

Town Council Regular Meeting and Tax Increment Reinvestment Zone (TIRZ) No. 2 Meeting



April 1, 2024
Town Hall
2121 Cross Timbers Road
Flower Mound, TX 75028

6:00 p.m.

Comments regarding any agenda item can be sent to the Town Council by emailing towncouncil@flower-mound.com or by calling 972.874.6005 and leaving a message.

AGENDA

A. CALL TO ORDER

B. INVOCATION

C. PLEDGE OF ALLEGIANCE TO THE AMERICAN FLAG AND TO THE TEXAS FLAG

"Honor the Texas flag; I pledge allegiance to thee, Texas, one state under God, one and indivisible."

D. PRESENTATION(S)

1. Proclamation and presentation of Hometown Hero banners to Anthony Harris and Danetta Hurt-Harris
2. Proclamation for United Way Denton for Mental Health Awareness Month
3. Recognition of the Flower Mound Citizens Academy - Class of 2024

E. PUBLIC COMMENT

The purpose of this item is to allow the public an opportunity to address the Town Council regarding any item on this agenda that is not a "Public Hearing." Issues regarding daily operational or administrative matters should first be dealt with by calling Town Hall at 972.874.6000 during business hours.

In accordance with the Texas Open Meetings Act, the Town Council is restricted from discussing or acting on items not listed on the agenda.

To speak to Council during public comment, please fill out a [comment form \(PDF\)](#).

- Speakers are limited to 3 minutes, a tone will sound at 30 seconds left and when time has expired, and times may be adjusted by the mayor
- Speakers must address their comments to the Town Council
- Please state your name and address when speaking

F. ANNOUNCEMENTS

1. Announcements from the mayor and council members

G. TOWN MANAGER'S REPORT

1. Capital Improvement Projects
2. Economic Development Projects
3. Organizational Updates
4. Strategy for the 89th Texas Legislative Session

H. FUTURE AGENDA ITEM(S)

The purpose of this item is to allow the Mayor and members of Council an opportunity to bring forward items they wish to discuss at a future meeting, with the understanding that a consensus of Council is needed in order for that item to be placed on a future agenda and in accordance with the Town Council Agenda Setting Policy (Ord. 65-15).

I. COORDINATION OF CALENDARS

1. April 15 - Regular Meeting
2. April 18 - Work Session

J. CONSENT ITEM(S)

This part of the agenda consists of non-controversial or "housekeeping" items required by law. Items may be removed from Consent by any council member by making such request prior to a motion and vote.

1. Minutes 3/18 & 3/21 - Consider approval of the minutes from a regular meeting on March 18, 2024, and a work session on March 21, 2024.
2. TIRZ#2 Minutes - 3/18 - Consider approval of the minutes from a TIRZ#2 meeting held on March 18, 2024.
3. Service agreement-PD & FD portable radios - Consider approval of MCA Communications Maintenance Service Agreement for Police and Fire Department portable radios at the amount \$20,553.00, and authorization for the Mayor to execute same on behalf of the Town.
4. Subsurface Utility Engineering-FM 2499 at FM 3040 - Consider approval of Subsurface Utility Engineering Services related to the FM 2499 at FM 3040 Intersection Improvements project, with The Rios Group, in the amount of \$39,600.00.
5. Timber Creek Road Testing PSA - Consider approval of a Professional Services Agreement with Alliance Geotechnical Group, Inc., to provide construction materials engineering and testing, for the Timber Creek Road Panel Replacement (John Court to Kirkpatrick Lane) project for an amount not to exceed \$40,000.00; and authorization for the Mayor to execute same on behalf of the Town.
6. Microsoft Enterprise Agreement Renewal - Consider approval to renew the Town's three-year Enterprise Enrollment Agreement with Microsoft to provide the town with Licensing for Office 365, Servers, SharePoint, Advanced Threat

- Protection and Desktop Operating Systems, from Software One, in the amount of \$264,184.08.
7. Water System Leak Detection and Condition Assessment - Consider approval of Water System Leak Detection and Condition Assessment services from Pure Technologies US, Inc., through a City of Denton contract (#8181) for an annual estimated amount not to exceed \$150,000.00.
 8. Pink Evening Primrose CO #1 & FINAL - Consider approval of Change Order No. 1 & Final for the Pink Evening Primrose Trail Connection (Bridge & Trail from Gaston Park to Timber Trails Park) project, amending the contract with Parkscape Construction, Inc., to provide an increase to the contract in the amount of \$19,612.31.
 9. TexPool Representative Form - Consider approval of the Town's authorized representatives form as required by the Texas Local Government Investment Pool (TexPool).
 10. NPSOT Seed Library Grant - Consider approval of a resolution authorizing the acceptance of grant funds from the Trinity Forks Native Plant Society of Texas, which will be used to support the Library's Seed Library.
 11. TCA Performance Support Grant - Consider approval of a resolution authorizing the acceptance of grant funds from the Texas Commission on the Arts, which will be used to pay a portion of the performance costs for the Town's annual Arts Festival.
 12. Cybersecurity Grant - Consider approval of a resolution authorizing the submission of a grant application with the Office of the Governor for the 2025 State and Local Cybersecurity Grant Program; authorizing the Town Manager to act on behalf of the Town of Flower Mound in all matters related to the application; authorizing acceptance of funds if awarded; and pledging that if funding for this project is received, the Town will comply with all project requirements of the Office of the Governor, including returning all funding received in the event of loss or misuse of the funds.
 13. Consider approval of a Standard Utility Agreement - Consider approval of a Standard Utility Agreement with TxDOT, for reimbursement in the amount of \$4,969,356.75, on the US 377 Water Line Loop and Relocation Project.

K. CLOSED MEETING

The Town Council to convene into closed meeting pursuant to Texas Government Code Chapter 551, including, but not limited to, Sections 551.071, 551.072, 551.074, and 551.087 for consultation with Town Attorney, and to discuss matters relating to real property, personnel, and economic development negotiations, as indicated below. The Town Council may convene in executive session to conduct a private consultation with its attorney on any legally posted agenda item, when the Town Council seeks the advice of its attorney about pending or contemplated litigation, a settlement offer, or 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 provisions of Chapter 551, including the below-referenced items.

1. Consultation with Town Attorney.
 - a. La Estancia Investments, L.P. v. Town of Flower Mound, Texas, et al

- b. Canyon Falls Park
- c. Town regulation of public franchise utilities
- 2. Discuss and consider purchase, exchange, lease or value of real property for parks, cultural arts, public safety, public rights-of-way, and/or other municipal purposes and all matters incident and related thereto.
- 3. Discuss and consider resignations, appointments, evaluations, reassignments, discipline, or dismissals for the following boards or commissions: Board of Adjustment/Oil & Gas Board of Appeals, Community Development Corporation, and Planning and Zoning Commission.
- 4. Discuss and consider economic development incentives, including retail centers, grocers, corporate relocation/expansion/retention, hospitality projects, health care facilities, performance related to certain incentive agreements, and Tax Increment Reinvestment Zone (TIRZ) #1, TIRZ #2, River Walk PID No. 1, Proposed PID, MMDs, and MUDs

L. RECONVENE

M. REGULAR ITEM(S)

- 1. Notice of Intent 2024 CO - Consider approval of a resolution approving and authorizing publication of notice of intention to issue Certificates of Obligation, Series 2024, in the principal amount not to exceed \$7,715,000, for the purpose of paying for waterworks and sewer system improvements.
- 2. SP23-0019 - Take 5 Oil Change - Consider a request for a Site Plan (SP23-0019 – Take 5 Oil Change) to develop an auto repair garage with an exception to Section 82-302, Compatibility buffer, of the Code of Ordinances and a waiver to the Architectural Standards in the Town's Urban Design Plan for roof pitch. The property is generally located south of Justin Road and west of Meadow View. (PZ recommended approval by a vote of 6 to 0 at its March 25, 2024, meeting.)
- 3. MPA23-0008 - Scenic Drive - Public Hearing to consider a request for a Master Plan Amendment (MPA23-0008 - Scenic Drive) to amend Section 7.0, Thoroughfare Plan, to consider three options for the classification of Scenic Drive and provide feedback on various elements and to consider adopting an ordinance providing for said amendment. (Planning and Zoning Commission recommended approval to change the classification to a Local Residential Collector by a vote of 6 to 0 at its March 25, 2024, meeting. Transportation Commission recommended approval to change the classification to a Local Residential Collector by a vote of 6 to 0 at its March 12, 2024, meeting.)
- 4. LDR24-0001 - Land Use Update - Public Hearing to consider an ordinance amending the Town's Land Development Regulations (LDR24-0001 - Land Use Update) by amending Chapter 82 "Development Standards," Chapter 86 "Signs," Chapter 98 "Zoning," and Appendix A "Fees," related to new regulated uses, definitions, development standards, and fees for the purpose of clarifying and updating certain sections to reflect current planning practices and State laws. (PZ recommended approval by a vote of 6 to 0 at its March 25, 2024, meeting.)

N. BOARDS/COMMISSIONS

Discuss and consider resignations, appointments, evaluations, reassignments, discipline, or dismissals for the following boards or commissions: Animal Services Board, Capital Improvements Advisory Committee, Cultural Arts Commission, Denton County Transportation Authority, Environmental Conservation Commission, Historical Commission, Parks Board, School Liaison Committee, SMARTGrowth Commission, Tax Increment Reinvestment Zone Number (TIRZ #1), Transportation Commission, and Veterans Liaison Board.

The Town Council may convene in executive session to conduct a private consultation with its attorney on any legally posted agenda item, when the Town Council seeks the advice of its attorney about pending or contemplated litigation, a settlement offer, or 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 provisions of Chapter 551, including the above referenced items.

O. ADJOURN

I do hereby certify that the Notice of Meeting was posted on the bulletin board at the Town Hall for the Town of Flower Mound, Texas, in a place convenient and readily accessible to the general public at all times and said Notice was also posted on the Town's website in accordance with GC Section 551.056 on the following date and time: March 28, 2024, at 3:20 p.m., at least 72 hours prior to the scheduled time of said meeting.

Theresa Scott, Town Secretary

The Flower Mound Town Hall and Jody Smith Hall are wheelchair accessible. Requests for accommodation or interpretive services must be made 48 hours prior to this meeting by contacting Town Hall at 972.874.6000. Additional time limits will be provided for members of the public that need to address the Town Council through a translator.

To preview upcoming items of business that may appear on future agendas click [HERE](#).

Town Council Regular Meeting



March 18, 2024
Town Hall
2121 Cross Timbers Road
Flower Mound, TX 75028

6:00 p.m.

DRAFT MINUTES

A. CALL TO ORDER

Mayor France called the meeting to order at 6:00 p.m. with the following members present:

Derek France, Mayor
Jim Engel, Mayor Pro Tem
Ann Martin, Deputy Mayor Pro Tem
Adam Schiestel, Councilmember Place 1
Chris Drew, Councilmember Place 2
Brian Taylor, Councilmember Place 3

constituting a quorum with the following members of the Town Staff participating:

Theresa Scott, Town Secretary
James W. Childers, Town Manager
Bryn Meredith, Town Attorney
Tommy Dalton, Assistant Town Manager
Tiffany Bruce, Assistant Town Manager/Town Engineer
Lexin Murphy, Director of Development Services
Melody Eby, Senior Economic Development Specialist
Ray Watson, Director of Economic Development
Sue Ridnour, Director of Library Services
Tammy Wilson, CFO
John Zagurski, CFO

B. INVOCATION

Chaplain Liles gave the invocation.

C. PLEDGE OF ALLEGIANCE TO THE AMERICAN FLAG AND TO THE TEXAS FLAG

"Honor the Texas flag; I pledge allegiance to thee, Texas, one state under God, one and indivisible."

Mayor France led the pledges.

D. PRESENTATION(S)

1. Proclamation for commemorating Vietnam Veterans Day
Mayor France recited the proclamation and it was accepted by members of the Regent of the Flower Mound DAR (Daughter's) and SAR (Son's) Chapter.
2. Texas Municipal Library Directors Association 2023 Achievement of Excellence in Libraries Award
Sue Ridnour, Director of Library Services, accepted the award.

E. PUBLIC COMMENT

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To speak to Council during public comment, please fill out a [comment form \(PDF\)](#).

- Speakers are limited to 3 minutes, a tone will sound at 30 seconds left and when time has expired, and times may be adjusted by the mayor
- Speakers must address their comments to the Town Council
- Please state your name and address when speaking

Names listed below don't necessarily reflect the order in which each person spoke and all addresses are located in Flower Mound unless otherwise indicated.

	Speaker name and address	Subject (as written on the form)
1.	Rob Rawson, 1409 Basil Dr	Election
2.	Joe Bernard, 10605 Sunrise Cir	\$40,000 wasted
3.	Clare Harris, 416 North Wood	DCMGA Events
4.	Paul Stone, 1868 Meyerwood Ln	Citizen comment
5.	Kathy Travis, 2605 Russwood Dr	Wendell Mitchell - Police Chief
6.	Jacque Narrell, 4801 Lusk Ln	Historical Commission
7.	Cindy Clark, 8704 Baltusrol	Historical Commission
8.	Tyler Radbourne, 7400 Cross Timbers	Eden Ranch
9.	Julia Radbourne, 7400 Cross Timbers Rd*	Eden Ranch

** Indicates person did not wish to speak*

F. ANNOUNCEMENTS

1. Announcements from the mayor and council members
There were announcements from Mayor and Council regarding:
 - upcoming Easter events

G. TOWN MANAGER'S REPORT

1. Capital Improvement Projects
2. Economic Development Projects
3. Organizational Updates, including staff announcements
Mr. Childers had the following staff announcements:
 - John Zagurski - new CFO is official
 - Megan Jakubik, new Director of Budget Services
 - Open positions update (Library Director and Police Chief)
4. LISD Career Out Day
Ms. Eby gave a presentation identifying or noting:
 - program overview
 - event photos

and Mr. Childers highlighted the benefits of the program.

H. FUTURE AGENDA ITEM(S)

The purpose of this item is to allow the Mayor and members of Council an opportunity to bring forward items they wish to discuss at a future meeting, with the understanding that a consensus of Council is needed in order for that item to be placed on a future agenda and in accordance with the Town Council Agenda Setting Policy (Ord. 65-15).
There were no future agenda item request.

I. COORDINATION OF CALENDARS

Mayor France confirmed that all members of Council plan to attend the following meetings.

1. March 21 - Work Session
2. April 1 - Regular Meeting

J. BOARDS/COMMISSIONS

Conduct interviews and discuss and consider resignations, appointments, evaluations, reassignments, discipline, or dismissals for the following boards or commissions: Animal Services Board, Capital Improvements Advisory Committee, Cultural Arts Commission, Denton County Transportation Authority, Environmental Conservation Commission, Historical Commission, Parks Board, School Liaison Committee, SMARTGrowth Commission, Tax Increment Reinvestment Zone Number (TIRZ #1), Transportation Commission, and Veterans Liaison Board.

Town Council interviewed Brian Williams for the Historical Commission.

ACTION: Adam Schiestel moved to appoint Brian Williams to the Historical Commission, Place 9, with a term expiration date of September 30, 2025. Ann Martin seconded the motion.

AYES: Ann Martin, Jim Engel, Adam Schiestel, Brian Taylor, Chris Drew

NAYS: None

ABSTAIN: None

RESULT: 5 : 0

K. CONSENT ITEM(S)

This part of the agenda consists of non-controversial or "housekeeping" items required by law. Items may be removed from Consent by any council member by making such request prior to a motion and vote.

ACTION: Jim Engel moved to approve items 1 - 6 as presented in the agenda caption. Chris Drew seconded the motion.

AYES: Ann Martin, Jim Engel, Adam Schiestel, Brian Taylor, Chris Drew

NAYS: None

ABSTAIN: None

RESULT: 5 : 0

1. Minutes 3/4 - Consider approval of the minutes from a regular meeting held on March 4, 2024.
2. Lower Timber Interceptor Rehabilitation - Construction Award - Consider approval of a Construction Agreement with Canary Construction, Inc for the Lower Timber Interceptor Rehabilitation project, in the amount of \$675,995.00; and authorization for the Mayor to execute same on behalf of the Town.
3. Lead and Copper Rule Revisions - PSA - Consider approval of a Professional Service Agreement with Freese and Nichols, Inc. to provide support, a monitoring plan, and asset inventory records review for the EPA Lead and Copper Rule Revision Compliance Program as part of the Utility Asset Management and Utility Replacement project, in the amount of \$95,000.

4. Upper Timber Interceptor - Buy Board Award - Consider approval of Sanitary Sewer Rehabilitation Services related to the Upper Timber Interceptor (Morris Road to One Place Lane) project, with Insituform Technologies, LLC., utilizing The Local Government Purchasing Cooperative Contract #635-21, administered through BuyBoard, in the amount of \$912,658.25.
5. Timber Creek Park Collector Rehabilitation - Buy Board Award - Consider approval of Sanitary Sewer Rehabilitation Services related to the Timber Creek Park Collector Rehabilitation (Hanover Drive to Timber Creek Road) project, to Insituform Technologies, LLC., utilizing The Local Government Purchasing Cooperative Contract #635-21, administered through BuyBoard, in the amount of \$897,754.00.
6. Whyburn Addition Development Agreement - Consider approval of a Developers Agreement with CND Whyburn, LLC., for a 3.525-acre Public Park to be dedicated via special warranty deed to the Town with reimbursement of Park Development fees associated with the Whyburn Addition development for park-related items; and authorization for the Mayor to execute same on behalf of the Town.

L. REGULAR ITEM

1. 2023 ACFR - Consider approval of the Annual Comprehensive Financial Report (ACFR) for the fiscal year ended September 30, 2023.
Ms. Wilson introduced Shelby Ebarb, with Eide Baily, LLP.

Ms. Ebarb summarized the work of the audit and highlighted various pages within the report.

ACTION:	Jim Engel moved to approve L.1. as presented in the agenda caption. Chris Drew seconded the motion.
AYES:	Ann Martin, Jim Engel, Adam Schiestel, Brian Taylor, Chris Drew
NAYS:	None
ABSTAIN:	None
RESULT:	5 : 0

M. CLOSED MEETING

The Town Council to convene in to a closed meeting pursuant to Texas Government Code Section 551.071 for consultation with Town Attorney, as indicated below. The Town Council may convene in executive session to conduct a private consultation with its attorney on any legally posted agenda item, when the Town Council seeks the advice of its attorney about pending or contemplated litigation, a settlement offer, or 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 provisions of Chapter 551, including the below-referenced items.

Mayor France announced that the Town Council is convening into a closed meeting at 6:51 p.m., pursuant to Texas Government Code Chapter 551, Section 071 for consultation with the Town Attorney.

1. Consultation with Town Attorney.

a. Town regulation of public franchise utilities

N. RECONVENE

The Town Council reconvened into an open meeting at 7:31 p.m., and no action was taken on the above item(s).

O. REGULAR ITEMS

1. Oncor Electric line upgrades on High Road and Rolling Hills - Public Hearing to receive updates and input on the Oncor Electric line upgrade project on High Road and Rolling Hills.

Mr. Childers acknowledged the guests in attendance (Representatives from Senator Tan Parker and Kronda Thimesch's office, State Representative Bumgarner, Don Spencer, Chief Appraiser, Denton Central Appraisal District, and Erik Montoya, Area Manager, Oncor. Mr. Dalton provided background information on the topic and Mr. Meredith addressed the legal elements involved, and they responded to the following questions or comments from Council, some of which were after the public hearing:

- permit filing (for trimming or removal of trees)
- past pole replacement work
- requirements that can be placed on the service provider, including a signage requirement
- the need for the utility provider to declare what they are going to do and assistance is needed from the state legislature to allow local authorities to have some control
- frustrations regarding the current situation with the removal of trees
- the need for better coordination and communication (facts and expectations) and some protection for homeowners
- how Oncor chose to cut the trees down instead of trimming
- franchise agreement language
- delineation between private property and right of way (resident recourse)
- transformer proximity to residential homes

Mr. Spencer responded to questions regarding:

- property tax impact as a result of the tree removal

Mayor France opened the public hearing at 8:01 p.m.

Names listed below don't necessarily reflect the order in which each person spoke and all addresses are located in Flower Mound unless otherwise indicated.

	SUPPORT	OPPOSITION	QUESTIONS OR COMMENTS ONLY
1.		Deb Wyse, 7705 Emerson Ln	Neal Seidner, 3965 High Rd
2.		Nick Stump, 3525 High Rd	Bert Auburn, 7500 Arabian Cir
3.		Clark Canant, 7708 Emerson Ln	John Kurilecz, 7705 Emerson Ln
4.		Jennifer Christmas, 3443 Shady Oaks Dr*	Kim Kerr, 4204 Thoreau*
5.		Shane Kimbrel, 7608 Emerson Ln*	Donna Conrad, 7516 Emerson Ln*
6.		Cathy Krause, 7401 Arabian Cir*	Gayla Carrant, 7708 Emerson Ln*
7.		Gilbert Barth, 7380 Lost Creek*	
8.		Marc Barth, 7380 Lost Creek*	
9.		Anand Bhatia, 2224 Waterstone Trl*	
10.		Dawn Runte, 5480 High Rd*	
11.		Viannah Christmas, 3443 Shady Oaks Dr*	
12.		Mark Mathson, 7701 Emerson Ln*	
13.		Lori Oates, 3525 High Rd*	

** Indicates person did not wish to speak*

Mayor Francend closed the public hearing at 8:18 p.m.

Council Discussion

There was Council discussion regarding:

- interest in pursuing restoration per the franchise agreement (one to one tree replacement like what the Town requires of developers)
- for the next franchise agreement have Oncor declare what trees are slated for removal as part of the permitting process (transparency)
- use of signage in the disclosure process

2. TIRZ #2 Final Plan - Consider an ordinance approving the Final Project and Financing Plan for Tax Increment Reinvestment Zone number 2 (TIRZ #2) pursuant to Chapter 311 of the Texas Tax Code.

Mr. Childers provided background information.

Mary Petty, P3 Works, TIRZ Administrator, gave a presentation identifying or noting:

- background information
- TIRZ goals overview
- TIRZ boundary
- map of the public improvements
- project costs to be paid by TIRZ No. 2

and she, Mr. Meredith, Mr. Childers, Mr. Dalton, or Mr. Watson responded to questions or comments from Council regarding:

- types of projects that TIRZ funds could be used for
- timeline of costs and feasibility study
- clawbacks
- obligations
- capital improvement agreements, including parks
- clarification regarding what municipal services and public facilities are included in Tier Two from the funds list
- non project costs (same); inflationary factors
- intent of TIRZ (limited in scope)
- cost and revenue projections
- risks, opportunities
- 50% of the increment language and where it fits
- termination language
- town facility needs (fire station)
- services and risk
- feasibility study
- values and projections, including changing the cap amount
- forecasted revenue
- future TIRZ Board ability to change the plan

- project costs

ACTION: Jim Engel moved to approve O.2. as presented in the agenda caption. Ann Martin seconded the motion.
AYES: Ann Martin, Jim Engel, Brian Taylor, Chris Drew
NAYS: Adam Schiestel
ABSTAIN: None
RESULT: 4 : 1

P. CLOSED MEETING

The Town Council to convene into closed meeting pursuant to Texas Government Code Chapter 551, including, but not limited to, Sections 551.071, 551.072, 551.074, and 551.087 for consultation with Town Attorney, and to discuss matters relating to real property, personnel, and economic development negotiations, as indicated below. The Town Council may convene in executive session to conduct a private consultation with its attorney on any legally posted agenda item, when the Town Council seeks the advice of its attorney about pending or contemplated litigation, a settlement offer, or 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 provisions of Chapter 551, including the below-referenced items.

Mayor France announced that the Town Council is convening into a closed meeting at 9:40 p.m., pursuant to Texas Government Code Chapter 551, including, but not limited to, Sections 551.071, 551.072, 551.074, and 551.087.

1. Consultation with Town Attorney.
 - a. La Estancia Investments, L.P. v. Town of Flower Mound, Texas, et al
 - b. Regulation of public art
 - c. Canyon Falls Park
2. Discuss and consider purchase, exchange, lease or value of real property for parks, cultural arts, public safety, public rights-of-way, and/or other municipal purposes and all matters incident and related thereto.
3. Discuss and consider resignations, appointments, evaluations, reassignments, discipline, or dismissals for the following boards or commissions: Board of Adjustment/Oil & Gas Board of Appeals, Community Development Corporation, and Planning and Zoning Commission.
4. Discuss and consider economic development incentives, including retail centers, grocers, corporate relocation/expansion/retention, hospitality projects, health care facilities, performance related to certain incentive agreements, and Tax Increment Reinvestment Zone (TIRZ) #1, TIRZ #2, River Walk PID No. 1, Proposed PID, MMDs, and MUDs

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Q. RECONVENE

The Town Council reconvened into an open meeting at 11:50 p.m., and no action was taken on the above items.

R. ADJOURN

Mayor France adjourned the meeting at 11:50 p.m. and all were in favor.

TOWN OF FLOWER MOUND, TEXAS

DEREK FRANCE, MAYOR

ATTEST:

THERESA SCOTT, TOWN SECRETARY

Town Council Work Session



March 21, 2024
Town Hall
2121 Cross Timbers Road
Flower Mound, TX 75028

6:00 p.m.

DRAFT MINUTES

A. CALL TO ORDER

Mayor France called the work session to order at 6:00 p.m. with the following members present:

Derek France, Mayor
Jim Engel, Mayor Pro Tem
Ann Martin, Deputy Mayor Pro Tem
Adam Schiestel, Councilmember Place 1
Chris Drew, Councilmember Place 2
Brian Taylor, Councilmember Place 3

constituting a quorum with the following members of the Town Staff participating:

Theresa Scott, Town Secretary
James W. Childers, Town Manager
Tommy Dalton, Assistant Town Manager
Tiffany Bruce, Assistant Town Manager/Town Engineer
John Zagurski, Chief Financial Officer
Travis Cuniff, Assistant Director of Parks and Recreation
Chuck Jennings, Director of Parks and Recreation
Brian Waltenburg, Assistant Director of Engineering
Clay Riggs, Director of Public Works

B. INVOCATION

Mayor France led the invocation.

C. PLEDGE OF ALLEGIANCE TO THE AMERICAN FLAG AND TO THE TEXAS FLAG

"Honor the Texas flag; I pledge allegiance to thee, Texas, one state under God, one and indivisible."

Mayor France led the pledges.

D. PUBLIC COMMENT

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- Speakers are limited to 3 minutes, a tone will sound at 30 seconds left and when time has expired, and times may be adjusted by the mayor
- Speakers must address their comments to the Town Council
- Please state your name and address when speaking

No one spoke.

E. WORK SESSION ITEM

1. Art on Public Property

Mr. Cuniff gave a presentation identifying or noting:

- background information
- what is public art, including photos
- public art funding
- public art process
- public art - Peters Colony Memorial Park option
- art in roundabouts

and he responded to questions or comments from Council regarding:

- use of grants for art, or possibility of using funds from the Town's community support program
- where did the \$100,000 estimate come from and what would it be used for
- use of 4b funds to pay for some projects
- possibility of an art sharing program between municipalities
- interest in art for the long term
- interest in having natural art that fits the area, as well as ensuring what gets selected addresses safety (particularly in the roundabouts)
- interest in seeing a 5 - 10 year plan, with input from the Cultural Arts Commission

2. SPAN and other public transportation options

Mr. Jennings provided background information on the Town's history with SPAN services. He introduced Max Calder, Director of Operations for SPAN, and he responded to questions or comments from Council regarding:

- timing and funding agency for 5310 (that is going away)
- per rider cost
- if SIM still offers scholarship program for seniors

Mr. Calder or PJ Patel (Director of Finance - SPAN) gave a presentation identifying or noting:

- who we are
- public demand response
- approved trip purposes
- fall survey feedback
- operational characteristics
- vehicle inventory
- Flower Mound service operating budget

and they responded to questions or comments from Council regarding:

- is the trip purpose the same for all client cities
- vehicle service life
- funding source for vehicles
- ability to relax the schedule (i.e. appointments made hours before instead of a day(s))
- ridership and destinations
- if DFW Airport is a service destination
- qualifying rides
- supply and demand
- future plans for vehicles and drivers
- payment method
- business subsidy for transit
- possibility of a service level increase
- booking eligibility (i.e. income, Medicaid, etc.)
- other opportunities based on feedback received from callers or riders
- future survey

3. Discussion of the Town's procurement methods for construction projects and small business set-asides.

Mr. Waltenburg gave a presentation identifying or noting:

- capital project overview
- request for qualifications (RFQ)
- bid process, including proposal example and unit item review, as well as town bid requirements and reasons to disqualify a bid
- change order process
- project delivery methods: standard competitive bidding, alternate delivery methods, competitive sealed proposals (advantages and disadvantages), design-build, construction management-agent, job order contracting
- HUB vendors (Texas Government Code Sec. 252.0215)

and he, or Mr. Childers responded to questions or comments from Council regarding:

- statement of qualifications
- frequency of bid disqualifications
- insurance and safety requirements
- scoring method for bid proposals
- construction method used for Town Hall building
- what happens when work is not done correctly
- software utilization for contract sharing
- government registration database, Department of Labor clauses, compliance (certified payroll records), bonds, best value bids, labor reporting, set asides, supplier evaluation process

F. ADJOURN

Mayor France adjourned the work session at 7:54 p.m. and all were in favor.

TOWN OF FLOWER MOUND, TEXAS

DEREK FRANCE, MAYOR

ATTEST:

THERESA SCOTT, TOWN SECRETARY

Tax Increment Reinvestment Zone Board #2



March 18, 2024
Town Hall
2121 Cross Timbers Road
Flower Mound, TX 75028

5:00 p.m.

DRAFT MINUTES

A. CALL TO ORDER

Mayor France called the meeting to order at 6:00 p.m. with the following members present:

Derek France, Mayor
Jim Engel, Mayor Pro Tem
Ann Martin, Deputy Mayor Pro Tem
Adam Schiestel, Councilmember Place 1
Chris Drew, Councilmember Place 2
Brian Taylor, Councilmember Place 3

constituting a quorum with the following members of the Town Staff participating:

Theresa Scott, Town Secretary
James W. Childers, Town Manager
Bryn Meredith, Town Attorney
Tommy Dalton, Assistant Town Manager
Tiffany Bruce, Assistant Town Manager/Town Engineer
Johh Zagurski, Chief Financial Officer

B. INVOCATION

Mayor France gave the invocation.

C. PLEDGE OF ALLEGIANCE TO THE AMERICAN FLAG AND TO THE TEXAS FLAG

"Honor the Texas flag; I pledge allegiance to thee, Texas, one state under God, one and indivisible."

Mayor France led the pledges.

D. PUBLIC COMMENT

The purpose of this item is to allow the public an opportunity to address the Board/Commission regarding any item on this agenda that is not a "Public Hearing." Issues regarding daily operational or administrative matters should first be dealt with by calling Town Hall at 972- 874-6000 during business hours. To speak to the Board/Commission during public comment, please fill out a comment form, which is located in the lobby of Town Hall.

In accordance with the Texas Open Meetings Act, the Board/Commission is restricted from discussing or acting on items not listed on the agenda.

- Speakers are limited to 3 minutes; a tone will sound at 30 seconds left and when time has expired, and times may be adjusted by the Chair depending on the number of speakers.
- Speakers must address their comments to the Board/Commission.
- Please state your name and address when speaking.

Mayor France opened public comment at 5:01 p.m. No one spoke. Mayor France closed public comment at 5:01 p.m.

E. REGULAR ITEM(S)

1. TIRZ #2 Final Plan - Consider recommending approval of the Final Project and Financing Plan for Tax Increment Reinvestment Zone number 2 (TIRZ #2) pursuant to Chapter 311 of the Texas Tax Code.
Mr. Childers provided background information.

Mary Petty, P3 Works, TIRZ Administrator, gave a presentation identifying or noting:

- TIRZ Goals overview
- TIRZ Boundary
- Map of the Public Improvements
- Project costs to be paid by TIRZ No. 2
- Reasons TIRZ is desirable
- TIRZ No. 2 components (Term: 30 years; Acreage: approximately 3,962.176 acres; Town TIRZ increment: 50%; County TIRZ increment requested: 50%)
- Estimated non-project costs
- Feasibility study
- Population growth in Texas
- Next steps

and she, or Mr. Meredith responded to questions from Council regarding:

- project cost escalation, including funding source for the delta
- protections within the document as it relates to commitments

ACTION: Jim Engel moved to approve E.1. as presented in the agenda caption. Chris Drew seconded the motion.
AYES: Derek France, Jim Engel, Ann Martin, Brian Taylor, Adam Schiestel, Chris Drew
NAYS: None
ABSTAIN: None

RESULT: 6 : 0

F. ADJOURN

Mayor France adjourned the TIRZ No. 2 meeting at 5:19 p.m. and all were in favor.

TOWN OF FLOWER MOUND, TEXAS

DEREK FRANCE, MAYOR

ATTEST:

THERESA SCOTT, TOWN SECRETARY



TOWN COUNCIL AGENDA J.3. CONSENT ITEM(S)

DATE: April 1, 2024
FROM: Andy Kancel, Police Chief
ITEM: **Consider approval of MCA Communications Maintenance Service Agreement for Police and Fire Department portable radios at the amount \$20,553.00, and authorization for the Mayor to execute same on behalf of the Town.**

BACKGROUND: Flower Mound Police and Fire Departments purchased new portable radios to replace aged models that will no longer be serviceable in the near future. These radios incorporate NextGen technologies such as advanced mapping, redundant communications methods (RF/Celluar/BT), and virtual assistant, etc. The MCA maintenance agreement will allow these new radios to be programmed and maintained on an annual basis to ensure proper functionality for public safety personnel.

BOARD REVIEW/CITIZEN FEEDBACK:

ALTERNATIVES:

FISCAL IMPACT: \$20,553.00

Proposed Expenditure/(Revenue)
\$12,798.00
\$7,755.00

Account Number(s):
100-640-43500-4100
100-660-63000-4100

LEGAL REVIEW: Bryn Meredith, of Taylor, Olson, Adkins, Sralla, & Elam L.L.P., has reviewed the agreement as to form and legality.

ATTACHMENTS:

1. FMPD&FD Maintenance Agreement with FD Special Credit 2

DRAFT MOTION: Move to approve as presented in the agenda caption.



COMMUNICATIONS EQUIPMENT MAINTENANCE SERVICE AGREEMENT

This Agreement is entered into on 4/1/2024 between Mobile Communications America with principal offices at
Arlington (hereafter "Mobile Communications America") and; (the "Customer")
Flower Mound Public Safety.

This Agreement is an offer to purchase service by the customer and applies to maintenance service, parts and labor for the equipment and/or systems as described in Attachment A. Mobile Communications America agrees to maintain the equipment under the terms and conditions described in this Agreement. Beginning on the effective date of this Agreement, Mobile Communications America agrees to provide maintenance service to keep covered equipment in good working order.

Payment Terms For Flower Mound PD Radios:

In consideration of the maintenance service provided, the customer agrees to pay to Mobile Communications America
\$2,133.00 per month, \$12,798.00 for six months. The customer will pay on a One-time basis.

Payment Terms For Flower Mound Fire Radios:

In consideration of the maintenance service provided, the customer agrees to pay to Mobile Communications America
\$1,848.00 per month, \$11,088.00 for six months, minus a special credit of \$3,333.00, bringing the total to \$7,755.00
The \$3,333 special credit due to Flower Mound FD is a credit from the service agreement already paid for. The customer will pay on a one-time basis.

This service agreement will expire on: 9/30/2024. This agreement will not auto renew upon the expiration date. A new contract will need to be negotiated after this 9/30.

By signing this Agreement, Customer agrees to accept maintenance service for the listed equipment according to all specified terms and conditions of the Agreement. Customer also agrees to provide full, free and safe access to the equipment and/or systems covered by this Agreement. The amounts noted above are due and payable within thirty (30) days of the Effective Date. This Agreement is valid only if signed by an authorized representative or officer of Mobile Communications America.

The additional terms and conditions attached to this Agreement are part of this Agreement. This Agreement is the complete understanding between Mobile Communications America and Customer superseding all prior proposals or agreements, oral or written, and all other communications between the parties relating to the subject matter of this Agreement. Customer agrees that no other representations have been made relative to this Agreement, except that which is expressed in writing herein. The Customer acknowledges that the Customer has read this entire Agreement, understands it, and agrees to be bound by its terms and conditions.

By: _____
Customer

Title: _____

Date: _____

By: Cody Cross
Mobile Communications America

Title: Account Executive

Date: 1/26/2024

TERM AND ACCEPTANCE: THIS AGREEMENT SHALL BECOME BINDING UPON THE PARTIES WHEN ACKNOWLEDGED IN WRITING BY THE AUTHORIZED REPRESENTATIVE OF THE CUSTOMER AND MCA. It is agreed that service shall be provided only upon the terms included in this Agreement. MCA shall not be bound by terms within the Customer's purchase order or in any other document provided by Customer and provision of services to Customer does not constitute acceptance of any of Customer's terms and conditions and does not serve to modify or amend this Agreement.

GENERAL PROVISIONS: MCA agrees to provide services for the Customer for the Equipment. Services provided hereunder do not assure uninterrupted operation of the Equipment or service and MCA is not responsible for failure to render covered service due to causes beyond its control.

NORMAL WORKING HOURS: Normal working hours shall be from 8:00 AM to 5:00 PM, Monday through Friday, except holidays.

SERVICE: MCA will perform such repairs as may be required to restore Equipment to their normal operating level, provided that such repairs are necessitated by the failure of the Equipment due to normal usage. Non-fixed Equipment shall be serviced at an MCA shop during normal working hours. Travel charges and expenses incurred by MCA at the request of the Customer to resolve a malfunction of the Equipment that is not covered under this Agreement shall be billable to the Customer at current MCA rates. For emergency service or other service performed at Customer's request outside of normal working hours, for equipment not covered under this Agreement or for Equipment whose failure was due to causes not considered to be "normal usage," Customer will be billed for the service at the then current MCA rates for each occurrence.

ENHANCED SERVICE OPTION: If Customer has elected to purchase the Enhanced Service Option, emergency service is included at no additional charge per occurrence, provided that all other terms of this Agreement are satisfied. Emergency service is provided 24 hours per day, seven days per week. Customers not electing the Enhanced Service Option shall pay an additional charge for emergency service rendered at current MCA rates for each occurrence.

REPLACEMENT PARTS: MCA will replace parts and components of the Equipment on an exchange basis when failure is due to the normal and proper use of the Equipment. Parts replaced during maintenance service become the property of MCA.

PREVENTIVE MAINTENANCE: MCA will inspect the Equipment and make such repairs, adjustments, and replacements of parts and components as may be necessary to maintain the Equipment in normal operating condition provided that such services and maintenance are necessitated by normal usage of the Equipment. Inspections and preventive maintenance service will be provided by MCA during normal working hours at the locations specified. All preventive maintenance inspections will be scheduled for mutual convenience and may be performed during remedial service.

PRICE CHANGES: Unless otherwise indicated, prices quoted in this Agreement shall remain in effect for the duration indicated in this Agreement or if none is specified, for a period of [one year]. Thereafter, at the sole discretion of MCA, prices for service under this Agreement may be increased by MCA upon thirty days written notice to Customer. Such changes will become effective on the first day of the first full month following the date specified in the notice.

LIMITATIONS: MCA reserves the right to inspect any equipment or service prior to its inclusion under the terms of this Agreement. MCA may at its sole discretion require that said equipment or system be restored to proper operating specifications at Customer's expense prior to its being covered under this Agreement. MCA may at its sole discretion declare Equipment to be unserviceable. In such case, MCA's sole responsibility is to remove such Equipment from the billing under this Agreement.

EXCLUDED SERVICES: The following services are not included under the terms of this Agreement. The repair of Equipment, replacement of parts, or any additional service labor due to accident, abuse, disaster, neglect, misuse, physical damage, liquid damage, damage by lightning or other Acts of God, service by personnel other than those authorized by MCA, alterations, modifications, attachments, accessories (other than those specifically designed for use with the particular piece of Equipment), use of Equipment with unauthorized batteries and/or power supplies or reprogramming by other than MCA personnel. Travel charges and expenses incurred by MCA at the request of the Customer to resolve a malfunction of equipment or systems not covered under this Agreement shall be billable to the Customer at current MCA rates. If MCA finds that any Equipment has been altered or repaired by others, such Equipment shall not be covered by this Agreement and any services shall be billable to the Customer at current MCA rates.

TAXES: Applicable taxes will be billed to the Customer and the Customer hereby agrees to pay said taxes, unless the Customer has provided a current tax exemption certificate.

LIABILITY INSURANCE: MCA agrees to carry reasonable liability insurance and applicable worker's compensation insurance.

WARRANTY: MCA warrants that it will perform the services using personnel of required skill, experience and qualifications and in a professional and workmanlike manner in accordance with generally recognized industry standards for similar services and shall devote adequate resources to meet its obligations under this Agreement. EXCEPT FOR THE WARRANTY SET FORTH IN THIS PARAGRAPH, MCA MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE SERVICES, INCLUDING ANY (A) WARRANTY OF MERCHANTABILITY; OR (B) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE; OR (C) WARRANTY OF TITLE; OR (D) WARRANTY AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY, WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE. LIMITATION OF LIABILITY: MCA SHALL NOT BE LIABLE TO CUSTOMER OR TO ANY THIRD PARTY FOR ANY LOSS OF USE, REVENUE OR PROFIT, DAMAGE OR LOSS OF OTHER PROPERTY OR EQUIPMENT OR SYSTEMS OR FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT, EXEMPLARY, SPECIAL OR PUNITIVE DAMAGES WHETHER ARISING OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, REGARDLESS OF WHETHER SUCH DAMAGES WERE FORESEEABLE AND WHETHER OR NOT MCA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND NOTWITHSTANDING THE FAILURE OF ANY AGREED OR OTHER REMEDY OF ITS ESSENTIAL PURPOSE. THE LIABILITY OF MCA WITH RESPECT TO ANY OF ITS OBLIGATIONS HEREUNDER, INCLUDING SERVICE, SALE, DELIVERY, RESALE, INSTALLATION OR THE TECHNICAL DIRECTION OF INSTALLATION, REPAIR OR USE OF ANY ITEM COVERED BY OR FURNISHED HEREUNDER, WHETHER SUCH LIABILITIES ARE FOUNDED IN CONTRACT, IN TORT, UNDER ANY WARRANTY, OR OTHERWISE, SHALL NOT EXCEED THE PRICE PAID TO MCA WITH RESPECT TO THE SERVICE GIVING RISE TO THE CLAIM. NO ACTION SHALL BE BROUGHT FOR ANY BREACH OF THIS AGREEMENT MORE THAN ONE (1) YEAR AFTER THE ACCRUAL OF SUCH CAUSE OF ACTION EXCEPT FOR MONEY DUE UPON OPEN ACCOUNT.

TERMINATION: This Agreement shall terminate upon the expiration date set forth in this Agreement. With the exception of the Customer's liability for any and all payments outstanding under this Agreement, neither the Customer nor MCA shall retain any liability for any performance under this Agreement on any date following the expiration of this Agreement.

NO CHANGES: Except as previously described, no changes, alteration or modification of this Agreement may be made without the express written consent of both parties. This Agreement may not be assigned or transferred without the express written consent of MCA.

ATTORNEYS' FEES: Should any dispute arise between the parties regarding the interpretation, application, effect or enforcement of the Agreement, the prevailing party in any legal or arbitration proceedings commenced to resolve the dispute shall be entitled to costs and reasonable attorney's fees incurred in said legal proceeding.

COVENANT NOT TO SOLICIT: During the term of this Agreement and continuing for a period of two (2) years thereafter, Customer will not hire, engage on contract, solicit the employment of, or recommend employment to any third party of any employee of MCA or its subcontractors without the prior written authorization of MCA. This provision applies only to those employees of MCA or its subcontractors who are responsible for rendering services under this Agreement. If this provision is found to be overly broad under applicable law, it shall be modified as necessary to conform to such law.

GOVERNING LAW AND VENUE: This Agreement and the parties' performance hereunder shall be governed by South Carolina law, excluding choice-of-law rules. Furthermore, to the extent permitted under South Carolina law, the parties waive the benefit all substantive, non-procedural, foreign and international laws, which might otherwise grant the parties rights which are different than those contemplated under this Agreement. The parties agree that a party shall commence any action with respect to any dispute regarding the performance or breach of this Agreement exclusively in the State of South Carolina Courts in Spartanburg County, South Carolina or the United States District Court for the District of South Carolina, and the parties, by entering into this Agreement, submit to the exclusive venue and personal jurisdiction of such courts, and waive all objections to jurisdiction and venue of such courts, including forum non-convenes.

COUNTERPARTS: The Agreement may be executed in counterparts, which together constitute one and the same agreement. A facsimile copy or computer image, such as a PDF or tiff image, of a signature shall be treated as and shall have the same effect as an original signature. In addition, a true and correct facsimile copy or computer image of the Agreement shall be treated as and shall have the same effect as an original signed copy of this document.

MISCELLANEOUS: This Agreement: (i) constitutes the entire agreement between MCA and Customer relating to the maintenance of the Equipment, and supersedes all prior agreements relating thereto, whether written or oral, and (ii) may not be amended or modified except in a writing signed by the parties hereto. If any provision of the Agreement shall be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of the Agreement. All notices given by one party to the other under this Agreement must be delivered by: (a) hand delivery, (b) certified mail, return receipt requested, (c) nationally recognized overnight courier service, or (d) facsimile, to the other party's respective address given in the preamble to the Agreement.

Essential Services - Repair		Qty	Coverage	
Police Subscriber Total		189	Services:	Essential Service for APX Next and Mobile Subs
Fire Subscriber Total		132		Customer to provide list of radio serial numbers covered

Premier Services - Repair		Qty	System Coverage	
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Customer Locations

Special Instructions

MCA Essential Service with Repair - Subscribers

Subscriber support includes repair and depot repair handling. It is the customer's responsibility to get the subscriber to their local MCA facility and ensure MCA has the current programming files on hand. It is MCA's responsibility to:

- Triage the device
- Ship to the depot if repair cannot be addressed locally
- Track repair status
- Receive the device back from the depot
- Confirm that the radio has been repaired and is programmed to the customer's specifications
- Communicate to the customer their device is fixed.

Subscriber support also includes one annual preventative maintenance check. It is the customer's responsibility to ensure the devices are made available for this check and update. It is MCA's responsibility to complete the preventative maintenance check and communicate results of this service with the customer. One annual firmware update of the device will be completed at the time of the preventative maintenance check.

MCA Premier Service with Repair - Subscribers

Subscriber support includes repair and depot repair handling. It is the customer's responsibility to get the subscriber to their local MCA facility and ensure MCA has the current programming files on hand. It is MCA's responsibility to:

- Triage the device
- Ship to the depot if repair cannot be addressed locally
- Track repair status
- Receive the device back from the depot
- Confirm that the radio has been repaired and is programmed to the customer's specifications
- Communicate to the customer the status of their repair as it changes

Subscriber support also includes one annual preventative maintenance check of the device. It is the customer's responsibility to ensure the devices are made available for this check. It is MCA's responsibility to complete the preventative maintenance check and communicate results of this service with the customer. One annual firmware update of the device will be completed at the time of the preventative maintenance check.

Batteries, antennas, and belt clip replacement is covered under this service. Antennas and belt clips will be replaced when they no longer function as the manufacturer intended. ***A battery will be replaced when it falls below a 80% charge capacity, provided they have a date code within MCA's contract terms and are charged by Impress chargers ONLY.***

MCA Essential Service with Repair - Infrastructure Components

Infrastructure support includes M-F 8X5 response to all issues arising from infrastructure, infrastructure cabling and antenna systems. Issues that result from power failure, force majeure, or tampering are excluded from this service. Removal of infrastructure equipment for warranty repair is the responsibility of MCA. Repair of cabling and antenna systems is not a part of this service. After hours support is available upon request but is not covered under this service. Additional charges would apply at after hour rates.

One annual preventive maintenance check of all infrastructure, infrastructure cabling and antenna systems is also included. It is the customer's responsibility to give access to all infrastructure, cabling, and antenna systems for this check. It is MCA's responsibility to schedule with the customer and communicate any and all system impact. One annual firmware update of the infrastructure equipment will be completed at the time of the preventative maintenance check. ***Microwave radio, UPS, and any other specialized equipment is EXCLUDED from repair and PM services, and will only receive response/troubleshooting.***

MCA Premier Service with Repair - Infrastructure Components

Infrastructure support includes 24X7X365 response to all system issues arising from infrastructure, infrastructure cabling and antenna systems. Issues that result from power failure, force majeure, or tampering are excluded from this service. Repair of cabling and antenna systems is not a part of this service.

This service also includes depot repair handling of the infrastructure equipment. Should the equipment suffer a failure that cannot be addressed in the field, MCA will:

- Uninstall the infrastructure equipment
- Send to the Motorola Depot
- Track repair status
- Receive the equipment back from the Motorola Depot
- Confirm normal operation
- Re-install the equipment at the customer location.
- Communicate to the customer the status of their repair as it changes

One annual preventive maintenance check of all infrastructure, infrastructure cabling and antenna systems is also included. It is the customer's responsibility to give access to all infrastructure, cabling, and antenna systems for this check. It is MCA's responsibility to schedule with the customer and communicate any and all system impact. One annual firmware update of the infrastructure equipment will be completed at the time of the preventative maintenance check. ***Microwave radio, UPS, and any other specialized equipment is EXCLUDED from repair and PM services, and will only receive response/troubleshooting.***



TOWN COUNCIL AGENDA J.4. CONSENT ITEM(S)

DATE: April 1, 2024
FROM: Dale Crown, Senior Project Engineer
ITEM: **Consider approval of Subsurface Utility Engineering Services related to the FM 2499 at FM 3040 Intersection Improvements project, with The Rios Group, in the amount of \$39,600.00.**

BACKGROUND: Subsurface utility engineering and locating services are needed to identify potential locations of unknown utility conflicts with the future construction of the FM 2499 at FM 3040 Intersection Improvements project. This project location is known to have a number of franchise and Town utilities in this critical intersection area. Approval of the subsurface utility engineering and locating services will provide for the identification of utilities and their exact location needed during design. These services will minimize the risk of project delays after the start of construction by finding conflicts unknown to the Town and utility providers. The FM 2499 at FM 3040 Intersection Improvements construction project is anticipated to begin Fall 2024, provided utility conflicts are resolved.

BOARD REVIEW/CITIZEN FEEDBACK: n/a

ALTERNATIVES: A decision not to approve the subsurface utility engineering and locating services will result in a higher risk of project delays at a critical intersection if utility conflicts are found during construction.

FISCAL IMPACT: \$39,600.00

Proposed Expenditure/(Revenue)
\$39,600.00

Account Number(s):
550-117-77115-6160

LEGAL REVIEW: n/a

ATTACHMENTS:

1. SUE Services - FM 2499 at FM 3040 Intersection Improvements

DRAFT MOTION: Move to approve as presented in the agenda caption.

February 20, 2024

The Town of Flower Mound Engineering
Dale Crown, P.E.
1001 Cross Timbers Rd., Suite 2330
Flower Mound, Tx, 75028

**RE: Subsurface Utility Engineering
FM 2499 at FM 3040 SUE Rev 1– UTL24-087
Flower Mound, Denton County, Tx**

Dear Dale Crown:

The Rios Group, Inc. (TRG) is pleased to submit a cost proposal for Subsurface Utility Engineering (SUE) for the above referenced project. This proposal is based on information provided via email on February 5, 2024.

Introduction

TRG will perform SUE services for this project in general accordance with the recommended practices and procedures described in ASCE publication ASCE/UESI/CI 38-22 “Standard Guideline for Investigating and Documenting Existing Utilities”. SUE Quality Level definitions and data limitations are included in Exhibit B, attached to this proposal.

Scope of Work

Based on information provided by The Town of Flower Mound Engineering (Client), TRG has developed a proposed scope for SUE services on this project. This scope may be modified, with Client and TRG concurrence, during the performance of work if warranted by changing or unexpected field conditions.

The scope of this proposal includes QLA SUE services.

To Include:

This proposal includes up to eighty (80) hours of QLA vacuum excavation effort within the limits of the FM 2499 at FM 3040 SUE project in Flower Mound, TX. The locations of the test holes are to be determined at a later date by the Client. To lay out the test holes, TRG will attempt to designate the target utility 10-feet on either side of the proposed test holes. No other utility investigation or designation work is included in this scope of work. TRG has made the following assumptions related to test hole excavations on this project:

- Any necessary Right-Of-Entry (ROE) permits, including railroad ROE, and access to the site will be provided by the Client prior to the start of field work.
- Test holes will be excavated using vacuum excavation equipment.

- All test holes will be accessible to truck/trailer-mounted vacuum excavation equipment. Any improvements required to access test hole locations (clearing, grading, mat installation, etc.) will be provided by others at no cost to TRG.
- Right-Of-Way (ROW) permits from the City of Flower Mound (City) will be required. TRG will obtain all required City permits and ensure that coordination and compliance with the City is provided.
- Designed traffic control plans may be required. TRG will acquire the services of a qualified temporary traffic control engineering subcontractor, and ensure that all traffic control plans meet required standards.
- Traffic control measures may be required. TRG will acquire the services of a qualified Maintenance-Of-Traffic (MOT) Subcontractor, and ensure that adequate traffic control is provided.
- Pavement coring/repair may be required at various locations. TRG can core pavement up to a depth of 12 inches. Asphalt surfaces will be repaired with an asphalt cold patch, and concrete cores will be epoxied in place, flush with the surrounding surface.
- The following items are specifically excluded from this scope of work: flowable fill for backfill of test holes, full-section pavement repair (including sidewalks)
- Due to the risk of damage, TRG will not attempt to probe or excavate test holes on AC water lines unless approval is obtained from the owner in advance.
- Excavation in rock, or to a depth greater than 18 feet, is considered beyond the scope of this proposal.

The survey of SUE field markings and test hole locations is also included in this scope of work. Client will provide the necessary survey control information in close proximity to the work area.

Deliverables

TRG will provide the following as a final deliverable to the Client:

- A utility file in CAD format depicting all SUE data documented on the project. The Client will provide TRG with any necessary background files for use in completing the final deliverables.
- A summary sheet of all test hole coordinate data and depth information.
- 8.5" x 11" Test Hole Data Forms for all test hole locations completed. These forms will be signed and sealed by a Professional Engineer and delivered to the Client in electronic PDF form.
- A Utility Report containing metadata (e.g. scope of work, work limits, dates of performance, survey control, etc.), information about the Utility Investigation not otherwise conveyed in other project deliverables, and recommendations to address data deficiencies.

Schedule

TRG can mobilize within three (3) weeks of receiving Notice-To-Proceed (NTP). TRG will apply for the required ROW permits immediately following receipt of NTP. TRG estimates that the QLA SUE work can be completed in thirty (30) working days [six (6) calendar weeks] following approval of the City ROW permit, broken down as follows:

- Layout test holes – 10 days
- QLA field work – 10 days
- QLA survey and preparation of data – 5 days
- QLA deliverable preparation – 5 days

Estimated Fee

The total estimated cost to complete the work described herein is **Thirty-Nine Thousand Six Hundred Dollars and NO/100 (\$39,600.00)**. An itemized breakdown of cost is provided in Exhibit A. Please note that these pricings are based on estimated quantities, and that only actual quantities will be invoiced – up to the total Contract amount.

We look forward to working with you on this project. If there are any questions, please do not hesitate to call at 214.333.0922.

Respectfully,

The Rios Group, Inc.



Eric Webb, P.E
Dallas Branch Manager

Estimate for Subsurface Utility Engineering FM 2499 at FM 3040 SUE

EXHIBIT A

Direct Expenses	Rate	Assumed Quantity	Unit of Measure	Sub-Total	Notes
Deliverable Preparation (QL "A")	\$ 1,500.00	1	LS	\$ 1,500.00	
ROW Permits	\$ 800.00		EA	\$ -	
Utility Record Collection	\$ 3,000.00		LS	\$ -	
Designed Traffic Control Plan	\$ 1,500.00		LS	\$ -	
Traffic Control (Small)	\$ 2,000.00	3	DAY	\$ 6,000.00	
Traffic Control (Medium)	\$ 3,000.00		DAY	\$ -	
Traffic Control (Large)	\$ 4,000.00		DAY	\$ -	
Survey (RPLS) QL "B"	\$ 2,500.00	1	DAY	\$ 2,500.00	
Sub-Total					\$ 10,000.00
QL"B" SUE Designating (Hourly not to Exceed)	Rate	Assumed Quantity	Unit of Measure	Sub-Total	
One Designating Person	\$ 160.00	20	HR	\$ 3,200.00	
Two Person Designating Crew	\$ 250.00		HR	\$ -	
Sub-Total					\$ 3,200.00
QL"A" SUE Test Holes (Hourly not to Exceed)					
Unit Rate - Depth	Rate	Assumed Quantity	Unit Of Measure	Sub-Total	
0 - 4 feet	\$ 1,350.00		EA	\$ -	
4 - 8 feet	\$ 1,650.00		EA	\$ -	
8 - 12 feet	\$ 1,950.00		EA	\$ -	
12 - 18 feet	\$ 2,800.00		EA	\$ -	
Pavement Coring	\$ 400.00		EA	\$ -	
Two Man Vac Crew	\$ 330.00	80	HR	\$26,400.00	
Two Man Vac Crew & Designator	\$ 450.00		HR	\$ -	
Test Hole Total=		N/A			
Sub-Total					\$ 26,400.00
Total Estimated Cost					\$ 39,600.00

EXHIBIT B

DEFINITIONS & DATA LIMITATIONS

Subsurface Utility Engineering (SUE) Quality Level Definitions

The Rios Group (TRG) performs SUE services in general accordance with the recommended practices and procedures described in ASCE publication ASCE/UESI/CI 38-22 “Standard Guideline for Investigating and Documenting Existing Utilities”. The core aspect of this standard is affixing a professionally judged value (a Utility Quality Level) to buried and hidden Utility Segments and Utility Features that identify the reliability and nonquantifiable locational uncertainty of documented Utility infrastructure data. The four quality levels, as defined in the standard, are:

- **Utility Quality Level D (QLD)** – A value assigned to a Utility Segment or Utility Feature not visible at the ground surface whose estimated position is judged through Utility records, information from others, or from visual clues such as pavement cuts, obvious trenches, or existence of service.

A QLD data attribute is assigned to a Utility Segment or Utility Feature after review and compilation of existing records, oral recollections, One-Call or “private-locate” markings, managed data repositories, context with other achieved Utility Quality Levels, and/or other evidence of existence. QLD data is more uncertain than QLC, QLB, and QLA. QLD data is less uncertain than utilities documented without any Utility Quality Level barring a Professional’s statement of fact to the contrary.

- **Utility Quality Level C (QLC)** – A value assigned to a Utility Segment not visible at the ground surface whose estimated position is judged through correlating Utility records or similar evidence to Utility Features, visible aboveground and/or underground. The Utility Anchor Point on the Utility Features shall be tied to the Project Survey Datum with an accuracy of 0.2 ft (60 mm) horizontal.

A QLC value judgement is assigned to a Utility Segment by using visible Utility Features to approximate the position of a Utility Segment between or in proximity to the visible Utility Features and in context with other achieved Utility Quality Levels. QLC only pertains to the underground Utility Segment(s), not the Utility Feature(s). QLC data is more certain than QLD and is more uncertain than QLB and QLA

- **Utility Quality Level B (QLB)** – A value assigned to a Utility Segment or Subsurface Utility Feature whose existence and horizontal position is based on Geophysical Methods combined with professional judgement and whose location is tied to the Project Survey Datum.

A QLB value is assigned to a Utility Segment when the following conditions are met: (1) the Utility Segment was detected through the application of appropriate Geophysical Methods; (2) the geophysical signal was judged to be reliable. (3) the interpreted position was judged based on knowledge and use of geophysical science, Utility design and installation practices, available records, visual features, and influence of site conditions; and (4) the source Designation has been tied to the Project Survey Datum with an accuracy of 0.2 ft (60mm) horizontally. QLB is more uncertain than QLA and more certain than QLC or QLD.

- **Utility Quality Level A (QLA)** – A value assigned to that portion (x-, y-, and z-geometry) of a Utility Segment or subsurface Utility Feature that is directly exposed and measured and whose location and dimensions are tied to the Project Survey Datum. The Utility Segment or subsurface Utility Feature shall be tied to Project Survey Datum with an accuracy of 0.1 ft (30 mm) vertical and to 0.2 ft (60 mm) horizontal for measurements of the outside limits of the Utility Feature or Utility Segment that is exposed.

Other measurable, observable, and judged Utility Attributes are also recorded. If obtained by means of a Test Hole observation, a verification effort is made, and professional judgement is used to assert that the exposed infrastructure is indeed the sought target. The assignment of QLA conveys the lowest level of relative (nonquantifiable) uncertainty of measurable and judged Attributes and locations. QLA is more certain than QLB, QLC, or QLD.

Acronyms and Special Definitions

3D	three-dimensional
CAD	Computer-Aided Design
EOI	End of Information
GIS	geographic information system
GPR	ground penetrating radar
ROE	Right of Entry
ROW	Right of Way
SAF	Surface Adjustment Factor

Anchor Point: A defined point on a Utility Feature or a Utility Segment. (ASCE 38-22)

Attribute: A defined characteristic of a Utility Feature, Utility Segment, or of a singular point on a Utility Feature or Utility Segment. (ASCE 38-22)

Deliverable: The sealed results from a Subsurface Utility Engineering investigation that typically includes a Utility Report, Utility Drawings, and other relevant Utility data for inclusion in digital or paper formats, and/or within databases and/or three-dimensional models. (ASCE 38-22)

Designating: The application and interpretation of shallow earth Geophysical Methods to infer (with or without surface markings) the existence and the approximate horizontal position and,

when possible and part of the Scope of Work, Depth of a subsurface Utility Segment and/or Utility Feature. (ASCE 38-22)

Electronic Depth (ED): Depth obtained by electromagnetic receiver that has a varying level of accuracy based on many factors including soil conditions, connection type, overhead interference, etc. ED reports to the center of the induced magnetic field.

Encasement: A structure that encloses and protects utility facilities and surrounding infrastructure, environment, and the public. E.G. Concrete cap, casing pipe, tile, ducts, tunnel.

Geophysical Method: Application of an established shallow-earth Geophysical Method (such as seismic, acoustic, gravitational, magnetic, electrical, and electromagnetic) to observe the physical response of the subsurface Utility infrastructure and cultural features, as well as anomalies within those responses. (ASCE 38-22)

Locating: The process of exposing and verifying a Utility for purposes of determining its function, type, position, outside dimensions, and other observable Attributes at its exposed points. (ASCE 38-22)

Low Wire Sag: Lowest elevation on the lowest wire at a crossing overhead utility.

Overhead attachment point: Elevation where overhead line is attached to above ground structure such as a pole.

Subsurface Utility Engineering (SUE): The specialty practice of civil engineering's Utility Engineering branch that includes the investigation, analysis, judgment, and documentation of existing Utility networks. (ASCE 38-22)

Test Hole: A small, limited excavation, made to determine, measure, and record data about a buried Utility Segment or Utility Feature. (ASCE 38-22)

Utility: A privately, publicly, or cooperatively owned pipeline, cable(s), and/or conduits, facility, or system for producing, transmitting, or distributing communications, traffic control cables and structures, cable television, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, stormwater, or any other similar commodity, including any fire or police signal system or street lighting system. The term Utility shall also mean the Utility owner/operator inclusive of any wholly owned or controlled subsidiary. (ASCE 38-22)

Utility Feature: A physical component of a Utility. Examples include valves, hydrants, reducers, switches, thrust blocks, vaults, and transformers. (ASCE 38-22)

Utility Investigation: Any or all of a variety of office and field activities undertaken to understand and document the existence of, location, and Attributes of existing Utility facilities within the project limits. (ASCE 38-22)

Utility Quality Level: The value, assigned by the Professional, of a Utility Segment or subsurface Utility Feature that identifies the relative (nonquantifiable) uncertainty of a Utility Segment's or subsurface Utility Feature's existence and actual location to that of its documented location. (ASCE 38-22)

Utility Report: A report or sufficient notes contained within a Utility Drawing, sealed by a Professional, that (1) contains information about the Utility Investigation that might otherwise not be conveyed, (2) assists the end user in understanding the subsurface Utility landscape and risks, (3) provides recommendations to address data deficiencies, and (4) complements the Utility Drawing Deliverables. (ASCE 38-22)

Utility Segment: A continuous portion of a Utility for which the Utility Quality Level is constant, and the Attributes, other than Depth, are substantially identical. (ASCE 38-22)

Vault: A concrete box underground that is used for utility purpose.

General Data Limitations

SUE services are performed in accordance with ASCE/UESI/CI 38-22 guideline, generally accepted engineering principles and practices at the time of service. However, a possibility exists that abandoned, forgotten, non-detectable, undocumented, or newly installed utilities may not get mapped using standard records research and surface geophysical survey procedures. While the ASCE 38-22 standard guidelines mitigate these issues, utilities possessing characteristics mentioned below can be missed while following standard Utility Designating and Locating procedures:

1. Utilities lacking apparent available records and without apparent surface features.
2. Utilities with record information which is illegible, misleading, or incomplete.
3. Utilities which are inaccurately reported or inaccurately represented by the utility owner as being a significant distance from the true position.
4. Abandoned utilities without apparent surface features.
5. Utilities buried excessively deep, beyond detection limits of standard utility designating equipment.
6. Non-conductive utilities buried in clay soil without apparent surface features.
7. Non-conductive lines buried away from the tracer wire (e.g., HDPE Gas)
8. Facilities installed after the SUE effort has been completed.

A common problem occurs when the project involves facility owners and operators with insufficient records and non-conductive buried facilities (a situation often encountered with public works installations), infrastructure for oil and natural gas wells installed prior to 1960, and irrigation systems that utilize non-conductive water mains. Facilities mapped under these circumstances are often depicted as QLD during the utility designating field effort to keep operations and budgets at a practical level. As the design project progresses, some depicted facilities may have to be upgraded to a higher quality level through more advanced geophysical prospecting and utility locating methods to properly identify and assess utility conflicts for design and construction.

Designers, utility coordinators, and contractors must realize the CI/ASCE 38-22 utility mapping effort is an iterative acquisition and interpretation process. Unless subsequent endeavors are made to upgrade designated quality levels, facilities depicted at lower quality levels, such as QLD, may be completely in error. In addition, depicted facilities and corresponding data are pertinent at the time in which field investigation operations are completed and are subject to change.

Final utility plans and data are for design purposes only and reflect utility conditions at the time surveyed. The SUE consultant cannot be held responsible for utility scenario changing after completion of field operations.

Users of this data set must understand and adhere to the limitations associated with the designated quality levels assigned to the depicted facilities. QLC and QLD depictions are based on interpolations, extrapolations, and available record data; this data can be erroneous and should not be used alone for design development and bidding purposes. Additional utility designating and locating field efforts to upgrade data to QLB and QLA are strongly recommended for areas where accurate final design and construction planning and bidding is required.

It is strongly recommended that users of this data, especially project engineers-of-record, become familiar with the ASCE 38-22 standard guidelines and the corresponding data limitations inferred by the designated quality levels prior to employing the data set for design purposes. In addition, a utility report should always accompany the existing utility CADD file to ensure proper interpretation and usage of the data set. Any questions regarding the SUE data or utility report should be directed to the SUE professional engineer-of-record.



TOWN COUNCIL AGENDA J.5. CONSENT ITEM(S)

DATE: April 1, 2024

FROM: Dale Crown, Senior Project Engineer

ITEM: **Consider approval of a Professional Services Agreement with Alliance Geotechnical Group, Inc., to provide construction materials engineering and testing, for the Timber Creek Road Panel Replacement (John Court to Kirkpatrick Lane) project for an amount not to exceed \$40,000.00; and authorization for the Mayor to execute same on behalf of the Town.**

BACKGROUND: Apex Concrete Construction, Inc. will be performing the Timber Creek Road Panel Replacement project under the Concrete and Drainage Improvement Services contract (#2023-56-A). The project consists of concrete panel replacement along Timber Creek Road between John Court and Kirkpatrick Lane. The attached Professional Services Agreement includes construction materials engineering and testing services for the Timber Creek Road Panel Replacement project.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

ALTERNATIVES: Testing is needed to ensure construction materials meet specifications.

FISCAL IMPACT: \$40,000

Proposed Expenditure/(Revenue)
\$40,000

Account Number(s):
316-560-78047-6160

LEGAL REVIEW: The Town's standard professional service agreement form document, prepared by Taylor, Olson, Adkins, Sralla, & Elam L.L.P., was used to draft this agreement. No alteration to the legal content of this form document was made.

ATTACHMENTS:

1. Form 1295 Certificate 101179599
2. PSA Alliance Geo Group - Timber Creek Road Proj_

DRAFT MOTION: Move to approve as presented in the agenda caption.

THE STATE OF TEXAS §
COUNTY OF DENTON §

**PROFESSIONAL SERVICES AGREEMENT WITH
Alliance Geotechnical Group**

This contract is entered into on this 1 day of April , 2024, by and between the **TOWN OF FLOWER MOUND, TEXAS**, a municipal corporation located in Denton County, Texas, (hereinafter referred to as “TOWN”), acting by and through its Mayor, and **Alliance Geotechnical Group**, (“hereinafter referred to as “CONSULTANT”) whose address is 122 Rose Lane, Building L, Frisco, Texas 75033.

RECITALS

WHEREAS, TOWN desires to obtain professional services from CONSULTANT relative to construction material sampling and testing services for Timber Creek Road concrete panel replacement project; and

WHEREAS, CONSULTANT is a construction materials engineering and testing firm qualified to provide such services for the TOWN in exchange for fees hereinafter specified;

TERMS OF AGREEMENT

NOW, THEREFORE, in consideration of the covenants and agreements hereinafter contained and subject to the terms and conditions hereinafter stated, the parties hereto do mutually agree as follows:

**I.
Employment of Consultant**

CONSULTANT will perform as an independent contractor all services under this Contract to the prevailing professional standards consistent with the level of care and skill ordinarily exercised by members of the architectural, engineering and planning professions, both public and private, currently practicing in the same locality under similar conditions including but not limited to the exercise of reasonable, informed judgments and prompt, timely action. If CONSULTANT has represented or is representing that it has special expertise in one or more areas to be utilized in this Contract, then CONSULTANT agrees to perform those special expertise services to the appropriate local, regional and national professional standards.

II.

Scope of Services

CONSULTANT shall perform such services as are necessary to provide services for the Timber Creek Road Concrete Panel Replacement project specifically including, but not necessarily limited to, the tasks enumerated more fully in Attachment "A" hereto entitled "Scope of Work" (hereafter referred to as the "Project"). Attachment "A" is hereby incorporated herein by reference and made a part hereof as if written word for word. However, in case of conflict in the language of Attachment "A" and this Contract, the terms and conditions of this Contract shall be final and binding upon both parties hereto.

III.

Payment for Services

Total payment for services described herein shall be a sum not to exceed Forty Thousand and No/100 Dollars (\$40,000.00). This total payment for services includes CONSULTANT's ordinary expenses. Additional expenses and charges, which are extraordinary in nature, must be approved in advance by TOWN in writing signed by the parties. Such extraordinary expenses may be paid as incurred and billed to the TOWN pursuant to this Contract over and above the total payment amount identified in this provision. Any extraordinary expenses or charges not approved in writing in advance by the TOWN shall remain the sole responsibility of the CONSULTANT. If CONSULTANT retains any subcontractors to perform any of the work, CONSULTANT acknowledges that payments to such subcontractors are due and payable in accordance with the provisions of Texas Government Code Section 2251.022, and that interest on unpaid and overdue amounts shall accrue in accordance with Texas Government Code Section 2251.025.

CONSULTANT will bill TOWN according to their unit cost fee schedule on certain services provided combined with a flat fee for specific tests performed in accordance with Attachment "B"; provided however that this Contract shall control in the event of any conflict between the language in Attachment "B" and the language in this Contract. If additional services, trips or expenses are requested, CONSULTANT will not provide such additional services until authorized by TOWN in writing to proceed. The scope of services shall be strictly limited. TOWN shall not be required to pay any amount in excess of the amount identified in the preceding paragraph unless TOWN shall have approved in writing in advance (prior to the performance of additional work) the payment of additional amounts.

Each month CONSULTANT will submit to TOWN an invoice for actual services performed and reimbursable expenses incurred by CONSULTANT during the previous month for which payment is sought. Each invoice shall also state the percentage of work completed on the Project, the total of the current invoice amount and a running total balance for the Project to date.

Assuming that TOWN agrees with the invoice, that TOWN has not determined any of the work to be unsatisfactory, or that TOWN otherwise does not dispute any of the amounts billed, TOWN shall make payments in the amount shown by CONSULTANT's approved monthly statements and other documentation submitted in compliance with the Texas Prompt Payment Act, Texas Government Code Chapter 2251.

Nothing contained in this Contract shall require TOWN to pay for any work that TOWN has determined has not been successfully completed or is unsatisfactory as determined by TOWN, or which is not otherwise submitted in compliance with the terms of this Contract, nor shall failure to withhold payment pursuant to the provisions of this section constitute a waiver of any right, at law or in equity, which TOWN may have if CONSULTANT is in default, including the right to bring legal action for damages or for specific performance of this Contract. Waiver of any default under this Contract shall not be deemed a waiver of any subsequent default.

IV.

Revisions of the Scope of Services

TOWN reserves the right to revise or expand the scope of services after due approval by TOWN as TOWN may deem necessary, but in such event TOWN shall pay CONSULTANT equitable compensation for such services. In any event, when CONSULTANT is directed to revise or expand the scope of services under this Section of the Contract, CONSULTANT shall provide TOWN a written proposal for the entire costs involved in performing such additional services. Prior to CONSULTANT undertaking any revised or expanded services as directed by TOWN under this Contract, TOWN must authorize in writing the nature and scope of the services and accept the method and amount of compensation and the time involved in all phases of the Project.

It is expressly understood and agreed by CONSULTANT that any compensation not specified in Paragraph III herein above may require Flower Mound Town Council approval and is subject to the current budget year limitations.

V.

Term

This Contract shall begin on the date first written above, and shall terminate when TOWN has approved the Project as being final or otherwise terminates this Contract as provided herein.

VI.

Contract Termination Provision

Notwithstanding any other provision of this Contract, this Contract may be terminated at any time by TOWN for any reason, with or without cause, by providing CONSULTANT thirty (30) days written notice of such termination. Upon receipt of such notice, CONSULTANT shall immediately terminate working on, placing orders or

entering into contracts for supplies, assistance, facilities or materials in connection with this Contract and shall proceed to promptly cancel all existing contracts insofar as they are related to this Contract.

VII.

Ownership of Documents

All materials and documents prepared or assembled by CONSULTANT under this Contract shall become the sole property of TOWN and shall be delivered to TOWN without restriction on future use. CONSULTANT shall provide documents in any commonly-used electronic file format as requested by TOWN. CONSULTANT may retain in its files copies of all drawings, specifications and all other pertinent information for the work. CONSULTANT shall have no liability for changes made to any materials or other documents by others subsequent to the completion of the Contract.

VIII.

Insurance

A. CONSULTANT shall, at its own expense, purchase, maintain and keep in force during the term of this Contract such insurance as set forth below. CONSULTANT shall not commence work under this Contract until CONSULTANT has obtained all the insurance required under this Contract and such insurance has been approved by TOWN, nor shall CONSULTANT allow any subcontractor to commence work on its own subcontract until all similar insurance of the subcontractor has been obtained and approved. All insurance policies provided under this Contract shall be written on an "occurrence" basis save and except the Professional Liability Insurance which may be written on a "claims-made" basis, provided that "tail coverage" or continuation coverage is provided. The insurance requirements shall remain in effect throughout the term of this Contract.

The CONSULTANT shall furnish to TOWN certificates of insurance executed by the insurer or its authorized agent stating coverages, limits, expiration dates and compliance with all applicable required provisions. Certificates shall reference the Project and be addressed as follows:

Town of Flower Mound
2121 Cross Timbers Road
Flower Mound, TX 75028
Email: purchasing@flower-mound.com

The following policies and coverage shall be required:

1. Worker's Compensation Insurance (as required by law) with the policy endorsed to provide a waiver of subrogation as to TOWN; such policy to provide for Employers' Liability Insurance of not less than \$100,000.00 for each accident, \$100,000.00 disease-each employee, \$500,000.00 disease-policy limit;
2. Commercial General Liability Insurance including, but not limited to, Premises/Operations, Personal & Advertising Injury, Products/Completed Operations, Independent Contractor's and Contractual Liability, including but not limited to coverage for all of the indemnification obligations of CONSULTANT under this Contract, and fully insuring CONSULTANT's liability for injury to or death of employees of TOWN and of third parties, extended to include personal injury liability coverage and for damage to property of third parties, with minimum combined single limits of \$1,000,000 per occurrence, \$1,000,000 Products/Completed Operations Aggregate and \$1,000,000 general aggregate per occurrence. Coverage must be written on an occurrence form. The General Aggregate shall apply on a per project basis;
3. Business Automobile Liability Insurance, covering owned, hired and non-owned vehicles, with a minimum combined bodily injury and property damage limit of \$1,000,000.00 per occurrence; and
4. Professional Liability Insurance: CONSULTANT shall obtain and maintain at all times during the prosecution of the work under this Contract professional liability insurance, which may be written on a claims made form provided that "tail coverage" or continuation coverage is provided. Limits of liability shall be \$1,000,000.00 per claim, \$1,000,000.00 annual aggregate. The coverage under this policy shall include a contractual liability endorsement.

If any of the foregoing insurance is written on a claims-made form, coverage shall be continuous (by renewal or extended reporting period) for not less than thirty-six (36) months following completion of the Contract and acceptance by the TOWN. All such insurance shall be purchased from an insurance company that meets a financial rating of B+VI or better as assigned by A.M. Best Company or equivalent.

B. Each insurance policy to be furnished by CONSULTANT shall include the following conditions by endorsement to the policy

1. The TOWN shall be named as an additional insured on the Commercial General Liability policy, by using endorsement CG2026 or broader;
2. The TOWN shall also be named as an additional insured as to all other applicable coverage save and except the Worker's Compensation Insurance and Professional Liability Insurance;

3. Each policy will require that thirty (30) days prior to the expiration, cancellation, nonrenewal or any material change in coverage, a notice thereof shall be given to TOWN by certified mail to:

Manny Palacios Jr.
Town of Flower Mound
2121 Cross Timbers Road
Flower Mound, Texas 75028
972-874-6414 Telephone

However, if the policy is canceled for nonpayment of premium, only ten (10) days advance written notice to TOWN is required. CONSULTANT shall also notify TOWN within twenty-four (24) hours after receipt of any notices of expiration, cancellation, nonrenewal or any material change in coverage it receives from its insurer(s);

4. The term "Owner" or "TOWN" shall include all authorities, boards, bureaus, commissions, divisions, departments and offices of TOWN and the individual members, employees and agents thereof in their official capacities, and/or while acting on behalf of TOWN;
5. The policy phrase "Other Insurance" shall not apply to TOWN where TOWN is an additional insured on the policy; and
6. All provisions of the Contract concerning liability, duty and standards of care together with the indemnification provision shall be underwritten by contractual liability coverage sufficient to include such obligations within applicable policies.

C. Concerning insurance to be furnished by CONSULTANT, it is a condition precedent to acceptability thereof that:

1. Any policy submitted shall not be subject to limitations, conditions or restrictions deemed inconsistent with the intent of the insurance requirements to be fulfilled by CONSULTANT. The TOWN's decision(s) thereon shall be final;
2. All policies are to be written through companies duly approved to transact that class of insurance in the State of Texas; and
3. All liability policies required herein, save and except Professional Liability Insurance, shall be written with an "occurrence" basis coverage trigger.

D. CONSULTANT agrees to the following:

1. CONSULTANT hereby waives subrogation rights for loss or damage to the extent same are covered by insurance. Insurers shall have no right of recovery or subrogation against TOWN, it being the intention that the

insurance policies shall protect all parties to this Contract and be primary coverage for all losses covered by the policies;

2. Companies issuing the insurance policies and CONSULTANT shall have no recourse against TOWN for payment of any premiums, or assessments for any deductible, as all such premiums are the sole responsibility and risk of CONSULTANT;
3. Approval, disapproval or failure to act by TOWN regarding any insurance supplied by CONSULTANT (or any subcontractors) shall not relieve CONSULTANT of full responsibility or liability for damages and accidents as set forth in the Contract documents. Neither shall the insolvency or denial of liability by the insurance company exonerate CONSULTANT from liability; and
4. No special payments shall be made for any insurance that the CONSULTANT and subcontractors are required to carry; all are included in the contract price and the contract unit prices.

Any of the insurance policies required under this section may be written in combination with any of the others, where legally permitted, but none of the specified limits may be lowered thereby.

IX.

Right to Inspect Records

CONSULTANT agrees that TOWN shall have access to and the right to examine any directly pertinent books, documents, papers and records of CONSULTANT involving transactions relating to this Contract. CONSULTANT agrees that TOWN shall have access during normal working hours to all necessary CONSULTANT facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. TOWN shall give CONSULTANT reasonable advance notice of intended audits.

If TOWN agrees that CONSULTANT may retain any subcontractors, CONSULTANT further agrees to include in subcontract(s), if any, a provision that any subcontractor or engineer agrees that TOWN shall have access to and the right to examine any directly pertinent books, documents, papers and records of such engineer or subcontractor involving transactions to the subcontract, and further, that TOWN shall have access during normal working hours to all such engineer or sub-contractor facilities and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with the provisions of the paragraph. TOWN shall give any such engineer or sub-contractor reasonable advance notice of intended audits.

X.
Successors and Assigns

TOWN and CONSULTANT each bind themselves and their successors, executors, administrators and assigns to the other party to this Contract and to the successors, executors, administrators and assigns of such other party in respect to all covenants of this Contract. Neither TOWN nor CONSULTANT shall assign or transfer its interest herein without the prior written consent of the other.

XI.
CONSULTANT's Liability

Acceptance of the final plans by the TOWN shall not constitute nor be deemed a release of the responsibility and liability of CONSULTANT, its employees, associates, agents or consultants for the accuracy and competency of their designs, working drawings, specifications or other documents and work; nor shall such acceptance be deemed an assumption of responsibility by TOWN for any defect in the designs, working drawings, specifications or other documents and work; nor shall such acceptance be deemed an assumption of responsibility by TOWN for any defect in the designs, working drawings, specifications or other documents and work prepared by said CONSULTANT, its employees, associates, agents or sub-consultants. In this regard, CONSULTANT acknowledges that TOWN is retaining CONSULTANT to provide the services described herein, in reliance upon CONSULTANT's specialized expertise and experience, and in reliance thereon.

XII.
Indemnification

THE PROVISIONS OF THIS SECTION ARE SUBJECT TO THE LIMITATIONS OF TEXAS LOCAL GOVERNMENT CODE SECTION 271.904 AND SHALL BE CONSTRUED TO THAT EFFECT. THE CONSULTANT AS ALLOWED BY TEXAS LOCAL GOVERNMENT CODE SECTION 271.904 WILL STILL NAME TOWN AS ADDITIONAL INSURED IN ITS GENERAL LIABILITY POLICY AND PROVIDE ANY DEFENSE AS ALLOWED BY THE POLICY. CONSULTANT DOES HEREBY COVENANT AND CONTRACT TO WAIVE ALL CLAIMS, RELEASE, INDEMNIFY AND HOLD HARMLESS TOWN AND ALL OF ITS OFFICIALS, OFFICERS, AGENTS, EMPLOYEES AND INVITEES, IN BOTH THEIR PUBLIC AND PRIVATE CAPACITIES, FROM ANY AND ALL LIABILITY, CLAIMS, SUITS, DEMANDS OR CAUSES OF ACTION, INCLUDING ALL EXPENSES OF LITIGATION AND/OR SETTLEMENT, THAT MAY ARISE BY REASON OF DEATH OR INJURY TO PERSONS OR DAMAGE TO OR LOSS OF USE OF PROPERTY OCCASIONED BY ANY WRONGFUL INTENTIONAL ACT OR OMISSION OF CONSULTANT AS WELL AS ANY NEGLIGENT OMISSION, ACT OR ERROR OF CONSULTANT, ITS OFFICIALS, OFFICERS, AGENTS, EMPLOYEES AND INVITEES, OR OTHER PERSONS FOR WHOM

CONSULTANT IS LEGALLY LIABLE WITH REGARD TO THE PERFORMANCE OF THIS CONTRACT, REGARDLESS OF WHETHER SUCH LIABILITY, CLAIMS, SUITS, DEMANDS OR CAUSES OF ACTION IS THE RESULT IN PART OF TOWN'S NEGLIGENCE OR FAULT, AND CONSULTANT WILL, AT ITS OWN COST AND EXPENSE, DEFEND AND PROTECT TOWN AGAINST ANY AND ALL SUCH CLAIMS AND DEMANDS, INCLUDING PAYMENT OF TOWN'S REASONABLE ATTORNEYS' FEES. IN THE EVENT OF A CLAIM IS BROUGHT AGAINST TOWN, TOWN SHALL HAVE THE RIGHT TO RETAIN LEGAL COUNSEL OF ITS CHOOSING IN DEFENSE OF SUCH A CLAIM, AND SUCH ELECTION SHALL NOT RELIEVE CONTRACTOR OF ITS OBLIGATIONS UNDER THIS SECTION.

XIII.

Independent Contractor

CONSULTANT's status shall be that of an Independent Contractor and not an agent, servant, employee or representative of TOWN in the performance of this Contract. No term or provision of or act of CONSULTANT or TOWN under this Contract shall be construed as changing that status. CONSULTANT will have exclusive control of and the exclusive right to control the details of the work performed hereunder, and shall be liable for the acts and omissions of its officers, agents, employees, contractors, subcontractors and engineers and the doctrine of respondeat superior shall not apply as between TOWN and CONSULTANT, its officers, agents, employees, contractors, subcontractors and engineers, and nothing herein shall be construed as creating a partnership or joint enterprise between TOWN and CONSULTANT.

XIV.

Default

If at any time during the term of this Contract, CONSULTANT shall fail to commence the work in accordance with the provisions of this Contract, or fail to diligently provide services in an efficient, timely and careful manner and in strict accordance with the provisions of this Contract, or fail to use an adequate number or quality of personnel to complete the work or fail to perform any of its obligations under this Contract, then TOWN shall have the right, if CONSULTANT shall not cure any such default after thirty (30) days written notice thereof, to terminate this Contract for cause. Any such act by TOWN shall not be deemed a waiver of any other right or remedy of TOWN. If after exercising any such remedy due to CONSULTANT's nonperformance under this Contract, the cost to TOWN to complete the work to be performed under this Contract is in excess of that part of the Contract sum which has not theretofore been paid to CONSULTANT hereunder, CONSULTANT shall be liable for and shall reimburse TOWN for such excess.

TOWN's remedies for CONSULTANT's default or breach under this Contract shall be limited to one or more of the following remedies which may be exercised separately or in combination at TOWN's sole exclusive choice:

- (a) Specific performance of the Contract;
- (b) Re-performance of this Contract at no extra charge to TOWN; or
- (c) Monetary damages.

XV.
Provisions Surviving Termination

The terms of Sections XII entitled Indemnification, and XVIII entitled Confidential Information shall survive termination of this Contract.

XVI.
Changes

TOWN may, from time to time, require changes in the scope of services to be performed under this Contract. Such changes as are mutually agreed upon by and between TOWN and CONSULTANT shall be incorporated by written modification to this Contract.

XVII.
Conflicts of Interest

CONSULTANT covenants and agrees that CONSULTANT and its associates and employees will have no interest, and will acquire no interest, either direct or indirect, which will conflict in any manner with the performance of the services called for under this Contract. All activities, investigations and other efforts made by CONSULTANT pursuant to this Contract will be conducted by employees, associates or subcontractors of CONSULTANT.

No officer or employee of TOWN shall have any personal, financial interest, direct or indirect, in this Contract nor have any direct financial interest in the sale to TOWN of any land, materials, supplies, or services under this Contract, except on behalf of TOWN as a TOWN officer or employee. Any violation of this prohibition with knowledge, expressed or implied, of the person or corporation contracting with TOWN shall render the Contract voidable by the Director or the Town Council.

XVIII.
Confidential Information

CONSULTANT hereby acknowledges and agrees that its representatives may have access to or otherwise receive information during the furtherance of its obligations in accordance with this Contract, which is of a confidential, non-public or proprietary nature. CONSULTANT shall treat any such information received in full confidence and will not disclose or appropriate such Confidential Information for its own use or the use

of any third party at any time during or subsequent to this Contract. As used herein, "Confidential Information" means all oral and written information concerning TOWN, its affiliates and subsidiaries, and all oral and written information concerning TOWN or its activities, that is of a non-public, proprietary or confidential nature including, without limitation, information pertaining to customer lists, services, methods, processes and operating procedures, together with all analyses, compilation, studies or other documents, whether prepared by CONSULTANT or others, which contain or otherwise reflect such information. The term "Confidential Information" shall not include such materials that are or become generally available to the public other than as a result of disclosure of CONSULTANT, or are required to be disclosed by a governmental authority or by law, as determined by TOWN's attorney.

XIX.

Notice Information

All notices and communications under this CONTRACT to be mailed to TOWN shall be sent to the address of TOWN's agent as follows, unless and until CONSULTANT is otherwise notified:

Manny Palacios Jr.
Town of Flower Mound
2121 Cross Timbers Road
Flower Mound, Texas 75028
972-874-6414 Telephone

Notices and communications to be mailed or delivered to CONSULTANT shall be sent to the address of CONSULTANT as follows, unless and until TOWN is otherwise notified:

JK Marthers C.E.T., R.S.O.
Alliance Geotechnical Group
122 Rose Lane Bldg. L
Frisco, Texas 75036
214-618-4100 Telephone
214-618-4110 Fax
jmarthers@aggengr.com

Any notices and communications required to be given in writing by one party to the other shall be considered as having been given to the addressee on the date the notice or communication is posted, faxed or personally delivered by the sending party.

XX.

Applicable Law

The Contract is entered into subject to the Flower Mound Town Charter and ordinances of TOWN, as same may be amended from time to time, and is subject to and is to be construed, governed and enforced under all applicable State of Texas and federal laws. CONSULTANT will make any and all reports required per federal, state or local law including, but not limited to, proper reporting to the Internal Revenue Service, as required in accordance with CONSULTANT's income.

XXI. Non-Discrimination

CONSULTANT shall not discriminate against any employee, applicant for employment, contractor, or sub-contractor because of the race, age, color, religion, sex, or national origin of such person. Engineer shall take affirmative action to insure that all such persons are treated equally during their employment without regard to their race, age, color, religion, sex, or national origin. If CONSULTANT fails to comply with the federal or state laws relating to Equal Employment Opportunity, it is agreed that TOWN, at its option, may do either or both of the following:

- (a) Cancel, terminate, or suspend the Contract in whole or in part; or
- (b) Declare CONSULTANT ineligible for future TOWN contracts until it is determined to be in compliance.

XXII. Arbitration

CONSULTANT agrees not to enter into any agreement to arbitrate arising out of, or relating to, this Contract which would subject TOWN to being a party to any arbitration without TOWN's prior written consent.

XXIII. No Waiver of Governmental Immunity

Nothing in this Contract shall be construed as a waiver of TOWN'S governmental immunity, or of any applicable limitation on damages, or any other legal protection or defense or privilege of TOWN, except to the extent expressly provided otherwise herein.

XXIV. Severability

If any of the terms, provisions, covenants, conditions or any other part of this Contract are for any reason held to be invalid, void or unenforceable, the remainder of

the terms, provisions, covenants, conditions or any other part of this Contract shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

XXV.
Remedies

No right or remedy granted herein or reserved to the parties is exclusive of any other right or remedy herein by law or equity provided or permitted; but each shall be cumulative of every other right or remedy given hereunder. No covenant or condition of this Contract may be waived without written consent of the parties. Forbearance or indulgence by either party shall not constitute a waiver of any covenant or condition to be performed pursuant to this Contract.

XXVI.
Entire Agreement

This Contract embodies the entire agreement of the parties hereto, superseding all oral or written previous and contemporaneous agreements between the parties relating to matters herein, and except as otherwise provided herein cannot be modified without written agreement of the parties.

XXVII.
Non-Waiver

It is further agreed that one (1) or more instances of forbearance by TOWN in the exercise of its rights herein shall in no way constitute a waiver thereof.

XXVIII.
Headings

The headings of this Contract are for the convenience of reference only and shall not affect any of the terms and conditions hereof in any manner.

XXIX.
Venue

Situs of this Contract is agreed to be Denton County, Texas, for all purposes, including performance and execution, and the parties to this Contract agree and covenant that this Contract will be enforceable in Flower Mound, Texas; and that if legal action is necessary to enforce this Contract, exclusive venue will lie in Denton County, Texas.

XXX.
No Third Party Beneficiary

For purposes of this Contract, including its intended operation and effect, the parties (TOWN and CONSULTANT) specifically agree and contract that: (1) the Contract only affects matters/disputes between the parties to this Contract, and is in no way intended by the parties to benefit or otherwise affect any third person or entity notwithstanding the fact that such third person or entity may be in contractual relationship with TOWN or CONSULTANT or both; and (2) the terms of this Contract are not intended to release, either by contract or operation of law, any third person or entity from obligations owing by them to either TOWN or CONSULTANT.

[The remainder of this page is left blank intentionally]

IN WITNESS WHEREOF, the parties hereto have caused this document to be executed as of the date first above written.

THE TOWN OF FLOWER MOUND, TEXAS

By: _____

The Honorable Derek France
Mayor, Town of Flower Mound

Date Signed: _____

Attest:

Town Secretary

CONSULTANT:
Alliance Geotechnical Group

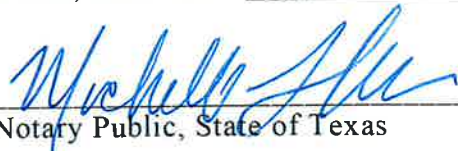
By: 
Name: Robert P. Nance
Title: President

Date Signed: March 25, 2024

State of Texas §
 §
County of Dallas §

This instrument was acknowledged before me on the 25th day of March,
20 24, by Robert P. Nance in his capacity as President of
Alliance Geotechnical Group, Inc., a Texas Corporation, known to me to be the person
whose name is subscribed to the foregoing instrument, and acknowledged that he
executed the same on behalf of and as the act of Alliance Geotechnical Group, Inc.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS THE 25th
DAY OF March, 20 24.


Notary Public, State of Texas

My Commission Expires:

October 12, 2026

March 19, 2024
Proposal No.: P24-0325C

Mr. Keith Gabbard
Town of Flower Mound
Email: keith.gabbard@flower.mound.com

**Subject: Construction Materials Testing Services
Timber Creek Road Repair 2024 Attachment A
Flower Mound, Texas**

Dear Mr. Gabbard,

Alliance Geotechnical Group (Alliance) is pleased to submit this proposal for construction materials testing for the above referenced project. We understand we have been selected based on the Professional Services Procurement Act.

PROJECT INFORMATION

Based on conversations with the Town of Flower Mound, we understand that the project will consist of the following:

- ◆ Timber Creek Road:
 - ◆ Various road repairs along Timber Creek Road including the following:
 - ◆ Placement of flex base subgrade at various areas
 - ◆ Construction of new concrete pavement within various areas.

SCOPE OF SERVICES

The following scope of services is based on information provided by the Town of Flower Mound and is limited to providing testing and/or observations for the previously mentioned construction. ***We do request that your construction representative provide us with a 24-hour notice for scheduling purposes.*** As such, we agree to provide the appropriate personnel to perform the below construction materials services.

Inspections and Testing for Earthwork

- Obtain and perform laboratory moisture/density relations (ASTM D698/D1557/D558, TEX-113-E, TEX-114-E) and soil classification tests (liquid limit, plastic limit and percent finer than no. 200 sieve analysis) for each soil type
- Perform in-place moisture/density tests at the rate of 1 every 300' for linear paving areas and 1/300 linear feet per lift for utilities, with a minimum of 2 tests per lift per area.

Inspections and Testing for Concrete Construction

- Perform reinforcing steel inspection prior to concrete placement (if requested; generally the same day unless scope of pour deemed too large by AGG) for conformance with project plans and reviewed shop drawings
- During concrete pours, for each intended use, AGG shall sample concrete from the first concrete truck on each day of concrete pouring and a minimum of one truck every 150 cubic yards thereafter.
- Perform testing and inspections during concrete placements, which will include:
 - Collect a copy of the batch ticket and verify mix design matches reviewed submittal (provided that approved mix designs are provided to AGG)
 - collect a sample in accordance with ASTM C172
 - perform slump test in accordance with ASTM C143
 - perform air content test in accordance with ASTM C231 or ASTM C173
 - perform unit weight test in accordance with ASTM C138
 - record concrete temperature in accordance with ASTM C1064
 - fabricate cylinders molded and standard-cured in accordance with ASTM C31; either four 6" x 12" or five 4" x 8"
 - perform compression testing in accordance with ASTM C39

COMPENSATION

While testing is dependent on the construction sequence, contractor performance and efficiency, weather conditions, and the actual testing performed, we suggest an **estimated budget of \$40,000.00**. The invoicing for this project will use the attached Fee Schedule **and the actual quantity of work performed**. The estimated budget will not be exceeded without prior approval. The Town of Flower Mound and Alliance Geotechnical Group may subsequently agree in writing to provide for additional services to be rendered under this agreement for additional, negotiated compensation. Services provided by Alliance will be consistent with the engineering standards prevailing at the time and in the area that the work is performed; no other warranty, express or implied, is intended.

Please indicate your approval of the proposal and the Alliance Geotechnical Group's General Conditions by issuing a Town of Flower Mound contract and/or Purchase Order as our notice to proceed.

We appreciate the opportunity to provide you with our services. If you have any questions or wish to discuss any aspect of our proposal, please call us. Following your authorization, we are ready to begin work and look forward to a successful project.

Sincerely,
Alliance Geotechnical Group



JK Marthers C.E.T., R.S.O.
Project Manager



Douglas S. Land P.E.
Branch Manager

Attachments: Project Data Sheet - Budget
Remarks

Alliance Geotechnical Group
PROJECT DATA SHEET - BUDGET
Timber Creek 24 (P24-0325C)
Attachment B

Attachment B

Concrete

1000	Concrete Technician	197.00 @	\$60.00	\$11,820.00
1008	Concrete Cylinder Pick Up	38.00 @	\$225.00	\$8,550.00
ASTM C39	Compressive Strength of Cylindrical Concrete Specimens	190.00 @	\$25.00	\$4,750.00

Concrete Budget: \$25,120.00

Misc

1307	Project Manager	40.00 @	\$95.00	\$3,800.00
1322	Vehicle Trip Charge	51.00 @	\$50.00	\$2,550.00

Misc Budget: \$6,350.00

Soils

1400	Earthwork Inspection and Testing	60.00 @	\$70.00	\$4,200.00
ASTM D1140	Material in Soils Finer than No. 200 Sieve	2.00 @	\$75.00	\$150.00
ASTM D4318	Liquid Limit, Plastic Limit, and Plasticity Index of Soils	2.00 @	\$75.00	\$150.00
ASTM D6938	In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods	104.00 @	\$35.00	\$3,640.00
ASTM D698	Laboratory Compaction Characteristics of Soil Using Standard Effort	2.00 @	\$195.00	\$390.00

Soils Budget: \$8,530.00

Total Budget: \$40,000.00



TOWN COUNCIL AGENDA J.6. CONSENT ITEM(S)

DATE: April 1, 2024
FROM: Jose Mendez, Director of Information Technology
ITEM: **Consider approval to renew the Town's three-year Enterprise Enrollment Agreement with Microsoft to provide the town with Licensing for Office 365, Servers, SharePoint, Advanced Threat Protection and Desktop Operating Systems, from Software One, in the amount of \$264,184.08.**

BACKGROUND: The Town of Flower Mound utilizes Microsoft's Enterprise applications, essential to operational efficiency. This Enterprise Agreement provides access to their Software as a Service (SaaS) platform, including Office 365, Servers, SharePoint, and cloud storage. By renewing the agreement, we leverage cost savings through volume licensing and predictable budgeting, avoiding unforeseen expenses associated with software procurement. Additionally, we will maintain access to Microsoft's latest software updates and technical support to ensure its security and compatibility with evolving technology standards.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

ALTERNATIVES: N/A

FISCAL IMPACT: \$264,184.08

Proposed Expenditure/(Revenue)
\$264,184.08

Account Number(s):
567-270-84510-2020

LEGAL REVIEW: Lindsey Hale, Town Attorney, of Taylor, Olson, Adkins, Sralla, & Elam L.L.P., has reviewed the agreement as to form and legality.

ATTACHMENTS:

1. MS Enterprise Agreement

DRAFT MOTION: Move to approve as presented in the agenda captions.

Program Signature Form

MBA/MBSA number

5-0000011272208

Agreement number

4942672

Note: Enter the applicable active numbers associated with the documents below. Microsoft requires the associated active number be indicated here, or listed below as new.

For the purposes of this form, "Customer" can mean the signing entity, Enrolled Affiliate, Government Partner, Institution, or other party entering into a volume licensing program agreement.

This signature form and all contract documents identified in the table below are entered into between the Customer and the Microsoft Affiliate signing, as of the effective date identified below.

Contract Document	Number or Code
Enterprise Enrollment (Indirect)	X20-10636
Enterprise Amendment	M97 (New)
Product Selection Form	2654112.005_PSF

By signing below, Customer and the Microsoft Affiliate agree that both parties (1) have received, read and understand the above contract documents, including any websites or documents incorporated by reference and any amendments and (2) agree to be bound by the terms of all such documents.

Customer
Name of Entity (must be legal entity name)* Town of Flower Mound
Signature*
Printed First and Last Name*
Printed Title
Signature Date*
Tax ID

* indicates required field

Microsoft Affiliate
Microsoft Corporation
Signature Printed First and Last Name Printed Title Signature Date (date Microsoft Affiliate countersigns)
Agreement Effective Date (may be different than Microsoft's signature date)

Optional 2nd Customer signature or Outsourcer signature (if applicable)

Customer
Name of Entity (must be legal entity name)* Signature* Printed First and Last Name* Printed Title Signature Date*

** indicates required field*

Outsourcer
Name of Entity (must be legal entity name)* Signature* _____ Printed First and Last Name* Printed Title Signature Date*

** indicates required field*

If Customer requires additional contacts or is reporting multiple previous Enrollments, include the appropriate form(s) with this signature form.

After this signature form is signed by the Customer, send it and the Contract Documents to Customer's channel partner or Microsoft account manager, who must submit them to the following address. When the signature form is fully executed by Microsoft, Customer will receive a confirmation copy.

Microsoft Corporation
 Dept. 551, Volume Licensing
 6880 Sierra Center Parkway
 Reno, Nevada 89511
 USA

Enterprise Enrollment

State and Local

Enterprise Enrollment number
(Microsoft to complete)

54846311

Framework ID
(if applicable)

Previous Enrollment number
(Reseller to complete)

68619691

This Enrollment must be attached to a signature form to be valid.

This Microsoft Enterprise Enrollment is entered into between the entities as identified in the signature form as of the effective date. Enrolled Affiliate represents and warrants it is the same Customer, or an Affiliate of the Customer, that entered into the Enterprise Agreement identified on the program signature form.

This Enrollment consists of: (1) these terms and conditions, (2) the terms of the Enterprise Agreement identified on the signature form, (3) the Product Selection Form, (4) the Product Terms, (5) any Supplemental Contact Information Form, Previous Agreement/Enrollment form, and other forms that may be required, and (6) any order submitted under this Enrollment. This Enrollment may only be entered into under a 2011 or later Enterprise Agreement. By entering into this Enrollment, Enrolled Affiliate agrees to be bound by the terms and conditions of the Enterprise Agreement.

All terms used but not defined are located at <http://www.microsoft.com/licensing/contracts>. In the event of any conflict the terms of this Agreement control.

Effective date. If Enrolled Affiliate is renewing Software Assurance or Subscription Licenses from one or more previous Enrollments or agreements, then the effective date will be the day after the first prior Enrollment or agreement expires or terminates. If this Enrollment is renewed, the effective date of the renewal term will be the day after the Expiration Date of the initial term. Otherwise, the effective date will be the date this Enrollment is accepted by Microsoft. Any reference to “anniversary date” refers to the anniversary of the effective date of the applicable initial or renewal term for each year this Enrollment is in effect.

Term. The initial term of this Enrollment will expire on the last day of the month, 36 full calendar months from the effective date of the initial term. The renewal term will expire 36 full calendar months after the effective date of the renewal term.

Terms and Conditions

1. Definitions.

Terms used but not defined in this Enrollment will have the definition in the Enterprise Agreement. The following definitions are used in this Enrollment:

“Additional Product” means any Product identified as such in the Product Terms and chosen by Enrolled Affiliate under this Enrollment.

“Community” means the community consisting of one or more of the following: (1) a Government, (2) an Enrolled Affiliate using eligible Government Community Cloud Services to provide solutions to a Government or a qualified member of the Community, or (3) a Customer with Customer Data that is subject to Government regulations for which Customer determines and Microsoft agrees that the use of Government Community Cloud Services is appropriate to meet Customer’s regulatory requirements.

Membership in the Community is ultimately at Microsoft's discretion, which may vary by Government Community Cloud Service.

"Enterprise Online Service" means any Online Service designated as an Enterprise Online Service in the Product Terms and chosen by Enrolled Affiliate under this Enrollment. Enterprise Online Services are treated as Online Services, except as noted.

"Enterprise Product" means any Desktop Platform Product that Microsoft designates as an Enterprise Product in the Product Terms and chosen by Enrolled Affiliate under this Enrollment. Enterprise Products must be licensed for all Qualified Devices and Qualified Users on an Enterprise-wide basis under this program.

"Expiration Date" means the date upon which the Enrollment expires.

"Federal Agency" means a bureau, office, agency, department or other entity of the United States Government.

"Government" means a Federal Agency, State/Local Entity, or Tribal Entity acting in its governmental capacity.

"Government Community Cloud Services" means Microsoft Online Services that are provisioned in Microsoft's multi-tenant data centers for exclusive use by or for the Community and offered in accordance with the National Institute of Standards and Technology (NIST) Special Publication 800-145. Microsoft Online Services that are Government Community Cloud Services are designated as such in the Use Rights and Product Terms.

"Industry Device" (also known as line of business device) means any device that: (1) is not useable in its deployed configuration as a general purpose personal computing device (such as a personal computer), a multi-function server, or a commercially viable substitute for one of these systems; and (2) only employs an industry or task-specific software program (e.g. a computer-aided design program used by an architect or a point of sale program) ("Industry Program"). The device may include features and functions derived from Microsoft software or third-party software. If the device performs desktop functions (such as email, word processing, spreadsheets, database, network or Internet browsing, or scheduling, or personal finance), then the desktop functions: (1) may only be used for the purpose of supporting the Industry Program functionality; and (2) must be technically integrated with the Industry Program or employ technically enforced policies or architecture to operate only when used with the Industry Program functionality.

"Managed Device" means any device on which any Affiliate in the Enterprise directly or indirectly controls one or more operating system environments. Examples of Managed Devices can be found in the Product Terms.

"Qualified Device" means any device that is used by or for the benefit of Enrolled Affiliate's Enterprise and is: (1) a personal desktop computer, portable computer, workstation, or similar device capable of running Windows Pro locally (in a physical or virtual operating system environment), or (2) a device used to access a virtual desktop infrastructure ("VDI"). Qualified Devices do not include any device that is: (1) designated as a server and not used as a personal computer, (2) an Industry Device, or (3) not a Managed Device. At its option, the Enrolled Affiliate may designate any device excluded above (e.g., Industry Device) that is used by or for the benefit of the Enrolled Affiliate's Enterprise as a Qualified Device for all or a subset of Enterprise Products or Online Services the Enrolled Affiliate has selected.

"Qualified User" means a person (e.g., employee, consultant, contingent staff) who: (1) is a user of a Qualified Device, or (2) accesses any server software requiring an Enterprise Product Client Access License or any Enterprise Online Service. It does not include a person who accesses server software or an Online Service solely under a License identified in the Qualified User exemptions in the Product Terms.

"Reseller" means an entity authorized by Microsoft to resell Licenses under this program and engaged by an Enrolled Affiliate to provide pre- and post-transaction assistance related to this agreement;

"Reserved License" means for an Online Service identified as eligible for true-ups in the Product Terms, the License reserved by Enrolled Affiliate prior to use and for which Microsoft will make the Online Service available for activation.

"State/Local Entity" means (1) any agency of a state or local government in the United States, or (2) any United States county, borough, commonwealth, city, municipality, town, township, special purpose district, or other similar type of governmental instrumentality established by the laws of Customer's state and located within Customer's state's jurisdiction and geographic boundaries.

"Tribal Entity" means a federally recognized tribal entity performing tribal governmental functions and eligible for funding and services from the U.S. Department of Interior by virtue of its status as an Indian tribe.

"Use Rights" means, with respect to any licensing program, the use rights or terms of service for each Product and version published for that licensing program at the Volume Licensing Site and updated from time to time. The Use Rights include the Product-Specific License Terms, the License Model terms, the Universal License Terms, the Data Protection Terms, and the Other Legal Terms. The Use Rights supersede the terms of any end user license agreement (on-screen or otherwise) that accompanies a Product.

"Volume Licensing Site" means <http://www.microsoft.com/licensing/contracts> or a successor site.

2. Order requirements.

- a. Minimum order requirements.** Enrolled Affiliate's Enterprise must have a minimum of 250 Qualified Users or Qualified Devices. The initial order must include at least 250 Licenses for Enterprise Products or Enterprise Online Services.
 - (i) Enterprise commitment.** Enrolled Affiliate must order enough Licenses to cover all Qualified Users or Qualified Devices, depending on the License Type, with one or more Enterprise Products or a mix of Enterprise Products and the corresponding Enterprise Online Services (as long as all Qualified Devices not covered by a License are only used by users covered with a user License).
 - (ii) Enterprise Online Services only.** If no Enterprise Product is ordered, then Enrolled Affiliate need only maintain at least 250 Subscription Licenses for Enterprise Online Services.
- b. Additional Products.** Upon satisfying the minimum order requirements above, Enrolled Affiliate may order Additional Products.
- c. Use Rights for Enterprise Products.** For Enterprise Products, if a new Product version has more restrictive use rights than the version that is current at the start of the applicable initial or renewal term of the Enrollment, those more restrictive use rights will not apply to Enrolled Affiliate's use of that Product during that term.
- d. Country of usage.** Enrolled Affiliate must specify the countries where Licenses will be used on its initial order and on any additional orders.
- e. Resellers.** Enrolled Affiliate must choose and maintain a Reseller authorized in the United States. Enrolled Affiliate will acquire its Licenses through its chosen Reseller. Orders must be submitted to the Reseller who will transmit the order to Microsoft. The Reseller and Enrolled Affiliate determine pricing and payment terms as between them, and Microsoft will invoice the Reseller based on those terms. Throughout this Agreement the term "price" refers to reference price. Resellers and other third parties do not have authority to bind or impose any obligation or liability on Microsoft.
- f. Adding Products.**
 - (i) Adding new Products not previously ordered.** New Enterprise Products or Enterprise Online Services may be added at any time by contacting a Microsoft Account Manager or Reseller. New Additional Products, other than Online Services, may be used if an order is placed in the month the Product is first used. For Additional Products that are Online Services, an initial order for the Online Service is required prior to use.

- (ii) **Adding Licenses for previously ordered Products.** Additional Licenses for previously ordered Products other than Online Services may be added at any time but must be included in the next true-up order. Additional Licenses for Online Services must be ordered prior to use, unless the Online Services are (1) identified as eligible for true-up in the Product Terms or (2) included as part of other Licenses.
- g. **True-up requirements.** Enrolled Affiliate must submit an annual true-up order that accounts for any changes since the initial order or last order. If there are no changes, then an update statement must be submitted instead of a true-up order.
- (i) **Enterprise Products.** For Enterprise Products, Enrolled Affiliate must determine the number of Qualified Devices and Qualified Users (if ordering user-based Licenses) at the time the true-up order is placed and must order additional Licenses for all Qualified Devices and Qualified Users that are not already covered by existing Licenses, including any Enterprise Online Services.
- (ii) **Additional Products.** For Additional Products that have been previously ordered under this Enrollment, Enrolled Affiliate must determine the maximum number of Additional Products used since the latter of the initial order, the last true-up order, or the prior anniversary date and submit a true-up order that accounts for any increase.
- (iii) **Online Services.** For Online Services identified as eligible for true-up in the Product Terms, Enrolled Affiliate may place a reservation order for the additional Licenses prior to use and payment may be deferred until the next true-up order. Microsoft will provide a report of Reserved Licenses ordered but not yet invoiced to Enrolled Affiliate and its Reseller. Reserved Licenses will be invoiced retrospectively to the month in which they were ordered.
- (iv) **Subscription License reductions.** Enrolled Affiliate may reduce the quantity of Subscription Licenses at the Enrollment anniversary date on a prospective basis if permitted in the Product Terms, as follows:
- 1) For Subscription Licenses that are part of an Enterprise-wide purchase, Licenses may be reduced if the total quantity of Licenses and Software Assurance for an applicable group meets or exceeds the quantity of Qualified Devices and Qualified Users (if ordering user-based Licenses) identified on the Product Selection Form, and includes any additional Qualified Devices and Qualified Users added in any prior true-up orders. Step-up Licenses do not count towards this total count.
 - 2) For Enterprise Online Services in a given Product pool that are not a part of an Enterprise-wide purchase, Licenses can be reduced as long as (a) the initial order minimum requirements are maintained and (b) all then-active users of each Online Service are included the total quantity of Licenses remaining after the reduction. An Enrolled Affiliate may reduce Licenses for Online Services on or before the Enrollment anniversary date and place a reservation order for such licenses within 90 days after the anniversary date; however, any licenses ordered as described in this section will be invoiced to the Enrolled Affiliate for the time period the licenses were made available.
 - 3) For Additional Products available as Subscription Licenses, Enrolled Affiliate may reduce the Licenses. If the License count is reduced to zero, then Enrolled Affiliate's use of the applicable Subscription License will be cancelled.
- Invoices will be adjusted to reflect any reductions in Subscription Licenses at the true-up order Enrollment anniversary date and effective as of such date.
- (v) **Update statement.** An update statement must be submitted instead of a true-up order if, since the initial order or last true-up order, Enrolled Affiliate's Enterprise: (1) has not changed the number of Qualified Devices and Qualified Users licensed with Enterprise Products or Enterprise Online Services; and (2) has not increased its usage of Additional

Products. This update statement must be signed by Enrolled Affiliate's authorized representative.

(vi) True-up order period. The true-up order or update statement must be received by Microsoft between 60 and 30 days prior to each Enrollment anniversary date. The third-year true-up order or update statement is due within 30 days prior to the Expiration Date, and any license reservations within this 30 day period will not be accepted. Enrolled Affiliate may submit true-up orders more often to account for increases in Product usage, but an annual true-up order or update statement must still be submitted during the annual order period.

(vii) Late true-up order. If the true-up order or update statement is not received when due, Microsoft may invoice Reseller for all Reserved Licenses not previously invoiced and Subscription License reductions cannot be reported until the following Enrollment anniversary date (or at Enrollment renewal, as applicable).

h. Step-up Licenses. For Licenses eligible for a step-up under this Enrollment, Enrolled Affiliate may step-up to a higher edition or suite as follows:

(i) For step-up Licenses included on an initial order, Enrolled Affiliate may order according to the true-up process.

(ii) If step-up Licenses are not included on an initial order, Enrolled Affiliate may step-up initially by following the process described in the Section titled "Adding new Products not previously ordered," then for additional step-up Licenses, by following the true-up order process.

i. Clerical errors. Microsoft may correct clerical errors in this Enrollment, and any documents submitted with or under this Enrollment, by providing notice by email and a reasonable opportunity for Enrolled Affiliate to object to the correction. Clerical errors include minor mistakes, unintentional additions and omissions. This provision does not apply to material terms, such as the identity, quantity or price of a Product ordered.

j. Verifying compliance. Microsoft may, in its discretion and at its expense, verify compliance with this Enrollment as set forth in the Enterprise Agreement.

3. Pricing.

a. Price Levels. For both the initial and any renewal term Enrolled Affiliate's Price Level for all Products ordered under this Enrollment will be Level "D" throughout the term of the Enrollment.

b. Setting Prices. Unless otherwise expressly agreed to by the parties and except for Online Services designated in the Product Terms as being exempt from fixed pricing, Enrolled Affiliate's prices for each Product or Service will be established by its Reseller. As long as Enrolled Affiliate continues to qualify for the same price level, Microsoft's prices for Resellers for each Product or Service ordered will be fixed throughout the applicable initial or renewal Enrollment term. Microsoft's prices to Resellers are reestablished at the beginning of the renewal term.

4. Payment terms.

For the initial or renewal order, Microsoft will invoice Enrolled Affiliate's Reseller in three equal annual installments. The first installment will be invoiced upon Microsoft's acceptance of this Enrollment and remaining installments will be invoiced on each subsequent Enrollment anniversary date. Subsequent orders are invoiced upon acceptance of the order and Enrolled Affiliate may elect to pay annually or upfront for Online Services and upfront for all other Licenses.

5. **End of Enrollment term and termination.**

- a. **General.** At the Expiration Date, Enrolled Affiliate must immediately order and pay for Licenses for Products it has used but has not previously submitted an order, except as otherwise provided in this Enrollment.
- b. **Renewal option.** At the Expiration Date of the initial term, Enrolled Affiliate can renew Products by renewing this Enrollment for one additional 36-month term or by signing a new Enrollment. Microsoft must receive a Renewal Form, Product Selection Form, and renewal order prior to or at the Expiration Date. Microsoft will not unreasonably reject any renewal. Microsoft may make changes to this program that will make it necessary for Customer and its Enrolled Affiliates to enter into new agreements and Enrollments at renewal.
- c. **If Enrolled Affiliate elects not to renew.**
 - (i) **Software Assurance.** If Enrolled Affiliate elects not to renew Software Assurance for any Product under its Enrollment, then Enrolled Affiliate will not be permitted to order Software Assurance later without first acquiring a new License with Software Assurance.
 - (ii) **Online Services eligible for an Extended Term.** For Online Services identified as eligible for an Extended Term in the Product Terms, the following options are available at the end of the Enrollment initial or renewal term.
 - 1) **Extended Term.** Licenses for Online Services will automatically expire in accordance with the terms of the Enrollment. An extended term option that allows Online Services to continue month-to-month ("Extended Term") is available. During the Extended Term, Online Services will be invoiced monthly at the then-current published price as of the Expiration Date plus a 3% administrative fee for up to one year. If Enrolled Affiliate wants an Extended Term, Enrolled Affiliate must submit a request to Microsoft at least 30 days prior to the Expiration Date.
 - 2) **Cancellation during Extended Term.** At any time during the first twelve months of the Extended Term, Enrolled Affiliate may terminate the Extended Term by submitting a notice of cancellation to Microsoft for each Online Service. Thereafter, Microsoft may condition the continued use of each Online Service on the acceptance of new terms by the Enrolled Affiliate. Enrolled Affiliate will be notified in writing of any new terms at least 60 days before any such changes take effect. Enrolled Affiliate acknowledges and agrees that after the notice described in this section, its continued use of each Online Service after the effective date provided in the notice will constitute its acceptance of the new terms. If Enrolled Affiliate does not agree to the new terms, it must stop using the Online Services and terminate the Extended Term as provided in this section. Enrolled Affiliate's termination under this section will be effective at the end of the month following 30 days after Microsoft has received the notice.
 - (iii) **Subscription Licenses and Online Services not eligible for an Extended Term.** If Enrolled Affiliate elects not to renew, the Licenses will be cancelled and will terminate as of the Expiration Date. Any associated media must be uninstalled and destroyed and Enrolled Affiliate's Enterprise must discontinue use. Microsoft may request written certification to verify compliance.
- d. **Termination for cause.** Any termination for cause of this Enrollment will be subject to the "Termination for cause" section of the Agreement. In addition, it shall be a breach of this Enrollment if Enrolled Affiliate or any Affiliate in the Enterprise that uses Government Community Cloud Services fails to meet and maintain the conditions of membership in the definition of Community.
- e. **Early termination.** Any early termination of this Enrollment will be subject to the "Early Termination" Section of the Enterprise Agreement.

For Subscription Licenses, in the event of a breach by Microsoft, or if Microsoft terminates an Online Service for regulatory reasons, Microsoft will issue Reseller a credit for any amount paid in advance for the period after termination.

6. Government Community Cloud.

- a. Community requirements.** If Enrolled Affiliate purchases Government Community Cloud Services, Enrolled Affiliate certifies that it is a member of the Community and agrees to use Government Community Cloud Services solely in its capacity as a member of the Community and, for eligible Government Community Cloud Services, for the benefit of end users that are members of the Community. Use of Government Community Cloud Services by an entity that is not a member of the Community or to provide services to non-Community members is strictly prohibited and could result in termination of Enrolled Affiliate's license(s) for Government Community Cloud Services without notice. Enrolled Affiliate acknowledges that only Community members may use Government Community Cloud Services.
- b.** All terms and conditions applicable to non-Government Community Cloud Services also apply to their corresponding Government Community Cloud Services, except as otherwise noted in the Use Rights, Product Terms, and this Enrollment.
- c.** Enrolled Affiliate may not deploy or use Government Community Cloud Services and corresponding non-Government Community Cloud Services in the same domain.
- d. Use Rights for Government Community Cloud Services.** For Government Community Cloud Services, notwithstanding anything to the contrary in the Use Rights:
 - (i)** Government Community Cloud Services will be offered only within the United States.
 - (ii)** Additional European Terms, as set forth in the Use Rights, will not apply.
 - (iii)** References to geographic areas in the Use Rights with respect to the location of Customer Data at rest, as set forth in the Use Rights, refer only to the United States.

Enrollment Details

1. Enrolled Affiliate's Enterprise.

Identify which Agency Affiliates are included in the Enterprise. (Required) Enrolled Affiliate's Enterprise must consist of entire offices, bureaus, agencies, departments or other entities of Enrolled Affiliate, not partial offices, bureaus, agencies, or departments, or other partial entities. Check only one box in this section. If no boxes are checked, Microsoft will deem the Enterprise to include the Enrolled Affiliate only. If more than one box is checked, Microsoft will deem the Enterprise to include the largest number of Affiliates:

☒ Enrolled Affiliate only

☐ Enrolled Affiliate and the following Affiliate(s):

Unless specifically identified above, all Affiliates of Customer, either existing at the execution of this Enrollment or created or acquired after the execution of this Enrollment, will be excluded from the Enterprise. To request that an additional Affiliate be included in Customer's Enterprise, Customer must identify an Affiliate to Microsoft in writing and provide any required documentation. Microsoft will reasonably review requests under this paragraph and may approve the inclusion of an Affiliate in Customer's Enterprise in its sole discretion.

1. Contact information.

Each party will notify the other in writing if any of the information in the following contact information page(s) changes. The asterisks (*) indicate required fields. By providing contact information, Enrolled Affiliate consents to its use for purposes of administering this Enrollment by Microsoft, its Affiliates, and other parties that help administer this Enrollment. The personal information provided in connection with this Enrollment will be used and protected in accordance with the privacy statement available at <https://www.microsoft.com/licensing/servicecenter>.

- a. **Primary contact.** This contact is the primary contact for the Enrollment from within Enrolled Affiliate's Enterprise. This contact is also an Online Administrator for the Volume Licensing Service Center and may grant online access to others. The primary contact will be the default contact for all purposes unless separate contacts are identified for specific purposes

Name of entity (must be legal entity name)* Town of Flower Mound

Contact name: First* Jose **Middle** **Last*** Mendez

Contact email address* jose.mendez@flower-mound.com

Street address* 2121 Cross Timbers Road

City* Flower Mound

State* TX

Postal code* 75028-2602 -

(Please provide the zip + 4, e.g. xxxxx-xxxx)

Country* United States

Phone* 972-874-6054

Tax ID

** indicates required fields*

- b. **Notices contact and Online Administrator.** This contact (1) receives the contractual notices, (2) is the Online Administrator for the Volume Licensing Service Center and may grant online access to others, and (3) is authorized to order Reserved Licenses for eligible Online Services, including adding or reassigning Licenses and stepping-up prior to a true-up order.

☐ Same as primary contact (default if no information is provided below, even if the box is not checked).

Contact name: First* Jose Middle Last* Mendez
Contact email address* jose.mendez@flower-mound.com
Street address* 2121 Cross Timbers Road
City* Flower Mound
State* TX
Postal code* 75028-2602 -
(Please provide the zip + 4, e.g. xxxxx-xxxx)
Country* United States
Phone* 972-874-6054

Language preference. Choose the language for notices. English

☐ This contact is a third party (not the Enrolled Affiliate). Warning: This contact receives personally identifiable information of the Customer and its Affiliates.

** indicates required fields*

- c. **Online Services Manager.** This contact is authorized to manage the Online Services ordered under the Enrollment and (for applicable Online Services) to add or reassign Licenses and step-up prior to a true-up order.

☐ Same as notices contact and Online Administrator (default if no information is provided below, even if box is not checked)

Contact name: First* Jose Middle Last* Mendez
Contact email address* jose.mendez@flower-mound.com
Phone* 972-874-6054

☐ This contact is from a third party organization (not the entity). Warning: This contact receives personally identifiable information of the entity.

** indicates required fields*

- d. **Reseller information.** Reseller contact for this Enrollment is:

Reseller company name* SoftwareONE, Inc.
Street address (PO boxes will not be accepted)* 320 E Buffalo Street Suite 200
City* Milwaukee
State* WI
Postal code* 53202-5875
Country* United States
Contact name* MS Admin. MS Admin
Phone* 555-555-5555

Contact email address* ms-admin.us@softwareone.com

** indicates required fields*

By signing below, the Reseller identified above confirms that all information provided in this Enrollment is correct.

Signature* Cesar Rojas

Printed name* Cesar Rojas

Printed title* Operations Analyst

Date* 03-13-2024

** indicates required fields*

Changing a Reseller. If Microsoft or the Reseller chooses to discontinue doing business with each other, Enrolled Affiliate must choose a replacement Reseller. If Enrolled Affiliate or the Reseller intends to terminate their relationship, the initiating party must notify Microsoft and the other party using a form provided by Microsoft at least 90 days prior to the date on which the change is to take effect.

- e. If Enrolled Affiliate requires a separate contact for any of the following, attach the Supplemental Contact Information form. *Otherwise, the notices contact and Online Administrator remains the default.*

- (i) Additional notices contact
- (ii) Software Assurance manager
- (iii) Subscriptions manager
- (iv) Customer Support Manager (CSM) contact

1. Financing elections.

Is a purchase under this Enrollment being financed through MS Financing? ☐ Yes, ☒ No.

If a purchase under this Enrollment is financed through MS Financing, and Enrolled Affiliate chooses not to finance any associated taxes, it must pay these taxes directly to Microsoft.

Previous Enrollment(s)/Agreement(s) Form

Entity Name: Town of Flower Mound

Contract that this form is attached to: State Local Government

For the purposes of this form, "entity" can mean the signing entity, Customer, Enrolled Affiliate, Government Partner, Institution, or other party entering into a volume licensing program agreement.

Please provide a description of the previous Enrollment(s), Agreement(s), Purchasing Account(s), and/or Affiliate Registration(s) being renewed or consolidated into the new contract identified above.

- a. Entity may select below any previous contract(s) from which to transfer MSDN subscribers to this new contract. Entity shall ensure that each MSDN subscriber transferred is either properly licensed under the new contract or is removed.
- b. Entity may select below only one previous contract from which to transfer the Software Assurance (SA) Benefit contact details, i.e., benefits contact (*not* the SA manager) and the program codes, to this new contract.
- c. An Open License cannot be used to transfer either the SA Benefit details or MSDN subscribers.
- d. The date of the earliest expiring Enrollment/Agreement that contains SA or Online Services will be the effective date of the new contract (or SA coverage period for Select Plus).
- e. Please insert the number of the earliest expiring Enrollment/Agreement with SA or Online Services in the appropriate fields of the new contract.

Enrollment/Agreement/ Purchasing Account/Affiliate Registration Description	Enrollment/Agreement/ Purchasing Account/Affiliate Registration Public Customer Number	Transfer SA Benefit Contact	Transfer MSDN Subscribers
Standard Enrollment	68619691	X	X

Amendment to Contract Documents

Enrollment Number

5-0000011272208

This amendment ("Amendment") is entered into between the parties identified on the attached program signature form. It amends the Enrollment or Agreement identified above. All terms used but not defined in this Amendment will have the same meanings provided in that Enrollment or Agreement.

Enterprise Enrollment Invoice for Quoted Price Amendment ID M97

The price quoted to Enrolled Affiliate is a fixed price based on an estimated order submission date. Microsoft will invoice Enrolled Affiliate based on this fixed price quote. If this order is submitted later than the estimated order submission date, Enrolled Affiliate will be charged for net new Monthly Subscriptions (including Online Services) for the period during which these services were not provided. For Indirect models, Pricing to Enrolled Affiliate is agreed between Enrolled Affiliate and Enrolled Affiliate's Reseller.

SKU Number	SKU Description	Existing Quantity	Incremental quantities
AAD-34700	M365 G3 Unified FSA Renewal GCC Sub Per User	481	0
AAD-34704	M365 G3 Unified FUSL GCC Sub Per User	172	0
AAL-48033	M365 G5 FSA Renewal GCC Sub Per User	0	6
3GU-00001	Defender O365 P1 GCC Sub Per User	659	34
P3U-00001	Visio P2 GCC Sub Per User	9	0
3MS-00001	Exchange Online P1 GCC Sub Per User	106	0
AAD-63092	M365 F3 Unified GCC Sub Per User	10	30
NYH-00001	Teams AC with Dial Out US/CA GCC Sub Add-on	656	37

Except for changes made by this Amendment, the Enrollment or Agreement identified above remains unchanged and in full force and effect. If there is any conflict between any provision in this Amendment and any provision in the Enrollment or Agreement identified above, this Amendment shall control.

This Amendment must be attached to a signature form to be valid.

Microsoft Internal Use Only:

(M97)EnrAmend(Ind)(InvoiceforQuotedPrice)(WW)(ENG)(Jan2023)v2(IU).docx		M97	B
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Proposal ID

2654112.005

Enrollment Number

Language: English (United States)

Enrolled Affiliate's Enterprise Products and Enterprise Online Services summary for the initial order:

Profile	Qualified Devices	Qualified Users	Device / User Ratio	CAL Licensing Model
Enterprise	659	659	1.0	User Licenses

Products	Enterprise Quantity
Microsoft 365 Enterprise	
M365 G3 GCC USL Unified	172
M365 G3 GCC FromSA Unified Renewal	481
M365 G5 GCC FromSA Renewal	6

Enrolled Affiliate's Product Quantities:

Price Group	1	2	3	4
Enterprise Products	Office Professional Plus + M365 Apps for Enterprise + Office 365 (Plans E3 and E5) + Microsoft 365 Enterprise	Client Access License + Office 365 (Plans E1, E3 and E5) + Microsoft 365 Enterprise	Client Access License + Windows Intune + EMS USL + Microsoft 365 Enterprise	Win E3 + Win E5 + Win VDA + Microsoft 365 Enterprise
Quantity	659	659	659	659

Enrolled Affiliate's Price Level:

Product Offering / Pool	Price Level
Enterprise Products and Enterprise Online Services USLs: Unless otherwise indicated in associated contract documents, Price level set using the highest quantity from Groups 1 through 4.	D
Additional Product Application Pool: Unless otherwise indicated in associated contract documents, Price level set using quantity from Group 1.	D
Additional Product Server Pool: Unless otherwise indicated in associated contract documents, Price level set using the highest quantity from Group 2 or 3.	D
Additional Product Systems Pool: Unless otherwise indicated in associated contract documents, Price level set using quantity from Group 4.	D

Notes

Unless otherwise indicated in the associated contract documents, the price level for each Product offering / pool is set as described above, based upon the quantity to price level mapping below:

Quantity of Licenses and Software Assurance	Price Level
2,399 and below	A
2,400 to 5,999	B
6,000 to 14,999	C
15,000 and above	D
Note 1: Enterprise Online Services may not be available in all locations. Please see the Product List for a list of locations where these may be purchased.	
Note 2: If Enrolled Affiliate does not order an Enterprise Product or Enterprise Online Service associated with an applicable Product pool, the price level for Additional Products in the same pool will be price level "A" throughout the term of the Enrollment. Refer to the Qualifying Government Entity Addendum pricing provision for more details on price leveling.	



TOWN COUNCIL AGENDA J.7. CONSENT ITEM(S)

DATE: April 1, 2024
FROM: Jeremy Jennings, Utility Line Main Manager
ITEM: **Consider approval of Water System Leak Detection and Condition Assessment services from Pure Technologies US, Inc., through a City of Denton contract (#8181) for an annual estimated amount not to exceed \$150,000.00.**

BACKGROUND: As the Town's water distribution system ages, leaks and other small failures do occur. These small leaks and failures are hard to detect and contribute to water loss in the system. These leaks also contribute to structural failures of roadways, sidewalks, and other public infrastructure. The services also provide for condition assessments of the water distribution assets. The condition assessments provide key information needed for the Town's asset management program that will determine future replacement and upgrade projects.

The City of Denton contract was awarded by their Council on June 6, 2023, and consists of an initial three (3) year term with the option to renew for an additional two (2) one-year periods.

Local governments are authorized by the Interlocal Cooperation Act, V.T.C.A. Government Code, Chapter 791, to enter into joint contracts and agreements for the performance of governmental functions and services, including administrative functions normally associated with the operation of government (such as purchasing necessary materials and equipment). The Town of Flower Mound and the City of Denton have an active interlocal agreement.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

ALTERNATIVES: A decision to not approve this item would result in the Town having unknown leaks in the water distribution system that contribute to water loss costs, structural failures of roadways, sidewalks and other public infrastructure.

FISCAL IMPACT: \$150,000 Not to Exceed Amount

Proposed Expenditure/(Revenue)
\$150,000.00 Not to Exceed Amount

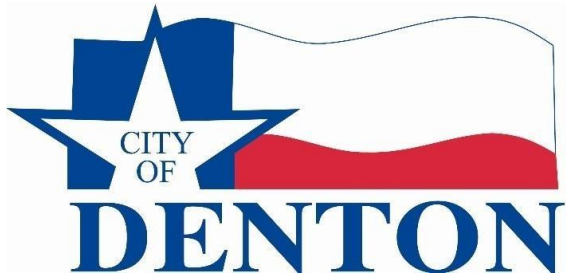
Account Number(s):
Various

LEGAL REVIEW: N/A

ATTACHMENTS:

1. Contract No. 8181 - City of Denton

DRAFT MOTION: Move to approve as presented in the agenda caption.



Docusign City Council Transmittal Coversheet

RFP	8181
File Name	TRANSMISSION MAINS CONDITION ASSESSMENT
Purchasing Contact	Crystal westbrook
City Council Target Date	6/6/2023
Piggy Back Option	Yes
Contract Expiration	6/6/2028
Ordinance	23-1043

**CONTRACT BY AND BETWEEN
CITY OF DENTON, TEXAS AND PURE TECHNOLOGIES US INC.
(CONTRACT 8181)**

THIS CONTRACT is made and entered into this date 6/6/2023, by and between **PURE TECHNOLOGIES US INC.**, a DELAWARE corporation, whose address is 2310 McDaniel Drive, Carrollton, TX 75006 hereinafter referred to as "Contractor," and the **CITY OF DENTON, TEXAS**, a home rule municipal corporation, hereinafter referred to as "City," to be effective upon approval of the Denton City Council and subsequent execution of this Contract by the Denton City Manager or their duly authorized designee.

For and in consideration of the covenants and agreements contained herein, and for the mutual benefits to be obtained hereby, the parties agree as follows:

SCOPE OF SERVICES

Contractor shall provide products and/or services in accordance with the City's document RFP #8181 Transmission Mains Condition Assessment, a copy of which is on file at the office of Purchasing Agent and incorporated herein for all purposes. The Contract consists of this written agreement and the following items which are attached hereto and incorporated herein by reference:

- (a) Special Terms and Conditions (**Exhibit "A"**);
- (b) City of Denton's RFP #8181 (**Exhibit "B" on File at the Office of the Purchasing Agent**);
- (c) City of Denton Standard Terms and Conditions (**Exhibit "C"**);
- (d) Insurance Requirements (**Exhibit "D"**);
- (e) Certificate of Interested Parties Electronic Filing (**Exhibit "E"**);
- (f) Contractor's Proposal (**Exhibit "F"**);
- (g) Form CIQ – Conflict of Interest Questionnaire (**Exhibit "G"**);

These documents make up the Contract documents and what is called for by one shall be as binding as if called for by all. In the event of an inconsistency or conflict in any of the provisions of the Contract documents, the inconsistency or conflict shall be resolved by giving precedence first to the written agreement then to the contract documents in the order in which they are listed above. These documents shall be referred to collectively as "Contract Documents."

Prohibition on Contracts with Companies Boycotting Israel

Contractor acknowledges that in accordance with Chapter 2271 of the Texas Government Code, City is prohibited from entering into a contract with a company for goods or services unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract. The terms "boycott Israel" and "company" shall have the meanings ascribed to those terms in Section 808.001 of the Texas Government Code. ***By signing this agreement, Contractor certifies that Contractor's signature provides written verification to the City that Contractor: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the agreement.*** Failure to meet or maintain the requirements under this provision will be considered a material breach.

Prohibition on Contracts with Companies Boycotting Certain Energy Companies

Contractor acknowledges that in accordance with Chapter 2274 of the Texas Government Code, City is
Contract # 8181

prohibited from entering into a contract with a company for goods or services unless the contract contains written verification from the company that it (1) does not boycott energy companies; and (2) will not boycott energy companies during the term of the contract. The terms “boycott energy company” and “company” shall have the meanings ascribed to those terms in Section 809.001 of the Texas Government Code. ***By signing this agreement, Contractor certifies that Contractor’s signature provides written verification to the City that Contractor: (1) does not boycott energy companies; and (2) will not boycott energy companies during the term of the agreement.*** Failure to meet or maintain the requirements under this provision will be considered a material breach.

Prohibition on Contracts with Companies Boycotting Certain Firearm Entities and Firearm Trade Associations

Contractor acknowledges that in accordance with Chapter 2274 of the Texas Government Code, City is prohibited from entering into a contract with a company for goods or services unless the contract contains written verification from the company that it (1) does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and (2) will not discriminate during the term of the contract against a firearm entity or firearm trade association. The terms “discriminate against a firearm entity or firearm trade association,” “firearm entity” and “firearm trade association” shall have the meanings ascribed to those terms in Chapter 2274 of the Texas Government Code. ***By signing this agreement, Contractor certifies that Contractor’s signature provides written verification to the City that Contractor: (1) does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and (2) will not discriminate during the term of the contract against a firearm entity or firearm trade association.*** Failure to meet or maintain the requirements under this provision will be considered a material breach.

Prohibition on Contracts with Companies Doing Business with Iran, Sudan, or a Foreign Terrorist Organization

Sections 2252 and 2270 of the Texas Government Code restricts CITY from contracting with companies that do business with Iran, Sudan, or a foreign terrorist organization. ***By signing this agreement, Contractor certifies that Contractor’s signature provides written verification to the City that Contractor, pursuant to Chapters 2252 and 2270, is not ineligible to enter into this agreement and will not become ineligible to receive payments under this agreement by doing business with Iran, Sudan, or a foreign terrorist organization.*** Failure to meet or maintain the requirements under this provision will be considered a material breach.

Termination Right for Contracts with Companies Doing Business with Certain Foreign-Owned Companies

The City of Denton may terminate this Contract immediately without any further liability if the City of Denton determines, in its sole judgment, that this Contract meets the requirements under Chapter 2274, and Contractor is, or will be in the future, (i) 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 other designated country (ii) directly controlled by the Government of China, Iran, North Korea, Russia, or other designated country, or (iii) is headquartered in China, Iran, North Korea, Russia, or other designated country.

The parties agree to transact business electronically. Any statutory requirements that certain terms be in writing will be satisfied using electronic documents and signing. Electronic signing of this document will be deemed an original for all legal purposes.

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

Contract # 8181

CONTRACTOR

DocuSigned by:
Mike Garaci
BY: 7A576A7CD4F8404
AUTHORIZED SIGNATURE

Printed Name: Mike Garaci

Title: Director, Business Development
4,165,744,446.00

PHONE NUMBER
mike.garaci@xylem.com

EMAIL ADDRESS
2023-1020041

TEXAS ETHICS COMMISSION
1295 CERTIFICATE NUMBER

THIS AGREEMENT HAS BEEN
BOTH REVIEWED AND APPROVED
as to financial and operational obligations
and business terms.

DocuSigned by:
Stephen D. Gay Stephen D. Gay
9EBFF5658E56492...
SIGNATURE PRINTED NAME

Director,
TITLE

Water Utilities

DEPARTMENT

CITY OF DENTON, TEXAS

DocuSigned by:
Sara Hensley
BY: 5236DB296270423
SARA HENSLEY, CITY MANAGER

ATTEST:
JESUS SALAZAR, INTERIM CITY
SECRETARY

DocuSigned by:
Jesus Salazar
BY: 2437C77B897541D...

APPROVED AS TO LEGAL FORM:
MACK REINWAND, CITY ATTORNEY

DocuSigned by:
Marcella Lunn
BY: 4B070831B4AA438...

Exhibit A

Special Terms and Conditions

1. Total Contract Amount

The contract total for services shall not exceed \$10,000,000. Pricing shall be per Exhibit F attached.

2. The Quantities

The quantities indicated on Exhibit F are estimates based upon the best available information. The City reserves the right to increase or decrease the quantities to meet its actual needs without any adjustments in the bid price. Individual purchase orders will be issued on an as needed basis.

3. Contract Terms

The contract term will be three (3) year, effective from date of award. The City and the Supplier shall have the option to renew this contract for an additional two (2) one-year periods.

The Contract shall commence upon the issuance of a Notice of Award by the City of Denton and shall automatically renew each year, from the date of award by City Council. The Supplier's request to not renew the contract must be submitted in writing to the Purchasing Manager at least 60 days prior to the contract renewal date for each year. At the sole option of the City of Denton, the Contract may be further extended as needed, not to exceed a total of six (6) months.

4. Price Escalation and De-escalation

On Supplier's request in the form stated herein, the City will implement an escalation/de-escalation price adjustment annually based on these special terms. Any request for price adjustment must be based on the, U.S Department of Labor, Bureau of Labor Statistics, Producer Price Index (PPI) or the manufacturer published pricing list. The maximum escalation will not exceed +/- 8% for any individual year. The escalation will be determined annually at the renewal date. The price will be increased or decreased based upon the annual percentage change in the PPI or the percentage change in the manufacturer's price list. Should the PPI or manufacturer price list change exceed a minimum threshold value of +/-1%, then the stated eligible bid prices shall be adjusted in accordance with the percent change not to exceed the 8% limit per year. The supplier should provide documentation as percentage of each cost associated with the unit prices quoted for consideration.

Request must be submitted in writing with supporting evidence for need of such increase to the Purchasing Manager at least 60 days prior to contract expiration of each year. Respondent must also provide supporting documentation as justification for the request. If no request is made, then it will be assumed that the current contract price will be in effect.

Upon receipt of such request, the City of Denton reserves the right to either: accept the escalation as competitive with the general market price at the time, and become effective upon the renewal

Contract # 8181

date of the contract award or reject the increases within 30 calendar days after receipt of a properly submitted request. If a properly submitted increase is rejected, the Contractor may request cancellation of such items from the Contract by giving the City of Denton written notice. Cancellation will not go into effect for 15 calendar days after a determination has been issued. Pre-price increase prices must be honored on orders dated up to the official date of the City of Denton approval and/or cancellation.

The request can be sent by e-mail to: purchasing@cityofdenton.com noting the solicitation number.

The City of Denton reserves the right to accept, reject, or negotiate the proposed price changes.

5. Performance Liquidated Damages

The Contractor shall incur contractual payment losses, as initiated by the City for performance that falls short of specified performance standards as outlined below:

- Delivery beyond contracted lead times
- Performance below contracted levels (services only)

The Contractor shall be assessed a one (1%) percent fee each month when any one of the performance standards outlined above are not met in full. The Contractor shall be assessed a two (2%) percent profit fee each month when any two (2) or more performance standards outlined above are not met in full. At the end of each month, the City will review the monthly reports and determine the percentage of penalty to be assessed to the Contractor's monthly profit margin.

Exhibit C

Standard Purchase Terms and Conditions

These standard Terms and Conditions and the Terms and Conditions, Specifications, Drawings and other requirements included in the City of Denton's contract are applicable to contracts/purchase orders issued by the City of Denton hereinafter referred to as the City or Buyer and the Seller or respondent herein after referred to as Contractor or Supplier. Any deviations must be in writing and signed by a representative of the City's Procurement Department and the Supplier. No Terms and Conditions contained in the seller's proposal response, invoice or statement shall serve to modify the terms set forth herein. If there is a conflict between the provisions on the face of the contract/purchase order these written provisions will take precedence.

The Contractor agrees that the contract shall be governed by the following terms and conditions, unless exceptions are duly noted and fully negotiated. Unless otherwise specified in the contract, Sections 3, 4, 5, 6, 7, 8, 20, 21, and 36 shall apply only to a solicitation to purchase goods, and sections 9, 10, 11, 22 and 32 shall apply only to a solicitation to purchase services to be performed principally at the City's premises or on public rights-of-way.

1. CONTRACTOR'S OBLIGATIONS. The Contractor shall fully and timely provide all deliverables described in the Solicitation and in the Contractor's Offer in strict accordance with the terms, covenants, and conditions of the Contract and all applicable Federal, State, and local laws, rules, and regulations.

2. EFFECTIVE DATE/TERM. Unless otherwise specified in the Solicitation, this Contract shall be effective as of the date the contract is signed by the City, and shall continue in effect until all obligations are performed in accordance with the Contract.

3. CONTRACTOR TO PACKAGE DELIVERABLES: The Contractor will package deliverables in accordance with good commercial practice and shall include a packing list showing the description of each item, the quantity and unit price unless otherwise provided in the Specifications or Supplemental Terms and Conditions, each shipping container shall be clearly and permanently marked as follows: (a) The Contractor's name and address, (b) the City's name, address and purchase order or purchase release number and the price agreement number if applicable, (c) Container number and total number of containers, e.g. box 1 of 4 boxes, and (d) the number of the container bearing the packing list. The Contractor shall bear cost of packaging. Deliverables shall be suitably packed to secure lowest transportation costs and to conform to all the requirements of common carriers and any applicable specification. The City's count or weight shall be final and conclusive on shipments not accompanied by packing lists.

4. SHIPMENT UNDER RESERVATION PROHIBITED: The Contractor is not authorized to ship the deliverables under reservation and no tender of a bill of lading will operate as a tender of deliverables.

5. TITLE & RISK OF LOSS: Title to and risk of loss of the deliverables shall pass to the City only when the City actually receives and accepts the deliverables.

6. DELIVERY TERMS AND TRANSPORTATION CHARGES: Deliverables shall be

shipped F.O.B. point of delivery unless otherwise specified in the Supplemental Terms and Conditions. Unless otherwise stated in the Offer, the Contractor's price shall be deemed to include all delivery and transportation charges. The City shall have the right to designate what method of transportation shall be used to ship the deliverables. The place of delivery shall be that set forth the purchase order.

7. RIGHT OF INSPECTION AND REJECTION: The City expressly reserves all rights under law, including, but not limited to the Uniform Commercial Code, to inspect the deliverables at delivery before accepting them, and to reject defective or non-conforming deliverables. If the City has the right to inspect the Contractor's, or the Contractor's Subcontractor's, facilities, or the deliverables at the Contractor's, or the Contractor's Subcontractor's, premises, the Contractor shall furnish, or cause to be furnished, without additional charge, all reasonable facilities and assistance to the City to facilitate such inspection.

8. NO REPLACEMENT OF DEFECTIVE TENDER: Every tender or delivery of deliverables must fully comply with all provisions of the Contract as to time of delivery, quality, and quantity. Any non-complying tender shall constitute a breach and the Contractor shall not have the right to substitute a conforming tender; provided, where the time for performance has not yet expired, the Contractor may notify the City of the intention to cure and may then make a conforming tender within the time allotted in the contract.

9. PLACE AND CONDITION OF WORK: The City shall provide the Contractor access to the sites where the Contractor is to perform the services as required in order for the Contractor to perform the services in a timely and efficient manner, in accordance with and subject to the applicable security laws, rules, and regulations. The Contractor acknowledges that it has satisfied itself as to the nature of the City's service requirements and specifications, the location and essential characteristics of the work sites, the quality and quantity of materials, equipment, labor and facilities necessary to perform the services, and any other condition or state of fact which could in any way affect performance of the Contractor's obligations under the contract. The Contractor hereby releases and holds the City harmless from and against any liability or claim for damages of any kind or nature if the actual site or service conditions differ from expected conditions.

The contractor shall, at all times, exercise reasonable precautions for the safety of their employees, City Staff, participants and others on or near the City's facilities.

10. WORKFORCE

A. The Contractor shall employ only orderly and competent workers, skilled in the performance of the services which they will perform under the Contract.

B. The Contractor, its employees, subcontractors, and subcontractor's employees may not while engaged in participating or responding to a solicitation or while in the course and scope of delivering goods or services under a City of Denton contract or on the City's property .

i. use or possess a firearm, including a concealed handgun that is licensed under state law, except as required by the terms of the contract; or

ii. use or possess alcoholic or other intoxicating beverages, illegal drugs or controlled substances, nor may such workers be intoxicated, or under the influence of alcohol or drugs, on the job.

C. If the City or the City's representative notifies the Contractor that any worker is incompetent, disorderly or disobedient, has knowingly or repeatedly violated safety regulations, has possessed

Contract # 8181

any firearms, or has possessed or was under the influence of alcohol or drugs on the job, the Contractor shall immediately remove such worker from Contract services, and may not employ such worker again on Contract services without the City's prior written consent.

Immigration: The Contractor represents and warrants that it shall comply with the requirements of the Immigration Reform and Control Act of 1986 and 1990 regarding employment verification and retention of verification forms for any individuals hired on or after November 6, 1986, who will perform any labor or services under the Contract and the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 ("IIRIRA") enacted on September 30, 1996.

11. COMPLIANCE WITH HEALTH, SAFETY, AND ENVIRONMENTAL REGULATIONS: The Contractor, its Subcontractors, and their respective employees, shall comply fully with all applicable federal, state, and local health, safety, and environmental laws, ordinances, rules and regulations in the performance of the services, including but not limited to those promulgated by the City and by the Occupational Safety and Health Administration (OSHA). In case of conflict, the most stringent safety requirement shall govern. The Contractor shall indemnify and hold the City harmless from and against all claims, demands, suits, actions, judgments, fines, penalties and liability of every kind arising from the breach of the Contractor's obligations under this paragraph.

Environmental Protection: The Respondent shall be in compliance with all applicable standards, orders, or regulations issued pursuant to the mandates of the Clean Air Act (42 U.S.C. §7401 *et seq.*) and the Federal Water Pollution Control Act, as amended, (33 U.S.C. §1251 *et seq.*).

12. INVOICES:

A. The Contractor shall submit separate invoices in duplicate on each purchase order or purchase release after each delivery. If partial shipments or deliveries are authorized by the City, a separate invoice must be sent for each shipment or delivery made.

B. Proper Invoices must include a unique invoice number, the purchase order or delivery order number and the master agreement number if applicable, the Department's Name, and the name of the point of contact for the Department. Invoices shall be itemized and transportation charges, if any, shall be listed separately. A copy of the bill of lading and the freight waybill, when applicable, shall be attached to the invoice. The Contractor's name, remittance address and, if applicable, the tax identification number on the invoice must exactly match the information in the Vendor's registration with the City. Unless otherwise instructed in writing, the City may rely on the remittance address specified on the Contractor's invoice.

C. Invoices for labor shall include a copy of all time-sheets with trade labor rate and deliverables order number clearly identified. Invoices shall also include a tabulation of work-hours at the appropriate rates and grouped by work order number. Time billed for labor shall be limited to hours actually worked at the work site.

D. Unless otherwise expressly authorized in the Contract, the Contractor shall pass through all Subcontract and other authorized expenses at actual cost without markup.

E. Federal excise taxes, State taxes, or City sales taxes must not be included in the invoiced amount.

The City will furnish a tax exemption certificate upon request.

13. PAYMENT:

A. All proper invoices need to be sent to Accounts Payable. Approved invoices will be paid within thirty (30) calendar days of the City's receipt of the deliverables or of the invoice being received

Contract # 8181

in Accounts Payable, whichever is later.

B. If payment is not timely made, (per paragraph A); interest shall accrue on the unpaid balance at the lesser of the rate specified in Texas Government Code Section 2251.025 or the maximum lawful rate; except, if payment is not timely made for a reason for which the City may withhold payment hereunder, interest shall not accrue until ten (10) calendar days after the grounds for withholding payment have been resolved.

C. If partial shipments or deliveries are authorized by the City, the Contractor will be paid for the partial shipment or delivery, as stated above, provided that the invoice matches the shipment or delivery.

D. The City may withhold or set off the entire payment or part of any payment otherwise due the Contractor to such extent as may be necessary on account of:

- i. delivery of defective or non-conforming deliverables by the Contractor;
- ii. third party claims, which are not covered by the insurance which the Contractor is required to provide, are filed or reasonable evidence indicating probable filing of such claims;
- iii. failure of the Contractor to pay Subcontractors, or for labor, materials or equipment;
- iv. damage to the property of the City or the City's agents, employees or contractors, which is not covered by insurance required to be provided by the Contractor;
- v. reasonable evidence that the Contractor's obligations will not be completed within the time specified in the Contract, and that the unpaid balance would not be adequate to cover actual or damages for the anticipated delay;
- vi. failure of the Contractor to submit proper invoices with purchase order number, with all required attachments and supporting documentation; or
- vii. failure of the Contractor to comply with any material provision of the Contract Documents.

E. Notice is hereby given that any awarded firm who is in arrears to the City of Denton for delinquent taxes, the City may offset indebtedness owed the City through payment withholding.

F. Payment will be made by check unless the parties mutually agree to payment by credit card or electronic transfer of funds. The Contractor agrees that there shall be no additional charges, surcharges, or penalties to the City for payments made by credit card or electronic funds transfer.

G. The awarding or continuation of this contract is dependent upon the availability of funding. The City's payment obligations are payable only and solely from funds Appropriated and available for this contract. The absence of Appropriated or other lawfully available funds shall render the Contract null and void to the extent funds are not Appropriated or available and any deliverables delivered but unpaid shall be returned to the Contractor. The City shall provide the Contractor written notice of the failure of the City to make an adequate Appropriation for any fiscal year to pay the amounts due under the Contract, or the reduction of any Appropriation to an amount insufficient to permit the City to pay its obligations under the Contract. In the event of none or inadequate appropriation of funds, there will be no penalty nor removal fees charged to the City.

14. TRAVEL EXPENSES: All travel, lodging and per diem expenses in connection with the Contract shall be paid by the Contractor, unless otherwise stated in the contract terms. During the term of this contract, the contractor shall bill and the City shall reimburse contractor for all reasonable and approved out of pocket expenses which are incurred in the connection with the performance of duties hereunder. Notwithstanding the foregoing, expenses for the time spent by the contractor in traveling to and from City facilities shall not be reimbursed, unless otherwise negotiated.

15. FINAL PAYMENT AND CLOSE-OUT:

A. If a DBE/MBE/WBE Program Plan is agreed to and the Contractor has identified Subcontractors, the Contractor is required to submit a Contract Close-Out MBE/WBE Compliance Report to the Purchasing Manager no later than the 15th calendar day after completion of all work under the contract. Final payment, retainage, or both may be withheld if the Contractor is not in compliance with the requirements as accepted by the City.

B. The making and acceptance of final payment will constitute:

i. a waiver of all claims by the City against the Contractor, except claims (1) which have been previously asserted in writing and not yet settled, (2) arising from defective work appearing after final inspection, (3) arising from failure of the Contractor to comply with the Contract or the terms of any warranty specified herein, (4) arising from the Contractor's continuing obligations under the Contract, including but not limited to indemnity and warranty obligations, or (5) arising under the City's right to audit; and ii. a waiver of all claims by the Contractor against the City other than those previously asserted in writing and not yet settled.

16. SPECIAL TOOLS & TEST EQUIPMENT: If the price stated on the Offer includes the cost of any special tooling or special test equipment fabricated or required by the Contractor for the purpose of filling this order, such special tooling equipment and any process sheets related thereto shall become the property of the City and shall be identified by the Contractor as such.

17. RIGHT TO AUDIT:

A. The City shall have the right to audit and make copies of the books, records and computations pertaining to the Contract. The Contractor shall retain such books, records, documents and other evidence pertaining to the Contract period and five years thereafter, except if an audit is in progress or audit findings are yet unresolved, in which case records shall be kept until all audit tasks are completed and resolved. These books, records, documents and other evidence shall be available, within ten (10) business days of written request. Further, the Contractor shall also require all Subcontractors, material suppliers, and other payees to retain all books, records, documents and other evidence pertaining to the Contract, and to allow the City similar access to those documents. All books and records will be made available within a 50 mile radius of the City of Denton. The cost of the audit will be borne by the City unless the audit reveals an overpayment of 1% or greater. If an overpayment of 1% or greater occurs, the reasonable cost of the audit, including any travel costs, must be borne by the Contractor which must be payable within five (5) business days of receipt of an invoice.

B. Failure to comply with the provisions of this section shall be a material breach of the Contract and shall constitute, in the City's sole discretion, grounds for termination thereof. Each of the terms "books", "records", "documents" and "other evidence", as used above, shall be construed to include drafts and electronic files, even if such drafts or electronic files are subsequently used to generate or prepare a final printed document.

18. SUBCONTRACTORS:

A. If the Contractor identified Subcontractors in a DBE/MBE/WBE agreed to Plan, the Contractor shall comply with all requirements approved by the City. The Contractor shall not initially employ any Subcontractor except as provided in the Contractor's Plan. The Contractor shall not substitute any Subcontractor identified in the Plan, unless the substitute has been accepted by the City in writing. No acceptance by the City of any Subcontractor shall constitute a waiver of any rights or remedies of the City with respect to defective deliverables provided by a Subcontractor. If a Plan has been approved, the Contractor is additionally required to submit a monthly Subcontract Contract # 8181

Awards and Expenditures Report to the Procurement Manager, no later than the tenth calendar day of each month.

B. Work performed for the Contractor by a Subcontractor shall be pursuant to a written contract between the Contractor and Subcontractor. The terms of the subcontract may not conflict with the terms of the

Contract, and shall contain provisions that:

- i. require that all deliverables to be provided by the Subcontractor be provided in strict accordance with the provisions, specifications and terms of the Contract;
- ii. prohibit the Subcontractor from further subcontracting any portion of the Contract without the prior written consent of the City and the Contractor. The City may require, as a condition to such further subcontracting, that the Subcontractor post a payment bond in form, substance and amount acceptable to the City;
- iii. require Subcontractors to submit all invoices and applications for payments, including any claims for additional payments, damages or otherwise, to the Contractor in sufficient time to enable the Contractor to include same with its invoice or application for payment to the City in accordance with the terms of the Contract;
- iv. require that all Subcontractors obtain and maintain, throughout the term of their contract, insurance in the type and amounts specified for the Contractor, with the City being a named insured as its interest shall appear; and
- v. require that the Subcontractor indemnify and hold the City harmless to the same extent as the Contractor is required to indemnify the City.

C. The Contractor shall be fully responsible to the City for all acts and omissions of the Subcontractors just as the Contractor is responsible for the Contractor's own acts and omissions. Nothing in the Contract shall create for the benefit of any such Subcontractor any contractual relationship between the City and any such Subcontractor, nor shall it create any obligation on the part of the City to pay or to see to the payment of any moneys due any such Subcontractor except as may otherwise be required by law.

D. The Contractor shall pay each Subcontractor its appropriate share of payments made to the Contractor not later than ten (10) calendar days after receipt of payment from the City.

19. WARRANTY-PRICE:

A. The Contractor warrants the prices quoted in the Offer are no higher than the Contractor's current prices on orders by others for like deliverables under similar terms of purchase.

B. The Contractor certifies that the prices in the Offer have been arrived at independently without consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such fees with any other firm or with any competitor.

C. In addition to any other remedy available, the City may deduct from any amounts owed to the Contractor, or otherwise recover, any amounts paid for items in excess of the Contractor's current prices on orders by others for like deliverables under similar terms of purchase.

20. WARRANTY – TITLE: The Contractor warrants that it has good and indefeasible title to all deliverables furnished under the Contract, and that the deliverables are free and clear of all liens, claims, security interests and encumbrances. The Contractor shall indemnify and hold the City harmless from and against all adverse title claims to the deliverables.

21. WARRANTY – DELIVERABLES: The Contractor warrants and represents that all deliverables sold the City under the Contract shall be free from defects in design, workmanship or manufacture, and conform in all material respects to the specifications, drawings, and descriptions

Contract # 8181

in the Solicitation, to any samples furnished by the Contractor, to the terms, covenants and conditions of the Contract, and to all applicable State, Federal or local laws, rules, and regulations, and industry codes and standards. Unless otherwise stated in the Solicitation, the deliverables shall be new or recycled merchandise, and not used or reconditioned.

A. Recycled deliverables shall be clearly identified as such.

B. The Contractor may not limit, exclude or disclaim the foregoing warranty or any warranty implied by law; and any attempt to do so shall be without force or effect.

C. Unless otherwise specified in the Contract, the warranty period shall be at least one year from the date of acceptance of the deliverables or from the date of acceptance of any replacement deliverables. If during the warranty period, one or more of the above warranties are breached, the Contractor shall promptly upon receipt of demand either repair the non-conforming deliverables, or replace the non-conforming deliverables with fully conforming deliverables, at the City's option and at no additional cost to the City. All costs incidental to such repair or replacement, including but not limited to, any packaging and shipping costs shall be borne exclusively by the Contractor. The City shall endeavor to give the Contractor written notice of the breach of warranty within thirty (30) calendar days of discovery of the breach of warranty, but failure to give timely notice shall not impair the City's rights under this section.

D. If the Contractor is unable or unwilling to repair or replace defective or non-conforming deliverables as required by the City, then in addition to any other available remedy, the City may reduce the quantity of deliverables it may be required to purchase under the Contract from the Contractor, and purchase conforming deliverables from other sources. In such event, the Contractor shall pay to the City upon demand the increased cost, if any, incurred by the City to procure such deliverables from another source.

E. If the Contractor is not the manufacturer, and the deliverables are covered by a separate manufacturer's warranty, the Contractor shall transfer and assign such manufacturer's warranty to the City. If for any reason the manufacturer's warranty cannot be fully transferred to the City, the Contractor shall assist and cooperate with the City to the fullest extent to enforce such manufacturer's warranty for the benefit of the City.

22. WARRANTY – SERVICES: The Contractor warrants and represents that all services to be provided the City under the Contract will be fully and timely performed in a good and workmanlike manner in accordance with generally accepted industry standards and practices, the terms, conditions, and covenants of the Contract, and all applicable Federal, State and local laws, rules or regulations.

A. The Contractor may not limit, exclude or disclaim the foregoing warranty or any warranty implied by law, and any attempt to do so shall be without force or effect.

B. Unless otherwise specified in the Contract, the warranty period shall be at least one year from the Acceptance Date. If during the warranty period, one or more of the above warranties are breached, the Contractor shall promptly upon receipt of demand perform the services again in accordance with above standard at no additional cost to the City. All costs incidental to such additional performance shall be borne by the Contractor. The City shall endeavor to give the Contractor written notice of the breach of warranty within thirty (30) calendar days of discovery of the breach warranty, but failure to give timely notice shall not impair the City's rights under this section.

C. If the Contractor is unable or unwilling to perform its services in accordance with the above standard as required by the City, then in addition to any other available remedy, the City may reduce the amount of services it may be required to purchase under the Contract from the Contractor, and purchase conforming services from other sources. In such event, the Contractor

Contract # 8181

shall pay to the City upon demand the increased cost, if any, incurred by the City to procure such services from another source.

23. ACCEPTANCE OF INCOMPLETE OR NON-CONFORMING DELIVERABLES: If, instead of requiring immediate correction or removal and replacement of defective or non-conforming deliverables, the City prefers to accept it, the City may do so. The Contractor shall pay all claims, costs, losses and damages attributable to the City's evaluation of and determination to accept such defective or non-conforming deliverables. If any such acceptance occurs prior to final payment, the City may deduct such amounts as are necessary to compensate the City for the diminished value of the defective or non-conforming deliverables. If the acceptance occurs after final payment, such amount will be refunded to the City by the Contractor.

24. RIGHT TO ASSURANCE: Whenever one party to the Contract in good faith has reason to question the other party's intent to perform, demand may be made to the other party for written assurance of the intent to perform. In the event that no assurance is given within the time specified after demand is made, the demanding party may treat this failure as an anticipatory repudiation of the Contract.

25. STOP WORK NOTICE: The City may issue an immediate Stop Work Notice in the event the Contractor is observed performing in a manner that is in violation of Federal, State, or local guidelines, or in a manner that is determined by the City to be unsafe to either life or property. Upon notification, the Contractor will cease all work until notified by the City that the violation or unsafe condition has been corrected. The Contractor shall be liable for all costs incurred by the City as a result of the issuance of such Stop Work Notice.

26. DEFAULT: The Contractor shall be in default under the Contract if the Contractor (a) fails to fully, timely and faithfully perform any of its material obligations under the Contract, (b) fails to provide adequate assurance of performance under Paragraph 24, (c) becomes insolvent or seeks relief under the bankruptcy laws of the United States or (d) makes a material misrepresentation in Contractor's Offer, or in any report or deliverable required to be submitted by the Contractor to the City.

27. TERMINATION FOR CAUSE: In the event of a default by the Contractor, the City shall have the right to terminate the Contract for cause, by written notice effective ten (10) calendar days, unless otherwise specified, after the date of such notice, unless the Contractor, within such ten (10) day period, cures such default, or provides evidence sufficient to prove to the City's reasonable satisfaction that such default does not, in fact, exist. In addition to any other remedy available under law or in equity, the City shall be entitled to recover all actual damages, costs, losses and expenses, incurred by the City as a result of the Contractor's default, including, without limitation, cost of cover, reasonable attorneys' fees, court costs, and prejudgment and post-judgment interest at the maximum lawful rate. Additionally, in the event of a default by the Contractor, the City may remove the Contractor from the City's vendor list for three (3) years and any Offer submitted by the Contractor may be disqualified for up to three (3) years. All rights and remedies under the Contract are cumulative and are not exclusive of any other right or remedy provided by law.

28. TERMINATION WITHOUT CAUSE: The City shall have the right to terminate the Contract, in whole or in part, without cause any time upon thirty (30) calendar days' prior written notice. Upon receipt of a notice of termination, the Contractor shall promptly cease all further work pursuant to the Contract, with such exceptions, if any, specified in the notice of termination. The Contract # 8181

City shall pay the Contractor, to the extent of funds Appropriated or otherwise legally available for such purposes, for all goods delivered and services performed and obligations incurred prior to the date of termination in accordance with the terms hereof.

29. FRAUD: Fraudulent statements by the Contractor on any Offer or in any report or deliverable required to be submitted by the Contractor to the City shall be grounds for the termination of the Contract for cause by the City and may result in legal action.

30. DELAYS:

A. The City may delay scheduled delivery or other due dates by written notice to the Contractor if the City deems it is in its best interest. If such delay causes an increase in the cost of the work under the Contract, the City and the Contractor shall negotiate an equitable adjustment for costs incurred by the Contractor in the Contract price and execute an amendment to the Contract. The Contractor must assert its right to an adjustment within thirty (30) calendar days from the date of receipt of the notice of delay. Failure to agree on any adjusted price shall be handled under the Dispute Resolution process specified in paragraph 49. However, nothing in this provision shall excuse the Contractor from delaying the delivery as notified.

B. Neither party shall be liable for any default or delay in the performance of its obligations under this Contract if, while and to the extent such default or delay is caused by acts of God, fire, riots, civil commotion, labor disruptions, sabotage, sovereign conduct, or any other cause beyond the reasonable control of such Party. In the event of default or delay in contract performance due to any of the foregoing causes, then the time for completion of the services will be extended; provided, however, in such an event, a conference will be held within three (3) business days to establish a mutually agreeable period of time reasonably necessary to overcome the effect of such failure to perform.

31. INDEMNITY:

A. Definitions:

i. "Indemnified Claims" shall include any and all claims, demands, suits, causes of action, judgments and liability of every character, type or description, including all reasonable costs and expenses of litigation, mediation or other alternate dispute resolution mechanism, including attorney and other professional fees for: (1) damage to or loss of the property of any person (including, but not limited to the City, the Contractor, their respective agents, officers, employees and subcontractors; the officers, agents, and employees of such subcontractors; and third parties); and/or (2) death, bodily injury, illness, disease, worker's compensation, loss of services, or loss of income or wages to any person (including but not limited to the agents, officers and employees of the City, the Contractor, the Contractor's subcontractors, and third parties), ii. "Fault" shall include the sale of defective or non-conforming deliverables, negligence, willful misconduct or a breach of any legally imposed strict liability standard.

B. THE CONTRACTOR SHALL DEFEND (AT THE OPTION OF THE CITY), INDEMNIFY, AND HOLD THE CITY, ITS SUCCESSORS, ASSIGNS, OFFICERS, EMPLOYEES AND ELECTED OFFICIALS HARMLESS FROM AND AGAINST ALL INDEMNIFIED CLAIMS DIRECTLY CAUSED BY THE FAULT OF THE CONTRACTOR, OR THE CONTRACTOR'S AGENTS, EMPLOYEES OR SUBCONTRACTORS, IN THE PERFORMANCE OF THE CONTRACTOR'S OBLIGATIONS UNDER THE CONTRACT. NOTHING HEREIN SHALL BE DEEMED

TO LIMIT THE RIGHTS OF THE CITY OR THE CONTRACTOR (INCLUDING, BUT NOT LIMITED TO, THE RIGHT TO SEEK CONTRIBUTION) AGAINST ANY THIRD PARTY WHO MAY BE LIABLE FOR AN INDEMNIFIED CLAIM.

Notwithstanding anything herein to the contrary, neither party hereto will be liable to the other for any consequential, indirect, incidental, or special loss or damage suffered by the other party or any third party, or for any punitive damages, even if advised of the possibility thereof. Contractor's cumulative liability hereunder, whether in contract, tort, or otherwise, will in no event exceed the greater of (i) the aggregate consideration paid by the City to Contractor for the portion of the Services that gave rise to the liability, or (ii) \$1 million; provided, however, that this clause shall not limit Contractor's indemnification obligations hereunder.

32. INSURANCE: The following insurance requirements are applicable, in addition to the specific insurance requirements detailed in **Appendix A** for services only. The successful firm shall procure and maintain insurance of the types and in the minimum amounts acceptable to the City of Denton. The insurance shall be written by a company licensed to do business in the State of Texas and satisfactory to the City of Denton.

A. General Requirements:

- i. The Contractor shall at a minimum carry insurance in the types and amounts indicated and agreed to, as submitted to the City and approved by the City within the procurement process, for the duration of the Contract, including extension options and hold over periods, and during any warranty period.
- ii. The Contractor shall provide Certificates of Insurance with the coverage's and endorsements required to the City as verification of coverage prior to contract execution and within fourteen (14) calendar days after written request from the City. Failure to provide the required Certificate of Insurance may subject the Offer to disqualification from consideration for award. The Contractor must also forward a Certificate of Insurance to the City whenever a previously identified policy period has expired, or an extension option or hold over period is exercised, as verification of continuing coverage.
- iii. The Contractor shall not commence work until the required insurance is obtained and until such insurance has been reviewed by the City. Approval of insurance by the City shall not relieve or decrease the liability of the Contractor hereunder and shall not be construed to be a limitation of liability on the part of the Contractor.
- iv. The Contractor must submit certificates of insurance to the City for all subcontractors prior to the subcontractors commencing work on the project.
- v. The Contractor's and all subcontractors' insurance coverage shall be written by companies licensed to do business in the State of Texas at the time the policies are issued and shall be written by companies with A.M. Best ratings of **A- VII or better**. The City will accept workers' compensation coverage written by the Texas Workers' Compensation Insurance Fund.
- vi. All endorsements naming the City as additional insured, waivers, and notices of cancellation endorsements as well as the Certificate of Insurance shall contain the solicitation number and the following information:
City of Denton
Materials Management Department
901B Texas Street
Denton, Texas 76209
- vii. The "other" insurance clause shall not apply to the City where the City is an additional

insured shown on any policy. It is intended that policies required in the Contract, covering both the City and the Contractor, shall be considered primary coverage as applicable.

viii. If insurance policies are not written for amounts agreed to with the City, the Contractor shall carry Umbrella or Excess Liability Insurance for any differences in amounts specified. If Excess Liability Insurance is provided, it shall follow the form of the primary coverage.

ix. The City shall be entitled, upon request, at an agreed upon location, and without expense, to review certified copies of policies and endorsements thereto and may make any reasonable requests for deletion or revision or modification of particular policy terms, conditions, limitations, or exclusions except where policy provisions are established by law or regulations binding upon either of the parties hereto or the underwriter on any such policies.

x. The City reserves the right to review the insurance requirements set forth during the effective period of the Contract and to make reasonable adjustments to insurance coverage, limits, and exclusions when deemed necessary and prudent by the City based upon changes in statutory law, court decisions, the claims history of the industry or financial condition of the insurance company as well as the Contractor.

xi. The Contractor shall not cause any insurance to be canceled nor permit any insurance to lapse during the term of the Contract or as required in the Contract.

xii. The Contractor shall be responsible for premiums, deductibles and self-insured retentions, if any, stated in policies. All deductibles or self-insured retentions shall be disclosed on the Certificate of Insurance.

xiii. The Contractor shall endeavor to provide the City thirty (30) calendar days' written notice of erosion of the aggregate limits below occurrence limits for all applicable coverage's indicated within the Contract.

xiv. The insurance coverage's specified in within the solicitation and requirements are required minimums and are not intended to limit the responsibility or liability of the Contractor.

B. Specific Coverage Requirements: Specific insurance requirements are contained in the solicitation instrument.

33. CLAIMS: If any claim, demand, suit, or other action is asserted against the Contractor which arises under or concerns the Contract, or which could have a material adverse effect on the Contractor's ability to perform thereunder, the Contractor shall give written notice thereof to the City within ten (10) calendar days after receipt of notice by the Contractor. Such notice to the City shall state the date of notification of any such claim, demand, suit, or other action; the names and addresses of the claimant(s); the basis thereof; and the name of each person against whom such claim is being asserted. Such notice shall be delivered personally or by mail and shall be sent to the City and to the Denton City Attorney. Personal delivery to the City Attorney shall be to City Hall, 215 East McKinney Street, Denton, Texas 76201.

34. NOTICES: Unless otherwise specified, all notices, requests, or other communications required or appropriate to be given under the Contract shall be in writing and shall be deemed delivered three (3) business days after postmarked if sent by U.S. Postal Service Certified or Registered Mail, Return Receipt Requested. Notices delivered by other means shall be deemed delivered upon receipt by the addressee. Routine communications may be made by first class mail, telefax, or other commercially accepted means. Notices to the Contractor shall be sent to the address specified in the Contractor's Offer, or at such other address as a party may notify the other in writing. Notices to the City shall be addressed to the City at 901B Texas Street, Denton, Texas 76209 and marked

Contract # 8181

to the attention of the Purchasing Manager.

35. RIGHTS TO BID, PROPOSAL AND CONTRACTUAL MATERIAL: All material submitted by the Contractor to the City shall become property of the City upon receipt. Any portions of such material claimed by the Contractor to be proprietary must be clearly marked as such. Determination of the public nature of the material is subject to the Texas Public Information Act, Chapter 552, and Texas Government Code.

36. NO WARRANTY BY CITY AGAINST INFRINGEMENTS: The Contractor represents and warrants to the City that: (i) the Contractor shall provide the City good and indefeasible title to the deliverables and (ii) the deliverables supplied by the Contractor in accordance with the specifications in the Contract will not infringe, directly or contributorily, any patent, trademark, copyright, trade secret, or any other intellectual property right of any kind of any third party; that no claims have been made by any person or entity with respect to the ownership or operation of the deliverables and the Contractor does not know of any valid basis for any such claims. The Contractor shall, at its sole expense, defend, indemnify, and hold the City harmless from and against all liability, damages, and costs (including court costs and reasonable fees of attorneys and other professionals) arising out of or resulting from: (i) any claim that the City's exercise anywhere in the world of the rights associated with the City's ownership, and if applicable, license rights, and its use of the deliverables infringes the intellectual property rights of any third party; or (ii) the Contractor's breach of any of Contractor's representations or warranties stated in this Contract. In the event of any such claim, the City shall have the right to monitor such claim or at its option engage its own separate counsel to act as co-counsel on the City's behalf. Further, Contractor agrees that the City's specifications regarding the deliverables shall in no way diminish Contractor's warranties or obligations under this paragraph and the City makes no warranty that the production, development, or delivery of such deliverables will not impact such warranties of Contractor.

37. CONFIDENTIALITY: In order to provide the deliverables to the City, Contractor may require access to certain of the City's and/or its licensors' confidential information (including inventions, employee information, trade secrets, confidential know-how, confidential business information, and other information which the City or its licensors consider confidential) (collectively, "Confidential Information"). Contractor acknowledges and agrees that the Confidential Information is the valuable property of the City and/or its licensors and any unauthorized use, disclosure, dissemination, or other release of the Confidential Information will substantially injure the City and/or its licensors. The Contractor (including its employees, subcontractors, agents, or representatives) agrees that it will maintain the Confidential Information in strict confidence and shall not disclose, disseminate, copy, divulge, recreate, or otherwise use the Confidential Information without the prior written consent of the City or in a manner not expressly permitted under this Agreement, unless the Confidential Information is required to be disclosed by law or an order of any court or other governmental authority with proper jurisdiction, provided the Contractor promptly notifies the City before disclosing such information so as to permit the City reasonable time to seek an appropriate protective order. The Contractor agrees to use protective measures no less stringent than the Contractor uses within its own business to protect its own most valuable information, which protective measures shall under all circumstances be at least reasonable measures to ensure the continued confidentiality of the Confidential Information.

38. OWNERSHIP AND USE OF DELIVERABLES: The City shall own all rights, titles, and

interests throughout the world in and to the deliverables.

A. Reserved.

B. Copyrights. As to any deliverables containing copyrightable subject matter, the Contractor agrees that upon their creation, such deliverables shall be considered as work made-for-hire by the Contractor for the City and the City shall own all copyrights in and to such deliverables, provided however, that nothing in this Paragraph 38 shall negate the City's sole or joint ownership of any such deliverables arising by virtue of the City's sole or joint authorship of such deliverables. Should by operation of law, such deliverables not be considered works made-for-hire, the Contractor hereby assigns to the City (and agrees to cause each of its employees providing services to the City hereunder to execute, acknowledge, and deliver an assignment to the City of) all worldwide right, title, and interest in and to such deliverables. With respect to such work made-for-hire, the Contractor agrees to execute, acknowledge, and deliver and cause each of its employees providing services to the City hereunder to execute, acknowledge, and deliver a work-made-for-hire agreement, in a form to be reasonably approved by the City, to the City upon delivery of such deliverables to the City or at such other time as the City may request.

C. Additional Assignments. The Contractor further agrees to, and if applicable, cause each of its employees to, execute, acknowledge, and deliver all applications, specifications, oaths, assignments, and all other instruments which the City might reasonably deem necessary in order to apply for and obtain copyright protection, mask work registration, trademark registration and/or protection, or any similar rights in any and all countries and in order to assign and convey to the City, its successors, assigns and nominees, the sole and exclusive right, title, and interest in and to the deliverables. The Contractor's obligations to execute, acknowledge, and deliver (or cause to be executed, acknowledged, and delivered) instruments or papers such as those described in this Paragraph 38 a., b., and c. shall continue after the termination of this Contract with respect to such deliverables. In the event the City should not seek to obtain copyright protection, mask work registration or patent protection for any of the deliverables, but should desire to keep the same secret, the Contractor agrees to treat the same as Confidential Information under the terms of Paragraph 37 above.

39. PUBLICATIONS: All published material and written reports submitted under the Contract must be originally developed material unless otherwise specifically provided in the Contract. When material not originally developed is included in a report in any form, the source shall be identified.

40. ADVERTISING: The Contractor shall not advertise or publish, without the City's prior consent, the fact that the City has entered into the Contract, except to the extent required by law.

41. NO CONTINGENT FEES: The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure the Contract upon any agreement or understanding for commission, percentage, brokerage, or contingent fee, excepting bona fide employees of bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the City shall have the right, in addition to any other remedy available, to cancel the Contract without liability and to deduct from any amounts owed to the Contractor, or otherwise recover, the full amount of such commission, percentage, brokerage or contingent fee.

42. GRATUITIES: The City may, by written notice to the Contractor, cancel the Contract without liability if it is determined by the City that gratuities were offered or given by the Contractor or

Contract # 8181

any agent or representative of the Contractor to any officer or employee of the City of Denton with a view toward securing the Contract or securing favorable treatment with respect to the awarding or amending or the making of any determinations with respect to the performing of such contract. In the event the Contract is canceled by the City pursuant to this provision, the City shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by the Contractor in providing such gratuities.

43. PROHIBITION AGAINST PERSONAL INTEREST IN CONTRACTS: No officer, employee, independent consultant, or elected official of the City who is involved in the development, evaluation, or decision-making process of the performance of any solicitation shall have a financial interest, direct or indirect, in the Contract resulting from that solicitation as defined in the City's Ethic Ordinance 18-757 and in the City Charter chapter 2 article XI(Ethics). Any willful violation of this section shall constitute impropriety in office, and any officer or employee guilty thereof shall be subject to disciplinary action up to and including dismissal. Any violation of this provision, with the knowledge, expressed or implied, of the Contractor shall render the Contract voidable by the City. The Contractor shall complete and submit the City's Conflict of Interest Questionnaire.

44. INDEPENDENT CONTRACTOR: The Contract shall not be construed as creating an employer/employee relationship, a partnership, or a joint venture. The Contractor's services shall be those of an independent contractor. The Contractor agrees and understands that the Contract does not grant any rights or privileges established for employees of the City of Denton, Texas for the purposes of income tax, withholding, social security taxes, vacation or sick leave benefits, worker's compensation, or any other City employee benefit. The City shall not have supervision and control of the Contractor or any employee of the Contractor, and it is expressly understood that Contractor shall perform the services hereunder according to the attached specifications at the general direction of the City Manager of the City of Denton, Texas, or their designee under this agreement. The contractor is expressly free to advertise and perform services for other parties while performing services for the City.

45. ASSIGNMENT-DELEGATION: The Contract shall be binding upon and ensure to the benefit of the City and the Contractor and their respective successors and assigns, provided however, that no right or interest in the Contract shall be assigned and no obligation shall be delegated by the Contractor without the prior written consent of the City. Any attempted assignment or delegation by the Contractor shall be void unless made in conformity with this paragraph. The Contract is not intended to confer rights or benefits on any person, firm or entity not a party hereto; it being the intention of the parties that there are no third party beneficiaries to the Contract.

The Vendor shall notify the City's Purchasing Manager, in writing, of a company name, ownership, or address change for the purpose of maintaining updated City records. The president of the company or authorized official must sign the letter. A letter indicating changes in a company name or ownership must be accompanied with supporting legal documentation such as an updated W-9, documents filed with the state indicating such change, copy of the board of director's resolution approving the action, or an executed merger or acquisition agreement. Failure to do so may adversely impact future invoice payments.

46. WAIVER: No claim or right arising out of a breach of the Contract can be discharged in whole Contract # 8181

or in part by a waiver or renunciation of the claim or right unless the waiver or renunciation is supported by consideration and is in writing signed by the aggrieved party. No waiver by either the Contractor or the City of any one or more events of default by the other party shall operate as, or be construed to be, a permanent waiver of any rights or obligations under the Contract, or an express or implied acceptance of any other existing or future default or defaults, whether of a similar or different character.

47. MODIFICATIONS: The Contract can be modified or amended only by a writing signed by both parties. No pre-printed or similar terms on any the Contractor invoice, order or other document shall have any force or effect to change the terms, covenants, and conditions of the Contract.

48. INTERPRETATION: The Contract is intended by the parties as a final, complete and exclusive statement of the terms of their agreement. No course of prior dealing between the parties or course of performance or usage of the trade shall be relevant to supplement or explain any term used in the Contract. Although the Contract may have been substantially drafted by one party, it is the intent of the parties that all provisions be construed in a manner to be fair to both parties, reading no provisions more strictly against one party or the other. Whenever a term defined by the Uniform Commercial Code, as enacted by the State of Texas, is used in the Contract, the UCC definition shall control, unless otherwise defined in the Contract.

49. DISPUTE RESOLUTION:

A. If a dispute arises out of or relates to the Contract, or the breach thereof, the parties agree to negotiate prior to prosecuting a suit for damages. However, this section does not prohibit the filing of a lawsuit to toll the running of a statute of limitations or to seek injunctive relief. Either party may make a written request for a meeting between representatives of each party within fourteen (14) calendar days after receipt of the request or such later period as agreed by the parties. Each party shall include, at a minimum, one (1) senior level individual with decision-making authority regarding the dispute. The purpose of this and any subsequent meeting is to attempt in good faith to negotiate a resolution of the dispute. If, within thirty (30) calendar days after such meeting, the parties have not succeeded in negotiating a resolution of the dispute, they will proceed directly to mediation as described below. Negotiation may be waived by a written agreement signed by both parties, in which event the parties may proceed directly to mediation as described below.

B. If the efforts to resolve the dispute through negotiation fail, or the parties waive the negotiation process, the parties may select, within thirty (30) calendar days, a mediator trained in mediation skills to assist with resolution of the dispute. Should they choose this option; the City and the Contractor agree to act in good faith in the selection of the mediator and to give consideration to qualified individuals nominated to act as mediator. Nothing in the Contract prevents the parties from relying on the skills of a person who is trained in the subject matter of the dispute or a contract interpretation expert. If the parties fail to agree on a mediator within thirty (30) calendar days of initiation of the mediation process, the mediator shall be selected by the Denton County Alternative Dispute Resolution Program (DCAP). The parties agree to participate in mediation in good faith for up to thirty (30) calendar days from the date of the first mediation session. The City and the Contractor will share the mediator's fees equally and the parties will bear their own costs of participation such as fees for any consultants or attorneys they may utilize to represent them or otherwise assist them in the mediation.

50. JURISDICTION AND VENUE: The Contract is made under and shall be governed by the Contract # 8181

laws of the State of Texas, including, when applicable, the Uniform Commercial Code as adopted in Texas, V.T.C.A., Bus. & Comm. Code, Chapter 1, excluding any rule or principle that would refer to and apply the substantive law of another state or jurisdiction. All issues arising from this Contract shall be resolved in the courts of Denton County, Texas and the parties agree to submit to the exclusive personal jurisdiction of such courts. The foregoing, however, shall not be construed or interpreted to limit or restrict the right or ability of the City to seek and secure injunctive relief from any competent authority as contemplated herein.

51. INVALIDITY: The invalidity, illegality, or unenforceability of any provision of the Contract shall in no way affect the validity or enforceability of any other portion or provision of the Contract. Any void provision shall be deemed severed from the Contract and the balance of the Contract shall be construed and enforced as if the Contract did not contain the particular portion or provision held to be void. The parties further agree to reform the Contract to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this section shall not prevent this entire Contract from being void should a provision which is the essence of the Contract be determined to be void.

52. HOLIDAYS: The following holidays are observed by the City:

New Year's Day (observed)
Martin Luther King, Jr. Day
Memorial Day
Juneteenth
Independence Day
Labor Day
Veterans Day
Thanksgiving
Friday After Thanksgiving
Christmas Eve (observed)
Christmas Day (observed)

If a Legal Holiday falls on Saturday, it will be observed on the preceding Friday. If a Legal Holiday falls on Sunday, it will be observed on the following Monday. Normal hours of operation shall be between 8:00 am and 4:00 pm, Monday through Friday, excluding City of Denton Holidays. Any scheduled deliveries or work performance not within the normal hours of operation **must be approved** by the City Manager of Denton, Texas or their authorized designee.

53. SURVIVABILITY OF OBLIGATIONS: All provisions of the Contract that impose continuing obligations on the parties, including but not limited to the warranty, indemnity, and confidentiality obligations of the parties, shall survive the expiration or termination of the Contract.

54. NON-SUSPENSION OR DEBARMENT CERTIFICATION:

The City of Denton is prohibited from contracting with or making prime or sub-awards to parties that are suspended or debarred or whose principals are suspended or debarred from Federal, State, or City of Denton Contracts. By accepting a Contract with the City, the Vendor certifies that its firm and its principals are not currently suspended or debarred from doing business with the Federal Government, as indicated by the General Services Administration List of Parties Excluded from Federal Procurement and Non-Procurement Programs, the State of Texas, or the City of Denton.

55. EQUAL OPPORTUNITY

A. Equal Employment Opportunity: No Offeror, or Offeror's agent, shall engage in any discriminatory employment practice. No person shall, on the grounds of race, sex, sexual orientation, age, disability, creed, color, genetic testing, or national origin, be refused the benefits of, or be otherwise subjected to discrimination under any activities resulting from this RFQ.

B. Americans with Disabilities Act (ADA) Compliance: No Offeror, or Offeror's agent, shall engage in any discriminatory employment practice against individuals with disabilities as defined in the ADA.

56. BUY AMERICAN ACT-SUPPLIES (Applicable to certain federally funded requirements)

The following federally funded requirements are applicable. A. Definitions. As used in this paragraph –

i. "Component" means an article, material, or supply incorporated directly into an end product.

ii. "Cost of components" means -

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or
(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

iii. "Domestic end product" means-

(1) An unmanufactured end product mined or produced in the United States; or

(2) An end product manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as those that the agency determines are not mined, produced, or manufactured in sufficient and reasonably available commercial quantities of a satisfactory quality are treated as domestic. Scrap generated, collected, and prepared for processing in the United States is considered domestic.

iv. "End product" means those articles, materials, and supplies to be acquired under the contract for public use.

v. "Foreign end product" means an end product other than a domestic end product.

vi. "United States" means the 50 States, the District of Columbia, and outlying areas.

B. The Buy American Act (41 U.S.C. 10a - 10d) provides a preference for domestic end products for supplies acquired for use in the United States.

C. The City does not maintain a list of foreign articles that will be treated as domestic for this Contract; but will consider for approval foreign articles as domestic for this product if the articles are on a list approved by another Governmental Agency. The Offeror shall submit documentation with their Offer demonstrating that the article is on an approved Governmental list.

D. The Contractor shall deliver only domestic end products except to the extent that it specified delivery of foreign end products in the provision of the Solicitation entitled "Buy American Act Certificate".

57. RIGHT TO INFORMATION: The City of Denton reserves the right to use any and all information presented in any response to this contract, whether amended or not, except as prohibited by law. Selection or rejection of the submittal does not affect this right.

58. LICENSE FEES OR TAXES: Provided the solicitation requires an awarded contractor or Contract # 8181

supplier to be licensed by the State of Texas, any and all fees and taxes are the responsibility of the respondent.

59. PREVAILING WAGE RATES: The contractor shall comply with prevailing wage rates as defined by the United States Department of Labor Davis-Bacon Wage Determination at <http://www.dol.gov/whd/contracts/dbra.htm> and at the Wage Determinations website www.wdol.gov for Denton County, Texas (WD-2509).

60. COMPLIANCE WITH ALL STATE, FEDERAL, AND LOCAL LAWS: The contractor or supplier shall comply with all State, Federal, and Local laws and requirements. The Respondent must comply with all applicable laws at all times, including, without limitation, the following: (i) §36.02 of the Texas Penal Code, which prohibits bribery; (ii) §36.09 of the Texas Penal Code, which prohibits the offering or conferring of benefits to public servants. The Respondent shall give all notices and comply with all laws and regulations applicable to furnishing and performance of the Contract.

61. FEDERAL, STATE, AND LOCAL REQUIREMENTS: Respondent shall demonstrate on-site compliance with the Federal Tax Reform Act of 1986, Section 1706, amending Section 530 of the Revenue Act of 1978, dealing with issuance of Form W-2's to common law employees. Respondent is responsible for both federal and State unemployment insurance coverage and standard Workers' Compensation insurance coverage. Respondent shall ensure compliance with all federal and State tax laws and withholding requirements. The City of Denton shall not be liable to Respondent or its employees for any Unemployment or Workers' Compensation coverage, or federal or State withholding requirements. Contractor shall indemnify the City of Denton and shall pay all costs, penalties, or losses resulting from Respondent's omission or breach of this Section.

62. DRUG FREE WORKPLACE: The contractor shall comply with the applicable provisions of the Drug-Free Work Place Act of 1988 (Public Law 100-690, Title V, Subtitle D; 41 U.S.C. 701 ET SEQ.) and maintain a drug-free work environment; and the final rule, government-wide requirements for drug-free work place (grants), issued by the Office of Management and Budget and the Department of Defense (32 CFR Part 280, Subpart F) to implement the provisions of the Drug-Free Work Place Act of 1988 is incorporated by reference and the contractor shall comply with the relevant provisions thereof, including any amendments to the final rule that may hereafter be issued.

63. RESPONDENT LIABILITY FOR DAMAGE TO GOVERNMENT PROPERTY: The Respondent shall be liable for all damages to government-owned, leased, or occupied property and equipment caused by the Respondent and its employees, agents, subcontractors, and suppliers, including any delivery or cartage company, in connection with any performance pursuant to the Contract. The Respondent shall notify the City of Denton Procurement Manager in writing of any such damage within one (1) calendar day.

64. FORCE MAJEURE: The City of Denton, any Customer, and the Respondent shall not be responsible for performance under the Contract should it be prevented from performance by an act of war, order of legal authority, act of God, or other unavoidable cause not attributable to the fault or negligence of the City of Denton. In the event of an occurrence under this Section, the Respondent will be excused from any further performance or observance of the requirements so affected for as long as such circumstances prevail and the Respondent continues to use Contract # 8181

commercially reasonable efforts to recommence performance or observance whenever and to whatever extent possible without delay. The Respondent shall immediately notify the City of Denton Procurement Manager by telephone (to be confirmed in writing within five (5) calendar days of the inception of such occurrence) and describe at a reasonable level of detail the circumstances causing the non-performance or delay in performance.

65. NON-WAIVER OF RIGHTS: Failure of a Party to require performance by another Party under the Contract will not affect the right of such Party to require performance in the future. No delay, failure, or waiver of either Party's exercise or partial exercise of any right or remedy under the Contract shall operate to limit, impair, preclude, cancel, waive or otherwise affect such right or remedy. A waiver by a Party of any breach of any term of the Contract will not be construed as a waiver of any continuing or succeeding breach.

66. NO WAIVER OF SOVEREIGN IMMUNITY: The Parties expressly agree that no provision of the Contract is in any way intended to constitute a waiver by the City of Denton of any immunities from suit or from liability that the City of Denton may have by operation of law.

67. RECORDS RETENTION: The Respondent shall retain all financial records, supporting documents, statistical records, and any other records or books relating to the performances called for in the Contract. The Respondent shall retain all such records for a period of four (4) years after the expiration of the Contract, or until the CPA or State Auditor's Office is satisfied that all audit and litigation matters are resolved, whichever period is longer. The Respondent shall grant access to all books, records and documents pertinent to the Contract to the CPA, the State Auditor of Texas, and any federal governmental entity that has authority to review records due to federal funds being spent under the Contract.

Should a conflict arise between any of the contract documents, it shall be resolved with the following order of precedence (if applicable). In any event, the final negotiated contract shall take precedence over any and all contract documents to the extent of such conflict.

- 1. Final negotiated contract**
- 2. RFP/Bid documents**
- 3. City's standard terms and conditions**
- 4. Purchase order**
- 5. Supplier terms and conditions**

Exhibit D INSURANCE REQUIREMENTS AND WORKERS' COMPENSATION REQUIREMENTS

Upon contract execution, all insurance requirements shall become contractual obligations, which the successful contractor shall have a duty to maintain throughout the course of this contract.

STANDARD PROVISIONS:

Without limiting any of the other obligations or liabilities of the Contractor, the Contractor shall provide and maintain until the contracted work has been completed and accepted by the City of Denton, Owner, the minimum insurance coverage as indicated hereinafter.

Contractor shall file with the Purchasing Department satisfactory certificates of insurance including any applicable addendum or endorsements, containing the contract number and title of the project. Contractor may, upon written request to the Purchasing Department, ask for clarification of any insurance requirements at any time; however, Contractor shall not commence any work or deliver any material until he or she receives notification that the contract has been accepted, approved, and signed by the City of Denton.

All insurance policies proposed or obtained in satisfaction of these requirements shall comply with the following general specifications, and shall be maintained in compliance with these general specifications throughout the duration of the Contract, or longer, if so noted:

- Each policy shall be issued by a company authorized to do business in the State of Texas with an A.M. Best Company rating of at least **A or better**.
- Any deductibles or self-insured retentions shall be declared in the proposal. If requested by the City, the insurer shall reduce or eliminate such deductibles or self-insured retentions with respect to the City, its officials, agents, employees and volunteers; or, the contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.
- Liability policies shall be endorsed to provide the following:
 - Name as Additional Insured the City of Denton, its Officials, Agents, Employees and volunteers.
 - That such insurance is primary to any other insurance available to the Additional Insured with respect to claims covered under the policy and that this insurance applies separately to each insured against whom claim is made or suit is brought. The inclusion of more than one insured shall not operate to increase the insurer's limit of liability.
 - Provide a Waiver of Subrogation in favor of the City of Denton, its officials, agents, employees, and volunteers.
- ***Cancellation: City requires 30 day written notice should any of the policies described on the certificate be cancelled or materially changed before the expiration date.***

- Should any of the required insurance be provided under a claims made form, Contractor shall maintain such coverage continuously throughout the term of this contract and, without lapse, for a period of three years beyond the contract expiration, such that occurrences arising during the contract term which give rise to claims made after expiration of the contract shall be covered.
- Should any of the required insurance be provided under a form of coverage that includes a general annual aggregate limit providing for claims investigation or legal defense costs to be included in the general annual aggregate limit, the Contractor shall either double the occurrence limits or obtain Owners and Contractors Protective Liability Insurance.
- Should any required insurance lapse during the contract term, requests for payments originating after such lapse shall not be processed until the City receives satisfactory evidence of reinstated coverage as required by this contract, effective as of the lapse date. If insurance is not reinstated, City may, at its sole option, terminate this agreement effective on the date of the lapse.

SPECIFIC ADDITIONAL INSURANCE REQUIREMENTS:

All insurance policies proposed or obtained in satisfaction of this Contract shall additionally comply with the following marked specifications, and shall be maintained in compliance with these additional specifications throughout the duration of the Contract, or longer, if so noted:

[X] A. General Liability Insurance:

General Liability insurance with combined single limits of not less than **\$1,000,000.00** shall be provided and maintained by the Contractor. The policy shall be written on an occurrence basis either in a single policy or in a combination of underlying and umbrella or excess policies.

If the Commercial General Liability form (ISO Form CG 0001 current edition) is used:

- Coverage A shall include premises, operations, products, and completed operations, independent contractors, contractual liability covering this contract and broad form property damage coverage.
- Coverage B shall include personal injury.
- Coverage C, medical payments, is not required.

If the Comprehensive General Liability form (ISO Form GL 0002 Current Edition and ISO Form GL 0404) is used, it shall include at least:

- Bodily injury and Property Damage Liability for premises, operations, products and completed operations, independent contractors and property damage resulting from explosion, collapse or underground (XCU) exposures.
- Broad form contractual liability (preferably by endorsement) covering this contract, personal injury liability and broad form property damage liability.

[X] Automobile Liability Insurance:

Contractor shall provide Commercial Automobile Liability insurance with Combined Single Limits (CSL) of not less than **\$500,000** either in a single policy or in a combination of basic and umbrella or excess policies. The policy will include bodily injury and property damage liability arising out of the operation, maintenance and use of all automobiles and mobile equipment used in conjunction with this contract.

Satisfaction of the above requirement shall be in the form of a policy endorsement for:

- any auto, or
- all owned hired and non-owned autos.

[X] Workers' Compensation Insurance

Contractor shall purchase and maintain Workers' Compensation insurance which, in addition to meeting the minimum statutory requirements for issuance of such insurance, has Employer's Liability limits of at least \$100,000 for each accident, \$100,000 per each employee, and a \$500,000 policy limit for occupational disease. The City need not be named as an "Additional Insured" but the insurer shall agree to waive all rights of subrogation against the City, its officials, agents, employees and volunteers for any work performed for the City by the Named Insured. For building or construction projects, the Contractor shall comply with the provisions of Attachment 1 in accordance with §406.096 of the Texas Labor Code and rule 28TAC 110.110 of the Texas Workers' Compensation Commission (TWCC).

[] Owner's and Contractor's Protective Liability Insurance

The Contractor shall obtain, pay for and maintain at all times during the prosecution of the work under this contract, an Owner's and Contractor's Protective Liability insurance policy naming the City as insured for property damage and bodily injury which may arise in the prosecution of the work or Contractor's operations under this contract. Coverage shall be on an "occurrence" basis and the policy shall be issued by the same insurance company that carries the Contractor's liability insurance. Policy limits will be at least **\$500,000.00** combined bodily injury and property damage per occurrence with a **\$1,000,000.00** aggregate.

[] Fire Damage Legal Liability Insurance

Coverage is required if Broad form General Liability is not provided or is unavailable to the contractor or if a contractor leases or rents a portion of a City building. Limits of not less than _____ each occurrence are required.

[] Professional Liability Insurance

Professional liability insurance with limits not less than **\$1,000,000.00** per claim with respect to negligent acts, errors or omissions in connection with professional services is required under this Agreement.

[] **Builders' Risk Insurance**

Builders' Risk Insurance, on an All-Risk form for 100% of the completed value shall be provided. Such policy shall include as "Named Insured" the City of Denton and all subcontractors as their interests may appear.

[] **Environmental Liability Insurance**

Environmental liability insurance for \$1,000,000 to cover all hazards contemplated by this contract.

[] **Riggers Insurance**

The Contractor shall provide coverage for Rigger's Liability. Said coverage may be provided by a Rigger's Liability endorsement on the existing CGL coverage; through and Installation Floater covering rigging contractors; or through ISO form IH 00 91 12 11, Rigger's Liability Coverage form. Said coverage shall mirror the limits provided by the CGL coverage

[] **Commercial Crime**

Provides coverage for the theft or disappearance of cash or checks, robbery inside/outside the premises, burglary of the premises, and employee fidelity. The employee fidelity portion of this coverage should be written on a "blanket" basis to cover all employees, including new hires. This type insurance should be required if the contractor has access to City funds. Limits of not less than \$_____ each occurrence are required.

[] **Additional Insurance**

Other insurance may be required on an individual basis for extra hazardous contracts and specific service agreements. If such additional insurance is required for a specific contract, that requirement will be described in the "Specific Conditions" of the contract specifications.

ATTACHMENT 1**[] Workers' Compensation Coverage for Building or Construction Projects for Governmental Entities****A. Definitions:**

Certificate of coverage ("certificate")-A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

Duration of the project - includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project ("subcontractor" in §406.096) - includes all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

- B. The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the Contractor providing services on the project, for the duration of the project.
- C. The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.
- D. If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.
- E. The contractor shall obtain from each person providing services on a project, and provide to the governmental entity:
 - 1. a certificate of coverage, prior to that person beginning work on the

project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

2. no later than seven days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.
- F. The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.
- G. The contractor shall notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.
- H. The contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- I. The contractor shall contractually require each person with whom it contracts to provide services on a project, to:
1. provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the project, for the duration of the project;
 2. provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;
 3. provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
 4. obtain from each other person with whom it contracts, and provide to the contractor:
 - a. a certificate of coverage, prior to the other person beginning work on the project; and

- b. a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;
- 5. retain all required certificates of coverage on file for the duration of the project and for one year thereafter;
- 6. notify the governmental entity in writing by certified mail or personal delivery, within 10 days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and
- 7. Contractually require each person with whom it contracts, to perform as required by paragraphs (1) - (7), with the certificates of coverage to be provided to the person for whom they are providing services.
- J. By signing this contract or providing or causing to be provided a certificate of coverage, the contractor is representing to the governmental entity that all employees of the contractor who will provide services on the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- K. The contractor's failure to comply with any of these provisions is a breach of contract by the contractor which entitles the governmental entity to declare the contract void if the contractor does not remedy the breach within ten days after receipt of notice of breach from the governmental entity.

Exhibit E
Certificate of Interested Parties Electronic Filing

In 2015, the Texas Legislature adopted House Bill 1295, which added section 2252.908 of the Government Code. The law states that the City may not enter into this contract unless the Contractor submits a disclosure of interested parties (Form 1295) to the City at the time the Contractor submits the signed contract. The Texas Ethics Commission has adopted rules requiring the business entity to file Form 1295 electronically with the Commission.

Contractor will be required to furnish a Certificate of Interest Parties before the contract is awarded, in accordance with Government Code 2252.908.

The contractor shall:

1. Log onto the State Ethics Commission Website at :
<https://www.ethics.state.tx.us/filinginfo/1295/>
2. Register utilizing the tutorial provided by the State
3. Print a copy of the completed Form 1295
4. Enter the Certificate Number on page 2 of this contract.
5. Complete and sign the Form 1295
6. Email the form to purchasing@cityofdenton.com with the contract number in the subject line.
(EX: Contract 1234 – Form 1295)

The City must acknowledge the receipt of the filed Form 1295 not later than the 30th day after Council award. Once a Form 1295 is acknowledged, it will be posted to the Texas Ethics Commission's website within seven business days.

EXHIBIT F

		Pure Technologies US Inc	
Line #	Description	UOM	Unit Pricing
1	Group 1 -- Internal Tethered Leak and Gas Pocket Inspection with Video. ** Pricing is based on a single (one-day) inspection including mobilization, planning, execution, and letter report. The below pricing guidelines would be available for consecutive days: Mobilization = \$12,000.00 Inspection (Daily Rate) = \$10,000.00 Report with findings = \$5,500.00 Letter report for single inspections = \$2,500.00 Standby rate = \$8,500.00 per crew day	Per Day	\$24,500.00
2	Group 2 -- Non-Flow Internal Tethered Leak and Gas Pocket Inspection with Video. ** Pricing is based on a single (one-day) inspection including mobilization, planning, execution, and letter report. The below pricing guidelines would be available for consecutive days: Mobilization = \$19,000.00 Inspection (Daily Rate) = \$15,000.00 Report with findings = \$5,500.00 Letter report for single inspections = \$2,500.00 Standby rate = \$8,500.00 per crew day	Per Day	\$36,500.00
3	Group 3 -- Internal Non-Tethered Free-Swimming Leak and Gas Pocket Inspection. ** Pricing is based on inspecting up to 2 miles consecutively including mobilization, planning, execution, and report. For clarity, the below pricing guidelines would be available for longer segments inspected under one mobilization: Mobilization = \$20,000.00 Inspection (First 2 miles) = \$22,500.00 each Inspection (Next 2 miles) = \$10,000.00/mi Inspection (Next 3 miles) = \$9,000.00/mi Inspection (Next 3 miles) = \$8,000.00/mi Inspection (remaining mileage greater than 10 miles) = \$7,000.00/mi Mapping (X-Y Alignment) = \$6,500.00/mi Additional insertion(s) = \$6,000.00 Reporting = \$15,000.00 Standby rate = \$10,500.00 per crew day Hydrant Extraction equipment = \$3,000.00 Hydrant Insertion Flow support = \$TBD (Subcontractor)	2 Miles	\$57,500.00
4	Group 4 -- Manned Electromagnetic Nondestructive Inspection. ** The above pricing is based on inspecting up to 2 miles in a single mobilization with a Technology Report only. For clarity, the below pricing guidelines would be available for longer segments inspected under one mobilization: Mobilization = \$44,000.00 Inspection (first 2 miles) = \$82,000.00 each Inspection (Next 2 miles) = \$39,000.00/mi Inspection (Next 3 miles) = \$36,000.00/mi Inspection (Next 3 miles) = \$30,000.00/mi Inspection (remaining mileage greater than 10 miles) = \$24,000.00/mi Expedited Pipe List = \$18,000.00 each (delivered in a 3-week turnaround) Technology Report alone = \$30,000.00 Technology Report with Engineering Evaluation/Report = \$45,000.00 Standby rate = \$13,125.00 per crew day	2 Miles	\$156,000.00
5	Group 5 -- Internal Robotic Electromagnetic Nondestructive Inspection. ** The above pricing is based on inspecting up to 2 miles in a single mobilization and Technology Report only. For clarity, the below pricing guidelines would be available for longer segments inspected under one mobilization: Mobilization = \$58,000.00 Inspection (first 2 miles) = \$124,000.00 each Inspection (Next 2 miles) = \$62,000.00/mi Inspection (Next 3 miles) = \$59,000.00/mi Inspection (Next 3 miles) = \$55,000.00/mi Inspection (remaining mileage greater than 10 miles) = \$50,000.00/mi Expedited Pipe List = \$18,000.00 each (delivered in a 3-week turnaround) Technology Report alone = \$30,000.00 Technology Report with Engineering Evaluation/Report = \$45,000.00 Standby rate = \$18,900.00 per crew day	2 Miles	\$212,000.00
6	Group 6 -- Internal Free-Swimming Electromagnetic Nondestructive Inspection Capable of Passing Butterfly Valves. ** The above pricing is based on inspecting up to 2 miles in a single mobilization, non-pressurized insertion and extraction of tool, and Technology Report only. For clarity, the below pricing guidelines would be available for longer segments inspected under one mobilization: Mobilization = \$78,750.00 Inspection (first 2 miles) = \$175,000.00 each Inspection (Next 2 miles) = \$87,000.00/mi Inspection (Next 3 miles) = \$84,000.00/mi Inspection (Next 3 miles) = \$80,000.00/mi Inspection (remaining mileage greater than 10 miles) = \$76,000.00/mi Pressurized Insertion ONLY = \$38,000.00 additionally Pressurized Insertion and Extraction = \$78,750.00 additionally Expedited Pipe List = \$18,000.00 each (delivered in a 3-week turnaround) Technology Report alone = \$30,000.00 Technology Report with Engineering Evaluation/Report = \$45,000.00 Standby rate = \$18,900.00 per crew day	2 Miles	\$283,750.00
7	Group 7 -- Free Swimming Ultrasonic Inspection Technology. ** The above pricing is based on inspecting up to 2 miles in a single mobilization, non-pressurized insertion and extraction of tool, and Technology Report only. For clarity, the below pricing guidelines would be available for longer segments inspected under one mobilization: Mobilization = \$78,750.00 Inspection (first 2 miles) = \$128,000.00 each Inspection (Next 2 miles) = \$62,500.00/mi Inspection (Next 3 miles) = \$60,000.00/mi Inspection (Next 3 miles) = \$57,500.00/mi Inspection (remaining mileage greater than 10 miles) = \$55,000.00/mi Pressurized Insertion ONLY = \$38,000.00 additionally Pressurized Insertion and Extraction = \$78,750.00 additionally Expedited Pipe List = \$18,000.00 each (delivered in a 3-week turnaround) Technology Report alone = \$30,000.00 Technology Report with Engineering Evaluation/Report = \$45,000.00 Standby rate = \$18,900.00 per crew day	2 Miles	\$269,750.00
8	Group 8 -- Remote Transient Pressure Monitoring. ** Listed in "Exhibit F"	EA	\$12,602.00
9	Group 9 -- Acoustic Fiber Optic (AFO) Monitoring of PCCP. ** The above pricing is based on the installation and equipment sales for 2 miles of AFO in a single mobilization using an indoor single DAQ, 4-fiber cable as a wet install. For clarity, the below pricing guidelines should be followed for alternate lengths: AFO Equipment Sales: SoundPrint AFO Single Data Acquisition Unit (Standard - indoor) = \$353,500.00 SoundPrint AFO Single Data Acquisition Unit (Standalone - outdoor) = \$424,200.00 SoundPrint AFO Dual Data Acquisition Unit (Standard - indoor) = \$618,625.00 SoundPrint AFO Dual Data Acquisition Unit (Standalone - outdoor) = \$742,350.00 AFO cable supply: 4-fiber (Standard) = \$4.60 per foot AFO cable supply: 8-fiber = \$9.10 per foot Splice Point and Internal Hardware = \$13,500.00 per splice point AFO Installation Install of AFO cable (< 2 miles) - standard = \$28.00 per foot (next 2 miles) >2 to 4 miles = \$24.70 per foot (next 3 miles) >4 to 7 miles = \$22.60 per foot (next 3 miles) >7 to 10 miles = \$21.00 per foot (remaining mileage) >10 miles = \$20.10 per foot AFO Design & Project Setup (Dry) = \$63,000.00 each DAQ system AFO Design & Project Setup (Wet) = \$73,500.00 each DAQ system Stand-by rate = \$10,500.00 per crew day AFO Monitoring from Year 1 Standard monitoring services (wire breaks) = \$2.52 per foot AFO Extended Warranty and Maintenance beyond Year 1 Warranty for Single Data Acquisition Unit and System Components = \$42,966.00 per year per DAQ system Warranty for Dual Data Acquisition Unit and System Components = \$78,120.00 per year per DAQ system Annual Inspection and Maintenance = \$10,000.00 per year	2 Miles	\$797,867.20
10	Other Tasks Not Identified (please provide description of each) ** Listed in "Exhibit F"	EA	\$200,000.00



PROJECT APPROACH

Pure Technologies is proposing to address the City of Denton Transmission Mains Condition Assessment RFP as both a "Program" and multiple "Projects."

Given the City of Denton's intent to enter into a long-term Professional Services Agreement, we believe the over arching scope, planning and long-term scheduling to fall under the auspices a Program. Where as, the individual pipeline assessments/inspections will constitute a "Project". We have been working with Texas clients in a similar manner since 2001, including Dallas Water Utilities, North Texas Municipal Water District, Austin Water, Gulf Coast Water Authority and Tarrant Regional Water District.

Our first order of business would be to meet with the City of Denton to fully understand what is expected under the Program and what the City of Denton would like to achieve in the 3-to-5-year agreement period.

Creating the Program Work Plan

The RFP indicates that the City of Denton will export GIS data containing facility ID's to Pure Technologies. As such, Pure Technologies would populate our geospatial GIS digital interface with all of the large diameter water mains to be addressed under the condition assessment Program.

Evan though the GIS may identify all large diameter water mains, Pure technologies and the City of Denton will need to define the pipeline assets according to how they can be assessed. Hence, our next step would be to conduct a gap analysis to determine what, if any, additional information may be required to complete an inventory designation for all large diameter pipelines and associated appurtenances. Although the initial inventory assignment will identify a defined length of large diameter pipeline - node-to-node, our end product will seek to refine the asset data base by defining each individual pipe as an asset. It is much easier to manage individual distressed pipes rather than simply replacing an entire pipeline. The EPA estimates that 70% to 90% of the pipes being removed for replacement projects are actually in good condition. We refer to this as "throwing the baby out with the bathwater."

Once we have identified all of the linear assets, Pure Technologies can work with the City of Denton to develop a risk ranking of the large diameter pipelines in the water delivery system. Although Pure Technologies can evaluate the Likelihood of Failure component of the risk ranking, the initial evaluation of risk will weigh heavily on Consequence of Failure (CoF), which the City of Denton will have a more intimate knowledge of. We also assume that the City of Denton may already have



in mind a number of potentially high-risk water mains they would like to assess. Such information would allow us to jump start the assessment "Projects."

Because operational and logistical support requirements can often affect the overall cost of a physical assessment as well as "availability" for inspecting (i.e., due to high demand periods, etc.), Pure Technologies would propose to conduct a "preliminary" evaluation of all large diameter water main assets in advance. The purpose of the preliminary evaluation is to:

- evaluate the alternative technologies, methodologies, and delivery platforms applicable to the pipe material, access, size, and configuration,
- understand logistical support requirements to operational and availability constraints, and
- provide a single page preliminary scope of work with budget costs that addresses both the assessment inspections and the logistical support requirements for each large diameter water main asset.

Once completed, the Program can be more clearly defined in terms of scope, costs, and schedule. This information will allow Pure Technologies and the City of Denton to understand what is achievable over the next 3 to 5 years.

Please rest assured that Pure Technologies does not anticipate this planning to require significant time or cost. We have included a not-to-exceed fee for the Pre-Planning tasks presented above in the Section titled "OTHER TASKS NOT IDENTIFIED".

Pure Technologies does not believe in spending money on desk top studies - we want the City of Denton to realize high value for their investment by providing "actionable" data through high resolution assessments of the water mains.

Project Tasks and Schedule

We now have a working plan with Project task identified and scheduled for the Program that we can track and meet monthly to make certain the schedule remains on track and that Pure Technologies exceed the City of Denton expectations.

Using the relative risk ranking of the pipeline assets and understanding the logistical support requirements, availability of pipelines and projected costs, the City and Pure Technologies can lay out well defined quarterly and annual planning schedules.

Advanced planning will also allow Pure Technologies to move forward with detailed planning well in advance, whereby multiple projects are planned and



ready for assessment should there be any unexpected delays on a given pipeline. The funnel will always be full of planning documents at ready.

Statement of Work and Authorization to Proceed

For the assessment of a given water main, Pure Technologies will evaluate the desired deliverables and submit a Statement of Work describing the technologies and methodologies to be used in accomplishing said task. The Statement of Work will include costs as established in the proposal's line items for each technology and engineering service and Pure Technologies will only initiate work upon receipt of written authorization to proceed on each Statement of Work. Similarly, any changes to the scope of services for a given project must be processed in a similar manner with understanding and approval by the City of Denton before authorizing us to proceed. Such a process has worked extremely well with other similar Programs we participate in with the other water utilities Programs in Texas.

Project Planning

Upon authorization to proceed by the City of Denton to assess a linear asset, Pure Technologies will meet with the City of Denton water utilities and operations to verify the scope of work and discuss any applicable alternatives. In advance of said workshop, Pure Technologies will review available documents associated with the proposed pipeline, including pipe specifications, pipe manufacturer's lay drawings, plan, and profile as-builts or original drawings, information pertaining to any pipeline modifications, leak, failures, etc.

Pure Technologies will review the documents to understand the logistical support requirements and identify potential risk points associated with the proposed inspection(s).

Pure Technologies will request that the City of Denton provide personnel to accompany our team in conducting a site reconnaissance of the assigned pipeline. The purpose of the site reconnaissance is to:

- identify existing appurtenances on the pipeline that can provide access for deployment and extraction of the selected inspection technology(s) and delivery platform(s),
- identify locations to attach tracking sensors to track the travel of free-swimming inspection tools,
- collect GPS coordinates (mapping grade) of any exposed pipe and ALL appurtenances including in-line valves, air relief valves, blow-offs, etc.,
- measure flow velocities if applicable,
- collect photographic documentation,



- determine traffic control requirements for the proposed inspection(s), and
- walk the entire pipeline.

NOTE: As most inspections require operation and/or closure of in-line and/or lateral valves, Pure Technologies will require that all affected valves be assessed and operated prior to initiating any field inspection of a pipeline, as well as supporting the inspection teams during the pipeline inspection(s).

Pure Technologies / dba as Wachs Water Services (WWS) is available to assist with these services. As a division of Pure Technologies, WWS has been providing valve assessment and turning for nearly 25 years and is highly experienced and qualified to assist with initial valve assessments, minor and major valve repairs, and operating of valves in support of our inspection projects or other requests by the City of Denton.

Additional information regarding WWS's services, project references and fees are presented in the Section titled "OTHER TASKS NOT IDENTIFIED".

On completion of document review, site reconnaissance, take-off of the pipeline components, appurtenances and configuration, Pure Technologies will finalize a detailed project planning document that addresses the scope of work, deliverables, logistical support requirements, personnel, and schedule for presentation to the City of Denton for review.

After which, Pure Technologies will hold a workshop with the City to review the planning document and assure that all parties involved in the inspections(s) understand their roles and scheduling.

The planning document will also address any items of concern and identify any potential risks along with an accompanying contingency plan. Pure Technologies' will also incorporate our Safety Plan in the planning document.

If requested, Pure Technologies can de-water pipelines, install access for insertion and extraction of tools, and furnish traffic control and file necessary permits as required. When ever confined space entry is required, Pure Technologies will prepare a confined space permit and provide adequate top side support and a qualified Rescue and Safety Support team.



Condition Assessment of Water Mains

The scope of work and deliverables will vary from pipeline to pipeline. Following is a listing of the field inspections and engineering services typically associated with a condition assessment for critical water mains.

Please keep in mind that not all pipelines may require the extent of high-resolution inspection technologies and engineering services described below, as it is important to understand the need for “the right tool for the right job” and if the cost of the resulting data corresponds to the asset value.

Typical Components of a Comprehensive Condition Assessment include:

- ✓ Client meeting to verify scope of work and collect available documentation and drawings.
- ✓ Site Reconnaissance.
- ✓ Project Planning Document and Client workshop.
- ✓ High Frequency Pressure monitoring to understand maximum operational and transient pressures. Can be temporary or permanent.
- ✓ Conducting a leak inspection of the pipeline using...
 - an external listening mics and correlators,
 - a tethered internal acoustic leak and gas (air) pocket inspection system (Sahara®) with CCTV camera viewing and recording, or
 - a free-swimming internal acoustic leak and gas (air) pocket inspection (SmartBall®)
- ✓ Performing a direct inspection of the pipeline wall to evaluate the structural integrity and overall condition of each pipe stick within the pipeline. This would include identifying and locating broken prestressing wires in PCCP, broken reinforcing bars and wall loss on the cylinder of BWP, wall loss on steel, ductile iron or cast iron pipe, etc.
- ✓ Performing a design check to verify if the pipe was designed and manufactured in accordance with applicable AWWA or Federal Specifications and Standards in place at the time the pipe was manufactured. Also evaluate the design of the pipe material as it compares to current Specifications and Standards that currently apply.



Pipe Performance Risk Curves

While the inspection technologies described herein will provide data for wall loss on metallic cylinders and broken prestressing wires or reinforcing bars, **the challenge associated with assessing and managing either pipe material is determining how much cylinder corrosion and/or broken wires or bars creates an unacceptable level of risk** - thereby requiring repair and/or replacement actions.

Pure Technologies has developed an innovative approach for condition-based pipeline management using structural models along with hydraulic evaluation data, ultimately delivering a comprehensive decision-making tool - a Pipe Performance Risk Curve - for the management of pressure mains.

For pipes identified to be in distress (i.e., broken prestressing wires or reinforcing bar wraps, wall loss, etc.), Pure Technologies can utilize 3D finite element analysis (FEA) to develop Pipe Performance Risk Curves that identify when the distressed pipe may be reaching or exceeding a yield state, and identify those that represent a low to moderate LoF that can continue to be safely managed.

The 3D finite element analysis and Pipe Performance Risk Curves are developed by Pure Technologies Assessment Engineering Services Group. As a Registered Texas Board of Professional Engineering Firm (No. F-13679), our Assessment Engineering Services Group also conducts visual and sounding inspections of pipe, conducts forensic analysis of failed pipes, develops the Pipe Performance Risk Curves, reviews and performs QA/QC on all reports, make repair or replacement recommendations, monitors repairs and replacement of pipes, evaluates root cause of failure, conducts inspection and verification of distressed pipes, evaluated external loading conditions and can develop an estimate of remaining useful life. Additional information pertaining to the Assessment Engineering Services Group and associated fees is presented in the Section titled "OTHER TASKS NOT IDENTIFIED".

Reporting

Technical inspection reports will be prepared and incorporated into the final Condition Assessment Report prepared by the Assessment Engineering Services Group for each inspection technology employed. The technical reports will present the data and findings provided by the inspection technology. An engineer within Pure Technologies' Assessment Engineering Services Group incorporates the technical data and findings within a comprehensive condition assessment report that pulls the entire assessment together.



The condition assessment report also includes the design check(s) of pipe material and can include the 3D FEA and Pipe Performance Risk Curve as may be applicable for distressed pipes that have been identified.

The report will include a risk ranking of the distressed pipes with respect to risk (LoF and CoF), and provide recommendations and alternatives for repair, rehabilitation and/or replacement for pipes of concern.

Pure Technologies will compile all data and findings to present in a pipe-by-pipe geospatial GIS shapefile deliverable compatible to the City of Denton’s GIS system. Each pipe stick is represented by a polygon that when clicked on presents a pop-up window sharing all information related to the pipe design and distress.

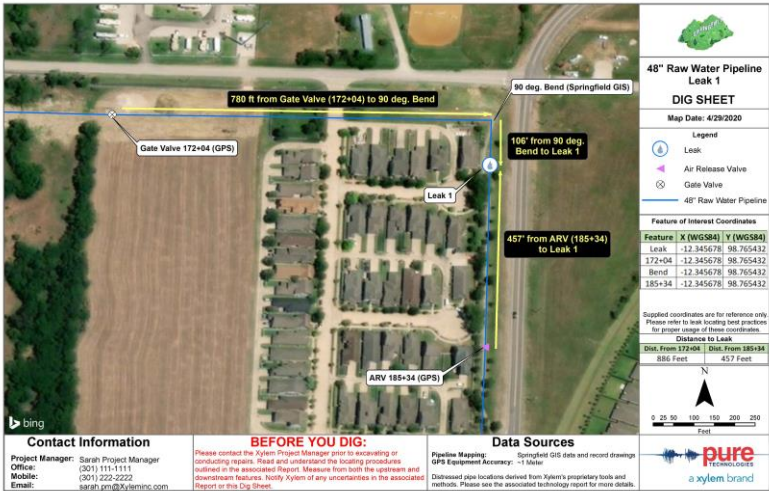
NOTE: Should the City of Denton elect, Pure Technologies Wachs Water Services Group can assess all valves and appurtenances associated with the water mains we assess, and we can include assessment of such control systems as part of our overall report. Wachs Water Services capabilities and fee schedule for valve assessments and repairs, external leak inspection, hydrant assessment and maintenance and uni-directional flushing are presented in the Section titled “OTHER TASKS NOT IDENTIFIED”.

Following submittal of all reports, Pure Technologies will meet with the City of Denton to review all inspection data and findings as well as the recommendations and alternatives for action items.

Pipe Verifications and Repairs.

Pure Technologies provides detailed “dig sheets” identifying the location of each distressed pipe (including leaks and air pockets) of concern and uses the dig sheets to mark the pipe locations.

Pure



Technologies’ engineer will be on site when the City of Denton excavates and



exposes the pipe to verify that the correct pipe is exposed before proceeding with any repair or replacement. Our engineer will also identify what the potential root cause of distress or failure may be and can also conduct a forensic evaluation of the pipe. Material samples including adjacent soil, groundwater if present, concrete core, metallic cylinder, prestressing wires or reinforcing bar wrap, pipe coatings, etc. can also be collected and maintained as control samples. The engineer will collect photographic documentation, collect GPS coordinates, and prepare a summary for inclusion in a written report to the client and incorporated in our pipe-by-pipe geospatial GIS digital interface.

Long Term Management of Pipeline Assets

Pure Technologies will work with the City of Denton to establish a long-term management program specific to the life cycle analysis associated with each pipe stick and pipeline asset.

Pure Technologies can also incorporate distributed sensors to monitor the structural integrity of prestressed concrete cylinder pipe (PCCP) in near real time, identifying when an individual pipe may be trending towards failure and avoiding an unforeseen pipe rupture or failure – we call this a “forever” pipeline.

The high frequency pressure monitoring unit is also a distributed sensor system that supports the City of Denton’s pressure management throughout the water delivery system in real time. This technology is capable of alerting the City of Denton whenever an absolute pressure or standard deviation is exceeded (both positively and negatively). A proper pressure management program will extend the RUL of all pipeline assets.

Combined with the Client’s SCADA monitoring data, these distributed sensor applications offer a precursor to a digital transformation of the City of Denton’s water delivery system (focused solely on Pump Station to customer meters) addressing asset management and optimization of performance.

The Project Approach presented above addresses all of the requirements set forth in the City of Denton’s RFP for Project Scope Requirements. A more detailed description of each inspection technology and delivery platform identified by the City of Denton (as Groups 1 through 9) is presented below.

In evaluating the project approach, Pure Technologies approach to condition assessment of water mains closely emulates the practices recommended in the American Water Works Association’s (AWWA) M77 Manual of Water Supply Practices for the Condition Assessment of Water Mains.



Additional documents Pure Technologies may refer to when participating in a condition assessment program include:

The Environmental Protection Agency's (EPA) document titled "Condition Assessment Technologies for Water Transmission and Distribution Systems" [EPA/600/R-12/017, 2012].



EPA Report on "Condition Assessment of Ferrous Water Transmission and Distribution Systems" [EPA/600/R-09/055, 2009].

EPA Technology Report for Assessment of Force Mains [EPA 832-F-00-071].

EPA Report on "State of the Technology for Force Main Rehabilitation" [EPA/600/R-10/044, 2010].

It is also important to note that the condition assessment Program will address key components identified by AWWA and the EPA in their Partnership for Safe Water for the performance optimization in water distribution systems.

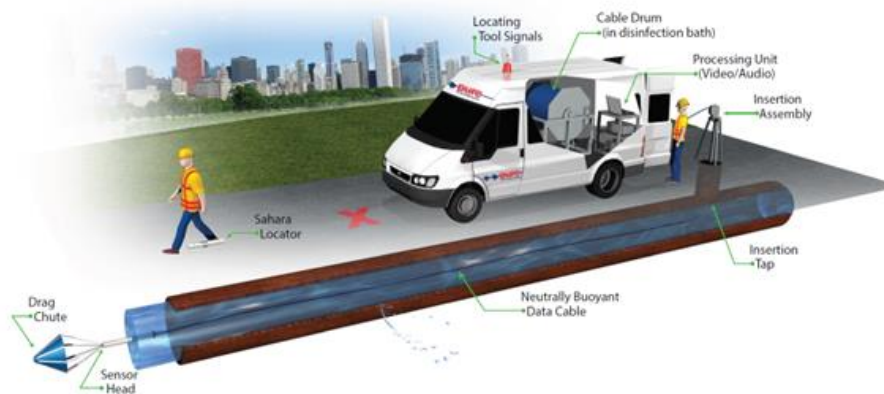
GROUP 1 - REQUIREMENTS FOR INTERNAL TETHERED LEAK AND GAS POCKET INSPECTION WITH VIDEO

Pure Technologies' Internal Tethered Acoustic Leak and Gas Inspection Technology with Video is referred to as the Sahara® system.

Sahara Technology Overview

The Sahara inspection platform is an acoustic-based, non-destructive condition assessment technology that detects acoustic activity associated with leaks or pockets of trapped air, and potential structural defects via CCTV in pressurized water pipelines (12-inches in diameter and larger) of all construction types and materials. The Sahara inspection platform is composed of the following:

- a sensor with acoustic and video components (including LED lighting)
- a system for tracking the sensor
- an insertion assembly for inserting the sensor into a live pipeline
- a cable drum containing the communication umbilical for the sensor
- a rack of electronic instrumentation for the processing of acoustic and visual data

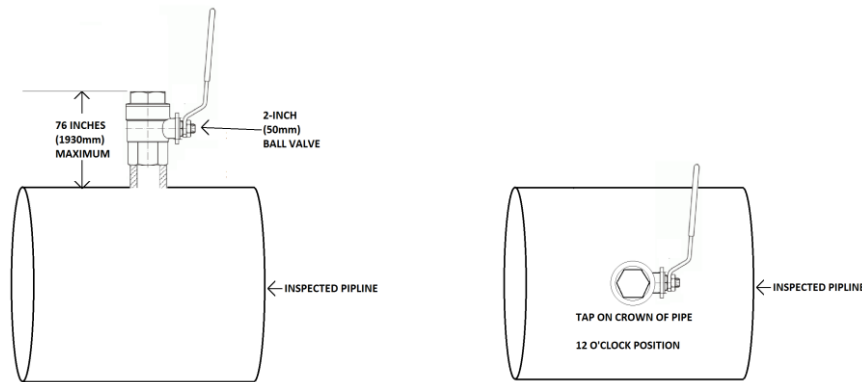


Sahara System Overview Diagram

The system is inserted into a live pipeline through a tap with a minimum diameter of 2-inch full bore clearance using the insertion assembly. The sensor is propelled by the water flow using a drag chute that carries the tethered sensor head through the pipe for distances up to 6,000 feet per insertion as the data cable is unreeled from the cable drum. Actual inspection distance will vary depending on flow rate (3 to 4 fps is optimal) and pipeline configuration (bends, in-line butterfly valves, etc.) The above figure depicts the typical Sahara system configuration.

Typical Insertion Requirements

Sahara requires a standard full bore 2-inch valve at each insertion point. Alternatively, for valves larger than 2 inches, a blind flange tapped with 2-inch national pipe thread (NPT) female threads is required. The figure below shows the typical insertion set-up with a 2-inch ball valve.



Typical Insertion Set-up: Profile and Plan View

Sahara Tracking System

The Sahara sensor is tracked from above ground during the inspection at set intervals and at select points of interest. The sensor is tracked using the Sahara Locator®. The Sahara Locator is an extremely low frequency (ELF) transmitter that is detected by the miniaturized receiver located on the Sahara sensor head within the pipeline. The frequency used allows accurate through-pipe communication, even within metallic mains with a ground cover of up to 33 feet.

While the Sahara Locator is capable of detecting the leak location to within 12-inches, location accuracy can be affected by the presence of large amounts of steel in or on the ground (such as railroad tracks, rebar, or unusually thick metallic pipe walls), steep slopes, or heavily wooded areas.

A technician follows the sensor head above ground, locating the sensor when requested by the Sahara operator – typically at a leak, air pocket, or other location of interest. The Sahara Locator can also be used to locate the sensor at set intervals to determine the alignment of a given section of pipeline.



Sahara Locator

Locating Leaks and Air Pockets

The acoustic signal processor equipment and software provides the primary operator with the ability to monitor and analyze the data collected from the Sahara sensor in real time. This allows for near real-time reporting of acoustic and visual events found in the pressure pipeline. The acoustic signal processor software also converts the audio signal into visual form, displaying the signal amplitude, frequencies, head position, and velocity. The Sahara operator can isolate acoustic event locations, estimate leak magnitude qualitatively, and identify the limits of pockets of trapped air. The precise location of an acoustic event is identified by positioning the sensor within the pipe and simultaneously positioning the Sahara Locator directly above the sensor head, allowing for above ground location.

Closed Circuit Televising (CCTV)

In addition, the operator can distinguish pipeline features or other points of interest using the Sahara platform's closed-circuit televising (CCTV) capability. As with leaks, the Sahara operator can indicate above ground the position of visual points of interest by positioning the sensor within the pipe and simultaneously positioning the Sahara Locator directly above the sensor head.

Clarity of the video can be affected negatively by high turbidity, turbulent flow, surface condition of the pipe wall, and when inspecting pipes over 48 inches in diameter.

Confirmations | Clarifications | Submittals per RFP Requirements:

The Sahara inspection system is a non-destructive technology and is deployed into a fully flowing and pressurized pipeline. Minimum pressure of 15 psi is required. All inspection results are identified in real time and the location of interest is marked on the ground and GPS coordinates collected.

The Sahara system can identify all leaks within any pipe material including Prestressed Concrete Cylinder Pipe (PCCP), Reinforced Concrete Cylinder Pipe (RCCP), Asbestos Cement (AC) Pipe, Polyvinyl Chloride (PVC), High-Density Polyethylene (HDPE), Glass Reinforced Polymer (GRP), Steel, Cast Iron, and Ductile Iron Pipe.

With a standard perpendicular access on the crown of the pipe, the Sahara unit can be deployed via the 2-inch full bore outlet into pipe diameters of 12-inch or larger. For smaller pipes down to 6-inch diameter, the access will need to be installed at an angle or WYE fitting on the crown of the pipe.

The Sahara system can be deployed into pipelines with up to 250 psi pressure.

A representative from the City of Denton is invited to monitor the CCTV video screen and identify areas where closer evaluation may be warranted, instructing the Sahara operator to halt while personnel evaluate the CCTV view. At any time, the Sahara operator can advance, stop, or pull back the Sahara sensor and CCTV camera.

There is no need to interchange the acoustic leak detection technology with the CCTC video technology under separate deployments. Both inspection technologies are always deployed together.

The Sahara system will identify and locate multiple leaks (actually ALL leaks and air pockets) under a single deployment.

The Sahara system will track the sensor head from the surface in real-time during the inspection, providing surface locations with 3 foot accuracy along the length of the pipeline as well as laterally for cases where the exact pipe alignment is not known and collect GPS coordinate data.

The Sahara system can be deployed and operate within the pipeline at a minimum flow velocity of 1 foot per second (fps).

All Sahara equipment that contacts potable water is disinfected with a chlorine solution prior to being introduced inside the pipe. The cable is also spooled in a chlorine bath throughout the inspection. All equipment utilized by Pure Technologies for use in potable water pipelines is dedicated and certified to only be utilized in potable water lines. Devices previously deployed within wastewater piping systems are never utilized within potable water pipelines.

The Sahara system can detect leaks as small as 0.05 gallons per minute at 15 psi.

The Sahara tracking locator is capable of locating leaks within 12-inches of the leak or gas pocket location and will provide preliminary results on-site during the inspection.

Pure Technologies will respond to any request for emergency services within 48 hours. Our experience with most emergency situations is that it may require several days to arrest the existing issues and be available for us to have access to the pipeline. Hence, our initial rapid response is to meet with the City and conduct a site reconnaissance to understand what equipment and services are required and if the existing configuration can accommodate such services. Because our technologies may be deployed on other projects in Texas, availability of equipment and field personnel will need to be confirmed and communicated to the City for planning.

Pure Technologies will provide mapping grade GPS surface markings depicting the location of the pipeline every 300 feet and at each bend as requested, to allow accurate updating of the City's GIS databases.

Pure Technologies will provide a detailed report of pipeline segment(s) assessed within GIS format using mapping-grade GPS data. GIS data must be compatible with the City of Denton GIS system. The report will include the location and rating/size of each leak as (Small for < 2 gpm | Medium for 2 to 10 gpm | large for > 10 gpm) detected during the inspection.

The Sahara report and associated deliverables shall be submitted in hard copies (three copies) and electronic format with database, information viewable in ArcMap with all pertinent information. The report will include at minimum; an executive summary, a location map of the project, indicating the start and end of the project, the date started, and date completed, tables with pertinent information, photographs, videos of CCTV, and any other pertinent information necessary for the project. The conclusion shall be clear and concise depicting the condition of the pipe at the time of inspection and database tables will be named clearly identifying the information. The database will be the property of the City of Denton and information will not be shared without prior written approval from the City of Denton staff responsible for the project/inspection.

As requested in the RFP, Pure Technologies presents a list of comparable references, within the past 24 months, where pipelines were surveyed in a single deployment for distances of 3,500 feet or more using the Sahara system.

^ *Inspections highlighted in gold were performed by the Pure Technologies Dallas office.*

Client Name	Project Manager	Name of Pipeline	Length (ft)
Baltimore City	Vennila Durai	Herring Run Main	4185
Brazos River Authority ^	Stacie Sandmann	Intake	4225
City of Montreal	Hamid Goorkani	Lacordaire	3691
Dallas Water Utility ^	George Schaaf	Jim Miller	3790
Dallas Water Utility ^	George Schaaf	5720 walnut hill ln	3720
Dallas Water Utility ^	George Schaaf	Williamson rd.	3560
Dallas Water Utility ^	George Schaaf	McMillan and Vickery	3515
Dallas Water Utility ^	George Schaaf	4675 Hwy 121	3457
Dallas Water Utility ^	George Schaaf	Cedar Springs	3802
Dallas Water Utility ^	George Schaaf	4700 Jim Miller	3684
Dallas Water Utility ^	George Schaaf	W-4 Water Main	3620
Dallas Water Utility ^	George Schaaf	2501 Web Chapel	3500
Dallas Water Utility ^	George Schaaf	Corinth	3480
FENG XIAN WATER		21-Feng-4	3609
FENG XIAN WATER		21-Feng-4	3609
GCWA ^	George Schaaf	42in	3730
Hampton Roads	Zachary Brenners	LCWM-3	3739
Hampton Roads	Zachary Brenners	LCWM-2	3500
Jacobs Engineering ^	Leo Huang	24 inch Raw Water Main	4000
JIN SHAN WATER		21-Jin-1	3560
NTMWD ^	Stacie Sandmann	Mesquite	3603
Philadelphia Water	Nathan Wilson	3rdST	3500
PWD	Nathan Wilson		3733
Reynolds Construction	CJ Roebuck	West Side Loop 2	4653
SFPUC	Brian Hext	San Antonio Pipeline	4255
Spat	Gustavo Valverde	Biritiba 1500 mm	5013
Spat	Gustavo Valverde	Itaquá-Arujá	4928
Spat	Gustavo Valverde	1800 mm PI-05	4062
Spat	Gustavo Valverde	SAM Leste Trecho IIA	3688
Spat	Gustavo Valverde	Guaio 2100 mm	3609
Spat	Gustavo Valverde	Mogi 900 mm	3583
Spat	Gustavo Valverde	Itaquá-Guarulhos	3530
Spat	Gustavo Valverde	Biritiba	3530
Spat	Gustavo Valverde	Sam Leste Trecho II	3510
Spat / Sabesp	Gustavo Valverde	SAM Leste Sul 1800mm	3648
SWI WATER		20-Min-13	3609
SWI WATER		20-Min-13	3609
SWI WATER		20-Chang-10	3539
Tighe & Bond	CJ Roebuck	30-inch CIP Finish Water	3690

As requested by the RFP, Pure Technologies presents the following summary documenting the successful performance of the Sahara system inspections by Pure Technologies and our licensed operators on more than 1,500 miles of pipeline and with more than 1,500 leaks found.

Year	Annual Inspection Distance (Miles)	Total Inspection Distance (Miles)
2013	31	31
2014	42	73
2015	35	108
2016	74	183
2017	138	320
2018	57	378
2019	53	431
2020	43	474
2021	46	520
2022	85	605
3rd Party Users	4329	4934
TOTAL		8,058

Year	Annual Leaks Detected	Total Leaks Detected
2013	91	91
2014	114	205
2015	91	296
2016	231	527
2017	434	961
2018	186	1147
2019	181	1328
2020	159	1487
2021	135	1622
2022	213	1835
3rd Party Users	1163	2998
TOTAL		12,497

GROUP 2 - REQUIREMENTS FOR NO-FLOW INTERNAL TETHERED LEAK AND GAS POCKET INSPECTION WITH VIDEO

No-Flow Sahara applications typically address inspection in pipelines undergoing hydrostatic pressure tests where there are no flows in the pipeline and the contractor cannot pass the hydrostatic pressure test.

Dallas Water Utilities has also required contractors to conduct a 100% leak tightness testing using the Sahara No-Flow inspection technology following successful hydrostatic testing on newly installed large diameter water mains.

Technical Specifications

Purpose

This technical specification describes the materials and procedures needed to carry out a Sahara Inspection under “No Flow” Conditions. A Sahara Inspection using the No Flow Condition may be used either in conjunction with or instead of a Hydrostatic Pressure Test to confirm leak tightness in a pipeline.

Terminology

The following terms are used in this specification:

Sahara System: Non-destructive, acoustic, condition assessment technology that identifies and locates leaks and gas pockets in large diameter (greater than 12-inches) pipelines and estimates the magnitude of the leaks.

Insertion Site: Location where the MuleTape and Sahara System are inserted into the pipeline.

MuleTape: High strength Kevlar tape used to pull the Sahara System through the pipeline.

Sahara Locator: Aboveground tool used to pinpoint the location of the Sahara System during the inspection

Pull Site: Location where the MuleTape is pulled to propel the Sahara System through the pipeline.

Material Requirements

The following materials are required to carry out a Sahara Inspection using the No Flow Condition:

MuleTape (manufactured by Neptco) – 5/8-inch wide, flat, woven, Aramid (Kevlar) material with a tensile strength of 2500 lbs.

Inspection Log - Handwritten log used to document all findings from the inspection.

Pipeline Access - A minimum 2-inch inner diameter, clear bore access with full port 2-inch ball valve is required on the crown of the pipe at each insertion and pull site.

Guide Tube - 1-inch poly water service tubing, cut at a length that ensures a minimum penetration into the pipe of 12-inches from the innermost weir.

Lars Pressure Diverting Manifold - Abbreviated LPDM; Installed with a sealing gland on top of the 2-inch ball valve at the insertion site. Allows the Sahara System to be inserted into the pipeline under full hydrostatic pressure (up to 300 psi).

PVC hoses - 2-inch diameter hoses attached to the LPDM. Used to divert pressure from the vault at the insertion site.

Guide Tube/Sealing Gland Component - Attach a 1-inch compression by 1-inch MIP NPT threaded brass coupling to one end of the guide tube. A 2-inch x 5-inch galvanized nipple is threaded onto the ball valve over the brass coupling, and then a 2-inch galvanized coupling is installed on the nipple. A 2-inch x ½-inch bushing is installed onto the coupling and then a special ½-inch electrical connector with a rubber tapered grommet, cut in half, is installed on the bushing.

Tethered Umbilical - 5/8-inch diameter cable with a polyurethane outer sheath. The interior of the cable contains four wires, a Kevlar tether and neutrally buoyant materials. The umbilical cable is capable of extending up to approximately 5,000 feet; however, the actual deployment length is dependent on the pipeline configuration.

Hydraulic Winch - Forces the umbilical into the pipe at the insertion site

Acoustic Sensor Head - 1-inch diameter hydrophone unit that is used to detect leaks. Attached to the MuleTape and the tethered umbilical.

Cable Drum - Stainless steel framed, hydraulically operated and completely encased spooling machine. Contains 1,000 ppm chlorinated water to disinfect the tethered umbilical cable.

Processing Unit - Unit where the Sahara operator can view the acoustic data being recorded by the sensor head.

Hydraulic Capstan - Installed at the pull site to extract the MuleTape.

Sahara Locator - Low Frequency transmitter used to locate the sensor head during the inspection.

City of Denton Responsibilities

The City of Denton is required to provide the following:

- Plan and profile drawings of the section of the pipeline to be inspected.
- As-Built drawings, if available, including manhole access locations and details of the manhole openings and vaults.
- A complete set of drawings for any relocation or revision to the pipeline since its original construction that is not reflected on the plan and profile drawings.
- A full 2-inch inner diameter bore into the pipe, located on the crown, at the insertion site with a short riser (no more than 8-inches tall) and a full port 2-inch ball with 2-inch female NPT threads.
- Two 2-inch ports and 2-inch ball valves at intermediate locations with 2-inch female NPT threads
- Traffic control, if necessary.
- Access to allow delivery of equipment to insertion and pull sites.
- Personnel familiar with the pipeline to assist Pure Technologies personnel at the insertion site and with the Sahara Locator.
- The pipeline must be fully dewatered prior to installing the MuleTape
- If manned entry is required for installation of the MuleTape, proper equipment to allow manned access into the pipe shall be provided, as well as a confined space permit, top side and rescue support, and air ventilation.

Safety Considerations and Requirements

Safety of all personnel involved in the inspection is of importance to the success of the project. When completing a Sahara Inspection using the No Flow Condition, consider the following safety requirements:

When manned entry is required, confined space entry procedures should be followed, including a confined space permit, proper top support and adequate. All personnel entering the pipe shall utilize personal air quality monitors.

The pipe must be fully dewatered prior to installing the MuleTape

Lock-out/Tag-out of all electrical equipment and in-line valves must be performed.

Traffic control must be provided.

All personnel entering the pipeline or any vault at the insertion or pull sites are required to wear personal protective equipment ("PPE") including, but not limited to a protective helmet, head lamp, air monitor, harness, steel toe hip boots/waders, Tyvek suit and gloves. PPE is required for all pipeline entrants.

Personnel remaining aboveground are also required to wear PPE including, including, but not limited to reflective vests, hard hats and steel toe boots.

Inspection Methodology

To complete a Sahara Inspection using the No Flow Condition, the following procedure should be used:

Install the MuleTape between two defined access points in a dewatered pipeline via manned or robotic entry.

Fill and pressurize the pipeline as required.

Remove the sealing gland and bushing from the 2-inch ball valve on top of the LPDM.

Pre-load the sensor head and cable into the insertion tube and lower the insertion tube into the vault, next to the LPDM.

Attach the sensor head to the MuleTape using a standard fishing knot and half-hitch. Epoxy the knot.

Install the hydraulic winch, encoder cable, hydraulic hoses and support legs at the Insertion Site. At the Pull Site, install the hydraulic capstan, spooler, pit rollers, generator, and hydraulic power pack.

At the Pull Site, attach the MuleTape to the hydraulic capstan.

Thread the insertion tube onto the 2-inch valve located on top of the LPDM with as small amount of MuleTape slack as possible.

Open the ball valves on the bowl of the LPDM to divert the pressure out of the vault via 2-inch PVC hoses.

Open the top LPDM valve. As the lower LPDM valve is being opened, begin to pull the MuleTape slack at the Pull Site. This pressurizes the insertion tube.

Lower the piston tube into position using a hydraulic hand pump.

Turn on the computer, Sahara interface and electronics to prepare for deployment of the sensor head.

The Sahara Operator (Insertion Site) informs the Capstan Operator (Pull Site) to begin to pull the MuleTape, deploying the sensor head. Synchronization must be maintained between the Sahara Operator and the Capstan Operator to ensure that the MuleTape remains taut.

The operators should stop pulling at 1 meter intervals to listen for leaks until the sensor head reaches the pull site.

Dispatch the PipeHawk Operator to track the sensor head, locate and mark the leak location(s), gas pockets and pipeline intervals on the ground surface as may be required. Document all findings in the Inspection Log.

When the sensor head reaches the Pull Site, the Sahara Operator instructs the Capstan Operator to reconfigure for retrieval. At the Insertion Site, use the hydraulic winch to retrieve the cable and sensor head.

Once the sensor head has been retrieved and the inspection is complete, use the capstan equipment at the Pull Site to retrieve and re-spool the MuleTape.

Deliverables

The Sahara Locator operator will mark all detected leaks, pockets of trapped gas and/or desired pipeline intervals on the ground surface during the inspection.

A set of GPS coordinates, which give the insertion point, end point and the locations of any detected leaks and/or gas pockets (PI) will be provided. If required, the Sahara Locator operator will flag the pipeline location at desired intervals and points of intersection (PI). GPS coordinates of the pipeline interval stations can be taken and recorded.

A written inspection report is provided to the client within two (2) weeks of the inspection.

Confirmations | Clarifications | Submittals per RFP Requirements:

The leak assessment shall be performed internally while the pipeline remains in service or using a pull tape with no flow. A sensor head (tethered device) is inserted into a live pipeline carried by the flow of water or pulled by tape with no flow. The sensor will travel through the pipeline pinpointing the exact location of leak(s). Leaks are identified by the distinctive acoustic signals generated at the pipe wall.

Pure Technologies will perform the inspection in a non-destructive manner, while the pipeline is in service or under pressure of at least 15 psi, using real-time data to be able to inspect pipelines without flow.

The Sahara system is capable of inspecting multiple pipeline material types including Pre-stressed Concrete Cylinder Pipe (PCCP), Reinforced Concrete Cylinder Pipe (RCCP), Asbestos Cement (AC) Pipe, Polyvinyl Chloride (PVC), High-Density Polyethylene (HDPE), Glass Reinforced Polymer (GRP), Steel, Cast Iron, and Ductile Iron Pipe.

The no-flow Sahara inspection is capable of inspecting in pipelines that are 10-inch diameter and larger.

Assuming the tag lines are in place, the Sahara system can be inserted into static pressurized pipelines up to 200 psi.

The Sahara system operator can advance, stop, and/or retrieve the sensor head at any time during the inspection.

The Sahara system will identify and locate multiple leaks (actually ALL leaks and air pockets) under a single deployment.

The Sahara system will track the sensor head from the surface in real-time during the inspection, providing surface locations with 3 foot accuracy along the length of the pipeline as well as laterally for cases where the exact pipe alignment is not known and collect GPS coordinate data.

All Sahara equipment that contacts potable water is disinfected with a chlorine solution prior to being introduced inside the pipe. The cable is also spooled in a chlorine bath throughout the inspection. All equipment utilized by Pure Technologies for use in potable water pipelines is dedicated and certified to only be utilized in potable water lines. Devices previously deployed within wastewater piping systems are never utilized within potable water pipelines.

The Sahara no-flow inspection system can detect leaks as small as 0.01 gallons per minute at 90 psi of pressure and 0.1 gallons per minute at 25 psi.

The Sahara tracking locator is capable of locating leaks within 12-inches of the leak or gas pocket location and will provide preliminary results on-site during the inspection.

Be capable of providing preliminary results to City of Denton staff on-site during the inspection.

Pure Technologies will respond to any request for emergency services within 48 hours. Our experience with most emergency situations is that it may require several days to arrest the existing issues and be available for us to have access to the pipeline. Hence, our initial rapid response is to meet with the City and conduct a site reconnaissance to understand what equipment and services are required and if the existing configuration can accommodate such services. Because our technologies may be deployed on other projects in Texas, availability of equipment and field personnel will need to be confirmed and communicated to the City for planning.

Pure Technologies will provide mapping grade GPS surface markings depicting the location of the pipeline every 300 feet and at each bend as requested, to allow accurate updating of the City's GIS databases.

Pure Technologies will provide a detailed report of pipeline segment(s) assessed within GIS format using mapping-grade GPS data. GIS data must be compatible with the City of Denton GIS system. The report will include the location and rating/size of each leak as (Small for < 2 gpm | Medium for 2 to 10 gpm | large for > 10 gpm) detected during the inspection.

The Sahara no-flow inspection report and associated deliverables shall be submitted in hard copies (three copies) and electronic format with database, information viewable in ArcMap with all pertinent information. The report will include at minimum; an executive summary, a location map of the project, indicating the start and end of the project, the date started, and date completed, tables with pertinent information, photographs, videos of CCTV , and any other pertinent information necessary for the project. The conclusion shall be clear and concise depicting the condition of the pipe at the time of inspection and database tables will be named clearly identifying the information. The database will be the property of the City of Denton and information will not be shared without prior written approval from the City of Denton staff responsible for the project/inspection.

GROUP 3 - REQUIREMENTS FOR INTERNAL NON-TETHERED FREE-SWIMMING LEAK AND GAS POCKET INSPECTION

This specification covers the requirements for conducting non-tethered free-swimming leak assessments. The leak assessment shall be performed internally while the pipeline remains in service. A free-swimming acoustic leak detection system is inserted into a live water main and carried by the flow of water. The device will travel through the pipeline detecting and locating leak(s) and gas (air) pockets.

Pure Technologies' Free-Swimming Internal Acoustic Leak and Gas Inspection Technology with Video is referred to as "SmartBall®".

SmartBall Technology Overview

Internal acoustic leak detection systems have proven to be the most effective and reliable means for identifying leaks in larger diameter pipelines. Technological advances have resulted in the development of the SmartBall, a free-swimming acoustic leak detection device capable of surveying many miles of fully operating pipeline with a single deployment. The device can identify and locate small leaks in water pipelines 6-inches and larger, constructed of any pipe material. The device can also pass through in-line valves (including butterfly valves > 10-inches) and negotiate unlimited bends in the pipeline. These benefits provide a cost effective and timely approach to identifying and locating leaks in large diameter water pipelines and wastewater force mains.

Background

Acoustic leak detection equipment identifies the sound or vibration induced by water escaping from pipes under pressure. When pressurized product leaks from a pipe, it creates a distinctive acoustic signal that travels through the water column flowing in the pipeline.

Recognizing the value offered by acoustic leak detection technology yet realizing some of the limitations associated with current leak detection technologies applicable to large diameter water transmission mains, a research and development program was undertaken by Pure Technologies in 2004 to develop a free-swimming (non-tethered) acoustic leak detection device. The goal of the program was to develop a technology that would provide operators with the ability to survey water transmission pipelines for which inspection was previously not practical.

Water Pipelines

For water pipeline and sewer force main applications, the SmartBall consists of an outer foam ball that envelops a water-tight, aluminum sphere (approximately 2-1/2" in diameter) containing the sensitive acoustic instrumentation. The figure to the right shows a graphic representation of the instrumentation housed inside the aluminum core.



Aluminum core containing instrumentation and battery power.

The device is inserted into the pipeline and released to allow the flow to roll the SmartBall downstream. The compressible foam outer ball allows for insertion through existing 4-inch diameter outlets. If a dry or pressure tap is required, Pure Technologies requires that a 6-inch tap be provided. The outer ball also provides mass by which the device is pushed by the hydraulic flow of the water.

A photograph of the inner aluminum core and the outer foam ball is presented in the figure below. While the ball is traversing the pipeline, it continuously records all acoustic activity in the pipeline.



Aluminum core and outer foam protective ball.

Smartball Receiver (SBR) units are placed periodically along the pipeline at convenient surface access locations, whereby the movement of the device can be tracked. Once the ball has traversed the desired pipeline length, it is retrieved from the pipeline. The acoustic data can then be evaluated to determine the presence and location of any leaks and/or gas (air) pockets in the pipeline.

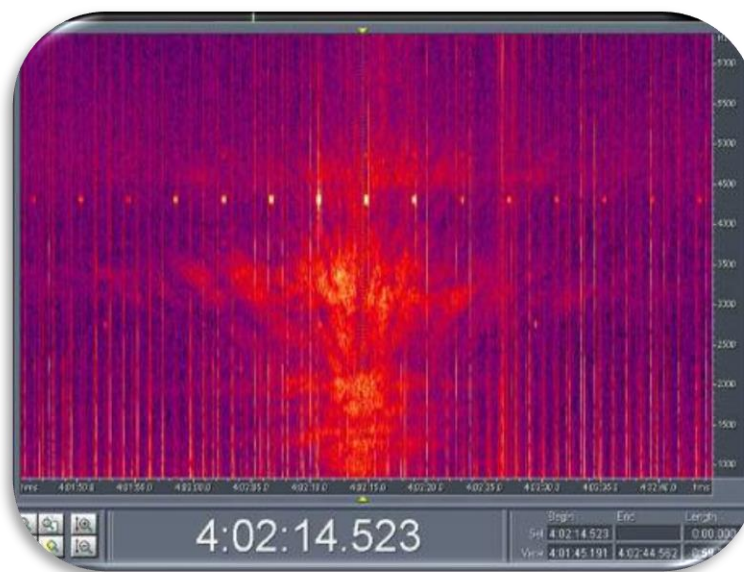
For water pipelines, the technology requires two access locations (4-inch or 6-inch diameter) equipped with a full port valve having a standard flange face (one each for insertion and extraction of the device).

Once deployed, the SmartBall can pass through open in-line valves (including butterfly valves greater than 10-inches), reducers and other fittings, as well as navigate unlimited bends and profile changes. The ball is propelled by the hydraulic flow of the water, requiring a minimum flow velocity of ½ fps, and will roll along the bottom of the pipeline. Greater flow rates (1 to 3 fps) may be required for significant pipeline profiles. At a flow velocity of 2 fps, the ball will typically flow vertically.

The device provides for thirty (30) hours of acoustic monitoring and recording. Based on a flow velocity of two feet per second, the Smartball can survey about 40 miles of pipeline via a single deployment. Larger cores are also available to accommodate longer inspection distances.

Depending on the ambient acoustic environment (the "noise floor"), leaks as small as 0.03 gallons per minute (gpm) have been detected at higher operating pressures. The leak detection limits are approximately 0.5 gpm at 15 psi, 0.1 gpm at 25 psi and 0.01 gpm at 90 psi.

A printout of an acoustic frequency spectrum display for a one (1) gallon per minute leak in a 48-inch water pipeline is presented below.



Acoustic frequency displaying a 1 gpm leak in a 48-inch water pipeline.

Two techniques are utilized to locate an identified leak in a pipeline. The primary technology utilizes the miniature ultrasonic transponder placed inside the sphere which emits a timed, high frequency, coded ping that allows the GPS based and synchronized SBR unit on the surface to track the device. The SBR utilizes a surface mounted tracking sensor that is attached to a metal interface or appurtenance that is in direct contact with the water column. This allows the receiver to detect the high frequency ultrasonic pings that travel through the water column at the speed of sound. By tracking the device as it travels through the pipeline, the relative position of the ball to the receiver can be calculated once the device passes the acoustic receiver unit. The SBR unit also provides a fixed reference point for both position and time.

The SBR has demonstrated an ability to track the device for more than one mile (1/2 mile in either direction). However, various factors can affect the distance to which the device can be detected. These include the pipeline configuration (bends, etc.), diameter of the pipe, the pipe material and lining condition, the presence of air pockets, debris, or sediment accumulation – all factor that may attenuate sound. By placing an SBR every 2,500 to 3,000 feet, Pure Technologies will locate detected leaks or gas pockets within 1 to 2 meters.

The SmartBall is the only free-swimming internal acoustic leak and gas pocket inspection device that can be tracked throughout an inspection run.

Standard reporting of identified leaks is broken down by Small (0 to 2 gpm), Medium (2 to 10 gpm) and Large (> 10 gpm).

The following presents a summary for a SmartBall inspection in Airdrie, Canada. References for SmartBall projects performed in Texas are also included herein.

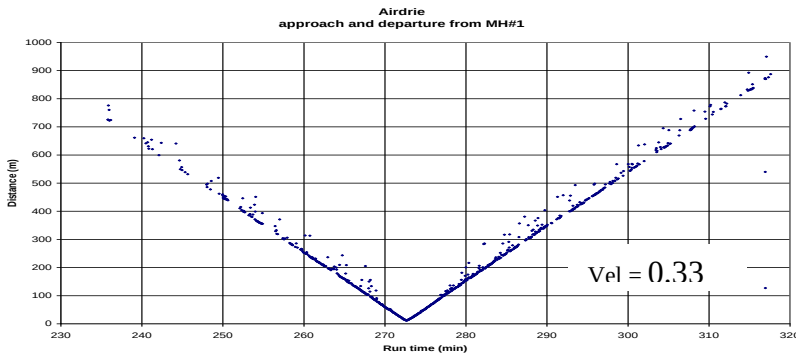
Airdrie, Alberta, Canada

Thee SmartBall was deployed for the City of Airdrie to inspect a 36" water line that supplies the city with water. The line runs approximately 8 miles from the northern city limits of Calgary, past Balzac, to the Airdrie reservoir.

SBR tracking receivers were deployed at the insertion and retrieval locations, as well as at existing appurtenances (air relief valves and manholes) – resulting in a spacing of approximately ½ mile between acoustic tracking receivers. The yellow tacks shown in the figure 4 denote the location of the receivers.



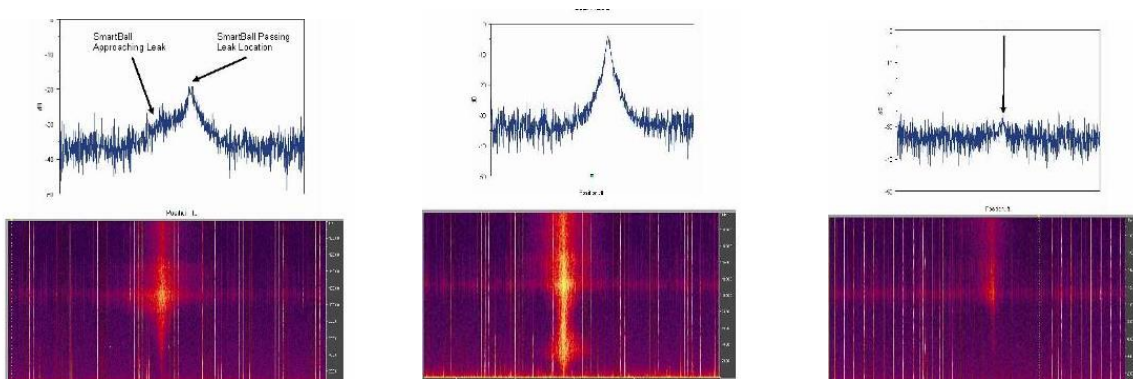
36-inch Airdrie Water Main



*SBR's were able to track the SmartBall
½ mile in each direction.*

Rotation data from the on-board accelerometer is utilized to calculate the rate of rotation of the device as it traversed the pipeline, which allows for a velocity profile to be developed. Then, absolute position reference points obtained from the SBR's are applied to the time stamped data. The result is a position versus time relationship for the entire run of the tool.

Upon retrieval of the tool, the acoustic data recorded by the SmartBall was analyzed and cross-referenced with the position data from the SBR to determine location. Three leaks were detected during the tool run. The figures below display the leak intensity and accompanying acoustic frequency display associated with each of the three identified leaks.



Identified Leaks (L to R) 5 gpm, 35 gpm and 0.8 gpm leaks.

The City of Airdrie confirmed all three leaks. A photograph the 30 gpm leak source is shown below. Unbeknownst to Pure Technologies, the City had simulated the two (2) smaller leaks. However, the City was unaware of the large leak, as it occurred in a remote field and the water was not coming to the surface – rather running down the pipeline to an underground destination.



35 gpm leak at 1/4-inch slit in the steel bell joint of the PCCP

Confirmations | Clarifications | Submittals per RFP Requirements:

All SmartBall inspections are performed internally while the pipeline remains in service. The free-swimming acoustic leak detection system is inserted into a live water main carried by the flow of water. The device will travel through the pipeline detecting "ALL" leak(s) and gas pockets in a single deployment.

The SmartBall can enter and exit a fully operating and flowing pipeline, while the pipeline remains in service and flowing at a velocity of one (1) foot per second or greater and the SmartBall will detect and locate multiple leaks and/or gas pockets over the entire length of a pipeline inspected under a single deployment.

The SmartBall can map the alignment of the pipeline being inspected. The pipeline alignment and suspected level of accuracy will be provided in a geodatabase and identifying pipeline alignment discrepancies between the recorded data and as-built pipeline drawings or existing GIS.

The SmartBall inspection is performed in a non-destructive manner and can survey pipelines with an inside diameter of six (6) inches or larger.

The SmartBall can operate inside a pipeline with a minimum flow velocity of one (1) foot per second and can be actively tracked throughout the duration of the inspection run. Note: a flow velocity of 2 fps may be required to traverse vertical risers.

The SmartBall can be tracked inside a pipeline a up to 3,000 feet between tracking sensors. The SmartBall Tracking technology will assist in verifying the instantaneous velocity of the device to predict the arrival time of the device at downstream pipeline features and identify changes in the velocity of the device between tracking sensors.

The SmartBall can inspect pipelines with partially open offtake valves, allowing restricted offtake service to continue throughout the inspection. The SmartBall can also be tracked as it approaches and passes such offtakes whereby the City can be notified when the device passes the lateral and the City can open the offtake valve fully, thereby minimizing the duration of restricted flow into the offtake.

The SmartBall is inserted into and extracted from the pipeline through a minimum access of four (4) inches equipped with a corresponding full port valve.

The SmartBall may be inserted and extracted via fire hydrants.

The SmartBall can record data for up to 24 hours and can be deployed into a pipeline operating at pressures up to 500 psi.

The SmartBall can record the pipeline operating pressure and water temperature (up to 150 degrees Fahrenheit) throughout the inspection and include such data in the final report.

The post-survey report shall include an executive summary, a location map of the project that indicates the start and end point, survey date(s), tables with pertinent information, photographs, any other information necessary for the project, and the location of leaks and gas pockets.

The SmartBall will detected leaks as originating from the pipe barrel, pipe joint, or a pipe feature and can perform in any type of pipe material types, including steel, cast iron, ductile iron, pre-stressed concrete cylinder pipe, bar wrapped pipe, asbestos cement, polyvinyl chloride, high-density polyethylene, and glass reinforced plastic.

All Pure Technologies field personnel are OSHA and confined space trained and certified and meet local and or national standards for confined space entry. Pure Technologies will furnish confined spec permits whenever the scope of work identifies work to be performed in confined space areas.

Pure Technologies personnel are always equipped with required safety equipment including calibrated gas monitors, lifting harnesses, safety lines, and all other required safety equipment to ensure their welfare while entering confined spaces.

Within 24 hours following extraction of the SmartBall, Pure Technologies will identify, report (letter report) and field verify (using external listening mics and

correlators) the location of any identified leaks estimated to be larger than two (2) gallons per minute.

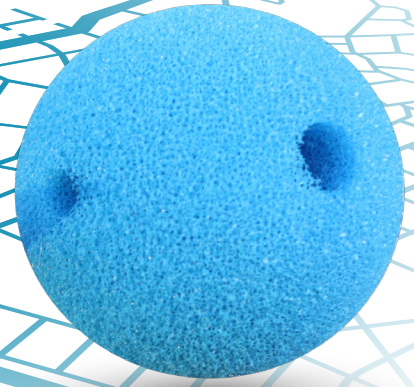
Pure Technologies maintains sufficient equipment including the SmartBall devices and replacement components, tracking sensors and receivers, insertion stacks, and extraction stacks within our Dallas warehouse facility.

The following two (2) summaries presented below of SmartBall inspection distances and leaks found is in response to the RFP requirement to demonstrate that the SmartBall technology as successfully been utilized on a minimum of 7,000 miles of pipeline and reported 3,000 leaks.

SmartBall Inspection Summary		
Year	Annual Inspection Distance (Miles)	Total Inspection Distance (Miles)
2007	39	39
2008	131	170
2009	249	419
2010	315	734
2011	364	1098
2012	257	1355
2013	520	1875
2014	538	2413
2015	961	3374
2016	1266	4640
2017	959	5599
2018	748	6347
2019	750	7097
2020	574	7671
2021	650	8321
2022	1084	9405
TOTAL		60,557 Miles 319,740,960 feet

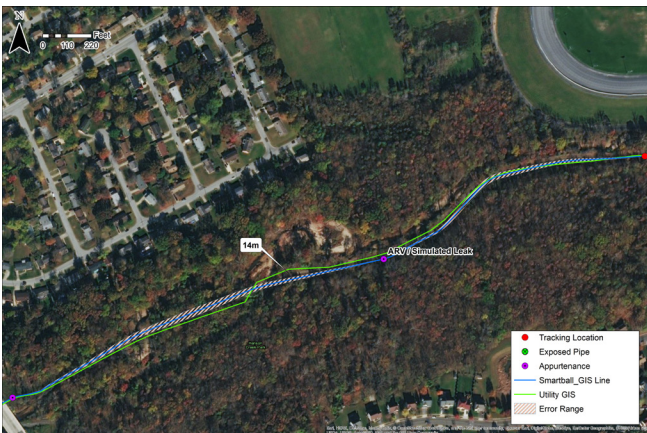
SmartBall Inspection Summary

Year	Annual Leaks Detected	Total Leaks Detected
2007	6	6
2008	10	16
2009	44	60
2010	29	89
2011	42	131
2012	17	148
2013	8	156
2014	52	208
2015	315	523
2016	547	1070
2017	464	1534
2018	295	1829
2019	275	2104
2020	257	2361
2021	372	2733
2022	464	3197
TOTAL		16,165



SmartBall® Mapping

INLINE FREE-SWIMMING PIPELINE INSPECTION AND MAPPING PLATFORM



Sample SmartBall Mapping Line

Why X and Y Mapping?

The SmartBall® platform is a free-swimming inspection tool used to detect leaks and gas pockets and map pipeline networks. Knowing the location of underground pipelines with certainty is a key component of pipeline management and a comprehensive condition assessment program. Confirming the location of buried assets helps pipeline managers evaluate their risk of failure, understand the alignment of pipes relative to nearby utilities, plan maintenance work more efficiently, reduce the likelihood of third-party damage, and conduct more accurate hydraulic modeling.

How it Works

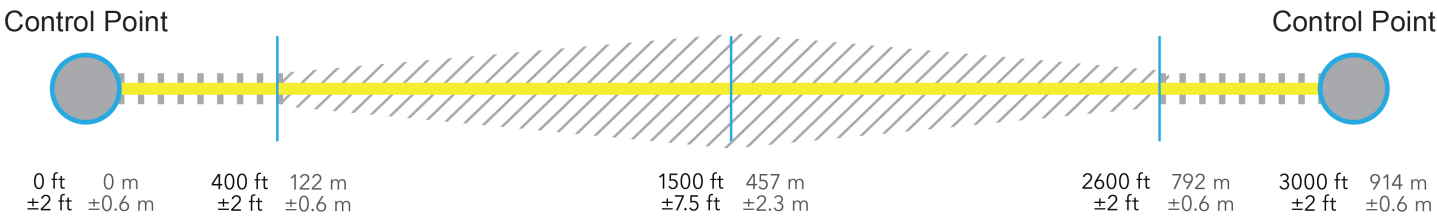
SmartBall Mapping combines the latest accelerometer and gyroscope technologies with advanced location algorithms to calculate pipeline directional data. With field-collected GPS points and pipeline bearing information, a geodatabase is created containing the X-Y alignment of the pipeline, known as the SmartBall Mapping Line.

Mapping Accuracy

The range of accuracy for SmartBall Mapping depends on the quality and frequency of control points and the consistency of the SmartBall tool’s rolling. Under ideal conditions, the expected accuracy is:

Range of Accuracy = The greater of ±2 ft (0.6 m) or 0.5% of the distance from a control point.

For example, the maximum expected error for an area with control points 3,000 feet (914 m) apart will be ±7.5 feet (±2.3 m). This maximum expected error occurs in the middle of the area, when the SmartBall tool is 1,500 feet (457 m) from either control point.



Using the SmartBall Mapping Line

The SmartBall Mapping Line is compared to available pipeline information, such as existing pipeline GIS and as-built drawings, to identify conflicts or confirm the assumed pipeline alignment. In areas where the SmartBall Mapping Line agrees with a utility’s records, the utility can feel more confident in the assumed location of the pipeline. If a conflict is identified, a targeted effort of exposing the pipeline, line finding, or surveying at these specific areas may be warranted depending on the location accuracy required for the subject pipeline.

Operational Requirements

Pipe Materials	Any pipe material
Flow Velocity	Pipeline flow must be between 1.5 and 3 feet per second (0.5 – 0.9 m/sec)
Flow Consistency	Flow changes should be minimized throughout the inspection
Tracking Locations and Control Points	Known features are required for GPS control points, including air release valves, inline valves, or other appurtenances. Potholes can be used when there are not enough known features.
GPS and Pipeline Bearing	Centimeter-grade GPS point and the pipeline directional bearing will be recorded at all control points
Number of Inspections	Two inspections are needed to create a complete deliverable with a geodatabase and report; a single inspection can provide a confirmation of alignment delivered in report format with no geodatabase.

For more information on how we can help you, contact us at: puretech@xylem.com



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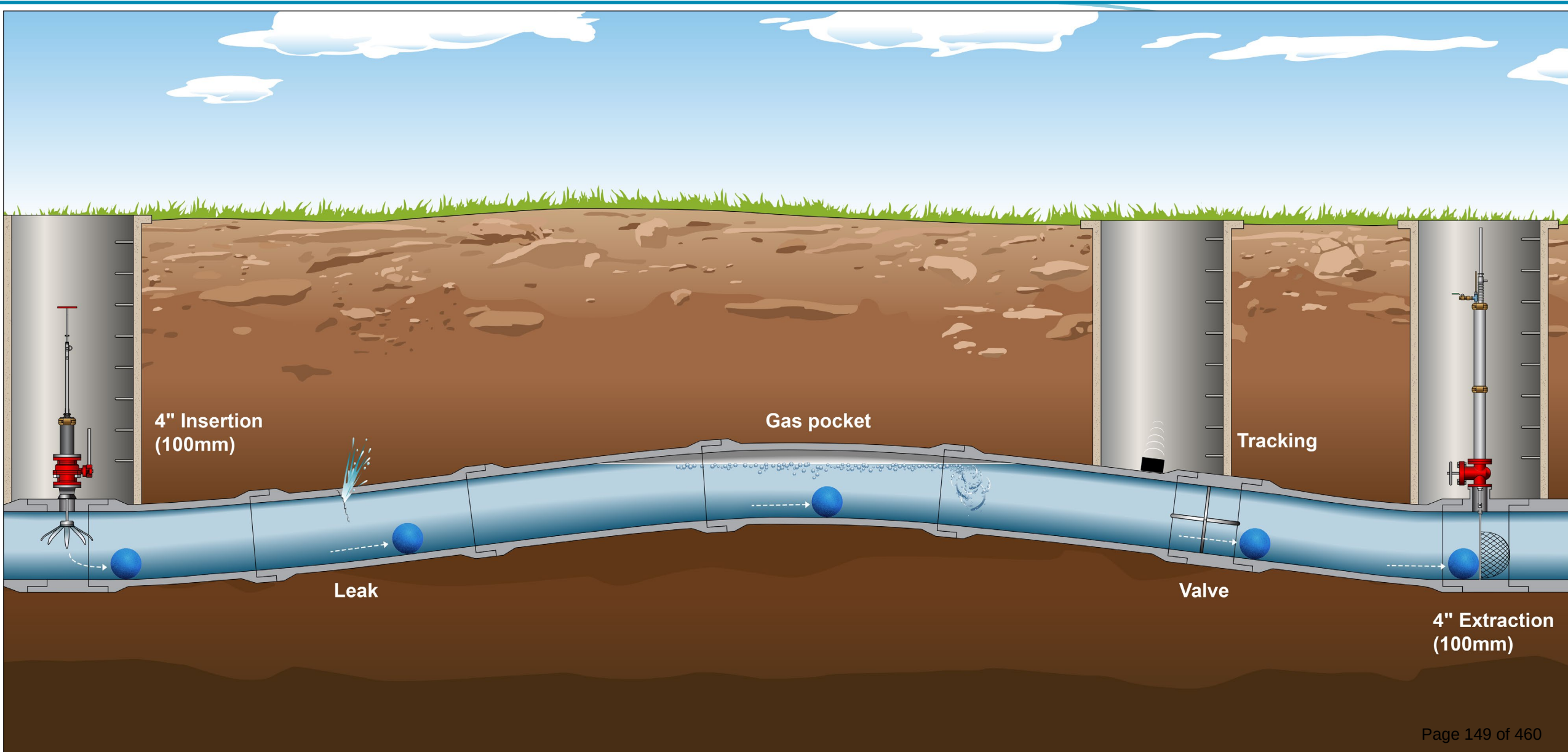


SmartBall

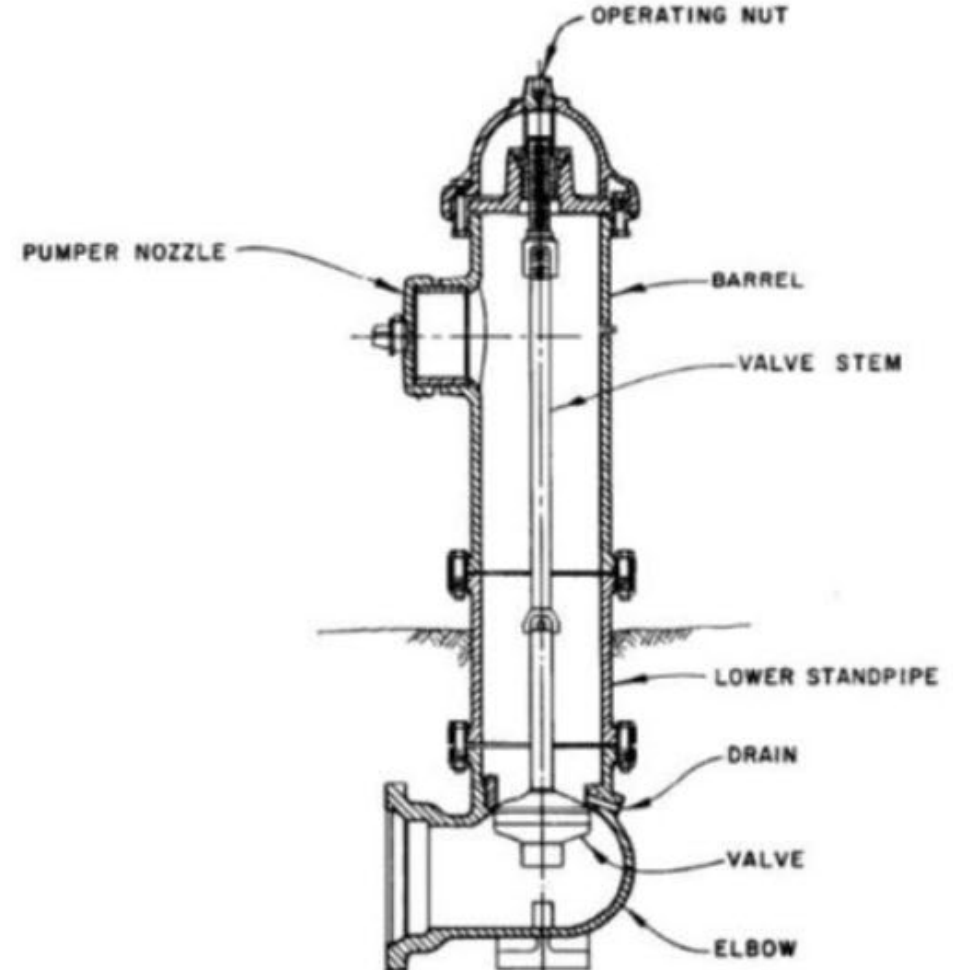
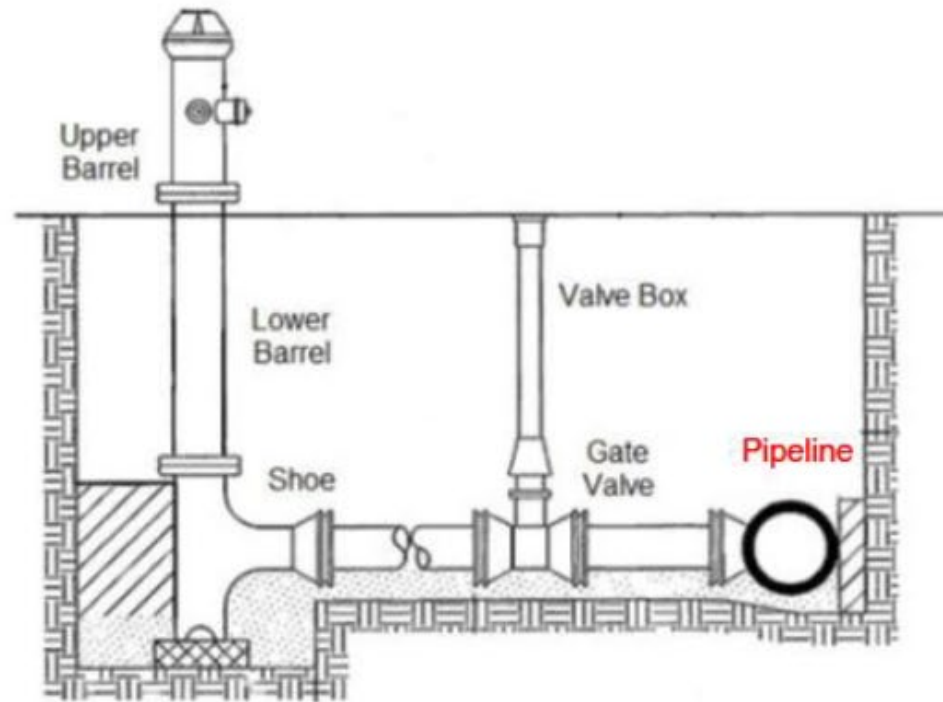
HYDRANT INSERTION AND EXTRACTION INTRODUCTION

APRIL 16, 2020

SmartBall Overview



Hydrant Overview



Hydrant Insertion

Basic Procedure

1. Isolate hydrant from the pipeline
2. Remove the dome, valve stem and operating nut
3. Insert SmartBall into the hydrant lateral
4. Re-install valve stem, dome and operating nut
5. Connect supplemental water source that has a higher pressure than the watermain to the hydrant
 - Firetruck
 - Upstream fire hydrant
6. Open hydrant valve and pressurize hydrant
7. Turn on supplemental water source and launch the SmartBall



Hydrant Extraction

Basic Procedure

1. Attach extraction equipment to hydrant
2. Setup extraction hose, diffuser, and dechlorinating tablets
3. Slowly open hydrant to achieve required flow rates
4. Track SmartBall and confirm when it is at the bottom of the hydrant
5. Isolate hydrant and remove valve stem etc
6. Slowly open the hydrant valve until the SmartBall comes to the surface
7. Reassemble hydrant



Client Preparation Work

1. Provide CAD or GIS files
2. Identify hydrants to be used
3. Exercise all valves associated with the inspection to confirm operability (hydrant isolation valve and inline control valves for flow management)
4. Flush hydrant connection to remove debris
5. Confirm if local fire department can assist with insertion
6. Exercise and confirm the internal hydrant valve can be removed
7. Identify where water is going to be discharged when extraction hydrant is open





Hydrant Experience

Colorado Spring Project

- 10 inspections
- 54,000 feet
- 10" to 30"
- DIP

Toledo Ohio

- 1 inspection
- 7 miles
- 18" to 24"
- PCCP and DIP

GEFA

- 8 inspections
- 58,000 feet
- 10" to 30"
- PCCP and DIP



GROUP 4 - REQUIREMENTS FOR MANNED EM NONDESTRUCTIVE INSPECTION

This specification covers the requirements for detecting and quantifying the number of broken wires within all types of Pre-stressed Concrete Cylinder Pipe (PCCP). The PCCP assessment involves an exciter coil that is used to induce a small electrical current in the steel wires and steel cylinder. The current in the steel wires then induces a small current in a second coil called the detector. The amplitude and phase of the signal received at the detector will change depending on if the steel wire is broken or not. The change in the detector signal is then analyzed and an estimate of the number of broken wires is given.

Using Electromagnetic (EM) Inspections to Assess PCCP

Prestressed Concrete Cylinder Pipe (PCCP) designed and manufactured in accordance with AWWA Standard 301 and C304 relies on high strength steel prestressing wire helically wrapped around the pipe's concrete core under extremely high tension to provide its strength. Due to its vulnerability to corrosion, the wire is embedded in a cement rich mortar coating, which provides an alkaline environment (a very effective form of corrosion protection) that inhibits corrosion and provides an outer armor protection.



*Heavily corroded and broken
prestressing wire*

Problems arise in PCCP when the cement mortar, and thus the alkaline environment, is compromised, leaving the wire susceptible to corrosion. When corrosion of the prestressing wire occurs, the wire eventually breaks - reducing the strength of the pipe at that location. If corrosion continues, multiple wire breaks may occur in the same region and can significantly reduce the pipe's strength, eventually to the point of failure. The above figure shows the springline of a PCCP pipe section with numerous broken wires in one location.

In addition to corrosion, a common failure mode of prestressing wire is due to a change in the manufacturing process during the 1970s. This process led to the production of wire with increased tensile strength but also a reduced ductility of the steel, making the wire susceptible to hydrogen embrittlement. The combination of low ductility in the wire and susceptibility to hydrogen embrittlement creates a higher probability of failure for PCCP versus other standard water main pipe materials.

Hydrogen embrittlement may also result from exposure to stray current and from improperly applied cathodic protection.

Failure of PCCP is usually a sudden, catastrophic event with no warning. Thus, the consequences associated with its failure not only severely disrupt operations and delivery of water to customers but can also increase significant risks associated with collateral damage.

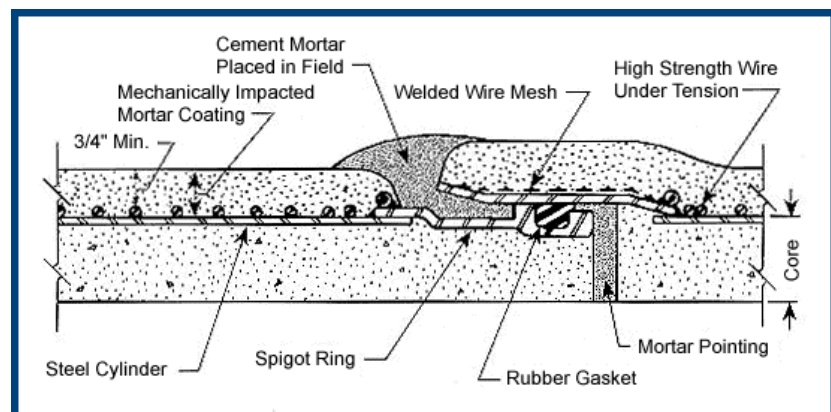
Assessing the condition of a PCCP buried pipeline is a challenging task that is best performed using state-of-the-art non-destructive testing technologies combined with sound engineering science and judgement. The primary goal of an assessment program is to provide an understanding of the condition of the structural component that provides the pipe's strength—the prestressing wire. An electromagnetic inspection provides a high resolution, non-destructive method of evaluating the existing condition of the prestressing wire, as it identifies the quantity and location of wire breaks for each pipe.

Pure Technologies has developed and owns the electromagnetic inspection technology (PureEM®) and would propose to use said technology to assess the condition of the PCCP water mains within the City of Denton water system.

There are several designs of PCCP in use in the United States. The most common types are AWWA C301-E (Embedded Cylinder Pipe) and C301-L (Lined Cylinder Pipe) as shown below. The figure on the right shows a cross-sectional view of the Lined Cylinder Pipe which is representative of the PCCP typically installed in the City of Denton water main system. Pure Technologies has been utilizing the EM inspection technology since 2001 and numerous excavations have confirmed the efficiency of the technology. As a result, this technology represents the most advanced solution for assessing PCCP water mains.

The EM technology can be deployed using any of three delivery platforms: manned, long-range robotic and free-swimming PipeDiver. The manned delivery platform requires that the water main be completely de-watered to allow for confined space entry.

*Cross Section
at the
Joint of L-301
Lined PCCP*



Manned EM Inspection

A manned EM inspection shall utilize a cart on which the equipment and power source are mounted. The components of the system are lowered through an access and assembled inside the pipeline. The cart is pushed through the pipeline and assisted by a rope support team in areas of steep slopes or slippery conditions. When an in-line butterfly valve or a reduction is encountered, the electromagnetic inspection cart must be disassembled, the components passed through the constriction, and then reassembled. Having the pipeline dewatered for the manned electromagnetic inspection allows for a concurrent visual and sounding inspection of the pipeline.

General requirements applicable for conducting an electromagnetic inspection using any of the three (3) delivery platforms include, but not limited to the following:

Pure Technologies' personnel shall be trained and certified to perform work in confined space conditions and equipped with calibrated air quality monitors, lifting harnesses, safety ropes, all other miscellaneous safety apparel to ensure the welfare of their personnel entering chambers.

Pure Technologies will identify proposed access manways for any of the delivery platforms when conducting a site reconnaissance and include as such in the project planning document.

If requested, Pure Technologies can excavate and expose any buried manways or pipeline accesses.

If requested, Pure Technologies can remove the access lid or blind flange to pipeline outlets. If the bolts need to be removed with a cutting torch or if bolts and nuts are in poor condition, Pure Technologies may be requested to replace the cover or blind flange when work is completed using a new gasket and new stainless-steel nuts and bolts.

The EM Inspection Report shall include an executive summary, location map of the project, indicating start and end points, date(s) started and completed, tables with pertinent information, photographs, log notes of the visual and sounding inspection if applicable, summary of all electromagnetic inspection results for each individual pipe, photographic documentation, video recording from CCTV cameras if applicable, pipe-by-pipe geospatial GIS deliverable via shapefile, and any other information necessary for the project.

If requested, Pure Technologies will furnish lifting equipment for removal of vault lids, existing ARV's and appurtenances, access lids or blind flanges and placing of EM inspection equipment into the pipeline.

Requirements for conducting a Manned EM and Visual and Sounding Inspection include, but are not limited, to the following:

Manned EM inspections may be performed on pipelines that are 36-inch diameter and larger.

Access for ingress/egress shall not be spaced more than one (1) mile apart.

Access openings for ingress/egress shall be a minimum of 20-inch diameter full clearance, with 24-inch and larger diameter preferable.

The pipeline must be fully de-watered to accommodate a visual and sounding inspection. If requested, Pure Technologies can de-water the pipeline. De-watering of the pipeline will also require Pure Technologies to develop a de-watering plan for submittal to and approval by the City. Any treated water containing chlorine residuals must be treated to eliminate the chlorine residual prior to releasing the water to the surrounding environment.

Manned inspections require that Pure Technologies adhere to all OSHA regulations addressing confined space activities. Pure Technologies will submit a confined space work plan and permit.

All personnel entering the pipeline or other areas considered to be a confined space will be confined space certified.

Pure Technologies shall furnish Top Side Attendants at manway accesses and Top Side Supervisor to monitor the manned EM inspection throughout. All top side personnel shall be confined space certified.

Pure Technologies shall furnish a Rescue and Safety Team to include three (3) qualified and certified Safety Technicians that can position themselves at each of the two (2) manholes defining an inspection leg, along with the third technician positioning and preparing themselves at the next downstream access. Rescue Team shall be equipped with gas monitors (H₂S, CO, O₂ and LEL), tripods, a 4x4 support vehicle and a trailer mounted rescue kit.

Confined space certifications for all project personnel will be included in Pure Technologies' project planning document.

Pure Technologies shall confirm acceptable air quality in the pipeline or other confined space prior to allowing personnel to enter, and Pure Technologies shall maintain air quality throughout the duration of the project.

Pure Technologies will furnish air blowers and manway templates as needed to maintain air flow and air quality in the pipeline.

Prior to any personnel entering the pipeline, Pure Technologies and the City of Denton will perform "lock-out/tag-out" (LOTO) on all pumps and boundary valves associated with the pipeline. The City will furnish double isolation of closed valves on each end of the pipeline to be inspected and at lateral or boundary valves. If requested, Pure Technologies shall assess the condition of all in-line and lateral valves, close the valves and document said closure to the City. Pure Technologies shall provide documentation confirming the opening of said valves at the completion of work.

Pure Technologies will furnish and secure necessary ladders to accommodate ingress and egress.

Pure Technologies shall furnish tripods and harnesses to assist in ingress and egress of personnel and equipment.

Pure Technologies' Visual and Sounding inspection will be performed by a 3-person team led by an engineer having more than five (5) years of documented experience with inspecting pressure pipelines.

Pure Technologies' engineering inspection team will identify pipes that are deemed to be in the state of incipient failure. Should the engineering team identify such distressed pipes, the team will correlate with the corresponding EM inspection results and then meet with the City daily to advise accordingly.

Pure Technologies' engineering inspection team will also document all pipes and features that support the development of a pipe-by-pipe geospatial as-built GIS deliverable; inspect all joints and document all distress and concerns identified, including photographic documentation.

When inspecting "Embedded" Cylinder PCCP, Pure Technologies will also sound the pipeline by impacting the interior pipe wall with a steel rod and listening for "hollow" areas that demonstrate a delamination of the concrete core from the steel cylinder. Such delamination is an indication that a pipe may be in a state of incipient failure. The delaminated area will be mapped out, carefully documented, correlated with the EM inspection findings and reported to the City.

Confirmations | Clarifications | Submittals per RFP Requirements:

Pure Technologies will perform the EM inspection in a non-destructive manner.

Pure Technologies will submit results in a GIS format using mapping-grade GPS data and that is compatible with the City of Denton GIS system.

Assuming that a proper planning document including projected dates for inspection has been prepared and Workshop completed with the City, Pure

Technologies should be capability of mobilizing and beginning an inspection within 48 hours (or less) following authorization to proceed by the City of Denton.

Pure Technologies can conduct a manned EM inspection on pipe diameters greater than 36-inches.

Pure Technologies has the largest detailed library of EM signals based on different features, pipe diameters and pipe types which will allow us to make informed judgments on the condition of pipelines.

Pure Technologies can traverse tight bends and angles that are enveloped with water (tributary crossings) and earth.

Pure Technologies can utilize our V-tool delivery platform externally to inspect the PCCP for wire breaks.

Pure Technologies can track all versions of testing equipment delivery platforms from above ground during assessment.

Pure Technologies can compare results to previous Pure EM inspection results, using the same calibration curve for both data sets.

Pure Technologies will submit reports and deliverables in hard copies (three copies) and electronic format with database, information viewable in ArcMap with all pertinent information. Report will include at minimum; executive summary, location map of the project, indicating start and end of project, start and completion dates, tables with pertinent information, pictures, videos if it helps understand the condition, and any other information necessary for the project. Conclusions shall be clear and concise depicting the condition of pipe at the time of inspection. Database tables will be named clearly identifying the information. Database will be the property of the City of Denton and information will not be shared without prior written approval from the City of Denton staff responsible for the project/inspection.

If selected to perform the services requested herein, Pure Technologies will provide examples of calibration curves generated from various pipe types including LCP, ECP, and ECP with shorting straps. The vendor must be able to provide detailed data regarding how these curves are used to estimate the pipe damage with the bid packet.

GROUP 5 - REQUIREMENTS FOR INTERNAL ROBOTIC EM NONDESTRUCTIVE INSPECTION

This specification covers the requirements for detecting and quantifying the number of broken wires within all types of Pre-stressed Concrete Cylinder Pipe (PCCP) and Bar-Wrapped Pipe (BWP) water lines and locating areas of concern in Metallic pipelines using a tethered robot fitted with multiple sensors and placed into a depressurized pipeline. As the inspection vehicle travels down the pipeline data from multiple sensors are collected. When the inspection is completed, the vehicle is pulled back via its tether or drives back by itself to the entry point. Data can include ovality/deflection, shape, diameter, corrosion/pipe wall loss, sediment volume, and slope, bend radius, condition of joints, and cracks. The currently approved brand is PureRobotics™ or approved equal.

The PureRobotics delivery platform incorporates both near-field and remote field eddy current EM inspection technologies. This allows Pure Technologies to identify broken prestressing wires on PCCP and broken reinforcing bars on bar wrapped pipe. The Robotic EM unit can also identify areas of wall loss on the BWP cylinder, as well as on steel pipe and ductile iron pipe.

The PureRobotics platform consists of a modular tethered robotic vehicle capable of numerous configuration options for inspection of small, medium, and large diameter “depressurized” pipelines. The PureRobotic unit can operate in fully submersible conditions.

The vehicle traverses the pipe using independently operable tracks to offer inspection deployments greater than one mile in both directions from a single access point. A trained operator navigates the vehicle and controls a high-definition pan-tilt-zoom camera with high-intensity LEDs for visual inspection. Simultaneously, an electromagnetics technician monitors electromagnetic (EM) data live and can direct a closer look at visual anomalies that may correlate with collected data.



PureRobotics EM Inspection
Delivery Platform

Pure Technologies welcomes observers from the City of Denton to join the operators and monitor the live pan-tilt zoom CCTV camera images.

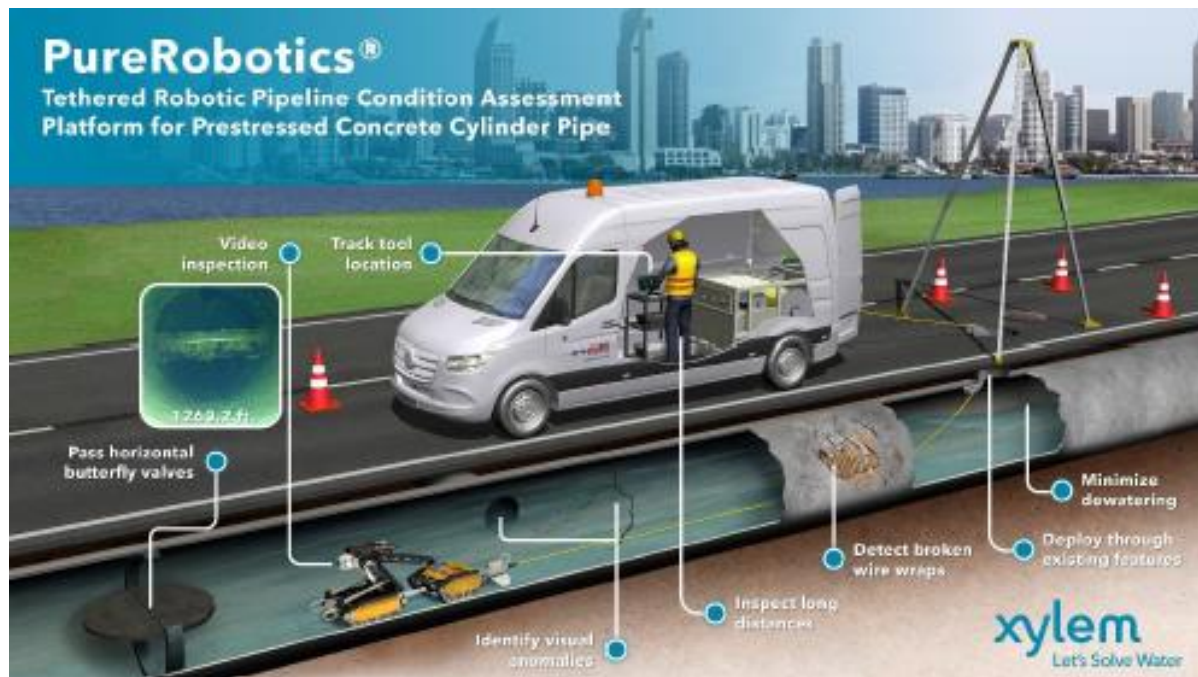
High-definition video and two sets of EM data (forward and reverse pass) are recorded for detailed post inspection analysis. Analysts then identify, quantify, and locate areas of distress. Broken prestressing wires and broken reinforcing bars are reported in an axial position on an individual pipe. Wall loss on metallic cylinders

(BWP, steel or DI) are reported on a 3D image of the pipe denoting the location of the wall loss in both an axial and circumferential location on the pipe.

Based on our experience working in water delivery systems similar to the City of Denton's, Pure Technologies anticipates that the Robotic EM system may represent the more appropriate EM inspection delivery platform. If there are any PCCP water mains longer than a few miles, the free-swimming PipeDiver delivery is a viable alternative. Manned EM inspections may be limited given the smaller diameters of pipelines, lack of access points and the need to de-water the pipeline.

From our experience successfully inspecting pipelines with the PureRobotics delivery platform, we have identified key factors for success when utilizing the robotic inspections to minimize risk and downtime associated with the inspection.

Since 2010, North American utilities have relied on the PureRobotics platform to inspect more than 600 miles of pipeline.



Long Range, Multi-Sensor PureRobotics Inspection Platform

Confirmations | Clarifications | Submittals per RFP Requirements:

Confirmations, Clarifications and Submittals in response to RFP Requirements:

The PureRobotics EM unit is a non-destructive technology for assessing pipelines.

The PureRobotics can deploy via a single access, advancing down the pipeline and returning back through the access point. The robotics unit can also be directed in the opposite direction traveling out and back to the same access point – thus allowing the PureRobotics unit to potentially assess over 2 miles of pipeline from a single access point.

Please note that the actual inspection distance may be affected by pipeline configuration (i.e., bends, in-line butterfly valves, steep slopes, etc.) and conditions (i.e., significant debris or sediment accumulation, biofilm, etc.).

The PureRobotics unit can be inserted and extracted through an 18-inch or larger diameter access into a depressurized pipeline.

The PureRobotics Perform can operate in fully submerged conditions and up to an internal head pressure of 100 psi.

The PureRobotics unit can assess identify broken prestressing wires and reinforcing bars in 16-inch to 120-inch pipe diameters. The robotic unit currently is limited to using the remote field eddy current to identify wall loss in pipes from 16-inch to 48-inches.

The PureRobotics unit will collect digital video for visual assessment and support high accuracy mapping with inertial measurement unit (IMU) capabilities. SONAR and laser profiling are currently not available on the robotic unit.

Pure Technologies will collect the appropriate data to detect localized wall loss on the cylinder in BWP, DIP, Steel, and broken wraps in BWP and PCCP.

The Robotic EM inspection technology can detect a less than five (5) wire breaks but will conservatively report a minimum of five (5) consecutive broken wire wraps on PCCP and BWP. The Robotic EM unit can identify wall loss that is at least 3-inch diameter with a minimum 30% wall loss in the cylinder of steel, ductile iron, or BWP.

The PureRobotics unit can pass through gate valves but cannot pass through butterfly valves in pipe less than 48-inch diameter.

The PureRobotics unit can be tracked in real time from above ground during the inspection.

All of Pure Technologies field technicians are confined space trained and meet OSHA standards for confined space.

Pure Technologies will supply field personnel with all safety equipment necessary for the inspection such as calibrated gas detectors, lifting harnesses, communication devices, safety ropes and other pertinent personal protective equipment.

Pure Technologies analysts will classify anomalies found based on a detailed signal library as features, damage or other as applicable, quantify the extent of damage found, describe the location of the defect, and provide a ranking as relates to LoF.

Should the City select Pure Technologies to perform the requested services, Pure Technologies will provide examples of calibration curves generated from various pipe types including BWP, DIP, Steel, and PCCP. The vendor must be able to provide detailed data regarding how these curves are used to estimate the pipe damage.

Pure Technologies report will include at minimum; executive summary, location map of the project, indicating start and end of project, start and completion dates, tables with pertinent information, pictures, videos if it helps understand the condition, and any other information necessary for the project. Conclusion shall be clear and concise depicting the condition of pipe at the time of inspection. Database tables will be named clearly identifying the information.

PureRobotics®

For metallic
pressure pipe

TETHERED ROBOTIC CONDITION ASSESSMENT PLATFORM FOR METALLIC WATER PIPELINES

Operating Environment

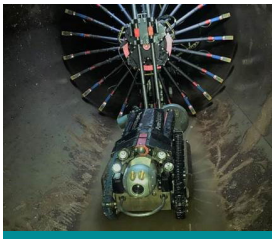
Pipe Materials	Steel, Ductile Iron, Cast Iron, and Bar-Wrapped Pipe (BWP)	
Minimum Metal Thickness	0.20 inches (5.1 mm) - Steel, Ductile Iron, and Cast Iron 0.11 inches (2.8 mm) - BWP (cylinder)	
Maximum Metal Thickness	0.50 inches (12.7 mm) - Steel, Ductile Iron, and BWP (cylinder) 0.90 inches (22.9 mm) - Cast Iron	
Tool Configurations	Small-Diameter Chassis	Standard Chassis
Pipeline Diameters	16 to 24 inches (400 to 600 mm)	24 to 48 inches (600 to 1200 mm)
Detection Threshold - BWP	5 broken bars	5 broken bars
Detection Threshold - Metallic	3 inch x 3 inch (75 mm x 75 mm) by 30% wall loss	- Pipes $\leq$ 36 inches (900 mm): 3 inch x 3 inch (75 mm x 75 mm) by 30% wall loss - Pipes $\geq$ 37 inches (940 mm): 4 inch x 4 inch (100 mm x 100 mm) by 40% wall loss
Minimum Access	- Same diameter as pipe or open pipe access - No side insertions <i>*Fully dewatered at access</i>	- Factory: 18 inches (450 mm) - Tap: 20 inches (500 mm) - Side insertions require review <i>*Fully dewatered at access</i>
Maximum Lift and Overhead Clearance for Insertion	15 feet (4.6 m)	10 feet (3.0 m)
Insertion Methods		
Tripod	Yes	Yes
Crane	Yes <i>*recommended</i>	Yes <i>*recommended</i>
Backhoe	Yes	Yes

Operating Environment Continued

Number of Inspection Runs	1 run required for Steel, Ductile Iron, and Cast Iron 2 runs required for BWP (for bar and cylinder inspection)
Maximum Slope	Up slope - 15 degrees Down slope - 25 degrees
Maximum Horizontal Bend	90 degrees
Traversable Features	Gate valves, when the valve is the same diameter as the pipeline
Non-Traversable Features	Butterfly valves, ball valves, vertical runs, reducers
Cumulative Bends	1,000 feet (300 m) or less - 270 degrees 2,000 feet (600 m) or less - 180 degrees 3,000 feet (900 m) or greater - 90 degrees

Specifications

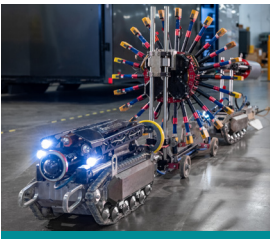
Add-On Sensors	Inertial Mapping System - combines data collected during an inspection with known above-ground locations and pipeline drawings to create a field-generated GIS map of a pipeline
Video System	- Pan-tilt zoom camera or panoramic camera - LED lighting - Video quality is dependent on water turbidity and wall conditions - When included in the inspection package, the video file is delivered with anomalies noted as part of the final report
Tool Tracking	A line finder can be used to locate and mark the location of the robotic platform while it is in the pipeline
Sanitation	All components sanitized with 10,000 ppm sodium hypochlorite and water solution prior to insertion, as per AWWA C651-05 standard



PureRobotics Platform



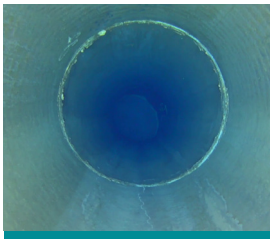
Wall Loss



Tool Preparation



Tool Insertion



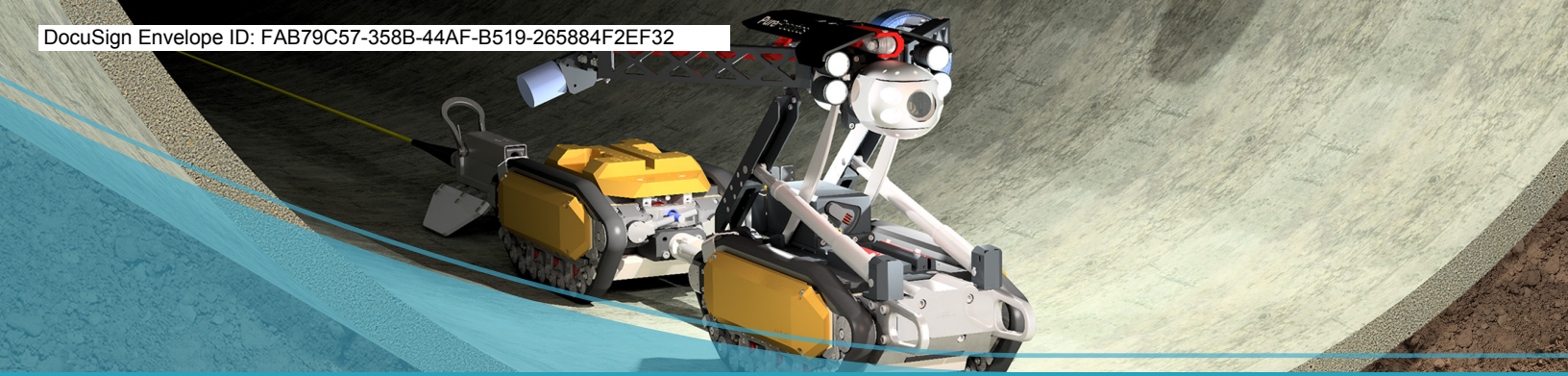
Video Inspection



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www.xylem.com



PureRobotics®

For concrete
pressure pipe

TETHERED ROBOTIC CONDITION ASSESSMENT PLATFORM FOR CONCRETE WATER PIPELINES

Operating Environment

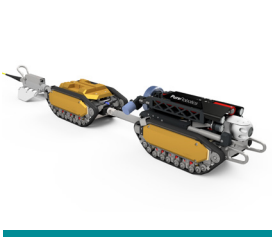
Pipe Materials	Prestressed Concrete Cylinder Pipe (PCCP)		
Number of Inspection Runs	1 run		
Detection Threshold	5 broken wire wraps		
Tool Configurations	Small-Diameter Chassis	Standard Chassis	Large-Diameter Chassis
Pipeline Diameters	16 to 48 inches (400 to 1200 mm)	24 to 120 inches (600 to 3050 mm)	78 to 120 inches (2000 to 3050 mm)
Minimum Access	14 inches (355 mm) No side insertion <i>*Diameter dependent</i>	Factory: 18 inches (450 mm) Tap: 20 inches (500 mm)	24 inches (600 mm)
Smallest Horizontal BFV Passage	30 inches (750 mm)	42 inches (1050 mm)	72 inches (1800 mm)
Maximum Lift and Overhead Clearance for Insertion	12 feet (3.6 m)	8 feet (2.4 m)	Short legs: 12 feet (3.6 m) Long legs: 15 feet (4.6 m)
Insertion Methods			
Tripod	Yes	Yes <i>* Recommended</i>	No
Crane	Yes <i>*Recommended</i>	Yes	Yes <i>*Recommended</i>
Backhoe	Yes	Yes	Yes
Maximum Horizontal Bend	90 degrees	90 degrees	Short legs: 70 degrees Long legs: 45 degrees

Operating Environment Continued

Maximum Slope	Up slope - 15 degrees Down slope - 30 degrees <i>*Down slope can go up to 45 deg, depending on bends and distance before slope</i>
Traversable Features	Horizontal butterfly valves (minimum diameter defined above), gate valves, reducers
Non-Traversable Features	Vertical butterfly valves, ball valves, vertical runs
Cumulative Bends	1,000 feet (300 m) or less - 270 degrees 2,000 feet (600 m) or less - 180 degrees 3,000 feet (900 m) or greater - 90 degrees

Specifications

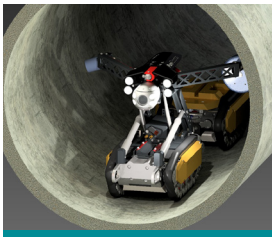
Add-On Sensor	Inertial Mapping System - combines data collected during an inspection with known above-ground locations and pipeline drawings to create a field-generated GIS map of a pipeline
Video System	• Pan-tilt zoom camera or panoramic camera • LED lighting • Video quality is dependent on water turbidity and wall conditions • When included in the inspection package, the video file is delivered with anomalies noted as part of the final report
Tool Tracking	A line finder can be used to locate and mark the location of the robotic platform while it is in the pipeline
Sanitation	All components sanitized with 10,000 ppm sodium hypochlorite and water solution prior to insertion, as per AWWA C651-05 standard



PureRobotics Platform



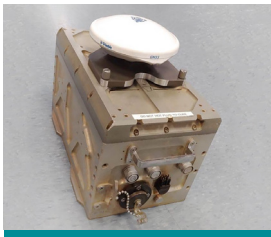
Broken Wire Wraps



Tool Preparation



Tool Insertion



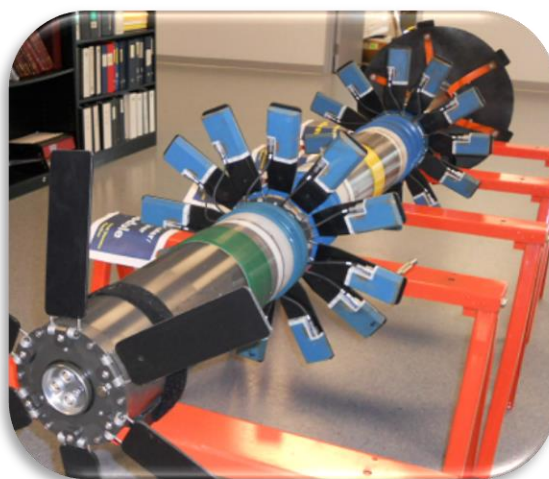
Inertial Mapping Unit

GROUP 6 - REQUIREMENTS FOR INTERNAL FREE SWIMMING EM NONDESTRUCTIVE INSPECTION CAPABLE OF PASSING BUTTERFLY VALVES

This specification covers the requirements for detecting and quantifying the number of broken prestressing wires within all types of Prestressed Concrete Cylinder Pipe (PCCP) and reinforcing bar wraps in Bar-Wrapped Pipe (BWP); and locating areas of concern in Metallic pipelines using a non-destructive free-swimming delivery platform.

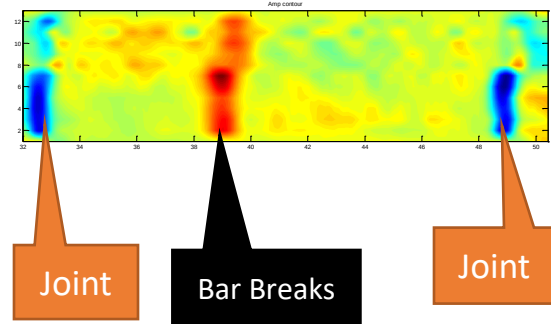
The PipeDiver delivery platform can accommodate both near-field and remote field eddy current EM configurations. The near field eddy current configuration employs an EM exciter that creates an electromagnetic field on the PCCP prestressing wires, or the BWP reinforcing bars and identifies broken wires and bars as it passes by - whereby our data analysts interpret signals that return to the on-board receivers or detectors. The EM signal includes both a phase and amplitude associated with the returning signal. As long as the prestressing wire or reinforcing bar is intact, the phase and amplitude signals will not vary and be displayed as a relatively consistent signal. When broken wire(s) are detected there will be a disruption or shift in the phase and amplitude of the EM signal. The analysts can use the disrupted signal to identify the break zone containing multiple breaks and apply calibration data to determine how many wires or bars are broken within the affected zone.

When inspecting for wall loss on the BWP steel cylinder, steel pipe or ductile iron pipe, the PipeDiver employs a remote field eddy current EM configuration that also uses a signal exciter to create the electromagnetic field; however, the PipeDiver (and the Robotic EM unit) typically utilize a 24-detector circumferential array spaced approximately three pipe diameters from the excitor. The remote EM field created by the excitor travels outside the metal cylinder and back in through the cylinder to the detectors. As long as the wall thickness of the metallic cylinder remains consistent, the amplitude and phase signal will remain relatively consistent.



24D PipeDiver configured to assess a 24-inch steel pipeline - Note the 24 detectors on the tip of the petals that are distributed circumferentially

However, when wall loss is present, the resulting phase and amplitude of the EM signal will be disrupted. The analysts will be able to estimate the size of the distressed area and the percentage of wall loss in the distressed area. The 24-detector array allows Pure Technologies to identify wall loss as small as a 3-inch square area with a minimum 30% wall loss. Pure Technologies will identify smaller areas and less wall loss if the distress is positioned directly over a receiving detector.



Free-Swimming PipeDiver Delivery Platform

The free-swimming PipeDiver is typically deployed under temporarily de-pressurized conditions to allow for placement of the PipeDiver into the pipeline via an access. The PipeDiver is held in place, and once the pipeline is re-pressurized and flow established, the PipeDiver is released into the flow. The PipeDiver is captured downstream using a capture screen deployed at a second access location. The pipeline would again need to be temporarily de-pressurized to accommodate removal of the PipeDiver.

If the City of Denton is unable to de-pressurize the pipeline temporarily, Pure Technologies can deploy the PipeDiver using special Launch and Retrieval tubes. Such an approach requires greater logistical support (lifting equipment, valves for access, etc.) by the City, plus the added cost of the launch tubes.

Confirmations | Clarifications | Submittals per RFP Requirements:

The PipeDiver EM inspection is a non-destructive inspection that is deployed through a fully operational and flowing pipeline.

Collect the appropriate data to detect localized wall loss on the cylinder in BWP, DIP, and steel pipe, as well as identifying broken wraps in BWP and broken prestressing wires in PCCP.

The PipeDiver platform incorporates fixed CCTV cameras that can be post analysed to accommodate a visual assessment. Quality of the video will vary depending on the clarity of the water.

The PipeDiver EM inspection technology can detect a less than five (5) wire breaks but will conservatively report a minimum of five (5) consecutive broken wire wraps on PCCP and BWP. The PipeDiver EM unit can identify wall loss that is at least 3-inch diameter with a minimum 30% wall loss in the cylinder of steel, ductile iron, or BWP.

The PipeDiver delivery platform can be used in pipes that are 18-inch and larger in diameter. The 24 detector array to assess wall loss is currently limited to pipe diameters that are 48-inch or smaller.

The PipeDiver delivery platform can pass butterfly valves, gate valves and other configurations common to water mains.

Pure Technologies will track the PipeDiver using the same tracking sensors and technology employed with tracking the free-swimming SmartBall. This tracking technology requires attaching tracking sensors every ½ miles or so, thereby allowing us to know the location of the PipeDiver at all times throughout the inspection.

All Pure Technologies' field personnel are confined space trained and meet OSHA standards for confined space. Certifications will be presented to City of Denton upon request.

Pure Technologies supplies all field personnel with all safety equipment necessary for the inspection such as calibrated gas detectors, lifting harnesses, communication devices, safety ropes and other pertinent personal protective equipment.

Pure technologies furnishes and supplies vehicles/equipment enabling the delivery of staff and testing equipment to project locations as necessary.

Pure Technologies houses the largest collection of calibration and historical data related to EM inspections that is available to assist in classifying anomalies found based on a detailed signal library as features, damage or other as applicable.

Pure Technologies' analysts will quantify the extent of damage found and provide the location of the defect.

Pure Technologies will compare results to previous inspections, where applicable, using the same calibration curve for both data sets.

Should the City select Pure Technologies to perform the requested services, Pure Technologies will provide examples of calibration curves generated from various pipe types including BWP, DIP, Steel, and PCCP. The vendor must be able to provide detailed data regarding how these curves are used to estimate the pipe damage.

Pure Technologies will submit results in a GIS format using mapping-grade GPS data and that is compatible with the City of Denton GIS system.

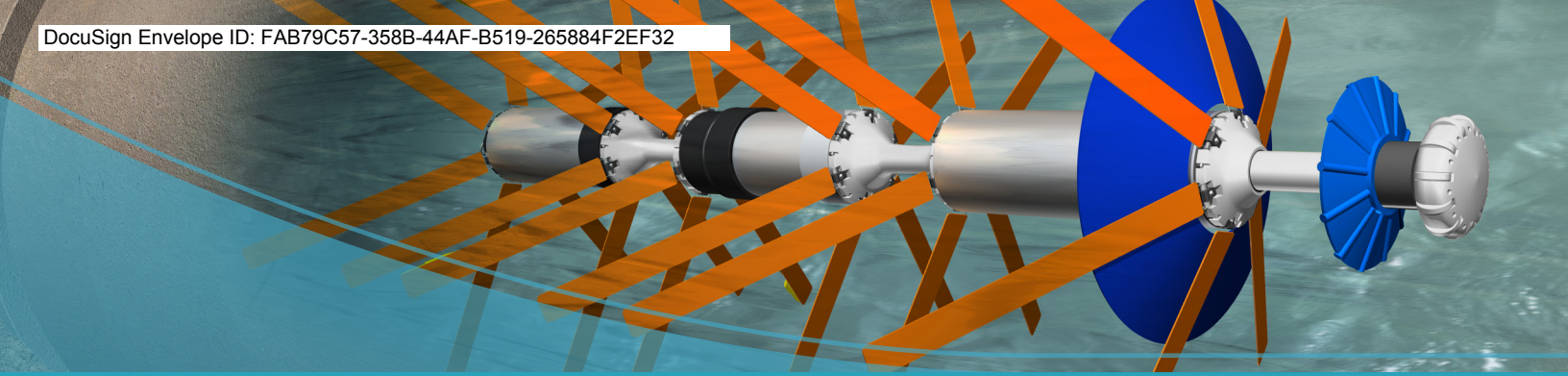
Pure Technologies reports and deliverables will be submitted as a pipe-by-pipe display in electronic version and with geo-database.

Pure technologies' reports will include at minimum; executive summary, location map of the project, indicating start and end of project, start and completion dates, tables with pertinent information, pictures, videos if it helps understand the condition, and any other information necessary for the project. Conclusion shall be clear and concise depicting the condition of pipe at the time of inspection. Database tables will be named clearly identifying the information. Database will be the property of the City of Denton and information will not be shared without prior written approval from the City of Denton staff responsible for the project/inspection.

A list of recent electromagnetic inspection including PipeDiver EM inspections that successfully passed butterfly valves is presented on the following page free swimming inspections projects where the tool is capable of passing butterfly valves and data quality and accuracy verified.

Summary of Recent Electromagnetic Inspections and Verifications

Diameter (inches)	Pipe Type	Client	Pipeline Name	Inspection Date	Verification Date	Tool used in Original Inspection
42	PCCP (LCP)	City of Arlington	Green Oaks Potable Water Main	Apr-16	Jan-19	PipeDiver
42	PCCP (LCP)	City of Arlington	Green Oaks Potable Water Main	Apr-16	Jan-19	PipeDiver
42	PCCP (LCP)	City of Arlington	Green Oaks Potable Water Main	Apr-16	Jul-19	PipeDiver
42	PCCP (LCP)	WSSC	42-inch Montgomery Village	Oct-17	Oct-18	PureRobotics
42	PCCP (LCP)	WSSC	42-inch Montgomery Village	Oct-17	Oct-18	PureRobotics
42	PCCP (LCP)	WSSC	42-inch Montgomery Village	Oct-17	Oct-18	PureRobotics
42	PCCP (LCP)	WSSC	42-inch Montgomery Village	Oct-17	Oct-18	PureRobotics
48	PCCP (ECP)	City of Baltimore DPW	48-inch Towson East	Mar-17	Oct-18	PipeDiver
48	PCCP (ECP)	City of Baltimore DPW	48-inch Towson East	Mar-17	Oct-18	PipeDiver
48	PCCP (ECP)	City of Baltimore DPW	48-inch Towson East	Mar-17	Oct-18	PipeDiver
48	PCCP (LCP)	AWU	Westgate 48-inch Water Main	Jul-16	Oct-18	PipeDiver
54	PCCP (ECP)	Tampa Bay Water	Hillborough Main	Apr-13	Sep-18	PipeDiver
54	PCCP (ECP)	WSSC	Rock Creek	Sep-15	Feb-19	PipeWalker
94	PCCP (ECP)	Beijing Water Project	Langfang DN2400	Mar-21	Dec-21	PipeWalker
94	PCCP (ECP)	Beijing Water Project	Langfang DN2400	Mar-21	Jan-22	PipeWalker
48	Ductile Iron	SAWS	Hill Country 48" DIP	Dec-17	Mar-19	PipeDiver 24D
20	Ductile Iron	Village of Romeoville	Woods Force Main	Dec-19	Sep-20	PipeDiver 24D
36	Ductile Iron	Cobb County WA	Transmission Main	May-18	Jun-19	PipeDiver Ultra
32	Steel (Riveted)	City of Vancouver	Transmission Main	Oct-19	Jul-21	PipeDiver Ultra
30	Cast Iron	MWD	Santa Monica Feeder	Jan-20	Apr-21	PipeDiver Ultra
36	Ductile Iron	Syndicat des Eaux du Barrage d'Esch-sur-Sûre	Schankegracht-Nospelt Pipeline	Nov-20	Apr-21	PipeDiver Ultra
36	Steel	Syndicat des Eaux du Barrage d'Esch-sur-Sûre	Schankegracht-Nospelt Pipeline	Nov-20	Apr-22	PipeDiver Ultra
30	Ductile Iron	SW Water Authority	Southwest Pipeline (Section 1 and 2)	Mar-21	Mar-21	PipeDiver Ultra
30	Ductile Iron	WaterOne	Projects 45 and 157	Mar-21	Aug-21	PipeDiver Ultra



PipeDiver[®]

For small-diameter
concrete pipe

FREE-SWIMMING CONDITION ASSESSMENT PLATFORM FOR CONCRETE WATER AND WASTEWATER PIPELINES

Operating Environment

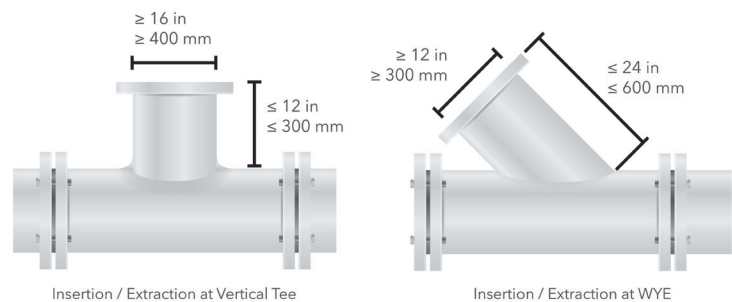
Pipe Materials	Prestressed Concrete Cylinder Pipe (PCCP), Bar-Wrapped Pipe (BWP - bars only), Noncylinder Pipe (NCP)
Detection Threshold	5 broken wire wraps in PCCP and NCP or 5 broken bars in BWP
Number of Inspection Runs	1 run <i>*pipelines can be 2 diameters with a maximum difference up to 12 inches (300 mm)</i>
Pipeline Diameters	16 to 60 inches (400 to 1520 mm)
Maximum Flow Velocity	3 feet/second (0.90 m/s)
Minimum Flow Velocity	0.5 foot/second (0.15 m/s)
Maximum Pressure	300 psi (20 bar)
Traversable Features	Butterfly valves, ball valves, gate valves, vertical sections, reducers
Minimum Butterfly Valve	24 inch (600 mm) flat plate
Maximum Bend Degree	Sharp 90 degrees in $\geq$ 18-inch (450-mm) pipe
Slopes	No restrictions
Maximum Deployment	• With video: 20-30 hours of inspection time, depending on PipeDiver version • Without video: 30 hours of inspection time <i>*Distance is dependent on flow rate</i>

Insertion / Extraction Requirements

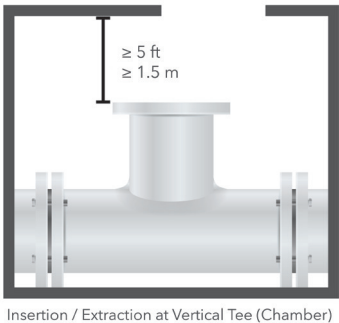
Insertion Methods (Depressurized)	Manhole access, open chamber, reservoir tank
Insertion Method (Pressurized)	PipeDiver Tubes - 24 to 48 inches (600 to 1200 mm) <i>*16-inch (400-mm) ANSI Class 150 flange recommended</i>

Insertion / Extraction Requirements Continued

Minimum Access Diameter

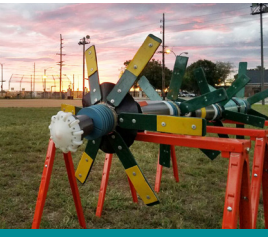


Minimum Clearance from Access Port



Specifications

Electromagnetic Sensors	- Identify broken wire wraps and broken bars - Identify pipe features: outlets, valves, joints
Video System	- Three cameras positioned to capture the pipe wall - LED lighting - Video quality dependent on water turbidity and wall conditions - Video deliverable (when part of the inspection package) – video file is provided with anomalies noted as part of the final report
Tool Tracking	Tracking units are pre-installed along the pipeline and monitored during the inspection to determine tool travel
Sanitation	All components sanitized with 10,000 ppm sodium hypochlorite and water solution prior to insertion, as per AWWA C651-05 standard



PipeDiver Platform



Broken Wire Wraps



Tool Preparation



Tool Insertion



Location Tracking

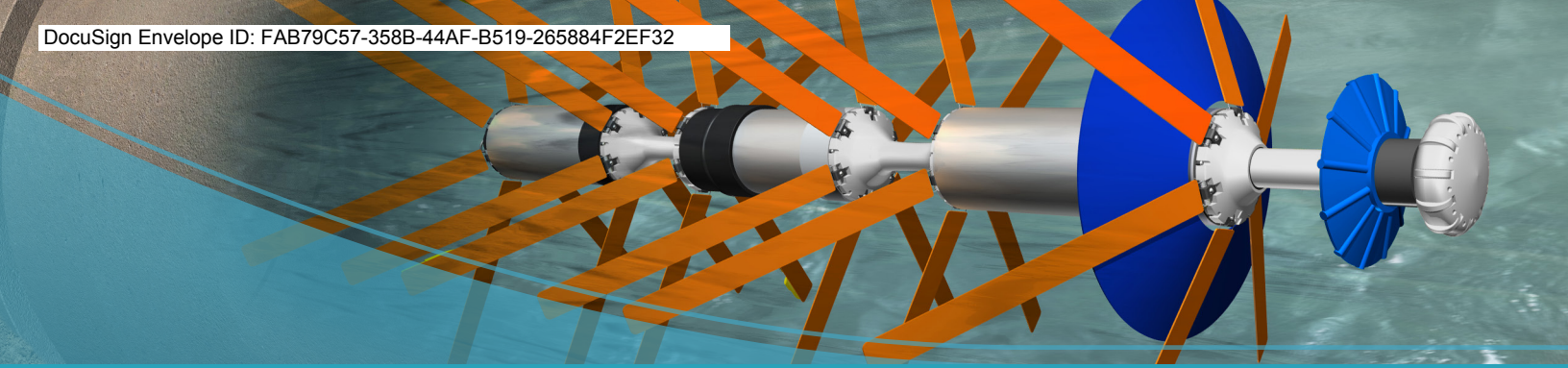


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PipeDiver[®]

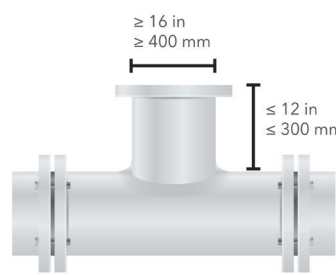
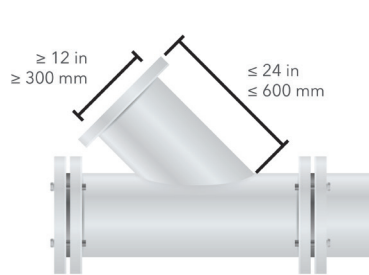
For small-diameter
metallic pipe

FREE-SWIMMING CONDITION ASSESSMENT PLATFORM FOR METALLIC WATER AND WASTEWATER PIPELINES

Operating Environment

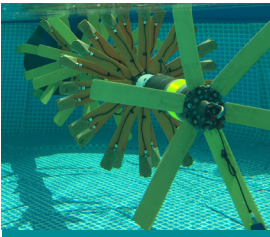
Pipe Materials	Steel, Ductile Iron, Cast Iron, and Bar-Wrapped Pipe (BWP - cylinder only)
Detection Threshold	- Pipes $\leq$ 36-inch (900 mm): 3 inch x 3 inch (75 mm x 75 mm) by 30% wall loss - Pipes $\geq$ 37-inch (940 mm): 4 inch x 4 inch (100 mm x 100 mm) by 40% wall loss
Number of Inspection Runs	2 runs
Pipeline Diameters	16 to 48 inches (400 to 1200 mm)
Minimum Metal Thickness	0.20 inches (5.1 mm) - Steel, Ductile Iron, and Cast Iron 0.11 inches (2.8 mm) - BWP (cylinder)
Maximum Metal Thickness	0.50 inches (12.7 mm) - Steel, Ductile Iron, and BWP (cylinder) 0.90 inches (22.9 mm) - Cast Iron
Minimum Lining Thickness	Lining is not required but improves sensitivity
Maximum Lining Thickness	All lining types up to 0.50 inches (12.7 mm)
Maximum Flow Velocity	1.5 feet/second (0.45 m/s)
Minimum Flow Velocity	0.5 foot/second (0.15 m/s)
Maximum Pressure	300 psi (20 bar)
Traversable Features	Butterfly valves, ball valves, gate valves, vertical sections, reducers
Minimum Butterfly Valve	24 inch (600 mm) flat plate
Maximum Bend Degree	Sharp 90 degrees in $\geq$ 24-inch (600-mm) pipe
Slopes	No restrictions
Maximum Deployment	- Water: 15 hours of inspection time - Wastewater: 30 hours of inspection time <i>*Distance is dependent on flow rate</i>

Insertion / Extraction Requirements

Minimum Access Diameter		Minimum Clearance from Access Port	
			
Insertion / Extraction at Vertical Tee		Insertion / Extraction at WYE	
Insertion Methods (Depressurized)		Manhole access, open chamber, reservoir tank	
Insertion Method (Pressurized)		PipeDiver Tubes *16-inch (400-mm) ANSI Class 150 flange recommended	

Specifications

Electromagnetic Sensors	- Identify and accurately locate wall loss within each pipe stick - Identify pipe features: outlets, valves, joints - Provide location from upstream joint
Tool Tracking	Tracking units are pre-installed along the pipeline and monitored during the inspection to determine tool travel
Sanitation	All components sanitized with 10,000 ppm sodium hypochlorite and water solution prior to insertion, as per AWWA C651-05 standard



PipeDiver Platform



Wall Loss



Tool Preparation



Tool Insertion



Location Tracking



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PipeDiver® Tubes General Requirements

Physical Dimensions and Inspection Specifications

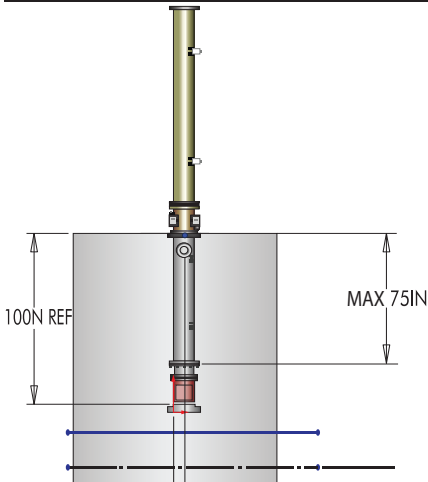
PARAMETERS

Pipe Materials*	PCCP, BWP
Maximum Pressure	200 psi (13.8 bar)
Minimum Pressure	25 psi (1.7 bar)
Pipeline Diameter	24-48 inches (610-1219 mm)
Flow Speed**	Up to 2 feet/second (0.6 meters/second)
Tube Weight	3500 pounds (1588 kilograms)
Tube Height on Transport Rails	22 feet (6.7 meters)
Tube Height off Transport Rails	18 feet (5.5 meters)

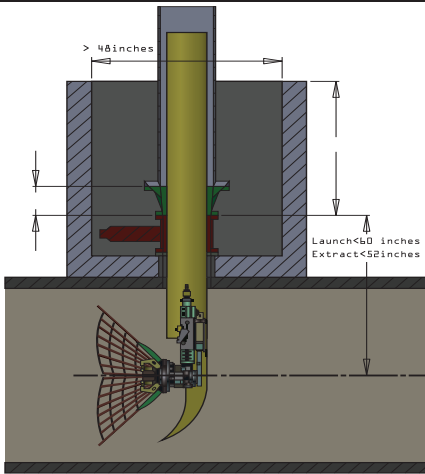
*Only regular Mini PipeDiver can be used with the tubes (up to 12 detectors) *BWP - Bar breaks only
**Clients should be able to reduce the flow to 1 foot/second (0.3 meters/second) for the extraction process

HOT TAP REQUIREMENTS

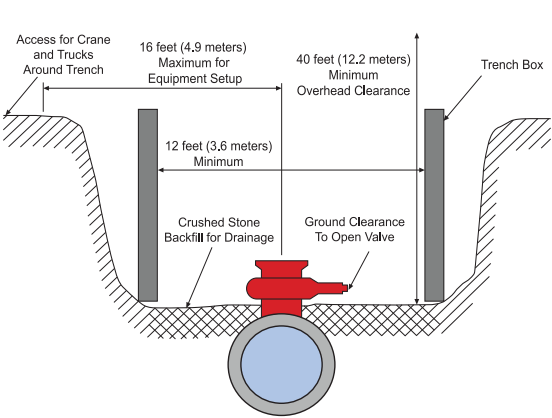
Level	Within 3°
Hot Tap Size	12, 14, or 16 inches (305, 356, or 406 mm) *Recommend 14 inches (356 mm) (ANSI class 150)
Features	No features within 24 inches (610 mm) radius around tap center
Flange to Pipe Centerline	Pipe diameter 24-36 inches (610-914 mm) : <60 inches (1524 mm) for both insertion and extraction tube Pipe diameter 42-48 inches (1067-1219 mm) : <60 inches (1524 mm) for insertion tube, <52 inches (1321 mm) for extraction
Distance from Adapter Flange to Chamber's Ceiling	Maximum 75 inches (1905 mm)



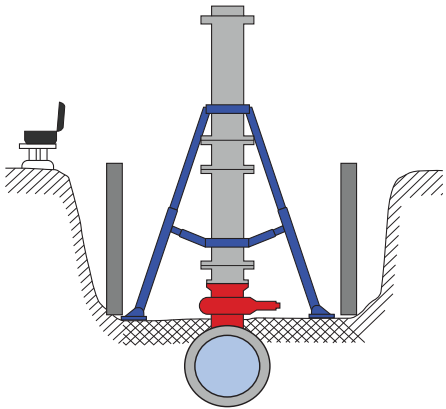
Chamber Hot Tap Requirements



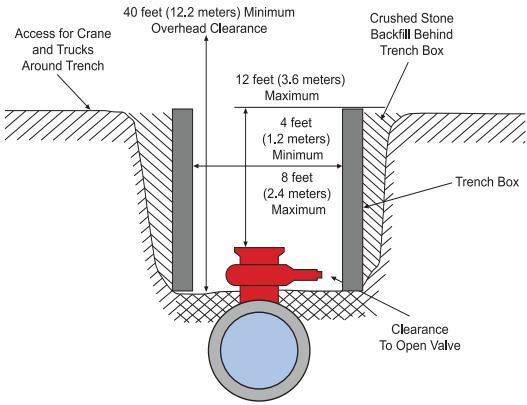
Flange to Pipe Centerline



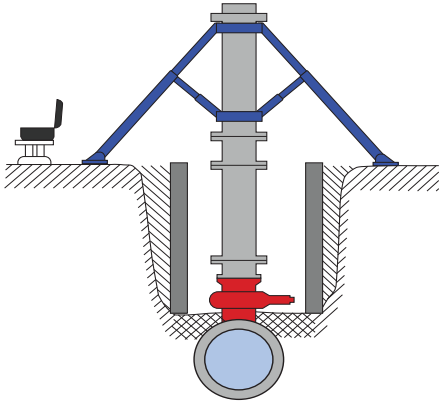
Wide Trench Box Access



Wide Trench Box Access



Narrow Trench Box Access



Narrow Trench Box Access

PipeDiver[™] Tubes General Requirements

Physical Dimensions and Inspection Specifications

TRANSPORTATION

Truck	8x25 foot (2.4x7.6 meters) flat bed to accommodate both tubes and water tanks
-------	---



Typical Transportation

CRANE SPECIFICATIONS

Minimum Lifting Load	3500 pounds (1588 kilograms)
Minimum Hook Height	25 feet (7.6 meters)
Minimum Reach	20 feet (6.1 meters)

*A fork lift may be required to load and unload the tubes from the flat bed truck.
Minimum lifting load: 3500 pounds (1588 kilograms)



Typical Crane

EQUIPMENT STORAGE

Storage	Covered (climate controlled preferred), 50 square feet (4.6 square meters) Electrical source available, water source available
---------	--

WATER SOURCE

Water	130 gallons U.S. (492 liters) of water for each tank (2)
-------	--

*On-site access to water source, refer to below diagram (Water Source Fitting)



Water Tank



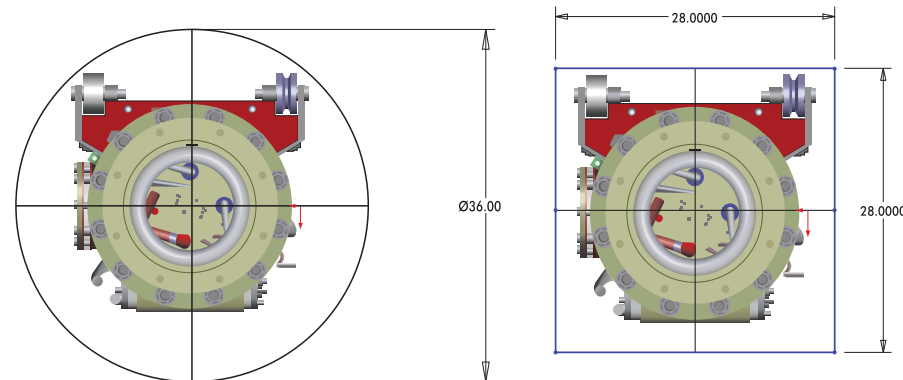
Water Source Fitting

CHAMBER REQUIREMENTS

mm=millimeters

Circular Access	Minimum 36 inches (914 mm)*
Square Access	Minimum 28 inches (711 mm)*
Crane Clearance	Proximity of obstructions above or around the tap location could impede crane operations and need to be identified

*Center of the tap should be centered with the chamber access.
If they are off centered the listed requirements won't be sufficient for the tube installation.



Circular Access

Square Access

Chamber Access Dimensions

GROUP 7 - REQUIREMENTS FOR FREE-SWIMMING PIPEDIVER ULTRASONIC INSPECTION TECHNOLOGY

This specification covers the requirements for using an ultrasonic inspection technology to assess the structural integrity of metallic pipe (ductile iron pipe (DIP), cast iron pipe (CIP) or steel pipe). Further, this specification covers the requirements for detecting and quantifying cylinder corrosion in metallic pipe (ductile iron pipe (DIP), cast iron pipe (CIP) or steel pipe). The current approved delivery platform is PipeDiver® Ultra.

PipeDiver® Ultra is a long-distance, free-swimming condition assessment tool for metallic water pipelines.

It directly measures pipe wall thickness using high-resolution ultrasonic technology. Building on the trusted PipeDiver platform, the tool inspects the pipeline while in service, navigating valves, sharp bends, and tees. It is inserted through existing pipe features, making it flexible and easy to deploy. The quality and quantity of data the PipeDiver Ultra platform collects enables utilities to make high-confidence repair and replacement decisions today and informs long-term asset management.

During an inspection, the PipeDiver Ultra platform collects three layers of pipeline condition data: wall loss, out-of-roundness, and internal visual information. Use the tabs above to explore each data layer and learn how threat layering gives utilities a more complete view of pipe condition.

Corrosion is a leading cause of metallic pipe failure. Any loss in wall thickness undermines the pipe's structural integrity. PipeDiver Ultra collects quantitative wall thickness measurements around the circumference of each pipe.

PipeDiver Ultra differentiates between interior and exterior defects to guide repair actions. With routine inspections, utilities can monitor corrosion growth over time. High-resolution data is available for each individual pipe stick. This helps utilities proactively and selectively manage their metallic assets to prevent leaks and failures. We report these features and metallic wall loss by pipe stick from the upstream joint and clocked to the pipe circumferentially.

When metallic pipelines lose their original round shape, it weakens their structural integrity. Out-of-roundness occurs due to a number of factors from poor installation to excessive loading to a lack of support. Out-of-roundness can lead to pipe lining and coating damage. It can also cause the pipe to crack or buckle under external pressure. Pipes with wall loss are more vulnerable to the threats caused

by out-of-roundness. PipeDiver Ultra identifies the maximum and average out-of-roundness on each inspected pipe stick.

The PipeDiver Ultra platform is equipped with high-definition cameras and a lighting system to capture and record video within the pipeline. The tool records a 360-degree view of the pipe wall as it travels the length of the inspection. Using video can help utilities locate air pockets, debris, outlets, cracks, and corrosion stains. The video is available after the inspection and provides additional context for the metal loss and out-of-roundness data collected.

Utilities receive a report summarizing the inspection, outlining the results, and providing recommendations. Visualize detailed wall-loss data as a heat map and within a geodatabase, along with out-of-roundness and visual points-of-interest. Xylem provides dig sheets with the report to help utilities accurately locate problematic pipe segments. Xylem offers additional support services to assist utilities in locating and verifying pipe damage.

Get more insights out of the PipeDiver Ultra data with a design review. We check whether the measured pipe wall thickness meets the latest design standards. We also offer structural evaluation services that can include three-dimensional, nonlinear finite element analysis (FEA). FEA performance curves help utilities better understand the structural significance of wall loss by modeling the level of distress that could cause the pipe to exceed its yield limits.

Confirmations | Clarifications | Submittals per RFP Requirements:

Pure Technologies can perform the ultrasonic wall thickness measurements with a free-swimming inspection tool in a non-destructive manner.

The free-swimming ultrasonic inspection tool will pass butterfly valves.

The technology will differentiate between exterior and interior wall defects.

The technology will detect outlets or other appurtenances.

The technology will provide ovality data and identify liner defects.

Pure Technologies will submit results in a pipe-by-pipe geospatial GIS deliverable (geodatabase) that is compatible with the City of Denton's GIS system.

Pure Technologies will track the progress of the tool as it traverses the pipeline. The City of Denton will make provisions for Pure Technologies to install external sensors for tracking the free-swimming inspection device. Pure Technologies may be requested to install potholes via vacuum extraction to assist in tracking the device.

Pure Technologies will provide evidence that all of our personnel have been trained in accordance with OSHA safety and confined space requirements and shall provide such certification upon request.

Pure Technologies personnel will be equipped with calibrated gas monitors, lifting harnesses, safety ropes, and all other miscellaneous safety apparel to ensure the welfare of their personnel.

Pure Technologies furnishes all personnel with appropriate off-road vehicle/equipment enabling the delivery of staff and testing equipment to rural project locations.

Pure Technologies will advise City of Denton as to logistical support requirements including required rate of flow and operating pressure.

Pure Technologies will advise City of Denton with respect to insertion and extraction requirements.

Pure Technologies will maintain a comprehensive database of ultrasonic signals based on different features, pipe diameters and pipe types which will allow it to make informed judgments on the condition of pipelines.

City of Denton will accommodate insertion and retrieval of the free-swimming tool under de-pressurized conditions.

City of Denton will furnish minimum 12-inch diameter access for insertion and retrieval of the free-swimming tool. Pure Technologies may be requested to furnish and install access for deployment of the tool.

The ultrasonic inspection will serve as a high-resolution technology capable of identifying wall loss due to corrosion on the steel cylinder. On metallic pipe 52in and smaller in diameter, the ultrasonic inspection shall be capable of identifying and locating areas of corrosion 2 inches by 2 inches with 20% wall loss or greater, or provide a 1-inch by 1-inch with 40% wall loss or greater.

Pure Technologies will submit reports and deliverables in hard copies (two copies) and electronic format with database. Report should include at minimum; executive summary, location map of the project, indicating start and end of project, date started, and date completed tables with pertinent information, photographs and any other information necessary for the project. Conclusion shall be clear and concise depicting the condition of pipe. Database tables will be named clearly identifying the information. Data will be the property of CLIENT and information will not be shared without prior written approval from CLIENT.

As part of the proposal, the Pure Technologies will submit a minimum of five (5) comparable project references, within the past twelve (12) months, where



pipelines have been surveyed and the results reported. The Company must provide the contact information of the clients and name of respective agency with the bid packet.

If requested, the PipeDiver can be equipped with fixed CCTV cameras on the rear petals of the device, able to capture and record video from each of the three (3) cameras. Real time viewing is not available. A copy of the video recording will be submitted as part of the final report.

Evidence that the tool has been successfully proven and platform is included in the summary of the PipeDiver Ultra inspections included under Group 6 summary.

Pure Technologies shall develop a Pipe Performance Risk Curve based on 3D finite element analysis for each pipe design, or as may be required.

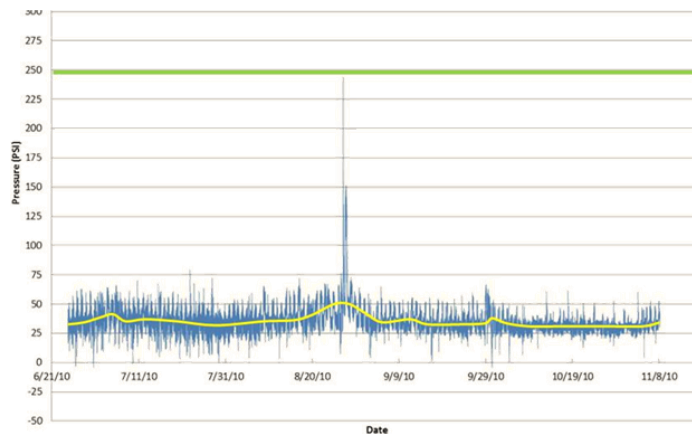
GROUP 8 - REQUIREMENTS FOR REMOTE TRANSIENT PRESSURE MONITORING

This specification covers the requirements for monitoring and recording of pressures acting on a pipeline. The process involves the attachment of sensor to pipeline, transferring activities to data acquisition unit. The pressure is recorded at set intervals during steady state conditions and increases when a transient pressure is detected.

Hydraulic pressure transients occur in pipelines when the steady-state conditions of the system change due to pressure or flow disturbances (e.g., the rapid closure of a valve, pump start-up/shutdown, etc.). The magnitude of a transient is related to several factors including the flow rate within the pipeline, the time in which the change in the steady-state condition occurs, and pipe hoop rigidity. During the change, the kinetic energy of the flow momentum is converted into potential energy with a rise in pressure and strain energy in the pipe wall.

Conventional pressure monitors collect data in intervals of minutes while a pressure transient may occur in fractions of a second. When a transient occurs in the pipeline, it is important that a high rate of sampling be utilized to capture the true magnitude of the transient event. High frequency pressure monitoring equipment addresses the sampling frequency issue by continuously monitoring pressure at a high sample rate, while only recording data every few minutes under normal operating conditions (based on user defined parameters). When a transient or cyclical pressure anomaly is detected, data is recorded continuously at the high sample rate.

The figure below illustrates the difference between conventional and high frequency pressure monitoring.



Comparison of Traditional (in yellow) and transient (in blue) Pressure monitoring data

The yellow trend line in the figure shows the pressure data recorded at a sample rate of one reading per minute. Based on conventional pressure monitoring, the internal pipeline pressure ranges between 25 and 50 psi, which is well below the “operating +surge” design pressure of 250 psi (green horizontal line). However, when the high frequency pressure monitor data, recorded at a sample rate of more than 20 samples per second (blue trend line) is analyzed, a significant transient event can be seen that nearly reaches the 250-psi threshold.

Further evaluation of available pump station operational data indicated that the transient coincided with a rapid pump shutdown. If a pipeline owner/operator relies solely on conventional pressure monitoring, the actual pressures impacting a pipeline may not be detected, thereby limiting the data or information needed to support an accurate structural evaluation, condition assessment, and operational awareness.

Why implement High Frequency Pressure Monitoring?

Collection of high frequency pressure data is critical in the hydraulic evaluation of a pipeline’s performance and can add significant value to the condition assessment. The occurrence of pressure transients within a pipeline can have adverse effects on the integrity of a pipe section. Damage from pressure transients can include cracking of mortar coating or lining, crack propagation, movement at joints, and structural fatigue. The impact of pressure transients can vary depending on the magnitude of the transient and current condition of the pipe. Accumulated damage of this nature can eventually decrease the structural integrity of the pipe.

Implementation of high frequency pressure monitoring also measures the true impact of various system operations on a pipeline and can help validate and calibrate a hydraulic or transient surge model.

Baloch’s SurgeWave™ “Defender” Transient Pressure Monitor

Pricing for the Blachoh Defender unit includes one-year warranty and cellular service. The system is a permanent mounted system, whereby the City will need to continue paying for the cellular service after Year 1. The City can purchase a warranty from Blacoh after Year 1.

All pressure data is delivered to a dedicated web-based site and a mobile app that is only accessible to designated personnel within the City. The web-based site includes a software program that will allow the City to view all time-based recorded pressure readings

Blacoh’s patented SurgeWave™ High Frequency Pressure Monitoring System solves the need for pipeline operators to detect and record transient pressure events occurring in water, wastewater, and petroleum pipelines. The system is

unique in that it employs a system of dynamic pressure transducers and digital technology to monitor pipelines for indefinite periods of time. When a transient such as a pressure surge, pressure spike or water hammer event is detected, the system activates a high-speed data recorder to record the event 100x/second.

Monitors Critical Pipelines and Associated Linear Assets Including:

- Actuated Valves, Pressure Reducing Valves, Pressure Relief Valves, Pump Control Valves, Air/Vacuum Valves, Check Valves
- Pump Suction/Discharge, Constant/Variable Speed
- Back Flow Preventers
- Surge Vessel and Pulsation Dampener Liquid Level

SurgeWave DEFENDER™

Designed for locations with cellular service, the DEFENDER is ready to go with hard wired cable connections. All system data is stored on remote cloud servers and can be accessed anytime from anywhere via the Blacoh Surge website or mobile app.

- Cellular communication to web/mobile app
- Data stored to cloud servers
- 2 inputs
- Hard wired transducer cables
- Power: 500 mA @ 12 VDC
- Components:
- Pressure transducer
- Transducer cable
- Cellular antenna
- AC adapter



Confirmations | Clarifications | Submittals per RFP Requirements:

Perform the analysis in a non-destructive manner. High frequency pressure monitoring units require a threaded outlet in which to install a pressure transducer that is in contact with the fluid column.

Pure Technologies can use a temporary Telog high frequency pressure monitor to install should the City of Denton require monitoring within 24 hours. It will not provide cellular communications, as data will need to be collected in the field and downloaded.

Be capable of increasing the sample rate up to 100 times per second when a transient event occurs within pipeline. High-rate sampling trigger should be individually programmable based on a user defined absolute change in pressure or standard deviation within a user defined period of time.

High frequency pressure monitoring units are battery powered and will require periodic changeout by the City of Denton. Solar panel housing configurations are available. Support mechanisms are securable with weather resistant cables.

Sensors will cover pressure range from -14.7 psi to 300 psi.

The high frequency pressure monitoring units can be installed while pipeline remains in service. City will need to furnish a TEE coming off of the valve to accommodate two (2) pressure sensors.

Pure Technologies will ensure adequate staffing is onsite during system installations. All data will be downloaded via cellular communications to the City of Denton. City of Denton will be responsible for communications. Pure Technologies will furnish software and training to receive and view data in real time.

Units shall be capable of remotely downloading data using wireless data transmission (cellular communications).

The high frequency pressure monitoring devices can be utilized on all pipe materials and sizes.

When applicable, reports and deliverables shall be submitted in hard copies (three copies) and electronic format with database, information viewable in ArcMap with all pertinent information. Report should include at minimum; executive summary, location map of the project, start and completion dates, tables with pertinent information, pictures, and any other information necessary for the project. Conclusion shall be clear and concise depicting findings. Database tables will be named clearly identifying the information. Database will be the property of the City of Denton and information will not be shared without prior written approval from the City of Denton staff responsible for the project/inspection.

Wireless transient pressure monitoring units may be allowed where installation site and application permit. Wireless transient pressure monitoring units shall be supplied as complete units, including integrated communications for use on existing wireless networks, with all wireless communication requirements (SIM card, data plan, data hosting, web portal) included in comprehensive package. Wireless units shall be supplied by a manufacturer who has been in business with a history of providing remote sensor units for a minimum of five (5) years.

All installations shall include a shut-off valve, and analog pressure gauge for verification of recorded pressures.

FEE SCHEDULE: REMOTE TRANSIENT PRESSURE MONITORING

Assessment Engineering Services				
Item No.	Service Description	Unit	Unit Fee	Notes
TPM-1	Furnishing and installing a Permanent SurgeWave TPM "Defender" Unit, includes: - Cellular Communications and Service (Service for Year 1 only) - High Frequency recording rate of 100 times per second - Analog Input of 2 channels maximum, 0-5 VDC 12 VDC Power (500 mA @ 12 VDC)	EA	\$ 9,885	1
TPM-2	Pressure Transducer with Standard ¼" MNPT Cable (-1 to 30 Bar)	EA	\$ 472	
TPM-3	ATEX/IEC Flameproof, ¼" MNPT Cable (-1 to 30 Bar)	EA	\$ 2,335	
TPM-4	Cellular Antenna Extension with Magnetic Mount	EA	\$ 190	
TPM-5	12 VDC Battery Cable	EA	\$ 55	
TPM-6	Solar Panel System	EA	TBD	3
TPM-7	Fabricated junction box.	EA	TBD	1
TPM-8	Annual Service Fee after Year 1	Per Unit	\$ 685	

Additional Notes:

1. Pricing does not include furnishing an enclosure. Assumes the unit can be mounted on an existing above grade structure.
2. Pure Technologies will furnish 3 sets of rechargeable batteries and on charger for each unit.
3. Pure Technologies can furnish and install a solar panel system if requested. Pricing to be determined.

GROUP 9 - REQUIREMENTS FOR ACOUSTIC FIBER OPTIC (AFO) MONITORING OF PCCP

This specification covers requirements for the installation and operation of an Acoustic Fiber Optic (AFO) pipeline monitoring system in pre-stressed concrete cylinder pipelines (PCCP). An AFO System can be installed while the pipeline is dewatered or under full operational and flowing conditions and will continuously monitor the pipeline while in service. The AFO System is designed to detect energy signals that are generated by wire breaks as they occur. The system will identify and report these events to the City of Denton in near real-time.

Whereas an electromagnetic inspection will provide information as to the distressed PCCP (i.e., wire breaks) the analysis and data presents only a static report of the condition of pipes on the day of inspection. An initial electromagnetic inspection cannot provide information as to the deterioration rate of distressed pipes.

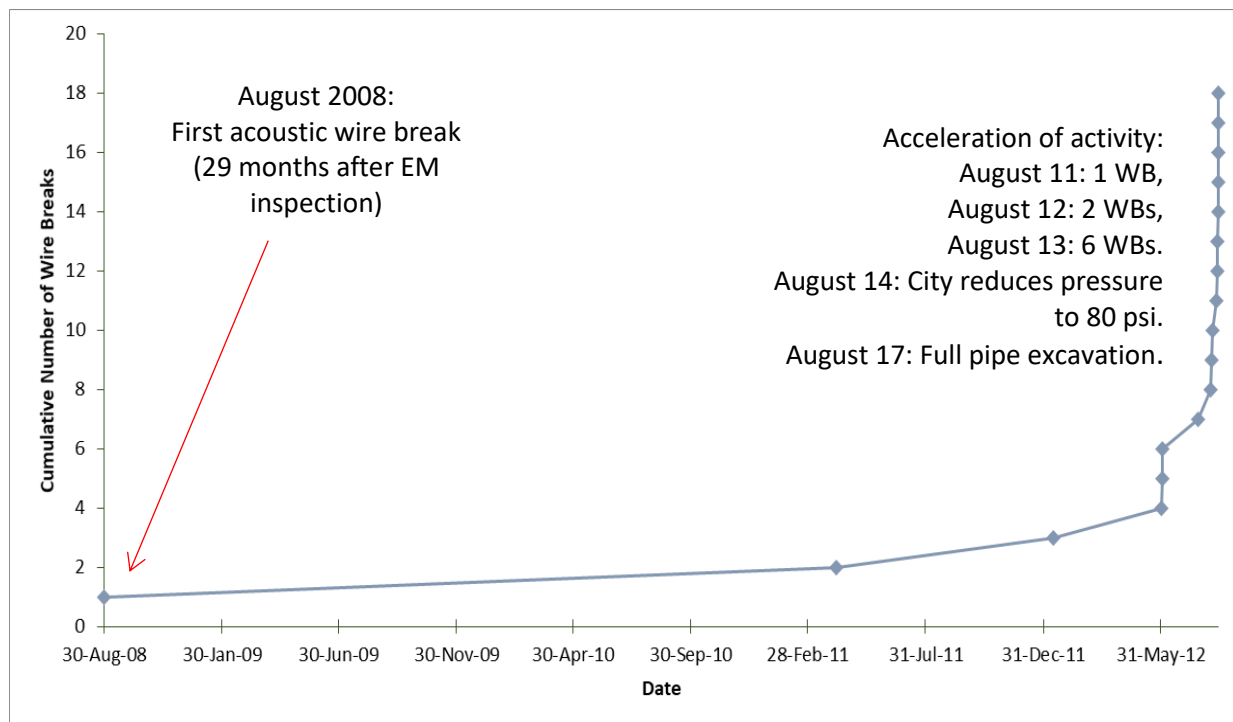
The benefit of re-inspections is to obtain future wire break data identifying significantly distressed pipes that may require immediate repair or replacement, as well as to compare new data against the baseline data on previously identified distressed pipes.

The difficulty in trying to predict a reasonable re-inspection schedule that is both cost effective and provides reliable data is that the wires on prestressed concrete cylinder pipe (PCCP) do not fail in a linear regression. Rather, wires breaks tend to occur in an exponential regression as they near failure, with a resulting failure of the pipe within a short duration once the exponential regression initiates.

Although periodic EM inspections are often recommended whereby a more accurate evaluation of pipe deterioration may be assumed such projections can be misleading as PCCP does not fail in a linear regression. Rather, the failure of prestressing wires tends to increase exponentially as the pipe trends to failure.

To avoid repetitive EM inspections and not be concerned with distressed PCCP failing between EM re-inspections, Pure Technologies offers a continuous (24/7) acoustic fiber optic (AFO) monitoring system that detects and locates on which pipe a wire breaks. Employing a 3D Pipe Performance Curve based on finite element analysis of pipe designs allows the City to monitor distressed pipes and cost effectively intervene when a pipe may trend to exceeding its yield state. The AFO system may not prevent the wire breaks but most certainly will advise when a failure is imminent and needs to be addressed – thereby avoiding significant pipe ruptures, loss of service to customers and costs associated with collateral damage.

The figure below displays an exponential regression of wire breaks on a pipe in a water transmission main that was trending towards failure. This pipe was being continuously monitored 24/7 at the time utilizing Pure Technologies' Soundprint acoustic fiber optic (AFO) monitoring system. When the pipe experienced the significant increase in wire break activity, the client was immediately notified and the pressure in the line reduced until it could be shut down for excavation, validation, and repair/replacement - avoiding the loss of service to customers as well as a potentially catastrophic rupture resulting in collateral damage requiring emergency response.



The photographs shown on the following page were taken of the excavated and exposed pipe presented in the above wire break regression.



Excavation



Damage evident



Inspecting the damage



Wire Breaks



Damage concentrated in 9' section



Damage

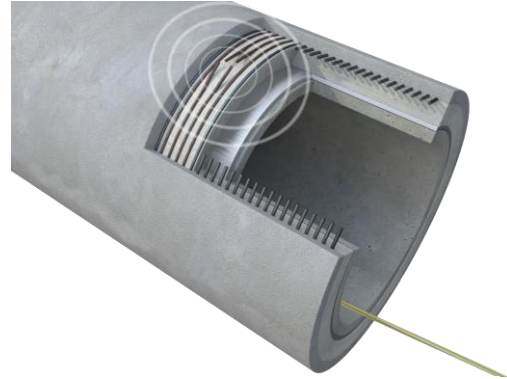
AFO monitoring systems have also documented increased wire break activity associated with the de-pressurization and re-pressurization of a PCCP water main, further demonstrating that pressure and flow management are important to effective management of water mains.

Pure Technologies Scope of Work with respect to furnishing, installing, and monitoring an AFO Monitoring System is presented below.

SoundPrint® AFO

Most structural failures in prestressed concrete cylinder pipes (PCCP) result from a breakdown of the exterior mortar coating leading to corrosion of the prestressing wires or hydrogen embrittlement, a condition resulting from loss of ductility in the prestressing wires. As wire breaks continue to increase, the pipe eventually ruptures.

The SoundPrint Acoustic Fiber Optic (AFO) monitoring system detects and locates these wire breaks. SoundPrint AFO is a proven solution that leverages more than 15 years of experience to monitor wire breaks reliably and continuously in PCCP, the primary indicator of degradation in this pipe type. With this advanced warning system and a dedicated support team, utilities can determine the condition of critical pipelines and take preventive action to avoid large-scale failures.



Acoustic Fiber Optic cable detects the energy released when a prestressing wire fails

The SoundPrint AFO acoustic monitoring system consists of a data acquisition system (DAQ) connected to single-mode optical fibers that are bundled in a reinforced "AFO cable." Lasers are used to project light down the fibers, whereby the DAQ system monitors reflections generated by the acoustic activity in a pipeline.

The acoustically sensitive SoundPrint AFO cable acts as a sensor throughout its length of deployment; the source of the noise activity (i.e., wire breaks) is never further away than a pipe diameter. With the distinctive high frequency noise signature generated by a wire break and the sensor's proximity, the SoundPrint AFO system reliably detects wire breaks as they occur in reported in near real-time. Up to approximately 12.5 miles of pipeline can be monitored from a single DAQ location and 25 miles using a 'dual' DAQ.

Wire break events are located to within +/- 5 feet along the fiber optic cable and reported the next business day following QA/QC review by our data analysts. The analysts identify the pipe on which a wire break occurs, incorporates this information into the web-based pipe-by-pipe GIS display and dispatches a notification to the client.

This precise and prompt knowledge of wire break deterioration on individual pipes within a pipeline will allow the City to focus response actions on pipes trending to failure, thereby optimizing your capital budget and maximizing the life of linear assets. Near-real-time data collection will empower the City to proactively manage assets with greater confidence, reducing the risk of dangerous and expensive failures resulting in loss of service to critical customers and unplanned operational expenses.

Implementing the SoundPrint AFO monitoring system features two distinct project phases:

1. Furnishing and Installation of the system, often paired with an electromagnetic inspection to establish the existing baseline of deterioration, will typically take from three to six months from the notice to proceed and will conclude with the system commissioning.
2. Monitoring and Warranty will commence once the system is commissioned and will continue for as long as the operator desires the service.

SoundPrint AFO System Deployment

System Installation

Planning and Mobilization

Once a notice to proceed is received, Pure Technologies will begin an iterative design process to optimize the AFO system for the given pipelines.

The planning process is an integral part of our work. It allows Pure Technologies to identify features of the site and/or the pipeline to ensure a successful installation and mitigate any potential risk. Pure Technologies will require all documents and drawings to assist in the planning and site reconnaissance phase. Based on this information and site visits, we will provide the City with a detailed Project Planning Document prior to commencing work for review and feedback - followed by an in-person Workshop.

The planning process will include the following:

- Review of all available information on the pipeline and layout a preliminary design.
- Performing a site visit to review suitability of critical locations and meeting with the City operations staff to discuss any additional considerations.
- Revise system design and develop drawing package and installation plan.
- Submit planning document to the City for review and comment.
- Incorporate comments and hold in-person Workshop to finalize the planning document.

The Project Planning Document will describe execution of the installation process and any necessary support (equipment and personnel) needed to ensure the safe deployment of the AFO system.

The Planning Document improves preparation and communications with all involved parties and is an important aspect of a successful project. Pure Technologies is dedicated to exceeding the City's requirements and expectations and will work with the City to fulfill all submittal requirements.

A system drawing package will also be provided. The system drawing package will include the location of the DAQ and each splice point along the pipeline. These splice points will be detailed in the drawing package, showing any required appurtenance modifications and equipment that will be installed at that location.

The City shall review and provide comments or approval of the Project Planning Document and System Drawing Package prior to mobilization.

Soundprint AFO System Installation Approach

The AFO cable can be installed in either a fully dewatered pipeline or into a flowing and operational pipeline.

As described further herein, a dewatered installation will require an extended outage in each of the pipelines, along with confined space oversight. However, the dewatered installation will also accommodate a manned electromagnetic (EM) inspection combined with a comprehensive visual and sounding inspection of the pipeline that includes photographic and video documentation. The dry installation also will allow Pure Technologies to install protective sleeves around the cable in locations of concern where the cable may rub against the pipe wall or be affected by flows at large openings.

Alternatively, the AFO cable can be installed under fully flowing and operational conditions and a baseline EM inspection performed using Pure Technologies' free-swimming PipeDiver delivery platform.

However, at some point in the immediate future, it will be necessary to access the pipeline under localized de-watered conditions to install stainless steel sleeves to protect the AFO cable from rubbing on the pipeline at selected locations. This is especially important where there are large laterals or outlets, as they would typically need to be addressed within a month or so after commissioning.

Both installation options are further detailed on the following pages.

Dewatered ("Dry") Installation Methodology

The AFO cable will be installed once the pipe has been removed from service and completely dewatered. The AFO cable is manually laid in the pipe in multiple runs. Run boundaries are determined by valve locations on the pipeline and maximum distance criteria. The points between the runs of cable are called "splice points".

The AFO cable is spliced together outside of the pipeline and the splices are housed in junction boxes in a chamber.

The spool of fiber is staged at one splice point then manually deployed through the pipe by Pure Technologies' personnel to the next splice point. The cable is unanchored in the pipe except where pipeline geometry requires internal anchoring and/or protective stainless steel sleeves to protect the cable. Features that could potentially damage the cable include large outlets, offset bends, mitered bends over 45 degrees and WYES or TEES.

To exit the pipeline, the cable must extend to the crown of the pipe and out of the access provided. The cable is protected through this transition into the access using flexible stainless-steel tubing. On exiting the access, the cable is anchored and sealed from the pressure of the pipe in a plumbing stack that incorporates a blowout preventer (BOP), that employs a pinch valve that does not damage the cable.

On exiting the plumbing stack, the cable is spliced to the cable extending from the adjacent portion of the pipeline and the additional cable is coiled and placed in a junction box. The splice points and associated junction boxes are typically mounted to the wall of the vaults or chambers at the access location. The junction boxes have two compartments: an inner compartment to protect the splices and stripped fibers, and an outer compartment to protect and store the additional AFO cable required to allow splicing to be completed outside of the chamber.

[Live Installation Methodology](#)

With a fully operating pipeline, the live installation method allows the line to remain in service and does not require confined space certified personnel to enter the pipeline. However, the method may not be used in extremely high or low flow conditions, in pipelines with numerous bends, or where chambers are not suitable or cannot be modified for wet installation.

Additional clearance considerations are required to mount temporary pressure stacks for the installation equipment on top of the AFO plumbing stacks. These consist of 3-inch diameter Victaulic pipes mounted to a Victaulic nipple on top of the BOP. Typically, ten (10) feet of overhead clearance from the top of the BOP is required to accommodate the necessary piping and hardware to accommodate insertion of the AFO cable under live conditions. As most vaults or chambers in which the access is located may not have sufficient clearance due to the vault or chamber lid, either the lids will need to be removed or an 8-inch core through the chamber lid centered directly above the BOP will be required.

Installing and extracting fiber optic cable into and out of a live pipeline is a complex task with many elements, including:

Inserting a parachute attached to a tag line into the live pipeline at the upstream end of a cable run.

Allowing the flow of the water to carry the parachute downstream where it can be retrieved and pulled out at run's extraction site.

Catching and extracting the parachute downstream.

Attaching the AFO cable to the tag line at the upstream location.

Setting up a hydraulic winch downstream, known as a capstan, to attach to the tag line and pull the cable into and through the pipeline run.

System Calibration and Commissioning

The SoundPrint AFO system determines the location of an acoustic event based on its distance along the AFO cable from the Data Acquisition System (DAQ). Commissioning impacts are performed to calibrate locations to a specific pipeline station and pipe stick. Performing commissioning impacts involves striking a known location, typically at each BOP wiper and other intermediate appurtenances, and recording its distance from the DAQ. Each commissioning impact requires a minimum of five strikes at each location, to provide redundancy and to eliminate extraneous results. At a minimum, impacts are conducted at all splice points. Whenever possible, commissioning impacts are completed at a maximum distance of 2,500 feet apart to ensure reporting accuracy within the system.

Each DAQ is built and tested in Pure Technologies' AFO production facility prior to delivering on site, then disassembled to ship the sensitive components. Onsite, technicians will remount all the DAQ hardware on the rack and connect the wiring harnesses and the newly installed fiber optic cable. Once assembled and started up, the monitoring specialist team will remotely test and calibrate the full system to monitor the connected AFO cable.

As the AFO cable is only anchored at the splice points, any additional slack that remained in the cable due to friction during the installation will slowly shift downstream with the flow of water. This slack will negatively affect the map accuracy, as well as introduce the risk of cable movement wearing the cable jacket at a higher rate. To address this slack, Pure Technologies will remobilize approximately four (4) weeks following commissioning of the system to pull out the slack and re-tension the cable. Additional impact testing will be performed and the web-based pipe-by-pipe GIS map updated. The slack and cable tension will also

be assessed and corrected as part of an annual maintenance program offered by Pure Technologies herein.

Soundprint AFO Monitoring, Notifications and Reporting

Monitoring

Once installed and commissioned, the AFO system will commence monitoring the pipeline. This is facilitated by a team of Monitoring Specialists and Data Analysts working together to ensure that the system is performing to the expected standards and delivering actionable data back to the City.

To ensure that the SoundPrint AFO monitoring system is functioning properly, several automated system tests are incorporated into the standard operation of the system. First, a component within the DAQ plays the recorded sound of an actual wire break every hour. The sound file includes a distinctive feature at the end that ensures the event is not mistakenly classified as a wire break. This simulated wire break can be set to a variety of total energy sizes to test and optimize the sensitivity of the system based on the site specific pipeline noise conditions.

The location of events is determined using an optical time-domain reflectometry (OTDR) technique. This technique, utilizing an ultra-high-speed A/D conversion, allows location resolution within 3 feet.

Given the sensitivity of the system, processing and analysis of data is accomplished in two phases. The first phase is automated and takes place within the DAQ system, whereby hardware and software filters are applied to incoming raw data. By analyzing the characteristics of events of interest, the filters can be configured to reject most acoustic events that are not of interest. This reduces the quantity of data requiring secondary processing. Secondary processing utilizes a combination of automated and manual analysis and classification.

The DAQ uses the AFO cable to identify acoustic events along the AFO cable, saves the event data, and transfers relevant data to Pure Technologies via the internet for analysis. When an event has been analyzed and classified as a wire break, an email notification is sent to concerned parties with the time and location information. The data will also be available on a secure website, accessible only to the City.

Notifications and Reporting

Daily communications regarding the extent of data collected each day are transmitted to assigned parties via e-mail the next business day. Should a wire break event occur, designated individuals will be notified immediately via e-mail and/or text message. The notification will identify on which pipe the wire break

occurred and time of occurrence. The wire break will also be updated on the web-based monitoring site.

Notification and communication protocols will be determined and documented in the Operations Manual delivered at the end of the installation phase. Typically, designated personnel within the City will receive e-mail notifications of wire breaks the following business day. The wire break will also be posted on the AFO website.

Standard notifications include wire break alerts, three pipe alarm, and finite element analysis alarm:

Wire Break Alert Emails provide the details of a wire break event and include snapshots from the AFO website showing information for the affected pipe. All the information from the email is immediately available on the website by clicking on the link at the bottom of the email and logging in.

The **Three Pipe Alarm** is generated when three wire breaks are identified and reported on any of three adjacent pipes within 24 hours. This is meant to identify concerning activity in a concentrated area.

A **Finite Element Analysis Alarm** is generated when a Structural Pipe Performance Risk Curve exists for the class of pipe and the total number of wire breaks exceeds 80% of yield limit at operating pressure.

Pipe sections that are highly distressed or have seen an increase in the rate of wire breaks can be classified as a pipe of concern. The pipe continues to be monitored at regular intervals, but if any wire breaks are detected there is additional communication to the City, typically via telephone communications to designated individuals within the City.

Web-Based Portal

Hosted by Pure Technologies, the AFO website is securely accessible through a web browser and provides four main menu options:

- View pipeline location and wire break activity in GIS map
- Provide comprehensive information for a Pipeline, and its pipe sections
- Query pipe information by pipeline, by time or by a user specified watch list
- Search pipe numbers to quickly locate information

Using proprietary analysis software, a detailed pipe-by-pipe GIS map is built from plan and profile drawings, pipe manufacturer's lay sheets, electromagnetic inspection results and in-pipe measurement. The locations gathered during the commissioning impacts will be used to calibrate the map. Pipeline acoustic event locations are linearly interpolated between the impact locations. AFO web

includes details on each specific pipe sticks including the number of wire breaks from previous EM inspections as well as those detected by AFO.

Pipe Performance Risk Curves developed using 3D FEA analysis are also incorporated into the web-based data to identify and rank the risk associated with the likelihood of failure (LoF) associated with each individual pipe.

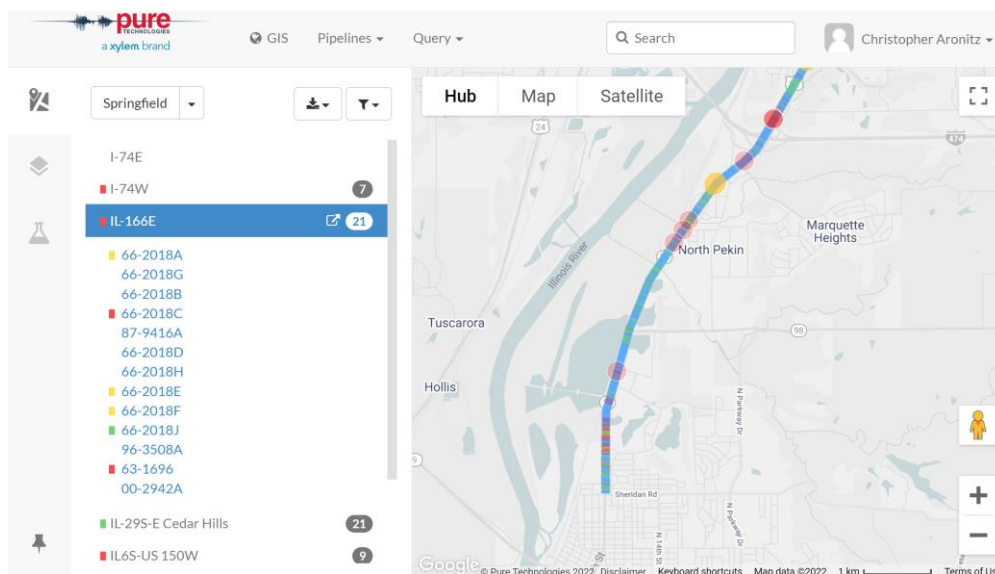
If requested, Pure Technologies can also incorporate our proprietary RiskView® asset management program that will incorporate a Consequence of Failure (CoF) component to establish a comprehensive risk ranking associated with each pipe.

The web-based portal offers display, reporting and alert options to the City. Pure Technologies would be pleased to present a live demonstration of the web-based portal on request.

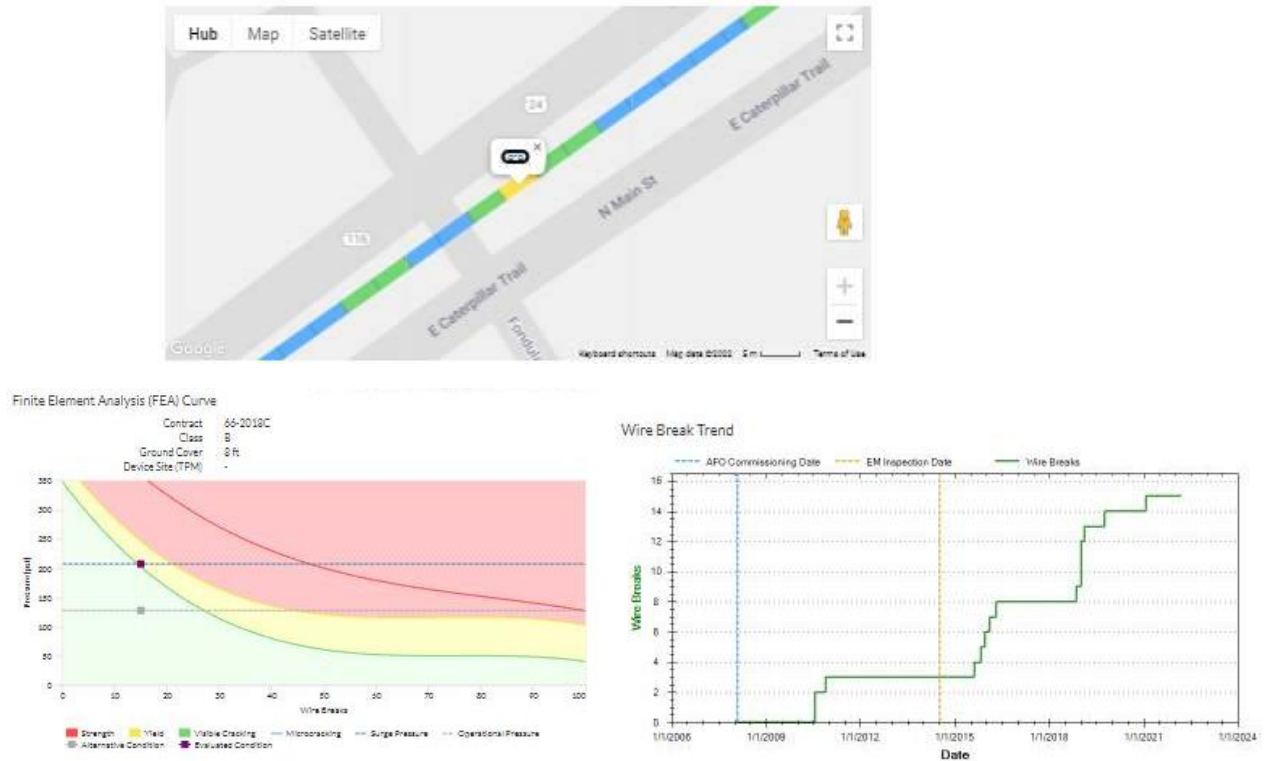
The AFO website is a user-friendly pipeline data management tool that provides a pipeline GIS (geographic information system) that includes such data as baseline condition, rate of deterioration, design specifications, laying schedule, pressure, FEA performance curves, etc.

Information on pipe properties is also included and any FEA performance curves that have been performed for classes of pipe along the pipeline are included with the number of wire breaks reflected. Transient pressure data can also be integrated and displayed on the Web Portal.

Samples of a digital interface screenshots from the web-based portal are displayed below.



Web Portal Screenshot Examples



SoundPrint AFO Warranty & Maintenance

System warranties are provided for the first year of operation with the option to extend long term. The warranty allows Pure Technologies to respond rapidly to onsite equipment issues, and ensure system longevity via regular preventative maintenance and as needed upgrades.

During the regular monitoring of the site, the AFO Monitoring Specialists may identify issues requiring an onsite presence. After exhausting possibilities for identifying and resolving the issues remotely, the Monitoring Specialist will request a qualified technician to visit the site for troubleshooting and remediation.

On an annual basis, Pure Technologies will coordinate with the City to schedule a maintenance visit. At a minimum, the maintenance for each AFO system addresses the following items:

Maintenance of the DAQ unit to include inspection, testing, and upgrades as required for all DAQ components.

AFO cable integrity checks that includes fiber optic cable testing with optical time domain reflectometer to identify light loss which can negatively affect the monitoring.

Maintenance of hardware including inspection of the BOP and plumbing stacks for leaks and corrosion.

Remove slack from the AFO cable if present.

Re-calibrate the system using impact testing to verify the pipeline mapping is accurate to ensure quality location information.

City of Denton Responsibilities

It is expected that the activities and logistical support listed below will be provided by the City. **Where noted (^), Pure Technologies can perform said tasks as an Optional Service.** Requirements will be determined in more detail during the inspection planning process.

General

Provide information about the pipelines at least four (4) weeks prior to the inspection date including, but not limited to, plan and profile drawings, lay sheets, shop drawings, manufacturing details, and details of access structures and appurtenances – if available.

Designate a site for the DAQ unit with access to the transmission main and electrical supply and provide access to the DAQ site during the monitoring period

Furnish traffic control as necessary. ^

Perform valve assessments in advance and operate valves as required to accommodate the applicable installation methodology. ^

Manage pump operations accommodate the applicable installation methodology, maintaining the required flow velocities as may be required for a wet installation.

Provide and maintain safe and reasonable access to all work sites throughout the installation and obtain permits as required. ^

Prepare and/or modify existing pipeline fittings and structures as indicated by Pure Technologies to accommodate installation of the equipment as outlined in the Planning Document and system drawing package. ^

Provide a minimum of 36" clearance in the manway or ARV chambers above the access flange on which the upstream plumbing and BOP stack is attached and a minimum of 54-inch clearance for the downstream plumbing and BOP stack.

Ensure the access chambers are available for the duration of the monitoring period.

Obtain any required legal right-of-entry on the property and notify landowners of access required.

Provide support personnel during the inspection for locating the access structures, traffic control, valve operation, pump operation, and other support as necessary. ^

Provide and maintain safe and reasonable access to all work sites throughout the inspection and obtain permits as required.

Render confined space areas safe for the services, including lockout tagout of pumps, valves, and motors; dewatering chambers and vaults to permit movement of persons and equipment; and vector and rodent control as necessary. ^

Excavate, dewater, shore up, and/or provide scaffolding of job area and other civil activity as necessary in compliance with OSHA/local standards and regulations. ^

Operate the pipeline in a manner that will achieve the required flow velocity indicated in the Planning Document throughout the inspection.

Conduct any civil activities required to provide access into the pipeline, including, but not limited to excavation, tapping, shoring, valve and pump operation, maintenance of traffic, provisions for rope support, as well as other activities providing access to the necessary valves and appurtenances identified as being critical to the performance of the project. In the instance these services cannot be carried out by the City, Pure Technologies can procure these additional services on your behalf. ^

Live Installation

Manage pump operations to provide an acceptable and consistent flow velocity for deployment of the tag line under fully flowing conditions.

Provide Pure Technologies with the typical flow velocities and pressures for pipeline operation, and the expected minimum and maximum values for each. If this data is unavailable, Pure Technologies would like the opportunity to verify flow velocities recommended prior to performing the inspection.

Provide adequate overhead clearance above access valve for the BOP stacks. May require removal of the access vault lid or coring a hole through the vault lid.

For live installation provide Pure Technologies with the typical flow velocities and pressures for pipeline operation, and the expected minimum and maximum values for each. If this data is unavailable, Pure Technologies would like the opportunity to verify flow velocities recommended prior to performing the installation.

Operate the pipeline in a manner that will achieve the minimum required flow velocity indicated in the Planning Document throughout the inspection.

Furnish and install scaffolding to provide safe access when inserting and extracting the tag line and AFO cable at each end of the runs. ^

Dry Installation

If a dry installation of the AFO cable is to be performed, completely de-water the pipelines. ^

Render confined space areas safe for the services, including lockout tagout of pumps, valves, and motors; dewatering chambers and vaults to permit movement of persons and equipment. ^

Prepare and post confined space permit. Provide personnel that are OSHA and Confined Space Certified to provide top side confined space support (Supervisor and two Attendants). ^

Confirmations | Clarifications | Submittals per RFP Requirements:

Pure Technologies AFO Monitoring System provides continuous, twenty-four (24) hour monitoring of acoustic events of the City of Denton' pipeline at the specified site.

Pure Technologies AFO Monitoring System will remain operational for a period of not less than 95% aggregate time on an annual basis, excluding power outages or other events outside the control of the vendor. System uptime is to be calculated as the successful percentage of the simulated verifications captured that are played by the system once per hour each day.

Pure Technologies AFO Monitoring System will allow remote operation of the AFO System to enable continuous recording of acoustic events.

Operation of the AFO System will include hourly simulated verifications, daily remote site checks, and an annual site visit.

Pure Technologies AFO Monitoring System will provide continuous downloading of data to a Vendor-based central server. All data will be downloaded the following business day.

Pure Technologies will provide continuous event processing by our data processing department as long as internet connection to the system is available.

Pure Technologies will include monitoring and warranty with each system as presented in the proposed fees.

Pure Technologies AFO Monitoring System will detect and locate wire breaks that emit a signal greater than 10 kHz, to a degree of accuracy within plus or minus three (3) feet.

The City of Denton will be notified of wire breaks by email within one (1) business day of the event occurring.



Notification of the location and extent of any abnormal activity detected within the monitoring system will be provided to the City of Denton within one (1) business day of the occurrence.

Pure Technologies will provide remote support to City of Denton Utilities for onsite activities during the identification and repair or replacement of pipe sections, including the necessary remapping of the AFO cable, in accordance with the proposed fees.

Pure Technologies will furnish and install software upgrades for the AFO System as they become available.

CONFLICT OF INTEREST QUESTIONNAIRE - FORM CIQ

For vendor or other person 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) and by City of Denton Ethics Code, Ordinance 18-757.

By law this questionnaire must be filed with the records administrator of the local government 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.

1 Name of vendor who has a business relationship with local governmental entity.

PURE TECHNOLOGIES US INC.

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 in this section is being disclosed.

Name of Officer

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 relations hip with the local government officer. This section, (item 3 including subparts A, B, C & D), must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. 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, 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 named in this section AND the taxable income is not received from the local governmental entity?

☐

Yes

☐

No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of one percent or more?

☐

Yes

☐

No

D. Describe each employment or business and family relationship with the local government officer named in this section.

4 ☒ **I have no Conflict of Interest to disclose.**

5 DocuSigned by:

Mike Saraci

5/8/2023

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.

City of Denton Ethics Code Ordinance Number 18-757

Definitions:

Relative: a family member related to a City Official within the third 3rd degree of affinity (marriage) or consanguinity (blood or adoption)

City Official: for purpose of this article, the term consists of the Council Members, Department Heads, or member of the Board of Ethics, Planning and zoning Commission Members, Board of Adjustment, Historic Landmark Commission, or Public Utilities Board

Vendor: a person who provides or seeks to provide goods, services, and/or real property to the City in exchange for compensation. This definition does not include those property owners from whom the City acquires public right-of-way or other real property interests for public use.

Per the City of Denton Ethics Code, Section 2-273. – Prohibitions

- (3) It shall be a violation of this Article for a Vendor to offer or give a Gift to City Official exceeding fifty dollars (\$50.00) per gift, or multiple gifts cumulatively valued at more than two hundred dollars (\$200.00) per a single fiscal year.

Per the City of Denton Ethics Code, Section 2-282. – Disposition (b), (5) Ineligibility

If the Board of Ethics finds that a Vendor has violated this Article, the Board may recommend to the City Manager that the Vendor be deemed ineligible to enter into a City contract or other arrangement for goods, services, or real property, for a period of one (1) year.

Certificate Of Completion

Envelope Id: FAB79C57358B44AFB519265884F2EF32

Status: Completed

Subject: Please DocuSign: City Council Contract 8181 Transmission Mains Condition Assessment

Source Envelope:

Document Pages: 128

Signatures: 6

Envelope Originator:

Certificate Pages: 6

Initials: 1

Crystal Westbrook

AutoNav: Enabled

901B Texas Street

Enveloped Stamping: Enabled

Denton, TX 76209

Time Zone: (UTC-06:00) Central Time (US & Canada)

crystal.westbrook@cityofdenton.com

IP Address: 198.49.140.10

Record Tracking

Status: Original

Holder: Crystal Westbrook

Location: DocuSign

5/4/2023 10:43:48 AM

crystal.westbrook@cityofdenton.com

Signer Events**Signature****Timestamp**

Crystal Westbrook

Completed

Sent: 5/4/2023 10:49:18 AM

crystal.westbrook@cityofdenton.com

Viewed: 5/4/2023 10:50:21 AM

Senior Buyer

Signed: 5/4/2023 10:51:35 AM

City of Denton

Using IP Address: 198.49.140.10

Security Level: Email, Account Authentication
(None)**Electronic Record and Signature Disclosure:**

Not Offered via DocuSign

Lori Hewell



Sent: 5/4/2023 10:51:40 AM

lori.hewell@cityofdenton.com

Viewed: 5/5/2023 10:37:00 AM

Purchasing Manager

Signed: 5/5/2023 10:39:40 AM

City of Denton

Signature Adoption: Pre-selected Style

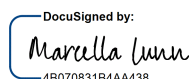
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(None)

Using IP Address: 198.49.140.104

Electronic Record and Signature Disclosure:

Not Offered via DocuSign

Marcella Lunn



Sent: 5/5/2023 10:39:45 AM

marcella.lunn@cityofdenton.com

Viewed: 5/5/2023 5:35:02 PM

Mack Reinwand City Attorney

Signed: 5/5/2023 5:38:42 PM

City of Denton

Signature Adoption: Pre-selected Style

Security Level: Email, Account Authentication
(None)

Using IP Address: 198.49.140.10

Electronic Record and Signature Disclosure:

Not Offered via DocuSign

Mike Garaci



Sent: 5/5/2023 5:38:46 PM

mike.garaci@xylem.com

Viewed: 5/8/2023 8:03:08 AM

Director, Business Development

Signed: 5/8/2023 8:05:34 AM

Security Level: Email, Account Authentication
(None)

Signature Adoption: Pre-selected Style

Using IP Address: 99.224.44.6

Electronic Record and Signature Disclosure:

Accepted: 5/8/2023 8:03:08 AM

ID: 32a9da97-28a6-4500-a1b2-4811086bfcf6

Signer Events	Signature	Timestamp
Stephen D. Gay stephen.gay@cityofdenton.com Director, Security Level: Email, Account Authentication (None)	DocuSigned by: <i>Stephen D. Gay</i> 9EBFF5658E56492... Signature Adoption: Pre-selected Style Using IP Address: 198.49.140.10	Sent: 5/8/2023 8:05:40 AM Viewed: 5/8/2023 8:16:07 AM Signed: 5/8/2023 8:25:35 AM

Electronic Record and Signature Disclosure:
Accepted: 5/8/2023 8:16:07 AM
ID: 0c126b13-c544-4250-b0bd-35c581c68b6a

Cheyenne Defee

cheyenne.defee@cityofdenton.com

Procurement Administration Supervisor

City of Denton

Security Level: Email, Account Authentication (None)

Completed

Using IP Address: 198.49.140.10

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Viewed: 6/7/2023 7:45:07 AM

Signed: 6/7/2023 7:46:11 AM

Electronic Record and Signature Disclosure:
Not Offered via DocuSign

Sara Hensley

sara.hensley@cityofdenton.com

City Manager

City of Denton

Security Level: Email, Account Authentication (None)

DocuSigned by:

Sara Hensley

5236DB296270423...

Signature Adoption: Pre-selected Style

Using IP Address: 198.49.140.10

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Signed: 6/7/2023 7:47:39 AM

Electronic Record and Signature Disclosure:
Not Offered via DocuSign

Jesus Salazar

jesus.salazar@cityofdenton.com

Security Level: Email, Account Authentication (None)

DocuSigned by:

Jesus Salazar

2437C77B897541D...

Signature Adoption: Pre-selected Style

Using IP Address: 198.49.140.10

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Signed: 6/7/2023 8:55:33 AM

Electronic Record and Signature Disclosure:
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In Person Signer Events	Signature	Timestamp
Editor Delivery Events	Status	Timestamp
Agent Delivery Events	Status	Timestamp
Intermediary Delivery Events	Status	Timestamp
Certified Delivery Events	Status	Timestamp
Carbon Copy Events	Status	Timestamp

Cheyenne Defee

cheyenne.defee@cityofdenton.com

Procurement Administration Supervisor

City of Denton

Security Level: Email, Account Authentication (None)

COPIED

Sent: 5/4/2023 10:51:40 AM

Electronic Record and Signature Disclosure:
Not Offered via DocuSign

Carbon Copy Events	Status	Timestamp
Gretna Jones gretna.jones@cityofdenton.com Legal Secretary City of Denton Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered via DocuSign	COPIED	Sent: 5/8/2023 8:25:40 AM Viewed: 5/8/2023 11:58:34 AM
City Secretary Office citysecretary@cityofdenton.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered via DocuSign	COPIED	Sent: 6/7/2023 8:55:38 AM Viewed: 6/7/2023 9:00:39 AM
Tyler Dawson tyler.dawson@cityofdenton.com Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Accepted: 5/1/2023 10:18:02 AM ID: ed6e348e-80d0-4226-b553-800f5064c01e	COPIED	Sent: 6/7/2023 8:55:40 AM
Jewel Lanning jewel.lanning@cityofdenton.com Contract Control Specialist City of Denton Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered via DocuSign	COPIED	Sent: 6/7/2023 8:55:41 AM Viewed: 6/7/2023 9:08:21 AM
Witness Events	Signature	Timestamp
Notary Events	Signature	Timestamp
Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	5/4/2023 10:49:19 AM
Envelope Updated	Security Checked	5/12/2023 2:52:48 PM
Certified Delivered	Security Checked	6/7/2023 8:53:26 AM
Signing Complete	Security Checked	6/7/2023 8:55:33 AM
Completed	Security Checked	6/7/2023 8:55:41 AM
Payment Events	Status	Timestamps
Electronic Record and Signature Disclosure		

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

From time to time, City of Denton (we, us or Company) may be required by law to provide to you certain written notices or disclosures. Described below are the terms and conditions for providing to you such notices and disclosures electronically through your DocuSign, Inc. (DocuSign) Express user account. Please read the information below carefully and thoroughly, and if you can access this information electronically to your satisfaction and agree to these terms and conditions, please confirm your agreement by clicking the 'I agree' button at the bottom of this document.

Getting paper copies

At any time, you may request from us a paper copy of any record provided or made available electronically to you by us. For such copies, as long as you are an authorized user of the DocuSign system you will have the ability to download and print any documents we send to you through your DocuSign user account for a limited period of time (usually 30 days) after such documents are first sent to you. After such time, if you wish for us to send you paper copies of any such documents from our office to you, you will be charged a \$0.00 per-page fee. You may request delivery of such paper copies from us by following the procedure described below.

Withdrawing your consent

If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

Consequences of changing your mind

If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. To indicate to us that you are changing your mind, you must withdraw your consent using the DocuSign 'Withdraw Consent' form on the signing page of your DocuSign account. This will indicate to us that you have withdrawn your consent to receive required notices and disclosures electronically from us and you will no longer be able to use your DocuSign Express user account to receive required notices and consents electronically from us or to sign electronically documents from us.

All notices and disclosures will be sent to you electronically

Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through your DocuSign user account all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact City of Denton:

You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:

To contact us by email send messages to: purchasing@cityofdenton.com

To advise City of Denton of your new e-mail address

To let us know of a change in your e-mail address where we should send notices and disclosures electronically to you, you must send an email message to us at melissa.kraft@cityofdenton.com and in the body of such request you must state: your previous e-mail address, your new e-mail address. We do not require any other information from you to change your email address..

In addition, you must notify DocuSign, Inc to arrange for your new email address to be reflected in your DocuSign account by following the process for changing e-mail in DocuSign.

To request paper copies from City of Denton

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an e-mail to purchasing@cityofdenton.com and in the body of such request you must state your e-mail address, full name, US Postal address, and telephone number. We will bill you for any fees at that time, if any.

To withdraw your consent with City of Denton

To inform us that you no longer want to receive future notices and disclosures in electronic format you may:

- i. decline to sign a document from within your DocuSign account, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;
- ii. send us an e-mail to purchasing@cityofdenton.com and in the body of such request you must state your e-mail, full name, IS Postal Address, telephone number, and account number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

Required hardware and software

Operating Systems:	Windows2000? or WindowsXP?
Browsers (for SENDERS):	Internet Explorer 6.0? or above
Browsers (for SIGNERS):	Internet Explorer 6.0?, Mozilla FireFox 1.0, NetScape 7.2 (or above)
Email:	Access to a valid email account
Screen Resolution:	800 x 600 minimum
Enabled Security Settings:	•Allow per session cookies •Users accessing the internet behind a Proxy Server must enable HTTP 1.1 settings via proxy connection

** These minimum requirements are subject to change. If these requirements change, we will provide you with an email message at the email address we have on file for you at that time providing you with the revised hardware and software requirements, at which time you will have the right to withdraw your consent.

Acknowledging your access and consent to receive materials electronically

To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please verify that you were able to read this electronic disclosure and that you also were able to print on paper or electronically save this page for your future reference and access or that you were able to e-mail this disclosure and consent to an address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format on the terms and conditions described above, please let us know by clicking the 'I agree' button below.

By checking the 'I Agree' box, I confirm that:

- I can access and read this Electronic CONSENT TO ELECTRONIC RECEIPT OF ELECTRONIC RECORD AND SIGNATURE DISCLOSURES document; and
- I can print on paper the disclosure or save or send the disclosure to a place where I can print it, for future reference and access; and
- Until or unless I notify City of Denton as described above, I consent to receive from exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to me by City of Denton during the course of my relationship with you.



TOWN COUNCIL AGENDA J.8. CONSENT ITEM(S)

DATE: April 1, 2024
FROM: Blake Hummel, Senior Project Engineer
ITEM: **Consider approval of Change Order No. 1 & Final for the Pink Evening Primrose Trail Connection (Bridge & Trail from Gaston Park to Timber Trails Park) project, amending the contract with Parkscape Construction, Inc., to provide an increase to the contract in the amount of \$19,612.31.**

BACKGROUND: On June 21, 2021, Town Council approved a construction agreement with Parkscape Construction, Inc. in the amount of \$534,614.05. The project included the installation of a 150-foot pedestrian bridge crossing Timber Creek and connecting to the Town Multi-Use Trail stubbed out with the NEM Senior Living development and extending the trail to the north to connect with Gaston Park and College Parkway.

Proposed Change Order No. 1 & Final provides for the reconciliation of bid item values to match actual quantities installed based on filed conditions. This includes the deduction of unused hydromulch seeding, soil retention blanket and soil borrow values, as well as the addition of rock riprap, reinforced concrete trail and removal of existing sidewalk. Change Order No. 1 & Final also includes various miscellaneous construction items resulting from access through the NEM Senior Living development fire lane to the Town property south of Timber Creek being restricted to perimeter access along the Town's Multi-Use Trail. This resulted in additional restoration that was not originally planned and accounted for with the initial project bid quantities.

If approved Change Order No. 1 & Final will increase the contract amount with Parkscape Construction Inc. by \$19,612.31 for an updated final contract amount of \$554,222.46.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

ALTERNATIVES: N/A

FISCAL IMPACT: \$19,612.31

Proposed Expenditure/(Revenue)
\$19,612.31

Account Number(s):
308-110-90471-6210

LEGAL REVIEW:

The Town's standard (construction agreement, professional service agreement, etc) form documents, prepared by Taylor, Olson, Adkins, Sralla, & Elam L.L.P., was used to draft this agreement. No alteration to the legal content of this form document was made.

ATTACHMENTS:

1. Change Order No. 1 & Final

DRAFT MOTION: Move to approve as presented in the agenda caption.

CHANGE ORDER No. 1 & FINAL

Effective Date: Upon execution by the Mayor

Owner: Town of Flower Mound

Contractor: Parkscape Construction, Inc.

Project: **PINK EVENING PRIMROSE TRAIL CONNECTION****CHANGE ORDER NO. 1 & FINAL**

The compensation agreed upon in this Change Order is a full, complete, and final payment for all costs the Contractor incurs as a result of or relating to the change, whether said costs are known, unknown, foreseen, or unforeseen at this time, including without limitation, any costs for delay, extended overhead, ripple or impact costs, or any other effect on changed or unchanged work as a result of this change.

You are directed to make the following changes in the Contract Documents:

Item No.	Description	Unit	Add/ Deduct	Qty.	Unit Price	Extended Amount
6	12-INCH THICK ROCK RIPRAP (D50 = 12-INCH)	SY	Add	2.68	\$42.68	\$ 114.38
8	HYDROMULCH SEEDING	SY	Deduct	699	\$5.00	\$ (3,495.00)
9	SOIL RETENTION BLANKET	SY	Deduct	699	\$2.07	\$ (1,446.93)
13	BORROW	CY	Deduct	90	\$31.59	\$ (2,843.10)
14	REINFORCED CONCRETE TRAIL	SF	Add	1334.5	\$6.47	\$ 8,634.22
23	REMOVE EXISTING SIDEWALK	SF	Add	1334.5	\$6.21	\$ 8,287.25
CO1-A	ADDITIONAL MISC WORK	LS	Add	1	\$10,361.50	\$ 10,361.50
TOTAL						\$ 19,612.31

JUSTIFICATION

Change Order No. 1 & Final provides for the following.

Item 6 – 12-INCH THICK ROCK RIPRAP (D50 = 12-INCH) - allows for the addition of rock riprap that was added to a swale that drains into Timber Creek.

Item 8 – HYDROMULCH SEEDING - allows for the deduction of unused bid item quantity associated with the project to settle final bid values and revise contract price accordingly.

Item 9 – SOIL RETENTION BLANKET - allows for the deduction of unused bid item quantity associated with the project to settle final bid values and revise contract price accordingly.

Item 13 – BORROW - allows for the deduction of unused bid item quantity associated with the project to settle final bid values and revise contract price accordingly.

Item 14 – REINFORCED CONCRETE TRAIL - allows for the addition of concrete trail that was replaced with the project.

Item 23 – REMOVE EXISTING SIDEWALK - allows for the addition of removal of replaced sidewalk.

Item CO1-A – ADDITIONAL MISC WORK - allows for the addition of miscellaneous included with the project that includes construction access from TxDOT ROW, removal and replacement of a pedestrian ramp, fire lane striping restoration, Bermuda sod, Bermuda/Rye seed, sanitary sewer manhole repair, and wrought iron perimeter fencing adjustment.

Original Contract

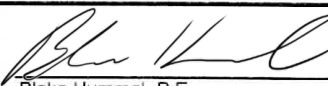
\$ 534,610.15

Change Order #1

\$ 19,612.31

Revised Contract Price

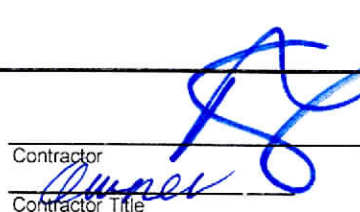
\$ 554,222.46

Recommended
for Approval

 Blake Hummel, P.E.
 Senior Project Engineer

2/19/24

Date

Contractor


 Contractor Title

Date

2/19/24

Approved

 Derek France
 Mayor

Date



TOWN COUNCIL AGENDA J.9. CONSENT ITEM(S)

DATE: April 1, 2024
FROM: Julie Taylor, Director of Treasury Operations
ITEM: **Consider approval of the Town's authorized representatives form as required by the Texas Local Government Investment Pool (TexPool).**

BACKGROUND: The Town currently utilizes the local government investment pool, TexPool, and requests that the Town Council approve the authorized representative form to address staff changes within the Financial Services Department.

Local government investment pools are entities which invest public funds jointly on behalf of the entities that participate and whose investment objectives are, in order of priority, preservation and safety of principal, liquidity, and yield. Pools invest funds in authorized investments as permitted by the Public Funds Investment Act. Pools offer public fund investors the ability to diversify funds in a short-term portfolio and the ability to lock in rates in longer-term maturities, thus providing the opportunity to enhance returns and minimize interest rate risks.

The attached form will provide TexPool with the authorization to grant John Zagurski, Chief Financial Officer, Julie Taylor, Director of Treasury Operations, and Mary Huning, Director of Accounting Services, the authority to transmit funds for investment in TexPool, or withdraw funds from time to time, to issue letters of instructions, and to take all other actions deemed necessary or appropriate for the investment of local funds on behalf of the Town.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

ALTERNATIVES: N/A

FISCAL IMPACT: N/A

LEGAL REVIEW: N/A

ATTACHMENTS:

1. TexPool Representative Form April 2024

DRAFT MOTION: Move to approve as presented in the agenda caption.



Resolution Amending Authorized Representatives

Please complete this form to amend or designate Authorized Representatives. *This document supersedes all prior Authorized Representative forms.*

*** Required Fields**

1. Resolution

WHEREAS,

Town of Flower Mound

77393

Participant Name*

Location Number*

("Participant") is a local government of the State of Texas and is empowered to delegate to a public funds investment pool the authority to invest funds and to act as custodian of investments purchased with local investment funds; and

WHEREAS, it is in the best interest of the Participant to invest local funds in investments that provide for the preservation and safety of principal, liquidity, and yield consistent with the Public Funds Investment Act; and

WHEREAS, the Texas Local Government Investment Pool ("TexPool / Texpool.Prime"), a public funds investment pool, were created on behalf of entities whose investment objective in order of priority are preservation and safety of principal, liquidity, and yield consistent with the Public Funds Investment Act.

NOW THEREFORE, be it resolved as follows:

- That the individuals, whose signatures appear in this Resolution, are Authorized Representatives of the Participant and are each hereby authorized to transmit funds for investment in TexPool / TexPool Prime and are each further authorized to withdraw funds from time to time, to issue letters of instruction, and to take all other actions deemed necessary or appropriate for the investment of local funds.
- That an Authorized Representative of the Participant may be deleted by a written instrument signed by two remaining Authorized Representatives provided that the deleted Authorized Representative (1) is assigned job duties that no longer require access to the Participant's TexPool / TexPool Prime account or (2) is no longer employed by the Participant; and
- That the Participant may by Amending Resolution signed by the Participant add an Authorized Representative provided the additional Authorized Representative is an officer, employee, or agent of the Participant;

List the Authorized Representative(s) of the Participant. Any new individuals will be issued personal identification numbers to transact business with TexPool Participant Services.

1. Julie Taylor Director of Treasury Operations

Name Title

9728746024 Phone Fax julie.taylor@flower-mound.com Email

Signature *Julie Taylor*
2. Mary Huning Director of Accounting Services

Name Title

9728746023 Phone Fax mary.huning@flower-mound.com Email

Signature *Mary Huning*
3. John Zagurski Chief Financial Officer

Name Title

9728746021 Phone Fax john.zagurski@flower-mound.com Email

Signature *John Zagurski*

1. Resolution (continued)

Name										Title																			
Phone										Fax										Email									
Signature																													

Julie Taylor
Name

Name										Title																			
Phone										Fax										Email									

Note: Document is to be signed by your Board President, Mayor or County Judge and attested by your Board Secretary, City Secretary or County Clerk.

Town of Flower Mound
Name of Participant*

Signature*

Derek France

Printed Name*

Mayor

Title*

Signature*

Theresa Scott

Printed Name*

Town Secretary

Title*

2. Delivery Instructions

Fax: 866-839-3291



TOWN COUNCIL AGENDA J.10. CONSENT ITEM(S)

DATE: April 1, 2024
FROM: Brittnei Barnett, Grants and Financial Analyst
ITEM: **Consider approval of a resolution authorizing the acceptance of grant funds from the Trinity Forks Native Plant Society of Texas, which will be used to support the Library's Seed Library.**

BACKGROUND: The Town applied for and was awarded a grant in the amount of \$300.00 from the Trinity Forks Native Plant Society of Texas as part of its annual Grant Program.

If approved, the grant will be used to purchase seeds for native plants to support the Library's recently added Seed Library, which allows patrons to "borrow" seeds for free, grow them in their gardens, and return seeds collected at the end of the growing season.

This grant does not have a formal agreement the Mayor must sign. The Town received notification that we received an award under the Trinity Forks Native Plant Society's Grant Program. This is not a reimbursement grant, so the Town will receive a check from Trinity Forks NPSOT for \$300.00. All funds must be spent, and a final report submitted, within one year of receiving the grant funds.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

ALTERNATIVES: N/A

FISCAL IMPACT: \$0.00

Proposed Expenditure/(Revenue)
\$(300.00)
\$300.00

Account Number(s):
370-4735
Grant Fund

LEGAL REVIEW: Rachel Raggio, of Taylor, Olson, Adkins, Sralla, & Elam L.L.P., has reviewed the resolution as to form and legality.

ATTACHMENTS:

1. Resolution
2. 2024 NPSOT Award Letter and Application

DRAFT MOTION: Move to approve as presented in the agenda caption.

**TOWN OF FLOWER MOUND, TEXAS
RESOLUTION NO. _____**

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, AUTHORIZING THE ACCEPTANCE OF GRANT FUNDS FROM THE TRINITY FORKS NATIVE PLANT SOCIETY OF TEXAS FOR THE PURPOSE OF SUPPORTING THE TOWN OF FLOWER MOUND PUBLIC LIBRARY'S SEED LIBRARY; PLEDGING THAT THE TOWN OF FLOWER MOUND WILL COMPLY WITH ALL PROGRAM REQUIREMENTS OF THE GRANT PROGRAM; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Town of Flower Mound, Texas (the "Town"), applied for and was awarded a grant in the amount of \$300.00 from the Trinity Forks Native Plant Society of Texas as part of its annual Grant Program, for the purpose of supporting the Town's Public Library's Seed Library; and,

WHEREAS, the Town Council of the Town finds that it is in the best interest of the health, safety, and general welfare of the citizens of the Town to accept the awarded grant funds to purchase seeds of native plants to support the Library's Seed Library;

NOW THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, THAT:

SECTION 1

All of the above recitations are true and correct and adopted as if fully set out herein.

SECTION 2

The Town approves and accepts the awarded grant amount of \$300.00 from the Trinity Forks Native Plant Society of Texas as part of its annual Grant Program.

SECTION 3

The grant funds are hereby authorized to be used to fund equipment and activities in accordance with the grant award and will be used only for the purposes for which they are intended under the program as outlined in the award letter and grant application attached hereto as "Attachment 2."

SECTION 4

This Resolution shall take effect from and after the date of its passage.

RESOLUTION NO. _____

**DULY PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF
FLOWER MOUND, TEXAS, BY A VOTE OF _____ TO _____, ON THIS THE 1st DAY
OF APRIL, 2024.**

APPROVED:

Derek France, MAYOR

ATTEST:

Theresa Scott, TOWN SECRETARY

From: Trinity Forks Native Plant Society of Texas <npsot.trinityforks.grants@gmail.com>
Sent: Friday, March 8, 2024 9:13 AM
To: Beth Walter <beth.walter@flower-mound.com>
Cc: Diane Karch-Osowski <diane.karch@gmail.com>
Subject: Re: APPROVED!, Trinity Forks Grant Application 2024

Hi, Beth,

I'm delighted to inform you that our Board of Directors voted to approve your grant request; congratulations!

Our Treasurer will issue a check for \$300 before the end of the month; it will be mailed from our bank. Would you please confirm the name to which the check should be made payable as well as the mailing address?

- **Check Payable to:** Town of Flower Mound
- **Mailing Address:** Town of Flower Mound Public Library, c/o Beth Walter, 3030 Broadmoor Lane, Flower Mound, Texas, 75028
- **Note:** Native Plant Seed Library 2024

This month's NPSOT-Trinity Forks [Chapter meeting](#) will be held on Thursday, March 28th, at TWU in the Ann Stuart Science Complex. The scheduled program will be presented by Richard Freiheit of Lewisville Lake Environmental Learning Area (LLELA). Social time (including refreshments) begins at 6:30 pm with the meeting and program beginning at 7 pm. We'd love to see you there!

Thank you for helping to steward the land and educate others about our great Texas native plants, especially with the new Native Plant Seed Library we appreciate you ... and all that you do!

Blessings,
Kathryn

On Wed, Feb 21, 2024 at 9:16 PM Trinity Forks Native Plant Society of Texas <npsot.trinityforks.grants@gmail.com> wrote:

Hi, Beth,

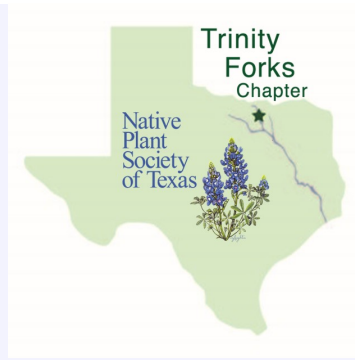
Your grant application has been received!

After the February 22nd application deadline, the NPSOT-TFC Grants Committee and Board of Directors will make our final decisions, and all applicants will be notified via email by mid-March.

Thanks so much for your application and for your work with the Seed Library!

Blessings,
Kathryn Wells
Grant Committee Coordinator

On Wed, Feb 21, 2024 at 5:25 PM Beth Walter, Adult Services Librarian <noreply@jotform.com> wrote:



Trinity Forks Grant Application 2024

Amount requested (up to \$1000) 300

Name of Organization: Town of Flower Mound Public Library

Name of Applicant: Beth Walter, Adult Services Librarian

Email of Applicant: beth.walter@flower-mound.com

Phone Number of Applicant (972) 874-6159

Name of Primary Contact Person: Beth Walter, Adult Services Librarian

Email of Primary Contact Person: beth.walter@flower-mound.com

Phone Number of Primary Contact Person: (972) 874-6159

Mailing Address of Primary Contact Person: 3030 Broadmoor Lane, Flower Mound, Texas, 75022

Project Title: Seed Library @ The Town of Flower Mound Public Library

Brief Project Description: The Seed Library at The Town of Flower Mound Public Library will provide a service that allows library patrons to “borrow” seeds, including native plant seeds, for free, grow them in their gardens, and return seeds collected at the end of the growing season.

The main goals of our Seed Library are to:

- (1) Promote local food security, biodiversity, community resilience, and gardening education.
- (2) Preserve heirloom and endangered varieties of plants that are adapted to the local climate and soil conditions.
- (3) Expand the Seed Library offering to include seeds from native plants found in Denton County, Texas.

Our Seed Library will operate by accepting donations of native seeds from commercial sources, environmental organizations, and local gardeners. Volunteers will package donated seeds into smaller envelopes, affix informational labels with QR codes linked to plant fact sheets and organize seeds into a potting bench display in the foyer of the library for easy browsing by our library patrons.

Library patrons are invited to “borrow” seeds from the seed library. They do not need a library card and there is no due date. Patrons will receive information fact sheets and guidance on how to grow and maintain native plants, as well as how to

collect and save seeds. The library will also offer workshops, events, and resources on native plant gardening, seed collection and seed saving topics. Successful gardeners are encouraged to collect seeds and bring back seeds to the library so their seeds can circulate to new patrons.

Describe the broad goal(s) of your project such as Education, Conservation, Outreach, or Volunteer Opportunities. Briefly describe how your project will further your goal(s) in a sentence or two.

Our Seed Library will benefit the public by attracting new and diverse patrons, fostering community engagement, and supporting the library's mission of providing access to information and lifelong learning.

The Seed Library at The Town of Flower Mound Public Library will be one of over five hundred seed libraries operating worldwide and the first Seed Library in the Town of Flower Mound. A portion of the Seed Library will be devoted to seeds native to Denton, Cooke, Montague, and Wise counties.

Will the project increase the community's knowledge of native plants and the need to conserve and restore native plant habitats? Please describe.

The project provides access to the Native Plant Society of Texas database and resources on the Trinity Forks Chapter website.

Can the project be duplicated by community members in their own setting?

Yes, community members can duplicate the creation of a public Seed Library at any of the libraries within the Native Plant Society of Texas – Trinity Forks service areas of Denton, Cooke, Montague, or Wise counties.

Does the project have an impact on underserved areas? If so, how?

Yes, this project provides a Seed Library for native seeds which has not previously been available to library patrons.

Is the project accessible to the general public?

Yes. The Seed Library is located in a prominent area of our public library, which is open seven days a week.

Site address, including county:

Town of Flower Mound Public Library, 3030 Broadmoor Ln, Flower Mound, Denton County, Texas 75022-2730

The Seed Library is in a public access area of the library.

List any organizations, people or entities from whom you will need project permission. Please indicate whether or not permission is already secured or is awaiting confirmation.

The Town of Flower Mound Town Council approved the creation and maintenance of a Seed Library as part of the Town's Annual Budget Planning process for the fiscal year. The Seed Library will be established prior to March 31, 2024, to provide this unique service prior to the 2024 Spring, Summer, and Fall seed planting seasons.

Do you have written proof of permission to proceed with the project?

Yes

Is a permit required?

No

Are there other stakeholders (neighbors, etc.) with whom the project should be vetted? If so, has the project been presented to these stakeholders?

This project has been vetted by these organizations:

- Denton County Master Gardener Association: Cheryl Huckabee (President), Lynda Harvey (member and organizer of the Flower Mound Library Spring Gardening Series), Kathryn Wells (past President DCMGA)
- Canyon Oaks Garden Club: Pam Peterson, Club representative
- Native Plant Society of Texas-Trinity Forks Chapter: Janice Y. Smith, Liz Moyer, and Tom Kirwan
- Town of Flower Mound – Public Library: Beth Walter, Adult Services Librarian; Celadon Work, Adult Services Manager

Please upload 1 to 3 photos of the project location.

[BuildingFront\(Professional\).jpg](#)
[75 Photo – Seed Library Potting Bench 2338.jpg](#)

List the plants, shrubs or trees to be used in the project.

Our proposed list of native plant seeds will be selected from the following lists:

Perennial Native Wildflowers – Native Wildlife Habitat Plants
American Germander *Teucrium canadense*
Bergamot *Monarda fistulosa*
Texas Bluebonnet *Lupinus texensis*
Cardinal Flower *Lobelia cardinalis*
Chile Pequin *Capsicum annuum* var. *aviculare*
Columbine, Red *Aquilegia canadensis*
Coneflower, Purple *Echinacea purpurea* & *angustifolia*
Daisy, Blackfoot *Melampodium leucanthum*
Daisy, Cutleaf *Engelmannia peristenia*
Daisy, Four-nerve *Tetaneuris scaposa*
Frostweed *Verbesina virginica*
Milkweed, Green *Asclepias viridis*
Mistflower, Blue *Conoclinium (Eupatorium) coelestinum*
Mistflower, Gregg's *Conoclinium (Eupatorium) greggii*
Mistflower, White Boneset *Conoclinium (Eupatorium) serotinum*

Perennial Native Wildflower Shade Plants
American Germander *Teucrium canadense*
Blue Mistflower *Eupatorium coelestinum*
Blue Stars *Amsonia tabernaemontana*
Chile Pequin *Capsicum annuum*
Columbine, Red *Aquilegia Canadensis*
Columbine, Yellow/TX Gold *Aquilegia chrysantha/hinckleyana/longissima*
Frostweed *Verbesina virginica*
Gulf Coast Penstemon *Penstemon tenuis*
Meadow Rue *Thalictrum* sp.
Purple/Fall Aster *Aster* sp.
Sage, Cedar *Salvia roemeriana*
Sage, Lyre-leaf *Salvia lyrata*
Sage, Tropical *Salvia coccinea*
Spiderwort *Tradescantia* sp.
White Avens *Geum canadense*

We are open to modifying our list upon receipt of specific recommendations from the Native Plant Society of Texas – Trinity Forks Chapter.

List the specific steps needed to complete the project and a timeline to complete them.

Due By Date Activity Description

2024-01-31 Distribute and solicit public comments on Seed Library plant list
2024-02-29 Acquire Spring 2024 Seeds and Package seeds in small envelopes
2024-03-31 Establish initial Seed Library and Promote Seed Library grand opening
2024-04-30 Acquire Summer 2024 Seeds and Package seeds in small envelopes
2024-05-31 Public Program: Wildflower Walk at Prairie Commons or The Flower Mound on Saturday, May 11, 2024, or Saturday, May 18, 2024.
2024-06-30 Acquire Fall 2024 Seeds and Package seeds in small envelopes
2024-08-31 NPSOT-TF Program: George Cates presents How to Grow Native Plants from Seeds on August 22 @ 7 PM via Zoom on-line meetings with Watch Party hosted by the Town of Flower Mound Public Library at 3030 Broadmoor St, Flower Mound, TX 75022
2024-09-30 Library Program: DCMGA presents Planting Wildflowers This Fall
2024-10-31 Showcase library's Native Plant Book Collection bibliography to promote Texas Native Plant Week Oct 20 – 26, 2024
2024-11-30 Call for Public Seed Collection and donation to restock Seed Library

Briefly describe estimated project costs, including materials, services, personnel and other expenses.

We are seeking funding to procure native plant seeds at the appropriate time of year to ensure their growing success in our community.
We are requesting funds for the purchase and/or donation of native plant seeds, native plant fact sheets, and three copies of the book, Native Plant Gardening for Beginners by Haeley Giambalvo.
We are requesting three hundred (\$300) dollars.
We request funds be released as a lump sum payment.
Funds will be allocated as follows: Native Plant Seeds (\$250); replication of a native plant fact sheet Master Copies (\$35) and three copies of the book, Native Plant Gardening for Beginners by Haeley Giambalvo @ \$5 each; sub-total \$15. Grand Total requested is \$300 (three hundred dollars).

How many volunteers do you estimate you will recruit to complete the project?

5-7 volunteers

What is the estimated number of hours to be contributed by these volunteers?

60-90 hours

List the organizations supplying volunteers.

Seed packaging into envelopes and envelope labeling will require approximately two minutes per envelope or thirty-two to forty hours per season. The number of volunteers will be dependent upon the number of hours each volunteer can contribute. The minimum volunteer time should be at least one hour. At the present time, 5 – 7 volunteers have indicated their interest in volunteering on this project.

Is there an opportunity for public participation through work on the project?

Yes, public participation is desired and encouraged. Shown below are the organizations supplying volunteers

- Denton County Master Gardener Association: Cheryl Huckabee (President), Lynda Harvey (member and organizer of the Flower Mound Library Spring Gardening Series), Kathryn Wells (past President DCMGA)
- Canyon Oaks Garden Club: Pam Peterson, Club representative
- Native Plant Society of Texas-Trinity Forks Chapter: Janice Y. Smith, Liz Moyer, and Tom Kirwan
- Town of Flower Mound – Public Library: Beth Walter, Adult Services Librarian; Celadon Work, Adult Services Manager

This project can be scaled up to include additional volunteers from groups such as community homeowner associations, church, school, or environmental groups as well as youth organizations such as Boy Scouts, Girl Scouts, American Heritage Girls/Boys, and LISD school environmental clubs.

Is the project sustainable? Briefly describe the anticipated 3-5 year maintenance plan.

Yes. The Public Library is an ongoing concern receiving ongoing funding from the Town of Flower Mound. Funding is allocated annually in the Town's annual budget, which includes \$250 from the Town's General Fund for maintenance of the Seed Library. Also, we will continue to work with community groups and the public to source donated seeds.

Each public education program shown in the project schedule will include the presentation of Texas native plant maintenance knowledge, skills, and techniques. Patrons borrowing seeds will be responsible for initial and on-going maintenance of their plants.

Optional uploaded supporting documentation:

[Bluebonnet \(Lupinus texensis\) NPSOT Fact Sheet.pdf](#)
[Photo – Seed Library Potting Bench.jpg](#)
[Photo – Seed Library Seed Envelope Label.png](#)
[Photo – Seed Library Seed Envelope with Label example.png](#)
[Photo – Seed Library Seed Envelope.png](#)
[Town of Flower Mound 23-24 Approved Budget.pdf](#)
[Town of Flower Mound – Public Library – Seed Library Plant List.xlsx](#)

Does the project have other funding sources?

Yes

List any other sources of funding.

Yes, the Town of Flower Mound Public Library annual budget has an allocation for an initial seed purchase of primarily vegetable and fruit seeds. This grant request is made to extend the seed library offering to include native plant seeds from the Denton County area.

Memorandum of Agreement:

Each applicant must sign this Memorandum of Agreement when the grant application is submitted.

If awarded the grant, I agree to the following:

- My project will incorporate (install or conserve) native plants appropriate for the area's ecoregion. (Please refer to our website's "Resources" tab for additional information including "NICE" nurseries where appropriate plants and seeds may be obtained.)
- My project will be completed within one year of receiving grant funds, unless an extension is requested and approved.
- I will provide a mid-term progress report six months after the grant funds are received and a final report no later than 30 days after the project completion. (Progress report links are available on the [website's Grants Program page](#).) The final report should include:
 - Project results and status,
 - Lessons learned that would help others,
 - Ongoing maintenance plan,
 - Final thoughts, and
 - Three to five photographs showing the project's beginning, middle, and completion.
- I will return any unspent grant funds to the NPSOT-Trinity Forks Chapter no later than 30 days after completion of the project.
- I understand that the NPSOT-Trinity Forks Chapter may promote the Grant Program with images of my project. I will inform the Chapter if someone in my project does not want to appear in images for this purpose.
- I will install "Partially Funded by Native Plant Society of Texas Trinity Forks Chapter" signage if requested to do so. (Signage provided by NPSOT-TFC.)
- I hold NPSOT-TFC harmless for all activity involved with my project.

To what organization or person should the grant award check be made payable?

Town of Flower Mound for the benefit of the Public Library – Native Plant Seed Library 2024

Mailing address for the grant award check:

3030 Broadmoor Ln, Flower Mound, Texas, 75022

Email address of the grant award check recipient:

celadon.work@flower-mound.com

Phone number of the grant award check recipient:

(972) 874-6152

Please sign here:

A handwritten signature in black ink that reads "Beth Walter". The signature is written in a cursive, flowing style.

Date

02-21-2024

Click Here [Download Submission PDF](#) to download a PDF of the form submission.

Attachments: Because the total size is more than **5MB** the uploads are not attached.



TOWN COUNCIL AGENDA J.11. CONSENT ITEM(S)

DATE: April 1, 2024
FROM: Brittni Barnett, Grants and Financial Analyst
ITEM: **Consider approval of a resolution authorizing the acceptance of grant funds from the Texas Commission on the Arts, which will be used to pay a portion of the performance costs for the Town's annual Arts Festival.**

BACKGROUND: The Town applied for and was awarded a grant in the amount of \$750.00 from the Texas Commission on the Arts (TCA) as part of its Performance Support Grant Program.

If approved, the grant will be used to cover half of the performance costs for the Town's annual Arts Festival, which will be held at Heritage Park in May, 2024.

For administrative purposes, the Director of Parks & Recreation has been designated as the Authorized Official, because this official shall DocuSign a list of assurances as a requirement for accepting the grant. This is not a reimbursement grant, so the Town will receive a check from TCA for \$750.00. All funds must be spent, and a final report submitted, within thirty (30) days of the performance.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

ALTERNATIVES: N/A

FISCAL IMPACT: \$0

Proposed Expenditure/(Revenue)
\$(750.00)
\$750.00

Account Number(s):
370-4605
Grant Fund

LEGAL REVIEW: John Domenech, of Taylor, Olson, Adkins, Sralla, & Elam L.L.P., has reviewed the resolution as to form and legality.

ATTACHMENTS:

1. Resolution
2. Assurances

DRAFT MOTION: Move to approve as presented in the agenda caption.

**TOWN OF FLOWER MOUND, TEXAS
RESOLUTION NO. _____**

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, AUTHORIZING THE ACCEPTANCE OF GRANT FUNDS FROM THE TEXAS COMMISSION ON THE ARTS FOR THE PURPOSE OF PAYING A PORTION OF THE PERFORMANCE COSTS FOR THE TOWN'S ANNUAL ARTS FESTIVAL; AUTHORIZING THE PARKS & RECREATION DIRECTOR TO ACT ON BEHALF OF FLOWER MOUND AS THE GRANTEE'S OFFICIAL; PLEDGING THAT THE TOWN OF FLOWER MOUND WILL COMPLY WITH ALL PROGRAM REQUIREMENTS OF THE GRANT PROGRAM; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Town of Flower Mound (the "Town") applied for and was awarded a grant in the amount of \$750.00 from the Texas Commission on the Arts as part of its Performance Support Grant Program, for the purpose of paying a portion of the performance costs for the Town's annual Arts Festival; and,

WHEREAS, the Town Council finds that it is in the best interest of the health, safety, and general welfare of the citizens of the Town to accept the awarded grant funds to pay a portion of the performance costs for the Town's annual Arts Festival.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, THAT:

SECTION 1

The Town of Flower Mound approves and accepts the awarded grant amount of \$750.00 from the Texas Commission on the Arts as part of its Performance Support Grant Program.

SECTION 2

The Town Council designates the Parks & Recreation Director as the Town's authorized official. The authorized official is given the power to apply for, accept, alter, or terminate the grant on behalf of the Town, and may take any actions necessary to effectuate this resolution.

SECTION 3

The grant funds are hereby authorized to be used to fund equipment and activities in accordance with the grant award and will be used only for the purposes for which they are intended under the program as outlined in the Assurances attached hereto as "Attachment 2."

SECTION 4

This Resolution shall become effective upon its adoption.

RESOLUTION NO. _____

DULY PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF
FLOWER MOUND, TEXAS, BY A VOTE OF _____ TO _____, ON THIS THE 1st DAY OF
APRIL, 2024.

APPROVED:

Derek France, MAYOR

ATTEST:

Theresa Scott, TOWN SECRETARY

Grant ID: 77760203

Application Title: Performance Support

Application: Performance Support

Organization: Town of Flower Mound/Parks and Recreation Dept.

Assurances

Applicant organization ("Grantee") hereby gives assurance to the Texas Commission on the Arts that:

1. The activities and services for which financial assistance is sought will be administered by Grantee;
2. Any funds received as a result of this grant award will be used solely for the project described;
3. Grantee has read, understands and will conform to the intent outlined in the Guide to Programs and Services;
4. Grantee agrees to comply with regulations pertaining to federal grant recipients including the most recently amended versions of Title VI of the Civil Rights Act of 1964, Executive Order 13166 - Improving Access to Services for Persons with Limited English Proficiency, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, The Age Discrimination Act of 1975, The Americans with Disabilities Act of 1990 (ADA), and the Drug Free Workplace Act;
5. Grantee agrees to comply with applicable laws, executive orders, regulations and policies as well as Texas Government Code, Chapter 783 (Uniform Grant and Contract Management Act), and the Texas Comptroller's Texas Grant Management Standards (TxGMS), including the Uniform Assurances and the Standard Financial Management Conditions included in TxGMS;
6. Grantee will comply with Texas Government Code, Section 444.021(b), which prohibits the Commission and its grantees from knowingly fostering, encouraging, promoting, or funding any project, production, workshop, and/or program which includes obscene material as defined in Section 43.21 Penal Code of Texas;
7. Grantee agrees that grant funds be expended, matched, and services performed within the State Fiscal Year; and unexpended, unmatched, and/or undocumented grant money be returned by Grantee.
8. The application has been duly authorized by an authorized official for the Grantee;
9. Grantee assures and certifies that it and its principals are not suspended or debarred from doing business with the state or federal government as listed on the State of Texas Debarred Vendor List maintained by the Texas Comptroller of Public Accounts and the System for Award Management (SAM) maintained by the General Services Administration.

X _____
signature

Authorizing Official Name:

Chuck Jennings

Town of Flower Mound/Parks and Recreation Dept.

1200 Gerault Rd.

Flower Mound, TX 75028

Signing this form indicates that all information contained in this application, including all attachments and supporting materials, is true and correct to the best of your knowledge.



TOWN COUNCIL AGENDA J.12. CONSENT ITEM(S)

DATE: April 1, 2024
FROM: Brittni Barnett, Grants and Financial Analyst
ITEM: **Consider approval of a resolution authorizing the submission of a grant application with the Office of the Governor for the 2025 State and Local Cybersecurity Grant Program; authorizing the Town Manager to act on behalf of the Town of Flower Mound in all matters related to the application; authorizing acceptance of funds if awarded; and pledging that if funding for this project is received, the Town will comply with all project requirements of the Office of the Governor, including returning all funding received in the event of loss or misuse of the funds.**

BACKGROUND: This agenda item is to consider approval of a grant application for the 2025 State and Local Cybersecurity Grant Program from the Office of the Governor. If awarded, the grant funds will be used to update the Data Center Hardware for the Town's Police Services Department.

For administrative purposes, the Town Manager has been designated the Authorized Official, due to the requirement that the official must have an account with the eGrants system that allows the certification of the application.

Per the grant requirements, a Resolution must be passed by Town Council demonstrating that it is aware of and approves of the grant's submission. The grant requires at least a 10% match, which will be submitted as a Decision Package for approval as part of the Town's regular budget process.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

ALTERNATIVES: N/A

FISCAL IMPACT: \$30,000.00

Proposed Expenditure/(Revenue)

\$(194,000.00)

(\$30,000.00)

\$194,000.00

\$30,000.00

Account Number(s):

370-4605

370-4609

Grant Fund (370)

100-655-59100-XXXX

LEGAL REVIEW: John Domenech, of Taylor, Olson, Adkins, Sralla, & Elam L.L.P., has reviewed the resolution as to form and legality.

ATTACHMENTS:

1. Resolution

DRAFT MOTION: Move to approve as presented in the agenda caption.

TOWN OF FLOWER MOUND, TEXAS

RESOLUTION NO. _____

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, AUTHORIZING THE SUBMISSION OF A GRANT APPLICATION TO THE OFFICE OF THE GOVERNOR FOR THE STATE AND LOCAL CYBERSECURITY GRANT PROGRAM FOR THE BENEFIT OF THE TOWN OF FLOWER MOUND FOR FISCAL YEAR 2025; ACCEPTING GRANT FUNDS IF AWARDED; AUTHORIZING THE TOWN MANAGER TO ACT ON BEHALF OF FLOWER MOUND AS THE GRANTEE'S OFFICIAL; AND PLEDGING THAT IF FUNDING IS AWARDED, THE TOWN WILL COMPLY WITH ALL GRANT REQUIREMENTS INCLUDING THE RETURN OF ALL FUNDING RECEIVED IN THE EVENT OF LOSS OR MISUSE OF THE FUNDS.

WHEREAS, the Town Council of the Town of Flower Mound finds it in the best interest of the citizens of the Town that an upgrade to the Police Department Data Center Hardware be operated for the fiscal year 2025; and,

WHEREAS, the Town Council finds that the Town should apply for the Office of the Governor's State and Local Cybersecurity Grant for the 2025 fiscal year in order to provide funding for the Flower Mound Information Technology Division to upgrade the Police Department's Data Center Hardware.

NOW THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS THAT:

SECTION 1

The Town Council approves submission of a grant application for the State and Local Cybersecurity Grant to the Office of the Governor for the Police Department's Data Center Hardware.

SECTION 2

The Town Council agrees to accept the grant funds if awarded. In the event of loss or misuse of the grant funds, the Town Council assures that the funds will be returned to the Office of the Governor in full.

SECTION 3

The Town Council recognizes that a minimum of a ten (10%) per cent match is required as a condition to accepting the grant.

SECTION 4

The Town Council designates the Town Manager as the Town's authorized official. The authorized official is given the power to apply for, accept, reject, alter, or terminate the grant on behalf of the Town, and may take any actions necessary to effectuate this resolution.

RESOLUTION NO. _____

SECTION 5

This Resolution shall be effective upon its adoption.

DULY PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, BY A VOTE OF _____ TO _____ ON THIS 1st DAY OF APRIL, 2024.

APPROVED:

Derek France, MAYOR

ATTEST:

Theresa Scott, TOWN SECRETARY

Grant Number: 5180701



TOWN COUNCIL AGENDA J.13. CONSENT ITEM(S)

DATE: April 1, 2024
FROM: Brian Waltenburg, Assistant Director of Engineering
ITEM: **Consider approval of a Standard Utility Agreement with TxDOT, for reimbursement in the amount of \$4,969,356.75, on the US 377 Water Line Loop and Relocation Project.**

BACKGROUND: TxDOT is finalizing the design of the US 377 Widening Project. The project limits are south of FM 1171 to north of Crawford Road. Due to the expansion, all utilities in the expanded ROW are required to be relocated. The Town of Flower Mound operates a 30-inch water transmission line within a dedicated waterline easement, that is within the expanded ROW. The water line serves the west side of Town from the Stonecrest Pump Station. The US 377 Water line Loop and Relocation capital improvement project includes the relocation of the water line as required by TxDOT. In addition, the project includes a water line "loop" at the intersection of FM 1171 and US 377. By completing the "loop" work with the relocation work, the Town will realize cost savings due to quantity pricing and construction prior to the installation of a grade separated intersection.

The agreement includes reimbursement in the amount of \$4,969,356.75. This reimbursement amount is 84.1% of the total relocation costs.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

ALTERNATIVES: N/A

FISCAL IMPACT: (\$4,969,356.75)

Proposed Expenditure/(Revenue)
(\$4,969,356.75)

Account Number(s):
506-4796 (TXDOT Interlocal CIP)

LEGAL REVIEW: No legal review was completed as TxDOT does not allow changes to language in their standard agreements.

ATTACHMENTS:

1. Standard Utility Agreement - US377 WL

DRAFT MOTION: Move to approve as presented in the agenda caption.

STANDARD UTILITY AGREEMENT

U Number: **N/A** Utility ID: **U00010908**

District: Dallas
Federal Project No.: NH1902 (136)
ROW CSJ: 0081-03-062
Highway Project Letting Date: 12/1/24(RTL)

County: Denton
Highway: US 377
From: South of FM1171
To: Crawford Road

This Agreement by and between the State of Texas, acting by and through the Texas Transportation Commission, ("**State**"), and Town of Flower Mound, ("**Utility**"), acting by and through its duly authorized representative, shall be effective on the date of approval and execution by and on behalf of the **State**.

WHEREAS, the **State** has deemed it necessary to make certain highway improvements as designated by the **State** and approved by the Federal Highway Administration within the limits of the highway as indicated above (the "**Highway Project**");

WHEREAS, the proposed Highway Project will necessitate the adjustment, removal, and/or relocation of certain facilities of the **Utility** as indicated in the following statement of work:

All waterline work will occur between US 377 STA 345+00 to STA 410+50. All stationing referenced below is based on Town of Flower Mound waterline stationing.

Install approximately 993 LF of new 24" ductile iron pipe (DIP) water line (Sheets C1 - C2), where none currently exists, from STA 0+00 to STA 9+93. Steel carrier pipe shall be installed from STA 2+60 to STA 6+50 (390 LF) and STA 8+10 to STA 9+50 (140 LF).

Relocate and upsize existing 20" DIP water line (Sheet - C2) with approximately 162 LF of 24" DIP water line from STA 9+93 to STA 11+55.

Relocate existing 30" DIP water line (Sheets C2 - C8) with approximately 5789 LF of 30" DIP water line from STA STA 11+55 to 69+53.

Relocate existing 36" DIP water line (Sheet C8) with approximately 292 LF of 36" DIP water line from STA 69+53 to 72+45. Steel carrier pipe shall be installed from STA 69+95 to 70+95 (100 LF).

Relocate existing 12" and 20" water line (Sheet C9) with approximately 736 LF of 20" DIP water line. Steel carrier pipe shall be installed from STA 0+16 to 1+56 (140 LF) and STA 3+25 to 7+17 (392 LF).

Relocate existing 20" Canyon Falls water line (Sheet C10) - Install approximately 223 LF of 20" DIP water line. Steel carrier pipe shall be installed from STA 0+23 to STA 1+73 (150 LF).

Remove approximately 445 LF of 12" DIP water line, 220 LF of 20" DIP water line, 6,208 LF of 30" DIP water line, and 220 LF of 36" DIP water line.

Abandon approximately 100 LF of 12" DIP water line by grout fill.

Abandon approximately 198 LF of 20" DIP water line by grout fill.

; and more specifically as shown in the **Utility's** plans, specifications and estimated costs, which are attached hereto as Attachment "A".

Initial Date
TxDOT

Initial Date
Utility

WHEREAS, the **State** will participate in the costs of the adjustment, removal, and relocation of certain facilities to the extent as may be eligible for State and/or Federal participation.

WHEREAS, the **State**, upon receipt of evidence it deems sufficient, acknowledges the **Utility's** interest in certain lands and facilities that entitle it to reimbursement for the adjustment, removal, and relocation of certain of its facilities located upon the lands as indicated in the statement of work above.

NOW, THEREFORE, BE IT AGREED:

The **State** will pay to the **Utility** the costs incurred in adjustment, removal, and relocation of the **Utility's** facilities up to the amount said costs may be eligible for **State** participation.

All conduct under this agreement, including but not limited to the adjustment, removal, and relocation of the facility, the development and reimbursement of costs, any environmental requirements, and retention of records will be in accordance with all applicable federal and state laws, rules and regulations, including, without limitation, the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, 42 U.S.C. §§ 4601, et seq., the National Environmental Policy Act, 42 U.S.C. §§ 4321, et seq., the Buy America provisions of 23 U.S.C. § 313 and 23 CFR 635.410, as amended, Texas Transportation Code § 223.045, the Utility Relocations, Adjustments, and Reimbursements provisions of 23 CFR 645, Subpart A, and the Utility Accommodation provisions of 23 CFR 645, Subpart B.

The **Utility** shall supply, upon request by the **State**, proof of compliance with the aforementioned laws, rules, regulations, and guidelines prior to the commencement of the adjustment, removal, and relocation of the facility.

The **Utility** shall not commence any physical work, including without limitation site preparation, on the State's right of way or future right of way, until TxDOT provides the **Utility** with written authorization to proceed with the physical work upon TxDOT's completion and clearance of its environmental review of the Highway Project. Any such work by the **Utility** prior to TxDOT's written authorization to proceed will not be eligible for reimbursement and the **Utility** is responsible for entering any property within the proposed limits of the Highway Project that has not yet been acquired by TxDOT. This written authorization to proceed with the physical work is in addition to the authorization to commence work outlined below. Notwithstanding the foregoing, the provisions of this paragraph are required only when TxDOT has not obtained completion and clearance of its environmental review of the Highway Project prior to the execution of this Agreement by the State and the **Utility**.

The **Utility** shall comply with the Buy America provisions of 23 U.S.C. § 313, 23 CFR 635.410, as amended, and the Steel and Iron Preference provisions of Texas Transportation Code § 223.045 and, when products that are composed predominately of steel and/or iron are incorporated into the permanent installation of the utility facility, use domestically manufactured products. TxDOT Form 1818 (Material Statement), along with all required attachments, must be submitted, prior to the commencement of the adjustment, removal, and relocation of the facility, as evidence of compliance with the aforementioned provisions. Failure to submit the required documentation or to comply with the Buy America, and Steel and Iron Preference requirements shall result in: (1) the **Utility** becoming ineligible to receive any contract or subcontract made with funds authorized under the Intermodal Surface Transportation Efficiency Act of 1991; (2) the **State** withholding reimbursement for the costs incurred by the **Utility** in the adjustment, removal, and relocation of the **Utility's** facilities; and (3) removal and replacement of the non-compliant products.

The **Utility** agrees to develop relocation or adjustment costs by accumulating actual direct and related indirect costs in accordance with a work order accounting procedure prescribed by the **State**, or may, with the **State's** approval, accumulate actual direct and related indirect costs in accordance with an established accounting procedure developed by the **Utility**. Bills for work hereunder are to be submitted to the **State** not later than one (1) year after completion of the work. Failure to submit the request for final payment, in addition to all supporting documentation, within one (1) year after completion of the work may result in forfeiture of payment for said work.

Initial Date
TxDOT

Initial Date
Utility

When requested, the **State** will make intermediate payments at not less than monthly intervals to the **Utility** when properly billed. Such payments will not exceed 90 percent (90%) of the eligible cost as shown in each such billing. Intermediate payments shall not be construed as final payment for any items included in the intermediate payment.

The **State** will, upon satisfactory completion of the adjustment, removal, and/or relocation and upon receipt of final billing prepared in an approved form and manner and accounting for any intermediate payments, make payment in the amount of 90 percent (90%) of the eligible costs as shown in the final billing prior to audit and after such audit shall make an additional final payment totaling the reimbursement amount found eligible for **State** reimbursement.

Alternatively, the **State** agrees to pay the **Utility** an agreed lump sum of \$N/A as supported by the attached estimated costs. The **State** will, upon satisfactory completion of the adjustments, removals, and relocations and upon receipt of a final billing, make payment to the **Utility** in the agreed amount.

Upon execution of this agreement by both parties hereto, the **State** will, by written notice, authorize the **Utility** to perform such work diligently and to conclude said adjustment, removal, and relocation by the stated completion date which is attached hereto in Attachment "C". The completion date shall be extended for delays caused by events outside the **Utility's** control, including an event of Force Majeure, which shall include a strike, war or act of war (whether an actual declaration of war is made or not), insurrection, riot, act of public enemy, accident, fire, flood or other act of God, sabotage, or other events, interference by the **State** or any other party with the **Utility's** ability to proceed with the work, or any other event in which the **Utility** has exercised all due care in the prevention thereof so that the causes of other events are beyond the control and without the fault or negligence of the **Utility**.

This agreement in its entirety consists of the following elements:

Standard Utility Agreement – ROW-U-35;

- Plans, Specifications, and Estimated Costs (Attachment "A");
- Accounting Method (Attachment "B");
- Schedule of Work (Attachment "C");
- Statement Covering Contract Work – ROW-U-48 (Attachment "D");
- Utility Joint Use Agreement – ROW-U-JUA and/or Utility Installation Request – Form 1082 (Attachment "E");
- Eligibility Ratio (Attachment "F");
- Betterment Calculation and Estimate (Attachment "G"); and
- Proof of Property Interest – ROW-U-Affidavit (Attachment "H").

All attachments are included herein as if fully set forth. In the event it is determined that a substantial change from the statement of work contained in this agreement is required, reimbursement therefore shall be limited to costs covered by a modification or amendment of this agreement or a written change or extra work order approved by the **State** and the **Utility**.

This agreement is subject to cancellation by the **State** at any time up to the date that work under this agreement has been authorized, and such cancellation will not create any liability on the part of the **State**. However, the **State** will review and reimburse the **Utility** for eligible costs incurred by the **Utility** in preparation of this Agreement.

The State Auditor may conduct an audit or investigation of any entity receiving funds from the **State** directly under this contract or indirectly through a subcontract under this contract. Acceptance of funds directly under this contract or indirectly through a subcontract under this contract acts as acceptance of the authority of the State Auditor, under the direction of the Legislative Audit Committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

The **Utility** by execution of this agreement does not waive any of the rights that the **Utility** may have within the limits of the law.

Initial

Date

TxDOT

Initial

Date

Utility

It is expressly understood that the **Utility** conducts the adjustment, removal, and relocation at its own risk, and that the **State** makes no warranties or representations regarding the existence or location of utilities currently within its right of way.

_____ Initial	_____ Date
TxDOT	

_____ Initial	_____ Date
Utility	

The signatories to this agreement warrant that each has the authority to enter into this agreement on behalf of the party represented.

UTILITY

EXECUTION RECOMMENDED:

Utility: Town of Flower Mound

Name of Utility

Director of TP&D (or designee), Dallas District

By:

Authorized Signature

Print or Type Name

Title:

Date:

THE STATE OF TEXAS

Executed and approved for the Texas Transportation Commission for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

By:

District Engineer (or designee)

Date:

Initial

Date _____

TxDOT

Initial

Date _____

Utility

Attachment "A"

Plans, Specifications, and Estimated Costs

All material items within cost estimate that must meet Buy America or Steel and Iron Preference Provision requirements must be indicated with an asterisk (*).

- ☐ Currently, **we do not have** Buy America required materials planned for this project. In the event that Buy America compliant materials are used during construction on this project, compliance documentation will be provided.
- ☐ There are non-domestic iron and steel materials in this project that fall under the De Minimis equation. Calculation showing the total cost does not exceed one-tenth of one percent (0.1 %) of the individual utility agreement amount or \$2,500.00, whichever is greater is required.
- ☒ We understand the Buy America Compliance Requirements and will supply the required documentation to TxDOT indicating compliance with this provision. The following documents will be supplied prior to installation of the materials:
- 1) Form 1818 - Material Statement
 - 2) Material Test Reports or Certifications

Initial Date
TxDOT

Initial Date
Utility

THE TOWN OF FLOWER MOUND, TEXAS

PLANS FOR

US 377 AT FM 1171 WATER LINE/LOOP RELOCATION PROJECT

(TxDOT CSJ #0081-03-047)
(RCSJ # 0081-03-062)
(UTILITY ID: U00010908)

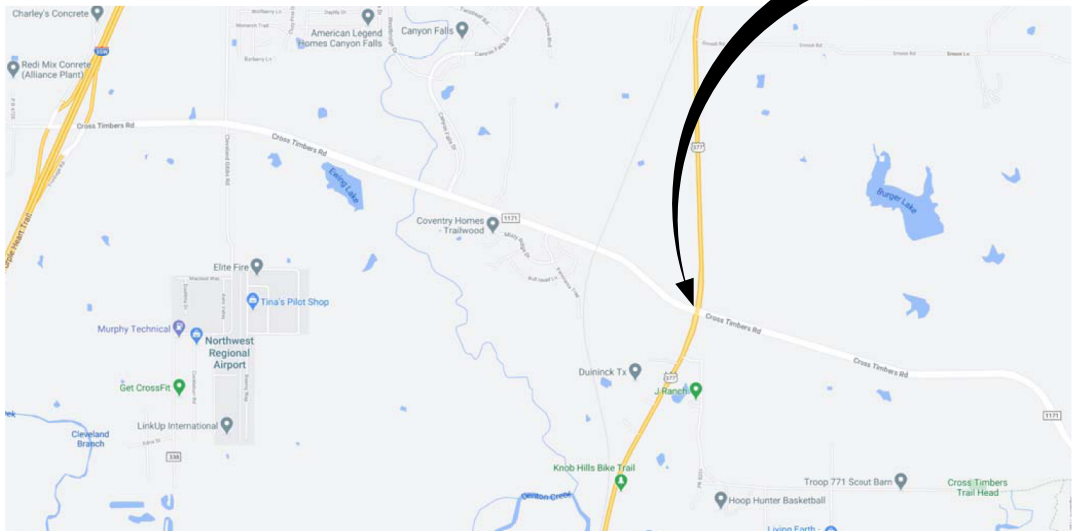


PROJECT LOCATION

INDEX TO DRAWINGS

SHEET NO.	DWG NO.	DESCRIPTION
GENERAL		
1	G-1	COVER SHEET
2	G-2	PLAN AND PROFILE KEY MAP
3	G-3	GENERAL NOTES
4	G-4	CIVIL LEGEND
5	G-5	SUGGESTED CONSTRUCTION PHASING
CIVIL		
6	C-1	PLAN AND PROFILE STA 1+00 TO STA 7+00
7	C-2	PLAN AND PROFILE STA 7+00 TO STA 17+00
8	C-3	PLAN AND PROFILE STA 17+00 TO STA 27+00
9	C-4	PLAN AND PROFILE STA 27+00 TO STA 37+00
10	C-5	PLAN AND PROFILE STA 37+00 TO STA 47+00
11	C-6	PLAN AND PROFILE STA 47+00 TO STA 57+00
12	C-7	PLAN AND PROFILE STA 57+00 TO STA 67+00
13	C-8	PLAN AND PROFILE STA 67+00 TO STA 72+12.89
14	C-9	PLAN AND PROFILE STA 0+00 TO STA 7+15.18 (20" WATER LINE)
15	C-10	PLAN AND PROFILE STA 0+00 TO STA 2+24.92 (20" CANYON FALLS WATER LINE)
16	C-11	ABANDONMENT PLAN STA 7+00 TO STA 17+00
17	C-12	ABANDONMENT PLAN STA 17+00 TO STA 27+00
18	C-13	ABANDONMENT PLAN STA 27+00 TO STA 37+00
19	C-14	ABANDONMENT PLAN STA 37+00 TO STA 47+00
20	C-15	ABANDONMENT PLAN STA 47+00 TO STA 57+00
21	C-16	ABANDONMENT PLAN STA 57+00 TO STA 67+00
22	C-17	ABANDONMENT PLAN STA 67+00 TO STA 72+11.64
23	C-18	ABANDONMENT PLAN STA 0+00 TO STA 7+15.18
DETAILS		
24	CD-1	TOWN OF FLOWER MOUND STANDARD DETAILS 1
25	CD-2	TOWN OF FLOWER MOUND STANDARD DETAILS 2
26	CD-3	TOWN OF FLOWER MOUND STANDARD DETAILS 3
27	CD-4	TUNNELING DETAILS AND PROJECT SIGN DETAIL
28	CD-5	CATHODIC PROTECTION DETAILS 1
29	CD-6	CATHODIC PROTECTION DETAILS 2

APPENDIX:
EXISTING WATER LINE AS-BUILTS



 PROJECT LOCATION
NTS

DECEMBER 2023

Jacobs

TBPE FIRM NO. 2966

BID # : 2024-19-B

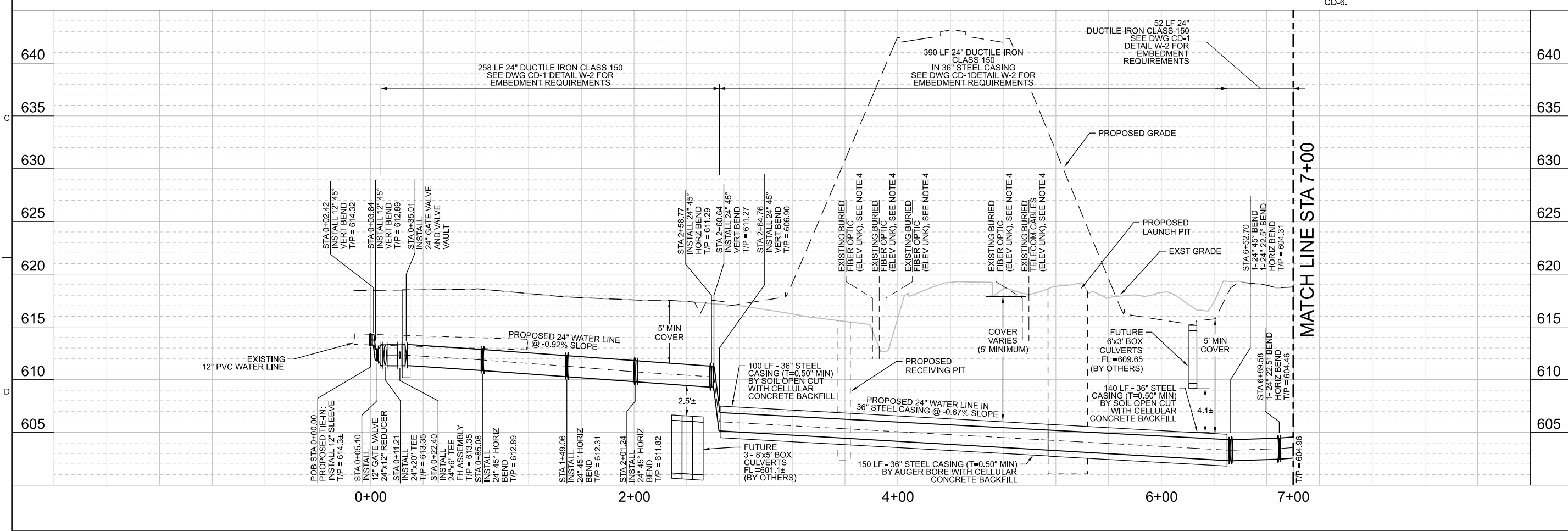
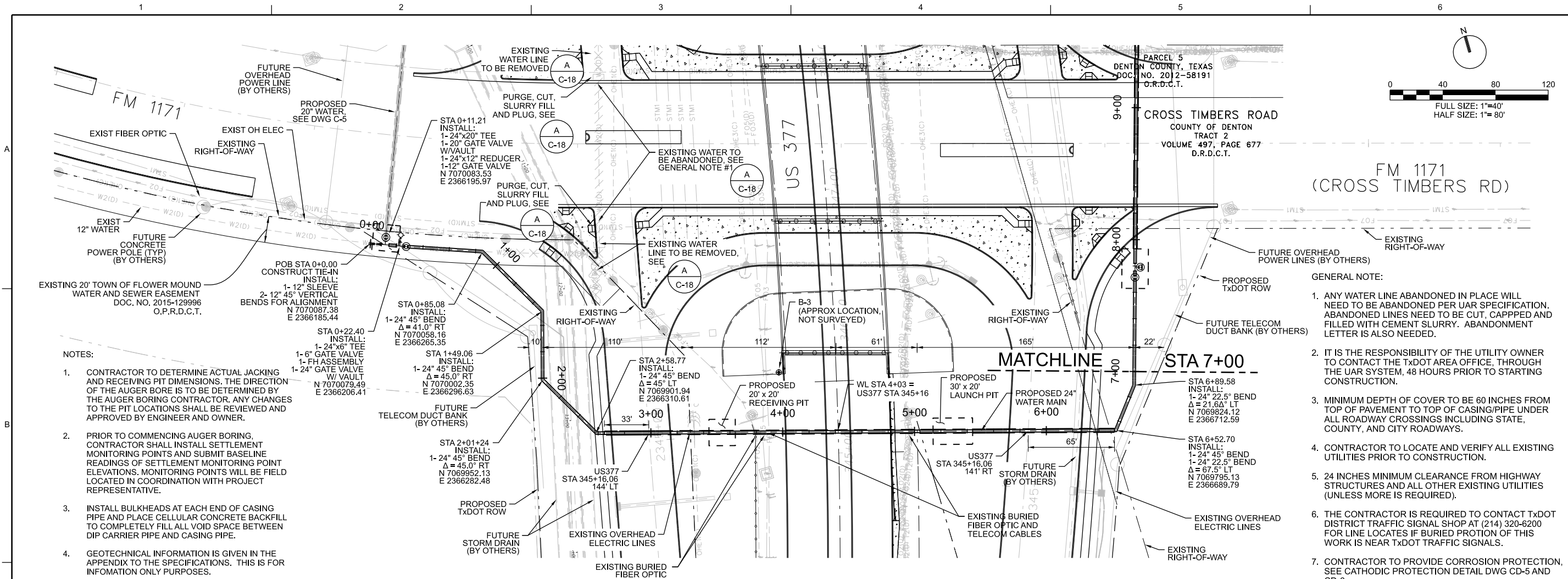
TOWN STAFF

TOWN MANAGER: JAMES CHILDERS
ASSISTANT TOWN MANAGER: TIFFANY BRUCE P.E.
DIRECTOR OF PUBLIC WORKS: CLAY RIGGS P.E.

TOWN COUNCIL

MAYOR: DEREK FRANCE
PLACE 1 COUNCIL MEMBER: ADAM SCHIESTEL
PLACE 2 COUNCIL MEMBER: CHRIS DREW
PLACE 3 COUNCIL MEMBER: BRIAN TAYLOR
PLACE 4 COUNCIL MEMBER: JIM ENGAL
PLACE 5 COUNCIL MEMBER: ANN MARTIN





1999 BRYAN ST. SUITE 1200
DALLAS, TX 75201-3136
Phone: F1 (214) 638-0145
TEXAS Registration: F-2566

US 377 AT FM 1171
WATER LINE / LOOP & RELOCATION
TOWN OF FLOWER MOUND
TEXAS

DATE
PROJ
DWG
SHEET

DECEMBER 2023
WFXQ6500
C-1
6 of 29

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING.
0 1"

FILENAME: 001-C-100001_WFXQ6500.dgn
PLOT DATE: 11/20/2023

1989 BRYAN ST. SUITE 1200
DALLAS, TX 75201-3136
Phone: F1 (214) 638-0145
TEXAS Registration: F-2566

US 377 AT FM 1171
WATER LINE / LOOP & RELOCATION
TOWN OF FLOWER MOUND
TEXAS

DATE
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SHEET

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WFXQ6500
C-1
6 of 29

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1989 BRYAN ST. SUITE 1200
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US 377 AT FM 1171
WATER LINE / LOOP & RELOCATION
TOWN OF FLOWER MOUND
TEXAS

DATE
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SHEET

DECEMBER 2023
WFXQ6500
C-1
6 of 29

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0 1"

FILENAME: 001-C-100001_WFXQ6500.dgn
PLOT DATE: 11/20/2023

1989 BRYAN ST. SUITE 1200
DALLAS, TX 75201-3136
Phone: F1 (214) 638-0145
TEXAS Registration: F-2566

US 377 AT FM 1171
WATER LINE / LOOP & RELOCATION
TOWN OF FLOWER MOUND
TEXAS

DATE
PROJ
DWG
SHEET

DECEMBER 2023
WFXQ6500
C-1
6 of 29

AS NOTED
VERIFY SCALE
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ORIGINAL DRAWING.
0 1"

FILENAME: 001-C-100001_WFXQ6500.dgn
PLOT DATE: 11/20/2023

1989 BRYAN ST. SUITE 1200
DALLAS, TX 75201-3136
Phone: F1 (214) 638-0145
TEXAS Registration: F-2566

US 377 AT FM 1171
WATER LINE / LOOP & RELOCATION
TOWN OF FLOWER MOUND
TEXAS

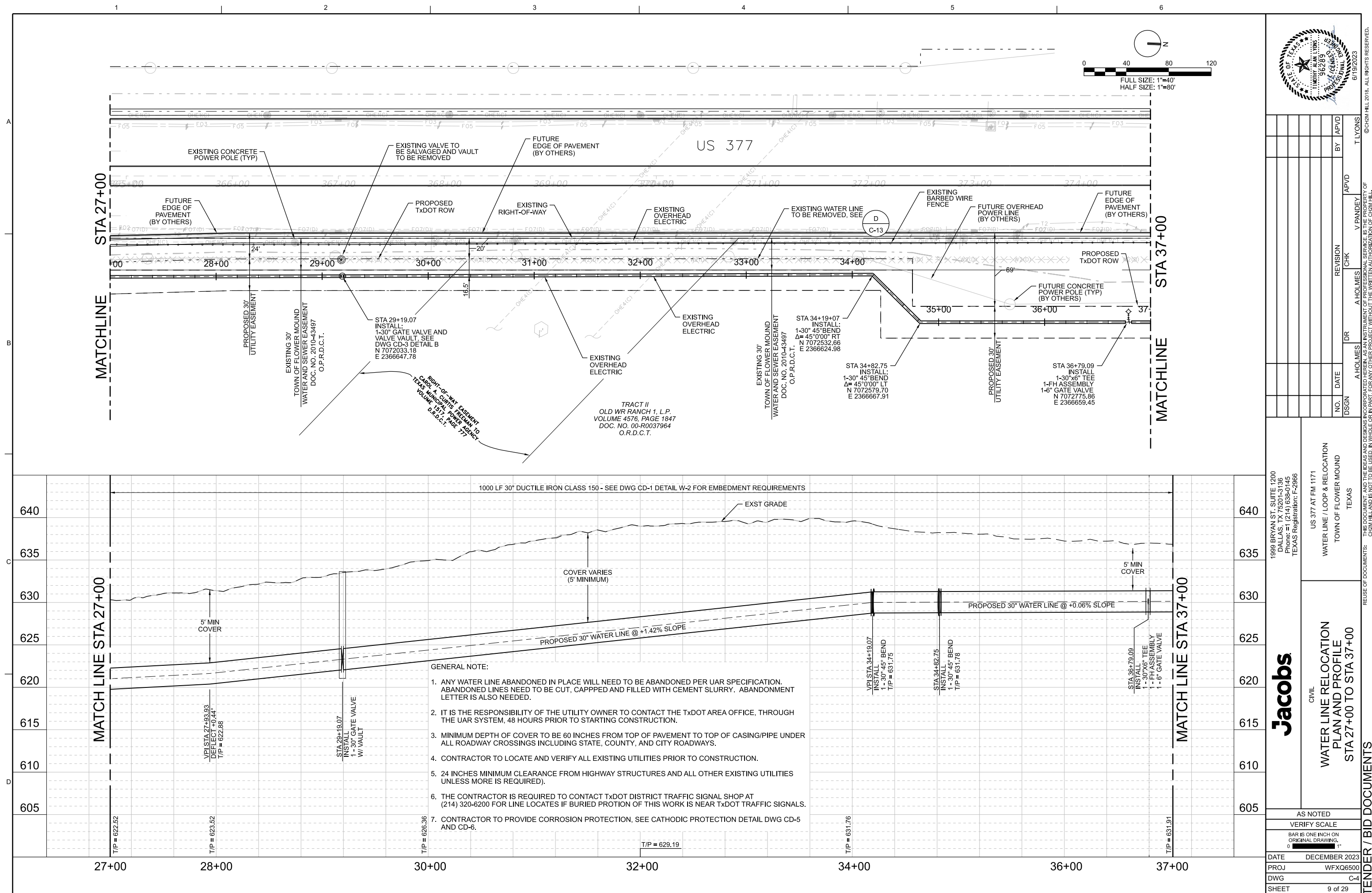
DATE
PROJ
DWG
SHEET

DECEMBER 2023
WFXQ6500
C-1
6 of 29

AS NOTED
VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING.
0 1"

FILENAME: 001-C-100001_WFXQ6500.dgn
PLOT DATE: 11/20/2023

TENDER / BID DOCUMENTS

[illegible]

9999 BRYAN ST. SUITE 1200
DALLAS, TX 75201-3136
Phone: =1 (214) 639-0145
TEXAS Registration: F-2966

US 377 AT FM 1171

WATER LINE / LOOP & RELOCATION

TOWN OF FLOWER MOUND

TEXAS

NOTES: THIS DOCUMENT AND THE DEEDS AND DESIGNATIONS THEREON ARE TO BE USED IN WHOLE OR IN PART FOR THE CONVEYANCE OF THE PROPERTY DESCRIBED HEREIN AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PURPOSE.

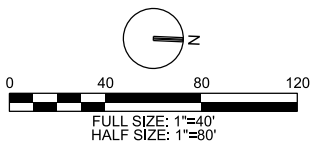
	CIVIL WATER LINE RELOCATION PLAN AND PROFILE STA 27+00 TO STA 37+00	REUSE OF DOCUMENT
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		TENDER / BID DOCUMENT
AS NOTED		
VERIFY SCALE		
BAR IS ONE INCH ON ORIGINAL DRAWING. 0 XXXXXXXXXX 1"		
DATE	DECEMBER 2023	
PROJ.	WFXQ6500	
DWG	C-4	
SHEET	9 of 29	

GENERAL NOTE:

1. ANY WATER LINE ABANDONED IN PLACE WILL NEED TO BE ABANDONED PER UAR SPECIFICATION. ABANDONED LINES NEED TO BE CUT, CAPPED AND FILLED WITH CEMENT SLURRY. ABANDONMENT LETTER IS ALSO NEEDED.
2. IT IS THE RESPONSIBILITY OF THE UTILITY OWNER TO CONTACT THE TxDOT AREA OFFICE, THROUGH THE UAR SYSTEM, 48 HOURS PRIOR TO STARTING CONSTRUCTION.
3. MINIMUM DEPTH OF COVER TO BE 60 INCHES FROM TOP OF PAVEMENT TO TOP OF CASING/ PIPE UNDER ALL ROADWAY CROSSINGS INCLUDING STATE, COUNTY, AND CITY ROADWAYS.
4. CONTRACTOR TO LOCATE AND VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
5. 24 INCHES MINIMUM CLEARANCE FROM HIGHWAY STRUCTURES AND ALL OTHER EXISTING UTILITIES (UNLESS MORE IS REQUIRED).

6. THE CONTRACTOR IS REQUIRED TO CONTACT TxDOT DISTRICT TRAFFIC SIGNAL SHOP AT (214) 320-6200 FOR LINE LOCATES IF BURIED PROTION OF THIS WORK IS NEAR TxDOT TRAFFIC SIGNALS.
7. CONTRACTOR TO PROVIDE CORROSION PROTECTION, SEE CATHODIC PROTECTION DETAIL DWG CD-5 AND CD-6.
8. TEMPORARY FENCING SHALL BE OF SFFICIENT STRENGTH TO CONTAIN LIVESTOCK OF ADJACENT PROPERTY OWNERS.
9. TEMPORARY GATES SHALL BE PROVIDED TO ALLOW OWNERS ACCESS TO PROPERTY WHERE NECESSARY.



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1999 BRYAN ST. SUITE 1200
DALLAS, TX 75201-3136
Phone: F1 (214) 638-0145
TEXAS Registration: F-2966

US 377 AT FM 1171
WATER LINE / LOOP & RELOCATION
TOWN OF FLOWER MOUND
TEXAS

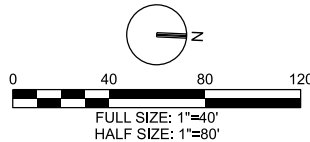
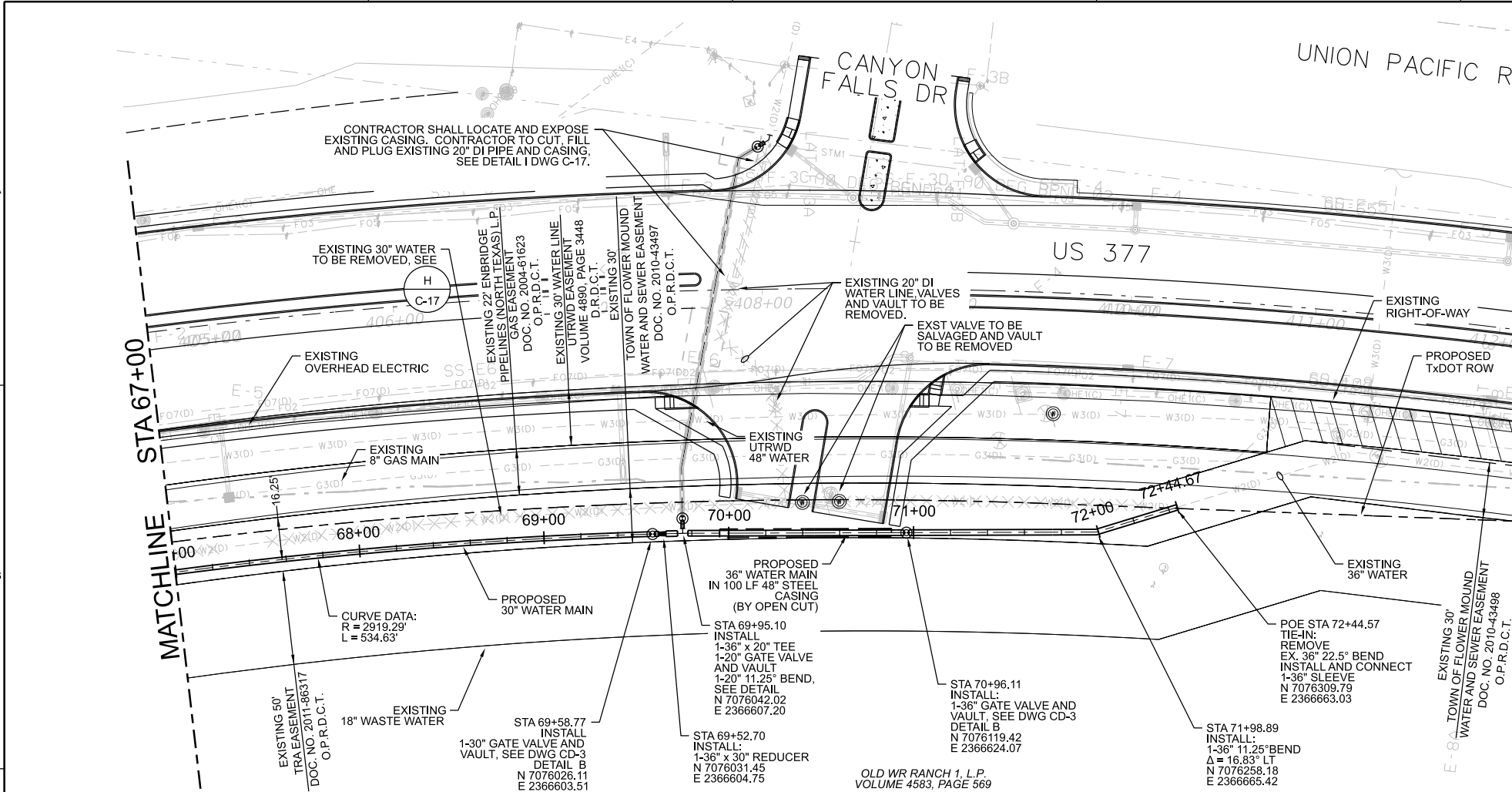
Jacobs
CIVIL
WATER MAIN RELOCATION
PLAN AND PROFILE
STA 57+00 TO STA 67+00

1" = 40'
VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING.
DATE: DECEMBER 2023
PROJ: WFXQ6500
DWG: C-7
SHEET: 12 of 29

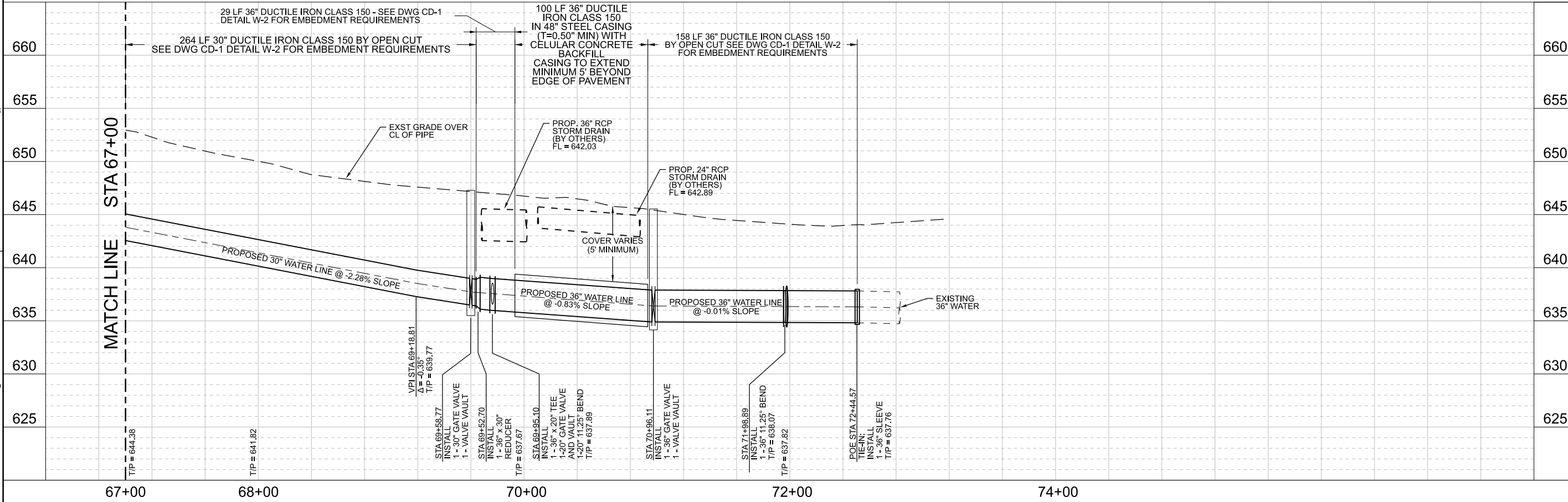
TENDER / BID DOCUMENTS

FILENAME: 001-C-100007_WFXQ6500.dgn PLOT DATE: 11/20/2023

Page 260 of 260



- GENERAL NOTE:
1. ANY WATER LINE ABANDONED IN PLACE WILL NEED TO BE ABANDONED PER UAR SPECIFICATION. ABANDONED LINES NEED TO BE CUT, CAPPED AND FILLED WITH CEMENT SLURRY. ABANDONMENT LETTER IS ALSO NEEDED.
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 9. TEMPORARY GATES SHALL BE PROVIDED TO ALLOW OWNERS ACCESS TO PROPERTY WHERE NECESSARY.



NO.	DATE	DR	REVISION	CHK	APVD	BY	APVD
							T LYONS

1999 BRYAN ST. SUITE 1200
DALLAS, TX 75201-3196
Phone: F1 (214) 638-0145
TEXAS Registration: F-2966

Jacobs

CIVIL

WATER MAIN RELOCATION
PLAN AND PROFILE
STA 67+00 TO STA 72+44.57

US 377 AT FM 1171
WATER LINE / LOOP & RELOCATION
TOWN OF FLOWER MOUND
TEXAS

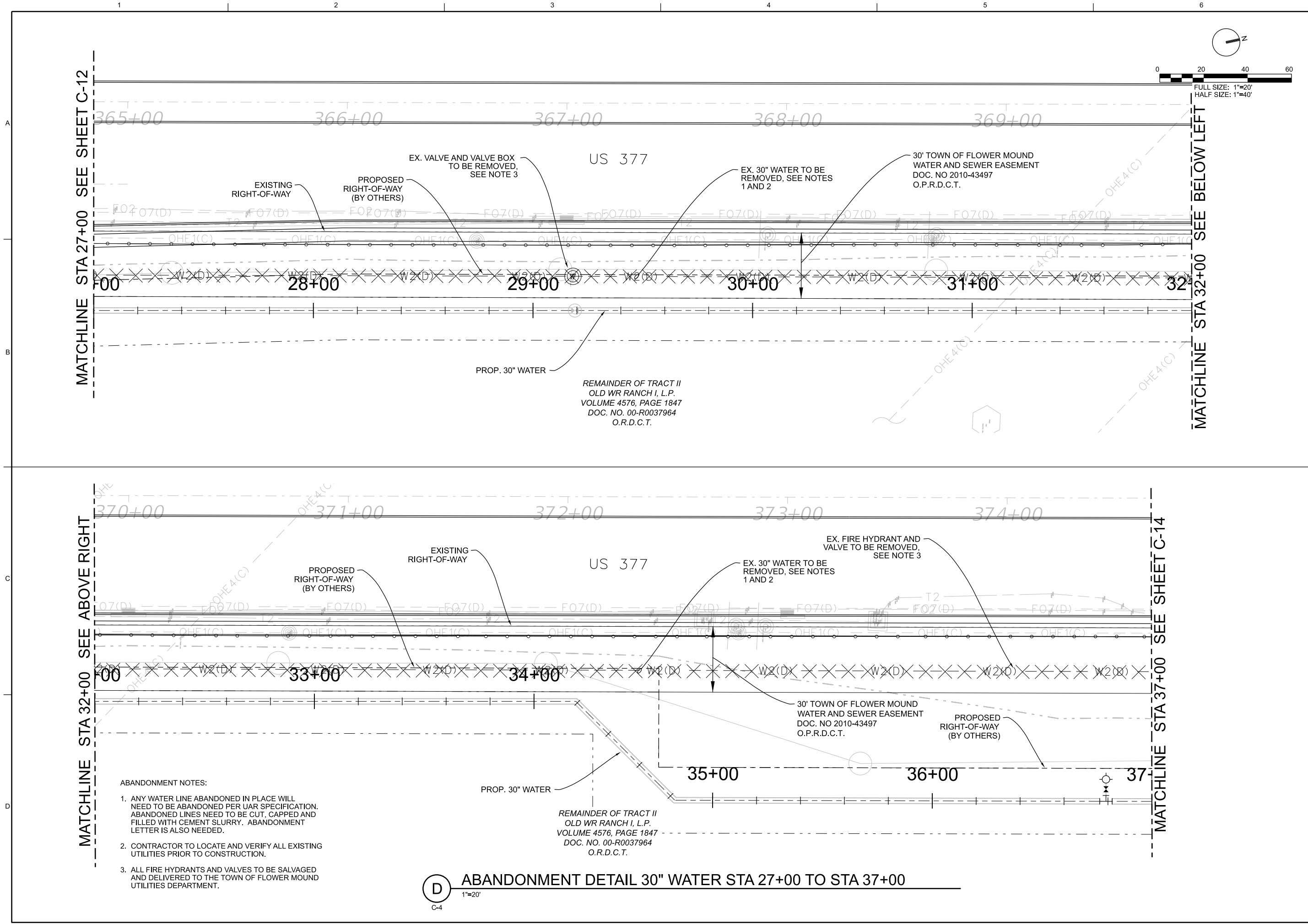
1" = 40'

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE	DECEMBER 2023
PROJ	WFXQ6500
DWG	C-8
SHEET	13 of 29

TENDER / BID DOCUMENTS



STATE OF TEXAS
TIMOTHY ALAN LYONS
95289
PROFESSIONAL ENGINEER
6/19/2023

T LYONS

V PANDEY

A HOLMES

DR

CHK

REVISION

BY

APVD

NO.

DATE

DGN

1989 BRYAN ST. SUITE 1200
DALLAS, TX 75201-3136
Phone: #1 (214) 638-0145
TEXAS Registration: F-25966

US 377 AT FM 1171
WATER LINE / LOOP & RELOCATION
TOWN OF FLOWER MOUND
TEXAS

CIVIL
ABANDONMENT PLAN
STA 27+00 TO STA 37+00

1" = 20'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE DECEMBER 2023
PROJ WFXQ6500
DWG C-13
SHEET 18 of 29

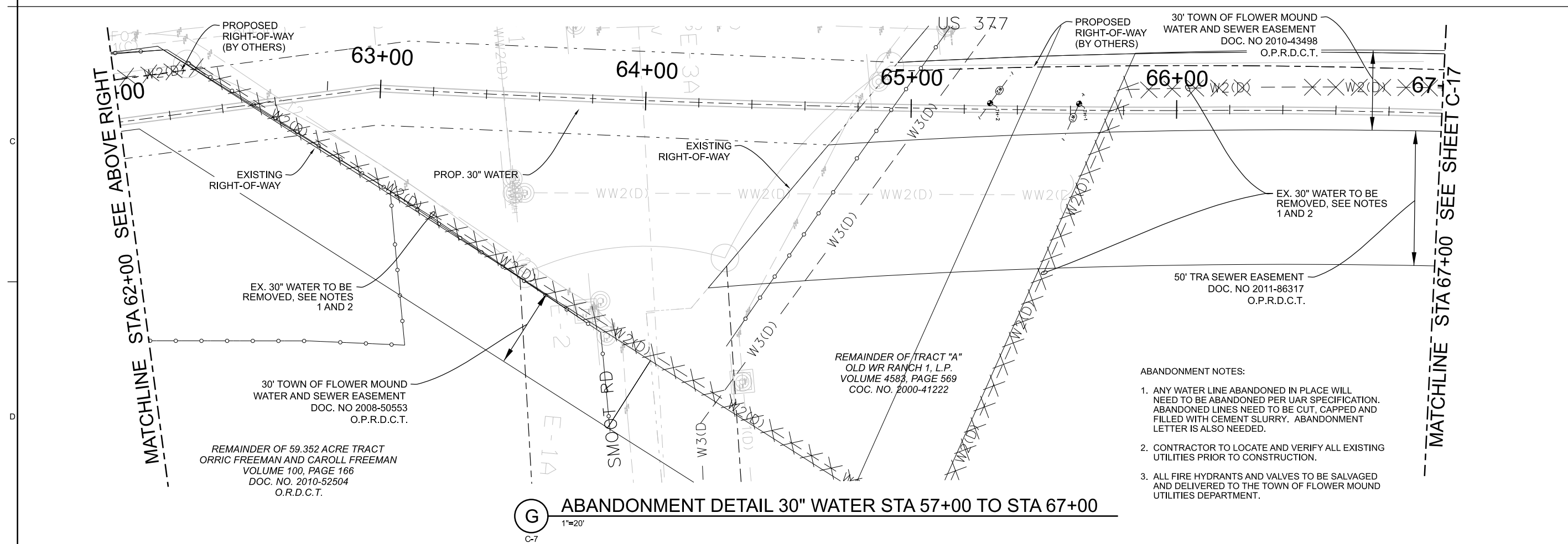
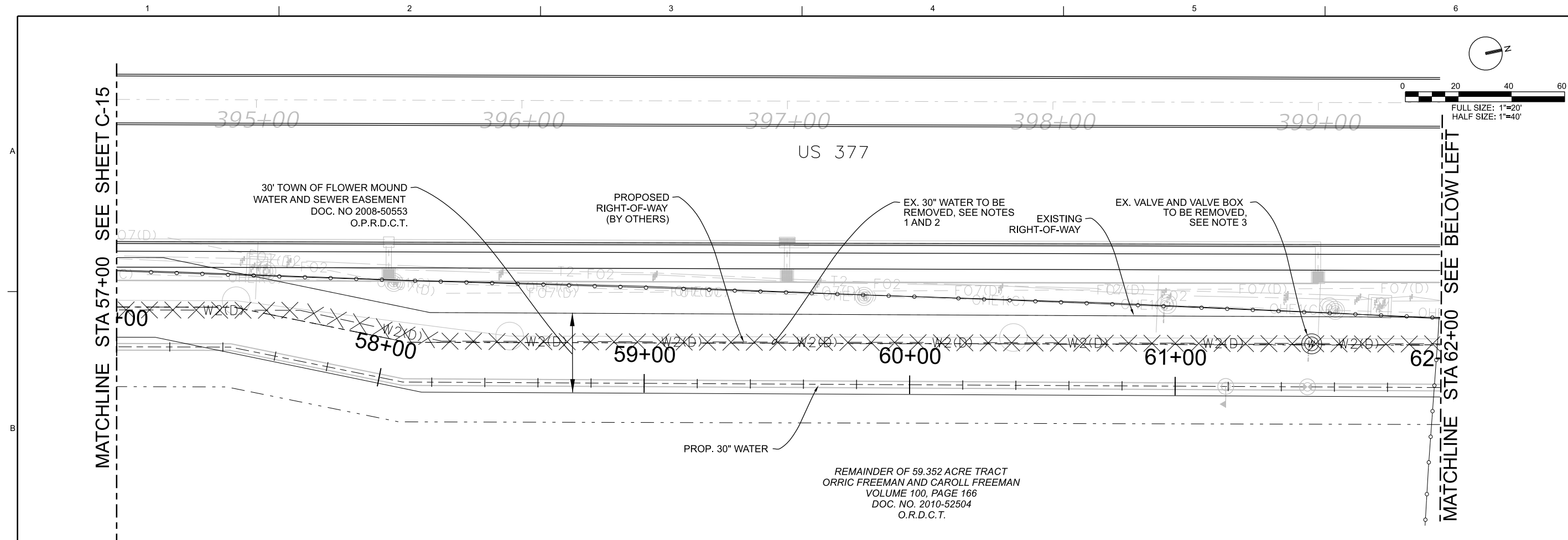
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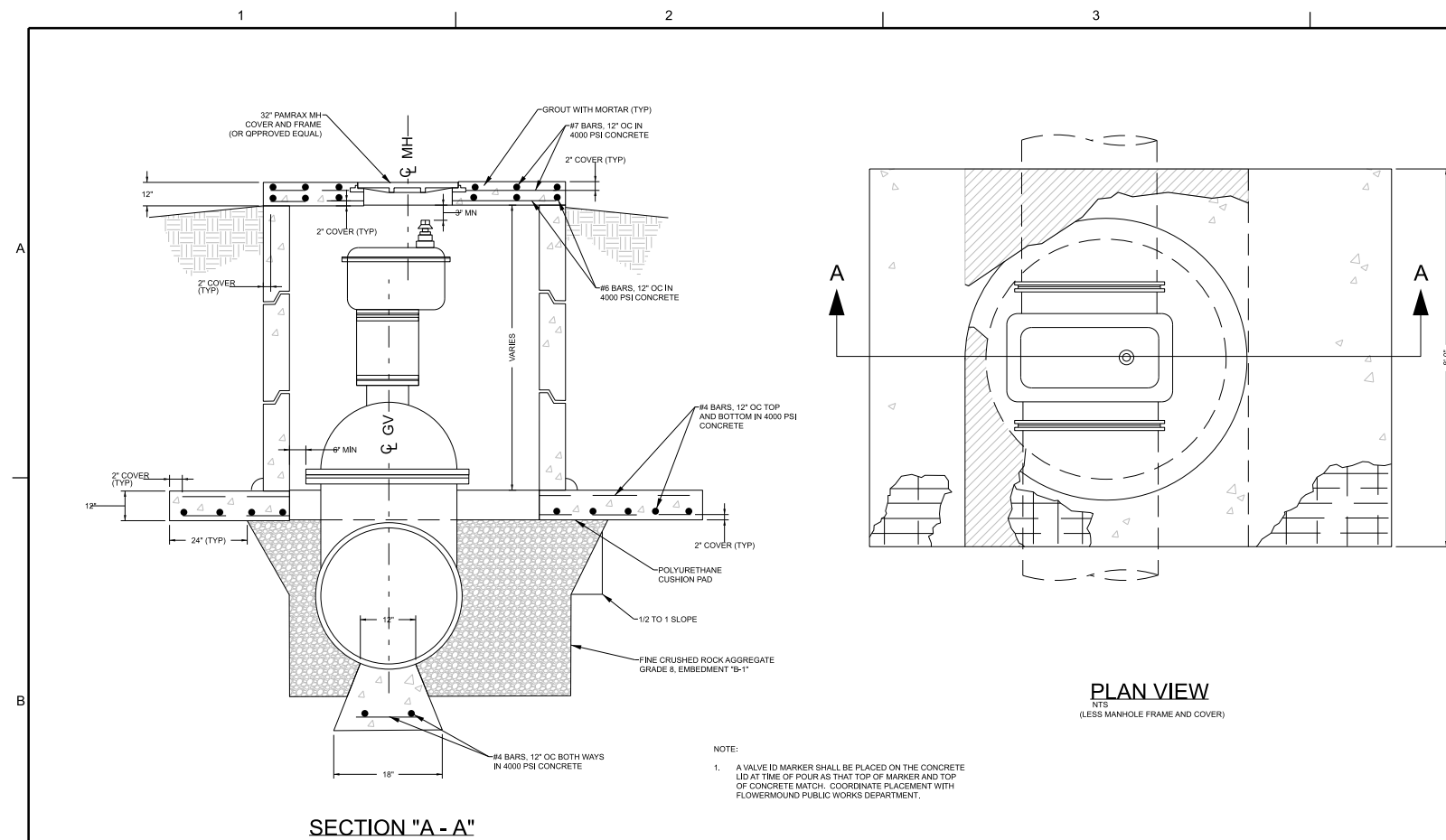
Page 266 of 460

TENDER / BID DOCUMENTS

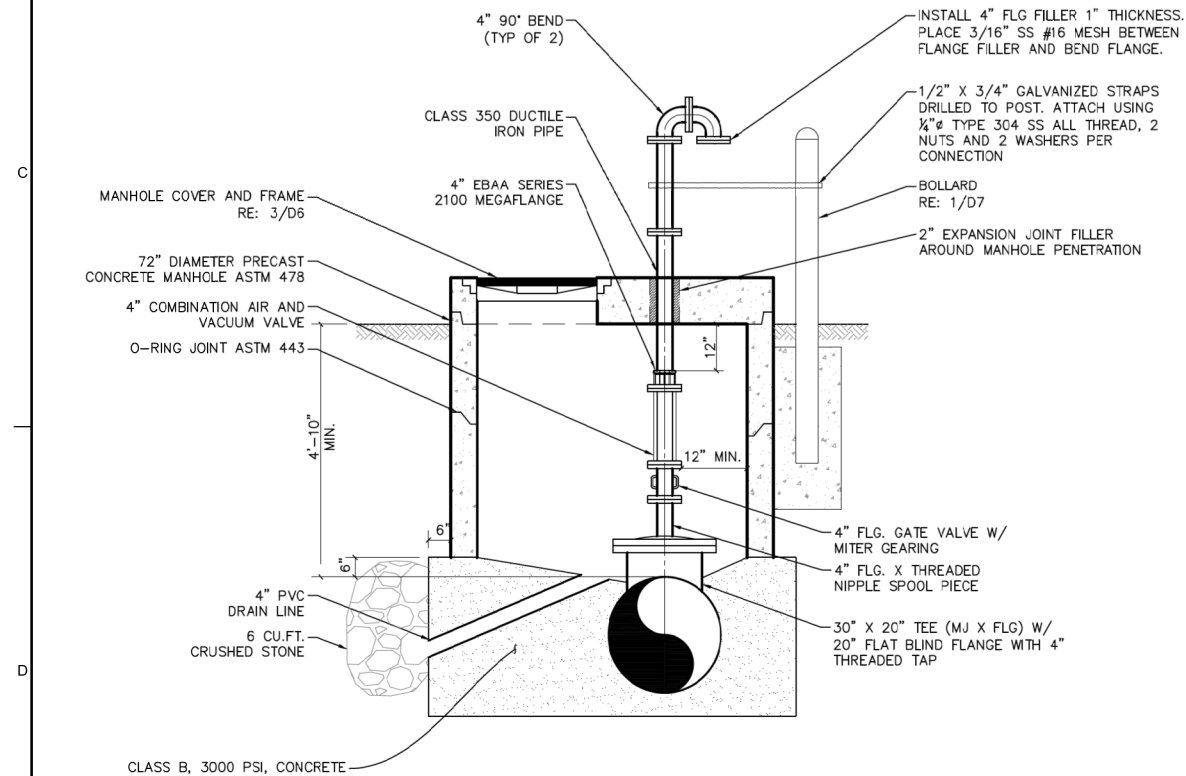
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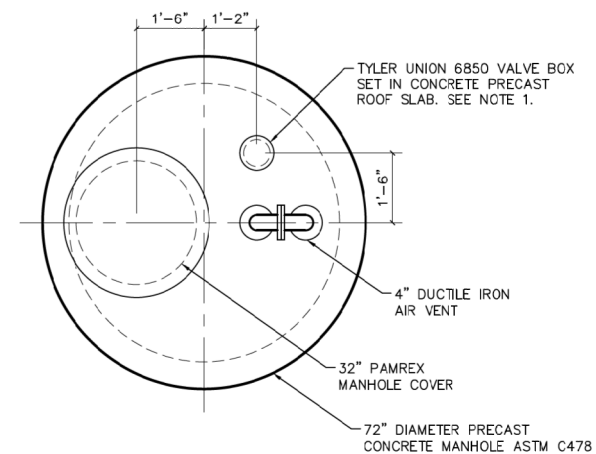
1 GATE VALVE VAULT DETAIL
NTS



② 4-INCH COMBINATION AIR RELEASE - VACUUM VALVE & VAULT
NTS

- NOTES:

1. PIPING AND VALVES WITHIN MANHOLE, AS WELL AS ABOVE GROUND PIPING, SHALL BE PAINTED IN ACCORDANCE WITH APPLICABLE SPECIFICATION. DUCTILE IRON TEE SHALL BE ASPHALT COATED IN ACCORDANCE WITH SECTION 02615.
2. GATE VALVE MITER CLEARING SHALL HAVE A ONE PIECE VALVE EXTENSION EXTENDING FROM VALVE TO TOP OF MANHOLE. THE VALVE EXTENSION SHALL BE POSITIONED INSIDE THE MANHOLE SUCH THAT THE VALVE CAN BE OPERATED FROM GROUND LEVEL THROUGH THE MANHOLE TOP. THE VALVE EXTENSION SHALL EXTEND TO WITHIN 4-INCHES OF THE MANHOLE TOP. ACCESS TO VALVE EXTENSION SHALL NOT BE THROUGH MANHOLE COVER. EXTENSION SHALL BE SUPPORTED BY TRUMBULL STEM GUIDE MODEL 367-4970 AT 6' MAX SPACING.
3. CONTRACTOR SHALL CENTER VALVE BOX OVER GATE VALVE OPERATING STEM. CONTRACTOR SHALL COORDINATE VALVE BOX LOCATION WITH GATE VALVE MANUFACTURER, MANHOLE COVER MANUFACTURER, AND MANHOLE MANHOLE TOP RING TO THE MANHOLE FABRICATION. CONTRACTOR SHALL SUBMIT SHOP DRAWING OF AIR RELEASE VALVE MANHOLE TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.



NOTES:

1. CONTRACTOR SHALL CENTER VALVE BOX OVER GATE VALVE OPERATING STEM. CONTRACTOR SHALL COORDINATE VALVE BOX LOCATION WITH GATE VALVE STEM AND MANHOLE COVER PRIOR TO MANHOLE FABRICATION. CONTRACTOR SHALL SUBMIT SHOP DRAWING OF AIR RELEASE VALVE MANHOLE TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

3 CARV MANHOLE COVER
NTS

City Reimbursement Estimate
Town of Flower Mound

US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Standard Utility Agreement - Opinion of Probable Construction Cost

"Buy America" compliance documentation will be provided as required for the items marked (*) in accordance with the TXDOT/FHWA letter dated October 3, 2019.

BID ITEM #	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL	BUY AMERICA
1	MOBILIZATION	1	EA	\$ 100,000.00	\$ 100,000.00	
2	20" DUCTILE IRON PIPE (CLASS 250) - OPEN CUT	290	LF	\$ 500.00	\$ 145,000.00	*
3	24" DUCTILE IRON PIPE (CLASS 250) - OPEN CUT	625	LF	\$ 600.00	\$ 375,000.00	*
4	30" DUCTILE IRON PIPE (CLASS 150) - OPEN CUT	5809	LF	\$ 400.00	\$ 2,323,600.00	*
5	36" DUCTILE IRON PIPE (CLASS 150) - OPEN CUT	187	LF	\$ 1,050.00	\$ 196,350.00	*
6	20" DUCTILE IRON PIPE (CLASS 250) - WITH CASING SPACERS	682	LF	\$ 300.00	\$ 204,600.00	*
7	24" DUCTILE IRON PIPE (CLASS 250) - WITH CASING SPACERS	530	LF	\$ 350.00	\$ 185,500.00	*
8	36" DUCTILE IRON PIPE (CLASS 150) - WITH CASING SPACERS	100	LF	\$ 600.00	\$ 60,000.00	*
9	36" STEEL CASING PIPE - BORE	710	LF	\$ 1,300.00	\$ 923,000.00	*
10	36" STEEL CASING PIPE - OPEN CUT	594	LF	\$ 450.00	\$ 267,300.00	*
11	48" STEEL CASING PIPE - OPEN CUT	100	LF	\$ 800.00	\$ 80,000.00	*
12	TRENCH SAFETY	8223	LF	\$ 10.00	\$ 82,230.00	
13	ABANDON EXIST WATER LINE IN PLACE	298	LF	\$ 100.00	\$ 29,800.00	
14	REMOVE EXIST WATER LINE	6965	LF	\$ 20.00	\$ 139,300.00	
15	6" GATE VALVE	5	EA	\$ 4,000.00	\$ 20,000.00	*
16	12" GATE VALVE	1	EA	\$ 8,000.00	\$ 8,000.00	*
17	20" GATE VALVE	3	EA	\$ 25,000.00	\$ 75,000.00	*
18	24" GATE VALVE	9	EA	\$ 40,000.00	\$ 360,000.00	*
19	30" GATE VALVE	5	EA	\$ 70,000.00	\$ 350,000.00	*
20	36" GATE VALVE	1	EA	\$ 100,000.00	\$ 100,000.00	*
21	FIRE HYDRANT ASSEMBLY	5	EA	\$ 12,000.00	\$ 60,000.00	*
22	4" COMBINATION AIR VACUUM RELEASE VALVE AND VALVE VAULT	2	EA	\$ 50,000.00	\$ 100,000.00	*
23	VALVE VAULT	20	EA	\$ 10,000.00	\$ 200,000.00	
24	HYDROSTATIC TESTING AND DISINFECTION	8223	LF	\$ 3.00	\$ 24,669.00	
25	CONNECT TO EXISTING WATER LINE	4	EA	\$ 20,000.00	\$ 80,000.00	
26	STORM WATER POLLUTION PREVENTION PLAN	1	EA	\$ 30,000.00	\$ 30,000.00	
27	CATHODIC PROTECTION SYSTEM	8223	LF	\$ 7.00	\$ 57,561.00	*
28	TRAFFIC CONTROL	6	MO	\$ 3,000.00	\$ 18,000.00	
Total					\$ 6,594,910.00	

Attachment “B” Accounting Method



Actual Cost Method of Accounting

The utility accumulates cost under a work order accounting procedure prescribed by the Federal or State regulatory body and proposes to request reimbursement for actual direct and related indirect costs.



Lump Sum Method of Accounting

Utility proposed to request reimbursement based on an agreed lump sum amount supported by a detailed cost analysis.

Initial Date
TxDOT

Initial Date
Utility

Attachment “C” Schedule of Work

Estimated Start Date: 5/1/2024, (subject to physical work restrictions prior to the issuance of environmental clearance as required by the provisions of this agreement)

Estimated Duration (days): 180 Construction Days

Estimated Completion Date: 12/1/2024

Initial Date
TxDOT

Initial Date
Utility

Attachment “D” Statement Covering Contract Work

(ROW-U-48)
(ROW-U-48-1, if applicable)

Construction Contract:

- ☐ Utility performing with their own forces (timesheets will be required at the time of billing).
- ☒ Utility will use outside forces to perform the adjustment, complete attached ROW-U-48 or ROW-U-48-1 (joint bid).

Engineering Contract:

- ☐ Utility performing with their own forces (timesheets will be required at the time of billing).
- ☒ Utility will use consultant contract (continuing contract rate sheets or fee schedule will be required).
- ☐ TxDOT will procure utility consultant.

Initial Date
TxDOT

Initial Date
Utility



STATEMENT COVERING UTILITY CONSTRUCTION CONTRACT WORK
(AS APPEARING IN ESTIMATE)

Form ROW-U-48
(Rev. 10/20)
Page 1 of 1

U-Number: N/A Utility ID: U00010908
ROW CSJ Number: 0081-03-062 District: DALLAS
County: DENTON Highway No.: US 377
Federal Project No.: NH1902 (136)

I, TIFFANY BRUCE, a duly authorized and qualified representative of
TOWN OF FLOWER MOUND, hereinafter referred to as **Owner**, am fully cognizant of the
facts and make the following statements in respect to work which will or may be done on a contract basis as it appears in the
estimate to which this statement is attached.

It is more economical and/or expedient for **Owner** to contract this adjustment, or **Owner** is not adequately staffed or equipped
to perform the necessary work on this project with its own forces to the extent as indicated on the estimate.

Procedure to be Used in Contracting Work

- ☒ A. Solicitation for bids is to be accomplished through open advertising and contract is to be awarded to the lowest
qualified bidder who submits a proposal in conformity with the requirements and specifications for the work to be
performed. Associated bid tabulations will be provided to the **State**.
- ☐ B. Solicitation for bids is to be accomplished by circulating to a list of pre-qualified contractors or known qualified
contractors and such contract is to be awarded to the lowest qualified bidder who submits a proposal in conformity
with the requirements and specifications for the work to be performed. Associated bid tabulations will be provided to
the **State**. Such presently known contractors are listed below:
- 1.
 - 2.
 - 3.
 - 4.
 - 5.
- ☐ C. The work is to be performed under an existing continuing contract under which certain work is regularly performed
for **Owner** and under which the lowest available costs are developed. The existing continuing contract will be made
available to the **State** for review at a location mutually acceptable to the **Owner** and the **State**. If only part of the
contract work is to be done under an existing contract, give detailed information by attachment hereto.
- ☐ D. The utility proposes to contract outside the foregoing requirements and therefore evidence in support of its proposal
is attached to the estimate in order to obtain the concurrence of the **State**, and the Federal Highway Administration
Division Engineer where applicable, prior to taking action thereon (approval of the agreement shall be considered as
approval of such proposal).
- ☐ E. The utility plans and specifications, with the consent of the **State**, will be included in the construction contract
awarded by the **State**. In the best interest of both the **State** and the **Owner**, the **Owner** requests the **State** to include
the plans and specifications for this work in the general contract for construction of Highway _____
in this area, so that the work can be coordinated with the other construction operations; and the construction
contract is to be awarded by the **State** to the lowest qualified bidder who submits a proposal in conformity with the
requirements and specifications for the work to be performed. If this option is chosen, attach form ROW-U-48-1, the
terms of which are incorporated herein by reference.

Signature

Date

ASSISTANT TOWN MANAGER / TOWN ENGINEER

Title

THE STATE OF TEXAS §
COUNTY OF DENTON §

**PROFESSIONAL SERVICES AGREEMENT WITH
JACOBS ENGINEERING GROUP**

This contract is entered into on this 19th day of October, 2020, by and between the **TOWN OF FLOWER MOUND, TEXAS**, a municipal corporation located in Denton County, Texas, (hereinafter referred to as “TOWN”), acting by and through its Mayor, and **JACOBS ENGINEERING GROUP**, (“hereinafter referred to as “CONSULTANT”) whose address is 1999 Bryan Street, Suite 1200, Dallas, Texas 75201.

RECITALS

WHEREAS, TOWN desires to obtain professional services from CONSULTANT relative to surveying, design and providing construction documents for the US 377 at FM 1171 Water Line Loop/Relocation project; and

WHEREAS, CONSULTANT is an engineering firm qualified to provide such services and is willing to undertake the performance of such services for the TOWN in exchange for fees hereinafter specified;

TERMS OF AGREEMENT

NOW, THEREFORE, in consideration of the covenants and agreements hereinafter contained and subject to the terms and conditions hereinafter stated, the parties hereto do mutually agree as follows:

**I.
Employment of Consultant**

CONSULTANT will perform as an independent contractor all services under this Contract to the prevailing professional standards consistent with the level of care and skill ordinarily exercised by members of the architectural, engineering and planning professions, both public and private, currently practicing in the same locality under similar conditions including but not limited to the exercise of reasonable, informed judgments and prompt, timely action. If CONSULTANT has represented or is representing that it has special expertise in one or more areas to be utilized in this Contract, then CONSULTANT agrees to perform those special expertise services to the appropriate local, regional and national professional standards.

II.

Scope of Services

CONSULTANT shall perform such services as are necessary to provide services for the US 377 at FM 1171 Water Line Loop/Relocation project specifically including, but not necessarily limited to, the tasks enumerated more fully in Attachment "A" hereto entitled "Scope of Work" (hereafter referred to as the "Project"). Attachment "A" is hereby incorporated herein by reference and made a part hereof as if written word for word. However, in case of conflict in the language of Attachment "A" and this Contract, the terms and conditions of this Contract shall be final and binding upon both parties hereto.

III.

Payment for Services

Total payment for services described herein shall be a sum not to exceed One Hundred Thirty-Four Thousand No/100 Dollars (\$134,000.00). This total payment for services includes CONSULTANT's ordinary expenses. Additional expenses and charges, which are extraordinary in nature, must be approved in advance by TOWN in writing signed by the parties. Such extraordinary expenses may be paid as incurred and billed to the TOWN pursuant to this Contract over and above the total payment amount identified in this provision. Any extraordinary expenses or charges not approved in writing in advance by the TOWN shall remain the sole responsibility of the CONSULTANT. If CONSULTANT retains any subcontractors to perform any of the work, CONSULTANT acknowledges that payments to such subcontractors are due and payable in accordance with the provisions of Texas Government Code Section 2251.022, and that interest on unpaid and overdue amounts shall accrue in accordance with Texas Government Code Section 2251.025.

CONSULTANT will bill TOWN on a lump sum basis in accordance with Attachment "B"; provided however that this Contract shall control in the event of any conflict between the language in Attachment "B" and the language in this Contract. If additional services, trips or expenses are requested, CONSULTANT will not provide such additional services until authorized by TOWN in writing to proceed. The scope of services shall be strictly limited. TOWN shall not be required to pay any amount in excess of the amount identified in the preceding paragraph unless TOWN shall have approved in writing in advance (prior to the performance of additional work) the payment of additional amounts.

Each month CONSULTANT will submit to TOWN an invoice for supporting the percentage for which payment is sought by CONSULTANT during the previous month for which payment is sought. Each invoice shall also state the percentage of work completed on the Project, the total of the current invoice amount and a running total balance for the Project to date.

Assuming that TOWN agrees with the invoice, that TOWN has not determined any of the work to be unsatisfactory, or that TOWN otherwise does not dispute any of the amounts billed, TOWN shall make payments in the amount shown by CONSULTANT's approved monthly statements and other documentation submitted in compliance with the Texas Prompt Payment Act, Texas Government Code Chapter 2251.

Nothing contained in this Contract shall require TOWN to pay for any work that TOWN has determined has not been successfully completed or is unsatisfactory as determined by TOWN, or which is not otherwise submitted in compliance with the terms of this Contract, nor shall failure to withhold payment pursuant to the provisions of this section constitute a waiver of any right, at law or in equity, which TOWN may have if CONSULTANT is in default, including the right to bring legal action for damages or for specific performance of this Contract. Waiver of any default under this Contract shall not be deemed a waiver of any subsequent default.

IV.

Revisions of the Scope of Services

TOWN reserves the right to revise or expand the scope of services after due approval by TOWN as TOWN may deem necessary, but in such event TOWN shall pay CONSULTANT equitable compensation for such services. In any event, when CONSULTANT is directed to revise or expand the scope of services under this Section of the Contract, CONSULTANT shall provide TOWN a written proposal for the entire costs involved in performing such additional services. Prior to CONSULTANT undertaking any revised or expanded services as directed by TOWN under this Contract, TOWN must authorize in writing the nature and scope of the services and accept the method and amount of compensation and the time involved in all phases of the Project.

It is expressly understood and agreed by CONSULTANT that any compensation not specified in Paragraph III herein above may require Flower Mound Town Council approval and is subject to the current budget year limitations.

V.

Term

This Contract shall begin on the date first written above, and shall terminate when TOWN has approved the Project as being final or otherwise terminates this Contract as provided herein.

VI.

Contract Termination Provision

Notwithstanding any other provision of this Contract, this Contract may be terminated at any time by TOWN for any reason, with or without cause, by providing CONSULTANT thirty (30) days written notice of such termination. Upon receipt of such notice, CONSULTANT shall immediately terminate working on, placing orders or

entering into contracts for supplies, assistance, facilities or materials in connection with this Contract and shall proceed to promptly cancel all existing contracts insofar as they are related to this Contract.

VII.

Ownership of Documents

All materials and documents prepared or assembled by CONSULTANT under this Contract shall become the sole property of TOWN and shall be delivered to TOWN without restriction on future use. CONSULTANT shall provide documents in any commonly-used electronic file format as requested by TOWN. CONSULTANT may retain in its files copies of all drawings, specifications and all other pertinent information for the work. CONSULTANT shall have no liability for changes made to any materials or other documents by the TOWN or others subsequent to the completion of the Contract.

VIII.

Insurance

A. CONSULTANT shall, at its own expense, purchase, maintain and keep in force during the term of this Contract such insurance as set forth below. CONSULTANT shall not commence work under this Contract until CONSULTANT has obtained all the insurance required under this Contract and such insurance has been approved by TOWN, nor shall CONSULTANT allow any subcontractor to commence work on its own subcontract until all similar insurance of the subcontractor has been obtained and approved. All insurance policies provided under this Contract shall be written on an "occurrence" basis save and except the Professional Liability Insurance which may be written on a "claims-made" basis, provided that "tail coverage" or continuation coverage is provided. The insurance requirements shall remain in effect throughout the term of this Contract.

The CONSULTANT shall furnish to TOWN certificates of insurance executed by the insurer or its authorized agent stating coverages, limits, expiration dates and compliance with all applicable required provisions. Certificates shall reference the Project and be addressed as follows:

Town of Flower Mound
2121 Cross Timbers Road
Flower Mound, TX 75028
Email: purchasing@flower-mound.com

The following policies and coverage shall be required:

1. Worker's Compensation Insurance (as required by law) with the policy endorsed to provide a waiver of subrogation as to TOWN; such policy to provide for Employers' Liability Insurance of \$100,000.00 for each accident, \$100,000.00 disease-each employee, \$500,000.00 disease-policy limit;
2. Commercial General Liability Insurance including, but not limited to, Premises/Operations, Personal & Advertising Injury, Products/Completed Operations, Independent Contractor's and Contractual Liability, including but not limited to coverage for all of the indemnification obligations of CONSULTANT under this Contract, and fully insuring CONSULTANT's liability for injury to or death of employees of TOWN and of third parties, extended to include personal injury liability coverage and for damage to property of third parties, with combined single limits of \$1,000,000 per occurrence, \$1,000,000 Products/Completed Operations Aggregate and \$1,000,000 general aggregate per occurrence. Coverage must be written on an occurrence form. The General Aggregate shall apply on a per project basis;
3. Business Automobile Liability Insurance, covering owned, hired and non-owned vehicles, with a combined bodily injury and property damage limit of \$1,000,000.00 per occurrence; and
4. Professional Liability Insurance: CONSULTANT shall obtain and maintain at all times during the prosecution of the work under this Contract professional liability insurance, which may be written on a claims made form provided that "tail coverage" or continuation coverage is provided. Limits of liability shall be \$1,000,000.00 per claim, \$1,000,000.00 annual aggregate. The coverage under this policy shall include a contractual liability endorsement.

If any of the foregoing insurance is written on a claims-made form, coverage shall be continuous (by renewal or extended reporting period) for not less than thirty-six (36) months following completion of the Contract and acceptance by the TOWN. All such insurance shall be purchased from an insurance company that meets a financial rating of B+VI or better as assigned by A.M. Best Company or equivalent.

B. Each insurance policy to be furnished by CONSULTANT shall include the following conditions by endorsement to the policy

1. The TOWN shall be named as an additional insured on the Commercial General Liability policy, by using endorsement CG2026 or broader;

2. The TOWN shall also be named as an additional insured as to all other applicable coverage save and except the Worker's Compensation Insurance and Professional Liability Insurance;
3. Each policy will require that thirty (30) days prior to the expiration, cancellation, nonrenewal or any material change in coverage, a notice thereof shall be given to TOWN by certified mail to:

Brian Waltenburg, P.E.,
Assistant Director of Engineering
Town of Flower Mound
2121 Cross Timbers Road
Flower Mound, Texas 75028
972-874-6234 Telephone

However, if the policy is canceled for nonpayment of premium, only ten (10) days advance written notice to TOWN is required. CONSULTANT shall also notify TOWN within twenty-four (24) hours after receipt of any notices of expiration, cancellation, nonrenewal or any material change in coverage it receives from its insurer(s);

4. The term "Owner" or "TOWN" shall include all authorities, boards, bureaus, commissions, divisions, departments and offices of TOWN and the individual members, employees and agents thereof in their official capacities, and/or while acting on behalf of TOWN;
5. The policy phrase "Other Insurance" shall not apply to TOWN where TOWN is an additional insured on the policy; and
6. All provisions of the Contract concerning liability, duty and standards of care together with the indemnification provision shall be underwritten by contractual liability coverage sufficient to include such obligations within applicable policies.

C. Concerning insurance to be furnished by CONSULTANT, it is a condition precedent to acceptability thereof that:

1. Any policy submitted shall not be subject to limitations, conditions or restrictions deemed inconsistent with the intent of the insurance requirements to be fulfilled by CONSULTANT. The TOWN's decision(s) thereon shall be final;
2. All policies are to be written through companies duly approved to transact that class of insurance in the State of Texas; and
3. All liability policies required herein, save and except Professional Liability Insurance, shall be written with an "occurrence" basis coverage trigger.

D. CONSULTANT agrees to the following:

1. CONSULTANT hereby waives subrogation rights for loss or damage to the extent same are covered by insurance. Insurers shall have no right of recovery or subrogation against TOWN, it being the intention that the insurance policies shall protect all parties to this Contract and be primary coverage for all losses covered by the policies;
2. Companies issuing the insurance policies and CONSULTANT shall have no recourse against TOWN for payment of any premiums, or assessments for any deductible, as all such premiums are the sole responsibility and risk of CONSULTANT;
3. Approval, disapproval or failure to act by TOWN regarding any insurance supplied by CONSULTANT (or any subcontractors) shall not relieve CONSULTANT of full responsibility or liability for damages and accidents as set forth in the Contract documents. Neither shall the insolvency or denial of liability by the insurance company exonerate CONSULTANT from liability; and
4. No special payments shall be made for any insurance that the CONSULTANT and subcontractors are required to carry; all are included in the contract price and the contract unit prices.

Any of the insurance policies required under this section may be written in combination with any of the others, where legally permitted, but none of the specified limits may be lowered thereby.

IX.

Right to Inspect Records

CONSULTANT agrees that TOWN shall have access to and the right to examine any directly pertinent books, documents, papers and records of CONSULTANT involving transactions relating to this Contract. CONSULTANT agrees that TOWN shall have access during normal working hours to all necessary CONSULTANT facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. TOWN shall give CONSULTANT reasonable advance notice of intended audits.

If TOWN agrees that CONSULTANT may retain any subcontractors, CONSULTANT further agrees to include in subcontract(s), if any, a provision that any subcontractor or engineer agrees that TOWN shall have access to and the right to examine any directly pertinent books, documents, papers and records of such engineer or subcontractor involving transactions to the subcontract, and further, that TOWN shall have access during normal working hours to all such engineer or sub-contractor facilities and shall be provided adequate and appropriate work space, in order to conduct audits in

compliance with the provisions of the paragraph. TOWN shall give any such engineer or sub-contractor reasonable advance notice of intended audits.

X.
Successors and Assigns

TOWN and CONSULTANT each bind themselves and their successors, executors, administrators and assigns to the other party to this Contract and to the successors, executors, administrators and assigns of such other party in respect to all covenants of this Contract. Neither TOWN nor CONSULTANT shall assign or transfer its interest herein without the prior written consent of the other.

XI.
CONSULTANT's Liability

Acceptance of the final plans by the TOWN shall not constitute nor be deemed a release of the responsibility and liability of CONSULTANT, its employees, associates, agents or consultants for the accuracy and competency of their designs, working drawings, specifications or other documents and work; nor shall such acceptance be deemed an assumption of responsibility by TOWN for any defect in the designs, working drawings, specifications or other documents and work; nor shall such acceptance be deemed an assumption of responsibility by TOWN for any defect in the designs, working drawings, specifications or other documents and work prepared by said CONSULTANT, its employees, associates, agents or sub-consultants. In this regard, CONSULTANT acknowledges that TOWN is retaining CONSULTANT to provide the services described herein, in reliance upon CONSULTANT's specialized expertise and experience, and in reliance thereon.

XII.
Indemnification

THE PROVISIONS OF THIS SECTION ARE SUBJECT TO THE LIMITATIONS OF TEXAS LOCAL GOVERNMENT CODE SECTION 271.904 AND SHALL BE CONSTRUED TO THAT EFFECT. THE CONSULTANT AS ALLOWED BY TEXAS LOCAL GOVERNMENT CODE SECTION 271.904 WILL STILL NAME TOWN AS ADDITIONAL INSURED IN ITS GENERAL LIABILITY POLICY AND PROVIDE ANY DEFENSE AS ALLOWED BY THE POLICY. CONSULTANT DOES HEREBY COVENANT AND CONTRACT TO WAIVE ALL CLAIMS, RELEASE, INDEMNIFY AND HOLD HARMLESS TOWN AND ALL OF ITS OFFICIALS, OFFICERS, AGENTS, EMPLOYEES AND INVITEES, IN BOTH THEIR PUBLIC AND PRIVATE CAPACITIES, FROM ANY AND ALL LIABILITY, CLAIMS, SUITS, DEMANDS OR CAUSES OF ACTION, INCLUDING ALL EXPENSES OF LITIGATION AND/OR SETTLEMENT, THAT MAY ARISE BY REASON OF DEATH OR INJURY TO PERSONS OR DAMAGE TO OR LOSS OF USE OF PROPERTY OCCASIONED BY ANY WRONGFUL INTENTIONAL ACT OR OMISSION OF CONSULTANT AS WELL AS ANY NEGLIGENT

OMISSION, ACT OR ERROR OF CONSULTANT, ITS OFFICIALS, OFFICERS, AGENTS, EMPLOYEES AND INVITEES, OR OTHER PERSONS FOR WHOM CONSULTANT IS LEGALLY LIABLE WITH REGARD TO THE PERFORMANCE OF THIS CONTRACT, AND CONSULTANT WILL, AT ITS OWN COST AND EXPENSE, DEFEND AND PROTECT TOWN AGAINST ANY AND ALL SUCH CLAIMS AND DEMANDS, INCLUDING PAYMENT OF TOWN'S REASONABLE ATTORNEYS' FEES. IN THE EVENT OF A CLAIM IS BROUGHT AGAINST TOWN, TOWN SHALL HAVE THE RIGHT TO RETAIN LEGAL COUNSEL OF ITS CHOOSING IN DEFENSE OF SUCH A CLAIM, AND SUCH ELECTION SHALL NOT RELIEVE CONTRACTOR OF ITS OBLIGATIONS UNDER THIS SECTION.

XIII.

Independent Contractor

CONSULTANT's status shall be that of an Independent Contractor and not an agent, servant, employee or representative of TOWN in the performance of this Contract. No term or provision of or act of CONSULTANT or TOWN under this Contract shall be construed as changing that status. CONSULTANT will have exclusive control of and the exclusive right to control the details of the work performed hereunder, and shall be liable for the acts and omissions of its officers, agents, employees, contractors, subcontractors and engineers and the doctrine of respondeat superior shall not apply as between TOWN and CONSULTANT, its officers, agents, employees, contractors, subcontractors and engineers, and nothing herein shall be construed as creating a partnership or joint enterprise between TOWN and CONSULTANT.

XIV.

Default

If at any time during the term of this Contract, CONSULTANT shall fail to commence the work in accordance with the provisions of this Contract, or fail to diligently provide services in an efficient, timely and careful manner and in strict accordance with the provisions of this Contract, or fail to use an adequate number or quality of personnel to complete the work or fail to perform any of its obligations under this Contract, then TOWN shall have the right, if CONSULTANT shall not cure any such default after thirty (30) days written notice thereof, to terminate this Contract for cause. Any such act by TOWN shall not be deemed a waiver of any other right or remedy of TOWN. If after exercising any such remedy due to CONSULTANT's nonperformance under this Contract, the cost to TOWN to complete the work to be performed under this Contract is in excess of that part of the Contract sum which has not theretofore been paid to CONSULTANT hereunder, CONSULTANT shall be liable for and shall reimburse TOWN for such excess.

TOWN's remedies for CONSULTANT's default or breach under this Contract shall be limited to one or more of the following remedies which may be exercised separately or in combination at TOWN's sole exclusive choice:

- (a) Specific performance of the Contract;
- (b) Re-performance of this Contract at no extra charge to TOWN; or
- (c) Monetary damages.

XV.
Provisions Surviving Termination

The terms of Sections XII entitled Indemnification, and XVIII entitled Confidential Information shall survive termination of this Contract.

XVI.
Changes

TOWN may, from time to time, require changes in the scope of services to be performed under this Contract. Such changes as are mutually agreed upon by and between TOWN and CONSULTANT shall be incorporated by written modification to this Contract.

XVII.
Conflicts of Interest

CONSULTANT covenants and agrees that CONSULTANT and its associates and employees will have no interest, and will acquire no interest, either direct or indirect, which will conflict in any manner with the performance of the services called for under this Contract. All activities, investigations and other efforts made by CONSULTANT pursuant to this Contract will be conducted by employees, associates or subcontractors of CONSULTANT.

No officer or employee of TOWN shall have any personal, financial interest, direct or indirect, in this Contract nor have any direct financial interest in the sale to TOWN of any land, materials, supplies, or services under this Contract, except on behalf of TOWN as a TOWN officer or employee. Any violation of this prohibition with knowledge, expressed or implied, of the person or corporation contracting with TOWN shall render the Contract voidable by the Director or the Town Council.

XVIII.
Confidential Information

CONSULTANT hereby acknowledges and agrees that its representatives may have access to or otherwise receive information during the furtherance of its obligations in accordance with this Contract, which is of a confidential, non-public or proprietary nature. CONSULTANT shall treat any such information received in full confidence and

will not disclose or appropriate such Confidential Information for its own use or the use of any third party at any time during or subsequent to this Contract. As used herein, "Confidential Information" means all oral and written information concerning TOWN, its affiliates and subsidiaries, and all oral and written information concerning TOWN or its activities, that is of a non-public, proprietary or confidential nature including, without limitation, information pertaining to customer lists, services, methods, processes and operating procedures, together with all analyses, compilation, studies or other documents, whether prepared by CONSULTANT or others, which contain or otherwise reflect such information. The term "Confidential Information" shall not include such materials that are or become generally available to the public other than as a result of disclosure of CONSULTANT, or are required to be disclosed by a governmental authority or by law, as determined by TOWN's attorney.

XIX. **Notice Information**

All notices and communications under this CONTRACT to be mailed to TOWN shall be sent to the address of TOWN's agent as follows, unless and until CONSULTANT is otherwise notified:

Brian Waltenburg, P.E.,
Assistant Director of Engineering
Town of Flower Mound
2121 Cross Timbers Road
Flower Mound, Texas 75028
972-874-6234 Telephone

Notices and communications to be mailed or delivered to CONSULTANT shall be sent to the address of CONSULTANT as follows, unless and until TOWN is otherwise notified:

C. Raajan "Raj" Mehta, P.E.
Client Account Manager
Jacobs Engineering Group
1999 Bryan Street, Suite 1200
Dallas, Texas 75201
469.941.8917 Telephone

Any notices and communications required to be given in writing by one party to the other shall be considered as having been given to the addressee on the date the notice or communication is posted, faxed or personally delivered by the sending party.

XX.
Applicable Law

The Contract is entered into subject to the Flower Mound Town Charter and ordinances of TOWN, as same may be amended from time to time, and is subject to and is to be construed, governed and enforced under all applicable State of Texas and federal laws. CONSULTANT will make any and all reports required per federal, state or local law including, but not limited to, proper reporting to the Internal Revenue Service, as required in accordance with CONSULTANT's income.

XXI.
Non-Discrimination

CONSULTANT shall not discriminate against any employee, applicant for employment, contractor, or sub-contractor because of the race, age, color, religion, sex, or national origin of such person. Engineer shall take affirmative action to insure that all such persons are treated equally during their employment without regard to their race, age, color, religion, sex, or national origin. If CONSULTANT fails to comply with the federal or state laws relating to Equal Employment Opportunity, it is agreed that TOWN, at its option, may do either or both of the following:

- (a) Cancel, terminate, or suspend the Contract in whole or in part; or
- (b) Declare CONSULTANT ineligible for future TOWN contracts until it is determined to be in compliance.

XXII.
Arbitration

CONSULTANT agrees not to enter into any agreement to arbitrate arising out of, or relating to, this Contract which would subject TOWN to being a party to any arbitration without TOWN's prior written consent.

XXIII.
No Waiver of Governmental Immunity

Nothing in this Contract shall be construed as a waiver of TOWN'S governmental immunity, or of any applicable limitation on damages, or any other legal protection or defense or privilege of TOWN, except to the extent expressly provided otherwise herein.

XXIV.
Severability

If any of the terms, provisions, covenants, conditions or any other part of this Contract are for any reason held to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants, conditions or any other part of this Contract shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

XXV.
Remedies

No right or remedy granted herein or reserved to the parties is exclusive of any other right or remedy herein by law or equity provided or permitted; but each shall be cumulative of every other right or remedy given hereunder. No covenant or condition of this Contract may be waived without written consent of the parties. Forbearance or indulgence by either party shall not constitute a waiver of any covenant or condition to be performed pursuant to this Contract.

XXVI.
Entire Agreement

This Contract embodies the entire agreement of the parties hereto, superseding all oral or written previous and contemporaneous agreements between the parties relating to matters herein, and except as otherwise provided herein cannot be modified without written agreement of the parties.

XXVII.
Non-Waiver

It is further agreed that one (1) or more instances of forbearance by TOWN in the exercise of its rights herein shall in no way constitute a waiver thereof.

XXVIII.
Headings

The headings of this Contract are for the convenience of reference only and shall not affect any of the terms and conditions hereof in any manner.

XXIX.
Venue

Situs of this Contract is agreed to be Denton County, Texas, for all purposes, including performance and execution, and the parties to this Contract agree and covenant that this Contract will be enforceable in Flower Mound, Texas; and that if legal action is necessary to enforce this Contract, exclusive venue will lie in Denton County, Texas.

XXX.
No Third Party Beneficiary

For purposes of this Contract, including its intended operation and effect, the parties (TOWN and CONSULTANT) specifically agree and contract that: (1) the Contract only affects matters/disputes between the parties to this Contract, and is in no way intended by the parties to benefit or otherwise affect any third person or entity notwithstanding the fact that such third person or entity may be in contractual relationship with TOWN or CONSULTANT or both; and (2) the terms of this Contract are not intended to release, either by contract or operation of law, any third person or entity from obligations owing by them to either TOWN or CONSULTANT.

[The remainder of this page is left blank intentionally]

IN WITNESS WHEREOF, the parties hereto have caused this document to be executed as of the date first above written.

THE TOWN OF FLOWER MOUND, TEXAS

By: Steve Dixon
The Honorable Steve Dixon
Mayor, Town of Flower Mound

Date Signed: 10/21/2020 | 9:11 AM CDT

Attest:

Theresa Scott
Town Secretary

CONSULTANT:
JACOBS ENGINEERING GROUP

By: [Signature]

Name: C. RAJAN MEHTA

Title: VICE PRESIDENT

Date Signed: 10/2/2020

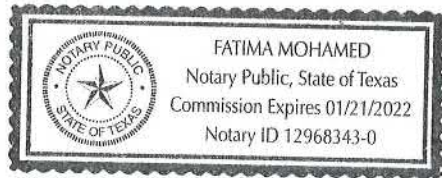
State of Texas §
County of TARRANT §

This instrument was acknowledged before me on the 2ND day of OCTOBER, 2020, by C RAJAN MEHTA in his capacity as VICE PRESIDENT of JACOBS ENGINEERING GROUP, a _____ Corporation, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he executed the same on behalf of and as the act of JACOBS ENGINEERING GROUP.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS THE 2ND DAY OF OCT, 2020.

[Signature]
Notary Public, State of Texas

My Commission Expires:
01/21/2022



ATTACHMENT A SCOPE OF SERVICES

PROJECT NAME: **US 377 at FM 1171 Water Line Loop / Relocation**

PROJECT UNDERSTANDING

This project will connect an existing 20" diameter water pipeline at the southwest corner of the intersection of US 377 and FM 1171 to an existing 30" diameter water pipeline at the northeast intersection of US 377 and FM 1171 to create a loop and eliminate dead ends. The new connecting pipeline is shown in Figure 1 below. The pipe will be encased per TXDOT standards where required in the right of way.

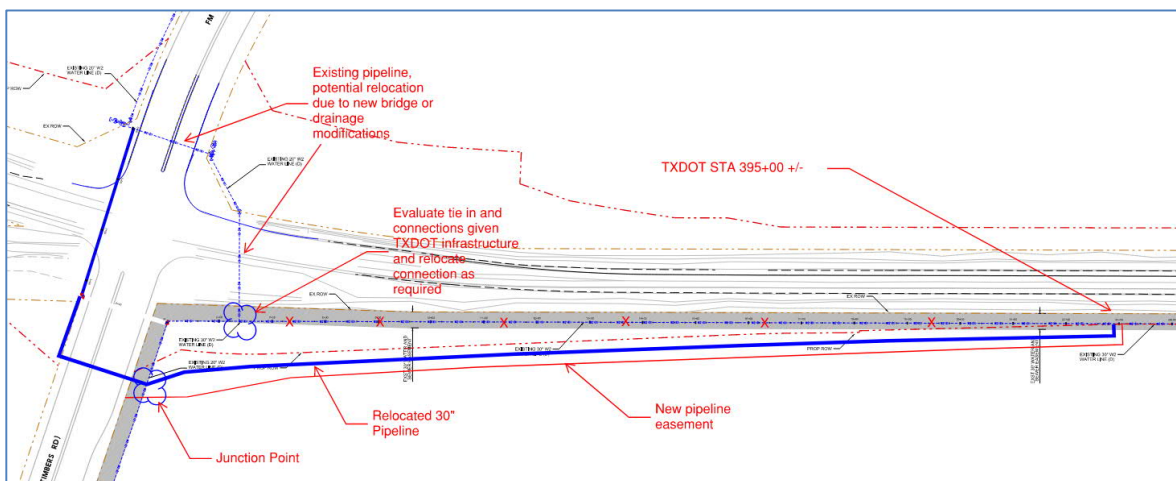


Figure 1: Project Location Map

In addition, it is assumed that the existing 20" pipeline will need to be relocated based upon location of new TXDOT bridge or drainage facilities. The connection point at the northeast corner of the intersection will need to be evaluated as part of the effort.

The TXDOT ROW will be widening which will also require relocation of an existing 30" transmission main on the east side of US 377, also shown on Figure 1. A relocation design is needed for this reach which will terminate on the north end approximately at TXDOT STA 395+00 (found in the roadway plans). This is the point at which the existing pipe centerline becomes close to matching the new TXDOT ROW line; the Town has not determined if relocation will be needed north of this point.

SCOPE OF PROFESSIONAL SERVICES

TASK 1 – PROJECT MANAGEMENT

This task includes attending meetings; tracking and managing internal schedules of work; monitoring and addressing issues related to the scope of work, budget and deliverables; preparing and processing monthly billings; providing labor resources necessary to fulfill scoped work; scheduling and participating in quality control reviews; and providing updates to Flower Mound (Town) on a regular basis.

Following are anticipated meetings.

- Kick-off meeting
- 30% design review meeting
- 60% design review meeting
- 90% design review meeting
- Site visit during design (1)

TASK 2 – EVALUATION (PRELIMINARY DESIGN, 30%)

This task includes collecting existing data and performing desktop evaluation of design alternatives along with preliminary construction estimates. Evaluation results shall be submitted in PDF exhibits to Town for review. The horizontal alignment will be confirmed as a result of this task.

Deliverables

- Three (3) printed, half-size copies of design alternative exhibits

TASK 3 – DESIGN

This task includes developing 60%, 90%, and 100% construction drawings, specifications and Opinion of Probable Construction Cost (OPCC).

The anticipated sheet count includes the following:

- Cover/index – 3 sheets
- Plan/profile (1"=20' and 1"=40" scales) – 6 sheets
- Details – tunnel and pipeline – 6 sheets
- Traffic control – 2 sheets if required

Deliverables

- Three (3) printed, half-size copies of construction plans for 60%, 90%, and 100% reviews
- One (1) printed copies of specifications for 60%, 90%, and 100% reviews
- OPCC at 60%, 90% and 100%
- PDF of each submittal set of plans and specifications

It is assumed that SWPPP requirements will have been addressed in the TXDOT plans for this area and that SWPPP drawings will not be required for this design package. This also depends on the timing of the TXDOT work and how it relates to the pipeline relocations. If separate SWPPP drawings are required for the pipelines independently, additional services will be needed.

TASK 4 – BIDDING PHASE SERVICES

Review Contractor questions and issue addenda as required.

Deliverables

- OPCC and PDF for each submittal set of plans and specifications.
- Print and deliver to Town up to four (4) sets of bid documents. Plan sets will be

- half-size (11x17). Specification books will be bound 8.5x11 books.
- Print and deliver to Town up to six (6) sets of conformed documents. Plan sets will be half-size (11x17). Specification books will be bound 8.5x11 books.

TASK 5 – SERVICES DURING CONSTRUCTION

Assist the Owner with engineering services during construction, including attendance at construction kickoff meeting, monthly progress meetings and monthly site visits, RFI responses, change order review, and submittal review.

Deliverables:

- Submittal review comments for 10 submittals, including test results
- RFI responses (up to 3)
- Progress meetings combined with site visits (3 total)

TASK 6 – RECORD DRAWINGS

Prepare record drawings from Contractor's markups showing changes made during construction. Transfer contractor markups to digital format.

Deliverables

- Record Drawing in digital format (PDF, TIFF, CAD)

SPECIAL SERVICES

Consultant is currently working on the design of the TX-DOT US 377 Expansion project. Applicable survey, SUE, easements and geotechnical data will be used for this pipeline project. Additional field survey, easements and geotechnical evaluation required will be performed under special services tasks shown below. Special services task fee and scope shall be approved by the Town before starting the work and shall be on a time and materials basis because of the lack of a fully defined scope of work at this time.

TASK 7 – SURVEY AND EASEMENTS

This task includes topographic survey (horizontally and vertical), picking up surface features; drainage features; fences/retaining walls; trees and/or tree lines; roadways; railways; and city, county and franchise utilities (as provided by Texas 811 utility locate request) within the project area.

This task also includes preparation of permanent and temporary easement instruments sealed, dated, and signed by a Registered Professional Land Surveyor.

A special service allowance of \$15,000 is allocated for this task.

TASK 8 – GEOTECHNICAL

This task includes borings for soil samples and developing a geotechnical report for the purpose of pipeline construction and jack/bore tunneling operations as required.

A special service allowance of \$10,000 is allocated for this task.

SCHEDULE

It is anticipated that design will be completed no more than 9 months after Notice to Proceed. The bid phase is assumed to require 2 months, followed by a 6-month construction phase. With record drawings in the final 1 month, the entire scope of work is assumed to be delivered within 18 months.

ATTACHMENT B COMPENSATION

Consultant will provide the Scope of Services for a lump sum fee, except for time and materials tasks (special services).

TASK 1 – Project Management	\$15,000
TASK 2 – Evaluation	\$12,000
TASK 3 – Design	\$66,000
TASK 4 – Bidding Phase Services	\$4,000
TASK 5 – Services During Construction	\$8,000
TASK 6 – Record Drawings	\$4,000
TASK 7 – Survey and Easements (special services)	\$15,000
TASK 8 – Geotechnical (special services)	\$10,000
TOTAL	\$134,000

Special services budgets will be verified at the time they are identified, as required. The amounts shown are initial allowances and must be authorized by the Town prior to commencing work on those tasks.

THE STATE OF TEXAS §
COUNTY OF DENTON §

**FIRST AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT WITH
JACOBS ENGINEERING GROUP**

This First Amendment to Professional Services Agreement (“First Amendment”) is entered into on this 6th day of December, 2021, by and between the **TOWN OF FLOWER MOUND, TEXAS**, a municipal corporation located in Denton County, Texas, (hereinafter referred to as “Town”), acting by and through its Mayor, and **JACOBS ENGINEERING GROUP**, (“hereinafter referred to as “Consultant”) regarding the following project:

US 377 AT FM 1171 WATER LINE LOOP/RELOCATION

I. RECITALS

WHEREAS, Town entered into a professional engineering design and related construction services from Consultant for the US 377 at FM 1171 Water Line Loop/Relocation project (“Services”) on or about the 21st day of October, 2020 (the “Contract”); and

WHEREAS, Town and Consultant both desire to amend the Contract and Consultant is willing to undertake the performance of such additional services and agrees to the increased cost for such services as expressed herein;

II. TERMS OF AMENDMENT

NOW, THEREFORE, in consideration of the covenants and agreements hereinafter contained and subject to the terms and conditions hereinafter stated, the parties hereto do mutually agree as follows:

A.

Recitals Incorporated

The foregoing recitals are found to be true and correct, are fully incorporated into the body of this First Amendment, and made a part hereof by reference just as though they are set out in their entirety.

B.

Amendment of Paragraph No. II

From and after the approval of this First Amendment, Section II of the Contract, entitled “Scope of Services” is hereby deleted in its entirety and replaced with a new Paragraph No. II to read as follows:

“CONSULTANT shall perform such professional engineering services, not necessarily limited to, the tasks enumerated more fully in Attachment “A-1” entitled “Scope of Services”, as are necessary to complete the US 377 at FM 1171

Water Line Loop/Relocation project (hereafter referred to collectively as the "Project"). Attachment "A-1" is hereby incorporated herein by reference and made a part hereof as if written word for word. However, in case of conflict in the language of Attachment "A-1" and this Contract, the terms and conditions of this Contract shall be final and binding upon both parties hereto."

C.

Amendment of Paragraph No. III

From and after the approval of this First Amendment, Section III of the Contract entitled "Payment for Services" is amended in part by deleting the first paragraph of said Section III and replacing it with a new paragraph reading as follows and leaving all other provisions of Section III intact and unchanged:

"Total payment for services described herein for the Services for the Project shall be a sum not to exceed Two Hundred Eighty Four Thousand One Hundred Dollars and No/100 (\$290,700.00) as specified in Attachment "B-1"."

D.

Revisions of the Scope of Services

From and after the approval of this First Amendment, Attachment "A", is replaced by the document attached hereto and incorporated herein by reference as Attachment "A-1" to the Contract. In case of conflict in the language of Attachment "A-1" and any other provision of the Contract, as amended by this First Amendment, the terms and conditions of the Contract, as amended by the First Amendment, shall control, and shall be final and binding upon both parties hereto.

From and after the approval of this First Amendment, Attachment "B", is replaced by the document attached hereto and incorporated herein by reference as Attachment "B-1" to the Contract. In case of conflict in the language of Attachment "B-1" and any other provision of the Contract, as amended by this First Amendment, the terms and conditions of the Contract, as amended by the First Amendment, shall control, and be final and binding upon both parties hereto.

E.

Contract Controls

All other provisions of the Contract remain in full force and effect. In the event of a conflict or an inconsistency between the Contract and/or the First Amendment, the terms of the First Amendment shall control.

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the day and year first written above.

THE TOWN OF FLOWER MOUND, TEXAS

By: 
The Honorable Derek France
Mayor, Town of Flower Mound

Date Signed: 12/9/2021

Attest:


Town Secretary

JACOBS ENGINEERING GROUP

By: [Signature]

Name C. RAJAN MENTA

Title VICE PRESIDENT

Date Signed: 11/18/21

State of Texas §
 §
County of Denton §

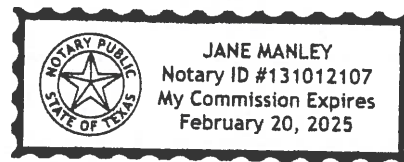
This instrument was acknowledged before me on the 18th day of NOVEMBER, 2021, by C. RAJAN MENTA, in his capacity as VICE PRESIDENT of **Jacobs Engineering Group**, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged that he executed the same on behalf of and as the act of **Jacobs Engineering Group**.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, THIS THE 18 DAY OF NOVEMBER, 2021.

My Commission Expires:

FEBRUARY 20, 2025

[Signature]
Notary Public, State of Texas



ATTACHMENT A-1 SCOPE OF SERVICES

PROJECT NAME: US 377 at FM 1171 Water Line Loop/Relocation

PROJECT UNDERSTANDING

This project will connect an existing 20" diameter water pipeline at the southwest corner of the intersection of US 377 and FM 1171 to an existing 30" diameter water pipeline at the northeast intersection of US 377 and FM 1171 to create a loop and eliminate dead ends. The new connecting pipeline is shown in Figure 1 below. The pipe will be encased per TXDOT standards where required in the right of way.

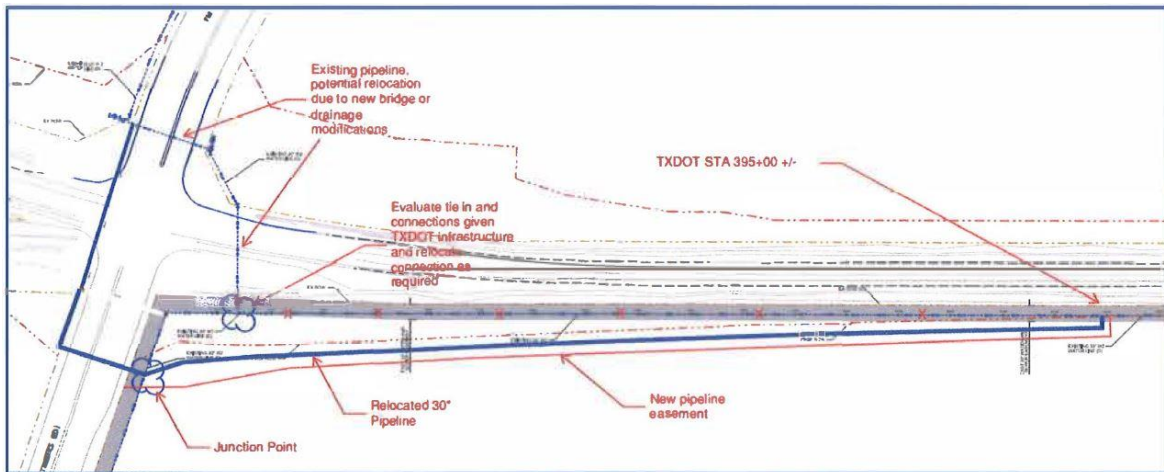


Figure 1: Project Location Map

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SCOPE OF PROFESSIONAL SERVICES

TASK 1 – PROJECT MANAGEMENT

This task Includes attending meetings; tracking and managing internal schedules of work; monitoring and addressing issues related to the scope of work, budget and deliverables; preparing and processing monthly billings; providing labor resources necessary to fulfill scoped work; scheduling and participating in quality control reviews; and providing updates to Flower Mound (Town) on a regular basis.

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- One (1) printed copies of specifications for 60%, 90%, and 100% reviews
- OPCC at 60%, 90% and 100%
- PDF of each submittal set of plans and specifications

It is assumed that SWPPP requirements will have been addressed in the TXDOT plans for this area and that SWPPP drawings will not be required for this design package. This also depends on the timing of the TXDOT work and how it relates to the pipeline relocations. If separate SWPPP drawings are required for the pipelines independently, additional services will be needed.

TASK 4 – BIDDING PHASE SERVICES

Review Contractor questions and issue addenda as required.

Deliverables

- OPCC and PDF for each submittal set of plans and specifications.
- Print and deliver to Town up to four (4) sets of bid documents. Plan sets will be half-size (11x17). Specification books will be bound 8.5x11 books.

- Print and deliver to Town up to six (6) sets of conformed documents. Plan sets will be half-size (11x17). Specification books will be bound 8.5x11 books.

TASK 5 – SERVICES DURING CONSTRUCTION

Assist the Owner with engineering services during construction, including attendance at construction kickoff meeting, monthly progress meetings and monthly site visits, RFI responses, change order review, and submittal review.

Deliverables:

- Submittal review comments for 10 submittals, including test results
- RFI responses (up to 3)
- Progress meetings combined with site visits (3 total)

TASK 6 – RECORD DRAWINGS

Prepare record drawings from Contractor's markups showing changes made during construction. Transfer contractor markups to digital format.

Deliverables

- Record Drawing in digital format (PDF, TIFF, CAD)

SPECIAL SERVICES

Consultant is currently working on the design of the TX-DOT US 377 Expansion project. Applicable survey, SUE, easements and geotechnical data will be used for this pipeline project. Additional field survey, easements and geotechnical evaluation required will be performed under special services tasks shown below. Special services task fee and scope shall be approved by the Town before starting the work and shall be on a time and materials basis because of the lack of a fully defined scope of work at this time.

TASK 7 – SURVEY AND EASEMENTS

This task includes topographic survey (horizontally and vertical), picking up surface features; drainage features; fences/retaining walls; trees and/or tree lines; roadways; railways; and city, county and franchise utilities (as provided by Texas 811 utility locate request) within the project area.

This task also includes preparation of permanent and temporary easement instruments sealed, dated, and signed by a Registered Professional Land Surveyor.

A special service allowance of \$15,000 is allocated for this task.

TASK 8 – GEOTECHNICAL

This task includes borings for soil samples and developing a geotechnical report for the purpose of pipeline construction and jack/bore tunneling operations as required.

A special service allowance of \$10,000 is allocated for this task.

SCHEDULE

It is anticipated that design will be completed no more than 9 months after Notice to Proceed. The bid phase is assumed to require 2 months, followed by a 6-month construction phase. With record drawings in the final 1 month, the entire scope of work is assumed to be delivered within 18 months.

AMENDMENT 1

PROJECT UNDERSTANDING

The purpose of this scope is to develop plans, specifications, and estimates for a Phase 2 pipeline relocation, which is needed to move the pipeline away from the TXDOT right of way expansion. The Phase 1 relocation was associated with the FM 1171/US 377 intersection. This Phase 2 project will connect to the northern termination of the Phase I project and continue north with a replacement pipeline along US 377 on the east side. The new pipeline will terminate where the pipeline turns west and crosses US 377 and UPRR Railroad (project does not include crossings). Portions of the new pipeline will be 30" and 36" diameter, approximately 3,700 linear feet and 2,000 linear feet, respectively. There are additional utilities in this area and additional easements will be required. Bid and construction phase services are included. Phase 2 will be a separate bid package from Phase 1, with a separate project schedule.

SCOPE OF PROFESSIONAL SERVICES

TASK 9 – PROJECT MANAGEMENT

This task includes attending meetings; tracking and managing internal schedules of work; monitoring and addressing issues related to the scope of work, budget and deliverables; preparing and processing monthly billings; providing labor resources necessary to fulfill scoped work; scheduling and participating in quality control reviews; and providing updates to Flower Mound (Town) on a regular basis.

Following are anticipated meetings:

- 60% design review meeting
- 90% design review meeting

TASK 10 – DESIGN

This task includes developing 60%, 90%, and 100% construction drawings, specifications and Opinion of Probable Construction Cost (OPCC). QA/QC will be performed for each deliverable.

Deliverables

- Three (3) printed, half-size copies of construction plans for 60%, 90%, and 100% reviews
- One (1) printed copies of specifications for 60%, 90%, and 100% reviews
- OPCC at 90% and 100%
- PDF of each submittal set of plans and specifications

TASK 11 – TXDOT SUA ASSISTANCE

Develop drawings and quantity takeoffs per TXDOT standards for Standard Utility Agreement between TXDOT and the Town. Drawings will show specific items such as existing ROW, anticipated future TXDOT ROW, new easements required for the new waterline, and the route of the new waterline. Quantity takeoffs will be based on items identified in the OPCC and quantified per sheet.

This task does not include completing the SUA checklist and the formal application.

TASK 12 – BIDDING PHASE SERVICES

Review Contractor questions as received from the Town and issue addenda as required.

Deliverables

- OPCC and PDF for each submittal set of plans and specifications.
- Print and deliver to Town up to four (4) sets of bid documents. Plan sets will be half-size (11x17). Specification books will be bound 8.5x11 books.
- Print and deliver to Town up to six (6) sets of conformed documents. Plan sets will be half-size (11x17). Specification books will be bound 8.5x11 books.

TASK 13 – SERVICES DURING CONSTRUCTION

Assist the Owner with engineering services during construction, including attendance at construction kickoff meeting, monthly progress meetings and monthly site visits, RFI responses, change order review, and submittal review.

Deliverables:

- Submittal review comments for 10 submittals, including test results
- RFI responses (up to 3)
- Progress meetings combined with site visits (6 total)

TASK 14 – RECORD DRAWINGS

Prepare record drawings from Contractor's markups showing changes made during construction. Transfer contractor markups to digital format.

Deliverables

- Record Drawing in digital format (PDF and CAD)

SPECIAL SERVICES

Consultant is currently working on the design of the TX-DOT US 377 Expansion project. Applicable survey, SUE, easements and geotechnical data will be used for this pipeline project. Additional field survey, easements and geotechnical evaluation required will be performed under special services tasks shown below. Special services task fee and scope shall be approved by the Town before starting the work and shall be on a time and materials basis because of the lack of a fully defined scope of work at this time.

TASK 15 – SURVEY

This task includes topographic survey (horizontal and vertical), picking up surface features; drainage features; fences/retaining walls; trees and/or tree lines; roadways; railways; and city, county and franchise utilities (as provided by Texas 811 utility locate request) within the project area.

A special service allowance of \$15,200 is allocated for this task.

TASK 16 – EASEMENTS AND TITLE COMMITMENTS

This task includes preparation of permanent and temporary easement instruments which will be sealed, dated, and signed by a Registered Professional Land Surveyor. Title commitments for three (3) tracts will also be obtained.

A special service allowance of \$26,700 is allocated for this task.

TASK 17 – SUBSURFACE UTILITY EXPLORATION

Level B (site investigation) and Level A (potholes) subsurface utility exploration will be required at specific locations to identify conflicts with other utilities. Locations will be identified and surveyed as design progresses.

A special service allowance of \$14,700 is allocated for this task.

TASK 18 – GEOTECHNICAL

This task includes borings for soil samples and drill logs, and developing a geotechnical report for the purpose of the design and bid documents for pipeline construction and for jack/bore tunneling operations as required.

A special service allowance of \$45,000 is allocated for this task.

SCHEDULE

It is anticipated that design will be completed no more than 4 months after Notice to Proceed. The bid phase is assumed to require 2 months, followed by a 6-month construction phase. With record drawings in the final 1 month, the entire scope of work is assumed to be delivered within 13 months

ATTACHMENT B-1 COMPENSATION

Consultant will provide the Scope of Services for a lump sum fee, except for time and materials tasks (special services).

TASK 1 – Project Management	\$15,000
TASK 2 – Evaluation	\$12,000
TASK 3 – Design	\$66,000
TASK 4 – Bidding Phase Services	\$4,000
TASK 5 – Services During Construction	\$8,000
TASK 6 – Record Drawings	\$4,000
TASK 7 – Survey and Easements (special services)	\$15,000
TASK 8 – Geotechnical (special services)	\$10,000
Amendment 1	
TASK 9 – Project Management	\$3,600
TASK 10 - Design	\$25,200
TASK 11 – TxDOT SUA Assistance	\$7,300
TASK 12 – Bidding Phase Services	\$5,300
TASK 13 – Services During Construction	\$9,600
TASK 14 – Record Drawings	\$4,100
TASK 15 – Survey (Special Services)	\$15,200
TASK 16 – Easements & Title Commitments (Special Services)	\$26,800
TASK 17 – Subsurface Utility Exploration	\$14,700
TASK 18 - Geotechnical	\$45,000
TOTAL	\$290,800

Special services budgets will be verified at the time they are identified, as required. The amounts shown are initial allowances and must be authorized by the Town prior to commencing work on those tasks.

Attachment “E”

Utility Joint Use Agreement – (ROW-U-JUA) and/or Utility Installation Request – (Form 1082)

- ☐ Utility Joint Use Agreement (ROW–U–JUA)
- ☒ Utility Installation Review/Permit Number: DAL20210519161744

Initial Date
TxDOT

Initial Date
Utility

APPROVAL

To Brian Waltenburg

Town of Flower Mound

2121 Cross Timbers Rd

Flower Mound, TX 75028

Date 9/5/2023

Application No. DAL20210519161744

District App. No. DAL20210519161744

Highway US 0377

Control Section 008103

Maintenance Section Denton County Maintenance

County Denton

TxDOT offers no objection to the location on the right-of-way of your proposed utility installation, as described by Notice of Proposed Utility Installation No. DAL20210519161744 (District Application No. DAL20210519161744) dated 9/5/2023 and accompanying documentation, except as noted below.

Recommend Approval

When installing utility lines on controlled access highways, your attention is directed to governing laws, especially to Texas Transportation Code, Title 6, Chapter 203, pertaining to Modernization of State Highways; Controlled Access Highways. Access for serving this installation shall be limited to access via (a) frontage roads where provided, (b) nearby or adjacent public roads or streets, (c) trails along or near the highway right-of-way lines, connecting only to an intersecting roads; from any one or all of which entry may be made to the outer portion of the highway right-of-way for normal service and maintenance operations. The Installation Owner's rights of access to the through-traffic roadways and ramps shall be subject to the same rules and regulations as apply to the general public except, however, if an emergency situation occurs and usual means of access for normal service operations will not permit the immediate action required by the Utility Installation Owner in making emergency repairs as required for the safety and welfare of the public, the Utility Owners shall have a temporary right of access to and from the through-traffic roadways and ramps as necessary to accomplish the required emergency repairs, provided TxDOT is immediately notified by the Utility Installation Owner when such repairs are initiated and adequate provision is made by the Utility Installation Owner for convenience and safety of highway traffic.

The installation shall not damage any part of the highway and adequate provisions must be made to cause minimum inconveniences to traffic and adjacent property owners. In the event the Installation Owner fails to comply with any or all of the requirements as set forth herein, the State may take such action as it deems appropriate to compel compliance.

It is expressly understood that the TxDOT does not purport, hereby, to grant any right, claim, title, or easement in or upon this highway; and it is further understood that the TxDOT may require the Installation Owner to relocate this line, subject to provisions of governing laws, by giving thirty (30) days written notice.

If construction has not started within six (6) months of the date of this approval, the approval will automatically expire and you will be required to submit a new application. You are also requested to notify this office prior to commencement of any routine or periodic maintenance which requires pruning of trees within the highway right-of-way, so that we may provide specifications for the extent and methods to govern in trimming, topping, tree balance, type of cuts, painting cuts and clean up. These specifications are intended to preserve our considerable investment in highway planting and beautification, by reducing damage due to trimming.

Special Provisions:

General

You are required to notify TxDOT 48 hours (2 business days) before you start construction to allow for proper inspection and coordination of work days and traffic control plans. Use the UIR website for the 48-hour notification. DO NOT start construction until you have coordinated the construction start date and inspection with TxDOT. You are also required to keep a copy of this Approval, the Notice of Proposed Installation, and any approved amendments at the job site at all times.

Texas Department of Transportation
By Darla Payberah
Title Transportation Engr Supvr
District Dallas

General Utility Installations

1. GENERAL - A copy of the approved notice must be kept onsite at all times during construction. Unless other arrangements are made with the designated Texas Department of Transportation (TxDOT) Area Office, no work will be performed on Saturday, Sunday, Holidays, or hours other than standard working hours. Utility lines shall be located to avoid or minimize the need for adjustments to accommodate future highway improvements.

All utility installations will be made without excavation or longitudinal placement being made any closer than three (3) feet from the back of curb. No pavement cuts are permitted unless specifically stated on the permit that approval is given to open cut the pavement.

No explosives shall be used within the limits of the TxDOT highway right of way for utility installations.

2. COORDINATION OF WORK - Prior to the start of construction, the local TxDOT Area Office MUST BE NOTIFIED at the number listed on the approval notice. Traffic control plans must be approved by the Area Office before work can begin. If the installation is within the limits of an active highway construction project, the utility work must be coordinated with the TxDOT Contractor and Inspectors. The utility work shall not cause any delay or disruption to the TxDOT contractor or construction.

Location of existing utility facilities and coordination with the owners is the responsibility of the utility agency.

3. TRAFFIC SAFETY, BARRICADES, WARNING DEVICES - Traffic control and protective devices shall be used and must conform to the TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD) for streets and highways. All barricades, warning devices, signs, flashers, and flag persons shall be provided by the utility agency or contractor.

Traffic shall not be stopped at any time without the use of a flag person. Prior to beginning work, the traffic control plans must be approved by the Area Engineer or designated representative. Lane closures for any utility work will not be permitted without prior approval of the Area Engineer or designated representative. Lane closures are not permitted during peak "rush hour" traffic times.

Vehicles, equipment, construction material and personnel not necessary to the timely installation of the facility shall be kept as far as possible from the traveling public. Where circumstances necessitate the excavation of a bore pit or the presence of directional boring equipment closer than thirty (30) feet from the edge of pavement, approved protective devices shall be installed for protection of the traveling public in accordance with Section 21.38 of the Utility Accommodation Rules (UAR), and as deemed necessary by the TxDOT Inspector. At the end of every construction day, all equipment and materials shall be removed as far from the roadway edge as possible.

- 4. SURVEYING AND STAKING OF UTILITIES** - All utility installations shall be staked by utility agency so that TxDOT may inspect the alignment prior to start of construction. The right of way (ROW) line is to be staked and the utility installed based on a set distance from the ROW line. The utility is ultimately responsible for the accuracy of the installation.
- 5. TIME PERIOD ALLOWED FOR INSTALLATION** - If the installation of the work covered by this utility permit has not started within twelve (12) months from the approval date, a written request for an extension must be submitted to the District Office. It is expected that the installation will progress to completion in an efficient manner. However, if the work is delayed or abandoned for a period of one (1) month or more, a written request must be submitted to continue under the authority of the original permit.
- 6. FULL TIME SUPERVISION AND INSPECTION** - The utility agency shall provide competent, full-time inspectors or supervisors to be present on-site during the installation. Also, the utility may be required to provide a telephone number at which someone may be contacted 24 hours in case of an emergency. The utility construction may be delayed or stopped when it is observed by the TxDOT Inspector that there is not an agency inspector or supervisor present on the job site.
- 7. DEPARTMENT INTERVENTION** - TxDOT has the right to take charge of and to remedy any immediate hazard to the traveling public when it is obvious the utility agency will not do so. Any costs associated with TxDOT's action will be charged to the utility agency.
- 8. UTILITY ACCOMMODATION RULES (UAR)** - Utility installations within the TxDOT ROW shall conform to the requirements contained in the most current version of the TxDOT UAR and referenced industry policies. [UAR Rules](#)

Attachment “E”

Utility Joint Use Agreement – (ROW-U-JUA) and/or Utility Installation Request – (Form 1082)

- ☒ Utility Joint Use Agreement (ROW–U–JUA)

- ☒ Utility Installation Review/Permit Number: DAL20210519161744

Initial Date
TxDOT

Initial Date
Utility

Attachment “F” Eligibility Ratio

Eligibility Ratio established: 84.1%

- ☒ Non-interstate Highway (Calculations attached)
- ☐ Interstate Highway

ROW Utility Manual Chapter 8, Section 2

In developing the ratio, line length or number of poles is restricted to facilities located within the existing and proposed highway right of way. Facilities located outside the existing and proposed right of way limits will not be used in developing the ratio.

Please see example of eligibility ratio calculations below.

Plan Sheet or Page#	In Easement (Eligible) Existing # of Poles or LF	In Public ROW (Ineligible) Existing # of Poles or LF
1	0	0
2	84	22
3	90	385
4	238	96
Totals	412	503

Total Existing # of Poles or LF (Eligible)	412
Total Existing # of Poles or LF (Ineligible)	503
Total Existing # of Poles or LF	915
Total Existing # of Poles or LF (Eligible) divided by the Total Existing # of Poles or LF	45.03%

Initial _____ Date _____
TxDOT

Initial _____ Date _____
Utility

City Reimbursement Estimate
Town of Flower Mound

US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Standard Utility Agreement - Estimate Summary

Construction Costs		Quantity	Unit		
Construction Costs	1	EA	\$	6,425,810.00	
** Utility Abandonments (Bid Item 13)	1	EA	\$	29,800.00	
** Utility Removals (Bid Item 14)	1	EA	\$	139,300.00	
Material Testing	1	EA	\$	38,414.00	
Town Staff Time	1	EA	\$	101,090.00	
Engineering (Jacobs Engineering)	1	EA	\$	249,000.00	
Easement Acquisition (Jacobs Task 7 and 16)	1	EA	\$	41,800.00	
			Construction Subtotal	\$	7,025,214.00
Easement Compensation					
Property Acquisition for Proposed Easements (Estimated Total \$10/SF)				\$	300,000.00
			Project Subtotal	\$	7,325,214.00
Other Credits or Deductions					
Salvage Credit (4 - 24" Valves @ \$4,000 EA and 4 - Fire Hydrants @ \$1,000 EA)				\$	(20,000.00)
Betterment for relocation and upsize of existing 12" and 20" water line with a 20" water line.				\$	(141,450.00)
Betterment for installation of new 24" water line and relocation and upsize of existing 20" water line				\$	(1,257,675.20)
			Project Subtotal after Deductions	\$	5,906,088.80
Composite Eligibility Ratio (See Attachment F)					84.1%
Net Reimbursement to Flower Mound				\$	4,969,356.75

** Included in Total Construction Cost (Opinion of Probable Construction Cost)

City Reimbursement Estimate
Town of Flower Mound

US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Standard Utility Agreement - Opinion of Probable Construction Cost

"Buy America" compliance documentation will be provided as required for the items marked (*) in accordance with the TXDOT/FHWA letter dated October 3, 2019.

BID ITEM #	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL	BUY AMERICA
1	MOBILIZATION	1	EA	\$ 100,000.00	\$ 100,000.00	
2	20" DUCTILE IRON PIPE (CLASS 250) - OPEN CUT	290	LF	\$ 500.00	\$ 145,000.00	*
3	24" DUCTILE IRON PIPE (CLASS 250) - OPEN CUT	625	LF	\$ 600.00	\$ 375,000.00	*
4	30" DUCTILE IRON PIPE (CLASS 150) - OPEN CUT	5809	LF	\$ 400.00	\$ 2,323,600.00	*
5	36" DUCTILE IRON PIPE (CLASS 150) - OPEN CUT	187	LF	\$ 1,050.00	\$ 196,350.00	*
6	20" DUCTILE IRON PIPE (CLASS 250) - WITH CASING SPACERS	682	LF	\$ 300.00	\$ 204,600.00	*
7	24" DUCTILE IRON PIPE (CLASS 250) - WITH CASING SPACERS	530	LF	\$ 350.00	\$ 185,500.00	*
8	36" DUCTILE IRON PIPE (CLASS 150) - WITH CASING SPACERS	100	LF	\$ 600.00	\$ 60,000.00	*
9	36" STEEL CASING PIPE - BORE	710	LF	\$ 1,300.00	\$ 923,000.00	*
10	36" STEEL CASING PIPE - OPEN CUT	594	LF	\$ 450.00	\$ 267,300.00	*
11	48" STEEL CASING PIPE - OPEN CUT	100	LF	\$ 800.00	\$ 80,000.00	*
12	TRENCH SAFETY	8223	LF	\$ 10.00	\$ 82,230.00	
13	ABANDON EXIST WATER LINE IN PLACE	298	LF	\$ 100.00	\$ 29,800.00	
14	REMOVE EXIST WATER LINE	6965	LF	\$ 20.00	\$ 139,300.00	
15	6" GATE VALVE	5	EA	\$ 4,000.00	\$ 20,000.00	*
16	12" GATE VALVE	1	EA	\$ 8,000.00	\$ 8,000.00	*
17	20" GATE VALVE	3	EA	\$ 25,000.00	\$ 75,000.00	*
18	24" GATE VALVE	9	EA	\$ 40,000.00	\$ 360,000.00	*
19	30" GATE VALVE	5	EA	\$ 70,000.00	\$ 350,000.00	*
20	36" GATE VALVE	1	EA	\$ 100,000.00	\$ 100,000.00	*
21	FIRE HYDRANT ASSEMBLY	5	EA	\$ 12,000.00	\$ 60,000.00	*
22	4" COMBINATION AIR VACUUM RELEASE VALVE AND VALVE VAULT	2	EA	\$ 50,000.00	\$ 100,000.00	*
23	VALVE VAULT	20	EA	\$ 10,000.00	\$ 200,000.00	
24	HYDROSTATIC TESTING AND DISINFECTION	8223	LF	\$ 3.00	\$ 24,669.00	
25	CONNECT TO EXISTING WATER LINE	4	EA	\$ 20,000.00	\$ 80,000.00	
26	STORM WATER POLLUTION PREVENTION PLAN	1	EA	\$ 30,000.00	\$ 30,000.00	
27	CATHODIC PROTECTION SYSTEM	8223	LF	\$ 7.00	\$ 57,561.00	*
28	TRAFFIC CONTROL	6	MO	\$ 3,000.00	\$ 18,000.00	
Total					\$ 6,594,910.00	

City Reimbursement Estimate
Town of Flower Mound

US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Standard Utility Agreement - Town of Flower Mound Costs
Composite Eligibility Ratio (CER)

Composite Eligibility Ratio (CER) **84.1%**

Existing 20" Water Line at FM 1171

Sheet	C2-20"	Total
Reimbursable Length of Existing Line	83	83
Non Reimbursable Length of Existing Line	0	0
Total Length of Existing Line	83	83
Cost of Adjustment	\$ 1,253,580.00	\$ 1,253,580.00
Individual Eligibility Ratio	100%	100%

Existing 30" Water Line

Sheet	C2-30"	C3	C4	C5	C6	C7	C8-30"	Total
Reimbursable Length of Existing Line	669	1000	1000	1000	1000	775	334	5778
Non Reimbursable Length of Existing Line	0	0	0	0	0	380	0	380
Total Length of Existing Line	669	1000	1000	1000	1000	1155	334	6158
Cost of Adjustment	\$ 583,700.00	\$ 865,000.00	\$ 987,180.00	\$ 865,000.00	\$ 987,180.00	\$ 1,030,000.00	\$ 472,040.00	\$ 5,790,100.00
Individual Eligibility Ratio	100%	100%	100%	100%	100%	67%	100%	94%

Existing 36" Water Line

Sheet	C8-36"	Total
Reimbursable Length of Existing Line	220	220
Non Reimbursable Length of Existing Line	0	0
Total Length of Existing Line	220	220
Cost of Adjustment	\$ 624,870.00	\$ 624,870.00
Individual Eligibility Ratio	100%	100%

Existing 12" Water Line

Sheet	C9	Total
Reimbursable Length of Existing Line	372	372
Non Reimbursable Length of Existing Line	353	353
Total Length of Existing Line	725	725
Cost of Adjustment	\$ 1,609,920.00	\$ 1,609,920.00
Individual Eligibility Ratio	52%	52%

Existing 20" Water Line at Canyon Falls

Sheet	C10	Total
Reimbursable Length of Existing Line	64	64
Non Reimbursable Length of Existing Line	153	153
Total Length of Existing Line	217	217
Cost of Adjustment	\$ 574,900.00	\$ 574,900.00
Individual Eligibility Ratio	29%	29%

Water Line Removal /Abandonment

Sheet	C11	C12	C13	C14	C15	C16	C17	C18	Total
Reimbursable Length of Existing Line	669	1000	1000	1000	1000	775	64	382	5890
Non Reimbursable Length of Existing Line	0	0	0	0	0	380	153	353	886
Total Length of Existing Line	669	1000	1000	1000	1000	1155	217	735	6776
Cost of Adjustment	\$ 90,250.00	\$ 115,000.00	\$ 115,000.00	\$ 115,000.00	\$ 115,000.00	\$ 134,800.00	\$ 86,600.00	\$ 64,300.00	\$ 835,950.00
Individual Eligibility Ratio	100%	100%	100%	100%	100%	67%	29%	52%	87%

Waterline Segment	Construction Cost of Adjustment	Individual Eligibility Ratio	Eligibility Factor
Existing 20" Water Line at FM 1171	\$ 772,500.00	100%	\$ 772,500.00
Existing 30" Water Line	\$ 3,038,580.00	94%	\$ 2,851,074.25
Existing 36" Water Line	\$ 479,490.00	100%	\$ 479,490.00
Existing 12" Water Line	\$ 939,180.00	52%	\$ 488,118.04
Existing 20" Water Line at Canyon Falls	\$ 360,960.00	29%	\$ 106,458.25
Water Line Removal	\$ 228,300.00	87%	\$ 198,448.49
	\$ 5,819,010.00	84.1%	\$ 4,896,089.04

City Reimbursement Estimate
Town of Flower Mound

US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Standard Utility Agreement - Town of Flower Mound Costs
Composite Eligibility Ratio (CER)

SHEET	C1	C2-24"	C2-30"	C3	C4	C5	C6	C7	C8 - 30"	C8 - 36"	C9	C10	C11	C12	C13	C14	C15	C16	C17	C18	Quantity	Unit	Unit Price	Extended Price
MOBILIZATION	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	1	EA	\$ 100,000.00	\$ 100,000.00
20" DUCTILE IRON PIPE (CLASS 250) - OPEN CUT											207	83									290	LF	\$ 500.00	\$ 145,000.00
24" DUCTILE IRON PIPE (CLASS 250) - OPEN CUT	310	315																			625	LF	\$ 600.00	\$ 375,000.00
30" DUCTILE IRON PIPE (CLASS 150) - OPEN CUT			545	1000	1000	1000	1000	1000	264												5809	LF	\$ 400.00	\$ 2,323,600.00
36" DUCTILE IRON PIPE (CLASS 150) - OPEN CUT										187											187	LF	\$ 1,050.00	\$ 196,350.00
20" DUCTILE IRON PIPE (CLASS 250) - WITH CASING SPACERS											532	150									682	LF	\$ 300.00	\$ 204,600.00
24" DUCTILE IRON PIPE (CLASS 250) - WITH CASING SPACERS	390	140																			530	LF	\$ 350.00	\$ 185,500.00
36" DUCTILE IRON PIPE (CLASS 150) - WITH CASING SPACERS										100											100	LF	\$ 600.00	\$ 60,000.00
36" STEEL CASING PIPE - BORE	150	140									270	150									710	LF	\$ 1,300.00	\$ 923,000.00
36" STEEL CASING PIPE - OPEN CUT	240										282	72									594	LF	\$ 450.00	\$ 267,300.00
48" STEEL CASING PIPE - OPEN CUT										100											100	LF	\$ 800.00	\$ 80,000.00
TRENCH SAFETY	700	455	545	1000	1000	1000	1000	1000	264	287	739	233									8223	LF	\$ 10.00	\$ 82,230.00
ABANDON EXIST WATER LINE IN PLACE																			68	230	298	LF	\$ 100.00	\$ 29,800.00
REMOVE EXIST WATER LINE													775	1000	1000	1000	1000	1180	680	330	6965	LF	\$ 20.00	\$ 139,300.00
6" GATE VALVE	1	1			1		1				1										5	EA	\$ 4,000.00	\$ 20,000.00
12" GATE VALVE	1																				1	EA	\$ 8,000.00	\$ 8,000.00
20" GATE VALVE	1								1			1									3	EA	\$ 25,000.00	\$ 75,000.00
24" GATE VALVE	1	6									2										9	EA	\$ 40,000.00	\$ 360,000.00
30" GATE VALVE			1		1		1	1	1												5	EA	\$ 70,000.00	\$ 350,000.00
36" GATE VALVE										1											1	EA	\$ 100,000.00	\$ 100,000.00
FIRE HYDRANT ASSEMBLY	1	1			1		1				1										5	EA	\$ 12,000.00	\$ 60,000.00
4" COMBINATION AIR VACUUM RELEASE VALVE AND VALVE VAULT								1			1										2	EA	\$ 50,000.00	\$ 100,000.00
VALVE VAULT	2	6	1		1		1	2	2	1	3	1									20	EA	\$ 10,000.00	\$ 200,000.00
HYDROSTATIC TESTING AND DISINFECTION	700	455	545	1000	1000	1000	1000	1000	264	287	739	233									8223	LF	\$ 3.00	\$ 24,669.00
CONNECT TO EXISTING WATER LINE	1	1							1	1											4	EA	\$ 20,000.00	\$ 80,000.00
STORM WATER POLLUTION PREVENTION PLAN	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	1	EA	\$ 30,000.00	\$ 30,000.00
CATHODIC PROTECTION SYSTEM	700	455	545	1000	1000	1000	1000	1000	264	287	739	233									8223	LF	\$ 7.00	\$ 57,561.00
TRAFFIC CONTROL	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	6	MO	\$ 3,000.00	\$ 18,000.00
	\$ 775,900.00	\$ 772,500.00	\$ 316,300.00	\$ 427,400.00	\$ 523,400.00	\$ 427,400.00	\$ 523,400.00	\$ 567,400.00	\$ 253,280.00	\$ 479,490.00	\$ 939,180.00	\$ 360,960.00	\$ 22,900.00	\$ 27,400.00	\$ 27,400.00	\$ 27,400.00	\$ 27,400.00	\$ 31,000.00	\$ 27,800.00	\$ 37,000.00				\$ 6,594,910.00

City Reimbursement Estimate
Town of Flower Mound

US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Standard Utility Agreement - Town of Flower Mound Costs

		Assistant Director of Engineering	Senior Project Engineer	Inspector	Work Crew Truck and Backhoe	TOTAL (hours)	TOTAL (cost)
Billing Rate		\$150	\$120	\$70	\$120		
Design							
1.1	Consultant Selection, Scope and Fee Preparation, and Contract Negotiations	16				16	\$ 2,400
1.2	Engineering Design Support (record drawing research, site visits, etc)		32			32	\$ 3,840
1.3	Plan Review (30%, 60%, 90%, and 100%)	20	96	16		132	\$ 15,640
1.4	Project Management (coordination with other city departments, City Council, consultant, property owners, and TxDOT)	20	48	16		84	\$ 9,880
1.5	Preparation of Standard Utility Agreement	100	30			130	\$ 18,600
1.6	ROW Management - Proof of Ownership (6 locations x 4 hours per location)		24			24	\$ 2,880
1.7	ROW Support (research and document preparation for 6 locations x 8 hours per parcel)		48			48	\$ 5,760
1.8	Field Work by Public Works Department (potholing and water shut down investigations)				24	24	\$ 2,880
Subtotal Design							\$ 61,880
Construction							
2.1	Construction Inspection: Three Hours per work day			375		375	\$ 26,250
2.2	Engineering Support (change orders, requests for Information, pay requests)	48	48			96	\$ 12,960
Subtotal Construction							\$ 39,210
Total Town of Flower Mound Staff Time							\$ 101,090
Consultants							
	Name	Service				TOTAL	
	Jacobs Engineering	Design Services (scope and fee attached)				\$ 290,800	
	Materials Testing	Material Testing during construcion (scope and fee attached)				\$ 38,414	
Total Consultants							\$ 329,214
Grand Total							\$ 430,304

City Reimbursement Estimate
Town of Flower Mound

US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Standard Utility Agreement - Jacobs Engineering Costs

Estimated Hours based on Professional Service Agreements with Jacobs Engineering Group

	Project Manager	CAD Designer	Project Engineer	QA/QC	Survey	TOTAL (hours)	TOTAL (cost)
Billing Rate	\$ 243.46	\$ 131.88	\$ 110.06	\$ 250.89	\$ 131.08		
TASK 1 – Project Management	40		48			88	\$ 15,000
TASK 2 – Evaluation	24	16	20	8		68	\$ 12,000
TASK 3 – Design	48	200	160	40		448	\$ 66,000
TASK 4 – Bidding Phase Services	4	4	8	8		24	\$ 4,000
TASK 5 – Services During Construction	16		40			56	\$ 8,000
TASK 6 – Record Drawings	4	16	4	2		26	\$ 4,000
TASK 7 – Survey and Easements	4	4	8	8	80	104	\$ 15,000

	Project Manager	CAD Designer	Project Engineer	QA/QC	Field	TOTAL (hours)	TOTAL (cost)
Billing Rate	\$ 243.46	\$ 131.88	\$ 110.06	\$ 250.89	\$ 384.20		
TASK 8 – Geotechnical	4		10	4	18	36	\$ 10,000

	Project Manager	CAD Designer	Project Engineer	QA/QC	Survey	TOTAL (hours)	TOTAL (cost)
Billing Rate	\$ 243.46	\$ 131.88	\$ 110.06	\$ 250.89	\$ 131.08		
TASK 9 – Project Management	12		6				\$ 3,600
TASK 10 - Design	24	80	40	18		162	\$ 25,200
TASK 11 – TxDOT SUA Assistance	16		16	8		40	\$ 7,300
TASK 12 – Bidding Phase Services	8		12	8		28	\$ 5,300
TASK 13 – Services During Construction	16		40		8	64	\$ 9,600
TASK 14 – Record Drawings	4	16	4	2		26	\$ 4,100
TASK 15 – Survey (Special Services)	4	4	8	8	80	104	\$ 15,200
TASK 16 – Easements & Title Commitments	40	40	20	20	32	152	\$ 26,800

	Survey	Level B	Level C&D	Level A Test Hole 0-4 ft.	Level A Test Hole 4-8 ft.	TOTAL (hours)	TOTAL (cost)
Billing Rate	\$ 1,850.00	\$ 2,500.00	\$ 2,500.00	\$ 950.00	\$ 1,250.00		
TASK 17 – Subsurface Utility Exploration	1.5	2	1	2	2	8.5	\$ 14,700

	Project Manager	CAD Designer	Project Engineer	QA/QC	Field	TOTAL (hours)	TOTAL (cost)
Billing Rate	\$ 243.46	\$ 131.88	\$ 110.06	\$ 250.89	\$ 384.20		
TASK 18 - Geotechnical	40		48	24	62	174	\$ 45,000

Total							\$ 290,800
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City Reimbursement Estimate
Town of Flower Mound

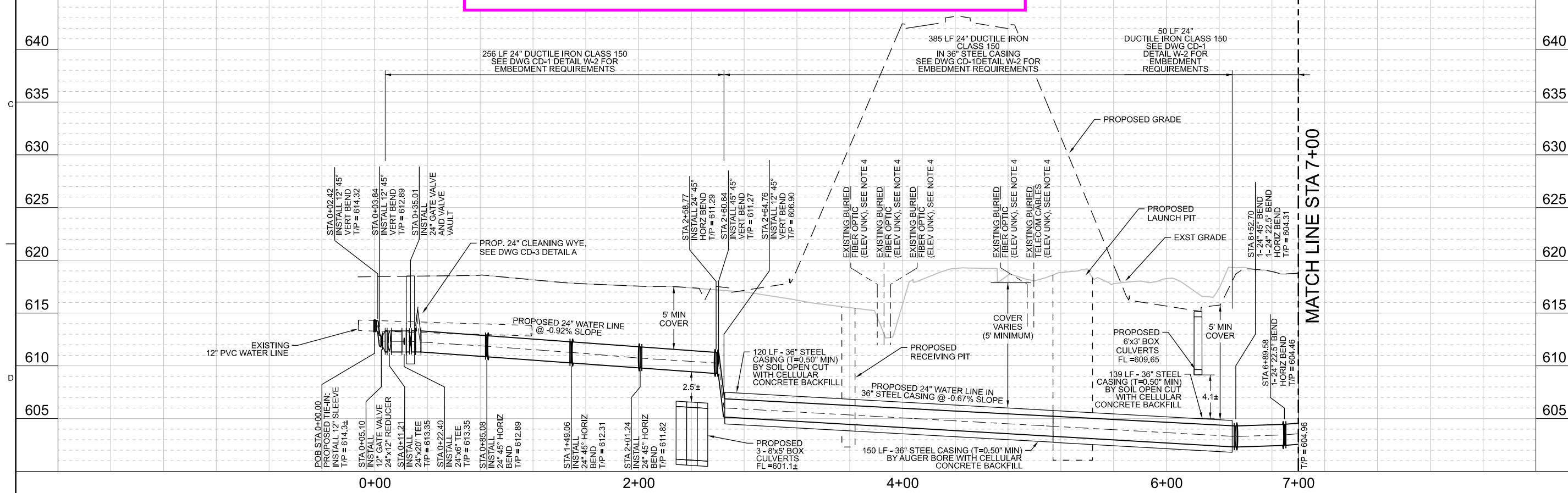
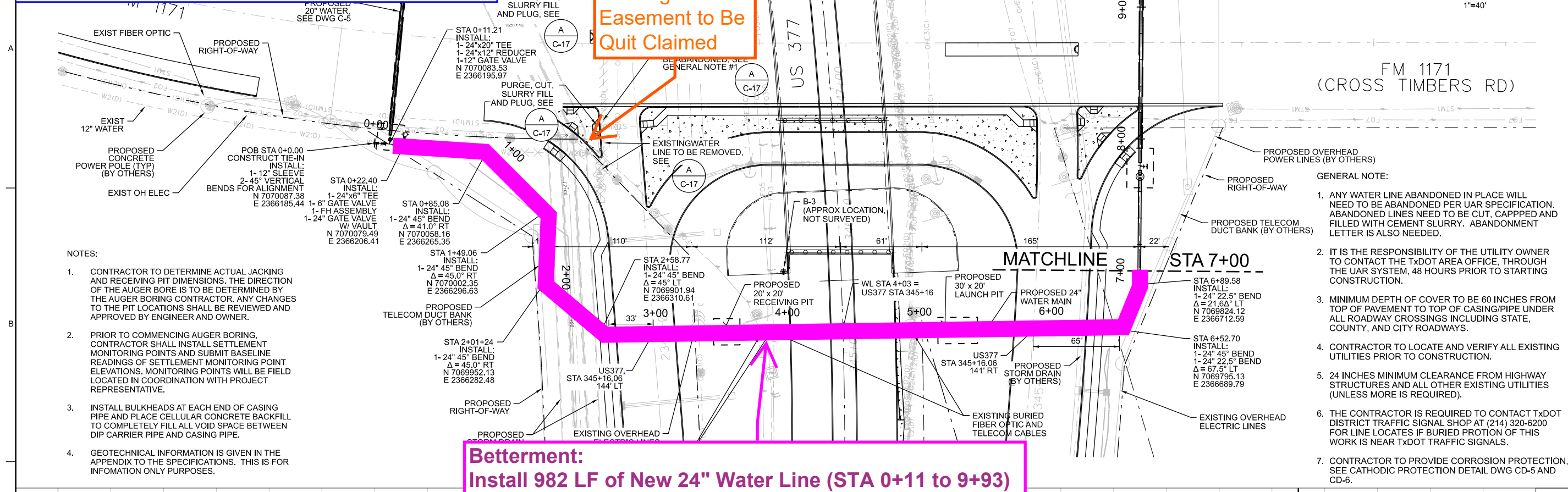
US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Standard Utility Agreement - Material Testing Costs
Proposed Cost

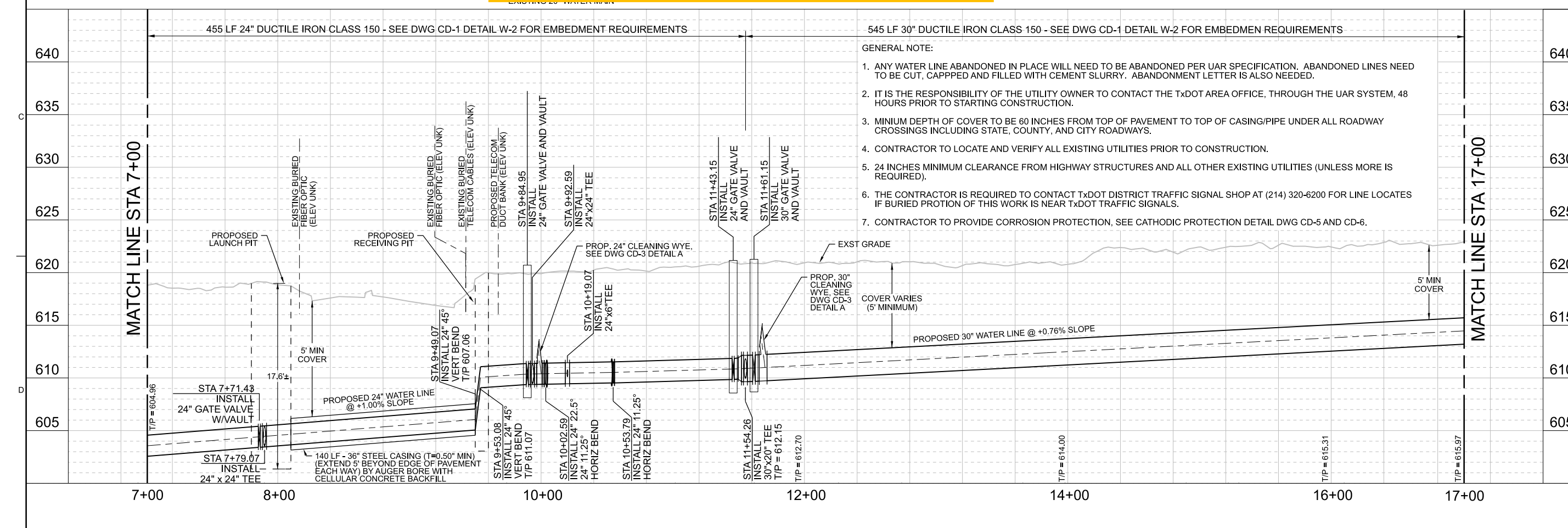
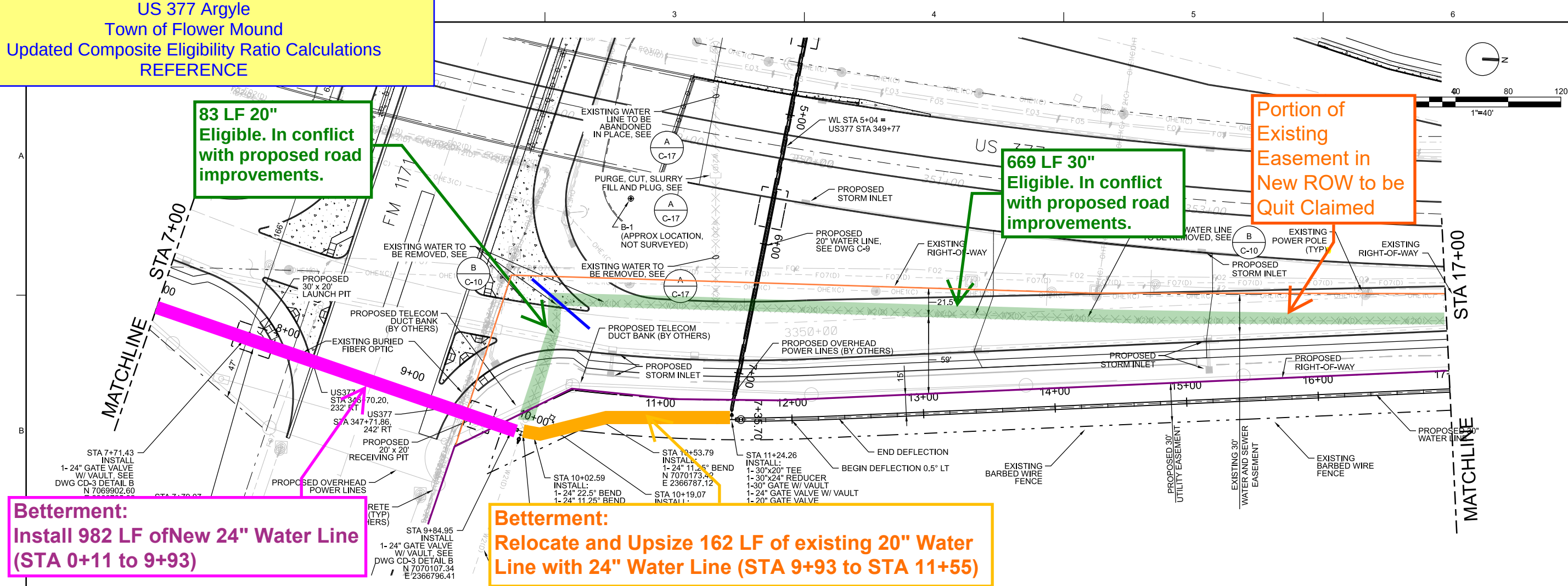
ESTIMATED FEES

Description of Services	Detail	Estimate	Quantity	Unit	Rate	Total
Earthwork						
Engineering Technician	<i>Sample Pickups</i>	<i>1 events</i>	4	hours	\$ 55.00	\$ 220.00
Engineering Technician	<i>Utility Lines</i>	<i>50 events</i>	300	hours	\$ 55.00	\$ 16,500.00
Engineering Technician	<i>Launch Pit Pour Backs</i>	<i>1 events</i>	4	hours	\$ 55.00	\$ 220.00
Nuclear Gauge Fee	<i>Nuclear Gauge Fee</i>		50	events	\$ 75.00	\$ 3,750.00
St. Proctor (Moist./Dens. Rel.)	<i>Standard Proctor</i>		4	each	\$ 140.00	\$ 560.00
Atterberg Limits Tests	<i>Plasticity Index</i>		4	each	\$ 80.00	\$ 320.00
Washed Sieve (- #200 Sieve)	<i>Percent Fines</i>		4	each	\$ 60.00	\$ 240.00
Vehicle Charge			52	trips	\$ 55.00	\$ 2,860.00
Subtotal:						\$ 24,670.00
Concrete						
Engineering Technician	<i>Cellular Concrete Fill</i>	<i>5 events</i>	20	hours	\$ 55.00	\$ 1,100.00
Engineering Technician	<i>Gate Valve Vaults</i>	<i>6 events</i>	24	hours	\$ 55.00	\$ 1,320.00
Engineering Technician	<i>Launch Pit Pour Backs</i>	<i>1 event</i>	4	hours	\$ 55.00	\$ 220.00
Conc. Cylinders (Comp. Str.)			48	each	\$ 18.00	\$ 864.00
Material Sample Pickup			12	trips	\$ 165.00	\$ 1,980.00
Vehicle Charge			12	trips	\$ 55.00	\$ 660.00
Subtotal:						\$ 6,144.00
Project Management						
Administrator / Clerical / Dispatch			16	hours	\$ 50.00	\$ 800.00
Project Manager			32	hours	\$ 120.00	\$ 3,840.00
Project Principal			16	hours	\$ 185.00	\$ 2,960.00
Subtotal:						\$ 7,600.00
PROJECT TOTAL:						\$ 38,414.00

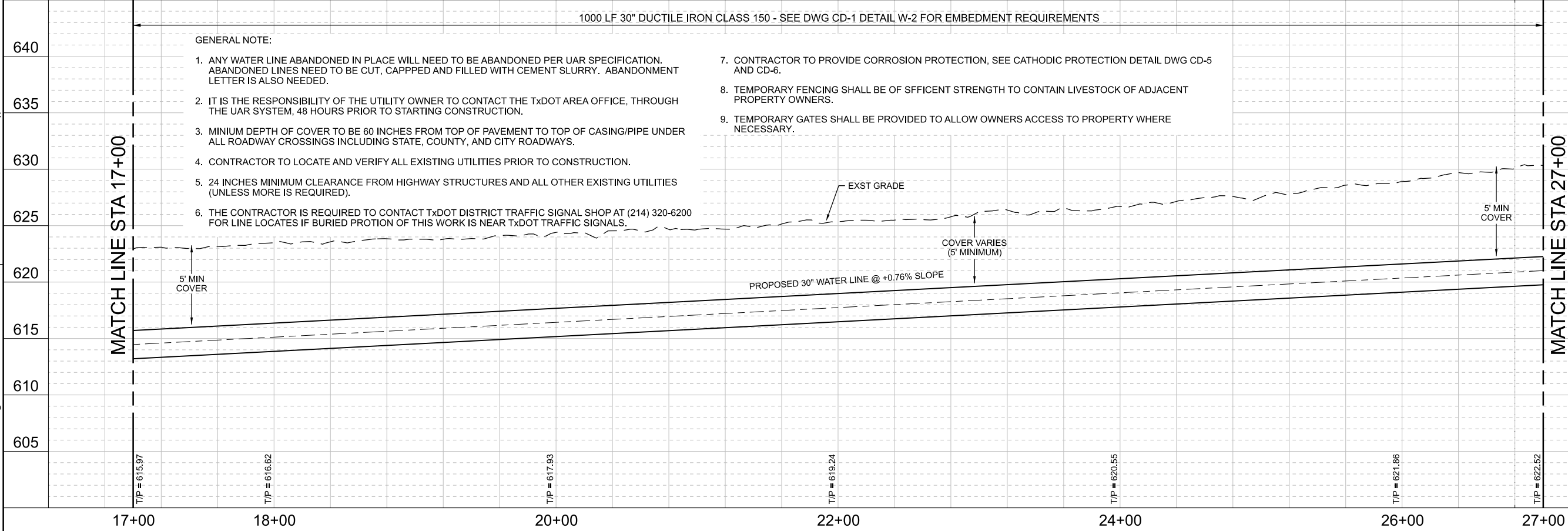
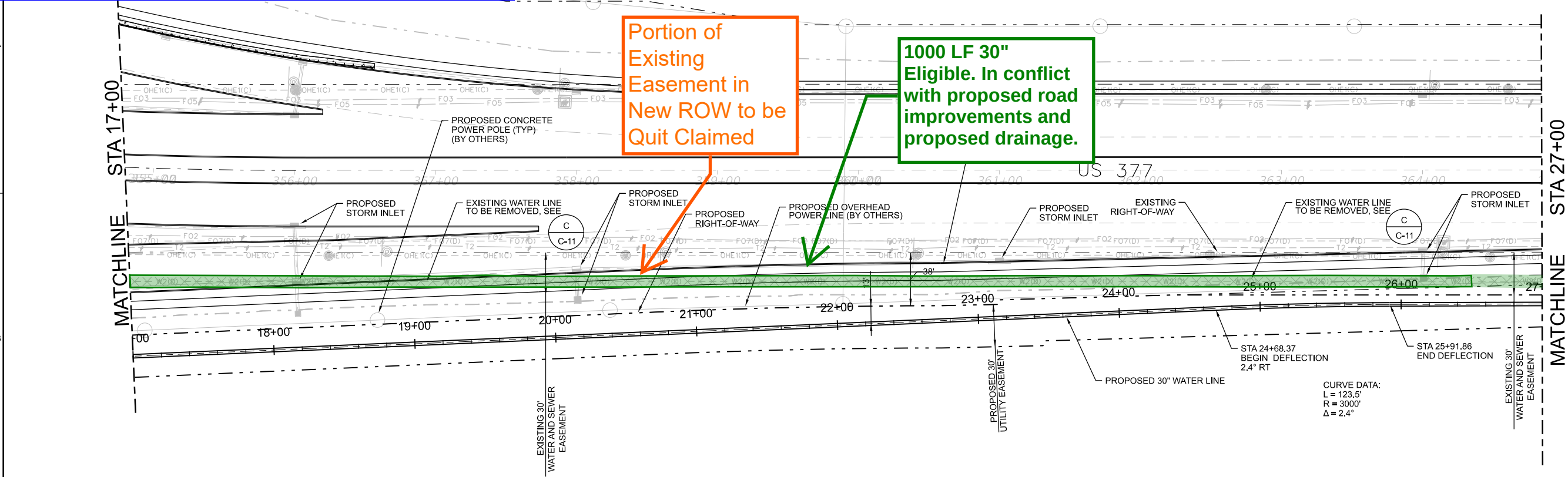
US 377 Argyle
Town of Flower Mound
Updated Composite Eligibility Ratio Calculations
REFERENCE

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US 377 Argyle
Town of Flower Mound
Updated Composite Eligibility Ratio Calculations
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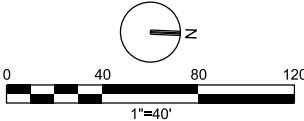
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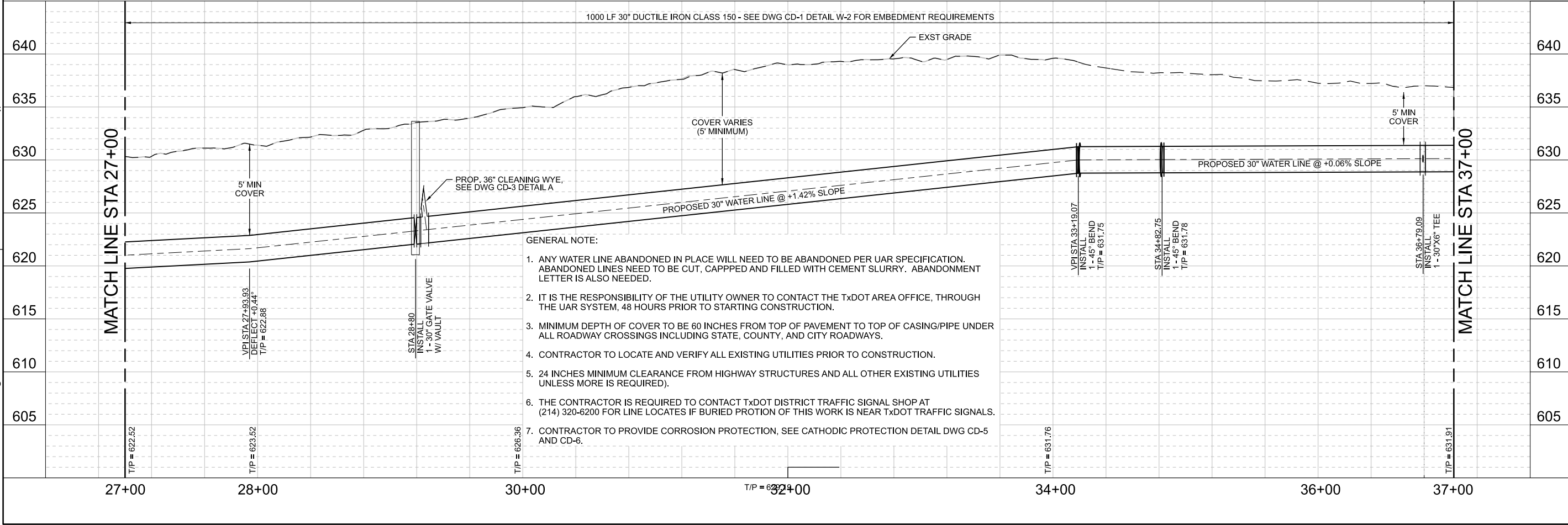
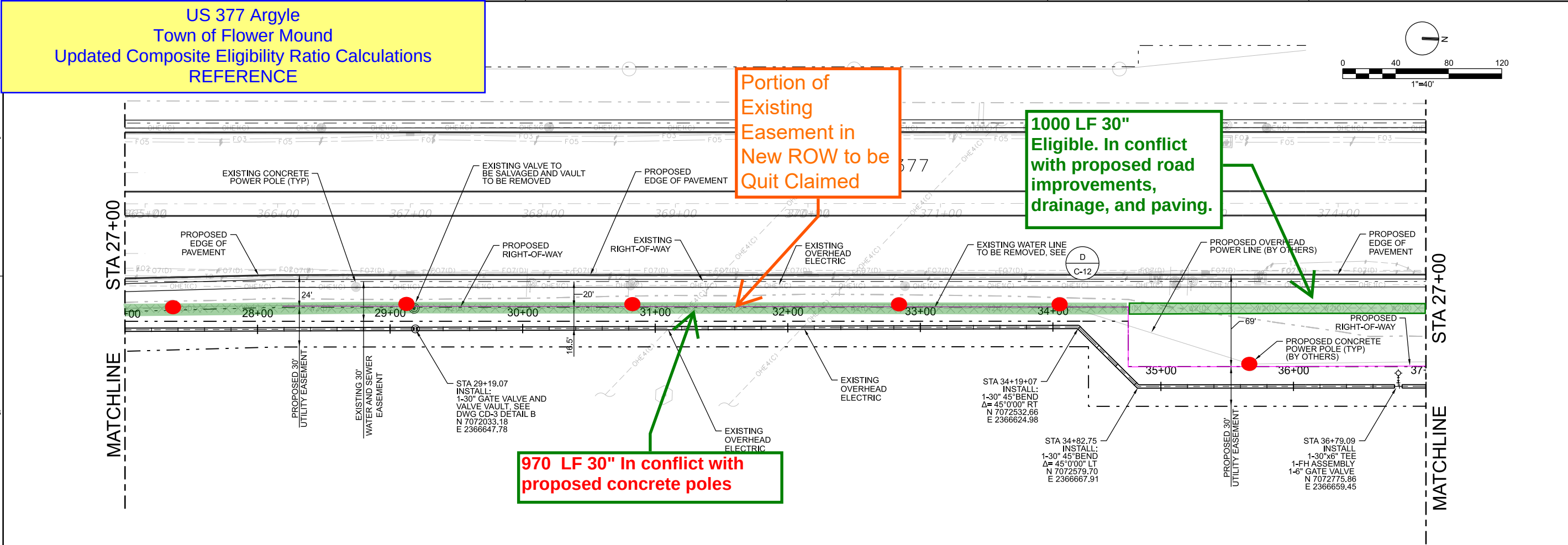
GENERAL NOTE:

1. ANY WATER LINE ABANDONED IN PLACE WILL NEED TO BE ABANDONED PER UAR SPECIFICATION. ABANDONED LINES NEED TO BE CUT, CAPPED AND FILLED WITH CEMENT SLURRY. ABANDONMENT LETTER IS ALSO NEEDED.
2. IT IS THE RESPONSIBILITY OF THE UTILITY OWNER TO CONTACT THE TxDOT AREA OFFICE, THROUGH THE UAR SYSTEM, 48 HOURS PRIOR TO STARTING CONSTRUCTION.
3. MINIMUM DEPTH OF COVER TO BE 60 INCHES FROM TOP OF PAVEMENT TO TOP OF CASING/PIPE UNDER ALL ROADWAY CROSSINGS INCLUDING STATE, COUNTY, AND CITY ROADWAYS.
4. CONTRACTOR TO LOCATE AND VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
5. 24 INCHES MINIMUM CLEARANCE FROM HIGHWAY STRUCTURES AND ALL OTHER EXISTING UTILITIES (UNLESS MORE IS REQUIRED).
6. THE CONTRACTOR IS REQUIRED TO CONTACT TxDOT DISTRICT TRAFFIC SIGNAL SHOP AT (214) 320-6200 FOR LINE LOCATES IF BURIED PORTION OF THIS WORK IS NEAR TxDOT TRAFFIC SIGNALS.
7. CONTRACTOR TO PROVIDE CORROSION PROTECTION, SEE CATHODIC PROTECTION DETAIL DWG CD-5 AND CD-6.
8. TEMPORARY FENCING SHALL BE OF SUFFICIENT STRENGTH TO CONTAIN LIVESTOCK OF ADJACENT PROPERTY OWNERS.
9. TEMPORARY GATES SHALL BE PROVIDED TO ALLOW OWNERS ACCESS TO PROPERTY WHERE NECESSARY.



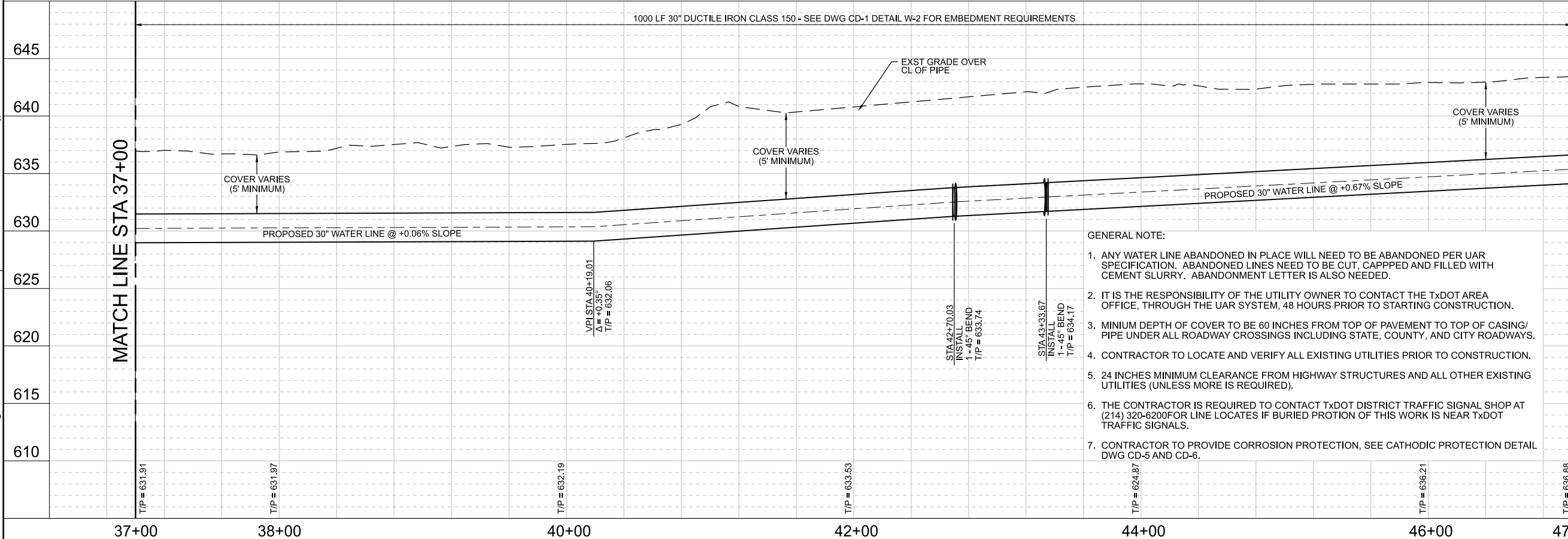
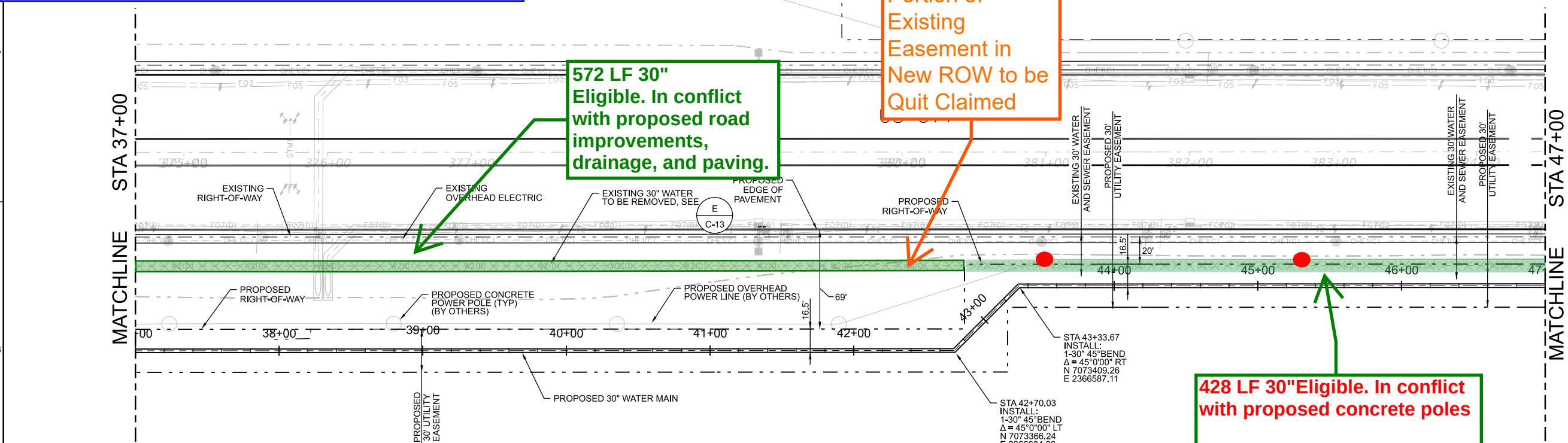
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BY APVD	
T LYONS	
V PANDEY	
A HOLMES	
A HOLMES	
1989 BRYAN ST. SUITE 1200 DALLAS, TX 75201-3136 Phone: (214) 638-0145 Texas Registration: F-2966	
US 377 AT FM 1171 WATER LINE / LOOP & RELOCATION TOWN OF FLOWER MOUND TEXAS	
CIVIL WATER LINE RELOCATION PLAN AND PROFILE STA 17+00 TO STA 27+00	
AS NOTED	
VERIFY SCALE	
BAR IS ONE INCH ON ORIGINAL DRAWING, 1"	
DATE OCTOBER 2022	
PROJ WFXQ6500	
DWG C-3	
SHEET 8 of 28	

US 377 Argyle
Town of Flower Mound
Updated Composite Eligibility Ratio Calculations
REFERENCE

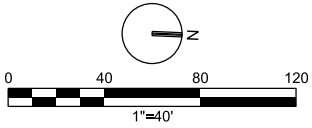


JACOBS CIVIL	1999 BRYAN ST. SUITE 1200 DALLAS, TX 75201-3136 Phone: F1 (214) 638-0145 TEXAS Registration: F-2966	US 377 AT FM 1171 WATER LINE / LOOP & RELOCATION TOWN OF FLOWER MOUND TEXAS	CIVIL WATER LINE RELOCATION PLAN AND PROFILE STA 27+00 TO STA 37+00	PRELIMINARY THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF Timothy Alan Lyons, PE NO. 96289, IT IS NOT TO BE USED FOR BIDDING, PERMITTING OR CONSTRUCTION.			
				NO.	DATE	DR	CHK
				NO.	DATE	DR	CHK
				NO.	DATE	DR	CHK
AS NOTED VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING, 1" = 40'				DATE OCTOBER 2022 PROJ WFXQ6500 DWG C-4 SHEET 9 of 28			

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Town of Flower Mound
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37+00 38+00 40+00 42+00 44+00 46+00 47+00



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BY

APVD

T LYONS

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DALLAS, TX 75201-3136
Phone: F1 (214) 638-0145
TEXAS Registration: F-2966

US 377 AT FM 1171
WATER LINE / LOOP & RELOCATION
TOWN OF FLOWER MOUND
TEXAS

CIVIL

WATER MAIN RELOCATION
PLAN AND PROFILE
STA 37+00 TO STA 47+00

1"=40'

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DWG C-5

SHEET 10 of 28

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FILENAME: 001-C-100005_WFXQ6500.dgn PLOT DATE: 10/17/2022 Page 333 of 460

PER UAR SPECIFICATION. ABANDONED
ABANDONMENT LETTER IS ALSO NEEDED.
DOT AREA OFFICE, THROUGH THE UAR
TO TOP OF CASING/ PIPE UNDER ALL
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TO CONSTRUCTION.
ALL OTHER EXISTING UTILITIES (UNLESS
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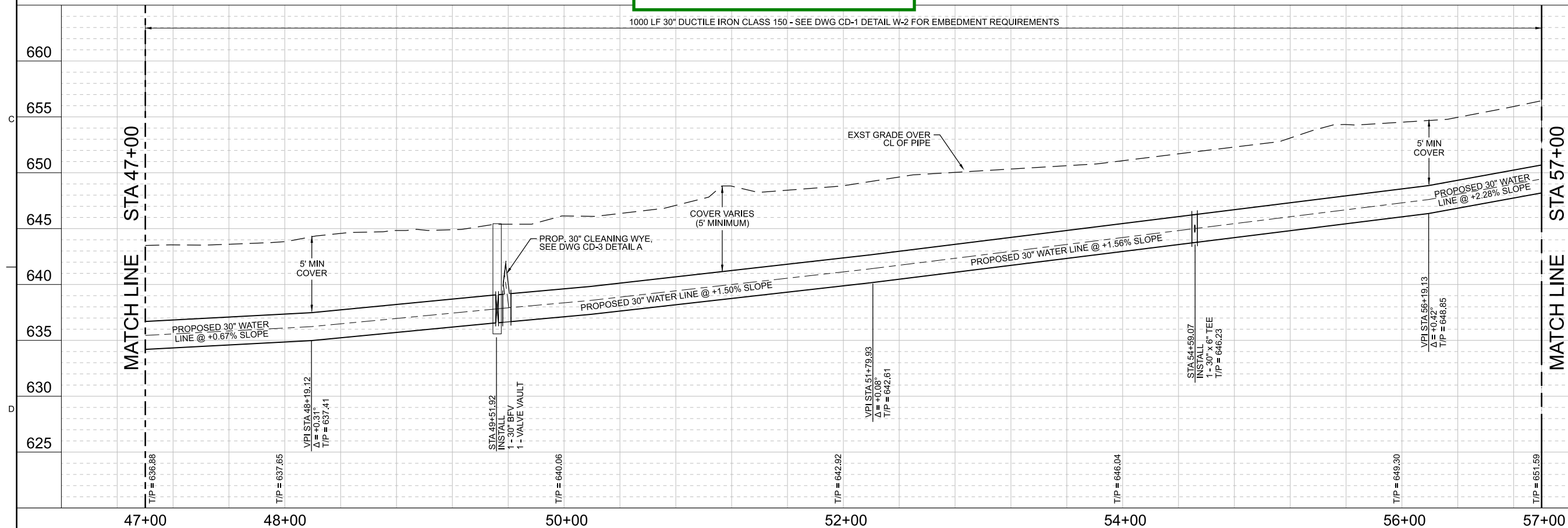
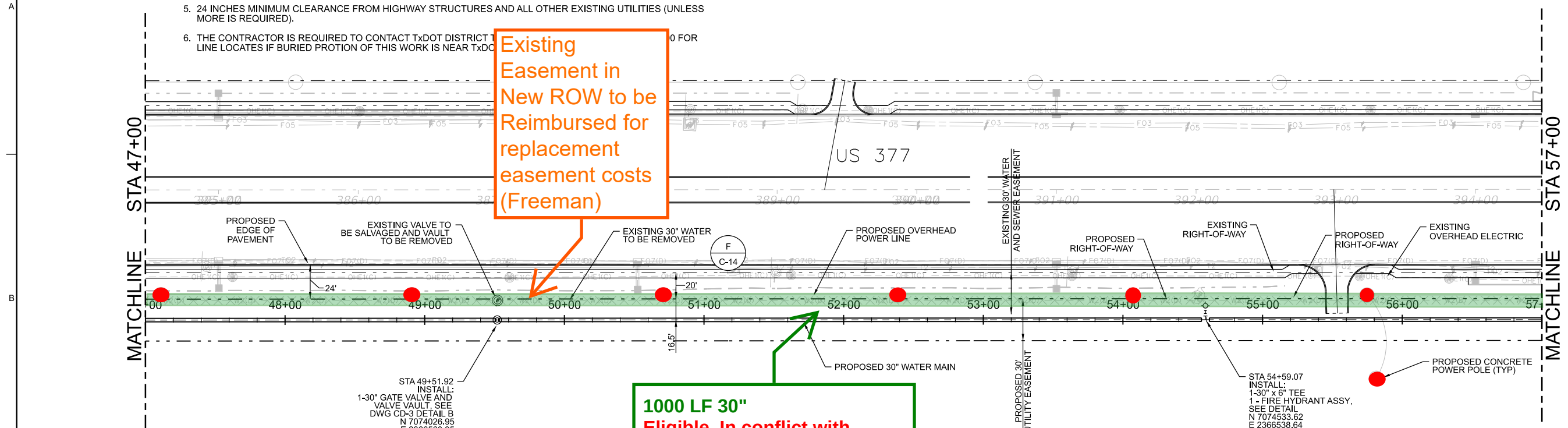
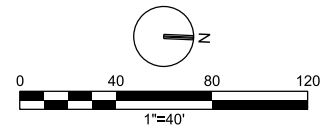
3. MINIMUM DEPTH OF COVER TO BE 66 INCHES FROM TOP OF PAVEMENT TO TOP OF CASING/ PIPE UNDER ALL ROADWAY CROSSINGS INCLUDING STATE, COUNTY, AND CITY ROADWAYS.
4. CONTRACTOR TO LOCATE AND VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
5. 24 INCHES MINIMUM CLEARANCE FROM HIGHWAY STRUCTURES AND ALL OTHER EXISTING UTILITIES (UNLESS MORE IS REQUIRED).
6. THE CONTRACTOR IS REQUIRED TO CONTACT TxDOT DISTRICT 10 TO LOCATE ANY EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO CONTACT TxDOT DISTRICT 10 TO LOCATE ANY EXISTING UTILITIES PRIOR TO CONSTRUCTION.

1000 LF 30"
Eligible. In conflict with
proposed concrete poles

1000 LF 30"
Eligible. In conflict with
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PER UAR SPECIFICATION. ABANDONED
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7. CONTRACTOR TO PROVIDE CORROSION PROTECTION, SEE CATHODIC PROTECTION DETAIL DWG CD-5 AND CD-6.
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999 BRYAN ST., SUITE 1200 DALLAS, TX 75201-3136 Phone: F (214) 638-0145 TEXAS Registration: F-2966	US 377 AT FM 1171 WATER LINE / LOOP & RELOCATION TOWN OF FLOWER MOUND TEXAS	NOTES: THIS DOCUMENT AND THE IDEAS AND DESIGN HEREIN ARE THE PROPERTY OF CH2M HILL AND ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF CH2M HILL.
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	1" = 40'	

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SHEET	11 of 28

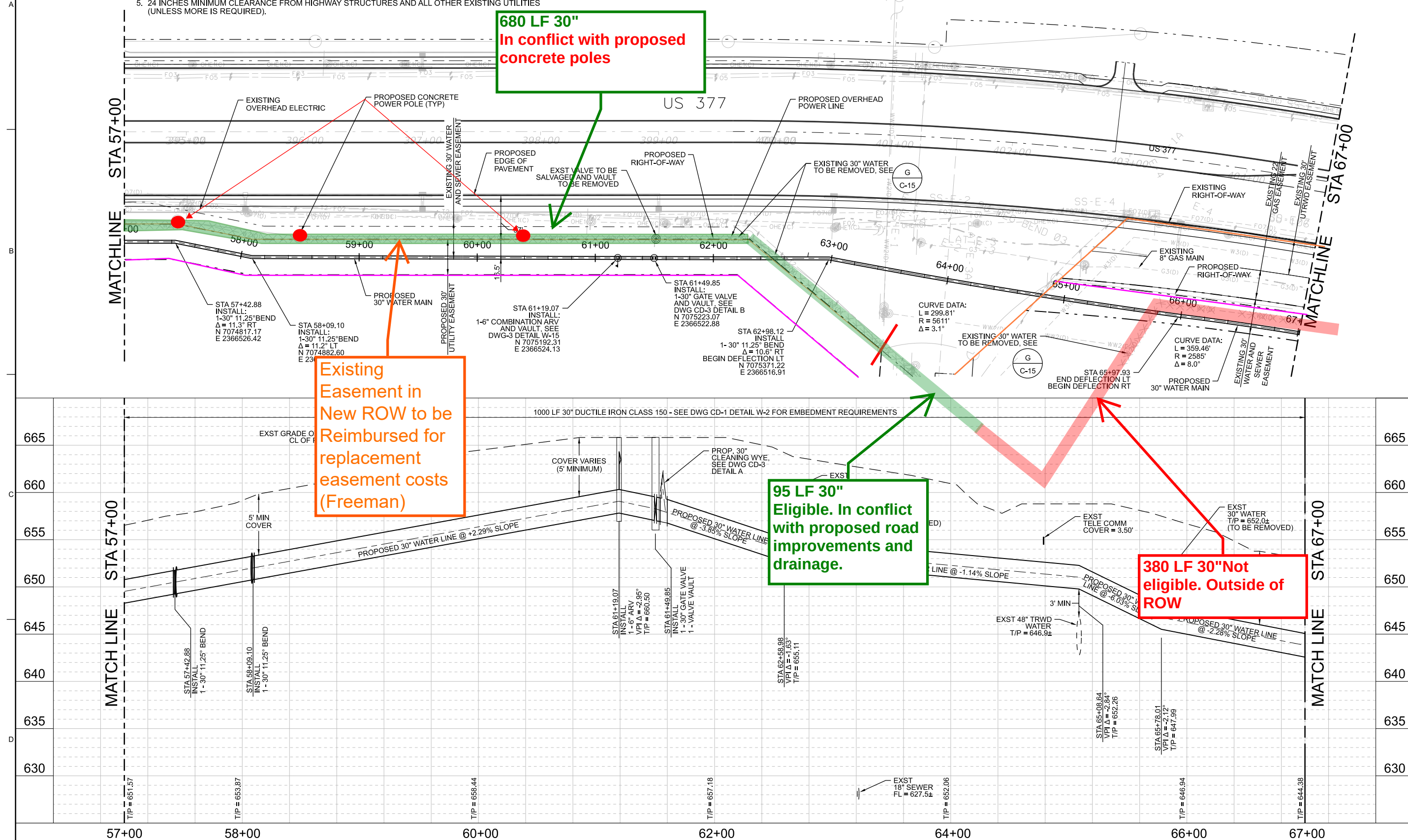
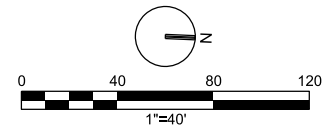
Page 334 of 460

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US 377 Argyle
Town of Flower Mound
Updated Composite Eligibility Ratio Calculations
REFERENCE

UAR SPECIFICATION. ABANDONED
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 AREA OFFICE, THROUGH THE UAR
 P OF CASING/ PIPE UNDER ALL

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DALLAS, TX 75201-3136
Phone: #1 (214) 639-0145
TEXAS Registration: F-2966

US 377 AT FM 1171

WATER LINE / LOOP & RELOCATION

TOWN OF FLOWER MOUND

TEXAS

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**WATER MAIN RELOCATION
PLAN AND PROFILE**

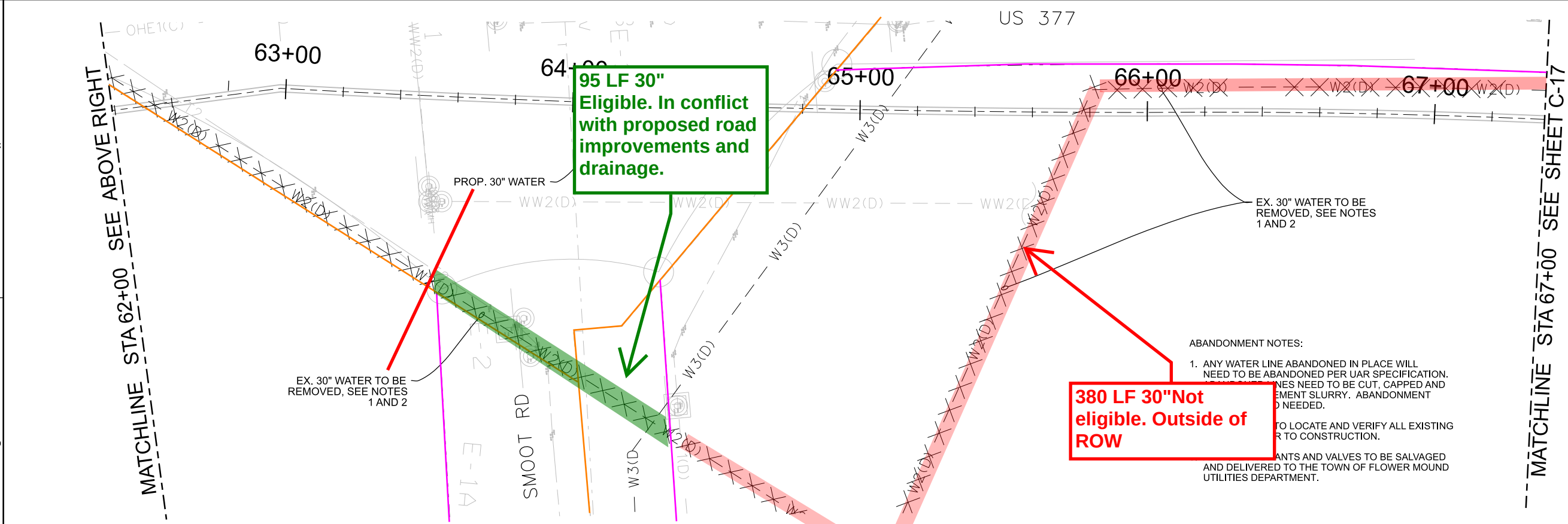
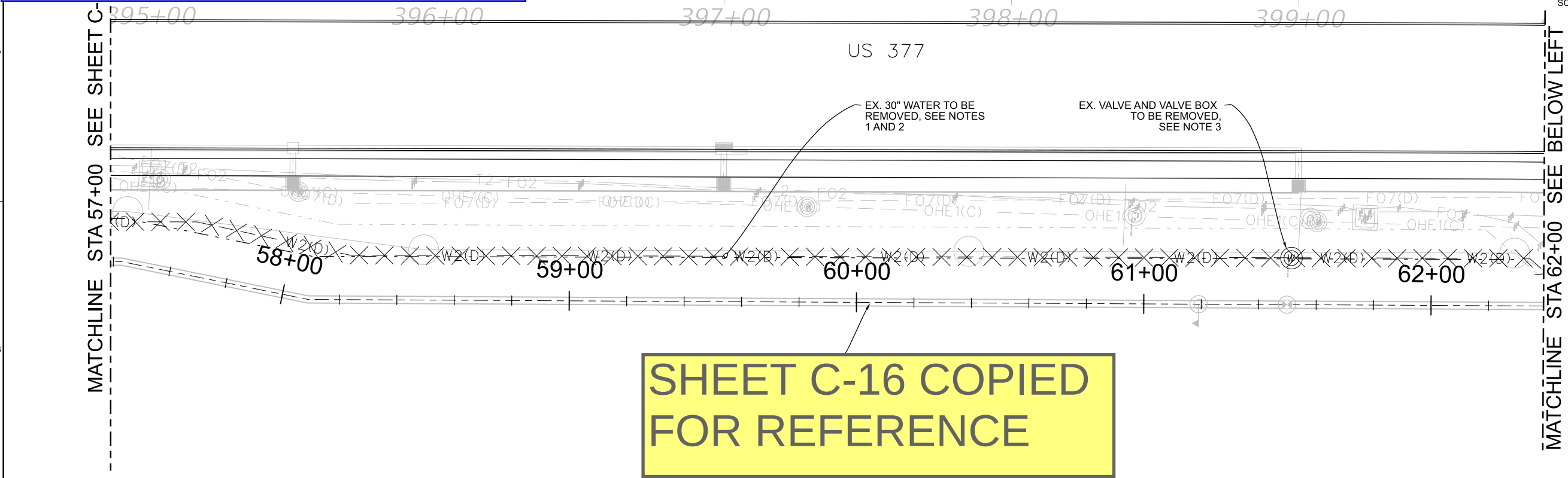
STA 57+00 TO STA 67+00

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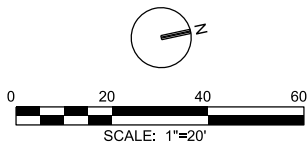
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PROJ	WFXQ6500
DWG	C-7
SHEET	12 of 28

US 377 Argyle
Town of Flower Mound
Updated Composite Eligibility Ratio Calculations
REFERENCE



G ABANDONMENT DETAIL 30" WATER STA 57+00 TO STA 67+00
1"=20'



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Phone: F1 (214) 638-0145
TEXAS Registration: F-2966

US 377 AT FM 1171
WATER LINE / LOOP & RELOCATION
TOWN OF FLOWER MOUND
TEXAS

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ABANDONMENT PLAN
STA 57+00 TO STA 67+00

1" = 20'

VERIFY SCALE

BAR IS ONE INCH ON
ORIGINAL DRAWING.
0 1"

DATE OCTOBER 2022

PROJ WFXQ6800

DWG C-15

SHEET 20 of 28

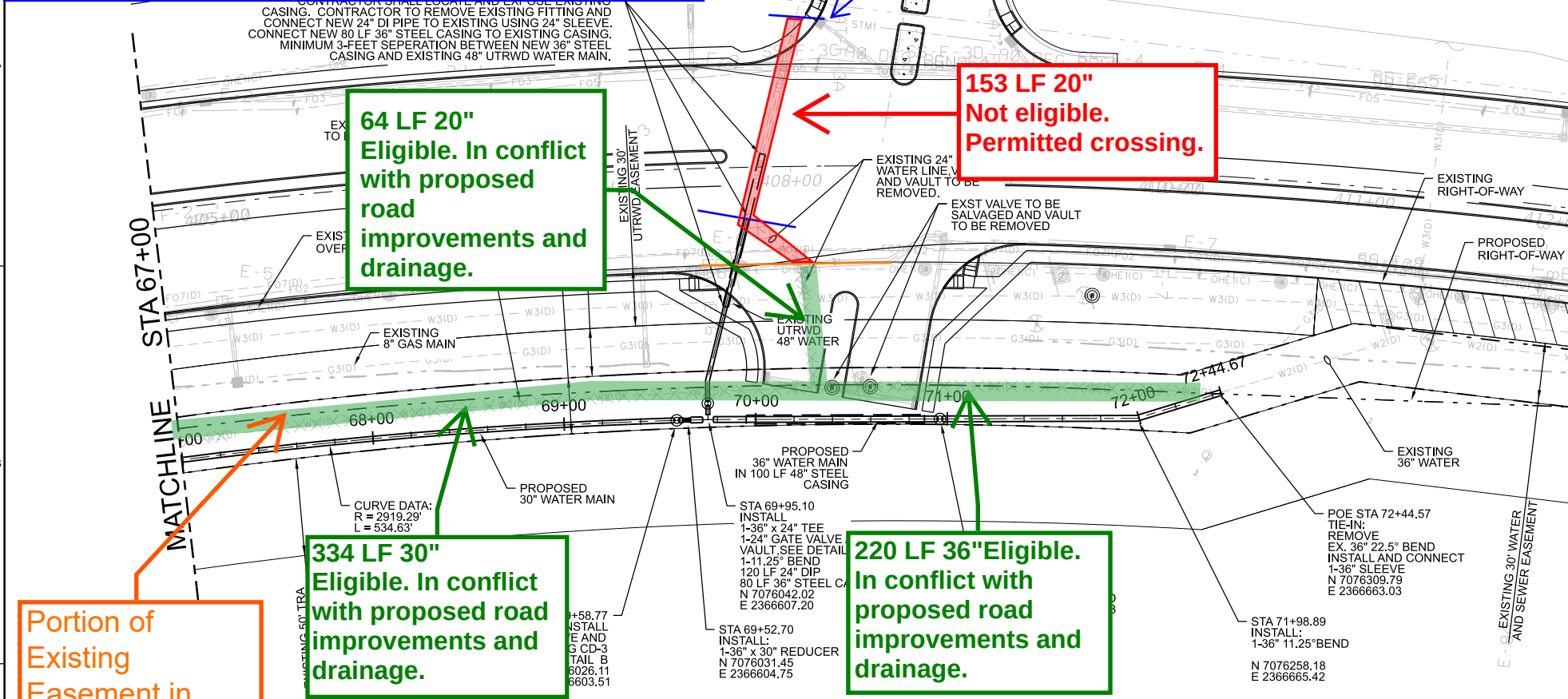
100% REVIEW DOCUMENT

FILENAME: 001-C-100015_WFXQ6500.dgn

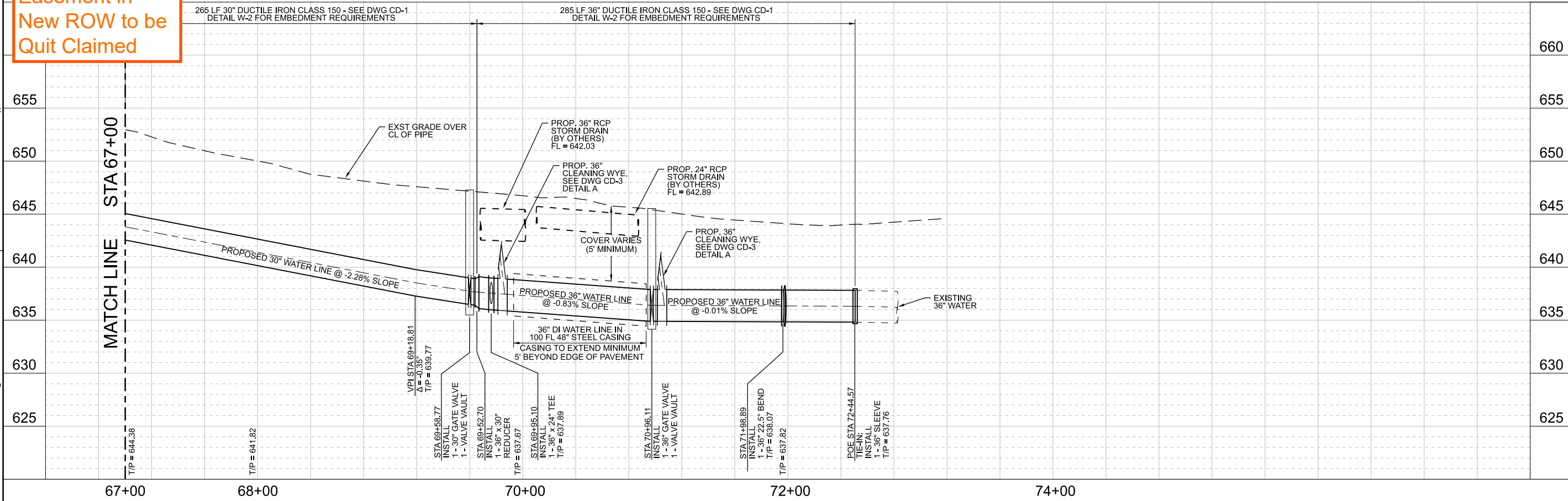
PLOT DATE: 10/17/2022

PAGE 336 of 460

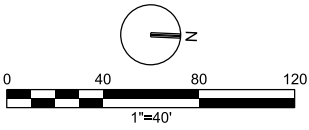
US 377 Argyle
Town of Flower Mound
Updated Composite Eligibility Ratio Calculations
REFERENCE



Portion of
Existing
Easement in
New ROW to be
Quit Claimed



- GENERAL NOTE:
- ANY WATER LINE ABANDONED IN PLACE WILL NEED TO BE ABANDONED PER UAR SPECIFICATION. ABANDONED LINES NEED TO BE CUT, CAPPPED AND FILLED WITH CEMENT SLURRY. ABANDONMENT LETTER IS ALSO NEEDED.
 - IT IS THE RESPONSIBILITY OF THE UTILITY OWNER TO CONTACT THE TxDOT AREA OFFICE, THROUGH THE UAR SYSTEM, 48 HOURS PRIOR TO STARTING CONSTRUCTION.
 - MINIUM DEPTH OF COVER TO BE 60 INCHES FROM TOP OF PAVEMENT TO TOP OF CASING/ PIPE UNDER ALL ROADWAY CROSSINGS INCLUDING STATE, COUNTY, AND CITY ROADWAYS.
 - CONTRACTOR TO LOCATE AND VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 - 24 INCHES MINIMUM CLEARANCE FROM HIGHWAY STRUCTURES AND ALL OTHER EXISTING UTILITIES (UNLESS MORE IS REQUIRED).
 - THE CONTRACTOR IS REQUIRED TO CONTACT TxDOT DISTRICT TRAFFIC SIGNAL SHOP AT (214) 320-6200 FOR LINE LOCATES IF BURIED PROTION OF THIS WORK IS NEAR TxDOT TRAFFIC SIGNALS.
 - CONTRACTOR TO PROVIDE CORROSION PROTECTION, SEE CATHODIC PROTECTION DETAIL DWG CD-5 AND CD-6.
 - TEMPORARY FENCING SHALL BE OF SFFICIENT STRENGTH TO CONTAIN LIVESTOCK OF ADJACENT PROPERTY OWNERS.
 - TEMPORARY GATES SHALL BE PROVIDED TO ALLOW OWNERS ACCESS TO PROPERTY WHERE NECESSARY.



PRELIMINARY		THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF Timothy Alan Lyons, CET NO. 96289, CIVIL ENGINEER, WHO SHALL NOT BE USED FOR BIDDING, PERMITTING OR CONSTRUCTION.	
1999 BRYAN ST. SUITE 1200 DALLAS, TX 75201-3136 Phone: F1 (214) 638-0145 TEXAS Registration: F-2966		US 377 AT FM 1171 WATER LINE / LOOP & RELOCATION TOWN OF FLOWER MOUND TEXAS	
Jacobs CIVIL		WATER MAIN RELOCATION PLAN AND PROFILE STA 67+00 TO STA 72+44.57	
DATE: OCTOBER 2022		100% REVIEW DOCUMENT	
PROJ: WFXQ6500			
DWG: C-8			
SHEET: 13 of 28			

Attachment "G"

Betterment Calculation and Estimate

- ☒ Elective Betterment Ratio established: 19.9%
(Calculation attached and justification below)
- ☐ Forced Betterment
(Provide supporting documentation)
- ☐ Not Applicable

Elective betterment justification statement:

In order to minimize water line work in the area after the US 377 project is complete and to reduce future costs, the Town of Flower Mound is electing to improve the existing water infrastructure at the intersection of FM 1171 and US 377. All betterment waterline work will occur between US 377 STA 345+00 to STA 350+00. All stationing referenced below is based on Town of Flower Mound waterline stationing.

The Town will install approximately 982 LF of new 24" ductile iron pipe (DIP) water line (Sheets C1 - C2), where none currently exists, from STA 0+11 to STA 9+93. Steel carrier pipe shall be installed from STA 2+60 to STA 6+50 (390 LF) and STA 8+10 to STA 9+50 (140 LF).

The Town will relocate an existing 12" and 20" DIP water line (Sheet C9) with approximately 736 LF of 20" DIP water line. Steel carrier pipe shall be installed from STA 0+16 to 1+56 (140 LF) and STA 3+08 to 7+20 (408 LF).

Total Cost of Relocation = \$7,025,214.00

Total Betterment = \$1,399,125.20

Betterment Ratio = 0.199

Initial Date
TxDOT

Initial Date
Utility

City Reimbursement Estimate
Town of Flower Mound

US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Betterment Calculation

Betterment Description

Upsize the existing 12-inch water line to a 20-inch water line along west and north legs of the FM 1171 and US 377 Intersection. Sheet C9 Sta (0+00 to STA 7+36)

Betterment Limits

Relocate existing 12" Water Line with 20" (STA 0+00 to STA 7+36) Water Line (Betterment)

BID ITEM #	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
2	20" DUCTILE IRON PIPE (CLASS 250) - OPEN CUT	207	LF	\$ 500.00	\$ 103,500.00
6	20" DUCTILE IRON PIPE (CLASS 250) - WITH CASING SPACERS	532	LF	\$ 300.00	\$ 159,600.00
9	36" STEEL CASING PIPE - BORE	270	LF	\$ 1,300.00	\$ 351,000.00
10	36" STEEL CASING PIPE - OPEN CUT	282	LF	\$ 450.00	\$ 126,900.00
12	TRENCH SAFETY	489	LF	\$ 10.00	\$ 4,890.00
15	6" GATE VALVE	1	EA	\$ 4,000.00	\$ 4,000.00
17	20" GATE VALVE	2	EA	\$ 25,000.00	\$ 50,000.00
18	24" GATE VALVE	1	EA	\$ 40,000.00	\$ 40,000.00
21	FIRE HYDRANT ASSEMBLY	1	EA	\$ 12,000.00	\$ 12,000.00
22	4" COMBINATION AIR VACUUM RELEASE VALVE	1	EA	\$ 50,000.00	\$ 50,000.00
23	VALVE VAULT	3	EA	\$ 10,000.00	\$ 30,000.00
27	CATHODIC PROTECTION SYSTEM	739	LF	\$ 7.00	\$ 5,173.00
N/A	JACOBS ENGINEERING DESIGN	0.089	EA	\$ 101,090.00	\$ 8,997.01
N/A	TOFM DESIGN AND CONSTRUCTION	0.089	EA	\$ 290,700.00	\$ 25,872.30
N/A	MATERIALS TESTING	0.089	EA	\$ 38,414.00	\$ 3,418.85
					\$ 975,351.16

No Betterment

Relocate existing 12" Water Line with 12" (STA 0+00 to 7+36) Water Line (Base Relocation)

BID ITEM #	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
2	12" DUCTILE IRON PIPE (CLASS 250) - OPEN CUT	207	LF	\$ 350.00	\$ 72,450.00
6	12" DUCTILE IRON PIPE (CLASS 250) - WITH CASING SPACERS	532	LF	\$ 375.00	\$ 199,500.00
9	24" STEEL CASING PIPE - BORE	270	LF	\$ 1,100.00	\$ 297,000.00
10	24" STEEL CASING PIPE - OPEN CUT	282	LF	\$ 300.00	\$ 84,600.00
12	TRENCH SAFETY	489	LF	\$ 10.00	\$ 4,890.00
15	6" GATE VALVE	1	EA	\$ 4,000.00	\$ 4,000.00
17	12" GATE VALVE	2	EA	\$ 8,000.00	\$ 16,000.00
18	24" GATE VALVE	1	EA	\$ 40,000.00	\$ 40,000.00
21	FIRE HYDRANT ASSEMBLY	1	EA	\$ 12,000.00	\$ 12,000.00
22	4" COMBINATION AIR VACUUM RELEASE VALVE	1	EA	\$ 50,000.00	\$ 50,000.00
23	VALVE VAULT	1	EA	\$ 10,000.00	\$ 10,000.00
27	CATHODIC PROTECTION SYSTEM	739	LF	\$ 7.00	\$ 5,173.00
N/A	JACOBS ENGINEERING DESIGN	0.089	EA	\$ 101,090.00	\$ 8,997.01
N/A	TOFM DESIGN AND CONSTRUCTION	0.089	EA	\$ 290,700.00	\$ 25,872.30
N/A	MATERIALS TESTING	0.089	EA	\$ 38,414.00	\$ 3,418.85
					\$ 833,901.16

Relocate existing 12" Water Line with 20" (STA 0+00 to STA 7+36) Water Line (Betterment)

\$ 975,351.16

Relocate existing 12" Water Line with 12" (STA 0+00 to 7+36) Water Line (Base Relocation)

\$ 833,901.16

Total Betterment Amount

\$ 141,450.00

City Reimbursement Estimate
Town of Flower Mound

US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Betterment Calculation

Betterment Description

Install a 24" water line along the south and east legs of FM 1171 and US 377 Intersection. Only a small section of this water line currently exists. Sheet C1 and C2 STA 0+11 to STA 11+55.

Betterment Limits

Install New 24" Water Line (STA 0+11 to 9+93) and Relocate and Upsize existing 20" Water Line with 24" Water Line (STA 9+93 to STA 11+55)					
BID ITEM #	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
3	24" DUCTILE IRON PIPE (CLASS 250) - OPEN CUT	624	LF	\$ 600.00	\$ 374,400.00
7	24" DUCTILE IRON PIPE (CLASS 250) - WITH CASING SPACERS	530	LF	\$ 350.00	\$ 185,500.00
9	36" STEEL CASING PIPE - BORE	290	LF	\$ 1,300.00	\$ 377,000.00
10	36" STEEL CASING PIPE - OPEN CUT	240	LF	\$ 450.00	\$ 108,000.00
12	TRENCH SAFETY	864	LF	\$ 10.00	\$ 8,640.00
15	6" GATE VALVE	2	EA	\$ 4,000.00	\$ 8,000.00
17	12" GATE VALVE	1	EA	\$ 8,000.00	\$ 8,000.00
18	24" GATE VALVE	6	EA	\$ 40,000.00	\$ 240,000.00
21	FIRE HYDRANT ASSEMBLY	2	EA	\$ 1,200.00	\$ 2,400.00
23	VALVE VAULT	6	EA	\$ 10,000.00	\$ 60,000.00
27	CATHODIC PROTECTION SYSTEM	864	LF	\$ 7.00	\$ 6,048.00
N/A	JACOBS ENGINEERING DESIGN	0.14	EA	\$ 101,090.00	\$ 14,152.60
N/A	TOFM DESIGN AND CONSTRUCTION	0.14	EA	\$ 290,700.00	\$ 40,698.00
N/A	MATERIALS TESTING	0.14	EA	\$ 74,240.00	\$ 10,393.60
					\$ 1,443,232.20

No Betterment

Relocate Existing 20" Water Line Sheet C2 (STA 9+93 to 11+55)					
BID ITEM #	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
2	20" DUCTILE IRON PIPE (CLASS 250) - OPEN CUT	162	LF	\$ 500.00	\$ 81,000.00
12	TRENCH SAFETY	162	LF	\$ 10.00	\$ 1,620.00
15	6" GATE VALVE	1	EA	\$ 4,000.00	\$ 4,000.00
18	24" GATE VALVE	1	EA	\$ 40,000.00	\$ 40,000.00
21	FIRE HYDRANT ASSEMBLY	1	EA	\$ 1,200.00	\$ 1,200.00
23	VALVE VAULT	1	EA	\$ 10,000.00	\$ 10,000.00
27	CATHODIC PROTECTION SYSTEM	162	LF	\$ 7.00	\$ 1,134.00
N/A	JACOBS ENGINEERING DESIGN	0.10	EA	\$ 101,090.00	\$ 10,109.00
N/A	TOFM DESIGN AND CONSTRUCTION	0.10	EA	\$ 290,700.00	\$ 29,070.00
N/A	MATERIALS TESTING	0.10	EA	\$ 74,240.00	\$ 7,424.00
					\$ 185,557.00

Install New 24" Water Line (STA 0+11 to 9+93) and Relocate and Upsize existing 20" Water Line with 24" Water Line (STA 9+93 to STA 11+55)	\$ 1,443,232.20
Relocate Existing 20" Water Line Sheet C2 (STA 9+93 to 11+55)	\$ 185,557.00
Total Betterment Amount	\$ 1,257,675.20

City Reimbursement Estimate
Town of Flower Mound

US 377 Waterline Loop and Relocation
U Number U00010908
City Project Number - CIP21-04691

Betterment Calculation

Relocate existing 12" Water Line with 20" (STA 0+00 to STA 7+36) Water Line (Betterment)

Estimated Total Cost of Relocation	\$ 7,025,214.00
In Kind Estimate	\$ 6,883,764.00
Difference	\$ 141,450.00
Betterment Ratio	2%

Install New 24" Water Line (STA 0+11 to 9+93) and Relocate and Upsize existing 20" Water Line with 24" Water Line (STA 9+93 to STA 11+55)

Estimated Total Cost of Relocation	\$ 7,025,214.00
In Kind Estimate	\$ 5,767,538.80
Difference	\$ 1,257,675.20
Betterment Ratio	18%

Total Betterment

Estimated Total Cost of Relocation	\$ 7,025,214.00
In Kind Estimate	\$ 5,626,088.80
Difference	\$ 1,399,125.20
Betterment Ratio	19.9%

Attachment “H” Proof of Property Interest

☒ Supporting documentation of compensable property interest that establishes reimbursement eligibility as referenced in Texas Transportation Code §203.092.

☐ Property interest documented through applicable affidavits and required attachments.

☐ ROW-U-Affidavit

☐ The roadway improvement project is designated as an Interstate Highway project; therefore, no supporting documentation of compensable interest is required.

Initial Date
TxDOT

Initial Date
Utility

TxDOT US377

(South of FM 1171 to Crawford Road)

RCSJ 0081-03-062

From: STA 383+32

To: STA 401+50

Water Line Easement

Instrument Number – 2008-50553

TXDOT ROW PARCEL 12

**Portion of Existing Easement in New ROW will be Reimbursed for new
Easement Acquisition Costs**

Property Owner – O&C Freeman Family, LTD.

Grantor - O&C Freeman Family, LTD.

Grantee – Town of Flower Mound

**** Electronically Filed Document ****

Denton County
Cynthia Mitchell
County Clerk

Document Number: 2008-50553
Recorded As : ERX-EASEMENT

Recorded On: May 09, 2008
Recorded At: 09:57:16 am
Number of Pages: 6

Recording Fee: \$31.00

Parties:

Direct- O & C FREEMAN FAMILY LTD
Indirect-

Receipt Number: 484231
Processed By: Patsy Sallee

***** THIS PAGE IS PART OF THE INSTRUMENT *****

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY
because of color or race is invalid and unenforceable under federal law.



THE STATE OF TEXAS)
COUNTY OF DENTON]

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

C Mitchell

County Clerk
Denton County, Texas

\$31.00

LAATC/KL 2016 002203 /LS

**WATER AND SANITARY SEWER EASEMENT WITH
TEMPORARY CONSTRUCTION EASEMENT**

THE STATE OF TEXAS

§

§

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF DENTON

§

That, O & C Freeman Family, Ltd., of the county of Denton ("Grantor"), for and in consideration of the sum of TEN DOLLARS (\$10.00) and other good and valuable consideration to Grantor in hand paid by the TOWN OF FLOWER MOUND, a Texas municipal corporation ("Grantee"), the receipt and sufficiency of which hereby acknowledged, does hereby give, grant, and convey unto Grantee its successors and assigns, an easement and right to construct, reconstruct and perpetually maintain utility facilities (the "Facilities") in, on, and under the following described property:

BEING all that certain lot, tract of parcel of land situated in the B.B.B. & C. Railroad Company Survey, Abstract Number 154, Town of Flower Mound, Denton County, Texas, being part of that certain tract of land described in deed to Lizzie Curtis recorded in Vol. 100 Page 116 of the Real Property Records of Denton County, Texas, and being more particularly described and depicted in EXHIBIT A and EXHIBIT B, attached hereto and made a part hereof (the "Easement Property").

Grantor hereby grants to Grantee a temporary construction easement of approximately twenty-five feet (25') running parallel along the east side of the Easement depicted in Exhibit B, with rights of ingress and egress for the construction of said Facilities, such temporary construction easement terminating upon completion of said Facilities.

Improvement approved by the Grantee may be placed on the Easement Property which are compatible with the use of the easement and Facilities.

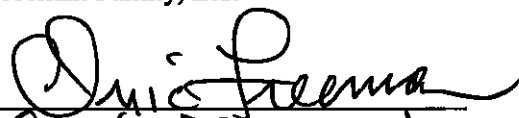
The Grantee herein, its successors and assigns, shall have, and it is hereby granted, the right of ingress and egress over that portion of the servient estate as is reasonable necessary to and for the limited purpose of accessing the Easement Property herein granted.

TO HAVE AND TO HOLD the Easement Property unto the Grantee for the purposes herein set forth, Grantor hereby binds itself, its successors, heirs, executors, administrators and assigns to warrant and

forever defend the easement and rights granted herein unto Grantee, its successors and assigns, against every person whomsoever lawfully claiming or attempting to claim the same or any part thereof.

Executed to be effected as of the 24th day of March, ~~2007~~ 2008

GRANTOR: O & C Freeman Family, Ltd.

By: 
ORRIC FREEMAN

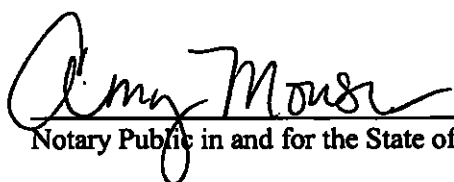
Its: TRUSTEE:

ACKNOWLEDGEMENT

STATE OF TEXAS §
 §
COUNTY OF DENTON §

This instrument was acknowledged before me on this 24th day of March, ~~2007~~ 2008, by Orric Freeman, Trustee on behalf of said Trust.




Notary Public in and for the State of Texas

AFTER RECORDING, RETURN TO:

James Daniels and Associates
9239 Vinta Way
Ft. Worth, TX 76126

Kim Hiebert
Transsystems, Inc.
500 W. Seventh St.
Suite 1100
Ft. Worth, TX 76102

LEGAL DESCRIPTION**30' Water & Sanitary Sewer Easement**

O. & C. Freeman Family, Ltd.
1.275 Acres

Exhibit "A"

Being all that certain lot, tract or parcel of land situated in the B. B. B. & C. RR Company Survey, Abstract Number 154, Town of Flower Mound, Denton County, Texas, being part of that certain tract of land described in deed to Lizzie Curtis recorded in Volume 100, 116 of the Deed Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a point on the south line of said Curtis tract, being on the westerly northwest corner of that certain called 251.99 acres tract of land described as Tract II in deed to Old WR Ranch I, L.P. recorded in Volume 4576, Page 1847 of the Real Property Records of Denton County, Texas, and being on the east right-of-way line of U. S. Highway 377 according to deed to the State of Texas recorded in Volume 279, Page 227 of the Deed Records of Denton County, Texas (120' R.O.W.);

THENCE N 02°27'43" W, 1124.81 feet, along the east right-of-way line of U. S. Highway 377;

THENCE N 09°39'21" E, 102.28 feet, continuing along said right-of-way line;

THENCE N 02°27'43" W, 400.00 feet, continuing along said right-of-way line, to a Texas Department of Transportation (TxDOT) monument found;

THENCE N 37°45'23" E, continuing along said right-of-way line, passing at 200.47 feet, a TxDOT monument found and continuing a total distance of 223.00 feet, to a point on the north line of said Curtis tract, being on the common line between said tract and that certain called 1129.061 acres tract of land described as Tract "A" in deed to Old WR Ranch I, L.P., recorded in Volume 4583, Page 569 of the Real Property Records of Denton County, Texas, and being in Smoot Road;

THENCE N 89°44'48" E, 38.08 feet, along the common line of said Curtis and Old WR Ranch I, L.P. tract, to a point 30 feet from, at right angles to the east right-of-way line of U. S. Highway 377;

THENCE parallel with and 30 feet from, at right angles to the east right-of-way line of U. S. Highway 377, the following:

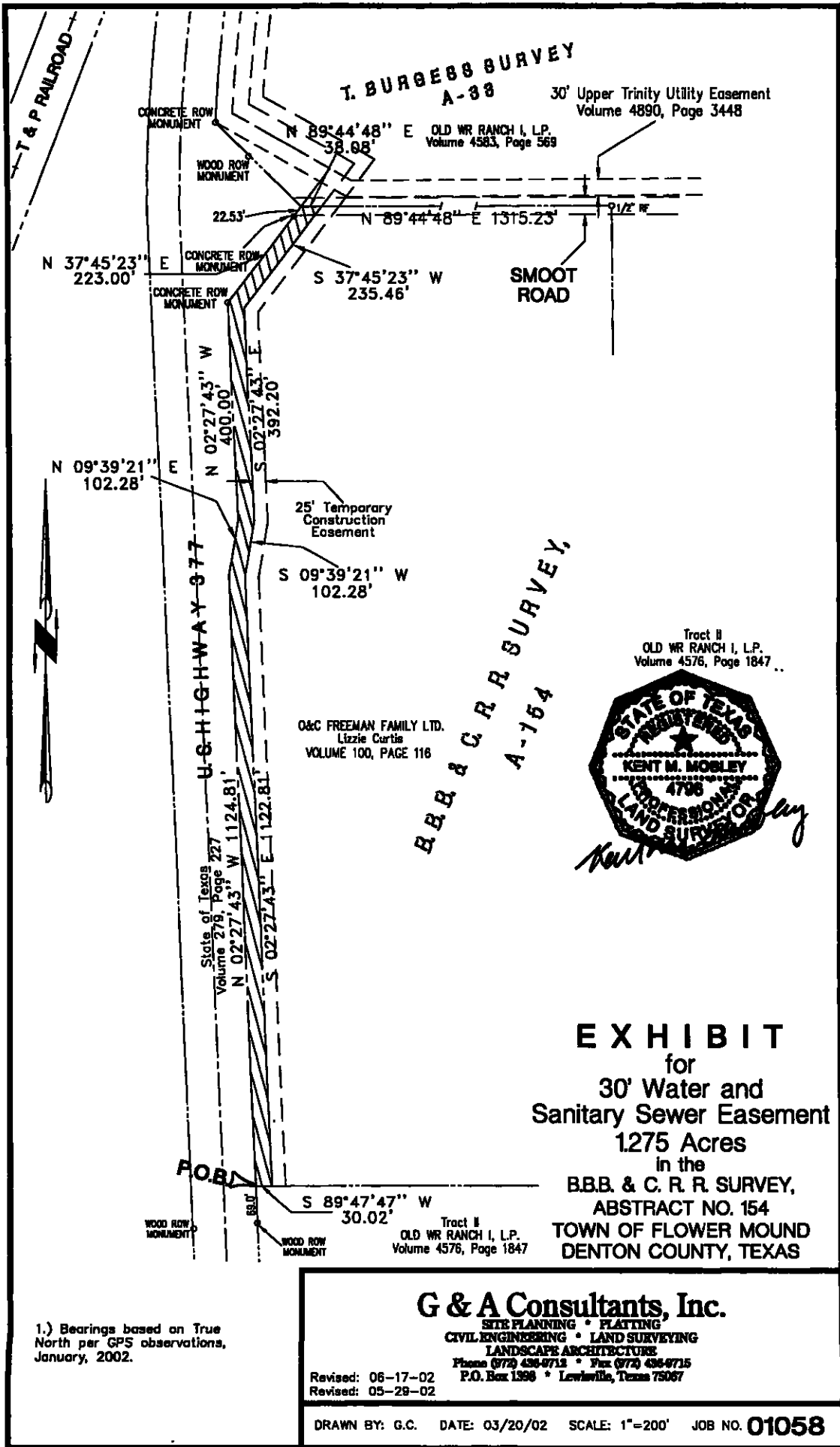
S 37°45'23" W, 235.46 feet;

S 02°27'43" E, 392.20 feet;

S 09°39'21" W, 102.28 feet, and

S 02°27'43" E, 1122.81 feet, to a point on the north line of said 251.99 acres tract;

THENCE S 89°47'47" W, 30.02 feet, along said line, to the **POINT OF BEGINNING** and containing approximately 1.275 acres of land.



LEGAL DESCRIPTION**25 Foot Temporary Construction**

**Part of O. & C. Freeman Family Ltd. Tract
1.06 Acres**

Exhibit "B"

Being all that certain lot, tract or parcel of land situated in the B. B. B. & C. RR Company Survey, Abstract Number 154, Town of Flower Mound, Denton County, Texas, being part of that certain tract of land described in deed to Lizzie Curtis recorded in Volume 100, 116 of the Deed Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a point on the south line of said Curtis tract, being on the north line of that certain called 251.99 acres tract of land described as Tract II in deed to Old WR Ranch I, L.P. recorded in Volume 4576, Page 1847 of the Real Property Records of Denton County, Texas, from which the east right-of-way line of U. S. Highway 377 bears S 89°47'47" W, 30.02 feet;

THENCE N 02°27'43" W, 1122.81 feet, 30 feet from and at right angles to the east right-of-way line of U. S. Highway 377;

THENCE N 09°39'21" E, 102.28 feet, continuing 30 feet from and at right angles to said right-of-way line;

THENCE N 02°27'43" W, 392.20 feet, continuing 30 feet from and at right angles to said right-of-way line;

THENCE N 37°45'23" E, 235.46 feet, continuing 30 feet from and at right angles to said right-of-way line, to a point on the north line of said Curtis tract, being on the common line between said tract and that certain called 1129.061 acres tract of land described as Tract A in deed to Old WR Ranch I, L.P., recorded in Volume 4583, Page 569 of the Real Property Records of Denton County, Texas, and being in Smoot Road;

THENCE N 89°44'48" E, 31.73 feet, , along the common line of said Curtis and Old WR Ranch I, L.P. tract, to a point 55 feet from, at right angles to the east right-of-way line of U. S. Highway 377;

THENCE 55 feet from and at right angles to said right-of-way line, the following:

S 37°45'23" W, 245.85 feet;

S 02°27'43" E, 358.70 feet;

S 09°39'21" W, 102.28 feet, and

S 02°27'43" E, 1121.14 feet, to a point on the south line of said Curtis tract and the north line of said 251.99 acres tract;

THENCE S 89°47'47" W, 25.02 feet, along said line, to the **POINT OF BEGINNING** and containing approximately 1.06 acres of land.

TxDOT US377

(South of FM 1171 to Crawford Road)

RCSJ 0081-03-062

From: STA 352+40

To: STA 383+32

Water Line Easement

Instrument Number – 2010-43497

TXDOT ROW PARCEL 10

Portion of Existing Easement in New ROW to be Quit Claimed

Property Owner – Old WR Ranch I, LP

Grantor - Old WR Ranch I, LP

Grantee – Town of Flower Mound

**** Electronically Filed Document ****

Denton County
Cynthia Mitchell
County Clerk

Document Number: 2010-43497
Recorded As : ERX-EASEMENT

Recorded On: May 07, 2010
Recorded At: 01:01:07 pm
Number of Pages: 8

Recording Fee: \$39.00

Parties:

Direct- OLD WR RANCH I LP
Indirect-

Receipt Number: 682830
Processed By: Patsy Sallee

***** THIS PAGE IS PART OF THE INSTRUMENT *****

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY
because of color or race is invalid and unenforceable under federal law.



THE STATE OF TEXAS)
COUNTY OF DENTON]

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

C Mitchell
County Clerk

Denton County, Texas

Lawyers Title Gr: 2012004877

AFTER RECORDING, RETURN TO:

Tiffany Bruce, P.E.
TOWN OF FLOWER MOUND
2121 Cross Timbers Road
Flower Mound, Texas 75028

WATER AND SANITARY SEWER EASEMENT

STATE OF TEXAS

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF DENTON

That **OLD WR RANCH I LP** ("Grantor"), for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable consideration to Grantor in hand paid by the **TOWN OF FLOWER MOUND**, a Texas municipal corporation ("Grantee"), the receipt and sufficiency of which are hereby acknowledged, does hereby GIVE, GRANT, and CONVEY unto Grantee an exclusive easement and right to construct, reconstruct and perpetually maintain a water line, a sanitary sewer line and all necessary appurtenances thereto (the "Facilities") in, under and on the following described property:

BEING 2.154 acres of land in the B. B. B. & C. Railroad Survey, Abstract No. 154, Town of Flower Mound, Denton County, Texas, being more particularly described in Exhibit "A" and depicted on Exhibit "B" attached hereto and made a part hereof (the "Easement Property").

Grantor hereby grants to Grantee a temporary construction easement twenty-five feet (25') in width running parallel along and abutting the east side of the Easement Property more particularly described in Exhibit A-1 and depicted in Exhibit B-1, with rights of ingress and egress for the construction of said Facilities, such temporary construction easement terminating upon completion of said Facilities.

Improvements approved by the Grantee may be placed on the Easement Property which are compatible with the use of the easement and Facilities. Grantor may install and maintain

landscaping and irrigation improvements on the Easement Property provided they do not interfere with the construction or maintenance of the Facilities.

Necessary appurtenances, as used in this Easement, shall be limited to any and all hydrants, valves, manholes or other similar facilities, but shall not include any structures, such as a shed or other similar facilities. The Town shall be limited to one (1) valve and three (3) hydrants on the Easement Property. The valve shall not exceed four feet in height.

The Grantee herein, its successors and assigns, shall have, and it is hereby granted, the right of ingress and egress over that portion of the servient estate which is otherwise designated for vehicular access, as is reasonably necessary to and for the limited purpose of accessing the Easement Property herein granted when other means of access is unavailable or constitutes a public safety hazard. Nothing herein shall limit the Grantee's right of access to the Easement Property, or Grantor's development or use of its servient estate.

The easement rights and privileges herein granted shall be perpetual, and said rights shall constitute covenants running with the land and shall be binding upon and inure to the benefit of Grantor and Grantee, respectively, and their respective successors and assigns. Either party's rights hereunder may be assigned in whole or in part to one or more assignees.

There are no liens, attachments, or other encumbrances which will affect the title or right of the Grantor to convey this easement to the Grantee for the purposes as described herein. If such condition does exist, a signature with acknowledgment shall be included and made a part of this document conveying the rights and privileges contained herein, and subordinating any such lien or encumbrance to the easement granted herein.

TO HAVE AND TO HOLD the Easement Property unto the Grantee for the purposes herein set forth, Grantor hereby binds itself and Grantor's successors, heirs, executors, administrators and assigns to warrant and forever defend the easement and rights granted herein unto Grantee, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof.

WITNESS THE GRANTOR'S HAND this 5th day of April 2010.

OLD WR RANCH I LP:

By: Old WR Ranch, LLC
Its General Partner

By: [Signature]
Name: Jack Furst
Title: CEO and President
Date: 4-5-10

ACKNOWLEDGEMENT

STATE OF TEXAS

COUNTY OF ~~DENTON~~ Dallas

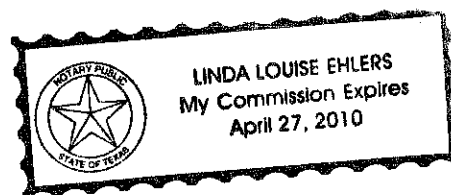
BEFORE ME, the undersigned authority on this day personally appeared Jack Furst, CEO and President of Old WR Ranch, LLC, the General Partner of Old WR Ranch I LP, known to me to be the person whose name is subscribed to the foregoing instrument acknowledged to me that the same was executed for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 5th day of April, 2010.

[Signature]
Notary Public in and for the State of Texas

APPROVED AS TO FORM:

[Signature]
Printed Name: Meredith Ladd
Title: Town Attorney
Office of the Town Attorney



LEGAL DESCRIPTION**30' Water and Sewer Easement**

Tract II, Old WR Ranch I, L.P.
2.154 Acres

Being all that certain lot, tract or parcel of land situated in the B. B. B. & C. Railroad Company Survey, Abstract Number 154, Town of Flower Mound, Denton County, Texas, being part of that certain called 251.99 acre tract of land described as Tract II in deed to Old WR Ranch I, LP., recorded in Volume 4576, Page 1847 of the Real Property Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a wood right-of-way monument found at the southwest corner of said 251.99 acre tract, being the northwest corner of that certain called 20.201 acre tract of land described as Tract "E" in deed to Old WR Ranch I, L.P. recorded in Volume 4583, Page 569 of the Real Property Records of Denton County, Texas, and being on the east right-of-way line of U. S. Highway 377;

THENCE N 00°39'36" W, 35.36 feet, along the east right-of-way line of U. S. Highway 377 and the west line of said 251.99 acre tract, to a ½" rebar found at an angle point;

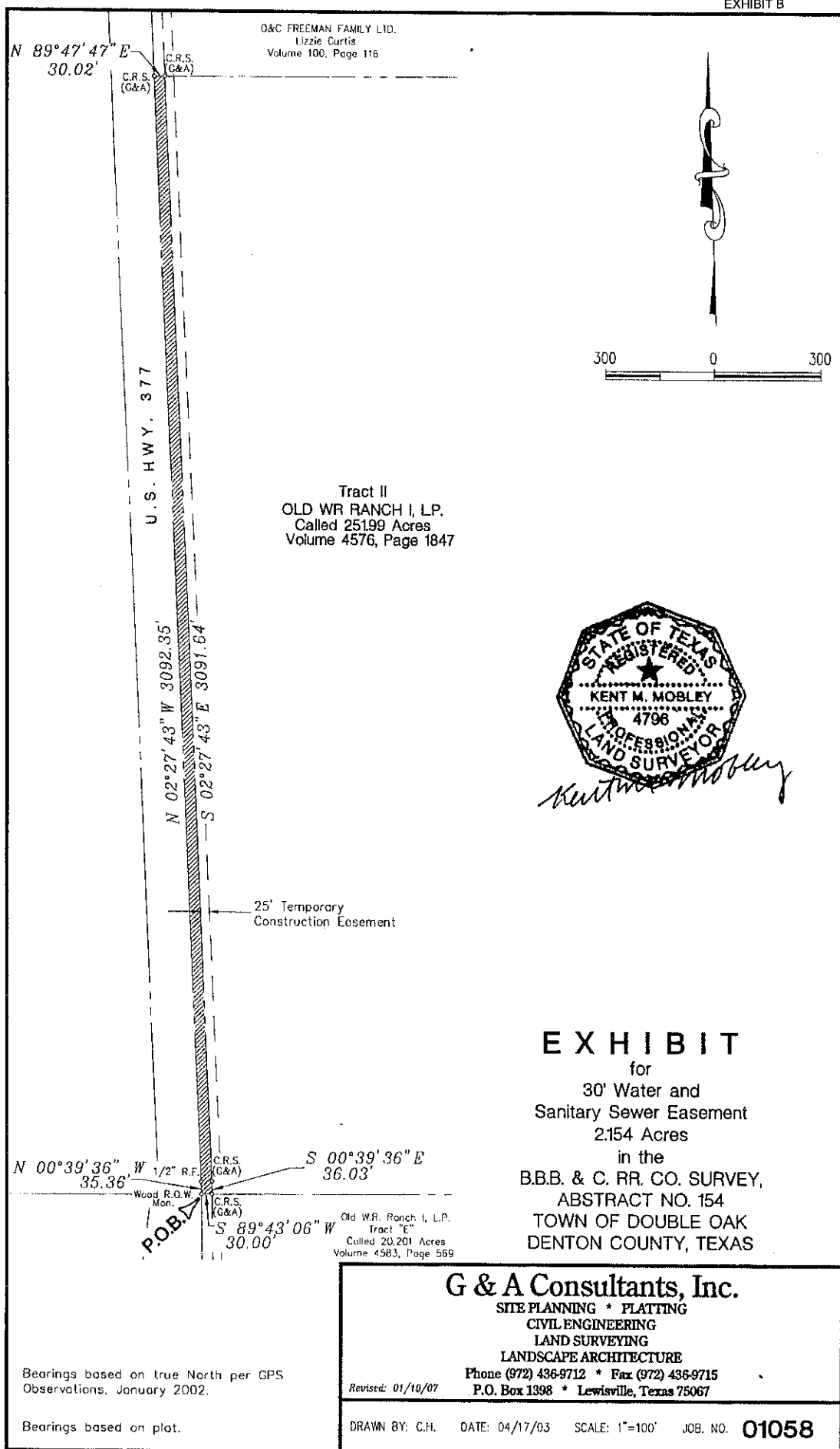
THENCE N 02°27'43" W, 3092.35 feet, continuing along said line, to a ½" capped rebar (G & A) set at the northwest corner of said 251.99 acre tract, being on the south line of that certain tract of land described in deed to Lizzie Curtis recorded in Volume 100, Page 116 of the Deed Records of Denton County, Texas;

THENCE N 89°47'47" E, 30.02 feet, along the north line of said 251.99 acre tract and the south line of said Curtis tract, to a ½" capped rebar (G & A) set;

THENCE S 02°27'43" E, 3091.64 feet, along the east line of said proposed easement, to a ½" capped rebar (G & A) set at an angle point;

THENCE S 00°39'36" E, 36.03 feet, continuing along said proposed easement line, a ½" capped rebar (G & A) set on the south line of said 251.99 acre tract and the north line of said 20.201 acre tract;

THENCE S 89°43'06" W, 30.00 feet, along said line, to the **POINT OF BEGINNING** and containing approximately 2.154 acres of land.



LEGAL DESCRIPTION**25 Foot Temporary Construction Easement**

Tract II, Old WR Ranch I, L.P.
1.795 Acres

Being all that certain lot, tract or parcel of land situated in the B. B. B. & C. RR. Company Survey, Abstract Number 154, Town of Flower Mound, Denton County, Texas, being part of that certain called 251.99 acre tract of land described as Tract II in deed to Old WR Ranch I, L.P. recorded in Volume 4576, Page 1847 of the Real Property Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a 1/2" capped rebar set on the south line of said 251.99 acre tract, being 30.00 feet from, at right angles to the east right-of-way line of U. S. Highway 377 and being on the north line of that certain called 20.201 acre tract of land described as Tract "E" in deed to Old WR Ranch I, L.P. recorded in Volume 4583, Page 569 of the Real Property Records of Denton County, Texas;

THENCE N 00°39'36" W, 36.03 feet, 30 feet from, at right angles to said right-of-way line, to a 1/2" capped rebar (G & A) set an angle point;

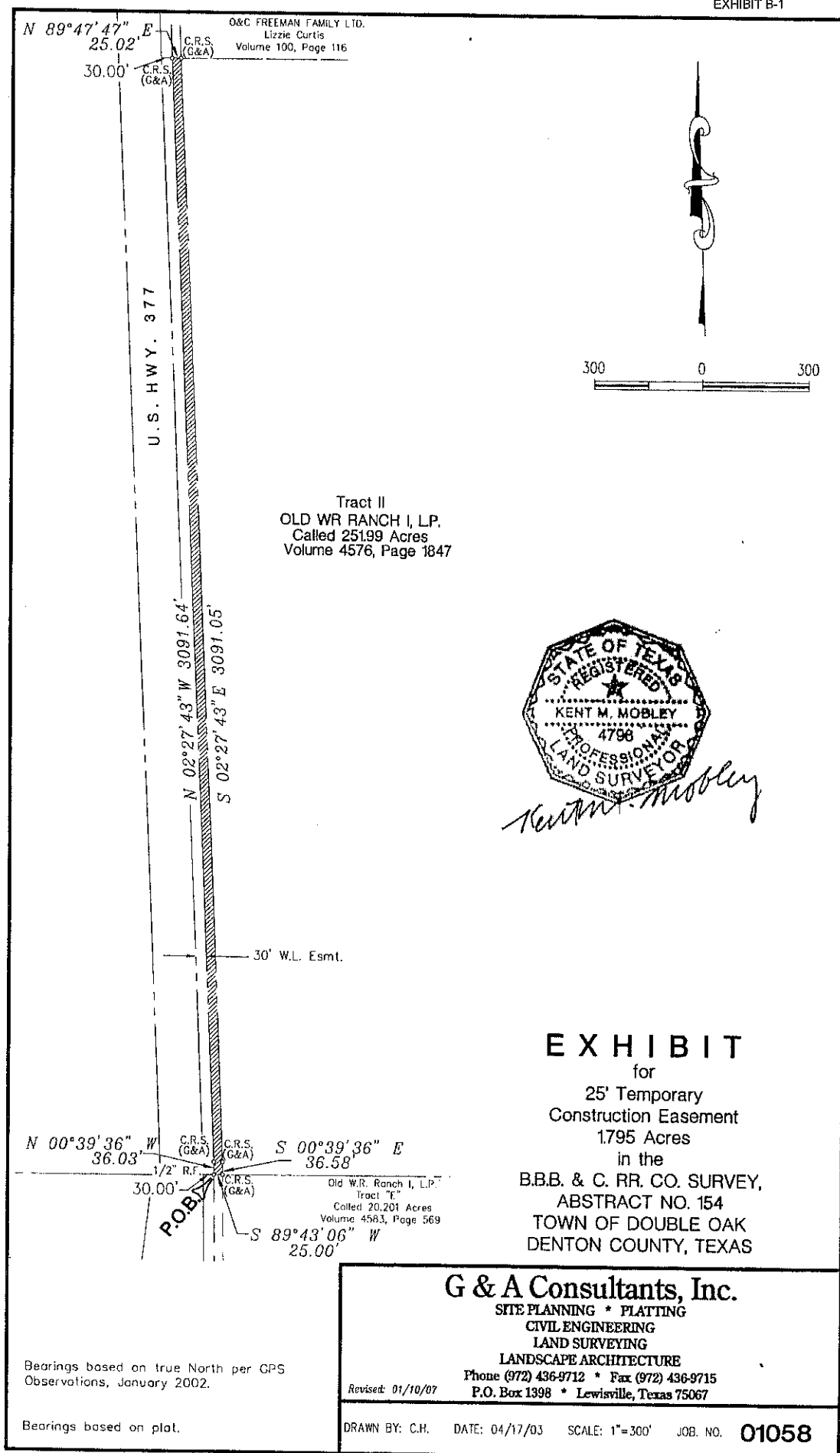
THENCE N 02°27'43" W, 3091.64 feet, 30 feet from, at right angles to said right-of-way line, to a 1/2" capped rebar (G & A) set on the north line of said 251.99 acre tract, being on the south line of that certain tract of land described in deed to Lizzie Curtis recorded in Volume 100, Page 116 of the Deed Records of Denton County, Texas;

THENCE N 89°47'47" E, 25.02 feet, along said line, to a 1/2" capped rebar (G & A) set at a point 55 feet from, at right angles to said highway right-of-way line;

THENCE S 02°27'43" E, 3091.05 feet, 55 feet from, at right angles to said right-of-way line, to a 1/2" capped rebar (G & A) set at an angle point;

THENCE S 00°39'36" E, 36.58 feet, 55 feet from, at right angles to said right-of-way line, to a 1/2" capped rebar (G & A) set on the south line of said 251.99 acre tract and the north line of said 20.201 acre tract;

THENCE S 89°43'06" W, 25.00 feet, along said line, to the **POINT OF BEGINNING** and containing approximately 1.795 acres of land.



TxDOT US377

(South of FM 1171 to Crawford Road)

RCSJ 0081-03-062

From: STA 401+50

To: STA 432+80

Water Line Easement

Instrument Number – 2010-43498

TXDOT ROW PARCEL 14

Portion of Existing Easement in New ROW to be Quit Claimed

Property Owner – WR Ranch

Grantor - WR Ranch

Grantee – Town of Flower Mound

**** Electronically Filed Document ****

Denton County
Cynthia Mitchell
County Clerk

Document Number: 2010-43498
Recorded As : ERX-EASEMENT

Recorded On: May 07, 2010
Recorded At: 01:01:38 pm
Number of Pages: 8

Recording Fee: \$39.00

Parties:

Direct- OLD WR RANCH I LP
Indirect-

Receipt Number: 682830
Processed By: Patsy Sallee

***** THIS PAGE IS PART OF THE INSTRUMENT *****

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY
because of color or race is invalid and unenforceable under federal law.



THE STATE OF TEXAS)
COUNTY OF DENTON]

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

C Mitchell

County Clerk
Denton County, Texas

Lawyers Title GF# 2012004877

AFTER RECORDING, RETURN TO:

Tiffany Bruce, P.E.
TOWN OF FLOWER MOUND
2121 Cross Timbers Road
Flower Mound, Texas 75028

WATER AND SANITARY SEWER EASEMENT

STATE OF TEXAS

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF DENTON

That **OLD WR RANCH I LP** ("Grantor"), for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable consideration to Grantor in hand paid by the **TOWN OF FLOWER MOUND**, a Texas municipal corporation ("Grantee"), the receipt and sufficiency of which are hereby acknowledged, does hereby GIVE, GRANT, and CONVEY unto Grantee an exclusive easement and right to construct, reconstruct and perpetually maintain a water line, a sanitary sewer line and all necessary appurtenances thereto (the "Facilities") in, under and on the following described property:

BEING 2.265 acres of land in the T. Burgess Survey, Abstract No. 33, Town of Flower Mound, Denton County, Texas, being more particularly described in Exhibit "A" and depicted on Exhibit "B" attached hereto and made a part hereof (the "Easement Property").

Grantor hereby grants to Grantee a temporary construction easement twenty-five feet (25') in width running parallel along and abutting the east side of the Easement Property more particularly described in Exhibit A-1 and depicted in Exhibit B-1, with rights of ingress and egress for the construction of said Facilities, such temporary construction easement terminating upon completion of said Facilities.

Improvements approved by the Grantee may be placed on the Easement Property which are compatible with the use of the easement and Facilities. Grantor may install and maintain landscaping and irrigation improvements on the Easement Property provided they do not interfere with the construction or maintenance of the Facilities.

Page 1 of 3

1470\010\8154.3

Necessary appurtenances, as used in this Easement, shall be limited to any and all hydrants, valves, manholes or other similar facilities, but shall not include any structures, such as a shed or other similar facilities. The Town shall be limited to one (1) valve and three (3) hydrants on the Easement Property. The valve shall not exceed four feet in height.

The Grantee herein, its successors and assigns, shall have, and it is hereby granted, the right of ingress and egress over that portion of the servient estate which is otherwise designated for vehicular access, as is reasonably necessary to and for the limited purpose of accessing the Easement Property herein granted when other means of access is unavailable or constitutes a public safety hazard. Nothing herein shall limit the Grantee's right of access to the Easement Property, or Grantor's development or use of its servient estate.

The easement rights and privileges herein granted shall be perpetual, and said rights shall constitute covenants running with the land and shall be binding upon and inure to the benefit of Grantor and Grantee, respectively, and their respective successors and assigns. Either party's rights hereunder may be assigned in whole or in part to one or more assignees.

There are no liens, attachments, or other encumbrances which will affect the title or right of the Grantor to convey this easement to the Grantee for the purposes as described herein. If such condition does exist, a signature with acknowledgment shall be included and made a part of this document conveying the rights and privileges contained herein, and subordinating any such lien or encumbrance to the easement granted herein.

TO HAVE AND TO HOLD the Easement Property unto the Grantee for the purposes herein set forth, Grantor hereby binds itself and Grantor's successors, heirs, executors, administrators and assigns to warrant and forever defend the easement and rights granted herein unto Grantee, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof.

WITNESS THE GRANTOR'S HAND this 5th day of April 2010.

OLD WR RANCH I LP:

By: Old WR Ranch, LLC
Its General Partner

By: [Signature]
Name: Jack Furst
Title: CEO and President
Date: 4-5-10

ACKNOWLEDGEMENT

STATE OF TEXAS

COUNTY OF ~~DENTON~~ Dallas

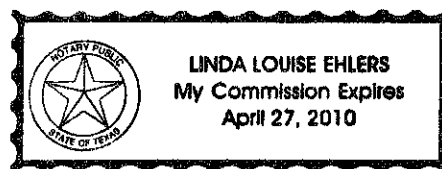
BEFORE ME, the undersigned authority on this day personally appeared Jack Furst, CEO and President of Old WR Ranch, LLC, the General Partner of Old WR Ranch I LP, known to me to be the person whose name is subscribed to the foregoing instrument acknowledged to me that the same was executed for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 5th day of April, 2010.

[Signature]
Notary Public in and for the State of Texas

APPROVED AS TO FORM:

[Signature]
Printed Name: Meredith Ladd
Title: Town Attorney
Office of the Town Attorney



LEGAL DESCRIPTION**Water & Sanitary Sewer Easement**

Part of Old WR Ranch I, L.P.
2.265 Acres

Being all that certain lot, tract or parcel of land situated in the T. Burgess Survey, Abstract Number 33, Town of Flower Mound, Denton County, Texas, being part of that certain tract of land described as Exhibit "A" in deed to Old WR Ranch I, L.P., recorded in Volume 4583, Page 569 of the Real Property Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a point on the east right-of-way line of U. S. Highway 377 according to right-of-way tract described as Parcel B in deed to the State of Texas recorded in Volume 279, Page 246 of the Deed Records of Denton County, Texas, and being on the west line of said Old WR Ranch I, L.P. tract, from which point, a ½" rebar found at the northwest corner thereof bears N 68°39'35" W, 22.00 feet and N 21° 20'25" E, 279.51 feet;

THENCE S 68°39'35" E, 30.00 feet;

THENCE S 21°20'25" W, 2221.30 feet;

THENCE S 02°39'01" E, 94.88 feet, to the point of curvature of a curve to the left;

THENCE Southwesterly, with the arc of said curve having a radius of 2719.71 feet, a central angle of 13°48'08", whose chord bears S 10°41'09" W, 653.59 feet, an arc length of 655.17 feet;

THENCE S 60°41'16" E, 194.81 feet;

THENCE S 37°45'23" W, 99.45 feet, to a point on the south line of said Old WR Ranch I, L. P. tract, being on the north line of that certain tract of land described in deed to Lizzie Curtis recorded in Volume 100, Page 116 of the Deed Records of Denton County, Texas, and being in Smoot Road;

THENCE S 89°44'48" W, 38.08 feet, along said line;

THENCE N 37°45'23" E, 88.11 feet;

THENCE N 60°41'16" W, 178.87 feet, to the point of curvature of a curve to the right;

THENCE Northeasterly, with the arc of said curve having a radius of 2749.71 feet, a central angle of 14°05'07", whose chord bears N 10°25'57" E, 674.28 feet, an arc length of 675.98 feet;

THENCE N 02°39'01" W, 95.91 feet;

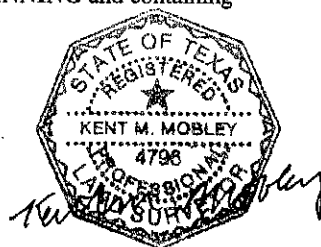
THENCE N 21°20'25" E, 1696.22 feet;

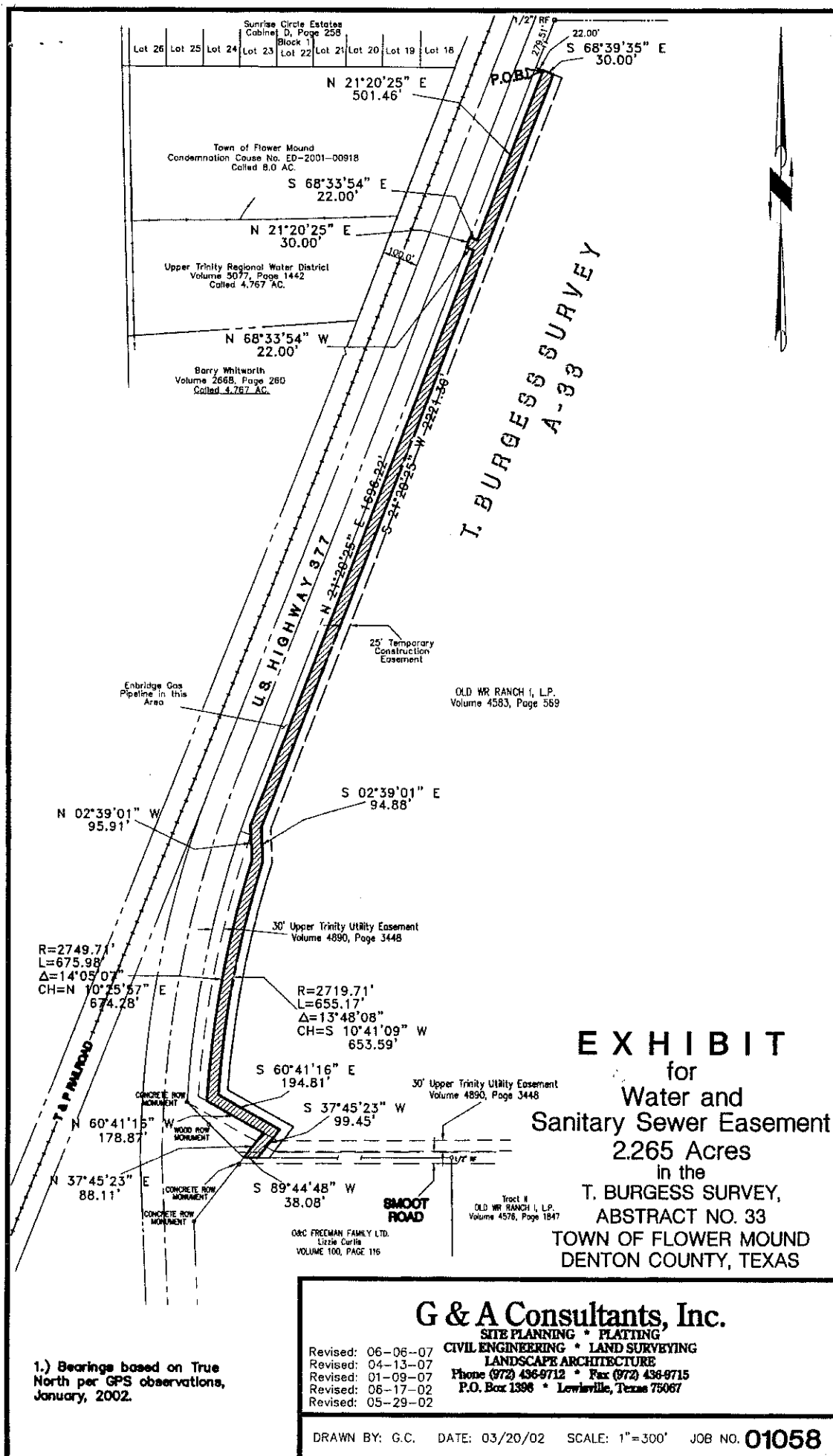
THENCE N 68°33'54" W, 22.00 feet, to a point on the west line of said tract and the east right-of-way line of U. S. Highway 377;

THENCE N 21°20'25" E, 30.00 feet, along said line;

THENCE S 68°33'54" E, 22.00 feet;

THENCE N 21°20'25" E, 501.46 feet, to the **POINT OF BEGINNING** and containing approximately 2.265 acres of land.





LEGAL DESCRIPTION**25 Foot Temporary Construction Easement**

Old WR Ranch I, L. P.
1.874 Acres

Being all that certain lot, tract or parcel of land situated in the T. Burgess Survey, Abstract Number 33, Town of Flower Mound, Denton County, Texas, being part of that certain tract of land described as Exhibit "A" in deed to Old WR Ranch I, L.P., recorded in Volume 4583, Page 569 of the Real Property Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a point from which a ½" rebar found at the northwest corner of said tract bears N 68°39'35" W, 52.00 feet, and N 21°20'25" E, 279.51 feet,

THENCE S 68°39'35" E, 25.00 feet;

THENCE S 21°20'25" W, 2215.99 feet;

THENCE S 02°39'01" E, 94.04 feet, to the point of curvature of a curve to the left;

THENCE Southwesterly, with the arc of said curve having a radius of 2694.71 feet, a central angle of 13°33'44", whose chord bears S 10°54'02" W, 636.37 feet, an arc length of 637.85 feet;

THENCE S 60°41'16" E, 207.98 feet;

THENCE S 37°45'23" W, 99.45 feet, to a point on the south line of said Old WR Ranch I, L. P. tract and the north line of that certain tract of land described in deed to Lizzie Curtis recorded in Volume 100, Page 116 of the Deed Records of Denton County, Texas, and being in Smoot Road;

THENCE S 89°44'48" W, 31.73 feet, along the common line between said tracts and in Smoot Road;

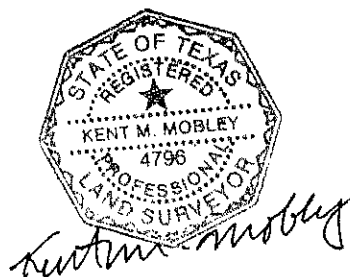
THENCE N 37°45'23" E, 99.45 feet;

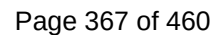
THENCE N 60°41'16" W, 194.81 feet, to a point in a curve to the right;

THENCE Northeasterly, with the arc of said curve having a radius of 2719.71 feet, a central angle of 13°48'08", whose chord bears N 10°41'09" E, 653.59 feet, an arc length of 655.17 feet;

THENCE N 02°39'01" W, 94.88 feet;

THENCE N 21°20'25" E, 2221.30 feet, to the **POINT OF BEGINNING** and containing approximately 1.874 acres of land.





TxDOT US377

(South of FM 1171 to Crawford Road)

RCSJ 0081-03-062

From: 348+00

To: 352+40

Water Line Easement

Instrument Number – 2010-43499

TXDOT ROW PARCEL 9

Portion of Existing Easement in New ROW to be Quit Claimed

Property Owner – Old WR Ranch I, LP

Grantor - Old WR Ranch I, LP

Grantee – Town of Flower Mound

**** Electronically Filed Document ****

Denton County
Cynthia Mitchell
County Clerk

Document Number: 2010-43499
Recorded As : ERX-EASEMENT

Recorded On: May 07, 2010
Recorded At: 01:01:57 pm
Number of Pages: 8

Recording Fee: \$39.00

Parties:

Direct- OLD WR RANCH I LP
Indirect-

Receipt Number: 682832
Processed By: Patsy Sallee

***** THIS PAGE IS PART OF THE INSTRUMENT *****

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY
because of color or race is invalid and unenforceable under federal law.



THE STATE OF TEXAS)
COUNTY OF DENTON]

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

C Mitchell

County Clerk
Denton County, Texas

Lawyers Title GF# 201200400604

AFTER RECORDING, RETURN TO:

Tiffany Bruce, P.E.
TOWN OF FLOWER MOUND
2121 Cross Timbers Road
Flower Mound, Texas 75028

WATER AND SANITARY SEWER EASEMENT

STATE OF TEXAS

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF DENTON

That **OLD WR RANCH I LP** ("Grantor"), for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable consideration to Grantor in hand paid by the **TOWN OF FLOWER MOUND**, a Texas municipal corporation ("Grantee"), the receipt and sufficiency of which are hereby acknowledged, does hereby GIVE, GRANT, and CONVEY unto Grantee an exclusive easement and right to construct, reconstruct and perpetually maintain a water line, a sanitary sewer line and all necessary appurtenances thereto (the "Facilities") in, under and on the following described property:

BEING 1.308 acres of land in the P.W. Caspary Survey, Abstract No. 277, Town of Flower Mound, Denton County, Texas, being more particularly described in Exhibit "A" and depicted on Exhibit "B" attached hereto and made a part hereof (the "Easement Property").

Grantor hereby grants to Grantee a temporary construction easement twenty-five feet (25') in width running parallel along and abutting the north and east side of the Easement Property more particularly described in Exhibit A-1 and depicted in Exhibit B-1, with rights of ingress and egress for the construction of said Facilities, such temporary construction easement terminating upon completion of said Facilities.

Improvements approved by the Grantee may be placed on the Easement Property which are compatible with the use of the easement and Facilities. Grantor may install and maintain

landscaping and irrigation improvements on the Easement Property provided they do not interfere with the construction or maintenance of the Facilities.

Necessary appurtenances, as used in this Easement, shall be limited to any and all hydrants, valves, manholes or other similar facilities, but shall not include any structures, such as a shed or other similar facilities. The Town shall be limited to one (1) valve and three (3) hydrants on the Easement Property. The valve shall not exceed four feet in height.

The Grantee herein, its successors and assigns, shall have, and it is hereby granted, the right of ingress and egress over that portion of the servient estate which is otherwise designated for vehicular access, as is reasonably necessary to and for the limited purpose of accessing the Easement Property herein granted when other means of access is unavailable or constitutes a public safety hazard. Nothing herein shall limit the Grantee's right of access to the Easement Property, or Grantor's development or use of its servient estate.

The easement rights and privileges herein granted shall be perpetual, and said rights shall constitute covenants running with the land and shall be binding upon and inure to the benefit of Grantor and Grantee, respectively, and their respective successors and assigns. Either party's rights hereunder may be assigned in whole or in part to one or more assignees.

There are no liens, attachments, or other encumbrances which will affect the title or right of the Grantor to convey this easement to the Grantee for the purposes as described herein. If such condition does exist, a signature with acknowledgment shall be included and made a part of this document conveying the rights and privileges contained herein, and subordinating any such lien or encumbrance to the easement granted herein.

TO HAVE AND TO HOLD the Easement Property unto the Grantee for the purposes herein set forth, Grantor hereby binds itself and Grantor's successors, heirs, executors, administrators and assigns to warrant and forever defend the easement and rights granted herein unto Grantee, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof.

WITNESS THE GRANTOR'S HAND this 5th day of April, 2010.

OLD WR RANCH I LP:

By: Old WR Ranch, LLC
Its General Partner

By: [Signature]
Name: Jack Furst
Title: CEO and President
Date: 4-5-10

ACKNOWLEDGEMENT

STATE OF TEXAS

COUNTY OF ~~DENTON~~ Dallas

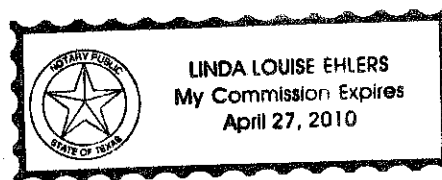
BEFORE ME, the undersigned authority on this day personally appeared Jack Furst, CEO and President of Old WR Ranch, LLC, the General Partner of Old WR Ranch I LP, known to me to be the person whose name is subscribed to the foregoing instrument acknowledged to me that the same was executed for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 5th day of April, 2010.

[Signature]
Notary Public in and for the State of Texas

APPROVED AS TO FORM:

[Signature]
Printed Name: Meredith Cadd
Title: Asst. Town Attorney
Office of the Town Attorney



LEGAL DESCRIPTION**Water & Sanitary Sewer Easement**

Tract "E", Old WR Ranch I, L.P.
1.308 Acres

Being all that certain lot, tract or parcel of land situated in the P. W. Caspary Survey, Abstract Number 277, Town of Flower Mound, Denton County, Texas, being part of that certain called 20.201 acre tract of land described as Tract "E" in deed to Old WR Ranch I, L.P. recorded in Volume 4583, Page 569 of the Real Property Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a wood right-of-way monument found at the northwest corner of said 20.201 acre tract and the most westerly southwest corner of that certain called 251.99 acre tract of land described as Tract II in deed to Old WR Ranch I, L.P. recorded in Volume 4576, Page 1847 of the Real Property Records of Denton County, Texas, and being on the east right-of-way line of U. S. Highway 377 according to deed to the State of Texas recorded in Volume 279, Page 240 of the Deed Records of Denton County, Texas;

THENCE N 89°43'06" E, 30.00 feet, along the north line of said 20.201 acre tract and the most westerly south line of said 251.99 acre tract, to a ½" capped rebar (G & A) set;

THENCE S 00°39'36" E, 402.15 feet, to a ½" capped rebar (G & A) set;

THENCE S 73°57'39" E, 347.53 feet, to a ½" capped rebar (G & A) set;

THENCE S 67°06'40" E, 250.08 feet, to a ½" capped rebar (G & A) set;

THENCE S 74°00'56" E, 744.10 feet, to a ½" capped rebar (G & A) set on the east line of said 20.201 acre tract and the west line of that certain called 32.854 acre tract of land described in deed to Patricia Long Burns recorded in Clerk's File Number 93-77737 of the Real Property Records of Denton County, Texas;

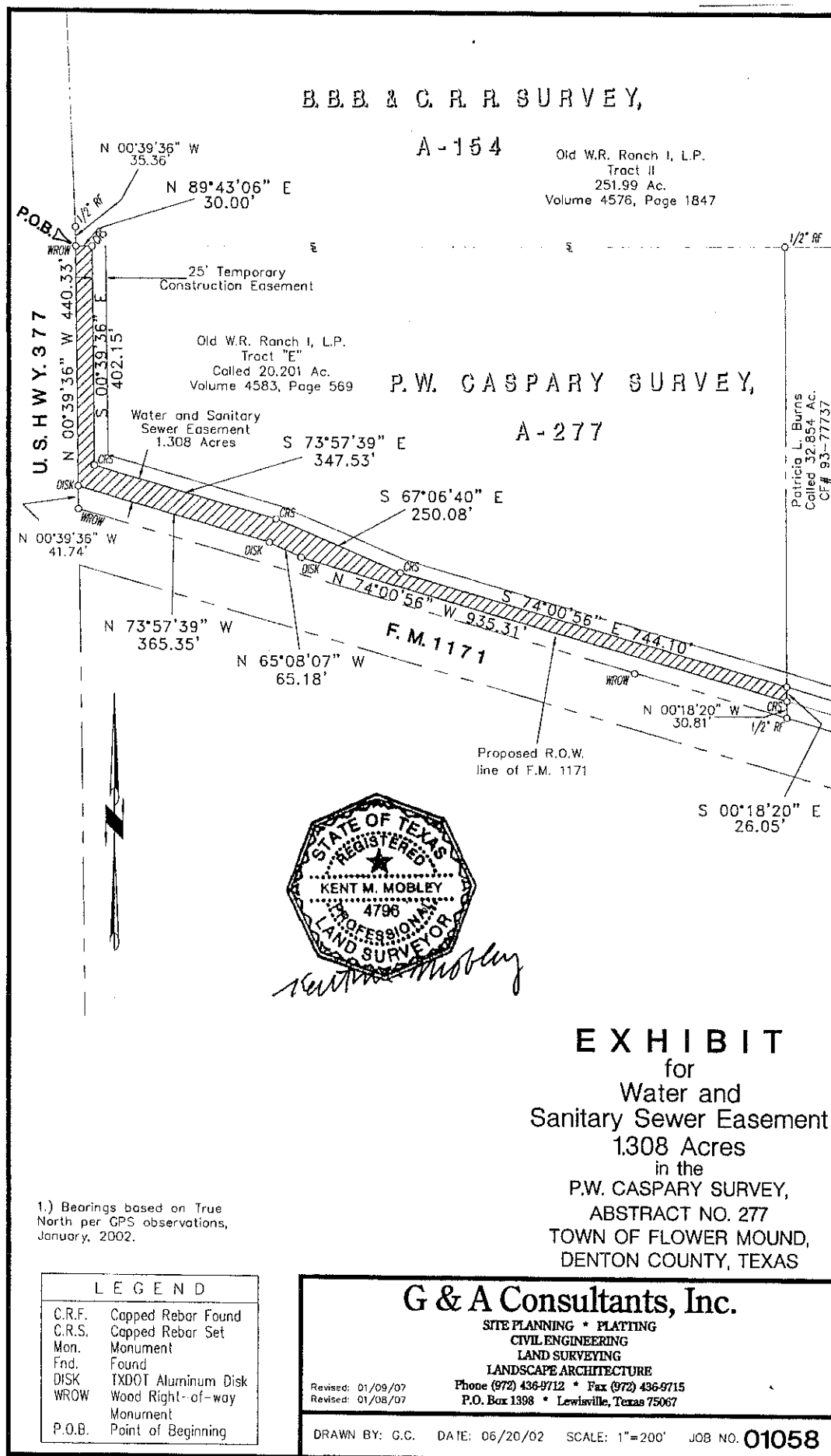
THENCE S 00°18'20" E, 26.05 feet, along the east line of said 20.201 acre tract and the west line of said 32.854 acre tract, to a ½" capped rebar (G & A) set on the proposed northerly right-of-way line of F. M. Highway 1171;

THENCE N 74°00'56" W, 935.31 feet, along the proposed northerly right-of-way line of F. M. Highway 1171, to an aluminum Texas Department of Transportation (TxDOT) disk found;

THENCE N 65°08'07" W, 65.18 feet, continuing along said proposed right-of-way line, to an aluminum Texas Department of Transportation (TxDOT) disk found;

THENCE N 73°57'39" W, 365.35 feet, continuing along said proposed right-of-way line, to an aluminum Texas Department of Transportation (TxDOT) disk found on the west line of said 20.201 acre tract and the east right-of-way line of U. S. Highway 377;

THENCE N 00°39'36" W, 440.33 feet, along the west line of said 20.201 acre tract and the east right-of-way line of U. S. Highway 377, to the **POINT OF BEGINNING** and containing approximately 1.308 acres of land.



LEGAL DESCRIPTION**Temporary Construction Easement**

Tract "E", Old WR Ranch I, L.P.
0.988 Acres

Being all that certain lot, tract or parcel of land situated in the P. W. Caspary Survey, Abstract Number 277, Town of Flower Mound, Denton County, Texas, being part of that certain called 20.201 acre tract of land described as Tract "E" in deed to Old WR Ranch I, L.P. recorded in Volume 4583, Page 569 of the Real Property Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a ½" capped rebar (G & A) set on the north line of said 20.201 acre tract from which a wood right-of-way monument found at the northwest corner thereof bears S 89° 43'06" W, 30.00 feet, said beginning point being on the south line of that certain called 251.99 acre tract of land described as Tract II in deed to Old WR Ranch I, L.P. recorded in Volume 4576, Page 1847 of the Real Property Records of Denton County, Texas, and being on the east line of a proposed 30' permanent Water and Sanitary Sewer Easement;

THENCE N 89° 43'06" E, 25.00 feet, along the north line of said 20.201 acre tract and the south line of said 251.99 acre tract;

THENCE S 00° 39'36" E, 383.38 feet;

THENCE S 73°57'39" E, 330.43 feet;

THENCE S 67°06'40" E, 250.07 feet;

THENCE S 74°00'56" E, 735.29 feet, to a point on the east line of said Tract "E", being on the west line of that certain called 32.858 acre tract of land described in deed to Patricia Long Burns recorded in Document Number 93-77737 of the Real Property Records of Denton County, Texas;

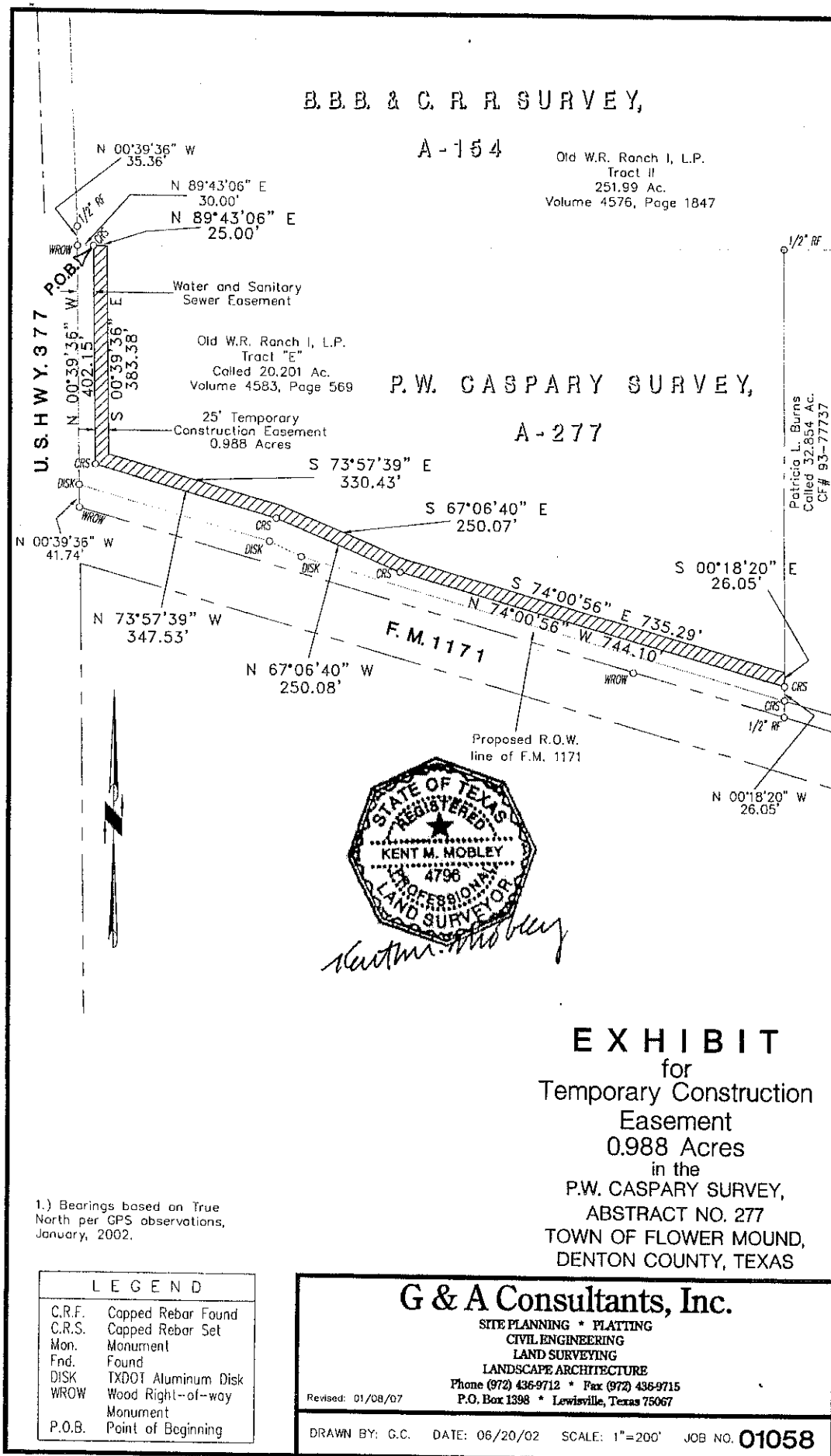
THENCE S 00°18'20" E, 26.05 feet, along the east line of said Tract "E" and the west line of said Patricia Long Burns tract, to a ½" capped rebar (G & A) set on the north line of said proposed Water and Sanitary Sewer Easement (25' wide at this point);

THENCE N 74°00'56" W, 744.10 feet, along the north line of said proposed easement, to a ½" capped rebar (G & A) set at an angle point;

THENCE N 67°06'40" W, 250.08 feet, continuing along said proposed easement line, to a ½" capped rebar (G & A) set at an angle point (proposed permanent 45' wide at this point);

THENCE N 73°57'39" W, 347.53 feet, continuing along proposed easement line, to a ½" capped rebar (G & A) set at an angle point (permanent easement 30' wide at this point);

THENCE N 00 39'36" W, 402.15 feet, along the east line of said proposed permanent easement, to the **POINT OF BEGINNING** and containing approximately 0.988 acres of land.



TxDOT US377

(South of FM 1171 to Crawford Road)

RCSJ 0081-03-062
STA 346+50

Water Line Easement

Instrument Number – 2015-127191

TXDOT ROW PARCEL 8

Portion of Existing Easement in New ROW to be Quit Claimed

Property Owner – 64.3 SE 1171/377 LLC

Grantor – 64.3 SE 1171/377 LLC

Grantee – Town of Flower Mound

Denton County
Juli Luke
County Clerk
Denton, TX 76202



70 2015 00127191

Instrument Number: 2015-127191

Recorded On: November 02, 2015

As
Easement

Parties: 64 3 SE 1171/377 LLC

To

Billable Pages: 6

Number of Pages: 6

Comment:

(Parties listed above are for Clerks reference only)

**** THIS IS NOT A BILL ****

Easement	46.00
Total Recording:	46.00

***** DO NOT REMOVE. THIS PAGE IS PART OF THE INSTRUMENT *****

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY
because of color or race is invalid and unenforceable under federal law.

File Information:

Document Number: 2015-127191

Receipt Number: 1355711

Recorded Date/Time: November 02, 2015 03:01:40P

User / Station: J Robinson - Cash Station 1

Record and Return To:

TOWN OF FLOWER MOUND

ATTN:ROBERT PEGG

2121 CROSS TIMBERS RD

FLOWER MOUND TX 75028



THE STATE OF TEXAS }
COUNTY OF DENTON }

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

Juli Luke

County Clerk
Denton County, Texas

AFTER RECORDING, RETURN TO:

Robert Pegg, P.E.
TOWN OF FLOWER MOUND
2121 Cross Timbers Road
Flower Mound, Texas 75028

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER

20' WATER LINE EASEMENT

STATE OF TEXAS
KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF DENTON

That 64.3 SE 1171/377, LLC (the "Grantor"), for and in consideration of the sum of TEN AND NO/100 DOLLAR (\$10.00) to Grantor in hand paid and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby GIVE, GRANT, and CONVEY unto the **TOWN OF FLOWER MOUND** and its agents and designees (collectively, the "Grantee"), an easement and right to construct, reconstruct and perpetually maintain utility facilities (the "Facilities") in, on, and under the following described property:

BEING 0.068 acres in the B. Wheeler Survey, Abstract No. 1605, in the Town of Flower Mound, Denton County, Texas, and being more particularly described in Exhibit "A" and depicted on Exhibit "B" attached hereto and made a part hereof (the "Easement Property").

Improvements approved by the Grantee may be placed on the Easement Property which are compatible with the use of this easement and the Facilities. Grantor reserves all of the rights in and to the property adjoining the Easement Property. This conveyance also includes a temporary construction easement attached hereto for the purpose of excavation, construction and laying of the Facilities within the Easement Property described herein (the "Temporary Construction Easement"). The Temporary Construction Easement granted herein will terminate and cease upon the completion of the construction of the Facilities and the acceptance of the Facilities by the Town of Flower



Mound. As part of the grant hereby made, it is agreed between the parties hereto that any stone, earth, or gravel which may be excavated in the opening, construction or maintenance of said easement may be removed from said premises by Grantee. Grantee will at all times after doing any work in connection with the construction, operation or repair of the Facilities, restore the surface of the Easement Property and/or Temporary Construction Easement as close to the condition in which it was found including but not limited to replacing any private drives before such work was undertaken as is reasonably practicable.

The Grantee herein, its successors and assigns, shall have, and it is hereby granted, the right of ingress and egress over that portion of Grantor's property as is reasonably necessary to and for the limited purpose of accessing the Easement Property herein granted.

There are no liens, attachments, or other encumbrances which will affect the title or right of the Grantor to convey this easement to the Grantee for the purposes as described herein. If such condition does exist, a signature with acknowledgment shall be included and made a part of this document conveying the rights and privileges contained herein, and subordinating any such lien or encumbrance to the easement granted herein.

It is intended that the easement herein granted to the Grantee shall run with the land and forever be a right in and to the land belonging to Grantor, and Grantor's successors and assigns, and said grant is expressly excepted from any right of reversion of said premises under any prior deeds in Grantor's chain of title. The easement, granted herein is exclusive, and Grantor covenants that unless Grantor has the approval of Grantee, it will not convey any other easement or conflicting rights within the area covered by the grant to any other person.

TO HAVE AND TO HOLD the Easement Property unto the Grantee for the purposes herein set forth, Grantor hereby binds itself, its successors, heirs, executors, administrators and assigns to warrant and forever defend the easement and rights granted herein unto Grantee, its successors and assigns, against every person whomsoever lawfully claiming or attempting to claim the same or any part thereof.



WITNESS THE GRANTOR'S HAND to be EFFECTIVE as of the 30 day of October, 2015.

GRANTOR:
64.3 SE 1171/377 LLC

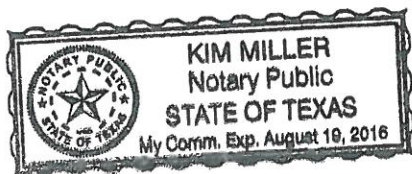
By: [Signature]
Authorized Representative

Printed Name: John S. BAEN

Title: President, BAEN Management LLC, (GP)

STATE OF TEXAS
COUNTY OF Denton

This instrument was acknowledged before me on this 30 day of October, 2015, by John S. Baen, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same for the purpose and consideration therein expressed and in the capacity therein stated.



[Signature]
Notary Public in and for State of Texas

EXHIBIT "A"
20' WATERLINE EASEMENT
LEGAL DESCRIPTION
0.068 Acres

BEING all that certain lot, tract or parcel of land situated in the B. Wheeler Survey, Abstract Number 1605, Town of Flower Mound, Denton County, Texas, and being part of that certain called 3.9103 acre tract of land described in deed to 64.3 SE 1171/377, LLC, recorded in Document Number 2013-58119 of the Real Property Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at a 1/2" capped rebar set (G&A) at the easterly southeast corner of said 3.9103 acre tract, being on the north line of F.M. 1171 and the west line of U.S. Highway 377 as evidenced in Civil Cause No. 8076 styled State of Texas vs. Robert Keck Stahlman from which a railroad spike found at the northeast corner of said 3.9103 acre tract bears N 06°49'37" W, 307.18 feet;

THENCE S 61°22'40" W, 108.44 feet with the south line of said 3.9103 acre tract, the north line of said F.M. 1171 and the west line of U.S. Highway 377 to a 1/2" capped rebar set (G&A) at the easterly northeast corner of that certain tract of land described as Parcel 1 in deed to Denton County, Texas, recorded in Document Number 2010-90019 of the Real Property Records of Denton County, Texas;

THENCE N 74°03'30" W, 27.30 feet with the south line of said 3.9103 acre tract, and the north line of said Parcel 1 and said F.M. 1171 to a 1/2" capped rebar set (G&A) at a point of curvature;

THENCE northwesterly, with the south line of said 3.9103 acre tract, and the north line of said Parcel 1 and said F.M. 1171, with the arc of a curve to the right having a radius of 1350.58 feet, a central angle of 00°33'06", an arc length of 13.00 feet whose chord bears N 73°45'32" W, 13.00 feet from which a 5/8" rebar found at the end of said curve bears N 61°22'40" W, 566.45 feet;

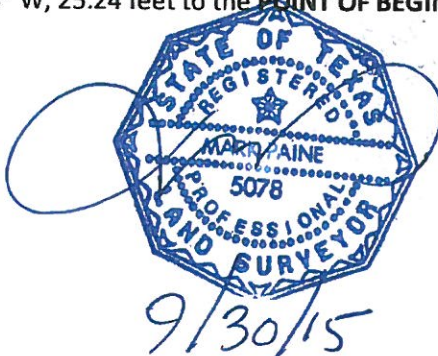
THENCE N 16°31'05" E, 20.00 feet;

THENCE southeasterly with the arc of a curve to the left having a radius of 1330.58 feet, a central angle of 00°33'05", an arc length of 12.81 feet whose chord bears S 73°45'32" E, 12.81 feet;

THENCE S 74°03'30" E, 19.10 feet;

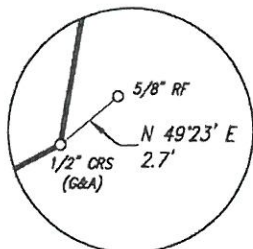
THENCE N 61°22'40" E, 115.64 feet to the east line of said 3.9103 acre tract and the west line of U.S. Highway 377;

THENCE southwesterly with the east line of said 3.9103 acre tract and the west line of U.S. Highway 377, with the arc of a curve to the right, having a radius of 3759.72 feet, a central angle of 00°23'05" an arc length of 25.24 feet, whose chord bears S 08°58'33" W, 25.24 feet to the **POINT OF BEGINNING** and containing approximately 0.068 acres of land.



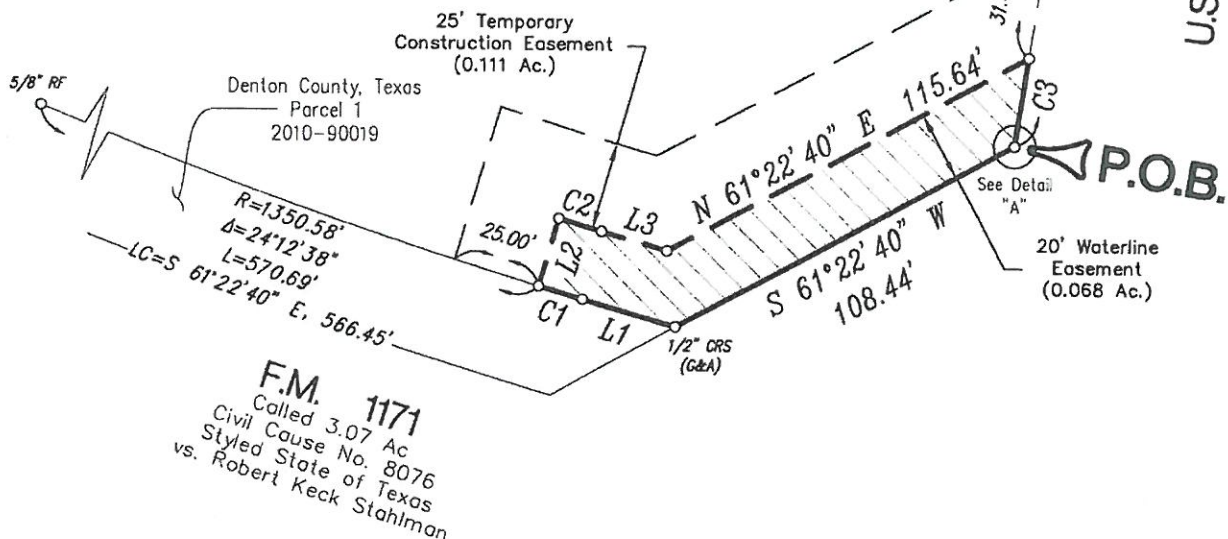
CURVE TABLE				
CURVE	RADIUS	DELTA ANGLE	ARC LENGTH	LONG CHORD
C1	1350.58'	0°33'06"	13.00'	N 73°45'32" W, 13.00'
C2	1330.58'	0°33'05"	12.81'	S 73°45'32" E, 12.81'
C3	3759.72'	0°23'05"	25.24'	S 08°58'33" W, 25.24'

LOT LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 74°03'30" W	27.30'
L2	N 16°31'05" E	20.00'
L3	S 74°03'30" E	19.10'



Detail "A"
Not to Scale

Doc. No. 2013-58119
Called 3.9103 Acres
64.3 SE 1171/377, LLC



F.M. 1171
Called 3.07 Ac
Civil Cause No. 8076
Styled State of Texas
vs. Robert Keck Stahlman

EXHIBIT "B" **20' WATERLINE EASEMENT** **0.068 Acres** in the **B. WHEELER SURVEY, ABSTRACT NO. 1605** **TOWN OF FLOWER MOUND** **DENTON COUNTY, TEXAS**

NOTES:

- Bearings based on Texas Coordinate System, North Central Zone (4202), NAD '83.
- Surveyor has made no investigation or independent search for easements of record, encumbrances, restrictive covenants, ownership title evidence, or any other facts that an accurate abstract of title may disclose.
- No flood zone area analysis has been performed by G&A Consultants, LLC, on the subject property.



SITE PLANNING CIVIL ENGINEERING PLATTING
CONSULTANTS, LLC
LAND SURVEYING LANDSCAPE ARCHITECTURE

111 Hillside Drive • Lewisville, TX 75057 • P. 972 436 9712 • F. 972 436 9715
144 Old Town Blvd North, Ste 2 • Arroyo, TX 76726 • P. 940 240 1012 • F. 940 240 1028
TBPE Firm No. 1798 TBPLS Firm No. 100-7700

REV: 5/13/15

DRAWN BY: CDC DATE: 4/23/15 SCALE: 1" = 50' JOB. NO. **14088**

TxDOT US377

(South of FM 1171 to Crawford Road)

RCSJ 0081-03-062
STA 348+50

Water Line Easement

Instrument Number – 2015-129996

TxDOT ROW PARCEL 4

Portion of Existing Easement in New ROW to be Quit Claimed

Property Owner – Blue Star Land, LP

Grantor – Blue Star Land, LP

Grantee – Town of Flower Mound

Denton County
Juli Luke
County Clerk
Denton, TX 76202



70 2015 001 29996

Instrument Number: 2015-129996

Recorded On: November 09, 2015

As
Easement

Parties: BLUE STAR LAND LP

To

Billable Pages: 7

Number of Pages: 7

Comment:

(Parties listed above are for Clerks reference only)

**** THIS IS NOT A BILL ****

Easement	50.00
Total Recording:	50.00

***** DO NOT REMOVE. THIS PAGE IS PART OF THE INSTRUMENT *****

Any provision herein which restricts the Sale, Rental or use of the described REAL PROPERTY
because of color or race is invalid and unenforceable under federal law.

File Information:

Document Number: 2015-129996
Receipt Number: 1358087
Recorded Date/Time: November 09, 2015 03:26:19P

Record and Return To:

TOWN OF FLOWER MOUND
2121 CROSS TIMBERS RD
FLOWER MOUND TX 75028

User / Station: J Robinson - Cash Station 1



THE STATE OF TEXAS }
COUNTY OF DENTON }

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

Juli Luke

County Clerk
Denton County, Texas

AFTER RECORDING, RETURN TO:

Robert Pegg, P.E.
TOWN OF FLOWER MOUND
2121 Cross Timbers Road
Flower Mound, Texas 75028

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER

20' WATER LINE EASEMENT

STATE OF TEXAS
KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF DENTON

That Blue Star Land, LP (the "Grantor"), for and in consideration of the sum of TEN AND NO/100 DOLLAR (\$10.00) to Grantor in hand paid and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby GIVE, GRANT, and CONVEY unto the **TOWN OF FLOWER MOUND** and its agents and designees (collectively, the "Grantee"), an easement and right to construct, reconstruct and perpetually maintain utility facilities (the "Facilities") in, on, and under the following described property:

BEING 1.004 acres in the B. Wheeler Survey, Abstract No. 1605, in the Town of Flower Mound, Denton County, Texas, and being more particularly described in Exhibit "A" and depicted on Exhibit "B" attached hereto and made a part hereof (the "Easement Property").

Improvements approved by the Grantee may be placed on the Easement Property which are compatible with the use of this easement and the Facilities. Grantor reserves all of the rights in and to the property adjoining the Easement Property. This conveyance also includes a temporary construction easement attached hereto for the purpose of excavation, construction and laying of the Facilities within the Easement Property described herein (the "Temporary Construction Easement"). The Temporary Construction Easement granted herein will terminate and cease upon the completion of the construction of the Facilities and the acceptance of the Facilities by the Town of Flower Mound. As part

of the grant hereby made, it is agreed between the parties hereto that any stone, earth, or gravel which may be excavated in the opening, construction or maintenance of said easement may be removed from said premises by Grantee. Grantee will at all times after doing any work in connection with the construction, operation or repair of the Facilities, restore the surface of the Easement Property and/or Temporary Construction Easement as close to the condition in which it was found including but not limited to replacing any private drives before such work was undertaken as is reasonably practicable.

The Grantee herein, its successors and assigns, shall have, and it is hereby granted, the right of ingress and egress over only that portion of Grantor's property as is reasonably necessary to and for the limited purpose of accessing the Easement Property herein granted, or as reasonably approved by Grantor.

There are no liens, attachments, or other encumbrances which will affect the title or right of the Grantor to convey this easement to the Grantee for the purposes as described herein. If such condition does exist, a signature with acknowledgment shall be included and made a part of this document conveying the rights and privileges contained herein, and subordinating any such lien or encumbrance to the easement granted herein.

It is intended that the easement herein granted to the Grantee shall run with the land and forever be a right in and to the land belonging to Grantor, and Grantor's successors and assigns, and said grant is expressly excepted from any right of reversion of said premises under any prior deeds in Grantor's chain of title. The easement, granted herein is exclusive, and Grantor covenants that unless Grantor has the approval of Grantee, it will not convey any other easement or conflicting rights within the area covered by the grant to any other person.

TO HAVE AND TO HOLD the Easement Property unto the Grantee for the purposes herein set forth, Grantor hereby binds itself, its successors, heirs, executors, administrators and assigns to warrant and forever defend the easement and rights granted herein unto Grantee, its successors and assigns, against every person whomsoever lawfully claiming or attempting to claim the same or any part thereof.

WITNESS THE GRANTOR'S HAND to be EFFECTIVE as of the 6th day of November, 2015.

GRANTOR:

BLUE STAR LAND, LP

A Texas Limited Partnership

By: Blue Star Investments, Inc.

A Texas Corporation,

It's General Partner

By: George Mitchell

Printed Name: George Mitchell

Title: ASSISTANT TREASURER

STATE OF TEXAS
COUNTY OF Collin

This instrument was acknowledged before me on this 6th day of November, 2015, by George Mitchell, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same for the purpose and consideration therein expressed and in the capacity therein stated.



Frances Will
Notary Public in and for State of Texas

EXHIBIT "A"
20' WATERLINE EASEMENT
LEGAL DESCRIPTION
1.004 Acres

BEING all that certain lot, tract or parcel of land situated in the B. Wheeler Survey, Abstract Number 1605, Town of Flower Mound, Denton County, Texas, and being part of that certain called 59.795 acre tract of land described in deed to Blue Star Land, L.P. as tract B, recorded in Document Number 2001-84629 of the Real Property Records of Denton County, Texas, and being more particularly described as follows:

BEGINNING at an aluminum Texas Department of Transportation (TxDot) disc found on the west line of U.S. Highway 377 and the south line of F.M. 1171 at the north end of a corner clip as evidenced by Civil Cause No. 8076 styled State of Texas vs. Robert Keck Stahlman and being an easterly northeast corner of of said 59.795 acre tract;

THENCE S 27°44'50" E, 51.00 feet with the east line of said 59.792 acre tract, the south line of said F.M. 1171 and the west line of U.S. Highway 377;

THENCE over and across said 59.795 acre tract the following five calls:

S 62°15'10" W, 20.00 feet;

N 27°44'50" W, 42.49 feet

with the arc of a curve to the right having a radius of 1512.40 feet, a central angle of 24°24'45" and an arc length of 644.40 feet whose chord bears N 61°28'22" W, 639.54 feet.;

N 49°16'00 W, 281.95 feet;

N 89°58'30" W, 1207.44 feet to the west line of said 59.795 acre tract, and being on the east line of that certain tract of land described in deed to Texas and Pacific Railway Company, recorded in Volume 360, Page 276, of the Real Property Records of Denton County, Texas;

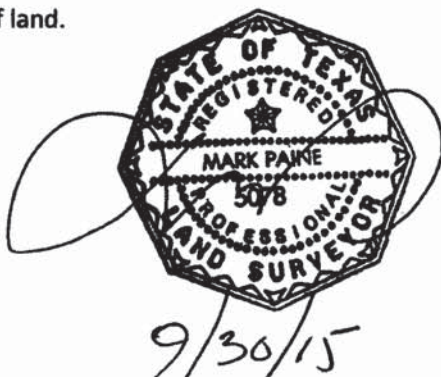
THENCE with an arc of a curve to the right having a radius of 3769.83 feet, a central angle of 00°18'24" and an arc length of 20.18 feet whose chord bears N 07°40'26" E, 20.18 feet with the west line of said 59.795 acre tract and the east line of said Texas and Pacific Railway Company tract;

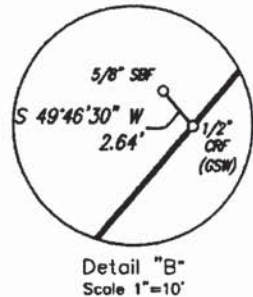
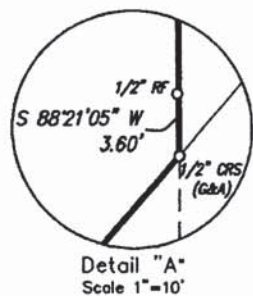
THENCE S 89°58'30" E, 103.00 feet to a 1/2" capped rebar set (G&A) at an ell corner in the north line of said 59.795 acre tract and being the most southerly southwest corner of that certain tract of land described in deed to O&C Freeman Family, LTD, recorded in Document Number 1996-48254, of the Real Property Records of Denton County, Texas;

THENCE S 89°58'30" E, 1109.18 with the north line of said 59.795 acre tract and the south line of said O&C Freeman Family, LTD to a 1/2" capped rebar set (G&A) at the southeast corner thereof, being the most northerly northeast corner of said 59.795 acre tract, and being on the south line of said F.M. 1171, from which a 1/2" rebar found bears S 88°21'05" W, 3.60 feet;

THENCE S 49°16'00" E, 249.37 feet with the north line of said 59.795 acre tract and the south line of said F.M. 1171 to a 1/2" capped rebar found (GSW) from which a 5/8" smooth bar found bears S 49°46'30" W, 2.60 feet;

THENCE with the arc of a curve to the left having a radius of 1492.40 feet, a central angle of 24°44'13" and an arc length of 644.33 feet whose chord bears S 61°38'06" E, 639.34 feet the **POINT OF BEGINNING** and containing approximately 1.004 acres of land.





Match Line 1

Blue Star Land, L.P.
Tract B
Called 59.795 Acres
Doc. No. 01-84629

Aluminum
TxDOT Disk

TEXAS AND PACIFIC
RAILWAY COMPANY
Vol. 360, Pg. 276

1/2" CRF
(Britt & Crow)
N 89°22'50" W
1737.9'

30.24'
C2
L4
C5
1/2" CRS
(G&A)
20' WATERLINE
EASEMENT
(1.004 Ac.)
30' TEMPORARY
CONSTRUCTION ESMT.
(1.523 Ac.)
N 89°58'30" E 1109.18'
S 89°58'30" W 1207.44'

O&C Freeman Family, LTD
Doc. No. 96-48254

Blue Star Land, L.P.
Tract B
Called 59.795 Acres
Doc. No. 01-84629

Denton County, Texas
Parcel 1
2010/90019

20' WATERLINE
EASEMENT
(1.004 Ac.)

30' TEMPORARY
CONSTRUCTION ESMT.
(1.523 Ac.)

64.3 SE 1171/377, LLC
Doc. No. 2013-58119
Called 3.9103 Acres

L3
L2
L1
1/2" CRF
(Britt & Crow)
65.4'
30.00'

Aluminum
TxDOT Disk

P.O.B.

RR Spike
Found

U.S. Highway 377

LOT LINE TABLE		
LINE	BEARING	DISTANCE
L1	S 27°44'30" E	51.00'
L2	S 62°15'10" W	20.00'
L3	N 27°44'30" W	42.49'
L4	S 89°58'30" E	103.00'

CURVE TABLE					
CURVE	RADIUS	DELTA ANGLE	ARC LENGTH	LONG CHORD	
C1	1512.40'	24°24'45"	644.40'	N 51°26'22" W, 639.54'	
C2	3769.83'	07°18'24"	20.18'	N 07°40'26" E, 20.18'	
C3	1492.40'	24°44'13"	644.33'	S 51°38'06" E, 639.34'	
C4	3769.83'	21°27'30"	1411.87'	S 03°12'31" E, 1403.63'	
C5	3769.83'	4°09'33"	273.66'	N 09°54'24" E, 273.60'	
C6	3769.83'	6°25'47"	423.05'	N 14°54'35" E, 422.83'	

NOTES:

- Bearings based on Texas Coordinate System, North Central Zone (4202), NAD '83.
- Surveyor has made no investigation or independent search for easements of record, encumbrances, restrictive covenants, ownership title evidence, or any other facts that an accurate abstract of title may disclose.
- No flood zone area analysis has been performed by G&A Consultants, LLC, on the subject property.

EXHIBIT "B" 20' WATERLINE EASEMENT 1.004 Acres in the B. WHEELER SURVEY, ABSTRACT NO. 1605 TOWN OF FLOWER MOUND DENTON COUNTY, TEXAS



SITE PLANNING CIVIL ENGINEERING PLATTING
CONSULTANTS, LLC
LAND SURVEYING LANDSCAPE ARCHITECTURE

1111 Hildebrand Drive • Lewisville, TX 75057 • P: 972.436.9712 • F: 972.436.9715
144 Old Town Blvd. North, Ste 2 • Argyle, TX 75225 • P: 940.240.1012 • F: 940.240.1028
TBPE Firm No. 1796 TBPLS Firm No. 10047700

REV: 5/13/15

DRAWN BY: CDC DATE: 4/23/15 SCALE: 1" = 200' JOB. NO. 14088

File: Z:\2014\14088\Drawings\Survey\14088 M.E. Exhibit
Plotted: 10/1/2015 2:42 PM, by Cole Carpenter, Somet
10/1/2015 2:31 PM, by Cole



TOWN COUNCIL AGENDA M.1. REGULAR ITEM(S)

DATE: April 1, 2024
FROM: Julie Taylor, Director of Treasury Operations
ITEM: **Consider approval of a resolution approving and authorizing publication of notice of intention to issue Certificates of Obligation, Series 2024, in the principal amount not to exceed \$7,715,000, for the purpose of paying for waterworks and sewer system improvements.**

BACKGROUND: The attached resolution will authorize the publication of notice of intention to issue Certificates of Obligation, Series 2024, (Certificates) in the principal amount not to exceed \$7,715,000 to be published in a newspaper of general circulation in the Town, once a week for two consecutive weeks, with the first publication at least 46 days prior to the date stated in the ordinance authorizing the issuance of the certificates of obligation.

The Certificates will pay for the contractual obligations incurred for projects approved on the FY 2023-2024 Five-year Capital Improvement Program ("CIP") as listed on Attachment 1. On October 16, 2023, the Town Council approved a reimbursement resolution for an amount not to exceed \$9,125,000 to fund improvements to street, water and wastewater system projects and the costs of issuance of the debt. CIP Amendments during the fiscal year have modified funding sources and/or moved project start dates to future years, thus reducing the proposed debt issuance.

In order to efficiently complete the issuance, a parameters ordinance will be presented for Town Council's approval on June 17, 2024, with the sale being conducted on the proposed date of June 18, 2024. The ordinance will establish parameters specific to the issuance and delegate the Town Manager and the Chief Financial Officer authority to approve all necessary documents and finalize the sale.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

ALTERNATIVES: N/A

FISCAL IMPACT: \$7,715,000

Proposed Expenditure/(Revenue)
\$(7,715,000)

Account Number(s):

Ad valorem taxes will fund the general capital projects, while the utilities system will fund the waterworks and sewer system improvements.

LEGAL REVIEW: The Town's Bond Counsel, Norton Rose Fulbright US LLP, prepared the proposed resolution. This standard notice of intent was approved in the past by Taylor, Olson, Adkins, Sralla, & Elam L.L.P. No alteration to the legal content of this form document was made in preparation of this document.

ATTACHMENTS:

1. 2023-24 Debt Sale Projects
2. Calendar of Events
3. FLOWER MOUND CO 2024 - Intent Resolution

DRAFT MOTION: Move to approve as presented in the agenda caption.

General Capital Project**Street Project**

Scenic Road (Walsingham Drive to FM 1171)	\$	400,000
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Utility Capital Projects**Water Projects:**

Stonehill Pump Station Motor Replacement	\$	2,960,000
		<u>\$ 2,960,000</u>

Wastewater Projects:

Glen Chester Lift Station Rehabilitation	1,200,000
Kirkpatrick Lane and Stapleton Street Sanitary Sewer Rehabilitation	1,300,000
Timber Creek Park Collector Rehabilitation (Hanover Drive to Timber Creek Road)	900,000
Upper Timber Interceptor (Morriss Road to One Place Lane)	850,000
	<u>\$ 4,250,000</u>

Total Utility	\$	<u>7,210,000</u>
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Total Projects	\$	<u>7,610,000</u>
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Estimated financing costs	\$	105,000
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Grand Total of Debt Issuance	\$	<u><u>7,715,000</u></u>
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TOWN OF FLOWER MOUND
(Denton and Tarrant Counties, Texas)

Certificates of Obligation, Series 2024
General Obligation Refunding Bonds, Series 2024

Proposed Schedule of Events

April 2024						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

May 2024						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

June 2024						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

Proposed Date

Action

April 1, 2024	Town Council considers Resolution of Intent to Issue Certificates of Obligation (6:00 pm Regular Meeting)
April 9, 2024	Post Notice of Intent to Issue CO's on Town's website (at least 45 days prior to sale)
April 14, 2024	Initial publication of Notice of Intent to Issue CO's (at least 46 days prior to sale).
April 21, 2024	Second publication of Notice of Intent to Issue CO's.
May 22, 2024	Hilltop sends out initial draft of POS for review and comment. Hilltop sends necessary information to Standard & Poors (S&P) and Fitch Ratings (Fitch).
May 29, 2024	Comments on initial draft of POS due to Hilltop.
June 4, 2024	Hilltop sends second draft of POS to parties for review and comment. Conference calls with rating agencies (tentative) Due Diligence Call and Underwriter's Counsel (tentative).
June 6, 2024	Comments on second draft of POS due to Hilltop.
June 11, 2024	Hilltop submits POS for electronic distribution via internet.
June 17, 2024	Receive Ratings. Town Council considers parameters Ordinance for Certificates and Bonds (6:00 pm Regular Meeting)
June 18, 2024	Certificate and Bond Pricing. Pricing Certificate and BPA signed.
June 21, 2024	Draft of Final Official Statement distributed for review.
June 24, 2024	Bond Counsel submits documentation to Attorney General's Office. Comments due on Final Official Statement.
June 25, 2024	Final Official Statement posted to internet and sent to printer.
July 7, 2024	Written Final Official Statement received by all parties (if necessary).
July 8, 2024	Hilltop to notify all parties of closing and delivery instructions.
July 11, 2024	Closing and Delivery.

TOWN OF FLOWER MOUND, TEXAS

RESOLUTION NO. ____-24

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, APPROVING AND AUTHORIZING PUBLICATION OF NOTICE OF INTENTION TO ISSUE CERTIFICATES OF OBLIGATION.

WHEREAS, the Town Council of the Town of Flower Mound, Texas (the "Town") has determined that certificates of obligation should be issued under and pursuant to the provisions of Texas Local Government Code, Subchapter C of Chapter 271, as amended, for the purpose of paying contractual obligations to be incurred for (i) constructing waterworks and sewer system improvements and extensions, including the acquisition of land and rights-of-way therefor, (ii) constructing and improving streets, including drainage, landscaping, curbs, gutters, sidewalks, entryways, pedestrian pathways, signage, traffic signalization and the acquisition of land and rights-of-way therefor and (iii) professional services rendered in connection therewith; and

WHEREAS, prior to the issuance of such certificates, the Town Council is required to publish notice of its intention to issue the same in a newspaper of general circulation in the Town, said notice stating (i) the time and place the Council tentatively proposes to pass the ordinance authorizing the issuance of the certificates; (ii) the maximum amount proposed to be issued; (iii) the purposes for which the certificates are to be issued; and (iv) the manner in which the Council proposes to pay the certificates.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS:

SECTION 1

The Town Secretary is hereby authorized and directed to cause notice to be published of the Council's intention to issue certificates of obligation, in one or more series, in the principal amount not to exceed SEVEN MILLION SEVEN HUNDRED FIFTEEN THOUSAND DOLLARS (\$7,715,000) for the purpose of paying contractual obligations to be incurred for (i) constructing waterworks and sewer system improvements and extensions, including the acquisition of land and rights-of-way therefor, (ii) constructing and improving streets, including drainage, landscaping, curbs, gutters, sidewalks, entryways, pedestrian pathways, signage, traffic signalization and the acquisition of land and rights-of-way therefor and (iii) professional services rendered in connection therewith, such certificates to be payable from ad valorem taxes and a limited pledge of the net revenues of the Town's water and sewer system. The notice hereby approved and authorized to be published shall read substantially in the form and content of **Exhibit A** hereto attached and incorporated herein by reference as a part of this resolution for all purposes.

SECTION 2

The Town Secretary shall cause the aforesaid notice to be (i) published in a newspaper of general circulation in the Town, once a week for two consecutive weeks, the date of the first publication to be at least forty-six (46) days prior to the date stated therein for the passage of the ordinance authorizing the issuance of the certificates of obligation and (ii) posted continuously on the Town's website for at least forty-five (45) days before the date stated therein for the passage of the ordinance authorizing the issuance of the certificates of obligation.

SECTION 3

This resolution shall take effect on the date of its passage.

RES. __-24

DULY PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, ON THIS 1st DAY OF APRIL, 2024.

APPROVED:

Derek France, MAYOR

(Town Seal)

ATTEST:

Theresa Scott, TOWN SECRETARY

EXHIBIT A

**NOTICE OF INTENTION TO ISSUE
TOWN OF FLOWER MOUND, TEXAS
CERTIFICATES OF OBLIGATION**

TAKE NOTICE that the Town Council of the Town of Flower Mound, Texas, shall convene at a regular meeting at 6:00 o'clock P.M. on June 17, 2024, at the regular meeting place of the Town Council at Town Hall, 2121 Cross Timbers Road, Flower Mound, Texas 75028, and, during such meeting, the Town Council will consider the passage of an ordinance authorizing the issuance of certificates of obligation, in one or more series, in an amount not to exceed SEVEN MILLION SEVEN HUNDRED FIFTEEN THOUSAND DOLLARS (\$7,715,000) for the purpose of paying contractual obligations to be incurred for (i) constructing waterworks and sewer system improvements and extensions, including the acquisition of land and rights-of-way therefor , (ii) constructing and improving streets, including drainage, landscaping, curbs, gutters, sidewalks, entryways, pedestrian pathways, signage, traffic signalization and the acquisition of land and rights-of-way therefor and (iii) professional services rendered in connection therewith, such certificates to be payable from ad valorem taxes and a limited pledge of the net revenues of the Town's water and sewer system. In accordance with Texas Local Government Code Section 271.049, (i) the current principal amount of all of the Town's outstanding public securities secured by and payable from ad valorem taxes is \$132,210,000; (ii) the current combined principal and interest required to pay all of the Town's outstanding public securities secured by and payable from ad valorem taxes on time and in full is \$170,210,694; (iii) the estimated combined principal and interest required to pay the certificates of obligation to be authorized on time and in full is \$11,608,338; (iv) the maximum interest rate for the certificates may not exceed the maximum legal interest rate; and (v) the maximum maturity date of the certificates to be authorized is March 1, 2044. The above information includes \$98,215,000 in principal amount of outstanding debt obligations the Town has designated as self-supporting and which the Town reasonably expects to pay from revenue sources other than ad valorem taxes. In the event these self-supporting revenue sources are insufficient to pay debt service, the Town is obligated to levy ad valorem taxes to pay such debt obligations. The certificates are to be issued, and this notice is given, under and pursuant to the provisions of Texas Local Government Code, Subchapter C of Chapter 271, as amended.

Theresa Scott,
TOWN SECRETARY



TOWN COUNCIL AGENDA M.2. REGULAR ITEM(S)

DATE: April 1, 2024

FROM: Chuck Russell, Principal Planner

ITEM: Consider a request for a Site Plan (SP23-0019 – Take 5 Oil Change) to develop an auto repair garage with an exception to Section 82-302, Compatibility buffer, of the Code of Ordinances and a waiver to the Architectural Standards in the Town's Urban Design Plan for roof pitch. The property is generally located south of Justin Road and west of Meadow View. (PZ recommended approval by a vote of 6 to 0 at its March 25, 2024, meeting.)

BACKGROUND:

- Size – Approximately 0.48 acres
- Zoning – Industrial District-1 (I-1) uses
- Proposed use – Auto repair garage
- Proposed Building Size – 1,294 square feet
- SMARTGrowth – Passed, with approval of roof pitch waiver
- Traffic Analysis – N/A, review not triggered
- Exception – Compatibility Buffer for a distance of approximately 137 linear feet along the western property line within an existing access easement
- Waiver – Roof pitch waiver to allow portions of the building to have a flat roof
- Incentives - None requested
- [Planning and Zoning Commission Staff Report Link](#)

BOARD REVIEW/CITIZEN FEEDBACK: The Planning & Zoning Commission recommended approval by a vote of 6 to 0 at its March 25, 2024, meeting.

ALTERNATIVES: N/A

FISCAL IMPACT: N/A

LEGAL REVIEW: N/A

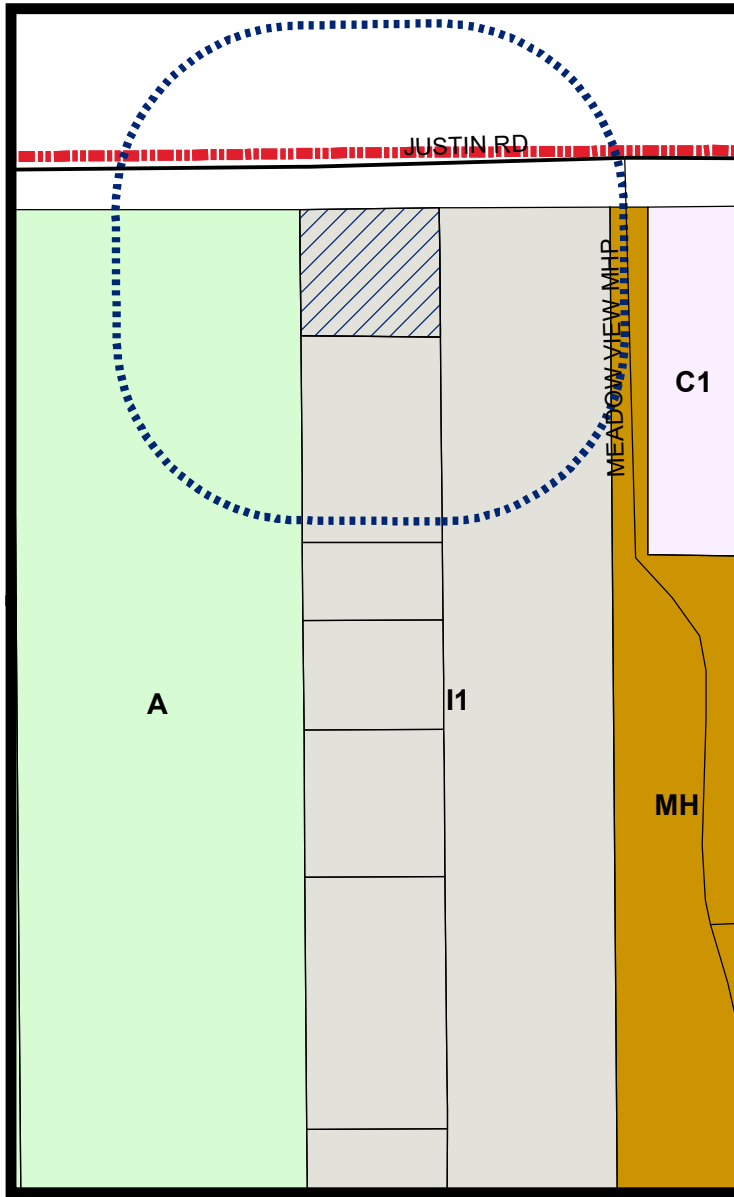
ATTACHMENTS:

1. Zoning & Aerial Map

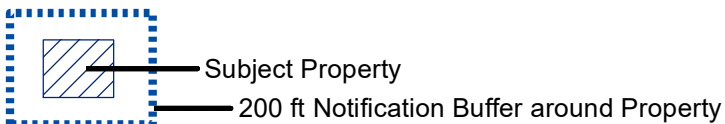
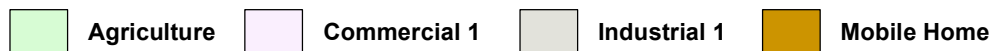
DRAFT MOTION: Move to approve as presented in the agenda caption.

Vicinity Map

SP23-0019: Take 5 Oil Change

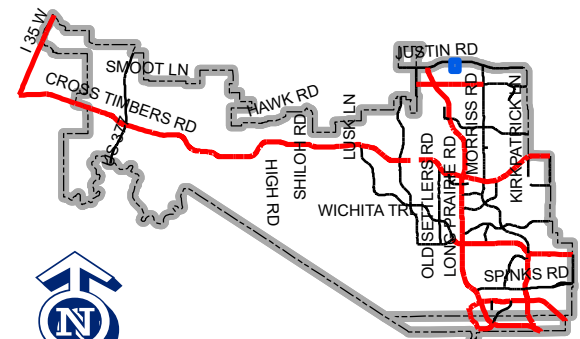


LEGEND

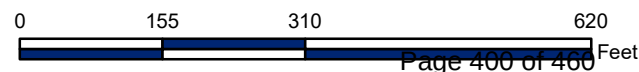


Visit www.fmdevmap.com to learn more about this project.

Visit <https://www.flower-mound.com/notifyme> to sign up for text message and/or email alerts for future projects.



Map Location





TOWN COUNCIL AGENDA M.3. REGULAR ITEM(S)

DATE: April 1, 2024
FROM: Matthew Hotelling, Assistant Director of Public Works/Transportation
ITEM: **Public Hearing to consider a request for a Master Plan Amendment (MPA23-0008 - Scenic Drive) to amend Section 7.0, Thoroughfare Plan, to consider three options for the classification of Scenic Drive and provide feedback on various elements and to consider adopting an ordinance providing for said amendment. (Planning and Zoning Commission recommended approval to change the classification to a Local Residential Collector by a vote of 6 to 0 at its March 25, 2024, meeting. Transportation Commission recommended approval to change the classification to a Local Residential Collector by a vote of 6 to 0 at its March 12, 2024, meeting.)**

BACKGROUND: On March 4, 2024, Town Council remanded the Scenic Drive Master Thoroughfare Plan Amendment back to the Transportation Commission (TRC). The purpose of this item is to give the TRC and Planning and Zoning Commission (P&Z) additional options for Scenic Drive that were not presented at the February 26, 2024, P&Z meeting. Other items of interest for the P&Z to provide feedback and recommendation will also be presented at this meeting. The three different options are shown in the March 12, 2024, TRC staff report. The TRC staff report is attached at the following link: [March 12, 2024 TRC Staff Report](#). The meeting can be viewed at: [March 12, 2024, TRC Video](#). The Planning and Zoning meeting can be viewed at: [March 25, 2024, PZ Video](#). The options are also listed below.

Options for Thoroughfare Plan Classification for Scenic Drive

Option 1. Local Residential Collector.

The Local Residential Collector (LRC) is a new classification that is identical to the existing Local Residential Estate except that the parkway section of the roadway would change from a paving, drainage and utility easement (PDUE) to standard right of way (ROW). The cross section would be a 60 foot total ROW section. The pavement cross section is 26 feet which would consist of 2 - 13 foot vehicular travel lanes and no shoulder. This is the minimum width of a fire lane where fire hydrants are located. The parkway on each side of the roadway would be 17 feet in width. The purpose of the conversion of the PDUE to standard ROW would allow for the Town to maintain the bar ditch section of the roadway instead of the associated homeowners association (HOA) or individual landowners. This cross section has the smallest pavement footprint of the options being presented. Therefore, the smallest footprint has the largest potential of saving existing trees alongside the existing roadway. Depending on drainage patterns, this pavement section may be able to be shifted from centerline to accommodate both planned hike and bike trail (H&BT) or to avoid possible tree removal. Based on the proposed Smith Tract traffic impact analysis (TIA), the volume of vehicles along Scenic Drive will be less than 200 vehicles per day. The majority of this traffic is generated by the proposed Smith Tract Development. Attached is the latest proposed Smith Tract concept. This total does not take into account any future traffic generated by the trail head situated near the intersection of Scenic Drive and Wichita Trail. Based on these volumes, an LRC will more than accommodate this traffic. It is recommended that if this option is chosen that the Parks Trails

and Bikeways plan be updated to reflect the changes. It should be noted that Scenic Drive south of the proposed Smith Tract Development to Wichita Trail is not on the 10-year Capital Improvement Plan (CIP) to be reconstructed. It is anticipated that any maintenance of Scenic Drive would be maintained to existing limits and materials.

Option 2. Rural Collector Modified.

The Rural Collector Modified (RCM) is a modification of an existing classification of Rural Collector. The RCM is a 62 foot ROW section. It would consist of 17 foot parkways like the LRC, two 4 foot bike lanes, and two 10 foot vehicular travel lanes. The pavement cross section is a total of 28 feet in width. Like the LCR, the bar ditches would be maintained by the Town instead of the HOAs or individual landowners. This pavement cross section is the second smallest pavement footprint of the options being presented. This cross section has a slightly larger pavement section that may affect additional trees. This cross section has the smallest vehicular travel lane width of all options. This may have two affects on traffic. The smaller vehicular lane has the potential to be the lowest vehicular speed. However, the narrower width, especially for larger vehicles such as horse trailers or landscape trailers, has the tightest passing clearance. Larger vehicles such as these would likely shy away from each other if met along the roadway and briefly enter into the bike lane. As with the LCR, this cross section could be shifted within the ROW to both accommodate planned H&BT and to avoid possible tree removal. Theoretically, the smaller travel lane will have slightly less vehicular traffic capacity, but like the LCR, the amount of vehicular traffic will more than accommodate this traffic. One item that could be considered with this option would be to widen the travel lane from 10 feet to 11 feet to accommodate a larger vehicle such as a horse trailer. This change, however, would increase the ROW from 62 feet to 64 feet. The TIA recommended keeping a Rural Collector classification, not for vehicular traffic, but for bike connectivity. The combined Recommendations Map from the Trails and Bikeways Plan is attached for reference. The proposed Smith Tract Development proposes to include the 12 foot H&BT through their property from their entrance at Scenic on the northeastern edge of the property to a connection with Scenic near the proposed trailhead on the southern edge of the property. The proposed Smith Tract Development is attached. The proposed Smith Tract Development is subject to change. In the past, a modified cross section has not required a Master Plan Amendment. However, due to the fact that the stretch of Scenic Drive from the Smith Tract Development entrance to Wichita Trail is not on the 10-year horizon on the CIP, a footnote on the Thoroughfare Plan or change in the text of the Master Transportation Plan itself would be recommended.

Option 3. Status quo. Rural Collector.

The last option is to keep the existing Rural Collector (RC) classification. The current Thoroughfare Plan is attached. The Rural collector cross section is 80 foot ROW. The parkway is 23 foot feet in width, two 5 foot bike lanes, and two 12 foot vehicular travel lanes. The pavement cross section is a total of 34 feet in width. Like the LCR and the RCM, the bar ditches would be maintained by the Town instead of the HOAs or individual landowners. This pavement cross section is the largest pavement footprint of the options being presented. This cross section has the highest potential of affecting trees along the roadway. This cross section has the vehicular travel lane width that is between the other two options. The typical vehicular lane will likely have a typical effect on vehicular speeds. The typical width will accommodate larger vehicles such as horse trailers or landscape trailers. Larger vehicles will have additional buffer space between oncoming vehicles and bike lanes in this configuration. Unlike the other two options, this cross section will have the least ability to be shifted from centerline and accommodation of the H&BT and tree avoidance is more difficult. Again, the TIA recommended keeping a Rural Collector classification, not for vehicular traffic, but for bike connectivity. The combined Recommendations Map from the Trails and Bikeways Plan is attached for reference. The proposed Smith Tract Development proposes to include the 12 foot H&BT through their property from

their entrance at Scenic on the northeastern edge of the property to a connection with Scenic near the proposed trailhead on the southern edge of the property. The proposed Smith Tract Development is attached. The proposed Smith Tract Development is subject to change. As with all the previous options, Scenic Drive from the proposed Smith Tract Development to Wichita Trail is not on the 10 year CIP.

Other Information.

Other information that will be discussed at the meeting include crash history; reports of speeding; Town maintenance (pavement and signage); trip generation of the proposed Smith Tract Development; types of bike and trail users; and amount and location of trees (including specimen trees) affected by future road improvements. Some additional information from the Trails and Bikeways Master Plan include that Shared Use (unmarked bike/vehicle) Lanes are 14' in width and bike lanes are 5' in width. Also, where there is a paved off-street trail (H&BT) the width is 12'. However, it could be 10' if the existing ROW is constrained.

BOARD REVIEW/CITIZEN FEEDBACK: There was citizen feedback at both the August 7, 2023, meeting and the March 4, 2024, meeting of Town Council. The majority of the concerns were in regard to the number of trees along this corridor and the possible impact from the additional pavement. Four homeowners along Scenic provided correspondence to TRC. In summary, the majority wanted the smallest cross section with the least impact on trees. One citizen at the Planning and Zoning Commission spoke in favor of a modified rural collector along the northern east/west section of Scenic Drive with 11 foot vehicular lanes. In 2016, the majority of the concerns were the loss of the bike lane.

ALTERNATIVES: Leave as is, modify the cross section of the current classification or change the classification of Scenic Drive.

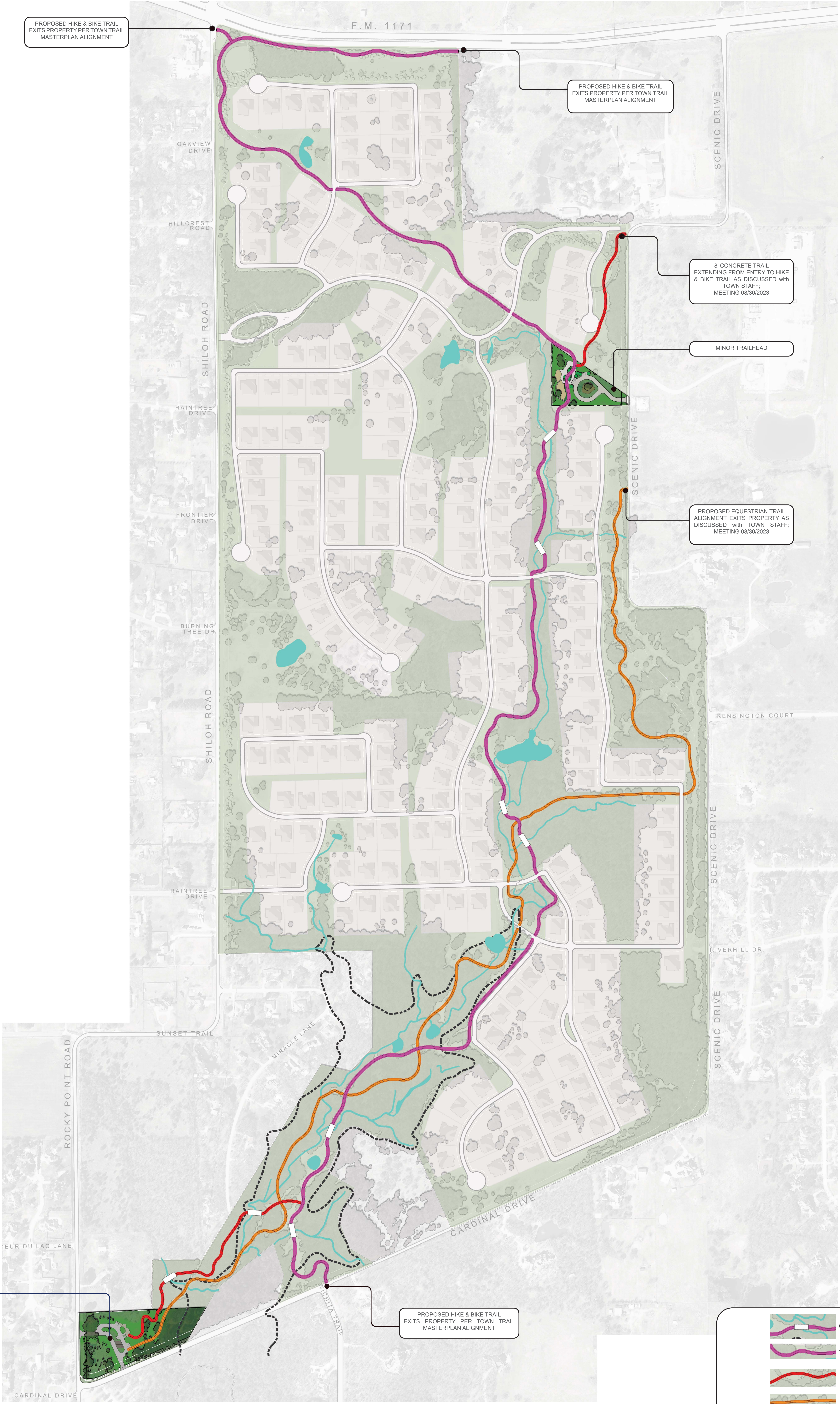
FISCAL IMPACT: None

LEGAL REVIEW: Bryn Meredith, of Taylor, Olson, Adkins, Sralla, & Elam L.L.P., has reviewed the ordinance as to form and legality.

ATTACHMENTS:

1. PROPOSED Smith Tract Conceptual Landscape Masterplan-Trail Focus
2. CombinedTrailsMap - Flower Mound Trails and Bikeways Master Plan
3. Thoroughfare Plan - February 5, 2024
4. Draft Ordinance Scenic
5. Proposed Scenic Change - 4-1-2024 Exhibit B

DRAFT MOTION: Move to approve Local Residential Collector as presented.



PROPOSED HIKE & BIKE TRAIL
EXITS PROPERTY PER TOWN TRAIL
MASTERPLAN ALIGNMENT

PROPOSED HIKE & BIKE TRAIL
EXITS PROPERTY PER TOWN TRAIL
MASTERPLAN ALIGNMENT

8' CONCRETE TRAIL
EXTENDING FROM ENTRY TO HIKE
& BIKE TRAIL AS DISCUSSED WITH
TOWN STAFF;
MEETING 08/30/2023

MINOR TRAILHEAD

PROPOSED EQUESTRIAN TRAIL
ALIGNMENT EXITS PROPERTY AS
DISCUSSED WITH TOWN STAFF;
MEETING 08/30/2023

MULTI-USE TRAILHEAD
FOR EQUESTRIAN +
HIKE & BIKE TRAIL

PROPOSED HIKE & BIKE TRAIL
EXITS PROPERTY PER TOWN TRAIL
MASTERPLAN ALIGNMENT

 WATER CROSSING

 12' CONCRETE TRAIL

 8' CONCRETE TRAIL

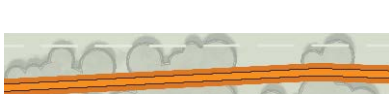
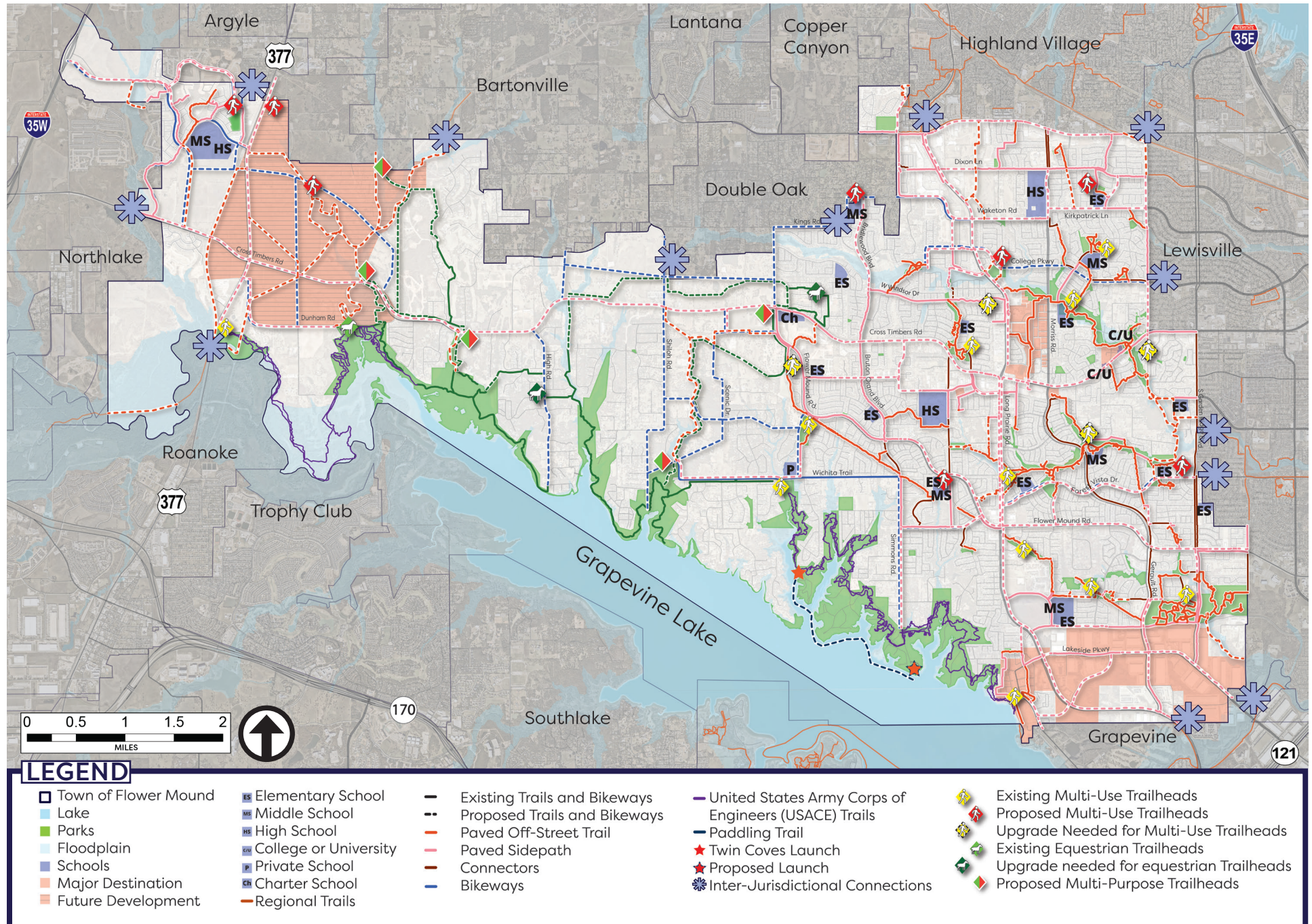
 EQUESTRIAN TRAIL

FIGURE 4.2: COMBINED RECOMMENDATIONS MAP



**TOWN OF FLOWER MOUND
THOROUGHFARE PLAN**



0 1,500 3,000 6,000
Scale in Feet

KimleyHorn February 5, 2024

Functional Street Classifications

- Roundabout
- Diamond Interchange
- Grade Separation
- Major Arterial
- Greenway Urban Arterial
- Greenway Rural Arterial
- Urban Minor Arterial w/Bike Lane
- Urban Minor Arterial w/On-Street Parking
- Urban Minor Arterial
- Urban Minor Arterial Undivided
- Urban Collector
- Rural Collector
- Service Road
- MU - Arterial
- MU - Collector
- MU - Couplet
- MU - Dam Road



TOWN OF FLOWER MOUND, TEXAS

ORDINANCE NO. _____

AN ORDINANCE OF THE TOWN OF FLOWER MOUND, TEXAS, AMENDING THE FLOWER MOUND 2001 MASTER PLAN BY AMENDING ORDINANCE NO. 24-01, IN PART, WHICH ADOPTED THE MASTER PLAN, BY AMENDING SECTION 7.0, "THOROUGHFARE PLAN," BY CREATING A NEW CLASSIFICATION OF LOCAL RESIDENTIAL COLLECTOR AND BY CHANGING THE DESIGNATION OF SCENIC DRIVE FROM WICHITA TRAIL TO WALSINGHAM DRIVE, TO A LOCAL RESIDENTIAL COLLECTOR; PROVIDING THIS ORDINANCE SHALL BE CUMULATIVE OF ALL ORDINANCES; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Town of Flower Mound is a home rule city acting under its charter adopted by the electorate pursuant to Article XI, Section 5, of the Texas Constitution and Chapter 9 of the Local Government Code; and

WHEREAS, on March 19, 2001, the Town Council of the Town of Flower Mound adopted all nineteen component plans specifically including the Land Use Plan, together with all amendments thereto, by Ordinance No. 24-01 as a component to Flower Mound Master Plan 2001; and

WHEREAS, The Master Plan establishes and articulates a community based vision to preserve the country atmosphere and natural environment that makes Flower Mound a unique and desirable community; mitigate the ill effects of rapid and intense urbanization; create a balanced tax base to ensure the Town's long-term economic health and prosperity; and ensure all development is of enduring and exemplary quality; and

WHEREAS, the Planning and Zoning Commission of the Town of Flower Mound, Texas, held a public hearing on March 25, 2024, and the Town Council of the Town of Flower Mound, Texas, held a public hearing on April 1, 2024, with respect to the Master Plan Amendment described herein and to consider the adoption of the updated Section 7.0 "Thoroughfare Plan" as components of the Master Plan; and

WHEREAS, the Town has complied with all requirements of Chapter 213 of the Local Government Code, Chapter 78 of the Town's Land Development Regulations, and all other laws dealing with notice, publication and procedural requirements for the approval of the Master Plan Amendment described herein; and

WHEREAS, after public notice and public hearing as required by law, and upon due deliberation and consideration of the recommendation of the Planning and Zoning Commission and of all testimony and information submitted during said public hearings, the Town Council of the Town of Flower Mound, Texas, has determined that it is in the public's best interest and in support of the health, safety, morals, and general welfare of

the citizens of the Town of Flower Mound that Section 7.0 Thoroughfare Plan of the Master Plan of the Town of Flower Mound, Texas, be amended as more particularly set forth herein.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, THAT:

SECTION 1

All of the above premises are hereby found to be true and correct legislative and factual findings of the Town of Flower Mound, and they are hereby approved and incorporated into the body of this Ordinance as if copied in their entirety.

SECTION 2

The Master Transportation Plan, Section 7.0 Thoroughfare Plan of the Master Plan, is hereby amended by adding the following cross-section:

“Local Residential Collector

This cross-section is identical to the Local Residential Estate Cross-Section with the following exception: the 17-foot Paving Drainage and Utility Easement is changed to ROW. The total ROW for this cross-section is 60’.”

A cross-section drawing based on the above description is hereby added to Section 7.0 Thoroughfare Plan of the Master Plan. The drawing of said cross-section is attached hereto and incorporated herein as Exhibit “A.”

SECTION 3

The Master Thoroughfare Plan Map component in Section 7.0 of the Master Plan of the Town of Flower Mound, Texas, is hereby amended as described below:

- The classification of Scenic Drive from Wichita Trail to Walsingham Drive is hereby changed from Rural Collector to Local Residential Collector, as depicted in the attached and incorporated Exhibit “B.”

The remainder of the Master Thoroughfare Plan Map component of the Master Plan is not amended hereby and remains in full force and effect.

SECTION 4

This Ordinance shall be cumulative of all provisions of ordinances of the Town of Flower Mound, Texas, 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.

SECTION 5

It is hereby declared to be the intention of the Town Council that the phrases, clauses, sentences, paragraphs, and sections of this Ordinance are severable, and if any phrase, clause, sentence, paragraph, or section of this Ordinance shall be declared unconstitutional by any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Ordinance, since same would have been enacted by the Town Council without the incorporation in this Ordinance of any such unconstitutional phrase, clause, sentence, paragraph, or section, and said remaining portions shall remain in full force and effect.

SECTION 6

This Ordinance shall take effect and be in full force from and after its passage, and it is so ordained.

DULY PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, BY A VOTE OF ____ TO ____, ON THIS THE 1ST DAY OF APRIL, 2024.

APPROVED:

Derek France, MAYOR

ATTEST:

Theresa Scott, TOWN SECRETARY

EXHIBIT "A"

Cross-Section Drawing Local Residential Collector

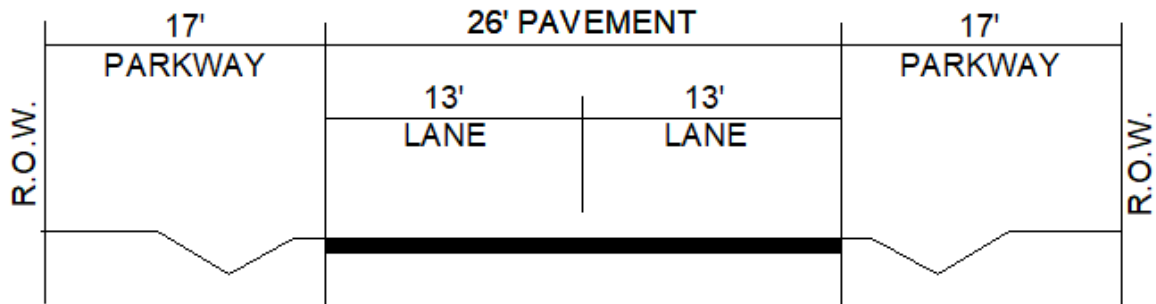
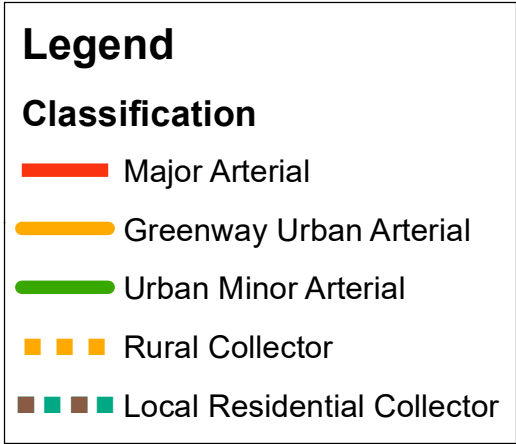
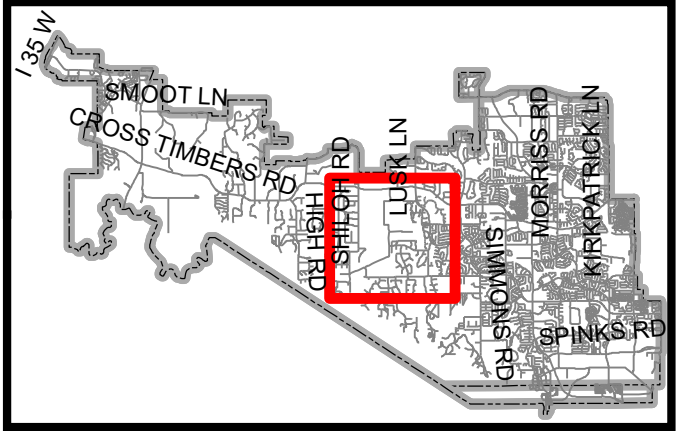
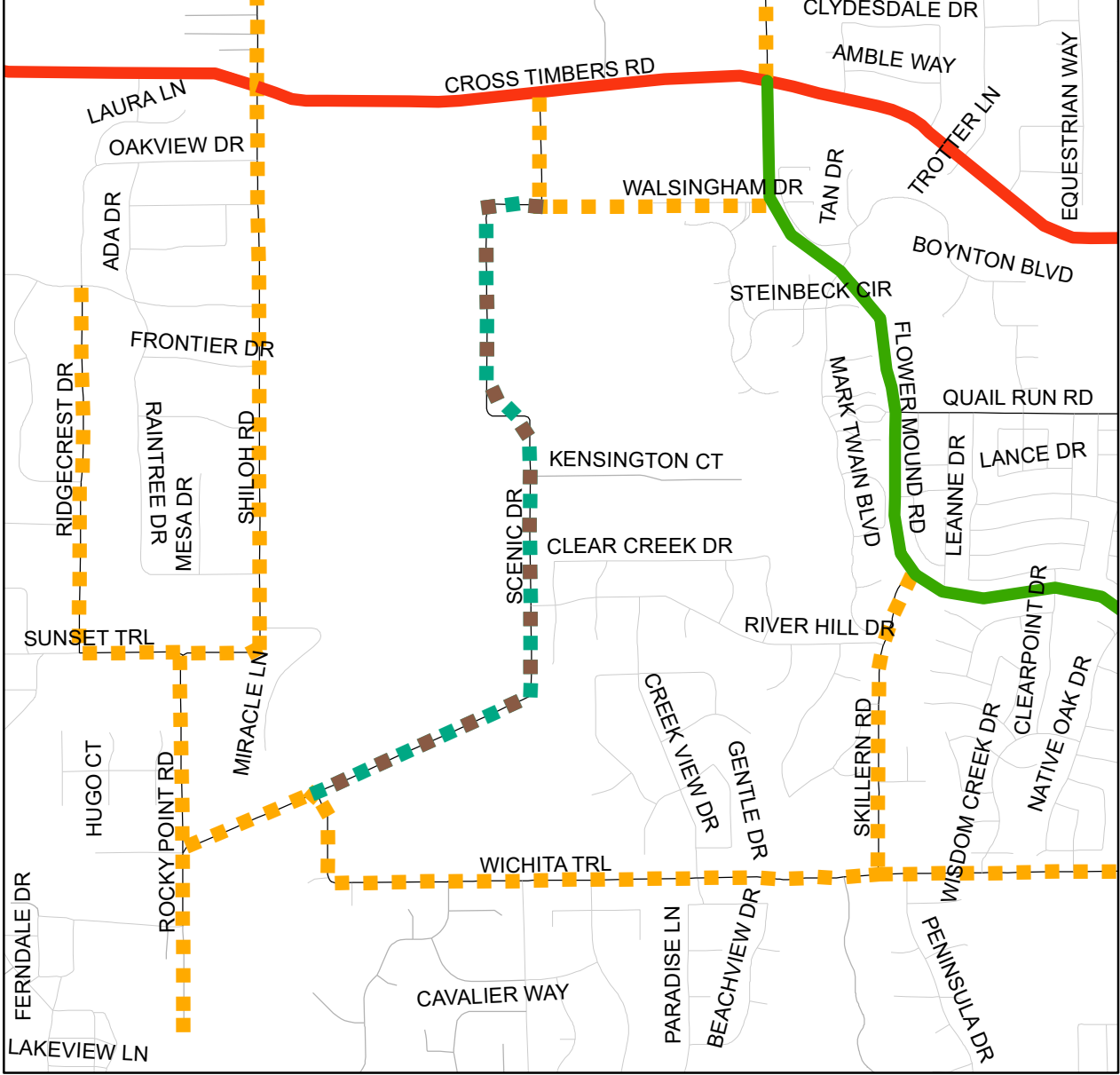


EXHIBIT "B"

Classification of Scenic Drive from Wichita Trail to Walsingham Drive

Proposed Thoroughfare Plan Changes - Scenic Drive





TOWN COUNCIL AGENDA M.4. REGULAR ITEM(S)

DATE: April 1, 2024
FROM: John Chapman, Principal Planner
ITEM: **Public Hearing to consider an ordinance amending the Town's Land Development Regulations (LDR24-0001 - Land Use Update) by amending Chapter 82 "Development Standards," Chapter 86 "Signs," Chapter 98 "Zoning," and Appendix A "Fees," related to new regulated uses, definitions, development standards, and fees for the purpose of clarifying and updating certain sections to reflect current planning practices and State laws. (PZ recommended approval by a vote of 6 to 0 at its March 25, 2024, meeting.)**

BACKGROUND:

I. ITEM SUMMARY

This Town-initiated item is proposed to amend the Town's Land Development Regulations by updating language related to new regulated uses, definitions, development standards, and fees for the purpose of clarifying and updating certain sections to reflect current planning practices and State laws.

The focus of this update includes the following topics:

1. Updating and clarifying various definitions and recognized uses to better assist with administering the Town's Code of Ordinances clearly and effectively.
2. Updating model home standards related to the number of model homes allowed for new subdivisions and establishing standards for "early release homes."
3. Establishing minimum planting requirements for screening shrubs related to parking areas and dumpster/compatibility buffer screening.
4. Updating solar panel regulations to comply with state law.
5. Updating ground and wall sign standards to:
 - a. Allow for one additional wall sign on the side of a building, regardless of street frontage
 - b. Allow middle schools, like high schools, to have a changeable message sign, with appropriate limitations
 - c. Consider changing the requirement of a masonry border around ground signs to require at least two sides of a ground sign be masonry, with the other sides allowed to use another building material used on the primary building(s).
6. Updating fence height and visibility section to require notifications be sent to adjacent residential property owners when a developer is proposing new fencing along existing fence lines.
7. Updating illustrations contained in section 98-1207 and relocating throughout the Code.
8. Updating the Town's fee schedule related to platting and the Subdivision Site Plan.

[Planning and Zoning Commission Staff Report Link](#)

II. BACKGROUND

This item was presented during a [Planning and Zoning Commission \(P&Z\) work session on February 26, 2024](#).

Several topics have been discussed by P&Z and Town Council in recent years.

1. CBD Sales discussion with P&Z – [February 22, 2021, Meeting Link](#)
2. Model home work session with P&Z – [April 26, 2021, Meeting Link](#)
3. Solar Panel work session with Town Council – [April 20, 2023, Meeting Link](#)
4. Adjacent fencing discussion with P&Z – [June 12, 2023, Meeting Link](#) (13:20 timestamp)
5. Mixed Use District and Specimen Trees work session with Town Council – [October 19, 2023, Meeting Link](#)
6. Signs work session with Town Council – [January 18, 2024, Meeting Link](#)

As part of the recommendation made by P&Z, staff has adjusted the proposed illustrations to ensure more appropriate contrast between colors. These changes are reflected in the attached ordinance.

BOARD REVIEW/CITIZEN FEEDBACK: The Planning & Zoning Commission recommended approval by a vote of 6 to 0 at its March 25, 2024, meeting.

ALTERNATIVES: N/A

FISCAL IMPACT: N/A

LEGAL REVIEW: Rachel Raggio, of Taylor, Olson, Adkins, Sralla, & Elam L.L.P., has reviewed the ordinance as to form and legality.

ATTACHMENTS:

1. DRAFT Ordinance

DRAFT MOTION: Move to approve as presented in the agenda caption.

**TOWN OF FLOWER MOUND, TEXAS
ORDINANCE NO. _____**

AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, AMENDING CHAPTER 82, "DEVELOPMENT STANDARDS," CHAPTER 86, "SIGNS," CHAPTER 98, "ZONING," AND APPENDIX A, "FEE SCHEDULE," OF THE CODE OF ORDINANCES, TOWN OF FLOWER MOUND, TEXAS, BY AMENDING REGULATED USES, DEFINITIONS, DEVELOPMENT STANDARDS, ILLUSTRATIONS, AND FEES FOR THE PURPOSE OF CLARIFYING AND UPDATING CERTAIN SECTIONS TO REFLECT CURRENT PLANNING PRACTICES AND STATE LAW; PROVIDING THIS ORDINANCE SHALL BE CUMULATIVE OF ALL ORDINANCES; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR A PENALTY FOR VIOLATIONS HEREOF; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR PUBLICATION IN THE OFFICIAL NEWSPAPER; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Town of Flower Mound, Texas (the "Town"), 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 Local Government Code; and,

WHEREAS, the Town Council of the Town (the "Town Council") previously adopted Chapter 82, "Development Standards," Chapter 86, "Signs," and Chapter 98, "Zoning," of Subpart B, "Land Development Regulations," of the Code of Ordinances, Town of Flower Mound, Texas; and,

WHEREAS, the Town Council finds and determines that it is necessary to amend certain definitions and regulated uses for clarification purposes to reflect current planning practices and to comply with State law; and,

WHEREAS, the Town Council finds and determines that it is necessary to amend sign regulations to allow for middle school to install digital changeable message signs, enhance compatible ground sign design standards, and grant additional flexibility regarding the location of wall signs; and,

WHEREAS, the Town Council finds and determines that it is necessary to amend certain fees associated with platting and the Subdivision Site Plan process commensurate to staff time; and,

WHEREAS, the Planning and Zoning Commission of the Town held a public hearing on March 25, 2024, and the Town Council held a public hearing on April 1, 2024, with respect to the amendments described herein; and,

WHEREAS, the Town has complied with all requirements of Chapter 211 of the Texas Local Government Code, Chapter 78 of the Town's Land Development Regulations, and all other laws dealing with notice, publication, and procedural requirements for the approval of a Land Development Regulations amendment; and,

WHEREAS, the Town Council finds that the amendments as outlined herein are in the best interest of the Town and will promote the health, safety, and general welfare of the citizens of the Town and the general public;

NOW THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, THAT:

SECTION 1

Article III, "Off-street parking and loading," of Chapter 82, "Development Standards," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 82-74, "Off-street parking requirements," by removing the "Motor vehicle fuel service station" parking ratio to read as follows:

"Sec. 82-74. Off-street parking requirements.

The following are the off-street parking requirements:

SCHEDULE OF OFF-STREET PARKING REQUIREMENTS

Use Type	Parking

<i>Automobile and related service uses</i>	

Motor vehicle fuel service station	6 spaces

***"

SECTION 2

Division 2, "Landscaping," of Article V, "Landscaping and screening," of Chapter 82, "Development Standards," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 82-247, "Outdoor patios and seating areas," to read as follows:

"Sec. 82-247. Outdoor patios and seating areas.

Outdoor patios and seating areas associated with nonresidential uses shall be shown on the site plan and landscape plan. An elevation drawing may be required to determine compliance with this section. In addition, outdoor patios and seating areas are subject to the following standards:

- (1) For any nonresidential use electing to incorporate patio fencing, and for all restaurant uses, the area must be clearly defined through the use of ornamental fencing or similar fencing that is consistent and complementary to the building or development in which it is located.

SECTION 3

Division 3, "Screening," of Article V, "Landscaping and screening," of Chapter 82, "Development Standards," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 82-271, "Parking areas," to establish minimum planting requirements for screening shrubs; by removing section 82-275, "Outdoor lighting," in its entirety and renumbering subsequent sections; and by amending section 82-277, "Screening plant selection list," to establish minimum shrub measurements at time of planting to read as follows:

"Sec. 82-271. Parking areas.

Parking areas shall be screened from street view to a minimum height of three feet above the highest finished grade adjacent to the street or curb line of the parking area. Such screening may be accomplished by the use of plants, earth berms, walls or fences, or natural topography, provided that walls or fences shall not be used for screening parking areas from principal, country or scenic roadways. However, notwithstanding the foregoing, schools shall be exempt from the requirements of this division.

- (2) *Shrubs.* At time of planting, parking area shrubs must be, at a minimum, five (5) gallons in size.
- (3) *Spacing.* Shrub spacing shall be determined based on species characteristics to achieve the expected screening.

Sec. 82-275. Height of screening devices.

Sec. 82-276. Screening plant selection list.

- (c) At time of planting, shrubs used to satisfy a contiguous dense six (6) foot screen must measure three (3) feet in height. Spacing shall be determined based on species characteristics to achieve the expected screening.

Sec. 82-277. Exposed concrete and retaining walls.

Secs. 82-278—82-300. Reserved."

SECTION 4

Division 4, "Residential compatibility standards," of Article V, "Landscaping and screening," of Chapter 82, "Development standards," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 82-302, "Compatibility buffer," to amend the regulations for multifamily development landscape setbacks to read as follows:

"Sec. 82-302. Compatibility buffer.

- (3) For multifamily development, the landscape setback shall consist of a minimum 50-foot landscaped buffer. Understory plants of species included in section 82-276, Screening plant selection list, shall be provided in order to achieve a continuous dense six-foot screen. Native shade trees, a minimum three-inch caliper and of species included in section 94-68 of this Code, Approved tree lists, shall be provided at a ratio of one tree per 500 square feet of buffer area.

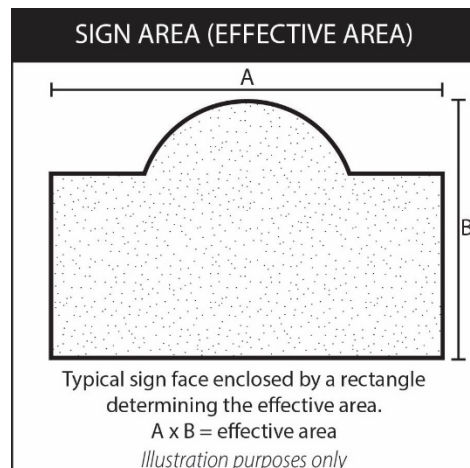
***"

SECTION 5

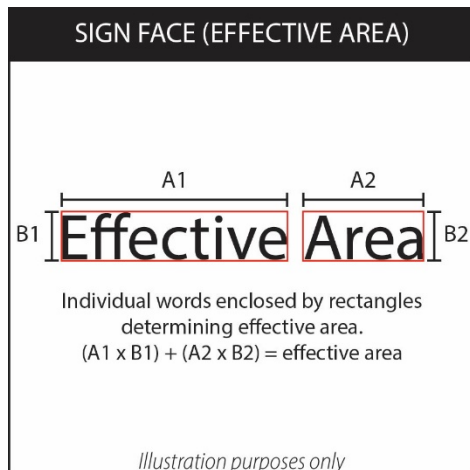
Article I, "In general," of Chapter 86, "Signs," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 86-2, "Definitions," to include several illustrations and update the definition for "sign face" to read as follows:

"Sec. 86-2. Definitions.

Sign area (effective area) means the area enclosed by drawing a rectangle around the outermost extremities of the sign or its letters, insignias, logos, etc., if the same is placed on a wall. The area of a ground sign shall include the sign base and sign cabinet.



Sign face (effective area) means the actual surface upon which the message of a sign is displayed. In the case of wall signs, the area contained within the outermost limits of the letters, logos, numbers, insignias, etc. shall be considered the sign face effective area.



SECTION 6

Article II, "Regulations," of Chapter 86, "Signs," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 86-44, "Comprehensive sign package," to remove the outdated site plan review fee requirements; updating section 86-67, "Ground signs," to require, at a minimum, two (2) sides of the sign to be comprised of masonry and to grant middle schools the ability to install digital electronic signs, with restrictions; updating section 86-68, "Wall signs," to allow wall signs on sides of buildings, regardless of street frontage but not adjacent to residential, and to remove additional sign limitations related to multi-building complexes; and updating section 86-70, "Awning or canopy signs," to update a referenced section to read as follows:

"Sec. 86-44. Comprehensive sign package

- (c) *Submittal requirements.* Any person, firm or corporation having a proprietary interest in any property within the corporate limits of the town requesting approval of a special sign permit shall file an application with the office of development services. The completed application shall include the following information:

- (5) A filing fee shall be submitted with every application in accordance with the fee schedule found in appendix A of this Code.

Sec. 86-67. Ground signs.

All ground signs shall be subject to the following requirements:

- (1) The height of a ground sign shall not exceed ten (10) feet and shall be measured from the adjacent street curb level or the mean street grade elevation if no curb exists.

- (7) A ground sign shall be architecturally compatible with the colors and materials of the building that it is identifying and must include an architecturally compatible border around the entire perimeter of the sign. The border must be masonry on two (2) sides of the sign, at a minimum.

- (9) Changeable message signs, including both electronic and changeable panels, shall not be permitted. Notwithstanding the foregoing, changeable message signs shall be allowed subject to the following restrictions.

- c. High schools and middle schools located in any zoning district shall be allowed a digital electronic sign face. Such sign face shall not blink, flash scroll or contain moving or animated parts, messages, or components and shall be limited to 32 square feet in sign area. Digital electronic signs permitted after the date of this ordinance shall not be illuminated from 10 p.m. to 7 a.m. if located within 150 feet of existing residential development, including multi-family, as measured perpendicularly from the sign face to property line.

Sec. 86-68. Wall signs.

- (a) *Generally.* All wall signs shall be subject to the following requirements:

- (4) No wall sign shall exceed 300 square feet of surface area.

- (b) *Specific signs.* Specific wall signs shall be subject to the following requirements:

- (1) A single-tenant building may place an additional wall sign on one side wall, subject to the standards set forth in subsection (6) of this section. An additional sign on the side wall is not permitted on a wall that is adjacent to any residential use, including multi-family.
- (2) Nonresidential multitenant buildings with exterior access to more than two individual office or business suites may be allowed more than two wall signs for tenant identification, subject to the following:
- a. Each tenant with exterior access shall be permitted wall signs in compliance with subsection (a) of this section, with the height and width of such signs based on the lineal footage of the storefront and the standards set forth in subsection (a)(6) of this section.

- b. An end or corner tenant may place an additional wall sign on the side wall, subject to the standards set forth in subsection (a)(6) of this section. An additional sign on the side wall is not permitted on a wall that is adjacent to any residential use, including multi-family.

(3) *Nonresidential buildings (multitenant interior access).*

- a. One wall sign shall be permitted per building wall not to exceed two walls to identify a maximum of two tenants.

(4) *Nonresidential buildings (other).*

- a. One wall sign shall be permitted per tenant, plus one additional wall sign on the side wall for each end or corner tenant. An additional sign on the side wall is not permitted on a wall that is adjacent to any residential use, including multi-family.

(5) *Building identification wall signs.* Building identification walls signs shall be permitted in accordance with section 86-68 et seq., subject to the following:

- d. Building identification wall signs shall be limited to a maximum of 25 percent of the lineal building wall length with a maximum sign surface area not exceeding 150 square feet.
- e. The maximum allowable height and width of building identification wall signs shall be as follows:

Lineal Footage of Shell Building Wall	Maximum Sign Width	Maximum Sign Height
Less than 150 feet	25% of lineal footage	18 inches
151 feet up to 300 feet	25% of lineal footage	24 inches
301 feet or more	25% of lineal footage	30 inches

- f. When building identification wall signs are to identify a building/development, the tenant signs for that building must be reduced by 50 percent of the allowed width, height and overall square footage pursuant to subsection (a)(6) of this section.
- g. Building identification wall signs shall be allowed only on the primary building wall.
- h. Building identification wall signs shall only be attached to building walls, mansard roofs with slopes of 60 degrees or greater.
- i. No building identification wall sign attached to a mansard roof or building wall shall extend above the roofline.

- j. No building identification wall sign shall protrude more than 12 inches from the principal structure to which it is attached (i.e., the depth of the sign shall not exceed 12 inches).
 - k. No building identification sign shall be closer than one foot from the edge of the building wall or mansard roof that it is attached to.
- (6) *Multifamily developments.* Multifamily developments of eight units or more shall be permitted one wall sign for identification of the development for each street frontage.

Sec. 86-70. Awning or canopy signs.

An awning or canopy sign can be used as the primary sign in lieu of a wall sign or neon sign, subject to the following:

- (7) All outdoor lighting for canopy or awning signs must comply with the outdoor lighting provisions set forth in section 98-1101 et seq. of this Code.

***"

SECTION 7

Article I, "In general," of Chapter 98, "Zoning," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 98-2, "Definitions," to include new and updated definition for purposes of clarification; to rename the following: "Auto repair garage" to "Auto service center," and "Cleaning shop or laundry pickup station" to "Cleaning/laundry shop with pickup station"; and to remove "Cleaning/laundry shop, pickup station only," "Cleaning/laundry shop with pickup station," and "Motor vehicles fuel service station," to read as follows:

"Sec. 98-2. Definitions.

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Amusement and recreation (indoors) means an establishment wholly enclosed within a building offering entertainment or games of skill to the general public for a fee. Typical uses include, but are not limited to, dancehalls bowling alleys, billiard and pool establishments, electronic video game arcades, skating rinks, teen clubs, escape rooms, laser tag arenas, and inflatable bounce house parks.

Amusement and recreation (outdoor) means an establishment offering entertainment or games of skill to the general public for a fee wherein any portion of the activity takes place outdoors. Typical uses include, but are not limited to, a golf driving range, paint ball, archery range, and miniature golf course.

Asphalt or concrete batching plant, temporary, means a temporary facility for producing asphalt or concrete products used in construction activities on the same or nearby sites.

Assembly hall means a building, or part of a building, in which facilities are provided and used for such purposes as a meeting, gathering, or assembly of persons for civic, educational, political, religious, or social events, including weddings and receptions, and may include a banquet hall or private club.

Auto leasing or rental means an establishment, other than car sales, new or used, for the purposes of renting or leasing automobiles, vans, and light trucks; may include incidental parking and limited servicing of leased and rented vehicles. Shall not include services related to auto painting or body shop.

Auto painting or body shop means an establishment offering services related to automobile painting; undercoating or rustproofing; rebuilding, reconstructing, or replacing mechanical systems; and/or body work. Such establishments may also offer “auto service center” services.

Auto service center means an establishment providing general repair and servicing of motor vehicles. Such repair and servicing may include oil change and tire rotations; window tinting and car wrapping; reconditioning of engines, air conditioning systems, and transmissions; wrecker service; replacement or repair of brakes, shock absorbers, tires, batteries, mufflers, or upholstery, and other similar mechanical or electronic components. In no instance shall such establishment include services related to an “auto painting or body shop.” This use may include gasoline sales as an accessory use.

Auto storage or auction means an establishment where automobiles are stored for the purpose of being auctioned. Such establishments may include an auto service center as an incidental use for automobiles to be auctioned.

CBD store means any establishment authorized by the state to distribute and sell consumable hemp products, which may include cannabidiol (CBD) oil, CBD gummies, food and drinks infused with CBD, over-the-counter medicine containing CBD, and topical lotions and cosmetics containing CBD. Any CBD store that sells smokable products shall be considered a smoking related business.

~~*Cleaning/laundry shop, pickup station only*, means a pickup station for cleaning or laundry where the work is performed other than on the premises.~~

~~*Cleaning/laundry shop with pickup station* means a custom cleaning, laundry or pressing shop with a pickup station where work is performed on-site utilizing a nonchemical process for cleaning or laundry.~~

Cleaning/laundry shop with pickup station means a custom laundry cleaning or pressing shop not exceeding 4,000 square feet in floor area or a pickup station for laundry or cleaning where the work is performed other than on the premises.

Day camp for children means a facility arranged and conducted for the organized recreation and instruction of children, including outdoor activities, on a daytime basis only. Shall not include facilities required to be licensed with the Texas Department of Health and Human Services, such as day care centers, day care homes, and community homes.

Day activity and health services facility, also known as adult day care, means an establishment or facility licensed by the state that provides services on a daily or regular basis, but not overnight, to four or more elderly persons or persons with disabilities, as defined by the state's human resource code.

Day care center means an establishment licensed by the state that provides care, protection, and supervision for seven or more children under the age of 14 for periods of less than 24 hours per day on a regular basis, excluding any establishment classified as a day care home, or residential child-care facility per state law. This classification also includes a day activity and health services facility, as defined, and shall not include overnight lodging, medical treatment, counseling, and/or rehabilitative services and does not apply to any school.

Day care home means an establishment registered with the state, defined as a "family home," that provides care, protection, and supervision in the caretaker's single-family detached residence for not more than six children under 14 years of age, excluding the caretaker's own children, and that provides care after school for not more than six (6) additional elementary school children, provided that the total number of children cared for, including the caretaker's own children, does not exceed twelve (12). This classification shall not include overnight lodging, medical treatment, counseling, and/or rehabilitative services and does not apply to any school.

Dwelling, multifamily, means any building or its portion that is designed and built to be occupied as three or more dwelling units on a single lot.

Early release home means a single-family or duplex residential building, owned by the developer or contractor, that will not be sold or occupied until final subdivision acceptance. An early release home must not be used as a construction office.

Health club or athletic club means a recreational facility where all activities are contained within an enclosed building for a membership or fee for the purpose of physical fitness. Such facilities may include, but are not limited to, aerobic exercise, tennis, swimming, or racquet facilities, or a gymnasium, weight room, sauna, or other facilities serving associated recreational activities.

Model home means a single-family or duplex residential structure temporarily used for the display of new residences within the subdivision or development in which the residential structure is located. A model home must not be used as a construction office.

Model home sales center means a model home used for the display and sale of new residences within the subdivision or development in which the residential building is located. A model home sales center must not be used as a construction office.

~~*Motor vehicle fuel service station* means a building or place arranged, designed, used or intended to be used for the primary purpose of dispensing gasoline, oil, diesel fuel, liquified petroleum gases, greases, batteries, and other minor automobile accessories at retail direct to the motor vehicle trade and where other services to motor vehicles can be rendered such as the following: sales and servicing of spark plugs and other ignition parts; tire repair and servicing, but no recapping; replacement of mufflers and tailpipes, water hose, fan belts, brake fluid, light bulbs, floor mats, wiper blades and arms for windshields, radiator cleaning and flushing; washing and polishing; greasing and lubrication; air cleaners; adjusting brakes, tuning engines; air conditioner service; wheel balancing and alignment; provided, however, that the above automotive services are considered vehicle maintenance and replacement services and shall never be construed to include any major overhaul; the removal and/or rebuilding of an engine, cylinder head, transmission, differential, radiator, springs, or axles; steam cleaning; body or frame work; painting; upholstering; or replacement of glass. This use may include the incidental sale of meats, fruits, vegetables, bakery products, dairy products, personal care items, cleaning products and similar household items to a localized or neighborhood market, for off-premises consumption, provided that in no case shall the floor area devoted to such sales exceed 2,400 square feet.~~

Off-site parking lot, accessory, means a premise providing a paved, ground-level, open space area, used solely for the parking of motor vehicles, and where such parking is allowed with or without payment of a fee, contract, or other form of remuneration.

Off-site parking structure, accessory, means a building or structure consisting of one or more levels, above or below grade, available for the parking of motor vehicles, with or without payment of a fee, contract, or other form of remuneration.

Personal improvement services means an establishment primarily engaged in the provision of informational, instructional, personal improvement, and similar services of a nonprofessional nature. Typical uses include, but are not limited to, portrait shops, photography studios, artists' studios, private music lessons, driving schools, art, handicraft or hobby instruction, and counseling and referral services.

Theater means an establishment, not otherwise defined, offering entertainment or performance within an auditorium contained within an enclosed building. Such entertainment or performance may include, but is not limited to, cinematic, opera, theatrical or stage production, or musical.

***"

SECTION 8

Article III, "District regulations," of Chapter 98, "Zoning," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating numerous divisions and sections by renaming all instances of "Fire station" to "Fire station/public safety," "Auto repair garage" to "Auto service center," "Cleaning/laundry pickup station only" to "Cleaning/laundry shop with pickup station," and "Model home, subject to section 98-100" to "Model home/early release home, subject to section 98-1000"; by removing instances of "Dance hall"; and updating section 98-905, "Modifications" by removing the "Mixed Use District" modification related to specimen or protected tree removal permit requirements to read as follows:

"Sec. 98-272. Permitted uses.

The following uses shall be permitted in the A agricultural district, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Model home/early release home, subject to section 98-1000

Sec. 98-277. Conservation development option and standards.

(e) Outdoor lighting. New residential subdivisions with five or more buildable lots within the Cross Timbers Conservation Development District must comply with the following outdoor lighting standards.

- (2) New public outdoor lighting, including street lighting, must make use of timers, dimmers, motion sensors, or other adaptive controls, and must be substantially dimmed or extinguished by 11:00 p.m., unless public safety concerns demand otherwise, as determined by town council.

- (4) Outdoor lighting fixtures using lamps or bulbs, regardless of the number of bulbs and level of initial lamp lumens, must not exceed 3,000 kelvins and meet the following:
- a. If the initial lamp lumens are equal to or greater than 1,500, the fixture must be fully shielded. No shielding is required for fixtures with an initial lamp lumens less than 1,500.

- b. Outdoor lighting fixtures must be sufficiently shielded and aimed such that spillage of light onto adjacent properties is minimized and glare from the light emitting and/or reflecting parts of a luminaire is not visible from an adjacent property.
 - c. Sag-lens, drop-lens, searchlights, beacons, laser sources, and mercury vapor fixtures are prohibited.
 - d. Outdoor uplighting is prohibited, except in cases where the fixture is shielded by a roof overhang or similar structural shield that will not cause light to extend beyond the structural shield.
- (5) A developer shall only be exempt from sections 98-277(e)(2), 98-277(e)(4) if the town manager, or their designee, received a signed letter from the utility provider stating no current street light product meets either or both aforementioned lighting standard.

Sec. 98-302. Permitted uses.

The following uses shall be permitted in the SF-E, single-family estate district, subject to compliance with any applicable conditions and all other provisions of this chapter.

Building material yard and construction office, town

Fire station/public safety

Model home/early release home, subject to section 98-1000

Sec. 98-332. Permitted uses.

The following uses shall be permitted in the SF-30 single-family district-30, subject to compliance with any applicable conditions and all other provisions of this chapter.

Building material yard and construction office, town

Fire station/public safety

Model home/early release home, subject to section 98-1000

Sec. 98-362. Permitted uses.

The following uses shall be permitted in the SF-15 single-family district-15, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Model home/early release home, subject to section 98-1000

Sec. 98-392. Permitted uses.

The following uses shall be permitted in the SF-10 single-family district-10, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Model home/early release home, subject to section 98-1000

Sec. 98-422. Permitted uses.

The following uses shall be permitted in the SF-A single-family attached district, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Model home/early release home, subject to section 98-1000

Sec. 98-431. Purpose and intent.

The SF-5 single-family residential district is designed primarily for single-family detached development on lots that are a minimum of 5,000 square feet in area. It is intended for areas designated as "high density single family detached" on the land use map of the comprehensive master plan. In addition to the use and area regulations of this division, development in the SF-5 single-family residential district shall be in compliance with all other applicable provisions of this chapter.

Sec. 98-432. Permitted uses.

The following uses shall be permitted in the SF-5 single-family district-5, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Model home/early release home, subject to section 98-1000

Sec. 98-452. Permitted uses.

The following uses shall be permitted in the 2F duplex district, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Model home/early release home, subject to section 98-1000

Sec. 98-482. Permitted uses.

The following uses shall be permitted in the MF multifamily district, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Model home/early release home, subject to section 98-1000

Sec. 98-485. Minimum and maximum dimensions.

- (f) Minimum rear yard. The minimum rear yard in the MF multifamily district for all uses shall be 20 feet, subject to section 98-1028.

Sec. 98-512. Permitted uses.

The following uses shall be permitted in the MH mobile home district, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Model home/early release home, subject to section 98-1000

Sec. 98-542. Permitted uses.

The following uses shall be permitted in the O office district, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Cleaning/laundry shop with pickup station

Fire station/public safety

Off-site parking lot, accessory

Off-site parking structure, accessory

Solar panel systems, subject to section 98-1002

Sec. 98-543. Specific uses.

The following uses shall be permitted in the O office district only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

~~Parking structure, commercial~~

Sec. 98-572. Permitted uses.

The following uses shall be permitted in the R-1 retail district-1, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Off-site parking lot, accessory

Off-site parking structure, accessory

Retail, large tenant (between 25,000 and 49,999 square feet), existing construction, subject to section 98-1010

Solar panel systems, subject to section 98-1002

Sec. 98-573. Specific uses.

The following uses shall be permitted in the R-1 retail district-1 only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

Alcoholic beverage establishment with production area greater than 6,000 square feet, subject to section 98-1009

~~Parking structure, commercial~~

Retail, large tenant (between 25,000 and 49,999 square feet), new construction, subject to section 98-1010

Sec. 98-602. Permitted uses.

The following uses shall be permitted in the R-2 retail district-2, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

~~Cleaning/laundry pickup station only~~

Fire station/public safety

Off-site parking lot, accessory

Off-site parking structure, accessory

Retail, large tenant (between 25,000 and 49,999 square feet), existing construction, subject to section 98-1010

Retail, large tenant (between 50,000 and 74,999 square feet), existing construction, subject to section 98-1010

Solar panel systems, subject to section 98-1002

Sec. 98-603. Specific uses.

The following uses shall be permitted in the R-2 retail district-2 only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

Auto service center

~~Parking structure, commercial~~

Retail, large tenant (between 25,000 and 49,999 square feet), new construction, subject to section 98-1010

Retail, large tenant (between 50,000 and 74,999 square feet), new construction, subject to section 98-1010

Sec. 98-632. Permitted uses.

The following uses shall be permitted in the C-1 commercial district-1, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

~~Cleaning/laundry pickup station only~~

Fire station/public safety

Off-site parking lot, accessory

Off-site parking structure, accessory

Retail, large tenant (between 75,000 and 99,999 square feet), existing construction, subject to section 98-1010

Solar panel systems, subject to section 98-1002

Sec. 98-633. Specific uses.

The following uses shall be permitted in the C-1 commercial district-1 only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

Auto service center

CBD store, subject to section 98-1011

Retail, large tenant (between 75,000 and 99,999 square feet), new construction, subject to section 98-1010

Sec. 98-662. Permitted uses.

The following uses shall be permitted in the C-2 commercial district-2, subject to compliance with any applicable conditions and all other provisions of this chapter:

Auto service center

Building material yard and construction office, town

~~Cleaning/laundry pickup station only~~

~~Dance hall~~

Fire station/public safety

Off-site parking lot, accessory

Off-site parking structure, accessory

Retail, large tenant (100,000 square feet or more), existing construction, subject to section 98-1010

Solar panel systems, subject to section 98-1002

Sec. 98-663. Specific uses.

The following uses shall be permitted in the C-2 commercial district-2 only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

Alcoholic beverage establishment with production area greater than 6,000 square feet, subject to section 98-1009

CBD store, subject to section 98-1011

Retail, large tenant (100,000 square feet or more), new construction, subject to section 98-1010

Sec. 98-692. Permitted uses.

The following uses shall be permitted in the I-1 industrial district-1, subject to compliance with any applicable conditions and all other provisions of this chapter:

Auto service center

Building material yard and construction office, town

CBD store, subject to section 98-1011

Cleaning/laundry shop with pickup station

Dance hall

Fire station/public safety

Off-site parking lot, accessory

Off-site parking structure, accessory

Retail, large tenant (100,000 square feet or more), existing construction, subject to section 98-1010

Solar panel systems, subject to section 98-1002

Sec. 98-693. Specific uses.

The following uses shall be permitted in the I-1 industrial district-1 only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

Retail, large tenant (100,000 square feet or more), new construction, subject to section 98-1010

Tire retreading or recapping

Sec. 98-722. Permitted uses.

The following uses shall be permitted in the I-2 industrial district-2, subject to compliance with any applicable conditions and all other provisions of this chapter:

Auto service center

Building material yard and construction office, town

Cleaning/laundry shop with pickup station

Fire station/public safety

Off-site parking lot, accessory

Off-site parking structure, accessory

Retail, large tenant (100,000 square feet or more), existing construction, subject to section 98-1010

Solar panel systems, subject to section 98-1002

Tire retreading or recapping

Sec. 98-723. Specific uses.

The following uses shall be permitted in the I-2 industrial district-2 only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

Retail, large tenant (100,000 square feet or more), new construction, subject to section 98-1010

Sec. 98-752. Permitted uses.

The following uses shall be permitted in the WR water recreation district, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Off-site parking lot, accessory

Model home/early release home, subject to section 98-1000

Off-site parking lot, accessory

Sec. 98-753. Specific uses.

The following uses shall be permitted in the WR water recreation district only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

Off-site parking structure, accessory

Sec. 98-782. Permitted uses.

The following uses shall be permitted in the REC recreational district, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Fire station/public safety

Off-site parking lot, accessory

Solar panel systems, subject to section 98-1002

Sec. 98-783. Specific uses.

The following uses shall be permitted in the REC recreational district only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

Off-site parking structure, accessory

Sec. 98-842. Permitted uses.

The following uses shall be permitted in the CC campus commercial district, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office

~~Cleaning/laundry pickup station only~~

Fire station/public safety

Off-site parking lot, accessory

Off-site parking structure, accessory

Retail, large tenant (100,000 square feet or more), existing construction, subject to section 98-1010

Retail, large tenant (between 25,000 and 49,999 square feet), existing construction, subject to section 98-1010

Retail, large tenant (between 50,000 and 74,999 square feet), existing construction, subject to section 98-1010

Retail, large tenant (between 75,000 and 99,999 square feet), existing construction, subject to section 98-1010

Solar panel systems, subject to section 98-1002

Sec. 98-843. Specific uses.

The following uses shall be permitted in the CC campus commercial district only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

Retail, large tenant (100,000 square feet or more), new construction, subject to section 98-1010

Retail, large tenant (between 25,000 and 49,999 square feet), new construction, subject to section 98-1010

Retail, large tenant (between 50,000 and 74,999 square feet), new construction, subject to section 98-1010

Retail, large tenant (between 75,000 and 99,999 square feet), new construction, subject to section 98-1010

Sec. 98-872. Permitted uses.

The following uses shall be permitted in the CI campus industrial district, subject to compliance with any applicable conditions and all other provisions of this chapter:

Building material yard and construction office, town

Cleaning/laundry shop with pickup station

Fire station/public safety

Off-site parking lot, accessory

Off-site parking structure, accessory

Retail, large tenant (between 75,000 and 99,999 square feet), existing construction, subject to section 98-1010

Retail, large tenant (100,000 square feet or more), existing construction, subject to section 98-1010

Solar panel systems, subject to section 98-1002

Sec. 98-873. Specific uses.

The following uses shall be permitted in the CI campus industrial district only upon approval of a specific use permit by the town council in accordance with the procedures and standards of section 90-186, specific use permits:

Retail, large tenant (100,000 square feet or more), new construction, subject to section 98-1010

Retail, large tenant (between 75,000 and 99,999 square feet), new construction, subject to section 98-1010

Sec. 98-905. Modifications.

(c) *Tree preservation.*

- (1) *General.* In mixed use development projects, tree removal and mitigation shall comply with chapter 94, "trees," and be evaluated in regard to the district as a whole based on the tree survey, unless provided herein.
- (2) *Tree removal.*

- ~~b. Removal of protected or specimen trees. The removal of specimen or protected trees located within a lot or site do not require a tree removal permit, however; such trees shall not be removed from a lot or site prior to all of the conditions listed in this subsection being met. No protected or specimen trees may be removed from a lot or site prior to the approval of a development plan, site plan, plat or replat. In addition, a pre-construction meeting with appropriate town staff shall occur prior to the removal of any protected or specimen tree and/or the authorization of grading and construction activities to begin on the lot or site.~~
- ~~(3) Mitigation requirements for authorized tree removal. Tree mitigation requirements for mixed use districts shall not apply to non-residential uses within the mixed use project. Mitigation requirements for residential uses for mixed use districts shall comply with the following provisions.~~
 - ~~a. Protected trees on-site. It shall be the responsibility of any person removing a protected tree from a lot or site to replace each protected tree so removed with one tree having a caliper of two and one-half three inches, measured in accordance with the terms of chapter 94 "Trees."~~
 - ~~b. Specimen trees on-site. It shall be the responsibility of any person removing a specimen tree from a lot or site to replace each specimen tree removed with one or more trees that total twice the caliper inches of the specimen tree(s) removed as measured in accordance with the terms of chapter 94 "trees." For example, if a 30-inch specimen tree is removed, it would be replaced with 60 caliper inches comprised of 20, three-inch caliper trees, five, 12-~~

~~inch caliper trees or some other combination of trees the caliper measurement of which equates to 60 caliper inches.~~

- ~~c. Mitigation payments. Mitigation payments in lieu of planting replacement trees shall be calculated and submitted to the town for approval. Fees in lieu of planting shall be paid to the town's tree preservation fund.~~
- ~~d. Mitigation credits and incentives for preservation of protected and specimen trees. If any protected or specimen tree is preserved on a lot or site, credits for said preservation shall be given that will count toward the replacement or mitigation requirements within the lot or site. Credits will accrue only for those trees whose measured drip lines are left predominantly in their natural state. Minimal cutting, filling or other construction-related activities are allowed within the drip line of trees eligible for credits to the extent only that such trees are not damaged or killed by such activity within their drip line. Said credits will accrue as follows.~~
 - ~~1. For each protected tree preserved or transplanted within a lot or site or transplanted elsewhere in the site, one tree credit shall be given.~~
 - ~~2. For each specimen tree preserved or transplanted within a lot or site or transplanted elsewhere within the site, credit for caliper width equivalent to the caliper width of the tree preserved or transplanted shall be given. For example, preserving or transplanting a specimen tree having a 30-inch caliper width would result in 30 caliper inches of credit, or ten, three-inch caliper trees.~~
 - ~~3. For purposes of this section, one credit shall be given for landscaping trees planted in compliance with the mixed use district landscaping standards."~~

SECTION 9

Division 2, "Uses," of Article IV, "Supplementary district regulations," of Chapter 98, "Zoning," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 98-952, "Use classification," to rename "Model home (98-1000)" to "Model home/early release home (98-1000)," "Fire station" to "Fire station/public safety," "Cleaning/laundry pickup station only" to "Cleaning/laundry shop with pickup station," "Auto repair garage" to "Auto service center," and "Tire retreading or capping" to "Tire retreading or recapping"; renaming section 98-1000, "Model home," and updating the section in its entirety; updating and renaming section 98-1002, "Solar panel systems for on-site residential use," to "Solar panel systems"; and updating section 98-10008, "Smoking related business," to include proof of licensure, if necessary, to read as follows:

"Sec. 98-952. Use classification.

Use Type/Section	98-271	98-301	98-341	98-331	98-361	98-391	98-421	98-451	98-481	98-511	98-541	98-571	98-601	98-631	98-661	98-691	98-721	98-751	98-781	98-811	98-841	98-871	98-901
Residential Uses	A	SFE	SF5	SF30	SF15	SF10	SFA	2F	MF	MH	O	R1	R2	C1	C2	CC	CI	I1	I2	WR	REC	PD	CBD

Solar panel systems (98-1002)	P	P	P	P	P	P	P													P		P	*
Accessory and Temporary Uses	A	SFE	SF5	SF30	SF15	SF10	SFA	2F	MF	MH	O	R1	R2	C1	C2	CC	CI	I1	I2	WR	REC	PD	CBD
Accessory retail/service uses									P		P	P	P	P	P	P	P	P	P			P	*

Building material yard and construction office, town	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	*

Model home/early release home (98-1000)	P	P	P	P	P	P	P	P												P		P	*
Off-site parking lot, accessory											P	P	P	P	P	P	P	P	P	P	P	P	*
Off-site parking structure, accessory											P	P	P	P	P	P	P	P	P	S	S	P	*

Solar panel systems (98-1002)	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	*

Educational, Institutional and Civic Uses	A	S F E	S F-5	SF 30	SF 15	SF 10	S F A	2 F	M F	M H	O	R 1	R 2	C 1	C 2	C C	CI	I1	I2	W R	R E C	P D	C B D

Fire station/public safety	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	*

Retail Uses	A	S F E	S F-5	SF 30	SF 15	SF 10	S F A	2 F	M F	M H	O	R 1	R 2	C 1	C 2	C C	CI	I1	I2	W R	R E C	P D	*

CBD store (98-1011)														S	S			P				S	*

Personal Service Uses	A	S F E	S F-5	SF 30	SF 15	SF 10	S F A	2 F	M F	M H	O	R 1	R 2	C 1	C 2	C C	CI	I1	I2	W R	R E C	P D	C B D

Cleaning/laundry shop with pickup station											P	P	P	P	P	P	P	P	P			P	*
Cleaning/laundry shop with onsite plant												S	S	P	P			P	P			P	*
Cleaning/laundry shop with pickup station											S	P	P	P	P	P						P	*

Dance hall															P			P				P	*

Automobile and Related Service Uses	A	S F E	S F-5	SF 30	SF 15	SF 10	S F A	2 F	M F	M H	O	R 1	R 2	C 1	C 2	C C	CI	I1	I2	W R	R E C	P D	C B D

Auto service center													S	S	P			P	P			P	*

Tire retreading or recapping																		S	P			P	*

Sec. 98-1000 Model home and early release home

The construction of any home prior to the acceptance of public improvements by the town shall be subject to the conditions of this section.

- (1) The maximum number of model and early release homes allowed in each subdivision is subject to the limitations set forth in the table below:

Residential Subdivision Plat	Lots on	Total Model Homes Per Subdivision
Less than 10		None
11-50		2
51-100		4
More than 100		6

- (2) No model home or early release home may be constructed prior to the issuance of a building permit by the town.
- (3) No building permit for a model home or early release home shall be issued until the subdivision has passed the Sewer Line Verification inspection. In subdivisions where there is no public sewer, the permit shall not be issued until the subdivision has passed the Finished Grade Verification inspection.
- (4) No model home or early release home shall be sold until approval of a building final has been issued for the structure and a final acceptance of subdivision improvements is obtained from the town in accordance with the rules, regulations, and ordinances of the town.
- (5) Prior to the issuance of a permit for a model home or early release home, the developer/owner shall file a hold harmless agreement with the town agreeing to fully release the town from all claims, suits, judgments, and demands against the town which have accrued or which may accrue, and to hold the town harmless from all claims, suits, judgments, and demands against the town, either severally or jointly, which have accrued or which may accrue as a result of the improvements, including sidewalks, streets, water and sewer lines, installation of electricity and other utilities, not having been fully inspected and improved by the town.
- (6) The hold harmless agreement shall also indicate that the town shall assume no liability for the development or construction of the development or the improvements. The town only grants permission for the construction and showing of the model homes and in no way shall be held liable for the development of the subdivision or for any injury or damages which may result from the improvements, including those mentioned in subsection (5) of this section, not having been fully inspected and accepted by the town.
- (7) A model home shall be subject to the following additional requirements:
 - a. A model home is not intended to allow the full scope of real estate activities and shall be restricted to the sales and marketing of the model or products similar to the model.
 - b. The applicant/builder must own buildable lot(s) in the subdivision in order to apply for a model home permit.

- c. No outside storage or other buildings are allowed on the lot with the model home.
- d. The model home building permit application must include a site plan that shows the proposed location of the sales center, as well as all required parking, and pedestrian access.
- e. Minimum parking requirements for a model home sales center are five (5) parking spaces, of which a minimum of one (1) shall be dedicated as accessible parking. An accessible concrete sidewalk is required to provide barrier-free access from the parking lot to the model home sales center.
- f. All parking spaces shall be constructed of concrete, striped, and sized per Town specification and may be located onsite or on an immediately adjacent residential lot.
- g. All signage must conform to Chapter 86.
- h. Upon completion of all sales activity, a residential remodel permit will be required to convert the sales office, if located within a remodeled garage, back into a functioning garage, prior to sale of the model home.

Sec. 98-1002. Solar panel systems.

- (a) General purpose and description. The purpose of these regulations is to accommodate solar panel systems while protecting the public health, safety and welfare, and to provide a permitting process for solar panel systems to ensure compliance with the requirements and standards established in this section.

- (c) General regulations. Solar panel systems shall be allowed on all lots or tracts. The following general regulations shall apply to all solar panel systems.

Sec. 98-1008. – Smoking related business.

- (a) The sale of devices defined within section 18-530 of article X, regulation of smoking in public places, of the town's Code of Ordinances, within 1,000 feet of any school is hereby prohibited. The measurement of distance between the place of business where such devices are sold and the school shall be:
 - (1) In a direct line from the property line of the school to the property line of the place of business, and in a direct line across intersections; or
 - (2) If the place of business is located on or above the fifth story of a multistory building, in a direct line from the property line of the school to the property line of the place of business, in a direct line across intersections, and

vertically up the building at the property line to the base of the floor on which such devices are sold from.

- (b) Prior to the issuance of a certificate of occupancy permit, proof of required state licensure must be provided to the town.

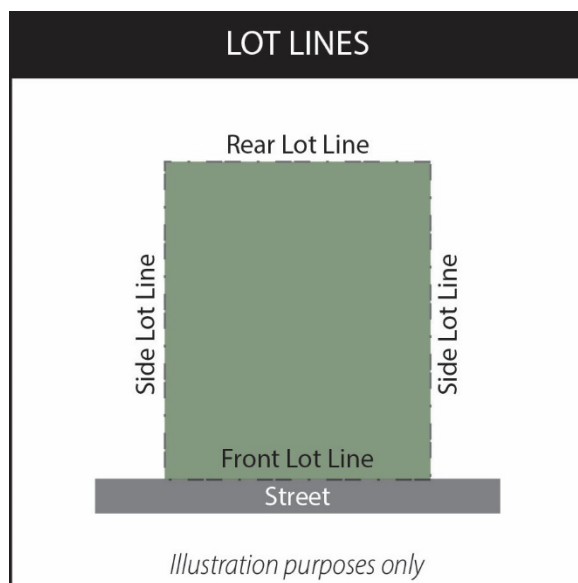
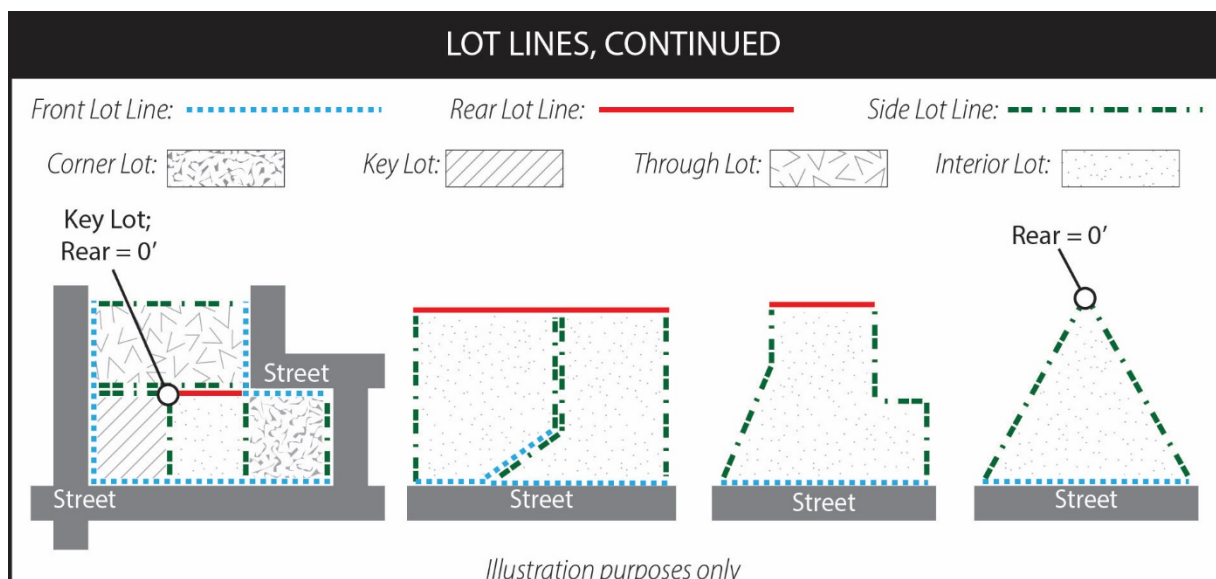
Sec. 98-1011. – CBD Store

- (a) The location of a CBD store within 1,000 feet of any school is hereby prohibited. The measurement of distance between the place of business where such products are sold and the school shall be made:
 - (1) In a direct line from the property line of the school to the property line of the place of business, and in a direct line across intersections; or
 - (2) If the place of business is located on or above the fifth story of a multistory building, in a direct line from the property line of the school to the property line of the place of business, in a direct line across intersections, and vertically up the building at the property line to the base of the floor on which such devices are sold from.
- (b) Prior to the issuance of a certificate of occupancy permit, proof of required state licensure must be provided to the town.

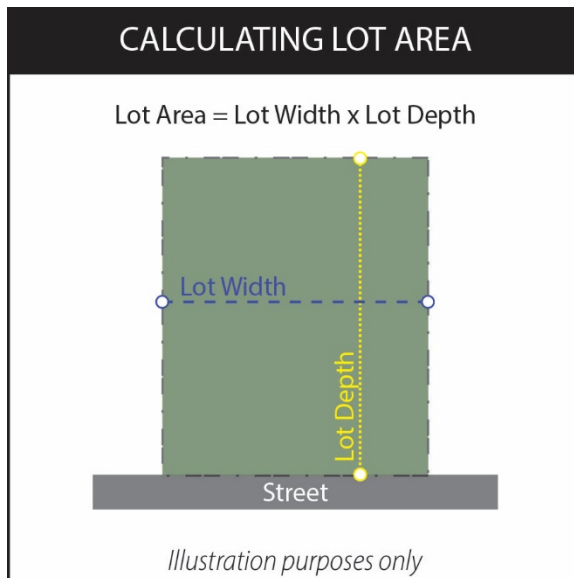
Secs. 98-1012—98-1019. – Reserved.”

SECTION 10

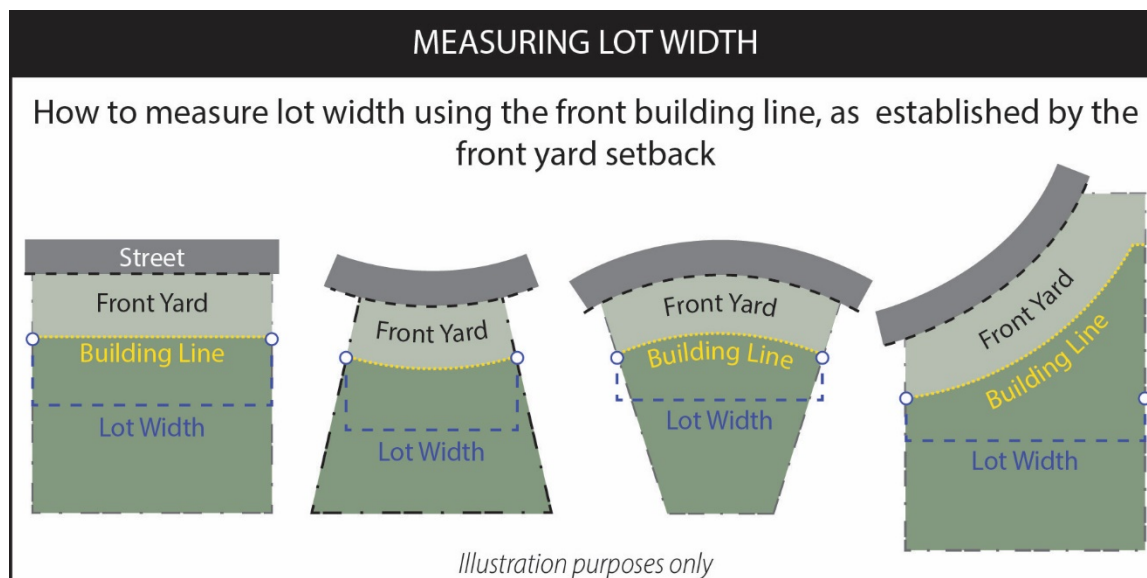
Division 3, "Dimensional regulations," of Article IV, "Supplementary district regulations," Chapter 98, "Zoning," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 98-1020, "Illustrations," by establishing new illustrations related to lot dimensional regulations; replacing section 98-1021, "Schedule of residential dimensional regulations," in its entirety; and updating section 98-1026, "Minimum front yard setback," by establishing new illustrations related to front yard setbacks, to read as follows:

"Sec. 98-1020. Illustrations.**(a) Lot lines.****(b) Lot lines, continued.**

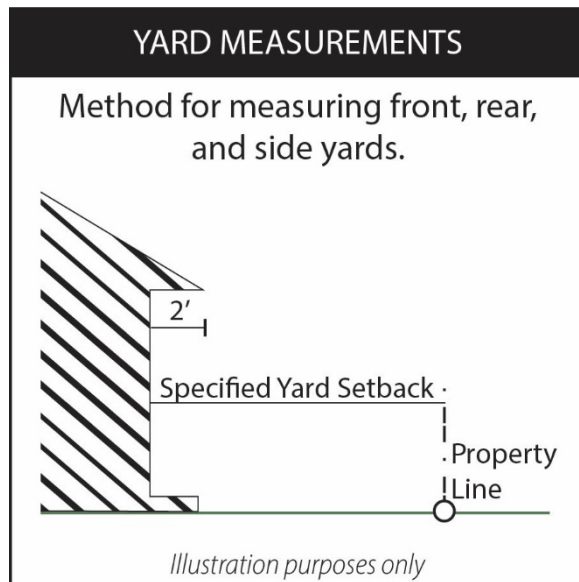
(c) Calculating lot area.



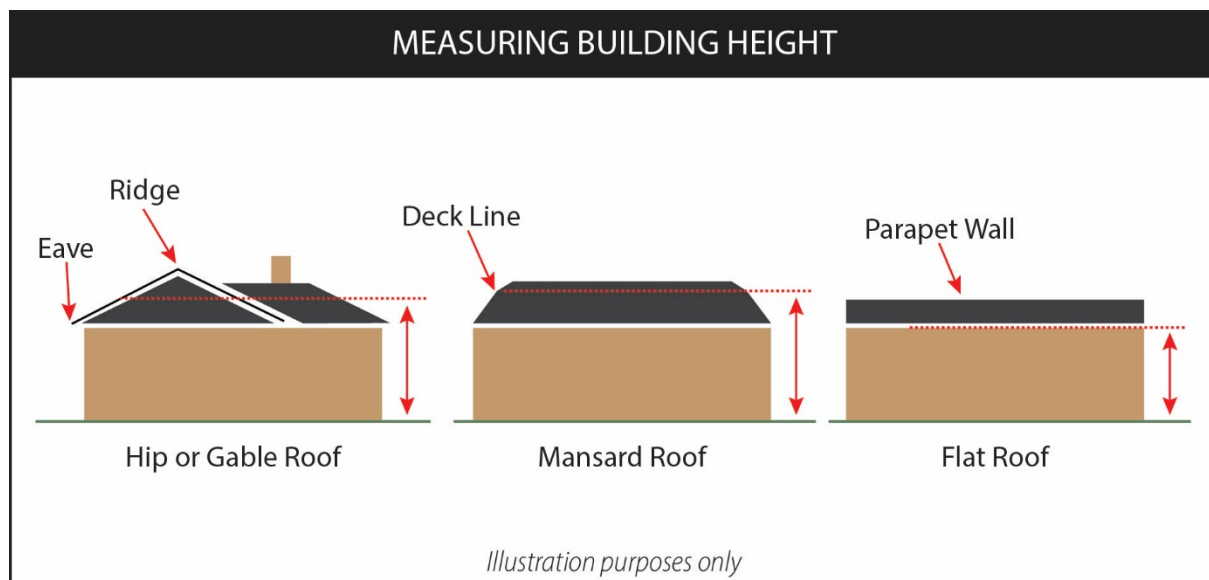
(d) Measuring lot width.



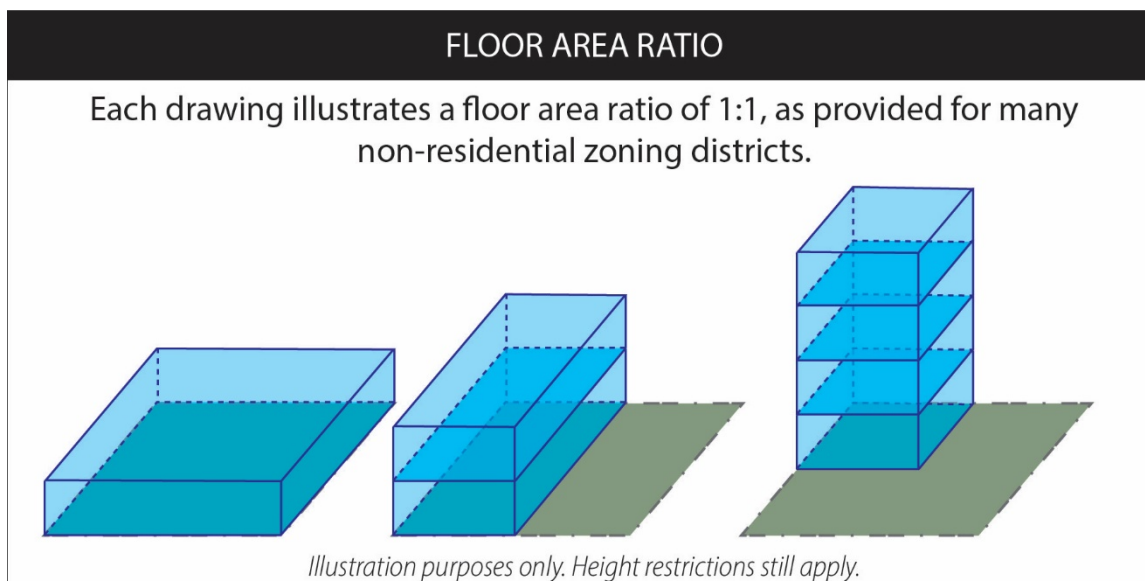
(e) Yard measurements.



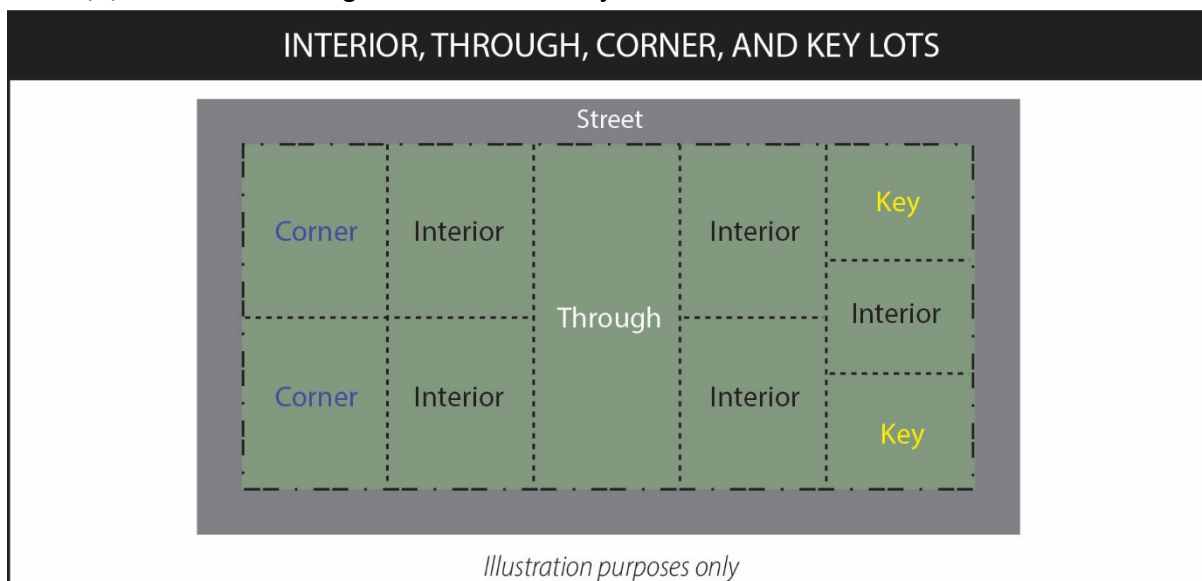
(f) Measuring building height.



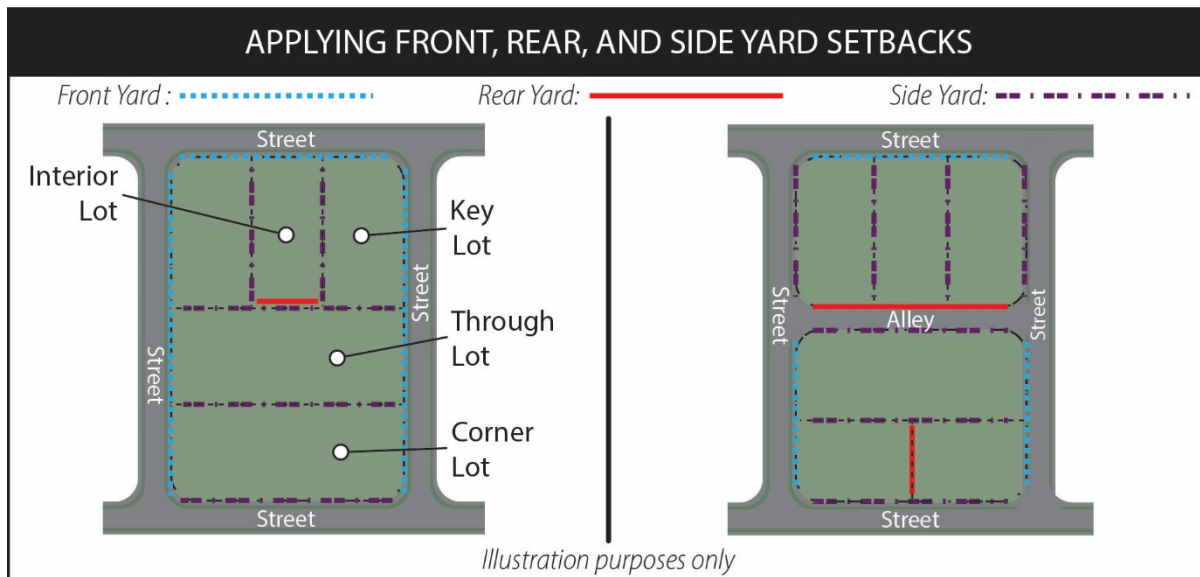
(g) Floor area ratio.



(h) Interior, through, corner, and key lots.



- (i) Apply front, rear, and side yard setbacks.



Sec. 98-1021. Schedule of residential dimensional regulations.

The residential dimensional regulations schedule included in this section summarizes the regulations of this chapter with regard to minimum lot size, minimum yards, maximum lot coverage, minimum floor area per dwelling unit and maximum building height of residential uses in the various zoning districts. For standards in the planned development district, see division 21 of article III of this chapter. The standards shown in the following schedule may be modified by additional provisions contained in this division or in the individual district regulations. In the event of any conflict between the text of this chapter and the schedule of residential dimensional regulations, the text shall control.

RESIDENTIAL DIMENSIONAL REGULATIONS

	Zoning District											
Development Standard	A	SF-E	SF-5	SF-30	SF-15	SF-10	SF-A	2F	MF	MH	WR	CBD
Min. lot area (sq. ft.)	2AC	1AC	5,000	30,000	15,000	10,000	5,000	5,000	2,800	7,500	8,500	*
Min. lot width (ft.)	200	150	50	100	80	70	20	60	60	60	65	*
Min. front yard (ft.)	40	40	20	25	25	25	25	25	25	25	30	*
Min. side yard (ft.)	25	20	5	15	12	10	0	8	10+	10	8	*
Min. rear yard (ft.)	20	20	20	30	30	25	10	10	20+	10	20	*
Max. lot cover (percent)	25	25	55**	35	35	40	40	40	40	30	40	*
Min. area/unit (sq. ft.)	1,800	2,400	1,500	2,100	1,800	1,800	1,100	1,100	700		1,450	*

	Zoning District											
Development Standard	A	SF-E	SF-5	SF-30	SF-15	SF-10	SF-A	2F	MF	MH	WR	CBD
Max. height (stories/ft.)	3/35	3/35	3/35	3/35	3/35	3/35	3/35	3/35	3/35	2/25	3/35	*

- + The minimum side and rear yard in the MF multifamily district for all uses shall be subject to section 98-485.
- * The uses allowed in the CBD shall conform to this development standard save and except to the extent, only, that the zoning ordinance establishing a CBD on a particular land area specifically provides a different development standard approved by the town council. A list of specific development standards that have been altered by such a zoning ordinance shall be maintained by the executive director of development services for each CBD approved by the town council.
- ** The maximum lot coverage in the SF-5 single family residential district shall be 55 percent, subject to section 98-1029, except that the 50 percent limitation set forth in section 98-1029(b) does not apply to single family detached dwellings.

Sec. 98-1022. Schedule of nonresidential dimensional regulations.

NONRESIDENTIAL DIMENSIONAL REGULATIONS

	Residential Zoning District									
<i>Development Standard</i>	A	SF-E	SF-5	SF-30	SF-15	SF-10	SF-A	2F	MF	MH
Min. front yard (ft.)	40	40	20	35	35	30	25	25	25	25
Min. side yard (ft.)	25	20	5	15	12	10	8	8	8+	
Min. Rear yard (ft.)	20	20	20	20	20	20	20	20	20+	20
Max. lot cover (percent)	25	25	55**	35	35	40	40	40	40	30
Max. floor area ratio										
Max. height (stories/ft.)	3/35	3/35	3/35	3/35	3/35	3/35	3/35	3/35	3/35	2/25

- + The minimum side and rear yard in the MF multifamily district for all uses shall be subject to section 98-485.

Sec. 98-1027. Minimum side yard setback.

- (f) *Residential compatibility standards.* The location of buildings shall comply with Division 4, "Residential compatibility standards," contained within this Code.

Sec. 98-1028. Minimum rear yard setback.

- (g) *Residential compatibility standards.* The location of buildings shall comply with Division 4, "Residential compatibility standards," contained within this Code."

SECTION 11

Division 6, "Outdoor lighting," of Article IV, "Supplementary district regulations," of Chapter 98, "Zoning," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by creating a new section 98-1101, "Outdoor lighting," and section 98-1102, "Illustrations"; updating section 98-1125, "Prohibited lighting," and section 98-1127, "Building -mounted lighting," for the purpose of providing comparable lumens intensity and updating referenced sections; updating section 98-1131, "Spacing," to clarify spaces internal to an enclosed parking garage shall not counted toward minimum spacing of lighting pole standards; and renaming section 98-1134, "Variance" to section 98-1134, "Waiver," to read as follows:

"Sec. 98-1125. Prohibited lighting.

The following lighting is prohibited. No owner or occupant of land shall permit any of the following conditions to exist:

- (1) An unshielded light source, including bare bulbs, above 15 watts or 225 lumens, whichever is less, except for temporary seasonal lighting;

- (9) Any lighting installed to illuminate an unimproved surface or private outdoor recreational activities that exceeds requirements set forth in subsection 98-1101(b)(2) without an approved waiver, as set forth in subsection 98-1101(b)(3).

Sec. 98-1127. Building mounted lighting.

All building mounted luminaires exceeding 15 watts or 225 lumens, whichever is less, shall be directed down with a full cutoff fixture.

Sec. 98-1131. Spacing

- (a) In parking areas containing zero to 150 parking spaces, excluding those spaces internal to an enclosed parking garage, minimum spacing of lighting pole standards shall be no less than two times the height of the standard.

- (b) In parking areas containing 151 or more parking spaces, excluding those spaces internal to an enclosed parking garage, minimum spacing of lighting pole standards shall be no less than four times the height of the light standard, a ratio of 4 to 1.

Sec. 98-1134. Waiver.

- (a) A waiver as to the height restriction may be permitted by the town council for the replacement of luminaries installed prior to the adoption of the ordinance from which this subdivision is derived if such luminaires are damaged, destroyed, or otherwise become inoperable.
- (b) A waiver is permissible for such replacement luminaries only in those situations where more than one luminaire existed prior to the adoption of the ordinance from which this subdivision is derived. The town council may grant a waiver, upon application by the property owner or his designee, if the town council determines that the replacement of a damaged, destroyed, or otherwise inoperable luminaire with a luminaire conforming to the height requirement set forth in this subdivision would:

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SECTION 12

Division 7, "Fences and walls," of Article IV, "Supplementary district regulations," of Chapter 98, "Zoning," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 98-1142, "Fence height and visibility," to require developers send letters to adjacent residential property owners with information about proposed fencing; and by updating section 98-1143, "Perimeter and open space walls and fences," to clarify the type of walls and fences to be required adjacent to trails to read as follows:

"Sec. 98-1142. Fence height and visibility.

- (d) Fences and walls shall be erected in accordance with the requirements of section 82-161 of this Code, clear visibility standards.
- (e) No fence or wall within the established front yard for key lots shall exceed four feet in height above the adjacent grade. Fences constructed within the additional required front yard shall not exceed eight feet in height, but must be setback a minimum of ten feet from the property line. Fences constructed within the first ten feet of the additional required front yard shall not exceed four feet in height.
- (f) Notice required. Upon the filing of an application to amend the zoning on a lot, tract of land, or property, and before second round project review comments are provided to the applicant, the owner/developer/application must send

notices by certified mail to adjacent residential property owners under the following circumstances:

- (1) Newly proposed residential development containing 4 or more buildable lots, and
- (2) Proposes to construct new fencing along shared property lines with existing residential property owners.

Notices must contain details regarding any proposed new fencing, including location, height, materials, and the applicant/developer's contact information. Such notices shall be sent using forms prepared by the town.

- (g) Exception. Town council may grant an exception for maximum fence height or fencing materials for individual lots in situations where a new subdivision perimeter fence caused compatibility concerns with an existing residential fence due to topography and/or location.

Sec. 98-1143. Perimeter and open space walls and fences.

- (a) Generally. The following standards shall apply to development not contained within the Cross Timbers Conservation Development District (CTCDD).

- (2) Fences constructed adjacent and parallel to dedicated park, trail, or open space areas shall consist of wrought-iron or tubular steel. Such fences shall be a minimum of four feet in height and shall be of consistent color throughout a development. Vertical or horizontal spacing of members of wrought-iron or tubular steel fencing shall not allow passage of a four-inch sphere. Parallel privacy screening of masonry construction, not exceeding 50 percent of the lot width, shall be allowed between the wrought-iron or tubular steel fencing and parallel foundation lines on abutting lots. Approved plantings from section 82-276, screening plant selection list, shall be placed three feet on center along the entire length of that side of the masonry screening facing the wrought-iron or tubular steel fencing. Such masonry screening shall be located a minimum distance of ten feet from the wrought-iron or tubular steel fencing. Fences of wood shall not be allowed between such perimeter fencing and parallel foundation lines on adjacent or contiguous lots.

- a. In the event a trail is located within a landscape buffer adjacent or parallel to an arterial or collector street, the subdivision perimeter fencing must comply with subsection (a), above, or otherwise required.

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SECTION 13

Article V, "Obsolete zoning regulations," of Chapter 98, "Zoning," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating section 98-1207, "Obsolete planned development standards," by replacing it in its entirety to read as follows:

"Sec. 98-1207. - Obsolete planned development standards.

- (a) Generally. For planned development districts approved before June 6, 1994, ordinance 24-94, from which this section is derived, that contained no references to the development standards of other districts for uses other than single-family detached (medium density) dwellings, the following standards shall apply to areas designated for such uses, except as otherwise provided in the planned development approval ordinance.
- (b) Minimum lot area per dwelling. The minimum lot area per dwelling unit in the PD planned development district shall be as follows, subject to section 98-1023:
 - (1) Eight thousand five hundred square feet per single-family detached dwelling unit;
 - (2) Five thousand square feet per duplex dwelling unit; and
 - (3) Two thousand eight hundred square feet per single-family attached or multifamily dwelling unit.
- (c) Minimum lot width. The minimum lot width for residential uses in the PD planned development district shall be as follows, subject to section 98-1024:
 - (1) Sixty-five feet for single-family detached dwellings;
 - (2) Sixty feet for duplex and multifamily dwellings; and
 - (3) Twenty feet for single-family attached dwellings.
- (d) Minimum floor area per unit. The minimum floor area per dwelling unit in the PD planned development district shall be as follows, subject to section 98-1025:
 - (1) One thousand four hundred fifty square feet per single-family detached dwelling unit;
 - (2) One thousand one hundred square feet per single-family attached or duplex dwelling unit; and
 - (3) Seven hundred square feet per multifamily dwelling unit.
- (e) Minimum front yard. The minimum front yard for all uses in the PD planned development district shall be as established by the approved site plan. Where the front yard is not specified on the site plan, the minimum front yard shall be 25 feet with the following exceptions, subject to section 98-1026. The minimum front yard for shopping center or retail development shall be 60 feet, except

drive-in service buildings may have a minimum 30-foot front yard and gasoline service station pump islands may not be located nearer than 18 feet to the front property line.

- (f) Minimum side yard. The minimum side yard requirements in a planned development shall be one of the following, subject to section 98-1027:
 - (1) Ten percent of the width of the lot but not less than six feet between property line and foundation line for single-family detached and multifamily dwellings.
 - (2) No side yard requirement for single-family attached dwellings, provided that no building complex shall exceed 300 feet in length and provided that a minimum side yard of five feet shall be provided at the end of building complexes to maintain a minimum ten-foot separation between buildings.
- (g) Minimum rear yard. The minimum rear yard in a PD planned development district shall be established on the site plan, which shall be made a part of the amending ordinance. In no case shall the required rear yard for the main building be less than ten feet, except as provided in section 98-1028.
- (h) Maximum lot coverage. The maximum lot coverage in the PD planned development district shall be 50 percent for all uses, subject to section 98-1029.
- (i) Maximum floor area ratio. The maximum floor area ratio in the PD planned development district shall be 1:1, provided that floor area ratios up to 2:1 may be approved in a planned development district when plans illustrating how such structures relate to the overall community are submitted to and approved by the planning and zoning commission.
- (j) Maximum height. The maximum height of buildings and structures in the PD planned development district shall be three stories or 35 feet for all uses, subject to section 98-1031."

SECTION 13

Appendix A, "Fee schedule," of the Code of Ordinances, Town of Flower Mound, Texas, is hereby amended by updating fees related to Chapter 82, "Development standards," to establish fees for the Subdivision Site Plan application, and Chapter 90, "Subdivisions," to remove the fees pertaining to "Development plans" and incorporate a lower flat fee, and by reducing other platting fees to be commensurate with staff time to read as follows:

Chapter 82. Development Standards.	
<i>Code Section Number</i>	<i>Description</i>
82-31	Site plan or Subdivision Site Plan required:
98-1101	Outdoor Lighting Waiver

(1) *Site plan fees:*

- a. All except multi-family: \$2,115.00 + \$210.00 per additional building + property owner notice fees (PON), if applicable, of \$2.50 per PON.*
- b. Multi-family: \$2,455.00 + \$105.00 per additional building + property owner notice fees, if applicable, of \$2.50 per PON.*

* There are property owner notification requirements for site plans with certain exceptions. Please contact planning services for further explanation.

(2) *Subdivision site plan fees:*

	Subdivision Site Plan type:	Fee:
(1)	Single Family Residential (1—4 lots)	\$300.00
(2)	Single Family Residential (0—50 acres)	\$1,140.00 + \$10.00/acre
(3)	Single Family Residential (50+ acres)	\$1,735.00 + \$10.00/acre over 50
(4)	Multi-Family and Non-Residential	\$1,535.00

(1) *Platting fees:*

- a. Development plans:
 1. All types: \$300.00.
- b. Record plats:

	Record plat type:	Fee:
(1)	Single Family Residential (0—50 acres)	\$300.00 + \$10.00/acre
(2)	Single Family Residential (50+ acres)	\$300.00 + \$10.00/acre over 50
(3)	Multi-Family and Non-Residential	\$300.00

c. Replats:

1. All types: \$300.00 + property owner notice (PON) fees, if applicable, of \$2.50 per PON.*

*Residential replats are subject to property owner notification requirements. Please contact planning services for further explanation.

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SECTION 14

This Ordinance shall be cumulative of all provisions of ordinances and of the Code of Ordinances, Town of Flower Mound, Texas, as amended, except where the provisions of this Ordinance are in direct conflict with the provisions of such ordinances and such code, in which event the conflicting provisions of such ordinances and such code are hereby repealed.

SECTION 15

It is hereby declared to be the intention of the Town Council that the sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable, and if any section, paragraph, sentence, clause, or phrase of this Ordinance shall be declared unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining sections, paragraphs, sentences, clauses, and phrases of this Ordinance, since the same would have been enacted by the Town Council without the incorporation in this Ordinance of any such unconstitutional section, paragraph, sentence, clause, or phrase.

SECTION 16

Any person, firm, or corporation who violates any provision of this Ordinance as adopted by the Town Council of the Town of Flower Mound shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine as provided in Section 1-13 of the Code of Ordinances, Town of Flower Mound, Texas. Each day any such violation or violations exist shall constitute a separate offense and shall be punishable as such.

SECTION 17

All rights and remedies of the Town are expressly saved as to any and all violations of the provisions of the Code of Ordinances, Town of Flower Mound, Texas, as amended or revised herein, or any other ordinances affecting the matters regulated herein that have accrued at the time of the effective date of this Ordinance; and, as to such accrued violations and all pending litigation, both civil and criminal, whether pending in court or not, under such ordinances, same shall not be affected by this Ordinance, but may be prosecuted until final disposition by the courts.

SECTION 18

The Town Secretary of the Town is hereby directed to publish the caption in the official newspaper of the Town as required by Section 3.07 of the Charter of the Town.

SECTION 19

This Ordinance shall be in full force and effect from and after the date of its passage and publication, and it is so ordained.

DULY PASSED AND APPROVED BY THE TOWN COUNCIL OF THE TOWN OF FLOWER MOUND, TEXAS, BY A VOTE OF ____ TO ____, ON THIS THE 1st DAY OF APRIL, 2024.

APPROVED:

Derek France, **MAYOR**

ATTEST:

Theresa Scott, **TOWN SECRETARY**