Certification of Compliance with EPA Regulations**

For contracts resulting from this procurement, in excess of $100,000.00 and paid for with federal funds, Vendor certifies that Vendor will comply with all applicable standards, orders, regulations, and/or requirements issued pursuant to the Clean Air Act of 1970, as amended (42 U.S.C. 1857(h)), Section 508 of the Clean Water Act, as amended (33 U.S.C. 1368), Executive Order 117389 and Environmental Protection Agency Regulation, 40 CFR Part 15.

Does Vendor certify?

Yes, Vendor certifies

97 **2 CFR Part 200 or Federal Provision - Record Retention Requirements**

For contracts resulting from this procurement, paid for by ESC 8 or TIPS Members with federal funds, Vendor certifies that Vendor will comply with the record retention requirements detailed in 2 CFR § 200.334. Vendor certifies that Vendor will retain all records as required by 2 CFR § 200.334 for a period of three years after final expenditure or financial reports, as applicable, and all other pending matters are closed.

Does Vendor certify?

Yes, Vendor certifies

98 **2 CFR Part 200 or Federal Provision - Subcontracting and Affirmative Steps for Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms.**

Do you ever anticipate the possibility of subcontracting any of your work under this award if you are successful?

If you respond "Yes", you must respond to the following attribute question accurately. If you respond "No", you may skip the following attribute question.

YES

99	**2 CFR Part 200 or Federal Provision - If "Yes" Response to Above Attribute - Continued - Subcontracting and Affirmative Steps for Small and Minority Businesses, Women's Business Enterprises, and Labor Surplus Area Firms.** **Only respond to this question if you responded "Yes" to the attribute question directly above. Skip this question if you responded "No" to the attribute question directly above.** Does Vendor certify that it will follow the following affirmative steps? Federal Regulation 2 CFR §200.321 Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms. (a)The non-Federal entity must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. (b) Affirmative steps must include: (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists; (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources; (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises; (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce ; and (6) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs(1) through (5) of this section. Does Vendor certify? Yes, Vendor certifies
100	**ACKNOWLEDGMENT & BINDING CORPORATE AUTHORITY** By submitting this proposal, the individual(s) submitting on behalf of the Vendor certify that they are authorized by Vendor to complete and submit this proposal on behalf of Vendor and that this proposal was duly submitted on behalf of Vendor by authority of its governing body, if any, and within the scope of its corporate powers. Vendor further certifies that it has read, examined, and understands all portions of this solicitation including but not limited to all attribute questions, attachments, solicitation documents, bid notes, and the Vendor Agreement(s). Vendor certifies that, if necessary, Vendor has consulted with counsel in understanding all portions of this solicitation.

CITY OF DENISON

City Hall
300 W. Main Street
Denison, TX 75020

903.465.2720 | Phone

November 8, 2024

To Whom it may concern:

In my role as Public Works Manager - Maintenance, we have used Minchew Brothers Construction numerous times with great results. For the duration of each project, we were kept up to date with:

- Timeliness of project quotes or change orders
- Continual Communication
- Project milestones

Based on my experiences with Minchew Brothers Construction, I would highly recommend their services for your project needs.

Respectfully,

John Phillips

Robert Crawley
Mayor

Michael Courtright
Council Place 1

James Thorne
Council Place 2

Joshua Massey
Council Place 3

Spence Redwine
Council Place 4

Aaron Thomas
Council Place 5

Teresa Adams
Council Place 6

Bobby Atteberry
Interim City Manager

3223 North Powell Parkway, Anna, TX 75409
Phone: 972-924-332 www.annatexas.gov

THE CITY OF Anna

November 25, 2024

To Whom It May Concern:

It is with great confidence that I recommend Minchew Brothers Construction. They have completed several projects for the City of Anna, consistently demonstrating a high level of professionalism and a commitment to excellence.

Minchew Brothers Construction ensured that every detail of their work was executed with precision and care. Their ability to communicate effectively throughout the project served as a strong example for their team and contributed significantly to the successful completion of each job.

The City of Anna has been extremely satisfied with the outcomes delivered by Minchew Brothers Construction, and we look forward to partnering with them on future projects.

If you have any further questions, please reach out to us at 972-924-4510 or at publicwork@annatexas.gov.

Regards

Steven M. Smith

Director of Public Works

PIAZZA CONSTRUCTION
2811 S. Woodlawn - Denison, Texas 75020

November 6, 2024

To whom it my concern

My name is David McKinstry and I am a Project Manager for Piazza Construction LLC. and I have worked with Lane Minchew with Minchew Brothers Construction for many years. They have successfully completed many jobs for us with clients like Caterpillar, TMC Hospital, Bi-Lo Warehouse, Georgetown Baptist Church and The City of Denison. All have been completed on time and with great quality. I would not hesitate to sign them up on any one of my projects. Please call if you have any questions or would like more information.

Sincerely

David McKinstry
Project Manager

TIPS CONTRACT 241001

REQUIRED CONFIDENTIALITY CLAIM FORM

(*VENDOR MUST COMPLETE THE FOLLOWING VENDOR INFORMATION*)

Vendor Entity Name: Sterling Elite Enterprise LLC DBA Minchew Brothers Construction

Vendor Authorized Signatory Name: Lane M Minchew

Vendor Authorized Signatory Title: Owner

Vendor Authorized Signatory Email: lane@minchewbros.com

Vendor Address: 520 Preston Dr.

City: Pottsboro State: Texas Zip Code: 75076

Vendor agrees that it is voluntarily providing its data (including but not limited to: Vendor information, Vendor documentation, Vendor's proposal, Vendor pricing submitted or provided to TIPS, TIPS contract documents, TIPS correspondence, Vendor logos and images, Vendor's contact information, Vendor's brochures and commercial information, Vendor's financial information, Vendor's certifications, and any other Vendor information or documentation submitted to TIPS by Vendor and its agents) (Hereinafter, "Vendor Data") to TIPS. Vendor understands and agrees that TIPS is a government entity subject to public information laws including but not limited to Texas Government Code (TGC) Chapter 552. Vendor agrees that regardless of confidentiality designations herein, Vendor's submission of a proposal constitutes Vendor's consent to the disclosure and release of Vendor's Data and comprehensive proposal, including any information deemed confidential or proprietary herein, to and by TIPS Members.

Notwithstanding the foregoing permissible release to TIPS Members, if Vendor considers any portion of Vendor's proposal to be otherwise confidential and not subject to public disclosure pursuant to public information laws, including but not limited to TGC Chapter 552, Vendor must properly execute ***Option 1 only*** below, attach to this PDF all documents and information that Vendor deems confidential, and upload the consolidated documentation. Regardless of the Option selected below, this form must be completed and uploaded to the "Response Attachments" section of the eBid System entitled "Required Confidentiality Claim Form." Execution and submission of this form is the sole indicator of whether Vendor considers any Vendor Data confidential in the event TIPS receives a request, a Public Information Request, or subpoena. If TIPS receives a request, any responsive documentation not deemed confidential by you through proper execution of Option 1 of this form will be automatically released. For information deemed confidential by you through proper execution of Option 1 of this form, TIPS will follow procedures of controlling statute(s) regarding withholding that documentation and shall not be liable for any release of information required by law, including Attorney General opinion or court order.

(*VENDOR MUST COMPLETE ONE OF THE TWO OPTIONS AND UPLOAD IN THE EBID SYSTEM*)

OPTION 1 – DESIGNATING CONFIDENTIAL MATERIALS – YES, VENDOR HAS ATTACHED CONFIDENTIAL MATERIALS

(*Confirm each bullet point and sign below*)

- Vendor claims some Vendor Data confidential to the extent permitted by TGC Chapter 552 and other applicable law.
- Vendor attached to this PDF all potentially confidential Vendor Data and listed the number of attached pages below.
- Vendor's authorized signatory has signed below and shall upload this document in the proper location in the eBid System.
- Vendor agrees that TIPS shall not be liable for any release of confidential information required by law.

Number of pages attached deemed confidential: _____

Authorized Signature: _____

OPTION 2 – WAIVER OF CONFIDENTIALITY – NO, VENDOR HAS NOT ATTACHED CONFIDENTIAL MATERIALS

(*Confirm each bullet point and sign below*)

By signing for Option 2 below, Vendor expressly waives any confidentiality claim for all Vendor Data submitted in relation to this proposal and resulting contract. Vendor confirms that TIPS may freely release Vendor Data submitted in relation to this proposal or resulting contract to any requestor. Vendor agrees that TIPS shall not be responsible or liable for any use or distribution of Vendor Data by TIPS or TIPS Members.

- Vendor's authorized signatory has signed below and shall upload this document in the proper location in the eBid System.
- Vendor agrees that TIPS shall not be liable for any release of confidential information required by law.

Authorized Signature: Lane M Minchew Digitally signed by Lane M Minchew Date: 2024.11.06 08:19:50 -06'00'

PHILADELPHIA
INSURANCE COMPANIES

A Member of the Tokio Marine Group

One Bala Plaza, Suite 100, Bala Cynwyd, Pennsylvania 19004
610.617.7900 • Fax 610.617.7940 • PHLY.com

November 20, 2024

RE: Sterling Elite Enterprise, LLC dba Minchew Brothers

To Whom It May Concern:

Sterling Elite Enterprise, LLC dba Minchew Brothers is currently bonded by Philadelphia Indemnity Insurance Company and is an account in good standing. Philadelphia Indemnity Insurance Company is rated by A.M. Best as an "A++" (Superior) and "XV" financial size. Philadelphia Indemnity Insurance Company has a Certificate of Authority from the Department of Treasury with an underwriting limitation of $382,917,000.

A bonded work program of $250,000 single limit and $250,000 aggregate has been supported by Philadelphia Indemnity Insurance Company. As is customary, final approval of any bond is predicated upon the most current financial job information available to the underwriter at the time, and is subject to the following.

Specific requests for surety bonds will be given our due consideration based on our underwriting evaluation at the time of the request. This evaluation includes receipt and review of contract terms and conditions and bond format that are acceptable to Philadelphia Indemnity Insurance Company, adequate financing as well as other underwriting conditions, which may exist at the time of the request. Any request for bonds is a matter between Sterling Elite Enterprise, LLC dba Minchew Brothers and ourselves and we assume no liability to any party if for any reason we do not execute said bonds which may arise solely from this letter of recommendation.

Philadelphia Indemnity Insurance Company

By: _____
Karen Wentling, Attorney In Fact

Minchew Brothers Construction
520 Preston Drive
Pottsboro, TX 75076
903-624-9233

TIPS Contract Number: 241001
D-U-N-S #:07-621-5272

Bid prepared for: **City of Aubrey**

Description of job to be completed: **Bid Prepared on:** 10.31.2025

This proposal covers the completion of the Dane Street Sewer Project. The scope of work includes final installation of the sewer main, one (1) 6-inch sewer tap, and six (6) 4-inch long-side sewer taps. Additionally, the work includes manhole preparation and pouring for three (3) manholes, followed by backfilling and final site restoration. As part of this project, we will also repair the storm drain that was damaged by the City of Aubrey during the initial installation of the sewer main. All materials required for this project will be provided by the City. All work will be performed in a timely and professional manner, with particular attention to maintaining a clean and well-restored site upon completion. The mobilization fee will be waived as our crews were already mobilized in the area.

Mobilization Fee:	$	5,003.50
Manhole:	$	9,000.00
Testing:	$	1,725.00
Equipment:	$	17,345.00
TIPS Fee	$	5,003.50
Labor:	$	72,000.00
Total:	$	110,077.00
Waived amount:	$	5,003.50
Total Quote:	**$**	**105,073.50**

Mobilization Fee and Materials cost due upon delivery of Materials

****Bid only good for 30 days.****

PRICING. The proposed prices have been calculated based on the costs for materials defined in the Base Materials Bid attached hereto. In the event of an increase between the Base Materials Bid and actual cost incurred by Contractor in procuring the materials, Customer will pay the difference upon written notice from Contractor identifying the actual cost incurred for such materials.

PAYMENT. Invoices are due upon receipt. Customer and Contractor will mutually agree to a payment schedule. Customer will be invoiced monthly, and Contractor will provide an invoice to Customer on the _____ day of the month. If Customer does not pay invoice in full within _____ days of receipt, Customer will be in breach of this contract but will remain liable for the full amount of the invoice. As a remedy for Customer's breach due to nonpayment, Contractor may terminate this Contract immediately and seek all such relief as may be provided by law.

ESTIMATED PROJECT DURATION. The Estimated Project Duration is just an estimate. Contractor does not guarantee that the work will be completed in that time frame. The work may be delayed due to Excusable Delays or Unforeseen Circumstances as defined below. If work is delayed due to Excusable Delays or unforeseen Circumstances, Contractor will provide notice to Customer, and Contractor will not be responsible or liable for said delay.

EXCUSABLE DELAYS. The Contractor's right to proceed will not be terminated, and the Contractor will not be charged with damages, for delays in completing the work that arise from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: (i) acts of God or of the public enemy; (ii) acts of the government; (iii) acts of another contractor; (iv) fires; (v) floods; (vi) epidemics; (vii) quarantine restrictions; (viii) weather; or (ix) delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and subcontractor(s) or supplier(s).

SUPERVISION. Customer agrees that supervision of the work performed under this Agreement is under the exclusive direction of the Contractor, and the Contractor shall have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the work. Customer shall not interfere with the work or cause additional work to be carried out without written consent of the Contractor.

UNFORSEEN CIRCUMSTANCES. Prices within this proposal are firm unless there are unforeseen circumstances that result in delays or obstacles. An example of such would be if contractor begins excavating and finds large boulders, rebar, sewer drain, etc. If such circumstances arise contractor will notify customer immediately with an evaluation and proposed change in price or work. If the obstacle deems the job unable to be completed or if customer decides the cost to proceed is too prohibitive the customer is responsible for labor costs incurred until that point and for any materials used that cannot be returned.

SUBCONTRACTS. Contractor may subcontract, either wholly or partially, any work under this Agreement to any other third party. If Contractor subcontracts any portion of the work, Contractor will be deemed to have performed the work performed by a subcontractor and remain responsible and liable for the work performed by a subcontractor as if Contractor had provided the work itself.

LIMITED WARRANTY. The Contractor warrants that, for a period of one (1) year after Customer's final acceptance, materials furnished under the Agreement will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will confirm with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, normal wear and tear, willful or malicious acts by any party other than the Contractor, digging or excavation by any party other than the Contractor. The sole and exclusive remedy with respect to this Limited Warranty is limited to, at Contractor's option, repair or replacement of defective materials or reimbursement for repairs by a third party. Any steps taken by the Contractor to correct defects shall not act to extend the term of this warranty. IN CONSIDERATION OF THIS LIMITED WARRANTY, CONTRACTOR SHALL NOT BE LIABLE FOR SPECIAL, DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO LOSS OF USE, LOSS OF PROFITS OR GOODWILL, DAMAGES FOR NEGLIGENCE IN THE DESIGN, OR OTHER COMMERCIAL LOSS OR INJURY.

Signature accepting Contract_____Date_____

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Consideration and action on a Preliminary Plat for Highpointe Ranch Phase 4A, for 86 residential lots and three (3) HOA lots, being approximately 21.615 acres out of the Francisco Trevino Survey, Abstract 1243 generally located south of E Blackjack Road, east of U.S. Highway 377, and north of Springhill Road/FM 428, City of Aubrey, Denton County, Texas. (Aubrey Blackjack Partners, LLC)

Staff Contact
Helen-Eve Beadle, Planner
heleneve@heplanningdesign.com
469-360-6618

Summary
Highpointe Ranch is a master planned community located east of US Hwy. 377, south of E Blackjack Road, and north of Spring Hill Road/FM 428. The property was zoned as a Planned Development District (PD) in September of 2023 and this portion of the overall development is zoned for single-family residential lots. The overall development includes 10 residential phases. A previous Preliminary Plat for the overall Highpointe Ranch development in 2022 has expired.

The applicant has submitted a Preliminary Plat that includes:

- 86 residential lots (minimum lot size 50 feet X 120 feet, 6,000 square feet)
- 3 HOA lots

The site will be served by access points to US 377 and the Future Outer Loop by Bronco Lane in Highpointe Ranch.

RECOMMENDATION:
The City Engineer and City Planner have reviewed the Preliminary Plat and recommend it for approval subject to the topography being added to the plat.

The council may:

1. Approve the Preliminary Plat as presented with one (1) condition;
2. Approve the Preliminary Plat with conditions; or
3. Deny the Preliminary Plat.

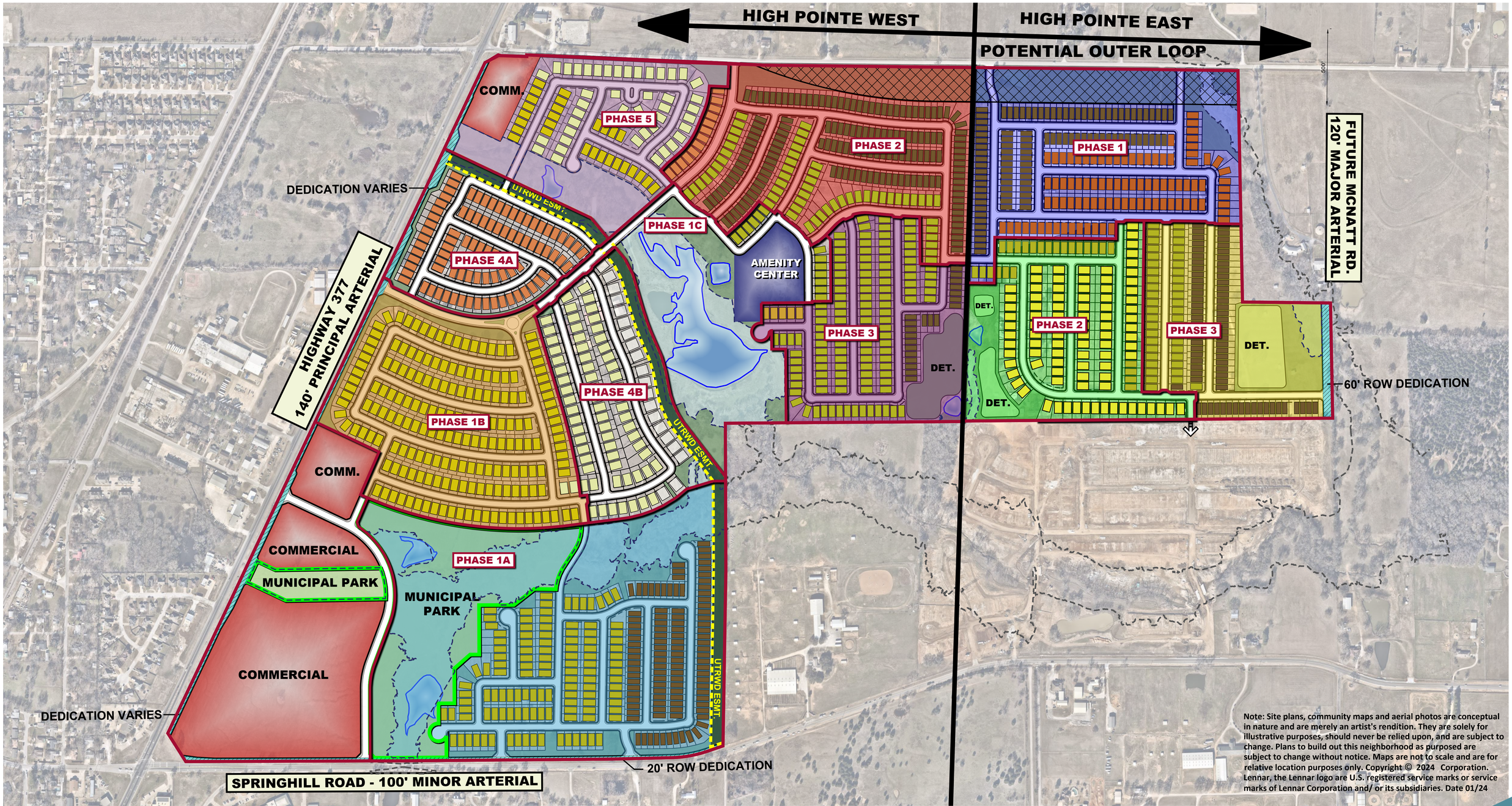
Attachments:

1. Highpointe Ranch Phasing Plan
2. Preliminary Plat for Highpointe Ranch Phase 4A

Financial Summary

Staff Recommended Action
Approve with Conditions

Staff Recommended Motion
Motion to (approve/deny/table) the Preliminary Plat application (with one (1) condition).



Highpointe Ranch
Phasing Plan

Aubrey Texas
June 2024

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	81.8	17.9%
Municipal Park	29.9	6.5%
Amenity Center	4.6	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
	Cottage	30'x80'	40'x115'	106	-	-			-	-		-		106
	Cottage	30'x75'	40'x115'		-	-	149	21	-	-	98	-	73	341
	Cottage	40'x75'	50'x120'	-	-	-	-	-	-	-	91	-	-	91
	Watermill	40'x80'	50'x120'	119	-				-	-				119
	Watermill	40'x75'	50'x120'		-	13	57	119	-	-	3	22	44	258
	Watermill	45'x75'	55'x130'	-	-	-	-	5	-	-	-	-	-	5
	Watermill	50'x75'	60'x130'	-	-	-	-	-	-	-	-	92	-	92
	Classic	40'x75'	50'x120'	-	-	-	13	-	86	-	-	-	-	99
	Classic	45'x75'	55'x130'	-	182		-	-	-	28	-	-	-	210
	Classic	50'x75'	65'x130'	-	2		-	-	66	43	-	-	-	111
	Classic	60'x75'	75'x130'	-	-	-	-	-	20	-	-	-	-	20
Total Lots				**225**	**184**	**13**	**219**	**145**	**172**	**71**	**192**	**114**	**117**	**1452**

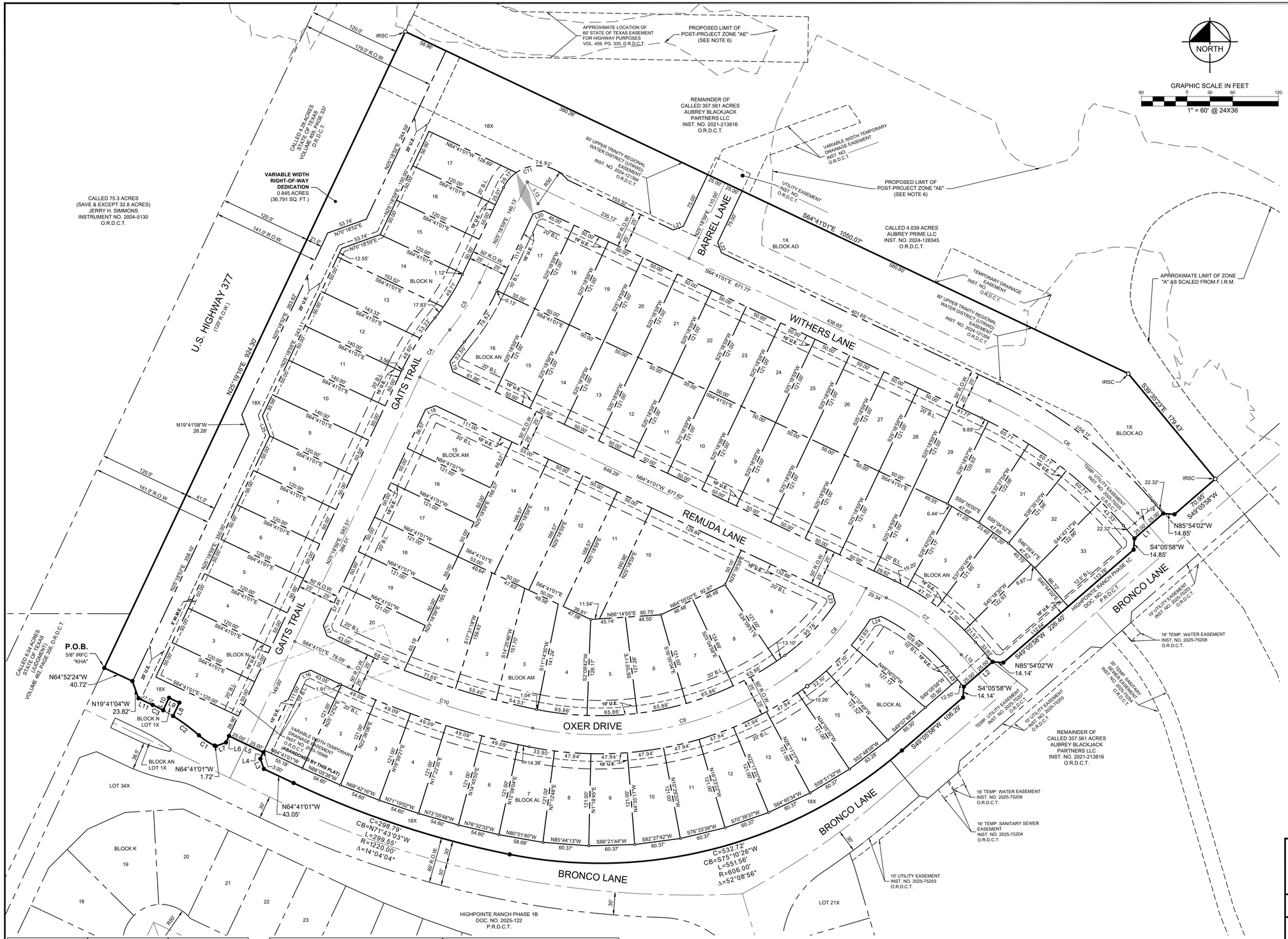
GRAPHIC SCALE IN FEET
0 150 300 600
1"=300' @ 22x34

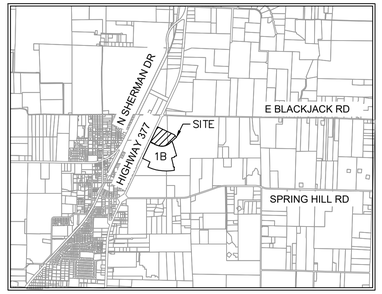
Kimley»Horn
6160 Warren Parkway, Suite 210
Frisco, Texas 75034
972-335-3580
State of Texas Registration No. F-928

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 20240617.DWG
LAST SAVED 6/18/2024 1:11 PM

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 © 2024 Corporation. Lennar, the Lennar logo are U.S. registered service marks or service marks of Lennar Corporation and/ or its subsidiaries. Date 01/24





VICINITY MAP
SCALE: 1" = 4,000'

LAND USE TABLE :

LAND USE	ACREAGE	LOTS
RESIDENTIAL	13.436	86 LOTS
HOA/OPEN SPACE	1.409	N-18X
HOA/OPEN SPACE	.529	AL-18X
HOA/OPEN SPACE	1.427	AO-1X
STREET R.O.W.	3.969	-
U.S. 377 R.O.W	0.845	-
TOTAL	21.615	89 LOTS

LEGEND

D.R.D.C.T.	DEED RECORDS DENTON COUNTY, TEXAS
O.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
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
IRSC	CAPPED IRON ROD w/ "KHA" CAP SET
●	RED CAPPED IRON ROD FOUND W/ "KHA"
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
W.M.E.	WALL MAINTENANCE EASEMENT

LINE TYPE LEGEND

- BOUNDARY LINE
- EASEMENT LINE
- PHASE LINE
- BUILDING LINE

LINE TABLE			LINE TABLE			LINE TABLE		
NO.	BEARING	LENGTH	NO.	BEARING	LENGTH	NO.	BEARING	LENGTH
L1	S49°05'58"W	50.00'	L9	N64°41'01"W	15.00'	L18	S70°18'59"W	14.14'
L2	S49°05'58"W	50.00'	L10	S25°18'59"W	18.11'	L19	S16°33'24"E	13.35'
L3	N19°41'01"W	14.14'	L11	N64°41'01"W	20.62'	L20	S70°18'59"W	14.14'
L4	N25°18'59"E	9.50'	L13	S26°01'26"E	32.02'	L21	N70°18'59"E	14.14'
L5	N64°41'01"W	50.00'	L14	S40°54'02"E	22.32'	L22	S19°41'01"E	14.14'
L6	S25°18'59"W	9.50'	L15	N40°54'02"W	33.93'	L23	N15°49'40"W	13.16'
L7	S70°18'59"W	14.14'	L16	S70°18'59"W	14.14'	L24	S73°40'12"W	14.90'
L8	N25°18'59"E	19.43'	L17	S19°41'01"E	14.14'	L25	N19°41'01"W	28.28'

CURVE TABLE					CURVE TABLE				
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD	NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	15°57'55"	88.50'	24.66'	N56°42'04"W	24.58'	C9	47°21'23"	440.50'	364.08'	N77°42'28"E	353.81'
C2	9°17'04"	261.50'	42.37'	N53°21'38"W	42.33'	C10	13°55'49"	1051.50'	255.65'	S71°38'56"E	255.02'
C3	3°22'52"	261.50'	15.43'	N62°59'35"W	15.43'	C11	115°50'31"	50.00'	101.09'	S83°14'14"W	84.73'
C4	14°04'16"	300.00'	73.68'	S32°21'07"W	73.49'						
C5	14°04'16"	300.00'	73.68'	N32°21'07"E	73.49'						
C6	23°47'00"	592.00'	245.74'	N52°47'31"W	243.98'						
C7	23°47'00"	300.00'	124.53'	N52°47'31"W	123.64'						
C8	27°23'03"	300.00'	143.38'	N40°20'15"E	142.02'						

PRELIMINARY PLAT

HIGHPOINTE RANCH PHASE 4A

21.615 ACRES

BLOCK N, LOTS 2-17 & 18X-HOA; BLOCK AL, LOTS 1-17 & 18X-HOA; BLOCK AM, LOTS 1-20; BLOCK AN, LOTS 1-33; BLOCK AO, LOT 1X-HOA

86 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'	GGL	KHA	Aug. 2025	063451861	1 OF 2

OWNER:
Aubrey Blackjack Partners, LLC
4514 Cole Avenue,
Suite 1850
Dallas, Texas 75205
Phone: 214-674-9570
Contact: Chad Vose

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.

8/28/2025 4:42 PM
DWG NAME: K:\FRI_SURVEY\089390747-HIGH POINT RANCH - AUBREY\DWG\063451861 HIGH POINTE RANCH PHASE 4A.DWG PLOTTED BY GUNAWAN, SYLVIANA 8/23/2025 6:12 PM LAST SAVED

OWNER'S CERTIFICATE

STATE OF TEXAS §

COUNTY OF DENTON §

WHEREAS AUBREY BLACKJACK PARTNERS LLC, are the owners of a tract of land situated in the F. Trevino Survey, Abstract No. 1243, Denton County, Texas, and being a portion of a called 357.561 acre tract of land described in a deed to Aubrey Blackjack Partners LLC, as recorded in Instrument No. 2021-213816 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" found for the northwest corner of Highpointe Ranch Phase 1B, an addition to the City of Aubrey, Texas, recorded in Document No. 2025-122, Plat Records, Denton County, Texas, being on the easterly right-of-way line of U.S. Highway 377, a 120 foot wide right-of-way;

THENCE North 25°19'16" East, along the easterly right-of-way line of said U.S. Highway 377, and the westerly line of said 357.561-acre tract, a distance of 924.30 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" set for corner;

THENCE departing said easterly right-of-way line and the westerly line of siad 357.561-acre tract, and crossing said 357.561-acre tract the following courses and distances:

South 64°41'01" East, a distance of 1,050.07 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" set for corner;

South 39°35'23" East, a distance of 179.43 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" set for corner on the northerly line of Highpointe Ranch Phase 1C, an addition to the City of Aubrey, Texas, recorded in Instrument No. _____, said Plat Records;

THENCE along the northerly line of said Phase 1B and said Phase 1C the following courses and distances:

South 49°05'58" West, a distance of 70.95 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 85°54'02" West, a distance of 14.85 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 49°05'58" West, a distance of 50.00 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 04°05'58" West, a distance of 14.85 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 49°05'58" West, a distance of 226.40 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 85°54'02" West, a distance of 14.14 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 49°05'58" West, a distance of 50.00 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 04°05'58" West, a distance of 14.14 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 49°05'58" West, a distance of 106.29 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found at the beginning of a tangent curve to the right with a radius of 606.00 feet, a central angle of 52°08'56", and a chord bearing and distance of South 75°10'26" West, 532.72 feet;

In a westerly direction, with said tangent curve to the right, an arc distance of 551.56 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found at the beginning of a compound curve to the right with a radius of 1,220.00 feet, a central angle of 14°04'04", and a chord bearing and distance of North 71°43'03" West, 298.79 feet;

In a westerly direction, with said compound curve to the right, an arc distance of 299.55 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°41'01" West, a distance of 43.05 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 19°41'01" West, a distance of 14.14 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 25°18'59" East, a distance of 9.50 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°41'01" West, a distance of 50.00 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 25°18'59" West, a distance of 9.50 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 70°18'59" West, a distance of 14.14 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°41'01" West, a distance of 1.72 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found at the beginning of a tangent curve to the right with a radius of 88.50 feet, a central angle of 15°57'55", and a chord bearing and distance of North 56°42'04" West, 24.58 feet;

In a westerly direction, with said tangent curve to the right, an arc distance of 24.66 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found at the beginning of a reverse curve to the left with a radius of 261.50 feet, a central angle of 09°17'04", and a chord bearing and distance of North 53°21'38" West, 42.33 feet;

In a westerly direction, with said reverse curve to the left, an arc distance of 42.37 feet to a point for corner;

North 25°18'59" East, a distance of 19.43 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°41'01" West, a distance of 15.00 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 25°18'59" West, a distance of 18.11 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found at the beginning of a non-tangent curve to the left with a radius of 261.50 feet, a central angle of 03°22'52", and a chord bearing and distance of North 62°59'35" West, 15.43 feet;

In a westerly direction, with said non-tangent curve to the left, an arc distance of 15.43 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°41'01" West, a distance of 20.62 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 19°41'04" West, a distance of 23.82 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°52'24" West, a distance of 40.72 feet to the **POINT OF BEGINNING** and containing 941,547 square feet or 21.615 acres of land, more or less.

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. Proposed limit of Post Project Zone "AE" is 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.
7. Construction not completed within two years of approval subject to current County Subdivision Rules and Regulations.
8. 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.
9. 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.
10. 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.
11. Water service to be provided by the City of Aubrey.
12. 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

13. Sanitary Sewer to be provided by the City of Aubrey.
14. 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.
15. All utilities and drainage structures are located in the right-of-way except as shown.
16. Block N, Lot 18X, Block AL, Lot 18X and Block AO, Lot 1X shall be owned and maintained by the Home Owners Association. Block N, Lot 18X is to be used for landscaping and drainage purposes. Block AL, Lot 18X and Block AO, Lot 1X are to be used for landscaping and signage purposes and shall not be used otherwise or for other structures.
17. 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.

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK AL LOT 1	0.152	6,614
BLOCK AL LOT 2	0.144	6,262
BLOCK AL LOT 3	0.144	6,262
BLOCK AL LOT 4	0.144	6,262
BLOCK AL LOT 5	0.144	6,262
BLOCK AL LOT 6	0.144	6,262
BLOCK AL LOT 7	0.148	6,446
BLOCK AL LOT 8	0.150	6,523
BLOCK AL LOT 9	0.150	6,523
BLOCK AL LOT 10	0.150	6,523
BLOCK AL LOT 11	0.150	6,523
BLOCK AL LOT 12	0.150	6,523
BLOCK AL LOT 13	0.150	6,523
BLOCK AL LOT 14	0.150	6,523
BLOCK AL LOT 15	0.153	6,666
BLOCK AL LOT 16	0.159	6,924
BLOCK AL LOT 17	0.180	7,823
BLOCK AL LOT 18X	0.529	23,027
BLOCK AM LOT 1	0.226	9,837
BLOCK AM LOT 2	0.183	7,975
BLOCK AM LOT 3	0.173	7,553
BLOCK AM LOT 4	0.170	7,419
BLOCK AM LOT 5	0.163	7,100
BLOCK AM LOT 6	0.160	6,983
BLOCK AM LOT 7	0.159	6,923

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK AM LOT 8	0.159	6,923
BLOCK AM LOT 9	0.253	11,017
BLOCK AM LOT 10	0.346	15,068
BLOCK AM LOT 11	0.191	8,300
BLOCK AM LOT 12	0.191	8,328
BLOCK AM LOT 13	0.191	8,328
BLOCK AM LOT 14	0.203	8,828
BLOCK AM LOT 15	0.184	8,005
BLOCK AM LOT 16	0.139	6,050
BLOCK AM LOT 17	0.139	6,050
BLOCK AM LOT 18	0.139	6,050
BLOCK AM LOT 19	0.139	6,050
BLOCK AM LOT 20	0.185	8,060
BLOCK AN LOT 1	0.195	8,481
BLOCK AN LOT 2	0.158	6,872
BLOCK AN LOT 3	0.156	6,778
BLOCK AN LOT 4	0.146	6,344
BLOCK AN LOT 5	0.139	6,050
BLOCK AN LOT 6	0.139	6,050
BLOCK AN LOT 7	0.139	6,050
BLOCK AN LOT 8	0.139	6,050
BLOCK AN LOT 9	0.139	6,050
BLOCK AN LOT 10	0.139	6,050
BLOCK AN LOT 11	0.139	6,050
BLOCK AN LOT 12	0.139	6,050

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK AN LOT 13	0.139	6,050
BLOCK AN LOT 14	0.139	6,050
BLOCK AN LOT 15	0.139	6,050
BLOCK AN LOT 16	0.171	7,441
BLOCK AN LOT 17	0.152	6,605
BLOCK AN LOT 18	0.139	6,050
BLOCK AN LOT 19	0.139	6,050
BLOCK AN LOT 20	0.139	6,050
BLOCK AN LOT 21	0.139	6,050
BLOCK AN LOT 22	0.139	6,050
BLOCK AN LOT 23	0.139	6,050
BLOCK AN LOT 24	0.139	6,050
BLOCK AN LOT 25	0.139	6,050
BLOCK AN LOT 26	0.139	6,050
BLOCK AN LOT 27	0.139	6,050
BLOCK AN LOT 28	0.139	6,050
BLOCK AN LOT 29	0.141	6,123
BLOCK AN LOT 30	0.152	6,606
BLOCK AN LOT 31	0.152	6,621
BLOCK AN LOT 32	0.152	6,643
BLOCK AN LOT 33	0.202	8,802
BLOCK AO LOT 1X	1.427	62,170
BLOCK N LOT 2	0.138	6,000
BLOCK N LOT 3	0.138	6,000
BLOCK N LOT 4	0.138	6,000

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK N LOT 5	0.138	6,000
BLOCK N LOT 6	0.138	6,000
BLOCK N LOT 7	0.138	6,000
BLOCK N LOT 8	0.138	6,000
BLOCK N LOT 9	0.158	6,877
BLOCK N LOT 10	0.161	7,000
BLOCK N LOT 11	0.161	7,000
BLOCK N LOT 12	0.162	7,051
BLOCK N LOT 13	0.170	7,408
BLOCK N LOT 14	0.165	7,192
BLOCK N LOT 15	0.138	6,000
BLOCK N LOT 16	0.138	6,000
BLOCK N LOT 17	0.139	6,054
BLOCK N LOT 18X	1.409	61,363
R.O.W.	3.969	172,902
U.S. 377 R.O.W.	0.845	36,791

OWNER'S DEDICATION STATEMENT

STATE OF TEXAS §

COUNTY OF DENTON §

NOW, THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT **AUBREY BLACKJACK PARTNERS LLC,** acting herein by and through their duly authorized officers, do hereby adopt this plat designating the hereinabove described property as **HIGHPOINTE RANCH PHASE 4A**, an addition to the City of Aubrey, Texas, and do 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 _____, _____.

BY: **AUBREY BLACKJACK PARTNERS LLC**, a Texas limited liability company

BY: _____

Name: _____

Title: _____

STATE OF TEXAS §

COUNTY OF _____ §

Before me, the undersigned authority, a notary public in an for the State of Texas, on this day personally appeared _____, known to me to be the person whose name is subscribed for the purpose and consideration therein expressed.

Given under my hand and seal this _____ day of _____, _____.

_____

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS

MY COMMISSION EXPIRES:_____

LIEN HOLDER:

MAPLEMARK BANK, a Texas state bank

By: _____

Name: _____

Title: _____

STATE OF _____ §

COUNTY OF _____ §

Before me, the undersigned authority, a notary public in an for the State of _____, on this day personally appeared _____, known to me to be the person whose name is subscribed for the purpose and consideration therein expressed.

Given under my hand and seal this _____ day of _____, 2025.

_____

NOTARY PUBLIC IN AND FOR THE STATE OF _____

MY COMMISSION EXPIRES:_____

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

PRELIMINARY PLAT

HIGHPOINTE RANCH PHASE 4A

21.615 ACRES

BLOCK N, LOTS 2-17 & 18X-HOA; BLOCK AL, LOTS 1-17 & 18X-HOA; BLOCK AM, LOTS 1-20; BLOCK AN, LOTS 1-33; BLOCK AO, LOT 1X-HOA

86 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	GGL	KHA	Aug. 2025	063451861	2 OF 2

OWNER:
Aubrey Blackjack Partners, LLC
4514 Cole Avenue,
Suite 1650
Dallas, Texas 75205
Phone: 214-674-9570
Contact: Chad Vose

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\063800747-HIGH POINT RANCH - AUBREY\DWG\063451861 HIGH POINTE RANCH PHASE 4A.DWG PLOTTED BY GUNAWAN, SYLVIANA 9/23/2025 6:12 PM LAST SAVED 8/28/2025 4:42 PM

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Consideration and action on a Final Plat application for Highpointe Ranch Phase 4A, for 86 residential lots and three (3) HOA lots, being approximately 21.615 acres out of the Francisco Trevino Survey, Abstract 1243 generally located south of E Blackjack Road, east of U.S. Highway 377, and north of Springhill Road/FM 428, City of Aubrey, Denton County, Texas. (Aubrey Blackjack Partners, LLC)

Staff Contact
Helen-Eve Beadle, Planner
heleneve@heplanningdesign.com
469-360-6618

Summary
Highpointe Ranch is a master planned community located east of US Hwy. 377, south of E Blackjack Road, and north of Spring Hill Road/FM 428. The property was zoned as a Planned Development District (PD) in September of 2023 and this portion of the overall development is zoned for single-family residential lots. The overall development includes 10 residential phases. A previous Preliminary Plat for the overall Highpointe Ranch development in 2022 has expired.
The applicant has submitted a Final Plat that includes:

- 86 residential lots (minimum lot size 50 feet X 120 feet, 6,000 square feet)
- 3 HOA lots

The site will be served by access points to US 377 and the Future Outer Loop by Bronco Lane in Highpointe Ranch.

RECOMMENDATIONS:
The City Engineer and City Planner have reviewed the Final Plat and recommend it for approval subject to the Preliminary Plat being approved by City Council.

The Planning & Zoning Commission will consider this item at their November 13, 2025 meeting and due to the City Council agenda report deadline of November 12, 2025, the results will be provided to the City Council at the November 20, 2025 meeting.

ACTION OPTIONS:
The City Council may:

1. Approve the Final Plat as presented with one (1) condition;
2. Approve the FInal Plat with conditions; or
3. Deny the Final Plat Plat.

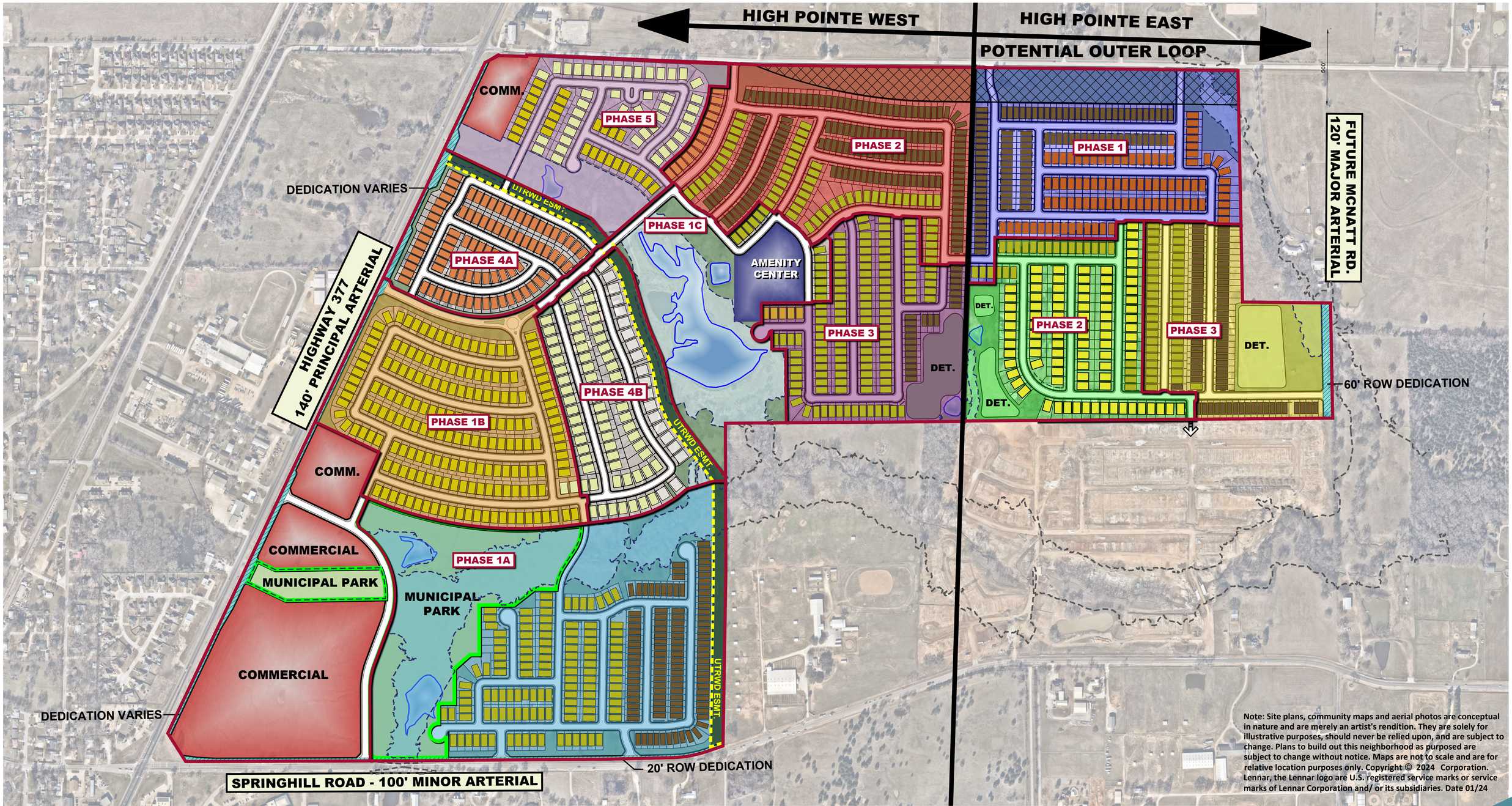
Attachments:

1. HIghpointe Ranch Phasing Plan
2. Final Plat for Highpointe Ranch East Phase 4A

Financial Summary

Staff Recommended Action
Approve with Conditions

Staff Recommended Motion
Motion to (approve/deny/table) the Final Plat application (with one condition).



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 © 2024 Corporation. Lennar, the Lennar logo are U.S. registered service marks or service marks of Lennar Corporation and/ or its subsidiaries. Date 01/24

Highpointe Ranch
Phasing Plan

Aubrey Texas
June 2024

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	81.8	17.9%
Municipal Park	29.9	6.5%
Amenity Center	4.6	0.8%
UTRWD Easement	8.5	1.8%
Total	**460.8**	**100.0%**

Potential Outer Loop (Overlay)

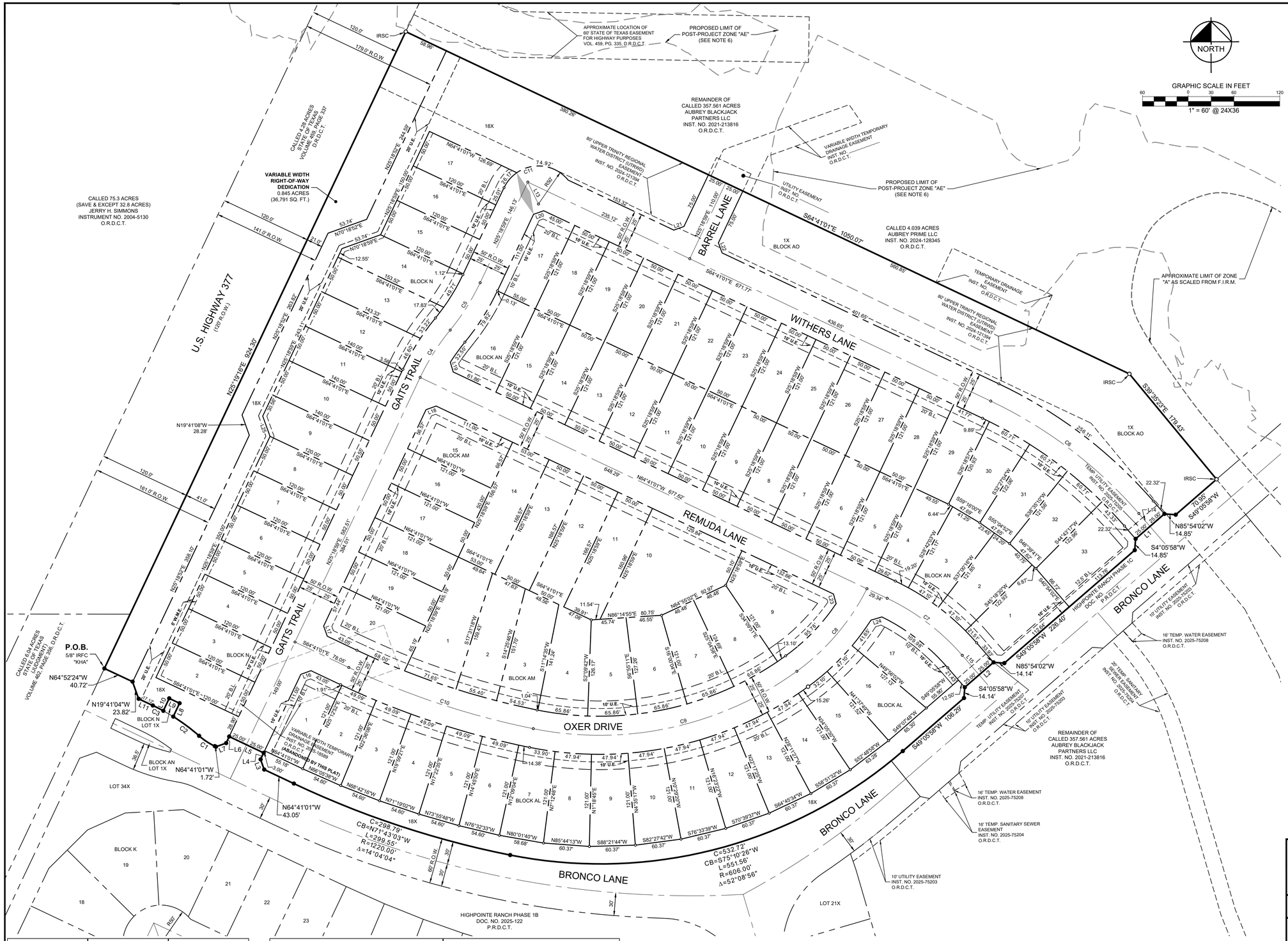
Residential Type				Phase 1 A West	Phase 1 B West	Phase 1 C West	Phase 2 West	Phase 3 West	Phase 4 West	Phase 5 West	Phase 1 East	Phase 2 East	Phase 3 East	Total Lots
	Cottage	30'x80'	40'x115'	106	-	-			-	-		-		106
	Cottage	30'x75'	40'x115'		-	-	149	21	-	-	98	-	73	341
	Cottage	40'x75'	50'x120'	-	-	-	-	-	-	-	91	-	-	91
	Watermill	40'x80'	50'x120'	119	-				-	-				119
	Watermill	40'x75'	50'x120'		-	13	57	119	-	-	3	22	44	258
	Watermill	45'x75'	55'x130'	-	-	-	-	5	-	-	-	-	-	5
	Watermill	50'x75'	60'x130'	-	-	-	-	-	-	-	-	92	-	92
	Classic	40'x75'	50'x120'	-	-	-	13	-	86	-	-	-	-	99
	Classic	45'x75'	55'x130'	-	182		-	-	-	28	-	-	-	210
	Classic	50'x75'	65'x130'	-	2		-	-	66	43	-	-	-	111
	Classic	60'x75'	75'x130'	-	-	-	-	-	20	-	-	-	-	20
Total Lots				**225**	**184**	**13**	**219**	**145**	**172**	**71**	**192**	**114**	**117**	**1452**

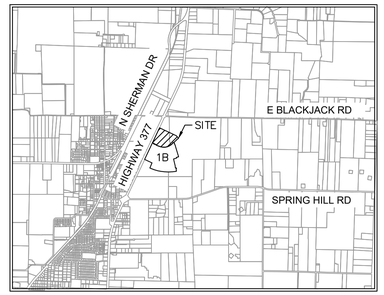
GRAPHIC SCALE IN FEET
0 150 300 600
1"=300' @ 22x34

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 20240617.DWG
LAST SAVED 6/18/2024 1:11 PM





VICINITY MAP
SCALE: 1" = 4,000'

LAND USE TABLE :

LAND USE	ACREAGE	LOTS
RESIDENTIAL	13.436	86 LOTS
HOA/OPEN SPACE	1.409	N-18X
HOA/OPEN SPACE	.529	AL-18X
HOA/OPEN SPACE	1.427	AO-1X
STREET R.O.W.	3.969	-
U.S. 377 R.O.W	0.845	-
TOTAL	21.615	89 LOTS

LEGEND

D.R.D.C.T.	DEED RECORDS DENTON COUNTY, TEXAS
O.R.D.C.T.	OFFICIAL RECORDS DENTON COUNTY, TEXAS
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
IRSC	CAPPED IRON ROD w/ "KHA" CAP SET
●	RED CAPPED IRON ROD FOUND W/ "KHA"
HOA	HOMEOWNER'S ASSOCIATION
B.L.	BUILDING LINE
U.E.	UTILITY EASEMENT
S.S.E.	SANITARY SEWER EASEMENT
W.M.E.	WALL MAINTENANCE EASEMENT

LINE TYPE LEGEND

———	BOUNDARY LINE
— — —	EASEMENT LINE
———	PHASE LINE
— — —	BUILDING LINE

LINE TABLE			LINE TABLE			LINE TABLE		
NO.	BEARING	LENGTH	NO.	BEARING	LENGTH	NO.	BEARING	LENGTH
L1	S49°05'58"W	50.00'	L9	N64°41'01"W	15.00'	L18	S70°18'59"W	14.14'
L2	S49°05'58"W	50.00'	L10	S25°18'59"W	18.11'	L19	S16°33'24"E	13.35'
L3	N19°41'01"W	14.14'	L11	N64°41'01"W	20.62'	L20	S70°18'59"W	14.14'
L4	N25°18'59"E	9.50'	L13	S26°01'26"E	32.02'	L21	N70°18'59"E	14.14'
L5	N64°41'01"W	50.00'	L14	S40°54'02"E	22.32'	L22	S19°41'01"E	14.14'
L6	S25°18'59"W	9.50'	L15	N40°54'02"W	33.93'	L23	N15°49'40"W	13.16'
L7	S70°18'59"W	14.14'	L16	S70°18'59"W	14.14'	L24	S73°40'12"W	14.90'
L8	N25°18'59"E	19.43'	L17	S19°41'01"E	14.14'	L25	N19°41'01"W	28.28'

CURVE TABLE					CURVE TABLE				
NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD	NO.	DELTA	RADIUS	LENGTH	CHORD BEARING	CHORD
C1	15°57'55"	88.50'	24.66'	N56°42'04"W	24.58'	C9	47°21'23"	440.50'	364.08'	N77°42'28"E	353.81'
C2	9°17'04"	261.50'	42.37'	N53°21'38"W	42.33'	C10	13°55'49"	1051.50'	255.65'	S71°38'56"E	255.02'
C3	3°22'52"	261.50'	15.43'	N62°59'35"W	15.43'	C11	115°50'31"	50.00'	101.09'	S83°14'14"W	84.73'
C4	14°04'16"	300.00'	73.68'	S32°21'07"W	73.49'						
C5	14°04'16"	300.00'	73.68'	N32°21'07"E	73.49'						
C6	23°47'00"	592.00'	245.74'	N52°47'31"W	243.98'						
C7	23°47'00"	300.00'	124.53'	N52°47'31"W	123.64'						
C8	27°23'03"	300.00'	143.38'	N40°20'15"E	142.02'						

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'	GGL	KHA	Aug. 2025	063451861	1 OF 2

FINAL PLAT

HIGHPOINTE RANCH PHASE 4A

21.615 ACRES

BLOCK N, LOTS 2-17 & 18X-HOA; BLOCK AL, LOTS 1-17 & 18X-HOA; BLOCK AM, LOTS 1-20; BLOCK AN, LOTS 1-33; BLOCK AO, LOT 1X-HOA

86 RESIDENTIAL LOTS
3 HOMEOWNER'S ASSOCIATION (HOA) LOTS

F. TREVINO SURVEY, ABSTRACT NO. 1243
CITY OF AUBREY, DENTON COUNTY, TEXAS

OWNER:
Aubrey Blackjack Partners, LLC
4514 Cole Avenue,
Suite 1850
Dallas, Texas 75205
Phone: 214-674-9570
Contact: Chad Vose

APPLICANT:
Kimley-Horn and Associates, Inc.
6160 Warren Pkwy., Suite 210
Frisco, Texas 75034
Phone: 972-335-3580
Contact : Thomas L. Fletcher, P.E.

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.

8/28/2025 4:42 PM
DWG NAME: K:\FRI_SURVEY\063503747-HIGH POINT RANCH - AUBREY\DWG\063451861 HIGH POINTE RANCH PHASE 4A.DWG PLOTTED BY GUNAWAN, SYLVIANA 8/23/2025 6:12 PM LAST SAVED

OWNER'S CERTIFICATE

STATE OF TEXAS §

COUNTY OF DENTON §

WHEREAS AUBREY BLACKJACK PARTNERS LLC, are the owners of a tract of land situated in the F. Trevino Survey, Abstract No. 1243, Denton County, Texas, and being a portion of a called 357.561 acre tract of land described in a deed to Aubrey Blackjack Partners LLC, as recorded in Instrument No. 2021-213816 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" found for the northwest corner of Highpointe Ranch Phase 1B, an addition to the City of Aubrey, Texas, recorded in Document No. 2025-122, Plat Records, Denton County, Texas, being on the easterly right-of-way line of U.S. Highway 377, a 120 foot wide right-of-way;

THENCE North 25°19'16" East, along the easterly right-of-way line of said U.S. Highway 377, and the westerly line of said 357.561-acre tract, a distance of 924.30 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" set for corner;

THENCE departing said easterly right-of-way line and the westerly line of siad 357.561-acre tract, and crossing said 357.561-acre tract the following courses and distances:

South 64°41'01" East, a distance of 1,050.07 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" set for corner;

South 39°35'23" East, a distance of 179.43 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" set for corner on the northerly line of Highpointe Ranch Phase 1C, an addition to the City of Aubrey, Texas, recorded in Instrument No. _____, said Plat Records;

THENCE along the northerly line of said Phase 1B and said Phase 1C the following courses and distances:

South 49°05'58" West, a distance of 70.95 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 85°54'02" West, a distance of 14.85 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 49°05'58" West, a distance of 50.00 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 04°05'58" West, a distance of 14.85 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 49°05'58" West, a distance of 226.40 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 85°54'02" West, a distance of 14.14 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 49°05'58" West, a distance of 50.00 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 04°05'58" West, a distance of 14.14 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 49°05'58" West, a distance of 106.29 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found at the beginning of a tangent curve to the right with a radius of 606.00 feet, a central angle of 52°08'56", and a chord bearing and distance of South 75°10'26" West, 532.72 feet;

In a westerly direction, with said tangent curve to the right, an arc distance of 551.56 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found at the beginning of a compound curve to the right with a radius of 1,220.00 feet, a central angle of 14°04'04", and a chord bearing and distance of North 71°43'03" West, 298.79 feet;

In a westerly direction, with said compound curve to the right, an arc distance of 299.55 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°41'01" West, a distance of 43.05 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 19°41'01" West, a distance of 14.14 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 25°18'59" East, a distance of 9.50 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°41'01" West, a distance of 50.00 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 25°18'59" West, a distance of 9.50 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 70°18'59" West, a distance of 14.14 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°41'01" West, a distance of 1.72 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found at the beginning of a tangent curve to the right with a radius of 88.50 feet, a central angle of 15°57'55", and a chord bearing and distance of North 56°42'04" West, 24.58 feet;

In a westerly direction, with said tangent curve to the right, an arc distance of 24.66 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found at the beginning of a reverse curve to the left with a radius of 261.50 feet, a central angle of 09°17'04", and a chord bearing and distance of North 53°21'38" West, 42.33 feet;

In a westerly direction, with said reverse curve to the left, an arc distance of 42.37 feet to a point for corner;

North 25°18'59" East, a distance of 19.43 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°41'01" West, a distance of 15.00 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

South 25°18'59" West, a distance of 18.11 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found at the beginning of a non-tangent curve to the left with a radius of 261.50 feet, a central angle of 03°22'52", and a chord bearing and distance of North 62°59'35" West, 15.43 feet;

In a westerly direction, with said non-tangent curve to the left, an arc distance of 15.43 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°41'01" West, a distance of 20.62 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 19°41'04" West, a distance of 23.82 feet to a 5/8-inch iron rod with red plastic cap stamped "KHA" found for corner;

North 64°52'24" West, a distance of 40.72 feet to the **POINT OF BEGINNING** and containing 941,547 square feet or 21.615 acres of land, more or less.

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. Proposed limit of Post Project Zone "AE" is 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.
7. Construction not completed within two years of approval subject to current County Subdivision Rules and Regulations.
8. 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.
9. 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.
10. 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.
11. Water service to be provided by the City of Aubrey.
12. 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

13. Sanitary Sewer to be provided by the City of Aubrey.
14. 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.
15. All utilities and drainage structures are located in the right-of-way except as shown.
16. Block N, Lot 18X, Block AL, Lot 18X and Block AO, Lot 1X shall be owned and maintained by the Home Owners Association. Block N, Lot 18X is to be used for landscaping and drainage purposes. Block AL, Lot 18X and Block AO, Lot 1X are to be used for landscaping and signage purposes and shall not be used otherwise or for other structures.
17. 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.

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK AL LOT 1	0.152	6,614
BLOCK AL LOT 2	0.144	6,262
BLOCK AL LOT 3	0.144	6,262
BLOCK AL LOT 4	0.144	6,262
BLOCK AL LOT 5	0.144	6,262
BLOCK AL LOT 6	0.144	6,262
BLOCK AL LOT 7	0.148	6,446
BLOCK AL LOT 8	0.150	6,523
BLOCK AL LOT 9	0.150	6,523
BLOCK AL LOT 10	0.150	6,523
BLOCK AL LOT 11	0.150	6,523
BLOCK AL LOT 12	0.150	6,523
BLOCK AL LOT 13	0.150	6,523
BLOCK AL LOT 14	0.150	6,523
BLOCK AL LOT 15	0.153	6,666
BLOCK AL LOT 16	0.159	6,924
BLOCK AL LOT 17	0.180	7,823
BLOCK AL LOT 18X	0.529	23,027
BLOCK AM LOT 1	0.226	9,837
BLOCK AM LOT 2	0.183	7,975
BLOCK AM LOT 3	0.173	7,553
BLOCK AM LOT 4	0.170	7,419
BLOCK AM LOT 5	0.163	7,100
BLOCK AM LOT 6	0.160	6,983
BLOCK AM LOT 7	0.159	6,923

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK AM LOT 8	0.159	6,923
BLOCK AM LOT 9	0.253	11,017
BLOCK AM LOT 10	0.346	15,068
BLOCK AM LOT 11	0.191	8,300
BLOCK AM LOT 12	0.191	8,328
BLOCK AM LOT 13	0.191	8,328
BLOCK AM LOT 14	0.203	8,828
BLOCK AM LOT 15	0.184	8,005
BLOCK AM LOT 16	0.139	6,050
BLOCK AM LOT 17	0.139	6,050
BLOCK AM LOT 18	0.139	6,050
BLOCK AM LOT 19	0.139	6,050
BLOCK AM LOT 20	0.185	8,060
BLOCK AN LOT 1	0.195	8,481
BLOCK AN LOT 2	0.158	6,872
BLOCK AN LOT 3	0.156	6,778
BLOCK AN LOT 4	0.146	6,344
BLOCK AN LOT 5	0.139	6,050
BLOCK AN LOT 6	0.139	6,050
BLOCK AN LOT 7	0.139	6,050
BLOCK AN LOT 8	0.139	6,050
BLOCK AN LOT 9	0.139	6,050
BLOCK AN LOT 10	0.139	6,050
BLOCK AN LOT 11	0.139	6,050
BLOCK AN LOT 12	0.139	6,050

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK AN LOT 13	0.139	6,050
BLOCK AN LOT 14	0.139	6,050
BLOCK AN LOT 15	0.139	6,050
BLOCK AN LOT 16	0.171	7,441
BLOCK AN LOT 17	0.152	6,605
BLOCK AN LOT 18	0.139	6,050
BLOCK AN LOT 19	0.139	6,050
BLOCK AN LOT 20	0.139	6,050
BLOCK AN LOT 21	0.139	6,050
BLOCK AN LOT 22	0.139	6,050
BLOCK AN LOT 23	0.139	6,050
BLOCK AN LOT 24	0.139	6,050
BLOCK AN LOT 25	0.139	6,050
BLOCK AN LOT 26	0.139	6,050
BLOCK AN LOT 27	0.139	6,050
BLOCK AN LOT 28	0.139	6,050
BLOCK AN LOT 29	0.141	6,123
BLOCK AN LOT 30	0.152	6,606
BLOCK AN LOT 31	0.152	6,621
BLOCK AN LOT 32	0.152	6,643
BLOCK AN LOT 33	0.202	8,802
BLOCK AO LOT 1X	1.427	62,170
BLOCK N LOT 2	0.138	6,000
BLOCK N LOT 3	0.138	6,000
BLOCK N LOT 4	0.138	6,000

LOT TABLE		
LOT NO.	ACRES	SQ. FT.
BLOCK N LOT 5	0.138	6,000
BLOCK N LOT 6	0.138	6,000
BLOCK N LOT 7	0.138	6,000
BLOCK N LOT 8	0.138	6,000
BLOCK N LOT 9	0.158	6,877
BLOCK N LOT 10	0.161	7,000
BLOCK N LOT 11	0.161	7,000
BLOCK N LOT 12	0.162	7,051
BLOCK N LOT 13	0.170	7,408
BLOCK N LOT 14	0.165	7,192
BLOCK N LOT 15	0.138	6,000
BLOCK N LOT 16	0.138	6,000
BLOCK N LOT 17	0.139	6,054
BLOCK N LOT 18X	1.409	61,363
R.O.W.	3.969	172,902
U.S. 377 R.O.W.	0.845	36,791

OWNER'S DEDICATION STATEMENT

STATE OF TEXAS §

COUNTY OF DENTON §

NOW, THEREFORE KNOW ALL MEN BY THESE PRESENTS:

THAT **AUBREY BLACKJACK PARTNERS LLC,** acting herein by and through their duly authorized officers, do hereby adopt this plat designating the hereinabove described property as **HIGHPOINTE RANCH PHASE 4A**, an addition to the City of Aubrey, Texas, and do 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 _____, _____.

BY: **AUBREY BLACKJACK PARTNERS LLC**, a Texas limited liability company

BY: _____

Name: _____

Title: _____

STATE OF TEXAS §

COUNTY OF _____ §

Before me, the undersigned authority, a notary public in an for the State of Texas, on this day personally appeared _____, known to me to be the person whose name is subscribed for the purpose and consideration therein expressed.

Given under my hand and seal this _____ day of _____, _____.

_____
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS

MY COMMISSION EXPIRES:_____

LIEN HOLDER:

MAPLEMARK BANK, a Texas state bank

By: _____

Name: _____

Title: _____

STATE OF _____ §

COUNTY OF _____ §

Before me, the undersigned authority, a notary public in an for the State of _____, on this day personally appeared _____, known to me to be the person whose name is subscribed for the purpose and consideration therein expressed.

Given under my hand and seal this _____ day of _____, 2025.

_____
NOTARY PUBLIC IN AND FOR THE STATE OF _____

MY COMMISSION EXPIRES:_____

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 4A

21.615 ACRES

BLOCK N, LOTS 2-17 & 18X-HOA; BLOCK AL, LOTS 1-17 & 18X-HOA; BLOCK AM, LOTS 1-20; BLOCK AN, LOTS 1-33; BLOCK AO, LOT 1X-HOA

86 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	GGL	KHA	Aug. 2025	063451861	2 OF 2

OWNER:
Aubrey Blackjack Partners, LLC
4514 Cole Avenue,
Suite 1650
Dallas, Texas 75205
Phone: 214-674-9570
Contact: Chad Vose

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\063800747-HIGH POINT RANCH - AUBREY\DWG\063451861 HIGH POINTE RANCH PHASE 4A.DWG PLOTTED BY: GUNAWAN, SYLVIANA 8/23/2025 6:12 PM LAST SAVED: 8/28/2025 4:42 PM

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Hold a public hearing, consider, and act on an Ordinance No. 937-25 amending Exhibit 14A, "Zoning Ordinance," in Chapter 14, "Zoning" of the Code of Ordinances of the City of Aubrey, Texas, and the official Zoning Map of the City as requested in an application for a change of zoning from unzoned land previously located in the City of Aubrey Extraterritorial Jurisdiction to Single-Family Residential 7,500 Square Feet (SF75) on approximately 4.194 acres of land located in the Francisco Trevino Survey, Abstract No. 1243, Tract 18, Denton County, Texas, to allow a Government Use as authorized in the SF75 zoning district. The property is generally located south of Blackjack Road East between FM2931 and US377. DCAD Parcel ID 1074798. (Police Substation Zoning Belmont)

Staff Contact
Helen-Eve Beadle, Planner
heleneve@heplanningdesign.com
469-360-6618

Summary
The City of Aubrey has acquired approximately 4.194 acres of land located along East Blackjack Road, east of State Highway 377 and north of the Belmont subdivision. This parcel was officially annexed into the city limits during the August 28, 2025 City Council Meeting.

The property is proposed to be zoned Single-Family Residential 7,500 Square Feet (SF75). While SF75 is a residential designation, it allows for Government Uses as defined below:

> *Government Use -any structure, building and/or grounds owned by, leased to and/or operated by a state or municipal government entity for the sole purpose of providing public services that the governmental entity is authorized to provide to the public or to engage in, including but not limited to water, sewer and drainage services, and/or to accommodate other public needs of the entity. The definition also includes a building and/or grounds operated by a governmental body for social, recreational, health or welfare purposes, such as a municipal park or public gathering area. This use designation is not intended for and does not include government entities that are classified as special districts formed pursuant to state law or formed by special legislature. (§ 14A-4(48.1)*
>
> The City plans to repurpose the existing structure(s) into a police substation. Any future improvements shall comply with the SF75 zoning standards and the City's Zoning Ordinance.

The subject parcel is bordered by properties within the Extraterritorial Jurisdiction.

Comprehensive Plan
The Comprehensive Plan identifies this property as Estate Neighborhood.

Notifications
Notifications as required by Texas Local Government Code and the City of Aubrey Zoning Ordinance were provided.
At the time of agenda report preparation, no letters in support of or in opposition to the rezoning request had been received.

Recommendations:
Staff recommends the rezoning be approved.

The Planning & Zoning Commission will consider this item at their November 13, 2025 meeting and due to the City Council agenda report deadline of November 12, 2025, the results will be provided to the City Council at the November 20, 2025 meeting.

Action Options
The City Council may:

1. Approve the rezoning application; or
2. Deny the rezoning application.

Attachments

1. Location/Notification Map
2. Boundary Survey
3. Ordinance

Financial Summary

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to approve *(approval, approval with conditions, table or denial)* of the rezoning application.

CITY OF AUBREY

ORDINANCE NUMBER 937-25

AN ORDINANCE OF THE CITY OF AUBREY, TEXAS, AMENDING EXHIBIT 14A, "ZONING ORDINANCE," IN CHAPTER 14, "ZONING" OF THE CODE OF ORDINANCES OF THE CITY OF AUBREY, TEXAS, (THE "ZONING ORDINANCE") AND AMENDING THE OFFICIAL ZONING MAP OF THE CITY TO CHANGE THE ZONING FROM UNZONED TO "SF75" SINGLE-FAMILY RESIDENTIAL DISTRICT AS THE ZONING CLASSIFICATION FOR APPROXIMATELY 4.194 ACRES OF LAND, COMPRISED OF AN APPROXIMATE 4.194 ACRE TRACT (DENTON COUNTY APPRAISAL DISTRICT PID 1074798) GENERALLY LOCATED SOUTH OF BLACKJACK ROAD EAST BETWEEN FM 2931 AND US 377 IN THE CITY OF AUBREY, BEING SITUATED IN THE FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243, TRACT 18, CITY OF AUBREY, DENTON COUNTY, TEXAS, MORE PARTICULARLY DESCRIBED AND DEPICTED IN EXHIBIT "A"; PROVIDING FOR INCORPORATION OF PREMISES; PROVIDING FOR AMENDMENT; AMENDING THE OFFICIAL ZONING MAP; PROVIDING FOR A MAXIMUM PENALTY OF TWO THOUSAND DOLLARS ($2,000.00), FOR EACH OFFENSE AND A SEPARATE OFFENSE SHALL BE DEEMED COMMITTED UPON EACH DAY OR PART OF A DAY DURING ON OR WHICH A VIOLATION OCCURS OR CONTINUES; PROVIDING A CUMULATIVE REPEALER/SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING AN EFFECTIVE DATE; AND PROVIDING FOR THE PUBLICATION OF THE CAPTION HEREOF.

WHEREAS, the City of Aubrey, Texas (hereinafter referred to as "City") is a Home Rule Municipality acting under its Charter adopted by the electorate pursuant to Article XI, Section 5 of the Texas Constitution and Chapter 9 of the Texas Local Government Code; and

WHEREAS, the City Council of the City (the "City Council"), is authorized and empowered by law, in accordance with Chapter 211 of the Texas Local Government Code, to adopt zoning regulations governing the use of land within the City; and

WHEREAS, the City Council adopted Exhibit 14A in Chapter 14 of its Code of Ordinances, the same being the Comprehensive Zoning Ordinance of the City, which governs the use and development of land in the City (the "Zoning Ordinance"); and

WHEREAS, the City is the owner of an approximate 4.194-acre tract of land , generally located south of Blackjack Road East, between FM2931 and US377, formerly located in the Extraterritorial Jurisdiction of the City of Aubrey and all of which is situated in the Francisco Trevino Survey, Abstract No. 1243, Tract 18, legally described and depicted in **Exhibit A**, attached hereto (the "Property"); and

WHEREAS, the City annexed the Property into its corporate limits and City Staff has requested that the Property be zoned to "SF75" Single-Family Residential District for consistency with the Comprehensive Plan and surrounding land uses; and

WHEREAS, the City intends to use the Property for a police substation, and that government use is an authorized use in the SF-75 Single Family District; and

WHEREAS, after public notices were given in compliance with Texas law and public hearings were conducted, and after considering the information submitted at those public hearings and all other relevant information and materials, the Planning and Zoning Commission of the City (the "Planning and Zoning Commission") has recommended to the City Council to approve establishing the zoning classification on the Property and to amend the official zoning map of the City (the "Zoning Map") to reflect the "SF75" Single-Family Residential District; and

WHEREAS, after complying with all legal notices, requirements, and conditions, a public hearing was held before the City Council at which it considered comments from the Public and the recommendation of the Planning and Zoning Commission and, among other things, the character of the land and its suitability for particular uses, and compatibility of the proposed zoning to SF-75 with surrounding uses, the goals and objectives of the Comprehensive Zoning Ordinance and Zoning Map of the City and the Future Land Use Plan, the City Council determined that the proposed amendment to the Zoning Ordinance set forth herein below is consistent with the goals of land development as set forth in the Comprehensive Plan and Zoning Ordinance, and would encourage the most appropriate use of land in the City, and the City Council does hereby find that the requested zoning accomplishes such objectives; and; and

WHEREAS, the City Council finds that zoning the newly annexed Property to SF-75 will allow orderly development of the Property which would serve the best interest of the health, safety, and general welfare of the public; and

NOW, **THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS:**

SECTION 1. INCORPORATION OF PREMISES. It is hereby officially determined that the findings and recitations contained above in the preamble of this Ordinance are true and correct legislative findings of the City Council and are incorporated herein by reference.

SECTION 2. ZONING AMENDMENT. Exhibit 14A, "Zoning Ordinance," of Chapter 14, "Zoning" of the Code of Ordinances of the City of Aubrey, Texas**,** (the "Zoning Ordinance") is hereby amended to rezone an approximate 4.194-acres of land generally located south of Blackjack Road East, between FM 2931 and US 377, situated in the Francisco Trevino Survey, Abstract No. 1243, Tract 18, and more specifically described and depicted in **Exhibit A** attached hereto and incorporated herein (collectively the "Property"), from unzoned land to "SF75" Single-Family Residential District.

SECTION 3. ZONING MAP. The official zoning map of the City of Aubrey is hereby be amended to reflect the change in zoning for the Property from unzoned to "SF75" Single-Family Residential District as described herein.

SECTION 4. COMPLIANCE REQUIRED. The Property shall be used and developed only in the manner and for the purposes provided for in this Ordinance and the Zoning Ordinance of the City, as amended.

SECTION 5. PENALTY. Any person who violates of any provision this Ordinance, upon conviction, shall be deemed guilty of a misdemeanor and shall be fined a sum not to exceed two thousand dollars ($2,000.00) for each offense, and a separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.

SECTION 6. CUMULATIVE REPEALER/SAVINGS. This Ordinance shall be cumulative of all other Ordinances and shall not repeal any of the provisions of such Ordinances except for those instances where there are direct conflicts with the provisions of this Ordinance.

Ordinances or parts thereof in force at the time this Ordinance shall take effect and that are inconsistent with this Ordinance are hereby repealed to the extent that they are inconsistent with this Ordinance. Provided however, that any complaint, action, claim, or lawsuit, which has been initiated or has arisen under or pursuant to such Ordinance on the date of adoption of this Ordinance shall continue to be governed by the provisions of that Ordinance and for that purpose the Ordinance shall remain in full force and effect.

SECTION 7. SEVERABILITY. If any section, subsection, clause, phrase or provision of this Ordinance, or any application thereof to any person or circumstance, shall to any extent be held by a court of competent jurisdiction to be invalid, void or unconstitutional, the remaining sections, subsections, clauses, phrases and provisions of this Ordinance, or any application thereof to any person or circumstance, shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

SECTION 8. PUBLICATION OF THE CAPTION HEREOF AND EFFECTIVE DATE. This Ordinance shall be in full force and effective from and after its passage and upon the posting and/or publication, if required by law, of its caption and the City Secretary is hereby directed to implement such posting and/or publication.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS ON THIS 20TH DAY OF NOVEMBER 2025.

APPROVED:

_____
Chris Rich, Mayor

ATTEST:

_____
Jenny Hicks, City Secretary

APPROVED AS TO FORM:

_____
Patricia A. Adams, City Attorney

EXHIBIT A
PROPERTY LEGAL DESCRIPTION & DEPICTION
AN APPROXIMATE 4.194-ACRES (Denton County Appraisal District Property ID 1074798)

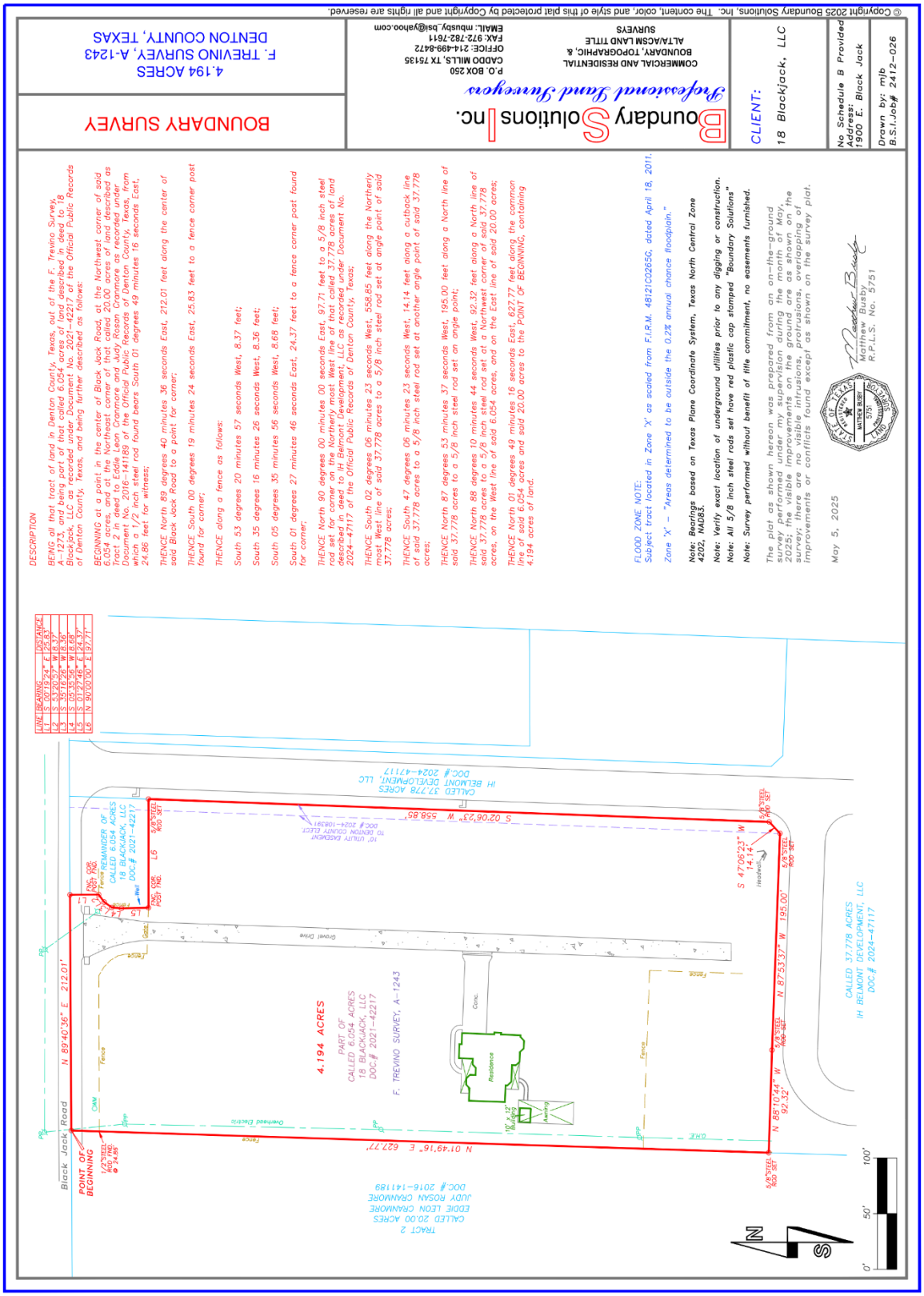


EXHIBIT A
PROPERTY LEGAL DESCRIPTION & DEPICTION
AN APPROXIMATE 4.194-ACRE TRACT (Denton County Appraisal District Property ID 1074798)

DESCRIPTION

BEING all that tract of land in Denton County, Texas, out of the F. Trevino Survey, A–1273, and being part of that called 6.054 acres of land described in deed to 18 Blackjack, LLC as recorded under Document No. 2021–42217 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a point in the center of Black Jack Road, at the Northwest corner of said 6.054 acres, 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 1/2 inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.86 feet for witness;

THENCE North 89 degrees 40 minutes 36 seconds East, 212.01 feet along the center of said Black Jack Road to a point for corner;

THENCE South 00 degrees 19 minutes 24 seconds East, 25.83 feet to a fence corner post found for corner;

THENCE along a fence as follows:

South 53 degrees 20 minutes 57 seconds West, 8.37 feet;

South 35 degrees 16 minutes 26 seconds West, 8.36 feet;

South 05 degrees 35 minutes 56 seconds West, 8.68 feet;

South 01 degrees 27 minutes 46 seconds East, 24.37 feet to a fence corner post found for corner;

THENCE North 90 degrees 00 minutes 00 seconds East, 97.71 feet to a 5/8 inch steel rod set for corner on the Northerly most West line of that called 37.778 acres of land described in deed to IH Belmont Development, LLC as recorded under Document No. 2024–47117 of the Official Public Records of Denton County, Texas;

THENCE South 02 degrees 06 minutes 23 seconds West, 558.85 feet along the Northerly most West line of said 37.778 acres to a 5/8 inch steel rod set at angle point of said 37.778 acres;

THENCE South 47 degrees 06 minutes 23 seconds West, 14.14 feet along a cutback line of said 37.778 acres to a 5/8 inch steel rod set at another angle point of said 37.778 acres;

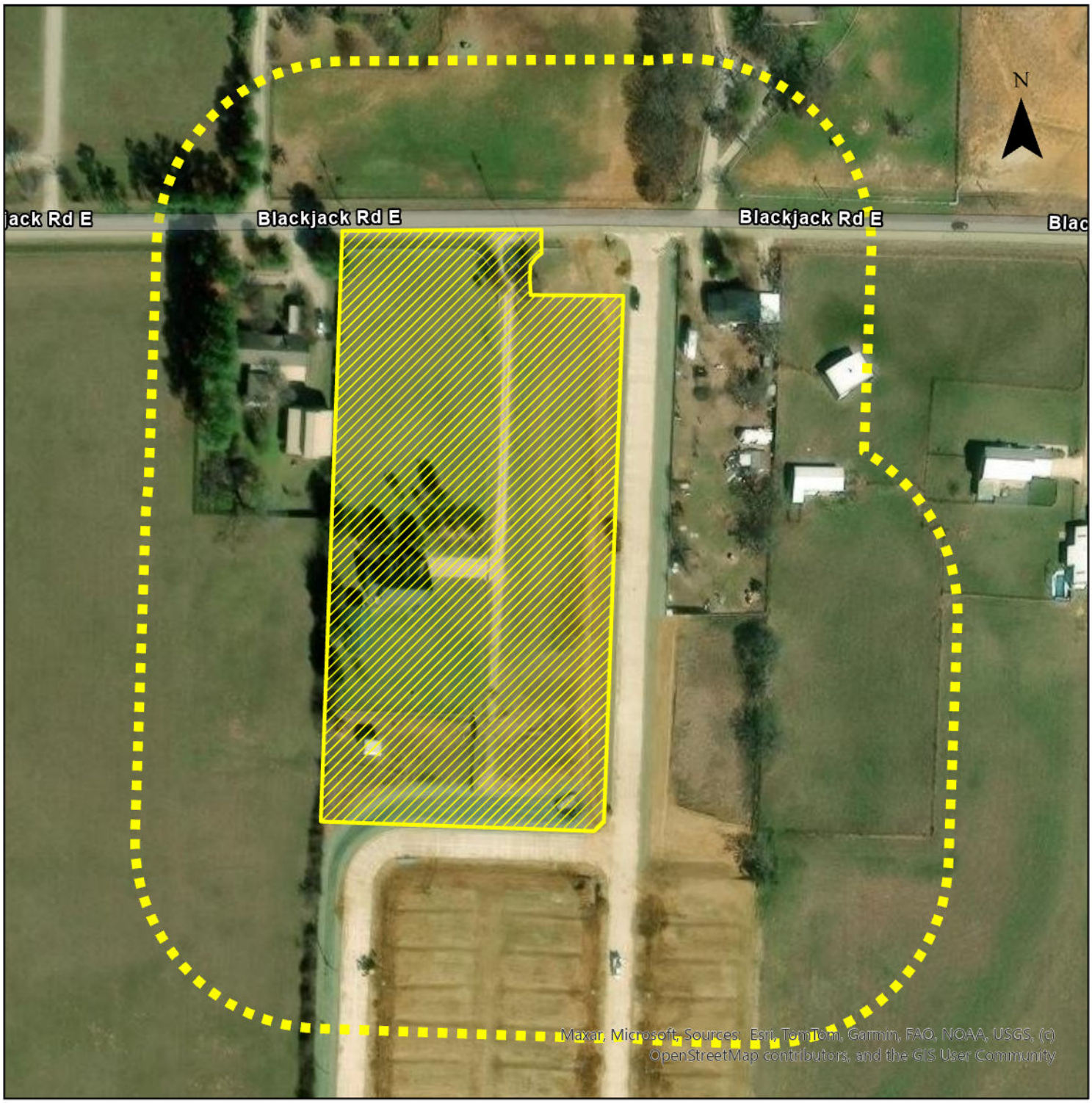
THENCE North 87 degrees 53 minutes 37 seconds West, 195.00 feet along a North line of said 37.778 acres to a 5/8 inch steel rod set an angle point;

THENCE North 88 degrees 10 minutes 44 seconds West, 92.32 feet along a North line of said 37.778 acres to a 5/8 inch steel rod set at a Northwest corner of said 37.778 acres, on the West line of said 6.054 acres, and on the East line of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East, 627.77 feet along the common line of said 6.054 acres and said 20.00 acres to the POINT OF BEGINNING, containing 4.194 acres of land.

200-FOOT NOTIFICATION MAP

1900 E BLACKJACK ROAD, AUBREY, TX 76227



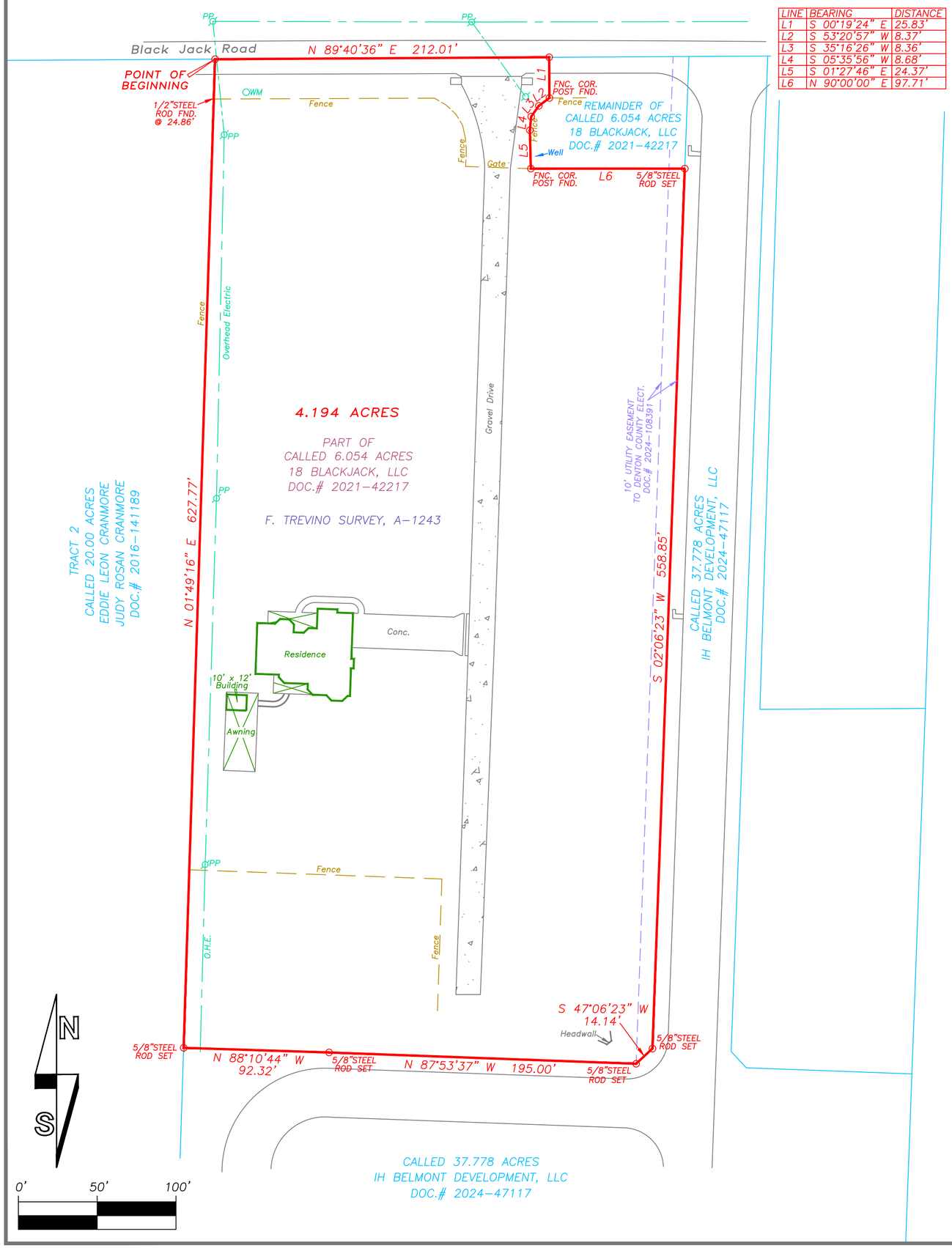
0 125 250 Feet

1' = 100"
1 Inch = 100 Feet

LEGEND

1900 Blackjack Road

200-foot Radius



LINE	BEARING	DISTANCE
L1	S 00°19'24" E	25.83'
L2	S 53°20'57" W	8.37'
L3	S 35°16'26" W	8.36'
L4	S 05°35'56" W	8.68'
L5	S 01°27'46" E	24.37'
L6	N 90°00'00" E	97.71'

DESCRIPTION

BEING all that tract of land in Denton County, Texas, out of the F. Trevino Survey, A-1273, and being part of that called 6.054 acres of land described in deed to 18 Blackjack, LLC as recorded under Document No. 2021-42217 of the Official Public Records of Denton County, Texas, and being further described as follows:

BEGINNING at a point in the center of Black Jack Road, at the Northwest corner of said 6.054 acres, 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 1/2 inch steel rod found bears South 01 degrees 49 minutes 16 seconds East, 24.86 feet for witness;

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THENCE South 00 degrees 19 minutes 24 seconds East, 25.83 feet to a fence corner post found for corner;

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THENCE North 90 degrees 00 minutes 00 seconds East, 97.71 feet to a 5/8 inch steel rod set for corner on the Northerly most West line of that called 37.778 acres of land described in deed to IH Belmont Development, LLC as recorded under Document No. 2024-47117 of the Official Public Records of Denton County, Texas;

THENCE South 02 degrees 06 minutes 23 seconds West, 558.85 feet along the Northerly most West line of said 37.778 acres to a 5/8 inch steel rod set at angle point of said 37.778 acres;

THENCE South 47 degrees 06 minutes 23 seconds West, 14.14 feet along a cutback line of said 37.778 acres to a 5/8 inch steel rod set at another angle point of said 37.778 acres;

THENCE North 87 degrees 53 minutes 37 seconds West, 195.00 feet along a North line of said 37.778 acres to a 5/8 inch steel rod set an angle point;

THENCE North 88 degrees 10 minutes 44 seconds West, 92.32 feet along a North line of said 37.778 acres to a 5/8 inch steel rod set at a Northwest corner of said 37.778 acres, on the West line of said 6.054 acres, and on the East line of said 20.00 acres;

THENCE North 01 degrees 49 minutes 16 seconds East, 627.77 feet along the common line of said 6.054 acres and said 20.00 acres to the POINT OF BEGINNING, containing 4.194 acres of land.

FLOOD ZONE NOTE:
Subject tract located in Zone 'X' as scaled from F.I.R.M. 48121C0265G, dated April 18, 2011.

Zone 'X' – "Areas determined to be outside the 0.2% annual chance floodplain."

Note: Bearings based on Texas Plane Coordinate System, Texas North Central Zone 4202, NAD83.

Note: Verify exact location of underground utilities prior to any digging or 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.

The plat as shown hereon was prepared from an on-the-ground survey performed under my supervision during the month of May, 2025; 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.

May 5, 2025

STATE OF TEXAS REGISTERED MATTHEW BUSBY 5751 PROFESSIONAL LAND SURVEYOR

Matthew Busby
Matthew Busby
R.P.L.S. No. 5751

BOUNDARY SURVEY

4.194 ACRES
F. TREVINO SURVEY, A-1243
DENTON COUNTY, TEXAS

Boundary Solutions Inc.
Professional Land Surveyors
P.O. BOX 250
CADDO MILLS, TX 75135
OFFICE: 214-499-8472
FAX: 972-782-7611
EMAIL: mbusby_bsi@yahoo.com

COMMERCIAL AND RESIDENTIAL
BOUNDARY, TOPOGRAPHIC, &
ALTA/ACSM LAND TITLE
SURVEYS

CLIENT:

18 Blackjack, LLC

No Schedule B Provided
Address:
1900 E. Black Jack

Drawn by: mjb
B.S.I.Job# 2412-026

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City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Hold a public hearing, consider, and act on an Ordinance amending Exhibit 14A, "Zoning Ordinance," in Chapter 14, "Zoning" of the Code of Ordinances of the City of Aubrey, Texas, and the official Zoning Map of the City as requested in an application for a change of zoning from unzoned land previously located in the City of Aubrey Extraterritorial Jurisdiction to Single-Family Residential 7,500 Square Feet (SF75) on approximately 2.0 acres of land located in the James Bridges Junior Survey, Abstract No. 36 and the Silverado Addition, Phase 3, Block W, Lot 18A, Denton County, Texas, to allow a Government Use as authorized in the SF-75 zoning district. The property is generally located at the southwest corner of Frontier Parkway and FM 2931. DCAD Parcel ID 773540. (Silverado Fire Station Zoning)

Staff Contact
Helen-Eve Beadle, Planner
heleneve@heplanningdesign.com
469-360-6618

Summary
The subject property is approximately two (2) acres located at the southwest corner of Frontier Parkway and FM 2931. The City of Aubrey acquired the property in 2020 for a fire station site and annexed it into the City Limits on August 28, 2025. The applicant has submitted an application for the Single-Family Residential 7,500 Square Feet (SF75) zoning district which allows for Government Uses as outlined below:

> *Government Use -any structure, building and/or grounds owned by, leased to and/or operated by a state or municipal government entity for the sole purpose of providing public services that the governmental entity is authorized to provide to the public or to engage in, including but not limited to water, sewer and drainage services, and/or to accommodate other public needs of the entity. The definition also includes a building and/or grounds operated by a governmental body for social, recreational, health or welfare purposes, such as a municipal park or public gathering area. This use designation is not intended for and does not include government entities that are classified as special districts formed pursuant to state law or formed by special legislature. (§ 14A-4(48.1))*

The subject parcel is bordered by properties within the Extraterritorial Jurisdiction and the Town of Providence Village.

Comprehensive Plan
The Comprehensive Plan identifies this property as Neighborhood Commercial.

Notifications
Notifications as required by Texas Local Government Code and the City of Aubrey Zoning Ordinance were provided.
At the time of agenda report preparation, no letters in support of or in opposition to the rezoning request had been received.

Recommendations:
Staff recommends the rezoning be approved.

The Planning & Zoning Commission will consider this item at their November 13, 2025 meeting and due to the City Council agenda report deadline of November 12, 2025, the results will be provided to the City Council at

the November 20, 2025 meeting.

Action Options
The City Council may:

1. Approve the rezoning application; or
2. Deny the rezoning application.

Attachments

1. Location/Notification Map
2. Silverado Ph 3 Plat (Fire Station Lot Blk. W, Lot 18A)
3. Ordinance

Financial Summary

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to *(approval, approval with conditions, table or denial)* of the rezoning application.

CITY OF AUBREY

ORDINANCE NUMBER XXX-25

AN ORDINANCE OF THE CITY OF AUBREY, TEXAS, AMENDING EXHIBIT 14A, "ZONING ORDINANCE," IN CHAPTER 14, "ZONING" OF THE CODE OF ORDINANCES OF THE CITY OF AUBREY, TEXAS, (THE "ZONING ORDINANCE") AND AMENDING THE OFFICIAL ZONING MAP OF THE CITY TO CHANGE THE ZONING FROM UNZONED LAND PREVIOUSLY LOCATED IN THE CITY OF AUBREY EXTRATERRITORIAL JURISDICTION TO "SF75" SINGLE-FAMILY RESIDENTIAL DISTRICT AS THE ZONING CLASSIFICATION FOR APPROXIMATELY 2.0 ACRES OF LAND (DENTON COUNTY APPRAISAL DISTRICT PID 773540), GENERALLY LOCATED AT THE SOUTHWEST CORNER OF FRONTIER PARKWAY AND FM 2931, BEING SITUATED IN THE JAMES BRIDGES JUNIOR SURVEY, ABSTRACT NO. 36, IN THE CITY OF AUBREY, DENTON COUNTY, TEXAS, MORE PARTICULARLY DESCRIBED AS SILVERADO ADDITION PHASE 3, BLOCK W, LOT 18A, AND DEPICTED IN EXHIBIT "A"; PROVIDING FOR INCORPORATION OF PREMISES; PROVIDING FOR AMENDMENT; AMENDING THE OFFICIAL ZONING MAP; PROVIDING FOR A MAXIMUM PENALTY OF TWO THOUSAND DOLLARS ($2,000.00), FOR EACH OFFENSE AND A SEPARATE OFFENSE SHALL BE DEEMED COMMITTED UPON EACH DAY OR PART OF A DAY DURING ON OR WHICH A VIOLATION OCCURS OR CONTINUES; PROVIDING A CUMULATIVE REPEALER/SAVINGS CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING AN EFFECTIVE DATE; AND PROVIDING FOR THE PUBLICATION OF THE CAPTION HEREOF.

WHEREAS, the City of Aubrey, Texas (hereinafter referred to as "City") is a Home Rule Municipality acting under its Charter adopted by the electorate pursuant to Article XI, Section 5 of the Texas Constitution and Chapter 9 of the Texas Local Government Code; and

WHEREAS, the City Council of the City (the "City Council"), is authorized and empowered by law, in accordance with Chapter 211 of the Texas Local Government Code, to adopt zoning regulations governing the use of land within the City; and

WHEREAS, the City Council adopted Exhibit 14A in Chapter 14 of its Code of Ordinances, the same being the Comprehensive Zoning Ordinance of the City, which governs the use and development of land in the City (the "Zoning Ordinance"); and

WHEREAS, the City is the of an approximate total of 2.0-acre tract of land, generally located at the southwest corner of Frontier Parkway and FM 2931,formally located in the Extraterritorial Jurisdiction of the City of Aubrey and all of which is situated in the James Bridges Junior Survey, Abstract No. 36, legally described as Silverado Addition Phase 3, Block W, Lot 18A, and depicted in **Exhibit A**, attached hereto (the "Property"); and

WHEREAS, the City intends to use the Property for a fire station and that government use is an authorized use in the SF-75 Single Family District; and

WHEREAS, after public notices were given in compliance with Texas law and public hearings were conducted, and after considering the information submitted at those public hearings and all other relevant information and materials, the Planning and Zoning Commission of the City (the "Planning and Zoning Commission") has recommended to the City Council to

approve establishing the zoning classification on the Property and to amend the official zoning map of the City (the "Zoning Map") to reflect the "SF75" Single-Family Residential District; and

WHEREAS, after complying with all legal notices, requirements, and conditions, a public hearing was held before the City Council at which it considered comments from the Public and the recommendation of the Planning and Zoning Commission and, among other things, the character of the land and its suitability for particular uses, and compatibility of the proposed rezoning to SF75 Single-Family Residential 7,500 Square Feet with surrounding uses, the goals and objectives of the Comprehensive Zoning Ordinance and Zoning Map of the City and the Future Land Use Plan, the City Council determined that the proposed amendment to the Zoning Ordinance set forth herein below is consistent with the goals of land development as set forth in the Comprehensive Plan and Zoning Ordinance, and would encourage the most appropriate use of land in the City, and the City Council does hereby find that the requested zoning accomplishes such objectives; and; and

WHEREAS, the City Council finds that zoning the newly annexed Property to SF75 will allow orderly development of the Property which would serve the best interest of the health, safety, and general welfare of the public; and

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS:

SECTION 1. INCORPORATION OF PREMISES. It is hereby officially determined that the findings and recitations contained above in the preamble of this Ordinance are true and correct legislative findings of the City Council and are incorporated herein by reference.

SECTION 2. ZONING AMENDMENT. Exhibit 14A, "Zoning Ordinance," of Chapter 14, "Zoning" of the Code of Ordinances of the City of Aubrey, Texas**,** (the "Zoning Ordinance") is hereby amended to rezone an approximate 2.0-acres of land generally located at the southwest corner of Frontier Parkway and FM 2931, situated in the James Bridges Junior Survey, Abstract No. 36, legally described as Silverado Addition Phase 3, Block W, Lot 18A, and more specifically described and depicted in **Exhibit A** attached hereto and incorporated herein (collectively the "Property"), from unzoned land to "SF75" Single-Family Residential District.

SECTION 3. ZONING MAP. The official zoning map of the City of Aubrey is hereby be amended to reflect the change in zoning for the Property from unzoned to "SF75" Single-Family Residential District as described herein.

SECTION 4. COMPLIANCE REQUIRED. The Property shall be used and developed only in the manner and for the purposes provided for in this Ordinance and the Zoning Ordinance of the City, as amended.

SECTION 5. PENALTY. Any person who violates of any provision this Ordinance, upon conviction, shall be deemed guilty of a misdemeanor and shall be fined a sum not to exceed two thousand dollars ($2,000.00) for each offense, and a separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.

SECTION 6. CUMULATIVE REPEALER/SAVINGS. This Ordinance shall be cumulative of all other Ordinances and shall not repeal any of the provisions of such Ordinances except for those instances where there are direct conflicts with the provisions of this Ordinance. Ordinances or parts thereof in force at the time this Ordinance shall take effect and that are inconsistent with this Ordinance are hereby repealed to the extent that they are inconsistent with this Ordinance. Provided however, that any complaint, action, claim, or lawsuit, which has been

initiated or has arisen under or pursuant to such Ordinance on the date of adoption of this Ordinance shall continue to be governed by the provisions of that Ordinance and for that purpose the Ordinance shall remain in full force and effect.

SECTION 7. SEVERABILITY. If any section, subsection, clause, phrase or provision of this Ordinance, or any application thereof to any person or circumstance, shall to any extent be held by a court of competent jurisdiction to be invalid, void or unconstitutional, the remaining sections, subsections, clauses, phrases and provisions of this Ordinance, or any application thereof to any person or circumstance, shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

SECTION 8. PUBLICATION OF THE CAPTION HEREOF AND EFFECTIVE DATE. This Ordinance shall be in full force and effective from and after its passage and upon the posting and/or publication, if required by law, of its caption and the City Secretary is hereby directed to implement such posting and/or publication.

PASSED AND APPROVED BY THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS ON THIS 20TH DAY OF NOVEMBER 2025.

APPROVED:

_____
Chris Rich, Mayor

ATTEST:

_____
Jenny Hicks, City Secretary

APPROVED AS TO FORM:

_____
Patricia A. Adams, City Attorney

EXHIBIT A
PROPERTY LEGAL DESCRIPTION & DEPICTION
AN APPROXIMATE 2.0-ACRES
Silverado Addition Phase 3, Block W, Lot 18A

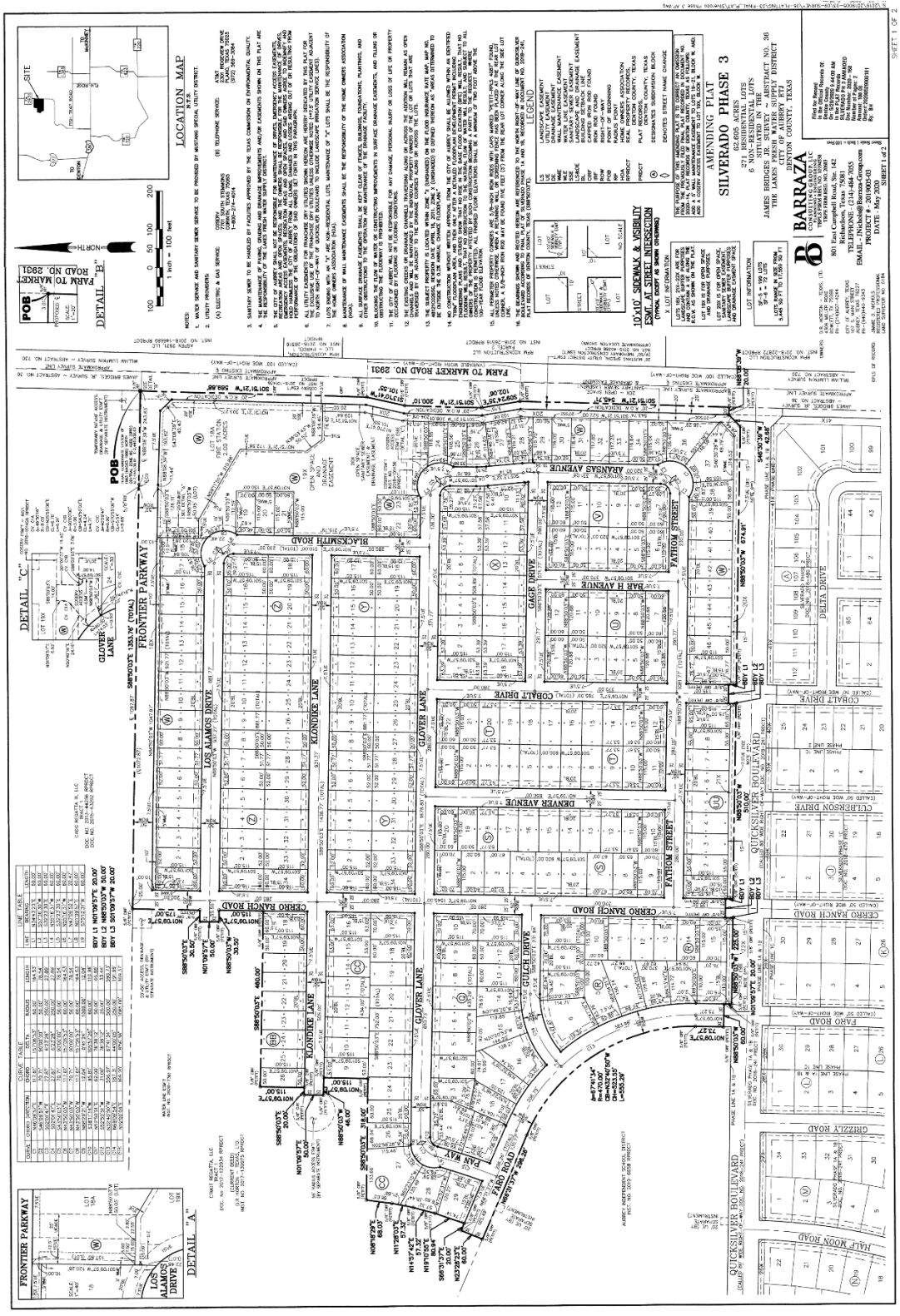
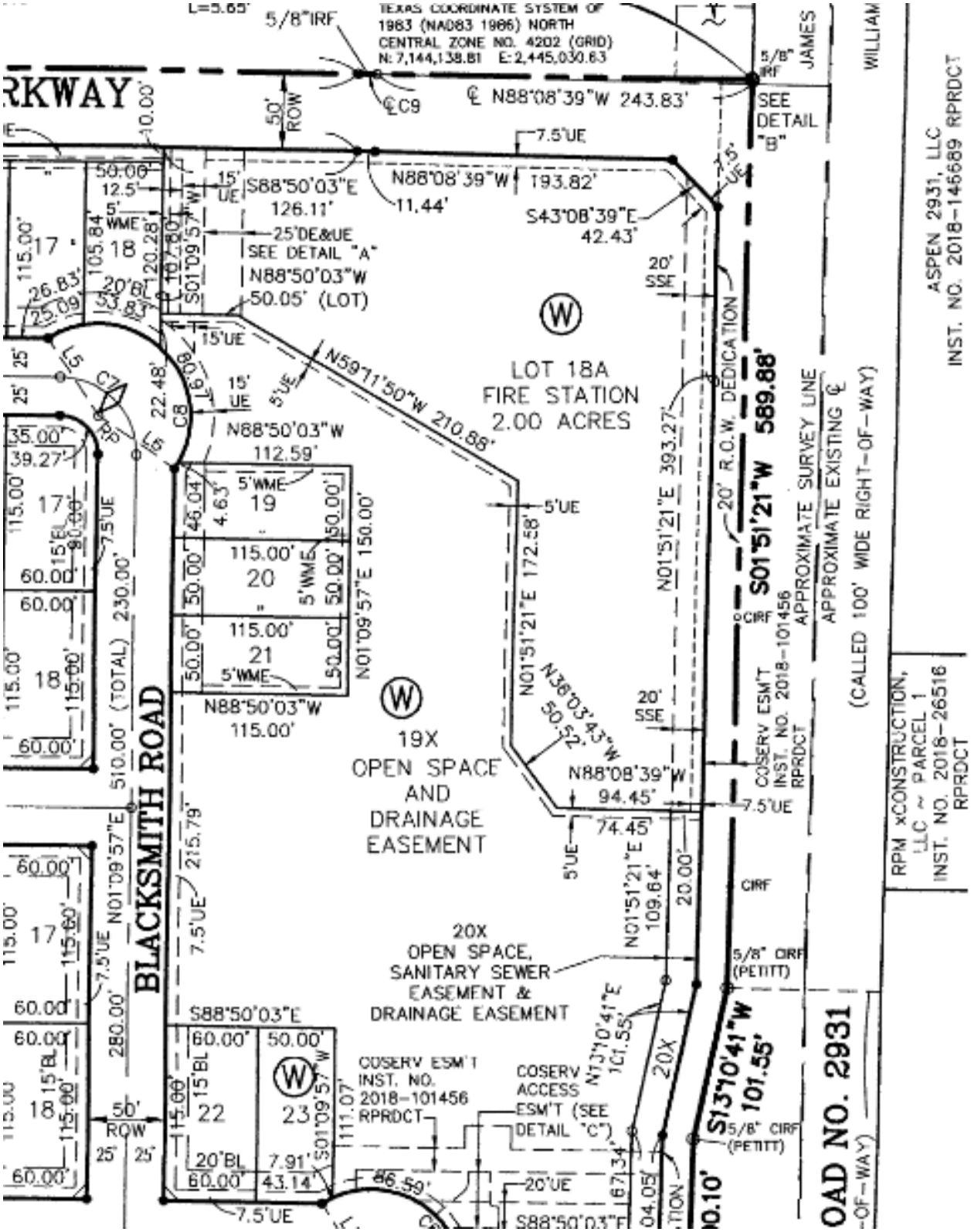
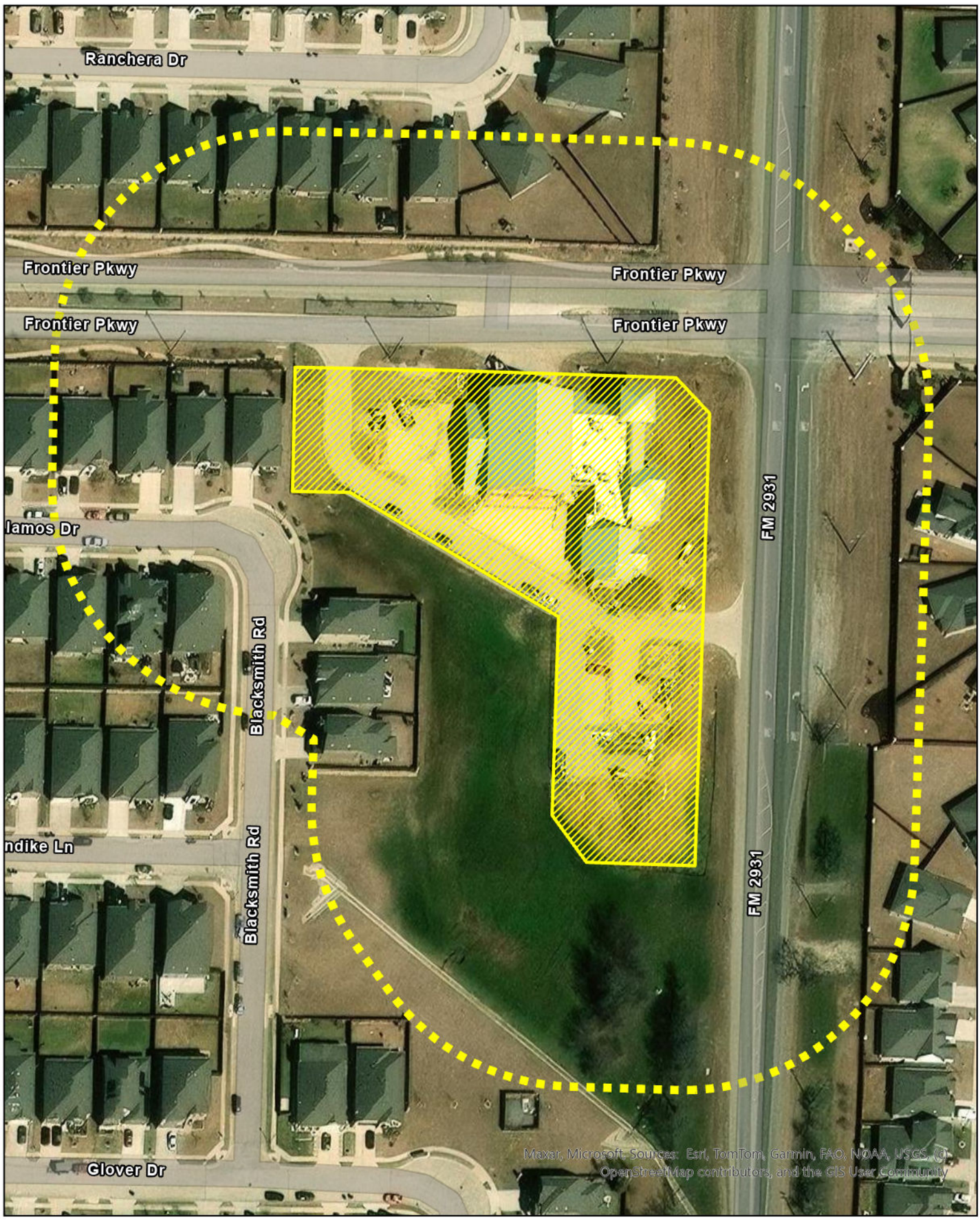


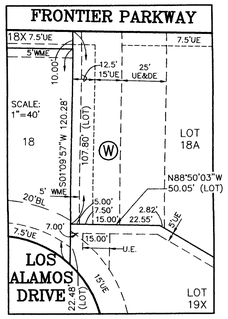
EXHIBIT A
PROPERTY LEGAL DESCRIPTION & DEPICTION
AN APPROXIMATE 2.0-ACRES
Silverado Addition Phase 3, Block W, Lot 18A



200 FOOT PUBLIC HEARING NOTIFICATION MAP

4425 FM 2931, AUBREY, TX 76227



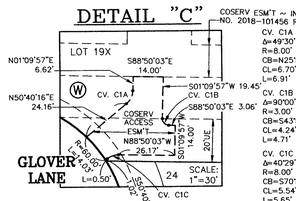


DETAIL "A"

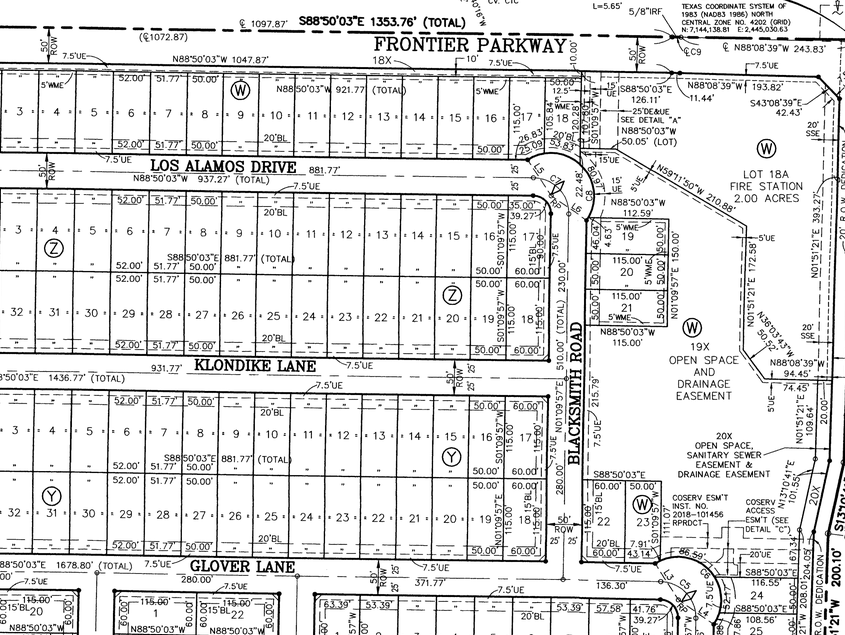
CURVE TABLE					
CURVE	CHORD DIRECTION	CHORD	DELTA	RADIUS	LENGTH
C1	N46°09'57"E	117.61'	157°06'53"	60.00'	164.53'
C2	S46°09'57"W	70.71'	90°00'00"	50.00'	78.54'
C3	S02°01'47"E	27.87'	6°23'28"	250.00'	27.89'
C4	S02°01'47"E	27.87'	6°23'28"	250.00'	27.89'
C5	S43°50'03"E	70.71'	90°00'00"	50.00'	78.54'
C6	N43°50'03"W	117.61'	157°06'53"	60.00'	164.53'
C7	N43°50'03"W	70.71'	90°00'00"	50.00'	78.54'
C8	N43°50'03"W	117.61'	157°06'53"	60.00'	164.53'
C9	N88°29'21"W	12.04'	0°41'24"	1000.00'	12.04'
C10	S38°11'14"W	95.81'	105°57'26"	60.00'	110.96'
C11	N52°50'51"E	62.00'	76°38'12"	50.00'	66.88'
C12	S52°50'51"W	31.00'	76°38'12"	25.00'	33.44'
C13	N32°40'50"W	556.97'	67°41'34"	500.00'	590.73'
C14	N69°09'54"E	187.31'	44°00'05"	250.00'	191.99'
C15	N19°00'04"E	169.20'	8°56'38"	1085.00'	169.37'

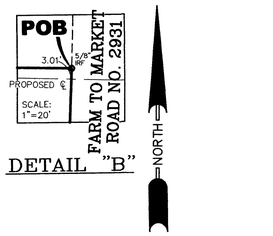
LINE TABLE		
LINE	BEARING	LENGTH
L1	N34°43'23"E	60.00'
L2	S57°36'30"W	60.00'
L3	S32°23'30"E	60.00'
L4	N55°16'37"W	60.00'
L5	S32°23'30"E	60.00'
L6	N55°16'37"W	60.00'
L7	N47°09'52"E	20.47'
L8	N01°09'57"E	60.00'
L9	S75°12'31"W	60.00'

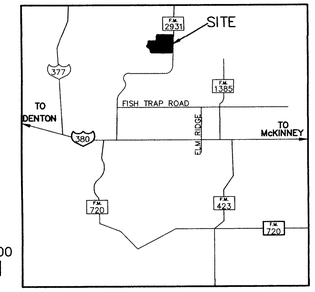
BDY L1 N01°09'57"E 20.00'
BDY L2 N88°50'03"W 50.00'
BDY L3 S01°09'57"W 20.00'



CADG REGATTA III, LLC
TRACT 1
DOC. NO. 2013-44256 RPRDCT
DOC. NO. 2015-63292 RPRDCT







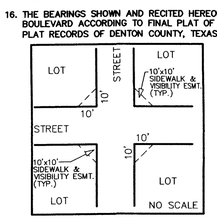
LOCATION MAP
N.T.S.

NOTES:

1. WATER SERVICE AND SANITARY SEWER SERVICE TO BE PROVIDED BY MUSTANG SPECIAL UTILITY DISTRICT.
2. UTILITY PROVIDERS:
   (A) ELECTRIC & GAS SERVICE: COSERV, 7701 SOUTH STEMMONS, CORINTH, TEXAS 75065, 1-800-274-4014
   (B) TELEPHONE SERVICE: AT&T, 2301 RIDGEVIEW DRIVE, PLANO, TEXAS 75025, (972) 569-3084
3. SANITARY SEWER TO BE HANDLED BY FACILITIES APPROVED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY.
4. THE MAINTENANCE OF PAVING, GRADING AND DRAINAGE IMPROVEMENTS AND/OR EASEMENTS SHOWN ON THIS PLAT ARE THE RESPONSIBILITY OF THE LAKES FRESH WATER SUPPLY DISTRICT.
5. THE CITY OF AUBREY SHALL NOT BE RESPONSIBLE FOR MAINTENANCE OF DRIVES, EMERGENCY ACCESS EASEMENTS, RECREATION AREAS AND OPEN SPACES; AND THE OWNERS SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF DRIVES, EMERGENCY ACCESS EASEMENTS, RECREATION AREAS AND OPEN SPACES, AND SAID OWNERS AGREE TO INDEMNIFY AND HOLD HARMLESS THE CITY OF AUBREY FROM ALL CLAIMS, DAMAGES AND LOSSES ARISING OUT OF OR RESULTING FROM PERFORMANCE OF THE OBLIGATIONS OF SAID OWNERS SET FORTH IN THIS PARAGRAPH.
6. ALL UTILITY EASEMENTS FOR FRANCHISE DRY UTILITIES SHOWN HEREON ARE HEREBY DEDICATED BY THIS PLAT FOR THE EXCLUSIVE USE OF THE FRANCHISE DRY UTILITIES UNLESS OTHERWISE NOTED (**7.5' UTILITY EASEMENT ADJACENT TO NORTH RIGHT-OF-WAY OF QUICKSILVER BOULEVARD TO INCLUDE LANDSCAPE IRRIGATION SERVICE LINES).
7. LOTS ENDING WITH AN "X" ARE NON-RESIDENTIAL LOTS. MAINTENANCE OF "X" LOTS SHALL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION (HOA).
8. MAINTENANCE OF WALL MAINTENANCE EASEMENTS SHALL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION (HOA).
9. 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.
10. BLOCKING THE FLOW OF WATER OR CONSTRUCTING IMPROVEMENTS IN SURFACE DRAINAGE EASEMENTS, AND FILLING OR OBSTRUCTING THE FLOODWAY IS PROHIBITED.
11. 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.
12. 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.
13. THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE "X (UNSHADED) ON THE FLOOD INSURANCE RATE MAP, MAP NO. 48121C0265G, REVISION DATE APRIL 18, 2011. ZONE X (UNSHADED) IS DEFINED THEREON AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN."
14. 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 PROJECT. WHERE CONSTRUCTION IS PERMITTED, ALL FINISHED FLOOR ELEVATIONS SHALL BE A MINIMUM OF TWO FOOT ABOVE THE 100-YEAR FLOOD ELEVATION.
15. ALL PERIMETER PROPERTY CORNERS ARE 5/8-INCH IRON RODS WITH CAPS MARKED "PETITT-RPLS 4087" FOUND, UNLESS NOTED OTHERWISE. WHEN A RETAINING WALL OR SCREENING FENCE HAS BEEN PLACED AT THE REAR LOT CORNER, A 5/8-INCH IRON ROD MAY BE FOUND FIVE FEET (5') FROM THE REAR LOT CORNER ALONG THE SIDE LOT LINE.
16. THE BEARINGS SHOWN AND RECITED HEREON ARE REFERENCED TO THE NORTH RIGHT-OF-WAY LINE OF QUICKSILVER BOULEVARD ACCORDING TO FINAL PLAT OF SILVERADO PHASE 1A AND 1B, RECORDED IN DOCUMENT NO. 2018-241, PLAT RECORDS OF DENTON COUNTY, TEXAS (S88°50'03"E).

LEGEND

LS	LANDSCAPE EASEMENT
UE	UTILITY EASEMENT
DE	DRAINAGE EASEMENT
WME	WALL MAINTENANCE EASEMENT
WLE	WATER LINE EASEMENT
SSE	SANITARY SEWER EASEMENT
LS&DE	LANDSCAPE AND DRAINAGE EASEMENT
BL	BUILDING SETBACK LINE
CIRF	CAPPED IRON ROD FOUND
IRF	IRON ROD FOUND
ROW	RIGHT-OF-WAY
POB	POINT OF BEGINNING
RP	RADIUS POINT
HOA	HOME OWNERS ASSOCIATION
RPRDCT	REAL PROPERTY RECORDS, DENTON COUNTY, TEXAS
PRDCT	PLAT RECORDS, DENTON COUNTY, TEXAS
Ⓐ	DESIGNATES SUBDIVISION BLOCK
◊	DENOTES STREET NAME CHANGE



10'x10' SIDEWALK & VISIBILITY ESMT. AT STREET INTERSECTION
(TYPICAL EXCEPT AS SHOWN OTHERWISE)

X LOT INFORMATION

LOTS 18X, 21X-22X ARE FOR LANDSCAPE BUFFER PURPOSES AND CONTAIN A UE ALONG THE R.O.W. AS SHOWN ON THE PLAT.

LOT 19X IS FOR OPEN SPACE AND DRAINAGE PURPOSES.

LOT 20X IS FOR OPEN SPACE, SANITARY SEWER EASEMENT, LANDSCAPE BUFFER PURPOSES AND DRAINAGE EASMENT SPACE

LOT INFORMATION

SF-5 = 199 LOTS
SF-6 = 72 LOTS

LOTS RANGE IN SIZE FROM 5,445 SQ FT TO 17,560 SQ FT

THE PURPOSE OF THIS AMENDING PLAT IS TO CORRECT AN OMISSION FROM THE PREVIOUSLY FILED FINAL PLAT RECORDED IN DOCUMENT NO. 2020-14, PLAT RECORDS OF DENTON COUNTY, TEXAS AS FOLLOWS: ADD A 5' WALL MAINTENANCE EASEMENT TO LOTS 19-21, BLOCK W, AND; ADD A COSERV ACCESS EASEMENT TO LOT 19X, BLOCK W.

AMENDING PLAT

SILVERADO PHASE 3

62.605 ACRES
271 RESIDENTIAL LOTS
6 NON-RESIDENTIAL LOTS
SITUATED IN THE
JAMES BRIDGES JR. SURVEY ~ ABSTRACT NO. 36
THE LAKES FRESH WATER SUPPLY DISTRICT
CITY OF AUBREY ETJ
DENTON COUNTY, TEXAS

BARRAZA
CONSULTING GROUP, LLC
PLANNING • ENGINEERING
TBPLS FIRM REG. NO. 10194538
TBPE FIRM REG. NO. 20683
801 East Campbell Road, Ste. 142
Richardson, Texas 75081
TELEPHONE - (214)-484-7055
EMAIL - JNichols@Barraza-Group.com

PROJECT # - 2019005-03
DATE - May 2020
SHEET 1 of 2

Filed for Record
in the Official Records Of:
Denton County
On: 5/29/2020 9:44:09 AM
In the PLAT Records
SILVERADO PH 3 AMENDED
Doc Number: 2020 - 168
Number of Pages: 2
Amount: 100.00
Order#:20200529000181
By: BH

Sheet Scale: 1 Inch = 100 Feet

S:\2019\2019005-03\09-SURVEY\06-PLATTING\03-FINAL_PLAT\Silverado Phase 3 AP.dwg
May 27, 2020 - 9:20am

OWNER'S CERTIFICATION

STATE OF TEXAS §

COUNTY OF DENTON §

WHEREAS D.R. Horton – Texas, Ltd.; and the City of Aubrey, Texas are the owners of that certain tract of land situated in the James Bridges, Jr. Survey, Abstract No. 36, in Denton County, Texas, said tract of land being a portion of a called 345.993 acre tract of land described in deed to D.R. Horton – Texas, Ltd. recorded as Instrument No. 2017–139975, Real Property Records, Denton County, Texas, (RPRDCT), all of that certain tract of land described in deed to The City of Aubrey, Texas recorded in Instrument No. 2020–36128, RPRDCT, and being a portion of that certain tract of land described as Tract 1 in deed to CTMGT Regatta II, LLC, recorded in Document No. 2012–122934, RPRDCT, said tract being more particularly described as follows:

BEGINNING at a 5/8–inch iron found on the west right–of–way line of Farm to Market Road Number 2931 (variable width right–of–way), said iron rod also being located at the northeast corner of said Lot 1, of Marriot Estates, an addition to Denton County, Texas according to Final Plat recorded in Cabinet V, Page 91, of the Plat Records of Denton County, Texas (PRDCT), (said Marriot Estates Final Plat vacated according to Vacation of Final Plat recorded in Instrument No. 2019–94603, RPRDCT), said iron rod also being the southeast corner of that certain tract of land described as Tract 1 in deeds to CADG Regatta III, LLC, recorded in Document Number 2013–44256, RPRDCT, and Document No. 2015–63292, RPRDCT;

THENCE South 01°51'21" West, with said west right–of–way line, a distance of 589.88 feet to a 5/8–inch iron rod with cap marked "PETITT RPLS 4087" found for corner;

THENCE with the west right–of–way line of Farm to Market Road Number 2931, the following courses to 5/8–inch iron rods with caps marked "PETITT RPLS 4087" found for corner;

South 13°10'41" West, a distance of 101.55 feet;

South 01°51'21" West, a distance of 200.10 feet;

South 09°24'35" East, a distance of 102.06 feet;

And South 01°51'21" West, a distance of 545.71 feet, said iron rod being located at the easternmost northeast corner of Quicksilver Boulevard (variable width right–of–way at this point) according to the Final Plat of Silverado Phase 1A and 1B, an addition to Denton County, Texas, recorded in Document Number 2018–241, PRDCT;

THENCE with the north right–of–way line of said Quicksilver Boulevard, the following courses to 5/8–inch iron rods with cap marked "PETITT RPLS 4087" found for corner:

North 88°08'39" West, a distance of 20.00 feet;

South 46°30'39" West, a distance of 42.68 feet;

North 88°50'03" West, a distance of 674.91 feet;

North 01°09'57" East, a distance of 20.00 feet;

North 88°50'03" West, a distance of 50.00 feet;

South 01°09'57" West, a distance of 20.00 feet;

North 88°50'03" West, a distance of 510.00 feet;

North 01°09'57" East, a distance of 20.00 feet;

North 88°50'03" West, a distance of 510.00 feet;

North 01°09'57" East, a distance of 20.00 feet;

North 88°50'03" West, a distance of 50.00 feet;

South 01°09'57" West, a distance of 20.00 feet;

North 88°50'03" West, a distance of 225.00 feet;

North 01°09'57" East, a distance of 20.00 feet;

And North 88°50'03" West, a distance of 60.00 feet;

THENCE North 01°09'57" East, leaving said north right–of–way line, and over and across said D.R. Horton – Texas, Ltd. tract, a distance of 73.27 feet to a 5/8–inch iron rod with cap marked "PETITT RPLS 4087" found for corner at the beginning of a tangent curve to the left;

THENCE continuing over and across said D.R. Horton – Texas, Ltd. tract, the following courses to 5/8–inch iron rods with caps marked "PETITT RPLS 4087" found for corner:

Northwesterly with said curve which has a central angle of 67°41'34", a radius of 470.00 feet, a chord that bears North 32°40'50" West, a chord distance of 523.55 feet, and an arc length of 555.29 feet to the end of said curve;

North 66°31'37" West, a distance of 296.26 feet;

North 23°28'23" East, a distance of 60.00 feet;

South 66°31'37" East, a distance of 20.00 feet;

North 19°10'55" East, a distance of 80.94 feet;

North 14°57'42" East, a distance of 57.32 feet;

North 11°28'03" East, a distance of 57.32 feet;

North 08°18'29" East, a distance of 68.03 feet;

South 88°50'03" East, a distance of 318.00 feet;

North 01°09'57" East, a distance of 115.00 feet;

North 88°50'03" West, a distance of 46.00 feet;

North 01°09'57" East, a distance of 50.00 feet;

South 88°50'03" East, a distance of 20.00 feet;

North 01°09'57" East, a distance of 115.00 feet;

South 88°50'03" East, a distance of 460.00 feet;

North 01°09'57" East, a distance of 115.00 feet;

North 88°50'03" West, a distance of 30.50 feet;

North 01°09'57" East, a distance of 50.00 feet;

South 88°50'03" East, a distance of 30.50 feet;

And North 01°09'57" East, a distance of 175.00 feet, said iron rod being located on the common north line of said D.R. Horton – Texas, Ltd. tract, and the south line of said CADG Regatta III, LLC tract recorded in Document Number 2013–44256, RPRDCT, and Document No. 2015–63292, RPRDCT;

THENCE South 88°50'03" East, with said common line, a distance of 1,353.76 feet to the POINT OF BEGINNING of herein described tract, and containing an area of 62.605 acres of land.

OWNER'S DEDICATION

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That, D.R. HORTON – TEXAS, LTD.; and THE CITY OF AUBREY, TEXAS, acting herein by and through their duly authorized officers, do hereby adopt this Amending Plat designating the hereinabove described property as SILVERADO PHASE 3, an addition to Denton County, Texas, and do hereby dedicate to The Lakes Fresh Water Supply District (The District), in fee simple, the streets and public use areas shown hereon, and do hereby dedicate the easements shown hereon for the purposes indicated to the exclusive use forever of The District, said dedications being free and clear of all liens and encumbrances except as shown herein. No buildings, fences, trees, shrubs or other improvements shall be constructed or placed upon, over or across the easements on said plat. At the discretion of The District and subject to it's written approval, utility easements may also be used for the mutual use and accommodation of all public utilities desiring to use the same unless the easement limits the use to a particular utility or utilities, said use by public utilities being subordinate to The District use thereof. Any public utility given the right by The District to use said easements shall have the right to remove and keep removed all or part of any buildings, fences, trees, shrubs or other improvements or growths which in any way endanger or interfere with the construction, maintenance, or efficiency of its respective system on any of these easements. Any public utility shall at all times have the right of ingress and egress to and from and upon any said easements for the purpose of constructing, reconstructing, inspecting, patrolling, maintaining and adding to or removing all or part of its respective system without the necessity at any time procuring the permission of anyone. I do hereby bind myself, my successors and assigns to forever warrant and defend all and singular the above described streets, easements and rights unto The District against every person whomsoever comes lawfully claiming or to claim the same or any part thereof. This property is located within the The City of Aubrey Extra–Territorial Jurisdiction. This plat approval is subject to all the platting ordinances, rules and regulations of City of Aubrey, Denton County, Texas.

WITNESS MY HAND THIS 27th DAY OF May, 2020.

D.R. HORTON – TEXAS, LTD.

BY: _____
DAVID BOOTH
LAND ACQUISITION DEVELOPMENT MANAGER

STATE OF TEXAS §

COUNTY OF DALLAS §

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS, ON THIS DAY PERSONALLY APPEARED DAVID BOOTH, KNOWN TO ME TO BE THE PERSON AND OFFICER 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 OFFICE, THIS 27th DAY OF May, 2020.

_____
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS.

MY COMMISSION EXPIRES: 2/7/21

KAREN WILLIAMS
Notary ID #125155758
My Commission Expires
February 7, 2021

WITNESS MY HAND THIS 28TH DAY OF MAY, 2020.

CITY OF AUBREY, TEXAS
A MUNICIPAL CORPORATION

BY: _____
JANET MEYERS, MAYOR
CITY OF AUBREY, TEXAS

STATE OF TEXAS §

COUNTY OF DALLAS §

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS, ON THIS DAY PERSONALLY APPEARED JANET MEYERS, KNOWN TO ME TO BE THE PERSON AND OFFICER 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 OFFICE, THIS 28TH DAY OF MAY, 2020.

_____
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS.

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

SURVEYOR'S CERTIFICATE

KNOW ALL MEN BY THESE PRESENTS:

THAT I, JIMMIE D. NICHOLS, A REGISTERED PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED AND THE FIELD NOTES MADE A PART HEREOF FROM AN ACTUAL AND ACCURATE SURVEY OF THE LAND AND THAT THE CORNER MONUMENTS SHOWN HEREON WERE FOUND OR PROPERLY PLACED UNDER MY PERSONAL SUPERVISION IN ACCORDANCE WITH THE CITY OF AUBREY SUBDIVISION REGULATIONS.

DATED THIS THE 27TH DAY OF May, 2020.

_____
JIMMIE D. NICHOLS
REGISTERED PROFESSIONAL LAND SURVEYOR NO. 5184

STATE OF TEXAS
REGISTERED
JIMMIE D. NICHOLS
5184
PROFESSIONAL
LAND SURVEYOR

STATE OF TEXAS §

COUNTY OF DALLAS §

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS, ON THIS DAY PERSONALLY APPEARED JIMMIE D. NICHOLS, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS 27th DAY OF May, 2020.

_____
NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS.

MY COMMISSION EXPIRES: 01/09/2022

AMANDA RENEE SMITH
Notary ID # 125153769
My Commission Expires
January 9, 2022

OWNERS: D.R. HORTON – TEXAS, LTD.
4306 MILLER ROAD
ROWLETT, TX 75088
PH–(214)607–4244

CITY OF AUBREY, TEXAS
107 S. MAIN STREET
AUBREY, TEXAS 76227
PH–(940)440–9343

RPLS OF RECORD: JIMMIE D. NICHOLS
REGISTERED PROFESSIONAL
LAND SURVEYOR NO. 5184

DISTRICT APPROVAL

THE LAKES FRESH WATER SUPPLY DISTRICT:

_____ 5-28-20
CHAIRPERSON DATE

APPROVED AND ACCEPTED:

_____
JANET MEYERS, MAYOR
CITY OF AUBREY, TEXAS

THE UNDERSIGNED, THE CITY SECRETARY OF THE CITY OF AUBREY, TEXAS HEREBY CERTIFIES THAT THE FOREGOING AMENDING PLAT OF SILVERADO PHASE 3, AN ADDITION TO DENTON COUNTY, TEXAS, IS HEREBY APPROVED BY THE CITY OF AUBREY THIS 28TH DAY OF MAY, 2020, AND THE CITY OF AUBREY DOES HEREBY ACCEPT SAID AMENDING PLAT, AND THAT THE CITY OF AUBREY FURTHER AUTHORIZED THE MAYOR TO NOTE THE ACCEPTANCE THEREOF BY SIGNING THEIR NAME AS HEREIN ABOVE SUBSCRIBED.

ATTEST THIS 28TH DAY OF MAY, 2020.

_____
JERRY HUCKABEE, CITY SECRETARY
CITY OF AUBREY, TEXAS

CITY OF AUBREY
OFFICIAL SEAL
AUBREY, TEXAS

THE PURPOSE OF THIS AMENDING PLAT IS TO CORRECT AN OMISSION FROM THE PREVIOUSLY FILED FINAL PLAT RECORDED IN DOCUMENT NO. 2020–14, PLAT RECORDS OF DENTON COUNTY, TEXAS AS FOLLOWS:
ADD A 5' WALL MAINTENANCE EASEMENT TO LOTS 19–21, BLOCK W, AND;
ADD A COSERV ACCESS EASEMENT TO LOT 19X, BLOCK W.

AMENDING PLAT
SILVERADO PHASE 3

62.605 ACRES
271 RESIDENTIAL LOTS
6 NON–RESIDENTAL LOTS
SITUATED IN THE
JAMES BRIDGES, JR. SURVEY ~ ABSTRACT NO. 36
THE LAKES FRESH WATER SUPPLY DISTRICT
CITY OF AUBREY ETJ
DENTON COUNTY, TEXAS

BARRAZA
CONSULTING GROUP, LLC
PLANNING • ENGINEERING
TBPLS FIRM REG. NO. 10194538
TBPE FIRM REG. NO. 20683
801 East Campbell Road, Ste. 142
Richardson, Texas 75081
TELEPHONE - (214)-484-7055
EMAIL - JNichols@Barraza-Group.com

PROJECT # - 2019005-03
DATE - May 2020
SHEET 2 OF 2

Filed for Record
in the Official Records Of:
Denton County
On: 5/29/2020 9:44:09 AM
In the PLAT Records
SILVERADO PH 3 AMENDED
Doc Number: 2020–168
Number of Pages: 2
Amount: 100.00
Order#:20200529000181
By: BH

S:\2019\2019005–03\09–SURVEY\06–PLATTING\03–FINAL_PLAT\Silverado Phase 3 AP.dwg
May 27, 2020 – 9:33am

S:\2019\2019005–03\09–SURVEY\06–PLATTING\03–FINAL_PLAT\Silverado Phase 3 AP.dwg, 5/27/2020 9:33:31 AM, HP DesignJet T520 - Black and White (monochrome).ctb

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Conduct a Public Hearing regarding a request from Republic Services of Lewisville for a CPI rate increase for Residential Solid Waste and Recycling Collection Services and Containers and for Commercial Solid Waste Collection Services and Containers; discussion of same.

-Presentation of rate increase request from Republic Service
-Public Comment
-Discussion by Council

Staff Contact
Leanne Wilson, Assistant City Manager
lwilson@aubreytx.gov

Summary
The City of Aubrey has entered an Exclusive Franchise Agreement for the Collection, Hauling, and Disposal of Municipal Solid Waste and Recycling, with Republic Services. In this agreement, Section 9, Rate Adjustment, allows for service rate increases by the Dallas, Fort Worth, Arlington Consumer Price Index — Water, Sewer, Trash annually.

Effective December 1, 2025, Republic is requesting the rolling average CPI of 5.38% increase. The impact on our citizens is summarized below:

	Current Rate	Proposed Rate
Monthly Residential Trash Curbside:	$11.53	$12.15
Monthly Residential Recycle Curbside:	$4.20	$4.43
Bulk	$0.37	$0.39
Household Hazardous Waste:	$0.68	$0.72
Franchise Fee:	$2.52	$2.66
Residential Total:	$19.30	$20.35

	Current Rate	Proposed Rate
Senior Citizen Monthly Trash Curbside:	$10.53	$11.10
Senior Citizen Monthly Recycle Curbside:	$3.69	$3.89
Bulk	$0.37	$0.39
Household Hazardous Waste:	$0.68	$0.72
Franchise Fee:	$2.29	$2.42
Senior Residential Total:	$17.56	$18.52

	Current Rate	Proposed Rate
Extra Cart - Trash	$7.27	$7.66
Extra Cart - Recycle	$5.27	$5.55

The proposed percent increase has been applied to all applicable rates, and a red-line copy of the ordinance is included in the agenda package for review.

Financial Summary

Staff Recommended Action

Staff Recommended Motion

Republic Services of Lewisville
FRANCHISED CITY RATES

AUBREY

COMMERCIAL FRONT-LOAD RATES

PICKUPS PER WEEK

SIZE	*TYPE*	*1 X*	*2 X*	*3 X*	*4 X*	*5 X*	*6 X*	*EXTRA PU*
95 GAL. CART		$31.06	N/A	N/A	N/A	N/A	N/A	N/A
(2) 95 GAL. CARTS		$62.13	N/A	N/A	N/A	N/A	N/A	N/A
2	YD*	$79.00	$157.99	$238.63	$317.86	N/A	N/A	$38.84
3	YD*	$114.33	$220.67	$342.99	$457.20	N/A	N/A	$38.84
4	YD*	$144.44	$270.78	$433.28	$577.32	N/A	N/A	$38.84
6	YD*	$228.66	$347.57	$565.43	$754.13	N/A	N/A	$38.84
8	YD*	$288.88	$539.89	$650.19	$865.58	N/A	N/A	$38.84
*Extra Yardage Fee		$38.84	per yard					
*DELIVERY FEE		$110.96						
*REMOVAL FEE		$110.96						

RECYCLE RATES

SIZE	*TYPE*	*1 X*	*EXTRA PU*
95G cart	EA*	$13.28	N/A
(2) 95G carts	EA*	$26.57	N/A
2	YD*	$122.30	$38.84
3	YD*	$144.53	$38.84
4	YD*	$162.66	$38.84
6	YD*	$193.29	$38.84
8	YD*	$235.39	$38.84

COMMERCIAL ROLLOFF RATES

SIZE		*TYPE*	*DELIVERY / REMOVAL*	*RENTAL / Day*	*HAUL RATE*	*DISPOSAL PER TON*
20	YD	Open	$165.33	$5.83	$349.53	$44.38
30	YD	Open	$165.33	$5.83	$349.53	$44.38
40	YD	Open	$165.33	$5.83	$349.53	$44.38
30	YD	Comp	$150.91	NEGO	$443.84	$44.38
35	YD	Comp	$150.91	NEGO	$443.84	$44.38
40	YD	Comp	$150.91	NEGO	$443.84	$44.38
42	YD	Comp	$150.91	NEGO	$443.84	$44.38
*DRY RUN FEE		$166.44				

CASTERS	**$35.51**	**Per Set of 4**	
4" Legs	**$12.20**	**1X CHARGE**	**(SOLDERED ON DUMPSTERS)**
GATES	**$12.20**	**PER LIFT**	
LOCKS	**$12.20**	**PER LIFT**	

	MONTHLY	QRTLY
RESIDENTIAL CURBSIDE:	**$12.15**	**$36.45**
RECYCLING CURBSIDE:	**$4.43**	**$13.29**
BULK	**$0.39**	**$1.17**
HHW	**$0.72**	**$2.16**
RESIDENTIAL & RECYCLING CURBSIDE TOTAL:	**$17.69**	**$53.07**

	MONTHLY	QRTLY
SR. CITIZEN CURBSIDE TRASH	**$11.10**	**$33.30**
SR. CITIZEN CURBSIDE RECYCLE	**$3.89**	**$11.67**
EXTRA CART - TRASH	**$7.66**	**$22.98**
EXTRA CART - RECYCLE	**$5.55**	**$16.65**

	EA CHARGE
SPECIAL BULK RATE FOR RESIDENT (LESS THAN 100 LBS)	**$122.06**
SPECIAL BULK RATE FOR RESIDENT (100 LBS OR MORE)	**$194.19**

CAMELOT LANDFILL - DROP-OFF - 1X/MONTH FREE DISPOSAL - MUST PROVIDE DL & RESIDENTIAL INVOICE

EFFECTIVE DATE **10/01/25 - 09/30/26** **CITY HALL PHONE #** **940-440-8343**

CPI - W/S/T

CPI- INCREASE - CUUR0000SEHG

Consumer Price Index - Water/Sewer/Trash

	All Items
Aug-25	319.403
Aug-24	303.110
Change	16.293
% Change	5.38%
Cost Factor	100%
Net Increase	**5.38%**

Consumer Price Index for All Urban Consumers (CPI-U)
Original Data Value

Series Id: CUUR0000SEHG
Not Seasonally Adjusted
Series Title: Water and sewer and trash collection services in U.S. city
Area: U.S. city average
Item: Water and sewer and trash collection services
Base Period: DECEMBER 1997=100
Years: 2015 to 2025

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
2015	210.243	211.397	211.738	212.153	212.542	212.863	213.873	215.844	216.173	216.380
2016	218.370	219.036	219.649	220.506	221.360	221.396	221.358	222.554	223.111	223.420
2017	226.411	227.277	227.553	228.133	228.396	228.599	229.008	229.772	230.142	230.614
2018	232.977	233.858	234.215	235.141	235.878	236.493	237.186	238.439	238.512	238.936
2019	241.606	242.011	242.611	243.490	243.774	244.322	244.943	245.549	245.903	246.741
2020	248.846	249.751	250.359	250.673	250.921	251.435	252.401	253.974	254.266	254.781
2021	257.722	258.763	259.204	259.581	259.542	260.400	261.706	262.810	263.747	264.278
2022	268.128	269.521	269.621	270.419	270.844	271.925	273.097	274.984	276.759	276.892
2023	281.461	283.663	284.166	285.052	286.322	287.457	289.005	290.975	291.279	291.683
2024	297.079	298.751	299.183	300.178	299.987	300.652	302.106	303.311	305.117	306.336
2025	310.239	313.344	313.925	314.820	315.585	316.851	318.244	319.403		

Nov	Dec	HALF1	HALF2
217.004	217.386		
224.399	224.745		
231.522	231.842		
241.774	242.204	234.760	239.509
247.364	247.567	242.969	246.345
255.650	256.456	250.331	254.588
264.580	265.365	259.202	263.748
277.824	278.464	270.076	276.337
292.694	292.915	284.687	291.425
308.015	308.234	299.305	305.520
		314.127	

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Consider and take appropriate action regarding Ordinance No.935-25 amending Chapter 13, “Utilities”, Article 13. 02, “Solid Waste and Recycling”, Section 13.02.005, “Monthly Rates” of the Aubrey Code of Ordinances to amend various rates for solid waste and recycling collection services provided to residential and commercial customers; and providing an effective date of December 1, 2025.

Staff Contact
Leanne Wilson, Assistant City Manager
lwilson@aubreytx.gov

Summary
The City of Aubrey has entered an Exclusive Franchise Agreement for the Collection, Hauling, and Disposal of Municipal Solid Waste and Recycling, with Republic Services. In this agreement, Section 9, Rate Adjustment, allows for service rate increases by the Dallas, Fort Worth, Arlington Consumer Price Index — Water, Sewer, Trash annually.

Effective December 1, 2025, Republic is requesting the rolling average CPI of 5.38% increase. The impact on our citizens is summarized below:

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Residential Total:	$19.30	$20.35

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	Current Rate	Proposed Rate
Extra Cart - Trash	$7.27	$7.66
Extra Cart - Recycle	$5.27	$5.55

The proposed percent increase has been applied to all applicable rates, and a red-line copy of the ordinance is included in the agenda package for review.

Financial Summary
NA

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to (approve, deny, table) the Ordinance.

Republic Services of Lewisville
FRANCHISED CITY RATES

AUBREY

COMMERCIAL FRONT-LOAD RATES

PICKUPS PER WEEK

SIZE	*TYPE*	*1 X*	*2 X*	*3 X*	*4 X*	*5 X*	*6 X*	*EXTRA PU*
95 GAL. CART		$31.06	N/A	N/A	N/A	N/A	N/A	N/A
(2) 95 GAL. CARTS		$62.13	N/A	N/A	N/A	N/A	N/A	N/A
2	YD*	$79.00	$157.99	$238.63	$317.86	N/A	N/A	$38.84
3	YD*	$114.33	$220.67	$342.99	$457.20	N/A	N/A	$38.84
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4" Legs	**$12.20**	**1X CHARGE**	**(SOLDERED ON DUMPSTERS)**
GATES	**$12.20**	**PER LIFT**	
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SPECIAL BULK RATE FOR RESIDENT (100 LBS OR MORE)	**$194.19**

CAMELOT LANDFILL - DROP-OFF - 1X/MONTH FREE DISPOSAL - MUST PROVIDE DL & RESIDENTIAL INVOICE

EFFECTIVE DATE **10/01/25 - 09/30/26** **CITY HALL PHONE #** **940-440-8343**

CPI - W/S/T

CITY OF AUBREY, TEXAS
ORDINANCE NO. 935-25

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS, AMENDING CHAPTER 13, "UTILITIES" OF THE CODE OF ORDINANCES OF THE CITY OF AUBREY BY AMENDING ARTICLE 13.02, "SOLID WASTE AND RECYCLING", BY REPEALING SECTION 13.02.005, "MONTHLY RATES", IN ITS ENTIRETY AND TO ADOPT A NEW SECTION 13.02.005, "MONTHLY RATES" TO PROVIDE FOR UPDATED SOLID WASTE AND RECYCLING SERVICES RATE INCREASE FOR RESIDENTIAL SOLID WASTE AND RECYCLING COLLECTION SERVICES AND CONTAINERS AND FOR COMMERCIAL SOLID WASTE COLLECTION SERVICES PURSUANT TO THE FRANCHISE AGREEMENT BETWEEN THE CITY AND REPUBLIC SERVICES OF LEWISVILLE; PROVIDING FOR THE INCORPORATION OF PREMISES; PROVIDING FOR AMENDMENT; PROVIDING A SAVINGS AND CUMULATIVE REPEALER CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR CODIFICATION; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Aubrey, Texas (the "City") is a home rule municipality in Denton County, created in accordance with provision of the Texas Local Government Code and operating pursuant to the enabling legislation of the State of Texas; and

WHEREAS, the collection of municipal solid waste and recyclable materials is a governmental function performed for the protection of the public health, safety, and general welfare; and

WHEREAS, in 2023 the City entered into a franchise agreement for Solid Waste and Recycling Services for the City of Aubrey Texas by and between the City of Aubrey and Allied Waste Systems, Inc. dba Republic Services of Lewisville ("Republic") and the City (the "Franchise Agreement"); and

WHEREAS, the City received a request from Republic for a Consumer Price Index (CPI) rate increase for Residential Solid Waste and Recycling Collection Services and Commercial Solid Waste Collection Services and Containers as authorized by the Franchise Agreement (the "Services"); and

WHEREAS, after consideration of the request and allowing public comments, the City Council reviewed costs and the Franchise Agreement and determined the fees proposed herein are not excessive; rather, the fees for Services are determined to be reasonable and necessary and in accordance with the rate of change in inflation over time; and

WHEREAS, because the rate increase impacts all the fees for all Services provided by Republic pursuant to the Franchise Agreement, the City Council finds that it is in the public interest and necessary to repeal Article 13.002.05 and to adopt a new Article

13.02.005 to increase rates in accordance with the Franchise Agreement as provided below;

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS:

Section 1. Findings Incorporated. The recitals set forth above are legislative findings of the City Council and are incorporated into the body of this Ordinance as if fully set forth herein.

Section 2. Amendment.

2.01 Chapter 13, "Utilities" Article 13.02, "Solid Waste and Recycling", Section 13.02.005, "Monthly Rates", of the Code of Ordinances of the City of Aubrey, Texas, is hereby repealed in its entirety and a new Section 13.02.005, "Monthly Rates", of Article 13.02 of Chapter 13 of the Code of Ordinances is hereby adopted to be and read in its entirety as follows, and all provisions of Article 13.02 not herein expressly repealed or amended hereby to remain in full force and effect:

"Article 13.02 Solid Waste and Recycling

Section 13.02.005 Monthly rates.

The following monthly rates are hereby established by the city council for solid waste and recycling collection services provided to residential and commercial customers as set out below:

(1) Residential unit services.

(A) The rate for solid waste and recycling collection services provided to each residential unit, shall be $12.15 per month for trash collection once per week, and $4.43 per month for recycling collection once per week.

(B) The rates for each residential unit that has a head of household aged 65 years old or older and/or handicapped residential unit, shall be $11.10 per month for trash collection once per week and $3.89 per month for recycling collection once per week.

(C) The rate for residential unit bulk pickup and/or extra trash collection services is $0.39 per month for collection every week.

(D) The rate for the annual household hazardous waste, electronic waste and shredding event service collection is $0.72.

(E) These rates apply to all residential units that are located within the city's corporate limits and billed by the city for solid waste and recycling services. The stated rates above do not include the applicable state and local sales tax and franchise fee. Franchise fee charges shall be based upon current franchise agreement.

(F) Miscellaneous fees for residential unit services:

(i) Extra trash:

a. Extra 95-gallon trash cart: 7.66 per month.

b. Extra 95-gallon recycle cart: $5.55 per month.

(ii) Special pick up for residential heavy bulk (less than 100 pounds): $122.06 per pickup. Heavy bulk (100 pounds or more): $194.19 per pickup.

(2) Commercial Unit Services. The rates for solid waste and recycling services provided to each commercial unit per month, for each container utilized, are as follows:

(A) Commercial containers.

i. Rates:

	Solid Waste Collections Per week				Recycling Collections Per Week
Container Size	**1**	**2**	**3**	**4**	**1**
98 Gallon Cart	$31.06	NA	NA	NA	$13.28
2 cubic yd.	$79.00	$157.99	$238.63	$317.86	$122.30
3 cubic yd.	$114.33	$220.67	$342.99	$457.20	$144.53
4 cubic yd.	$144.44	$270.78	$433.28	$577.32	$162.66
6 cubic yd.	$228.66	$347.57	$565.43	$754.13	$193.29
8 cubic yd.	$288.88	$539.89	$650.19	$865.58	$235.39

ii. Additional Collections. For any collection that the service provider is required to make in excess of the above weekly figures, the City shall charge the following amount per lift per container: $36.84 per cubic yard.

(B) Commercial roll-off rates.

i. Rates:

ii. The solid waste provider will negotiate agreements with each commercial and residential unit on an individual basis regarding the roll-off services to be provided. The roll-off services, including the applicable franchise tax, will be billed directly to such unit and will be collected by the City of Aubrey. The roll-offs provided must be located within the city in accordance with city ordinances and policies.

Roll-off Size	Delivery/Removal	Daily Rate	Haul Rate	Disposal Rate per Ton
20 cubic yd.	$165.33	$5.83	$349.53	$44.38
30 cubic yd.	$165.33	$5.83	$349.53	$44.38
40 cubic yd.	$165.33	$5.83	$349.53	$44.38

(C) Commercial compactors.

i. Rates:

Compactor Size	Delivery	Daily Rate	Haul Rate	Disposal Rate per Ton
30-35 cubic yd.	$150.91	Negotiated	$443.84	$44.38
40 cubic yd.	$150.91	Negotiated	$443.84	$44.38
42 cubic yd.	$150.91	Negotiated	$443.84	$44.38

ii. The solid waste provider will negotiate agreements with each commercial and residential unit on an individual basis regarding the compactor services to be provided. The compactor services, including the applicable franchise tax, will be billed directly to such unit and will be collected by the City of Aubrey. The compactors provided must be located within the city in accordance with city ordinances and policies.

(D) Miscellaneous fees for commercial unit services.

i. Casters: $35.51 per set of four casters per month.
ii. 4” Legs: $12.20 one-time charge.
iii. Locks: $12.20 per lock per month.
iv. Enclosures/gates: $12.20 per enclosure/lift.
v. Delivery fee for containers: $110.96.

vi. Removal fee for containers: $110.96.

vii. Dry run fee: $166.44

viii. Recycle contamination: $214 per occurrence.

ix. Solid waste account deposit: $250.00 applies to solid waste only accounts.

(E) Applicability; sales tax. The foregoing rates apply to all commercial units, or residential units using commercial roll-offs and/or compactors, that are located within the city's corporate limits and billed by the city for solid waste and recycling services. The stated rates above do not include the applicable state and local sales tax and franchise fee."

Section 3. Savings; Repealer. This Ordinance shall be cumulative of all other ordinances of the City and shall not repeal any of the provisions of those ordinances except in those instances where the provisions of those ordinances are in direct conflict with the provisions of this Ordinance. Provided; however, that the repeal of such ordinances or parts of such ordinances, and the amendments and changes made by this Ordinance, shall not affect any right, property or claim which was or is vested in the City, or any act done, or right accruing or accrued, or established, or any suit, action or proceeding had or commenced before the time when this Ordinance shall take effect; nor shall said repeals, amendments or changes affect any offense committed, or any penalty or forfeiture incurred, or any suit or prosecution pending at the time when this Ordinance shall take effect under any of the ordinances or sections thereof so repealed, amended or changed; and to that extent and for that purpose the provisions of such ordinances or parts of such ordinances shall be deemed to remain and continue in full force and effect.

Section 4. Severability. Should any section, subsection, sentence, clause, or phrase of this Ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Ordinance shall remain in full force and effect. The City of Aubrey hereby declares that it would have passed this Ordinance, and each section, subsection, clause, or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional or invalid.

Section 5. Codification. The City Secretary is hereby directed to authenticate this Ordinance by seal and signature and properly codifying this Ordinance and providing a printed copy for public review as required by Section 3.16 of the Aubrey Home Rule Charter.

Section 6. Effective Date. Upon its passage, this Ordinance shall become effective on December 1, 2025.

PASSED AND APPROVED by the City Council of the City of Aubrey, Texas this the ___day of _____ 2025.

_____
Chris Rich, Mayor

ATTEST:

_____
Jenny Hicks, City Secretary

APPROVED AS TO FORM:

_____
Patricia Adams, City Attorney

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Receive a presentation from Birkhoff Hendricks & Carter regarding a proposed Stormwater Master Plan; Discuss and provide direction to staff.

Staff Contact

Summary

Financial Summary

Staff Recommended Action

Staff Recommended Motion

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS

11910 Greenville Ave., Suite 600 Dallas, Texas 75243 Phone (214) 361-7900 www.bhcllp.com

CRAIG M. KERKHOFF, P.E., C.F.M.
GARY C. HENDRICKS, P.E., R.P.L.S.
JOE R. CARTER, P.E.
ANDREW MATA, JR., P.E.

DEREK B. CHANEY, P.E., R.P.L.S.
JUSTIN R. IVY, P.E.
COOPER E. REINBOLD, P.E.
CHASE CRAWFORD, R.P.L.S.

November 7, 2025

Ms. Leanne Wilson
Assistant City Manager
City of Aubrey, TX
107 S. Main Street
Aubrey, TX 76227

Re: 1.0-MGD Rockhill Pump Station and
0.40-MG Ground Storage Reservoir
Proposal Award Recommendation

Dear Ms. Wilson:

We have checked the bids received at 10:00 a.m., Thursday, November 6, 2025, for the City of Aubrey 1.0-MGD Rockhill Pump Station and 0.40-MG Ground Storage Reservoir project and enclosing one (1) copy of the Bid Summary and itemized Bid Tabulation for the City's reference and files.

Haynie Leadership Group, Inc. of Dallas, Texas submitted the apparent low bid in the amount of $4,809,723.76. Although the bidder was considered non-responsive as they did not provide the experience requirements of submitting a list of similar projects completed within the last five (5) years of constructing ground storage reservoirs of similar size or larger with their bidding documents. They also did not submit five (5) references of constructing reservoirs with seal welded rafter roofs in Texas within the last five (5) years, also as part of the bidding requirements. We recommend the City reject the bid from Haynie Leadership Group, Inc.

Mayim Municipal Builders, LLC of Allen, Texas submitted the second apparent low bid in the amount of $4,905,645.00. We checked the references that Mayim Municipal Builders provided and found no irregularities on the Contractor from the references. We also reviewed the Contractor's statement of qualifications, and the equipment list provided with the bidding documents. It appears that Mayim Municipal Builders has successfully completed similar construction projects in cities such as the City of Bridgeport, Carthage, Sachse, Sanger, and Johnson County SUD. We recommend the City accept the bid from Mayim Municipal Builders, LLC and award them a contract in the total amount bid of $4,905,645.00 for the construction of the 1.0-MGD Rockhill Pump Station and 0.40-MG Ground Storage Reservoir project.

We are available to discuss our recommendation further at your convenience.

Sincerely,

Andrew Mata Jr., P.E.

Enclosures – Bid Tabulation, Bid Summary

City of Aubrey
1.0-MGD Rockhill Pump Station and
0.40-MG AWWA D-100 Ground Storage Reservoir

BID SUMMARY
Bids Received at 10:00 a.m., Thursday, November 6, 2025

	Contractor	Total Amount Bid
1.	Haynie Leadership Group, Inc. dba A&V Water 715 Fort Worth Ave Dallas, TX 75208 Jeannie Philp 360-672-2838	$ 4,809,723.76
2.	Mayim Municipal Builders, LLC 1557 Edelweiss Drive Allen, TX 75002 Robert Skinner 940-799-6994	$ 4,905,645.00
3.	Schofield Civil Construction, LLC 9330 LBJ Freeway #375 Dallas, TX 75243 Jordan Heringer 469-372-0234	$ 5,216,066.00
4.	Legacy Contracting, LP 4916 E. Hwy 380 Decatur, TX 76234 George Brown 940-626-1415	$ 5,454,170.00
5.	CLW Water Group, LLC 4350 Alpha Rd. Ste. 100 Farmers Branch, TX 75244 David Caldwell 469-556-3809	$ 5,754,000.00
6.	Red River Contruction Co. 2804 Capital St. Wylie, TX 75098 Dean Porter 972-578-0127	NON-RESPONSIVE

TABULATION OF BIDS

Date: November 6, 2025 @ 10:00 AM

Project: City of Aubrey
1.0-MGD Rockhill Pump Station and
0.40-MG AWWA D-100 Ground Storage Reservoir

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
Dallas, Texas

Item No.	Approximate Quantities	Unit	Description	**BID OF** Haynie Leadership Group, Inc. dba A&V Water 715 Fort Worth Ave Dallas, TX 75208 Jeannie Philp 360-672-2838 matt@aandvwater.com		**BID OF** Mayim Municipal Builders, LLC 1557 Edelweiss Drive Allen, TX 75002 Robert Skinner 940-799-6994 robert@mayim-mb.com		**BID OF** Schofield Civil Construction, LLC 9330 LBJ Freeway #375 Dallas, TX 75243 Jordan Heringer 469-372-0234 jfh@schofieldcivil.com		**BID OF** Legacy Contracting, LP 4916 E. Hwy 380 Decatur, TX 76234 George Brown 940-626-1415 georgeb@csstex.com		**BID OF** CLW Water Group, LLC 4350 Alpha Rd. Ste. 100 Farmers Branch, TX 75244 David Caldwell 469-556-3809 davidc@clw-water.com		**BID OF** Red River Contruction Co. 2804 Capital St. Wylie, TX 75098 Dean Porter 972-578-0127 dean.porter@redriverconstruction.com	
				Unit Bid Price	**Extension**	**Unit Bid Price**	**Extension**	**Unit Bid Price**	**Extension**	**Unit Bid Price**	**Extension**	**Unit Bid Price**	**Extension**	**Unit Bid Price**	**Extension**
1	1	L.S	For Mobilization, Insurance, and Bonds (max 3% of total bid)	$144,399.00	$ 144,399.00	$147,000.00	$ 147,000.00	$150,000.00	$ 150,000.00	$162,000.00	$ 162,000.00	$170,767.00	$ 170,767.00	$150,000.00	$ 150,000.00
2	1,737	S.Y.	For Removal and Disposal of Existing Gravel Pavement	$21.21	$ 36,841.77	$21.00	$ 36,477.00	$10.00	$ 17,370.00	$17.00	$ 29,529.00	$10.00	$ 17,370.00	$27,792.00	$ 48,274,704.00
3	341	C.Y.	For Unclassified Excavation	$23.57	$ 8,037.37	$50.00	$ 17,050.00	$80.00	$ 27,280.00	$8.00	$ 2,728.00	$40.00	$ 13,640.00	$15,004.00	$ 5,116,364.00
4	246	C.Y.	Construction Embankment from Borrow (Imported Fill)	$47.14	$ 11,596.44	$90.00	$ 22,140.00	$75.00	$ 18,450.00	$96.00	$ 23,616.00	$70.00	$ 17,220.00	$12,300.00	$ 3,025,800.00
5	1	L.S	For Removal and Disposal of Miscellaneous Existing Materials (Culvert, Stone Slabs, Rock Pile, Chain Link Fence, Gate, Valve, Hydrants, Sampling Station, Chlorine Room, Electrical Panel, etc.)	$53,033.00	$ 53,033.00	$20,000.00	$ 20,000.00	$12,500.00	$ 12,500.00	$11,100.00	$ 11,100.00	$50,000.00	$ 50,000.00	$20,000.00	$ 20,000.00
6	1	L.S.	For Furnishing all Labor, Materials, Tools & Equipment for the Interior & Exterior Rockhill Pump Station Improvements, complete in all details, including Building Improvements, Site Improvements, Drainage Improvements, Yard Piping, Pumps & Motors, Piping, Valves, Meters, Concrete, Electrical Equipment, HVAC, Disinfection Room with Disinfection System, SCADA System, Fence, Gate, and all other items called for in the Bidding Document to be Furnished & Installed to make the Pump Station its Site and Appurtenances, Complete and Fully Operational	$1,487,961.00	$ 1,487,961.00	$2,416,000.00	$ 2,416,000.00	$2,365,000.00	$ 2,365,000.00	$2,280,000.00	$ 2,280,000.00	$2,850,000.00	$ 2,850,000.00	$2,256,900.00	$ 2,256,900.00
7	2,602	S.Y.	For Constructing 8-inch Reinforced Concrete Pavement on 12-inch Compacted Flex Base	$206.26	$ 536,688.52	$135.00	$ 351,270.00	$195.00	$ 507,390.00	$220.00	$ 572,440.00	$230.00	$ 598,460.00	$559,430.00	$ 1,455,636,860.00
8	1,266	L.F.	For Constructing 6-inch Monolithic Reinforced Concrete Curb	$50.68	$ 64,160.88	$12.00	$ 15,192.00	$7.00	$ 8,862.00	$22.00	$ 27,852.00	$30.00	$ 37,980.00	$10,128.00	$ 12,822,048.00
9	55	S.Y.	For Furnishing & Placing 4-Inch thick , 3000 PSI Reinforced Concrete Sidewalk, Mow strip around Reservoir, and Reinforced Concrete Flume	$356.55	$ 19,610.25	$210.00	$ 11,550.00	$300.00	$ 16,500.00	$260.00	$ 14,300.00	$150.00	$ 8,250.00	$6,710.00	$ 369,050.00
10	28	S.Y.	For Furnishing & Placing Reinforced Concrete Generation Foundation, and Transformer Pads (All electrical foundation including leave outs)	$1,704.64	$ 47,729.92	$1,500.00	$ 42,000.00	$1,050.00	$ 29,400.00	$534.00	$ 14,952.00	$200.00	$ 5,600.00	$14,448.00	$ 404,544.00
11	1	L.S.	For Furnishing & Installing 400 kW Standby Generator and 600A Automatic Transfer Switch, including Termination, Complete & Fully Operational	$309,807.00	$ 309,807.00	$190,000.00	$ 190,000.00	$195,000.00	$ 195,000.00	$280,000.00	$ 280,000.00	$220,000.00	$ 220,000.00	$205,000.00	$ 205,000.00
12	1	L.S.	For Furnishing all Labor, Materials, Tools and Equipment for the 400,000 Gallon Welded Steel Ground Storage Reservoir Meeting the Requirements of AWWA D100, including all appurtenances called out in the Bidding Documents, Complete and Fully Operational with the Rockhill Pump Station	$1,464,020.00	$ 1,464,020.00	$1,065,000.00	$ 1,065,000.00	$1,275,000.00	$ 1,275,000.00	$1,330,000.00	$ 1,330,000.00	$1,000,000.00	$ 1,000,000.00	$930,000.00	$ 930,000.00
13	1,217	L.F.	Furnish and install 12-inch PVC (AWWA C900 DR-14) Water Line by Open Cut with Class "B+" Embedment, and All Fittings	$45.32	$ 55,154.44	$140.00	$ 170,380.00	$155.00	$ 188,635.00	$183.00	$ 222,711.00	$185.00	$ 225,145.00	$316,420.00	$ 385,083,140.00
14	123	L.F.	Furnish and install 12-inch PVC (AWWA C900 DR-14) Water Line by Other Than Open Cut with 20-inch Steel Encasement (3/8" wall thickness)	$995.93	$ 122,499.39	$1,100.00	$ 135,300.00	$1,150.00	$ 141,450.00	$1,375.00	$ 169,125.00	$1,600.00	$ 196,800.00	$215,250.00	$ 26,475,750.00
15	6	Ea.	Furnish and install 12-inch Resilient Seated Gate Valve on Distribution Water Line	$7,809.17	$ 46,855.02	$6,000.00	$ 36,000.00	$5,500.00	$ 33,000.00	$4,500.00	$ 27,000.00	$5,000.00	$ 30,000.00		$ -
16	3	Ea.	Furnish and install Fire Hydrant Assembly (including 6-inch PVC DR-14 Lead, and 6-inch Gate Valve)	$13,590.33	$ 40,770.99	$7,000.00	$ 21,000.00	$8,500.00	$ 25,500.00	$18,300.00	$ 54,900.00	$10,000.00	$ 30,000.00	$45,000.00	$ 135,000.00
17	4	Ea.	Connect to Existing Waterline	$2,946.25	$ 11,785.00	$2,500.00	$ 10,000.00	$5,000.00	$ 20,000.00	$4,000.00	$ 16,000.00	$10,000.00	$ 40,000.00	$12,000.00	$ 48,000.00
18	4	Ea.	Cut, Plug, and Abandon Existing Waterline	$2,946.25	$ 11,785.00	$1,000.00	$ 4,000.00	$2,500.00	$ 10,000.00	$2,100.00	$ 8,400.00	$2,000.00	$ 8,000.00	$84,000.00	$ 336,000.00
19	90	L.F.	Removal and Disposal of Existing Waterline	$98.21	$ 8,838.90	$100.00	$ 9,000.00	$30.00	$ 2,700.00	$24.00	$ 2,160.00	$30.00	$ 2,700.00	$12,600.00	$ 1,134,000.00
20	3	Ea.	Construct 18" Safety End Treatment	$4,910.33	$ 14,730.99	$5,000.00	$ 15,000.00	$3,500.00	$ 10,500.00	$3,600.00	$ 10,800.00	$2,500.00	$ 7,500.00	$6,000.00	$ 18,000.00
21	104	L.F.	Furnish and Install 18-inch Class IV RCP Culvert	$100.17	$ 10,417.68	$200.00	$ 20,800.00	$150.00	$ 15,600.00	$128.50	$ 13,364.00	$125.00	$ 13,000.00	$22,880.00	$ 2,379,520.00
22	80	L.F.	Saw Cut Existing Asphalt Pavement	$23.58	$ 1,886.40	$7.00	$ 560.00	$50.00	$ 4,000.00	$11.50	$ 920.00	$25.00	$ 2,000.00	$1,200.00	$ 96,000.00
23	1	L.S.	Furnish and Install Signs (Street Sign, Street Stop Sign, and Pump Station Sign at Entrance)	$14,142.00	$ 14,142.00	$3,000.00	$ 3,000.00	$1,000.00	$ 1,000.00	$2,528.00	$ 2,528.00	$5,000.00	$ 5,000.00	$2,500.00	$ 2,500.00
24	1	L.S	For Site Work/Grading	$53,033.00	$ 53,033.00	$60,000.00	$ 60,000.00	$65,000.00	$ 65,000.00	$40,000.00	$ 40,000.00	$50,000.00	$ 50,000.00	$61,000.00	$ 61,000.00
25	1	L.S	Furnish Trench Safety Plan (for water lines and storm sewer lines)	$17,678.00	$ 17,678.00	$1,000.00	$ 1,000.00	$1,500.00	$ 1,500.00	$5,275.00	$ 5,275.00	$5,000.00	$ 5,000.00	$964.00	$ 964.00
26	1,321	L.F.	Trench Safety Implementation (for water lines and storm sewer lines)	$17.68	$ 23,355.28	$7.00	$ 9,247.00	$1.00	$ 1,321.00	$8.00	$ 10,568.00	$10.00	$ 13,210.00	$15,852.00	$ 20,940,492.00

TABULATION OF BIDS

Date: November 6, 2025 @ 10:00 AM

Project: City of Aubrey
1.0-MGD Rockhill Pump Station and
0.40-MG AWWA D-100 Ground Storage Reservoir

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
Dallas, Texas

Item No.	Approximate Quantities	Unit	Description	**BID OF** Haynie Leadership Group, Inc. dba A&V Water 715 Fort Worth Ave Dallas, TX 75208 Jeannie Philp 360-672-2838 matt@aandvwater.com		**BID OF** Mayim Municipal Builders, LLC 1557 Edelweiss Drive Allen, TX 75002 Robert Skinner 940-799-6994 robert@mayim-mb.com		**BID OF** Schofield Civil Construction, LLC 9330 LBJ Freeway #375 Dallas, TX 75243 Jordan Heringer 469-372-0234 jfh@schofieldcivil.com		**BID OF** Legacy Contracting, LP 4916 E. Hwy 380 Decatur, TX 76234 George Brown 940-626-1415 georgeb@csstex.com		**BID OF** CLW Water Group, LLC 4350 Alpha Rd. Ste. 100 Farmers Branch, TX 75244 David Caldwell 469-556-3809 davidc@clw-water.com		**BID OF** Red River Contruction Co. 2804 Capital St. Wylie, TX 75098 Dean Porter 972-578-0127 dean.porter@redriverconstruction.com	
				Unit Bid Price	**Extension**	**Unit Bid Price**	**Extension**	**Unit Bid Price**	**Extension**	**Unit Bid Price**	**Extension**	**Unit Bid Price**	**Extension**	**Unit Bid Price**	**Extension**
27	1	L.S	Furnish Erosion Control Plan	$17,678.00	$ 17,678.00	$7,000.00	$ 7,000.00	$1,750.00	$ 1,750.00	$2,500.00	$ 2,500.00	$5,000.00	$ 5,000.00	$1,550.00	$ 1,550.00
28	1	L.S.	Furnish, Install, Maintain, and Remove Erosion Control Devices	$23,570.00	$ 23,570.00	$9,000.00	$ 9,000.00	$15,000.00	$ 15,000.00	$46,400.00	$ 46,400.00	$50,000.00	$ 50,000.00	$29,500.00	$ 29,500.00
29	3,786	S.Y.	Furnish and Establish Hydromulch	$15.32	$ 58,001.52	$1.50	$ 5,679.00	$3.00	$ 11,358.00	$7.00	$ 26,502.00	$3.00	$ 11,358.00	$7,572.00	$ 28,667,592.00
30	5	Sta.	For Tree Clearing and Grubbing of Trees (along Tree Area of Alignment, withing ROW)	$14,731.40	$ 73,657.00	$7,000.00	$ 35,000.00	$5,000.00	$ 25,000.00	$5,300.00	$ 26,500.00	$10,000.00	$ 50,000.00	$34,500.00	$ 172,500.00
31	1	L.S.	Bid Allowance for Union Pacific Railroad and Sherman Drive Bore, Including all Required Insurance, Coordination, Flagmen, Field Surveys & All Associated Appurtenances	$20,000.00	$ 20,000.00	$20,000.00	$ 20,000.00	$20,000.00	$ 20,000.00	$20,000.00	$ 20,000.00	$20,000.00	$ 20,000.00	$20,000.00	$ 20,000.00
			TOTAL AMOUNT BID		**$ 4,809,723.76**		**$ 4,905,645.00**		**$ 5,216,066.00**		**$ 5,454,170.00**		**$ 5,754,000.00**		**NON-RESPONSIVE**

	Bidder wrote incorrect Extended Amount for Item No. 2 of $36,847.00. The correct Extended Amount is $36,841.77 (difference of -$5.23).
	Bidder wrote incorrect Extended Amount for Item No. 4 of $11,597.00. The correct Extended Amount is $11,596.44 (difference of -$0.56)
	Bidder wrote incorrect Extended Amount for Item No. 7 of $536,693.00. The correct Extended Amount is $536,688.52 (difference of -$4.48)
	Bidder wrote incorrect Extended Amount for Item No. 9 of $19,610.00. The correct Extended Amount is $19,610.25 (difference of +$0.25)
	Bidder wrote incorrect Extended Amount for Item No. 10 of $47,730.00. The correct Extended Amount is $47,729.92 (difference of -$0.08)
	Bidder wrote incorrect Extended Amount for Item No. 13 of $55,154.00. The correct Extended Amount is $55,154.44 (difference of +$0.44)
	Bidder wrote incorrect Extended Amount for Item No. 14 of $122,500.00. The correct Extended Amount is $122,499.39 (difference of -$0.61)
	Bidder wrote incorrect Extended Amount for Item No. 15 of $46,855.00. The correct Extended Amount is $46,855.02 (difference of +$0.02)
	Bidder wrote incorrect Extended Amount for Item No. 16 of $40,771.00. The correct Extended Amount is $40,771.99(difference of +$0.99)
	Bidder wrote incorrect Extended Amount for Item No. 19 of $8,839.00. The correct Extended Amount is $8,838.90 (difference of -$0.10)
	Bidder wrote incorrect Extended Amount for Item No. 20 of $14,731.00. The correct Extended Amount is $14,730.99 (difference of -$0.01)
	Bidder wrote incorrect Extended Amount for Item No. 21 of $10,418.00. The correct Extended Amount is $10,417.68 (difference of -$0.32)
	Bidder wrote incorrect Extended Amount for Item No. 22 of $1,886.00. The correct Extended Amount is $1,886.40 (difference of +$0.40)
	Bidder wrote incorrect Extended Amount for Item No. 26 of $23,352.00. The correct Extended Amount is $23,355.28 (difference of +$3.28)
	Bidder wrote incorrect Extended Amount for Item No. 29 of $58,004.00. The correct Extended Amount is $58,001.52 (difference of -$2.48)
	Bidder wrote incorrect Total Amount Bid of $4,809,728.00. Correct Total Amount Bid is $4,809,723.76 (difference of -$4.24)
	Bidder did no write price in figures. Bidder wrote Extended Amount in "Description and Price in Words" column.
	Bidder wrote "Extended Amount" in "Description and Price in Words". Total Bid Amount Bid is Non Responsive
	Bidder did not fill in "Description and Price in Words"

CITY OF AUBREY, TEXAS

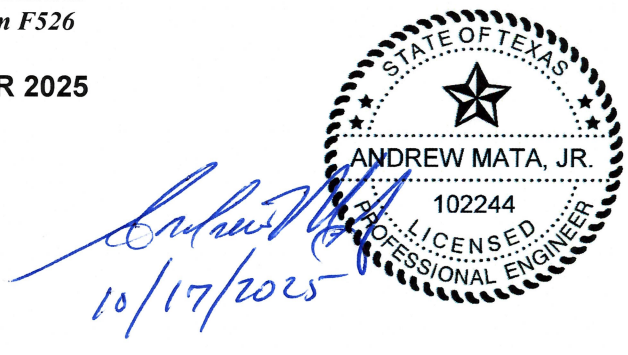
SPECIFICATIONS, CONTRACT DOCUMENTS, AND CONSTRUCTION PLANS
FOR CONSTRUCTION OF THE

1.0-MGD ROCKHILL PUMP STATION AND 0.40-MG, AWWA D100 GROUND STORAGE RESERVOIR

PREPARED BY

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
DALLAS, TEXAS
Texas Firm F526

OCTOBER 2025



CITY OF AUBREY, TEXAS

CITY COUNCIL

Chris Rich, Mayor

Jeff Perry, Mayor Pro Team, Place 1

Matt Jones, Place 2

Mike Browning, Place 3

Randy Jones, Place 4

Chuck Fikes, Place 5

CITY MANAGER

Charles Kreidler

ASSISTANT CITY MANAGER

Leanne Wilson

DIRECTOR OF PUBLIC WORKS

Dean Rylant

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ROCKHILL PUMP STATION AND GROUND STORAGE RESERVOIR

ADDENDA

NOTICE TO BIDDERS

PROPOSAL AND BID SCHEDULE

QUALIFICATION STATEMENT OF BIDDERS

QUALIFICATION STATEMENT OF BIDDER'S SURETY

VENDORS COMPLIANCE TO STATE LAW

CONTRACT AGREEMENT

PERFORMANCE BOND

PAYMENT BOND

MAINTENANCE BOND

AFFIDAVIT OF FINAL PAYMENT & RELEASE

CERTIFICATE OF INSURANCE

CONFLICT OF INTEREST QUESTIONNAIRE

FORM 1295 INSTRUCTIONS

CONSTRUCTION STAKING CERTIFICATION

• GENERAL PROVISIONS

For this contract the following standards, provisions, amendments, etc., are APPROVED as the Official Specifications for this project:

- "Standard Specifications for Public Works Construction, North Central Texas" 4th Edition, 2004, with Latest Amendment.

• CONSTRUCTION METHODS

For this contract the following standards, provisions, amendments, etc., are APPROVED as the Official Specifications for this project:

- "Standard Specifications for Public Works Construction, North Central Texas" 4th Edition, 2004, with Latest Amendment

SPECIAL CONDITIONS

WAGE RATES

TECHNICAL SPECIFICATIONS

GEOTECHNICAL REPORT

NOTICE TO BIDDERS

ROCKHILL PUMP STATION AND GROUND STORAGE RESERVOIR

Sealed bids will be received in the office of the City Secretary, City Hall, 107 S. Main Street, Aubrey, Texas 76227 until **10:00 A.M. Tuesday, November 4, 2025**, then publicly opened and read at the City Council Chamber, 226 Countryside Drive, Aubrey, Texas 76227 at 10:30 A.M., Tuesday, November 4, 2025 for furnishing all necessary materials, machinery, equipment, superintendence, and performing all work required for furnishing all materials, labor, supervision, tools, equipment, and all incidentals required for the construction of the 1.0-MGD Rockhill Pump Station, and the 0.40-MG AWWA D100 welded steel ground storage reservoir, 2,602 square yards of 8-inch thick reinforced concrete pavement, 1,340 linear feet of 12-inch waterline, along with necessary appurtenances to make the pump station and ground storage reservoir functional and operational, as shown in the plans and called for in these specifications.

The successful bidder must furnish Performance Bond and Payment Bond in the amount of one hundred percent (100%) of the total contract price from a Surety Company holding a permit from the State of Texas to act as Surety. Should the total contract price be less than $25,000.00, no performance bond or payment bond will be required.

All lump sum and unit prices must be stated in both script and figures on the forms provided. The City of Aubrey reserves the right to reject any or all bids and to waive formalities. In case of ambiguity or lack of clearness in stating prices in the bids, the City of Aubrey reserves the right to consider the most advantageous construction thereof, or to reject the bid. Unreasonable (or "unbalanced") unit prices will authorize the City of Aubrey to reject any bid.

Bidders are expected to inspect the site of work and to inform themselves regarding all local conditions.

Bidders are required to submit a cashier's or certified check issued by a bank satisfactory to the City of Aubrey, or a Bid Bond (with proper Power of Attorney) from a surety licensed to do business in the State of Texas, payable without recourse to the City of Aubrey, in an amount not less than five (5%) percent of the total amount of the proposal submitted to insure that the successful bidder will enter into a contract and execute all necessary bonds within ten (10) days after notice of award of the contract to him. **This bid security must be included in the bid envelope for the bidder to be considered responsive.** The successful bidder will be required to furnish Performance, Payment and Maintenance Bonds as described in the bidding documents.

Plans, specifications, and bidding documents will be available on CIVCAST at www.civcastusa.com. They may also be purchased at the office of Birkhoff, Hendricks & Carter, L.L.P., located at 11910 Greenville Ave., Suite 600, Dallas, Texas 75243. The cost for the plans and specifications are $85.00 per set (non-refundable). Bidding documents downloaded from plan rooms or third-party websites shall be at the Bidder's sole risk. No guarantee of receipt of addenda or clarifications will be made for third-party downloads. **Andrew Mata, Jr., P.E.** may be reached with general questions at amata@bhcllp.com or (214) 361-7900. No questions will be answered from questions posted on CIVCAST.

CITY OF AUBREY, TEXAS

Advertisement Dates: Friday, October 17, 2025
Friday, October 24, 2025
Questions Deadline: Tuesday, October 28, 2025

Addendum Deadline: Thursday, October 30, 2025

Council Award: Thursday, November 20, 2025

PROPOSAL
TO
CITY OF AUBREY

ROCKHILL PUMP STATION AND GROUND STORAGE RESERVOIR

DENTON COUNTY, TEXAS

DATE: _____

The undersigned, as bidder, declares that the only person or parties interested in this proposal as principals are those named herein, that this proposal is made without collusion with any other person, firm, or corporation, that he has carefully examined the Notice to Bidders, Contract Agreement, General Conditions, specifications and the plans therein referred to, and has carefully examined the location, conditions, and classes of materials of the proposed work. The undersigned bidder hereby proposes to do all the work and furnish all necessary superintendence, labor, machinery, equipment, tools, materials, and other items incidental to construction that may be necessary to complete all the work upon which he bids, as provided by the attached specifications and shown on the plans, and binds himself on acceptance of this proposal to execute a contract and bonds (where required), according to the accompanying forms, for performing and completing the said work within the time stated, and maintaining same as required by the detailed specifications for the prices stated on the following forms.

It is understood and agreed to commence work within ten (10) days after the date written notice to do so shall have been given to him and to complete the work within the **Three Hundred Sixty-Five (365) calendar days** bid for this project, and as provided in the Special Conditions of the contract.

Accompanying this proposal is a Bid Bond in the amount of:
Five percent (5%) of Greatest Amount Bid
_____ Dollars ($ 5% GAB).

The bidder agrees that this check or bond will be held by the City as security until a contract is awarded or all bids rejected. The City Council will be allowed sixty (60) days from date of bid opening to award the project. In case award is not made on this proposal, the security check or bid bond will be returned to the undersigned bidder.

It is understood that the Owner reserves the right to reject any and all bids.

City of Aubrey
1.0-MGD Rockhill Pump Station and
0.40-MG AWWA D-100 Ground Storage Reservoir
BID SCHEDULE

Item No.	Estimated Quantity	Unit	Description and Price in Words	Price in Figures	Extended Amount
1	1	L.S	For Mobilization, Insurance, and Bonds (max 3% of total bid) complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		
2	1,737	S.Y.	For Removal and Disposal of Existing Gravel Pavement complete in place, the sum of _____ _____ Dollars and _____ Cents per Square Yard		
3	341	C.Y.	For Unclassified Excavation complete in place, the sum of _____ _____ Dollars and _____ Cents per Cubic Yard		
4	246	C.Y.	Construction Embankment from Borrow (Imported Fill) complete in place, the sum of _____ _____ Dollars and _____ Cents per Cubic Yard		
5	1	L.S	For Removal and Disposal of Miscellaneous Existing Materials (Culvert, Stone Slabs, Rock Pile, Chain Link Fence, Gate, Valve, Hydrants, Sampling Station, Chlorine Room, Electrical Panel, etc.) complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		

Item No.	Estimated Quantity	Unit	Description and Price in Words	Price in Figures	Extended Amount
6	1	L.S.	For Furnishing all Labor, Materials, Tools & Equipment for the Interior & Exterior Rockhill Pump Station Improvements, complete in all details, including Building Improvements, Site Improvements, Drainage Improvements, Yard Piping, Pumps & Motors, Piping, Valves, Meters, Concrete, Electrical Equipment, HVAC, Disinfection Room with Disinfection System, SCADA System, Fence, Gate, and all other items called for in the Bidding Document to be Furnished & Installed to make the Pump Station its Site and Appurtenances, Complete and Fully Operational complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		
7	2,602	S.Y.	For Constructing 8-inch Reinforced Concrete Pavement on 12-inch Compacted Flex Base complete in place, the sum of _____ _____ Dollars and _____ Cents per Square Yard		
8	1,266	L.F.	For Constructing 6-inch Monolithic Reinforced Concrete Curb complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
9	55	S.Y.	For Furnishing & Placing 4-Inch thick , 3000 PSI Reinforced Concrete Sidewalk, Mow strip around Reservoir, and Reinforced Concrete Flume complete in place, the sum of _____ _____ Dollars and _____ Cents per Square Yard		
10	28	S.Y.	For Furnishing & Placing Reinforced Concrete Generation Foundation, and Transformer Pads (All electrical foundation including leave outs) complete in place, the sum of _____ _____ Dollars and _____ Cents per Square Yard		

Item No.	Estimated Quantity	Unit	Description and Price in Words	Price in Figures	Extended Amount
11	1	L.S.	For Furnishing & Installing 400 kW Standby Generator and 600A Automatic Transfer Switch, including Termination, Complete & Fully Operational complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		
12	1	L.S.	For Furnishing all Labor, Materials, Tools and Equipment for the 400,000 Gallon Welded Steel Ground Storage Reservoir Meeting the Requirements of AWWA D100, including all appurtenances called out in the Bidding Documents, Complete and Fully Operational with the Rockhill Pump Station complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		
13	1,217	L.F.	Furnish and install 12-inch PVC (AWWA C900 DR-14) Water Line by Open Cut with Class "B+" Embedment, and All Fittings complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
14	123	L.F.	Furnish and install 12-inch PVC (AWWA C900 DR-14) Water Line by Other Than Open Cut with 20-inch Steel Encasement (3/8" wall thickness) complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
15	5	Ea.	Furnish and install 12-inch Resilient Seated Gate Valve on Distribution Water Line complete in place, the sum of _____ _____ Dollars and _____ Cents per Each		
16	3	Ea.	Furnish and install Fire Hydrant Assembly (including 6-inch PVC DR-14 Lead, and 6-inch Gate Valve) complete in place, the sum of _____ _____ Dollars and _____ Cents per Each		

Item No.	Estimated Quantity	Unit	Description and Price in Words	Price in Figures	Extended Amount
17	4	Ea.	Connect to Existing Waterline complete in place, the sum of _____ _____ Dollars and _____ Cents per Each		
18	4	Ea.	Cut, Plug, and Abandon Existing Waterline complete in place, the sum of _____ _____ Dollars and _____ Cents per Each		
19	90	L.F.	Removal and Disposal of Existing Waterline complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
20	3	Ea.	Construct 18" Safety End Treatment complete in place, the sum of _____ _____ Dollars and _____ Cents per Each		
21	104	L.F.	Furnish and Install 18-inch Class IV RCP Culvert complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
22	80	L.F.	Saw Cut Existing Asphalt Pavement complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
23	1	L.S.	Furnish and Install Signs (Street Sign, Street Stop Sign, and Pump Station Sign at Entrance) complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		

Item No.	Estimated Quantity	Unit	Description and Price in Words	Price in Figures	Extended Amount
24	1	L.S	For Site Work/Grading complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		
25	1	L.S	Furnish Trench Safety Plan (for water lines and storm sewer lines) complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		
26	1,321	L.F.	Trench Safety Implementation (for water lines and storm sewer lines) complete in place, the sum of _____ _____ Dollars and _____ Cents per Linear Foot		
27	1	L.S	Furnish Erosion Control Plan complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		
28	1	L.S.	Furnish, Install, Maintain, and Remove Erosion Control Devices complete in place, the sum of _____ _____ Dollars and _____ Cents per Lump Sum		
29	3,786	S.Y.	Furnish and Establish Hydromulch complete in place, the sum of _____ _____ Dollars and _____ Cents per Squar Yard		
30	5	Sta.	For Tree Clearing and Grubbing of Trees (along Tree Area of Alignment, withing ROW) complete in place, the sum of _____ _____ Dollars and _____ Cents per Station		
TOTAL AMOUNT BID (Items 1 Through 30)					

In the event of the award of a contract to the undersigned, the undersigned bidder will be allowed ten (10) days from date of Notice of Award to furnish a Performance Bond (for the full amount of the contract) and a Payment Bond (where required) and to execute the Contract Documents. If and when the Bond is furnished and the Contract is executed, within the time allowed, the attached check or bid bond shall be returned to the undersigned bidder. In case of failure to furnish the required Bonds or execute the Contract within the time allowed, the Owner will be allowed to cash this check or make demand on this bond and retain the proceeds as payment for damages due to delay and other inconveniences suffered by the Owner.

The undersigned certifies that the bid prices contained in this proposal have been carefully checked and are submitted as correct and final.

NOTE: Prices must be shown in words and figures for each item listed in the proposal and in the event of discrepancy, the words shall control.

Receipt is hereby acknowledged for the following addenda to the contract documents:

Addendum No. 1 dated	_____	Received	_____
Addendum No. 2 dated	_____	Received	_____
Addendum No. 3 dated	_____	Received	_____
Addendum No. 4 dated	_____	Received	_____
Addendum No. 5 dated	_____	Received	_____

_____
Contractor

By: _____
(please print name)

Signature: _____

Title: _____

Seal and Authorization
(If a Corporation)

_____
Address

_____
City, County, State and Zip

_____
Telephone Fax No.

E-Mail Address: _____

ALL BIDDERS ARE NOTIFIED THAT THE FOLLOWING QUALIFICATION STATEMENT MUST BE COMPLETED AND SUBMITTED WITH THE BID.

Bidder's Qualifications

The bidder shall demonstrate that they have experience with similar projects. Similar projects are public works projects consisting of pump station and welded steel ground storage reservoir construction along with electrical equipment in the sizes (or larger) indicated in the plans.

The Contractor shall submit a list of Similar Pump Station and a list of welded steel ground storage reservoir public works projects successfully completed within the last five years. This list shall include the names and contact information (include email address) of the Engineer who managed the projects for the Owner.

The information requested in the Qualification Statement of Bidders pages 2 through 6 must be provided along with ALL other information requested in the Bid for evaluation.

QUALIFICATION STATEMENT OF BIDDERS

SUBMITTED TO: City of Aubrey

Reviewed by: _____
Date Received: _____
Contractor: _____

CIRCLE ONE: ☐ Sole Proprietor ☐ Partnership ☐ Corporation ☐ Joint Venture

Name: _____ Partner: _____
Address: _____ Address: _____
City: _____ City: _____
Phone: _____ Phone: _____

PRINCIPAL PLACE OF BUSINESS: PRINCIPAL PLACE OF BUSINESS:

_____ _____
County State County State

IF THE CONTRACTOR IS A CORPORATION, FILL OUT THE FOLLOWING:

State of Incorporation: _____
Location of Principal Office: _____
Contact Persons at Office: _____

PERSON EXECUTING CONTRACTS ON BEHALF OF CORPORATION:

Name: _____ Address: _____
Title: _____ _____
Phone: _____ City State Zip
Email: _____

Names of Officers: (If Applicable) _____

_____

LIST NUMBER OF EMPLOYEES WORKING FOR CONTRACTOR: _____

LIST ALL EQUIPMENT TO BE USED ON THIS PROJECT: ***(PLEASE USE ATTACHMENT)***

NUMBER OF YEARS IN BUSINESS AS A GENERAL CONTRACTOR ON PROJECTS SIMILAR TO THIS PROJECT: _____

TYPE(S) OF WORK COMPLETED: (CIRCLE)

☐ Asphalt Paving ☐ Storm Sewer
☐ Concrete Paving ☐ Earth Work
☐ Channel Lining ☐ Water & Sanitary Sewer Lines
☐ Concrete Inlets/Boxes

Other: _____

COMMENTS: _____

_____

_____

_____

LIST RECENTLY COMPLETED PROJECTS OF THE TYPE OF WORK QUALIFYING FOR OR SIMILAR WORK, PLUS THE FOLLOWING INFORMATION FOR EACH PROJECT:

Project: _____

_____

_____

Owner/Engineer: _____

Year Built: _____ Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Year Built: _____ Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Year Built: _____ Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Year Built: _____ Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

(USE ATTACHMENTS IF NECESSARY)

LIST CURRENT PROJECTS UNDER CONSTRUCTION, PLUS THE FOLLOWING INFORMATION FOR EACH PROJECT LISTED:

Project: _____

_____

_____

Owner/Engineer: _____

Percent Complete: _____ % Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Percent Complete: _____ % Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Percent Complete: _____ % Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

Project: _____

_____

_____

Owner/Engineer: _____

Percent Complete: _____ % Contract Price: $ _____

Contact Person: _____ Phone: _____

Contact Email: _____

(USE ATTACHMENTS IF NECESSARY)

IF COMPANY IS UNDER NEW MANAGEMENT, PLEASE LIST NAMES OF STAFF AND QUALIFICATION AND/OR EXPERIENCE OF SAID PERSONS. ***(PLEASE USE ATTACHMENT.)***

HAVE YOU OR ANY PRESENT PARTNER(S) OR OFFICER(S) FAILED TO COMPLETE A CONTRACT?_____

IF SO, NAME OF OWNER AND/OR SURETY:

_____

CONTACT PERSON: _____ PHONE: _____

ARE THERE ANY UNSATISFIED DEMANDS UPON YOU AS TO YOUR ACCOUNTS PAYABLE? Yes ☐ No ☐

IF SO, GIVE NAMES, AMOUNTS, AND EXPLANATIONS:

_____

_____

_____

BANK REFERENCE: Bank: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Person: _____

Contact Email: _____

MUNICIPALITY REFERENCE: City: _____

Contact Person: _____ Position: _____

Address: _____ Phone: _____

In compliance with Invitation to Bid for above mentioned types of projects, the undersigned is submitting the information as required with the understanding that the purpose is only to assist in determining the qualifications for this organization to perform the type and magnitude of work designated, and further, guarantee the truth and accuracy of all statements made, and will accept your determination of qualifications without prejudice. The surety herein named, any other bonding company, bank, sub-contractor, supplier, or any other person(s), firm(s) or corporations with whom I (we) have done business, or who have extended any credit to me (us) are hereby authorized to furnish you with any information you may request concerning performance on previous work and my (our) credit standing with any of them; and I (we) hereby release any and all such parties from any legal responsibility whatsoever on account of having furnished such information to you.

Signed: _____ Title: _____

Company: _____ Date: _____

COPY TO LOCAL UNDERWRITING OFFICE OF PROPOSED SURETY

Name: _____ Phone: _____

Address: _____ City: _____ State: _____

QUALIFICATION STATEMENT OF BIDDER'S SURETY

SUBMITTED TO: City of Aubrey

BIDDER: _____
ADDRESS: _____
PHONE: _____

1. Has this surety furnished contract bonds on contracts now complete? _____

2. Has this surety furnished contract bonds on contracts now incomplete? _____

3. What is the maximum bonding capacity of this Contractor? _____

4. Is the current financial information on this Contractor satisfactory? _____

5. Does information obtained indicate accounts are paid when due? _____
   If not, give details:

   _____

   _____

6. Is it your opinion that the bidder has sufficient experience and financial resources to satisfactory perform the contract? _____

7. Provided this bidder does not assume other commitments or that you do not acquire further information that in your opinion will materially affect the bidder's capacity to perform this contract, will you furnish the bonds as specified?

   _____

REMARKS: _____

_____

_____

_____

SURETY: _____

SIGNED: _____

TITLE: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: _____

(IN DUPLICATE)

VENDORS COMPLIANCE TO STATE LAW

Texas Government Code, Chapter 2252, Subchapter A provides that, in order to be awarded a contract as low bidder, non-resident bidders (out of state Contractors whose corporate offices or principal place of business are outside of the State of Texas) bid projects for construction, improvements, supplies or services in Texas at an amount lower than the lowest Texas resident bidder by the same amount that a Texas resident bidder would be required to underbid a non-resident bidder in order to obtain a comparable contract in the state in which the non-resident's principal place of business is located. The appropriate blanks in Section 4 must be filled out by all out-of-state or non-resident bidders in order for your bid to meet specifications. The failure of out-of-state or non-resident Contractors to do so will automatically disqualify that bidder. Resident bidders must check the box in Section B.

A. ☐ Non-resident vendors in _____ (give state), our principal place of business, are required to be _____ percent lower than resident bidders by state law. A copy of the statute is attached.

☐ Non-resident vendors in _____ (give state), our principal place of business, are not required to underbid resident bidders.

B. ☐ Our principal place of business or corporate office is in the State of Texas.

BIDDER/OFFEROR:

_____ By: _____
Company: (please print)

Address: _____ Signature: _____

_____ Title: _____
City State Zip (please print)

Phone: _____

THIS FORM MUST BE RETURNED WITH YOUR QUOTATION

STANDARD FORM OF AGREEMENT

STATE OF TEXAS }

COUNTY OF DENTON }

THIS AGREEMENT, made and entered into this _____ day of _____, A.D. 20____, by and between The City of Aubrey, Texas

of the County of Denton and State of Texas, acting through Its City Manager thereunto duly authorized so to do, Party of the First Part, hereinafter termed OWNER, and _____

of the City of _____, County of _____ and State of _____, Party of the Second Part, hereinafter termed CONTRACTOR.

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the Party of the First Part (OWNER), and under the conditions expressed in the bond bearing even date herewith, the said Party of the Second Part (CONTRACTOR), hereby agrees with the said Party of the First Part (OWNER) to commence and complete the construction of certain improvements described as follows:

ROCKHILL PUMP STATION AND GROUND STORAGE RESERVOIR

and all extra work in connection therewith, under the terms as stated in the General Conditions of the Agreement and at his (or their) own proper cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said construction, in accordance with the conditions and prices stated in the Proposal attached hereto, and in accordance with the Notice to Contractors, General and Special Conditions of Agreement, Plans and other drawings and printed or written explanatory matter thereof, and the Specifications and addenda therefor, as prepared by **Birkhoff, Hendricks & Carter, L.L.P., Professional Engineers, 11910 Greenville Ave., Suite 600, Dallas, Texas 75243** herein entitled the ENGINEER, each of which has been identified by the CONTRACTOR and the ENGINEER, together with the CONTRACTOR'S written Proposal, the General Conditions of the Agreement, and the Performance and Payment Bonds hereto attached; all of which are made a part hereof and collectively evidence and constitute the entire contract.

The CONTRACTOR hereby agrees to commence work within ten (10) days after the date written notice to do so shall have been given to him, and to complete the same, within **Three Hundred Sixty-Five (365) consecutive calendar days,** after the date of the written notice to commence work for the respective sections, subject to such extensions of time as are provided by the General and Special Conditions.

THE OWNER agrees to pay the CONTRACTOR in current funds the price or prices shown in the proposal, which forms a part of this contract, such payments to be subject to the General and Special Conditions of the contract.

IN WITNESS WHEREOF, the parties to these presents have executed this Agreement in the year and day first above written.

City of Aubrey, Texas	
Party of the First Part (OWNER)	Party of the Second Part (CONTRACTOR)
By: _____	**By:** _____
Attest: _____	**Attest:** _____

PERFORMANCE BOND

STATE OF TEXAS }
COUNTY OF DENTON }

Bond #_____

That _____, of the City of _____, County of _____, and State of _____, as principal, , and _____ authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (Owner), in the penal sum of _____ Dollars ($_____) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

Principal has entered into a certain written contract with the Owner, dated the _____ Day of _____, 20_____, to

ROCKHILL PUMP STATION AND GROUND STORAGE RESERVOIR

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform said Contract and shall in all respects duly and faithfully observe and perform all and singular the covenants, conditions and agreements in and by said contract agreed and covenanted by the Principal to be observed and performed, and according to the true intent and meaning of said Contract and the Plans and Specifications hereto annexed, then this obligation shall be void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Texas Government Code, Chapter 2253, as amended, and Article 7.19-1 of the Insurance Code, as amended, and all liabilities on this bond shall be determined in accordance with the provisions of said Article to the same extent as if it were copied at length herein.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed thereunder, or the plans, specifications, or drawings accompanying the same, shall in anyway affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20_____.

Principal	Surety
By: _____	**By:** _____
Title: _____	**Title:** _____
Address: _____	**Address:** _____
_____	_____

The name and address of the Resident Agent of Surety is _____

_____

* Not applicable for federal work. See "The Miller Act," 40 U.S.C. §270.

PAYMENT BOND

STATE OF TEXAS }
COUNTY OF DENTON }

Bond #_____

That _____, of the City of _____, County of _____, and State of _____, as principal, , and _____ authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (Owner), in the penal sum of _____ Dollars ($_____) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

Principal has entered into a certain written contract with the Owner, dated the _____ Day of _____, 20_____, to

ROCKHILL PUMP STATION AND GROUND STORAGE RESERVOIR

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then, this obligation shall be void; otherwise to remain in full force and effect;

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Texas Government Code, Chapter 2253, as amended, and Article 7.19-1 of the Insurance Code, as amended, and all liabilities on this bond shall be determined in accordance with the provisions of said Article to the same extent as if it were copied at length herein.

Surety, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract, or to the work performed thereunder, or the plans, specifications or drawings accompanying the same, shall in anywise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20_____.

Principal	Surety
By: _____	**By:** _____
Title: _____	**Title:** _____
Address: _____	**Address:** _____
_____	_____

The name and address of the Resident Agent of Surety is _____

_____

MAINTENANCE BOND

Bond #_____

THE STATE OF TEXAS }
COUNTY OF DENTON }

THAT _____, as Principal, and _____, a Corporation organized under the laws of _____, as sureties, do hereby expressly acknowledge themselves to be held and bound to pay unto the City of Aubrey, a Municipal Corporation, Texas, the sum of _____ Dollars and _____ Cents ($ _____), which this amount is **100** **%** of the total contract amount of ($ _____), for the payment of which sum will and truly be made unto said City of Aubrey, Texas, and its successors, said principal and sureties do hereby bind themselves, their assigns and successors jointly and severally.

THIS obligation is conditioned; however, that whereas, the said _____ has this day entered into a written contract with the said City of Aubrey, Texas to build and construct _____

ROCKHILL PUMP STATION AND GROUND STORAGE RESERVOIR

which contract and the plans and specifications therein mentioned, adopted by the City of Aubrey, Texas are hereby expressly made a part thereof as through the same were written and embodied herein.

WHEREAS, under the plans, specifications, and contract, it is provided that the Contractor will maintain and keep in good repair, the work herein contracted to be done and performed, for a period of two (2) years from the date of final acceptance by the **City of Aubrey, Texas** of said work, and to do all necessary repairs and/or reconstructing in whole or in part of said improvements that should be occasioned by settlement of foundation, defective workmanship or materials furnished in the construction or any part thereof or any of the accessories thereto constructed by the Contractor. It being understood that the purpose of this section is to cover all defective conditions arising by reason of defective material and charge the same against the said Contractor, and sureties on this obligation, and the said Contractor and sureties hereon shall be subject to the liquidation damages mentioned in said contract for each day's failure on its' part to comply with the terms of said provisions of said contract. Now, therefore, if the said Contractor shall keep and perform its' said agreement to maintain said work and keep the same in repair for the said maintenance period of two (2) years, as provided, then these presents shall be null and void, and have not further effect, but if default shall be made by the said Contractor in the performance of its' contract to so maintain and repair said work, then these presents shall have full force and effect, and said **City of Aubrey, Texas** shall have and receive from the said Contractor and its' principal and sureties damages in the premises, as provided; and it is further agreed that this obligation shall be a continuing one against the principal and sureties, hereon, and that successive recoveries may be and had hereon for successive branches until the full amount shall have been exhausted; and it is further understood that the obligation herein to maintain said work shall continue throughout said maintenance period, and the same shall not be changed, diminished or in any manner affected from any cause during said time.

IN WITNESS THEREOF, the said _____ has caused these presents to be executed by _____ and the said _____ has caused these presents to be executed by its' Attorney in fact and the said Attorney in fact _____, has hereunto set his hand, the _____ day of _____, 20_____.

SURETY: _____

By: _____

WITNESS: _____

PRINCIPAL: _____

By: _____

ATTEST: _____
Secretary

NOTE: Date of Maintenance Bond must not be prior to date of Contract.

CONTRACTOR'S AFFIDAVIT OF FINAL PAYMENT AND RELEASE

THE STATE OF TEXAS §
§
COUNTY OF _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ ("Affiant"), who, after being by me duly sworn, deposes and says that he is _____, of _____ (corporation, partnership, trade name) of _____ County, State of Texas (the "Contractor"), which said Contractor was awarded the contract dated the _____ day of _____ 20 _____, for the construction of _____ in _____ (the "Work"), for a total consideration of _____ Dollars to be paid to the said Contractor (the "Contract"), and that Affiant has full power of authority to make this affidavit.

That _____ (the "Owner") has approved the final estimate on said Work, and that the said Contractor has fully satisfied and paid any and all claims that may be covered by Chapter 53 of the Texas Property Code, and Article 5160 of the Revised Civil Statutes of the State of Texas, or any other applicable statutes or charter provisions, and that all just bills for labor and materials have been paid and discharged by said Contractor insofar as they pertain to the Work in question.

That in addition to any funds which may have been previously paid by the Owner, the Contractor hereby accepts the amount of _____ Dollars as **FULL AND FINAL PAYMENT** under the aforementioned Contract, and hereby waives and releases any right Affiant and/or the Contractor may have to pursue claims of any nature against the Owner arising out of or in any manner connected with the performance of the Work and/or the Contract, including but not limited to claims of third parties that supplied material and/or labor for the Work for or through the Contractor ("Subcontractors"), as well as claims for delay, additional compensation or for recovery of liquidated damages which may have been withheld by the Owner. The Contractor shall defend, hold harmless and indemnify the Owner from any such claims of such Subcontractors. The Contractor further releases the Owner from any claim or liability arising from any act or neglect of the Owner related to or connected with the Contract. This affidavit is given pursuant to the final payment provisions of the Contract, and shall not be deemed to alter or modify the terms and provisions of said Contract.

_____

By _____
(Affiant)

_____
(Printed Name)

SUBSCRIBED AND SWORN TO BEFORE ME, this the _____ day of _____, A.D. 20_____.

_____
(Notary Public, in and for the State of Texas)

_____
(Printed Name of Notary)

My Commission Expires _____

CERTIFICATE OF INSURANCE(S)

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A :	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	☐ CLAIMS-MADE ☐ OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	☐ POLICY ☐ PRO-JECT ☐ LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ☐ NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						☐ WC STATU-TORY LIMITS ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ **(Mandatory in NH)**		N / A				E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

SAMPLE

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER	CANCELLATION
	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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INSURANCE BINDER

DATE (MM/DD/YYYY)

THIS BINDER IS A TEMPORARY INSURANCE CONTRACT, SUBJECT TO THE CONDITIONS SHOWN ON THE REVERSE SIDE OF THIS FORM.

AGENCY	COMPANY	BINDER #

EFFECTIVE DATE	EFFECTIVE TIME	EXPIRATION DATE	EXPIRATION TIME
	☐ AM ☐ PM		☐ 12:01 AM ☐ NOON

PHONE (A/C, No, Ext):
FAX (A/C, No):
CODE:
SUB CODE:
AGENCY CUSTOMER ID:
INSURED

☐ THIS BINDER IS ISSUED TO EXTEND COVERAGE IN THE ABOVE NAMED COMPANY PER EXPIRING POLICY #:

DESCRIPTION OF OPERATIONS/VEHICLES/PROPERTY (Including Location)

COVERAGES — LIMITS

TYPE OF INSURANCE	COVERAGE/FORMS	DEDUCTIBLE	COINS %	AMOUNT
PROPERTY CAUSES OF LOSS ☐ BASIC ☐ BROAD ☐ SPEC				
GENERAL LIABILITY ☐ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS MADE ☐ OCCUR	RETRO DATE FOR CLAIMS MADE:	EACH OCCURRENCE		$
		DAMAGE TO RENTED PREMISES		$
		MED EXP (Any one person)		$
		PERSONAL & ADV INJURY		$
		GENERAL AGGREGATE		$
		PRODUCTS - COMP/OP AGG		$
VEHICLE LIABILITY ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS ☐ HIRED AUTOS ☐ NON-OWNED AUTOS	SAMPLE	COMBINED SINGLE LIMIT		$
		BODILY INJURY (Per person)		$
		BODILY INJURY (Per accident)		$
		PROPERTY DAMAGE		$
		MEDICAL PAYMENTS		$
		PERSONAL INJURY PROT		$
		UNINSURED MOTORIST		$
				$
VEHICLE PHYSICAL DAMAGE DED ☐ COLLISION: ☐ OTHER THAN COL:	☐ ALL VEHICLES ☐ SCHEDULED VEHICLES	☐ ACTUAL CASH VALUE ☐ STATED AMOUNT		$
GARAGE LIABILITY ☐ ANY AUTO		AUTO ONLY - EA ACCIDENT		$
		OTHER THAN AUTO ONLY: EACH ACCIDENT		$
		AGGREGATE		$
EXCESS LIABILITY ☐ UMBRELLA FORM ☐ OTHER THAN UMBRELLA FORM	RETRO DATE FOR CLAIMS MADE:	EACH OCCURRENCE		$
		AGGREGATE		$
		SELF-INSURED RETENTION		$
WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY		☐ WC STATUTORY LIMITS		
		E.L. EACH ACCIDENT		$
		E.L. DISEASE - EA EMPLOYEE		$
		E.L. DISEASE - POLICY LIMIT		$
SPECIAL CONDITIONS / OTHER COVERAGES		FEES		$
		TAXES		$
		ESTIMATED TOTAL PREMIUM		$

NAME & ADDRESS

☐ MORTGAGEE ☐ ADDITIONAL INSURED
☐ LOSS PAYEE

LOAN #

AUTHORIZED REPRESENTATIVE

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The ACORD name and logo are registered marks of ACORD

CONDITIONS

This Company binds the kind(s) of insurance stipulated on the reverse side. The Insurance is subject to the terms, conditions and limitations of the policy(ies) in current use by the Company.

This binder may be cancelled by the Insured by surrender of this binder or by written notice to the Company stating when cancellation will be effective. This binder may be cancelled by the Company by notice to the Insured in accordance with the policy conditions. This binder is cancelled when replaced by a policy. If this binder is not replaced by a policy, the Company is entitled to charge a premium for the binder according to the Rules and Rates in use by the Company.

Applicable in California

When this form is used to provide insurance in the amount of one million dollars ($1,000,000) or more, the title of the form is changed from "Insurance Binder" to "Cover Note".

Applicable in Colorado

With respect to binders issued to renters of residential premises, home owners, condo unit owners and mobile home owners, the insurer has thirty (30) business days, commencing from the effective date of coverage, to evaluate the issuance of the insurance policy.

Applicable in Delaware

The mortgagee or Obligee of any mortgage or other instrument given for the purpose of creating a lien on real property shall accept as evidence of insurance a written binder issued by an authorized insurer or its agent if the binder includes or is accompanied by: the name and address of the borrower; the name and address of the lender as loss payee; a description of the insured real property; a provision that the binder may not be canceled within the term of the binder unless the lender and the insured borrower receive written notice of the cancellation at least ten (10) days prior to the cancellation; except in the case of a renewal of a policy subsequent to the closing of the loan, a paid receipt of the full amount of the applicable premium, and the amount of insurance coverage.

Chapter 21 Title 25 Paragraph 2119

Applicable in Florida

Except for Auto Insurance coverage, no notice of cancellation or nonrenewal of a binder is required unless the duration of the binder exceeds 60 days. For auto insurance, the insurer must give 5 days prior notice, unless the binder is replaced by a policy or another binder in the same company.

Applicable in Maryland

The insurer has 45 business days, commencing from the effective date of coverage to confirm eligibility for coverage under the insurance policy.

Applicable in Michigan

The policy may be cancelled at any time at the request of the insured.

Applicable in Nevada

Any person who refuses to accept a binder which provides coverage of less than $1,000,000.00 when proof is required: (A) Shall be fined not more than $500.00, and (B) is liable to the party presenting the binder as proof of insurance for actual damages sustained therefrom.

Applicable in the Virgin Islands

This binder is effective for only ninety (90) days. Within thirty (30) days of receipt of this binder, you should request an insurance policy or certificate (if applicable) from your agent and/or insurance company.

CONFLICT OF INTEREST QUESTIONNAIRE

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

_____

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

_____ _____

Signature of vendor doing business with the governmental entity Date

CONFLICT OF INTEREST QUESTIONNAIRE
For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

(A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;

(B) a transaction conducted at a price and subject to terms available to the public; or

(C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

***

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds $2,500 during the 12-month period preceding the date that the officer becomes aware that

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than $100 in the 12-month period preceding the date the officer becomes aware that:

(i) a contract between the local governmental entity and vendor has been executed; or

(ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

(1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);

(2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or

(3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

(A) begins discussions or negotiations to enter into a contract with the local governmental entity; or

(B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

(A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);

(B) that the vendor has given one or more gifts described by Subsection (a); or

(C) of a family relationship with a local government officer.

FORM 1295 INSTRUCTIONS

Certificate of Interested Parties

www.ethics.state.tx.us/File

Implementation of House Bill 1295

Certificate of Interested Parties (Form 1295):

In 2015, the Texas Legislature adopted House Bill 1295, which added section 2252.908 of the Government Code. The law states that a governmental entity or state agency may not enter into certain contracts with a business entity unless the business entity submits a disclosure of interested parties to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency.

The law applies (with a few exceptions) only to a contract between a business entity and a governmental entity or state agency that either (1) requires an action or vote by the governing body of the entity or agency before the contract may be signed or (2) has a value of at least $1 million. The disclosure requirement applies to a contract entered into on or after January 1, 2016.

Changed or Amended Contracts:

Form 1295 is only required for a change made to an existing contract in certain circumstances: (1) if a Form 1295 was not filed for the existing contract, then a filing is only required if the changed contract either requires an action or vote by the governing body or the value of the changed contract is at least $1 million; or (2) if a Form 1295 was filed for the existing contract, then another filing is only required for the changed contract if there is a change to the information disclosed in the Form 1295, the changed contract requires an action or vote by the governing body, or the value of the changed contract increases by at least $1 million.

As required by law, the Commission adopted the Certificate of Interested Parties form (Form 1295) on October 5, 2015. The Commission also adopted rules (Chapter 46) to implement the law. The Commission does not have any additional authority to enforce or interpret section 2252.908 of the Government Code.

Filing Process:

A business entity must use the Form 1295 filing application the Commission created to enter the required information on Form 1295 and print a copy of the completed form. Once entered into the filing application, the completed form will include a unique certification number, called a “certification of filing.”

An authorized agent of the business entity must sign the printed copy of the form affirming under the penalty of perjury that the completed form is true and correct.

The completed, printed, and signed Form 1295 bearing the unique certification of filing number must be filed with the governmental body or state agency with which the business entity is entering into the contract.

Acknowledgement by State Agency or Governmental Entity:

The governmental entity or state agency must acknowledge receipt of the filed Form 1295 with the certification of filing, using the Commission's filing application, not later than the 30th day after the date the governing body or state agency receives the Form 1295. The Commission will post the completed Form 1295 to its website within seven business days after the governmental entity or state agency acknowledges receipt of the form.

Additional Information:

Section 2252.908, Government Code.

Certificate of Interested Parties (Form 1295)**
****This is a sample form for illustration purposes only. DO NOT FILL OUT THIS SAMPLE FORM. Form 1295 MUST BE FILED ELECTRONICALLY! Paper copies and PDF copies of this sample form are not accepted!**

Chapter 46, Ethics Commission Rules (includes new rule 46.4, regarding changes to contracts, which went into effect on January 1, 2017)

Frequently Asked Questions

Last Revision: December 21, 2017

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. ☐

6 UNSWORN DECLARATION

My name is _____, and my date of birth is _____.

My address is _____, _____, _____, _____, _____.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in _____ County, State of _____ , on the _____ day of _____, 20_____.
(month) (year)

_____
Signature of authorized agent of contracting business entity
(Declarant)

ADD ADDITIONAL PAGES AS NECESSARY

Must file online at www.ethics.state.tx.us/File

CONSTRUCTION STAKING CERTIFICATION

CONSTRUCTION STAKING

Control for the project has been set by the Engineer and control is shown in the Construction Plans.

Contractor shall complete all construction staking. Cut sheets shall be provided to the inspector.

Prior to commencement of the work by the Contractor at the site, the Contractor shall submit as a shop drawing submittal a digital file containing a minimum of two Birkhoff, Hendricks & Carter, L.L.P. control points and this certification that the construction staking is tied to the project control points established in the Plans. This shall be submitted as a shop drawing submittal.

The Engineer will review Contractor's electronic survey file to verify that the survey file is tied to the project control.

I, _____ of _____ certify that all
(Surveyor's Name) *(Company)*

construction staking is tied to the project control system.

_____	_____	_____
Signature	Printed Name	Date

Note: To be submitted when construction staking control and cut sheet staking commences.

CITY OF AUBREY, TEXAS

GENERAL PROVISIONS
TO THE
NORTH CENTRAL TEXAS STANDARD SPECIFICATIONS
FOR PUBLIC WORKS CONSTRUCTION

PART I - GENERAL PROVISIONS

DIVISION 1: PROPOSAL REQUIREMENTS AND OTHER GENERAL CONDITIONS

The General Provisions of the North Central Texas Standard Specifications shall be modified and clarified by the addition to the following requirements to the various items. Except when specifically stated, none of the requirements of the General Provisions shall be deleted.

ITEM 102.11. REJECTION OF PROPOSALS

Change the second sentence of Item 102.11 to read: "Proposal shall be rejected for any of the following specific reasons, but not necessarily limited thereto:"

ITEM 102.12. DISQUALIFICATION OF BIDDERS

Change the first sentence of Item 102.12 to read, "Bidders may be disqualified and their proposal not considered for any of the following specific reasons, but not necessarily limited thereto:"

ITEM 103.2. AWARD OF CONTRACT

It is the intention of the Owner to award a contract for the work included in this project on the basis of the lowest acceptable bid submitted by a qualified bidder, as determined by the Owner.

Within ten (10) working days after the bid opening, the low bidder shall submit such evidence as the Owner may require establishing the bidder's qualifications to satisfactorily perform the work included in this project. Information that may be required shall include the following:

(1) Current Financial Statement.

(2) Letter of Auditor's opinion.

(3) Previous years Balance Sheet, Income Statement and Change of Financial Position.

(4) List of projects that have been satisfactorily completed by the Bidder that are of the same general type as included in this contract, together with names, addresses and phone numbers or persons familiar with this work.

(5) Other information that may be pertinent to the Bidder's Qualifications.

Should the bidder fail to produce evidence satisfactory to the Owner on any of the foregoing points he may be disqualified and the work awarded to the next bidder so qualifying.

The Owner will notify the successful bidder, in writing, within sixty (60) days after the date of receiving bids, of the acceptance of the proposal. The Contractor or Contractors shall complete execution of the required Bonds and Contract within ten (10) days of such notice.

ITEM 103.3. SURETY BONDS

Performance Payment and Other Bonds

Contractor shall furnish Performance and Payment Bonds as security for the faithful performance and payment of all his obligations under the Contract Documents. These Bonds shall be, at all times, in amounts equal to the total Contract Price (100%), and in such form as set forth in the Contract Documents and with such corporate sureties as are licensed to conduct business in the state where the Project is located and, are named in the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Department. The Performance and Payment Bonds shall be expanded to include any extension of the Contract Period of total Price.

If the surety on any Bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business in terminated in any state where any part of the Project is located in revoked, Contractor shall within five (5) days thereafter substitute another Bond and surety, both of which may be acceptable to the City.

Additional Bonds

Prior to delivery of the executed Contract by City to the Contractor, City may require CONTRACTOR to furnish such other Bonds in such form and with such sureties as the City may require.

ITEM 103.4. INSURANCE

Add the following:

Additional Insurance

Prior to delivery of the executed Contract by City to the Contractor, City may require CONTRACTOR to furnish such additional insurance in such form and with such insurers as the City may require.

ITEM 103.6. NOTICE TO PROCEED AND COMMENCEMENT OF WORK

Upon Owner's receipt of the executed Contract and the required insurance and surety bonds, a Notice to Proceed shall be issued by the Owner indicating the date upon which the Contract time shall start and the projected date of completion. The Owner will attempt to provide the work order within the time specified in the Specifications. The Contractor shall commence work within 10-days from the date specified in the written work order. No work shall commence before the notice to proceed has been issued.

ITEM 104.2. CHANGE OF MODIFICATION OF CONTRACT

Item 104.2.3. Extra Work

No work shall be undertaken which requires extra payment without having an executed change order approved by the Contractor and the Owner, except when so ordered in writing.

ITEM 105.1. CONTRACT OF DOCUMENTS

Item 105.1.1. Priority of Contract Documents

Revise this item to read:

In case of conflict between contract documents, priority of interpretation shall be in the following order: signed agreement, performance and payment bonds, addenda, special conditions, project drawings and specifications, City of Aubrey

Special Provisions to the Standard Specifications for Public Works Construction - North Central Texas, standard drawings, advertisement for bids, contractor's bid proposal and bid form.

Item 105.1.3. Contract Drawings and Specifications

In general, the number of copies of the plans and specifications furnished to the Contractor shall be limited to five (5). Additional copies may be obtained at cost of reproduction.

ITEM 105.2. WORKMANSHIP, WARRANTIES AND GUARANTEES

Item 105.2.2. Special Warranty

Add the following:

The Contractor shall provide a Maintenance Bond in the amount of one hundred percent (100%) of the total amount of the contract guaranteeing the work in accordance with the plans and specifications for a period of two (2) years after acceptance by the City of Aubrey. This bond shall provide for repair and/or replacement of all. defects due to faulty material and workmanship that appear within a period of two (2) years from the date of completion and acceptance of the improvements by the City of Aubrey.

ITEM 105.3 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

Review of Shop Drawings by the Engineer shall be of the sole purpose of determining the sufficiency of the said drawings or schedules to result in finished improvements in conformance with the plans and specifications, and shall not relieve the Contractor of his duty as an independent contractor. It being understood and agreed that the Engineer does not assume any duty to pass upon the propriety or adequacy of such drawings or schedules or any means or methods reflected thereby in relation to the safety of either person or property during the Contractor's performance hereunder.

ITEM 105.4 CONSTRUCTION STAKES

Delete this section in its entirety. The Contractor shall be responsible for setting any field construction staking.

ITEM 105.9. INSPECTION

Item 105.9.2 Final Inspection

Within ten (10) days after the Contractor has given the Engineer written notice that the work has been completed, or substantially completed, the Engineer and the Owner shall inspect the work and within said time, if the work be found to be completed or substantially completed in accordance with the Contract Documents, the Engineer shall issue to the Owner and the Contractor his Certificate of Completion, and there upon it shall be the duty of the Owner within ten (10) days to insure a Certificate of acceptance of the work to the Contractor or to advise the Contractor in writing of the reason for non-acceptance.

ITEM 105.10 ACCEPTANCE

Within ten (10) days after the Contractor has given the Engineer written notice that the work has been completed, or substantially completed, the Engineer and the Owner shall inspect the work and within said time, if the work be found to be completed or substantially completed in accordance with the Contract Documents, the Engineer shall issue to the Owner and the Contractor his Certificate of Completion, and there upon it shall be the duty of the Owner within

ten (10) days to insure a Certificate of acceptance of the work to the Contractor or to advise the Contractor in writing of the reason for non-acceptance.

Definition of Substantially Complete: The date of substantial completion of a project or specified area of a project is the date when the construction is sufficiently completed, in accordance with the contract documents, as modified by any change order agreed to by the parties, so that the Owner can occupy or utilize the project or specified area of the project for the use for which it was intended.

ITEM 107.2. INDEMNIFICATION

Delete Item 1.22.2 in its entirety and substitute therefore the following:

The Contractor and his sureties shall indemnify, defend and save harmless the OWNER and all of its officers, agents and employees, ENGINEER and all of its officers and employees from all suits, actions or claims of any character, name and description brought for or on account of any injuries, including death or damages received or sustained by any person, persons or property on account of the operations of the Contractor, his agents, employees or subcontractors; or on account of any negligent act or fault of the Contractor, his agents, employees or subcontractors in the execution of said contract; or on account of the failure of the Contractor to provide the necessary barricades, warning lights or signs; and shall be required to pay any judgment, with cost, which may be obtained against the Owner or Engineer growing out of such injury, including death or damage.

ITEM 107.9. PERFORMANCE OF THE WORK

Add the following to the end of the first paragraph: "regardless of the expected completion date set forth in the Contract Documents."

At such time as actual construction has been started, the work will not be stopped or delayed without written permission of the Owner, excluding delays caused by adverse weather conditions. The Contractor shall maintain at all times sufficient equipment and personnel on the project to produce satisfactory progress during the construction period.

ITEM 107.13. EQUAL EMPLOYMENT OPPORTUNITY

Delete the last paragraph in this item in its entirety (107.13.5. – Reports).

ITEM 107.14. STATE AND LOCAL SALES AND USE TAXES

The OWNER qualifies for exemption from the state and local sales and use taxes, pursuant to the provisions of Section 151.309 of the Texas Limited Sales, Excise and Use Tax Act. Therefore, the Contractor shall not pay such taxes which would otherwise be payable in connection with the performance of this contract.

The Contractor shall issue an exemption certificate in lieu of the tax on the purchase, rental or lease of:

a) all materials, supplies, equipment and other tangible personal property incorporated into the real property being improved; and

b) all materials, supplies, equipment and other tangible personal property used or consumed by the Contractor in performing the contract with the Owner.

Materials and supplies "used in the performance of a contract" include only those materials actually incorporated into the property being improved and those supplies directly used to incorporate such materials into the property being improved. Overhead supplies and supplies

used indirectly or only incidental to the performance of the contract with the Owner are not included in the exemption.

Under "reasons said purchaser is claiming this exemption: in the exemption certificate, the Contractor must name the Owner and the project for which the equipment, materials and supplies are being purchased, leased or rented.

ITEM 107.19. PROTECTION OF WORK AND OF PERSONS AND PROPERTY

Item 107.19.2. Protection of Persons and Property

The Contractor shall at all times exercise reasonable precautions for the safety of employees and others on or near the work and shall comply with all applicable provisions of Federal, State, and Municipal safety laws and building and construction codes. All machinery and equipment and other physical hazards shall be guarded in accordance with the "Manual of Accident Prevention in Construction" of the Associated General Contractors of America except where incompatible with Federal, State, and Municipal laws or regulations. The Contractor shall provide such machinery, guards, safe walkways, ladders, bridges, gangplanks, and other safety devices. The safety precautions actually taken and their adequacy shall be the sole responsibility, of the Contractor, acting at his discretion as an independent contractor.

MATERIALS AND CONSTRUCTION METHODS

STANDARDS:

All work included as a part of this contract shall be performed in accordance with the Standard Specifications for Public Works Construction - North Central Texas, 4"' Edition, dated 2004, except where noted otherwise in the City of Aubrey's supplemental "Special Provisions", the Special Conditions, and the Special Specifications included in these Specifications and Contract Documents.

NOTE: The * symbol specifies that this item is also covered in the City of City of Aubrey's "Special Provisions" to the "Standard Specifications for Public Works Construction, North Central Texas". These Special Provisions are additional and modify the "Standard Specifications".

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201.10. Check Dam (Sandbag)
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303.2.* Portland Cement Concrete Pavement Materials
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501.24. Fiberglass (Glass-Fiber-Reinforced Thermosetting-Resin) Wastewater Pipe
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506.3. Laying Water Conduit
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508. Open Cut – Storm Water Conduit Installation
508.1. Description
508.2. General
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801.1. Barriers and Warning and/or Detour Signs
801.2. Metal Beam Guard Fence
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802. Steps and Retaining Walls
802.1. Concrete Steps
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804. Painting and Other Protective Treatments; Pavement Marking
804.1. Description
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805.* Electrical Components and Conduit
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CITY OF AUBREY, TEXAS

GENERAL PROVISIONS TO THE NORTH CENTRAL TEXAS STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

MATERIALS AND CONSTRUCTION METHODS

The North Central Texas Standard Specifications shall be modified and clarified by the addition of the following requirements to the various items. Except when specifically stated, none of the requirements shall be deleted.

DIVISION 200 – SITE PROTECTION AND PREPARATION

ITEM 201.16 MULCHING

Slope and drainage channel seeding shall be in conformance with Item 201.16. Hydromulch Seeding mixture and rate shall be as required under Item 202.6:

ITEM 202.2 TOPSOIL

202.2.3. Construction Methods

Add the following:

A minimum of four (4) inches of topsoil shall be provided on all major thoroughfare medians and rights-of-way and on all earthen channel slopes. This will be material imported from off site. The City will approve material prior to placement.

ITEM 202.6 SEEDING TURF-GRASS

Delete the mixture, rate, and planting dates and substitute:

Type I Unhulled Perennial Bermuda: Reserve and Spangle Top Grass Seeds (September – March)

Type II: Perennial Bermuda Grass – Unhulled: (April – August)

A mix of seed shall be used in overlapping seasons.

202.6.4 Construction Methods

Add as follows:

All seeding operations shall be performed by either "Drilling" or "Cultipacker" process or approved equivalent. Seed shall be covered by + ¼" Topsoil.

202.6.4.1 Description

Add the following:

The Contractor shall maintain the seeded areas including watering until a "Stand of Grass" is obtained. A "Stand of Grass" shall consist of **75% to 80%** coverage, a minimum of one (1) inch in height. Re-seeding will be required in washed areas.

ITEM 203.3 GENERAL SITE PREPARATION

203.3.2 Construction Methods

Add the following: Unless otherwise approved in writing by the City of Aubrey, where excavation to grade established in the field by the Owner terminates in loose or solid rock, the Contractor shall excavate 6-inches below the required subgrade elevations for the entire roadbed width and shall backfill with suitable selected materials as indicated on the plans. Suitable selected material shall include lime treated subgrade or a base material having a plasticity, index not greater than 12. Payment for such work will be made under the items of unclassified street excavation, lime treated subgrade and hydrated lime. The 6-inch lime treated subgrade or base shall be compacted to 95% density.

ITEM 203.7 EMBANKMENT

203.7.2 Construction Methods

Add the following paragraph: Excavated material from the channel which is used as embankment to complete the established alignment, grade and cross-section of the channel shall be compacted to 95% density.

203.7.3 Density

Add: Embankment in the City of Aubrey shall be compacted to not less than 95% of the maximum density.

DIVISION 300 – ROADWAY CONSTRUCTION

ITEM 301 SUBGRADE, SUB-BASE & BASE PREPARATION

301.1 General

Construction Methods

Add the following: Prior to final compaction of subgrade, samples of the subgrade material shall be collected by a testing laboratory approved by the City, and laboratory tests made to determine the amount of lime required.

The application rate for hydrated lime shall be selected to obtain at least the optimum lime percentage indicated by test method ASTM C977-83a, Appendix Xl; however, not less than 27 lbs. per S.Y. shall be applied. A Geotechnical Engineer's report reflecting the recommended application rate and including supporting test data shall be submitted in writing to the City, for approval prior to beginning any lime treatment. Laboratory test may be waived provided a minimum of 36 lbs. per S.Y. is applied.

ITEM 301.2 LIME TREATMENT (Add the following)

The lime treated subgrade shall be moist cured until covered by other base or pavement up to fourteen (14) days after final compaction. After 14 days without covering an application of 0.10 to 0.20 gallons per square yard emulsified asphalt shall be applied at the Contractor's expense. Reapplication of emulsified asphalt may be required if lime treated subgrade is not covered shortly after first application. Lime treated subgrade may be covered by other base or Pavement when density of 95% of maximum at optimum moisture content is obtained.

301.2.1.2 Quicklime (dry) shall not be used in the construction of roadway work in the City.

ITEM 301.3 PORTLAND CEMENT TREATMENT

Add the following: Portland cement modification of subgrade soils is not approved in Aubrey. Subgrade soils means natural ground or embankment encountered in the construction.

ITEM 301.5 FLEXIBLE SUB-BASE OR BASE (CRUSHED STONE / CONCRETE)

General: Add the sentence: No local limestone material shall be used as flexible base (crushed limestone) on Aubrey paving projects, unless. otherwise shown on the plans.

ITEM 302 ASPHALT PAVEMENT

ITEM 302.2 AGGREGATE FOR HOT-MIX ASPHALT PAVEMENT

Central Mixing Plant

Add the following: When a fly ash admixture is used with Type I cement in the production of Portland cement concrete, separate silos shall be provided for fly ash and cement and provisions shall be made for individual measurements.

Finishing

Add the following: The finished concrete pavement construction under these specifications is expected to meet certain quality standards for surface of the concrete including the durability, texture, riding surface and appearance. The surface must be durable, firm, dense and well bonded to the aggregate to maintain an appearance and texture which is satisfactory to the Owner. Concrete pavement having a poor surface which has spalled (exposed aggregate) due to poor quality paste, high water-cement ratio, over-vibration, improper curing, extreme weather or any other reason, or does not have a satisfactory riding surface shall be removed and replaced at the Contractor's expense. It is extremely important that the Pavement have a good rideable surface, free from undulations and rough joints. The City Engineer shall determine the acceptability of the Pavement.

- Machine Finishing

  Machine finishing of pavement shall include the use of power-driven spreaders, reciprocating type power-driven vibrators, power-driven transverse strike-off, and screed.

  The concrete pavement shall be consolidated by a reciprocating type mechanical vibrator. As soon as the concrete has been spread between the forms, the mechanical vibrator shall be operated to consolidate the concrete and remove all voids. Hand manipulated vibrators shall be used for areas not covered by the mechanical vibratory unit.

  The transverse finishing machine shall first be operated to compact and finish the pavement to the required section and grade, without surface voids. The machine shall be operated over each area as many times and at such intervals as directed. At least two trips will be required and the last trip over a given area shall be a continuous run of not less than 40 feet. After completion of finishing with the transverse finishing machine a transverse drag float may be used.

  After the floating has been completed and the excess water removed, but while the concrete is still plastic, the surface of the concrete shall be tested for trueness with an approved 10-foot steel straightedge furnished by the Contractor. The straightedge shall be operated from the side of the pavement, placed parallel to the pavement centerline and passed across the slab to reveal any high sports or depressions. The straightedge shall be advanced along the pavement in successive stages of not more than one-half its length. Practically perfect contact of the straightedge with surface will be required, and the pavement shall be leveled to this condition, in order to insure conformity with the surface test required below after the pavement has fully hardened and to insure a smooth rideable surface. Any correction of the surface required shall be accomplished by adding concrete if required and by operating the longitudinal float over the area. The surface test with the straightedge shall then be repeated.

  After completion of the straightedge testing and surface correction the surface of the pavement shall be finished by an approved method. Methods available for pavement surface finish

including a burlap drag finish, a broom finish or a belt finish. Unless otherwise shown on the plans, the pavement surface shall be finished with the burlap drag.

a. Burlap Drag Finish

If the surface texture is to be a drag finish, a drag shall be used; it shall consist of a seamless strip of damp burlap or cotton fabric, and it shall produce a uniform surface of gritty texture after dragging it longitudinally along the full width of pavement. For pavement 16 feet or more in width, the drag shall be mounted on a bridge which travels on the forms. The diameter of the drag shall be such that a strip of burlap or fabric at least 3 feet wide is in contact with the full width of pavement surface while the drag is used. The drag shall consist of not less than two layers of burlap with the bottom layer approximately 6 inches wider than the upper layer. The drag shall be maintained in such a condition that the resultant surface is of uniform appearance and reasonably free from gravels over 1/16-inch in depth. Drags shall be maintained clean and free from encrusted mortar. Drags that cannot be cleaned shall be discarded and new drags substituted.

b. Broom Finish

If the surface texture is to be broom finished, it shall be applied when the water sheen has practically disappeared. The broom shall be drawn from the. center to the edge of the pavement with adjacent strokes slightly overlapping. The broom operation shall be so executed that the corrugation. produced in the surface shall be uniform in appearance and not more than 1/16-inch in depth. Brooming shall be completed before the concrete is in such condition that the surface will be torn or unduly roughened by the operation. The surface thus finished shall be free from rough and porous areas, irregularities, and depressions resulting from improper handling of the broom. Brooms shall be of the quality, size, and construction and shall be operated to produce a surface finish meeting the approval of the Owner. Subject to the approval of the Owner, the Contractor may be permitted to substitute mechanical brooming in lieu of the manual brooming as herein described.

c. Belt Finish

If the surface texture is to be belt finish, when straightedging is completed and after sheen has practically disappeared and just before the concrete becomes non-plastic, the surface shall be belted with a 2-ply canvas belt not less than 8 inches wide and at least 3 feet longer than the pavement width. Hand belts shall have suitable handles to permit controlled, uniform manipulation. The belt shall be operated with short strokes transverse to the centerline and with a rapid advance parallel to the centerline.

- Hand Finishing

Hand finishing of concrete pavement will be' permitted in areas where it is not practical or possible to construct with finishing machines. These areas include, but are not limited to, intersections, left turn, lanes, crossovers, transition areas and where the pavement width is not uniform. In all hand finished areas, one-half (½) extra sack of cement per cubic yard of concrete shall be used in the mix. In hand finished areas, the concrete shall be struck off with an approved strike-off screed to such elevation that when consolidated and finished the surface of the pavement shall conform to the required section and grade. The strike template shall be moved forward with a combined transverse and longitudinal motion in the direction the work is progressing, maintaining a slight excess of material in front of the cutting edge. The concrete shall then be tamped with an approved tamping template to compact the concrete thoroughly and eliminate surface voids and the surface screeded to required section. After completion of a strike-off, consolidation and transverse screeding, a hand-operated longitudinal float shall be operated to test and level the surface to the required grade.

Workmen shall operate the float from approved bridges riding on the forms and spanning the pavement. The longitudinal float shall be held in contact with the surface and parallel to the centerline and operated with short longitudinal strokes while being passed from one side of the pavement to the other. If contact with the pavement is not made at all points, additional concrete shall be placed, if required, and screeded, and the float shall be used to produce a satisfactory surface. Care shall be exercised to keep the ends of the float from digging into the surface of the pavement. After a section has been smoothed so that the float maintains contact with the surface at all points in being passed from one side to the other, the bridges may be moved forward half the length of the float and the operation repeated. Other operations and surfaces tests shall be as required for machine finishing.

- Edging at Forms and Joints

After the final finish, but before the concrete has taken its initial set, the edges of the pavement along each side of each slab, and on each side of transverse expansion joints, formed joints, transverse construction joints, and emergency construction joints shall be worked with an approved tool and rounded to the radius required by the plans. A well-defined and continuous radius shall be produced and a smooth, dense mortar finish obtained. The surface of the slab shall not be unduly disturbed by tilting of the tool during use.

At all joints, any tool marks appearing on the slap adjacent to the joints shall be eliminated by brooming the surface. In doing this, the rounding of the edge shall not be disturbed. All concrete on top of the joint filler shall be completely removed.

All joint shall be tested with a straightedge before the concrete has set, and correction shall be made if one side of the joint is higher than the other or if they are higher or lower than the adjacent slabs.

ITEM 303 PORTLAND CEMENT CONCRETE PAVEMENT

ITEM 303.8 PAVEMENT TESTING AND EVALUATION

303.8.2 Pavement Thickness Test

Delete in its entirety and substitute therefore the following:

Upon completion of the work and before final acceptance and final payment shall be made, pavement thickness tests shall be made by the Contractor. Tests shall be made at 400-foot spacings along the length of the pavement. In the event a deficiency in the thickness of pavement is revealed, two (2) subsequent sets necessary to isolate the deficiency shall be made - one at a jointed section prior to the deficient station and one at a jointed section following the deficient station. Additional tests shall be obtained as necessary, at jointed section intervals to isolate the deficient area. Removal and replacement of concrete shall extend to joint boundaries, the full width of pavement section. If the average thickness of pavement in a particular section is less than called for on the plans, the pavement section shall be removed and replaced with the correct thickness, extending to joint boundaries, the full width of the pavement section, at the Contractor's entire expense. No additional payment over the contract unit price shall be made for any pavement of a thickness exceeding that required on the plans.

303.8.3 Pavement Strength Test

Revise the first paragraph to read: During the progress of the work, the Inspector or a commercial laboratory shall cast test cylinders or beams to maintain a check on the strengths of the concrete being placed. Add the following sentence and table: A table titled "PAVEMENT STRENGTH REQUIREMENTS", is provided showing the required pavement thickness, 7-day strength, 28-day strength, minimum cement factor and

maximum slump for each street type to be constructed in Aubrey. Requirements for high strength pavement and less thickness is also shown if required by the City.

Add to the 5th paragraph: Test cores shall be obtained within five (5) working days after the 28-day test results have been provided by the commercial laboratory. All test cores shall be obtained by a commercial laboratory, at the Contractors expense. One (1) core shall be obtained in the immediate area of the deficiency and two (2) additional cores shall be obtained - one at a jointed section prior to the deficient station and one at a jointed section following the deficient station. Additional cores shall be obtained as necessary, at jointed section intervals to isolate the deficient area. Removal and replacement of concrete shall extend to joint boundaries, the full width of pavement section.

Amend the 2nd paragraph on Page 217 to read "Pavement not meeting the minimum specified 28-day strength after cores have been tested shall be removed and replaced at the Contractor's expense." Delete the table and the paragraph below it.

PAVEMENT STRENGTH REQUIREMENTS

Item No.	Street Type	Street Width (F-F)	Thick-ness	Compr. 7-Day	Strength 28-Day	Mm. Cement	Max. Slump
1.	Principal Arterial, Minor Arterial	2-33' & 2-24'	8"	2940	4,000	6.5	3"
2.	Collector (including office and comm. Street)	44' to 36'	8"	2500	4,000	6.0 ,	3"
3.	Residential •	28'	6"	2500	4,000	6.0	3"

ITEM 305 MISCELLANEOUS ROADWAY CONSTRUCTION

ITEM 305.1 CONCRETE CURB AND GUTTER

305.1.3.2 Reinforcing Steel

All bars at splices shall be lapped a minimum of 30 diameters of the bar or 12-inches, whichever is greater.

ITEM 305.2 CONCRETE SIDEWALKS, DRIVEWAY APPROACHES, & BARRIER FREE RAMPS

305.2.2.2 Reinforcement

Revise the first sentence to read:

Driveway approaches and walk reinforcing shall be No. 3 bars on 24-inch centers.

305.2.3 Construction Methods

General: Add to end of first paragraph:

The drive approach shall have a minimum thickness equal to the thickness of the adjacent street or 8 inches, whichever is greater.

305.2.3.7 Joints

Revise second sentence to read:

Expansion joints shall be placed in the sidewalk at 20-foot intervals or as otherwise specified by the Owner.

DIVISION 500 – UNDERGROUND CONSTRUCTION & APPURTENANCES

ITEM 501 UNDERGROUND CONDUIT MATERIALS

ITEM 501.4 CONCRETE PRESSURE PIPE AND FITTINGS

C302 Reinforced Concrete Pressure Pipe, Non Cylinder Type, for Water and Other Liquids, and C300 Reinforced Concrete Pressure Pipe, Steel Cylinder Type, for Water and Other Liquids are not approved for use in the City, unless otherwise shown in the plans or approved in writing. Reinforced concrete cylinder pipe in sizes 16 inches through 21 inches shall be Pretensioned Pipe Type C303. For pipe 42 inches in diameter and above the pipe shall be Prestressed Pipe Type C301. Between 24 inches and 36 inches the pipe furnished may be either type. All pipe shall be designed to withstand the working pressure and external load as shown in the plans.

ITEM 501.5 REINFORCED CONCRETE WASTEWATER PIPE WITH RUBBER GASKET JOINTS

ASTM Designation C76 and shall be of the Thick Wall Pipe design with aggregates consisting of limestone aggregate in the proportion of at least 75 percent by weight of the total aggregates, unless otherwise provided in the Special Conditions to the Specifications.

ITEM 501.7 DUCTILE-IRON PRESSURE PIPE AND FITTINGS (Add the Following)

Minimum design thickness for all Ductile-Iron Pipe installed shall be Class 50 on sizes 12 inches and smaller, and Class 51 on sizes 14 inches and larger.

ITEM 501.9 STEEL PIPE AND FITTINGS

501.9.2 Applicable Standard Specifications (Add the following)

Contractor shall, submit a written certification that the pipe has been manufactured and tested in accordance with the applicable standards.

The pipe shall be manufactured, fabricated, coated and lined by a single manufacture being a certified member in good standing of the Steel Plate Fabricators Association (SPFA).

501.9.3 Pipe and Fitting Requirements

Substitute the following for the sentence following (2) Wall Thickness: All steel pipe to be furnished for this project shall be designed in accordance with AWWA Ml 1 for the most critical application of internal pressures and external loads. The following design conditions shall apply:

Internal Pressure (Design to account for working and surge together)

1) Working Pressure of 200 psi
2) Surge allowance of 250 psi

External Loading for Buried Pipe

1) External loads shall be comprised of the weight of the backfill together with live and' impact loads. Earth loads shall be calculated based on ditch and positive projecting conduit. The earth load for the pipe design shall be the greater of the above two conditions.
2) External live loads shall be at least equivalent to AASHTO HS-20 loading.
3) Modulus of soil reaction (E') < 1000 psi
4) Unit weight of fill (w)> 120 pcf
5) Deflection lag factor (Dl) (1.0)

6) Bedding constant (K) = 0.100

7) hw = h = depth of cover above top of pipe

8) Maximum deflection in percent of pipe diameter 'shall be ad determined by AWWA Ml 1, latest edition, as calculated using moment of inertia of steel cross section of pipe wall. Moment of inertia of cement mortar shall not be included in calculation of maximum deflection.

Available Deflections

Mortar-lined and coated = 2 percent of pipe diameter

Maximum Working Stress

The maximum combined stress based on working pressure shall be no greater than 50 percent of the minimum yield strength or 18,000 psi, whichever is less.

The maximum combined stress based on test pressure shall be no greater than 75 percent of the minimum yield strength or 24,000 psi, whichever is less.

501.9.4 Joints: Add the following:

In general, pipe joints shall be as follows, as indicated on the Drawings or as specified.

1) Flanged joints shall be provided as a minimum at all flanged valves, meters and other equipment.

   a. Flanges: Unless otherwise noted, flanges shall conform to the requirements of AWWA C207, Table D, E or F as required.

   b. Flange Bolts and Nuts: Shall be furnished in size and numbers stipulated in AWWA C207. Unless otherwise indicated, bolts shall be carbon steel to meet the requirements of ASTM Designation A307, Grade B for regular joints.

2) Restrained Lap-Welded slip joints (expanded bell) with a single fillet weld.

3) Carnegie-Shape Rubber Gasket Joint: Bell and spigot rubber gasket joint will be furnished with the bell end of the pipe mechanically expanded to the required internal diameter and the spigot end furnished as a sized Carnegie shape welded to the opposite end of the pipe. The expanded bell and Carnegie spigot shall be designed such that when the pipe is laid and jointed, it will be self-centered, and the 0-ring rubber gasket will be enclosed tightly on all four sides and confined under compression adequate to ensure watertightness. Gaskets to be full-face for use with flat face flanges and ring type for use with raised face flanges. Gasket material for water service pipe shall be cloth inserted rubber sheet, 1/8-inch thick or red rubber, ASTM D1330, Grade 1. Gasket material for air piping shall be as above, but of EPDM.

4) Mechanical Couplings: Mechanical couplings designed to provide a stress relieving flexible joint shall consist of a cylindrical sleeve, two gaskets, two follower rings and a set of bolts and nuts.

   a. Sleeves: Manufactured of ASTM A53 steel, for sizes 10-inches and smaller. ASTM A36 steel for sizes 12-inches and larger. Minimum sleeve length shall be five inches for pipe 12-inches and smaller, 7-inches for pipe 14-inches through 24-inches, and 10-inches for pipe larger than 24-inches.

   b. Follower Rings: Ductile Iron ASTM A536 or AISI Cl 020 Steel.

c. Bolts and Nuts: High strength low alloy steel with heavy semi-finished hexagon nuts.

d. Gaskets: Shall be of synthetic rubber suitable for operating conditions.

e. Shop Finish: Manufacturer's standard unless otherwise noted.

f. Manufacturer: 'Baker 200, Dresser Style 39, Rockwell Series 411 or approved equal.

ITEM 502.6 VALVES

502.6.2 Resilient-Seated Gate Valves for Ordinary Water Works Service

Unless otherwise approved in writing, all Gate Valves for direct buried service in the City's distribution system, 6 inches through 12 inches in diameter, shall be Resilient Seated Gate Valves that conform strictly with the latest specification C-509 or C-515 of the American Water Works Association Standards and must comply with the following supplementary details, changes or additions.

(a) Body: Gate valves shall be iron body designed for a working pressure of 250 psi. All valves shall be hydrostatically tested at 200 psi and shell tested at 500 psi. Any leakage during testing shall be cause for rejection. For ease of repair the body, bonnet and stuffing box shall be flanged together with ASTM Grade B bolts and nuts. Each valve shall have the maker's initials, pressure rating, and year in which manufactured cast in the body.

(b) Stems: Stems shall be machined from manganese bronze rod with an integral forged thrust collar machined to size. The stems shall be non-rising and equipped for nut operation, which shall be opened by turning to the left.

(c) Stem Seals: The seals shall consist of two "0" rings above and one "0" ring below the thrust collar. An anti-friction washer shall be located above and below the thrust collar for operating torque.

(d) Stem Nut: The stem nut shall be ASTM'B-62 bronze.

(e) Resilient Wedge: The wedge shall be cast iron, fully encapsulated in molded rubber complying with ASTM D2000. Wedge must have molded wedge guides preventing the disc from tilting downstream during operation. Protective guide cap bearings made of polymer bearing material to provide a bearing interface between the wedge guide and valve interior.

(f) Paint and Protective Coatings: All valves furnished under these specifications shall be painted on the exterior as specified in AWWA C509 with asphalt varnish.

All ferrous metal surfaces in the internal part of the valve shall be protected with a fusion epoxy coating 'to a nominal thickness of 10 mils for corrosion protection and shall be of a color that is easily identified as an epoxy coating.

The proguard fusion epoxy coating shall fully comply with AWWA C550 .and certified NSF 61. The coating shall be 'non-toxic and shall not impart taste to water. The coating must be formulated from materials deemed acceptable per the Food & Drug Administration Document Title 21 of the Federal Regulations of Food Additives, Section 121.2514 entitled Resins and Polymeric Coatings. The coating shall 'have a satin finish and shall be suitable for field overcoating and

touchup with the same coating' material without sanding or special surface preparation, or application of heat in excess of room temperature.

(g) Experience and Certification: Valves, furnished under these specifications, shall be manufactured by a firm that has been producing valves of this general type continuously for. the past 'five (5) years. Each company or. manufacturer supplying valves under these specifications shall have on file, with the City of Aubrey, approved records of experience and detailed drawings of the proposed valves. Drawings shall cover the specific valve to be furnished for installation and shall show all dimensions including metal thickness, construction details and materials used in all parts of the valve together with ASTM Designation and Structural properties of these materials.

The manufacturer shall furnish to the City of Aubrey, a Certification that the valve complies with the specifications without any exceptions. This certification shall apply to specific valves being installed within the City water distribution system. The certification shall state (1) the number of valves covered by the certifications, (2) the Addition where valves are being installed or the Project Name, and (3) name of Contractor installing valves.

The City may require the Manufacturer, Supplier or Contractor to dismantle valves at any time to determine compliance with these specifications. Location of any valve within the City system, installed after adoption of these specifications, that does not meet the specifications completely shall be cause for prohibiting the future use of any valves from the same manufacturer.

(h) Tapping Sleeves: The materials for tapping sleeve bodies shall be cast-iron or ductile-iron in accordance with AWWA Standard Cl 10 (ANSI 21.10), in two sections, or halves to be bolted together with high-strength, corrosion resistant, low alloy steel bolts conforming to AWWA Standard C111 (ANSI 21.11).

Cast iron and ductile-iron sleeve shall be mechanical joint, or as specified, or dimensions to secure, proper fit on the type and class of pipe on which they are to be used. Each sleeve shall be furnished with a 3/8-inch test opening so that tests can' be made prior to tapping. Opening shall be provided with a 3/8-inch bronze plug.

ITEM 504 OPEN CUT - BACKFILL

ITEM 504.2 MATERIALS

504.2.2.1 Add the following sentence:

All stone used for pipe embedment shall be standard crushed rock-aggregate, Grade 4, unless otherwise approved in writing.

ITEM 504.3 EXCAVATION AND FOUNDATION

Prior to start of excavation the Contractor shall remove and stockpile the Topsoil and protect the Topsoil from contamination during construction.

After the trench has been refilled, topsoil shall be replaced to the extent that rock, excavated from the trench, will be completely covered and the area is returned to its original condition, except that in cultivated areas a minimum of 12 inches of top soil shall be replaced.

ITEM 504.4 BACKFILL – GENERAL REQUIREMENTS

The material used in the backfill shall be pulverized to the extent necessary to produce, a free flowing material free of clay balls larger than 6-inch diameter.

ITEM 504.5 EMBEDMENT (Add the Following)

Rock Cuttings or Sand will not be permitted in the pipe bedding for sanitary sewer or water lines in the City of Aubrey.

504.5.2.15 Class "H" Embedment:

The embedment consists of a completely encased pipe with Standard Crushed Stone, Grade 4. Class "H" Embedment shall be used on the P.V.C. Sanitary Sewer Pipe installed within the City of Aubrey.

After the trench has been cut to a depth below the barrel of the pipe a distance of 1/8 Bc (3 inches minimum and 6 inches maximum), the bedding layer shall be brought to a point slightly above grade with compacted crushed stone. Bell holes shall be formed and the pipe laid and joined as specified. The stone shall be brought up in uniform layers of six inches to a point six inches over the top of the pipe when compacted. On PVC Pipe 18 inches through 27 inches in diameter the crushed stone shall be brought up in uniform layers to a point nine inches over the top of the pipe when compacted.

ITEM 506 OPEN CUT – WATER CONDUIT INSTALLATION

506.3 Laying Water Conduit

Valves for installation in the City's distribution system shall be installed by direct burial as shown on the standard detail sheets and shall be provided with valve boxes for operation of the valve.

506.5 Hydrostatic Test:

All hydrostatic tests shall be maintained over a period of not less than four hours.

"Before being accepted, all ductile iron, C-900 PVC or concrete cylinder water mains shall be tested with a hydraulic test pressure of not less than four hours. Concrete pressure pipe shall be tested with a hydraulic test pressure of 120 percent of the design pressure. Steel pressure pipe shall be tested with a hydraulic test pressure not to exceed 150 percent and not less than 120 percent of the designed working pressure. The rate of leakage of all pipe tested shall not exceed the amounts shown in the tables titled "Hydrostatic Test-C-900 PVC, Steel or Ductile Iron Water Mains" or "Hydrostatic Test-Concrete Cylinder Water Mains". Water lines of material in combination shall be tested for the type of pipe (material) with the least stringent hydraulic test pressure and maintained over a period of not less than four hours."

HYDROSTATIC TEST

C-900 OR 905 PVC, STEEL OR DUCTILE-IRON WATER MAINS

GALLONS ALLOWED									
L.F. Pipe	Pipe Diameter								
	4”	6”	8”	10”	12”	14”	16”	18”	20”
5	0.016	0.024	0.032	0.039	0.047	0.055	0.063	0.071	0.079
10	0.032	0.047	0.063	0.079	0.095	0.110	0.126	0.142	0.158
20	0.063	0.095	0.126	0.158	0.189	0.221	0.253	0.284	0.316
30	0.095	0.142	0.189	0.237	0.284	0.331	0.379	0.426	0.473
40	0.126	0.189	0.253	0.316	0.379	0.442	0.505	0.568	0.631
50	0.158	0.239	0.316	0.395	0.473	0.552	0.631	0.710	0.789
60	0.189	0.284	0.379	0.473	0.568	0.663	0.758	0.852	0.947
70	0.221	0.331	0.442	0.552	0.663	0.773	0.884	0.994	1.105
80	0.253	0.379	0.505	0.631	0.756	0.884	1.010	1.136	1.263
90	0.284	0.426	0.568	0.710	0.852	0.994	1.136	1.278	1.420
100	0.316	0.473	0.631	0.789	0.947	1.105	1.263	1.420	1.578
200	0.631	0.947	1.263	1.578	1.894	2.210	2.525	2.841	3.157
300	0.947	1.420	1.894	2.367	2.841	3.314	3.788	4.261	4.735
400	1.263	1.894	2.525	3.157	3.788	4.419	5.051	5.682	6.313
500	1.578	2.367	3.157	3.946	4.735	5.524	6.313	7.102	7.891
600	1.894	2.841	3.788	4.735	5.682	6.629	7.576	8.523	9.470
700	2.210	3.314	4.419	5.524	6.629	7.734	8.838	9.943	11.048
800	2.525	3.788	5.051	6.313	7.576	8.838	10.101	11.364	12.626
900	2.841	4.261	5.682	7.102	8.523	9.943	11.364	12.784	14.205
1000	3.157	4.735	6.313	7.891	9.470	11.048	12.626	14.205	15.783

Maximum allowable water loss in 4 hours at 180 pounds per square inch of pressure for a rate of 25 gallons per inch diameter of pipe per mile over a 24-hour period

EQUATION THE ABOVE CHART IS BASED ON:

$$\text{Maximum Loss (Gal.)} = 25 \times \text{Diameter of Pipe in Inches} \times \frac{\text{L.F. of Pipe}}{5280} \times \frac{4}{24}$$

ITEM 506.7 Purging and Disinfection of Water Conduits (Add the following)

On all waterlines installed in the City of Aubrey the Contractor shall be responsible for Purging, Testing and Sterilization of the completed lines.

DIVISION 800 – MISCELLANEOUS CONSTRUCTION & MATERIALS

ITEM 801.5 WIRE FENCING

801.5.2.1 Wire Fencing Fabric: All chain link fencing shall be No. 9 gage copper bearing open-hearth steel wire.

801.5.2.2 Posts

801.5.2.2.1 Metal: All posts shall be heavily galvanized by the hot-dip process after fabrication and shall be fitted with watertight malleable iron caps. All posts shall be of the following size and shape:

Line Posts: "H" Section hot rolled weighing not less than 4.10 pounds per linear foot or 3-1/2-inch O.D. pipe weighing not less than 3.65 pounds per linear foot.

Terminal Posts: Three inch (3") steel pipe weighing not less than 5.79 pounds per linear foot.

Gate Posts: Four inch (4") O.D. steel pipe weighing not less than 9.11 pounds per linear foot.

801.5.2.3 Rails. Gates. Braces and Fittings: Shall be 1-5/8 inch steel pipe weighing not less than 2.27 pounds per linear foot.

ITEM 805 ELECTRICAL COMPONENTS AND CONDUIT

ITEM 805.3 MATERIAL (Add the following)

Pull Box. All pull boxes shall be Quazite precast polymer concrete, or approved equal. Boxes shall be approximately 17" x 30" x 30" and shall be furnished with a concrete cover.

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CITY OF AUBREY, TEXAS
ROCKHILL PUMP STATION AND GROUND STORAGE RESERVOIR
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CITY OF AUBREY, TEXAS
ROCKHILL PUMP STATION AND GROUND STORAGE RESERVOIR

SPECIAL CONDITIONS

SC.01 GENERAL

This project shall be constructed in accordance with the current City of Aubrey Standard Construction Details and Technical Specifications, which include the North Central Texas Council of Governments (NCTCOG) Standard Specifications for Public Works Construction, 2017 5th Edition. Also included is the City of Aubrey Special Provisions that modify, revise, or amend the NCTCOG Standard Specifications. The provisions of this section of the specifications shall govern in the event of any conflict between them and the NCTCOG Standard Specifications for Construction.

SC.02 ENGINEER OF RECORD

The word "Engineer of Record" in these specifications shall be understood as referring to Birkhoff, Hendricks & Carter, L.L.P., Professional Engineers, 11910 Greenville Ave., Suite 600, Dallas, Texas, 75243, Engineer of the Owner, or such other representatives as may be authorized by said Owner to act in any particular position.

SC.03 LOCATION OF PROJECT

This project is located in the City of Aubrey, Denton County, Texas. A map showing the work areas is included in the plans.

SC.04 SCOPE OF WORK

The work to be performed under the base bid of this this contract consists of furnishing all materials, machinery, equipment, superintendence, and performing all work required for furnishing all materials, labor, supervision, tools, equipment, and all incidentals required for the construction of the 1.0-MGD Rockhill Pump Station, and the 0.40-MG AWWA D100 welded steel ground storage reservoir, 2,602 square yards of 8-inch thick reinforced concrete pavement, 1,340 linear feet of 12-inch waterline, along with necessary appurtenances to make the pump station and ground storage reservoir functional and operational, as shown in the plans and called for in these specifications.

SC.05 FORMS, PLANS & SPECIFICATIONS

Forms of Proposal, Contract and Bonds, and Plans and Specifications may be downloaded from Civcastusa.com.

SC.06 TIME AND ORDER OF COMPLETION

All items of work include under this contract shall be completed **Three Hundred Sixty-Five (365) consecutive calendar days** within after the date of the written notice to commence work for the respective sections, subject to such extensions of time as are provided by the General and Special Conditions. The work order shall consist of a written request by the Engineer from the Contractor to proceed with the construction of the project.

SC.07 QUALIFICATION OF BIDDER AND AWARD OF CONTRACT

It is the intention of the Owner to award a contract for the work included in this project on the basis of the lowest acceptable bid submitted by a qualified bidder, as determined by the Owner.

Prior to award of the contract, the bidder shall submit such evidence as the Owner may require to establish the bidder's qualifications to satisfactorily perform the work included in this project. Information that may be required shall include (1) the bidder's current financial statement including amount of funds readily available to commence and carry out the work, (2) a list of equipment available for this project, (3) a list of projects that have been satisfactorily completed by the bidder that are of the same general type as included in this contract, together with the names, addresses and phone numbers of persons familiar with this work, and (4) other information that may be pertinent to the bidder's qualifications.

Should the bidder fail to produce evidence satisfactory to the Owner on any of the foregoing points he may be disqualified and the work awarded to the next bidder so qualifying.

SC.08 ADDENDA

Bidders desiring further information or interpretation of the plans and specifications must make request for such information to the Engineer prior to forty-eight

(48) hours before the bid opening. Answers to all such requests will be given in writing to all bidders in addendum form and all addenda will be bound with and made a part of the contract documents. No other explanation or interpretation will be considered official or binding. Should a bidder find discrepancies in, or omissions from the plans, specifications, or contract documents, or should he be in doubt as to their meaning, he is requested to notify the Engineer in order that a written addendum may be sent to all bidders. Any addenda issued prior to forty-eight (48) hours before the opening of bids will be mailed or delivered to each Contractor contemplating the submission of a proposal on this work. The proposal as submitted by the Contractor will be so constructed as to include any addenda if such are issued by the Engineer prior to twenty-four (24) hours before the opening of bids.

SC.09 LIQUIDATED DAMAGES FOR DELAY BY CONTRACTOR

The Contractor understands and agrees that time is of the essence of this contract and that for each day of delay beyond the date agreed upon for the completion of all items of work herein specified and contracted for (after due allowance of such extension of time as is provided for in the General Conditions of Agreement), the Owner may withhold permanently from the Contractor's total compensation the sum of One Thousand Dollars ($1,000.00) per day late for substantial and final completion as stipulated damages for such delay, or as provided in NCTCOG Schedule 108.8.1(a) for a specified contract amount.

SC.10 COPIES OF PLANS AND SPECIFICATIONS FURNISHED

Three (3) sets of plans in half size and specifications shall be furnished to the Contractor, at no charge, for construction purposes. Additional copies may be obtained at cost of reproduction upon request.

SC.11 STATE AND CITY SALES TAXES

The OWNER qualifies for exemption from the state and local sales and use taxes, pursuant to the provisions of Section 151.309 of the Texas Limited Sales, Excise and Use Tax Act. Therefore, the Contractor shall not pay such taxes which would otherwise be payable in connection with the performance of this contract.

The Contractor shall issue an exemption certificate in lieu of the tax on the purchase, rental or lease of:

a) all materials, supplies, equipment and other tangible personal property incorporated into the real property being improved; and

b) all materials, supplies, equipment and other tangible personal property used or consumed by the Contractor in performing the contract with the Owner.

Materials and supplies “used in the performance of a contract” include only those materials actually incorporated into the property being improved and those supplies directly used to incorporate such materials into the property being improved. Overhead supplies and supplies used indirectly or only incidental to the performance of the contract with the Owner are not included in the exemption.

Under “reasons said purchaser is claiming this exemption: in the exemption certificate, the Contractor must name the Owner and the project for which the equipment, materials and supplies are being purchased, leased or rented.

SC.12 REFERENCED SPECIFICATIONS

Where reference is made in these specifications to specifications compiled by others, such reference is made for expediency and standardization from the material supplier's point of view, and such specifications referred to are hereby made a part of these specifications.

SC.13 TRADE NAMES AND MATERIALS

No material which has been used by the Contractor for any temporary purposes whatsoever is to be incorporated in the permanent structure without written consent of the Engineer.

Where materials or equipment are specified by a trade or brand name, it is not the intention of the Owner to discriminate against an equal product of another manufacturer, but rather to set a definite standard of quality or performance, and to establish an equal basis for the evaluation of bids. Where the words "equivalent", "proper", or "equal to" are used, they shall be understood to mean that the thing referred to shall be proper, the equivalent of, or equal to some other thing, in the opinion of judgment of the Engineer. Unless otherwise specified all materials shall be of the best of their respective kinds, shall be in all cases fully equal to approved samples and shall never have been used for any temporary purpose whatsoever. Notwithstanding that the words "or equal to" or other such expressions may be used in the specifications in connection with a material, manufactured article or process, the material, article

or process specifically designated shall be used, unless a substitute shall be approved in writing by the Engineer, and the Engineer shall have the right to require the use of such specifically designated material, article or process.

SC.14 PERMITS AND RIGHT-OF-WAY

The Owner will provide rights-of-way for the purpose of construction without cost to the Contractor by securing permits in areas of public dedication or by obtaining easements across privately owned property. It shall be the responsibility of the Contractor, prior to the initiation of construction through private property, to inform the property owner of his intent to begin construction. Before beginning construction in areas of public dedication, the Contractor shall inform the agency having jurisdiction in the area forty-eight (48) hours prior to initiation of work, unless otherwise specified herein.

SC.15 PROPERTY LINES & MONUMENTS

The Contractor shall protect all property and right-of-way corner markers, and when any such markers or monuments are in danger of being disturbed they shall be properly referenced and if disturbed shall be reset at the expense of the Contractor.

SC.16 EXISTING STRUCTURES

The plans show the location of all known surface and subsurface structures and service lines. However, the Owner assumes no responsibility for failure to show any or all of these structures on the plans, or to show them in their exact location. It is mutually agreed that such failure shall not be considered sufficient basis for claims for additional compensation for extra work or for increasing the pay quantities in any manner whatsoever, unless the obstruction encountered is such as to necessitate changes in the lines or grades, or require the building of such work, provisions for which are not made in the plans and proposal, in which case the provisions in these specification for extra work shall apply.

SC.17 EXISTING UTILITIES AND SERVICE LINES

The Contractor shall be responsible for the protection of all existing utilities or service lines crossed or exposed by his construction operations. Where existing utilities or service lines are cut, broken or damaged, the Contractor shall replace the utilities or service lines with the same type of original construction, or better, at his own cost and expense. The Contractor shall contact the utility company prior to construction near their services.

SC.18 PUBLIC UTILITIES AND OTHER PROPERTY TO BE CHANGED

In case it is necessary to change or move the property of any owner or of a public utility, such property shall not be moved or interfered with until authorized by the utility company and approved by the Engineer. The right is reserved to the owner of public utilities to enter upon the limits of the project for the purpose of making such changes or repairs to their property that may be made necessary by the performance of this contract.

SC.19 FENCES, DRAINAGE CHANNELS AND CROP DAMAGE

Boundary fences or other improvements removed to permit this construction shall be replaced in the same location and left in a condition as good as or better than that in which they were found. No separate pay item has been established for fence removal and replacement. All work and materials required to remove and replace existing fences shall be considered subsidiary to the appropriate bid items.

Where surface drainage channels are disturbed or blocked during construction, they shall be restored to their original condition of grade and cross section after the work of construction is completed.

In locations where the work site is in or adjacent to fields containing crops, the Contractor shall reimburse the Owner of said crops for all damages thereto as a result of activities of the Contractor, except crops which lie within the permanent or construction easement.

SC.20 PROJECT MAINTENANCE

The Contractor shall maintain, and keep in good repair, the improvements covered by these plans and specifications during the life of his contract.

SC.21 CLEANUP

The Contractor shall at all times keep the job site as free from all material, debris and rubbish as is practicable and shall remove same from any portion of the job site as construction of that portion is completed. No item of work will be considered complete for payment purposes until required cleanup has been performed.

Upon completion of the work, the Contractor shall remove from the site all plant, materials, tools and equipment belonging to him and leave the site with an acceptable appearance. The Contractor shall thoroughly clean all equipment and materials installed

by him and shall deliver over such materials and equipment in a bright, clean, polished and new-appearing condition.

SC.22 GUARANTY AGAINST DEFECTIVE WORK

The Contractor shall indemnify the Owner against any repairs which may become necessary to any part of the work performed under the contract, arising from defective workmanship or materials used therein, for a period of two (2) years from the date of final acceptance of the work.

SC.23 TESTING AND QUALITY CONTROL

A. Testing Materials

Observation of the Contractor's work to determine compliance with the plans and specifications will include testing of material installed on the project. Testing of work performed and materials furnished shall be done by a commercial laboratory employed by the Owner. The Contractor shall use only materials in the work which meet the requirements of the specifications. The City will employ the services of an Engineering Testing Laboratory to make inspections and to sample and test the materials to be used in the work. The Contractor shall furnish, at his own expense, all necessary specimens for testing of the materials and when requested, shall furnish a complete written statement of the origin, composition, and/or manufacturer of any or all materials that are to be used in the work. All materials not conforming to the requirements of the specifications will be rejected.

B. Quality Control

During the construction, the Owner will retain the Engineering Testing Laboratory to perform services related to checking the quality of the work being performed by the Contractor to determine if the improvements are being constructed in accordance with the plans and specifications. THIS QUALITY CONTROL SERVICE DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY WITH REGARD TO CONSTRUCTING THE WORK IN ACCORDANCE WITH THE CONTRACT. If the Contractor fails to meet specified conditions, by the second test, further tests to demonstrate compliance with the contract shall be at the expense of the Contractor.

THE CONTRACTOR SHALL GIVE THE ON-SITE REPRESENTATIVE OF THE OWNER SUFFICIENT NOTICE OF HIS INTENTION TO CONSTRUCT PORTLAND CEMENT CONCRETE PAVEMENT, STRUCTURAL CONCRETE, OR HOT MIX ASPHALTIC CONCRETE TO ASSURE THE ADEQUATE QUALITY CONTROL OF CONSTRUCTION MATERIALS AND WORKMANSHIP.

C. Testing and Quality Control Services

Testing and Quality Control Services shall include but are not limited to the following:

1) Reinforced Concrete Pavement
   a) Analysis of Aggregates
   b) Decantation Tests
   c) Inspect Aggregate Stockpiles
   d) Prepare or Check Concrete Batch Design
   e) Slump and Air Content Tests
   f) Flexural or Compressive Strength Tests

2) Embankment
   a) Moisture - Density Curves
   b) Field Compaction Tests

3) Flexible Base
   a) Sieve Analysis
   b) Liquid and Plastic Limits of Binder Material
   c) Moisture - Density Curves
   d) Field Density Tests

4) Structural Concrete
   a) Mix Design
   b) Batch Plant Weight and Moisture Checks
   c) Slump and Air Tests
   d) Compressive Strength Tests

5) Coating and Painting

SC.24 COORDINATION WITH OTHERS

In the event other contractors are doing work in the same area simultaneously with this project, the Contractor shall coordinate his proposed construction with that of the other contractors.

SC.25 USE OF EXPLOSIVES

Use of explosives will not be allowed on this project.

SC.26 BARRICADES, LIGHTS & WATCHMEN

Where the work is carried on in or adjacent to any street, alley or public place the Contractor shall, at his own cost and expense, furnish and erect such barricades, fences, lights, and danger signals, shall provide such watchmen, and shall provide such other precautionary measures for the protection of persons or property and of the work as are necessary. Barricades shall be painted in a reflective color that will be visible at night. From sunset to sunrise, the Contractor shall furnish and maintain at least one light at each barricade and sufficient numbers of barricades shall be erected to keep vehicles from being driven on or into any work under construction. The Contractor shall furnish watchmen in sufficient numbers to protect the work.

The Contractor will be held responsible for all damage to the work due to failure of barricades, signs, lights and watchmen to protect it and whenever evidence is found of such damage the Contractor shall immediately remove the damage portion and replace it at his cost and expense. The Contractor's responsibility for the maintenance of barricades, signs, and lights, and for providing watchmen shall not cease until the project shall have been accepted by the Owner.

SC.27 SANITARY FACILITIES

Contractor shall furnish temporary sanitary facilities at the site, as provided herein, for the needs of all construction workers and other performing work or furnishing services on the project.

Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extenet. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 men. Contractor shall enforce the use of such sanitary facilities by all personnel at the site.

SC.28 DISPOSAL OF WASTE & SURPLUS EXCAVATION

All trees, stumps, slashings, brush, other debris or deleterious material generated as a part of this work, shall be burned or removed from the property. Any required disposal permits shall be the sole responsibility of the Contractor.

All excavated earth in excess of that required for backfilling shall be removed from the job site and disposed of in a satisfactory manner except in locations where, in the judgment of the Owner, it can be neatly spread over the adjacent area.

SC.29 WATER FOR CONSTRUCTION

The Contractor shall make the necessary arrangements for securing and transporting water for construction, including water for testing, mixing of concrete, sprinkling, flushing, flooding or jetting.

The City of Aubrey will provide water as required at its expense.

Any party requesting use of a temporary water meter, to be attached to a City of Aubrey fire hydrant for the purpose of receiving water for construction, shall use the meter in a proper manner and maintain the meter in working condition.

The Contractor shall apply to the City Water Billing Department to receive a temporary water meter. A deposit of $1,800.00 will be required for use of the meter. If the meter is returned in working condition at the completion of the project, the full deposit of $1,800.00 will be returned. Department regulations govern the extent of refund if the meter is returned in a less than acceptable condition.

Such meter shall be attached to fire hydrants only when water is being discharged from the hydrant. It is unlawful for any party to leave a temporary fire hydrant water meter connected to a fire hydrant at any time when water is not being discharged from said hydrant.

Temporary fire hydrant water meters will be read on a monthly basis by a representative of the Aubrey Utility Meter Department. Water volume used will be reported to, and monitored by, the City Inspector."

SC.30 INSPECTION

The word "Inspection", or other forms of the word, as used in the contract documents for this project shall be understood as meaning the Owner's agent will observe the construction on behalf of the Owner. The Owner's agent will observe and check the construction in sufficient detail to satisfy himself that the work is proceeding in general accordance with the contract documents, but he will not be a guarantor of the Contractor's performance.

SC.31 LIGHTS AND POWER

The Contractor shall provide, at his own expense, temporary lighting and power facilities required for the proper prosecution of the work from utility power.

SC.32 INSURANCE REQUIREMENTS

Before the Contractor commences work in connection with this contract, or before he allows any subcontractor to commence any work, he shall purchase Comprehensive General Liability insurance in the amount of $1,000,000 with Bodily Injury limits of not less than $300,000 each occurrence and $500,000 in the aggregate, and property damage limits of not less than $100,000 each occurrence and $100,000 in the aggregate.

The Contractor shall purchase and furnish to the Owner, an Owner's and Contractor's Protective Liability policy in the amounts designated above, with the City of Aubrey as insured and the Engineer, their agents and employees as additional insureds.

The Contractor shall furnish a Certificate of Insurance for the above coverage with a provision that the Owner will be notified by the insurance company ten (10) days prior to cancellation of the policy during the term of this contract, and if canceled a new policy must be furnished prior to cancellation. All required insurance shall remain in force through the duration of this contract.

All Subcontractors shall comply with the aforementioned conditions.

Should any person sustain bodily injury or property damage within the limits of this project, the Contractor or his Insurance Agent shall investigate immediately and report his findings in writing to the Owner. If the Contractor fails or refuses to investigate and report such occurrence upon notification of the injuried or damaged party or the Owner, then the Owner shall file for coverage under the Owners' and Contractors' Protective Liabilty policy.

SC.33 LINES AND GRADES

Refer to Item 105.4 of the General Provisions of this contract.

SC.34 SUPERINTENDENCE BY CONTRACTOR

The Contractor shall have on the project at all times, as his agent, a competent Superintendent capable of reading and thoroughly understanding the plans and specifications and thoroughly experienced in the type of work being performed. The Superintendent shall have full authority to execute orders or directions and to promptly supply such materials, equipment, tools, labor and incidentals as may be required. Such superintendence shall be furnished irrespective of the amount of the Work subcontracted.

SC.35 CONNECTIONS TO EXISTING FACILITIES

Connections to existing facilities which are in service shall be thoroughly planned in advance, and all required equipment, materials, and labor shall be on hand at the time of undertaking the connections. Work shall proceed continuously (around the clock if necessary) to complete connections in the minimum time. Operations of valves or other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the Owner.

SC.36 CONSTRUCTION SCHEDULE AND PROJECTION OF PAYMENTS

Prior to starting work, the Contractor shall submit a proposed schedule for the work included herein and shall submit any major revisions to this schedule as the project progresses. This schedule shall provide for completion of the project within the time provided in the specifications.

SC.37 EXAMINATION OF SITE OF PROJECT

Prospective bidders shall make a careful examination of the site of the project, soil and water conditions to be encountered, improvements to be protected, disposal sites for surplus materials not designated to be salvaged materials, and as to method of providing ingress and egress to private properties, and methods of handling traffic during construction of the entire project.

SC.38 PARTIAL PAYMENTS

Section 109.5.2-Retainage, of the General Provisions of Agreement (NCTCOG) shall be revised with the addition to the following:

On projects where the contract price, at the time of execution, is greater than $400,000, the Owner shall retain 5% of the amount due the Contractor until final payment.

SC.39 CONSTRUCTION IN PUBLIC ROADS AND PRIVATE DRIVES

No public road shall be entirely closed overnight. It shall be the responsibility of the Contractor to build and maintain all weather bypasses and detours, if

necessary, and to properly light, barricade and mark all bypasses and detours that might be required on and across the roads involved in the work included in this contract.

The Contractor shall make every effort to complete construction and allow immediate access to adjacent property at driveway entrances located along the roads. Owners or tenants of improvements where access and/or entrance drives are located shall be notified at least twenty-four (24) hours prior to the time the construction will be started at their driveins or entrances and informed as to the length of time driveways will be closed, which period shall not exceed six (6) hours.

The Contractor shall be responsible for all road and entrance reconstruction and repairs and maintenance of same for a period of one year from the date of such reconstruction. In the event the repairs and maintenance are not made immediately to the satisfaction of the Owner, and it becomes necessary for the Owner to make such repairs, the Contractor shall reimburse the Owner for the cost of such repairs.

The Contractor shall, at all times, keep a sufficient width of the roadway clear of dirt and other material to allow the free flow of traffic. The Contractor shall assume any and all responsibility for damage, personal or otherwise, that may be caused by the construction along roads and private drives.

SC.40 PROTECTION OF TREES

The Contractor shall make every reasonable effort to protect all trees along the project right-of-way. When crossing private property no tree outside of the permanent right-of-way of the project, six inches (6") in diameter or larger shall be removed or have limbs trimmed without the approval of the Owner. Clipping or sawing of branches shall be done neatly by an approved method to prevent splitting or tearing of the wood. Pruning paint shall be applied to the newly cut branches. Minor adjustments in alignment will be allowed to protect trees.

SC.41 TPDES GENERAL PERMIT APPROVED FOR CONSTRUCTION STORM WATER

TPDES Construction General Permit, Permit No. TXR150000, was approved, signed and became effective on March 5, 2023.

The Contractor shall be responsible for obtaining all required and current forms and notices that will be kept at the construction site, and any forms required to be submitted to the Owner and TCEQ. Contractor shall contact TCEQ or visit the TCEQ website for current forms.

The Texas Pollutant Discharge Elimination System (TPDES) program implements the federal National Pollutant Discharge Elimination System (NPDES) program in the state of Texas. The EPA Region 6 (located in Dallas) has administered the Phase I storm water general permit for construction activities disturbing 5 or more acres within the state of Texas until the TPDES permit has been issued. On March 5, 2003 the TCEQ became the permitting authority for these discharges. This general permit also covers storm water discharges from Phase II construction activities that disturb at least 1 acre and less than 5 acres. Further information may be obtained from the Executive Director's Response to Comments and the TXR150000 Fact Sheet. Contact the TCEQ for the latest forms to be used in this project.

A. **5 or More Acres Disturbed** - For construction projects that started after the issuance of the TPDES general permit and that will disturb 5 or more acres:

1) Obtain a copy of the TCEQ CGP (TPDES Permit No. TXR150000).

2) Develop and implement a storm water pollution prevention plan (SWP3).

3) Complete and submit an NOI to the TCEQ (using the TCEQ form) to the address listed on the form prior to the commencement of the construction.

4) Submit an Notice of Termination (NOT) once the site has reached final stabilization.

5) The NOI and NOT Forms and Instructions are attached.

B. **1 to Less Than 5 Acres Disturbed**

For construction projects that will disturb 1 or more acres, but less than 5 acres, including the larger common plan of development:

1) Obtain a copy of the TCEQ CGP (TPDES Permit No. TXR150000).

2) Develop and implement a storm water pollution prevention plan (SWP3).

3) Complete and post a site notice.

4) Before construction begins,

- If the site qualifies, complete and submit a Low Rainfall Erosivity Waiver Form.

- Or complete and post a site notice. (Template at the end of TPDES Permit No. TXR150000)

For construction projects that will disturb 1 or more acres, but less than 5 acres, and are part of a larger common plan of development or sale that will disturb 5 or more acres, refer to 5 or More Acres Disturbed.

C. **Smaller Sites**

For construction projects that will disturb less than one acre and are not part of a larger common plan of development, coverage under this permit is not required.

If the construction activity develops into a larger project, then permit coverage may be required at that time based on the total number of acres that will be disturbed: 5 or More Acres or 1 to Less Than 5 Acres.

SC.42 TRENCH SAFETY SYSTEM

The Contractor may utilize all area within the permanent easements and right-of-way to facilitate trench safety systems. No work shall extend outside of the easements and right-of-way. The Contractor shall provide the Owner an acceptable Trench Safety Plan signed and sealed by a Professional Engineer registered in the State of Texas.

SC.43 COMPLIANCE WITH AIR AND WATER ACTS

In compliance with the Clean Air Act, as amended, 41 U.S.C. Sec. 7401 et. seq., and the regulations of the Environmental Protection Agency with respect thereto the Contractor agrees that.

A. Any facility to be utilized in the performance of this contract or any subcontract shall not be a facility listed on the EPA List of Violating Facilities pursuant to 40 CFR 15.20.

B. He will comply with all requirements of Section 114 of the Clean Air Act, as amended.

SC.44 VIDEO OF PROJECT SITE

The Contractor shall provide a video in MP4 format on a USB drive of the entire project site prior to commencement of construction activities. One copy shall be transmitted to the Engineer and one copy retained by the Contractor.

SC.45 PERMANENT EASEMENTS AND TEMPORARY CONSTRUCTION ACCESS

Letters of agreement between the City and the Owners adjacent to the permanent utility easement are being secured by the City of Aubrey. The Contractor agrees to honor the conditions of these agreements and to restore the area, utilized for temporary construction access, to at least the condition the area was found in prior to activity on the site.

SC.46 WAGE RATES

All employees of the Contractor on the work to be performed under this contract shall be paid the prevailing wage scale in this locality for work of a similar character, and in no event less than the rates shown in Appendix A.

SC.47 ANTITRUST

The Contractor hereby assigns to the Owner any and all claims for overcharges associated with this contract, which arise under the antitrust laws of the United States 15 U.S.C.A. Sec. 1, et seq. (1973).

SC.48 CONSTRUCTION DATA

The Contractor shall keep one record copy of all Specifications, Drawings, Addenda, Modifications, and Shop Drawings at the site in good order and annotated to show all changes made during the construction process. These shall be available to Engineer and shall be delivered to him for Owner upon completion of the work.

SC.49 PRE-CONSTRUCTION CONFERENCE

Prior to the commencement of work at the site, a pre-construction conference will be held at a mutually agreed time and place. The conference shall be attended by:

- Contractor and his superintendent
- Principal Subcontractors together with Principal suppliers and manufacturers' representatives
- Engineer
- Representatives of Owner

- Materials Testing Laboratory
- Others as requested by Contractor, Owner or Consulting Engineer

Unless previously submitted to Owner, Contractor shall bring to the conference a tentative schedule for each of the following:

- Progress Schedule
- Cash Flow
- Shop Drawings and other submittals

The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established.

The agenda will include:

- Contractor's tentative schedules
- Transmittal, review and distribution of Contractor's submittals
- Processing applications for payment
- Maintaining record documents
- Critical work sequencing
- Field decisions and Change Orders
- Use of premises, office and storage areas, security, housekeeping, and Owner's needs
- Major equipment deliveries and priorities

Owner will preside at the conference and will arrange for keeping the minutes and distributing the minutes to all persons in attendance.

SC.50 SHOP DRAWINGS & ENGINEERING DATA

Shop drawings and engineering data (submittals) covering all equipment and fabricated materials to be furnished under this contract that will become a permanent part of the Work shall be submitted to Engineer for review. This data shall include drawings and descriptive information in sufficient detail to show the kind, size, arrangement, and operation of component materials and devices; the external connections, anchorages, and supports required; performance characteristics; and dimensions needed for installation and correlation with other materials and equipment.

All submittals regardless of origin, shall be stamped with the approval of Contractor and identified with the name and number of this contract, Contractor's name, and references to applicable specification paragraphs and Contract Drawings. Each submittal shall indicate the intended use of the item in the work and shall verify compliance with the Contract Documents. When catalog pages are submitted, applicable items shall be clearly identified. The current revision, issue number, and date shall be indicated on all drawings and other descriptive data.

The Contractor shall be solely responsible for the completeness of each submittal and shall include a Contractor's stamp of approval as a representation to Owner and Engineer that Contractor accepts full responsibility for determining and verifying all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data, and that he has reviewed or coordinated each submittal with the requirements of the work and the Contract Documents.

Where indicated in the equipment schedule section, each submittal shall include a statement prepared by the originator of the drawings and data, certifying compliance with the Contract Documents except for deviations which are specifically identified.

All deviations from the Contract Documents shall be identified on each submittal and shall be tabulated in Contractor's letter of transmittal. Such submittals shall, as pertinent to the deviation, indicate essential details of all changes proposed by Contractor (including modifications to other facilities that may be required as a result of the deviation) and all required piping and wiring diagrams.

Contractor shall accept full responsibility for the completeness of each submission, and, in the case of a resubmission, shall verify that all exceptions previously noted by Engineer are accounted for.

Electronic (PDF) copies of each original Drawing and necessary original data sheets shall be submitted to Engineer at **RockhillPS@bhcllp.com.** Engineer will not accept submittals from anyone but the Contractor. Submittals shall be consecutively numbered in direct sequence of the submittal without division by subcontracts or trades. Resubmittals shall bear the number of the first submittal followed by a letter (A, B, etc.) to indicate the sequence of the resubmittal.

Electronic (PDF) copies of the reviewed submittals will be returned to the Contractor.

When the drawings and data are returned marked REJECTED or REVISE AND RESUBMIT, the corrections shall be made as noted thereon and as instructed by Engineer and electronic (PDF) copies

resubmitted. When the drawings and data are returned marked MAKE CORRECTIONS NOTED or NO EXCEPTIONS TAKEN, no additional copies need be furnished.

Contractor shall verify all corrected data and additional information requested by the Engineer are provided on any resubmittal. Contractor shall direct specific attention to all revisions and shall list separately any revisions made other than those called for by Engineer on previous submissions, in writing.

It will be Contractor's responsibility to schedule the submission of submittals so as not to impede the scheduled construction activities or affect the completion date.

Any need for more than one resubmission, or any other delay in obtaining Engineer's review of submittals, will not entitle Contractor to extension of the Contract Time unless delay of the work is directly caused by a change in the work authorized by a Change Order or by failure of Engineer to return submittals within 21-days after receipt in Engineer's office. If more than one resubmittal is required due to the Contractor's failure to provide all previously requested corrected data or additional information, Contractor shall reimburse the Owner for the Engineer's charges for review of the additional resubmittals. This does not include initial submittal data such as shop tests and field tests that are submitted after the initial submittal.

The Engineer's review of drawings and data submitted by Contractor will cover general conformity to the Drawings and Specifications, external connections and dimensions, which affect the layout. Engineer's review does not indicate a thorough review of all dimensions, quantities, and details of the material, equipment, device, or items shown. Engineer's review of submittals shall not relieve Contractor from responsibility for errors, omissions, or deviations, nor responsibility for compliance with the Contract Documents.

SC.51 OPERATION AND MAINTENANCE MANUALS

Contractor is required to provide Operation and Maintenance (O&M) Manuals, as part of this contract, to the City.

Manuals are to provide concise descriptions, technical details, operating and maintenance instructions, schedules, records, log books, catalogues, principles of operation, methods of operation and other information that will enable the on-going operation and maintenance of the pump station, material, services and equipment.

O&M Manuals shall be submitted to the Owner with cover letter transmitting the documents. All O&M documents shall be submitted at the same time.

The comprehensive descriptions are to be accompanied by appropriate diagrams and other necessary illustrations so as to facilitate knowledge and understanding about the operation of the pump station and equipment.

Operation and maintenance manuals and associated drawings shall be delivered to the City for equipment furnished and installed at the pump station, at least seven (7) days before the substantial startup of the pump station and in the following format:

- Two (2) electronic copies in USB Drives or PDF file emailed, containing all specified electronic files of the operation and maintenance manuals in PDF format.

- Submittal of O&M Manuals shall occur at the same time (one submittal).

SC.52 TRAINING

The contractor shall provide training to the City and shall include, but not limited to, the following:

Item	Duration
Electrical Equipment	4 Hours
Standby Generator	4 Hours
Odor Control	4 Hours
SCADA	4 Hours
Pumps	4 Hours
Valves	2 Hours
Flow Meter	2 Hours

SC.53 OVERTIME WORK

No work shall be scheduled between 7:00 p.m. and 7:00 a.m. or on Saturdays, Sundays, or legal City holidays without permission of Owner. Should Contractor desire to work on these days, they shall contact the Owner, in writing, for approval at least 48 hours in advance. However, emergency work may be done without prior permission. Tie-ins and connections to existing facilities will be made at time authorized by the Owner.

SC.54 DUST CONTROL

Contractor shall take responsible measures to prevent unnecessary dust. Earth surfaces subject to creating dust shall be kept moist with water or by application of a chemical dust suppressant. Dusty materials in piles or in transit shall be covered when practical to prevent blowing. Machinery, motors, instrument panels, or similar equipment, shall be protected by suitable dust screens with proper ventilation included.

SC.55 POLLUTION CONTROL

Contractor shall prevent the release of sanitary wastes, sediment, debris and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris or other substance will be permitted to enter sanitary sewers and reasonable measures will be taken to prevent such materials from entering any drain or watercourse.

SC.56 PROJECT ACCESS

Access to the project is limited to public right-of-way and permanent and temporary construction easements. If additional access is required or desired it shall be acquired by the Contractor, with written approval from the affected property owners being provided to the Owner. Such approval shall be received by the Owner prior to use of additional access areas. Contractor shall be responsible for all street repairs necessary for use of unapproved streets.

SC.57 CORE SOIL BORINGS

Any core borings and soil data furnished by the OWNER are for the convenience of the CONTRACTOR. The CONTRACTOR shall be responsible for any additional soil or geotechnical information required. The CONTRACTOR shall be responsible for properly designed excavation safety systems to be utilized for any type of subsurface condition found on this Project. The furnishing of soil information by the OWNER in no way relieves the CONTRACTOR of this obligation.

If no core borings or soil data are furnished by the OWNER, it shall be the CONTRACTOR's responsibility to obtain whatever geotechnical information required for preparation of the excavation safety systems.

SC.58 NEXT DAY LOOK AHEAD

The Contractor shall email City Inspector, testing laboratory and Birkhoff, Hendricks & Carter, L.L.P. each week the description of work for the preceding week in the format below:

Next Week (Day) Look Ahead

Owner:_____ Today's Date:_____

Project:_____ By:_____

Bid Item Description	Location	Description of Work Limits of Work

SC.59 PAYMENT FOR MATERIALS ON HAND

The City will only consider major items of equipment for payment as materials on hand prior to installation. Major items of equipment will include the following:

- Pumps
- Generator
- Valves 12-Inches or Larger
- Piping

Materials to be considered for payment must include the original invoice, serial numbers clearly highlighted and instruction sheet from manufacturer on the proper method for storage. Those materials must be stored on the Pump Station Site following the manufacturer's instructions for storage, or in a secure storage container on site. The City may at its option allow storage off site at an approved location. Retainage will be held for materials on hand in the monthly pay request. As the materials are installed the contractor shall notify the inspector that the work is now incorporated into the project and can be removed from the material on hand list.

SC.60 MOBILIZATION

The City has established a bid item for Mobilization. Mobilization includes the City required Bonds, Insurance, and Shop Drawings along with Mobilization. The bid item cannot exceed 3% of the total amount.

Payment for the Bond and Insurance will be paid at execution of the contract and upon the contractor providing the City a copy of the PAID Bond and Insurance premium or a letter from the Bond and Insurance Company stating that the Bond and Insurance is in place for the project.

Payment for the mobilization will be paid in three (3) equal payments and will include the cost of shop

drawing preparation and for the actual mobilization that will occur after the Notice to Proceed is issued. First payment will be the end of the first full month after award of the contract.

WAGES RATES

PREVAILING WAGE RATES FOR MUNICIPAL CONSTRUCTION IN AUBREY, TEXAS

General Decision: TX20250016 07/18/2025
Superseded General Decision Number: TX20240016
State: Texas
Construction Types: Heavy

County: Denton County in Texas.

HEAVY CONSTRUCTION, INCLUDING TREATMENT PLANTS (DOES NOT INCLUDE WATER / SEWER LINES).

For other wage rates or for updated rates, please the Texas General Decision County Index located at beta.sam.gov.

"General Decision Number: TX20250016 07/18/2025

Superseded General Decision Number: TX20240016

State: Texas

Construction Type: Heavy

County: Denton County in Texas.

Heavy Construction, Including Treatment Plants (Does not include water/sewer lines)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be

adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025
1	03/07/2025
2	07/04/2025
3	07/18/2025

ASBE0021-003 06/01/2025

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR (Includes application of all insulating materials, protective coverings, coatings, and finishings to all types of mechanical systems)	$ 33.23	7.52

ELEC0020-004 12/01/2024

	Rates	Fringes
Electricians:		
Cable Splicer	$ 29.81	8.84
Electrician	$ 38.95	11.56

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* ELEC0220-001 06/02/2024

	Rates	Fringes
Line Construction:		
CABLE SPLICERS	$ 17.12 **	14.5%+3.75
EQUIPMENT OPERATORS	$ 25.83	20.50%+7.75
GROUNDMAN	$ 19.28	4.5%+7.80
LINEMAN	$ 41.31	20.5%+7.25
TRUCK DRIVER	$ 23.14	9.5%+7.25

ENGI0178-001 06/01/2020

	Rates	Fringes
Cranes:		
Hydraulic Crane (35 ton & under)	$ 32.35	13.10
Hydraulic over 35 tons,Derricks, Overhead Gentry,Stiffleg,Tower,etc., and Cranes with Piledriving or Caisson attachements	$ 32.60	13.10

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* IRON0263-010 06/01/2025

	Rates	Fringes
Ironworkers:		
Reinforcing & Structural	$ 29.64	8.43

PLUM0100-002 11/01/2024

	Rates	Fringes
Plumbers and Pipefitters	$ 39.76	14.04

SHEE0068-002 11/01/2012

	Rates	Fringes
Sheet metal worker	$ 27.64	8.84

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* SUTX1990-039 08/01/1990

	Rates	Fringes
CARPENTER	$ 10.536 **	
Concrete Finisher	$ 9.603 **	
Form Builder	$ 8.036 **	
Form Setter	$ 9.578 **	
Laborers:		
Common	$ 7.25 **	
Utility	$ 7.25 **	
Pipelayer	$ 7.961 **	
Power equipment operators:		

Backhoe.....$ 10.971 **
Bulldozer.....$ 9.942 **
Front end loader.....$ 10.771 **
Mechanic.....$ 9.88 **
Motor Grader.....$ 11.633 **
Oiler.....$ 9.183 **
Scraper.....$ 8.00 **

TRUCK DRIVER.....$ 7.465 **

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.75) or 13658 ($13.30). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union

rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch

of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

TECHNICAL SPECIFICATIONS

CIVIL

TECHNICAL SPECIFICATIONS - INDEX

CIVIL

TS1 - End Suction Pump & Motor

TS2 - Waterline Materials

TS3 - Isolation Valves and Actuator

TS4 - Swing Check Valves

TS5 - Surge Valve

TS6 - Sump Pump

TS7 - Electromagnetic Flow Meter

TS8 - Mechanical Painting

TS9 - Gas Feed System

TS10 - Water Mixing System

TS11 - Startup of System

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TS13 - Reservoir Coating and Disinfection System

TS14 - Chain Link Fence & Gate

TECHNICAL SPECIFICATIONS

SECTION TS1 - END SUCTION PUMP & MOTOR

TS1.01 GENERAL

The equipment to be furnished under this specification shall consist of three (3) end suction, high service pumps, complete with electric motors for VFD starters application, as specified herein.

TS1.02 SELECTION OF PUMP AND MOTOR

In accordance with the technical specifications, the following manufacturer of End Suction Pump and related appurtenances described herein are acceptable:

A. Cornell Pump Model No. 2.5RB
B. Cornell Pump Model No. 3RB

This listing of manufacturers does not constitute a waiver of the specifications herein. The bidder shall select from the above-listed manufacturers that he has determined can meet the provisions of these specifications. The Bidder's selected manufacturer shall be appropriately indicated in the Bid Summary of the Proposal and Bid Schedule.

TS1.03 INFORMATION REQUIRED WITH SHOP DRAWING

Suppliers shall include descriptive literature, dimensioned prints of all components described herein, and performance data in sufficient detail to fully describe equipment being offered. Shop drawings shall be originals (no copies allowed) provided by the pump manufacturer and certified by the pump manufacturer.

The pump manufacturer shall certify in writing at the time of shop drawing submittal that the complete pump assembly has all been provided and assembled by the pump manufacturer.

TS1.04 PUMP AND MOTOR DESIGN DATA

Pump No. 1 shall conform to the following:

Rated Capacity in GPM	250 gpm
Rated Capacity in MGD	0.36 MGD
Rated Head in Feet	107-Ft.
Maximum Allowable Speed in RPM	1,800 rpm
Maximum Horsepower of Motor	15 HP
Minimum Shut-Off Head – TDH in Feet	127-Ft.
Minimum Run Out Head – TDH in Feet	79-Ft.
Minimum Efficiency @ Design	66%
NPSHA @ Design in Feet	13.1-Ft.
NPSHA @ Runout in Feet	22-Ft.

Pump No. 2 and 3 shall conform to the following:

Rated Capacity in GPM	500 gpm
Rated Capacity in MGD	0.72 MGD
Rated Head in Feet	115-Ft.
Maximum Allowable Speed in RPM	1,800 rpm
Maximum Horsepower of Motor	25 HP

Minimum Shut-Off Head – TDH in Feet ..... 137-Ft.
Minimum Run Out Head – TDH in Feet ..... 88-Ft.
Minimum Efficiency @ Design 78%
NPSHA @ Design in Feet ..... 9.71-Ft.
NPSHA @ Runout in Feet ..... 14.8-Ft.

Pump

The pump(s) shall be on the single stage, single suction, end suction design; horizontal axis and shall be bronze fitted construction. Suction and discharge connections shall be located on opposite sides of the lower casing, allowing removal of the rotating element without disturbing the system piping connections.

The pump curves must intersect the three system curves illustrated in the system curve graph at the end of this technical specification.

A. Casing

The pump casing material shall be ASTM A48 minimum of class 30, cast iron. Water passageways shall be smooth to permit maximum efficiency. Casing shall be hydrostatically tested at 150% of the maximum working pressure under which the pump could operate at design speed. The flanges shall be drilled (125 lb.) ANSI.

The bearing brackets shall be cast as an integral part of the lower casing and have removable bracket caps. The bearing housing shall be doweled for location and anti-rotation. The pump feet shall also be cast as an integral part of the lower casing.

Bronze renewable casing rings shall be furnished, doweled, and shouldered in the casing. Ring dowels shall be located in slots on the split surface of the lower casing.

The casing shall have tapped and plugged holes for priming, venting, and draining.

B. Impeller

The impeller shall be one-piece cast zincless aluminum bronze, ASTM B584-958, double suction type with bronze wear rings. The impeller shall be dynamically balanced, keyed to the shaft and fixed in an axial position by keyed shaft sleeves. Impeller shall be of the enclosed type. The impeller skirt shall be grooved and fit with close tolerances to the casing ring to permit a minimum of recirculation between the impeller and the casing ring for maximum efficiency.

C. Stuffing Boxes

The sealing of the pump liquid cavity shall be with a face type mechanical seal with carbon vs. silicon carbide faces, stationary seat, carbon sealing washer, Viton rubber flexible members, stainless steel metal parts and spring. Seal to be rated for 225°F (1 07°C) at 150 psig (10-34 bar) maximum. Mechanical seals shall be mounted over bronze shaft sleeves.

D. Shaft and Shaft Sleeves

The shaft shall be one-piece carbon steel, (A1SI C1045) sized for the loads transmitted. Shaft deflection shall not exceed .002 inches at the face of the stuffing box when operating between 95% and 105% of capacity at best efficiency at the pump's maximum 60 Hz speed and with full diameter impeller. The shaft shall be protected through the stuffing box by means of bronze shaft sleeves

and they shall be keyed to prevent shaft rotation and locked in place with shaft sleeve nuts and set screws located outside the pump stuffing box. The sleeves shall be sealed with "O" rings to prevent contact of threaded portions of the shaft with the pumped liquid. Shaft shall be finished and polished on all sections. Shaft sleeves shall extend beyond the mechanical seal flanges.

E. Bearings

Bearings shall be single or double row, deep groove ball type; the inboard bearing shall be arranged for radial loads only. The outboard bearing shall be arranged for both radial and axial loads. Both bearings shall be grease lubricated with grease flush through the bearing housing. Bearings shall be designed for an average life of 100,000 hours.

Bearings shall be protected from liquid entry by means of aluminum flingers in the bearing housings.

The outboard bearing cover shall have a plugged opening for tachometer connection. The outboard bearing shall have a retaining ring retention.

F. Base

The pump and driver shall be mounted on a fabricated steel base with drip pans. The pump and driver shall be aligned and bolted in place prior to factory shipment. Final alignment must be performed at the jobsite by the Contractor in accordance with the standards of the Hydraulic Institute and the pump installation, operation, and maintenance instructions. The base shall be grouted to minimize vibration.

The proposed pump assembly shall be mounted to the proposed reinforced concrete pad in the existing pump room. The contractor shall verify the heights and dimensions of the pump base and the existing piping centerline. The contractor shall make the necessary adjustments to properly install, connect, and align the new pump. At Contractor's option, reinforced concrete pad can be replaced.

G. Coupling

A flexible coupling shall be provided between the pump and driver. A coupling guard shall be furnished over the coupling for protection. Coupling shall be Martin 11HS or equal.

H. Coating

See Mechanical Painting Technical Specification – TS5 for requirements.

I. Electric Motor

1. Motors shall be horizontal, normal torque, low starting current, NEMA Design B, squirrel cage, induction type, and be capable for VFD starter application, and full voltage starting in bypass mode. After startup the motor shall be designed for continuous current at 100% rated 15 HP and 25 HP horsepower at a nominal 460 volts on a 480-volt, 3 phase, 60 hertz, alternating current system. Motors shall be Baldor, Nidec (US Motors), or Teco-Westinghouse.

2. Motors shall have Open Drip Proof (ODP) enclosure.

3. The Contractor shall cause the motor to be an integral part and responsibility of the pump supplier who shall be responsible for the adequacy and compatibility of the pump unit components with the motor, motor soft-starting equipment and connections to the power system.

4. The motor shall be designed fabricated, furnished, and tested by factory-authorized representatives experienced in the design and manufacture of the pump and motor for the application.

5. The electric motors shall be the product of a single motor manufacturer regularly engaged in the manufacture of motors having a similar service and of equal size for a minimum period of five years.

6. Motors insulation shall be minimum Class F non-hydroscopic insulation with a Class B temperature rise (80 degrees C in 40 degree ambient by resistance) and having a minimum service factor of 1.15 times full load nameplate rating.

7. The horsepower required at rated capacity shall not exceed 95% of the nameplate horsepower rating of the motor. Any change to the rating shall require immediate notification to the Engineer to determine requirements to meet the limitations of starting equipment. The starting, pull-up and breakdown torques shall satisfy the requirements of the pump under all conditions of the designed operating requirements of the pump. Locked rotor currents shall not exceed the National Electrical Code, Code Letter "G" requirement.

8. The critical speed of the shaft and rotor shall exceed the operating speed by a minimum of 25%.

9. Motors shall be suitable for use on a solid starter and shall comply with latest NEMA MG1, Revision 1, Part 31, Section IV “Performance Standards Applying to All Machines,” Part 31 – “Definite Purpose Inverter-Fed Motors”. Motors shall comply with associated ANSI and IEEE standards unless otherwise amended.

10. Motor bearings shall be Anti-Friction bearings; grease lubricated with an AFBMA rated average life of 10-years when the motor is operated continuously at thrust load required by the pump.

11. Each grease lubricated bearing shall have a grease fitting and grease relief.

12. Lifting eyes or other means capable of sustaining the weight of the motor less the pumping unit shall be provided and loaded so the motor will be balanced in the horizontal position when lifted.

13. Terminal boxes shall be of fabricated steel construction and diagonally split. Terminal box shall have provisions for side entry of conduit as shown on the electrical plans. The terminal box shall be oversized to connect to one 3-inch conduit and shall be one size over NEMA Standards. The internal area of the terminal box shall be fully gasketed for support of the starter leads and limiting foreign matter into the winding. A grounding terminal shall be mounted in the main terminal box and sized for two #2 copper grounding conductors.

14. An auxiliary terminal box separate from the motor power terminal box shall be provided for the space heater leads on the opposite side of the motor. Space heaters shall be 120 volt single-phase from motor soft starter.

15. The following minimum information shall be given on a stainless-steel nameplate:

    - Manufacturer's type designation, frame number, serial number

- Horsepower output
- Temperature rise by resistance at 40 degree C ambient.
- RPM at full load.
- Frequency
- Full load RPM/Number of poles
- Number of phases
- Voltage
- Rated full load amperes
- Service factor
- Motor terminal indemnification diagram
- Direction of rotation
- Bearing ID numbers
- Number of allowable starts within a time period, minimum interval between starts and starting nameplate
- Percent power factor at full load and efficiency
- Locked rotor current.

16. One motor of like rating shall be tested per IEEE 112 applicable sections and forms filled accordingly. All other motors shall be given a short commercial test to determine that they are free from electrical or mechanical defects and to provide assurance that they meet design specifications. All tests shall be made at design voltage unless required otherwise by the standard.

    - No load running current
    - Current Balance
    - High potential test
    - Vibration test
    - Winding resistance test
    - Full load heat run.
    - Current balance check.
    - Pull out, starting and breakdown torque.
    - Locked rotor current
    - Efficiency at full, ¾, and ½ load.
    - Power factor at full, ¾, and ½ load.
    - Bearing inspection and temperature recordings.

17. Motor shall have a sound level no greater than 100-dba at 5-feet as defined by ANSI Standard Methods for "A" Network Analysis.

18. Motors shall not be water-cooled.

TS1.05 FIELD SERVICE AND ACCEPTANCE TESTING

The Contractor shall include in his bid the services of a field service technician for three (3) trips totaling three (3) working days. This service shall be for the purpose of check-out, initial start-up, and certification; at least one of the field trips and one working day shall be for instruction of the Owner after construction and start-up are completed. Field service and parts availability shall be within a one-hundred-mile radius of the jobsite and available within a 24-hour period.

A written report covering the technician's findings and installation approval shall be submitted to the Owner. All labor and utilities necessary to support the above tests shall be furnished by the Contractor at no additional cost to the Owner.

TS1.06 TESTING

The complete pump assembly and motor shall be factory tested and certified copies of test data and test curve shall be furnished to the Engineer. The efficiency, capacity, and horsepower requirements shall be determined for not less than five (5) points along the pump curve, throughout the specified head range from shut-off to maximum run-out operating capacity. The test points shall be points stated on the pump data sheet provided from the shop drawing and the test speed shall be the speed stated in the shop drawing pump data sheets. The assembly shall be hydrostatically tested with published results provided to the City. The pump casting shall not leak. Pump tests shall conform to the following acceptable tolerance bands: 1U of the Hydraulic Institute Standards. Test procedures, interpretation and conversion of data shall conform to the latest requirements of the Test Code of the Hydraulic Institute Standards.

The Owner requires the factory testing to be virtually witnessed. The pump supplier shall provide two weeks' notice of the scheduled Owner's virtual witnessed performance test. The pump test shall be completed with the owner, Engineer and pump supplier being in attendance virtually. The virtual testing shall be, but not limited to the following:

1. Provide a web-based meeting session (Microsoft Teams or Zoom) link, and any passwords associated with link.

2. Test dashboard screen visible to the participants, with test data tables populated in real-time, observing test being performed. Test results shall include pump head, flow, power, and efficiency.

3. Cameras shall be pointed to the pump being tested, dashboard screen and monitoring equipment (flow meter, pressure gauges, any other cab instruments).

4. Test Lab Representative shall perform live view of the pump serial numbers.

5. Provide test results that match virtual witness test results.

Following the completion of the factory tests, the Supplier shall provide to the Engineer an electronic file (.pdf) of certified factory pump performance test curves for each pump. The Engineer shall review test curves and determine that the pumps meet contract requirements, prior to shipment of the pumps. An officer of the pump manufacturer shall certify the results of the pump test curves.

After the pump and motor is installed, the pump manufacturer shall perform a complete pump and motor alignment analysis and vibration analysis to measure alignment, performance, and take vibration readings. Vibration tests for the pump shall conform with the latest Hydraulic Institute Standards ANSI/HI 9.6.4 Vibration Measurements and Allowable Values. Vibration tests for the motor shall conform with the latest ISO 10816-3:2009 Mechanical Vibration. The contractor shall schedule the testing date with the Owner

and the Engineer. A complete alignment and vibration test report shall be provided by the manufacturer for review by the City.

Provide an engineering analysis where the pumping unit shall be designed to safely operate free of resonant frequency. A natural frequency analysis of the head, motor stand (if applicable), and the electric

motor shall be performed with FEA software. A report shall be provided with the submittal showing that the natural frequencies and mode shapes of the pump and motor have been considered in the design of the discharge head and certify that the critical frequency is at least 20% above or below the operating range.

TS1.07 WORKMANSHIP SERVICE AND GUARANTEE

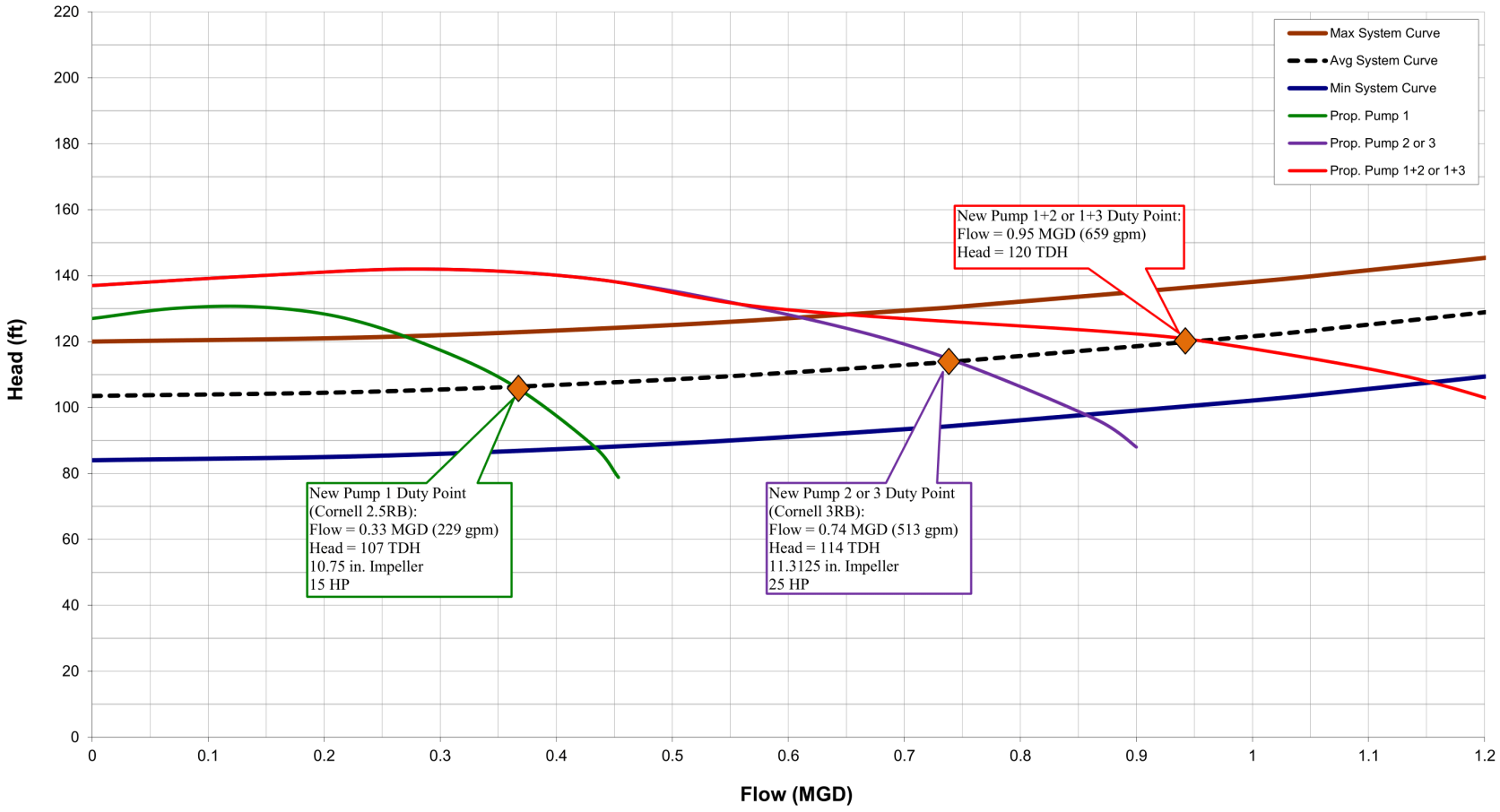
The Pump Manufacturer or Pump Supplier shall furnish the services of a competent serviceman to check completed installation and be present during initial start-up of unit. He shall also instruct operating personnel in the proper care and maintenance of the equipment after it is placed in operation. Instructions shall be a minimum of 4-hours and be separate from installation and startup. The cost of such a service shall be included in the unit contract price.

The workmanship throughout shall be of the highest grade and all equipment furnished shall be guaranteed against defects in workmanship or materials for a period of not less than two (2) years from date of final acceptance.

End of Section

City of Aubrey - 816 S. A. - Rockhill Pump Station - Max Day System Curve									
Flow GPM	Flow (MGD)	Pipe Friction Loss (f/100ft)	Pipe Headloss (feet)	Max Hydraulic Grade (feet)	Avg Hydraulic Grade (feet)	Min Hydraulic Grade (feet)	TDH Head Max. (feet)	TDH Head Avg. (feet)	TDH Head Min. (feet)
0	0.00	0.00	0.00	810.00	808.50	804.00	120	104	84
174	0.25	0.098	1.40	811.40	809.90	805.40	121	105	85
347	0.50	0.353	5.02	815.02	813.52	809.02	125	109	89
500	0.72	0.694	9.88	819.88	818.38	813.88	130	113	94
521	0.75	0.749	10.66	820.66	819.16	814.66	131	114	95
694	1.00	1.272	18.11	828.11	826.61	822.11	138	122	102
750	**1.08**	**1.469**	**20.91**	**830.91**	**829.41**	**824.91**	**141**	**124**	**105**
868	1.25	1.925	27.40	837.40	835.90	831.40	147	131	111
1042	1.50	2.699	38.42	848.42	846.92	842.42	158	142	122
1215	1.75	3.586	51.05	861.05	859.55	855.05	171	155	135
1389	2.00	4.593	65.39	875.39	873.89	869.39	185	169	149
1563	2.25	5.714	81.34	891.34	889.84	885.34	201	185	165
1736	2.50	6.939	98.78	908.78	907.28	902.78	219	202	183

City of Aubrey
Rockhill Pump Station - 816 HWL
10-Year System Curve



H:\Projects\InfoWater Pro\Aubrey\What-If Scenarios\Rockhill Pump Station System Curve\Vendor Pump Curves\Global\Global Pump Solutions Overlayed Rockhill System CurveSystem Curve

TECHNICAL SPECIFICATIONS

SECTION TS2 - WATERLINE MATERIALS

TS2.01 GENERAL

The following water pipe is acceptable for this project in accordance with the City standard details, technical specifications, NCTCOG Standard Specifications, item number and AWWA Standard designation.

TS2.02 PUMP STATION SUCTION & DISCHARGE PIPING & FITTING - 125 PSI WORKING PRESSURE INSIDE PUMP STATION

A. Steel Pipe Inside Diameter-Cement Mortar Lining AWWA 205

NCTCOG Item 501.9

AWWA C200, AWWA C206, AWWA C207, AWWA C208, AWWA M-11 (Design)

B. Ductile Iron Pipe Fittings inside Diameter-Cement Mortar Lined NCTCOG 501.7, AWWA C104, C110, C115, C151, C153

TS2.03 STEEL PIPE (cement MORTAR lined interior)

Furnish labor, materials, equipment and incidentals necessary to install steel pipe, fittings, and specials. Diameter shown in plans is inside diameter.

Header shall be the product of one manufacturer, which has had no less than 5-years successful experience in the manufacturing of pressure pipe of the size indicated. Pipe manufacturing operations (pipe, fittings, coating) shall be performed at one location.

TS2.04 Factory Testing

The Manufacturer shall perform all tests as required by the applicable AWWA standards and as listed herein. Copy of test results shall be provided to the Owner.

A. Hydrostatic Pressure Testing

1) Each section of header shall be hydrostatically tested prior to application of lining or coating. The internal test pressure shall be that which results in a fiber stress equal to 75% of the minimum yield strength of the steel used. Each joint of pipe tested shall be completely watertight under maximum test pressure. As a part of testing, the Pipe Manufacturer shall maintain a recording pressure gauge, reference number of header section tested, etc. The header sections shall be numbered in order that this information can be recorded.

2) Fittings shall be fabricated from hydrostatically tested pipe. Fittings shall be tested by hydrostatic test, air test, magnetic particle test, or dye penetrant test. Air test shall be made by applying air to the welds under 10 pounds per square inch pressure and checking for leaks around and through welds with a soap solution.

B. Charpy V-Notch Test

Each sheet of steel shall be tested for impact values of 25 ft-lb. at 30°F.

TS2.05 SUBMITTALS

Prior to the fabrication of the pipe and within 2-weeks after purchase order is issued, submit fabrication and laying drawings to the Engineer. Drawings shall include a schematic location and a tabulated

layout schedule. Drawings shall also include full details of reinforcement, lining, and dimensions for pipe and fittings. Details for the design and fabrication of all fittings and specials and provisions for thrust restraint shall be included.

Prior to shipment of the header, the Pipe Manufacturer shall submit to the Engineer the following:

A. A Certificate of Adequacy of Design stating that the pipe to be furnished complies with AWWA C-200, AWWA C-205, and these specifications.

B. Results of factory hydrostatic tests.

C. Certified reports of steel cylinder tests and cement mortar for linings.

D. Mill certificates, including chemical and physical test results for each heat of steel.

E. Dye penetrant tests per 3.01 D.11.

TS2.06 STANDARDS

ANSI/NSF	Standard 61
AWWA C-200	Steel Water Pipe 6-Inches and Larger
AWWA C-206	Field Welding for Steel Water Pipe
AWWA C-207	Steel Pipe Flange for Waterworks Service - Sizes 4-Inches thru 144-Inches
AWWA C-208	Dimensions for Steel Water Pipe Fittings
AWWA M-11	Manual: Steel Pipe - A Guide for Design and Installation
ASTM A-307	Low Carbon Steel Externally Threaded Standard Fasteners
ASTM E-165	Practice for Liquid Penetrant Inspection Method

The pipe shall be prepared for shipment to afford maximum protection from normal hazard of transportation and allow headers to reach project site in an undamaged condition. Pipe damaged in shipment shall not be delivered to the project site unless such damaged pipe is properly repaired and approved by the Owner. Repair method shall be provided to the Owner in writing, prior to the repair being made.

After the completed headers have been removed from the final cure at the manufacturing plant, the pipe lining shall be protected from drying by means of plastic end covers banded to the pipe ends. Covers shall be maintained over the pipe ends at all times until ready to be placed in the pump station.

Pipes shall be carefully supported during shipment and storage. Each end of each section of header shall be internally supported and braced with stulls to maintain a true circular shape. Internal supports shall consist of timber stulls firmly wedged and secured so that the stulls remain in place during handling. Header shall be rotated so that one (1 of the stulls is vertical during storage, shipment and installation. Header sections shall be separated so that they do not bear against each other, and the whole load shall be securely fastened to prevent movement in transit. Ship header sections on padded bulks with tie-down straps approximately over stulling. Store header on padded skids, sand or dirt berms, tires, or other suitable means to protect the pipe from damage.

Minimum wall thickness ¼ inch.

Each section of header shall have plainly marked on one end, the class for which it is designated, the date of manufacturer, and the identification number.

The pipe shall be hauled direct from pipe plant to the Pump Station, thus avoiding rehandling of pipe.

The header shall be manufactured in accordance with AWWA C-200 and the requirement of ASTM A-139 Grade C steel and shall be continuous casting.

Where outlets or taps are threaded, furnish and install brass bushings for the outlet size indicated.

Steel header shall be designed, manufactured, and tested in conformance with AWWA C-200, AWWA Manual M-11, with additional requirement of 2% maximum deflection, and with the criteria specified herein. Working pressure for design shall be 120 psi. For the purpose of header design, the design pressure (transient pressure plus working pressure) shall be 1.4 times the working pressure specified.

Header design shall be designed in accordance with AWWA C-208 and AWWA Manual M-11 except that crotch plates shall be used for outlet reinforcement for all Pressure Diameter Values, PDV, greater than 6,000.

The inside diameter shall be a minimum of the nominal inside diameter of the pipe specified.

The minimum wall thickness shall not exceed a fiber stress of 21,000 psi at the specified working pressure, and not exceed 50% of the minimum yield strength of the steel used at the specified working pressure of 120 psi. Steel pipe shall have a minimum wall thickness such that the D/t ratio is no higher than 224, where D = pipe outside diameter, and t = pipe wall thickness.

Flanged joints shall be provided where indicated. Ends to be fitted with slip-on flanges shall have the longitudinal or spiral welds ground flush to accommodate the type of flanges provided. Pipe flanges and welding of flanges to steel header shall conform to the requirements of AWWA C-207 and AWWA C-206. Flanges shall be of rated pressure equal to or greater than the adjacent pipe class.

TS2.07 PUMP STATION YARD PIPING AND WATERLINE

Polyvinyl Chloride (PVC)
NCTCOG Item 501.14
AWWA C900. (DR14, 305 psi rating), refer to City TCSS.

Ductile Iron Pipe and Fittings
NCTCOG Item 501.7
AWWA C104, C105, C110, C111, C115, C151, C153
Buried pipe shall be wrapped in polyethylene tube wrap. Refer to City TCSS.

TS2.08 MISCELLANEOUS

A. All joints in yard piping shall be bonded for electrical continuing along the pipeline.

B. Insulation kits are required between all dissimilar metals.

C. Full faced rubber gaskets shall be utilized at all flanged connections.

D. Bolts and nuts shall be A307, Grade B or A325 (Type 3 Cortex). All flanged connections underground shall be sealed in 2000psi (max) concrete.

End of Section

TECHNICAL SPECIFICATIONS

SECTION TS3 - ISOLATION VALVES

TS3.01 RESILIENT SEATED GATE VALVES

Resilient seated gate valves shall meet the requirements of AWWA C509 or C515 for resilient seated gate valves, and NCTCOG Item 502.6.2, and City TCSS Manuel. The valve coating from the manufacturer shall include interior and exterior, of which both shall be a two-component epoxy meeting NSF Standards. Final top coat shall be applied in the field. Color shall be selected by the City. Contractor shall submit color coupons for acceptance by the City. Field coating shall be in accordance with TS8 of the specifications. City approved manufacturers shall be Mueller, M&H, Clow, or EJ.

End of Section

TECHNICAL SPECIFICATIONS

SECTION TS4 - SWING CHECK VALVES

TS4.01 SCOPE

The check valve shall be of the full body type, with a domed access cover and only two moving parts, the flexible disc and the disc accelerator. The valves shall be designed, manufactured and tested in accordance with American Water Works Association Standards ANSI/AWWA C508. Valves shall be provided with flanges in accordance with ANSI B16.1, Class 125.

The valve body shall be full flow equal to nominal pipe diameter at all points through the valve. The seating surface shall be on a 45 degree angle to minimize disc travel. The top access port shall be full size, allowing removal of the disc without removing the valve from the line. The access cover shall be domed in shape to provide flushing action over the disc for operating in lines containing high solids content. A threaded port shall be provided in the access cover for the mechanical, disc position indicator. A threaded port with pipe plug shall be provided on the bottom of the valve to allow for field installation of a backflow actuator, or hydraulic cushion without special tools or removing the valve from the line.

The disc shall be of one-piece construction, precision molded with an integral O-ring type sealing surface, and contain alloy steel and nylon reinforcement in the hinge area. The flex portion of the disc shall be warranted for twenty-five years. Non-Slam closing characteristics shall be provided through a short 35 degree disc stroke and a disc accelerator to provide a cracking pressure of 0.3 psig.

The disc accelerator shall be of one piece construction and provide rapid closure of the valve. The disc accelerator shall be enclosed within the valve and shall be field adjustable and replaceable without removal of the valve from the line. The disc accelerator shall be securely held in place by being captured between the cover and disc. It shall be formed with a large radius to allow smooth movement over the disc surface.

The valve disc shall be cycle tested 1,000,000 times in accordance with ANSI/AWWA C508 and show no signs of wear, cracking, or distortion to the valve disc or seat and shall remain drop tight at both high and low pressures.

The valve body and cover shall be constructed of ASTM A536 Grade 65-45-12 ductile iron or ASTM-A126 Class B, the disc shall be precision molded Buna-N (NBR), ASTM D2000-BG. The disc accelerator shall be type 302 stainless steel.

A mechanical indicator shall be provided to provide disc position indication. The indicator shall have continuous contact with the disc under all operating conditions to assure accurate disc position indication. In addition, a pre-wired limit switch shall be provided to indicate open/closed position to the SCADA system. The mechanical type limit switch shall be activated by the external position indicator. The switch shall be rated for NEMA 4, 6 or 6P and shall have U.L. rated 5amp, 125 or 250 VAC contacts. Valve body shall allow for a bottom mounted oil dashpot (oil cushion) to be added in the future.

The exterior and interior of the valve shall be coated with an ANSI/NSF 61 approved fusion bonded epoxy coating. Surgebuster® Swing Check Valves Series 7200 as manufactured by Val-Matic Valve & Manufacturing Corporation, or equal.

End of Section

TECHNICAL SPECIFICATIONS

SECTION TS5 - SURGE VALVE

TS5.01 SURGE CONTROL VALVES

The valve shall be furnished and installed at the location shown on the plans. The valve shall be of North American manufacture and be NSF61 approved. The valve shall have flanged ends and shall have angle type body. The valve shall be designed to maintain constant upstream pressure bypassing or relieving excess pressure, and shall maintain close pressure limits without causing surges. The main valve shall be of the hydraulically operated, pilot-controlled, diaphragm type, and shall have a single removable seat and resilient disc. The body shall be cast iron or ductile iron, the disc shall be a resilient synthetic rubber. No external packing glands shall be permitted, and the diaphragm shall not be used as a seating surface. The pilot control shall be a direct-acting, adjustable, spring loaded, diaphragm valve, designed to permit flow when controlling pressure exceeds spring setting. The pilot control system shall operate such that as excess line pressure is dissipated, the main valve shall gradually close to a positive, drip-tight seating. The seat and trim shall be bronze, brass or stainless steel. The valve shall have pressure range from 20 to 200 psi and shall have 150 psi flanged ends. The interior and exterior of the valve shall be fusion bonded coated with an NSF approved epoxy.

Power failure to pump will usually result in down surge in pressure followed by an up surge in pressure. The surge control valve shall open on this initial down surge in pressure and shall remain open so that when the high pressure wave returns it will pass through the valve without generating a large up-surge in pressure. After this wave has passed, the valve shall then close slowly without generating any further pressure surges.

The relief pilot shall be adjusted so that the main valve will just stay closed during normal pumping conditions. The low-pressure pilot shall be set so that it will open on the initial down surge created by the pump failure, but will again close as soon as the initial down surge has passed. High pressure adjustment range shall be 20 to 200 psi. Low pressure adjustment range shall be 15 to 75 psi.

The Contractor shall include in the bid the amount for the surge valve manufacturer's representative to adjust the surge valve at start up and train City personnel on the operation and adjustment of the pilot system.

Surge Control Valves shall Cla-Val Model No. 52-03 or equal.

End of Section

TECHNICAL SPECIFICATIONS

SECTION TS6 - SUMP PUMP

TS6.01 DESCRIPTION

The equipment to be furnished under this section of the specifications shall consist of two (2) submersible sump pumps for the meter vaults, complete with electric motor, and floats as specified herein.

TS6.02 PUMPS

The sump pump located in the meter vault shall be rated at 10 GPM at 10' TDH and shall be a Multiquip Pump or equal. It shall have a 1-horsepower, 15.0 Amps, 115 volts, single-phase motor with automatic thermal overload protection. The pump housing shall be cast iron and the impellers shall be non-clogging, high chrome ductile iron with a urethane coating. Body shall be cast aluminum, cast iron motor casing, stainless steel strainer, stainless steel screws, motor shall be oil cooled with automatic overload reset. 1-inch NPT discharge, 50 foot electrical cord, UL listed 3 wire neoprene shall be provided.

End of Section

TECHNICAL SPECIFICATIONS

SECTION TS7 - ELECTROMAGNETIC FLOW METER

TS7.01 GENERAL

Electromagnetic flow meters shall be installed at the locations as shown on the plans and in accordance with the manufacturer's recommendations.

TS7.02 ELECTROMAGNETIC FLOW TRANSMITTER

A. Flow element shall be of the electromagnetic type utilizing the pulsed DC type coil excitation principle with high preamp input impedance. Unit shall have zero stability feature thereby eliminating the need to stop flow to check zero alignment. Electromagnetic flow meter shall be flange mounted and provided with flange isolation kit to eliminate metal to metal contact and provide electrical isolation from the cathodic protection system installed on the pipeline. Flow meter manufacturer shall coordinate exact requirements with type of cathodic protection system installed on pipeline. Flange isolation kit shall be manufactured by Drake Specialties or approved equal. A detailed drawing showing how the flange isolation kit (with instructions) shall be installed shall be officially submitted with the flow meter for the Engineer's review. Contractor shall provide two separate insulated wires from the upstream mating flange to the downstream mating flange so as to not lose the cathodic protection on either side of the flow meter.

B. The flow meter body shall have an internal diameter not less than the line size indicated and be constructed of fabricated steel with 150lbs AWWA Class D flanged ends of epoxy coated carbon steel. The flow tube shall be rated IP68 for indefinite submersion. The flow meter shall be provided with an NSF 61 drinking water approved hard rubber liner and shall include two 316 SS measuring electrodes. Two additional electrodes for grounding and empty pipe detection shall be of the same material Electrodes shall be either flush or bullet nose type. Suitable covers shall be provided for flow elements ends to protect the tube liner during shipment.

C. The flow meter shall generate a HART 4-20mA and pulse output linearly proportional to flow for full-scale velocity settings from 1 to 33 feet per second. Accuracy of the flow meter shall be ± 0.2% of rate ± 0.01% of full scale (33 ft/sec).

D. The meter shall incorporate a high impedance amplifier of 10^{12} ohms or greater, eliminating the need for electrode cleaning systems. The meter shall utilize bipolar pulsed DC coil excitation with auto-integrated zeroing each half-cycle. Manual zero adjustment shall not be required. Power consumption shall be no more than 15 VA, independent of meter size. Meter shall operate via external120VAC source.

E. Electromagnetic flowmeter shall be McCrometer Model ML03 with TR15-totalizer transmitter 2 wire 4-20mA Output, 2-wire Optically insulated pulse output with TR04-2 pulse output. Flowmeter shall provide flow rate and total volume signals to SCADA.

F. Field coating shall be in accordance with TS8-Mechanical Painting of these specifications.

G. Calibrations, programming and startup of flow meter in the field shall be performed by the instrument manufacturer's factory technicians only. Flow meter will not be accepted without factory technician starting up, programming, and calibrating flow meter. No exceptions.

Field verify cable length prior to submitting shop drawing and provide measured length of cable as part of shop drawing submittal.

TS7.03 MANUFACTURER'S REPRESENTATION

The Contractor shall include in his bid the cost to have the manufacture of the flow meter to provide the services of a representative to complete, calibrate, start-up and training City Staff on the meter.

Prior to the Owner turning on any form of energy to the system, the Contractor shall provide the Engineer with a certified statement of approval of the installation, including his supplier's authorization for turning on energy to the system.

End of Section

TECHNICAL SPECIFICATIONS

SECTION TS8 - MECHANICAL PAINTING

TS8.01 GENERAL

The work to be performed under this Special Condition of the specifications shall consist of furnishing all labor, materials, and equipment necessary for pumps, motors, exposed pipe, valves and fittings, supports, metal work, equipment and all painting not covered in Architectural Specifications as specified herein.

All proposed piping, fittings, meters, and valves shall be painted.

All metal surfaces to be painted shall be sound, clean and free of harmful scale, rust, dirt, oil, grease, moisture, or any other foreign matter which might, in any way, lessen the life or usefulness of the coating. When prepared, Contractor shall have City Inspector review preparation of surfaces for painting.

All metal shall be smooth and free from blisters, rough corners, pits, dents, or other imperfections before painting. Pits and dents shall be repaired to the satisfaction of the Owner prior to painting.

Shop coated surfaces shall be thoroughly cleaned and touched up before the application of subsequent paint coats in the field.

Parts inaccessible after assembly or erection shall be given two coats of shop paint. Each coat of shop paint shall be a different color.

Surfaces which are to be welded after erection shall, where practicable, not receive a shop coat of paint. If painted, such paint shall be removed before field welding, for a distance of at least 2 inches on either side of the joint.

Heads of bolts, surfaces which are unpainted because of welding, and any other areas of structural steel on which the shop coat has been abraded or otherwise damaged shall be touched up with the specified primer after erection. Provide 1-gallon kits of each paint specified and each color selected for touch up at project site.

Paints and similar materials shall be mixed in vessels of adequate capacity. All paints shall be thoroughly stirred before being taken from the containers, shall be kept stirred while using, and all ready-mixed paints shall be applied exactly as received from the manufacturer without addition of any kind of a drier or thinner except in accordance with manufacturer's recommendations and approved by the Engineer. Records of pot life shall be provided to the City each day.

All painting at the site of the work is hereby defined as field painting and the Owner's Representative shall determine where and when painting may be done. All surfaces to be painted shall have their readiness for painting approved by the Owner before work is started.

Surfaces of exposed members inaccessible after erection shall be cleaned and painted before erection.

All painting and curing of coating systems shall be completed with dehumidification turned on and remaining on until coatings are cured, minimum 5-calendar days.

No painting shall take place unless the atmospheric temperature is at least 40^{O}F and rising, or when the surface temperature is below the dew point, or when relative humidity is above 85%, unless approved by the Owner. Painting also shall not proceed if the temperature is expected to fall below 40 F before the paint has dried.

All work shall be completed in a workman-like manner, so that the finished coating is free from bubbles, runs, drips, ridges, waves, brush marks, overspray and variations in color. Surfaces shall be protected from drips, splatters, overspray and the like.

Painting found defective shall be removed and the surface repainted as directed by the Owner at the Contractor's expense.

Before final acceptance of the project, any damaged painted surfaces shall be touched up or repainted, as directed by the Owner at the Contractor's expense.

TS8.02 SHOP PAINTING

All equipment, valves, piping, motors, structural steel and miscellaneous metal proposed shall receive one (1) shop coat of a primer compatible with the field coat specified.

TS8.03 FIELD PAINTING

It is the intent of this section of the specifications that all metal work be properly painted whether or not specific mention is made hereinafter of each individual part of the work. The Steel Structures Painting Council (SSPC) manual on Good Painting Practices shall be followed.

TS8.04 COMPATIBILITY

All primers, inter coats if used and top coats applied to any given surface shall be furnished by the same manufacturer and shall form a compatible coating system, as approved.

TS8.05 COATINGS AND PAINT SCHEDULES

Items to be painted includes, but not limited to, the following:

All exterior surfaces of motors, pumps, valves, cast iron fittings and pipe, ductile iron fittings and pipe, steel fittings and pipe, fittings, mechanical equipment, support systems, steel members, appurtenances and the like shall receive two coats of Tnemec Pota-Pox Plus Series N140 (Beige), 4-6 mils dry film thickness throughout, and two coats of Tnemec Endura Shield Series 740, 2 mils dry film thickness throughout each coat. Exterior of pumps previously coated by paint manufacturer shall receive 2 coats of Tnemec Endura Shield Series 740, 2-mils DFT each coat. Internal surfaces of pump column and internal surfaces of pump discharge head shall receive two coats of NSF approved Tnemec Pota-Pox Plus Series N140 (Beige), 4-6 mils day film thickens. Colors to be selected by Owner.

Interior (Suction Room) Existing Metal.

a) First Coat: Metal Primer Tnemec Series 90-97 Tnemec-Zinc, 3.0-mils DFT.

b) Second Coat: Tnemec Series N69 Epoxyline 2, 3.0-mils DFT.

c) Third Coat: Tnemec Series 1070 Flouronar, 3.0 mils DFT.

Alternative paint manufactures with equal products can be utilized upon written acceptance. Contractor shall furnish necessary data sheets and experience record on alternate manufacturers. All coating systems prime and topcoats shall be of a single manufacture. Topcoat colors shall be selected and color-coded by the Owner. Contractor shall furnish paint manufacturers paint color selection charts for Owner's use in selecting colors.

Aluminum, PVC, hot dipped galvanized steel, brass, and equipment nameplates shall not be painted. Those items shall be protected from runs, splatters, rollers and overspray.

Do not paint over equipment identification, performance rating or nomenclature plates. Do not remove information from such plates from adhesives.

All paint products delivered to the site shall have copy of actual invoice provided to City Inspector, prior to any painting taking place.

End of Section

TECHNICAL SPECIFICATIONS

SECTION TS9 – GAS CHLORINATION FEED SYSTEM

TS9.01 GENERAL

This section of the specifications describes the disinfection system to be furnished and installed as shown in the plans and shall be in accordance with the manufacturers recommendations.

TS9.02 GAS CHLORINATION FEED SYSTEM

The gas chlorinator system shall be a vacuum operated, solution-feed type and shall automatically switch the chlorine supply from an empty cylinder to a full cylinder. It shall be REGAL Model 216 manufactured by Chlorinators Incorporated, Stuart, Florida, and shall have a maximum capacity of 100 lbs/day.

The Model 216 Vacuum-Operated Automatic Switchover Chlorinator shall consist of the following components:

Two (2) Model A-816 automatic switchover vacuum regulators for mounting directly on chlorine gas cylinder valves

One (1) Model A-255 chlorine gas flow meter panel with rate valve

One (1) Model A-300V1 Pressure Relief Valve

One (1) Model A-930 Hi/Low Ejector/check valve assembly

50 feet (50') VT-1 Vent and Vacuum Tubing

Miscellaneous rate valve tool Z-926, Z-297 line bug screen, and replacement gaskets.

The vacuum regulators shall mount directly onto the cylinder valve by means of a positive yoke type clamp having an integral tightening screw with slide bar handle. The main vacuum-regulating diaphragm of each chlorinator shall have a minimum operation area of 13 sq. inches in order to achieve required accuracy and repeatability of the set chlorine flow rate. All metallic bolts shall mate with metallic threaded nuts or inserts. Plastic mating threads for metallic bolts shall not be acceptable.

Each chlorinator vacuum regulator shall have its own diaphragm, safety-shutoff/inlet valve and switchover detent mechanism, thereby, allowing chlorination to continue should it become necessary to remove either vacuum regulator from service for cleaning or servicing. Switchover detent mechanism shall be made of corrosion-resistant materials and shall not require any field adjustment.

A solenoid valve and water inlet assembly consisting of a strainer, pressure gauge and isolation valves shall be provided for each feed point prior to the ejector. A booster pump shall be supplied based on a water supply pressure of 75 psi. Booster pump shall be as manufactured by Dayton Model 45MW68 with one pump control panel. The pump control panel shall be for the 120V, 3/4HP, 1-Phase motor, with 20 AMP breaker and full voltage non-reversing starter. Each well pipeline shall be tapped, and a corporation stop diffuser with safety chain shall be installed.

Pacing Valve: Regal 7000 Smart Valve for flow pacing. The REGAL Series 7000 SMART-VALVE shall be a modular system component capable of automatically varying the gas chemical flow rate from

a REGAL Gas Feed System using standard 4-20 milliamp DC analog input signals. Compound Residual/Flow to be incorporated per site.

Gas Leak Detector: The REGAL Series 3000 Gas Leak Detector (monitor) shall use microprocessor based electronics and shall be capable of accurately sensing and displaying the presence of free chlorine in the environment at levels below those mandated by OSHA throughout the working life of the sensor or sensors used. The detector (monitor) enclosure shall be NEMA 4X. The sensor enclosures shall be water tight, UL approved, and RFI/EMI protected. The gas leak detector shall be connected to an exterior alarm light assembly.

Digital Dual Cylinder Scale: The scale must weigh two 150 lb. Cylinders. The accuracy must be at least 0.5% with cylinders placed anywhere on platform. A digital readout with 0.1 lbs. Or 0.1 kg as well as 4-20mA output is required. All base hardware must be stainless steel. The post and cross bar shall be coated with dry powder polyester plastic. The indicator box must have a NEMA 4X, UL approved rating. The entire base must be molded fiberglass reinforced thermoplastic construction to prevent corrosion. Scale shall be a MODEL 2350 as manufactured by Scaletron Industries, Ltd., Plumsteadville, PA.

Scale must weight two 150 lb Cylinders. The accuracy must be at least 1% with cylinders placed anywhere on the platform. All hardware, pivots, bearings, flexures and rods to indicator must be stainless steel. All levers must be dry powder polyester plastic coated. Post and cross bar must be dry powder polyester plastic coated. The base and disks must be molded fiberglass reinforced thermoplastic construction to prevent corrosion. The scale shall be a Model 2330 as manufactured by Scaletron Industries, Ltd. Plumsteadville, PA.

Emergency Breathing Apparatus: A self-contained breathing apparatus with outdoor cabinet and 30 minute rated cylinder shall be provided. SCBA shall be complete with body harness, air tank, mask and all necessary hoses and regulator valves. The cabinet shall be weather proof and will be wall mounted on the front of the chlorinator building. SCBA shall be an Air-Pak-X3 Pro with CGA cylinder connection.

Chlorine Residual Analyzer: The Total Chlorine Analyzer sensor package shall be amperometic (re-agentless) system, providing continuous measurement of residual chlorine concentration without use of any reagents in the sample stream. A membrane shall protect the electrodes from flow, pressure and conductivity-based interferences. The residual chlorine measuring range shall be 0.10 to 10.0 ppm. The Total Chlorine Analyzer system shall consist of a sensor, sensor holder, chlorine logger monitor and all required cables and parts for one complete assembly. The sensor, holder and monitor shall all be made by the same manufacturer to assure compatibility and provide sole source responsibility. The analyzer shall monitor free chlorine level and alarms, and send the data and alarms to the SCADA/RTU system for remote monitoring. Analyzer system package shall be manufactured by Hydro Instruments, Series RPH-260 or equal.

Chemical Building: The chemical building shall conform to TCEQ regulations. It shall include an exhaust fan (1-foot maximum from the ceiling) Greenheck Model SE1-8-428-P, with a 45° Weatherhood, damper BD-320, and short wall housing. The chemical building shall include an intake vent (1-foot maximum from the finish floor) 12”x12”. The chemical building shall include a unit heater to be wall mounted, UHIR Series with built in thermostat, 3.3kW heater. Chlorine solution piping shall be Schedule 80 CPVC conduit, socket weld type.

TS9.03 QUALITY ASSURANCE

The chlorine disinfection system shall be assembled, tested, and furnished by City’s disinfection system representative, Axis of Haslet, TX (contact Joe Swinnea, phone: 817-988-2239) or approved equal.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION TS10 - WATER MIXING SYSTEM

TS10.01 DESCRIPTION

The equipment to be furnished under this specification shall consist of furnishing, installing, and placing into operation water mixing equipment inside the 400,000 Gallon Ground Storage Reservoir.

TS10.02 PERFORMANCE AND FEATURES

A. Contractor shall furnish one tank mixer with a control panel and install submersible mixing system together with controls and accessories necessary for a complete and operable system. The manufacturer of the mixer shall provide the mixer control panel.

B. Utility power shall be 120VAC Single Phase voltage and a safety disconnect switch and a 20 Amp non-GFCI circuit breaker up to the point of installation of the mixing system utilizing a control panel.

C. The circulation equipment shall operate continuously during day, night, and extended overcast conditions, 365 days per year. Continuous operation when used in this section shall be defined as operating a minimum of 97% of the total hours during the course of one year, on A.C. power.

D. The circulation equipment shall be constructed primarily of Type 316 stainless steel metal for strength and corrosion resistance.

E. The complete mixing system shall be NSF/ANSI Standard 61 certified and UL listed submersible cable for safe contact with portable water.

F. The circulation equipment shall be mechanically operated by a submersible motor that meets the following criteria:

1. Designed to be flow mounted for 0.40-MG steel ground storage reservoir.

2. Designed for full submergence operation with a stainless steel 304 body.

3. Direct Drive, with no gearbox, to avoid lubrication maintenance, 1200 RPM motor speed.

4. Designed for Continuous Operation without overheating or compromising motor life expectancy.

5. 1/2 HP, 120 VAC motor power requirement.

G. The circulation equipment shall be supplied with a control panel capable for the mixer equipment and in accordance with the following criteria:

1. NEMA 4X lockable enclosure shall be provided with protection against condensation and moisture.

2. Control Panel shall be UL 508 Listed for sound electrical design and safety.

3. Control Panel shall include exterior mounted HOA switch, a starter rated for 1/2 HP with built in thermal shut-off and current overload protection, sine filters, and manual speed control. The panel shall include a 120V 20amp breaker, exterior mounted run indicator light, fault indicator light, and locking latch for security. A GFCI shall be included inside the control panel.

4. Control Panel shall include digital input/output signal indication with dry contact connection to send run status/fault/remote control to SCADA system.

5. A NEMA 4X safety disconnect switch shall be installed on the tank roof handrail to safely disconnect the motor.

6. The tank mixer shall be a Kasco tank mixer, model number 240061050-RM-C515. Contact the local representative Joe Swinnea with Axis at (817) 988-2239.

TS10.03 INSTALLATION

A. The circulation equipment manufacturer shall provide Installation, Startup, and On-Site Water Testing Services to insure (a) proper machine spatial placement in the elevated tank, and (b) proper intake depth setting.

B. The field services shall be performed by full time factory trained personnel experienced in the operation of this equipment , and who have completed safety trainings required for this type of installation in compliance with OSHA regulations including (a) Working over Water, (b) Boating Safety, (c) Disinfecting Procedures, (d) Confined Space Entry, (e) Fall Protection, and (f) DOT Compliance.

C. Within 30 days following installation, the manufacturer shall provide an installation report detailing as described in submittal section.

D. The circulation equipment manufacturer shall provide training to City personnel on use of circulation.

E. The mixing unit shall be installed while the tank is dry.

TECHNICAL SPECIFICATIONS

SECTION TS11 - STARTUP OF SYSTEM

TS11.01 SCOPE OF WORK:

Furnish all labor, equipment and incidentals required to perform system startup as specified. Startup shall be considered for the start of each pumping unit. If multiple startups are planned by the Contractor for the start of multiple pumping units, this specification shall apply for each startup.

TS11.02 PRE-START UP CHECK LIST:

The Contractor, Inspector and any other required personnel shall meet prior to the startup to make sure the following items have been accomplished:

A. General

1) All electrical equipment has been installed and adjusted by the supplier as specified.
2) All mechanical equipment specified has been installed properly and anchored. All bolts and nuts are tight.
3) Ventilation system is operational.
4) Heating system is operational.
5) Air Conditioning system in the electrical room is operational.
6) Instrumentation system is operational.

B. Piping and Valves

1) Suction pipe, unless submerged, is vacuum tight. Fasteners are tight at all pipe connections.
2) Pipe supports are installed properly and strain in the equipment (particularly in valve bodies) is eliminated.
3) Harness bolts are installed properly in sleeve and expansion joint connections (unless pipe is externally restrained so that joint cannot separate).
4) The piping has been pressure tested and all pipelines to all equipment have been flushed.
5) Valves operate properly. Test limit switches and pressure switch operation.
6) Pump control or check valves are operational and properly timed or adjusted. (Fine tune during operational test.)
7) Both suction and discharge valves are closed.
8) Automatic valves operate and air receivers (if any) are fully charged.
9) Pressure gauges are installed.

C. Pumps

1) Pumps are level and there is no strain in the pump casing.
2) Seals are adjusted and do not leak.
3) Shaft seals are lubricated as required.

4) The rotation arrow on the pump is in place and correct, and relate arrow to the direction of the pump discharge nozzle.

D. Motors

1) Motor nameplate data (horsepower, speed, and electrical characteristics) agree with the specifications.

2) The equipment has been lubricated as specified by the supplier.

3) Confirm that the coupling between the motor and pump is disconnected. "Bump" the motor to make sure the direction of rotation is correct. Reconnect the coupling.

4) Wiring connections are tight.

5) Temperature overload device is operational.

6) Guards are installed around rotating machinery.

7) Alignment between pump and motor shafts is checked.

TS11.03 PRE-ENERGIZING - ELECTRICAL

A. Electrical gear must be vacuumed out thoroughly to remove construction dust and debris.

B. Every circuit breaker and disconnect switch should be opened before the utility turns on the power.

C. Cable and circuit are identified per contract specification requirements.

D. Automatic and manual switches are furnished and operational.

E. Feeder circuit breakers are installed and adjusted.

F. Main and tie circuit interrupters are rated as specified and capable of carrying full rated current to feed the breakers.

G. Current and potential transformers electrically connected as specified.

H. All control switches are furnished and operate as required.

I. Relay panels are furnished with subpanels, control relays, timing relays, repeat cycle timers, protective relays, phase failure relays, timers, and latching relays and are adjusted as required. Terminal block wiring and all necessary appurtenances are complete.

J. Fuse blocks are furnished.

K. Elapsed-time meters are furnished and are set as specified.

L. Manual motor starters are furnished for the low-voltage, low-horsepower, single-phase equipment and have proper current protection.

M. Line disconnect devices or circuit breakers are furnished for manual starters.

TS11.04 ENERGIZING THE STATION:

Start Up Team shall perform the following:

A. Close the main circuit breaker or fusible switch. This will be the first time that the switchboard bus is energized since the high-pot test (on-site or at the factory).

B. Test for correct voltage range.

C. Test for correct phase sequence.

D. Check calibration of all instrumentation equipment.

E. Test manual control devices. Operate start, stop, jog, etc., devices to determine if the contacts and circuit breakers respond correctly.

F. Test safety devices. Close power devices manually and manually actuate the safety device to determine if the power device trips.

G. Test automatic control systems for placing all equipment in the automatic mode and simulating operation of the various control devices to determine if the power devices function correctly. Simulation of control device operation should be accomplished as close to the process as possible.

H. Check actual motor nameplates against motor starter application data and install correct motor overload heaters. Follow the same procedure for power fuses on high voltage motor starters.

I. Rack in high-voltage starters and circuit breakers to the operating position.

J. Bump Motors. Before bumping any motor, verify that reverse rotation will not damage mechanical equipment.

TS11.05 MAIN PUMP FINAL CHECKLIST

A. Remove the coupling guard, separate the pump coupling half, and check the alignment between the pump and the driver.

B. Check motor and pump lubrication.

C. Energize the master control panel.

D. Energize the local control button and equipment and bump the motor to determine pump rotation relative to the pump arrow and pump nozzle. If pump rotation is incorrect, lock out the pump at the local control, de-energize the pump control, and correct.

E. Reenergize the pump control and push START button to bump the motor and recheck rotation.

F. Rotate the pump shaft manually.

G. Reassemble the pump coupling and replace the coupling guard.

TS11.06 TESTING OF THE MAIN PUMPS:

A. Close all pressure gauges to the liquid being pumped.

B. Energize the pump control.

C. Energize the START button of local control.

D. Open the manually operated discharge valve slowly, and fill the discharge header and the force main or transmission pipeline slowly. Check for undue motor and pump noise and vibration.

E. Open shut-off valves for discharge and suction pressure gauges; bleed all air from the pressure gauge piping or tubing; and compare head at shut-off and flow, head, and power at operating conditions with the pump performance curve. Record data and submit to Engineer.

F. Close the discharge shut-off valve slowly enough to avoid water hammer.

G. De-energize the pump.

H. Determine that check valve limit switches are operating properly.

I. Open the discharge shut-off valve.

J. Energize the pump and note the time of check valve opening. Readjust if required.

K. De-energize the pump and close suction and discharge shut-off valves. Close all valves to pressure switches.

L. After each pump has been tested individually, open all the suction and discharge valves and operate the station as specified.

End of Section

TECHNICAL SPECIFICATIONS

SECTION TS12 - WELDED CARBON STEEL GROUND STORAGE RESERVOIR

TS12.01 DESCRIPTION OF WORK

The work to be performed under this section of the specifications shall comprise the furnishing of all supervision, labor, materials, tools, equipment and incidentals necessary for the construction of a 400,000 Gallon Welded Carbon Steel Ground Storage Reservoir, complete in place as specified herein and as indicated in the plans.

TS12.02 DESIGN AND MATERIALS

Materials, design, welding, shop fabrication, erection and inspection of the tank shall conform with all applicable provisions of American Water Works Association (AWWA) D-100, including Section 14.

The net capacity of the tank shall be between the overflow and the bottom of the tank. The tank shall have dimensions and a head range as indicated in the plans. A water-tight steel roof shall be provided for the toro-conical type with a knuckle radius from the top to the side and shall have all required supporting structural members. The structural roof support beams in the vapor zone of the tank shall be completely seal welded on the underside of the roof.

TS12.03 WELDING

All welding shall be performed in accordance with qualified welding procedures and by welders certified under ASME BPVC Section IX or ANSI/AWS B2.1, in accordance with Section 8.2.2 of AWWA D100. Structural attachments (e.g., support beams, stiffeners, or ladders) shall be welded in accordance with the applicable requirements of AWWA D100 and the referenced standards.

Before welding begins, joints shall be properly aligned, spaced and tacked. The Contractor's welding procedure and joint details shall be followed precisely, and this information shall be furnished as part of the shop drawing submittal process.

Metal edges to be welded shall be wire brushed prior to welding.

Tab plates shall be used at the abrupt end of a weld seam, such as the top of vertical seam in a course of shell plates.

All butt welds which require 100 percent fusion must be back supported with ceramic backing strip behind the joint prior to flux-cored arc welding. If full fusion is not required, the back side of initial passes shall be brushed, to clean it of slag and other foreign material, prior to welding the back side.

Full fusion or complete penetration welds are required on butt welds involving top square structural tubing, bars, wind girders, and other similar items which are an integral part of the structure.

After welding, all joints shall be cleaned of slag and weld spatter. Welds shall be ground smooth and repaired where undercut or insufficient bead exists. Indentations for plate clamps, and pullout craters from temporary welding, shall also be filled and shall be ground if necessary.

TS12.04 BOTTOMS AND ROOFS

Roof welds shall not normally be tested but bottom welds shall be vacuum tested by the Contractor in the presence of the Project Representative.

Hammering lap plate breakdowns shall not be so extensive that the plates are seriously deformed or torn. Breakdowns shall be welded around the edge on the outside with two passes.

Roof support columns shall be extra-strong steel pipe in lieu of I-Beam or other construction.

TS12.05 TANK SHELLS

Both horizontal and vertical joints require spacer shims. The size of these shims shall be verified, and sufficient shims shall be inserted during the fitting of the plates so that the proper distance is maintained throughout.

Excessive force shall not be used during fittings and tacking of the plates. Plates which do not fit shall not be field cut without approval of the Owner's Representative.

Erected shell rings shall be inspected for roundness. The radius shall be correct to within 0.5-inch in tanks up to 40 feet in diameter. Three-quarter inch is permissible in tanks 40 feet to 150 feet in diameter. One-inch is permissible in tanks 150 feet to 250 feet in diameter.

When the entire shell is erected, the permissible out-of-plumbness at any point shall be 0.005 of the total tank height.

Vertical seams shall not be pointed or buckled more than 0.5-inch at any point from a true radius. Banding of horizontal seams shall not exceed 1/2-inch at any given point, as measured by a straight edge. Shell plates shall not have flat or protruding areas which deviate more than 0.5-inch from a true radius. The size, both horizontal and vertical, of each plate and configuration of the plates shall be the same as that of the existing tank.

TS12.06 ACCESSORIES

Two circular manhole 36 inches in diameter with cover hinged to shell, shall be furnished in the first ring of the tank shell.

A 36" x 36" clear opening roof hatch, located as shown on the plans. The roof hatch shall be on a raised surface above the normal roof surface, minimum height 4-inches. The hatch shall include a 1/8-inch diameter bumper and gasket. The bumper and gasket shall be on all sides of the frame. The hatch shall include a lock hasp with padlock. The hatch shall overlap the curb by 2-inches.

A roof vent shall be provided and shall have No. 16 Stainless Steel mesh screen to prevent insects, birds or animals from entering and shall have venting capacity for a flow of ten (10) million gallons per day. Vent shall be located at center of roof.

An overflow pipe complete with weir box shall be provided for a capacity of 2.0 million gallons per day. The overflow pipe shall be 24 inches in diameter and shall be located inside the tank and shall discharge as shown on the plans. The pipe and weir shall be adequately braced to the inside shell of the tank to prevent movement.

An outside tank ladder with a ladder gate shall be provided as shown on the plans. All materials used for exterior ladders, and the like shall be aluminum or hot dipped galvanized steel. Ladders shall meet OSHA requirements.

Rungs shall be corrugated, knawled, or dimpled to minimize slipping. OSHA approved “D” ring shall be located at the top of the ladder to allow tie-off.

Fall Protection system shall be provided, and shall be Honeywell Miller GlideLoc system. The system shall involve an exterior aluminum rail, an interior stainless steel rail, rung clamps, end stops, two (2) Miller body control fall arrester locking prawl, two (2) Elk River Peregrine Climbing Harnesses (one medium and one large). Prawls and harnesses shall be delivered to City staff.

An aluminum pre-engineered ladder safety gate shall be furnished and installed three feet above the ground on the exterior ladder.

Interior ladders shall be constructed at locations as shown on the plans and shall be constructed of painted welded carbon steel.

Inlet, outlet pipe, and surge line connections shall be as shown in the drawings and as specified herein.

TS12.07 RADIOGRAPHIC TESTING

All radiographic testing of the steel ground storage reservoir shall be performed in accordance with AWWA D100, Section 8.3 and Appendix A (if applicable). X-ray test locations will be determined in the field based on construction progress and weld sequence, in accordance with AWWA D100 guidelines. Radiographic testing shall be performed by an independent testing laboratory selected and paid for by the Contractor. All radiographic images and test reports shall be submitted to the Owner for review and record.

TS12.08 FOUNDATIONS

The ground storage reservoir foundation shall be a ring wall type foundation designed by the Contractor using soil data and recommendations contained in the geotechnical report found at the end of this document. The foundation shall be sized for the allowable soil bearing specified in the geotechnical report.

All design, excavation, fill, etc., is the responsibility of the Contractor. The information provided is to aid the development of the bid. Foundation design and connection details shall be the responsibility of the Contractor. Refer to the geotechnical report for geotechnical on-site representation.

TS12.09 HYDROSTATIC TEST

Leakage test of the reservoir shall be made by completely filling the structure to overflow height, and observing the water surface height for the following 24 hours. Inspection for leakage will be made of the exterior surface of the structure, especially in the structure areas around construction joints and piping connections.

Leakage will be accepted as within allowable limits when there are no visible leaks, and when the water surface drops not more than 1/4-inch during the 24-hour test period.

If leakage exceeds the allowable limits, the structure shall be promptly repaired by removing or replacing the leaking portions of the structure, or by other methods approved by the Owner.

The cost of water for the initial hydrostatic testing will be provided by the City. Any and all subsequent water for hydrostatic testing shall be provided by the Contractor. Water can be purchased from the City at the prevailing rate.

TS12.010 TANK CONTRACTOR QUALIFICATIONS

The tank contractor shall have at least five (5) years in service experience, and successful history in constructing welded steel reservoirs. Contractor shall substantiate this requirement by furnishing a list of at least 5 references and job completions of seal welded flat bar rafter roof tanks in Texas that have been in service for at least 5 years. Tank Contractor shall include the list in the bid package.

End of Section

TECHNICAL SPECIFICATIONS

SECTION TS13 - RESERVOIR COATING AND DISINFECTION SYSTEM

TS13.01 GENERAL

The work to be performed under this section of the specifications shall include the furnishing of all labor, material, equipment and incidentals required for abrasive blasting, cleaning and painting all steel surfaces on the interior and exterior of the 0.40-MG welded steel ground storage reservoir and for sterilizing the tank interiors, complete as specified herein.

The ground storage reservoir height from the ground to high-water level is approximately 30 feet and the diameter is approximately 48 feet.

The General Provisions of the Contract are the North Central Texas Council of Governments (NCTCOG) Standard Specifications. Excerpts are presented here to clearly establish the contractual responsibilities of the Contractor and the expectation of the City. The complete set of NCTCOG Standard Specifications applies to this contract and the Contractor shall have a copy and be bound by those terms for the duration of the project.

TS13.02 CONTRACTOR'S QUALIFICATIONS

The Contractor shall have five years practical industrial coating experience and successful history in the application of specified product to surfaces of steel water reservoirs. Contractor shall substantiate this requirement by furnishing a list of references and job completions in the bid package.

The Contractor shall submit with his proposal a written statement by the coatings manufacturer stating that the Contractor is familiar with the materials specified and has workers capable of performing the work specified herein.

The personnel performing the work shall be knowledgeable and have the required experience and skill to adequately perform the work for this project, in accordance with SSPC-PA1 "Shop, Field and Maintenance Painting".

TS13.03 PLAN OF WORK

Ninety days prior to beginning coating work the Contractor shall submit a written plan to the Owner for review and approval fully describing his proposed plan of work for blasting steel, disposal of waste material and painting the reservoirs. The plan of work shall include the following information:

a) Detailed description on the steps to complete of work.

b) Plan for abrasive blasting reservoirs. Flow chart describing areas to work in.

c) Plan for collecting, containing & disposing of waste blast material. Description of how this will be accomplished.

d) Plan for protecting ground and property around reservoirs. Description of what will be done to accomplish this.

e) Plan for worker safety and health.

f) Plan for painting reservoirs. Flow chart describing areas to work in.

g) Quality control plan. Steps to be utilized by Contractor.

h) Maximum time window between application of prime coat and top coat as certified by Paint Manufacturer.

i) Ventilation capacity as certified by Paint Manufacturer.

j) Dehumidification calculations.

k) Shop drawing submittals shall include (but not limited to) the following list of items:

1. Blasting Media
2. Cleaning Media
3. Paint Data Sheets without Safety Sheets
4. Paint Color Charts
5. Paint Color Draw Downs
6. Recoat window of each paint product
7. Paint Manufactures Anchor Pattern Requirements
8. Dehumidification Equipment, Plan & Calculations
9. Full Containment System, including total roof. Roof Attachment Details, including installation and removal methods.
10. Work Plan, including Scaffolding Plan
11. Temperature and Humidity Procedure
12. Certified Welder Certification Papers

TS13.04 SURFACE PREPARATION

All steel surfaces shall be thoroughly cleaned of all existing paint and mill scale by abrasive blasting in the shop or in the field after erection of all steel members. All interior surfaces shall be abrasive blasted to a near white metal blast in accordance with Steel Structures Painting Council Specification SSPC-SP10 after erection of all steel members. Interior blasting and painting shall be completed utilizing dehumidification. Blast can be held for a maximum of four calendar days prior to applying primer coat. All exterior surfaces shall be abrasive blasted to a commercial finish in accordance with SSPC-SP6. If blasting of any previously painted surfaces is required, the blast finish shall be feathered to provide a smooth uniform paint finish.

Final determination of blasting quality shall be determined by the Owner. All abrasive blasting shall be performed in full accordance with the latest regulations issued by the Texas Air Control Board.

The Contractor shall be in full conformance with the Texas Air Control Board's (Texas Commission on Environmental Quality) General Rules for nuisance. If such a nuisance arises from the Contractor's work on this project, the Contractor shall immediately shutdown the work causing the nuisance and make the necessary changes in operation, including preventative shields and containment. Contractor shall provide whatever is necessary to resolve the nuisance caused by the Contractor's operation to the satisfaction of the State of Texas and the City. All cost of whatever the nature shall be included in the unit price bid for the project.

Copper slag is not an acceptable blasting media for exterior or interior surfaces.

Contractor shall rig and adjust rigging to have the blast nozzle no further away than two-feet (2') from steel surface.

Final determination of blasting quality prior to coating shall be determined by the Owner. All abrasive blasting shall be performed in full accordance with the latest regulations issued by the Texas Air Control Board. (Texas Commission on Environmental Quality)

All blasting on the interior and exterior shall achieve an anchor pattern as required by the paint manufacturer. The anchor pattern shall be a part of the overall paint submittal for the interior and the exterior. All weld flux and splatter located during blasting shall be removed by grinding. Contractor shall

work with inspectors to accomplish compliance on removal of flux and splatter. Sharp projections shall be ground smooth.

ENVIRONMENT

All blasting shall be performed in full accordance with the latest regulations issued by the Texas Air Control Board. (Texas Commission on Environmental Quality)

Emissions from blasting the steel surfaces must be controlled by Shroud (full containment including roof section) method.

The following definitions shall apply to these specifications:

Shroud (Containment System): A device which is designed to enclose or surround the area being blasted to minimize the atmospheric entrainment of fine particulates and direct that material to a confined area for disposal. The shroud shall have overlapping seams to prevent leakage of particulates, shall extend a minimum of 15-feet above the area being blasted, and shall have a shade factor of 95 percent or a control factor of 95 percent of particles 100 grit or greater. A shade factor is defined as the percent of area impermeable to particles or sunlight.

No visible emissions to the atmosphere may result from abrasive blasting.

CONTAINMENT OF BLASTING MATERIAL

The Contractor shall provide and maintain a containment system that catches all materials removed from the steel surfaces. The containment system shall keep blasting material or equivalent, dust, etc., from the air and from contact with the native soil. The Owner shall monitor the air around the work area. If undesirable levels of dust or other by-products of the removal process work are found in the air, the Contractor will immediately stop work and modify his containment system to prevent the escape of pollutants into the air.

The Contractor shall conduct his operations in such a manner that the soil around the work area shall not be contaminated with residue from the paint removing process. All costs for remedial action shall be borne by the Contractor.

All material accumulated in the containment system shall be kept clean and free from contamination. The material shall be contained in tight closing barrels or equivalent containers approved by the Owner prior to disposal. All blast residue material shall be placed in containers at the end of each day. Containers shall be clearly marked “hazardous waste” and shall be numbered and cataloged in records kept by the Contractor. Records shall be neat and shall be available at the job-site for review by the Owner.

If the containment system utilizes attachments on the roof, those attachments shall be removed.

If the containment system utilizes anchors set in the ground, the anchors shall be removed at end of project, void areas filled, and sod placed and established.

TS13.05 STANDARD OF COMPARISON

The specific paint referred to in these specifications is manufactured by Tnemec and is presented as a standard of comparison and performance. Other paints may be acceptable if they are equal in quality and performance as determined by the Owner. The Owner shall determine the acceptability of coatings to be used. Products that do not meet the quality and performance will not be accepted, and no additional contract time will be granted. The Owner reserves the right to request the Contractor to supply a complete history of the paint system they propose to use. This information would be used to determine acceptability of the system. Allow review time of 2-weeks. All paints applied are to be by the same manufacturer.

TS13.06 PAINT SYSTEM

All tank surfaces shall be coated after erection of all members as follows:

a) Interior Steel Painting

The interior paint system shall be certified by the National Sanitation Foundation - ANSI/NSF Standard 61 Drinking Water System Components for Potable Water Coatings and contain no lead. The zinc dust in the prime coat shall meet requirements of ASTM D520 Type III.

After interior wet surfaces have been abrasive blasted they shall be painted by spraying one coat of Tnemec Hydro-Zinc 94-H2O, minimum dry film thickness 2.5-mils throughout, followed by one coat of Tnemec Epoxoline Series 21, minimum dry film thickness shall be a minimum of 12-mils throughout. Total dry film thickness of interior system shall be minimum 14.5-mils throughout.

All touch-up painting shall also be completed with the approved prime paint. Prior to the epoxy coat of paint, all welds, sharp edges of roof structure beams and paint rails shall be coated with a stripe coat of Tnemec Series N140 Pota Pox Plus by brush thinned by 50% with the approved paint supplier's approved thinner.

Total dry film thickness of the interior paint after seven days (75°F Temperature) drying time shall not be less than 14.5-mils minimum throughout. Contractor shall provide adequate forced ventilation during application and curing to achieve required results. Forced ventilation shall be utilized for all painting, including the floor. Each coat of paint shall be applied in a uniform thickness and shall be feathered as necessary at its edges to prevent lap marks and provide a smooth paint finish. All interior paint shall comply with ANSI/NSF Standard 61.

Interior coatings include all surfaces and appurtenances inside the Reservoir.

b) Exterior Steel Painting

The proposed exterior paint system shall not contain lead.

After exterior surfaces have been abrasive blasted, remedial steel repairs made and surface profile achieved, they shall be painted by spray inside the containment system, one coat of Tnemec Hydro-Zinc 94-H_2O. Minimum dry film thickness shall be 2.5 mils throughout.

The second exterior coat shall be applied by spraying inside the containment system one or more coats of Tnemec Series 1095 Endura Shield. The minimum dry film thickness shall be 3.0 mils throughout.

The third exterior coat shall be applied by spraying inside the containment system one or more coats of Tnemec Series 700 Color Hydroflon. The minimum dry film thickness shall be 2.0 mils throughout.

The minimum total dry film thickness of the exterior paint system shall be no less than 7.5 mils. Each coat of paint shall be applied in a uniform thickness and shall be feathered as necessary at its edges to prevent lap marks and provide a smooth paint finish. The third coat may require placing this coating in more than one (1) coat to insure a uniform color. It shall be the Contractors responsibility to produce the uniform cover on the exterior of this reservoir. If additional coats are used they shall be placed in thickness of 1.5 mils minimum.

Between each coat, the surfaces shall be power washed with a minimum pressure of 1,000 psi. The objective of this is to remove any pollutants and dirt that has settled on the surface. Coating shall occur within a maximum of 48-hours after the power wash.

There shall be two (2) logos which shall consist of two coats of fluoropolymer polyurethane, Tnemec Hydroflow Series 700 or equal, at 2.5 mils average. The logos will appear on each side of the reservoir, as shown on the plans. Logo shall be coated within the recoat window established by the Paint Manufacturer.

Logos shall be submitted as shop drawings for review. Prior to painting the logos, the contractor shall mark them on the reservoir for the City to review and approve of final location.

TS13.07 APPLICATION

Coatings shall be applied in accordance with paint manufacturer's recommendations found on the paint data sheets and are subject to inspection at all times by the City's on-site representatives. Paint manufacturer's data sheets shall be submitted as part of the shop drawing submittal process. Contractor shall follow the Steel Structures Painting Council Good Painting Practice except where exceeded in these specifications.

Contractor shall have his work plan available on site and available to the City. The plan as submitted and accepted by the City shall be followed for blasting, containment and painting.

No painting shall take place utilizing the interior paint epoxy system without accelerator unless the atmospheric temperature is above 50°F and metal surface temperatures is above 50°F and a minimum of 5°F above the dew point. With the paint manufacturer's approved accelerator, the atmosphere temperature and metal surface temperature shall be above 40°F and a minimum of 5°F above the dewpoint. The relative humidity shall not be greater than 80%. Painting also shall not proceed if the temperature is expected to fall below 40°F before the paint has dried to the recoat window (24 hours) or if the surface temperature is at or above 110°F.

No painting shall take place utilizing the first coat of exterior paint system unless the atmospheric temperature is above 50°F and metal surface temperatures is above 50°F and a minimum of 5oF above the dew point. With the paint manufacturer's approved accelerator, the atmosphere temperature and metal surface temperature shall be above 40°F and a minimum of 5°F above the dewpoint. The relative humidity shall not be greater than 85%. No painting shall take place utilizing the second and final coat of the exterior paint system unless the atmospheric temperature is above 40°F and metal surface temperature is above 40°F and a minimum of 5°F above the dew point. The relative humidity shall not be greater than 80%. Painting utilizing the exterior system shall not proceed if the temperature is expected to fall below 40°F before the paint has dried to the recoat window (24 hours) or if the surface temperature is at or above 110°F.

Whenever the occupational noise exposure exceeds maximum allowable sound levels, the Contractor shall provide and require the use of approved ear protection devices for everyone in the work area.

Adequate illumination shall be provided while work is in progress, including explosion-proof lights and electrical equipment. Whenever required by the City, the Contractor shall provide additional illumination and necessary supports to cover all areas to be inspected. The level of illumination for inspection purposes shall be determined by the City.

Contractor shall include in his bid the cost to utilize dehumidification during the blasting and epoxy coating of the interior of the Reservoirs. Dehumidification shall be used, and shall be used 24-hours a day once it is turned on. Once it is on, it shall be run continuously until coating has cured. Such a system shall be designed by Munters, or accepted equal Dehumidification Company. Dehumidification calculations shall be provided.

The unit must be turned on at the time the blast is to be achieved, turned off for zinc prime coat to cure, turned on and remain on until epoxy coating has cured. Submittal shall state the number of days the unit is to remain on after final coat and or touch-ups are complete.

A desiccant dehumidification system shall be utilized on the interior Reservoir (wet) 24-hours a day (continuous service) for blasting, entire coating and curing. No liquid or granular desiccant or lithium chloride systems are acceptable.

The dehumidification equipment shall continuously maintain a lower dew point of a minimum of 25oF differential between the inside substrate surface temperature and the inside air dew point temperature, with the relative humidity not to exceed 50%. The humidity and temperature shall be recorded by use of portable continuous recording instrumentation. The recording instrumentation supplied by the Contractor shall have the ability to down local data/graphs of daily records. Such records shall be provided to the City or their representative on a daily basis. Downloading equipment for printing data/graphs shall be provided by the Contractor.

The equipment shall include heat/cooling limits as required to meet the specified requirements. All openings in the reservoir, including opening to allow access of the dehumidification equipment, shall be sealed at all times.

Contractor shall have sufficient number of compressors and adequate compressor output on site to complete the blasting and painting in a timely manner. Contractor shall have on site and utilize during the coating of the reservoir, two (2) 45:1 Ratio airless spray Graco Pumps or equal in working order.

All spray equipment shall be inspected and approved by Owner's representative before any application is begun. A moisture trap shall be placed in line from air supply to pressure pot and spray gun. This trap shall be opened slightly to provide a continuous bleed. Regulators and gauges shall be provided for air to both pressure pot and spray gun.

Prior to commencing the coating, all abrasive and dust from blasting operations shall be removed from surfaces before paint application is begun. If steel shot is utilized, the Contractor shall also use magnetic collectors to collect shot. Blasted surfaces shall be coated the same day that blasting is completed. Any subsequent blasting operation shall not result in abrasive particles embedded in the paint film. The sequence to be followed in painting shall be such that a minimum of damage to finished coatings will result.

Spray guns must be held perpendicular to the surface being painted, handled and adjusted in such a manner so dry overspray is kept at a minimum. Rigging shall be adjusted as required to maintain a maximum distance from the steel surface of two-feet.

The Contractor shall at all times protect the buildings, businesses, automobiles and other items from blasting and paint that is being applied to the reservoir. Contractor shall be solely liable for all claims of damage of whatever nature which results from the blasting and/or painting operations on this project.

It is essential that the solvent's vapors be released from the paint and removed from the reservoir. During coating application, the capacity of ventilating fans shall be no less than recommended by the Paint Manufacturer. This capacity shall be stated in the coating plan submittal.

Continuous forced ventilation at a rate of one complete air change every four hours shall be provided. The duration shall be for a minimum of 48-hours after final application and until the coating is completely cured as determined and certified to the Owner by the Paint Manufacturer's representative. The certification shall be provided to the City prior to turning off the dehumidification system.

The structure in the roof of the Reservoirs will require additional work to be coated prior to spraying top coat. The seams in between the roof plates and roof structure, and the space between roof plate and lapped roof plate shall be hand brushed with the epoxy paint after zinc primer has cured and prior to spraying of the reservoir with epoxy. Hand brushing must work paint into the void areas. Hand brushed areas shall be inspected by City prior to spraying.

Repair of holidays caused by movement of equipment, including scars and nicks shall be ground or sand smooth, exposed steel shall be coated with zinc primer and the top coat built up to match surrounding surfaces. The paint products utilized in the coating shall be utilized for the repairs with dehumidification operating as specified.

TS13.08 INSPECTION

All work shall be done in a workmanlike manner, so that the finished coating on the interior, exterior and all painted surfaces of the reservoir and structures shall be free from bubbles, runs, drips, ridges, over-spray, waves and unnecessary brush marks and variations in color. Coating shall be of uniform thickness. In addition, all surfaces that will be in contact with potable water (reservoir and wet riser pipe) shall be free of holidays and pinholes. The City shall make final determination of finished work.

Inspection and acceptance of the abrasive blasting shall be achieved prior to application of the prime coat of paint on the reservoir. The Contractor shall schedule and coordinate his work with the Owner to allow for expeditious prosecution of the inspection and painting. All rigging, staging and the like shall remain in place until all inspections by the City are complete. All staging shall conform to applicable safety requirements. Contractor shall provide staging as required by the City to facilitate inspection and testing.

All paint film thickness shall be verified by the Contractor by measuring the wet film thickness of each coat as it is applied. The Contractor shall coordinate the use of the painting scaffolds, rigging and containment system with the Owner or his representative to provide regular access for the paint inspections. A wet film thickness measurements shall be made and recorded by the Contractor for each 100 square feet of surface painted. Record of thickness and location shall be provided to City Inspector on the day that portion of the reservoir is coated.

All paint will be inspected by the City for applied dry film thickness using a non-destructive magnetic gauge such as a Mikrotest Gauge or an Elkometer. Non-destructive holiday detectors shall not exceed 67.5 volts. Solution for holiday testing shall be 1-ounce of non-sudsing wetting agent (Kodak Photo Flo) to 1-gallon tap water. Dry film thickness, pinholes and Holidays shall be inspected throughout the painted surface at locations determined by the Owner. Confirmation testing for dry film thickness will be done by the Owner or an independent testing laboratory which is chosen and paid by the Owner. The Owner will pay for the first test. Retesting, including any rigging, shall be paid by the Contractor (deducted from Pay Request). General paint inspection will be done by an independent laboratory employed by the Owner. All work shall be done in a workmanlike manner, so that the finished coating on the interior and exterior of the reservoir shall be free from bubbles, runs, drips, ridges, over-spray, waves, brush marks and variations in color.

The Contractor shall minimize lap marks created from the seal of the containment system, if the containment system is in contact with the seal. These areas shall be strategically located in weld seams.

Prior to filling the reservoir with water, the Engineer must complete a site visit and view the interior coating system.

TS13.09 LOCATION OF PAINTING SYSTEMS

The interior painting system as described in this specification shall be applied at the following general locations:

a) On all metal surfaces inside the reservoir (surfaces in contact with potable water, roof structure, and appurtenances).

b) On all ladders.

The exterior painting system as described in this specification shall be applied at the following general locations:

a) Exterior of the Reservoir.

b) Exterior appurtenances on the tank such as vents, brackets, ladders and hatches.

c) Exterior valves, piping, fittings, mechanical equipment and appurtenances.

Aluminum, PVC and brass shall not be coated.

TS13.010 DISINFECTION

Once painting is complete and all associated contract work is complete, and prior to disinfection of the reservoirs, the interior of the reservoir shall first be thoroughly cleaned by hosing down the walls, underside of the roof and floor with water from the Owner's distribution system. Contractor shall provide adequate pumps to accomplish this work and take necessary steps to prevent contamination of the Owner's water supply. Disinfection shall be in accordance with AWWA C652 "Disinfection of Water Storage Facilities" except as exceeded by the below specification.

Disinfection shall be scheduled with the City seven (7) calendar days prior to the execution of the work. The reservoir will only be filled on a Monday for disinfection. Prior to the disinfection process taking place, the Contractor shall furnish and install new hatch gaskets on all hatches.

The reservoir interior shall be disinfected by spraying with a chlorine solution of not less than 200 ppm chlorine. Spraying shall be accomplished by use of an attachment connected to a fire hose, and the

chlorine solution shall be applied under pressure. Contact time of the 200-ppm solution shall not be less than one hour or more than 8 hours, at which time the Reservoir shall be filled. Contractor shall provide adequate pumps to accomplish this work. All standing chlorinated water within the reservoir and lines from the disinfection process shall be removed from reservoir and lines prior to filling the reservoir.

The City shall operate all City valves. Contractor shall schedule time with the City for filling the reservoirs. The City shall submit samples of the water for bacteriological tests to a State approved testing laboratory and satisfactory test reports shall be received before the reservoir is placed in service. The Contractor shall obtain approval of the Owner prior to placing the reservoir in service.

The highly chlorinated water utilized to clean and disinfect the reservoir shall be dechlorinated prior to discharging into the environment. Contractor shall utilize a manufactured venturi device to dechlorinate. A liquid dechlorination solution shall feed into the venturi device. Ascorbic acid or sodium ascorbate shall be utilized as the dechlorination chemical. The dechlorinated procedure shall be accepted by the City prior to any discharge into the environment.

The cost of furnishing chlorine, bacteriological tests, labor, tools and equipment shall be included in the lump sum bid price for the project, and no separate payment will be allowed. The Owner shall furnish water to fill the reservoir one time. If it is required to fill the reservoirs more than once to obtain the proper sterilization the cost of the water, for water in excess of one reservoir full shall be borne by the Contractor and deducted from monies due him from the Owner.

TS13.011 SAFETY PRECAUTIONS

The Contractor shall be fully responsible for the safety of the workmen on this project and public in the vicinity of this reservoir at all times during the removal of the rust and mill scale, painting and sterilization of the reservoir. The Contractor shall be responsible for meeting all OSHA Safety Standards and Regulations. Protective equipment, abrasive resistant clothing, safety shoes, leather gloves, ear protection and OSHA approved respirators shall be utilized as a minimum during blasting and painting on this reservoir. All respirators shall be air fed. Contractor shall provide all workers, Owner personnel and all other persons on site the minimum described safety equipment as well as that required by OSHA.

Workmen applying the chlorine solution to the reservoir shall be protected by rubber raincoats and boots and gas masks as a minimum to insure their protection against burns and inhaling chlorine gas. The Contractor shall be responsible for the safety of his workmen applying the chlorine solution and shall see that they are protected against chlorine burns and gas. Contractor shall provide all workers the minimum described safety equipment as well as that required by OSHA.

TS13.012 CONTRACTOR LIABILITY

Contractor shall be solely liable for all claims for personal and property damage, including death, which result from the blasting, painting and sterilization operations on this project. The Contractor shall take special precautions to control paint from damaging automobiles, homes and other facilities in the developed area around the reservoir. If complaints are received by the Contractor or the Owner, the Contractor shall investigate the complaint immediately and report in writing to the Owner corrective action he is taking. It shall be the Contractor's complete responsibility to correct or make whole any damage or injuries caused by his painting operations.

MATERIALS ON HAND

The only items that will be considered as materials on hand will be paint products including top coats and primer. No other items will be considered. All other items are considered subsidiary and for the use of the Contractor to obtain the finished product. Original receipts/purchase orders must be provided to the City for verification of paint. All paint stored onsite shall be protected from freezing.

SOUND

All equipment utilized on this project shall not exceed the sound levels established in the City's Sound Ordinance. A copy of the requirements is a part of this bidding document. All noise-generating equipment shall be located on the south and west side of the site furthest from residential homes.

End of Section

TECHNICAL SPECIFICATIONS

SECTION TS14 - CHAIN-LINK FENCE & GATE

TS14.01 GENERAL

This section of the specifications describes the chain link fence to be furnished and installed.

Fence posts and rails shall be roll formed, open seam self-draining shapes, hot dipped galvanized or galvanized standard weight pipe. All fittings shall be pressed steel or malleable iron and shall be hot dip galvanized conforming to ASTM-A153. Tie wires shall be minimum 11 gage galvanized steel. Line and terminal posts to be of sufficient length to allow for approximately 36-inch settings into concrete footing. Diameter of footings to be 10 inches for line posts, and 12 inches for terminal posts. Maximum spacing of line posts to be 10-feet unless noted on drawing. All material is subject to testing. Mill certificates will be submitted for approval upon request of Owner.

TS14.02 FABRIC

Chain link fabric shall be aluminum coated conforming to ASTM A491. Fabric shall be woven from 9 gage (coated size) wire in 2-inch mesh. Fabric shall be knuckled top and bottom for the 6-foot fence.

TS14.03 LINE POSTS

Line posts shall be C-Section roll formed from steel conforming to ASTM A570, Grade 45, 1.875" x 1.625" with minimum bending strength of 247 pounds under a 6-foot cantilever load, continuous coated with 2.0 ounces of zinc-aluminum alloy in accordance with ASTM A525, or 2.50 inch O.D. standard weight galvanized pipe with minimum bending strength of 201 pounds under a 6-foot cantilever load, coated with 2.0 ounces of hot dipped zinc in accordance with ASTM A120.

TS14.04 TOP AND BRACE RAIL

Top and brace rails shall be roll formed section of 1-5/8" x 1-¼" channel shaped rail with minimum vertical bending strength of 237 pounds on 10-foot span, continuous coated with 2.0 ounces of zinc-aluminum alloy in accordance with ASTM A525, or 1.625 inch O.D. standard weight galvanized pipe with minimum vertical ending strength of 202 pounds on 10 feet span coated with 2.0 ounces of hot dipped zinc in accordance with ASTM A120. Top rail couplings 6-inch minimum in length shall be spaced at maximum 21 feet centers. Fabric tie wire shall be spaced at 24 inches maximum centers. The fence shall have three (3) strand barbed wire line wires with four (4) points barbed on 5-inch centers. Barbed wire arms shall be installed at line posts.

TS14.05 TERMINAL POSTS

All end, corner, and pull posts shall be roll formed section 3.5" x 3.5" with minimum ending strength of 486 pounds on 6 feet cantilever load, coated with 2.0 ounces of hot dipped zinc in accordance with ASTM A123, or 3.0 inch O.D. galvanized standard weight pipe with minimum bending strength of 381 pounds on 6 feet cantilever load, coated with 2.0 ounces of hot dipped zinc in accordance with ASTM A120. Gate posts shall be of the following sizes for single panel swing gates or one leaf of double panel swing gates:

Leaf Width	Gate Post	Lbs/Linear Foot
Up to 6’	3½” x 3½” Roll Formed Section or	4.86
	3.0” O.D. Pipe	5.79
Over 6’ to 13’	4” O.D. Pipe	9.11
Over 13’ to 18’	6-5/8” O.D. Pipe	18.97
Over 18’	8-5/8” O.D. Pipe	28.55

The system shall include a Knox Box, mounted on a secure pedestal next to the gate for emergency services.

TS14.06 PAYMENT

No separate payment will be made for work performed in accordance with this section of the specifications, and the cost thereof shall be included in the proper items of the Proposal and Bid Schedule.

TECHNICAL SPECIFICATIONS

ARCHITECTURAL

TECHNICAL SPECIFICATIONS - INDEX

ARCHITECTURAL

01400 Quality Control

01600 Materials and Equipment

01630 Product Options and Substitutions

03345 Concrete Finishing and Curing

04220 Concrete Unit Masonry

05500 Metal Fabrications

06100 Rough Carpentry

07180 Water Repellents

07190 Vapor Retarders

07210 Building Insulation

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07410 Manufactured Roof & Wall Panels

07500 Membrane Roofing

07920 Sealants and Caulking

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08330 Coiling Doors and Grilles

08700 Hardware

09510 Acoustical Ceilings

09900 Architectural Painting

10400 Identifying Devices

10522 Fire Extinguishers, Cabinets & Accessories

01400
QUALITY CONTROL

1.0 GENERAL

1.01 SUMMARY

A. This Section includes administrative and procedural requirements for quality control services, which include the following and as specified under each section:
   1. Earthwork (compaction testing and select fill analysis).
   2. Concrete testing.
   3. Drilled pier inspection.
   4. Reinforcing steel.
   5. Grout.
   6. Structural steel.

B. Quality control services include inspections, tests, and related actions, including reports performed by the Contractor, by independent agencies, and by governing authorities. They do not include contract enforcement activities performed by the Architect.

C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.

D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
   1. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
   2. Specified inspections, tests, and related actions do not limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
   3. Requirements for the Contractor to provide quality control services required by the Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
   4. The Owner will select an Independent Testing Laboratory to perform the specified testing and services scheduled in Part 3.0 of this Section.
      a. The Contractor shall pay the cost of initial testing and inspection services and one (1) retest out of the Testing and Inspection Allowance. The cost of all other tests shall be borne solely by the Contractor.
      b. Employment of Testing Laboratory shall in no way relieve the Contractor of his obligation to perform work in accordance with the Contract Documents.

E. Related work:
   1. Section 01300: Submittals: Schedule of required tests and inspections.
   2. Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.

F. Definitions:
   1. Where terms “Inspector” and “Testing Laboratory” or “Testing Agency” are used, they mean and refer respectively to an officially designated and accredited Inspector of the Testing Laboratory and the Testing Laboratory selected by the Owner.

1.02 QUALITY ASSURANCE

A. Qualifications for independent inspection and testing agencies:
   1. Meet “Recommended Requirements for Independent Laboratory Qualification”, published by American Council of Independent Laboratories.
   2. Meet basic requirements of ASTM E329, “Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction"
   3. Authorized by authorities having jurisdiction to operate in the state where the Project is located.

4. Testing equipment shall be calibrated at reasonable intervals by devices of accuracy traceable to either:
    a. National Bureau of Standards.
    b. Accepted values of natural physical constants.
5. Testing agencies shall meet the requirements of ASTM E329, "Recommended Practice for Inspection and Testing Agencies for Concrete, Steel and Bituminous Materials as Used in Construction" and ASTM E543, "Determining the Qualification of Nondestructive Testing Agencies."
6. Testing agencies shall each be insured against errors and omissions by a professional liability insurance policy having a limit of liability not less than $500,000.00.
7. The inspection and testing services of the testing agency shall be under the direction of a Registered Engineer licensed in the State of Texas, charged with engineering managerial responsibility, and having at least five (5) years engineering experience in inspection and testing of construction materials.
8. Inspecting personnel monitoring concrete work shall be ACI certified inspectors.
9. Primary inspectors performing structural steel inspection shall be currently certified AWS Certified Welding Inspectors (CWI), in accordance with the provisions of AWS QCI, "Standard and Guide for Qualification and Certification of Welding Inspectors." The inspector may be supported by assistant inspectors who may perform specific inspection functions under the supervision of the inspector. Assistant inspectors shall be currently certified AWS Certified Associate Welding Inspectors (CAWI). The work of assistant inspectors shall be regularly monitored by the inspector, generally on a daily basis.

1.03 SUBMITTALS

A. Unless the Contractor is responsible for this service, the independent testing agency shall submit a certified written report, in triplicate, of each inspection, test, or similar service to the Architect. If the Contractor is responsible for the service, submit a certified written report, in triplicate, of each inspection, test, or similar service through the Contractor.
    1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
    2. Report data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:
        a. Date of issue.
        b. Project title and number.
        c. Name, address, and telephone number of testing agency.
        d. Date, time and location of samples and tests or inspections.
        e. Names of individuals making the inspection or test.
        f. Designation of the Work and test methods.
        g. Identification of product and Specification Section.
        h. Complete inspection or test data.
        i. Test results and an interpretation of test results.
        j. Record of temperature and weather conditions at the time of sample taking and testing.
        k. Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
        l. Name and signature of laboratory inspector.
        m. Recommendations on retesting.

1.04 CONTRACTOR DUTIES AND RESPONSIBILITIES

A. Unless otherwise indicated as the responsibility of the Owner or another identified entity, the Contractor shall provide inspections, tests, and other quality control services specified elsewhere in the Contract Documents and required by authorities having jurisdiction. Costs for these services shall be included in the Contract Sum.
    1. Where individual Sections specifically indicate that certain inspections, tests, and other quality control services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality control services. Costs for these services shall be included in the Contract Sum.

2. Where individual Sections specifically indicate that certain inspections, tests, and other quality control services are the Owner's responsibility, payment for these services shall be made from the Inspection and Testing Allowance, as authorized by Change Orders.
3. Deliver to the laboratory, without cost to the Owner, adequate quantities of representative samples of materials proposed for use which are required to be tested.
4. Advise laboratory and Architect sufficiently in advance of construction operations to allow laboratory to complete any required checks or tests and to assign personnel for field inspection and testing as specified.
5. Provide adequate facilities for safe storage and proper curing of concrete test samples on project site for the first 24 HRS and also for subsequent field curing as required by ASTM C31.
6. Furnish such nominal labor and equipment as is required to assist laboratory personnel in obtaining and handling samples at the site and in accessing work for inspection.
7. Furnish concrete mix designs, in accordance with ACI 301, Section 3.9, made by an independent testing laboratory or qualified concrete supplier. Where mix designs by an independent testing laboratory are required, the laboratory shall be selected and paid by the Contractor.
8. Obtain required inspections or approvals of the building official. All inspection requests and notifications required by the building code are the responsibility of the Contractor.
9. Provide current welder certifications for each welder to be employed.
10. Furnish fabrication/erection inspection and testing of all welds in accordance with AWS D1.1, Chapter 6.
11. Prequalification of all welding procedures to be used in executing the work.
12. For materials and/or work identified by the laboratory inspector, architect, or engineers as failing to meet the requirements of the Contract Documents, take appropriate actions to bring all materials and/or work into compliance with the Contract Documents. Correction of non-complying work shall be undertaken without specific direction by the Architect to do so. After correction of the materials and/or work, notify the laboratory and/or architect of appropriate times for retesting or reinspection. Any request by the Contractor to deviate from the requirements of the Contract Documents shall be submitted in writing to the Architect.

B. Retesting: The Contractor is responsible for retesting where results of inspections, tests, or other quality control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.
1. The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests were performed on original construction.

C. Cooperate with Laboratory personnel, provide access to Work and to Manufacturer's operations. Contractor is to sign all Laboratory Inspection Reports when laboratory personnel arrive and leave jobsite. Times are to be noted on reports. Pay requests will not be accepted without Contractor signed work tickets.

D. Secure and deliver to the Laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.

E. Furnish the Laboratory with proposed concrete design mixes, and other material mixes which require evaluation by the Testing Laboratory, a minimum of 14 days prior to use on the project.

F. Notify Laboratory and Architect sufficiently in advance of operations to allow Laboratory assignment of personnel and scheduling of tests.
1. When tests or inspections cannot be performed after such notice, reimburse Laboratory for personnel and travel expenses incurred due to Contractor's negligence.
2. Make arrangements with Laboratory and pay for additional samples and tests required for Contractor's convenience.

3. Make arrangements with Laboratory and pay for additional samples and tests required when initial tests indicate non-compliance with Contract Documents, including load tests.
4. Pay the Testing Laboratory for such tests or inspections as are performed exclusively for the Contractor's convenience.

G. Furnish incidental labor and facilities necessary to facilitate inspections and tests including, but not limited to, the following:
1. Provide access to Work to be tested.
2. Obtain and handle samples at the project site or at the source of the product to be tested.
3. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
4. Provide facilities for safe storage and proper curing of test samples.
5. Provide security and protection of samples and test equipment at the Project site.

1.05 LABORATORY DUTIES AND RESPONSIBILITIES:

A. The independent agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the Architect and the Contractor in performance of the agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.

B. Perform specified inspections, sampling and testing of materials and methods of construction scheduled in Part 3.0 of this Section.
1. Comply with Specifications.
2. Ascertain compliance of materials with requirements of Contract Documents.
3. Furnish Architect with written evaluation of proposed concrete design mixes, and other material mixes, submitted by the Contractor for evaluation.

C. Notify Architect, Engineer and Contractor immediately of observed work or materials which fail to meet the requirements of the Contract Documents to assure necessary retesting and replacement of materials with the least possible delay in progress of the Work.

D. Promptly submit certified written report of each test and inspection complying with Paragraph 1.03 to the Owner, Architect, Structural or MEP Engineer as appropriate, and Contractor.

E. Coordinate the sequence of activities to accommodate required services with a minimum of delay. Coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
1. The Contractor is responsible for scheduling times for inspections, tests, taking samples, and similar activities.

F. Perform additional tests as required by Architect or Owner.

G. Obtain signature from Contractor when arriving and leaving the jobsite. Times are to be noted on Laboratory Inspection Reports. Payment for work not having Contractor signature will not be accepted.

H. Limitations of authority of testing agency:
1. Laboratory is not authorized to:
a. Release, revoke, alter or enlarge on requirements of Contract Documents.
b. Approve or accept any portion of the Work.
c. Perform any duties of the Contractor.
2. Work will be checked as it progresses, but failure to detect any defective work or materials shall not, in any way, prevent later rejection when such defect is discovered.

2.0 PRODUCTS

Not Applicable to this Section.

3.0 EXECUTION

3.01 SCHEDULE OF INDEPENDENT LABORATORY TESTING AND INSPECTION

A. Earthwork:

1. Soils testing laboratory shall classify proposed on-site and borrow soils to verify that soils comply with specified requirements and perform required field and laboratory testing specified in Section 02200 including, but not necessarily limited to the following:
   a. Inert fill: Plasticity index, density and moisture content.
   b. Subgrade: Density and moisture content.
   c. Soil stabilization: Plasticity index, density and moisture content.

B. Drilled Piers:

1. Soils testing laboratory shall make continuous inspections of pier drilling operations to determine that proper bearing stratum is obtained and utilized for bearing, required penetration is achieved, groundwater seepage and sloughing of subsurface materials, if encountered, is handled correctly, and that shafts are vertical within accepted tolerances and properly clean and dry before placing concrete.
2. Furnish complete pier log showing the diameter, top and bottom elevations of each pier, casing required or not required, actual penetration into bearing stratum, elevation of top of bearing stratum, reinforcement and any and all observed irregularities, deficiencies or deviations from the Contract Documents.

C. Reinforcing Steel:

1. If reinforcing steel is purchased direct from a United States mill, manufacturer's test sheets will be sufficient. Steel supplier shall furnish mill certificate reports.
2. If steel is from an undetermined origin or manufacturer's test sheets or mill certificate reports are unavailable, perform tension and bending tests on three separate samples of each size of bar in every five tons of each type of steel as specified in the appropriate ASTM Specifications. Contractor shall furnish all material for testing and pay for all such tests.
3. Perform visual inspection prior to placement of size, type and quality of materials.
4. Observe and report on placement of reinforcement, including size, quantity, vertical location, horizontal spacing, correctness of bends, splices, clearance between bars and forms, firmness of installation, and security of supports and ties, immediately prior to concreting.

D. Concrete Control and Testing:

1. Secure composite samples in accordance with ASTM C172. Each sample shall be obtained from a different batch of concrete on a random basis, avoiding any selection of the test batch other than by a number selected at random before commencement of concrete placement.
2. All concrete shall be tested as follows:
   a. Mold and cure five (5) specimens from each sample in accordance with ASTM C31.
   b. Two (2) specimens shall be tested at 7 days for information, two shall be tested at 28 days for acceptance, and the remaining cylinder shall be tested as directed.
3. Specimens for pumped concrete shall be taken at the discharge end of pumping equipment.
4. Any deviations from the requirements of ASTM Specifications shall be recorded in the test report. Test concrete specimens in accordance with ASTM C39.
5. Make at least one strength test (5 specimens) for each 100 CY or fraction thereof, of each mix design of concrete placed in any one day. Determine slump of the concrete sample for each strength test and whenever consistency of concrete appears to vary, in accordance with ASTM C143.
6. Determine air content of air-entrained, normal weight and/or lightweight, concrete sample for each strength test, in accordance with either ASTM C231, ASTM C173, or ASTM C138. Determine temperature of concrete sample for each strength test.

7. Inspect each batch of concrete, monitor addition of mixing water to assure uniform consistency from truck to truck. Check mixing from mixers before mix begins to set and within time limits set forth in ASTM C94.
    a. Monitor addition of water and high range water reducer to concrete at job site and length of time concrete is allowed to remain in truck during placement.
    b. Certify each delivery ticket indicating class of concrete delivered, amount of water added mid time at which cement and aggregate was discharged into truck, and time at which concrete was discharged from truck.
    c. The testing laboratory shall certify that any addition of water to concrete will not modify the design water cement ratio. Such certification shall bear the seal and signature of a registered professional engineer licensed in the State of Texas.
8. Should the strength of concrete fall below the minimum, then additional tests, including load tests, may be required. These tests, if required, shall be made at the Contractor's expense and shall be in accordance with ASTM C42 and ACI 318. If tests do not meet the applicable requirements, then the structure, or any part of the structure, shall be removed and replaced at the Contractor's expense.
9. Test reports shall include, but not be limited to, the following information: date of concrete placement, concrete mix identification number or proportions of ingredients, time test was made, truck ticket number, slump and time of batching, location of each placement, unit weight and air content of concrete sampled, and results of strength test.
10. Report promptly to Architect all details of reasons for rejection of any and all quantities of concrete. Give all information concerning locations of the concrete pours, quantities, date of pours, and other pertinent facts concerning concrete represented by the specimens.
11. Any concrete testing requested by the Contractor for early formwork or shoring removal, etc., shall be at the Contractor's expense.
12. Furnish a statistical analysis for each class of concrete placed on the project in accordance with ACI 214-77 and ACI 318. Information shall be updated and distributed once a month, or as directed by the Architect. Information shall include, but not be limited to, the following:
    a. Strength tests at 7 days of 2 cylinder averages
    b. Strength tests at 28 days of 2 cylinder averages.
    c. Moving average strength tests of previous three and previous ten test groups for 7 and 28 day tests.
    d. Standard deviation and coefficient of variation based on 7 and 28 day strength tests.
    e. Average strength and number of 7 and 28 day tests for most recent month.
    f. Strength gain curve based on 7 and 28 day tests.

E. Grout (Non-shrink):
1. For every 1/3 CY of grout placed, grout strength shall be tested with a set of cubes as follows:
    a. A set of cubes shall consist of three cubes to be tested at 7 days, and three cubes to be tested at 28 days.
    b. Test cubes shall be made and tested in accordance with ASTM C109, with the exception that the grout should be restrained from expansion by a top plate.

F. Structural steel:
1. The Contractor shall provide the Testing Laboratory with names of welder to be employed on work, during fabrication and erection, together with certification that each of these welders has passed qualifications tests within the last year, unless noted otherwise, in accordance with AWS Standards.
2. Inspect all structural steel during and after erection for conformance with Contract Documents and Shop Drawings. Any cases of insufficient bracing or guying, or other unsafe conditions shall be immediately called to attention of the Contractor and reported to the Architect.

a. No burning or other field correction of steel members is permitted without express permission of the Owner's representative. Immediately report violations.

b. Shop Inspection:
   1) Review Shop Drawings and shop procedures with fabricator's supervisory personnel.
   2) Request and obtain necessary mill certifications of steel and verify proper material throughout the duration of the job, as required.
   3) Review welding procedures and welder operator qualifications for conformance to the technical requirements of the Specifications.
   4) Check layout and dimensions of jigs and fixtures for multiple fabrication, joint preparation, fit-up, and runout plates.
   5) Verify welding electrodes to be used and other welding consumables as job progresses.
   6) Check preheating procedure for uniformity and thoroughness through the full thickness of material.
   7) Make visual inspection of welding in progress for size, length and quality.
   8) Check bolted connections as required by the technical requirements of the Specifications.
   9) Perform random dimensional checks of completed members.
   10) Provide inspection of surface preparation for coating and coating operations.
   11) Check shipping preparation schedules and obtain copies of shipping lists.

c. Field inspection:
   1) Obtain planned erection procedure, and review with erector's supervisory personnel.
   2) Check installation of anchor bolts and base plates.
   3) Verify field welding procedures and welder qualifications to assure conformance with the Specifications.
   4) Check steel as received in field for possible shipping damage, workmanship and piece marking.
   5) Check plumbness, alignment and chamber as erection progresses including proper bracing.
   6) Check joint preparation, fit-up**,** backing strips and runout plates.
   7) Check preheating to assure proper temperature, uniformity, and thoroughness through the full material thickness.
   8) Review welding sequence.
   9) Visually inspect field welding for size, length, and quality.

d. Inspection of High-Strength Bolted Construction shall be in accordance with the latest edition of AISC Specification for Structural Joints, and as follows:
   1) All high-strength bolted connections shall be visually inspected.
   2) At least two bolts of every third connection between beams and girders shall be checked with a calibrated torque wrench for proper torque.
   3) At least two bolts of every third connection between girders and columns shall be checked as above.
   4) All bolts in every connection in the primary exterior framing and braced framing shall be checked as above.
   5) All bolted connections that fail shall be corrected and all bolts in that connection shall be retested.
   6) Check calibration of impact wrenches at least twice daily.

e. Inspection of all welds shall be in accordance with the latest edition of the AWS Structural Welding Code.
   1) Visually inspect all welds in accordance with AWS DI.1.

f. Inspection of headed stud connector welding shall be in accordance with the latest edition of the AWS Structural Welding Code and as follows:
   1) Visual inspection of all studs shall indicate complete fusion and weld flush or fillet for 100 percent circumference. There will be no indication of lack of fusion or undercut weld.
   2) If visual inspection reveals that a sound weld or a full 360 degree fillet has not been obtained for a particular stud, such stud shall be struck with a hammer and bent 15 degrees off perpendicular to the nearest end of the beam. Studs failing under this test shall be replaced.

3.02 REPAIR AND PROTECTION

A. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

B. Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes.

C. Protect construction exposed by or for quality control service activities, and protect repaired construction.

END OF QUALITY CONTROL

01600
MATERIALS AND EQUIPMENT

1.0 GENERAL

1.01 SUMMARY

A. This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the Project.

1.02 DEFINITIONS

A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties", "systems", "structure", "finishes", "accessories", and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.

1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material", "equipment", "system", and terms of similar intent.
    a. "Named Products" are items identified by the manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
    b. "Foreign Products" as distinguished from "domestic products" are items substantially manufactured (50 percent or more of value) outside the United States and its possessions. Products produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of, nor living within, the United States and its possessions are also considered to be foreign products.
2. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
3. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.03 QUALITY ASSURANCE

A. Source limitations: To the fullest extent possible, provide products of the same kind from a single source.

1. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the Architect to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources producing products that possess these qualities, to the fullest extent possible.

B. Compatibility of options: When the Contractor is given the option of selecting between two (2) or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.

1. Each prime contractor is responsible for providing products and construction methods that are compatible with products and construction methods of other prime of separate contractors.
2. If a dispute arises between prime contractors over concurrently selectable, but incompatible products, the Architect will determine which products shall be retained and which are incompatible and must be replaced.

C. Foreign product limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion in the Work:

1. No available domestic product complies with the Contract Documents.
2. Domestic products that comply with the Contract Documents are available only at prices or terms substantially higher than foreign products that comply with the Contract Documents.

D. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.

1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
2. Equipment nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
    a. Name of product and manufacturer.
    b. Model and serial number.
    c. Capacity.
    d. Speed.
    e. Ratings.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
    1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
    2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.
    3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
    4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
    5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
    6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
    7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

2.0 PRODUCTS

2.01 PRODUCT SELECTION

A. General product requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
    1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
    2. Standard products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.

B. Product selection procedures: The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:
    1. Proprietary specification requirements: Where Specifications name only a single product or manufacturer, provide the product indicated. No substitutions will be permitted.
    2. Semi-proprietary specification requirements: Where Specifications name two (2) or more products or manufacturers, provide one (1) of the products indicated. No substitutions will be permitted.
        a. Where Specifications specify products or manufacturers by name, accompanied by the term "or equal" or "or approved equal," comply with Section 01630 Product Options and Substitutions to obtain approval for use of an unnamed product.

3. Nonproprietary specifications: When Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Section 01630 Product Options and Substitutions to obtain approval for use of an unnamed product.
4. Descriptive specification requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
5. Performance specification requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.
    a. Manufacturer's recommendations may be contained in published product literature or by the manufacturer's certification of performance.
6. Compliance with standards, codes, and regulations: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.
7. Visual matching: Where Specifications require matching an established Sample, the Architect's decision will be final on whether a proposed product matches satisfactorily.
    a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with Section 01630 Product Options and Substitutions for selection of a matching product in another product category.
8. Visual selection: Where specified product requirements include the phrase "…as selected from the manufacturer's standard colors, patterns, textures …" or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Architect will select the color, pattern, and texture from the product line selected.

3.0 EXECUTION

3.01 INSTALLATION OF PRODUCTS

A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
    1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF MATERIALS AND EQUIPMENT

01630
PRODUCT OPTIONS AND SUBSTITUTIONS

1.0 GENERAL

1.01 SUMMARY

A. This Section includes administrative and procedural requirements for handling requests for substitutions made after award of the Contract.

B. Related work:

1. Section 01300: Submittals: Specifies requirements for submittal of the Contractor's Construction Schedule.
2. Section 01600: Materials and Equipment: Specifies requirements governing the Contractor's selection of products and product options.

1.02 DEFINITIONS

A. Definitions in this Article do not change or modify the meaning of other terms used in the Contract Documents.

B. Substitutions: Requests for changes in products, materials, equipment, and methods of construction required by the Contract Documents proposed by the Contractor after award of the Contract are considered to be requests for substitutions. The following are not considered to be requests for substitutions:

1. Revisions to the Contract Documents requested by the Owner or Architect.
2. Specified options of products and construction methods included in the Contract Documents.
3. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

1.03 SUBMITTALS

A. Substitution request submittal: The Owner will consider requests for substitution if received within sixty (60) days after commencement of the Work. Requests received more than sixty (60) days after commencement of the Work may be considered or rejected at the discretion of the Owner.

1. Submit five (5) copies of each request for substitution for consideration. Submit requests on the form included at the end of this Section according to procedures required for change-order proposals.
2. Identify the product or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers.
3. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:
    a. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the Owner and separate contractors, that will be necessary to accommodate the proposed substitution.
    b. A detailed comparison of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements, such as performance, weight, size, durability, and visual effect.
    c. Product Data, including Drawings and descriptions of products and fabrication and installation procedures.
    d. Samples, where applicable or requested.
    e. A statement indicating the substitutions effect on the Contractor's Construction Schedule compared to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.
    f. Cost information, including a proposal of the net change, if any in the Contract Sum.
    g. The Contractor's certification that the proposed substitution proposed is equal to or better in every significant respect to that required in the Contract Documents, and is appropriate for the applications indicated.

h. The Contractor’s waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.

4. Owner's action: If necessary, the Owner will request additional information or documentation for evaluation. The Owner will notify the Contractor of acceptance or rejection of the substitution by return of the substitution request form.
   a. Use the product specified if the Owner cannot make a decision on the use of a proposed substitute within the time allocated.
   b. The Owner's decision of acceptance or non-acceptance of a proposed substitution shall be final.

2.0 PRODUCTS

2.01 SUBSTITUTIONS

A. Conditions: The Owner will receive and consider the Contractor's request for substitution when one or more of the following conditions are satisfied, as determined by the Owner. If the following conditions are not satisfied, the Owner will return the requests without action except to record noncompliance with these requirements.
   1. Extensive revisions to the Contract Documents are not required.
   2. Proposed changes are in keeping with the general intent of the Contract Documents.
   3. The request is timely, fully documented, and properly submitted.
   4. The specified product or method of construction cannot be provided within the Contract Time. The Owner will not consider the request if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.
   5. The request is directly related to an "or-equal" clause or similar language in the Contract Documents.
   6. The requested substitution offers the Owner a substantial advantage, in cost, time, energy conservation, or other considerations, after deducting additional responsibilities the Owner must assume. The Owner's additional responsibilities may include compensation to the Architect for redesign and evaluation services, increased cost of other construction by the Owner, and similar considerations.
   7. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
   8. The specified product or method of construction cannot be provided in a manner that is compatible with other materials and where the Contractor certifies that the substitution will overcome the incompatibility.
   9. The specified product or method of construction cannot be coordinated with other materials and where the Contractor certifies that the proposed substitution can be coordinated.
   10. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution provides the required warranty.
   11. Where a proposed substitution involves more than one prime contractor, each contractor shall cooperate with the other contractors involved to coordinate the Work, provide uniformity and consistency, and assure compatibility of products.

B. The Contractor’s submittal and the Owner's acceptance of Shop Drawings, Product Data, or Samples for construction activities not complying with the Contract Documents do not constitute an acceptable or valid request for substitution, nor do they constitute approval.

C. Failure of timely order: The Contractor is responsible for assuring the timely order of all materials specified. If a specified material, or color of material cannot be delivered by the contract completion date, due to failure to order the material in a timely manner, the Contractor shall be responsible for supplying an equal or better material. The Owner shall be the sole determinant of the approved substitute material. The Contractor shall also be charged an amount equal to five percent (5%) of the value of the specified material. This amount shall be credited to the Owner through a Change Order to the contract. The word “material”, as used in this Section, includes all items specified in the Specifications or shown on the Drawings.

3.0 EXECUTION

3.01 SUBSTITUTION REQUEST FORMS

A. The Contractor shall submit requests for substitutions on the form included on the following pages.

SUBSTITUTION REQUEST FORM

Date:_____
Architect's Project No.:_____
Project:_____

To: CITY OF AUBREY
c/o Birkhoff, Hendricks & Carter, LLP
11910 Greenville Avenue, Suite 600
Dallas, Texas 75243

From:_____
_____
_____
_____

==========

Contractor hereby requests acceptance of the following product or system as substitution in accordance with provisions of Section 01630 of the Specifications.

1. SPECIFIED PRODUCT OR SYSTEM:

   Substitution request for: _____

   Specification Section No.: _____Article: _____

2. SUPPORTING DATA:

   _____ Product data adequate for evaluation of the request for proposed substitution is attached (description of product, reference standard, performance and test data, specifications, drawings, photographs).

   _____ Sample is attached.

   _____ Sample will be sent upon Architect/Engineer's request.

3. QUALITY COMPARISON (Add additional sheets if necessary)

	SPECIFIED PRODUCT	SUBSTITUTION
Name, Brand:	_____	_____
Catalog No.:	_____	_____
Manufacturer:	_____	_____
Vendor:	_____	_____
Significant Variations:	_____	_____

Maintenance Service Available: _____ Yes _____ No
Spare Parts Source: _____
Warranty Provided: _____ Yes _____ Years _____ No
By Whom: _____

4. PREVIOUS INSTALLATIONS:

Identification of similar projects on which proposed substitution was used:

Project: _____ Architect/Engineer: _____

Address: _____ Owner: _____

_____ Date Installed: _____

5. REASON FOR NOT GIVING PRIORITY TO SPECIFIED ITEM(S):

_____

_____

_____

6. EFFECT OF SUBSTITUTION:

Does the proposed substitution affect other work (adverse or otherwise):

_____ No _____ Yes (if yes, explain) _____

_____

_____

_____

_____

Substitution Changes Contract Time:

_____ No _____ Yes (if yes, Add/Deduct _____ Days)

Substitution requires dimensional revisions or redesign of the work:

_____ No _____ Yes (if yes, attach explanation data)

7. CONTRACTOR'S STATEMENT OF CONFORMANCE OF PROPOSED SUBSTITUTION TO CONTRACT DOCUMENTS:

I/we have investigated the proposed substitution. I/we:

* believe that it is equal or superior in all respects including function, appearance, and quality to specified product, except as stated above;
* will provide same warranty and servicing requirements as specified for specified product;
* have included complete implications of the substitution;
* will pay for changes to the building design and special inspection costs caused by the use of this product;
* will coordinate the incorporation of the proposed substitution in the work;
* waive future claims for added cost to Contract caused by the substitution.

Contractor: _____

Date: _____ By: _____

Answer all questions and complete all blanks - use "NA" if not applicable. Unresponsive or incomplete request will be rejected.

==========

END OF PRODUCT OPTIONS AND SUBSTITUTIONS

03345
CONCRETE FINISHING AND CURING

1.0 GENERAL

1.01 SUMMARY

A. Provide finishing and sealing of cast-in-place concrete as called for on the Drawings, as specified herein and as needed for a complete and proper installation.

B. Related work:

1. Section 03300: Cast-in-Place Concrete.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:

1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Certificate:

1. Authorized representative of approved manufacturer of liquid sealing agents shall issue a signed certificate of coverage approving application of liquid curing/sealing agents.

C. Prepare a test sample of sealing method for Architect's approval prior to floor sealing operations.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

2.0 PRODUCTS

2.01 MATERIALS

A. General:

1. Carefully study the Drawings and these Specifications, and determine the location, extent, and type of required concrete finishes.
2. As required for the Work, provide the following materials, or equals approved in advance by the Architect.

B. Liquid curing/sealing agent:

1. Where application of specified finish materials will be inhibited by use of curing agents, cure the surface by water only; do not use chemical cure.
2. Sonneborn Kure-N-Seal 30 as manufactured by BASF Construction Chemicals LLC.

C. Water: Provide fresh, clear potable water for curing slabs.

2.02 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 CONCRETE FINISHES

A. General:
   1. All floor slabs to receive smooth trowel finish unless otherwise noted.
   2. Exposed concrete vertical surfaces shall have a smooth rubbed finish.

B. Floated finish:
   1. After the concrete has been placed, jitterbug or tamp slab surfaces, screed to proper elevation, and then float with metal or wood floats.
   2. Begin floating when the water sheen has disappeared and when the surface has stiffened sufficiently to permit the operation.
   3. During or after the first floating, check the planeness of the surface with a 10 FT straightedge applied at not less than two (2) different angles.
   4. Cut down high spots and fill low spots.
   5. Refloat the slab immediately to a uniform sandy texture.

C. Smooth trowel finish:
   1. Provide a floated finish as described above, followed by a power troweling and then a hand troweling.
      a. Float slabs with power trowels for finish leveling after concrete has sufficiently stiffened to permit the operation.
      b. Provide hand troweling when a ringing sound is produced as the trowel is moved over the surface.
   2. Provide a finished surface essentially free from trowel marks, uniform in texture and appearance, and in a plane of Class A tolerance:
      a. True plane within 1/8 IN in 10 FT as determined by a 10 FT straightedge placed anywhere on the slab in any direction.
      b. On surfaces intended to support floor coverings, use grinding or other means as necessary and remove all defects of such magnitude as would show through the floor covering.

D. Smooth form finish:
   1. Coordinate as necessary to secure form construction using smooth, hard, uniform surfaces, with number of seams kept to a practical minimum and in a uniform and orderly pattern.
   2. Patch tie holes and defects.
   3. Remove fins completely.

E. Smooth rubbed finish:
   1. Provide this finish only on a "smooth form finish" base as described above.
      a. Produce on newly hardened concrete no later than the day following form removal.
      b. Wet the surfaces, and rub with carborundum brick or other abrasive until uniform color and texture are produced.
      c. Level offsets and fill voids with the cement paste drawn from the concrete itself by the rubbing process.
      d. Provide additional mortar composed of one part cement and one part fine sand to assist in rubbing.

3.03 CURING

A. Compound method:
   1. Immediately following finishing operations, apply curing compound to point of rejection and uniform surface film accumulation (typically 200 to 500 SF/GAL). Avoid puddles or excessive accumulation.

B. Water method:
   1. Maintain concrete between 65ºF and 85ºF during curing.

3.04 SEALING

A. Clean scheduled floors with clear water to remove all loose dirt and dust. Remove oil, grease, asphalt, and droppage with an approved detergent. Allow floor to dry thoroughly.

B. Apply sealing compound with a power sprayer to point of saturation and accumulation of surface film. Avoid puddles and runs to low spots. Allow compound to penetrate, then respray only those areas evidencing no surface film. Repeat until a uniform surface film appears over the entire floor.

3.05 PROTECTION

A. Protect freshly sealed floors until films are hard dry.

B. Protect finished concrete surfaces from soiling.

C. Protect finished concrete surfaces from damage from construction equipment, materials, mechanical disturbances such as heavy shock, load stresses, and excessive vibration.

END OF SECTION

04220
CONCRETE UNIT MASONRY

1.0 GENERAL

1.01 SUMMARY

A. Provide concrete unit masonry where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

B. Related work:

1. Section 07180: Water Repellents.

1.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Mock-up Panels: At an area on the site where approved by the Architect, provide mock-up concrete unit masonry panels.

1. Make each mock-up panel approximately 3 FT high x 4 FT long.
2. Make one mock-up panel for each combination of concrete masonry unit, bond pattern, mortar color, and joint type used in the Work.
3. Revise as necessary to secure the Architect's approval.
4. Do not proceed with work of this Section until mock-up panels are approved by Architect.
5. Maintain mock-up panel during construction as a standard of quality for actual construction.
6. Completely demolish and remove mock-up panels from the site upon completion and acceptance of the Work.

1.03 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. Store masonry units above ground on level platforms which allow air circulation under the stacked units.

C. Cover and protect from wetting prior to use.

2.0 PRODUCTS

2.01 STANDARD (INTERIOR) CONCRETE MASONRY UNITS

A. Provide lightweight hollow load bearing concrete masonry units complying with ASTM C90, grade N, type I, in color "natural gray".

B. Dimensions: Provide units having nominal face dimensions of 16 IN long by 8 IN high by 8 IN deep as shown on the Drawings or otherwise required.

C. Provide bullnose units on exposed exterior masonry corners.

D. Provide accessory shapes as indicated on the Drawings or otherwise required.

2.02 SPLIT-FACE (EXTERIOR) CONCRETE MASONRY UNITS

A. Provide split-face type, integral color, normal weight limestone mix concrete masonry units complying with ASTM C90, grade N-1, in color selected by the Architect.

B. Dimensions: Provide units having nominal face dimensions of 16 IN long by 8 IN high by 8 IN deep as shown on the Drawings or otherwise required.

C. Provide accessory shapes as indicated on the Drawings or otherwise required.

2.03 REINFORCEMENT AND ACCESSORIES

A. Joint reinforcement:

1. Where required by the Structural Drawings, provide extra heavy weight galvanized trussed wire reinforcing equal to “Single Wythe Wall with #120 Truss Mesh” as manufactured by Hohmann & Barnard, Inc.
   a. Width: 2 IN less than CMU thickness.
   b. Finish: Hot-dipped galvanized.
   c. Accessory shapes: Prefabricated corners and tees.

B. Bars: Provide deformed bars complying with ASTM A615, grade 40, in sizes indicated on the Drawings or as specified herein.

2.04 MORTAR

A. Ingredients:
   1. Masonry Cement: Comply with ASTM C91, Type II.
   2. Portland Cement: Comply with ASTM C150, Type I.
   3. Hydrated Lime: Comply with ASTM C207, Type S for masonry purposes. Lime shall not contain air-entrainment additives.
   4. Sand: Comply with ASTM C144.
   5. Water: Provide potable water free from injurious amounts of acids, alkalis, oil and organic matter.
   6. Mortar Color: Provide pure ground mineral oxides, non-fading and alkali proof, as approved by the Architect.
   7. Admixtures or antifreezes to lower the temperature of the mortar will not be permitted.

B. Mixing:
   1. Provide mortar complying with ASTM C270, Type S.
   2. Mortar proportions by volume shall be:
      a. 1 part Portland cement
      b. 1/2 part hydrated lime
      c. 4-1/2 parts sand
   3. Mechanically mix mortar materials in a batch mixer for not less than three (3) minutes, using only sufficient water to produce a mortar which is spreadable and of a workable consistency.
   4. Retemper mortar with water as required to maintain high plasticity.
      a. On mortar boards, retemper only by adding water within a basin formed with mortar, and by working the mortar into the water.
      b. Discard and do not use mortar which is unused after 2-1/2 hours following initial mixing.

2.05 GROUT

A. Ingredients:
   1. Portland cement: Comply with ASTM C150, Type I.
   2. Aggregate: Provide clean, sharp, well graded aggregate free from injurious amounts of dust, lumps, shale, alkali, surface coatings, and organic matter.
   3. Water: Provide potable water free from injurious amounts of acids, alkalis, oil and organic matter.
   4. Admixtures or antifreezes to lower the temperatures of the grout will not be permitted.

B. Mixing:
   1. Grout proportions by volume shall be:
      a. 1 part Portland cement
      b. 3 parts maximum damp loose sand
      c. 2 parts course aggregate
      d. Water in amount sufficient to achieve fluid consistency
   2. "Fluid consistency" is interpreted as meaning as fluid as possible for pouring intimately in place without segregation.

2.06 OTHER MATERIALS

A. Cleaner: Provide Sure-Klean as manufactured by ProSoCo, Inc., Irving, Texas, Tel. 214-252-9399.

B. Filler strip: Provide 3/8 IN thick x 3 IN wide neoprene filler strip conforming to ASTM D1056 Grade 2A1 equal to “NS Closed Cell Neoprene Sponge” as manufactured by Hohmann & Barnard, Inc.

C. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

B. Do not commence installation of the work of this Section until horizontal and vertical alignment of foundation is within 1 IN of plumb and the lines shown on the Drawings.

3.02 ENVIRONMENTAL CONDITIONS

A. Do not place masonry units when air temperature is below 40ºF, unless means are provided to heat and maintain the temperature of the masonry materials and to protect the work from freezing. Protection shall be maintained for 72 HRS.

3.03 INSTALLATION

A. General:
   1. Lay only dry masonry units.
   2. Use masonry saws to cut and fit masonry units.
      a. Cut integral color masonry units so as to prevent staining of exposed faces of masonry. Stained units which do not match color of adjacent units due to cutting process will not be accepted.
   3. Set units plumb, true to line and with level courses accurately spaced.
   4. Clean the top surface of slab free from dirt, debris and laitance prior to start of installing first course.
   5. Accurately fit the units to plumbing, ducts, openings and other interfaces, neatly patching all holes.
   6. Keep the walls continually clean, preventing grout and mortar stains.
   7. Cavities shall be kept clean and free of mortar and mortar droppings unless otherwise noted on the Drawings.

B. Unless otherwise shown on the Drawings, provide running bond with vertical joints located at center of masonry units in the alternate course below.

C. Do not used chipped or broken units. If such units are discovered in the finished wall, the Architect may require their immediate removal and replacement with new units at no additional cost to the Owner.

D. Laying up:
   1. Place units in mortar with full shoved bed and head joints.
   2. Align vertical cells of hollow units to maintain a clear and unobstructed system of flues.
   3. Hold racking to an absolute minimum.
   4. Masonry having absorption rates in excess of 0.025 OZS per SQ IN per minute (determined in accordance with ASTM C67) shall be wetted so that the rate of absorption does not exceed this amount.
   5. Where fresh masonry joins masonry that is partially or totally set, the exposed surface shall be cleaned and lightly wetted. Remove all loose masonry and mortar.
   6. Provide weep holes in head joints of masonry at built-in flashings spaced 32 IN OC MAX.

E. Reinforcement:
   1. Walls shall be bonded and horizontally reinforced with galvanized wire reinforcing as indicated or scheduled on the Structural Drawings.
   2. Lintels and bond beams shall be filled with concrete and reinforced as indicated or scheduled on the Structural Drawings.
   3. Provide vertical reinforcing and grout filled cells as indicated or scheduled on the Structural Drawings.

F. Tooling:
   1. Exposed joints in masonry shall be tooled with a round jointer after they become "thumbprint" hard. The jointer shall be slightly larger than the width of the mortar joint, so that complete contact is made along the edges of the units, compressing and sealing the surface.

3.04 GROUTING

A. Where vertical or horizontal reinforcing bars are required, place and inspect prior to filling operation.
B. Solidly fill all cells containing reinforcement per ASTM C476.
C. Place grout fill in 4 FT lifts maximum.
D. Leave lifts minimum 1-1/2 IN below top of course to form key with next lift.

3.05 REPOINTING

A. Cut out and repoint defective joints or masonry.

3.06 CLEANING

A. Remove mortar droppings and other foreign material.
B. Thoroughly clean exposed masonry with stiff brushes, water and cleaning agent in accordance with cleaning agent manufacturer's recommendations.

END OF SECTION

05500
METAL FABRICATIONS

1.0 GENERAL

1.01 SUMMARY

A. Provide miscellaneous metal work shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:

1. Shop Drawings in sufficient detail to show fabrication, installation, anchorage, and interface of the work of this Section with the work of adjacent trades.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Perform shop and/or field welding required in connection with the work of this Section in strict accordance with pertinent recommendations of the AWS.

C. Fabrication of the work of this Section shall be in strict accordance with pertinent recommendations of the AISC.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

1.05 PROJECT CONDITIONS

A. Field measurements: Check actual locations of walls and other construction to which metal fabrications must fit, by accurate field measurements before fabrication; show recorded measurements on final Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delay of Work.

1. Where field measurements cannot be made without delaying the Work, guarantee dimensions and proceed with fabrication of products without field measurements. Coordinate construction to ensure that actual opening dimensions correspond to guaranteed dimensions. Allow for trimming and fitting.

2.0 PRODUCTS

2.01 MATERIALS

A. General:

1. In fabricating items which will be exposed to view, provide materials selected for their surface flatness, smoothness, and freedom from surface blemishes. Do not use materials whose exposed surfaces exhibit pitting, seam marks, roller marks, rolled trade names, and roughness.

2. Except as otherwise shown on the Drawings, directed by the Architect, or required by governmental agencies having jurisdiction, provide materials as required for the Work and complying with the following minimum standards.

B. Rolled steel plates and bars: Comply with ASTM A36.

C. Steel pipe: Comply with ASTM A501.

1. Handrails and guardrails: Provide 1 1/2 IN outside diameter hot-dip galvanized standard steel pipe.

D. Steel tube: Comply with ASTM A500, Grade B.

E. Miscellaneous steel shapes: Provide bent or otherwise custom fabricated angles, channels, plates, tubes, anchors, hangers, dowels, bolts and connections where detailed or required, complying with ASTM A36.

2.02 OTHER MATERIALS

A. Electrodes for welding: Select in accordance with AWS specifications for the metal alloy to be welded.

B. Primer: Provide manufacturer's or fabricator's standard rust-inhibitive primer complying with FS TT-P-645 selected for good resistance to normal atmospheric corrosion, for compatibility with finish paint systems indicated, and for capability to provide a sound foundation for field-applied topcoats.

C. Grout: Provide nonshrink nonmetallic grout complying with ASTM C1107 equal to Master Builders "Masterflow 713".

D. Fasteners: Provide bolts and nuts, lag or toggle bolts, machine or wood screws, plain or lock washers, and drilled expansion anchors as indicated or as appropriate.

E. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

2.03 FABRICATION, GENERAL

A. Except as otherwise shown on the Drawings or the approved Shop Drawings, use materials of size, thickness, and type required to produce reasonable strength and durability in the work of this Section. Work to dimensions indicated or accepted on Shop Drawings, using proven details of fabrication and support. Use type of materials indicated or specified for various components of each metal fabrication.

B. Fabricate exposed work true to line and level with accurate angles and surfaces and straight sharp edges.

C. Ease exposed edges to a radius of approximately 1/32 IN, unless otherwise indicated. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

D. Cut, drill or punch holes perpendicular to metal surfaces. Do not flame cut holes or enlarge holes by burning. Remove burrs.

E. Remove sharp or rough areas on exposed traffic surfaces.

F. Weld corners and seams continuously to comply with AWS recommendations and the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base materials.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after finishing and contour of welded surface matches those adjacent.

G. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners wherever possible. Use exposed fasteners of type indicated or, if not indicated, Phillips flat-head (countersunk) screws or bolts. Locate joints where least conspicuous.

H. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space anchoring devices to provide adequate support for intended use.

I. Preassemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.

J. Cut, reinforce, drill, and tap miscellaneous metal work as indicated to receive finish hardware, screws, and similar items.

K. Fabricate joints which will be exposed to weather in a manner to exclude water, or provide weep holes where water may accumulate.

L. Fabricate rough hardware to sizes, shapes, and dimensions required. Furnish malleable iron washers for heads and nuts which bear on wood structural connections; elsewhere, furnish steel washers.

M. Make bends in pipe so as to preserve contour of pipe.

N. Prior to shop painting or priming, properly clean metal surfaces as required for the applied finish and for the proposed use of the item.

O. On surfaces inaccessible after assembly or erection, apply two (2) coats of the specified primer.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 COORDINATION

A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
   1. Coordinate and furnish anchorages, setting drawings, diagrams, templates, instructions, and directions for installation of anchorages, including concrete inserts, sleeves, anchor bolts, and miscellaneous items having integral anchors that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to Project site.
   2. Set sleeves in concrete with tops flush with finish surface elevations; protect sleeves from water and concrete entry.

3.03 INSTALLATION

A. General:
   1. Provide anchorage devices and fasteners where necessary for securing miscellaneous metal fabrications to in-place construction.
   2. Perform cutting, drilling, and fitting required for installation of miscellaneous metal fabrications.
   3. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack, and measured from established lines and levels.
   4. Anchor firmly into position.
   5. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations.
   6. Where field welding is required, comply with AWS recommended procedures of manual-shielded metal-arc welding for appearance and quality of weld and for methods to be used in correcting welding work.
   7. Grind exposed welds smooth, and touchup shop prime coats.
   8. Do not cut, weld, or abrade surfaces which have been hot-dip galvanized after fabrication and which are intended for bolted or screwed field connections.

3.04 ADJUSTING AND CLEANING

A. Immediately after erection, clean field welds, bolted connections, and abraded areas of shop priming, and paint the exposed areas with same material used for shop priming.
   1. Apply by brush or spray to provide 2.0 DFT minimum.

END OF SECTION

06100
ROUGH CARPENTRY

1.0 GENERAL

1.01 SUMMARY

A. Provide lumber, decking, plywood, fasteners and anchors, wood treatment, blocking, nailers, furring strips, rough hardware, and other items needed, and perform rough carpentry for the construction shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Codes and standards:

1. Softwood framing lumber shall meet requirements of American Lumber Standards SPR16-53, and the specified grading requirements of the association covering the species used under whose grading rules it is produced.
2. Plywood shall meet requirements of Product Standard PS-1- 66.
3. Board lumber shall meet requirements of the American Lumber Standards.

1.03 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. Protection:

1. Deliver materials to the job site and store, in a safe area, out of the way of traffic, and shored up off the ground surface.
2. Identify framing lumber as to grades, and store each grade separately from other grades.
3. Do not store seasoned or treated materials in damp location.
4. Protect edges of panel materials from damage to corners.
5. Protect metals with adequate waterproof outer wrapping.
6. Use extreme care in offloading of lumber to prevent damage, splitting and breaking of materials.

2.0 PRODUCTS

2.01 DIMENSION LUMBER

A. Sizes: Nominal sizes as indicated on the Drawings, S4S.

B. Moisture content: S-dry or MC19.

C. Miscellaneous blocking, furring and nailers:

1. Lumber: S4S, No. 2 or Standard Grade.
2. Boards: Standard or No. 3.

2.02 CONSTRUCTION PANELS

A. Plywood roof decking: Nominal 3/4 IN thick, fire retardant treated, APA rated sheathing.

B. Plywood wall/soffit sheathing: Nominal 1/2 IN thick, fire retardant treated, APA rated sheathing, NIST PS-1, Grade C-D, Exposure I.

C. Miscellaneous panels:

1. Concealed plywood: NIST PS-1, C-C plugged, exterior grade.
2. Exposed plywood: NIST PS-1, A-D, interior grade.
3. Electrical component mounting: APA rated sheathing; fire retardant treated.

2.03 FACTORY WOOD TREATMENT

A. Fire retardant treatment: AWPA Treatment C20, Interior Type A Low Temperature (low hygroscopic), chemical treatment pressure impregnated; capable of providing a maximum flame spread/smoke developed rating of 25/450.

1. Non-combustible wood shall be used in all locations required by codes and local authorities having jurisdiction, whether or not it is shown on the Drawings.

B. Pressure treatment of lumber above grade: AWPA Treatment C2 using water-borne preservative to 0.25 LB/CF retention.
   1. Kiln dry after treatment to moisture content of 19% MAX.
   2. Treat wood in contact with roofing, flashing or waterproofing.
   3. Treat wood in contact with masonry or concrete.
   4. Treat wood less than 18 IN above grade.

2.04 ACCESSORIES

A. Provide rough hardware and miscellaneous anchors, inserts, nails, bolts, screws, and other fastening devices of type, size and spacing required and in quantities needed for the Work shown on the Drawings.

B. Fasteners and anchors:
   1. Fasteners: Hot-dipped galvanized steel for high humidity and treated wood locations, unfinished steel elsewhere.
   2. Drywall screws: Bugle head, hardened steel, power driven type, length three times thickness of sheathing
   3. Anchors: type best suited for project conditions.

C. Backer plates:
   1. Type: 14 gage uncoated metal thickness steel sheet, galvanized in accordance with ASTM A653 G60.
   2. Length: Sufficient to extend to nearest studs beyond MAX dimension of attached item and engage fasteners from attached item; span 3 studs MIN.
   3. Height: 6 IN MIN or higher where required to accommodate item being fastened.
   4. When manufacturer of attached item has ore rigorous mounting plate requirements, comply with manufacturer's requirements.

2.05 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 DELIVERIES

A. Stockpile materials sufficiently in advance of need to assure their availability in a timely manner for this Work.

3.03 COMPLIANCE

A. Do not permit materials not complying with the provisions of this Section to be brought onto or to be stored at the job site.

B. Promptly remove non-complying materials from the job site and replace with materials meeting the requirements of this Section.

3.04 WORKMANSHIP

A. Produce joints which are tight, true and well nailed, with members assembled in accordance with the Drawings and with pertinent codes and regulations.

B. Selection of lumber pieces:
   1. Carefully select the members.
   2. Select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing, and will allow making of proper connections.
   3. Cut out and discard defects which render a piece unable to serve its intended function.
   4. Lumber may be rejected by the Architect, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting and fitting.

C. Do not shim any framing component.

3.05 PREPARATION

A. Items which require backer plates or blocking:
   1. Coordinate sizes and locations.
   2. Install additional studs for attachment of backer plates and blocking in required locations to receive surface mounted accessories as indicated or as required by accessory manufacturer.
   3. Elimination of backer plates and blocking is not permitted.
   4. Direct attachment of items to studs is not permitted.

B. Blocking and backer plates:
   1. Provide concealed wood blocking or metal backer plates for securing wood trim, carpentry, woodwork, cabinets, millwork, casework, surface mounted equipment, surface mounted fittings, fixtures, accessories, and furnishings, including, but not limited to handrails, grab bars, toilet partitions, towel bars, wall mounted door stops, and similar screw- and bolt-fastened items.

3.06 GENERAL FRAMING

A. General:
   1. In addition to framing operations normal to the fabrication and erection indicated on the Drawings, install wood blocking and backing required for the work of other trades.
   2. Set horizontal and sloped members with crown up.
   3. Do not notch, cut or bore members for pipes, ducts or conduits, or for other reasons except as shown on the Drawings or as specifically approved in advance by the Architect.

B. Bearings:
   1. Make bearings full unless otherwise indicated on the Drawings.
   2. Finish bearing surfaces on which structural members are to rest so as to give sure and even support.
   3. Where framing members slope, cut or notch the ends as required to give uniform bearing surface.

3.07 BLOCKING AND BRIDGING

A. Install blocking as required to support items of finish and to cut off concealed draft openings, both vertical and horizontal, between ceiling and floor areas.

B. Bridging:
   1. Install wood cross bridging (not less than 2 x 3 IN nominal), metal cross bridging of equal strength, or solid blocking between joists where the span exceeds 8 FT.
   2. Provide maximum distance of 8 FT between a line of bridging and a bearing.
   3. Cross bridging may be omitted for roof and ceiling joists where permitted by code, EXCEPT where otherwise indicated on the Drawings.
   4. Install solid blocking between joists at points of support and wherever sheathing is discontinuous. Blocking may be omitted where joists are supported on metal hangers.

3.08 ALIGNMENT

A. On framing members to receive a finished surface, align the finish subsurface to vary not more than 1/8 IN from the plane of surfaces of adjacent furring and framing members.

3.09 PLYWOOD ROOF DECKING

A. Install in accordance with the structural drawings.

3.10 PLYWOOD WALL AND/OR SOFFIT SHEATHING

A. Install in accordance with the structural drawings.

3.11 INSTALLATION OF BACKING PANELS

A. Placement:
   1. Place plywood with face grain perpendicular to supports and continuously over at least two supports.
   2. Center joints accurately over supports.
   3. Leave 1/16 IN space at end joints and 1/8 IN space at edge joints. Fasten at 6 IN OC at panel edges and at 10 IN OC at intermediate supports with screws.

B. Protect plywood from moisture by use of waterproof coverings until the plywood in turn has been covered with the next succeeding component or finish.

3.12 FASTENING

A. General:
   1. Install nails, bolts, metal connectors, powder-actuated fasteners, drive studs and miscellaneous anchors as required to properly fasten and support the work by recognized standards.

B. Nailing:
   1. Nails or spikes shall penetrate into the piece receiving the point not less than 1/2 the length of the nail or spike.
   2. Nail without splitting wood.
   3. Prebore as required.
   4. Remove split members and replace with members complying with the specified requirements.

C. Bolting:
   1. Drill holes 1/16 IN larger in diameter than the bolts being used.
   2. Drill straight and true from one side only.
   3. Do not bear bolt heads directly on wood, but use washers under head and nut where both bear on wood, and use washers under all nuts.

D. Screws:
   1. For lag screws and wood screws, prebore holes same diameter as root of threads, enlarging holes to shank diameter for length of shank.

E. Powder-actuated fasteners:
   1. Install fasteners in accordance with manufacturer’s recommendations, with minimum embed length as recommended by manufacturer, for each type of installation.

3.13 SITE APPLIED WOOD TREATMENT

A. Apply preservative treatment compatible with factory applied treatment at site-sawn cuts, complying with manufacturer’s instructions.

B. Allow preservative to dry prior to erecting members.

END OF SECTION

07180
WATER REPELLENTS

1.0 GENERAL

1.01 SUMMARY

A. Provide water repellents where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

B. Related work:

1. Section 07190: Vapor Retarders.
2. Section 07920: Sealants and Calking.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:

1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
2. Manufacturer’s installation instructions.
3. Certified test reports indicating compliance with performance requirements specified herein.
4. Statement of qualifications.
5. Statement of compliance with Regulatory Requirements.
6. Field Quality Control Submittals as specified in Part 3.
7. Manufacturer’s field reports.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Materials shall be identified on the package with the manufacturer's name and type of material.

C. Qualifications:

1. Manufacturer's qualifications: Manufacturer with not less than five (5) years experience in the actual production of specified products.
2. Installer’s qualifications: Firm experienced in installation or application of systems similar in complexity to those required for this Project, plus the following:
   a. Acceptable to or licensed by manufacturer.
   b. Not less than three (3) years experience with systems.
   c. Successfully completed not less than five (5) comparable scale projects using this system.
3. Product qualifications: Comply with the provisions of the following standards for brick masonry:
   a. Surface appearance: No change in surface appearance or texture.
   b. ASTM E514 “Water Permeance of Masonry”:
      1) 100% reduction in leakage rate over the control wall.
      2) Control wall must have a leakage rate of at least 2.0 L/HR.
   c. ASTM C67 “Brick and Structural Clay Tile” Part 7 Water absorption:
      1) 98% reduction in water absorption.
   d. ASTM G23 “Accelerated Weathering” for 2000 HRS:
      1) Only 5% loss of effectiveness over initial water repellency.
   e. Penetration: Visual penetration into brick: 0.25 IN average.

D. Regulatory requirements: Products shall comply with state and local regulations concerning AIM (Architectural, Industrial and Maintenance) coatings regarding Volatile Organic Content (VOC).

1. The use of 1,1,1-trichloroethane shall not be allowed.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. Packaging and shipping: Deliver products in original unopened packaging with legible manufacturer’s identification.

C. Storage and protection: Comply with manufacturer's recommendations.
   1. Store away from heat, sparks, open flame or other sources of ignition.
   2. Keep containers closed when not in use.
   3. Store at temperatures between 0ºF and 120ºF.
   4. Store away from rain and standing water.

1.05 PROJECT CONDITIONS

A. Environmental requirements:
   1. Maintain ambient temperature above 20ºF during and 24 HRS after application.
   2. Do not proceed with application of materials if ice or frost is covering the substrate.
   3. Do not proceed with application if ambient temperature of surface exceeds 100ºF.
   4. Do not proceed with application of materials in rainy conditions or if heavy rain is anticipated within 4 HRS of application.

B. Sealer coordination: Verify compatibility with curing compounds, patching materials, repair mortar, paints, sealants, etc. to be used on masonry surfaces to ensure compatibility with the water repellant.

1.06 WARRANTIES

A. Manufacturer shall warrant respective products applied in accordance with Manufacturer's specifications for a period of ten (10) years from Date of Substantial Completion against all the conditions indicated below. When notified in writing from Owner, manufacturer shall correct said deficiencies promptly and without inconvenience and cost to Owner.
   1. Loss of water repellency: Brick masonry-1.0 ML/20 minutes or greater (80 MPH wind-driven rain equivalent).

2.0 PRODUCTS

2.01 WATER REPELLENT

A. Provide "Protectosil Chem-Trete 40 VOC" as manufactured by Evonik Degussa Corporation, Tel. 800-828-0919, Web www.products.evonik.com or equal material of other manufacturer approved in advance by the Architect.

2.02 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 PREPARATION

A. Protection: Install coverings to protect adjacent surfaces.

B. Surface preparation:
   1. Verify masonry joints found to be unsound, hollow, or otherwise defective, have been raked out to a depth of 1/2 IN and pointed with mortar.
   2. Verify cracks which exceed 1/64 IN wide have been filled with pointing mortar.
   3. All repointing must be completed and allowed to cure.
   4. Remove dirt, dust and materials that will interfere with the proper and effective application of the penetrating sealer. It is the responsibility of the Contractor to prepare the surfaces of the substrate as recommended by the water repellent manufacturer and acceptable to the Architect.
   5. Sealants, patching materials, and expansion joints shall have been installed and approved by the Architect.

3.03 FIELD QUALITY CONTROL

A. Spray test: After water repellent has dried, spray coated surfaces with water. After surfaces have adequately dried, recoat surfaces that show water absorption.

B. Manufacturer's field services:

1. Furnish written certification that surface preparation method and final condition has manufacturer's approval and comply with the warranty.
2. Test area: Furnish results of test area absorption on each type of substrate. Test results shall determine application rate.

C. Test area:

1. Before a sealer application, the following field evaluation will be done. The cost of the field testing will be the responsibility of the water repellent manufacturer.
2. Prepare a 3 FT x 3 FT area to be sprayed with the water repellent. The area will be determined by the Owner. Apply the water repellent in a flooding application, from the bottom up to cause the material to run down 6-8 IN below the spray pattern.
3. After allowing five (5) days for the sample to cure, run a RILEM uptake test on the treated area. Place one tube on the brick and one tube on a mortar joint. Owner must be present for the application of the water repellent and the test.
4. Acceptable minimum results area as stated in the warranty provisions. Coverage rate used to pass this test section must be used on entire project.

3.04 APPLICATION

A. Location:

1. All exterior split-face masonry.

B. Application:

1. Product shall be applied as supplied by the manufacturer without dilution or alteration.
2. Apply with low pressure (15 PSI) airless spray equipment with a fan spray coarse nozzle, flooding the surface to obtain uniform coverage unless otherwise recommended by the manufacturer.
3. Apply at a rate of not less than 125 SF/GAL unless the field tests determine that a heavier rate of application is necessary to meet the performance requirements.
4. Apply at temperature and weather conditions recommended by the manufacturer or as written in this Specification.
5. Follow manufacturer's recommendations concerning protection of glass, metal and other non-porous substrates. Contractor will be responsible to clean all surfaces which are contaminated by the water repellent.
6. Follow manufacturer's recommendation concerning protection of plants, grass and other vegetation. Contractor will be responsible for replacing all plants, grass or vegetation damaged by the water repellent.
7. Brush apply water repellent only at locations where overspray would affect adjacent materials and where not practicable for spray application.

3.05 CLEANING

A. As the work progresses, clean spillage and overspray from adjacent surfaces using materials and methods as recommended by water repellent manufacturer.

B. Remove protective coverings from adjacent surfaces when no longer needed.

3.06 COMPLETION

A. Work which does not conform to specified requirements shall be corrected and/or replaced as directed by the Owner's Representative at contractor's expense without extension of time.

END OF SECTION

07190
VAPOR RETARDERS

1.0 GENERAL

1.01 SUMMARY

A. Provide vapor retarders where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.02 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Materials shall be identified on the package with manufacturer's name and type of material.

1.03 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

2.0 PRODUCTS

2.01 VAPOR RETARDER

A. Provide minimum 10 mil clear polyethylene film.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

A. Location: Under floor slabs on grade within the building area.

B. Prior to placing slab reinforcing, cover entire area with one layer of polyethylene, lapping joints 12 IN.

END OF SECTION

07210
BUILDING INSULATION

1.0 GENERAL

1.01 SUMMARY

A. Provide building insulation where shown on the Drawings, as specified herein and as needed for a complete and proper installation, including but not limited to:
   1. Thermal batt insulation in ceilings.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.
B. Submit:
   1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements, including installation and maintenance instructions.

1.03 REFERENCES

A. ASTM E96: Standard Test Method for Water Vapor Transmission of Materials.
B. ASTM C665: Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
C. ASTM C1338: Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings.
D. ASTM D2020: Standard Test Method for Mildew (Fungus) Resistance of Paper and Paperboard.

1.04 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
B. Applicator qualifications: Utilize a qualified applicator with demonstrated experience in performing work comparable to the work of this Section, and who is trained and authorized by the manufacturer to install the product.

1.05 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.
B. Delivery: Deliver materials to applicator/site in manufacturer’s original, unopened, undamaged containers with identifications labels intact.
C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

1.06 PROJECT CONDITIONS

A. Environmental conditions: Do not install insulation until all areas to receive insulation are substantially water and weather tight.
B. Environmental conditions: Do not install insulation adhesives when temperature or weather conditions are detrimental to successful installation.

1.07 SEQUENCING

A. Sequence work to ensure fireproofing and firestop materials are in place before beginning work of this Section.

2.0 PRODUCTS

2.01 MATERIALS

A. Provide the following building insulation where shown on the Drawings or otherwise needed to achieve the degree of insulation required under pertinent regulations of governmental agencies having jurisdiction.

1. Thermal insulation above ceilings: MR faced, mold and mildew resistant Formaldehyde-free fiberglass insulation batts 6-1/4 IN thick x 24 IN x 48 IN with R-19 thermal resistance value complying with ASTM C665, Type II, Class C, Category 1, permeability complying with ASTM E96, mold and mildew resistance complying with ASTM C1338 and D2020, equal to Johns Manville MR Faced Formaldehyde-Free Thermal and Acoustical Fiber Glass Insulation.

2.02 OTHER MATERIALS

A. Tape: Bright aluminum self-adhering type, mesh reinforced, 2 IN wide.

B. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

B. Conditions for batt insulation:

1. Verify that substrate, adjacent materials and insulation materials are dry and that substrates are ready to receive insulation.
2. Verify substrate surfaces are flat and construction framing is free of irregularities or projections which may damage or prevent proper insulation.

3.02 INSTALLATION

A. General:

1. Install the work of this Section in strict accordance with the original design, pertinent requirements of governmental agencies having jurisdiction, and the manufacturer's recommended installation procedures as approved by the Architect, anchoring all components firmly into position for long life under hard use.
   a. Install in wall or ceiling spaces without gaps or voids.
   b. Do not compress insulation.
   c. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
   d. Fit insulation tightly in cavities and tightly to exterior side of mechanical and electrical services within the plane of the insulation.
   e. Lap ends and side flanges of insulation over framing members.
   f. Tape seal butt ends, lapped flanges, and tears or cuts in vapor barrier.
   g. Secure insulation as required to prevent displacement.

B. Interior wall acoustic insulation:

1. Install insulation in interior stud walls where shown on the Drawings, full height of walls.

C. Ceiling thermal insulation:

1. Install insulation on top of suspended ceilings where shown on the Drawings. Snugly butt side and end joints and extend across and up sides of furrings or partitions at different ceiling heights to form complete envelope protection. Turn MR face toward room side of ceilings.

3.03 CLEANING

A. Properly and legally dispose of waste with other construction waste material.

3.04 PROTECTION

A. Protect installed insulation and vapor retarders from damage from subsequent construction or harmful weather exposures.

END OF SECTION

07270
FIRESTOPPING

1.0 GENERAL

1.01 SUMMARY

A. Provide firestopping where shown on the Drawings, as specified herein and as needed for a complete and proper installation including, but not necessarily limited to:
   1. Penetrations by mechanical and electrical systems, including ducts, piping, and conduit.
   2. Miscellaneous openings in fire assemblies.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.
B. Submit:
   1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
   2. Shop Drawings in sufficient detail to show systems, materials, installation methods, and interface of the work of this Section with the work of adjacent trades.
   3. Certification that the proposed materials are acceptable for the proposed use to the governmental agencies and insurance rating bureaus having jurisdiction.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
B. Materials shall be UL listed.
C. Firestopping systems shall maintain required ratings of assemblies.
D. Procedures and methods shall comply with requirements of the IBC, 2000 Edition and with requirements of the Owner.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

2.0 PRODUCTS

2.01 MATERIALS

A. Provide bulk fibers, blankets, putty, and sealants as required for each type of firestopping.

2.02 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
B. Apply the approved materials as needed to achieve the designated fire-resistivity, in strict accordance with the approved Shop Drawings, pertinent requirements of governmental agencies and insurance rating bureaus having jurisdiction, and the manufacturer's recommended installation procedures as approved by the Architect.

END OF SECTION

07410
MANUFACTURED ROOF & WALL PANELS

1.0 GENERAL

1.01 SUMMARY

A. Provide architectural metal panels and metal trim where shown on the Drawings, as specified herein and as needed for a complete and proper installation including, but not necessarily limited to:
   1. Snap-on standing seam roof panels.
   2. Metal flashing and trim.
   3. Sealants, calking.

B. Related work:
   1. Section 06100: Rough Carpentry.
   2. Section 07500: Membrane Roofing.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:
   1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
   2. Shop Drawings in sufficient detail to show layout of panels, details of edge conditions, joints, corners, panel profiles, clips, trim, flashing, details of weatherproofing at all edges and penetrations, and interface of the work of this Section with the work of adjacent trades.
   3. Color charts showing colors available from the proposed manufacturers in the specified products.
   4. Samples of each type panel and trim configuration required under this Section illustrating gage, finish, color and texture.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. In addition to complying with requirements of governmental agencies having jurisdiction, comply with pertinent recommendations contained in SMACNA "Architectural Sheet Metal Manual".

C. Manufacturer’s qualifications:
   1. Manufacturer shall have a minimum of three (3) years experience in manufacturing panels of this nature.

D. Installer’s qualifications:
   1. Panel installer shall have minimum of three (3) years experience in installation of panels of this nature.

E. Factory fabricated components shall be crated in cartons marked with the manufacturer's name or trademark and a UL 90 label where applicable.

F. Field measurements shall be taken prior to fabrication to assure symmetry.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. Deliver panels to project site properly packaged to provide protection against damage while in transit.

C. Exercise extreme care in unloading, storing, and erecting panels to prevent twisting, bending, abrasion, denting, and surface damage.

D. Store all material and accessories above ground on well skidded platforms. Elevate one end of each skid to allow for moisture run-off. Store under waterproof covering. Provide proper ventilation to panels to prevent condensation build-up between each panel.

E. Prevent contact with material that may cause corrosion, discoloration or staining.

F. Protect all materials and installation from damage by other trades.

1.05 WARRANTY

A. Panel applicator shall provide a two-year weathertightness warranty.

B. Panel manufacturer shall provide a 20-year non-prorated warranty for the paint finish covering cracking, checking, blistering, peeling, flaking, chipping, chalking and fade.

C. Panel manufacturer shall provide a 20-year non-prorated warranty for the bare metal covering rupture, structural failure, and perforation due to normal atmospheric corrosion exposure.

2.0 PRODUCTS

2.01 ARCHITECTURAL METAL PANELS

A. Roof panels: Provide a complete snap-on standing seam metal roofing system where shown on the Drawings and with the following attributes:

1. Panel profile: 1 IN high x 12 IN wide.
2. Panel style: Snap-on batten.
3. Material: 24 gage G-90 galvanized steel.
4. Finish: Kynar 500.
5. Texture: Smooth.
6. Sheet metal flashing and trim: Fabricate from same material and finish as roof panels.
7. Clips: Concealed, non-penetrating type, spacing per manufacturer's recommendations for wind uplift rating.
8. Rating: UL 90 rating for wind uplift when fastened to solid substrate.
9. Air infiltration: Comply with ASTM E283.
10. Water infiltration: Comply with ASTM E331.

C. Acceptable products:

1. "Craftsman Series SB12 Small Batten" as manufactured by Metal Building Components, Inc. (MBCI), Grand Prairie, Texas, Tel. 972-988-3300.
2. Equal products of other manufacturers approved in advance by the Architect.

D. Color shall be selected by the Architect from standard colors normally available from the approved manufacturer.

2.02 OTHER MATERIALS

A. Fasteners: Hex-head screws or pancake head Phillips screws as recommended by panel manufacturer for particular installation.

1. Provide fasteners with factory applied coating in a color to match metal panels and with neoprene washers where fasteners must be exposed.

B. Tape seal: Provide pressure sensitive, 100% solids, polyisobutylene compound sealing tape with release paper backing. Provide permanently elastic, non-sagging, non-toxic, non-staining tape seal approved by the metal roof system manufacturer.

C. Joint sealant: Provide one-part elastomeric polyurethane sealant approved by the metal roof system manufacturer.

D. Channel sections: Provide 18 gage steel channel sections where indicated on the Drawings or recommended by the panel manufacturer.

E. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

2.03 FABRICATION

A. Shop roll form panels in continuous lengths; no end joints will be permitted.

B. Panels fabricated by a portable roll former will not be permitted.

C. Fabricate trim, flashing, and accessories to profiles indicated or required for weathertight installation.

D. Hem all raw edges on flashing and trim.

E. Snap-on battens shall have factory-applied hot-melt mastic.

F. Panel clips shall have factory-applied hot-melt mastic.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

B. Verify that installation may be made in accordance with approved Shop Drawings and manufacturer's instructions.

C. Verify that substrate is even, smooth, sound and free of depressions, waves, or projections, properly sloped for drainage, and completely secured in position.

D. Verify that provision has been made for flashings and all other interface items attaching to or penetrating through the work of this Section.

3.02 INSTALLATION

A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.

B. Install the work of this Section in strict accordance with the original design, the approved Shop Drawings, pertinent requirements of governmental agencies having jurisdiction, and the manufacturer's recommended installation procedures as approved by the Architect, anchoring all components firmly into position as a completely watertight and weathertight installation, without waves, warps, buckles, fastening stresses or distortions, and allowing for expansion and contraction.

C. Provide concealed anchors at all panel attachment locations.

D. Install panels plumb, level, and straight with seams parallel, conforming to design as indicated.

E. Calk all flashing and panel joints that require calking to prevent water penetration.

F. Remove masking on trim flashings immediately after installation.

3.03 PROTECTION

A. Do not allow the installed work of this Section to be used as a storage space for other materials.

B. Do not permit unnecessary walking on the finished roof. Require all personnel to wear rubber-soled shoes when installing or walking on the finished roof.

C. Protect work against damage until final acceptance. Replace or repair any work that becomes damaged prior to final acceptance to the satisfaction of the Architect.

3.04 TOUCH-UP AND CLEANING

A. Thoroughly clean and touch-up minor scratches and abrasions with touch-up paint supplied by metal roof system manufacturer. Any other damaged material shall be replaced.

B. Leave panels clean and free from fringes, marks, grease and stains.

C. Dispose of excess materials and remove debris from project site.

END OF SECTION

07500
MEMBRANE ROOFING

1.0 GENERAL

1.01 SUMMARY

A. Provide membrane roofing where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

B. Related work:

1. Section 07410: Manufactured Roof & Wall Panels.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:

1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. Storage of materials:

1. Deliver material in manufacturer's original containers with labels intact.
2. Stand roll goods on end, and store on a clean surface to keep ends of rolls free of foreign matter.
3. Store membrane roofing in a dry place, on raised platforms, and cover with waterproof tarpaulins, inside or in closed vans, protected from sun and weather.

2.0 PRODUCTS

2.01 ROOFING MEMBRANE

A. Provide flexible, fiberglass reinforced, self-adhering rubberized asphalt sheet membrane with a polymeric film on the surface and a removable silicone treated release film on the adhesive side, with high temperature resistance up to 260ºF and complying with ASTM D1970 and E96, equal to 'TW Metal and Tile Underlayment' as manufactured by Tamko Roofing Products, distributed by Shelter Building Products, McKinney, Texas, Tel. 972-542-4455, Web www.tamko.com.

2.02 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 ENVIRONMENTAL CONDITIONS

A. Apply membrane roofing only when air and surface temperatures are 35ºF and higher.

B. Do not apply membrane roofing when substrate is wet due to rain, frost, condensation, or other causes.

3.03 SURFACE PREPARATION

A. Remove all dust, dirt, debris, and loose nails or other protrusions from the substrate surface.

3.04 MEMBRANE INSTALLATION FOR ROOF DECKS

A. Install horizontal layers of membrane roofing parallel to the eave over composite insulation substrate, from eave to ridge in shingle fashion so that laps will shed water.
B. Lap edge seams 4 IN. Stagger end laps and lap 6 IN minimum.
C. Align the membrane on the eave of the roof, remove the release film from the membrane and press the membrane into place.
D. Roll lower edges firmly with wallpaper roller or other hand roller. 'Broom in' the installed membrane using an industrial flat broom or squeegee. Bear down on installed membrane with broom or squeegee to insure total, even adherence to the substrate. Take care not to damage the surface when brooming.
E. Attach membrane with galvanized roofing nails driven through tin or plastic discs as recommended by membrane manufacturer as all roof edges.
F. Do not allow membrane to remain exposed for more than 90 days before application of finished roof.

3.05 MEMBRANE INSTALLATION FOR VALLEYS AND RIDGES

A. Cut membrane in 4 FT to 6 FT lengths.
B. Peel the release film and center sheet over valley or ridge. Drape and press membrane sheet into place, working from the center of the valley or ridge outward in each direction.
C. Apply membrane sheets starting at the lowest point and work upward.
D. Lap all membrane sheets 6 IN.
E. Membrane must be covered by finished roof materials; it shall not be left permanently exposed to weather.

END OF SECTION

07920
SEALANTS AND CALKING

1.0 GENERAL

1.01 SUMMARY

A. Throughout the Work, seal and caulk joints where shown on the Drawings and elsewhere as required to provide a positive barrier against passage of moisture and passage of air, including but not necessarily limited to:
   1. Sealant at exterior and interior door, window and equipment openings.
   2. Sealant in control joints in masonry walls.
   3. Other locations indicated on Drawings or required to produce a watertight building.

B. Related work:
   1. Section 08700: Hardware: Threshold sealant.
   2. Pavement sealants: Refer to Civil Technical Specifications.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:
   1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
   2. Manufacturer's standard bead samples consisting of strips of actual products showing full range of colors available, for each product exposed to view, for color selection by Architect.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Materials shall be identified on the package with the manufacturer's name and type of material.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. Do not retain at the job site material which has exceeded the shelf life recommended by its manufacturer.

2.0 PRODUCTS

2.01 SEALANTS

A. Provide one component polyurethane non-sag gun sealant complying with FS TT-S-00230C, Type II, Class A and ASTM C920, Type S, Grade NS, Class 25, equal to ‘Dynatrol I-XL’ as manufactured by Pecora Corporation, Dallas, Texas, Tel. 800-233-9754.
   1. Application:
      a. Control joints in masonry walls.
      b. Perimeter joints around door and window frames.
      c. Perimeter joints around equipment mounted in exterior walls.
      d. Other exterior joints in vertical surfaces and non-traffic horizontal surfaces.

B. Provide two component polyurethane non-sag gun sealant complying with FS TT-S-00227E, Type II, Class A and ASTM C920, Type M, Grade NS, Class 25, equal to ‘Dynatrol II’ as manufactured by Pecora Corporation.
   1. Application:
      a. Control joints in masonry walls.
      b. Perimeter joints around door and window frames.
      c. Perimeter joints around equipment mounted in exterior walls.
      d. Other exterior joints in vertical surfaces and non-traffic horizontal surfaces.

C. Provide one component, acrylic latex calk complying with ASTM C834, equal to 'AC-20' as manufactured by Pecora Corporation.
   1. Application:
      a. Interior window, door and equipment openings.

D. Colors for each sealant installation will be selected by the Architect from standard colors normally available from the approved manufacturer.

2.02 PRIMERS

A. Use only those primers which have been tested for durability on the surfaces to be sealed and are specifically recommended for each installation by the manufacturer of the sealant used.

2.03 BACKUP MATERIALS

A. Provide backer rod and backup materials as recommended by sealant manufacturer for sealant application.

2.04 BOND-BREAKER TAPE

A. Polyethylene tape or other plastic tape as recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.05 MASKING TAPE

A. For masking around joints, provide an appropriate non-staining, non-absorbent masking tape which will effectively prevent application of sealant on surfaces not scheduled to receive it, and which is removable without damage to substrate.

2.06 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 ENVIRONMENTAL CONDITIONS

A. Do not apply sealant when temperature is below 40ºF.

B. Do not apply sealant when substrates are wet due to rain, frost, condensation, or other causes.

3.03 PREPARATION

A. Remove all foreign material from joint substrate which could interfere with adhesion of joint sealer, including dust, paints (except for permanent protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealers, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.

B. Clean concrete, masonry, unglazed surfaces of ceramic tile and similar porous joint substrate surfaces, by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealers. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air.

C. Remove laitance and form release agents from concrete.

D. Clean metal, glass, porcelain enamel, glazed surfaces of ceramic tile and other nonporous surfaces by chemical cleaners or other means which are not harmful to substrates or leave residues capable of interfering with adhesion of joint sealers.

3.04 JOINT PRIMING

A. Prime joint substrates where recommended by sealant manufacturer for the particular installation, applying in strict accordance with the manufacturer's recommendations as approved by the Architect. Confine primers to areas of joint sealer bond, do not allow spillage or migration onto adjoining surfaces.

B. Do not prime backer-rod.

3.05 MASKING TAPE

A. Use masking tape where required to prevent contact of sealant with adjoining surfaces which otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears.

3.06 INSTALLATION OF BACKUP MATERIAL

A. General:

1. When using backup of tube or rod stock, avoid lengthwise stretching of the material.
2. Do not twist, braid, puncture, or tear joint fillers.
3. Remove absorbent joint fillers which have become wet prior to sealant application and replace with dry material.

B. Installation tool:

1. For installation of backup material, provide a blunt- surfaced tool of wood or plastic, having shoulders designed to ride on the adjacent finished surface and a protrusion of the required dimensions to assure uniform depth of backup material below the sealant.
2. Do not, under any circumstance, use a screwdriver or similar tool for this purpose.
3. Using the approved tool, smoothly and uniformly place the backup material to the depth indicated on the Drawings or otherwise required, compressing the backup material 25% to 50% and securing a positive fit.

3.07 INSTALLATION OF BOND-BREAKER TAPE

A. Install bond-breaker tape where adhesion of sealant to surfaces at back of joints would result in sealant failure and other locations where recommended by the manufacturer of the sealant, adhering strictly to the manufacturers' installation recommendations.

3.08 INSTALLATION OF SEALANTS

A. Equipment:

1. Apply sealant under pressure with power-actuated hand gun or manually-operated hand gun, or by other appropriate means.
2. Use guns with nozzle of proper size, and providing sufficient pressure to completely fill the joints as designed.

B. Fill joints as follows:

1. Keep face of sealant recessed 1/8 IN from surface of joint.
2. Total depth of sealant material shall be 1/4 IN for joints up to 1/4 IN wide.
3. For joints over 1/4 IN in width, depth of sealant shall equal 1/2 joint width, with a minimum depth of 1/4 IN and a maximum depth of 1/2 IN.

C. Tooling:

1. Immediately after sealant application and prior to time skinning or curing begins, tool sealants to form smooth, uniform beads with slightly concave surface, to eliminate air pockets and to ensure contact and adhesion of sealant with sides of joint.
2. Do not use tooling agents which discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.

3.09 CLEANING

A. Remove masking tape immediately after tooling joints without disturbing joint seal.

B. Clean off excess sealants or sealant smears adjacent to joints as the installation progresses, using solvent or cleaning agent recommended by the manufacturer of the sealant used.

C. Upon completion of the work of this Section, promptly remove from the job site all debris, empty containers, and surplus material derived from this portion of the Work.

3.10 PROTECTION

A. Protect joint sealers during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes so that they are without deterioration or damage at the time of Substantial Completion.

B. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealers immediately and reseal joints with new materials to produce joints sealer installation with repaired areas indistinguishable from original work.

END OF SECTION

08220
FIBERGLASS DOORS AND FRAMES

1.0 GENERAL

1.01 SUMMARY

A. Provide fiberglass reinforced plastic doors and fiberglass resin transfer molded door frames, as specified herein and as needed for a complete and proper installation.

B. Related work:

1. Section 08700: Finish Hardware.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:

1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
2. Certification of manufacturer’s qualifications.
3. Manufacturer’s installation instructions.
4. Schedule of doors and frames using same reference numbers for details and openings as those on the Contract Drawings, indicating door type, frame type, size, handing, and applicable hardware.
5. Shop Drawings showing details of each frame type, elevations of door design types, conditions at openings, and details of construction, location and installation requirements of finish hardware and reinforcements, and details of joints, connections, installation, and anchorage.
6. Color charts showing standard and optional colors available from the proposed manufacturers in the specified products.
7. Samples of each door and frame type required under this Section illustrating finish, color and composition.
8. Operation and maintenance manuals including recommended methods and frequency for maintaining optimum condition of doors and frames under anticipated traffic and use conditions, certificate of warranty for doors and frames listing specific door registration numbers, hardware data sheets and hardware manufacturer’s warranties.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Manufacturer qualifications: A company specialized in the manufacture of fiberglass reinforced plastic (FRP) doors and frames as specified herein with a minimum of 25 years documented experience and with a record of successful in-service performance for the application as required for this project.

C. Installer qualifications: An experienced installer who has completed fiberglass door and frame installations similar in material, design, and extent to those indicated and whose work has resulted in construction with a record of successful in-service performance.

D. Source limitations:

1. Unless specifically otherwise approved by the Owner, obtain fiberglass reinforced plastic doors and frames through one source fabricated from a single manufacturer.
2. Hardware and accessories for all FRP doors as specified in Section 08700 should be provided and installed by the fiberglass door and frame manufacturer.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. Deliver each door and frame individually crated for protection from damage in cardboard containers, clearly marked with project information, door location, specific reference number and shipping information. Each crate should contain all fasteners necessary for installation as well as complete installation instructions.

C. Doors should be stored in original containers out of inclement weather for protection against the elements.
D. Handle doors pursuant to the manufacturer's recommendations as posted on outside of container.

1.05 WARRANTY
A. Warrant all fiberglass doors and frames for a period of 25 years against failure due to corrosion.
B. Warrant all fiberglass doors and frames on materials and workmanship for a period of 10 years, including warp, separation or delamination, and expansion of the core.

2.0 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS
A. Chem-Pruf Door Company, Ltd., Brownsville, Texas, Tel. 800-444-6924, Web www.chem-pruf.com.
B. Other manufacturers with equal products approved in advance by the Owner. Allow six weeks for review.

2.02 FIBERGLASS DOORS
A. Doors shall be made of fiberglass reinforced plastic (FRP) using chemically proven resins resistant to contaminants typically found in the environment for which these specifications are written. Doors shall be 1-3/4 IN thick and of flush construction, having no seams or cracks. All doors up to 4 FT x 8 FT shall have equal diagonal measurements with a maximum tolerance of +/- 1/32 IN.
B. Door Plates shall be 1/8 IN thick, molded in one continuous piece, starting with a 25 mil gel coat of the color specified, integrally molded with at least two layers of 1.5 OZ/SF fiberglass mat and one layer of 16 OZ/SY unidirectional roving. This will yield a plate weight of 0.97 PSF at a ratio of 30/70 glass to resin.
C. Stiles and rails shall be constructed starting from the outside toward the inside, of a 25 mil gel coat of the color specified followed by a matrix of at least three layers of 1.5 OZ/SF of fiberglass mat. The stile and rail shall be molded in one continuous piece to a U-shaped configuration and to the exact dimensions of the door. In this manner there will be no miter joints or disparate materials used to form the one-piece stile and rail.
D. Core material shall be 2 PSF expanded polyurethane foam, which completely fills all voids between the door plates.
E. Internal reinforcement shall be firestop of sufficient amount to adequately support required hardware and function of same.
F. Finish of door and frame shall be identical in color and texture. At time of manufacture, 25 mil of resin-rich gelcoat must be integrally molded into both the door and frame. Secondary painting to achieve color is not acceptable.
G. Louver openings shall be sealed in the same manner as the window openings. Louvers are to be solid fiberglass inverted "V" vanes and shall match the color, texture and finish of the door plates.

2.03 FIBERGLASS FRAMES
A. Frames shall be fiberglass and manufactured using the resin transfer method in closed rigid molds to assure uniformity in color and size. Beginning with a minimum 25 mil gel coat and a minimum of two layers continuous strand fiberglass mat saturated with resin, the frame will be of one-piece construction with molded stop. All frame profiles up to 3/4 IN will be solid fiberglass. All frame profiles greater than 3/4 IN shall have a core material of 2 PSF polyurethane foam. Metal frames or pultruded fiberglass frames will not be accepted.
B. Finish of frame shall be identical in color and texture to the door. 25 mil resin rich gel coat will be integrally molded into the frame at time of manufacture. Secondary painting to achieve color is not acceptable.
C. Jamb/header connection shall be coped by CNC for tight fit.

D. Internal reinforcement shall be continuous within the structure to allow for mounting of specified hardware. Material shall be completely non-organic with a minimum hinge screw holding value of 656 LBS. Frame screw holding value to accommodate screw shall be minimum of 1,000 LBS per screw. Documented strength of frame screw holding value after third insert must be submitted. Dissimilar materials, such as steel, will be deemed unacceptable as reinforcement for hardware attachment.
E. Mortises for hardware shall be accurately machined by CNC to hold dimensions to +/- 0.010 IN in all three axes.
F. Hinge pockets shall be accurately machined by CNC to facilitate heavy duty hinges at all hinge locations, using spacers when standard weight hinges are used.

2.04 FINISH HARDWARE
A. Refer to Section 08700 Hardware.
B. Due to the special nature of the material in this Section, all related hardware as specified must be furnished and installed by the door and frame manufacturer.

3.0 EXECUTION

3.01 SURFACE CONDITIONS
A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
1. Verify openings are correctly prepared to receive doors and frames.
2. Verify openings are correct size and depth in accordance with Shop Drawings or submittals.
B. Installer's examination:
1. Installer shall examine conditions under which construction activities of this Section are to be performed and submit a written report if conditions are unacceptable.
2. Transmit two (2) copies of the installer's report to Owner within 24 HRS of receipt.
3. Beginning construction activities of this Section before unacceptable conditions have been corrected is prohibited.

3.02 INSTALLATION
A. Install door opening assemblies in accordance with shop drawings and manufacturer's printed installation instructions, using installation methods and materials specified in installation instructions.
B. Field alteration of doors or frames to accommodate field conditions is strictly prohibited.
C. Site tolerances: Maintain plumb and level tolerance specified in manufacturer's printed installation instructions.

3.03 ADJUSTING
A. Adjust doors in accordance with door manufacturer's maintenance instructions to swing open and shut without binding and to remain in place at any angle without being moved by gravitational influence.
B. Adjust door hardware to operate correctly in accordance with hardware manufacturer's maintenance instructions.

3.04 CLEANING
A. Clean surfaces of door opening assemblies and exposed door hardware in accordance with respective manufacturer's maintenance instructions.

3.05 PROTECTION
A. Protect door opening assemblies and door hardware from damage by subsequent construction activities until completion of project.

END OF SECTION

08330
COILING DOORS & GRILLES

1.0 GENERAL

1.01 SUMMARY

A. Provide insulated coiling doors where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

B. Related work:

1. Electrical Drawings and Specs: Electrical wiring and conduit, fuses, disconnect switches, connection of operator to power supply, and installation of control station and wiring.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:

1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
2. Shop Drawings in sufficient detail to show plans, elevations, fabrication, installation, anchorage, required clearances, accessories and interface of the work of this Section with the work of adjacent trades.

1.03 SYSTEM DESCRIPTION

A. Design requirements:

1. Wind loading: Supply doors to withstand up to 20 PSF wind load.
2. Cycle life: Design doors of standard construction for normal use of up to 20 cycles per day.

1.04 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Installer: Installation of rolling doors shall be performed by the authorized representative of the manufacturer.

C. Single source responsibility: Provide doors, guides, motors, and related primary components from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

1.05 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

1.06 WARRANTY

A. Furnish two (2) year warranty against defects in materials and workmanship.

2.0 PRODUCTS

2.01 ROLLING DOOR

A. Provide insulated coiling doors of the dimensions and arrangements shown on the Drawings, and with the following attributes:

1. Type: Insulated rolling steel service door.
2. Curtain:
   a. Slat type: Interlocking roll-formed, flat profile #6F.
   b. Endlocks: High strength nylon.
   c. Exterior slats: 20 gage G90 galvanized steel.
   d. Interior slats: 24 gage G90 galvanized steel.
   e. Insulation: 7/8 IN thick foamed-in-place, closed-cell urethane.
3. Bottom bar: Reinforced extruded aluminum interior face with full depth insulation and exterior skin slat to match curtain material and gage.

4. Guides: Fabricate with minimum 3/16 IN structural steel angles. Top of inner and outer guide angles to be flared outwards to form bellmouth for smooth entry of curtain into guides. Provide removable guide stoppers to prevent over travel of curtain and bottom bar. Top 16-1/2 IN of coil side guide angles to be removable for ease of curtain installation and as needed for future curtain service.
5. Brackets: 3/16 IN steel plates mounted to guide assembly to support the shaft and curtain assembly and form end closures for the hood.
6. Weatherstripping:
    a. Bottom bar: Weather/sensing edge with neoprene or rubber astragal extending full width of door bottom bar.
    b. Guides: Replaceable vinyl strip on guides sealing against fascia side of curtain.
    3. Lintel seal: Nylon brush seal fitted at door header to impede air flow.
    4. Hood: Neoprene/rayon baffle to impede air flow above coil.
7. Hood: 24 gage G90 galvanized steel with reinforced top and bottom edges, with 1/4 IN steel intermediate support brackets as required to prevent excessive sag.
8. Finish: Baked-on polyester powder coat finish in color selected by the Architect form the manufacturer's standard colors.
9. Counterbalance shaft assembly:
    a. Spring balance: Oil-tempered, heat-treated, helical torsion spring assembly design for proper balance of door to ensure that maximum effort to operate shall not exceed 25 LBS, with wheel for applying and adjusting spring torque.
    b. Barrel: Steel pipe capable of supporting curtain load with maximum deflection of 0.03 IN/FT of width.
10. Locking: Provide padlocking slide bolt on coil side of bottom bar at each jamb extending into slots in guides, with interlock switch.
11. Mounting: Interior face of CMU wall.

B. Acceptable products:
1. "Thermiser Insulated Rolling Service Door" as manufactured by Cornell Iron Works, distributed by ABC Doors of Dallas, Tel. 214-388-8707, Web www.cornelliron.com.
2. Equal products of other manufacturers approved in advance by the Architect.

2.02 OPERATION

A. Electric operator: Provide heavy duty, UL listed, gearhead hoist type operator of size and capacity recommended by door manufacturer; complete with electric motor and factory pre-wired motor controls, worm-gear reduction unit, solenoid operated brake, 3-button control station. Motor shall be high starting torque, continuous duty, industrial type, protected against overload by a current sensing or thermal overload device. Speed reduction shall be worm-gear-in-oil-bath gear reducer with synthetic 'all climate' oil, and shall provide 45:1 speed reduction. Door drive shall utilize minimum #50 roller chain and sprockets. Operator shall be equipped with an electrically interlocked floor level disconnect and chain joist for manual operation and an electric solenoid-actuated brake to stop the motor and hold the door in position. Operator shall be capable of driving the door at speed of 8-9 IN per second. Fully adjustable, driven linear type limit switch mechanism shall synchronize the operator with the door. Low friction nylon limit nuts fitted on threaded steel shaft, rotating on iolite self-lubricating bronze bushings. The motor shall be removable without affecting the limit switch settings.

B. Weather/sensing edge: Provide automatic reversing control by an automatic sensing switch within neoprene or rubber astragal extending full width of door bottom bar.
1. Provide an electric sensing edge device. Contact before door fully closes shall cause door to immediately stop downward travel and reverse direction to the fully opened position. Provide a self-monitoring wireless sensing edge connection to motor operator eliminating the need for a physical traveling electric cord connection between bottom bar sensing edge device and motor operator.

C. Operator controls:
1. Provide a surface mounted push button control station with open, close and stop buttons on interior wall adjacent to door where shown on drawings or as directed by Owner.
a. Provide one control station each at Doors 01 and 05.
2. Provide a surface mounted keypad for open and close functions of door.
a. Provide one keypad each at Doors 01 and 05 on split-face CMU adjacent to door where shown on the drawings or as directed by Owner.

2.03 OTHER MATERIALS
A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS
A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
B. Commencement of work by installer is acceptance of substrate.

3.02 INSTALLATION
A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
B. Install the work of this Section in strict accordance with the original design, the approved Shop Drawings, pertinent requirements of governmental agencies having jurisdiction, and the manufacturer's recommended installation procedures as approved by the Architect, anchoring all components firmly into position for long life under hard use.
C. Follow manufacturer’s installation instructions and install door and operating equipment with necessary hardware, anchors, inserts, hangers and supports.

3.03 ADJUSTING AND CLEANING
A. Following completion of installation, including related work by others, lubricate, test and adjust doors for ease of operation, free from warp, twist, or distortion.
B. Touch-up damaged coatings and finishes and repair minor damage. Clean surfaces using non-abrasive materials and methods recommended by manufacturer of material or product being cleaned.
C. Remove surplus materials and debris from the site.

3.04 DEMONSTRATION
A. Demonstrate proper operation to Owner’s Representative.
B. Instruct Owner’s Representative in maintenance procedures.

END OF SECTION

08700
HARDWARE

1.0 GENERAL

1.01 SUMMARY

A. Furnish and install finish hardware specified herein and as needed for a complete and proper installation.

B. Related work:

1. Section 08220: Fiberglass Doors and Frames.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:

1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
2. Hardware schedule listing specific hardware for each door.

C. Templates:

In a timely manner to assure orderly progress of the Work, deliver templates or physical samples of the approved finish hardware items to pertinent manufacturers of interfacing items such as doors and frames.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. Individually package each unit of finish hardware, complete with proper fastenings and appurtenances, clearly marked on the outside to indicate contents and specific locations in the Work.

1.05 COORDINATION

A. Check the steel and fiberglass door and frame Shop Drawings to assure proper function and operation of the various openings.

2.0 PRODUCTS

2.01 GENERAL

A. Fasteners:

1. Furnish necessary screws, bolts, and other fasteners of suitable size and type to anchor the hardware in position for long life under hard use.
2. Where necessary, furnish fasteners with toggle bolts, expansion shields, sex bolts, and other anchors approved by the Owner, according to the material to which the hardware is to be applied and according to the recommendations of the hardware manufacturer.
3. Provide fasteners which harmonize with the hardware as to finish and material.

B. Where butts are required to swing 180º, furnish butts of sufficient throw to clear the trim.

C. Furnish silencers for door frames at the rate of three (3) for each single door up to 8 FT in height, four (4) for each single door between 8 FT and 10 FT in height, and two (2) for each door in a pair of doors; except weatherstripped doors and doors with light seals or sound seals.

2.02 MATERIAL REQUIREMENTS FOR HANDICAP ACCESSIBILITY

A. Thresholds at doorways: Thresholds at doorways shall not exceed 1/2 IN for swing type doors. Raised thresholds and floor level changes at accessible doorways shall be beveled with a slope no greater than 1:2.

B. Door hardware: Handles, pulls, latches, locks and other operating devices on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs. Hardware required for accessible door passage shall be mounted no higher than 48 IN above finished floor.

C. Door closers: If a door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 IN from the latch, measured to the leading edge of the door.

D. Door opening force: The maximum force for pushing or pulling open a door shall be as follows:
   1. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority.
   2. Other doors:
      a. Exterior hinged doors: Reserved.
      b. Interior hinged doors 5 LBF.
      c. Sliding or folding doors: 5 LBF.

   These forces do not apply to the force required to retract latch bolts or disengage other devices that may hold the door in a closed position.

E. Automatic and power-assisted doors: If an automatic door is used, then it shall comply with ANSI/BHMA A156.10. Slowly opening, low-powered, automatic doors shall comply with ANSI A156.19. Such doors shall not open to back check faster than 3 seconds, and shall require no more than 15 LBF to stop door movement. If a power-assisted door us used, its door-opening force shall comply with Paragraph D above and its closing shall confirm to the requirements in ANSI A156.19.

2.03 KEYING

A. All locks to be keyed and masterkeyed "Best" Hardware or as directed by Owner.

B. Furnish two (2) keys for each lock and twelve (12) masterkeys.

C. Construction keying:
   1. Furnish a construction masterkey system with 15 keys for locks and cylinders.
   2. Use only the construction keys during construction.
   3. Upon Substantial Completion of the Work, as that Date is established by the Owner, void the construction key system and, in the presence of the Owner, demonstrate that the specified keying system is operating properly.

2.04 TOOLS AND MANUALS

A. With the delivery of permanent keys, deliver to the Owner one complete set of adjustment tools and one set of maintenance manuals for locksets, closers, and panic devices.

2.05 ACCEPTABLE PRODUCTS

A. General:
   1. Single source for items: Due to the special nature of the fiberglass doors and frames in Section 08220, all related hardware as specified for fiberglass doors and frames must be furnished and installed by the door and frame manufacturer.
   2. Finish: All hardware for fiberglass doors and frames shall be stainless steel or FRP to match doors and frames.

B. Hinges:
   1. Shall be heavy duty 4-1/2 x 4-1/2 IN, full mortise bearing hinges unless noted.
   2. Butts for doors equipped with closers shall be ball bearing type.
   3. Butts for exterior doors shall have non-removable pins.

C. Continuous hinges: Shall be Pemko Continuous Geared Aluminum Hinge, heavy duty, full mortise, extruded 6063-T6 aluminum with Teflon bearings.

D. Exit devices: Shall be rim type, including exterior lever type operating hardware where scheduled. Provide size and function required for each door.

E. Mullion: Shall be removable type.

F. Silencers: Shall be Glen-Johnson 64.

G. Passage Latch: Shall be mortised, lever type equal to Schlage.

H. Lockset: Shall be mortised, lever type equal to Schlage.

I. Cylinders: Shall be Best, rim type where applicable.
J. Stops:
1. Overhead type for exterior doors shall be Glenn-Johnson 100 Series.
2. Wall type for interior doors shall be Trimco 1270CV with concave bumper.
K. Closers: Shall be standard surface mount. Provide size and function required for each door. Provide additional features as scheduled.
L. Weatherstripping: Shall be Chem-Pruf FRP with neoprene P-seal.
M. Astragal: Shall be Chem-Pruf FRP.
N. Flushbolts: Shall be Ives 256 with 18 IN long rods.
O. Door sweeps: Shall be Chem-Pruf FRP with neoprene edge.
P. Drip strips: Shall be Chem-Pruf FRP.
Q. Thresholds: Shall be Chem-Pruf FRP.
R. Kick plates: Shall be 10 IN high MIN stainless steel type as selected by Chem-Pruf.

2.06 OTHER MATERIALS
A. Threshold sealant: One component polyurethane sealant complying with FS TT-S-00230C, Type II, Class A, ASTM C920, equal to “Dynatrol I” as manufactured by Pecora Corporation, Dallas, Texas, Tel. 800-233-9754.
B. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Owner.

3.0 EXECUTION

3.01 DELIVERIES
A. Stockpile items sufficiently in advance to assure their availability, and make necessary deliveries in a timely manner to assure orderly progress of the total Work.

3.02 COORDINATION
A. Coordinate as necessary with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.

3.03 INSTALLATION
A. Upon completion of installation of finish hardware, and as a condition of its acceptance, make a complete inspection of all installed items.
1. Verify proper installation and function.
2. Make required adjustments and achieve optimum operation.
3. Tighten screws and fasteners as necessary.
4. Repair scratches and abrasions or if unrepairable, replace such damaged item with new identical item at no additional cost to the Owner.

3.04 FINISH HARDWARE SCHEDULE
A. Furnish the following hardware:
1. Pump Station Exterior Electric Room Door 02 shall have:
1 Continuous Hinge
1 Exit Device (with exterior lever type operating hardware)
1 Cylinder
1 Closer with hold open feature
1 Overhead Stop
1 Drip Strip
1 Set Weatherstripping
1 Door Sweep
1 Threshold
1 Kickplate

2. Pump Station Exterior Door 03 and Chlorine Building Exterior Door 06 each shall have:
   - 1 Continuous Hinge
   - 1 Exit Device (with exterior lever type operating hardware)
   - 1 Cylinder
   - 1 Closer with hold open feature
   - 1 Overhead Stop
   - 1 Drip Strip
   - 1 Set Weatherstripping
   - 1 Door Sweep
   - 1 Threshold
   - 1 Kickplate
3. Pump Station Interior Electric Room Door 04 shall have:
   - 3 Hinges
   - 1 Passage Set
   - 1 Closer with hold open feature
   - 1 Overhead Stop
   - 1 Set Weatherstripping
   - 1 Door Sweep
   - 1 Threshold
   - 1 Kickplate

END OF SECTION

09510
ACOUSTICAL CEILINGS

1.0 GENERAL

1.01 SUMMARY

A. Provide acoustical ceilings with exposed suspension systems where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.02 SUBMITTALS

A. Submit:
   1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
   2. Samples of each type of acoustical material and metal suspension system for approval of the Owner.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Installer qualifications: Utilize an installer having demonstrated experience on projects of similar size and complexity.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. Delivery: Deliver acoustical panels to project site in original, unopened, undamaged packages with identification labels intact.
   1. Provide labels indicating brand name, style, size and thickness.

C. Storage and protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
   1. Prevent soiling, physical damage or wetting.

D. Handling: Handle acoustical materials carefully to avoid chipping edges or damaging units in any way.

1.05 PROJECT CONDITIONS

A. Environmental requirements:
   1. Do not install acoustical ceiling panels until building is enclosed and HVAC system is operational.
   2. Locate materials onsite at least 24 HRS before beginning installation to allow materials to reach temperature and moisture content equilibrium.
   3. Maintain the following conditions in areas where acoustical materials are to be installed 24 HRS before, during and after installation:
      a. Relative humidity: 65-75%.
      b. Uniform temperature: 55-70º F.

1.06 WARRANTY

A. Provide manufacturer’s standard thirty (30) year limited system warranty against visible sag, mold and mildew.

1.07 EXTRA STOCK

A. Provide approximately five percent (5%) additional material of each type of acoustical material installed for use by Owner in building maintenance and repair.

B. Provide new, unopened cartons of extra materials, packaged with protective covering for storage and identified with appropriate labels.

2.0 PRODUCTS

2.01 "T" GRID SUSPENSION SYSTEM

A. Provide a complete system of main runners, cross tees, placement tees, wall angles and accessories of every type required for a complete suspended "T" grid system of the arrangements shown on the Drawings. System shall be manufactured of cold roll steel, electrozinc coated, conforming to heavy duty classification of ASTM C635. Exposed surfaces shall be factory painted in manufacturer's standard LoGloss White.

B. Acceptable products:

1. USG Interiors, Inc. “Donn DX", Web www.usg.com.
2. Equal products of other manufacturers approved in advance by the Owner.

2.02 ACOUSTICAL CEILING PANELS

A. Provide lay-in acoustical ceiling panels where scheduled with the following attributes:

1. Type: Lightly textured, non-directional perforated panel, with wet-formed, ceramic-bonded mineral fiber substrate.
2. Size: 24 x 24 x 5/8 IN.
3. Edge: Square edge (SQ).
4. NRC: 0.50.
5. CAC minimum: 40.
6. Characteristics: Anti-mold, anti-mildew, sag resistant.
7. Thermal performance: R value 1.3.
8. ASTM E1264 classification: Type XX, Pattern CEG.
9. ASTM E84 classification: Class A, flame spread 0, smoke developed 0.

B. Acceptable products:

1. USG Interiors, Inc. 56644 ‘Radar Ceramic ClimaPlus’, Web www.usg.com.
2. Equal products of other manufacturers when approved in advance by the Owner.

2.03 OTHER MATERIALS

A. Hanger wire: 12 gage galvanized steel wire.

B. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Owner.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

1. Examine surfaces scheduled to receive suspended or directly attached acoustical units for unevenness, irregularities and dampness that would affect quality and execution of work.

3.02 INSTALLATION

A. "T" grid suspension system:

1. Install in accordance with ASTM C636 to pattern indicated on drawings.
2. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling.
3. Install hanger plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or ceiling suspension system. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
4. Where widths of ducts and other construction within ceiling plenum produces hanger spacings that interfere with the location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards.

5. Secure wire hangers by looping and wire-tying, either directly to structures or to inserts, eyescrews, or other devices that are secure and appropriate for substrate, and in a manner that will not cause them to deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
6. Space hangers not more than 4 FT OC along each member supported directly from hangers, unless otherwise shown, and provide hangers not more than 8 IN from ends of each member.
7. Install additional hangers at light fixtures, A.C. grilles and other ceiling accessories. Maximum deflection shall be limited to 1/360 of the span.
8. Install edge moldings at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
9. Screw-attach moldings to substrate at intervals not over 16 IN OC and not more than 3 IN from ends, leveling with ceiling suspension system.
10. Make all grid level within a tolerance of one in 1000 and straight within a tolerance of one in 1000.

B. Acoustical materials:
1. Install panels in accordance with instructions and recommendations of the ceiling system manufacturer.
2. Install lay-in panels in grid system with grain of pattern (if any) in same direction.
3. Scribe and cut panels to fit accurately at borders and penetrations. All edges of panels shall be supported by suspension system.
4. Install hold-down clips for acoustical panels only when so required by governmental agencies having jurisdiction; space as recommended by panel manufacturer.

3.03 CLEANING AND REPLACEMENT

A. Clean exposed surfaces of acoustical ceilings, trim, edge moldings and suspension members to permanently eliminate evidence of damage.
B. Touchup any minor finish damage.
C. Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

3.04 PROTECTION

A. Protect installed work from damage due to subsequent construction activity, including temperature and humidity limitations and dust control, so that the work will be without damage and deterioration at the time of acceptance by the Owner.

END OF SECTION

09900
PAINTING

1.0 GENERAL

1.01 SUMMARY

A. Paint and finish exposed surfaces using the combination of materials listed on Painting Schedule in Part 3 of this Section, as specified herein and as needed for a complete and proper installation including, but not necessarily limited to:
   1. Complete finishing and painting of all unfinished surfaces unless noted otherwise.
   2. Painting of exposed conduit and pipe/duct insulation.

B. Related work:
   1. Priming or priming and finishing of certain surfaces may be specified to be factory-performed or installer-performed under pertinent other Sections.

C. Work not included: Painting is not required on prefinished items, finished metal surfaces, concealed surfaces, operating parts, and labels.
   1. Prefinished or factory-finished items not to be painted include:
      a. Acoustic materials.
      b. Architectural woodwork and casework.
      c. Light fixtures.
      d. Switchgear (interior only).
      e. Distribution cabinets.
   2. Concealed surfaces not to be painted include wall or ceiling surfaces in the following generally inaccessible areas:
      a. Foundation spaces.
      b. Furred spaces.
      c. Pipe chases.
      d. Duct shafts.
   3. Finished metal surfaces not to be painted include:
      a. Anodized aluminum.
      b. Stainless steel.
      c. Chromium plate.
      d. Copper.
      e. Bronze.
      f. Brass.
   4. Operating parts not to be painted include moving parts of operating equipment including the following:
      a. Valve and damper operators.
      b. Linkages.
      c. Sensing devices.
      d. Motor and fan shafts.
   5. Do not paint over UL, FM, or other code-required labels or equipment name, identification, performance rating, or nomenclature plates.

D. Definitions:
   1. "Paint", as used herein, means coating systems materials, primers, emulsions, epoxy, enamels, stains, sealers, fillers, and other applied materials whether used as prime, intermediate, or finish coats.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:
   1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
   2. Color charts of colors available from the approved manufacturer for selection by the Architect.

C. Samples:
   1. Following the selection of colors and glosses by the Architect, prepare Samples of each color and texture at the job site for approval of the Architect.

2. Revise each Sample as requested until the required gloss, color, and texture is achieved. Such Samples, when approved, will become standards of color and finish for accepting or rejecting the work of this Section.
3. Do not commence finish painting until Samples are approved by the Architect.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Paint coordination:

1. Provide finish coats which are compatible with the prime coats actually used.
2. Review other Sections of these Specifications as required, verifying the prime coats to be used and assuring compatibility of the total coating system for the various substrates.
3. Upon request, furnish information on the characteristics of the specific finish materials to assure that compatible prime coats are used.
4. Provide barrier coats over noncompatible primers, or remove the primer and reprime as required.
5. Notify the Architect in writing of anticipated problems in using the specified coating systems over prime-coatings supplied under other Sections.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

B. Deliver materials to job site in the manufacturer's sealed containers with the manufacturer's labels intact.

C. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45ºF. Maintain containers used in storage in a clean condition, free of foreign materials and residue.

D. Protect materials from freezing. Keep storage area neat and orderly. Remove oily or solvent soaked rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.

1.05 PROJECT CONDITIONS

A. Apply solvent-thinned paints only when the temperature of surfaces to be painted and the surrounding air temperatures are between 45ºF and 95ºF.

B. Apply water-based paints only when the temperature of surfaces to be painted and the surrounding air temperatures are between 50ºF and 90ºF.

C. Weather conditions:

1. Do not apply paint in snow, rain, fog, or mist; when the relative humidity exceeds 85%; at temperatures less than 5ºF above the dew point; or to damp or wet surfaces.
2. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by the manufacturer during application and drying periods.

1.06 EXTRA STOCK

A. At completion of the project, deliver to the Owner an extra stock of approximately 5% of each color, type, and gloss of material used in the work of this Section, tightly sealing each container and clearly labeling its contents.

2.0 PRODUCTS

2.01 PAINT MATERIALS

A. Acceptable materials:

1. The Painting Schedule in Part 3 of this Section is based, in general, on products of the Tnemec Company, Inc.
2. Equal products of other manufacturers approved in advance by the Architect, may be substituted in accordance with provisions of the Contract.

3. Where products are proposed other than those specified by name and number in the Painting Schedule, provide under the product data submittal required by Part 1 of this Section a new painting schedule compiled in the same format used for the Painting Schedule included in this Section.

B. Undercoats and thinners:
1. Provide undercoat paint produced by the same manufacturer as the finish coat.
2. Use only the thinners recommended by the paint manufacturer, and use only to the recommended limits.
3. Insofar as practicable, use undercoat, finish coat, and thinner material as parts of a unified system of paint finish.

2.02 COLOR SCHEDULES
A. The Architect will prepare a color schedule with samples for guidance in painting.

2.03 APPLICATION EQUIPMENT
A. For application of the approved paint, use only such equipment as is recommended for application of the particular paint by the manufacturer of the particular paint, and as approved by the Architect.
B. Prior to use of application equipment, verify that the proposed equipment is actually compatible with the material to be applied, and that integrity of the finish will not be jeopardized by use of the proposed equipment.

2.04 OTHER MATERIALS
A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS
A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 MATERIALS PREPARATION
A. General:
1. Mix and prepare paint materials in strict accordance with the manufacturers' recommendations as approved by the Architect.
2. When materials are not in use, store in tightly covered containers.
3. Maintain containers used in storage, mixing, and application of paint in a clean condition, free from foreign materials and residue.

B. Stirring:
1. Stir materials before application, producing a mixture of uniform density.
2. Do not stir into the material any film which may form on the surface, but remove the film and, if necessary, strain the material before using.

3.03 SURFACE PREPARATION
A. General:
1. Perform preparation and cleaning procedures in strict accordance with the paint manufacturers' recommendations as approved by the Architect.
2. Remove removable items which are in place and are not scheduled to receive paint finish; or provide surface- applied protection prior to surface preparation and painting operations.
3. Following completion of painting in each space or area, reinstall the removed items by using workmen who are skilled in the necessary trades.
4. Clean each surface to be painted prior to applying paint or surface treatment.
5. Remove oil and grease with clean cloths and cleaning solvent of low toxicity and flash point in excess of 200ºF, prior to start of mechanical cleaning.
6. Schedule the cleaning and painting so that dust and other contaminants from the cleaning process will not fall onto wet newly painted surfaces.

B. Preparation of wood surfaces:
   1. Clean wood surfaces until free from dirt, oil, and other foreign substance.
   2. Smooth finished wood surfaces exposed to view, using the proper sandpaper. Where so required, use varying degrees of coarseness in sandpaper to produce a uniformly smooth and unmarred wood surface.
   3. After priming or stain coat has been applied, all nail holes and other holes and cracks shall be flush-filled with putty in a neat and workmanlike manner. Putty shall be colored to match that of the finish.
   4. Unless specifically approved by the Architect, do not proceed with painting of wood surfaces until the moisture content of the wood is 12% or less.

C. Preparation of metal surfaces:
   1. Thoroughly clean surfaces until free from dirt, oil, and grease.
   2. On galvanized surfaces, use solvent for the initial cleaning, and then treat the surface thoroughly with phosphoric acid etch. Remove etching solution completely before proceeding.
   3. Allow to dry thoroughly before application of paint.

D. Preparation of cementitious surfaces:
   1. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents.
   2. Roughen as required to remove glaze.
   3. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
   4. Do not paint surfaces where moisture content exceeds that permitted in manufacturer's printed directions.

3.04 PAINT APPLICATION

A. General:
   1. Touch-up shop-applied prime coats which have been damaged, and touch-up bare areas prior to start of finish coats application.
   2. Sand and dust between coats to remove defects visible to the unaided eye from a distance of 5 FT.
   3. On removable panels and hinged panels, paint the back sides to match the exposed sides.

B. Drying:
   1. Allow sufficient drying time between coats, modifying the period as recommended by the material manufacturer to suit adverse weather conditions.
   2. Consider oil-base and oleo-resinous solvent-type paint as dry for recoating when the paint feels firm, does not deform or feel sticky under moderate pressure of the thumb, and when the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

C. Brush application:
   1. Brush out and work the brush coats onto the surface in an even film.
   2. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, and other surface imperfections will not be acceptable.

D. Spray application:
   1. Except as specifically otherwise approved by the Architect, confine spray application to metal framework and similar surfaces where hand brush work would be inferior.
   2. Where spray application is used, apply each coat to provide the hiding equivalent of brush coats.
   3. Do not double back with spray equipment to build up film thickness of two coats in one pass.

E. For completed work, match the approved Samples as to texture, color, and coverage. Remove, refinish, or repaint work not in compliance with the specified requirements.

F. Miscellaneous surfaces and procedures:
   1. Exposed mechanical, electrical and miscellaneous items:
      a. Paint access doors, conduits, pipes, ducts, vents and items of similar nature to match the adjacent wall and ceiling surfaces, or as directed.
      b. Paint visible duct surfaces behind vents, registers, and grilles flat black.
      c. Wash metal with solvent, prime, and apply two coats of alkyd enamel.

2. Exposed pipe and duct insulation:
    a. Apply one (1) coat of latex paint on insulation with has been sized or primed under other Sections, apply two (2) coats on such surfaces when unprepared.
    b. Match color of adjacent surfaces.
    c. Remove band before painting, and replace after painting.
3. Roof penetrations and roof mounted equipment:
    a. Paint HVAC vent, plumbing vents, equipment curbs, and items of similar nature to match color of finished roofing, or as directed, except where these items are instructed not to be painted in Paragraph 1.01 C above.
    b. Paint roof mounted equipment to match color of finished roofing, or as directed, UNLESS equipment is a finished metal described in paragraph 1.01 C 3 above.
4. Wet areas:
    a. At all interior spaces scheduled to be painted with exception of Electrical Room, add an approved fungicide to paints.

3.05 PAINTING SCHEDULE

A. Provide the following paint finishes.

B. Interior and exterior ferrous steel:
1. First Coat: Series 94-H_2O Hydro-Zinc, 2.5-3.5 mils DFT.
2. Second Coat: Series 1029 Enduratone Semi-Gloss, 2.0-3.0 mils DFT.
3. Third Coat: Same as second coat.

C. Interior and exterior galvanized steel:
1. Solvent clean with VM&P naphtha.
2. First Coat: Series 115 Uni-Bond DF, 2.0-4.0 mils DFT.
3. Second Coat: Series 1029 Enduratone Semi-Gloss, 2.0-3.0 mils DFT.

D. Exterior wood (soffit and trim):
1. First Coat: Series 151-1051 Elasto-Grip FC, 1.0-2.0 mils DFT.
2. Second Coat: Series 1029 Enduratone Semi-Gloss, 2.0-3.0 mils DFT.
3. Third Coat: Same as second coat.

E. Interior concrete masonry walls:
1. First Coat: Series 1254 EpoxoBlock WB, 75-100 SF/GAL.
2. Second Coat: Series 27WB Typoxy, 4.0-6.0 mils DFT.
3. Third Coat: Series 1081 Endura-Shield WB Semi-Gloss, 2.0-3.0 mils DFT.

F. Interior galvanized and ferrous metal (exposed steel roof structure):
1. First Coat: Series 94-H_2O Hydro-Zinc, 2.5-3.5 mils DFT.
2. Second Coat: Series 115 Uni-Bond DF, 2.0-4.0 mils DFT
3. Third Coat: Same as second coat.

G. Miscellaneous: Items not scheduled above shall be painted with like quality materials recommended by the manufacturer for the type of surface to be finished.

END OF SECTION

10400
IDENTIFYING DEVICES

1.0 GENERAL

1.01 SUMMARY

A. Provide identifying devices where shown on the Drawings, as specified herein and as needed for a complete and proper installation including, but not necessarily limited to:
   1. Building identification.
   2. Building address.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.
B. Submit:
   1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
   2. Shop Drawings indicating fabrication, dimensions, finishes, and details of installation and anchorage sufficient to enable proper interface of the work of this Section with the work of other Sections.
   3. Color charts/samples showing colors available from the proposed manufacturer in the specified products.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

2.0 PRODUCTS

2.01 BUILDING IDENTIFICATION

A. Provide cast aluminum letters with the following attributes:
   1. Size: 12 IN.
   2. Type style: Helvetica Medium.
   3. Mounting: Concealed masonry anchors and epoxy adhesive.
   4. Finish: Baked enamel of color selected by Architect from standard colors of the approved manufacturer.
   5. Text: “ROCKHILL PUMP STATION”.
B. Provide cast aluminum letters with the following attributes:
   1. Size: 8 IN.
   2. Type style: Helvetica Medium.
   3. Mounting: Concealed masonry anchors and epoxy adhesive.
   4. Finish: Baked enamel of color selected by Architect from standard colors of the approved manufacturer.
   5. Text: “XXXX ROCKHILL ROAD”. Street numbers will be determined at a later date.
C. Acceptable products:
   1. 521 Series as manufactured by A.R.K. Ramos, Oklahoma City, Oklahoma, Tel. 405-235-5505, Web www.arkramos.com.
   2. Equal products of other manufacturers approved in advance by the Architect.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

A. Install the work of this Section in strict accordance with the original design, the approved Shop Drawings, and the manufacturer's recommended installation procedures as approved by the Architect, anchoring all components firmly into position for long life under hard use.

1. Mount building identification and building address on split-face CMU where shown on the Drawings or as directed by the Architect.

END OF SECTION

10522
FIRE EXTINGUISHERS, CABINETS & ACCESSORIES

1.0 GENERAL

1.01 SUMMARY

A. Provide fire extinguishers, cabinets, and accessories where shown on the Drawings, as specified herein and as needed for a complete and proper installation.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Submit:

1. Manufacturer's specifications and other data needed to prove compliance with the specified requirements and including mounting details, door hardware, cabinet type and materials, trim style, and door construction.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Except as otherwise approved by the Architect, provide all products of this Section from a single manufacturer.

C. Provide new portable fire extinguishers which are UL listed and bear UL "Listing Mark" for type, rating, and classification of extinguisher indicated.

1.04 DELIVERY, STORAGE AND HANDLING

A. Comply with pertinent provisions of Section 01600.

2.0 PRODUCTS

2.01 APPROVED MANUFACTURERS

A. Design is based on use of standard products manufactured by J.L. Industries, distributed by Activar Construction Products Group Inc., Grand Prairie, Texas, Web www.activarcpg.com and trade names of that manufacturer are used herein.

B. Provide the products upon which design is based, or provide equal products of another manufacturer approved in advance by the Architect.

2.02 FIRE EXTINGUISHER CABINETS (FEC)

A. Where shown on the Drawings or as directed by the Owner, provide three fire extinguisher cabinets with the following attributes:

1. Model: Ambassador 1013F12, surface mounted, steel door and trim.
2. Finish: Electrostatic white epoxy.
3. Door glazing: 1/4 IN clear acrylic.
4. Options: Rolled edge and ADA flush pull.
5. Bracket: As required by extinguisher and cabinet.
6. Mounting height: Bottom 36 IN AFF or complying with applicable regulations of governing authorities.

2.03 FIRE EXTINGUISHERS

A. At each fire extinguisher cabinet, provide one fire extinguisher with the following attributes:

1. Type: Multi-purpose dry chemical.
2. Model: Cosmic 6E, 6 LB nominal capacity.
3. U/L Rating: 3A-40BC.

B. Service, charge and tag each fire extinguisher not more than five (5) calendar days prior to completion of the project.

3.0 EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION

A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.

B. Install the work of this Section in strict accordance with the original design, the approved Shop Drawings, pertinent requirements of governmental agencies having jurisdiction, and the manufacturer's recommended installation procedures as approved by the Architect, anchoring all components firmly into position for long life under hard use.

END OF SECTION

TECHNICAL SPECIFICATIONS

STRUCTURAL

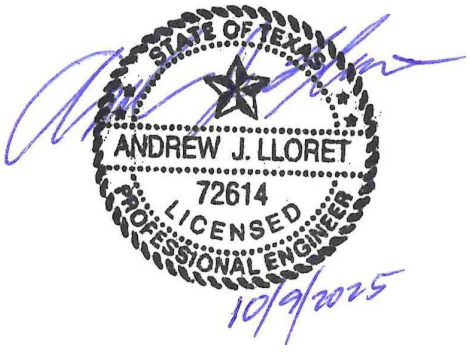
CITY OF AUBREY, TEXAS
ROCKHILL PUMP STATION AND
GROUND STORAGE RESERVOIR
TECHNICAL SPECIFICATIONS - STRUCTURAL

03100 Concrete Formwork

03200 Concrete Reinforcement and Embedded Metal Assemblies

03300 Cast-In-Place Concrete

05120 Structural Steel



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Dallas, Texas
Texas PELS Firm No. 511

SECTION 03100 - CONCRETE FORMWORK

PART 1– GENERAL

1.01 WORK INCLUDED

A. Furnishing all labor, materials, services, equipment, and appliances required in conjunction with design, fabrication, and erection of formwork for cast-in-place concrete complete, including, but not limited to the following:

1. Wood forms
2. Pan forms
3. Permanent metal forms
4. Cardboard carton forms (void boxes)
5. Shores and reshores
6. Installation in formwork of items furnished by other trades
7. Bulkheads, keyways, blockouts, sleeves
8. Post-tensioning pockets

1.02 TESTING LABORATORY SERVICE

A. An independent testing laboratory shall be employed and paid by the Owner for inspection of formwork. Refer to Section 01410. Inspection by the Owner's laboratory shall not relieve the Contractor of responsibility for quality control.

B. The Contractor shall allow for a minimum of 2 days notice to be given the Laboratory for inspection of the work.

1.03 QUALITY ASSURANCE

A. Design of Forms, Shoring, and Reshoring: All forms, shores, reshores, falsework, bracing, and other temporary supports shall be engineered by the Contractor to support all loads imposed during construction, including weight of construction equipment, allowance for live loads, and lateral forces due to wind and temporary imbalance or discontinuity of building components. It is the Contractor's responsibility to determine when temporary supports and bracing may be safely removed but in no case shall forms, shoring, and reshoring be removed prior to the time specified herein.

B. Codes and Standards

1. American Concrete Institute, ACI 347, "Recommended Practice for Concrete Formwork".
2. American Concrete Institute, ACI SP-4, "Formwork for Concrete".
3. American Concrete Institute, ACI 117, "Standard Specification for Tolerances for Concrete Construction and Materials"

C. Tolerances for formwork construction shall be within the limits specified in ACI 117.

1.04 SUBMITTALS

A. Shop Drawings:

1. Exposed Concrete Surfaces: Submit shop drawings for fabrication and erection of forms for concrete surfaces that are exposed to view. Show general construction of forms including jointing, chamfers, special formed joints or reveals, locations and patterns of form tie placement, and other items which affect concrete visually. Include details of inserts and anchorages. Architects review will be for general architectural applications and features only. Design of formwork for structural stability and sufficiency is the Contractor's responsibility.

2. For Permanent Metal Form Deck: Submit shop and installation drawings showing deck type, complete layout, attachment details, closures, edge strips, and all other accessories. Show supporting members, splices, lap lengths, openings, and deck dimensions.
3. For Pan Forms: Submit dimensioned plan showing placement of all pan forms.
4. Construction Joints: Submit diagrams of proposed construction joints not shown on the Drawings.
5. Samples: For exposed concrete, submit samples of each of the following:
6. Chamfer strips
7. 2'-0" x 2'-0" square sample of form liner
8. Form ties
9. Rustications

B. Product Data: Submit copies of manufactures' product data and installation instructions for the following:

1. Permanent metal form deck
2. Fiberboard forms (void boxes)

PART 2– PRODUCTS

2.01 FORMING MATERIALS

A. Wood forms for unexposed concrete surfaces shall produce concrete surfaces meeting ACI surface Class C and shall be built of No. 2 Common Southern Yellow Pine lumber or other material of equal qualifications (subject to the approval of the Architect), of sufficient thickness to be capable of sustaining the loads to be imposed thereon, dressed to uniformly smooth contact surfaces, and so constructed as to be readily removable.

B. Wood forms for exposed concrete surfaces indicated to be smooth shall produce concrete surfaces meeting ACI surface Class B and shall be constructed of Commercial Standard Douglas Fir, moisture-resistant, concrete form plywood, not less than five (5) ply, and at least nine-sixteenths inch (9/16") thick, with one (1) smooth face, or shall be forms with linings of one (1) of the following types:

1. Plywood: Commercial Standard Douglas Fir, concrete form, exterior, three (3) ply, not less than one-quarter inch (1/4") thick, having one smooth face.
2. Fiberboard: Treated, hard pressed fiberboard having a low degree of water absorbency, not less than three-sixteenths inch (3/16") thick, with one (1) smooth side.

C. Forms for architectural concrete shall produce concrete surfaces meeting ACI surface Class A tolerances and shall be constructed of one of the following:

1. Plywood: Finn Form ¼" plywood liner. Finn Form shall be artic birch plywood, A/BB grade presealed, manufactured to Finnish Standards Association standard SFS.OIV.I, quality controlled in compliance with State Institute for Technical Research, Helsinki. Plywood backing shall be B-B Plyform Class I, EXT-DFPA Grade, of the American Plywood Association PS-1.
2. Plastic Faced Plywood: Exterior grade Douglas Fir plywood, ¾" thick, faced with high density polyethylene or PVC sheet, minimum 0.10 thickness. All edges shall be sealed.
3. Steel: Fabricated by an experienced manufacturer and approved by the Architect. Forms shall be fabricated of 3/16" thick, smooth blue mill plate steel with ribbing spaced a maximum of 1'-0" on center. Forms shall be welded and cambered for deflections. All butt joints shall be welded and ground flush with the skin plate.
4. Fiberglass with structural backing molded by an experienced manufacturer to the shapes required. Fiberglass forms shall be approved by the Architect.

D. Rustications and bevels in exposed concrete shown on the Drawings shall be formed with steel, polyvinyl chloride or milled and sealed white pine.

E. Pan Forms shall be new or reconditioned forms for pan-type construction complete with fillers and end closures and shall produce concrete surfaces meeting ACI surface Class C. Block adjoining pan units if required to avoid lateral deflection of pans. Pan forms shall be factory fabricated units to obtain the pan size shown on Drawings. Pans shall be of adequate strength, stiffness, and construction to obtain concrete surfaces within specified tolerances. Pans shall be free of dents, irregularities, and rust.

F. Pan forms in areas permanently exposed to view shall be one piece units, cut to length between beams or distribution ribs and shall produce concrete surfaces meeting ACI surface Class B. Lap splices and wood formed soffits shall not be used. Provide longitudinal chamfer strip at soffit joint as indicated on Architectural Drawings.

G. Permanent Metal Forms shall be galvanized corrugated steel forms. Deck material, gauge, depth, and rib pattern shall be as noted on Drawings.

H. Form Duct for dowels with grout shall be galvanized corrugated rigid metal conduit, minimum 28 gauge, sizes as shown on Drawings. Metal conduit shall be able to resist pressure of wet concrete without deforming or leaking.

2.02 FIBER-BOARD FORMS (Void Boxes)

A. Shall be heavy-duty, corrugated fiberboard equal to those manufactured by the SureVoid Products, Inc., Ft. Worth, Texas. Provide custom shape forms as necessary to form required voids. Fiber-Board Forms shall be made of corrugated fiberboard capable (by recorded independent testing laboratory test) of sustaining the full weight of wet concrete but not less than a minimum load of six hundred (600 #) pounds per square foot. All contact surfaces of fiber-board forms shall be coated with an approved moisture-resistant compound.

2.03 SOIL RETAINERS AT FIBER BOARD FORMS

A. Soil retainers shall be one of the following:

1. Precast concrete planks as detailed on Drawings.
2. SureRetainer by Motzblock/SureVoid, size as required by Drawings.

2.04 PROTECTION BOARD

A. Protection board for use over carton forms under slabs shall be hard-pressed cellulose fiber board, 1/8” minimum thickness, furnished in 4’-0”x 8’-0” sheets.

2.05 FORM TIES

A. Form ties for exposed concrete surfaces shall be manufactured to allow a positive breakback of no less than one inch (1") inside the concrete surface. Ties shall be equipped with a plastic cone of not less than five-eights inch (5/8") diameter and one inch (1") long which will completely cover the hole and prevent the leakage of any mortar. Form ties for unexposed surfaces shall be bolt rods or patented devices having a minimum tensile strength of three thousand (3000) pounds when fully assembled. Ties shall be adjustable in length and free of lugs, cones, washers or other features which would leave a hole larger than seven-eights inch (7/8") in diameter, or depressions back of the exposed surface of the concrete. Ties shall be of such construction that, when the forms are removed, there will be no metal remaining within one inch (1") of the finished surface of the concrete.

2.06 FORM OIL

A. Form oil shall be non-staining, paraffin-base oil having a specific gravity of between eight-tenths (0.8) and nine-tenths (0.9).

PART 3– EXECUTION

3.01 MATERIAL STORAGE

A. Form materials shall be delivered to the job site as far in advance of its use as is practical, and shall be carefully stacked clear of the ground in such a manner as to facilitate air-drying.

3.02 GENERAL

A. The design and engineering of the formwork as well as its construction shall be the responsibility of the Contractor. All concrete members shall be adequately shored to safely support all loads and lateral pressures outlined in "Recommended Practice for Concrete Formwork" (A.C.I. 347) without distortion, excessive deflection or other damage. All necessary forms, centering, shores and molds shall be built to conform to the shapes, lines and dimensions of the various members of concrete construction, as shown or scheduled on the Drawings. They shall be sufficiently tight and so substantially assembled as to prevent bulging, or the leakage of mortar. All forms shall be assembled to facilitate their removal without damage to the concrete. Construct forms with such care as to produce concrete surfaces which will not leave unsightly or objectionable form marks in exposed concrete surfaces. Lumber once used as forms shall have all contact surfaces thoroughly cleaned before reuse.

3.03 FORMS

A. From ties shall be employed in such places and at such intervals as to securely hold the forms in position during the placing of concrete, and to withstand the weight and pressure of the wet concrete. Ties of a type intended to be entirely removed shall be coated with an approved lubricant to safeguard against damaging the concrete during such removal. The use of wire ties will not be permitted.

B. Place in the forms wood strips, blocking, moldings, nailers, etc., as required to produce the finished profiles and surfaces shown on the drawings and to provide nailing for wood members or other features required to be attached to concrete surfaces in such manner. Coat wood strips, blocking, and moldings with form sealer.

C. Coat the contact surfaces of all wood forms with form oil before placing any metal reinforcement.

3.04 INSTALLATION OF FIBER-BOARD FORMS (VOID BOXES)

A. Cap ends of void boxes and tape all joints with waterproof tape. Prevent concrete from entering void space.

B. Protect void boxes from rain and on-site seepage. Do not install void boxes during wet weather or on wet ground. Forms that become wet prior to placing concrete shall be removed and replaced.

C. Place concrete to prevent crushing of void boxes. Collapsed forms shall be removed after concrete has cured and proper void established below the structural members.

D. Void boxes under slabs shall be protected by a vapor barrier followed by a layer of protection board.

1. In areas of slab to receive floor finishes other than exposed concrete, vapor barrier shall conform to ASTM E 1745, Class C or better and shall have a water vapor permeance not to exceed 0.04 perms when tested in accordance with ASTM E96. Vapor barrier component no less than 10 mils thick in

accordance with ACI 302, 1R-96. Products: Stego Wrap Vapor Barrier (10 mils) by Stego Industries, Griffolyn T-85 by Reef Industries, or Soco-Shield VB-15.

2. In areas of exposed concrete slab finish, vapor barrier may be 4 to 6 mil polyethylene.

E. Place void boxes to provide the full slab thickness shown on the Drawings. Do not install void boxes under soil supported slabs-on-grade.

3.05 INSTALLATION OF SOIL RETAINERS

A. Install soil retainers in accordance with manufactures published requirements and in accordance with details on drawings.

3.06 CONSTRUCTION JOINTS

A. Except as otherwise specifically indicated on the Drawings each footing, pier, column, beam, and slab shall be considered as a single unit of operation, and all concrete for the same shall be placed continuously in order that such unit will be monolithic in construction. Should construction joints prove to be absolutely unavoidable, the same shall be located at or near the midpoints of spans. Additional construction joints shall not be made under any circumstances without the written approval of the Architect or Engineer. All construction joints must be either plumb or level.

3.07 MISCELLANEOUS

A. Construct forms for any and all items of concrete work required for or in connection with the satisfactory completion of the project, whether each such item is specifically shown or referred to or not.

3.08 REMOVAL OF FORMS

A. Formwork not supporting concrete, such as sides of beams, walls, columns, and similar parts or the work, may be removed after cumulatively curing at not less than 50 degrees Fahrenheit for 12 hours after placing concrete, provided concrete is sufficiently hard to not damage by form removal operations, and provided curing and protection operations are maintained.

B. Formwork supporting the weight of conventionally reinforced concrete, such as beam soffits, joist bottoms, and slab forms, shall not be removed until the concrete has attained 85 percent of the specified 28 day compressive strength as established by field cured cylinders. In the absence of field cured cylinder tests, supporting formwork shall remain in place until the concrete has cured at a temperature of at least 50 degrees Fahrenheit for the minimum cumulative time period given in ACI 347. When the temperature of the air surrounding the concrete is below 50 degrees Fahrenheit, that time in hours or days, shall be added to the minimum listed time periods.

C. Forms for two-way conventionally reinforced slabs shall remain in place for at least the minimum cumulative time period given in ACI 347 for one-way slabs of the same maximum span. However, the slab shall be immediately reshored. Reshores shall remain in place until the two-way slab has attained its full 28 day design strength.

D. The minimum cumulative time periods may be reduced by the use of high-early strength cement or forming systems which allow form removal without disturbing shores, but only after the Contractor has conclusively demonstrated to the satisfaction of the Architect that the earlier removal will not cause excessive sag, creep, distortion or damage of any kind to the member or structure.

E. Observance of the minimum cumulative time periods specified does not relieve the Contractor of the responsibility for the safety of the structure during construction.

F. Forms for post-tensioned concrete shall not be removed before the tensioning operation has been completed.

G. Where form stripping time is less than the specified protective curing time, measures shall be taken to provide adequate curing and thermal protection of the stripped concrete.

H. Wood forms shall be completely removed from under floors, ramps, steps, and similar places (though temporary openings, if necessary) in order that no material will be left to rot or be infested by termites. Exercise care, in the removal of any form, to avoid damaging concrete surfaces during or on account of such removal.

I. For multilevel construction

3.09 SHORES AND BACKSHORES

A. All slabs, joists, beams, and girders required to support one or more subsequent levels of construction shall be reshored. Reshoring members shall be plumb and shall be located in the same plan position on each floor to provide continuous support from floor to floor. Construction loads shall not be allowed on new construction during reshoring operations.

B. Reshores shall be located, installed, and removed without excessive member loading, excessive stress, stress reversals, eccentricities, and deflections. Provide adequate number and spacing of shores and reshores at proper locations to avoid any damage to partially cured concrete.

C. Comply with ACI 347 and as herein specified for shoring and reshoring.

D. Extend shores and reshores from ground to top level in structures three stories or less in height, unless otherwise specified.

E. In structures over three stories, extend shore and reshores a minimum of three levels below the level being placed such that the weight of the new concrete is supported by at least three previously constructed levels. Extend reshores beyond the minimum number of levels if required for proper distribution of loads.

F. Where crawl spaces or basements exist, shores and reshores shall extend to slab-on-grade or soil. Provide adequate bearing supports for shores and reshores seated in soils.

G. Lowest tier of reshores shall remain in place until the upper level concrete has attained 85 percent of the specified 28 day strength but not less than 15 days.

3.10 REUSE OF FORMS

A. Thoroughly clean and repair surfaces of forms to be reused in the work. Damaged or worn form facing materials shall not be reused. Recoat contact surfaces of forms and liners with form oil.

B. Replace damaged pan forms that will not produce concrete surfaces within specified tolerances.

END OF SECTION 03100

SECTION 03200 - CONCRETE REINFORCEMENT AND EMBEDDED METAL ASSEMBLIES

PART 1– GENERAL

1.01 WORK INCLUDED

A. Furnish all labor, materials, services, equipment, and appliances required in conjunction with fabrication, delivery, and placement of reinforcement and embedded metal assemblies in cast-in-place concrete complete, including, but not limited to the following:

1. Prepare shop drawings of reinforcing steel.
2. Furnish and place reinforcing steel.
3. Furnish reinforcing for drilled piers.

1.02 TESTING LABORATORY SERVICES

A. An independent testing laboratory shall be employed and paid by the Owner for inspection of reinforcing steel and embedded metal assemblies. Refer to Section 01410. Inspection by the Owner's laboratory shall not relieve the Contractor of responsibility for quality control.

B. The Contractor shall allow for a minimum of 2 days notice to be given the Laboratory for inspection of the work.

1.03 QUALITY ASSURANCE

A. Fabricator shall have a minimum of 3 years experience in similar applications. Experience shall be relevant to the anticipated fabrication and placing methods and techniques required.

B. Codes and Standards:

1. Concrete Reinforcing Steel Institute: "Manual of Standard Practice"
2. American Concrete Institute, ACI 318: "Building Code Requirements for Structural Concrete".
3. American Concrete Institute, ACI 117: "Standard Specifications for Tolerances for Concrete Construction and Materials".
4. American Institute for Steel Construction, AISC "Specification for Structural Steel Buildings" including the "Commentary" and all supplements.
5. American Welding Society, AWS D1.1: "Structural Steel Welding Code".
6. American Concrete Institute, ACI 315: "Details and Detailing of Concrete Reinforcing".

1.04 SUBMITTALS

A. Shop Drawings:

1. Submit shop and installation drawings of metal reinforcement for review of the Architect in accordance with Section 01340. Comply with ACI 315, "Details and Detailing of Concrete Reinforcement." Show bar schedules, stirrup spacing, diagrams of bent bars, arrangements, and assemblies as required for fabrication and placement of concrete reinforcement.
2. Shop drawings shall include from the structural drawings the bar bending diagrams, the beam, joist, and slab notes, and cast-in-place notes that concern proper placing of reinforcement. Use same bar marks indicated on the bar bending diagrams as shown in the schedules.
3. Submit shop drawings for fabrication and placement of embedded metal assemblies.

B. Mill Test Reports: Certified copies, evidencing compliance with all requirements of these Specifications, shall be delivered to the Contractor with all deliveries of reinforcing steel. Contractor will forward copies to the Architect for the project files.

1.05 DELIVERY AND STORAGE

A. Stack reinforcing steel in tiers and mark so that each length, size, shape, and location can be readily determined. Exercise care to maintain reinforcing free of dirt, mud, paint, and rust.

PART 2– PRODUCTS

2.01 MATERIALS

A. Reinforcing shall comply with the following:

1. Reinforcing Bars: New deformed billet steel conforming to the requirements of ASTM A615 grade and size shown on the drawings.
2. Galvanized Reinforcing Bars: ASTM A767, “Specification for Zinc-Coated Steel Bars for Concrete Reinforcing”.
3. Epoxy Coated Reinforcing Bars: ASTM A775, “Specification for Epoxy-Coated Reinforcing Steel Bars”.
4. Reinforcing Bars to be Welded: ASTM A706, “Specification for Low-Alloy Steel Deformed Bars for Concrete Reinforcement”.
5. Deformed Bar and Rod Mats: ASTM A184, “Specification for Fabricated Deformed Steel Bar Mats for Concrete Reinforcement”.
6. Steel Wire: ASTM A 82, “Specification for Steel Wire, Plane, for Concrete Reinforcement”.
7. Deformed Wire: ASTM A496, “Specification for Steel Wire, Deformed, for Concrete Reinforcement”.
8. Welded Smooth Wire Fabric: ASTM A185, “Specification for Steel Welded Wire Fabric, Plane, for Concrete Reinforcement”. Provide only in flat sheets. Rolls are not acceptable.

2.02 METAL ANCHORAGE & CONFINEMENT ASSEMBLIES

A. Steel Shapes and Plates and Rods: Conform to ASTM A36.

B. Headed Stud Anchors: Headed Studs welded by full fusion process as furnished by Nelson Stud Welding Co.

C. Bolts: Conform to ASTM A307 with regular hexagon nuts and carbon steel washers.

D. Straps: Conform to ASTM A245 or A284.

E. Welding Electrodes: ASTM Designation A233, Series E370 - AWS 5.5.

F. Reinforcing Bars to be Welded: ASTM A706.

G. Deformed Bar Anchors: ASTM A-108 cold worked steel wire per ASTM A-496 with minimum yield strength of 70,000 psi welded to steel as shown on the drawings. Anchors shall be flux filled deformed bar anchors by Nelson Stud Division of TRW. All welding shall be in accordance with the manufacturer’s recommendations.

H. All metal assemblies below grade, exposed to earth, weather, moisture, or not in air conditioned spaces shall be hot-dip galvanized. All other metal assemblies may be hot-dip galvanized or the exposed surfaces shall be field painted with the specified epoxy coating after welding. Embedded metal assemblies to be spray fireproofed shall not be field painted.

2.03 CONCRETE ACCESSORIES

A. Concrete accessories including bar support, chairs, spacers, etc., shall be cold-drawn wire and shall be fabricated in accordance with the requirements of Chapter Seven of the A.C.I. Standard 315 with heights as required.

1. Use wire bar type supports complying with CRSI recommendations, unless otherwise specified.
2. For slab-on-grade, use supports with sand plates or horizontal runners where base material will not support chair legs.
3. For exposed-to-view concrete surfaces where legs of supports are in contact with forms, provide supports with plastic protected legs (CRSI Class 1) or stainless steel legs (CRSI Class 2).
4. For abrasive blasted or bush hammered concrete, provide plastic protected bar supports (CRSI Class 1).
5. Over water proofing membranes use precast concrete block bar supports.

2.04 MECHANICAL SPLICES

A. Provide mechanical splices designed to develop, in both tension and compression, 125 percent of the minimum ASTM specified yield strength of the smaller bar being spliced. Strength values shall be in accordance with current I.C.B.O. test reports. Acceptable manufactures are as follows:

1. Erico Concrete Construction Products
2. Dayton

2.05 DOWEL BAR SPLICERS

A. At the Contractors option, mechanically spliced dowels may be used in lieu of continuous reinforcing bars. Mechanical spliced dowels shall develop, in both tension and compression, 125 percent of the minimum ASTM specified yield strength of the dowel. Anchors and threaded dowels shall be provided by the manufacturer. The following systems are acceptable:

1. Richmond Screw Anchor “Dowel Bar Splicer”.
2. Erico “Lenton Form Saver”.
3. Dayton Barsplice “Grip-Twist”.

2.06 COATINGS

A. Rust inhibitor for field application to metal accessories shall be Hi-Build Epoxoline manufactured by the TNEMEC Co., Kansas City, MO.

B. Hot-dip galvanizing shall conform to ASTM A123, “Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products”.

C. Field repair of galvanizing shall be done with A.R.C. Cold Galvanizing Compound, by ZRC Chemical Products Co., Quincy, Mass.

2.07 FABRICATION OF REINFORCEMENT

A. Fabricate reinforcing bars to conform to required shapes and dimensions. Fabrication tolerances shall not exceed tolerances specified in ACI 117 or CRSI “Manual of Standard Practice”.

2.08 FABRICTION OF METAL ACCESSORIES AND EMBEDDED METAL ASSEMBLIES

A. Fabricate and assemble structural steel items in the shop. Shearing, flame cutting, and chipping shall be done carefully and accurately. Holes shall be cut, drilled or punched at right angles to the surface of the metal and shall not be made or enlarged by burning. Holes shall be clean-cut without torn or ragged edges. Welded construction shall conform to the AISC Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings and AWS D12.1 Welding shall be done by AWS certified welders.

B. Welding of deformed bar anchors and headed stud anchors shall be done by full-fusion process equal to that of Nelson Stud Welding Company or KSM Welding Services Division, Omark Industries.

C. Welding of reinforcing bars shall be done in strict accordance with AWS requirements, using recommended preheat temperatures and electrodes for the type of reinforcing being welded. Bars larger than No. 9 shall not be welded. All welding shall be performed subject to inspection and testing of the Owner's testing laboratory.

D. Coatings, where required, shall be applied after fabrication.

PART 3– EXECUTION

3.01 MATERIAL STORAGE

A. Reinforcing steel shall be stacked in tiers. Care shall be exercised to maintain all reinforcement free of dirt, mud, paint, rust, etc.

3.02 GENERAL

A. Reinforcing steel of the sizes, shapes, lengths, spacing and other dimensions shown shall be placed where shown on the drawings. Details of reinforcing shall conform to A.C.I. Building Code Requirements for Reinforced Concrete (A.C.I. 318).

3.03 MARKING

A. Bars shall be plainly marked. Bundles shall be limited to one (1) length, and each bundle shall be tagged with metal tags.

3.04 CLEANING

A. Reinforcement shall be thoroughly cleaned of rust, mill scale, dirt, oil or other coatings which reduce the bonding to the concrete.

3.05 BENDING

A. Bars shall be bent cold. Heating of reinforcement, or handling by makeshift methods, will not be permitted and bars having kinks or bends not required shall not be used.

3.06 PLACING

A. Reinforcement shall be accurately placed and securely saddle tied at every other intersection with No. 18 gauge black annealed wire, and shall be rigidly held in place during the placing of the concrete by means of metal chairs or spacers.

B. Bars in concrete walls shall be held in position, and to proper clearance, by means of concrete or metal spacers made especially for the locations where spacers are required.

C. Bars in beams and slabs shall be held to exact location during placing of concrete by spacers, chairs, or other necessary supports with the following tolerances:

1. Top bars in slabs and beams:
    a. Members 8 in. deep or less: + 1/4 in.
    b. Members more than 8 in. but not over 2 ft. deep: + 1/2 in.
    c. Members more than 2 ft. deep: + 1 in.
2. Lengthwise of members: + 2 in.
3. Concrete cover to formed surfaces: 1/4 in.
4. Minimum spacing between bars: 1/4 in.

D. Tie wire shall not be placed in contact or within 1-1/2" of any exposed surface.

E. Anchor rods for column base plates shall be placed to exact plan location within the following tolerances:

1. ¾” through 1 1/2” diameter bolts: +/- ¼”
2. 1 5/8” through 2 ½” diameter bolts: +/- ½”

3.07 CONCRETE PROTECTION

A. Concrete protection for reinforcing steel shall not be less in any direction than the following:

1. Reinforcing in slabs on grade and beams deposited against the ground: 3 inches.
2. Reinforcing in formed beams, columns, and girders: 1-1/2 inches.
3. Grade beams and exterior face of walls and columns exposed to the weather or in contact with the ground: 2 inches.
4. Interior faces of walls: 1 inch.
5. Beam bottoms formed with fiberboard void boxes: 2 inches.
6. Structural slabs on carton form: 1 inch.

B. Tolerances in layout, fabrication, formwork, and placing shall not permit a reduction in the specified concrete protection beyond the specified tolerance for concrete cover.

3.08 METAL ACCESSORIES

A. All paint and galvanizing shall be removed in areas to receive field welds prior to making the welds. Areas where paint has been removed or damaged shall be field painted with the specified paint or galvanizing compound.

END OF SECTION 03200

SECTION 03300 - CAST-IN-PLACE CONCRETE

PART 1– GENERAL

1.01 WORK INCLUDED

A. Furnish all labor, materials, services, equipment, and appliances required in conjunction with cast-in-place concrete including, but not limited to, the following:

1. Furnish and place cast-in-place concrete
2. Grouting structural steel
3. Finish and curing concrete
4. Furnish concrete for drilled piers
5. Concrete mix designs
6. Laboratory testing concrete

1.02 TESTING LABORATORY SERVICES

A. An independent testing laboratory shall be employed and paid by the Owner for inspection and testing of concrete. Refer to Section 01410. Inspection by the Owner's laboratory shall not relieve the Contractor of responsibility for quality control.

B. The Contractor shall allow for a minimum of 2 days notice to be given the Laboratory for inspection of the work.

1.03 QUALITY ASSURANCE

A. Materials and work shall conform to the requirements of all standards, codes, and recommended practices required in this section. In conflicts between standards, required standards and this Specification, or this Specification and the local building code, the more stringent requirement shall govern.

B. Materials and operations shall be tested and inspected as work progresses. Failure to detect defective work or materials shall not prevent rejection when defect is discovered nor shall it obligate the Architect to final acceptance of defective work.

C. Contractor shall provide and pay for the following testing laboratory services:

1. Qualification of materials and establishment of mix designs in accordance with ACI 301.
2. Other testing laboratory services as needed or required by the Contractor.

D. To facilitate testing and inspection, the Contractor shall:

1. Furnish necessary labor to assist testing agency in obtaining and handling samples at the job site.
2. Advise the testing agency in advance of operations to allow for the assignment of testing personnel and testing.
3. Provide and maintain for the use of the testing agency adequate facilities for proper curing of concrete test specimens on the project site in accordance with ASTM C31 "Method of Making and Curing Concrete Compression and Flexural Specimens in the Field".

E. Evaluation and Acceptance:

1. The strength level of the concrete will be considered satisfactory if 90% of the strength test results and the averages of all sets of three consecutive strength test results equal or exceed specified strength and no individual test result is below specified strength by more that 500 psi.

2. Completed concrete work will be accepted when the requirements of "Specifications for Structural Concrete for Buildings" ACI 301, Chapter 18 have been complied with.
3. In any case where the average strength of the laboratory control cylinders, as shown by the tests for any portion of the structure, falls below the minimum ultimate compressive strength specified, the Architect shall have the right to require the Contractor to provide improved curing conditions of temperature and moisture to secure the required strength. Also, if the average strength of the laboratory control cylinders should fall so low as to cause the portions of the structure to which the respective unsatisfactory tests reports apply to be in question by the Architect, the Contractor shall follow the core procedure set forth in the current edition of A.S.T.M. Designation C42. If the results of the core tests indicate, in the opinion of the Architect, that the strength of the structure is inadequate, such replacement, load testing, or strengthening as may be ordered by the Architect shall be provided by the Contractor without cost to the Owner.

F. Applicable Standards: Comply with the following:

1. American Concrete Institute, ACI 301, "Specifications for Structural Concrete for Buildings"
2. American Concrete Institute, ACI 211.1, “Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete”
3. American Concrete Institute, ACI 211.2, “Standard Practice for Selecting Proportions for Structural Lightweight Concrete”
4. American Concrete Institute, ACI 302.1, “Guide for Concrete Floor and Slab Construction”
5. American Concrete Institute, ACI 303, “Standard Specification for Cast-in-Place Architectural Concrete”
6. American Concrete Institute, ACI 304, "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete"
7. American Concrete Institute, ACI 305, "Recommended Practice for Hot Weather Concreting"
8. American Concrete Institute, ACI 306, "Recommended Practice for Cold Weather Concreting"
9. American Concrete Institute, ACI 309, "Standard Practice for Consolidation of Concrete”.
10. American Concrete Institute, ACI 318, "Building Code Requirement for Reinforced Concrete"
11. American Society of Testing Materials, ASTM C33, "Standard Specifications for Concrete Aggregates"
12. American Society of Testing Materials, ASTM C94, "Standard Specifications for Ready-Mixed Concrete"
13. American Society of Testing Materials, ASTM C150, "Portland Cement"
14. American Society of Testing Materials, ASTM C260, "Air-Entraining Admixtures for Concrete"
15. American Society of Testing Materials, ASTM C330, “Specification for Lightweight Aggregates for Structural concrete”
16. American Society of Testing Materials, ASTM C494, "Chemical Admixtures for Concrete"
17. American Society of Testing Materials, ASTM E 1155, "Determining Floor Flatness and Levelness Using the F-Number System"

G. Field Reference Manual:

1. Contractor shall have available in the field office "Specifications for Structural Concrete for Buildings" with selected references of ACI and ASTM-SP-15.

1.04 SUBMITTALS

A. Submit to the Owner’s testing laboratory two (2) copies of laboratory trial mix designs proposed in accordance with ACI 301 or one copy each of 30 consecutive test results and the mix design used from a record of past performance in accordance with ACI 301.

B. Submit manufacturer's data showing compliance with specifications for the following products:

1. Curing Compounds
2. Sealer

3. Non-Shrink Grout
4. Floor Hardener
5. Retarder
6. Samples of fine and coarse aggregates for Architectural Concrete
7. Integral coloring compound
8. Admixtures

C. Submit two (2) copies of proposed construction joints other than those indicated on the Drawings.

PART 2– PRODUCTS

2.01 MATERIALS FOR STRUCTURAL CONCRETE

A. Portland Cement shall conform to the requirements of A.S.T.M. Designation C150, Type I or Type III. Only one (1) brand of cement shall be used throughout the work.

B. Fine aggregate shall conform to the applicable requirements of the current edition of A.S.T.M. Designation C33, and shall be natural bank or river sand, washed and screened, consisting of hard, durable, uncoated particles free of deleterious matter, and shall be so graded from coarse to fine as to produce a minimum percentage of voids.

C. Coarse aggregate for normal weight concrete shall conform to the applicable requirements of the current edition of A.S.T.M. Designation C33, shall be gravel or crushed stone suitably processed, washed and screened, and shall consist of hard, durable particles without adherent coatings.

D. Coarse aggregate for lightweight concrete shall conform the to applicable requirements of the current edition of ASTM C330, shall be expanded shale or expanded clay and shall produce a minimum splitting tensile strength as follows:

1. Specified 28 Day Strength (psi)	Minimum Split Tensile Strength (psi)
5000	400
4000	358
3000	310

E. Concrete Admixtures: Provide admixtures produced and serviced by established, reputable manufacturer and used in compliance with manufacturer's recommendations.

1. Air-entraining agent, conforming to ASTM C260, and CRD C-13, "AIR-TITE" neutralized vinsol resin, manufactured by Hanson Concrete, or "MB-VR" by Master Builders.
    a. When requested, certification attesting to the percentage of effective solids and compliance with ASTM C260 shall be furnished.
2. Water-reducing, set-controlling admixture, conforming to ASTM C494, Type A (water-reducing), Type D (water-reducing and retarding), type E (water-reducing, accelerating), type F (water-reducing, high range superplasticizer), or type G (water-reducing, high range superplasticizer, retarding) manufactured by Hanson Concrete.
    a. Field Service: When requested a qualified concrete technician employed by the manufacturer shall be available to assist in proportioning concrete materials for optimum use, to advise on proper use of the admixture and adjustment of concrete mix proportions to meet job site and climatic conditions
    b. Obtain approval of the Architect, in writing, before using set-controlling admixtures.
    c. In general, calcium chloride will not be permitted in the concrete mixtures.

F. Fly Ash conforming to ASTM C 618 may be used in non-architecturally exposed concrete. Carbon content shall not exceed 3% by volume.

2.02 WATER

A. Water shall be city water, potable.

2.03 CONCRETE MIX

A. Proportions: Select proportions of ingredients in accordance with ACI 301 to product a concrete having proper placability, durability, strength, appearance and other specified properties. Minimum cement content shall conform to these Specifications. Proportion ingredients to produce homogeneous mixture which will work readily into corners and angles of forms and around reinforcement by methods of placing and consolidation employed on project, but without permitting materials to segregate or allowing excess free water to collect on surface.

B. Mix Design: Contractor shall employ, at his expense, a commercial testing laboratory, acceptable to Owner, to prepare and test mix designs for each scheduled type of concrete. Submit mix designs and test results for review in accordance with Submittals. Placing of concrete is not permitted until approved by the Engineer. All concrete mix designs shall include the following information:

1. Type of cement and aggregates.
2. Proportions of cement, fine aggregate, coarse aggregate, and water.
3. Maximum water/cement ratio, design strength, maximum slump, and air content.
4. Air dry density and splitting tensile strength for lightweight concrete.
5. Types and dosages of all admixtures.
6. Special requirements for pumping.
7. Range of ambient temperatures and humidity for which the mix is valid.
8. Maximum and minimum permissible temperatures of concrete at time of placement.
9. All special characteristics of the mix which require precautions in mixing, placing, or finishing.
10. Type, color, and dosage of integral coloring compounds.
11. Strength: Determination of average strength above specified strength shall be based on standard deviation records of field tests performed within the past 12 months and spanning a period of not less than 60 days in accordance with ACI 301. If suitable record of strength test performance is not available, proportions shall be selected by laboratory trial batches to produce an average strength as specified in ACI 301.

C. Pumped Structural Lightweight Concrete: Provide a special mix design taking into account the porosity of the aggregates, water content of aggregates prior to mixing, slump at the pump inlet, and slump at the point of discharge.

D. Entrained Air: Air-entrain concrete that will be permanently exposed to weather unless otherwise specified. Air content as determined in accordance with ASTM C 173 shall be as follows:

Concrete Type	Maximum Aggregate Sizes in Inches	Total Air Content Range % by volume
Normal Weight	3/8	6-10
Normal Weight	1/2	5-9
Normal Weight	3/4	5-7
Normal Weight	1	5-7
Normal Weight	1-1/2	4-6

E. Slump: ASTM C 143, as shown on Drawings. Specified slump shall apply at time when concrete is discharged at jobsite. Slump tests shall be used to monitor uniformity and consistency of concrete delivered to jobsite but not as a basis for mix design. Under no circumstances shall the water-cement ratios for concrete exceed those specified below.

1. Slumps shown on Drawings are without superplasticizer. Mixes with superplasticizer shall have slumps between 1 inch and 3 inches prior to dosing with superplasticizer and a maximum slump of 9 inches after dosing with superplasticizer.

F. Water-Cement Ratio: Maximum allowable water cement ratio for structures shall not exceed 0.55, except water cement ratio for structures below grade shall not exceed 0.50. Superplasticizer may be added as specified to obtain maximum water-cement ratios. Include free water in aggregate in water-cement ratio computations.

G. Admixtures: Proportion admixtures according to manufacturer's recommendations. Use of an accelerator is permitted when the air temperature is less than 40 F. Use of a retarder is permitted when temperature of placed concrete exceeds 65 F.

H. Fly Ash: Maximum replacement of cement with fly ash shall be 20 percent by weight. Fly ash shall not be used with Type IV Cement.

I. High-Range Water Reducers (Superplasticizer): Contractor may, at his option, use a superplasticizer to improve workability of concrete. Superplasticizer shall be used in strict accordance with requirements and recommendations of product manufacturer. Site mixed super-plasticizer shall be added to concrete mix at job site, just prior to dispensing of concrete in conformance with Contractor's plan submitted to Architect for review. The plant mixed super-plasticizer shall be added to concrete mix at batch plant.

J. Concrete Classification: Normal weight and light weight concrete with compressive strengths as scheduled on Drawings.

K. Maximum size aggregate for concrete flooring topping and masonry fill shall be 3/8 inch. Maximum size aggregate for other normal-weight concrete shall be 3/4 in. for structural elements 5 in. or less in thickness and one in. for remaining concrete except that maximum size aggregate for drilled piers shall be 1-1/2 in.

L. Proportioning: The testing laboratory will determine the ratio of water to cement not to exceed .45 for the various specified concrete strengths. The determination of the proportions of cement, aggregate, and water to attain the required strengths shall be made in accordance with the "Building Code Requirements for Reinforced Concrete" (ACI 318-05).

2.04 CURING MATERIALS

A. Exceeding the requirement of ASTM C309 "Standard Specifications for Liquid Membrane - Forming Compounds for Curing Concrete".

B. Meet Federal and State VOC/AIM regulations.

C. Material providing water retention not exceeding loss of .055 gm/cm2 when used at a coverage of 450 sq. ft. per gallon and tested in accordance with ASTM C156.

D. Waterproof paper, for curing concrete, shall be non-staining two (2) ply, reinforced in both directions with fibers completely embedded in asphalt , and conforming to the requirements of the current edition of A.S.T.M Designation C171.

E. Polyethylene sheets may be used for flat surfaces, and shall conform to the requirements of ASTM D2103.

F. Liquid Curing Compound for interior slabs to receive subsequent floor coverings shall be dissipating resin type, which chemically breaks down after approximately eight (8) weeks. Membrane forming compound shall meet ASTM C309, Types I and 1D Class B, water based. Meet federal/state VOC/AIM

regulations. Provide Kurez DR VOX by The Euclid Chemical Company or equal by Master Builders, Sika Corp., Sonneborn, or Architect approved equal. (Sodium silicates prohibited.)

G. Curing and Sealing Compound for use on all permanently exposed interior and exterior floor/paving surfaces conforming to ASTM C 1315, Type 1 Class B, minimum solids 25%, moisture loss shall be not more than 0.30 Kg/M2 when applied at 300 square feet per gallon. Meet federal/state VOC/AIM regulations. Provide Super Aqua-Cure VOX by The Euclid Chemical Company, or equal by Master Builders, Sika Corp., Sonneborn, or Architect approved equal.

2.05 FINISHING MATERIALS

A. Vehicular Traffic Topping:

1. Concrete that is substrate to the coating system should have a finish equal to light steel troweling followed by a fine hair broom.
2. An appropriate wet curing procedure should be used on the concrete.
3. Control joints in the concrete, if required, should be in accordance with pertinent ACI and PCA standards.
4. Drain flanges at coating level should be integrally cast into, and be flush with, concrete deck surfaces that slope to drain.

B. Floor hardener shall be a penetrating liquid, for subsequent (not integral) application and shall be "Lapidolith" as manufactured by Sonneborn Chemical and Refining Corp., or approved equal. See schedule for location of floor hardener. No combination curing and hardener material will be considered in lieu of hardener material specified.

C. Cement Floor Leveling Compound: Camp's "Latex Mix" (Liquid Felt up to 1/8" -- over 1/8" mix with Portland Cement and Sand).

2.06 MISCELLANEOUS MATERIALS

A. Drilled Expansion Bolts: Shall be equal to bolts as manufactured by Hilti Corporation with type and size as shown on plan.

B. Rust Inhibitor: For field application to metal accessories shall be Hi-Build Expoline manufactured by Tnemec Company, Inc., Kansas City, Missouri.

C. Vapor Barrier under slabs: Shall conform to ASTM E 1745, Class C or better and shall have a water vapor permeance not to exceed 0.01 perms when tested in accordance with ASTM E96. Vapor barrier component no less than 15 mils thick in accordance with ACI 302, 1R-96. Products: Stego Wrap Vapor Barrier (15 mils) by Stego Industries or Zero-Perm by Alumiseal.

2.07 NON-SHRINK GROUT

A. Shall be pre-mixed non-shrinking, high strength grout. Compressive strength in 28 days shall be 7000 psi minimum, but in no case less than the specified strength of the base concrete. Manufacturer shall provide that the material meets the criteria of ASTM C1107. Grout permanently exposed to view shall be non-oxidizing. Metallic grout may be used in other locations.

1. Manufacturers:
    a. Hanson Concrete Products. - SUPREME
    b. Master Builders Co. - EMBECO

2.08 EPOXY (For patching and bonding)

A. Shall be a two-component epoxy resin system:

1. Manufacturers:
    a. Sika Chemical Corp. - SIKASTIX
    b. Euclid Chemical Co. - EUCO EPOXY
    c. Sonneborn-Contech - SONOBOND

2.09 ANCHORING CEMENT (For grouting anchor bolts and dowels)

A. Shall be POR-ROK as manufactured by Lehn and Fink Industrial Products, Montvale, New Jersey.

PART 3– EXECUTION

3.01 PRODUCTION OF CONCRETE

A. Concrete shall not be mixed for placing in the work until the mix designs and corresponding strength tests reflect that each proposed mix will develop the strengths required, nor before the mix design for each class of concrete has been approved by the Architect for use on the project.

B. Admixtures: Add to each concrete mixture shown on Drawings to require admixture a cement-dispersing agent which shall conform to the requirements of the Specifications. Depending upon the weather conditions at the time the concrete is placed, the cement-dispersing agent shall be supplemented by a set-accelerating agent to improve the control of the setting and, in the case of hot-weather concreting, to minimizing surface checking. Such admixtures shall be introduced in quantities and according to methods recommended by the manufacturers of the materials approved for use. The slump limits shown on the drawings shall apply AFTER the inclusion of the admixture. An air-entraining agent shall be added to the mix where called for on the drawings in sufficient quantity to assure controlled entrainment at the percentages shown on the drawings.

C. Mixing: Transit-mixed concrete shall conform to the requirements of A.S.T.M. C94.

D. Concrete shall be discharged from truck within the maximum time limits shown. Lower discharge time limits may be required for specific concrete mixes or actual slumps and temperatures of concrete at the site. Time shall be measured from the introduction of water to the cement and aggregates.

Concrete temperature	Maximum discharge time
Less than 85 degrees	90 minutes
Between 85 and 89 degrees	75 minutes
Between 90 and 95 degrees	60 minutes

E. The agency supply transit-mixed concrete shall have a plant of sufficient capacity, and adequate transportation facilities, to assure continuous delivery at the rate required. The frequency of deliveries to the site of the work must be such as to provide for placing the concrete continuously throughout any one (1) pour.

3.02 PLACING CONCRETE

A. Preparation:

1. Equipment for chuting, pumping, and pneumatically conveying concrete shall be of such size and design as to assure a practically continuous flow of concrete at the delivery end without separation of the materials and all of the details thereof shall be submitted to the Architect for approval in advance of the use of such equipment. The use of gravity-flow or aluminum chutes or conveyors for transporting concrete horizontally will not be permitted.
2. Inserts: Give the various trades and subcontractors ample notification and opportunity to install any and all anchors nailers, pipes, conduits, boxes, inserts, thimbles, sleeves, frames, vents, wires, supports, or other items required to be built into concrete by the provisions of the Drawings or of the

Specifications governing the work of such trades and subcontractors, or as may be necessary for the proper execution of their work. Obtain suitable templates or instructions for the installation of such items as are not required to be actually placed in the forms by the affected trades or subcontractors themselves.

3. Contractors shall provide access for delivery and provide sufficient equipment and manpower to rapidly place all concrete.
    a. All work shall be in accordance with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete".
    b. Formwork shall have been completed; snow, ice, water and debris removed from within forms.
    c. Expansion joint material, anchors and all embedded items shall have been positioned.
4. Thoroughly wet all forms and contact surfaces before pouring concrete.

B. Conveying Concrete: Convey concrete from the mixer to the place of final deposit by methods which will prevent the separation or loss of the ingredients. Concrete to be conveyed by pumping will require approval of the Architect for each class of concrete specified before being used.

C. Depositing Concrete:

1. General: Place concrete in reasonably uniform layers, approximately horizontal, and not more that twelve inches (12") deep, exercising care to avoid vertical joints or inclined planes. The piling up of concrete in the forms, in such a manner as to cause the separation or loss of any of its ingredients, will not be permitted. Concrete which has partially set or hardened shall not, under any circumstances be deposited in the work. Place concrete in the forms as nearly in its final position as is practical to avoid rehandling. Exercise special care to prevent splashing the forms or reinforcement with concrete. Remove any hardened or partially hardened concrete which has accumulated on the forms or reinforcement before the work proceeds. Do not place concrete on previously deposited concrete which has hardened sufficiently to cause formation of seams or planes of weakness within the respective member or section, except as hereinafter specified. Do not permit concrete to drop freely any distance greater than three feet (3'). Where longer drops are necessary, use a chute, tremie, or other approved conveyance to assist the concrete into place without separation. Do not pour directly into any excavations where water is standing. If the place of deposit cannot be successfully pumped dry, pour through a tremie with its outlet end near the bottom of the place of deposit.
2. Slump: Concrete shall not be placed when its plasticity, as measured by slump tests, is outside the limits shown on the Drawings and as specified herein.
3. Classes of Concrete and Usage: Concrete of the several classes of concrete required shall have the characteristics shown on the Drawings and as specified herein.
4. Vibration: As soon as concrete is deposited, thoroughly agitate the same by means of mechanical vibrators and suitable hand tools, so manipulated as to work the mixture will into all parts and corners of the forms, and entirely around the reinforcement of inserts. Mechanical vibrators shall have a minimum frequency of 7000 revolutions per minute and shall be operated by competent workmen. Overvibrating and use of vibrators to transport concrete within forms shall not be allowed. Vibrators shall be inserted and withdrawn as many points, from 18 to 30 inches apart. At each insertion, the duration shall be sufficient to consolidate the concrete but not sufficient to cause segregation, generally from 50 to 15 seconds duration. A spare vibrator shall be kept on the job site during all concrete placing operations. Do not insert vibrator into lower courses that have begun to set.
5. Bonding: Before depositing any new concrete on or against previously deposited concrete which has partially or entirely set, the surfaces of the latter shall be thoroughly roughened and cleaned of all foreign matter, scum, laitance. The forms shall be retightened and the surface of the previously deposited concrete shall be coated with specified bonding agent per manufacturer's directions; or shall be slushed with grout, of materials and mix identical to those of the concrete to be placed, except the coarse aggregate shall be omitted. From one inch (1") to two inches (2") of grout shall be applied, as directed by the Architect, depending upon the conditions of the respective case. The new concrete shall be deposited before the grout attains its initial set, and the work shall be

performed in such a manner as to assure complete bonding of the newly poured concrete to that previously placed.

6. Construction Joints: Except as otherwise specifically indicated on the Drawings each pier, beam, and slab shall be considered as a single unit of operation, and all concrete for the same shall be placed continuously in order that such unit will be monolithic in construction. Should construction joints prove to be absolutely unavoidable, the same shall be located at or near the midpoints of spans. Additional construction joints shall not be made under any circumstances without the written approval of the Architect.

D. Weather Conditions:

1. Cold Weather: Temperature of concrete delivered at the job site shall conform to the following minimum:

a. Air Temperature	Concrete Temperature
30°to 45° F.	55° F. to 90° F.
0° to 30° F.	60° F. to 90°F.
Below 0° F.	65° F. to 90° F.

   b. Water heated to above 100° F. shall be combined with the aggregates before cement is added. Cement shall not be added to water or aggregates having a temperature greater than 100° F.
   c. All work shall be in accordance with ACI 306 "Recommended Practice for Cold Weather Concreting".
   d. When the outdoor temperature is less that 40° F. temperature of the concrete shall be maintained at not less than 50° F. for the required curing time.
      1) Arrangement shall be made before placement to maintain required temperature without injury from excessive heat.
      2) Combustion heaters shall not be used during the first 48 hours without precautions to prevent exposure of concrete and workmen to exhaust gases containing carbon dioxide and carbon monoxide.
2. Hot Weather: Temperature of concrete delivered at the job site shall not exceed 95^{o} F. Ingredients shall be cooled before mixing to prevent concrete temperature in excess of 95^{o} F.
   a. All work shall be in accordance with ACI 305 "Recommended Practice for Hot Weather Concreting".
   b. Provisions shall be made for windbreaks, shading, fog spraying, sprinkling or wet cover when necessary.
   c. Use an evaporation retarder, finishing aid, "Confilm" Master Builders.

3.03 DECK AND BEAM DEFLECTIONS

A. Composite deck and steel beam will deflect during concrete placement. Provide additional concrete as required to obtain finished floor elevations within specified tolerances. No adjustments will be made in the concrete price for additional concrete due to deck deflection, beam deflections, or differential camber.

3.04 Vehicular Traffic Topping

A. Concrete that is substrate to the coating system should have a finish equal to light steel troweling followed by a fine hair broom.

B. An appropriate wet curing procedure should be used on the concrete.

C. Control joints in the concrete, if required, should be in accordance with pertinent ACI and PCA standards.

D. Drain flanges at coating level should be integrally cast into, and be flush with, concrete deck surfaces that slope to drain.

3.05 APPLICATION OF FLOOR HARDENER

A. Apply liquid floor hardener on all concrete floor surfaces specified to receive a monolithic finish that are not scheduled to receive further floor finishing materials. Apply hardener specified at a rate of ,one (1) gallon per one hundred (100) square feet of floor area for three (3) applications and under the supervision of the floor hardener manufacturer's representative.

3.06 INSTALLATION OF NON-SHRINK GROUT (Under Base Plates)

A. Preparatory Work: Clean slab or foundation with liberal amounts of water. Remove all oil, grease and paint from areas of base plates or foundations to be grouted. Roughen slab and remove all waste materials, dirt, chips, oil and excess water from anchor bolts, slab or foundation. Have all necessary tools and materials as near area to be grouted as possible to permit rapid and continuous work with grout. Anchor all forms securely to prevent movement during placing or curing. Adequate clearance must be allowed between forms and base plates.

B. Mixing: A mechanical mixer should be used. Add only enough water to make placeable. Avoid an excess of water. Do not mix more grout than can be placed within 20 minutes. Under no circumstances should grout be retempered.

C. Grout Temperatures: Grout temperatures should be maintained at 50o - 90o F. (10 - 32 C.) When conditions dictate, these temperatures can be achieved by the use of cool mixing water or heated mixing water. Care should be exercised so that extremes of hot or cold are not used.

D. Placing: As grouting procedure begins placement and compaction should be continuous until completed. Lengths of chain (up to 1" link) placed in forms before placing grout will assist in compacting the grout and eliminating sir pockets. Chains or straps should be worked in quick short strokes and removed before initial set occurs. Grout should be placed from one end or side only to avoid excessive air entrapment and assure good compaction. Wherever possible, grout bolt holes first. Do not overwork grout as this causes segregation, bleeding and breakdown of initial set. If machines or equipment are being used nearby, consider shutting them down until grout takes final set.

3.07 PLACING VAPOR BARRIER UNDER SLAB

A. Provide vapor barrier as specified under all slabs on grade. Install vapor barrier in accordance with ASTM E 1643, "Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs", and in accordance with the following. Start membrane under perimeter grade beam and over subgrade. All joints and seams, both lateral and butt, shall be overlapped 6 inches and taped using vapor barrier manufacturer’s recommended tape system. All penetrations must be sealed using specified vapor barrier and tape. Any damaged area after installation of vapor barrier shall be repaired using manufacturer’s product and tape. Cover any damage by a minimum overlap of 6 inches in all directions and tape carefully around entire perimeter of repair. Electrical conduit shall be placed above membrane and encased in concrete unless otherwise noted on the drawings.

3.08 FINISHING CONCRETE SLAB SURFACES

A. General: Concrete slabs shall be finished as hereinafter described. The dusting of wearing surfaces with dry materials will not be permitted.

1. Finish Tolerances by F-Number System: All random traffic floor surfaces shall be tested by the Owner's Testing Laboratory in accordance with ASTM E1155 within 72 hours of completing the slab

and prior to removing shores. FL levelness tolerance shall not apply to slabs placed on unshored form surfaces or to cambered or inclined/sloped surfaces.

a. The flatness, levelness and grade tolerance testing shall be based on the following factors:
   1) Flatness F-Number: - FF (25) Overall
   2) Minimum Local Value - FF (16)
   3) Levelness F-Number: - FL (15) Overall
   4) Minimum Local Value - FL (10)
   5) Grade Tolerance: +/- 3/4" from specified elevation.

2. Finish Tolerances by the Straightedge System: The flatness of the floors shall be carefully controlled and the tolerances shall be measured by the straightedge system as specified in paragraph 4.5.7 of ACI 117/117R, using a 10 foot straightedge, within 72 hours after floor slab installation and before shores and/or forms are removed. The listed tolerances shall be met at any and every location at which the straightedge can be placed.
   a. Trowel Finish: 1/4"
   b. Float Finish: 1/2"
   c. Broom Finish: 1/2"
   d. Grade Tolerance: +/- 3/4" from specified elevation.
3. Surfaces that do not comply within the deviation tolerances shall be corrected. Failure to conduct measurements of the required surface tolerances within seventy-two (72) hours or prior to stripping of forms, whichever is sooner, shall constitute the Contractor's acceptance of the "as built" surface.
4. The Owner shall have the option of retaining a portion of the per square foot cost of slab installation for those areas that are not in compliance, or of requiring the slabs to be removed and reinstalled, based on percentage compliance with specified limits. In preparation for finishing, slab shall be struck off true by double screeding to the required level at or below the elevation or grade of the finished slabs as indicated on the Drawings.

B. Trowel Finish:

1. Locations: All concrete surfaces under -
   a. Thin set tile
   b. Carpets
   c. Resilient floor tile
   d. Exposed concrete
2. Method of Finishing: Concrete slabs shall be finished by tamping the concrete with special tools to force the coarse aggregate away from the surface, and then screeding and floating with straightedges to bring the surface to the required finish level. While the concrete is still green but sufficiently hardened to bear a man's weight without deep imprint, it shall be wood-floated to a true plane with no coarse aggregate visible. Sufficient pressure shall be sued on the wood float to bring moisture to the surface. The concrete shall be hand troweled to produce a smooth impervious surface for the purpose of burnishing. The final troweling shall produce a ringing sound from the trowel. Should this condition not be obtained in the original finish, high spots shall be ground down and low spots filled with material specified in 2.05-B.

C. Wood Float Finish:

1. Locations: All concrete surfaces under mud set tile.
2. Method of Finishing: Concrete slabs shall be finished by tamping the concrete with special tools to force the coarse aggregate away from the surface, and then screeding and floating with straightedges to bring the surface to the required finish level shown on the Drawings. While the concrete is still green but sufficiently hardened to bear a man's weight without deep imprint it shall be wood-floated to a true plane with no coarse aggregate visible. Sufficient pressure shall be used on the wood float to bring the moisture to the surface. Prior to initial set, concrete surfaces shall again be wood-floated to a tight float finish with a texture as approved by the Architect.

D. Broom Finish:

1. Locations: Structural slab exterior entrances at doors and receiving platforms.
2. Method of finishing: Concrete slabs shall be finished by tamping the concrete with special tools to force coarse aggregate away from the surface and then screeding and floating with straightedges to bring the surface to the required finish level shown on the Drawings. As soon as the surface of the concrete is sufficiently hardened to bear a man's weight without deep imprint, it shall be wood-floated to a true plane with no coarse aggregate visible. Ramp surfaces shall then be cross jointed with a three fourths inch (3/4") diameter jointing tool for the entire width of the ramps. Space cross joints at six (6) inch intervals. Concrete shall then be hand troweled to produce a smooth surface. After troweling, the concrete surfaces shall be brushed with a stiff fiber brush to produce uniformly striated surfaces parallel with cross jointing. Again cross joint in previous grooves formed to clearly define these indentations.

E. Power Machine Finishing: In place of hand finishing, the Contractor may use a power machine approved by the Architect for finishing the concrete surfaces . However, the preparation of concrete surfaces for finishing by machine shall be, in general, as required for hand finishing.

3.09 FINISHING EXPOSED CONCRETE SURFACES

A. General: It is the intent of the Specifications to provide for exposed concrete surfaces of such quality as to require a minimum of pointing. Such care shall be exercised in the forming, missing and placing of the concrete as to assure reasonable uniform dense surfaces, free from blemishes or defects. However, in the event of unsightly voids, honeycombs, etc., they shall be repaired as soon as possible. Loose particles shall be removed from honeycombed spots, and fins and other projections shall be neatly dressed off. Holes shall be drenched with clean water and properly patched with Portland Cement and sand mortar of color and texture to match surrounding concrete.

B. Rubbed Finish: A rubbed finish shall be given to exposed poured-in-place structural concrete surfaces as shown on the Drawings. Rubbed finish shall consist of thoroughly wetting and then brush-coating the surfaces with cement grout composed of one part light colored Portland Cement and two parts fine aggregate mixed with water to the consistency of thick paint. Grout shall be cork, or wood-floated to fill all pits, air bubbles, and surface holes. Excess grout shall be scraped off with a trowel and the surface rubbed with burlap to remove any visible grout film. In hot, dry weather the grout shall be kept damp by a means of fog spray during the setting period. The finish for any area shall be completed the same day and the limits of a finished area shall be made at natural breaks in the surface.

C. Sandblast Finish: A light and medium sandblast, at locations shown on the Drawings, shall be given to all architecturally exposed concrete surfaces. After forms are removed, remove all fins and form marks by rubbing with a carborundum stone. Apply sandblast to remove surface cement matrix and expose aggregate. Degree of exposure, timing, abrasive material, and use of retarders shall be approved by the Architect based on reference samples. Abraded mortar shall be continually washed away from previously sandblasted areas to prevent staining. Finished surfaces shall be clean and uniform. When further curing is required, curing compound shall be applied after finishing. Use wet sandblasting techniques where required by code.

3.10 FILLING TIE ROD AND BOLT HOLES

A. Holes resulting from the removal of bolts or tie rods shall be solidly filled with cement grout. Holes passing entirely through concrete members shall be filled from the inside face, with a plunger-type grease gun or other device that will force the mortar through to the outside face, holding a canvas sack at the exterior surface to assure complete filling. Holes which do not pass entirely through shall be filled, using tools which will permit the opening to be packed thoroughly full. All excess mortar at the faces of filled holes shall be struck off flush, with a canvas sack.

3.11 CURING AND PROTECTION

A. Protect all freshly placed concrete from washing by rain, flowing water, etc. Do not allow the concrete to dry out from the time it is deposited in the forms until the expiration of the curing period hereinafter specified. The methods of curing shall be as specified in the following paragraphs, unless otherwise authorized by the Architects.

B. Concrete surfaces, not otherwise specified, shall be cured by being kept wet with clean water for a period of not less than seven (7) days after placing. Each day the forms are left in place, and kept wet enough to prevent the opening of joints in the forms and the drying out of the concrete, will be counted as one (1) day of curing.

C. Floors and other similar flat finished surfaces shall be cured by covering the entire surface, as soon as practical after finishing, with waterproof paper, laid with four inch (4") lapped joints. The joints shall be covered with gummed tape or be glued with waterproof glue. Such covering shall remain in place until completion of the building, except on surfaces where ceramic tile is to be applied, in which cases the covering shall be removed before a period of at least seven (7) days has elapsed after the placing and finishing of the concrete.

D. In lieu of the wetting or the waterproof paper specified above, the Contractor may use the specified liquid curing compounds at locations identified as appropriate for use. Curing liquids, if used, shall be applied in accordance with manufacturer's written instructions and recommendations. The use of such material shall not relieve the Contractor of the responsibility of protecting all floor slabs, platforms, and steps whenever any scaffolding, shoring, form work, masonry, concrete or other work is being done over or above finished concrete slabs. Patches in architectural surfaces shall be cured for seven (7) days. Patches shall be protected from premature drying to the same extent as the mass of the concrete.

3.12 IMPERFECT OR DAMAGED WORK

A. Any material damaged or determined to be defective before final completion and acceptance of the entire job, shall be satisfactorily replaced at the Contractor's expense, and in conformity with all of the requirements of the drawings and Specifications. Removal and replacement of concrete work shall be done in such a manner as not to impair the appearance or strength of the structure in any way.

3.13 CLEANING

A. Upon completion of the work, all forms, equipment, protective coverings and any rubbish resulting therefrom shall be removed from the premises. Finished concrete surfaces shall be left in a clean and perfect condition, satisfactory to the Owner. After sweeping with an ordinary broom and removing all mortar, concrete droppings, loose dirt, mud, etc., wash all concrete floors and platforms with soap suds and scrub with a stiff fiber brush. Mop us the suds and flush the surfaces with clean water. Provide adequate measures during scrubbing, mopping, and flushing operations to keep excessive or injurious amounts of water off resilient tile floors. Any damage occasioned to such floors by or on account of such operations shall be promptly, effectively and satisfactorily repaired.

END OF SECTION 03300

SECTION 05120 - STRUCTURAL STEEL

PART 1– GENERAL

1.01 WORK INCLUDED

A. All labor, materials, services, equipment and appliances required in conjunction with or properly incidental to the furnishing, fabrication, delivery, and erection of structural steel complete, including, but not limited to, the following:

1. Structural steel columns, girders, beams, angles, rigid frames, trusses, shelf angles, angle frames for openings in floors and roofs, steel supports for equipment, plates, miscellaneous deck support angles, shop welded shear studs, connections and component parts.
2. Qualification of welders.
3. Shop prime coat of paint and field touch-up painting.
4. Temporary construction bracing.

B. The extent of structural steel work is shown on the Drawings, including schedules, notes and details to show sizes and locations of members, typical connections and types of steel required.

C. Include all supplementary parts and members necessary to complete the structural steel work, regardless of whether all such parts are definitely shown or specified, and furnish all such bolts, gussets, plates, etc. as may be required for the proper assembly of all items. Include miscellaneous deck support angles as required for the proper support of metal floor deck around columns, gussets, openings, and obstructions.

1.02 TESTING LABORATORY SERVICES

A. An independent testing laboratory shall be employed and paid by the Owner for inspection of structural. Refer to Section 01410. Inspection by the Owner’s laboratory shall not relieve the Contractor of responsibility for quality control.

B. The Contractor shall allow for a minimum of 2 days notice to be given the Laboratory for inspection of the work.

1.03 QUALITY ASSURANCE

A. Codes and Standards: Comply with provisions of following, except as otherwise indicated

1. AISC "Code of Standard Practice for Steel Buildings and Bridges”, March 7, 2000, except paragraph 4.4 shall be modified to delete “These drawings shall be returned to the Fabricator within 14 calendar days.”
2. AISC "Specifications for Structural Joints using ASTM A325 or A490 Bolts" approved by the Research Council on Riveted and Bolted Structural Joints of the Engineering Foundation.
3. AWS D1.1 "Structural Welding Code"
4. Industrial Fasteners Institute "Handbook on Bolt, Nut, and Rivet Standards."
5. Steel structure Painting Council:
    a. Painting Manual, Volume 1, Good Painting Practice.
    b. Painting Manual, Volume 2, Systems Specifications.
6. Research Council on Riveted and Bolted Structural Joints: "Specifications for Structural Joints using ASTM A325 Bolts."
7. ANSI B18.2.1 and B18.2.2 - Square and Hex Bolts.
8. ANSI B23.1- Plain Washers
9. ASTM A36 - Structural Steel
10. ASTM A53 - Welded and Seamless Steel Pipe.
11. ASTM A123 - Zinc Coatings on Iron and Steel Products

12. ASTM A153 - Zinc Coating on Iron and Steel Hardware
13. ASTM A307- Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength
14. ASTM A325 - High Strength Bolts for Structural Steel Joints
15. ASTM A435 - Straight Beam Ultrasonic Examination of Steel Plates
16. ASTM A500 - Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Round and Shapes.
17. ASTM A572 - High-strength, Low-alloy Columbium-Vanadium Steels of Structural Quality
18. ASTM A591 - Steel Sheet, Cold Rolled, Electrolytic Zinc Coated.
19. ASTM A992 – Standard Specification for Structural Steel Shapes
20. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105 ksi Yield Strength
21. ASTM F1850 - Standard Specification for "Twist Off" Type Tension Control Structural Bolt/Nut/Washer Assemblies, Heat Treated, 120/105 ksi Minimum Tensile Strength.
22. FS TT-P-31 - Paint, Oil: Iron Oxide, Ready Mixed, Red.
23. Research Council on Riveted and Bolted Structural Joints using ASTM A325 Bolts.
24. OSHA Steel Erection Standards.

B. Qualifications:

1. Structural steel fabricator shall have not less than ten years experience in the fabrication of structural steel for buildings and shall be currently certified to the AISC Standard for Steel Building Structures STD category under the AISC Quality Certification Program.
2. Structural steel erection: Not less than five (5) years experience in the erection of structural steel for buildings and currently certified under the AISC Quality Certification Program as a Certified Steel Erector, CSE ((or as an Advanced Certified Steel Erector, ACSE.))
3. Welders must be qualified to perform all procedures and positions encountered per AWS certification standards.

C. Design:

1. Connections: Connections not specifically detailed on the Drawings shall be designed by the Contractor, under the direct supervision of a registered professional engineer, to resist forces shown on the structural drawings and as required by the building code. Connections shall be designed and detailed in accordance with the requirements shown on the drawings and in the specifications. Indicate all forces, in detail, on shop drawings. Moment connections shall have full penetration welds to develop the full strength of the beam. Use design values for high strength bearing type bolts with thread allowed across the shear plane.
2. Substitutions: Submit substitutions of sections or modifications of details, or both, the reasons for the substitution, and monetary and/or time credit to the Owner for review and acceptance prior to submittal of shop drawings. Submitted substitutions must be clearly identified and noted as modifications. Necessary changes in related portions of the work by the fabricator, other subcontractors, and contractor shall be accomplished at no additional cost to the Owner.
3. Responsibility for errors: The Fabricator shall be responsible for all errors of detailing, fabrications, and for the correct fitting of structural steel members.

D. Templates: Furnished by the Fabricator with instructions for the setting of anchor bolts and bearing plates.

E. Mill inspection of plates: Examine all plates 5/8" and greater in thickness in the mill by the manufacturer with ultrasonic examination conforming to ASTM A435, latest edition. Steel plates shall be free of gross internal discontinuities such as ruptures or lamination. Submit mill test results with the steel plates delivered for use on this project indicating compliance with this requirement.

1.04 SUBMITTALS

A. Product Data: Submit for the Architect's files producer's or manufacturer's Specifications and installation instructions for the following products. Include laboratory test reports and other data to show compliance with Specifications, (including specified standards).

1. Structural steel (each type), including certified copies of mill reports covering chemical and physical properties.
2. High strength bolts (each type), including nuts and washers.
3. Structural steel primer paint.

B. Shop Drawings:

1. Submit Shop Drawings including design calculations of a registered professional engineer, and including complete details and schedules for fabrication and shop assembly of members, and details, schedules, procedures, and diagrams showing sequence of erection.
2. Submit two (2) blue line prints as required by Section 01340 of each detailed Shop and Installation Drawing including design calculations, sealed by a registered professional engineer licensed in the state of the project, for all connections of the structural steel designed by the Contractor. Design calculations will be utilized by the Architect/Engineer during shop drawing review and will be retained as records for the Architect/Engineer's file. Architect/Engineer's review shall cover general locations, spacings, and details of design. Omission from shop drawings of any materials required by the Contract Documents shall not relieve the Contractor of the responsibility of furnishing and installing such materials, even though such Shop Drawings may have been returned and reviewed.
3. Include details of cuts, connections, camber, holes, and other pertinent data. Indicate welds by standard AWS symbols, and show size, length, and type of each weld.
4. Provide setting drawings, templates and directions for installation of anchor bolts and other anchorages to be installed by other trades.

C. Certification:

1. Where the fabricator is currently certified, under the AISC Quality Certification Program, for fabrication of ((Conventional Steel Building Structures (SBD) or Complex Steel Building Structures (CBD))) and shop inspections have not been provided by the Owner's testing laboratory, submit a certificate of compliance to the Building Official and Design Team stating that the work was performed in accordance with the construction documents.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver anchor bolts and anchorage devices, which are to be embedded in cast-in-place concrete or masonry, in ample time to not delay that work.

B. Store materials to permit easy access for inspection and identification. Keep steel members off the ground, using pallets, platforms, or other supports. Protect steel members and packaged materials from erosion and deterioration.

C. Do not store materials on structure in a manner that might cause distortion or damage to members or supporting structures. Repair or replace damaged materials or structures as directed.

1.06 JOB CONDITIONS

A. Coordinate erection of structural steel with work of other trades.

B. Do not install columns which have anchor bolts in concrete, until concrete members have attained their twenty-eight (28) day compressive strengths.

PART 2– PRODUCTS

2.01 MATERIALS

A. Metal Surfaces, General: For fabrication of work which will be exposed to view, use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names, and roughness. Remove blemishes by grinding, or by welding and grinding, prior to cleanings, treating and applications of surface finishes.

B. Steel:

1. Structural steel shapes, plates, bars, pipes, and tubes: As indicated on Drawings.
2. For ASTM A6 Groups 4 and 5 rolled shapes, spliced or otherwise connected by full penetration welds, provide materials with Charpy V-Notch testing, in accordance with ASTM A6, Supplementary Requirement S5. The impact test shall meet a minimum average value of 20 foot-pounds absorbed energy at 70 degrees Fahrenheit and shall be conducted in accordance with ASTM A673 and the AISC Specifications for Structural Steel Buildings.

C. Bolts and Washers:

1. Anchor rods (anchor bolts): Conform to ASTM F1554 with supplement S1, Grade as indicated on Drawings. Nuts shall conform to ANSI Standard B18.2.1 and B18.2.2.
2. Erection bolts: Conform to ASTM A307 and to the requirements for regular hexagon bolts and nuts of ANSI Standard B18.2.1 and B18.2.2.
3. High strength bolts for connections: Conform to ASTM A325. Dimensions of bolt heads or nuts shall conform to requirements for heavy hexagon nuts of ANSI Standard B18.2.2
4. Standard Washers: Flat and smooth, conforming to requirements of Type A in ANSI Standard B 23.1 . Beveled washers for -S' shapes and channels shall be squire or rectangular, taper in thickness, and be smooth. Provide hardened steel washers for use with high strength bolts.
5. At Contractor option, direct tension indicating washers for high strength bolts may be used on all connections except anchor and erection bolts. Use Load Indicator Washers as manufactured by the Bethlehem Steel Corp., or approved equal.
6. Tension control bolts may, at the Contractor's option, be used in lieu of standard high strength bolts and load indicating washers. Bolts shall comply with ASTM F1852. Bolts as made by the LeJeune Bolt Company, or approved equal.
7. Drilled Anchor Bolts: "Kwik Bolts II" bolts as made by Hilti, or approved equal, with size and embedment per Drawings.

D. Welding Electrodes: Conform to the Specifications of the American Welding Society. Use E70 electrodes for ASTM A 36 Steel. For high-strength, low alloy steel, use electrodes, rods, and filler metals equal in strength and compatible in appearance to parent metals being joined.

E. Shear studs: With proper ferrules and accessories, especially designed to create composite deck action between the concrete deck and the supporting beam. Steel for studs shall conform to the requirements of the "Specifications for Steel Bars, Carbon, Cold Finished Standard Quality," ASTM A 108, Grades 1015-1020, with a minimum tensile strength of 60,000 psi. Studs shall be of uniform diameter, heads shall be concentric and normal to shaft, and the weld end shall be chamfered, welds shall be solid flux.

F. Deformed Bar Anchors: ASTM A-108 cold worked steel wire per ASTM A-496 with minimum yield strength of 70,000 psi welded to steel as shown on the drawings. Anchors shall be flux filled deformed bar anchors by Nelson Stud Division of TRW. All welding shall be in accordance with the manufacturer’s recommendations.

G. Primer Paint for steel in conditioned spaces: FS TT-P-31, red oxide, 3 mils DFT.

H. Primer Paint for steel in unconditioned interior spaces: “Series 394 Perimeprime”, gray, 3.5 mils dry film thickness, minimum.

I. Primer Paint for steel in crawl spaces: Tnemec "Series 135 Chembuild", gray.

J. Zinc-Coating: Provide on items exposed to the elements and on masonry shelf angles, conforming to ASTM Specification A 123. Zinc-coating for threaded products shall conform to ASTM Specification A 153, Class C. Zinc-coating for sheet steel shall conform to ASTM Specification A 591.

K. Cold galvanizing compound (touch-up): ZRC Cold galvanizing compound as manufactured by ZRC Chemical Products, Quincy, Massachusetts, or approved equal.

L. Slide Bearings: Reinforced teflon, factory prebonded to steel plates with initial static coefficient of friction not exceeding 0.06 at the interface, over a working stress range of 500 psi to 2000 psi. Bearing shall be one of the following:

1. “Fluorgold” slide bearings, as manufactured by Fluorocarbon Company, Pine Brook, New Jersey.
2. “Con-Slide” slide bearings, as manufactured by Con-Serv, Inc., East Hampton, New Jersey.

2.02 FABRICATION

A. Shop Fabrication and Assembly:

1. Fabricate and assemble structural assemblies in the shop to greatest extent possible. Fabricate items of structural steel in accordance with AISC Specifications and as indicated of final Shop Drawings. Provide camber in structural members where indicated. Specified camber shall be within a tolerance of minus zero (0) to plus one-half (1/2) inch for members up to 50 feet long, and an additional one-eighth (1/8) inch for each ten (10) feet of length over 50 feet.
2. Properly mark and match-mark materials for field assembly. Fabricate for delivery sequence which will expedite erection and minimize field handling of materials.
3. Where finishing is required, complete assembly including welding of units, before start of finishing operations. Provide finish surfaces of members exposed in final structure free of makings, burrs, and other defects.
4. Splicing of structural steel members is prohibited without prior approval of the Architect. Any member having a splice not shown and detailed on approved Shop Drawings shall be rejected.
5. Members in compression joints which depend on contact bearing shall have the bearing surfaced milled to a common plane. Members to be milled shall be completely assembled before milling.
6. Plates shall be free of gross internal discontinuities such as ruptures and delaminations.

B. Connections:

1. Weld or bolt shop connections, as indicated.
2. Comply with OSHA steel erection standards.
3. Bolt field connections, except where welded connections are indicated. Provide specified threaded fasteners for all principle bolted connections. Holes for bolted constructions shall be drilled or punched at right angles to the member. The slope of surfaces under the bolt head and nut shall not exceed 1:20. Provide beveled washers where slopes exceed 1:20. Bolt holes shall have a diameter not greater than one-sixteenth (1/16) inch larger than the nominal bolt diameter. Do not flame cut holes or enlarge by burning.
4. High strength bolted connections: Install in accordance with AISC "Specifications for Structural Joints using ASTM A 325 Bolts" (RCRBSJ).
5. Welded construction: Comply with AWS Code for procedures, appearance and quality of welds, and methods used in correcting welding work. Assemble and weld built-up sections by methods which will produce true alignment of axis without warp. Welds not specified shall be continuous fillet welds, using minimum fillet designed to develop the full strength of the member. No combination of bolts and welds shall be used for stress transmission at the same face of any connections.

a. ASTM A6 Group 4 and 5 shapes and built up sections containing plates thicker than 2 inches: Comply with all special requirements for welding heavy shapes contained in the AISC Specifications and in the AWS Structural Welding Code.

6. For high strength, low alloy steels, follow welding procedures as recommended by steel producer for exposed and concealed connections.
7. Base plates: Hole sizes for anchor bolts may be oversized to facilitate erection as follows:
   a. Bolts 3/4" through 1 ½" diameter – 13/16" oversize
   b. Bolts 1 5/8" through 1 3/4" diameter - 1" oversize
   c. Bolts over 1 3/4" diameter – 1 1/4" oversize
   d. Use oversize or plate washers under nut at all oversized holes in base plates. Washers must be large enough to cover the entire hole. Washer thickness shall be at least on-quarter of bolt diameter.

C. Shear Connectors: Prepare steel surfaces as recommended by manufacturer of shear connectors. Shop weld shear connectors, shaped as shown, to beams and girders in composite construction which do not support metal deck. use automatic end welding of head stud shear connectors in accordance with manufacturer's printed instructions.

1. Installation of Shear Connectors: Shear studs shall be automatically end welded in the shop, in accordance with Article 31 of the AWS Code and the Specifications of the shear stud manufacturer. After installation, each ceramic ferrule shall be removed prior to placement of concrete. Adequate welding power must be available for studs being welded.
2. All areas to which studs are to be attached hall be cleaned of all rust, oil, grease, and paint. When the mill scale is sufficiently thick to cause difficulty in obtaining proper welds, it shall be removed by grinding or sand-blasting.
3. Holes for Other Work: Provide holes required for securing other work to structural steel framing, and for passage of other work through steel framing members, as shown on final Shop Drawings. Provide threaded nuts welded to framing, and other specialty items as indicated to receive other work. Cut, drill, or punch holes perpendicular to metal surfaces. Do not flame cut holes or enlarge holes by burning. Drill holes in bearing plates.

2.03 SHOP PAINTING

A. General: Shop paint (with one coat of specified primer) structural steel, except those members or portions of members described below.

1. Paint embedded steel which is partially exposed on exposed portions and initial two (2) inches of embedded areas only.
2. Do not paint top face of beams which support composite metal floor deck.
3. Do not paint members exposed to the elements. These are to be hot-dipped galvanized as specified here-in.
4. Do not paint surfaces which are to be welded.
5. Do not paint faying surfaces of slip critical bolted connections.
6. Do not paint surfaces which are to receive sprayed-on fireproofing.

B. Surface Preparation for steel in conditioned spaces: After inspection and before shipping, clean steel-work to be painted. Remove loose rust, loose mill scale, and spatter, slag or flux deposits. Clean steel in accordance with Steel Structures Painting Council (SSPC) as follows:

1. SP-1 "Solvent Cleaning"
2. SP-2 "Hand Tool Cleaning"
3. SP-3 "Power Tool Cleaning"
4. SP-7 "Brush-off Blast Cleaning."

C. Surface Preparation for steel in crawl spaces:

1. SP-3 "Power Tool Cleaning"

D. Painting Steel in Conditioned Spaces; Immediately after surface preparation, apply structural steel primer paint in accordance with manufacturer's instructions and at a rate to provide a minimum uniform dry film thickness as specified. Use painting methods which result in full coverage of joints, corners, edges, and exposed surfaces.

1. Steel in Conditioned Spaces: Two and one half (2.5) mils
2. Steel in Crawl Spaces: Five (5) mils

PART 3– EXECUTION

3.01 INSPECTION

A. Examine areas and conditions under which structural steel work is to be installed, and notify Architect of conditions detrimental to proper and timely completion of work.

3.02 ERECTION

A. General: Comply with AISC Specifications and Code of Standard Practice, OSHA Steel Erection Standards, and as herein specified.

B. Temporary Shoring and Bracing:

1. Provide adequate shoring and bracing to safely withstand all loads to which the structure may be subjected during the construction process, including wind loads, dead loads, construction, material, and equipment loads. Such bracing shall remain in place as long as required for safety.
2. As the erection progresses make permanent welded or bolted connections sufficiently to withstand erection stresses and maintain stability.
3. The design of temporary shoring and bracing shall be the responsibility of the Contractor.

C. Temporary Planking; Provide temporary planking and working platforms as necessary to effectively complete the work.

D. Anchor Rods: Furnish anchor rods and other connectors required for securing structural steel to foundations and other in-place work. Furnish templates and other devices as necessary for presetting bolts and other anchors to accurate locations.

E. Setting Bases and Bearing Plates: Clean concrete and masonry bearing surfaces of bond-reducing materials and roughen to improve bond to surfaces. Clean bottom surface of base and bearing plates.

1. Set loose and attached base plates and bearing plates for structural members on wedges or other adjusting devices.
2. Tighten anchor bolts after supported members have been positioned and plumbed. Do not remove wedges or shims, but if protruding, cut off flush with edge or base or bearing plate prior to packing with grout.
3. Pack grout solidly between bearing surfaces and bases or plates to insure that no voids remain. Finish exposed surfaces, protect installed materials, and allow to cure. For proprietary grout materials, comply with manufacturer's instructions. Grout under base plates immediately after erecting the member and before additional load is placed on the member. Refer to Section 03600 for additional information.

F. Field Assembly:

1. Set structural frames accurately to lines and elevations indicated. Align and adjust various members forming a part of a complete frame or structure before permanently fastening. Clean bearing surfaces and other surfaces which will be in permanent contact before assembly. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.
2. Level and plumb individual members of structure within specified AISC tolerances.
3. Erection tolerances: Individual pieces shall be erected so that deviation from plumb, level, and alignment shall not exceed one (1) to five hundred (500).
4. Splice members only where indicated and accepted on final shop drawings.
5. Where parts cannot be assembled or fitted properly as a result of errors in fabrication or of deformation due to handling or transportation, report conditions immediately to the Architect along with proposed method of correction. The straightening of bends or warps shall be done by approved methods. Bent or damaged heat-treated parts will be rejected.
6. Fasten splices in compression members after abutting surfaces have been brought completely into contact.

G. Erection Bolts: On exposed welded construction, remove erection bolts, fill holes with plug welds and grind smooth at exposed surfaces. On non-exposed welded construction, tighten erection bolts securely and leave in place or if removed, fill holes with plug weld.

H. Bolted Connections:

1. High strength bolts shall be installed in conformance with the "Specification for Structural Joints using ASTM A325 or A490 Bolts."
2. A307 bolts shall be tightened using a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench, bringing the plies into snug contact.
3. High strength bolts shall be tightened to provide at least the minimum tension shown in Table 4 of the "Specification for Structural Joints using ASTM A325 or A490 Bolts." Verification of tightening shall be done by the turn-of-the-nut method, with direct tension indicators, or by properly calibrated wrenches.
4. Bolted parts shall fit solidly together when assembled. All join surfaces shall be free of burrs, dirt and other foreign material that would prevent solid seating of the parts.
5. bolts tightened by calibrated wrench or by torque control shall have a hardened washer under the element (nut or bolt head) turned in tightening.
6. Hardened washers shall be placed over slotted holes in an outer ply. Hardened beveled washers shall be used where the outer face of the bolted parts has a slope greater than 1:20 with respect to the bolt axis.

I. Welded construction:

1. Comply with AWS Code for procedures, appearance and quality of welds, and methods used in correcting welding work. Assemble and weld built-up sections by methods which will produce true alignment of axis without warp. Welds not specified shall be continuous fillet welds, using minimum fillet designed to develop the full strength of the member. No combination of bolts and welds shall be used for stress transmission at the same face of any connections.
2. ASTM A6 Group 4 and 5 shapes and built up sections containing plates thicker than 2 inches: Comply with all special requirements for welding heavy shapes contained in the AISC Specifications and in the AWS Structural Welding Code.

J. Comply with AISC Specifications for bearing, adequacy of temporary connections, alignment, and removal of paint on surfaces adjacent to field welds.

K. Do not enlarge holes in members by burning or by use of drift pins, except in secondary bracing members. Ream holes that must be enlarged to admit bolts.

L. Gas Cutting: Do not use gas cutting torches in field for correcting fabrication errors in structural framing. Cutting will be permitted only on secondary members which are not under stress, as acceptable to Architect. Finish gas-cut sections equal to a sheared appearance when permitted.

M. Touch-up Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint. Apply paint to exposed areas with same materials as used for shop painting. Apply by brush or spray to provide a minimum dry film of thickness of two and one-half (2.5) mils.

END OF SECTION 05120

TECHNICAL SPECIFICATIONS

ELECTRICAL

TECHNICAL SPECIFICATIONS

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ELECTRICAL

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TECHNICAL SPECIFICATIONS

SECTION E1 - ELECTRICAL GENERAL PROVISIONS

E1.01 GENERAL CONDITIONS

A. The General Conditions and Requirements, Special Provisions, are hereby made a part of this Section.

B. The Electrical Drawings and Specifications under this Section shall be made a part of the Contract Documents. The Drawings and Specifications of other sections of this contract, as well as supplements issued thereto, information to bidders and pertinent documents issued by the Owner's Representative are a part of these Drawings and Specifications and shall be complied with in every respect. All the above documents will be on file at the office of the Owner's representative and shall be examined by all the bidders. Failure to examine all documents shall not relieve the responsibility or be used as a basis for additional compensation.

C. Furnish all work, labor, tools, superintendence, material, equipment, and operations necessary to provide for a complete and workable electrical system as defined by the Contract Documents. A licensed journeyman shall be on site at all times while electrical work is being performed and a licensed master electrician shall be in charge of the work. Master electrician and all journeymen shall have their electrician license at all times on site.

D. Be responsible for visiting the site and checking the existing conditions. Ascertain the conditions to be met for installing the work and adjust bid accordingly. This project shall include electrical work as shown on the construction drawings.

E. It is the intent of the Contract Documents that upon completion of the electrical work, the entire system shall be in a finished, workable condition.

F. All work that may be called for in the Specifications but not shown on the Drawings, or, all work that may be shown on the Drawings but not called for in the Specifications, shall be performed by the Contractor as if described in both. Should work be required which is not set forth in either document, but which work is nevertheless required for fulfilling of the intent thereof, then the Contractor shall perform all work as fully as if it were specifically set forth in the Contract Documents. All SCADA work on HMI must be done in the presence of a City staff member or City designated representative.

G. The definition of terms used throughout the Contract Documents shall be as specified by the following agencies:

1) Underwriters Laboratories
2) National Electrical Manufacturers Association
3) American National Standards Institute
4) Insulated Power Cable Engineers Association
5) National Electrical Code
6) National Fire Protection Association

H. The use of the terms "as (or where) indicated", "as (or where) shown", "as (or where) specified", or "as (or where) scheduled" shall be taken to mean that the reference is made to the Contract Documents, either on the Drawings or in the Specifications, or both documents.

I. The use of the words "furnish", "provide", or "install" shall be taken to mean that the item or facility is to be both furnished and installed, unless stated to the contrary that the item or facility is to be either furnished under another Section or under another Contract, furnished under this Section and installed under another Section or under another Contract, or furnished and installed under another Section or under another Contract.

E1.02 PERMITS AND CODES

A. Secure all permits, licenses, and inspection as required by all authorities having jurisdiction. Give all notices and comply with all laws, ordinances, rules, regulations and contract requirements bearing on the work.

B. The minimum requirements of the electrical system installation shall conform to the latest edition of the National Electrical Code, as well as state and local codes.

C. Codes and ordinances having jurisdiction and specified codes shall serve as minimum requirements, but, if the Contract Documents indicate requirements which are in excess of those minimum requirements, then the requirements of the Contract Documents shall be followed. Should there be any conflicts between the Contract Documents and codes, or any ordinances, report these before bid.

E1.03 STANDARDS

A. All materials and equipment shall conform to the requirements of the Contract Documents. They shall be new, free from defects, and they shall conform to the following standards where these organizations have set standards:

1) Underwriters Laboratories (UL)

2) National Electrical Manufacturer's Association (NEMA)

3) American National Standards Association (ANSI)

4) Insulated Cable Engineers Association (ICEA)

B. All material and equipment of the same class shall be supplied by the same manufacturer, unless specified to the contrary.

C. All products shall bear UL labels where standards have been set for listing. All other products shall be UL labeled. Motor control centers, switchboards, and switchgear shall have UL labels. Custom panels, modified motor starters, control panels, and instrument panels and the like shall be manufactured by a fabricator approved as a UL508A shop and shall bear a UL 508A or UL Industrial Control Panel label.

D. When the Contractor provides a product for this project he shall be bound by the terms and conditions of the Contract Documents, and he shall agree to warrant and to be liable for the merchantability and fitness of his product to the applications to which his product is applied under the Contract Documents.

E1.04 CUTTING AND PATCHING

A. Cutting and patching required under this section shall be done in a neat workmanlike manner. Cutting lines shall be uniform and smooth.

B. Use concrete saws for large cuts in concrete and use core drills for small round cuts in concrete.

C. Where openings are cut through masonry walls, provide lintel or other structural support to protect the remaining masonry. Adequate support shall be provided during the cutting operation to prevent damage to masonry.

D. Where large openings are cut through metal surfaces, attach metal angle around the opening.

E. Patch concrete openings that are to be filled with non-shrinking cementing compound. Finish concrete patching shall be troweled smooth and shall be uniform with surrounding surfaces.

E1.05 WATERPROOFING

Provide waterproof flashing for each penetration of exterior walls and roofs.

E1.06 CONSTRUCTION REQUIREMENTS

A. Except where specifically noted or shown, the locations and elevations of equipment are approximate and are subject to small revisions as may prove necessary or desirable at the time the work is installed. Locations changed substantially from that shown on the drawings shall be confirmed with the Engineer in advance of construction.

B. Where equipment is being furnished under another Section, request from Engineer an accepted drawing that will show exact dimensions of required locations or connections. Install the required facilities to the exact requirements of the accepted drawings.

C. All work shall be done in the best and most workmanlike manner by qualified, careful electricians who are skilled in their trade. The standards of work required throughout shall be of the first class only.

D. Unless shown in detail, the Drawings are diagrammatic and do not necessarily give exact details as to elevations and routing of raceways, nor do they show all offsets and fittings; nevertheless, install the raceway system to conform to the structural and mechanical conditions of the construction.

E. Holes for raceway penetration into sheet metal cabinets and boxes shall be accurately made with an approved tool. Cutting openings with a torch or other device that produces a jagged, rough cut will not be acceptable.

F. Cabling inside equipment shall be carefully routed, trained and laced. Cables so placed that they obstruct equipment devices will not be acceptable.

G. Equipment shall be set level and plumb. Supporting devices installed shall be set and so braced that equipment is held in a rigid, tight-fitting manner.

E1.07 EQUIPMENT PROTECTION

A. Provide suitable protection for all equipment, work, and property against damage during construction.

B. Assume full responsibility for material and equipment stored at the site.

C. Conduit openings shall be closed with caps or plugs during installation and made watertight. All outlet boxes and cabinets shall be kept free of concrete, plaster, dirt, and debris.

D. Equipment shall be covered and tightly sealed against entrance of dust, dirt, and moisture.

E. All dry-type transformers prior to energization shall be protected against moisture and dirt absorption by a suitable covering. Also, maintain heat inside the covering by means of 100-watt minimum lamps.

F. Interiors of and motor control centers shall be kept clean and dry prior to energization. Maintain heat inside each unit with one (1) 100-watt lamp located at bottom of each vertical section or energize section space heaters.

E1.08 COOPERATION WITH WORK UNDER OTHER SECTIONS

A. Cooperate with all other trades so as to facilitate the general progress of their work. Allow all other trades every reasonable opportunity for the installation of their work and the storage of their materials.

B. The work under this section shall follow the general building construction closely. Set all pipe sleeves, inserts, etc., and see that openings for chases, pipes, etc.., are provided before concrete is placed or masonry installed.

C. Work with other trades in determining exact locations of outlets, conduits, fixtures, and pieces of equipment to avoid interference with lines as required to maintain proper installation of other work.

D. Make such progress in work that will not delay the work of other trades. Schedule the work so that completion dates as established by the Engineer are met. Furnish sufficient labor or work overtime to accomplish these requirements if directed to do so.

E1.10 INSTALLATION OF WORK UNDER ANOTHER SECTION

A. Verify the electrical capacities of all motors and electrical equipment furnished under other sections, or furnished by the Owner, and request wiring information from the Engineer if wiring requirements are different from that specified under this Section. Do not make rough-ins until equipment verification has been received.

B. Install all motors, controllers, terminal boxes, pilot devices, and miscellaneous items of electrical equipment that are not integrally mounted with the equipment furnished under other sections. All such equipment shall be securely mounted and adequately supported in a neat and workmanlike manner.

E1.11 CONTINUOUS SERVICE

A. During operation of the facility prior to shutdown of the facilities for construction, continuous service shall be maintained on all existing circuits and equipment affected by the work shown on the Contract Documents, except where the Owner will permit outage for a specific time. Obtain Owner's written permission before removing any circuit from continuous service. Where duration of proposed outage cannot be tolerated by the Owner, provide temporary connections or portable generators as required to maintain service.

B. If required, remove all existing electrical equipment and materials made obsolete by the work called for in the Plans and Specifications (including the Civil Drawings). All obsolete exposed conduit and wiring shall be removed back to the source or point of concealment. If removed back to point of concealment, the conduit shall be capped and identified with a permanent tag as to destination. Obsolete wiring shall be removed back to source. Obsolete Breakers in panel boards shall be marked as spares in directory and obsolete units in motor control centers shall be marked as spare with permanent engraved nameplates that match existing nameplates.

E1.12 CLEAN-UP

A. Remove all temporary labels, dirt, paint, grease and stains from all exposed equipment. Upon completion of work, clean equipment and the entire installation so as to present a first class job suitable for occupancy. No loose parts or scraps of equipment shall be left on the premises.

B. Equipment paint scars shall be repaired with paint kits supplied by the equipment manufacturer or with an approved paint.

C. Clean interiors of each item of electrical equipment. At completion of work all equipment interiors shall be free from dust, dirt and debris.

E1.13 TESTS

A. Test all systems furnished under the Technical Electrical Specifications and repair or replace all defective work. Make all necessary adjustments to the systems and instruct the Owner's personnel in the proper operation of the system.

B. Make all circuit breaker and protective relay adjustments and settings.

C. Make the following minimum tests and checks prior to energizing the electrical equipment:

1) Check all wire and cable terminations for tightness.

2) Test all wiring as specified in the wire and cable technical section.

3) Test grounding system as specified in grounding technical section.

4) Set all transformer taps as required to obtain the proper secondary voltage.

5) Carefully check all interlocking, control and instrument wiring for each system to ascertain that the system will function properly as indicated by schematics, wiring diagrams, or as specified herein.

6) Mechanical inspection of all low voltage circuit breakers, disconnect switches, motor starters, control equipment, etc. for proper operation.

7) Provide all instruments and equipment required for the above tests.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E2 - RACEWAYS

E2.01 SCOPE

This section shall include raceways, enclosures, supporting devices, ancillary fittings and appurtenances. Furnish and install the complete raceway systems as shown on the Drawings and as specified herein.

Raceway is a broad-scope term that shall be defined by the National Electrical Code under Article 100.

E2.02 APPLICATIONS

Except as otherwise shown or specified on the Drawings;

A. Underground conduit and in-slab conduit raceways shall be made with schedule 80 PVC. Bends through concrete slabs shall be made with plastic coated rigid aluminum conduit.

B. Indoor exposed power, instrumentation and controls conduit shall be rigid aluminum conduit.

C. Outdoor exposed power, control and instrumentation conduit shall be rigid aluminum conduit. In those areas denoted as corrosive or NEMA 4X, furnish plastic coated rigid aluminum conduit, fittings, and boxes.

E2.03 SUBMITTALS AND SHOP DRAWINGS

Submit the following in accordance with the requirements outlined in the Special Conditions.

Process catalog submittals for the following:

A. Rigid Aluminum Conduit
B. Plastic Coated Rigid Aluminum Conduit
C. Rigid Non-Metallic Conduit
D. Liquid-Tight Flexible Conduit
E. Liquid-Tight Fittings
F. Conduit Bushings
G. Conduit Bodies
H. Conduit Sealing Fittings
I. Expansion-Deflection Fittings
J. Expansion Fittings
K. Cast Metal Boxes
L. Tape Products
M. Wiring Devices
N. Supporting Devices
O. Labels
P. Grounding Devices
Q. Foam Sealant

E2.04 CONDUIT

Rigid aluminum conduit shall be manufactured of 6063 alloy, T-1 temper, with no more than 0.02% copper content. All conduit couplings shall be threaded aluminum. All such conduit shall be listed with UL and

comply with UL-6 and ANSI C80.5. Aluminum conduit shall be American conduit by Sapa, Allied, Patriot, or Wheatland.

Plastic coated rigid aluminum conduit shall consist of rigid aluminum body that complies with above specifications for rigid aluminum conduit, plus conduit shall have 40 mil thick heat-fused PVC over outside and 2 mil coat of fully catalyzed phenolic inside. The inside coat shall have the chemical resistance of the outer coating and shall not dissolve in lacquer thinner. All couplings shall be equipped with PVC sleeves that extend one pipe diameter or 2", whichever is less, beyond the end of the coupling. Furnish Calbond, Perma-Cote, Kor-kap, Plastibond, REDH$_2$0T, Ocal, or Robroy Industries products.

Non-metallic rigid conduit shall be Schedule 40 PVC. Such conduit shall be UL listed for 90 degrees C and shall conform to NEMA TC-2 and UL-651 standards. Furnish Allied, Carlon, Cantex, or Heritage products. Furnish manufacturer's approved solvent for joining couplings.

Liquid-tight flexible conduit shall be constructed of non-metallic sunlight resistant PVC. Furnish Anaconda type NMUA, or approved equal.

E2.05 CONDUIT FITTINGS

NEMA 4 locknuts for rigid metallic conduit shall consist of aluminum body with neoprene sealing ring. Furnish Crouse-Hinds, T&B, or equal.

NEMA 1 locknuts for rigid metallic conduits shall be hardened aluminum for use with aluminum conduit.

Conduit field-applied hubs for sheet metal enclosures shall be aluminum body with recessed neoprene sealing ring, threaded NPT insert, and shall be, T&B 370 AL series, or equal products by OZ/Gedney.

Conduit hubs for non-metallic enclosures shall be fiberglass polyester reinforced with galvanized steel core, complete with locknut and grounding bushing. All such hubs shall be Crouse-Hinds Type NHU, or equal.

Rigid metallic conduit chase nipples, split couplings, slip fittings, unions, reducers, and enlargers, shall be aluminum iron.

Rigid metallic conduit short els and long els shall be rigid aluminum with NPT threaded hubs and male ends. Throats shall be smooth and free from burrs. All such fittings shall be OZ/Gedney Type "9" Series, Appleton, or equal.

Rigid metallic conduit split couplings shall made of aluminum and have threaded body with split tightening shelves with neoprene sandwich. Such fittings shall be OZ type "SSP", or equal.

Rigid metallic conduit grounding bushings shall be aluminum body with threaded hub, bakelite insulated throat, and tin-plated copper ground lug. Furnish OZ/Gedney type ABLG, or equal.

Liquid-tight flexible conduit fittings shall be suitable for the specified flexible conduit and shall be type B. Furnish straight or angle connectors as required. All such connectors shall be OZ/Gedney type 4QP, or equal.

Rigid metallic conduit expansion/deflection fittings shall consist of aluminum, flexible neoprene joining sleeve banded to hubs with stainless steel bands, and with internal bonding jumper (green insulated tinned copper stranded conductor) and guide cones. Furnish Crouse-Hinds type "XD" or equal.

Rigid metallic conduit expansion fittings shall consist of aluminum barrel joined to hubs at each end. One hub shall be threaded to barrel and other hub shall have slip fit to allow up to four (4) inches of conduit lateral movement. Provide external bonding jumper (green insulated tinned copper stranded conductor) for each expansion joint. Furnish Crouse-Hinds type "XJ", OZ Type "AX", or equal.

Conduit waterstops for sealing inside of conduit runs shall consist of aluminum pressure discs with sandwiched neoprene seal and with 316 stainless steel hardware. Furnish OZ/Gedney type "CS" series products, as indicated.

Conduit sealing bushings for penetrations in exterior walls shall be link seals as shown in the drawings. Use two bushings per wall penetration, one each side. For newly constructed walls provide a PVC Schedule 40 sleeve in concrete pour. PVC sleeve shall have water stop and the sleeve size shall be as recommended by the manufacturer of the sealing bushing.

E2.06 CONDUIT BODIES AND BOXES

Conduit bodies such as "C", "LB", "T" and the like pulling fittings shall be aluminum. Covers for damp and/or wet location use shall be gasketed cast metal with "wedge-nut" clamps. Covers for dry locations shall be cast aluminum and hardware shall be 316 stainless steel. All covers shall be equipped with clamp type clevises. Furnish Crouse-Hinds Form 7, or Appleton Form "FM7" products.

Conduit bodies for use in corrosive areas shall be as specified above but shall have 40 mil plastic coated PVC jacket and 2 mil interior coating as specified for plastic coated rigid metallic conduit. Furnish Robroy Perma-Cote or equal fittings.

Conduit bodies such as "GUA", "GUAT", "GUAL", and the like pulling/splicing fittings shall be cast aluminum with threaded cast aluminum covers. All such conduit bodies shall be Killark "GE" series, or equal products by Crouse-Hinds or Appleton.

Cast metal outlet boxes, pullboxes, and junction boxes whose volume is smaller than 100 cubic inches, and cast metal device boxes, shall be sand-cast, copper-free aluminum or zinc coated sand-cast malleable iron. All boxes shall have threaded hubs. Furnish Crouse-Hinds "FD" style condulets, Appleton "FD" style Unilets, or equal.

Covers for cast metal boxes shall be gasketed cast metal covers with 316 stainless steel screws and shall be suitable for use in wet or damp locations.

Conduit and device boxes for use in concealed drywall applications only shall be pressed sheet steel type. Furnish Raco or equal.

E2.07 PULL AND JUNCTION BOXES

Pullboxes and junction boxes whose volume is less than 100 cubic inches shall be furnished as specified hereinbefore except where sheet metal types are shown, in which case, furnish such sheet metal enclosures in NEMA 4X 316 stainless steel construction with gasketed covers of same material.

Pullboxes and junction boxes whose volume is 100 cubic inches and greater shall be NEMA 4X 316 grade stainless steel type with gasketed stainless steel covers. Provide print pocket and interior back panel for mounting of terminal strips where terminal strips are called for on the drawings. Sheet metal boxes shall be as manufactured by Pentair (Hoffman) or equal.

Covers for sheetmetal pullboxes and junction boxes over 100 cubic inches (and for smaller sized where shown) shall have hinged doors. All hardware shall be stainless steel.

Cast metal junction boxes shall be cast aluminum type with gasketed, cast metal covers and with stainless steel cover screws.

E2.08 LABELS AND MARKING

Buried conduit marking tape for marking path of secondary buried conduits shall be four (4") inch nominal width strip of polyethylene with highly visible, repetitive marking "BURIED CONDUIT" or similar language, repeated along its length.

Voltage warning labels for cabinets shall be waterproof vinyl strips with adhesive back and shall have "DANGER (VOLTAGE) - DISCONNECT ALL SOURCES OF POWER BEFORE ENTERING". Letters shall be highly visible red color on white background.

Pull and junction boxes shall include an engraved nameplate identifying circuits, feeders or electrical equipment.

Each nameplate shall be 1.0 x 3.0 inch engraved with lettering ½ - inch high. Nameplate shall include adhesive backing without screws to meet UIL listing requirements.

E2.09 SUPPORTING DEVICES

Mounting hardware, nuts, bolts, lockwashers, and washers, shall be Grade 316 stainless steel.

Unless otherwise indicated, channel framing “strut” and supporting devices shall be manufactured of ASTM 6063, TO6 grade aluminum; 1-5/8" wide x 3-1/4" deep (double opening type). Thickness shall be 0.105”. Clamp nuts for use with channels shall be grade 316 stainless steel.

Where indicated, furnish grade 316 stainless steel slotted channel “strut” members 1-5/8" wide x 1-5/8" deep or 1 5/8" x 3 1/4" deep, double-faced type, 12 gauge. All hardware and conduit clamps shall be grade 316 stainless steel.

Conduit clamp supports for terminating conduits onto cable trays shall be mechanically galvanized malleable iron with adjustable angle clamp. Fittings shall be provided with 316 stainless steel hardware. Furnish OZ/Gedney type CTC products.

All such channel members and fittments shall be B-Line, Unistrut or equal.

Conduit straps, and associated nuts, lockwashers and bolts for use with channels shall be 316 stainless steel with 316 stainless steel hardware. Furnish B-Line products or equal.

After-set concrete inserts (drilled expansion shields "D.E.S.") shall consist of two types. For anchors to accommodate 5/16 inch diameter bolts and smaller, provide HILTI "HDI" series 316 stainless steel anchors. For anchors to accommodate 3/8 inch diameter and larger bolts, provide HILTI "HVA" series with 316 stainless steel threaded inserts.

Hanger rod shall be 3/8 inch minimum diameter Type 316 stainless steel all-thread.

Nest-back or clamp-back conduit supports shall be two-piece type constructed of copper free aluminum. Furnish Thomas & Betts 1976AL Series, or equal.

Conduit beam clamps shall be hot-dip galvanized malleable iron and shall be as follows:

	Type	Manufacturer
1)	Right Angle	OZ/Gedney Type "UBCG", or equal.
2)	Parallel	OZ/Gedney Type "UPCG", or equal.
3)	Edge	OZ/Gedney Type "UECG", or equal.

Hanger rod beam clamps shall be clamp type with hardened steel, bolt, Steel City "500" Series, Crouse-Hinds type "MW", or equal. Furnish swivel stud for each rod make- up.

Conduit "J" hangers shall consist of steel straddle with detachable bolt. Finish shall be electro-galvanized. Furnish Cooper B-Line “3690” Series, Unistrut "J-1200" Series or equal.

Conduit "U" bolts shall be hot-dip galvanized steel with 316 stainless steel hex-head bolts.

Equipment stands for supporting devices such as control stations, device boxes and the like, shall consist of a welded structural aluminum c-channel and plate aluminum floor plate as detailed on the drawings.

E2.10 MISCELLANEOUS MATERIAL

Double bushings for insulating wiring through sheet metal panels shall consist of mating male and female threaded phenolic bushings. Phenolic insulation shall be high-impact thermosetting plastic rated 150 degrees C. Furnish OZ Type "ABB", or equal.

Conduit pull-cords for use in empty raceways shall be glass-fiber reinforced tape with foot-marked identification along its length. Furnish Thomas, Greenlee, or equal products.

Conduit thread coating compound shall be conductive, non-galling, and corrosion inhibiting. Furnish Crouse- Hinds Type "STL", Appleton Type "ST", or equal.

Plastic compound for field-coating of ferrous material products shall be PVC in liquid form that sets-up semi- hard upon curing. Furnish Rob Roy "Rob Kote", Sedco "Patch Coat", or equal.

Zinc spray for coating galvanized steel threads shall be Research Laboratory type "LPS", Mobil "Zinc-Spray" or equal conductive zinc-rich spray enamel product.

Foam sealant for waterproofing uses shall be Chase Technologies "Chase Foam", or equal.

E2.11 RACEWAYS

Install the conduit system to provide the facility with the utmost degree of reliability and maintenance free operation. The conduit system shall have the appearance of having been installed by competent workmen. Kinked conduit, conduit inadequately supported or carelessly installed, do not give such reliability and maintenance free operation and will not be accepted.

Raceways shall be installed for all wiring runs, except as otherwise indicated.

Conduit sizes, where not indicated, shall be N.E.C. code-sized to accommodate the number and diameter of wires to be pulled into the conduit. Unless otherwise indicated, 3/4" trade-size shall be minimum size conduit.

Unless otherwise noted, conduit runs shall be installed exposed. Such runs shall be made parallel to the lines of the structure. Conduit shall be installed such that it does not create a tripping hazard or an obstruction for headroom.

All runs of rigid conduit shall be threaded, and all male threads shall be coated with non-galling thread compound prior to assembly.

Plastic coated metallic conduit lengths shall be joined with threaded metallic coupling that shall be each equipped with a 40 mil thickness sleeve that shall extend over the threads of the joined conduit. Each joint shall be watertight.

Field-cut threads in runs of plastic coated metallic conduit shall be cut with a special die that has rear reamed out oversize so as to slip over plastic coating. Do not attempt to cut threads on plastic coated conduit with regular dies, whereby plastic coating is skinned back to allow the incorrect die to be used. Coat all field-cut threads with cold-galvanizing spray, use two coats to provide 1-mil minimum coating thickness.

Conduit runs made in concrete pours or surface-mounted runs that are attached to the structure, shall be equipped with an expansion/deflection fitting where they cross an expansion joint, or at every 100 feet.

Unless otherwise shown, conduit penetrations through floors located below enclosures, shall be made each with couplings set flush with the outside faces of the concrete pour. Each pair of couplings shall be joined with a threaded spool piece. Use coated aluminum or galvanized steel couplings.

Rigid metallic conduit runs shall have their couplings and connections made with screwed fittings and shall be made up wrench-tight. Check all threaded conduit joints prior to wire pull. Coat all male threads with Crouse-Hinds "STL" or equal, conductive lubricant prior to joining.

All conduit runs shall be watertight over their lengths of run, except where drain fittings are indicated. In which cases, install specified drain fittings.

Liquid-tight flexible conduit with an aluminum core shall be used to connect wiring to motors, limit switches, bearing thermostats, and other devices that may have to be removed for servicing. Unless otherwise indicated, maximum lengths of flex shall be three (3) feet.

Where flexible conduit is installed, make up terminal ends with liquid-tight flex connectors. In wet locations, install sealing gaskets on each threaded male connector. Each flex connector shall be made-up tightly so that the minimum pull-out resistance is at least 150 lbs. Flexible conduit shall only be used for connection purposes where vibration is an issue, such as motors, etc. Length shall be limited to 4'. Flexible conduit shall not be used for finishing conduit runs to stationary boxes or equipment.

Empty conduits shall have pull-ropes installed. Identify each terminus as to location of other end and trade size of conduit. Use blank plastic waterproof write-on label and write information on each label with waterproof ink. Pull a mandrel through each conduit to check and clear blockage before installing pull-rope. OWNER'S REPRESENTATIVE shall witness test. Provide documentation that all conduits are clear and ready for future use. Cap exposed ends of empty conduit with threaded plugs.

Conduit runs into boxes, cabinets and enclosures shall be set in a neat manner. Vertical runs shall be set plumb. Conduits set cocked or out of plumb will not be acceptable.

Conduit entrances into equipment shall be carefully planned. Cutting away of enclosure structure, torching out sill or braces, and removal of enclosure structural members, will not be acceptable.

Use approved hole cutting tools for entrances into sheet metal enclosure. Use of cutting torch or incorrect tools will not be acceptable. Holes shall be cleanly cut and they shall be free from burrs, jagged edges, and torn metal.

All raceways shall be swabbed clean after installation. There shall be no debris left inside. All interior surfaces shall be smooth and free from burrs and defects that would injure wire insulation.

Outdoor aluminum runs of raceways shall be installed with expansion fittings and supports as required to accommodate thermal expansion due to changes in temperature appropriate with the structure from which the conduit is supported. Installation shall not appear to be loose or non-linear with changes in temperature from night to day or from summer to winter. In no case shall a straight run of conduit be installed over 20 feet without an expansion fitting. Furnish additional expansion fittings if required by the characteristics of the particular installation.

E2.12 CONDUIT BODIES AND BOXES

Conduit bodies such as "LB", "T", "GUAT", etc., shall be installed in exposed runs of conduit wherever indicated and where required to overcome obstructions and to provide pulling access to wiring. Covers for such fittings shall be accessible and unobstructed by the adjacent construction. GUA series pulling bodies rather than LB fittings and the like, shall be used for splicing purposes as well as pulling access.

Covers for all conduit bodies shall be installed with gasketed cast metal type where located in damp or wet locations.

All conduit boxes installed whose inside volume is less than 100 cubic inches shall be cast metal type with gasketed cast metal cover, unless otherwise indicated.

All conduit boxes whose inside volume exceeds 100 cubic inches shall be sheet metal type except where gasketed cast metal type, stainless steel or fiberglass reinforced polyester are indicated.

Aluminum boxes and aluminum strut shall be supported ¼ inch off of concrete surfaces with insulating washers or similar material, or shall be coated with bitumastic.

E2.13 RACEWAY SUPPORT

All raceway systems shall be adequately and safely supported. Loose, sloppy and inadequately supported raceways will not be acceptable. Supports shall be installed at intervals not greater than those set forth by the NEC, unless shorter intervals are otherwise indicated, or unless conditions require shorter intervals of supports.

Multiple runs of surface mounted conduit on concrete or masonry surfaces shall be supported off the surface by means of aluminum channels. Attach each slotted channel support to concrete surface by means of two (2) ¼ inch diameter stainless steel bolts into drilled expansion shields.

Single runs of surface mounted conduit on concrete or masonry surfaces shall be supported with hot-dipped malleable iron conduit clamps and nest-back spacers. Furnish plastic coated malleable iron conduit clamps and nest backs where corrosive areas are called out.

Conduit runs that are installed along metallic structures shall be supported by means of hot-dipped galvanized beam clamps as specified herein.

E2.14 LABELING

In addition to labeling requirements as specified throughout this and other Sections, install wiring and raceway labeling as follows:

A. Apply write-on identification to empty conduits to identify each conduit as to terminus of other end and also to identify trade size of conduit.

B. Where active conduits terminate into bottoms of motor control centers, install label on each conduit terminus and show number and size of wiring and function of circuitry and trade size of conduit.

E2.15 PAYMENT

No separate payment will be made for work performed in accordance with this section of the specifications, and the cost thereof shall be included in the proper items of the Proposal and Bid Schedule.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E3 - WIRE AND CABLE

E3.01 SCOPE

This section shall include wire and cable, terminating devices, splice kits, labeling, and appurtenances.

E3.02 SUBMITTALS AND SHOP DRAWINGS

Process catalog submittals for the following:

A. Power and Control Cable
B. Instrument Cable
C. Conductor Connectors
D. Tape Products
E. Labels

E3.03 WIRE AND CABLE

A. Conductors shall be soft-drawn annealed copper, Class B stranding that meets ASTM B-8. Copper conductors shall be uncoated, except as otherwise specified.

B. Single conductor cable for power, control, and branch circuits shall have cross-linked polyethylene insulation, rated for 600 volts. Cable shall be NEC type XHHW-2. All such cable shall be rated for wet or dry use. Cable insulation shall be color coded with factory pigmented colors below size #6 awg. Color coding shall be as specified under Part 3 of this section. Cable shall be as manufactured by Southwire or equal.

C. Instrument cable for analog circuits shall be twisted shielded pairs or triads with PVC insulation and overall jacket. Cable assembly shall be rated for 600 volts, wet or dry locations. Furnish Okonite "Okoseal-N Type P-OS", Belden (118A-600V; 1119A Triad 600V Cable) or approved equal multi-conductor.

D. Single conductor cable for 24 volt dc control shall be minimum size #16. Furnish MTW type insulation for panel wiring and XHHW-2 insulation for field wiring in conduits.

E. Multi-conductor power and control cable for use in cable trays shall be 600 volt and rated for CT use. Cable assembly shall be three or four conductor with ground conductor. Insulation of each conductor shall be cross-linked polyethylene, XHHW-2. Ground shall be bare. Cable assembly shall have an overall PVC jacket. Furnish Southwire type TC or approved equal.

F. Multi-conductor instrumentation cable for use in cable trays shall be 600 volt rated and rated for CT use. Cable assembly shall consist of shielded pairs or triads with overall shield and Nylon jacket. Conductor insulation shall be flame retardant PVC. Furnish Okonite Company “Okoseal-N Type SP-OS or approved equal.

G. Ground ring and associated upcomers and grounding conductors shall be tin-plated stranded copper. Refer to the Grounding System Section of the Technical Specifications.

H. Cable for RS485 applications shall be Belden #9841 or Belden #9842 for indoor dry locations only. For wet or underground locations, use Okonite “Okoseal-N” Type POS”.

I. Cable for Ethernet applications shall be industrial CAT 5e 600V Belden #7958A.

E3.04 CONNECTORS

A. Mechanical connectors for 600V class wiring shall be tin-plated copper alloy bolted pressure type with bronze tin-plated hardware. Furnish connectors as follows:

TYPE	MANUFACTURER & TYPE
Single conductor to flat-plate connector	Blackburn LH
Multiple conductor to flat-plate connector	Blackburn L2H, L3H, L4H
Split-bolt connector	Blackburn HPS
Two-bolt parallel connector with spacer	Blackburn 2BPW
Cross Connector	Blackburn XT
Splice Connector	Blackburn S
Flush ground connector	Harger XGP-BSD-4/0X24 or equal

B. Insulated spring wire connectors, "wire-nuts", for small building wire taps and splices shall be plated spring steel with thermoplastic jacket and pre-filled sealant. Connector shall be rated for 600 volts, 75 degrees C continuous. Furnish King Technology, or equal.

C. Connectors for control conductor connections to screw terminals shall be crimp-type with vinyl insulated barrel and tin-plated copper ring-tongue style connector. Furnish T&B "Sta-Kon", 3M "Scotchlok", or equal.

D. Terminal strips for miscellaneous field terminations of control and instrumentation circuits shall consist of 12 point box lug terminals with marking surface. Terminal assembly shall accept #18 to #12 awg and shall be rated 600 volts. Furnish Allen-Bradley #1492-HJ812 terminal blocks.

E3.05 INSULATING PRODUCTS

A. Tape products shall be furnished as hereinafter specified and shall be Plymouth-Bishop, 3M, or equal.

B. General purpose electrical tape shall be 7 mil thick stretchable vinyl plastic, pressure adhesive type, Plymouth-Bishop Premium 111, 3M, Scotch 33+, or equal.

C. Insulating void-filling tape and high voltage bedding tape shall be stretchable ethylene propylene rubber with high-tack and fast fusing surfaces. Tape shall be rated for 90 degrees C continuous, 130 degrees C overload, and shall be moisture-proof. Void filling tape shall be Plymouth-Bishop W963 Plysafe, 3M Scotch 23, or equal.

D. High temperature protective tape shall be rated 180°C continuous indoor/outdoor, stretchable, self-bonding silicone rubber. High temperature tape shall be Plymouth-Bishop 20 Plysil, 3M Scotch 70, or equal.

E. Insulation putty filler-tape shall be Plymouth-Bishop 125 Filler Tape, 3M Scotchfill, or equal.

F. Arc and fireproofing tape shall be Plymouth-Bishop 20 Plysil, 3M Scotch #70 or equal.

E3.06 LABELS

A. Colored banding tape shall be 5 mil stretchable vinyl with permanent solid color. Colors shall be as hereinafter specified. Tape shall be Plymouth-Bishop Premium 37, 3M Scotch #35, or equal.

B. Numbered wire marking labels shall be PVC sleeve-type markers, T&B, Brady or equal.

C. Cable identification ties shall be weather resistant polyester with blank write-on space, T&B, Brady or equal.

E3.07 MISCELLANEOUS MATERIAL

A. Cable grips shall be 316SS grip-type wire mesh with machined metal support. Furnish Kellems, Appleton, or equal products.

B. Wire pulling compound shall be non-injurious to insulation and to conduit and shall be lubricating, non- crumbling, and non-combustible. Furnish Gedney "Wire- Quick", Ideal "Yellow" or equal.

E3.08 POWER AND CONTROL CABLE

A. Power and control conductors shall be sized as shown and where no size is indicated, the conductor size shall be #12 awg for power circuits, #14 awg for 120 vac control circuits, and #16 awg for instrumentation circuits.

B. Equipment grounding conductors shall be installed with type XHHW insulated stranded copper conductors and the insulation color shall be green in sizes up to and including #10 awg.

C. Color coding shall be as follows. Non-factory color coded cables shall be marked with specified color tape. Use the following colors:

Conductor	120/208V Systems	480V Systems
Phase A or L1	Black	Brown
Phase B or L2	Red	Orange
Phase C	Blue	Yellow
Neutral	White	N/A
Ground	Green	Green

D. Branch circuits may be spliced for receptacle, lighting and small appliance load inside appropriate junction boxes. Feeders shall be installed without splice.

E. Except as otherwise specified, taps and splices with #10 AWG and smaller, shall be made with insulated spring wire connectors. Such connectors in damp or wet locations shall be waterproofed by filling interstices around wires with silicone rubber and further insulating with an envelope of stretched piece of EPR tape around each wire. Then, apply one-half lapped layer of electrical tape over all.

F. Motor connections made with #10 AWG and smaller wire shall be made up with set-screwed copper lugs with threaded-on insulating jacket. After make-up of each connector, install two (2) layers half-lapped, of high temperature tape over connector barrel and down one (1") inch over wires.

G. Taps, splices, and connections in #8 AWG and larger wires shall be made with copper alloy bolted pressure connectors. Each such connector shall be insulated by means of applying insulation putty over sharp edges so as to present a smooth bonding surface. Next, apply at least four (4) layers, half-lapped each layer of EPR tape. Then, make final wrapping of at least three (3) layers, half-lapped each layer of electrical tape.

H. Control wiring connections to stud type and screw type terminals shall be made with ring-tongue type crimp connectors. Label each terminal jacket with wire marking label at each connection.

I. Each wire connection shall be made up tightly so that resistance of connection is as low as equivalent length of associated conductor resistance.

J. Numbered marking labels shall be installed to identify circuit numbers from panelboards. Install labels on each wire in each panelboard, junction, pullbox and device connection.

K. Label each wiring run with write-on waterproof labels inside motor control center. Install write-on label ties around wire group at conduit entrance and write-on label the wire size, conduit size and service.

L. Install PVC sleeve type numbered marking on each control wire termination at each terminal strip and at each device. Do this in motor control center, terminal cabinets, safety switches, remote controllers, pilot operators, and instrumentation equipment. Number selected shall correspond to number on terminal strip.

M. All wiring inside equipment enclosures shall be neatly trained and laced with nylon tie-wraps.

E3.09 INSTRUMENTATION WIRING

All 4-20mA analog pairs shall have shields insulated in the instrumentation panel and grounded on the field end unless otherwise required by instrument supplier. Single point grounding shall be maintained.

E3.10 GROUND WIRING

A. Each item of equipment shall be adequately and thoroughly grounded. Comply with Article 250 of N.E.C., except where higher standards of grounding have been specified. In addition to following requirements as specified under Section E7, install grounding for general wiring systems

B. Equipment grounding conductors (EGC) shall be installed in each run of power and control conduits. These wires shall be green colored in sizes #6 AWG and smaller and green banded in larger sizes. Ground wires shall be type XHHW-2 insulated copper wires.

C. EGC runs into equipment shall be grounded to equipment bus where available, or to equipment ground lugs.

D. Where grounding type bushings are installed, bond EGC thereto, and furthermore, ground each bushing lug to equipment ground bus or ground lug, or ground rod.

E. In each motor terminal box, install equipment ground lug and connect EGC thereto.

E3.11 LABELING

In addition to labeling requirements as specified throughout this Section, install wiring and raceway labeling as follows:

A. Apply numbered wire marking labels to control wiring terminations for each termination in each item of equipment. Use PVC sleeve type labels.

B. Apply numbered wire marking labels to power and control wiring terminations in motor control centers, panelboards, and at outlets, to identify circuit numbers. Use PVC sleeve type labels.

C. Apply numbered wire marking labels to each signal wire termination in each instrument junction box, and in each item of equipment served by instrumentation circuits. Use PVC sleeve type labels.

D. Apply write-on identification labels to wiring sets in each motor control center, and in each pullbox and junction box. Show wire size, conduit size, and line and load information. Use waterproof plastic write-on labels with nylon tie-wraps.

E. Phase band each power wire with colored tape. Do this to each termination.

E3.12 TESTING

A. Each run of 600V class power and control wiring shall be tested prior to connection of line and load. Make tests with 1000V dc hand-crank or motor driven ohmmeter. Each run of wiring shall be tested phase-to-phase and/or phase-to-neutral, and phase-to-ground. Test results for each test shall be equal to or greater than 25,000,000 ohms with 1000V dc applied. All tests shall be made in the presence of the Owners representative or Engineer.

B. Test all runs of signal wiring with 250V dc megger. Insulation values shall meet or exceed 1,000,000 ohms per 100 feet (cable to shield).

C. Should any cable or circuit fail to meet the above tests, replace wire and retest.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E4 - VARIABLE FREQUENCY DRIVES

E4.01 Well Pump VFD

GENERAL

The U1000 Industrial Matrix configured package combines excellent harmonics, input power factor control, full regeneration, and energy saving in a design specifically suited for use in industrial applications requiring reliable motor control.

The configured package provides a U1000 industrial matrix drive in a NEMA 1 (UL Type 1) enclosure with a lockable input disconnect. The U1000 Industrial Matrix is a high performance PWM (pulse-width-modulated) AC drive. Three-phase input line power is converted to a sine-coded, variable frequency output, which provides optimum speed control of any conventional squirrel cage induction motor.

This drive has one control logic board for all horsepower ratings. Printed circuit boards employ surface mount technology, providing both high reliability, and small physical size. The dual 32 bit microprocessors deliver the computing power necessary for complete three phase motor control.

Operating Principle: VFD input three phase power is directly converted to variable AC output power. The main circuit consists of a compact input filter and bidirectional switches. Using pulse width modulation (PWM) inverter technology, produces an output waveform in a series of variable-width pulses. Unique firmware algorithms optimize motor magnetization through control of voltage, current and frequency applied to generate a nearly sinusoidal output waveform.

STANDARDS (Drive)

UL 508C (Power Conversion)
CE mark 2006/42/EC MD
CE mark 2014/35/EU LVD
CE mark 2014/30/EU EMC
CE mark 2011/65/EU RoHS
EN 61800-3
EN 61800-5-1 (LVD)
EN 62061 (SIL CL3)
EN ISO 13849-1 (Cat 3, PLe)
EN 61800-5-2 (SIL3)
EN 61800-6-2
EN 50581
UL, cUL listed; CE, RCM, TUV marked

CONFIGURED PANEL SERVICE CONDITIONS

Ambient service temperature:
Open Chassis (IP00): -10°C to 50°C (14°F to 122°F)
IP20, UL Type 1: -10°C to 40°C (14°F to 104°F)
Ambient storage temperature: -20°C to 60°C (-4°F to 158°F)
Humidity: 95% RH or less, non-condensing
Vibration/Shock:
10 to 20 Hz: 9.8 m/s² 20 to 55 Hz: 5.9 m/s² (2□0028 to 2□0081 and 4□0011 to 4□0077), 2.0 m/s² (2□0104 to 2□0248 and 4□0096 to 4□0414)
Altitude: Up to 1000 meters (3300 feet), higher by derating
Service factor: 1.0

QUALITY ASSURANCE

In circuit testing of all printed circuit boards is conducted, to ensure proper manufacturing.

Final printed circuit board assemblies are functionally tested, via computerized test equipment.
All fully assembled controls are computer tested with induction motor loads to assure unit specifications are met.
The average MTBF (Mean Time Between Failure) is 28 years

CONSTRUCTION (Drive)

Matrix technology employs a main power circuit consisting of embedded input line semiconductor fuses, a compact input filter and a system of 9 bi-directional switches that are arranged in a matrix, to convert a three-phase AC input voltage directly into a three-phase AC output voltage. It eliminates the need for a rectifying and DC smoothing circuit, which are used in traditional AC drive "inverters". This results in a compact drive with reduced harmonic distortion.

Power and control electronics housings:

Open Chassis (IP00):

240 V, Normal Duty: 10 HP through 100 HP
Heavy Duty: 7.5 HP through 75 HP
480 V, Normal Duty: 7.5 HP through 800 HP
Heavy Duty 5 HP through 750 HP

Microprocessor based control circuit
Non-Volatile memory (EEPROM); all programming memory is saved when the VFD is disconnected from power.
Current transformers detect the output current for motor control and protective functions
Digital operator keypad and display, with copy function, provides local control and readout capability:

Local/Remote
Speed Reference command
Reset command

Easy to remove heat sink cooling fan with programmable on/off control
USB Type B port for quick and easy PC Connection

PROTECTION

Integrated Input Semiconductor Fusing Provides 100kA SCCR
Output current overload rating of 150 % of drive's continuous heavy duty current rating for 60 seconds or 110% of drive's continuous normal duty current rating for 60 seconds
Output short circuit protection
Current limited stall prevention (overload trip prevention) during acceleration, deceleration, and run conditions
Optically isolated operator controls
Fault display, last 10 faults storage, and detailed fault trace
"Hunting" prevention logic
Electronic ground fault protection
Electronic thermal motor overload protection (UL approved)
Power supply charge indication
Heat sink over temperature protection
Cooling fan operating hours recorded
Input/Output phase loss protection
Reverse prohibit capability
Short circuit withstand rating (SCCR) of 100K amps RMS

OPERATION

Output frequency and speed display can be programmed for other speed-related and control indications, including: Hertz, revolutions per min (RPM), percent of maximum, or custom.
Power loss ride-thru (2 seconds or greater capable)
Time delay on start, peak avoidance
VFD accepts either a direct acting or a reverse acting speed command signal, i.e. a bi-polar speed command signal.
Bi-directional "Speed Search" capability, in order to start into a rotating load. Two types: current detection and residual voltage detection
DC injection braking, to prevent, for example, fan "wind milling"
Remote Run/Stop command input

Two programmable 0 to +/-10 VDC or 4-20ma analog outputs, proportional to drive monitor functions including: output frequency, output current, output power, PI feedback, output voltage and others…

5-Line 16 Character LCD display provides readout functions that include: output frequency, output voltage, output current, output power, DC bus voltage, interface terminal status, PI feedback and fault status.
Programmable industrial specific application macros
Over 100 programmable functions, resettable to factory presets
User parameter initialization, re-establish project specific parameters
Ramp-to-stop or coast-to-stop selection
Auto restart capability: 0 to 10 attempts with adjustable delay time between attempts
Flexible motor control: one custom selectable Volts/Hertz pattern and multiple preset Volts/Hertz patterns, Open loop vector control and closed loop vector control for induction machine and permanent magnet motors (IPM & SPM).
Auto speed reference input signal, adjustable for bias and gain
While the VFD is running, operational changes in control and display functions are possible, including:

- Acceleration time (0 to 6000 seconds)
- Deceleration time (0 to 6000 seconds)
- Frequency reference command
- Local/remote commands
- Monitor display
- Removable digital operator
- Automatic energy saving, reduced voltage operation

PRODUCT FEATURES
Full 100% continuous regenerative operation
Low Input Current Harmonics at All Speeds/Loads
Facilitates IEEE 519 Compliance
Higher Efficiency than Common Low Harmonic Solutions
VFD efficiency: 96% at half-speed; 98% at full-speed
Eliminate Harmonics with Embedded Across-the-Line Operation
Near Unity True Power Factor at Full Load (0.98 or better)
Industry-leading compact design
Integrated Input Fusing Provides 100kA SCCR
High Reliability with MTBF in Excess of 28 Years
Induction and Permanent Magnet Motor Control
Safe Torque Off (SIL3 and PLe)
0-400 Hz Output Frequency
120% Overload for 60 Seconds (ND)
150% Overload for 60 Seconds (HD)
Removable Terminal Block
High Carrier Frequency (Low Motor Noise) Capability
Multi-Language LCD Display with Copy Function
DriveWizard® Industrial Programing Software

Embedded PLC capability (DriveWorks EZ)
Start into Spinning Motor (Speed Search)
Open/Closed loop motor operation
Input phase insensitive; sequencing of the three phase input is unnecessary
Volt meter, ammeter, kilowatt meter, elapsed run time meter, and heat sink temperature monitoring functions
PI feedback Control
Feedback signal low pass filter
Feedback signal loss detection and selectable response strategy

Feedback signal inverse
24 Vdc, 150ma transducer power supply
Input and output terminal status indication
Diagnostic fault indication
"S-curve" soft start / soft stop capability
Run/Fault output contacts
Serial communication loss detection and selectable response strategy
"Up/Down" floating point control capability (digital MOP)
Critical frequency rejection capability: 3 selectable, adjustable bandwidths
Remote speed reference (speed command) signal:
- 0 to10 VDC / -10 to +10 VDC (20 kΩ)
- 4 to 20 mA / 0 to 20mA DC (250 Ω)

Adjustable carrier frequency, from 4 kHz to 10 kHz
Programmable security code
16 preset speed references/commands
8 programmable multi-function input terminals (24Vdc) providing 60+ programmable features, including:
- Preset Speeds
- Customer Fault
- Fault reset
- Speed/Torque control Switch over
- External Baseblock
- Jog Control

3 programmable multi-function output relays (2 Form A and 1 Form C) rated 1 amps @ 250Vac & 30Vdc), providing 50+ functions, including:
- During Run
- Zero Speed
- Speed Agree
- Overtorque / undertorque detection

Serial communication status
One fixed "Fault" form C output relay (Rated 1 amps @ 250Vac & 30Vdc)

Built-in Modbus RTU communication
Protocols are accessible via RS-422/485 communication, which is standard
Stationary and Rotational motor auto-tuning
Motor Control Methods Include:
- V/f Control
- V/f Control with encoder feedback
- Open loop vector
- Closed loop vector
- Open loop vector for PM
- Closed loop vector for PM
- Advanced open loop vector for PM

Motor Types:
- Induction Machines
- Surface Permanent Magnet (SPM) Motors
- Interior Permanent Magnet (IPM) Motors

Temperature controlled fans
Side by side mounting
LCD keypad: Local/remote functions with a built-in copy feature
Flash upgradeable firmware
Customizable monitor display
Heat sink over temperature speed fold-back feature
Fan failure detection and selectable drive action

FIELD INSTALLABLE OPTIONS

Network communication options include:

- DeviceNet™ w/ ADR
- EtherNet IP (single and dual Port)
- EtherCAT
- MECHATROLINK-II
- MECHATROLINK-III
- Modbus TCP/IP (single and dual Port)
- PROFIBUS DP
- PROFINET

Analog Input Option for high speed reference resolution
120VAC Logic Interface (8-input) option
Digital Input option for high speed reference resolution (8, 12, or 16 Bit).
Analog output option for high monitor reference resolution
Analog output option for high monitor reference resolution
Digital output expansion option (8 additional outputs)
Motor Feedback, including, open collector, line driver, and resolver

E4.02 15HP and 25HP Pump VFDs

GENERAL

The FP605 is an industrial fan and pump PWM (pulse-width-modulated) AC drive. Three-phase input line power is converted to a sine-coded, variable frequency output, which provides optimum speed control of any conventional squirrel cage induction motor, permanent magnet motor, or synchronous reluctance motor. The use of IGBTs (Insulated Gate Bipolar Transistors), with a carrier frequency range of 2 kHz to 12.5 kHz, permits quiet motor operation.

This drive has one control logic board for all horsepower ratings. Printed circuit boards employ surface-mount technology, providing both high reliability, and small physical size of the printed circuit assemblies. The microprocessor delivers the computing power necessary for complete three-phase motor control industrial applications.

Operating Principle: Input three-phase AC line voltage is first rectified to a fixed DC voltage. Using pulse width modulation (PWM) inverter technology, the DC voltage is processed, to produce an output waveform in a series of variable-width pulses. Unique firmware algorithms optimize motor magnetization through control of voltage, current, and frequency applied to generate a nearly sinusoidal output waveform.

STANDARDS

UL 508C (Power Conversion)
CSA 22.2 No. 274 (Adjustable Speed Drives)
UL 1995 (Plenum)
EN 61800-3
EN ISO 13849-1
EN IEC 62061
EN IEC 61800-5-1, -5-2
EN IEC 63000
EN IEC 61508-1, -2
EN IEC 61326-3-1
EN IEC 61000-6-7
RCM/ACMA: EN 55011
IEC 60529
IEEE C62.41
IBC
HCAI (OSHPD)

NFPA 70
NEMA ICS 7.1-2014
IEC 60146-1-1
UL, cUL listed, CE, RCM, TUV marked

ENVIRONMENTAL & SERVICE CONDITIONS
Ambient service temperature: -10°C to 40°C, 60°C maximum with derate
Ambient storage temperature: -20°C to 70°C
Humidity: 0% to 95%, non-condensing
Altitude: to 1,000 meters; 4,000 meters with derate
Service factor: 1.0
Vibration:
9.81 m/s² (1 G) maximum at 10 to 20 Hz; 208V/240 V, up to 10HP, 460 V, up to 25 HP; 5.9 m/s² (0.6 G); 208 V/240 V, 15 HP and above, 460 V, 30 HP and above; 1.96 m/s² (0.2 G) at 20 Hz to 55 Hz
Plenum mounting capable
Conformal coating: IEC 60721-3-3, 3C2, 3S2
RoHS 2 Compliant
WEEE Directive

QUALITY ASSURANCE
In-circuit testing of all printed circuit boards is conducted to ensure proper manufacturing
Final printed circuit board assemblies are functionally tested via computerized test equipment
All fully assembled controls are computer tested with induction motor loads to assure unit specifications are met
The average MTBF (Mean Time Between Failure) is 28 years

CONSTRUCTION
Input section of the VFD - VFD power input stage converts three-phase AC line power into a fixed DC voltage via a solid-state full-wave diode rectifier with MOV (Metal Oxide Varistor) surge protection. An internal 5% split choke on both positive and negative sides of the DC bus reduces harmonics for cleaner power and power line transient protection.
Intermediate section of the VFD - DC bus maintains a fixed DC voltage with filtering and short circuit protection as a DC supply to the VFD output section. It is interfaced with the VFD diagnostic logic circuit to continuously monitor and protect the power components.
Output section of the VFD - Insulated Gate Bipolar Transistors (IGBTs) convert DC bus voltage to a variable frequency and voltage, utilizing a PWM sine-coded output to the motor.

POWER AND CONTROL ELECTRONIC HOUSINGS
IP20/UL Type 1 wall-mounted enclosure: 208 V/240 V, 3 through 60 HP; 480 V, 3 through 125 HP
Microprocessor-based control circuit
Non-volatile memory (EEPROM): all programming memory is saved when the VFD is disconnected from power
Digital operator keypad and display provide local control and readout capability:
Local/Remote/Start/Stop commands
Speed Reference command
Reset command
10-year designed heatsink cooling fan with programmable on/off/temperature control
USB Mini-B port for quick and easy PC connection or any USB On-the-Go device

PROTECTION
Suitable for use on a circuit capable of delivering not more than 100kA RMS symmetrical amperes
Output current overload rating of 110% for 60 seconds, 140% for 2 seconds, 175% instantaneous
Output short circuit protection
Current limited stall prevention (overload trip prevention) during acceleration, deceleration, and run conditions
Optically isolated operator controls
Fault display with fault storage (10 most recent faults) and fault trace history

"Hunting" prevention logic
Restart after momentary power loss
Electronic ground fault protection
Electronic motor overload/overtemperature protection (UL approved) with thermal memory selection
Electronic motor overload relay protects the motor while in operation
Proof of flow/loss of flow detection
DC bus charge indication
Heatsink overtemperature with speed fold-back feature
Cooling fan operating hours recorded
Input/output phase loss protection
Overtorque/undertorque detection
Reverse prohibit selectable
Multiple emergency override modes for continuous no fault operation

OPERATION
PI control, output frequency and speed display can be programmed for other speed-related and control indications, including: RPM, CFM, GPM, PSI, in WC, % of maximum RPM, or custom
Pump status display capability:
System pressure setpoint
Control operation status
Pump motor output frequency
Transducer feedback
Drive status monitors
Drive lifetime monitors
Power loss ride-through (2 seconds capable)
VFD accepts either a direct acting or a reverse acting speed command signal.
Bi-directional "Speed Search" capability to start into a rotating load. Two types: current detection and residual voltage detection
DC injection braking to prevent fan "windmilling"
Remote Run/Stop command input
Eight programmable multi-function input terminals (24 VDC) providing 60+ programmable features
Three programmable 0 to 10 VDC or 4-20 ma analog inputs: functions including frequency reference, PID setpoint, PID feedback, PTC motor temperature and others
Two programmable 0 to 10 VDC or 4-20 ma analog outputs: proportional to drive monitor functions including output frequency, output current, output power, PI feedback, output voltage and others
Three programmable multi-function output relays: Form A rated 2 A @ 250 VAC & 30 VDC providing 50+ functions
One fixed "Fault" Form C output relay: Rated 2 A @ 250 VAC & 30 VDC
Eight programmable application presets
8-Line, 32-character Local-Remote LCD display provides readout functions that include output frequency, output voltage, output current, output power, DC bus voltage, interface terminal status, PI feedback and fault statusOver 100 programmable functions resettable to factory presets
User parameter initialization to re-establish project specific parameters
Automatic parameter backup with selectable time intervals
Ramp-to-stop, coast-to-stop, DC injection braking-to-stop or coast-to-stop with timer selection
Auto restart capability: 0 to 10 attempts with adjustable delay time between attempts
One custom selectable Volts/Hertz pattern and multiple preset Volts/Hertz patterns
Frequency reference input signal, adjustable for bias and gain
While the VFD is running, operational changes in control and display functions are possible, including:
- Acceleration time: 0 to 6000 seconds
- Deceleration time: 0 to 6000 seconds
- Frequency reference command
- Monitor display

Automatic energy saving optimizer, reduced voltage operation

PRODUCT FEATURES
VFD efficiency: 96% at half-speed; 98% at full-speed
Controlled speed range of 40:1
Maximum output frequency: 400 Hz
Functional safety: Safe Torque Off (SIL3, Cat. 3, PLe)
140% starting torque capability, available from 3 Hz to 60 Hz
Displacement power factor of .98 throughout the motor speed range
Remote speed reference (speed command) signal:
0 to 10 VDC (20 kΩ)
4 to 20 mA DC (250 Ω)
24 VDC, 150 mA transmitter power supply
Data logging – record status for up to 10 monitors with adjustable sample time
Built-In real time clock for time and date stamping events
Custom monitors (up to 12 monitors) with bar graph, analog gauge, and trend plot display functions
Two internal (PI) controls
Drive internal PI closed-loop control with selectable engineering units
Independent PI control for use with external device
Feedback signal low pass filter
Feedback signal loss detection and selectable response strategy
Feedback signal inverse and square root capability
Input and output terminal status indication
Diagnostic fault indication
"S-curve" soft start / soft stop capability
Serial communication loss detection and selectable response strategy
"Up/Down" floating point control capability
Critical frequency rejection capability: three selectable, adjustable bandwidths
Analog/Digital Virtual I/O – internally sends an output to an input (no wiring needed)
Adjustable carrier frequency from 2 kHz to 12.5 kHz
Dynamic noise control for quiet motor operation
Programmable security code
Cloud service (Yaskawa Drive Cloud) for product registration and parameter storage
Store up to four additional parameter sets in keypad
16 preset speeds
Built-in Modbus RTU communications
Optional network communications include:

- EtherNet/IP
- EtherNet/IP dual port
- EtherCAT
- Modbus/TCP
- Modbus/TCP dual port
- PROFINET RT dual port
- PROFIBUS-DP
- DeviceNet
- LonWorks
- BACnet MSTP
- APOGEE/METASYS
- CANopen
- CC-Link
- MECHATROLINK II
- MECHATROLINK III

Rotational as well as Stationary motor auto-tuning
"High Slip Braking" (HSB) function stops the motor in up to half the time it would take without this function

Control Methods Include:
- V/F Control
- Enhanced PM Motor control
- SynRM Motor Control

Motor Types:
- Induction
- Permanent Magnet
- Synchronous Reluctance

Side by side mounting: 208 V/240 V up to 40 HP and 480V up to 100 HP
LCD Local/Remote keypad with copy keypad capability
Motor preheat function
Self-regulating lead/lag control for multiple drives (up to 5 fans or pumps)
Drive/motor alternation control (share motor run time for lead drive/motor)
Up to four PID setpoints
Enhance pump control features:
- Easy sleep/wakeup PID setup
- No flow/deadhead protection
- Submersible motor thrust bearing control
- Automatic system restart
- Sleep boost
- Low and high pressure feedback detection
- Power loss utility start delay timer
- Loss of prime (LOP)/pump dry-run protection
- Pre-charge control (controlled pipe fill)
- Optional dual transducer feedback for redundancy
- Impeller de-scaling/de-ragging control

Low city, low/high water alarm digital input selections
Draw down start level selection for PID setpoint
Contactor Multiplexing features:
Stage/de-stage control – add/remove pump based on feedback or output frequency
Speed reduction after lag pump staging
Setpoint boost after de-staging
Hard current limit
Back spin timer
Flash upgradeable firmware
Programming and firmware upgrade without three-phase main power
DriveWizard Mobile App (Bluetooth or USB-on-the-Go)
DriveWizard Mobile application programming
LED Status Ring

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E5 - PANELBOARDS

A. This section shall include panelboards and related equipment.

B. Furnish and install all such devices and completely connect and wire each device.

E5.01 SUBMITTALS AND SHOP DRAWINGS

Process catalog submittals, and equipment data for the following:

1. Panelboards
2. Enclosures
3. Breakers

E5.02 PANELBOARDS

A. Panelboards shall be fully rated for voltages as shown on plans and shall have circuit breakers rated for minimum 22,000 amps interrupting capacity. Main circuit breaker and circuit breakers shall be bolt on as scheduled on the drawings. Series ratings are not acceptable.

B. Panelboard enclosures shall be rated NEMA 3R were located outdoors.

C. All Panelboard bus bars shall be tin plated copper. Each panelboard shall have an integral SPD unit rated for 160 kA SPD series. SPD shall have operations counter and alarm contacts for SCADA input.

D. All conduits shall have grounding bushings installed and grounded to ground bus. Vacuum clean insides of each panelboard after all connections are made.

E. Panelboards shall be Eaton or Square D.

E5.03 GENERAL

Install panelboards where indicated on the drawings.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E6 - MISCELLANEOUS

E6.01 SCOPE

A. This section shall include wiring devices, disconnect switches, and equipment stands and control panels.

B. Furnish and install all such devices and completely connect and wire each device.

E6.02 SUBMITTALS AND SHOP DRAWINGS

A. Process catalog submittals and equipment data for the following:

1) Wiring Devices, Covers, and Boxes

2) Receptacles

3) Wiring Terminal Strips

4) Wireways

5) Junction Boxes

6) Enclosures

7) Safety Disconnect Switches

B. Submit shop drawings for equipment stands. Furnish panel board schedules with submittals.

E6.03 WIRING DEVICES

A. All wiring devices shall be specification grade and shall meet NEMA WD-1 requirements. Color shall be brown, unless otherwise indicated.

B. Cover plates for wiring devices shall be Appleton FSK series unless otherwise noted on the drawings. Boxes shall be Appleton type FD, cast aluminum, raised-lid type. Furnish integral mounting feet where called for on the drawings. Furnish multi-gang units for two or more switches.

C. Furnish the following miscellaneous wiring devices:

1) Single-pole, single-throw, 20A toggle switch shall be Arrow-Hart #1221, or equal.

2) Single-pole, double-throw (three-way) 20A toggle switch shall be Arrow-Hart #1223, or equal.

D. Weather proof GFCI receptacles shall each consist of the following:

1) 1-gang cast metal box with mounting feet.

2) Pass and Seymour, #2095 DSWRBK Spec, Grade 20 amp GFCI Receptacle with Weatherproof Flip Lid Deep Cover.

E6.04 TERMINAL STRIPS

A. Terminal strips for installation in junction boxes and the like shall be 600 volt, rated for 25 amps with tin- plated copper box lugs.

B. Furnish Allen-Bradley type 1492-HJ812 or equal in quantities as required.

E6.05 WIREWAYS

A. Wireways shall only be used with approval by the Owner as an alternate method when approved in writing from the Engineer. If used the wireways shall be NEMA 4X and shall be constructed of 304 stainless steel. Covers shall be hinged. Furnish 6" by 6" wireway in two 36" inch long sections. Furnish all gaskets, fitments, and accessories.

B. Wireways shall be Pentair (Hoffman) or equal products.

E6.06 JUNCTION BOXES

Junction boxes shall be hinged door type and shall have interior mounting sub panel. Enclosure shall be Hoffman or equal. Enclosure shall be sized to house the specified equipment, but shall not be less than the size indicated on the drawings.

Junction box rating shall be NEMA 4X and shall be constructed of 304 stainless steel. Junction box shall have a sub-panel construction for terminal strip.

Junction box shall use 3 point latch opposite piano hinge with padlockable latch. No hold down screw clamps or clips are acceptable.

E6.07 ENCLOSURES

Indoor enclosures for equipment shall be hinged door type and shall have interior mounting sub panel and where indicated a side mounting subpanel. Enclosures shall be Hoffman or equal. Enclosure shall be sized to house the specific equipment but shall not be less than the size indicated on the drawings.

Enclosures shall be NEMA 4x 304 stainless steel.

E6.08 WIRING DEVICES

A. Install wiring devices where shown and support each box to wall with stainless steel hardware into typical drilled expansion shields.

B. Set each wiring device with axis plumb and install with yoke screws so as to adequately support each device.

E6.09 TERMINAL STRIPS

A. Install terminal strips as hereinbefore specified. Mount to enclosures or backpans with stainless steel hardware.

B. Label each terminal directory with numbers corresponding to wire numbers landed.

E6.10 SAFETY SWITCHES

A. Safety Switches shall be Heavy Duty, fused for the higher requirement of the intended service or specified on the drawings. Fused saftey switches shall be provided with Class R fuses and fuse

clips. Furnish 600 volt rated safety switches for 480 volt applications and 240 volt rated safety switches for 120/240V volt applications.

B. Outdoor safety switches shall have NEMA 4X enclosures.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E7 - ELECTRIC UTILITY SERVICE

E7.01 SCOPE

A. The existing electrical utility service is provided by TNMP. The secondary service voltage is 480Y/277 volts, 3 phase, 4 wire, solidly grounded. The secondary electrical underground shall meet the requirements of TNMP for installation of their distribution primary wiring circuits to the new transformer. The Contractor shall allow in bid for furnishing and installing all work associated with the installation of the electrical service, conduits, and the transformer.

B. The Contractor shall coordinate with TNMP and the City regarding the scheduling and the sequencing of work within one week of contract award to verify scheduled delivery of equipment as to not interfere with the contract time. The coordination work shall include obtaining all permits and inspection as required by the City and TNMP.

C. This work shall be as specified herein, per TNMP specifications, and shall be verified by the Contractor to meet the requirements of TNMP "Electric Service Guidelines," latest edition. The installation shall also meet the latest requirements of the NESC and NEC (NFPA 70).

E7.02 RACEWAYS

Raceways shall be as specified under Specification Section E2 or as required by TNMP from the primary to the transformer.

E7.03 WIRE AND CABLE

Service wire and cable shall be furnished and installed as specified under Specification Section E3.

E7.04 UNDERGROUND

Underground secondary shall be furnished and installed as specified under Specifications Sections E10 and as specified herein.

E7.05 GENERAL

A. Underground conduit shall be installed per Specification Section E8.

B. Coordinate with electric utility TNMP inspector for inspection of underground work prior to trenching and backfilling and as otherwise required by utility.

C. Pull a mandrel through each conduit to check and clear blockage. Install service conductors with cable as specified under RACEWAY SECTION. Install a mule tape (pull tape - a flat ribbon, consecutively numbered in feet, which is usually made of polyester or aramid yarn and may be coated with plastic for waterproofing) in the empty conduit for use by TNMP.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E8 - DIESEL GENERATOR SYSTEM

E8.01 GENERAL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Diesel engine.
2. Diesel fuel-oil system.
3. Control and monitoring.
4. Generator overcurrent and fault protection.
5. Generator, exciter, and voltage regulator.
6. Outdoor engine generator enclosure (where selected).
7. Vibration isolation devices (where applicable).

B. Related Requirements:

1. Section 262313 "Paralleling Low-Voltage Switchgear" for controls and paralleling equipment for large or multiple parallel engine generators.
2. Section 263343 "Battery Chargers" for remote engine battery chargers.
3. Section 263600 "Transfer Switches" for transfer switches including sensors and relays to initiate automatic-starting and -stopping signals for engine generators.

1.2 DEFINITIONS

A. EPS: Emergency power supply.

B. EPSS: Emergency power supply system.

C. Operational Bandwidth: The total variation from the lowest to highest value of a parameter over the range of conditions indicated, expressed as a percentage of the nominal value of the parameter.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.
2. Include thermal damage curve for generator.
3. Include time-current characteristic curves for generator protective device.
4. Include fuel consumption in gallons per hour (liters per hour) at 0.8 power factor at 0.5, 0.75, and 1.0 times generator capacity.
5. Include generator efficiency at 0.8 power factor at 0.5, 0.75, and 1.0 times generator capacity.

6. Include airflow requirements for cooling and combustion air in cubic feet per minute (cubic meters per minute) at 0.8 power factor, Provide Drawings indicating requirements and limitations for location of air intake and exhausts.
7. Include generator characteristics, including, but not limited to, kilowatt rating, efficiency, reactances, and short-circuit current capability.

B. Shop Drawings:

1. Dimensioned Outline Drawings of Equipment Unit: With engine and generator mounted on rails, identify center of gravity and total weight for provided components; fuel tank, enclosure, silencer, base tank, each piece of equipment not integral to the engine generator.
2. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
3. Identify fluid drain ports and clearance requirements for proper fluid drain.
4. Design calculations for selecting vibration isolators and seismic restraints and for designing vibration isolation bases.
5. Vibration Isolation Base Details: Detail fabrication including anchorages and attachments to structure and to supported equipment. Include base weights.
6. Include diagrams for power, signal, and control wiring. Complete schematic, wiring, and interconnection diagrams indicating terminal markings for engine generators and functional relationship between all electrical components.
7. Rigging Information: Indicate location of each lifting attachment, generator-set center of gravity, and total package weight in submittal drawings.

1.4 INFORMATIONAL SUBMITTALS

A. Seismic Qualification Data: Certificates, for engine generator, accessories, and components, from manufacturer.

1. Basis for Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
2. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.

B. Source Quality-Control Reports: Including, but not limited to, the following:

1. Certified summary of prototype-unit test report. Perform tests at rated load and power factor. Provide the following test results:

   a. Maximum Power Level
   b. Maximum Motor Starting (sKVA)
   c. Structural Soundness
   d. Torsional Analysis
   e. Transient Response
   f. Alternator Temperature Rise
   g. Engine Cooling Requirements (unit mounted radiator)
   h. Harmonic Analysis (per IEEE-115 and ANSI-100)
   i. Voltage Regulation
   j. Endurance Testing

2. Certified Test Reports: For components and accessories that are equivalent, but not identical, to those tested on prototype unit.

3. Report of factory test on units to be shipped for this Project, indicating evidence of compliance with specified requirements.
4. Report of sound generation.
5. Report of exhaust emissions indicating compliance with applicable regulations.
6. Certified Torsional Vibration Compatibility: Comply with NFPA 110.

C. Field quality-control reports. Field start up report and unit in-service documentation, including load bank test results if applicable.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For packaged engine generators to include in emergency, operation, and maintenance manuals. Include manufacturer's recommended maintenance and periodic testing plan in accordance with NFPA 110, Chapter 8.

B. Furnish extra materials required by local Authority Having Jurisdiction (AHJ) and defined in project documents that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1.6 QUALITY ASSURANCE

A. The generator set covered by these specifications shall be designed, tested, rated, assembled and installed in accordance with all applicable standards below:

1. CSA C22.2, No. 14-M91 Industrial Control Equipment.
2. CSA C22.2, No. 100 Motors and Generators
3. CSA 282-15
4. EN 61000-6
5. EN 55011
6. FCC Part 15 Subpart B
7. ISO 8528
8. IEC 61000
9. UL 508
10. UL 2200
11. UL 142
12. UL 6200
13. Designed to allow for installed compliance to NFPA 37, NFPA 70, NFPA 99 and NFPA 110

B. Manufacturer Qualifications:

1. Current certificate holder for ISO 9001 compliance.
2. The power system shall be produced by a manufacturer who has produced this type of equipment for a period of at least 25 years and who maintains a service organization of factory-authorized generator technicians available twenty-four hours a day throughout the year.
3. Manufacturing and assembly of products must be done in the United States using domestically sourced materials to the extent practical.

C. Installer Qualifications: An authorized representative who is trained and certified by the manufacturer on stationary power systems.

1.7 WARRANTY

A. Manufacturer's Warranty: Manufacturer agrees to repair or replace components of packaged engine generators and associated auxiliary components that fail in materials or workmanship within specified warranty period.

1. Warranty: 5 Year Comprehensive from date of Substantial Completion.
2. A Comprehensive Warranty is defined as the manufacturer covering replacement parts, labor, and limited technician travel costs for covered warranty repairs during the listed warranty period. A Limited warranty is defined as the manufacturer covering replacement parts, labor, and limited technician travel costs for the first 2 years and then replacement parts for the remainder of the listed warranty period.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: Subject to compliance with requirements, provide Generac Power Systems, Inc.; 400 kW, 12.5L with a K0600124Y23 - 600kW alternator. The Three Phase generator shall be rated for 400 kW at 480 volts and 60 Hz, at 0.8 power factor lagging while operating at a maximum ambient temperature of 104 Fahrenheit and maximum altitude of 3500 feet above sea level without reduction in electrical output capacity. Comparable products by one of the following will be considered:

1. Generac, Inc.
2. Caterpillar, Inc.
3. Cummins Power Generation.

B. Source Limitations: Obtain packaged engine generators and auxiliary components from single source from single manufacturer. "Source Limitations: Obtain packaged engine generators and auxiliary components from single supplier. The equipment supplied and installed shall meet the requirements of NEC and all applicable local codes and regulations. All equipment shall be new, of current production.

C. Requests for substitutions shall be made a minimum of ten (10) days prior to bid date. Manufacturers catalog data and a completed generator sizing model using the proposed manufacturer's generator sizing software shall accompany each request and authorized acceptance shall be addenda only. Should any substitutions be made, the contractor shall bear responsibility for the installation, coordination and operation of the system as well as any engineering and redesign costs, which may result from such substitutions.

2.2 PERFORMANCE REQUIREMENTS

A. NFPA Compliance:

1. Comply with NFPA 37.
2. Comply with NFPA 70.
3. Comply with NFPA 99.
4. Comply with NFPA 110 requirements for Level 1 EPSS.

B. UL Compliance: Engine generator assembly and factory enclosure (if provided) shall be UL 2200 listed.

C. Engine Exhaust Emissions: Comply with applicable US EPA, State and Local Government requirements. Diesel Stationary Emergency: Engines shall be certified by the manufacturer to comply with 40 CFR Part 60 Subpart IIII.

2.3 ENGINE GENERATOR ASSEMBLY DESCRIPTION

A. Factory-assembled and -tested, water-cooled engine, with brushless generator and accessories.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and use.

C. Power Rating: Standby.

D. Service Load: The generator set shall be a Generac model 400 kW, 12.5L with a K0600124Y23 - 600kW alternator. It shall provide 400 kW and 500 kVA while operating at the maximum ambient operating temperature and elevation specified in the project documents.

E. Power Factor: 0.8 lagging.

F. Frequency: 60 Hz.

G. Voltage: 480 Volts ac.

H. Phase: Three Phase, Four Wire.

I. Induction Method: Turbocharged.

J. Governor: Adjustable isochronous, with speed sensing.

K. Mounting Frame: Structural steel framework to maintain alignment of mounted components without depending on concrete foundation. Provide lifting attachments sized and spaced to prevent deflection of base during lifting and moving.

L. Nameplates: For each major system component to identify manufacturer's name, model and serial number of component.

M. Engine Generator Performance:

1. Steady-State Voltage Operational Bandwidth: 3 percent of rated output voltage from no load to full load.
2. Transient Voltage Performance: Not more than 10.21 percent variation for 50 percent step-load increase or decrease at unity power factor. Voltage shall recover and remain within the steady-state operating band within three seconds.
3. Steady-State Frequency Operational Bandwidth: 0.5 percent of rated frequency from no load to full load.
4. Steady-State Frequency Stability: When system is operating at any constant load within the rated load, there shall be no random speed variations outside the steady-state operational band and no hunting or surging of speed.
5. Transient Frequency Performance: Less than 3.5 Hertz variation for 50 percent step-load increase or decrease at unity power factor. Frequency shall recover and remain within the steady-state operating band within five seconds.

6. Output Waveform: At no load, harmonic content measured line to line or line to neutral shall not exceed 5 percent total and 3 percent for single harmonics. Telephone influence factor, determined in accordance with NEMA MG 1, shall not exceed 50 percent.
7. Sustained Short-Circuit Current: For a three-phase, bolted short circuit at system output terminals, system shall supply a minimum of 300 percent of rated full-load current for not less than 10 seconds and then clear the fault automatically, without damage to generator system components.
8. Start time to comply with NFPA system requirements.

2.4 ENGINE PERFORMANCE

A. Fuel: ASTM D975, diesel fuel oil, Grade 2-D S15. Engine shall be capable of operating on hydrotreated vegetable oil blends (up to HVO 100) conforming to the EN 15940 specification without modification.

B. Rated Engine Speed: 1800 rpm.

C. Lubrication System to be engine mounted.

1. Oil filter shall be engine-mounted replaceable cartridge type with integral bypass valve, in accordance with manufacturer recommendations.
2. Thermostatic Control Valve: Control flow in system to maintain optimum oil temperature. Unit shall be capable of full flow and is designed to be fail-safe.
3. Crankcase Drain: Arranged for complete gravity drainage to an easily removable container with no disassembly and without use of pumps, siphons, special tools, or appliances.

D. Jacket Coolant Heater: Jacket water heater shall be sized per NFPA110 and UL listed to ensure that genset will start within the specified time period and ambient conditions.

E. Integral Cooling System: Closed loop, liquid cooled, with radiator factory mounted on engine generator set mounting frame and integral engine-driven coolant pump.

1. Coolant: Solution of 50 percent ethylene-glycol-based antifreeze and 50 percent water, with anticorrosion additives as recommended by engine manufacturer.
2. Expansion Tank: Constructed of welded steel plate and rated to withstand maximum closed-loop coolant system pressure for engine used. Equip with gauge glass and petcock.
3. Temperature Control: Self-contained, thermostatic-control valve modulates coolant flow automatically to maintain optimum constant coolant temperature as recommended by engine manufacturer.
4. Maximum Ambient Operating Temperature on Radiator: 122 degrees F (50 degrees C).
5. Coolant Hose: Flexible assembly with inside surface of nonporous rubber and outer covering of aging-, UV-, and abrasion-resistant fabric.

    a. Rating: 50-psig (345-kPa) maximum working pressure with coolant at 180 deg F (82 deg C), and noncollapsible under vacuum.
    b. Meets SAE 100R1A Type S, EN853 1SN, ISO 1436-1 Type 1SN
    c. a Fittings: Flanges or steel pipe nipples with clamps to suit piping and equipment connections.

F. Muffler/Silencer:

1. Critical type, sized as recommended by engine manufacturer and selected with exhaust piping system to not exceed engine manufacturer's engine backpressure requirements.

G. Air-Intake Filter: Heavy duty, engine-mounted air cleaner with replaceable dry-filter element and "blocked filter" indicator.

H. Starting System: 12 or 24-V electric, with negative ground.
1. Cranking Cycle: As required by NFPA 110 for system level specified.
2. Battery: Lead acid, with capacity within ambient temperature range specified in "Performance Requirements" Article to provide specified cranking cycle as required by NFPA 110 for system level specified.
3. Battery-Charging Alternator: Factory mounted on engine with solid-state voltage regulation and 35 minimum continuous rating.
4. Battery Charger: Current-limiting, automatic-equalizing, and float-charging type designed for lead-acid batteries. Unit shall comply with UL 1236 and NFPA 110 Section 5.6.4.6 for Level 1 systems.:

2.5 FUEL SYSTEM – DIESEL

A. Comply with NFPA 37.

B. Piping: Fuel-oil piping shall be Schedule 40 black steel, complying with requirements in Section 231113 "Facility Fuel-Oil Piping." Cast iron, aluminum, copper, and galvanized steel shall not be used in the fuel-oil system.

C. Main Fuel Pump: Mounted on engine to provide primary fuel flow under starting and load conditions.

D. Fuel Filtering: Remove water and contaminants larger than 2 microns.

E. Relief-Bypass Valve: Automatically regulates pressure in fuel line and returns excess fuel to source.

F. Subbase-Mounted, Double-Wall, Fuel-Oil Tank: Factory installed and piped, complying with UL 142 fuel-oil tank. Features include the following:

1. Tank level indicator.
2. Fuel-Tank Capacity: Sized for 24 running hours at 100% of rated generator load between fuel refills.
3. Leak detection in interstitial space.
4. Vandal-resistant fill cap.
5. Containment Provisions: Comply with requirements of authorities having jurisdiction. Secondary containment basin, sized at a minimum of 110% of the tank capacity to prevent escape of fuel into the environment in the event of a primary tank rupture.
6. Normal and emergency vents on the main tank and secondary containment space, sized according to UL 142.

2.6 CONTROL AND MONITORING

A. Automatic Starting System Sequence of Operation: When mode-selector switch on the control and monitoring panel is in the automatic position, remote-control contacts in one or more separate automatic transfer switches initiate starting and stopping of engine generator.

When mode-selector switch is switched to the on position, engine generator starts. The off position of same switch initiates engine generator shutdown. When engine generator is running, specified system or equipment failures or derangements automatically shut down engine generator and initiate alarms.

B. Manual Starting System Sequence of Operation: Switching on-off switch on the generator control panel to the on position starts engine generator. The off position of same switch initiates engine generator shutdown. When engine generator is running, specified system or equipment failures or derangements automatically shut down engine generator and initiate alarms.

C. Provide minimum run time control set for 15 minutes with override only by operation of a remote emergency-stop switch.

D. Control panel must comply with UL 6200. The controller shall meet ASTM B117 (salt spray test).

E. Connection to Building Management: Provide connections for data transmission of indications to remote data terminals via Modbus.

F. Environmentally Hardened Design: Open circuit boards, edge cards, and PC ribbon cable connections are unacceptable.

G. PCB Construction: Circuit boards with surface-mounted components to provide vibration durability. Circuit boards utilizing large capacitors or heat sinks must utilize encapsulation methods to securely support these components.

H. Configuration:

1. Operating and safety indications, protective devices, basic system controls, and engine gauges shall be grouped in a common control and monitoring panel mounted on the engine generator. Mounting method shall isolate the control panel from engine generator vibration. Panel powered from the engine generator battery.

I. Control and Monitoring Panel:

1. Digital engine generator controller with integrated touch screen, controls, and microprocessor, capable of local and remote control, monitoring, and programming, with battery backup.
2. Instruments: Located on the control and monitoring panel and viewable during operation.

    a. Engine lubricating-oil pressure gauge.
    b. Engine-coolant temperature gauge.
    c. DC voltmeter (alternator battery charging).
    d. Running-time meter.
    e. AC voltmeter, for each phase.
    f. AC ammeter, for each phase.
    g. AC frequency meter.
    h. Generator-voltage adjusting feature.

3. Controls and Protective Devices: Controls, shutdown devices, and common alarm indication, including the following:

    a. Cranking control equipment.

b. Run-Off-Auto switch.
c. Control switch not in automatic position alarm.
d. Overcrank alarm.
e. Overcrank shutdown device.
f. Low-water temperature alarm.
g. High engine temperature pre-alarm.
h. High engine temperature.
i. High engine temperature shutdown device.
j. Overspeed alarm.
k. Overspeed shutdown device.
l. Low fuel main tank.

1) Low-fuel-level alarm shall be initiated when the level falls below that required for operation for duration required for the indicated EPSS class.

m. Coolant low-level alarm.
n. Coolant low-level shutdown device.
o. Coolant high-temperature prealarm.
p. Coolant high-temperature alarm.
q. Coolant low-temperature alarm.
r. Coolant high-temperature shutdown device.
s. EPS load indicator.
t. Battery high-voltage alarm.
u. Low cranking voltage alarm.
v. Battery-charger malfunction alarm.
w. Battery low-voltage alarm.
x. Lamp test.
y. Contacts for local and remote common alarm.
z. Remote manual stop shutdown device.
aa. Total engine run hours, non-resettable.
bb. Engine generator metering, including voltage, current, hertz, kilowatt, kilovolt ampere, and power factor.

J. Engine Generator Metering: Comply with [Section 260913 "Electrical Power Monitoring and Control."] [Section 262713 "Electricity Metering."] [Section 260913 "Electrical Power Monitoring and Control" and Section 262713 "Electricity Metering."]

K. External Alarm & Status Relays: Provide a separate terminal block, factory wired to Form C dry contacts, for each alarm and status condition required by Building Management or other external systems as shown on electrical drawings.

L. Common Remote Panel with Common Audible Alarm: Include necessary contacts and terminals in control and monitoring panel. Remote panel shall be powered from the engine generator battery.

M. Remote Alarm Annunciator: An LED indicator light labeled with proper alarm conditions shall identify each alarm event, and a common audible signal shall sound for each alarm condition. Silencing switch in face of panel shall silence signal without altering visual indication. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset. Cabinet and faceplate are surface- or flush-mounting type to suit mounting conditions indicated.

1. Overcrank alarm.
2. Low water-temperature alarm.
3. High engine temperature pre-alarm.

4. High engine temperature alarm.
5. Low lube oil pressure alarm.
6. Overspeed alarm.
7. Low fuel main tank alarm.
8. Low coolant level alarm.
9. Low cranking voltage alarm.
10. Contacts for local and remote common alarm.
11. Audible-alarm silencing switch.
12. Air shutdown damper when used.
13. Run-Off-Auto switch.
14. Control switch not in automatic position alarm.
15. Fuel tank derangement alarm.
16. Fuel tank high-level shutdown of fuel supply alarm.
17. Lamp test.
18. Low-cranking voltage alarm.
19. Generator overcurrent-protective-device not-closed alarm.

N. Remote Emergency-Stop Switch: Provide remote emergency stop switch in quantity and style as shown on electrical drawings. Electrical contractor to coordinate exact location with engineer and local AHJ.

O. Data Logging:

1. Event Logging – the controller keeps a record of up to 8,000 events with date and time locally for warning and shutdown faults. This event log can be downloaded onto a USB storage device or onto a PC through the service program.
2. Event Snapshot – the control system shall capture 15 seconds of critical data around the time a fault or warning. This data shall be viewable on the controller and downloadable.
3. Data Logging – the controller shall allow customized parameters to be logged based on a start trigger from the controller interface.

    a. The parameters are selectable from all monitored parameters.
    b. The sample period shall be configurable from 1 second to 1 day.
    c. The collected data shall be stored on a USB storage device plugged into the control panel.

2.7 GENERATOR OVERCURRENT AND FAULT PROTECTION

A. Overcurrent protective devices shall be coordinated to optimize selective tripping when a short circuit occurs.

1. Overcurrent protective devices for the entire EPSS shall be coordinated to optimize selective tripping when a short circuit occurs. Coordination of protective devices shall consider both utility and EPSS as the voltage source.

2. Overcurrent protective devices for the EPSS shall be accessible only to authorized personnel.

B. Generator Overcurrent Protective Device:

1. Unit mounted circuit breakers. Rating, ampacity, accessories, as shown on drawings or as listed below:
2. Molded-case type disconnect switch; 100 percent rated:

a. Trip Rating: Matched to generator output rating.
b. Shunt Trip: Connected to trip switch when signaled by generator protector or by other protective devices.

C. Generator Controller Integrated Alternator Protective Functions:

1. Short-time I^2t function: Generator controller-based function shall continuously monitor current level in each phase of alternator output, integrate alternator heating effect over time, and predict when thermal damage of alternator will occur. As overcurrent heating effect on the alternator approaches the thermal damage point of the unit, protector switches the excitation system off, opens the generator disconnect device, and shuts down the engine generator. When signaled by generator protector or other engine generator protective devices, a shunt-trip device in the generator disconnect switch shall open the switch to disconnect the generator from load circuits.
2. Long-time function: Initiates a generator overload alarm when generator has operated at an overload equivalent to 110 percent of full-rated load for 60 seconds. Indication for this alarm is integrated with other engine generator malfunction alarms. Contacts shall be available for load shed functions.
3. Short-circuit fault clearing: Under single- or three-phase fault conditions, regulates generator to 300 percent of rated full-load current for up to 10 seconds.
4. Senses clearing of a fault by other overcurrent devices and controls recovery of rated voltage to avoid overshoot.

2.8 GENERATOR, EXCITER, AND VOLTAGE REGULATOR

A. Comply with NEMA MG 1.

B. Drive: Generator shaft shall be directly connected to engine shaft. Exciter shall be rotated integrally with generator rotor.

C. Electrical Insulation: Class H.

D. Stator-Winding Leads: Brought out to terminal box to permit future reconnection for other voltages if required.

E. Range: Provide range of output voltage by adjusting the excitation level.

F. Construction shall prevent mechanical, electrical, and thermal damage due to vibration, overspeed up to 125 percent of rating, and heat during operation at 110 percent of rated capacity. Stator shall be skewed construction to minimize harmonic voltage distortion.

G. Enclosure: Drip proof.

H. Instrument Transformers: Mounted within generator enclosure.

I. Voltage Regulator:

1. Voltage Regulator: Solid-state type, separate from exciter. The digital voltage regulator shall be microprocessor based with fully programmable operating and protection characteristics. The regulator shall maintain steady-state generator output voltage within +/- 0.25% for any constant load between no load and full load. The regulator shall be capable of sensing true RMS. The regulator shall provide an

adjustable Volts/Hz slope regulation characteristic in order to optimize voltage and frequency response for site conditions.

2. Alternator Excitation: Permanent Magnet Generator (PMG) shall provide excitation power for optimum motor starting and short circuit performance.
3. The generator must accept rated load in one-step.
4. Calculated Transient Voltage Performance: Motor starting performance and voltage dip determinations shall be based on the complete generator assembly. Voltage dip shall not exceed 3.3 percent based on the largest project block load, as determined by manufacturer's sizing program.
5. System Transient Voltage Performance: Alternator shall be capable of supplying 1610 sKVA with a voltage dip not more than 35% at 0.3 starting power factor. Sustained voltage dip data or manufacturer-published SKVA numbers based on unity PF alternator-only dynamometer testing will not be accepted.
6. Calculated Transient Frequency Performance: Transient frequency dip performance shall be based on the complete generator set. Maintain frequency within 1.8 percent based on largest project block load, as determined by manufacturer's sizing program.

J. Windings: Two-thirds pitch stator winding and fully linked amortisseur winding.

2.9 OUTDOOR ENGINE GENERATOR ENCLOSURE

A. Basis of design is a Sound Level 2.

B. Generator packaged within manufacturer's weather protective, sound attenuated enclosure. Enclosure and generator set shall be UL 2200 Listed as a system.

C. Enclosure Construction: Minimum 14 gauge construction. Roof construction shall be raised-seam, gasket-free interlocking panels. Rivets shall not be used on external painted surfaces. Design shall be rodent resistant.

D. Doors shall be equipped with lift-off pin and sleeve type hinges to allow access to the engine, alternator, and control panel. Hinges shall be adjustable for door alignment. Hinges and all exposed fasteners shall be stainless steel. Each door shall be equipped with minimum 2-point latching mechanism and identical keys. Perimeter of all door openings shall include polyethylene gasket.

E. Upward discharging exhaust hood for engine cooling airflow and exhaust.

F. Engine exhaust silencer mounted within enclosure discharge hood.

G. Enclosure Finish: Electrostatic applied powered paint, baked and finished to manufacturer's specifications. Finish system shall be subjected to the following tests:

1. ASTM D1186 - 87; 2.5+ mil Paint Thickness
2. ASTM D3363 - 92a; Material Hardness
3. ASTM D522 - B; Resistance to Cracking
4. ASTM D3359 - B; Adhesion
5. ASTM B117 D 1654; Resistant to Salt Water Corrosion
6. ASTM D1735 D 1654; Resistant to Humidity
7. ASTM 2794 93 (2004); Impact Resistance
8. SAE J1690 - UV Protection"

H. Enclosure Color: Manufacturer's standard color, or custom color matched based on architect's design with color sample provided to generator manufacturer.

I. Wind Rating: Enclosure shall be constructed to attain basic wind speed rating of 110 MPH; WIF 1.15, Exposure Category "C", Building Classification "Enclosed", Topographic Factor Kzt = 1. Wind Design Pressures: windward, 20.6 lb/ft^2; leeward, -12.9 lb/ft^2; roof, -18.0 lb/ft^2."

J. Snow Load Rating: Minimum 70 pounds per square foot.

K. Engine-Cooling Airflow through Enclosure: Maintain temperature rise of system components within required limits when unit operates at 110 percent of rated load for two hours with ambient temperature at top of range specified in system service conditions.

L. Sound Insulation: Enclosure and air discharge hood completely lined with reflective silver mylar faced sound attenuating closed cell foam that meets UL 94 HF1 standards for flammability (FMVSS 302 test method). Roof sound insulation panels shall include additional mechanical retention.

M. Sound Performance: The engine generator, while operating at full rated load, shall not exceed 75.00 dBA average measured at 23 ft (7 meters) from the engine generator in a free field environment.

N. Louvers: Fixed-engine, cooling-air inlet and discharge. Stormproof and drainable louvers prevent entry of rain and snow.

O. Convenience Outlet: Factory-wired convenience 120v duplex-outlet within enclosure, GFCI.

2.10 VIBRATION ISOLATION DEVICES

A. Elastomeric Isolator Pads: Oil- and water-resistant elastomer or natural rubber, arranged in single or multiple layers, molded with a nonslip pattern and galvanized-steel baseplates of sufficient stiffness for uniform loading over pad area, and factory cut to sizes that match requirements of supported equipment for units with a ratings 750kw or below.

1. Material: Standard neoprene separated by steel shims.

B. Spring Isolators: Freestanding, steel, open-spring isolators with seismic restraint for units with a rating larger than 750kw.

1. Housing: Steel with resilient vertical-limit stops to prevent spring extension due to wind loads or if weight is removed; factory-drilled baseplate bonded to 1/4-inch- (6-mm-) thick, elastomeric isolator pad attached to baseplate underside; and adjustable equipment-mounting and -leveling bolt that acts as blocking during installation.
2. Outside Spring Diameter: Not less than 80 percent of compressed height of the spring at rated load.
3. Minimum Additional Travel: 50 percent of required deflection at rated load.
4. Lateral Stiffness: More than 80 percent of rated vertical stiffness.
5. Overload Capacity: Support 200 percent of rated load, fully compressed, without deformation or failure.
6. Minimum Deflection: 0.5.

C. Vibration isolation devices shall not be used to accommodate misalignments or to make bends.

2.11 SOURCE QUALITY CONTROL

A. Prototype Testing: Factory test engine generator using same engine model, constructed of identical or equivalent components and equipped with identical or equivalent accessories.

1. Tests: Comply with IEEE 115 and with NFPA 110, Level 1 Energy Converters.

B. Project-Specific Equipment Tests: Before shipment, factory test engine generator and other system components and accessories manufactured specifically for this Project. Perform tests at rated load and power factor. Include the following tests:

1. Test components and accessories furnished with installed unit that are not identical to those on tested prototype to demonstrate compatibility and reliability.
2. Test generator, exciter, and voltage regulator as a unit.
3. Full load run.
4. Maximum power.
5. Voltage regulation.
6. Transient and steady-state governing.
7. Single-step load pickup.
8. Safety shutdowns.
9. Report factory test results within 10 days of completion of test.

2.12 FINISHES

A. Indoor and Outdoor Enclosures and Components: Manufacturer's standard finish over corrosion-resistant pretreatment and compatible primer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas, equipment bases, and conditions, with Installer present, for compliance with requirements for installation and other conditions affecting packaged engine generator performance.

B. Examine roughing-in for piping systems and electrical connections. Verify actual locations of connections before packaged engine generator installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Interruption of Existing Electrical Service: Do not interrupt electrical service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary electrical service in accordance with requirements indicated:

1. Notify Project Manager in advance of proposed interruption of electrical service.
2. Do not proceed with interruption of electrical service without written permission.

3.3 INSTALLATION

A. Comply with NECA 1 and NECA 404.

B. Comply with packaged engine generator manufacturers' written installation and alignment instructions and with NFPA 110.

C. Equipment Mounting:

1. Install packaged engine generators on cast-in-place concrete equipment bases or steel dunnage as indicated on drawings.
2. Coordinate size and location of mounting bases for packaged engine generators.
3. Install unit with vibration isolation devices described in section 2.11.

3.4 FIELD QUALITY CONTROL

A. Tests and Inspections: The supplier of the electric generating plant and associated items covered herein shall provide factory certified technicians to inspect the completed installation and to perform an initial startup inspection to include:

1. Ensuring the engine starts (both hot and cold) within the specified time.
2. Verification of engine parameters within specification.
3. Verify no load frequency and voltage, adjusting if required.
4. Test all automatic shutdowns of the engine-generator.
5. Perform a load test of the electric plant, ensuring full load frequency and voltage are within specification by using building load.

B. NFPA 110 Acceptance Tests: Perform tests required by NFPA 110 that are additional to those specified here, including, but not limited to, single-step full-load pickup test.

C. Battery and Charger Tests:

1. Measure charging voltage and voltages between available battery terminals for full-charging and float-charging conditions.
2. Verify that measurements are within manufacturer's specifications."

D. System Integrity Tests: Verify proper installation, connection, and integrity of each element of engine generator system before and during system operation. Check for air, exhaust, and fluid leaks.

E. Coordinate tests with tests for transfer switches and run them concurrently.

F. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation for generator and associated equipment.

G. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

H. Remove and replace malfunctioning units and retest and reinspect as specified above.

I. Retest: Correct deficiencies identified by tests and observations, and retest until specified requirements are met.

J. Report results of tests and inspections in writing. Record adjustable relay settings and measured insulation resistances, time delays, and other values and observations.

3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain packaged engine generators.

3.6 MAINTENANCE SERVICE

A. Repair Service Capabilities:

1. The generator set supplier shall maintain service parts inventory for the entire power system at a central location which is accessible to the service location 24 hours per day, 365 days per year. The manufacturer of the generator set shall maintain a central parts inventory to support the supplier, covering all the major components of the power system, including: engines, alternators, control systems, paralleling electronics, and power transfer equipment.
2. The generator set shall be serviced by a local service organization that is trained and factory certified in generator set service. The supplier shall maintain an inventory of power system replacement parts in the local service location. Service vehicles shall be stocked with critical replacement parts. The service organization shall be on call 24 hours per day, 365 days per year. The service organization shall be physically located within 50 miles of the site.
3. The manufacturer shall maintain model and serial number records of each generator set provided for at least 20 years.

END OF SECTION

SECTION E9

AUTOMATIC TRANSFER SWITCH

PART 1 - GENERAL

1. General Description

Provide and install one (1) Automatic Transfer Switch (ATS), Generac Model TX611 Series or approved equal, rated for 600 Amps, 277/480V, 3 Phase, 3 Pole, 60 Hz. The switch shall be configured for open transition operation, housed in a NEMA 3R rated enclosure suitable for outdoor installation.

2. Standards and Certifications

The ATS shall comply with or be listed to the following standards:
• UL 1008, ETL Listed
• NFPA 70, 99, 110
• NEC Articles 700, 701, 702, 708
• cETL Listed
The ATS shall be rated for 100% current carrying capacity at 600V, 60 Hz.

3. Construction and Enclosure

The ATS shall be a contactor-type, double-throw design with mechanical and electrical interlocks to prevent simultaneous connection of both power sources. Enclosure shall be NEMA 3R wall mount type, equipped with a heater and padlockable cover for weather protection. The transfer switch shall feature silver composite contacts for long service life and minimal pitting or burning.

4. Electrical Ratings

• Voltage: 277/480V AC, 3 Phase, 3 Pole
• Frequency: 60 Hz
• Amperage: 600 Amps
• Withstand and Closing Ratings: 50 kA, 3-Cycle; 200 kA fuse rating (Class L)
• Operating Temperature: -4°F to 158°F (-20°C to 70°C)

5. Controller and Operation

The ATS shall be equipped with a TXC 100 microprocessor-based controller with LCD display for programming, diagnostics, and status indication. The controller shall include the following standard features:
• Three-phase voltage and frequency sensing on normal and emergency sources
• Under/over voltage and frequency protection
• Phase reversal and phase unbalance detection
• Programmable time delays and exerciser functions (daily, weekly, biweekly, monthly)
• Built-in Modbus® RTU communications
• Two programmable inputs and one programmable output (expandable to four each)
• Event history log with time-stamped records
• Battery backup capable of powering controller for 60 minutes without source availability

6. Dimensions and Wiring

Approximate dimensions (600A, 3 Pole, NEMA 3R):
• Height: 54.5 in (1384 mm)
• Width: 40.4 in (1025 mm)
• Depth: 18.1 in (495 mm)
• Weight: 245 lbs (111 kg)
• Wire Terminations: (2) 750 kcmil Al/Cu conductors per phase

• Neutral Termination: (10) 600 – 4 AWG or (20) 250 – 1/0 AWG
• Ground Termination: (10) 350 kcmil – 6 AWG

7. Options and Accessories
• Heater for temperature and humidity control (included with 3R)
• Transient Voltage Surge Suppressor (TVSS)
• Padlockable cover (standard for 3R)

• Expandable I/O board (4 relay outputs, 4 optically isolated inputs)

8. Warranty
The ATS shall include a minimum two-year standard warranty from the manufacturer, with optional extended warranties available (5, 7, or 10 years).

TECHNICAL SPECIFICATIONS

SECTION E10 - UNDERGROUND ELECTRICAL

E10.01 SCOPE OF WORK

Furnish and install a system of underground raceways and wiring as shown on the drawings.

E10.02 APPLICATIONS

Except as otherwise shown on the Drawings, or otherwise specified, all underground and in-slab conduit raceways shall be of the following type:

A. For small diameter conduits for instrumentation and power feeder circuits, conduit runs shall be made with schedule 80 PVC. Bends to grade shall be made with plastic coated rigid aluminum conduit. Plastic coated aluminum conduit in all cases shall extend 6 inches above the concrete. All conduits of this type leaving building shall be sand encased with at least a 10 foot length of plastic coated aluminum conduit before converting to schedule 80 PVC.

B. All instrumentation underground conduit runs shall be made with plastic coated rigid aluminum conduit if less than 24-inches from underground power conduits.

C. The ductbank for the primary shall consist of two schedule 80 PVC conduits as indicated in the standard details. Piers are not required for this ductbank.

E10.03 SUBMITTALS

Process submittals for the following:

A. Non Metallic conduit
B. Metallic conduit
C. Grounding Bushings
D. Buried conduit marker tape
E. Conduit supporting saddles

E10.04 RELATED WORK SPECIFIED UNDER OTHER SECTIONS

A. Refer to Section E2 for Raceways.
B. Refer to Section E3 for Wire and Cable
C. Refer to Section E11 for Grounding System.
D. Refer to General Conditions for Concrete.

E10.05 RACEWAYS

Raceways shall be as specified in Section E2.

E10.06 MISCELLANEOUS

A. Gravel for underbedding of conduits shall be washed type pea gravel.

B. Plastic saddles (where allowed) for spacing and supporting conduits shall be interlocking types as manufactured by Cantex.

C. Plastic marker label tape for buried conduits shall be yellow background with black letters with repetitive marking "ELECTRIC LINE" on yellow background, continuous along its length. Furnish T&B #NA-0608, or equal tape.

E10.07 EXCAVATION AND BACKFILLING

A. Do all excavating and backfilling necessary for the installation of the work. This shall include shoring and pumping in ditches to keep them dry until the work has been installed.

B. All excavations shall be made to proper depth, with allowances made for floors, forms, beams, piping, finished grades, etc. Ground under conduits shall be undisturbed earth or if disturbed, mechanically compacted to a density ratio of 95% before conduits are installed.

C. All backfilling shall be made with selected soil, free of rocks and debris, and shall be pneumatically tamped in six (6") inch layers to secure a field density ratio of 95%.

D. Field check and verify the locations of all underground utilities prior to any excavating. Avoid disturbing these as far as possible. In the event existing utilities are broken into or damaged, they shall be repaired so as to make their operation equal to that before the trenching was started.

E10.08 RACEWAYS

A. All underground conduits shall be PVC schedule 40 unless otherwise noted. All bends to grade shall be made with plastic coated rigid metallic conduits and shall extend to 6 inches above concrete grade. Conduits shall be watertight over the entire length of the underground run.

B. Install all power, control, and signal wiring. Label each single conductor wire at each connection with PVC sleeve type wire labels. Label each signal cable at each end with plastic waterproof write-on type label to identify terminal connection and function and device served.

C. Where empty conduits terminate into equipment install blank "disc" under grounding bushing and bring specified foot-marked pull tape through disc. Label each end of each pull tape with waterproof plastic label to identify terminus of other end and also show conduit size.

E10.09 WIRING

All underground wiring runs shall be installed from line to load without splice.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E11 - GROUNDING SYSTEMS

E11.01 SCOPE

A. Furnish and install complete grounding systems in accordance with Article 250 of the National Electrical Code as shown on the Drawings and as specified herein.

B. Provide ground ring grounding electrode system as shown on the drawings and as specified herein.

E11.02 SUBMITTALS

Submit manufacturers' catalog sheets with catalog numbers marked for the items furnished, which shall include:

A. Ground well casings

B. Ground rods

C. Terminal lugs and clamps

D. Exothermal welding materials

E. Ground cable

F. Ground connection hardware

E11.03 GROUNDING ELECTRODES

A. All ground ring grounding electrodes and grounding electrode conductors shall consist of tin plated stranded copper.

B. All ground rods shall be copper clad steel products, 3/4" diameter x 10 foot long, unless otherwise indicated. Ground rods shall be Blackburn #6258, or equal. Provide heavy duty ground rod clamps, exothermic welds where concealed or below grade. Equal to Blackburn #GG58 where vertical connections are installed and #GUV where U-bolt connectors are installed to serve horizontal connections.

E11.04 GROUNDING DEVICES

A. Conduit grounding bushings shall be furnished as specified under Section E2 - Raceways.

B. Equipment grounding conductors and connectors shall be furnished as specified under Section E3 – Wire &Cable.

C. Flush cast metal grounding plates shall consist of bronze body with flat plate on top and bolted clamp connector on bottom. Furnish flush ground connectors, Harger products or equal. Each such connector shall be furnished with silicon bronze connector bolts for installation of top-mounted grounding connectors.

D. Exothermal welding kits shall be "Cadweld" products as manufactured by Erico or equal. Molds, cartridges, powder, and accessories shall be as recommended by the manufacturer.

E11.05 GROUND TEST WELLS

A. Ground test wells shall be furnished each ground rod for the purpose of field testing the ground ring system.

B. Ground test wells shall each consist of ground rod with connector attached to the ground ring and contained within an access well with labeled top.

C. Ground test well enclosures shall be Brooks Product #3-RT series, or equal. Enclosures shall be 10" diameter x 12" tall and shall include cast iron cover with integrally cut "GROUND TEST WELL" in top of cover.

E11.06 GROUND RING AND GROUND WELLS

A. Install ground ring around the perimeter and under the new foundation as indicated in the drawings with tin-plated copper stranded conductor for the ground ring. Size ground ring conductor in accordance with NEC, unless otherwise indicated in the drawings. Install upcomer with indicated wire sizes of tin plated copper conductors. Exothermally weld all connections.

B. Install grounding cable for electrical equipment as indicated on the drawings, from the ground ring to the electrical equipment. Size grounding conductor in accordance with NEC, unless otherwise indicated in the drawings. Install Harger flush ground connectors to serve each grounding cable upcomers and run grounding cable from the top side of each ground connector to ground bus in equipment. Bond the ground connector to rebar in concrete.

C. Install ground rods in test wells where indicated on the drawings.

E11.07 TRANSFORMER

A. Bond transformer neutral to cabinet.

B. Install grounding electrode conductor from each transformer neutral to system grounding electrodes as shown. Size the grounding conductor in accordance with NEC Article 250.66.

E11.08 WIRING SYSTEMS GROUNDING

A. All equipment enclosures, motor and transformer frames, metallic conduit systems and exposed structural steel systems shall be grounded.

B. Equipment grounding conductors shall be run with all wiring. Sizes of equipment grounding conductors shall be based on Article 250 of the N.E.C. except where larger sizes may be shown. Bond each equipment grounding conductor to the equipment grounds at each end of each run. Run ground cable along full length and bond to each section and every enclosure where conductors originate or terminate. Protect grounded equipment conductor in conduit where it will be exposed to damage.

C. Liquid tight flexible metal conduit in sizes 1" and larger shall be equipped with external bonding jumpers. Use liquid tight connectors integrally equipped with suitable grounding lugs.

D. Where conduits enter into equipment free of the metal enclosure, install grounding bushing on each conduit and bond bushing lug to equipment ground bus.

E. Where conduits enter equipment enclosures, equip each penetration inside with grounding bushing. Install bonding jumper from each grounding bushing to ground bus.

F. Equipment enclosures that do not come furnished with a ground bus, install ground lug in each enclosure that shall be bonded to the metal cabinet or backpan of the enclosure.

G. Separately derived systems shall be each grounded as shown and shall comply with Article 250 of the NEC except where higher standards are shown.

E11.09 TESTING

A. All exothermic weld connections shall successfully resist moderate hammer blows. Any connection which fails such test or if upon inspection, weld indicates a porous or deformed connection, the weld shall be remade.

B. All exothermic welds shall encompass 100 percent of the ends of the materials being welded. Welds which do not meet this requirement shall be remade.

C. Test the ground resistance of the system. All test equipment shall be furnished by Contractor and be provided to the Engineer for review. Test equipment shall be as manufactured by Biddle or equal. Dry season resistance of the system shall not exceed five (5) ohms. If such resistance cannot be obtained with the system as shown, provide additional grounding as directed by Engineer.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E12 - POWER SYSTEMS STUDY AND ARC FLASH

PART I - GENERAL

E12.01 SUMMARY

This section specifies Short Circuit Studies, Protective Device Coordination Studies, Harmonic Studies, Arc Flash Studies and Arc Flash Warning Labels.

E12.02 RELATED REQUIREMENTS

A. Work as called for on PLANS, or in this or other Specification Sections.

E12.03 REFERENCES

A. The publications listed below form a part of this specification to the extent referenced and shall apply as if written here in their entirety. The publications are referred to in the text by basic designation only.

1.	ANSI	American National Standards Institute
2.	IEEE C57.12.00	Standard for General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers
3.	IEEE 242	Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems
4.	IEEE 399	Recommended Practice for Industrial and Commercial Power System Analysis
5.	IEEE 1548	Guide for Performing Arc Flash Hazard Calculations
6.	NEMA Z535.4	American National Standard for Product Safety Signs and Labels
7.	NFPA 70	National Electrical Code (NEC)
8.	NFPA 70E	Standard for Electrical Safety in the Workplace
9.	OSHA 29 CFR Part 1910 Subpart S	Electrical

E12.04 – 1.05 (NOT USED)

1.06 SUBMITTALS

A. Submittals shall be made in accordance with the requirements of Section 01300.

1. Short Circuit Study

2. Protective Device Coordination Study
   a. Submit within 90 days after approval of Short Circuit Study.

3. Harmonic Study

4. Arc Flash Study

5. Arc Flash Warning Labels

1.07 QUALITY ASSURANCE

A. Short Circuit, Protective Device Coordination, Harmonic and Arc Flash Studies shall be prepared by the manufacturer furnishing the switchboard and other related equipment for incoming service.

1.08 – 1.11 (NOT USED)

PART II - PRODUCTS

2.01 – 2.02 (NOT USED)

2.03 FUNCTIONAL REQUIREMENTS

A. Short Circuit Study

1. General:

   a. Prepare in accordance with IEEE 399.

   b. Use cable impedances based on copper conductors, except where aluminum conductors are specified or shown.

   c. Use bus impedances based on copper bus bars, except where aluminum bus bars are specified or shown.

   d. Use cable and bus resistances calculated at 25 degrees C.

   e. Use medium voltage cable reactance based on use of typical dimensions of shielded cables with 133 percent insulation levels.

   f. Use 600V cable reactance based on use of typical dimensions of XHHW-2 conductors.

   g. Use transformer impedances 92.5 percent of "nominal" impedance based on tolerances specified in IEEE C57.12.00.

2. Provide:

   a. Calculation methods and assumptions

b. Typical calculation

c. Tabulations of calculated quantities.

d. Results, conclusions, and recommendations

e. Selected base per unit quantities

f. One-line diagrams

g. Source impedance data, including electric utility system and motor fault contribution characteristics

h. Impedance diagrams

i. Zero-sequence impedance diagrams

j. Calculate short circuit interrupting and momentary (when applicable) duties for an assumed three-phase bolted fault at each:

1) Electric utility's supply termination point

2) Low voltage switchboards

3) Motor control centers

4) Branch circuit panel boards

k. Future load contributions as shown on one-line diagrams

l. Bolted line-to-ground fault current study for areas as defined for three-phase bolted fault short circuit study.

m. Bolted line-to-line fault current study for areas as defined for three-phase bolted fault short circuit study.

3. Verify:

a. Equipment and protective devices are applied within their ratings.

b. Adequacy of switchboard bus bars to withstand short circuit stresses.

c. Cable and bus way sizes for ability to withstand short circuit heating, in addition to normal load currents.

4. General Data:

a. Short circuit reactance of rotating machines

b. Cable and conduit material data

c. Bus data

d. Transformer data

e. Circuit resistance and reactance values.

5. Short Circuit Data:

a. Fault impedances

b. X to R ratios

c. Symmetry factors

d. Motor contributions

e. Short circuit kVA

f. Symmetrical and asymmetrical fault currents

6. Equipment Evaluation:

a. Equipment bus bracing, equipment short circuit rating, transformer, cable, bus way

b. Maximum fault current available

7. Written Summary:

a. Scope of studies performed

b. Explanation of bus and branch numbering system

c. Prevailing conditions

d. Selected equipment deficiencies

e. Results of short circuit study

8. Comments or Suggestions:

a. Suggest changes and additions to equipment rating and/or characteristics.

b. Notify OWNER in writing of existing circuit protective devices improperly rated for new fault conditions.

c. Revise data for "as-installed" condition.

B. Protective Device Coordination Study

1. General:

a. Prepare in accordance with IEEE 242.

b. Proposed protective device coordination time-current curves for distribution system, graphically displayed on conventional log-log curve sheets.

c. Provide separate curve sheets for phase and ground fault coordination for each scenario.

d. Each curve sheet to have title and one-line diagram that applies to specific portion of system associated with time-current curves on that sheet.

e. Identify device associated with each curve by manufacturer type, function, and, if applicable, recommended tap, time delay, instantaneous and other settings recommended.

f. Terminate device characteristic curves at a point reflecting maximum symmetrical or asymmetrical fault current to which device is exposed.

g. Apply motor protection methods that comply with NFPA 70.

2. Plot Characteristics on Curve Sheets:

a. Electric utility's relays

b. Electric utility's fuses including manufacturer's minimum melt, total clearing, tolerance, and damage bands

c. Medium voltage equipment relays

d. Medium and low voltage fuses including manufacturer's minimum melt, total clearing, tolerance, and damage bands

e. Low voltage equipment circuit breaker trip devices, including manufacturer's tolerance bands

f. Pertinent transformer full-load currents at 100 percent

g. Transformer magnetizing inrush currents

h. Transformer damage curves; appropriate for system operation and location

i. ANSI transformer withstand parameters

j. Significant symmetrical and asymmetrical fault currents

k. Motor overload relay settings for motors greater than 40 horsepower

l. Ground fault protective device settings

m. Other system load protective devices for largest branch circuit and feeder circuit breaker in each motor control center

3. Primary Protective Device Settings for Delta-Wye Connected Transformer:

a. Secondary Line-to-Ground Fault Protection: Primary protective device operating band within the transformer's characteristics curve, including a point equal to 58 percent of IEEE C57.12.00 withstand point.

b. Secondary Line-To-Line Faults: 16 percent current margin between primary protective device and associated secondary device characteristic curves.

c. Separate medium voltage relay characteristics curves from curves for other devices by at least 0.4 second time margin.

4. Tabulate Recommended Protective Device Settings:

   a. Relays:

      1) Current tap

      2) Time dial

      3) Instantaneous pickup

      4) Electronic settings data file

   b. Circuit Breakers:

      1) Adjustable pickups

      2) Adjustable time-current characteristics

      3) Adjustable time delays

      4) Adjustable instantaneous pickups

      5) I2t In/Out

      6) Zone interlocking

      7) Electronic settings data file

5. Written Summary:

   a. Scope of studies performed

   b. Summary of protective device coordination methodology

   c. Prevailing conditions

   d. Selected equipment deficiencies

   e. Results of coordination study

f. Appendix of complete relay and circuit breaker electronic setting files

g. Comments or suggestions

C. Harmonic Study

1. Perform harmonic study for Low-Voltage Adjustable Frequency Drive System.

D. Arc Flash Study

1. Perform arc flash hazard study after short circuit and protective device coordination study has been completed, reviewed and accepted.

2. Perform arc flash study in accordance with NFPA 70E, OSHA 29 CFR, Part 1910 Subpart S, and IEEE 1584.

3. Base Calculation: For each major part of the electrical power system, determine the following:

a. Flash hazard protection boundary

b. Limited approach boundary

c. Restricted approach boundary

d. Prohibited approach boundary

e. Incident energy level

f. Personal protection equipment (PPE) hazard/risk category

g. Type of PPE required

4. Produce arc flash warning labels that list items in Paragraph Base Calculation and the following additional items.

a. Bus name

b. Bus voltage

5. Produce bus detail sheets that list items in Paragraph Base Calculation and the following additional items:

a. Bus name

b. Upstream protective device name, type, and settings

c. Bus line-to-line voltage

6. Produce arc flash evaluation summary sheet listing the following

additional items:

a. Bus name

b. Upstream protective device name, type, settings

c. Bus line to line voltage

d. Bus bolted fault

e. Protective device bolted fault current

f. Arcing fault current

g. Protective device trip/delay time

h. Breaker opening time

i. Solidly grounded column

j. Equipment type

k. Gap

l. Arc flash boundary

m. Working distance

n. Incident energy

o. Required protective fire rated clothing type and class

7. Analyze short circuit, protective device coordination, and arc flash calculations and highlight equipment that is determined to be underrated or causes incident energy values greater than 8 cal/cm2. Propose approaches to reduce the energy levels.

8. Prepare a report summarizing the arc flash study with conclusions and recommendations which may affect the integrity of electric power distribution system. As a minimum, include the following in the report:

   a. Equipment manufacturer's information used to prepare study

   b. Assumptions made during study

   c. Reduced size copies of one-line drawing; 11 inches by 17 inches maximum

   d. Arc flash evaluations summary spreadsheet

   e. Bus detail sheets

f. Arc flash warning labels printed in color on adhesive backed labels

2.04 (NOT USED)

PART III - EXECUTION

3.01 GENERAL

A. Adjust relay and protective device settings according to values established by the Protective Device Coordination Study.

B. Make minor modifications to equipment as required to accomplish conformance with the Short Circuit and Protective Device Coordination Studies.

C. Notify ENGINEER in writing of required major equipment modifications.

D. Provide laminated one-line diagrams (full size) to post on interior of electrical room doors.

E. Provide arc flash warning labels on equipment as specified in this section.

3.02 PREPARATION

A. Equipment and component titles used in the studies shall be identical to equipment and component titles shown on Drawings.

B. Perform studies using one of the following electrical engineering software packages:

1. SKM Power Tools for Windows

2. ETAP

3. EDSA

C. Perform complete fault calculations for each proposed new service.

D. Utilize proposed and existing load data for the study obtained from Contract Documents provided by the ENGINEER and OWNER.

E. Existing System and Equipment:

1. Extent of the existing system to be included in the study is limited to system elements that affect the new system and equipment.

2. Include fault contribution of existing motors and equipment in the study.

3. Include impedance elements that affect new system and equipment.

4. Include protective devices in series with new equipment.

5. Device coordination time-current curves for low voltage distribution system; include individual protective device time-current characteristics.

3.03 ERECTION, INSTALLATION, AND APPLICATION INSTRUCTIONS

A. Arc Flash Warning Labels

1. Printed in multi-color on adhesive backed labels. An example label is shown in **FIGURE 1** before the "END OF SECTION" as part of this Section.

3.04 – 3.09 (NOT USED)

3.10 SCHEDULES

A. Initial complete short circuit study shall be submitted and reviewed before the ENGINEER will review Shop Drawings for switchboard and equipment for incoming service.

B. Initial complete protective device coordination and arc flash studies shall be submitted within 90 days after approval of the initial short circuit study.

C. Revised short circuit, protective device coordination, and arc flash studies, and arc flash labels shall be submitted 10 days before energizing electrical equipment.

D. Final short circuit, protective device coordination, harmonic, and arc flash studies shall be completed prior to Project Substantial Completion. Final version of study shall include as installed equipment, materials, and parameter data or settings entered into equipment based on study.

E. Submit final arc flash labels described herein and in compliance with NEMA Z535.4 prior to Project Substantial Completion.

3.11 (NOT USED)

3.12 MEASUREMENT AND PAYMENT

A. No separate payment for work performed under this Section. Include cost of same in Contract price bid for work of which this is a component part.

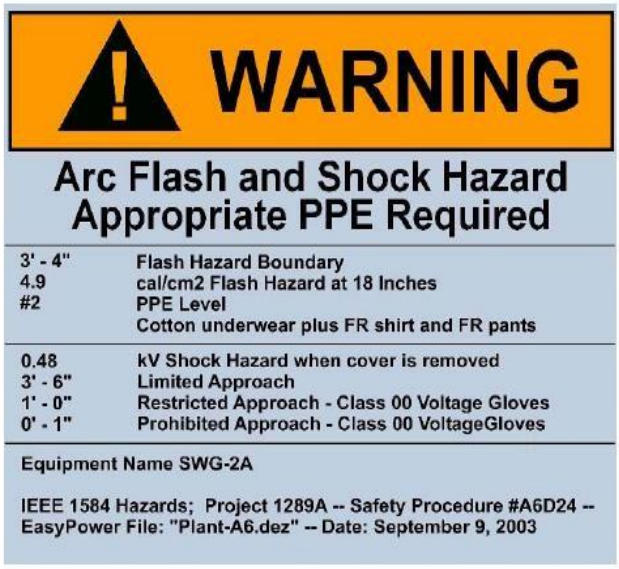

FIGURE 1: Example Arc Flash Label

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E13 - LIGHTING

E13.01 SCOPE

A. Provide systems of interior and exterior lighting that shall consist of lamps, luminaries, and mounting.

B. Lighting fixtures shall be furnished as scheduled, specified and detailed on the Drawings and as specified hereinafter.

C. Furnish all labor, materials, equipment and incidentals required and install a complete lighting system ready for operation as shown on the Drawings and as specified herein.

E13.02 SUBMITTALS AND SHOP DRAWINGS

Process catalog submittals for each fixture type and related accessories including photocells. Note fixture type on submittal. Submit shop drawings on the light pole. Submit shop drawings of photometric study and layout for the tank lighting fixtures.

E13.03 RELATED WORK

Time switches, photo-electric controls and contactors are as shown in the exterior lighting control panel schematics and details.

E13.04 GENERAL REQUIREMENTS

A. Each fixture shall be complete with its appropriate hardware, finish trim and appurtenances as required for a finished installation. Provide full complement of lamps for each fixture. Fixtures shall be light-emitting diode (LED) type fixtures.

B. Fixtures shall be free from light leaks, exposed screws and pointed projections, sharp edges, scarred, marred, and scratched finishes.

C. All fixtures specified for damp or wet locations or specified for out-of-doors shall be suitable for the environment and each such fixture shall bear UL "DL" label. Such fixtures shall not rust, discolor, or show signs of deterioration after one (1) year service. Each fixture shall be gasketed to prevent moisture entrance and so sealed to prevent bugs from entering. Electrical fittments shall be so protected that with continuous exposure of the fixture to sunlight and moisture will not cause failure.

E13.05 EXECUTION

A. Adequately support each fixture, minimum safety factor shall be 2:1. Use stainless steel hardware 316 unless other means of support is shown.

B. Install fuse at each ballasted fixture in each hot lead.

END OF SECTION

TECHNICAL SPECIFICATIONS

SECTION E14 - INSTRUMENTATION

E14.01 INSTRUMENTATION

A. Scope

This section covers the instruments, switches, transmitters, instrumentation enclosures and miscellaneous devices.

Auxiliary and accessory devices necessary for system operation or performance, such as relays din connectors, or terminals to interface with other Sections of these Specifications, shall be included.

B. Quality Assurance

Manufacturers: Firms regularly engaged in manufacture of products of this type, and whose products have been in satisfactory use in similar service for not less than 5 years.

Installer: Qualified with at least 5 years of successful installation experience on projects with work similar to that required for this project.

NEC Compliance: Comply with the National Electrical Code, NFPA 70, as applicable to wiring and other electrical construction of the unit.

UL Compliance: Provide components with UL listing and labeling for applicable UL categories.

Provide complete unit and installation to conform with NFPA-90A.

C. Submittals

Submit catalog literature, specification material and installation and operation manual for each instrument and device specified herein.

Submit outline and dimensional drawings and wiring diagrams to City for review.

Submit shop drawings for including wiring and dimensional outlines. Shop drawings shall include ISA loop drawings on all PLC I/O. Loop drawings shall include all device terminal numbers and wire numbers. Shop drawings shall include all pin-out wiring for RS-232 and RS-485 and similar type connectors.

D. Related Work

SCADA Equipment Section

Computer and HMI Equipment Section

E. System Responsibility

The contractor shall assume complete "SYSTEM RESPONSIBILITY" for the instrumentation system, Radio System, SCADA Equipment, and Computer Systems and related modifications. "System Responsibility" shall mean that the Contractor is responsible for the overall operation, satisfactory performance, and integration of the individual components into the whole system so that the entire system functions in whole and in its parts as intended by the Contract Documents.

E14.02 UNINTERRUPTABLE POWER SUPPLIES

Uninterruptable Power Supplies (UPS) shall be provided for equipment, inside the SCADA/RTU Panel, as shown on the drawings. UPS ratings shall be as indicated on the drawings. Each UPS shall have surge protection and alarm contact. It shall have a minimum of 4 hours of operation.

UPS shall be a minimum of 450 VA, by American Power Conversion (APC) Model BM450M, or equal.

E14.03 SURGE SUPPRESSORS

Surge suppressors for protecting 120vac circuits shall meet UL 1449, UL 1283, NEMA LS-1 1992, and ANSI/IEEE C62.41 and C62.45. Load current rating shall be 20 amps at 120vac.

Surge suppressors shall be series connected and shall have a surge current capacity of 45,000 amps. High frequency noise filtration shall be as follows:

Mode	1kHz	10kHZ	100kHZ	1MHz
L-N	6db	16db	42db	25db
L-G	6db	6db	16db	55db

Surge suppressor shall be Eaton model MTL MA15/D/1/SI, or equal.

E14.04 ENCLOSURES

Indoor enclosures for RTU, and other instrumentation equipment shall be hinged door type and shall have interior mounting sub panel and where indicated a side mounting subpanel. Enclosures shall be Hoffman or equal. Enclosure shall be sized to house the specified equipment but shall not be less than the size indicated on the drawings.

Enclosures for outdoor conditions shall be NEMA 4X 316 Stainless Steel.

E14.05 WET WELL INSTRUMENTS

A submersible level transducer shall be provided for wet well level primary monitoring. The transducer shall provide a 4-2- ma DC signal proportional to the wet well level. The transducer shall be accurate to 0.25% of full scale and be FM approved for intrinsically safe operation. The transducer-wetted parts shall be 316 stainless steel win Inconnel sensor. The transducer shall be provided with a protective cage to prevent blockage of the sensing face.

The transducer shall be Flygt LTU 601, or equal. Transducer cable length shall be determined for installation in the wet well and up to the field junction box with associated breather bat.

Backup level sensing shall be utilizing floats with 24 volt or less pilot voltage. Intrinsically safe barriers shall connect floats to pump control panel. Each control panel shall have low level cutoff, lead, lag and high-level alarm for backup control of a duplex pump wet well. Floats shall be attached to a 316 stainless steel cable with a plastic coated 25# weight at the bottom of the wet well as shown on the electrical drawings. Furnish Contegra, or equal floats. No mercury filled float switches shall be submitted.

Furnish a 24-volt power supply for testing and startup. Permanent loop power shall be from the pump control panel.

E14.06 DC POWER SUPPLIES

DC power supplies shall be provided where required and as indicated on the drawings. DC power supplies shall be 24 VDC, in amp output rating indicated on the drawings. Minimum rating shall be 1.2 amps when no size is shown.

Furnish redundant power supplies where indicated on the drawings.

DC power supplies shall be Phoenix, PULS ML50.100, or equal.

E14.07 DC LOOP ISOLATORS

Isolators shall be 4-20mA in and out, din rail mounted 24 VDC powered and shall be provided where required and as indicated on the drawings.

Loop isolators shall be Moore Industries model ECT, Phoenix Contact model 2814508, or equal.

E14.08 MISCELLANEOUS

Terminal strips for connection of field wiring shall be DIN rail mounted channel mounted terminals suitable for connecting #22 to #12 wire sizes. Terminals shall be solderless box lug type with pressure plate and removable terminal marking strips. Box lugs shall be tin-plated copper. Terminals shall be Allen-Bradley 1492-HMI series with required DIN rail mounting channel and end clamps. Fused terminals for 24 volt dc instrumentation circuits shall be rated 10-57 volts dc, shall have blown fuse LED indicator and shall be Allen-Bradley 1492-H5 series, Phoenix Contact, or equal. Fused terminals for 120 volt ac circuits shall be rated 300 volts ac, shall have neon blown fuse indicator and shall be Allen-Bradley 1492-H4 series, Phoenix Contact, or equal. Terminal strips shall have factory terminal markers.

General purpose control relays shall be 3 pole double throw with pin base and matching socket. Furnish Potter & Brumfield model RR3P with 120 volt coil. Control relays for RTU panels for I/O interface shall be Omron G2R-1-2-DC.

Optical isolator tank level analog signals analog inputs shall be Moore Model ECT to operate from 120 volt power supply for supplying loop power to the 4-20 ma analog circuit.

Insulated Enclosures for freeze protection of instruments shall be O'Brien Vipak Series B with MK3 pipe mounting equipment with LE Series Heater w/thermostat for 120 volt AC operation and PW window. Provide suitable transmitter mounting bracket.

E14.09 INTRUSION DETECTION

Furnish intrusion detection devices for equipment panels and doorways to be located as indicated in the drawings. Intrusion Detectors shall be Stainless Steel limit switches by Square-D, stainless steel proximity, SENTROL 2200 Series Miniature Surface Mount Intrusion Detectors with stainless steel armored cable (McMaster Carr Cat. # 8039A51), or equal.

Furnish control panel devices as indicated in the drawings. 120vac pushbuttons, selector switches, and pilot lights shall be NEMA 4X, Allen-Bradley type 800H or equal. Pilot lights shall be transformer type and shall have push-to-test option.

E14.10 INSTALLATION AND CALIBRATION

Permanently mount the instruments, all SCADA equipment, and all required appurtenances in accordance with manufacturer's requirements. All work shall be done in accordance with industry standards, the NEC, ISA recommendations and in a workmanship like manner.

Calibrate, and test all instruments.

Certify that all instrument installations and calibrations are done in accordance with ISA and the manufacturer's recommendations.

Provide completed ISA calibration sheets for all new instruments provided.

All surge suppression devices and UPS's shall be grounded with minimum #8 ground wire.

E14.11 OPERATIONS AND MAINTENANCE MANUALS

Prior to start-up, Contractor shall compile an Operations and Maintenance (O&M) Manual on the instrumentation equipment. These manuals shall include detailed instructions, periodic calibration requirements and maintenance, as well as recommended spare parts lists. Final O&M Manuals shall be provided to the Owner.

END OF SECTION

SECTION E15

SCADA EQUIPMENT

PART 1 - GENERAL

1.1 SCOPE

A. Comply with Instrumentation Section. Furnish and install all equipment and materials as shown on the drawings and specified herein. Work shall include all necessary materials, equipment, labor and services.

B. Contractor shall have the City's SCADA System Integrator, WHECO CONTROLS, to perform RTU programming and HMI database update for revised I/O for the new Pump Station. Contact Kent Meyerhoeffer, of WHECO CONTROLS, at (817) 244-6660.

1.2 RELATED WORK

Computers and HMI Systems Section

PART 2 - EXECUTION

1.2 SCADA SYSTEM INTEGRATION

The new SCADA integration for the new Pump Station equipment shall connect to the new PS RTU.

The electrical contractor shall provide all conduit and wiring from the new equipment to the new SCADA/RTU panel.

The Electrical Contractor shall terminate the equipment ends of all wires and signal cables and provide a wiring number listing to WHECO CONTROLS.

WHECO CONTROLS shall terminate all wires and signal cables on the RTU end. This will allow testing for proper voltage and signal testing before connection to the highly sensitive electronic circuits of the RTU equipment.

Software and applications development can be completed off site during general construction of the facilities and installation of electrical equipment and installed before startup and testing.

The Contractor shall provide to WHECO CONTROLS at least two weeks' notice of when cleanup will be completed to allow scheduling of modifications of SCADA/RTU equipment. After the SCADA/ RTU equipment has been modified, approximately two weeks will be required for proper installation and startup of the developed or modified software and applications. WHECO CONTROLS shall give notification to the City that the software installation has been completed both at the site unit and the master unit.

Two system tests shall be scheduled after the modification of the SCADA equipment and programming installation. Forty-eight (48 hours) notice shall be given to WHECO CONTROLS before either of the above tests are performed. The first test shall be completed to test the interfacing of the SCADA equipment and software with the electrical equipment such as pump, motor, and electronic instruments. This test shall be performed to work out any wiring discrepancies, equipment mismatches and general startup problems. This test shall be performed and documented by contractors, i.e., equipment suppliers, general contractors, electrical contractors, instrumentation contractors and WHECO CONTROLS.

After all startup and interface issues have been resolved, a second equipment test shall be performed. This test will be to verify that the functional design of the system has been met and is acceptable. This test should be witnessed by City Staff, Contractor and Engineer.

1.3 ACCEPTANCE TEST

An acceptance test shall be conducted for the SCADA equipment and computer system. Allow in bid to incorporate Owners comments into system. Each I/O point and each loop shall be tested and verified form field input device to computer HMI screen.

The Owner and Engineer shall be given 10 days prior notice of acceptance test.

END OF SECTION E15

SECTION E16

COMPUTERS AND HMI EQUIPMENT

PART 1 – GENERAL

1.1 SCOPE

A. This section covers computer systems and HMI (human machine interface software). Furnish and install all equipment and materials as shown on the drawings and specified herein. Work shall include all necessary materials, equipment, labor, and services.

B. Auxiliary and accessory devices necessary for system operation or performance, such as relays din connectors, or terminals to interface with other Sections of these Specifications, shall be included.

C. Contractor shall have WHECO CONTROLS, to perform RTU programming and HMI database update for revised I/O for the Pump Station. Contact Kent Meyerhoeffer, of WHECO CONTROLS, at (817) 244-6660.

1.2 QUALITY ASSURANCE

Comply with the SCADA Equipment Section.

1.3 RELATED WORK

SCADA Equipment Section

1.4 SUBMITTALS AND SHOP DRAWINGS

Submit graphic screens in color for review as shop drawings in electronic .PDF format.

PART 2 – PRODUCTS

1.5 COMPUTER SYSTEMS

The desktop computer and HMI system is existing.

PART 3 - EXECUTION

1.6 CONFIGURATION

A. Computer system and HMI configuration. The system shall monitor all points in the system and alarm all points indicated as alarm points. Additional HMI work shall include but not be limited to:

1. Define the database as required to incorporate the new Pump Station I/O at the Pump Station.
2. Modify system screens to add the new Pump Station I/O as part of the monitoring screen for the water system.
3. Provide storage and display of historical data.
4. Provide setpoint interface for control functions specified in the RTU programming. All control functions shall be programmed in the RTU to ensure system operation in the event of a computer malfunction.
5. Disagreement alarms for equipment that fails to operate when called for.
6. Trending, and archiving of all pressures, levels, and temperatures.
7. Totalization of all any flow signals.
8. Communication status, alarms, and failures.
9. Upgrade any Geographic map type master graphic screens and menu driven links to other sub-master screens and individual sites for the water system.
10. "Hot Links" shall be configured between master screens and sub-master screens.

11. Status screens and trending screens shall be printable and shall have a hot key to print a copy.
12. Verify and test the proper operation of the SCADA HMI system

B. Screen colors for animated objects linked to I/O or process shall match the existing system.

C. Real-time and historical trending. Create graphical trend displays for all analog data.

D. Design and configure report generation to upgrade those required for the water system. The report generation shall be menu driven, and custom designed for this project.

1.7 FAT TEST

Prior to startup, perform Field Acceptance Test of computer system and HMI software. The FAT test shall consist of simulating each input and observing outputs at the field and HMI levels. Contractor shall submit the updated HMI screens to the Engineer for review and approval as a shop drawing.

1.8 TRAINING

Provide training for Owner's operators at the Owners site. The training shall be for up to four individuals on the operation and maintenance of the SCADA system including personal computer system, HMI software system, radio system maintenance, and RTU operation and maintenance. The main focus shall be from an operations perspective, but maintenance of the system shall also be covered.

1.9 DOCUMENTATION

A. The final software configuration shall be fully documented and annotated. This documentation shall include the RTU programming and radio system settings. Furnish printouts in O&M manuals.

B. The final software configuration shall be burned onto a USB Drive and delivered to the Owner for backup purposes. The backup files shall be for each computer, each RTU, and radio.

END OF SECTION E16

GEOTECHNICAL REPORT

HENLEY | JOHNSTON & ASSOCIATES

geotechnical and construction materials consultants

October 31, 2024
Report No. 26687G
Revision No. 1

Birkhoff, Hendricks, & Carter, LLP
11910 Greenville Avenue, Suite 600
Dallas, Texas 75243
ATTN: Mr. Andrew Mata, Jr., P.E.
Phone: 214-361-7900
Email: amata@bhcllp.com

RE: Geotechnical Investigation
Aubrey Pump Station and Ground Storage Tank
Rockhill Road
Aubrey, Texas
(BHC Project No. 2021141)

Gentlemen:

Presented herein is the report of a geotechnical investigation conducted by Henley-Johnston & Associates, Inc. for the above referenced project.

We appreciate the opportunity to provide this report to you. If we can be of further service or if you desire any additional information, please do not hesitate to call.

Signed,

HENLEY-JOHNSTON & Associates, Inc.

Hunter J. Hamilton, E.I.T.
Project Manager

James F. Phipps, P.E.
President

STATE OF TEXAS
JAMES F. PHIPPS
84778
LICENSED
PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by James F. Phipps, P.E. 84778 on October 31, 2024.

Firm Registration No.: F-1238

Copies submitted: Birkhoff, Hendrick, & Carter, LLP – Mr. Andrew Mata, Jr., P.E.

Revisions:
0 October 10, 2024 – Initial Report
1 October 31, 2024 – Revised to include pavement recommendations

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INVESTIGATION AND ANALYSIS

INTRODUCTION

This report presents the results of a subsurface investigation performed for a proposed ground storage reservoir and pump station to be located on Rockhill Road in Aubrey, Texas.

It was understood that a ground supported steel tank with a diameter of 46 feet and an estimated capacity of 0.4 MG will be installed. The pump station foundation is estimated to have an approximate footprint of 529 square feet with a soil supported floor slab at existing grades. A generator pad will be installed as part of this project.

The purpose of this investigation was to evaluate subsurface conditions and provide recommendations for design and construction of the foundation systems, remedial earthwork, and earthwork criteria. It was anticipated that foundation support would be provided by either drilled piers, a shallow ring footing, or a mat foundation.

This report is specific to this project. Persons using the recommendations and information herein for projects and/or designs not covered by this report do so at their own risk.

FIELD INVESTIGATION

The field investigation at this site consisted of drilling a total of two soil borings at locations dictated by the client. These locations are presented on Plate 1. Borings conducted for this project were advanced to a depth of 30 feet below the existing ground surface (September 2024).

Borings were accomplished by means of truck-mounted rotary drilling rigs, which utilized dry sampling techniques to advance the borings through the overburden soils and primary formation. Drilling and sampling were conducted in general accordance with ASTM methods and standards to the terminal depths of the borings by a Henley-Johnston & Associates, Inc., drill crew.

Borings were located on site by the client. GPS locations and elevations were provided by the client. The horizontal and vertical accuracy of the equipment used for locating the borings was not reported. Coordinates are provided in the latitude/longitude coordinate system using the WGS 1984 datum and are presented in Table 1.

Table 1
Boring Coordinates
Aubrey Pump Station and Ground Storage Reservoir
Rockhill Road – Aubrey, Texas

Boring No.	Northing	Easting	Elevation
1	33°17'34.63"N	96°59'35.50"W	688
2	33°17'34.24"N	96°59'35.84"W	689

Samples of cohesive soils and weathered shale encountered in the borings were obtained by means of a thick-walled, seamless, Shelby-tube sampler advanced into the formation by a rapid, continuous thrust from a hydraulic ram on the drilling rig in general accordance with ASTM D-1587. Samples of granular soils were obtained and evaluated in-situ utilizing procedures of the Standard Penetration Test (ASTM D-1586). This sampling technique employs a 140-pound hammer, dropped 30 inches, to drive a 2-inch O.D. split-barrel sampler into the soil. The sampler initially is seated six inches and then driven in two additional six-inch increments while recording the number of blows for each increment. The total number of blows for the last two six-inch increments, the "N" value, is recorded on the accompanying Boring Log illustrations. Refusal is defined as 50 blows for any one increment with 6 inches or less advancement of the sampler, 100 total blows or 10 blows with no advancement of the sampler.

Water levels were recorded during drilling and upon completion of each boring. These water levels noted during drilling are presented on the “Log of Boring” illustrations.

All soil and rock samples obtained from the borings were encased in polyethylene plastic to prevent changes in moisture content and to preserve in situ physical properties. Samples were classified as to basic type and texture, labeled as to appropriate boring number and depth, and placed in boxes for transport to the HJA laboratory.

LABORATORY INVESTIGATION

All soil samples were classified in accordance with the Unified Soil Classification System. Samples of primary materials were described using standard geologic nomenclature. Terms and symbols used on the boring logs are described on the enclosed sheet entitled "Legend, Lithology, Soil Consistency & Relative Rock Hardness."

Selected samples were tested to evaluate engineering properties, soil movement, and confirm visual classification. Tests conducted included Atterberg Limits (ASTM D-4318), and moisture content determinations (ASTM D-2216). These test results are shown on Plate 2.

The potential for heave was evaluated using the Free-Swell test. This test involves placing a 1-inch-thick sample of soil in a 2.5-inch ID confining ring into a consolidation machine and adding weight equal to the load imposed by the overburden soils at the sample depth. The soil is then inundated with water and allowed to swell freely until movement has stopped. Results of these tests are summarized on Plate 3.

The potential for heave was evaluated using the Absorption Pressure-Swell test. This test involves placing a 1-inch-thick sample of soil in a 2.5-inch ID confining ring into a consolidation machine and inundating it with water. Weight is added in appropriate increments to maintain the original height and volume of the sample. Once the sample has “balanced”, the weight is reduced to approximately 200 psf and the soil allowed to swell. Results of these tests are summarized on Plate 3.

The strength of each cohesive sample was estimated using a hand penetrometer. The results of these estimates are recorded graphically on the "Log of Boring" illustrations. The strength properties of selected samples were investigated by the Unconfined Compression test. In the

Unconfined Compression test, axial load is applied to a laterally unsupported cylindrical sample until failure occurs within the sample. This test is conducted fairly rapidly (failure within about 10 minutes) and generally conforms to ASTM D-2166 for soil samples. Results of the Unconfined Compression tests performed are summarized on Plate 3.

Unconsolidated-undrained multi-stage triaxial compression tests were performed on selected cohesive samples. In this test, performed in general accordance with ASTM D-2850, a cylindrical sample is enclosed in a membrane and subjected to a confining pressure of about one-half the estimated overburden pressure. The sample is loaded axially to incipient failure while not permitting drainage from the specimen. Upon reaching incipient failure, the confining pressure is doubled, and the specimen again loaded to incipient failure. This process is repeated a third time and the sample is loaded past failure. The results of these tests are presented graphically on Plates 4 through 6 as stress-strain curves and Mohr's diagrams.

The potential for settlement of the subgrade materials was evaluated using the consolidation test (ASTM D-2435). In this test a 1-inch-thick sample of soil is placed into a 2.5-inch ID confining ring and inserted into a consolidation machine and loaded to approximately 100 psf. Water is then supplied to the sample and additional weight is added to ensure the clay sample does not swell and change volume. After enough load has been applied to ensure the soil does not swell, additional loads are added incrementally to consolidate the soil. Once the consolidation is achieved, the sample is then incrementally unloaded until the initial weight is achieved. Graphical representation of changes in void ratio versus changes in vertical stress are presented on Plates 7 and 8.

SITE CONDITIONS

At the time of the field investigation the area of the proposed reservoir and pump station was open and undeveloped. The project is situated approximately 1/4-mile east of Rockhill Road. An existing elevated storage tank was present just to the east of the proposed tank site. Surface grades did not vary across the limits of the proposed tank by more than 1 foot.

Geologic Setting

Review of geologic maps indicates the proposed ground storage reservoir and pump station are located within sandy clay soils and shale associated with the Upper Cretaceous Eagle Ford Formation.

Subsurface Conditions

The specific type, depth, and thickness of materials penetrated by the borings are reflected on the individual "Log of Boring" illustrations, which follow the illustrations for this report. At the locations investigated, subsurface conditions consisted of sandy clay soils over weathered shale.

Sandy clay soils were present at the surface of the borings. These sandy clays were varying shades of brown and gray in appearance, moderately plastic (CL), contained varying amounts of iron staining, iron deposits, and shale fragments, and continued to depths of 3-1/2 to 9 feet below existing grades.

Weathered shale was encountered below the sandy clay soils. This weathered shale was varying shades of brown and gray in appearance, soft (rock hardness classification), blocky in structure, contained varying amounts of iron staining, sand, and iron deposits, and extended through the termination depth of the borings.

Ground Water

Ground water was encountered in Boring No. 2 at a depth of 30 feet below existing grade during drilling operations, and at a depth of 28 feet below existing grade after completion of drilling operations. The presence and depth to ground water should be expected to change with seasonal rainfall. When present, ground water should be expected to migrate through the permeable weathered rock and overburden soils.

Seismic Classifications

Based on the materials encountered within the borings and the geologic setting, this site may be classified as Seismic Class C according to ASCE 7-22 as the soils and rock formations most closely match that designation.

Corrosion

Corrosion due to interaction of concrete with the soil is considered to be relatively minor. Standard Type I, Type IL, or Type II cements may be used for this project.

POTENTIAL VERTICAL MOVEMENT ANALYSIS

Subsurface conditions consist of sandy clays over weathered shale. Soil movements within clay soils are seasonal in nature. After periods of rain, the clays expand resulting in heave of overlying elements. During dry seasons, these soils shrink which results in settlement of ground-supported features. Within weathered shale, soil movements occur as moisture infiltrates into the stratum and movements are manifested as a gradual and sustained heave.

Potential Vertical Movements (PVM) for heaving of the clay soils and weathered shale were evaluated using TxDOT Method 124E[1] and the results of the free-swell and absorption pressure-swell tests. Based on this analysis, total soil movements are anticipated to be on the order of 2-1/2 to 3-1/2 inches for at-grade foundations considering dry conditions at the time of construction.

The amount of cut and fill required to achieve final grades should be expected to potentially impact the estimated amount of PVM as well as other parameters provided in this report. No grading plans were available at the time of this investigation; therefore, the estimated PVM considers that final grades will be within 2 feet of existing grades and that all fill will be placed below the foundations under controlled conditions as outlined in the **Earthwork Recommendations** section. HJA should be permitted the opportunity to review final grading

[1] "Method for Determining the Potential Vertical Rise, PVR." Texas Department of Transportation Method Tex-124-E, 1978.

plans to evaluate the applicability of the conclusions and recommendations provided in this report.

If any ancillary foundation were to be constructed over a dry subgrade and/or given unlimited access to moisture such as from leaking utility lines or irrigation, greater amounts of movement should be anticipated.

DESIGN AND CONSTRUCTION RECOMMENDATIONS

INTRODUCTION

It is anticipated that either a mat foundation or a ring footing would be used for foundation support of the reservoir and that either footings, a mat foundations or drilled piers would be used for support of the pump station and generator pad. Considering PVM on the order of 2-1/2 to 3-1/2 inches, remedial earthwork will be necessary if shallow foundations will be used.

Recommendations for foundation design for both shallow foundations and drilled piers, as well as remedial earthwork, are presented in the following sections.

PUMP STATION AND GENERATOR PAD PREPARATION

For shallow foundations and slabs at grade, if movements related to heave are to be limited to the order of 1 inch or less, remedial earthwork will need to be performed. It should be noted that even with the performance of remedial earthwork some movement of the foundations will occur.

Remedial earthwork may consist of providing a minimum of 10 feet of reworked soils below a ground-supported foundation.

The excavation for remedial earthwork should extend a minimum of three feet beyond the general outline of the pads where possible. Care must be taken not to undermine any adjacent foundations. Soils exposed at the base of the excavation should be scarified to a depth of six inches and compacted in accordance with the **Earthwork Recommendations** section.

Excavated soils may be used to bring the generator pad and pump station areas to within 12 inches of finished subgrade elevation. The final 12 inches should consist of imported flexible base material. For the tank, the moisture conditioned soils should be brought to within 24 inches of finished pad elevation and flexible base used to raise the pad to final grade. Material and placement specifications for on-site soils and imported flexible base are presented in the **Earthwork Recommendations** section.

The sidewalls of the excavation should be temporarily sloped back on a minimum 1 Horizontal to 1 Vertical (1H:1V) slope during the reworking process. This is to limit the potential for

collapse of the excavation. As an alternative to sloping, the sidewalls may be benched using a minimum two-foot wide height and width.

Proper implementation of remedial earthwork should reduce the potential for heave to the order of 1 inch.

It is also recommended the pad be staked in the field prior to remedial earthwork operations to ensure the foundation is constructed over the reworked soils.

TANK PAD PREPARATION

If shallow footings or a mat foundation are utilized for foundation support, it is recommended the tank foundation bear on a minimum of 24 inches of imported and compacted flexible base. The flexible base should extend a minimum of 3 feet beyond the perimeter of the tank foundation. Remedial earthwork will not be necessary if the tank is suspended on a slab with a minimum void of 8 inches between the base of the concrete and the subgrade.

Alternately, the tank may be placed directly on a prepared pad of flexible base. For this option, a minimum of 3 feet of flexible base is recommended.

TANK FOUNDATION DESIGN RECOMMENDATIONS

Based on the results of this investigation, it was anticipated that foundation support can be provided by either drilled piers, a ring footing or a concrete mat. Alternately, if some settlement of the tank is acceptable, the tank may be installed directly onto a prepared subgrade of flexible base as presented in the preceding section.

Recommendations for these options are presented in the following paragraphs.

Mat Foundation

A reinforced concrete mat of uniform thickness may be used for support of the tank considering the limited potential vertical movement for current conditions. The required thickness of the mat will dictate the depth of excavation for the foundation below finished grade. Considering the proper placement of 24 inches flexible base below the foundation, the mat may be designed using an allowable bearing of 3.0 ksf, or a modulus of subgrade reaction (k) of 800 pci. This value does not include a specific Factor of Safety.

It is also recommended that the mat foundation be designed to allow for total soil-related, differential movement on the order of 1 inch. This movement is expected to occur over a period of several years. Greater amounts of movement may occur if the mat foundation is loaded eccentrically.

Alternately, the steel tank may be supported directly on a prepared subgrade consisting of at least 36 inches of properly placed flexible base. Differential settlement between the exterior and interior of the tank is anticipated to be on the order of 2 inches. Proper protection from corrosion should be provided below the floor of the tank.

The bearing surface for a mat foundation should be protected from the elements using plastic sheeting in the event inclement weather will occur. The exposed surface of the foundation excavation should be cleaned of all loose material and dry prior to placing the seal slab.

Shallow Ring Footing

Support for the tank may also be provided through the use of a shallow ring foundation. For this site, an allowable net bearing pressure of 6.0 ksf may be used considering 24 inches of compacted flexible base. The footing should have a minimum width of 2 feet.

This value consider a Factor of Safety of at least 3 with respect to a shear failure and excessive settlement. A shallow ring footing may bear directly on the surface of the prepared flexible base.

All debris and loose materials must be removed from a footing excavation prior to placing reinforcing steel and concrete. In the event that water develops within a footing excavation, the exposed surface of the footing should be proof rolled prior to placing reinforcing steel to identify any soft areas that need to be reworked and compacted.

If the tank is placed on a pad of compacted granular material, and the allowable bearing capacity is not exceeded total long term settlements are anticipated to be on the order of 1 inch, with short term uniform settlement on the order of 1 inch. Combined immediate and long term differential settlements are anticipated to be on the order of 2 inches.

Lateral resistance to a footing can be evaluated using a coefficient of friction of 0.5 for a compacted subgrade of flexible base.

PUMP STATION AND GENERATOR PAD FOUNDATIONS

Based on the results of this investigation, it is anticipated that either footings, mat foundations, or drilled piers would be used for support of the pump station and generator pad. Recommendations for these options are presented in the following paragraphs.

Drilled Piers

Concentrated structural loads may be supported on drilled, reinforced concrete, straight-shaft piers founded at a minimum penetration of 18 feet below existing grades, bearing in the weathered shale strata. The unit allowable loads for straight-shaft pier foundations based in these materials have been determined considering a Factor of Safety of 3 against shear or plunging failure and are presented in Table 2.

Table 2 Drilled Pier Foundation Bearing Values Aubrey Pump Station and Ground Storage Reservoir Rockhill Road – Aubrey, Texas	
Geologic Bearing Formation	Weathered Shale
End Bearing (ksf)	12.0
Side Shear – Compression (ksf)	1.6
Side Shear – Tension (ksf)	0.8

Side shear values may be applied to that portion of a straight-shaft pier below a minimum penetration of 18 feet below existing grades, bearing in the weathered shale strata.

A minimum pier diameter of 18 inches is recommended for piers penetrating into the weathered shale.

The side shear values provided are directly applicable only for isolated drilled shaft foundations separated in plan by a clear distance of at least two shaft diameters. If this spacing cannot be maintained for two piers, the side shear stress transfer should be reduced from full side shear at two diameters clear spacing to 50 percent side shear at zero diameters clear spacing (tangential). If this spacing cannot be maintained for pier groups containing more than two piers, this office should be contacted so that additional studies based on the group geometry can be accomplished and reduced design values developed.

Uplift forces associated with heaving of the subsurface soils will be negligible and can be omitted in the overall pier design. Resistance to uplift will be a function of the dead weight of the concrete in the pier, foundation loads, and negative skin friction.

Settlement

Using the recommended allowable values and adjustments herein, it is estimated that settlements of approximately ¾-inch should be anticipated for straight-shaft piers bearing in the weathered shale strata with differential settlement between individual piers not expected to exceed ½-inch.

Greater amounts of settlement may occur if piers are loaded eccentrically.

Construction Procedures

Each pier installation should be vertical (within acceptable tolerances), placed in proper plan location and cleaned prior to concrete placement. Reinforcing steel cages should be prefabricated in a rigid manner to allow expedient placement of both steel and concrete into the excavation. All shafts should be dry and free of all debris prior to placement of concrete.

It is essential that drilling of piers and the placement of both steel and concrete be completed in a continuous operation. In all cases, no portion of the stratum being counted on to provide structural support should be exposed to atmospheric conditions for more than eight hours following the completion of excavation prior to the placement of concrete to ensure the maximum benefit of the bearing stratum rebound properties is utilized.

Based on the information from this study, the installation of piers may require temporary casing to control groundwater seepage and caving of overburden soils. Casing should be available on site, as needed. Temporary casing should be installed a sufficient distance into the bearing stratum to ensure a watertight seal; normally a distance of 1 to 2 feet is adequate for this purpose. After the satisfactory installation of any temporary casing, the required shaft penetration may be excavated by machine auger within the casing in a conventional manner.

If the groundwater level is above the base of any temporary casing being utilized, extreme care should be maintained at all times to ensure that the head of the plastic concrete is higher than the static groundwater level outside the casing. In actual practice, it is desirable that the head of the plastic concrete be appreciably above static groundwater level prior to breaking of the seal between the temporary casing and the bearing stratum. Once the seal is broken, the temporary casing may be slowly removed in a vertical direction only (no rotation permitted) while additional concrete is elevated to the top of the casing maintaining sufficient head above the water. If a completed excavation has excess water, it is recommended that concrete be placed underwater from the bottom of the shaft by pumping or tremie techniques.

In order to confirm compliance with specifications and acceptability of the bearing stratum, a qualified and experienced geotechnical observer from this office should be present at all times during foundation installation.

Excess concrete at the top of the pier shaft should be removed prior to placement of pier caps.

Mat Foundation

A reinforced concrete mat of uniform thickness may be used for support of the pump station and generator pad. The mat foundation should bear a minimum of 18 inches below existing grades. Considering the proper placement of flexible base below the foundation, the mat may be designed using an allowable bearing of 3.0 ksf, or a modulus of subgrade reaction (k) of 200 pci. These values contain a Factor of Safety of 3 considering a shear failure or excessive settlement.

It is also recommended that the mat foundations for the pump station and generator pad be designed to allow for total soil-related, differential movement on the order of 1 inch. This movement is expected to occur over a period of several years. Greater amounts of movement may occur if the mat foundation is loaded eccentrically.

If the degree of estimated differential movement for the tank is not considered tolerable, the foundation should be pier/pile supported as described in the following sections. Alternatively, additional subgrade preparation may be conducted to reduce the potential for settlement. Recommendations for additional subgrade preparation can be provided upon request.

The bearing surface for a mat foundation should be protected from the elements using plastic sheeting in the event inclement weather will occur. The exposed surface of the foundation excavation should be cleaned of all loose material and dry prior to placing the seal slab.

Shallow Footings

Shallow footings may also be used for the pump station and generator pad. It is recommended that spread footings be proportioned so that maximum pressure on the soil does not exceed an allowable net bearing pressure of 3.0 kips per square foot (ksf). Continuous footings may be proportioned using an allowable net bearing pressure of 2.5 ksf. These allowable bearing values contain a Factor of Safety of 3 considering a shear failure.

Shallow footings should be based at least 18 inches below finished grade and rest on undisturbed soil or compacted and tested fill. Footings should be designed to allow for total movement on the order of 3-1/2 inches, with total differential movement on the order of 1 to 2 inches if remedial earthwork is not performed. Eccentrically loaded footings will undergo additional amounts of settlement than that predicted above for axially loaded foundations. Additional analyses will be needed if any shallow foundations are loaded off-center.

Spread footings bearing on soil should have a minimum width of 24 inches, while continuous footings should have a minimum width of 12 inches. In no event should either spread or continuous footings exceed 4 feet in width. If this case does occur, additional analysis will be required to provide an allowable bearing capacity.

Soil access to free water such as water leaks, water intrusion through utility bedding materials, or any other means of providing free water to the foundation soils will result in more heave of the surface than indicated above. Consequently, measures should be set in place to prevent such access to free water.

SITE PAVING RECOMMENDATIONS

Considering the subsurface conditions encountered on-site, it is recommended that site paving consist of reinforced Portland Cement Concrete (PCC) pavement. It was understood that the roadway would need to withstand multiple repetitions of heavy-duty cranes with anticipated loading of 60,000 lbs. A recommended section considering anticipated vehicle loads is presented below. All fill used below site paving should be placed in a controlled manner as outlined in the **Earthwork Recommendations** section.

Sections for reinforced concrete paving were evaluated using the American Association of State Highway Officials (AASHTO) *Guide for Design of Pavement Structures, 1993 Edition and 1998 Supplement,* in addition to the WinPAS pavement thickness design program developed by the American Concrete Pavement Association. The following sections are recommended for a 20-year life span. Additionally, it is recommended that crane mats be utilized atop the prescribed pavement section below.

For anticipated vehicle loads, the following section is recommended:

8” of 4,000 psi Portland Cement Concrete over,

12” of Grade 1 Flexible Base.

Concrete pavement should be reinforced with No. 3 deformed bars on 18-inch centers. No. 4 smooth dowels should be used at expansion and construction joints on 12-inch centers. Dowels should be placed at the midpoint of the pavement section. Steel reinforcing should have a minimum coverage of 2 inches and be placed in the upper third of the pavement section.

Control joints should be installed in the pavement within four hours after concrete has been placed, not after completion of the pour. The *SoftCut* method of installing sawcuts is preferred. Joint spacing and depth should conform to the recommendations presented in the latest version of *Joint Design for Concrete Highways and Street Pavements*, produced by PCA. Spacing between control joints should not exceed 15-feet. All joints should be sealed and periodically maintained. This will limit the potential for water to infiltrate into the subgrade.

Expansion joints should consist of doweled keyways, thickened sections, or steel dowels supported on a non-deteriorating medium such as bituminous mastic or bituminous impregnated cellulous[2]. All expansion joints should be filled completely with sealant to the pavement surface.

It should be noted that differential movement of the pavement should be expected over the life of the project. Continued maintenance will be required due to the expansive nature of the subgrade materials. Remedial earthwork may be performed under pavement areas as outlined in the **Pump Station and Generator Pad Preparation** section of this report to reduce the severity of potential vertical and differential movements underneath the concrete pavement, potentially reducing the required frequency of maintenance/repairs and extending the service life of the pavement.

UTILITY EXCAVATIONS

If there is sufficient room, the sidewalls of any utility excavation may be laid back on a temporary slope of 1 Horizontal to 1 Vertical (1H:1V). Water must not be allowed to pond at the top of the slope and any water collecting within the excavation should be immediately discharged. Construction equipment and materials should not be placed within four feet of the edge of the excavation.

Water must not be allowed to pond at the top of any slope or along the top of a trench. Any water collecting within an excavation should be immediately discharged. Construction equipment and materials should not be placed within four feet of the edge of the excavation.

If steeper slopes are required or the depth of excavation will exceed 20 feet, this office should be contacted to provide recommendations for a temporary retention system. Any excavations over a depth of 20 feet will require an engineered excavation and safety plan per OSHA regulations. Recommendations for temporary, shallow retention systems can be made upon request.

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[2] *Guide for Design and Construction of Concrete Parking Lots*, ACI Committee 330, NRMCA Publication MSP 34, January 1988, p 330R-8.

On-site soils should be classified as Type B per 29 CFR Part 1926, Chapter 17, Subpart P, Appendix A.

CONSTRUCTION CONSIDERATIONS

The foundation should be placed in proper plan location and the excavation cleared of all loose or soft materials prior to concrete placement. Reinforcing steel cages should be prefabricated in a rigid manner to allow expedient placement of both steel and concrete into the excavation. It is essential that excavation of foundation elements and the placement of reinforcing steel and concrete be carried out in a continuous operation. No portion of the stratum providing structural support should be exposed to atmospheric conditions for more than eight (8) hours following the completion of excavation and backfilling operations. If this time requirement cannot be met, it is recommended that the base of any completed excavation be protected by placing a thin seal slab of lean concrete or an approved alternate method of protection.

Foundation excavations should be made with attention to drainage to keep the base of the excavation from collecting water during wet weather periods. Permanent drainage should be maintained to provide the means of removing water from the granular base materials during and after construction of the tank. It is recommended that the subgrade below any granular material beneath the tank be sloped to drain by gravity to a central collection sump and then collected and discharged away from the structure.

In order to confirm compliance with specifications and acceptability of the bearing stratum, a qualified and experienced geotechnical observer from this office should be present during foundation installation.

All loose soils, debris, and water should be removed from all foundation excavations prior to placing concrete. The width and depth of any grade beams should not vary across the length of the beam.

A vapor barrier should be installed below any at-grade slabs for enclosed structures. All penetrations and joints should be sealed to lower the potential for migration of moisture through the floor. Plastic sheeting used for vapor retarders below the slabs should be draped or cut in such a way as to allow concrete to be placed directly against the sidewalls of the grade beam excavations.

Sand and gravel should not be used to bed utility lines. Utility excavations should be backfilled using on-site soils placed under controlled conditions as outlined in the **Earthwork Recommendations** section. As a minimum, a four-foot-long clay plug should be installed below the exterior grade beam where utility lines transition below a foundation. This clay plug should be installed as outlined in the **Earthwork Recommendations** section. If possible, all utility trenches should be sloped to drain away from a foundation.

Positive drainage away from a foundation should be established during construction and maintained throughout the life of the structure. Landscaping beds should be designed and maintained to prevent water from ponding next to a foundation.

Irrigation lines or heads should not be placed directly next to the foundation. It is recommended that all irrigation lines be kept a minimum of five feet from the edge of the structure.

Any trees to be cleared from or within ten feet of the tank column or a building pad should have the root systems removed and the excavations filled with on-site soils placed under controlled conditions. Soils should be placed as presented in the **Earthwork Recommendations** section. Trees should not be allowed to grow next to a foundation or within 1-1/2 times the mature height of the tree.

EARTHWORK RECOMMENDATIONS

Recommendations for placement of fill are delineated by those areas inside and outside the limits of the proposed tank. All compaction criteria within this section are based on the Standard Proctor test (ASTM D-698).

Areas that will receive fill should be stripped of all organic materials with these soils being wasted outside the limits of construction.

Areas that will receive fill should be ripped to a depth of 8 inches. This exposed subgrade should then be wetted as necessary and compacted to a minimum of 95% of the maximum dry unit weight. Moisture content should be a minimum of +4 percentage points above the optimum moisture content.

Soils outside the limits of the tank should be cleaned of all debris and rock fragments over 4 inches in nominal diameter and placed in maximum 8-inch loose lifts. In areas below pavement or foundations these materials should be compacted to a minimum of 95% with moisture contents at a minimum of +2 percentage points above optimum.

On-site, excavated weathered shale materials used as fill should be reduced to a maximum nominal diameter of 3 inches and thoroughly mixed and wetted to produce a uniform material. Weathered shale fragments should be placed in maximum eight-inch loose lifts and compacted to a minimum of 95% of the maximum dry unit weight as determined by ASTM D-698. Moisture contents of weathered shale fill should be at least +2 percentage points above optimum, as determined by ASTM D-698.

Trench backfill should consist of on-site soils cleaned of all debris and placed in maximum 8-inch loose lifts. These materials should be compacted to a minimum of 95% of the maximum dry unit weight with a moisture content at or above optimum.

Imported, flexible base granular fill used below the storage tank, site paving, or as a pad cap for the pump station and generator pad should meet the gradation requirements of TxDOT (2014) Item 247.2.1 Grade 1-2 flexible base. This material should be placed in maximum six-inch loose lifts and compacted to a minimum of 100% of the maximum dry unit weight as determined by ASTM D-1557, Modified Proctor. Moisture content should be between -3 and +3 of optimum. Type A (crushed stone), B (crushed or uncrushed gravel), or D (crushed concrete) material may be used. Material types must not be mixed.

Trench backfill within the limits of the tanks should be compacted as specified in the preceding paragraphs.

Care must be taken to ensure that soil and flexible base backfill directly against concrete pipe encasement is properly compacted. The lack of compaction against the encasement will result in areas of low compaction and high permeability and that result in greater than anticipated settlement. Compaction using hand or remote operated equipment running directly against the concrete encasement will be required. These areas should be evaluated for compaction and moisture using either balloon density or sand cone methods.

CONSTRUCTION TESTING AND OBSERVATION

It is recommended that a representative of Henley-Johnston & Associates, Inc. be retained to visually inspect construction of piers on a full-time basis to confirm proper bearing stratum and adherence with the recommendations of this report. Periodic inspection of shallow foundations must be performed just prior to placement of concrete to confirm proper bearing material.

Field density tests beneath the tank pad should be taken at a rate of one test per every 2,500 square-feet of fill area, or fraction thereof, per lift. Density tests should be made on grade beam backfill at a rate of one test per lift for every 100 linear feet or trench.

It is recommended that all backfill materials within a trench be tested for moisture and density at a rate of one test per foot of fill for every 100 linear feet of excavation. Field density tests should be conducted during placement of fill. Provisions should be made to permit safe access to the utility trench during placement of fill to allow for testing of the backfill materials for adequate moisture and density. Backfill against pipe encasement below the tank floors is to be carried out at a rate of one test per lift for each side of the encasement, for each pipe.

Field density testing must be conducted during placement of fill. Samples of the fill material should be submitted to the testing laboratory a minimum of 72 hours prior to commencing earthwork operations to allow for evaluation of the maximum density and optimum moisture of the fill soils.

QUALIFICATIONS

In the event that any changes in the nature, design or location of the new structures are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed, and conclusions of this report modified or verified in writing.

The analyses and recommendations submitted in this report are based upon the data obtained from the borings drilled for this project and data developed from subsequent laboratory testing. The nature and extent of subsurface variations at the site may not become evident until construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this report.

The geotechnical engineer must be provided the opportunity for general review of final design drawings and specifications in order that earthwork and foundation recommendations may be properly interpreted and implemented in the design drawings and specifications.

LEGEND

SOIL BORING

NOT TO SCALE

HENLEY | JOHNSTON & ASSOCIATES 235 MORGAN AVE. DALLAS, TX 75203 I 214.941.3808 I WWW.HJA-ENG.COM TEXAS FIRM REGISTRATION NO. F-1238	AUBREY PUMP STATION AND GROUND STORAGE RESERVOIR ROCKHILL ROAD AUBREY, TEXAS BORING LOCATION PLAN	HJA No.: 26650G DATE: SEPTEMBER 2024 PLATE 1

GEOTECHNICAL INVESTIGATION
REPORT NO. 26687G
AUBREY PUMP STATION AND GROUND STORAGE RESERVOIR
ROCKHILL ROAD
AUBREY, TEXAS

SUMMARY OF INDEX PROPERTIES

BORING NUMBER	DEPTH (ft.)	LIQUID LIMIT (%)	PLASTIC INDEX	DUW (pcf)	FINER #200 (%)	MOISTURE CONTENT (%)	UNIFIED SOIL CLASSIFICATION
1	0.0 – 1.5					9.1	
1	3.5 – 5.0					11.9	
1	5.0 – 6.0			114.5		15.8	
1	6.0 – 7.0						
1	7.0 – 8.0					14.5	
1	8.0 – 9.0	31	19	117.3		12.6	CL
1	9.0 – 10.0			100.4		16.3	
1	14.0 – 15.0	50	38	118.5		14.3	CH
1	19.0 – 20.0						
1	24.0 – 25.0						
1	29.0 – 30.0					10.8	
2	0.0 – 1.0					9.1	
2	1.0 – 2.0					17.4	
2	2.0 – 3.0	50	32	105.4		14.8	CL
2	3.0 – 4.0			121.7		11.6	
2	4.0 – 5.0					11.1	
2	5.0 – 6.0					25.2	
2	6.0 – 7.0			95.1		27.7	
2	7.0 – 8.0					23.2	
2	8.0 – 9.0	47	34	109.9		17.3	CL
2	9.0 – 10.0			99.9		23.5	
2	14.0 – 15.0						
2	19.0 – 20.0			106.8		20.2	
2	24.0 – 25.0					16.6	
2	29.0 – 30.0					17.8	

GEOTECHNICAL INVESTIGATION
REPORT NO. 26687G
AUBREY PUMP STATION AND GROUND STORAGE RESERVOIR
ROCKHILL ROAD
AUBREY, TEXAS

SUMMARY OF FREE-SWELL TESTS

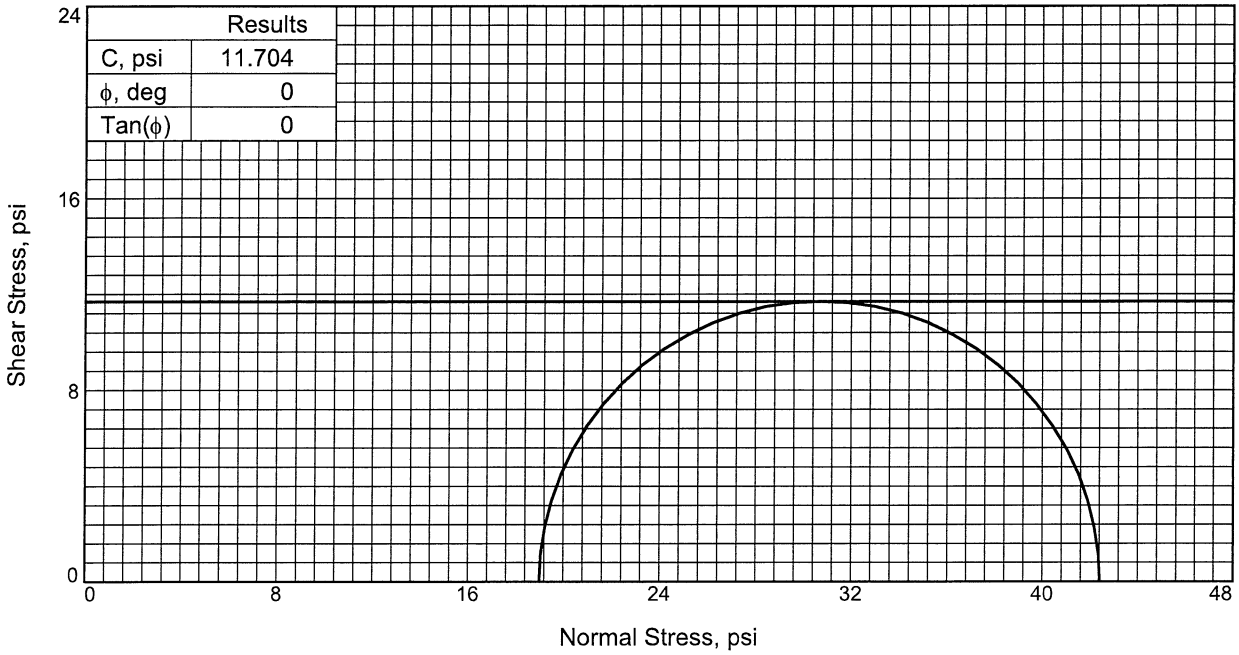
BORING NUMBER	DEPTH (ft.)	SWELL PRESSURE (psf)	GAIN IN MOISTURE (%)	PERCENT SWELL (%)	MATERIAL DESCRIPTION
2	2.0 – 3.0	288.0	8.4	4.8	SANDY CLAY, hard, brown to reddish-brown
2	8.0 – 9.0	1,152.0	2.8	1.4	SANDY CLAY, hard, brown, gray, and reddish-brown

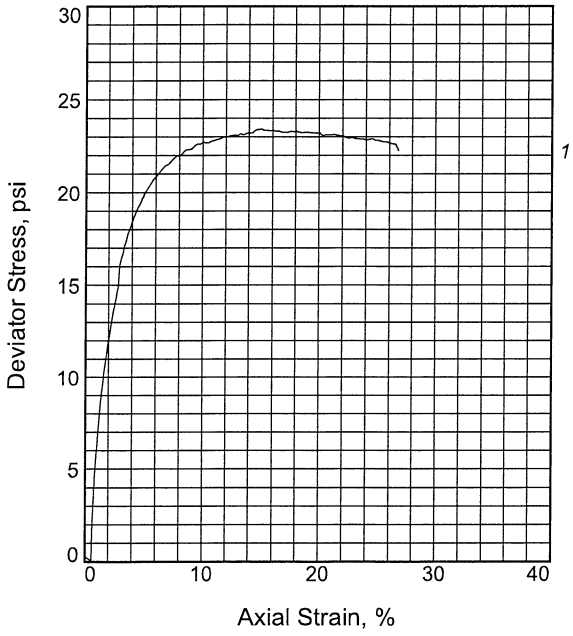
SUMMARY OF ABSORPTION PRESSURE-SWELL TESTS

BORING NUMBER	DEPTH (ft.)	SWELL PRESSURE (psf)	GAIN IN MOISTURE (%)	PERCENT SWELL (%)	MATERIAL DESCRIPTION
1	8.0 – 9.0	233.0	4.6	0.0	SHALE, severely weathered
1	14.0 – 15.0	1,164.0	3.7	1.4	SHALE, severely weathered

SUMMARY OF UNCONFINED COMPRESSION TESTS

BORING NUMBER	DEPTH (ft.)	PEAK STRESS (psi)	FAILURE STRAIN (%)	MATERIAL DESCRIPTION
1	5.0 – 6.0	34.2	5.0	SHALE, severely weathered
1	9.0 – 10.0	5.4	3.4	SHALE, severely weathered
2	3.0 – 4.0	134.2	4.3	SANDY CLAY, hard, brown to reddish-brown
2	6.0 – 7.0	20.0	3.4	SANDY CLAY, hard, brown, gray, and reddish-brown
2	9.0 – 10.0	20.6	5.8	SHALE, weathered
2	19.0 – 20.0	20.2	4.6	SHALE, weathered





Sample No.		1
Initial	Water Content, %	18.6
	Dry Density, pcf	109.0
	Saturation, %	95.2
	Void Ratio	0.5182
	Diameter, in.	2.750
	Height, in.	5.675
At Test	Water Content, %	18.9
	Dry Density, pcf	109.0
	Saturation, %	96.8
	Void Ratio	0.5182
	Diameter, in.	2.750
	Height, in.	5.675
Strain rate, in./min.		0.057
Back Pressure, psi		0.00
Cell Pressure, psi		19.00
Fail. Stress, psi		23.41
Strain, %		15.0
Ult. Stress, psi		
Strain, %		
σ_1 Failure, psi		42.41
σ_3 Failure, psi		19.00

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: SHALE, severely weathered, sandy, with iron staining and iron deposits, blocky, soft, gray, brown, and reddish-brown

Assumed Specific Gravity= 2.65

Remarks:

Client:

Project: Aubrey Pump Station and Ground Storage Reservoir

Source of Sample: B1 **Depth:** 19

Proj. No.: 26687G **Date Sampled:** 9/16/24

HJA HENLEY | JOHNSTON & ASSOCIATES

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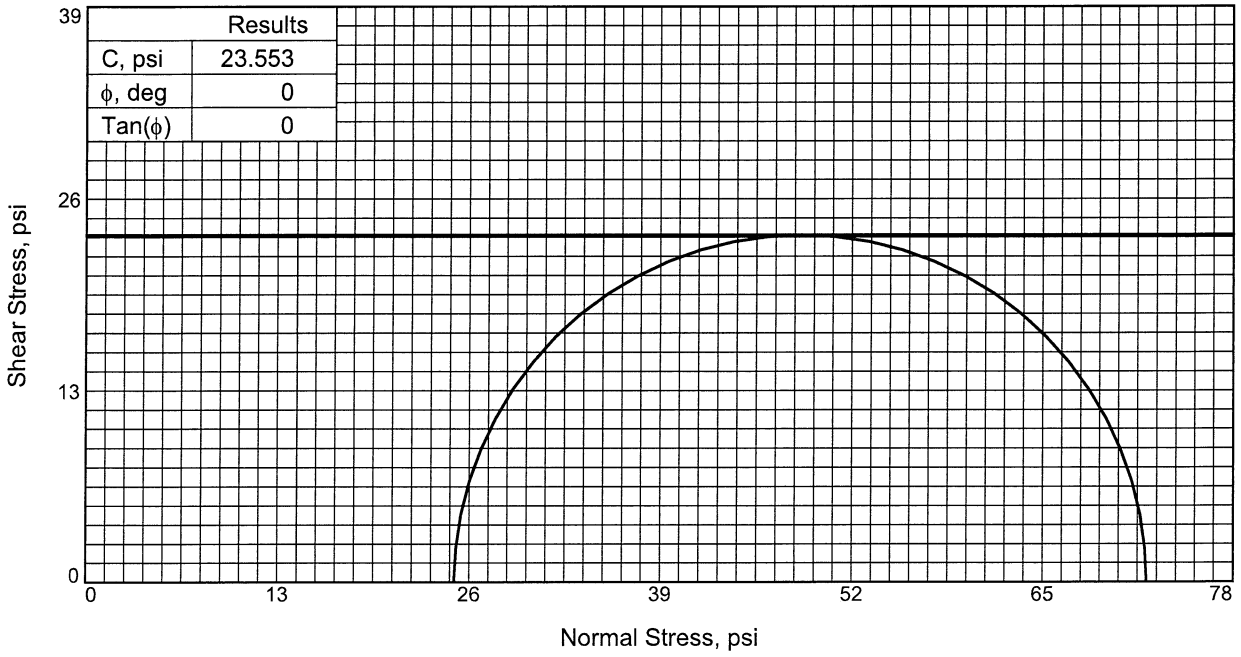
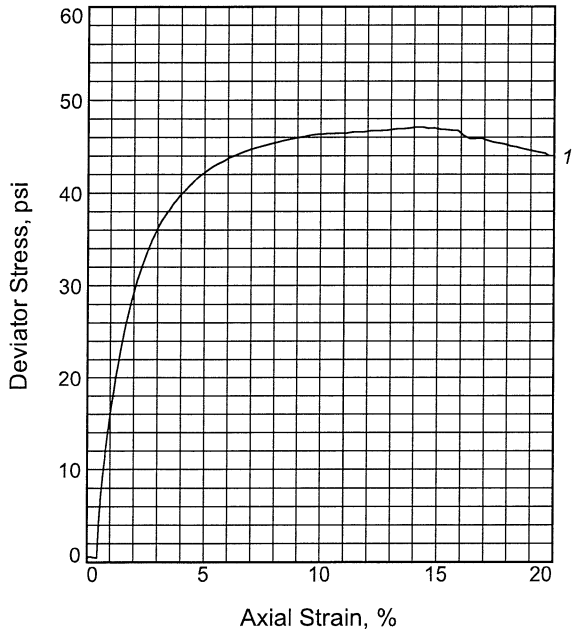
Plate 4





Sample No.		1
Initial	Water Content, %	17.5
	Dry Density, pcf	119.4
	Saturation, %	107.0
	Void Ratio	0.4536
	Diameter, in.	2.605
	Height, in.	5.675
At Test	Water Content, %	17.1
	Dry Density, pcf	119.4
	Saturation, %	104.9
	Void Ratio	0.4536
	Diameter, in.	2.605
	Height, in.	5.675
Strain rate, in./min.		0.057
Back Pressure, psi		0.00
Cell Pressure, psi		25.00
Fail. Stress, psi		47.11
Strain, %		14.4
Ult. Stress, psi		
Strain, %		
σ_1 Failure, psi		72.11
σ_3 Failure, psi		25.00

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: SHALE, severely weathered, sandy, with iron staining and iron deposits, blocky, soft, gray, brown, and reddish-brown

Assumed Specific Gravity= 2.78

Remarks:

Client:

Project: Aubrey Pump Station and Ground Storage Reservoir

Source of Sample: B1 **Depth:** 24

Proj. No.: 26687G **Date Sampled:** 9/16/24

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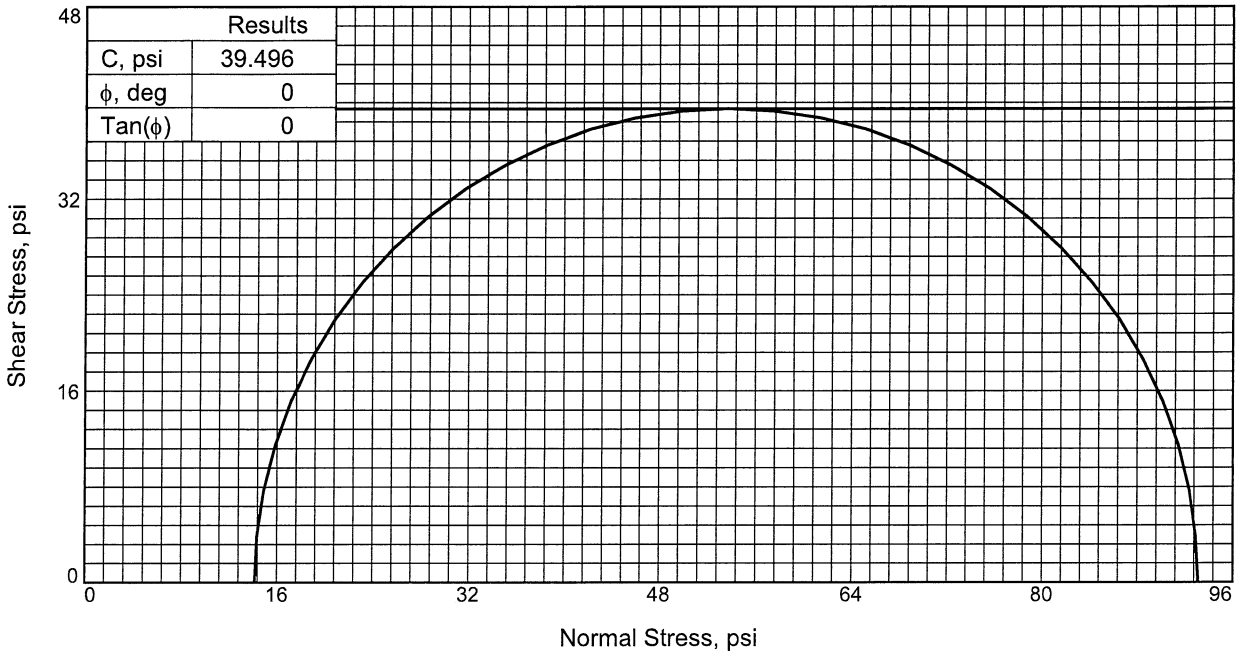
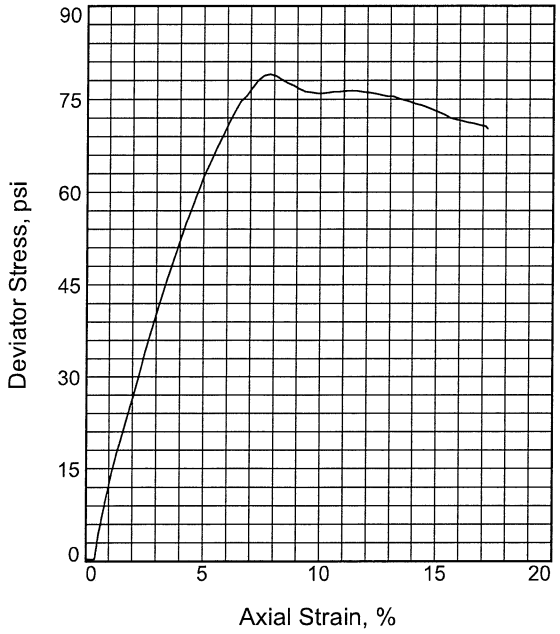
Plate 5





Sample No.		1
Initial	Water Content, %	15.7
	Dry Density, pcf	114.1
	Saturation, %	92.3
	Void Ratio	0.4505
	Diameter, in.	2.790
	Height, in.	5.675
At Test	Water Content, %	15.6
	Dry Density, pcf	114.1
	Saturation, %	91.8
	Void Ratio	0.4505
	Diameter, in.	2.790
	Height, in.	5.675
Strain rate, in./min.		0.057
Back Pressure, psi		0.00
Cell Pressure, psi		14.15
Fail. Stress, psi		78.99
Strain, %		7.8
Ult. Stress, psi		
Strain, %		
σ_1 Failure, psi		93.14
σ_3 Failure, psi		14.15

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: SHALE, weathered, with iron staining, blocky, soft, gray and brown

Assumed Specific Gravity= 2.65

Remarks:

Client:

Project: Aubrey Pump Station and Ground Storage Reservoir

Source of Sample: B2 **Depth:** 14

Proj. No.: 26687G **Date Sampled:** 9/16/24

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Plate 6

HENLEY | JOHNSTON & ASSOCIATES

TEXAS FIRM REGISTRATION NO. F-1238

LEGEND, LITHOLOGY, SOIL CONSISTENCY & RELATIVE ROCK HARDNESS

Aubrey Pump Station and Ground Storage Reservoir
Rockhill Road
Aubrey, Texas

OF BORINGS:

PROJECT No.: 26687G

DRILL DATE: 9/16/24

METHOD: Auger to 30'

Strata symbols

LOW PLASTICITY CLAYS, SANDY CLAYS, OR GRAVELLY CLAYS (CL)

SHALE, weathered

Misc. Symbols

Pocket Penetrometer (tsf)

Standard Penetration (BPF)

Ground Water During Drilling (ft)

Soil Samplers

Split Spoon

Undisturbed thin wall Shelby tube

FOR SANDS, GRAVELS, & SANDY SILTS

Modified from Peak, Hanson & Thornburn (1974)

Consistency	Standard Penetration Resistance (N)
Very Loose	Less than 4
Loose	4 to 10
Medium Dense	10 to 30
Dense	30 to 50
Very Dense	Greater than 50

FOR CLAYS AND SANDY CLAYS
(COHESIVE SOILS)

Modified from Peak, Hanson & Thornburn (1974)

Consistency	Unconfined Compression (tsf)	Standard Penetration Resistance (N)
Very Soft	Less than 0.25	Less than 2
Soft	0.25 to 0.5	2 to 4
Medium Stiff	0.5 to 1.0	4 to 8
Stiff	1.0 to 2.0	8 to 15
Very Stiff	2.0 to 4.0	15 to 30
Hard	Greater than 4.0	Greater than 30

RELATIVE HARDNESS MODIFIERS (ROCK)
(RELATED TO FRESH SAMPLE)

Modified from SCS EWP, Tech Guide No. 4

Hardness	Rule of Thumb Test
Soft	Permits denting by moderate finger pressure
Firm	Resists denting by fingers but can be penetrated by pencil point to medium to shallow depth (No. 2 pencil)
Mod. Hard	Very shallow penetration of pencil point, can be scratched by knife and in some instances cut with knife
Hard	No pencil penetration, can be scratched with knife, can be broken by light to moderate hammer blows
Very Hard	Cannot be scratched by knife, can be broken by repeated hammer blows

HENLEY | JOHNSTON & ASSOCIATES

DRILL DATE: 9/16/24
METHOD: Auger to 30'

LOG OF BORING

Aubrey Pump Station and Ground Storage Reservoir
Rockhill Road
Aubrey, Texas

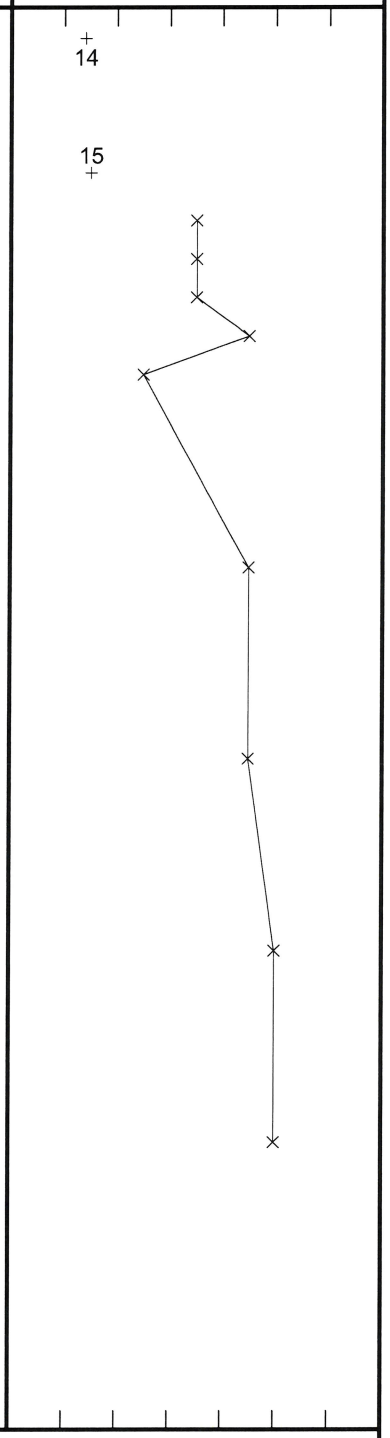
PROJECT No.:	26687G
BORING No.:	B1
RIG:	CME45
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	688

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			SANDY CLAY, with iron staining, very stiff, brown and reddish-brown			
				685		
5			SHALE, severely weathered, sandy, with iron staining and iron deposits, blocky, soft, gray, brown, and reddish-brown			
				680		
10						
				675		
15						
				670		
20						
				665		
25						
				660		
30			TOTAL DEPTH: 30.0'			
				655		
35						

TxDOT CPT ⊗ (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): DRY
Ground Water at Completion (ft.): DRY

HENLEY | JOHNSTON & ASSOCIATES

DRILL DATE: 9/16/24
METHOD: Auger to 30'

LOG OF BORING

Aubrey Pump Station and Ground Storage Reservoir
Rockhill Road
Aubrey, Texas

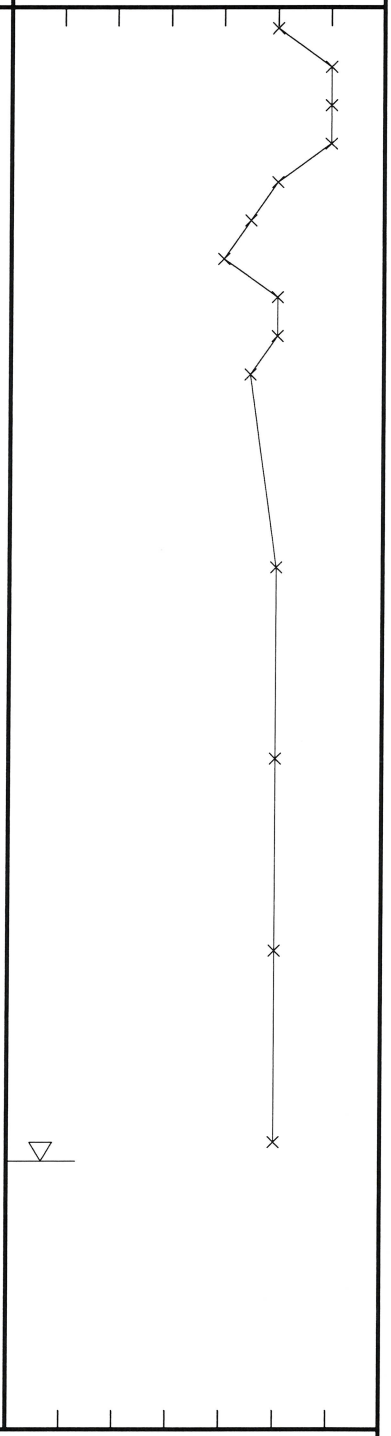
PROJECT No.:	26687G
BORING No.:	B2
RIG:	CME45
SHEET:	1 of 1
LOCATION:	See Plate 1
GROUND ELEVATION:	689

DEPTH (feet)	SYMBOL	SAMPLES	MATERIAL DESCRIPTION	ELEVATION (feet)	CORE RECOVERED (ft.)	CORE RQD (%)
0			SANDY CLAY, with iron staining and iron deposits, hard, brown to reddish-brown			
				685		
5			SANDY CLAY, with iron staining, iron deposits, and shale fragments, hard, brown, gray, and reddish-brown			
				680		
10			SHALE, weathered, with iron staining, blocky, soft, gray and brown			
				675		
15						
				670		
20						
				665		
25						
				660		
30			TOTAL DEPTH: 30.0'			
				655		
35						

TxDOT CPT ⊗ (inches per 100 blows) 1 2 3 4 5 6

STANDARD PENETRATION (BPF) + 10 20 30 40 50 60

POCKET PENETROMETER × (tsf) 1 2 3 4 + ++



Ground Water During Drilling (ft.): 30.0'
Ground Water at Completion (ft.): 28.0'

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Receive a presentation and hold discussion regarding the proposed Aubrey 2045 Comprehensive Plan (the "Plan"), conduct a public hearing on the Plan to receive public comment, and consider and take action on an Ordinance amending Chapter 14, "Zoning" to adopt the proposed "Aubrey 2045 Comprehensive Plan"

- Consultant Presentation of the Plan and Council Discussion
- Conduct a Public Hearing regarding the Plan.
- Consider the adoption of an Ordinance 936-25 amending Chapter 14, Zoning, Article 14.03 of Exhibit 14A, "Zoning Ordinance" of the Code of Ordinances to adopt the Aubrey 2045 Comprehensive Plan.

Staff Contact
Leanne Wilson, Assistant City Manager
lwilson@aubreytx.gov

Summary

Executive Summary

The Aubrey 2045 Comprehensive Plan represents the City's primary long-range policy document guiding growth, development, infrastructure investment, and community priorities over the next 20 years. Developed through a robust, year-long public engagement process—including Steering Committee meetings, community survey results, and direct outreach at the 2024 Peanut Festival—the Plan reflects the collective vision, values, and goals of Aubrey residents, appointed boards, and elected officials.

The Plan provides an updated framework for managing rapid population growth, preserving Aubrey's rural and equestrian heritage, strengthening Downtown, and promoting high-quality development. It includes detailed chapters covering growth management, future land use, transportation, economic development, housing, parks and recreation, utilities, and fiscal impacts, supported by data analysis and extensive mapping.

Key themes emerging from community input include: preservation of open space; support for agritourism and equestrian uses; demand for diversified and family-oriented parks; improved roadway and mobility planning; and expanded commercial and retail services—particularly in Downtown. The Future Land Use Map and associated development strategies reflect a balanced approach combining suburban patterns with nodal mixed-use areas to preserve land and direct growth efficiently.

Adoption of the Aubrey 2045 Comprehensive Plan will align all related plans—including parks, thoroughfare, and MDD strategic plans—under a unified vision and provide a consistent framework for zoning, capital improvement planning, infrastructure coordination, and economic development decisions.

Financial Summary
Adoption of the Comprehensive Plan does not create an immediate fiscal impact. Future budgetary considerations for infrastructure, capital improvements, or policy implementation will be addressed individually

through the annual budget process or specific project approvals.

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to (approve/deny/table) the 2045 Comprehensive Plan

ORDINANCE NO. 936-25

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS AMENDING THE CODE OF ORDINANCES OF THE CITY OF AUBREY BY AMENDING ARTICLE 14.03 "MASTER THOROUGHFARE PLAN" OF CHAPTER 14 "ZONING" OF THE CODE OF ORDINANCES TO ADOPT THE CITY OF AUBREY, TEXAS 2045 COMPREHENSIVE PLAN; PROVIDING FOR THE INCORPORATION OF PREMISES; PROVIDING FOR AMENDMENTS TO ADOPT THE COMPREHENSIVE PLAN AND RENUMBER ARTICLE 14.03; PROVIDING A CUMULATIVE REPEALER CLAUSE; PROVIDING FOR SEVERABILITY; PROVIDING FOR CODIFICATION; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Aubrey, Texas is a home-rule municipality located in Denton County, Texas created in accordance with the provisions of the Texas Local Government Code and the Texas Constitution and operating pursuant to its Charter; and

WHEREAS, Chapter 213 of the Texas Local Government Code authorizes municipalities to adopt a comprehensive plan for the long-range development of the City ("Chapter 213"); and

WHEREAS, Aubrey's population and other demographic characteristics have changed due to growth which has necessitated review, discussion, and formulation of amendments to the existing comprehensive plan and which necessitates appropriate changes regarding land use, transportation, parks and open spaces, public utilities, and city facilities that will facilitate the movement of people and good and the health, safety, and welfare of the citizens of the City; and

WHEREAS, On November 13, 2025, the Aubrey Planning and Zoning Commission provided the public an opportunity to provide input, reviewed and provided a recommendation to the City Council concerning the proposed Aubrey 2045 Comprehensive Plan (the "Comprehensive Plan"); and

WHEREAS, on November 20, 2025 a public hearing was conducted by the Aubrey City Council at which members of the public were given the opportunity to give testimony and present written evidence regarding the Comprehensive Plan and the Council reviewed the recommendation of the Planning and Zoning Commission; and

WHEREAS, a comprehensive plan may: (i) include provisions on land use, transportation, and public facilities; (ii) consist of a single plan or a coordinated set of plans organized by subject matter and geographic area; and (iii) be used to coordinate and guide the establishment of development regulations; and

WHEREAS, Section 213.003 of the Texas Local Government Code provides that a comprehensive plan may be adopted by ordinance following (a) a hearing at which the public is given the opportunity to give testimony and present written evidence; and (b) review by the municipality's planning commission, and each of the foregoing items has been satisfied in connection with the comprehensive plan and the adoption of if by this Ordinance; and

WHEREAS, after compliance with all legal requirements, review of the proposed Comprehensive Plan, and having provided the public an opportunity to provide input, the City Council has determined that the proposed Comprehensive Plan will promote sound and orderly land use and development of property within the City, that adoption of the Comprehensive Plan will further the goals of promoting and safeguarding public health, safety, and welfare, and that the proposed Comprehensive Plan as set forth in **Exhibit "A"** should be adopted.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS:

SECTION 1. Incorporation of Premises. The Recitals set forth above are the legislative findings of the City Council and are incorporated into the body of this Ordinance as if fully set forth herein.

SECTION 2. Amendment. Article 14.03 "Master Thoroughfare Plan" of Chapter 14 "Zoning" of the Code of Ordinances of the City of Aubrey is hereby renamed to "Comprehensive Plan," and a new Section 14.03.001 entitled "Comprehensive Plan" is hereby adopted, and existing Section 14.03.001 "Master Plans – Comprehensive Plan" is hereby renumbered and renamed to be Section 14.03.002 entitled "Master Thoroughfare Plan," each of which shall be and read in their entirety as follows, and all other sections of Chapter 14, Article 14 of the Code of Ordinances not expressly amended hereby shall remain in full force and effect:

"**Article 14.03 COMPREHENSIVE PLAN**

§14.03.001. Comprehensive Plan.

The 2045 Comprehensive Plan is hereby adopted and incorporated into the Code of Ordinances of the City, as set forth in **Exhibit "A"** to Ordinance No. _____ and fully incorporated here. A copy of the 2045 Comprehensive Plan shall remain on file in the office of the City Secretary.

§ 14.03.002. Master Throughfare Plan.

(a) Master Thoroughfare Plan and Master Thoroughfare Plan Map. The City's Master Thoroughfare Plan, as previously adopted and amended, is hereby adopted as part of this Code of Ordinances pursuant to Ordinance 572-15 and is amended by Exhibit A-1, the 2023 Master Thoroughfare Plan

Map attached thereto. The City's Master Thoroughfare Plan and the 2023 Master Thoroughfare Plan Map provide vital and essential planning tools upon which the City relies for future planning and funding of its roadways and related public infrastructure; therefore, the Master Thoroughfare Plan and Master Thoroughfare Plan Map are tangential to and cumulative with the Comprehensive Plan or master plan of the City. A full and complete copy of the Master Thoroughfare Plan and of the Master Thoroughfare Plan Map is set forth in Exhibit A, and a full and complete copy of the 2023 Master Thoroughfare Plan is set forth in exhibit A-1 respectively, each of which is attached to Ordinance 810-23, and is hereby adopted and incorporated into the Code of Ordinances of the City. A copy of the Master Thoroughfare Plan and the 2023 Master Thoroughfare Plan Map shall remain on file in the office of the city secretary.

(b) All persons or entities developing land shall comply with the requirements of the Master Thoroughfare Plan and Master Thoroughfare Plan Map and related ordinances. Proposed public improvements serving new development shall conform to and be properly related to the public facility elements of the City's Master Plan and other adopted ordinances and plans for public facilities and services, and applicable capital improvements plans, and shall at minimum meet the service levels specified in such plans. The general location of streets shall conform to the Master Thoroughfare Plan and Master Thoroughfare Plan Map; a determination of such conformity shall be made by the City during the process of review of proposed plans for development. Additionally, all plats within the city and its ETJ, and corresponding construction plans, shall provide for thoroughfares as shown in the Master Thoroughfare Plan. The design and construction of all proposed thoroughfares shall be in conformance with the Master Thoroughfare Plan, the City's adopted design standards, and other applicable ordinances of the City."

SECTION 3. Cumulative Repealer. This Ordinance shall be cumulative of all other Ordinances of the City and shall not repeal any of the provisions of such Ordinances except for those instances where there are direct conflicts with the provisions of this Ordinance, including conflicts between adopted plans referenced within such ordinances and referenced plans adopted as part of the Comprehensive Plan. Ordinances, or parts thereof, in force at the time this Ordinance takes effect and that are inconsistent with this Ordinance are hereby repealed to the extent that they are inconsistent with this Ordinance. Provided however, that any complaint, action, claim or lawsuit which has been initiated or has arisen under or pursuant to such other Ordinances on this date of adoption of this Ordinance shall continue to be governed by the provisions of such Ordinance and for that purpose the Ordinance shall remain in full force and effect.

SECTION 4. Severability. If any section, subsection, clause, phrase, or provision of this Ordinance, or the application thereof to any person or circumstance, shall to any extent be held by a court of competent jurisdiction to be invalid, void, or unconstitutional,

the remaining sections, subsections, clauses, phrases, and provisions of this Ordinance, or the application thereof to any person or circumstance, shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

Section 5. Codification. The City Secretary is hereby directed to authenticate this Ordinance by seal and signature and properly codifying this Ordinance and providing a printed copy for public review as required by Section 3.16 of the Aubrey Home Rule Charter.

SECTION 6. Effective Date. This Ordinance shall become effective immediately upon its passage and publication as required by law.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Aubrey, Texas at a regular meeting held on this the 20th day of November 2025.

_____
Chris Rich, Mayor

ATTEST:

_____
Jenny Hicks, City Secretary

APPROVED AS TO FORM:

_____
Patricia A. Adams, City Attorney

EXHIBIT A

CITY OF AUBREY, TEXAS 2045 COMPREHENSIVE PLAN

AUBREY2045

COMPREHENSIVE PLAN

Draft September 23, 2025

AUBREY2045

The AUBREY 2045 logo is a stylized outline of the Peanut Dryer facility to emphasize the agrarian heritage of the community while looking forward to the planned growth of the next 20 years.

ACKNOWLEDGMENTS

Citizens of the City of Aubrey

Aubrey Comprehensive Plan Steering Committee

Bhadresh Trivedi
Brenda Blackburn
Chris Rich
Dean Butenschoen
Devansh Trivedi
Jenny Hicks
Merry Hopper
Mike Browning
Riley Podleski
Sam Goin
Sina Tidwell
Terrie McNabb
Todd Davis

Aubrey City Council

Chris Rich | *Mayor*
Jeff Perry | *Place 1*
Matt Jones | *Place 2*
Mike Browning | *Place 3*
Randy Jones | *Place 4*
Chuck Fikes | *Place 5*
Erin Allen | *Former Member*

Aubrey Planning and Zoning Commission

Sina Tidwell | *Chair*
Christal Johnson
Brittney Murray
Kyle Kennedy
Candance Stone
Nicole Shaw
Marc Hendricks

City Staff

Charles Kreidler | *City Manager*
Jenny Hicks | *City Secretary*
Bailey Thompson | *Assistant to the City Manager*
Leanne Wilson | *Executive Director of Operations*
Shanda Guffee | *Development Services Manager*
Christine Gossett | *Executive Director, Aubrey Municipal Development District*

Consultant Team

Dunaway Associates

Stephen Cook, AICP | *Project Manager*
Aden Herrera | *Planning Analyst*
Ellen Soward, AICP | *Planner*

Catalyst Commercial

Jason Claunch | *President*
Chris Branham | *Principal*

CivicBrand

Ryan Short | *CEO*
Brisa Byford | *Strategist*

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1 INTRODUCTION TO PLAN AND VISION

Mural by Odessa Helm in Downtown Aubrey.
Source: City of Aubrey

Introduction

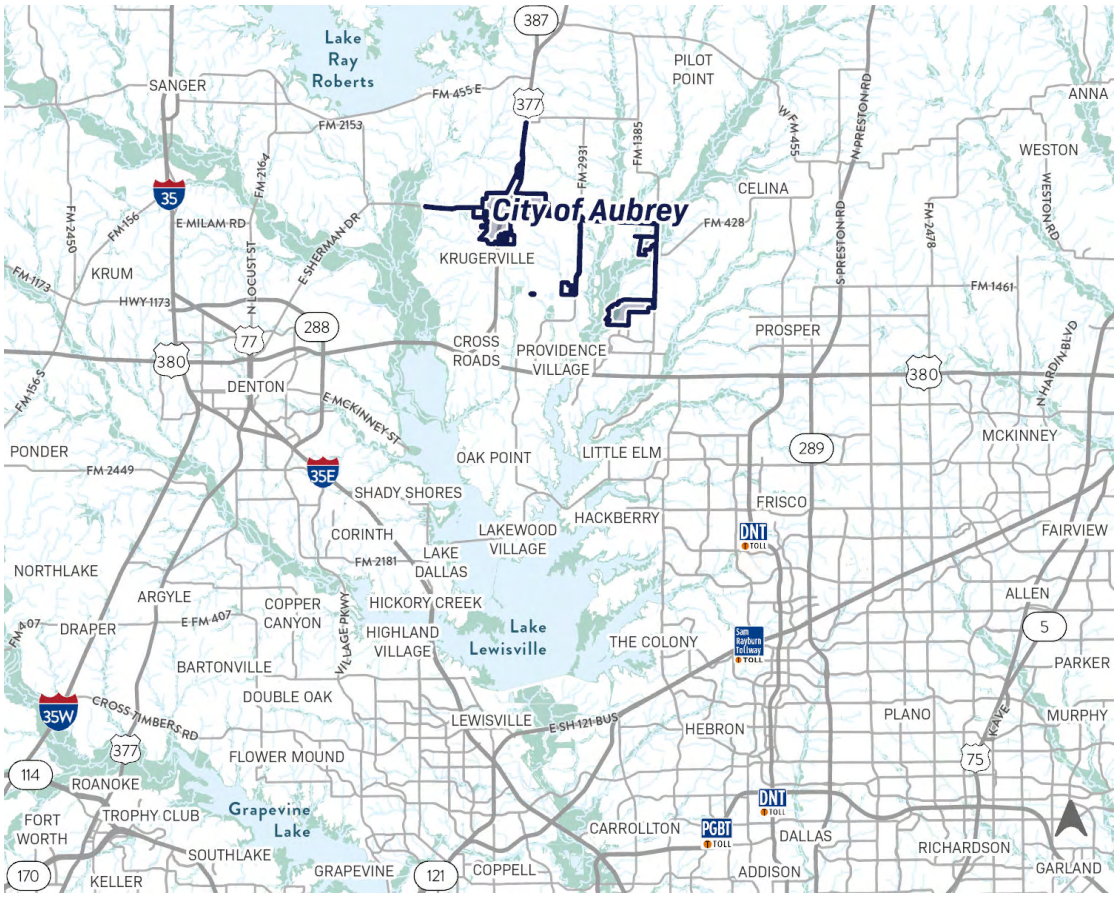
The City of Aubrey, located in northeastern Denton County, is part of the rapidly growing Dallas-Fort Worth Area. Positioned just 45 minutes north of Dallas and near major transportation corridors like Interstate 35 (I-35), the North Dallas Tollway, and US Highway 380 (US 380), Aubrey is an attractive destination for residents and businesses alike. Known for its rural heritage and small-town charm, the city combines a low-tax environment, a business-friendly atmosphere, award-winning schools, and proximity to major universities and community colleges.

The city and its extraterritorial jurisdiction (ETJ) span over 38 square miles, including over seven square miles of floodplain and over six square miles of Post Oak Forest. These natural areas are vital to Aubrey's unique identity and are central to its vision for preserving open spaces while accommodating expansion.

Aubrey offers abundant recreational opportunities thanks to its proximity to Lake Ray Roberts, Lake Lewisville, and the Elm Fork Greenbelt Trail. The city has also received notable recognition, including being named one of the "10 Healthiest Neighborhoods" by *The Dallas Morning News* in 2014 and 2015. Additionally, the "Keep Aubrey Beautiful" initiative earned the Governor's Community Achievement Award in 2015.

Development in recent years has predominantly been concentrated along the US 380 corridor, where thousands of single family homes have been constructed. This Comprehensive Plan focuses on managing this growth responsibly by enhancing its historic downtown, planning infrastructure improvements, and shaping future recreational spaces. The City aims to balance its transformation from a rural community to a thriving suburb while maintaining its small-town appeal.

Grounded in its heritage and strong sense of community, Aubrey is embracing the opportunities that growth presents. Through strategic partnerships and innovative planning, the city is working to create a vibrant and sustainable future for both residents and businesses. By preserving its natural areas and historic character, Aubrey is building a dynamic community that is ready to thrive for generations to come.



Source: Dunaway

Figure 1.1: Regional Location

A part of any comprehensive planning process is the creation of a vision and the involvement of community leaders and residents. The public involvement process is important in that the plan is ultimately defined by the residents and elected and appointed officials. The process allows input and feedback on past decisions regarding zoning, land use, capital improvements, and growth. Gathering community feedback fosters the buy-in, from not only residents but also City staff and leadership, that is needed to successfully implement a Comprehensive Plan. The vision process helps shape an articulated basis in which future decisions can be made.

The Planning Process

The City appointed a Steering Committee consisting of community members with various experiences and roles including local leaders and elected and appointed officials. The Steering Committee attended many meetings throughout the duration of the planning process. Within their role, the Steering Committee was tasked with the following:

- Advise the planning team in reviewing data in addition to developing and reviewing goals, policies, and draft documents.
- Provide comments and input during all project phases and civic engagement meetings and components.
- Identify issues and concerns during the project development process, and for the project as a whole.
- Encourage community consensus and stakeholder participation and support the mission of the project.
- Act in an advisory capacity to the Planning and Zoning Commission and City Council.

Steering Committee Meeting Timeline

June 5, 2024

The Steering Committee launched the comprehensive planning process with an introductory meeting at City Hall. Members learned about the Comprehensive Plan's purpose, its role in managing growth, and their responsibilities. The group participated in a vision-building session and mapping exercise to identify community priorities and potential land uses. These activities informed the development of the Vision Statement, Guiding Principles, and Future Land Use Map, foundational elements for guiding Aubrey's growth.

July 10, 2024

During the second meeting, the Committee reviewed the draft community survey and project website and discussed initial goals and objectives for key chapter topics: Growth Management, Future Land Use, Transportation, Economic Development, Housing, Parks and Recreation, and Utilities. Members also examined housing trends, population growth, and an economic snapshot. The input gathered refined the Plan's goals and objectives and guided the drafting of planning strategies.

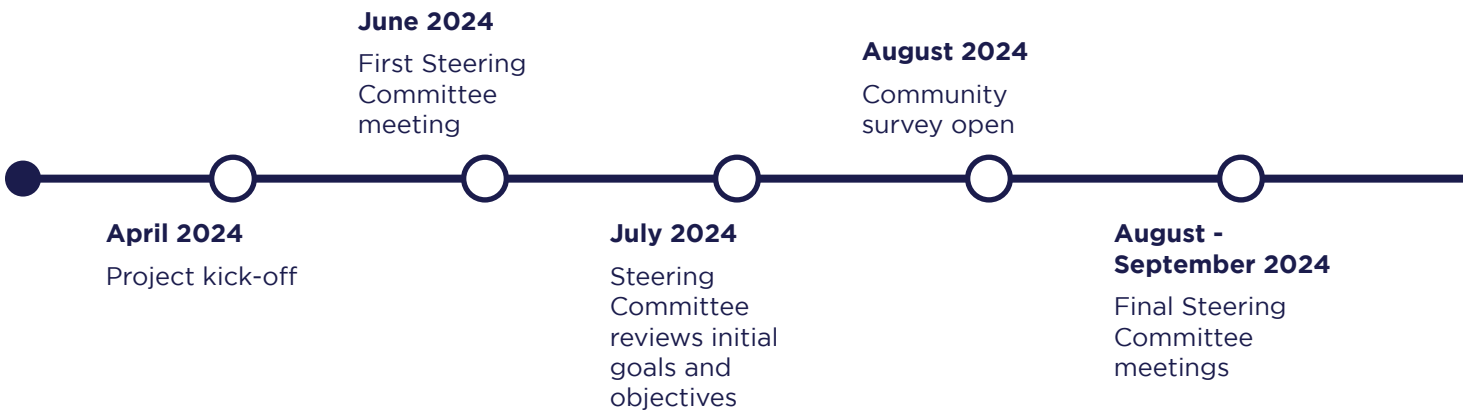


Figure 1.2: Project Timeline

August 14, 2024

At the third meeting, the Committee reviewed preliminary community survey results and draft strategies for Growth Management, Future Land Use, and Transportation. Members reviewed two Alternative Growth Scenarios: Typical Suburban and Nodal Mixed-Use development and provided input prior to the materials being shared with the public at Peanut Festival on October 5, 2024. Updates on the City's Strategic Plan by Catalyst Commercial and its influence on land use and economic development were also shared.

September 11, 2024

The fourth meeting featured the presentation of finalized community survey results (510 responses), along with the draft Vision Statement and Community Principles, which outline the ideal future and core values for Aubrey. Members discussed draft strategies for Economic Development, Housing, Parks and Recreation, and Utilities. The meeting concluded with an update and the promotion of the Comprehensive Plan booth at the Peanut Festival on October 5, that would allow the community to provide important feedback on the future development of the city.

Steering Committee members engaging at the June 2024 *(top)* **and September 2024** *(bottom)* **meetings.**

October 2024

Public outreach at Aubrey Peanut Festival

TBD

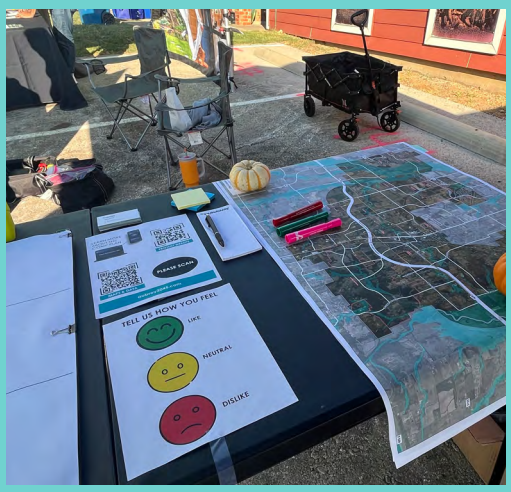
Review by Steering Committee, Planning & Zoning Commission, and City Council

Spring 2025

Draft document and review

TBD

Adopted by City Council.



Public Engagement at the Peanut Festival

On October 5, 2024, Aubrey hosted its 38th annual Peanut Festival, providing residents with a chance to engage in the comprehensive planning process at the Comprehensive Plan booth. This event offered a critical opportunity for public input, ensuring community voices shape the Plan's development.

The booth operated in a come-and-go format, with the Dunaway planning team available to answer questions and facilitate discussions. Conversations focused on preserving Aubrey's unique qualities while preparing for future growth. Attendees reviewed an alternative development mapping board, as shown in Figure 1.3 on page 14, that presented two conceptual growth scenarios:

- Option 1: Continuing the current suburban development pattern
- Option 2: Transitioning to nodal mixed-use development.

The feedback resulted in the final Future Land Use Map, shown on page 67, representing a combination of both options.

There was a general trend of topics centered around preservation of open space and land for equestrian and agricultural uses, along with transportation concerns.

- Many participants favored nodal development as a way to preserve more open space for recreation and agriculture by concentrating higher density in specific areas.
- There was support for dedicating land to agritourism, which could help sustain industries such as equestrian activities, small farms, and event venues.
- Traffic and roadway systems were a major concern, with some participants preferring the wider, larger roadways that come with traditional suburban development.

In addition to the mapping feedback, the three visioning boards focused on: housing types, destination retail, and placemaking/public spaces. The findings are highlighted on the next page. These boards served as conversation starters, helping to identify elements and features that the community would like to see in future development. Participants were given red, yellow, and green stickers to place on images based on their preferences: red for dislike, yellow for neutral, and green for like. This interactive activity encouraged community engagement and allowed adults and kids alike to participate in a fun and simple way.

Highlights and Takeaways

Housing Styles

- Strong support for more single family homes, though opinions were mixed on lot sizes, with some preferring larger estate lots and others favoring smaller ones.
- Many liked the idea of cottage court or garden-style homes for those seeking less yard maintenance and an option to age in place, preferring these over duplexes and fourplexes.
- Participants were open to live-work units, combining residential and commercial or office space, particularly in areas like Downtown.

Destination Retail

- Participants supported bringing in small businesses and restaurants, especially in Downtown, that align with the community's needs while preserving its unique character and natural beauty.
- Many felt the city would benefit from having more grocery store options.
- There was strong support for adding smaller recreational retail, given the city's proximity to nearby lakes.
- The community prefers retail areas that include amenities such as gathering spaces and well-lit centers.
- Opinions were divided on the addition of more office spaces; some supported additional services like medical and dental practices, while others were concerned about the potential for increased traffic.

Public Spaces & Placemaking

- Participants strongly supported amenities that activate public spaces, with a focus on shade coverage, multiuse areas, walking trails, and expanding spaces for food trucks.
- There is a desire for more family-oriented public spaces with activities for all ages. Although not featured on the boards, the need for additional sports fields was a recurring topic.
- Participants were divided on the need for art installations or interactive pieces—some saw them as a way to enhance city branding, while others didn't see them as necessary. However, all agreed that any art should reflect Aubrey and complement the surrounding environment.

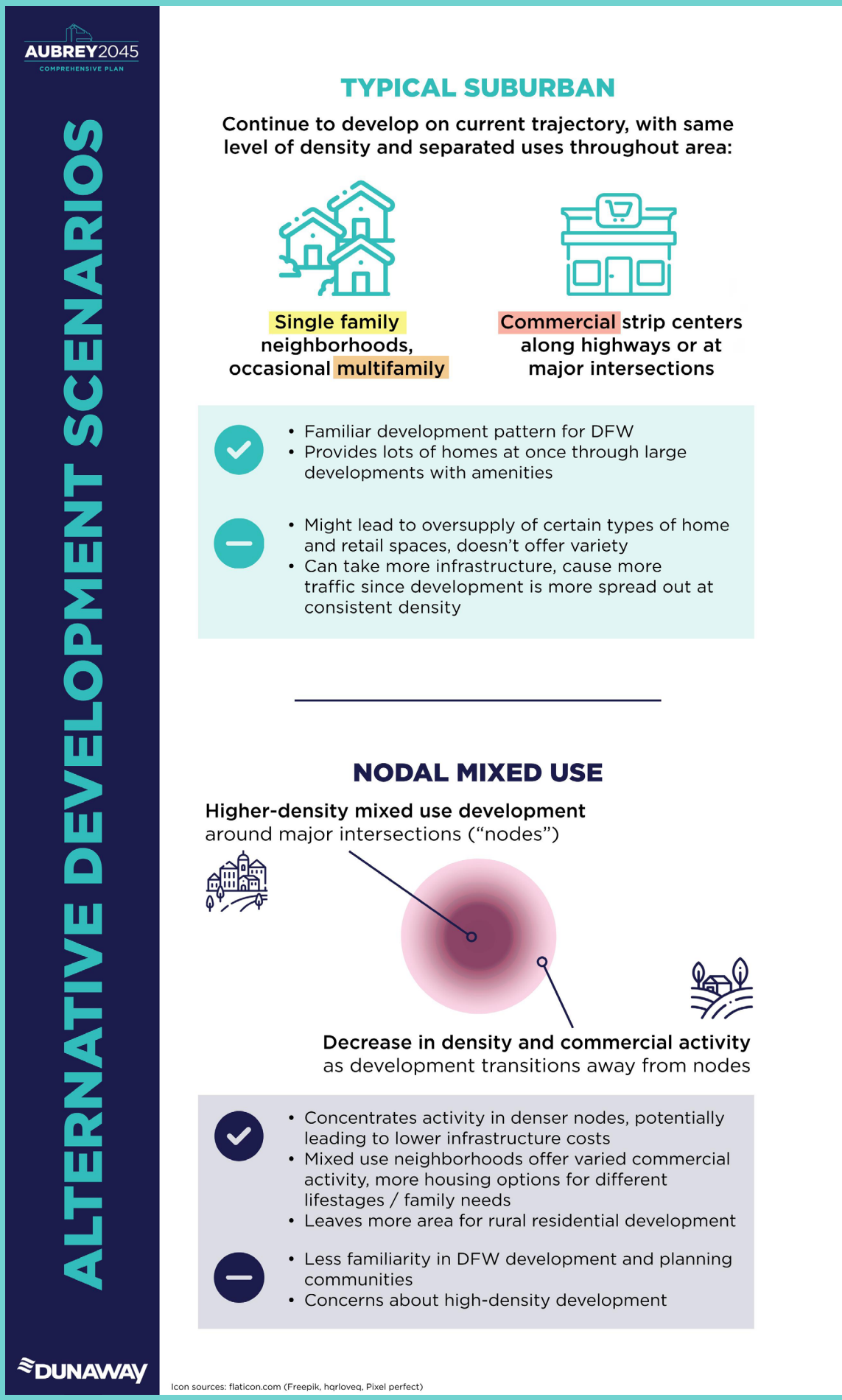
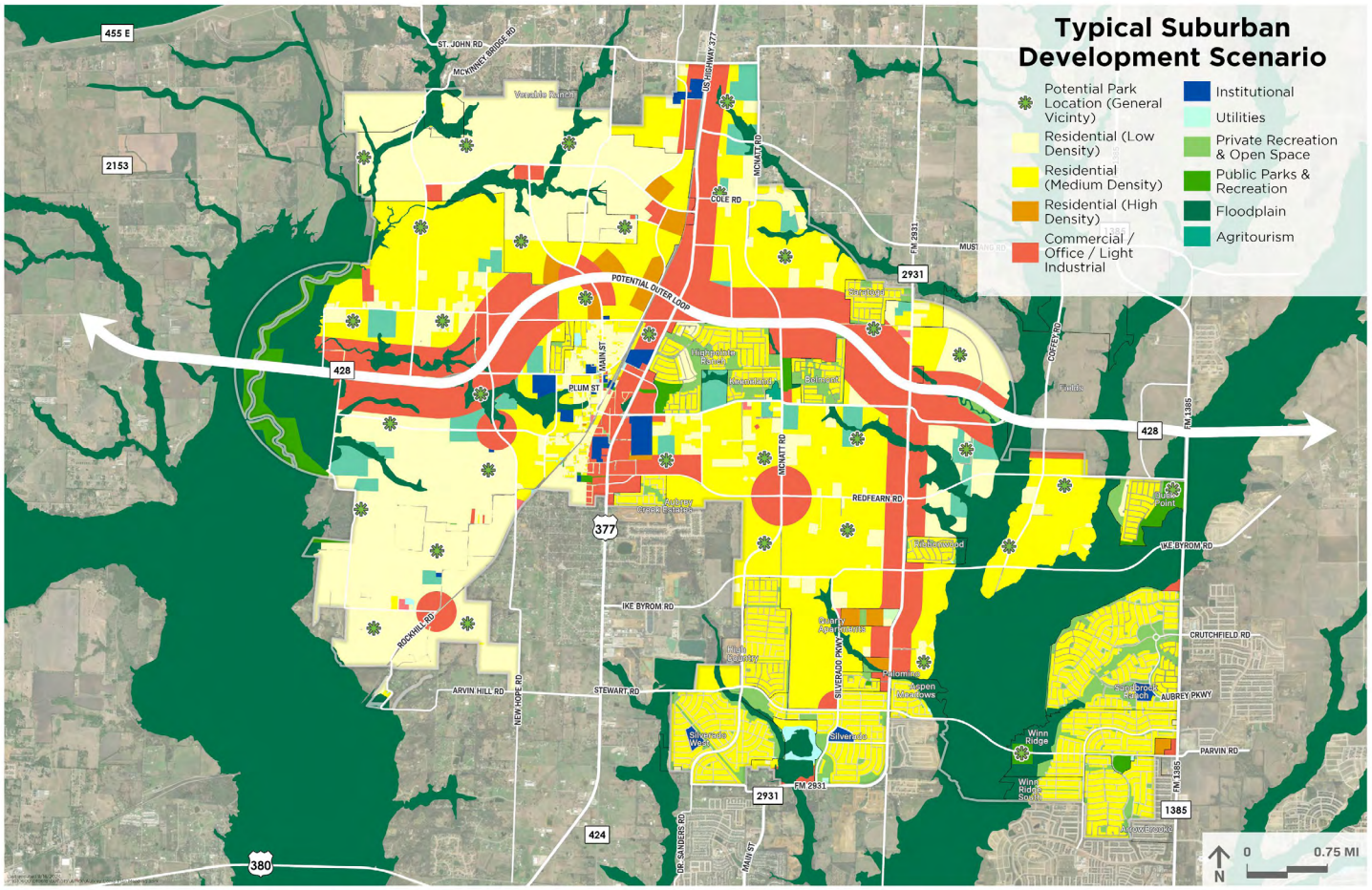
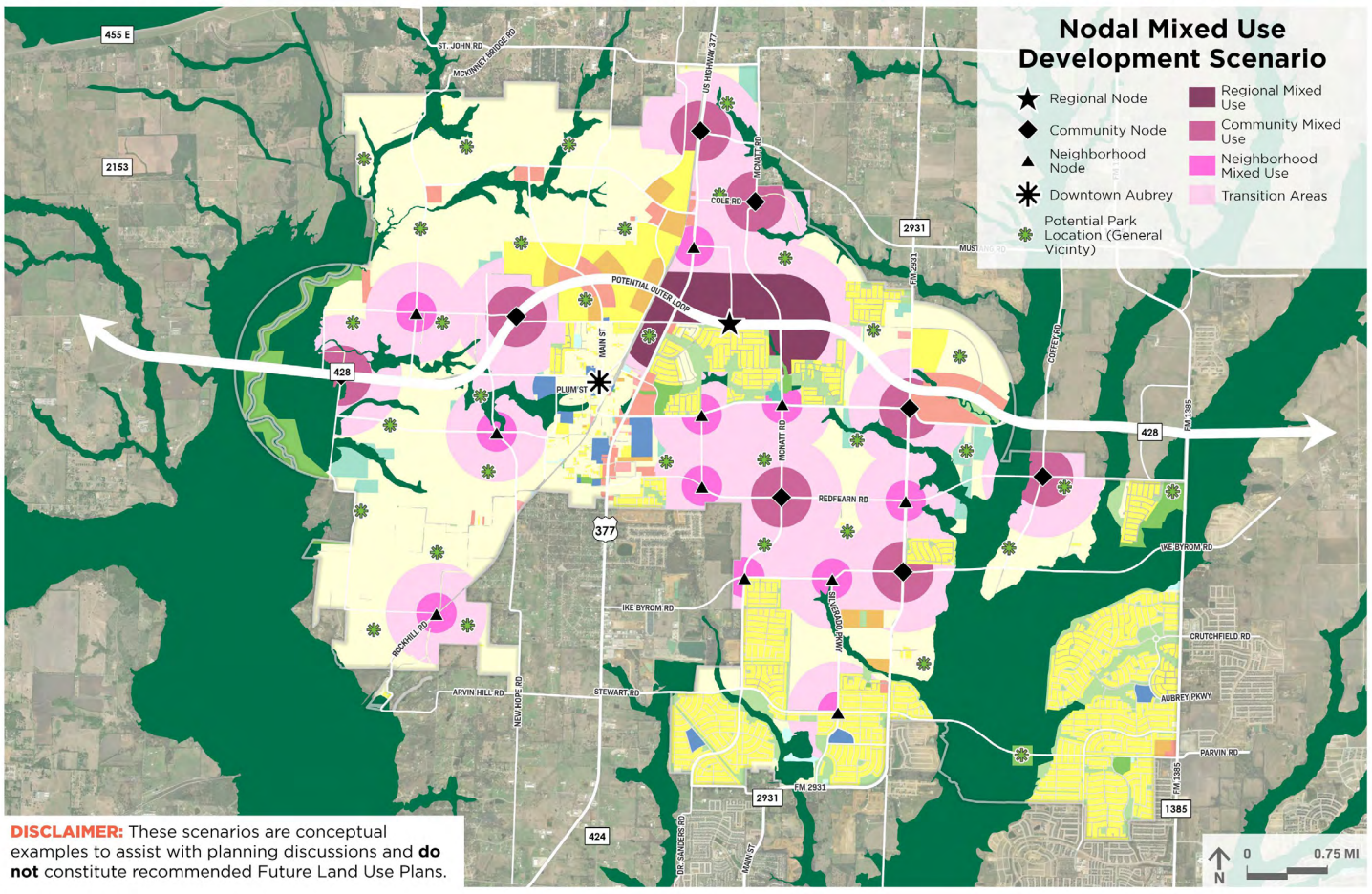


Figure 1.3: Alternative Development Scenarios

These scenarios were presented as conceptual examples during the planning process and do not constitute the recommended Future Land Use Plan, which can be found on page 67.





DISCLAIMER: These scenarios are conceptual examples to assist with planning discussions and **do not** constitute recommended Future Land Use Plans.

Comprehensive Plan Vision Statement:

Aubrey is a place where tradition meets opportunity, where the warmth of small-town life is cherished, and where the future is embraced with enthusiasm.

The City's Vision and Community Principles reflect its core values and were developed by CivicBrand in collaboration with City staff and the Steering Committee through visioning exercises and incorporating feedback from the Community Survey. This Vision serves as the foundation for the city's goals, objectives, and strategies, guiding future decisions.

The Plan's chapters address a wide range of topics aimed at achieving the community's Vision and addressing real challenges. The Vision statement is the cornerstone of this Plan, supporting strategies that guide growth while preserving and enhancing the place so many proudly call "home."

Vision Story:

We are a community that values our rich heritage, ensuring that the stories of our past remain alive in our streets and landmarks. But Aubrey is not just a place to remember—it's a place to grow. We are building a future where our community thrives.

We believe in the strength of our social bonds and the importance of active participation, where every voice is heard, and everyone feels a sense of belonging. Aubrey is a town where neighbors come together, whether at community events or in everyday life, to create a close-knit and supportive environment for all.

We are dedicated to preserving the natural beauty that surrounds us, safeguarding the open spaces and rural charm that define our community. As we plan for the future, we will balance growth with environmental stewardship, ensuring that Aubrey remains a peaceful and welcoming place for generations to come.

At the heart of our Vision is a thriving local economy, built on the foundation of downtown small businesses and community support. We see a future where flourishing entrepreneurs and vibrant local retail in an attractive downtown create a unique charm that draws people in and makes them fall in love with our community. This dynamic economy not only provides opportunities for residents to succeed but also enhances our overall quality of life. By nurturing this economic vitality, we ensure that Aubrey remains a place where both businesses and residents can thrive, preserving the distinctive character of our community while driving prosperity for all.

Together, we will build a future that honors our past, strengthens our community, and embraces the promise of tomorrow.

Community Principles

High-Quality Infrastructure and Accessibility

We prioritize building and maintaining reliable roads, water systems, and other essential services to ensure everyone in our community can easily access what they need.

Heritage and Historic Preservation

We are committed to preserving Aubrey's rich history, cultural identity, and small-town feel, ensuring that our past is honored and visible throughout the town.

Community Connectivity and Engagement

We value strong social bonds and active participation, creating a close-knit community where everyone feels connected, supported, and engaged.

Environmental Stewardship and Open Space Preservation

We are dedicated to protecting our natural environment and preserving open spaces, maintaining Aubrey's rural charm and ensuring a sustainable future.

Economic Prosperity and Small Business Support

We support a thriving local economy by encouraging and nurturing small businesses, creating job opportunities, and fostering overall prosperity in our community, especially Downtown.

Icon sources: Flaticon (Freepik, Mayor Icons, fjstudio)

Prior Planning Efforts

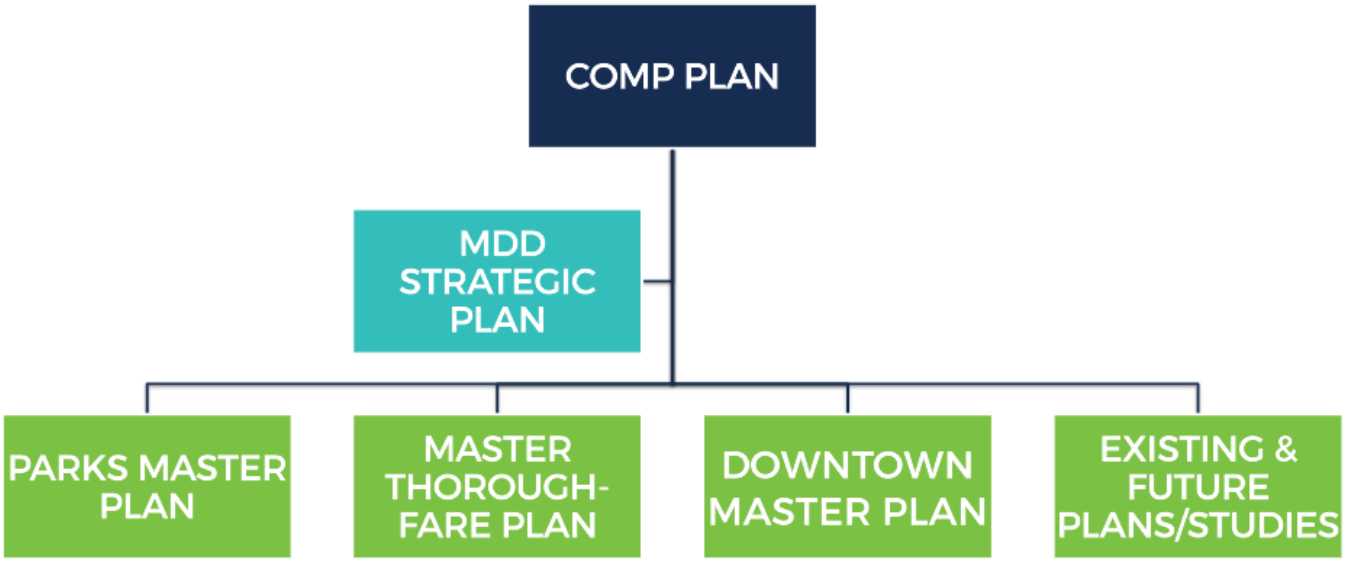


Figure 1.4: Plan Hierarchy

Aubrey has experienced significant growth over the past decade, prompting the City to proactively plan for its evolving needs. The 2015 Future Land Use Plan adopted on September 15, 2015, addressed growth in the southeastern portion of the city's expansive ultimate planning area, including its extraterritorial jurisdiction (ETJ). In the 2020 update of the Future Land Use Plan, community input overwhelmingly supported preserving Aubrey's small-town character while accommodating new neighborhoods, parks, trails, and a vibrant downtown. The plan strategically prioritized infrastructure, identifying areas suitable for limited city services and those requiring comprehensive city services, often provided through partnerships with private utility providers and property owners. Aubrey has undertaken several planning initiatives since the adoption of its last Future Land Use Plan in July 2020. These include the 2022 Parks, Recreation, and Open Space Master Plan (PROSMP), and the 2023 Master Thoroughfare Plan. These plans, along with other documents, are vital tools for city operations, complementing one another to address various aspects of community growth and development. However, the Comprehensive Plan remains the primary policy document, guiding everyday decisions and providing overarching direction for all other plans.

The Aubrey Municipal Development District (MDD) is a separate entity encompassing both the city and its ETJ. Developed alongside the 2025 Comprehensive Plan Update, the MDD Strategic Plan was created in collaboration with Catalyst Commercial to ensure alignment between both documents.

Serving as a visionary and actionable guide, the MDD Strategic Plan outlines economic, land use, housing, and infrastructure goals, ensuring that the MDD, City Staff, and leadership work toward shared objectives with clarity and focus. The market analysis conducted as part of this process reinforces the Comprehensive Plan's objectives, strategies, and land use decisions, ensuring their economic viability.

Like the Comprehensive Plan, the MDD Strategic Plan incorporates community feedback, creating a unified approach to Aubrey's growth and development. Together, these plans provide a solid foundation for other city plans and policies.

The PROSMP exemplifies a complementary document that builds upon strategies outlined in the Comprehensive Plan, offering additional detail on specific topics. Recent updates to the PROSMP and the Downtown Master Plan reflect the context and goals of earlier comprehensive planning efforts, while also adapting to current community needs and desires. These documents, along with future studies, can evolve under the guidance of the Comprehensive Plan, ensuring consistency and alignment with the City's overarching Vision.

As Aubrey continues to grow, the Comprehensive Plan and MDD Strategic Plan work in tandem to create a more economically informed Future Land Use Plan. By utilizing alternative development scenarios and incorporating community feedback, these plans promote centralized growth while preserving the city's equestrian and agricultural heritage. This approach aligns with the community's aspirations and establishes clear, desired development patterns. The updated Future Land Use Plan will guide Aubrey's preservation, growth, and development, ensuring it evolves in harmony with the city's values and Vision.

Community Survey Results

As part of the public engagement process for Aubrey's Comprehensive Plan, an online survey was conducted to gather input on the city's level of service, quality of life, and functionality. Residents, property owners, and stakeholders were invited to participate, providing valuable insights into how Aubrey operates and identifying opportunities for improvement.

The survey, open throughout August, received 510 responses—a strong participation rate. Most respondents were residents of Aubrey, with the majority falling into the 35-44 age bracket and predominantly female. The feedback from the survey highlights the community's priorities and directly inform the goals and objectives of the Plan. Aubrey's residents value their high quality of life and desire thoughtful improvements that balance growth with the preservation of the city's character. By focusing on these key areas, the city can align future developments with the aspirations of its residents.

Key Findings

Quality of Life and Satisfaction:

Respondents generally viewed Aubrey as a good place to live and raise a family, with high satisfaction in public safety services and city communication. However, there is a clear demand for enhancements in specific areas:

- **Parks and Recreation:** Improvements to existing parks and facilities, such as updating playgrounds and adding outdoor athletic spaces or aquatic facilities.
- **Street Maintenance:** Continued focus on improving road conditions and streetscapes, including adding street trees.
- **Affordable Housing:** Increased availability of housing options for families and young professionals.
- **Commercial Development:** Strong interest in more sit-down restaurants, grocery stores, and entertainment venues, particularly within the Downtown area.

Opportunities for Improvement:

Survey responses emphasized the need for:

- Enhancing parks and recreation facilities to better serve families.
- Addressing transportation and street maintenance challenges, especially with the anticipated impact of the Future Outer Loop.
- Supporting economic development by attracting diverse businesses and improving Downtown vibrancy.

Promotional graphic for the community survey.

Complete survey results are available in the appendix, starting on page 171.

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2 AUBREY BACKGROUND

Downtown Aubrey, 1972.
Source: Joyce Harmon (photographer), found on Portal to Texas History.

History

Early Inhabitants

The earliest known inhabitants of the Aubrey area were nomadic Indigenous tribes. While the specific names of the tribes that lived in the immediate area are debated, early settlers recalled encounters with various Indigenous groups. In 1598, Spanish explorer Juan de Oñate claimed the land of present-day Texas for Spain. Texas remained under Spanish control for over two centuries until 1821, when Mexico gained independence. This shift placed present-day Aubrey under Mexican jurisdiction until Texas declared independence in 1836.

Early Settlement

The earliest non-native settlers began arriving in the late 1830s and 1840s, drawn by the fertile soils, available timber, and access to water. One of the first recorded community hubs was the Key Schoolhouse, established in 1858 by Dr. George T. Key. Notable students included Ben Moss, W.R. Coffey, and the Wilcox brothers, who later played significant roles in Aubrey's development.

Early settlements surrounding what is now Aubrey began to emerge with the founding of Sandtown in 1862. This was followed by the establishment of the New Hope Schoolhouse in 1870, which became a central hub for community life. Over time, churches, homes, and businesses clustered around these early institutions.

Aubrey peanut farmers, 1922.
Source: Peipelman, Denton County History & Culture Center

The Name "Aubrey" and the Railroad

In the early 1880s, the Texas & Pacific (T&P) Railroad extended a line through the area and constructed a depot. The community applied for a post office in 1881, prompting the need for an official name. Residents submitted name suggestions for a drawing, and "Aubrey" was selected. The post office and railroad depot soon adopted the new name.

City Incorporation

Aubrey was officially incorporated on March 11, 1924, following a successful vote after a previous failed attempt in 1923. The town's first mayor was W.P. Ratchford, and the incorporation was recorded in Denton County Deed Records, Vol. 191, p. 372.

Overcoming Challenges

Over the years, Aubrey has endured several disasters. Major fires in 1887, two separate events in 1909, and again in 1947 and 1948 destroyed much of the town's business district. The fire in March 1887 was particularly devastating, leveling nearly the entire east-side commercial area and prompting the relocation of the town center to the west side of the railroad tracks.

A significant tornado struck on April 14, 1918, causing widespread destruction to churches, the schoolhouse, homes, and businesses. Remarkably, no lives were lost, and the resilient community once again came together to rebuild.

Economic Growth and Agriculture

In the early 1900s, Downtown Aubrey thrived with cafes, drugstores, hardware stores, and even a public bathhouse. The town hosted the annual Aubrey Community Fair, which showcased local produce, crafts, and livestock.

Cotton was the dominant crop until falling prices in the 1920s and 1930s led farmers to pivot toward peanut cultivation. Peanuts thrived in Aubrey's sandy soil and soon became a vital part of the local economy. A peanut drying mill was constructed and still stands today as a local landmark. Each October, the city celebrates this agricultural legacy with the annual Peanut Festival.

Modern-Day Aubrey

Today, Aubrey balances its rich agricultural legacy with modern growth. The town is part of "Horse Country USA," home to numerous equestrian ranches that take advantage of the sandy soil and open land. In recent years, the population has grown rapidly due to new residential developments.

In 2010, the Aubrey Historical Society was formally established. Among its key achievements are the publication of a comprehensive history book and the founding of the Aubrey Area Museum.

In 2017, Aubrey celebrated the 150th anniversary of its founding, honoring the 1867 construction of one of the first permanent homes by L.N. Edwards, with a parade and community-wide festivities.

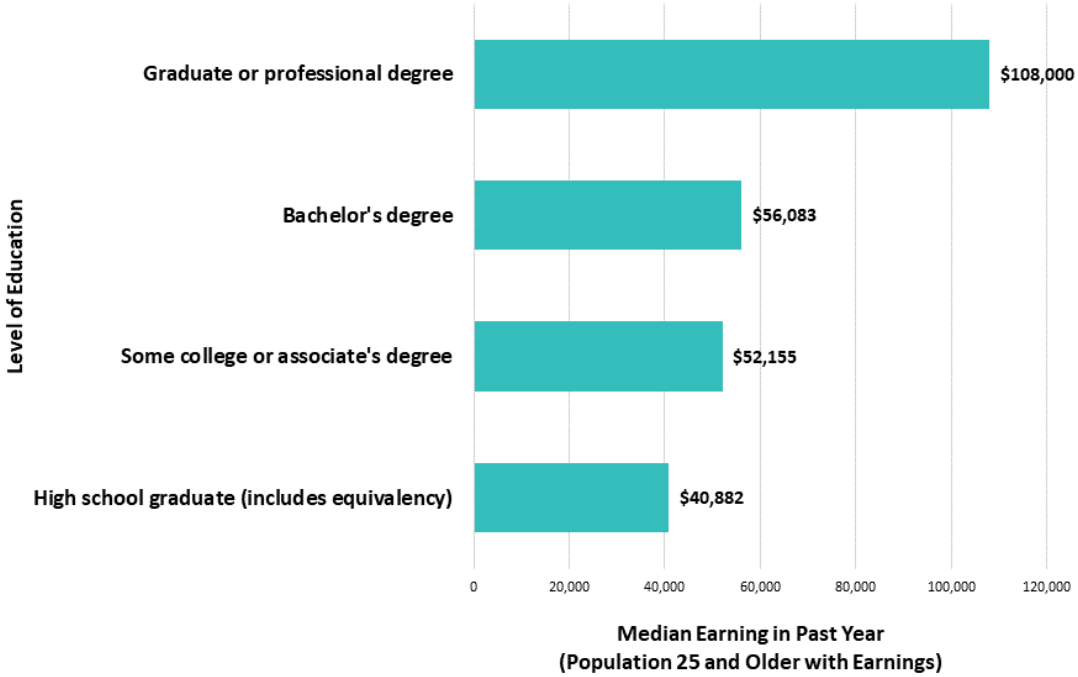
Aubrey High School.
Source: Aubrey ISD

Education

Aubrey and the surrounding area are primarily served by the Aubrey Independent School District (ISD), with a small portion falling within the Denton ISD boundaries.

Aubrey ISD serves the communities of Aubrey, Providence Village, Krugerville, and Cross Roads in Denton County. Originally a small rural district operating from a single building for 20 years, the district opened its first standalone elementary school in 1986. Today, Aubrey ISD has grown to accommodate over 3,900 students across six campuses, which include four elementary schools, one middle school, and one high school. The district's administration building, along with a daycare, is housed in the original Aubrey School, built in 1966.

Significant growth is anticipated for Aubrey ISD, with an expected increase of 800-900 students between 2023 and 2025. Enrollment is projected to double by the 2030-2031 school year. To address this growth, the community passed a $385 million bond



Source: US Census, American Community Survey (2023) 5-Year Estimates, Table B20004
Note: Median earning estimates were not available for those without a high school diploma.

Figure 2.1: Median Income by Education Level

package in 2022. This bond supports the construction of three new elementary schools, an additional middle school, and renovations to the high school and other district facilities. The first of the new elementary schools, West Elementary School, opened in August 2024. Owens Middle School is scheduled to open August 2025.

Aubrey is conveniently located near several higher education institutions, including Texas Woman's University and the University of North Texas, both situated less than 20 miles away in neighboring Denton. Community leaders in Aubrey and the surrounding area are dedicated to fostering access to diverse academic and technical programs, equipping residents with the skills needed to excel in high-demand, high-skill careers.

Aubrey is a well-educated community with diverse employment opportunities catering to residents across all levels of educational attainment. According to 2023 US Census Bureau estimates, 96.4% of Aubrey adults aged 25 and over have earned a high school diploma or higher, and 36.0% hold a bachelor's degree or higher. These figures are above the state estimates of 85.7% and 33.1%, respectively.

While higher educational attainment generally correlates with increased median income, this impact varies within the community. Those with a graduate or professional degree see a notable increase in earnings. However, an associate degree or some college credit appears to have little influence on median income compared to those with only a high school diploma. This trend likely reflects the composition of Aubrey's local economy and the types of jobs available, where many roles do not require a college degree. As a result, equal employment opportunities are accessible for individuals regardless of whether they hold an associate or bachelor's degree, as illustrated in Figure 2.1.

Demographics

In the late 1880s, after early businesses were established east of the railroad tracks, the town of Aubrey began to rebuild on the west side following the devastating 1887 fire. Much of this land was provided by local resident L.N. Edwards, who played a central role in the town's development. He not only sold plots to individuals but also offered free land to churches that promised to build within one year.

By the early 20th century, Aubrey had grown into a vibrant small town with numerous businesses, including cafes, hardware stores, drugstores, and even a public bathhouse. However, the arrival of the automobile, the boll weevil infestation, and the economic hardships of the Great Depression contributed to a gradual decline in population.

By the 1980s, peanuts had replaced cotton as the area's dominant crop, with the local peanut drying plant processing approximately 3,000 tons annually. Aubrey's sandy, fertile soil and open land also began attracting horse ranchers, helping to establish the area as part of "Horse Country USA." Other key agricultural outputs included cattle, hay, fruits, vegetables, and even a rise in local woodworking and cabinet shops.

In 1980, Aubrey's population was 948. The completion of the Ray Roberts Dam in 1986 brought further opportunities for the community. By 1990, the population had increased to 1,138, and by 2000, it was nearing 2,000.

Population Snapshot	City of Aubrey	Denton County	DFW	Texas
2000 Population	1,994	431,925	5,156,282	20,851,752
2010 Population	3,029	661,932	6,366,547	25,145,558
2020 Population	6,023	906,422	7,637,387	29,145,505
2020-2024 Annual Growth Rate	19.60%	3.00%	1.70%	1.40%
2024 Estimated Population	12,870	1,029,075	8,195,415	30,857,478
2029 Projected Population	15,133	1,151,046	8,811,074	32,581,174

Source: Catalyst Commercial, Esri

Figure 2.2: City of Aubrey Population Growth

Figure 2.3: Growth Rate Comparison

City	Projected 5-Year Annual Growth Rate	Population
Aubrey	3.30%	12,870
Celina	15.60%	45,854
Cross Roads	0.50%	1,997

Source: Esri (2024)

Growth Rate: Over the next five years, Aubrey is projected to grow at an annual rate of 3.3%, outpacing most of its peer cities except for Celina, which is expected to grow at an impressive 15.6%. This strong growth positions Aubrey as one of the fastest growing cities in the area, reflecting its increasing appeal to new residents. Cross Roads, in contrast, is expected to grow at a modest 0.5%, indicating more stability but less dynamism in population expansion.

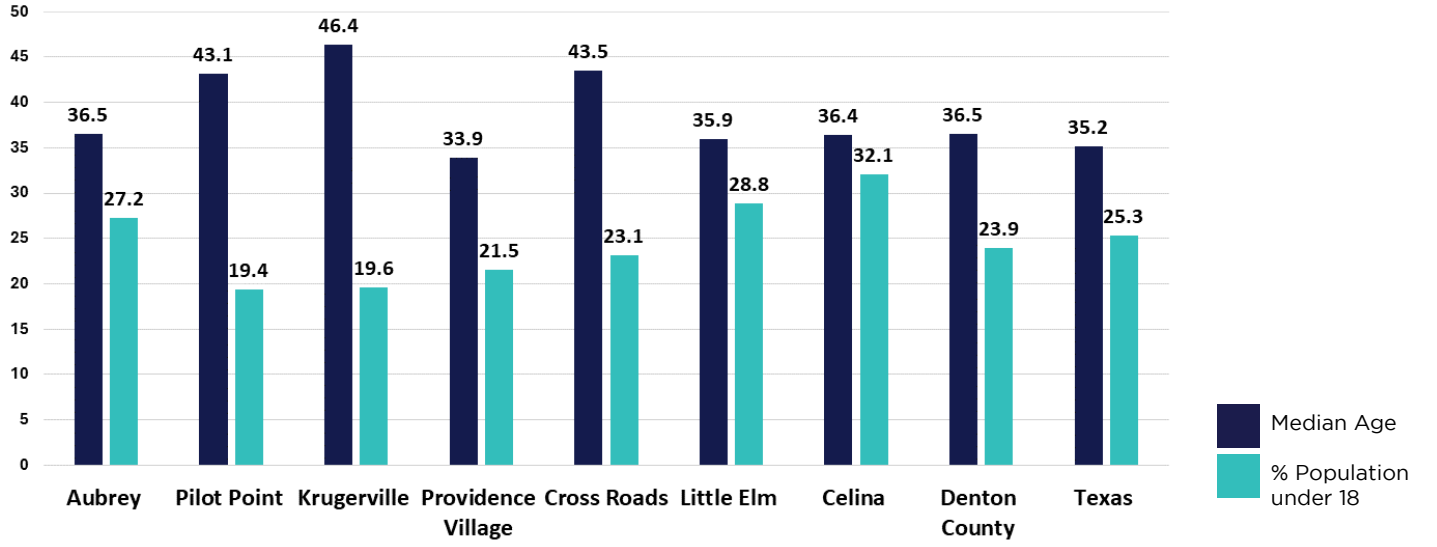
Population: With a current projected population of 12,870, Aubrey remains smaller than its rapidly growing neighbor Celina (45,854), but it surpasses Cross Roads (1,997) and Pilot Point (6,578). Aubrey's moderate size makes it more appealing to residents seeking a balance between suburban growth and small-town feel.

Today, Aubrey stands at a crossroads of tradition and growth. Its strategic location near major employment hubs and its proximity to the Dallas-Fort Worth Area make it an attractive destination for those seeking the charm of a small town paired with urban opportunities. Over the past two decades, Aubrey's population has surged, outpacing growth rates in Denton County, the Dallas-Fort Worth Area, and Texas as a whole. This extraordinary expansion has drawn new families and businesses to the city and surrounding area, enhancing its diversity and economic vitality.

Despite its rapid transformation, Aubrey retains its unique character, offering a quintessential Texas lifestyle. The city's significant growth in the past five years underscores its increasing appeal as a residential destination. This rapid development will continue to shape Aubrey's future, driving infrastructure improvements, housing projects, and economic development initiatives to support its thriving community.

Figure 2.4 highlights Aubrey's population age characteristics in comparison to nearby cities, Denton County, and the State of Texas. Aubrey's median age falls in the middle range among its peer group. However, the city has one of the highest proportions of residents under 18, which likely reflects its appeal to younger families. This trend may be attributed to Aubrey's relatively affordable cost of living and highly regarded schools, which have attracted families to the area in recent years.

It is worth noting that the median age in the United States has been increasing. According to the US Census Bureau, the national median age rose by 0.2 years between 2021 and 2022, reaching 38.9 years. This trend underscores the importance of planning for an



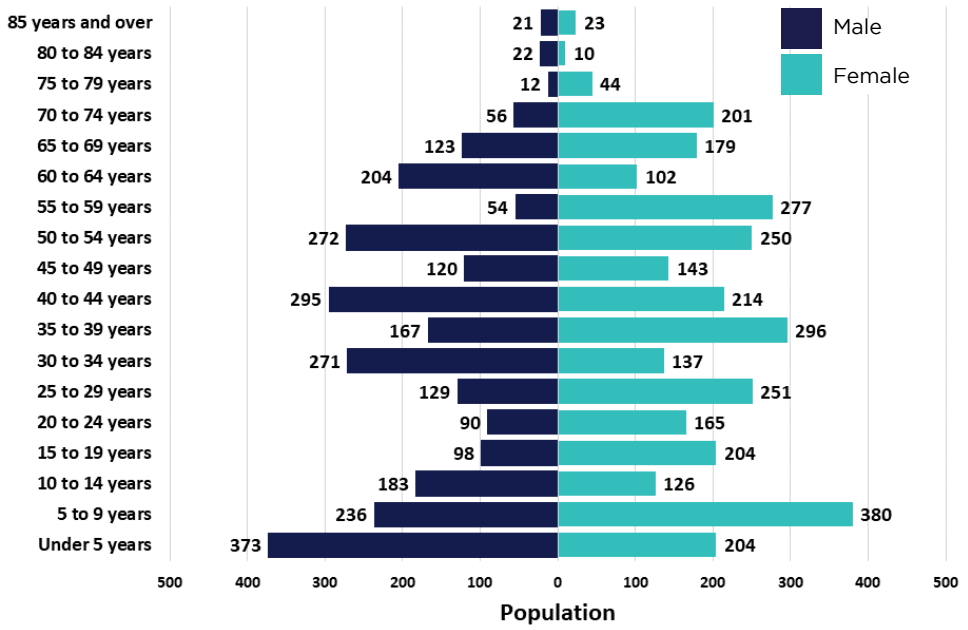
Source: US Census, American Community Survey (2022) 5-Year Estimates, Table S0101

Figure 2.4: Age Characteristics of Aubrey and Surrounding Communities

aging population. Communities like Aubrey should prioritize investments in housing options and community amenities that enable residents to age in place, ensuring long-term sustainability and inclusivity.

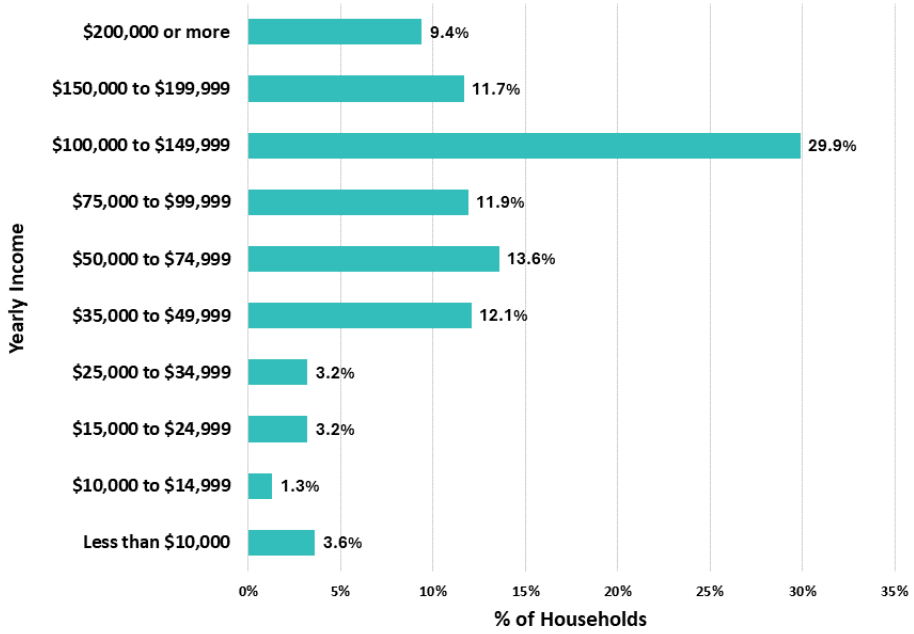
As of 2022, the City of Aubrey's population was estimated to be 46% male and 54% female. The median age in Aubrey is 36.5 years, slightly above the state average of 35.9 years. Despite this, the city maintains a healthy proportion of economically active residents. Notably, Aubrey has a significant number of residents under the age of 10, which likely reflects the influx of young families moving to the area in recent years.

The age composition of a community is a critical factor in planning, as different age groups have varying preferences for retail, housing, and services, depending on their life stage. With a notably large cohort of residents entering or currently in school age, it is essential for the City of Aubrey to continue investing in educational infrastructure to accommodate this growing demographic and support the community's future needs.



Source: US Census, American Community Survey (2022) 5-Year Estimates, Table S0101

Figure 2.5: Age Distribution

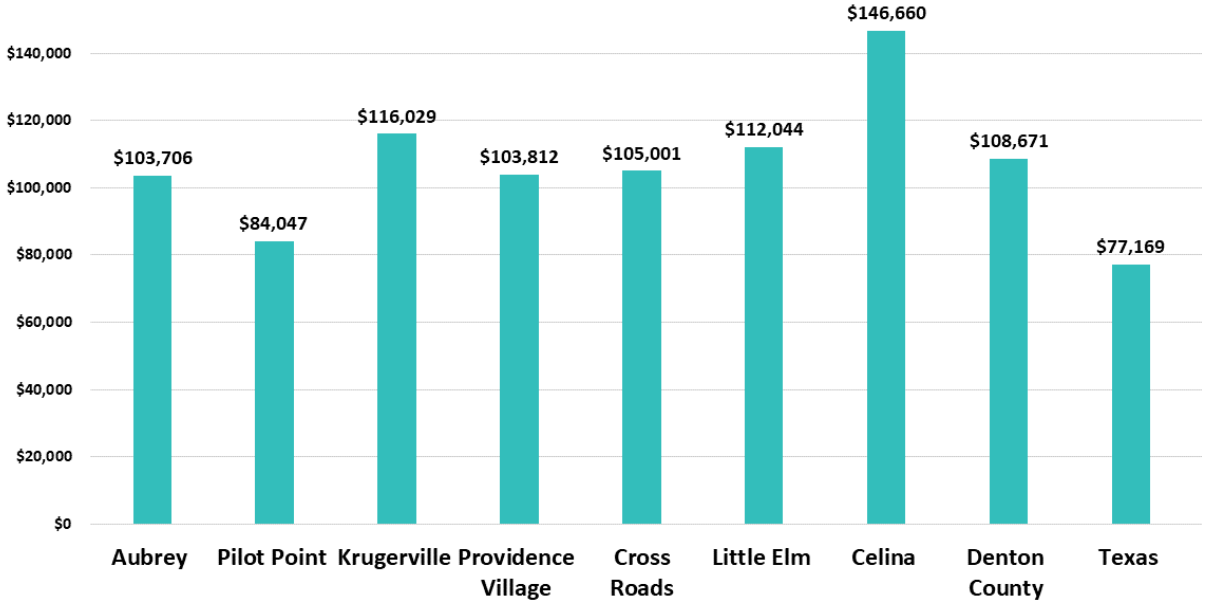


Source: US Census, American Community Survey (2023) 5-Year Estimates, Table S1901

Figure 2.6: Yearly Income by Percentage of Households

Figure 2.6 illustrates the distribution of household incomes in Aubrey, while Figure 2.7 on page 28 compares median yearly incomes among Aubrey, nearby communities, Denton County, and the State of Texas. Aubrey's median household income of $103,706 places it in the mid-range compared to surrounding communities. Although slightly lower than the median income of Denton County, it significantly exceeds the state average, highlighting Aubrey as a financially stable and well-off community.

Household income serves as a valuable indicator of residents' spending potential on retail, entertainment, and dining, directly influencing the commercial vitality of the local market. Aubrey's relatively high median income suggests a robust foundation for economic growth and opportunities for local businesses.



Source: Esri (2024)

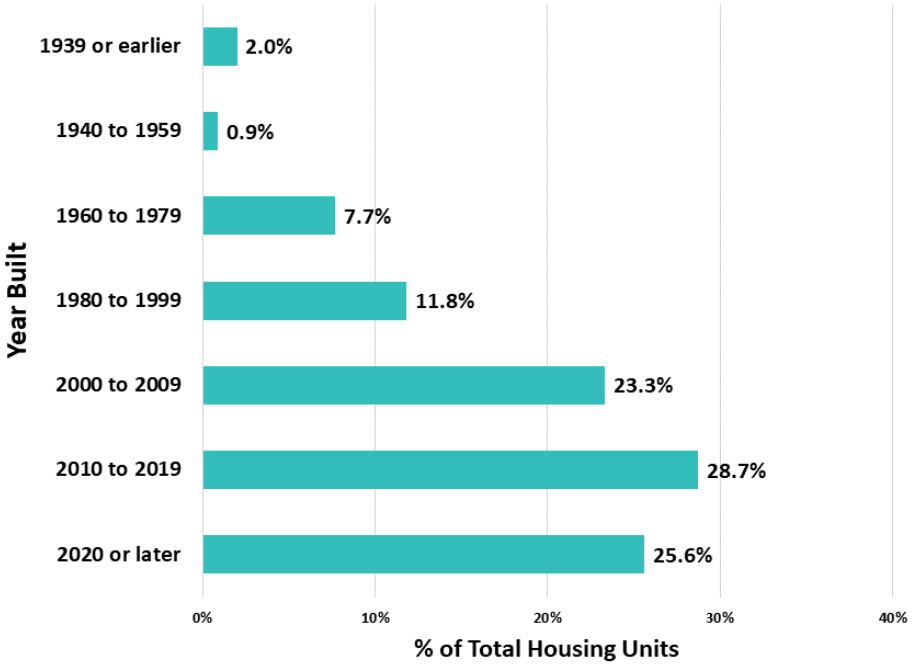
Figure 2.7: Median Household Income of Aubrey and Surrounding Communities

Housing

As illustrated in Figure 2.8, the majority (77.6%) of Aubrey's housing stock has been constructed since 2000, reflecting the rapid population growth experienced by the community. This surge in housing highlights the importance of ensuring efficient infrastructure to maintain a high quality of services for current residents. It also emphasizes the need for up-to-date subdivision regulations and ordinances to uphold the quality of incoming developments.

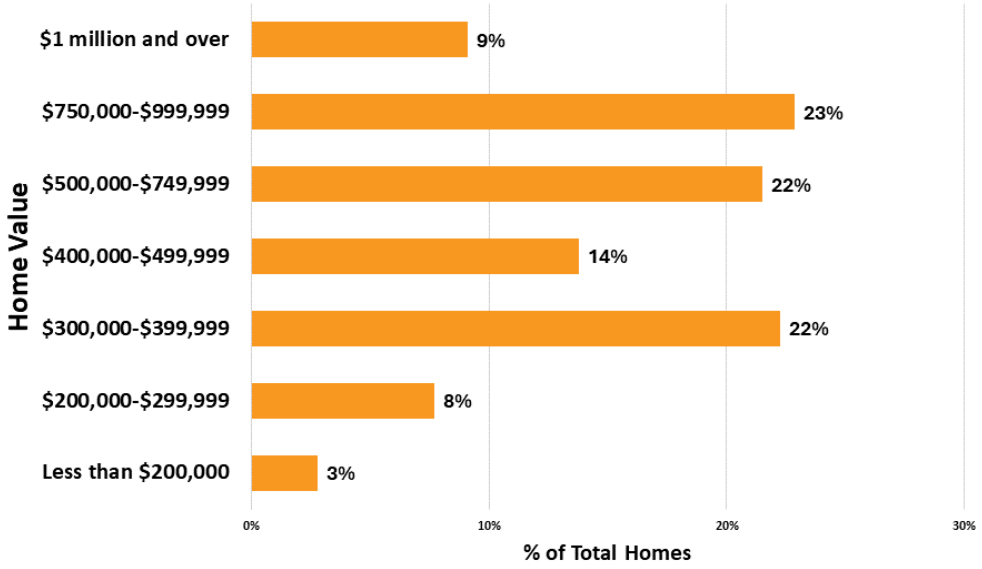
While much of Aubrey's housing is relatively new, the community still retains a significant number of older homes. These structures can serve as valuable assets, showcasing residents' long-term commitment to the area and preserving the historic character of neighborhoods, particularly those surrounding the Downtown area. However, older housing also presents challenges, as maintaining and reinvesting in aging structures is essential to ensure they meet quality standards and continue to attract new residents.

As Aubrey continues to grow, it will be critical to balance the demand for new housing with the preservation and enhancement of existing homes, fostering a diverse and sustainable housing market that supports the needs of both current and future residents.



Source: US Census, American Community Survey (2023) 5-Year Estimates, Table S2504

Figure 2.8: Housing Units by Year Built



Source: Esri (2024)

Figure 2.9: Home Valuation by Percentage of Total Homes

As shown in Figure 2.9, the housing valuation for homes in Aubrey is predominantly above $300,000, with 90% of homes above this value. According to Catalyst Commercial market analysis and data from Esri, Aubrey's estimated median home value is $541,000. This places Aubrey in the higher-end housing market among its peer cities, with only Cross Roads exceeding it at $610,417. For comparison, Celina, a neighboring community with similar housing demand, has a median home value of $525,008. (See Figure 2.10.)

Aubrey's higher median home values reflect its growing desirability and the increasing cost of living as residential development expands outward from the urban core. While rising property values can make it more difficult for some to afford housing, they also bring benefits. Higher property values translate into increased wealth for homeowners and generate more property tax revenue. This allows the city to invest in its infrastructure and services, improving the overall quality of life for residents.

However, alongside the growth of higher-end housing, there is also a need for affordable housing options. Affordable housing prices enable current residents to age in place and allow essential service providers—such as teachers, healthcare workers, and first responders—to live within the community they serve, rather than commuting from areas with lower-priced housing. Ensuring a mix of housing types and price points will be crucial for maintaining a diverse community where all residents have access to quality housing.

Maintaining a balance of housing types and values is essential. By fostering new housing development, including affordable housing, and encouraging investment in existing properties, Aubrey can increase property values and attract more residents. This population growth will, in turn, support commercial development, such as retail, restaurants, and entertainment venues, benefiting the community's economy and long-term sustainability.

City	Median Home Value
Cross Roads	$610,417
Aubrey	**$541,000**
Celina	$525,008
Krugerville	$502,395
Pilot Point	$426,256
Little Elm	$420,637
Providence Village	$344,071

Source: Esri (2024), Catalyst Commercial

Figure 2.10: Peer City Median Home Values

Land Use	Acres	% of City Limits
Single Family Residential	723.8	26.3%
Two Family Residential	7.7	0.3%
Manufactured Housing	12.7	0.5%
Multifamily Residential	32.0	1.2%
Residential Subtotal	**776.2**	**28.2%**
Commercial	32.8	1.2%
Agritourism	62.1	2.3%
Industrial	88.9	3.2%
Non-Residential Subtotal	**183.8**	**6.7%**
Institutional	150.1	5.5%
Utilities	11.1	0.4%
Parks and Open Space	31.3	1.1%
Public Subtotal	**192.5**	**7.0%**
Private Recreation and Open Space	204.6	7.4%
Agricultural	610.9	22.2%
Vacant/Undeveloped	302.3	11.0%
Transportation*	480.0	17.5%
Other Subtotal	**1,597.8**	**58.1%**
Total	**2,750.4**	**100.0%**

Figure 2.11: Existing Land Uses within Aubrey City Limits

Land Use	Acres	% of ETJ
Single Family Residential	3,137.5	14.4%
Two Family Residential	-	0.0%
Manufactured Housing	120.4	0.6%
Multifamily Residential	12.7	0.1%
Residential Subtotal	**3,270.6**	**15.0%**
Commercial	47.5	0.2%
Agritourism	843.0	3.9%
Industrial	592.0	2.7%
Non-Residential Subtotal	**1,482.6**	**6.8%**
Institutional	87.5	0.4%
Utilities	137.1	0.6%
Parks and Open Space	428.4	2.0%
Public Subtotal	**653.0**	**3.0%**
Private Recreation and Open Space	412.7	1.9%
Agricultural	11,047.7	50.8%
Vacant/Undeveloped	4,122.2	19.0%
Transportation*	745.3	3.4%
Other Subtotal	**16,327.9**	**75.1%**
Total	**21,734.0**	**100.0%**

Figure 2.12: Existing Land Uses within Aubrey Extraterritorial Jurisdiction

*Transportation includes road and railroad rights-of-way.

Land Use

The Existing Land Use Map is provided on page 33. The map indicates the existing land use category for all parcels within Aubrey's city limits and Extraterritorial Jurisdiction (ETJ). It differs from the Future Land Use Map provided later in this Plan, as that map shows the desired land use as the parcel develops or redevelops. Land use categories were assigned by analysis via recent aerial imagery in combination with the existing regional and city data. In addition, City Staff and the Steering Committee provided valuable input on existing conditions within Aubrey. Figure 2.11 and Figure 2.12 break down the total acreage and percentage of existing land uses with the city limits and ETJ, respectively.

The city's three predominant land uses are Single-Family Residential, Agricultural, and Transportation. A significant portion of land is allocated to transportation due to the Texas and Pacific Railway (T&P), which traverses the city center and includes railroad rights-of-way easements. Additionally, a substantial amount of Vacant and Undeveloped land presents opportunities for future development. These areas, along with Agricultural land, are well-suited for low- to medium-density single-family residential and commercial uses, aligning with community preferences.

Within the Agricultural land, there is a strong emphasis on conservation and promoting agritourism. This includes supporting equestrian facilities and event center spaces, which have emerged as key drivers of the regional and local economy. By balancing development with the preservation of agricultural character, the city can sustain its heritage while fostering economic growth.

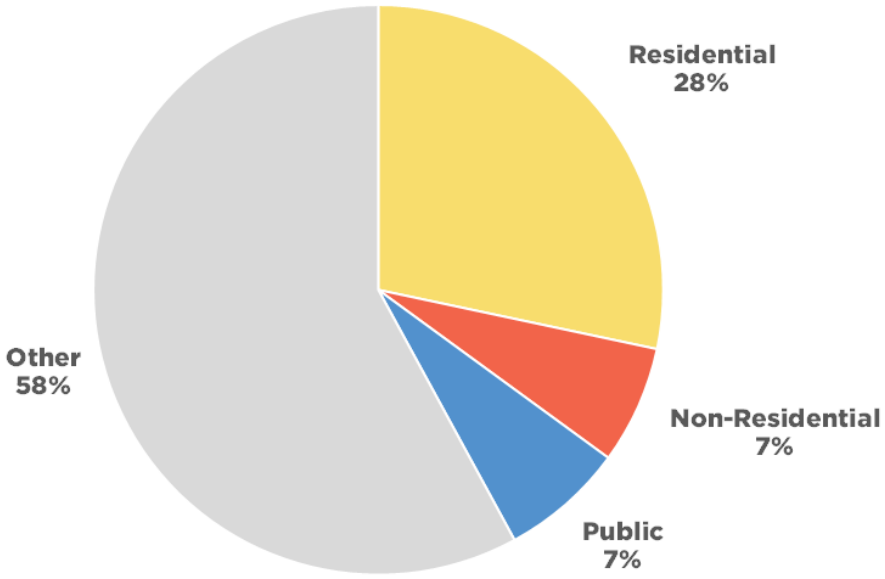


Figure 2.13: Existing Land Use Type by Total City Limit Acres

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City of Aubrey
Existing Land Use

Existing Land Use
- Agricultural
- Single Family Residential
- Two Family Residential
- Manufactured Housing
- Multifamily Residential
- Agritourism
- Commercial
- Industrial
- Institutional
- Private Recreation and Open Space
- Parks and Open Space
- Utilities
- Vacant / Undeveloped
- Railroad
- Parcel
- Lake / Pond
- River / Stream
- Floodplain
- Aubrey City Limits
- Aubrey ETJ
- Other City Limits

Created by DUNAWAY
August 7, 2025

AUBREY2045

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New and Proposed Developments

Figure 2.14 highlights the new and proposed developments in the City and its ETJ as of 2024, covering both residential and commercial areas. The accompanying chart outlines the total planned unit counts at buildout, including completed and under-construction lots. While these numbers may change, they provide valuable insights into expected growth and guide planning for necessary infrastructure improvements. Additionally, the data identifies areas where enhanced infrastructure may be needed to maintain quality services for the community.

Per analysis by Catalyst and Esri, the City and ETJ are projected to grow by 2,357 households over the next five years, equating to approximately 471 new households annually. Estimated annual housing demand through 2029 is as follows:

- **Owner-occupied single family:** 617 units
- **Owner-occupied alternative housing:** 119 units
- **Renter-occupied multifamily:** 411 units
- **Renter-occupied alternative housing:** 127 units

At full buildout, Aubrey would add 4,952 units within the City, contributing to a total of 30,286 units recently completed or in the development pipeline:

- 4,954 units within the city
- 25,332 units within the ETJ

The combined City and ETJ have a high owner-occupancy rate of 93.2%, reflecting the community's preference for owner-occupied housing.

Based on an average household size of 2.7 from the US Census Bureau, the City's 4,954 new units at buildout could accommodate approximately 13,370 additional residents. These projections serve as a foundation for short-term planning, helping to guide decisions on infrastructure, housing, and community services. However, more detailed and reliable methods for long-term population forecasting and projections are discussed in the following section.

Population Projections

Population projections are based on the North Central Texas Council of Governments (NCTCOG) population estimates for recent years and a conservative exponential growth curve of 10% annually from 2025 to 2045. (See Figure 2.15 on page 36.) A conservative exponential growth curve assumes steady, compounding growth over time, with each year's increase building on the previous year's population. This approach provides a cautious estimate of potential growth by moderating assumptions about future increases to avoid overestimating long-term trends.

These projections compare with those from the Texas Water Development Board (TWDB), which is tasked with forecasting future water consumption demands as the population grows and shifts across the state. TWDB's projections are conservative by design, offering an estimate of the city's potential population growth. While they provide valuable insights for resource and infrastructure planning, they are not a definitive measure of future growth and should be considered alongside other models and data sources.

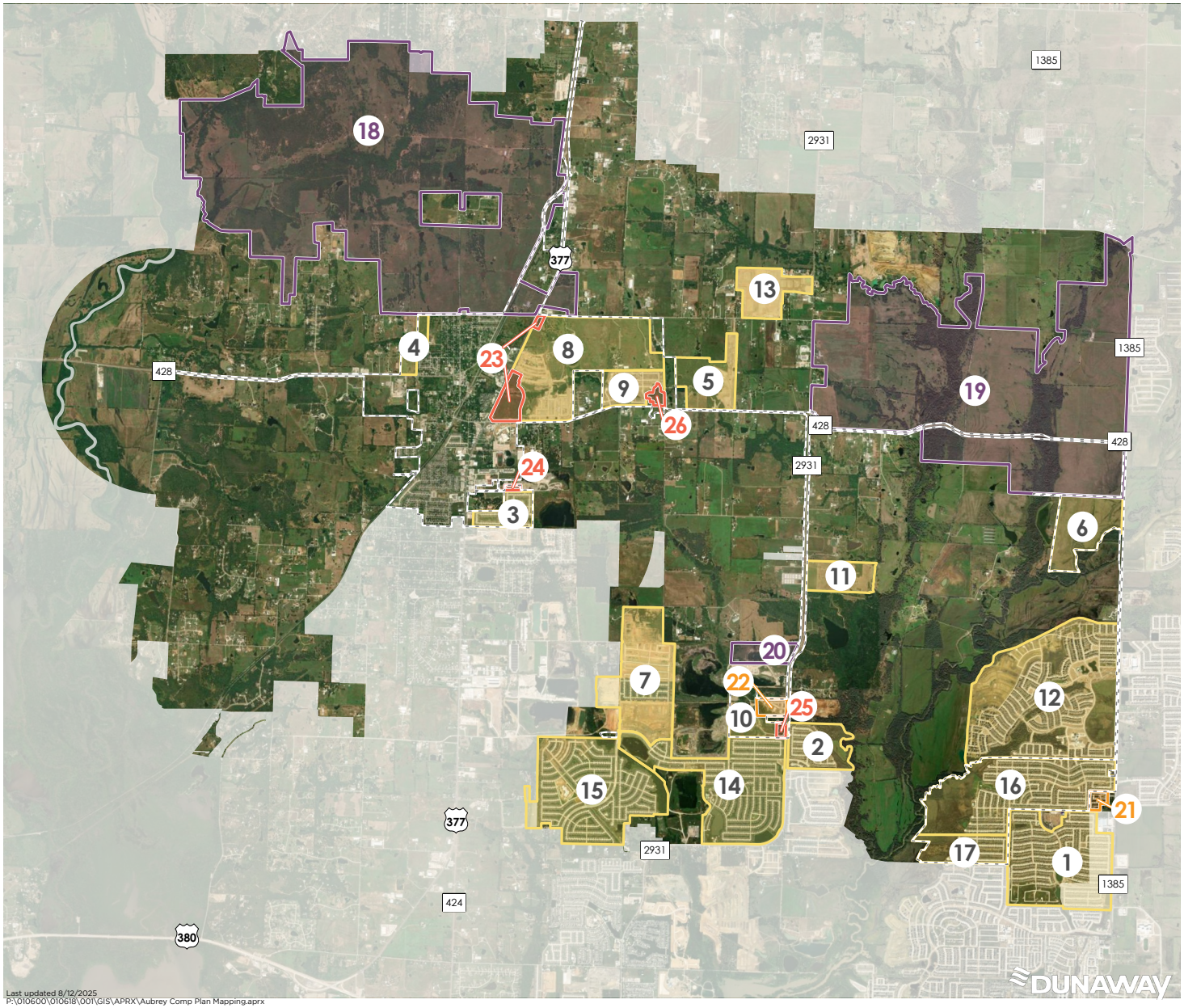
This combined approach provides a balanced view of population growth, using the exponential growth curve to explore higher-growth scenarios while leveraging TWDB's conservative, cohort-based methodology for planning purposes.

Development Constraints

All types of development can be constrained by various factors, whether it be characteristic of the land itself or a regulatory restriction placed on a property. Examples of natural constraints include steep topography, creeks, and floodplain. Regulatory constraints include zoning, conflicting rights-of-way, and political boundaries.

The area straddles the borders of the Post Oak Woodland and Blackland Prairie eco-regions. With its proximity to Lake Ray Roberts, Lake Lewisville, and their tributaries, Aubrey and its surrounding area has a network of natural floodplains that are ideal for greenbelts and trail networks. Floodplain is located throughout the area: approximately 17% of the land within city limits and 20% within the ETJ is covered by the 100- and 500-year floodplain, as defined by the Federal Emergency Management Agency (FEMA). Areas within the floodplain must meet FEMA standards and are thus more costly and time consuming to develop.

As another restricting factor to growth, the availability of infrastructure such as utilities and roads greatly affects the pace and nature of a city's development. Infrastructure updates and expansions help to maintain an adequate level of service for residents while welcoming new development.



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Aubrey New and Proposed Developments

SINGLE FAMILY	1	ArrowBrooke	1,705	units*
	2	Aspen Meadows	312	units
	3	Aubrey Creek Estates	313	units
	4	Aubrey Heights	162	units
	5	Belmont	535	units
	6	Chaparral Ridge	448	units
	7	High Country	1,475	units*
	8	Highpointe Ranch Residential	1,450	units
	9	Keeneland	279	units
	10	Palomino Residential	300	units
	11	Ribbonwood	367	units
	12	Sandbrock Ranch	2,458	units
	13	Saratoga	554	units*
	14	Silverado	1,360	units
	15	Silverado West	1,757	units
	16	Winn Ridge	1,406	units
	17	Winn Ridge South	340	units
MIXED USE	18	Venable Ranch	13,842	units**
	19	Fields	8,723	units***
	20	6411 Knuckles Rd Development	630	units
MULTI-FAMILY	21	Peak at 1385	328	units
	22	EMLI at Pecan Creek	254	units
COMMERCIAL	23	Highpointe Ranch Commercial		
	24	Maylar Commercial		
	25	Palomino Retail		
	26	Springhill Wedding Venue		

Unit counts are total planned units at buildout for new and proposed developments, including completed and under-construction lots. Total counts are subject to change.
* Total lots within development including those outside of Aubrey's current ETJ boundary.
** Current estimate for Venable Ranch is 8,867 single family homes and 4,975 multifamily units at buildout.
*** Unit estimate for Fields based on Concept Plan dated September 2023 and includes estimated units outside Aubrey's current ETJ.

Aubrey City Limits

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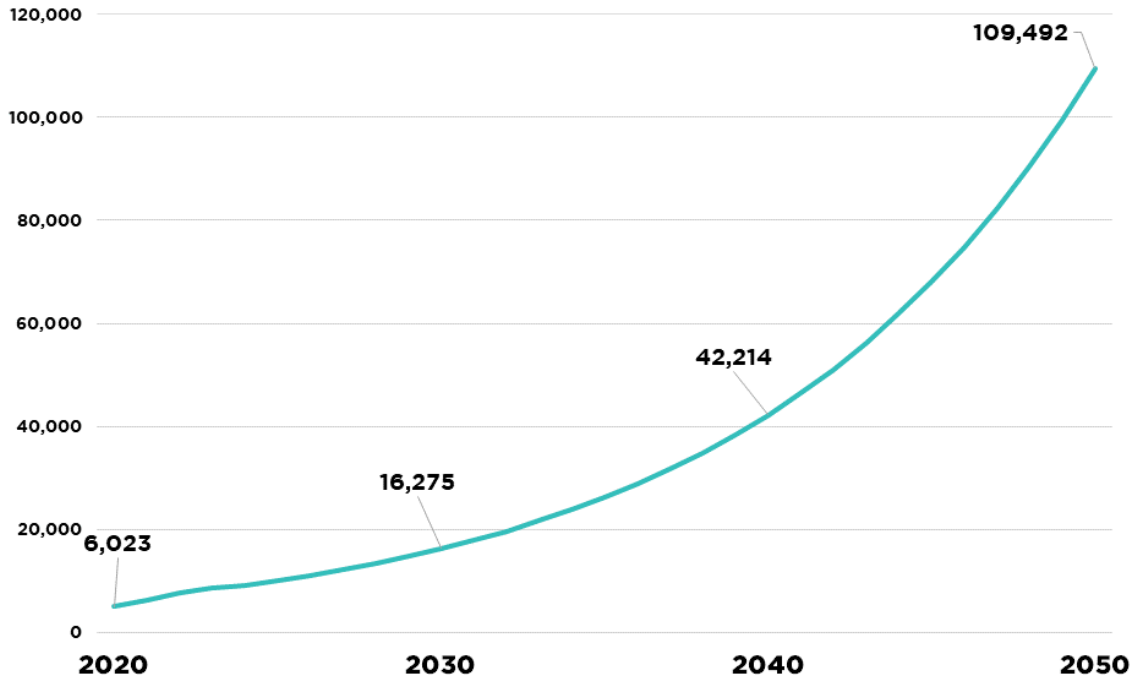
Figure 2.14: New and Proposed Developments

Political boundaries represent an additional constraint on managed growth. Aubrey's city limits are distinctively structured, comprising of three primary sections connected by right-of-way corridors. The city limit sections include the original city area, the mixed-use development of Palomino/Pecan Creek along FM 2931, and the Winn Ridge subdivision along FM 1385.



Source: NCTCOG, Dunaway, Texas Water Development Board

Figure 2.15: Population Projections

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City of Aubrey
Development Constraints

- Railroad
- Road
- Parcel
- Lake / Pond
- River / Stream
- Floodplain
- Aubrey City Limits
- Aubrey ETJ
- Other City Limits

Created by DUNAWAY
May 26, 2025

AUBREY2045

Denton
Krugerville
Cross Roads
Providence Village
Little Elm
Pilot Point
Celina
Prosper

Elm Fork Trinity River
Clear Creek
Timber Branch
Lake Lewisville
Culp Branch
Bray Branch
Aubrey Branch
Campbell Slough
Running Branch
Pecan Creek
Mustang Creek
Little Elm Creek
Doe Branch

455 E
2153
FM 2153
428
W SHERMAN DR
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FM 2931
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ST JOHN RD
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INDIVIDUAL LN
BELEW RD
OSBURN RD
FRIENDSHIP RD
PECAN CREEK
STILES RD
COLE RD
MASSEY RD
VALETON DR
JOE ALLEN RD
PR 5805
COTTON TRL
PECAN VALLEY DR
BELL RD
MUSTANG RD
MOBBERLY RD
BURGER RD
SCENIC DR
MCKINNEY BRIDGE RD
ZACKERY RD
SOMERSET LN
PR 2732
SHEPARD RD
PR 2711
RICHTER RD
PR 2717
WILSON CEMETERY RD
PR 2716
PR 2715
TWIN LN
BLACKJACK OAK RD
GRUBBS RD
HARMON RD
BLACKJACK RD W
BLACKJACK RD E
UNION ST
N CHERRY ST
BROCKETT ST
MAGNOLIA ST
W SPRING ST
W PLUM ST
TISDELL LN
S MAIN ST
CADDELL ST
MAPLE ST
E DR
PR 2712
LONE STAR LN
PARADISE DR
SPRING HILL RD
COFFEY RD
WORLD FAMOUS BLVD
REINING RD
CHRISTLIN
WILDCAT RD
WARS CHUN RD
SAULS RD
ELM BOTTOM CIR
SHADY OAK DR
OAK HILL LN
RIVER RIDGE
BRIDLE PATH
LOVELL RD
CORTES ST
DENA LN
JANIS LN
PAIGE ST
STANLEY DR
CONCHO ST
SURVEYORS RD
KRUGER RD
RANCH RD
PERKINS RD
SHERRY LN
PARALLEL LN
SPANISH OAK DR
RED BUD DR
WOODLAND DR
RUNNING BRANCH
MCNATT RD
BULL RUN
REDFEARN RD
ILESON RD
SQUIRES LN
SHERRY LN S
FAIRVIEW DR
IKE BYROM RD
INDUSTRIAL PARK
ROSE PL
CHASE WOOD LN
RHOADS RD
DUGAS RD
ROCK HILL RD
ROBINSON CANYON RD
HARMONY RANCH RD
HIGBIE LN
NEW HOPE RD
RED MESA TRL
ARVIN HILL RD
STEWART RD
HARTLEE FIELD RD
LA CROIX RD
COLLINS RD
AZTECA RD
BAILEY LN
ROCK RIDGE TRL
NORTHVIEW CT
MOUNTAIN VIEW RD
DR GRIFFIN RD
LIBERTY RD
MAIN ST
LANEY RD
WEBB RD
ANGUS LN
MINGO RD
TRINITY RD
RIVERSIDE DR
COUNTRY SIDE DR
FISHTRAP RD
BRONZIE WAY
E UNIVERSITY DR
OAKBLUFF DR
CEDAR LN
SPRING MOUNTAIN RD
DR SANDERS RD
RODGERS LN
CAPE COD BLVD
BENEVOLENT CT
STALLINGS DR
REVERE DR
PR 2708
GAIL LN
MAVERICK LN
MOCCASIN LN
BRADY STARR DR
TABLE BLUFF ST
KLONDIKE LN
GOLD PAN TRL
LOS ALAMOS DR
GLOVER LN
QUICKSILVER BLVD
COBALT DR
ALEDO LN
BLAZE ST
PONDER DR
DON FISHER LN
MIZELL LN
ZION DR
KNUCKLES RD
BONAR RD
PURE COUNTRY LN
ABBY DR
ASTON DR
BALLENGER RD
CHESHIRE ST
EVEREST DR
SUTTON FIELDS TRL
GODWIN DR
CRUTCHFIELD DR
HALTON DR
HUMBER LN
LIVERPOOL ST
PAINSWICK
ROSTHERNE DR
PARVIN RD
CLEVES AVE
BOTHWELL BLVD
HUNTER LN
SANDBROCK PKWY
BRIDLEPATH PKWY
ROSIN ST
AUBREY PKWY
SHIRE DR
VERNON DR
TRACE DR
WINN RIDGE BLVD
RYDER LN
MILLICAN LN
TUDOR PL
FRONTIER PKWY
WEBB AVE
WALKER AVE
ALTON DR
GLOVER DR
OLD GLORY DR
EAGLE LN
FREEDOM LN
WINNRIDGE BLVD
AURORA LN
BROOKSIDE DR
LAKESIDE DR
PRAIRIE TRAIL AVE
BLAKELY PL
ELISE LN
UNION PARK BLVD
NOLES RD
FM 428 W
PR 902
PR 904
PR 6010
SMILEY CT
MAGNOLIA DR
SMILEY RD
GOOD HOPE RD
PROSPER RD
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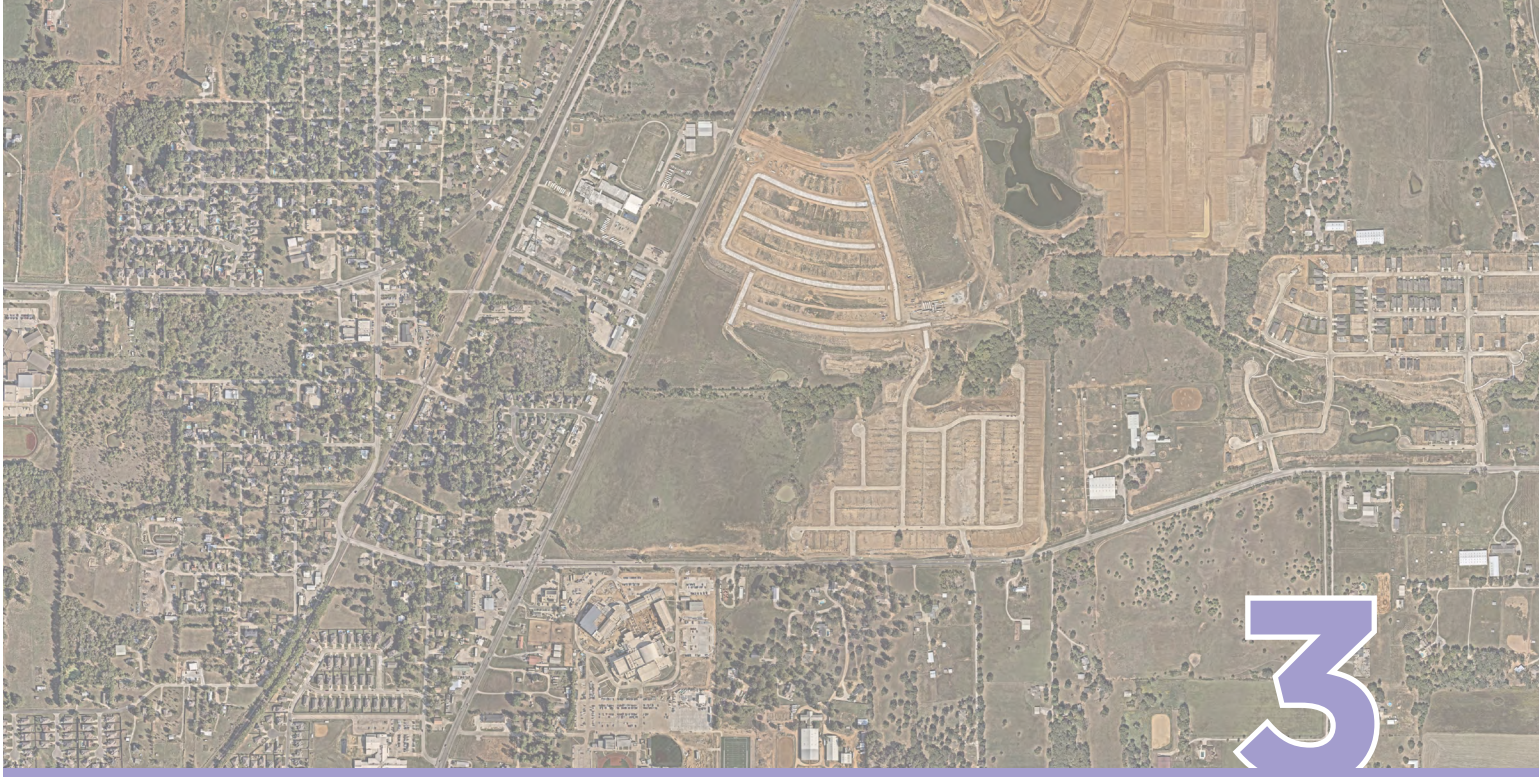


3 GROWTH MANAGEMENT

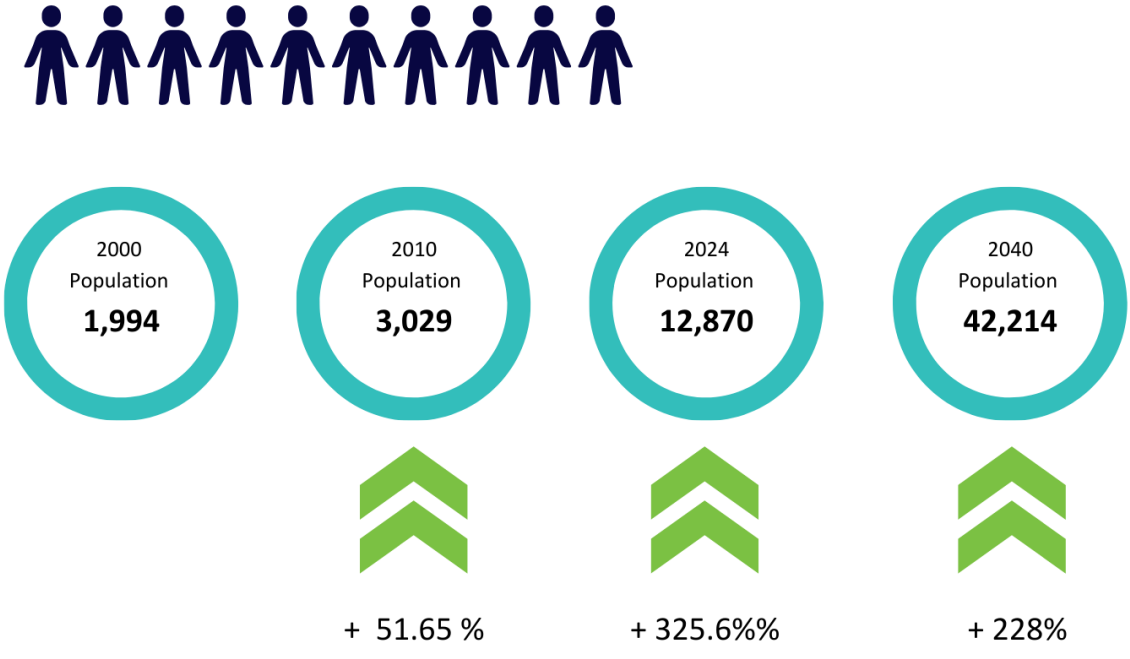
Aerial view of new residential subdivisions under development east of Downtown.
Source: Nearmap (Oct. 2024)

Growth Management Goal:
Aubrey will have residential, commercial, and industrial growth while retaining its safe community feel and agricultural roots.

Aubrey finds itself at a pivotal moment, balancing its deep-rooted heritage with the demands of rapid growth. Over the past two decades, the city has experienced a surge in population, outpacing growth rates across Denton County, the Dallas-Fort Worth Area, and even the state of Texas. This influx of new families and businesses has infused the community with diversity and vitality, strengthening its economy and fostering a dynamic social fabric.

Despite these transformative changes, Aubrey remains steadfast in its commitment to preserving its identity. The city's rich agricultural history, proximity to employment hubs, and unique small-town charm continue to attract residents seeking the tranquility of rural life combined with urban convenience. As the Dallas-Fort Worth urban core expands, Aubrey's strategic location positions it as a highly desirable destination, making proactive growth management essential to ensuring the city's future aligns with the community's vision.

Aubrey's growth management practices and land use policies, as detailed in Chapter 4, are designed to guide this expansion thoughtfully. By controlling the intensity and design of development, these strategies enable the City to prioritize projects that honor its heritage while embracing new opportunities. Recent



Source: Catalyst Commercial, Esri, Dunaway

Figure 3.1: City of Aubrey Population Growth

population trends, particularly the remarkable growth of the past five years, underscore Aubrey's increasing appeal as a residential destination within the Area. This growth drives the need for strategic investments in infrastructure, housing, and economic development initiatives that will shape the city's trajectory in the coming decades.

Enhancing Livability Amid Rapid Growth

Livability in Aubrey is defined by its ability to provide a high quality of life while preserving its small-town charm and rural roots. Since 2010, Aubrey's population has grown from 3,029 to nearly 12,870 in 2024, with projections indicating it will exceed 15,000 by 2029. Amid this rapid transformation, the city remains committed to upholding its core values, which emphasize community, accessibility, and heritage.

Aubrey's open spaces, historic downtown, and family-friendly environment foster a distinct sense of place, providing residents with a peaceful setting that is uniquely their own. Proximity to the amenities of the Dallas-Fort Worth area enhances this appeal, allowing residents to enjoy a balanced lifestyle. Aubrey Independent School District (AISD) plays a significant role in attracting families, supported by major investments in new school facilities to meet rising demand. These developments strengthen Aubrey's reputation as a family-oriented community, cementing its competitive position among neighboring cities.

Seizing Opportunities for Sustainable Growth

Aubrey's blend of rural charm and proximity to the Dallas-Fort Worth area creates a unique quality of life. The city's rapid growth, strong educational system, and competitive housing market make it an ideal community for families and professionals. A median home value of $541,000 and a median household income of $103,706 (as of 2024 estimates) support a stable tax base, enabling investments in public services and infrastructure.

Looking forward, Aubrey must expand local retail along US Highway 377 and Downtown to reduce retail leakage and build a self-sustaining economy. Diversifying housing options with affordable townhomes and multifamily developments will meet the needs of a growing population while fostering inclusive growth. Improvements in transportation and infrastructure will boost connectivity, catering to residents' preferences for accessible amenities.

By preserving its small-town character while embracing strategic expansion, Aubrey is poised to attract residents who value community-centered living. A proactive approach to growth management, emphasizing collaboration with institutional partners and resource investment, ensures Aubrey's development aligns with its values. Through careful planning, the city is prepared to navigate the complexities of growth, maintaining its heritage while embracing future opportunities.

OBJECTIVE 1: Encourage a mix of single family residential units and medium- to higher-density units according to the Future Land Use Plan.

As Aubrey continues to experience rapid growth, thoughtful planning and strategic zoning are critical to ensuring the city evolves in a way that preserves its unique character while meeting the diverse needs of its growing population. Central to this vision is the examination of residential densities, allowing for flexibility where it benefits development while maintaining a balanced urban structure. By introducing zoning modifications to support mixed-use developments, the City can create vibrant spaces that enhance both functionality and livability.

Dallas-Fort Worth Area's rapid growth has increased housing demand significantly, including further away from the urban cores.

Additionally, placing multifamily housing in key areas will ensure smooth transitions between lower and higher intensity uses while avoiding overconcentration. This approach allows Aubrey to diversify its housing stock while preserving the integrity of surrounding neighborhoods. Equally important is the promotion of larger-scale, master-planned developments along key corridors. This focus on cohesive planning ensures that growth contributes to the city's long-term vision, fostering a sense of place and connectivity.

Together, these strategies form the foundation for sustainable, inclusive development that honors Aubrey's heritage while embracing its future. By proactively managing land use and zoning, the city can strike a balance between growth and preservation.

Strategies:

- **A** Examine ultimate densities for residential housing in the City's Zoning Ordinance. Understand where flexibility for densities might be advantageous for development. Modify the Zoning Ordinance to allow mixing of uses based on appropriate design.
- **B** Accommodate multifamily residential development in limited forms. Multifamily development should be located in areas which provide transitions between lower and higher intensity uses, and in a manner that will not negatively impact surrounding uses. Multifamily developments should be located in small groupings around the city in a manner that provides a mix of uses and densities, rather than concentrating multifamily developments in one area which can have negative impacts upon the city.
- **C** Promote larger-scale master planned developments over small-scale individual developments along US Highway 377 and the future Outer Loop by discouraging individual developments under five acres in size.

OBJECTIVE 2: Increase the number of commercial and retail uses to provide more shopping opportunities for residents, visitors, and employees.

Commercial development plays a vital role in the health of a community, providing both employment opportunities and generating revenue through sales and occupancy taxes. These revenues help ensure high-quality services for residents and can contribute to stabilizing the city's property tax rate. This objective aims to diversify the city's commercial landscape by encouraging development in key areas that attract both local and regional attention. By fostering the growth of office spaces, retail centers, and mixed-use developments, Aubrey can strengthen its economy while providing residents with more convenient and accessible services. To support sustainable growth, commercial development should be strategically located in areas where infrastructure investments have already been made, ensuring that wastewater and water systems can be efficiently maintained. Additionally, continuing to work with the Municipal Development District and other economic partners to identify specific business types that align with the city's market needs will ensure that growth is complimentary with Aubrey's unique characteristics and long-term goals.

Strategies:

- **A** Maximize development along the US Highway 377 corridor by providing opportunities for Class A office space (office space defined by high-quality furnishings, state of the art facilities, and excellent accessibility), corporate campus development, and mixed-use retail/residential development.
- **B** Within other commercial nodes, or vacant lots such as those along Sherman Drive, redevelopment and new investment could provide space for regionally-oriented medial facilities and retail opportunities.
- **C** Utilize Downtown Aubrey for a regional draw, bring in patrons from outside of the city.
- **D** Continue to identify the types of prospective businesses (retail, restaurants, and office uses) that will complement Aubrey's market context.

OBJECTIVE 3: Effectively manage the growth of industries in Aubrey through strategic zoning to preserve land for the area's expanding agritourism sector.

The city desires a balance among all land uses to enhance both livability and economic growth. Aubrey, long known as "Horse Country USA," has earned this reputation through its rich agritourism and equestrian heritage. However, the city is now experiencing the impacts of urban growth, with a population increase driven by both new and future developments in the City's Extraterritorial Jurisdiction (ETJ). While Aubrey recognizes the need to expand its industrial sector to support economic development, it is equally committed to preserving and promoting its agritourism industry, which has evolved to include event and wedding venues. Positioned near major transportation routes, Aubrey is ideally situated for businesses seeking affordable industrial real estate. The city's goal is to foster industrial growth without compromising its rural charm, ensuring that both industries can thrive together. This balanced approach will enhance Aubrey's economic landscape while maintaining its unique sense of place.

Strategies:

- **A** Encourage further industrial and flex industrial development in areas with existing infrastructure, such as along US Highway 377 and Industrial Park.
- **B** Rezone areas where industrial use is not desirable to a more restrictive zoning category.
- **C** Increase nuisances (performance) standards and design standards for industrial uses to reduce the impact of existing industrial uses on surrounding neighborhoods or the development of new neighborhoods.
- **D** Work with developers and potential industrial companies looking at Aubrey for their headquarters to invest in areas with existing infrastructure and street connectivity, particularly in areas located within the City's ETJ, to preserve some of the area to set Aubrey apart from adjoining communities.

OBJECTIVE 4: Recognize and preserve Aubrey's unique characteristics by ensuring they are thoughtfully incorporated into the design recommendations when appropriate.

As the city evolves, it is essential to recognize and integrate elements of Aubrey's history and rural charm into new developments and design recommendations, ensuring they complement the existing character of the city. Preserving historically significant structures and incorporating rural architectural guidelines, within existing areas, can maintain the city's authentic feel, while adaptive reuse and renovation projects can breathe new life into existing infrastructure. This approach will allow Aubrey to

Downtown Aubrey has a unique historic character that should be maintained, with similar elements incorporated into nearby developments.

embrace growth without losing the essence of what makes the city special, including landmarks like the historic peanut and drying facility and the historic Railroad Station, which should be repurposed as key destinations that reflect Aubrey's past and help shape its future.

Strategies:

- **A** Consistently use rural architectural / design guidelines within neighborhood service retail centers that reflect the character of the existing "Main Street" within Downtown.
- **B** Develop and implement a strategy to acquire historically and architecturally significant structures at risk of deterioration, restore them, or collaborate with property owners to ensure the preservation of the building's character.
- **C** Incentivize adaptive reuse, retrofit, and renovation projections to maximize existing infrastructure.

OBJECTIVE 5: Continue to foster strong relationships with institutional partners, such as Denton County and TxDOT, in order to manage road networks within the city and extraterritorial jurisdiction for the most efficient growth patterns.

Partnerships, both within Aubrey and with neighboring communities, are crucial to the city's day-to-day operations and long-term success. Aubrey understands that its growth does not only affect its own residents but also impacts the surrounding areas. To ensure that no single community bears the brunt of growth, Aubrey seeks to strengthen and expand its relationships with neighboring municipalities. As the region continues to grow, it becomes increasingly important to enhance collaborative efforts between Aubrey, Denton County, and surrounding cities. With upcoming infrastructure projects like the Outer Loop, there is a shared opportunity to plan ahead and manage potential impacts on the community. By fostering strong partnerships, Aubrey can stay informed about current and future developments, ensuring that coordinated efforts lead to better planning outcomes. Collaborative efforts bring valuable resources, increase efficiency, and foster teamwork, ultimately benefiting the entire region through improved funding, information-sharing, and decision-making processes.

Strategies:

- **A** The City should prepare an annexation strategy and coordinate the availability of municipal services with areas likely to experience development pressure with higher densities. The strategy will require coordination with other master plans that address water, wastewater, transportation, parks, and a capital improvement program.
  - **i.** Coordinate with neighboring municipalities, counties, and regional planning organizations to ensure that annexation efforts are aligned with broader regional growth and development plans
  - **ii.** The City should discourage development at the outer edge of its extraterritorial jurisdiction due to the higher costs and inefficiencies associated with leapfrog development and unplanned sprawl. Instead, the City should prioritize initiatives that integrate new greenfield development with planned capital improvements and focus infill development on areas with existing utility infrastructure, particularly within the current city limits.
- **B** Properly manage development in new growth areas through development agreements, annexation policies, and the application of zoning regulations that support the recommended land use plan.
- **C** The City will work with Denton County and adjacent municipalities and execute interlocal agreements based upon the highest and best benefits for affected property owners.

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4 FUTURE LAND USE

Food trucks in Downtown Aubrey.

Future Land Use Goal:
Aubrey will have a variety of land uses that diversify the tax base by providing safe and convenient places to live, work, and play.

The potential future land use of property plays a crucial role for both residents and businesses. It guides infrastructure investment, helping to determine where additional utilities and streets should be placed. Traditionally, most communities have separated residential areas from commercial and industrial spaces to avoid potential conflicts such as traffic congestion, noise, and, in some cases, odors and vibrations. However, in recent years, there has been a growing emphasis on finding ways to mix residential, retail, and office uses harmoniously to avoid conflicts while promoting a more integrated community design.

The Future Land Use Plan serves as a guiding tool, not a set of regulations. It offers an informed projection of where future land uses might be best suited, assisting the Planning and Zoning Commission and City Council in making decisions regarding zoning adjustments and the arrangement of new developments. The Plan has been shaped through input from the City of Aubrey's Steering Committee, public feedback, and the guidance of City Staff.

This plan combines elements from the two development scenarios shared with the public during the Aubrey Peanut Festival. (See Figure 1.3 on page 14.) It incorporates aspects of the "Typical Suburban" scenario, such as concentrating most commercial development along major corridors and maintaining substantial areas for single family neighborhoods. However, to mitigate the sprawl often seen in North Texas suburbs, the community expressed support for some elements show in the "Nodal Mixed Use" scenario, with higher-density activity centers where appropriate. The appeal of this approach to the community is its intention to conserve more of Aubrey's rural land while fostering economic and social activity.

One key aspect of the Plan is the introduction of the Community Mixed Use category, which designates specific nodes within the planning area to encourage mixed-use development. This category seeks to create vibrant activity centers, reducing the number of isolated land uses across the community. Community feedback also revealed a strong desire to preserve Aubrey's small-town charm and character, while supporting the growth of equestrian and agritourism industries, which are central to the local economy. To reflect this, we introduced the Rural Life land use category, which merges large lot residential development with agricultural and agritourism uses.

Overall, the future land use categories, as described in Figure 4.1, are designed to balance various uses and make the best use of existing infrastructure, ensuring reliable growth that meets the community's needs. These categories allow for the development of new commercial, retail, and employment opportunities while providing space for the right mix of commercial, office, and higher-density residential areas. At the same time, they preserve a significant amount of land for low-density residential uses.

The Community Mixed Use and Rural Life categories are unique to Aubrey, reflecting the community's specific goals and characteristics. As such, these categories will be designated as "Character Areas," each with its own set of guiding principles, which will be further discussed later in this chapter (page 57). The community's vision for future land use is depicted in the Future Land Use Map on page 67 and is described in more detail throughout this chapter.

Figure 4.1: **Future Land Use Designations**

Rural Life: This use category builds upon Aubrey's strong agricultural history and allows for large lot single family homes and estates, along with farms, ranchettes, and equestrian facilities continuing regular operations and/or adapting into agritourism enterprises. Agritourism businesses may include commercial activities such as event venues, educational programs, and retail on operational properties. The objective is to preserve open land, encourage agricultural economic growth, and enhance value-added services that celebrate the community's heritage and rural character.

Photo Source: USDA

Residential (Medium Density): The medium density residential can support a variety of housing types, including small-lot single family detached and patio homes in a more compact network of streets that are easy to navigate. Density should range from four to eight units per acre.

Residential (High Density): This land use recognizes the need for housing at more affordable price points and to accommodate younger families and mature adults wishing to live in the community without the burden of maintaining a home and a yard. These units range from duplexes to apartment complexes. Densities should range from eight to 12 units per acre.

Downtown Aubrey: This area encompasses the original downtown, blending historic buildings with multiple structures and opportunities for infill development and redevelopment. It is envisioned as a mixed-use center that serves both the community and visitors, featuring attractions, public parks, gathering spaces, and a civic center. The goal for this area is to preserve the unique character of the original downtown while establishing it as a vibrant hub of activity for Aubrey. It will be a place to live, work, and play, offering a variety of professional offices, specialized retail, historic and destination-oriented developments, as well as dining options, including sit-down restaurants.

Community Mixed Use: This mixed-use category is designed to foster concentrated activity with an emphasis on increased walkability. This land use will incorporate a variety of community destinations, such as restaurants, shops, and entertainment venues, creating an inviting and dynamic environment for both residents and visitors. Mixed-use neighborhoods within this category will blend commercial and residential spaces, offering diverse housing options to meet the needs of different life stages and family structures. The integration of varied commercial activities and residential developments will promote a vibrant, pedestrian-friendly atmosphere, encouraging social interaction and creating a hub of activity that supports both daily living and community engagement.

Commercial: These uses should be complementary to their surroundings and include local shops and services oriented to meeting the needs of the community, such as locally-owned medical offices and dental practices and standalone businesses such as drug stores and small shopping centers.

Photo Source: Aubrey MDD

Regional Commercial (Outer Loop): Uses within this category should primarily include commercial and businesses on high speed, auto-oriented roadways such as such as US Highway 377 and the future Outer Loop. These uses are regionally-oriented commercial development with high traffic and high employment. Businesses may include grocery stores, hotel/motels, big box retail, restaurants, and commercial services.

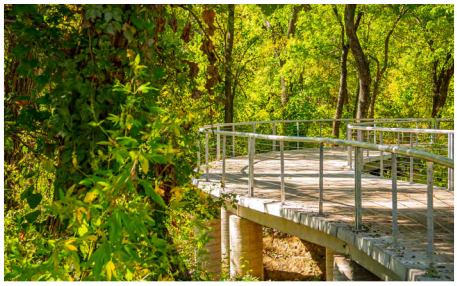
Light Industrial: Industrial uses may be logistics or manufacturing businesses containing offices and light industrial processing uses which generate few objectionable conditions. Examples of light industrial uses include assembly, research and development, and warehousing and distribution. Focus should be on flex-industrial spaces which can be used for a variety of corporate functions, storage, and office spaces.

Public / Institutional: Land dedicated for essential public and private services that support the community's infrastructure and daily needs. It encompasses institutional uses such as schools, city and county buildings, community centers, and places of worship, which are included regardless of location due to their broader service role and potential impacts like increased traffic. It also includes utility-related uses such as pipelines, utility lines, substations, and water or wastewater facilities, all of which are vital to maintaining public services and infrastructure.

Photo Source: City of Aubrey

Parks, Recreation, & Open Space: This category includes both public and private parks, trails, and open spaces in Aubrey. Public areas, such as city parks and the Elm Fork Greenbelt, offer recreation for all residents and visitors. Private spaces, managed by HOAs or other entities, generally serve specific communities with amenities like trails, playgrounds, and sports courts.

Floodplain: Areas designated on the map as being within a federally identified floodplain. While development in these areas is generally limited, portions may become eligible for development if they are removed from the floodplain through appropriate engineering and regulatory processes. The majority of these areas are expected to remain open, offering opportunities for natural preservation, open space, and trail connectivity.



Future Land Use Areas

The tables on the following page summarize the future land uses for the community based on the Future Land Use Map (page 67). The Future Land Use Map for the Aubrey planning area indicates that the highest percentage of developed land within the city limits and within the ETJ will still be oriented to low- and medium-density residential. Some areas have been designated as potential sites for multifamily residential, such as along the Potential Outer Loop. There is an increase of land dedicated to mixed-use development within the city limits, which will allow for more innovation and diverse economic and commercial opportunities for the community, along with an increase in housing choice.

Fiscal Impact Summary

According to fiscal impact analysis conduced by Catalyst Commercial, the proposed Future Land Use Plan creates an estimated $95.4M in additional property tax on improvements and $97.1M in sales tax to the City of Aubrey over a 20-year planning period. In addition, the future land use plan is estimated to create (during the planning period) over 1,300 new jobs and increase population by over 6,000 new residents that can contribute to the local economy.

The complete Fiscal Impact Summary is available in the appendix starting on page 163.

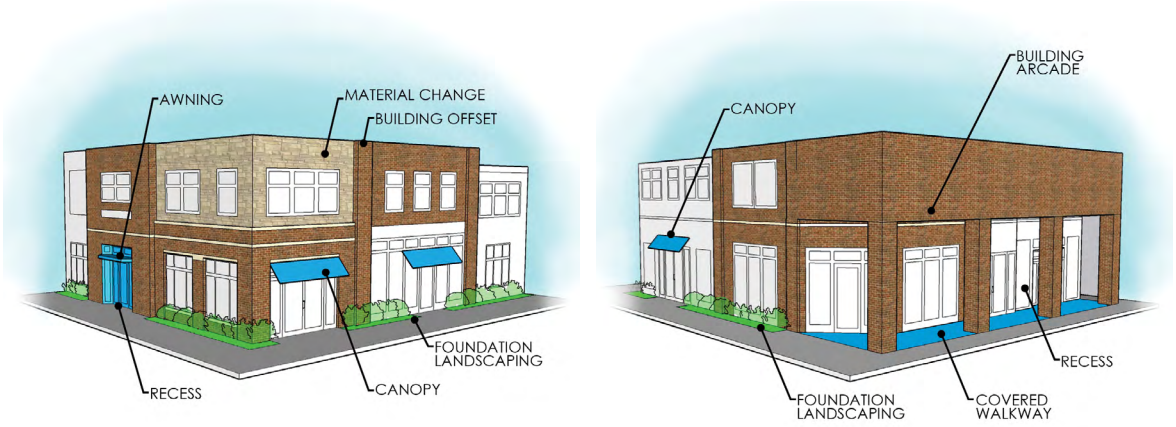
Land Use	Acres	% of City Limits
Rural Life	126.7	4.6%
Residential (Medium Density)	1,018.1	37.0%
Residential (High Density)	58.9	2.1%
Residential Subtotal	**1,203.8**	**43.8%**
Downtown Aubrey	56.6	2.1%
Community Mixed Use	9.5	0.3%
Mixed Use Subtotal	**66.0**	**2.4%**
Commercial	117.2	4.3%
Regional Commercial (Outer Loop)	57.6	2.1%
Light Industrial	8.8	0.3%
Non-Residential Subtotal	**183.6**	**6.7%**
Public / Institutional	155.5	5.7%
Parks, Recreation, & Open Space	314.0	11.4%
Public / Semi-Public Subtotal	**469.4**	**17.1%**
Floodplain	182.7	6.6%
Transportation*	644.7	23.4%
Other Subtotal	**827.5**	**30.1%**
Total	**2,750.4**	**100.0%**

Figure 4.2: Future Land Uses within Aubrey City Limits

Land Use	Acres	% of ETJ
Rural Life	9,082.8	39.3%
Residential (Medium Density)	5,467.6	23.7%
Residential (High Density)	311.8	1.3%
Residential Subtotal	**14,862.2**	**64.3%**
Community Mixed Use	262.5	1.1%
Mixed Use Subtotal	**262.5**	**1.1%**
Commercial	350.4	1.5%
Regional Commercial (Outer Loop)	473.2	2.0%
Light Industrial	100.4	0.4%
Non-Residential Subtotal	**924.0**	**4.0%**
Public / Institutional	276.7	1.2%
Parks, Recreation, & Open Space	805.7	3.5%
Public / Semi-Public Subtotal	**1,082.3**	**4.7%**
Floodplain	4,235.7	18.3%
Transportation*	1,741.2	7.5%
Other Subtotal	**5,976.9**	**25.9%**
Total	**23,107.9**	**100.0%**

Figure 4.3: Future Land Uses within Aubrey Extraterritorial Jurisdiction

*Transportation includes road and railroad rights-of-way.



Urban design elements, such as those shown here, contribute to the quality of the built environment.

Urban Design in Future Land Uses

Urban design is a term used to define how a community manages the physical and visual character of its built environment. The design of new developments within the city limits and ETJ of Aubrey will become increasingly more important as new neighborhoods and the potential of commercial development increases. The design quality of the built environment can have a profound effect on the economic and social health of a city. The quality of the surroundings where people work, live, and play affects the city's image and attractiveness to developers searching for high-quality business and residential locations. By contrast, a poorly-designed urban environment can be a barrier to investment and economic development. Urban design should be included with the arrangement of land uses and is included in this plan with aims to substantially raise the quality of Aubrey's urban environment.

Urban design and future land use planning strategies need to acknowledge economic realities and functional necessities. Practical and reasonable expectations require that urban design efforts are concentrated on the "public environment," referring specifically to areas that are either physically accessible or visually prominent to the members of the general public. Aubrey seeks to maximize both the public and private benefits by improving visual quality.

To improve the urban design of new developments, the City will strive to review the design context of residential, commercial, institutional, and industrial development. Site analysis will be considered an important aspect during the development, design, and construction proposals, and will include:

- **Careful consideration of proportions, details, and context** of the buildings in relationship to the property and adjacent properties. Relate the size and proportion of new buildings to the scale of adjacent buildings.
- **Mixed use and compatibility.** Mixed uses that meet pre-determined standards may be permitted within designated neighborhoods and provide a variety of housing for people in different stages of their lives. Buildings may have a variety of functions but must be compatible with one another in size and their relationship to the street. Uses may change within the buildings both horizontally and vertically. Neighborhood services should be accessible within a five-minute walk in appropriate areas, such as near Downtown Aubrey. Retail may be integrated with residential but should be specifically designed to enhance a neighborhood rather than detract from it.
- **Public spaces should be integrated with new development.** Buildings should be sited carefully to create defined public space. Build-to-lines should be utilized to establish a consistent series of building facades and to promote regular alignment. The street is an important form of public space that is shaped by design standards.

Character Areas & Catalyst Sites

This section outlines the areas of Aubrey that have their own distant character and purpose separate from traditional Future Land Use categories. These special areas might include a custom blend of style/design, uses, intensity, and form as opposed to outdated and singular uses which can make it more difficult to foster a unique, diverse, and flexible market. The Character Area designations are based on the anticipated functions, but also on what is already existing. During the planning process, the community described a future for Aubrey that has a strong Downtown area, with vibrant hubs of activity within community nodes, along with the preservation of "Horse Town USA" and the potential growth of the agritourism industry, including everything from farm visits and local markets to bed-and-breakfast inns and wedding and event venues. Character Areas and Catalyst Sites are pieces of the Future Land Use Plan that can serve as a guide for new development and redevelopment, as well as for evaluating proposed plans as they relate to the relevant Character Area where they are proposed.

Community Mixed Use

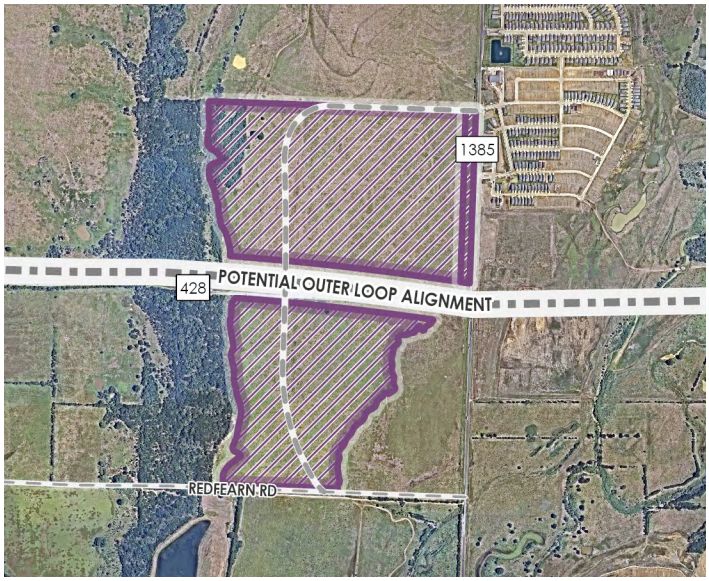
The Future Land Use Plan on page 67 identifies key community nodes that can serve as activity centers, promoting higher density, walkability, and improved connections to areas like Aubrey High School and in new neighborhoods along the future Outer Loop. Community Mixed Use areas aim to increase development density and attract businesses, services, and entertainment. These areas allow for both residential and non-residential development, with options for higher density, increased height, and greater use intensity. Potential developments might include offices, public gathering spaces, office-supported retail, and family-friendly entertainment. These type of businesses and services are especially lacking in the "new growth" portion of the planning area, including the residential neighborhoods along FM 2931 and FM 1385. With these subdivisions being somewhat isolated from Downtown Aubrey and the city core, a well-planned mixed-use center could provide better access to desired businesses, including retail, restaurants, medical offices, and grocery stores.

As these areas develop, the focus will be on creating compact, walkable environments with a smooth transition to existing surrounding residential neighborhoods. By supporting mixed-use developments that combine residential, retail, and office spaces, the City can create neighborhoods where residents can live, work, and shop nearby. Mixed-use zoning and higher-density residential options will optimize land use, fostering vibrant, active spaces.

Walkability and connectivity should be prioritized with interconnected sidewalks linking key community destinations. These areas presents unique opportunities for development and redevelopment, allowing Aubrey to craft a new narrative while staying connected to its economic past. Strategic diversification of land uses will help drive the city's continued growth and success.

Guiding Principles for Community Mixed Use:

- Design areas that are compact and walkable with interactive water amenities and shade and landscaping throughout the area.
- All development within Community Mixed Use sites should be a mixture of residential, shopping, restaurant, and entertainment to establish gathering spaces for the community and its visitors.
- Public amenities such as parks, green spaces, and pedestrian pathways should be prioritized to foster community engagement, encourage outdoor activities, and enhance neighborhood walkability.



A Community Mixed Use development could provide "new growth" areas with access to desired commercial businesses.

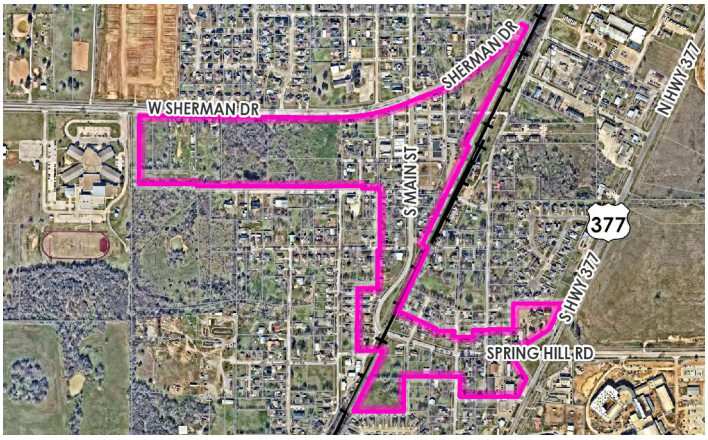
Downtown Aubrey

In the early 1900s, Downtown Aubrey was a thriving hub of commerce and community life. The area featured dry goods stores, cafes, garages, a meat market, blacksmith shops, banks, and even a public bathhouse. Locals frequented cafés and hardware stores, while travelers could find lodging at the Mullins Hotel, a notable establishment during that time. Downtown also housed key institutions such as the post office, the Aubrey Herald newspaper, and later, the telephone exchange.

In 1923, the community launched the Aubrey Community Fair, hosted in the heart of Downtown. It quickly became one of the most anticipated events in Denton County, showcasing local agriculture, crafts, and livestock, and drawing attendees from neighboring towns.

Despite a series of fires and a tornado in the early 20th century that damaged or destroyed many buildings, Downtown Aubrey was rebuilt with resilience and pride. Over time, more permanent brick structures replaced the original wood-frame buildings, reshaping the downtown landscape.

Today, Downtown Aubrey remains a vibrant center for community gatherings and city services. It houses the Aubrey Civic Center, city offices, and parks such as Matthew's Park and Veterans Memorial Park. The latter honors local service members and serves as the backdrop for annual events like the Peanut Festival, Summer Music Series, and Christmas Tree Lighting. Significant strides have been made to revitalize and program the downtown area. The 2015 Downtown Master Plan recommended preserving the district's historic character while enhancing its identity through updated branding, signage, and public gathering spaces. These efforts continue to guide downtown development today.



Downtown Aubrey should continue to evolve with the growing city, while remaining the heart of the community.

Historic storefronts still line Main Street, offering dining, retail, and service-based businesses. The downtown core remains ideal for small shops, restaurants, and professional offices. Surrounding areas present opportunities for mixed-use development, including housing and walkable connections to nearby neighborhoods, an idea that has received strong community support.

With the proposed relocation of City Hall to a new civic complex along US Highway 377, the existing municipal building could be repurposed to further support downtown revitalization. As Aubrey grows, the downtown area remains both a cultural anchor and a platform for future investment.

Guiding Principles for Downtown Aubrey:

- Maintain and enhance Downtown Aubrey as a historic commercial district, celebrating its unique character through branding, signage, and civic spaces.
- Prioritize the development of parks, gathering spaces, and community events to ensure Downtown remains a vibrant hub for residents and visitors.
- Support mixed-use developments that combine retail, residential, and office spaces to create a dynamic, walkable Downtown.
- Enhance pedestrian and vehicular connections between Downtown, surrounding neighborhoods, and key community assets to improve access and mobility.
- Plan for future growth with a focus on preserving the area's historic identity while accommodating new commercial, residential, and civic developments.
- Explore the feasibility of a historic preservation district for the area adjacent to Downtown, ensuring the protection of older homes and maintaining the community's heritage.
- Promote shared parking among Downtown businesses to improve accessibility and support local commerce while preserving the area's walkable charm.
- Encourage vibrant local commerce and community engagement by hosting events such as food truck days, a weekend farmers market, and exploring a "Trade Day" on other days to support small businesses and foster a strong sense of community.

Rural Life & Agritourism

Aubrey's land use is thoughtfully planned to maintain its small-town charm while accommodating targeted commercial growth to meet residents' needs and support the region's agricultural heritage. The town's landscape features various community assets designed to preserve its appeal, support local agriculture, and embrace emerging industries such as agritourism.

To reflect this balance, the Plan introduces a unified land use category, Rural Life, which combines traditional agriculture, agritourism, and rural residential uses. This designation encompasses large estates, ranchettes, farms, and equestrian ranches and stables. Agricultural land within this category may continue to support conventional farming while also enabling opportunities for agritourism. The City encourages diversification of farm-related activities to promote agricultural economic development, including value-added, agriculturally-linked accessory commercial ventures on working farms and equestrian operations. These ventures, often referred to as agritourism, allow farms and ranches to offer educational, recreational, or retail experiences to the public, generating additional income while engaging the community.

According to the U.S. Department of Agriculture, agritourism is "a form of commercial enterprise that links agricultural production and/or processing with tourism to attract visitors onto a farm, ranch, or other agricultural business for the purposes of entertaining or educating the visitors while generating income for the farm, ranch, or business owner." Aubrey is home to numerous farms, equestrian operations, and a growing event and wedding venue industry, all of which have strong potential to expand into agritourism. Future opportunities may include educational school visits, horseback riding experiences, pumpkin patches, fruit-picking activities, and complementary uses such as country-style bed and breakfasts, wineries, or general stores selling local produce. These initiatives not only support the local economy but also reinforce Aubrey's identity as a community rooted in agriculture and rural living.

Guiding Principles for Agritourism:

- Promote the diversification of agricultural activities by supporting value-added enterprises that allow farmers to expand their operations while remaining tied to agricultural roots. This includes agritourism initiatives, which combine education, recreation, and retail experiences with farm operations.
- Recognize and facilitate agritourism as an emerging industry that enriches Aubrey's economy. Develop zoning and planning frameworks that allow for accessory commercial uses on working farms, enabling agricultural operations to thrive while contributing to the local economy.
- Encourage activities on farms that offer educational and recreational opportunities for the public, enhancing community engagement and helping preserve the town's agricultural landscape.

Source: Pexels (Jonathan Borba)

Agritourism offerings range from activities like horseback riding to destinations like rustic wedding venues.

OBJECTIVE 1: Develop land in accordance with the Future Land Use Plan.

As a guide to the future growth and development of Aubrey, the Future Land Use Map on page 67 will serve as a vital tool in establishing clear guidelines and refining regulations that align with the city's long-term vision. These guidelines will help ensure that development is thoughtfully planned, maintains the small-town charm of Aubrey, and accommodates the needs of the community. The map will act as a blueprint to prioritize development areas, zoning designations, and land use types that reflect the desires and goals of residents, businesses, and stakeholders.

Strategies:

- **A** Use the Future Land Use Map categories and areas to establish and communicate clear guidelines and refine regulations consistent with the vision for future development.
- **B** Maintain a continuous and coordinated public planning process that involves citizens, the Planning and Zoning Commission and City Council, local public and private entities, and regional organizations in policy development and decision making.
- **C** Rezone properties within city limits in accordance with the Future Land Use Plan.
- **D** Encourage a variety of well-designed housing types for entry-level families, those wishing to age in-place, and others seeking alternatives to typical suburban apartments or single family homes.
- **E** Create opportunities for estate-style single family residential development.
- **F** Encourage the types of non-residential uses that provide retail and services desired by the community.

Regional employment, retail, and entertainment hubs should have high design standards to serve as attractive destinations for residents and visitors.

OBJECTIVE 2: Enhance the development along US Highway 377, FM 428, and the future Outer Loop to foster increased retail options and establish regional employment hubs.

The City, primarily through its partnership with Aubrey Municipal Development District (MDD), seeks to attract businesses that draw visitors from neighboring areas, positioning Aubrey as a unique shopping destination. Special attention will be given to traffic flow and landscaping, particularly at major entry points, to create an inviting environment. While it may be more challenging to bring in destination retailers, the City will adopt strategies such as reducing development costs, offering tax incentives, and improving public infrastructure to make Aubrey an appealing location for these types of businesses.

The City will also focus on attracting larger retailers by providing the necessary space, visibility, and infrastructure to accommodate big-box stores, restaurants, and entertainment venues. With a clear demand from the community for more grocery stores and entertainment options, these will be prioritized in the City's retail efforts. Additionally, the City aims to create a balanced mix of retail options in the Downtown area, catering to both residents and visitors while supporting the local economy.

Strategies:

A Work to attract predominantly destination-driven retail.

- **i.** Design standards must remain focused on traffic movement and landscaping since development along highways serves as the visual entry to the community from neighboring communities.
- **ii.** Although convenience-based retail is easier to attract with demographics than destination-driven retail, the City can focus on some types of criteria as to what tenants would find appropriate. This includes reducing development permitting costs, creating potential tax incentives, and providing public infrastructure capital improvements.
- **iii.** Family-based retail needs traffic, land, infrastructure, and visibility to be sustainable. Providing these elements can bring restaurants, larger retail, and ancillary entertainment venues. The community has expressed interest in bringing more full-service grocery stores to the city as well as entertainment facilities.

B Commercial and neighborhood service land uses should reflect a combination of visitor and resident-based retail availability — especially in Downtown.

OBJECTIVE 3: Develop Downtown Aubrey's historic character and significance by enhancing the central gathering space, promoting new mixed-use development, and preserving its vital role as the heart of the community.

To continue building on the vision laid out in the 2015 Downtown Master Plan, the City is focusing on improving Downtown Aubrey by preserving its historical significance while fostering new development. A key initiative is the enhancement of public gathering spaces and improving connectivity between important community areas, such as Matthew's Park and Veterans Memorial Park. As part of this effort, Matthew's Park, a cherished space for Aubrey residents, has recently undergone renovations. The improvements include upgrades to its playground equipment and landscaping, further enhancing its role as a gathering space near Downtown.

In addition to enhancing public spaces, the City is committed to preserving the area's historic charm. Strategies include planting trees along roads within and near Downtown to create a mature tree canopy, preserving landmarks such as the Peanut Dryer by applying for National Register of Historic Places designation, and working with the Aubrey Area Museum to protect and redevelop key historical sites like the old train station. These efforts will ensure that future developments in Downtown align with an early 20th-century historical theme, helping to solidify the area as the heart of the community.

Strategies:

A Plant trees within the parkway along roads within and near Downtown to establish a mature tree canopy, thereby contributing to the historical theme of the area.

B Preserve the Peanut Dryer by applying for the National Register of Historic Places designation or similar program.

C Work with the Aubrey Area Museum to encourage the preservation and redevelopment of key historical landmarks within Aubrey, such as the old train station, and ensure that new development within Downtown is designed to reflect an early 20th-century historical theme.

D Leverage the recommendations from the City's 2015 Downtown Master Plan to assess and implement enhancements, based on current context, to public gathering spaces and improve connectivity between key areas, such as Matthew's Park and Veterans Memorial Park.

Downtown gathering spaces, like this example, can honor the community's heritage while offering new amenities.

OBJECTIVE 4: Preserve the integrity of Downtown and encourage complementary and compatible redevelopment and infill development, including new single family residences containing a farm/ranch theme, residential-to-office conversions, and “main street” retail with studio apartments.

The community has expressed a strong desire to preserve the unique charm of Downtown Aubrey while encouraging thoughtful redevelopment that complements its historic character. The goal is to balance the protection of historic structures with the integration of new growth that respects the area’s established aesthetic. By promoting the adaptive reuse of existing buildings and introducing new developments that harmonize with the historic fabric, the City aims to foster a dynamic, mixed-use environment. This includes residential options with a farm/ranch theme, residential-to-office conversions, and "main street" retail spaces with studio apartments — each designed to complement the character of surrounding historic homes.

Key initiatives will support repurposing existing buildings for small, local businesses while allowing for modest redevelopment in transitional areas. New developments adjacent to Downtown will be encouraged to mirror the architectural style and scale of the historic district, extending its character north to the Sherman/FM 428 intersection, as outlined in the 2015 Downtown Master Plan. Workshops, forums, and public meetings will promote the benefits of adaptive reuse, while zoning flexibility will be explored for older homes near Downtown, allowing for uses such as bed and breakfasts, small retail spaces, and professional offices. Through these strategies, Downtown Aubrey can continue to evolve while preserving the qualities that make it a vibrant, historic part of the community.

Traditional "Main Street" development can include retail with studio apartments, like shown here.

Strategies:

- **A** Promote the preservation and adaptive reuse of existing buildings for small-scale, local, and independent businesses, while allowing for modest redevelopment and transitions to newer neighborhoods and commercial development.
- **B** Encourage redevelopment of properties adjacent to Downtown Aubrey, ensuring new buildings are designed at or close to the sidewalk to reinforce the character of the historic Main Street.
- **C** Promote awareness of the benefits of adaptive reuse through workshops, forums, and public meetings.
- **D** Extend the character of the existing historic block north of the Sherman/FM 428 intersection by encouraging new buildings with similar materials, building configurations (e.g., buildings close to the street with an arcade along the front), and scale as the existing historic block.
- **E** Assess the feasibility of expanding the allowable uses for properties featuring older houses on large lots in close proximity to Downtown to include compatible options such as bed-and-breakfast inns, professional offices, and small-scale retail establishments like boutiques.

OBJECTIVE 5: Explore the feasibility of prompting city limit expansion primarily through voluntary annexation agreements with property owners.

Voluntary annexation, also known as consent annexation, is a process in Texas that allows property owners to request the inclusion of their property within a municipality’s city limits. Governed by the Texas Local Government Code and the City's Charter, this process offers a strategic means of expanding city boundaries. To assess the feasibility of such expansion, the City should prioritize engaging property owners,

residents, businesses, and other stakeholders. This may involve hosting public meetings, workshops, and surveys to gather insights, address concerns, and educate property owners about the benefits of annexation, such as improved access to city services. Additionally, the process can be clarified through informational materials that outline the advantages of voluntary annexation, including potential improvements in services, infrastructure, and property values.

Strategies:

- **A** Engage with property owners, residents, businesses, and other stakeholders to understand their perspectives on annexation.
  - **i.** Host public meetings, workshops, and surveys to gather input and address concerns about the annexation process and educate property owners on the benefits of annexation.
- **B** Create informational materials that clearly explain the benefits and process of voluntary annexation, including potential improvements in services, infrastructure, and property values.

OBJECTIVE 6: Preserve Aubrey's small-town charm by promoting rural mixed-use zoning that supports the city's agricultural heritage and encourages agritourism and diversified activities, such as event venues, bed and breakfasts, and equestrian uses.

Aubrey's land use strategy seeks to preserve its small-town charm by promoting rural mixed-use zoning that supports the city's agricultural heritage while accommodating carefully planned commercial growth. By integrating agricultural, residential, commercial, and recreational uses, the city aims to balance its rural character with emerging industries, such as agritourism, event venues, and equestrian activities. This approach not only supports the local farming community but also embraces new opportunities for economic development, such as wedding venues, bed and breakfasts, and agritourism experiences that attract visitors to the area.

The Future Land Use Plan identifies areas for Rural Life, which can include agritourism, ensuring that properties can accommodate a blend of uses that

Agritourism operations can include family activities like pumpkin patches.

Source: Lisa Fotios (Pexels)

contribute to the preservation of farmland, open spaces, and natural resources. This zoning framework supports agritourism as a vital tool for preserving the community's agricultural identity and stimulating economic growth. Agritourism activities, including educational, recreational, and retail experiences on working farms, are encouraged to diversify the region's agricultural economy and help Aubrey become a destination for visitors. Recognizing the need for clear regulations, the City will work with landowners to incorporate agritourism into zoning codes, balancing new development with the preservation of Aubrey's rural character. Through these strategies, Aubrey can maintain its agricultural roots while embracing future growth.

Strategies:

- **A** Consider updating the Zoning Ordinance to allow agritourism activities in appropriate areas within the Rural Life future land use, while continuing to work with landowners and business owners to preserve contributing properties that allow for a combination of agricultural, residential, commercial, and recreational uses.
- **B** Ensure zoning regulations support the preservation of farmland, open spaces, rural landscape, and natural resources.

OBJECTIVE 7: Work with Aubrey and Denton Independent School Districts to coordinate future school facilities planning with land use projections in the Future Land Use Plan.

Building a strong relationship between the City of Aubrey and the Aubrey and Denton Independent School Districts is crucial for effective long-term planning and development. As the city grows, especially with the anticipated influx of 800-900 new students between 2023 and 2025 and the projected doubling of enrollment by the 2030-2031 school year, it is essential to ensure that school facilities can meet the increasing demand. Coordinating land use plans with school facility planning helps prevent potential challenges such as overcrowded schools, insufficient infrastructure, and lack of community services. By establishing regular communication and data-sharing between the City and the school districts, both parties can better align their development strategies, ensuring that schools are strategically located and adequately funded to serve the community's needs. This collaboration will not only improve school capacity and availability but will also support the city's broader development goals, maintaining a balanced and sustainable growth trajectory.

Strategies:

A Initiate and establish a tradition for standing meetings with the school districts serving City of Aubrey residents to discuss school facilities planning and land use projections.

- **i.** Share relevant data between the school districts and the City, including population growth projections, residential development plans, and current and future school capacity needs.

B Work with community leaders to continue building connections to improve communication between the City and the school districts.

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DRAFT

City of Aubrey
Future Land Use Plan

- Potential Park Location (General Vicinity)
- Railroad
- Existing Road
- Future Road
- Potential Regional Outer Loop & Right-of-Way*
- Parcel
- Lake / Pond
- River / Stream
- Aubrey City Limits
- Aubrey ETJ**
- Aubrey Ultimate Growth Boundary
- Other City Limits

Future Land Use

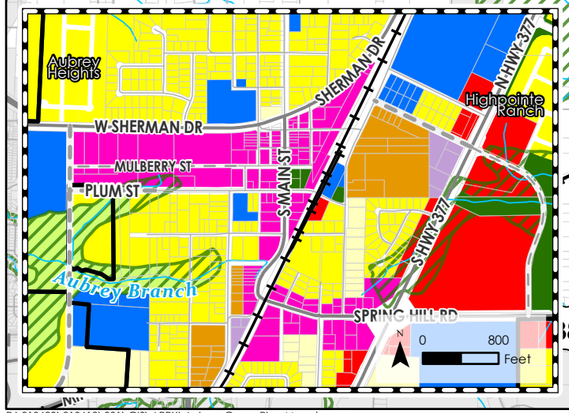
- Rural Life
- Residential (Medium Density)
- Residential (High Density)
- Downtown Aubrey
- Community Mixed Use
- Commercial
- Regional Commercial (Outer Loop)
- Light Industrial
- Public / Institutional
- Parks, Recreation, & Open Space
- Floodplain

Created by DUNAWAY
September 23, 2025

AUBREY2045

A Future Land Use Plan shall not constitute zoning regulations or establish zoning district boundaries.

**The final alignment for the potential Regional Outer Loop has not been determined. The potential alignment shown here represents one of the proposed alignments, which is subject to change.*
***Future ETJ includes areas within Aubrey's ultimate growth boundary.*



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5 TRANSPORTATION

BNSF engine passing by historic Aubrey Peanut Dryer.
Source: City of Aubrey

Transportation Goal:
Aubrey will develop a transportation network that meets basic needs for movement, access, safety, and reasonably rapid travel for people and goods, with quality open roadways that enhance compatibility with adjacent development.

Because roads do not stop at the city limits, coordination with neighboring cities, Denton County, and the Texas Department of Transportation (TxDOT) is vital to encourage connectivity between developments throughout the community as well as ensuring safe travel for cars, trucks, bicycles, and pedestrians. Over the last decade, Aubrey — like many of its surrounding North Texas neighbors — has been transitioning from a rural community to a more suburban style community. It is dependent on primary and secondary arterial roads that are maintained by Denton County and TxDOT for much of the access to developed property throughout the community. Within city limits, the main highway, US Highway 377, is maintained by the state. Local roads and non-highway streets are primarily maintained by the City.

Based upon the community survey, the condition of local streets is a top concern for residents; survey takers also indicated their support to initiate a street improvement program to increase repairs to existing streets. In addition to street improvements, residents desire increased walkability within the community via trails, greenbelts, and sidewalks connecting neighborhoods to their open spaces (either public or private), to schools, and to Downtown.

Traffic and Congestion

Two of the three common components of traffic congestion are based on the physical construction of the roadway (number of lanes and demand, known as capacity and volume). The function of a roadway is impacted by the number of cars traveling at any given time and the number of available lanes. The third aspect has to do with the potential hazards at key intersections and access points to private property, also known as driveways. Analysis of the existing and future road network revealed that Aubrey's roads will have challenges in both capacity and the volume needed for estimated future demand. The Transportation Infrastructure map included later in this chapter on page 85 identifies new roadways that can be built as demand and further development occur, as well as existing roadways expanded or revitalized as needed depending on traffic and infrastructure conditions at the time. Roadways may be initially built with lower capacity, such as two lanes instead of four, and expanded if and when traffic volumes necessitate the need for additional capacity.

Level of Service

The term Level of Service (LOS) is commonly used by transportation planners to study and make recommendations for the road network. Level of Service (also called Quality of Service or Service Quality) refers to the speed, convenience, comfort, and security of transportation facilities and services as experienced by users. LOS ratings, typically from A (best) to F (worst), are widely used to evaluate problems and potential solutions.

The following travel flow characteristics (V/C Ratio) are used to determine needs and deficiencies during the planning process:

- **A** Virtually free flow; completely unimpeded: Volume/Capacity ratio less than or equal to .60.
- **B** Stable flow with slight delays; reasonably unimpeded: Volume/capacity ratio .61 to .70.
- **C** Stable flow with delays, less freedom to maneuver: Volume/Capacity ratio .71 to .80.
- **D** High density but stable flow: Volume/Capacity ratio .81 to .90.
- **E** Operating conditions at or near capacity; unstable flow: Volume/Capacity ratio .91 to 1.00.
- **F** Forced flow, breakdown conditions: Volume/Capacity ratio greater than 1.00.

Such ratings systems can be used to identify problems, evaluate potential solutions, compare locations, and track trends. Current planning tends to evaluate transportation system performance based primarily on motor vehicle traffic speed and delay (also known as "traffic"). Note the focus on motor vehicle mobility, which contributes to continued automobile dependency. This plan also considers other forms of mobility as result of community input.

Regional Outer Loop

Denton County has experienced significant changes over the past two decades, and it is expected that the next 20 years will bring even more transformation. As the county's population growth continues to push north and east, improvements will be necessary to accommodate both local and regional demands. To address this growth, Denton County is partnering with the Texas Department of Transportation (TxDOT) to study a section of the Regional Outer Loop. This new freeway will span approximately 23 miles, extending from Interstate 35 in the west to the Dallas North Tollway in the east.

The Regional Outer Loop in Denton County is part of a larger network of proposed highways that will connect to form a regional system extending east into Collin County and further south through Rockwall and Kaufman Counties. The study area primarily focuses on Aubrey and its surrounding areas but also includes a small portion of Collin County, as the connection between the Denton and Collin County segments of the Regional Outer Loop will need to be evaluated.

Regional Outer Loop vision and county study area.
Source: Denton County

Purpose of Study

Plan for Future Significant Growth

Growth is anticipated in the study area and throughout Denton County. With a population of 906,442 in 2020, Denton County is projected to reach 1.52 million residents by 2045, based on demographic forecasts from the North Central Texas Council of Governments (NCTCOG).

Enhance Regional Mobility

The existing roadway network in the study area consists of small rural county roads and Farm-to-Market roads, which were not designed to accommodate the expected increase in traffic. Currently, the only major east-west route across Denton County is US 380, which is experiencing congestion and leading to longer travel times. As growth and development continue to move north and east within the county, there will be a need for another high-capacity east-west corridor alongside US 380.

Preserve Land for a Future Corridor

The study area faces many constraints, including residential properties, ranches, public lands, and rivers. TxDOT will strive to avoid and minimize impacts to homes, businesses, and environmentally sensitive areas whenever possible. However, given the rapid growth expected, it is crucial for the county to act quickly to establish the alignment, secure environmental clearance, and preserve the necessary land for the future corridor in order to protect it from future development.

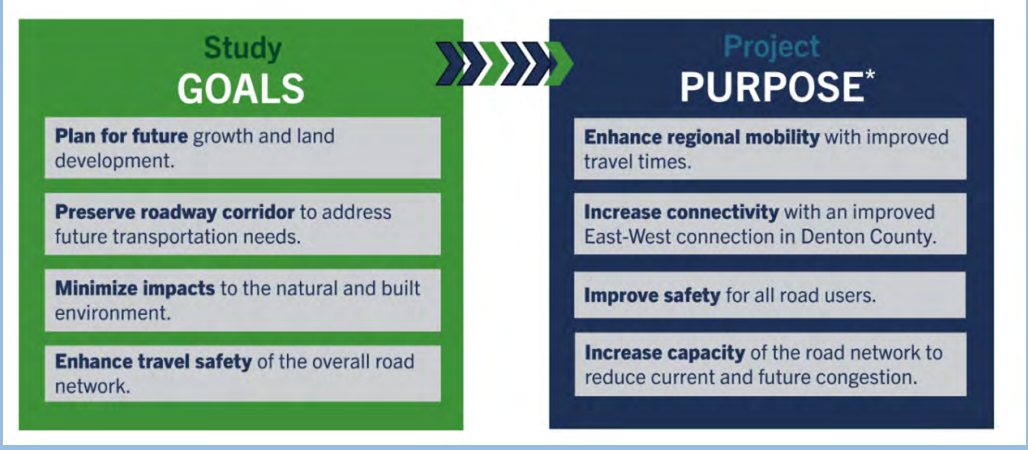
Study Process

Denton County must assess the environmental effects of a proposed project according to the National Environmental Policy Act (NEPA) before making any decisions. To use federal funds for the roadway construction, the county must obtain environmental clearance, which is expected to take three to five years.

As part of NEPA, the county is preparing an Environmental Impact Statement (EIS), studying various alignments to find the least impactful option, which will be presented to the public. The county is conducting traffic analyses and environmental studies, including field assessments in areas where landowners allow access, to identify resources like wetlands, floodplains, and culturally sensitive areas.

During the EIS process, a schematic design will be developed, including determining lane numbers, ramp locations, land needs, drainage designs, and considerations for bicycles and pedestrians. Detailed cost estimates will also be prepared.

The EIS will evaluate environmental impacts, such as effects on air quality, archaeological and biological resources, community assets, and other factors. Public involvement has been and will continue to be encouraged through in-person and virtual meetings, and coordination with agencies, municipalities, and utility providers will be ongoing. A final Purpose & Need Statement is being developed as part of the environmental study process.

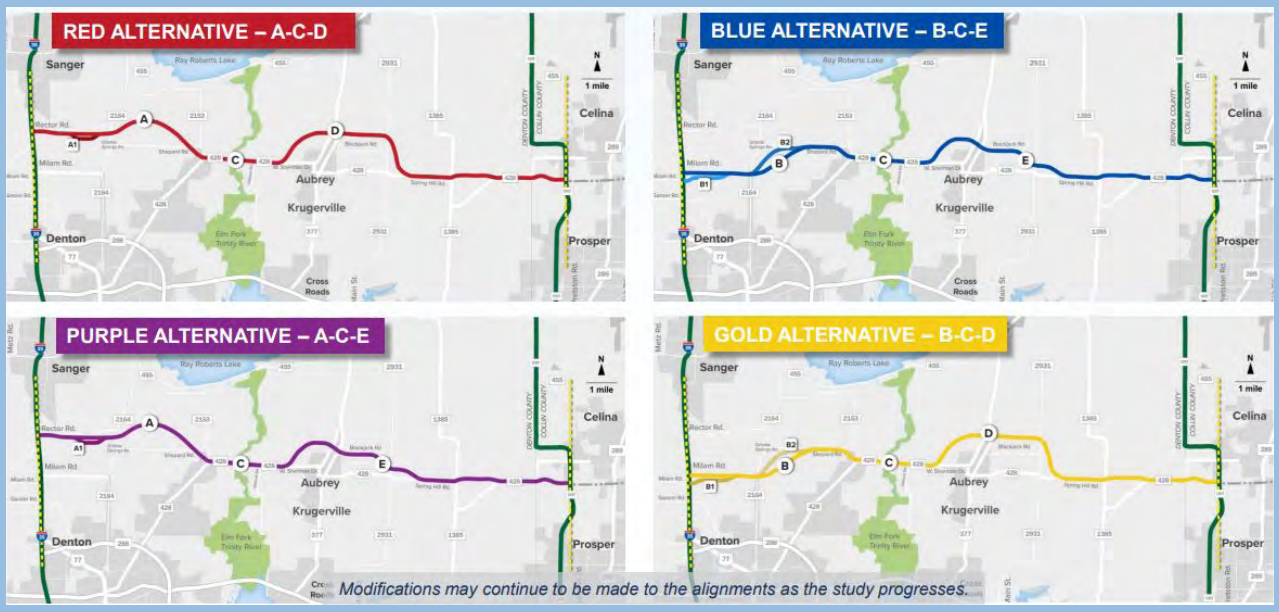


Summary of the Outer Loop study goals and project purpose.
Source: Denton County

As part of the public engagement process, TxDOT has held several meetings. The future Outer Loop alignments shown throughout this Plan's maps are based on alternatives presented during TxDOT's EIS Scoping Public Meetings. Four build alternatives (with the fifth alternative being the "no-build" scenario) were recommended for further

study and were shared during the Fall 2024 public meetings. Among these build alternatives are two segment alignments in the Aubrey planning area: **Segment E** (part of the blue/purple alternatives) aligns with the City's existing planned development and future roadways, as reflected in the 2023 Master Thoroughfare Plan, while **Segment D** (part of the red/gold alternatives) would significantly alter proposed northern planning efforts. These alignments subject to change as the study process continues.

As of 2025, the alignments will continue to be evaluated based on environmental impacts, engineering analysis, and public and stakeholder input. At least two alignments, along with the "no build" alternative, will be presented at in-person and virtual meetings. The timeline includes further public meetings, with the preferred alternatives expected to be identified by Fall 2025 and final decisions anticipated by Summer 2026.



Presented in Fall 2024, Denton County and TxDOT have narrowed down a range of alignments to these four build alternatives for further study.

Source: Denton County (2024)

For more information on the Outer Loop study, visit Denton County's website at https://burnsmcd.mysocialpinpoint.com/dentoncountyouterloop/

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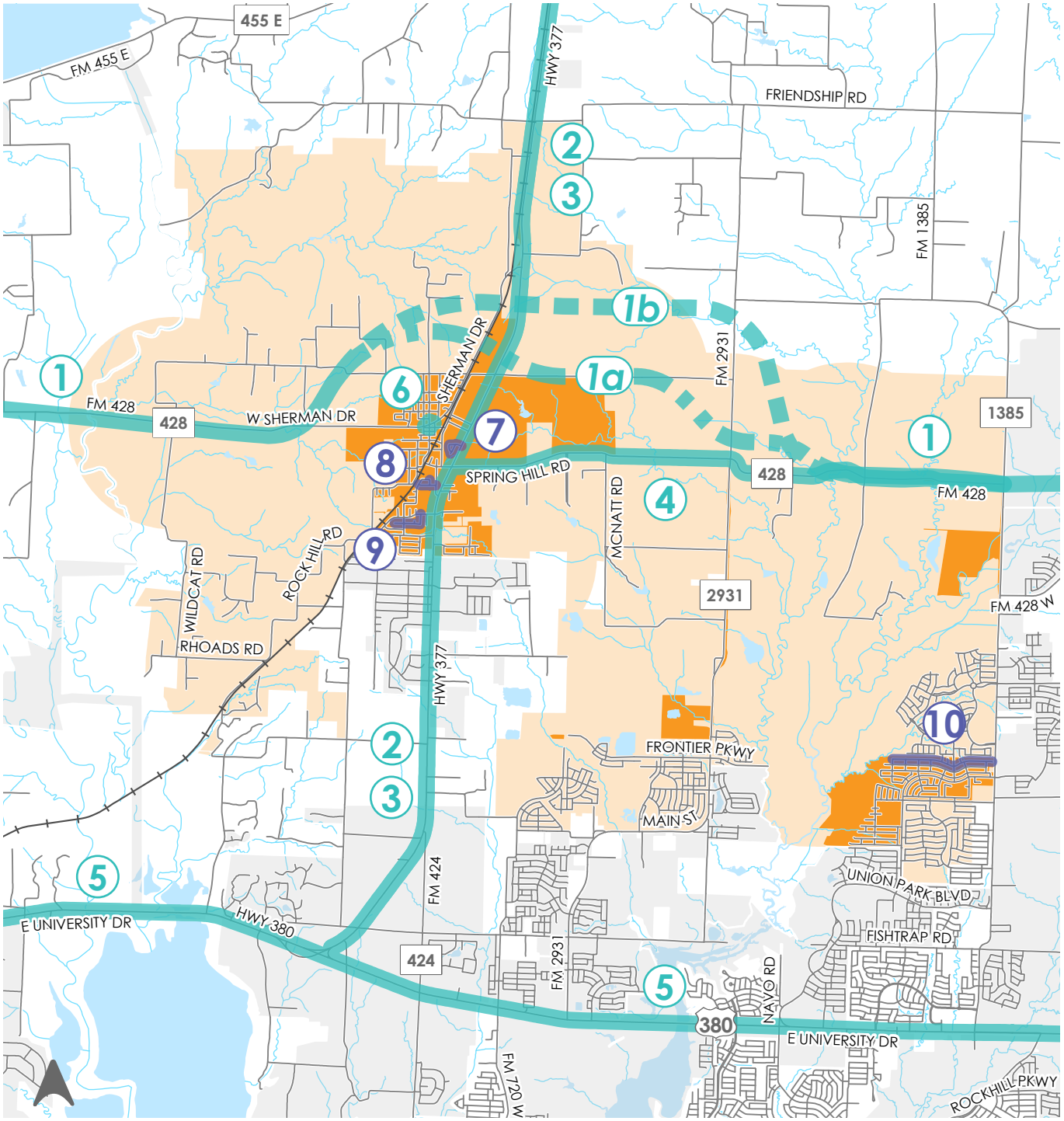
Figure 5.1: Ongoing and Proposed Transportation Projects



TxDOT Proposed Improvements

1. Regional Outer Loop
   - 1a *Blue/Purple Alternative*
   - 1b *Red/Gold Alternative*
2. US 377 Rehabilitation from US 380 to Grayson County Line
3. US 377 Widening from US 380 to North of BUS 377E
4. FM 428 Rehabilitation from US 377 to FM 1385
5. US 380 Interim Grade Separation Project
6. FM 428 / Main Street Traffic Flow Improvements

Other Proposed Improvements

7. Willow Street Reconstruction
8. Michelle Street and Sidewalk Repair
9. Glenview Drive Reconstruction
10. Trace Drive Rehabilitation

Other Transportation Projects

Figure 5.1 on page 76 illustrates other transportation projects within and near the Aubrey planning area. These projects are further described below.

Planned TxDOT Projects

1. **Regional Outer Loop.** See section starting on page 72.
2. **US 377 Rehabilitation from US 380 to Grayson County Line.** This project includes repair to the existing road to extend the lifetime of the road surface. This project is in the final stages and has been under construction since October of 2023.
3. **US 377 Widening from US 380 to North of BUS 377E.** Spanning from Cross Roads to Pilot Point, this project will include reconstructing and widening the existing road to six lanes. According to TxDOT materials published in 2022, this project is anticipated to let for construction in 2028.
4. **FM 428 Rehabilitation from US 377 to FM 1385.** This project includes a sealcoat surface treatment to extend the lifetime of the road surface. This project is in the final stages and has been under construction since January of 2024.
5. **US 380 Interim Grade Separation Project.** This project is in progress and will include upgrading existing US 380 to a six-lane roadway with raised median and grade separation at key intersections to improve safety. Construction is anticipated to be complete in early 2025. TxDOT is also considering improvements beyond the current project, including those recommended in the US 380 Denton County Feasibility Study, completed in Spring 2022.
6. **FM 428 / Main Street Traffic Flow Improvements.** TxDOT, in partnership with the City of Aubrey, is improving the FM 428 (Sherman Drive) and Main Street intersection, addressing traffic delays and ensuring long-term safety and efficiency. Engineering studies have highlighted the need for a comprehensive traffic signal, but before installation, additional studies, right-of-way acquisition, and drainage improvements must be included in the city's Capital Improvement Plan. As of January 2025, a short-term solution, TxDOT has installed stop signs on Sherman Drive, creating a four-way stop to ease congestion during peak times. This measure will help improve traffic flow while long-term plans are finalized. These efforts highlight a shared vision of smart growth, with updates on the traffic signal project to follow.

City of Aubrey Capital Improvement Roadway Projects

Figure 5.1 also includes recent and active City of Aubrey capital improvement projects:

7. **Willow Street Reconstruction**
8. **Michelle Street and Sidewalk Repair**
9. **Glenview Drive Reconstruction**
10. **Trace Drive Rehabilitation**

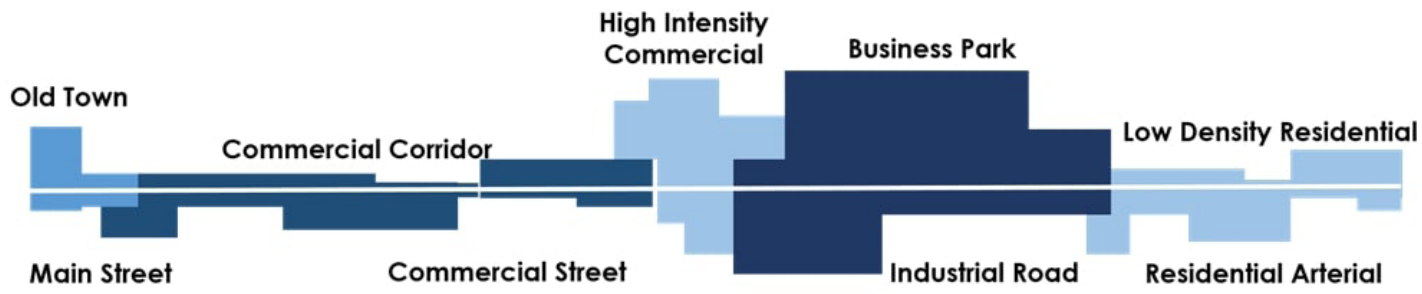


Figure 5.2: Context Sensitive Corridor Example

OBJECTIVE 1: Use concepts for Context Sensitive Design when improving existing streets and building new streets, interconnections, and sidewalks.

Build-to-lines should be utilized to establish a consistent series of building facades and to promote regular alignment along the street. The street is an important form of public space, and the buildings that define it should be expected to reinforce and enhance the streetscape corridor. Therefore, as new streets are designed and existing ones are increased in capacity, the design of the street should be reflective of the types of uses adjacent to that particular section.

In order to design for neighborhoods and pedestrian-oriented areas, decision makers must understand the key relationship between transportation and land use. In particular, flexibility may be needed in roadway design to accommodate a changing urban form within the community. Understanding key community objectives for land use within the community is also important in order to ensure that public infrastructure investments are in line with ultimate land use objectives. One way to do this is through context sensitive solutions.

Context sensitive solutions (CSS) is the practice of developing transportation projects that serve all users and meet the needs of the neighborhoods through which they pass. Developing solutions must be a collaborative process that involves all stakeholders in street designs that ultimately fit into the character of surrounding neighborhoods while maintaining safety and mobility. The key is making sure that elements of streets complement surrounding or adjacent development to generate a neighborhood or "roadway experience."

The process of designing CSS roadways is similar to the process of designing traditional thoroughfares: automobile traffic is considered through traffic counts, traffic demand, and level of service information-gathering efforts. The difference is that, in addition to automobile traffic, other elements — such as pedestrian traffic, built environment, and land use — are also carefully considered.

The most notable publication and guidebook for CSS is *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach* published by the Institute of Transportation Engineers (ITE). This publication includes information on balancing the transportation needs of the community with adjacent land uses. In particular, the CSS approach recommends designing thoroughfares based upon:

- Community objectives
- Functional classes
- Thoroughfare types
- Adjacent land use

New streets, sidewalks, and bikeways as well as street upgrades should be planned with the recommendations of CSS. Figure 5.2 on page 77 shows how one road could be designed to have different capacity and profile based on the intensity of land uses abutting the road.

As a street winds through the city, its function and street section may change based on the surrounding land uses — rather than a one-size-fits-all pattern.

Strategies:

A Integrate the concept of context-sensitive design into all transportation project design standards.

B Adopt a Context Sensitive Solution (CSS) policy to incorporate into the Code of Ordinances and Street Design Standards.

Context sensitive design seeks to serve all users of a street, including pedestrians in more walkable areas, such as in a downtown.

OBJECTIVE 2: Fund and build improvements to existing streets as shown on the Master Thoroughfare Plan.

As Aubrey continues to grow, maintaining and enhancing its infrastructure is essential to support the increasing population and demand for services. A key focus of this effort is improving existing streets to ensure that the city's transportation network remains safe, efficient, and accessible. Over the past several years, the City has prioritized repairing and upgrading city-maintained streets, and it continues to secure funding for these improvements.

In line with the City of Aubrey Home Rule Charter, the City Manager is required to annually update and submit a five-year Capital Improvement Plan (CIP) to the City Council as part of the budget process. The CIP serves as a forward-looking planning document that outlines the city's infrastructure needs and improvement strategy. It organizes projects by priority, capacity, and timing constraints while identifying funding sources for all anticipated initiatives. This ongoing effort will continue to maintain and properly budget for local road repairs, while also focusing on improving connectivity and walkability within the community.

As Aubrey grows, a larger road network containing more lane miles will need to be maintained. Throughout much of Aubrey, the existing network contains asphalt surface materials which over time will deteriorate through use, heavy loads, edge encroachment by grass, and stresses through extreme temperature change. A Pavement Management System is an organized effort to index the surface and subsurface condition of all the city's roads and, based on a numerical grade on those conditions, provide an annual plan for crack repair, pothole repair, mill and overlay techniques, and eventual roadway and subsurface replacement. The Pavement Management System allows the community to move from a demand response model of road repair to a standardized, quantitative program of repair so that labor and material costs can be normalized, and repair activities can be focused on extending the lifetime of road surfaces. The system also allows communities to save capital expenses for future expansion and replacement.

Strategies:

- **A** Continue to fund improvements through the City's Capital Improvements Program (CIP) and available grants and loans.
- **B** Create a Pavement Management System which extends existing roadway life and manages the CIP for future roadway replacement.
- **C** Continue to coordinate with the Texas Department of Transportation and Denton County to address long-range transportation needs.

OBJECTIVE 3: Require developers to dedicate right-of-way and construct collector and arterial streets as shown on the Master Thoroughfare Plan.

The Federal Highway Administration (FHWA) functional classification system of roadways is the predominant method for roadway classification used by transportation planners. This classification ranges from arterials that are streets meant for high-speed, long-distance travel, carrying large volumes, and not hindered by local access. At the other end of the spectrum, a local street (meant to feed other streets) carries small volumes at low speeds. In between is a collector street that collects traffic from local streets, maybe has fronting commercial uses, and feeds the arterial system. (See Figure 5.3 on page 80.) Each of the roadway types typically has a consistent right-of-way width and sidewalk/ buffer improvements.

Through the Capital Improvement Program budget, the City should consider how much of their network should be improved and at what time. New developments to the community may propose alternative street designs and capacities based on their traffic demand and density. The Transportation Infrastructure map on page 85 delineates where these roadway types may be assigned to roads in Aubrey. Future roads on this map are conceptual and based on the City's adopted Master Thoroughfare Plan and current development concept plans. Potential alignments are subject to change; specific engineering and land planning will determine the final location of the roadways.

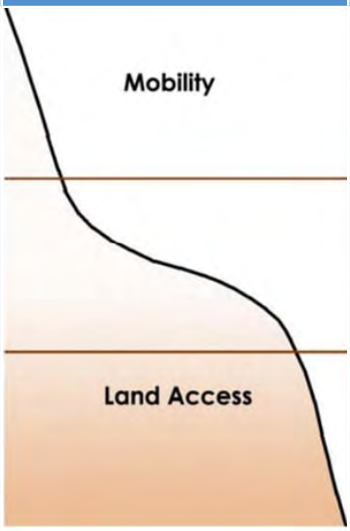
OBJECTIVE 4: Make important interconnections of streets to activity centers.

Activity centers — such as places of worship, schools, business, and industry — thrive when access is made easy. Street connections are important for residents and businesses alike. Dead-end streets, including cul-de-sacs, impede movement, especially for school buses and emergency services.

Strategies:

A Utilize shared access and cross-access easements to provide connectivity between adjacent nonresidential uses, limiting the number of driveways along major corridors and allowing for more continuous landscaping.

B Ensure that new neighborhoods have at least two roadway access points and encourage roadway connections between neighborhoods to provide more direct and interconnected forms of vehicular and pedestrian travel.

Functional System	Proportion of Service	Description
Arterial		Provides the highest level of service at the greatest speed for the longest uninterrupted distance with some degree of access control.
Collector		Provides a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.
Local		Consists of all roads not defined as arterials or collectors; primarily providing access to land with little or no through movement.

Source: FHWA - Flexibility in Highway Design

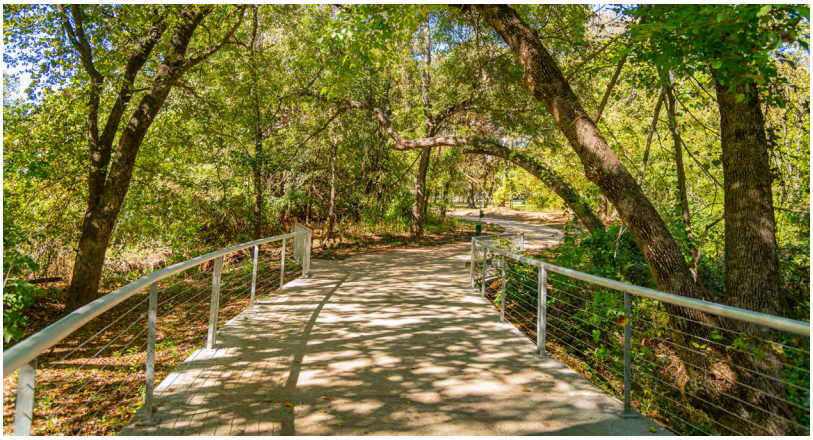
Figure 5.3: Typical Functional Classification of Rights-of-Way

OBJECTIVE 5: Improve existing sidewalks and construct new sidewalks for pedestrian access and citizen health.

Citizen health is closely linked to access to food, medical care, and opportunities for physical activity. Sidewalks play a crucial role in promoting health by encouraging walking, particularly to schools, parks, and public transit stops. They are especially beneficial for individuals who cannot drive, offering safe routes to essential services and transportation within the community. Even during the heat of summer, sidewalks can be used during the cooler morning and evening hours.

The City should explore opportunities to coordinate funding for Safe Routes to School programs. Managed by the Texas Department of Transportation (TxDOT), the federally funded Safe Routes to School program not only provides safe connections to key community hubs but also helps improve walkability and bikeability — priorities that have received strong support from the community.

Active transportation, unlike driving and public transit, involves getting around in ways that are human-powered — walking, bicycling, using a wheelchair, skateboarding, and so on. Traditional communities built prior to the 1970s were structured to provide alternative modes with a grid network of streets (as can be seen in Aubrey's Original Town / Downtown area). Depending on the location and regulatory environment, inclusion of sidewalks as an element of the mobility network has varied over time. Fluctuating gas prices, increased traffic and associated delays, environmental concerns, a more widespread focus on personal health and fitness, and the shifting lifestyle preferences of younger generations all point to a greater demand for walkable, bikeable communities. It is recommended that Aubrey incorporate active transportation as



Floodplains can provide ideal natural areas for trails and active transportation activities.

a key component of its future roadway design. Aubrey can become more active transportation-friendly by: committing to a more compact, multiuse pattern of development; investing in pedestrian facilities like sidewalks and multiuse paths; and designing streets as low-speed, people-first places. When walking or biking is more convenient for residents, they are far more likely to make these healthy activities a part of their daily lives.

Strategies:

- **A** Fund and build sidewalks to help create an interconnected sidewalk system throughout the city.
- **B** When designing new sidewalks along existing streets, recognize that right-of-way may not be sufficient for the ideal street cross-section. In these circumstances, provide the widest sidewalk possible for pedestrians.
- **C** Construct sidewalks and bike lanes around schools and establish designated routes to all neighborhood schools as part of the Safe Route to Schools Program.
- **D** Adopt sidewalk width regulations, requiring specific widths for sidewalks based on the classification of streets and trails.
- **E** Require developers to construct sidewalks on all new collector streets and new thoroughfares within new developments.

OBJECTIVE 6: Evaluate floodplain for the construction of trails.

The extensive floodplains throughout the Aubrey planning area present a unique opportunity to create greenbelts and trails that would form an alternative transportation network across the community. Enhancing the transportation system with these alternative pathways would allow residents to access parks via shaded trails, protected bike paths, and ADA-accessible sidewalks. These pathways not only offer a more enjoyable journey to and from parks but also encourage outdoor activity and enhance the overall park experience. By improving park accessibility for both pedestrians and vehicles, the City of Aubrey can increase park attendance and promote greater physical fitness among its residents.

Strategies:

- **A** Discourage and/or prevent construction of permanent structures in the floodplain to help protect property and environmental quality. If construction in existing floodplain is deemed necessary for any project, then measures should be taken to raise the land out of the floodplain and to amend the flood zone map.
- **B** Encourage the siting of trails based on natural topography of slope to ensure the lowest impact of the existing conditions by trail construction.
- **C** Look at opportunities to construct trails within floodplain areas which are grade separated from high-capacity roads.
- **D** Examine opportunities in new developments where natural connections can be made to trails through floodplain corridors connecting each neighborhood to another. Plan into the design of new neighborhoods trailhead connections to the full trail system.

OBJECTIVE 7: Encourage the use of rural design characteristics on new roadway construction projects, including the use of open fencing, traditional lighting features, wide setbacks, native plant materials, wildflowers, and increased tree coverage.

Rural roadway design can include elements like native plants, traditional lighting, and wide setbacks.

As Aubrey continues to grow and develop, it is important to maintain the city's rural character while enhancing its infrastructure. One way to achieve this is by encouraging the use of rural design characteristics in new roadway construction projects. The City may begin identifying certain roadways that are intentionally designed to reflect a more rural character, incorporating bioswales and other natural drainage features. These design elements not only preserve the city's natural aesthetic but also promote sustainability and create a more welcoming environment for residents and visitors alike.

Strategies:

A Select a few new roadway projects to set as pilot projects showcasing rural design characteristics. Use these projects to refine guidelines and demonstrate benefits.

OBJECTIVE 8: Evaluate the land use impact of the most efficient locations for grade separation of rail and the city road network.

In assessing the optimal locations for grade separation of rail and city road networks, a critical factor to consider is the impact of land use. The evaluation aims to analyze how land utilization patterns influence the efficiency of grade separation in accommodating both rail and road infrastructure. By examining the interplay between land use and transportation networks, the City can better understand where grade separation would be most effective, ensuring a seamless integration of rail and city road systems while minimizing disruptions to existing urban structures. This objective underscores the importance of aligning infrastructure development with the specific characteristics of the surrounding land, fostering a more sustainable and efficient transportation landscape

OBJECTIVE 9: Ensure that Aubrey's thoroughfare network is coordinated with neighboring communities, resolving any conflicts and preparing for the potential new Outer Loop.

Throughout the Comprehensive Plan process, the City has worked to keep the public informed about TxDOT's progress and opportunities for input on the Regional Outer Loop study, emphasizing how the project may impact Aubrey and local property owners. The City has also focused on identifying the proposed alignments that best serve the community's needs and goals. As the Regional Outer Loop Study in Denton County shifts its focus toward evaluating the final proposed alignment, known as the Preferred Alternative, in 2025 and 2026, it is essential to continue engaging and informing Aubrey residents. Additionally, outreach to surrounding communities, such as Pilot Point and Krugerville, as well as stakeholders in Denton and Collin Counties, will be critical. Collaboration across these areas is necessary to address both local and regional needs and concerns effectively.

Strategies:

A Initiate and establish a tradition for standing meetings with Denton County and surround municipalities to promote efficiency, information-sharing, teamwork, and the best result for regional infrastructure projects.

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DRAFT

City of Aubrey

Transportation Infrastructure

- Railroad
- Parcel
- Lake / Pond
- River / Stream
- Floodplain
- Aubrey City Limits
- Aubrey ETJ
- Other City Limits
- Downtown Aubrey
- New & Proposed Developments

- Intersection Safety Improvements
- Potential Outer Loop Interchange
- Railroad Crossing - At Grade
- Railroad Crossing - Grade Separated

Aubrey Thoroughfare Plan

MTP Class, Roadway Status (ROW Width)

- Outer Loop, Proposed (500')*
- Principal Arterial, Existing (140')
- Principal Arterial, Proposed (140')
- Major Arterial, Existing (120')
- Major Arterial, Proposed (120')
- Major Collector, Existing (80')
- Major Collector, Proposed (80')
- Minor Arterial, Existing (60')
- Minor Arterial, Proposed (60')
- Minor Collector, Existing (60')
- Minor Collector, Proposed (60')
- Local Road, Existing

Created by DUNAWAY

August 12, 2025

AUBREY2045

**The final alignment for the potential Regional Outer Loop has not been determined. The potential alignments shown here represent the current routes proposed by TxDOT, which are subject to change.*

Alternate Outer Loop Alignment Proposed by TxDOT*

POTENTIAL OUTER LOOP ALIGNMENT

Venable Ranch

Aubrey Heights

Highpointe Ranch

Keeneland

Belmont

Saratoga

Aubrey Creek Estates

Krugerville

Ribbonwood

High Country

Silverado West

Palomino

Silverado

Aspen Meadows

Sandbrock Ranch

Winn Ridge

Winn Ridge South

Peakat 1385

Chaparral Ridge

ArrowBrooke

Providence Village

Cross Roads

Lake Lewisville

Denton

Pilot Point

Celina

Prosper

Little Elm

Fields

Aubrey Branch

Clear Creek

Elm Fork Trinity River

Cantrell Slough

Running Branch

Bray Branch

Pecan Creek

Little Elm Creek

Mustang Creek

Culp Branch

Trinity River

377

1385

2931

428

424

FM 2931

FM 1385

FM 428

FM 424

N HWY 377

S HWY 377

0 2,100 4,200 Feet

0 800 Feet

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6 ECONOMIC DEVELOPMENT

Downtown Aubrey during 2024 Peanut Festival.

Economic Development Goal: Aubrey will have a strong and resilient economic base.

Economic Development in Aubrey

The City of Aubrey plays a key role in economic development through the Aubrey Municipal Development District (MDD). The MDD actively recruits businesses and developers that align with the community's desires and needs. Its mission is to promote business expansion that strengthens the local economy, fosters diversification, and enhances the economic vitality and wealth of the community.

On May 10, 2014, Aubrey voters approved the creation of the Aubrey MDD and authorized a sales and use tax of one-half of one percent to finance development projects beneficial to the district. Subsequently, the Aubrey City Council passed Ordinance 536-14 to formally establish the MDD and adopted bylaws to guide its operations. The MDD held its inaugural meeting in September 2014 and has since been directed by the MDD Board of Directors and City staff, who provide policy oversight for its initiatives.

As part of the 2025 Comprehensive Plan Update, the City collaborated with Catalyst Commercial and the MDD to develop a Strategic Plan. This plan ensures alignment with the Comprehensive Plan and serves as a guiding document for the MDD. While the Comprehensive Plan outlines the City's broader economic goals and its role in supporting the MDD, the Strategic Plan provides detailed strategies, responsibilities, and actions specific to the MDD.

The Comprehensive Plan and Strategic Plan are both informed by community feedback, fostering a unified approach to Aubrey's growth and development. Together, they establish a solid foundation for future city plans and policies. Additionally, the market analysis conducted during this process supports the Comprehensive Plan's objectives, strategies, and land use decisions, ensuring they remain economically viable and aligned with Aubrey's vision for the future.

Strategic Plan Core Values

As part of the Strategic Plan process, the MDD identified core values that guide its strategies for Aubrey's future growth and development. These values emphasize a balanced approach that prioritizes livability, seizes current and future economic opportunities, and preserves the city's unique community identity. As Aubrey continues to grow, these core values will shape decision-making to ensure it remains a desirable place to live, work, and recreate.

Livability

Aubrey's small-town charm and rural heritage are central to its identity. As the city grows, preserving open spaces, fostering a strong sense of community, and maintaining the high quality of life for residents is paramount. This includes a commitment to ensuring that new development is compatible with the existing character of the city and enhances its livability through improved amenities, parks, and recreational spaces.

Economic Opportunity

Aubrey's strategic location near major employment clusters in Frisco and Denton offers significant potential for economic growth. The city has the ability to attract diverse employment opportunities across various sectors, from light industrial and professional services to retail and tourism. Supporting the development of local businesses and attracting new industries will help Aubrey strengthens its economic base while providing quality jobs for residents and mitigate talent leakage.

Aubrey Municipal Development District Mission Statement:

"The Mission of the MDD is to strengthen and diversify the economic base, attract and promote growth, retain and expand local businesses, while maintaining our sense of community."

Sustainable Development

Growth in Aubrey must be both sustainable and strategic. The City is focused on promoting development that balances the need for economic expansion with the preservation of its unique character. This includes responsible land use planning, investment in infrastructure that supports long-term growth, keeping community identity through quality development, and the protection of key natural and historic assets.

Community Focus

Aubrey's sense of community is one of its greatest strengths. As the population expands, the City is committed to fostering inclusivity, ensuring that residents remain engaged in the planning process, and creating spaces and opportunities that bring people together. Preserving the small-town feel while attracting quality growth is a key priority as the city evolves. To ensure community buy-in from residents, this Plan included a robust public engagement process to ensure it is uniquely Aubrey.

Market Analysis

The following market analysis has been conducted to provide a detailed assessment of current market conditions, trends, and potential growth opportunities in Aubrey. As part of the City's broader comprehensive planning process, the analysis examines key sectors, including industrial, office, retail, and residential markets. By understanding the existing economic landscape and anticipating future needs, the study will help guide decisions that align with Aubrey's core values and long-term vision.

Purpose and Process

The purpose of this market analysis is to provide a comprehensive examination of current and future economic opportunities in Aubrey. As the city experiences rapid growth, understanding the local market dynamics is critical to making informed decisions that will shape the community's future. This analysis will focus on identifying key market opportunities for primary jobs, retail, and appropriate mix of residential. This initiative is intended to guide the City's comprehensive planning process by aligning development efforts with the community's values and goals. It explores the unique characteristics of Aubrey's economic landscape, examines emerging opportunities, and highlights areas where strategic investments can enhance the city's attractiveness to businesses, residents, and developers. By doing so, it will support the city's vision of becoming a competitive and prosperous town while retaining its small-town charm and strong sense of community. The findings from this market analysis will serve as a tool to inform policy recommendations, drive economic development initiatives, and ensure that Aubrey remains a desirable place to live, work, and invest in the years to come.

Place of Employment

Aubrey's potential as a place of employment is increasingly significant as the city's population continues to grow and new development opportunities emerge. With its proximity to major economic hubs like Denton and the Dallas-Fort Worth Area, Aubrey is strategically positioned to attract businesses and create a diverse range of employment opportunities. The City is committed to fostering an environment that supports both local businesses and incoming industries, thereby strengthening its economic base. Currently, the largest industries in Aubrey

by employment include educational services (391 employees), construction (198 employees), and public administration (116 employees). However, there is a recognized need to diversify the local employment base by attracting industries that provide higher-quality primary jobs and professional services with high wages. The City's economic development goals focus on supporting industries that align with regional demand, particularly in healthcare, retail, light manufacturing, and technology. One of Aubrey's key strengths is its access to a skilled workforce, with 96% of adult residents holding a high school diploma or higher and 36% having a bachelor's degree or advanced education (US Census, 2023). This highly educated population provides a competitive edge for businesses looking to locate in Aubrey, particularly those in sectors that require specialized knowledge or skills. Additionally, Aubrey benefits from its proximity to higher education institutions such as the University of North Texas and Texas Woman's University, which supply a steady stream of talent into the local economy.

Industrial Market

Aubrey's industrial sector is primed for growth due to its strategic location within Denton County and proximity to major transportation corridors, including US Highway 377 and the Dallas North Tollway extension. Currently, the industrial base consists primarily of construction services, light manufacturing, and equine-related industries, such as veterinary services and agricultural equipment suppliers. However, the city has significant untapped potential for expansion into logistics and warehousing sectors, which will be crucial for diversifying its economy and reducing reliance on the service and education sectors.

Key Competitive Advantages:

- **Strategic Location:** Positioned near major transportation routes, Aubrey is ideally situated for businesses seeking affordable industrial real estate.
- **Cost-Effective Land:** Aubrey offers more affordable industrial land compared to nearby urban centers.
- **Access to Labor:** The city's growing population and workforce, combined with nearby educational institutions, make it an appealing location for industries requiring skilled labor.

Current Challenges:

- **Underdeveloped Industrial Parks:** The city currently lacks fully developed industrial parks, which are essential to attracting logistics, warehousing, and manufacturing operations
- **Limited Zoning for Flex Space:** Current zoning does not adequately support the development of mixed-use or flex spaces, which has traditionally been a secondary focus behind residential and retail growth.

Industrial Activity

Industrial activity in Aubrey and the surrounding region is currently modest but growing, driven primarily by the city's construction and light manufacturing sectors. As of now, much of the industrial activity revolves around local construction services, small-scale manufacturing, and agricultural support industries, such as equine veterinary services and suppliers for the surrounding rural areas. These sectors are vital to the local economy, providing employment and supporting the city's rural heritage, but they represent only a fraction of Aubrey's potential industrial base. Aubrey's industrial activity is concentrated along key corridors, such as US Highway 377,

Located in Downtown, Aubrey Municipal Development District shares a building with the Aubrey 380 Area Chamber of Commerce.

which serves as a critical artery for both transportation and future industrial development. However, the city's industrial footprint remains limited due to infrastructure constraints, such as a lack of fully developed industrial parks, water and sewer systems, and other essential utilities needed to support large-scale industrial growth.

The City has identified several opportunities to enhance industrial activity, including investments in infrastructure that would open up more land for industrial uses. Recent growth in the Dallas-Fort Worth Area has created a demand for logistics and distribution centers, and Aubrey's strategic location could make it a future hub for such industries, especially as more affordable land in the area becomes available. Additionally, the city's proximity to major highways and planned tollway expansions enhances its attractiveness to logistics and warehousing companies. Despite these opportunities, industrial activity in Aubrey is still limited compared to surrounding regions, and much of the current development has been focused on residential and commercial growth. However, with ongoing improvements in infrastructure, industrial activity is expected to increase, providing more high-quality job opportunities and diversifying the city's economic base.

Small-Scale Opportunities

The flex market in Aubrey, though still in its formative stages, represents a critical opportunity for economic diversification and spatial efficiency. Flex spaces, which combine office, industrial, and even retail functions into adaptable, multiuse buildings, are increasingly seen as an essential asset in growing economies that demand versatility in real estate offerings. In Aubrey, however, flex activity has been relatively limited, with only small-scale developments that serve local businesses and light industrial operations. With the right strategic initiatives, Aubrey is well-positioned to capture greater flex market activity. The city's proximity to major urban centers, coupled with its availability of affordable land, presents an opportunity to develop flexible, multiuse business spaces that can accommodate a range of industries, from logistics and light manufacturing to creative and professional services. Moreover, the growing shift toward hybrid work models and the increasing need for warehousing and distribution facilities could further drive demand for flex space in the near future.

Office Market

Aubrey's office market remains underdeveloped, largely due to its historic rural character and a focus on retail and industrial growth. Currently, office spaces are limited to small-scale, independent facilities or home-based businesses, with no centralized office districts or large business parks. This limits the city's ability to attract corporate headquarters or larger professional service firms.

Key Competitive Advantages:

- **Proximity to Employment Hubs:** Aubrey's location near major employment centers such as Denton and the Dallas-Fort Worth Area makes it a strategic choice for businesses seeking more affordable office space options while maintaining access to urban markets.
- **Affordability:** Office space in Aubrey is more affordable compared to larger metropolitan areas, which can attract small- and medium-sized enterprises (SMEs) and professional service providers looking for cost-effective solutions

Current Challenges:

- **Lack of Office-Ready Land:** A shortage of office-ready land and limited commercially zoned land restricts larger office developments, curbing the City's ability to grow this sector.
- **Infrastructure Constraints:** Inadequate infrastructure, such as insufficient utilities and broadband access, makes large-scale office complexes difficult to establish. This has delayed potential development despite Aubrey's strategic location.

Office Activity

Office activity in Aubrey is currently limited, reflecting the City's historic focus on rural and residential development. Most businesses operating within the city are small-scale, with a significant portion of office-based work either home-based or operating out of retail or mixed-use spaces. The absence of dedicated office districts or major business parks has hindered the development of a robust office market, and as a result, there are few large-scale office tenants in the city. While Aubrey is experiencing rapid population growth, much of the office development activity in the Dallas-Fort Worth Area is occurring along State Highway 121 and

the Dallas North Tollway in the cities of Frisco and Allen. Those employed in these office clusters have made cities like Aubrey their home, with those employees leaving their city of residence each day to commute to work. However, recent strategic planning efforts highlight the potential for increased office activity in the future. There is potential for development of business parks and professional office spaces, particularly along key commercial corridors like US Highway 377. Additionally, with the rise of remote and hybrid work models, there is growing interest in flexible office spaces that could cater to small businesses, startups, and freelancers looking for local office options outside of the dense urban centers.

Businesses along US Highway 377 corridor

Office activity in Aubrey is currently minimal, but the city's strategic location and affordable real estate provide opportunities for future growth. As infrastructure improves and demand for local office space rises, Aubrey is well-positioned to expand its office sector and reduce its dependence on neighboring cities for professional employment.

Office Demand

Aubrey's office market demand remains modest but growing as the city's population and business base expand. Current annual demand for office space is 5,580 square feet (SF), translating into a projected five-year demand of 27,898 SF. This demand reflects the city's evolving economic landscape, with a particular need for small-scale professional offices and shared workspaces to support local businesses, remote work hubs, and service providers. As Aubrey continues to grow, especially with increasing population and business activity, this office space demand will be a key driver for local development strategies.

Industry Clusters

Industry clusters are geographic concentrations of interconnected businesses, suppliers, and related institutions that create a competitive advantage for a region. These clusters enhance innovation, productivity, and job creation, contributing to the overall economic resilience of a community. In Aubrey, several key industries form the foundation of the local economy, with significant potential for further growth through strategic planning.

	Demand
Annual Office Demand	5,580 SF
5 Year Office Demand	27,898 SF

Source: CoStar, Texas Comptroller

Figure 6.1: Aubrey Office Demand

Location Quotient (LQ) is a statistical measure used to compare the concentration of a particular industry in a region to the national average. An LQ greater than 1.0 indicates that an industry is more concentrated in the region than it is nationally, suggesting that the region may have a competitive advantage or specialization in that industry. For example, Aubrey's LQ of 1.50 for finance and insurance means that this industry is 50% more concentrated in the local economy than the national average, signaling strong potential for growth and investment.

Competitive Industry Clusters

Aubrey benefits from its location within the North Central Texas Workforce Development Area (WDA), where several key industries are more concentrated compared to national averages. Based on a cluster analysis, Aubrey has competitive advantages in the following industries:

- **Finance and Insurance:** With a location quotient (LQ) of 1.50, this sector is significantly more concentrated in the region than the national average. This cluster presents opportunities for further growth, driven by Aubrey's increasing affluence and the demand for financial services.

- **Information Services:** With an LQ of 1.36, this industry also displays a higher concentration in the region, offering potential for growth, particularly as businesses in the region continues to digitize and require advanced information services.

Emerging Growth Sectors

- **Educational Services (LQ of 1.18):** The educational sector is expected to grow substantially as the city's population increases. Expansion in this cluster aligns with Aubrey's focus on workforce development and proximity to higher education institutions.
- **Professional, Scientific, and Technical Services (LQ of 1.12):** Expected to grow by 48%, this sector offers high-quality jobs and is well-positioned to benefit from the city's skilled workforce and access to regional talent pools.
- **Transportation and Warehousing:** This emerging cluster is anticipated to grow by 38% over the coming decade, driven by Aubrey's proximity to key transportation routes and its strategic location within the Dallas-Fort Worth logistics network.

Retail Market

Aubrey's retail market is in a growth phase, driven by rapid population increases and the city's evolving role as a suburban community within the Dallas-Fort Worth Area. With a population that has grown by more than 300% since 2010, the demand for retail services in Aubrey is expanding at a pace that outstrips the current supply. This imbalance creates both challenges and opportunities for the City as it seeks to address retail leakage while fostering new commercial development.

Currently, the retail landscape in Aubrey is limited, with a small number of local businesses and retail establishments serving the daily needs of residents. Many residents continue to travel to nearby cities such as Denton and Frisco for access to larger retail centers, grocery stores, and full-service restaurants. This has resulted in significant retail leakage, where local spending is directed outside of Aubrey, reducing the City's potential sales tax revenue. However, as the city's population grows, so too does the opportunity for new retail development. Areas along US Highway 377 and the Downtown District are identified as key commercial corridors where retail activity could be expanded. This Plan highlights these areas for revitalization and future retail investment, positioning them as critical components of Aubrey's economic development strategy.

Sales Growth

Year	Total Retail Sales
2010	$14,235,873
2011	$15,329,327
2012	$16,508,679
2013	$16,420,212
2014	$15,156,387
2015	$15,690,288
2016	$16,481,300
2017	$18,393,178
2018	$21,558,059
2019	$23,405,174
2020	**$39,927,133**
2021	$28,462,135
2022	$29,759,823
2023	$30,751,269

Source: CoStar, Texas Comptroller

Figure 6.2: Aubrey Total Retail Sales

Aubrey's retail market has experienced notable growth and volatility over the past 13 years, highlighted by both the expansion of retail inventory and substantial fluctuations in total sales and retail sales per square foot (PSF). Total retail sales nearly tripled during this period, rising from $14.2 million in 2010 to $30.8 million in 2023, with a dramatic peak in 2020, when sales surged to $39.9 million. This spike, likely driven by shifts in consumer behavior due to the COVID-19 pandemic, represents an anomaly in the trend, as retail sales dropped back to $28.5 million in 2021 before stabilizing in subsequent years. The post-pandemic correction, however, still left sales significantly higher than pre-2020 levels.

Aubrey's retail sales growth has been directly tied to its rapid population increase, which has grown by 325% from 3,029 in 2010 to 12,870 in 2024, with a projected population of 15,133 by 2029. Despite this significant population growth, the city's retail sector has not fully capitalized on the increased demand, resulting in substantial retail leakage. Retail leakage is the spending of resident dollars in other municipalities, causing a missed opportunity to capture tax revenue and economic activity within the city. A rough rule of thumb is that every 100,000 square feet of retail missing from Aubrey is a "loss" of $600,000 in revenue to the city.

To address this, the City must focus on attracting a wider range of retailers and expanding key commercial areas, particularly along US Highway 377 and Downtown, to better serve local demand and reduce retail leakage.

One example of this approach is the Highpointe Ranch development under construction on the northeast corner of US Highway 377 and Spring Hill Road/ FM 428. This is a mixed-use development including about 1,450 planned single family homes, along with retail development.

Downtown Aubrey shops.

Market Demand

Current estimates suggest that Aubrey residents generate approximately $250 million in annual retail spending. However, due to a lack of local retail options, more than 50% of this demand is met outside the city, primarily in nearby retail hubs such as Denton and Frisco. In particular, high-demand sectors like grocery, dining, and entertainment remain underserved, with a demand-supply gap of over 30% in these categories. As new residential developments continue, retail demand is expected to increase by 40% over the next five years. To meet this growing demand, Aubrey would need to add approximately 100,000 square feet of retail space annually over the same period. Failure to do so may result in continued retail leakage, with the city potentially losing an additional $50 million in annual sales to surrounding areas.

Program Justification and Economic Development Strategies

Aubrey's rapid growth offers a unique chance to plan strategically, aligning development with its core values of Livability, Economic Opportunity, and Community Identity. With population projections exceeding 15,000 by 2029, Aubrey has an opportunity to shape its future with a thoughtful approach. The following targeted recommendations focus on high-impact steps in the industrial, retail, office, flex, and residential sectors, enhancing quality of life, economic opportunities, and preserving the community's character.

OBJECTIVE 1: Attract sustainable and high-growth industries.

Aubrey's prime location near US Highway 377 and the Dallas North Tollway provides a unique opportunity to expand and diversify its economy by fostering a robust industrial sector. With a manufacturing wage average of $77,061—significantly higher than the state average—the city is well-positioned to attract businesses and create high-quality jobs. By leveraging tools such as tax incentives, tax increment financing (TIF) districts, and streamlined permitting, alongside collaborations with regional partners, Aubrey can establish industrial hubs that integrate seamlessly with surrounding areas. These efforts, coupled with sustainable development practices and energy-efficient incentives, will support job growth, attract high-growth industries, and strengthen the city's economic resilience.

Strategies:

- **A** Use tax incentives, TIF districts, and fast-track permitting to attract businesses, and collaborate with regional economic boards to promote the city's industrial hubs.
- **B** Implement industrial zoning policies and consider mixed-use zones to integrate the industrial hubs with surrounding areas.
- **C** Encourage sustainable practices by offering incentives for energy-efficient design and renewable energy adoption.

OBJECTIVE 2: Create and strengthen workforce training programs by collaborating with surrounding local instructions.

Aubrey's proximity to major higher education institutions, such as the University of North Texas (UNT) and Texas Woman's University (TWU), creates significant opportunities to develop a highly skilled workforce tailored to the city's growing industrial sector. Partnering

with these institutions and local community colleges, Aubrey can implement specialized training programs in areas like logistics, automation, and supply chain management. By offering certifications, apprenticeships, and on-the-job training with local businesses, alongside financial support options such as scholarships and tuition reimbursement, the City can establish a robust talent pipeline. Early career awareness initiatives, including dual enrollment and career pathway programs for high school students, will further strengthen workforce development. Regularly adapting these programs to meet industry needs ensures alignment with Aubrey's expanding economy and positions the city as a hub for skilled labor and innovation.

Strategies:

- **A** Collaborate with local institutions like UNT, TWU, and community colleges to create targeted training programs in logistics and manufacturing, equipping residents with industry-specific skills in areas such as supply chain management, automation, and production.
- **B** Develop certifications, apprenticeships, internships, and on-the-job training with local businesses to build a sustainable talent pipeline, while offering financial support through scholarships and employer tuition reimbursement to encourage participation.
- **C** Work with AISD and DISD to engage high school students with career pathways and dual enrollment options to build early awareness of logistics and manufacturing careers.
- **D** Regularly update programs based on industry needs to ensure alignment with Aubrey's expanding industrial base and economic growth opportunities.

OBJECTIVE 3: Enhance connectivity for industry.

Aubrey's strategic position offers immense potential to enhance transportation infrastructure and support industrial growth. By partnering with TxDOT, NCTCOG, and regional stakeholders, the City can improve critical corridors like US Highway 377 and expand freight rail networks to boost accessibility for industrial operations. Key priorities include widening roads, upgrading intersections, and ensuring direct highway and rail access to streamline freight movement and accommodate future growth. Pursuing funding opportunities through programs like the EDA and TxDOT's Rural Transportation Improvement Program, while fostering collaboration with neighboring cities, will advance regional planning efforts. These initiatives will solidify Aubrey's status as a prime destination for logistics, manufacturing, and warehousing industry.

Strategies:

- **A** Collaborate with TxDOT, NCTCOG, and regional partners to improve road corridors like US Highway 377 and expand freight rail infrastructure, enhancing Aubrey's accessibility for industrial operations.
- **B** Prioritize road widening, intersection upgrades, and direct highway access, along with improved rail access near industrial zones to streamline freight movement.
- **C** Seek funding from programs such as the EDA and TxDOT's Rural Transportation Improvement Program, and coordinate with neighboring cities to align regional planning.

OBJECTIVE 4: Develop retail-focused corridors and destination retail near event venues.

Strategies:

- **A** Expanding retail along US Highway 377 and in Downtown Aubrey can meet the essential needs of residents and increase convenience, encouraging residents to shop locally.
- **B** Focus on attracting retail that aligns with community needs, including grocery stores, pharmacies, dining options, specialty shops, and essential services, while also addressing the decline of outdated stores and restaurants. To reduce the need for residents to travel to nearby cities, prioritize retail options that enhance convenience and meet daily needs. Attract potential tenants by offering incentives such as reduced permitting costs, tax incentives, and public infrastructure improvements to make Aubrey a more appealing location for retail development.

C Enhance Downtown Aubrey's appeal by continuing small streetscape improvements, including updating lighting, sidewalks, landscaping, and signage. These upgrades will create a more welcoming atmosphere, improve walkability, and attract more foot traffic,

D The attraction and retention of limited-service hotels would increase the availability of guests and employees to the community. Hotels bring the opportunity for Hotel Occupancy Taxes (HOT) which can be used for attracting tourism and conventions, promotion of the arts, historic restoration and preservation, sporting facilities, and tourist wayfinding activities.

E Develop mixed-use spaces within designated nodes to drive workforce retail demand and support sustainable retail growth. For example, destination retail should be clustered with civic and cultural uses to create a dynamic space that attracts a broad customer base and enhances foot traffic.

OBJECTIVE 5: Foster local entrepreneurship.

To foster Aubrey's economic growth and enhance its community identity, it is crucial to support local businesses through tailored assistance programs. By offering small business support grants, the City can empower residents to start and grow businesses, especially in key areas such as Downtown and along US Highway 377. These initiatives will help cultivate a vibrant local economy and encourage businesses that reflect Aubrey's unique character. As these businesses thrive, they will not only provide valuable services to residents but also attract visitors, further boosting Aubrey's reputation as a dynamic and appealing destination. Lastly, fostering an entrepreneurial ecosystem by supporting small businesses through retention and recruitment efforts led by the MDD will create a dynamic and sustainable retail landscape, positioning Aubrey as a vibrant and thriving destination for shopping and community engagement.

Strategies:

A Foster an entrepreneurial environment by supporting small business through retention and recruitment effort lead by the MDD.

B Support local business growth by establishing small business support programs, including grants, low-interest loans, and resources for marketing and business planning.

C Focus on businesses that align with the city's unique character, including boutique retail, artisanal shops, and family-owned dining options.

OBJECTIVE 6: Use financial tools to drive investment.

To support retail development in key areas like Downtown, explore the creation of a Tax Increment Reinvestment Zone (TIRZ) to build financial capacity for public investment in infrastructure improvements, streetscape projects, and other community enhancements. A TIRZ allows future tax revenues generated by rising property values within the zone to be reinvested into the area, creating a sustainable funding source to drive further growth. This financial mechanism can help Aubrey build a strong retail core by attracting private investors and supporting the long-term growth of retail corridors.

Organizations like Aubrey 380 Area Chamber of Commerce support local businesses and entrepreneurship.

Source: Aubrey 380 Area Chamber of Commerce

Strategies:

A. Explore the creation of a TIRZ to build financial capacity in key locations, such as Downtown, to support public investment.

B. Identify potential funding sources for Capital Improvement Projects (CIP), such as TIRZ bonds, general obligation bonds, and Chapter 380 authority for public-private partnerships in Downtown.

C. Explore catalytic projects that can create and/or expansion of infrastructure that aligns with targets and catalyst areas.

D. Coordinate with City officials and businesses to maintain annual CIP program to ensure utilities are first-class and adequate for available business needs.

E. Continue to evaluate and update economic priorities, including policies for public-private partnerships to keep Aubrey competitive.

F. Update Aubrey's Targeted Improvement Grant Program as a performance-based structure that aligns investment and City revenue with grants.

OBJECTIVE 7: Attract essential services to support community needs.

Aubrey's growing population has increased the demand for essential services, including healthcare, legal services, and financial support. Establishing office spaces dedicated to these high-need services within the city will make it easier for residents to access necessary resources without having to travel to neighboring towns. By bringing these services closer to home, Aubrey can enhance community identity and livability, building a more self-sufficient and resilient community.

Strategies:

A. Build partnerships with local hospitals, law firms, and financial institutions to develop tailored services for the Aubrey community. Encourage these institutions to open satellite offices or provide outreach services within Aubrey to increase access to essential resources.

B. Offer grants or resources for small or independent professionals (like small clinics or independent financial advisors) to set up in Aubrey. This can be particularly valuable for residents seeking more personalized or affordable services.

C. Launch a public education campaign to inform residents about the healthcare, legal, and financial services available within the city. Use local media, community events, and social media platforms to spread awareness.

OBJECTIVE 8: Establish business districts for identity and efficiency.

Creating designated business districts offers Aubrey the opportunity to shape cohesive areas that enhance both community identity and economic efficiency. By organizing commercial development into targeted zones, Aubrey can foster vibrant, self-sustaining hubs that attract businesses, create job opportunities, and support local character. This approach not only helps define unique spaces within the city but also enables more efficient infrastructure planning and service delivery.

Strategies:

A. Designate specific areas, such along US Highway 377 or near major intersections, as business districts. These locations should be selected based on factors like accessibility, traffic flow, and proximity to residential areas.

B. Ensure that business districts have a consistent and appealing design, such as uniform signage, landscaping, and streetscape improvements that align with Aubrey's overall aesthetic.

C. Promote standards and ordinances to promote professional business environments in key areas.

D. Identify and secure location for future business parks.

E. Invest in public infrastructure (e.g., sidewalks, lighting, roads, public transit) in business districts to create an attractive environment for potential businesses and increase the area's functionality.

F. Promote business districts as hubs for startups and professionals by offering affordable office spaces, co-working environments, and networking opportunities. Encourage businesses in industries such as tech, creative services, or finance to establish offices in these areas.

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7 HOUSING

Housing Goal:

There will be diverse, quality housing throughout Aubrey that meets the needs of residents across all stages of life, considering factors such as age and income. Ensure all housing types maintain high standards of safety and quality for all residents.

Aubrey's strategic location, strong school system, and small-town charm have made it an attractive destination for families, contributing to a high demand for single family homes. However, as housing prices rise and land becomes scarcer, there is growing pressure to diversify the housing stock or allow more efficient land uses that include more affordable options for both renters and first-time homebuyers. Addressing this need will be critical to maintaining the city's growth trajectory and ensuring that a range of housing choices are available to employees that work in and around Aubrey.

Residential Market Activity

Aubrey's residential market is currently experiencing a period of intense development, spurred by the city's and surrounding region's rapid population growth and its desirability as a suburban community within the Dallas-Fort Worth Area. Over the past decade, the city and its ETJ have seen a significant increase in housing development, particularly in large master-planned communities. These developments are designed to cater to the growing demand for single family homes and offer a variety of amenities, including parks, trails, and community centers.

One of the most notable residential developments in Aubrey is the Sandbrock Ranch community, which is planned to include over 2,400 homes in full buildout. The development has attracted significant interest from families due to its proximity to excellent schools, open spaces, and recreational amenities. Similarly, the ArrowBrooke community, located just north of US Highway 380 off of FM 1385, has plans for over 1,000 homes priced between $435,000 and $729,990.

In addition to these large-scale projects, several smaller residential developments are underway, further expanding the city's housing stock. These

Aerial of Sandbrock Ranch (Oct. 2024).
Source: Nearmap

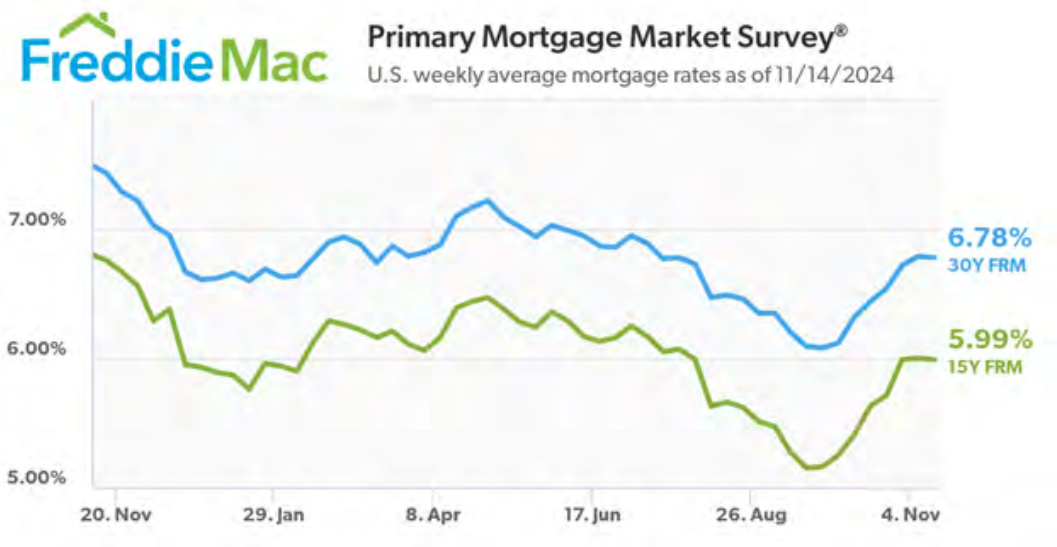
projects primarily focus on single family homes, with limited multifamily options available. However, there is growing interest in diversifying the housing market to include more rental properties and affordable housing developments, as rising home prices have made homeownership increasingly difficult for first-time buyers and lower- and middle-income households.

Despite this surge in development, Aubrey faces the significant task of meeting the full spectrum of housing demand. Much of the housing demand that exists in the market is for housing that is below market-rate in an environment where elevated development and financing costs have priced some households out of the market. As the population continues to grow, the need for more diverse housing options, and meeting the growing demand will become increasingly important. Additionally, infrastructure development, such as roads and utilities, is struggling to keep pace with the rapid expansion of residential areas.

Economics of Homebuying

Aubrey's housing market is being shaped by many of the same factors affecting housing across Texas and the United States. The city has seen a surge in demand as families and professionals seek more affordable housing options outside the higher-priced urban centers of the Dallas-Fort Worth Area. However, rising home prices, increasing mortgage rates, and higher construction costs are creating challenges for many prospective homebuyers, particularly first-time buyers. While Aubrey remains more affordable than nearby Frisco, where the median home value is $600,000, the affordability gap is narrowing as home prices in Aubrey continue to rise due to population growth in the Dallas-Fort Worth Metroplex. This price increase reflects broader trends across Texas, where strong demand and limited supply have pushed housing costs upward. The affordability that once drew many families to Aubrey is gradually being eroded by these rising prices. The sharp increase in mortgage rates has further complicated the homebuying process. In May 2024, 30-year fixed mortgage rates reached an average of 7.2%, a significant rise from the historic low of 2.7% in early 2021. As of November 15, 2024, the average 30-year fixed mortgage rate is 6.91%. This surge in rates has reduced buyers' purchasing power, with many now facing mortgage costs that exceed debt-to-income ratios of 45% (generally the upper limit for most lenders). As a result, a growing number of prospective buyers are finding themselves priced out of the market, particularly those looking to purchase their first home.

The National Association of Realtors' Affordability Index measures housing affordability by comparing median household income to the income needed to qualify for a median-priced home. A higher index indicates greater affordability. In the Dallas-Fort Worth Area, the index fell from 180.7 in 2020 to 116.3 in 2022, a 30.8% drop in affordability. Aubrey is experiencing similar affordability declines, making it increasingly difficult for middle-income buyers to afford homes without facing significant financial strain. Aubrey's ability to meet the growing demand for housing, while keeping prices accessible for a wide range of income levels, will be critical to sustaining its growth. Expanding development, particularly in a wide range of housing types, will enable affordability for a wider buyer pool, playing a vital role in maintaining Aubrey's appeal to both new residents and long-term homeowners. Without these efforts, the city risks pricing out the very families and professionals it aims to attract.



Source: FreddieMac

Figure 7.1: Primary Mortgage Market Survey

Housing can come in a variety of sizes and styles depending on the neighborhood context and demand.

Owner-Occupied Housing Demand

Aubrey's rapid population growth has significantly increased the demand for owner-occupied housing. To understand residential demand for Aubrey, Catalyst Commercial calculated residential demand for the overall region, and then applied a capture rate to estimate what portion Aubrey would "capture" of that overall market. Based on current projections, the demand for single family detached homes is estimated at 617 units, with varying levels of demand across price ranges. This breakdown highlights strong demand for homes in the mid-range price brackets ($250,000 to $450,000), which together account for 307 units. However, the demand for higher-priced homes ($450,000+) remains substantial, with 141 units required to meet market demands.

Given current construction costs, rising land prices, and increased interest rates, building homes priced below $350,000 has become increasingly challenging. These economic pressures drive developers toward higher price points to maintain profitability, limiting the feasibility of addressing the demand for lower- and mid-range housing options. This constraint highlights the importance of policy measures or incentives to support the development of more affordable housing solutions.

In addition to single family detached homes, there is a notable demand for alternative owner-occupied products, including townhomes. The total demand for townhomes is projected to be 119 units, distributed across various price points. The demand for townhomes (alternative owner-occupied demand) is driven by a combination of affordability pressures and shifting preferences toward lower-maintenance, more compact housing options, especially as home prices continue to rise. This demand underscores the need for a more diverse housing stock to accommodate various income levels and lifestyle preferences within the city.

Renter-Occupied Housing Demand

The demand for renter-occupied housing in Aubrey is increasing as more residents seek flexible housing options due to rising home prices and changing lifestyle preferences. The total demand for multifamily rental units is estimated at 411 units, with demand spread across different rental price ranges, reflecting a diverse renter base.

Product Type	Demand
SFD Houses < $200k	101 units
SFD Houses $200k - $250k	68 units
SFD Houses $250k - $350k	170 units
SFD Houses $350k - $450k	137 units
SFD Houses $450k+	141 units
Total Single Family Detached (SFD) Demand	**617 units**
Alternative Owner-Occupied Product Demand	119 units
Total Owner-Occupied Demand	**736 units**

Source: Catalyst Commercial

Figure 7.2: Aubrey Housing Demand by Product Type

Rents below $1,000 are increasingly unfeasible in Aubrey due to rising construction costs, land prices, and operational expenses for multifamily developments. These economic factors, combined with heightened demand for rental housing, push rental rates upward, making it difficult for developers to deliver units in this lower price range while maintaining financial viability. This challenge underscores the need for creative solutions, such as public-private partnerships or targeted incentives, to address affordability gaps in the rental market. The majority of demand is concentrated in the higher rental rate bracket ($2,000+), accounting for 249 units, which reflects the impact of Aubrey's growing affluence and the limited availability of affordable rental units. This concentration of demand at the higher end indicates a need for more diverse and affordable rental options in the market to accommodate various income levels. Additionally, there is a projected demand for 127 units in the alternative renter-occupied housing category, which includes townhomes, duplexes, and other non-traditional suburban rental products. These alternative options appeal to renters seeking more space or different living arrangements than conventional multifamily complexes, particularly in light of the rising costs of single family homes and tighter rental markets.

Housing Mix & Characteristics

Aubrey's current dominant housing type overwhelmingly consists of single family detached dwellings (over 90% per US Census 2023 estimates). Community feedback, including responses received during the Peanut Festival and from the community survey, shows a preference for continuing with large lot detached houses as the predominant housing type. However, there is also strong demand for a greater variety of housing types in appropriate locations to accommodate residents of all ages and income levels. The Future Land Use Map in Chapter 4 identifies areas suitable for different housing types. While single family detached homes remain a top priority, opinions on lot sizes vary, with some favoring larger estate lots and others supporting smaller lots.

Many residents expressed interest in cottage court or garden-style homes, which provide less yard maintenance and options for aging in place, preferring these to duplexes and fourplexes. There was also support for live-work units, particularly in Downtown, where residential and commercial or office spaces could coexist. The variety in housing types offers residents more choices that align with their lifestyle and financial needs, ensuring housing availability at different life stages.

Housing needs can be categorized into three key areas: affordability, preservation, and diversity of housing types.

- **Affordability** addresses the overall housing costs and the need for diverse price options in the city. Aubrey has seen significant home value increases due to the North Texas housing boom.
- **Preservation** involves maintaining existing homes and neighborhoods, particularly in older areas like Aubrey's Original Town, where some properties require attention to prevent decline.
- **Diversity of housing types** refers to meeting the varying needs of households at different life stages, such as families with young children and retirees looking for lower-maintenance homes.

A mix of lot sizes within neighborhoods can accommodate diverse housing options. Minimum lot sizes help define the character of a neighborhood but should not restrict housing variety. New subdivisions should balance small, medium, and large estates while respecting the existing character of the area. Aubrey's housing stock also includes older homes, particularly within the Downtown area and surrounding neighborhood, which may require maintenance to improve the community's appearance and boost resident pride. Efforts to maintain and improve property conditions are essential for the health, safety, and image of the city. Neighborhoods are important to the community. Creating strong neighborhoods with connections to the civic life of the city, to schools, and to recreation opportunities is vital to sustaining a healthy environment. On the following page are some common characteristics of neighborhoods which can enhance development in the city.

Allow a variety of housing types and sizes to accommodate different stages of life within Aubrey. Ensure that all housing types are built to the highest possible quality.

Encourage connected neighborhoods, emphasizing both internal and external connectivity. Neighborhoods should be linked to each other as well as to the community.

Continue to encourage and expand events within Downtown and within the community's parks to promote social interaction among neighbors and to foster a sense of community.

Create parks to provide outdoor recreational opportunities for both neighborhoods and the community.

Consider minimum residential standards that reduce maintenance and preserve long-term appearance.

Incorporate neighborhood retail centers in those areas identified for commercial in the Future Land Use Plan, which optimize convenience for adjacent neighborhoods. Encourage walkability and connectivity to adjacent neighborhoods.

In addition to parks and trails, neighborhoods should include open space to preserve some rural aspects of the city.

Delineate different neighborhoods through entrance features and signage.

OBJECTIVE 1: Promote development of housing types: single family detached units, attached units, townhouses, and apartments where appropriate.

Aubrey predominantly features single family detached housing, but fostering a diverse and inclusive community requires offering a broader range of housing options. The Existing Land Use Map (page 33) identifies current single family, two family, and multifamily developments, while the Future Land Use Plan (page 67) highlights areas, such as near the Future Outer Loop, suitable for higher-density housing. These areas present opportunities for medium- to high-density developments, including townhouses, attached housing, and mixed-use projects, particularly in locations with access to utilities, transportation, employment, and retail.

Integrating a variety of housing types within neighborhoods can promote inclusivity across age groups and income levels, ensuring the city meets the diverse needs of its residents. Encouraging lot replatting to align with minimum zoning standards will also support cohesive and well-planned growth. As Aubrey updates its zoning and subdivision ordinances, it is essential to reflect community desires and needs, creating a balanced approach to housing diversity and future development.

Strategies:

- **A** Support the development of new areas for attached housing, townhouses, and mixed-use housing where there is access to existing or planned utility services, transportation capacity, jobs, and retail.
- **B** To the extent possible, examine the inclusion of mixing of housing types within a larger neighborhood or subdivision to support a variety of age groups, family sizes, and income levels.

Houses in Aubrey Creek Estates.

- **C** Encourage the development of quality housing in Aubrey that meets diverse needs, considering age and income data for all life stages including:
  - **i.** Promote various housing types and affordability for families, single parents, young adults, professionals, empty-nesters, retirees, and the elderly.
  - **ii.** Support an adequate supply of workforce housing for service industry workers and enhance neighborhood desirability, value, and reinvestment.

OBJECTIVE 2: Maintain and improve the existing housing stock.

As housing ages, maintenance needs increase. Housing and infrastructure improvements on the west side of town and older neighborhoods are of particular focus for the city. However, not all property owners can afford to keep up with needed improvements, but assistance can be made available.

Strategies:

- **A** Expand programs to maintain the existing housing stock such as those offered by Habitat for Humanity and other organizations and agencies.
- **B** Use the development review process to evaluate private projects and their contributions to urban design.
- **C** Align zoning and future land use allocation to ensure housing is located where it can be served by infrastructure without creating a burden on city services.

Existing homes near Downtown Aubrey.

OBJECTIVE 3: Develop greater opportunities for senior housing and age-restricted housing.

To enhance the community members' quality of life, it is imperative to establish specialized zoning land use categories and design standards tailored for age-restricted and assisted living developments within medium- and high-density zoning districts. This strategic approach ensures that the built environment caters to the specific needs of seniors and individuals with disabilities, fostering inclusive communities. Moreover, cultivating collaboration with nonprofit organizations is essential in bolstering housing opportunities for these demographic groups, thereby promoting social equity and well-being. By leveraging negotiation within development agreements and implementing planned developments, the City can effectively integrate diverse housing options, facilitating a more dynamic and inclusive urban landscape that caters to the evolving needs of its residents.

Strategies:

- **A** Develop zoning land use categories and design standards for age-restricted and assisted living development within medium- and high-density zoning districts.
- **B** Support the nonprofit community in creating housing opportunities for seniors and people with disabilities.
- **C** Negotiate with developers through development agreements and the creation of planned developments to provide opportunities to include various housing options.

OBJECTIVE 4: Encourage the formation of homeowners associations (HOAs) with all new developments to maintain common property, provide a sense of identity, and encourage long-term private property maintenance.

Protecting the quality and integrity of Aubrey's neighborhoods is essential to fostering a strong sense of community and ensuring long-term property maintenance. Homeowners associations (HOAs) play a critical role in achieving these goals. By encouraging the formation of HOAs in new developments, Aubrey can create a structured approach to preserving neighborhood appeal and functionality. To support this initiative, implementing a system to monitor the formation and effectiveness of HOAs and providing educational resources for developers and homeowners will help ensure the success and sustainability of these associations while addressing community needs.

HOAs are essential for maintaining attractive entrances to neighborhoods.

Strategies:

- **A** Implement a system to monitor the formation and effectiveness of homeowners associations in new developments and adjust guidelines based on feedback and outcomes as needed.
- **B** Develop handouts and guides to inform developers and prospective homeowners regarding best practices for homeowners association requirements and benefits.

OBJECTIVE 5: Encourage developers to arrange lots to maximize residential access to open space when natural areas are present.

Cluster development is a land planning strategy that concentrates residential or commercial buildings on a portion of a site while preserving the remaining land as open space, natural areas, or farmland. This method supports efficient land use, infrastructure, and resource management while protecting environmentally sensitive areas and maintaining the community's character. By prioritizing the conservation of natural resources and open spaces, cluster development allows for residential growth while preserving environmentally or agriculturally valuable lands, particularly in rural or large-lot suburban areas. This approach not only safeguards critical natural areas and prime farmlands but also promotes a cohesive suburban atmosphere with integrated community amenities.

Strategies:

- **A** Investigate the feasibility of implementing incentives or bonuses for developers who incorporate natural areas into their lot designs. This could include increased density allowances or reduced setback requirements.
- **B** Encourage cluster development, where homes are grouped together to preserve larger swathes of natural areas as communal open spaces. This approach can maximize access to these spaces for all residents.
- **C** Work with developers to establish easements or access points that connect residential areas to natural open spaces. This can ensure that pathways are maintained and easily accessible.

OBJECTIVE 6: Concentrate growth in strategic areas.

Prioritize residential development in areas with existing infrastructure and proximity to commercial centers, such as along US Highway 377, to reduce sprawl, improve access to amenities, and create connected, walkable neighborhoods. Strategically concentrating growth in these areas lowers infrastructure costs, enhances access to services, and establishes convenient, attractive neighborhoods that align with Aubrey's livability goals.

Strategies:

- **A** Regularly assess the capacity and condition of existing infrastructure near commercial corridors to ensure it can support new residential developments, avoiding overburdening existing systems.

OBJECTIVE 7: Encourage mixed-use and walkable residential projects.

Support mixed-use developments that combine residential, retail, and office spaces, fostering neighborhoods where residents can live, work, and shop in close proximity. Mixed-use zoning and higher-density residential options will allow for more efficient land use and create vibrant, active spaces that are easy to navigate without a car. Public amenities such as parks, green spaces, and pedestrian pathways should be prioritized to promote a sense of community, encourage outdoor activities and enhance neighborhood walkability.

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8 PARKS AND RECREATION

Fall decor at Aubrey Peanut Festival.

Parks and Recreation Goal: Aubrey will have excellent parks and recreational areas and preserve important natural resources.

Before the adoption of the 2022 Parks, Recreation & Open Space Master Plan (PROSMP), the City of Aubrey primarily relied on private developers and civic organizations to plan, create, and maintain its parks. However, since the adoption of the PROSMP, the City has shifted to working toward industry best practices, including the implementation of park standards and impact fees for new development. A major focus of the 2022 Plan was to move away from the previous model, where developers constructed parks through HOA organizations. This system often resulted in parks of varying quality and contributed to market inequalities. Instead, the PROSMP aimed to help the City better understand demographic trends and use them to assess both current and future needs for parks, recreation, and open space, ensuring that it meets the growing demand for recreational facilities.

As neighborhoods continue to expand with new phases added to master-planned areas, HOAs play a key role in maintaining the community's aesthetic standards, enforcing rules, and educating new residents. However, private parks often degrade after about 10 years, requiring costly maintenance or equipment repairs, and are eventually turned over to the City. The City recognizes that by developing park and trail networks that preserve natural resources, it can create a unique system that sets Aubrey apart from other cities in the region, while also demonstrating a commitment to community health and well-being.

The PROSMP aimed to manage growth in a way that preserves Aubrey's unique identity while positioning it to thrive in the competitive North Texas market. By establishing a diverse range of parks and recreational amenities—such as green spaces, natural areas, sports and recreation facilities, and trails, the City can distinguish itself and provide residents with opportunities that are not readily available elsewhere.

The PROSMP provides essential recommendations and guidance for City leadership on the development of parks, recreation facilities, trails, and open space preservation. This chapter of the Comprehensive Plan builds upon the goals and objectives outlined in the 2022 PROSMP. In conjunction with the PROSMP, this chapter will guide the orderly development of Aubrey's park system and inform future policy decisions regarding recreational amenities and parkland needs.

The 2022 Parks, Recreation, and Open Space Master Plan's ten minimum goals are listed below:

1. Formalize parkland dedication fees, park land funding strategy, and parks and recreation facilities development opportunities, including bonds, donations, gifts, and grants.
2. Develop a Parks and Recreation Department by hiring its first Superintendent or Director who in turn will hire staff within five years as needed.
3. Acquire park land to begin to develop, based on Aubrey standards.
4. When appropriate, perform a feasibility study for short term plans to provide indoor Senior Programs. This study can identify a long-term, multigenerational recreation center to right size future programs and budgets.
5. Acquire downtown Aubrey park land for future farmers' market space to knit together the downtown area.
6. Secure land or easements for 40 miles of a connected trail system (not counting HOA trails), with the priority being the ARCHES system to link the east and west sides of the City through trail networks as described in the PROSMP.

7. On the west side of Aubrey, where the Cross Timber Forest exists, acquire land that will function as a preserved and connected trail system and possibly contain a community park.
8. Continue to support recreation programs, including Youth Sports Leagues for Baseball, Softball, Football, Soccer, etc.
9. Plan, fund, and develop community wide events such as the Peanut Festival as resources allow (staff, funds, land).
10. Continue to acquire floodplain land as it becomes available.

In Aubrey, well-maintained public parks, open spaces, and recreation facilities are crucial for maintaining the city's status as a regional destination and promoting community health. Strategically located and equitably distributed parks provide valuable opportunities for both individual and community enrichment. Moreover, parks and open spaces play a key role in conserving environmentally sensitive lands, protecting them from the negative impacts of new development, while also preserving their recreational and transportation benefits.

These spaces serve as venues for recreation, relaxation, and social interaction within the community. They help define neighborhoods, act as cultural hubs, and, when properly designed and maintained, can enhance the economic value of surrounding properties. Linear open spaces connect neighborhoods with key city elements such as schools, downtown areas, and commercial developments, while also serving as effective buffers between incompatible land uses.

Aubrey's park system currently includes approximately 31.3 acres of public park and recreational space, excluding HOA and other private recreational areas. Of this, only about 11 acres are developed. The City currently has three public recreational sites: Matthew's Park, Veterans Memorial Park, and Leslie Park. Additionally, a new park, Highmeadows Park, is planned for 2025. Citizens also have access to a 10-mile soft trail greenbelt, equestrian trails, and three miles of paddling trails through Texas Parks and Wildlife. The features and facilities of each existing park are summarized on the following pages.

Aubrey City Parks

Veterans Memorial Park

Located in the downtown city center next to City Hall, this community park includes a veterans memorial to honor those who have served. The park features a passive lawn space with a stage, both of which are used by the community for various events. It is well-programmed throughout the year, hosting events such as the Summer Music Series, Peanut Festival, and the annual Christmas Tree Lighting. The park also includes a basketball hoop with a concrete pad, parking, and ample mature trees.

Highmeadows Park (Planned)

Planned for 2025, Highmeadows Park will be a new addition to the Highmeadows neighborhood. The city plans to transform currently unused space on Highmeadows Drive into a valuable community resource. The concept plan is show to the right.

Matthew's Park

Source: City of Aubrey

This neighborhood park is located near the downtown area, along the railroad and near the historic Peanut Dryer. A long-standing community staple, the park had last been updated in 2009 before 2024 renovations commenced. Recent updates include enhancements to its playground equipment and overall landscape, as shown in the conceptual design above. The updated playground is suitable for a wide range of ages, while preserving existing features such as the pavilion, mature trees offering shade, and open space.

Leslie Park

Located near the Aubrey Public Library, Leslie Park offers a playground suitable for all ages, a pavilion to the north, a walking trail, and a soccer field to the east. Due to its proximity to the library, the park also benefits from shared library facilities, such as parking, restrooms, and a large meeting room. The park has recently undergone several renovations, including the addition of basketball and pickleball courts.

Source: City of Aubrey

Park Types

The following park classifications are used in the 2022 PROSMP. A successful park system is composed of a variety of parks, each differing in size and function. Classifying and inventorying these parks is essential to evaluating whether community needs are being effectively met.

Pocket Parks or Mini Parks are small outdoor areas of 0.5 to 1 acre, usually located in an urban environment or tucked between commercial buildings or houses. They are small open spaces that provide an inviting environment for passive activities of sitting, meditation, and reading. Usually walkable destinations, pocket parks offer open green space or plazas, landscaping, and shade. They do not provide parking for users.

Downtown parks, such as this example, can serve to bring people together and support businesses within walking distance.

Downtown Parks are small areas of one to ten acres located within a downtown development district. They can provide passive spaces for sitting, meditation, and reading as well as active recreation areas for playgrounds or sprayground activities, farmers markets, festivals and events, and walking destinations. The proximity to downtown makes these parks prime candidates for plazas, detailed landscaping, fountains, memorials, and historic preservation. They also often include shade structures, event lawns, and limited parking.

Neighborhood Parks are mid-sized outdoor areas of five to ten acres, located within or adjacent to a residential community with perimeter streets surrounding the park. They provide opportunities for passive activities as well as open play areas, team practice space, walking/jogging, special event areas, and party rentals. The facilities can include playgrounds, mid-sized pavilions, restrooms, open sports lawns, basketball courts, backstops, site furnishings and signage, picnic areas, small parking areas, and tennis courts.

School Parks are public school owned and maintained areas available to the community outside of school hours and are adjacent to or share a property line with a municipal owned neighborhood park. They are typically 5 to 10 acres and possess a clear distinction from a public park such as a parking lot, road, or trail. School parks are typically located on residential collector roads with perimeter streets surrounding parking. School parks provide space for open play, team practice, walking/jogging, passive uses, special events, and party rental. The facilities often include playgrounds, mid-sized pavilions, restrooms, open sports lawns, basketball courts, backstops, site furnishings and signage, picnic areas, parking, and tennis courts.

Community Parks are large areas between 40 to 100 acres located on major thoroughfare streets with perimeter streets surrounding the park and can also serve as large neighborhood parks when located appropriately. They provide space for open play, team practice, walking/jogging, passive uses, special events, party rental, athletic leagues, community events, summer camps, kite flying, and disc golf. The facilities often include a recreation center, field house, aquatics (indoor/outdoor), destination playgrounds, large pavilions, amphitheaters, restrooms, open sports lawns, site furnishing and signage, picnic areas, parking, pickleball/tennis courts, and dog parks.

Greenbelt/Open Space/Nature Parks can vary greatly in acreage but require perimeter roads or trail separation from private property. They provide preservation of nature, multimodal transportation, floodway and wildlife management, urban forest preservation and management, fishing, and nature walks. In addition to varying trail types, greenbelts can also include open space, disc golf courses, and ponds.

Greenbelts provide recreation access in areas such as floodplain or land restricted in its potential use.

Park Standards and Needs

Based on feedback from city stakeholders and the community during the development of the 2022 PROSMP, the City of Aubrey has established a parkland standard of five acres of active park space and ten acres of open space per 1,000 residents (see Figure 8.1). This standard encompasses all park typologies and recreational facilities outlined above. The goal is to ensure that every resident within the Aubrey ETJ is within a 0.5-mile (10-minute walk) distance from a park. The level of service and broader plans for each park typology are detailed further in the City's PROSMP.

Source: 2022 Aubrey Parks, Recreation and Open Space Master Plan

Figure 8.1: Current City Minimum Parkland Acquisition Standards

Park and Facilities Needs by Population

To better understand the demand and guide future growth as the community expands, the PROSMP developed the "Facilities Needs by Population" table below, which evaluates the number of parks and facilities required as the population grows. (See Figure 8.2.) In 2022, during the development of the PROSMP, the population was approximately 7,000; today, it has grown to over 10,000. Currently, the city falls short of the recommended 28 acres of parkland and 20 acres for athletic facilities, with only 11 developed acres spread across four locations.

	Population		
	20,000	50,000	100,000
Trails	10 miles	25 miles	50 miles
Playgrounds	10	25	50
Athletics (playground and practice)	40 acres	90 acres	120 acres
Community Parks (25-100 acres)	2	3	4
Neighborhood Parks (1-10 acres)	10 (20 acres)	25	50
Downtown Gathering/Signature	2	3	4
Open Space	200 acres	500 acres	1,000 acres
Indoor Recreation/Event	40,000 sq/ft	70,000 sq/ft	120,000 sq/ft

Source: 2022 Aubrey Parks, Recreation and Open Space Master Plan

Figure 8.2: Park Facilities Needs by Population

OBJECTIVE 1: Assess the community needs and desires for improvement of existing passive and active parks in a tiered park system located throughout the community as shown in the City of Aubrey Parks Master Plan.

The tiered park system will continue to help the City move toward its identified vision, prioritize resources, and guide strategies for enhancements or additions to the parks and recreation system. This chapter and objective work to prioritize the existing feedback that was gathered by the city during the development of the 2022 PROSMP, while ensuring that the steps taken align with the community's current priorities and continue to support the city's growth. Community feedback for the PROSMP was collected through various public engagement efforts, including a steering committee, City staff consultations, public meetings, and a statistically valid Parks and Trails Master Plan Survey. This survey was accessible to both residents and non-residents via the City's website. The feedback provided valuable insights into community needs and desires, highlighting opportunities to improve the current parks system and prioritize future growth. The top five most requested system elements are summarized in the graphic at the bottom of the page and that can also be found within the PROSMP.

The top five needs and wants for the Parks, Recreation, & Open Space Master Plan as established by community feedback are:

1. **Trail system** that interconnects the parks and neighborhoods, so all residents have accessibility
2. **Neighborhood and Community parks** that provide features for diverse activity engagement to include sports, festivals, fitness, and play.
3. **Open Space** to preserve natural ecosystems, creek corridors, and community features
4. **Good design quality** that is visually unique for Aubrey
5. **Event programming** that will engage and celebrate the community.

It was also concluded that the citizen of Aubrey would like their parks and open space to be developed at the following rates:

- **4 acres per 1,000 residents (developed parks)**
- **5 acres per 1,000 residents (open space)**

Source: 2022 Aubrey Parks, Recreation & Open Space Master Plan

Strategies:

A. Implement improvements to existing parks and recreation facilities.

B. Evaluate opportunities and implement park improvements attracting businesses, workforce, and tourism.

C. Create an opportunity through federal and state funding, development agreements, and zoning for the acquisition of land for new parks and facilities.

OBJECTIVE 2: Protect the floodplain for property preservation, water and environmental quality, and the inclusion of a trail system.

Strategies:

Preserving floodplains has great value for a community. Limiting development helps to protect lives and property from flooding. In addition, the floodplain can act as a filter for water entering creeks, streams, rivers, and lakes. It can also provide a location for passive recreation and trails and paths.

Strategies:

A. Discourage and/or prevent the construction of permanent structures in the floodplain or reduce the size of the natural floodplain by engineering and construction to help protect lives and property.

B. If construction in existing floodplain is deemed necessary for any project, then measures should be taken to raise the land out of the floodplain and to amend the flood zone map.

C. Encourage planting of trees and shrubs in the floodplain (but not in floodway) to help improve water quality.

OBJECTIVE 3: Prioritize the development of an Aubrey Indoor Recreation Center and senior spaces by conducting a feasibility study to determine optimal size and programming, including an analysis of operational costs and potential revenue.

The proposal for a Recreation Center, which was highly recommended for further study in the 2022 PROSMP, aligns with Aubrey's ongoing growth and the benchmarks set by surrounding cities like Allen, Grapevine, and Lewisville, all experiencing similar unprecedented growth levels. These cities have successfully expanded their recreational facilities and are planning to continue their development as the level of service increases. The future Aubrey Recreation Center is expected to become a central hub for the Parks and Recreation Department. There is an immediate need for a space where seniors can gather, socialize, and exercise. While the proposed facility requires further study, the PROSMP envisions a multigenerational center offering programs for all ages and ensuring equal access for the diverse community. Fitness will be a central feature, with equipment such as weight machines, treadmills, free weights, and a gymnasium. The center could also include amenities like an indoor track, social spaces, classrooms, and studios to support growing program efforts with the Parks and Recreation Department. Additionally, services such as a child-themed playground and on-site childcare would cater to Aubrey's expanding young family demographic.

Strategies:

- **A** Conduct a feasibility assessment that looks at the economic context and impact of an indoor recreation center and senior spaces.
- **B** Form a steering committee comprising of stakeholders, community leaders, and experts to guide the feasibility study and decision-making process.
- **C** Seek community feedback through various public engagement tactics, such as a community survey, to gather input on desired recreational activities and senior services. Feedback should include preferred types of programs, facility features, and scheduling preferences.
- **D** Identify potential locations that are easily accessible to a diverse range of residents and allow for the construction or expansion of recreation spaces in a phased approach based on population size and the Parks Master Plan recommendation of approximately 1.25 square feet of indoor recreation space per capita.
- **E** Investigate potential funding sources including municipal bonds, state and federal grants, private donations, and corporate sponsorships.

OBJECTIVE 4: Increase connectivity in the City of Aubrey by implementing the ARCHES system, utilizing tributaries and natural floodplains to create a comprehensive trail network, as recommended by the Parks, Recreation, and Open Space Master Plan.

The Aubrey ARCHES System was introduced as part of the PROSMP to connect major parks and natural areas throughout the city, making it easier for residents and visitors to enjoy nature and outdoor activities. The name "ARCHES" represents how the trails will cross major barriers, such as US Highway 377 and Union Pacific.

The 2022 PROSMP Aubrey Community Resident Survey identified trails as the most highly used park asset. Additionally, feedback from community engagement meetings revealed a strong desire to connect the city via trails and develop unique, marked loop trail systems. This vision aligns with a primary goal of the PROSMP: to create a trail network that links neighborhoods through walkable, multiuse pathways.

This trail system will not only make it easier to traverse the city but will also serve as a recreational space and an alternative transportation option. It will provide opportunities to explore Aubrey's diverse ecological zones and habitats, offering significant health benefits by encouraging outdoor activity. The trails will promote a healthier lifestyle, inspire people to spend more time outdoors, and become a defining feature of the community.

Strategies:

- **A** Examine opportunities in new developments where natural connections can be made to trails through floodplain corridors connecting each neighborhood to another. Plan into the design of new neighborhoods trailhead connections to the citywide trail system.

B Continue to connect various portions of the community, including neighborhoods, Downtown, public facilities, and parks, with a system of multiuse trails for pedestrian, equestrian, and bicyclist access that provides interconnectivity and creates a system of non-motorized linkages within the community.

C Acquire 40 miles of trail land, as noted in Parks Master Plan, and where possible, plan the trail system along greenbelts, under bridges and culverts, and along easements.

D Encourage the siting of trails based on natural topography of slope to ensure the lowest impact of the existing conditions by trail construction.

E Establish multiple entrance points throughout the trail system to make it easy to access throughout the city.

F Look at opportunities to construct trails within floodplain areas that are grade-separated from high-capacity roads.

G Consider implementing trail-oriented development throughout the system that offers unique experiences, such as shops and restaurants, and access to amenities like parking and restrooms.

OBJECTIVE 5: Influence new development in providing public spaces in addition to private amenity centers.

A significant portion of Aubrey's remaining developable land is zoned for single family residential use. As the number of residential homes increases, so does the demand for city services, including parks, trails, and recreational facilities. The PROSMP identified a current shortage of public parks in the city, with most existing amenities being privately-owned by homeowners associations (HOAs), as illustrated in Figure 8.3. Public feedback from the 2022 PROSMP Aubrey Community Resident Survey confirms this finding, highlighting that many residents have expressed a strong desire for publicly-operated facilities that are open to all, with a central gathering space. This feedback reinforces the need for a public park system that serves the entire community, rather than just HOA-managed amenities.

New trails within and surrounding Aubrey could connect to existing trails, such as the Elm Fork Greenbelt trail.

Source: Texas Parks & Wildlife

The PROSMP had two key goals: first, for the City to adopt a Parkland Dedication Ordinance that mandates new developments—both single family and multifamily—to either dedicate a portion of land for parks or pay fees in lieu of dedication. Second, it aims to increase the rate at which parks and open spaces are developed per 1,000 residents. There are three principal methods for acquiring parkland need to increase its acreage and accessibility throughout the community:

- **Land Dedication:** Developers may be required to dedicate a portion of their land for public use as parkland. Incentives and ordinances can be established to encourage this practice and define the specific parameters for dedication.
- **Fees-in-Lieu of Dedication:** Developers can pay a fee instead of dedicating land. These funds would be used by the City to acquire parkland elsewhere.
- **Bond Packages:** The City may fund parkland acquisition through bond packages, considering economic conditions and the timing of future needs.

Strategies:

A Adopt a Parkland Dedication Ordinance to incorporate modern-day best practices for dedication and development fees that reflect target levels of service.

B Develop additional parks in each quadrant of Aubrey to increase publicly-owned parkland and balance the distribution of recreational facilities, ensuring that every resident within the Aubrey ETJ has access to a park within 0.5 mile (10-minute walk), as noted with Parks Master Plan.

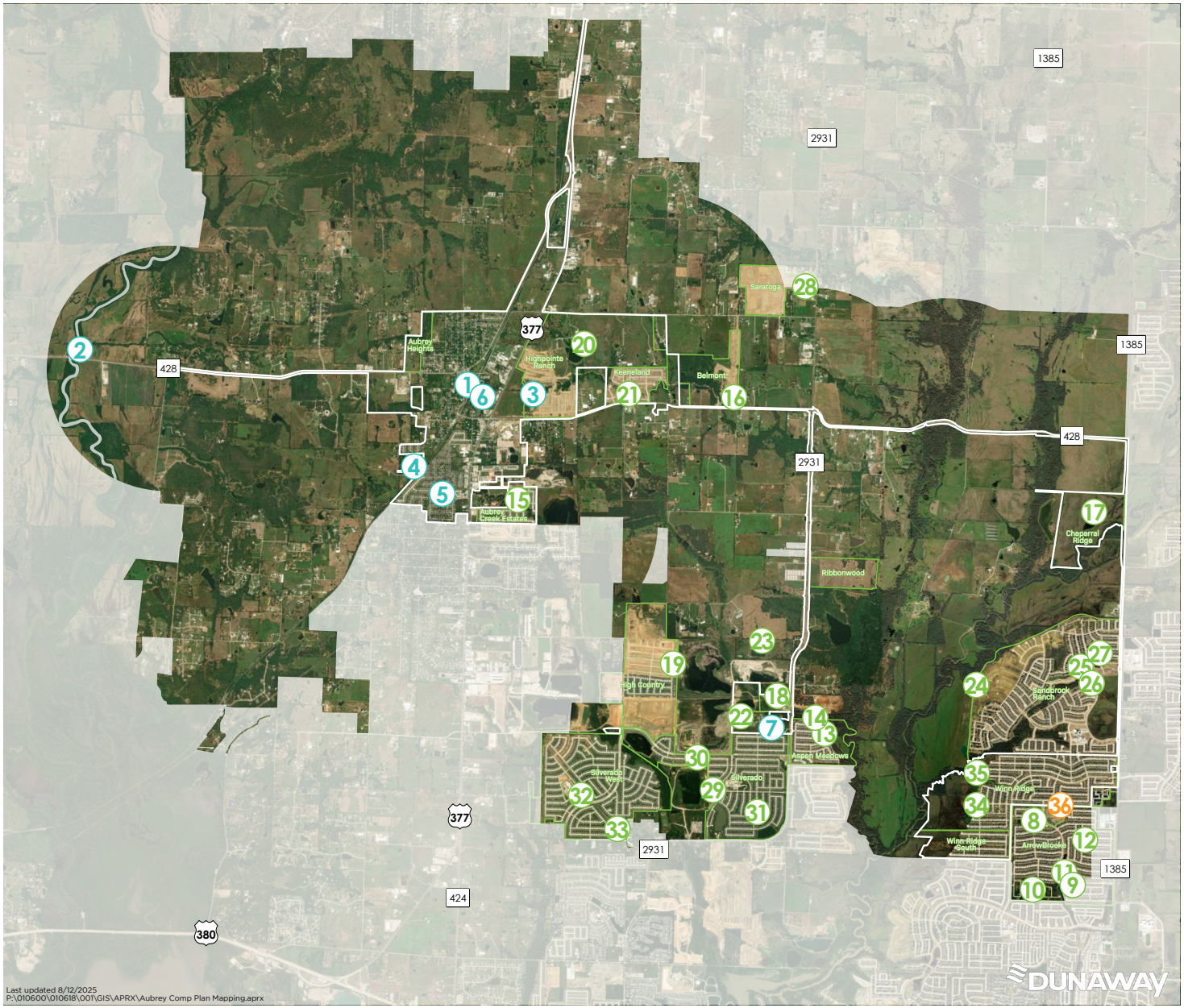

Figure 8.3: Public and Private Amenities

OBJECTIVE 6: Evaluate the expansion of the parks and recreation department by focusing on key factors such as programming and resources to meet the evolving needs of the growing city.

As part of the 2022 PROSMP, ten short-term action goals were established to be met by 2028 to help ensure that the community's level of service is maintained amidst the city's rapid growth. In support of these goals, this objective outline specific steps to ensure their successful implementation. The short-term action plan provides a comprehensive framework that includes funding strategies, staffing plans, land acquisition targets, policy actions, partnerships, and program enhancements that are set to unfold over the next five years. Key strategies, such as evaluating the need for a Parks & Recreation Director or Superintendent by 2028, expanding seasonal events, and fostering collaboration with homeowners associations (HOAs), are designed to align with the community's evolving needs and sustain high-quality recreational services. Figure 8.4, taken from the PROSMP, further illustrates these steps of action and goals for the future of the department.

Strategies:

- **A** By 2028, evaluate the potential need for a Parks & Recreation Director or Superintendent.
- **B** Continue to expand and host community-wide seasonal events that rotate between the city's parks and recreational facilities.
- **C** Organize annual or quarterly meetings with the homeowners associations that manage parks and recreational amenities within the city limits or ETJ to ensure alignment and collaboration on community needs and facility upkeep.

Task	Funding Source	Designee
Hire Parks and Recreation Director or Superintendent	General Fund	City Manager's Office (CMO)
Establish and adopt parks and recreation code of ordinances	General Fund	City Manager & Parks and Recreation Department (PARD)
Acquire approximately +/- 380 acres of new parkland by 2028	Negotiation with developers; Park Fees; Bond Programs	PARD; Planning Department
Acquire 40 miles of trails land	Negotiation with developers; Park Fees; Bond Programs	PARD/Planning/Engineering
Support Youth Sports programming and integration with City parks and recreation	General Fund	PARD
Acquire Downtown Aubrey park land	Park Dedication Fees; Bond Programs	PARD/Planning
Develop and promote community-wide events	General Fund as needed	PARD
Feasibility Study (Plan) for indoor recreation and senior spaces	General Fund; Bond Funds	PARD
Acquire floodplain	Developers negotiation	PARD
Establish regular meetings with HOAs	General Fund	PARD/CMO

Source: 2022 Aubrey Parks, Recreation and Open Space Master Plan

Figure 8.4: Short-Term Action Plan to Reach 2028 Goals

OBJECTIVE 7: Develop the minimum necessary community athletics infrastructure in Aubrey to meet residential demand and effectively manage and schedule resources.

The current demand for community sports participation in Aubrey, as calculated in the 2022 PROSMP, is met through a combination of external infrastructure, including sports fields and courts provided by Aubrey ISD and local homeowners associations (HOAs). (More details can be found in the PROSMP.) While these facilities help accommodate community needs, they may not be sufficient as the population continues to grow, highlighting the need for additional dedicated sports infrastructure within the city.

The City of Aubrey has a strong partnership with Aubrey ISD, providing access to district facilities when not in use, such as tracks, soccer fields, baseball and softball fields, and open fields across six schools. The southeast portion of Aubrey lies within Denton ISD, where only playgrounds are available. To meet the demands of the growing population, it is recommended that Aubrey develop additional community athletics infrastructure, including open fields and courts in neighborhood parks, dedicated sports fields, and a sports tournament complex with amenities such as concessions and restrooms.

Estimates suggest Aubrey will need four to six fields (roughly three to four baseball/softball fields and one to two soccer fields) within the next five years. A 40+ acre central park with a multiuse sports complex would be the most effective investment, with features like playgrounds, tennis courts, and trails. Short-term needs can be addressed by utilizing existing city properties for practice fields. To ensure long-term success, partnerships with Aubrey ISD, regional sports associations, and other entities are vital for development funding and operations.

Aubrey residents have expressed a strong desire for community athletic facilities, such as baseball fields.

Strategies:

- **A** Assess the current demand for organized sports fields by working with local sports organizations, schools, and community groups. Identify the types of high-demand sports and the specific requirements for each.
- **B** Partner with Aubrey ISD, Denton ISD, sports organizations, and community leaders to collaborate on land acquisition, funding, and ongoing maintenance efforts.
- **C** Consider implementing multiuse fields that can accommodate various sports.
- **D** Develop and enforce quality standards for sports field construction and maintenance to ensure longevity and safety.

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City of Aubrey
Parks and Recreation

- Railroad
- Parcel
- Lake / Pond
- River / Stream
- Floodplain
- Aubrey City Limits
- Aubrey ETJ
- Other City Limits
- Downtown Aubrey
- New & Proposed Developments
- Future Road
- Existing Road
- Elm Fork Greenbelt Trail
- Proposed Trail from 2022 Parks Master Plan
- Existing City Parks
- Other Existing Public Parks
- Future Public Parks
- Existing Private Parks & Amenities
- Future Private Parks & Amenities

Created by DUNAWAY
August 7, 2025

AUBREY2045

Lake Ray Roberts
Ray Roberts Lake State Park
Elm Fork Trinity River
Denton
Culp Branch
Bray Branch
Aubrey Branch
Clear Creek
Elm Fork
Pecan Creek
Little Elm Creek
Doe Branch
Cantrell Slough
Running Bonett
Existing Greenbelt Trailhead
Highmeadow Park
Leslie Park
Aubrey Creek Estates
Krugerville
Aubrey Heights
Highpointe Ranch
Keeneland
Belmont
Saratoga
Fields
Pilot Point
Ribbonwood
Chaparral Ridge
High Country
EMLI at Pecan Creek
Palomino
Aspen Meadows
Silverado
Silverado West
Sandbrock Ranch
Celina
Winn Ridge
Peak at 1385
Winn Ridge South
ArrowBrooke
Prosper
Providence Village
Little Elm
Cross Roads
Lake Lewisville
FRIENDSHIP RD
HWY 377
S HWY 377
N HWY 377
MCNATT RD
FM 2931
SHERMAN DR
W SHERMAN DR
MAIN ST
NEW HOPE RD
WILDCAT RD
MCKINNEY BRIDGE RD
POTENTIAL OUTER LOOP ALIGNMENT
SPRING HILL RD
FM 428
REDFEARN RD
RHOADS RD
ROCK HILL RD
FM 424
SILVERADO PKWY
FRONTIER PKWY
AUBREY PKWY
WINN RIDGE BLVD
UNION PARK BLVD
FM 428 W
455 E
2153
428
2931
1385
424

Veterans Memorial Park
Matthew's Park
SHERMAN DR
SPRING HILL RD
0 800 Feet

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9 UTILITIES, INFRASTRUCTURE, AND CITY SERVICES

Aubrey water tower.
Source: City of Aubrey

Utilities, Infrastructure, and City Services Goal:

Aubrey will have high quality infrastructure and service provision to support residents, businesses, and institutions in the city.

The City of Aubrey is committed to providing high-quality public services and infrastructure to meet the needs of residents, property owners, businesses, and visitors. These essential services include public safety, streets, water and wastewater facilities, stormwater management, solid waste management, and library services. Over the years, the City has invested millions of dollars to ensure reliable and efficient service delivery, contributing significantly to the quality of life in Aubrey.

As the city continues to grow, strategic planning and collaboration with organizations such as the Upper Trinity Regional Water District and regional municipalities will be essential to maintaining and expanding infrastructure. Prioritizing investments in existing systems, updating policies, and fostering partnerships will help Aubrey sustainably meet the demands of its expanding population and economy.

Water Infrastructure

The City of Aubrey sources its groundwater from five wells, collectively capable of producing 980,000 gallons per day. Additionally, the City has a contract with the Upper Trinity Regional Water District for an additional 100,000 gallons per day.

Aubrey's total water storage capacity is 873,000 gallons, consisting of:

- 600,000 gallons of overhead storage (two elevated storage tanks)
- 273,000 gallons of ground storage (eight well pumps and pump stations)

To ensure water quality, the Water Division, under the Public Works Department, conducts monthly system-wide flushing of hydrants, water towers, and ground storage tanks to maintain fresh water circulation and proper chlorine levels.

Wastewater Infrastructure

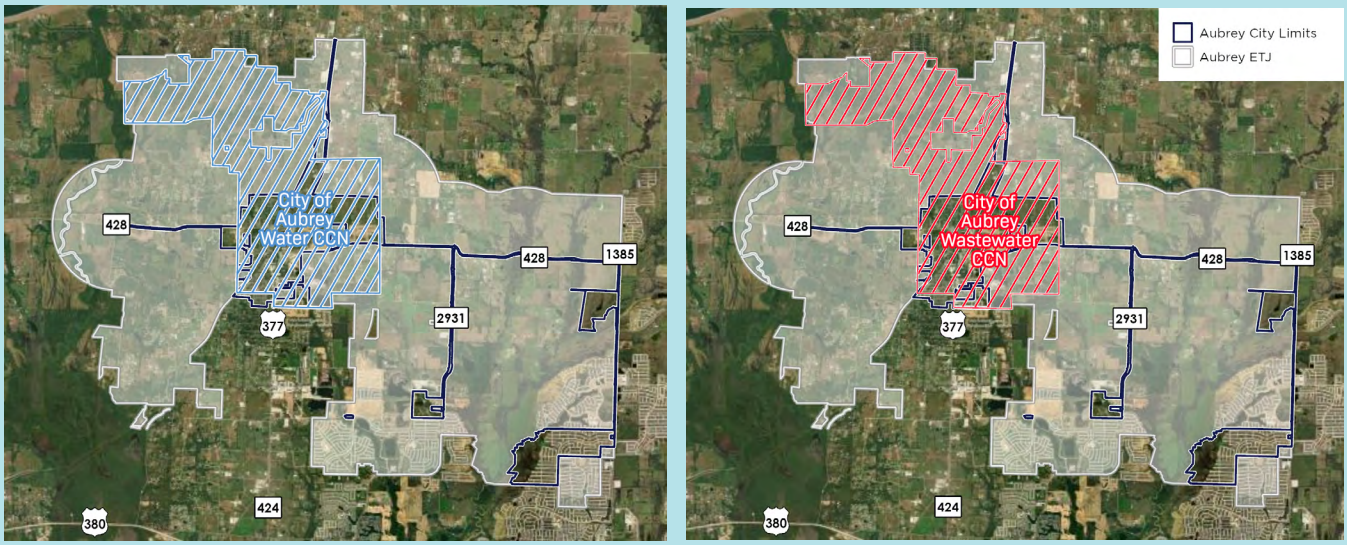
The City of Aubrey's Wastewater Division, treats approximately 350,000 gallons of wastewater per day at the Wastewater Treatment Plant located at 514 Bluebonnet Street. The plant employs two treatment processes: conventional (racetrack) treatment and Sequencing Batch Reactors (SBR). The City operates 12 lift stations to facilitate wastewater transport across the system.

As the sole provider of wastewater collection and treatment, Aubrey has continually expanded its infrastructure to accommodate growth. Planned developments in the eastern portion of the city will require additional improvements to wastewater collection and conveyance. According to the 2020 Wastewater Master Plan and the 2022 Impact Fee Update, the capacity of the existing wastewater treatment plant must be expanded to handle future demand.

Prior Planning Efforts

2020 Wastewater Master Plan: The City commissioned Birkhoff, Hendricks & Carter, L.L.P., to develop a hydraulic model of the wastewater collection system. The study analyzed major sanitary sewer lines (10 inches and greater), lift stations, force mains, and treatment plants using InfoSewer Pro Suite software.

The Public Utility Commission defines a CCN as follows: A **Certificate of Convenience and Necessity (CCN)** is a grant to the CCN owner (usually a municipality or special district) of the exclusive right to provide retail water or sewer utility service to a specific geographic service area.



Source: Public Utility Commission of Texas

Figure 9.1: City of Aubrey Utility CCN Boundaries

Six major drainage basins were identified based on natural topography, with wastewater flowing through a network of gravity lines, lift stations, and force mains to the treatment plant.

2022-2023 Water and Wastewater Impact Fee Update: This study updated land use assumptions and impact fee calculations for infrastructure improvements from 2022 to 2032. The report outlined the costs for new infrastructure, excess capacity utilization, and financing methods. The maximum allowable impact fees (adjusted to 50% of the calculated rates) were set as follows:

- Water Impact Fee per Service Unit: $5,820.00
- Wastewater Impact Fee per Service Unit: $10,586.00

Impact fees help the City recover costs for infrastructure development and ensure new growth contributes to system expansions.

Streets and Drainage

The Streets and Drainage Division is responsible for maintaining and improving the City's roadways and stormwater management systems. Well-maintained streets and efficient drainage infrastructure are essential for public safety, transportation, and protecting properties from water damage.

Street Repairs

The City of Aubrey is dedicated to enhancing and preserving its street network through regular repairs and maintenance. Priorities include:

- Pothole and crack repairs
- Road resurfacing and reconstruction
- Traffic flow improvements
- Drainage issue resolution

Drainage Maintenance

City crews proactively manage and maintain stormwater systems to ensure efficient drainage and reduce the risk of flooding. Responsibilities include:

- Cleaning and maintaining city-owned pipes, gutters, and drainage channels
- Managing rights-of-way (ROW) maintenance, excluding residential/commercial properties and TXDOT-managed ROW
- Implementing preventive measures to protect properties from water damage

By prioritizing these efforts, Aubrey continues to develop resilient infrastructure that supports a high quality of life for residents and businesses.

Aubrey's commitment to infrastructure planning and investment ensures the continued provision of reliable services as the city grows. Through strategic partnerships, long-term planning, and sustainable policies, the City aims to enhance its water, wastewater, streets, and drainage systems to meet future demands effectively. By maintaining high service standards, Aubrey fosters a thriving community for residents, businesses, and visitors alike.

OBJECTIVE 1: Through Capital Improvement Project (CIP) planning, provide sufficient quantity and quality of water for the existing community and to promote new development and growth.

To meet the demands of anticipated growth over the next 10 years, as highlighted in the 2022 Water and Wastewater Impact Fee Update, several water distribution system improvements are required. The 2022 Update itemizes each project and its cost, identifying a total of 32 projects necessary for future development. These recommended improvements form the basis for the Water Distribution System Impact Fee Calculation, totaling $42,200,593. However, when factoring in financing costs, the total 10-year Water Distribution System Capital Improvement rises to $64,353,281. Below is a list of completed or upcoming projects that the City has prioritized since the 2022 Update.

Completed Projects

- Faulkner Elevated Water Tower
- New pumps and motors for Faulkner & Hill Street Wells
- Meter reading upgrades (ASR System)

Ongoing Projects

- Adding ground storage tank at Faulkner Tower site
- New pump station storage (400,000 gallons)
- Adding a well east of US Highway 377

The City of Aubrey's current water Certificate of Convenience and Necessity (CCN) is CCN No. 11234, and its wastewater CCN is CCN No. 20491. The Water and Wastewater Service Area extends into portions of the Extra-Territorial Jurisdiction (ETJ). (See Figure 9.1.) As Aubrey continues to grow, it is essential for the City to monitor and assess current CCN boundaries to ensure efficient service provision. A CCN grants the owner, typically a municipality or special district, the exclusive right to provide retail water or sewer utility service to a specific geographic area. These boundaries often align with roads, rivers, streams, and political jurisdictions, influencing service expansion and infrastructure planning.

Strategies:

A. Examine all long-range agreements, such as those with the Upper Trinity Regional Water District, for water procurement to ensure the quantity is scalable to meet future demand from new development growth.

B. Utilize capital improvement programming to indicate appropriate new water system construction for the promotion of new growth and land development.

C. Maintain active participation in the development process of properties within and adjacent to Aubrey's water CCN boundaries to anticipate new growth and negotiate development agreements, potential system tie-ins, and the construction of new mains.

OBJECTIVE 2: Through Capital Improvement Project (CIP) planning, provide wastewater collection and treatment to meet all state and federal standards.

The 2022 Water and Wastewater Impact Fee Update included the cost assessment for both existing and proposed wastewater collection and treatment facilities. It was found that over the next ten years, wastewater treatment capacity will need to increase by 1.0 million gallons per day to meet anticipated growth. The current wastewater treatment plant has a rated capacity of 0.55 million gallons per day (annual average), which is projected to be exceeded during this period, triggering the necessary expansion.

To address future demands, several wastewater collection system improvements are required. The 2022 Update recommended 14 projects, detailing the costs

associated with each lift station, force main, gravity sewer, wastewater treatment plant expansion, meter station, and regulatory crossing. The City anticipates significant growth in the easternmost portion of the planning boundary, further emphasizing the need for these improvements. Additionally, expanding the capacity of the existing wastewater treatment plant will be critical to accommodating increased wastewater flow.

These recommended improvements form the basis for the Wastewater Collection System Impact Fee calculation, totaling $60,263,483. When factoring in financing costs, the total 10-year Wastewater Collection System Capital Improvement cost rises to $91,899,185. Below is a list of completed or upcoming projects that the City has prioritized since the 2022 Update.

Completed Projects

- Two new lift stations (Pecan Creek and WWTP)
- Updated lift station on Demoye & FM 428
- Generator and emergency power connection
- Installation of 24" sewer main (Project 24)
- WWTP rehabilitation (Racetrack system)

Ongoing Projects

- Wastewater Treatment Plant (WWTP) Expansion

Strategies:

A. Utilize capital improvement programming to indicate appropriate new wastewater system construction for the promotion of new growth and land development.

B. Maintain active participation in the development process of properties within and adjacent to the city's wastewater CCN boundaries to anticipate new growth and negotiate development agreements, potential system tie-ins, and the construction of new mains.

Aubrey Public Works crews maintain the sewer system through efforts like clearing out debris.

Source: City of Aubrey

OBJECTIVE 3: Provide for stormwater management that prevents flooding and siltation of creeks and streams and meets all state and federal regulations.

The 2024 Stormwater Management Plan, completed by TNP for the Texas Commission on Environmental Quality (TCEQ), outlines Aubrey's approach to managing stormwater runoff and ensuring compliance with environmental regulations. The primary receiving streams within the city include Aubrey Branch, Pecan Creek Tributary 7, Running Branch, and Doe Branch Tributary 2. The designated waterbody that ultimately receives Aubrey's stormwater discharge is Lake Lewisville.

The City of Aubrey is required to develop a Stormwater Management Program (SWMP) under the Texas Pollutant Discharge Elimination System (TPDES) General Permit No. TXR040000, as administered by TCEQ. Although only the Winn Ridge subdivision falls within the McKinney-Frisco urban area as defined by the 2020 US Census, Aubrey has chosen to implement the SWMP citywide to maintain consistency and effectiveness.

As a Level 1 community, Aubrey's stormwater management efforts follow specific program guidelines. City staff have actively contributed to the development of the SWMP, selecting and refining Best Management Practices (BMPs) to support compliance. To ensure effectiveness, the City of Aubrey submits annual reports detailing progress, successes, and activities related to the SWMP. This structured approach ensures that the City remains proactive in stormwater management and environmental stewardship.

Strategies:

- **A** Actively implement and update the Aubrey Stormwater Management Plan.
- **B** Revise the Code of Ordinances to include Green Infrastructure and Low-Impact Design (LID) elements in street design, which would improve stormwater management and preserve natural resources.

OBJECTIVE 4: Continue to provide solid waste disposal services in the city.

Strategies:

- **A** Monitor the community's needs for solid waste disposal options and act in a timely fashion to meet these needs.
- **B** Promote mulching and composting of green wastes, such as leaves, tree limbs, grass clippings, brush, etc., as part of the recycling and waste minimization efforts.

OBJECTIVE 5: Continue to provide innovative, accredited police services and programs to create a safe environment for all citizens in Aubrey, Providence Village, and surrounding subdivisions.

The Aubrey Police Department is a full-service agency staffed with dedicated and professional officers committed to serving the community. The department provides comprehensive law enforcement services to the City of Aubrey (including the Winn Ridge subdivision), the Town of Providence Village, and the subdivisions of Silverado, Sandbrock Ranch, and Aspen Meadows.

As Aubrey continues to grow, the Police Department remains actively engaged with the community through outreach programs and neighborhood initiatives. These efforts include the Active Neighborhood Watch Program, which operates in Winn Ridge, Aspen Meadows, Providence Village, and Silverado, as well as the successful launch of the Aubrey Citizens University, which has hosted two well-received presentations.

Since 2021, the Aubrey Police Department has been recognized as an Accredited Law Enforcement Agency by the Texas Police Chiefs Association Law Enforcement Recognition Program, becoming the 167th agency in the state to achieve this distinction. This voluntary accreditation required an in-depth self-assessment of the department's policies, procedures, facilities, and operations to ensure compliance with the highest professional standards.

The Accreditation Program evaluates a department's adherence to 166 Best Business Practices for Texas Law Enforcement, developed by law enforcement professionals to promote efficiency, effectiveness, and the protection of individual rights. By maintaining this accreditation, the Aubrey Police Department demonstrates its ongoing commitment to excellence in public safety and community service.

Strategies:

- **A** Develop and maximize the use of human capital through effective management and training. These resources include agency professionals, other governmental agencies, the private sector, and the citizens of Aubrey and the surrounding area.
- **B** Evaluate the need for additional personnel and implement procedures to select only the most qualified personnel.
- **C** Update and advance technology to meet increasing challenges and legal requirements.
- **D** Monitor pay for police officers and adjust as needed to attract well-qualified personnel.

OBJECTIVE 6: Continue to provide professional Fire Department services.

The Aubrey Fire Department is dedicated to protecting and serving the vibrant community with professionalism and unwavering commitment. The Emergency Medical Services (EMS) Division also strives to serve the community with excellence in pre-hospital emergency medical care. The department works to ensure the safety and well-being of

not only the City of Aubrey but also the surrounding communities. The EMS division provides a wide range of advanced life-saving services with professionalism and dedication.

Mission Statement: "We, the members of the Aubrey Fire Department, dedicate our efforts to provide for the safety and welfare of the public, through preservation of life, health, property and the environment."

Aubrey is making significant investments to enhance emergency response capabilities. Land has been acquired for the construction of two new fire stations, designed to meet the growing demand of the area, improve coverage, and reduce response times.

The Aubrey Fire Department is also committed to strengthening relationships with the community. Firefighters and EMS personnel actively participate in events such as school visits, annual drives, and educational programs like the Aubrey Citizen's University. These initiatives reflect the City's dedication to public safety, community involvement, and the overall well-being of its residents.

Strategies:

- **A** Maintain adequate fire protection facilities, equipment, and water pressure to respond to and fight a fire in any part of the community promptly and efficiently.
- **B** Monitor the need for additional personnel, equipment, and facilities to provide timely responses in all areas as the community increases in land area and population.

Aubrey Fire Department participating in the annual Peanut Festival.

- **C** Continue to upgrade the emergency medical services to provide the highest level of service possible to the residents of Aubrey and the surrounding area.
- **D** Focus on educating the public in areas of fire prevention and accident prevention.

OBJECTIVE 7: Explore ways to provide additional library services to residents.

The Aubrey Area Library's mission is to create a friendly and welcoming environment that fosters a love of reading, lifelong learning, and personal enrichment through a broad range of library services. The library provides community members with access to computers, the internet, and essential programs. It also offers a quiet space for individuals to explore databases and online resources covering a variety of topics, as well as digital tools for developing new skills, workforce advancement, and educational opportunities for college and adult learners.

Library Events & Programs

The library hosts a variety of engaging programs and classes based on the availability of instructors and community interests, including:

- Beginning Computer Classes & One-on-One Tutoring
- Book Club
- Kids' Activities

These offerings reflect the library's commitment to enriching the lives of all members of the community.

Strategies:

- **A** Consider expanding library programs and facilities as the community continues to grow.
- **B** Continue to explore growing the library's online resources and digital material.

OBJECTIVE 8: Explore ways to provide the community with additional broadband fiber optic services.

In today's digital world, high-speed fiber internet is now considered an essential part of infrastructure, for both the public and private sectors. Lack of internet is seen as a barrier to economic competitiveness and being able to fully participate in modern life. It has

become popular to use private public partnerships to bring in technology, such as fiber infrastructure, which is often too expensive for local governments alone. Having high-speed fiber internet is crucial for economic growth, and investment in its expansion is beneficial to both the public and private sectors. Investment in fiber infrastructure benefits the community in multiple ways including job creation and tax revenues.

Strategies:

- **A** Identify areas that lack broadband fiber and pursue partnerships with developers and service providers to make needed upgrades to increase capacity.
- **B** Coordinate among City departments to obtain the necessary regulatory documentation to construct new fiber or broadband infrastructure, including franchises for fiber/ broadband providers, fiber optic right-of-way agreements, and land lease agreements.
- **C** To encourage new fiber network investments, Aubrey should maximize new internet infrastructure by encouraging multiple fiber or broadband internet operators to be located on new infrastructure. The City should investigate what assets it may maintain that could increase the location of fiber deployment.

OBJECTIVE 9: Study the impact of creating a more centralized City Hall Complex adjacent to the US Highway 377 corridor.

The current location of City Hall in the heart of Downtown Aubrey offers certain advantages, but community input from the recent survey and Downtown Master Plan has revealed a strong desire for more retail, dining, and destination-focused spaces in the area. However, the existing municipal building occupies a significant portion of downtown real estate, limiting opportunities for such development. As Aubrey continues to grow, so does the demand for city services, which has led to the proposal to relocate City Hall to a new complex along Highway 377. This relocation would free up valuable space in the downtown core, opening the door for redevelopment. The evaluation of a potential new site adjacent to US Highway 377 will consider key factors such as land availability, infrastructure needs, and alignment with the City's long-term plans and budget. In addition, moving City Hall could have substantial economic benefits, including an increase in commercial and retail space and a boost to local businesses, further revitalizing Downtown Aubrey.

Strategies:

- **A** Evaluate the potential site adjacent to US Highway 377 based on factors such as land availability, infrastructure needs, and alignment with existing city plans and budgets.
- **B** Evaluate the potential economic benefits of relocating City Hall, including the increase in commercial and retail space and the boost in local business activity within Downtown Aubrey.

Aubrey City Council Chambers and Community Center were renovated with new spaces in 2024.

OBJECTIVE 10: Practice good stewardship of all City-owned properties, to include redevelopment.

The City owns several properties used for City functions and by the community. In order to provide for future use, maintenance is key. As new buildings and facilities are constructed some of the properties may become vacant or have no programmed use. Maintaining a bank of properties may be important to prevent the need to purchase new properties in the future.

Strategies:

- **A** Assure that City-owned property is adequately maintained and landscaped.
- **B** Dispose of public property which has no foreseeable use or which other types of development could better utilize.

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10 IMPLEMENTATION SUMMARY

Booth at Aubrey Peanut Festival.

The Aubrey Comprehensive Plan outlines key goals, objectives, and strategies to guide the city's growth and development. A well-crafted plan not only helps protect private property but also ensures that future development is coordinated and organized, in line with the city's vision. It serves as a critical tool for city officials to communicate effectively with property owners and developers, shaping decisions that will impact both the built and social environments of the city. The plan provides guidance for enhancing the community's overall quality of life while maintaining its character.

The implementation of this plan relies on various methods, including voluntary actions, staffing, capital improvements, regulations, consistent application of policies, and budgetary support. Each chapter of the plan outlines strategies that utilize tools available to Texas cities. These tools help transform the city's vision into reality by addressing critical areas like water quality, development practices, and community involvement.

Voluntary Measures

Voluntary Measures play a significant role in the Plan's implementation. Residents and property owners make essential decisions that influence the city's development, from choosing where to live to supporting local businesses. Sustainable practices such as recycling, water conservation, and energy efficiency also contribute to the overall success of the plan. Local developers, when following best management practices and working collaboratively with city staff, help ensure that the city's growth is aligned with the plan's recommendations. Additionally, partnerships with local organizations, including housing nonprofits, further reduce the burden of implementation by sharing resources and responsibilities.

Regulatory Measures

Regulatory Measures are another important aspect of implementation. Zoning ordinances and subdivision regulations ensure that land development aligns with the Comprehensive Plan's recommendations. Zoning ordinances help manage land use and development density, ensuring that infrastructure like roads, utilities, and schools can adequately support the community. The Subdivision Ordinance governs the creation of lots and streets, guaranteeing that development is properly planned and integrated into the existing infrastructure. These regulations apply within the city limits and may also extend to the extraterritorial jurisdiction (ETJ).

Consistent Application of Policies

Ensuring consistent application of policies is vital for maintaining the integrity of the Comprehensive Plan. Regular use of the plan in decision-making reinforces its importance and provides a strong legal framework for city officials. It also signals to residents and developers that the city's vision is a tangible, expected outcome.

Funding

Funding plays a crucial role in implementing the Comprehensive Plan. The city uses various revenue sources, including property taxes, sales taxes, permits, and state or federal grants, to fund essential programs, infrastructure projects, and staff.

Capital Improvements Program

The CIP prioritizes the city's major public facilities and services, ensuring that investments are aligned with the city's development goals.

Other Sources

State and Federal Funds are important but diminishing sources of support for local projects, while bonds and grants provide additional funding for infrastructure improvements.

Strategic Planning

Strategic Planning helps to prioritize projects and allocate resources effectively. A strategic plan ensures that objectives and strategies from the Comprehensive Plan are implemented systematically, with flexibility to adapt to changing needs and funding environments. Through thoughtful planning and coordination, Aubrey can continue to grow in a way that reflects the community's vision for the future.

Figure 10.1: Implementation Summary Table starting on page 143 lists all Plan objectives and strategies, along with proposed timeline and responsible parties.

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Figure 10.1: **Implementation Summary Table**

Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
GROWTH MANAGEMENT GOAL: Aubrey will have residential, commercial, and industrial growth while retaining its safe community feel and agricultural roots.	**Objective 1:** Encourage a mix of single family residential units and medium- to higher-density units according to the Future Land Use Plan. (p. 44)	A. Examine ultimate densities for residential housing in the City's Zoning Ordinance. Understand where flexibility for densities might be advantageous for development. Modify the Zoning Ordinance to allow mixing of uses based on appropriate design.	1-3 Years	•	•	•			
		B. Accommodate multifamily residential development in limited forms. Multifamily development should be located in areas which provide transitions between lower and higher intensity uses, and in a manner that will not negatively impact surrounding uses. Multifamily developments should be located in small groupings around the city in a manner that provides a mix of uses and densities, rather than concentrating multifamily developments in one area which can have negative impacts upon the city.	1-3 Years	•	•	•			
		C. Promote larger-scale master planned developments over small-scale individual developments along US Highway 377 and the future Outer Loop by discouraging individual developments under five acres in size.	3-10 Years	•	•	•			
	Objective 2: Increase the number of commercial and retail uses to provide more shopping opportunities for residents, visitors, and employees. (p. 45)	A. Maximize development along the US Highway 377 corridor by providing opportunities for Class A office space (office space defined by high-quality furnishings, state of the art facilities, and excellent accessibility), corporate campus development, and mixed-use retail/residential development.	3-5 Years	•	•	•	•		
		B. Within other commercial nodes, or vacant lots such as those along Sherman Drive, redevelopment and new investment could provide space for regionally-oriented medial facilities and retail opportunities.	3-10 Years	•	•	•	•		
		C. Utilize Downtown Aubrey for a regional draw, bring in patrons from outside of the city.	1-3 Years	•		•	•		
		D. Continue to identify the types of prospective businesses (retail, restaurants, and office uses) that will complement Aubrey's market context.	1-5 Years	•		•	•		
	Objective 3: Effectively manage the growth of industries in Aubrey through strategic zoning to preserve land for the area's expanding agritourism sector. (p. 46)	A. Encourage further industrial and flex industrial development in areas with existing infrastructure, such as along US Highway 377 and Industrial Park.	3-5 Years	•	•	•	•		
		B. Rezone areas where industrial use is not desirable to a more restrictive zoning category.	1-3 Years	•	•	•			

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
GROWTH MANAGEMENT GOAL (continued)	**Objective 3:** (continued)	C. Increase nuisances (performance) standards and design standards for industrial uses to reduce the impact of existing industrial uses on surrounding neighborhoods or the development of new neighborhoods.	**1-3 Years**	●	●	●			
		D. Work with developers and potential industrial companies looking at Aubrey for their headquarters to invest in areas with existing infrastructure and street connectivity, particularly in areas located within the City's ETJ, to preserve some of the area to set Aubrey apart from adjoining communities.	**Ongoing**	●			●		
	Objective 4: Recognize and preserve Aubrey's unique characteristics by ensuring they are thoughtfully incorporated into the design recommendations when appropriate. (p. 46)	A. Consistently use rural architectural / design guidelines within neighborhood service retail centers that reflect the character of the existing "Main Street" within Downtown.	**3-5 Years**	●	●	●			
		B. Develop and implement a strategy to acquire historically and architecturally significant structures at risk of deterioration, restore them, or collaborate with property owners to ensure the preservation of the building's character.	**3-10 Years**	●	●	●		●	
		C. Incentivize adaptive reuse, retrofit, and renovation projections to maximize existing infrastructure.	**3-5 Years**	●	●	●	●		
	Objective 5: Continue to foster strong relationships with institutional partners, such as Denton County and TxDOT, in order to manage road networks within the city and extraterritorial jurisdiction for the most efficient growth patterns. (p. 47)	A. The City should prepare an annexation strategy and coordinate the availability of municipal services with areas likely to experience development pressure with higher densities. The strategy will require coordination with other master plans that address water, wastewater, transportation, parks, and a capital improvement program.	**1-5 Years**	●	●	●			
		B. Properly manage development in new growth areas through development agreements, annexation policies, and the application of zoning regulations that support the recommended land use plan.	**Ongoing**	●	●	●			
		C. The City will work with Denton County and adjacent municipalities and execute interlocal agreements based upon the highest and best benefits for affected property owners.	**Ongoing**	●		●			Denton Co.

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
FUTURE LAND USE GOAL: Aubrey will have a variety of land uses that diversify the tax base by providing safe and convenient places to live, work, and play.	**Objective 1:** Develop land in accordance with the Future Land Use Plan. (p. 60)	A. Use the Future Land Use Map categories and areas to establish and communicate clear guidelines and refine regulations consistent with the vision for future development.	**Ongoing**	●	●	●			
		B. Maintain a continuous and coordinated public planning process that involves citizens, the Planning and Zoning Commission and City Council, local public and private entities, and regional organizations in policy development and decision making.	**Ongoing**	●	●	●			
		C. Rezone properties within city limits in accordance with the Future Land Use Plan.	**1-3 Years**	●	●	●			
		D. Encourage a variety of well-designed housing types for entry-level families, those wishing to age in-place, and others seeking alternatives to typical suburban apartments or single family homes.	**1-3 Years**	●	●	●			
		E. Create opportunities for estate-style single family residential development.	**1-3 Years**	●	●	●			
		F. Encourage the types of non-residential uses that provide retail and services desired by the community.	**1-5 Years**	●	●	●	●		
	Objective 2: Enhance the development along US Highway 377, FM 428, and the future Outer Loop to foster increased retail options and establish regional employment hubs. (p. 60)	A. Work to attract predominantly destination-driven retail. i. Design standards must remain focused on traffic movement and landscaping since development along highways serves as the visual entry to the community from neighboring communities. ii. Although convenience-based retail is easier to attract with demographics than destination-driven retail, the City can focus on some types of criteria as to what tenants would find appropriate. This includes reducing development permitting costs, creating potential tax incentives, and providing public infrastructure capital improvements. iii. Family-based retail needs traffic, land, infrastructure, and visibility to be sustainable. Providing these elements can bring restaurants, larger retail, and ancillary entertainment venues. The community has expressed interest in bringing more full-service grocery stores to the city as well as entertainment facilities.	**5-7 Years**	●	●	●	●		
		B. Commercial and neighborhood service land uses should reflect a combination of visitor and resident-based retail availability — especially in Downtown.	**3-5 Years**	●	●	●	●		

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
FUTURE LAND USE GOAL (continued)	**Objective 3:** Develop Downtown Aubrey's historic character and significance by enhancing the central gathering space, promoting new mixed-use development, and preserving its vital role as the heart of the community. (p. 61)	A. Plant trees within the parkway along roads within and near Downtown to establish a mature tree canopy, thereby contributing to the historical theme of the area.	5-10 Years	•		•			
		B. Preserve the Peanut Dryer by applying for the National Register of Historic Places designation or similar program.	3-5 Years	•		•			
		C. Work with the Aubrey Area Museum to encourage the preservation and redevelopment of key historical landmarks within Aubrey, such as the old train station, and ensure that new development within Downtown is designed to reflect an early 20th-century historical theme.	5-10 Years	•	•	•			Aubrey Area Museum
		D. Leverage the recommendations from the City's 2015 Downtown Master Plan to assess and implement enhancements, based on current context, to public gathering spaces and improve connectivity between key areas, such as Matthew's Park and Veterans Memorial Park.	3-5 Years	•		•	•	•	
	Objective 4: Preserve the integrity of Downtown and encourage complementary and compatible redevelopment and infill development, including new single family residences containing a farm/ranch theme, residential-to-office conversions, and "main street" retail with studio apartments. (p. 62)	A. Promote the preservation and adaptive reuse of existing buildings for small-scale, local, and independent businesses, while allowing for modest redevelopment and transitions to newer neighborhoods and commercial development.	Ongoing	•	•	•	•		
		B. Encourage redevelopment of properties adjacent to Downtown Aubrey, ensuring new buildings are designed at or close to the sidewalk to reinforce the character of the historic Main Street.	3-10 Years	•	•	•	•		
		C. Promote awareness of the benefits of adaptive reuse through workshops, forums, and public meetings.	1-5 Years	•			•		
		D. Extend the character of the existing historic block north of the Sherman/FM 428 intersection by encouraging new buildings with similar materials, building configurations (e.g., buildings close to the street with an arcade along the front), and scale as the existing historic block.	3-10 Years	•	•	•			
		E. Assess the feasibility of expanding the allowable uses for properties featuring older houses on large lots in close proximity to Downtown to include compatible options such as bed-and-breakfast inns, professional offices, and small-scale retail establishments like boutiques.	1-3 Years	•	•	•			

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
FUTURE LAND USE GOAL (continued)	**Objective 5:** Explore the feasibility of prompting city limit expansion primarily through voluntary annexation agreements with property owners. (p. 62)	A. Engage with property owners, residents, businesses, and other stakeholders to understand their perspectives on annexation. i. Host public meetings, workshops, and surveys to gather input and address concerns about the annexation process and educate property owners on the benefits of annexation.	**1-3 Years**	●			●		Property Owners
		B. Create informational materials that clearly explain the benefits and process of voluntary annexation, including potential improvements in services, infrastructure, and property values.	**1-2 Years**	●			●		
	Objective 6: Preserve Aubrey's small-town charm by promoting rural mixed-use zoning that supports the city's agricultural heritage and encourages agritourism and diversified activities, such as event venues, bed and breakfasts, and equestrian uses. (p. 63)	A. Consider updating the Zoning Ordinance to allow agritourism activities in appropriate areas within the Rural Life future land use, while continuing to work with landowners and business owners to preserve contributing properties that allow for a combination of agricultural, residential, commercial, and recreational uses.	**Ongoing**	●	●	●			
		B. Ensure zoning regulations support the preservation of farmland, open spaces, rural landscape, and natural resources.	**1-3 Years**	●	●	●			
	Objective 7: Work with Aubrey and Denton Independent School Districts to coordinate future school facilities planning with land use projections in the Future Land Use Plan. (p. 64)	A. Initiate and establish a tradition for standing meetings with the school districts serving City of Aubrey residents to discuss school facilities planning and land use projections. i. Share relevant data between the school districts and the City, including population growth projections, residential development plans, and current and future school capacity needs.	**1-3 Years**	●		●			ISDs
		B. Work with community leaders to continue building connections to improve communication between the City and the school districts.	**Ongoing**	●		●			ISDs

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
TRANSPORTATION GOAL: Aubrey will develop a transportation network that meets basic needs for movement, access, safety, and reasonably rapid travel for people and goods, with quality open roadways that enhance compatibility with adjacent development.	**Objective 1:** Use concepts for Context Sensitive Design when improving existing streets and building new streets, interconnections, and sidewalks. (p. 78)	A. Integrate the concept of context-sensitive design into all transportation project design standards.	**Ongoing**	●		●		●	
		B. Adopt a Context Sensitive Solution (CSS) policy to incorporate into the Code of Ordinances and Street Design Standards.	**1-3 Years**	●		●		●	
	Objective 2: Fund and build improvements to existing streets as shown on the Master Thoroughfare Plan. (p. 79)	A. Continue to fund improvements through the City's Capital Improvements Program (CIP) and available grants and loans.	**1-3 Years**	●		●		●	
		B. Create a Pavement Management System which extends existing roadway life and manages the CIP for future roadway replacement.	**5-10 Years**	●		●		●	
		C. Continue to coordinate with the Texas Department of Transportation and Denton County to address long-range transportation needs.	**Ongoing**	●				●	TxDOT Denton Co. NCTCOG
	Objective 3: Require developers to dedicate right-of-way and construct collector and arterial streets as shown on the Master Thoroughfare Plan. (p. 79)		**1- 3 Years**	●		●		●	Devel-opers
	Objective 4: Make important interconnections of streets to activity centers. (p. 80)	A. Utilize shared access and cross-access easements to provide connectivity between adjacent nonresidential uses, limiting the number of driveways along major corridors and allowing for more continuous landscaping.	**Ongoing**	●	●	●			Devel-opers
		B. Ensure that new neighborhoods have at least two roadway access points and encourage roadway connections between neighborhoods to provide more direct and interconnected forms of vehicular and pedestrian travel.	**Ongoing**	●	●	●			Devel-opers
	Objective 5: Improve existing sidewalks and construct new sidewalks for pedestrian access and citizen health. (p. 80)	A. Fund and build sidewalks to help create an interconnected sidewalk system throughout the city.	**5-7 Years**	●		●		●	
		B. When designing new sidewalks along existing streets, recognize that right-of-way may not be sufficient for the ideal street cross-section. In these circumstances, provide the widest sidewalk possible for pedestrians.	**Ongoing**	●				●	
		C. Construct sidewalks and bike lanes around schools and establish designated routes to all neighborhood schools as part of the Safe Route to Schools Program.	**5-7 Years**	●		●		●	

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
TRANSPORTATION GOAL (continued)	**Objective 5:** (continued)	D. Adopt sidewalk width regulations, requiring specific widths for sidewalks based on the classification of streets and trails.	**1-3 Years**	●		●		●	
	Objective 6: Evaluate floodplain for the construction of trails. (p. 81)	A. Discourage and/or prevent construction of permanent structures in the floodplain to help protect property and environmental quality. If construction in existing floodplain is deemed necessary for any project, then measures should be taken to raise the land out of the floodplain and to amend the flood zone map.	**Ongoing**	●	●	●		●	
		B. Encourage the siting of trails based on natural topography of slope to ensure the lowest impact of the existing conditions by trail construction.	**Ongoing**	●	●	●		●	
		C. Look at opportunities to construct trails within floodplain areas which are grade separated from high-capacity roads.	**5-7 Years**	●		●		●	TxDOT Denton Co.
		D. Examine opportunities in new developments where natural connections can be made to trails through floodplain corridors connecting each neighborhood to another. Plan into the design of new neighborhoods trailhead connections to the full trail system.	**Ongoing**	●	●	●		●	Devel-opers
		E. Require developers to construct sidewalks on all new collector streets and new thoroughfares within new developments.	**Ongoing**	●		●		●	Devel-opers
	Objective 7: Encourage the use of rural design characteristics on new roadway construction projects, including the use of open fencing, traditional lighting features, wide setbacks, native plant materials, wildflowers, and increased tree coverage. (p. 82)	A. Select a few new roadway projects to set as pilot projects showcasing rural design characteristics. Use these projects to refine guidelines and demonstrate benefits.	**3-5 Years**	●		●		●	
	Objective 8: Evaluate the land use impact of the most efficient locations for grade separation of rail and the city road network. (p. 82)		**3-5 Years**	●				●	
	Objective 9: Ensure that Aubrey's thoroughfare network is coordinated with neighboring communities, resolving any conflicts and preparing for the potential new Outer Loop. (p. 82)	A. Initiate and establish a tradition for standing meetings with Denton County and surround municipalities to promote efficiency, information-sharing, teamwork, and the best result for regional infrastructure projects.	**1-3 Years**	●		●		●	Denton Co.

* P&Z - Planning & Zoning Commission | CC - City Council | MDD - Aubrey Municipal Development District | TxDOT - Texas Department of Transportation

Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
ECONOMIC DEVELOPMENT GOAL: Aubrey will have a strong and resilient economic base.	**Objective 1:** Attract sustainable and high-growth industries. (p. 95)	A. Use tax incentives, TIF districts, and fast-track permitting to attract businesses, and collaborate with regional economic boards to promote the city's industrial hubs.	**1-5 Years**	●		●	●		
		B. Implement industrial zoning policies and consider mixed-use zones to integrate the industrial hubs with surrounding areas.	**3-5 Years**	●	●	●			
		C. Encourage sustainable practices by offering incentives for energy-efficient design and renewable energy adoption.	**Ongoing**	●		●			
	Objective 2: Create and strengthen workforce training programs by collaborating with surrounding local instructions. (p. 95)	A. Collaborate with local institutions like UNT, TWU, and community colleges to create targeted training programs in logistics and manufacturing, equipping residents with industry-specific skills in areas such as supply chain management, automation, and production.	**1-3 Years**	●			●		A380 COC
		B. Develop certifications, apprenticeships, internships, and on-the-job training with local businesses to build a sustainable talent pipeline, while offering financial support through scholarships and employer tuition reimbursement to encourage participation.	**3-5 Years**	●			●		A380 COC
		C. Work with AISD and DISD to engage high school students with career pathways and dual enrollment options to build early awareness of logistics and manufacturing careers.	**1-3 Years**	●			●		ISDs
		D. Regularly update programs based on industry needs to ensure alignment with Aubrey's expanding industrial base and economic growth opportunities.	**Ongoing**	●			●		
	Objective 3: Enhance connectivity for industry. (p. 96)	A. Collaborate with TxDOT, NCTCOG, and regional partners to improve road corridors like US Highway 377 and expand freight rail infrastructure, enhancing Aubrey's accessibility for industrial operations.	**5-7 Years**	●		●		●	TxDOT NCTCOG Denton Co.
		B. Prioritize road widening, intersection upgrades, and direct highway access, along with improved rail access near industrial zones to streamline freight movement.	**3-5 Years**	●		●		●	TxDOT
		C. Seek funding from programs such as the EDA and TxDOT's Rural Transportation Improvement Program, and coordinate with neighboring cities to align regional planning.	**3-5 Years**	●		●		●	TxDOT Denton Co.

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
ECONOMIC DEVELOPMENT GOAL (continued)	**Objective 4:** Develop retail-focused corridors and destination retail near event venues. (p. 96)	A. Expanding retail along US Highway 377 and in Downtown Aubrey can meet the essential needs of residents and increase convenience, encouraging residents to shop locally.	**1-5 Years**	•	•	•	•		
		B. Focus on attracting retail that aligns with community needs, including grocery stores, pharmacies, dining options, specialty shops, and essential services, while also addressing the decline of outdated stores and restaurants. To reduce the need for residents to travel to nearby cities, prioritize retail options that enhance convenience and meet daily needs. Attract potential tenants by offering incentives such as reduced permitting costs, tax incentives, and public infrastructure improvements to make Aubrey a more appealing location for retail development.	**1-5 Years**	•	•	•	•		
		C. Enhance Downtown Aubrey's appeal by continuing small streetscape improvements, including updating lighting, sidewalks, landscaping, and signage. These upgrades will create a more welcoming atmosphere, improve walkability, and attract more foot traffic,	**1-5 Years**	•	•	•	•	•	
		D. The attraction and retention of limited-service hotels would increase the availability of guests and employees to the community. Hotels bring the opportunity for Hotel Occupancy Taxes (HOT) which can be used for attracting tourism and conventions, promotion of the arts, historic restoration and preservation, sporting facilities, and tourist wayfinding activities.	**3-10 Years**	•	•	•	•		
		E. Develop mixed-use spaces within designated nodes to drive workforce retail demand and support sustainable retail growth. For example, destination retail should be clustered with civic and cultural uses to create a dynamic space that attracts a broad customer base and enhances foot traffic.	**3-10 Years**	•	•	•	•		

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
ECONOMIC DEVELOPMENT GOAL (continued)	**Objective 5:** Foster local entrepreneurship. (p. 97)	A. Foster an entrepreneurial environment by supporting small business through retention and recruitment effort lead by the MDD.	**Ongoing**	●			●		A380 COC
		B. Support local business growth by establishing small business support programs, including grants, low-interest loans, and resources for marketing and business planning.	**Ongoing**	●		●	●		A380 COC
		C. Focus on businesses that align with the city's unique character, including boutique retail, artisanal shops, and family-owned dining options.	**1-3 Years**	●		●	●		
	Objective 6: Use financial tools to drive investment. (p. 97)	A. Explore the creation of a TIRZ to build financial capacity in key locations, such as Downtown, to support public investment.	**3-5 Years**	●		●			
		B. Identify potential funding sources for Capital Improvement Projects (CIP), such as TIRZ bonds, general obligation bonds, and Chapter 380 authority for public-private partnerships in Downtown.	**1-3 Years**	●		●			
		C. Explore catalytic projects that can create and/or expansion of infrastructure that aligns with targets and catalyst areas.	**3-5 Years**	●		●	●		
		D. Coordinate with City officials and businesses to maintain annual CIP program to ensure utilities are first-class and adequate for available business needs.	**Ongoing**	●		●			
		E. Continue to evaluate and update economic priorities, including policies for public-private partnerships to keep Aubrey competitive.	**Ongoing**	●		●	●		
		F. Update Aubrey's Targeted Improvement Grant Program as a performance-based structure that aligns investment and City revenue with grants.	**1-3 Years**	●		●	●		
	Objective 7: Attract essential services to support community needs. (p. 98)	A. Build partnerships with local hospitals, law firms, and financial institutions to develop tailored services for the Aubrey community. Encourage these institutions to open satellite offices or provide outreach services within Aubrey to increase access to essential resources.	**1-3 Years**	●		●	●		A380 COC
		B. Offer grants or resources for small or independent professionals (like small clinics or independent financial advisors) to set up in Aubrey. This can be particularly valuable for residents seeking more personalized or affordable services.	**1-3 Years**	●		●	●		

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
ECONOMIC DEVELOPMENT GOAL (continued)	**Objective 8:** Establish business districts for identity and efficiency. (p. 98)	A. Designate specific areas, such along US Highway 377 or near major intersections, as business districts. These locations should be selected based on factors like accessibility, traffic flow, and proximity to residential areas.	**3-5 Years**	●		●	●		
		B. Ensure that business districts have a consistent and appealing design, such as uniform signage, landscaping, and streetscape improvements that align with Aubrey's overall aesthetic.	**3-5 Years**	●		●	●		
		C. Promote standards and ordinances to promote professional business environments in key areas.	**Ongoing**	●	●	●	●		
		D. Identify and secure location for future business parks.	**1-3 Years**	●		●	●		
		E. Invest in public infrastructure (e.g., sidewalks, lighting, roads, public transit) in business districts to create an attractive environment for potential businesses and increase the area's functionality.	**1-5 Years**	●		●	●	●	
		F. Promote business districts as hubs for startups and professionals by offering affordable office spaces, co-working environments, and networking opportunities. Encourage businesses in industries such as tech, creative services, or finance to establish offices in these areas.	**3-5 Years**	●		●	●		A380 COC

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
HOUSING GOAL: There will be diverse, quality housing throughout Aubrey that meets the needs of residents across all stages of life, considering factors such as age and income. Ensure all housing types maintain high standards of safety and quality for all residents.	**Objective 1:** Promote development of housing types: single family detached units, attached units, townhouses, and apartments where appropriate. (p. 108)	A. Support the development of new areas for attached housing, townhouses, and mixed-use housing where there is access to existing or planned utility services, transportation capacity, jobs, and retail.	**1-3 Years**	•	•	•			
		B. To the extent possible, examine the inclusion of mixing of housing types within a larger neighborhood or subdivision to support a variety of age groups, family sizes, and income levels.	**1-3 Years**	•	•	•			
		C. Encourage the development of quality housing in Aubrey that meets diverse needs, considering age and income data for all life stages including: i. Promote various housing types and affordability for families, single parents, young adults, professionals, empty-nesters, retirees, and the elderly. ii. Support an adequate supply of workforce housing for service industry workers and enhance neighborhood desirability, value, and reinvestment.	**1-3 Years**	•	•	•			
	Objective 2: Maintain and improve the existing housing stock. (p. 108)	A. Expand programs to maintain the existing housing stock such as those offered by Habitat for Humanity and other organizations and agencies.	**1-3 Years**	•		•			
		B. Use the development review process to evaluate private projects and their contributions to urban design.	**Ongoing**	•	•	•			
		C. Align zoning and future land use allocation to ensure housing is located where it can be served by infrastructure without creating a burden on city services.	**Ongoing**	•	•	•			
	Objective 3: Develop greater opportunities for senior housing and age-restricted housing. (p. 109)	A. Develop zoning land use categories and design standards for age-restricted and assisted living development within medium- and high-density zoning districts.	**1-3 Years**	•	•	•			
		B. Support the nonprofit community in creating housing opportunities for seniors and people with disabilities.	**1-3 Years**	•	•	•			
		C. Negotiate with developers through development agreements and the creation of planned developments to provide opportunities to include various housing options.	**Ongoing**	•	•	•			Deve-lopers

* P&Z - Planning & Zoning Commission | CC - City Council | MDD - Aubrey Municipal Development District

Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
HOUSING GOAL (continued)	**Objective 4:** Encourage the formation of homeowners associations (HOAs) with all new developments to maintain common property, provide a sense of identity, and encourage long-term private property maintenance. (p. 109)	A. Implement a system to monitor the formation and effectiveness of homeowners associations in new developments and adjust guidelines based on feedback and outcomes as needed.	**1-3 Years**	•		•			
		B. Develop handouts and guides to inform developers and prospective homeowners regarding best practices for homeowners association requirements and benefits.	**1-3 Years**	•					
	Objective 5: Encourage developers to arrange lots to maximize residential access to open space when natural areas are present. (p. 110)	A. Investigate the feasibility of implementing incentives or bonuses for developers who incorporate natural areas into their lot designs. This could include increased density allowances or reduced setback requirements.	**1-3 Years**	•		•			Deve-lopers
		B. Encourage cluster development, where homes are grouped together to preserve larger swathes of natural areas as communal open spaces. This approach can maximize access to these spaces for all residents.	**Ongoing**	•	•	•			Deve-lopers
		C. Work with developers to establish easements or access points that connect residential areas to natural open spaces. This can ensure that pathways are maintained and easily accessible.	**Ongoing**	•	•	•			Deve-lopers
	Objective 6: Concentrate growth in strategic areas. (p. 110)	A. Regularly assess the capacity and condition of existing infrastructure near commercial corridors to ensure it can support new residential developments, avoiding overburdening existing systems.	**Ongoing**	•		•	•	•	
	Objective 7: Encourage mixed-use and walkable residential projects. (p. 110)		**1-5 Years**	•	•	•			

* P&Z - Planning & Zoning Commission | CC - City Council | MDD - Aubrey Municipal Development District

Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
PARKS, RECREATION, AND OPEN SPACE GOAL Aubrey will have excellent parks and recreational areas and preserve important natural resources.	**Objective 1:** Assess the community needs and desires for improvement of existing passive and active parks in a tiered park system located throughout the community as shown in the City of Aubrey Parks Master Plan. (p. 120)	A. Implement improvements to existing parks and recreation facilities.	**Ongoing**	●		●			P&RB
		B. Evaluate opportunities and implement park improvements attracting businesses, workforce, and tourism.	**Ongoing**	●		●			
		C. Create an opportunity through federal and state funding, development agreements, and zoning for the acquisition of land for new parks and facilities.	**1-5 Years**	●		●			
	Objective 2: Protect the floodplain for property preservation, water and environmental quality, and the inclusion of a trail system. (p. 120)	A. Discourage and/or prevent the construction of permanent structures in the floodplain or reduce the size of the natural floodplain by engineering and construction to help protect lives and property.	**Ongoing**	●	●	●		●	
		B. If construction in existing floodplain is deemed necessary for any project, then measures should be taken to raise the land out of the floodplain and to amend the flood zone map.	**Ongoing**	●				●	Deve-lopers
		C. Encourage planting of trees and shrubs in the floodplain (but not in floodway) to help improve water quality.	**Ongoing**	●	●	●		●	
	Objective 3: Prioritize the development of an Aubrey Indoor Recreation Center and senior spaces by conducting a feasibility study to determine optimal size and programming, including an analysis of operational costs and potential revenue. (p. 121)	A. Conduct a feasibility assessment that looks at the economic context and impact of an indoor recreation center and senior spaces.	**1-3 Years**	●		●			P&RB
		B. Form a steering committee comprising of stakeholders, community leaders, and experts to guide the feasibility study and decision-making process.	**1-3 Years**	●		●			
		C. Seek community feedback through various public engagement tactics, such as a community survey, to gather input on desired recreational activities and senior services. Feedback should include preferred types of programs, facility features, and scheduling preferences.	**1-3 Years**	●		●			
		D. Identify potential locations that are easily accessible to a diverse range of residents and allow for the construction or expansion of recreation spaces in a phased approach based on population size and the Parks Master Plan recommendation of approximately 1.25 square feet of indoor recreation space per capita.	**1-3 Years**	●		●			P&RB
		E. Investigate potential funding sources including municipal bonds, state and federal grants, private donations, and corporate sponsorships.	**1-3 Years**	●		●			P&RB

* P&Z - Planning & Zoning Commission | CC - City Council | MDD - Aubrey Municipal Development District | P&RB - Aubrey Parks & Recreation Board

Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
PARKS, RECREATION, AND OPEN SPACE GOAL (continued)	**Objective 4:** Increase connectivity in the City of Aubrey by implementing the ARCHES system, utilizing tributaries and natural floodplains to create a comprehensive trail network, as recommended by the Parks, Recreation, and Open Space Master Plan. (p. 121)	A. Examine opportunities in new developments where natural connections can be made to trails through floodplain corridors connecting each neighborhood to another. Plan into the design of new neighborhoods trailhead connections to the citywide trail system.	**Ongoing**	●	●	●			
		B. Continue to connect various portions of the community, including neighborhoods, Downtown, public facilities, and parks, with a system of multiuse trails for pedestrian, equestrian, and bicyclist access that provides interconnectivity and creates a system of non-motorized linkages within the community.	**Ongoing**	●		●		●	P&RB
		C. Acquire 40 miles of trail land, as noted in Parks Master Plan, and where possible, plan the trail system along greenbelts, under bridges and culverts, and along easements.	**5- 10 Year**	●		●			P&RB
		D. Encourage the siting of trails based on natural topography of slope to ensure the lowest impact of the existing conditions by trail construction.	**Ongoing**	●	●	●		●	
		E. Establish multiple entrance points throughout the trail system to make it easy to access throughout the city.	**Ongoing**	●		●		●	P&RB
		F. Look at opportunities to construct trails within floodplain areas that are grade-separated from high-capacity roads.	**3-5 Years**	●		●			P&RB
		G. Consider implementing trail-oriented development throughout the system that offers unique experiences, such as shops and restaurants, and access to amenities like parking and restrooms.	**5-10 Years**	●	●	●	●		
	Objective 5: Influence new development in providing public spaces in addition to private amenity centers. (p. 122)	A. Adopt a Parkland Dedication Ordinance to incorporate modern-day best practices for dedication and development fees that reflect target levels of service.	**1-3 Years**	●	●	●			P&RB
		B. Develop additional parks in each quadrant of Aubrey to increase publicly-owned parkland and balance the distribution of recreational facilities, ensuring that every resident within the Aubrey ETJ has access to a park within 0.5 mile (10-minute walk), as noted with Parks Master Plan.	**3-10 Years**	●		●			P&RB

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
PARKS, RECREATION, AND OPEN SPACE GOAL (continued)	**Objective 6:** Evaluate the expansion of the parks and recreation department by focusing on key factors such as programming and resources to meet the evolving needs of the growing city. (p. 124)	A. By 2028, evaluate the potential need for a Parks & Recreation Director or Superintendent.	**1-5 Years**	●		●			
		B. Continue to expand and host community-wide seasonal events that rotate between the city's parks and recreational facilities.	**Ongoing**	●					
		C. Organize annual or quarterly meetings with the homeowners associations that manage parks and recreational amenities within the city limits or ETJ to ensure alignment and collaboration on community needs and facility upkeep.	**Ongoing**	●					
	Objective 7: Develop the minimum necessary community athletics infrastructure in Aubrey to meet residential demand and effectively manage and schedule resources. (p. 125)	A. Assess the current demand for organized sports fields by working with local sports organizations, schools, and community groups. Identify the types of high-demand sports and the specific requirements for each.	**1-3 Years**	●					P&RB
		B. Partner with Aubrey ISD, Denton ISD, sports organizations, and community leaders to collaborate on land acquisition, funding, and ongoing maintenance efforts.	**1-5 Years**	●		●			ISDs P&RB
		C. Consider implementing multiuse fields that can accommodate various sports.	**3-5 Years**	●		●			P&RB
		D. Develop and enforce quality standards for sports field construction and maintenance to ensure longevity and safety.	**Ongoing**	●				●	P&RB

* P&Z - Planning & Zoning Commission | CC - City Council | MDD - Aubrey Municipal Development District | P&RB - Aubrey Parks & Recreation Board | ISDs - Independent School Districts

Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
UTILITIES, INFRASTRUCTURE, AND CITY SERVICES GOAL Aubrey will have high quality infrastructure and service provision to support residents, businesses, and institutions in the city.	**Objective 1:** Through Capital Improvement Project (CIP) planning, provide sufficient quantity and quality of water for the existing community and to promote new development and growth. (p. 133)	A. Examine all long-range agreements, such as those with the Upper Trinity Regional Water District, for water procurement to ensure the quantity is scalable to meet future demand from new development growth.	**1-3 Years**	•		•		•	
		B. Utilize capital improvement programming to indicate appropriate new water system construction for the promotion of new growth and land development.	**3-5 Years**	•		•		•	
		C. Maintain active participation in the development process of properties within and adjacent to Aubrey's water CCN boundaries to anticipate new growth and negotiate development agreements, potential system tie-ins, and the construction of new mains.	**Ongoing**	•		•	•	•	
	Objective 2: Through Capital Improvement Project (CIP) planning, provide wastewater collection and treatment to meet all state and federal standards. (p. 133)	A. Utilize capital improvement programming to indicate appropriate new wastewater system construction for the promotion of new growth and land development.	**1-3 Year**	•		•		•	
		B. Maintain active participation in the development process of properties within and adjacent to the city's wastewater CCN boundaries to anticipate new growth and negotiate development agreements, potential system tie-ins, and the construction of new mains.	**Ongoing**	•		•	•	•	
	Objective 3: Provide for stormwater management that prevents flooding and siltation of creeks and streams and meets all state and federal regulations. (p. 134)	A. Actively implement and update the Aubrey Stormwater Management Plan.	**Ongoing**	•		•		•	
		B. Revise the Code of Ordinances to include Green Infrastructure and Low-Impact Design (LID) elements in street design, which would improve stormwater management and preserve natural resources.	**3-5 Years**	•	•	•			
	Objective 4: Continue to provide solid waste disposal services in the city. (p. 135)	A. Monitor the community's needs for solid waste disposal options and act in a timely fashion to meet these needs.	**Ongoing**	•		•		•	
		B. Promote mulching and composting of green wastes, such as leaves, tree limbs, grass clippings, brush, etc., as part of the recycling and waste minimization efforts.	**1-3 Years**	•		•		•	

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Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
UTILITIES, INFRASTRUCTURE, AND CITY SERVICES GOAL (continued)	**Objective 5:** Continue to provide innovative, accredited police services and programs to create a safe environment for all citizens in Aubrey, Providence Village, and surrounding subdivisions. (p. 135)	A. Develop and maximize the use of human capital through effective management and training. These resources include agency professionals, other governmental agencies, the private sector, and the citizens of Aubrey and the surrounding area.	**Ongoing**	●					APD
		B. Evaluate the need for additional personnel and implement procedures to select only the most qualified personnel.	**Ongoing**	●		●			APD
		C. Update and advance technology to meet increasing challenges and legal requirements.	**1-3 Years**	●					APD
		D. Monitor pay for police officers and adjust as needed to attract well-qualified personnel.	**Ongoing**	●		●			APD
	Objective 6: Continue to provide professional Fire Department services. (p. 135)	A. Maintain adequate fire protection facilities, equipment, and water pressure to respond to and fight a fire in any part of the community promptly and efficiently.	**Ongoing**	●		●			AFD
		B. Monitor the need for additional personnel, equipment, and facilities to provide timely responses in all areas as the community increases in land area and population.	**Ongoing**	●		●			AFD
		C. Continue to upgrade the emergency medical services to provide the highest level of service possible to the residents of Aubrey and the surrounding area.	**1-3 Years**	●					AFD
		D. Focus on educating the public in areas of fire prevention and accident prevention.	**Ongoing**	●					AFD
	Objective 7: Explore ways to provide additional library services to residents. (p. 136)	A. Consider expanding library programs and facilities as the community continues to grow.	**1-3 Years**	●		●			
		B. Continue to explore growing the library's online resources and digital material.	**1-3 Years**	●					

* P&Z - Planning & Zoning Commission | CC - City Council | MDD - Aubrey Municipal Development District | APD - Aubrey Police Department | AFD - Aubrey Fire Department

Goal	Objective	Strategy	Time-frame	Responsibility*					
				City Staff	P&Z	CC	MDD	Public Works	Other
UTILITIES, INFRASTRUCTURE, AND CITY SERVICES GOAL (continued)	**Objective 8:** Explore ways to provide the community with additional broadband fiber optic services. (p. 136)	A. Identify areas that lack broadband fiber and pursue partnerships with developers and service providers to make needed upgrades to increase capacity.	**1-3 Years**	•					
		B. Coordinate among City departments to obtain the necessary regulatory documentation to construct new fiber or broadband infrastructure, including franchises for fiber/ broadband providers, fiber optic right-of-way agreements, and land lease agreements.	**3-5 Years**	•					
		C. To encourage new fiber network investments, Aubrey should maximize new internet infrastructure by encouraging multiple fiber or broadband internet operators to be located on new infrastructure. The City should investigate what assets it may maintain that could increase the location of fiber deployment.	**3-5 Years**	•					
	Objective 9: Study the impact of creating a more centralized City Hall Complex adjacent to the US Highway 377 corridor. (p. 137)	A. Evaluate the potential site adjacent to US Highway 377 based on factors such as land availability, infrastructure needs, and alignment with existing city plans and budgets.	**1-3 Years**	•					
		B. Evaluate the potential economic benefits of relocating City Hall, including the increase in commercial and retail space and the boost in local business activity within Downtown Aubrey.	**1-3 Years**	•			•		
	Objective 10: Practice good stewardship of all City-owned properties, to include redevelopment. (p. 137)	A. Assure that City-owned property is adequately maintained and landscaped.	**Ongoing**	•				•	
		B. Dispose of public property which has no foreseeable use or which other types of development could better utilize.	**Ongoing**	•		•		•	

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Appendix A
FISCAL IMPACT SUMMARY

AUBREY COMPREHENISVE PLAN
FISCAL IMPACT SUMMARY

As part of the comprehensive planning process, Catalyst Commercial estimated the fiscal impact to the City of Aubrey of the latest version of the future land use plan.

Summary:
The proposed future land use plan creates an estimated $95.4M in additional property tax on improvements and $97.1M in sales tax to the City of Aubrey over a 20-year planning period. In addition, the current future land use plan is estimated to create (during the planning period) over 1,300 new jobs and increase population by over 6,000 new residents that can contribute to the local economy.

The analysis area includes 532.7 acres of developable land within the city limits of Aubrey. For each place type, Catalyst Commercial used the following assumptions for land uses. Land designated as Floodplain, Parks/Open Space, or Public/Semi-Public place types were not included in this analysis and additional open space was assumed make up 5% of each place type.

Table 1. Place Type Program Breakdown

Place Type	Total Area (Ac)	Improvement Value Per Ac	Improvement Value	Residential	Retail	Office	Industrial
Residential (Low Density)	49.8	$917,735	$45,725,000	95%	0%	0%	0%
Residential (Medium Density)	322.1	$2,208,537	$711,450,000	95%	0%	0%	0%
Residential (High Density)	23.2	$3,685,751	$85,637,500	95%	0%	0%	0%
Downtown Aubrey	24.2	$2,908,255	$70,316,100	35%	50%	10%	0%
Community Mixed Use	6.2	$3,208,370	$19,836,400	35%	55%	5%	0%
Agritourism / Agriculture	14.6	$413,820	$6,052,200	0%	95%	0%	0%
Commercial	51.9	$2,069,099	$107,348,600	0%	85%	10%	0%
Regional Commercial (Outer Loop)	39.8	$1,655,277	$65,856,600	0%	85%	10%	0%
Light Industrial	0.9	$2,400,128	$2,078,285	0%	0%	0%	95%
Total	**532.7**						

Density:
To estimate density, Catalyst Commercial used the following residential densities (units/ac) and commercial floor area ratios (FAR) to estimate land coverage for each place type.

Table 2. Density by Place Type

Place Type	Residential Units/Ac	Retail FAR	Office FAR	Industrial FAR
Residential (Low Density)	2.50	-	-	-
Residential (Medium Density)	6.00	-	-	-
Residential (High Density)	10.00	-	-	-
Downtown Aubrey	6.00	0.40	0.40	-
Community Mixed Use	10.00	0.35	0.35	-
Agritourism / Agriculture	-	0.05	-	-
Commercial	-	0.25	0.25	-
Regional Commercial (Outer Loop)	-	0.20	0.20	-
Light Industrial	-	-	-	0.40

Program:
Based upon the above assumptions, the following represents the total additional program for each place type. This represents the net new residential units and commercial building space from today to buildout (beyond the 20-year planning period) based on zoning and future land use assumptions.

Table 3. Additional Program by Place Type at Buildout

Place Type	Residential Units	Retail SF	Office SF	Industrial SF
Residential (Low Density)	118	0	0	0
Residential (Medium Density)	1,836	0	0	0
Residential (High Density)	221	0	0	0
Downtown Aubrey	51	210,640	42,128	0
Community Mixed Use	22	51,844	4,713	0
Agritourism / Agriculture	0	30,261	0	0
Commercial	0	480,244	56,499	0
Regional Commercial (Outer Loop)	0	294,622	34,661	0
Light Industrial	0	0	0	14,333
Total	**2,248 units**	**1,067,611 sf**	**138,001 sf**	**14,333 sf**

Absorption:
To estimate fiscal impact, Catalyst Commercial used annual market demand or historical absorption to estimate the future absorption through a 20-year planning period.

Annual Absorption Estimates:

Annual Residential Absorption:	1,274 units
Annual Retail Absorption:	100,000 SF
Annual Office Absorption:	5,600 SF
Annual Industrial Absorption:	16,144 SF

Note: Projected absorption is based upon historical absorption and demographics and actual absorption is subject to the regulatory environment, business conditions, market factors, and other external influences.

Program by Year:
Based upon the proposed place types and above assumptions, Catalyst Commercial estimated the buildout timeline of each product type for City of Aubrey over the next 20 years.

Table 4. Cumulative Additional Program by Year

Year	Residential (units)	Retail (SF)	Office (SF)	Industrial (SF)
Year 1	1,274 units	100,000 sf	5,600 sf	14,333 sf
Year 2	2,248 units	200,000 sf	11,200 sf	14,333 sf
Year 3	2,248 units	300,000 sf	16,800 sf	14,333 sf
Year 4	2,248 units	400,000 sf	22,400 sf	14,333 sf
Year 5	2,248 units	500,000 sf	28,000 sf	14,333 sf
Year 6	2,248 units	600,000 sf	33,600 sf	14,333 sf
Year 7	2,248 units	700,000 sf	39,200 sf	14,333 sf
Year 8	2,248 units	800,000 sf	44,800 sf	14,333 sf
Year 9	2,248 units	900,000 sf	50,400 sf	14,333 sf
Year 10	2,248 units	1,000,000 sf	56,000 sf	14,333 sf
Year 11	2,248 units	1,067,611 sf	61,600 sf	14,333 sf
Year 12	2,248 units	1,067,611 sf	67,200 sf	14,333 sf
Year 13	2,248 units	1,067,611 sf	72,800 sf	14,333 sf
Year 14	2,248 units	1,067,611 sf	78,400 sf	14,333 sf
Year 15	2,248 units	1,067,611 sf	84,000 sf	14,333 sf
Year 16	2,248 units	1,067,611 sf	89,600 sf	14,333 sf
Year 17	2,248 units	1,067,611 sf	95,200 sf	14,333 sf
Year 18	2,248 units	1,067,611 sf	100,800 sf	14,333 sf

Year	Residential (units)	Retail (SF)	Office (SF)	Industrial (SF)
Year 19	2,248 units	1,067,611 sf	106,400 sf	14,333 sf
Year 20	2,248 units	1,067,611 sf	112,000 sf	14,333 sf

Assumptions:

To calculate fiscal impact, Catalyst used the following assumptions:

Sales per SF	$300.00
Sales Tax Rate	2.0%
City Tax Rate	0.464000
Residential Unit Size	2,500 SF
Resident Population	12,870
Daytime Worker Population	2,915
Total Population	15,785
Cost of Service Per Capita	$253.83

To calculate values, Catalyst Commercial used the following value per square foot assumptions:

Residential	$155
Retail	$200
Office	$200
Industrial	$145

To calculate the number of additional jobs and population, Catalyst Commercial used the following assumptions:

Jobs	Est. SF/Job
Retail	980
Industrial	450
Office	600
Population	
People per residential unit	2.67

Fiscal Benefits:

New development will not only bring additional revenue but also will bring additional costs in city administrative overhead. To estimate the Cost of Service Per Capita, Catalyst Commercial used the FY 2024 city budget and divided the general fund O&M budget across the current resident and daytime worker population within the city to estimate the added cost of service to the city for each new person added to the Aubrey economy. Based upon the above values, tax rates, and cost of service assumptions, Catalyst Commercial calculated the estimated improvement value per acre, property tax per acre, and sales tax per acre of each place type. Subtracting the cost of service from the revenues shows the annual net fiscal impact of each place type at buildout to the City of Aubrey. As stated previously, this analysis only calculates fiscal impacts to the City of Aubrey, excluding exemptions. It does not calculate fiscal impacts to other taxing entities such as Denton County, the school districts, or any special taxing entities.

Table 5. Aubrey Future Land Use Plan Net Fiscal Benefits

	Cumulative Net New Taxable Property Value	Annual Net New Property Tax	Annual Net New Sales Tax	Cumulative Job Increase	Cumulative Population Increase	Annual Net New Cost of Service	Annual Net Fiscal Impact
Year 1	$516,873,285	$2,398,292	$600,000	143	3,402	$899,772	$2,098,520
Year 2	$915,418,285	$4,247,541	$1,200,000	255	6,002	$1,588,143	$3,859,398
Year 3	$936,538,285	$4,345,538	$1,800,000	366	6,002	$1,616,413	$4,529,124
Year 4	$957,658,285	$4,443,534	$2,400,000	477	6,002	$1,644,683	$5,198,851
Year 5	$978,778,285	$4,541,531	$3,000,000	589	6,002	$1,672,953	$5,868,578
Year 6	$999,898,285	$4,639,528	$3,600,000	700	6,002	$1,701,223	$6,538,305
Year 7	$1,021,018,285	$4,737,525	$4,200,000	811	6,002	$1,729,493	$7,208,032
Year 8	$1,042,138,285	$4,835,522	$4,800,000	923	6,002	$1,757,763	$7,877,759
Year 9	$1,063,258,285	$4,933,518	$5,400,000	1,034	6,002	$1,786,033	$8,547,486
Year 10	$1,084,378,285	$5,031,515	$6,000,000	1,146	6,002	$1,814,303	$9,217,213
Year 11	$1,099,020,485	$5,099,455	$6,405,666	1,224	6,002	$1,834,184	$9,670,938
Year 12	$1,100,140,485	$5,104,652	$6,405,666	1,233	6,002	$1,836,553	$9,673,765
Year 13	$1,101,260,485	$5,109,849	$6,405,666	1,243	6,002	$1,838,922	$9,676,593
Year 14	$1,102,380,485	$5,115,045	$6,405,666	1,252	6,002	$1,841,291	$9,679,421
Year 15	$1,103,500,485	$5,120,242	$6,405,666	1,261	6,002	$1,843,660	$9,682,248
Year 16	$1,104,620,485	$5,125,439	$6,405,666	1,271	6,002	$1,846,029	$9,685,076
Year 17	$1,105,740,485	$5,130,636	$6,405,666	1,280	6,002	$1,848,398	$9,687,904
Year 18	$1,106,860,485	$5,135,833	$6,405,666	1,289	6,002	$1,850,767	$9,690,732
Year 19	$1,107,980,485	$5,141,029	$6,405,666	1,299	6,002	$1,853,136	$9,693,559
Year 20	$1,109,100,485	$5,146,226	$6,405,666	1,308	6,002	$1,855,505	$9,696,387
		$95,382,451	**$97,056,660**			**$34,659,222**	**$157,779,889**

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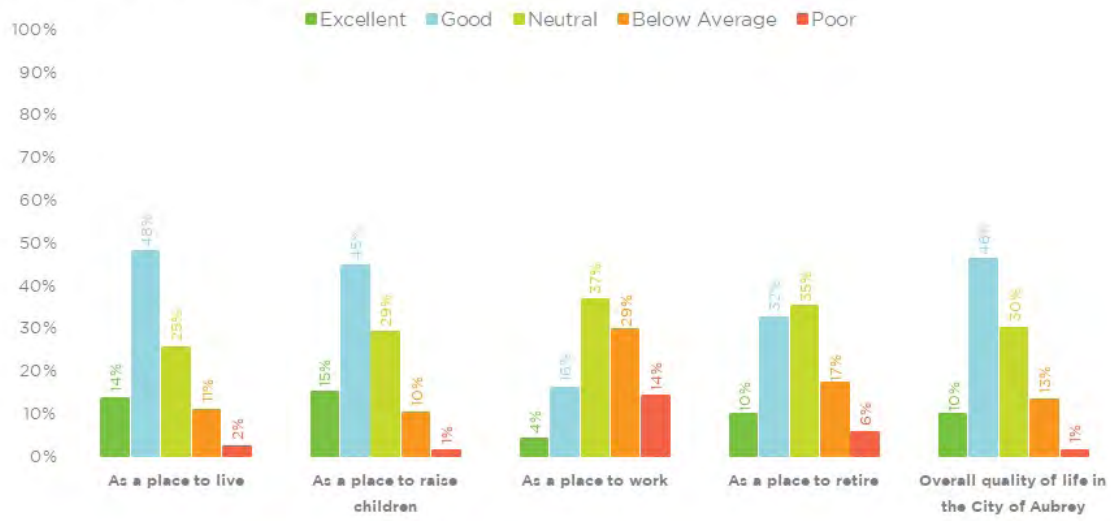
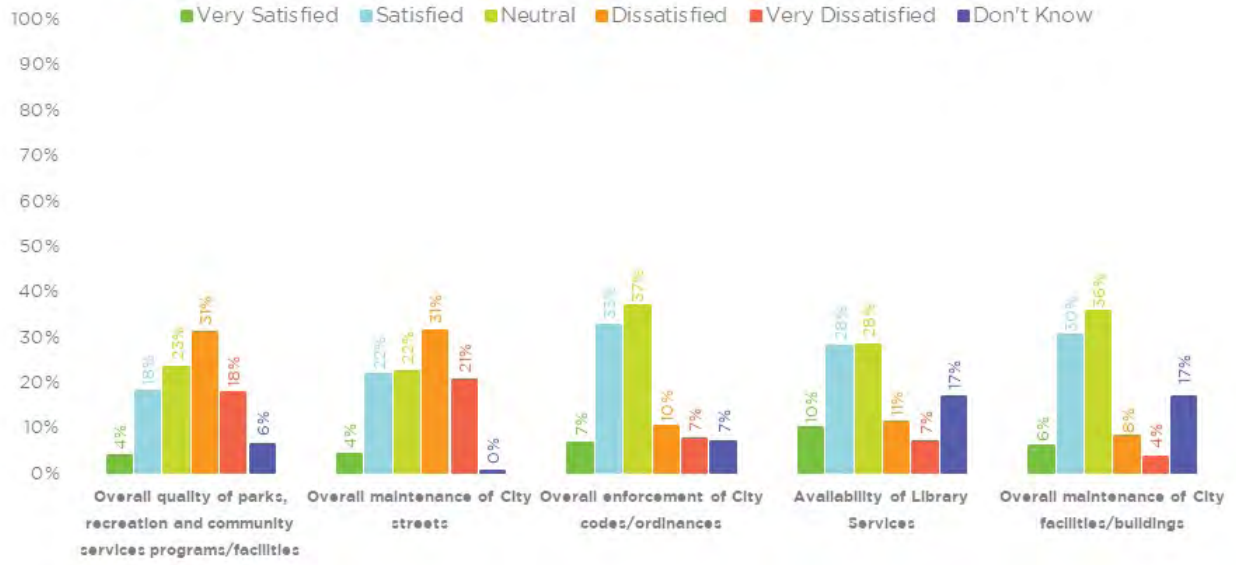
Appendix B
COMMUNITY SURVEY RESULTS

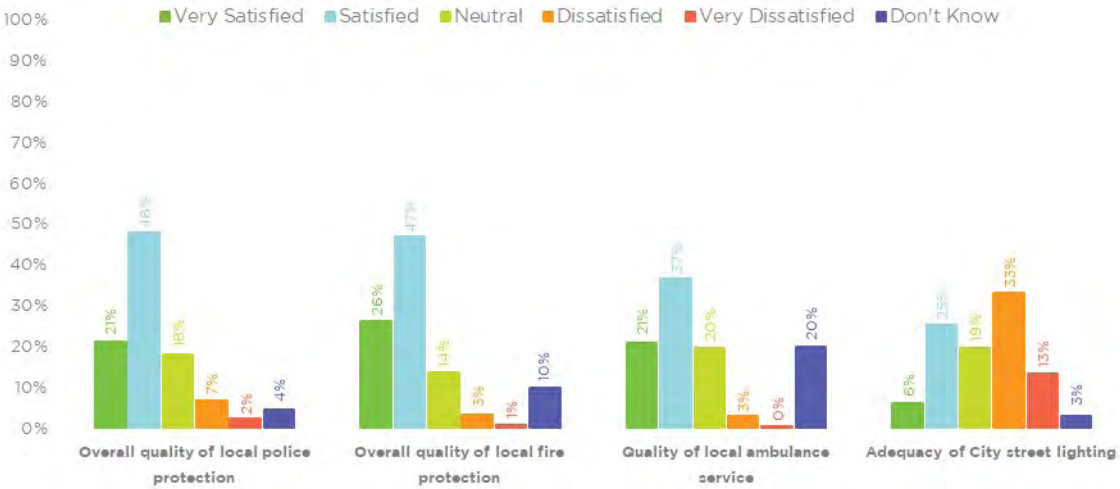
Q1: Quality of Life in the City of Aubrey. Please rate the City of Aubrey:



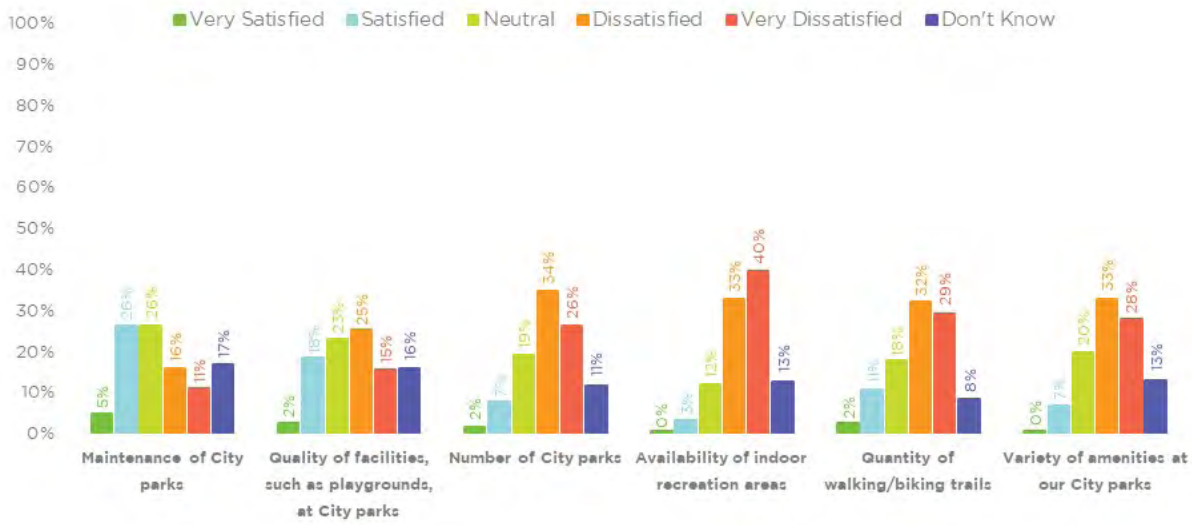
Q2: Overall Satisfaction with Major City Services. Please rate your satisfaction with the following:



Q3: Public Safety Services. Please rate your satisfaction with the following:



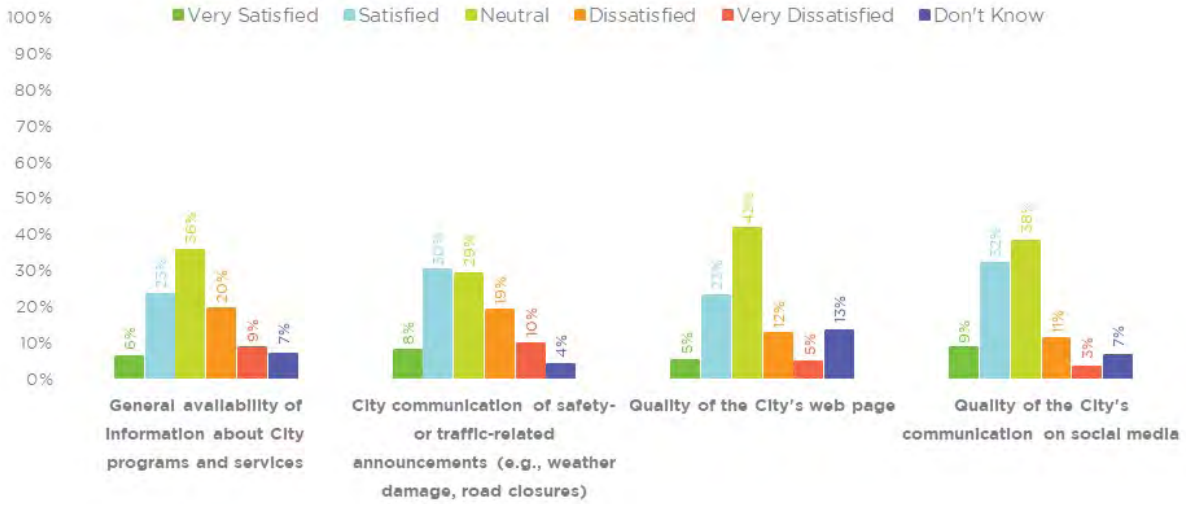
Q4: Parks & Recreation Services.
Please rate your satisfaction with the following:



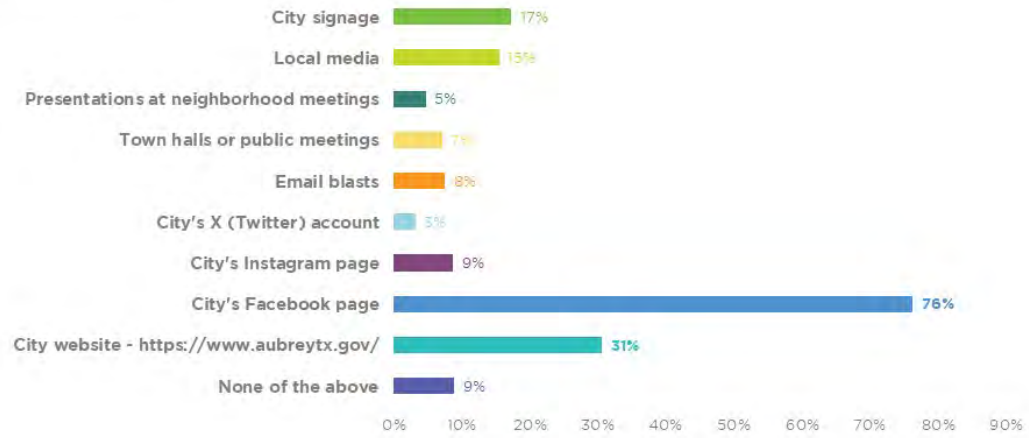
Q5: Which THREE parks and recreation services from the previous question do you think are MOST IMPORTANT for the City to provide?

Please only check three choices.

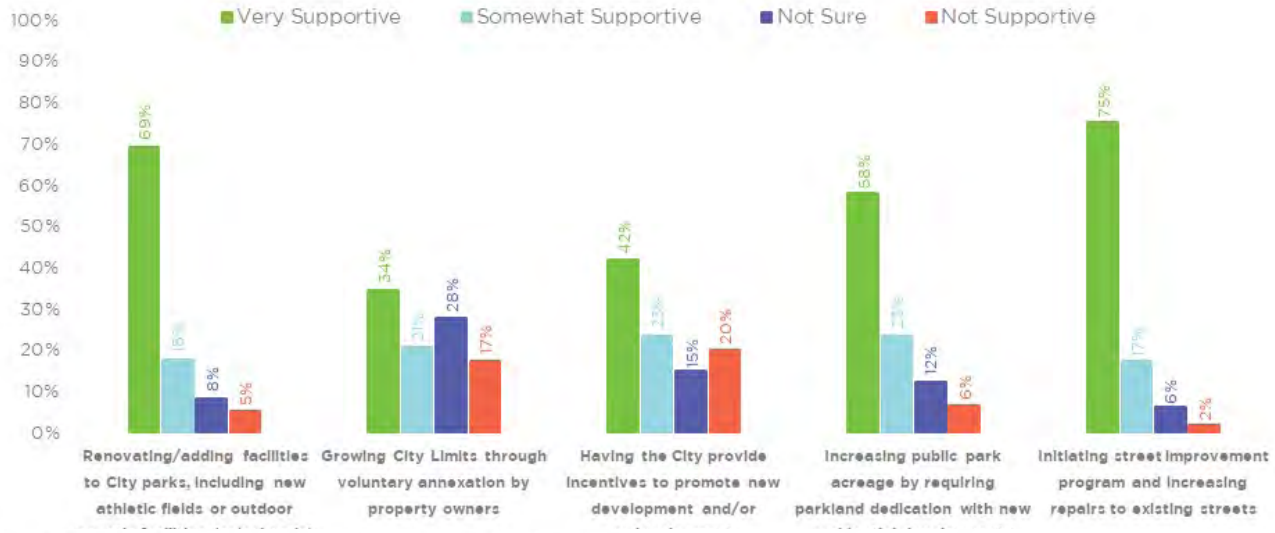
Q6: City Communication.
Please rate your satisfaction with the following:



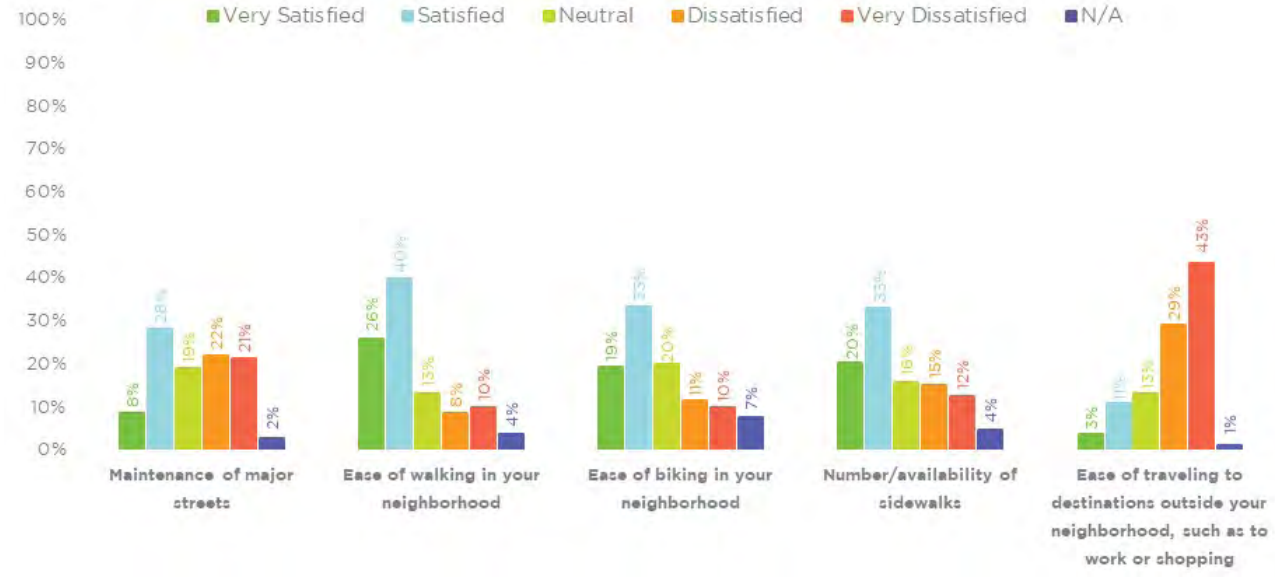
Q7: From which of the following sources do you receive news and information about the City?
Check all that apply.



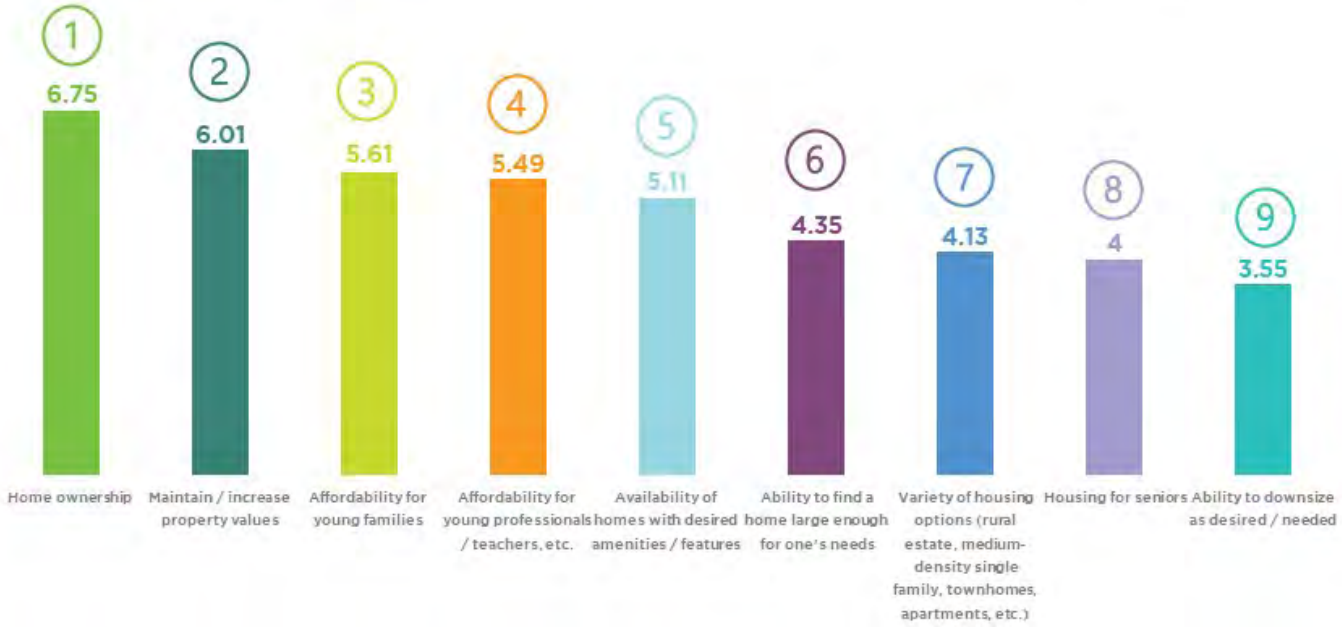
Q8: Support for Various Initiatives.
Please indicate how supportive you would be of the following:



Q9: Traffic & Transportation Services.
Please rate your satisfaction with the following in respect to the neighbourhood where you live. (Skip question if you do not live in / near Aubrey.)

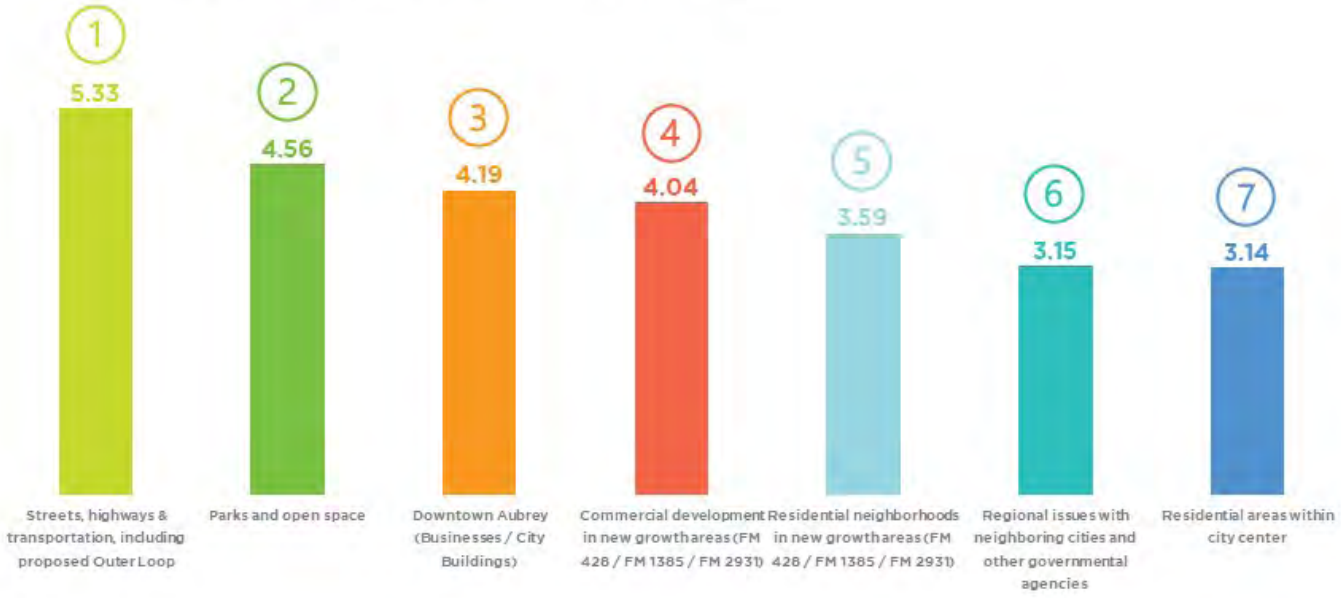


Q10: Please rank the most important considerations for Housing in Aubrey, with 1 being the most important, 2 being the second most important, and 3 being the third most important, etc.



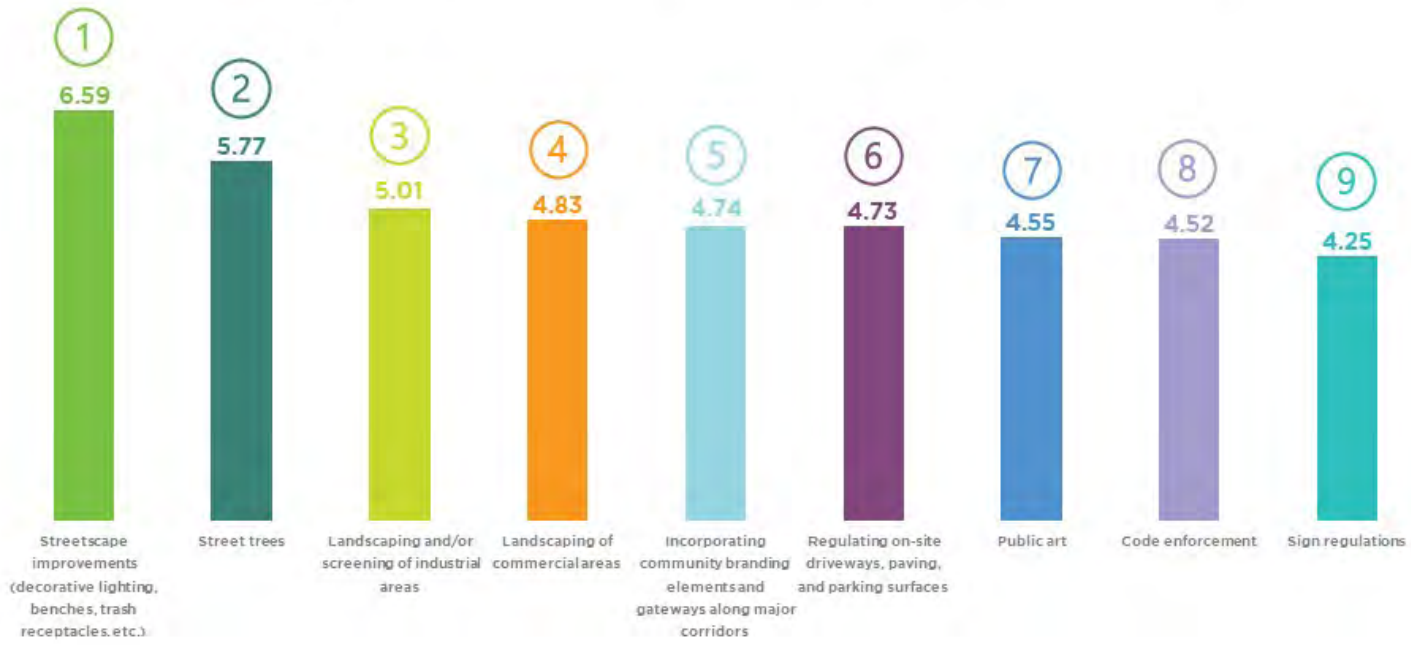
Q11: Please rank the Retail/Service/Employment needs in Aubrey, with 1 being the most needed, 2 being the second most needed, and 3 being the third most needed, etc.

Q12: Please rank the areas / topics where the Comprehensive Plan should direct the most focus, with 1 being the most needed, 2 being the second most needed, and 3 being the third most needed, etc.

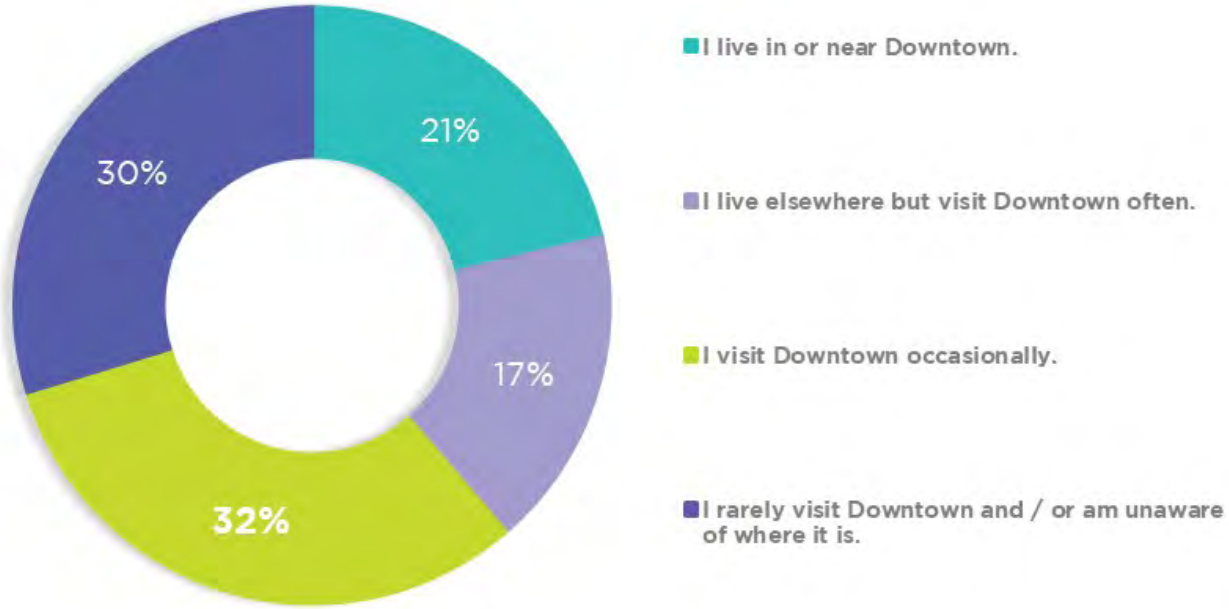


Q13: Maintenance and Appearance of the City. Please rate your satisfaction with the following:

Q14: Please rank the importance of various aesthetic considerations where the City should direct the most focus, with 1 being the most important and 9 being the least important.

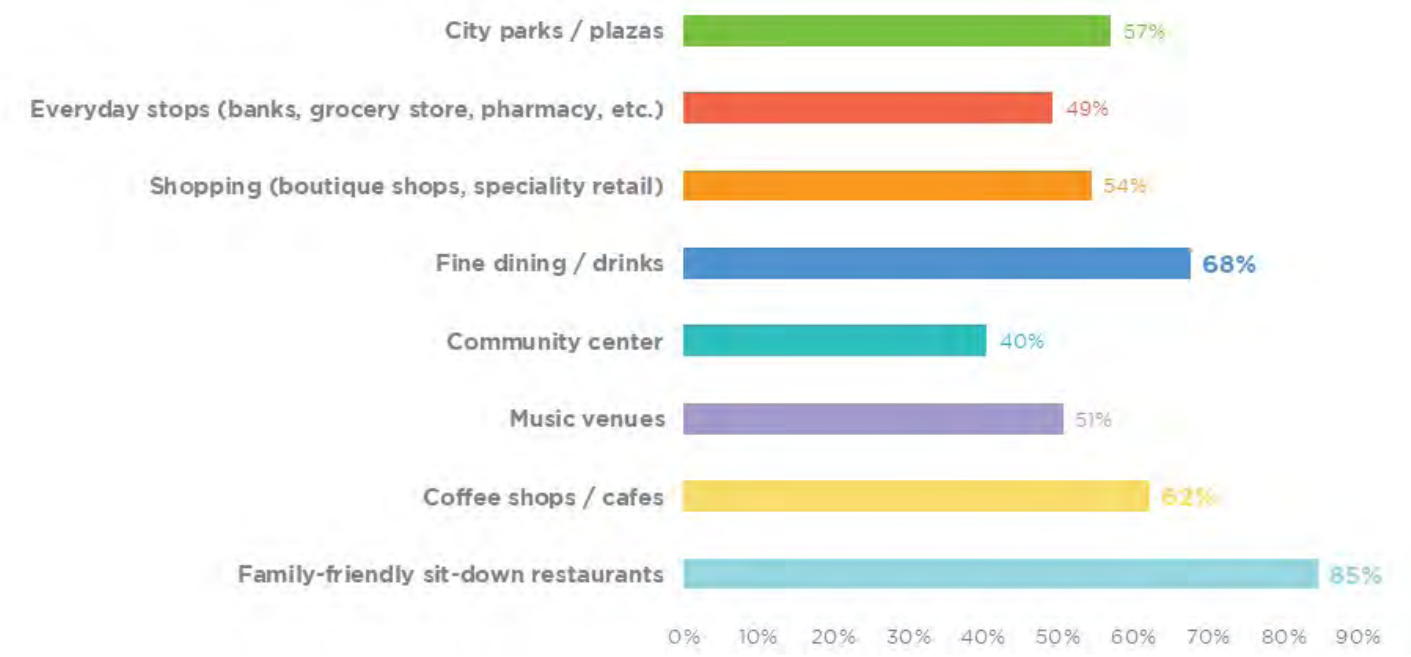


Q15: Choose the best description of your familiarity with Downtown Aubrey.

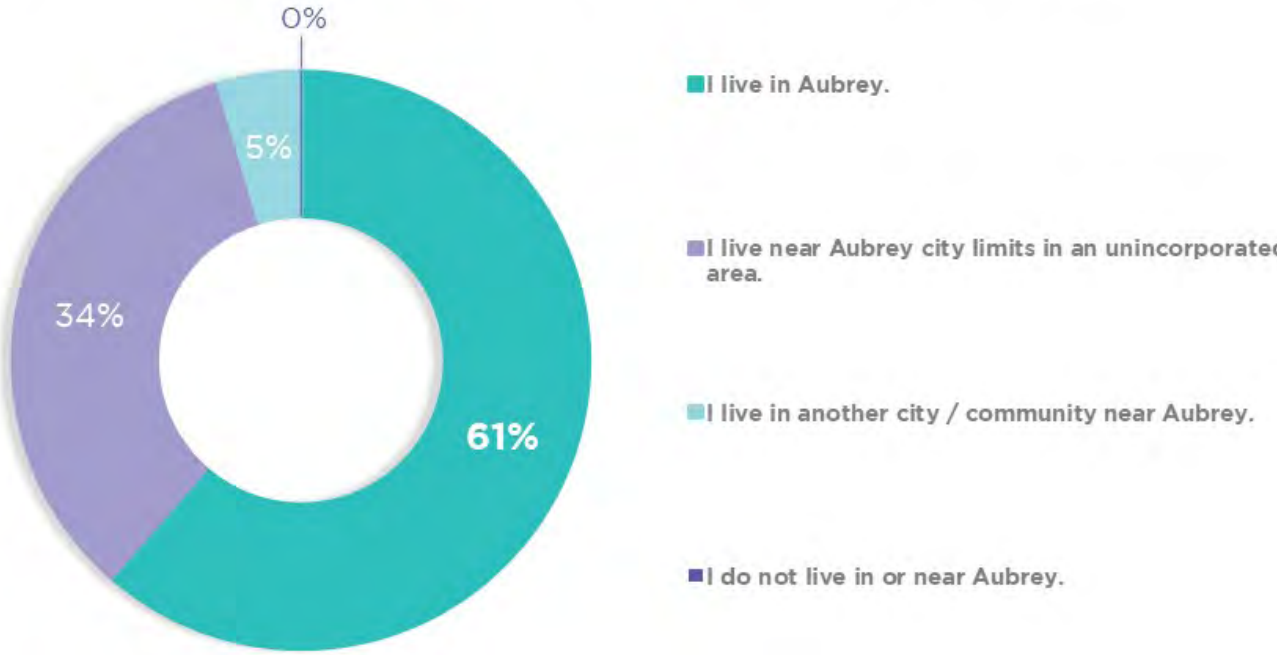


Q16: Please rank the following improvements for Downtown Aubrey, with 1 being the most needed, 2 being the second most needed, and 3 being the third most needed, etc.

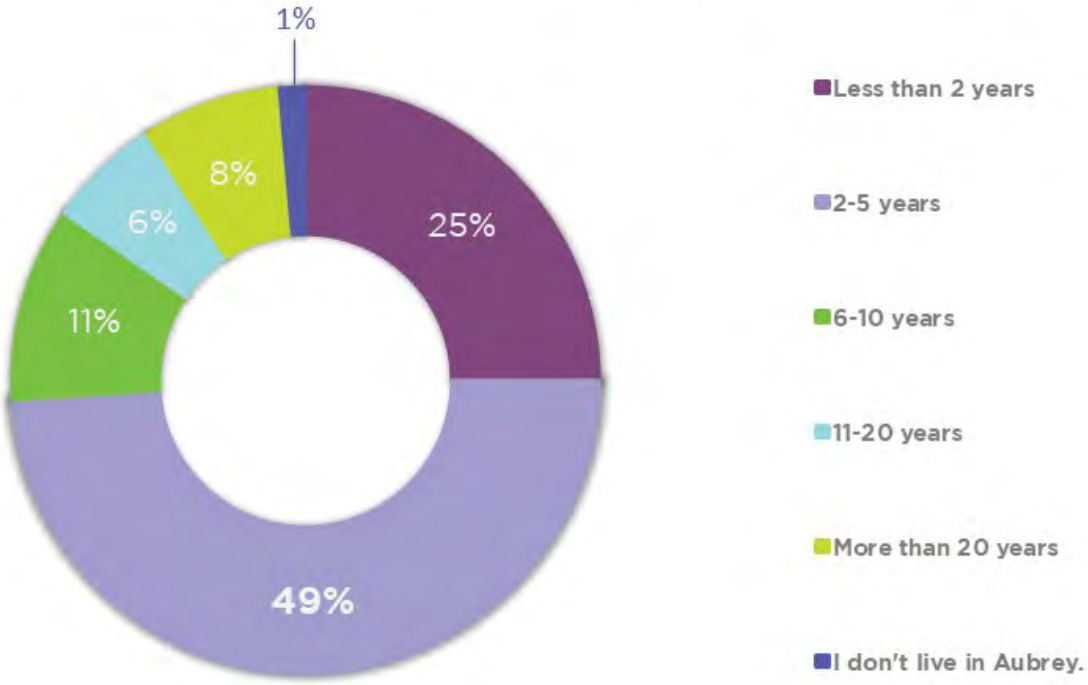
Q17: Which of these type of spaces would you use regularly in the Downtown Aubrey area? Check all that apply.



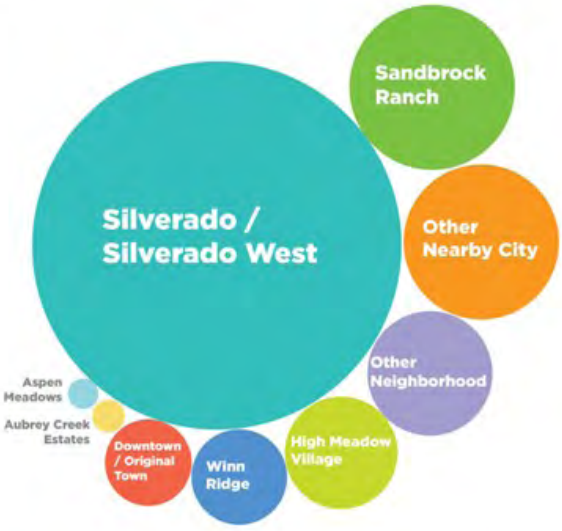
Q18: Choose the best description of where you live in relation to Aubrey.



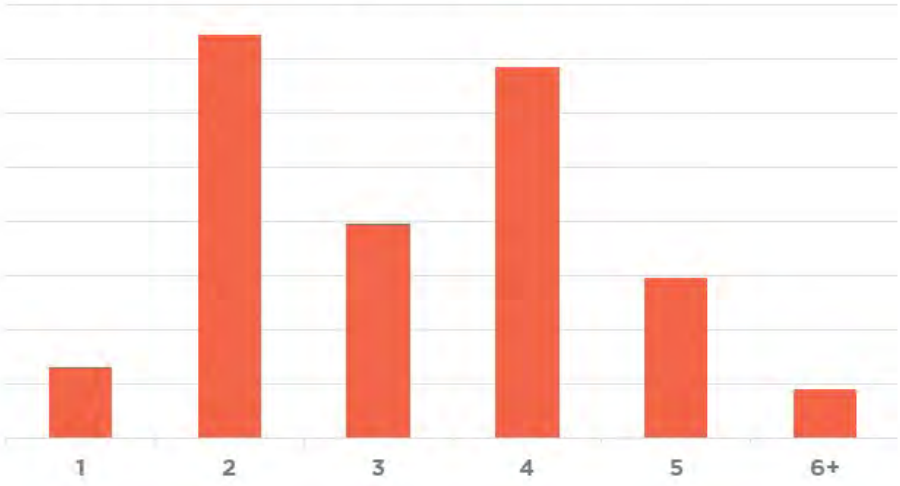
Q19: Approximately how many years have you lived in the City of Aubrey?



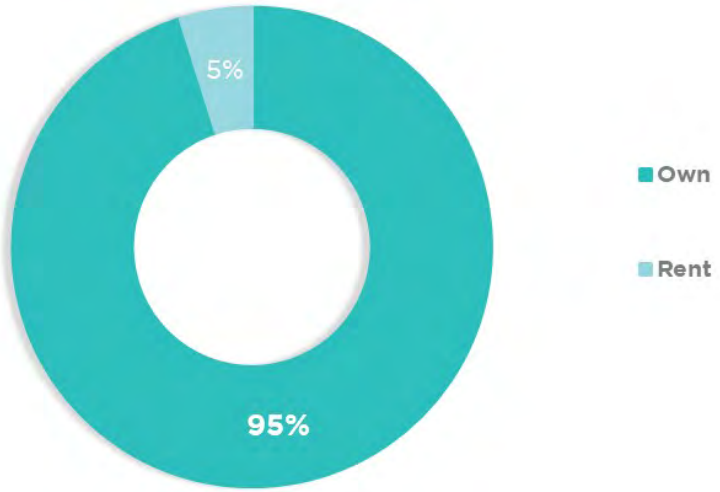
Q20: If you live in / near Aubrey, which neighborhood do you live in?



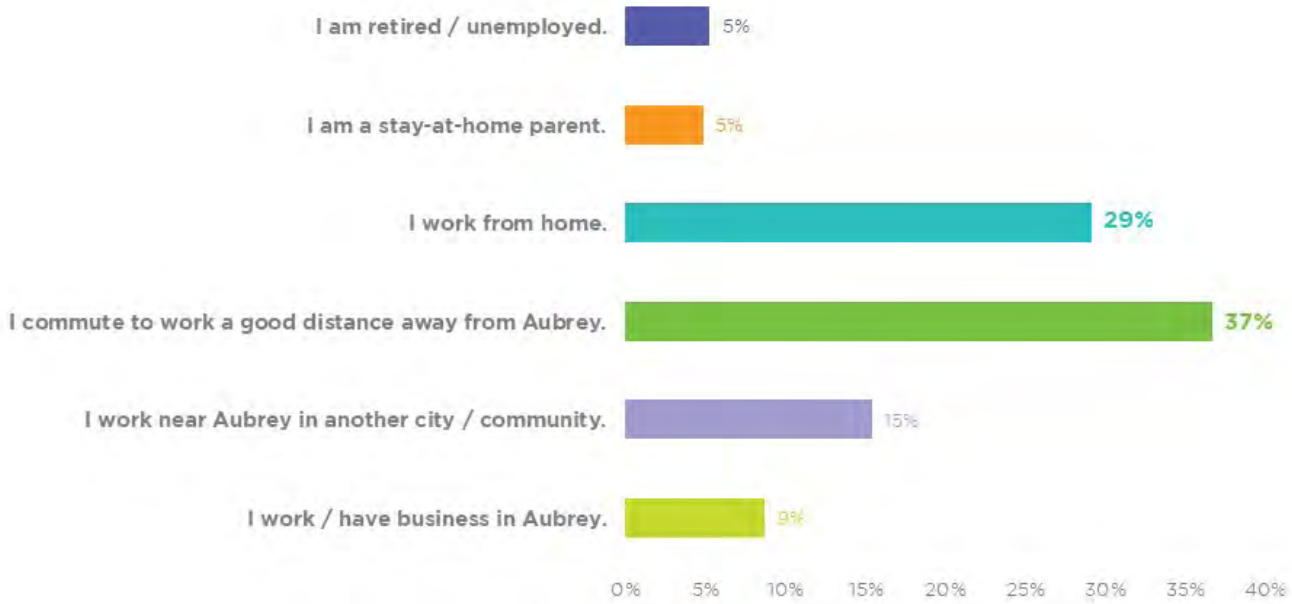
Q21: How many people live in your household?



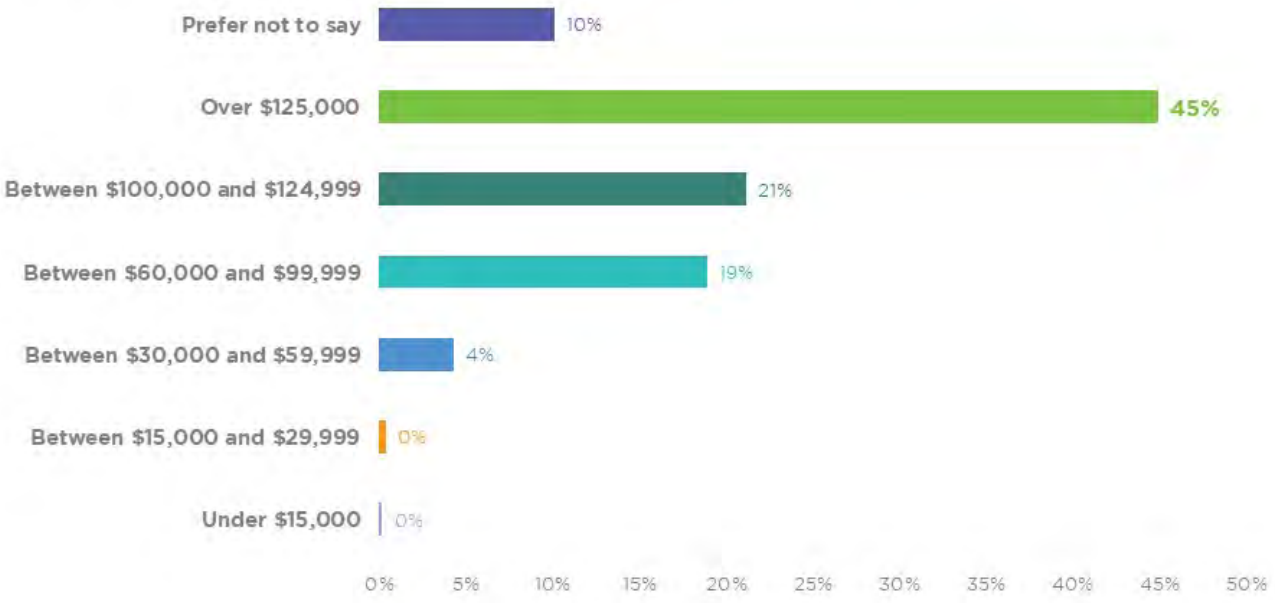
Q22: Do you own or rent your home?



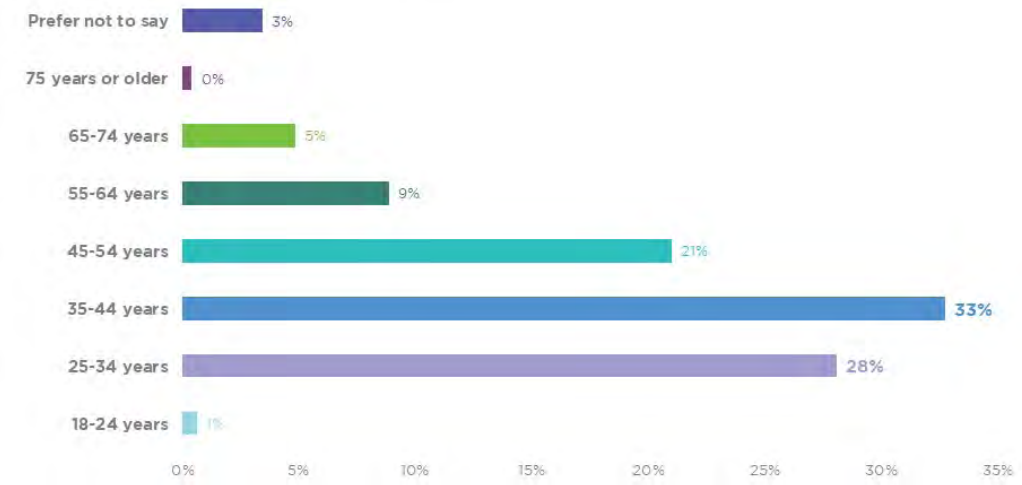
Q23: Choose the best description of where you work in relation to Aubrey.



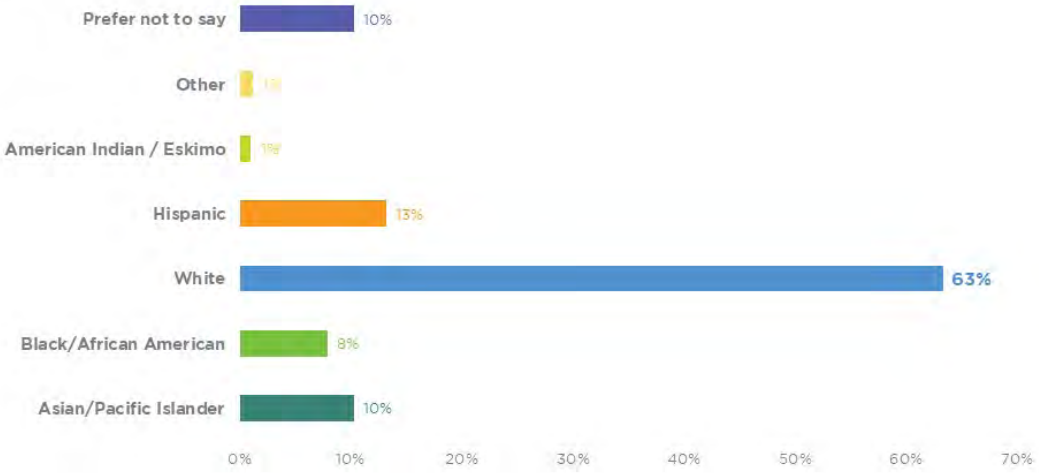
Q24: In which category is your total annual household income?



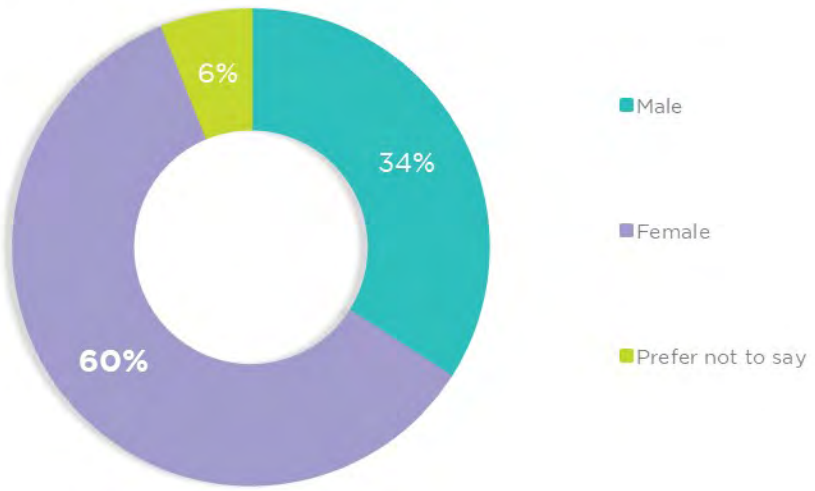
Q25: In which category is your age?



Q26: Which of the following best describes your race/ethnicity?Check all that apply.



Q27: Your gender:



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City Council Meeting
Staff Report
November 20, 2025

Agenda Item

Consider and act on an Ordinance annexing approximately 5.481-acres of land known as a portion of FM 428 (West Sherman Drive), being legally described as being a part of the D. Cowen Survey, Abstract No. 0304 and J.M. Fisher Survey, Abstract No. 0432, and an existing 100-foot right-of-way, Denton County, Texas., Denton County, Texas; and extending the boundary limits of the City so as to include the described property.

Staff Contact

Summary

Financial Summary

Staff Recommended Action

Staff Recommended Motion

CITY OF AUBREY, TEXAS
ORDINANCE NO. 940-25

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS, ANNEXING THE HEREINAFTER DESCRIBED PROPERTY CONSISTING OF AN APPROXIMATE ±5.481-ACRE TRACT OF LAND KNOWN AS A PORTION OF FM 428 (WEST SHERMAN DRIVE), BEING LEGALLY DESCRIBED AS BEING A PART OF THE D. COWEN SURVEY, ABSTRACT NO. 0304 AND J.M. FISHER SURVEY, ABSTRACT NO. 0432, AND AN EXISTING 100-FOOT RIGHT-OF-WAY, DENTON COUNTY, TEXAS AND ANY ADDITIONAL ASSOCIATED RIGHT-OF-WAY; AND EXTENDING THE BOUNDARY LIMITS OF SAID CITY SO AS TO INCLUDE THE DESCRIBED PROPERTY WITHIN THE CITY LIMITS; PROVIDING FOR INCORPORATION OF PREMISES, AMENDING OF THE OFFICIAL CITY MAP, AND ACKNOWLEDGING A SERVICE PLAN; REQUIRING THE FILING OF THIS ORDINANCE WITH THE COUNTY CLERK; PRESCRIBING FOR EFFECT ON TERRITORY, GRANTING AS APPROPRIATE TO ALL THE INHABITANTS OF SAID PROPERTY ALL THE RIGHTS AND PRIVILEGES OF OTHER CITIZENS AND BINDING SAID INHABITANTS BY ALL OF THE ACTS, ORDINANCES, RESOLUTIONS, AND REGULATIONS OF THE CITY OF AUBREY, TEXAS; PROVIDING CUMULATIVE REPEALER, SEVERABILITY AND SAVINGS CLAUSES; PROVIDING FOR ENGROSSMENT AND ENROLLMENT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Aubrey (the "City") is a home-rule municipality located in Denton County, Texas, created in accordance with the provisions of the Texas Local Government Code and operating pursuant to the enabling legislation of the State of Texas; and

WHEREAS, the City desires to annex the certain property described and depicted in **Exhibit "A",** attached and incorporated as if set forth fully herein (the "Property"); and

WHEREAS, in accordance with Chapter 43 of the Texas Local Government Code, the City now desires to annex a ±5.481-acre tract of land known as a portion of FM 428 (West Sherman Drive), being legally described as being a part of the D. Cowen Survey, Abstract No. 0304 and J.M. Fisher Survey, Abstract No. 0432, and an existing 100-foot right-of-way, Denton, County Texas and any additional associated right-of-way; and

WHEREAS, in accordance with Chapter 43 of the Texas Local Government Code, all requirements for the annexation, including required notices and public hearings, have been provided, held, and met; and

WHEREAS, the City Council of the City (the "City Council") has determined that the Property is located in the extraterritorial jurisdiction (the "ETJ") of the City; and

WHEREAS, the City Council has investigated into, has determined and officially finds that no part of the Property is within the ETJ of any other incorporated city or town; and

WHEREAS, to the extent that this Ordinance would cause an unincorporated area to be entirely surrounded by the City's limits, the City Council has found, and incorporates herein its finding, that surrounding the area is in the public interest; and

WHEREAS, the City acknowledges that it shall provide services to the Property deemed necessary in the service plan in **Exhibit "B"**, attached hereto and incorporated as if fully set forth herein, in accordance with Section 43.065 of the Texas Local Government Code; and

WHEREAS, the City Council finds and determines that annexation of the Property hereinafter described as requested by the property owner is in the best interests of the citizens of the City of Aubrey and the owners and residents of the area.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS, THAT:

Section 1. Findings Incorporated. It is hereby officially determined that the findings and recitations contained above in the preamble of this Ordinance are true and correct and are incorporated herein by reference.

Section 2. Annexation of Area. The Property, and any and all adjacent rights-of-way, are hereby annexed into the City, and that the boundary limits of the City be and the same are hereby extended to include the Property and any and all adjacent rights-of-way within the city limits of the City, and the same shall hereafter be included within the territorial limits of the City, and the inhabitants thereof shall hereafter be entitled to all the rights and privileges of other citizens of the City and they shall be bound by the acts, ordinances, resolutions, and regulations of the City.

Section 3. Official City Map Amended. The official map and boundaries of the City, previously adopted, are amended to include the Property as part of the City. The City Secretary is directed and authorized to perform or cause to be performed all acts necessary to correct the official map of the City to add the annexed Property as required by applicable law.

Section 4. Filing of Ordinance Required. The City Secretary is hereby directed and authorized to file or cause to be filed a certified copy of this Ordinance in the office of the County Clerk of each county in which all or a portion of the Property and any and all adjacent rights-of-way is located, and with other appropriate officials and agencies as required by state and federal law.

Section 5. Effect on Territory. From and after the passage of this Ordinance, the Property and any and all adjacent rights-of-way shall be a part of the City, and subject to the service plan referenced in the above Premises incorporated by Section 1 of this Ordinance. The inhabitants thereof shall be entitled to all of the rights, privileges and immunities as all other citizens of the City and shall be bound by all of the Ordinances and regulations enacted pursuant to and in conformity with the general laws of the State of Texas.

Section 6. Cumulative Repealer/Savings. All provisions of any Ordinance in conflict with this Ordinance are hereby repealed, but such repeal shall not abate any pending prosecution from being commenced for any violation if occurring prior to the repeal of the Ordinance. Any remaining provisions shall remain in full force and effect.

Section 7. Severability. Should any section, subsection, sentence, clause, or phrase of this Ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Ordinance shall remain in full force and effect. The City of Aubrey hereby declares that it would have passed this Ordinance, and each section, subsection, clause, or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional or invalid.

Section 8. Engrossment and Enrollment. The City Secretary is hereby directed to engross and enroll this Ordinance by copying the exact caption and Effective Date clause in the minutes of the City Council and by filing this Ordinance in the ordinance records of the City.

Section 9. Effective Date. This Ordinance shall become effective immediately upon its passage and approval.

PASSED AND APPROVED by the City Council of the City of Aubrey, Texas this the 20th day of November, 2025.

APPROVED:

_____
Chris Rich, Mayor

ATTEST:

_____
Jenny Hicks, City Secretary

Exhibit "A"
Property Legal Description and Depiction

Annexation Tract *Denton County*
03/12/2024

EXHIBIT "A"
METES & BOUNDS DESCRIPTION
FOR ANNEXATION INTO THE CITY LIMITS OF THE CITY OF AUBREY, TEXAS
IN THE D. COWEN SURVEY, ABSTRACT NO. 0304 AND J.M. FISHER SURVEY,
ABSTRACT NO. 0432, DENTON COUNTY, TEXAS

Being a 5.481 acre tract of land, under, over and across FM 428 (West Sherman Drive) (an existing 100-foot right-of-way (ROW)), for annexation into the City Limit of the City of Aubrey, Texas, said 5.481 acre tract being part of the existing 100-foot wide ROW of said FM 428 (West Sherman Drive) and in the D. Cowen Survey, Abstract No. 0304 and the J.M. Fisher Survey, Abstract No. 0432, Denton County, Texas, said 5.481 acre tract being more particularly described as follows:

BEGINNING at a point for corner, said point being on the south ROW line of said FM 428 (West Sherman Drive) and the existing City of Aubrey City Limit Line South as established by The Aubrey Original Article of Incorporation recorded in Volume 191, Page 371, said point also being on the north property line of a called 2.15 acres tract of land conveyed to Efrain Vargas-Torres and Maria Torres Ortiz, by deed recorded in Instrument Number 2009-55435 of the Deed Records of Denton County, Texas (D.R.D.C.T.);

THENCE, N 88°51'30" W, along the said south ROW line of FM 428 (West Sherman Drive), a distance of 1152.54 feet to a point for corner, said point being at the northeast property corner of Lot 1, Block 1 of Hilltop Addition, an addition to the City of Aubrey as recorded by plat in Cabinet W Page 232 of the Plat Records of Denton County, Texas (P.R.D.C.T.), said point also being on the northwest property corner of a called 32.00 acre tract of land conveyed to Aubrey ISD, by deed recorded in Instrument Number 2002-135055 of the D.R.D.C.T.;

THENCE N 89°33'32" W, continuing along the said south ROW line of FM 428 (West Sherman Drive), a distance of 1185.44 feet to a point for corner, said point being on the northwest property corner of a called 32.90 acre tract of land conveyed to Hussain and Hannan DFW Holdings, LLC by deed recorded in Instrument Number 2022-99637 of the D.R.D.C.T., said point also being on the said existing City of Aubrey City Limit line, as established by Annexation Ordinance 344-04;

THENCE N 00°34'49" E, a distance of 100 feet to a point for corner, said point being on the north ROW line of said FM 428 (West Sherman Drive), and the southwest corner of the 1.0 acre tract of land conveyed to Brazos Electric Power Coop Inc., by deed recorded in Volume 514, Page 386 of the D.R.D.C.T., said point also being on the said existing City of Aubrey City Limit line as established by annexation ordinance 109-82;

THENCE S 89°25'11" E, continuing along the said north ROW of FM 428 (West Sherman Drive) a distance of 208.70 feet to a point for corner, said point being at the southeast corner of the said 1.0 acre Brazos Electric tract, and the southwest property corner of Lot 16, Block A of the Aubrey Estates Joint Venture, an addition to the City of Aubrey as recorded by plat in Cabinet G, Page 353, of the P.R.D.C.T., said point also being on the said existing City of Aubrey City Limit line;

THENCE S 89°42'09" E, continuing along the said north ROW line of FM 428 (West Sherman Drive), a distance of 1351.18 feet to a point for corner, said point being the southeast property corner of Lot 9, Block A of said Aubrey Estates Joint Venture, said point also being the southwest corner of a called 24.208 acre tract of land conveyed to Roger and Lisa Prier by deed recorded in Instrument Number 2023-83590 of the D.R.D.C.T.;

THENCE S 88°15'28" E, continuing along the said north ROW line of FM 428 (West Sherman Drive), a distance of 700.41 feet to a point for corner, said point being at the southeast property corner of said 24.208 acre Prier tract, said point also being the southwest property corner of a Lot 7, Block 1 of the Testerman Addition, an addition to the City of Aubrey as recorded by plat in Cabinet Q Page 60 of the P.R.D.C.T.;

THENCE, S 88°44'24" E, continuing along the said north ROW line of FM 428 (West Sherman Drive) a distance of 75.75 feet to a point for corner, said point being on the southeast property line of said Lot 7, Block 1 of the Testerman Addition;

THENCE, S 00°35'23" E, a distance of 100 feet to the POINT OF BEGINNING, said annexation tract containing 5.481 acres (238,752 square feet) of land, more or less.

Notes:

1. This document was prepared under 22 TAC § 663.21, and 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 right and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared.
2. Basis of Bearings & Distances: The Testerman Addition, an addition to the City of Aubrey as recorded by plat in Instrument No. Cab Q. PG. 60 of the P.R.D.C.T.
3. A Plat of even date herewith accompanies this Metes and Bounds Description.

Gary C. Hendricks, P.E., R.P.L.S.
Texas Registration No. 5073
Birkhoff, Hendricks & Carter, L.L.P.
TBPLS Firm No. 100318-00
11910 Greenville Ave., Suite 600
Dallas, Texas 75243

03/13/2024

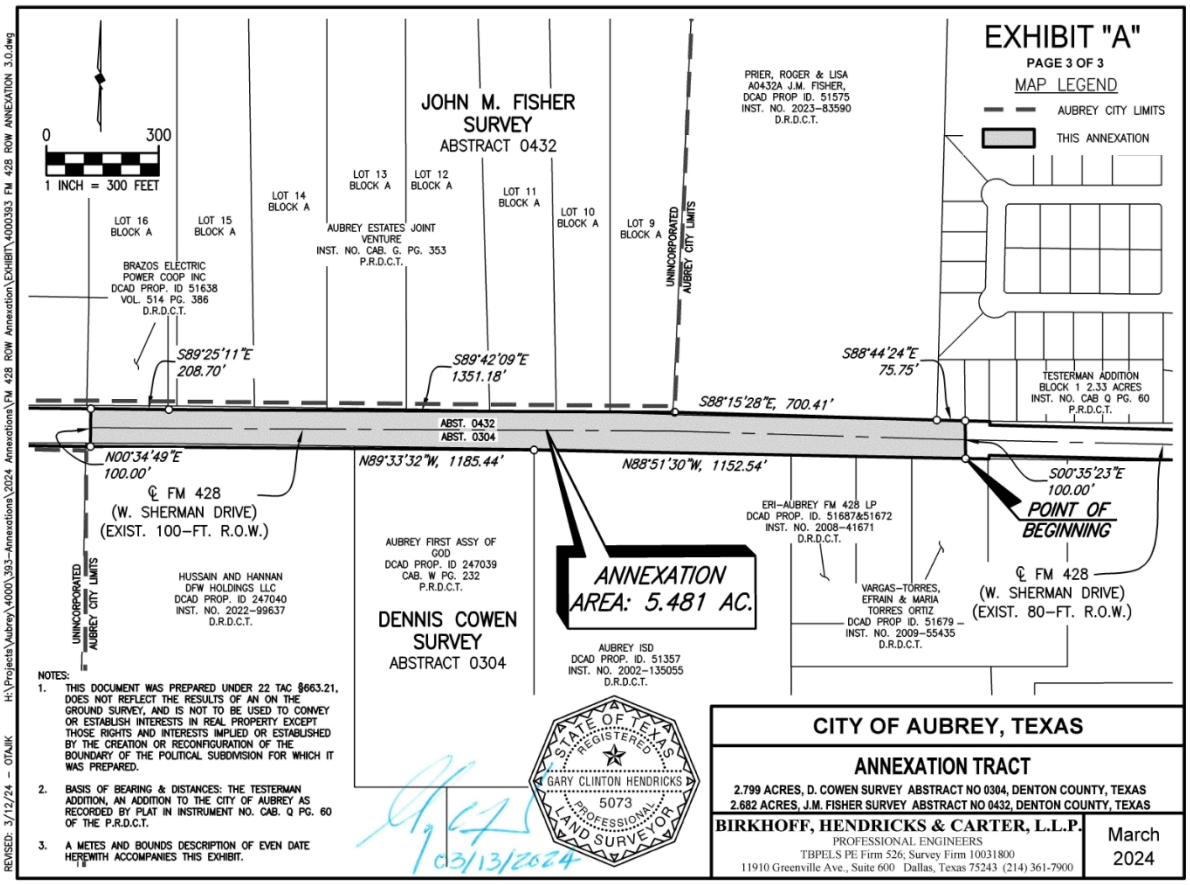


EXHIBIT "A"
PAGE 3 OF 3
MAP LEGEND
AUBREY CITY LIMITS
THIS ANNEXATION
0
300
1 INCH = 300 FEET
JOHN M. FISHER SURVEY
ABSTRACT 0432
DENNIS COWEN SURVEY
ABSTRACT 0304
LOT 16 BLOCK A
LOT 15 BLOCK A
LOT 14 BLOCK A
LOT 13 BLOCK A
LOT 12 BLOCK A
LOT 11 BLOCK A
LOT 10 BLOCK A
LOT 9 BLOCK A
AUBREY ESTATES JOINT VENTURE
INST. NO. CAB. G. PG. 353
P.R.D.C.T.
BRAZOS ELECTRIC POWER COOP INC
DCAD PROP. ID 51638
VOL. 514 PG. 386
D.R.D.C.T.
PRIER, ROGER & LISA
A0432A J.M. FISHER,
DCAD PROP ID. 51575
INST. NO. 2023-83590
D.R.D.C.T.
UNINCORPORATED AUBREY CITY LIMITS
S89°25'11"E
208.70'
S89°42'09"E
1351.18'
S88°44'24"E
75.75'
S88°15'28"E, 700.41'
TESTERMAN ADDITION
BLOCK 1 2.33 ACRES
INST. NO. CAB Q PG. 60
P.R.D.C.T.
ABST. 0432
ABST. 0304
N00°34'49"E
100.00'
℄ FM 428
(W. SHERMAN DRIVE)
(EXIST. 100-FT. R.O.W.)
N89°33'32"W, 1185.44'
N88°51'30"W, 1152.54'
S00°35'23"E
100.00'
POINT OF BEGINNING
ANNEXATION AREA: 5.481 AC.
HUSSAIN AND HANNAN
DFW HOLDINGS LLC
DCAD PROP. ID 247040
INST. NO. 2022-99637
D.R.D.C.T.
AUBREY FIRST ASSY OF GOD
DCAD PROP. ID 247039
CAB. W PG. 232
P.R.D.C.T.
AUBREY ISD
DCAD PROP. ID. 51357
INST. NO. 2002-135055
D.R.D.C.T.
ERI-AUBREY FM 428 LP
DCAD PROP. ID. 51687&51672
INST. NO. 2008-41671
D.R.D.C.T.
VARGAS-TORRES, EFRAIN & MARIA TORRES ORTIZ
DCAD PROP ID. 51679 –
INST. NO. 2009-55435
D.R.D.C.T.
℄ FM 428
(W. SHERMAN DRIVE)
(EXIST. 80-FT. R.O.W.)
NOTES:
1. 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.
2. BASIS OF BEARING & DISTANCES: THE TESTERMAN ADDITION, AN ADDITION TO THE CITY OF AUBREY AS RECORDED BY PLAT IN INSTRUMENT NO. CAB. Q PG. 60 OF THE P.R.D.C.T.
3. A METES AND BOUNDS DESCRIPTION OF EVEN DATE HEREWITH ACCOMPANIES THIS EXHIBIT.
STATE OF TEXAS
REGISTERED
GARY CLINTON HENDRICKS
5073
PROFESSIONAL LAND SURVEYOR
03/13/2024
CITY OF AUBREY, TEXAS
ANNEXATION TRACT
2.799 ACRES, D. COWEN SURVEY ABSTRACT NO 0304, DENTON COUNTY, TEXAS
2.682 ACRES, J.M. FISHER SURVEY ABSTRACT NO 0432, DENTON COUNTY, TEXAS
BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
TBPELS PE Firm 526; Survey Firm 10031800
11910 Greenville Ave., Suite 600 Dallas, Texas 75243 (214) 361-7900
March 2024
REVISED: 3/12/24 – OTA/JK H:\Projects\Aubrey\4000\393-Annexations\2024 Annexations\FM 428 ROW Annexation\EXHIBIT\4000393 FM 428 ROW ANNEXATION 3.0.dwg

Exhibit "B"
SERVICE PLAN

Upon annexation of the area identified above and as identified on Exhibit "A", the City of Aubrey will provide City services utilizing methods by which it extends services to any other equivalent area of the City.

SERVICES PROVIDED BY THE EFFECTIVE DATE OF ANNEXATION

1. **Police Protection**
   The City of Aubrey, Texas and its Police Department will provide police protection to newly annexed areas at the same or similar level of service now being provided to other areas of the City with like topography, land use and population density as those found within the newly annexed areas. The Police Department will have the responsibility to respond to all dispatched calls for service or assistance within the newly annexed areas.

2. **Fire Protection and Emergency Medical Services**
   The City of Aubrey, Texas and its Fire Department will provide fire protection to newly annexed areas at the same or similar level of service now being provided to other areas of the City, with like topography, land use and population density as those found within the newly annexed areas. The Fire Department will have the responsibility to respond to all dispatched calls for service or assistance within the newly annexed areas.

   The City of Aubrey, Texas and its Fire Department will provide EMS services to newly annexed areas at the same or similar level of service now being provided to other areas of the City, with like topography, land use and population density as those found within the newly annexed areas. The Fire Department will have the responsibility to respond to all dispatched calls for service or assistance within the newly annexed areas.

3. **Maintenance of Water and Wastewater Facilities**
   All water and wastewater facilities owned or maintained by the City of Aubrey at the time of the proposed annexation shall continue to be maintained by the City of Aubrey. All water and wastewater facilities which may be acquired subsequent to the annexation of the proposed areas shall be maintained by the City of Aubrey to the extent of its ownership. The now existing water and wastewater mains at existing locations shall be available for the point of use extension based upon the City of Aubrey standard extension policy now existing or as may be amended. On-site sewerage systems may be maintained in accordance with the City's Code of Ordinances.

4. **Solid Waste Collection**
   Solid waste collection is contracted through Republic Services and commercial accounts are arranged by each account individually with Republic Services. Solid waste collection will be provided to citizens in the newly annexed areas at the same or similar level of service now being provided to other areas of the City with like topography, land use and density as those found within the newly

annexed areas. The City may negotiate with annexed areas to allow continued services with an existing solid waste management provider. After the second anniversary of the annexation date, the City will impose fees and provide the service.

If areas with private roads and/or gates are arranged so that garbage may be collected without creating a safety hazard, the City, at its discretion, may collect the garbage provided proper indemnification is received from the community association or individual property owners. The City will then impose fees and provide the service. Garbage collection locations shall be subject to the approval of the Director of Public Works. In the event the City does not collect garbage within the areas with private roads and/or gates, residents of these areas will not be billed for service after the two-year date.

5. **Maintenance of Roads and Streets**

Any and all public roads, streets or alleyways shall be maintained to the same degree and extent that other public roads, streets, and alleyways are maintained in areas of the City with like topography, land use and density as those found within the newly annexed areas. Private roads will remain under the ownership of the homeowner association and as such maintained by the association.

6. **Maintenance of Parks, Playgrounds, and Swimming Pools**

The City of Aubrey, Texas is not aware of the existence of any publicly owned parks, playgrounds or swimming pools now located in the proposed areas of annexation. In the event any such parks, playgrounds, or swimming pools do exist and are public facilities, the City will maintain such areas and facilities to the extent and degree and to the same or similar level of service now being provided to other such areas and facilities within the corporate limits of the City with like topography, land use and density as those found within the newly annexed areas. Private facilities will remain under the ownership of the homeowner association and as such maintained by the association.

7. **Maintenance of any Publicly owned Facility, Building or Municipal Service**

The City of Aubrey, Texas is not aware of the existence of any publicly owned facility, building, or other municipal service now located in the proposed areas of annexation. In the event any publicly owned facility, building, or other municipal service does exist and are public facilities, the City will maintain such areas and facilities to the extent and degree and to the same or similar level of service now being provided to other such areas and facilities within the corporate limits of the City with like topography, land use and density as those found within the newly annexed areas.

8. **Other Services**

The City of Aubrey, Texas finds and determines that such services as planning, code enforcement, animal control, library, parks and recreation, court and general administration will be made available after the effective date of annexation at the same or similar level of service now being provided to other areas of the City with similar topography, land use and density as those found within the newly annexed areas.

CONSTRUCTION OF ANY CAPITAL IMPROVEMENTS TO BE COMPLETED WITHIN 2 ½ YEARS

1. **Police and Fire Protection and Solid Waste Collection**
   The City of Aubrey, Texas, finds and determines it is not necessary to acquire or construct any capital improvements within 2 ½ years of the effective date of the annexation of the particular annexed areas for the purpose of providing police protection, fire protection, emergency medical services or solid waste collection. The City finds and determines that it has at the present time adequate facilities and other resources to provide the same type, kind and level of service and protection which is presently being administered to other areas already incorporated in the City of Aubrey, Texas with like topography, land use and population density as those found within the newly annexed areas.

2. **Water and Wastewater Facilities**
   For the next 2 ½ years, the City of Aubrey, Texas finds and determines that there is sufficient capacity for water and wastewater to provide services to the annexed areas pursuant to the City of Aubrey extension policies.

3. **Roads and Streets**
   The City of Aubrey, Texas, finds and determines it is not necessary to acquire or construct any capital improvements within 2 ½ years of the effective date of the annexation of the particular annexed areas.

4. **Maintenance of Parks, Playgrounds, and Swimming Pools and Any Other Publicly Owned Facility, Building, or Service**
   The City of Aubrey, Texas, finds and determines it is not necessary to acquire or construct any capital improvements within 2 ½ years of the effective date of the annexation of the particular annexed areas for the purpose of parks maintenance, playgrounds, swimming pools and other publicly owned facility, building or service.

SPECIFIC FINDINGS

The City of Aubrey, Texas, finds and determines that this proposed service plan will not provide any fewer services and will not provide a lower level of service in the areas being considered for annexation that were in existence in the proposed areas at the time immediately preceding the annexation process. Given the proposed annexation areas' topography, land utilization and population density, the service levels to be provided in the newly annexed areas will be equivalent to those provided to other areas of the City with similar characteristics.

TERMS

This plan shall be valid for a term of ten (10) years. Renewal of the Service Plan is at the discretion of the City of Aubrey.

LEVEL OF SERVICE

Nothing in this plan shall require the City to provide a uniform level of full municipal services to each area of the City, including the annexed areas, if different characteristics

of topography, land use, and population density are considered a sufficient basis for providing different levels of service.

AMENDMENTS

The plan shall not be amended unless public hearings are held in accordance with Chapter 43 of the Texas Local Government Code.

City Council Meeting
Staff Report
November 20, 2025

Agenda Item

Consider and act on an Ordinance annexing approximately 10.58-acres of land known as a portion of FM 2931 from the existing Aubrey City Limits line to Blackjack Road, being legally described as being a part of the F. H. Pollard Survey, Abstract No. 995, the F. Trevino Survey, Abstract No. 1243, the J. Ryan Survey, Abstract No. 1069, and the T. Chambers Survey, Abstract No. 223, and an existing variable width right-of-way, Denton County, Texas.; and extending the boundary limits of the City to include the described property.

Staff Contact

Summary

Financial Summary

Staff Recommended Action

Staff Recommended Motion

CITY OF AUBREY, TEXAS
ORDINANCE NO. 939-25

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS, ANNEXING THE HEREINAFTER DESCRIBED PROPERTY CONSISTING OF AN APPROXIMATE ±10.58-ACRE TRACT OF LAND KNOWN AS A PORTION OF FM 2931 FROM THE EXISTING AUBREY CITY LIMITS LINE TO BLACKJACK ROAD, BEING LEGALLY DESCRIBED AS BEING A PART OF THE F. H. POLLARD SURVEY, ABSTRACT NO. 995, THE F. TREVINO SURVEY, ABSTRACT NO. 1243, THE J. RYAN SURVEY, ABSTRACT NO. 1069, AND THE T. CHAMBERS SURVEY, ABSTRACT NO. 223, AND AN EXISTING VARIABLE WIDTH RIGHT-OF-WAY, DENTON COUNTY, TEXAS AND ANY ADDITIONAL ASSOCIATED RIGHT-OF-WAY; AND EXTENDING THE BOUNDARY LIMITS OF SAID CITY SO AS TO INCLUDE THE DESCRIBED PROPERTY WITHIN THE CITY LIMITS; PROVIDING FOR INCORPORATION OF PREMISES, AMENDING OF THE OFFICIAL CITY MAP, AND ACKNOWLEDGING A SERVICE PLAN; REQUIRING THE FILING OF THIS ORDINANCE WITH THE COUNTY CLERK; PRESCRIBING FOR EFFECT ON TERRITORY, GRANTING AS APPROPRIATE TO ALL THE INHABITANTS OF SAID PROPERTY ALL THE RIGHTS AND PRIVILEGES OF OTHER CITIZENS AND BINDING SAID INHABITANTS BY ALL OF THE ACTS, ORDINANCES, RESOLUTIONS, AND REGULATIONS OF THE CITY OF AUBREY, TEXAS; PROVIDING CUMULATIVE REPEALER, SEVERABILITY AND SAVINGS CLAUSES; PROVIDING FOR ENGROSSMENT AND ENROLLMENT; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Aubrey (the "City") is a home-rule municipality located in Denton County, Texas, created in accordance with the provisions of the Texas Local Government Code and operating pursuant to the enabling legislation of the State of Texas; and

WHEREAS, the City desires to annex the certain property described and depicted in **Exhibit "A",** attached and incorporated as if set forth fully herein (the "Property"); and

WHEREAS, in accordance with Chapter 43 of the Texas Local Government Code, the City now desires to annex a ±10.58-acre tract of land known as a portion of FM 2931 from the existing Aubrey City Limits line to Blackjack Road, being legally described as being a part of the F. H. Pollard Survey, Abstract No. 995, the F. Trevino Survey, Abstract No. 1243, the J. Ryan Survey, Abstract No. 1069, and the T. Chambers Survey, Abstract No. 223, and an existing variable width right-of-way, Denton, County Texas and any additional associated right-of-way; and

WHEREAS, in accordance with Chapter 43 of the Texas Local Government Code, all requirements for the annexation, including required notices and public hearings, have been provided, held, and met; and

WHEREAS, the City Council of the City (the "City Council") has determined that the Property is located in the extraterritorial jurisdiction (the "ETJ") of the City; and

WHEREAS, the City Council has investigated into, has determined and officially finds that no part of the Property is within the ETJ of any other incorporated city or town; and

WHEREAS, to the extent that this Ordinance would cause an unincorporated area to be entirely surrounded by the City's limits, the City Council has found, and incorporates herein its finding, that surrounding the area is in the public interest; and

WHEREAS, the City acknowledges that it shall provide services to the Property deemed necessary in the service plan in **Exhibit "B"**, attached hereto and incorporated as if fully set forth herein, in accordance with Section 43.065 of the Texas Local Government Code; and

WHEREAS, the City Council finds and determines that annexation of the Property as requested by the property owner is in the best interests of the citizens of the City of Aubrey and the owners and residents of the area.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUBREY, TEXAS, THAT:

Section 1. Findings Incorporated. It is hereby officially determined that the findings and recitations contained above in the preamble of this Ordinance are true and correct and are incorporated herein by reference.

Section 2. Annexation of Area. The Property, and any and all adjacent rights-of-way, are hereby annexed into the City, and that the boundary limits of the City be and the same are hereby extended to include the Property and any and all adjacent rights-of-way within the city limits of the City, and the same shall hereafter be included within the territorial limits of the City, and the inhabitants thereof shall hereafter be entitled to all the rights and privileges of other citizens of the City and they shall be bound by the acts, ordinances, resolutions, and regulations of the City.

Section 3. Official City Map Amended. The official map and boundaries of the City, previously adopted, are amended to include the Property as part of the City. The City Secretary is directed and authorized to perform or cause to be performed all acts necessary to correct the official map of the City to add the annexed Property as required by applicable law.

Section 4. Filing of Ordinance Required. The City Secretary is hereby directed and authorized to file or cause to be filed a certified copy of this Ordinance in the office of the County Clerk of each county in which all or a portion of the Property and any and all adjacent rights-of-way is located, and with other appropriate officials and agencies as required by state and federal law.

Section 5. Effect on Territory. From and after the passage of this Ordinance, the Property and any and all adjacent rights-of-way shall be a part of the City, and subject to the service plan referenced in the above Premises incorporated by Section 1 of this Ordinance. The inhabitants thereof shall be entitled to all of the rights, privileges and immunities as all other citizens of the City and shall be bound by all of the Ordinances and regulations enacted pursuant to and in conformity with the general laws of the State of Texas.

Section 6. Cumulative Repealer/Savings. All provisions of any Ordinance in conflict with this Ordinance are hereby repealed, but such repeal shall not abate any pending prosecution from being commenced for any violation if occurring prior to the repeal of the Ordinance. Any remaining provisions shall remain in full force and effect.

Section 7. Severability. Should any section, subsection, sentence, clause, or phrase of this Ordinance be declared unconstitutional or invalid by a court of competent jurisdiction, it is expressly provided that any and all remaining portions of this Ordinance shall remain in full force and effect. The City of Aubrey hereby declares that it would have passed this Ordinance, and each section, subsection, clause, or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional or invalid.

Section 8. Engrossment and Enrollment. The City Secretary is hereby directed to engross and enroll this Ordinance by copying the exact caption and Effective Date clause in the minutes of the City Council and by filing this Ordinance in the ordinance records of the City.

Section 9. Effective Date. This Ordinance shall become effective immediately upon its passage and approval.

PASSED AND APPROVED by the City Council of the City of Aubrey, Texas this the 20th day of November, 2025.

APPROVED:

_____
Chris Rich, Mayor

ATTEST:

_____
Jenny Hicks, City Secretary

Exhibit "A"
Property Legal Description and Depiction

EXHIBIT "A"
METES AND BOUNDS DESCRIPTION
FOR ANNEXATION INTO THE CITY LIMITS OF THE CITY OF AUBREY, TEXAS IN THE F. H. POLLARD SURVEY, ABSTRACT 995, THE F. TREVINO SURVEY, ABSTRACT NO. 1243, THE J. RYAN SURVEY, ABSTRACT NO. 1069, AND THE T. CHAMBERS SURVEY, ABSTRACT NO. 223, DENTON COUNTY, TEXAS

Being a 10.58 acre tract of land, for annexation into the City Limits of the City of Aubrey, Texas, and being the full right-of-way width of Farm to Market Road 2931 (F.M. 2931) (a variable width right-of-way) as it exists today, or as it may exist in the future, from the existing Aubrey City Limits line, as defined by Aubrey Annexation Ordinance 220, dated March 15, 1996, and recorded in Instrument Number 1996-19494 of the Deed Records of Denton County, Texas (D.R.D.C.T.), Aubrey Annexation Ordinance, dated July 29, 2024, and recorded in Instrumental Number 2024-80729 of the Official Public Records of Denton County, Texas (O.P.R.D.C.T.), and Aubrey Annotation 881, dated September 30, 2024, and recorded in Instrument Number 2024-105320 (O.P.R.D.C.T.), to Blackjack Road (apparent prescriptive right-of-way), said 10.58 acre tract, in the F. H. Pollard Survey, Abstract No. 995, the F. Trevino Survey, Abstract No. 1243, the J. Ryan Survey, Abstract No. 1069, and the T. Chambers Survey, Abstract No. 223, Denton County, Texas, being more particularly described as follows:

BEGINNING at a point for corner, said point being on the east right-of-way line of said F.M. 2931;

THENCE, S43°19'18"E, along the east right-of-way line of said F.M. 2931, a distance of 99.10 feet to a point for corner;

THENCE, S46°40'42"W, continuing along the east right-of-way line of said F.M. 2931, a distance of 98.80 feet to a point corner;

THENCE, S01°45'42"W, continuing along the east right-of-way line of said F.M. 2931, a distance of 3,908.97 feet to a point for corner, said point being in the existing right-of-way of said F.M. 2931, and the existing right-of-way of Farm to Market Road 428 (F.M. 428) (variable width right-of-way), said point being on the existing City Limits of the City of Aubrey, and also being the beginning of a curve to left, having a central angle of 02 degrees 54 minutes 28 seconds, a radius of 463.11 feet and being subtended by a chord bearing of N82°15'07"W, a chord distance of 23.50 feet;

THENCE, being across the aforementioned right-of-way, and being along said existing City Limits of the City of Aubrey, and along said curve to the left, an arc distance of 23.50 feet to a point for corner;

THENCE, S02°00'13"W, continuing across said right-of-way, and being along said existing City Limits of the City of Aubrey, a distance of 79.10 feet to a point for corner, said point being the beginning of a curve to left, having a central angle of 03 degrees 26 minutes 25 seconds, a radius of 56.58 feet and being subtended by a chord bearing of N81°18'11"W, a chord distance of 3.40 feet;

THENCE, continuing across said right-of-way, and being along said existing City Limits of the City of Aubrey, and being along said curve to the left, an arc distance of 3.40 feet to a point for corner, said point being the beginning of a curve to left, having a central angle of 07 degrees 32 minutes 38 seconds, a radius of 351.54 feet and being subtended by a chord bearing of N85°16'55"W, a chord distance of 46.25 feet;

THENCE, continuing across said right-of-way, and being along said existing City Limits of the City of Aubrey, and along said curve to the left, an arc distance of 46.28 feet to a point for corner;

EXHIBIT "A"
METES AND BOUNDS DESCRIPTION
FOR ANNEXATION INTO THE CITY LIMITS OF THE CITY OF AUBREY, TEXAS IN THE F. H. POLLARD SURVEY, ABSTRACT 995, THE F. TREVINO SURVEY, ABSTRACT NO. 1243, THE J. RYAN SURVEY, ABSTRACT NO. 1069, AND THE T. CHAMBERS SURVEY, ABSTRACT NO. 223, DENTON COUNTY, TEXAS

THENCE, N88°36'28"W, continuing across said right-of-way, and being along said existing City Limits of the City of Aubrey, a distance of 25.91 feet to a point for corner;

THENCE, N01°23'32"E, , continuing across said right-of-way, and being along said existing City Limits of the City of Aubrey, a distance of 128.39 feet to a point of corner;

THENCE, S46°34'12"W, continuing across said right-of-way, and being along said existing City Limits of the City of Aubrey, a distance of 71.42 feet to a point of corner;

THENCE, N88°34'18"W, continuing across said right-of-way, and being along said existing City Limits of the City of Aubrey, a distance of 127.19 feet to a point of corner, said point being on the north right-of-way line of said F.M. 428, and the west right-of-way line of said F.M. 2931;

THENCE, N02°00'29"E, departing the north right-of-way line of said F.M. 428, and the existing City Limits of the City of Aubrey, and being along the west right-of-way line of said F.M. 2931, a distance of 30.40 feet to a point of corner;

THENCE, S87°59'31"E, continuing along the west right-of-way line of said F.M. 2931, a distance of 77.71 feet to a point corner;

THENCE, N49°38'25"E, continuing along the west right-of-way line of said F.M. 2931, a distance of 71.43 feet to a point corner;

THENCE, N07°16'21"E, continuing along the west right-of-way line of said F.M. 2931, a distance of 134.28 feet to a point corner, said point being the beginning of a curve to right, having a central angle of 02 degrees 49 minutes 20 seconds, a radius of 3,022.00 feet and being subtended by a chord bearing of N08°41'01"E, a chord distance of 148.84 feet;

THENCE, along the west right-of-way line of said F.M. 2931, and along said curve to the right, an arc distance of 148.86 feet to a point for corner, said point also being the beginning of a curve to left, having a central angle of 02 degrees 28 minutes 14 seconds, a radius of 2,978.00 feet and being subtended by a chord bearing of N08°51'34"E, a chord distance of 128.40 feet;

THENCE, continuing along the west right-of-way line of said F.M. 2931, and along said curve to the left, an arc distance od 128.41 feet to a point of corner;

THENCE, N01°45'42"E, continuing along the west right-of-way line of said F.M. 2931, a distance of 1,210.82 feet to a point for corner

THENCE, N02°49'18"W, continuing along the west right-of-way line of said F.M. 2931, a distance of 125.10 feet to a point for corner;

EXHIBIT "A"
METES AND BOUNDS DESCRIPTION
FOR ANNEXATION INTO THE CITY LIMITS OF THE CITY OF AUBREY, TEXAS IN THE F. H. POLLARD SURVEY, ABSTRACT 995, THE F. TREVINO SURVEY, ABSTRACT NO. 1243, THE J. RYAN SURVEY, ABSTRACT NO. 1069, AND THE T. CHAMBERS SURVEY, ABSTRACT NO. 223, DENTON COUNTY, TEXAS

THENCE, N01°45'42"E, continuing along the west right-of-way line of said F.M. 2931, a distance of 2,080.00 feet to a point for corner;

THENCE, N43°19'18"W, continuing along the west right-of-way line of said F.M. 2931, a distance of 98.80 feet to a point for corner, said point being in the approximate centerline of said Blackjack Road;

THENCE, N46°40'42"E, departing the approximate centerline of said Blackjack Road, and continuing along the west right-of-way line of said F.M. 2931, a distance of 98.80 feet to a point corner;

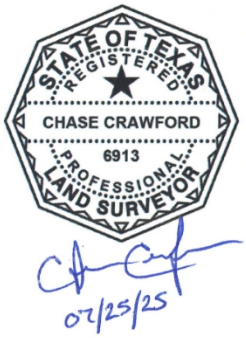
THENCE, N01°45'42"E, continuing along the west right-of-way line of said F.M. 2931, a distance of 4.01 feet to a point for corner;

THENCE, S88°14'18"E, departing the west right-of-way line of said F.M. 2931, and being across the right-of-way of said F.M. 2931, a distance of 109.79 feet to the POINT OF BEGINNING, said annexation tract containing 10.58 acres (460,699 square feet) of land, more or less.

Notes:

1. This document was prepared under 22 TAC § 138.95, and 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 right and interests implied or established by the creation or reconfiguration of the boundary of the political subdivision for which it was prepared.
2. Basis of Bearings & Distances: TxDOT Right-of-way strip map for F.M. 2931, from F.M. 428, 2.5 miles east of Aubrey, north to County Road. Dated 9/14/1965, Control 2979, Section 1. Rotated 01°28'18" counterclockwise to match Denton County Parcel Map
3. A Plat of even date herewith accompanies this Metes and Bounds Description.

Chase Crawford, R.P.L.S.
Texas Registration No. 6913
Birkhoff, Hendricks & Carter, L.L.P.
TBPLS Firm No. 100318-00
11910 Greenville Ave., Suite 600
Dallas, Texas 75243



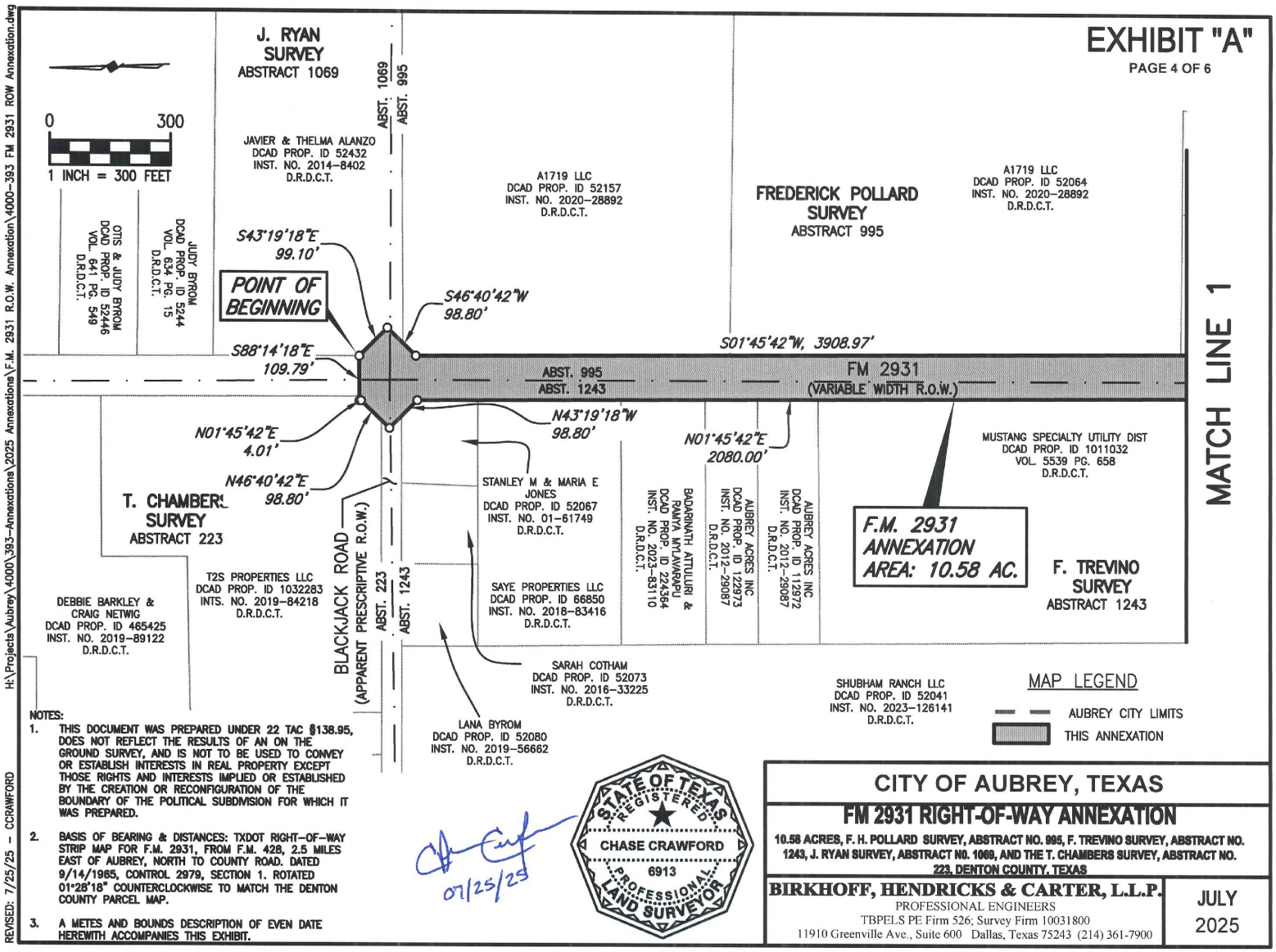


EXHIBIT "A"
PAGE 4 OF 6
J. RYAN SURVEY ABSTRACT 1069
FREDERICK POLLARD SURVEY ABSTRACT 995
T. CHAMBERS SURVEY ABSTRACT 223
F. TREVINO SURVEY ABSTRACT 1243
0 300
1 INCH = 300 FEET
ABST. 1069
ABST. 995
ABST. 223
ABST. 1243
JAVIER & THELMA ALANZO DCAD PROP. ID 52432 INST. NO. 2014-8402 D.R.D.C.T.
A1719 LLC DCAD PROP. ID 52157 INST. NO. 2020-28892 D.R.D.C.T.
A1719 LLC DCAD PROP. ID 52064 INST. NO. 2020-28892 D.R.D.C.T.
OTIS & JUDY BYROM DCAD PROP. ID 52446 VOL. 641 PG. 549 D.R.D.C.T.
JUDY BYROM DCAD PROP. ID 5244 VOL. 634 PG. 15 D.R.D.C.T.
S43°19'18"E 99.10'
POINT OF BEGINNING
S46°40'42"W 98.80'
S88°14'18"E 109.79'
S01°45'42"W, 3908.97'
FM 2931 (VARIABLE WIDTH R.O.W.)
N01°45'42"E 4.01'
N46°40'42"E 98.80'
N43°19'18"W 98.80'
N01°45'42"E 2080.00'
MUSTANG SPECIALTY UTILITY DIST DCAD PROP. ID 1011032 VOL. 5539 PG. 658 D.R.D.C.T.
F.M. 2931 ANNEXATION AREA: 10.58 AC.
MATCH LINE 1
BLACKJACK ROAD (APPARENT PRESCRIPTIVE R.O.W.)
STANLEY M & MARIA E JONES DCAD PROP. ID 52067 INST. NO. 01-61749 D.R.D.C.T.
BADARINATH ATTULURI & RAMYA MYLAVARAPU DCAD PROP. ID 224364 INST. NO. 2023-83110 D.R.D.C.T.
AUBREY ACRES INC DCAD PROP. ID 122973 INST. NO. 2012-29087 D.R.D.C.T.
AUBREY ACRES INC DCAD PROP. ID 112972 INST. NO. 2012-29087 D.R.D.C.T.
DEBBIE BARKLEY & CRAIG NETWIG DCAD PROP. ID 465425 INST. NO. 2019-89122 D.R.D.C.T.
T2S PROPERTIES LLC DCAD PROP. ID 1032283 INTS. NO. 2019-84218 D.R.D.C.T.
SAYE PROPERTIES LLC DCAD PROP. ID 66850 INST. NO. 2018-83416 D.R.D.C.T.
SARAH COTHAM DCAD PROP. ID 52073 INST. NO. 2016-33225 D.R.D.C.T.
LANA BYROM DCAD PROP. ID 52080 INST. NO. 2019-56662 D.R.D.C.T.
SHUBHAM RANCH LLC DCAD PROP. ID 52041 INST. NO. 2023-126141 D.R.D.C.T.
MAP LEGEND
AUBREY CITY LIMITS
THIS ANNEXATION
NOTES:
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07/25/25
CITY OF AUBREY, TEXAS
FM 2931 RIGHT-OF-WAY ANNEXATION
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BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
TBPELS PE Firm 526; Survey Firm 10031800
11910 Greenville Ave., Suite 600 Dallas, Texas 75243 (214) 361-7900
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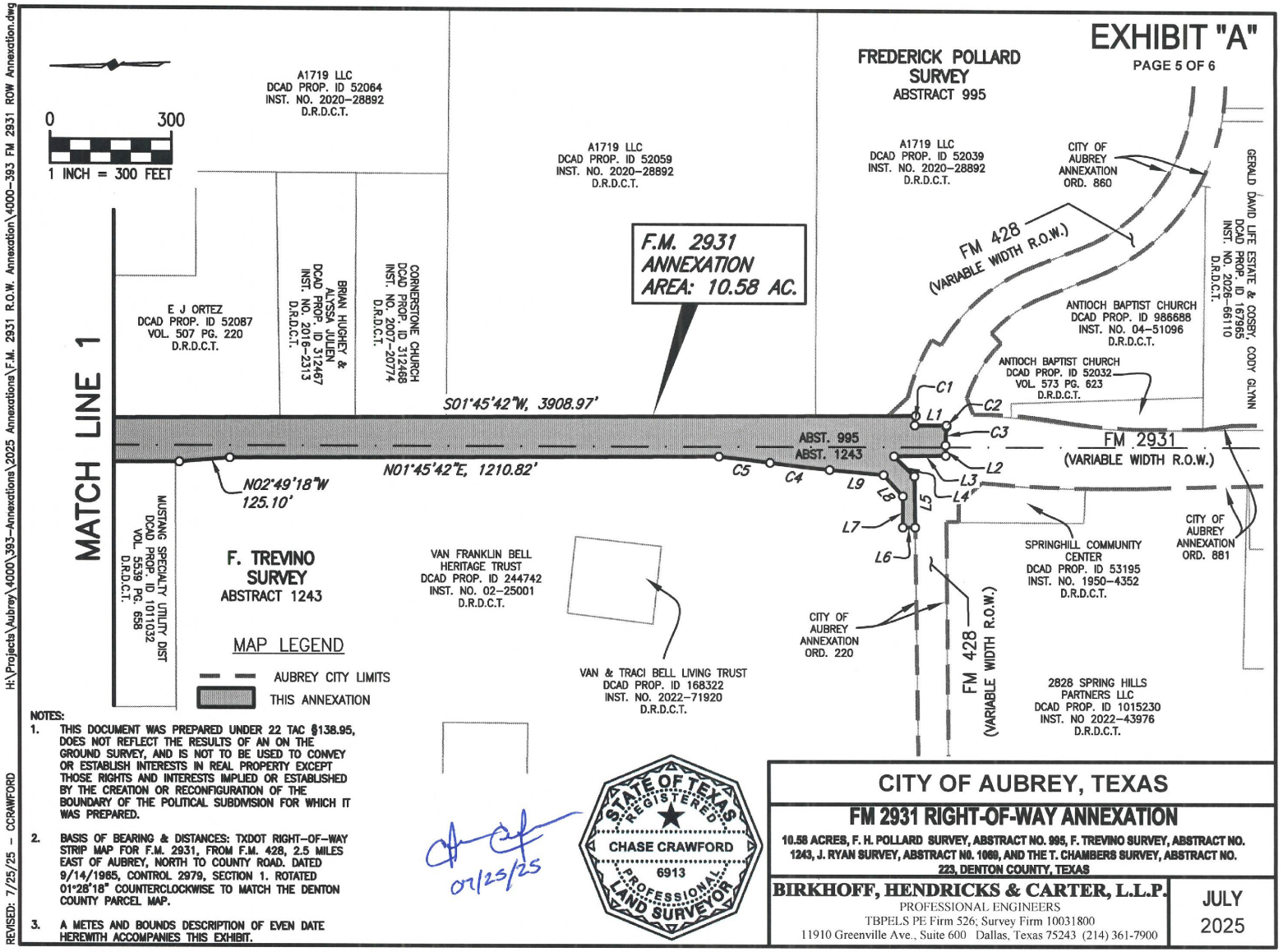
EXHIBIT "A"
PAGE 5 OF 6
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300
1 INCH = 300 FEET
MATCH LINE 1
A1719 LLC
DCAD PROP. ID 52064
INST. NO. 2020-28892
D.R.D.C.T.
A1719 LLC
DCAD PROP. ID 52059
INST. NO. 2020-28892
D.R.D.C.T.
A1719 LLC
DCAD PROP. ID 52039
INST. NO. 2020-28892
D.R.D.C.T.
FREDERICK POLLARD
SURVEY
ABSTRACT 995
CITY OF
AUBREY
ANNEXATION
ORD. 860
GERALD DAVID LIFE ESTATE & COSBY, CODY GLYNN
DCAD PROP. ID 167965
INST. NO. 2026-66110
D.R.D.C.T.
F.M. 2931
ANNEXATION
AREA: 10.58 AC.
FM 428
(VARIABLE WIDTH R.O.W.)
E J ORTEZ
DCAD PROP. ID 52087
VOL. 507 PG. 220
D.R.D.C.T.
BRIAN HUGHEY &
ALYSSA JULIEN
DCAD PROP. ID 312467
INST. NO. 2016-2313
D.R.D.C.T.
CORNERSTONE CHURCH
DCAD PROP. ID 312468
INST. NO. 2007-20774
D.R.D.C.T.
ANTIOCH BAPTIST CHURCH
DCAD PROP. ID 986688
INST. NO. 04-51096
D.R.D.C.T.
ANTIOCH BAPTIST CHURCH
DCAD PROP. ID 52032
VOL. 573 PG. 623
D.R.D.C.T.
S01°45'42"W, 3908.97'
ABST. 995
ABST. 1243
FM 2931
(VARIABLE WIDTH R.O.W.)
N01°45'42"E, 1210.82'
N02°49'18"W
125.10'
C1
C2
C3
C4
C5
L1
L2
L3
L4
L5
L6
L7
L8
L9
MUSTANG SPECIALTY UTILITY DIST
DCAD PROP. ID 1011032
VOL. 5539 PG. 658
D.R.D.C.T.
F. TREVINO
SURVEY
ABSTRACT 1243
VAN FRANKLIN BELL
HERITAGE TRUST
DCAD PROP. ID 244742
INST. NO. 02-25001
D.R.D.C.T.
SPRINGHILL COMMUNITY
CENTER
DCAD PROP. ID 53195
INST. NO. 1950-4352
D.R.D.C.T.
CITY OF
AUBREY
ANNEXATION
ORD. 881
CITY OF
AUBREY
ANNEXATION
ORD. 220
FM 428
(VARIABLE WIDTH R.O.W.)
MAP LEGEND
AUBREY CITY LIMITS
THIS ANNEXATION
VAN & TRACI BELL LIVING TRUST
DCAD PROP. ID 168322
INST. NO. 2022-71920
D.R.D.C.T.
2828 SPRING HILLS
PARTNERS LLC
DCAD PROP. ID 1015230
INST. NO 2022-43976
D.R.D.C.T.
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LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	S02°00'13"W	79.10'
L2	N88°36'28"W	25.91'
L3	N01°23'32"E	128.39'
L4	S46°34'12"W	71.42'
L5	N88°37'18"W	127.19'
L6	N02°00'29"E	30.40'
L7	S87°59'31"E	77.71'
L8	N49°38'25"E	71.43'
L9	N07°16'21"E	134.28'

CURVE DATA TABLE					
CURVE #	RADIUS	CENTRAL ANGLE (Δ)	ARC LENGTH	CHORD BEARING	CHORD DISTANCE
C1	463.11'	2°54'28"	23.50'	N82°15'07"W	23.50'
C2	56.58'	3°26'25"	3.40'	N81°18'11"W	3.40'
C3	351.54'	7°32'38"	46.28'	N85°16'55"W	46.25'
C4	3022.00'	2°49'20"	148.86'	N08°41'01"E	148.84'
C5	2978.00'	2°28'14"	128.41'	N08°51'34"E	128.40'

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JULY 2025

Exhibit "B"
SERVICE PLAN

Upon annexation of the area identified above and as identified on Exhibit "A", the City of Aubrey will provide City services utilizing methods by which it extends services to any other equivalent area of the City.

SERVICES PROVIDED BY THE EFFECTIVE DATE OF ANNEXATION

1. **Police Protection**
   The City of Aubrey, Texas and its Police Department will provide police protection to newly annexed areas at the same or similar level of service now being provided to other areas of the City with like topography, land use and population density as those found within the newly annexed areas. The Police Department will have the responsibility to respond to all dispatched calls for service or assistance within the newly annexed areas.

2. **Fire Protection and Emergency Medical Services**
   The City of Aubrey, Texas and its Fire Department will provide fire protection to newly annexed areas at the same or similar level of service now being provided to other areas of the City, with like topography, land use and population density as those found within the newly annexed areas. The Fire Department will have the responsibility to respond to all dispatched calls for service or assistance within the newly annexed areas.

   The City of Aubrey, Texas and its Fire Department will provide EMS services to newly annexed areas at the same or similar level of service now being provided to other areas of the City, with like topography, land use and population density as those found within the newly annexed areas. The Fire Department will have the responsibility to respond to all dispatched calls for service or assistance within the newly annexed areas.

3. **Maintenance of Water and Wastewater Facilities**
   All water and wastewater facilities owned or maintained by the City of Aubrey at the time of the proposed annexation shall continue to be maintained by the City of Aubrey. All water and wastewater facilities which may be acquired subsequent to the annexation of the proposed areas shall be maintained by the City of Aubrey to the extent of its ownership. The now existing water and wastewater mains at existing locations shall be available for the point of use extension based upon the City of Aubrey standard extension policy now existing or as may be amended. On-site sewerage systems may be maintained in accordance with the City's Code of Ordinances.

4. **Solid Waste Collection**
   Solid waste collection is contracted through Republic Services and commercial accounts are arranged by each account individually with Republic Services. Solid waste collection will be provided to citizens in the newly annexed areas at the same or similar level of service now being provided to other areas of the City with like topography, land use and density as those found within the newly

annexed areas. The City may negotiate with annexed areas to allow continued services with an existing solid waste management provider. After the second anniversary of the annexation date, the City will impose fees and provide the service.

If areas with private roads and/or gates are arranged so that garbage may be collected without creating a safety hazard, the City, at its discretion, may collect the garbage provided proper indemnification is received from the community association or individual property owners. The City will then impose fees and provide the service. Garbage collection locations shall be subject to the approval of the Director of Public Works. In the event the City does not collect garbage within the areas with private roads and/or gates, residents of these areas will not be billed for service after the two-year date.

5. **Maintenance of Roads and Streets**

Any and all public roads, streets or alleyways shall be maintained to the same degree and extent that other public roads, streets, and alleyways are maintained in areas of the City with like topography, land use and density as those found within the newly annexed areas. Private roads will remain under the ownership of the homeowner association and as such maintained by the association.

6. **Maintenance of Parks, Playgrounds, and Swimming Pools**

The City of Aubrey, Texas is not aware of the existence of any publicly owned parks, playgrounds or swimming pools now located in the proposed areas of annexation. In the event any such parks, playgrounds, or swimming pools do exist and are public facilities, the City will maintain such areas and facilities to the extent and degree and to the same or similar level of service now being provided to other such areas and facilities within the corporate limits of the City with like topography, land use and density as those found within the newly annexed areas. Private facilities will remain under the ownership of the homeowner association and as such maintained by the association.

7. **Maintenance of any Publicly owned Facility, Building or Municipal Service**

The City of Aubrey, Texas is not aware of the existence of any publicly owned facility, building, or other municipal service now located in the proposed areas of annexation. In the event any publicly owned facility, building, or other municipal service does exist and are public facilities, the City will maintain such areas and facilities to the extent and degree and to the same or similar level of service now being provided to other such areas and facilities within the corporate limits of the City with like topography, land use and density as those found within the newly annexed areas.

8. **Other Services**

The City of Aubrey, Texas finds and determines that such services as planning, code enforcement, animal control, library, parks and recreation, court and general administration will be made available after the effective date of annexation at the same or similar level of service now being provided to other areas of the City with similar topography, land use and density as those found within the newly annexed areas.

CONSTRUCTION OF ANY CAPITAL IMPROVEMENTS TO BE COMPLETED WITHIN 2 ½ YEARS

1. **Police and Fire Protection and Solid Waste Collection**
   The City of Aubrey, Texas, finds and determines it is not necessary to acquire or construct any capital improvements within 2 ½ years of the effective date of the annexation of the particular annexed areas for the purpose of providing police protection, fire protection, emergency medical services or solid waste collection. The City finds and determines that it has at the present time adequate facilities and other resources to provide the same type, kind and level of service and protection which is presently being administered to other areas already incorporated in the City of Aubrey, Texas with like topography, land use and population density as those found within the newly annexed areas.

2. **Water and Wastewater Facilities**
   For the next 2 ½ years, the City of Aubrey, Texas finds and determines that there is sufficient capacity for water and wastewater to provide services to the annexed areas pursuant to the City of Aubrey extension policies.

3. **Roads and Streets**
   The City of Aubrey, Texas, finds and determines it is not necessary to acquire or construct any capital improvements within 2 ½ years of the effective date of the annexation of the particular annexed areas.

4. **Maintenance of Parks, Playgrounds, and Swimming Pools and Any Other Publicly Owned Facility, Building, or Service**
   The City of Aubrey, Texas, finds and determines it is not necessary to acquire or construct any capital improvements within 2 ½ years of the effective date of the annexation of the particular annexed areas for the purpose of parks maintenance, playgrounds, swimming pools and other publicly owned facility, building or service.

SPECIFIC FINDINGS

The City of Aubrey, Texas, finds and determines that this proposed service plan will not provide any fewer services and will not provide a lower level of service in the areas being considered for annexation that were in existence in the proposed areas at the time immediately preceding the annexation process. Given the proposed annexation areas' topography, land utilization and population density, the service levels to be provided in the newly annexed areas will be equivalent to those provided to other areas of the City with similar characteristics.

TERMS

This plan shall be valid for a term of ten (10) years. Renewal of the Service Plan is at the discretion of the City of Aubrey.

LEVEL OF SERVICE

Nothing in this plan shall require the City to provide a uniform level of full municipal services to each area of the City, including the annexed areas, if different characteristics

of topography, land use, and population density are considered a sufficient basis for providing different levels of service.

AMENDMENTS

The plan shall not be amended unless public hearings are held in accordance with Chapter 43 of the Texas Local Government Code.

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Conduct the second public hearing in accordance with Texas Local Government Code Section 43.063(a) and other applicable law, to consider testimony and provide members of the public an opportunity to be heard on the proposed annexation of a ±13.06-acre tract of land known as a portion of Blackjack Road, legally described as being all of the prescriptive right-of-way of Blackjack Road, generally 30 feet in width along the existing city limits and expanding to a total width of 60 feet after departing the existing city limits, beginning at east right-of-way line of U.S. Highway 377 continuing to FM 2931, being legally described as being a part of the F. Trevino Survey, Abstract No. 1243, and the T. Chambers Survey, Abstract No. 223, Denton County, Texas.

Staff Contact
Charles Kreidler, City Manager
kreidler@aubreytx.gov
940-440-9343

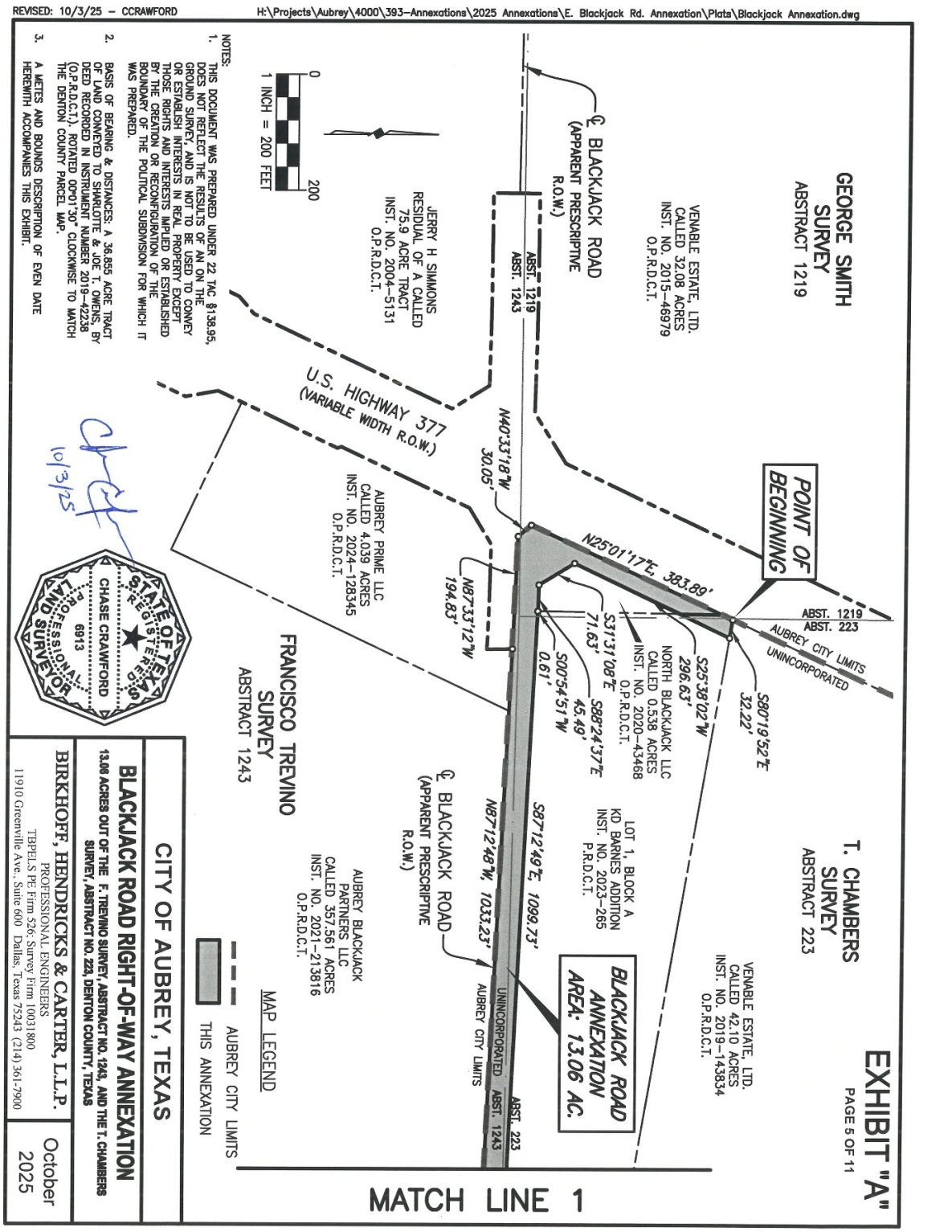
Summary
This is the second public hearing for the annexation of a portion of Blackjack Road. Final consideration and action on the annexation ordinance will be held at the regular council meeting in December.

Financial Summary

Staff Recommended Action
Approve

Staff Recommended Motion
No action. Public hearing only.

EXHIBIT "A"
DESCRIBING AND DEPICTING AREA PROPOSED TO BE ANNEXED BY THE CITY OF AUBREY



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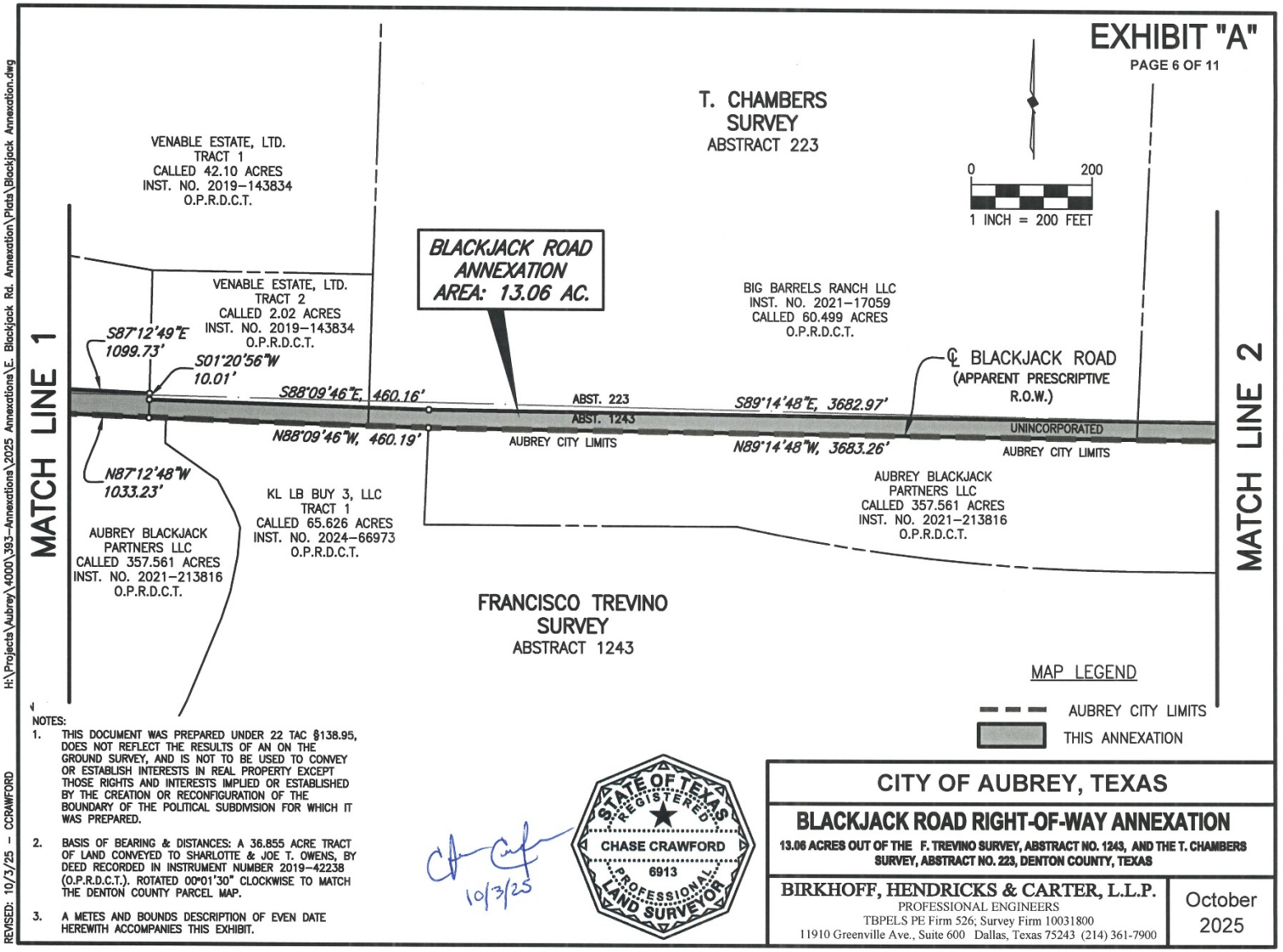

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10/3/25

CITY OF AUBREY, TEXAS

BLACKJACK ROAD RIGHT-OF-WAY ANNEXATION

13.06 ACRES OUT OF THE F. TREVINO SURVEY, ABSTRACT NO. 1243, AND THE T. CHAMBERS SURVEY, ABSTRACT NO. 223, DENTON COUNTY, TEXAS

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PROFESSIONAL ENGINEERS
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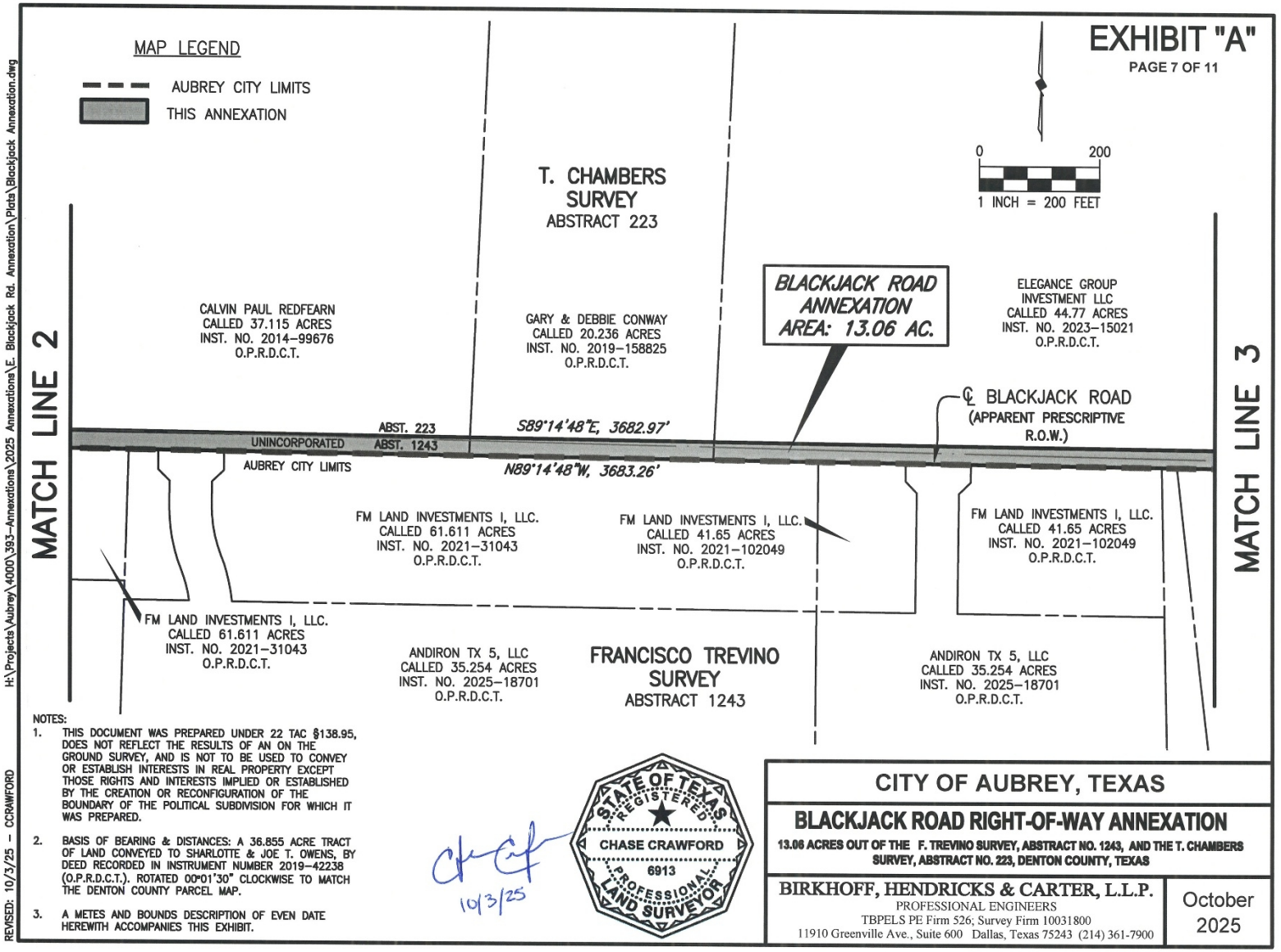

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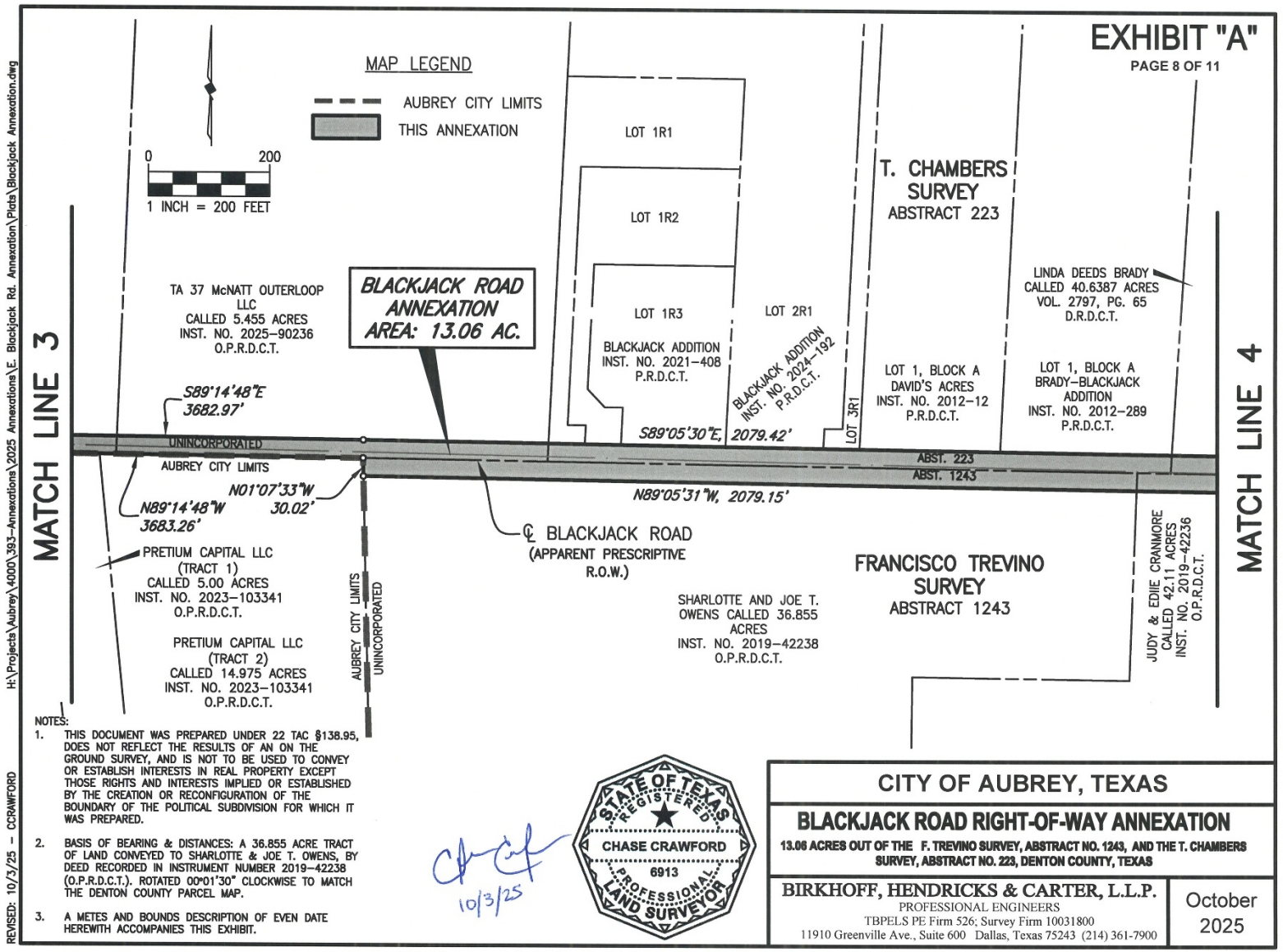

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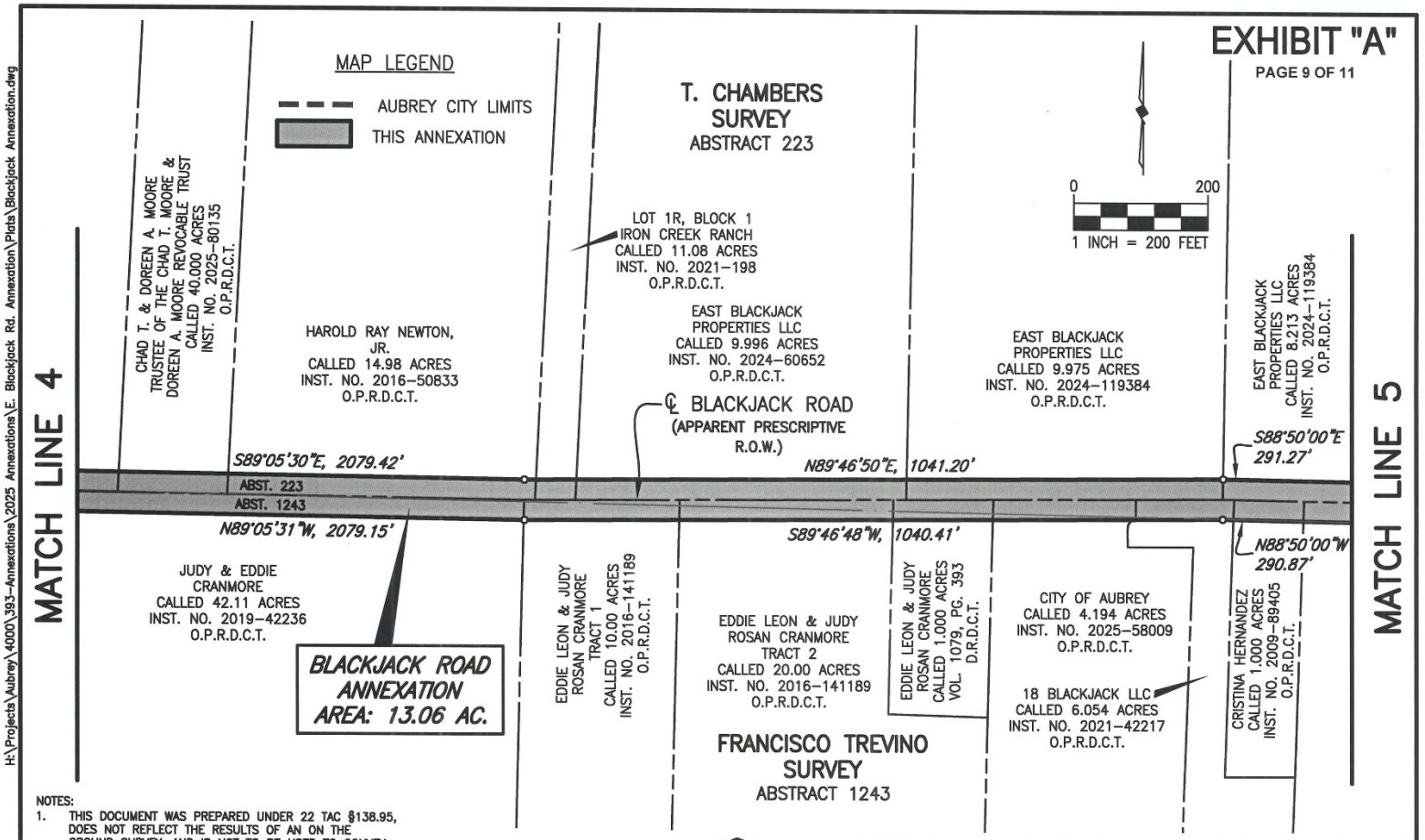

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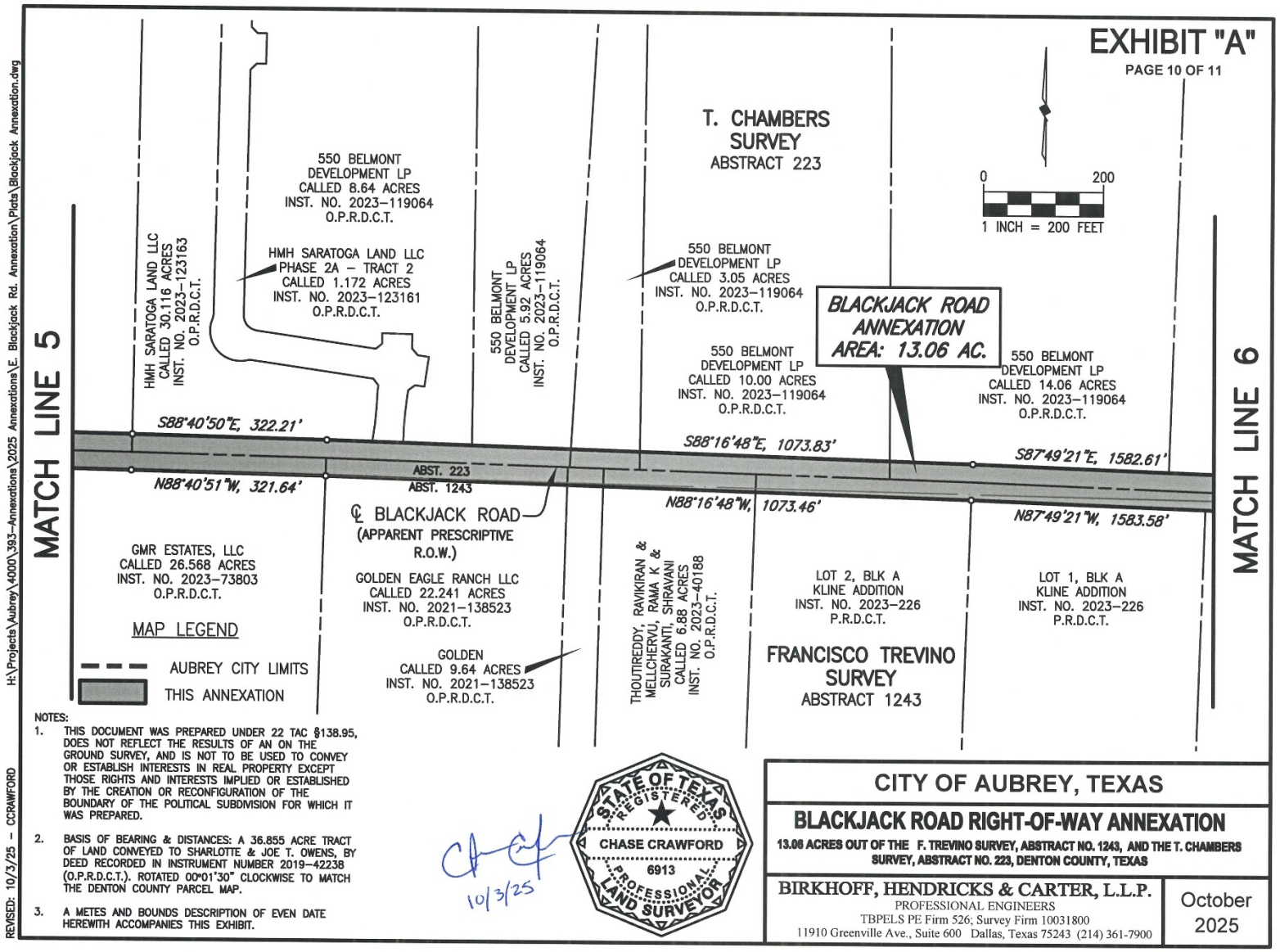

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2. BASIS OF BEARING & DISTANCES: A 36.855 ACRE TRACT OF LAND CONVEYED TO SHARLOTTE & JOE T. OWENS, BY DEED RECORDED IN INSTRUMENT NUMBER 2019-42238 (O.P.R.D.C.T.). ROTATED 00°01'30" CLOCKWISE TO MATCH THE DENTON COUNTY PARCEL MAP.
3. A METES AND BOUNDS DESCRIPTION OF EVEN DATE HEREWITH ACCOMPANIES THIS EXHIBIT.

STATE OF TEXAS
REGISTERED
CHASE CRAWFORD
6913
PROFESSIONAL
LAND SURVEYOR

10/3/25

CITY OF AUBREY, TEXAS

BLACKJACK ROAD RIGHT-OF-WAY ANNEXATION

13.06 ACRES OUT OF THE F. TREVINO SURVEY, ABSTRACT NO. 1243, AND THE T. CHAMBERS SURVEY, ABSTRACT NO. 223, DENTON COUNTY, TEXAS

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
TBPELS PE Firm 526; Survey Firm 10031800
11910 Greenville Ave., Suite 600 Dallas, Texas 75243 (214) 361-7900

October 2025

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EXHIBIT "A"

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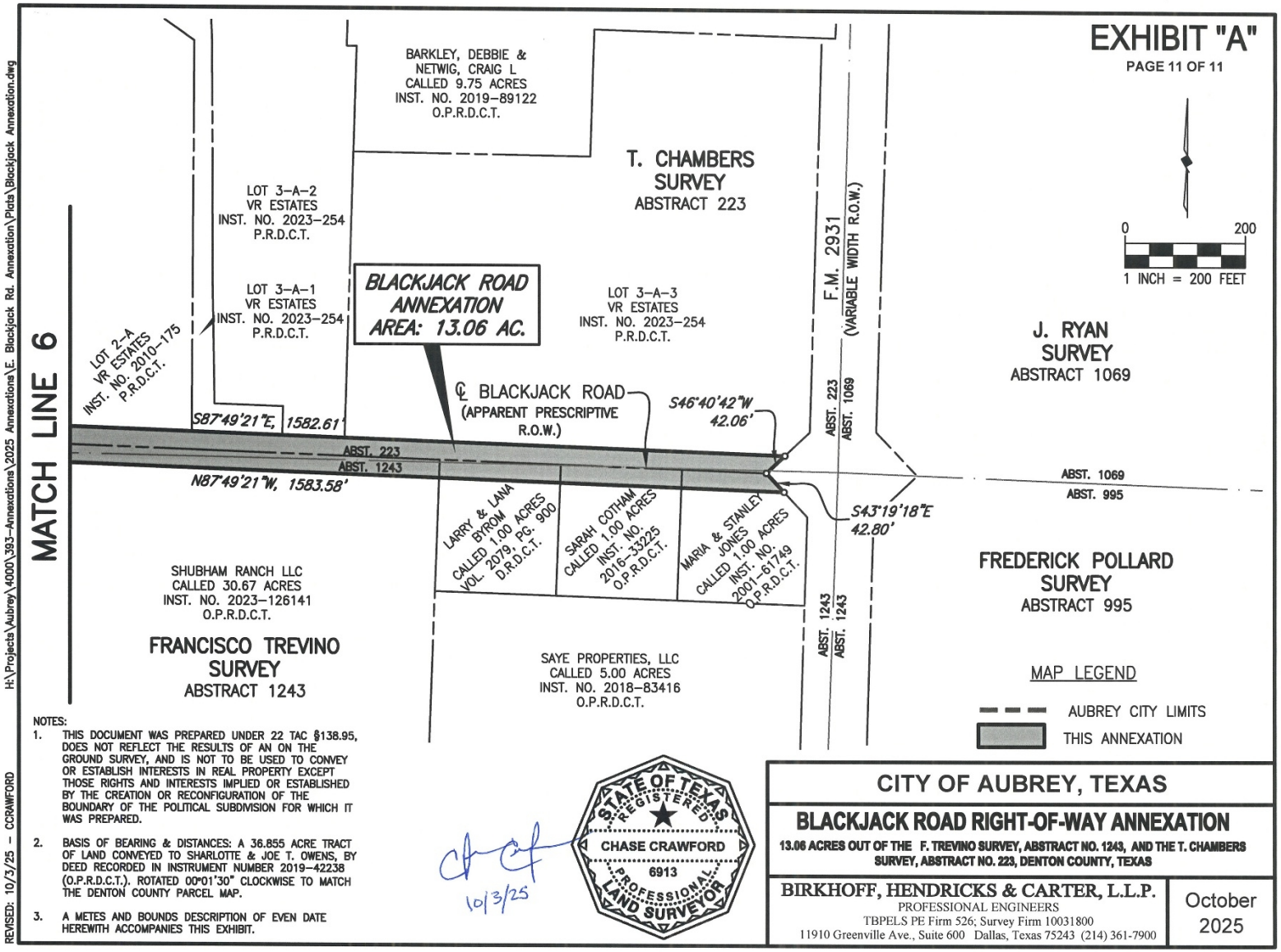

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City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Conduct the second public hearing in accordance with Texas Local Government Code Section 43.063(a) and other applicable law, to consider testimony and provide members of the public an opportunity to be heard on the proposed annexation of a ±6.74-acre tract of land known as a portion of McNatt Road, legally described as being all of the 30-foot wide prescriptive right-of-way of McNatt Road, beginning at the city limits and FM 428, continuing to the Future Ike Byrom Road, being legally described as being a part of the F. Trevino Survey, Abstract No. 1243, , Denton County, Texas. .

Staff Contact
Charles Kreidler, City Manager
kreidler@aubreytx.gov
940-440-9343

Summary
This is the second public hearing for the annexation of a portion of McNatt Road. Final consideration and action on the annexation ordinance will be held at the regular council meeting in December.

Financial Summary

Staff Recommended Action

Staff Recommended Motion
No action. Public hearing only.

EXHIBIT "B"
DESCRIBING AND DEPICTING AREA PROPOSED TO BE ANNEXED BY THE CITY OF AUBREY, TEXAS

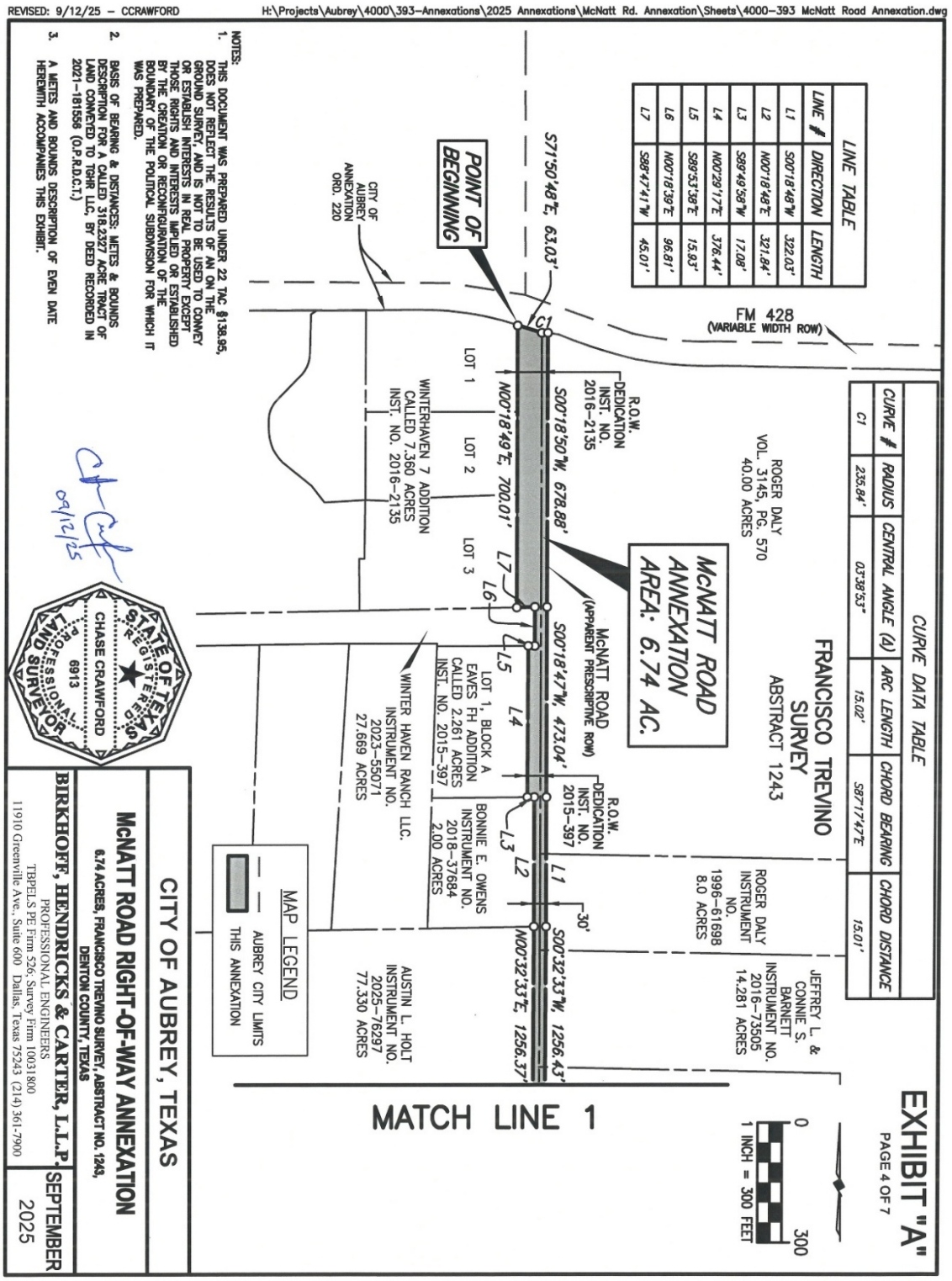

EXHIBIT "A"

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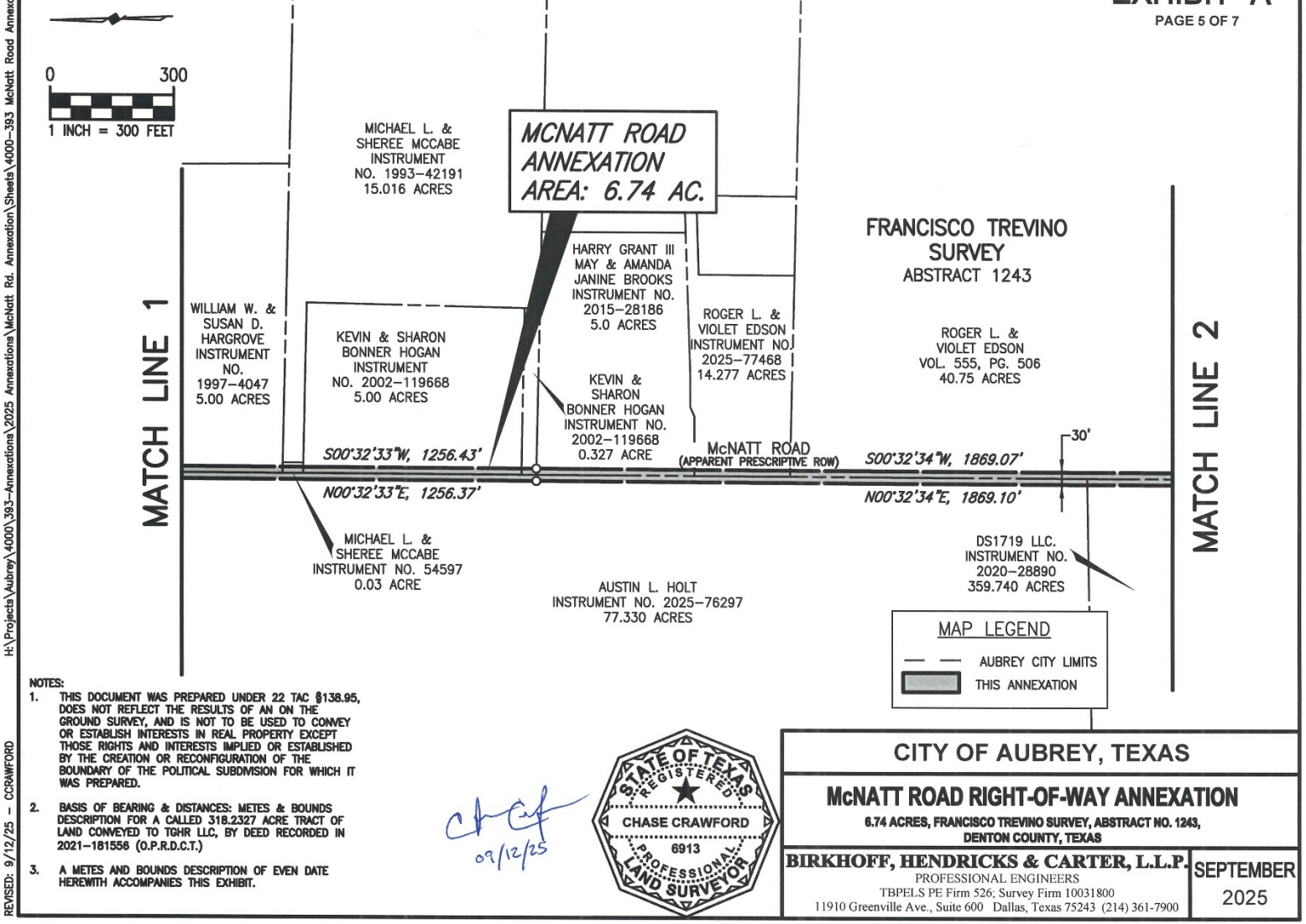

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3. A METES AND BOUNDS DESCRIPTION OF EVEN DATE HEREWITH ACCOMPANIES THIS EXHIBIT.

09/12/25

STATE OF TEXAS
REGISTERED
CHASE CRAWFORD
6913
PROFESSIONAL
LAND SURVEYOR

CITY OF AUBREY, TEXAS

McNATT ROAD RIGHT-OF-WAY ANNEXATION

6.74 ACRES, FRANCISCO TREVINO SURVEY, ABSTRACT NO. 1243, DENTON COUNTY, TEXAS

BIRKHOFF, HENDRICKS & CARTER, L.L.P.
PROFESSIONAL ENGINEERS
TBPELS PE Firm 526; Survey Firm 10031800
11910 Greenville Ave., Suite 600 Dallas, Texas 75243 (214) 361-7900

SEPTEMBER 2025

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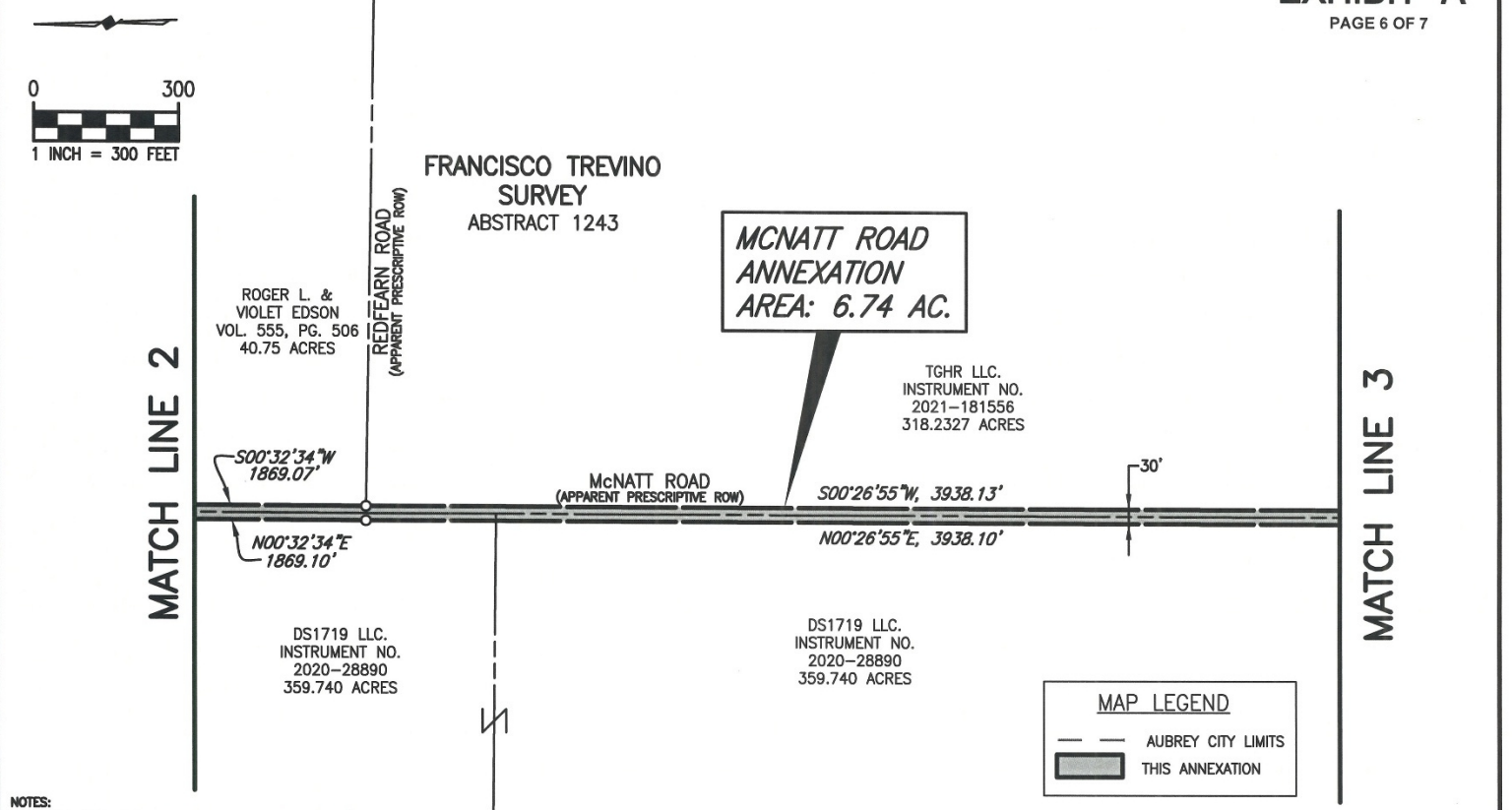

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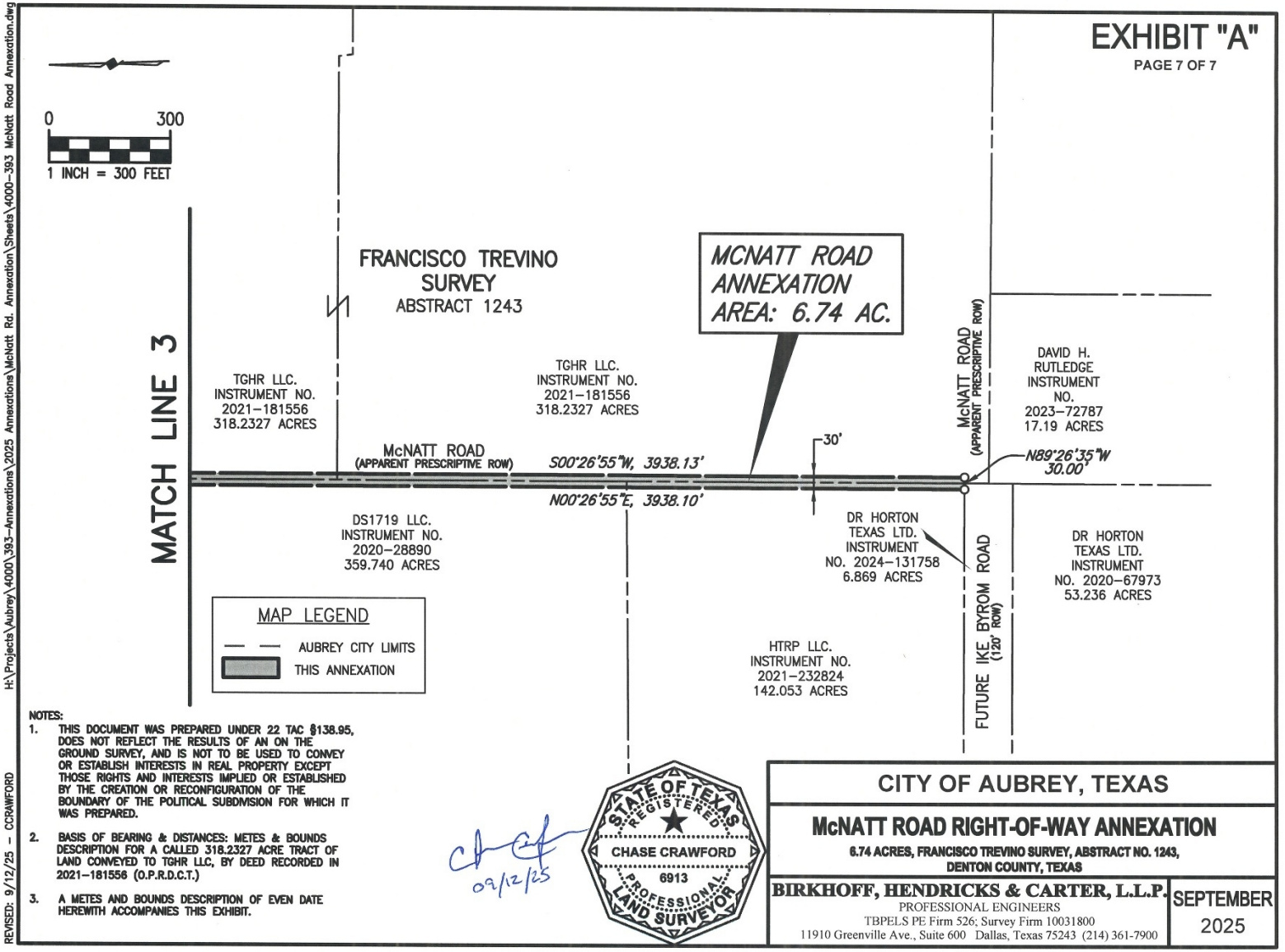

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City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Consideration and action on a Resolution casting votes for candidates in the election of the Denton Central Appraisal District Board of Directors.

Staff Contact
Charles Kreidler, City Manager
kreidler@aubreytx.gov
940-440-9343

Summary
The City of Aubrey may cast all 4 of its votes for one candidate or may distribute the votes among any number of candidates. When a voting unit casts its votes, it must cast the votes for a person that was nominated and is named on the ballot. There is no provision for write-in candidates. The Tax Code does not permit the Chief Appraiser to count votes cast for someone not listed on the official ballot. The two nominees receiving the most votes will be seated as Place 4 & 7 on the Denton CAD Board of Directors in January of 2026.

The candidates nominated by the taxing units are:

Candidate	Nominating Unit
Mike Hennefer	City of Carrollton, C-FB ISD, City of The Colony, Denton County, City of Frisco, City of Highland Village, Lewisville ISD, City of Lewisville, Northwest ISD, City of Plano, Town of Shady Shores, City of Southlake
Ann Pomykal	City of Carrollton, City of The Colony, Denton County, City ofHighland Village, City of Lewisville, Lewisville ISD, Northwest ISD, City of Plano Town of Shady Shores, City of Southlake
Jordan Villareal	Frisco ISD, City of Frisco
DeVon English	Lilttle Elm ISD

Financial Summary

Staff Recommended Action
Approve

Staff Recommended Motion
Motion to (take no action /cast _#_ votes for) _____

CITY OF AUBREY, TEXAS

RESOLUTION NO. 1032-25

A RESOLUTION CASTING VOTES FOR CANDIDATES IN THE ELECTION OF THE BOARD OF DIRECTORS OF THE DENTON CENTRAL APPRAISAL DISTRICT; AND DECLARING AN EFFECTIVE DATE.

THE CITY COUNCIL OF THE CITY OF AUBREY HEREBY RESOLVES:

Section 1. The City Council of the City of Aubrey, Texas hereby casts the following votes for membership to the Board of Directors of the Denton Central Appraisal District for the County of Denton, Texas

Candidate	Number of Votes
_____	_____
_____	_____
_____	_____
_____	_____

Section 2. This resolution shall become effective immediately upon its passage and approval.

PASSED AND APPROVED by the City of Aubrey, Texas this 20th day of November, 2025.

APPROVED:

_____
Chris Rich, Mayor

ATTEST:

_____
Jenny Hicks, City Secretary

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Consideration and action on appointing and/or removing members to the Aubrey Planning and Zoning Commission.

Staff Contact
Jenny Hicks, City Secretary
jhicks@aubreytx.gov
940-440-9343

Summary
Seats 1, 3, and 6 expire on December 31, 2025. Place 1, Christal Johnson, was originally appointed in April 2021. Place 3, Nicole Shaw, was originally appointed in Feb 2024 to an unexpired term. Place 6, Candace Stone, was originally appointed in April 2023. All three have requested to be reappointed for two-year terms.

Alternate Member Chuck Fuller has been inactive and we are unable to get in contact with him regarding reappointment.

There are no regular-member vacancies. However, seats for alternates are optional.

Financial Summary
N/A

Staff Recommended Action

Staff Recommended Motion
Motion to remove Chuck Fuller as an alternate, and reappoint (reappoint/table/deny) Christal Johnson to Place 1, Nicole Shaw to Place 3, and Candace Stone to Place 6 for two-year terms expiring December 31, 2027.

City Council Meeting
Staff Report
November 20, 2025

Agenda Item
Consideration and action on appointing and/or removing member(s) to the Aubrey parks and Recreation Board.

Staff Contact
Jenny Hicks, City Secretary
jhicks@aubreytx.gov
940-440-9343

Summary
Terms for Places 1, 3, 5, and 7 expire on December 31, 2025. Place 1, Courtney Kelly, was originally appointed in April 2023. Place 3, Jessica (Milacek) Hamilton was originally appointed in May 2021. Both have requested to be appointed for two-year terms.

Place 5 member Deshanda Blair has been inactive and we are unable to get in contact with her regarding reappointment.

Place 7 member Amanda Larsen has requested to not be reappointed.

Amy Kramer, was appointed in June 2025 as an Alternate Member, and has confirmed her interest in being appointed as a regular member.

This leaves Place 7 vacant, along with optional alternates.

Financial Summary
N/A

Staff Recommended Action
Approve

Staff Recommended Motion
I move to remove Amanda Larsen and Deshanda Blair, and (reappoint/table/deny) Courtney Kelly to Place 1, Jessica (Milacek) Hamilton to Place 3, and appoint Amy Kramer to Place 5, all for two-year terms ending December 31, 2027.