Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with 30 TAC 213.

Administrative Review

1. Edwards Aquifer applications must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

   To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: http://www.tceq.texas.gov/field/eapp.

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.

3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.

4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

   An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.

6. If the geologic assessment was completed before October 1, 2004 and the site contains “possibly sensitive” features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.

2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.

3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.

4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: Berry Creek Business Park						**2. Regulated Entity No.:** RN11631917			
3. Customer Name: Fidelis Industrial Partners, LLC						**4. Customer No.:** CN603064521			
5. Project Type: **(Please circle/check one)**	New		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential			**8. Site (acres):**			.77
9. Application Fee:	$653.50		**10. Permanent BMP(s):**			N/A			
11. SCS (Linear Ft.):	1,307		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson County		**14. Watershed:**			Berry Creek			

Application Distribution

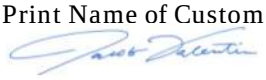
Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the EAPP Boundaries" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	__	__	X
Region (1 req.)	__	__	X
County(ies)	__	__	X
Groundwater Conservation District(s)	__Edwards Aquifer Authority __Barton Springs/ Edwards Aquifer __Hays Trinity __Plum Creek	__Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	__Austin __Buda __Dripping Springs __Kyle __Mountain City __San Marcos __Wimberley __Woodcreek	__Austin __Bee Cave __Pflugerville __Rollingwood __Round Rock __Sunset Valley __West Lake Hills	__Austin __Cedar Park __Florence X Georgetown __Jerrell __Leander __Liberty Hill __Pflugerville __Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	__	__	__	__	__
Region (1 req.)	__	__	__	__	__
County(ies)	__	__	__	__	__
Groundwater Conservation District(s)	__ Edwards Aquifer Authority __Trinity-Glen Rose	__Edwards Aquifer Authority	__Kinney	__EAA __Medina	__EAA __Uvalde
City(ies) Jurisdiction	__Castle Hills __Fair Oaks Ranch __Helotes __Hill Country Village __Hollywood Park __San Antonio (SAWS) __Shavano Park	__Bulverde __Fair Oaks Ranch __Garden Ridge __New Braunfels __Schertz	NA	__San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. Jacob Valentien, P.E.
Print Name of Customer/Authorized Agent  06/01/2026
Signature of Customer/Authorized Agent Date

FOR TCEQ INTERNAL USE ONLY				
Date(s)Reviewed:		Date Administratively Complete:		
Received From:		Correct Number of Copies:		
Received By:		Distribution Date:		
EAPP File Number:		Complex:		
Admin. Review(s) (No.):		No. AR Rounds:		
Delinquent Fees (Y/N):		Review Time Spent:		
Lat./Long. Verified:		SOS Customer Verification:		
Agent Authorization Complete/Notarized (Y/N):		Fee Check:	Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):			Signed (Y/N):	
Core Data Form Incomplete Nos.:			Less than 90 days old (Y/N):	

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: Jacob Valentien, P.E.

Date: 05/29/2026

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: Berry Creek Business Park
2. County: Williamson
3. Stream Basin: Berry Creek
4. Groundwater Conservation District (If applicable): n/a
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

   ☐ WPAP
   ☒ SCS
   ☒ Modification
   ☐ AST
   ☐ UST
   ☐ Exception Request

7. Customer (Applicant):

   Contact Person: Kevin O'Neil
   Entity: Fidelis Industrial Partner, LLC
   Mailing Address: 8140 Walnut Hill Lane 400
   City, State: Dallas, Texas Zip: 75231
   Telephone: (512) 554-6191 FAX: n/a
   Email Address: koneil@frpltd.com

8. Agent/Representative (If any):

   Contact Person: Jacob Valentien, P.E.
   Entity: Westwood Professional Services
   Mailing Address: 8701 N. Mopac Expw, Ste. 320
   City, State: Austin, Texas Zip: 78759
   Telephone: (512) 485-0831 FAX: n/a
   Email Address: jacob.valentien@westwoodps.com

9. Project Location:

   ☒ The project site is located inside the city limits of Georgetown.
   ☐ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.
   ☐ The project site is not located within any city's limits or ETJ.

10. ☒ The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

    The project starts at the intersection of Crystal Knoll Blvd and County Road 152 and extends to the intersection of Stadium Drive and County Road 152.

11. ☒ **Attachment A – Road Map**. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.

12. ☒ **Attachment B - USGS / Edwards Recharge Zone Map**. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:

    ☒ Project site boundaries.
    ☒ USGS Quadrangle Name(s).
    ☒ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
    ☐ Drainage path from the project site to the boundary of the Recharge Zone.

13. ☒ **The TCEQ must be able to inspect the project site or the application will be returned**. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

☒ Survey staking will be completed by this date: 05/27/2026

14. ☒ **Attachment C – Project Description**. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:

☒ Area of the site
☒ Offsite areas
☒ Impervious cover
☐ Permanent BMP(s)
☒ Proposed site use
☒ Site history
☒ Previous development
☒ Area(s) to be demolished

15. Existing project site conditions are noted below:

☐ Existing commercial site
☒ Existing industrial site
☒ Existing residential site
☒ Existing paved and/or unpaved roads
☐ Undeveloped (Cleared)
☐ Undeveloped (Undisturbed/Uncleared)
☐ Other: _____

Prohibited Activities

16. ☒ I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);

(2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;

(3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;

(4) The use of sewage holding tanks as parts of organized collection systems; and

(5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).

(6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

17. ☐ I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);

(2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

(3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

18. The fee for the plan(s) is based on:

- ☐ For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
- ☒ For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
- ☐ For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
- ☐ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
- ☐ A request for an extension to a previously approved plan.

19. ☒ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

- ☐ TCEQ cashier
- ☒ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
- ☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

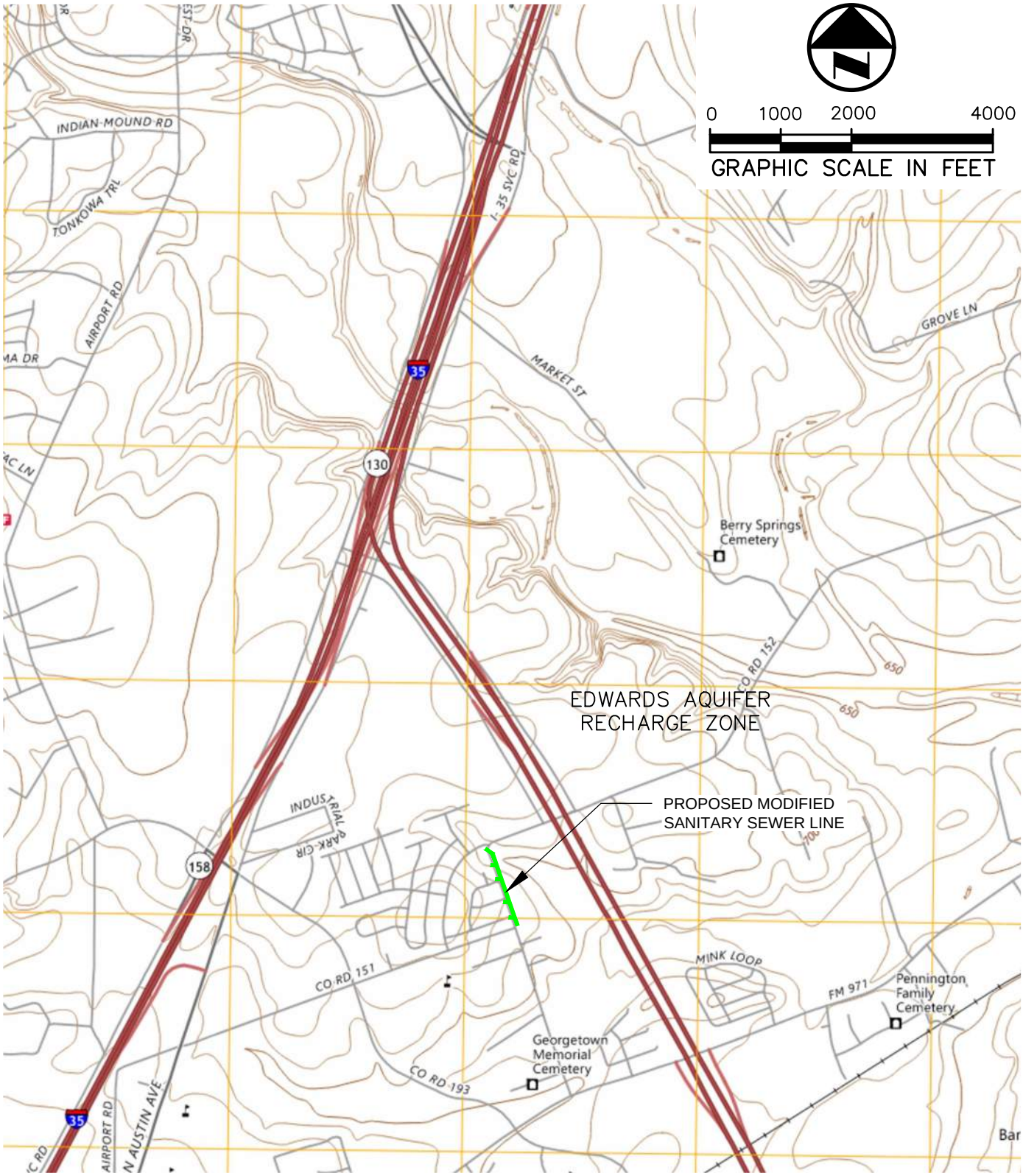
20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

21. ☒ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

Attachment A – Road Map



Attachment B – USGS / Edwards Recharge Zone Map



ATTACHMENT "B"

USGS/EDWARDS RECHARGE ZONE MAP

GEORGETOWN QUADRANGLE
TEXAS - WILLIAMSON COUNTY
7.5-MINUTE TOPO

Westwood
Phone (512) 485-0831 8701 N. Mopac Expy, Suite 320
Toll Free (888) 937-5150 Austin, TX 78759
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301
westwoodps.com

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER
TCG	TCG	1"=2000'	05/13/2026	0039532.04

BERRY CREEK BUSINESS PARK - WW EXTENSION

TGLASPER 5/12/2026 2:13 PM
\\WESTWOODPS.LOCAL\GLOBAL PROJECTS\0039532.04\10 SUBMITTAL\2026-03-20 SCS MOD SUBMITTAL\GENERAL INFORMATION FORM\QUAD MAP.DWG

Attachment C – Project Description

The previously approved project included the construction of a privately owned sanitary sewer lift station, privately owned force main, and the upsizing of a portion of the existing City of Georgetown (COG) gravity wastewater network, all of which have since been constructed. The existing site consists of light paving, gravel, and Class D soils. According to FEMA Maps 48491C0285F and 48491C0292F, both dated December 20, 2019, the subject site is not located within a regulatory floodplain. The lift station is located at 3000, 3002, and 3004 N IH-35 NB, Georgetown, TX 78626. Geotechnical exploration indicates a surface layer of lean and fat clays underlain by limestone bedrock.

A portion of the upsized gravity wastewater line was installed using pipe bursting methods, while the remaining portion was installed via open-cut construction. Sags were identified within the pipe-burst segment of the wastewater line, which prompted the need for this proposed modification.

The proposed project modification includes the construction of an 18-inch COG gravity wastewater main to accommodate the additional demand generated by the Berry Creek Business Park. The proposed work will be completed using open-cut construction methods. No changes to existing grades or additional impervious cover are proposed as part of this modification. Approximately 1,307 linear feet of sewer line will be installed under this project modification. The proposed pipe material is PVC SDR-26.

The proposed modification also includes the installation of four 6-inch PVC SDR-26 lines connecting to the existing manholes. All pipe previously installed via pipe bursting will be filled and abandoned in place.

Additionally, the plans include the removal and replacement of residential mailboxes located along the proposed alignment.

Geologic Assessment Form

Attachment A – Geologic Assessment Table
Attachment B – Stratigraphic Column
Attachment C – Site Geology & Photographic Log
Attachment D – Site Maps
Attachment E – Physical Setting Report

BRAUN INTERTEC

The Science You Build On.



Westwood Professional Services, Inc.

Geologic Assessment - Fidelis Industrial - Wastewater Extension
IH-35 and State Highway 130, Georgetown, Texas

Braun Intertec Corporation
2105 Donley Dr, Suite 400
Austin, Texas

October 2023

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Melissa Wann, P.G.

Telephone: 512-790-7181

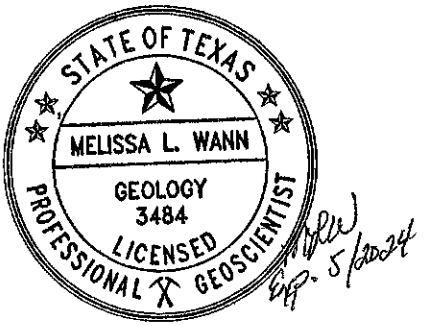
Fax: 512-493-9693

Date: 10/2/2023

Representing: Braun Intertec Corporation, TBPG Registration No. 50151 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:

Melissa Wann



Regulated Entity Name: Westwood

Project Information

1. Date(s) Geologic Assessment was performed: 9/13/2023
2. Type of Project:
   - ☐ WPAP
   - ☒ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
KrA - Krum silty clay	C	6
KrB - Krum silty clay	C	6
DnB - Denton silty clay	D	3
EaD - Eckrant cobbly clay	D	1
AwD3 - Austin-Whitewright complex	D	2
QuC - Queeny clay loam	D	2
HoB - Houston Black clay (1%-3% slope)	D	5
HoC2 - Houston Black Clay (3%-5% slope)	D	5
HedC2 - Heiden Clay	D	4
BkrG - Brackett-Rock outcrop	D	2

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

6. ☒ **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☒ **Attachment C – Site Geology**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☒ **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

   Applicant's Site Plan Scale: 1" = 400'
   Site Geologic Map Scale: 1" = 400'
   Site Soils Map Scale (if more than 1 soil type): 1" = 400'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.

11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.

12. ☐ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☒ Geologic or manmade features were not discovered on the project site during the field investigation.

13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate.

14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☐ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    ☐ The wells are not in use and have been properly abandoned.
    ☐ The wells are not in use and will be properly abandoned.
    ☐ The wells are in use and comply with 16 TAC Chapter 76.
    ☒ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

LIST OF ATTACHMENTS

Attachment A	Geologic Assessment Table
Attachment B	Stratigraphic Column
Attachment C	Site Geology & Photographic Log
Attachment D	Site Maps
Attachment E	Physical Setting Report

Attachment A

Geologic Assessment Table

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: Interstate 35 and State Highway 130, Georgetown, Texas

LOCATION			FEATURE CHARACTERISTICS											EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	≥40	<1.6	≥1.6	
N/A - No features identified																				

* DATUM: WGS 84

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials - Water well was completed using 60 feet of 6-inch diameter plastic pipe, grouted to a depth of 18 feet.

12 TOPOGRAPHY

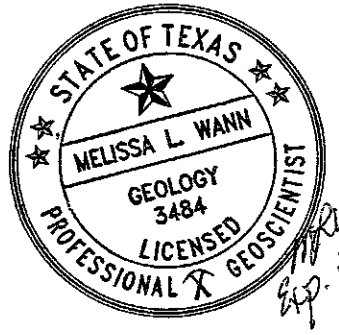
I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.
My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date 9/25/2023

Melissa Wann

Melissa Wann, P.G.

Sheet 1 of 1
(Attachment)



Exp. 5/2024

TCEQ-0585-Table (Rev. 10-01-04)

Geologic Assessment Table - Attachment 1
GPS Requirements

DATUM: WGS 84
METHOD: GPS Unit - Garmin eTrex 30x
DATE: 9/13/2023
USER: Melissa Wann

Attachment B

Stratigraphic Column

SYSTEM	GROUP	FORMATION or MEMBER	APPROX. THICKNESS (ft)
QUATERNARY	N/A	Quaternary Deposits, undivided (Qu)	Up to 20 ft
LOWER CRETACEOUS	WASHITA	Georgetown Formation (Kgt)	30 to 80 ft
	FREDRICKSBURG	Edwards and Commanche Peak Limestones, undivided (Kec)	60 to 350 ft

Attachment B
Stratigraphic Column
Interstate 35 and State Highway 130
Georgetown, Texas

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The Science You Build On.

9/15/2023	Braun Project No.: B2308224	Drawn by: SL	Checked by: WW	Revised by:

Attachment C

Site Geology & Photographic Log

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ATTACHMENT C - SITE GEOLOGY

The Site is an approximately 1.6-mile corridor for a wastewater line located partially east and south of the intersection of State Highway 130 and Interstate 35 in Georgetown, Williamson County, Texas (Site). The central portion of the corridor was the eastern boundary of an 85-acre property for which a geologic assessment was conducted in 2021. The Site consists of vacant, overgrown abandoned agricultural land and commercial lots in the northern and central portions of the Site while the southern portion of the Site consists of residential properties. The Site is sparsely vegetated with the exception of areas across the central portion and northern portion of the Site.

Located in central Williamson County, the Site is on the western edge and uplifted portion of the Balcones Fault Zone. The Balcones Fault Zone divides two distinct physiographic provinces: the structurally uplifted Hill Country of the Edwards Plateau to the west and the Blackland Prairie of the Gulf Coast Plain to the east. The uplifted portion of the Balcones Fault Zone contains generally flat-lying beds with normal faulting. The Site is located in the Edwards Aquifer Recharge Zone. Based on a review of the Bureau of Economic Geology (BEG) Geologic Atlas of Texas, Austin Sheet (1974), the nearest mapped fault is located approximately 1 mile west of the Site.

Site topography slopes to the northwest with elevation ranging from approximately 850 to 930 feet above mean sea level (AMSL). Numerous drainage features were observed throughout the Site including Pecan Branch which crosses the southern portion of the corridor. Surface water runoff appears to occur as overland flow with general drainage towards the southeast.

Based on a review of the Bureau of Economic Geology (BEG) Geologic Atlas of Texas, Austin Sheet (1974), Quaternary Deposits (Qu) underlay the majority of the Site, which are underlain by the Georgetown Formation (Kgt). The Quaternary Deposits are comprised of sand, silt, clay, and gravel and locally indurated with calcium carbonate (caliche). The Georgetown Formation in this area consists of fine-grained, nodular limestone (mostly) and marl. Edwards and Comanche Peak Limestones (undivided, Kec) underlay the Georgetown Formation. These formations outcrop throughout the region to the west of the Site. The Edwards Limestone formation is comprised of limestone, dolostone, and chert that is fine-grained, massive- to thin-bedded, hard, and brittle. The Comanche Peak Limestone formation is comprised of limestone that is fine to very fine grained, fairly hard, and nodular.

A field survey of the Site was conducted by Wesmond Williams on September 13, 2023. The field survey included on-foot reconnaissance of the property using approximately 30-foot or smaller transects, with particular interest in undisturbed areas where rock outcrops might be observed and disturbed areas where bedrock may have been exposed or there may be a discreet recharge path. As previously stated, the Site is sparsely vegetated with the exception of areas across the central and northern portions of the Site. Soil desiccation cracks were seen throughout the Site with some soil holes in the northern portion of the Site. Bedrock was not observed in these soil features. Additionally, there were numerous drainage features observed throughout the Site. Sewer manholes were observed throughout the central and south portions of the Site, but it did not appear that they were constructed in bedrock and were therefore not considered features. In a previous 2021 Geologic Assessment conducted on the central portion of the Site, two wells were observed on the Site. However, in this assessment evidence of the wells was not observed during the reconnaissance. In addition, in the well report included in the Physical Setting Report (**Attachment E)**, numerous wells were shown to be on the northern and central portion of the Site. However, no evidence of these wells was observed during the reconnaissance.

No other evidence of karst features, sinkholes, solution cavities, faults or other potential recharge features was observed during the field survey. No other manmade features, natural features, or documented sensitive features were observed in the area during the field survey.



Photo 1: View of Site at northernmost portion of corridor, viewed facing east.



Photo 2: View of northern portion of corridor, north of the IH-35 and State Highway 130 intersection.

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Attachment C
Photographic Log
IH-35 and State Highway 130
Georgetown, Texas

09/13/2023	Geologic Assessment	Project No. B2308224



Photo 3: View of corridor at the IH-35 and State Highway 130 intersection, viewed facing southwest.



Photo 4: View of northern portion of corridor at intersection along State Highway 130, viewed facing northwest.



Photo 5: View of northwestern portion of Site, viewed facing southwest.



Photo 6: View of central portion of Site, viewed facing south.



Photo 7: View of western portion of Site and area of a previously observed well.



Photo 8: View of central portion of Site, viewed facing northeast.



Photo 9: View of common soil desiccation cracks found throughout the Site.



Photo 10: View of central portion of Site, viewed facing west.



Photo 11: View of central portion of corridor, viewed facing south.



Photo 12: Typical view of southern portion of corridor in residential area, viewed facing south.



Photo 13: View of Pecan Branch at southernmost portion of corridor, viewed facing east.



Photo 14: Soil hole observed near the northern portion of corridor. No exposed bedrock was observed.

Attachment D

Site Maps

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BRAUN INTERTEC
The Science You Build On.

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The Science You Build On.

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'R&	'RVV VLOW\ FOD\ PRLVW WR
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Attachment E

Physical Setting Report

BRAUN INTERTEC

PSR
PHYSICAL SETTING REPORT

Property Information

Order Number:		23090600532p
Date Completed:		September 7, 2023
Project Number:		B2308224
Project Property:		Berry Creek WW Extension Corridor Berry Creek Georgetown TX
Coordinates:		
	Latitude:	30.68005906
	Longitude:	-97.65420294
	UTM Northing:	3394856.28359 Meters
	UTM Easting:	628827.602072 Meters
	UTM Zone:	UTM Zone 14R
	Elevation:	731.13 ft
	Slope Direction:	ENE

Topographic Information....2
Hydrologic Information....12
Geologic Information....21
Soil Information....25
Pipeline and Survey Map....45
Wells and Additional Sources....51
Summary....67
Detail Report....73
Radon Information....169
Appendix....170
Liability Notice....173

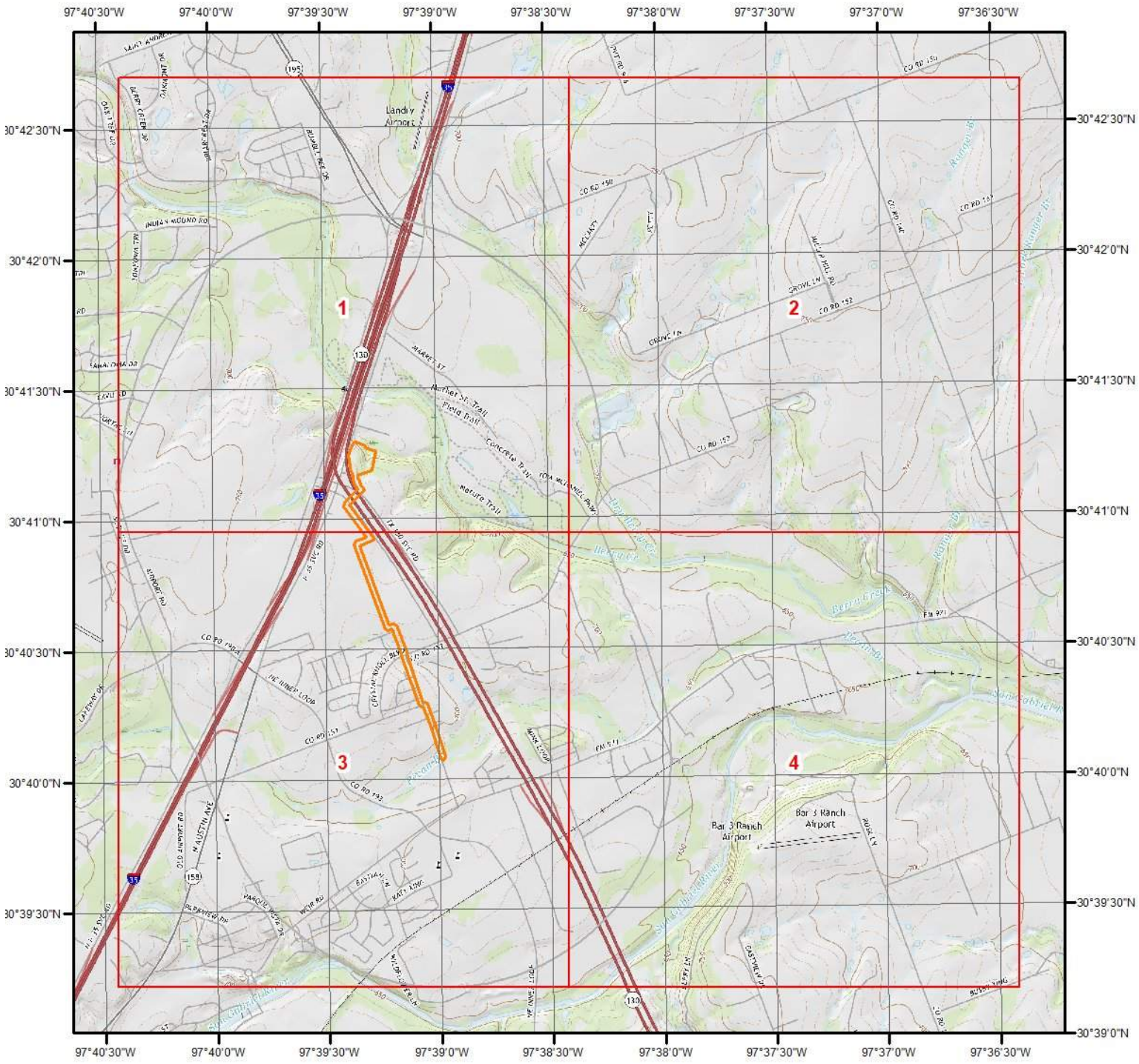
The ERIS ***Physical Setting Report - PSR*** provides comprehensive information about the physical setting around a site and includes a complete overview of topography and surface topology, in addition to hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, public water systems and radon are also included for review.

The compilation of both physical characteristics of a site and additional attribute data is useful in assessing the impact of migration of contaminants and subsequent impact on soils and groundwater.

Disclaimer

This Report does not provide a full environmental evaluation for the site or adjacent properties. Please see the terms and disclaimer at the end of the Report for greater detail.

Topographic Information

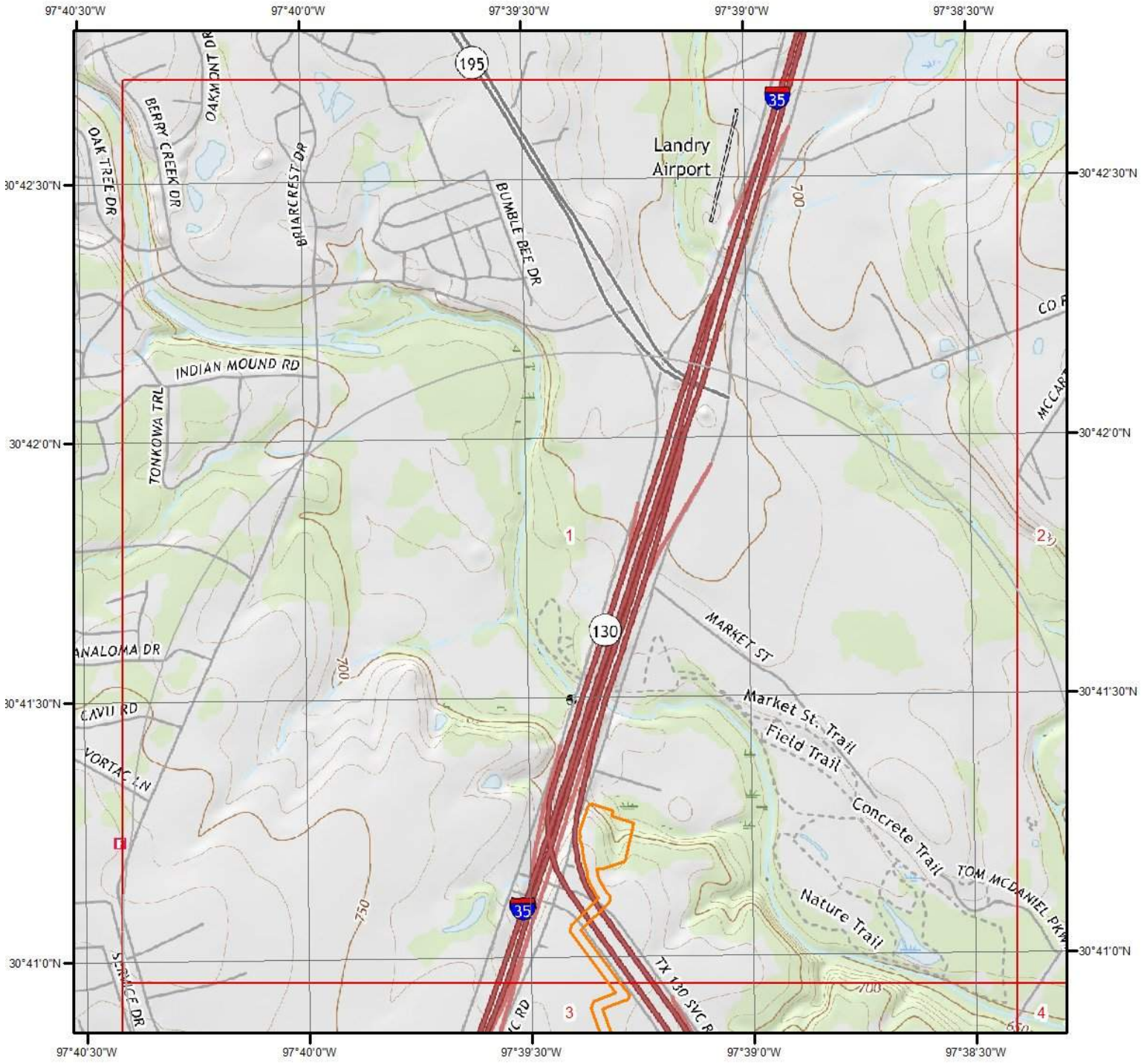


Current USGS Topo (2019)

Quadrangle(s): Cobbs Cavern,TX; Round Rock,TX; Georgetown,TX; Jarrell,TX; Hutto,TX; Weir,TX

Source: USGS 7.5 Minute Topographic Map

Topographic Information



Current USGS Topo - Page 1

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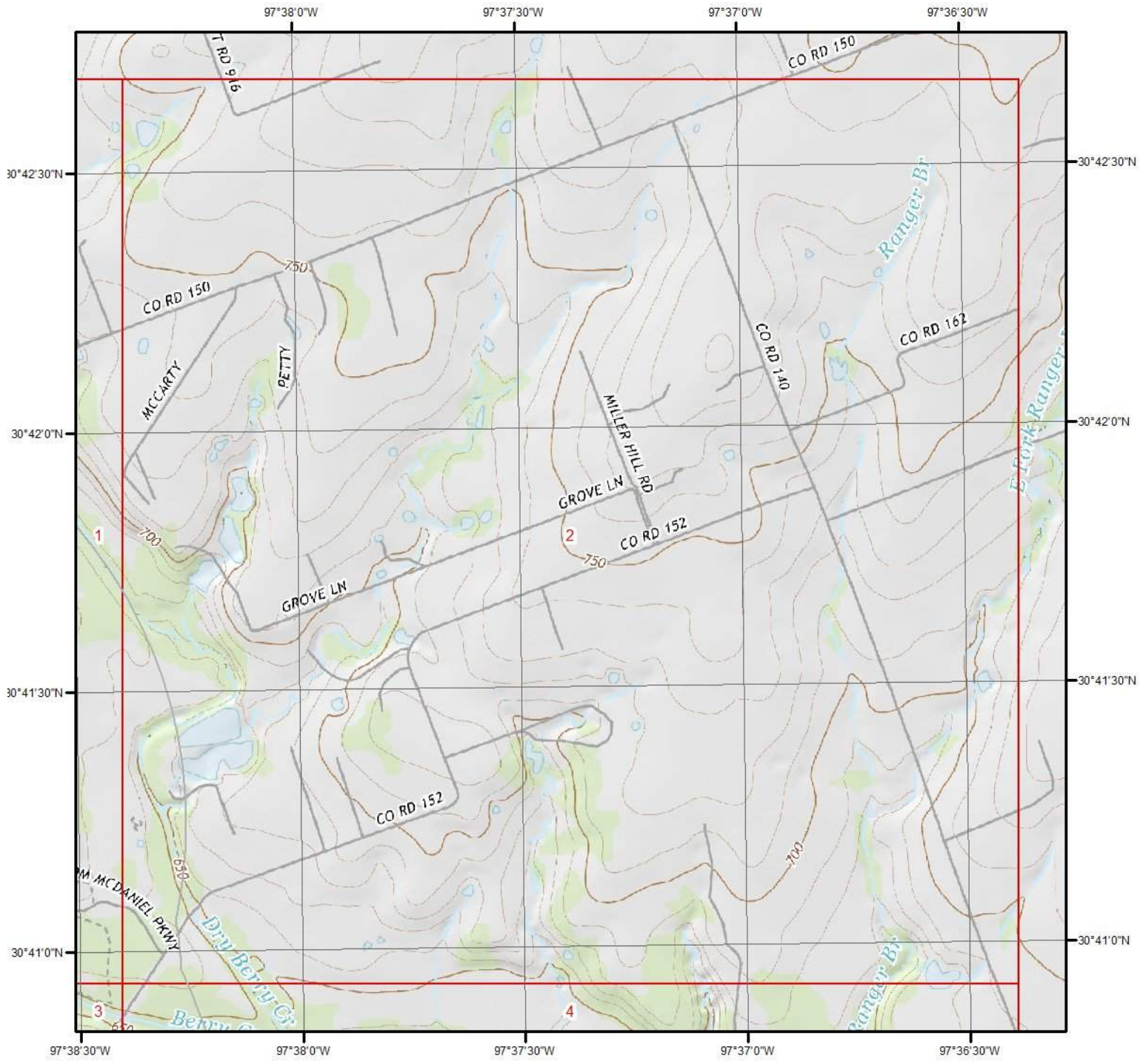
Quadrangle(s): Georgetown,TX

Source: USGS 7.5 Minute Topographic Map

Topographic Information



Current USGS Topo - Page 2

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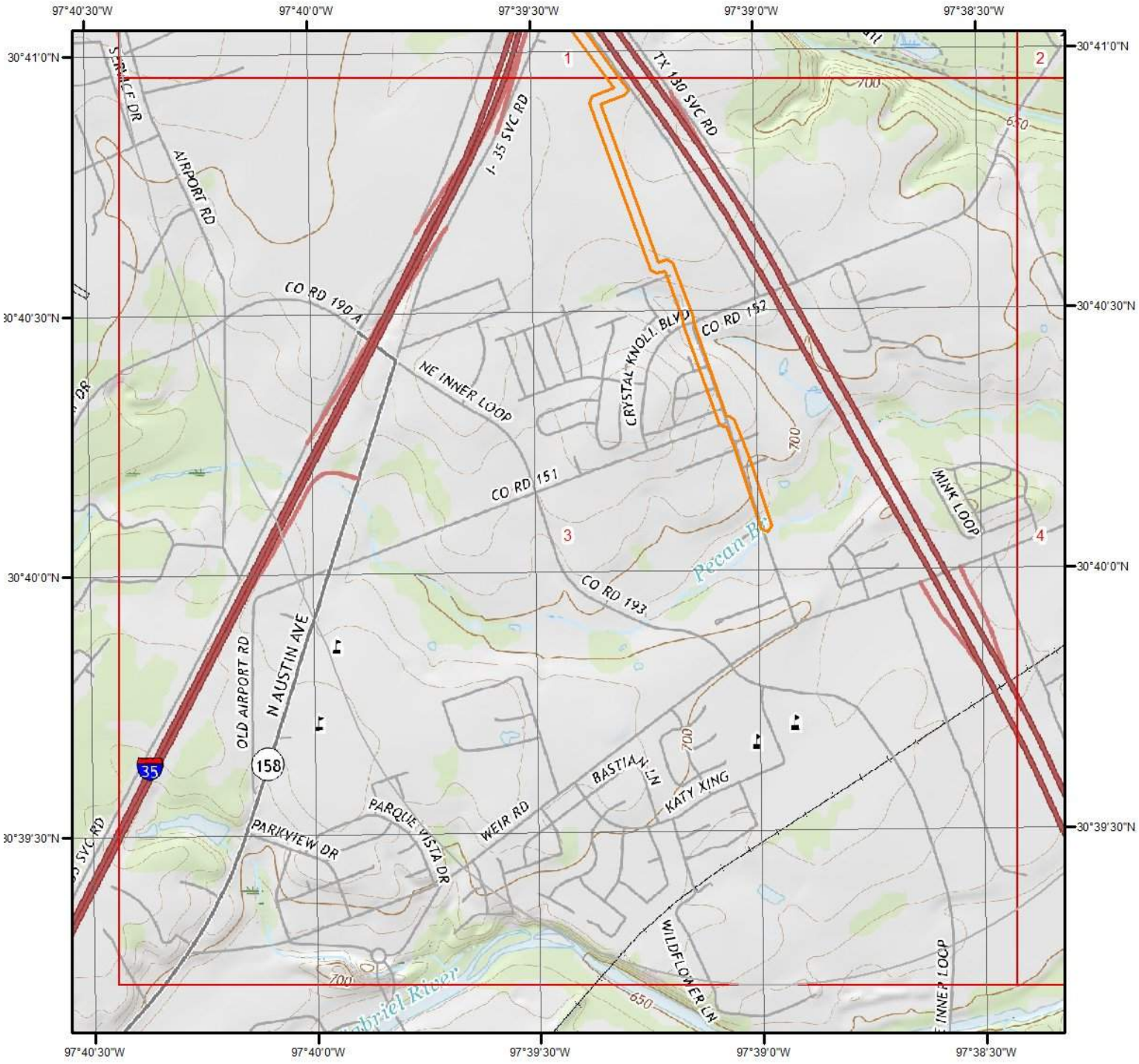
Quadrangle(s): Georgetown,TX; Weir,TX

Source: USGS 7.5 Minute Topographic Map

Topographic Information



Current USGS Topo - Page 3

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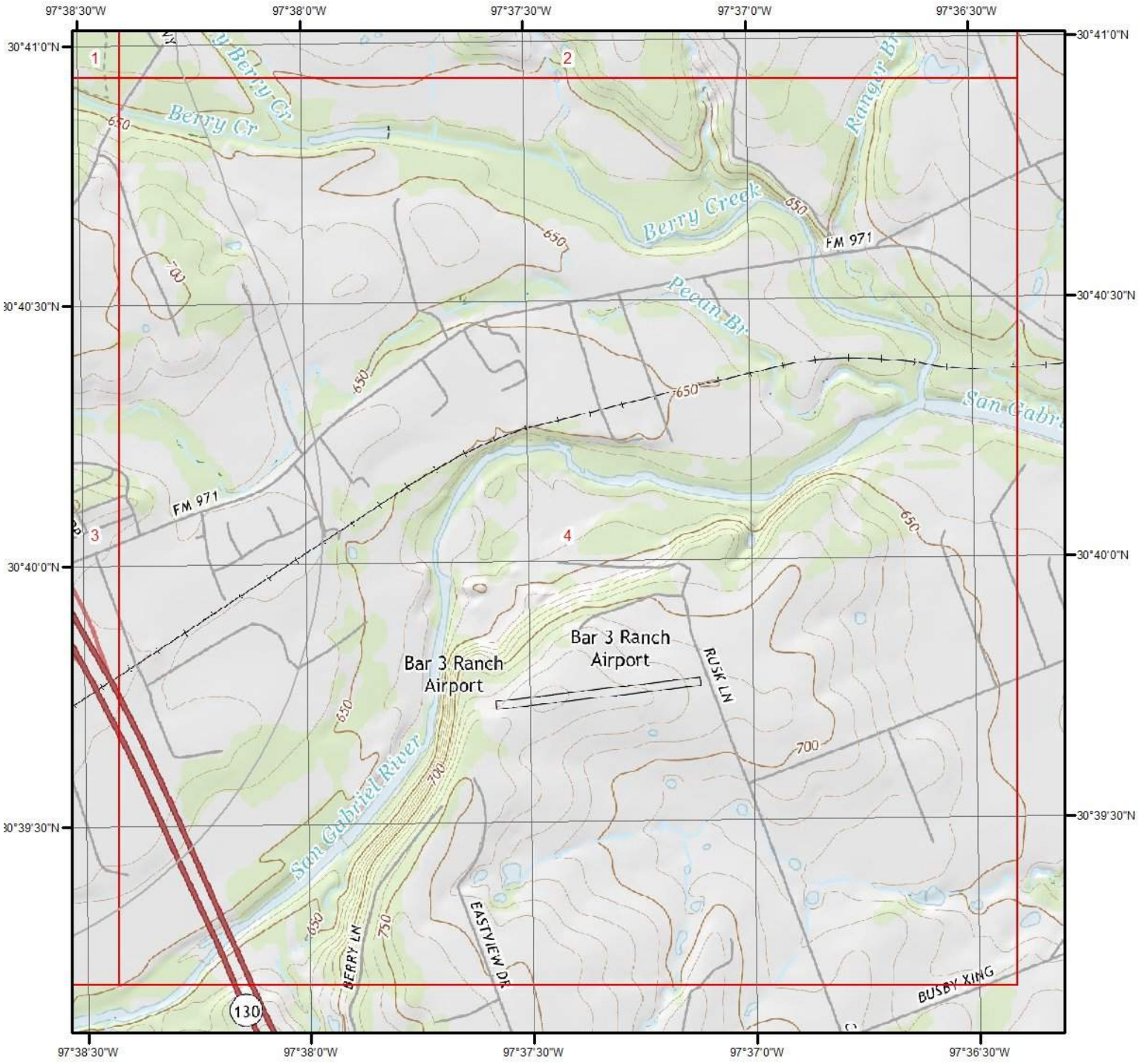
Quadrangle(s): Georgetown,TX

Source: USGS 7.5 Minute Topographic Map

Topographic Information



Current USGS Topo - Page 4

0 0.2 0.4 0.8 Miles

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Quadrangle(s): Georgetown,TX; Weir,TX

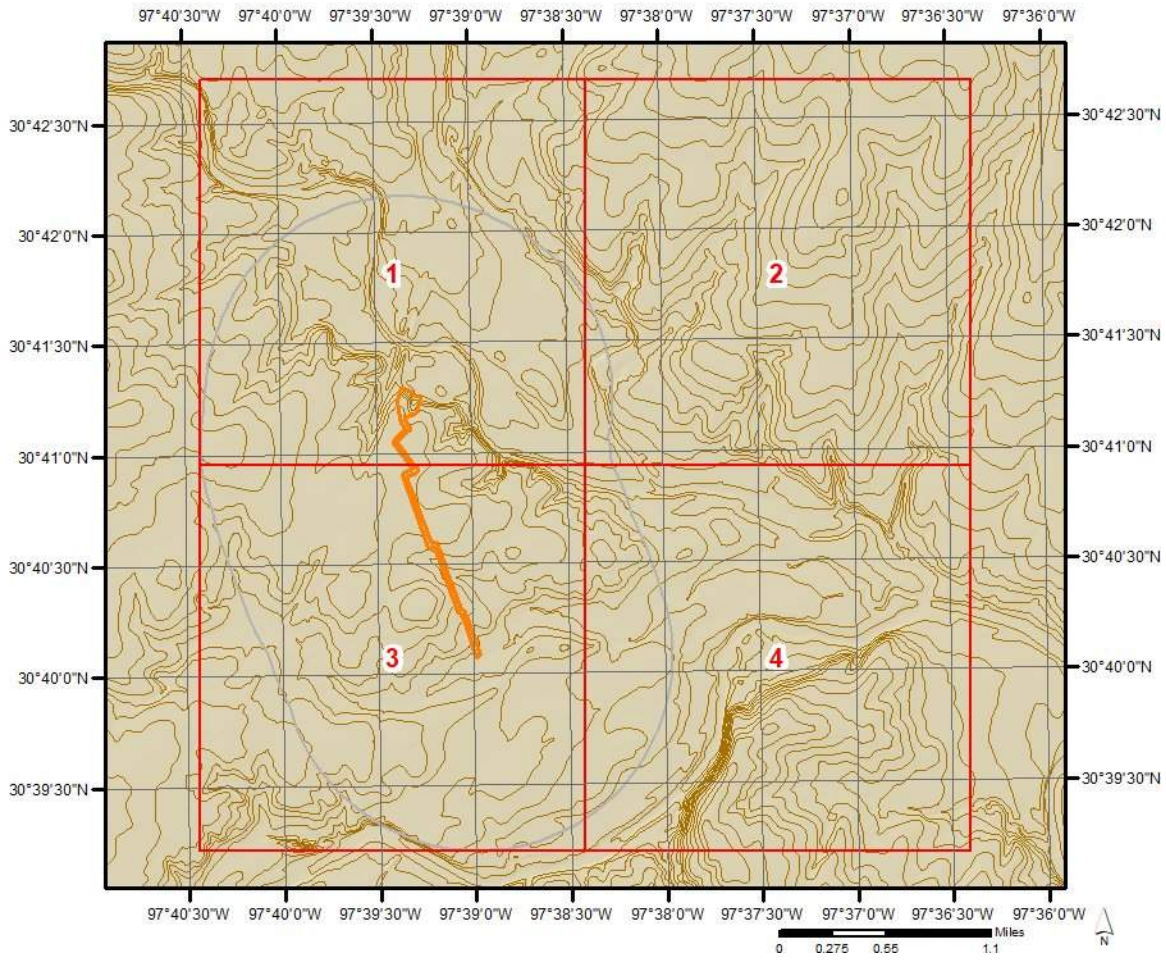
Source: USGS 7.5 Minute Topographic Map

Topographic Information

The previous topographic map(s) are created by seamlessly merging and cutting current USGS topographic data. Below are shaded relief map(s), derived from USGS elevation data to show surrounding topography in further detail.

Topographic information at project property:

Elevation:	731.13 ft
Slope Direction:	ENE



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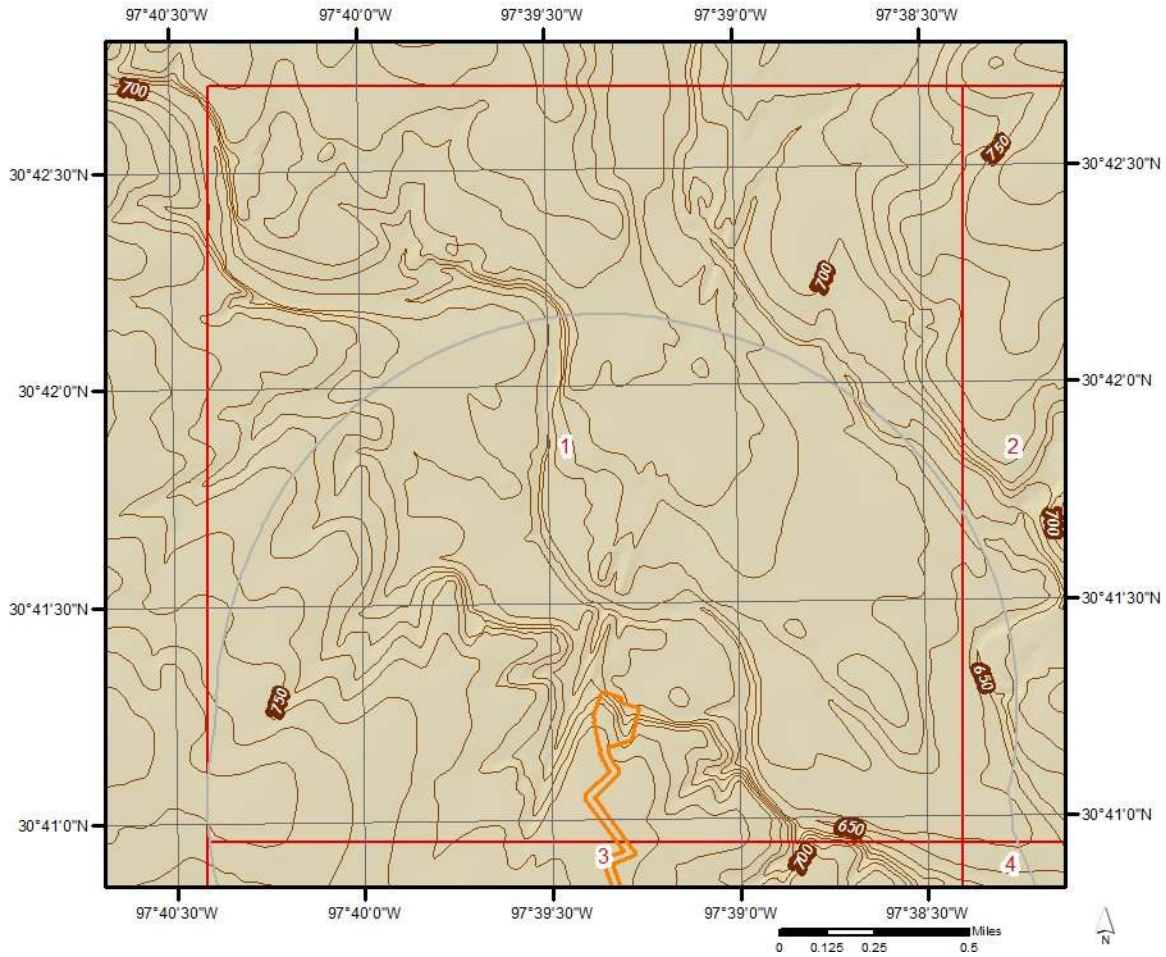

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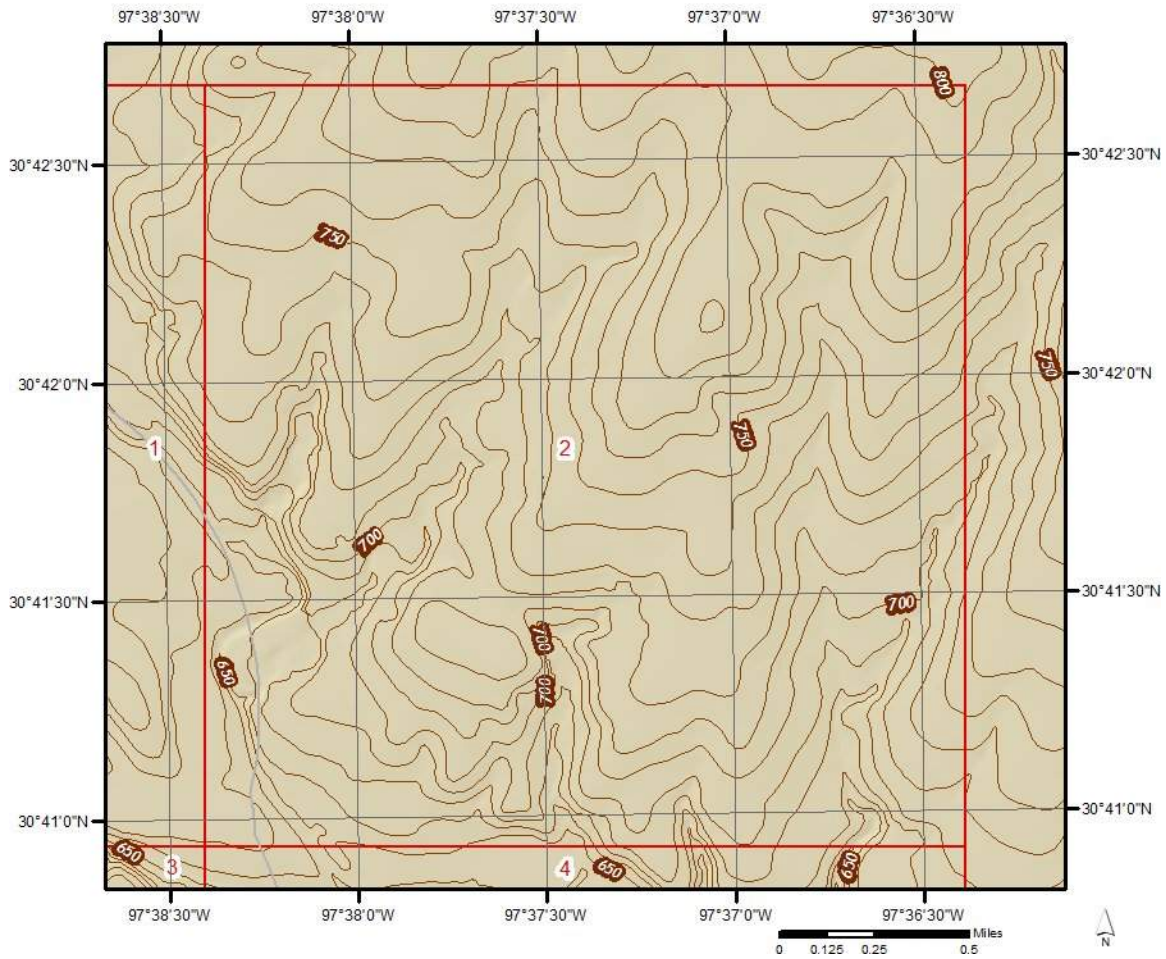

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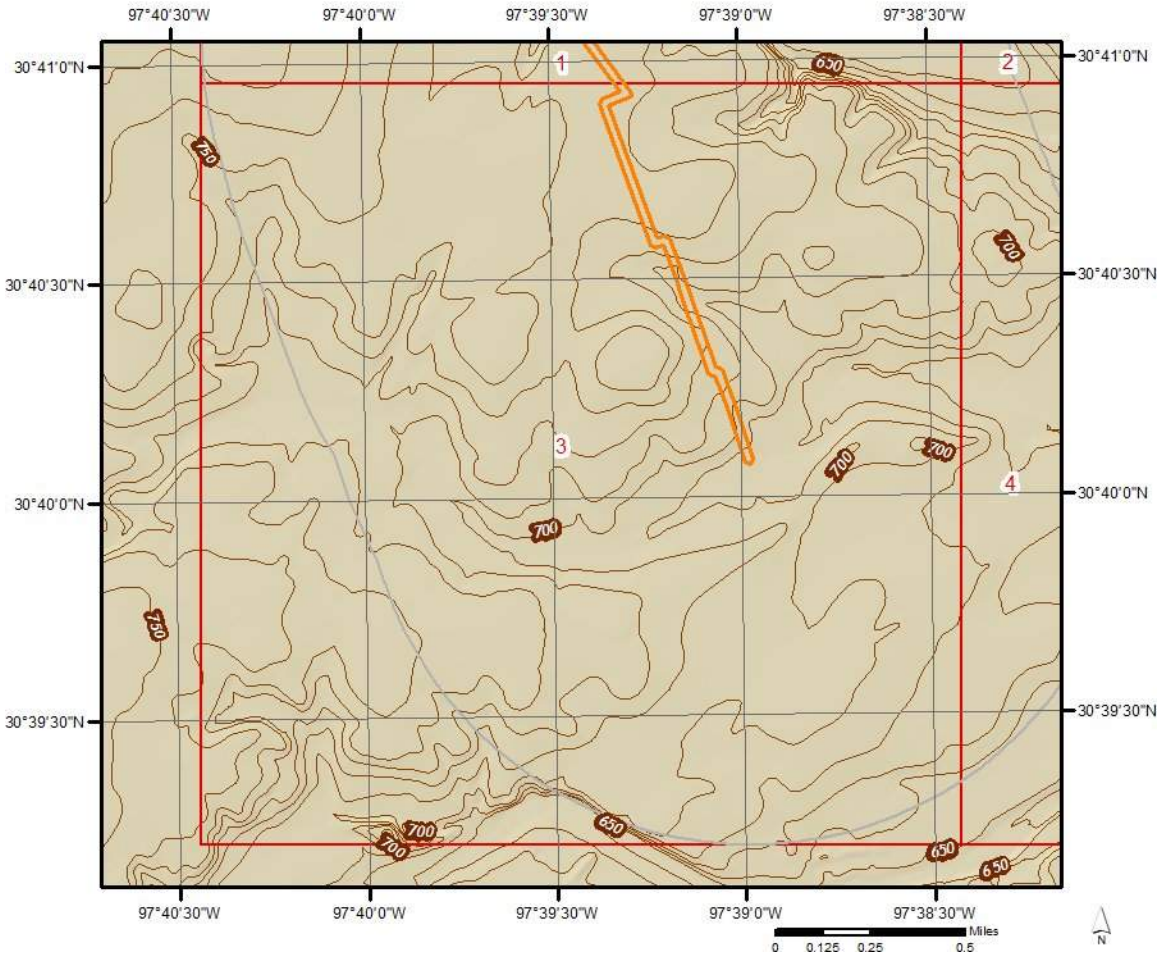

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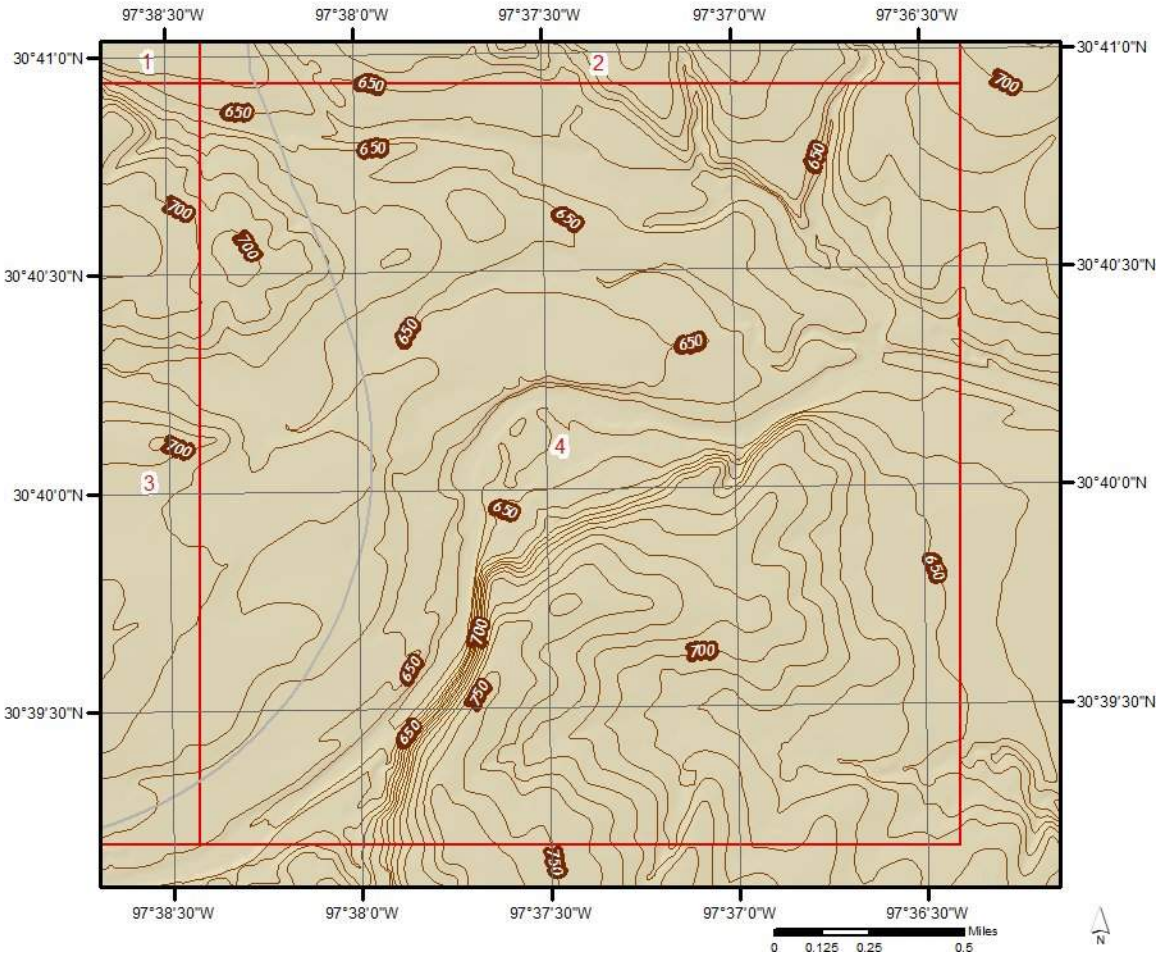
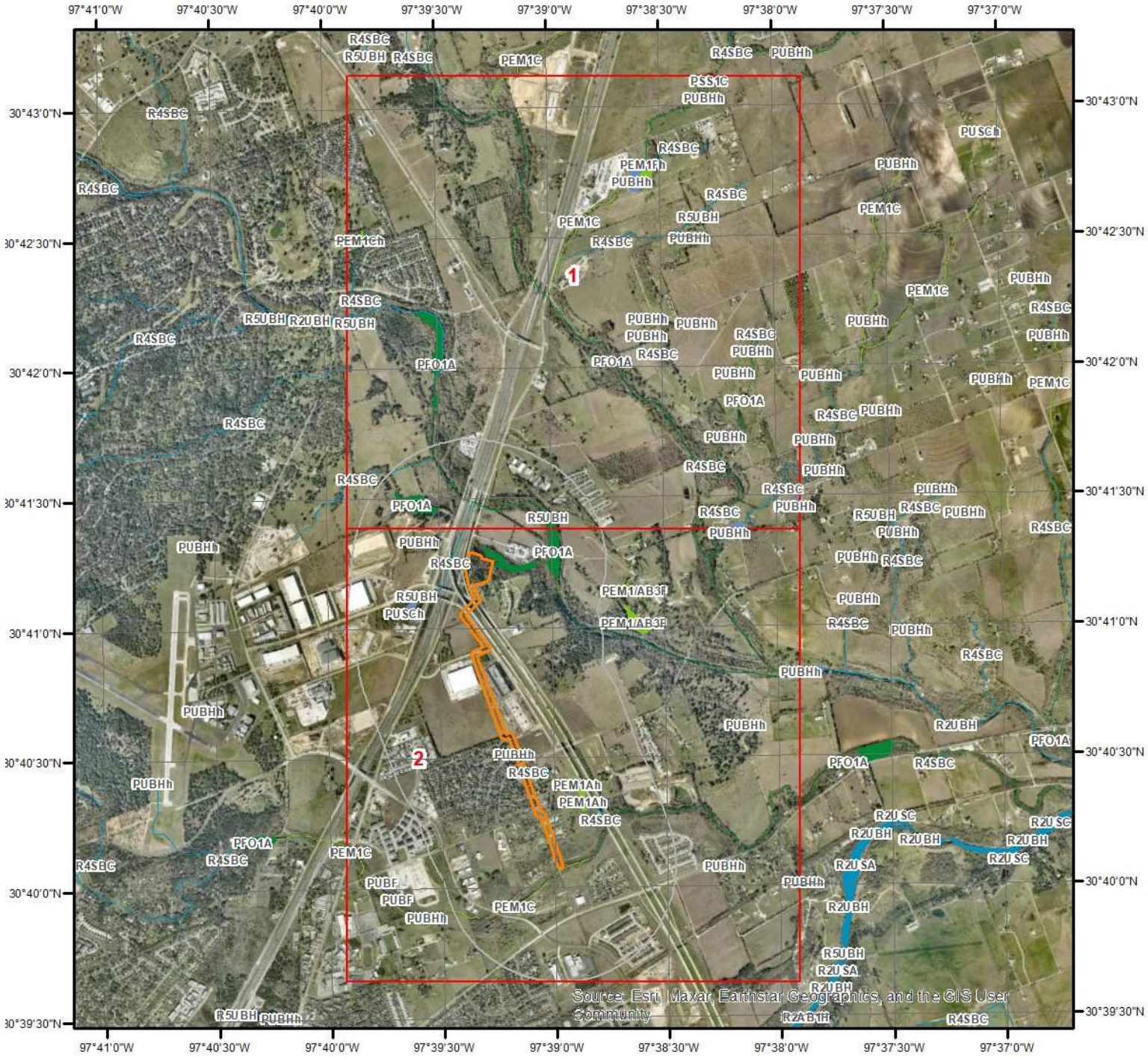


Hydrologic Information



Wetland

0 0.275 0.55 1.1 Miles

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This map shows wetland existence using data from US Fish & Wildlife.
Data coverage is shown to the right. Gray indicates no data available in the area.

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

ERIS

Hydrologic Information



Wetland Type - Page 1

Miles
0 0.125 0.25 0.5

N

This map shows wetland existence using data from US Fish & Wildlife.
Data coverage is shown to the right. Gray indicates no data available in the area.

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

ERIS

Hydrologic Information



Wetland Type - Page 2

0 0.125 0.25 0.5 Miles

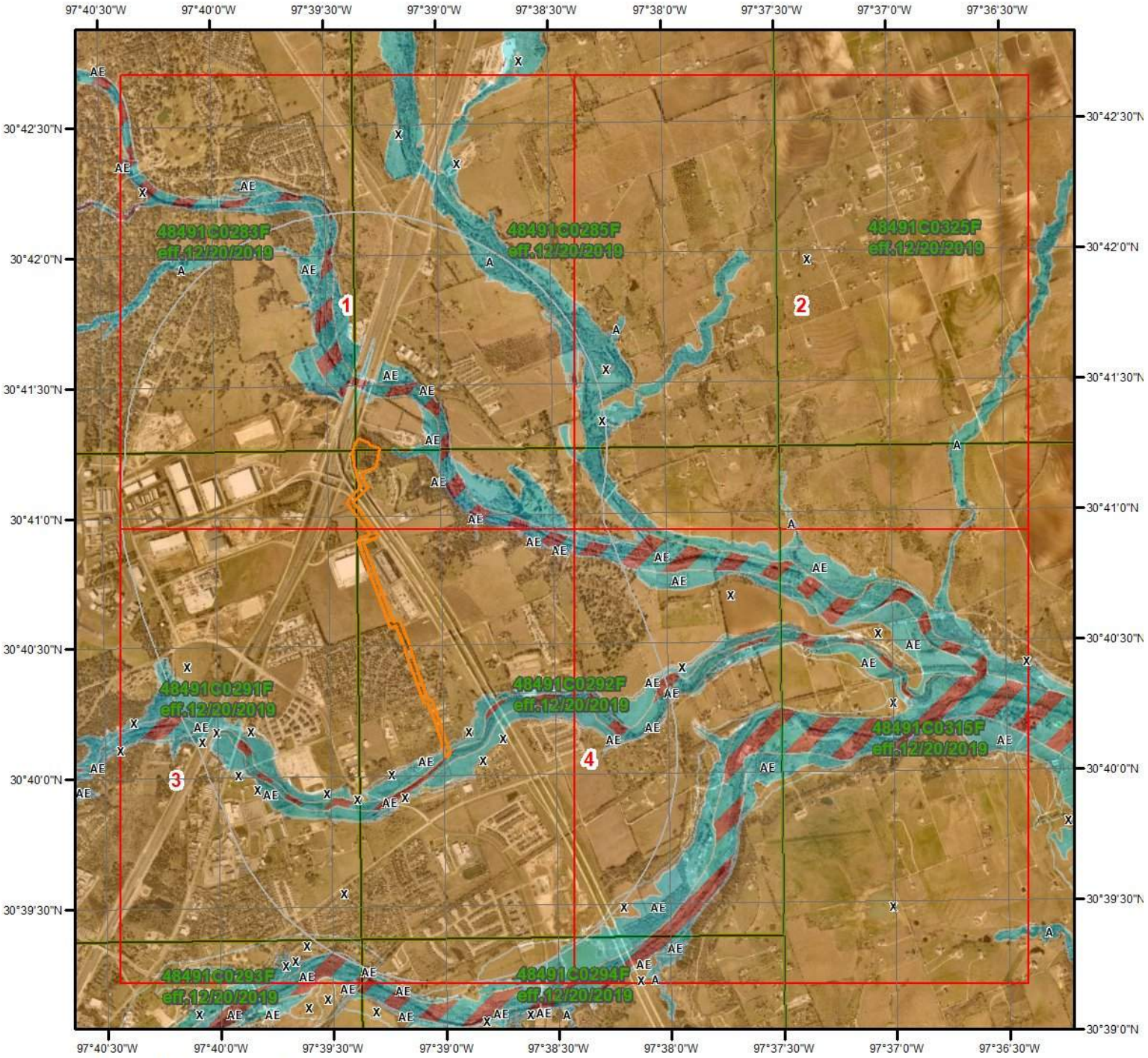
N

This map shows wetland existence using data from US Fish & Wildlife.
Data coverage is shown to the right. Gray indicates no data available in the area.

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

ERIS

Hydrologic Information



Flood Hazard Zones

This map shows FEMA flood hazard zones based on FEMA's National Flood Hazard Layer. FIRM Panels are overlayed. An absent FIRM panel represents no data available.

Miles
0 0.2 0.4 0.8

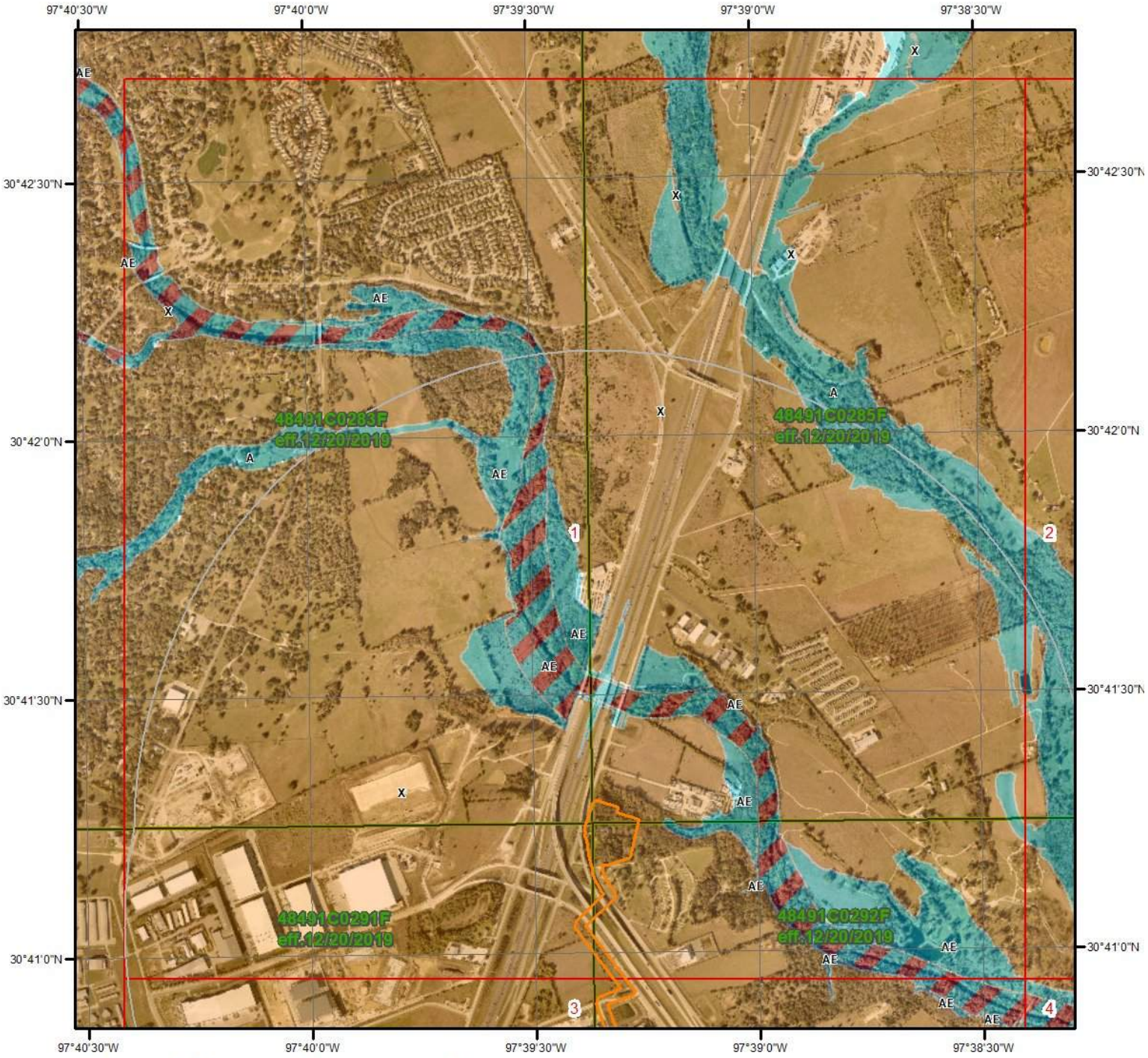
N

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area with Risk Due to Levee
- Open Water

Quadrangle(s): Cobbs Cavern,TX; Round Rock,TX; Georgetown,TX; Jarrell,TX;

ERIS

Hydrologic Information



Flood Hazard Zones - Page 1

This map shows FEMA flood hazard zones based on FEMA's National Flood Hazard Layer. FIRM Panels are overlayed. An absent FIRM panel represents no data available.

Miles
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N

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area with Risk Due to Levee
- Open Water

Quadrangle(s):

ERIS

Hydrologic Information



Flood Hazard Zones - Page 2

This map shows FEMA flood hazard zones based on FEMA's National Flood Hazard Layer. FIRM Panels are overlayed. An absent FIRM panel represents no data available.

0 0.2 0.4 Miles

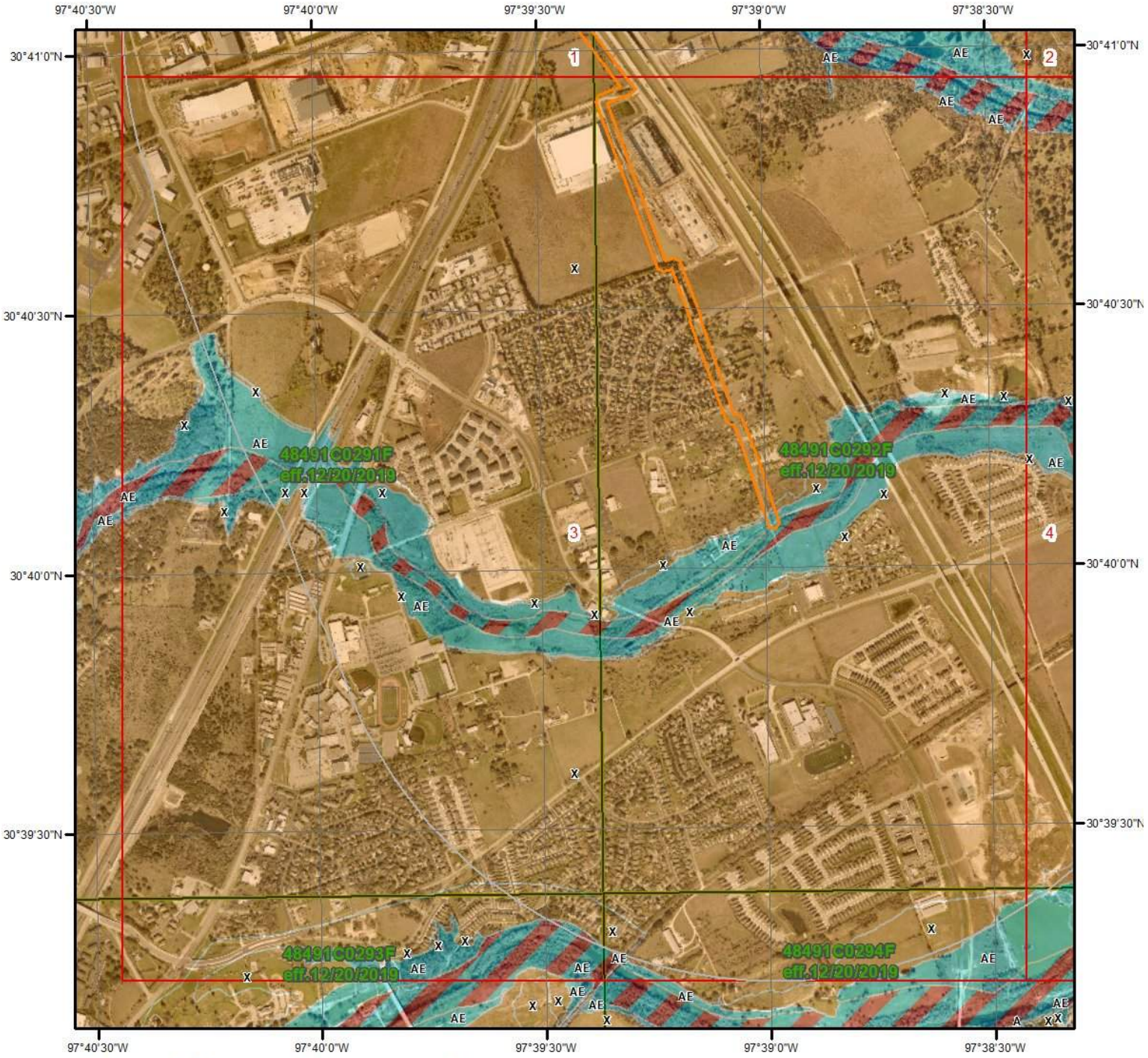
N

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area with Risk Due to Levee
- Open Water

Quadrangle(s):

ERIS

Hydrologic Information



Flood Hazard Zones - Page 3

This map shows FEMA flood hazard zones based on FEMA's National Flood Hazard Layer. FIRM Panels are overlayed. An absent FIRM panel represents no data available.

Miles
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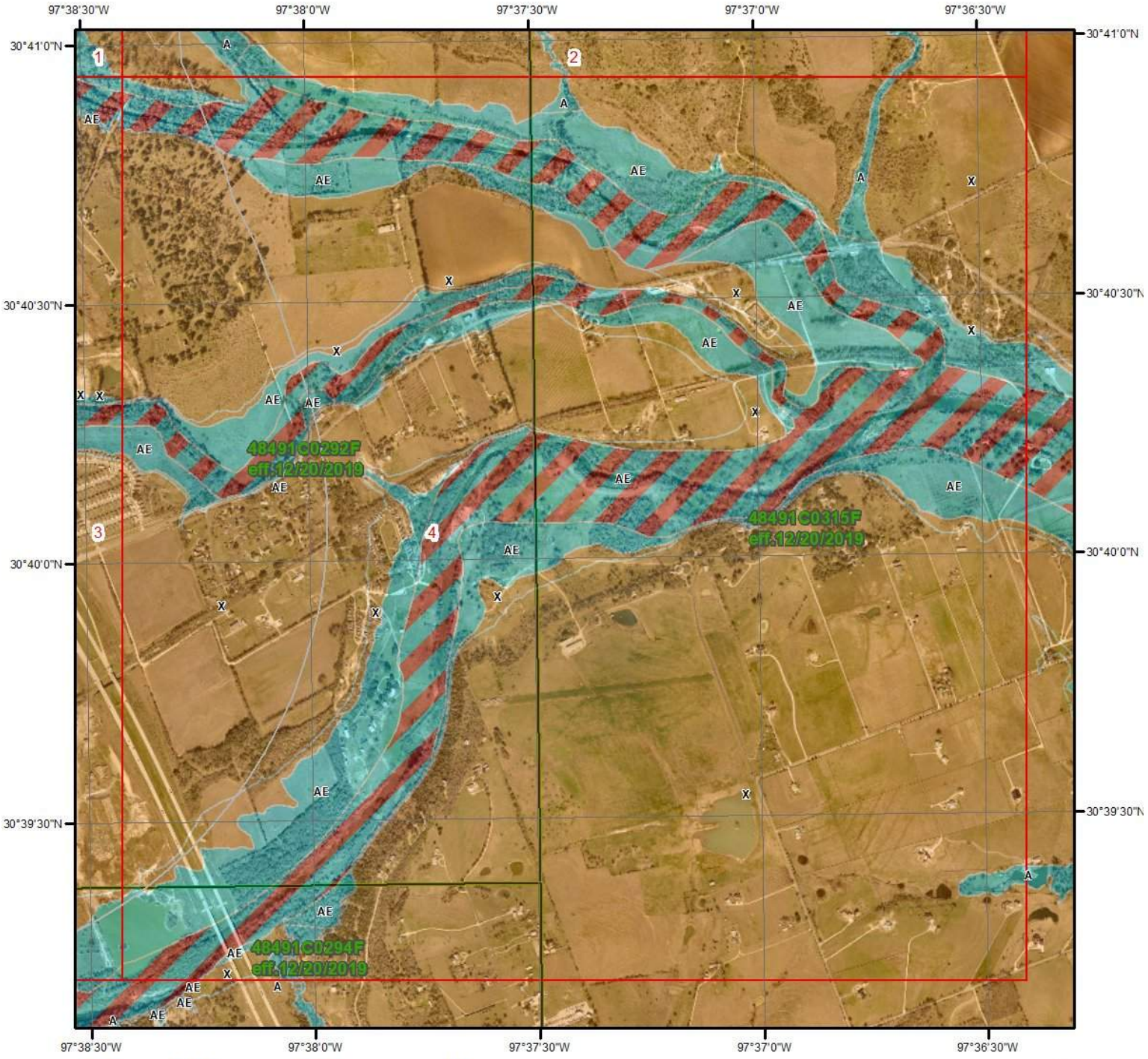
- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area with Risk Due to Levee
- Open Water

ERIS

Quadrangle(s):

Hydrologic Information



Flood Hazard Zones - Page 4

This map shows FEMA flood hazard zones based on FEMA's National Flood Hazard Layer. FIRM Panels are overlayed. An absent FIRM panel represents no data available.

Miles
0 0.2 0.4

N

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area with Risk Due to Levee
- Open Water

Quadrangle(s):

ERIS

Hydrologic Information

The Wetland Type map shows wetland existence overlaid on an aerial imagery. The Flood Hazard Zones map shows FEMA flood hazard zones overlaid on an aerial imagery. Relevant FIRM panels and detailed zone information is provided below.
For detailed Zone descriptions please click the link: https://floodadvocate.com/fema-zone-definitions

Available FIRM Panels in area:	48491C0291F(effective:2019-12-20) 48491C0293F(effective:2019-12-20) 48491C0292F(effective:2019-12-20) 48491C0294F(effective:2019-12-20) 48491C0283F(effective:2019-12-20) 48491C0285F(effective:2019-12-20)

Flood Zone A-01

Zone:	A
Zone subtype:	

Flood Zone AE-01

Zone:	AE
Zone subtype:	

Flood Zone AE-11

Zone:	AE
Zone subtype:	FLOODWAY

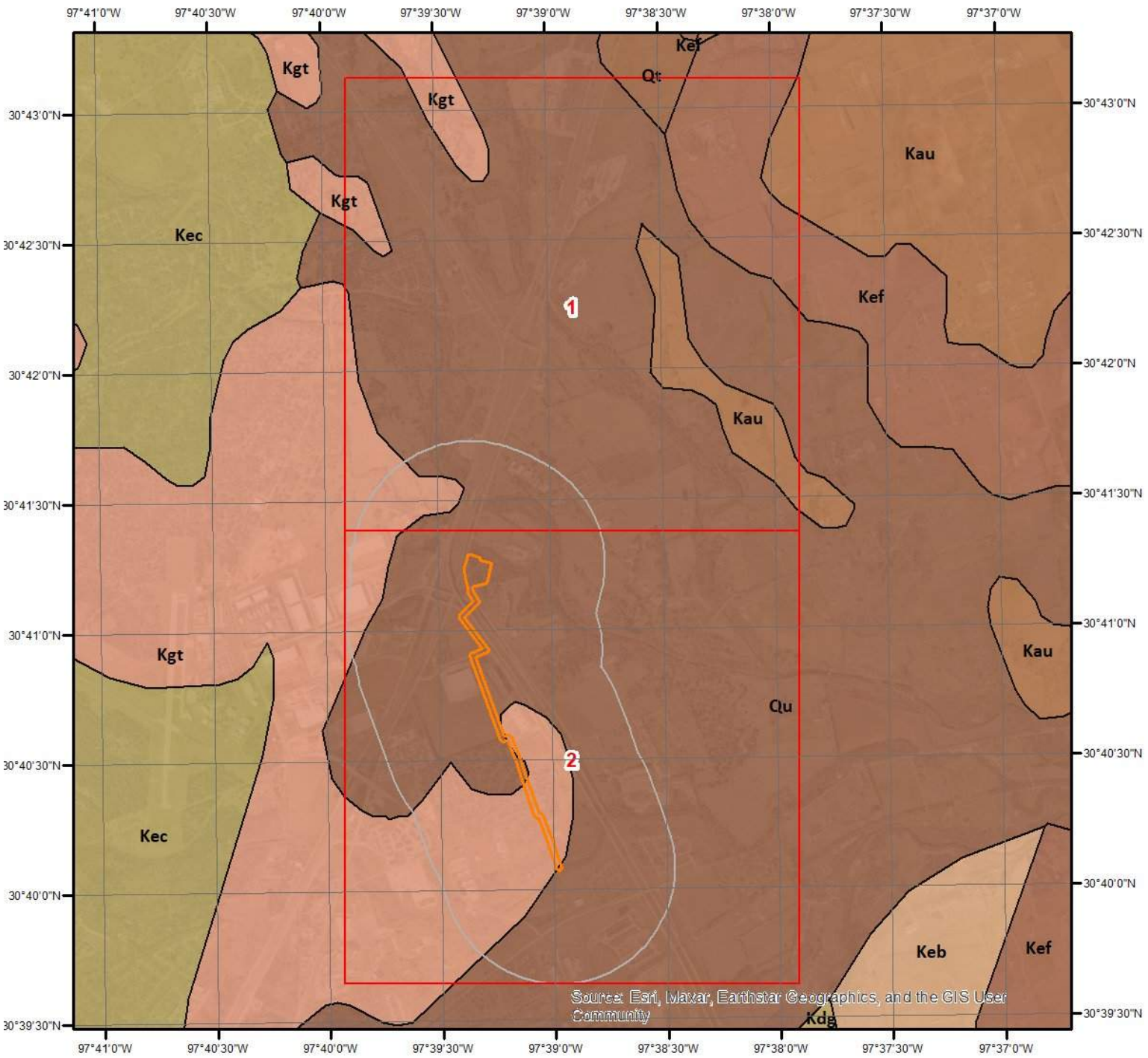
Flood Zone X-01

Zone:	X
Zone subtype:	0.2 PCT ANNUAL CHANCE FLOOD HAZARD

Flood Zone X-12

Zone:	X
Zone subtype:	AREA OF MINIMAL FLOOD HAZARD

Geologic Information



Miles
0 0.2 0.4 0.8 1.2

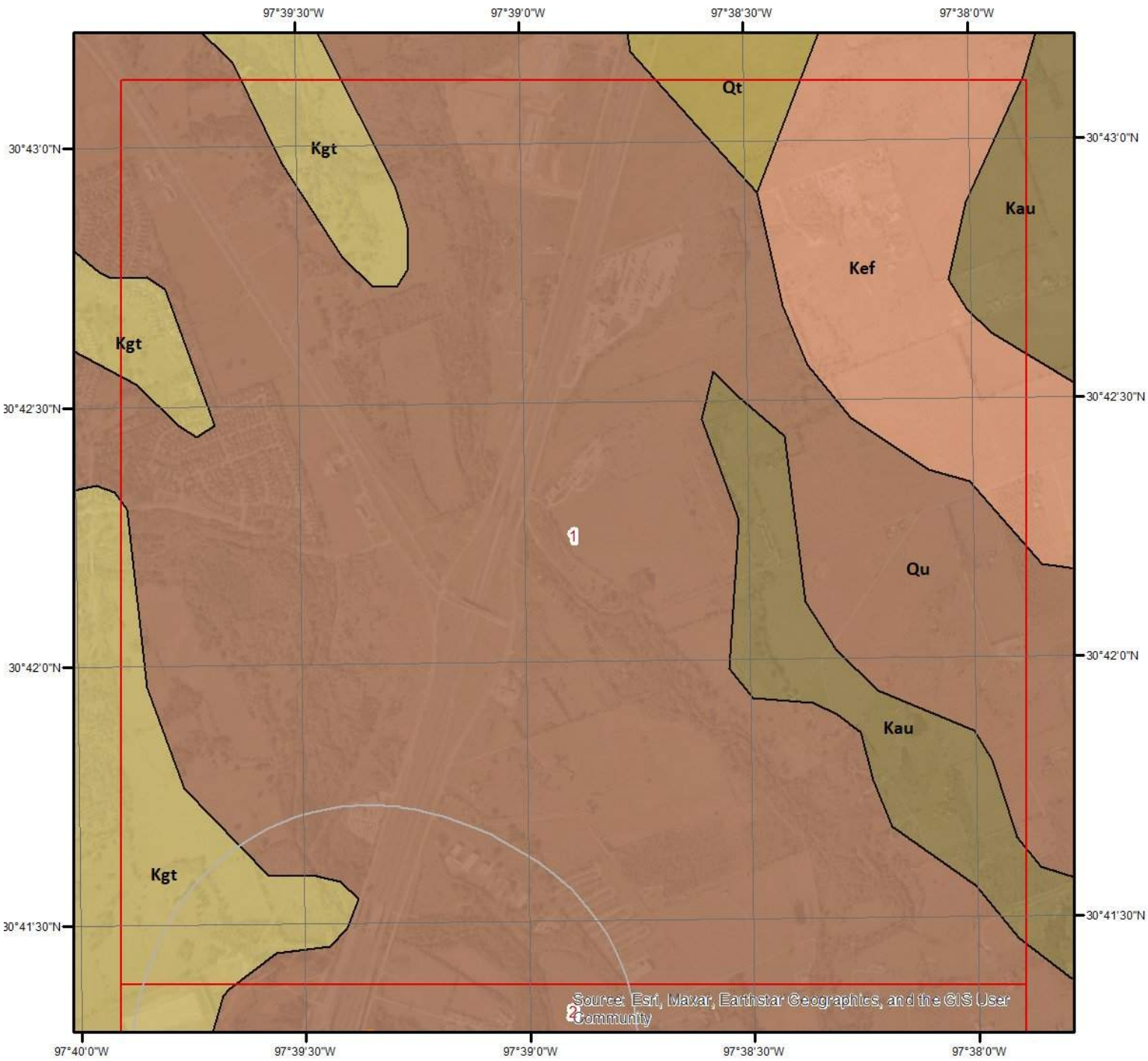
N

Geologic Units

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.

ERIS

Geologic Information

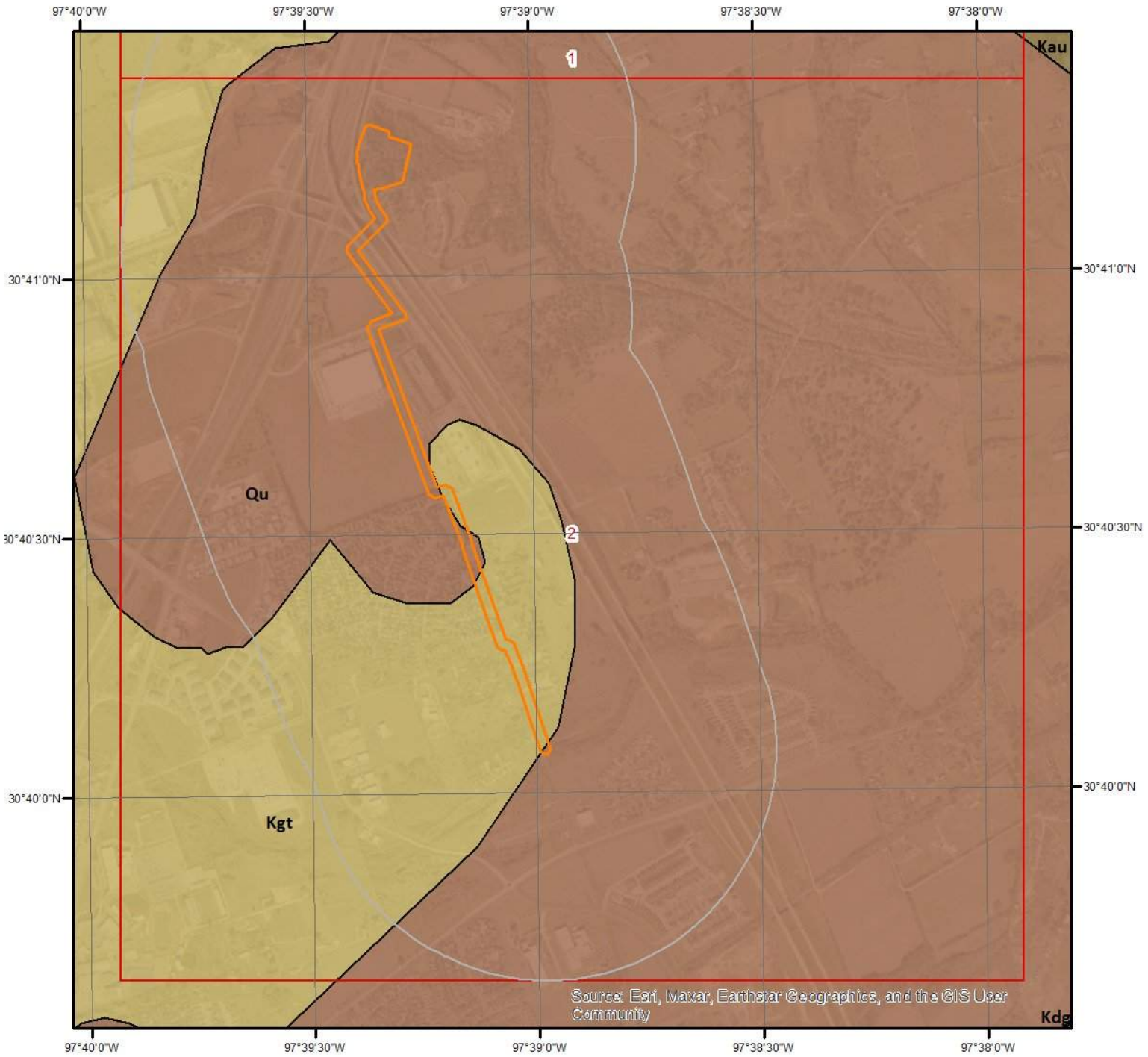


Geologic Units - Page 1

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.

ERIS

Geologic Information



Miles
0 0.2 0.4

N

Geologic Units - Page 2

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.

ERIS

Geologic Information

The previous page shows USGS geology information. Detailed information about each unit is provided below.

Geologic Unit Qu

Unit Name:	Quaternary deposit, undivided
Unit Age:	Phanerozoic | Cenozoic | Quaternary
Primary Rock Type:	sand
Secondary Rock Type:	silt
Unit Description:	sand, silt, clay, and gravel. locally indurated with calcium carbonate (caliche); includes point bar, natural levee, stream channel, sand dune, terrace, alluvial fan, landslide bolson and playa deposits

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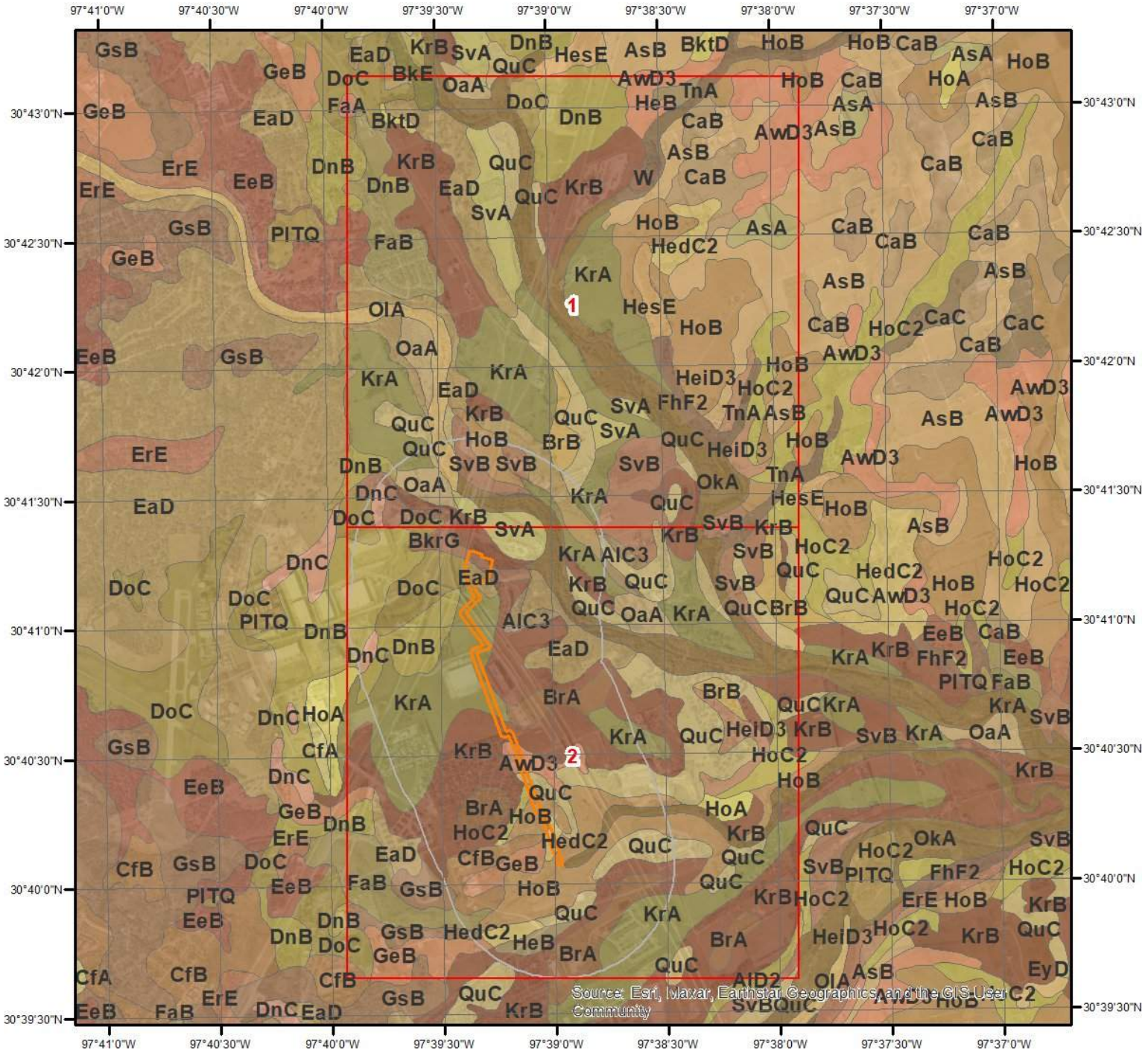
Geologic Unit Kgt

Unit Name:	Georgetown Limestone
Unit Age:	Phanerozoic | Mesozoic | Cretaceous-Early
Primary Rock Type:	limestone
Secondary Rock Type:	mudstone
Unit Description:	Georgetown Limestone

Soil Information



SSURGO Soils

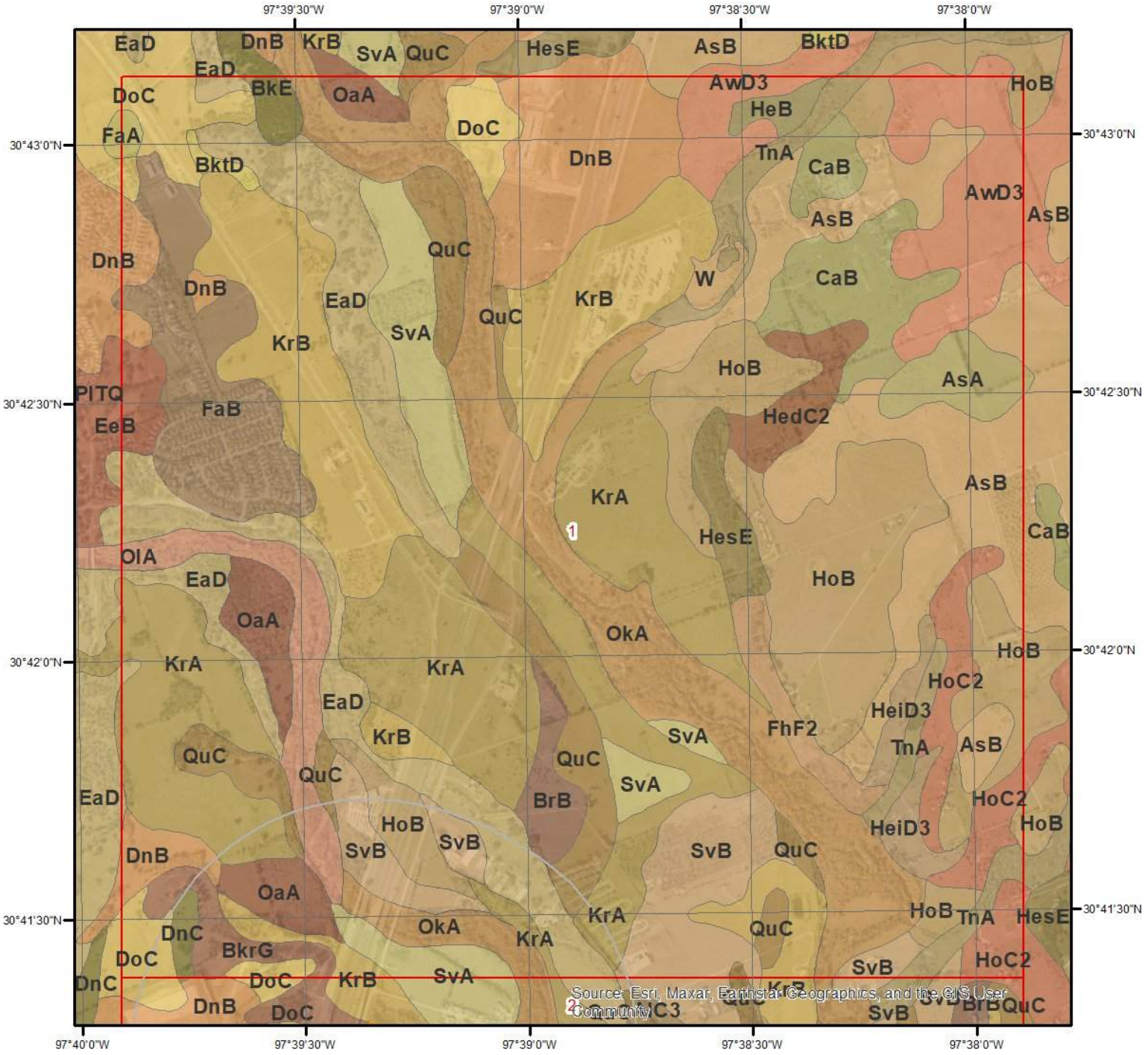
0 0.2 0.4 0.8 1.2 Miles

N

This maps shows SSURGO soil units around the target property. Please refer to the report for detailed soil descriptions.

ERIS

Soil Information



SSURGO Soils - Page 1

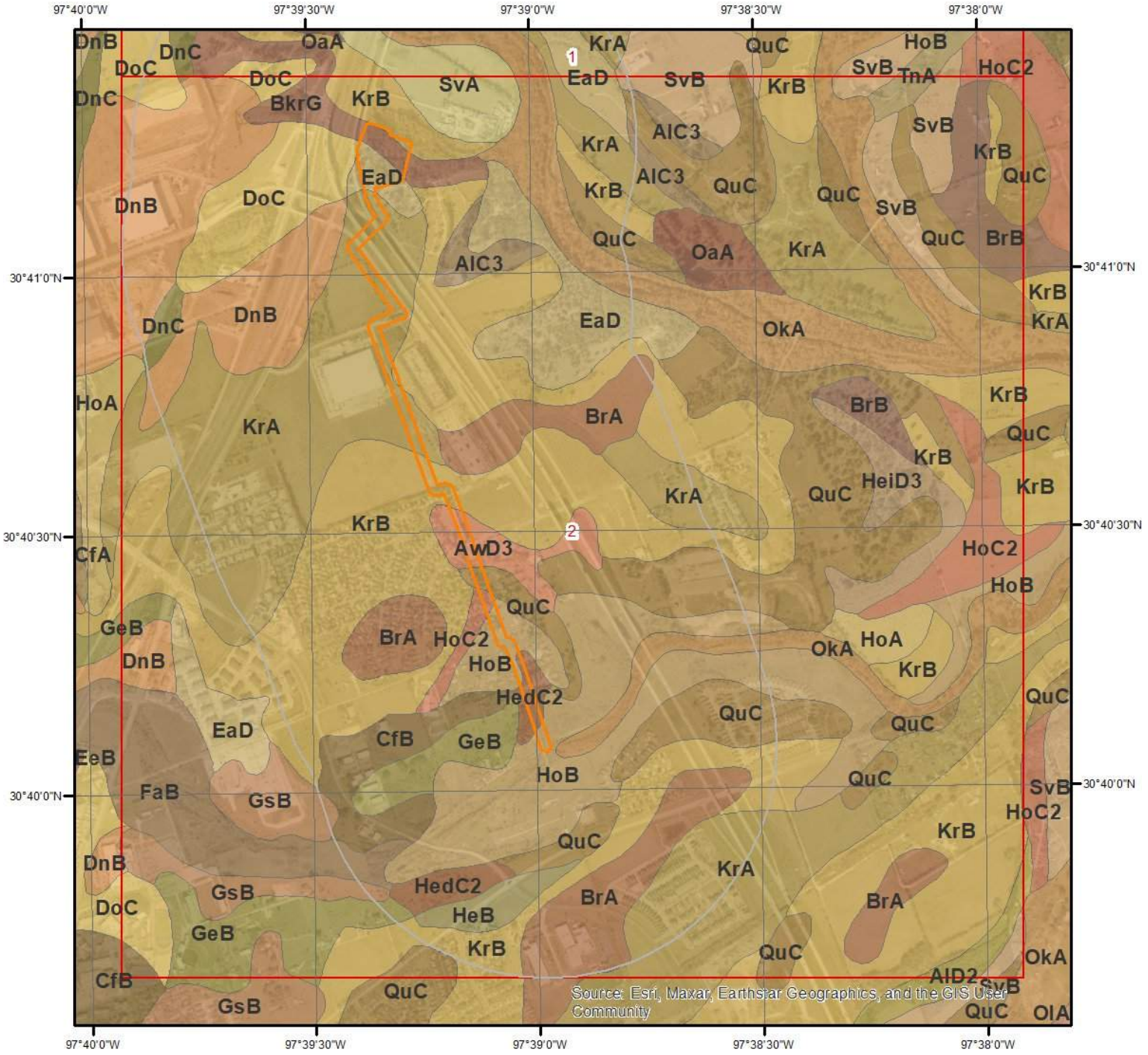
Miles
0 0.2 0.4

N

This maps shows SSURGO soil units around the target property. Please refer to the report for detailed soil descriptions.

ERIS

Soil Information



SSURGO Soils - Page 2

Miles
0 0.2 0.4

N

This maps shows SSURGO soil units around the target property. Please refer to the report for detailed soil descriptions.

ERIS

Soil Information

The previous page shows a soil map using SSURGO data from USDA Natural Resources Conservation Service. Detailed information about each unit is provided below.

Map Unit AlC3 (0.44%)

Map Unit Name:	Altoga silty clay loam, 3 to 5 percent slopes, eroded
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Altoga(100%)	
horizon H1(0cm to 15cm)	Silty clay loam
horizon H2(15cm to 117cm)	Silty clay loam
horizon H3(117cm to 168cm)	Silty clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: AlC3 - Altoga silty clay loam, 3 to 5 percent slopes, eroded

Component: Altoga (100%)
The Altoga, eroded component makes up 100 percent of the map unit. Slopes are 3 to 5 percent. This component is on stream terraces on dissected plains. The parent material consists of clayey alluvium derived from mixed sources. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R086AY007TX Southern Clay Loam ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 58 percent.

Map Unit AwD3 (0.41%)

Map Unit Name:	Austin-Whitewright complex, 2 to 6 percent slopes, eroded
Bedrock Depth - Min:	41cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Austin(55%)	
horizon Ap(0cm to 41cm)	Silty clay
horizon Bw(41cm to 56cm)	Silty clay
horizon Bk(56cm to 74cm)	Silty clay
horizon Cr(74cm to 144cm)	Bedrock
Whitewright(35%)	
horizon Ap(0cm to 15cm)	Silty clay loam
horizon Bk(15cm to 41cm)	Silty clay loam
horizon Cr(41cm to 86cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Soil Information

Map Unit: AwD3 - Austin-Whitewright complex, 2 to 6 percent slopes, eroded

Component: Austin (55%)
The Austin, moderately eroded component makes up 55 percent of the map unit. Slopes are 2 to 6 percent. This component is on ridges on dissected plains. The parent material consists of calcareous clayey residuum weathered from chalk. Depth to a root restrictive layer, bedrock, paralithic, is 16 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R086AY007TX Southern Clay Loam ecological site. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 80 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Whitewright (35%)
The Whitewright, severely eroded component makes up 35 percent of the map unit. Slopes are 2 to 6 percent. This component is on ridges on dissected plains. The parent material consists of residuum weathered from Austin chalk formation. Depth to a root restrictive layer, bedrock, paralithic, is 11 to 28 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R086AY002TX Southern Chalky Ridge ecological site. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 55 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Houston Black (10%)
Generated brief soil descriptions are created for major soil components. The Houston Black soil is a minor component.

Map Unit BkrG (0.84%)

Map Unit Name:	Brackett-Rock outcrop-Real complex, 8 to 30 percent slopes
Bedrock Depth - Min:	0cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.
Major components are printed below	
Brackett(38%)	
horizon A(0cm to 15cm)	Gravelly clay loam
horizon Bk(15cm to 36cm)	Gravelly clay loam
horizon Cr(36cm to 152cm)	Bedrock
Rock outcrop(25%)	
horizon R(0cm to 203cm)	Bedrock
Real(22%)	
horizon A(0cm to 10cm)	Gravelly loam
horizon Ak(10cm to 36cm)	Extremely gravelly loam
horizon Cr(36cm to 102cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Map Unit: BkrG - Brackett-Rock outcrop-Real complex, 8 to 30 percent slopes

Component: Brackett (38%)
The Brackett component makes up 38 percent of the map unit. Slopes are 8 to 30 percent. This component is on stair stepped ridges on dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, paralithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R081CY362TX Steep Adobe 29-35 Pz ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 65 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Rock outcrop (25%)
Generated brief soil descriptions are created for major soil components. The Rock outcrop is a miscellaneous area.

Component: Real (22%)
The Real component makes up 22 percent of the map unit. Slopes are 8 to 30 percent. This component is on stair stepped ridges on dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, paralithic, is 8 to 19 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 6 percent. This component is in the R081CY362TX Steep Adobe 29-35 Pz ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 55 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Eckrant (10%)
Generated brief soil descriptions are created for major soil components. The Eckrant soil is a minor component.

Component: Volente (5%)
Generated brief soil descriptions are created for major soil components. The Volente soil is a minor component.

Map Unit BrA (2.09%)

Map Unit Name:	Branyon clay, 0 to 1 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.
Major components are printed below	
Branyon(85%)	
horizon Ap(0cm to 31cm)	Clay
horizon Bkss(31cm to 183cm)	Clay
horizon BCkss(183cm to 203cm)	Clay

Component Description:

Minor map unit components are excluded from this report.

Map Unit: BrA - Branyon clay, 0 to 1 percent slopes

Component: Branyon (85%)
The Branyon component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on circular gilgai on stream terraces on river valleys. The parent material consists of calcareous clayey alluvium derived from mudstone of Pleistocene age. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is very high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R086AY011TX Southern Blackland ecological site. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 9 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lewisville (5%)
Generated brief soil descriptions are created for major soil components. The Lewisville soil is a minor component.

Component: Burleson (5%)
Generated brief soil descriptions are created for major soil components. The Burleson soil is a minor component.

Component: Houston Black (5%)
Generated brief soil descriptions are created for major soil components. The Houston Black soil is a minor component.

Soil Information

Map Unit BrB (0.41%)

Map Unit Name:	Branyon clay, 1 to 3 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Branyon(85%)

horizon Ap(0cm to 31cm)	Clay
horizon Bkss(31cm to 183cm)	Clay
horizon BCkss(183cm to 203cm)	Clay

Component Description:

Minor map unit components are excluded from this report.

Map Unit: BrB - Branyon clay, 1 to 3 percent slopes

Component: Branyon (85%)
The Branyon component makes up 85 percent of the map unit. Slopes are 1 to 3 percent. This component is on circular gilgai on stream terraces on river valleys. The parent material consists of calcareous clayey alluvium derived from mudstone of Pleistocene age. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is very high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R086AY011TX Southern Blackland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 9 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lewisville (5%)
Generated brief soil descriptions are created for major soil components. The Lewisville soil is a minor component.

Component: Houston Black (5%)
Generated brief soil descriptions are created for major soil components. The Houston Black soil is a minor component.

Component: Burleson (5%)
Generated brief soil descriptions are created for major soil components. The Burleson soil is a minor component.

Map Unit CfB (0.69%)

Map Unit Name:	Crawford clay, 1 to 3 percent slopes
Bedrock Depth - Min:	69cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Crawford(85%)

horizon A(0cm to 15cm)	Clay
horizon Bss(15cm to 69cm)	Clay
horizon R(69cm to 76cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Map Unit: CfB - Crawford clay, 1 to 3 percent slopes

Component: Crawford (85%)
The Crawford component makes up 85 percent of the map unit. Slopes are 1 to 3 percent. This component is on plains on dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is very high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R081CY358TX Deep Redland 29-35 Pz ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 1 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Georgetown (4%)
Generated brief soil descriptions are created for major soil components. The Georgetown soil is a minor component.

Component: Fairlie (4%)
Generated brief soil descriptions are created for major soil components. The Fairlie soil is a minor component.

Component: Denton (4%)
Generated brief soil descriptions are created for major soil components. The Denton soil is a minor component.

Component: Purves (2%)
Generated brief soil descriptions are created for major soil components. The Purves soil is a minor component.

Component: Unnamed (1%)
Generated brief soil descriptions are created for major soil components. The Unnamed soil is a minor component.

Map Unit DnB (5.28%)

Map Unit Name:	Denton silty clay, 1 to 3 percent slopes
Bedrock Depth - Min:	91cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.
Major components are printed below	
Denton(88%)	
horizon A(0cm to 36cm)	Silty clay
horizon Bw(36cm to 64cm)	Silty clay
horizon Bk(64cm to 84cm)	Silty clay
horizon Ck(84cm to 91cm)	Gravelly silty clay
horizon R(91cm to 203cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Map Unit: DnB - Denton silty clay, 1 to 3 percent slopes

Component: Denton (88%)
The Denton component makes up 88 percent of the map unit. Slopes are 1 to 3 percent. This component is on hillslopes on dissected plateaus. The parent material consists of silty and clayey slope alluvium over residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 22 to 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R081CY357TX Clay Loam 29-35 Pz ecological site. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 60 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Krum (6%)
Generated brief soil descriptions are created for major soil components. The Krum soil is a minor component.

Component: Doss (4%)

Soil Information

Generated brief soil descriptions are created for major soil components. The Doss soil is a minor component.

Component: Anhalt (2%)
Generated brief soil descriptions are created for major soil components. The Anhalt soil is a minor component.

Map Unit DnC (0.22%)

Map Unit Name:	Denton silty clay, 3 to 5 percent slopes
Bedrock Depth - Min:	91cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Denton(88%)

horizon A(0cm to 36cm)	Silty clay
horizon Bw(36cm to 64cm)	Silty clay
horizon Bk(64cm to 84cm)	Silty clay
horizon Ck(84cm to 91cm)	Gravelly silty clay
horizon R(91cm to 203cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Map Unit: DnC - Denton silty clay, 3 to 5 percent slopes

Component: Denton (88%)
The Denton component makes up 88 percent of the map unit. Slopes are 3 to 5 percent. This component is on hillslopes on dissected plateaus. The parent material consists of silty and clayey slope alluvium over residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 22 to 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R081CY357TX Clay Loam 29-35 Pz ecological site. Nonirrigated land capability classification is 3s. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 60 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Brackett (6%)
Generated brief soil descriptions are created for major soil components. The Brackett soil is a minor component.

Component: Doss (4%)
Generated brief soil descriptions are created for major soil components. The Doss soil is a minor component.

Component: Purves (2%)
Generated brief soil descriptions are created for major soil components. The Purves soil is a minor component.

Map Unit DoC (1.48%)

Map Unit Name:	Doss silty clay, moist, 1 to 5 percent slopes
Bedrock Depth - Min:	43cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Doss(85%)

horizon A(0cm to 23cm)	Silty clay
horizon Bk(23cm to 43cm)	Silty clay

horizon Cr(43cm to 203cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Map Unit: DoC - Doss silty clay, moist, 1 to 5 percent slopes

Component: Doss (85%)
The Doss component makes up 85 percent of the map unit. Slopes are 1 to 5 percent. This component is on hillslopes on dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, paralithic, is 11 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R081CY574TX Shallow 29-35 Pz ecological site. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 55 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Brackett (7%)
Generated brief soil descriptions are created for major soil components. The Brackett soil is a minor component.

Component: Bolar (5%)
Generated brief soil descriptions are created for major soil components. The Bolar soil is a minor component.

Component: Purves (1%)
Generated brief soil descriptions are created for major soil components. The Purves soil is a minor component.

Component: Denton (1%)
Generated brief soil descriptions are created for major soil components. The Denton soil is a minor component.

Component: Eckrant (1%)
Generated brief soil descriptions are created for major soil components. The Eckrant soil is a minor component.

Map Unit EaD (2.92%)

Map Unit Name:	Eckrant cobbly clay, 1 to 8 percent slopes
Bedrock Depth - Min:	28cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Eckrant(85%)

horizon A1(0cm to 10cm)	Cobbly clay
horizon A2(10cm to 28cm)	Very cobbly clay
horizon R(28cm to 203cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Map Unit: EaD - Eckrant cobbly clay, 1 to 8 percent slopes

Component: Eckrant (85%)
The Eckrant component makes up 85 percent of the map unit. Slopes are 1 to 8 percent. This component is on ridges on dissected plateaus. The parent material consists of residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 4 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 6 percent. This component is in the R081CY360TX Low Stony Hill 29-35 Pz ecological site. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent. There are no

saline horizons within 30 inches of the soil surface.

Component: Brackett (7%)
Generated brief soil descriptions are created for major soil components. The Brackett soil is a minor component.

Component: Bexar (5%)
Generated brief soil descriptions are created for major soil components. The Bexar soil is a minor component.

Component: Krum (3%)
Generated brief soil descriptions are created for major soil components. The Krum soil is a minor component.

Map Unit FaB (1.62%)

Map Unit Name:	Fairlie clay, 1 to 2 percent slopes
Bedrock Depth - Min:	117cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Fairlie(100%)

horizon H1(0cm to 20cm)	Clay
horizon H2(20cm to 117cm)	Clay
horizon H3(117cm to 137cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Map Unit: FaB - Fairlie clay, 1 to 2 percent slopes

Component: Fairlie (100%)
The Fairlie component makes up 100 percent of the map unit. Slopes are 1 to 2 percent. This component is on ridges on dissected plains. The parent material consists of residuum weathered from Austin chalk formation. Depth to a root restrictive layer, bedrock, paralithic, is 40 to 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R086AY011TX Southern Blackland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 13 percent. There are no saline horizons within 30 inches of the soil surface.

Map Unit GeB (1.3%)

Map Unit Name:	Georgetown clay loam, 0 to 2 percent slopes
Bedrock Depth - Min:	89cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Georgetown(90%)

horizon A(0cm to 18cm)	Clay loam
horizon Bt(18cm to 89cm)	Cobbly clay
horizon R(89cm to 152cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Soil Information

Map Unit: GeB - Georgetown clay loam, 0 to 2 percent slopes

Component: Georgetown (90%)
The Georgetown component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad ridges on dissected plateaus. The parent material consists of clayey residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R081CY361TX Redland 29-35 Pz ecological site. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Eckrant (5%)
Generated brief soil descriptions are created for major soil components. The Eckrant soil is a minor component.

Component: Tarpley (5%)
Generated brief soil descriptions are created for major soil components. The Tarpley soil is a minor component.

Map Unit GsB (0.89%)

Map Unit Name:	Georgetown stony clay loam, 1 to 3 percent slopes
Bedrock Depth - Min:	89cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Georgetown(90%)	
horizon A(0cm to 17cm)	Stony clay loam
horizon Bt(17cm to 89cm)	Cobbly clay
horizon R(89cm to 152cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Map Unit: GsB - Georgetown stony clay loam, 1 to 3 percent slopes

Component: Georgetown (90%)
The Georgetown component makes up 90 percent of the map unit. Slopes are 1 to 3 percent. This component is on broad ridges on dissected plateaus. The parent material consists of clayey residuum weathered from limestone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R081CY361TX Redland 29-35 Pz ecological site. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Tarpley (5%)
Generated brief soil descriptions are created for major soil components. The Tarpley soil is a minor component.

Component: Eckrant (3%)
Generated brief soil descriptions are created for major soil components. The Eckrant soil is a minor component.

Component: Fairlie (2%)
Generated brief soil descriptions are created for major soil components. The Fairlie soil is a minor component.

Map Unit HeB (0.27%)

Map Unit Name:	Heiden clay, 1 to 3 percent slopes
Bedrock Depth - Min:	

Soil Information

Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Heiden(85%)

horizon Ap(0cm to 15cm)	Clay
horizon A(15cm to 46cm)	Clay
horizon Bkss(46cm to 147cm)	Clay
horizon CBdk(147cm to 178cm)	Clay

Component Description:

Minor map unit components are excluded from this report.

Map Unit: HeB - Heiden clay, 1 to 3 percent slopes

Component: Heiden (85%)
The Heiden component makes up 85 percent of the map unit. Slopes are 1 to 3 percent. This component is on ridges on dissected plains. The parent material consists of clayey residuum weathered from mudstone. Depth to a root restrictive layer, densic material, is 40 to 65 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is very high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R086AY011TX Southern Blackland ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 14 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 7 within 30 inches of the soil surface.

Component: Houston Black (10%)
Generated brief soil descriptions are created for major soil components. The Houston Black soil is a minor component.

Component: Ferris (5%)
Generated brief soil descriptions are created for major soil components. The Ferris soil is a minor component.

Map Unit HedC2 (0.34%)

Map Unit Name:	Heiden clay, 2 to 5 percent slopes, moderately eroded
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Heiden(85%)

horizon Ap(0cm to 15cm)	Clay
horizon Bkss1(15cm to 46cm)	Clay
horizon Bkss2(46cm to 147cm)	Clay
horizon CBdk(147cm to 203cm)	Clay

Component Description:

Minor map unit components are excluded from this report.

Map Unit: HedC2 - Heiden clay, 2 to 5 percent slopes, moderately eroded

Component: Heiden (85%)
The Heiden, moderately eroded component makes up 85 percent of the map unit. Slopes are 2 to 5 percent. This component is on ridges on dissected plains. The parent material consists of clayey residuum weathered from mudstone. Depth to a root restrictive layer, densic material, is 40 to 65 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is very high. This soil is not flooded. It

is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R086AY009TX Southern Eroded Blackland ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 14 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 7 within 30 inches of the soil surface.

Component: Ferris (8%)
Generated brief soil descriptions are created for major soil components. The Ferris, moderately eroded soil is a minor component.

Component: Heiden (7%)
Generated brief soil descriptions are created for major soil components. The Heiden soil is a minor component.

Map Unit HoB (3.45%)

Map Unit Name:	Houston Black clay, 1 to 3 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Houston Black(80%)

horizon Ap(0cm to 15cm)	Clay
horizon Bkss(15cm to 178cm)	Clay
horizon BCkss(178cm to 203cm)	Clay

Component Description:

Minor map unit components are excluded from this report.

Map Unit: HoB - Houston Black clay, 1 to 3 percent slopes

Component: Houston Black (80%)
The Houston Black component makes up 80 percent of the map unit. Slopes are 1 to 3 percent. This component is on linear gilgai on ridges on dissected plains. The parent material consists of clayey residuum weathered from calcareous mudstone of Upper Cretaceous Age. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is very high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R086AY011TX Southern Blackland ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 25 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Heiden (15%)
Generated brief soil descriptions are created for major soil components. The Heiden soil is a minor component.

Component: Fairlie (5%)
Generated brief soil descriptions are created for major soil components. The Fairlie soil is a minor component.

Map Unit HoC2 (0.13%)

Map Unit Name:	Houston Black clay, 3 to 5 percent slopes, moderately eroded
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Houston Black(90%)

horizon Ap(0cm to 15cm)	Clay
horizon Bkss(15cm to 178cm)	Clay
horizon BCkss(178cm to 203cm)	Clay

Component Description:

Minor map unit components are excluded from this report.

Map Unit: HoC2 - Houston Black clay, 3 to 5 percent slopes, moderately eroded

Component: Houston Black (90%)
The Houston Black, moderately eroded component makes up 90 percent of the map unit. Slopes are 3 to 5 percent. This component is on linear gilgai on ridges on dissected plains. The parent material consists of clayey residuum weathered from calcareous mudstone of Upper Cretaceous Age. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is very high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. This component is in the R086AY009TX Southern Eroded Blackland ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 25 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Heiden (10%)
Generated brief soil descriptions are created for major soil components. The Heiden soil is a minor component.

Map Unit KrA (11.54%)

Map Unit Name:	Krum silty clay, 0 to 1 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Krum(100%)

horizon H1(0cm to 15cm)	Silty clay
horizon H2(15cm to 112cm)	Silty clay
horizon H3(112cm to 183cm)	Silty clay

Component Description:

Minor map unit components are excluded from this report.

Map Unit: KrA - Krum silty clay, 0 to 1 percent slopes

Component: Krum (100%)
The Krum component makes up 100 percent of the map unit. Slopes are 0 to 1 percent. This component is on stream terraces on dissected plains. The parent material consists of clayey alluvium of Pleistocene age derived from mixed sources. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R086AY007TX Southern Clay Loam ecological site. Nonirrigated land capability classification is 2s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Map Unit KrB (10.45%)

Map Unit Name:	Krum silty clay, 1 to 3 percent slopes
Bedrock Depth - Min:	

Soil Information

Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Krum(100%)

horizon H1(0cm to 15cm)	Silty clay
horizon H2(15cm to 112cm)	Silty clay
horizon H3(112cm to 183cm)	Silty clay

Component Description:

Minor map unit components are excluded from this report.

Map Unit: KrB - Krum silty clay, 1 to 3 percent slopes

Component: Krum (100%)
The Krum component makes up 100 percent of the map unit. Slopes are 1 to 3 percent. This component is on stream terraces on dissected plains. The parent material consists of clayey alluvium of Pleistocene age derived from mixed sources. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R086AY007TX Southern Clay Loam ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 20 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Map Unit OaA (0.39%)

Map Unit Name:	Oakalla silty clay loam, 0 to 2 percent slopes, occasionally flooded
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Oakalla(90%)

horizon Ap(0cm to 20cm)	Silty clay loam
horizon Ak(20cm to 58cm)	Silty clay loam
horizon Bk1(58cm to 135cm)	Silty clay loam
horizon Bk2(135cm to 203cm)	Silty clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: OaA - Oakalla silty clay loam, 0 to 2 percent slopes, occasionally flooded

Component: Oakalla (90%)
The Oakalla, occasionally flooded component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on river valleys. The parent material consists of loamy alluvium derived from limestone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. This component is in the R086AY012TX Loamy Bottomland ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 50 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Frio (5%)
Generated brief soil descriptions are created for major soil components. The Frio, occasionally flooded soil is a minor component.

Component: Tinn (4%)
Generated brief soil descriptions are created for major soil components. The Tinn, frequently flooded soil is a minor component.

Component: Gladewater (1%)
Generated brief soil descriptions are created for major soil components. The Gladewater, frequently flooded soil is a minor component.

Map Unit OkA (42.13%)

Map Unit Name:	Oakalla silty clay loam, 0 to 2 percent slopes, frequently flooded
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Oakalla(90%)	
horizon Ap(0cm to 20cm)	Silty clay loam
horizon Ak(20cm to 58cm)	Silty clay loam
horizon Bk1(58cm to 135cm)	Silty clay loam
horizon Bk2(135cm to 203cm)	Silty clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: OkA - Oakalla silty clay loam, 0 to 2 percent slopes, frequently flooded

Component: Oakalla (90%)
The Oakalla component makes up 90 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on dissected plateaus. The parent material consists of loamy alluvium derived from limestone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. This component is in the R081CY561TX Loamy Bottomland 29-35 Pz ecological site. Nonirrigated land capability classification is 5w. Irrigated land capability classification is 5w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 50 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Oakalla (4%)
Generated brief soil descriptions are created for major soil components. The Oakalla, occasionally flooded soil is a minor component.

Component: Dev (3%)
Generated brief soil descriptions are created for major soil components. The Dev soil is a minor component.

Component: Krum (2%)
Generated brief soil descriptions are created for major soil components. The Krum soil is a minor component.

Component: Unnamed (1%)
Generated brief soil descriptions are created for major soil components. The Unnamed, hydric soil is a minor component.

Map Unit OlA (4.28%)

Map Unit Name:	Oakalla soils, 0 to 1 percent slopes, channeled, frequently flooded
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Soil Information

Major components are printed below

Oakalla(90%)

horizon Ap(0cm to 20cm)	Silty clay loam
horizon Ak(20cm to 58cm)	Silty clay loam
horizon Bk1(58cm to 135cm)	Silty clay loam
horizon Bk2(135cm to 203cm)	Silty clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: OlA - Oakalla soils, 0 to 1 percent slopes, channeled, frequently flooded

Component: Oakalla (90%)
The Oakalla, channeled component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on channeled flood plains on dissected plateaus. The parent material consists of loamy alluvium derived from limestone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. This component is in the R081CY561TX Loamy Bottomland 29-35 Pz ecological site. Nonirrigated land capability classification is 5w. Irrigated land capability classification is 5w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 50 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Rock outcrop (5%)
Generated brief soil descriptions are created for major soil components. The Rock outcrop soil is a minor component.

Component: Dev (4%)
Generated brief soil descriptions are created for major soil components. The Dev soil is a minor component.

Component: Unnamed (1%)
Generated brief soil descriptions are created for major soil components. The Unnamed, hydric soil is a minor component.

Map Unit QuC (5.62%)

Map Unit Name:	Queeny clay loam, 1 to 5 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Queeny(100%)

horizon H1(0cm to 46cm)	Clay loam
horizon H2(46cm to 81cm)	Cemented material
horizon H3(81cm to 251cm)	Variable

Component Description:

Minor map unit components are excluded from this report.

Map Unit: QuC - Queeny clay loam, 1 to 5 percent slopes

Component: Queeny (100%)
The Queeny component makes up 100 percent of the map unit. Slopes are 1 to 5 percent. This component is on paleoterraces on dissected plains. The parent material consists of gravelly alluvium of Quaternary age derived from mixed sources. Depth to a root restrictive layer, petrocalcic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R086AY002TX Southern Chalky Ridge ecological site. Nonirrigated land

capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 8 percent. There are no saline horizons within 30 inches of the soil surface.

Map Unit SvA (0.71%)

Map Unit Name:	Sunev silty clay loam, 0 to 1 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Sunev(85%)

horizon A(0cm to 30cm)	Silty clay loam
horizon Bk(30cm to 107cm)	Clay loam
horizon BCk(107cm to 203cm)	Clay loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: SvA - Sunev silty clay loam, 0 to 1 percent slopes

Component: Sunev (85%)
The Sunev component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on stream terraces on dissected plains. The parent material consists of loamy alluvium derived from limestone. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R086AY007TX Southern Clay Loam ecological site. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 50 percent. There are no saline horizons within 30 inches of the soil surface.

Component: Krum (10%)
Generated brief soil descriptions are created for major soil components. The Krum soil is a minor component.

Component: Queeny (5%)
Generated brief soil descriptions are created for major soil components. The Queeny soil is a minor component.

Map Unit SvB (2.09%)

Map Unit Name:	Sunev silty clay loam, 1 to 3 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Sunev(100%)

horizon H1(0cm to 46cm)	Silty clay loam
horizon H2(46cm to 132cm)	Silty clay loam
horizon H3(132cm to 152cm)	Silty clay loam

Component Description:

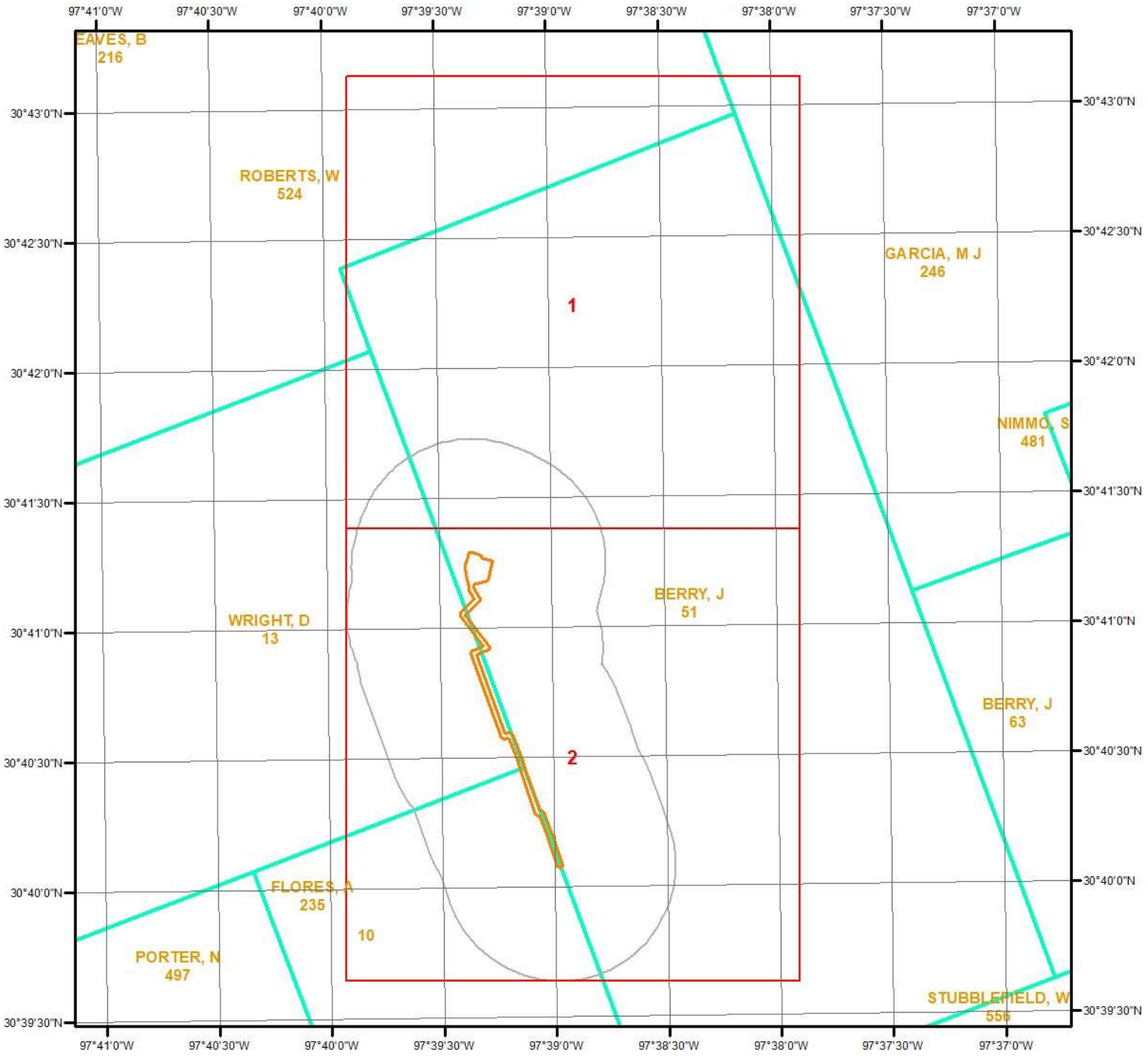
Minor map unit components are excluded from this report.

Map Unit: SvB - Sunev silty clay loam, 1 to 3 percent slopes

Soil Information

Component: Sunev (100%)
The Sunev component makes up 100 percent of the map unit. Slopes are 1 to 3 percent. This component is on stream terraces on dissected plains. The parent material consists of loamy alluvium of Quaternary age derived from mixed sources. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R086AY007TX Southern Clay Loam ecological site. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 55 percent.

Pipeline and Survey Information



Survey & Pipeline Map

Miles
0 0.2 0.4 0.8 1.2

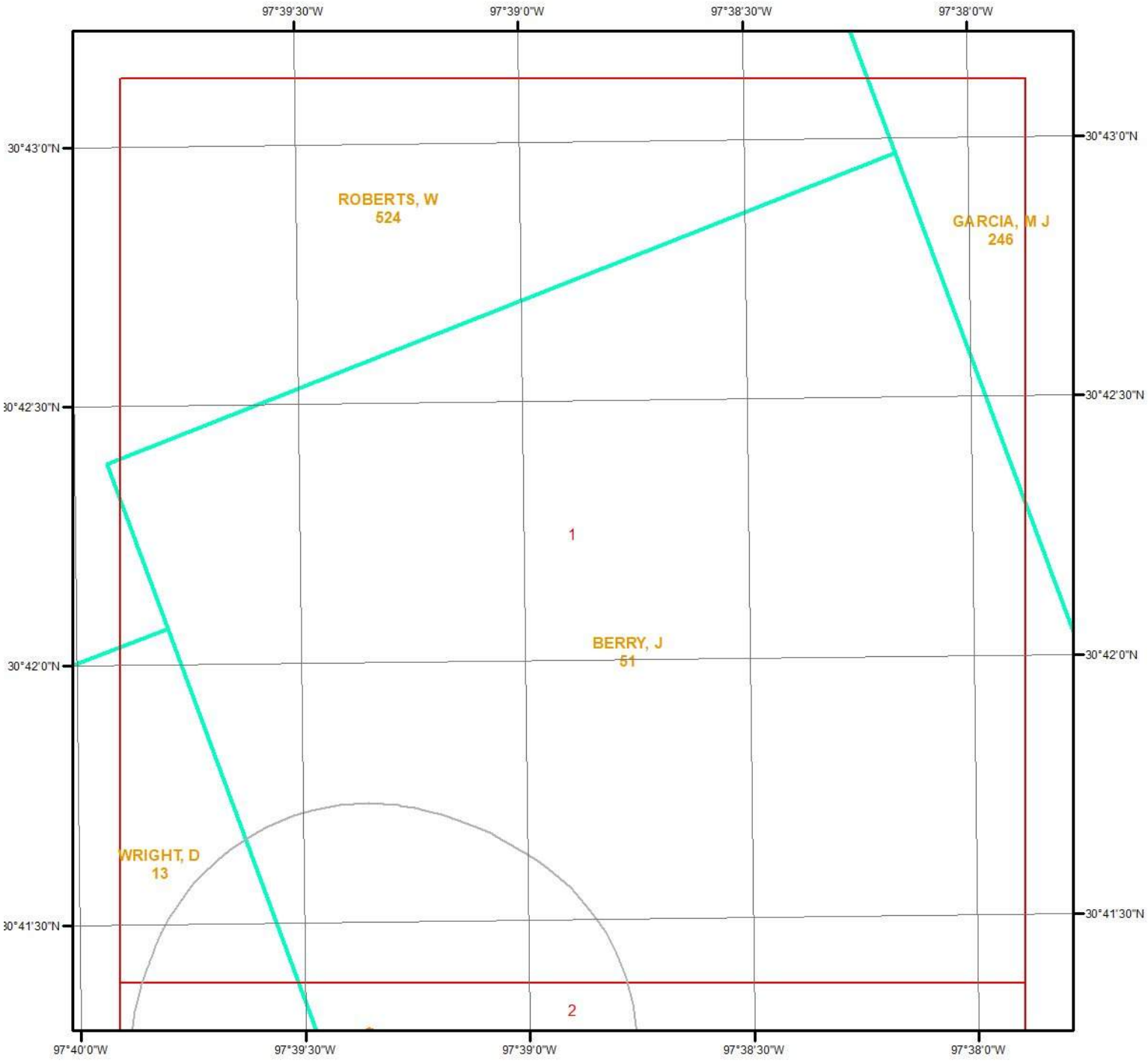
N

This maps shows Survey & Pipeline around the target property. Please refer to the report for detailed descriptions.

Legend

- Pipeline
- Survey

Pipeline and Survey Information



Survey & Pipeline - Page 1

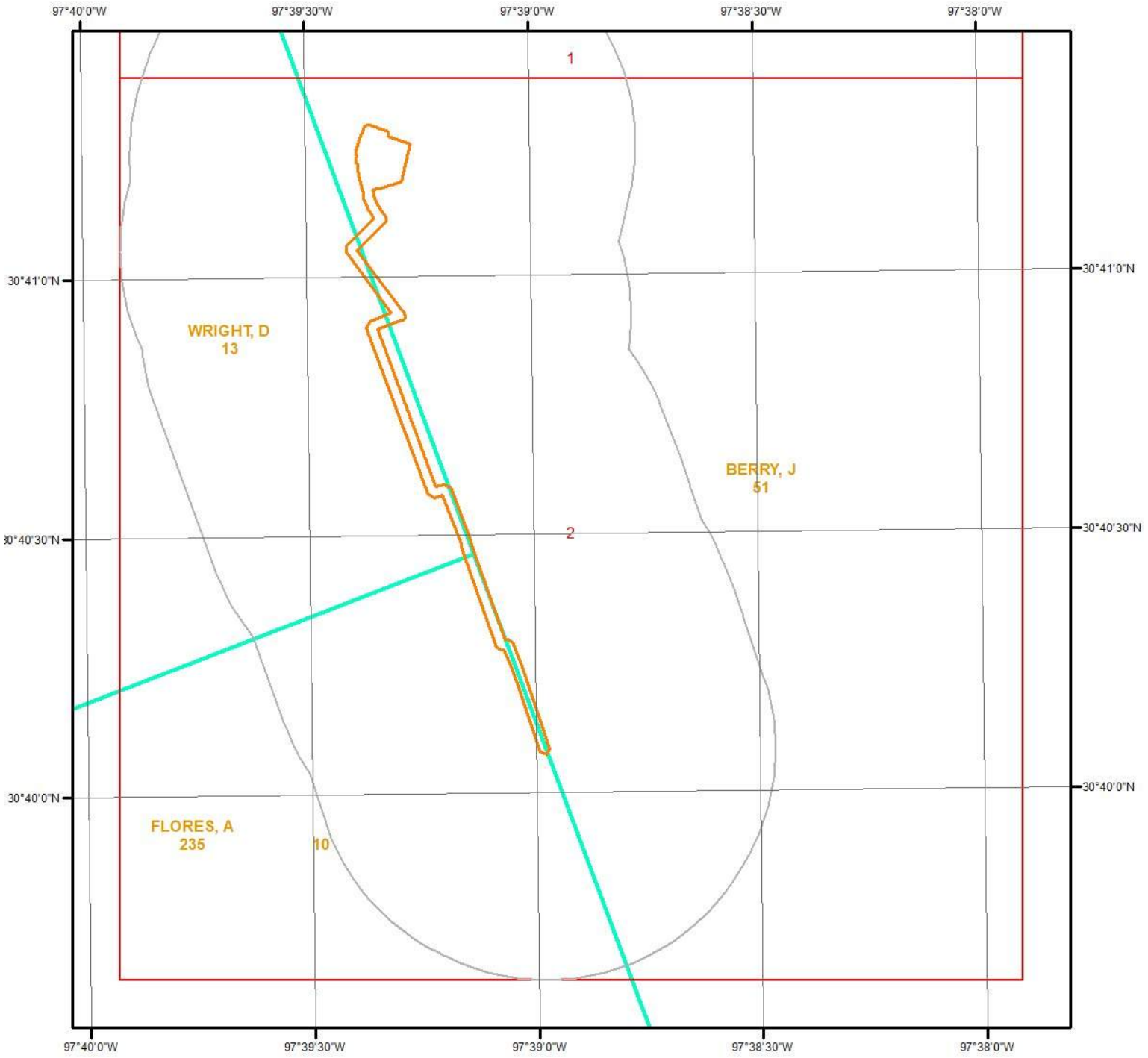
Miles
0 0.2 0.4 0.8

N

This maps shows Survey & Pipeline around the target property. Please refer to the report for detailed descriptions.

ERIS

Pipeline and Survey Information



Survey & Pipeline - Page 2

0 0.2 0.4 0.8 Miles

N

This maps shows Survey & Pipeline around the target property. Please refer to the report for detailed descriptions.

ERIS

Pipeline and Survey Detail Report

The previous page shows a pipeline and survey map. Detailed information about each unit is provided below.

Pipe Line ID	L (SOUTH) CONT.
Status	I
T4 Permit NO	09421
Commodity	NGT
Cmdty Desc	NATURAL GAS
Operator	ATMOS ENERGY CORP., MID-TEX DIV.
System Name	L (SOUTH) CONT.
Diameter (inches)	16

Pipe Line ID	L20-2
Status	I
T4 Permit NO	09421
Commodity	NGT
Cmdty Desc	NATURAL GAS
Operator	ATMOS ENERGY CORP., MID-TEX DIV.
System Name	L20-2
Diameter (inches)	12.75

Pipe Line ID	L20-2
Status	I
T4 Permit NO	09421
Commodity	NGT
Cmdty Desc	NATURAL GAS
Operator	ATMOS ENERGY CORP., MID-TEX DIV.
System Name	L20-2
Diameter (inches)	12.75

Pipe Line ID	L20-2
Status	I
T4 Permit NO	09421
Commodity	NGT
Cmdty Desc	NATURAL GAS
Operator	ATMOS ENERGY CORP., MID-TEX DIV.
System Name	L20-2
Diameter (inches)	12.75

Pipe Line ID	L20-2
Status	I
T4 Permit NO	09421
Commodity	NGT

Cmdty Desc	NATURAL GAS
Operator	ATMOS ENERGY CORP., MID-TEX DIV.
System Name	L20-2
Diameter (inches)	12.75

Pipe Line ID	10743
Status	I
T4 Permit NO	10053
Commodity	CRO
Cmdty Desc	CRUDE OIL
Operator	WINK TO WEBSTER PIPELINE LLC
System Name	TEPPCO SOUTH TEXAS CRUDE LINES
Diameter (inches)	36

Pipe Line ID	L20-2
Status	I
T4 Permit NO	09421
Commodity	NGT
Cmdty Desc	NATURAL GAS
Operator	ATMOS ENERGY CORP., MID-TEX DIV.
System Name	L20-2
Diameter (inches)	12.75

Pipe Line ID	L20-2
Status	I
T4 Permit NO	09421
Commodity	NGT
Cmdty Desc	NATURAL GAS
Operator	ATMOS ENERGY CORP., MID-TEX DIV.
System Name	L20-2
Diameter (inches)	12.75

Pipe Line ID	581
Status	I
T4 Permit NO	02259
Commodity	HVL
Cmdty Desc	HIGHLY VOLATILE LIQUID
Operator	ENTERPRISE PRODUCTS OPERATINGLLC
System Name	SEMINOLE
Diameter (inches)	14

Pipe Line ID	11038

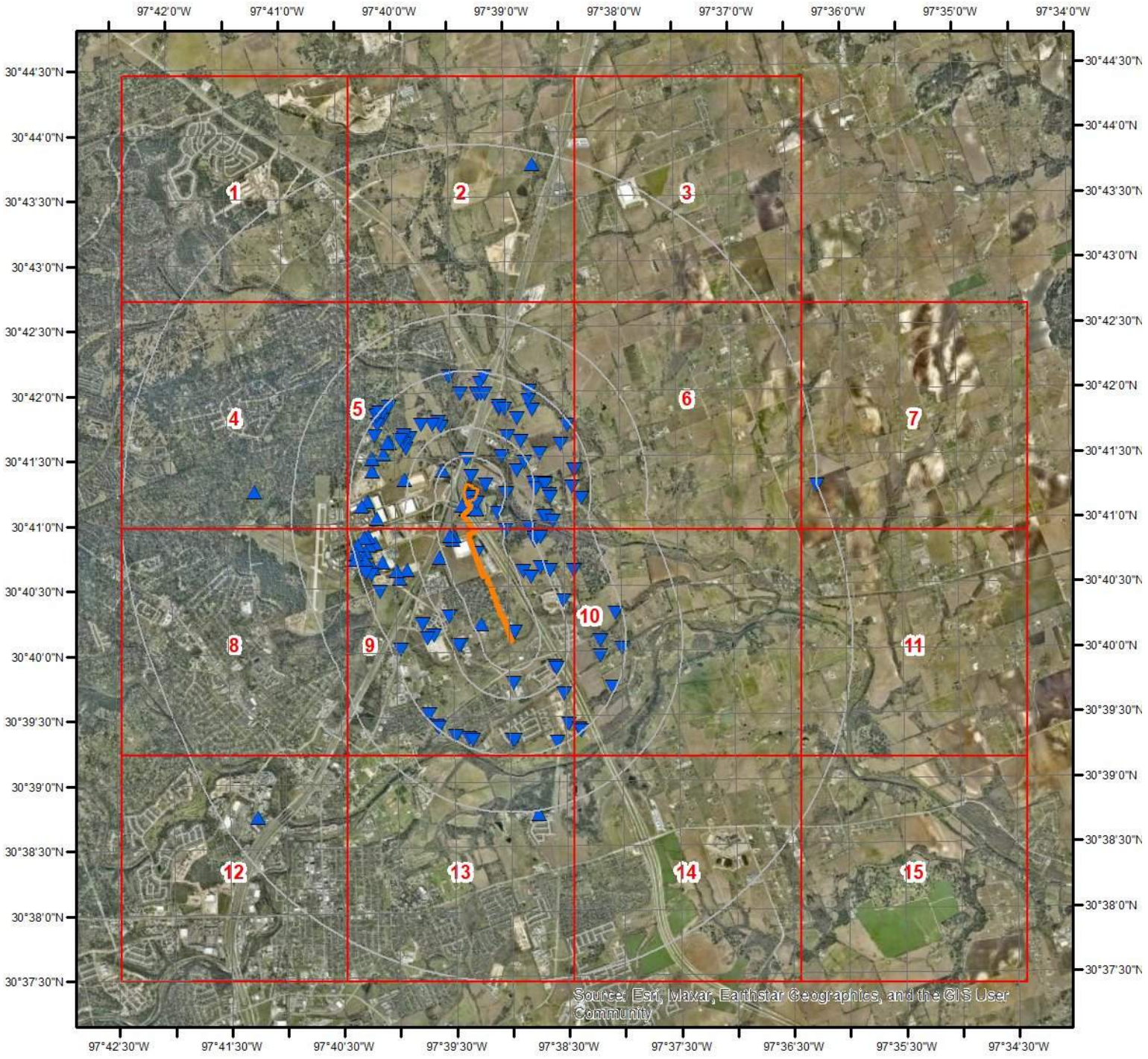
Pipeline and Survey Detail Report

Status	I
T4 Permit NO	04522
Commodity	CRO
Cmdty Desc	CRUDE OIL
Operator	ENTERPRISE CRUDE PIPELINE LLC
System Name	TEPPCO SOUTH TEXAS CRUDE LINES
Diameter (inches)	14

Pipe Line ID	
Status	B
T4 Permit NO	09845
Commodity	NGT
Cmdty Desc	NATURAL GAS
Operator	P2K PIPELINE COMPANY, LLC
System Name	PERMIAN - KATY "P2K" PIPELINE SYSTEM
Diameter (inches)	42

Pipe Line ID	C129
Status	I
T4 Permit NO	09437
Commodity	CRO
Cmdty Desc	CRUDE OIL
Operator	ENTERPRISE CRUDE PIPELINE LLC
System Name	MIDLAND TO SEALY SYSTEM
Diameter (inches)	24

Wells and Additional Sources



Wells & Additional Sources

N

0 0.5 1 2 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 1

N

0 0.15 0.3 0.6 Miles

- ▲ Sites with Higher Elevation
- ■ Sites with Same Elevation
- ▼ Sites with Lower Elevation
- ○ Sites with Unknown Elevation
- ▲ OGW Sites with Higher Elevation
- ■ OGW Sites with Same Elevation
- ▼ OGW Sites with Lower Elevation
- ● OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 2

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 3

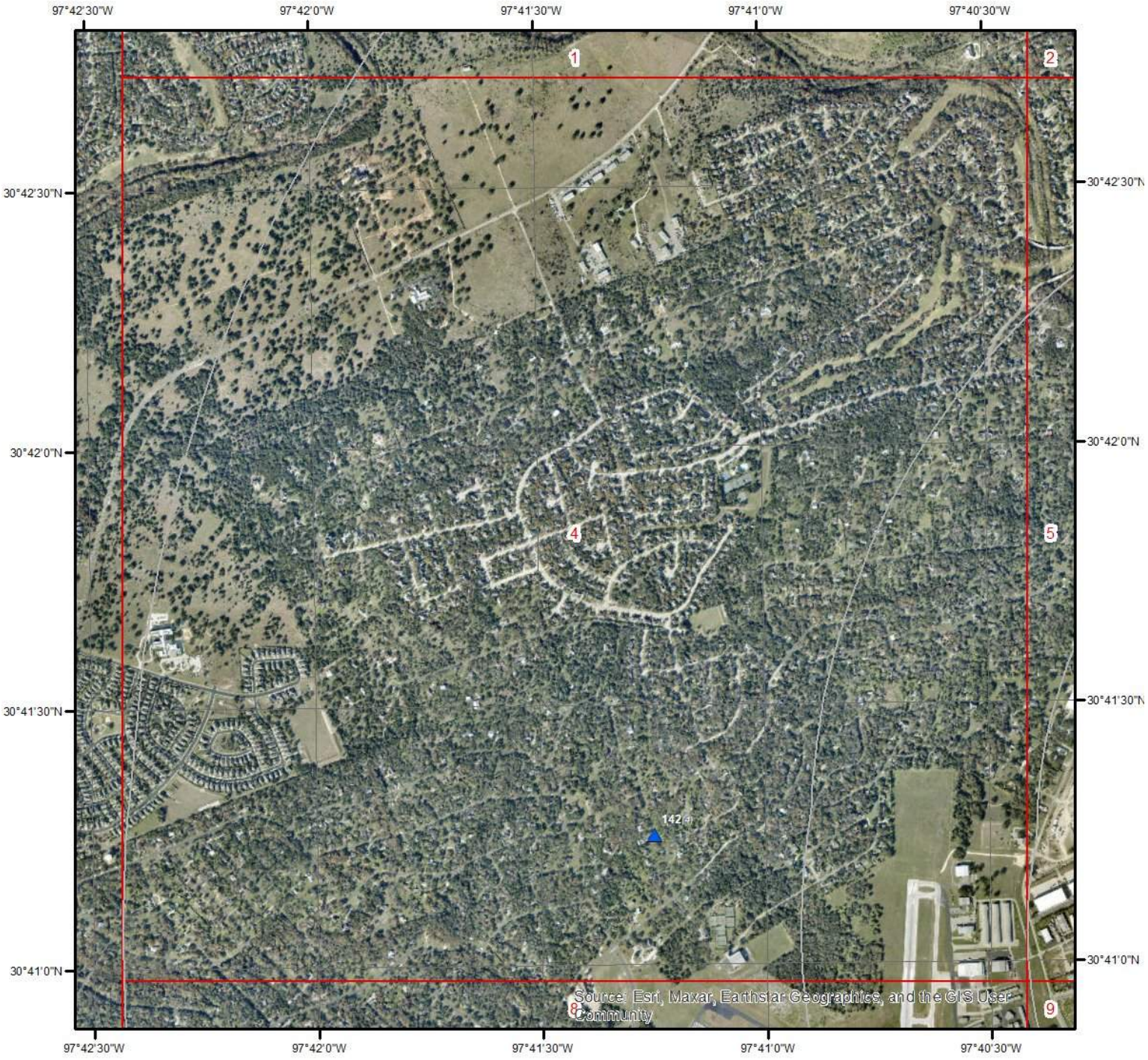
N

0 0.15 0.3 0.6 Miles

- ▲ Sites with Higher Elevation
- ■ Sites with Same Elevation
- ▼ Sites with Lower Elevation
- ○ Sites with Unknown Elevation
- ▲ OGW Sites with Higher Elevation
- ■ OGW Sites with Same Elevation
- ▼ OGW Sites with Lower Elevation
- ● OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 4

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 5

N

Miles

0 0.15 0.3 0.6

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 6

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 7

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 8

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 9

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 10

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 11

N

0 0.15 0.3 0.6 Miles

- ▲ Sites with Higher Elevation
- ■ Sites with Same Elevation
- ▼ Sites with Lower Elevation
- ○ Sites with Unknown Elevation
- ▲ OGW Sites with Higher Elevation
- ■ OGW Sites with Same Elevation
- ▼ OGW Sites with Lower Elevation
- ● OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 12

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 13

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 14

N

0 0.15 0.3 0.6 Miles

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources



Wells & Additional Sources - Page 15

Miles
0 0.15 0.3 0.6

- Sites with Higher Elevation
- Sites with Same Elevation
- Sites with Lower Elevation
- Sites with Unknown Elevation
- OGW Sites with Higher Elevation
- OGW Sites with Same Elevation
- OGW Sites with Lower Elevation
- OGW Sites with Unknown Elevation

ERIS

Wells and Additional Sources Summary

Federal Sources

Public Water Systems Violations and Enforcement Data

Map Key	PWS ID	Distance (ft)	Direction
3	TX2460125	27.25	N

Safe Drinking Water Information System (SDWIS)

Map Key	ID	Distance (ft)	Direction
	No records found		

USGS National Water Information System

Map Key	Site Number	Distance (ft)	Direction
5	USGS-304108097392401	169.23	NNW
6	USGS-304008097385601	220.70	SSE
12	USGS-304117097391201	395.79	N
17	USGS-08105100	1119.91	N
20	USGS-304113097390101	1342.48	NNE
30	USGS-303952097383501	2310.38	SE
32	USGS-304038097384201	2423.09	ESE
41	USGS-304037097383801	2782.02	ESE
49	USGS-304117097384001	3158.39	NE
50	USGS-304146097393701	3158.81	NNW
52	USGS-304145097394001	3187.82	NNW
56	USGS-304102097384001	3295.93	ENE
62	USGS-304145097394601	3475.74	NNW
66	USGS-304139097395501	3599.16	NNW
72	USGS-304151097390301	3754.63	N
79	USGS-304132097400601	4093.96	NW
83	USGS-304158097391501	4179.48	N
96	USGS-304130097401201	4518.49	NW
98	USGS-303919097385801	4581.14	SSE
109	USGS-304036097401301	4788.62	WSW
120	USGS-304036097401501	5014.77	WSW
124	USGS-304150097400501	5093.84	NNW
131	USGS-303923097382201	5159.20	SSE
135	USGS-303925097393801	5226.49	S

Wells from NWIS

Map Key	ID	Distance (ft)	Direction
	No records found		

State Sources

Fort Bend Subsidence District Water Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

Wells and Additional Sources Summary

Groundwater Database

Map Key	Owner Name	Distance (ft)	Direction
7	Garrett	232.58	SSE
7	5819623	232.58	SSE
10	Glen Bishop Live Oaks @ Berry Crk	255.49	N
10	5819628	255.49	N
12	Larry Kokel	395.79	N
12	5819633	395.79	N
15	C C Craven	768.05	NW
15	5819631	768.05	NW
16	John Hoyle	933.85	S
16	5819611	933.85	S
33	Leon Perriaz	2423.37	SE
33	5819907	2423.37	SE
34	Jonah Water Supply Water Plant #12	2448.01	ENE
34	5819632	2448.01	ENE
37	City of Georgetown Klein #1	2705.99	E
37	5819616	2705.99	E
40	5819612	2770.40	NNE
40	Leroy Homair	2770.40	NNE
40	Dave Swagman	2770.40	NNE
40	5819613	2770.40	NNE
41	unknown	2782.02	ESE
41	5819637	2782.02	ESE
47	Chisholm Trail WSC Domel #2	3073.61	NE
47	5819619	3073.61	NE
50	Glen Buie	3158.81	NNW
50	5819635	3158.81	NNW
52	5819636	3187.82	NNW
52	Glen Buie	3187.82	NNW
53	5819609	3210.51	ENE
53	Williamson County Berry Spring	3210.51	ENE
54	A.G. Braun	3242.07	NNW
54	5819605	3242.07	NNW
58	5819607	3395.06	NNW
58	A G Braun	3395.06	NNW
58	5819606	3395.06	NNW
58	Mrs. N. L. Mann	3395.06	NNW
59	5819602	3423.74	NNW
59	A.G. Braun	3423.74	NNW
59	5819608	3423.74	NNW
59	A G Braun	3423.74	NNW
62	Glen Buie	3475.74	NNW
62	5819634	3475.74	NNW
69	5819603	3661.57	NNW
69	A G Braun	3661.57	NNW
70	A.G. Braun	3681.40	NNW
70	5819604	3681.40	NNW
79	Glen Buie	4093.96	NW
79	5819519	4093.96	NW
84	5819630	4191.00	N
84	Beulah Gunn	4191.00	N
85	5819515	4201.32	W
85	J R Barnes	4201.32	W
86	Bobby Stanton	4210.84	N
86	5819622	4210.84	N
87	Bob Stonton	4234.82	N
87	5819615	4234.82	N
95	J R Barnes	4481.16	W
95	5819514	4481.16	W
96	5819518	4518.49	NW
96	Glen Buie	4518.49	NW

97	5819901	4580.60	SSE
97	James Munson	4580.60	SSE
99	Chisholm Trail WSC Domel #1	4582.11	NE
99	5819620	4582.11	NE
108	5819513	4742.35	W
108	J R Barnes	4742.35	W
109	5819521	4788.62	WSW
109	City of Georgetown	4788.62	WSW
118	Rubin Lehman	4980.68	ESE
118	5819614	4980.68	ESE
119	5819509	4984.89	W
119	City of Georgetown TH	4984.89	W
119	City of Georgetown TH	4984.89	W
119	5819510	4984.89	W
122	Wilcox Graves	5060.67	N
122	5819629	5060.67	N
125	Mrs. N.L. Mann	5100.29	NE
125	5819601	5100.29	NE
133	City of Georgetown	5187.66	W
133	5819511	5187.66	W
134	J E Duke	5206.44	SSW
134	5819914	5206.44	SSW
140	5819908	5269.58	SSE
140	Stiles	5269.58	SSE

Harris Galveston Subsidence District Water Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

High Plains Water Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

Oil and Gas Wells

Map Key	ID	Distance (ft)	Direction
	No records found		

Plotted Water Wells

Map Key	WWD ID	Distance (ft)	Direction
38	1029424	2718.32	NE
38	1029423	2718.32	NE
141	1037343	8105.43	SSE
142	1037338	9689.58	WNW
142	882842	9689.58	WNW
142	882851	9689.58	WNW
142	482440	9689.58	WNW
143	892927	14302.44	SW
144	1037334	15228.66	N
145	1037354	15794.71	E

Plugged Water Wells

Map Key	Well Rpt Track No	Distance (ft)	Direction

4	28.80	ESE
13	604.43	NW
14	671.88	WNW
19	1266.96	NNW
22	1544.03	W
24	1859.33	ESE
24	1859.33	ESE
26	1955.12	SSE
26	1955.12	SSE
26	1955.12	SSE
31	2327.46	S
42	2796.11	NW
43	2831.92	ESE
43	2831.92	ESE
48	3125.69	WSW
51	3180.42	SSW
61	3455.18	SSE
63	3488.07	SW
64	3534.31	SSW
65	3588.91	WSW
68	3616.62	WSW
74	3880.01	N
76	3940.11	WNW
80	4095.33	W
88	4265.14	N
92	4419.82	W
93	4429.83	WNW
98	4581.14	SSE
101	4613.35	W
103	4666.05	WNW
104	4666.16	SSE
106	4730.28	WSW
111	4826.99	W
113	4873.35	SW
115	4916.50	S
116	4940.66	S
129	5121.81	SSE

Public Water Systems Wells and Surface Intakes

Map Key	Water SRC	Distance (ft)	Direction
2	G2460125A	15.26	N
18	G2460125B	1265.84	NNE
46	G2460022G	2977.72	ENE
47	G2460001N	3073.61	NE
47	G2460043B	3073.61	NE
99	G2460001M	4582.11	NE
102	G2460043A	4613.48	NE

Select Wells from SDR

Map Key	ID	Distance (ft)	Direction
	No records found		

Submitted Drillers Report Database

Map Key	Well Rpt Track No	Distance (ft)	Direction
21	494545	1367.59	ENE
23	168616	1629.25	ESE

25	174605	1869.38	NNE
27	470414	2018.97	NNE
28	632289	2199.01	SSW
29	261445	2244.22	S
35	320040	2488.17	NNE
36	470412	2646.40	NE
39	531138	2730.43	ENE
45	249016	2974.19	NNE
55	249018	3294.61	NNE
57	221234	3346.18	NE
60	470415	3425.36	NE
67	207693	3607.34	ENE
73	605542	3863.48	E
75	67571	3883.25	NNE
77	460027	4066.70	SE
81	309916	4149.89	NW
82	519121	4176.38	SE
89	595727	4347.19	NW
89	595744	4347.19	NW
90	439802	4376.25	NE
91	470411	4377.24	ENE
107	218122	4734.83	N
112	470409	4861.79	ENE
121	239614	5055.01	N
123	439528	5076.67	SSW
127	43678	5106.53	S
128	335065	5111.96	ESE
130	190309	5130.75	NNE
132	312120	5165.82	SE

Underground Injection Control

Map Key	ID	Distance (ft)	Direction
	No records found		

Water Utility Database

Map Key	Utility Name	Distance (ft)	Direction
46	JONAH WATER SUD	2977.72	ENE
46	G2460022G	2977.72	ENE
47	CITY OF GEORGETOWN	3073.61	NE
47	G2460001N	3073.61	NE
99	CITY OF GEORGETOWN	4582.11	NE
99	G2460001M	4582.11	NE

Well Log Reports from Plotted Water Wells

Map Key	Grid No	Distance (ft)	Direction
1	58-19-6	0.00	-
1	TILSON HOME CORPORATION	0.00	-
8	GLEN W BISHOP	247.44	N
8	58-19-6	247.44	N
9	GLEN BISHOP	251.75	N
9	58-19-6	251.75	N
11	LARRY KOKEL	378.25	N
11	58-19-6	378.25	N
44	58-19-6DD	2882.02	NNW
44	LEON MILLER	2882.02	NNW
71	E C ASTON JR	3730.82	NNE
71	58-19-6Y	3730.82	NNE

Wells and Additional Sources Summary

78	58-19-5Q	4075.30	NW
78	GALE ROSSON	4075.30	NW
94	58-19-6H	4446.19	NNE
94	DOYLE LYDA	4446.19	NNE
100	ALBERT S EVANS JR	4611.86	W
100	58-19-5Y	4611.86	W
105	58-19-6	4704.75	NNE
105	DAVID SCHWEGMAN	4704.75	NNE
110	GLENN BUIE	4792.25	NW
110	58-19-5Q	4792.25	NW
114	RON BOYD	4913.41	NW
114	58-19-6W	4913.41	NW
117	58-19-5K	4964.51	NW
117	VERNON SYDROW	4964.51	NW
126	58-19-5	5104.48	NNW
126	GLEEN BOWIE	5104.48	NNW
136	A.M. ALEXANDER	5231.03	NW
136	58-19-5H	5231.03	NW
137	58-19-5Y	5245.23	W
137	CITY OF GEORGETOWN	5245.23	W
138	58-19-5H	5246.48	NW
138	WALTER YATES	5246.48	NW
139	58-19-5H	5254.44	NW
139	JIM FRYER	5254.44	NW

Public Water Systems Violations and Enforcement Data

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	N	0.01	27.25	732.20	PWSV

Address Line 2:
State Code: TX
Zip Code: 78626-3695
City Name: GEORGETOWN
Address Line 1: 2800 N INTERSTATE 35
PWS ID: TX2460125
PWS Type Code: TNCWS
PWS Type Description: Transient Non-Community Water System
Primary Source Code: GW
Primary Source Desc: Groundwater
PWS Activity Code: A
PWS Activity Description: Active
PWS Deactivation Date:
Phone Number: 254-793-3229

--Details--
Population Served Count: 195
City Served:
County Served: Williamson
State Served: TX
Zip Code Served:

USGS National Water Information System

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NNW	0.03	169.23	735.00	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304108097392401
Station Name: ZK-58-19-628
Site Type: Well
Latitude: 30.68555556000000
Longitude: -97.6566667000000
Date Drilled:
Well Depth: 200
Well Depth Unit: ft
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	SSE	0.04	220.70	687.64	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304008097385601
Station Name: ZK-58-19-623
Site Type: Well
Latitude: 30.66908185000000
Longitude: -97.6491752000000
Date Drilled: 19860415
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
12	N	0.07	395.79	679.97	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304117097391201
Station Name: ZK-58-19-633
Site Type: Well
Latitude: 30.68805556000000
Longitude: -97.6533333000000
Date Drilled:
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
17	N	0.21	1,119.91	671.17	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-08105100
Station Name: Berry Ck nr Georgetown, TX
Site Type: Stream
Latitude: 30.69130304000000
Longitude: -97.6561202000000
Date Drilled:
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:

Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
20	NNE	0.25	1,342.48	668.68	FED USGS

Reporting Agency:	USGS Texas Water Science Center
Site Number:	USGS-304113097390101
Station Name:	ZK-58-19-609
Site Type:	Spring
Latitude:	30.68694444000000
Longitude:	-97.6502778000000
Date Drilled:	
Well Depth:	
Well Depth Unit:	
Well Hole Depth:	
W Hole Depth Unit:	
Formation Type:	Edwards and Associated Limestones

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	SE	0.44	2,310.38	683.57	FED USGS

Reporting Agency:	USGS Texas Water Science Center
Site Number:	USGS-303952097383501
Station Name:	ZK-58-19-907
Site Type:	Well
Latitude:	30.66463766000000
Longitude:	-97.6433416000000
Date Drilled:	1956
Well Depth:	200
Well Depth Unit:	ft
Well Hole Depth:	200
W Hole Depth Unit:	ft
Formation Type:	Edwards and Associated Limestones

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
32	ESE	0.46	2,423.09	711.20	FED USGS

Reporting Agency:	USGS Texas Water Science Center
Site Number:	USGS-304038097384201
Station Name:	ZK-58-19-617
Site Type:	Well
Latitude:	30.67741487000000
Longitude:	-97.6452863000000
Date Drilled:	19850129
Well Depth:	270

Well Depth Unit: ft
Well Hole Depth: 270
W Hole Depth Unit: ft
Formation Type: Edwards and Associated Limestones

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
41	ESE	0.53	2,782.02	712.96	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304037097383801
Station Name: ZK-58-19-637
Site Type: Well
Latitude: 30.67694444000000
Longitude: -97.6438889000000
Date Drilled:
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
49	NE	0.60	3,158.39	691.47	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304117097384001
Station Name: ZK-58-19-619
Site Type: Well
Latitude: 30.68805556000000
Longitude: -97.6444444000000
Date Drilled:
Well Depth: 220
Well Depth Unit: ft
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
50	NNW	0.60	3,158.81	694.33	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304146097393701
Station Name: ZK-58-19-635
Site Type: Well
Latitude: 30.69611110000000

Longitude: -97.6602778000000
Date Drilled:
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
52	NNW	0.60	3,187.82	689.21	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304145097394001
Station Name: ZK-58-19-636
Site Type: Well
Latitude: 30.69583333000000
Longitude: -97.6611111000000
Date Drilled:
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
56	ENE	0.62	3,295.93	664.19	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304102097384001
Station Name: ZK-58-19-632
Site Type: Well
Latitude: 30.68388889000000
Longitude: -97.6444444000000
Date Drilled:
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
62	NNW	0.66	3,475.74	688.39	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304145097394601

Station Name: ZK-58-19-634
Site Type: Well
Latitude: 30.69583333000000
Longitude: -97.6627778000000
Date Drilled:
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
66	NNW	0.68	3,599.16	702.24	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304139097395501
Station Name: ZK-58-19-603
Site Type: Well
Latitude: 30.69416667000000
Longitude: -97.6652778000000
Date Drilled:
Well Depth: 72
Well Depth Unit: ft
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
72	N	0.71	3,754.63	703.38	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304151097390301
Station Name: ZK-58-19-620
Site Type: Well
Latitude: 30.69769170000000
Longitude: -97.6511202000000
Date Drilled: 19850322
Well Depth: 200
Well Depth Unit: ft
Well Hole Depth: 200
W Hole Depth Unit: ft
Formation Type: Edwards and Associated Limestones

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
79	NW	0.78	4,093.96	731.65	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304132097400601
Station Name: ZK-58-19-519
Site Type: Well
Latitude: 30.69222220000000
Longitude: -97.6683333000000
Date Drilled:
Well Depth: 115
Well Depth Unit: ft
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
83	N	0.79	4,179.48	708.82	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304158097391501
Station Name: ZK-58-19-622
Site Type: Well
Latitude: 30.69963603000000
Longitude: -97.6544536000000
Date Drilled: 19850307
Well Depth: 200
Well Depth Unit: ft
Well Hole Depth: 200
W Hole Depth Unit: ft
Formation Type: Edwards and Associated Limestones

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
96	NW	0.86	4,518.49	741.79	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304130097401201
Station Name: ZK-58-19-518
Site Type: Well
Latitude: 30.69166667000000
Longitude: -97.6700000000000
Date Drilled:
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
98	SSE	0.87	4,581.14	679.39	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-303919097385801
Station Name: ZK-58-19-901
Site Type: Well
Latitude: 30.65527778000000
Longitude: -97.6494444000000
Date Drilled:
Well Depth: 184
Well Depth Unit: ft
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
109	WSW	0.91	4,788.62	730.86	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304036097401301
Station Name: ZK-58-19-521
Site Type: Well
Latitude: 30.67666667000000
Longitude: -97.6702778000000
Date Drilled:
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
120	WSW	0.95	5,014.77	729.30	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304036097401501
Station Name: ZK-58-19-508
Site Type: Well
Latitude: 30.67685904000000
Longitude: -97.6711205000000
Date Drilled: 1979
Well Depth: 199
Well Depth Unit: ft
Well Hole Depth: 199

W Hole Depth Unit: ft
Formation Type: Edwards and Associated Limestones

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
124	NNW	0.96	5,093.84	715.48	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-304150097400501
Station Name: ZK-58-19-505
Site Type: Well
Latitude: 30.69741374000000
Longitude: -97.6683429000000
Date Drilled: 19780701
Well Depth: 90
Well Depth Unit: ft
Well Hole Depth: 90
W Hole Depth Unit: ft
Formation Type: Edwards and Associated Limestones

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
131	SSE	0.98	5,159.20	662.30	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-303923097382201
Station Name: ZK-58-19-908
Site Type: Well
Latitude: 30.65658249000000
Longitude: -97.6397303000000
Date Drilled:
Well Depth:
Well Depth Unit:
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
135	S	0.99	5,226.49	703.40	FED USGS

Reporting Agency: USGS Texas Water Science Center
Site Number: USGS-303925097393801
Station Name: ZK-58-19-914
Site Type: Well
Latitude: 30.65694444000000
Longitude: -97.6605556000000
Date Drilled:

Well Depth: 100
Well Depth Unit: ft
Well Hole Depth:
W Hole Depth Unit:
Formation Type:

Groundwater Database

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
7	SSE	0.04	232.58	688.03	GWDB

Well Rep Track No:
State Well NO: 5819623
Owner Name: Garrett
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year:
Well Depth:
Well Usage: Unused
Water Level Status:
Latitude: 30.6691670
Longitude: -97.6491670
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819623&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819623&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
10	N	0.05	255.49	729.70	GWDB

Well Rep Track No:
State Well NO: 5819628
Owner Name: Glen Bishop Live Oaks @ Berry Crk
Drilling Start Dt:
Drilling Month: 12
Drilling Day: 5
Drilling Year: 1986
Well Depth: 200
Well Usage: Public Supply
Water Level Status:
Latitude: 30.6858340
Longitude: -97.6566670
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819628&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819628&Cnty=Williamson

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
12	N	0.07	395.79	679.23	GWDB

Well Rep Track No:	
State Well NO:	5819633
Owner Name:	Larry Kokel
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	
Well Usage:	Domestic
Water Level Status:	
Latitude:	30.6880560
Longitude:	-97.6533340
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819633&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819633&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
15	NW	0.15	768.05	740.29	GWDB

Well Rep Track No:	
State Well NO:	5819631
Owner Name:	C C Craven
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	148
Well Usage:	Domestic
Water Level Status:	
Latitude:	30.6816670
Longitude:	-97.6586120
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819631&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819631&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
16	S	0.18	933.85	734.14	GWDB

Well Rep Track No:	
State Well NO:	5819611
Owner Name:	John Hoyle

Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year: 1971
Well Depth: 200
Well Usage: Domestic
Water Level Status:
Latitude: 30.6702780
Longitude: -97.6541670
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819611&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819611&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
33	SE	0.46	2,423.37	683.75	GWDB

Well Rep Track No:
State Well NO: 5819907
Owner Name: Leon Perriaz
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year: 1956
Well Depth: 200
Well Usage: Domestic
Water Level Status:
Latitude: 30.6644450
Longitude: -97.6430560
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819907&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819907&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
34	ENE	0.46	2,448.01	685.61	GWDB

Well Rep Track No:
State Well NO: 5819632
Owner Name: Jonah Water Supply Water Plant #12
Drilling Start Dt:
Drilling Month: 4
Drilling Day: 26
Drilling Year: 1993
Well Depth: 225
Well Usage: Public Supply
Water Level Status:

Latitude:	30.6825000
Longitude:	-97.6469450
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819632&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819632&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
37	E	0.51	2,705.99	711.58	GWDB

Well Rep Track No:	
State Well NO:	5819616
Owner Name:	City of Georgetown Klein #1
Drilling Start Dt:	
Drilling Month:	1
Drilling Day:	28
Drilling Year:	1985
Well Depth:	270
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6808330
Longitude:	-97.6461110
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819616&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819616&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
40	NNE	0.52	2,770.40	694.78	GWDB

Well Rep Track No:	
State Well NO:	5819612
Owner Name:	Leroy Homair
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	1976
Well Depth:	180
Well Usage:	Domestic
Water Level Status:	
Latitude:	30.6941670
Longitude:	-97.6500010
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819612&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819612&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
40	NNE	0.52	2,770.40	694.78	GWDB

Well Rep Track No:	
State Well NO:	5819613
Owner Name:	Dave Swagman
Drilling Start Dt:	
Drilling Month:	9
Drilling Day:	14
Drilling Year:	1976
Well Depth:	190
Well Usage:	Domestic
Water Level Status:	
Latitude:	30.6941670
Longitude:	-97.6500010
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819613&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819613&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
41	ESE	0.53	2,782.02	712.96	GWDB

Well Rep Track No:	
State Well NO:	5819637
Owner Name:	unknown
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6769440
Longitude:	-97.6438890
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819637&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819637&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
47	NE	0.58	3,073.61	691.35	GWDB

Well Rep Track No:	
State Well NO:	5819619
Owner Name:	Chisholm Trail WSC Domel #2
Drilling Start Dt:	

Drilling Month:	3
Drilling Day:	18
Drilling Year:	1985
Well Depth:	220
Well Usage:	Public Supply
Water Level Status:	
Latitude:	30.6883340
Longitude:	-97.6447220
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819619&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819619&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
50	NNW	0.60	3,158.81	694.33	GWDB

Well Rep Track No:	
State Well NO:	5819635
Owner Name:	Glen Buie
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	
Well Usage:	Domestic
Water Level Status:	
Latitude:	30.6961110
Longitude:	-97.6602780
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819635&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819635&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
52	NNW	0.60	3,187.82	689.23	GWDB

Well Rep Track No:	
State Well NO:	5819636
Owner Name:	Glen Buie
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	
Well Usage:	Domestic
Water Level Status:	
Latitude:	30.6958340

Longitude:	-97.6611120
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819636&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819636&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
53	ENE	0.61	3,210.51	664.09	GWDB

Well Rep Track No:	
State Well NO:	5819609
Owner Name:	Williamson County Berry Spring
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	
Well Usage:	Stock
Water Level Status:	
Latitude:	30.6838890
Longitude:	-97.6447220
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819609&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819609&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
54	NNW	0.61	3,242.07	697.42	GWDB

Well Rep Track No:	
State Well NO:	5819605
Owner Name:	A.G. Braun
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	1956
Well Depth:	56
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6927780
Longitude:	-97.6650010
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819605&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819605&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB

58	NNW	0.64	3,395.06	694.97	GWDB

Well Rep Track No:
State Well NO: 5819607
Owner Name: A G Braun
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year:
Well Depth: 24
Well Usage: Unused
Water Level Status:
Latitude: 30.6941670
Longitude: -97.6644450
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819607&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819607&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
58	NNW	0.64	3,395.06	694.97	GWDB

Well Rep Track No:
State Well NO: 5819606
Owner Name: Mrs. N. L. Mann
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year: 1940
Well Depth: 100
Well Usage: Domestic
Water Level Status:
Latitude: 30.6941670
Longitude: -97.6644450
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819606&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819606&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
59	NNW	0.65	3,423.74	700.54	GWDB

Well Rep Track No:
State Well NO: 5819602
Owner Name: A.G. Braun
Drilling Start Dt:

Drilling Month:
Drilling Day:
Drilling Year: 1948
Well Depth: 47
Well Usage: Unused
Water Level Status:
Latitude: 30.6933340
Longitude: -97.6652780
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819602&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819602&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
59	NNW	0.65	3,423.74	700.54	GWDB

Well Rep Track No:
State Well NO: 5819608
Owner Name: A G Braun
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year:
Well Depth: 150
Well Usage: Domestic
Water Level Status:
Latitude: 30.6933340
Longitude: -97.6652780
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819608&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819608&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
62	NNW	0.66	3,475.74	688.36	GWDB

Well Rep Track No:
State Well NO: 5819634
Owner Name: Glen Buie
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year:
Well Depth:
Well Usage: Domestic
Water Level Status:
Latitude: 30.6958340

Longitude:	-97.6627780
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819634&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819634&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
69	NNW	0.69	3,661.57	702.46	GWDB

Well Rep Track No:	
State Well NO:	5819603
Owner Name:	A G Braun
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	72
Well Usage:	Irrigation
Water Level Status:	
Latitude:	30.6944450
Longitude:	-97.6652780
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819603&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819603&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
70	NNW	0.70	3,681.40	712.65	GWDB

Well Rep Track No:	
State Well NO:	5819604
Owner Name:	A.G. Braun
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	1948
Well Depth:	47
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6938890
Longitude:	-97.6658340
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819604&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819604&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB

79	NW	0.78	4,093.96	731.65	GWDB

Well Rep Track No:
State Well NO: 5819519
Owner Name: Glen Buie
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year:
Well Depth: 115
Well Usage: Domestic
Water Level Status:
Latitude: 30.6922220
Longitude: -97.6683330
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819519&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819519&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
84	N	0.79	4,191.00	709.86	GWDB

Well Rep Track No:
State Well NO: 5819630
Owner Name: Beulah Gunn
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year: 1916
Well Depth: 159
Well Usage: Domestic
Water Level Status:
Latitude: 30.6997220
Longitude: -97.6569450
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819630&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819630&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
85	W	0.80	4,201.32	760.62	GWDB

Well Rep Track No:
State Well NO: 5819515
Owner Name: J R Barnes
Drilling Start Dt:

Drilling Month:	3
Drilling Day:	
Drilling Year:	1983
Well Depth:	194
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6808330
Longitude:	-97.6697220
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819515&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819515&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
86	N	0.80	4,210.84	708.82	GWDB

Well Rep Track No:	
State Well NO:	5819622
Owner Name:	Bobby Stanton
Drilling Start Dt:	
Drilling Month:	3
Drilling Day:	7
Drilling Year:	1985
Well Depth:	200
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6997220
Longitude:	-97.6544450
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819622&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819622&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
87	N	0.80	4,234.82	708.36	GWDB

Well Rep Track No:	
State Well NO:	5819615
Owner Name:	Bob Stonton
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	1978
Well Depth:	207
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6997220

Longitude:	-97.6538890
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819615&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819615&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
95	W	0.85	4,481.16	758.01	GWDB

Well Rep Track No:	
State Well NO:	5819514
Owner Name:	J R Barnes
Drilling Start Dt:	
Drilling Month:	3
Drilling Day:	
Drilling Year:	1983
Well Depth:	184
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6805550
Longitude:	-97.6705550
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819514&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819514&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
96	NW	0.86	4,518.49	741.79	GWDB

Well Rep Track No:	
State Well NO:	5819518
Owner Name:	Glen Buie
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	
Well Usage:	Domestic
Water Level Status:	
Latitude:	30.6916670
Longitude:	-97.6700000
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819518&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819518&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
97	SSE	0.87	4,580.60	680.61	GWDB

Well Rep Track No:
State Well NO: 5819901
Owner Name: James Munson
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year: 1971
Well Depth: 184
Well Usage: Irrigation
Water Level Status:
Latitude: 30.6552780
Longitude: -97.6497220
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819901&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819901&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
99	NE	0.87	4,582.11	664.63	GWDB

Well Rep Track No:
State Well NO: 5819620
Owner Name: Chisholm Trail WSC Domel #1
Drilling Start Dt:
Drilling Month: 3
Drilling Day: 22
Drilling Year: 1985
Well Depth: 200
Well Usage: Public Supply
Water Level Status:
Latitude: 30.6891670
Longitude: -97.6402780
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819620&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819620&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
108	W	0.90	4,742.35	751.64	GWDB

Well Rep Track No:
State Well NO: 5819513
Owner Name: J R Barnes
Drilling Start Dt:

Drilling Month:	3
Drilling Day:	
Drilling Year:	1983
Well Depth:	200
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6797220
Longitude:	-97.6711110
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819513&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819513&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
109	WSW	0.91	4,788.62	730.86	GWDB

Well Rep Track No:	
State Well NO:	5819521
Owner Name:	City of Georgetown
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	
Well Usage:	Public Supply
Water Level Status:	
Latitude:	30.6766670
Longitude:	-97.6702780
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819521&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819521&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
118	ESE	0.94	4,980.68	657.94	GWDB

Well Rep Track No:	
State Well NO:	5819614
Owner Name:	Rubin Lehman
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	1979
Well Depth:	675
Well Usage:	Domestic
Water Level Status:	
Latitude:	30.6713890

Longitude:	-97.6341670
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819614&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819614&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
119	W	0.94	4,984.89	756.60	GWDB

Well Rep Track No:	
State Well NO:	5819509
Owner Name:	City of Georgetown TH
Drilling Start Dt:	
Drilling Month:	12
Drilling Day:	
Drilling Year:	1980
Well Depth:	185
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6805550
Longitude:	-97.6722220
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819509&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819509&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
119	W	0.94	4,984.89	756.60	GWDB

Well Rep Track No:	
State Well NO:	5819510
Owner Name:	City of Georgetown TH
Drilling Start Dt:	
Drilling Month:	12
Drilling Day:	
Drilling Year:	1980
Well Depth:	186
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6805550
Longitude:	-97.6722220
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819510&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819510&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB

122	N	0.96	5,060.67	711.89	GWDB

Well Rep Track No:
State Well NO: 5819629
Owner Name: Wilcox Graves
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year:
Well Depth: 107
Well Usage: Unused
Water Level Status:
Latitude: 30.7019450
Longitude: -97.6533340
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819629&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819629&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
125	NE	0.97	5,100.29	668.90	GWDB

Well Rep Track No:
State Well NO: 5819601
Owner Name: Mrs. N.L. Mann
Drilling Start Dt:
Drilling Month:
Drilling Day:
Drilling Year: 1950
Well Depth: 100
Well Usage: Irrigation
Water Level Status:
Latitude: 30.6955560
Longitude: -97.6411110
Data Source: Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819601&Type=GWDB
Document Link: https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819601&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
133	W	0.98	5,187.66	751.22	GWDB

Well Rep Track No:
State Well NO: 5819511
Owner Name: City of Georgetown
Drilling Start Dt:

Drilling Month:	10
Drilling Day:	18
Drilling Year:	1982
Well Depth:	185
Well Usage:	Unused
Water Level Status:	
Latitude:	30.6794440
Longitude:	-97.6725000
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819511&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819511&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
134	SSW	0.99	5,206.44	703.17	GWDB

Well Rep Track No:	
State Well NO:	5819914
Owner Name:	J E Duke
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	100
Well Usage:	Domestic
Water Level Status:	
Latitude:	30.6572230
Longitude:	-97.6608340
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819914&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819914&Cnty=Williamson

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
140	SSE	1.00	5,269.58	659.35	GWDB

Well Rep Track No:	
State Well NO:	5819908
Owner Name:	Stiles
Drilling Start Dt:	
Drilling Month:	
Drilling Day:	
Drilling Year:	
Well Depth:	
Well Usage:	
Water Level Status:	
Latitude:	30.6563890

Wells and Additional Sources Detail Report

Longitude:	-97.6394450
Data Source:	Groundwater Database (GWDB) Reports; GIS shapefile of GWDB well locations
Well Info Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetReports.aspx?Num=5819908&Type=GWDB
Document Link:	https://www3.twdb.texas.gov/apps/waterdatainteractive//GetScannedImage.aspx?Num=5819908&Cnty=Williamson

Plotted Water Wells

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
38	NE	0.51	2,718.32	669.69	WATER WELLS

WWD ID:	1029424	Deg:	58
Grid No:	58-19-6	Sev Min:	19
TX Grid ID:	50961.0	Two Min:	6
TX Grid:	51239.0	Shape Length:	0.0
Perimeter:	17187.078	Shape Area:	0.00173608417773
County:	WILLIAMSON		
Data Source :	Water Well Report Viewer, 2.5 Minute Quad Grid (Map); TCEQ Water Well Public AGO		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
38	NE	0.51	2,718.32	669.69	WATER WELLS

WWD ID:	1029423	Deg:	58
Grid No:	58-19-6	Sev Min:	19
TX Grid ID:	50961.0	Two Min:	6
TX Grid:	51239.0	Shape Length:	0.0
Perimeter:	17187.078	Shape Area:	0.00173608417773
County:	WILLIAMSON		
Data Source :	Water Well Report Viewer, 2.5 Minute Quad Grid (Map); TCEQ Water Well Public AGO		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
141	SSE	1.54	8,105.43	754.82	WATER WELLS

WWD ID:	1037343	Deg:	58
Grid No:	58-19-9	Sev Min:	19
TX Grid ID:	51297.0	Two Min:	9
TX Grid:	51575.0	Shape Length:	0.0
Perimeter:	17190.02	Shape Area:	0.00173598124459
County:	WILLIAMSON		
Data Source :	Water Well Report Viewer, 2.5 Minute Quad Grid (Map); TCEQ Water Well Public AGO		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
142	WNW	1.84	9,689.58	807.73	WATER WELLS

WWD ID:	1037338	Deg:	58
Grid No:	58-19-5	Sev Min:	19

TX Grid ID:	50960.0	Two Min:	5
TX Grid:	51243.0	Shape Length:	0.0
Perimeter:	17188.379	Shape Area:	0.00173636827029
County:	WILLIAMSON		
Data Source :	Water Well Report Viewer, 2.5 Minute Quad Grid (Map); TCEQ Water Well Public AGO		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
142	WNW	1.84	9,689.58	807.73	WATER WELLS

WWD ID:	882842	Deg:	58
Grid No:	58-19-5	Sev Min:	19
TX Grid ID:	50960.0	Two Min:	5
TX Grid:	51243.0	Shape Length:	0.0
Perimeter:	17188.379	Shape Area:	0.00173636827029
County:	WILLIAMSON		
Data Source :	Water Well Report Viewer, 2.5 Minute Quad Grid (Map); TCEQ Water Well Public AGO		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
142	WNW	1.84	9,689.58	807.73	WATER WELLS

WWD ID:	882851	Deg:	58
Grid No:	58-19-5	Sev Min:	19
TX Grid ID:	50960.0	Two Min:	5
TX Grid:	51243.0	Shape Length:	0.0
Perimeter:	17188.379	Shape Area:	0.00173636827029
County:	WILLIAMSON		
Data Source :	Water Well Report Viewer, 2.5 Minute Quad Grid (Map); TCEQ Water Well Public AGO		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
142	WNW	1.84	9,689.58	807.73	WATER WELLS

WWD ID:	482440	Deg:	58
Grid No:	58-19-5	Sev Min:	19
TX Grid ID:	50960.0	Two Min:	5
TX Grid:	51243.0	Shape Length:	0.0
Perimeter:	17188.379	Shape Area:	0.00173636827029
County:	BELL		
Data Source :	Water Well Report Viewer, 2.5 Minute Quad Grid (Map); TCEQ Water Well Public AGO		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
143	SW	2.71	14,302.44	754.67	WATER WELLS

WWD ID:	892927	Deg:	58
Grid No:	58-19-8	Sev Min:	19

TX Grid ID:	51296.0	Two Min:	8
TX Grid:	51579.0	Shape Length:	0.0
Perimeter:	17191.443	Shape Area:	0.00173629155225
County:	WILLIAMSON		
Data Source :	Water Well Report Viewer, 2.5 Minute Quad Grid (Map); TCEQ Water Well Public AGO		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
144	N	2.88	15,228.66	768.84	WATER WELLS

WWD ID:	1037334	Deg:	58
Grid No:	58-19-3	Sev Min:	19
TX Grid ID:	50625.0	Two Min:	3
TX Grid:	50903.0	Shape Length:	0.0
Perimeter:	17183.141	Shape Area:	0.0017359953485
County:	WILLIAMSON		
Data Source :	Water Well Report Viewer, 2.5 Minute Quad Grid (Map); TCEQ Water Well Public AGO		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
145	E	2.99	15,794.71	722.06	WATER WELLS

WWD ID:	1037354	Deg:	58
Grid No:	58-20-4	Sev Min:	20
TX Grid ID:	50962.0	Two Min:	4
TX Grid:	51231.0	Shape Length:	0.0
Perimeter:	17187.027	Shape Area:	0.00173607292733
County:	WILLIAMSON		
Data Source :	Water Well Report Viewer, 2.5 Minute Quad Grid (Map); TCEQ Water Well Public AGO		

Plugged Water Wells

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
4	ESE	0.01	28.80	730.45	PLUGGED WELLS

License No:	4920	Well Address 1:	Texas 130 Frontage Rd.
Variance No:		Well Address 2:	
Plug Rpt Track No:	219592	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2022-06-10	Owner Well No:	
No Wells Plugged:	1	Owner Name:	Titan Development
Plugger Name:	Tommy Lovelace	Owner Address 1:	4903 Woodrow
Plugging Mtd Descr:		Owner Address 2:	Unit A
Plugging Date:	2022-05-17	Owner City:	Austin
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78756
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	

Wells and Additional Sources Detail Report

Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.6793
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Tommy Lovelace	Lat Minute:	40
Driller Address 1:	4997 Elm Grove Road	Lat Second:	45.48
Driller Address 2:		Longitude:	-97.65469
Driller City:	Belton	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	76513	Long Second:	16.88
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	Yes
Company Name:	Tom Lovelace Water Well Service		
Original Company Name:			
Plugging Method:	Tremmie pipe bentonite from bottom to 2 feet from surface, cement top 2 feet		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
13	NW	0.11	604.43	740.20	PLUGGED WELLS

License No:	4920	Well Address 1:	S. IH 35 Frontage Rd
Variance No:		Well Address 2:	
Plug Rpt Track No:	219591	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2022-06-10	Owner Well No:	
No Wells Plugged:	1	Owner Name:	Titan Development
Plugger Name:	Tommy Lovelace	Owner Address 1:	4903 Woodrow
Plugging Mtd Descr:		Owner Address 2:	Unit A
Plugging Date:	2022-05-17	Owner City:	Austin
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78756
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.68161
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Tommy Lovelace	Lat Minute:	40
Driller Address 1:	4997 Elm Grove Road	Lat Second:	53.8
Driller Address 2:		Longitude:	-97.65809
Driller City:	Belton	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	76513	Long Second:	29.12
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	Yes

Wells and Additional Sources Detail Report

Company Name: Tom Lovelace Water Well Service
Original Company Name:
Plugging Method: Tremmie pipe bentonite from bottom to 2 feet from surface, cement top 2 feet
Comments:
Well Location Description:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	WNW	0.13	671.88	740.70	PLUGGED WELLS

License No: 4640
Variance No:
Plug Rpt Track No: 210437
Well Rpt Track No:
Date Submitted: 2021-07-23
No Wells Plugged: 5
Plugger Name: Sam Lovelace
Plugging Mtd Descr:
Plugging Date: 2021-07-09
Orig License No: Unknown
Orig Driller Name:
Original Well Use: Domestic
Orig Wel Use Descr:
Orig Drill Date:
Apprentice Reg No:
Apprentice Signed:
Driller Signed: Sam Lovelace
Driller Address 1: 1370 CR 361
Driller Address 2:
Driller City: Granger
Driller State: TX
Driller Zip: 76530
Driller Oth Cntry:
Driller Country:
Elevation:
Company Name: Blackland Water Well Service
Original Company Name:
Plugging Method: Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet
Comments: Unable to remove casing from well. Well was bleached prior to Plugging.
Well Location Description:

Well Address 1: 2550 IH-35 N
Well Address 2:
Well City: Georgetown
Well Zip: 78628
Owner Well No: 2
Owner Name: Titan Development
Owner Address 1: 4903 Woodrow Unit A
Owner Address 2:
Owner City: Austin
Owner State: TX
Owner Zip: 78756
Owner Oth Cntry:
Owner Country:
County: Williamson
Latitude: 30.6811
Lat Degree: 30
Lat Minute: 40
Lat Second: 51.96
Longitude: -97.6582
Long Degree: 97
Long Minute: 39
Long Second: 29.52
Hor Datum Type: WGS84
Grid No: 58-19-6
Loc Verfd by Drllr: Yes

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
19	NNW	0.24	1,266.96	733.59	PLUGGED WELLS

License No: 4640
Variance No:
Plug Rpt Track No: 210438

Well Address 1: 3001 IH-35 north
Well Address 2:
Well City: Georgetown

Wells and Additional Sources Detail Report

Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2021-07-23	Owner Well No:	3
No Wells Plugged:	5	Owner Name:	Titan Development
Plugger Name:		Owner Address 1:	4903 Woodrow Unit A
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2021-07-09	Owner City:	Austin
Orig License No:	Unknown	Owner State:	TX
Orig Driller Name:		Owner Zip:	78756
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.69
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Sam Lovelace	Lat Minute:	41
Driller Address 1:	1370 CR 361	Lat Second:	24
Driller Address 2:		Longitude:	-97.6596
Driller City:	Granger	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	76530	Long Second:	34.56
Driller Oth Cntry:		Hor Datum Type:	WGS84
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	Yes
Company Name:	Blackland Water Well Service		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:	Well was full of roots and uncased the entire depth. Well was bleached prior to plugging.		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
22	W	0.29	1,544.03	742.49	PLUGGED WELLS

License No:	4640	Well Address 1:	2550 N IH-35
Variance No:		Well Address 2:	
Plug Rpt Track No:	210427	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2021-07-23	Owner Well No:	1
No Wells Plugged:	5	Owner Name:	Titan Development
Plugger Name:	Sam Lovelace	Owner Address 1:	4903 Woodrow Unit A
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2021-07-09	Owner City:	Austin
Orig License No:	Unknown	Owner State:	TX
Orig Driller Name:		Owner Zip:	78756
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.6788

Apprentice Signed:		Lat Degree:	30
Driller Signed:	Sam Lovelace	Lat Minute:	40
Driller Address 1:	1370 CR 361	Lat Second:	43.68
Driller Address 2:		Longitude:	-97.6602
Driller City:	Granger	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	76530	Long Second:	36.72
Driller Oth Cntry:		Hor Datum Type:	WGS84
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	Yes
Company Name:	Blackland Water Well Service		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:	Unable to remove casing due to surface sleeve that was concreted in. Well was bleached prior to plugging		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
24	ESE	0.35	1,859.33	720.14	PLUGGED WELLS

License No:	2563	Well Address 1:	
Variance No:		Well Address 2:	
Plug Rpt Track No:	21446	Well City:	
Well Rpt Track No:		Well Zip:	
Date Submitted:	2004-12-20	Owner Well No:	
No Wells Plugged:		Owner Name:	LSI
Plugger Name:	David McDearmon	Owner Address 1:	206 Lazy Rd
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2004-12-13	Owner City:	Georgetown
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78626
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.676111
Apprentice Signed:		Lat Degree:	30
Driller Signed:	David McDearmon	Lat Minute:	40
Driller Address 1:	12907 Lowden Rd	Lat Second:	34
Driller Address 2:		Longitude:	-97.646667
Driller City:	Manchaca	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	78652	Long Second:	48
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	No
Company Name:	David McDearmon water well drilling & pu		
Original Company Name:			

Plugging Method: Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet
Comments: No Data
Well Location Description:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
24	ESE	0.35	1,859.33	720.14	PLUGGED WELLS

License No:	2563	Well Address 1:	w
Variance No:		Well Address 2:	
Plug Rpt Track No:	21445	Well City:	
Well Rpt Track No:		Well Zip:	
Date Submitted:	2004-12-20	Owner Well No:	
No Wells Plugged:		Owner Name:	LSI
Plugger Name:	David McDearmon	Owner Address 1:	206 Lazy Rd
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2004-12-13	Owner City:	Georgetown
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78626
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.676111
Apprentice Signed:		Lat Degree:	30
Driller Signed:	David McDearmon	Lat Minute:	40
Driller Address 1:	12907 Lowden Rd	Lat Second:	34
Driller Address 2:		Longitude:	-97.646667
Driller City:	Manchaca	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	78652	Long Second:	48
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	No
Company Name:	David McDearmon Water Well Drilling & pu		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:	No Data		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
26	SSE	0.37	1,955.12	694.35	PLUGGED WELLS

License No:	2912	Well Address 1:	2141 Fm 971
Variance No:		Well Address 2:	
Plug Rpt Track No:	88776	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78626
Date Submitted:	2013-07-18	Owner Well No:	

No Wells Plugged:		Owner Name:	Sun Communties Texas
Plugger Name:	Bobby Stork #2912	Owner Address 1:	31700 Middle Belt Road
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2013-06-01	Owner City:	Farmington Hills
Orig License No:		Owner State:	MI
Orig Driller Name:	Unknown	Owner Zip:	48334
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.662501
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Bobby Stork	Lat Minute:	39
Driller Address 1:	10121 N. IH 35	Lat Second:	45
Driller Address 2:		Longitude:	-97.649445
Driller City:	Jarrell	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	76537	Long Second:	58
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-9
Elevation:		Loc Verfd by Drllr:	No
Company Name:	Alpine water well		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:	Out of service		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
26	SSE	0.37	1,955.12	694.35	PLUGGED WELLS

License No:	2912	Well Address 1:	2141 Fm 971
Variance No:		Well Address 2:	
Plug Rpt Track No:	88777	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78626
Date Submitted:	2013-07-18	Owner Well No:	
No Wells Plugged:		Owner Name:	Sun Communties Texas
Plugger Name:	Bobby Stork #2912	Owner Address 1:	31700 Middle Belt Road
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2013-06-01	Owner City:	Farmington Hills
Orig License No:		Owner State:	MI
Orig Driller Name:	Unknown	Owner Zip:	48334
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.662501
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Bobby Stork	Lat Minute:	39

Driller Address 1:	10121 N. IH 35	Lat Second:	45
Driller Address 2:		Longitude:	-97.649445
Driller City:	Jarrell	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	76537	Long Second:	58
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-9
Elevation:		Loc Verfd by Drllr:	No
Company Name:	Alpine water well		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:	Out of service		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
26	SSE	0.37	1,955.12	694.35	PLUGGED WELLS

License No:	2912	Well Address 1:	2141 Fm 971
Variance No:		Well Address 2:	
Plug Rpt Track No:	88775	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78626
Date Submitted:	2013-07-18	Owner Well No:	
No Wells Plugged:		Owner Name:	Sun Communties Texas
Plugger Name:	Bobby Stork #2912	Owner Address 1:	31700 Middle Belt Road
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2013-06-01	Owner City:	Farmington Hills
Orig License No:		Owner State:	MI
Orig Driller Name:	Unknown	Owner Zip:	48334
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.662501
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Bobby Stork	Lat Minute:	39
Driller Address 1:	10121 N. IH 35	Lat Second:	45
Driller Address 2:		Longitude:	-97.649445
Driller City:	Jarrell	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	76537	Long Second:	58
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-9
Elevation:		Loc Verfd by Drllr:	No
Company Name:	Alpine water well		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:	Out of service		

Wells and Additional Sources Detail Report

Well Location Description:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
31	S	0.44	2,327.46	711.58	PLUGGED WELLS

License No:	55015	Well Address 1:	2500 NE Inner Loop
Variance No:		Well Address 2:	
Plug Rpt Track No:	62397	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78627
Date Submitted:	2010-03-19	Owner Well No:	
No Wells Plugged:		Owner Name:	FT Woods Construction
Plugger Name:	Jimmy Okun	Owner Address 1:	2500 NE Inner Loop
Plugging Mtd Descr:	See Comments	Owner Address 2:	
Plugging Date:	2010-01-20	Owner City:	Georgetown
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78627
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.6675
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Jimmy Okun	Lat Minute:	40
Driller Address 1:	4997 El Grove Rd.	Lat Second:	3
Driller Address 2:		Longitude:	-97.657501
Driller City:	Belton	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	76513	Long Second:	27
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	No
Company Name:	Tom Lovelace Water Well		
Original Company Name:			
Plugging Method:	Other		
Comments:	Well 30.9' deep 4", plugged with cement, no water in hole. ^EO		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
42	NW	0.53	2,796.11	744.68	PLUGGED WELLS

License No:	4920	Well Address 1:	Titan Dr.
Variance No:		Well Address 2:	
Plug Rpt Track No:	219593	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2022-06-10	Owner Well No:	
No Wells Plugged:	1	Owner Name:	Titan Development
Plugger Name:	Tommy Lovelace	Owner Address 1:	4903 Woodrow

Plugging Mtd Descr:		Owner Address 2:	Unit A
Plugging Date:	2022-05-17	Owner City:	Austin
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78756
Original Well Use:	Stock	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.688878
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Tommy Lovelace	Lat Minute:	41
Driller Address 1:	4997 Elm Grove Road	Lat Second:	19.96
Driller Address 2:		Longitude:	-97.665231
Driller City:	Belton	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	76513	Long Second:	54.83
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	Yes
Company Name:	Tom Lovelace Water Well Service		
Original Company Name:			
Plugging Method:	Tremmie pipe bentonite from bottom to 2 feet from surface, cement top 2 feet		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
43	ESE	0.54	2,831.92	696.63	PLUGGED WELLS

License No:	4469	Well Address 1:	
Variance No:	051-04	Well Address 2:	
Plug Rpt Track No:	16193	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	
Date Submitted:	2004-04-16	Owner Well No:	
No Wells Plugged:		Owner Name:	TXDOT - AUSTIN DIST.
Plugger Name:	PAUL MCANEAR	Owner Address 1:	1421 WELLS BRANCH BLDG 1 STE 107
Plugging Mtd Descr:	See Comments	Owner Address 2:	
Plugging Date:	2004-02-20	Owner City:	PFLUGERVILLE
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78660
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.673055
Apprentice Signed:		Lat Degree:	30
Driller Signed:	PAUL MCANEAR	Lat Minute:	40
Driller Address 1:	3410 MANKINS	Lat Second:	23
Driller Address 2:		Longitude:	-97.641945

Driller City:	ODESSA	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	79764	Long Second:	31
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	No
Company Name:	WEST TEXAS WATER WELL		
Original Company Name:			
Plugging Method:	Other		
Comments:	EDWARDS WELL, VARIANCE REQUEST FILED TO FILL WITH GRAVEL, AND PLACE BENTONITE & CEMENT SEAL DG		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
43	ESE	0.54	2,831.92	696.63	PLUGGED WELLS

License No:	4469	Well Address 1:	
Variance No:	052-04	Well Address 2:	
Plug Rpt Track No:	16195	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	
Date Submitted:	2004-04-16	Owner Well No:	
No Wells Plugged:		Owner Name:	TXDOT - AUSTIN DIST.
Plugger Name:	PAUL MCANEAR	Owner Address 1:	1421 WELLS BRANCH BLDG 1 STE 107
Plugging Mtd Descr:	See Comments	Owner Address 2:	
Plugging Date:	2004-02-20	Owner City:	PFLUGERVILLE
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78660
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.673055
Apprentice Signed:		Lat Degree:	30
Driller Signed:	PAUL MCANEAR	Lat Minute:	40
Driller Address 1:	3410 MANKINS	Lat Second:	23
Driller Address 2:		Longitude:	-97.641945
Driller City:	ODESSA	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	79764	Long Second:	31
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	No
Company Name:	WEST TEXAS WATER WELL		
Original Company Name:			
Plugging Method:	Other		
Comments:	EDWARDS WELL, VARIANCE REQUEST FILED TO FILL WITH GRAVEL, AND PLACE BENTONITE & CEMENT SEAL DG		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
48	WSW	0.59	3,125.69	745.71	PLUGGED WELLS

License No:	59656	Well Address 1:	2201A North IH 35
Variance No:		Well Address 2:	
Plug Rpt Track No:	225452	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2022-11-20	Owner Well No:	W3
No Wells Plugged:	1	Owner Name:	Costco Wholesale
Plugger Name:	Hamilton L. McRae	Owner Address 1:	999 Lake Drive
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2022-10-14	Owner City:	Issaquah
Orig License No:	Unknown	Owner State:	WA
Orig Driller Name:	Unknown	Owner Zip:	98027
Original Well Use:	Monitor	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.67734
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Hamilton L. McRae	Lat Minute:	40
Driller Address 1:	1316 Ridgefield Loop	Lat Second:	38.42
Driller Address 2:		Longitude:	-97.66494
Driller City:	Round Rock	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	78665	Long Second:	53.78
Driller Oth Cntry:		Hor Datum Type:	NAD83
Driller Country:		Grid No:	58-19-6
Elevation:	747	Loc Verfd by Drllr:	Yes
Company Name:	Austin Geo-Logic		
Original Company Name:	Unknown		
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:			
Well Location Description:	Middle of property about 150-feet south of the northern fence line		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
51	SSW	0.60	3,180.42	723.59	PLUGGED WELLS

License No:	58526	Well Address 1:	301 stadium drive
Variance No:		Well Address 2:	
Plug Rpt Track No:	159701	Well City:	georgetown
Well Rpt Track No:		Well Zip:	78626
Date Submitted:	2016-06-09	Owner Well No:	
No Wells Plugged:	1	Owner Name:	pence investments ltd/joseph hoover/ctx llc
Plugger Name:	Robbie Barnard	Owner Address 1:	708 rio grande

Plugging Mtd Descr:	8 sack grout	Owner Address 2:	
Plugging Date:	2016-05-05	Owner City:	austin
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78701
Original Well Use:	Stock	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.668713
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Robbie Barnard	Lat Minute:	40
Driller Address 1:		Lat Second:	7.37
Driller Address 2:		Longitude:	-97.661121
Driller City:		Long Degree:	97
Driller State:		Long Minute:	39
Driller Zip:		Long Second:	40.04
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	Yes
Company Name:			
Original Company Name:			
Plugging Method:	Other		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
61	SSE	0.65	3,455.18	681.78	PLUGGED WELLS

License No:	3023	Well Address 1:	INNER LOOP & HWY 29
Variance No:		Well Address 2:	
Plug Rpt Track No:	6046	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	
Date Submitted:	2002-04-22	Owner Well No:	B-5016
No Wells Plugged:		Owner Name:	WILLIAMSON CO.
Plugger Name:	JOHN WEBB	Owner Address 1:	3151 S.E INNER LOOP, STE C.
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2002-04-11	Owner City:	GEORGETOWN
Orig License No:	3023	Owner State:	TX
Orig Driller Name:	JOHN WEBB	Owner Zip:	78626
Original Well Use:	Monitor	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:	2002-03-05	County:	Williamson
Apprentice Reg No:		Latitude:	30.661112
Apprentice Signed:		Lat Degree:	30
Driller Signed:	JOHN WEBB	Lat Minute:	39
Driller Address 1:	2220 BARTON SKYWAY	Lat Second:	40
Driller Address 2:		Longitude:	-97.641945

Driller City:	AUSTIN	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	78704	Long Second:	31
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-9
Elevation:		Loc Verfd by Drllr:	No
Company Name:	HOLT ENGINEERING, INC.		
Original Company Name:			
Plugging Method:	Tremmie pipe cement from bottom to top		
Comments:	ENTERED BY WLS		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
63	SW	0.66	3,488.07	720.46	PLUGGED WELLS

License No:	58772	Well Address 1:	2601 N. Austin Ave.
Variance No:		Well Address 2:	
Plug Rpt Track No:	207995	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78626
Date Submitted:	2021-04-01	Owner Well No:	Well #1
No Wells Plugged:	1	Owner Name:	Alta Georgetown, LLC
Plugger Name:	Evan Schaefer	Owner Address 1:	3715 Northside Pkwy
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2021-03-25	Owner City:	Atlanta
Orig License No:		Owner State:	GA
Orig Driller Name:		Owner Zip:	30327
Original Well Use:	Unknown	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.670278
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Evan K. Schaefer	Lat Minute:	40
Driller Address 1:	8834 Circle Dr	Lat Second:	13
Driller Address 2:		Longitude:	-97.662778
Driller City:	Austin	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	78736	Long Second:	46
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	Yes
Company Name:	Geoprojects International, Inc.		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
64	SSW	0.67	3,534.31	718.33	PLUGGED WELLS

License No:	3096	Well Address 1:	Stadium Dr.
Variance No:		Well Address 2:	
Plug Rpt Track No:	212080	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	
Date Submitted:	2021-09-21	Owner Well No:	WW-1
No Wells Plugged:	1	Owner Name:	The Vertex Companies, Inc.
Plugger Name:	Thomas E Mathers	Owner Address 1:	1600 Corporate Court Suite 100
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2021-09-09	Owner City:	Irving
Orig License No:	unknown	Owner State:	TX
Orig Driller Name:	unknown	Owner Zip:	75038
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.668458
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Thomas Mathers	Lat Minute:	40
Driller Address 1:	17683 Telge Road	Lat Second:	6.45
Driller Address 2:		Longitude:	-97.66221
Driller City:	Cypress	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	77429	Long Second:	43.96
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	Yes
Company Name:	MATHERS ENVIRONMENTAL DRILLING, INC.		
Original Company Name:	unknown		
Plugging Method:	Tremmie pipe bentonite from bottom to 2 feet from surface, cement top 2 feet		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
65	WSW	0.68	3,588.91	745.25	PLUGGED WELLS

License No:	59656	Well Address 1:	2201A North IH 35
Variance No:		Well Address 2:	
Plug Rpt Track No:	225451	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2022-11-20	Owner Well No:	W2
No Wells Plugged:	1	Owner Name:	Costco Wholesale
Plugger Name:	Hamilton L. McRae	Owner Address 1:	999 Lake Drive
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2022-10-14	Owner City:	Issaquah

Orig License No:	Unknown	Owner State:	WA
Orig Driller Name:	Unknown	Owner Zip:	98027
Original Well Use:	Monitor	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.67626
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Hamilton L. McRae	Lat Minute:	40
Driller Address 1:	1316 Ridgefield Loop	Lat Second:	34.54
Driller Address 2:		Longitude:	-97.66606
Driller City:	Round Rock	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	78665	Long Second:	57.82
Driller Oth Cntry:		Hor Datum Type:	NAD83
Driller Country:		Grid No:	58-19-6
Elevation:	746	Loc Verfd by Drllr:	Yes
Company Name:	Austin Geo-Logic		
Original Company Name:	Unknown		
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:			
Well Location Description:	North of the radius fence just west of the existing driveway on Lakeway Drive		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
68	WSW	0.68	3,616.62	748.87	PLUGGED WELLS

License No:	59656	Well Address 1:	2201A North IH 35
Variance No:		Well Address 2:	
Plug Rpt Track No:	225450	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2022-11-20	Owner Well No:	W1
No Wells Plugged:	1	Owner Name:	Costco Wholesale
Plugger Name:	Hamilton L. McRae	Owner Address 1:	999 Lake Drive
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2022-10-13	Owner City:	Issaquah
Orig License No:	Unknown	Owner State:	WA
Orig Driller Name:	Unknown	Owner Zip:	98027
Original Well Use:	Unknown	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.6772
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Hamilton L. McRae	Lat Minute:	40
Driller Address 1:	1316 Ridgefield Loop	Lat Second:	37.92
Driller Address 2:		Longitude:	-97.66654
Driller City:	Round Rock	Long Degree:	97
Driller State:	TX	Long Minute:	39

Driller Zip:	78665	Long Second:	59.54
Driller Oth Cntry:		Hor Datum Type:	NAD83
Driller Country:		Grid No:	58-19-6
Elevation:	750	Loc Verfd by Drllr:	Yes
Company Name:	Austin Geo-Logic		
Original Company Name:	Unknown		
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:			
Well Location Description:	Northwest Corner of Field near the LCRA Easement		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
74	N	0.73	3,880.01	703.85	PLUGGED WELLS

License No:	54313	Well Address 1:	IH 35 North (Georgetown Transmission)
Variance No:		Well Address 2:	
Plug Rpt Track No:	23185	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2005-03-22	Owner Well No:	1
No Wells Plugged:		Owner Name:	A&R Demolition
Plugger Name:	Paul Motal	Owner Address 1:	13201 FM 812
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2005-03-02	Owner City:	Del Valle
Orig License No:		Owner State:	TX
Orig Driller Name:	unknown	Owner Zip:	78617
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.698056
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Paul Motal	Lat Minute:	41
Driller Address 1:	3315 Galesburg Dr	Lat Second:	53
Driller Address 2:		Longitude:	-97.651112
Driller City:	Austin	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	78745	Long Second:	4
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	No
Company Name:	Motal Well Service		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:	No Data		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
76	WNW	0.75	3,940.11	768.15	PLUGGED WELLS

Wells and Additional Sources Detail Report

License No:	2096	Well Address 1:	3103 Airport Rd.
Variance No:		Well Address 2:	
Plug Rpt Track No:	50386	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2008-10-13	Owner Well No:	
No Wells Plugged:		Owner Name:	Pat Elliot Properties
Plugger Name:	Tommy Dale Arnold	Owner Address 1:	3103 Airport Rd.
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2008-06-09	Owner City:	Georgetown
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78628
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.683889
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Tommy Arnold	Lat Minute:	41
Driller Address 1:	2750 S AW Grimes Blvd.	Lat Second:	2
Driller Address 2:		Longitude:	-97.669444
Driller City:	Round Rock	Long Degree:	97
Driller State:	TX	Long Minute:	40
Driller Zip:	78664	Long Second:	10
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-5
Elevation:		Loc Verfd by Drllr:	No
Company Name:	Tom Arnold Drilling		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:	^EO		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
80	W	0.78	4,095.33	752.73	PLUGGED WELLS

License No:	2912	Well Address 1:	2101 AIRPORT RD
Variance No:		Well Address 2:	
Plug Rpt Track No:	174935	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2018-01-31	Owner Well No:	
No Wells Plugged:	2	Owner Name:	HOLT TEXAS, LTD., DBA HOLT CAT
Plugger Name:	BOBBY STORK	Owner Address 1:	5565 SE LOOP 410
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2018-01-26	Owner City:	SAN ANTONIO
Orig License No:		Owner State:	TX

Orig Driller Name:		Owner Zip:	78222
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.678333
Apprentice Signed:		Lat Degree:	30
Driller Signed:	BOBBY STORK	Lat Minute:	40
Driller Address 1:	10121 North IH35	Lat Second:	42
Driller Address 2:		Longitude:	-97.668611
Driller City:	Jarrell	Long Degree:	97
Driller State:	TX	Long Minute:	40
Driller Zip:	76537	Long Second:	7
Driller Oth Cntry:		Hor Datum Type:	NAD83
Driller Country:		Grid No:	58-19-5
Elevation:	770	Loc Verfd by Drllr:	Yes
Company Name:	Alpine water well service		
Original Company Name:			
Plugging Method:	Tremmie pipe cement from bottom to top		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
88	N	0.81	4,265.14	708.11	PLUGGED WELLS

License No:	54313	Well Address 1:	IH-35 @ TX195
Variance No:	049-06	Well Address 2:	
Plug Rpt Track No:	32259	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2006-06-26	Owner Well No:	1
No Wells Plugged:		Owner Name:	TX DOT
Plugger Name:	Paul Motal	Owner Address 1:	125 E. 11th
Plugging Mtd Descr:	See Comments	Owner Address 2:	
Plugging Date:	2006-05-04	Owner City:	Austin
Orig License No:		Owner State:	TX
Orig Driller Name:	unknown	Owner Zip:	78701
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.699722
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Paul Motal	Lat Minute:	41
Driller Address 1:	3315 Galesburg Dr	Lat Second:	59
Driller Address 2:		Longitude:	-97.653334
Driller City:	Austin	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	78745	Long Second:	12

Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-6
Elevation:		Loc Verfd by Drllr:	No
Company Name:	Motal Well Service		
Original Company Name:			
Plugging Method:	Other		
Comments:	No Data		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
92	W	0.84	4,419.82	765.32	PLUGGED WELLS

License No:	2912	Well Address 1:	2301 AIRPORT ROAD
Variance No:		Well Address 2:	
Plug Rpt Track No:	205652	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2020-12-30	Owner Well No:	
No Wells Plugged:	1	Owner Name:	PATRICK C. ELLIOTT
Plugger Name:		Owner Address 1:	2301 AIRPORT ROAD
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2020-12-18	Owner City:	GEORGETOWN
Orig License No:	NO DATA	Owner State:	TX
Orig Driller Name:	NO DATA	Owner Zip:	78628
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.68162
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Bobby Stork	Lat Minute:	40
Driller Address 1:	10121 North IH35	Lat Second:	53.83
Driller Address 2:		Longitude:	-97.67067
Driller City:	Jarrell	Long Degree:	97
Driller State:	TX	Long Minute:	40
Driller Zip:	76537	Long Second:	14.41
Driller Oth Cntry:		Hor Datum Type:	NAD27
Driller Country:		Grid No:	58-19-5
Elevation:	937	Loc Verfd by Drllr:	Yes
Company Name:	Alpine water well service		
Original Company Name:	NO DATA		
Plugging Method:	Tremmie pipe bentonite from bottom to 2 feet from surface, cement top 2 feet		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
93	WNW	0.84	4,429.83	765.77	PLUGGED WELLS

Wells and Additional Sources Detail Report

License No:	2912	Well Address 1:	4045 AIRPORT ROAD
Variance No:		Well Address 2:	
Plug Rpt Track No:	211415	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2021-08-27	Owner Well No:	
No Wells Plugged:	2	Owner Name:	WATER DEVELOPMENT PARTNERS
Plugger Name:	BOB STORK	Owner Address 1:	4045 AIRPORT ROAD
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2021-08-09	Owner City:	GEORGETOWN
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78628
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.686111
Apprentice Signed:		Lat Degree:	30
Driller Signed:	BOBBY STORK	Lat Minute:	41
Driller Address 1:	10121 North IH35	Lat Second:	10
Driller Address 2:		Longitude:	-97.670833
Driller City:	Jarrell	Long Degree:	97
Driller State:	TX	Long Minute:	40
Driller Zip:	76537	Long Second:	15
Driller Oth Cntry:		Hor Datum Type:	NAD27
Driller Country:		Grid No:	58-19-5
Elevation:	770	Loc Verfd by Drllr:	Yes
Company Name:	Alpine water well service		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
98	SSE	0.87	4,581.14	679.39	PLUGGED WELLS

License No:	2096	Well Address 1:	1601 NE Inner Loop
Variance No:		Well Address 2:	
Plug Rpt Track No:	190706	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78626
Date Submitted:	2019-08-19	Owner Well No:	
No Wells Plugged:	1	Owner Name:	Lennar Homes of Texas, Ltd.
Plugger Name:	Tom Arnold	Owner Address 1:	12401 Research Blvd
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2019-07-19	Owner City:	Austin
Orig License No:		Owner State:	TX
Orig Driller Name:	Unknown	Owner Zip:	78259
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	

Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.655278
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Tom Arnold	Lat Minute:	39
Driller Address 1:	2750 SOUTH A. W. GRIMES BLVD	Lat Second:	19
Driller Address 2:		Longitude:	-97.649444
Driller City:	ROUND ROCK	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	78664	Long Second:	58
Driller Oth Cntry:		Hor Datum Type:	WGS84
Driller Country:		Grid No:	58-19-9
Elevation:		Loc Verfd by Drllr:	Yes
Company Name:	TOM ARNOLD DRILLING		
Original Company Name:			
Plugging Method:	Tremmie pipe cement from bottom to top		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
101	W	0.87	4,613.35	764.18	PLUGGED WELLS

License No:	2912	Well Address 1:	2301 AIRPORT RD.
Variance No:		Well Address 2:	
Plug Rpt Track No:	205655	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2020-12-30	Owner Well No:	
No Wells Plugged:	2	Owner Name:	PATRICK C. ELLIOTT
Plugger Name:		Owner Address 1:	2301 AIRPORT RD.
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2020-12-18	Owner City:	GEORGETOWN
Orig License No:	NO DATA	Owner State:	TX
Orig Driller Name:		Owner Zip:	78628
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.6815
Apprentice Signed:		Lat Degree:	30
Driller Signed:	BOBBY STORK	Lat Minute:	40
Driller Address 1:	10121 North IH35	Lat Second:	53.4
Driller Address 2:		Longitude:	-97.67127
Driller City:	Jarrell	Long Degree:	97
Driller State:	TX	Long Minute:	40
Driller Zip:	76537	Long Second:	16.57
Driller Oth Cntry:		Hor Datum Type:	NAD27
Driller Country:		Grid No:	58-19-5

Elevation:	936	Loc Verfd by Drllr:	Yes
Company Name:	Alpine water well service		
Original Company Name:			
Plugging Method:	Tremmie pipe bentonite from bottom to 2 feet from surface, cement top 2 feet		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
103	WNW	0.88	4,666.05	767.52	PLUGGED WELLS

License No:	2912	Well Address 1:	4045 AIRPORT ROAD
Variance No:		Well Address 2:	
Plug Rpt Track No:	211412	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2021-08-27	Owner Well No:	
No Wells Plugged:	1	Owner Name:	WATER DEVELOPMENT PARTNERS
Plugger Name:	BOB STORK	Owner Address 1:	4045 AIRPORT ROAD
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2021-08-09	Owner City:	GEORGETOWN
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78628
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.685556
Apprentice Signed:		Lat Degree:	30
Driller Signed:	BOBBY STORK	Lat Minute:	41
Driller Address 1:	10121 North IH35	Lat Second:	8
Driller Address 2:		Longitude:	-97.671667
Driller City:	Jarrell	Long Degree:	97
Driller State:	TX	Long Minute:	40
Driller Zip:	76537	Long Second:	18
Driller Oth Cntry:		Hor Datum Type:	NAD27
Driller Country:		Grid No:	58-19-5
Elevation:	770	Loc Verfd by Drllr:	Yes
Company Name:	Alpine water well service		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:			
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
104	SSE	0.88	4,666.16	671.93	PLUGGED WELLS

License No:	3023	Well Address 1:	INNER LOOP & HWY 29

Variance No:		Well Address 2:	
Plug Rpt Track No:	6047	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	
Date Submitted:	2002-04-22	Owner Well No:	B-5017
No Wells Plugged:		Owner Name:	WILLIAMSON CO.
Plugger Name:	JOHN WEBB	Owner Address 1:	3151 S.E INNER LOOP, STE C.
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2002-04-11	Owner City:	GEORGETOWN
Orig License No:	3023	Owner State:	TX
Orig Driller Name:	JOHN WEBB	Owner Zip:	78626
Original Well Use:	Monitor	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:	2002-03-04	County:	Williamson
Apprentice Reg No:		Latitude:	30.657223
Apprentice Signed:		Lat Degree:	30
Driller Signed:	JOHN WEBB	Lat Minute:	39
Driller Address 1:	2220 BARTON SKYWAY	Lat Second:	26
Driller Address 2:		Longitude:	-97.641389
Driller City:	AUSTIN	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	78704	Long Second:	29
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-9
Elevation:		Loc Verfd by Drllr:	No
Company Name:	HOLT ENGINEERING, INC.		
Original Company Name:			
Plugging Method:	Tremmie pipe cement from bottom to top		
Comments:	ENTERED BY WLS		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
106	WSW	0.90	4,730.28	730.23	PLUGGED WELLS

License No:	2096	Well Address 1:	3103 Airport Rd.
Variance No:		Well Address 2:	
Plug Rpt Track No:	48610	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2008-07-10	Owner Well No:	
No Wells Plugged:		Owner Name:	Pat Elliot Properties
Plugger Name:	Tommy Dale Arnold	Owner Address 1:	3103 Airport Rd.
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2008-06-08	Owner City:	Georgetown
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78628
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	

Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.674444
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Tommy Arnold	Lat Minute:	40
Driller Address 1:	2750 S. A. W. Grimes Blvd.	Lat Second:	28
Driller Address 2:		Longitude:	-97.669167
Driller City:	Round Rock	Long Degree:	97
Driller State:	TX	Long Minute:	40
Driller Zip:	78664	Long Second:	9
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-5
Elevation:		Loc Verfd by Drllr:	No
Company Name:	Tom Arnold Drilling		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:	^EO		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
111	W	0.91	4,826.99	740.14	PLUGGED WELLS

License No:	2912	Well Address 1:	2101 AIRPORT RD
Variance No:		Well Address 2:	
Plug Rpt Track No:	174835	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	78628
Date Submitted:	2018-01-29	Owner Well No:	
No Wells Plugged:	1	Owner Name:	HOLT TEXAS, LTD., DBA HOLT CAT
Plugger Name:	BOBBY STORK	Owner Address 1:	5565 SE LOOP 410
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2018-01-26	Owner City:	SAN ANTONIO
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78222
Original Well Use:	Domestic	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.678611
Apprentice Signed:		Lat Degree:	30
Driller Signed:	BOBBY STORK	Lat Minute:	40
Driller Address 1:	10121 North IH35	Lat Second:	43
Driller Address 2:		Longitude:	-97.671111
Driller City:	Jarrell	Long Degree:	97
Driller State:	TX	Long Minute:	40
Driller Zip:	76537	Long Second:	16
Driller Oth Cntry:		Hor Datum Type:	NAD27
Driller Country:		Grid No:	58-19-5
Elevation:	720	Loc Verfd by Drllr:	Yes

Company Name: Alpine water well service
Original Company Name:
Plugging Method: Tremmie pipe cement from bottom to top
Comments:
Well Location Description:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
113	SW	0.92	4,873.35	714.52	PLUGGED WELLS

License No: 2563
Variance No:
Plug Rpt Track No: 35574
Well Rpt Track No:
Date Submitted: 2007-01-05
No Wells Plugged:
Plugger Name: David McDearmon
Plugging Mtd Descr:
Plugging Date: 2006-11-20
Orig License No:
Orig Driller Name:
Original Well Use: Withdrawal of Water
Orig Wel Use Descr:
Orig Drill Date:
Apprentice Reg No:
Apprentice Signed:
Driller Signed: David McDearmon
Driller Address 1: 12907 Lowden Rd
Driller Address 2:
Driller City: Manchaca
Driller State: TX
Driller Zip: 78652
Driller Oth Cntry:
Driller Country:
Elevation:
Company Name: David McDearmon Water Well Drilling and
Original Company Name:
Plugging Method: Tremmie pipe cement from bottom to top
Comments: No Data
Well Location Description:

Well Address 1: 2400 North Austin Avenue
Well Address 2:
Well City: Georgetown
Well Zip: 78626
Owner Well No:
Owner Name: GRDM Management, LLC
Owner Address 1: 10575 West Office Drive
Owner Address 2:
Owner City: Houston
Owner State: TX
Owner Zip: 77042
Owner Oth Cntry:
Owner Country:
County: Williamson
Latitude: 30.666944
Lat Degree: 30
Lat Minute: 40
Lat Second: 1
Longitude: -97.666112
Long Degree: 97
Long Minute: 39
Long Second: 58
Hor Datum Type:
Grid No: 58-19-6
Loc Verfd by Drllr: No

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
115	S	0.93	4,916.50	693.23	PLUGGED WELLS

License No: 4200
Variance No:
Plug Rpt Track No: 67610

Well Address 1: 260 Stephen Ln.
Well Address 2:
Well City: Georgetown

Wells and Additional Sources Detail Report

Well Rpt Track No:		Well Zip:	78626
Date Submitted:	2010-11-15	Owner Well No:	
No Wells Plugged:		Owner Name:	Kennedy Gavurnik Inv. of TX
Plugger Name:	Jimmy Arnold	Owner Address 1:	2004 Williams Dr.
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2010-11-08	Owner City:	Georgetown
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78628
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.655556
Apprentice Signed:		Lat Degree:	30
Driller Signed:	Jimmy Arnold	Lat Minute:	39
Driller Address 1:	2750 S AW Grimes Blvd.	Lat Second:	20
Driller Address 2:		Longitude:	-97.656112
Driller City:	Round Rock	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	78664	Long Second:	22
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-9
Elevation:		Loc Verfd by Drllr:	No
Company Name:	Tom Arnold Drilling		
Original Company Name:			
Plugging Method:	Tremmie pipe cement from bottom to top		
Comments:	^EO		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
116	S	0.94	4,940.66	692.30	PLUGGED WELLS

License No:	4200	Well Address 1:	200 Stephen Ln.
Variance No:	038-10	Well Address 2:	
Plug Rpt Track No:	63812	Well City:	Georgetown
Well Rpt Track No:		Well Zip:	78626
Date Submitted:	2010-05-24	Owner Well No:	
No Wells Plugged:		Owner Name:	Kennedy Gavurnik inv. of TX
Plugger Name:	Jimmy Arnold	Owner Address 1:	2004 Williams Dr.
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2010-05-18	Owner City:	Georgetown
Orig License No:		Owner State:	TX
Orig Driller Name:		Owner Zip:	78628
Original Well Use:	Withdrawal of Water	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:		County:	Williamson
Apprentice Reg No:		Latitude:	30.655278

Wells and Additional Sources Detail Report

Apprentice Signed:		Lat Degree:	30
Driller Signed:	Jimmy Arnold	Lat Minute:	39
Driller Address 1:	2750 S AW Grimes Blvd	Lat Second:	19
Driller Address 2:		Longitude:	-97.655556
Driller City:	Round Rock	Long Degree:	97
Driller State:	TX	Long Minute:	39
Driller Zip:	78664	Long Second:	20
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-9
Elevation:		Loc Verfd by Drllr:	No
Company Name:	Tom Arnold Drilling		
Original Company Name:			
Plugging Method:	Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet		
Comments:	^EO		
Well Location Description:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
129	SSE	0.97	5,121.81	661.78	PLUGGED WELLS

License No:	3023	Well Address 1:	INNER LOOP & HWY 29
Variance No:		Well Address 2:	
Plug Rpt Track No:	6042	Well City:	GEORGETOWN
Well Rpt Track No:		Well Zip:	
Date Submitted:	2002-04-22	Owner Well No:	B-5001
No Wells Plugged:		Owner Name:	WILLIAMSON CO.
Plugger Name:	JOHN WEBB	Owner Address 1:	3151 S.E INNER LOOP, STE C.
Plugging Mtd Descr:		Owner Address 2:	
Plugging Date:	2002-04-11	Owner City:	GEORGETOWN
Orig License No:	3023	Owner State:	TX
Orig Driller Name:	JOHN WEBB	Owner Zip:	78626
Original Well Use:	Monitor	Owner Oth Cntry:	
Orig Wel Use Descr:		Owner Country:	
Orig Drill Date:	2002-03-04	County:	Williamson
Apprentice Reg No:		Latitude:	30.655001
Apprentice Signed:		Lat Degree:	30
Driller Signed:	JOHN WEBB	Lat Minute:	39
Driller Address 1:	2220 BARTON SKYWAY	Lat Second:	18
Driller Address 2:		Longitude:	-97.643056
Driller City:	AUSTIN	Long Degree:	97
Driller State:	TX	Long Minute:	38
Driller Zip:	78704	Long Second:	35
Driller Oth Cntry:		Hor Datum Type:	
Driller Country:		Grid No:	58-19-9
Elevation:		Loc Verfd by Drllr:	No
Company Name:	HOLT ENGINEERING, INC.		
Original Company Name:			

Plugging Method: Tremmie pipe cement from bottom to top
Comments: ENTERED BY WLS
Well Location Description:

Public Water Systems Wells and Surface Intakes

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
2	N	0.00	15.26	732.69	PWSW

PWS ID: 2460125 Latitude: 30.685008329999999
Water SRC: G2460125A Longitude: -97.656141669999997
Database Source: Public Water Supply Water Well Sites

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
18	NNE	0.24	1,265.84	712.96	PWSW

PWS ID: 2460125 Latitude: 30.684308330000000
Water SRC: G2460125B Longitude: -97.651491669999999
Database Source: Public Water Supply Water Well Sites

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
46	ENE	0.56	2,977.72	701.88	PWSW

PWS ID: 2460022 Latitude: 30.681279999999997
Water SRC: G2460022G Longitude: -97.64528999999999
Database Source: Public Water Supply Water Well Sites

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
47	NE	0.58	3,073.61	690.56	PWSW

PWS ID: 2460001 Latitude: 30.688239999999997
Water SRC: G2460001N Longitude: -97.64473
Database Source: Public Water Supply Water Well Sites

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
47	NE	0.58	3,073.61	691.35	PWSW

PWS ID: 2460043 Latitude: 30.688241670000000
Water SRC: G2460043B Longitude: -97.644727779999997
Database Source: Public Water Supply Water Well Sites

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
99	NE	0.87	4,582.11	664.63	PWSW

PWS ID:	2460001	Latitude:	30.68978
Water SRC:	G2460001M	Longitude:	-97.64012
Database Source:	Public Water Supply Water Well Sites		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
102	NE	0.87	4,613.48	663.77	PWSW

PWS ID:	2460043	Latitude:	30.689786110000000
Water SRC:	G2460043A	Longitude:	-97.640019440000003
Database Source:	Public Water Supply Water Well Sites		

Submitted Drillers Report Database

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	ENE	0.26	1,367.59	720.01	SDR WELLS

License No:	2096	Well Address1:	2550 N. IH 35
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	494545	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Linda Vise
No of Wells Drill:	1	Owner Addr1:	2550 N. IH 35
Date Submitted:	2018-01-18	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Poured	Owner Zip:	78626
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Tommy D Arnold
Drilling Start Dt:	2017-08-11	Driller Address1:	2750 SOUTH A. W. GRIMES BLVD
Drilling End Dt:	2017-08-11	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	ROUND ROCK
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78664
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	300
Sealed by Name:		Dist to Septic Tk:	unknown
Driller Signed:	Tommy Arnold	Dist to Prop Line:	unknown
Apprentice Signed:		Dist Verifi Method:	tape measure
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	WGS84
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:	Yes	Latitude:	30.682117
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	40

Pump Depth:	100.00	Lat Second:	55.62
Chemical Analysis:	No	Longitude:	-97.650367
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	39
Known Loc Error:	No	Long Second:	1.32
Grid No:	58-19-6		
Company Name:	TOM ARNOLD DRILLING		
Well Location Description:			
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=494545&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
23	ESE	0.31	1,629.25	717.68	SDR WELLS

License No:	2912	Well Address1:	CR 151
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	168616	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	B.H. Lay
No of Wells Drill:		Owner Addr1:	P.O. Box 117
Date Submitted:	2009-02-17	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78627
Seal Mthd Oth Desc:	Gravity Feed	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Bobby Wayne Stork
Drilling Start Dt:	2004-11-15	Driller Address1:	10121 IH-35
Drilling End Dt:	2004-11-17	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	Jarrell
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	76537
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	No	Dist to Sep Contam:	200
Sealed by Name:	Alpine	Dist to Septic Tk:	
Driller Signed:	Bob Stork	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	Owner
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.676944
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	40
Pump Depth:	200.00	Lat Second:	37
Chemical Analysis:	No	Longitude:	-97.647778

Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	52
Grid No:	58-19-6		
Company Name:	Alpine Water Well		
Well Location Description:			
Comments:	$mew		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=168616&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NNE	0.35	1,869.38	682.27	SDR WELLS

License No:	2912	Well Address1:	120 Market Street
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	174605	Well Zip:	78628
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Bill Nations
No of Wells Drill:		Owner Addr1:	120 Market Street
Date Submitted:	2009-04-13	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78628
Seal Mthd Oth Desc:	gravity feed	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Bobby Wayne Stork
Drilling Start Dt:	2004-09-27	Driller Address1:	10121 IH 35
Drilling End Dt:	2004-09-28	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	Jarrell
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	76537
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	200
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Bobby Wayne Stork	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	owner
Surface Compl:	Surface Slab Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.691667
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:	160.00	Lat Second:	30
Chemical Analysis:	No	Longitude:	-97.650834
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	39

Known Loc Error:	No	Long Second:	3
Grid No:	58-19-6		
Company Name:	Alpine Water Well		
Well Location Description:			
Comments:	Surface Completion described as both Surface Sleeve Installed and Surface Slab Installed. $scd		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=174605&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
27	NNE	0.38	2,018.97	677.36	SDR WELLS

License No:	59656	Well Address1:	1801 CO Road 152
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	470414	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	PB13
Apprentice Reg No:		Owner Name:	City of Georgetown
No of Wells Drill:	1	Owner Addr1:	300-1 Industrial Avenue
Date Submitted:	2018-02-07	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Hand Mixed	Owner Zip:	78626
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Hamilton Lane Mcrae
Drilling Start Dt:	2018-01-05	Driller Address1:	1402 Yogi Berra CV
Drilling End Dt:	2018-01-05	Driller Addr2:	
Proposed Use:	Other	Driller City:	Round Rock
Prop Use Oth Descr:	Piezo	Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78665
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Hamilton L. McRae	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	
Surface Compl:	Surface Slab Installed	Horizon Datum Type:	NAD83
Surf Comp Oth Desc:		Elevation:	673
Complt by Driller:	Yes	Latitude:	30.689847
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:		Lat Second:	23.45
Chemical Analysis:	No	Longitude:	-97.648603
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	54.97
Grid No:	58-19-6		

Wells and Additional Sources Detail Report

Company Name:	Austin Geo-Logic
Well Location Description:	Take CR 152 north from SH 130. Pass the south fork of Berry Creek and turn left into Berry Creek Park. Take park road north to northernmost parking lot. Continue north on dirt road for 2250 feet. Piezo is beside road
Comments:	dry hole
Data Source:	Full SDR Database; SDRDB Well Location (Map)
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=470414&Type=SDR-Well

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
28	SSW	0.42	2,199.01	729.84	SDR WELLS

License No:	59719	Well Address1:	2900 NE Inner Loop
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	632289	Well Zip:	78663
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:	60597	Owner Name:	ICI Construction
No of Wells Drill:	1	Owner Addr1:	24715 West Hardy Rd
Date Submitted:	2023-02-22	Owner Addr2:	
Type of Work:	New Well	Owner City:	Spring
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Poured	Owner Zip:	77373
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Michael Warren Scott
Drilling Start Dt:	2023-01-09	Driller Address1:	185 Angel Fire Rd.
Drilling End Dt:	2023-01-12	Driller Addr2:	
Proposed Use:	Irrigation	Driller City:	Dripping Springs
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78620
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Michael Scott	Dist to Prop Line:	
Apprentice Signed:	Austin Cook	Dist Verifi Method:	
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	WGS84
Surf Comp Oth Desc:		Elevation:	730
Complt by Driller:		Latitude:	30.671194
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	40
Pump Depth:		Lat Second:	16.3
Chemical Analysis:	No	Longitude:	-97.658806
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	39
Known Loc Error:	No	Long Second:	31.7
Grid No:	58-19-6		
Company Name:	Bee Cave Drilling, Inc.		

Wells and Additional Sources Detail Report

Well Location Description:
Comments:
Data Source: Full SDR Database; SDRDB Well Location (Map)
Drillers Well Report: https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=632289&Type=SDR-Well

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
29	S	0.43	2,244.22	713.48	SDR WELLS

License No:	55015	Well Address1:	2500 NE Loop
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	261445	Well Zip:	78627
Orig Well Rpt Trk No:		Owner Well No:	1
Apprentice Reg No:		Owner Name:	F T Woods Const.
No of Wells Drill:		Owner Addr1:	2500 NE Loop
Date Submitted:	2011-08-04	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78627
Seal Mthd Oth Desc:	Gravity Feed	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Jimmy Okun
Drilling Start Dt:	2010-01-13	Driller Address1:	4997 Elm Grove Rd.
Drilling End Dt:	2010-01-20	Driller Addr2:	
Proposed Use:	Irrigation	Driller City:	Belton
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	76513
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	100+
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Jimmy Okun	Dist to Prop Line:	50+
Apprentice Signed:		Dist Verifi Method:	Measured
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.6675
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	40
Pump Depth:	160.00	Lat Second:	3
Chemical Analysis:	No	Longitude:	-97.657223
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	39
Known Loc Error:	No	Long Second:	26
Grid No:	58-19-6		
Company Name:	Tom Lovelace Water Well Serv.		
Well Location Description:			
Comments:	^EAD.		

Wells and Additional Sources Detail Report

Data Source:	Full SDR Database; SDRDB Well Location (Map)
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=261445&Type=SDR-Well

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
35	NNE	0.47	2,488.17	689.93	SDR WELLS

License No:	2096	Well Address1:	401 Market St.
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	320040	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Marvin Dorsey
No of Wells Drill:		Owner Addr1:	801 Fairview
Date Submitted:	2013-05-30	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78628
Seal Mthd Oth Desc:	Hand Poured	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Tommy D Arnold
Drilling Start Dt:	2013-03-11	Driller Address1:	2750 S A. W. Grimes Blvd.
Drilling End Dt:	2013-03-13	Driller Addr2:	
Proposed Use:	Irrigation	Driller City:	Round Rock
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78664
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	300
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Tommy Arnold	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	Tape Measure
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.690834
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:	180.00	Lat Second:	27
Chemical Analysis:	No	Longitude:	-97.6475
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	51
Grid No:	58-19-6		
Company Name:	Tom Arnold Drilling		
Well Location Description:			
Comments:	^EAD		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=320040&Type=SDR-Well		

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
36	NE	0.50	2,646.40	676.09	SDR WELLS

License No:	59656	Well Address1:	1801 CO Road 152
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	470412	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	PB12
Apprentice Reg No:		Owner Name:	City of Georgetown
No of Wells Drill:	1	Owner Addr1:	300-1 Industrial Avenue
Date Submitted:	2018-02-07	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Hand Mixed	Owner Zip:	78626
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Hamilton Lane Mcrae
Drilling Start Dt:	2018-01-04	Driller Address1:	1402 Yogi Berra CV
Drilling End Dt:	2018-01-04	Driller Addr2:	
Proposed Use:	Other	Driller City:	Round Rock
Prop Use Oth Descr:	Piezo	Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78665
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Hamilton L. McRae	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	
Surface Compl:	Surface Slab Installed	Horizon Datum Type:	NAD83
Surf Comp Oth Desc:		Elevation:	664
Complt by Driller:	Yes	Latitude:	30.688144
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:		Lat Second:	17.32
Chemical Analysis:	No	Longitude:	-97.646083
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	45.9
Grid No:	58-19-6		
Company Name:	Austin Geo-Logic		
Well Location Description:	Take CR 152 north from SH 130. Pass the south fork of Berry Creek and turn left into Berry Creek Park. Take park road north to northernmost parking lot. Continue north on dirt road for 1250 feet. Piezo is beside road (just north of trail circle)		
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=470412&Type=SDR-Well		

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
39	ENE	0.52	2,730.43	712.10	SDR WELLS

License No:	60461	Well Address1:	1203 County Rd 152
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown, Texas
Well Rpt Track No:	531138	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	11
Apprentice Reg No:		Owner Name:	Jonah Water SUD
No of Wells Drill:	1	Owner Addr1:	4050 FM 1660
Date Submitted:	2020-01-02	Owner Addr2:	
Type of Work:	Replacement	Owner City:	Hutto
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Positive Displacement	Owner Zip:	78634
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	JAMES ALLEN PARKER
Drilling Start Dt:	2019-10-12	Driller Address1:	11536 OLD LOCKHART RD
Drilling End Dt:	2019-11-12	Driller Addr2:	
Proposed Use:	Public Supply	Driller City:	CREEDMOOR
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:	Yes	Driller Zip:	78610
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	James Parker	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	
Surface Compl:		Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	656
Complt by Driller:	Yes	Latitude:	30.681125
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	40
Pump Depth:		Lat Second:	52.05
Chemical Analysis:	No	Longitude:	-97.6461
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	45.96
Grid No:	58-19-6		
Company Name:	HYDRO RESOURCES-MID CONTINENT INC		
Well Location Description:			
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=531138&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
45	NNE	0.56	2,974.19	689.49	SDR WELLS

Wells and Additional Sources Detail Report

License No:	2096	Well Address1:	3530 N. IH 35
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	249016	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	David Schwegmann
No of Wells Drill:		Owner Addr1:	3530 N. IH 35
Date Submitted:	2011-04-06	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78626
Seal Mthd Oth Desc:	Hand Poured	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Tommy D Arnold
Drilling Start Dt:	2005-11-01	Driller Address1:	1147 CR 170
Drilling End Dt:	2005-12-01	Driller Addr2:	
Proposed Use:	Irrigation	Driller City:	Round Rock
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78664
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	300
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Tommy Arnold	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	no septic found within 300 ft
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.693611
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:		Lat Second:	37
Chemical Analysis:	No	Longitude:	-97.648056
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	53
Grid No:	58-19-6		
Company Name:	Tom Arnold Drilling		
Well Location Description:			
Comments:	$mew		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=249016&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
55	NNE	0.62	3,294.61	683.84	SDR WELLS

Wells and Additional Sources Detail Report

License No:	2096	Well Address1:	3530 N. IH 35
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	249018	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Dave Schwegmann
No of Wells Drill:		Owner Addr1:	3530 N. IH 35
Date Submitted:	2011-04-06	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78626
Seal Mthd Oth Desc:	Hand Poured	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Tommy D Arnold
Drilling Start Dt:	2005-11-03	Driller Address1:	1147 CR 170
Drilling End Dt:	2005-12-01	Driller Addr2:	
Proposed Use:	Irrigation	Driller City:	Round Rock
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78664
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	300
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Tommy Arnold	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	no septic found within 300 ft
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.691945
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:		Lat Second:	31
Chemical Analysis:	No	Longitude:	-97.645278
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	43
Grid No:	58-19-6		
Company Name:	Tom Arnold Drilling		
Well Location Description:			
Comments:	$mew		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=249018&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
57	NE	0.63	3,346.18	678.63	SDR WELLS

License No:	2096	Well Address1:	1801 CR 152
PWS No:		Well Addr2:	

Wells and Additional Sources Detail Report

Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	221234	Well Zip:	78628
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Berry Springs Park
No of Wells Drill:		Owner Addr1:	1801 CR 152
Date Submitted:	2010-06-30	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78628
Seal Mthd Oth Desc:	hand poured	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Tommy D Arnold
Drilling Start Dt:	2009-08-20	Driller Address1:	2750 South A. W. Grimes Blvd
Drilling End Dt:	2009-08-20	Driller Addr2:	
Proposed Use:	Irrigation	Driller City:	Round Rock
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78664
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	175
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Tommy Arnold	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	tape measure
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.686667
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:	120.00	Lat Second:	12
Chemical Analysis:	No	Longitude:	-97.643889
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	38
Grid No:	58-19-6		
Company Name:	Tom Arnold Drilling		
Well Location Description:			
Comments:	^NK		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=221234&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
60	NE	0.65	3,425.36	678.21	SDR WELLS

License No:	59656	Well Address1:	1801 CO Road 152
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	470415	Well Zip:	78626

Wells and Additional Sources Detail Report

Orig Well Rpt Trk No:		Owner Well No:	PB11
Apprentice Reg No:		Owner Name:	City of Georgetown
No of Wells Drill:	1	Owner Addr1:	300-1 Industrial Avenue
Date Submitted:	2018-02-07	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Hand Mixed	Owner Zip:	78626
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Hamilton Lane Mcrae
Drilling Start Dt:	2018-01-09	Driller Address1:	1402 Yogi Berra CV
Drilling End Dt:	2018-01-09	Driller Addr2:	
Proposed Use:	Other	Driller City:	Round Rock
Prop Use Oth Descr:	Piezo	Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78665
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Hamilton L. McRae	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	
Surface Compl:	Surface Slab Installed	Horizon Datum Type:	NAD83
Surf Comp Oth Desc:		Elevation:	672
Complt by Driller:	Yes	Latitude:	30.686336
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:		Lat Second:	10.81
Chemical Analysis:	No	Longitude:	-97.643681
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	37.25
Grid No:	58-19-6		
Company Name:	Austin Geo-Logic		
Well Location Description:	Take CR 152 north from SH 130. Pass the south fork of Berry Creek and turn left into Berry Creek Park. Take park road north to northernmost parking lot. Continue north on dirt road for 235 feet. Piezo is beside road - 30 feet from edge of road		
Comments:	dry hole		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=470415&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
67	ENE	0.68	3,607.34	663.05	SDR WELLS

License No:	2096	Well Address1:	1801 CR 152
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	207693	Well Zip:	78628
Orig Well Rpt Trk No:		Owner Well No:	

Apprentice Reg No:		Owner Name:	Berry Springs Park
No of Wells Drill:		Owner Addr1:	1801 CR 152
Date Submitted:	2010-02-10	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78628
Seal Mthd Oth Desc:	Hand Poured	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Tommy D Arnold
Drilling Start Dt:	2009-06-15	Driller Address1:	2750 South A. W. Grimes Blvd.
Drilling End Dt:	2009-06-16	Driller Addr2:	
Proposed Use:	Irrigation	Driller City:	Round Rock
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78664
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	300
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Tommy Arnold	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	Tape Measure *
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.683334
Pump Type:	Other	Lat Degree:	30
Pump Type Oth Desc:	None	Lat Minute:	41
Pump Depth:		Lat Second:	0
Chemical Analysis:	No	Longitude:	-97.643334
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	36
Grid No:	58-19-6		
Company Name:	Tom Arnold Drilling		
Well Location Description:			
Comments:	* none within given distance $mew		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=207693&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
73	E	0.73	3,863.48	697.85	SDR WELLS

License No:	59823	Well Address1:	Highway 152
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	605542	Well Zip:	
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Blue Water Resource Management
No of Wells Drill:	1	Owner Addr1:	810 W 10th

Wells and Additional Sources Detail Report

Date Submitted:	2022-05-19	Owner Addr2:	
Type of Work:	New Well	Owner City:	Austin
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Poured	Owner Zip:	78701
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Joseph Willeke
Drilling Start Dt:	2022-05-05	Driller Address1:	
Drilling End Dt:	2022-05-05	Driller Addr2:	
Proposed Use:	Test Well	Driller City:	Midland
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	79701
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	N/A
Sealed by Name:		Dist to Septic Tk:	N/A
Driller Signed:	Joseph Willeke	Dist to Prop Line:	237
Apprentice Signed:		Dist Verifi Method:	Owner
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	700
Complt by Driller:	No	Latitude:	30.676978
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	40
Pump Depth:		Lat Second:	37.12
Chemical Analysis:	No	Longitude:	-97.640308
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	25.11
Grid No:	58-19-6		
Company Name:	Santa Rosa Well Service, LLC		
Well Location Description:	30.676978 N -97.640308 W Cummins #1		
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=605542&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
75	NNE	0.74	3,883.25	702.17	SDR WELLS

License No:	4855	Well Address1:	I -35 & Hwy 195
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	
Well Rpt Track No:	67571	Well Zip:	
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Lone Star Infrastructure
No of Wells Drill:		Owner Addr1:	1421 W/Brnch PKWY/Bldg/2/St200
Date Submitted:	2005-09-26	Owner Addr2:	
Type of Work:	New Well	Owner City:	Pflugerville

Wells and Additional Sources Detail Report

Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78660
Seal Mthd Oth Desc:	POS DISP	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	David Gann
Drilling Start Dt:	2004-01-05	Driller Address1:	3410 Mankins
Drilling End Dt:	2004-01-07	Driller Addr2:	
Proposed Use:	Industrial	Driller City:	Odessa
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	79764
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	No	Dist to Sep Contam:	
Sealed by Name:	WTWWS	Dist to Septic Tk:	
Driller Signed:	David Gann	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.697778
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:	110.00	Lat Second:	52
Chemical Analysis:	No	Longitude:	-97.650278
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	39
Known Loc Error:	No	Long Second:	1
Grid No:	58-19-6		
Company Name:	West Texas Water Well Service		
Well Location Description:			
Comments:	LCS$		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=67571&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
77	SE	0.77	4,066.70	672.15	SDR WELLS

License No:	52485	Well Address1:	40104 Meadow Turn
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	460027	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	1
Apprentice Reg No:		Owner Name:	Cockrum Homes
No of Wells Drill:	1	Owner Addr1:	40104 Meadow Turn
Date Submitted:	2017-02-10	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Pumped	Owner Zip:	78626

Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	David Cowen
Drilling Start Dt:	2016-12-27	Driller Address1:	1783 fm 2484
Drilling End Dt:	2016-12-27	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	salado
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	76571
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	none in place
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	David Cowen	Dist to Prop Line:	plotted
Apprentice Signed:		Dist Verifi Method:	surveyor
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:	Yes	Latitude:	30.667923
Pump Type:	Other	Lat Degree:	30
Pump Type Oth Desc:	no pump	Lat Minute:	40
Pump Depth:		Lat Second:	4.52
Chemical Analysis:	No	Longitude:	-97.636607
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	11.79
Grid No:	58-19-6		
Company Name:	David Cowen		
Well Location Description:			
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=460027&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
81	NW	0.79	4,149.89	733.02	SDR WELLS

License No:	2096	Well Address1:	6025 Airport Rd.
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	309916	Well Zip:	78628
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Glynn D. Buie
No of Wells Drill:		Owner Addr1:	6025 Airport Rd.
Date Submitted:	2013-01-28	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78628
Seal Mthd Oth Desc:	Hand Poured	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Tommy D Arnold

Drilling Start Dt:	2012-07-20	Driller Address1:	2750 A. W. Grimes Blvd.
Drilling End Dt:	2012-07-21	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	Round Rock
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78664
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	123
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Tommy D. Arnold	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	Tape Measure
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.693611
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:	120.00	Lat Second:	37
Chemical Analysis:	No	Longitude:	-97.667778
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	40
Known Loc Error:	No	Long Second:	4
Grid No:	58-19-5		
Company Name:	Tom Arnold Drilling		
Well Location Description:			
Comments:	^EAD		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=309916&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
82	SE	0.79	4,176.38	671.73	SDR WELLS

License No:	54416	Well Address1:	40001 settlers path
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	georgetown
Well Rpt Track No:	519121	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Wes Whitzel
No of Wells Drill:	1	Owner Addr1:	40001 settlers path
Date Submitted:	2019-08-21	Owner Addr2:	
Type of Work:	New Well	Owner City:	georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Pressure	Owner Zip:	78626
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Jim Blair
Drilling Start Dt:	2019-07-30	Driller Address1:	185 Angel Fire Dr.
Drilling End Dt:	2019-08-01	Driller Addr2:	

Wells and Additional Sources Detail Report

Proposed Use:	Domestic	Driller City:	Dripping Springs
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78620
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	jim blair	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	WGS84
Surf Comp Oth Desc:		Elevation:	672
Complt by Driller:		Latitude:	30.665908
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	39
Pump Depth:	200.00	Lat Second:	57.27
Chemical Analysis:	No	Longitude:	-97.636497
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	11.39
Grid No:	58-19-9		
Company Name:	Bee Cave Drilling, Inc.		
Well Location Description:			
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=519121&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
89	NW	0.82	4,347.19	739.52	SDR WELLS

License No:	2912	Well Address1:	3501 deer trail
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	595727	Well Zip:	78628
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Warren Farrell
No of Wells Drill:	1	Owner Addr1:	3501 deer trail
Date Submitted:	2022-02-01	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Hand Mixed	Owner Zip:	78628
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Bobby Wayne Stork
Drilling Start Dt:	2021-12-02	Driller Address1:	10121 North IH35
Drilling End Dt:	2021-12-02	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	Jarrell
Prop Use Oth Descr:		Driller State:	TX

Wells and Additional Sources Detail Report

TCEQ Approve Plans:		Driller Zip:	76537
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Bobby Wayne Stork	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	
Surface Compl:		Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.69
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:	100.00	Lat Second:	24
Chemical Analysis:	No	Longitude:	-97.67
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	40
Known Loc Error:	No	Long Second:	12
Grid No:	58-19-5		
Company Name:	Alpine water well service		
Well Location Description:			
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=595727&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
89	NW	0.82	4,347.19	739.52	SDR WELLS

License No:	2912	Well Address1:	3501 Deer Trail
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	595744	Well Zip:	78628
Orig Well Rpt Trk No:		Owner Well No:	2
Apprentice Reg No:		Owner Name:	Warren Farrell
No of Wells Drill:	2	Owner Addr1:	3501 Deer Trail
Date Submitted:	2022-02-01	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Hand Mixed	Owner Zip:	78628
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Bobby Wayne Stork
Drilling Start Dt:	2021-12-02	Driller Address1:	10121 North IH35
Drilling End Dt:	2021-12-02	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	Jarrell
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	76537
Apprve by Variance:		Driller Oth Cntry:	

Wells and Additional Sources Detail Report

Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Bobby Wayne Stork	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	
Surface Compl:		Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.69
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:		Lat Second:	24
Chemical Analysis:	No	Longitude:	-97.67
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	40
Known Loc Error:	No	Long Second:	12
Grid No:	58-19-5		
Company Name:	Alpine water well service		
Well Location Description:			
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=595744&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
90	NE	0.83	4,376.25	679.83	SDR WELLS

License No:	2912	Well Address1:	311 MARKET STREET
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	GEORGETOWN
Well Rpt Track No:	439802	Well Zip:	78620
Orig Well Rpt Trk No:		Owner Well No:	1
Apprentice Reg No:		Owner Name:	CHARLES SCHWEGMANN
No of Wells Drill:	1	Owner Addr1:	311 MARKET STREET
Date Submitted:	2017-01-02	Owner Addr2:	
Type of Work:	New Well	Owner City:	GEORGETOWN
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Hand Mixed	Owner Zip:	78620
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Bobby Wayne Stork
Drilling Start Dt:	2016-11-09	Driller Address1:	10121 North IH35
Drilling End Dt:	2016-11-09	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	Jarrell
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	76537
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	100+

Wells and Additional Sources Detail Report

Sealed by Name:		Dist to Septic Tk:	100+
Driller Signed:	BOBBY STORK	Dist to Prop Line:	100+
Apprentice Signed:		Dist Verifi Method:	GPS
Surface Compl:	Surface Slab Installed	Horizon Datum Type:	NAD27
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:	Yes	Latitude:	30.693114
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:	160.00	Lat Second:	35.21
Chemical Analysis:	No	Longitude:	-97.6421
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	31.56
Grid No:	58-19-6		
Company Name:	Alpine water well service		
Well Location Description:			
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=439802&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
91	ENE	0.83	4,377.24	665.72	SDR WELLS

License No:	59656	Well Address1:	1801 CO Road 152
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	470411	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	PB10
Apprentice Reg No:		Owner Name:	City of Georgetown
No of Wells Drill:	1	Owner Addr1:	300-1 Industrial Avenue
Date Submitted:	2018-02-07	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Hand Mixed	Owner Zip:	78626
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Hamilton Lane Mcrae
Drilling Start Dt:	2018-01-08	Driller Address1:	1402 Yogi Berra CV
Drilling End Dt:	2018-01-08	Driller Addr2:	
Proposed Use:	Other	Driller City:	Round Rock
Prop Use Oth Descr:	Piezo	Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78665
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Hamilton L. McRae	Dist to Prop Line:	

Apprentice Signed:		Dist Verifi Method:	
Surface Compl:	Surface Slab Installed	Horizon Datum Type:	NAD83
Surf Comp Oth Desc:		Elevation:	664
Complt by Driller:	Yes	Latitude:	30.687667
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:		Lat Second:	15.6
Chemical Analysis:	No	Longitude:	-97.640553
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	25.99
Grid No:	58-19-6		
Company Name:	Austin Geo-Logic		
Well Location Description:	Take CR 152 north from SH 130. Pass the south fork of Berry Creek and turn left into Berry Creek Park. Just past guardshack take a right to the loop road for day camping spots. At the loop take a left and follow dead end base road 620 feet. Piezo is 300 feet east of the base road.		
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=470411&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
107	N	0.90	4,734.83	711.18	SDR WELLS

License No:	2096	Well Address1:	IH 35 & Hwy 195 SE Corner
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	218122	Well Zip:	78628
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	YAAB Investments
No of Wells Drill:		Owner Addr1:	2246 Casper Cv.
Date Submitted:	2010-06-01	Owner Addr2:	
Type of Work:	New Well	Owner City:	Round Rock
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Not Applicable	Owner Zip:	78664
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Tommy D Arnold
Drilling Start Dt:	2010-04-01	Driller Address1:	2750 A. W. Grines Blvd.
Drilling End Dt:	2010-04-07	Driller Addr2:	
Proposed Use:	Test Well	Driller City:	Round Rock
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78664
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	No	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Tommy Arnold	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	

Surface Compl:	Unknown	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.701112
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	42
Pump Depth:		Lat Second:	4
Chemical Analysis:	No	Longitude:	-97.653889
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	39
Known Loc Error:	No	Long Second:	14
Grid No:	58-19-6		
Company Name:	Tom Arnold Drilling		
Well Location Description:			
Comments:	^EO		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=218122&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
112	ENE	0.92	4,861.79	658.71	SDR WELLS

License No:	59656	Well Address1:	1801 CO Road 152
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	470409	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	PB9
Apprentice Reg No:		Owner Name:	City of Georgetown
No of Wells Drill:	1	Owner Addr1:	300-1 Industrial Avenue
Date Submitted:	2018-02-07	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Hand Mixed	Owner Zip:	78626
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Hamilton Lane Mcrae
Drilling Start Dt:	2018-01-09	Driller Address1:	1402 Yogi Berra CV
Drilling End Dt:	2018-01-09	Driller Addr2:	
Proposed Use:	Other	Driller City:	Round Rock
Prop Use Oth Descr:	Piezo	Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78665
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Hamilton L. McRae	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	
Surface Compl:	Surface Slab Installed	Horizon Datum Type:	NAD83
Surf Comp Oth Desc:		Elevation:	662

Complt by Driller:	Yes	Latitude:	30.686128
Pump Type:		Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	41
Pump Depth:		Lat Second:	10.06
Chemical Analysis:	No	Longitude:	-97.639106
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	20.78
Grid No:	58-19-6		
Company Name:	Austin Geo-Logic		
Well Location Description:	Take CR 152 north from SH 130. Pass the south fork of Berry Creek and turn left into Berry Creek Park. Just past guardshack take a right to the loop road for day camping spots. Pizeo is 75 feet east of eastern most two shelters - 75 feet east from midway between two shelters.		
Comments:	dry hole		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=470409&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
121	N	0.96	5,055.01	683.39	SDR WELLS

License No:	2096	Well Address1:	6025 Airport Rd.
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	239614	Well Zip:	78628
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Buie, Glynn
No of Wells Drill:		Owner Addr1:	6025 Airport Rd.
Date Submitted:	2010-12-30	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78628
Seal Mthd Oth Desc:	Hand Poured	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Tommy D Arnold
Drilling Start Dt:	2010-08-24	Driller Address1:	2750 S AW Grimes Blvd.
Drilling End Dt:	2010-08-26	Driller Addr2:	
Proposed Use:	Test Well	Driller City:	Round Rock
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	78664
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	300
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Tommy D Arnold	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	Tape Measure
Surface Compl:	Alternative Procedure Used	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.701945

Wells and Additional Sources Detail Report

Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	42
Pump Depth:	100.00	Lat Second:	7
Chemical Analysis:	No	Longitude:	-97.658612
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	39
Known Loc Error:	No	Long Second:	31
Grid No:	58-19-6		
Company Name:	Tom Arnold Drilling		
Well Location Description:			
Comments:	^EO		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=239614&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
123	SSW	0.96	5,076.67	712.69	SDR WELLS

License No:	2912	Well Address1:	1500 CR 147
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	GEORGETOWN
Well Rpt Track No:	439528	Well Zip:	78628
Orig Well Rpt Trk No:		Owner Well No:	1
Apprentice Reg No:		Owner Name:	JACOB BALUSEK
No of Wells Drill:	1	Owner Addr1:	1500 CR 147
Date Submitted:	2016-12-27	Owner Addr2:	
Type of Work:	New Well	Owner City:	GEORGETOWN
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Hand Mixed	Owner Zip:	78628
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Bobby Wayne Stork
Drilling Start Dt:	2016-10-28	Driller Address1:	10121 North IH35
Drilling End Dt:	2016-10-28	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	Jarrell
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	76537
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	Yes	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	100+
Sealed by Name:		Dist to Septic Tk:	100+
Driller Signed:	BOBBY STORK	Dist to Prop Line:	100+
Apprentice Signed:		Dist Verifi Method:	
Surface Compl:	Surface Slab Installed	Horizon Datum Type:	NAD27
Surf Comp Oth Desc:		Elevation:	700
Complt by Driller:	Yes	Latitude:	30.658687
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	39

Pump Depth:	140.00	Lat Second:	31.27
Chemical Analysis:	No	Longitude:	-97.661956
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	39
Known Loc Error:	No	Long Second:	43.04
Grid No:	58-19-9		
Company Name:	Alpine water well service		
Well Location Description:			
Comments:			
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=439528&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
127	S	0.97	5,106.53	689.82	SDR WELLS

License No:	2912	Well Address1:	
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	43678	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	
Apprentice Reg No:		Owner Name:	Royce Robinson
No of Wells Drill:		Owner Addr1:	P.O. Box 2016
Date Submitted:	2004-08-24	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78627
Seal Mthd Oth Desc:	Gravity Feed	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Bobby Wayne Stork
Drilling Start Dt:	2003-06-19	Driller Address1:	10121 IH 35
Drilling End Dt:	2003-06-19	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	Jarrell
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	76537
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	Yes	Dist to Sep Contam:	150
Sealed by Name:		Dist to Septic Tk:	
Driller Signed:	Bobby Stork	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	Owner
Surface Compl:	Surface Slab Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.655834
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	39
Pump Depth:	160.00	Lat Second:	21
Chemical Analysis:	No	Longitude:	-97.658056

Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	39
Known Loc Error:	No	Long Second:	29
Grid No:	58-19-9		
Company Name:	Alpine Water Well		
Well Location Description:			
Comments:	Logged by DT$		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=43678&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
128	ESE	0.97	5,111.96	670.32	SDR WELLS

License No:	2912	Well Address1:	40010 Heritage Hollow
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	335065	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	#1
Apprentice Reg No:		Owner Name:	Tim Wright
No of Wells Drill:		Owner Addr1:	P.O. Box 10901
Date Submitted:	2013-08-15	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Gravity	Owner Zip:	78626
Seal Mthd Oth Desc:		Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Bobby Wayne Stork
Drilling Start Dt:	2010-10-27	Driller Address1:	
Drilling End Dt:	2010-10-27	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	
Prop Use Oth Descr:		Driller State:	
TCEQ Approve Plans:		Driller Zip:	
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	No	Dist to Sep Contam:	none
Sealed by Name:	Alpine	Dist to Septic Tk:	
Driller Signed:	Bobby Stork	Dist to Prop Line:	100+
Apprentice Signed:		Dist Verifi Method:	Owner
Surface Compl:	Surface Slab Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.666944
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	40
Pump Depth:	200.00	Lat Second:	1
Chemical Analysis:	No	Longitude:	-97.633334
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38

Known Loc Error:	No	Long Second:	0
Grid No:	58-19-6		
Company Name:			
Well Location Description:			
Comments:	Surfacd completion: also Surface Sleeve Installed ^ch		
Data Source:	Full SDR Database; SDRDB Well Location (Map)		
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=335065&Type=SDR-Well		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
130	NNE	0.97	5,130.75	684.26	SDR WELLS

License No:	2912	Well Address1:	4440 IH-35
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	190309	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	#1
Apprentice Reg No:		Owner Name:	Gayle McElhanon
No of Wells Drill:		Owner Addr1:	P.O. Box 1113
Date Submitted:	2009-08-19	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78627
Seal Mthd Oth Desc:	Gravity Feed	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Bobby Wayne Stork
Drilling Start Dt:	2005-10-05	Driller Address1:	10121 IH-35
Drilling End Dt:	2005-10-06	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	Jarrell
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	76537
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	No	Dist to Sep Contam:	200
Sealed by Name:	Alpine	Dist to Septic Tk:	
Driller Signed:	Bob Stork	Dist to Prop Line:	
Apprentice Signed:		Dist Verifi Method:	Owner
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.700001
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	42
Pump Depth:	100.00	Lat Second:	0
Chemical Analysis:	No	Longitude:	-97.646667
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	48
Grid No:	58-19-6		

Wells and Additional Sources Detail Report

Company Name:	Alpine Water Well
Well Location Description:	
Comments:	$mew
Data Source:	Full SDR Database; SDRDB Well Location (Map)
Drillers Well Report:	https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=190309&Type=SDR-Well

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
132	SE	0.98	5,165.82	667.33	SDR WELLS

License No:	2912	Well Address1:	100 Town's Mill
PWS No:		Well Addr2:	
Plug Rpt Track No:		Well City:	Georgetown
Well Rpt Track No:	312120	Well Zip:	78626
Orig Well Rpt Trk No:		Owner Well No:	2
Apprentice Reg No:		Owner Name:	Bill Chambers
No of Wells Drill:		Owner Addr1:	100 Town's Mill
Date Submitted:	2013-02-25	Owner Addr2:	
Type of Work:	New Well	Owner City:	Georgetown
Typ of Wrk Oth Descr:		Owner State:	TX
Seal Method:	Other	Owner Zip:	78626
Seal Mthd Oth Desc:	Gravity Feed	Owner Country:	
Plugged w/i 48Hrs:	No	Driller Name:	Bobby Wayne Stork
Drilling Start Dt:	2012-11-25	Driller Address1:	10121 IH-35
Drilling End Dt:	2012-11-26	Driller Addr2:	
Proposed Use:	Domestic	Driller City:	Jarrell
Prop Use Oth Descr:		Driller State:	TX
TCEQ Approve Plans:		Driller Zip:	76537
Apprve by Variance:		Driller Oth Cntry:	
Loc Vfy by Driller:	No	Driller Country:	
Sealed by Driller:	No	Dist to Sep Contam:	None
Sealed by Name:	Alpine	Dist to Septic Tk:	
Driller Signed:	Bobby Stork	Dist to Prop Line:	50
Apprentice Signed:		Dist Verifi Method:	Owner
Surface Compl:	Surface Sleeve Installed	Horizon Datum Type:	
Surf Comp Oth Desc:		Elevation:	
Complt by Driller:		Latitude:	30.661945
Pump Type:	Submersible	Lat Degree:	30
Pump Type Oth Desc:		Lat Minute:	39
Pump Depth:	240.00	Lat Second:	43
Chemical Analysis:	No	Longitude:	-97.634722
Injurious Water:	No	Long Degree:	97
County:	Williamson	Long Minute:	38
Known Loc Error:	No	Long Second:	5
Grid No:	58-19-9		
Company Name:	Alpine Water Well		
Well Location Description:			

Comments: ^EAD
Data Source: Full SDR Database; SDRDB Well Location (Map)
Drillers Well Report: https://www3.twdb.texas.gov/apps/waterdatainteractive/GetReports.aspx?Num=312120&Type=SDR-Well

Water Utility Database

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
46	ENE	0.56	2,977.72	701.88	WUD

Primary Co: JONAH WATER SUD
Contact Ti:
Operating Status: OPERATIONAL
PWSID: 2460022
Source ID: G2460022G
Utility Name: JONAH WATER SUD
WTRSRC: G2460022G
Date Drilled: 04/26/1993
Well Depth: 225
Screen Top: 160
Screen Bottom: 225
Water Usage:
Gallons Per Minute: 400
CCN:
Latitude: 30.68128
Longitude: -97.645287
System Status:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
47	NE	0.58	3,073.61	691.35	WUD

Primary Co:
Contact Ti:
Operating Status: OPERATIONAL
PWSID: 2460001
Source ID: G2460001N
Utility Name: CITY OF GEORGETOWN
WTRSRC: G2460001N
Date Drilled: 03/18/1985
Well Depth: 220
Screen Top: 0
Screen Bottom: 0
Water Usage:
Gallons Per Minute: 0
CCN:
Latitude: 30.688242
Longitude: -97.644728

Wells and Additional Sources Detail Report

System Status:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
99	NE	0.87	4,582.11	664.63	WUD

Primary Co:
Contact Ti:
Operating Status: OPERATIONAL
PWSID: 2460001
Source ID: G2460001M
Utility Name: CITY OF GEORGETOWN
WTRSRC: G2460001M
Date Drilled: 03/22/1985
Well Depth: 200
Screen Top: 0
Screen Bottom: 0
Water Usage:
Gallons Per Minute: 0
CCN:
Latitude: 30.689781
Longitude: -97.640119
System Status:

Well Log Reports from Plotted Water Wells

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	-	0.00	0.00	721.73	TCEQ WELL LOGS

Grid No: 58-19-6
Date Drilled: 01/27/1998
Owners Name: TILSON HOME CORPORATION
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: 52
Depth Drilled: 245
Latitude: 30.686495
Longitude: -97.655636

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
8	N	0.05	247.44	731.97	TCEQ WELL LOGS

Grid No: 58-19-6
Date Drilled: 11/17/1986
Owners Name: GLEN W BISHOP

County: WILLIAMSON
Water Usage: TEST HOLE
Static Level: NOT REPORTED
Depth Drilled: 105
Latitude: 30.685005
Longitude: -97.654632

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	N	0.05	251.75	731.81	TCEQ WELL LOGS

Grid No: 58-19-6
Date Drilled: 06/25/25001
Owners Name: GLEN BISHOP
County: WILLIAMSON
Water Usage: PUBLIC SUPPLY
Static Level: 60
Depth Drilled: 200
Latitude: 30.685016
Longitude: -97.654616

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
11	N	0.07	378.25	682.67	TCEQ WELL LOGS

Grid No: 58-19-6
Date Drilled: 04/17/1998
Owners Name: LARRY KOKEL
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: 2
Depth Drilled: 225
Latitude: 30.689151
Longitude: -97.655409

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
44	NNW	0.55	2,882.02	687.28	TCEQ WELL LOGS

Grid No: 58-19-6DD
Date Drilled: 09/06/1984
Owners Name: LEON MILLER
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: NOT REPORTED
Depth Drilled: 170

Latitude: 30.695474
Longitude: -97.659768

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
71	NNE	0.71	3,730.82	694.96	TCEQ WELL LOGS

Grid No: 58-19-6Y
Date Drilled: 12/28/1983
Owners Name: E C ASTON JR
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: 70
Depth Drilled: 160
Latitude: 30.696478
Longitude: -97.64852

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
78	NW	0.77	4,075.30	731.38	TCEQ WELL LOGS

Grid No: 58-19-5Q
Date Drilled: 06/28/1984
Owners Name: GALE ROSSON
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: 110
Depth Drilled: 160
Latitude: 30.693668
Longitude: -97.66747

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
94	NNE	0.84	4,446.19	685.80	TCEQ WELL LOGS

Grid No: 58-19-6H
Date Drilled: 06/26/1975
Owners Name: DOYLE LYDA
County: WILLIAMSON
Water Usage: INDUSTRIAL
Static Level: 45
Depth Drilled: 150
Latitude: 30.697595
Longitude: -97.646323

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
100	W	0.87	4,611.86	739.90	TCEQ WELL LOGS

Grid No: 58-19-5Y
Date Drilled: 11/08/1979
Owners Name: ALBERT S EVANS JR
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: NOT REPORTED
Depth Drilled: 203
Latitude: 30.677656
Longitude: -97.670085

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
105	NNE	0.89	4,704.75	687.08	TCEQ WELL LOGS

Grid No: 58-19-6
Date Drilled: 04/16/1987
Owners Name: DAVID SCHWEGMAN
County: WILLIAMSON
Water Usage: DOMESTIC/IRRIGATION
Static Level: 13
Depth Drilled: 200
Latitude: 30.698743
Longitude: -97.646863

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
110	NW	0.91	4,792.25	722.82	TCEQ WELL LOGS

Grid No: 58-19-5Q
Date Drilled: 07/23/1976
Owners Name: GLENN BUIE
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: 74
Depth Drilled: 140
Latitude: 30.694392
Longitude: -97.669613

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
114	NW	0.93	4,913.41	716.45	TCEQ WELL LOGS

Grid No: 58-19-6W
Date Drilled: 08/23/1982
Owners Name: RON BOYD
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: 60
Depth Drilled: 160
Latitude: 30.696478
Longitude: -97.668496

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
117	NW	0.94	4,964.51	724.82	TCEQ WELL LOGS

Grid No: 58-19-5K
Date Drilled: 08/18/1975
Owners Name: VERNON SYDROW
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: 50
Depth Drilled: 100
Latitude: 30.695857
Longitude: -97.669223

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
126	NNW	0.97	5,104.48	710.78	TCEQ WELL LOGS

Grid No: 58-19-5
Date Drilled: 09/28/1996
Owners Name: GLEEN BOWIE
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: 34
Depth Drilled: 105
Latitude: 30.698206
Longitude: -97.667518

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
136	NW	0.99	5,231.03	725.10	TCEQ WELL LOGS

Grid No: 58-19-5H
Date Drilled: 04/??/1973
Owners Name: A.M. ALEXANDER
County: WILLIAMSON

Water Usage: DOMESTIC
Static Level: 80
Depth Drilled: 120
Latitude: 30.696945
Longitude: -97.669356

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
137	W	0.99	5,245.23	745.52	TCEQ WELL LOGS

Grid No: 58-19-5Y
Date Drilled: 10/18/1982
Owners Name: CITY OF GEORGETOWN
County: WILLIAMSON
Water Usage: TEST WELL
Static Level: NONE
Depth Drilled: 185
Latitude: 30.67871
Longitude: -97.6725

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
138	NW	0.99	5,246.48	724.19	TCEQ WELL LOGS

Grid No: 58-19-5H
Date Drilled: 04/18/1972
Owners Name: WALTER YATES
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: 90
Depth Drilled: 160
Latitude: 30.697108
Longitude: -97.669271

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
139	NW	1.00	5,254.44	720.92	TCEQ WELL LOGS

Grid No: 58-19-5H
Date Drilled: 06/19/1976
Owners Name: JIM FRYER
County: WILLIAMSON
Water Usage: DOMESTIC
Static Level: 60
Depth Drilled: 120
Latitude: 30.697452

Wells and Additional Sources Detail Report

Longitude: -97.668979

Radon Information

This section lists any relevant radon information found for the target property.

Federal EPA Radon Zone for *WILLIAMSON* County: **3**

Zone 1: Counties with predicted average indoor radon screening levels greater than 4 pCi/L
Zone 2: Counties with predicted average indoor radon screening levels from 2 to 4 pCi/L
Zone 3: Counties with predicted average indoor radon screening levels less than 2 pCi/L

Federal Area Radon Information for *WILLIAMSON* County

No Measures/Homes:	38
Geometric Mean:	1
Arithmetic Mean:	1.4
Median:	1.1
Maximum:	6.4
% >4 pCi/L:	3
% >20 pCi/L:	0
Notes on Data Table:	TABLE 1. Screening indoor radon data from the State/EPA Residential Radon Survey of Texas conducted during 1990-91. Data represent 2-7 day charcoal canister measurements from the lowest level of each home tested.

Appendix

Federal Sources

FEMA National Flood Hazard Layer — **FEMA FLOOD**

The National Flood Hazard Layer (NFHL) data incorporates Flood Insurance Rate Map (FIRM) databases published by the Federal Emergency Management Agency (FEMA), and any Letters Of Map Revision (LOMRs) that have been issued against those databases since their publication date. The FIRM Database is the digital, geospatial version of the flood hazard information shown on the published paper FIRMs. The FIRM Database depicts flood risk information and supporting data used to develop the risk data. The FIRM Database is derived from Flood Insurance Studies (FISs), previously published FIRMs, flood hazard analyses performed in support of the FISs and FIRMs, and new mapping data, where available.

Indoor Radon Data — **INDOOR RADON**

Indoor radon measurements tracked by the Environmental Protection Agency(EPA) and the State Residential Radon Survey.

Public Water Systems Violations and Enforcement Data — **PWSV**

List of drinking water violations and enforcement actions from the Safe Drinking Water Information System (SDWIS) made available by the Drinking Water Protection Division of the US EPA's Office of Groundwater and Drinking Water. Enforcement sensitive actions are not included in the data released by the EPA. Address information provided in SWDIS may correspond either with the physical location of the water system, or with a contact address.

Radon Zone Level — **RADON ZONE**

Areas showing the level of Radon Zones (level 1, 2 or 3) by county. This data is maintained by the Environmental Protection Agency (EPA).

Safe Drinking Water Information System (SDWIS) — **SDWIS**

The Safe Drinking Water Information System (SDWIS) contains information about public water systems as reported to US Environmental Protection Agency (EPA) by the states. Addresses may correspond with the location of the water system, or with a contact address.

Soil Survey Geographic database — **SSURGO**

The Soil Survey Geographic database (SSURGO) contains information about soil as collected by the National Cooperative Soil Survey at the Natural Resources Conservation Service (NRCS). Soil maps outline areas called map units. The map units are linked to soil properties in a database. Each map unit may contain one to three major components and some minor components.

USGS Current Topo — **US TOPO**

US Topo topographic maps are produced by the National Geospatial Program of the U.S. Geological Survey (USGS). The project was launched in late 2009, and the term "US Topo" refers specifically to quadrangle topographic maps published in 2009 and later.

USGS Geology — **US GEOLOGY**

Seamless maps depicting geological information provided by the United States Geological Survey (USGS).

USGS National Water Information System — **FED USGS**

The U.S. Geological Survey (USGS)'s National Water Information System (NWIS) is the nation's principal repository of water resources data. This database includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data.

Wells from NWIS — **FED USGS**

The U.S. Geological Survey's National Water Information System (NWIS) is the nation's principal repository of water resources data. The NWIS includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data. This NWIW dataset contains select Site Types from the overall NWIS Sites data, limited to the following Group Site Types only: Groundwater Group Site Types: Well, Collector or Ranney type well, Hyporheic-zone well, Interconnected Wells, Multiple wells; Spring Group Site Type: Spring; and Other Group Site Types: Aggregate groundwater use, Cistern.

Appendix

State Sources

Fort Bend Subsidence District Water Wells — **WW FORT BEND**

List of water wells in the Fort Bend Subsidence District, boundaries of which are defined as all the territory within Fort Bend County. The Fort Bend Subsidence District was created by the Texas Legislature in 1989 as a conservation and reclamation district to control land subsidence and manage groundwater resources through regulation, conservation, and coordination with suppliers of alternative water sources to assure an adequate quantity and quality of water for the future. The District's purpose is to provide for the regulation of the withdrawal of groundwater within the District to prevent subsidence that contributes to flooding, inundation or overflow of areas within the District, including rising waters resulting from storms or hurricanes.

Groundwater Database — **GWDB**

The Texas Water Development Board (TWDB) Groundwater Database (GWDB) contains information on selected water wells, springs, oil/gas tests (that were originally intended to be or were converted to water wells), water levels and water quality.

Harris Galveston Subsidence District Water Wells — **WW HARRIS GAL**

List of water wells in the Harris-Galveston Subsidence District (HGSD). The HGSD was created by the 64th Texas Legislature as an underground water conservation district in 1975 to provide regulation of groundwater withdrawal to control subsidence.

High Plains Water Wells — **WW HIGH PLAINS**

Inventory of water wells in the High Plains Underground Water Conservation District No. 1 (HPUWCD), which was created in 1951. As a political subdivision of Texas, HPUWCD is charged with protecting, preserving and conserving aquifers within the District's 16-county service area.

Oil and Gas Wells — **OGW**

Oil and Gas Well Data made available by the Railroad Commission of Texas.

Pipelines — **PIPELINE**

Locations of interstate and intrastate gas and liquids pipelines, made available by the Railroad Commission of Texas (RRC). Data is derived from RRC T-4 Permit applications ("Application for Permit to Operate a Pipeline in Texas"), which facilitate regulatory functions of the Pipeline Safety Section of the RRC. The digital data used to create the files was taken from the forms system within the RRC, from the General Land Office (GLO) county survey maps, and, United States Geological Survey (USGS) quadrangle maps.

Plotted Water Wells — **WATER WELLS**

A list of water wells in Texas that are plotted in Texas Commission on Environmental Quality (TCEQ) Water Well Report Viewer. The database provides the best representation of water well driller's reports available to the TCEQ as of the date of records collected. Note: records are plotted using the Texas Land Survey Grid System, identifying the 2.5 minute grid where wells are located but do not contain the offset necessary to pinpoint a specific location. Therefore, plotted locations are accurate to a resolution of 2.5 minute (2-3 miles).

Plugged Water Wells — **PLUGGED WELLS**

A list of plugged water wells from the Submitted Drillers Report (SDR) Database. This list is maintained by the Texas Water Development Board (TWDB).

Public Water Systems Wells and Surface Intakes — **PWSW**

Public Water Supply Water Well Sites and Public Water Supply Surface Water Intake Sites in the State of Texas made available by the Texas Commission on Environmental Quality (TCEQ). The locations for these layers were obtained by the Water Supply Division as recorded from various sources, and the data provider indicates that some locational errors have been identified. As resources allow, TCEQ intends to improve the accuracy of these locations to meet the standards set forth in the agency's Positional Data Policy.

Select Wells from SDR — **SDRW WELLS**

Locations of wells from the Submitted Drillers Report (SDR) Database with select proposed usage: Domestic, Fracking Supply, Industrial, Irrigation, Other, Public Supply, Rig Supply, Stock, Unknown. SDR is populated from the online Texas Well Report Submission and Retrieval System (TWRSRS), a cooperative Texas Department of Licensing and Regulation (TDLR) and Texas Water Development Board

(TWDB) application requiring registered water-well drillers to submit reports. Excludes SDR records with the following proposed usage: Closed-Loop Geothermal, De-watering, Environmental Soil Boring, Extraction, Injection, Monitor, Test Well.

Submitted Drillers Report Database **SDR WELLS**

The Submitted Drillers Report (SDR) Database is populated from the online Texas Well Report Submission and Retrieval System (TWRSRS) which is a cooperative Texas Department of Licensing and Regulation (TDLR) and Texas Water Development Board (TWDB) application that registered water-well drillers use to submit their required reports.

Surveys **SURVEY**

Survey boundaries made available by the Railroad Commission of Texas (RRC). A survey is a certified measured description of a piece of land. In Texas, original surveys were performed as part of the patenting process whereby land was transferred from the public domain. These "patent surveys", recorded at the Texas General Land Office (GLO), constitute an official land grid for the State and are the basis for subsequent land surveys. The digital data used to create surveys were taken from the forms system within the RRC, from the General Land Office (GLO) county survey maps, and United States Geological Survey (USGS) quadrangle maps.

Underground Injection Control **UIC**

List of underground injection control (UIC) permits in the Texas Commission on Environmental Quality (TCEQ) Central Registry database. Includes Class I, Class III, Class IV, Class 5, and non permitted UICs; does not include injection wells regulated by the Railroad Commission of Texas.

Water Utility Database **WUD**

The Water Utility Database is defined as a collection of data from Texas Water Districts, Public Drinking Water Systems and Water and Sewer Utilities who submit information to the TCEQ. This database is an integrated database designed and developed to replace over 160 stand alone legacy systems representing over 5 million records of the former Texas Water Commission and the Texas Department of Health.

Well Log Reports from Plotted Water Wells **TCEQ WELL LOGS**

Locations of TCEQ Water Wells as derived from well logs in the Texas Commission on Environmental Quality (TCEQ) Water Well Report Viewer, which includes unnumbered water wells and those plotted to 2.5 minute grid locations (2-3 miles). In this collection of Well Log Reports, locations have been manually verified.

Liability Notice

Reliance on information in Report: The Physical Setting Report (PSR) DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a review of environmental databases and physical characteristics for the site or adjacent properties.

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Organized Sewage Collection System Application

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(c), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Regulated Entity Name: Berry Creek Business Park

1. ☒ **Attachment A – SCS Engineering Design Report**. This Engineering Design Report is provided to fulfill the requirements of 30 TAC Chapter 217, including 217.10 of Subchapter A, §§217.51 – 217.70 of Subchapter C, and Subchapter D as applicable, and is required to be submitted with this SCS Application Form.

Customer Information

2. The entity and contact person responsible for providing the required engineering certification of testing for this sewage collection system upon completion (including private service connections) and every five years thereafter to the appropriate TCEQ region office pursuant to 30 TAC §213.5(c) is:

   Contact Person: Kevin O'Neil
   Entity: Fidelis Industrial Partners, LLC
   Mailing Address: 4500 Bissonet St, Suite 200
   City, State: Bellaire, TX Zip: 77401
   Telephone: (512) 554-6191 Fax: N/A
   Email Address: koneil@frpltd.com
   The appropriate regional office must be informed of any changes in this information within 30 days of the change.

3. The engineer responsible for the design of this sewage collection system is:

   Contact Person: Jacob Valentien, P.E.
   Texas Licensed Professional Engineer's Number: 124993
   Entity: Westwood Professional Services
   Mailing Address: 8701 N. Mopac Expy
   City, State:Austin, TX Zip: 78759
   Telephone:(512) 485-0831 Fax:N/A
   Email Address:jacob.valentien@westwoodps.com

Project Information

4. Anticipated type of development to be served (estimated future population to be served, plus adequate allowance for institutional and commercial flows):

   ☐ Residential: Number of single-family lots: _____
   ☐ Multi-family: Number of residential units: _____
   ☐ Commercial
   ☒ Industrial
   ☐ Off-site system (not associated with any development)
   ☐ Other: _____

5. The character and volume of wastewater is shown below:

_____% Domestic	_____ gallons/day
100 % Industrial	133,448 gallons/day
_____% Commingled	_____ gallons/day

   Total gallons/day: 133,448

6. Existing and anticipated infiltration/inflow is 3,051 gallons/day. This will be addressed by: following TCEQ & City of Georgetown sanitary sewer collection system standards.

7. A Water Pollution Abatement Plan (WPAP) is required for construction of any associated commercial, industrial or residential project located on the Recharge Zone.

   ☒ The WPAP application for this development was approved by letter dated June 9, 2023. A copy of the approval letter is attached.
   ☐ The WPAP application for this development was submitted to the TCEQ on _____, but has not been approved.
   ☐ A WPAP application is required for an associated project, but it has not been submitted.
   ☐ There is no associated project requiring a WPAP application.

8. Pipe description:

Table 1 - Pipe Description

Pipe Diameter(Inches)	*Linear Feet (1)*	*Pipe Material (2)*	*Specifications (3)*
18	1229.20	PVC SDR 26	ASTM D3034
6	77.77	PVC SDR 26	ASTM D3034

Total Linear Feet: 1307

(1) Linear feet - Include stub-outs and double service connections. Do not include private service laterals.
(2) Pipe Material - If PVC, state SDR value.
(3) Specifications - ASTM / ANSI / AWWA specification and class numbers should be included.

9. The sewage collection system will convey the wastewater to the Pecan Branch Wastewater (name) Treatment Plant. The treatment facility is:

   ☒ Existing
   ☐ Proposed

10. All components of this sewage collection system will comply with:

   ☒ The City of Georgetown standard specifications.
   ☐ Other. Specifications are attached.

11. ☐ No force main(s) and/or lift station(s) are associated with this sewage collection system.

   ☒ A force main(s) and/or lift station(s) is associated with this sewage collection system and the **Lift Station/Force Main System Application** form (TCEQ-0624) is included with this application.

Alignment

12. ☒ There are no deviations from uniform grade in this sewage collection system without manholes and with open cut construction.

13. ☒ There are no deviations from straight alignment in this sewage collection system without manholes.

   ☐ **Attachment B - Justification and Calculations for Deviation in Straight Alignment without Manholes**. A justification for deviations from straight alignment in this sewage collection system without manholes with documentation from pipe manufacturer allowing pipe curvature is attached.

   ☐ For curved sewer lines, all curved sewer line notes (TCEQ-0596) are included on the construction plans for the wastewater collection system.

Manholes and Cleanouts

14. ☐ Manholes or clean-outs exist at the end of each sewer line(s). These locations are listed below: (Please attach additional sheet if necessary)

Table 2 - Manholes and Cleanouts

Line	*Shown on Sheet*	*Station*	*Manhole or Clean-out?*
18" ALT_ALIGN	14R Of 32	0+00	DOG HOUSE MANHOLE
18" ALT_ALIGN	14R Of 32	0+98.10	MANHOLE
18" ALT_ALIGN	15R Of 32	3+61.02	MANHOLE
18" ALT_ALIGN	15R Of 32	6+24.19	MANHOLE
18" ALT_ALIGN	16R Of 32	8+90.91	MANHOLE
18" ALT_ALIGN	16R Of 32	11+88.76	MANHOLE

Line	*Shown on Sheet*	*Station*	*Manhole or Clean-out?*
18" ALT_ALIGN	16R Of 32	12+29.20	MANHOLE
	Of		
	Of		
	Of		

15. ☒ Manholes are installed at all Points of Curvature and Points of Termination of a sewer line.

16. ☒ The maximum spacing between manholes on this project for each pipe diameter is no greater than:

Pipe Diameter (inches)	Max. Manhole Spacing (feet)
6 - 15	500
16 - 30	800
36 - 48	1000
≥54	2000

☐ **Attachment C – Justification for Variance from Maximum Manhole Spacing**. The maximum spacing between manholes on this project (for each pipe diameter used) is greater than listed in the table above. A justification for any variance from the maximum spacing is attached, and must include a letter from the entity which will operate and maintain the system stating that it has the capability to maintain lines with manhole spacing greater than the allowed spacing.

17. ☐ All manholes will be monolithic, cast-in-place concrete.

☐ The use of pre-cast manholes is requested for this project. The manufacturer's specifications and construction drawings, showing the method of sealing the joints, are attached.

Site Plan Requirements

Items 18 - 25 must be included on the Site Plan.

18. ☒ The Site Plan must have a minimum scale of 1" = 400'.

Site Plan Scale: 1" = 400'.

19. ☒ The Site Plan must include the sewage collection system general layout, including manholes with station numbers, and sewer pipe stub outs (if any). Site plan must be overlain by topographic contour lines, using a contour interval of not greater than ten feet and showing the area within both the five-year floodplain and the 100-year floodplain of any drainage way.

20. Lateral stub-outs:

☐ The location of all lateral stub-outs are shown and labeled.

☒ No lateral stub-outs will be installed during the construction of this sewer collection system.

21. Location of existing and proposed water lines:

☐ The entire water distribution system for this project is shown and labeled.
☐ If not shown on the Site Plan, a Utility Plan is provided showing the entire water and sewer systems.
☒ There will be no water lines associated with this project.

22. 100-year floodplain:

☒ After construction is complete, no part of this project will be in or cross a 100-year floodplain, either naturally occurring or manmade. (Do not include streets or concrete-lined channels constructed above of sewer lines.)
☐ After construction is complete, all sections located within the 100-year floodplain will have water-tight manholes. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 3 - 100-Year Floodplain

Line	***Sheet***	***Station***
	of	to
	of	to
	of	to
	of	to

23. 5-year floodplain:

☒ After construction is complete, no part of this project will be in or cross a 5-year floodplain, either naturally occurring or man-made. (Do not include streets or concrete-lined channels constructed above sewer lines.)
☐ After construction is complete, all sections located within the 5-year floodplain will be encased in concrete or capped with concrete. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 4 - 5-Year Floodplain

Line	***Sheet***	***Station***
	of	to
	of	to
	of	to
	of	to

24. ☒ Legal boundaries of the site are shown.

25. ☒ The ***final plans and technical specifications*** are submitted for the TCEQ's review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

Items 26 - 33 must be included on the Plan and Profile sheets.

26. ☐ All existing or proposed water line crossings and any parallel water lines within 9 feet of sewer lines are listed in the table below. These lines must have the type of pressure rated pipe to be installed shown on the plan and profile sheets. Any request for a variance from the required pressure rated piping at crossings must include a variance approval from 30 TAC Chapter 290.

☒ There will be no water line crossings.
☒ There will be no water lines within 9 feet of proposed sewer lines.

Table 5 - Water Line Crossings

Line	*Station or Closest Point*	*Crossing or Parallel*	*Horizontal Separation Distance*	*Vertical Separation Distance*

27. Vented Manholes:

☒ **No part** of this sewer line is within the 100-year floodplain and vented manholes are not required by 30 TAC Chapter 217.

☐ **A portion** of this sewer line is within the 100-year floodplain and vented manholes will be provided at less than 1500 foot intervals. These water-tight manholes are listed in the table below and labeled on the appropriate profile sheets.

☐ **A portion** of this sewer line is within the 100-year floodplain and an alternative means of venting shall be provided at less than 1500 feet intervals. A description of the alternative means is described on the following page.

☐ **A portion** of this sewer line is within the 100-year floodplain; however, there is no interval longer than 1500 feet located within. No vented manholes will be used.

Table 6 - Vented Manholes

Line	*Manhole*	*Station*	*Sheet*

Line	*Manhole*	*Station*	*Sheet*

28. Drop manholes:

☒ There are no drop manholes associated with this project.

☐ Sewer lines which enter new or existing manholes or "manhole structures" higher than 24 inches above the manhole invert are listed in the table below and labeled on the appropriate profile sheets. These lines meet the requirements of 30 TAC §217.55(l)(2)(H).

Table 7 - Drop Manholes

Line	*Manhole*	*Station*	*Sheet*

29. Sewer line stub-outs (For proposed extensions):

☐ The placement and markings of all sewer line stub-outs are shown and labeled.

☒ No sewer line stub-outs are to be installed during the construction of this sewage collection system.

30. Lateral stub-outs (For proposed private service connections):

☐ The placement and markings of all lateral stub-outs are shown and labeled.

☒ No lateral stub-outs are to be installed during the construction of this sewage collection system.

31. Minimum flow velocity (From Appendix A)

☒ Assuming pipes are flowing full; all slopes are designed to produce flows equal to or greater than 2.0 feet per second for this system/line.

32. Maximum flow velocity/slopes (From Appendix A)

☒ Assuming pipes are flowing full, all slopes are designed to produce maximum flows of less than or equal to 10 feet per second for this system/line.

☐ **Attachment D – Calculations for Slopes for Flows Greater Than 10.0 Feet per Second.** Assuming pipes are flowing full, some slopes produce flows which are greater than 10 feet per second. These locations are listed in the table below. Calculations are attached.

Table 8 - Flows Greater Than 10 Feet per Second

Line	*Profile Sheet*	*Station to Station*	*FPS*	*% Slope*	*Erosion/Shock Protection*

33. Assuming pipes are flowing full, where flows are ≥ 10 feet per second, the provisions noted below have been made to protect against pipe displacement by erosion and/or shock under 30 TAC §217.53(l)(2)(B).

☐ Concrete encasement shown on appropriate Plan and Profile sheets for the locations listed in the table above.
☐ Steel-reinforced, anchored concrete baffles/retards placed every 50 feet shown on appropriate Plan and Profile sheets for the locations listed in the table above.
☒ N/A

Administrative Information

34. ☒ The final plans and technical specifications are submitted for TCEQ review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

35. ☒ Standard details are shown on the detail sheets, which are dated, signed, and sealed by the Texas Licensed Professional Engineer, as listed in the table below:

Table 9 - Standard Details

Standard Details	*Shown on Sheet*
Lateral stub-out marking **[Required]**	20 of 32
Manhole, showing inverts comply with 30 TAC §217.55(l)(2) **[Required]**	20 of 32
Alternate method of joining lateral to existing SCS line for potential future connections **[Required]**	N/A of N/A
Typical trench cross-sections **[Required]**	21 of 32
Bolted manholes **[Required]**	20 of 32
Sewer Service lateral standard details **[Required]**	N/A of N/A
Clean-out at end of line **[Required, if used]**	N/A of N/A
Baffles or concrete encasement for shock/erosion protection **[Required, if flow velocity of any section of pipe >10 fps]**	N/A of N/a
Detail showing Wastewater Line/Water Line Crossing **[Required, if crossings are proposed]**	21 of 32
Mandrel detail or specifications showing compliance with 30 TAC §217.57(b) and (c) **[Required, if Flexible Pipe is used]**	21 of 32

Standard Details	*Shown on Sheet*
Drop manholes **[Required, if a pipe entering a manhole is more than 24 inches above manhole invert]**	N/A of N/A

36. ☒ All organized sewage collection system general construction notes (TCEQ-0596) are included on the construction plans for this sewage collection system.

37. ☒ All proposed sewer lines will be sufficiently surveyed/staked to allow an assessment prior to TCEQ executive director approval. If the alignments of the proposed sewer lines are not walkable on that date, the application will be deemed incomplete and returned.

    ☐ Survey staking was completed on this date: _____

38. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

39. ☒ Any modification of this SCS application will require TCEQ approval, prior to construction, and may require submission of a revised application, with appropriate fees.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Organized Sewage Collection System Application** is hereby submitted for TCEQ review and executive director approval. The system was designed in accordance with the requirements of 30 TAC §213.5(c) and 30 TAC §217 and prepared by:

Print Name of Licensed Professional Engineer: Jacob W. Valentien

Date: 05/27/2026

Place engineer's seal here:



05/29/2026

Signature of Licensed Professional Engineer:



Appendix A-Flow Velocity Table

Flow Velocity (Flowing Full) All gravity sewer lines on the Edwards Aquifer Recharge Zone shall be designed and constructed with hydraulic slopes sufficient to give a velocity when flowing full of not less than 2.0 feet per second, and not greater than 10 feet per second. The grades shown in the following table are based on Manning's formula and an n factor of 0.013 and shall be the minimum and maximum acceptable slopes unless provisions are made otherwise.

Table 10 - Slope Velocity

Pipe Diameter(Inches)	*% Slope required for minimum flow velocity of 2.0 fps*	*% Slope which produces flow velocity of 10.0 fps*
6	0.50	12.35
8	0.33	8.40
10	0.25	6.23
12	0.20	4.88
15	0.15	3.62
18	0.11	2.83
21	0.09	2.30
24	0.08	1.93
27	0.06	1.65
30	0.055	1.43
33	0.05	1.26
36	0.045	1.12
39	0.04	1.01
>39	*	*

**For lines larger than 39 inches in diameter, the slope may be determined by Manning's formula (as shown below) to maintain a minimum velocity greater than 2.0 feet per second when flowing full and a maximum velocity less than 10 feet per second when flowing full.*

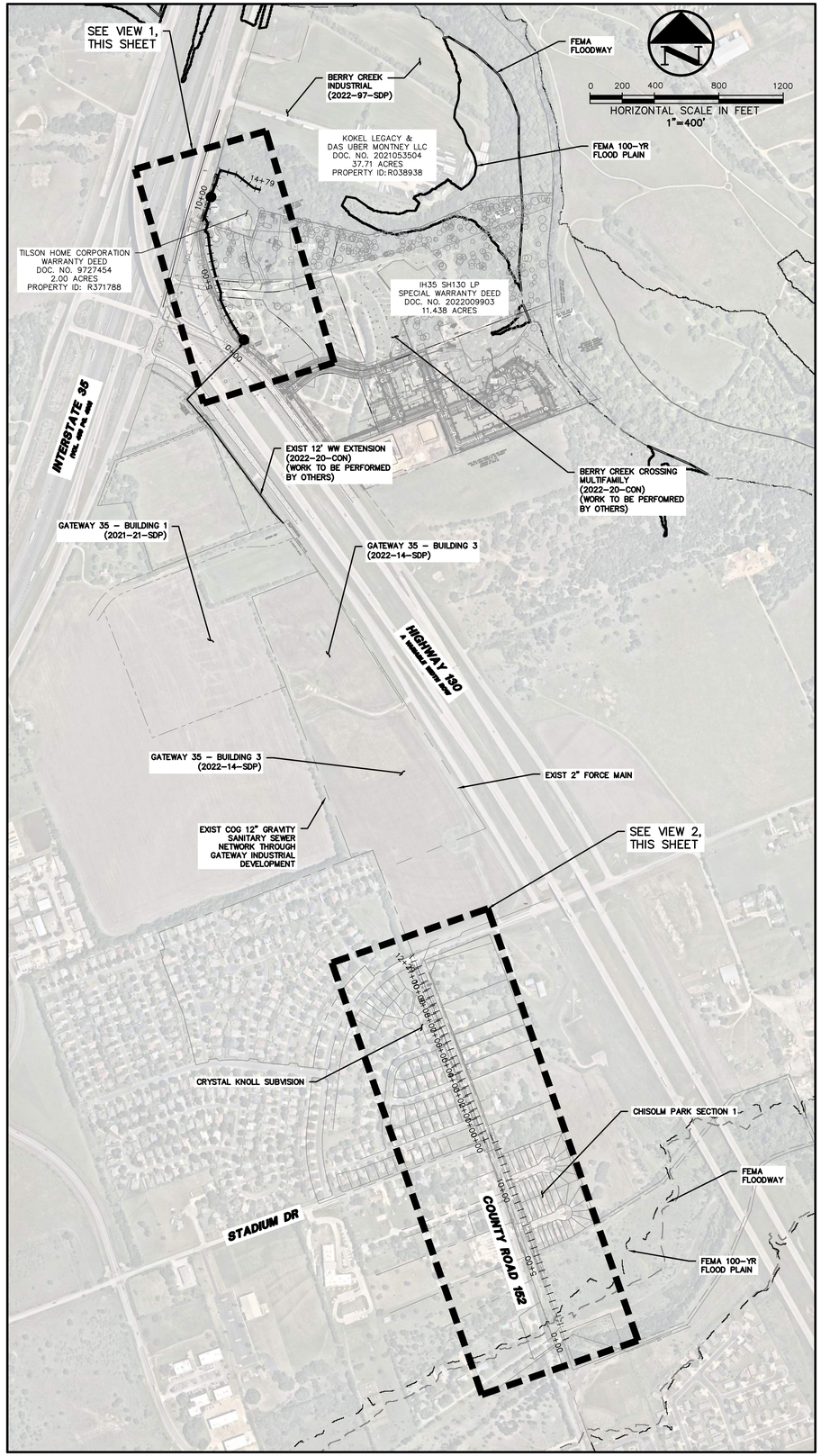
$$v = \frac{1.49}{n} \times R_h^{0.67} \times \sqrt{S}$$

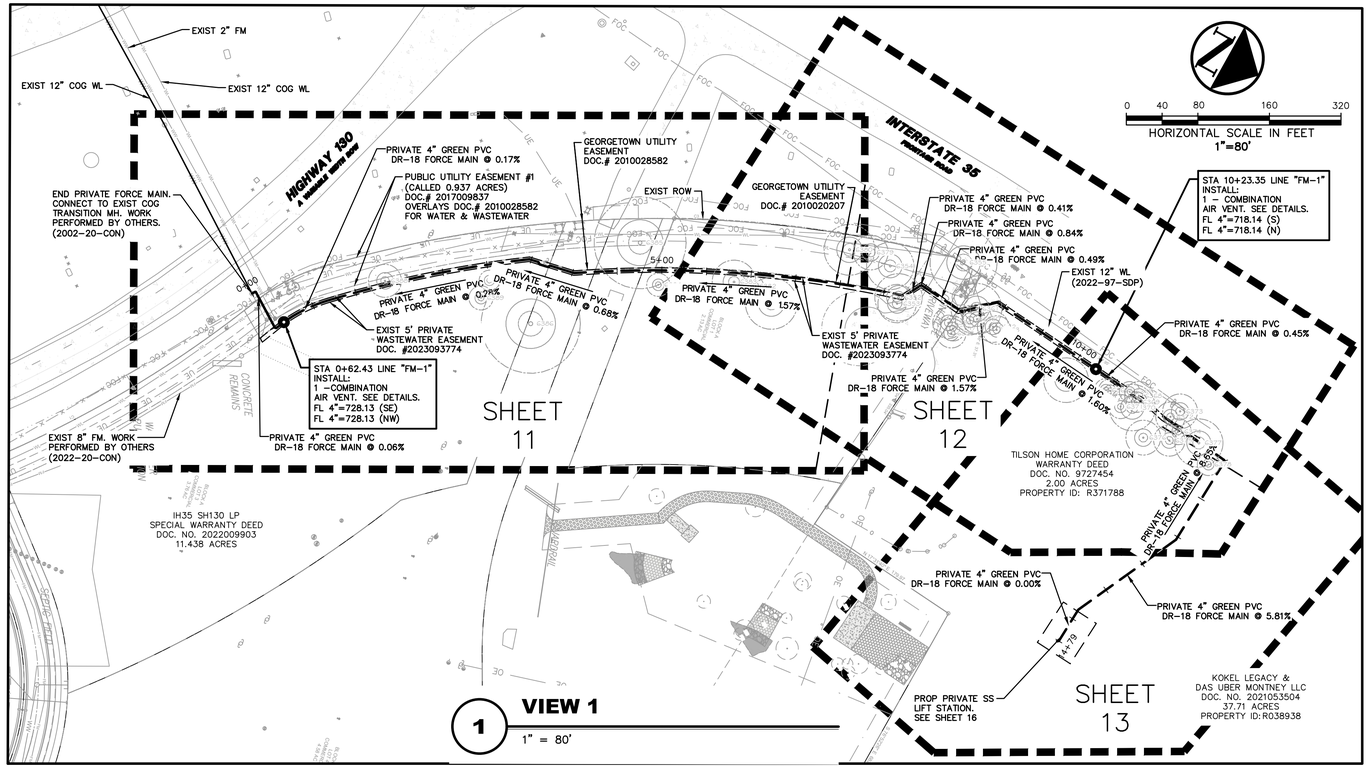
Figure 1 - Manning's Formula

Where:

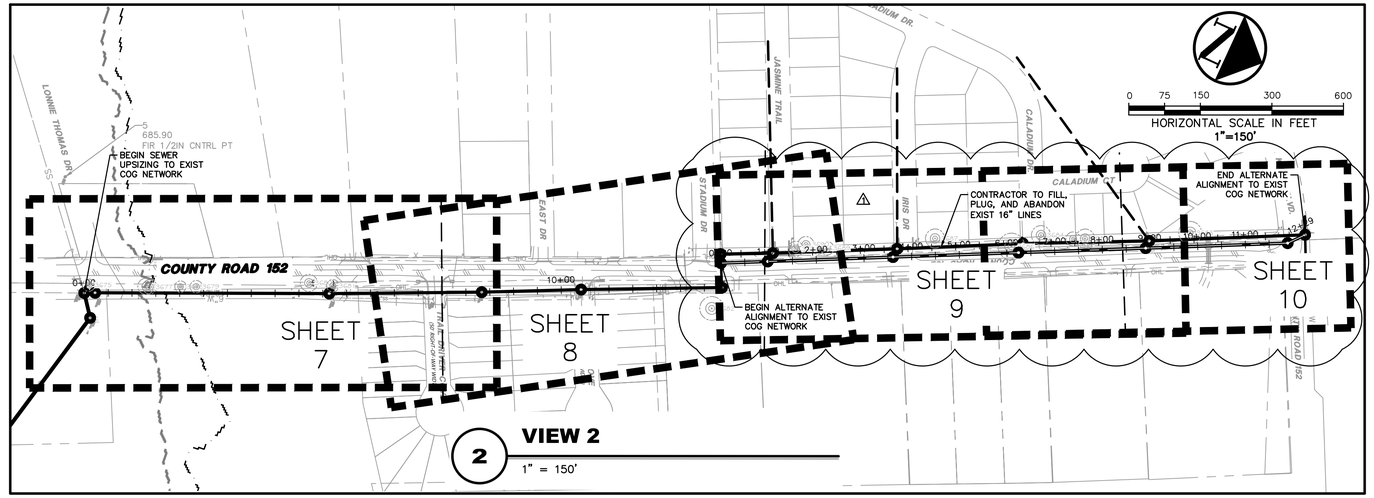
v = velocity (ft/sec)
n = Manning's roughness coefficient (0.013)
Rh = hydraulic radius (ft)
S = slope (ft/ft)

SITE PLANS





1 **VIEW 1**
1" = 80'



2 **VIEW 2**
1" = 150'

LEGEND

- B. BOLLARD
- EM ELECTRIC METER
- PP POWER POLE
- LS LIGHT STANDARD
- WM WATER METER
- WV WATER VALVE
- ICV IRRIGATION CONTROL VALVE
- FH FIRE HYDRANT
- CO CLEANOUT
- MH MANHOLE
- TSC TRAFFIC SIGNAL CONTROL
- TSP TRAFFIC SIGNAL POLE
- TELE TELEPHONE BOX
- FL FLOOD LIGHT
- FP FLAG POLE
- SIGN TRAFFIC SIGN
- IRS 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
- (C.M.) CONTROLLING MONUMENT
- PROPERTY LINE
- X FENCE
- OHL OVERHEAD UTILITY LINE
- FIBER OPTIC LINE
- 30" R.C.P. UNDERGROUND STORM LINE
- UNDERGROUND ELECTRIC LINE
- T UNDERGROUND TELEPHONE LINE
- UNDERGROUND CABLE LINE
- 6"W UNDERGROUND WATER LINE
- 6"SS UNDERGROUND SANITARY SEWER LINE
- 613 EXIST CONTOUR
- 612.39 EXIST SPOT ELEVATION
- TC 612.39 EXIST TOP OF CURB ELEVATION
- G 611.89 EXIST GUTTER ELEVATION
- SAWCUT LIMITS OF SAWCUT
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CL CREEK CENTERLINE
- CREEK SENSITIVE FEATURE
- BUFFER ZONE

FOR REVISION NO. 1 ONLY:

STATE OF TEXAS — JACOB W. VALENTIEN — 124993 — LICENSED PROFESSIONAL ENGINEER

04/16/2026

GENERAL NOTES

1. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND THE CITY OF GEORGETOWN STANDARD CONSTRUCTION SPECIFICATIONS.
2. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL BE FAMILIAR WITH THE PLANS, ALL NOTES, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, THE CITY STANDARDS FOR CONSTRUCTION, AND ANY OTHER APPLICABLE STANDARDS AND SPECIFICATIONS RELEVANT TO THE PROPER COMPLETION OF THE WORK SPECIFIED. FAILURE ON THE PART OF THE CONTRACTOR TO BE FAMILIAR WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THIS WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY OF PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
3. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. CONTRACTOR SHALL VERIFY THAT NECESSARY CROSSING CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES EXIST PRIOR TO CONSTRUCTION OF ANY SUCH CROSSINGS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR TO VERIFY SIZE AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL MANHOLES, CLEANOUTS, VALVE BOXES, AND FIRE HYDRANTS, ETC.. CONTRACTOR TO ADJUST TO PROPER LINE AND GRADE PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING AND GRADING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING THE CONSTRUCTION OF THE PAVING FOR THIS DEVELOPMENT.
5.
   - 5.1. PROTECT AND MAINTAIN ROADWAY TRAFFIC THROUGHOUT THE PROJECT, PROVIDING A MINIMUM OF ONE (1) LANE OPEN IN EACH DIRECTION;
   - 5.2. PROVIDE AND MAINTAIN INTERIM ACCESS FROM ROADWAYS CURRENTLY IN USE TO ALL DRIVEWAYS AND INTERSECTING STREETS OR ALLEYS;
   - 5.3. MAINTAIN NORMAL PROJECT DRAINAGE UNTIL NEW DRAINAGE FACILITIES ARE FUNCTIONAL, INCLUDING, WHERE NECESSARY, INTERIM REPLACEMENT OF EXISTING DRAINAGE STRUCTURES REMOVED FOR CONSTRUCTION OF NEW DRAINAGE FACILITIES;
   - 5.4. MAINTAIN ALL WORK AND MATERIAL STORAGE AREAS IN ORDERLY CONDITION, FREE OF DEBRIS AND WASTE. ON COMPLETION OF CONSTRUCTION, CLEAN UP THE PROJECT AND ADJACENT AFFECTED AREAS TO ACCEPTABLE CONDITION, ALL AS PROVIDED IN THE GENERAL CONDITIONS.
6. PRIOR TO COMMENCEMENT OF CONSTRUCTION, BONDS AND THREE-WAY CONTRACTS SHALL BE SUBMITTED TO THE CITY AS REQUIRED.
7. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
8. BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
9. IF REQUIRED, EXACT SAWCUT PAVEMENT REMOVAL AND REPLACEMENT LIMITS WITHIN THE PUBLIC RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH THE CITY PAVEMENT REPAIR MANUAL AND INCLUDED IN THE BASE BID.
10. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

2023-35-CON

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REVISIONS

NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

OVERALL WASTEWATER PLAN

STATE OF TEXAS — JUSTIN FAURE — 147805 — LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. **12R**

12R OF 30

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UTILITY PLANS

FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED
PROFESSIONAL ENGINEER
04/16/2026

EAST DR

COUNTY ROAD 152

DROVER'S COVE

MATCH LINE WW-1 – STA 7+50.00 (SEE SHEET 14)

MATCH LINE ALT_ALIGN – STA 1+50.00 (SEE SHEET 15)

GENERAL WARRANTY DEED
THOMAS L. KUPIDLOWSKI AND WIFE, BONNIE GAYLE KUPIDLOWSKI
0.29 ACRES - (VOL. 636, PAGE 223)

WARRANTY DEED
ARTHUR ROBERT WEISS, JR.
0.515 ACRE - 891 PAGE 454)

GENERAL WARRANTY DEED WITH VENDOR'S LIEN IN FAVOR OF THIRD PARTY
TODD LEE SHAW AND MAXINE TRACY SHAW, HUSBAND AND WIFE
0.519 ACRES - (DOCUMENT NO. 1996459437)

GENERAL WARRANTY DEED
KIRK KEMNITZ; LARRY COOK; UT VAN LE AND SUONG LE
1.96 ACRES - (DOCUMENT NO. 2022091806)

CONTRACTOR TO PROVIDE TEMPORARY BYPASS PUMPING. SEE NOTE 14.

STA 0+00.00 LINE "ALT_ALIGN"
1. CONTRACTOR TO INSTALL NEW DOGHOUSE MANHOLE ON EXIST 16" HDPE LINE (SEE DETAIL WW20 SHEET 22.1).
2. CONTRACTOR TO CONNECT EXIST 16" PVC AND PROP 18" PVC LINE.
3. CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS
RIM=719.04
FL EXIST 16"=699.07 (NE) (OUT)
FL PROP 18"=699.19 (NW) (IN)
FL EXIST 16"=699.09 (SW) (IN)

TIE INTO EXIST COG 4' DIA. SSMH.
1. CONTRACTOR TO FILL, PLUG, AND ABANDON 16" LINES
2. CONTRACTOR TO CONNECT PROP LATERAL TO EXIST SSMH
RIM=717.57
FL 16"=699.30 (N) (IN) (ABANDON)
FL 12"=699.20 (W) (IN)
FL 16"=699.20 (E) (OUT)

EXIST 16" LINE TO BE ABANDONED IN PLACE. FILL WITH FLOWABLE FILL.

!!CAUTION!! OVERHEAD ELECTRIC CROSSING

EXIST 16" LINE TO REMAIN AS IS

PROP 18" @ 0.11% (SEE ALT_ALIGN)

EXIST 16" LINE TO REMAIN AS IS (SEE ALT_ALIGN_LAT_1)

PROP 18" @ 0.12% (SEE ALT_ALIGN)

EXIST 4' DIA. SSMH.
1. CONTRACTOR TO FILL, PLUG, AND ABANDON 16" LINES
2. CONTRACTOR TO CONNECT PROP LATERAL TO EXIST SSMH
RIM=718.927
FL 16"=699.60 (N) (IN) (ABANDON)
FL 6"=699.70 (W) (IN)
FL 16"=699.50 (S) (OUT) (ABANDON)
FL 6"=699.60 (E) (OUT)

!!CAUTION!! OVERHEAD ELECTRIC CROSSING

EXIST 6" COG SANITARY SEWER @ 4.64%

EXIST UTILITY POLE. SEE NOTE 24.

EXIST 12" COG SANITARY SEWER @ 3.17%

EXIST 12" COG SANITARY SEWER (TO BE DEMOLISHED)

EXIST 10" PUE

EXIST CULVERT

EXIST EDGE OF PAVEMENT

EXIST OVERHEAD ELECTRIC

EXIST UTILITY POLE

EXIST SIGN

EXIST ROW

PROPERTY LINE, TYP

EXIST DRIVEWAY

EXIST CONCRETE SIDEWALK TO REMAIN

EXIST WATER METER STRUCT TO BE PROTECTED IN PLACE

EXIST WV AND FIRE HYDRANT

EXIST JONAH WATER 12" WL TO REMAIN

EXIST 8" COG SANITARY SEWER

SDR 21 HDPE PIPE @ 0.32% (SEE ???)

PROP 16" SDR 13.5 HDPE PIPE @ 0.40%

PROP 6" @ 0.50%
1. CONTRACTOR TO PROVIDE TEMPORARY BYPASS PUMPING. SEE NOTE 14 SHEET 16R.
(SEE ALT_ALIGN_LAT_2)

PROP PAVEMENT REPAIR

CONTRACTOR TO REMOVE AND REPLACE RESIDENTIAL MAILBOXES ALONG NEW PROPOSED ALIGNMENT.

STA 13+36.93 "WW-1"
EXIST 4' DIA. SSMH.
RIM=717.83
FL 16"=698.80 (SW) (IN)
FL 16"=698.70 (SE) (OUT)

STA 0+98.10 LINE "ALT_ALIGN"
CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS
INSTALL:
5' DIA. SSMH
RIM=718.88
FL 16"=699.30 (S) (OUT)
FL 18"=699.40 (N) (IN)
FL 6"=699.50 (W) (IN)

!!CAUTION!! WATERLINE CROSSING CONTRACTOR TO VERIFY FIELD DEPTH

!!CAUTION!! OVERHEAD POWER CROSSING

!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH

!!CAUTION!! CONDUIT CROSSING

!!CAUTION!! UNDERGROUND TELECOMMUNICATION CONTRACTOR TO FIELD VERIFY DEPTH

!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH

!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH

!!CAUTION!! OVERHEAD POWER CROSSING

!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH

!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH

PROP RECEIVING PIT SEE NOTES 20 AND 21

PROP BORE PIT SEE NOTES 20 AND 21

STA 8+33.22 WW-1
TIE INTO EXIST COG 4' DIA. SSMH.
CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS.
RIM=703.368
N=10217656.25
E=3139905.01

STA 10+41.61 WW-1
TIE INTO EXIST COG 4' DIA. SSMH.
CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS.
RIM=708.421
N=10217851.24
E=3139831.50

SEWER MH RIM 704.53 IN 696.76 (12") OUT 696.66 (12")

SEWER MH RIM 709.22 IN 697.50 (12") OUT 697.42 (12")

SDR 21 HDPE PIPE @ 1.14% (SEE ???)

SEE ALTERNATE ALIGNMENT THIS SHEET

SEE WW-1 PROFILE CONTINUATION THIS SHEET

SEE ALT_ALIGN PROFILE CONTINUATION THIS SHEET

VERTICAL SCALE IN FEET
0 4 8 12
HORIZONTAL SCALE IN FEET
0 20 40 80 120
1"=40'

LEGEND

BOLLARD	
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2–INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE

PROFILE: WW-1

PROFILE: ALT_ALIGN

PROFILE: ALT_ALIGN_LAT_1

EXIST GRADE

PROP 15" SDR–35 PVC WW LINE @ 1.14%

EXIST 12" WW LINE (TO BE DEMOLISHED)

PROP 16" SDR 21 HDPE PIPE @ 0.32%

PROP 16" SDR 13.5 HDPE PIPE @ 0.40%

EXIST 16" SDR 13.5 HDPE PIPE @ 0.57%

PROP 18" SDR–26 PVC WW LINE @ 0.11%

PROP 18" SDR–26 PVC WW LINE @ 0.12%

EXIST 12" SDR–26 PVC WW LINE @ 3.17%

FL 15"=695.74 | FL 695.69 | FL 696.26 | FL 696.79 | FL 696.84 | FL 697.10 | FL 697.26 | FL 697.41 | FL 697.52 | FL 697.63 | FL 697.74 | FL 697.85 | FL 697.86 | FL 698.03 | FL 698.25 | FL 698.37 | FL 15"=698.56 | FL 698.48

EG 716.60 | FG 716.60

7+50 8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00

0+50 0+00 1+00 1+50

–0+25 0+00 0+75

730 725 720 715 710 705 700 695 690 685 680

740 735 730 725 720 715 710 705 700 695 690

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NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

PROP WW LINE PLAN & PROFILE 2 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF AUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

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TCG	MAW	MAR 2026

SHEET NO.
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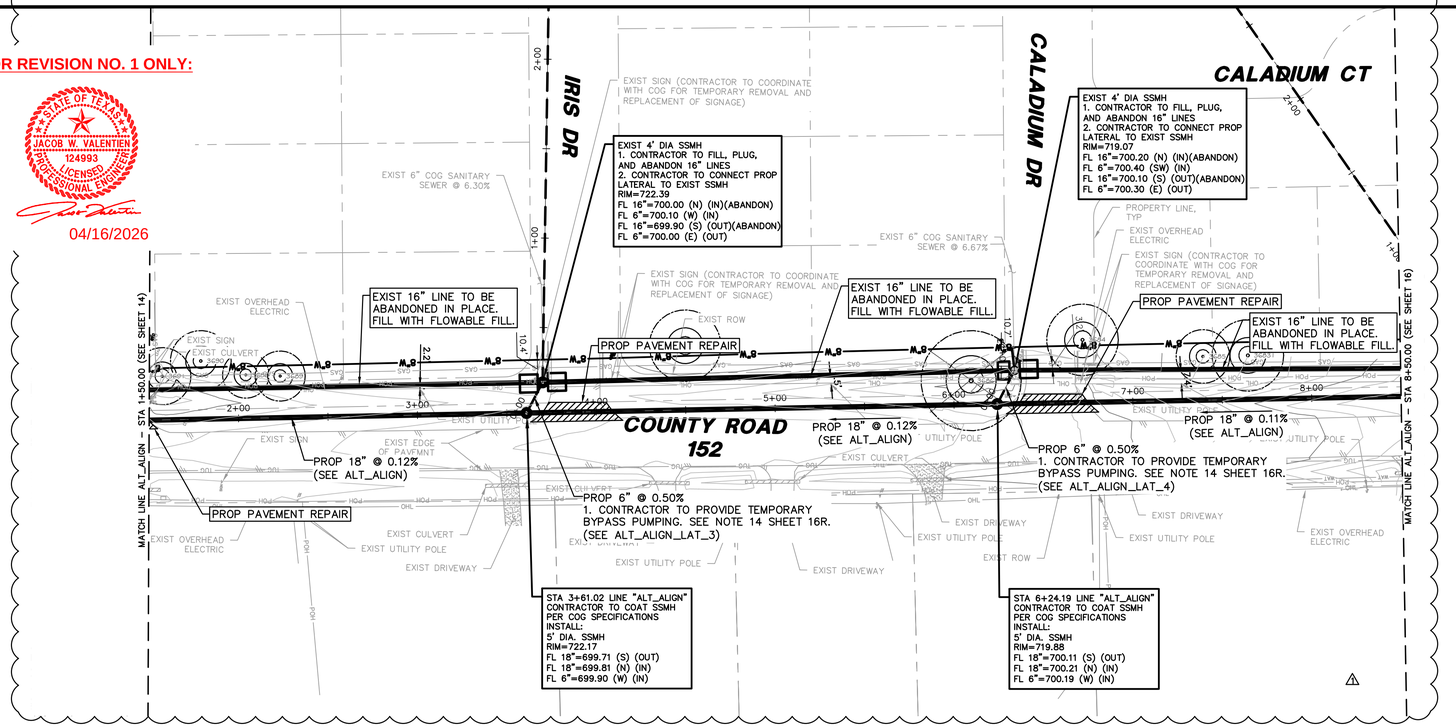
FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED
PROFESSIONAL ENGINEER

04/16/2026



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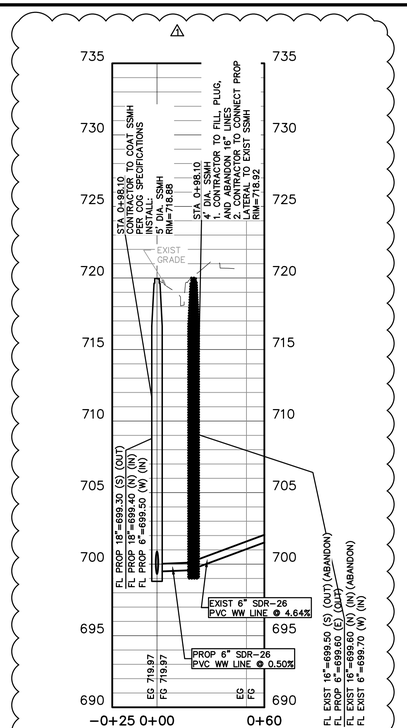
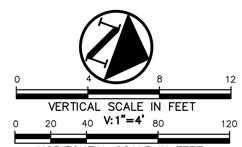


PROFILE: ALT_ALIGN_LAT_2

CONTRACTOR TO REMOVE AND REPLACE RESIDENTIAL MAILBOXES ALONG NEW PROPOSED ALIGNMENT.



LEGEND

BOLLARD	
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
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TSP	TRAFFIC SIGNAL POLE
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	FLOOD LIGHT
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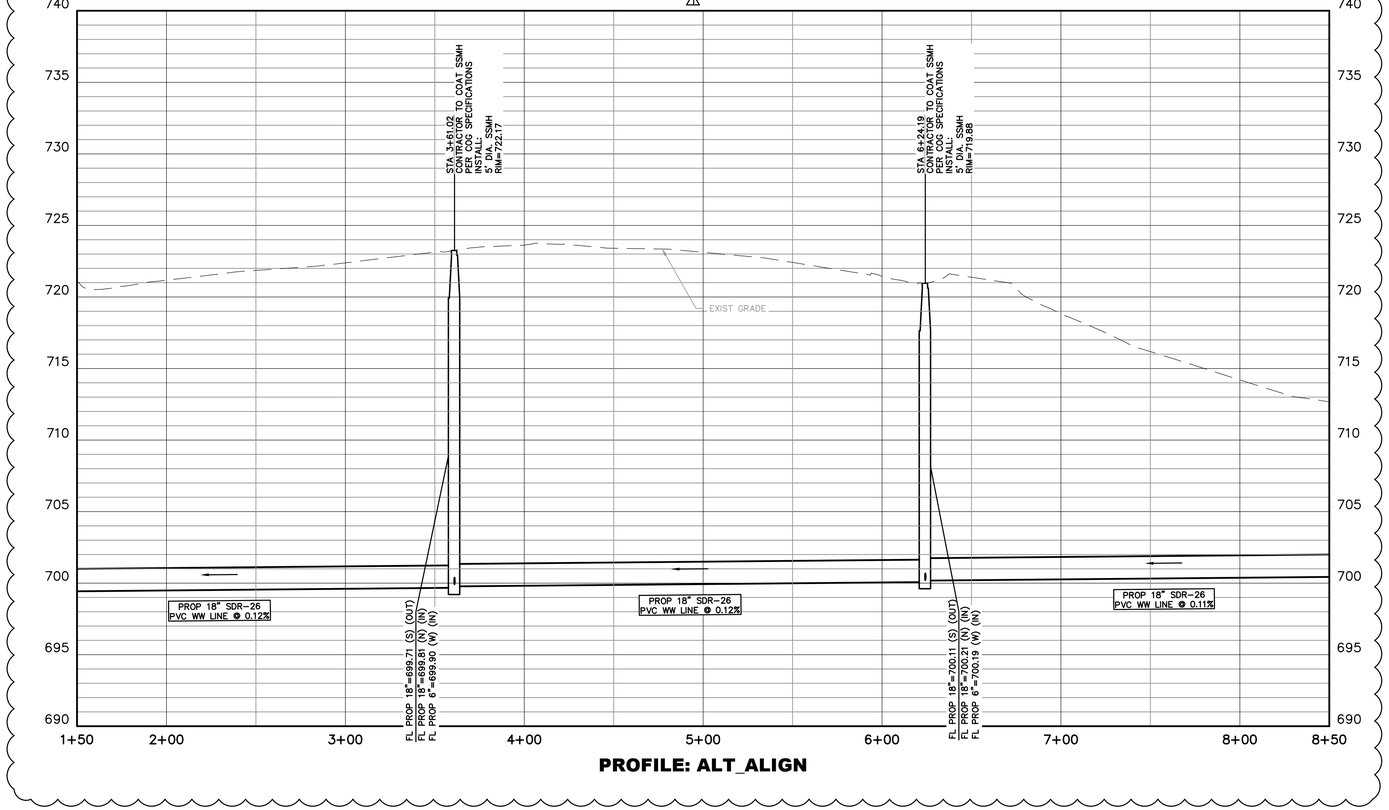
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE
	TREE TO BE REMOVED



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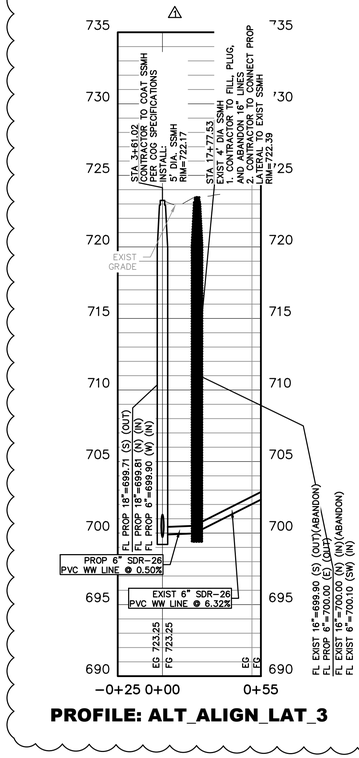

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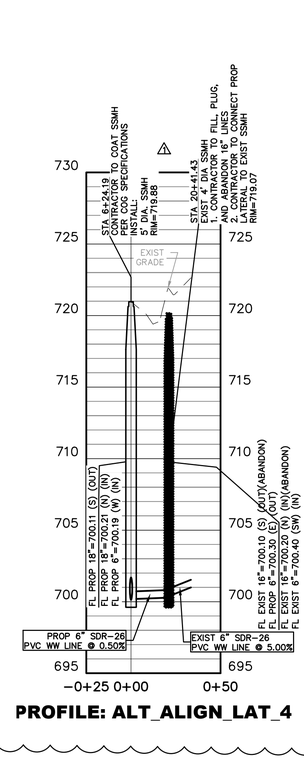

PROFILE: ALT_ALIGN_LAT_4

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REVISIONS

NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

PROP WW LINE PLAN & PROFILE 3 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

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TCG	MIZ	AUG 2024

SHEET NO.
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15R OF 32

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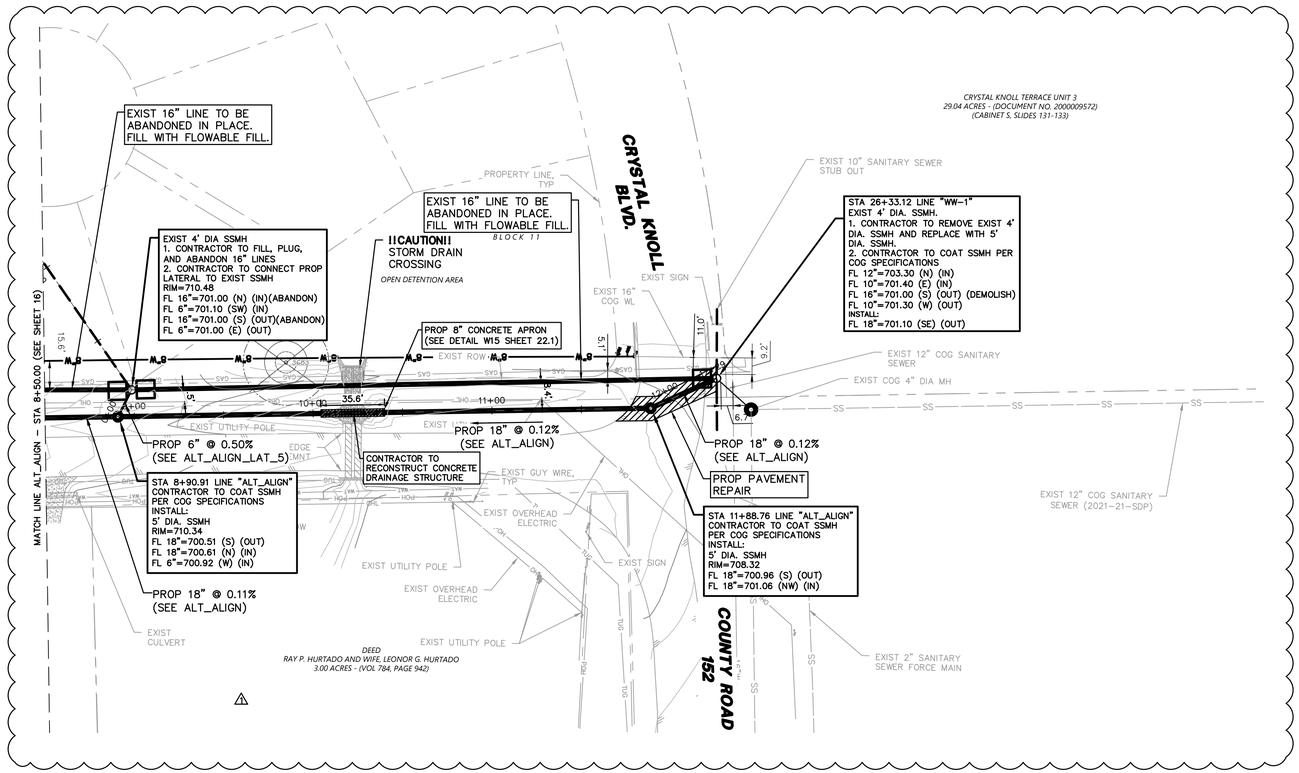

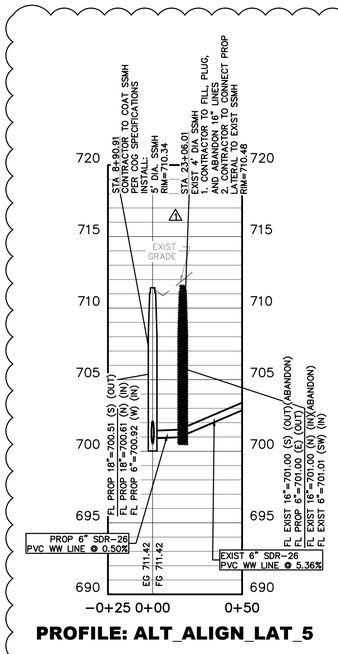

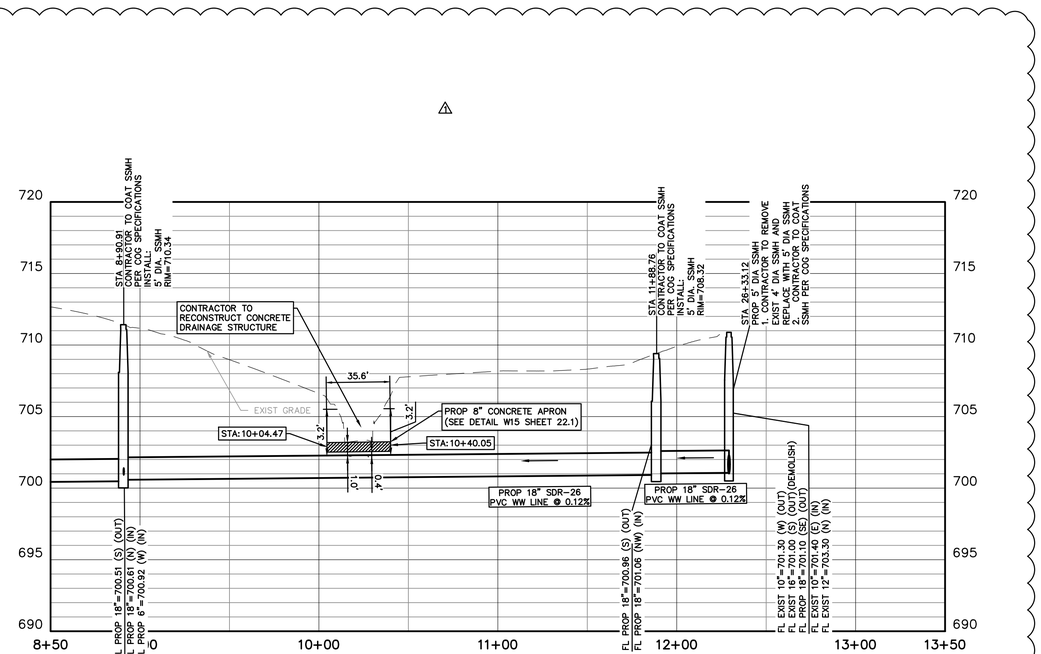

SANITARY SEWER GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "A" (3000 PSI), UNLESS OTHERWISE NOTED.
2. WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
3. SANITARY SEWER PIPE SHALL BE DIPS FUSION BONDED HDPE AND FOLLOW THE REQUIREMENTS AS SHOWN ON SHEET 7. PROP 16" FUSION BONDED HDPE SELECTED TO PROVIDE THE SAME OR GREATER ID CAPACITY AS 15" SDR 26 PVC D3034. USE OF FUSION BONDED HDPE FOR GRAVITY SEWER APPLICATIONS OF THIS PROJECT APPROVED BY COG IN FEBRUARY 2024.
4. WHEN WATER AND SANITARY SEWER MAINS, SERVICES, AND LATERALS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING TCEQ CHAPTERS SHALL APPLY:
   4.A. TCEQ CHAPTER 217.53 PIPE DESIGN, SECTION (d) SEPARATION DISTANCES.
   4.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
5. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
6. CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
7. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS AND TCEQ REGULATIONS.
8. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
9. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
10. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
11. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
12. CONTRACTOR TO INSTALL PROPOSED PIPELINE USING TRENCHLESS METHODS AS SPECIFIED ON SHEET 7, WHEREVER FEASIBLE. CONTRACTOR TO SUBMIT LIMITS OF TRENCHLESS INSTALLATION PRIOR TO CONSTRUCTION FOR APPROVAL. PLACEMENT OF JACKING AND RECEIVING PITS WITHIN EXIST TREE 1/2 CRZ IS PROHIBITED. IN THE INSTANCE THAT EXIST TREE CONFLICTS WITH TRENCHLESS OPERATIONS AND MUST BE REMOVED, CONTRACTOR TO NOTIFY ENGINEER. IF A SECTION OF PIPE CANNOT BE UPSIZED VIA PIPE BURSTING, CONTRACTOR SHALL NOTIFY ENGINEER AND CITY INSPECTOR FOR VERIFICATION OF ALTERNATIVE METHODS.
13. PIPELINE SLOPES AND DIAMETERS HAVE BEEN APPROVED BY THE COG DURING THE REVIEW OF THE SEWER STUDY TITLED "HIGHWAY 130 WASTEWATER EVALUATION FOR FIDELIS INDUSTRIAL" SUBMITTED AND APPROVED BY THE COG IN JULY OF 2022. SEE 6 FOR FLOW ESTIMATIONS.
14. SEE GENERAL NOTES PAGE SHEET 8 FOR INFORMATION REGARDING TEMPORARY BYPASS PUMPING.
15. MANHOLES MUST PASS LEAKAGE TESTING IN COMPLIANCE WITH TCEQ REGULATIONS PRIOR TO USE. IF LEAKAGE TESTING IS FAILED, CONTRACTOR TO CONTACT ENGINEER IMMEDIATELY.
16. ALL EXISTING MANHOLES BEING TIED-INTO WITHIN THE PROJECT SCOPE TO BE COATED PER COG SPECIFICATIONS.
17. EXISTING UTILITY INFORMATION DISPLAYED USING SURVEY AND AVAILABLE COG INFORMATION. IN THE INSTANCE THE CONTRACTOR FINDS A WATER LINE WITHIN 9 FT OF THE PROPOSED SCOPE, CONTRACTOR IS TO CONTACT THE ENGINEER AND REPORT FINDINGS. CONTRACTOR TO EXTERNALLY WRAP MANHOLE JOINTS AND BACKFILL WITH CEMENT STABILIZED SAND IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS. MH MUST BE TESTED IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS.
18. PRIOR TO BEGINNING PIPE BURSTING, CONTRACTOR SHALL CALL 811 FOR ALL EXISTING UTILITIES WITHIN OR AFFECTED BY LIMITS OF CONSTRUCTION ALONG THE SANITARY SEWER ALIGNMENT. ALL UTILITY CROSSINGS OF THE SANITARY SEWER ALIGNMENT SHALL BE HORIZONTALLY AND VERTICALLY LOCATED PRIOR TO COMMENCEMENT OF ACTIVITIES. CONTRACTOR SHALL REPORT ANY INFORMATION RELATED TO UTILITY CROSSINGS TO ENGINEER. CONTRACTOR SHALL COORDINATE WITH PERTINENT UTILITY PROVIDER AND ENGINEER FOR EACH UTILITY CROSSING PRIOR TO COMMENCEMENT OF ACTIVITIES.
19. ANY AND ALL DISTURBANCE TO THE ROADWAY, SIDEWALK OR CURB AND GUTTER MUST BE REPAIRED PER COG SPECIFICATIONS.
20. CONTRACTOR TO TEMPORARILY BRACE EXISTING POWER POLES, AS NECESSARY. CONTRACTOR TO INFORM COG ELECTRICAL 72 HOURS PRIOR TO PERFORMING PIPE BURSTING BELOW EXISTING POLES.
21. PROPOSED BORE PITS ARE PRELIMINARY AND SHALL BE COORDINATED WITH CONTRACTOR PRIOR TO COMMENCEMENT OF ACTIVITY. UPON COMPLETION OF EXISTING UTILITY CROSSING IDENTIFICATION, CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION PLAN INCLUDING LOCATIONS OF BORE/RECEIVING PITS, LIMITS OF CONSTRUCTION, EROSION CONTROL, AND ANY NECESSARY TREE PROTECTION.
22. CONTRACTOR SHALL STAGE BORE PITS TO NOT IMPACT 1/2 CRZ ON ANY PROTECTED OR HERITAGE TREE.
23. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

0 4 8 12
VERTICAL SCALE IN FEET
0 20 40 80 120
V: 1"=4'
HORIZONTAL SCALE IN FEET
1"=40'

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
FL	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE
	TREE TO BE REMOVED

CONTRACTOR TO REMOVE AND REPLACE RESIDENTIAL MAILBOXES ALONG NEW PROPOSED ALIGNMENT. ⚠

FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED PROFESSIONAL ENGINEER
04/16/2026

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED PROFESSIONAL ENGINEER

DESIGN	DRAWN	DATE
TCG	MW	AUG 2024

SHEET NO.
16R
16R OF 32

2023-35-CON

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REVISIONS

NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626
PROP WW LINE PLAN & PROFILE 4 OF 4

TGLASPER
4/16/2026 1:06 PM
\\WESTWOODPS.LOCAL\GLOBAL PROJECTS\0039532.04\06 CAD\DWG\SITE DESIGN C3D\03_SHEET\0039532.04_UTIL_WW_NTWK_ALT ALIGN.DWG

ATTACHMENT A – SCS ENGINEERING DESIGN REPORT

The attached engineering design report was completed for the previously approved project. The wastewater demand and associated calculations remain unchanged under this modification.

The existing 1**6**-inch wastewater lines installed by pipe bursting will be filled, plugged, and abandoned in place. The revised sanitary sewer alignment will consist of an 18-inch line connecting to the existing 1**6**-inch sanitary sewer through a doghouse manhole at the CR 152 crossing. A total of seven new 5-foot-diameter manholes will be constructed, including the doghouse manhole and the replacement of the existing 4-foot-diameter manhole.

Manholes along the original alignment will be connected to the new alignment via 6-inch PVC laterals.

SANITARY SEWER COLLECTION SYSTEM & LIFT STATION ENGINEERING DESIGN REPORT

BERRY CREEK BUSINESS PARK

GEORGETOWN, TX

FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
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05/28/2026

Westwood

STATE OF TEXAS
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01/10/2024

PREPARED BY:

Westwood Professional Services, Inc

Austin, TX 78759

Table of Contents

Contact Information **2**

1.0 Introduction **4**

1.1 Background and Scope of Work 4

1.2 Project Location 4

1.3 Proposed Development 4

2.0 Wastewater Capacity Analysis **4**

2.1 Wastewater Demand Calculations 4

2.2 Existing Wastewater Utilities 5

2.3 Wastewater Capacity Analysis & Recommended Improvements 6

2.4 Recommended Improvements Design 7

2.5 Lift Station Design 8

2.6 Safety Considerations 15

2.7 Inflow & Infiltration Abatement Measures 15

2.8 Structural and Pipe Design 15

Revision 1 Changes



2.4.1 Revisions to the COG Gravity Network Installed via Pipe Burst Method 15

2.8 Structural and Pipe Design 15

REVISION NO. 1

LIST OF ATTACHMENTS

ATTACHMENT 1 – Overall Exhibit

ATTACHMENT 2 – FEMA FIRM EXHIBITS

ATTACHMENT 3 – EDWATDS AQUIFER ZONE EXHIBIT

ATTACHMENT 4 – TITAN NORTHPARK 35 DEVELOPMENT PLAN

ATTACHMENT 5 – WASTEWATER DEMAND CALCULATIONS

ATTACHMENT 6 – WWTP CAPACITY VERIFICATION

ATTACHMENT 7 – EXISTING GUS UTILITIES

ATTACHMENT 8 – GUS LATERAL EVALUATION FOR FUTURE BUILDOUT

ATTACHMENT 9 – CONSTRUCTION PLANS

ATTACHMENT 10 – LIFT STATION CALCULATIONS, PERFORMANCE CURVE, AND PUMP SELECTION

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1.0 Introduction

1.1 Background and Scope of Work

Fidelis Realty Partners is developing a tract within the City of Georgetown ("City") for the Berry Creek Business Park (2020-97-CON). The following is a sanitary sewer collection system and lift station design report regarding the proposed collections system set to include a private lift station and force main , eventually tying into the City's existing collection system.

1.2 Project Location

The Berry Creek Business Park Wastewater Extension (Project) is located in Williamson County, approximately 4 miles north of the central downtown business district of the City and approximately 1.25 miles east of the Georgetown Airport, beginning at the Intersection of Interstate 35 and Highway 130. The location of the Project can be seen in **Attachment 1 - Overall Aerial.** The area of the proposed collection system lies wholly within the City limits. A small portion of the project will lie within the 100-year flood plain and is in the special flood hazard, Zone A, see **Attachment 2B - FEMA FIRM Exhibit**. The proposed collection system is within the Edwards Aquifer Recharge Zone, see **Attachment 3 - Edwards Aquifer Zone Exhibit**. This report and the collection system design are in accordance with TCEQ Regulations Chapter 213 and 217.

1.3 Proposed Development

The proposed Berry Creek Business Park (Development) is 56.7-acre tract located northeast of the intersection of Interstate 35 and Highway 130. The development is set to be a general warehouse and distribution site that will house three proposed industrial buildings. The proposed collection system will be designed, constructed, and implemented to serve the demand of the three buildings and will not require phasing to accommodate the ultimate build out of the tract. The overall development plan is attached as **Attachment 4 – Berry Creek Business Park Development Plan**. The proposed Project will construct a collections system to manage the wastewater demand generated from the Development. The scope of the collection system is separated into two parts, the proposed private sanitary sewer force main and lift station to the northeast of Highway 130 and the improvements made to the existing City sanitary sewer gravity system to the southeast of Highway 130.

As a part of the engineering design process for the collections systems, the infrastructure is analyzed for the subject tract and projections for land developed near the subject tract based on the **Attachment 11 – Future Growth Map**. As overall development occurs, the wastewater demand and usage estimates should be continually reviewed and updated.

2.0 Wastewater Capacity Analysis

2.1 Wastewater Demand Calculations

Utilizing the City's Wastewater Master Plan ("WWMP") in combination with the proposed development site layout, estimates for wastewater demand have been determined to utilize for site planning and utility design.

The demand calculations can be split into two separate analyses. The first analysis calculated the demand generated by the Development. This would be used to design the privately owned lift station and force main for the Development. The second analysis was a review of the existing City sewer lateral that would service the Development to determine its capacity upon future construction of properties along the lateral. With guidance from the City, tracts along the lateral, including the development, were included in the future capacity analysis. Attached to this analysis are the calculations for the demand determination for the Berry Creek Business Park and the demands serviced by the City's lateral, see **Attachment 5 –Wastewater Demand Calculations**. **Attachment 8 – Lateral Evaluation for Future Buildout** provides the location of each property included in the lateral evaluation.

The process for estimating the wastewater demand is as follows.

- Number of LUEs = Building Development Acreage x LUE Conversion Dependent on Land Use
- Average Daily Flow (ADF) = (250 gallons per day (gpd) per acre x Number of Residential LUE) + (Building Development Acreage x Non-Residential Avg. Day Flow)
- Peaking Factor (PF) = 1.5 or 2.1, Dependent on Non-Residential or Residential Land Use
- Peak Dry Weather Flow (PDWF) = ADF x PF
- Rainfall Dependent Inflow & Infiltration (RDII) = Acreage x 750 gpd per acre
- Peak Wet Weather Flow = PDWF + RDII

Table 1 summarizes the demands expected to be generated from the Development and required to be accommodated by the Project.

Table 1 – Berry Creek Business Park Wastewater Demand Calculation

Berry Creek Business Park - WW Demands					
Building	Type	Building Size (Sq. Ft)	LUEs	PDWF (gpm)	PWWF (gpm)
All Three Industrial Buildings, Combined	Industral	533,700	133.43	90.55	92.67

According to email correspondence from the City of Georgetown Engineering Systems Director, the receiving wastewater treatment facility (Pecan Branch WWTP) has sufficient capacity for the Development's additional flow, see **Attachment 6 – WWTP Capacity Verification.**

Table 2 summarizes the demands expected to be generated and conveyed by the existing City sewer lateral and accounted for existing flows and projected flows generated by the construction of the area near the Development. Properties and future developments chosen to be a part of the lateral analysis were selected in guidance with the City as a part of a sewer study conducted by Westwood prior to the creation of the Project.

2.2 Existing Wastewater Utilities

Along Highway 130 exists an 8" private sanitary sewer force main constructed by a neighboring multifamily housing development named "Berry Creek Crossing" (2022-20-CON) and can be viewed in **Attachment 7 – Existing GUS Utilities.** Once terminating the force main, the Berry Creek Crossing project constructed approximately 1,400 LF of 12" gravity main to reach the COG gravity wastewater network, which includes a highway crossing below Highway 130. This work can also be seen in **Attachment 7 – Existing GUS Utilities**. The head of the sewer lateral before the Highway 130 crossing will be the tie-in point into the City's system for Project's private force main.

Table 2 – Existing and Proposed Demand Calculations for City Sewer Lateral

PROPERTY NO. ALONG FLOW PATH	WCAD ID #	PROPERTY OWNER	MODIFIED LAND USE	PROPERTY ACREAGE (ACRES)	DWELLINGS/ ACRE	DWELLING or LUE's	Residential Avg Daily (gpd)	Non-Residential Avg Daily (gpd)	WWMP ADF (gpd)	PEAKING FACTOR	PDWF (gpd)	RDII (gpd)	PWWF (gpd)
1	R038938, R038938	KOKEL LEGACY/FIDEUS INDUSTRIAL	*DEMANDS OBTAINED FROM GEORGETOWN APPROVED LATERAL EVALUATION STUDY*								130,397	1,051	133,448
2	R371788	TILSON HOME CORP	MIXED USE COMMUNITY	2.0	4.56 LUE	9.1	2,280	600	2,880	2.1	6,048	1,500	7,548
3	R631347	KOKEL LEGACY LLC	MIXED USE COMMUNITY	11.4	4.56 LUE	52.2	13,039	3,431	16,471	2.1	34,589	8,579	43,167
4	R038765, R318942, etc	NEW HUB INTERPRISE	REGIONAL COMMERCIAL DESTINATION	16.3	0.75 LUE	12.2	3,060	22,032	25,092	1.5	37,638	12,240	49,878
5	R619641, R038783	NEW HUB INTERPRISE	COMMUNITY COMMERCIAL	5.6	0.75 LUE	4.2	1,046	6,026	7,072	1.5	10,608	4,185	14,793
6	R619646	AMAZON .COM SERVICES	*SITE PLAN FOR PROPERTY DEVELOPMENT SHOWS INDUSTRIAL BUILDING OF APPROXIMATELY 519,000 SF. ESTIMATED WASTEWATER FLOWS FROM INDUSTRIAL BUILDING AS SHOWN*								292,992	42,075	335,067
7	R583375	GRADDY IN VESTMENTS	INDUSTRIAL	6.0	26.20 LUE	156.9			39,235	1.5	58,852	4,493	63,344
8	R038720	AMAZON .COM SERVICES	EMPLOYMENT CENTER	6.6	0.75 LUE	4.9	1,232	5,322	6,554	2.1	13,763	4,928	18,690
EXISTING FACILITIES DEMAND													
		Building No. 1 Gateway	OFFICE 10% /WAREHOUSE 90%	21		178			44,402	1.50	66,603		87,563
		Building No. 2 Gateway	OFFICE 10% /WAREHOUSE 90%	11		113			28,251	1.50	42,377		53,387
		Building No. 3 Gateway	OFFICE 10% /WAREHOUSE 90%	16		140			34,969	1.50	52,453		68,493
		Berry Creek Apartments	Multi-Family Residential			710			177,500	1.50	266,250		315,250
										Total	427,683		524,693
Because of the potential unknown wastewater flows through the Crystal Knolls subdivision, it is more conservative to assume the maximum allowable sewer flows through the CRITICAL POINT OF THE SYSTEM (12" pipe at 0.22% slope) TO BE THE CURRENT DEMAND AS IT FLOWS NORMALLY TODAY . This estimated flow is based on the 65% and 85% thresholds for that pipe at that slope and that value is greater than the calculated value including with the full 710 LUEs from the Berry Creek Apartments. Therefore the analysis includes the larger flows for analysis since that is more conservative.													
											Assuming 65% Flow Depth		Assuming 85% Flow Depth
			THIS IS TO BE ASSUMED AS THE EXISTING PIPE CAPACITY ---------->					*12" Pipe Demand at 0.22% Slope*			816,923		1,112,879
PROPOSED FACILITIES DEMAND - CONT.													
15	R324269	BIG BOX PROPERTIES	MODERATE-DENSITY RESIDENTIAL	10.2	3.00 LUE	30.7	7,680	0	7,680	2.1	16,128	7,680	23,808
16	R324269	BIG BOX PROPERTIES	MODERATE-DENSITY RESIDENTIAL	10.4	3.00 LUE	31.1	7,775	0	7,775	2.1	16,326	7,775	24,101
17	R038967	AURORAS LLP	MODERATE-DENSITY RESIDENTIAL	17.4	3.00 LUE	52.2	13,055	0	13,055	2.1	27,414	13,055	40,469
EXISTING DEMAND (GATEWAY BUILDINGS, BERRY CREEK APARTMENTS AND CRYSTAL KNOLL SUBDISION)											**816,923**		**1,112,879**
TOTAL DEMAND (PROPOSED DEVELOPMENT NOT INCLUDING GATEWAY BUILDINGS 1-3, CRYSTAL KNOLL SUBDIVISION. BERRY CREEK APARTMENTS)											**644,755**		**754,313**
TOTAL DEMAND (PROPOSED DEVELOPMENT DEMAND PLUS EXISTING FACILITIES DEMAND)											***TOTALS*** **1,461,678**		**1,867,192**

Once tying into the existing City's gravity sewer network, flows are conveyed by an existing 12" pipe that goes through the Gateway Industrial complex and Crystal Knoll Subdivision, shown in **Attachment 7 – Existing GUS Utilities**. The existing 12" line flows south until eventually tying into the City' Pecan Branch Interceptor at the intersection of Highway 152 and Lonnie Thomas Dr. Once picked up by the Pecan Branch, flow is ultimately conveyed to the Pecan Branch Wastewater Treatment Plant. This information was obtained from the GUS GIS system and correlated with the topographic survey conducted.

2.3 Wastewater Capacity Analysis & Recommended Improvements

An analysis of the City's lateral servicing the Project was conducted in the scope of this Project to determine recommended improvements based on flows from existing tracts, the Development, and proposed future construction along the lateral as shown in **Attachment 8 – Lateral Evaluation for Future Buildout.**

The WWMP criteria for wastewater conveyance system is as follows:

- Lines less than 15" in diameter stay below 65% of the capacity of the pipe flowing full during Peak Dry Weather Flow (PDWF).
- Lines less than 15" in diameter stay below 85% of the capacity of the pipe flowing full during Peak Wet Weather Flows (PWWF).
- Lines greater than 18" in diameter stay below 80% of the capacity of the pipe flowing full during PWWF.

Westwood was informed by the City that the current lateral was at capacity servicing existing developments (Berry Creek Crossing, Gateway Industrial Buildings, Crystall Knoll subdivision). An analysis was conducted to determine the most critical slope within the lateral to create an assumption of the lateral's current capacity. A stretch of 12" pipe at 0.22% slope just south of the Gateway Industrial Development that services all the previously mentioned existing developments was determined to be the chokepoint of flow for the system. When assuming full flow based on the criteria above using this critical pipe, the capacity of the lateral was determined to be 816,923 GDP during PDWF and 1,112,879 GPD during PWWF. Capacity of the pipe was calculated using Manning's Formula with a roughness coefficient of 0.013. These flows would be assumed as the laterals current capacity. All additional flows created by the proposed

developments were added to the assumed lateral capacity to project the overall demand required of the lateral upon future buildout of surrounding tracts.

2.4 Recommended Improvements to the COG Gravity Network

Additional flows generated by the Project and future tract development would require the upsizing of the City's lateral downstream of the critical point. The total projected flow of the lateral at ultimate demand was determined and is shown in Table 2 – Existing and Proposed Demand Calculations for the City Sewer Lateral. It was determined that total flows would be 1,461,678 GPD for PDWF and 1,867,192 GPD for PWWF. Based on these totals, it is the recommendation that the pipes at the critical point and downstream of the critical point be upsized form 12" to 15" until reaching the tie-in point to the City's Pecan Branch Interceptor. With a slope of 0.22%, the 15" pipe at the critical point can convey 1,481,181 GPD at PDWF and 2,017,784 GPD at PWWF. All slopes downstream of the critical point are above 0.22% and can therefore convey more flow. All piping downstream of this critical point is proposed to be increased from 12" to 15" using trenchless pipe bursting to replace the existing pipe. Approximately 2,630 LF of 12" pipe will be required to be upsized. All upsized pipes are proposed to follow existing slopes. Table 3 provides a list of pipes expecting to be upsized and their resulting flows based on their projected slopes.

Table 3 – Project Flows from Pipes Requiring Upsizing

REQUIRED FLOW PATH PIPE SIZES NEEDING INCREASE		*65% @ PDWF	*85% @ PWWF
Pipe Diameter	Pipe Slope	MAXIMUM DEMAND ASSUMING PIPE FLOWING FULL @ PDWF (gpd)	MAXIMUM DEMAND ASSUMING PIPE FLOWING FULL @ PDWF (gpd)
Network Pipe Diameters and Slopes Requiring an Increasse in Pipe Size			
15"	0.22%	1,481,181	2,017,784
15"	0.32%	1,786,371	2,112,879
15"	1.07%	1,801,615	4,449,951
15"	3.14%	3,086,278	7,623,040

The proposed piping have an expected life expectancy greater than 50 years in accordance with the City's and TCEQ design standards.

There are no deviations from uniform grade, no curved lines in the sewer collection system, and no deviations from a straight alignment proposed without a manhole or cleanout.

For this project, fusion bonded HDPE pipe has been selected for upsizing the existing 12" pipe and is to be completed using pipe bursting trenchless installation method. Due to HDPE being produced using iron and ductile iron pipe dimensions, 15" fusion bonded HDPE pipe is not available. The next available pipe size for fusion bonded HDPE is 16", which has been selected for this project. The proposed pipe will be 16" fusion bonded HDPE ASTM D1248, either SDR 13.5 or SDR 21 depending on the proximity to existing water networks. Soil types within the area are silty clay. Overall, there is approximately 2,630 LF of pipe that will be upsized using trenchless methods. All pipes installed using trenchless methods will follow slopes from the existing 12" pipes which range from 0.21% at the minimum, and 3.11% at the maximum. Existing service laterals will be reconnected using typical open trench construction methods. During construction, the contractor is required to provide temporary flow bypass to laterals throughout the duration of construction and until the 16" pipe can be placed into service.

2.4.1 Revisions to the COG Gravity Network Installed via Pipe Burst Method

Under this revision, the existing 16-inch wastewater lines installed by pipe bursting will be filled, plugged, and abandoned in place. The revised sanitary sewer alignment will consist of a new 18-inch sanitary sewer line connecting to the existing 16-inch sanitary sewer at the CR 152 crossing through a proposed doghouse manhole. PVC SDR-26 pipe has been selected for this revision, and the proposed sanitary sewer improvements will be constructed using the open-cut installation method.

1

The revised design also includes the construction of seven new 5-foot-diameter manholes, including the proposed doghouse manhole and the upsizing of the existing 4-foot-diameter manhole. Existing manholes along the original alignment will be reconnected to the new alignment using 6-inch PVC laterals.

REVISION NO. 1

2.5 Lift Station Design

2.5.1 SCOPE

The proposed lift station includes one 5-foot (5') wet well, valve vault, two (2) submersible pumps and associated piping. The proposed lift station will collect wastewater from the Berry Creek Industrial Park (2022-97-SDP) and pump via force main back to a COG owned discharge manhole located along the Highway 130 frontage near adjacent to the Project.

2.5.2 DESIGN CALCULATION

Unless otherwise noted, the design of this facility conforms to the current TCEQ design criteria and City of Georgetown criteria.

2.5.3 WET WELL ANALYSIS

The proposed lift station wet well will be 5' in diameter. The necessary effective volume of the lift station was determined based upon the equations and tables provided in the City's WWMP. The detailed calculations can be found in **Attachment 11**. Flows generated from the Development as provided in Table 1 - Berry Creek Business Park Wastewater Demand Calculation were used to design the lift station.

The required effective depth in the proposed lift station is 1.58 ft based on a 5' diameter wet well and a required effective volume of 232 gallons.

The available effective depth in the proposed lift station is calculated as follows:

- Proposed incoming sanitary sewer elevation = 663.88 ft
- Proposed Finish Floor elevation = 655.50 ft
- Minimum water depth = 3.00 ft
- Available Effective Depth = (663.83 – 655.5 – 3) = 5.33 ft

The proposed wet well will be constructed to provide sufficient volume to accommodate a firm pumping capacity of 238 gpm. The 5' diameter wet well will provide ample space for the necessary clear spacing between pumps to prevent cavitation and the proposed design has been reviewed and cleared by a local pump representative.

2.5.4 WET WELL ELEVATIONS

The wet well elevations are as follows:

- Top Slab Elevation = 687.00 ft
- Incoming Sanitary Sewer Elevation = 663.88 ft
- Calculated Effective Depth = .95 ft
- Available Effective Depth = 5.33 ft
- Minimum Water Depth to Prevent Vortexing & Overheating = 3.00 ft
- Proposed Wet Well Bottom Elevation = 655.50 ft

2.5.5 STATIC HEAD ANALYSIS

The lift station will utilize pump alternation and the pump setpoints and static head determinations are calculated as follows:

- All Pumps Off
    - Design Discharge Location Elevation = 727.50 ft
    - Calculated "All Pumps Off" Elevation
        - (655.50 + 3.00) = 658.50 ft
    - Design "All Pumps Off" Elevation = 658.50 ft
    - Design "All Pumps Off" Static Head = 69.0 ft
- Lead Pump On
    - Design Discharge Location Elevation = 727.5 ft
    - Calculated "Lead Pump On" Elevation
        - (658.50 + .95/(2-1)) = 659.45 ft
    - Design "Lead Pump On" Elevation = 659.45 ft
    - Design "Lead Pump On" Static Head = 68.1 ft
- Highest Elevation Calculation
    - Maximum Pumping Elevation = 728.50 ft
    - Design All Pumps Off Elevation = 658.5 ft
    - Design Static Head = 70.0 ft

2.5.6 RISER PIPE ANALYSIS

The force main was sized according to the City requirement of a velocity between 3 and 6 feet per second. The proposed riser pipe is to be 4-inches and made of ductile iron. The duty condition of this lift station while a single pump is on will have 143 GPM with a velocity of 3.65 fps and has a height of 28 ft.

Below is a table summarizing the minor losses and total riser head loss in the riser pipe component of the system. The proposed riser pipes are to be ductile iron and the analysis utilized C=140 for new pipe and C=100 for old pipe conditions.

Table 4 - Riser Pipe Minor Losses

Fittings	Quantity	K-Factor	Total K
90 BEND	3	0.34	1.02
CHECK VALVE	1	0.85	0.85
PLUG VALVE	1	0.31	0.31
45 BEND	0	0.25	0.00
TEE, RUN	0	0.34	0.00
TEE, BRANCH	1	1.02	1.02
ENTRANCE	1	0.50	0.50
Total			3.70

Table 5 - Riser Pipe Total Riser Head Loss

Flow Rate (gpm)	Riser Velocity (fps)	Minor Headloss (ft)	Major Headloss with New "C" Factor (ft)	Major Headloss with Old "C" Factor (ft)	Total Riser Headloss with New "C" Factor (ft)	Total Riser Headloss with Old "C" Factor (ft)
0	0.00	0.00	0.00	0.00	0.00	0.00
20	0.51	0.01	0.01	0.02	0.02	0.03
40	1.02	0.05	0.03	0.06	0.09	0.12
60	1.53	0.12	0.07	0.13	0.19	0.25
80	2.04	0.21	0.12	0.23	0.33	0.44
100	2.55	0.32	0.19	0.35	0.51	0.67
120	3.06	0.47	0.26	0.48	0.73	0.95
140	3.57	0.63	0.35	0.64	0.98	1.28
160	4.09	0.83	0.44	0.83	1.27	1.65
180	4.60	1.05	0.55	1.03	1.60	2.08
200	5.11	1.30	0.67	1.25	1.97	2.54
220	5.62	1.57	0.80	1.49	2.37	3.06
240	6.13	1.87	0.94	1.75	2.80	3.61
260	6.64	2.19	1.09	2.03	3.28	4.22
280	7.15	2.54	1.25	2.32	3.79	4.86
300	7.66	2.92	1.42	2.64	4.33	5.56
320	8.17	3.32	1.60	2.98	4.91	6.29
340	8.68	3.74	1.79	3.33	5.53	7.07
143	3.65	0.66	0.36	0.67	1.02	1.33

2.5.7 FORCE MAIN ANALYSIS

The force main was sized according to the City requirement of a velocity between 3 and 6 feet per second. The proposed force main is to be 4-inches. The duty condition of this lift station while a single pump is on will have 146 GPM with a velocity of 3.33 fps when using DR-18 PVC pipe. DR-18 PVC pipe has an internal diameter of 4.23 in and the total length of the force main is 1,480.

Below is a table summarizing the minor losses and total head losses in the force main component of the system.

Table 6 – Force Main Minor Losses

Fittings	Quantity	K-Factor	Total K
EXIT	1	1.00	1.00
90 BEND	0	0.34	0.00
45 BEND	18	0.25	4.47
22-1/2 BEND	5	0.20	1.01
11-1/4 BEND	2	0.18	0.36
Total			6.84

Table 7 – Force Main Total Headloss with PVC Pipe

Flow Rate (gpm)	Force Main Velocity (fps)	Minor Headloss (ft)	Major Headloss with New "C" Factor (ft)	Major Headloss with Old "C" Factor (ft)	Total Force Main Headloss with New "C" Factor (ft)	Total Force Main Headloss with Old "C" Factor (ft)
0	0.00	0.00	0.00	0.00	0.00	0.00
20	0.46	0.02	0.50	0.93	0.52	0.95
40	0.91	0.09	1.80	3.36	1.89	3.45
60	1.37	0.20	3.81	7.11	4.01	7.31
80	1.83	0.35	6.49	12.10	6.85	12.46
100	2.28	0.55	9.81	18.29	10.37	18.84
120	2.74	0.80	13.75	25.62	14.55	26.42
140	3.20	1.09	18.29	34.08	19.37	35.16
160	3.65	1.42	23.41	43.63	24.83	45.04
180	4.11	1.79	29.11	54.25	30.90	56.04
200	4.57	2.22	35.38	65.92	37.59	68.14
220	5.02	2.68	42.20	78.63	44.88	81.31
240	5.48	3.19	49.57	92.37	52.76	95.56
260	5.94	3.74	57.48	107.11	61.22	110.85
280	6.39	4.34	65.92	122.85	70.26	127.19
300	6.85	4.98	74.90	139.57	79.88	144.56
320	7.31	5.67	84.40	157.27	90.07	162.94
340	7.76	6.40	94.41	175.94	100.81	182.34
143	3.26	1.13	19.02	35.44	20.15	36.57

Fusion bonded HDPE has been offered as an approved alternative for the force main pipe material in lieu of DR-18 PVC. Approved fusion bonded HDPE is 4" DR-11 DIPS. The internal diameter of the pipe is 3.87 inch. The resulting velocity is 3.90 fps.

Below is a table summarizing total head losses in the force main component of the system when using HDPE pipe. Minor losses are the same as the PVC force main system and are provided in Table 6.

Table 8 – Force Main Total Headloss with HDPE Pipe

Flow Rate (gpm)	Force Main Velocity (fps)	Minor Headloss (ft)	Major Headloss with New "C" Factor (ft)	Major Headloss with Old "C" Factor (ft)	Total Force Main Headloss with New "C" Factor (ft)	Total Force Main Headloss with Old "C" Factor (ft)
0	0.00	0.00	0.00	0.00	0.00	0.00
20	0.55	0.03	0.50	0.93	0.53	0.96
40	1.09	0.13	1.80	3.36	1.93	3.48
60	1.64	0.28	3.81	7.11	4.10	7.39
80	2.18	0.51	6.49	12.10	7.00	12.61
100	2.73	0.79	9.81	18.29	10.60	19.08
120	3.27	1.14	13.75	25.62	14.89	26.76
140	3.82	1.55	18.29	34.08	19.84	35.63
160	4.36	2.02	23.41	43.63	25.43	45.65
180	4.91	2.56	29.11	54.25	31.67	56.81
200	5.46	3.16	35.38	65.92	38.54	69.08
220	6.00	3.83	42.20	78.63	46.02	82.46
240	6.55	4.55	49.57	92.37	54.12	96.92
260	7.09	5.34	57.48	107.11	62.82	112.45
280	7.64	6.20	65.92	122.85	72.12	129.05
300	8.18	7.11	74.90	139.57	82.01	146.69
320	8.73	8.09	84.40	157.27	92.49	165.37
340	9.27	9.14	94.41	175.94	103.55	185.08
143	3.90	1.62	19.02	35.44	20.63	37.06

2.5.8 TOTAL DYNAMIC HEADLOSS

The combination of the riser pipe and force main head loss are shown in the tables below as well as the system head curves for various set points in the wet well is included in the detailed calculations attachment.

The tables below summarizes the total dynamic headloss for the system when analyzing a PVC force main.

Table 9 – Total Headloss Calculation with PVC Force Main

Flow Rate (gpm)	Total Riser Headloss with New "C" Factor (ft)	Total Force Main Headloss with New "C" Factor (ft)	Total Headloss with New "C" Factor (ft)	Total Riser Headloss with Old "C" Factor (ft)	Total Force Main Headloss with Old "C" Factor (ft)	Total Headloss with Old "C" Factor (ft)
0	0.00	0.00	0.00	0.00	0.00	0.00
20	0.02	0.52	0.55	0.03	0.95	0.99
40	0.09	1.89	1.98	0.12	3.45	3.57
60	0.21	4.01	4.22	0.27	7.31	7.58
80	0.36	6.85	7.21	0.47	12.46	12.92
100	0.56	10.37	10.93	0.72	18.84	19.56
120	0.80	14.55	15.35	1.02	26.42	27.44
140	1.08	19.37	20.45	1.38	35.16	36.54
160	1.40	24.83	26.23	1.78	45.04	46.83
180	1.76	30.90	32.67	2.24	56.04	58.28
200	2.17	37.59	39.76	2.75	68.14	70.88
220	2.61	44.88	47.49	3.30	81.31	84.62
240	3.10	52.76	55.85	3.90	95.56	99.46
260	3.62	61.22	64.84	4.56	110.85	115.41
280	4.18	70.26	74.45	5.26	127.19	132.45
300	4.79	79.88	84.67	6.01	144.56	150.57
320	5.43	90.07	95.50	6.81	162.94	169.76
340	6.12	100.81	106.93	7.66	182.34	190.00
143	1.13	20.15	21.28	1.44	36.57	38.01

Table 10 – System Head Curves with PVC Force Main

Flow Rate (gpm)	All Pumps Off, System Head Curve with New "C" Factor	All Pumps Off, System Head Curve with Old "C" Factor	Lead Pump On, System Head Curve with New "C" Factor	Lead Pump On, System Head Curve with Old "C" Factor	1st Lag Pump On, System Head Curve with New "C" Factor	1st Lag Pump On, System Head Curve with Old "C" Factor	Flooded Well, System Head Curve with New "C" Factor
0	69.00	69.00	67.42	67.42	65.85	65.85	40.50
20	69.54	69.98	67.97	68.41	66.39	66.83	41.04
40	70.98	72.56	69.40	70.98	67.82	69.41	42.48
60	73.20	76.56	71.62	74.98	70.05	73.40	44.70
80	76.18	81.89	74.60	80.31	73.02	78.74	47.68
100	79.88	88.51	78.30	86.93	76.72	85.36	51.38
120	84.27	96.37	82.70	94.79	81.12	93.22	55.77
140	89.35	105.44	87.78	103.87	86.20	102.29	60.85
160	95.10	115.70	93.52	114.12	91.95	112.54	66.60
180	101.50	127.12	99.93	125.54	98.35	123.96	73.00
200	108.56	139.68	106.98	138.10	105.40	136.53	80.06
220	116.24	153.37	114.67	151.79	113.09	150.22	87.74
240	124.56	168.17	122.98	166.59	121.40	165.02	96.06
260	133.50	184.07	131.92	182.49	130.34	180.92	105.00
280	143.05	201.05	141.47	199.48	139.90	197.90	114.55
300	153.21	219.11	151.64	217.54	150.06	215.96	124.71
320	163.98	238.24	162.40	236.66	160.83	235.08	135.48
340	175.35	258.42	173.77	256.84	172.19	255.26	146.85
146	**91.01**	**108.40**	**89.43**	**106.82**			**62.51**

The tables below summarizes the total dynamic headloss for the system when analyzing a HDPE force main.

Table 11 – Total Headloss Calculation with PVC Force Main

Flow Rate (gpm)	Total Riser Headloss with New "C" Factor (ft)	Total Force Main Headloss with New "C" Factor (ft)	Total Headloss with New "C" Factor (ft)	Total Riser Headloss with Old "C" Factor (ft)	Total Force Main Headloss with Old "C" Factor (ft)	Total Headloss with Old "C" Factor (ft)
0	0.00	0.00	0.00	0.00	0.00	0.00
20	0.02	0.52	0.55	0.03	0.96	1.00
40	0.09	1.89	1.98	0.12	3.48	3.61
60	0.21	4.01	4.22	0.27	7.39	7.66
80	0.36	6.85	7.21	0.47	12.61	13.08
100	0.56	10.37	10.93	0.72	19.08	19.80
120	0.80	14.55	15.35	1.02	26.76	27.78
140	1.08	19.37	20.45	1.38	35.63	37.01
160	1.40	24.83	26.23	1.78	45.65	47.43
180	1.76	30.90	32.67	2.24	56.81	59.05
200	2.17	37.59	39.76	2.75	69.08	71.83
220	2.61	44.88	47.49	3.30	82.46	85.76
240	3.10	52.76	55.85	3.90	96.92	100.83
260	3.62	61.22	64.84	4.56	112.45	117.01
280	4.18	70.26	74.45	5.26	129.05	134.31
300	4.79	79.88	84.67	6.01	146.69	152.70
320	5.43	90.07	95.50	6.81	165.37	172.18
340	6.12	100.81	106.93	7.66	185.08	192.74
143	1.13	20.15	21.28	1.44	37.06	38.49

Table 12 – System Head Curves with PVC Force Main

Flow Rate (gpm)	All Pumps Off, System Head Curve with New "C" Factor	All Pumps Off, System Head Curve with Old "C" Factor	Lead Pump On, System Head Curve with New "C" Factor	Lead Pump On, System Head Curve with Old "C" Factor	1st Lag Pump On, System Head Curve with New "C" Factor	1st Lag Pump On, System Head Curve with Old "C" Factor	Flooded Well, System Head Curve with New "C" Factor
0	69.00	69.00	67.42	67.42	65.85	65.85	40.50
20	69.55	70.00	67.97	68.42	66.39	66.84	41.05
40	70.98	72.61	69.41	71.03	67.83	69.45	42.48
60	73.22	76.66	71.64	75.08	70.07	73.51	44.72
80	76.21	82.08	74.63	80.50	73.06	78.92	47.71
100	79.93	88.80	78.35	87.22	76.77	85.64	51.43
120	84.35	96.78	82.77	95.21	81.19	93.63	55.85
140	89.45	106.01	87.87	104.43	86.30	102.85	60.95
160	95.23	116.43	93.65	114.86	92.08	113.28	66.73
180	101.67	128.05	100.09	126.47	98.51	124.89	73.17
200	108.76	140.83	107.18	139.25	105.60	137.68	80.26
220	116.49	154.76	114.91	153.18	113.33	151.61	87.99
240	124.85	169.83	123.27	168.25	121.70	166.67	96.35
260	133.84	186.01	132.26	184.43	130.69	182.86	105.34
280	143.45	203.31	141.87	201.73	140.29	200.15	114.95
300	153.67	221.70	152.09	220.12	150.51	218.54	125.17
320	164.50	241.18	162.92	239.60	161.34	238.02	136.00
340	175.93	261.74	174.35	260.16	172.78	258.58	147.43
143	**90.28**	**107.49**	**88.70**	**105.92**			**61.78**

2.5.9 PUMP RECOMMENDATIONS

Based on the system conditions and the desired functionality of the lift station, the recommend pump is a Flygt Concertor XPC N80-6900 with a 170 MM impellor and a N6020.182 18-08-1AZ-W 10 HP motor. The manufacturers pump curve data is attached as well as the overall performance curve for the lift station including system curves for C=100 and C=140 and each operating point for the lift station. Based on the attached detailed calculations, the operational point of the pump does not differ when using a PVC force main or HDPE force main.

2.5.10 ODOR CONTROL

At this time, odor control provisions are not necessary at the lift station wet well or for the force main. See the attached detailed calculations justifying this recommendation. Sewage will not be in the proposed lift station or force main for longer that the City's requirement for odor control measures and therefore odor control design will not be implemented with this application. If odor becomes a nuisance, measures will be taken in accordance with the City's and TCEQ design standards.

2.5.11 VENTILATION

A 4-inch wet well vent is being proposed for this design as it provides adequate ventilation based on the maximum pumping conditions. A 4-inch wet well vent generates a velocity of 219 feet per minute when experiencing peak pumping conditions of 143 gpm.

The maximum air vent velocity per TCEQ is 600 feet per minute.

2.5.12 SURGE ANALYSIS

At this time, water hammer does not appear to be a concern based on the system conditions although pressure wave critical period appears to be of concern in addition to potential for column separation. Combination air release and restrained joints are provided on the force main, as well as thrust blocks at bends. See the attached detailed calculations.

2.5.13 NET POSITIVE SUCTION HEAD

Net Positive Suction Head is not a concern with the recommended submersible pumps. See the attached detailed calculations.

2.6 Safety Considerations

The design of this system is not in the 100-year flood plain. Bollards are placed near the site of the lift station to protect equipment and wet well from any potential incidents with industrial vehicles using the development. Piping in the system has ample cover as to not inhibit the structural integrity of any part of the system.

2.7 Inflow & Infiltration Abatement Measures

The calculations for inflow & infiltration were completed in accordance with the City's WWMP and are covered previously in the report. The proposed onsite sanitary sewer was designed in accordance with the City's design standards including that all proposed sanitary sewer manholes within the Recharge Zone will be watertight with watertight rings and covers to minimize inflow & infiltration.

2.8 Structural and Pipe Design

The only significant structural design parameters to note with this application are in correlation with the lift station site including the wet well, valve vault, and slabs on grade for various equipment including the service rack, control panel, and diesel generator. The lift station has been designed to be a package lift station, recommendations for the wet well, valve vault and minor equipment slabs will be provided by the lift station supplier and incorporated into the design by the stamping engineer from the package lift station supplier for this project. Slab on grade for the diesel generator will be designed based on the recommendations of the geotechnical report.

Pipe design information is shown below:

Table 4 – Pipe Design

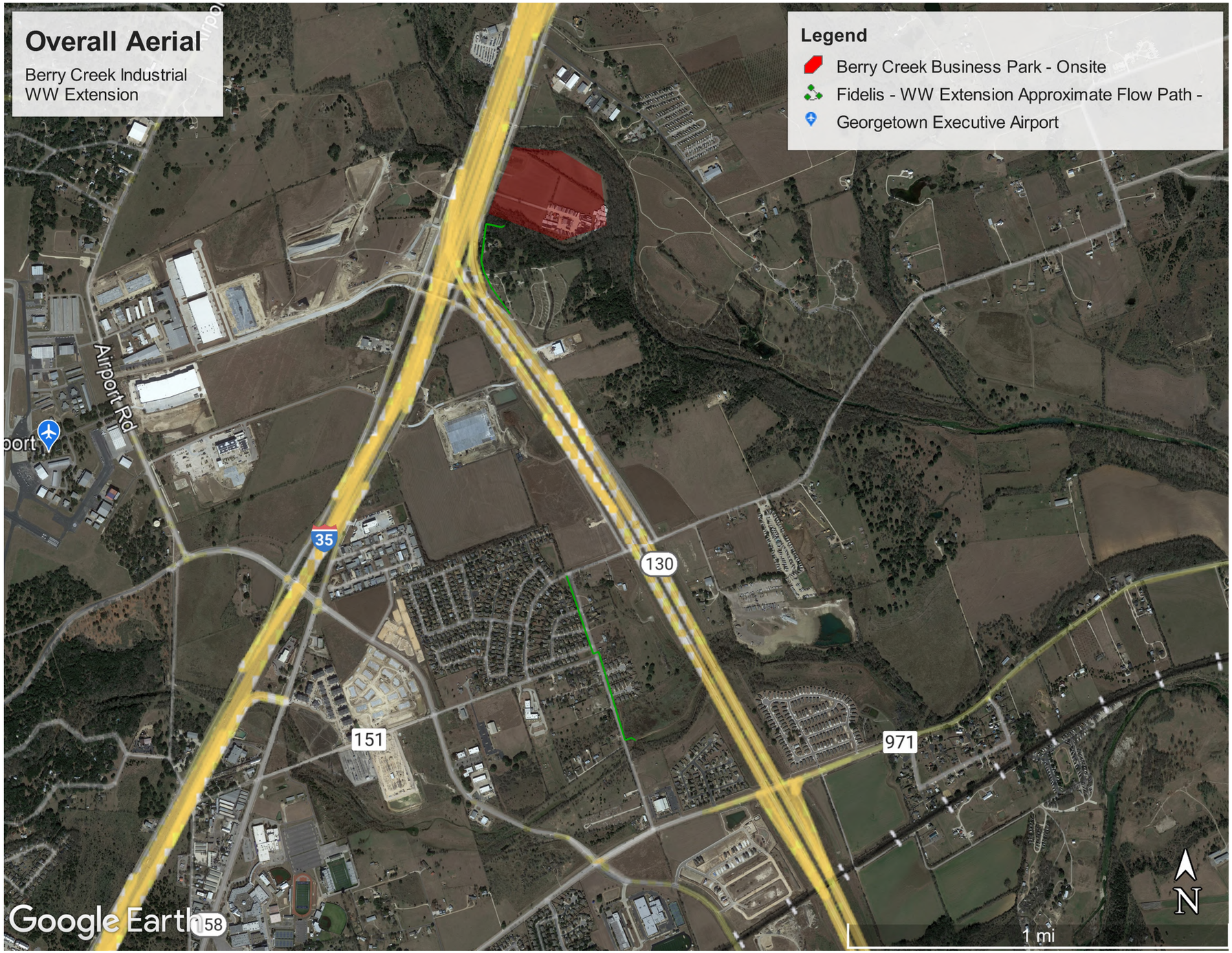
Pipe Diameter (Inches)	*Linear Feet (1)*	*Pipe Material (2)*	*Specifications (3)*
4	1,480	DR-18 PVC C900	ASTM F477
18	1,229	PVC SDR 26	ASTM D3034
6	78	PVC SDR 26	ASTM D3034
16	365	SDR 13.5	ASTM D1248
16	1,041	SDR 21	ASTM D1248

REVISION NO. 1 1

ATTACHMENT 1 – OVERALL AERIAL

Overall Aerial

Berry Creek Industrial
WW Extension



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TBPE FIRM REGISTRATION NO. F-11756
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REVISIONS

NO.	DATE	DESCRIPTION	BY

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PLANS PREPARED UNDER THE DIRECT SUPERVISION OF JUSTIN FAURE, P.E. TEXAS REGISTRATION NO. 147805.
DATE: DEC 2023

DESIGN	DRAWN	DATE
JCF	TCG	DEC 2023

SHEET NO.
1
1 OF 1

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

OVERALL AERIAL EXHIBIT

JFAURE
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ATTACHMENT 2 – FEMA FIRM EXHIBITS

National Flood Hazard Layer FIRMette

FEMA

97°39'42"W 30°41'29"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

97°39'5"W 30°40'58"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation
- 8 — Coastal Transect
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/30/2023 at 12:28 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

FEMA FIRM EXHIBIT - FORCE MAIN

PRELIMINARY
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PLANS PREPARED UNDER THE DIRECT SUPERVISION OF JUSTIN FAURE, P.E. TEXAS REGISTRATION NO. 147805. DATE: DEC 2023

DESIGN	DRAWN	DATE
JCF	TCG	DEC 2023

SHEET NO. 1

1 OF 1

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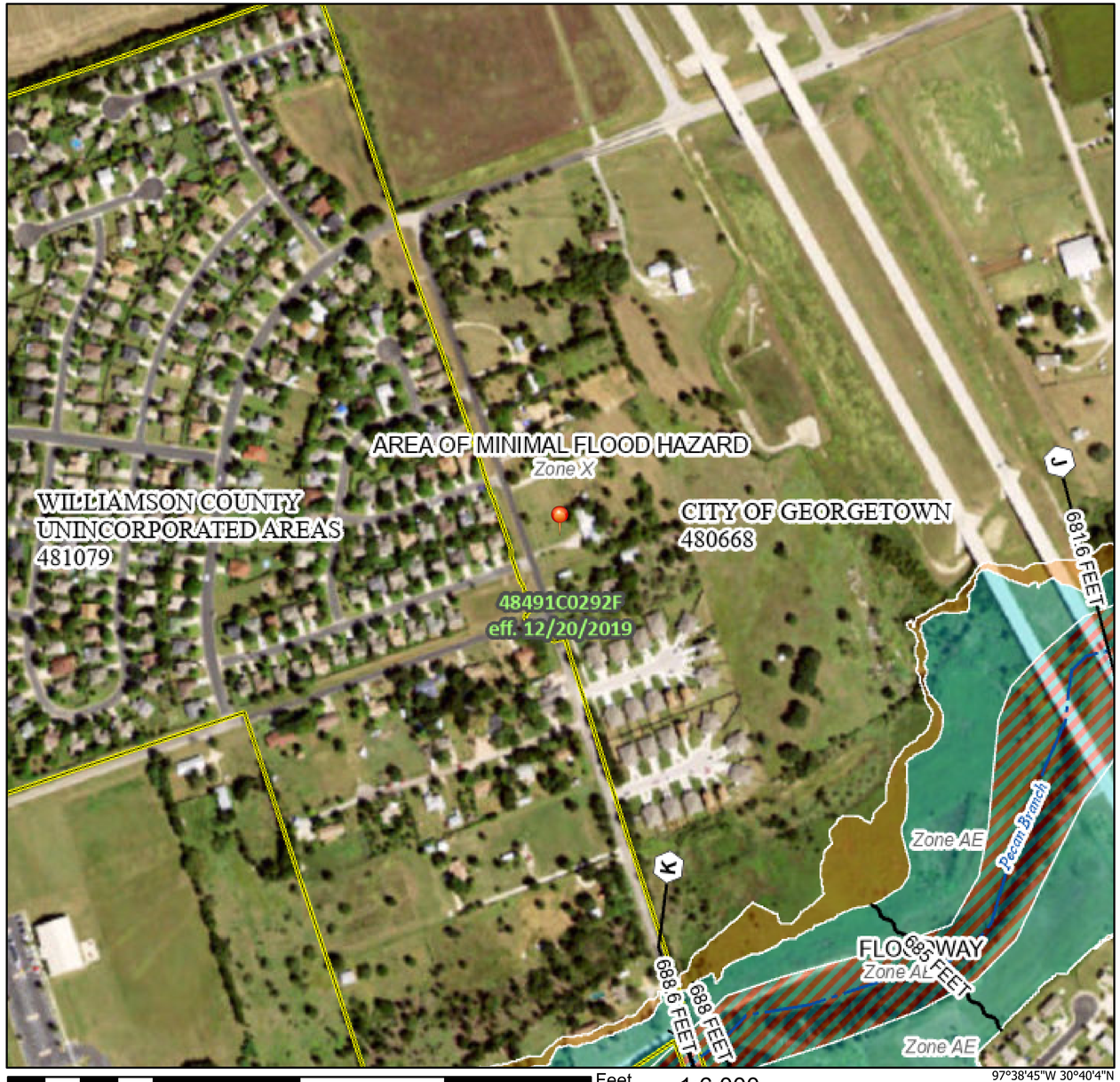
National Flood Hazard Layer FIRMette

97°39'22"W 30°40'35"N



97°38'45"W 30°40'4"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
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- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
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- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / Water Surface Elevation
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MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

FEMA FIRM EXHIBIT - GRAVITY SEWER

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PLANS PREPARED UNDER THE DIRECT SUPERVISION OF JUSTIN FAURE, P.E. TEXAS REGISTRATION NO. 147865.
DATE: DEC 2023

DESIGN	DRAWN	DATE
JCF	TCG	DEC 2023

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ATTACHMENT 3 – EDWARDS AQUIFER ZONE EXHIBITS

Georgetown Map



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Edwards Aquifer Recharge Zones

Recharge Zone

1:18,056

0 0.13 0.25 0.5 mi

0 0.2 0.4 0.8 km

County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, Georgetown

Web AppBuilder for ArcGIS

County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA | Georgetown |

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

EDWARDS AQUIFER RECHARGE ZONE - EXHIBIT

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DATE: DEC 2023

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JCF	TCG	DEC 2023

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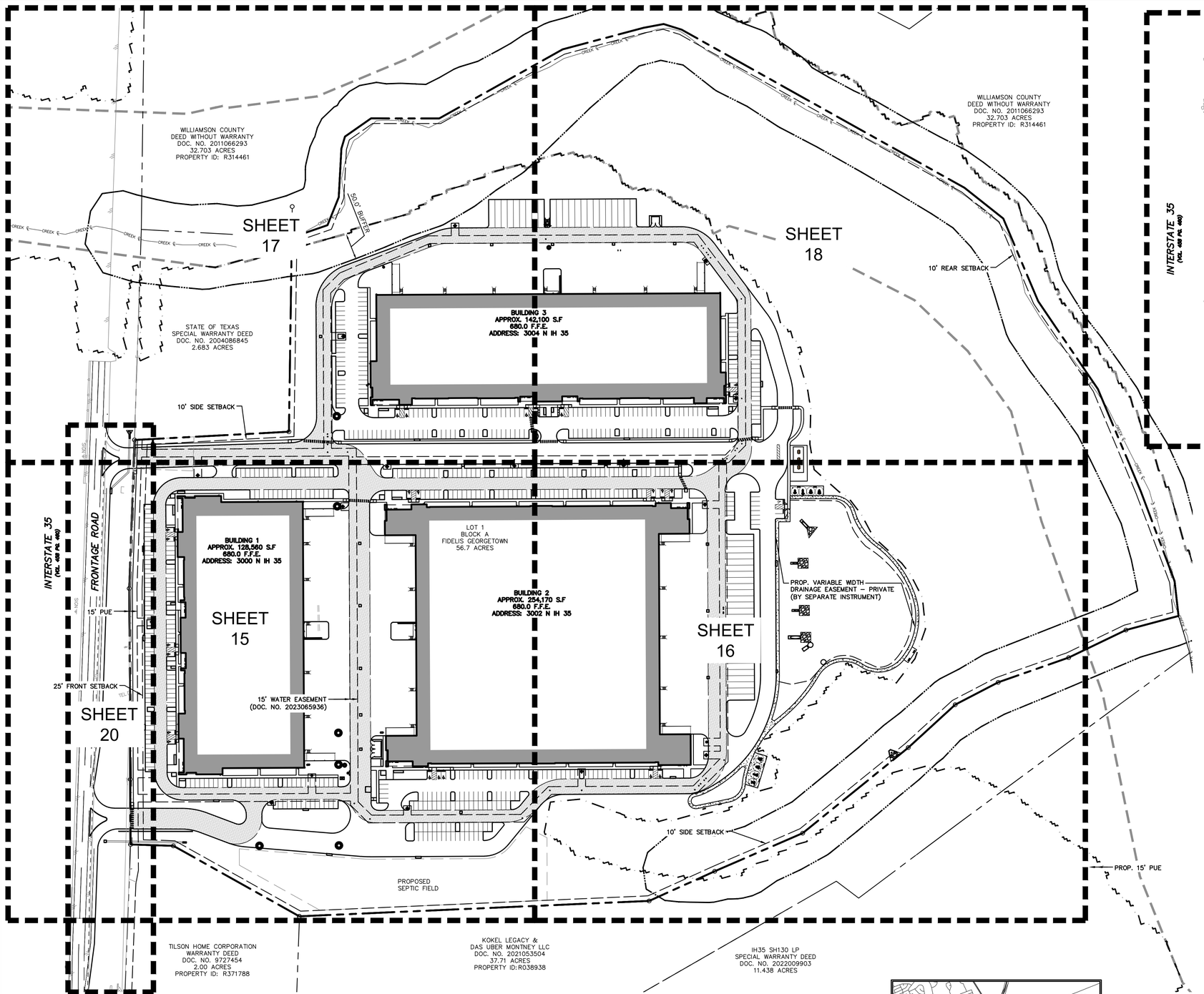
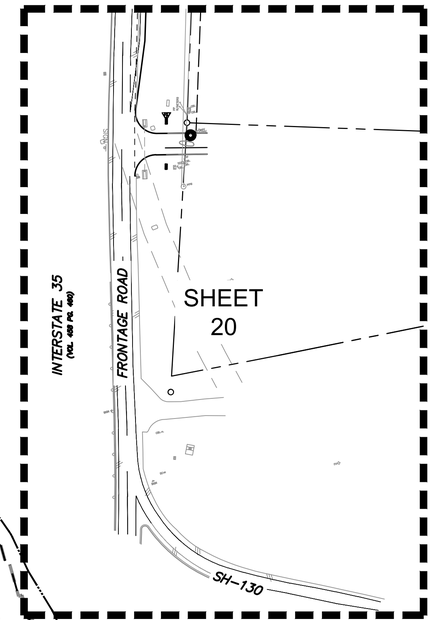
ATTACHMENT 4 – BERRY CREEK BUSINESS PARK DEVELOPMENT PLAN





0 50 100 200 300

GRAPHIC SCALE IN FEET
1"=100'

LEGEND

- BOLLARD
- ELECTRIC METER
- POWER POLE
- LIGHT STANDARD
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- FIRE HYDRANT
- CLEANOUT
- MANHOLE
- TRAFFIC SIGNAL CONTROL
- TRAFFIC SIGNAL POLE
- TELEPHONE BOX
- FLOOD LIGHT
- FLAG POLE
- TRAFFIC SIGN
- IRS (C.M.) 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET CONTROLLING MONUMENT
- PROPERTY LINE
- FENCE
- COORDINATE DESIGNATION
- PROPOSED FENCE
- FIRE LANE
- ADA ACCESSWAY
- PROP. SIDEWALK
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CREEK CENTERLINE
- GEOLOGIC BUFFER ZONE

ALL DIMENSIONS ARE TO BACK-OF-CURB UNLESS OTHERWISE NOTED

GENERAL NOTES

1. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND THE CITY OF GEORGETOWN STANDARD CONSTRUCTION SPECIFICATIONS.
2. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL BE FAMILIAR WITH THE PLANS, ALL NOTES, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, THE CITY STANDARDS FOR CONSTRUCTION, AND ANY OTHER APPLICABLE STANDARDS AND SPECIFICATIONS RELEVANT TO THE PROPER COMPLETION OF THE WORK SPECIFIED. FAILURE ON THE PART OF THE CONTRACTOR TO BE FAMILIAR WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THIS WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY OF PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
3. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. CONTRACTOR SHALL VERIFY THAT NECESSARY CROSSING CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES EXIST PRIOR TO CONSTRUCTION OF ANY SUCH CROSSINGS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR TO VERIFY SIZE AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL MANHOLES, CLEANOUTS, VALVE BOXES, AND FIRE HYDRANTS, ETC., CONTRACTOR TO ADJUST TO PROPER LINE AND GRADE PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING AND GRADING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING THE CONSTRUCTION OF THE PAVING FOR THIS DEVELOPMENT.
5.
   - 5.1. PROTECT AND MAINTAIN ROADWAY TRAFFIC THROUGHOUT THE PROJECT, PROVIDING A MINIMUM OF ONE (1) LANE OPEN IN EACH DIRECTION;
   - 5.2. PROVIDE AND MAINTAIN INTERIM ACCESS FROM ROADWAYS CURRENTLY IN USE TO ALL DRIVEWAYS AND INTERSECTING STREETS OR ALLEYS;
   - 5.3. MAINTAIN NORMAL PROJECT DRAINAGE UNTIL NEW DRAINAGE FACILITIES ARE FUNCTIONAL, INCLUDING, WHERE NECESSARY, INTERIM REPLACEMENT OF EXISTING DRAINAGE STRUCTURES REMOVED FOR CONSTRUCTION OF NEW DRAINAGE FACILITIES;
   - 5.4. MAINTAIN ALL WORK AND MATERIAL STORAGE AREAS IN ORDERLY CONDITION, FREE OF DEBRIS AND WASTE. ON COMPLETION OF CONSTRUCTION, CLEAN UP THE PROJECT AND ADJACENT AFFECTED AREAS TO ACCEPTABLE CONDITION, ALL AS PROVIDED IN THE GENERAL CONDITIONS.
6. PRIOR TO COMMENCEMENT OF CONSTRUCTION, BONDS AND THREE-WAY CONTRACTS SHALL BE SUBMITTED TO THE CITY AS REQUIRED.
7. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
8. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS TO VERIFY ALL BUILDING DIMENSIONS.
9. REFER TO ARCHITECTURAL PLANS FOR DETAILED BUILDING ENTRANCE LAYOUTS, RAMPS, LANDSCAPE, AND SIDEWALKS.
10. BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
11. EXACT SAWCUT PAVEMENT REMOVAL AND REPLACEMENT LIMITS WITHIN THE PUBLIC RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH THE CITY PAVEMENT REPAIR MANUAL AND INCLUDED IN THE BASE BID.

DIMENSIONAL SITE PLAN NOTES

1. ALL LIGHTING FIXTURES SHALL BE DESIGNED TO COMPLETELY CONCEAL AND FULLY SHIELD, WITHIN AN OPAQUE HOUSING, THE LIGHT SOURCE FROM VISIBILITY FROM ANY STREET RIGHT-OF-WAY. THE CONE OF LIGHT SHALL NOT CROSS ANY ADJACENT PROPERTY LINE. THE ILLUMINATION SHALL NOT EXCEED 2 FOOT CANDLES AT A HEIGHT OF THREE FEET AT THE PROPERTY LINE. ONLY INCANDESCENT, FLUORESCENT, COLOR-CORRECTED HIGH-PRESSURE SODIUM OR METAL HALIDE MAY BE USED. ALL VEHICLE OR PEDESTRIAN ACCESS SHALL BE SUFFICIENTLY LIGHTED TO ENSURE SECURITY OF PROPERTY AND PERSONS.
2. ALL ROOF, WALL AND GROUND MOUNTED MECHANICAL EQUIPMENT MUST BE SCREENED IN ACCORDANCE WITH CHAPTER 8 OF THE UDC. IF ROOF AND WALL MOUNTED EQUIPMENT OF ANY TYPE INCLUDING DUCT WORK AND LARGE VENTS IS PROPOSED IT SHALL BE SHOWN ON THE SITE PLAN AND SCREENING IDENTIFIED. SCREENING OF MECHANICAL EQUIPMENT SHALL RESULT IN THE MECHANICAL EQUIPMENT BLENDING IN WITH THE PRIMARY BUILDING AND NOT APPEARING SEPARATE FROM THE BUILDING AND SHALL BE SCREENED FROM VIEW OF ANY RIGHTS-OF-WAY OR ADJOINING PROPERTIES.
3. PER CHAPTER 8, THE DUMPSTER ENCLOSURES MUST BE ONE (1) FOOT ABOVE THE HEIGHT OF THE WASTE CONTAINER. USE PROTECTIVE POLES IN CORNERS AND AT IMPACT AREAS. FENCE POSTS SHALL BE OF OF RUST PROTECTED METAL OR CONCRETE. A MINIMUM 6"SLAB IS REQUIRED AND MUST BE SLOPED TO DRAIN; THE ENCLOSURE MUST HAVE STEEL FRAMED GATES WITH SPRING LOADED HINGES AND FASTENERS TO KEEP CLOSED. SCREENING MUST BE ON ALL FOUR SIDES BY MASONRY WALL OR APPROVED FENCE OR SCREENING WITH OPAQUE GATES.
4. ALL FIRE DEPARTMENT CONNECTIONS (FDCS) SHALL BE MARKED AS APPROVED BY THE FIRE CODE OFFICIAL. TWO RED STREET LANE REFLECTORS (STIMSONITE MODEL 88AB OR SIMILAR) SHALL BE INSTALLED SIX INCHES FROM CENTERLINE OF THE FIRE APPARATUS ACCESS ROADWAY ON THE SIDE CLOSEST TO THE FDC. MARKERS SHALL BE PARALLEL TO THE FDC HAVING THE REFLECTIVE ENDS OF THE STREET MARKERS FACING THE DIRECTOR OF TRAFFIC.
5. THE FDC FOR THE FIRE SPRINKLER SYSTEM SHALL HAVE A 5 INCH STORTZ CONNECTION ON A 30 DEGREE DOWNTURN WITH A KNOX BRAND LOCKING CAP.
6. INSTALL A SIGN ABOVE THE FIRE DEPARTMENT CONNECTION STATING "FDC". THE SIGN SHALL BE 7' ABOVE GRADE. THE SIGN SHALL HAVE REFLECTIVE WHITE LETTERS UPON A REFLECTIVE RED BACKGROUND. THE LETTERING SHALL BE MINIMUM 2 INCH STROKE AND MINIMUM 6 INCHES IN HEIGHT.
7. THE SIGN SHALL ALSO HAVE THE ADDRESS/BUILDING NUMBER OF THE STRUCTURE PROTECTED IF A REMOTE FDC IS USED. THE ADDRESS LETTERING SHALL BE MINIMUM 2 INCH STROKE.

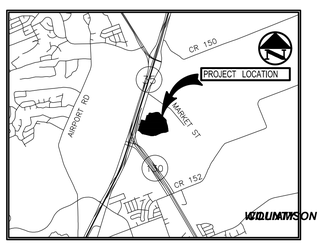
IMPERVIOUS COVER CALCULATIONS

LOT 1, BLOCK A - 56.73 AC (2,471,158.8 SF)

ALLOWED IC		
ALLOWABLE IC	70% FOR 0-5 ACRES, 55% FOR REMAINING	
ALLOWABLE IC%	3.5 + 28.45 = 31.95 (56.37%)	
PROPOSED IC		
BUILDINGS 1, 2, & 3	12.12 AC (528,100 SF)	21.36%
PAVEMENT (Includes sidewalks)	15.82 AC (689,078 SF)	27.89%
TOTAL	27.94 AC (1,217,178 SF)	49.25%

PARKING REQUIREMENT-BLGS 1, 2, & 3

RATIO	REQUIRED	PROVIDED
FACILITY 10% - 1/500 (968,325 SF)	107	602
STORAGE 90% - 1/2,500 (272,186 SF)	99	54
ADA SPACES	23	23
TOTAL	229	679



VICINITY MAP
(1"=5,000')

2022-97-SDP

Westwood
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8701 N. Mopac Expy, Suite 320
Austin, TX 78759
westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-469
TBPLS FIRM REGISTRATION NO. LS-100080-00

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

OVERALL SITE PLAN



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISOR OF HOLLIS ANN SCHEFFLER, P.E. 136049 ON 8/28/2023. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

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HAS	NBB	MAR 2023

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ATTACHMENT 5 – WASTEWATER DEMAND CALCULATIONS

City of Georgetown
Water and Sewer Service Extension Request Calculations

Client: Fidelis
Project Name: Fidelis Georgetown
PKCE Job No: 4670-22.125
Date: 3/21/2022

Living Unit Equivalent (LUE)

Use =	**Industrial**		
Proposed Project Occupancy =	**533,700**	SF	
LUE Conversion =	4000	EDU Per	SF
Total LUE for Project =	133.43		
People Per LUE =	3.50		
Total People =	466.9875		

Water Demand Calculations

Average Day Demand (ADD) =	200	gal per person per day
Peak Day Demand (PDD) =	530	gal per person per day
Peak Hour Demand (PHD) =	900	gal per person per day

ADD =	93,397.50 gpd	64.86 gpm
PDD =	247,503.38 gpd	171.88 gpm
PHD =	420,288.75 gpd	291.87 gpm

Fire Demand Calculations

Occupancy Type =	**1A and IIIA**
Building Size =	**533,700** SF

Fire Flow per Table B105.1(2) =	6,000 gpm
Fire Flow per Table B105.1(2) w/ Reduction=	1,500 gpm
Flow Duration per Table B105.1(2) =	4 hours

Wastewater Demand Calculations

Peak Dry Weather Flow

PDWF = ((18+(0.0206*F)^0.5)/(4+(0.0206*F)^0.5))*F
F = 70 gal/person/day * total people/1440 = Average dry-weather flow in gpm

F =	22.70 GPM
PDWF =	90.55 GPM

Peak Wet Weather Flow

PWWF = PDWF + Inflow/Infiltration
Inflow/Infiltration (I/I) = 750 GPD per Acre

Acres =	4.069 Acres	
Inflow/Infiltration =	3051.75 gpd	2.12 gpm
PWWF =	92.67 gpm	

Engineer of Record:

SEAL

PROPERTY NO. ALONG FLOW PATH	WCAD ID #	PROPERTY OWNER	MODIFIED LAND USE	PROPERTY ACREAGE (ACRES)	DWELLINGS/ ACRE	DWELLING or LUE's	Residential Avg Daily (gpd)	Non-Residential Avg Daily (gpd)	WWMP ADF (gpd)	PEAKING FACTOR	PDWF (gpd)	RDII (gpd)	PWWF (gpd)
1 (FUTURE DEVELOPMENT)	R038938, R038938	KOKEL LEGACY/FIDELIS INDUSTRIAL	*DEMANDS OBTAINED FROM GEORGETOWN APPROVED LATERAL EVALUATION STUDY*								130,397	3,051	133,448
2 (FUTURE DEVELOPMENT)	R371788	TILSON HOME CORP	MIXED USE COMMUNITY	2.0	4.56 LUE	9.1	2,280	600	2,880	2.1	6,048	1,500	7,548
3 (FUTURE DEVELOPMENT)	R631347	KOKEL LEGACY LLC	MIXED USE COMMUNITY	11.4	4.56 LUE	52.2	13,039	3,431	16,471	2.1	34,589	8,579	43,167
4 (FUTURE DEVELOPMENT)	R038765, R318942, etc	NEW HUB INTERPRISE	REGIONAL COMMERCIAL DESTINATION	16.3	0.75 LUE	12.2	3,060	22,032	25,092	1.5	37,638	12,240	49,878
5 (FUTURE DEVELOPMENT)	R619641, R038783	NEW HUB INTERPRISE	COMMUNITY COMMERCIAL	5.6	0.75 LUE	4.2	1,046	6,026	7,072	1.5	10,608	4,185	14,793
6 (FUTURE DEVELOPMENT)	R619646	AMAZON.COM SERVICES	*SITE PLAN FOR PROPERTY DEVELOPMENT SHOWS INDUSTRIAL BUILDING OF APPROXIMATELY 519,000 SF. ESTIMATED WASTEWATER FLOWS FROM INDUSTRIAL BUILDING AS SHOWN.*								292,992	42,075	335,067
7 (FUTURE DEVELOPMENT)	R583375	GRADDY INVESTMENTS	INDUSTRIAL	6.0	26.20 LUE	156.9			39,235	1.5	58,852	4,493	63,344
8 (FUTURE DEVELOPMENT)	R038720	AMAZON.COM SERVICES	EMPLOYMENT CENTER	6.6	0.75 LUE	4.9	1,232	5,322	6,554	2.1	13,763	4,928	18,690
EXISTING FACILITIES DEMAND													
	Building No. 1 Gateway	OFFICE 10% /WAREHOUSE 90%	21			178			44,402	1.50	66,603		87,563
	Building No. 2 Gateway	OFFICE 10% /WAREHOUSE 90%	11			113			28,251	1.50	42,377		53,387
	Building No. 3 Gateway	OFFICE 10% /WAREHOUSE 90%	16			140			34,969	1.50	52,453		68,493
	Berry Creek Apartments	Multi-Family Residential				710			177,500	1.50	266,250		315,250
										Total	427,683		524,693

Because of the potential unknown wastewater flows through the Crystal Knolls subdivision, it is more conservative to assume the maximum allowable sewer flows through the CRITICAL POINT OF THE SYSTEM (12" pipe at 0.22% slope) TO BE THE CURRENT DEMAND AS IT FLOWS NORMALLY TODAY . This estimated flow is based on the 65% and 85% thresholds for that pipe at that slope and that value is greater than the calculated value including with the full 710 LUEs from the Berry Creek Apartments. Therefore the analysis includes the larger flows for analysis since that is more conservative.

											Assuming 65% Flow Depth	Assuming 85% Flow Depth
			THIS IS TO BE ASSUMED AS THE EXISTING PIPE CAPACITY	---------->		***12" Pipe Demand at 0.22% Slope***					**816,923**	**1,112,879**
PROPOSED FACILITIES DEMAND - CONT.												
15 (FUTURE DEVELOPMENT)	R324269	BIG BOX PROPERTIES	MODERATE-DENSITY RESIDENTIAL	10.2	3.00 LUE	30.7	7,680	0	7,680	2.1	16,128	7,680	23,808
16 (FUTURE DEVELOPMENT)	R324269	BIG BOX PROPERTIES	MODERATE-DENSITY RESIDENTIAL	10.4	3.00 LUE	31.1	7,775	0	7,775	2.1	16,326	7,775	24,101
17	R038967	AURORAS LLP	MODERATE-DENSITY RESIDENTIAL	17.4	3.00 LUE	52.2	13,055	0	13,055	2.1	27,414	13,055	40,469
EXISTING DEMAND (GATEWAY BUILDINGS, BERRY CREEK APARTMENTS AND CRYSTAL KNOLL SUBDISION)											**816,923**		**1,112,879**
TOTAL DEMAND (PROPOSED DEVELOPMENT NOT INCLUDING GATEWAY BUILDINGS 1-3, CRYSTAL KNOLL SUBDIVISION. BERRY CREEK APARTMENTS)											**644,755**		**754,313**
TOTAL DEMAND (PROPOSED DEVELOPMENT DEMAND PLUS EXISTING FACILITIES DEMAND)													
										TOTALS	**1,461,678**		**1,867,192**

City of Georgetown - Gateway Building 1
Wastewater Demand Calculation

Client:	MW Builders
Project Name:	Gateway 35 Building 1
PKCE Job No:	4670-20.477
Date:	5/31/2023

Living Unit Equivalent (LUE)

Total Building Size =	294,830	Gateway Building 2					Total	
Percentage of Usage =	10%	Office	90%	Industrial			100%	
Use (from TCEQ Table) =	Office Building or Factory	Design per Largest Shift	Office Building or Factory	Design per Largest Shift				
Proposed Project Occupancy =	29,483	SF	265,347	SF	=	294,830	SF	
LUE Rate =	1,660	SF per LUE	1,660	SF per LUE				
LUE =	17.76		159.85		=	178	LUEs	
LUE to People Conversion =	2.50	people per LUE	2.50	people per LUE				
Total People =	45	people	400	people	=	445	people	

Wastewater Demand Calculations:

Average Day Dry Weather Flow (DWF)							
TCEQ Criteria DWF =	900	gpd	8000	gpd	=	8,900	gpd
					=	6	gpm
Average Daily Flow (ADF)							
LUE Flow Rate =	250	gpd/LUE	250	gpd/LUE			
ADF =	4,440	gpd	39,962	gpd/LUE	=	44,402	gpd
					=	31	gpm
Peaking Factor for ADF							
PF =	1.5		1.5				
ADF =	4440	gpd	39961.90	gpd	=	44,402	gpd
Peak Day Dry Weather Flow (PDWF) =	6660	gpd	59942.8464	gpd	=	66,603.16	gpd

Rainfall Dependent Inflow & Infiltration (RDII)		
RDII Rate =	1000	gpd per acre
Acreage =	20.96	Acres
RDII =	20,960	gpd

Wastewater Summary		
Average Day Dry Weather Flow (DWF) =	44,402	gpd
Peaking Factor (PF) =	1.5	
Peak Day Dry Weather Flow (PDWF) =	66,603	gpd
Peak Day Wet Weather Flow (PWWF) =	87,563	gpd

City of Georgetown - Gateway Building 2
Wastewater Demand Calculation

Client:	MW Builders
Project Name:	Gateway 35 Building 2
PKCE Job No:	4670-20.477
Date:	5/31/2023

Living Unit Equivalent (LUE)

Total Building Size =	187,588	Gateway Building 2					Total	
Percentage of Usage =	10%	Office	90%	Industrial			100%	
Use (from TCEQ Table) =	Office Building or Factory	Design per Largest Shift	Office Building or Factory	Design per Largest Shift				
Proposed Project Occupancy =	18,759	SF	168,829	SF	=	187,588	SF	
LUE Rate =	1,660	SF per LUE	1,660	SF per LUE				
LUE =	11.30		101.70		=	113	LUEs	
LUE to People Conversion =	2.50	people per LUE	2.50	people per LUE				
Total People =	29	people	255	people	=	284	people	

Wastewater Demand Calculations:

Average Day Dry Weather Flow (DWF)							
TCEQ Criteria DWF =	580	gpd	5100	gpd	=	5,680	gpd
					=	4	gpm
Average Daily Flow (ADF)							
LUE Flow Rate =	250	gpd/LUE	250	gpd/LUE			
ADF =	2,825	gpd	25,426	gpd/LUE	=	28,251	gpd
					=	20	gpm
Peaking Factor for ADF							
PF =	1.5		1.5				
ADF =	2825	gpd	25426.08	gpd	=	28,251	gpd
Peak Day Dry Weather Flow (PDWF) =	4238	gpd	38139.1265	gpd	=	42,376.81	gpd

Rainfall Dependent Inflow & Infiltration (RDII)

RDII Rate =	1000	gpd per acre
Acreage =	11.01	Acres
RDII =	11,010	gpd

Wastewater Summary		
Average Day Dry Weather Flow (DWF) =	28,251	gpd
Peaking Factor (PF) =	1.5	
Peak Day Dry Weather Flow (PDWF) =	42,377	gpd
Peak Day Wet Weather Flow (PWWF) =	53,387	gpd

City of Georgetown - Gateway Building 3
Wastewater Demand Calculation

Client: MW Builders
Project Name: Gateway 35 Building 2
PKCE Job No: 4670-20.477
Date: 5/31/2023

Living Unit Equivalent (LUE)

Total Building Size =	232,192	Gateway Building 2					Total	
Percentage of Usage =	10%	Office		90%	Industrial		100%	
Use (from TCEQ Table) =	Office Building or Factory	Design per Largest Shift		Office Building or Factory	Design per Largest Shift			
Proposed Project Occupancy =	23,219	SF		208,973	SF	=	232,192	SF
LUE Rate =	1,660	SF per LUE		1,660	SF per LUE			
LUE =	13.99			125.89		=	140	LUEs
LUE to People Conversion =	2.50	people per LUE		2.50	people per LUE			
Total People =	35	people		315	people	=	350	people

Wastewater Demand Calculations:

Average Day Dry Weather Flow (DWF)							
TCEQ Criteria DWF =	700	gpd	6300	gpd	=	7,000	gpd
					=	5	gpm
Average Daily Flow (ADF)							
LUE Flow Rate =	250	gpd/LUE	250	gpd/LUE			
ADF =	3,497	gpd	31,472	gpd/LUE	=	34,969	gpd
					=	24	gpm
Peaking Factor for ADF							
PF =	1.5		1.5				
ADF =	3497	gpd	31471.81	gpd	=	34,969	gpd
Peak Day Dry Weather Flow (PDWF) =	5245	gpd	47207.7108	gpd	=	52,453.01	gpd

Rainfall Dependent Inflow & Infiltration (RDII)		
RDII Rate =	1000	gpd per acre
Acreage =	16.04	Acres
RDII =	16,040	gpd

Wastewater Summary		
Average Day Dry Weather Flow (DWF) =	34,969	gpd
Peaking Factor (PF) =	1.5	
Peak Day Dry Weather Flow (PDWF) =	52,453	gpd
Peak Day Wet Weather Flow (PWWF) =	68,493	gpd

City of Georgetown
Wastewater Demand Calculation

Client: MW Builders
Project Name: Gateway 35
PKCE Job No: 4670-20.477
Date: 5/30/2023

Living Unit Equivalent (LUE)

Total Building Size =		Berry Creek Apartments		Total	
Percentage of Usage =	100%	Office		100%	
Use (from TCEQ Table) =	Municipality	Residential			
Proposed Project Occupancy =		SF	=	-	SF
LUE Rate =		SF per LUE			
LUE =	710.00		=	710	LUEs
LUE to People Conversion =	2.50	people per LUE			
Total People =	1775	people	=	1,775	people

Wastewater Demand Calculations:

Average Day Dry Weather Flow (DWF)

TCEQ Criteria DWF =	133125	gpd	=	133,125	gpd
			=	92	gpm

Average Daily Flow (ADF)

LUE Flow Rate =	250	gpd/LUE			
ADF =	177,500	gpd	=	177,500	gpd
			=	123	gpm

Peaking Factor for ADF

PF =	1.5				
ADF =	177500	gpd	=	177,500	gpd
Peak Day Dry Weather Flow (PDWF) =	266250	gpd	=	266,250.00	gpd

Rainfall Dependent Inflow & Infiltration (RDII)

RDII Rate =	1000	gpd per acre
Acreage =	49.00	Acres
RDII =	49,000	gpd

Wastewater Summary		
Average Day Dry Weather Flow (DWF) =	177,500	gpd
Peaking Factor (PF) =	2.1	
Peak Day Dry Weather Flow (PDWF) =	266,250	gpd
Peak Day Wet Weather Flow (PWWF) =	315,250	gpd

ATTACHMENT 6 – WWTP CAPACITY VERIFICATION

Justin Faure

From: Wesley Wright <Wesley.Wright@georgetown.org>
Sent: Wednesday, December 13, 2023 5:43 PM
To: Justin Faure
Cc: Hollis Scheffler; Jacob Valentien; Caleb Fuhrer
Subject: RE: [EXTERNAL] Fidelis WW Extension Flow to Pecan Branch WWTP - Confirmation of Capacity

CAUTION: External Sender. Please do not click on links or open attachments from senders you do not trust.

Yes. Flows this past week are below 60% of the permitted 3MGD capacity. While that's generally lower than normal, we've not hit the 75% trigger that requires design on an expansion begin.

Wesley Wright, PE
Systems Engineering Director
City of Georgetown Municipal Complex
300-1 Industrial Ave.
Georgetown, TX 78627
Phone: 512-931-7672
Email: wesley.wright@georgetown.org

Trust : Professionalism : Teamwork : Communication : Work/Life Balance

The Systems Engineering Department's mission is to facilitate system maintenance and growth for our stakeholders through ownership and exceptional engineering services.

From: Justin Faure <Justin.Faure@westwoodps.com>
Sent: Tuesday, December 12, 2023 3:10 PM
To: Wesley Wright <Wesley.Wright@georgetown.org>
Cc: Hollis Scheffler <Hollis.Scheffler@westwoodps.com>; Jacob Valentien <Jacob.Valentien@westwoodps.com>
Subject: [EXTERNAL] Fidelis WW Extension Flow to Pecan Branch WWTP - Confirmation of Capacity

[EXTERNAL EMAIL] This email originated from outside of City of Georgetown. DO NOT click links or open attachments unless you recognize and/or trust the sender.

Wesley,

We are working on the SCS application to TCEQ for offsite sewer development for the Berry Creek Industrial Park (2022-97-SDP). As a refresher, our offsite sewer expansion requires a private 4-inch force main and lift station, as well as the pipe diameter increase for the existing COG gravity collection system through the Crysal Knoll subdivision upstream of the Pecan Branch Interceptor. The project was generated off the Sewer Study conducted earlier this year titled “Highway 130 Wastewater Evaluation” and you were involved in the negotiations of the easements for the private force main a few months back.

As a requirement of the SCS, we are reaching out to determine if the downstream Pecan Branch WWTP has the available capacity to accept the flows contributed by our industrial development. Our projected flows are a PDWF of 130,392 GPD and a PWWF of 133,444 GPD.

Please let me know if you have any questions,

Thanks

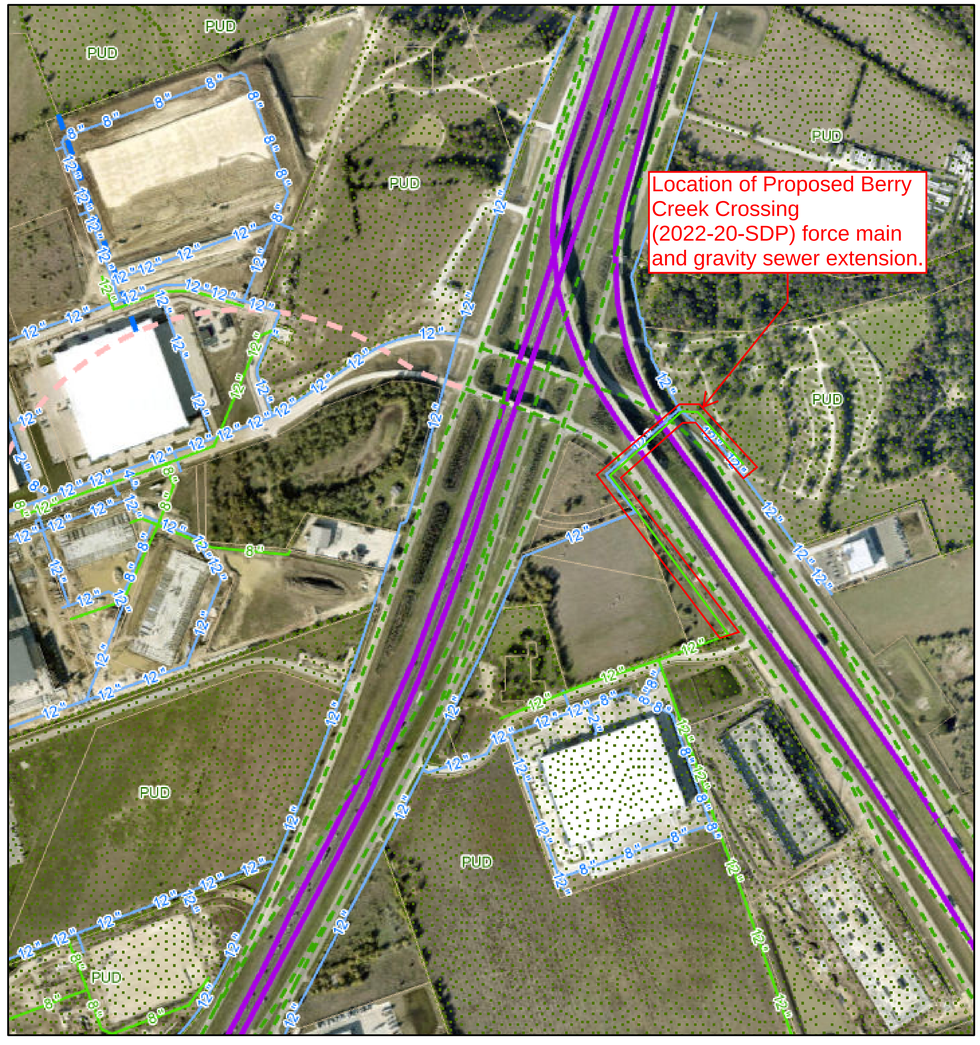
Justin Faure, PE
Senior Project Engineer
justin.faure@westwoodps.com
main (512) 485-0831

Westwood
8701 N. Mopac Expy Suite 320
Austin, TX 78759

westwoodps.com
(888) 937-5150

ATTACHMENT 7 – EXISTING GUS UTILITIES

Georgetown Map



10/30/2023, 2:09:42 PM

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Thoroughfare
- EXISTING FREEWAY
- EXISTING RAMP
- PROPOSED COLLECTOR
- PROPOSED MINOR ARTERIAL

- Water Lines
- Wastewater Lines
- Planned Unit Developments
- Parcels

Georgetown, Williamson County TX, Maxar

Web AppBuilder for ArcGIS
Georgetown | Williamson County TX, Maxar |

Georgetown Map



10/30/2023, 2:13:59 PM

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Thoroughfare
- EXISTING COLLECTOR
- EXISTING FREEWAY
- EXISTING MAJOR ARTERIAL
- EXISTING MINOR ARTERIAL

- EXISTING RAMP
- Water Lines
- Wastewater Lines
- Planned Unit Developments
- Parcels

Georgetown, Williamson County TX, Maxar

Web AppBuilder for ArcGIS
Georgetown | Williamson County TX, Maxar |

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Westwood
Phone (512) 485-0831
Toll Free (888) 937-5150
8701 N. Mopac Expy, Suite 320
Austin, TX 78759
westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

PRELIMINARY
NOT FOR CONSTRUCTION

THIS DOCUMENT IS ISSUED FOR THE PURPOSE OF REVIEW ONLY AND IS NOT INTENDED FOR PERMITTING, BIDDING, OR CONSTRUCTION PURPOSES.

PLANS PREPARED UNDER THE DIRECT SUPERVISION OF JUSTIN FAURE, P.E. TEXAS REGISTRATION NO. 147605. DATE: DEC 2023

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

EXISTING GUS UTILITIES - EXHIBIT

DESIGN	DRAWN	DATE
JCF	TCG	DEC 2023

SHEET NO.
1
1 OF 1

JFAURE
12/7/2023 4:52 PM
\\WESTWOODPS.LOCAL\GLOBAL PROJECTS\0039532.04\06 CAD\DWG\SITE DESIGN C3D\03_SHEET\0039532.04_COVR.DWG

ATTACHMENT 8 – COG LATERAL EVALUATION FOR FUTURE BUILDOUT

FIDELIS INDUSTRIAL DEVELOPMENT
PDWF: 130,397 GPD
PWWF: 133,448 GPD

PROPOSED SEWER ALIGNMENT TIE-IN TO PROPERTY

APPROXIMATE LOCATION OF REQUIRED LIFT STATION

TILSON HOME CORP
PACEL: R371788
AC 11.4 MIXED-USE RESIDENTIAL
PDWF: 6,048 GPD
PWWF: 7,548 GPD

KOKEL LEGACY LLC & DAS UBER MONTNEY
PARCEL:R631347
AC 11.4 MIXED-USE RESIDENTIAL
PDWF: 34,589 GPD
PWWF: 43,167 GPD

IH35 SH130 LP
PARCEL: R038939
AC 49.3
SITE DEMANDS PROVIDED IN FLOW PATH ANALYSIS

NEU HUB APEX LLC
PARCEL: R318942, VARIOUS
ADJACENT PARCELS
AC: 16.3
REGIONAL COMMERCIAL DESTINATION
PWDF: 37,638 GPD
PWWF: 49,878 GPD

FLOW PATH 3 TIE-IN LOCATION

EXIST 12 IN
SS @ 0.35%

NEU HUB APEX LLC
PARCEL: R619641, R038783
AC: 5.6
COMMUNITY COMMERCIAL
PWDF: 10,608 GPD
PWWF: 14,793 GPD

EXIST 12 IN
SS @ 0.35%

EXIST 12 IN
SS @ 0.35%

AMAZON.COM SERVICES
PARCEL: R619646
AC: 56.1
INDUSTRIAL
PWDF: 292,992 GPD
PWWF: 335,067 GPD

EXIST 12 IN
SS @ 0.39%

TITAN GATEWAY III LLC, BUILDING 1
PARCEL: R619646
LOT AC 21.0
SITE DEMANDS PROVIDED IN FLOW PATH ANALYSIS

TITAN GATEWAY35 III LLC, BUILDING 2
PARCEL: R631973
LOT AC 11.0
SITE DEMANDS PROVIDED IN FLOW PATH ANALYSIS

EXIST 12 IN
SS @ 0.35%

GRADDY INVESTMENT
PARCEL: R583375
AC: 6.0
MIXED USE COMMUNITY
PWDF: 18,114 GPD
PWWF: 22,606 GPD

EXIST 12 IN
SS @ 0.35%

TITAN GATEWAY35 III LLC, BUILDING 3
PARCEL: R631974
LOT AC 16.4
SITE DEMANDS PROVIDED IN FLOW PATH ANALYSIS

AMAZON.COM SERVICES
PARCEL: R038720
AC: 6.6
EMPLOYMENT CENTER
PWDF:13,763 GPD
PWWF: 18,690 GPD

EXIST 12 IN
SS @ 0.35%

EXIST 12 IN
SS @ 0.35%

BEGIN REQUIRED UPSIZING FROM 12" TO 15"

EXIST 12 IN
SS @ 1.38%

EXIST 12 IN
SS @ 2.31%

CRYSTAL KNOLL SUBDIVISION AND INDUSTRIAL PARK
SITE DEMANDS PROVIDED IN FLOW PATH 3 ANALYSIS

BIG BOX PROPERTIES LLC
PARCEL: R038996
AC 5.7 MODERATE-DENSITY RESIDENTIAL
PDWF: 9,025 GPD
PWWF: 13,322 GPD

BIG BOX PROPERTIES LLC
PARCEL: R324269
AC 10.4 MODERATE-DENSITY RESIDENTIAL
PDWF: 16,326 GPD
PWWF: 24,101 GPD

AURORAS LLP
PARCEL: R038967
AC 17.4 MODERATE-DENSITY RESIDENTIAL
PDWF: 27,414 GPD
PWWF: 40,469 GPD

FLOW PATH CONNECTION INTO EXISTING 24" SEWER

END REQUIRED UPSIZING FROM 12" TO 15"

30" LATERAL PIPE NOT NEEDING SIZE INCREASE

0 200 400 800 1,600
GRAPHIC SCALE IN FEET

LEGEND

- LATERAL ANALYSIS
- EXIST 36" WASTEWATER LINE
- FLOW DIRECTION

ISSUED FOR PRELIMINARY PRICING PURPOSES ONLY
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COG LATERAL ANALYSIS
FIDELIS INDUSTRIAL

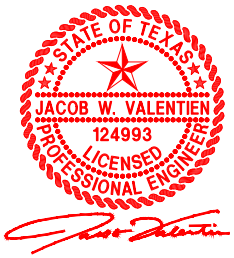
Pacheco Koch
a Westwood company
8701 N. MOPAC EXPY, SUITE 320
AUSTIN, TX 78759
512.485.0831
TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER
		1"=40'	DEC 2023	0039532..04

JFAIRE
12/14/2023 2:36 PM
N:\0039532.04\05 SERVICE GROUPS\SITE DESIGN & INFRASTRUCTURE DESIGN\1_DESIGN\ENGINEERING REPORTS\0039532.04 - LATERAL ANALYSIS EXHIBIT.DWG

ATTACHMENT 9 – CONSTRUCTION PLANS

FOR REVISION NO. 1 ONLY:



06/01/2026

OWNER AND DEVELOPER

FIDELIS REALTY PARTNERS
STEVEN KIMOSH
8140 WALNUT HILL LANE SUITE 400
DALLAS, TX, 75231
PHONE: 512.554.6191
SKIMOSH@FRPLTD.COM
WWW.FRPLTD.COM

ENGINEER

JUSTIN FAURE, P.E.
8701 N. MOPAC EXPY. SUITE 320
AUSTIN, TEXAS 78759
PHONE: 512.485.0831
JUSTIN.FAURE@WESTWOODPS.COM
WWW.WESTWOODPS.COM

CONSTRUCTION PLANS

FOR

BERRY CREEK BUSINESS PARK

3000, 3002, & 3004 N-IH 35 NB

GEORGETOWN, TEXAS 78626

LEGAL DESCRIPTION:

LOT 1, BLOCK A, FIDELIS, GEORGETOWN
DOC. NO. 2023065936 (O.P.R.W.C.)

FLOODPLAIN INFORMATION:

PER FEMA FIRM PANEL NO. 48491C0285F & 48491C0292F, DATED DECEMBER 20, 2019. THE PROPOSED DEVELOPMENT IS IN THE AREA OF SPECIAL FLOOD HAZARD, ZONE A, AND IS IN THE 100 YEAR FLOODPLAIN. THERE ARE SPRINGS, STREAMS OR BUFFER ZONES LOCATED ON THE SUBJECT SITE.

PROPOSED USE:

PRIVATE WASTEWATER LIFT STATION AND FORCE MAIN, DIAMETER INCREASE TO EXIST COG GRAVITY WW NETWORK

ACREAGE:

.168 AC (7,340 SF) (PROPOSED PRIVATE FORCE MAIN PROJECT LIMITS)

FIRE DEPARTMENT:

GEORGETOWN FIRE DEPARTMENT
3500 DB WOOD RD.
GEORGETOWN, TEXAS 78628
(512) 930-3473

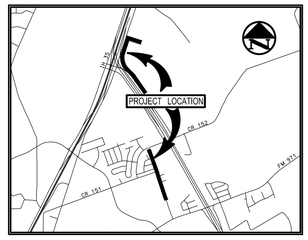
ELECTRICITY, WATER & WASTEWATER:

GEORGETOWN UTILITY SYSTEMS
300-1 INDUSTRIAL AVENUE
GEORGETOWN, TX 78626
(512) 930-3555
GUS.GEORGETOWN.ORG

PEDERNALES ELECTRIC COOPERATIVE, INC.
201 S. AVENUE F
JOHNSON CITY, TEXAS 78636
830-868-7155
PEC.COOP

GENERAL NOTES:

1. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER, AND SUCCESSORS TO THE CURRENT PROPERTY OWNER, TO ENSURE THE SUBJECT PROPERTY AND ANY IMPROVEMENTS ARE MAINTAINED IN CONFORMANCE WITH THIS SITE DEVELOPMENT PLAN.
2. THIS DEVELOPMENT SHALL COMPLY WITH ALL STANDARDS OF THE UNIFIED DEVELOPMENT CODE (UDC), THE CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND SPECIFICATIONS MANUAL, THE DEVELOPMENT MANUAL AND ALL OTHER APPLICABLE CITY STANDARDS.
3. SIDEWALKS SHALL BE PROVIDED IN ACCORDANCE WITH THE UDC.
4. SCREENING OF MECHANICAL EQUIPMENT, DUMPSTERS AND PARKING SHALL COMPLY WITH CHAPTER 8 OF THE UDC. THE SCREENING IS SHOWN ON THE LANDSCAPE AND ARCHITECTURAL PLANS, AS APPLICABLE.
5. ALL MAINTENANCE OF REQUIRED LANDSCAPE SHALL COMPLY WITH THE MAINTENANCE STANDARDS OF CHAPTER 8 OF THE UDC.
6. ANY HERITAGE TREE NOTED ON THIS SITE DEVELOPMENT PLAN IS SUBJECT, IN PERPETUITY, TO THE MAINTENANCE, CARE, PRUNING AND REMOVAL REQUIREMENTS OF THE UNIFIED DEVELOPMENT CODE.
7. THE CONSTRUCTION PORTION OF THESE PLANS WERE PREPARED, SEALED, SIGNED AND DATED BY A TEXAS LICENSED PROFESSIONAL ENGINEER. THEREFORE, BASED ON THE ENGINEER'S CONCURRENCE OF COMPLIANCE, THE CONSTRUCTION PLANS FOR CONSTRUCTION OF THE PROPOSED PROJECT ARE HEREBY APPROVED SUBJECT TO THE STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS MANUAL AND ALL OTHER APPLICABLE CITY, STATE AND FEDERAL REQUIREMENTS AND CODES.
8. THIS PROJECT IS SUBJECT TO ALL CITY STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS IN EFFECT AT THE TIME OF SUBMITTAL OF THE PROJECT TO THE CITY.
9. WHERE NO EXISTING OVERHEAD INFRASTRUCTURE EXISTS, UNDERGROUND ELECTRIC UTILITY LINES SHALL BE LOCATED ALONG THE STREET AND WITHIN THE SITE. WHERE EXISTING OVERHEAD INFRASTRUCTURE IS TO BE RELOCATED, IT SHALL BE RE-INSTALLED UNDERGROUND AND THE EXISTING FACILITIES SHALL BE REMOVED AT THE DISCRETION OF THE DEVELOPMENT ENGINEER.
10. ALL ELECTRIC AND COMMUNICATION INFRASTRUCTURE SHALL COMPLY WITH UDC SECTION 13.06.
11. THE PROPERTY SUBJECT TO THIS APPLICATION IS SUBJECT TO THE WATER QUALITY REGULATIONS OF THE CITY OF GEORGETOWN
12. A GEOLOGIC ASSESSMENT, IN ACCORDANCE WITH THE CITY OF GEORGETOWN WATER QUALITY REGULATIONS, WAS COMPLETED ON 10/04/2023. ANY SPRINGS AND STREAMS AS IDENTIFIED IN THE GEOLOGIC ASSESSMENT ARE SHOWN HEREIN.
13. SCREENING AND LOCATION OF OUTDOOR STORAGE SHALL COMPLY WITH SECTION 5.09 OF THE UDC.



VICINITY MAP
(1"=4,000')

PROJECT ZONING: BUSINESS PARK (PUD ORDINANCE 2022-81)

PROJECT ADDRESS: 3000, 3002, 3004 N IH 35 NB

SUBMITTAL DATE: 08/02/2024

FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED
PROFESSIONAL ENGINEER

06/01/2026

DRAWING SHEET INDEX

SHEET	DESCRIPTION
1R	COVER
2	FINAL PLAT SHEET 1 OF 4
3	FINAL PLAT SHEET 2 OF 4
4	FINAL PLAT SHEET 3 OF 4
5	FINAL PLAT SHEET 4 OF 4
6R	GENERAL NOTES SHEET 1 OF 3
7	GENERAL NOTES SHEET 2 OF 3
8	GENERAL NOTES SHEET 3 OF 3
9	EXISTING CONDITIONS AND DEMOLITION PLAN
10	EROSION CONTROL PLAN
11	EROSION CONTROL DETAILS & NOTES
12	OVERALL WASTEWATER PLAN
12R	OVERALL WASTEWATER PLAN
13	PROP WW LINE PLAN & PROFILE 1 OF 4
14	PROP WW LINE PLAN & PROFILE 2 OF 4
15	PROP WW LINE PLAN & PROFILE 3 OF 4
16	PROP WW LINE PLAN & PROFILE 4 OF 4
14R	PROP WW LINE PLAN & PROFILE 2 OF 4
15R	PROP WW LINE PLAN & PROFILE 3 OF 4
16R	PROP WW LINE PLAN & PROFILE 4 OF 4
17	PROP WW FORCE MAIN PLAN & PROFILE 1 OF 3
18	PROP WW FORCE MAIN PLAN & PROFILE 2 OF 3
19	PROP WW FORCE MAIN PLAN & PROFILE 3 OF 3
20	SANITARY SEWER DETAILS 1 OF 2
21	SANITARY SEWER DETAILS 2 OF 2
22	SANITARY SEWER DETAILS 3 OF 3
22.1	SANITARY SEWER DETAILS 4 OF 4
23	LIFT STATION DETAILS 1 OF 3
24	LIFT STATION DETAILS 2 OF 3
25	LIFT STATION DETAILS 3 OF 3
26	PAVEMENT REPAIR AND TRAFFIC CONTROL DETAILS
27	ELECTRICAL SERVICE PLAN
L1.00	OVERALL TREE MITIGATION PLAN
L1.01	TREE MITIGATION PLAN
L1.02	TREE MITIGATION PLAN
L1.03	TREE MITIGATION PLAN
L1.04	TREE DATA AND DETAILS

BENCHMARK LIST

BM #1 – " (" CUT ON EAST EDGE OF IH-35 NORTHBOUND SERVICE ROAD.
GRID N: 10224125.41'
GRID E: 3137933.96'
ELEV: 704.71'

BM #4 – IRON ROD SET WITH WESTWOOD CAP NEAR THE NORTHWEST CORNER OF THE INTERSECTION OF SOUTHBOUND SH-130 FRONTAGE ROAD AND COUNTY ROAD 152.
GRID N: 10219573.63'
GRID E: 3139924.56'
ELEV: 719.49'

BM #5 – 1/2" IRON ROD FOUND NEAR IN THE SOUTH MARGIN OF LONNIE THOMAS DRIVE, ±186' SOUTHWESTERLY FROM COUNTY ROAD 152.
GRID N: 10216752.24'
GRID E: 3139963.02'
ELEV: 685.90'

BM #10 – MAG NAIL SET NEAR NORTH EDGE OF ASPHALT OF LIVE OAKS RV LANE AT IH-35 NORTHBOUND SERVICE ROAD.
GRID N: 10223475.46'
GRID E: 3137755.01'
ELEV: 731.18'

PREPARED BY

Westwood

Phone (512) 485-0831 8701 N. Mopac Expy, Suite 320
Toll Free (888) 937-5150 Austin, TX 78759
westwoodps.com

Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

Westwood
Phone (512) 485-0831 8701 N. Mopac Expy, Suite 320
Toll Free (888) 937-5150 Austin, TX 78759
westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	5/29/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626
COVER

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

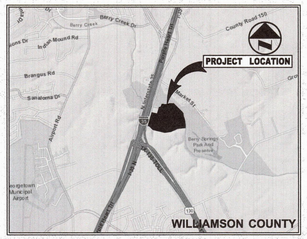
SHEET NO.
1R
1R OF 32

2023-35-CON

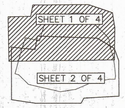
TGLASPER
6/1/2026 8:44 PM
\\WESTWOODPS.LOCAL\GLOBAL PROJECTS\0039532.04\06 CAD\DWG\SITE DESIGN C3D\03_SHEET\0039532.04_COVR.DWG

APPROVED: 08/02/2024

Doc# 2023065936



VICINITY MAP
(1"=4,000')



AREA TABLE		
LOT 1, BLOCK A	56.730 ACRES	2,471,138 SF
TOTAL PLAT AREA	56.730 ACRES	2,471,138 SF
TOTAL BLOCKS	1	
TOTAL LOTS	1	

LEGEND
- PROPERTY LINE
- EASEMENT LINE
- LIMITS OF FLOOD ZONE
- P.U.E. PUBLIC UTILITY EASEMENT
- RETAINED TREE

0 50 100 200 300
GRAPHIC SCALE IN FEET
1" = 100'

STREET TABLE							
STREET NAME	AREA	CLASSIFICATION	R.O.W. DIMENSION	PAVEMENT DIMENSION	CURB TYPE	PEDESTRIAN CLEAR ZONE DIMENSION	DESIGN SPEED
N IH-35 NB FRONTAGE	EXISTING	MAJOR ARTERIAL	VARIABLE WIDTH	36-FOOT WIDE	N/A	10-FEET	50 MPH

SHEET INDEX
SHEET 1 OF 4: PLAT – NORTH
SHEET 2 OF 4: PLAT – SOUTH
SHEET 3 OF 4: PLAT NOTES AND PROPERTY DESCRIPTION
SHEET 4 OF 4: CERTIFICATIONS

ENGINEER:
WESTWOOD PROFESSIONAL SERVICES
CONTACT: HOLLIS A. SCHEFFLER
8701 N. MOPAC EXPY, SUITE 320
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PH: 512-485-0831

SURVEYOR:
WESTWOOD PROFESSIONAL SERVICES
CONTACT: MICHAEL J. NEEDHAM
8701 N. MOPAC EXPY, SUITE 320
AUSTIN, TX 78759
PH: 512-485-0831

OWNER:
DAS UBER MONTNEY, LLC
CONTACT: DALE ILLIG, PRESIDENT
707 SOUTH ROCK STREET
GEORGETOWN, TEXAS 78626-5718
PH: 512-930-5012

OWNER:
KOKEL LEGACY, LLC
CONTACT: LARRY KOKEL, MANAGER AND DOROTHY KOKEL, MANAGER
404 WEST 9TH STREET, SUITE 201
GEORGETOWN, TEXAS 78626-5553
PH: 512-930-5258

1ST SUBMITTAL DATE: NOVEMBER 21, 2022
2ND SUBMITTAL DATE: JANUARY 3, 2023
3RD SUBMITTAL DATE: APRIL 16, 2023

FINAL PLAT
FIDELIS GEORGETOWN
56.730 ACRES
LOCATED IN THE CITY OF GEORGETOWN, TEXAS
AND BEING OUT OF THE
JOHN BERRY SURVEY, ABSTRACT NO. 51,
WILLIAMSON COUNTY, TEXAS
SHEET 1 OF 4

Westwood
WESTWOOD PROFESSIONAL SERVICES, INC.
WESTWOODPS.COM
Phone (512) 485-0831 8701 N. Mopac Expy, Suite 320
Toll Free (888) 937-5150 Austin, TX 78759
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER	CITY PROJECT NUMBER
ZNBM	ETB	1"=100'	JULY 31, 2023	4670-21.337	2022-25-PFP

FINAL PLAT - FIDELIS GEORGETOWN

ZNMOORE
7/31/2023 8:26 AM
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JFAURE
8/2/2024 11:29 AM
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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

FINAL PLAT SHEET 1 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

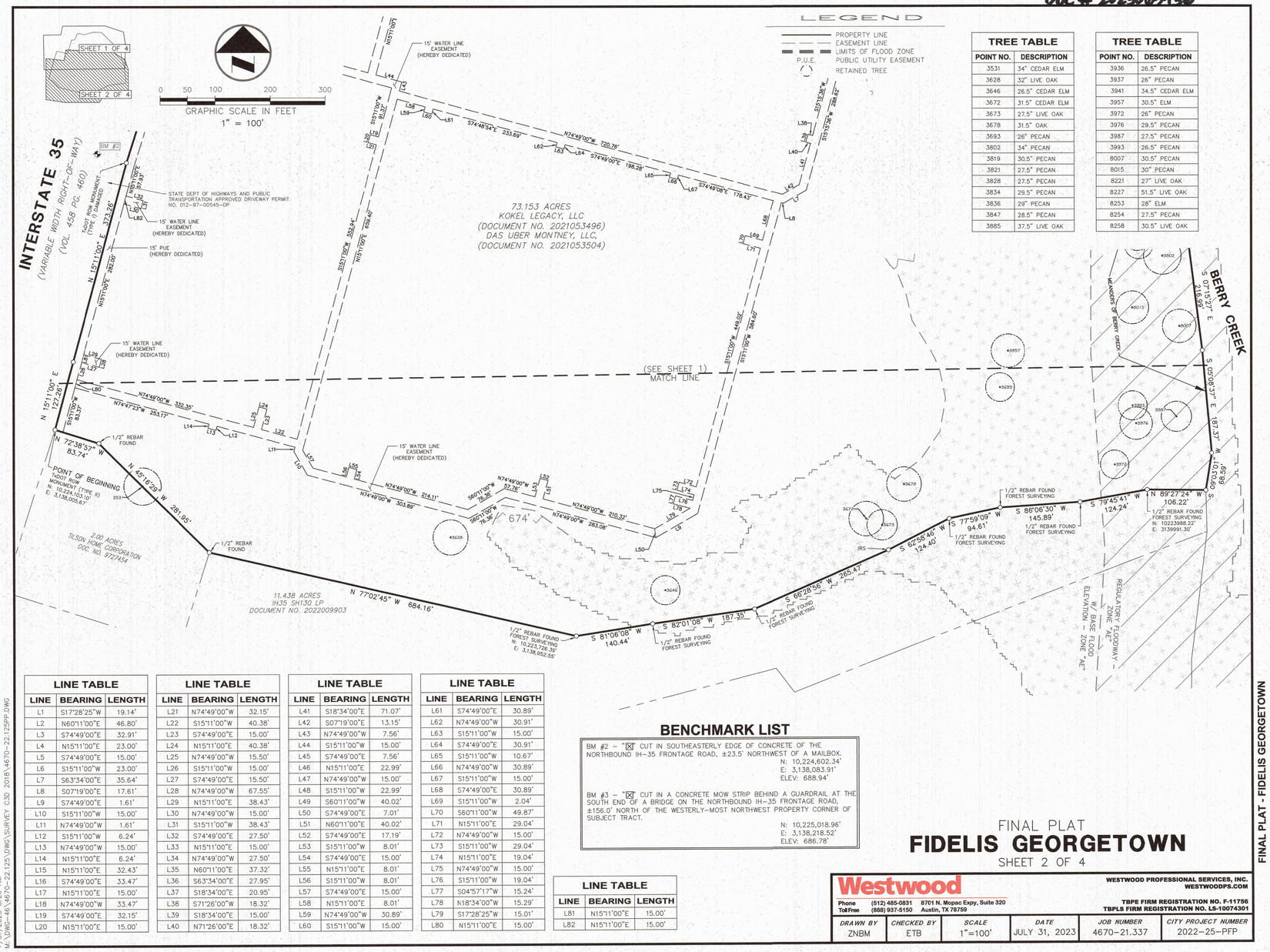
DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
2
2 OF 32

2023-35-CON

APPROVED: 08/02/2024

Doc # 20230165936



TREE TABLE	
POINT NO.	DESCRIPTION
3531	34" CEDAR ELM
3628	32" LIVE OAK
3646	26.5" CEDAR ELM
3672	31.5" CEDAR ELM
3673	27.5" LIVE OAK
3678	31.5" OAK
3693	26" PECAN
3802	34" PECAN
3819	30.5" PECAN
3821	27.5" PECAN
3828	27.5" PECAN
3834	29.5" PECAN
3836	29" PECAN
3847	28.5" PECAN
3885	37.5" LIVE OAK

TREE TABLE	
POINT NO.	DESCRIPTION
3936	26.5" PECAN
3937	26" PECAN
3941	34.5" CEDAR ELM
3957	30.5" ELM
3972	26" PECAN
3976	29.5" PECAN
3987	27.5" PECAN
3993	26.5" PECAN
8007	30.5" PECAN
8015	30" PECAN
8221	27" LIVE OAK
8227	51.5" LIVE OAK
8253	28" ELM
8254	27.5" PECAN
8258	30.5" LIVE OAK

LINE TABLE		
LINE	BEARING	LENGTH
L1	S17°28'25"W	19.14'
L2	N60°11'00"E	46.80'
L3	S74°49'00"E	32.91'
L4	N15°11'00"E	23.00'
L5	S74°49'00"E	15.00'
L6	S15°11'00"W	23.00'
L7	S63°34'00"E	35.64'
L8	S07°19'00"E	17.61'
L9	S74°49'00"E	1.61'
L10	S15°11'00"W	15.00'
L11	N74°49'00"W	1.61'
L12	S15°11'00"W	6.24'
L13	N74°49'00"W	15.00'
L14	N15°11'00"E	6.24'
L15	N15°11'00"E	32.43'
L16	S74°49'00"E	33.47'
L17	N15°11'00"E	15.00'
L18	N74°49'00"W	33.47'
L19	S74°49'00"E	32.15'
L20	N15°11'00"E	15.00'

LINE TABLE		
LINE	BEARING	LENGTH
L21	N74°49'00"W	32.15'
L22	S15°11'00"W	40.38'
L23	S74°49'00"E	15.00'
L24	N15°11'00"E	40.38'
L25	N74°49'00"W	15.50'
L26	S15°11'00"W	15.00'
L27	S74°49'00"E	15.50'
L28	N74°49'00"W	67.55'
L29	N15°11'00"E	38.43'
L30	N74°49'00"W	15.00'
L31	S15°11'00"W	38.43'
L32	S74°49'00"E	27.50'
L33	N15°11'00"E	15.00'
L34	N74°49'00"W	27.50'
L35	N60°11'00"E	37.32'
L36	S63°34'00"E	27.95'
L37	S18°34'00"E	20.95'
L38	S71°26'00"W	18.32'
L39	S18°34'00"E	15.00'
L40	N71°26'00"E	18.32'

LINE TABLE		
LINE	BEARING	LENGTH
L41	S18°34'00"E	71.07'
L42	S07°19'00"E	13.15'
L43	N74°49'00"W	7.56'
L44	S15°11'00"W	15.00'
L45	S74°49'00"E	7.56'
L46	N15°11'00"E	22.99'
L47	N74°49'00"W	15.00'
L48	S15°11'00"W	22.99'
L49	S60°11'00"W	40.02'
L50	S74°49'00"E	7.01'
L51	N60°11'00"E	40.02'
L52	S74°49'00"E	17.19'
L53	S15°11'00"W	8.01'
L54	S74°49'00"E	15.00'
L55	N15°11'00"E	8.01'
L56	S15°11'00"W	8.01'
L57	S74°49'00"E	15.00'
L58	N15°11'00"E	8.01'
L59	N74°49'00"W	30.89'
L60	S15°11'00"W	15.00'

LINE TABLE		
LINE	BEARING	LENGTH
L61	S74°49'00"E	30.89'
L62	N74°49'00"W	30.91'
L63	S15°11'00"W	15.00'
L64	S74°49'00"E	30.91'
L65	S15°11'00"W	10.67'
L66	N74°49'00"W	30.89'
L67	S15°11'00"W	15.00'
L68	S74°49'00"E	30.89'
L69	S15°11'00"W	2.04'
L70	S60°11'00"W	49.87'
L71	N15°11'00"E	29.04'
L72	N74°49'00"W	15.00'
L73	S15°11'00"W	29.04'
L74	N15°11'00"E	19.04'
L75	N74°49'00"W	15.00'
L76	S15°11'00"W	19.04'
L77	S04°57'17"W	15.24'
L78	N18°34'00"W	15.29'
L79	S17°28'25"W	15.01'
L80	N15°11'00"E	15.00'

LINE TABLE		
LINE	BEARING	LENGTH
L81	N15°11'00"E	15.00'
L82	N15°11'00"E	15.00'

BENCHMARK LIST

BM #2 – "☒" CUT IN SOUTHEASTERLY EDGE OF CONCRETE OF THE NORTHBOUND IH-35 FRONTAGE ROAD, ±23.5' NORTHWEST OF A MAILBOX.
N: 10,224,602.34'
E: 3,138,083.91'
ELEV: 688.94'

BM #3 – "☒" CUT IN A CONCRETE MOW STRIP BEHIND A GUARDRAIL AT THE SOUTH END OF A BRIDGE ON THE NORTHBOUND IH-35 FRONTAGE ROAD, ±156.0' NORTH OF THE WESTERLY-MOST NORTHWEST PROPERTY CORNER OF SUBJECT TRACT.
N: 10,225,018.96'
E: 3,138,218.52'
ELEV: 686.78'

FINAL PLAT
FIDELIS GEORGETOWN
SHEET 2 OF 4

Westwood
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FINAL PLAT - FIDELIS GEORGETOWN

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

FINAL PLAT SHEET 2 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED PROFESSIONAL ENGINEER

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SHEET NO.
3
3 OF 32

2023-35-CON

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APPROVED: 08/02/2024

Doc # 202306059306

SUBDIVISION PLAT NOTES

1. Bearing basis for this survey is the State Plane Coordinate System, North American Datum of 1983 (2011), Texas Central Zone 4203. Distances and areas reflect the application of a combined scale factor of 1.00012 and therefore represent surface measurements.

2. Utility providers for this development are
   Water: Georgetown Utility Systems
   Wastewater/septic: Georgetown Utility Systems
   Electric: Pedernales Electric Cooperative, Inc.

3. All structures/obstructions are prohibited in drainage easements.

4. There are areas within the boundaries of this subdivision in the 100-year floodplain as defined by FIRM Map Number 48491C0285F, effective date of December 19, 2019 and 48491C0292, effective date of December 20, 2019.

5. In order to promote drainage away from a structure, the slab elevation should be built at least one-foot above the surrounding ground, and the ground should be graded away from the structure at a slope of 1/2" per foot for a distance of at least 10 feet.

6. All sedimentation, filtration, detention, and/or retention basins and related appurtenances shown shall be situated within a drainage easement or drainage lot. The owners, HOA, or assignees of the tracts upon which are located such easements, appurtenances, and detention facilities shall maintain same and be responsible for their maintenance, routine inspection, and upkeep.

7. Any Heritage Tree as noted on this plat are subject, in perpetuity, to the maintenance, care, pruning and removal requirements of the City of Georgetown. Approved removal does not require modification of the plat.

8. All individual lots containing Heritage Trees are configured and designed so that the lot is developable for the intended purpose without requiring removal of the Heritage Trees or exceeding the percentage of allowable disturbance within the Heritage Trees CRZ.

9. A 15-foot Public Utility Easement is dedicated along all street frontages within this plat.

10. The monuments of this plat have been rotated to the NAD 83/93 HARN - Texas Central Zone and NAVD 88.

11. Impervious Coverage Plat Notes – Non-Residential Lots:
    - The maximum impervious coverage per non-residential lot shall be pursuant to the UDC at the time of Site Plan application based on the zoning designation of the property.

12. The landowner assumes all risks associated with improvements located in the right-of-way, or road widening easements. By placing anything in the right-of-way or road widening easements, the landowner indemnifies and holds the City of Georgetown, Williamson County, their officers, agents and employees harmless from any liability owing to property defects or negligence not attributable to them and acknowledges that the improvements may be removed by the City and/or County and that the owner of the improvements will be responsible for the relocation and/or replacement of the improvements.

13. The building of all streets, roads, and other public thoroughfares and any bridges or culverts necessary to be constructed or placed is the responsibility of the owners of the tract of land covered by this plat in accordance with the plans and specifications prescribed by the City of Georgetown and/or Williamson County, Texas. Neither the City of Georgetown nor Williamson County assumes any obligation to build any of the streets, roads, or other public thoroughfares shown on this plat or of constructing any of the bridges or drainage improvements in connection therewith. Neither the City of Georgetown nor Williamson County assumes any responsibility for drainage ways or easements in the subdivision, other than those draining or protecting the road system and streets in their respective jurisdictions.

14. Neither the City of Georgetown nor Williamson County assumes any responsibility for the accuracy of representations by other parties in this plat. Floodplain data, in particular, may change depending on subsequent development. It is further understood that the owners of the tract of land covered by this plat must install at their own expense all traffic control devices and signage that may be required before the streets in the subdivision have finally been accepted for maintenance by the City and / or County.

15. Right-of-way easements for widening roadways or improving drainage shall be maintained by the landowner until road or drainage improvements are actually constructed on the property. The City and/or County have the right at any time to take possession of any road widening easement for construction, improvement, or maintenance of the adjacent road.

16. Unless otherwise noted herein, all easements dedicated to the City of Georgetown by this plat shall be EXCLUSIVE to the City of Georgetown, and Grantor covenants that Grantor and Grantor's heirs, successors, and assigns shall not convey any other easement, license, or conflicting right to use in any manner, the area (or any portion thereof) covereed by this grant.

17. All easements dedicated to the City of Georgetown by this plat additionally include the following rights:
    17.1. the right of the City to change the size of any facilities installed, maintained, or operated within the easement area;
    17.2. the right of the City to relocate any facilities within the easement area; and
    17.3. the right of the City to remove from the easement area all trees and parts thereof, or other obstructions, which endanger or may interfer with the efficiencry and maintenance of any facilities within the easement area.

18. This plat is subject to the provisions of the City of Georgetown Water Conservation Ordinance.

19. The subdivision subject to this application is subject to the Water Quality Regulations of the City of Georgetown.

20. Geologic Assessment, in accordance with the City of Georgetown Water Quality Regulations, was completed on Nov. 4, 2022. Any springs and streams as identified in the Geologic Assessment are shown herein.

21. State-owned riverbeds and beds of navigable streams in the public domain are held in trust for the public. There is hereby granted for the use and benefit of the public acontinuing access easement for the free and unobstructed use of the navigable river and the right of portage along its banks, across any portion of the Property between the mean high-water marks of the river in its natural state.

ADDITIONAL NOTES FOR NOISE AND AVIGATION EASEMENTS

1. There is hereby granted for the use and benefit of the public a continuing avigation easement for the free and unobstructed flight of aircraft (which term shall include any contrivance now or hereafter used for flight through the air) and the right of flight for the passage of aircraft in the air space above the surface of the Property, together with such noise and other effects as may be inherent in the operation of aircraft landing at, taking off from, or engaged in other flight activities at the Georgetown Municipal Airport.

2. Grantors do hereby grant and convey an easement for the Horizontal Zone, as that term is defined in Section 12.36 of the City of Georgetown Code of Ordinances and as shown on this plat, being further described as Horizontal Zones: The area beneath a horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of 10,000 feet radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by lines tangent to those arcs.

3. These easements shall be perpetual and shall be binding on Grantor and its assigns, heirs, and successors.

DESCRIPTION OF PROPERTY SURVEYED

56.730 ACRES of land in Georgetown, Williamson County, Texas, being out of the John Berry Survey ~~X~~, Abstract 51, said 56.730 acres being all of that tract of land described in the deed from Larry D. Kokel to Das Uber Montney, LLC dated March 31, 2021, and recorded in Williamson County Official Public Records as document number 2021053504, save and except the tract described as 11.438 acres in the deed to IH35 SH130, LP dated January 19, 2022, and recorded in Official Public Records as document number 2022009903.

BEGINNING at the northwest corner of the Tilson Subdivision (Plat Cabinet O Slide 263), said corner being marked with a rebar stake with a TXDOT aluminum cap, said stake being located in the southeast right-of-way line of Interstate Highway 35 (Volume 458, Page 460).

THENCE along the southeast right-of-way line of said Interstate 35 as follows:
- **N 15°11'00" E 500.52'** to a bend in said right-of-way line, said point found to be on the southerly side of the remains of a concrete right-of-way marker; and
- **N 17°28'25" E 290.31'** to the southwest corner of a 2.683 acre tract described in the Official Public Records as document number 2004086845.

THENCE along the south and east boundaries of said 2.683 acre tract as follows:
- **S 77°35'50" E 302.20'** to the southeast corner of said 2.683 acre tract, said corner being marked with a found ½" rebar; and
- **N 16°19'02" E 379.56'** to the northeast corner of said 2.683 acre tract, said corner being located S 16°19'02" W 60.79' of a rebar stake found with a TXDOT aluminum cap.

THENCE along the meanders of Berry Creek approximately as follows:
N 86°22'48" E 73.89'; N 37°17'13" E 58.92'; N 18°35'56" E 95.09'; N 31°59'19" E 24.53'; N 70°31'53" E 62.27'; S 74°28'06" E 133.23'; N 76°12'11" E 276.22'; S 89°26'04" E 163.67'; S 85°10'05" E 39.80'; S 57°12'13" E 36.92'; S 45°17'49" E 633.10'; S 36°08'30" E 96.82'; S 07°19'53" E 175.46'; S 18°45'01" E 207.53'; S 07°15'27" E 216.99'; S 05°08'37" E 187.37'; S 09°03'01" W 68.59' to the northeast corner of a 11.438 acre tract described in the Official Public Records as document number 2022009903.

THENCE along the north line of said 11.438 acre tract as follows:
- **N 89°27'24" W 106.22'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 79°45'41" W 124.24'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 86°06'30" W 145.89'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 77°59'09" W 94.61'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 62°58'46" W 124.40'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 66°28'56" W 265.47'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 82°01'08" W 187.35'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 81°06'08" W 140.44'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap; and
- **N 77°02'45" W 684.16'** to the northeast corner of said Tilson Subdivision, said corner being marked with a found ½" rebar stake.

THENCE along the northerly boundary of said Tilson Subdivision as follows:
- **N 45°16'29" W 281.95'** to a corner of said subdivision marked with a found ½" rebar; and
- **N 72°38'57" W 83.74'** to the point of beginning, this tract having an area of 56.730 Acres (2,471,138 Square Feet).

FINAL PLAT
FIDELIS GEORGETOWN
SHEET 3 OF 4

Westwood
Phone (512) 485-0831 8701 N. Mopac Expy, Suite 320
Toll Free (888) 937-5150 Austin, TX 78759
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FINAL PLAT - FIDELIS GEORGETOWN

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

FINAL PLAT SHEET 3 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

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4 OF 32

2023-35-CON

JFAURE
8/2/2024 11:29 AM
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APPROVED: 08/02/2024

Doc # 20230065336

OWNER'S SIGNATURE BLOCK

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF Williamson {

That, DAS UBER MONTNEY, LLC, acting by DALE ILLIG, PRESIDENT, owner of an undivided interest in that certain 56.730 acres tract of land shown hereon and described in a deed recorded in Document No. 2021053504 the Official Public Records of Williamson County, Texas, do hereby state that there are no lien holders of the certain tract of land, do hereby certify there are no easement holders except as shown hereon and do hereby subdivide said tract as shown hereon; do hereby covenant to all restrictions listed herein, which shall run with the land; and do hereby dedicate to the City of Georgetown the streets, alleys, rights-of-way, easements and public places shown hereon for such public purposes as the City of Georgetown may deem appropriate. I hereby bind my heirs, successors, and assigns to warrant and forever defend such dedications, all and singular, to the City of Georgetown against every person whomsoever claiming or to claim the same or any part thereof. This subdivision is to be known as FIDELIS GEORGETOWN.

TO CERTIFY WHICH, WITNESS by my hand this 31st day of July, 2023.

DAS UBER MONTNEY, LLC.,
707 SOUTH ROCK STREET, SUITE 201
GEORGETOWN, TEXAS 78626

BY:
DALE ILLIG, PRESIDENT

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF Williamson {

This instrument was acknowledged before me on July 31, 2023 by Dale Illig, PRESIDENT, Das Uber Montney, LLC., a Texas Limited Liability Company.

Notary Public in and for the State of Texas

NOTARY PUBLIC STATE OF TEXAS
CARL ILLIG
Notary ID #129631763
My Commission Expires
November 19, 2025

My Commission expires on: November 19, 2025

OWNER'S SIGNATURE BLOCK

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF Williamson {

That, KOKEL LEGACY, LLC, acting by LARRY KOKEL, MANAGER, and DOROTHY KOKEL, MANAGER, owner of an undivided interest in that certain 56.730 acres tract of land shown hereon and described in a deed recorded in Document No. 2021053496 the Official Public Records of Williamson County, Texas, do hereby state that there are no lien holders of the certain tract of land, do hereby certify there are no easement holders except as shown hereon and do hereby subdivide said tract as shown hereon; do hereby covenant to all restrictions listed herein, which shall run with the land; and do hereby dedicate to the City of Georgetown the streets, alleys, rights-of-way, easements and public places shown hereon for such public purposes as the City of Georgetown may deem appropriate. I hereby bind my heirs, successors, and assigns to warrant and forever defend such dedications, all and singular, to the City of Georgetown against every person whomsoever claiming or to claim the same or any part thereof. This subdivision is to be known as FIDELIS GEORGETOWN.

TO CERTIFY WHICH, WITNESS by my hand this 31st day of July, 2023.

KOKEL LEGACY, LLC
404 WEST 9TH STREET, SUITE 201
GEORGETOWN, TEXAS 78626-5553

BY:
LARRY KOKEL, MANAGER

AND
DOROTHY KOKEL, MANAGER

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF Williamson {

This instrument was acknowledged before me on July 31, 2023 by Larry Kokel, Manager and Dorothy Kokel, Manager, on behalf of Kokel Legacy, LLC, a Texas Limited Liability Company.

GIVEN UNDER MY HAND AND SEAL of office this 31st day of July, 2023.

Notary Public in and for the State of Texas

NOTARY PUBLIC STATE OF TEXAS
CARL ILLIG
Notary ID #129631763
My Commission Expires
November 19, 2025

My Commission expires on: November 19, 2025

SURVEYOR'S CERTIFICATE

STATE OF TEXAS

COUNTY TRAVIS

I, MICHAEL J. NEEDHAM, A REGISTERED PROFESSIONAL LAND SURVEYOR, LICENSED BY THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECTLY MADE FROM AN ACTUAL SURVEY MADE ON THE GROUND OF THE PROPERTY LEGALLY DESCRIBED HEREON, AND THAT THERE ARE NO APPARENT DISCREPANCIES, CONFLICTS, OVERLAPPING OF IMPROVEMENTS, VISIBLE UTILITY LINES OR ROADS IN PLACE, EXCEPT AS SHOWN ON THE ACCOMPANYING PLAT, AND THAT THE CORNER MONUMENTS SHOWN THEREON WERE PROPERLY PLACED UNDER MY SUPERVISION IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF THE CITY OF GEORGETOWN, TEXAS.

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL AT AUSTIN, TEXAS THIS 31ST DAY OF JULY, 2023

MICHAEL J. NEEDHAM
REGISTERED PROFESSIONAL LAND SURVEYOR
NO. 5183 STATE OF TEXAS

STATE OF TEXAS
REGISTERED
Michael Jack Needham
5183
PROFESSIONAL
LAND SURVEYOR

ENGINEER'S CERTIFICATE

STATE OF TEXAS

COUNTY TRAVIS

I, HOLLIS A. SCHEFFLER, REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THIS SUBDIVISION IS IN THE EDWARDS AQUIFER RECHARGE ZONE AND IS ENCROACHED BY ZONE A FLOOD AREA, AS DENOTED HEREIN AND AS DEFINED BY FEDERAL EMERGENCY MANAGEMENT ADMINISTRATION FLOOD HAZARD BOUNDARY MAP, COMMUNITY PANEL NUMBER 48491C0291F , EFFECTIVE DATE DECEMBER 20, 2019 AND THAT EACH LOT CONFORMS TO THE CITY OF GEORGETOWN REGULATIONS.

THE FULLY DEVELOPED, CONCENTRATED STORMWATER RUNOFF RESULTING FROM THE ONE HUNDRED (100) YEAR FREQUENCY STORM IS CONTAINED WITHIN THE DRAINAGE EASEMENT SHOWN AND/OR PUBLIC RIGHTS-OF-WAY DEDICATED BY THIS PLAT.

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL AT AUSTIN, TEXAS THIS 31ST DAY OF JULY, 2023

HOLLIS A. SCHEFFLER
REGISTERED PROFESSIONAL ENGINEER
NO. 136049 STATE OF TEXAS

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

7/31/23

CITY FLOODPLAIN COORDINATOR

Based upon the above representations of the Engineer or Surveyor whose seal is affixed hereto, and after a review of the plat as represented by the said Engineer or Surveyor, I find that this plat complies with the requirements of Chapter 15.44, Flood Damage Prevention, of the Georgetown Municipal Code. This certification is made solely upon such representations and should not be relied upon for verifications of the facts alleged. The City of Georgetown disclaims any responsibility to any member of the public or independent verifications of the representation, factual or otherwise, contained in this plat and the documents associated with it.

Wesley Wright, P.E., CFM, Floodplain Coordinator
City of Georgetown

Date 08/04/2023

PLANNING AND ZONING COMMISSION

This subdivision to be known as FIDELIS GEORGETOWN has been accepted and approved for filing of record with the County Clerk of Williamson County, Texas, according to the minutes of the meeting of the Georgetown Planning and Zoning Commission of the 18 day of July, 2023, A.D.

R. Travis Perthuis, Chairman — Date 8/1/2023

Steve Dickey, Secretary — Date 8/1/2023

PLANNING DIRECTOR

I, Sofia Nelson, Planning Director of the City of Georgetown, Texas, do hereby certify this plat is approved for filing of record with the County Clerk of Williamson County, Texas.

For Sofia Nelson, Planning Director
Travis Baird, Assistant Planning Director

Date 08/3/2023

COUNTY CLERK

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON {

I, Nancy Rister, Clerk of the County Court of said County, do hereby certify that the foregoing instrument in writing, with its certificate of authentication was filed for record in my office on the 3rd day of August, 2023, A.D., at 12:40 o'clock P.M., and duly recorded this the 8th day of August, 2023, A.D., at 12:22 o'clock, P.M., in the Official Public Records of said County in Document No. 2023065336.

TO CERTIFY WHICH, WITNESS my hand and seal at the County Court of said County, at my office in Georgetown, Texas, the date last shown above written.

Nancy Rister, Clerk
County Court of Williamson County, Texas

By: Diana Lara, Deputy

COUNTY COURT
WILLIAMSON COUNTY, TEXAS

FINAL PLAT
FIDELIS GEORGETOWN
SHEET 4 OF 4

Westwood
Phone (512) 485-0831 8701 N. Mopac Expy, Suite 320
Toll Free (888) 937-5150 Austin, TX 78759
WESTWOOD PROFESSIONAL SERVICES, INC.
WESTWOODPS.COM
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER	CITY PROJECT NUMBER
ZNBM	ETB	N/A	JULY 31, 2023	4670-21.337	2022-25-PFP

FINAL PLAT - FIDELIS GEORGETOWN

ZNMOORE
7/31/2023 8:59 AM
M:\DWG-46\4670-22.125\DWG\SURVEY C3D 2018\4670-22.125PP.DWG

JFAURE
8/2/2024 11:29 AM
N:\0039532.04\06 CAD\DWG\SITE DESIGN C3D\03_SHEET\0039532_04_COVR.DWG

Westwood
Phone (512) 485-0831 8701 N. Mopac Expy, Suite 320
Toll Free (888) 937-5150 Austin, TX 78759
westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

FINAL PLAT SHEET 4 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
5
5 OF 32

2023-35-CON

APPROVED: 08/02/2024

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER POLLUTION ABATEMENT PLAN GENERAL CONSTRUCTION NOTES

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

3. IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4. NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.

5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.

7. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN
TCEQ-0592 (REV. JULY 15, 2015) PAGE 2 OF 2
WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING
LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
- THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
- THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
- THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY ORGANIZED SEWAGE COLLECTION SYSTEM GENERAL CONSTRUCTION NOTES

1. THIS ORGANIZED SEWAGE COLLECTION SYSTEM (SCS) MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) EDWARDS AQUIFER RULES AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROPOSED REGULATED PROJECT
MUST BE PROVIDED WITH COPIES OF THE SCS PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS MUST BE REQUIRED TO KEEP ON-SITE COPIES OF THE PLAN AND THE APPROVAL LETTER.
3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
4. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED SCS APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF AN SCS APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.
5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
6. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERED. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING AND THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE
TCEQ-0596 (REV. JULY 15, 2015) PAGE 2 OF 6
EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY WHILE MAINTAINING THE STRUCTURAL INTEGRITY OF THE LINE.
7. SEWER LINES LOCATED WITHIN OR CROSSING THE 5-YEAR FLOODPLAIN OF A DRAINAGE WAY WILL BE PROTECTED
FROM INUNDATION AND STREAM VELOCITIES WHICH COULD CAUSE EROSION AND SCOURING OF BACKFILL. THE TRENCH MUST BE CAPPED WITH CONCRETE TO PREVENT SCOURING OF BACKFILL, OR THE SEWER LINES MUST BE ENCASED IN CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES.
8. BLASTING PROCEDURES FOR PROTECTION OF EXISTING SEWER LINES AND OTHER UTILITIES WILL BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION CRITERIA. SAND IS NOT ALLOWED AS BEDDING OR BACKFILL IN TRENCHES THAT HAVE BEEN BLASTED. IF ANY EXISTING SEWER LINES ARE DAMAGED, THE LINES MUST BE REPAIRED AND RETESTED.
9. ALL MANHOLES CONSTRUCTED OR REHABILITATED ON THIS PROJECT MUST HAVE WATERTIGHT SIZE ON SIZE RESILIENT CONNECTORS ALLOWING FOR DIFFERENTIAL SETTLEMENT. IF MANHOLES ARE CONSTRUCTED WITHIN THE 100-YEAR FLOODPLAIN, THE COVER MUST HAVE A GASKET AND BE BOLTED TO THE RING. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE OR FOR MORE THAN 1500 FEET, ALTERNATE MEANS OF VENTING WILL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE.
THE DIAMETER OF THE MANHOLES MUST BE A MINIMUM OF FOUR FEET AND THE MANHOLE FOR ENTRY MUST HAVE A MINIMUM CLEAR OPENING DIAMETER OF 30 INCHES. THESE DIMENSIONS AND OTHER DETAILS SHOWING COMPLIANCE WITH THE COMMISSION'S RULES CONCERNING MANHOLES AND SEWER LINE/MANHOLE INVERTS DESCRIBED IN 30 TAC §217.55 ARE INCLUDED ON PLAN SHEET __ OF __.
IT IS SUGGESTED THAT ENTRANCE INTO MANHOLES IN EXCESS OF FOUR FEET DEEP BE ACCOMPLISHED BY MEANS OF A PORTABLE LADDER. THE INCLUSION OF STEPS IN A MANHOLE IS PROHIBITED.
10. WHERE WATER LINES AND NEW SEWER LINE ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE
FEET (I.E., WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC §217.53(D) (PIPE DESIGN) AND 30 TAC §290.44(E) (WATER DISTRIBUTION).
11. WHERE SEWERS LINES DEVIATE FROM STRAIGHT ALIGNMENT AND UNIFORM GRADE ALL CURVATURE OF SEWER PIPE MUST BE ACHIEVED BY THE FOLLOWING PROCEDURE WHICH IS RECOMMENDED BY THE PIPE MANUFACTURER:
IF PIPE FLEXURE IS PROPOSED, THE FOLLOWING METHOD OF PREVENTING DEFLECTION OF THE JOINT MUST BE:
_____
SPECIFIC CARE MUST BE TAKEN TO ENSURE THAT THE JOINT IS PLACED IN THE CENTER OF THE TRENCH AND PROPERLY BEDDED IN ACCORDANCE WITH 30 TAC §217.54.

12. TRENCHING, BEDDING AND BACKFILL MUST CONFORM WITH 30 TAC §217.54. THE BEDDING AND BACKFILL FOR FLEXIBLE PIPE MUST COMPLY WITH THE STANDARDS OF ASTM D-2321, CLASSES IA, IB, II OR III.
RIGID PIPE BEDDING MUST COMPLY WITH THE REQUIREMENTS OF ASTM C 12 (ANSI A 106.2) CLASSES A, B OR C.
13. SEWER LINES MUST BE TESTED FROM MANHOLE TO MANHOLE. WHEN A NEW SEWER LINE IS CONNECTED TO AN EXISTING STUB OR CLEAN-OUT, IT MUST BE TESTED FROM EXISTING MANHOLE TO NEW MANHOLE. IF A STUB OR CLEAN-OUT IS USED AT THE END OF THE PROPOSED SEWER LINE, NO PRIVATE SERVICE ATTACHMENTS MAY BE CONNECTED BETWEEN THE LAST MANHOLE AND THE CLEANOUT UNLESS IT CAN BE CERTIFIED AS CONFORMING WITH THE PROVISIONS OF 30 TAC §213.5(C)(3)(E).
14. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH 30 TAC §217.57. THE ENGINEER MUST RETAIN COPIES OF ALL TEST RESULTS WHICH MUST BE MADE AVAILABLE TO THE EXECUTIVE DIRECTOR UPON REQUEST. THE ENGINEER MUST CERTIFY IN WRITING THAT ALL WASTEWATER LINES HAVE PASSED ALL REQUIRED TESTING TO THE APPROPRIATE REGIONAL OFFICE WITHIN 30 DAYS OF TEST COMPLETION AND PRIOR TO USE OF THE NEW COLLECTION SYSTEM. TESTING METHOD WILL BE:
(A) FOR A COLLECTION SYSTEM PIPE THAT WILL TRANSPORT WASTEWATER BY GRAVITY FLOW, THE DESIGN MUST SPECIFY AN INFILTRATION AND EXFILTRATION TEST OR A LOW-PRESSURE AIR TEST. A TEST MUST CONFORM TO THE FOLLOWING REQUIREMENTS:
(1) LOW PRESSURE AIR TEST.
(A) A LOW PRESSURE AIR TEST MUST FOLLOW THE PROCEDURES DESCRIBED IN AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C-828, ASTM C924, OR ASTM F-1417 OR OTHER PROCEDURE APPROVED BY THE EXECUTIVE DIRECTOR, EXCEPT AS TO TESTING TIMES AS REQUIRED IN TABLE C.3 IN SUBPARAGRAPH (C) OF THIS PARAGRAPH OR EQUATION C.3 IN SUBPARAGRAPH (B)(II) OF THIS PARAGRAPH.
(B) FOR SECTIONS OF COLLECTION SYSTEM PIPE LESS THAN 36 INCH AVERAGE INSIDE DIAMETER, THE FOLLOWING PROCEDURE MUST APPLY, UNLESS A PIPE IS TO BE TESTED AS REQUIRED BY PARAGRAPH (2) OF THIS SUBSECTION.
(I) A PIPE MUST BE PRESSURIZED TO 3.5 POUNDS PER SQUARE INCH (PSI) GREATER THAN THE PRESSURE EXERTED BY GROUNDWATER ABOVE THE PIPE.
(II) ONCE THE PRESSURE IS STABILIZED, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 PSI GAUGE TO 2.5 PSI GAUGE IS COMPUTED FROM THE FOLLOWING EQUATION:
EQUATION C.3

$$T = \frac{0.085 \times D \times K}{Q}$$

WHERE,
T = TIME FOR PRESSURE TO DROP 1.0 POUND PER SQUARE INCH GAUGE IN SECONDS
K = 0.000419 X D X L, BUT NOT LESS THAN 1.0
D = AVERAGE INSIDE PIPE DIAMETER IN INCHES
L = LENGTH OF LINE OF SAME SIZE BEING TESTED, IN FEET
Q = RATE OF LOSS, 0.0015 CUBIC FEET PER MINUTE PER SQUARE FOOT INTERNAL SURFACE
(C) SINCE A K VALUE OF LESS THAN 1.0 MAY NOT BE USED, THE MINIMUM TESTING TIME FOR EACH PIPE DIAMETER IS SHOWN IN THE FOLLOWING TABLE C.3:

PIPE DIAMETER(INCHES)	MINIMUM TIME (SECONDS)	MAXIMUM LENGTH FOR MINIMUM TIME (FEET)	TIME FOR LONGER LENGTH (SECONDS/FOOT)
6	340	398	0.855
8	454	298	1.520
10	467	239	2.374
12	680	199	3.419
15	850	159	5.342
19	1020	133	7.693
21	1190	114	10.471
14	1360	100	13.676
17	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

(D) AN OWNER MAY STOP A TEST IF NO PRESSURE LOSS HAS OCCURRED DURING THE FIRST 25% OF THE CALCULATED TESTING TIME.
(E) IF ANY PRESSURE LOSS OR LEAKAGE HAS OCCURRED DURING THE FIRST 25% OF A TESTING PERIOD, THEN THE TEST MUST CONTINUE FOR THE ENTIRE TEST DURATION AS OUTLINED ABOVE OR UNTIL FAILURE.
(F) WASTEWATER COLLECTION SYSTEM PIPES WITH A 27 INCH OR LARGER AVERAGE INSIDE DIAMETER MAY BE AIR TESTED AT EACH JOINT INSTEAD OF FOLLOWING THE PROCEDURE OUTLINED IN THIS SECTION.
(G) A TESTING PROCEDURE FOR PIPE WITH AN INSIDE DIAMETER GREATER THAN 33 INCHES MUST BE APPROVED BY THE EXECUTIVE DIRECTOR.
(2) INFILTRATION/EXFILTRATION TEST.
(A) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF 2.0 FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE.
(B) AN OWNER SHALL USE AN INFILTRATION TEST IN LIEU OF AN EXFILTRATION TEST WHEN PIPES ARE INSTALLED BELOW THE GROUNDWATER LEVEL.
(C) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE, OR AT LEAST TWO FEET ABOVE EXISTING GROUNDWATER LEVEL, WHICHEVER IS GREATER.
(D) FOR CONSTRUCTION WITHIN A 25-YEAR FLOOD PLAIN, THE INFILTRATION OR EXFILTRATION MUST NOT EXCEED 10 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT THE SAME MINIMUM TEST HEAD AS IN SUBPARAGRAPH (C) OF THIS PARAGRAPH.
(E) IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, AN OWNER SHALL UNDERTAKE REMEDIAL ACTION IN ORDER TO REDUCE
TCEQ-0596 (REV. JULY 15, 2015) PAGE 5 OF 6
THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITHIN THE LIMITS SPECIFIED. AN OWNER SHALL RETEST A PIPE FOLLOWING A REMEDIATION ACTION.
(b) IF A GRAVITY COLLECTION PIPE IS COMPOSED OF FLEXIBLE PIPE, DEFLECTION TESTING IS ALSO REQUIRED. THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
(1) FOR A COLLECTION PIPE WITH INSIDE DIAMETER LESS THAN 27 INCHES, DEFLECTION MEASUREMENT REQUIRES A RIGID MANDREL.
(A) MANDREL SIZING.
(i) A RIGID MANDREL MUST HAVE AN OUTSIDE DIAMETER (OD) NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER (ID) OR AVERAGE ID OF A PIPE, AS SPECIFIED IN THE APPROPRIATE STANDARD BY THE ASTMS, AMERICAN WATER WORKS ASSOCIATION, UNI-BELL, OR AMERICAN NATIONAL STANDARDS INSTITUTE, OR ANY RELATED APPENDIX.
(ii) IF A MANDREL SIZING DIAMETER IS NOT SPECIFIED IN THE APPROPRIATE STANDARD, THE MANDREL MUST HAVE AN OD EQUAL TO 95% OF THE ID OF A PIPE. IN THIS CASE, THE ID OF THE PIPE, FOR THE PURPOSE OF DETERMINING THE OD OF THE MANDREL, MUST EQUAL BE THE AVERAGE OUTSIDE DIAMETER MINUS TWO MINIMUM WALL THICKNESSES FOR OD CONTROLLED PIPE AND THE AVERAGE INSIDE DIAMETER FOR ID CONTROLLED PIPE.
(iii) ALL DIMENSIONS MUST MEET THE APPROPRIATE STANDARD.
(B) MANDREL DESIGN.
(i) A RIGID MANDREL MUST BE CONSTRUCTED OF A METAL OR A RIGID PLASTIC MATERIAL THAT CAN WITHSTAND 200 PSI WITHOUT BEING DEFORMED.
(ii) A MANDREL MUST HAVE NINE OR MORE ODD NUMBER OF RUNNERS OR LEGS.
(iii) A BARREL SECTION LENGTH MUST EQUAL AT LEAST 75% OF THE INSIDE DIAMETER OF A PIPE.
(iv) EACH SIZE MANDREL MUST USE A SEPARATE PROVING RING.
(C) METHOD OPTIONS.
(i) AN ADJUSTABLE OR FLEXIBLE MANDREL IS PROHIBITED.
(ii) A TEST MAY NOT USE TELEVISION INSPECTION AS A SUBSTITUTE FOR A DEFLECTION TEST.
(iii) IF REQUESTED, THE EXECUTIVE DIRECTOR MAY APPROVE THE USE OF A DEFLECTOMETER OR A MANDREL WITH REMOVABLE LEGS OR RUNNERS ON A CASE-BY-CASE BASIS.
(2) FOR A GRAVITY COLLECTION SYSTEM PIPE WITH AN INSIDE DIAMETER 27 INCHES AND GREATER, OTHER TEST METHODS MAY BE USED TO DETERMINE VERTICAL DEFLECTION.
(3) A DEFLECTION TEST METHOD MUST BE ACCURATE TO WITHIN PLUS OR MINUS 0.2% DEFLECTION.
(4) AN OWNER SHALL NOT CONDUCT A DEFLECTION TEST UNTIL AT LEAST 30 DAYS AFTER THE FINAL BACKFILL.
(5) GRAVITY COLLECTION SYSTEM PIPE DEFLECTION MUST NOT EXCEED FIVE PERCENT (5%).
(6) IF A PIPE SECTION FAILS A DEFLECTION TEST, AN OWNER SHALL CORRECT THE PROBLEM AND CONDUCT A SECOND TEST AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
16. ALL MANHOLES MUST BE TESTED TO MEET OR EXCEED THE REQUIREMENTS OF 30 TAC §217.58.
(a) ALL MANHOLES MUST PASS A LEAKAGE TEST.
(b) AN OWNER SHALL TEST EACH MANHOLE (AFTER ASSEMBLY AND BACKFILLING) FOR LEAKAGE, SEPARATE AND INDEPENDENT OF THE COLLECTION SYSTEM PIPES, BY HYDROSTATIC EXFILTRATION TESTING, VACUUM TESTING, OR OTHER METHOD APPROVED BY THE EXECUTIVE DIRECTOR.
(4) HYDROSTATIC TESTING.
(A) THE MAXIMUM LEAKAGE FOR HYDROSTATIC TESTING OR ANY ALTERNATIVE TEST METHODS IS 0.025 GALLONS PER FOOT DIAMETER PER FOOT OF MANHOLE DEPTH PER HOUR.
(B) TO PERFORM A HYDROSTATIC EXFILTRATION TEST, AN OWNER SHALL SEAL ALL WASTEWATER PIPES COMING INTO A MANHOLE WITH AN INTERNAL PIPE PLUG, FILL THE MANHOLE WITH WATER, AND MAINTAIN THE TEST FOR AT LEAST ONE HOUR.
(C) A TEST FOR CONCRETE MANHOLES MAY USE A 24-HOUR WETTING PERIOD BEFORE TESTING TO ALLOW SATURATION OF THE CONCRETE.
(2) VACUUM TESTING.
(A) TO PERFORM A VACUUM TEST, AN OWNER SHALL PLUG ALL LIFT HOLES AND EXTERIOR JOINTS WITH A NON-SHRINK GROUT AND PLUG ALL PIPES ENTERING A MANHOLE.
(B) NO GROUT MUST BE PLACED IN HORIZONTAL JOINTS BEFORE TESTING.
(C) STUB-OUTS, MANHOLE BOOTS, AND PIPE PLUGS MUST BE SECURED TO PREVENT MOVEMENT WHILE A VACUUM IS DRAWN.
(D) AN OWNER SHALL USE A MINIMUM 60 INCH/LB TORQUE WRENCH TO TIGHTEN THE EXTERNAL CLAMPS THAT SECURE A TEST COVER TO THE TOP OF A MANHOLE.
(E) A TEST HEAD MUST BE PLACED AT THE INSIDE OF THE TOP OF A CONE SECTION, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
(F) THERE MUST BE A VACUUM OF 10 INCHES OF MERCURY INSIDE A MANHOLE TO PERFORM A VALID TEST.
(G) A TEST DOES NOT BEGIN UNTIL AFTER THE VACUUM PUMP IS OFF.
(H) A MANHOLE PASSES THE TEST IF AFTER 2.0 MINUTES AND WITH ALL VALVES CLOSED, THE VACUUM IS AT LEAST 9.0 INCHES OF MERCURY.
17. ALL PRIVATE SERVICE LATERALS MUST BE INSPECTED AND CERTIFIED IN ACCORDANCE WITH 30 TAC §213.5(C)(3)(I). AFTER INSTALLATION OF AND, PRIOR TO COVERING AND CONNECTING A PRIVATE SERVICELATERAL TO AN EXISTING ORGANIZED SEWAGE COLLECTION SYSTEM, A TEXAS LICENSED PROFESSIONAL ENGINEER, TEXAS REGISTERED SANITARIAN, OR APPROPRIATE CITY INSPECTOR MUST VISUALLY INSPECT THE PRIVATE SERVICE LATERAL AND THE CONNECTION TO THE SEWAGE COLLECTION SYSTEM, AND CERTIFY THAT IT IS CONSTRUCTED IN CONFORMITY WITH THE APPLICABLE PROVISIONS OF THIS SECTION. THE OWNER OF THE COLLECTION SYSTEM MUST MAINTAIN SUCH CERTIFICATIONS FOR FIVE YEARS AND FORWARD COPIES TO THE APPROPRIATE REGIONAL OFFICE UPON REQUEST. CONNECTIONS MAY ONLY BE MADE TO AN APPROVED SEWAGE COLLECTION SYSTEM.

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THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY LIFT STATION AND FORCE MAIN GENERAL CONSTRUCTION NOTES

THE FOLLOWING/LISTED "CONSTRUCTION NOTES" ARE INTENDED TO BE ADVISORY IN NATURE ONLY AND DO NOT CONSTITUTE AN APPROVAL OR CONDITIONAL APPROVAL BY THE EXECUTIVE DIRECTOR (ED), NOR DO THEY CONSTITUTE A COMPREHENSIVE LISTING OF RULES OR CONDITIONS TO BE FOLLOWED DURING CONSTRUCTION. FURTHER ACTIONS MAY BE REQUIRED TO ACHIEVE COMPLIANCE WITH TCEQ REGULATIONS FOUND IN TITLE 30, TEXAS ADMINISTRATIVE CODE (TAC), CHAPTERS 213 AND 217, AS WELL AS LOCAL ORDINANCES AND REGULATIONS PROVIDING FOR THE PROTECTION WATER QUALITY. ADDITIONAL, NOTHING CONTAINED IN THE FOLLOWING/LISTED "CONSTRUCTION NOTES" RESTRICTS THE POWERS OF THE ED, THE COMMISSION OR ANY THER GOVERNMENTAL ENTITY TO PREVENT, CORRECT, OR CURTAIN ACTIVITIES THAT RESULT OR MAY RESULT IN POLLUTION OF THE EDWARDS AQUIFER OR HYDROLOGICALLY CONNECTED SURFACE WATERS. THE HOLDER OF ANY EDWARDS AQUIFER PROTECTION PLAN CONTAINING "CONSTRUCTION NOTES" IS STILL RESPONSIBLE FOR COMPLIANCE WITH TITLE 30, TAC, CHAPTERS 213 OR ANY OTHER APPLICABLE TCEQ REGULATION, AS WELL AS ALL CONDITIONS OF AN EDWARDS AQUIFER PROTECTION PLAN THOUGH ALL PHASES OF PLAN IMPLEMENTATION. FAILURE TO COMPLY WITH ANY CONDITION OF THE ED'S APPROVAL, WHETHER OR NOT IN CONTRADICTION OF ANY "CONSTRUCTION NOTES," IS A VIOLATION OF TCEQ REGULATIONS AND ANY VIOLATION IS SUBJECT TO ADMINISTRATIVE RULES, ORDERS, AND PENALTIES AS PROVIDED UNDER TITLE 30, TAC §213.10 (RELATING TO ENFORCEMENT). SUCH VIOLATIONS MAY ALSO BE SUBJECT TO CIVIL PENALTIES AND INJUNCTION. THE FOLLOWINGLISTED "CONSTRUCTION NOTES" DO NOT REPRESENT AN APPROVAL EXCEPTION BY THE ED TO ANY PART OF THE TITLE 30 TAC, CHAPTERS 213 AND 217, OR ANY OTHER TCEQ APPLICABLE REGULATION.

1. THIS LIFT STATION AND/OR FORCE MAIN MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) EDWARDS AQUIFER RULES, AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.
2. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED LIFT STATION/FORCE MAIN (LSFM) SYSTEM APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF A LSFM SYSTEM APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.
3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
4. UPON COMPLETION OF ANY LIFT STATION EXCAVATION, GEOLOGIST MUST CERTIFY THAT THE EXCAVATION HAS BEEN INSPECTED FOR THE PRESENCE OF SENSITIVE FEATURES. THE CERTIFICATION MUST BE SIGNED, SEALED, AND DATED BY THE GEOLOGIST PREPARING THE CERTIFICATION. CERTIFICATION THAT THE EXCAVATION HAS BEEN INSPECTED MUST BE SUBMITTED TO THE APPROPRIATE REGIONAL OFFICE.
- THE NAME OF THE APPROVED PROJECT IF SENSITIVE FEATURE(S) ARE IDENTIFIED, ALL REGULATED ACTIVITIES NEAR A SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY AND MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY FROM THE LIFT STATION.
- CONSTRUCTION MAY CONTINUE IF THE GEOLOGIST CERTIFIES THAT NO SENSITIVE FEATURE OR FEATURES WERE PRESENT.
5. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERY. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING WITHIN TWO WORKING DAYS. THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL TH

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

3. IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4. NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.

5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.

7. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN

WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING
LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
- THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
- THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
- THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
ORGANIZED SEWAGE COLLECTION SYSTEM
GENERAL CONSTRUCTION NOTES

1. THIS ORGANIZED SEWAGE COLLECTION SYSTEM (SCS) MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) EDWARDS AQUIFER RULES AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROPOSED REGULATED PROJECT
MUST BE PROVIDED WITH COPIES OF THE SCS PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS MUST BE REQUIRED TO KEEP ON-SITE COPIES OF THE PLAN AND THE APPROVAL LETTER.

3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

4. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED SCS APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF AN SCS APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.

5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERED. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING AND THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE

EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY WHILE MAINTAINING THE STRUCTURAL INTEGRITY OF THE LINE.

7. SEWER LINES LOCATED WITHIN OR CROSSING THE 5-YEAR FLOODPLAIN OF A DRAINAGE WAY WILL BE PROTECTED
FROM INUNDATION AND STREAM VELOCITIES WHICH COULD CAUSE EROSION AND SCOURING OF BACKFILL. THE TRENCH MUST BE CAPPED WITH CONCRETE TO PREVENT SCOURING OF BACKFILL, OR THE SEWER LINES MUST BE ENCASED IN CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES.

8. BLASTING PROCEDURES FOR PROTECTION OF EXISTING SEWER LINES AND OTHER UTILITIES WILL BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION CRITERIA. SAND IS NOT ALLOWED AS BEDDING OR BACKFILL IN TRENCHES THAT HAVE BEEN BLASTED. IF ANY EXISTING SEWER LINES ARE DAMAGED, THE LINES MUST BE REPAIRED AND RETESTED.

9. ALL MANHOLES CONSTRUCTED OR REHABILITATED ON THIS PROJECT MUST HAVE WATERTIGHT SIZE ON SIZE RESILIENT CONNECTORS ALLOWING FOR DIFFERENTIAL SETTLEMENT. IF MANHOLES ARE CONSTRUCTED WITHIN THE 100-YEAR FLOODPLAIN, THE COVER MUST HAVE A GASKET AND BE BOLTED TO THE RING. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE OR FOR MORE THAN 1500 FEET, ALTERNATE MEANS OF VENTING WILL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE.
THE DIAMETER OF THE MANHOLES MUST BE A MINIMUM OF FOUR FEET AND THE MANHOLE FOR ENTRY MUST HAVE A MINIMUM CLEAR OPENING DIAMETER OF 30 INCHES. THESE DIMENSIONS AND OTHER DETAILS SHOWING COMPLIANCE WITH THE COMMISSION'S RULES CONCERNING MANHOLES AND SEWER LINE/MANHOLE INVERTS DESCRIBED IN 30 TAC §217.55 ARE INCLUDED ON PLAN SHEET __ OF __.
IT IS SUGGESTED THAT ENTRANCE INTO MANHOLES IN EXCESS OF FOUR FEET DEEP BE ACCOMPLISHED BY MEANS OF A PORTABLE LADDER. THE INCLUSION OF STEPS IN A MANHOLE IS PROHIBITED.

10. WHERE WATER LINES AND NEW SEWER LINE ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE
FEET (I.E., WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC §217.53(D) (PIPE DESIGN) AND 30 TAC §290.44(E) (WATER DISTRIBUTION).

11. WHERE SEWERS LINES DEVIATE FROM STRAIGHT ALIGNMENT AND UNIFORM GRADE ALL CURVATURE OF SEWER PIPE MUST BE ACHIEVED BY THE FOLLOWING PROCEDURE WHICH IS RECOMMENDED BY THE PIPE MANUFACTURER: _____
IF PIPE FLEXURE IS PROPOSED, THE FOLLOWING METHOD OF PREVENTING DEFLECTION OF THE JOINT MUST BE: _____
SPECIFIC CARE MUST BE TAKEN TO ENSURE THAT THE JOINT IS PLACED IN THE CENTER OF THE TRENCH AND PROPERLY BEDDED IN ACCORDANCE WITH 30 TAC §217.54.

12. TRENCHING, BEDDING AND BACKFILL MUST CONFORM WITH 30 TAC §217.54. THE BEDDING AND BACKFILL FOR FLEXIBLE PIPE MUST COMPLY WITH THE STANDARDS OF ASTM D-2321, CLASSES IA, IB, II OR III. RIGID PIPE BEDDING MUST COMPLY WITH THE REQUIREMENTS OF ASTM C 12 (ANSI A 106.2) CLASSES A, B OR C.

13. SEWER LINES MUST BE TESTED FROM MANHOLE TO MANHOLE. WHEN A NEW SEWER LINE IS CONNECTED TO AN EXISTING STUB OR CLEAN-OUT, IT MUST BE TESTED FROM EXISTING MANHOLE TO NEW MANHOLE. IF A STUB OR CLEAN-OUT IS USED AT THE END OF THE PROPOSED SEWER LINE, NO PRIVATE SERVICE ATTACHMENTS MAY BE CONNECTED BETWEEN THE LAST MANHOLE AND THE CLEANOUT UNLESS IT CAN BE CERTIFIED AS CONFORMING WITH THE PROVISIONS OF 30 TAC §213.5(C)(3)(E).

14. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH 30 TAC §217.57. THE ENGINEER MUST RETAIN COPIES OF ALL TEST RESULTS WHICH MUST BE MADE AVAILABLE TO THE EXECUTIVE DIRECTOR UPON REQUEST. THE ENGINEER MUST CERTIFY IN WRITING THAT ALL WASTEWATER LINES HAVE PASSED ALL REQUIRED TESTING TO THE APPROPRIATE REGIONAL OFFICE WITHIN 30 DAYS OF TEST COMPLETION AND PRIOR TO USE OF THE NEW COLLECTION SYSTEM. TESTING METHOD WILL BE:
(A) FOR A COLLECTION SYSTEM PIPE THAT WILL TRANSPORT WASTEWATER BY GRAVITY FLOW, THE DESIGN MUST SPECIFY AN INFILTRATION AND EXFILTRATION TEST OR A LOW-PRESSURE AIR TEST. A TEST MUST CONFORM TO THE FOLLOWING REQUIREMENTS:
(1) LOW PRESSURE AIR TEST.
(A) A LOW PRESSURE AIR TEST MUST FOLLOW THE PROCEDURES DESCRIBED IN AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C-828, ASTM C924, OR ASTM F-1417 OR OTHER PROCEDURE APPROVED BY THE EXECUTIVE DIRECTOR, EXCEPT AS TO TESTING TIMES AS REQUIRED IN TABLE C.3 IN SUBPARAGRAPH (C) OF THIS PARAGRAPH OR EQUATION C.3 IN SUBPARAGRAPH (B)(II) OF THIS PARAGRAPH.
(B) FOR SECTIONS OF COLLECTION SYSTEM PIPE LESS THAN 36 INCH AVERAGE INSIDE DIAMETER, THE FOLLOWING PROCEDURE MUST APPLY, UNLESS A PIPE IS TO BE TESTED AS REQUIRED BY PARAGRAPH (2) OF THIS SUBSECTION.
(I) A PIPE MUST BE PRESSURIZED TO 3.5 POUNDS PER SQUARE INCH (PSI) GREATER THAN THE PRESSURE EXERTED BY GROUNDWATER ABOVE THE PIPE.
(II) ONCE THE PRESSURE IS STABILIZED, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 PSI GAUGE TO 2.5 PSI GAUGE IS COMPUTED FROM THE FOLLOWING EQUATION:
EQUATION C.3

$$T = \frac{0.085 \cdot D \cdot K}{Q}$$

WHERE:
T = TIME FOR PRESSURE TO DROP 1.0 POUND PER SQUARE INCH GAUGE IN SECONDS
K = 0.000419 X D X L, BUT NOT LESS THAN 1.0
D = AVERAGE INSIDE PIPE DIAMETER IN INCHES
L = LENGTH OF LINE OF SAME SIZE BEING TESTED, IN FEET
Q = RATE OF LOSS, 0.0015 CUBIC FEET PER MINUTE PER SQUARE FOOT INTERNAL SURFACE
(C) SINCE A K VALUE OF LESS THAN 1.0 MAY NOT BE USED, THE MINIMUM TESTING TIME FOR EACH PIPE DIAMETER IS SHOWN IN THE FOLLOWING TABLE C.3:

PIPE DIAMETER(INCHES)	MINIMUM TIME (SECONDS)	MAXIMUM LENGTH FOR MINIMUM TIME (FEET)	TIME FOR LONGER LENGTH (SECONDS/FOOT)
6	340	398	0.855
8	454	298	1.520
10	467	239	2.374
12	680	199	3.419
15	850	159	5.342
19	1020	133	7.693
21	1190	114	10.471
14	1360	100	13.676
17	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

(D) AN OWNER MAY STOP A TEST IF NO PRESSURE LOSS HAS OCCURRED DURING THE FIRST 25% OF THE CALCULATED TESTING TIME.
(E) IF ANY PRESSURE LOSS OR LEAKAGE HAS OCCURRED DURING THE FIRST 25% OF A TESTING PERIOD, THEN THE TEST MUST CONTINUE FOR THE ENTIRE TEST DURATION AS OUTLINED ABOVE OR UNTIL FAILURE.
(F) WASTEWATER COLLECTION SYSTEM PIPES WITH A 27 INCH OR LARGER AVERAGE INSIDE DIAMETER MAY BE AIR TESTED AT EACH JOINT INSTEAD OF FOLLOWING THE PROCEDURE OUTLINED IN THIS SECTION.
(G) A TESTING PROCEDURE FOR PIPE WITH AN INSIDE DIAMETER GREATER THAN 33 INCHES MUST BE APPROVED BY THE EXECUTIVE DIRECTOR.
(2) INFILTRATION/EXFILTRATION TEST.
(A) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF 2.0 FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE.
(B) AN OWNER SHALL USE AN INFILTRATION TEST IN LIEU OF AN EXFILTRATION TEST WHEN PIPES ARE INSTALLED BELOW THE GROUNDWATER LEVEL.
(C) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE, OR AT LEAST TWO FEET ABOVE EXISTING GROUNDWATER LEVEL, WHICHEVER IS GREATER.
(D) FOR CONSTRUCTION WITHIN A 25-YEAR FLOOD PLAIN, THE INFILTRATION OR EXFILTRATION MUST NOT EXCEED 10 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT THE SAME MINIMUM TEST HEAD AS IN SUBPARAGRAPH (C) OF THIS PARAGRAPH.
(E) IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, AN OWNER SHALL UNDERTAKE REMEDIAL ACTION IN ORDER TO REDUCE

THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITHIN THE LIMITS SPECIFIED. AN OWNER SHALL RETEST A PIPE FOLLOWING A REMEDIATION ACTION.
(b) IF A GRAVITY COLLECTION PIPE IS COMPOSED OF FLEXIBLE PIPE, DEFLECTION TESTING IS ALSO REQUIRED. THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
(1) FOR A COLLECTION PIPE WITH INSIDE DIAMETER LESS THAN 27 INCHES, DEFLECTION MEASUREMENT REQUIRES A RIGID MANDREL.
(A) MANDREL SIZING.
(i) A RIGID MANDREL MUST HAVE AN OUTSIDE DIAMETER (OD) NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER (ID) OR AVERAGE ID OF A PIPE, AS SPECIFIED IN THE APPROPRIATE STANDARD BY THE ASTMS, AMERICAN WATER WORKS ASSOCIATION, UNI-BELL, OR AMERICAN NATIONAL STANDARDS INSTITUTE, OR ANY RELATED APPENDIX.
(ii) IF A MANDREL SIZING DIAMETER IS NOT SPECIFIED IN THE APPROPRIATE STANDARD, THE MANDREL MUST HAVE AN OD EQUAL TO 95% OF THE ID OF A PIPE. IN THIS CASE, THE ID OF THE PIPE, FOR THE PURPOSE OF DETERMINING THE OD OF THE MANDREL, MUST EQUAL BE THE AVERAGE OUTSIDE DIAMETER MINUS TWO MINIMUM WALL THICKNESSES FOR OD CONTROLLED PIPE AND THE AVERAGE INSIDE DIAMETER FOR ID CONTROLLED PIPE.
(iii) ALL DIMENSIONS MUST MEET THE APPROPRIATE STANDARD.
(B) MANDREL DESIGN.
(i) A RIGID MANDREL MUST BE CONSTRUCTED OF A METAL OR A RIGID PLASTIC MATERIAL THAT CAN WITHSTAND 200 PSI WITHOUT BEING DEFORMED.
(ii) A MANDREL MUST HAVE NINE OR MORE ODD NUMBER OF RUNNERS OR LEGS.
(iii) A BARREL SECTION LENGTH MUST EQUAL AT LEAST 75% OF THE INSIDE DIAMETER OF A PIPE.
(iv) EACH SIZE MANDREL MUST USE A SEPARATE PROVING RING.
(C) METHOD OPTIONS.
(i) AN ADJUSTABLE OR FLEXIBLE MANDREL IS PROHIBITED.
(ii) A TEST MAY NOT USE TELEVISION INSPECTION AS A SUBSTITUTE FOR A DEFLECTION TEST.
(iii) IF REQUESTED, THE EXECUTIVE DIRECTOR MAY APPROVE THE USE OF A DEFLECTOMETER OR A MANDREL WITH REMOVABLE LEGS OR RUNNERS ON A CASE-BY-CASE BASIS.
(2) FOR A GRAVITY COLLECTION SYSTEM PIPE WITH AN INSIDE DIAMETER 27 INCHES AND GREATER, OTHER TEST METHODS MAY BE USED TO DETERMINE VERTICAL DEFLECTION.
(3) A DEFLECTION TEST METHOD MUST BE ACCURATE TO WITHIN PLUS OR MINUS 0.2% DEFLECTION.
(4) AN OWNER SHALL NOT CONDUCT A DEFLECTION TEST UNTIL AT LEAST 30 DAYS AFTER THE FINAL BACKFILL.
(5) GRAVITY COLLECTION SYSTEM PIPE DEFLECTION MUST NOT EXCEED FIVE PERCENT (5%).
(6) IF A PIPE SECTION FAILS A DEFLECTION TEST, AN OWNER SHALL CORRECT THE PROBLEM AND CONDUCT A SECOND TEST AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
16. ALL MANHOLES MUST BE TESTED TO MEET OR EXCEED THE REQUIREMENTS OF 30 TAC §217.58.
(a) ALL MANHOLES MUST PASS A LEAKAGE TEST.
(b) AN OWNER SHALL TEST EACH MANHOLE (AFTER ASSEMBLY AND BACKFILLING) FOR LEAKAGE, SEPARATE AND INDEPENDENT OF THE COLLECTION SYSTEM PIPES, BY HYDROSTATIC EXFILTRATION TESTING, VACUUM TESTING, OR OTHER METHOD APPROVED BY THE EXECUTIVE DIRECTOR.
(4) HYDROSTATIC TESTING.
(A) THE MAXIMUM LEAKAGE FOR HYDROSTATIC TESTING OR ANY ALTERNATIVE TEST METHODS IS 0.025 GALLONS PER FOOT DIAMETER PER FOOT OF MANHOLE DEPTH PER HOUR.
(B) TO PERFORM A HYDROSTATIC EXFILTRATION TEST, AN OWNER SHALL SEAL ALL WASTEWATER PIPES COMING INTO A MANHOLE WITH AN INTERNAL PIPE PLUG, FILL THE MANHOLE WITH WATER, AND MAINTAIN THE TEST FOR AT LEAST ONE HOUR.
(C) A TEST FOR CONCRETE MANHOLES MAY USE A 24-HOUR WETTING PERIOD BEFORE TESTING TO ALLOW SATURATION OF THE CONCRETE.
(2) VACUUM TESTING.
(A) TO PERFORM A VACUUM TEST, AN OWNER SHALL PLUG ALL LIFT HOLES AND EXTERIOR JOINTS WITH A NON-SHRINK GROUT AND PLUG ALL PIPES ENTERING A MANHOLE.
(B) NO GROUT MUST BE PLACED IN HORIZONTAL JOINTS BEFORE TESTING.
(C) STUB-OUTS, MANHOLE BOOTS, AND PIPE PLUGS MUST BE SECURED TO PREVENT MOVEMENT WHILE A VACUUM IS DRAWN.
(D) AN OWNER SHALL USE A MINIMUM 60 INCH/LB TORQUE WRENCH TO TIGHTEN THE EXTERNAL CLAMPS THAT SECURE A TEST COVER TO THE TOP OF A MANHOLE.
(E) A TEST HEAD MUST BE PLACED AT THE INSIDE OF THE TOP OF A CONE SECTION, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
(F) THERE MUST BE A VACUUM OF 10 INCHES OF MERCURY INSIDE A MANHOLE TO PERFORM A VALID TEST.
(G) A TEST DOES NOT BEGIN UNTIL AFTER THE VACUUM PUMP IS OFF.
(H) A MANHOLE PASSES THE TEST IF AFTER 2.0 MINUTES AND WITH ALL VALVES CLOSED, THE VACUUM IS AT LEAST 9.0 INCHES OF MERCURY.
17. ALL PRIVATE SERVICE LATERALS MUST BE INSPECTED AND CERTIFIED IN ACCORDANCE WITH 30 TAC §213.5(C)(3)(I). AFTER INSTALLATION OF AND, PRIOR TO COVERING AND CONNECTING A PRIVATE SERVICELATERAL TO AN EXISTING ORGANIZED SEWAGE COLLECTION SYSTEM, A TEXAS LICENSED PROFESSIONAL ENGINEER, TEXAS REGISTERED SANITARIAN, OR APPROPRIATE CITY INSPECTOR MUST VISUALLY INSPECT THE PRIVATE SERVICE LATERAL AND THE CONNECTION TO THE SEWAGE COLLECTION SYSTEM. AND CERTIFY IN WRITING THAT IT IS CONSTRUCTED IN CONFORMITY WITH THE APPLICABLE PROVISIONS OF THIS SECTION. THE OWNER OF THE COLLECTION SYSTEM MUST MAINTAIN SUCH CERTIFICATIONS FOR FIVE YEARS AND FORWARD COPIES TO THE APPROPRIATE REGIONAL OFFICE UPON REQUEST. CONNECTIONS MAY ONLY BE MADE TO AN APPROVED SEWAGE COLLECTION SYSTEM.

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Fax (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
LIFT STATION AND FORCE MAIN
GENERAL CONSTRUCTION NOTES

THE FOLLOWING/LISTED "CONSTRUCTION NOTES" ARE INTENDED TO BE ADVISORY IN NATURE ONLY AND DO NOT CONSTITUTE AN APPROVAL OR CONDITIONAL APPROVAL BY THE EXECUTIVE DIRECTOR (ED), NOR DO THEY CONSTITUTE A COMPREHENSIVE LISTING OF RULES OR CONDITIONS TO BE FOLLOWED DURING CONSTRUCTION. FURTHER ACTIONS MAY BE REQUIRED TO ACHIEVE COMPLIANCE WITH TCEQ REGULATIONS FOUND IN TITLE 30, TEXAS ADMINISTRATIVE CODE (TAC), CHAPTERS 213 AND 217, AS WELL AS LOCAL ORDINANCES AND REGULATIONS PROVIDING FOR THE PROTECTION WATER QUALITY. ADDITIONAL, NOTHING CONTAINED IN THE FOLLOWING/LISTED "CONSTRUCTION NOTES" RESTRICTS THE POWERS OF THE ED, THE COMMISSION OR ANY THER GOVERNMENTAL ENTITY TO PREVENT, CORRECT, OR CURTAIN ACTIVITIES THAT RESULT OR MAY RESULT IN POLLUTION OF THE EDWARDS AQUIFER OR HYDROLOGICALLY CONNECTED SURFACE WATERS. THE HOLDER OF ANY EDWARDS AQUIFER PROTECTION PLAN CONTAINING "CONSTRUCTION NOTES" IS STILL RESPONSIBLE FOR COMPLIANCE WITH TITLE 30, TAC, CHAPTERS 213 OR ANY OTHER APPLICABLE TCEQ REGULATION, AS WELL AS ALL CONDITIONS OF AN EDWARDS AQUIFER PROTECTION PLAN THOUGH ALL PHASES OF PLAN IMPLEMENTATION. FAILURE TO COMPLY WITH ANY CONDITION OF THE ED'S APPROVAL, WHETHER OR NOT IN CONTRADICTION OF ANY "CONSTRUCTION NOTES," IS A VIOLATION OF TCEQ REGULATIONS AND ANY VIOLATION IS SUBJECT TO ADMINISTRATIVE RULES, ORDERS, AND PENALTIES AS PROVIDED UNDER TITLE 30, TAC §213.10 (RELATING TO ENFORCEMENT). SUCH VIOLATIONS MAY ALSO BE SUBJECT TO CIVIL PENALTIES AND INJUNCTION. THE FOLLOWING/LISTED "CONSTRUCTION NOTES" IN NO WAY REPRESENT AN APPROVAL EXCEPTION BY THE ED TO ANY PART OF THE TITLE 30 TAC, CHAPTERS 213 AND 217, OR ANY OTHER TCEQ APPLICABLE REGULATION.

1. THIS LIFT STATION AND/OR FORCE MAIN MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) EDWARDS AQUIFER RULES, AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.
2. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED LIFT STATION/FORCE MAIN (LSFM) SYSTEM APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF A LSFM SYSTEM APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.
3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
4. UPON COMPLETION OF ANY LIFT STATION EXCAVATION, GEOLOGIST MUST CERTIFY THAT THE EXCAVATION HAS BEEN INSPECTED FOR THE PRESENCE OF SENSITIVE FEATURES. THE CERTIFICATION MUST BE SIGNED, SEALED, AND DATED BY THE GEOLOGIST PREPARING THE CERTIFICATION. CERTIFICATION THAT THE EXCAVATION HAS BEEN INSPECTED MUST BE SUBMITTED TO THE APPROPRIATE REGIONAL OFFICE.
- THE NAME OF THE APPROVED PROJECT IF SENSITIVE FEATURE(S) ARE IDENTIFIED, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY AND MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY FROM THE LIFT STATION.
- CONSTRUCTION MAY CONTINUE IF THE GEOLOGIST CERTIFIES THAT NO SENSITIVE FEATURE OR FEATURES WERE PRESENT.
5. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERY. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING WITHIN TWO WORKING DAYS. THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SY

APPROVED: 08/02/2024

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Pipe Bursting of existing sanitary sewers.

1.02 UNIT PRICES

A. Measurement for installing replacement pipe using pipe bursting method is on a linear foot basis for installed pipe, measured from center line of upstream manhole to center line of downstream manhole. Final footage to be confirmed by Post-TV Survey.

B. Heavy mechanical cleaning of all line segments (to remove debris and grease), insertion or access pits, clamp installation, embedment (bedding, haunching and initial backfill), field quality control (testing), pipe connection at manhole, coating at manhole, grouting annular space, building up, shaping and reworking the manhole inverts and benches shall be incidental to installation of pipe bursting.

C. Excavations initially begun as an obstruction removal or point repair which the Contractor later decides to use as an insertion pit shall be considered as an insertion pit and not paid separately.

D. Trench safety systems, well pointing, backfill with cement-stabilized sand or bank sand, and other items associated with insertion pits and pipe bursting scope shall be incidental to installation of pipe bursting.

1.03 REFERENCES

A. ASTM D1248 – Polyethylene Plastics Molding and Extrusion Materials.

B. ASTM D2122 – Dimensions of Thermoplastic Pipe and Fittings, Determining.

C. ASTM D2412 – External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading, Determination of.

D. ASTM D3350 – Polyethylene Plastics Pipe and Fittings Materials.

E. ASTM F714 - Polyethylene (PE) Plastic Pipe (DR-PR) Based on Outside Diameter

1.04 DEFINITIONS

A. Pipe bursting: The pipe bursting process is defined as the construction of sanitary sewers by the insertion of a pipe within the bore of the existing pipe, enlarged by breaking and expanding the old pipe.

1.05 SYSTEM DESCRIPTION

A. The pipe bursting process involves replacement of existing gravity sewer pipe by installing new pipe material within the enlarged bore created by using a static, hydraulic, or pneumatic hammer “moling” device, suitably sized to break the existing sewer pipe or by using a modified boring “knife” with a flared plug that crushes the existing sewer pipe. Forward progress of the “mole” or the “knife” may be aided by hydraulic equipment or other apparatus. Replacement pipe is either pulled or pushed into the bore.

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1.06 QUALITY ASSURANCE

A. Pipe Acceptance: Provide pipe material which is homogenous without defects and manufactured to the standards and dimensions specified. Cause for rejection includes physical defects of the pipe, such as concentrated ridges, discoloration, excessive spot roughness, pitting, visible cracks, foreign inclusions, and varying wall thickness.

B. Coating Acceptance: Provide coating material per City of Georgetown specifications.

1.07 DELVIERY, STORAGE, AND HANDLING

A. Prevent injury or abrasion to pipe during loading, transportation, and unloading. Do not drop pipe from cars or trucks, nor allow pipe to roll down skids without proper restraining ropes. Use suitable pads, strips, skids, or blocks for each pipe during transportation and while awaiting installation in the field.

B. Pipe with cuts, gashes, nicks, abrasions, or any such physical damage which may have occurred during shipping, storage, or handling, which are deeper than 10 percent of the wall thickness shall not be used and shall be removed from the construction site.

C. Use wide belly band slings for lifting and moving pipe. Do not use bare chains in contact with pipe.

1.08 PERFORMANCE REQUIREMENTS

A. Maintain flow of sewage as specified in Section 01506 – Bypass Pumping.

B. Install pipe bursting according to this Section.

C. Grout annular space with non-shrink grout.

D. Shape manhole invert in accordance with City of Georgetown and TCEQ requirements.

E. Test lines in accordance with City of Georgetown and TCEQ requirements.

F. Televise lines in accordance with City of Georgetown and TCEQ requirements.

1.09 SUBMITTALS

A. Submit manufacturer’s product data with complete information on pipeline materials, physical properties, and dimensions pertinent to this job. Furnish a certificate of compliance with specifications for materials to be supplied.

B. Submit test reports prepared by an independent testing laboratory certifying that polyethylene pipe conforms to the requirements of ASTM D1248 and ASTM D3350.

C. Submit manufacturer’s product data on clamps.

D. Submit video tapes as required per City of Georgetown and TCEQ specifications.

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1.10 TESTING

A. The City may require, and Contractor will pay for any tests run on field samples following applicable ASTM specifications at an independent laboratory to verify the required physical properties and characteristics of supplied materials. Provide product samples as requested by the Engineer or City Inspector.

B. The Contractor shall pay for any tests required for pipe bursting or manhole coating to be accepted by the City.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Pipe systems shall be high density polyethylene only.

2.02 HIGH DENSITY POLYETHEYLENE PIPE AND FITTINGS

A. Provide High Density Polyethylene (HDPE) pipe, manufactured of solid wall, high density, high molecular weight, polyethylene compound conforming to ASTM D1248, Type III, Class B, Grade P-34, Category 5, with a PPI rating of PE 3408. Use polyethylene material with a minimum cell classification of 345434D or E (inner wall of light color) under ASTM D3350. A higher numbered cell classification limit which gives a desirable higher primary property, according to ASTM D3350, is also acceptable. Dimensions and workmanship shall be in accordance with ASTM F714 and ASTM D2122.

B. The maximum Standard Dimension Ratio (SDR), the ratio of outside diameter of pipe to wall thickness, is specified below. Select the SDR for the deeper of two (2) manholes in a particular pipeline segment.

DIPS Pipe Size	Nominal Outside Diameter (Inches)	Minimum Wall Thickness (Inches)		
		>5’ Deep	14’-20’ Deep	>20’ Deep
		SDR 21 (100 psi)	SDR 17 (100- psi)	SDR 13.5 (160 psi)
16	17.70	0.829	1.024	1.582

C. HDPE pipe required to have a minimum pipe stiffness of 46 psi for 12 inch through 48" diameter pipe and 115 psi for 8 inch through 10-inch diameters as required by TCEQ.

2.03 NEW PIPE SEAL AT MANHOLE

A. The annular space between new pipe and host sewer at manhole shall be sealed with oakum strips soaked in Scotchseal 5600 as manufactured by 3M Corporation or approved equal.

B. Grout mix shall be non-shrink grout.

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2.04 CLAMPS AND GASKETS

A. Clamps shall be stainless steel, including bolts and lugs as manufactured by JCM Industries, Type 108, or equal. Furnish full circle, universal clamp couplings with a minimum 3/16-inch-thick neoprene, grid-type gasket. Select clamps to fit outside diameter of pipe. Use minimum clamp (length) as specified in the following table:

Pipe (O.D.) (Inches)	Maximum (Length of Clamp) (Inches)
9.05	18
11.10 or greater	30

2.05 BEDDING MATERIAL

A. Provide bedding conforming to requirements of the City of Georgetown specifications.

PART 3 EXECUTION

3.01 OBSTRUCTION REMOVAL AND POINT REPAIR

A. Make point repairs and remove obstructions such as roots, rocks or other debris, prior to installing pipe. Debris shall be removed and legally disposed of in accordance with applicable jurisdiction.

3.02 BYPASS PUMPING

A. See Section 015060 – Bypass Pumping.

3.03 INSERTION OR ACCESS PITS

A. Locate pits so that the total number is minimized and footage of pipe installed in a single pull is maximized. Use excavations at point repair locations for insertion pits, where possible.

B. Before excavating, check with various utility companies and determine the location of utilities in the vicinity of the work area. For damage done to utilities, the resulting repair, temporary service, and other such costs shall be borne by the Contractor.

C. Perform excavation and backfill in accordance with requirements of City of Georgetown specifications.

D. Perform work in accordance with OSHA standards. Employ Trench Safety System for excavations requiring trench safety.

E. Install and operate necessary dewatering and surface water control measures, as necessary, in accordance with requirements of City of Georgetown and TCEQ requirements.

3.04 HIGH DENSITY POLYETHYLENE PIPE INSTALLATION

A. Joints:

1. Assemble and join sections of HDPE pipe on site above the ground. Make joints by heating and butt-fusion method in strict conformance with manufacturer’s instructions.

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2. Use operators who are experienced with the butt-fusion method for pipe jointing in the field. Operators should be trained in fusing polyethylene pipe with similar equipment using proper jigs and tools per standard procedures outlined by pipe manufacturer.

3. Form joints with a smooth, uniform double rolled back bead made while applying the proper melt, pressure, and alignment. Joints will be inspected by the Engineer and City Inspector before insertion.

B. Preparation: After completing insertion pit excavation, remove top of existing sanitary sewer line down to the spring line. Connect a power winch cable to the end of pipe by use of a suitable pulling head equal to the outside diameter of pipe. Secure pulling head to pipe and attach to power winch cable so that pipe can be satisfactorily fed and pulled through sanitary sewer main. Prevent ragged edges of existing pipe from scarring pipe. Refer to insertion procedures given in ASTM F585. Do not allow sand or other debris to enter the pipe.

C. Pulling Pipe:

1. The maximum length of continuous pipe which may be assembled above ground and pulled at any one (1) time is the length recommended by the manufacturer’s printed instructions.

2. Limit pulling force exerted on pipe to that indicated below for the appropriate outside diameter of the HDPE pipe. Provide a suitable pulling force measuring device connected to the winch or pulling mechanism.

HDPE Pipe O.D. (Inches)	Maximum Pulling Force (Tons)
8.625	4.0
10.75	7.5
14.0	10.5
16.0	12.0
18.0	21.5

D. Alternate Installation Techniques. Pushing the pipe as an insertion method, or a combination of pulling and pushing, may be used subject to Engineer’s approval. Avoid pipe buckling or dimpling by limiting the stroke of the pushing implement. Cut out and remove any portion damaged during insertion process.

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3.05 CLAMP INSTALLATION

A. Where excavations of pipe insertion are made between two (2) manholes, cut ends of the pipe smooth, square to its axis. Join pipes with appropriately sized stainless steel universal clamp couplings. Gap between ends of pipe shall be butted together with space between ends not exceeding one (1) inch.

B. Bedding shall be stabilized cement sand conforming to the requirements of the City of Georgetown.

3.06 FIELD QUALITY CONTROL

A. After pipe installation, perform the following tests:

1. Low pressure air test before has been sealed in place at the manholes, and before any service reconnections have been made to the pipe. Check integrity of joints that have been made and verify that pipe has not been damaged by inserting it into sanitary sewer.

2. Service lateral connection test; after all service laterals have been completed for a particular sewer section. Verify integrity of re-connections at points where they join the pipes and existing service lines by performing smoke test.

B. Testing for acceptance of pipe to conform to City of Georgetown and TCEQ specifications.

3.07 SEALING PIPE IN MANHOLE

A. Allow pipe to normalize to ambient temperatures as well as recover from imposed stretch before cutting to fit between manholes, sealing at manholes, and manhole invert shaping. Normalization usually takes at least 12 hours for polyethylene.

B. Cut pipe so that it extends four (4) inches into manhole. Make a smooth, vertical cut and slope area over top of exposed pipe using non-shrink grout.

C. Seal the annular space between pipe and sanitary sewer main at each manhole with a chemical seal and nonshrink grout. Place strips of oakum soaked in sealer in a band to form an effective water-tight gasket in the annular space between pipe and existing pipes in manhole. Make width of the sealing band a minimum of 12 inches or one-half (1/2) the diameter of pipe, whichever is greater.

D. Finish seal with a non-shrink grout placed around annular space from inside manhole. Apply grout in a band not less than six (6) inches wide.

E. Reshape and smooth the manhole invent as specified in City of Georgetown Specifications. Use approved manhole rehabilitation material to form a smooth transition with a reshaped invert and a raised manhole bench to eliminate sharp edges of pipe, concrete bench, and channeled invert. Build up and smooth invert of manhole to match flow line of new pipe.

3.08 POST-INSTALLATION TELEVISING OF COMPLETED WORK

A. Provide the Engineer and City Inspector with footage showing completed Work including condition of restored connections. Post-Installation televising is incidental to Contract.

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3.09 FINAL CLEANUP

A. Upon completion of installation work and testing, clean and restore project area affected by the Work to pre-construction condition or better.

B. Contractor responsible for watering re-seeded/re-sodded areas.

C. Contractor responsible for warranty work should restored area settle.

END OF SECTION

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

GENERAL NOTES SHEET 2 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

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JCF	MIZ	AUG 2024

SHEET NO. 7

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APPROVED: 08/02/2024

PART 1 GENERAL

1.01 DEFINITIONS

A. Bypass Pumping: Installation and operation of bulkheads, plugs, hoses, piping, and pumps required to maintain sanitary sewer flow and prevent backups and overflows.

1.02 SYSTEM DESCRIPTION

A. Provides continuous sanitary sewer service to users while maintenance or construction operations are in progress, by diverting flow around construction locations as required for the Work. Maintain sewer flow to prevent backup or overflow onto streets, yards and unpaved areas or into buildings, adjacent ditches, storm sewers, and waterways. Do not divert sewage outside of sanitary sewer system.

B. When pumps are operating, have a system monitor with automatic communication including an alarm system.

1.03 SUBMITTALS

A. Submit a Bypass Pumping Plan prior to installation for all sized pipes. Show location, number and size of pumps, number, location, size and type of hoses or rigid piping, and location of downstream discharge; and special features where pipes or hoses cross roadways, temporary trenches, support bridges.

B. Bypass Pumping Plan to meet requirements as indicated on drawings and all other items for a complete working system.

1.04 SCHEDULING

A. When the Contractor operates or maintains bypass pumping in construction areas, coordinate construction activities with the Engineer and City Inspector.

B. Cease operation of bypass pumping when approved by the Engineer and City Inspector.

PART 2 PRODUCTS

2.01 MATERIALS

A. Design piping, joints and accessories to withstand a minimum of required pumping flowrate and pressure.

B. Use self-priming or submersible pumps, with a working pressure gauge on the discharge. Pumps shall meet requirements of Jurisdiction and Owner Noise and Sound Level Regulations.

PART 3 EXECUTION

3.01 FIELD QUALITY CONTROL

A. During bypass pumping, do not allow sewage to leak, dump, or spill into or onto areas outside of existing sanitary sewer systems.

B. In the event of an accidental spill or overflow, immediately stop discharge and take action to

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clean up and disinfect spill as required by the Texas Commission on Environmental Quality (TCEQ). Promptly notify the City Inspector and Engineer so required reporting can be made to the TCEQ.

3.02 CLEANING

A. When bypass pumping operations are complete, drain sewage within piping into sanitary sewers prior to disassembly.

END OF SECTION

011100 2/2

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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

GENERAL NOTES SHEET 3 OF 3

STATE OF TEXAS
JUSTIN FAURE
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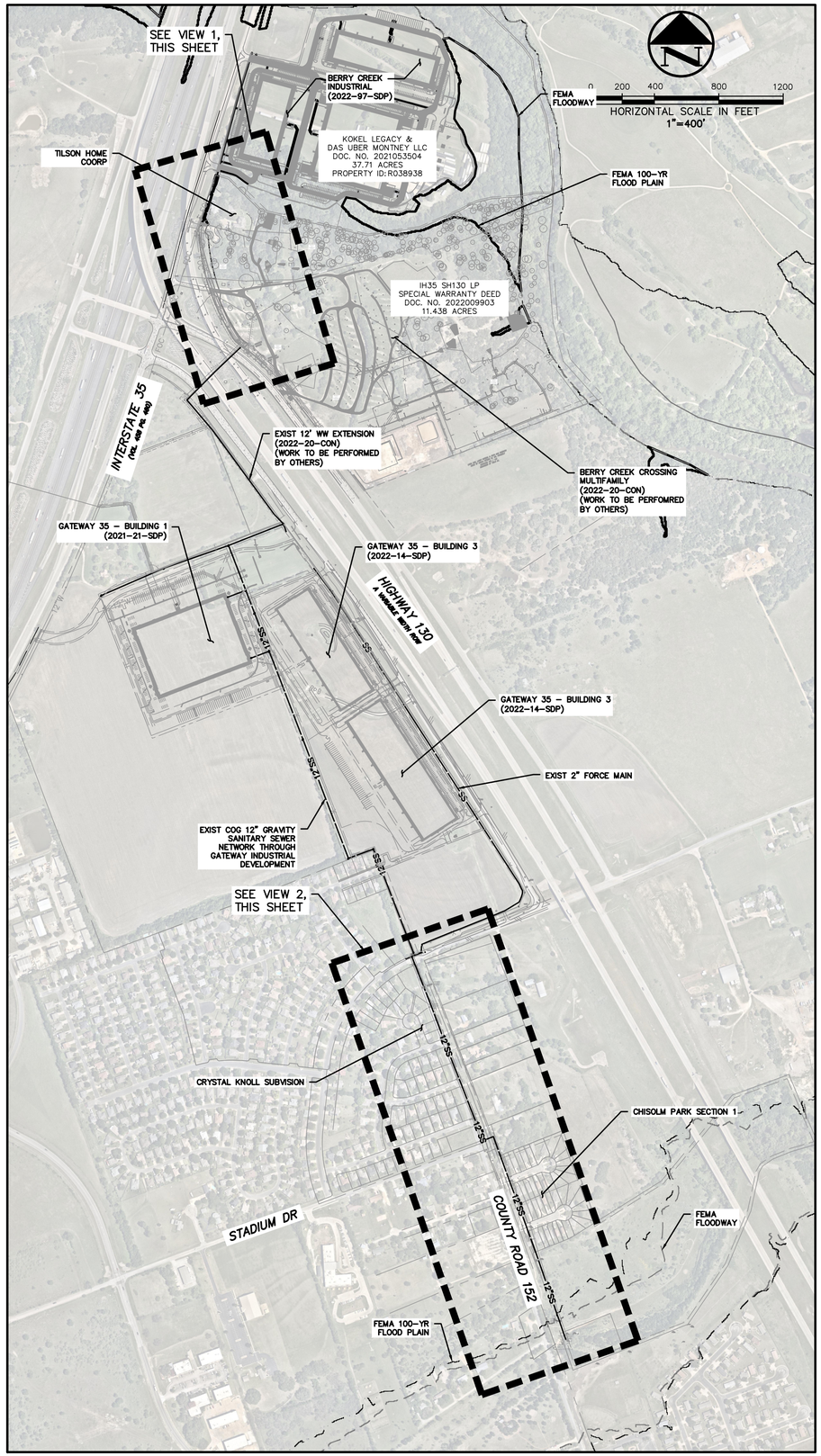

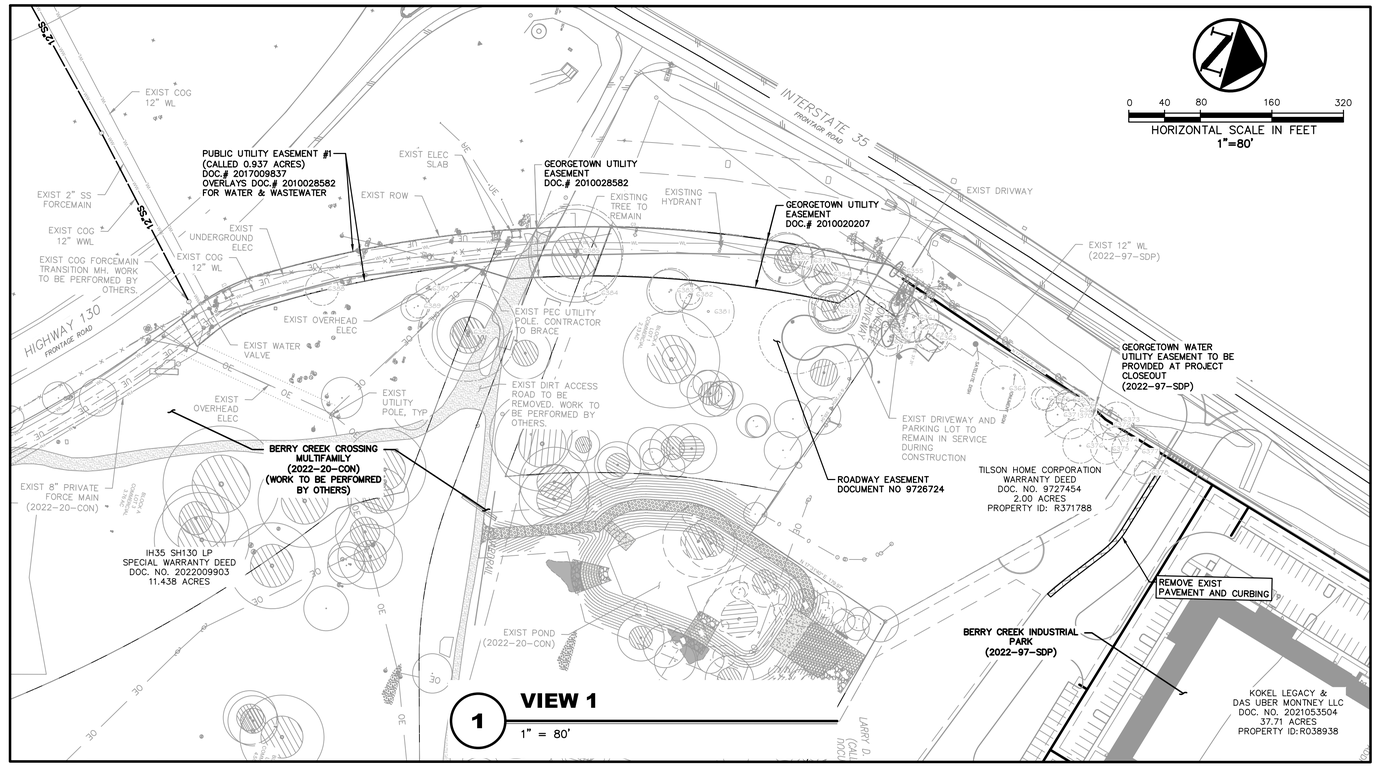

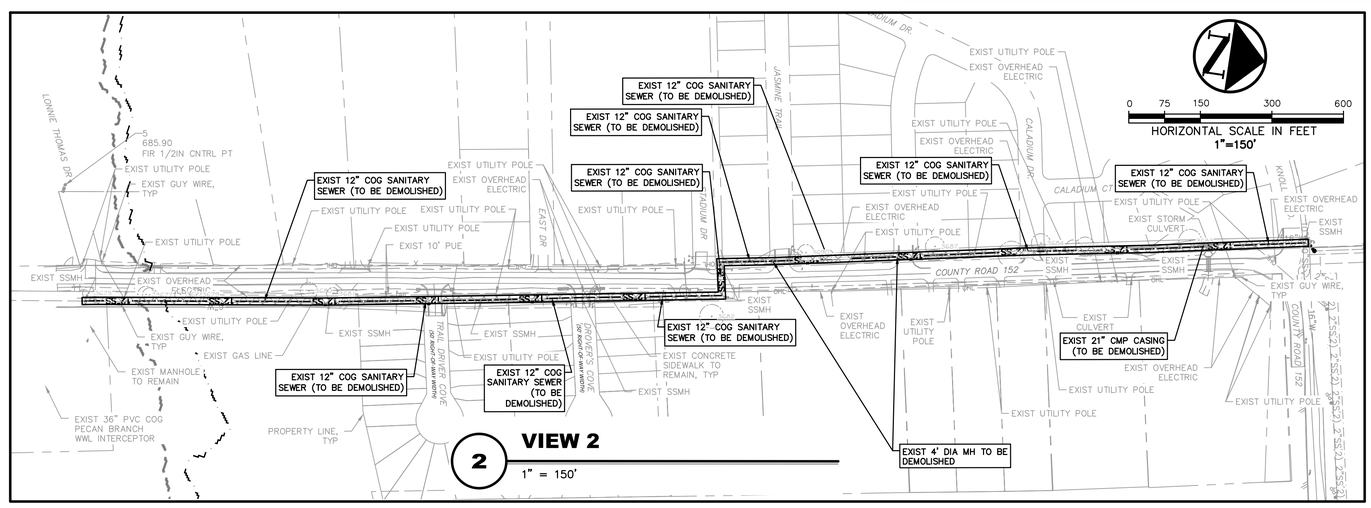

LEGEND

B	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
FL	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
	FIBER OPTIC LINE
	UNDERGROUND STORM LINE
30" RCP	
	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
612.39	EXIST SPOT ELEVATION
TC 612.39 / G 611.89	EXIST TOP OF CURB ELEVATION / EXIST GUTTER ELEVATION
SAWCUT	LIMITS OF SAWCUT
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
	BUFFER ZONE
	DEMOLITION AREA

DEMOLITION GENERAL NOTES

1. CONTRACTOR IS TO REVIEW ALL GENERAL NOTES PRIOR TO BEGINNING WORK.
2. SAWCUT AND REMOVE ALL EXISTING DRIVE APPROACHES (WITHIN THE LIMITS OF DEMOLITION) TWO FEET FROM BACK OF CURB. SIDEWALKS, PAVEMENT, AND UTILITIES WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO REMAIN UNLESS OTHERWISE NOTED.
3. COORDINATE WITH LOCAL POWER, TELEPHONE, CABLE, AND GAS COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES.
4. ALL UTILITIES SHOULD BE CUT AND PLUGGED IN ACCORDANCE WITH THEIR RESPECTIVE UTILITY COMPANY REQUIREMENTS AND PRIOR TO DEMOLITION OF THE EXISTING BUILDINGS.
5. CONTRACTOR TO PLUG ALL EXISTING EXPOSED ENDS OF ABANDONED UTILITIES.
6. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND LEGAL DISPOSAL OF ALL THE UNSUITABLE MATERIALS FROM THE PROJECT SITE. CONTRACTOR SHALL CONTACT ALL LOCAL AUTHORITIES TO DETERMINE DISPOSAL REQUIREMENTS.
7. ALL TREES ON THE PROPERTY SHALL BE PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS UNLESS OTHERWISE NOTED. THE TREE PROTECTION SHALL BE PLACED AROUND TREES PRIOR TO ANY DEMOLITION OR GRADING. TREE PROTECTION SHALL REMAIN UNTIL ALL WORK IS COMPLETED. REFER TO BERRY CREEK BUSINESS PARK (2022-20-LSP) LANDSCAPE SHEETS.
8. ANY DAMAGE DONE TO EXISTING TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY BY AN APPROVED TREE SURGEON AT THE OWNER'S DIRECTION. ROOTS EXPOSED AND/OR DAMAGED DURING DEMOLITION AND/OR GRADING OPERATIONS SHALL BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA, CUT SURFACES PAINTED WITH AN APPROVED TREE PAINT, AND TOPSOIL AND MULCH PLACED OVER THE EXPOSED ROOT AREA IMMEDIATELY.
9. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING EROSION CONTROL MEASURES ON THE SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS UNTIL THE SITE HAS BEEN STABILIZED.
10. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO ALLOW FOR POSITIVE DRAINAGE. GRADING SLOPES ARE NOT TO EXCEED 3:1.
11. AREAS EXCAVATED FOR FOUNDATION OR UNDERGROUND STRUCTURE REMOVAL SHALL BE BACK-FILLED AND COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
12. CONTRACTOR IS RESPONSIBLE FOR SECURITY OF THE SITE DURING DEMOLITION ACTIVITIES AND UNTIL SUBSTANTIAL COMPLETION.
13. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND CITY STANDARD CONSTRUCTION SPECIFICATIONS.
14. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITY MAINS, MANHOLES, CLEANOUTS, VALVE BOXES, AND FIRE HYDRANTS, ETC. IN THE AREA OF DEMOLITION.
15. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
16. BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
17. CONTRACTOR SHALL MAINTAIN EXISTING PAVEMENT AND ACCESS TO FIRE HYDRANTS ON SITE UNTIL THE BUILDINGS AND STRUCTURES IN THAT AREA HAVE BEEN DEMOLISHED AND REMOVED.
18. CONTRACTOR WILL PROVIDE ON-SITE PARKING FOR WORKERS. VEHICLE PARKING WILL NOT BE ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY.
19. CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ADEQUATE DUST CONTROL MEASURES DURING DEMOLITION ACTIVITIES.
20. CONTRACTOR IS TO COORDINATE DEMOLITION ACTIVITIES WITH THE HAZARDOUS MATERIAL ABATEMENT CONTRACTORS' ACTIVITIES, IF APPLICABLE.
21. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL TEMPORARY UTILITY SERVICES REQUIRED TO COMPLETE THE SCOPE OF WORK.

2023-35-CON

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

EXISTING CONDITIONS AND DEMOLITION PLAN

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER
08/02/2024

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISOR OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024 ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

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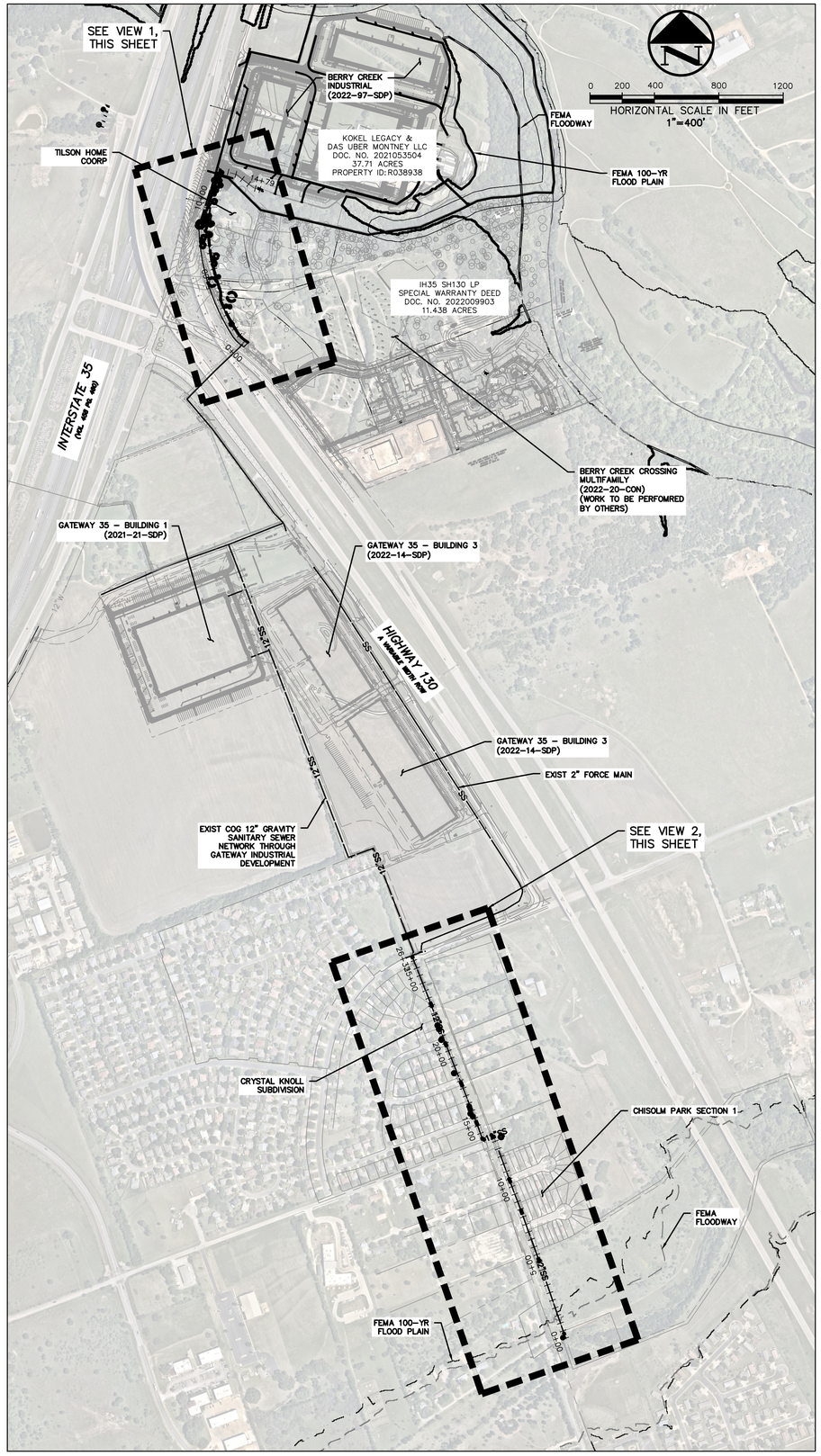
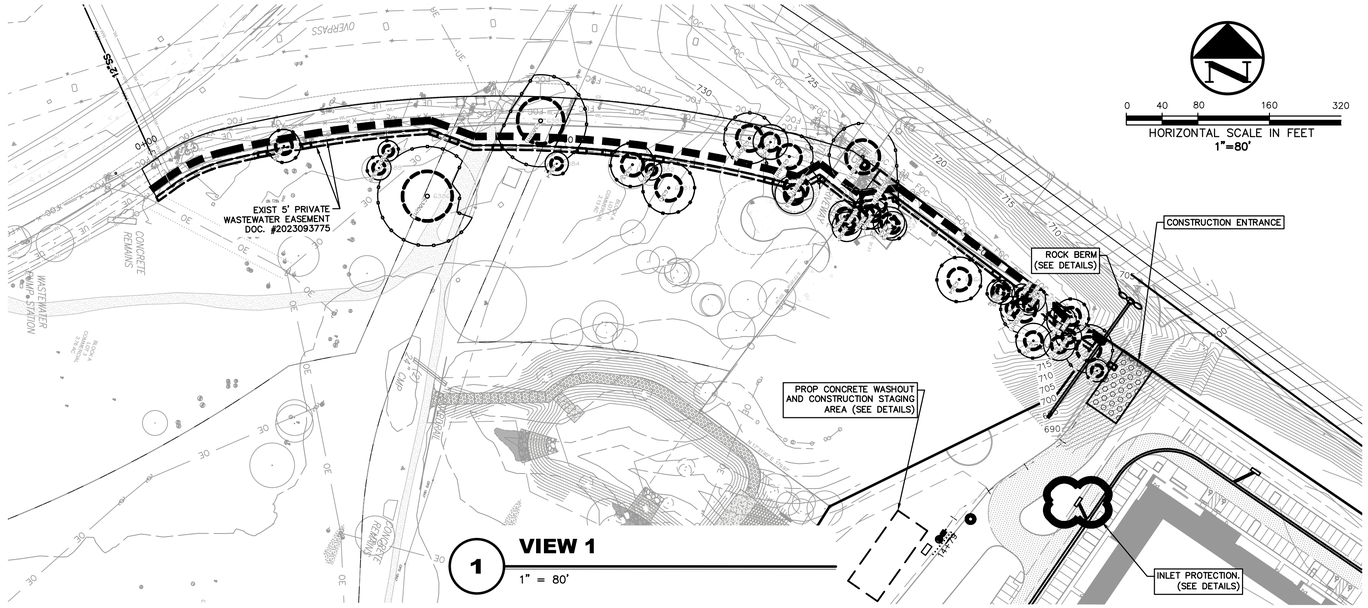
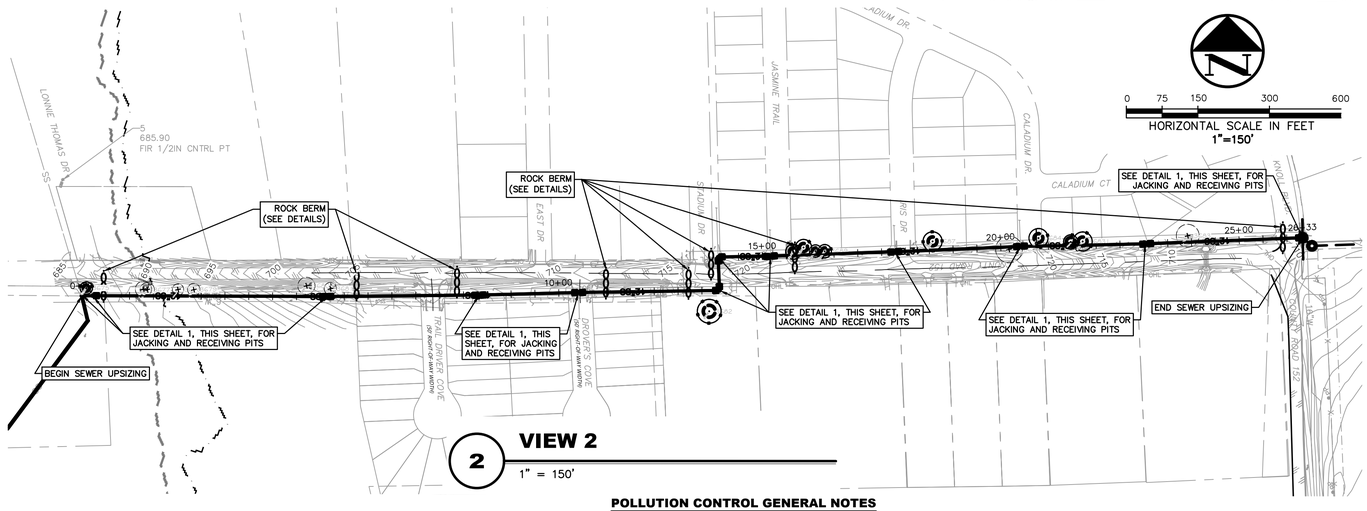
APPROVED: 08/02/2024





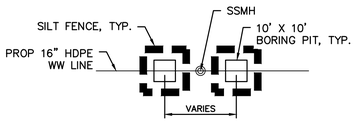
1 VIEW 1
1" = 80'



2 VIEW 2
1" = 150'

LEGEND

BOLLARD	FENCE
ELECTRIC METER	OVERHEAD UTILITY LINE
POWER POLE	EXIST CONTOUR
LIGHT STANDARD	PROPOSED CONTOUR
WATER METER	PROPOSED DRAINAGE FLOW DIRECTION
WATER VALVE	
IRRIGATION CONTROL VALVE	PROPOSED CONSTRUCTION ENTRANCE
FIRE HYDRANT	
CLEANOUT	
MANHOLE	INLET PROTECTION
TRAFFIC SIGNAL CONTROL	
TRAFFIC SIGNAL POLE	
TELEPHONE BOX	SILT FENCE (LIMITS OF DISTURBED AREA)
FLOOD LIGHT	
FLAG POLE	ROCK BERM
TRAFFIC SIGN	
1/2-INCH IRON ROD	FEMA FLOODWAY
W/"PACHECO KOCH" CAP SET	
CONTROLLING MONUMENT	FEMA 100 YEAR FLOODPLAIN
PROPERTY LINE	



1 JACKING AND RECEIVING PIT DETAIL
NTS

POLLUTION CONTROL GENERAL NOTES

1. THIS PLAN HAS BEEN PREPARED TO PROVIDE MEANS TO PREVENT OR MINIMIZE POLLUTION OF STORM WATER.
2. THE CONSTRUCTION ACTIVITY INCLUDED IN THIS PLAN WILL INCLUDE:
   2.A. UTILITY INSTALLATION
3. THE TOTAL ESTIMATED LAND AREA TO BE DISTURBED IS 168 ACRES.
4. THE ESTIMATED RUNOFF COEFFICIENT UPON COMPLETION OF THE PROJECT IS 0.97.
5. THE STORM WATER EXITING THE SITE IS COLLECTED IN AN EXISTING DRAINAGE SYSTEM MAINTAINED BY THE CITY OF GEORGETOWN, TEXAS.
6. THE SOILS ON THE SITE ARE GENERALLY EXPANSIVE CLAYS.
7. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION PROTECTION AROUND THE WORK AREA PERIMETER AND AT ALL INLET MOUTHS PRIOR TO COMMENCING WORK AND UNTIL THE WORK AREA HAS BEEN STABILIZED.
8. THE CONTRACTOR WILL REMOVE ALL EXCESS SOIL FROM CONSTRUCTION VEHICLES PRIOR TO EXITING THE SITE.
9. ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED MUST BEGIN BEING STABILIZED IMMEDIATELY BY THE CONTRACTOR TO CONTROL EROSION. THE CONTRACTOR HAS 14 DAYS TO HAVE ALL STABILIZATION AND EROSION CONTROL DEVICES IN PLACE.
10. THE CONTRACTOR SHALL UNDERTAKE PROPER METHODS TO REDUCE DUST GENERATION FROM THE SITE.
11. THE CONTRACTOR MUST COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS REGARDING SEDIMENT AND EROSION CONTROL.
12. A COPY OF THIS PLAN, AS PART OF THE SWPPP, MUST BE KEPT AT THE CONSTRUCTION FACILITY DURING THE ENTIRE CONSTRUCTION PERIOD.
13. CONSTRUCTION SEQUENCING MUST PROVIDE FOR THE EXCAVATION OF AN ON-SITE BASIN AS A SEDIMENT COLLECTION BASIN PRIOR TO THE DISTURBANCE OF GREATER THAN 10 ACRES OF LAND.
14. ALL FINISHED GRADES ARE TO BE HYDROMULCHED, SPOT SODDED OR SEEDED AND WATERED UNTIL GROWTH IS ESTABLISHED ON AND OFF-SITE.
15. A PIT OR WASH OUT BASIN SHALL BE CONSTRUCTED ON-SITE BY THE CONTRACTOR FOR THE "WASH OUT" OF CONCRETE TRUCKS.
16. A BERM OR OTHER SPILL PROTECTION MEASURE SHALL BE USED FOR ANY TEMPORARY FUEL STORAGE TANK ON-SITE.
17. IF "SUMP" PUMPS ARE USED TO REMOVE WATER FROM EXCAVATED AREAS, FILTER THE DISCHARGE TO REMOVE SEDIMENT AND OTHER POLLUTANTS BEFORE THE WATER LEAVES THE SITE.
18. TO PREVENT DAMAGE TO VEGETATION IN DOWNSTREAM WATER COURSES, LIMIT ANY PROPOSED LIME STABILIZATION OPERATIONS TO THAT WHICH CAN BE MIXED AND COMPACTED BY THE END OF EACH WORK DAY. GEOTEXTILE FABRIC IS NOT EFFECTIVE IN FILTERING LIME SINCE THE GRAIN SIZE IS SMALLER THAN THE OPENING IN THE FABRIC.
19. VEHICLE PARKING AREAS, STAGING AREAS, STOCKPILES, SPOILS, ETC. SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. OTHERWISE, COVERING OR ENCIRCLING THE AREAS WITH PROTECTIVE MEASURES SHALL BE NECESSARY.
20. STORE ALL TRASH AND BUILDING MATERIALS WASTE IN AN ENCLOSURE UNTIL IT CAN BE PROPERLY DISPOSED OF AT THE APPROPRIATE OFF-SITE FACILITIES.
21. TRACKING OF SEDIMENT OFF-SITE BY TRUCK TRAFFIC SHALL BE HANDLED THROUGH REGULAR CLEANING.
22. INSPECTIONS SHALL BE CONDUCTED BY THE PERMITEE ONCE EVERY TWO WEEKS AND WITHIN 24 HOURS AFTER STORM EVENT OF 0.5 INCHES OR MORE OR ONCE PER WEEK ON A SPECIFIC PRE-DEFINED DAY. THE INSPECTIONS WILL INCLUDE:
   22.A. DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN STABILIZED.
   22.B. AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
   22.C. STRUCTURAL CONTROL MEASURES.
   22.D. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
   22.E. IDENTIFICATIONS OF MEASURES THAT NEED TO BE MAINTAINED, MODIFIED, OR ADDED TO CORRECT PROBLEMS.
23. CONTRACTOR SHALL MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS PRESENT ON THE SITE TO PRECIPITATION AND TO STORMWATER.
24. PERMANENTLY STABILIZE EXPOSED SOIL, WITHIN AND ADJACENT TO THE SITE, THAT IS DISTURBED BY VEHICLES, GRADING AND OTHER CONSTRUCTION ACTIVITIES.
25. CONTAIN ALL RUNOFF FROM MATERIAL USED IN SUBGRADE STABILIZATION.
26. MATERIAL STOCKPILES SHALL BE COVERED BY PLASTIC OR SURROUNDED BY EROSION CONTROL STRUCTURES TO CONTROL SEDIMENT RELEASES.
27. CONTRACTOR SHALL PROTECT SLOPES IN EXCESS OF 15% IN ORDER TO MINIMIZE EROSION OF SOILS AND THE DISTURBANCE OF SLOPES.
28. VEGETATION TO BE PRESERVED WHERE EVER POSSIBLE TO HELP REDUCE EROSION. WHERE VEGETATION MUST BE REMOVED, PRESERVE NATIVE TOPSOIL IN ALL AREAS POSSIBLE.
29. MINIMIZE SOIL COMPACTION IN AREAS INTENDED FOR POST CONSTRUCTION PERVIOUS SURFACE.
30. EROSION CONTROL MEASURES TO BE INSTALLED AROUND TRENCHLESS PIPE INSTALLATION JACKING AND RECEIVING PITS FOLLOWING CITY OF GEORGETOWN SPECIFICATIONS. CONTRACTOR TO SUBMIT EROSION CONTROL PLAN FOR REVIEW BY ENGINEER PRIOR TO IMPLEMENTATION.
31. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

2023-35-CON

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

EROSION CONTROL PLAN

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

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APPROVED: 08/02/2024

GUIDELINES FOR DESIGN AND INSTALLATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS

TYPE OF STRUCTURE	REACH LENGTH	MAXIMUM DRAINAGE AREA	SLOPE
SILT FENCE	N/A	2 ACRES	0 – 10%
	200 FEET	2 ACRES	10 – 20%
	100 FEET	1 ACRE	20 – 30%
	50 FEET	1/2 ACRE	> 30%
TRIANGLE FILTER DIKE	100 FEET	1/2 ACRE	< 30% SLOPE
	50 FEET	1/4 ACRE	> 30% SLOPE
ROCK BERM *, **	500 FEET	< 5 ACRES	0 – 10%

* FOR ROCK BERM DESIGN WHERE PARAMETERS ARE OTHER THAN STATED, DRAINAGE AREA CALCULATIONS AND ROCK BERM DESIGN MUST BE SUBMITTED FOR REVIEW.

** HIGH SERVICE ROCK BERMS MAY BE REQUIRED IN AREAS OF ENVIRONMENTAL SIGNIFICANCE AS DETERMINED BY THE CITY OF GEORGETOWN.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
TEMPORARY EROSION AND SEDIMENTATION CONTROL GUIDELINES

DRAWING NAME: EC01
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

NOTE: THIS SECTION IS INTENDED TO ASSIST THOSE PERSONS PREPARING WATER POLLUTION ABATEMENT PLANS (WPAP) OR STORM WATER POLLUTION PREVENTION PLANS (SW3P) THAT COMPLY WITH FEDERAL, STATE AND/OR LOCAL STORM WATER REGULATIONS.

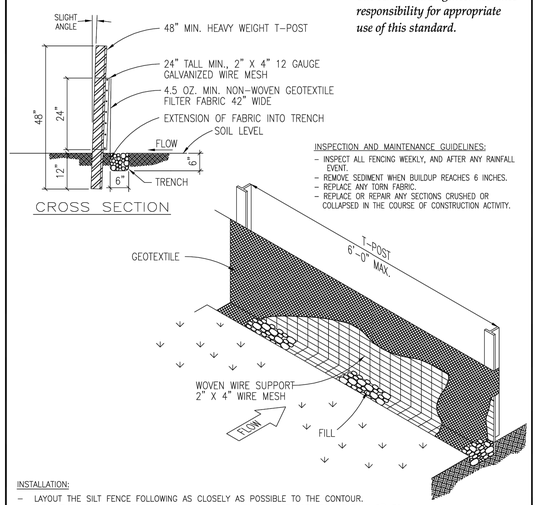
1. THE CONTRACTOR TO INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, GRADING, OR EXCAVATION). CONTRACTOR TO REMOVE EROSION/SEDIMENTATION CONTROLS AT THE COMPLETION OF PROJECT AND GRASS RESTORATION.
2. ALL PROJECTS WITHIN THE RECHARGE ZONE OF THE EDWARD'S AQUIFER SHALL SUBMIT A BEST MANAGEMENT PRACTICES AND WATER POLLUTION AND ABATEMENT PLAN TO THE TNRCC FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
3. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS TO BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN AND WATER POLLUTION ABATEMENT PLAN. DEVIATIONS FROM THE APPROVED PLAN MUST BE SUBMITTED TO AND APPROVED BY THE OWNER'S REPRESENTATIVE.
4. ALL PLANTING SHALL BE DONE BETWEEN MAY 1 AND SEPTEMBER 15 EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING. IF PLANTING IS AUTHORIZED TO BE DONE OUTSIDE THE DATES SPECIFIED, THE SEED SHALL BE PLANTED WITH THE ADDITION OF WINTER FESCUE (KENTUCKY 31) AT A RATE OF 100lb/ACRE. GRASS SHALL BE COMMON BERMUDA GRASS, HULLED, MINIMUM 82% PURE LIVE SEED. ALL GRASS SEED SHALL BE FREE FROM NOXIOUS WEED, GRADE "A" RECENT CROP, RECLEANED AND TREATED WITH APPROPRIATE FUNGICIDE AT TIME OF MIXING. SEED SHALL BE FURNISHED IN SEALED, STANDARD CONTAINERS WITH DEALER'S GUARANTEED ANALYSIS.
5. ALL DISTURBED AREAS TO BE RESTORED AS NOTED IN THE WATER POLLUTION ABATEMENT PLAN.
6. THE PLANTED AREA TO BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF FOUR (4) INCHES. THE IRRIGATION TO OCCUR AT 10-DAY INTERVALS DURING THE FIRST TWO MONTHS TO INSURE GERMINATION AND ESTABLISHMENT OF THE GRASS . RAINFALL OCCURRENCES OF 1/2 INCH OR GREATER TO POSTPONE THE WATERING SCHEDULE ONE WEEK.
7. RESTORATION TO BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1-1/2 INCHES HIGH WITH 95% *COVERAGE*, PROVIDED NO BARE SPOTS LARGER THAN 25 SQUARE FEET EXIST.
8. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL TO BE PLACED IN ALL AREAS DISTURBED BY CONSTRUCTION.
9. THE CONTRACTOR TO HYDROMULCH OR SOD (AS SHOWN ON PLANS) ALL EXPOSED CUTS AND FILLS UPON COMPLETION OF CONSTRUCTION.
10. EROSION AND SEDIMENTATION CONTROLS TO BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILDUP WITHIN TREE DRIPLINE.
11. TO AVOID SOIL COMPACTION, CONTRACTOR SHALL NOT ALLOW VEHICULAR TRAFFIC, PARKING, OR STORAGE OF EQUIPMENT OR MATERIALS IN THE TREE DRIPLINE AREAS.
12. WHERE A FENCE IS CLOSER THAN FOUR (4) FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF EIGHT (8) FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE FENCING.
13. TREES TO BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
14. ANY ROOT EXPOSED BY CONSTRUCTION ACTIVITY TO BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOPSOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
15. CONTRACTOR TO PRUNE VEGETATION TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.). ALL FINISHED PRUNING TO BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE "NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES").
16. THE CONTRACTOR IS TO INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY RAINFALL EXCEEDING 1/4 INCH TO VERIFY THAT THEY HAVE NOT BEEN SIGNIFICANTLY DISTURBED. ANY ACCUMULATED SEDIMENT AFTER A SIGNIFICANT RAINFALL TO BE REMOVED AND PLACED IN THE OWNER DESIGNATED SPOIL DISPOSAL SITE. THE CONTRACTOR TO CONDUCT PERIODIC INSPECTIONS OF ALL EROSION/SEDIMENTATION CONTROLS AND TO MAKE ANY REPAIRS OR MODIFICATIONS NECESSARY TO ASSURE CONTINUED EFFECTIVE OPERATION OF EACH DEVICE.
17. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT IMMEDIATELY ADJACENT TO A PROTECTED TREE, ERECT THE FENCE APPROXIMATELY TWO TO FOUR FEET (2'-4') BEHIND THE AREA IN QUESTION.
18. NO ABOVE AND/OR BELOW GROUND TEMPORARY FUEL STORAGE FACILITIES TO BE STORED ON THE PROJECT SITE.
19. IF EROSION AND SEDIMENTATION CONTROL SYSTEMS ARE EXISTING FROM PRIOR CONTRACTS, OWNER'S REPRESENTATIVE AND THE CONTRACTOR TO EXAMINE THE EXISTING EROSION AND SEDIMENTATION CONTROL SYSTEMS FOR DAMAGE PRIOR TO CONSTRUCTION. ANY DAMAGE TO PREEXISTING EROSION AND SEDIMENTATION CONTROLS NOTED TO BE REPAIRED AT OWNERS EXPENSE.
20. INTENTIONAL RELEASE OF VEHICLE OR EQUIPMENT FLUIDS ONTO THE GROUND IS NOT ALLOWED. CONTAMINATED SOIL RESULTING FROM ACCIDENTAL SPILL TO BE REMOVED AND DISPOSED OF PROPERLY.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
EROSION AND SEDIMENTATION AND TREE PROTECTION NOTES

DRAWING NAME: EC01A
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



CROSS SECTION

The Architect/Engineer assumes responsibility for appropriate use of this standard.

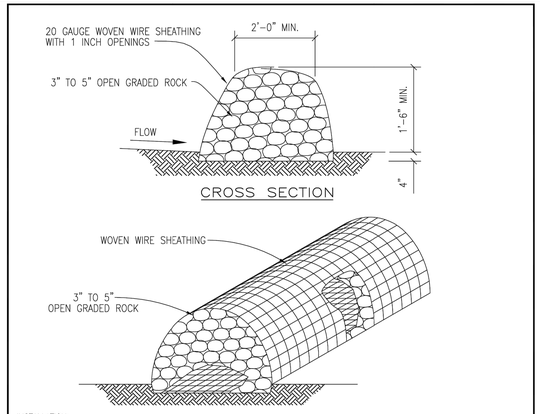
INSTALLATION:
- LAYOUT THE SILT FENCE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS, PLANTS (INCLUDING GRASSES TALLER THAN 2") TO PROVIDE A SMOOTH FLOW APPROACH SURFACE. EXCAVATE 6" DEEP X 6" WIDE TRENCH ON UPSTREAM SIDE OF FACE PER PLANS.
- DRIVE THE HEAVY DUTY T-POST AT LEAST 12 INCHES INTO THE GROUND AND AT A SLIGHT ANGLE TOWARDS THE FLOW.
- ATTACH THE 2" X 4" 12 GAUGE WELDED WIRE MESH TO THE T-POST WITH 11 1/2 GAUGE GALVANIZED T-POST CLIPS. THE TOP OF THE WIRE TO BE 24" ABOVE GROUND LEVEL. THE WELDED WIRE MESH TO BE OVERLAPPED 6" AND TIED AT LEAST 6 TIMES WITH HOG RINGS.
- THE SILT FENCE TO BE INSTALLED WITH A SKIRT A MINIMUM OF 6" WIDE PLACED ON THE UPHILL SIDE OF THE FENCE INSIDE EXCAVATED TRENCH. THE FABRIC TO OVERLAP THE TOP OF THE WIRE BY 1".
- ANCHOR THE SILT FENCE BY BACKFILLING WITH EXCAVATED DIRT AND ROCKS (NOT LARGER THAN 2").
- GEOTEXTILE SPLICES SHOULD BE A MINIMUM OF 18" WIDE ATTACHED IN AT LEAST 6 PLACES. SPLICES IN CONCENTRATED FLOW AREAS WILL NOT BE ACCEPTED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECT ALL FENCING WEEKLY, AND AFTER ANY RAINFALL EVENT.
- REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.
- REPLACE ANY TORN FABRIC.
- REPLACE OR REPAIR ANY SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
SILT FENCE DETAIL

DRAWING NAME: EC02
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



CROSS SECTION

INSTALLATION:
- LAYOUT THE ROCK BERM FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- PLACE WOVEN WIRE FABRIC ON THE GROUND ALONG THE PROPOSED INSTALLATION WITH ENOUGH OVERLAP TO COMPLETELY ENCIRCLE THE FINISHED SIZE OF THE BERM.
- PLACE THE ROCK ALONG THE CENTER OF THE WIRE TO THE DESIGNATED HEIGHT.
- WRAP THE STRUCTURE WITH THE PREVIOUSLY PLACED WIRE MESH SECURE ENOUGH SO THAT WHEN WALKED ACROSS THE STRUCTURE RETAINS IT'S SHAPE.
- SECURE WITH TIE WIRE.
- THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROX. 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.
- THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

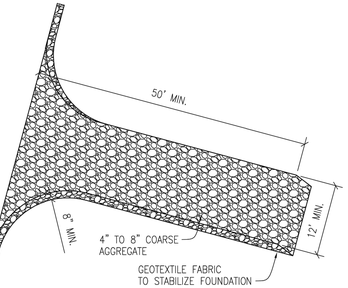
INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL EVENT BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.
- REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER.
- REMOVE ANY LOOSE WIRE SHEATHING.
- THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.
- THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

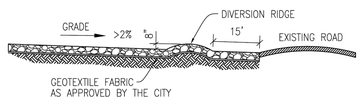
The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
ROCK BERM DETAIL

DRAWING NAME: EC03
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB





INSTALLATION:
- CLEAR THE AREA OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- GRADE THE AREA FOR THE ENTRANCE TO FLOW BACK ON TO THE CONSTRUCTION SITE. RUNOFF FROM THE STABILIZED CONSTRUCTION
- PLACE GEOTEXTILE FABRIC AS APPROVED BY THE CITY.
- PLACE ROCK AS APPROVED BY THE CITY.

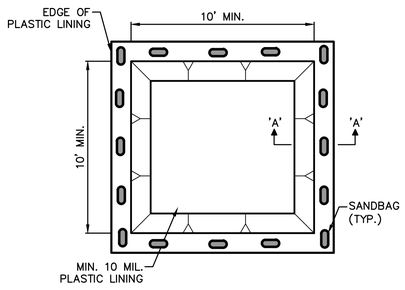
INSPECTIONS AND MAINTENANCE GUIDELINES:
- THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.
- WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

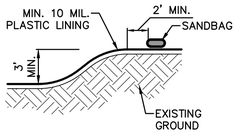
REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STABILIZED CONSTRUCTION ENTRANCE

DRAWING NAME: EC06
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



PLAN VIEW

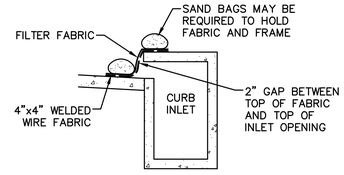


SECTION A–A

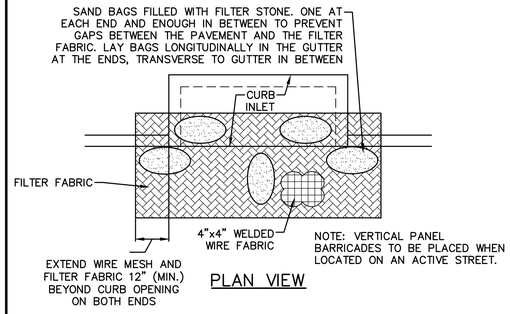
NOTE:
1. SANDBAGS MAY BE REPLACED BY A SOIL BERM TO ANCHOR PLASTIC LINING.
2. CONCRETE WASHOUT AREA TO BE CHECKED REGULARLY FOR REPAIRS.
3. REGULARLY REMOVE CONCRETE WASTE TO PREVENT OVERFLOWING.
4. PROVIDE MINIMUM 6 CF OF CONTAINMENT VOLUME FOR EVERY 10 CY OF CONCRETE PLACED. PROVIDE MINIMUM 1' FREEBOARD ABOVE CONTAINMENT VOLUME.

CONCRETE WASHOUT AREA

NOT TO SCALE



CROSS SECTION



PLAN VIEW

CURB INLET PROTECTION

NOT TO SCALE

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TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

EROSION CONTROL DETAILS & NOTES

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. 11
11 OF 26

2023-35-CON

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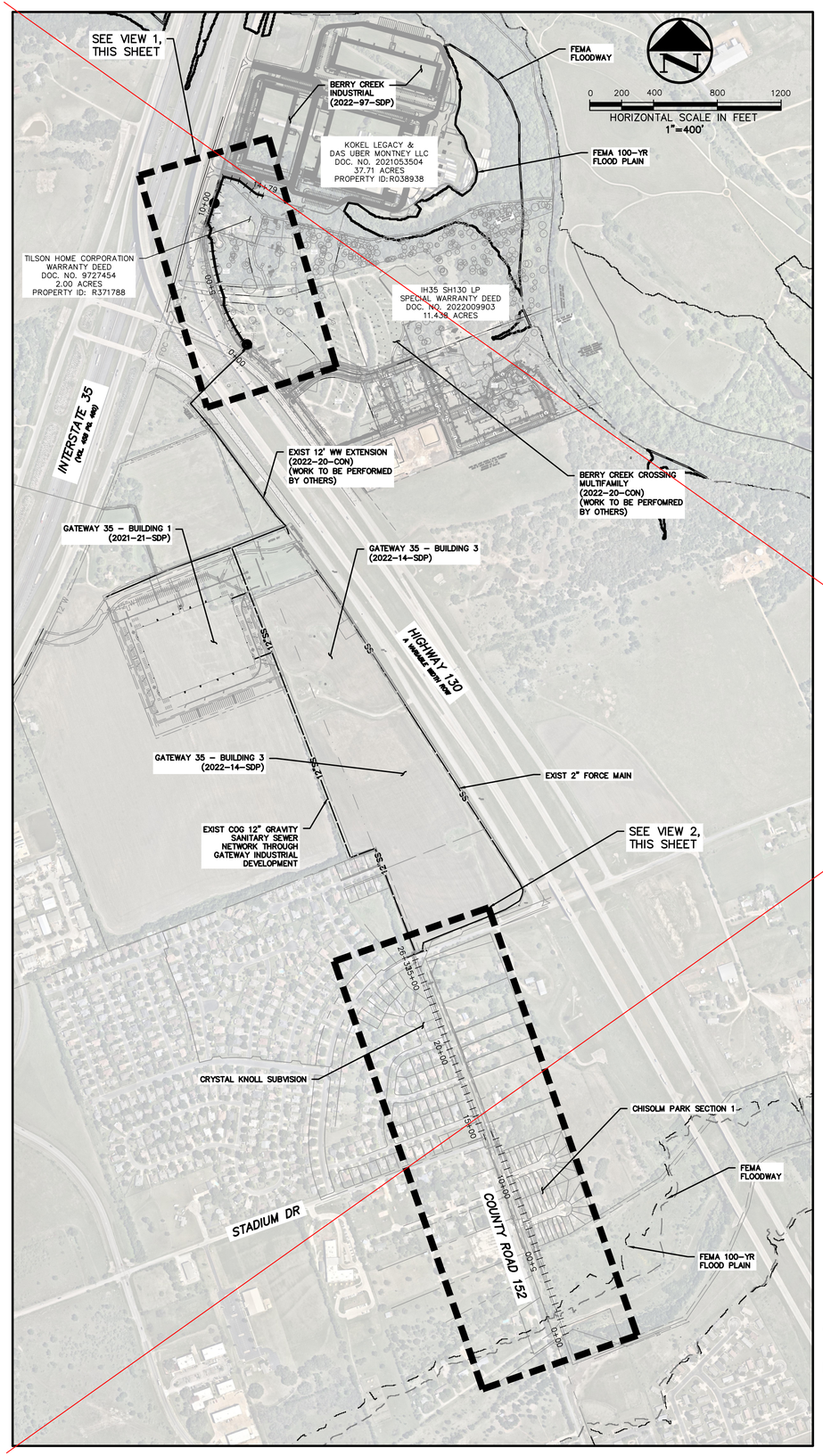
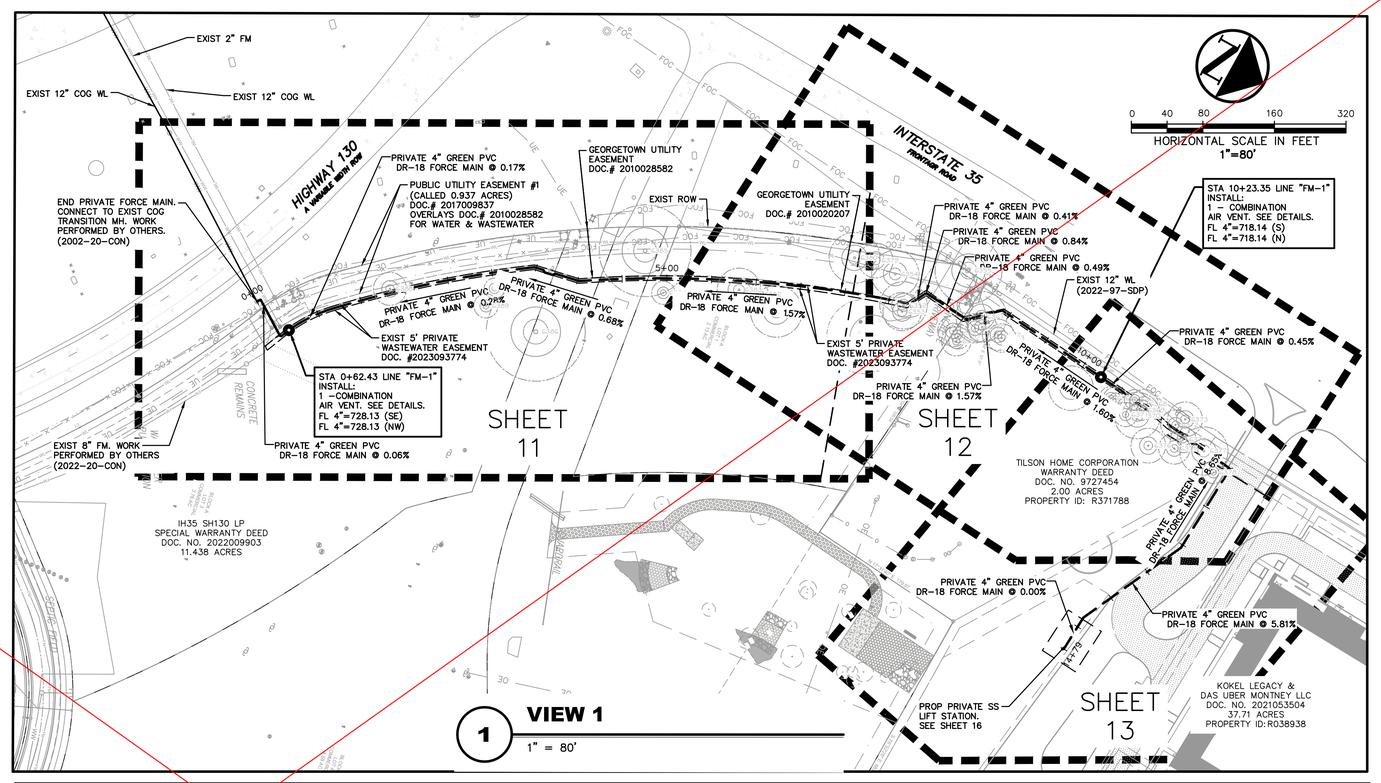
APPROVED: 08/02/2024





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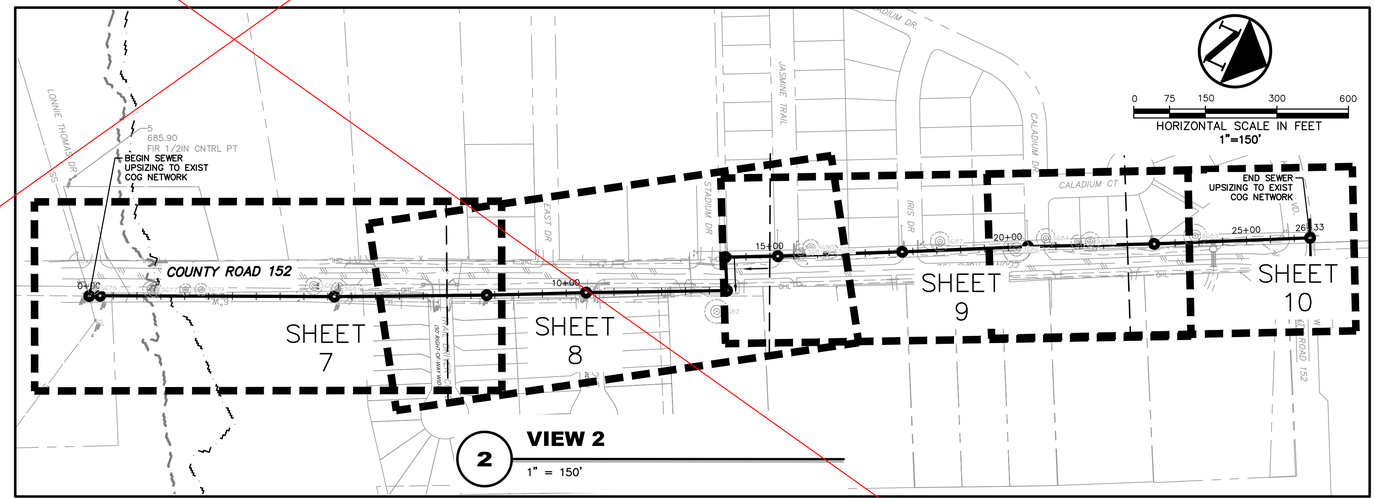
1" = 80'



2 **VIEW 2**
1" = 150'

LEGEND

- BOLLARD
- ELECTRIC METER
- POWER POLE
- LIGHT STANDARD
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- FIRE HYDRANT
- CLEANOUT
- MANHOLE
- TRAFFIC SIGNAL CONTROL
- TRAFFIC SIGNAL POLE
- TELEPHONE BOX
- FLOOD LIGHT
- FLAG POLE
- TRAFFIC SIGN
- 1/2-INCH IRON ROD
- W/"PACHECO KOCH" CAP SET
- CONTROLLING MONUMENT
- PROPERTY LINE
- FENCE
- OVERHEAD UTILITY LINE
- FIBER OPTIC LINE
- UNDERGROUND STORM LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND CABLE LINE
- UNDERGROUND WATER LINE
- UNDERGROUND SANITARY SEWER LINE
- EXIST CONTOUR
- EXIST SPOT ELEVATION
- EXIST TOP OF CURB ELEVATION
- EXIST GUTTER ELEVATION
- LIMITS OF SAWCUT
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE
- CREEK SENSITIVE FEATURE
- BUFFER ZONE

GENERAL NOTES

1. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND THE CITY OF GEORGETOWN STANDARD CONSTRUCTION SPECIFICATIONS.
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   - 5.1. PROTECT AND MAINTAIN ROADWAY TRAFFIC THROUGHOUT THE PROJECT, PROVIDING A MINIMUM OF ONE (1) LANE OPEN IN EACH DIRECTION;
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10. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

2023-35-CON

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

OVERALL WASTEWATER PLAN

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. **12**
12 OF 30

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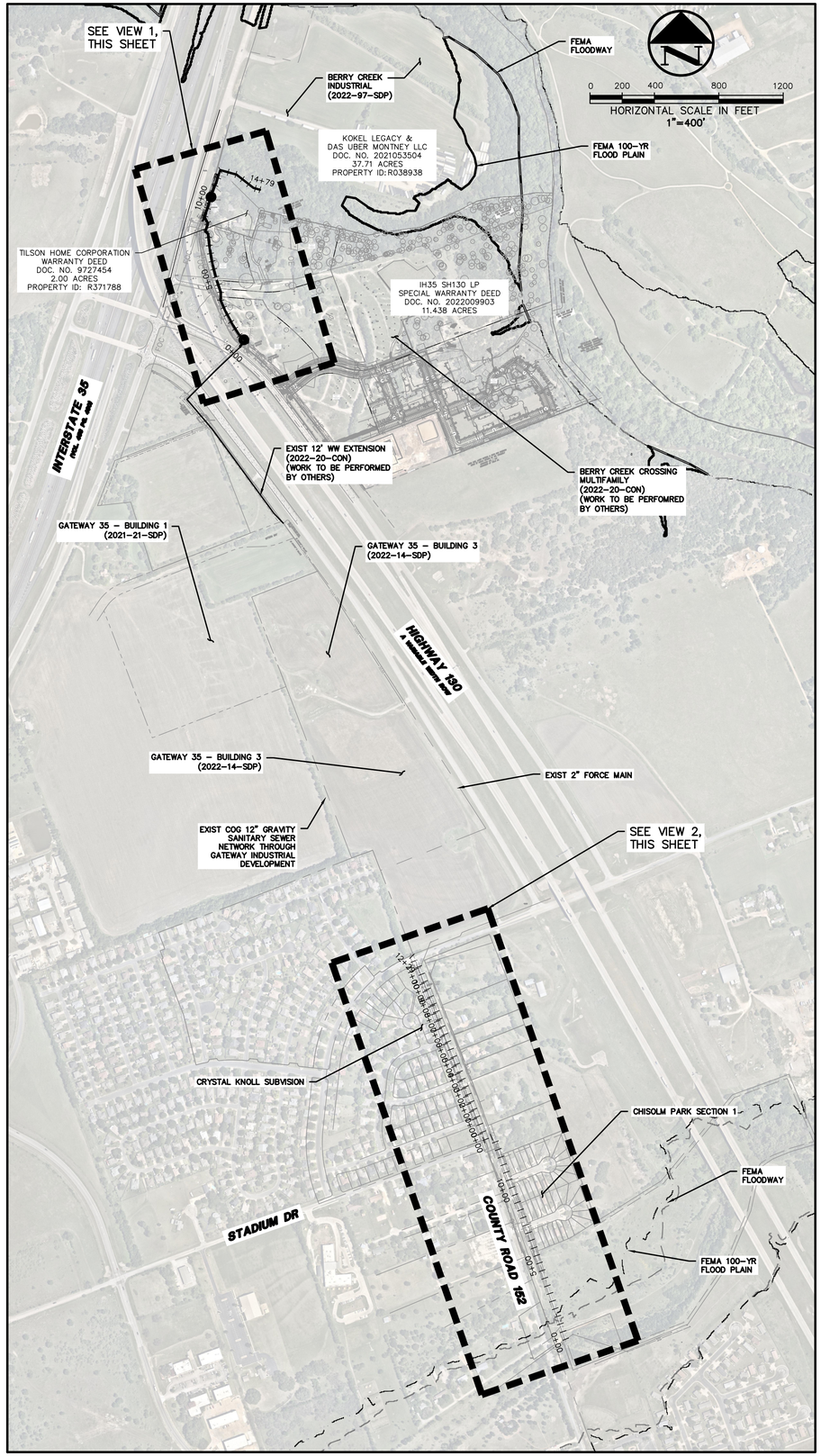
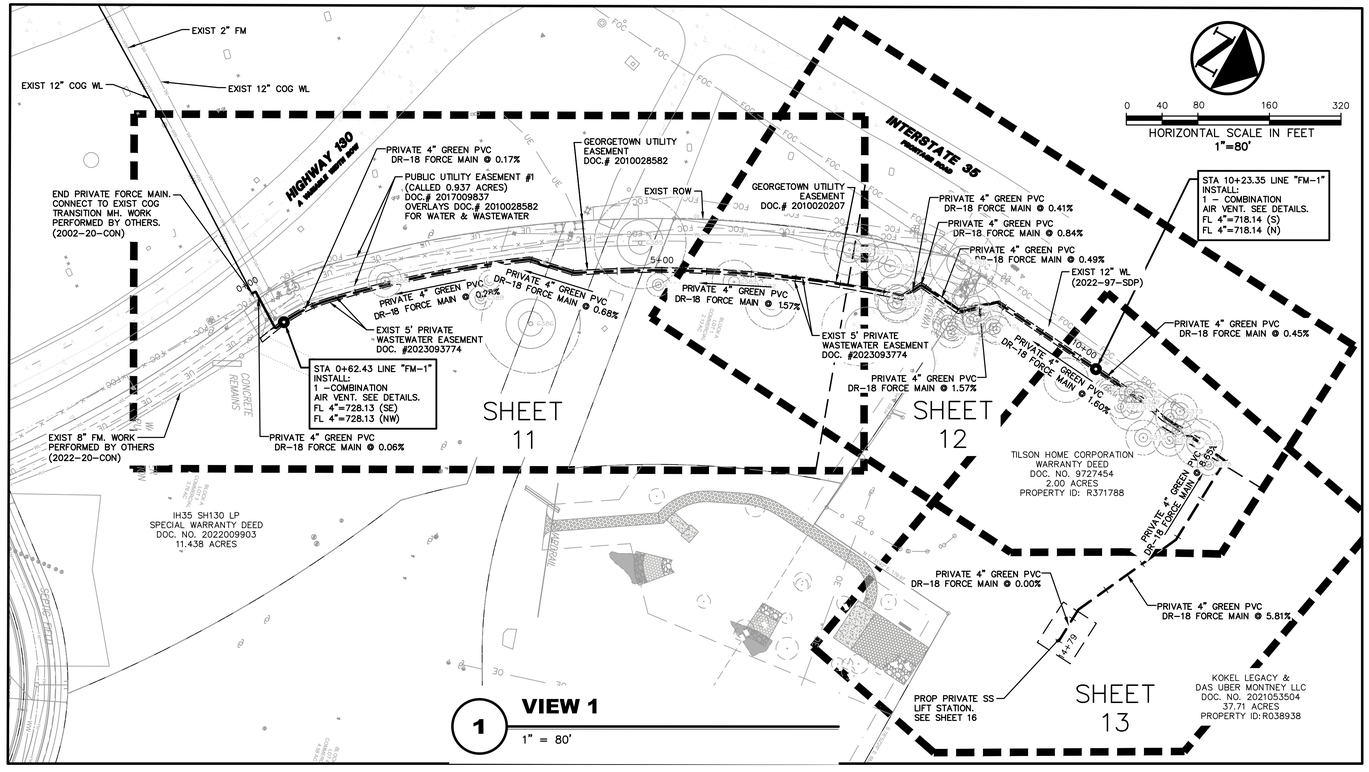
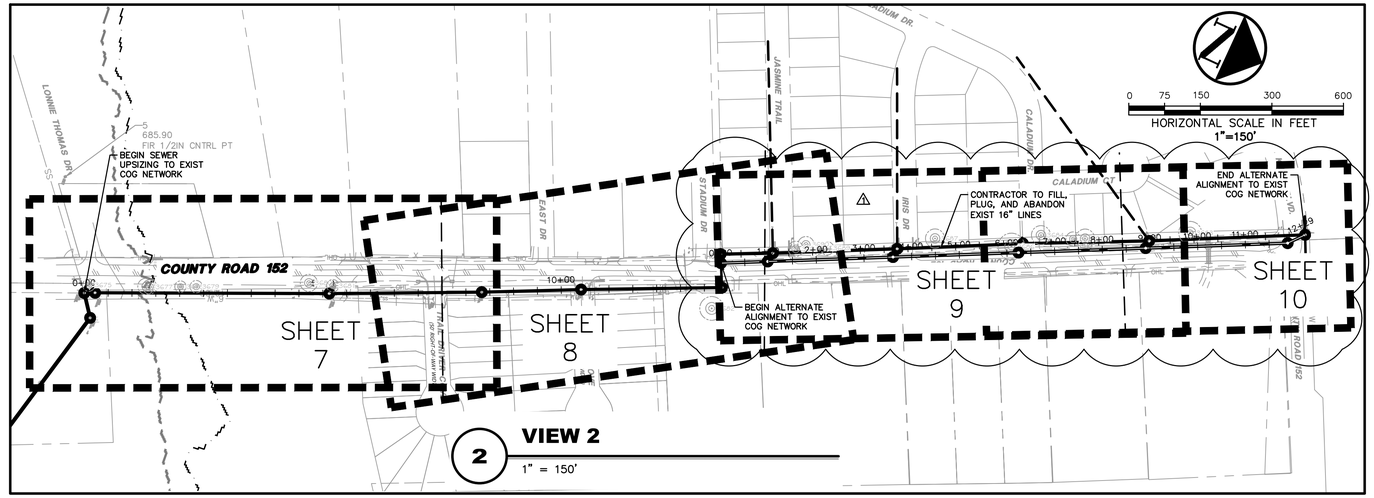




1 **VIEW 1**
1" = 80'



2 **VIEW 2**
1" = 150'

LEGEND

- BOLLARD
- ELECTRIC METER
- POWER POLE
- LIGHT STANDARD
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- FIRE HYDRANT
- CLEANOUT
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- EXIST GUTTER ELEVATION
- LIMITS OF SAWCUT
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE
- CREEK SENSITIVE FEATURE
- BUFFER ZONE

FOR REVISION NO. 1 ONLY:

STATE OF TEXAS — JACOB W. VALENTIEN — 124993 — LICENSED PROFESSIONAL ENGINEER

06/01/2026

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REVISIONS

NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

STATE OF TEXAS — JUSTIN FAURE — 147805 — LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. **12R**
12R OF 30

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

OVERALL WASTEWATER PLAN

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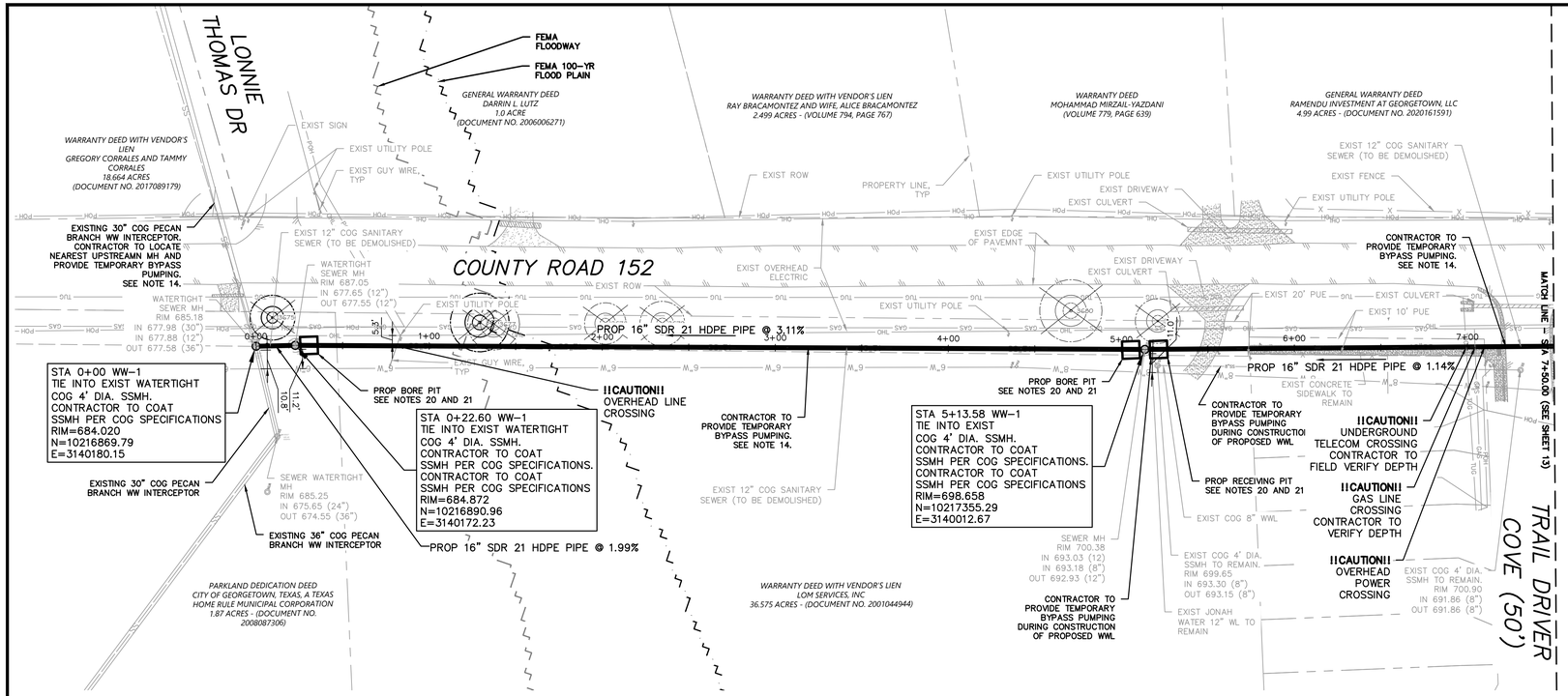
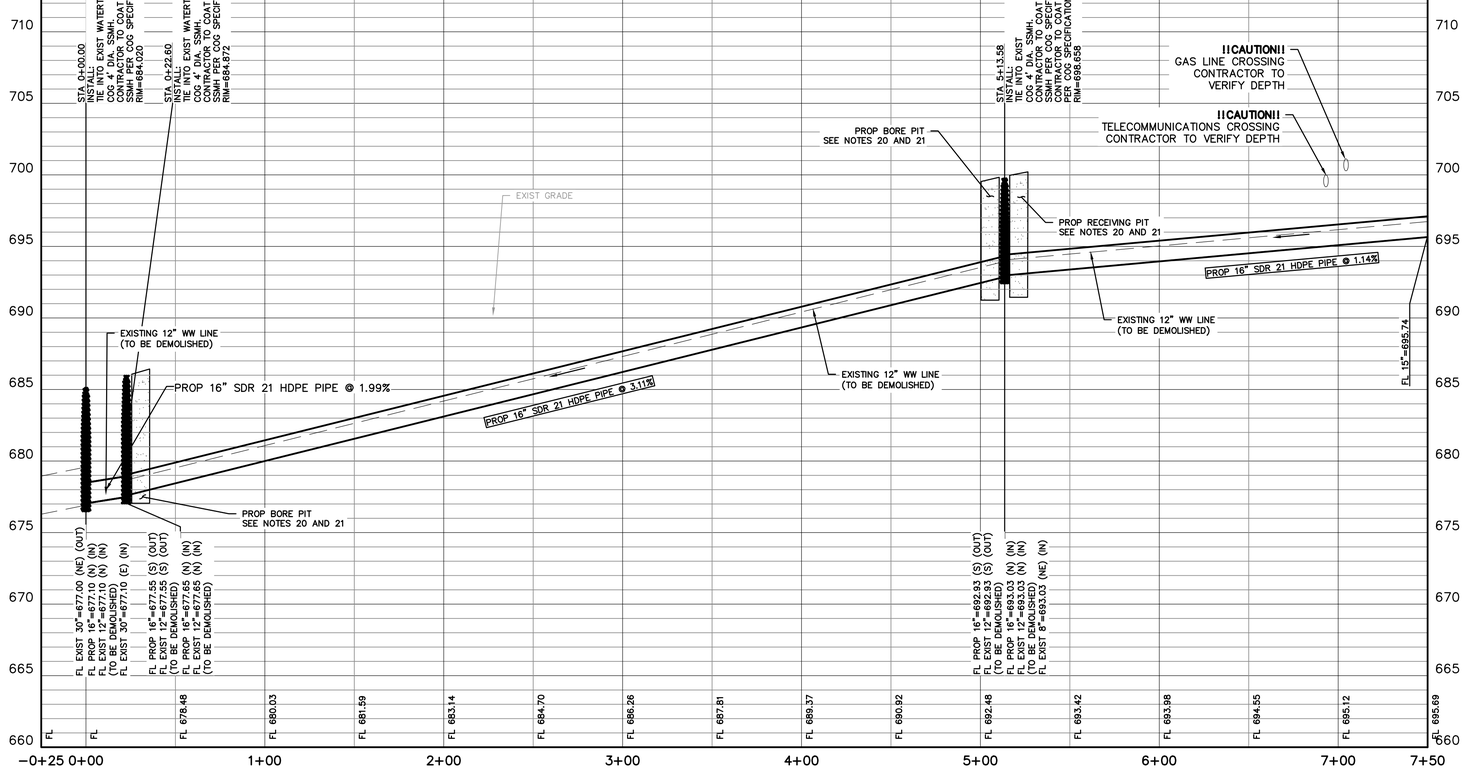
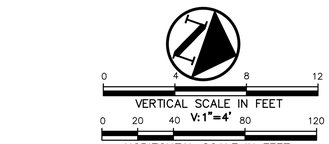
APPROVED: 08/02/2024







LEGEND

	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD
(C.M.)	W/"PACHECO KOCH" CAP SET CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
	TREE TO BE REMOVED

SANITARY SEWER GENERAL NOTES

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   4.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
5. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
6. CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
7. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS AND TCEQ REGULATIONS.
8. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
9. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
10. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
11. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
12. CONTRACTOR TO INSTALL PROPOSED PIPELINE USING TRENCHLESS METHODS AS SPECIFIED ON SHEET 7, WHEREVER FEASIBLE. CONTRACTOR TO SUBMIT LIMITS OF TRENCHLESS INSTALLATION PRIOR TO CONSTRUCTION FOR APPROVAL. PLACEMENT OF JACKING AND RECEIVING PITS WITHIN EXIST TREE 1/2 CRV IS PROHIBITED. IN THE INSTANCE THAT EXIST TREE CONFLICTS WITH TRENCHLESS OPERATIONS AND MUST BE REMOVED, CONTRACTOR TO NOTIFY ENGINEER. IF A SECTION OF PIPE CANNOT BE UPSIZED VIA PIPE BURSTING, CONTRACTOR SHALL NOTIFY ENGINEER AND CITY INSPECTOR FOR VERIFICATION OF ALTERNATIVE METHODS.
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14. SEE GENERAL NOTES PAGE SHEET 8 FOR INFORMATION REGARDING TEMPORARY BYPASS PUMPING.
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16. ALL EXISTING MANHOLES BEING TIED-INTO WITHIN THE PROJECT SCOPE TO BE COATED PER COG SPECIFICATIONS.
17. EXISTING UTILITY INFORMATION DISPLAYED USING SURVEY AND AVAILABLE COG INFORMATION. IN THE INSTANCE THE CONTRACTOR FINDS A WATER LINE WITHIN 9 FT OF THE PROPOSED SCOPE, CONTRACTOR IS TO CONTACT THE ENGINEER AND REPORT FINDINGS. CONTRACTOR TO EXTERNALLY WRAP MANHOLE JOINTS AND BACKFILL WITH CEMENT STABILIZED SAND IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS. MH MUST BE TESTED IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS.
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NO.	DATE	DESCRIPTION	BY

REVISIONS

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

PROP WW LINE PLAN & PROFILE 1 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER
8/2/2024

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13 OF 32

2023-35-CON

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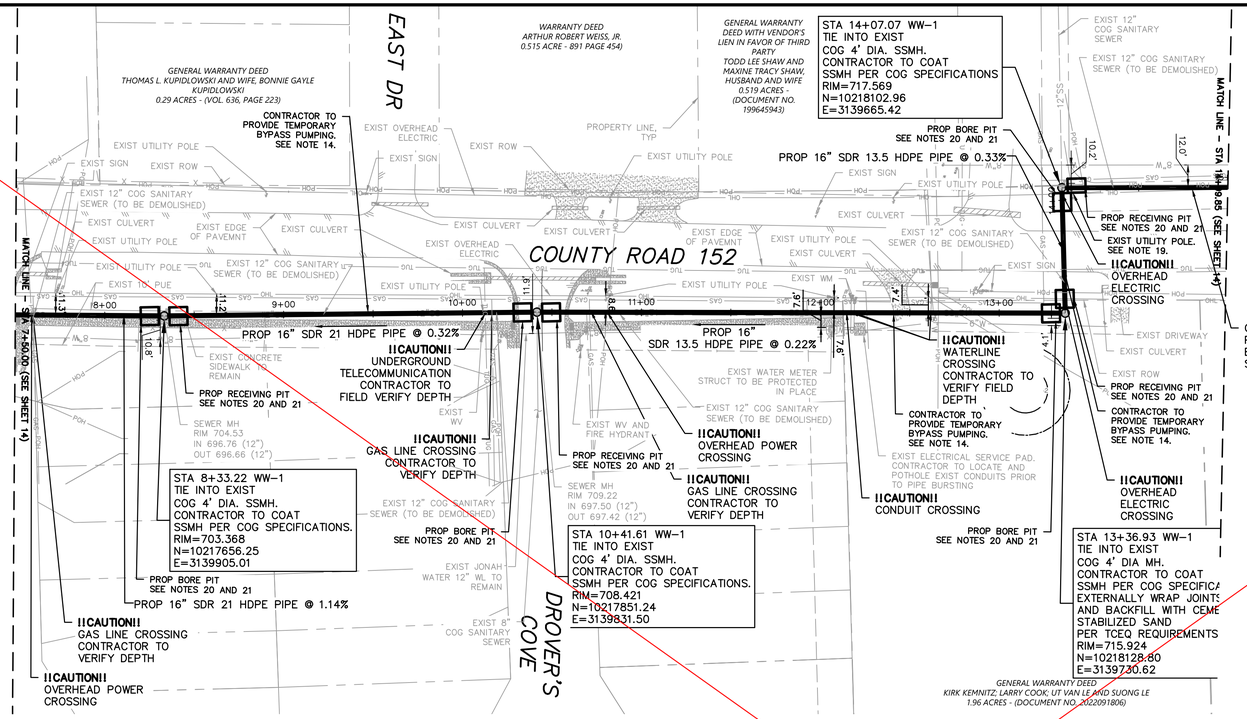

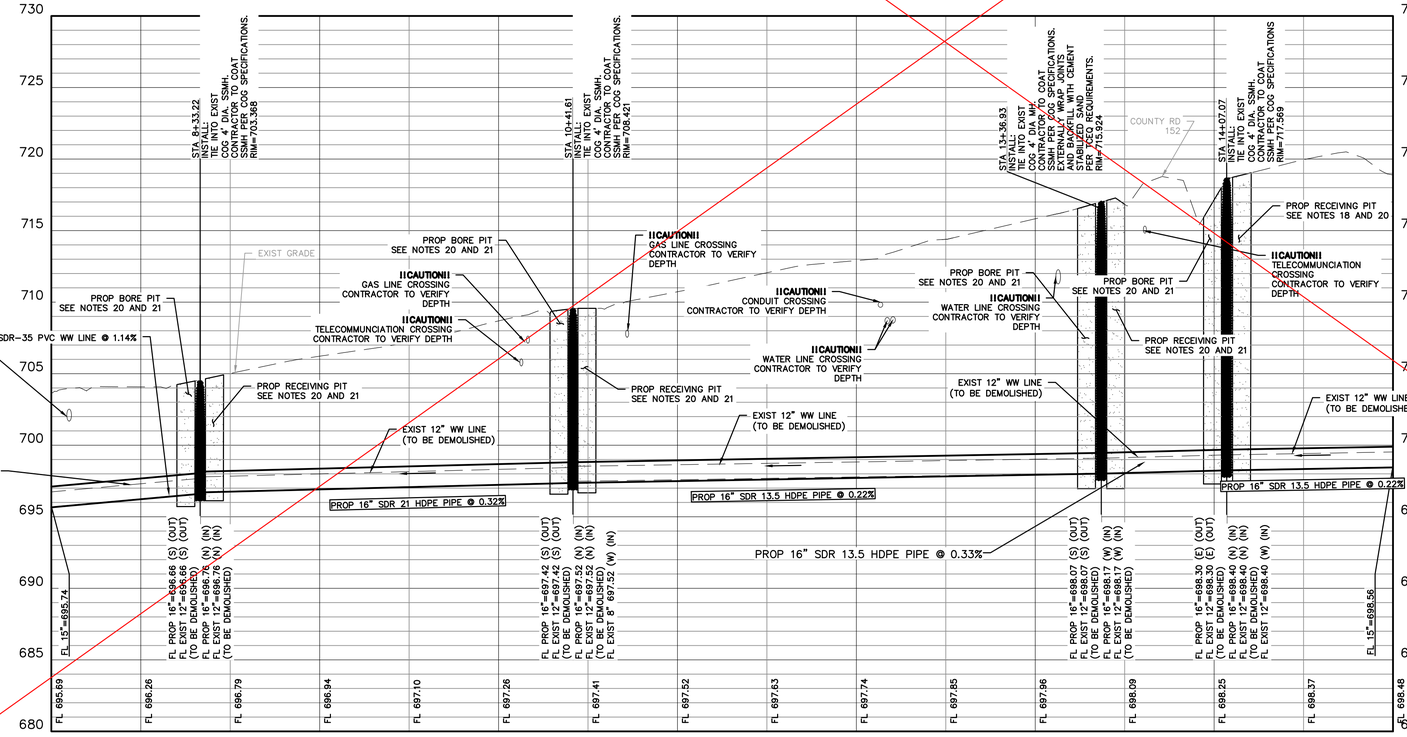

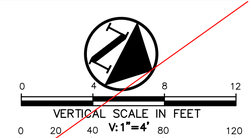

LEGEND

	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
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BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
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PROP WW LINE PLAN & PROFILE 2 OF 4



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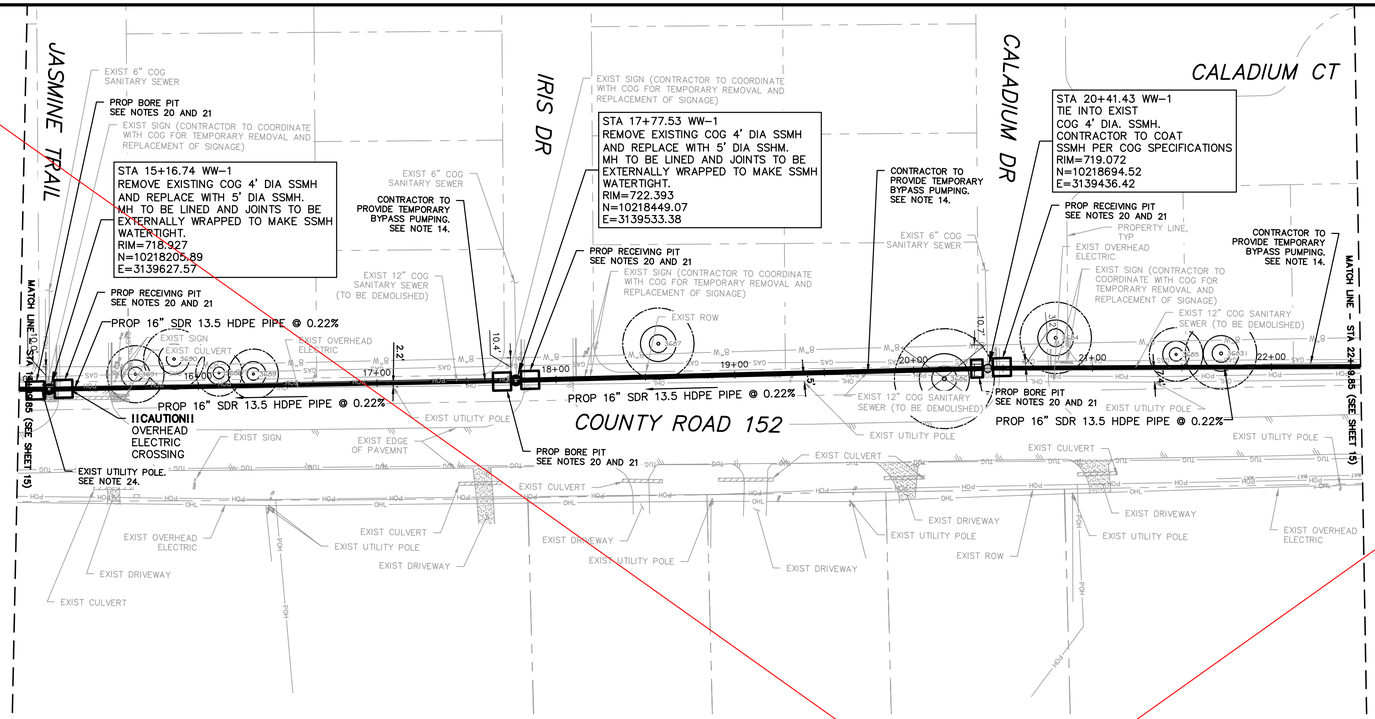

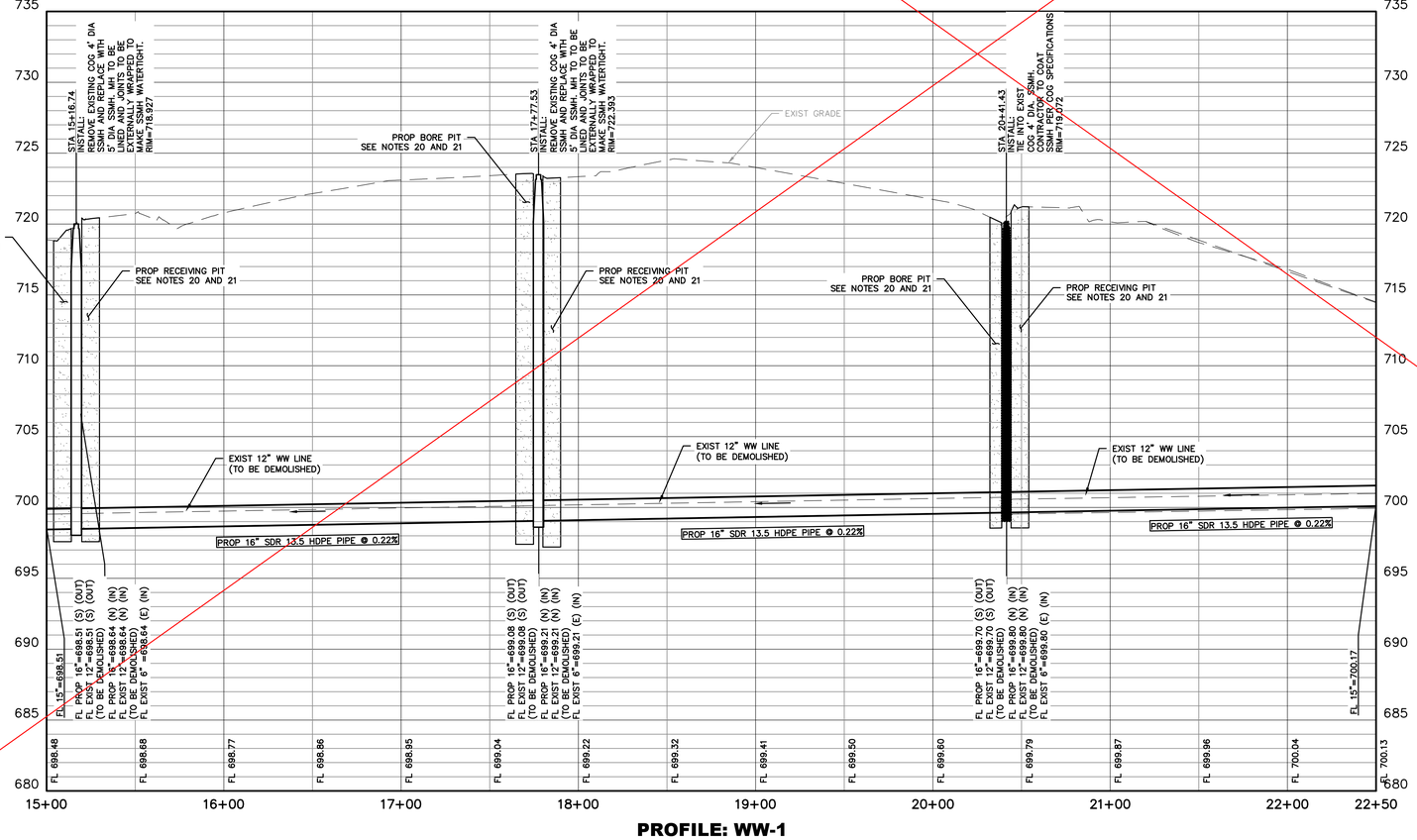

PROFILE: WW-1

0 4 8 12
VERTICAL SCALE IN FEET
0 20 40 80 120
V: 1"=4'
HORIZONTAL SCALE IN FEET
1"=40'

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
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RICHARD PAJESETKA
512 - 930 - 8498
RICHARD.PAJESTKA@GEORGETOWN.ORG

2023-35-CON

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PROP WW LINE PLAN & PROFILE 3 OF 4

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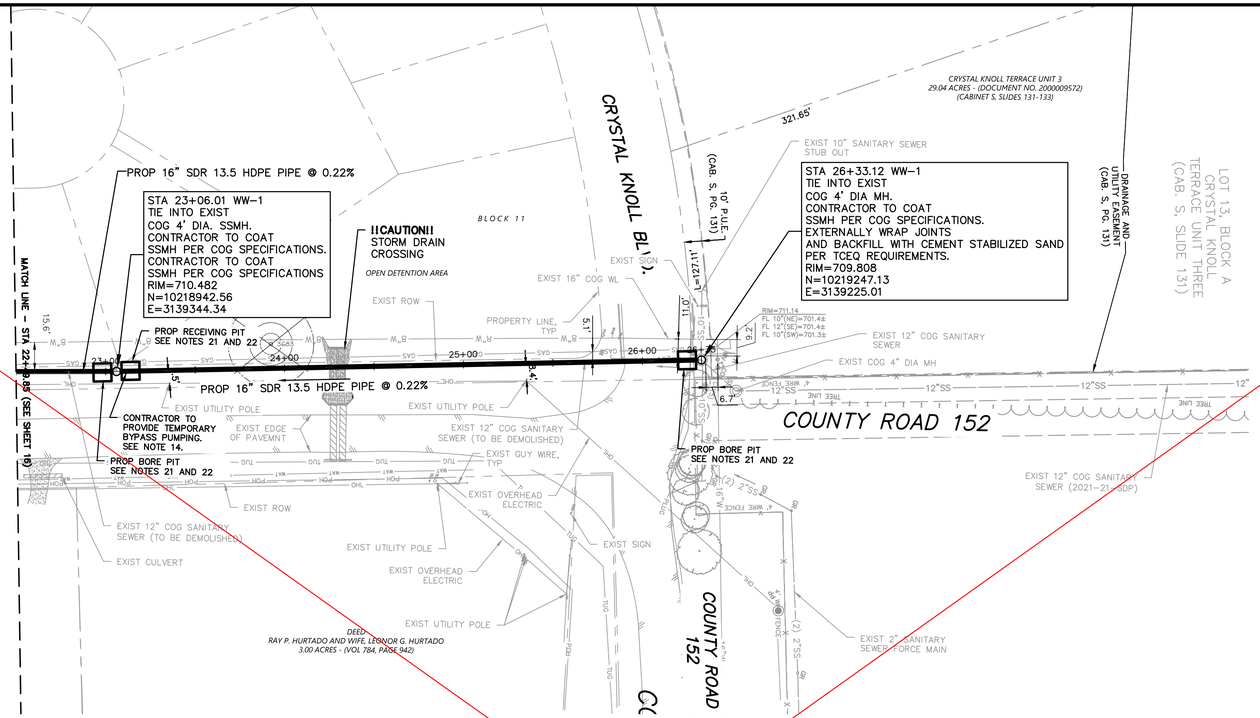
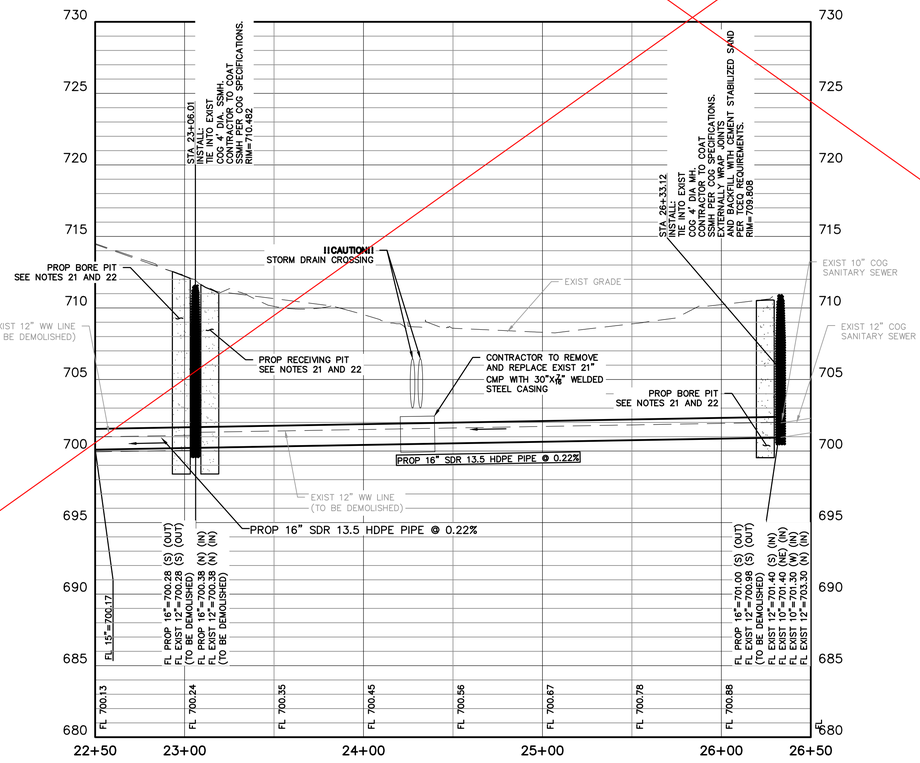
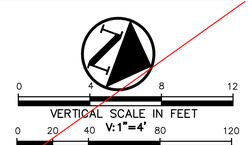
APPROVED: 08/02/2024





PROFILE: WW-1



LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
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(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE
	TREE TO BE REMOVED

SANITARY SEWER GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "A" (3000 PSI), UNLESS OTHERWISE NOTED.
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   - 4.A. TCEQ CHAPTER 217.53 PIPE DESIGN, SECTION (d) SEPARATION DISTANCES.
   - 4.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
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7. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS AND TCEQ REGULATIONS.
8. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
9. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
10. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
11. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
12. CONTRACTOR TO INSTALL PROPOSED PIPELINE USING TRENCHLESS METHODS AS SPECIFIED ON SHEET 7, WHEREVER FEASIBLE. CONTRACTOR TO SUBMIT LIMITS OF TRENCHLESS INSTALLATION PRIOR TO CONSTRUCTION FOR APPROVAL. PLACEMENT OF JACKING AND RECEIVING PITS WITHIN EXIST TREE 1/2 CRV IS PROHIBITED. IN THE INSTANCE THAT EXIST TREE CONFLICTS WITH TRENCHLESS OPERATIONS AND MUST BE REMOVED, CONTRACTOR TO NOTIFY ENGINEER. IF A SECTION OF PIPE CANNOT BE UPSIZED VIA PIPE BURSTING, CONTRACTOR SHALL NOTIFY ENGINEER AND CITY INSPECTOR FOR VERIFICATION OF ALTERNATIVE METHODS.
13. PIPELINE SLOPES AND DIAMETERS HAVE BEEN APPROVED BY THE COG DURING THE REVIEW OF THE SEWER STUDY TITLED "HIGHWAY 130 WASTEWATER EVALUATION FOR FIDELIS INDUSTRIAL" SUBMITTED AND APPROVED BY THE COG IN JULY OF 2022. SEE 6 FOR FLOW ESTIMATIONS.
14. SEE GENERAL NOTES PAGE SHEET 8 FOR INFORMATION REGARDING TEMPORARY BYPASS PUMPING.
15. MANHOLES MUST PASS LEAKAGE TESTING IN COMPLIANCE WITH TCEQ REGULATIONS PRIOR TO USE. IF LEAKAGE TESTING IS FAILED, CONTRACTOR TO CONTACT ENGINEER IMMEDIATELY.
16. ALL EXISTING MANHOLES BEING TIED-INTO WITHIN THE PROJECT SCOPE TO BE COATED PER COG SPECIFICATIONS.
17. EXISTING UTILITY INFORMATION DISPLAYED USING SURVEY AND AVAILABLE COG INFORMATION. IN THE INSTANCE THE CONTRACTOR FINDS A WATER LINE WITHIN 9 FT OF THE PROPOSED SCOPE, CONTRACTOR IS TO CONTACT THE ENGINEER AND REPORT FINDINGS. CONTRACTOR TO EXTERNALLY WRAP MANHOLE JOINTS AND BACKFILL WITH CEMENT STABILIZED SAND IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS. MH MUST BE TESTED IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS.
18. PRIOR TO BEGINNING PIPE BURSTING, CONTRACTOR SHALL CALL 811 FOR ALL EXISTING UTILITIES WITHIN OR AFFECTED BY LIMITS OF CONSTRUCTION ALONG THE SANITARY SEWER ALIGNMENT. ALL UTILITY CROSSINGS OF THE SANITARY SEWER ALIGNMENT SHALL BE HORIZONTALLY AND VERTICALLY LOCATED PRIOR TO COMMENCEMENT OF ACTIVITIES. CONTRACTOR SHALL REPORT ANY INFORMATION RELATED TO UTILITY CROSSINGS TO ENGINEER. CONTRACTOR SHALL COORDINATE WITH PERTINENT UTILITY PROVIDER AND ENGINEER FOR EACH UTILITY CROSSING PRIOR TO COMMENCEMENT OF ACTIVITIES.
19. ANY AND ALL DISTURBANCE TO THE ROADWAY, SIDEWALK OR CURB AND GUTTER MUST BE REPAIRED PER COG SPECIFICATIONS.
20. CONTRACTOR TO TEMPORARILY BRACE EXISTING POWER POLES, AS NECESSARY. CONTRACTOR TO INFORM COG ELECTRICAL 72 HOURS PRIOR TO PERFORMING PIPE BURSTING BELOW EXISTING POLES.
21. PROPOSED BORE PITS ARE PRELIMINARY AND SHALL BE COORDINATED WITH CONTRACTOR PRIOR TO COMMENCEMENT OF ACTIVITY. UPON COMPLETION OF EXISTING UTILITY CROSSING IDENTIFICATION, CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION PLAN INCLUDING LOCATIONS OF BORE/RECEIVING PITS, LIMITS OF CONSTRUCTION, EROSION CONTROL, AND ANY NECESSARY TREE PROTECTION.
22. CONTRACTOR SHALL STAGE BORE PITS TO NOT IMPACT 1/2 CRZ ON ANY PROTECTED OR HERITAGE TREE.
23. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

2023-35-CON

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TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626
PROP WW LINE PLAN & PROFILE 4 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
16
16 OF 32

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FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED
PROFESSIONAL ENGINEER

06/01/2026

EAST DR

GENERAL WARRANTY DEED
THOMAS L. KUPIDLOWSKI AND WIFE, BONNIE GAYLE KUPIDLOWSKI
0.29 ACRES - (VOL. 636, PAGE 223)

WARRANTY DEED
ARTHUR ROBERT WEISS, JR.
0.515 ACRE - 891 PAGE 454)

GENERAL WARRANTY DEED WITH VENDOR'S LIEN IN FAVOR OF THIRD PARTY
TODD LEE SHAW AND MAXINE TRACY SHAW, HUSBAND AND WIFE
0.519 ACRES - (DOCUMENT NO. 1996459437)

GENERAL WARRANTY DEED
KIRK KEMNITZ; LARRY COOK; UT VAN LE AND SUONG LE
1.96 ACRES - (DOCUMENT NO. 2022091806)

COUNTY ROAD 152

DROVER'S COVE

CONTRACTOR TO PROVIDE TEMPORARY BYPASS PUMPING. SEE NOTE 14.

MATCH LINE WW-1 – STA 7+50.00 (SEE SHEET 14)

MATCH LINE ALT_ALIGN – STA 1+50.00 (SEE SHEET 15)

STA 0+00.00 LINE "ALT_ALIGN"
1. CONTRACTOR TO INSTALL NEW DOGHOUSE MANHOLE ON EXIST 16" HDPE LINE (SEE DETAIL WW20 SHEET 22.1).
2. CONTRACTOR TO CONNECT EXIST 16" PVC AND PROP 18" PVC LINE.
3. CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS
RIM=719.04
FL EXIST 16"=699.07 (NE) (OUT)
FL PROP 18"=699.19 (NW) (IN)
FL EXIST 16"=699.09 (SW) (IN)

TIE INTO EXIST COG 4' DIA. SSMH.
1. CONTRACTOR TO FILL, PLUG, AND ABANDON 16" LINES
2. CONTRACTOR TO CONNECT PROP LATERAL TO EXIST SSMH
RIM=717.57
FL 16"=699.30 (N) (IN) (ABANDON)
FL 12"=699.20 (W) (IN)
FL 16"=699.20 (E) (OUT)

EXIST 16" LINE TO BE ABANDONED IN PLACE. FILL WITH FLOWABLE FILL.

EXIST 6" COG SANITARY SEWER @ 4.64%

EXIST UTILITY POLE. SEE NOTE 24.

EXIST 4' DIA. SSMH.
1. CONTRACTOR TO FILL, PLUG, AND ABANDON 16" LINES
2. CONTRACTOR TO CONNECT PROP LATERAL TO EXIST SSMH
RIM=718.927
FL 16"=699.60 (N) (IN) (ABANDON)
FL 6"=699.70 (W) (IN)
FL 16"=699.50 (S) (OUT) (ABANDON)
FL 6"=699.60 (E) (OUT)

EXIST 12" COG SANITARY SEWER @ 3.17%

!!CAUTION!! OVERHEAD ELECTRIC CROSSING

!!CAUTION!! OVERHEAD ELECTRIC CROSSING

EXIST 16" LINE TO REMAIN AS IS

PROP 18" @ 0.11% (SEE ALT_ALIGN)

EXIST 16" LINE TO REMAIN AS IS (SEE ALT_ALIGN_LAT_1)

PROP 18" @ 0.12% (SEE ALT_ALIGN)

EXIST 12" COG SANITARY SEWER (TO BE DEMOLISHED)

EXIST CULVERT

EXIST EDGE OF PAVEMENT

EXIST OVERHEAD ELECTRIC

EXIST UTILITY POLE

EXIST SIGN

EXIST ROW

EXIST 10" PUE

PROPERTY LINE, TYP

EXIST DRIVEWAY

EXIST CULVERT

EXIST CONCRETE SIDEWALK TO REMAIN

PROP RECEIVING PIT SEE NOTES 20 AND 21

SDR 21 HDPE PIPE @ 0.32% (SEE ???)

!!CAUTION!! UNDERGROUND TELECOMMUNICATION CONTRACTOR TO FIELD VERIFY DEPTH

PROP 16" SDR 13.5 HDPE PIPE @ 0.40%

EXIST WATER METER STRUCT TO BE PROTECTED IN PLACE

EXIST 12" COG SANITARY SEWER (TO BE DEMOLISHED)

!!CAUTION!! WATERLINE CROSSING CONTRACTOR TO VERIFY FIELD DEPTH

STA 13+36.93 "WW-1"
EXIST 4' DIA. SSMH.
RIM=717.83
FL 16"=698.80 (SW) (IN)
FL 16"=698.70 (SE) (OUT)

STA 0+98.10 LINE "ALT_ALIGN"
CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS
INSTALL:
5' DIA. SSMH
RIM=718.88
FL 18"=699.30 (S) (OUT)
FL 18"=699.40 (N) (IN)
FL 6"=699.50 (W) (IN)

CONTRACTOR TO REMOVE AND REPLACE RESIDENTIAL MAILBOXES ALONG NEW PROPOSED ALIGNMENT.

PROP 6" @ 0.50%
1. CONTRACTOR TO PROVIDE TEMPORARY BYPASS PUMPING. SEE NOTE 14 SHEET 16R. (SEE ALT_ALIGN_LAT_2)

PROP PAVEMENT REPAIR

STA 8+33.22 WW-1
TIE INTO EXIST COG 4' DIA. SSMH.
CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS.
RIM=703.368
N=10217656.25
E=3139905.01

PROP BORE PIT SEE NOTES 20 AND 21

SDR 21 HDPE PIPE @ 1.14% (SEE ???)

!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH

!!CAUTION!! OVERHEAD POWER CROSSING

!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH

!!CAUTION!! CONDUIT CROSSING

STA 10+41.61 WW-1
TIE INTO EXIST COG 4' DIA. SSMH.
CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS.
RIM=708.421
N=10217851.24
E=3139831.50

EXIST 12" COG SANITARY SEWER (TO BE DEMOLISHED)

EXIST JONAH WATER 12" WL TO REMAIN

EXIST 8" COG SANITARY SEWER

EXIST WV AND FIRE HYDRANT

SEWER MH RIM 704.53 IN 696.76 (12") OUT 696.66 (12")

SEWER MH RIM 709.22 IN 697.50 (12") OUT 697.42 (12")

EXIST ELECTRICAL SERVICE PAD CONTRACTOR TO LOCATE AND POTHOLE EXIST CONDUITS PRIOR TO PIPE BURSTING

SEE ALTERNATE ALIGNMENT THIS SHEET

SEE WW-1 PROFILE CONTINUATION THIS SHEET

VERTICAL SCALE IN FEET
0 4 8 12
HORIZONTAL SCALE IN FEET
0 20 40 80 120
1"=40'

LEGEND

BOLLARD	
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2–INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE

PROFILE: WW-1

PROP 15" SDR-35 PVC WW LINE @ 1.14%
EXIST GRADE
PROP BORE PIT SEE NOTES 20 AND 21
PROP RECEIVING PIT SEE NOTES 20 AND 21
!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH
!!CAUTION!! TELECOMMUNICATION CROSSING CONTRACTOR TO VERIFY DEPTH
!!CAUTION!! CONDUIT CROSSING CONTRACTOR TO VERIFY DEPTH
!!CAUTION!! WATER LINE CROSSING CONTRACTOR TO VERIFY DEPTH
EXIST 12" WW LINE (TO BE DEMOLISHED)
PROP 16" SDR 21 HDPE PIPE @ 0.32%
PROP 16" SDR 13.5 HDPE PIPE @ 0.40%
EXIST 16" SDR 13.5 HDPE PIPE @ 0.57%
EXIST 12" SDR-26 PVC WW LINE @ 3.17%
PROP 18" SDR-26 PVC WW LINE @ 0.11%
PROP 18" SDR-26 PVC WW LINE @ 0.12%

PROFILE: ALT_ALIGN

PROFILE: ALT_ALIGN_LAT_1

2023-35-CON

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REVISIONS

NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

PROP WW LINE PLAN & PROFILE 2 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
TCG	MAW	MAR 2026

SHEET NO.
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14R OF 32

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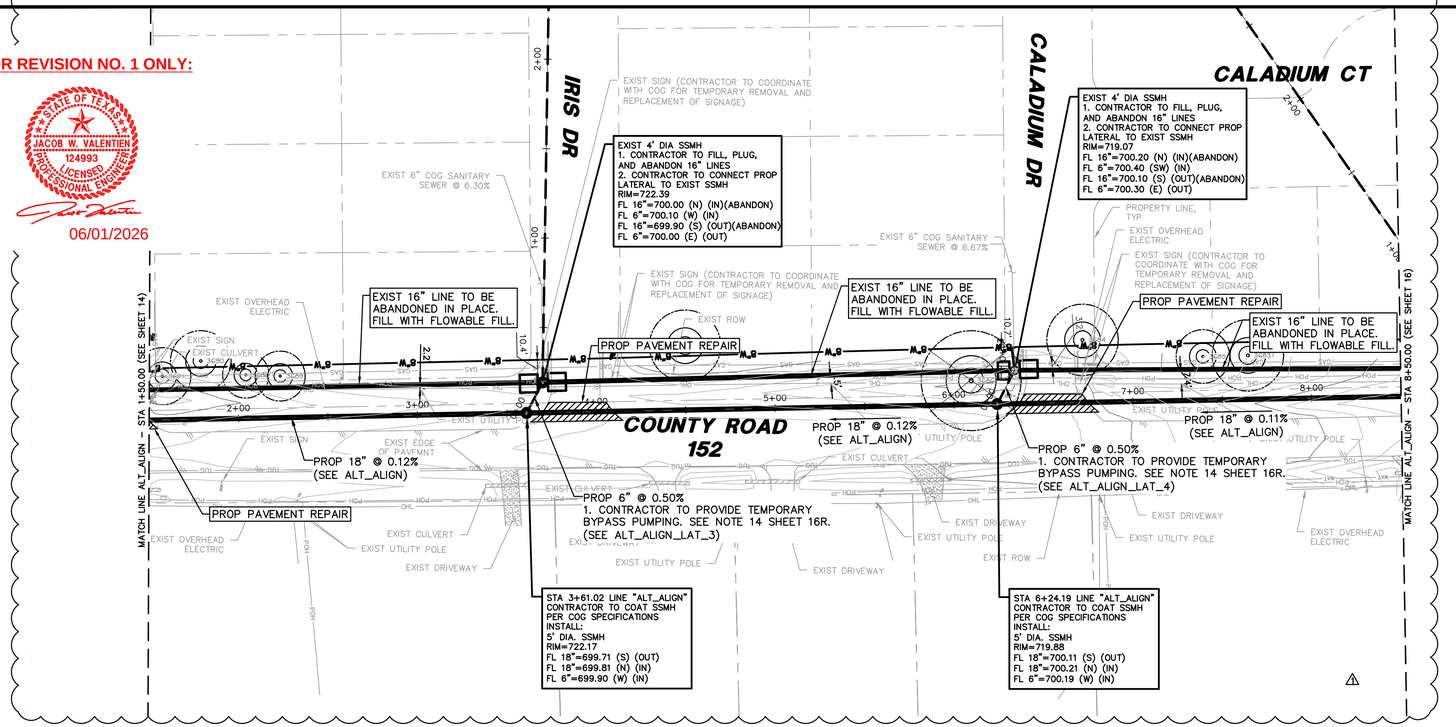
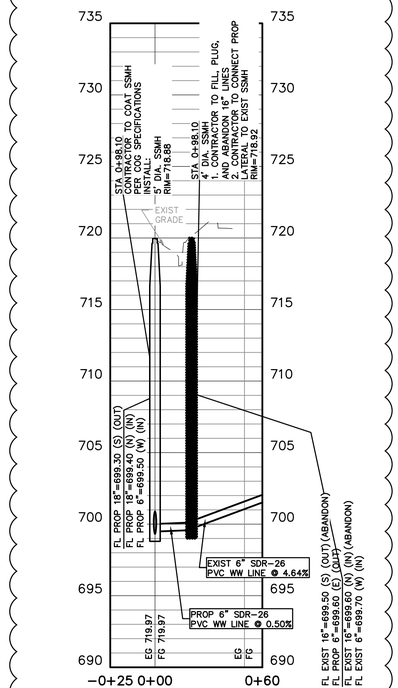
FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED
PROFESSIONAL ENGINEER

06/01/2026



PROFILE: ALT_ALIGN



PROFILE: ALT_ALIGN_LAT_2

CONTRACTOR TO REMOVE AND REPLACE RESIDENTIAL MAILBOXES ALONG NEW PROPOSED ALIGNMENT.

VERTICAL SCALE IN FEET
0 4 8 12
0 20 40 V: 1"=4' 80 120
HORIZONTAL SCALE IN FEET
1"=40'

LEGEND

BOLLARD	
EM	ELECTRIC METER
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	PROP SANITARY SEWER LINE
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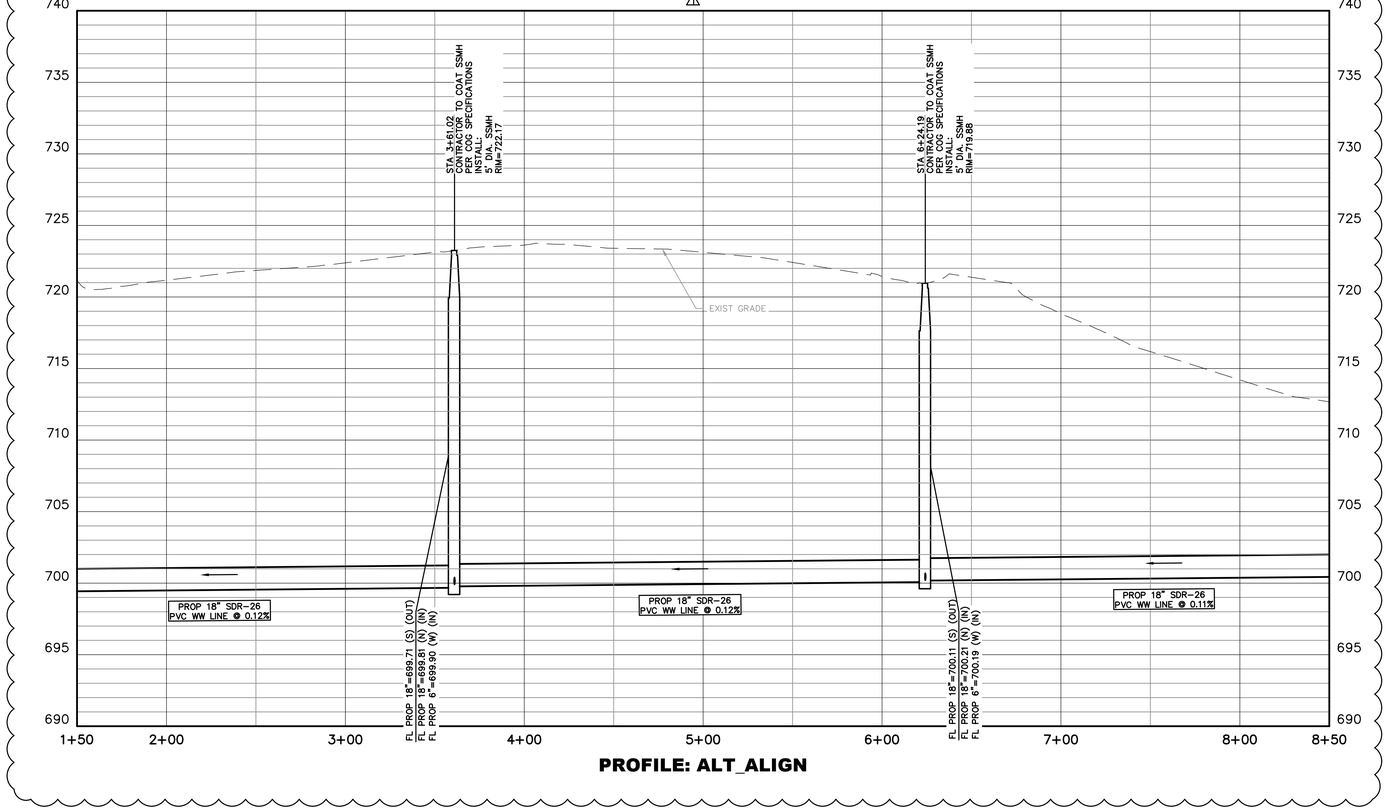

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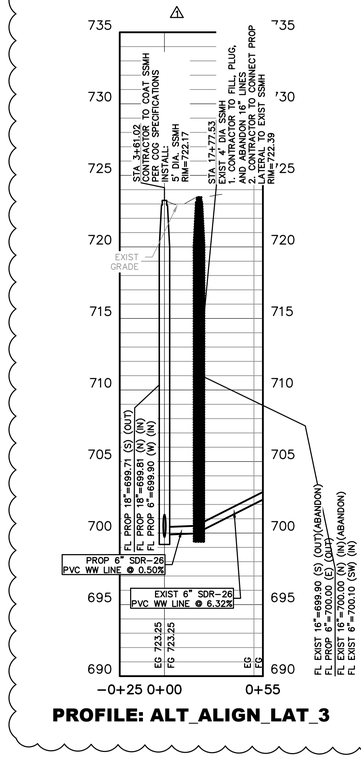

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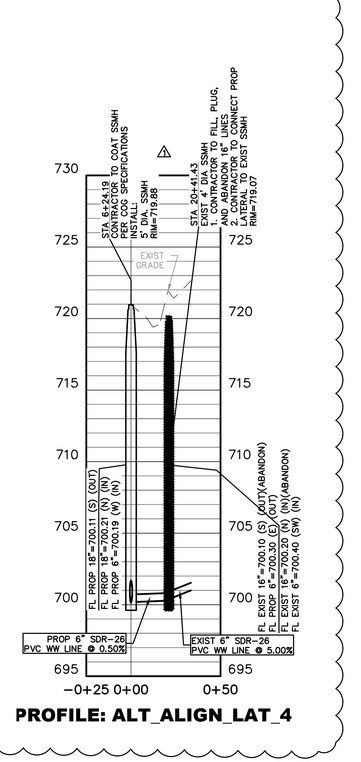

PROFILE: ALT_ALIGN_LAT_4

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REVISIONS

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1	4/16/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

PROP WW LINE PLAN & PROFILE 3 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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TCG	MIZ	AUG 2024

SHEET NO.
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15R OF 32

2023-35-CON

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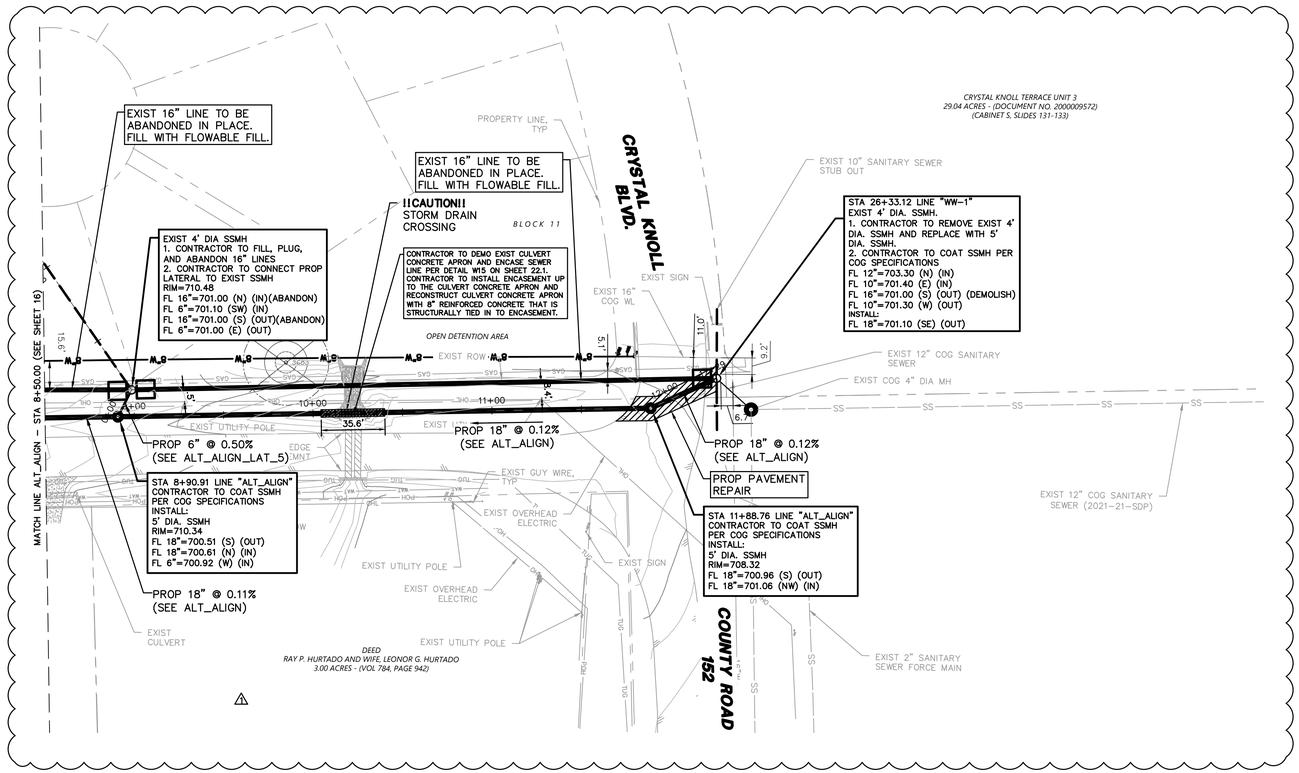

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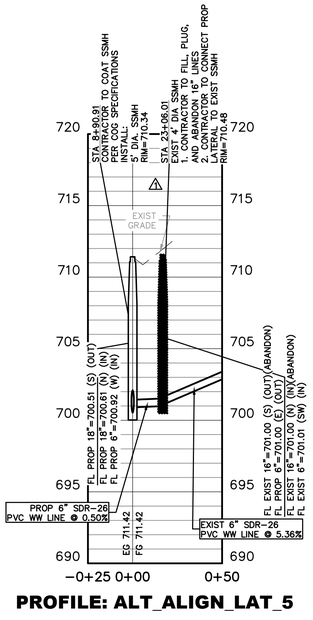
8. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
9. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
10. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
11. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
12. CONTRACTOR TO INSTALL PROPOSED PIPELINE USING TRENCHLESS METHODS AS SPECIFIED ON SHEET 7, WHEREVER FEASIBLE. CONTRACTOR TO SUBMIT LIMITS OF TRENCHLESS INSTALLATION PRIOR TO CONSTRUCTION FOR APPROVAL. PLACEMENT OF JACKING AND RECEIVING PITS WITHIN EXIST TREE 1/2 CRZ IS PROHIBITED. IN THE INSTANCE THAT EXIST TREE CONFLICTS WITH TRENCHLESS OPERATIONS AND MUST BE REMOVED, CONTRACTOR TO NOTIFY ENGINEER. IF A SECTION OF PIPE CANNOT BE UPSIZED VIA PIPE BURSTING, CONTRACTOR SHALL NOTIFY ENGINEER AND CITY INSPECTOR FOR VERIFICATION OF ALTERNATIVE METHODS.
13. PIPELINE SLOPES AND DIAMETERS HAVE BEEN APPROVED BY THE COG DURING THE REVIEW OF THE SEWER STUDY TITLED "HIGHWAY 130 WASTEWATER EVALUATION FOR FIDELIS INDUSTRIAL" SUBMITTED AND APPROVED BY THE COG IN JULY OF 2022. SEE 6 FOR FLOW ESTIMATIONS.
14. SEE GENERAL NOTES PAGE SHEET 8 FOR INFORMATION REGARDING TEMPORARY BYPASS PUMPING.
15. MANHOLES MUST PASS LEAKAGE TESTING IN COMPLIANCE WITH TCEQ REGULATIONS PRIOR TO USE. IF LEAKAGE TESTING IS FAILED, CONTRACTOR TO CONTACT ENGINEER IMMEDIATELY.
16. ALL EXISTING MANHOLES BEING TIED-INTO WITHIN THE PROJECT SCOPE TO BE COATED PER COG SPECIFICATIONS.
17. EXISTING UTILITY INFORMATION DISPLAYED USING SURVEY AND AVAILABLE COG INFORMATION. IN THE INSTANCE THE CONTRACTOR FINDS A WATER LINE WITHIN 9 FT OF THE PROPOSED SCOPE, CONTRACTOR IS TO CONTACT THE ENGINEER AND REPORT FINDINGS. CONTRACTOR TO EXTERNALLY WRAP MANHOLE JOINTS AND BACKFILL WITH CEMENT STABILIZED SAND IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS. MH MUST BE TESTED IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS.
18. PRIOR TO BEGINNING PIPE BURSTING, CONTRACTOR SHALL CALL 811 FOR ALL EXISTING UTILITIES WITHIN OR AFFECTED BY LIMITS OF CONSTRUCTION ALONG THE SANITARY SEWER ALIGNMENT. ALL UTILITY CROSSINGS OF THE SANITARY SEWER ALIGNMENT SHALL BE HORIZONTALLY AND VERTICALLY LOCATED PRIOR TO COMMENCEMENT OF ACTIVITIES. CONTRACTOR SHALL REPORT ANY INFORMATION RELATED TO UTILITY CROSSINGS TO ENGINEER. CONTRACTOR SHALL COORDINATE WITH PERTINENT UTILITY PROVIDER AND ENGINEER FOR EACH UTILITY CROSSING PRIOR TO COMMENCEMENT OF ACTIVITIES.
19. ANY AND ALL DISTURBANCE TO THE ROADWAY, SIDEWALK OR CURB AND GUTTER MUST BE REPAIRED PER COG SPECIFICATIONS.
20. CONTRACTOR TO TEMPORARILY BRACE EXISTING POWER POLES, AS NECESSARY. CONTRACTOR TO INFORM COG ELECTRICAL 72 HOURS PRIOR TO PERFORMING PIPE BURSTING BELOW EXISTING POLES.
21. PROPOSED BORE PITS ARE PRELIMINARY AND SHALL BE COORDINATED WITH CONTRACTOR PRIOR TO COMMENCEMENT OF ACTIVITY. UPON COMPLETION OF EXISTING UTILITY CROSSING IDENTIFICATION, CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION PLAN INCLUDING LOCATIONS OF BORE/RECEIVING PITS, LIMITS OF CONSTRUCTION, EROSION CONTROL, AND ANY NECESSARY TREE PROTECTION.
22. CONTRACTOR SHALL STAGE BORE PITS TO NOT IMPACT 1/2 CRZ ON ANY PROTECTED OR HERITAGE TREE.
23. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

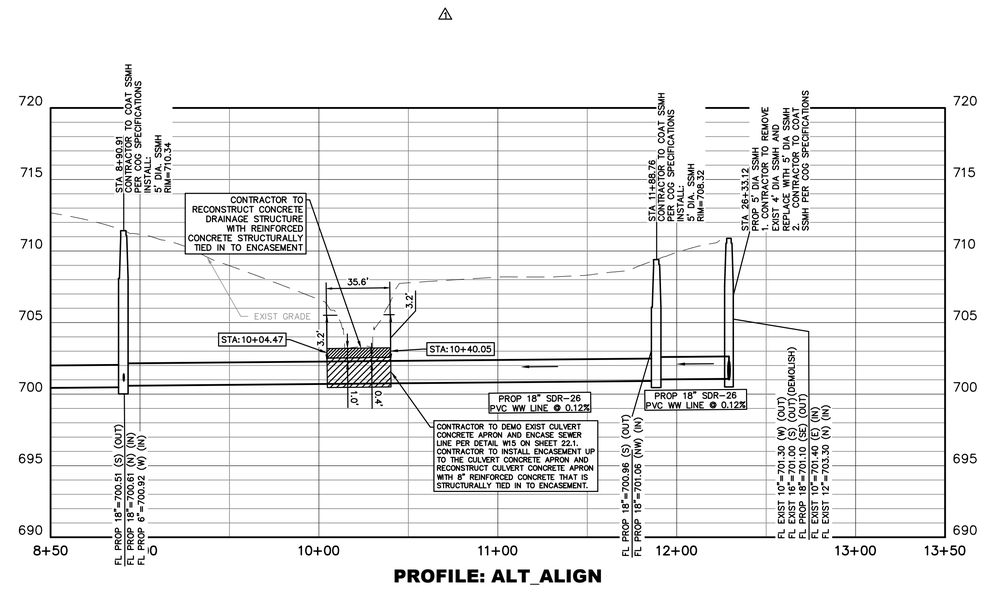
0 4 8 12
VERTICAL SCALE IN FEET
0 20 40 80 120
HORIZONTAL SCALE IN FEET
1"=40'

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
FL	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD
(C.M.)	W/"PACHECO KOCH" CAP SET
	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE
	TREE TO BE REMOVED

CONTRACTOR TO REMOVE AND REPLACE RESIDENTIAL MAILBOXES ALONG NEW PROPOSED ALIGNMENT. ⚠





FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED
PROFESSIONAL ENGINEER
06/01/2026

Westwood
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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626
PROP WW LINE PLAN & PROFILE 4 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
TCG	MW	AUG 2024

SHEET NO.
16R
16R OF 32

2023-35-CON

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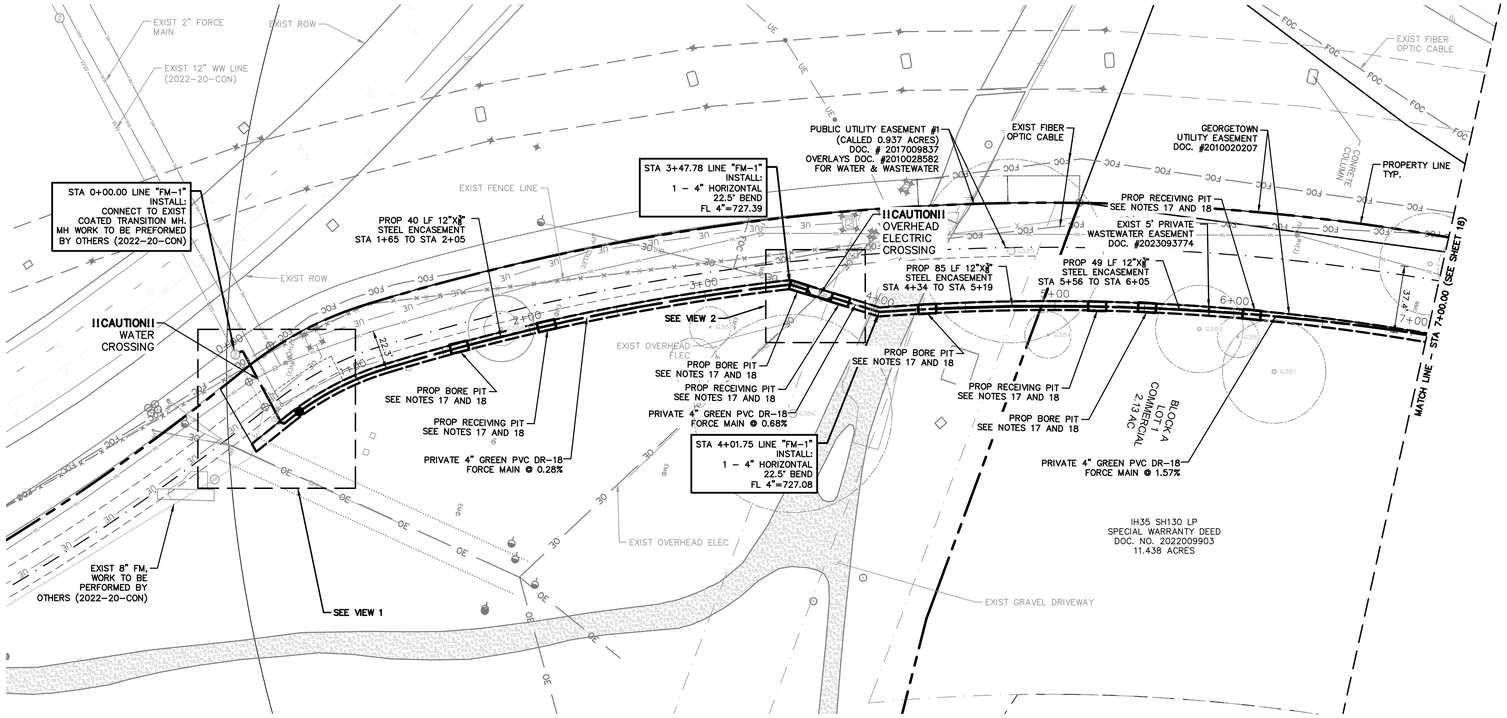
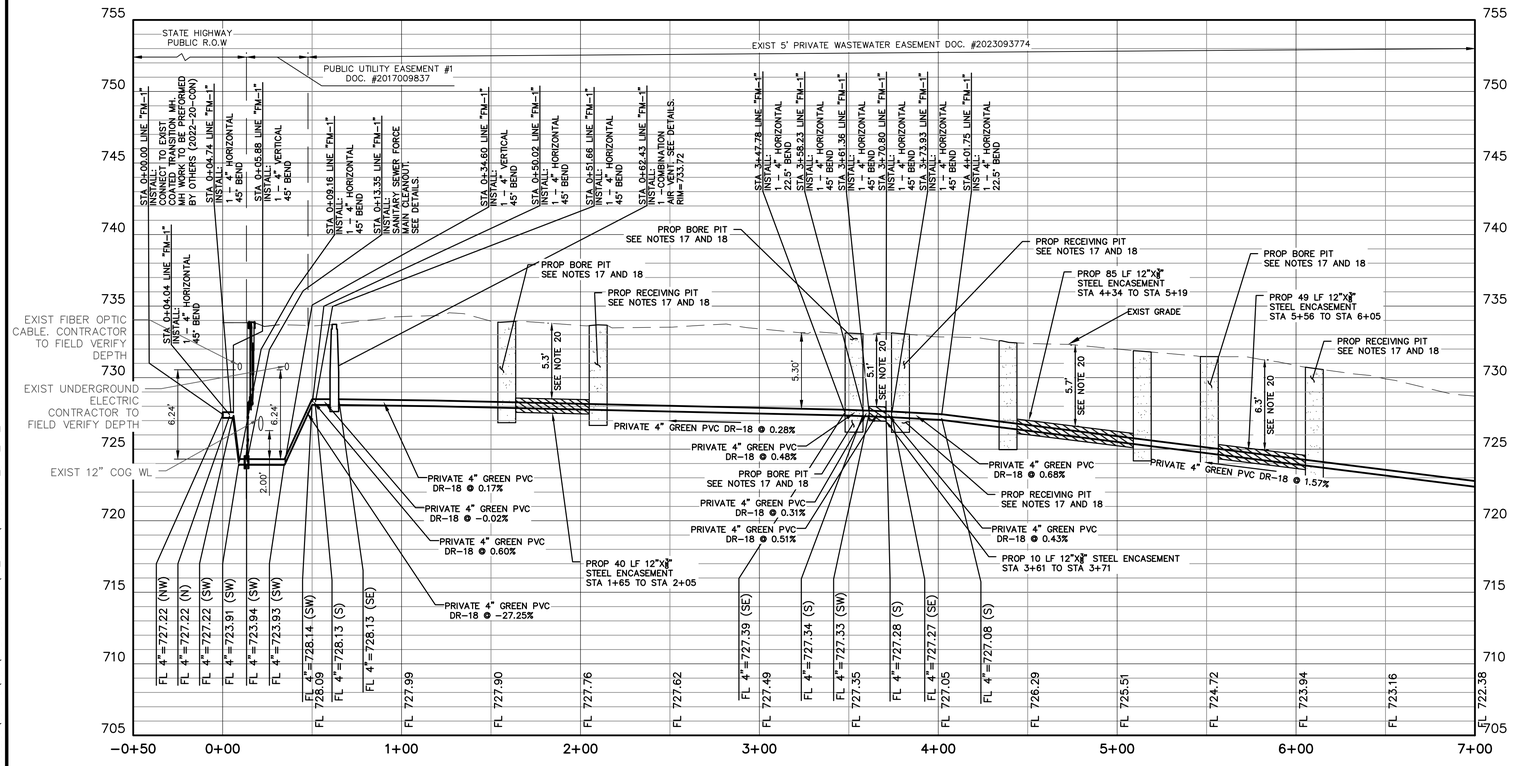
APPROVED: 08/02/2024





SANITARY SEWER GENERAL NOTES

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3. FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-110 AND MUST BE RESTRAINED. CONTRACTOR TO INSTALL THRUST BLOCKS PER DETAILS.
4. WHEN REQUIRED, CONTRACTOR TO ROTATE FITTINGS TO ACHIEVE OFFSET IN VERTICAL AND HORIZONTAL DIRECTIONS. CONTRACTOR TO MAINTAIN DEPTH OF COVER AS CALLED OUT IN THE PLANS.
5. WHEN WATER AND SANITARY SEWER MAINS, SERVICES, AND LATERALS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING TCEQ CHAPTERS SHALL APPLY:
   5.A. TCEQ CHAPTER 217.53 PIPE DESIGN, SECTION (d) SEPARATION DISTANCES.
   5.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
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13. CONTRACT TO CONTACT PEC 48 HOURS IN ADVANCE PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES NEAR EXISTING POWER POLES.
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15. CONTRACTOR TO PLACE WARNING TAPE IN TRENCH OVERTOP FORCE MAIN. WARNING MUST BEAR THE LABEL "PRESSURIZED SEWER" CONTINUOUSLY REPEATED WITH LETTERS ATLEAST 1.5" TALL. TAPE MUST BE INSTALLED 2' MAX ABOVE THE TOP OF PIPE AND SHALL HAVE MINIMUM THICKNESS OF 5 MILS.
16. CONTRACTOR TO INSTALL THRUST BLOCKS AT BENDS, SEE DETAILS.
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21. CONTRACTOR TO STAGE AND OPERATE EQUIPMENT TO MITIGATE DAMAGE TO OR TRIMMING OF TREE CANOPIES.

0 20 40 80 120
GRAPHIC SCALE IN FEET
0 4 8 12
VERTICAL SCALE IN FEET

LEGEND

B	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
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FL	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS (C.M.)	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
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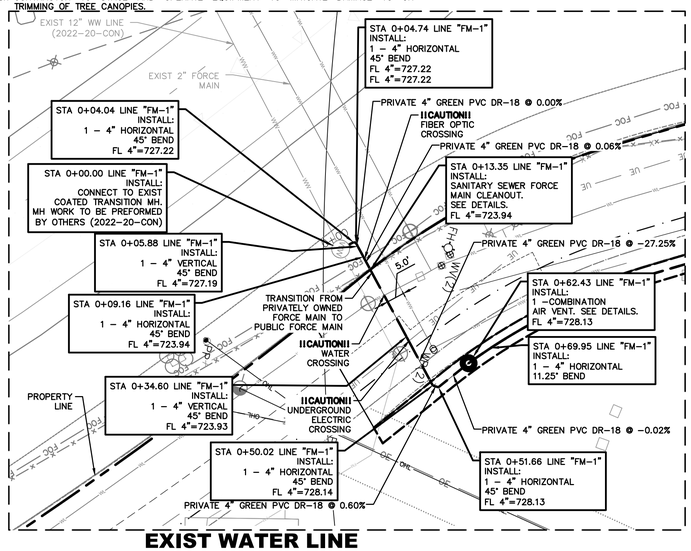
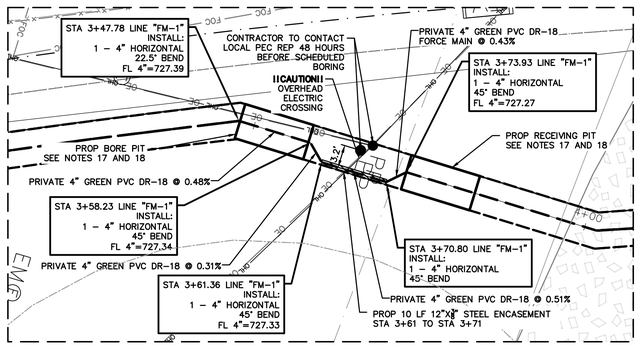
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
	PROP SANITARY SEWER LINE
	PROP SANITARY SEWER MANHOLE
	PROP SANITARY SEWER CLEANOUT



1 EXIST WATER LINE CROSSING

1"=20'



2 EXIST POWER POLES

1"=10'

2023-35-CON

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westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

PROP WW FORCE MAIN PLAN & PROFILE 1 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. 17

17 OF 30

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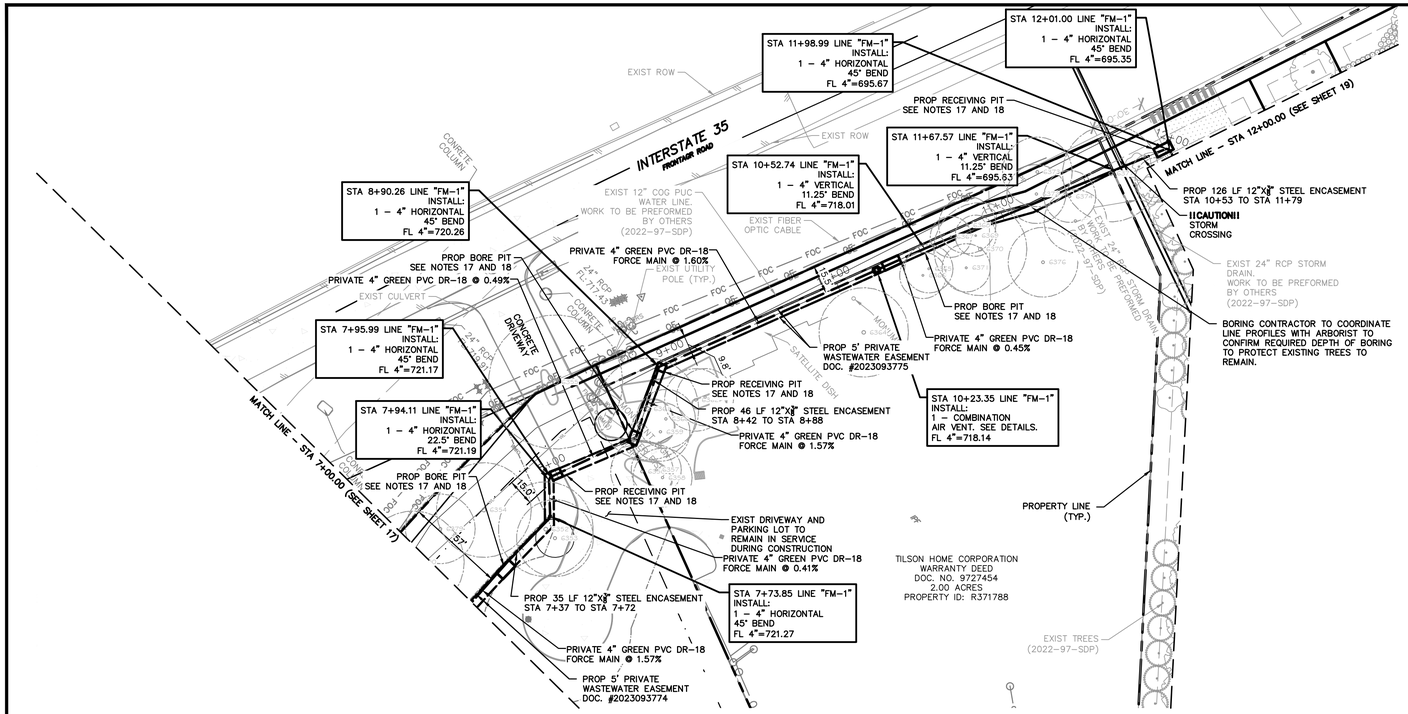
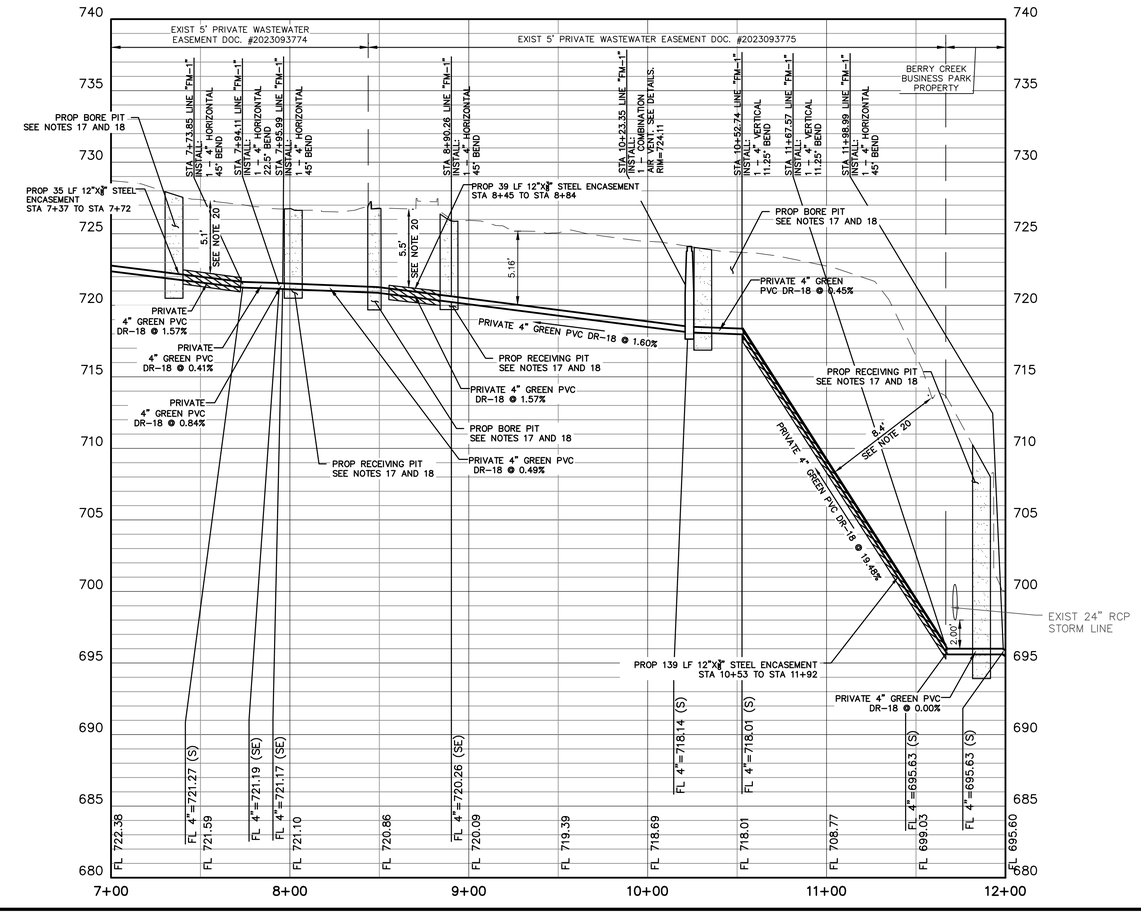
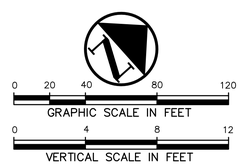
APPROVED: 08/02/2024







LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
FD	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS (C.M.)	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
	PROP FDC LOCATION
	PROP WATER VALVE
	PROP FIRE HYDRANT
	PROP WATER LINE W/ BEND
	PROP SANITARY SEWER LINE
	PROP SANITARY SEWER MANHOLE
	PROP SANITARY SEWER CLEANOUT

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2023-35-CON

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS			
NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626
PROP WW FORCE MAIN PLAN & PROFILE 2 OF 3



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. **18**
18 OF 30

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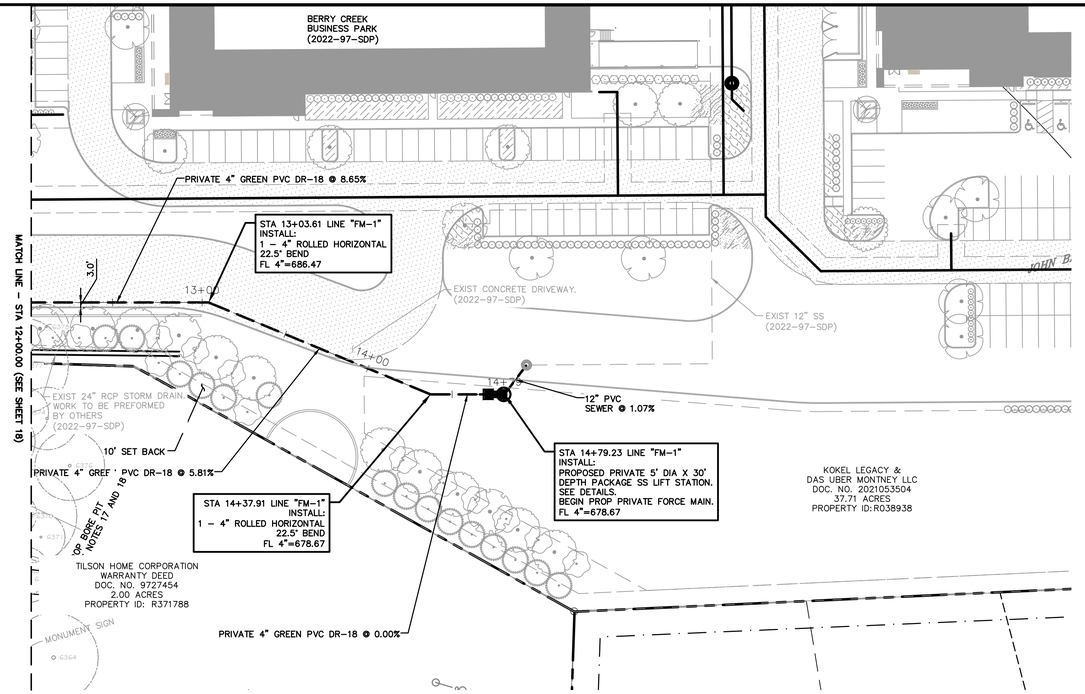
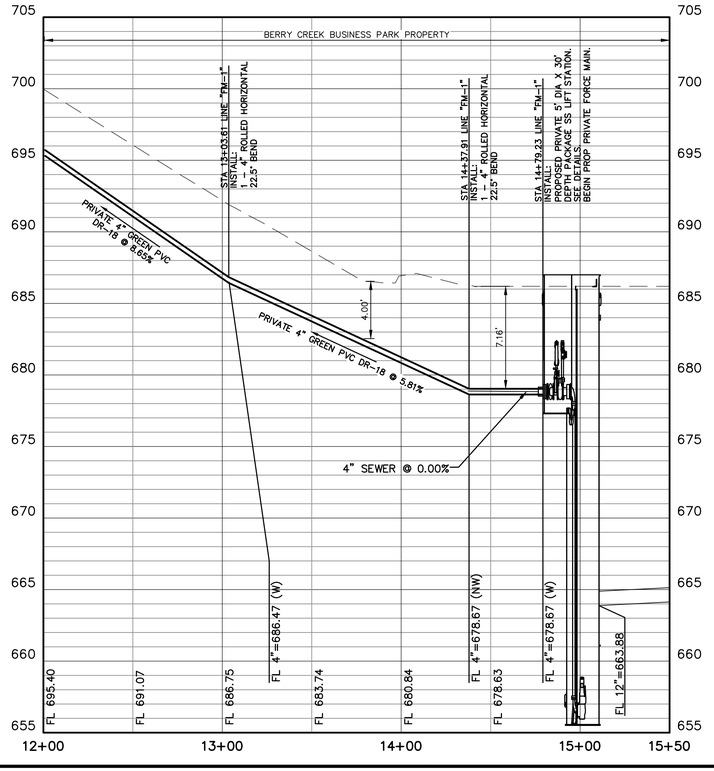
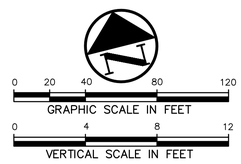
APPROVED: 08/02/2024







LEGEND

- BOLLARD
- ELECTRIC METER
- POWER POLE
- LIGHT STANDARD
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- FIRE HYDRANT
- CLEANOUT
- MANHOLE
- TRAFFIC SIGNAL CONTROL
- TRAFFIC SIGNAL POLE
- TELEPHONE BOX
- FLOOD LIGHT
- FLAG POLE
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- 1/2-INCH IRON ROD
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- PROPERTY LINE
- X FENCE
- OHL OVERHEAD UTILITY LINE
- UNDERGROUND ELECTRIC LINE
- T UNDERGROUND TELEPHONE LINE
- UNDERGROUND CABLE LINE
- 6"W UNDERGROUND WATER LINE
- 6"SS UNDERGROUND SANITARY SEWER LINE
- PROP FDC LOCATION
- PROP WATER VALVE
- PROP FIRE HYDRANT
- PROP WATER LINE W/ BEND
- PROP SANITARY SEWER LINE
- PROP SANITARY SEWER MANHOLE
- PROP SANITARY SEWER CLEANOUT

SANITARY SEWER GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "A" (3000 PSI), UNLESS OTHERWISE NOTED.
2. FORCE MAIN PIPE SHALL BE DR-18 GREEN PVC C900 AND MEET THE REQUIREMENTS OF THE CITY OF GEORGETOWN. PIPE MATERIAL ALTERNATIVES MAY BE FUSION BONDED HDPE DR 11. CONTRACTOR TO SUBMIT PIPE MATERIAL FOR ENGINEER APPROVAL.
3. FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-110 AND MUST BE RESTRAINED. CONTRACTOR TO INSTALL THRUST BLOCKS PER DETAILS.
4. WHEN REQUIRED, CONTRACTOR TO ROTATE FITTINGS TO ACHIEVE OFFSET IN VERTICAL AND HORIZONTAL DIRECTIONS. CONTRACTOR TO MAINTAIN DEPTH OF COVER AS CALLED OUT IN THE PLANS.
5. WHEN WATER AND SANITARY SEWER MAINS, SERVICES, AND LATERALS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING TCEQ CHAPTERS SHALL APPLY:
   - 5.A. TCEQ CHAPTER 217.53 PIPE DESIGN, SECTION (d) SEPARATION DISTANCES.
   - 5.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
6. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
7. CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
8. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
9. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
10. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
11. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
12. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
13. CONTRACT TO CONTACT PEC 48 HOURS IN ADVANCE PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES NEAR EXISTING POWER POLES.
14. CONTRACTOR TO PROVIDE 72 HOUR NOTICE PRIOR TO BEGINNING TIE IN TO THE CITY OF GEORGETOWN SANITARY SEWER NETWORK.
15. CONTRACTOR TO PLACE WARNING TAPE IN TRENCH OVERTOP FORCE MAIN. WARNING MUST BEAR THE LABEL "PRESSURIZED SEWER" CONTINUOUSLY REPEATED WITH LETTERS ATLEAST 1.5" TALL. TAPE MUST BE INSTALLED 2' MAX ABOVE THE TOP OF PIPE AND SHALL HAVE MINIMUM THICKNESS OF 5 MILS.
16. CONTRACTOR TO INSTALL THRUST BLOCKS AT BENDS, SEE DETAILS.
17. PROPOSED BORE PITS ARE PRELIMINARY AND SHALL BE COORDINATED WITH CONTRACTOR PRIOR TO COMMENCEMENT OF ACTIVITY. UPON COMPLETION OF EXISTING UTILITY CROSSING IDENTIFICATION, CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION PLAN INCLUDING LOCATIONS OF BORE/RECEIVING PITS, LIMITS OF CONSTRUCTION, EROSION CONTROL, AND ANY NECESSARY TREE PROTECTION.
18. CONTRACTOR SHALL STAGE BORE PITS TO NOT IMPACT 1/2 CRZ ON ANY PROTECTED OR HERITAGE TREE.
19. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.
20. CONTRACTOR TO STAGE AND OPERATE EQUIPMENT TO MITIGATE DAMAGE TO OR TRIMMING OF TREE CANOPIES.

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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

PROP WW FORCE MAIN PLAN & PROFILE 3 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER

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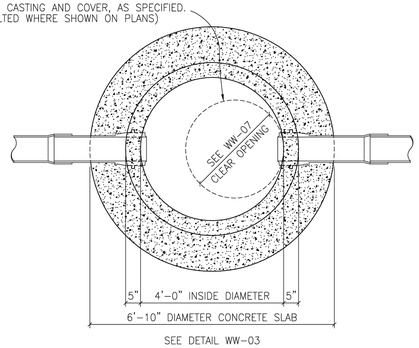
APPROVED: 08/02/2024



MANHOLE PLAN

CITY OF GEORGETOWN NOTES:

MANHOLE DETAILS SHALL REFLECT THE CITY'S MINIMUM SPECIFICATIONS, AS STATED BELOW:

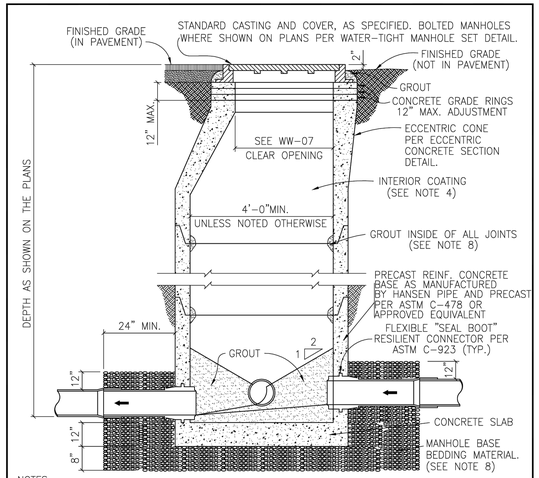
A. ALL MANHOLES SHALL BE 48" I.D., R.C.P., CLASS III, WITH RUBBER PROFILE GASKET – SINGLE OFF-SET JOINT CONFORMING TO ASTM C478, C433 AND C76.
B. ALL MANHOLES SHALL HAVE FRAME AND COVER, AS MANUFACTURED BY EAST JORDAN IRON WORKS (AS PER DETAIL # WW-07) OR APPROVED EQUIVALENT.
C. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON FRAME AND COVER.
D. ALL MANHOLES SHALL HAVE AN ECCENTRIC CONE.
E. MANHOLES MAY HAVE A FLAT LID, IF APPROVED BY CITY OF GEORGETOWN, BEING 12" THICK WITH A MINIMUM 30" OPENING, AS MANUFACTURED BY HANSEN PIPE AND PRECAST OR APPROVED EQUAL M.F.G. CONFORMING TO ASTM C478, 5000 P.S.I. CONCRETE, TRAFFIC BEARING AND WITH PROFILE GASKET – SINGLE OFF-SET JOINT CONFORMING TO ASTM C443.
F. INVERTS AND FLEXIBLE SEAL BOOTS, PER ASTM C-923, SHALL BE CAST INTO BASE SECTION.
G. MINIMUM DROP BETWEEN INVERTS SHALL BE ONE-TENTH OF A FOOT (0.1').
H. GRADE RINGS WITH AN I.D. TO MATCH FRAMES CLEAR OPENING WITH A MAXIMUM ADJUSTMENT OF 12" ARE ALLOWED.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STANDARD MANHOLE – PLAN

DRAWING NAME: WW02
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:

1. MANHOLES SHALL BE PRECAST ASTM C-478 BELL AND SPIGOT WITH PROFILE GASKET – SINGLE OFF-SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE, FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
4. AN 80 MIL. COAT OF RAVEN LINING SYSTEMS, RAVEN 405 ULTRA HIGH BUILD EPOXY COATING, OR SPRAY WALL EPOXY COATING, OR APPROVED EQUAL, TO BE APPLIED TO ENTIRE INTERIOR OF EACH WASTEWATER MANHOLE AND UNDERSIDE OF FLAT TOPS.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETTED WHEN MANHOLES ARE LOCATED OUT FROM PAVEMENT.
6. MANHOLES TO BE VENTED ARE IDENTIFIED ON MANHOLE SCHEDULE. REFERENCE MANHOLE VENT DETAIL.
7. MANHOLES ARE TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR HS-20 TRAFFIC LOADS.
8. GROUT SHALL MEET THE REQUIREMENTS AS STATED BY THE COATING MANUFACTURER.
9. MANHOLE BASE BEDDING MATERIAL SPECS. FOR 3/4" WASHED GRAVEL:
   SIEVE SIZE 2", PERCENT (%) RETAINED 0
   SIEVE SIZE 1 1/2", % RETAINED 0-10
   SIEVE SIZE 1", % RETAINED 45-80
   SIEVE SIZE 3/4", % RETAINED 85-100
   SIEVE SIZE 3/8", % RETAINED 95-100

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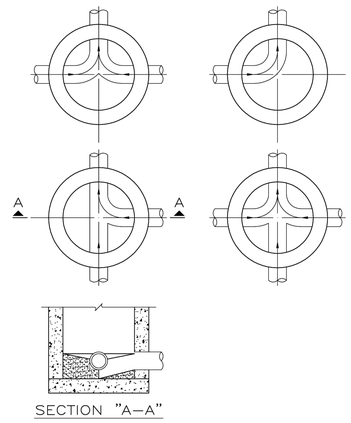
REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STANDARD MANHOLE – SECTION

DRAWING NAME: WW03
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

FLOW PATTERNS FOR INVERT CHANNELS



SECTION "A–A"

NOTES:

1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOW.
3. CHANNELS FOR FUTURE CONSTRUCTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND, AND COVERED WITH 1" OF MORTAR.
4. SLOPE MANHOLE ITSELF WITH A 1:2 SLOPE FROM MANHOLE WALL TO CHANNEL.
5. INVERT SHALL BE A MINIMUM OF 1/2 THE DIAMETER OF THE LARGEST PIPE OR 4" DEEP.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
FLOW PATTERNS FOR INVERT CHANNELS

DRAWING NAME: WW06
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

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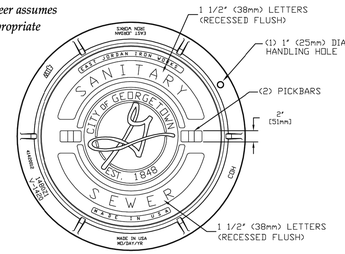
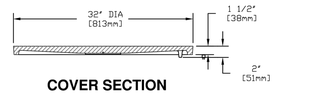
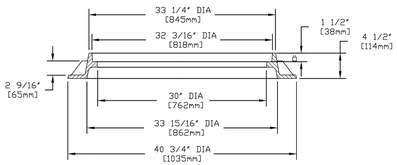




COVER SECTION



FRAME SECTION

NOTES:

1. STANDARD WASTEWATER MANHOLE SET TO BE EAST JORDAN IRON WORKS, INC. CATALOG NO. 1480A V-1420/1480Z1, COVER TO BE STAMPED WITH "SANITARY SEWER".
2. STANDARD WASTEWATER MANHOLE SET TO BE HEAVY DUTY LOAD RATED.
3. FOR MORE DETAILED SPECIFICATIONS REFER TO EAST JORDAN IRON WORKS, INC. REFERENCE PRODUCT DRAWING 41420012 00148390.
4. FOR BOLTED WASTEWATER MANHOLE SET REFER TO DETAIL WW07A.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STANDARD WASTEWATER MANHOLE SET

DRAWING NAME: WW07
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

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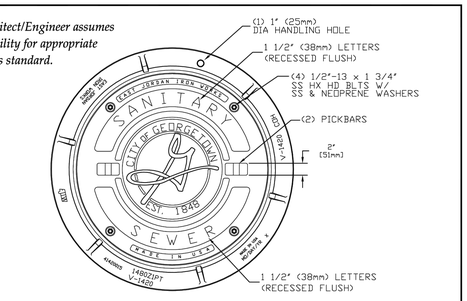

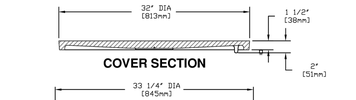

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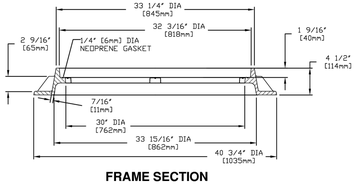


FRAME SECTION

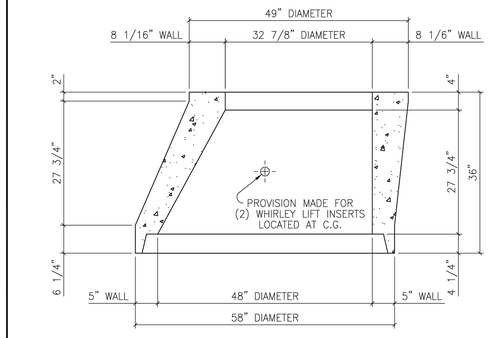
NOTES:

1. BOLTED WASTEWATER MANHOLE SET TO BE EAST JORDAN IRON WORKS, INC. CATALOG NO. 1480APT V-1420/1480Z1PT, COVER TO BE STAMPED WITH "SANITARY SEWER".
2. BOLTED WASTEWATER MANHOLE SET TO BE HEAVY DUTY LOAD RATED.
3. FOR MORE DETAILED SPECIFICATIONS REFER TO EAST JORDAN IRON WORKS, INC. REFERENCE PRODUCT DRAWING 00148392 41420015.
4. FOR STANDARD WASTEWATER MANHOLE SET REFER TO DETAIL WW07.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
BOLTED WASTEWATER MANHOLE SET

DRAWING NAME: WW07A
SCALE: NTS | DATE: 1/2006
DRAWN BY: MRS | APPROVED BY: TRB



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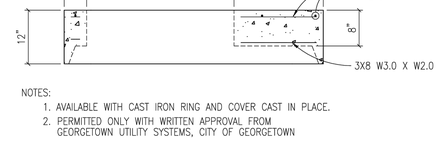
REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
48"X5" TO 33"X8"X36" TALL
ECCENTRIC CONCRETE SECTION

DRAWING NAME: WW08
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:

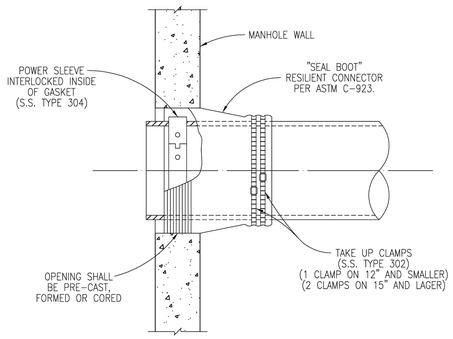
1. AVAILABLE WITH CAST IRON RING AND COVER CAST IN PLACE.
2. PERMITTED ONLY WITH WRITTEN APPROVAL FROM GEORGETOWN UTILITY SYSTEMS, CITY OF GEORGETOWN

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
48" MANHOLE FLAT LID

DRAWING NAME: WW09
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



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REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
FLEXIBLE "SEAL BOOT" CONNECTOR

DRAWING NAME: WW10
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

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TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

SANITARY SEWER DETAILS 1 OF 2



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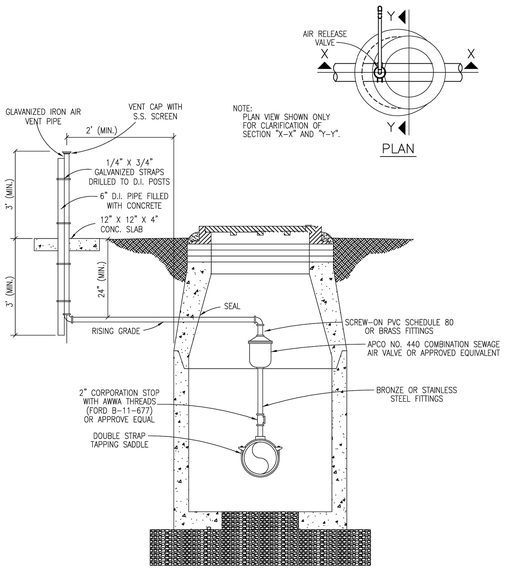
APPROVED: 08/02/2024



SECTION "Y-Y"

The Architect/Engineer assumes responsibility for appropriate use of this standard.

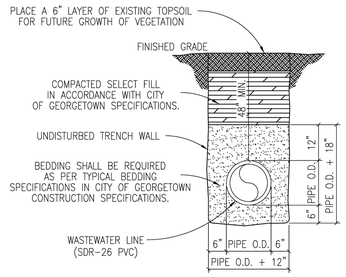
REVISION NOTE: ADOPTED 6/21/2006

DRAWING NAME: WW15

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

STANDARD AIR RELEASE VALVE FOR FORCE MAIN

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.

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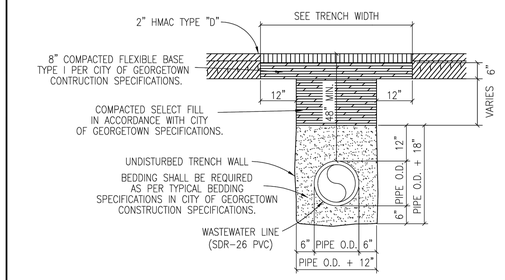
REVISION NOTE: ADOPTED 6/21/2006

DRAWING NAME: WW16

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

TRENCH AND EMBEDMENT DETAIL UNDER NON-PAVED AREAS

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.

NOTES:
1. REPLACED BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE.
2. BASE MATERIAL SHALL BE PLACED IN MULTIPLE LIFTS NOT TO EXCEED 6". EACH LAYER SHALL BE THOROUGHLY ROLLED OR TAMPED TO SPECIFIED MAXIMUM DENSITY.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. SURFACE MATERIAL WILL BE CONSISTENT WITH THE EXISTING SURFACE.
5. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
6. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

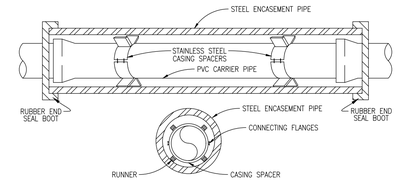
REVISION NOTE: ADOPTED 6/21/2006

DRAWING NAME: WW17

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

TRENCH AND EMBEDMENT AND PAVEMENT REPLACEMENT DETAIL UNDER EXISTING ROADWAY

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:
1. CASING SPACERS SHALL BE BOLT ON STYLE WITH A SHELL MADE IN TWO SECTIONS OF HEAVY 1-304 STAINLESS STEEL. CONNECTING FLANGES SHALL BE RIBBED FOR EXTRA STRENGTH. CASING SPACERS SHALL BE MADE BY CASCADE WATERWORKS MFG. CO. OR APPROVED EQUAL.
2. CASING SPACERS SHALL HAVE RUNNERS MADE OF ULTRA HIGH MOLECULAR WEIGHT POLYMER, WITH A MINIMUM HEIGHT OF 2 INCHES.
3. DO NOT USE WEDGES BETWEEN TOP OF PVC CARRIER PIPE AND INSIDE OF CASING TO KEEP PVC FROM MOVING.
4. PRIOR TO INSERTING PVC CARRIER PIPE, ANY WATER SHOULD BE PUMPED OUT OF THE CASING PIPE SO THAT NO MORE THAN A FEW INCHES OF WATER REMAINS.
5. SPACERS WILL BE REQUIRED WITHIN AT LEAST 3 FEET FROM BOTH OPENINGS OF THE ENCASEMENT PIPE AND SPACED NO GREATER THAN 6 FEET THROUGHOUT THE ENCASEMENT PIPE.
6. ENCASEMENT PIPE SHALL BE SMOOTH STEEL 35,000 PSI YIELD STRENGTH WITH THICKNESS ACCORDING TO THE FOLLOWING TABLE:
7. WHEN CASING IS REQUIRED UNDER PAVEMENT WITHIN THE R.O.W., THE CASING SHALL EXTEND OUT TO WITHIN 4' INSIDE OF THE R.O.W. LINE, ON BOTH SIDES.
8. ALL JOINTS SHALL BE RESTRAINED ON PVC CARRIER PIPE.

PIPE SIZE-CARRIER (DIAMETER)	PIPE SIZE-CASING (DIAMETER)(MIN.)	MINIMUM PIPE THICKNESS (INCHES)	
6"	16"		
8"	18"	1/4	0.2500
10"	20"	5/16	0.3125
12" - 14"	24"	3/8	0.3750
16" - 18"	30"	7/16	0.4375
20"	36"	1/2	0.5000
24"	42"	1/2	0.5000
30"	48"	1/2	0.5000

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REVISION NOTE: ADOPTED 6/21/2006

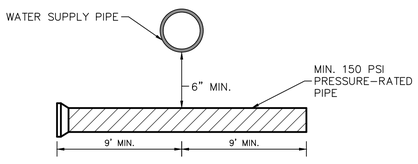
DRAWING NAME: W14

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

INSTALLATION OF P.V.C. PIPE THROUGH CASING

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

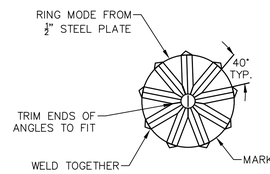
1. A COLLECTION SYSTEM PIPE THAT CROSSES BELOW A WATER SUPPLY PIPE AND IS CONSTRUCTED OF AT LEAST 150 PSI PRESSURE CLASS, CORROSION-RESISTANT, NON-BRITTLE PIPE MUST:
   1.A. HAVE AT LEAST SIX INCHES OF SEPARATION BETWEEN THE OUTSIDES OF THE PIPES;
   1.B BE CENTERED ON THE CROSSING;
   1.C BE AT LEAST 18 FEET LONG; AND
   1.D ERMINATE AT JOINTS THAT ARE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE.



NEW WASTEWATER COLLECTION SYSTEM PIPE (PRESSURE-RATED) BELOW AND CROSSING A WATER SUPPLY PIPE

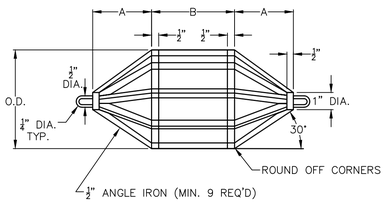
1

REFER NOTE: 1



FRONT VIEW

GO, NO GO DEFLECTION TESTING MANDREL



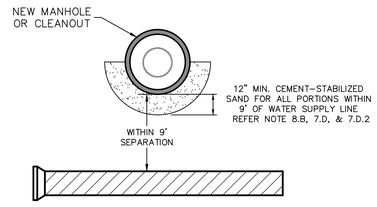
SIDE OR TOP VIEW

DEFLECTION TESTING MANDREL

2

NOT TO SCALE

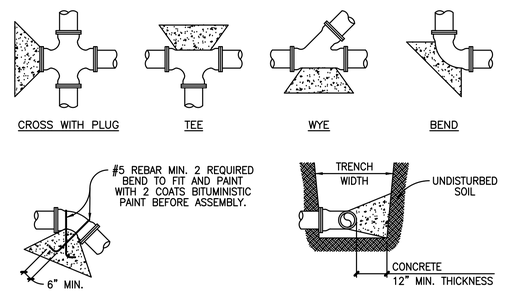
1. IF A NINE-FOOT SEPARATION DISTANCE BETWEEN A MANHOLE AND A WATER SUPPLY PIPE CANNOT BE ACHIEVED, THE MANHOLE MUST EITHER:
   1.A HAVE NO MEASURABLE LEAKAGE DURING A LEAKAGE TEST CONDUCTED ACCORDING TO THE REQUIREMENTS IN TCEQ CHAPTER 217.58 (RELATED TO TESTING REQUIREMENTS FOR MANHOLES); OR
   1.B HAVE ALL PORTIONS OF THE MANHOLE WITHIN NINE-FEET OF A WATER SUPPLY PIPE ENCASED IN AT LEAST ONE FOOT OF CEMENT-STABILIZED SAND THAT MEETS THE REQUIREMENTS OF PARAGRAPH 7.D.1 AND 7.D.2 OF THIS SUBSECTION.



NEW WASTEWATER MANHOLE OR CLEANOUT WITHIN NINE FEET OF A WATER SUPPLY PIPE

3

REFER NOTE: 1



*DEADMAN

TYPICAL SECTION

ALL THRUST BLOCKS SHALL BE FORMED. LAID FORMS SHALL BE INSPECTED BY THE CITY OF GEORGETOWN PRIOR TO THE POURING OF CONCRETE AND SHALL ALSO BE INSPECTED BY THE CITY OF GEORGETOWN PRIOR TO COVERING. TYPICAL LOCATIONS WHICH REQUIRE CONCRETE REACTION (THRUST) BLOCKS, FOR PRESSURE MAINS FOUR INCHES (4") AND GREATER. CONCRETE SHALL HAVE 2,500 P.S.I. MINIMUM STRENGTH AT TWENTY EIGHT (28) DAYS AND BEAR AGAINST UNDISTURBED STABLE SOILS, AREA OF CONTACT SHALL BE GOVERNED BY PIPE SIZE, MAXIMUM PRESSURE IN PIPE, AND BEARING CAPACITY OF SOIL. PROTECT FITTINGS, BOLTS, ETC. BY COVERING WITH VISQUEEN OR OTHER ACCEPTABLE MATERIAL. CONCRETE SHALL BE A MINIMUM OF TWELVE INCHES (12") THICK.

PIPE SIZE	THRUST BLOCK AREA REQUIRED	PIPE SIZE	THRUST BLOCK AREA REQUIRED	REMARKS
4"	2.0 SQ. FT.	18"	30.0 SQ. FT.	VALUES ARE FOR 90° BENDS, BASED ON 2000 P.S.F. SAFE BEARING LOAD AND PIPE PRESSURE OF 150 P.S.I. PLUS 33% SAFETY FACTOR FOR OTHER SOILS AND PRESSURES, THE AREA REQUIRED IS IN DIRECT PROPORTION.
6"	4.0 SQ. FT.	20"	37.0 SQ. FT.	
8"	6.6 SQ. FT.	24"	53.0 SQ. FT.	
10"	10.0 SQ. FT.	27"	80.0 SQ. FT.	
12"	14.0 SQ. FT.	30"	98.0 SQ. FT.	
14"	18.0 SQ. FT.	36"	127.0 SQ. FT.	
16"	24.0 SQ. FT.			

* THE ENGINEER OF RECORD SHALL CALCULATE THE SIZE OF THE DEADMAN REQUIRED AS WELL AS ANY INSTALLATION WHICH IS NOT COVERED BY THE ABOVE.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

DRAWING NAME: W11

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

TYPICAL THRUST BLOCKS FOR WATER AND FORCE MAIN

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

2023-35-CON

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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

SANITARY SEWER DETAILS 2 OF 2

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
21
21 OF 32

JFAURE
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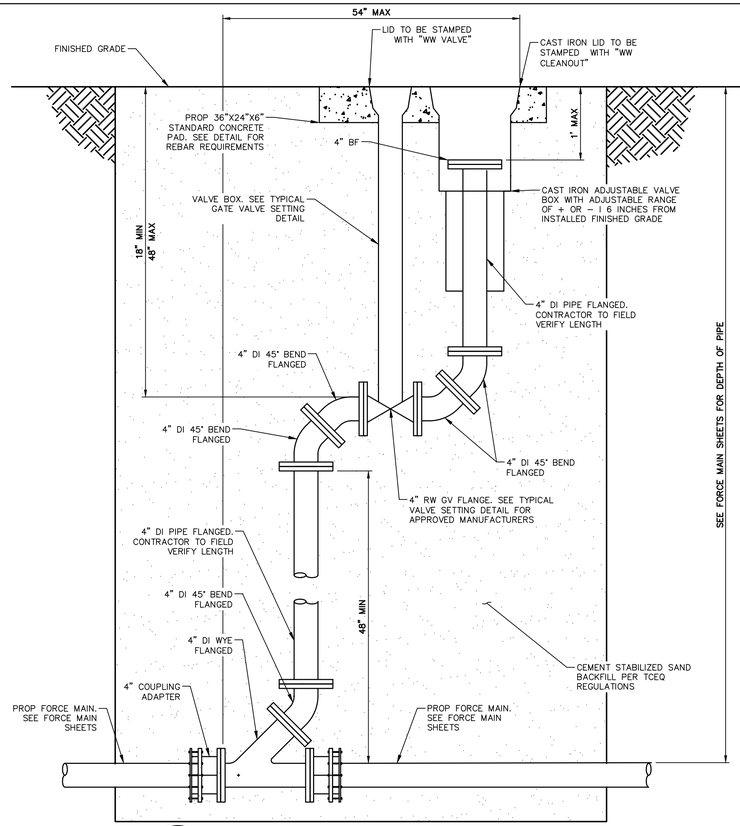
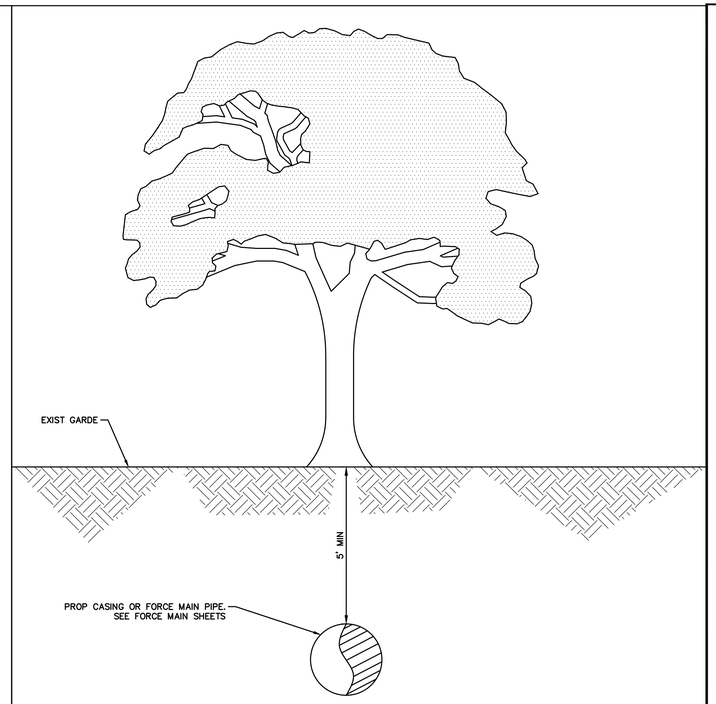
APPROVED: 08/02/2024



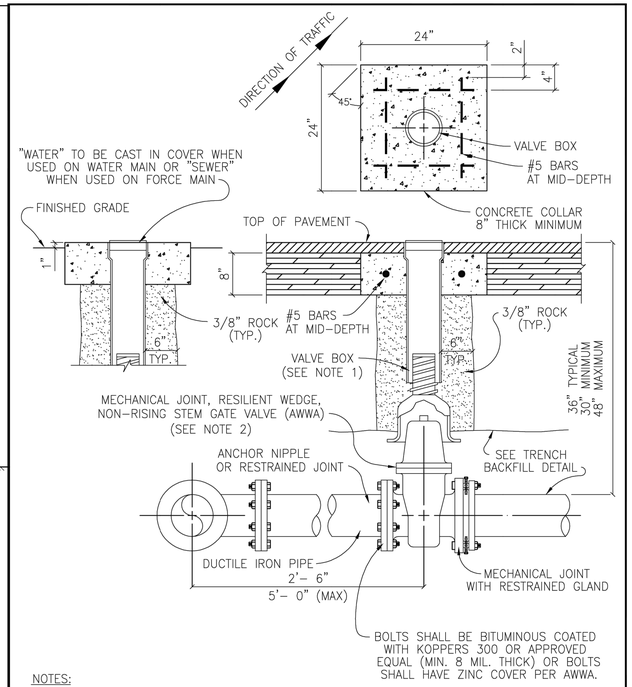
1 SANITARY SEWER FORCE MAIN CLEANOUT
NOT TO SCALE



NOTE

1. CONTRACTOR TO ENSURE THAT CASING PIPE OR FORCE MAIN IS INSTALLED WITH A MINIMUM OF 5' DEPTH OF COVER WHEN PERFORMING TRENCHLESS INSTALLATION BELOW TREES.

2 INSTALLATION BELOW TREES
NOT TO SCALE



NOTES:

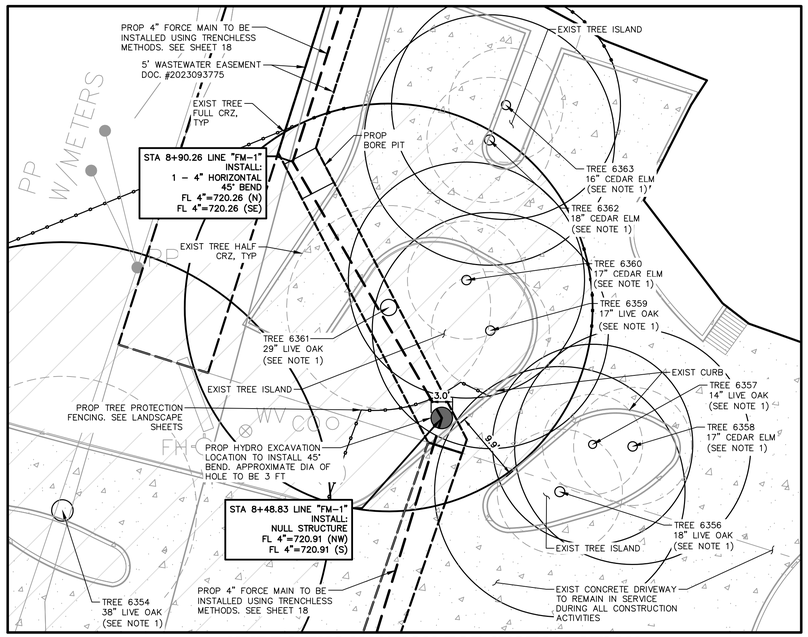
1. VALVE BOX SHALL BE 5 1/4" CAST IRON ADJUSTABLE HAVING AN ADJUSTABLE RANGE OF + OR – 6 INCHES FROM INSTALLED FINISH GRADE.
2. ACCEPTABLE GATE VALVES ARE:
   A. AMERICAN FLOW CONTROL – SERIES 2500
   B. MUELLER – 2360 SERIES
   C. CLOW

The Architect/Engineer assumes responsibility for appropriate use of this standard.

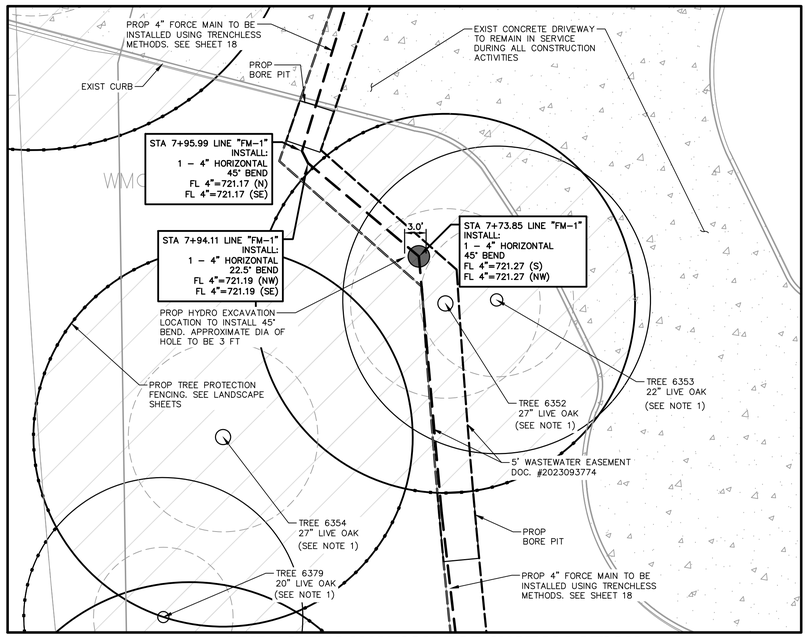
EST. 1848 GEORGETOWN TEXAS Georgetown Utility Systems Your Community Owned Utility

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
TYPICAL VALVE SETTING

REVISION NOTE: ADOPTED 6/21/2006
DRAWING NAME: WO7
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



3 HYDRO-EXCAVATION FOR INSTALLATION OF BENDS - AREA 1 OF 2
NOT TO SCALE



4 HYDRO-EXCAVATION FOR INSTALLATION OF BENDS - AREA 2 OF 2
NOT TO SCALE

NOTES

1. TREES TO RECEIVE DEEP ROOT INVIGORATION. SEE LANDSCAPE ARCHITECTURE SHEETS FOR TREE PROTECTION PLANS.
2. INFORMATION PROVIDED IN THE DETAILS FOR INSTALLATION USING HYDRO-EXCAVATION IS FOR REFERENCE ONLY. MEANS AND METHODS FOR INSTALLATION OF PIPE AND FITTINGS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER IS NOT LIABLE FOR THE SELECTION OF INSTALLATION METHODS OR THE EXECUTION THEREOF.
3. CONTRACTOR TO STAGE AND OPERATE EQUIPMENT TO MITIGATE DAMAGE TO OR TRIMMING OF TREE CANOPIES.

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TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

SANITARY SEWER DETAILS 3 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER
Justin Faure

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. 22
22 OF 32

2023-35-CON

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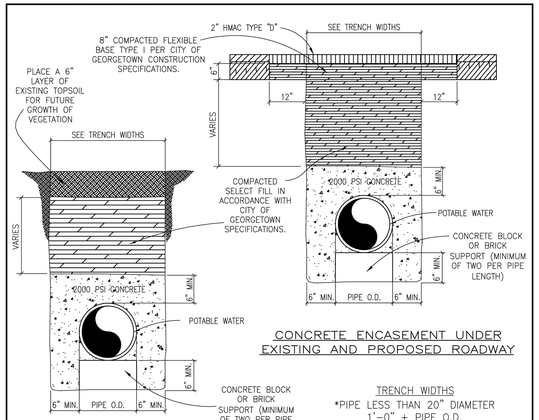


CONCRETE ENCASEMENT UNDER EXISTING AND PROPOSED ROADWAY

CONCRETE ENCASEMENT UNDER NATURAL GROUND

TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'–0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'–0" + PIPE O.D.

NOTES:
1. ENCASEMENT TO BE CONSTRUCTED WHERE SEWER LINES PASS OVER OR UNDER A WATER MAIN WITH LESS THAN TWELVE INCHES (12") CLEAR DISTANCE.
2. AT CROSSINGS, ENCASEMENT SHALL EXTEND TEN FEET (10'–0") ON EITHER SIDE OF CROSSING.
3. BEGINNING AND ENDING OF ENCASEMENTS SHALL NOT BE MORE THAN SIX INCHES (6") FROM A PIPE JOINT.
4. WHERE WATER AND SEWER LINES PARALLEL WITH LESS THAN TEN FEET (10'–0") HORIZONTAL CLEAR DISTANCE, NO ENCASEMENT IS REQUIRED IF BOTH LINES ARE 150 PSI PRESSURE PIPE.
5. RAW WATER MAINS SHALL BE 150 PSI PRESSURE RATED WHEN PARALLELING POTABLE WATER MAINS WITH LESS THAN NINE FEET (9'–0") HORIZONTAL CLEARANCE.
6. WHERE MINIMUM COVER, THIRTY SIX INCHES (36") IS NOT AVAILABLE, ENCASEMENT WILL BE REQUIRED.
7. ALL CONCRETE ENCASEMENTS MUST BE FORMED AND INSPECTED BY THE CITY OF GEORGETOWN INSPECTOR PRIOR TO PLACING CONCRETE AND BACKFILLING.
8. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

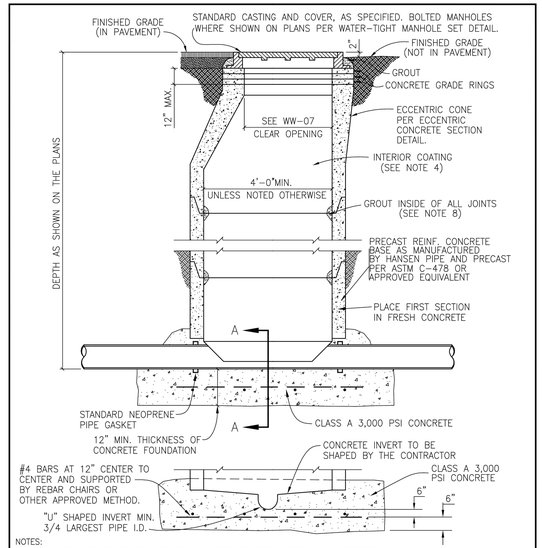
The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
CONCRETE ENCASEMENT DETAIL

DRAWING NAME: W15

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:
1. MANHOLES SHALL BE PRECAST ASTM C–478 BELL AND SPIGOT WITH PROFILE GASKET – SINGLE OFF–SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE, FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
4. AN 80 MIL. COAT OF RAVEN LINING SYSTEMS, RAVEN 405 ULTRA HIGH BUILD EPOXY COATING, OR SPRAY WALL EPOXY COATING, OR APPROVED EQUAL, TO BE APPLIED TO ENTIRE INTERIOR OF EACH WASTEWATER MANHOLE AND UNDERSIDE OF FLAT TOPS.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETTED WHEN MANHOLES ARE LOCATED OUT FROM PAVEMENT.
6. MANHOLES TO BE VENTED ARE IDENTIFIED ON MANHOLE SCHEDULE. REFERENCE MANHOLE VENT DETAIL.
7. MANHOLES ARE TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR HS–20 TRAFFIC LOADS.
8. GROUT SHALL MEET THE REQUIREMENTS AS STATED BY THE COATING MANUFACTURER.
9. MANHOLE BASE BEDDING MATERIAL SPECS. FOR 3/4" WASHED GRAVEL:
   SIEVE SIZE 2", PERCENT (%) RETAINED 0 — SIEVE SIZE 1 1/2", % RETAINED 0–10
   SIEVE SIZE 1", % RETAINED 45–80 — SIEVE SIZE 3/4", % RETAINED 85–100
   SIEVE SIZE 3/8", % RETAINED 95–100
10. ALL PVC PIPE SHALL BE REMOVED FROM INVERT.

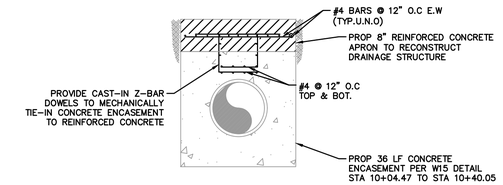
The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
PRECAST MANHOLE ON CAST–IN–PLACE FOUNDATION

DRAWING NAME: WW20

SCALE: NTS | DATE: 1/2006
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:
1. CONTRACTOR TO DEMO EXIST CULVERT CONCRETE APRON AND ENCASE SEWER LINE PER DETAIL W15 ON SHEET 22.1.
2. CONTRACTOR TO INSTALL ENCASEMENT UP TO THE CULVERT CONCRETE APRON AND RECONSTRUCT CULVERT CONCRETE APRON WITH 8" REINFORCED CONCRETE.
3. CONTRACTOR TO TIE CONCRETE ENCASEMENT TO 8–INCH REINFORCED CONCRETE APRON WITH DOWELS AS DETAILED.
4. MAINTAIN MINIMUM CONCRETE COVER AT ALL REINFORCEMENT.
5. DO NOT PLACE REINFORCING STEEL OR DOWELS IN CONTACT WITH PIPE. MAINTAIN MINIMUM CLEARANCE TO OUTSIDE DIAMETER (OD) OF PIPE.
6. INSTALL AND SECURE PIPE TO LINE AND GRADE PRIOR TO CONCRETE PLACEMENT.
7. PLACE ENCASEMENT CONCRETE IN A MANNER THAT DOES NOT DISPLACE, DEFORM, OR DAMAGE PIPE.
8. WHERE SLAB IS PLACED AFTER ENCASEMENT, PREPARE TOP SURFACE OF ENCASEMENT AND INSTALL DOWELS AS DETAILED.
9. SLAB REINFORCING SHALL REMAIN CONTINUOUS ACROSS PIPE CROSSINGS UNLESS NOTED OTHERWISE.
10. CONTRACTOR TO COORDINATE REINFORCEMENT PLACEMENT TO AVOID CONFLICTS WITH PIPE JOINTS, BELLS, FITTINGS, AND APPURTENANCES.

1 CONCRETE ENCASEMENT & APRON TIE-IN DETAIL

NOT TO SCALE
MODIFIED DETAIL W15

FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED PROFESSIONAL ENGINEER

06/01/2026

2023-35-CON

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REVISIONS

NO.	DATE	DESCRIPTION	BY
1	5/29/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

SANITARY SEWER DETAILS 4 OF 4

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
TCG	MAW	MAR 2026

SHEET NO.
22.1
22.1 OF 32

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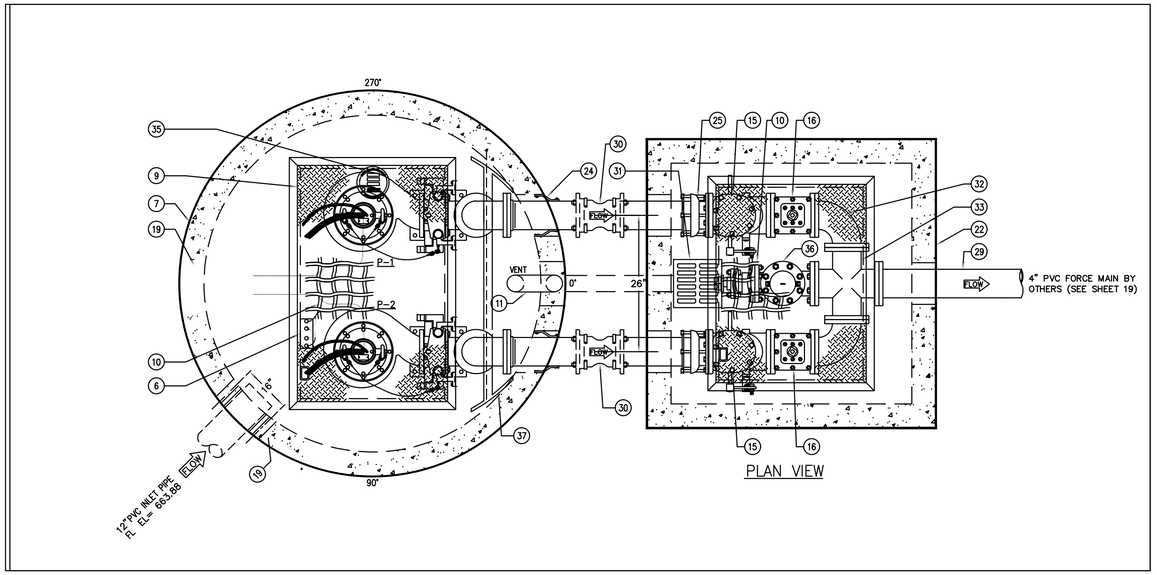
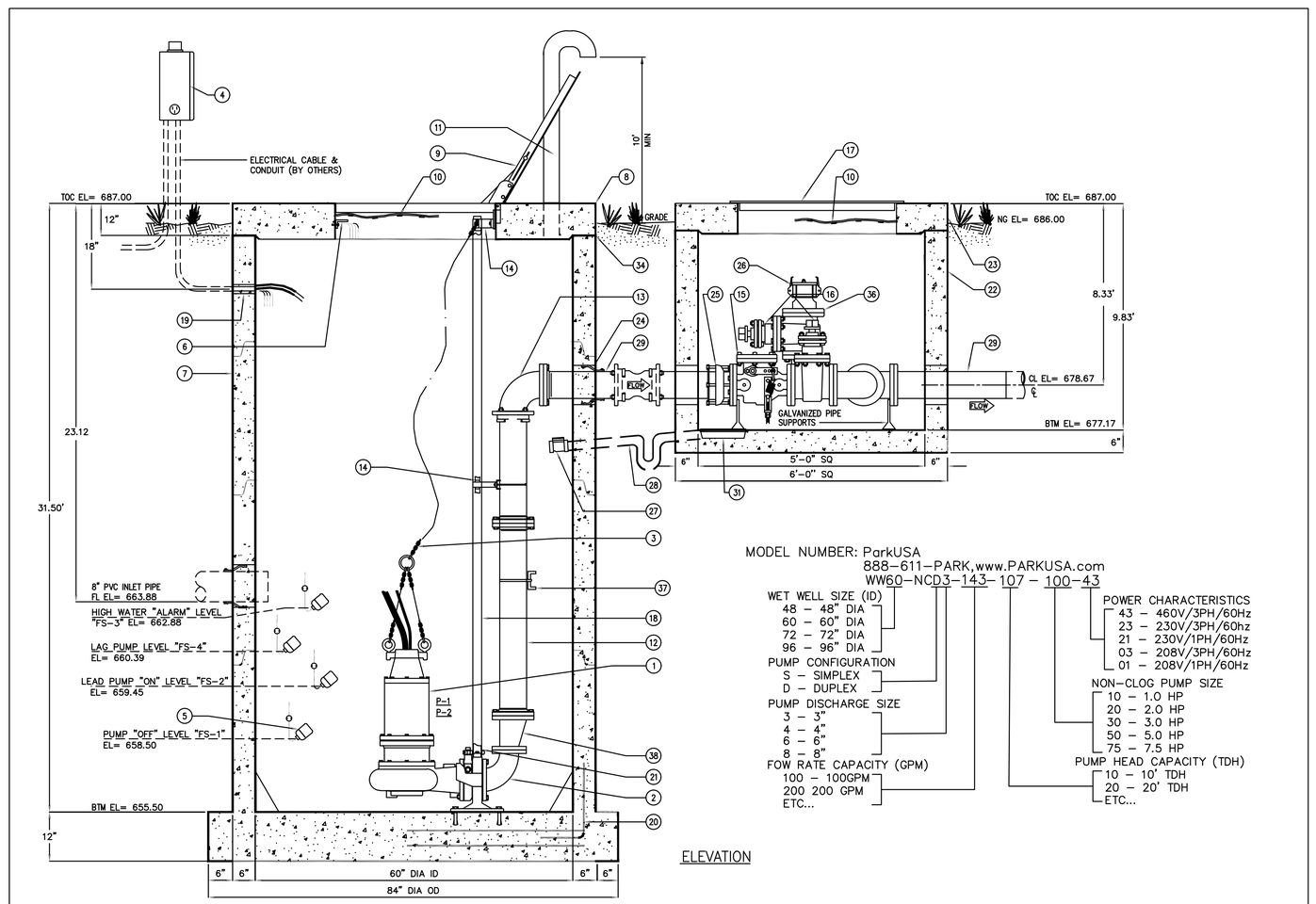
APPROVED: 08/02/2024





MODEL NUMBER: ParkUSA
888-611-PARK,www.PARKUSA.com
WW60-NCD3-143-107 - 100-43

- WET WELL SIZE (ID)
  - 48 – 48" DIA
  - 60 – 60" DIA
  - 72 – 72" DIA
  - 96 – 96" DIA
- PUMP CONFIGURATION
  - S – SIMPLEX
  - D – DUPLEX
- PUMP DISCHARGE SIZE
  - 3 – 3"
  - 4 – 4"
  - 6 – 6"
  - 8 – 8"
- FOW RATE CAPACITY (GPM)
  - 100 – 100GPM
  - 200 200 GPM
  - ETC...
- POWER CHARACTERISTICS
  - 43 – 460V/3PH/60Hz
  - 23 – 230V/3PH/60Hz
  - 21 – 230V/1PH/60Hz
  - 03 – 208V/3PH/60Hz
  - 01 – 208V/1PH/60Hz
- NON-CLOG PUMP SIZE
  - 10 – 1.0 HP
  - 20 – 2.0 HP
  - 30 – 3.0 HP
  - 50 – 5.0 HP
  - 75 – 7.5 HP
- PUMP HEAD CAPACITY (TDH)
  - 10 – 10' TDH
  - 20 – 20' TDH
  - ETC...

STATION OPERATION LEVELS		
RISING LEVEL CYCLE		
WATER LEVEL ELEVATION	ACTION	PUMPS IN OPERATION
659.45	LEAD PUMP TURNS "ON", FS-2	LEAD PUMP "ON"
660.39	LAG PUMP TURNS "ON", FS-4	LEAD & LAG PUMPS "ON"
662.88	HIGH WATER "ALARM" LEVEL, FS-3	HIGH LEVEL ALARM "ON"
FALLING LEVEL CYCLE		
662.88	HIGH WATER ALARM, FS-3	HIGH LEVEL ALARM "OFF"
658.50	PUMPS "OFF" LEVEL, FS-1	ALL PUMPS "OFF" LAG PUMP SWITCHES TO LEAD PUMP

SPECIFICATION:
CONCRETE:
CLASS I/N CONCRETE WITH DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR, FIRST STAGE OF WALL AND BAFFLE WITH SECTIONAL RISER TO REQUIRED DEPTH.

REINFORCEMENT:
GRADE 60 REINFORCEMENT WITH STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OF EQUAL.

ALUMINUM HATCH:
300 PSF RATED, ¼" ALUMINUM SKID-RESISTANT FLOOR PLATE, STAINLESS STEEL TAMPERPROOF BOLTING, HINGES & SLAMLOCK. (H-20 RATING OPTIONAL)

PUMPS:
PUMPS SHALL BE CENTRIFUGAL SOLIDS HANDLING NON-CLOG UNIT AND SUBMERSIBLE TYPE MOTOR. PUMPS SHALL HAVE A CAPACITY AS FOLLOWS:

PUMP No.	TYPE	GPM	TDH	RPM	ELECTRICAL HP	V	PH	Hz
P-1	NON-CLOG	143	107	2,300	10	480	3	60
P-2	NON-CLOG	143	107	2,300	10	480	3	60

NOTE:
ALL DASHED PIPING TO BE FURNISHED BY CONTRACTOR

NOTE:
VERIFY ALL ELEVATIONS PRIOR TO FABRICATION

NOTE:
VERIFY ALL INLET/OUTLET ORIENTATIONS PRIOR TO FABRICATION

NOTE:
WET WELL AND VALVE VAULT JOINTS TO BE EXTERNALLY WRAPPED AND WATERTIGHT

KEYED NOTES		
MARK	QTY	DESCRIPTION
1	2	3 SUBMERSIBLE VORTEX NON=CLOG PUMP
2	2	3" BASE ELBOWS
3	2	SS STEEL CHAINS
4	1	CONTROLS PROVIDED, VWIRED & MOUNTED BY CONTRACTOR
5	4	FLOAT SWITCH
6	1	SS CABLE BRACKET
7	1	60" DIA x 35'-6" DEEP CONCRETE WET WELL
8	1	12" THK FLAT CONCRETE TOP
9	1	30"x48" SINGLE LEAF ALUMINUM HATCHWAY
10	2	SAFETY NET
11	1	4" GALVANIZED VENT, SUPPORTED WITH BOLLARD AND STEEL STRAPS
12	2	4" D.I. FL x PE PIPE
13	2	4" DI 90° ELBOW FL x MJ w/ STAR GRIPS
14	2	SS UPPER/INTER GUIDE BRACKETS
15	2	4" SWING CHECK VALVE
16	2	4" PLUG VALVE
17	1	36"x36" SINGLE LEAF ALUMINUM HATCHWAY
18	4	SS GUIDE RAILS
19	2	3" CONDUIT
20	–	REBAR AS REQ'D
21	2	LIFT-OUT ASSEMBLY
22	1	5'-0" x 5'-0" x 5'-9" DEEP PRECAST CONCRETE VALVE VAULT
23	1	6" THK VALVE VAULT LID
24	3	RESILIENT RUBBER BOOT
25	2	JCM 301 FCA
26	1	3" CAMLOCK w/ DUST COVER
27	1	3" BACKWATER VALVE (BY OTHERS)
28	1	3" VALVE VAULT DRAIN (BY OTHERS)
29	–	4" DI PIPE
30	–	MJ x MJ CONNECTION (BY OTHERS)
31	1	12"x12"x3" DEEP SUMP w/CAST IRON GRATE
32	2	4" DI 90° ELL
33	1	4" DI TEE
34	–	ALL JOINTS MADE WATER-TIGHT w/ PLASTIC FLEXIBLE GASKET (RAM-NEK)
35	1	NAMEPLATE INDICATING: MFG: PARKUSA 888-611-PARK WWW.PARKUSA.COM MODEL: WW60-NCD3-158-36.6-5-43 DATE MANUFACTURED
36	1	3" BLIND FLANGE
37	1	STAINLESS STEEL PIPE SUPPORT
38	2	3"x4" ECCENTRIC REDUCER

2023-35-CON

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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

LIFT STATION DETAILS 1 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
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SHEET NO.
23
23 OF 32

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APPROVED: 08/02/2024

Concertor XPC N80-6900

Technical specification

Motor - General

Motor number N6020.182 18-08-1AZ-W 10hp	**Phases** 3~	**Rated speed** 800-3213 rpm	**Rated power** 10 hp
ATEX approved No	**Insulation class** H	**Rated current** 10.1 A	**Type of Duty** S1
Frequency 60 Hz	**Rated voltage** 480 V	**Motor efficiency clas** IE4 according to IEC/TS 60034-30-2 Ed. 1	

Motor - Technical

Power factor - 1/1 Load 0.95	**Motor efficiency - 1/1 Load** 90.0 %	**Nominal speed - 1/1 Load** 2300 rpm
Power factor - 3/4 Load 0.95	**Motor efficiency - 3/4 Load** 91.0 %	**Nominal speed - 3/4 Load** 2070 rpm
Power factor - 1/2 Load 0.95	**Motor efficiency - 1/2 Load** 91.0 %	**Nominal speed - 1/2 Load** 1840 rpm

Starting current
10.1 A

Project	Xylect-22064717	**Created by**			
Block		**Created on**	3/27/2024	**Last update**	3/27/2024

Program version 7.0.2 - 2.05.0024 (Build 175) | Data version 10/4/2024 19:45 ASPS | User group(s) Xylem | SA - SKT

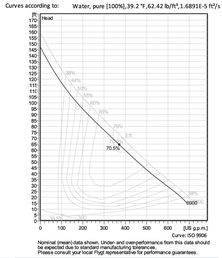
Concertor XPC N80-6900

Designed for sewage pumping stations in collection systems, the XPC system powered by Nexicon consists of 1-4 pumps, the Nexicon control, and 1 Dirigo module for each of the pumps Perfect for users who require the full functionality of the Concertor system, including maximum energy savings and clean wet well.

Technical specification



Curves according to: Water, pure [100%], 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft²/s



Nominal (mean) data shown. Under- and overperformance from this data should be expected due to standard manufacturing tolerances.
Please consult your local Flygt representative for performance guarantees.

Configuration

Motor number N6020.182 18-08-1AZ-W 10hp	**Installation type** P - Semi permanent, Wet
Impeller diameter 170 mm	**Discharge diameter** 3 inch

Pump information

Impeller diameter
170 mm

Discharge diameter
3 inch

Inlet diameter
110 mm

Maximum operating speed
800-3213.4 rpm

Number of blades
2

Max. fluid temperature
40 °C

Materials

Impeller
Hard-Iron ™

Project	Xylect-22064717	**Created by**			
Block		**Created on**	3/27/2024	**Last update**	3/27/2024

Program version 7.0.2 - 2.05.0024 (Build 175) | Data version 10/4/2024 19:45 ASPS | User group(s) Xylem | SA - SKT

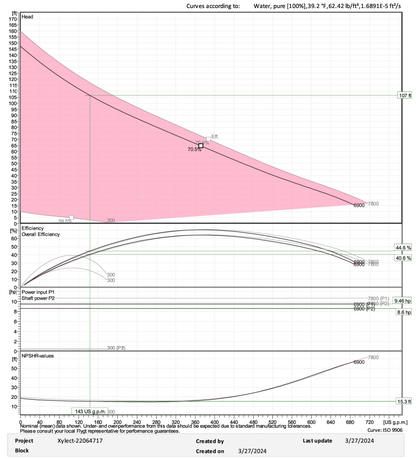
Concertor XPC N80-6900

Performance curve

Duty point

Flow 143 US g.p.m.	**Head** 107 ft

Curves according to: Water, pure [100%], 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft²/s



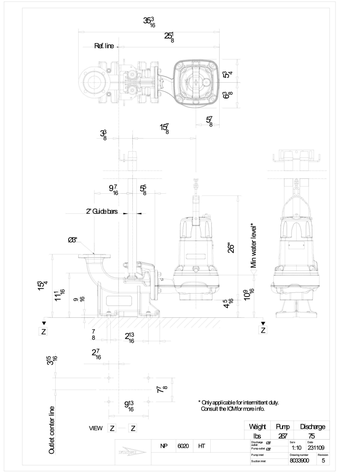
Nominal (mean) data shown. Under- and overperformance from this data should be expected due to standard manufacturing tolerances.
Please consult your local Flygt representative for performance guarantees.

Project	Xylect-22064717	**Created by**			
Block		**Created on**	3/27/2024	**Last update**	3/27/2024

Program version 7.0.2 - 2.05.0024 (Build 175) | Data version 10/4/2024 19:45 ASPS | User group(s) Xylem | SA - SKT

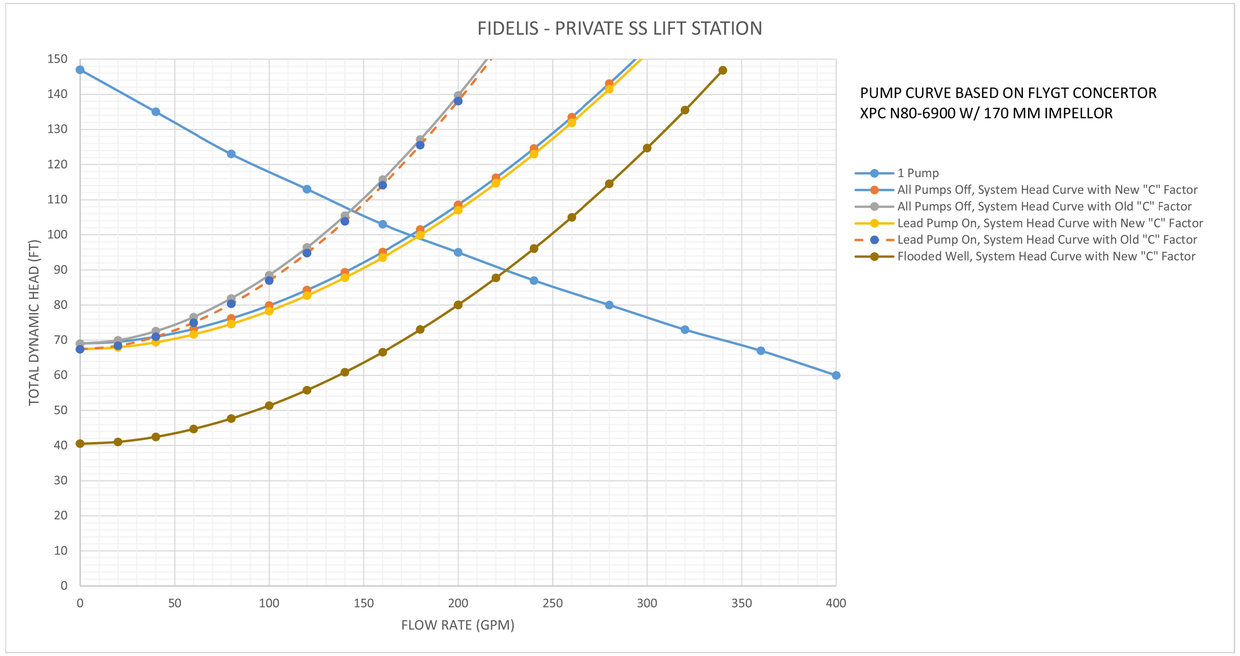
Concertor XPC N80-6900

Dimensional drawing



Project	Xylect-22064717	**Created by**			
Block		**Created on**	3/27/2024	**Last update**	3/27/2024

Program version 7.0.2 - 2.05.0024 (Build 175) | Data version 10/4/2024 19:45 ASPS | User group(s) Xylem | SA - SKT



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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

LIFT STATION DETAILS 2 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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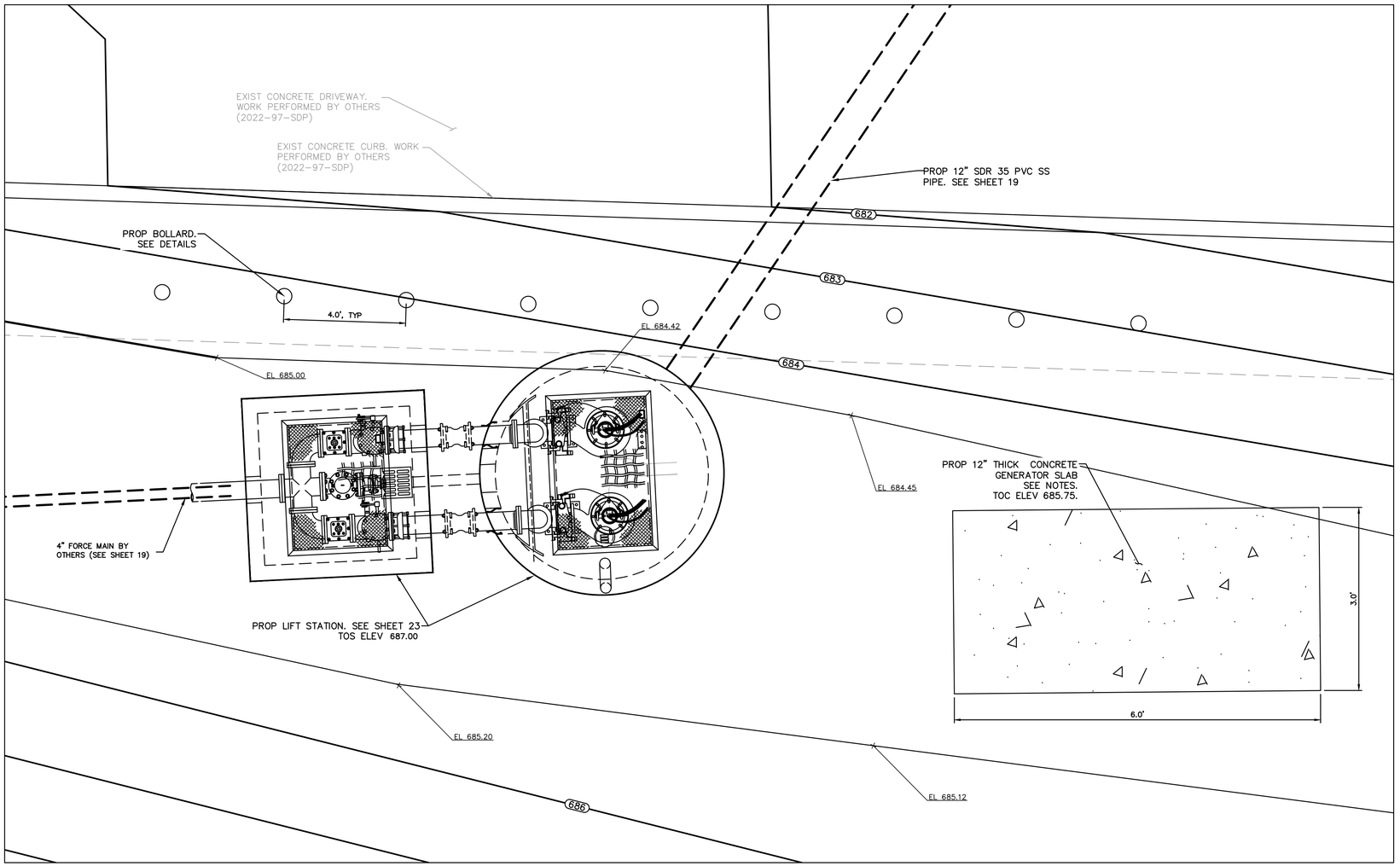
APPROVED: 08/02/2024

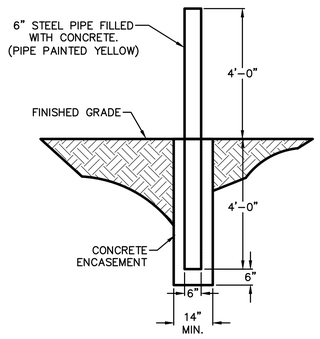


1 LIFT STATION SITE PLAN

1" = 2'

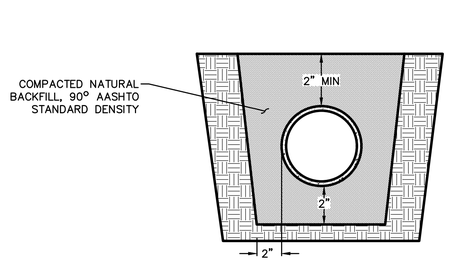
NOTES

1. SLAB REINFORCEMENT TO BE #4@12" OCEW WITH 2' X 1'-2" WIDE GRADE BEAM WITH #5 T&B WITH #4 STIRRUPS @ 12" OC.
2. SUBGRADE PREPERATION TO FOLLOW THE REQUIREMENTS OF THE GEOTECHNICAL REPORT ISSUEED IN MAY 2022 BY RONE ENGINEERING.
3. CONTRACTOR TO VERIFY LAYOUT AND DIMENSIONS PRIOR TO INSTALLATION.
4. ALL FERROUS METRALS WITHIN WET WELL AND VALVE VAULT SHALL BE STAINLESS STEEL, UNLESS OTHERWISE NOTED.



4 PIPE BOLLARD DETAIL

NOT TO SCALE

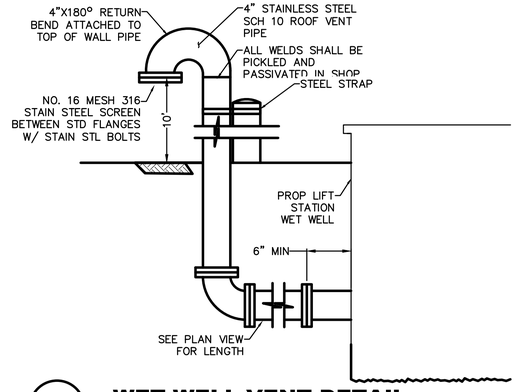


NOTE:

ALL PVC PIPING TO BE INSTALLED IN ACCORDANCE WITH MFR'S SPECIFICATIONS

3 BEDDING FOR SMALL DIAMETER PIPING UNDER 3" DIAMETER

NOT TO SCALE



5 WET WELL VENT DETAIL

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LIFT STATION DETAILS 3 OF 3

STATE OF TEXAS
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147805
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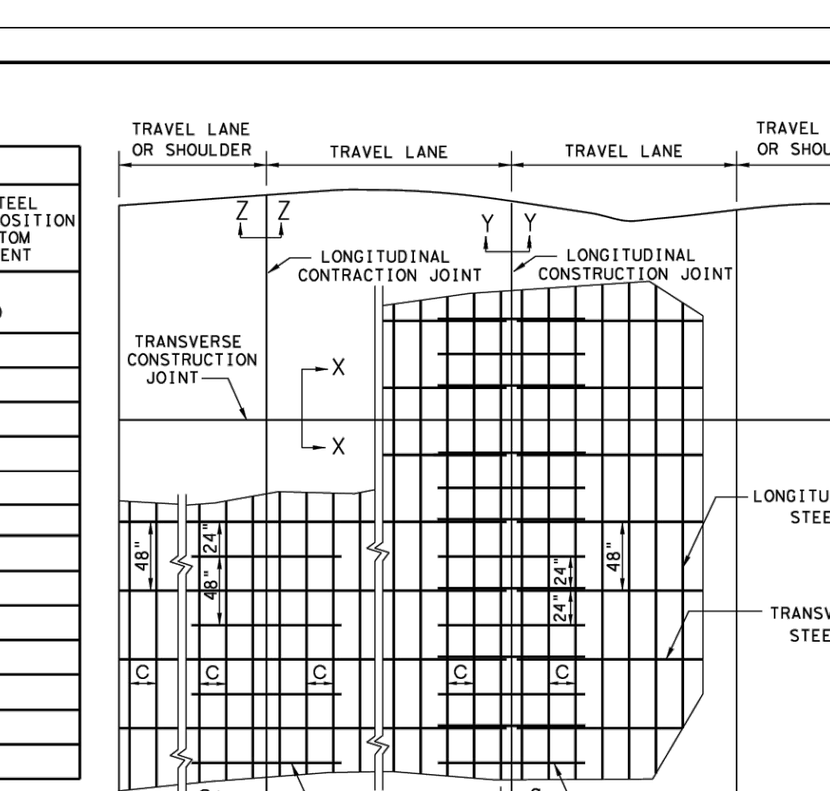
TABLE NO. 1 LONGITUDINAL STEEL

SLAB THICKNESS AND BAR SIZE: T (IN.)	BAR SIZE	LONGITUDINAL STEEL BARS: SPACING c (IN.)	FIRST SPACING AT EDGE OR JOINT: SPACING a (IN.)	LONG. STEEL VERTICAL POSITION FROM BOTTOM OF PAVEMENT: T1 (IN.)
7.0	#5	6.5	3 TO 4	3.5
7.5	#5	6.0	3 TO 4	3.75
8.0	#6	9.0	3 TO 4	4.0
8.5	#6	8.5	3 TO 4	4.25
9.0	#6	8.0	3 TO 4	4.5
9.5	#6	7.5	3 TO 4	4.75
10.0	#6	7.0	3 TO 4	5.0
10.5	#6	6.75	3 TO 4	5.5
11.0	#6	6.5	3 TO 4	6.0
11.5	#6	6.25	3 TO 4	6.5
12.0	#6	6.0	3 TO 4	7.0
12.5	#6	5.75	3 TO 4	7.5
13.0	#6	5.5	3 TO 4	8.0

TABLE NO. 2 TRANSVERSE STEEL AND TIE BARS

SLAB THICKNESS (IN.)	TRANSVERSE STEEL: BAR SIZE	TRANSVERSE STEEL: SPACING (IN.)	TIE BARS AT LONGITUDINAL CONTRACTION JOINT (SECTION Z-Z): BAR SIZE	SPACING (IN.)	TIE BARS AT LONGITUDINAL CONSTRUCTION JOINT (SECTION Y-Y): BAR SIZE	SPACING (IN.)
7.0 - 7.5	#5*	48	#5*	48	#5*	24
8.0 - 13.0	#5*	48	#6	48	#6	24

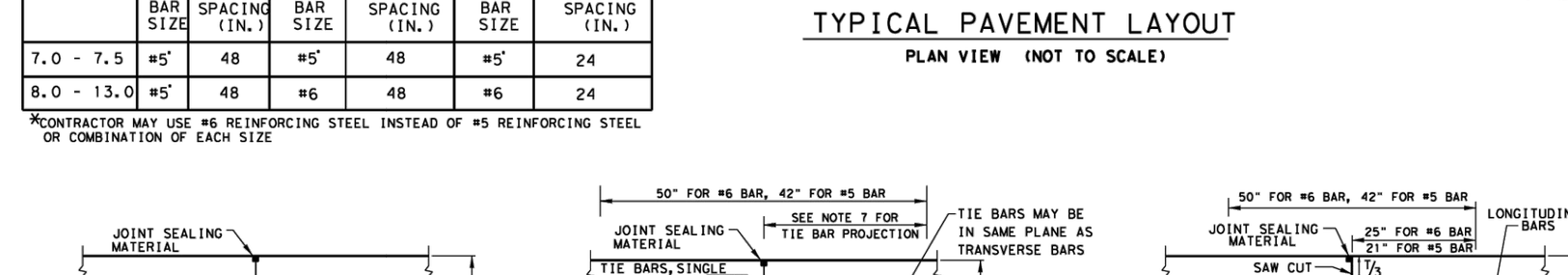
*CONTRACTOR MAY USE #6 REINFORCING STEEL INSTEAD OF #5 REINFORCING STEEL OR COMBINATION OF EACH SIZE



TYPICAL PAVEMENT LAYOUT
PLAN VIEW (NOT TO SCALE)

GENERAL NOTES

1. DETAILS FOR PAVEMENT WIDTH, PAVEMENT THICKNESS AND THE CROWN CROSS-SLOPE SHALL BE SHOWN ELSEWHERE IN THE PLANS. FOR PAVEMENTS WIDER THAN 100 FT. WITHOUT A FREE LONGITUDINAL JOINT, ADDITIONAL DETAIL MAY BE SHOWN ELSEWHERE IN THE PLANS.
2. USE COARSE AGGREGATES WITH A RATED COEFFICIENT OF THERMAL EXPANSION (CoTE) OF NOT MORE THAN 5.5 X 10^{-6} IN/IN/ °F AS LISTED IN THE CONCRETE RATED SOURCE QUALITY CATALOG (CRSQC).
3. ALL THE REINFORCING STEEL AND TIE BARS SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A 615 (GRADE 60) OR ASTM A 996 (GRADE 60) OR ABOVE. STEEL BAR SIZES AND SPACINGS SHALL CONFORM TO TABLE NO. 1 AND TABLE NO. 2.
4. STEEL BAR PLACEMENT TOLERANCE SHALL BE +/- 1 IN. HORIZONTALLY AND +/- 0.5 IN. VERTICALLY. CALCULATED AVERAGE BAR SPACING (CONCRETE PLACEMENT WIDTH / NUMBER OF LONGITUDINAL BARS) SHALL CONFORM TO TABLE NO. 1.
5. ADJUST REINFORCING STEEL VERTICALLY USING SHIMS OR OTHER METHODS, AS APPROVED, TO MEET VERTICAL TOLERANCES PRIOR TO CONCRETE PLACEMENT.
6. PAVEMENT WIDTHS OF MORE THAN 15 FT. SHALL HAVE A LONGITUDINAL JOINT (SECTION Z-Z OR SECTION Y-Y). THESE JOINTS SHALL BE LOCATED WITHIN 6 IN. OF THE LANE LINE UNLESS THE JOINT LOCATION IS SHOWN ELSEWHERE ON THE PLANS.
7. THE MINIMUM PROJECTION OF TIE BARS INTO THE ADJACENT PLACEMENT IS 22.5 IN. for #6 BARS AND 18.5 IN. FOR #5 BARS.
8. SEE STANDARD SHEET "CONCRETE CURB AND CURB AND GUTTER," FOR DETAILS WHEN TYING CONCRETE CURB OR CURB GUTTER AT A LONGITUDINAL JOINT.
9. REPLACE MISSING OR DAMAGED TIE BARS WITHOUT ADDITIONAL COMPENSATION BY DRILLING MIN. 10 IN. DEEP AND GROUTING TIE BARS WITH TYPE III, CLASS C EPOXY. MEET THE PULL-OUT TEST REQUIREMENTS IN ITEM 361.
10. OMIT TIE BARS LOCATED WITHIN 18-IN. OF THE TRANSVERSE CONSTRUCTION JOINTS (SECTION X-X). USE HAND-OPERATED IMMERSION VIBRATORS TO CONSOLIDATE THE CONCRETE ADJACENT TO ALL FORMED JOINTS.
11. THE DETAIL FOR THE JOINT SEALANT AND RESERVOIR IS SHOWN ON STANDARD SHEET "CONCRETE PAVING DETAILS, JOINT SEALS."



TRANSVERSE CONSTRUCTION JOINT
SECTION X - X

LONGITUDINAL CONSTRUCTION JOINT
SECTION Y - Y

LONGITUDINAL CONTRACTION JOINT
SECTION Z - Z

SHEET 1 OF 2

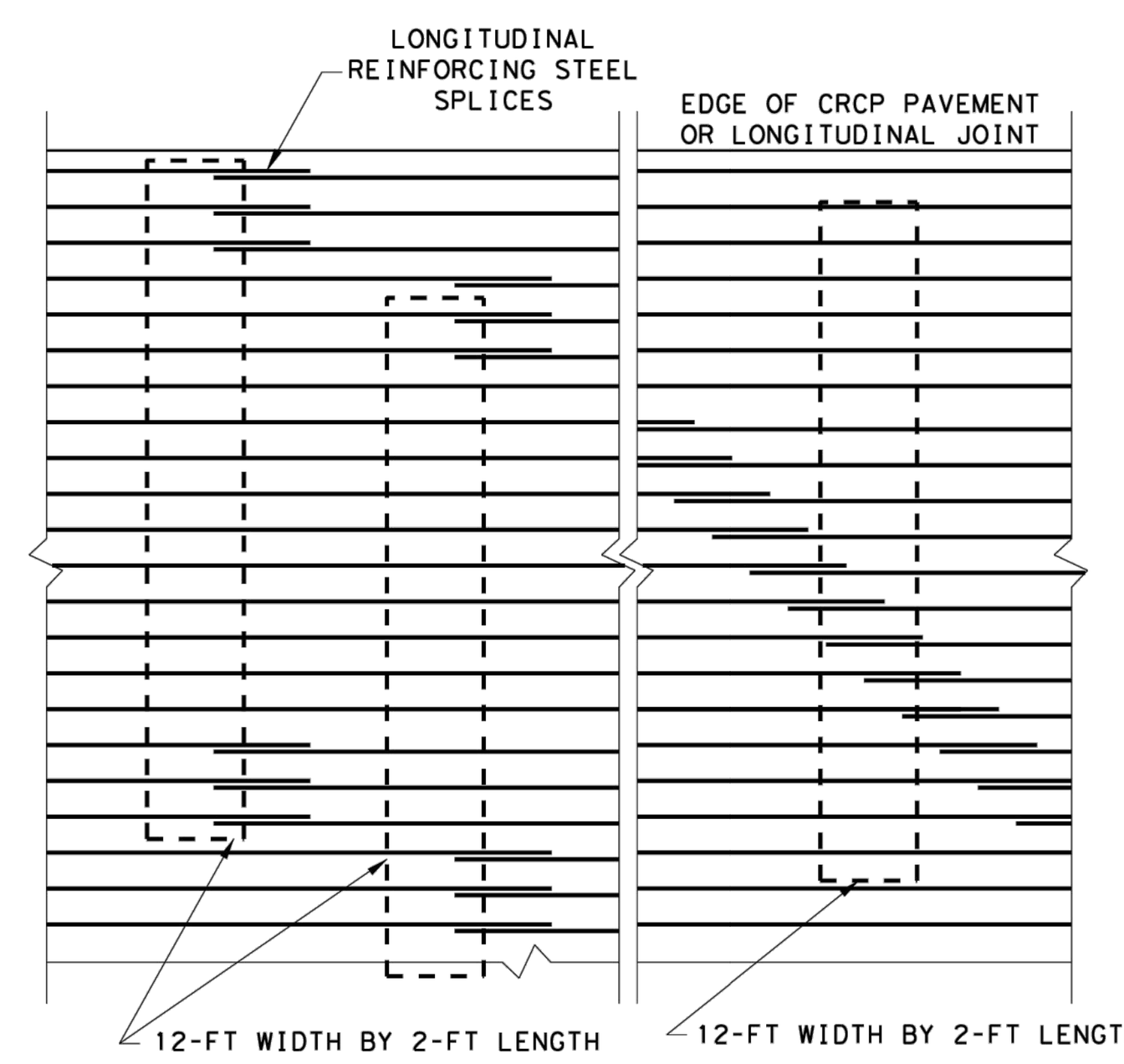
Texas Department of Transportation — Design Division Standard

CONTINUOUSLY REINFORCED CONCRETE PAVEMENT
ONE LAYER STEEL BAR PLACEMENT
T - 7 to 13 INCHES
CRCP(1)-23

FILE: crcp123.dgn | DN: TxDOT | CK: KM | DW: CES | ©TxDOT: APRIL 2023

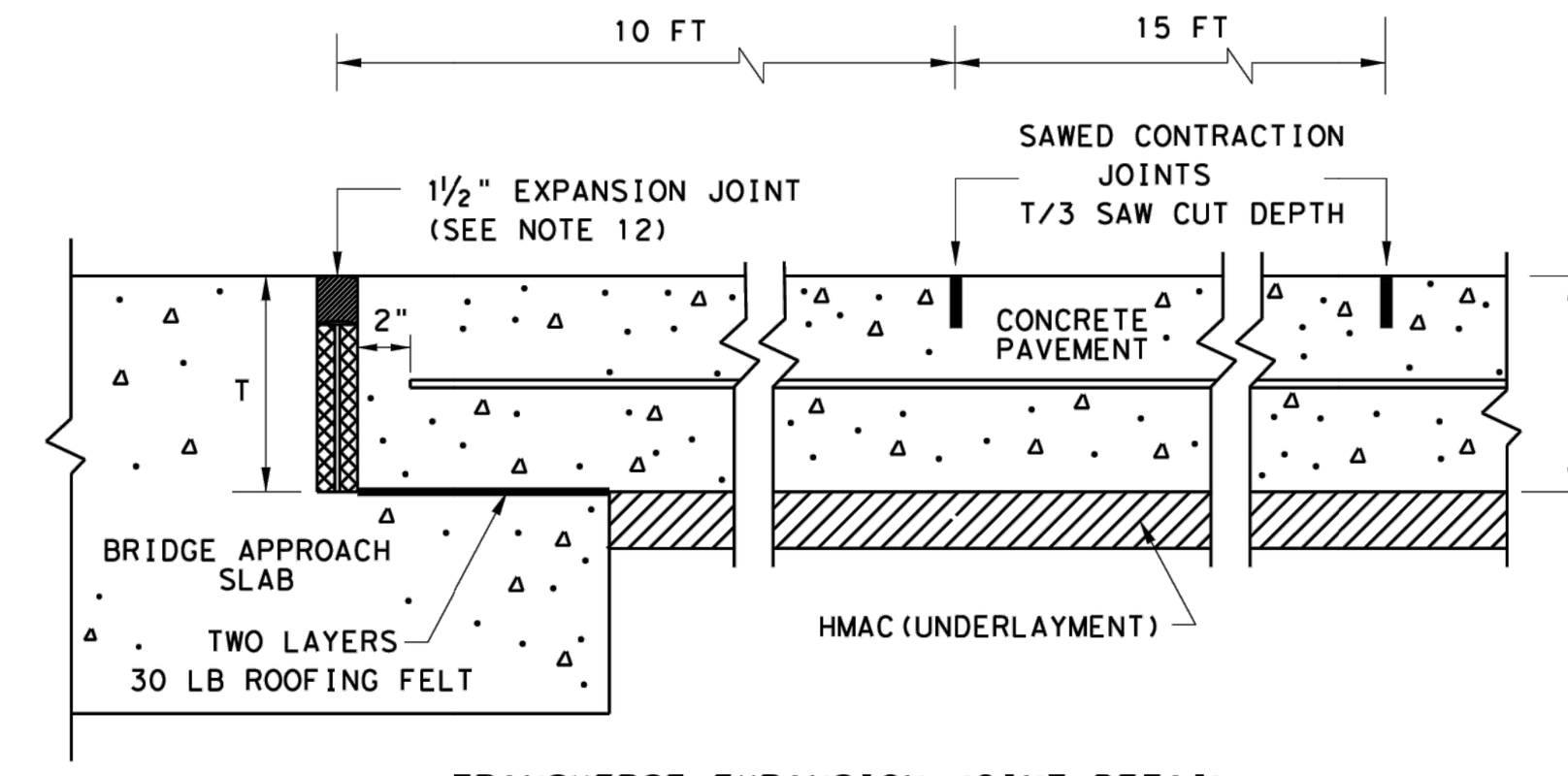
TABLE NO. 1A LONGITUDINAL STEEL FOR LOW CoTE CONCRETE AS APPROVED BY THE ENGINEER

SLAB THICKNESS AND BAR SIZE: T (IN.)	BAR SIZE	REGULAR STEEL BARS: SPACING c (IN.)	FIRST SPACING AT EDGE OR JOINT: SPACING a (IN.)	ADDITIONAL STEEL BARS AT TRANSVERSE CONSTRUCTION JOINT (SECTION X-X): SPACING 2 x c (IN.)	LENGTH L (IN.)
7.0	#5	7.5	3 TO 4	15	50
7.5	#5	7.0	3 TO 4	14	50
8.0	#6	10.0	3 TO 4	20	50
8.5	#6	9.5	3 TO 4	19	50
9.0	#6	9.0	3 TO 4	18	50
9.5	#6	8.5	3 TO 4	17	50
10.0	#6	8.0	3 TO 4	16	50
10.5	#6	7.5	3 TO 4	15	50
11.0	#6	7.0	3 TO 4	14	50
11.5	#6	6.75	3 TO 4	13.5	50
12.0	#6	6.50	3 TO 4	13	50
12.5	#6	6.25	3 TO 4	12.5	50
13.0	#6	6.0	3 TO 4	12	50

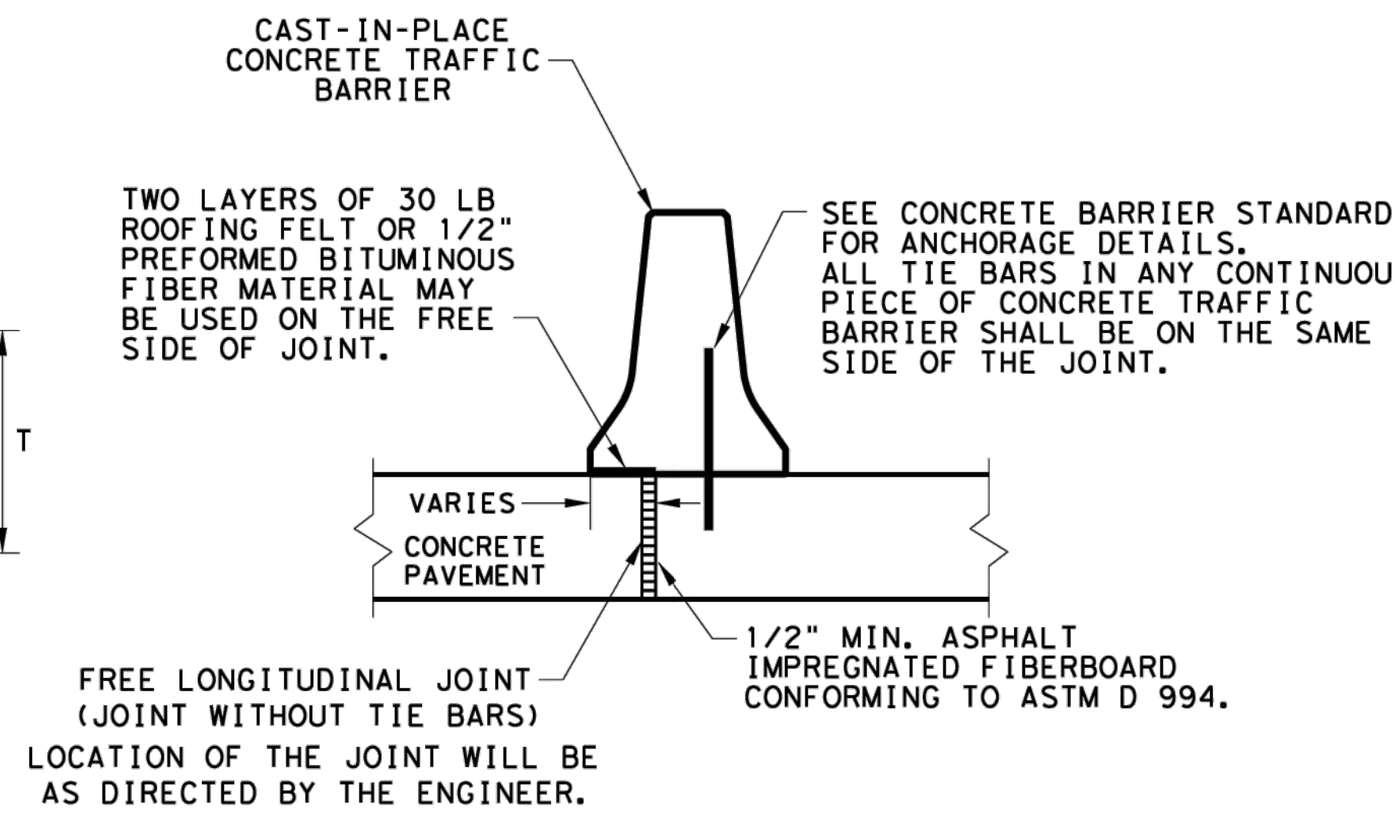


STAGGER THE LAP LOCATIONS SO THAT NO MORE THAN 1/3 OF THE LONGITUDINAL STEEL IS SPLICED IN ANY GIVEN 12-FT. WIDTH AND 2-FT. LENGTH OF THE PAVEMENT. ANY OTHER LAP CONFIGURATION MEETING THIS REQUIREMENT WILL BE ALLOWED.

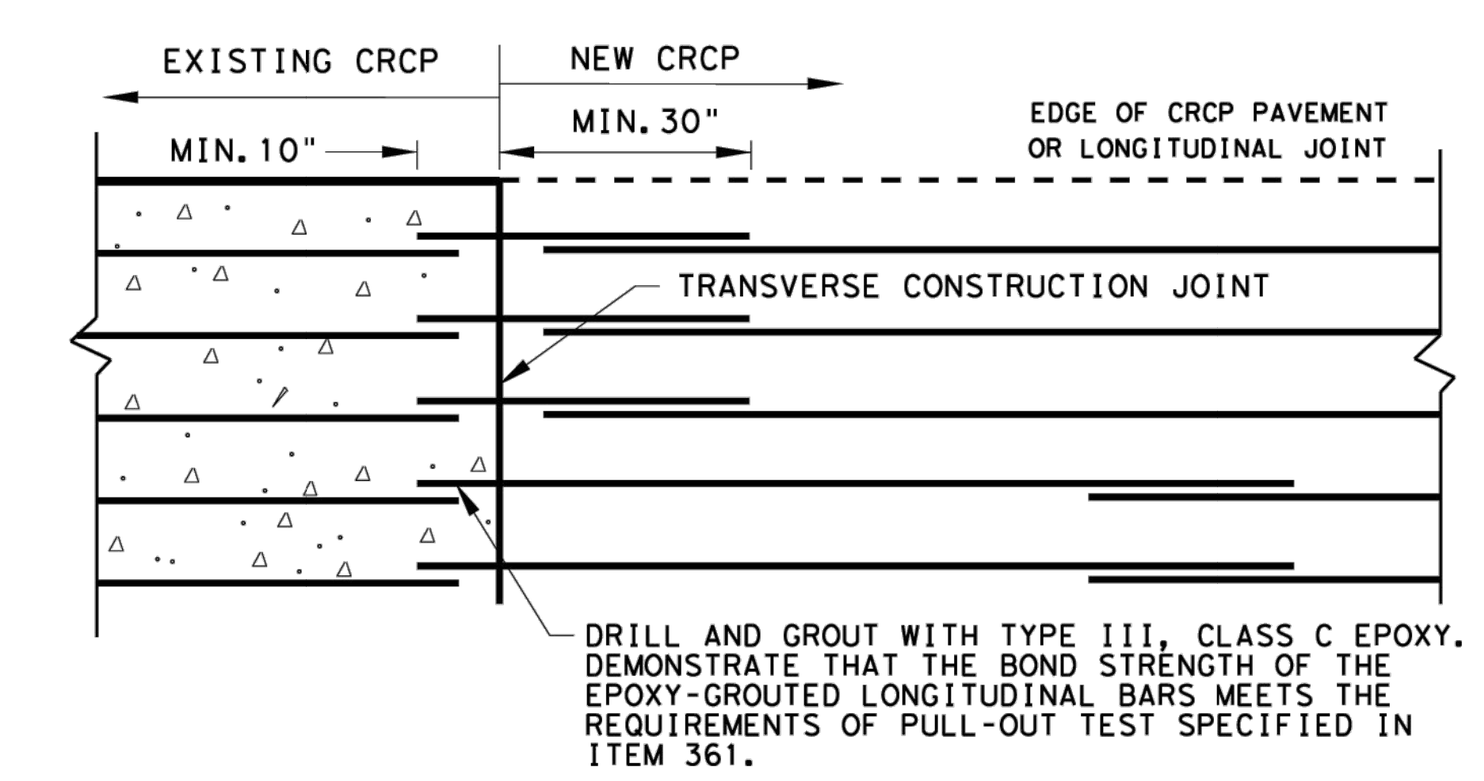
EXAMPLES OF LAP CONFIGURATION
PLAN VIEW (NOT TO SCALE)



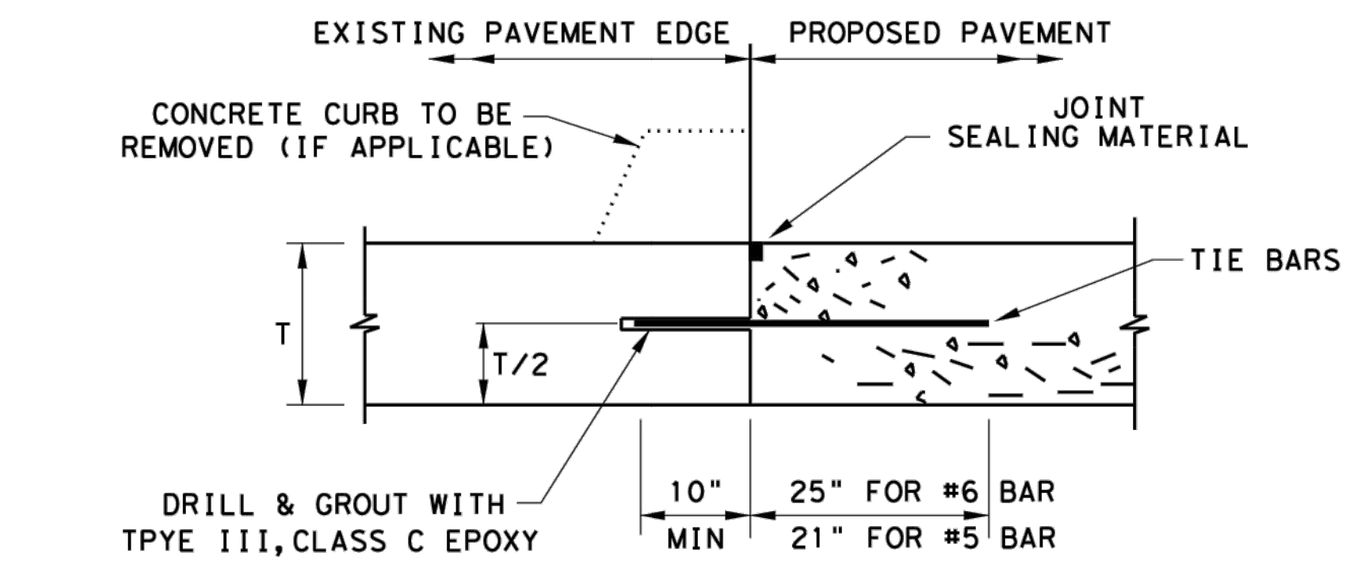
TRANSVERSE EXPANSION JOINT DETAIL
AT BRIDGE APPROACH



FREE LONGITUDINAL JOINT DETAIL

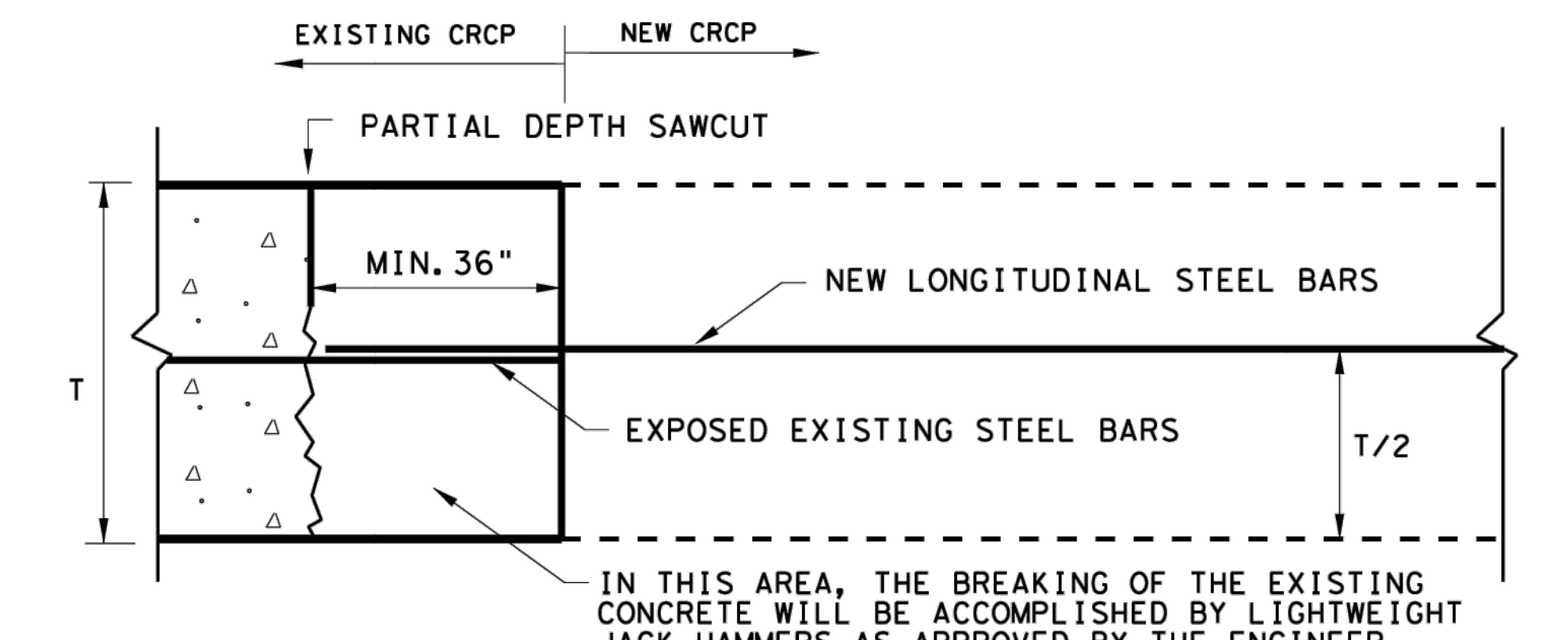


OPTION A: DRILL AND EPOXY
PLAN VIEW (NOT TO SCALE)



1. BEFORE WIDENING WORK, DEMONSTRATE THAT THE BOND STRENGTH OF THE EPOXY-GROUTED TIE BARS MEETS THE REQUIRMENTS OF PULL-OUT TEST SPECIFIED IN ITEM 361.
2. SPACE TIE BARS AT 24" SPACING. USE #6 TIE BARS FOR 8" AND THICKER SLABS, USE #5 TIE BARS FOR LESS THAN 8" THICK SLABS.

LONGITUDINAL WIDENING JOINT DETAIL



OPTION B: BREAKBACK AND LAP

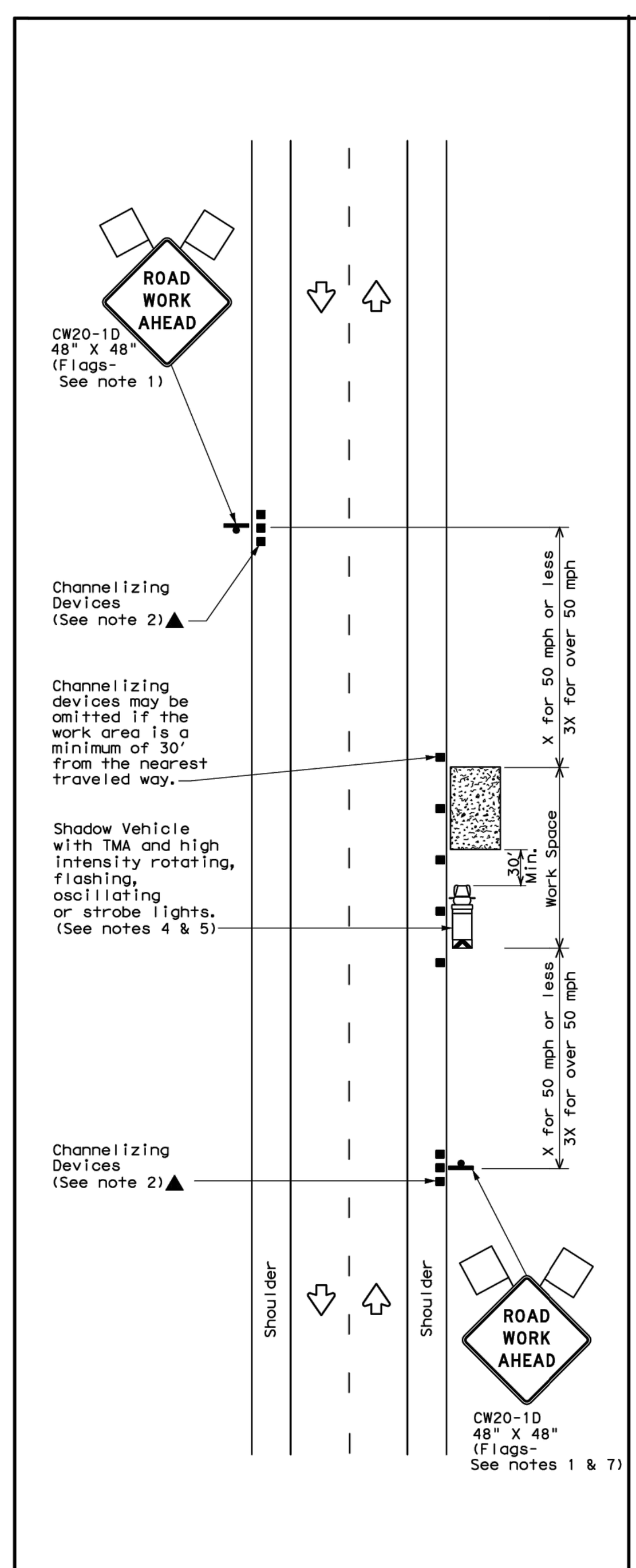
TRANSVERSE TIE JOINT DETAIL
EXISTING CRCP TO NEW CRCP

SHEET 2 OF 2

Texas Department of Transportation — Design Division Standard

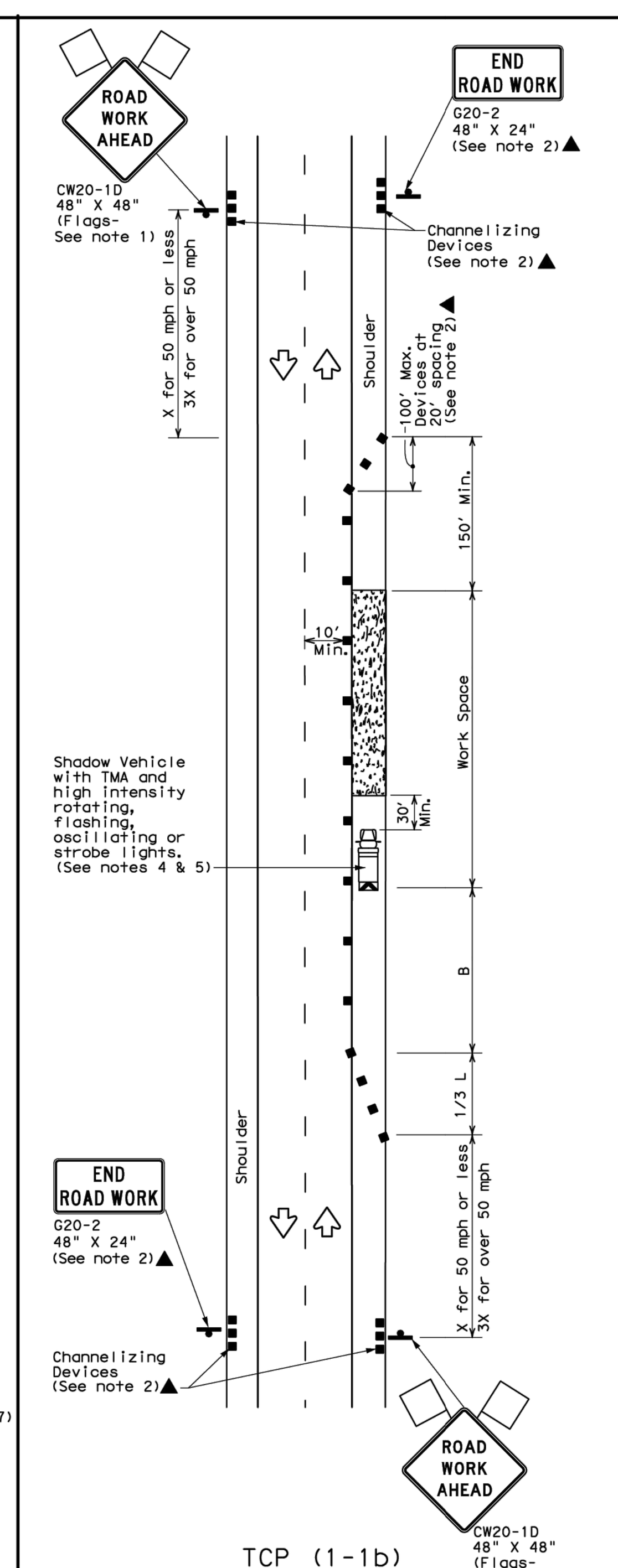
CONTINUOUSLY REINFORCED CONCRETE PAVEMENT
ONE LAYER STEEL BAR PLACEMENT
T - 7 to 13 INCHES
CRCP(1)-17

FILE: crcp117.dgn | DN: TxDOT | CK: AN | DW: HC | CK: VP/KM | ©TxDOT: May 2017



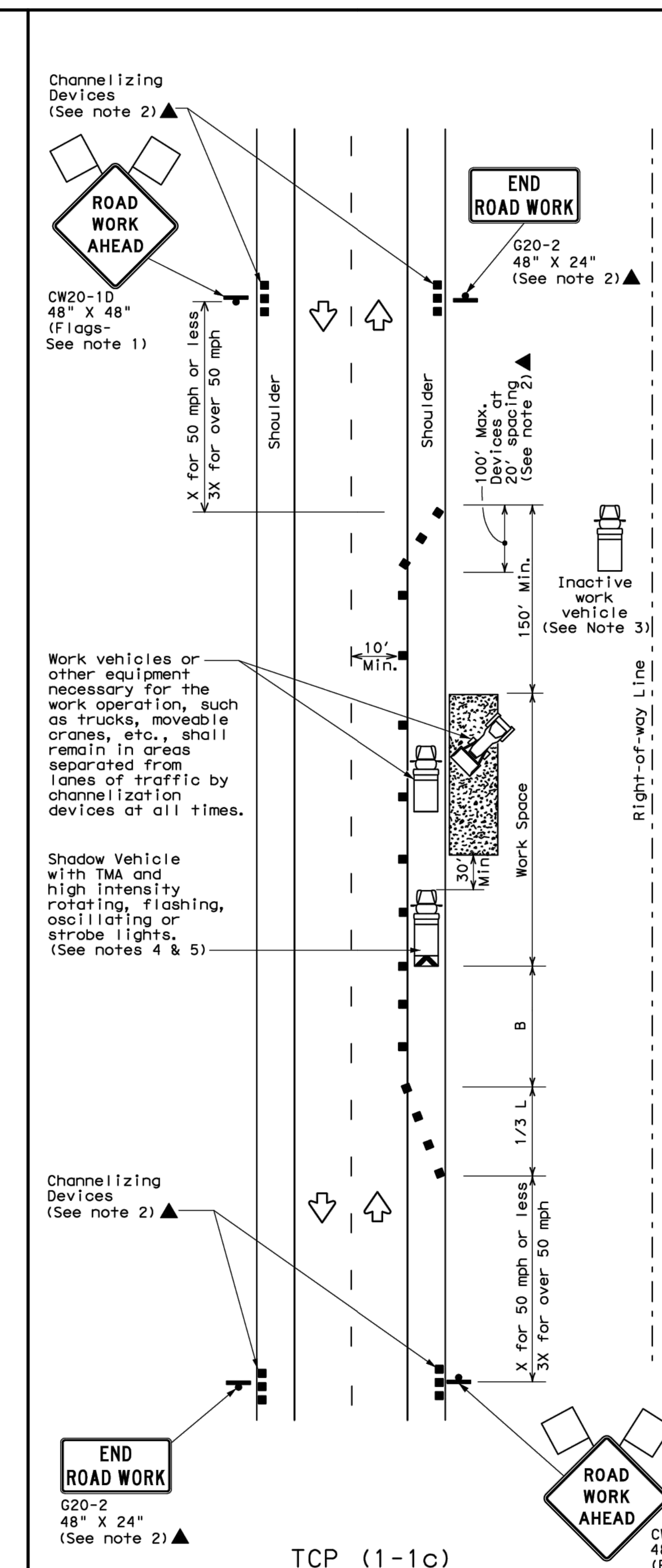
TCP (1-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (1-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (1-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND

Symbol	Description	Symbol	Description
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ** 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices: On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE

MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
4. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
5. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
6. See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
7. CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation
Traffic Operations Division

TRAFFIC CONTROL PLAN
CONVENTIONAL ROAD
SHOULDER WORK

TCP(1-1)-12

©TxDOT December 1985 | DN: TXDOT | CK: TXDOT | DW: TXDOT | CK: TXDOT
REVISIONS: 2-94 2-12 8-95 1-97 4-98
151

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TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626
PAVEMENT REPAIR AND TRAFFIC CONTROL DETAILS

STATE OF TEXAS — JUSTIN FAURE — 147805 — LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. 26

2023-35-CON

JFAURE
8/2/2024 12:04 PM
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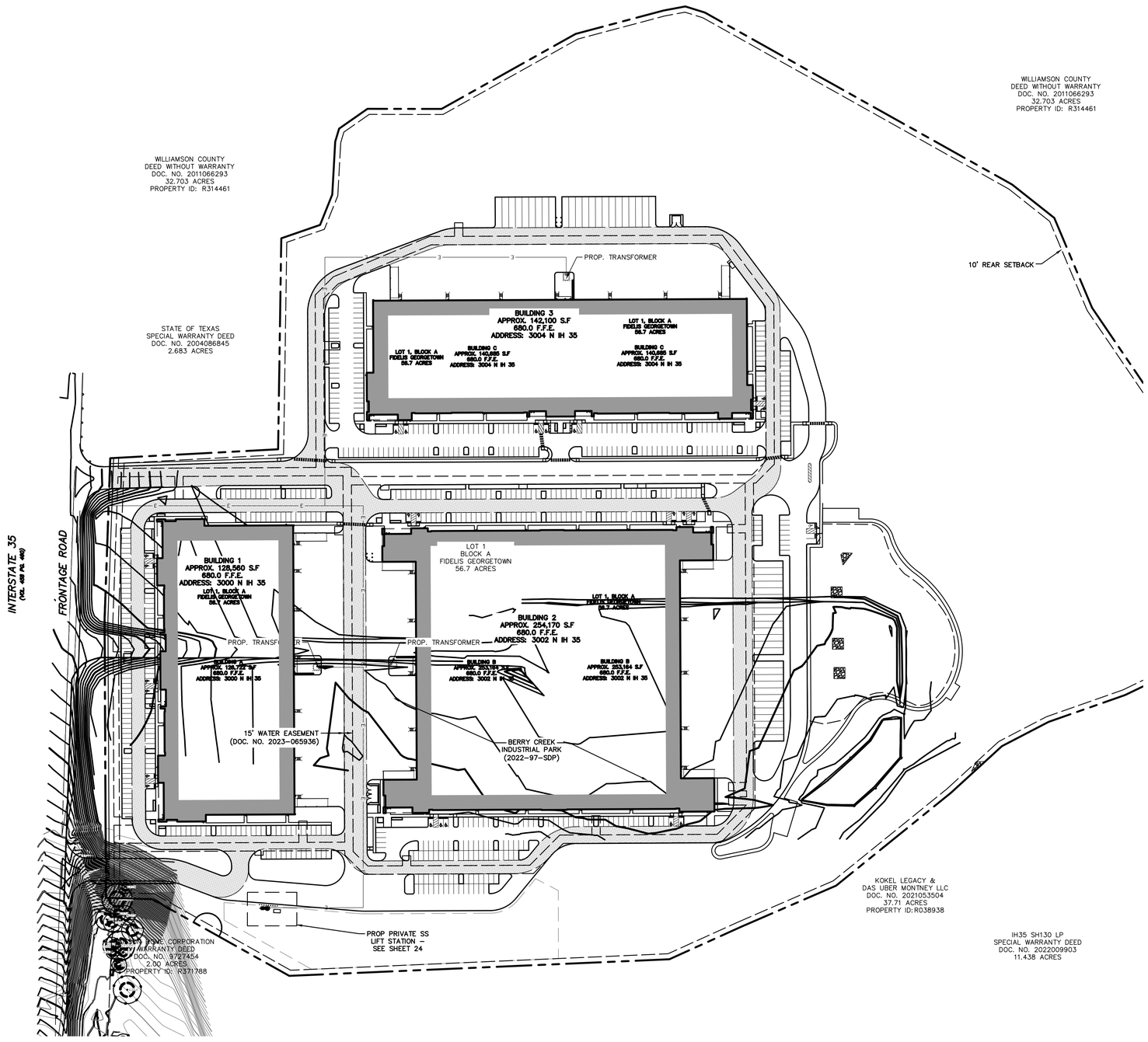
APPROVED: 08/02/2024



0 50 100 200 300

GRAPHIC SCALE IN FEET
1"=100'

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
FL	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
#	COORDINATE DESIGNATION
X	PROPOSED FENCE
	FIRE LANE
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
CREEK	CREEK CENTERLINE
E	PROP. ELECTRIC SERVICE

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

ELECTRICAL SERVICE PLAN

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
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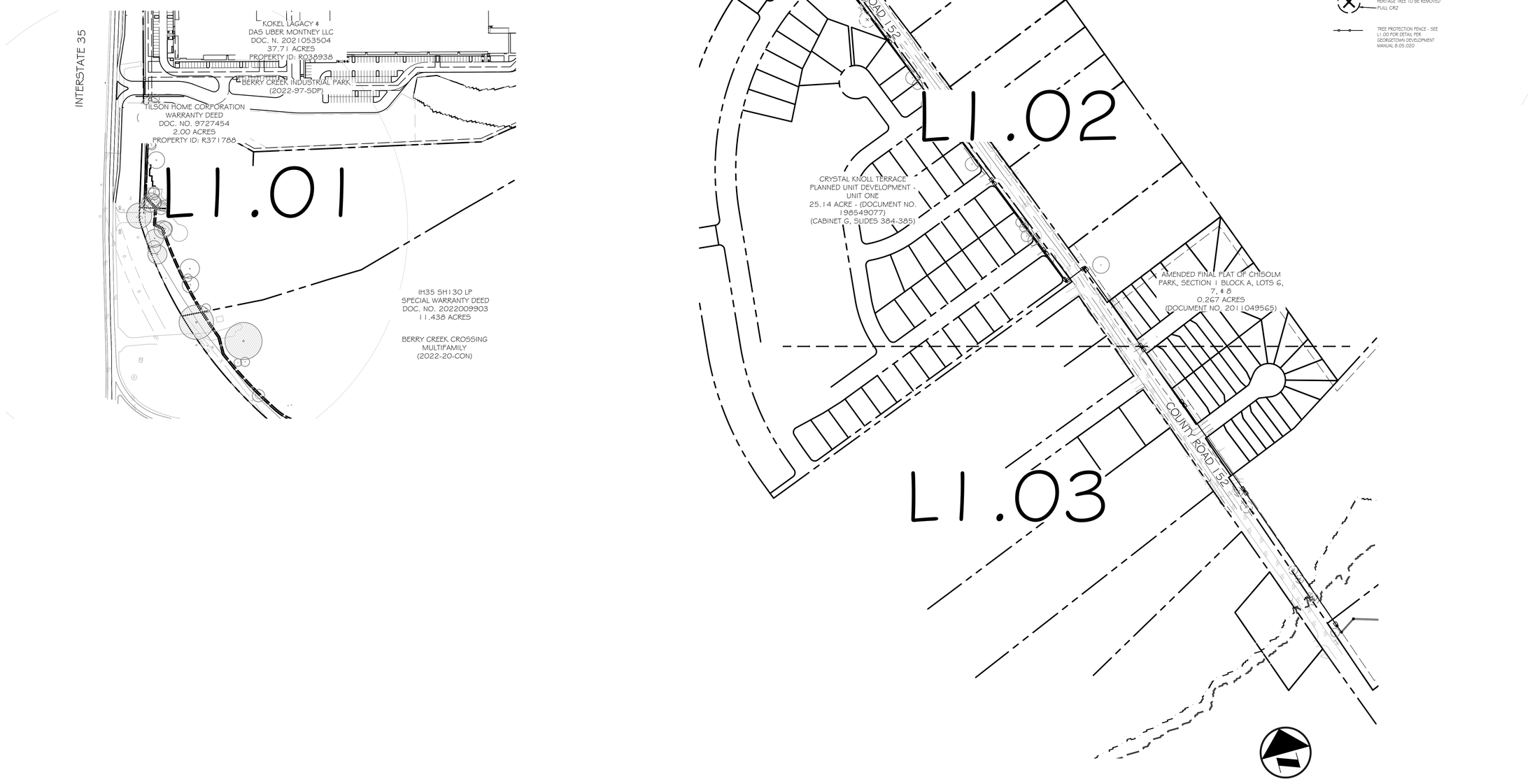
27 OF 32

2023-35-CON

APPROVED: 08/02/2024



TREE PRESERVATION LEGEND

- PROTECTED TREE TO REMAIN
  1/2 CRZ
  FULL CRZ
- HERITAGE TREE TO REMAIN
  1/2 CRZ
  FULL CRZ
- TREE TO BE REMOVED
  FULL CRZ
- DEVELOPMENT - OFFSITE TREE
  FULL CRZ
- HERITAGE TREE TO BE REMOVED
  FULL CRZ
- TREE PROTECTION FENCE - SEE L1.00 FOR DETAIL PER GEORGETOWN DEVELOPMENT MANUAL 8.05.020

1 OVERALL TREE MITIGATION PLAN
1" = 150'-0"

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

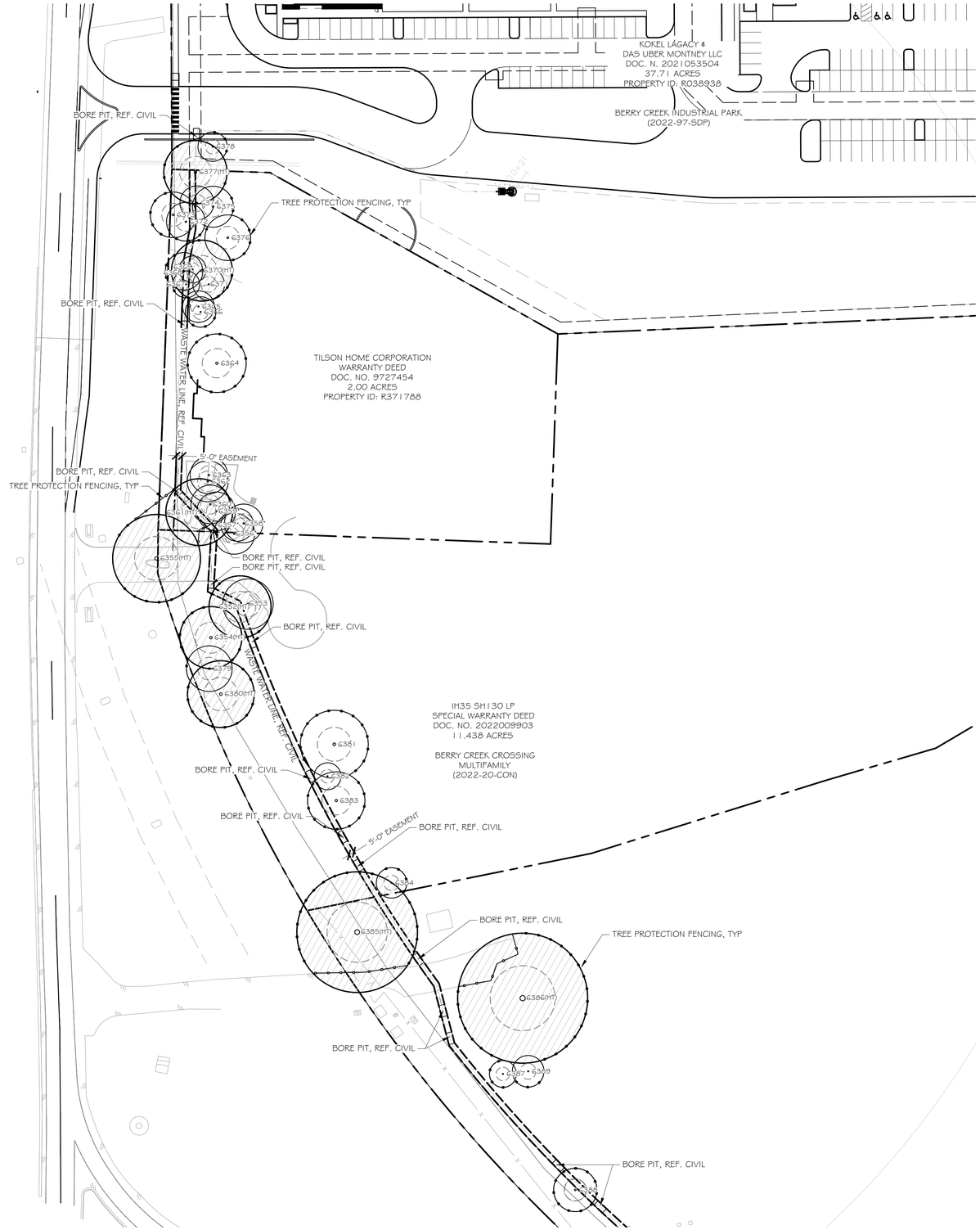
OVERALL TREE MITIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
SCOTT SINN
3352
STATE OF TEXAS
02/19/2024

DESIGN	DRAWN	DATE
EEO	EEO	JUL 2024

SHEET NO.
L1.00

APPROVED: 08/02/2024



1 TREE MITIGATION PLAN
1" = 50'-0"

TREE PRESERVATION LEGEND

- PROTECTED TREE TO REMAIN
  1/2 CRZ
  FULL CRZ
- HERITAGE TREE TO REMAIN
  1/2 CRZ
  FULL CRZ
- TREE TO BE REMOVED
  FULL CRZ
- DEVELOPMENT - OFFSITE TREE
  FULL CRZ
- HERITAGE TREE TO BE REMOVED
  FULL CRZ
- TREE PROTECTION FENCE - SEE L1.00 FOR DETAIL PER GEORGETOWN DEVELOPMENT MANUAL 8.05.020

NOTE :

TREES PRESERVED DUE TO TRENCHLESS BORING CONSTRUCTION OF PROPOSED PRIVATE WASTEWATER FORCE MAIN.

TREE PROTECTION FENCING SHOWN PER CITY OF GEORGETOWN TYPICAL DETAILS.

TREES TO RECEIVE POST CONSTRUCTION DEEP ROOT INVIGORATION TREATMENT:

G356
G357
G358
G359
G360
G361

0 20 40 80 120
GRAPHIC SCALE IN FEET

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TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

TREE MITIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
SCOTT SIMM
3352
STATE OF TEXAS
02/19/2024

DESIGN	DRAWN	DATE
EEO	EEO	JUL 2024

SHEET NO.
L1.01

APPROVED: 08/02/2024

DEED
RAY P. HURTADO AND WIFE,
LEONOR G. HURTADO
3.00 ACRES - (VOL 784, PAGE 942)

WARRANTY DEED
THE MOOSHES, LLC
1.99 ACRES - (DOCUMENT NO. 2022119009)

WARRANTY DEED
CECIL WYATT AND ELAINE WYATT
0.996 ACRES - (DOCUMENT NO. 1997010636)

WARRANTY DEED
WILLIAM H. HARRIS AND RACHEL V. HARRIS, HUSBAND AND WIFE
0.992 ACRES - (DOCUMENT NO. 1998070283)

GENERAL WARRANTY DEED
(DOCUMENT NO. 1998101142)

DEED
(VOLUME 763, PAGE 480)
2.944 ACRES

GENERAL WARRANTY DEED
KIRK KEMNITZ; LARRY COOK; UT VAN LE AND SUONG LE
1.96 ACRES - (DOCUMENT NO. 2022091806)

AMENDED FINAL PLAT OF CHISOLM PARK, SECTION 1 BLOCK A, LOTS 6, 7, & 8
0.267 ACRES
(DOCUMENT NO. 2011049565)

GENERAL WARRANTY DEED WITH VENDOR'S LIEN IN FAVOR OF THIRD PARTY
TODD LEE SHAW AND MAXINE TRACY SHAW, HUSBAND AND WIFE
0.519 ACRES - (DOCUMENT NO. 1999645943)

CRYSTAL KNOLL TERRACE
PLANNED UNIT DEVELOPMENT - UNIT ONE
25.14 ACRE - (DOCUMENT NO. 1985490777)
(CABINET G, SLIDES 384-385)

CALADIUM DR.
IRIS DR
JASMINE TRAIL
STADIUM DR
COUNTY ROAD 152

BORE PIT, REF. CIVIL
WASTE WATER LINE REF. CIVIL
TREE PROTECTION FENCING, TYP

MATCH LINE - SEE SHEET L1.03

1 TREE MITIGATION PLAN
1" = 50'-0"

TREE PRESERVATION LEGEND

- PROTECTED TREE TO REMAIN — 1/2 CRZ, FULL CRZ
- HERITAGE TREE TO REMAIN — 1/2 CRZ, FULL CRZ
- TREE TO BE REMOVED — FULL CRZ
- DEVELOPMENT - OFFSITE TREE — FULL CRZ
- HERITAGE TREE TO BE REMOVED — FULL CRZ
- TREE PROTECTION FENCE - SEE L1.00 FOR DETAIL PER GEORGETOWN DEVELOPMENT MANUAL 8.05.020

NOTE :

TREES PRESERVED DUE TO TRENCHLESS BORING CONSTRUCTION OF PROPOSED PRIVATE WASTEWATER FORCE MAIN.

TREE PROTECTION FENCING SHOWN PER CITY OF GEORGETOWN TYPICAL DETAILS.

TREES TO RECEIVE POST CONSTRUCTION DEEP ROOT INVIGORATION TREATMENT:

6356
6357
6358
6359
6360
6361

0 25 50 100 150
GRAPHIC SCALE IN FEET

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

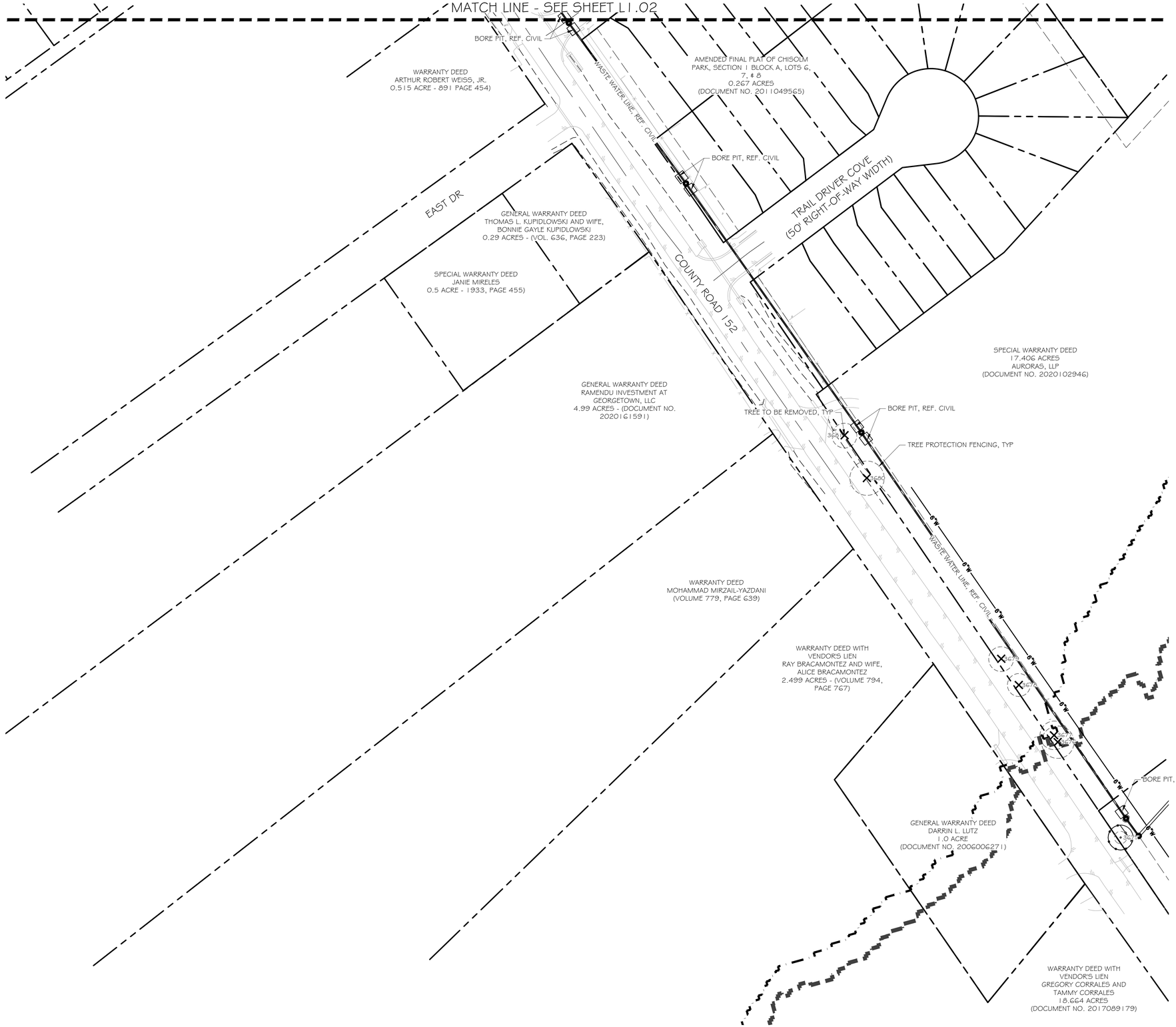
TREE MITIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
SCOTT SINN
3352
STATE OF TEXAS
02/19/2024

DESIGN	DRAWN	DATE
EEO	EEO	JUL 2024

SHEET NO.
L1.02

APPROVED: 08/02/2024



TREE PRESERVATION LEGEND

- PROTECTED TREE TO REMAIN
  1/2 CRZ
  FULL CRZ
- HERITAGE TREE TO REMAIN
  1/2 CRZ
  FULL CRZ
- TREE TO BE REMOVED
  FULL CRZ
- DEVELOPMENT - OFFSITE TREE
  FULL CRZ
- HERITAGE TREE TO BE REMOVED
  FULL CRZ
- TREE PROTECTION FENCE - SEE L1.00 FOR DETAIL PER GEORGETOWN DEVELOPMENT MANUAL 8.05.020

NOTE :

TREES PRESERVED DUE TO TRENCHLESS BORING CONSTRUCTION OF PROPOSED PRIVATE WASTEWATER FORCE MAIN.

TREE PROTECTION FENCING SHOWN PER CITY OF GEORGETOWN TYPICAL DETAILS.

* TREES TO RECEIVE POST CONSTRUCTION DEEP ROOT INVIGORATION TREATMENT, REFER TO SPEC ON ARBORIST PROPOSAL TO MEET CITY OF GEORGETOWN REQUEST:

6356
6357
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6360
6361

0 25 50 100 150
GRAPHIC SCALE IN FEET

1 TREE MITIGATION PLAN
1" = 50'-0"

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

TREE MITIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
SCOTT SINN
3352
STATE OF TEXAS
02/19/2024

DESIGN	DRAWN	DATE
EEO	EEO	JUL 2024

SHEET NO.
L1.03

APPROVED: 08/02/2024

KEY	#	SPECIES	SCIENTIFIC NAME	CONDITION	TOTAL DIAMETER (IN)	REMOVE/PRESERVE	HERITAGE MITIGATION INCHES (3:1)	PROTECTED MITIGATION INCHES (11.9-17.9")	PROTECTED MITIGATION INCHES (18-26")	PROTECTED MITIGATION INCHES (26"+)	ON-SITE CREDIT TREE (6-11.99")	NOTES
HT	6352	LIVE OAK	QUERCUS VIRGINIANA	Fair	27	PRESERVE						
P	6353	LIVE OAK	QUERCUS VIRGINIANA	Fair	22	PRESERVE						
HT	6354	LIVE OAK	QUERCUS VIRGINIANA	Good	27	PRESERVE						
HT	6355	LIVE OAK	QUERCUS VIRGINIANA	Fair	38	PRESERVE						
P	6356	LIVE OAK	QUERCUS VIRGINIANA	Fair	18	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
P	6357	LIVE OAK	QUERCUS VIRGINIANA	Fair	14	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
P	6358	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	17	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
P	6359	LIVE OAK	QUERCUS VIRGINIANA	Fair	17	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
P	6360	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	17	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
HT	6361	LIVE OAK	QUERCUS VIRGINIANA	Fair	29	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
P	6362	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	18	PRESERVE						
P	6363	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	16	PRESERVE						
P	6364	LIVE OAK	QUERCUS VIRGINIANA	Good	25	PRESERVE						
P	6365	LIVE OAK	QUERCUS VIRGINIANA	Fair	14	PRESERVE						
P	6366	LIVE OAK	QUERCUS VIRGINIANA	Fair	13	PRESERVE						
P	6367	LIVE OAK	QUERCUS VIRGINIANA	Very Poor	12	PRESERVE						
P	6368	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	16	PRESERVE						
NP	6369	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	12	PRESERVE						
HT	6370	LIVE OAK	QUERCUS VIRGINIANA	Fair	26	PRESERVE						
NP	6371	CHINABERRY	MELIA AZEDARACH	Invasive	14	PRESERVE						
P	6372	LIVE OAK	QUERCUS VIRGINIANA	Poor	17	PRESERVE						
P	6373	LIVE OAK	QUERCUS VIRGINIANA	Fair	20	PRESERVE						
NP	6374	ASHE JUNIPER	JUNIPERUS ASHEI	Fair	15	PRESERVE						
P	6375	LIVE OAK	QUERCUS VIRGINIANA	Fair	18	PRESERVE						
P	6376	LIVE OAK	QUERCUS VIRGINIANA	Fair	20	PRESERVE						
HT	6377	LIVE OAK	QUERCUS VIRGINIANA	Fair	27	PRESERVE						
P	6378	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	13	PRESERVE						
P	6379	LIVE OAK	QUERCUS VIRGINIANA	Fair	20	PRESERVE						
HT	6380	LIVE OAK	QUERCUS VIRGINIANA	Fair	29	PRESERVE						
NP	6381	MESQUITE	PROSOPIS SPP.	Poor	29	PRESERVE						
NP	6382	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	12	PRESERVE						
P	6383	LIVE OAK	QUERCUS VIRGINIANA	Fair	25	PRESERVE						
NP	6384	MESQUITE	PROSOPIS SPP.	Poor	13	PRESERVE						
HT	6385	LIVE OAK	QUERCUS VIRGINIANA	Very Poor	52	PRESERVE						
HT	6386	LIVE OAK	QUERCUS VIRGINIANA	Good	56	PRESERVE						
NP	6387	RED OAK	QUERCUS RUBRA	Fair	12	PRESERVE						
NP	6388	WHITE MULBERRY	MORUS SPP.	Invasive	19	PRESERVE						
NP	6389	WHITE MULBERRY	MORUS SPP.	Invasive	14	PRESERVE						
P	3675	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	13	PRESERVE						
R	3676	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	17	REMOVE		17				MITIGATED AT 1:1
NP	3677	HACKBERRY	CELTIS OCCIDENTALIS	Very Poor	15	REMOVE						EXEMPT FOR SPECIES
NP	3678	HACKBERRY	CELTIS OCCIDENTALIS	Fair	12	REMOVE						EXEMPT FOR SPECIES
NP	3679	HACKBERRY	CELTIS OCCIDENTALIS	Fair	13	REMOVE						EXEMPT FOR SPECIES
NP	3680	HACKBERRY	CELTIS OCCIDENTALIS	Very Poor	18	REMOVE						EXEMPT FOR SPECIES
NP	3681	HACKBERRY	CELTIS OCCIDENTALIS	Fair	13	REMOVE						EXEMPT FOR SPECIES
P	3682	AMERICAN ELM	ULMUS AMERICANA	Poor	25	PRESERVE						
NP	3683	HACKBERRY	CELTIS OCCIDENTALIS	Fair	24	REMOVE						
P	3684	SYCAMORE	PLATANUS SPP.	Fair	20	PRESERVE						
P	3685	ARIZONA ASH	FRAXINUS VELUTINA	Fair	15	PRESERVE						
R	3686	COTTONWOOD	POPULUS SPP.	Fair	28	REMOVE				56		MITIGATED AT 2:1
P	3687	ARIZONA ASH	FRAXINUS VELUTINA	Fair	20	PRESERVE						
P	3688	PEAR	PYRUS SPP.	Fair	13	PRESERVE						
P	3689	PEAR	PYRUS SPP.	Poor	14	PRESERVE						
P	3690	RED OAK	QUERCUS ROBUR	Fair	17	PRESERVE						
P	3691	PEAR	PYRUS SPP.	Fair	16	PRESERVE						
P	3683.1	PEAR	PYRUS SPP.	Fair	20	PRESERVE						

TREE MITIGATION SUMMARY

TOTAL NUMBER OF PROTECTED TREES:	41
TOTAL NUMBER OF PROTECTED TREES TO REMAIN:	39
REQUIRED PROTECTED TREE PRESERVATION CALCULATION (41 PROTECTED TREES X 30%):	12
PROTECTED TREE INCHES REMOVED (12"-17.9") (1:1 RATIO) =	17
PROTECTED TREE INCHES REMOVED (18"-25") (1:1 RATIO) =	0
PROTECTED TREE INCHES REMOVED (26"+) (2:1 RATIO) =	56
HERITAGE TREE INCHES REMOVED (3:1 RATIO) =	0
TOTAL PROTECTED MITIGATION INCHES (17+0) X 40%):	63
TOTAL MITIGATION INCHES (63+0):	63
TOTAL MITIGATION INCHES BY ON-SITE REPLACEMENT (0 TREES x 3")**:	0
TOTAL MITIGATION INCHES TO BE MADE BY PAYMENT:	0

*TREES TO RECEIVE POST CONSTRUCTION DEEP ROOT INVIGORATION TREATMENT, REFER TO SPEC ON ARBORIST PROPOSAL TO MEET CITY OF GEORGETOWN REQUEST.

**PRIVATE WASTEWATER FORCE MAIN TO BE CONSTRUCTED THROUGH BORE TRENCHING CONSTRUCTION METHODS.

***NO ON-SITE PLANTING.

ADDITIONAL NOTES:

0	HERITAGE INCHES REMOVED TO BE MITIGATED BY PAYMENT
$0.00	HERITAGE TREE COST ($225 PER INCH)
56	(18+) PROTECTED INCHES REMOVED TO BE MITIGATED BY PAYEMENT
$9,800.00	PROTECTED TREE COST ($175 PER INCH)
7	(12"-17") PROTECTED INCHES REMOVED TO BE MITIGATED BY PAYEMENT
$850.00	PROTECTED TREE COST ($125 PER INCH)
$10,650.00	TOTAL ESTIMATED COST BY DEVELOPER FOR PAYMENT

NOTES :

1) PRESERVED TREES ARE UNDISTURBED DUE TO TRENCHLESS BORING CONSTRUCTION OF PROPOSED PRIVATE WASTEWATER FORCE MAIN.

2) TREE PROTECTION FENCING SHOWN PER CITY OF GEORGETOWN TYPICAL DETAILS.

3) PROPOSED BORE PITS LOCATIONS ARE PRELIMINARY AND SHALL BE COORDINATED WITH CONTRACTOR PRIOR TO COMMENCEMENT OF ACTIVITY. UPON COMPLETION OF EXISTING UTILITY CROSSING IDENTIFICATION, CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION PLAN INCLUDING LOCATIONS OF BORE/RECIEVING PITS, LIMITS OF CONSTRUCTION, EROSION CONTROL, AND ANY NECESSARY TREE PROTECTION.

NOTE :

*TREES TO RECEIVE POST CONSTRUCTION DEEP ROOT INVIGORATION TREATMENT, REFER TO SPEC ON ARBORIST PROPOSAL TO MEET CITY OF GEORGETOWN REQUEST:

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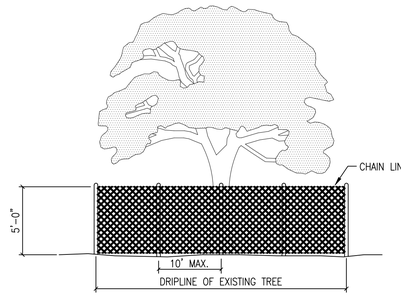


NOTES:

1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
2. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES; WILL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND WILL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MATERIALS.
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN SIX INCHES (6") CUT OR FILL, OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY.
   C. WOUNDS TO EXPOSED ROOTS, TRUNKS OR LIMBS BY MECHANICAL EQUIPMENT.
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING AND FIRE.
3. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   B. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX FEET (6'-0") TO BUILDING.

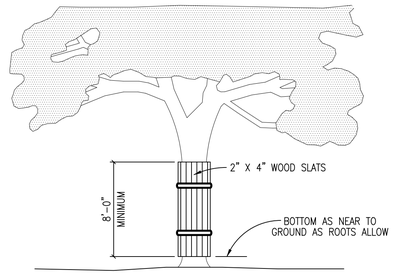
The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
TREE PROTECTION – CHAIN LINK FENCE

DRAWING NAME: EC09

SCALE: NTS | DATE: 1/2003 | DRAWN BY: MRS | APPROVED BY: TRB



NOTES:

1. WHERE ANY EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN FOUR FEET (4'-0") TO A TREE TRUNK; PROTECT THE TRUNK WITH STRAPPED-ON-PLANKING TO A HEIGHT OF EIGHT FEET (8'-0"), OR TO THE LIMITS OF LOWER BRANCHING IN ADDITION TO THE REDUCED FENCING PROVIDED.
2. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO (2) DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE, AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
3. PRIOR EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINE. MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT, TO MINIMIZE DAMAGE TO REMAINING ROOTS.
4. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHOULD BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS SHOULD BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
5. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
6. NO LANDSCAPE TOPSOIL DRESSING GREATER THE FOUR INCHES (4") SHALL BE PERMITTED WITHIN THE DRIPLINE OF A TREE. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
7. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
TREE PROTECTION – WOOD SLATS

DRAWING NAME: EC10

SCALE: NTS | DATE: 1/2003 | DRAWN BY: MRS | APPROVED BY: TRB

Westwood
Phone (512) 485-0831
Toll Free (888) 937-5150
8701 N. Mopac Expy, Suite 320
Austin, TX 78759
westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

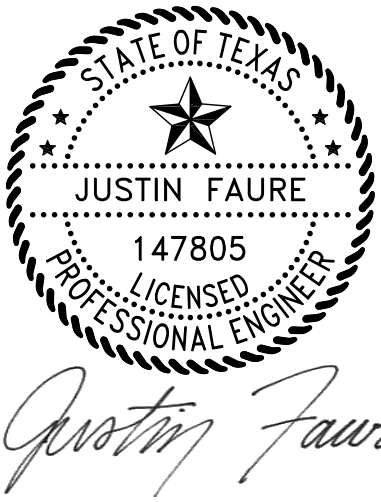
TREE DATA AND DETAILS

REGISTERED LANDSCAPE ARCHITECT
SCOTT SINN
3352
STATE OF TEXAS
02/19/2024

DESIGN	DRAWN	DATE
EEO	EEO	JUL 2024

SHEET NO.
L1.04

ATTACHMENT 10 – LIFT STATION CALCULATIONS, PERFORMANCE CURVE, AND PUMP SELECTION



01/10/2024

WET WELL CALCULATIONS

1.	Wet Well Influent Flow Required	=	93	gpm	<----	Design Site Flowrate			
2.	Design Flow Rate per Pump	=	144	gpm					
3.	Number of Pumps	=	2						
4.	Total Pumping Capacity	=	288	gpm					
5.	Cycle Time for Pump Motors	=	10	min					
6.	Are you utilizing pump alternation?	=	NO						
7.	Diameter of Wet Well	=	6	ft		5	ft	4	ft
8.	Surface Area of Wet Well	=	28.27	sq. ft.		19.63	sq. ft.	12.57	sq. ft.
9.	Required Effective Volume	=	232	gallons		232	gallons	232	gallons
		=	30.97	cu. Ft.		30.97	cu. Ft.	30.97	cu. Ft.
10.	Required Effective Depth	=	1.10	ft		1.58	ft	2.46	ft

WET WELL ANALYSIS

1.	Influent Line Flowline	=	665.83	ft		
2.	Minimum Effective Depth	=	1.58	ft	<----	<--- Design for 5 ft Wet Well
3.	Minimum Additional Depth for Pump Vortexing and Cooling	=	3.00	ft		
4.	Additional Depth to Achieve GUS Spacing	=	0.00			
5.	Calculated Finished Floor Elevation	=	661.25			
6.	Design Finished Floor Elevation	=	657.00			
7.	Top of Structure Elevation	=	687	ft		*Rim Elevation of Manhole Where LS will be is 684.60.*
8.	Foundation Depth to Top of Slab	=	30.00	ft		
9.	Slab Thickness	=	0	ft		*Fiberglass Lift Station - Assume Slab Thickness of 0*
10.	Foundation Depth to Bottom of Slab	=	30.00	ft		

WET WELL SET POINTS

11.	All Pumps Off Elevation	=	660.00	ft	
12.	Lead Pump On Elevation	=	661.58	ft	
13.	1st Lag Pump On Elevation	=	663.15	ft	
14.	2nd Lag Pump On Elevation	=		ft	
15.	High Level Alarm Elevation	=	664.83	ft	
	Level Alarm Check	=	1.68	ft	*1ft Requirement per AW Utilities Criteria 2.9.4, J.2.e between 1st lag pump elevation and high level alarm*

STATIC HEAD CALUCLATIONS

1. All Pumps Off Calculation

Design Discharge Location Elevation	=	727.5	ft
Calculated All Pumps Off Elevation	=	660.00	ft
Design All Pumps Off Elevation	=	660.00	ft
Design Static Head for All Pumps Off	=	67.5	ft

2. Lead Pump On Calculation

Design Discharge Location Elevation	=	727.5	ft
Calculated Lead Pump On Elevation	=	661.58	ft
Design Lead Pump On Elevation	=	661.58	ft
Design Static Head for Lead Pump On	=	65.9	ft

3. 1st Lag Pump On Calculation

Desigh Discharge Location Elevation	=	727.5	ft
Calculated 1st Lag Pump On Elevation	=	663.15	ft
Design 1st Lag Pump On Elevation	=	663.15	ft
Design Static Head for 1st Lag Pump On	=	64.3	ft

4. Highest Elevation Calculation

Highest Elevation Pumped	=	727.5	ft
Design All Pumps Off Elevation	=	660.0	ft
Design Static Head for All Pumps Off to Highest Elevation Pumped	=	67.50	ft

5. Flooded Wet Well Calculation

Highest Elevation Pumped	=	727.5	ft
Flood Elevation	=	687	ft
Flooded Wet Well Static Head	=	40.5	ft

RISER PIPE ANALYSIS

Velocity Analysis

1.	Individual Pump Flow Rate	=	144	gpm
		=	0.321	cfs
2.	Riser Pipe Size	=	4	in
3.	Riser Pipe Area	=	0.087	sq. ft.
4.	Riser Pipe Velocity	=	3.68	fps

Input Variables

5.	Riser Pipe Length	=	26.00	ft
6.	Riser Pipe "C" Factor (New)	=	140	
7.	Riser Pipe "C" Factor (Old)	=	100	

8. Minor Loss Analysis

Fittings	Quantity	K-Factor	Total K
90 BEND	3	0.34	1.02
CHECK VALVE	1	0.85	0.85
PLUG VALVE	1	0.31	0.31
45 BEND	0	0.25	0.00
TEE, RUN	0	0.34	0.00
TEE, BRANCH	1	1.02	1.02
ENTRANCE	1	0.50	0.50
Total			3.20

9. Major Loss Analysis

Interval = 20

Flow Rate (gpm)	Riser Velocity (fps)	Headloss with New "C" Factor (ft)	Headloss with Old "C" Factor (ft)
0	0.00	0.00	0.00
20	0.51	0.01	0.02
40	1.02	0.03	0.06
60	1.53	0.07	0.12
80	2.04	0.11	0.21
100	2.55	0.17	0.32
120	3.06	0.24	0.45
140	3.57	0.32	0.60
160	4.09	0.41	0.77
180	4.60	0.51	0.95
200	5.11	0.62	1.16
220	5.62	0.74	1.38
240	6.13	0.87	1.62
260	6.64	1.01	1.88
280	7.15	1.16	2.16
300	7.66	1.32	2.45
320	8.17	1.48	2.76
340	8.68	1.66	3.09
144	3.68	0.34	0.63

10. Total Riser Headloss

Flow Rate (gpm)	Riser Velocity (fps)	Minor Headloss (ft)	Major Headloss with New "C" Factor (ft)	Major Headloss with Old "C" Factor (ft)	Total Riser Headloss with New "C" Factor (ft)	Total Riser Headloss with Old "C" Factor (ft)
0	0.00	0.00	0.00	0.00	0.00	0.00
20	0.51	0.01	0.01	0.02	0.02	0.03
40	1.02	0.05	0.03	0.06	0.08	0.11
60	1.53	0.12	0.07	0.12	0.18	0.24
80	2.04	0.21	0.11	0.21	0.32	0.42
100	2.55	0.32	0.17	0.32	0.50	0.65
120	3.06	0.47	0.24	0.45	0.71	0.92
140	3.57	0.63	0.32	0.60	0.96	1.23
160	4.09	0.83	0.41	0.77	1.24	1.60
180	4.60	1.05	0.51	0.95	1.56	2.00
200	5.11	1.30	0.62	1.16	1.92	2.45
220	5.62	1.57	0.74	1.38	2.31	2.95
240	6.13	1.87	0.87	1.62	2.74	3.49
260	6.64	2.19	1.01	1.88	3.20	4.07
280	7.15	2.54	1.16	2.16	3.70	4.70
300	7.66	2.92	1.32	2.45	4.23	5.37
320	8.17	3.32	1.48	2.76	4.80	6.08
340	8.68	3.74	1.66	3.09	5.40	6.84
144	3.68	0.67	0.34	0.63	1.01	1.30

FORCE MAIN ANALYSIS

Velocity Analysis

1.	Wet Well Influent	=	93	gpm				
		=	0.206	cfs				
2.	Force Main Pipe Size	=	4	in		Nominal Pipe ID	4.23	in
3.	Force Main Area	=	0.098	sq. ft.				
4.	Force Main Velocity	=	3 ft/sec min <	2.12	< 6 ft/sec max			
	Required Minimum Force Main							
5.	Velocity	=	3.00	ft/sec				
	Resulting Flow to Reach							
6.	Minimum Velocity	=	0.29	cfs				
		=	131.40	gpm				
	Resulting Velocity at Minimum Flow to Reach Velocity							
7.	Requirements	=	3.00	ft/sec				
	Resulting Operational Set							
8.	Point due to Pump Analysis	=	144	gpm				
		=	0.32	cfs				
	Resulting velocity Due to							
9.	Pump Analysis	=	3.29	ft/sec				

Input Variables

10.	Force Main Length	=	1470 ft
11.	Force Main "C" Factor (New)	=	140
12.	Force Main "C" Factor (Old)	=	100

13. Minor Loss Analysis

Fittings	Quantity	K-Factor	Total K
EXIT	1	1.00	1.00
90 BEND	0	0.34	0.00
45 BEND	18	0.25	4.47
22-1/2 BEND	5	0.20	1.01
11-1/4 BEND	2	0.18	0.36
Total			6.84

14. Major Loss Analysis — Interval = 20

Flow Rate (gpm)	Force Main Velocity (fps)	Headloss with New "C" Factor (ft)	Headloss with Old "C" Factor (ft)
0	0.00	0.00	0.00
20	0.46	0.50	0.92
40	0.91	1.79	3.33
60	1.37	3.79	7.06
80	1.83	6.45	12.02
100	2.28	9.75	18.16
120	2.74	13.66	25.45
140	3.20	18.16	33.85
160	3.65	23.25	43.33
180	4.11	28.91	53.88
200	4.57	35.14	65.48
220	5.02	41.91	78.10
240	5.48	49.23	91.74
260	5.94	57.09	106.39
280	6.39	65.48	122.02
300	6.85	74.39	138.63
320	7.31	83.83	156.21
340	7.76	93.77	174.75
144	3.29	19.13	35.66

15. Total Force Main Headloss

Flow Rate (gpm)	Force Main Velocity (fps)	Minor Headloss (ft)	Major Headloss with New "C" Factor (ft)	Major Headloss with Old "C" Factor (ft)	Total Force Main Headloss with New "C" Factor (ft)	Total Force Main Headloss with Old "C" Factor (ft)
0	0.00	0.00	0.00	0.00	0.00	0.00
20	0.46	0.02	0.50	0.92	0.52	0.95
40	0.91	0.09	1.79	3.33	1.88	3.42
60	1.37	0.20	3.79	7.06	3.99	7.26
80	1.83	0.35	6.45	12.02	6.80	12.37
100	2.28	0.55	9.75	18.16	10.30	18.72
120	2.74	0.80	13.66	25.45	14.45	26.25
140	3.20	1.09	18.16	33.85	19.25	34.93
160	3.65	1.42	23.25	43.33	24.67	44.75
180	4.11	1.79	28.91	53.88	30.71	55.68
200	4.57	2.22	35.14	65.48	37.35	67.69
220	5.02	2.68	41.91	78.10	44.59	80.78
240	5.48	3.19	49.23	91.74	52.42	94.93
260	5.94	3.74	57.09	106.39	60.83	110.13
280	6.39	4.34	65.48	122.02	69.82	126.36
300	6.85	4.98	74.39	138.63	79.38	143.61
320	7.31	5.67	83.83	156.21	89.50	161.88
340	7.76	6.40	93.77	174.75	100.18	181.15
144	3.29	1.15	19.13	35.66	20.28	36.81

TOTAL HEADLOSS

1. Total Headloss Calculation

Flow Rate (gpm)	Total Riser Headloss with New "C" Factor (ft)	Total Force Main Headloss with New "C" Factor (ft)	Total Headloss with New "C" Factor (ft)	Total Riser Headloss with Old "C" Factor (ft)	Total Force Main Headloss with Old "C" Factor (ft)	Total Headloss with Old "C" Factor (ft)
0	0.00	0.00	0.00	0.00	0.00	0.00
20	0.02	0.52	0.54	0.03	0.95	0.98
40	0.08	1.88	1.96	0.11	3.42	3.53
60	0.18	3.99	4.17	0.24	7.26	7.50
80	0.32	6.80	7.13	0.42	12.37	12.79
100	0.50	10.30	10.80	0.65	18.72	19.36
120	0.71	14.45	15.16	0.92	26.25	27.16
140	0.96	19.25	20.20	1.23	34.93	36.17
160	1.24	24.67	25.91	1.60	44.75	46.35
180	1.56	30.71	32.27	2.00	55.68	57.68
200	1.92	37.35	39.27	2.45	67.69	70.15
220	2.31	44.59	46.90	2.95	80.78	83.73
240	2.74	52.42	55.16	3.49	94.93	98.42
260	3.20	60.83	64.03	4.07	110.13	114.20
280	3.70	69.82	73.52	4.70	126.36	131.06
300	4.23	79.38	83.61	5.37	143.61	148.98
320	4.80	89.50	94.30	6.08	161.88	167.96
340	5.40	100.18	105.58	6.84	181.15	187.99
144	1.01	20.28	21.29	1.30	36.81	38.11

2. System Head Curves

Flow Rate (gpm)	All Pumps Off, System Head Curve with New "C" Factor	All Pumps Off, System Head Curve with Old "C" Factor	Lead Pump On, System Head Curve with New "C" Factor	Lead Pump On, System Head Curve with Old "C" Factor	1st Lag Pump On, System Head Curve with New "C" Factor	1st Lag Pump On, System Head Curve with Old "C" Factor	Flooded Well, System Head Curve with New "C" Factor
0	67.50	67.50	65.92	65.92	64.35	64.35	40.50
20	68.04	68.48	66.46	66.90	64.89	65.32	41.04
40	69.46	71.03	67.88	69.46	66.31	67.88	42.46
60	71.67	75.00	70.09	73.42	68.52	71.85	44.67
80	74.63	80.29	73.05	78.72	71.47	77.14	47.63
100	78.30	86.86	76.72	85.28	75.14	83.71	51.30
120	82.66	94.66	81.08	93.09	79.51	91.51	55.66
140	87.70	103.67	86.13	102.09	84.55	100.51	60.70
160	93.41	113.85	91.83	112.27	90.26	110.69	66.41
180	99.77	125.18	98.19	123.60	96.61	122.02	72.77
200	106.77	137.65	105.19	136.07	103.61	134.49	79.77
220	114.40	151.23	112.82	149.66	111.25	148.08	87.40
240	122.66	165.92	121.08	164.34	119.50	162.77	95.66
260	131.53	181.70	129.95	180.12	128.38	178.55	104.53
280	141.02	198.56	139.44	196.98	137.86	195.40	114.02
300	151.11	216.48	149.53	214.90	147.95	213.33	124.11
320	161.80	235.46	160.22	233.88	158.64	232.31	134.80
340	173.08	255.49	171.50	253.91	169.92	252.33	146.08
144	**88.79**	**105.61**	**87.22**	**104.03**			**61.79**

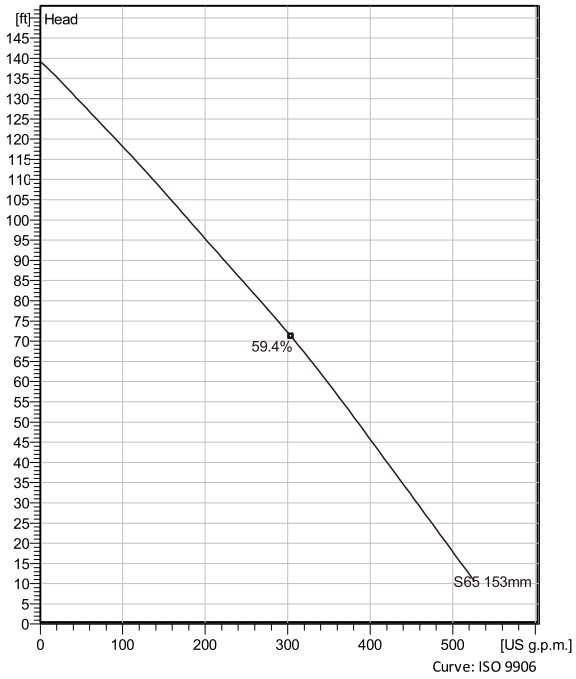
1320S-3X.263.S65.208

Submersible pumps, primarily for sewage and surface water commercial building applications. Non-clog impellers are designed ıance at sustained eff

Technical specification



Curves according to: Water, pure [100%],39.2 °F,62.42 lb/ft³,1.6891E-5 ft²/s



Curve: ISO 9906

Nominal (mean) data shown. Under- and over-performance from this data should be expected due to standard manufacturing tolerances.
Please consult your local Flygt representative for performance guarantees.

Configuration

Motor number
K1320.181 18-15-2ZB-W 9.5hp

Installation type
Wet well kit

Impeller diameter
153 mm

Discharge diameter
3 inch

Pump information

Impeller diameter
153 mm

Discharge diameter
3 inch

Inlet diameter

Maximum operating speed
3520 rpm

Number of blades
2

Materials

Impeller
Grey cast iron

Stator housing material
Grey cast iron

Project	Xylect-21586502	**Created by**		**Last update**	12/14/2023
Block		**Created on**	12/14/2023		

1320S-3X.263.S65.208

Technical specification

Motor - General

Motor number K1320.181 18-15-2ZB-W 9.5hp	**Phases** 3~	**Rated speed** 3520 rpm	**Rated power** 9.5 hp
ATEX approved No	**Number of poles** 2	**Rated current** 26 A	**Stator variant** 8
Frequency 60 Hz	**Rated voltage** 208 V	**Insulation class** F	**Type of Duty** S1

Motor - Technical

Power factor - 1/1 Load 0.84	**Motor efficiency - 1/1 Load** 89.5 %	**Total moment of inertia** 0.346 lb ft²	**Starts per hour max.** 15
Power factor - 3/4 Load 0.78	**Motor efficiency - 3/4 Load** 89.3 %	**Starting current, direct starting** 263 A	
Power factor - 1/2 Load 0.66	**Motor efficiency - 1/2 Load** 87.7 %	**Starting current, star-delta** 87.5 A	

Project	Xylect-21586502	**Created by**		**Last update**	12/14/2023
Block		**Created on**	12/14/2023		

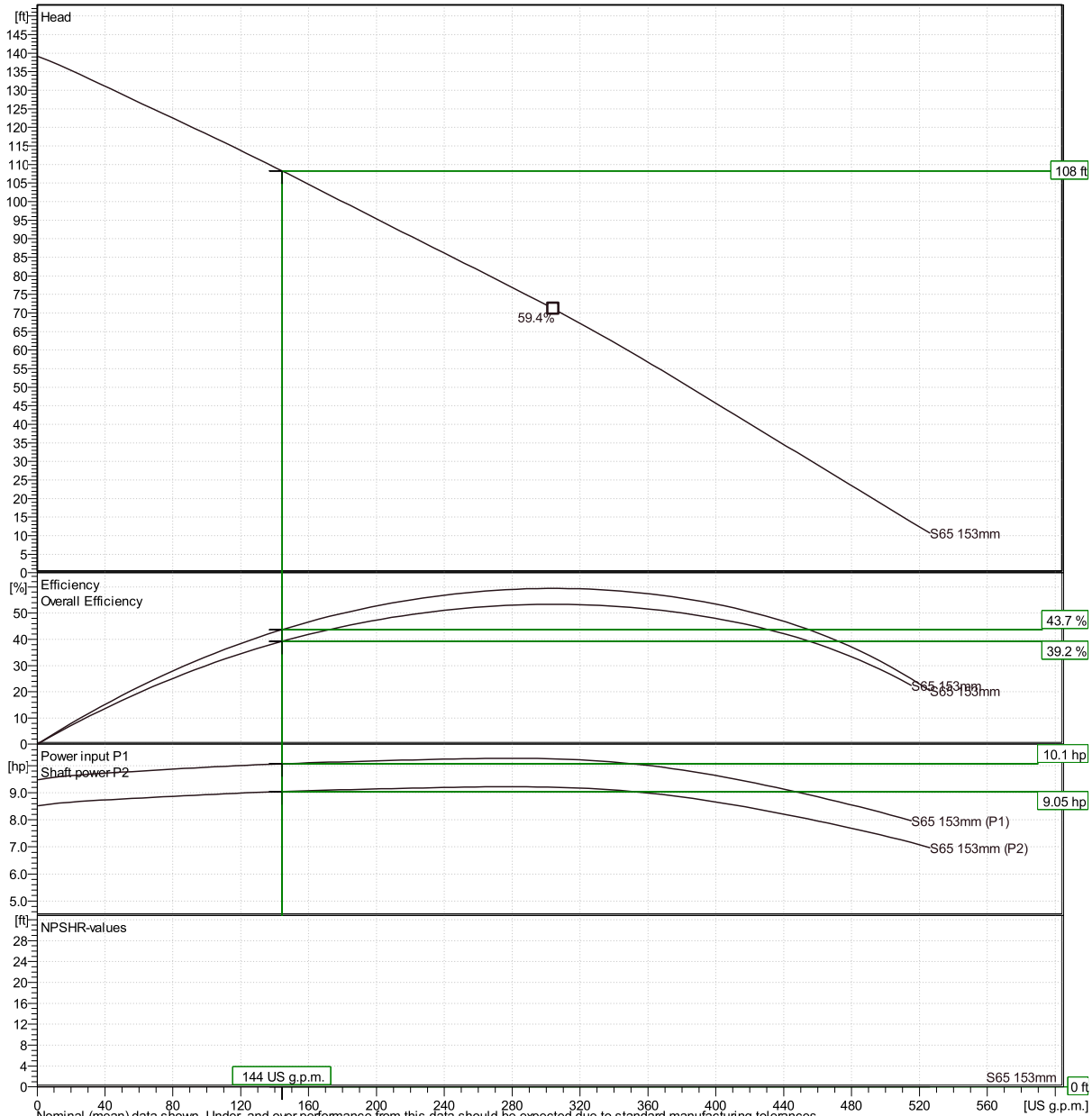
1320S-3X.263.S65.208

Performance curve

Duty point

Flow	Head
144 US g.p.m.	108 ft

Curves according to: Water, pure [100%],39.2 °F,62.42 lb/ft³,1.6891E-5 ft²/s



Nominal (mean) data shown. Under- and over-performance from this data should be expected due to standard manufacturing tolerances.
Please consult your local Flygt representative for performance guarantees.

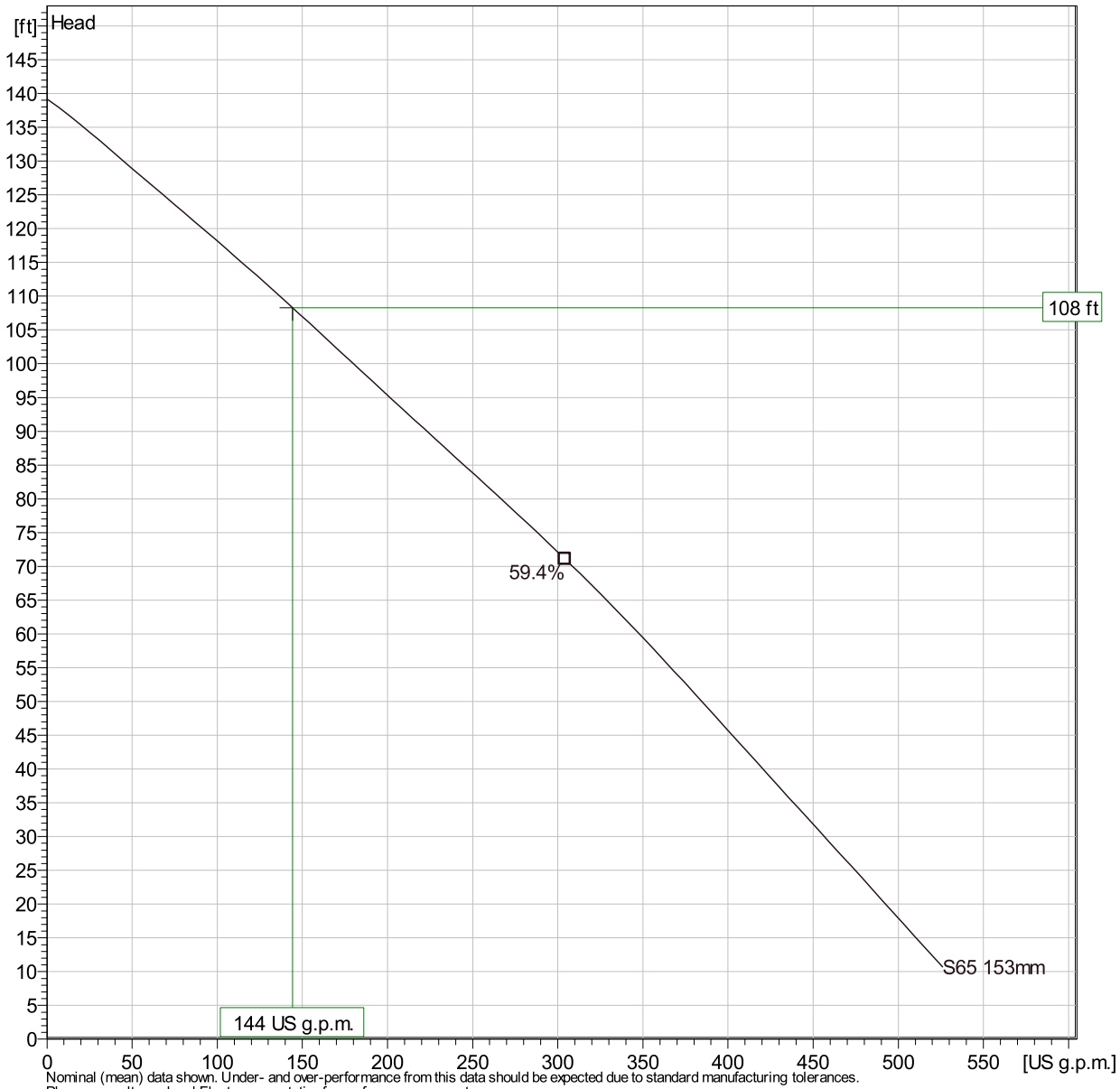
Curve: ISO 9906

Project	Xylect-21586502	**Created by**		**Last update**	12/14/2023
Block		**Created on**	12/14/2023		

1320S-3X.263.S65.208

Duty Analysis

Curves according to: Water, pure [100%],39.2 °F,62.42 lb/ft³,1.6891E-5 ft²/s



Nominal (mean) data shown. Under- and over-performance from this data should be expected due to standard manufacturing tolerances.
Please consult your local Flygt representative for performance guarantees.

Curve: ISO 9906

Operating characteristics

Pumps/Systems	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
1	144 US g.p.m.	108 ft	9.05 hp	144 US g.p.m.	108 ft	9.05 hp	43.7 %	868 kWh/US M	

Project	Xylect-21586502	**Created by**		**Last update**	12/14/2023
Block		**Created on**	12/14/2023		

TCEQ WPAP APPROVAL LETTER

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Erin E. Chancellor, *Interim Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

June 9, 2023

Mr. Steven Kimosh
Fidelis Realty Partners
8140 Walnut Hill Ln., Ste. 400
Dallas, TX 75231

Re: Approval of a Water Pollution Abatement Plan (WPAP)
Berry Creek Business Park; Located at 3000 N Interstate 35; Georgetown, Williamson County, Texas
Edwards Aquifer Protection Program ID: 11003574, Regulated Entity No. RN111631917

Dear Mr. Kimosh:

The Texas Commission on Environmental Quality (TCEQ) has completed its review on the application for the above-referenced project submitted to the Edwards Aquifer Protection Program (EAPP) by Westwood Professional Services on behalf of the applicant, Fidelis Realty Partners, on May 1, 2023. Final review of the application was completed after additional material was received on June 8, 2023.

As presented to the TCEQ, the application was prepared in general compliance with the requirements of 30 Texas Administrative Codes (TAC) Chapter §213. The permanent best management practices (BMPs) and measures represented in the application were prepared by a Texas licensed professional engineer (PE). All construction plans and design information were sealed, signed, and dated by a Texas licensed PE. Therefore, the application for the construction of the proposed project and methods to protect the Edwards Aquifer are **approved,** subject to applicable state rules and the conditions in this letter.

This approval expires two years from the date of this letter, unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been officially requested. This approval or extension will expire, and no extension will be granted if more than 50 percent of the project has not been completed within ten years from the date of this letter.

The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer protection plan. A motion for reconsideration must be filed in accordance with 30 TAC §50.139.

PROJECT DESCRIPTION

The proposed industrial project will have an area of approximately 56.73 acres. The project will include the construction of three industrial buildings with associated grading, drainage, utility, detention, parking, vehicular conveyance, and water quality improvements. The impervious cover will be 28.12 acres (49.57 percent). Project wastewater will be disposed of by conveyance to the existing Pecan Branch Wastewater Treatment Plant.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, a batch detention basin, designed using the TCEQ technical guidance, *RG-348, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices,* will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 24,476 pounds of TSS generated from the 28.12 acres of impervious cover. The approved permanent BMPs and measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The permanent BMPS shall be operational prior to occupancy or use of the proposed project. Inspection, maintenance, repair, and retrofit of the permanent BMPs shall be in accordance with the approved application.

GEOLOGY

According to the Geologic Assessment included with the application, the surficial geologic units are the Georgetown Formation (Kgt) and Quaternary deposits (Qu). Two sensitive geologic features were identified in the GA. Natural buffer setbacks are proposed for the sensitive features and are illustrated on the site plan. No regulated activities, such as construction or soil disturbing activities, will take place within the natural buffer. The TCEQ site assessment conducted on June 6, 2023, revealed the site to be generally as described.

STANDARD CONDITIONS

1. The plan holder (applicant) must comply with all provisions of 30 TAC Chapter §213 and all technical specifications in the approved plan. The plan holder should also acquire and comply with additional and separate approvals, permits, registrations or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, Dam Safety, Underground Injection Control) as required based on the specifics of the plan.

2. In addition to the rules of the Commission, the plan holder must also comply with state and local ordinances and regulations providing for the protection of water quality as applicable.

Prior to Commencement of Construction:

3. Within 60 days of receiving written approval of an Edwards Aquifer protection plan, the plan holder must submit to the EAPP proof of recordation of notice in the county deed records, with the volume and page number(s) of the county record. A description of the property boundaries shall be included in the deed recordation in the county deed records. TCEQ form, Deed Recordation Affidavit (TCEQ-0625), may be used.

4. The plan holder of any approved Edwards Aquifer protection plan must notify the EAPP and obtain approval from the executive director prior to initiating any modification to the activities described in the referenced application following the date of the approval.

5. The plan holder must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the EAPP no later than 48 hours prior to commencement of the regulated activity. Notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person.

6. Temporary erosion and sedimentation (E&S) controls as described in the referenced application, must be installed prior to construction, and maintained during construction. Temporary E&S controls may be removed when vegetation is established, and the construction area is stabilized. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

7. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring or gravel. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation.

<u>During Construction:</u>

8. This approval does not authorize the installation of temporary or permanent aboveground storage tanks on this project that will have a total storage capacity of five hundred gallons or more of static hydrocarbons or hazardous substances without prior approval of an Aboveground Storage Tank facility application.

9. If any sensitive feature is encountered during construction, replacement, or rehabilitation on this project, all regulated activities must be **immediately** suspended near it and notification must be made to TCEQ EAPP staff. Temporary BMPs must be installed and maintained to protect the feature from pollution and contamination. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality.

10. All water wells, including injection, dewatering, and monitoring wells shall be identified in the geologic assessment and must be in compliance with the requirements of the Texas Department of Licensing and Regulation 16 TAC Chapter §76 and all other locally applicable rules, as appropriate.

11. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

12. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge must be filtered through appropriately selected BMPs.

13. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

14. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

15. Owners of permanent BMPs and temporary measures must ensure that the BMPs and measures are constructed and function as designed. A Texas licensed PE must certify in writing that the **permanent** BMPs or measures were constructed as designed. The certification letter must be submitted to the EAPP within 30 days of site completion.

16. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property or the ownership of the property is transferred to the entity. A copy of the transfer of responsibility must be filed with the executive director through the EAPP within 30 days of the transfer. TCEQ form, Change in Responsibility for Maintenance on Permanent BMPs and Measures (TCEQ-10263), may be used.

The holder of the approved Edwards Aquifer protection plan is responsible for compliance with Chapter §213 and any condition of the approved plan through all phases of plan implementation. Failure to comply with any condition within this approval letter is a violation of Chapter §213 and is subject to administrative rule or orders and penalties as provided under §213.10 of this title (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. Upon legal transfer of this property, the new owner is required to comply with all terms of the approved Edwards Aquifer protection plan.

This action is taken as delegated by the executive director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Colin Gearing of the Edwards Aquifer Protection Program at 512-239-7015 or the regional office at 512-339-2929.

Sincerely,

Lillian Butler

Lillian Butler, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

LIB/cmg

cc: Ms. Hollis Ann Scheffler, P.E., Westwood Professional Services

Lift Station/Force Main System Application

Texas Commission on Environmental Quality

for Regulated Activities On the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(c)(3)(B)and(c), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Regulated Entity Name: Berry Creek Business Park

Customer Information

(If different than customer information provided on core data form)

1. The person(s) responsible for providing the engineering certification to the TCEQ pursuant to 30 TAC §213.5(f)(2)(C) during construction and 30 TAC §213.5 (c)(3)(D) upon completion of construction is:

   Contact Person: Kevin O'Neil
   Entity: Fidelis Reality Partners
   Mailing Address: 8140 Walnut Hill Lane, Suite 400
   City, State: Dallas, Texas Zip: 75231
   Telephone: (512) 554-6191 Fax: N/A
   Email Address: koneil@frpltd.com

2. The engineer responsible for the design of this lift station and force main:

   Contact Person: Justin Faure, P.E.
   Entity: Westwood Professional Services
   Mailing Address: 8701 N Mopac Expw, Ste 320
   City, State: Austin, Texas Zip: 78759
   Telephone: (512) 485-0831 Fax: N/A
   Email Address: justin.faure@westwoodps.com
   Texas Licensed Professional Engineer's Serial Number: 147805

Project Information

3. This project is for the construction or replacement of:

   ☐ Lift Station only.

☐ Lift Station and Force Main system.
☒ Lift Station, Force Main, and Gravity system.

4. The sewage collection system will convey the wastewater to the Pecan Branch (name) Treatment Plant. The treatment facility is:

   ☒ Existing
   ☐ Proposed

5. All components of this lift station/force main system will comply with:

   ☒ The City of Georgetown standard specifications.
   ☐ Other. Specifications are attached.

Site Plan Requirements

Items 6-14 must be included on the Site Plan.

6. ☒ The Site Plan must have a minimum scale of 1" = 400'.

   Site Plan Scale: 1" = 400‘.

7. ☒ Lift station/force main system layout meets all requirements of 30 TAC Chapter 217.

8. Geologic or Manmade Features:

   ☒ No geologic or manmade features were identified in the Geologic Assessment.
   ☐ All geologic or manmade features identified in the Geologic Assessment (caves, solution openings, sinkholes, fractures, joints, porous zones, etc.) which exist at the site of the proposed lift station and along the path(s) or within **50 feet of each side** of a proposed force main line are shown on the Site Plan and are listed in the table below. Designs used to protect the integrity of the sewer line crossing each feature are described and labeled on the attached page. A detailed design drawing for each feature is shown on Plan Sheet _____ of _____.
   ☐ No Geologic Assessment is required for this project.

Table 1 - Geologic or Manmade Features

Line	*Station to Station*	*Type of Feature*
	to	
	to	
	to	
	to	
	to	
	to	
	to	
	to	

9. ☐ Existing topographic contours are shown and labeled. The contour interval is _____ feet. (Contour interval must not be greater than 5 feet).

10. ☐ Finished topographic contours are shown and labeled. The contour interval is _____ feet. (Contour interval must not be greater than 5 feet).

☒ Finished topographic contours will not differ from the existing topographic configuration and are not shown.

11. 100-year floodplain boundaries

☒ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.

☐ No part of the project site is located within the 100-year floodplain.

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA Maps 48491C0285F and 48491C0292F (dated 12/20/2019)

12. 5-year floodplain:

☒ After construction is complete, no part of this project will be in or cross a 5-year floodplain, either naturally occurring or manmade. (Do not include streets or concrete-lined channels constructed above sewer lines.)

☐ After construction is complete, all sections of the force main located within the 5-year floodplain will be encased in concrete or capped with concrete. These locations are listed in the table below and are shown and labeled on the Site Plan. (Do not include streets or concrete-lined channels constructed above sewer lines.)

Table 2 - 5-Year Floodplain

Line	*Sheet*	*Station to Station*
	of	to
	of	to
	of	to
	of	to

13. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

If applicable, this must agree with Item No. 15 on the Geologic Assessment Form.

☐ There are _____ (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

☐ The wells are not in use and have been properly plugged.
☐ The wells are not in use and will be properly plugged.
☐ The wells are in use and comply with 16 TAC Chapter 76.

☒ There are no wells or test holes of any kind known to exist on the project site.

14. ☒ Legal boundaries of the site are shown.

Plan and Profile Sheets

*The construction drawings and technical specifications will not be considered for review unless they are the **final plans and technical specifications** which will be used by the contractor for bidding and construction.*

Items 15 – 18 must be included on the Plan and Profile sheets.

15. ☒ The equipment installation construction plans must have a minimum scale of 1" = 10'.

    Plan sheet scale: 1" = 40 '.

16. ☒ Locations, descriptions and elevations of all required equipment and piping for the lift station and force main are shown and labeled.

17. ☒ Air Release/Vacuum Valves will be provided at all peaks in elevation of the proposed force main. These locations are listed in the table below and labeled on the appropriate plan and profile sheets.

Table 3 - Air Release/Vacuum Valves

Line	*Station*	*Sheet*
FM-1	0+62.43	17 of 31
FM-1	10+39	18 of 31
		of
		of
		of
		of

18. ☒ The **final plans and technical specifications** are submitted for the TCEQ's review. Each sheet of the construction plans and specifications are dated, signed, and sealed by the Texas Licensed Professional Engineer responsible for the design on each sheet.

19. ☒ **Attachment A - Engineering Design Report**. An engineering design report with the following required items is attached:

    ☒ The report is dated, signed, and sealed by a Texas Licensed Professional Engineer.
    ☒ Calculations for sizing system.
    ☒ Pump head calculations, including, but not limited to, system head and pump capacity curves, head loss calculations, and minimum and maximum static head C values for normal and peak operational conditions.
    ☒ 100-year and 25-year flood considerations.
    ☒ Total lift station pumping capacity with the largest pump out of service.
    ☒ Type of pumps, including standby units.
    ☒ Type of pump controllers, including standby air supply for bubbler controllers, as applicable.

☒ Pump cycle time.
☒ Type of wet well ventilation; include number of air changes for mechanical ventilation.
☒ Minimum and maximum flow velocities for the force main.
☒ Lift station security.
☒ Lift station emergency provisions and reliability.

Administrative Information

20. ☒ Upon completion of the wet well excavation, a geologist must certify that the excavation was inspected for the presence of sensitive features and submit the signed, sealed, and dated certification to the appropriate regional office.

21. ☒ The TCEQ Lift Stations and Force Mains General Construction Notes (TCEQ-0591) are included on the General Notes Sheet of the Final Construction Plans for this lift station and/or force main system.

22. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

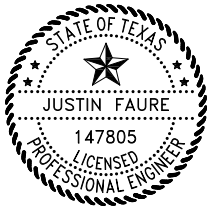
23. ☒ Any modification of this lift station/force main system application will require TCEQ approval, prior to construction, and may require submission of a revised application, with appropriate fees.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Lift Station/Force Main System Application** is hereby submitted for TCEQ review and executive director approval. The system was designed in accordance with the requirements of 30 TAC §213.5(c)(3)(C) and 30 TAC Chapter 217, and prepared by:

Print Name of Licensed Professional Engineer: Justin Faure, P.E.

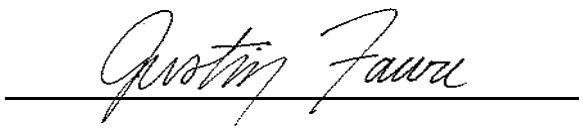
Place engineer's seal here:



04/08/2024

Date: 04/08/2024

Signature of Licensed Professional Engineer:



Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Jacob Valentien

Date: 05/13/2026

Signature of Customer/Agent:



Regulated Entity Name: Berry Creek Business Park

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

   ☐ The following fuels and/or hazardous substances will be stored on the site: _____

   These fuels and/or hazardous substances will be stored in:

   ☐ Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

☒ Fuels and hazardous substances will not be stored on the site.

2. ☒ **Attachment A - Spill Response Actions**. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.

3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ☒ **Attachment B - Potential Sources of Contamination**. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

5. ☒ **Attachment C - Sequence of Major Activities**. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.

   ☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

   ☒ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

6. ☒ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: Berry Creek

Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. ☒ **Attachment D – Temporary Best Management Practices and Measures**. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

☒ A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

☒ A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

☒ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

☒ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. ☒ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

☐ **Attachment E - Request to Temporarily Seal a Feature**. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. ☒ **Attachment F - Structural Practices**. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.

10. ☒ **Attachment G - Drainage Area Map**. A drainage area map supporting the following requirements is attached:

☒ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

11. ☒ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations**. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

☒ N/A

12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.

13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. ☒ **Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices**. A schedule of the interim and permanent soil stabilization practices for the site is attached.

18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

Attachment A – Spill Response Actions

In accordance with the Edwards Aquifer Technical Guidance on Best Management Practices Operators, the following actions will be followed to ensure appropriate measures are taken in the case of a spill:

Education

- Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.
- Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.
- Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

- To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- Store hazardous materials and wastes in covered containers and protect from vandalism.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- Train employees in spill prevention and cleanup.
- Designate responsible individuals to oversee and enforce control measures.
- Spills should be covered and protected from stormwater run on during rainfall to the extent that it doesn't compromise cleanup activities.
- Do not bury or wash spills with water.
- Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
- Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.
- Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
- Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
- Keep waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

- Clean up leaks and spills immediately.
- Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

- Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Absorbent materials should be promptly removed and disposed of properly.
- Follow the practice below for a minor spill:
- Contain the spread of the spill.
- Recover spilled materials.
- Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

- Contain spread of the spill.
- Notify the project foreman immediately.
- If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
- If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
- If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

- Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- Notification should first be made by telephone and followed up with a written report.
- The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

Spills, Discharges, and Releases

- Report an environmental emergency, discharge, spill, or air release. Links to rules, law, technical assistance, waste management, State Emergency Response Commission.
- Please contact TCEQ emergencies for reportable quantities using the link below: https://www.tceq.texas.gov/response/spills/spill_rq.html

To report and environmental emergency, discharge, spill, or air release, control:

State

- State of Texas Spill-Reporting Hotline and the SERC: 1-800-832-8224 --- 24 hours a day
- TCEQ Regional Office, Monday-Friday, 8 a.m. – 5 p.m.

Federal

- National Response Center: 1-800-424-8802 (notifying the NRC does not constitute to the state)

Attachment B – Potential Sources of Contamination

The following are potential sources of surface and groundwater contamination from construction activities:

- Clearing and grubbing
- Grading and site excavation
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscaping operations
- Staging and storage area
- Paving (including curb and gutter)
- Concrete washout area

Attachment C – Sequence of Major Activities

The following sequence of construction is included in the construction plans:

1. Temporary erosion controls, silt fencing and tree protection fencing to be installed.
   Estimated area disturbed =.1 ac
   Estimated timing = 1 week

2. Pre-construction meeting to be held on-site.
   Estimated area disturbed = n/a ac
   Estimated timing = 1 day

3. Demolition of existing materials.
   Estimated area disturbed = . ac
   Estimated timing = 2 weeks

4. Site staking.
   Estimated area disturbed = .1 ac
   Estimated timing = 6 weeks

5. Wastewater to begin.
   Estimated area disturbed = .47 ac
   Estimated timing = 10 weeks

6. Temporary erosion control measures to be inspected on a regular basis; any sediment buildup to be removed.
   Estimated area disturbed = n/a
   Estimated timing = 1 week

7. Site to be cleaned up and revegetated.
   Estimated area disturbed = .1 ac
   Estimated timing = 1 weeks

8. Temporary erosion controls to be removed after permanent restoration of site is established.
   Estimated area disturbed = n/a
   Estimated timing = 2 days

Attachment D – Temporary Best Management Practices and Measures

The following temporary best management practices will be conducted to prevent pollution of surface water, groundwater, and stormwater in accordance with the Edwards Aquifer Technical Guidance on Best Management Practices.

Temporary Vegetation
Vegetation will be used as a temporary stabilization technique for areas disturbed by construction, but not covered by pavement, buildings, or other structures. As a temporary control, vegetation will be used to stabilize stockpiles and barren areas that are inactive for long periods of time.

Dust Control
Dust control will prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards and improve traffic safety. This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Temporary Construction Entrance/Exit
The temporary gravel construction entrance will provide a stable entrance/exit condition from the construction site and keep mud and sediment off public roads. A stabilized construction entrance is a stabilized pad of crushed stone located at any point traffic will be entering or leaving the construction site from a public right-of way, street, alley, sidewalk or parking area. The stabilized construction entrance will reduce or eliminate the tracking or flowing of sediment onto public rights of-way. This practice should be used at all points of construction ingress and egress.

Silt Fence
A silt fence is a barrier consisting of geotextile fabric supported by metal posts to prevent soil and sediment loss from a site. Proposed silt fences will be highly effective at controlling sediment from disturbed areas. They cause runoff to pond, allowing heavier solids to settle out.

Inlet Protection
All proposed inlets that may receive storm runoff from disturbed areas should be protected. Temporary inlet protection is a series of different measures that provide protection against silt transport or accumulation in storm sewer systems. This clogging can greatly reduce or completely stop the flow in the pipes. The different measures are used for different site conditions and inlet types. Filter barrier protection using silt fence is appropriate when the drainage area is less than one acre, and the basin slope is less than five percent. This type of protection is not applicable in paved areas. Block and gravel protection is used when flows exceed 0.5 cubic feet per second, and it is necessary to allow for overtopping to prevent flooding. This form of protection is also useful for curb type inlets as it works well in paved areas. Wire mesh and gravel protection is used when flows exceed 0.5 cubic feet per second and construction traffic may occur over the inlet. This form of protection may be used with both curb and drop inlets.

Concrete Washout Area

The purpose of concrete washout areas is to prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employees and subcontractors.

The following steps will help reduce stormwater pollution from concrete wastes: • Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.

- Avoid mixing excess amounts of fresh concrete.
- Perform washout of concrete trucks in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped onsite, except in designated areas.

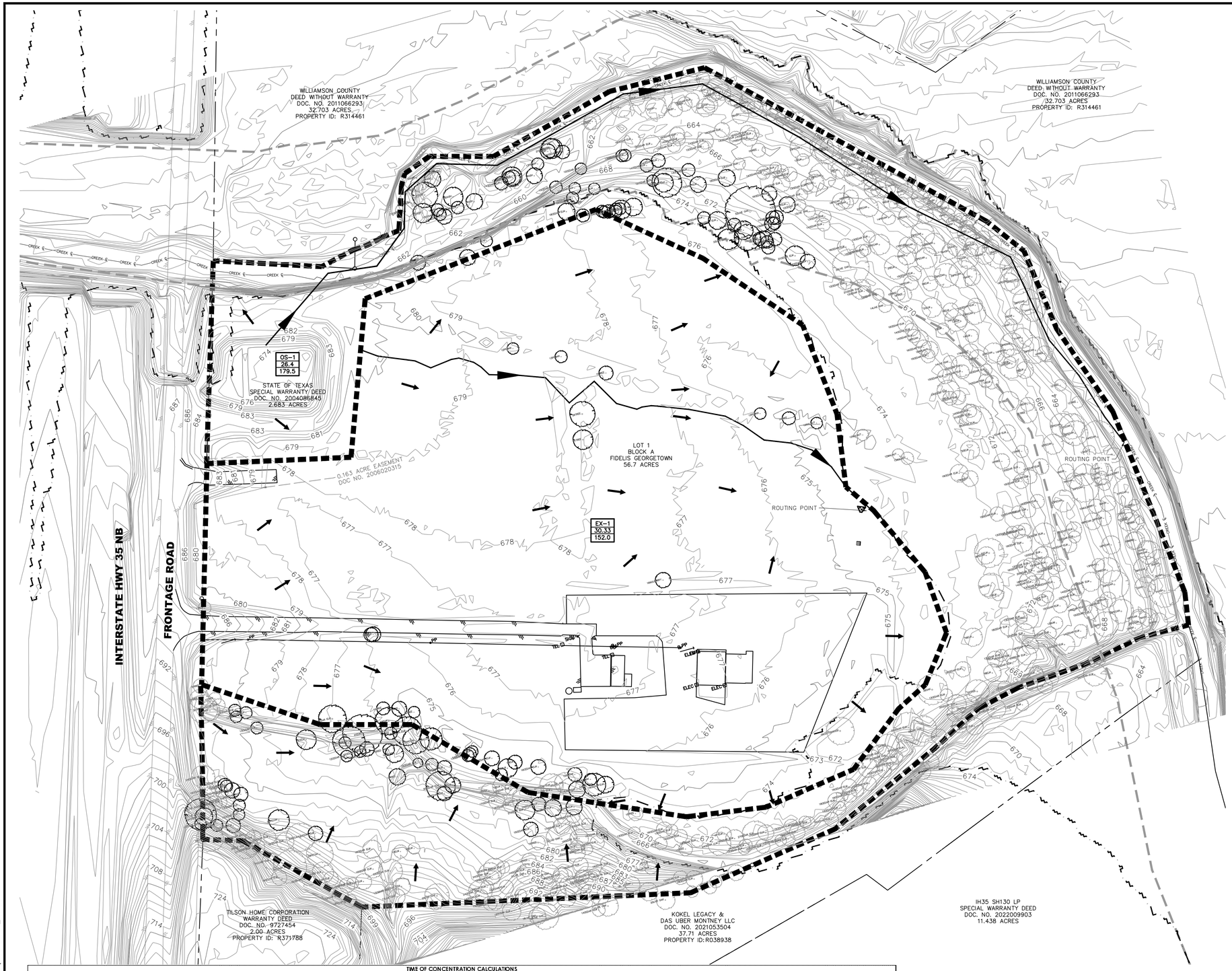
For onsite washout:

- Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
- Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.

Attachment F – Structural Practices

Stormwater will be routed through the proposed silt fence and inlet protection for pollutant removal. No part of the site or placement of the structural practices will be encumbered by floodplain as shown on FEMA #48491C0285F and 48491C0292F.

Attachment G – Drainage Area Map



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GRAPHIC SCALE IN FEET
1"=100'

LEGEND

- BOLLARD
- ELECTRIC METER
- POWER POLE
- LIGHT STANDARD
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- FIRE HYDRANT
- CLEANOUT
- MANHOLE
- TRAFFIC SIGNAL CONTROL
- TRAFFIC SIGNAL POLE
- TELEPHONE BOX
- FLOOD LIGHT
- FLAG POLE
- TRAFFIC SIGN
- PROPERTY LINE
- FENCE
- EXISTING CONTOUR
- DRAINAGE FLOW DIRECTION
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE
- DRAINAGE DIVIDE
- EXISTING DRAINAGE AREA ID / AREA IN ACRES / Q_{100} IN CUBIC FEET PER SECOND
- TC FLOW PATH

TIME OF CONCENTRATION CALCULATIONS

Basin ID	Flowpath Length (ft)	Overland Flow: Length	Slope	Surface Cover	Velocity	*Manning's n	T_o	Shallow Concentrated Flow: Length	Slope	Surface Type	Velocity	*K	T_s	Channel Flow: Length	Slope	Type	*K	Velocity	T_n	T_C	T_C (design)	Lag Time
		(ft)	(ft/ft)		(ft/s)		(min)	(ft)	(ft/ft)		(ft/s)		(min)	(ft)	(ft/ft)		(ft)	(ft/s)	(min)	(min)	(min)	(min)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
EX 1	1142	100	0.004	SHORT GRASS PRAIRIE	0.099	0.15	16.80	1042	0.005	UNPAVED	1.14	16.1	15.21							32.01	32.01	19.21
OS 1	2343	100	0.015	SHORT GRASS PRAIRIE	0.175	0.15	9.52	332	0.065	UNPAVED	4.10	16.1	1.35	1911	0.003	NATURAL TRAP CHANNEL B=10, Y= 6, SS=3:1	68.56	3.8	8.38	19.25	19.25	11.55

HEC-HMS SUMMARY: EXISTING CONDITONS

Drainage Area Basin Designation	Drainage Area (ac)	Base Curve Number CN	Lag Time (min)	Impervious Cover %	2 YEAR STORM: Runoff Per Drainage Area (cfs)	2 YEAR STORM: Routed Cumulative Runoff (cfs)	10 YEAR STORM: Runoff Per Drainage Area (cfs)	10 YEAR STORM: Routed Cumulative Runoff (cfs)	25 YEAR STORM: Runoff Per Drainage Area (cfs)	25 YEAR STORM: Routed Cumulative Runoff (cfs)	100 YEAR STORM: Runoff Per Drainage Area (cfs)	100 YEAR STORM: Routed Cumulative Runoff (cfs)
EX 1	30.33	80	19.21	0.00%	40.7		84.0		111.4		152.0	
OS 1	26.40	80	6.52	0.00%	51.9		101.5		132.0		179.5	

XXXX-XX-SDP

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GEORGETOWN, TEXAS, 78626

EXISTING DRAINAGE AREA MAP

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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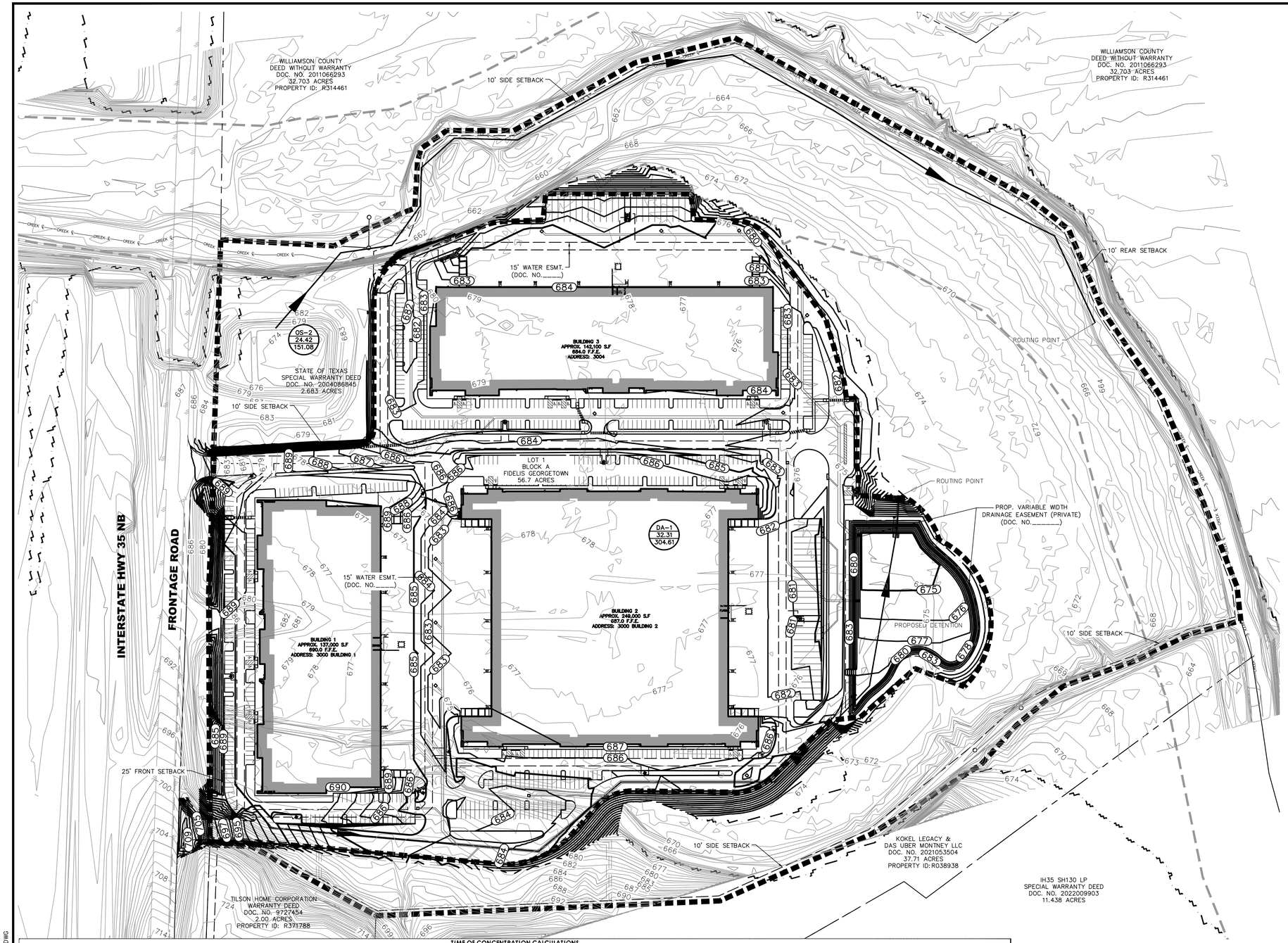

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GRAPHIC SCALE IN FEET
1"=100'

LEGEND

- BOLLARD
- ELECTRIC METER
- POWER POLE
- LIGHT STANDARD
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- FIRE HYDRANT
- CLEANOUT
- MANHOLE
- TRAFFIC SIGNAL CONTROL
- TRAFFIC SIGNAL POLE
- TELEPHONE BOX
- FLOOD LIGHT
- FLAG POLE
- TRAFFIC SIGN
- PROPERTY LINE
- FENCE
- 613 — EXISTING CONTOUR
- 450 — PROPOSED CONTOUR
- DRAINAGE FLOW DIRECTION
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK — CREEK CENTERLINE
- DRAINAGE DIVIDE
- U 8 / 1.00 / 7.99 — PROPOSED DRAINAGE AREA ID, AREA IN ACRES, Q_{100} IN CUBIC FEET PER SECOND
- TC FLOW PATH

TIME OF CONCENTRATION CALCULATIONS

Basin ID	Flowpath Length (ft)	Overland Flow						Shallow Concentrated Flow						Channel Flow						T_C	T_C (design)	Lag Time
		Length	Slope	Surface Cover	Velocity	*Manning's n	T_0	Length	Slope	Surface Type	Velocity	*K	T_S	Length	Slope	Type	*K	Velocity	T_n			
		(ft)	(ft/ft)		(ft/s)		(min)	(ft)	(ft/ft)		(ft/s)		(min)	(ft)	(ft/ft)		(ft)	(ft/s)	(min)	(min)	(min)	(min)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
DA 1	2043	100	0.001	SMOOTH SURFACES (CONCRETE, ASPHALT, GRAVEL, OR BARE SOIL)	0.544	0.011	3.06	63	0.020	PAVED	2.88	20.3	0.37	393	0.003	18" RCP	59.44	3.2	2.05			
														566	0.009	24" RCP	72.01	6.9	1.37	9.57	9.57	5.74
														921	0.006	48" RCP	114.31	9.0	1.70			
														413	0.009	NATURAL TRAP CHANNEL, B=10, Y= 6, SS=3:1	68.56	6.7	1.03			
OS 1	2343	100	0.015	SHORT GRASS PRAIRIE	0.175	0.150	9.52	332	0.065	UNPAVED	4.10	16.1	1.35	1911	0.003	NATURAL TRAP CHANNEL, B=10, Y= 6, SS=3:1	68.56	3.8	8.38	19.25	19.25	11.55

HEC-HMS SUMMARY: DEVELOPED CONDITONS

Drainage Area Basin Designation	Drainage Area (ac)	Base Curve Number CN	Lag Time (min)	Impervious Cover %	Cumulative Drainage Area (ac)	2 YEAR STORM		10 YEAR STORM		25 YEAR STORM		100 YEAR STORM	
						Runoff Per Drainage Area (cfs)	Routed Cumulative Runoff (cfs)	Runoff Per Drainage Area (cfs)	Routed Cumulative Runoff (cfs)	Runoff Per Drainage Area (cfs)	Routed Cumulative Runoff (cfs)	Runoff Per Drainage Area (cfs)	Routed Cumulative Runoff (cfs)
DA 1	32.31	80	5.74	44.36%		184.67		212.40		250.66		304.61	
POND					32.31		74.99		109.47		127.49		150.75
OS 2	24.42	80	11.55	0.00%		43.65		85.41		111.10		151.08	

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TX REG. SURVEYING FIRM LS-10008000

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GEORGETOWN, TEXAS, 78626

PROPOSED DRAINAGE AREA MAP

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
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PROFESSIONAL ENGINEER

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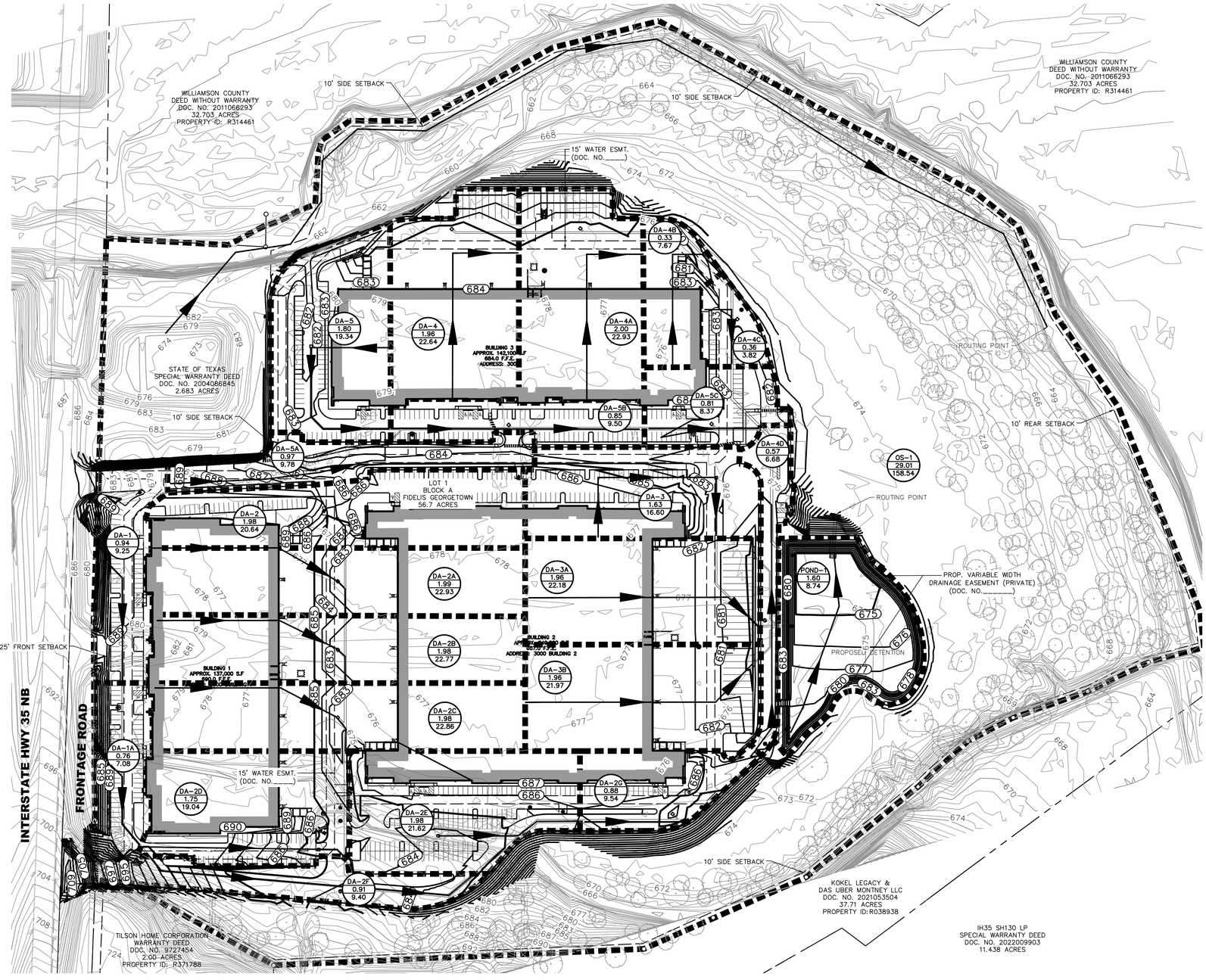

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GRAPHIC SCALE IN FEET
1"=100'

LEGEND

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- FLAG POLE
- TRAFFIC SIGN
- PROPERTY LINE
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- PROPOSED CONTOUR
- DRAINAGE FLOW DIRECTION
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE
- DRAINAGE DIVIDE
- ULTIMATE DRAINAGE AREA ID / AREA IN ACRES / Q_{100} IN CUBIC FEET PER SECOND
- TC FLOW PATH

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ULTIMATE DRAINAGE AREA MAP

STATE OF TEXAS
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MASTER DRAINAGE					2 year						10 year						25 year						100 year				
Drainage Number	AREA	IC	PC	%IC	perv C		imp C		weighted C		perv C		imp C		weighted C		perv C		imp C		weighted C		perv C		imp C		weighted C
ULTIMATE CONDITION DRAINAGE AREAS																											
DA 1	0.94	0.694	0.2477	73.71%	0.31	0.08	0.97	0.67	0.80		0.36	0.09	0.97	0.67	0.81		0.39	0.10	0.97	0.67	0.82		0.46	0.11	0.97	0.67	0.84
DA1A	0.76	0.516	0.2492	67.42%	0.31	0.08	0.97	0.50	0.75		0.36	0.09	0.97	0.50	0.77		0.39	0.10	0.97	0.50	0.78		0.46	0.11	0.97	0.50	0.80
DA 2	1.98	1.782	0.2010	89.86%	0.31	0.06	0.97	1.73	0.90		0.36	0.07	0.97	1.73	0.91		0.39	0.08	0.97	1.73	0.91		0.46	0.09	0.97	1.73	0.92
DA 2A	1.99	1.990	0.0000	100.00%	0.31	0.00	0.97	1.93	0.97		0.36	0.00	0.97	1.93	0.97		0.39	0.00	0.97	1.93	0.97		0.46	0.00	0.97	1.93	0.97
DA 2B	1.98	1.976	0.0000	100.00%	0.31	0.00	0.97	1.92	0.97		0.36	0.00	0.97	1.92	0.97		0.39	0.00	0.97	1.92	0.97		0.46	0.00	0.97	1.92	0.97
DA 2C	1.98	1.984	0.0000	100.00%	0.31	0.00	0.97	1.92	0.97		0.36	0.00	0.97	1.92	0.97		0.39	0.00	0.97	1.92	0.97		0.46	0.00	0.97	1.92	0.97
DA 2D	1.75	1.638	0.1155	93.41%	0.31	0.04	0.97	1.59	0.93		0.36	0.04	0.97	1.59	0.93		0.39	0.05	0.97	1.59	0.93		0.46	0.05	0.97	1.59	0.94
DA 2E	1.98	1.782	0.1979	90.00%	0.31	0.06	0.97	1.73	0.90		0.36	0.07	0.97	1.73	0.91		0.39	0.08	0.97	1.73	0.91		0.46	0.09	0.97	1.73	0.92
DA 2F	0.91	0.728	0.1838	79.85%	0.31	0.06	0.97	0.71	0.84		0.36	0.07	0.97	0.71	0.85		0.39	0.07	0.97	0.71	0.85		0.46	0.08	0.97	0.71	0.87
DA 2G	0.88	0.780	0.1006	88.58%	0.31	0.03	0.97	0.76	0.89		0.36	0.04	0.97	0.76	0.90		0.39	0.04	0.97	0.76	0.90		0.46	0.05	0.97	0.76	0.91
DA 3	1.63	1.269	0.3605	77.88%	0.31	0.11	0.97	1.23	0.82		0.36	0.13	0.97	1.23	0.84		0.39	0.14	0.97	1.23	0.84		0.46	0.17	0.97	1.23	0.86
DA 3A	1.96	1.893	0.0683	96.52%	0.31	0.02	0.97	1.84	0.95		0.36	0.02	0.97	1.84	0.95		0.39	0.03	0.97	1.84	0.95		0.46	0.03	0.97	1.84	0.95
DA 3B	1.96	1.856	0.1071	94.54%	0.31	0.03	0.97	1.80	0.93		0.36	0.04	0.97	1.80	0.94		0.39	0.04	0.97	1.80	0.94		0.46	0.05	0.97	1.80	0.94
DA 4	1.96	1.964	0.0000	100.00%	0.31	0.00	0.97	1.91	0.97		0.36	0.00	0.97	1.91	0.97		0.39	0.00	0.97	1.91	0.97		0.46	0.00	0.97	1.91	0.97
DA 4A	2.00	1.983	0.0138	99.31%	0.31	0.00	0.97	1.92	0.97		0.36	0.00	0.97	1.92	0.97		0.39	0.01	0.97	1.92	0.97		0.46	0.01	0.97	1.92	0.97
DA 4B	0.68	0.649	0.0338	95.04%	0.31	0.01	0.97	0.63	0.94		0.36	0.01	0.97	0.63	0.94		0.39	0.01	0.97	0.63	0.94		0.46	0.02	0.97	0.63	0.94
DA 4C	0.36	0.305	0.0561	84.45%	0.31	0.02	0.97	0.30	0.87		0.36	0.02	0.97	0.30	0.88		0.39	0.02	0.97	0.30	0.88		0.46	0.03	0.97	0.30	0.89
DA 4D	0.57	0.557	0.0148	97.41%	1.31	0.02	0.00	0.00	0.03		1.36	0.02	0.97	0.54	0.98		1.39	0.02	0.97	0.54	0.98		1.46	0.02	0.97	0.54	0.98
DA 5	1.80	1.572	0.2237	87.54%	0.31	0.07	0.97	1.52	0.89		0.36	0.08	0.97	1.52	0.89		0.39	0.09	0.97	1.52	0.90		0.46	0.10	0.97	1.52	0.91
DA 5A	0.97	0.741	0.2268	76.57%	0.31	0.07	0.97	0.72	0.82		0.36	0.08	0.97	0.72	0.83		0.39	0.09	0.97	0.72	0.83		0.46	0.10	0.97	0.72	0.85
DA 5B	0.85	0.802	0.0453	94.65%	0.31	0.01	0.97	0.78	0.93		0.36	0.02	0.97	0.78	0.94		0.39	0.02	0.97	0.78	0.94		0.46	0.02	0.97	0.78	0.94
DA 5C	0.81	0.654	0.1530	81.04%	0.31	0.05	0.97	0.63	0.84		0.36	0.06	0.97	0.63	0.85		0.39	0.06	0.97	0.63	0.86		0.46	0.07	0.97	0.63	0.87
POND-1	1.60	0.000	1.5996	0.00%	0.31	0.50	0.97	0.00	0.31		0.36	0.58	0.97	0.00	0.36		0.39	0.62	0.97	0.00	0.39		0.46	0.74	0.97	0.00	0.46
OS-1	29.01	0.000	29.0100	0.00%	0.31	8.99	0.97	0.00	0.31		0.36	10.44	0.97	0.00	0.36		0.39	11.31	0.97	0.00	0.39		0.46	13.34	0.97	0.00	0.46

						SHEET FLOW						SHALLOW CONCENTRATED FLOW						CHANNEL FLOW							INTENSITY				DISCHARGE			
DRAINAGE NUMBER	INLET NUMBER	AREA (acres)	C_2	C_{10}	C_{25}	C_{100}	Length (ft)	Slope (ft/ft)	Surface Cover	Velocity (ft/s)	Manning's n	T_{sheet} (min)	Length (ft)	Slope (ft/ft)	Surface Type	Velocity (ft/s)	K	$T_{shallow}$ (min)	Length (ft)	Slope (ft/ft)	Type	K (ft) $K=\frac{1.486 \cdot R^{\frac{2}{3}}}{n}$	Velocity (ft/s)	$T_{channel}$ (min)	Tc (min)	I 2yr (in/hr)	I 10yr (in/hr)	I 25yr (in/hr)	I 100yr (in/hr)	Q 2 (cfs)	Q 10 (cfs)	Q 25 (cfs)	Q 100 (cfs)
DA 1	DA 1	0.94	0.80	0.81	0.82	0.84	100.00	0.001	CONCRETE	0.40	0.02	4.13	63.13	0.020	PAVED	2.88	20.33	0.36	225.66	0.006	18" RCP	59.44	4.42	0.85	5.35	6.39	8.50	9.72	11.74	4.79	6.48	7.49	9.25
DA1A	DA1A	0.76	0.75	0.77	0.78	0.80	100.00	0.001	CONCRETE	0.38	0.02	4.40	55.58	0.002	PAVED	0.98	20.33	0.94	168.43	0.004	24" RCP	72.01	4.51	0.62	5.96	6.23	8.31	9.52	11.51	3.60	4.90	5.69	7.08
DA 2	DA 2	1.98	0.90	0.91	0.91	0.92	100.00	0.001	CONCRETE	0.35	0.02	4.73	259.10	0.017	PAVED	2.65	20.33	1.63	60.67	0.030	18" RCP	59.44	10.38	0.10	6.46	6.11	8.16	9.36	11.33	10.94	14.71	16.92	20.64
DA 2A	DA 2A	1.99	0.97	0.97	0.97	0.97	100.00	0.065	CONCRETE	1.87	0.02	0.89	25.28	0.061	PAVED	5.00	20.33	0.08	68.74	0.218	24" RCP	72.01	33.64	0.03	5.00	6.48	8.62	9.84	11.88	12.51	16.63	18.99	22.93
DA 2B	DA 2B	1.98	0.97	0.97	0.97	0.97	100.00	0.065	CONCRETE	1.87	0.02	0.89	25.28	0.061	PAVED	5.00	20.33	0.08	68.74	0.218	24" RCP	72.01	33.64	0.03	5.00	6.48	8.62	9.84	11.88	12.42	16.51	18.86	22.77
DA 2C	DA 2C	1.98	0.97	0.97	0.97	0.97	100.00	0.065	CONCRETE	1.87	0.02	0.89	25.28	0.061	PAVED	5.00	20.33	0.08	68.74	0.218	30" RCP	83.56	39.03	0.03	5.00	6.48	8.62	9.84	11.88	12.47	16.58	18.93	22.86
DA 2D	DA 2D	1.75	0.93	0.93	0.93	0.94	100.00	0.002	CONCRETE	0.44	0.02	3.83	229.75	0.024	PAVED	3.13	20.33	1.22	56.03	0.001	18" RCP	59.44	1.38	0.68	5.73	6.29	8.38	9.59	11.60	10.21	13.67	15.67	19.04
DA 2E	DA 2E	1.98	0.90	0.91	0.91	0.92	100.00	0.004	CONCRETE	0.63	0.02	2.64	172.57	0.015	PAVED	2.46	20.33	1.17	270.58	0.011	48" RCP	114.31	11.83	0.38	5.00	6.48	8.62	9.84	11.88	11.60	15.51	17.77	21.62
DA 2F	DA 2F	0.91	0.84	0.85	0.85	0.87	50.00	0.010	CONCRETE	0.77	0.02	1.08	200.00	0.010	PAVED	2.03	20.33	1.64	288.00	0.010	24" RCP	72.01	7.20	0.67	5.00	6.48	8.62	9.84	11.88	4.95	6.66	7.65	9.40
DA 2G	DA 2G	0.88	0.89	0.90	0.90	0.91	50.00	0.010	CONCRETE	0.77	0.02	1.08	100.00	0.010	PAVED	2.03	20.33	0.82	100.00	0.011	48" RCP	114.31	11.99	0.14	5.00	6.48	8.62	9.84	11.88	5.11	6.83	7.83	9.54
DA 3	DA 3	1.63	0.82	0.84	0.84	0.86	100.00	0.010	CONCRETE	0.88	0.02	1.88	217.00	0.010	PAVED	2.03	20.33	1.78	107.00	0.010	24" RCP	72.01	7.20	0.25	5.00	6.48	8.62	9.84	11.88	8.70	11.73	13.50	16.60
DA 3A	DA 3A	1.96	0.95	0.95	0.95	0.95	100.00	0.010	CONCRETE	0.88	0.02	1.88	150.00	0.010	PAVED	2.03	20.33	1.23	201.00	0.010	24" RCP	72.01	7.20	0.47	5.00	6.48	8.62	9.84	11.88	12.03	16.03	18.33	22.18
DA 3B	DA 3B	1.96	0.93	0.94	0.94	0.94	100.00	0.010	CONCRETE	0.88	0.02	1.88	200.00	0.010	PAVED	2.03	20.33	1.64	149.00	0.010	18" RCP	59.44	5.94	0.42	5.00	6.48	8.62	9.84	11.88	11.88	15.84	18.12	21.97
DA 4	DA 4	1.96	0.97	0.97	0.97	0.97	50.00	0.010	CONCRETE	0.77	0.02	1.08	150.00	0.010	PAVED	2.03	20.33	1.23	189.00	0.010	18" RCP	59.44	5.94	0.53	5.00	6.48	8.62	9.84	11.88	12.34	16.41	18.75	22.64
DA 4A	DA 4A	2.00	0.97	0.97	0.97	0.97	50.00	0.010	CONCRETE	0.77	0.02	1.08	150.00	0.010	PAVED	2.03	20.33	1.23	173.00	0.010	24" RCP	72.01	7.20	0.40	5.00	6.48	8.62	9.84	11.88	12.49	16.61	18.98	22.93
DA 4B	DA 4B	0.68	0.94	0.94	0.94	0.94	50.00	0.010	CONCRETE	0.77	0.02	1.08	150.00	0.010	PAVED	2.03	20.33	1.23	108.00	0.010	24" RCP	72.01	7.20	0.25	5.00	6.48	8.62	9.84	11.88	4.15	5.53	6.33	7.67
DA 4C	DA 4C	0.36	0.87	0.88	0.88	0.89	50.00	0.010	CONCRETE	0.77	0.02	1.08	50.00	0.010	PAVED	2.03	20.33	0.41	50.00	0.010	30" RCP	83.56	8.36	0.10	5.00	6.48	8.62	9.84	11.88	2.03	2.72	3.13	3.82
DA 4D	DA 4D	0.57	0.03	0.95	0.98	0.98	50.00	0.010	CONCRETE	0.77	0.02	1.08	200.00	0.010	PAVED	2.03	20.33	1.64	240.00	0.010	42" RCP	104.57	10.46	0.38	5.00	6.48	8.62	9.84	11.88	0.13	4.68	5.52	6.68
DA 5	DA 5	1.80	0.89	0.89	0.90	0.91	50.00	0.010	CONCRETE	0.77	0.02	1.08	100.00	0.010	PAVED	2.03	20.33	0.82	280.00	0.010	18" RCP	59.44	5.94	0.79	5.00	6.48	8.62	9.84	11.88	10.33	13.83	15.86	19.34
DA 5A	DA 5A	0.97	0.82	0.83	0.83	0.85	50.00	0.010	CONCRETE	0.77	0.02	1.08	200.00	0.010	PAVED	2.03	20.33	1.64	175.00	0.010	18" RCP	59.44	5.94	0.49	5.00	6.48	8.62	9.84	11.88	5.12	6.90	7.95	9.78
DA 5B	DA 5B	0.85	0.93	0.94	0.94	0.94	50.00	0.010	CONCRETE	0.77	0.02	1.08	200.00	0.010	PAVED	2.03	20.33	1.64	212.00	0.010	30" RCP	83.56	8.36	0.42	5.00	6.48	8.62	9.84	11.88	5.13	6.85	7.83	9.50
DA 5C	DA 5C	0.81	0.84	0.85	0.86	0.87	50.00	0.010	CONCRETE	0.77	0.02	1.08	100.00	0.010	PAVED	2.03	20.33	0.82	54.00	0.010	30" RCP	83.56	8.36	0.11	5.00	6.48	8.62	9.84	11.88	4.42	5.94	6.83	8.37
POND-1	POND-1	1.60	0.31	0.36	0.39	0.46	50.00	0.010	CONCRETE	0.77	0.02	1.08	200.00	0.010	PAVED	2.03	20.33	1.64	94.00	0.010	48" RCP	114.31	11.43	0.14	5.00	6.48	8.62	9.84	11.88	3.21	4.96	6.14	8.74
OS-1	OS-1	29.01	0.31	0.36	0.39	0.46	50.00	0.010	CONCRETE	0.77	0.02	1.08	200.00	0.010	PAVED	2.03	20.33	1.64	288.00	0.010	P CHANNEL, B=	79.71	7.97	0.60	5.00	6.48	8.62	9.84	11.88	58.27	89.98	111.32	158.54

GEORGETOWN IDF CURVE TABLE

TABLE 3-3 INTENSITY-DURATION-FREQUENCY EQUATION COEFFICIENTS[2]

Storm Frequency	a	b	c
2-year	106.29	16.81	0.9076
5-year	99.75	16.74	0.8327
10-year	96.84	15.88	0.7952
25-year	111.07	17.23	0.7815
50-year	119.51	17.32	0.7705
100-year	129.03	17.83	0.7625
500-year	160.57	19.64	0.7449

Pacheco Koch
a Westwood company
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TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

ULTIMATE DRAINAGE AREA CALCULATIONS

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER
SHEET X OF Y

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISOR OF HOLLIS ANN SCHEFFLER, P.E. 136049 ON xx/xx/xxxx. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
HAS	NBB	DEC 2022

SHEET NO. 13

XXXX-XX-SDP

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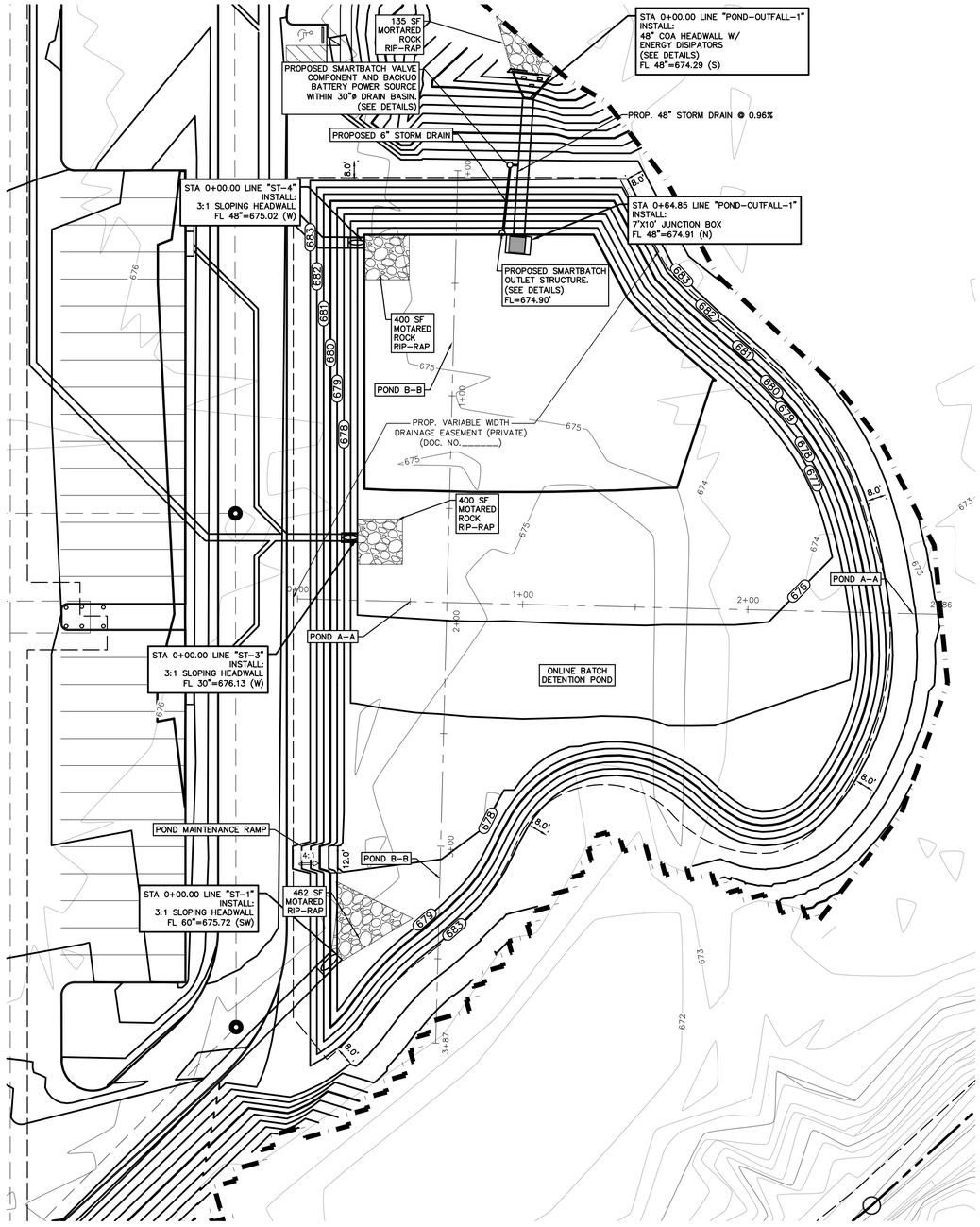
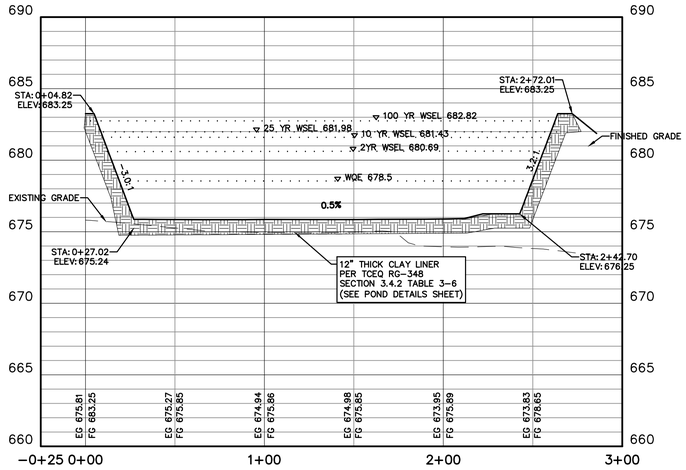
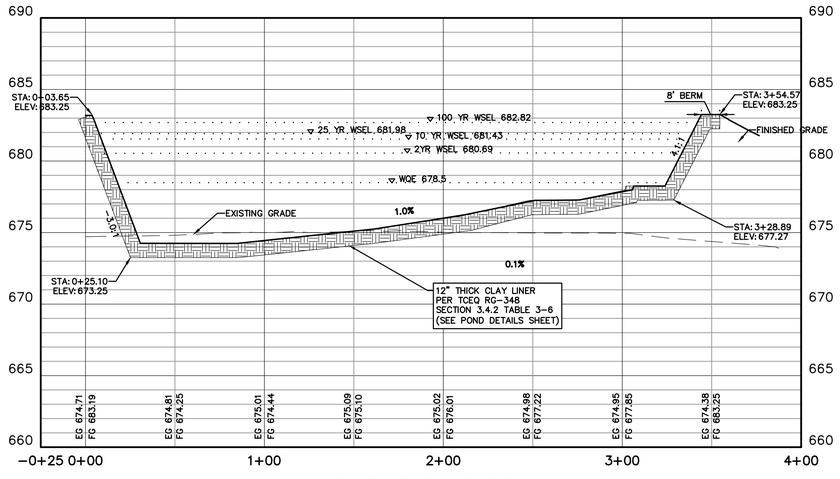
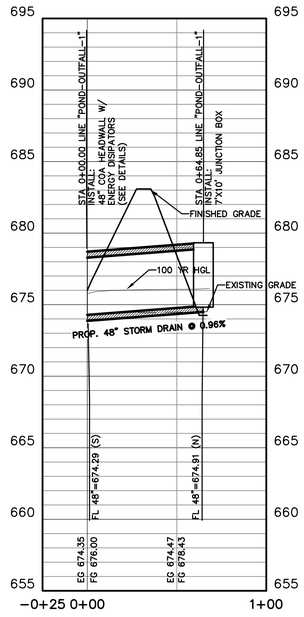




PROFILE: POND A-A



PROFILE: POND B-B



PROFILE: POND-OUTFALL-1

Stage Storage Table						
Water Quality	Peak Discharge (cfs)	Stage (ft msl)*		Area (sf)	Incremental Volume (cf)	Storage (cf)
		674.30		6,865.23	0.00	0.00
		674.40		7,989.39	742.73	742.73
		674.50		9,142.46	856.59	1,599.32
		674.60		10,324.44	973.35	2,572.67
		674.70		11,535.32	1,092.99	3,665.66
		674.80		12,775.10	1,215.52	4,881.18
		674.90		14,043.79	1,340.94	6,222.12
		675.00		15,341.39	1,469.26	7,691.38
		675.50		25,602.31	10,235.93	17,927.31
		676.00		31,605.54	14,301.96	32,229.27
		677.00		40,755.88	36,180.71	68,409.98
		678.00		50,354.35	45,555.12	113,965.09
		678.10		50,726.66	5,054.05	119,019.14
		678.20		51,076.43	5,090.15	124,109.30
		678.30		53,209.81	5,214.31	129,323.61
		678.40		53,524.03	5,336.69	134,660.30
WQE		678.50		53,852.19	5,368.81	140,029.11
		679.00		55,503.99	27,339.05	167,368.16
		680.00		58,740.48	57,122.24	224,490.39
2 YR WSEL	74.99	680.69		51,015.62	37,865.85	262,356.25
		681.00		62,049.90	17,525.16	279,881.40
10 YR WSEL	109.47	681.43		63,496.94	26,992.57	306,873.97
25 YR WSEL	127.49	681.98		65,368.04	35,437.87	342,311.84
		682.00		65,436.50	1,308.05	343,619.89
100 YR WSEL	150.75	682.82		68,269.75	54,819.56	398,439.45
		683.00		68,898.10	12,345.11	410,784.56
		683.24		69,263.75	16,579.42	427,363.98



LEGEND

B	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
FL	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS (C.M.)	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
30" R.C.P.	EXISTING STORM LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
	PROPOSED STORM LINE
TI	TOP OF INLET
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
CREEK	CREEK CENTERLINE

Pacheco Koch
a Westwood company
8701 N. MOPAC EXPY ■ STE. 320 ■ AUSTIN, TX 78759 ■ 512.485.0831
TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

POND PLAN & PROFILE

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISOR OF HOLLIS ANN SCHEFFLER, P.E. 136049 ON xx/xx/xxxx. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO. 34

XXXX-XX-SDP

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Attachment H – Temporary Sediment Pond Plans and Calculations

A rough-cut water quality batch detention pond will be utilized for the temporary sedimentation removal on-site and is to be graded in accordance with the following plan sheet provided. Revegetation or placement of underdrain piping shall not be carried out until the site construction phase is complete.

Attachment I – Inspection and Maintenance for BMPs

The following inspection and maintenance guidelines for the temporary best management practices will be followed in accordance with the Edwards Aquifer Technical Guidance on Best Management Practices. Inspections of the Temporary BMPs will be documented in an inspection report. Inspection reports will document maintenance activities, sediment removal and modifications to the sediment and erosion controls.

Temporary Vegetation

1. Temporary vegetation should be inspected weekly and after each rain event to locate and repair any erosion.
2. Erosion from storms or other damage should be repaired as soon as practical by regrading the area and applying new seed.
3. If the vegetated cover is less than 80%, the area should be reseeded.

Dust Control

1. When dust is evident during dry weather, reapply dust control BMPs.

Temporary Construction Entrance/Exit

1. Inspect all fencing weekly, and after any rainfall.
2. Remove sediment when buildup reaches 6 inches.
3. Replace any torn fabric or install a second line of fencing parallel to the torn section. (4) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.
4. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

Silt Fence

1. Inspect all fencing weekly, and after any rainfall.
2. Remove sediment when buildup reaches 6 inches.
3. Replace any torn fabric or install a second line of fencing parallel to the torn section.
4. Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.
5. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

Inlet Protection

1. Inspection should be made weekly and after each rainfall. Repair or replacement should be made promptly as needed by the contractor.
2. Remove sediment when buildup reaches a depth of 3 inches. Removed sediment should be deposited in a suitable area and in such a manner that it will not erode.
3. Check placement of device to prevent gaps between device and curb.
4. Inspect filter fabric and patch or replace if torn or missing.
5. Structures should be removed and the area stabilized only after the remaining drainage area has been properly stabilized.

Concrete Washout Area

When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Inspection / Maintenance Completion - Summary

Company Name:_____

Company Address:_____

City/State/Zip: _____

Phone:_____

Engineer:_____

Engineers Address:_____

City/State/Zip:_____

Phone:_____

Property Owner:_____

Batch Detention Pond

Monitoring / Maintenance Table

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Structural Repairs and Replacement												
Seasonal Mowing and Lawn Care (in)												
Debris and Litter Removal												
Sediment Removal												
Logic Controller												
Erosion Control												
Nuisance Control												
Completed By												
Date												

I hereby certify that the monitoring and maintenance of the Batch Detention Pond unit was completed in accordance with the directions of Batch Detention Pond inspection and maintenance plan.

_____

(Signed by property owner or designee)

Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

Seeding of the disturbed areas will be on-going after completion of the rough grading process. Temporary seeding will be utilized until permanent landscaping is installed. Seeding will occur on any areas that are undisturbed for a period of 14 days. If construction progress is stopped for a period of 14 days, soil stabilization practices must be initiated by the contractor. Permanent landscaping will be provided as soon as final grades are achieved and the final paving and building operations are completed. Bare soils should be seeded or otherwise stabilized within 14 calendar days after final grading or where construction activity has temporarily ceased for more than 21 days.

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I Steven Kinosh,
Print Name

VSCA President,
Title - Owner/President/Other

of Fidelis Realty Partners,
Corporation/Partnership/Entity Name

have authorized Jacob Valentien, P.E.
Print Name of Agent/Engineer

of Westwood Professional Services
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

Date 2/17/2026

THE STATE OF Texas §

County of Dallas §

BEFORE ME, the undersigned authority, on this day personally appeared Steven Kimosh known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 17th day of February, 2026

NOTARY PUBLIC

DEBORAH ENDA
Notary Public, State of Texas
Comm. Expires 07-01-2028
Notary ID 134972715

Deborah Enda
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 7/1/28

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Berry Creek Business Park
Regulated Entity Location: 3000 N IH 35 NB
Name of Customer: Fidelis Industrial Partners LLC
Contact Person: Jacob Valentien, P.E. Phone: 512-485-0831
Customer Reference Number (if issued):CN 603034521
Regulated Entity Reference Number (if issued):RN RN111631917

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment**. This payment is being submitted to:

☒ Austin Regional Office
☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office
☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$
Sewage Collection System	1,307 L.F.	$ 653.50
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____ Date: 04/02/2026

Application Fee Schedule

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	*Project Area in Acres*	*Fee*
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

Project	*Cost per Linear Foot*	*Minimum Fee-Maximum Fee*
Sewage Collection Systems	$0.50	$650 - $6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	*Cost per Tank or Piping System*	*Minimum Fee-Maximum Fee*
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission *(If other is checked please describe in space provided.)*

☐ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.)*

☐ Renewal *(Core Data Form should be submitted with the renewal form)*

☒ Other SCS MODIFICATION

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 603034521		RN RN111631917

SECTION II: Customer Information

4. General Customer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy)	12/20/2022

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership

☒ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* *If new Customer, enter previous Customer below:*

Fidelis Industrial Partners LLC

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
0804264832	32081393103	87-3066602	

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☒ Limited

Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☒ Other: Limited Liability Co-Partnership

12. Number of Employees
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ Yes ☐ No

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☒ Owner ☐ Operator ☐ Owner & Operator ☐ Other:
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

15. Mailing Address:	4500 Bissonnet St, Suite 200						
	City	Bellaire	State	TX	ZIP	77401	ZIP + 4

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	koneil@frpltd.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(713) 693-1400		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

Berry Creek Business Park

23. Street Address of the Regulated Entity: *(No PO Boxes)*	3000 N IH 35 NB							
	City	Georgetown	**State**	TX	**ZIP**	78626	**ZIP + 4**	
24. County	Williamson							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	this property is located at the end of William Scotsman Dr off the I 35 Service Road.

26. Nearest City	**State**	**Nearest ZIP Code**
Georgetown	TX	78633

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.688779		**28. Longitude (W) In Decimal:**	-97.652687	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	41	19.6	37	39	09.7

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
6531		53531	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Industrial

34. Mailing Address:	3000 N IH 35 NB							
	City	Georgetown	**State**	TX	**ZIP**	78664	**ZIP + 4**	

35. E-Mail Address:	skimosh@frpltd.com

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(512) 554- 6191		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Jacob Valentien, P.E.	**41. Title:**	Senior Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 485- 0831		( ) -	jacob.valentien@westwooodps.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Westwood Professional Services	**Job Title:**	Senior Project Manager
Name *(In Print):*	Jacob Valentien, P.E.	**Phone:**	(512) 485- 0831
Signature:		**Date:**	04/02/2026

Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This request for a **Modification of a Previously Approved Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Fidelis Industrial Partners LLC

Date: 04/02/2026

Signature of Customer/Agent:



Project Information

1. Current Regulated Entity Name: Berry Creek Business Park
   Original Regulated Entity Name: Berry Creek Business Park
   Regulated Entity Number(s) (RN): RN111631917
   Edwards Aquifer Protection Program ID Number(s): N/A
   [X] The applicant has not changed and the Customer Number (CN) is: 603034521
   [ ] The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. [X] **Attachment A: Original Approval Letter and Approved Modification Letters**. A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):
   - ☐ Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
   - ☐ Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
   - ☐ Development of land previously identified as undeveloped in the original water pollution abatement plan;
   - ☒ Physical modification of the approved organized sewage collection system;
   - ☐ Physical modification of the approved underground storage tank system;
   - ☐ Physical modification of the approved aboveground storage tank system.

4. ☒ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification Summary	***Approved Project***	***Proposed Modification***
Acres		
Type of Development		
Number of Residential Lots		
Impervious Cover (acres)		
Impervious Cover (%		
Permanent BMPs		
Other		

SCS Modification Summary	***Approved Project***	***Proposed Modification***
Linear Feet	2,633.12	1,306.97
Pipe Diameter	16"	18"
Other		

AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs	_____	_____
Volume of ASTs	_____	_____
Other	_____	_____

UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs	_____	_____
Volume of USTs	_____	_____
Other	_____	_____

5. ☒ **Attachment B: Narrative of Proposed Modification**. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved, including any previous modifications, and how this proposed modification will change the approved plan.

6. ☒ **Attachment C: Current Site Plan of the Approved Project**. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
   - ☐ The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
   - ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
   - ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.
   - ☒ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. ☐ The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage.
   ☒ Acreage has not been added to or removed from the approved plan.

8. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

Attachment A – Original Approval Letter and Approved Modification Letters

Jon Niermann, *Chairman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 12, 2024

Mr. Kevin O'Neil
Fidelis Reality Partners
8140 Walnut Hill Ln., Ste 400
Dallas, TX, 75231-4350

Re: Approval of an Organized Sewage Collection System (SCS) Plan
Berry Creek Business Park; Located Northeast of N Interstate 35 Service Rd. and William Scotsman St.; Georgetown, Williamson County Texas
Edwards Aquifer Protection Program ID: 11003881, Regulated Entity No. RN111631917

Dear Mr. O'Neil:

The Texas Commission on Environmental Quality (TCEQ) has completed its review on the application for the above-referenced project submitted to the Edwards Aquifer Protection Program (EAPP) by Westwood Professional Services on behalf of the applicant, Fidelis Reality Partners on February 6, 2024. Final review of the application was completed after additional material was received on April 1, 2024 and April 10, 2024.

As presented to the TCEQ, the application was prepared in general compliance with the requirements of 30 Texas Administrative Codes (TAC) Chapter §213 and Chapter §217. The engineering design report, technical specifications and final design plans were prepared by a Texas licensed professional engineer (PE). All construction plans and design information were sealed, signed, and dated by a Texas licensed PE. Therefore, the application for the construction of the proposed project and methods to protect the Edwards Aquifer are hereby **approved,** subject to applicable state rules and the conditions in this letter.

This approval expires two years from the date of this letter, unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been officially requested. This approval or extension will expire, and no extension will be granted if more than 50 percent of the project has not been completed within ten years from the date of this letter.

The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer protection plan. A motion for reconsideration must be filed in accordance with 30 TAC §50.139.

PROJECT DESCRIPTION

The proposed sewage collection system will provide disposal service for commercial development. The system includes a lift station, force main, gravity lines, and other appurtenance necessary for conveying wastewater to a treatment plant.

The proposed SCS includes the lines listed in the table below:

Pipe Diameter (inches)	Linear Feet	Pipe Material	Specifications
16 (gravity)	1,592	HDPE SDR 13.5	ASTM D1248
16 (gravity)	1,041	HDPE SDR 21	ASTM D1248
4 (force main)	1,480	C900 DR 18	ASTM F477
Total Linear Feet	4,113		

LIFT STATION DETAILS

The proposed lift station will consist of a 5-foot diameter wet well with an approximate depth of 31.5 feet, two pumps, and an emergency power generator. Each pump will have a pumping capacity of 143 gallons per minute (gpm) at a total dynamic head (TDH) of 107 feet. **The lift station is designed and will be constructed to ensure that bypassing of sewage does not occur.**

Additional equipment will include a control panel, an audio-visual alarm, auto-dial telemetry, hoisting equipment, level pump controllers, pump supports and discharge piping with valves, and a security fence with controlled access.

TREATMENT FACILITY

The system will be connected to an existing City of Georgetown wastewater line for conveyance to the Pecan Branch Wastewater Treatment Plant for treatment and disposal. **The proposed system shall be connected for conveyance prior to use of the development.** The project will conform to all applicable codes, ordinances, and requirements of the City of Georgetown.

GEOLOGY

According to the Geologic Assessment (GA) included with the application, the surficial units of the site are the Quaternary Deposits (Qu) and Georgetown Formation (Kgt), underlaid by Edwards and Comanche Peak Limestones (Kec). No sensitive geologic features were identified in the GA. The site assessment conducted on March 20, 2024 by TCEQ staff determined the site to be generally as described by the GA.

SPECIAL CONDITIONS

I. Upon completion of any lift station excavation, a geologist **must certify** that the excavation has been inspected for the presence of sensitive features. Certification that the excavation has been inspected must be submitted to the EAPP within 30 days of the inspection.

STANDARD CONDITIONS

1. The plan holder (applicant) must comply with all provisions of 30 TAC Chapter §213 and all technical specifications in the approved plan. The plan holder should also acquire and comply with additional and separate approvals, permits, registrations or authorizations from other TCEQ Programs (i.e., Water Quality) as required based on the specifics of the plan.

2. In addition to the rules of the Commission, the plan holder must also comply with state and local ordinances and regulations providing for the protection of water quality as applicable.

Prior to Commencement of Construction:

3. The plan holder of any approved Edwards Aquifer protection plan must notify the EAPP and obtain approval from the executive director prior to initiating any modification to the activities described in the referenced application following the date of the approval.

4. The plan holder must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the EAPP no later than 48 hours prior to commencement of the regulated activity. Notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person.

5. Temporary erosion and sedimentation (E&S) controls as described in the referenced application, must be installed prior to construction, and maintained during construction. Temporary E&S controls may be removed when vegetation is established, and the construction area is stabilized. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

6. This approval does not authorize the installation of temporary or permanent aboveground storage tanks on this project that will have a total storage capacity of 500 gallons or more of static hydrocarbons or hazardous substances without prior approval of an Aboveground Storage Tank facility application.

7. If any sensitive feature is encountered during construction, replacement, or rehabilitation on this project, all regulated activities must be **immediately** suspended near it and notification must be made to TCEQ EAPP staff. Temporary BMPs must be installed and maintained to protect the feature from pollution and contamination. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality.

8. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

9. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge must be filtered through appropriately selected BMPs.

10. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

11. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

12. No part of the organized sewage collection system may be used as a sewage holding tank, as defined in 30 TAC §213.3 (excluding lift stations), over the Edwards Aquifer recharge zone.

13. A Texas licensed PE **must certify** in writing that the new sewage collection system (including force mains) has passed all required testing. The certification shall be submitted to the EAPP within 30 days of test completion and prior to the new sewage collection system being put into service.

14. A Texas licensed PE **must certify** subsequent testing required every five years of the existing sewage collection system after being put into use to determine types and locations of structural damage and defects such as offsets, open joints, or cracked or crushed lines that would allow exfiltration to occur. The test results must be retained by the plan holder for five years and made available to the executive director upon request.

The holder of the approved Edwards Aquifer protection plan is responsible for compliance with Chapter §213 and any condition of the approved plan through all phases of plan implementation. Failure to comply with any condition within this approval letter is a violation of Chapter §213 and is subject to administrative rule or orders and penalties as provided under §213.10 of this title (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. Upon legal transfer of this property, the new owner is required to comply with all terms of the approved Edwards Aquifer protection plan.

This action is taken as delegated by the executive director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Bob Castro, P.E. of the Edwards Aquifer Protection Program at 512-239-6992 or the regional office at 512-339-2929.

Sincerely,

Lillian Butler

Lillian Butler, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

LIB/rbc

cc: Mr. Justin Faure, P.E., Westwood Professional Services

Attachment B – Narrative of Proposed Modification

The proposed modification includes a new 18-inch gravity sewer line that runs parallel to the recently constructed (existing) 16-inch gravity sewer line. The 18-inch line will connect to the existing 16-inch line. There is a total of 6 proposed Sanitary Sewer Manholes (SSMH) with this modification, including a 5-foot doghouse SSMH and five 5-foot SSMH. The existing manhole at the upstream end of the proposed modification will be reconstructed and upsized from a 4-foot SSMH to a 5-foot SSMH.

The existing 16-inch line will be abandoned in place and filled with flowable fill. The existing SSMHs associated with the 16-inch line will remain as flow through manholes for existing laterals. Proposed sanitary sewer lines will connect to the existing SSMHs and extend the lateral to the nearest proposed SSMH.

This proposed modification is necessary due to multiple sags identified in the recently constructed 16-inch line. The line was originally a 12-inch pipe that was replaced via pipe-bursting and upsized to 16 inches; however, the existing bellies in the 12-inch line were replicated and identified in the new 16-inch line and therefore could not be accepted. To address this issue, a parallel 18-inch line is proposed to be constructed via open cut and the new 16-inch line to be abandoned in place.

Attachment C – Current Site Plan of the Approved Project

The sheets that are to be modified include: 1, **6,** 12, 14, 15, and 16.
The new sheet that is included: 22.1.

OWNER AND DEVELOPER

FIDELIS REALTY PARTNERS
STEVEN KIMOSH
8140 WALNUT HILL LANE SUITE 400
DALLAS, TX, 75231
PHONE: 512.554.6191
SKIMOSH@FRPLTD.COM
WWW.FRPLTD.COM

ENGINEER

JUSTIN FAURE, P.E.
8701 N. MOPAC EXPY. SUITE 320
AUSTIN, TEXAS 78759
PHONE: 512.485.0831
JUSTIN.FAURE@WESTWOODPS.COM
WWW.WESTWOODPS.COM

CONSTRUCTION PLANS

FOR

BERRY CREEK BUSINESS PARK

3000, 3002, & 3004 N-IH 35 NB

GEORGETOWN, TEXAS 78626

LEGAL DESCRIPTION:

LOT 1, BLOCK A, FIDELIS, GEORGETOWN
DOC. NO. 2023065936 (O.P.R.W.C.)

FLOODPLAIN INFORMATION:

PER FEMA FIRM PANEL NO. 48491C0285F & 48491C0292F, DATED DECEMBER 20, 2019. THE PROPOSED DEVELOPMENT IS IN THE AREA OF SPECIAL FLOOD HAZARD, ZONE A, AND IS IN THE 100 YEAR FLOODPLAIN. THERE ARE SPRINGS, STREAMS OR BUFFER ZONES LOCATED ON THE SUBJECT SITE.

PROPOSED USE:

PRIVATE WASTEWATER LIFT STATION AND FORCE MAIN, DIAMETER INCREASE TO EXIST COG GRAVITY WW NETWORK

ACREAGE:

.168 AC (7,340 SF) (PROPOSED PRIVATE FORCE MAIN PROJECT LIMITS)

FIRE DEPARTMENT:

GEORGETOWN FIRE DEPARTMENT
3500 DB WOOD RD.
GEORGETOWN, TEXAS 78628
(512) 930-3473

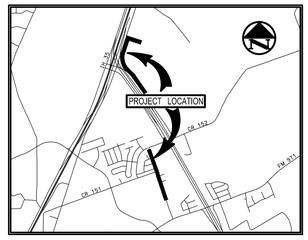
ELECTRICITY, WATER & WASTEWATER:

GEORGETOWN UTILITY SYSTEMS
300-1 INDUSTRIAL AVENUE
GEORGETOWN, TX 78626
(512) 930-3555
GUS.GEORGETOWN.ORG

PEDERNALES ELECTRIC COOPERATIVE, INC.
201 S. AVENUE F
JOHNSON CITY, TEXAS 78636
830-868-7155
PEC.COOP

GENERAL NOTES:

1. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER, AND SUCCESSORS TO THE CURRENT PROPERTY OWNER, TO ENSURE THE SUBJECT PROPERTY AND ANY IMPROVEMENTS ARE MAINTAINED IN CONFORMANCE WITH THIS SITE DEVELOPMENT PLAN.
2. THIS DEVELOPMENT SHALL COMPLY WITH ALL STANDARDS OF THE UNIFIED DEVELOPMENT CODE (UDC), THE CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND SPECIFICATIONS MANUAL, THE DEVELOPMENT MANUAL AND ALL OTHER APPLICABLE CITY STANDARDS.
3. SIDEWALKS SHALL BE PROVIDED IN ACCORDANCE WITH THE UDC.
4. SCREENING OF MECHANICAL EQUIPMENT, DUMPSTERS AND PARKING SHALL COMPLY WITH CHAPTER 8 OF THE UDC. THE SCREENING IS SHOWN ON THE LANDSCAPE AND ARCHITECTURAL PLANS, AS APPLICABLE.
5. ALL MAINTENANCE OF REQUIRED LANDSCAPE SHALL COMPLY WITH THE MAINTENANCE STANDARDS OF CHAPTER 8 OF THE UDC.
6. ANY HERITAGE TREE NOTED ON THIS SITE DEVELOPMENT PLAN IS SUBJECT, IN PERPETUITY, TO THE MAINTENANCE, CARE, PRUNING AND REMOVAL REQUIREMENTS OF THE UNIFIED DEVELOPMENT CODE.
7. THE CONSTRUCTION PORTION OF THESE PLANS WERE PREPARED, SEALED, SIGNED AND DATED BY A TEXAS LICENSED PROFESSIONAL ENGINEER. THEREFORE, BASED ON THE ENGINEER'S CONCURRENCE OF COMPLIANCE, THE CONSTRUCTION PLANS FOR CONSTRUCTION OF THE PROPOSED PROJECT ARE HEREBY APPROVED SUBJECT TO THE STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS MANUAL AND ALL OTHER APPLICABLE CITY, STATE AND FEDERAL REQUIREMENTS AND CODES.
8. THIS PROJECT IS SUBJECT TO ALL CITY STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS IN EFFECT AT THE TIME OF SUBMITTAL OF THE PROJECT TO THE CITY.
9. WHERE NO EXISTING OVERHEAD INFRASTRUCTURE EXISTS, UNDERGROUND ELECTRIC UTILITY LINES SHALL BE LOCATED ALONG THE STREET AND WITHIN THE SITE. WHERE EXISTING OVERHEAD INFRASTRUCTURE IS TO BE RELOCATED, IT SHALL BE RE-INSTALLED UNDERGROUND AND THE EXISTING FACILITIES SHALL BE REMOVED AT THE DISCRETION OF THE DEVELOPMENT ENGINEER.
10. ALL ELECTRIC AND COMMUNICATION INFRASTRUCTURE SHALL COMPLY WITH UDC SECTION 13.06.
11. THE PROPERTY SUBJECT TO THIS APPLICATION IS SUBJECT TO THE WATER QUALITY REGULATIONS OF THE CITY OF GEORGETOWN
12. A GEOLOGIC ASSESSMENT, IN ACCORDANCE WITH THE CITY OF GEORGETOWN WATER QUALITY REGULATIONS, WAS COMPLETED ON 10/04/2023. ANY SPRINGS AND STREAMS AS IDENTIFIED IN THE GEOLOGIC ASSESSMENT ARE SHOWN HEREIN.
13. SCREENING AND LOCATION OF OUTDOOR STORAGE SHALL COMPLY WITH SECTION 5.09 OF THE UDC.



VICINITY MAP
(1"=4,000')

PROJECT ZONING: BUSINESS PARK (PUD ORDINANCE 2022-81)

PROJECT ADDRESS: 3000, 3002, 3004 N IH 35 NB

SUBMITTAL DATE: 08/02/2024

FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED
PROFESSIONAL ENGINEER

06/01/2026

DRAWING SHEET INDEX

SHEET	DESCRIPTION
1R	COVER
2	FINAL PLAT SHEET 1 OF 4
3	FINAL PLAT SHEET 2 OF 4
4	FINAL PLAT SHEET 3 OF 4
5	FINAL PLAT SHEET 4 OF 4
6R	GENERAL NOTES SHEET 1 OF 3
7	GENERAL NOTES SHEET 2 OF 3
8	GENERAL NOTES SHEET 3 OF 3
9	EXISTING CONDITIONS AND DEMOLITION PLAN
10	EROSION CONTROL PLAN
11	EROSION CONTROL DETAILS & NOTES
12	OVERALL WASTEWATER PLAN
12R	OVERALL WASTEWATER PLAN
13	PROP WW LINE PLAN & PROFILE 1 OF 4
14	PROP WW LINE PLAN & PROFILE 2 OF 4
15	PROP WW LINE PLAN & PROFILE 3 OF 4
16	PROP WW LINE PLAN & PROFILE 4 OF 4
14R	PROP WW LINE PLAN & PROFILE 2 OF 4
15R	PROP WW LINE PLAN & PROFILE 3 OF 4
16R	PROP WW LINE PLAN & PROFILE 4 OF 4
17	PROP WW FORCE MAIN PLAN & PROFILE 1 OF 3
18	PROP WW FORCE MAIN PLAN & PROFILE 2 OF 3
19	PROP WW FORCE MAIN PLAN & PROFILE 3 OF 3
20	SANITARY SEWER DETAILS 1 OF 2
21	SANITARY SEWER DETAILS 2 OF 2
22	SANITARY SEWER DETAILS 3 OF 3
22.1	SANITARY SEWER DETAILS 4 OF 4
23	LIFT STATION DETAILS 1 OF 3
24	LIFT STATION DETAILS 2 OF 3
25	LIFT STATION DETAILS 3 OF 3
26	PAVEMENT REPAIR AND TRAFFIC CONTROL DETAILS
27	ELECTRICAL SERVICE PLAN
L1.00	OVERALL TREE MITIGATION PLAN
L1.01	TREE MITIGATION PLAN
L1.02	TREE MITIGATION PLAN
L1.03	TREE MITIGATION PLAN
L1.04	TREE DATA AND DETAILS

BENCHMARK LIST

BM #1 – " (" CUT ON EAST EDGE OF IH-35 NORTHBOUND SERVICE ROAD.
GRID N: 10224125.41'
GRID E: 3137933.96'
ELEV: 704.71'

BM #4 – IRON ROD SET WITH WESTWOOD CAP NEAR THE NORTHWEST CORNER OF THE INTERSECTION OF SOUTHBOUND SH-130 FRONTAGE ROAD AND COUNTY ROAD 152.
GRID N: 10219573.63'
GRID E: 3139924.56'
ELEV: 719.49'

BM #5 – 1/2" IRON ROD FOUND NEAR IN THE SOUTH MARGIN OF LONNIE THOMAS DRIVE, ±186' SOUTHWESTERLY FROM COUNTY ROAD 152.
GRID N: 10216752.24'
GRID E: 3139963.02'
ELEV: 685.90'

BM #10 – MAG NAIL SET NEAR NORTH EDGE OF ASPHALT OF LIVE OAKS RV LANE AT IH-35 NORTHBOUND SERVICE ROAD.
GRID N: 10223475.46'
GRID E: 3137755.01'
ELEV: 731.18'

PREPARED BY

Westwood

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TBPLS FIRM REGISTRATION NO. LS-10074301

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REVISIONS

NO.	DATE	DESCRIPTION	BY
1	5/29/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626
COVER

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
1R
1R OF 32

2023-35-CON

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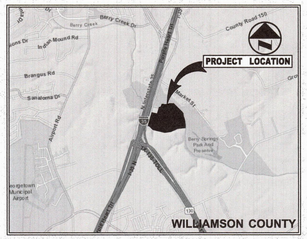
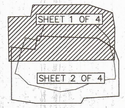
APPROVED: 08/02/2024

Doc# 2023065936



VICINITY MAP
(1"=4,000')



AREA TABLE		
LOT 1, BLOCK A	56.730 ACRES	2,471,138 SF
TOTAL PLAT AREA	56.730 ACRES	2,471,138 SF
TOTAL BLOCKS	1	
TOTAL LOTS	1	

LEGEND
- PROPERTY LINE
- EASEMENT LINE
- LIMITS OF FLOOD ZONE
- P.U.E. PUBLIC UTILITY EASEMENT
- RETAINED TREE

0 50 100 200 300
GRAPHIC SCALE IN FEET
1" = 100'

STREET TABLE							
STREET NAME	AREA	CLASSIFICATION	R.O.W. DIMENSION	PAVEMENT DIMENSION	CURB TYPE	PEDESTRIAN CLEAR ZONE DIMENSION	DESIGN SPEED
N IH-35 NB FRONTAGE	EXISTING	MAJOR ARTERIAL	VARIABLE WIDTH	36-FOOT WIDE	N/A	10-FEET	50 MPH

SHEET INDEX
SHEET 1 OF 4: PLAT – NORTH
SHEET 2 OF 4: PLAT – SOUTH
SHEET 3 OF 4: PLAT NOTES AND PROPERTY DESCRIPTION
SHEET 4 OF 4: CERTIFICATIONS

ENGINEER:
WESTWOOD PROFESSIONAL SERVICES
CONTACT: HOLLIS A. SCHEFFLER
8701 N. MOPAC EXPY, SUITE 320
AUSTIN, TX 78759
PH: 512-485-0831

SURVEYOR:
WESTWOOD PROFESSIONAL SERVICES
CONTACT: MICHAEL J. NEEDHAM
8701 N. MOPAC EXPY, SUITE 320
AUSTIN, TX 78759
PH: 512-485-0831

OWNER:
DAS UBER MONTNEY, LLC
CONTACT: DALE ILLIG, PRESIDENT
707 SOUTH ROCK STREET
GEORGETOWN, TEXAS 78626-5718
PH: 512-930-5012

OWNER:
KOKEL LEGACY, LLC
CONTACT: LARRY KOKEL, MANAGER AND DOROTHY KOKEL, MANAGER
404 WEST 9TH STREET, SUITE 201
GEORGETOWN, TEXAS 78626-5553
PH: 512-930-5258

1ST SUBMITTAL DATE: NOVEMBER 21, 2022
2ND SUBMITTAL DATE: JANUARY 3, 2023
3RD SUBMITTAL DATE: APRIL 16, 2023

FINAL PLAT
FIDELIS GEORGETOWN
56.730 ACRES
LOCATED IN THE CITY OF GEORGETOWN, TEXAS
AND BEING OUT OF THE
JOHN BERRY SURVEY, ABSTRACT NO. 51,
WILLIAMSON COUNTY, TEXAS
SHEET 1 OF 4

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DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER	CITY PROJECT NUMBER
ZNBM	ETB	1"=100'	JULY 31, 2023	4670-21.337	2022-25-PFP

FINAL PLAT - FIDELIS GEORGETOWN

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7/31/2023 8:26 AM
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JFAURE
8/2/2024 11:29 AM
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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

FINAL PLAT SHEET 1 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
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JCF	MIZ	AUG 2024

SHEET NO.
2
2 OF 32

2023-35-CON

APPROVED: 08/02/2024

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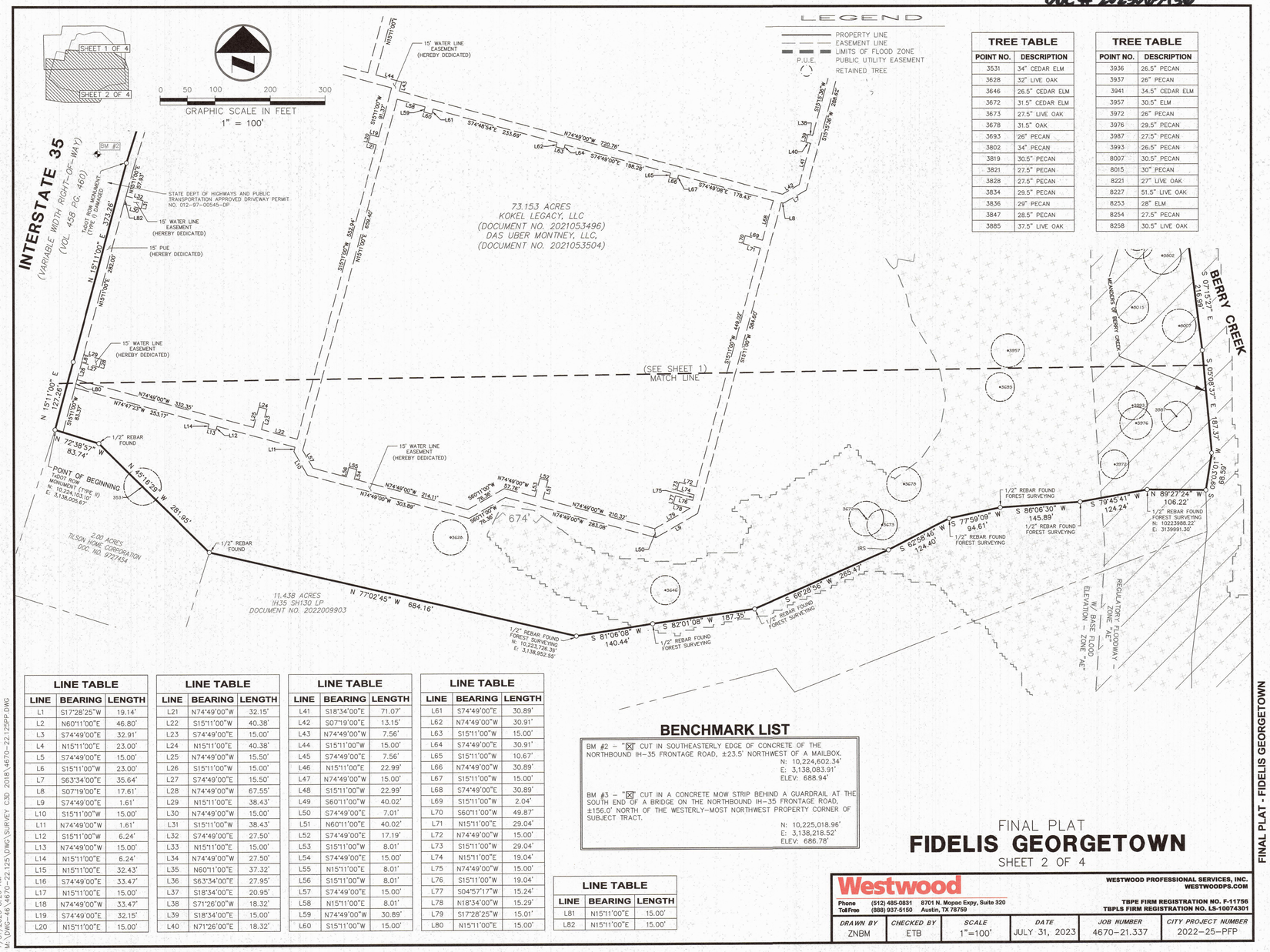

TREE TABLE	
POINT NO.	DESCRIPTION
3531	34" CEDAR ELM
3628	32" LIVE OAK
3646	26.5" CEDAR ELM
3672	31.5" CEDAR ELM
3673	27.5" LIVE OAK
3678	31.5" OAK
3693	26" PECAN
3802	34" PECAN
3819	30.5" PECAN
3821	27.5" PECAN
3828	27.5" PECAN
3834	29.5" PECAN
3836	29" PECAN
3847	28.5" PECAN
3885	37.5" LIVE OAK

TREE TABLE	
POINT NO.	DESCRIPTION
3936	26.5" PECAN
3937	26" PECAN
3941	34.5" CEDAR ELM
3957	30.5" ELM
3972	26" PECAN
3976	29.5" PECAN
3987	27.5" PECAN
3993	26.5" PECAN
8007	30.5" PECAN
8015	30" PECAN
8221	27" LIVE OAK
8227	51.5" LIVE OAK
8253	28" ELM
8254	27.5" PECAN
8258	30.5" LIVE OAK

LINE TABLE		
LINE	BEARING	LENGTH
L1	S17°28'25"W	19.14'
L2	N60°11'00"E	46.80'
L3	S74°49'00"E	32.91'
L4	N15°11'00"E	23.00'
L5	S74°49'00"E	15.00'
L6	S15°11'00"W	23.00'
L7	S63°34'00"E	35.64'
L8	S07°19'00"E	17.61'
L9	S74°49'00"E	1.61'
L10	S15°11'00"W	15.00'
L11	N74°49'00"W	1.61'
L12	S15°11'00"W	6.24'
L13	N74°49'00"W	15.00'
L14	N15°11'00"E	6.24'
L15	N15°11'00"E	32.43'
L16	S74°49'00"E	33.47'
L17	N15°11'00"E	15.00'
L18	N74°49'00"W	33.47'
L19	S74°49'00"E	32.15'
L20	N15°11'00"E	15.00'

LINE TABLE		
LINE	BEARING	LENGTH
L21	N74°49'00"W	32.15'
L22	S15°11'00"W	40.38'
L23	S74°49'00"E	15.00'
L24	N15°11'00"E	40.38'
L25	N74°49'00"W	15.50'
L26	S15°11'00"W	15.00'
L27	S74°49'00"E	15.50'
L28	N74°49'00"W	67.55'
L29	N15°11'00"E	38.43'
L30	N74°49'00"W	15.00'
L31	S15°11'00"W	38.43'
L32	S74°49'00"E	27.50'
L33	N15°11'00"E	15.00'
L34	N74°49'00"W	27.50'
L35	N60°11'00"E	37.32'
L36	S63°34'00"E	27.95'
L37	S18°34'00"E	20.95'
L38	S71°26'00"W	18.32'
L39	S18°34'00"E	15.00'
L40	N71°26'00"E	18.32'

LINE TABLE		
LINE	BEARING	LENGTH
L41	S18°34'00"E	71.07'
L42	S07°19'00"E	13.15'
L43	N74°49'00"W	7.56'
L44	S15°11'00"W	15.00'
L45	S74°49'00"E	7.56'
L46	N15°11'00"E	22.99'
L47	N74°49'00"W	15.00'
L48	S15°11'00"W	22.99'
L49	S60°11'00"W	40.02'
L50	S74°49'00"E	7.01'
L51	N60°11'00"E	40.02'
L52	S74°49'00"E	17.19'
L53	S15°11'00"W	8.01'
L54	S74°49'00"E	15.00'
L55	N15°11'00"E	8.01'
L56	S15°11'00"W	8.01'
L57	S74°49'00"E	15.00'
L58	N15°11'00"E	8.01'
L59	N74°49'00"W	30.89'
L60	S15°11'00"W	15.00'

LINE TABLE		
LINE	BEARING	LENGTH
L61	S74°49'00"E	30.89'
L62	N74°49'00"W	30.91'
L63	S15°11'00"W	15.00'
L64	S74°49'00"E	30.91'
L65	S15°11'00"W	10.67'
L66	N74°49'00"W	30.89'
L67	S15°11'00"W	15.00'
L68	S74°49'00"E	30.89'
L69	S15°11'00"W	2.04'
L70	S60°11'00"W	49.87'
L71	N15°11'00"E	29.04'
L72	N74°49'00"W	15.00'
L73	S15°11'00"W	29.04'
L74	N15°11'00"E	19.04'
L75	N74°49'00"W	15.00'
L76	S15°11'00"W	19.04'
L77	S04°57'17"W	15.24'
L78	N18°34'00"W	15.29'
L79	S17°28'25"W	15.01'
L80	N15°11'00"E	15.00'

LINE TABLE		
LINE	BEARING	LENGTH
L81	N15°11'00"E	15.00'
L82	N15°11'00"E	15.00'

BENCHMARK LIST

BM #2 – "☒" CUT IN SOUTHEASTERLY EDGE OF CONCRETE OF THE NORTHBOUND IH-35 FRONTAGE ROAD, ±23.5' NORTHWEST OF A MAILBOX.
N: 10,224,602.34'
E: 3,138,083.91'
ELEV: 688.94'

BM #3 – "☒" CUT IN A CONCRETE MOW STRIP BEHIND A GUARDRAIL AT THE SOUTH END OF A BRIDGE ON THE NORTHBOUND IH-35 FRONTAGE ROAD, ±156.0' NORTH OF THE WESTERLY-MOST NORTHWEST PROPERTY CORNER OF SUBJECT TRACT.
N: 10,225,018.96'
E: 3,138,218.52'
ELEV: 686.78'

FINAL PLAT
FIDELIS GEORGETOWN
SHEET 2 OF 4

Westwood
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TBPLS FIRM REGISTRATION NO. LS-10074301

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER	CITY PROJECT NUMBER
ZNBM	ETB	1"=100'	JULY 31, 2023	4670-21.337	2022-25-PFP

FINAL PLAT - FIDELIS GEORGETOWN

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

FINAL PLAT SHEET 2 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
3
3 OF 32

2023-35-CON

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APPROVED: 08/02/2024

Doc # 202306059306

SUBDIVISION PLAT NOTES

1. Bearing basis for this survey is the State Plane Coordinate System, North American Datum of 1983 (2011), Texas Central Zone 4203. Distances and areas reflect the application of a combined scale factor of 1.00012 and therefore represent surface measurements.

2. Utility providers for this development are
   Water: Georgetown Utility Systems
   Wastewater/septic: Georgetown Utility Systems
   Electric: Pedernales Electric Cooperative, Inc.

3. All structures/obstructions are prohibited in drainage easements.

4. There are areas within the boundaries of this subdivision in the 100-year floodplain as defined by FIRM Map Number 48491C0285F, effective date of December 19, 2019 and 48491C0292, effective date of December 20, 2019.

5. In order to promote drainage away from a structure, the slab elevation should be built at least one-foot above the surrounding ground, and the ground should be graded away from the structure at a slope of 1/2" per foot for a distance of at least 10 feet.

6. All sedimentation, filtration, detention, and/or retention basins and related appurtenances shown shall be situated within a drainage easement or drainage lot. The owners, HOA, or assignees of the tracts upon which are located such easements, appurtenances, and detention facilities shall maintain same and be responsible for their maintenance, routine inspection, and upkeep.

7. Any Heritage Tree as noted on this plat are subject, in perpetuity, to the maintenance, care, pruning and removal requirements of the City of Georgetown. Approved removal does not require modification of the plat.

8. All individual lots containing Heritage Trees are configured and designed so that the lot is developable for the intended purpose without requiring removal of the Heritage Trees or exceeding the percentage of allowable disturbance within the Heritage Trees CRZ.

9. A 15-foot Public Utility Easement is dedicated along all street frontages within this plat.

10. The monuments of this plat have been rotated to the NAD 83/93 HARN - Texas Central Zone and NAVD 88.

11. Impervious Coverage Plat Notes – Non-Residential Lots:
    - The maximum impervious coverage per non-residential lot shall be pursuant to the UDC at the time of Site Plan application based on the zoning designation of the property.

12. The landowner assumes all risks associated with improvements located in the right-of-way, or road widening easements. By placing anything in the right-of-way or road widening easements, the landowner indemnifies and holds the City of Georgetown, Williamson County, their officers, agents and employees harmless from any liability owing to property defects or negligence not attributable to them and acknowledges that the improvements may be removed by the City and/or County and that the owner of the improvements will be responsible for the relocation and/or replacement of the improvements.

13. The building of all streets, roads, and other public thoroughfares and any bridges or culverts necessary to be constructed or placed is the responsibility of the owners of the tract of land covered by this plat in accordance with the plans and specifications prescribed by the City of Georgetown and/or Williamson County, Texas. Neither the City of Georgetown nor Williamson County assumes any obligation to build any of the streets, roads, or other public thoroughfares shown on this plat or of constructing any of the bridges or drainage improvements in connection therewith. Neither the City of Georgetown nor Williamson County assumes any responsibility for drainage ways or easements in the subdivision, other than those draining or protecting the road system and streets in their respective jurisdictions.

14. Neither the City of Georgetown nor Williamson County assumes any responsibility for the accuracy of representations by other parties in this plat. Floodplain data, in particular, may change depending on subsequent development. It is further understood that the owners of the tract of land covered by this plat must install at their own expense all traffic control devices and signage that may be required before the streets in the subdivision have finally been accepted for maintenance by the City and / or County.

15. Right-of-way easements for widening roadways or improving drainage shall be maintained by the landowner until road or drainage improvements are actually constructed on the property. The City and/or County have the right at any time to take possession of any road widening easement for construction, improvement, or maintenance of the adjacent road.

16. Unless otherwise noted herein, all easements dedicated to the City of Georgetown by this plat shall be EXCLUSIVE to the City of Georgetown, and Grantor covenants that Grantor and Grantor's heirs, successors, and assigns shall not convey any other easement, license, or conflicting right to use in any manner, the area (or any portion thereof) covereed by this grant.

17. All easements dedicated to the City of Georgetown by this plat additionally include the following rights:
    17.1. the right of the City to change the size of any facilities installed, maintained, or operated within the easement area;
    17.2. the right of the City to relocate any facilities within the easement area; and
    17.3. the right of the City to remove from the easement area all trees and parts thereof, or other obstructions, which endanger or may interfer with the efficiencry and maintenance of any facilities within the easement area.

18. This plat is subject to the provisions of the City of Georgetown Water Conservation Ordinance.

19. The subdivision subject to this application is subject to the Water Quality Regulations of the City of Georgetown.

20. Geologic Assessment, in accordance with the City of Georgetown Water Quality Regulations, was completed on Nov. 4, 2022. Any springs and streams as identified in the Geologic Assessment are shown herein.

21. State-owned riverbeds and beds of navigable streams in the public domain are held in trust for the public. There is hereby granted for the use and benefit of the public acontinuing access easement for the free and unobstructed use of the navigable river and the right of portage along its banks, across any portion of the Property between the mean high-water marks of the river in its natural state.

ADDITIONAL NOTES FOR NOISE AND AVIGATION EASEMENTS

1. There is hereby granted for the use and benefit of the public a continuing avigation easement for the free and unobstructed flight of aircraft (which term shall include any contrivance now or hereafter used for flight through the air) and the right of flight for the passage of aircraft in the air space above the surface of the Property, together with such noise and other effects as may be inherent in the operation of aircraft landing at, taking off from, or engaged in other flight activities at the Georgetown Municipal Airport.

2. Grantors do hereby grant and convey an easement for the Horizontal Zone, as that term is defined in Section 12.36 of the City of Georgetown Code of Ordinances and as shown on this plat, being further described as Horizontal Zones: The area beneath a horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of 10,000 feet radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by lines tangent to those arcs.

3. These easements shall be perpetual and shall be binding on Grantor and its assigns, heirs, and successors.

DESCRIPTION OF PROPERTY SURVEYED

56.730 ACRES of land in Georgetown, Williamson County, Texas, being out of the John Berry Survey ~~X~~, Abstract 51, said 56.730 acres being all of that tract of land described in the deed from Larry D. Kokel to Das Uber Montney, LLC dated March 31, 2021, and recorded in Williamson County Official Public Records as document number 2021053504, save and except the tract described as 11.438 acres in the deed to IH35 SH130, LP dated January 19, 2022, and recorded in Official Public Records as document number 2022009903.

BEGINNING at the northwest corner of the Tilson Subdivision (Plat Cabinet O Slide 263), said corner being marked with a rebar stake with a TXDOT aluminum cap, said stake being located in the southeast right-of-way line of Interstate Highway 35 (Volume 458, Page 460).

THENCE along the southeast right-of-way line of said Interstate 35 as follows:
- **N 15°11'00" E 500.52'** to a bend in said right-of-way line, said point found to be on the southerly side of the remains of a concrete right-of-way marker; and
- **N 17°28'25" E 290.31'** to the southwest corner of a 2.683 acre tract described in the Official Public Records as document number 2004086845.

THENCE along the south and east boundaries of said 2.683 acre tract as follows:
- **S 77°35'50" E 302.20'** to the southeast corner of said 2.683 acre tract, said corner being marked with a found ½" rebar; and
- **N 16°19'02" E 379.56'** to the northeast corner of said 2.683 acre tract, said corner being located S 16°19'02" W 60.79' of a rebar stake found with a TXDOT aluminum cap.

THENCE along the meanders of Berry Creek approximately as follows:
N 86°22'48" E 73.89'; N 37°17'13" E 58.92'; N 18°35'56" E 95.09'; N 31°59'19" E 24.53'; N 70°31'53" E 62.27'; S 74°28'06" E 133.23'; N 76°12'11" E 276.22'; S 89°26'04" E 163.67'; S 85°10'05" E 39.80'; S 57°12'13" E 36.92'; S 45°17'49" E 633.10'; S 36°08'30" E 96.82'; S 07°19'53" E 175.46'; S 18°45'01" E 207.53'; S 07°15'27" E 216.99'; S 05°08'37" E 187.37'; S 09°03'01" W 68.59' to the northeast corner of a 11.438 acre tract described in the Official Public Records as document number 2022009903.

THENCE along the north line of said 11.438 acre tract as follows:
- **N 89°27'24" W 106.22'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 79°45'41" W 124.24'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 86°06'30" W 145.89'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 77°59'09" W 94.61'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 62°58'46" W 124.40'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 66°28'56" W 265.47'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 82°01'08" W 187.35'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap;
- **S 81°06'08" W 140.44'** to a corner of said tract marked with a ½" rebar found with a Forest Survey plastic identifier cap; and
- **N 77°02'45" W 684.16'** to the northeast corner of said Tilson Subdivision, said corner being marked with a found ½" rebar stake.

THENCE along the northerly boundary of said Tilson Subdivision as follows:
- **N 45°16'29" W 281.95'** to a corner of said subdivision marked with a found ½" rebar; and
- **N 72°38'57" W 83.74'** to the point of beginning, this tract having an area of 56.730 Acres (2,471,138 Square Feet).

FINAL PLAT
FIDELIS GEORGETOWN
SHEET 3 OF 4

Westwood
Phone (512) 485-0831 8701 N. Mopac Expy, Suite 320
Toll Free (888) 937-5150 Austin, TX 78759
WESTWOOD PROFESSIONAL SERVICES, INC.
WESTWOODPS.COM
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER	CITY PROJECT NUMBER
ZNBM	ETB	N/A	JULY 31, 2023	4670-21.337	2022-25-PFP

FINAL PLAT - FIDELIS GEORGETOWN

ZNMOORE
7/31/2023 8:26 AM
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Westwood
Phone (512) 485-0831 8701 N. Mopac Expy, Suite 320
Toll Free (888) 937-5150 Austin, TX 78759
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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

FINAL PLAT SHEET 3 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
4
4 OF 32

2023-35-CON

JFAURE
8/2/2024 11:29 AM
N:\039532.04\06 CAD\DWG\SITE DESIGN C3D\03_SHEET\039532.04_COVR.DWG

APPROVED: 08/02/2024

Doc # 20230065336

OWNER'S SIGNATURE BLOCK

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF Williamson {

That, DAS UBER MONTNEY, LLC, acting by DALE ILLIG, PRESIDENT, owner of an undivided interest in that certain 56.730 acres tract of land shown hereon and described in a deed recorded in Document No. 2021053504 the Official Public Records of Williamson County, Texas, do hereby state that there are no lien holders of the certain tract of land, do hereby certify there are no easement holders except as shown hereon and do hereby subdivide said tract as shown hereon; do hereby covenant to all restrictions listed herein, which shall run with the land; and do hereby dedicate to the City of Georgetown the streets, alleys, rights-of-way, easements and public places shown hereon for such public purposes as the City of Georgetown may deem appropriate. I hereby bind my heirs, successors, and assigns to warrant and forever defend such dedications, all and singular, to the City of Georgetown against every person whomsoever claiming or to claim the same or any part thereof. This subdivision is to be known as FIDELIS GEORGETOWN.

TO CERTIFY WHICH, WITNESS by my hand this 31st day of July, 2023.

DAS UBER MONTNEY, LLC.,
707 SOUTH ROCK STREET, SUITE 201
GEORGETOWN, TEXAS 78626

BY:
DALE ILLIG, PRESIDENT

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF Williamson {

This instrument was acknowledged before me on July 31, 2023 by Dale Illig, PRESIDENT, Das Uber Montney, LLC., a Texas Limited Liability Company.

Notary Public in and for the State of Texas

NOTARY PUBLIC STATE OF TEXAS
CARL ILLIG
Notary ID #129631763
My Commission Expires
November 19, 2025

My Commission expires on: November 19, 2025

OWNER'S SIGNATURE BLOCK

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF Williamson {

That, KOKEL LEGACY, LLC, acting by LARRY KOKEL, MANAGER, and DOROTHY KOKEL, MANAGER, owner of an undivided interest in that certain 56.730 acres tract of land shown hereon and described in a deed recorded in Document No. 2021053496 the Official Public Records of Williamson County, Texas, do hereby state that there are no lien holders of the certain tract of land, do hereby certify there are no easement holders except as shown hereon and do hereby subdivide said tract as shown hereon; do hereby covenant to all restrictions listed herein, which shall run with the land; and do hereby dedicate to the City of Georgetown the streets, alleys, rights-of-way, easements and public places shown hereon for such public purposes as the City of Georgetown may deem appropriate. I hereby bind my heirs, successors, and assigns to warrant and forever defend such dedications, all and singular, to the City of Georgetown against every person whomsoever claiming or to claim the same or any part thereof. This subdivision is to be known as FIDELIS GEORGETOWN.

TO CERTIFY WHICH, WITNESS by my hand this 31st day of July, 2023.

KOKEL LEGACY, LLC
404 WEST 9TH STREET, SUITE 201
GEORGETOWN, TEXAS 78626-5553

BY:
LARRY KOKEL, MANAGER

AND
DOROTHY KOKEL, MANAGER

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF Williamson {

This instrument was acknowledged before me on July 31, 2023 by Larry Kokel, Manager and Dorothy Kokel, Manager, on behalf of Kokel Legacy, LLC, a Texas Limited Liability Company.

GIVEN UNDER MY HAND AND SEAL of office this 31st day of July, 2023.

Notary Public in and for the State of Texas

NOTARY PUBLIC STATE OF TEXAS
CARL ILLIG
Notary ID #129631763
My Commission Expires
November 19, 2025

My Commission expires on: November 19, 2025

SURVEYOR'S CERTIFICATE

STATE OF TEXAS

COUNTY TRAVIS

I, MICHAEL J. NEEDHAM, A REGISTERED PROFESSIONAL LAND SURVEYOR, LICENSED BY THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECTLY MADE FROM AN ACTUAL SURVEY MADE ON THE GROUND OF THE PROPERTY LEGALLY DESCRIBED HEREON, AND THAT THERE ARE NO APPARENT DISCREPANCIES, CONFLICTS, OVERLAPPING OF IMPROVEMENTS, VISIBLE UTILITY LINES OR ROADS IN PLACE, EXCEPT AS SHOWN ON THE ACCOMPANYING PLAT, AND THAT THE CORNER MONUMENTS SHOWN THEREON WERE PROPERLY PLACED UNDER MY SUPERVISION IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF THE CITY OF GEORGETOWN, TEXAS.

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL AT AUSTIN, TEXAS THIS 31ST DAY OF JULY, 2023

MICHAEL J. NEEDHAM
REGISTERED PROFESSIONAL LAND SURVEYOR
NO. 5183 STATE OF TEXAS

STATE OF TEXAS
REGISTERED
Michael Jack Needham
5183
PROFESSIONAL
LAND SURVEYOR

ENGINEER'S CERTIFICATE

STATE OF TEXAS

COUNTY TRAVIS

I, HOLLIS A. SCHEFFLER, REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, DO HEREBY CERTIFY THAT THIS SUBDIVISION IS IN THE EDWARDS AQUIFER RECHARGE ZONE AND IS ENCROACHED BY ZONE A FLOOD AREA, AS DENOTED HEREIN AND AS DEFINED BY FEDERAL EMERGENCY MANAGEMENT ADMINISTRATION FLOOD HAZARD BOUNDARY MAP, COMMUNITY PANEL NUMBER 48491C0291F , EFFECTIVE DATE DECEMBER 20, 2019 AND THAT EACH LOT CONFORMS TO THE CITY OF GEORGETOWN REGULATIONS.

THE FULLY DEVELOPED, CONCENTRATED STORMWATER RUNOFF RESULTING FROM THE ONE HUNDRED (100) YEAR FREQUENCY STORM IS CONTAINED WITHIN THE DRAINAGE EASEMENT SHOWN AND/OR PUBLIC RIGHTS-OF-WAY DEDICATED BY THIS PLAT.

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL AT AUSTIN, TEXAS THIS 31ST DAY OF JULY, 2023

HOLLIS A. SCHEFFLER
REGISTERED PROFESSIONAL ENGINEER
NO. 136049 STATE OF TEXAS

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

7/31/23

CITY FLOODPLAIN COORDINATOR

Based upon the above representations of the Engineer or Surveyor whose seal is affixed hereto, and after a review of the plat as represented by the said Engineer or Surveyor, I find that this plat complies with the requirements of Chapter 15.44, Flood Damage Prevention, of the Georgetown Municipal Code. This certification is made solely upon such representations and should not be relied upon for verifications of the facts alleged. The City of Georgetown disclaims any responsibility to any member of the public or independent verifications of the representation, factual or otherwise, contained in this plat and the documents associated with it.

Wesley Wright, P.E., CFM, Floodplain Coordinator
City of Georgetown

Date 08/04/2023

PLANNING AND ZONING COMMISSION

This subdivision to be known as FIDELIS GEORGETOWN has been accepted and approved for filing of record with the County Clerk of Williamson County, Texas, according to the minutes of the meeting of the Georgetown Planning and Zoning Commission of the 18 day of July, 2023, A.D.

R. Travis Perthuis, Chairman — Date 8/1/2023

Steve Dickey, Secretary — Date 8/1/2023

PLANNING DIRECTOR

I, Sofia Nelson, Planning Director of the City of Georgetown, Texas, do hereby certify this plat is approved for filing of record with the County Clerk of Williamson County, Texas.

For Sofia Nelson, Planning Director
Travis Baird, Assistant Planning Director

Date 08/3/2023

COUNTY CLERK

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON {

I, Nancy Rister, Clerk of the County Court of said County, do hereby certify that the foregoing instrument in writing, with its certificate of authentication was filed for record in my office on the 3rd day of August, 2023, A.D., at 12:40 o'clock P.M., and duly recorded this the 8th day of August, 2023, A.D., at 12:22 o'clock, P.M., in the Official Public Records of said County in Document No. 2023065336.

TO CERTIFY WHICH, WITNESS my hand and seal at the County Court of said County, at my office in Georgetown, Texas, the date last shown above written.

Nancy Rister, Clerk
County Court of Williamson County, Texas

By: Diana Lara, Deputy

COUNTY COURT
WILLIAMSON COUNTY, TEXAS

FINAL PLAT
FIDELIS GEORGETOWN
SHEET 4 OF 4

Westwood
Phone (512) 485-0831 8701 N. Mopac Expy, Suite 320
Toll Free (888) 937-5150 Austin, TX 78759
WESTWOOD PROFESSIONAL SERVICES, INC.
WESTWOODPS.COM
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER	CITY PROJECT NUMBER
ZNBM	ETB	N/A	JULY 31, 2023	4670-21.337	2022-25-PFP

FINAL PLAT - FIDELIS GEORGETOWN

ZNMOORE
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JFAURE
8/2/2024 11:29 AM
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westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

FINAL PLAT SHEET 4 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
5
5 OF 32

2023-35-CON

APPROVED: 08/02/2024

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER POLLUTION ABATEMENT PLAN GENERAL CONSTRUCTION NOTES

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

3. IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4. NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.

5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.

7. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN
TCEQ-0592 (REV. JULY 15, 2015) PAGE 2 OF 2
WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING
LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
- THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
- THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
- THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY ORGANIZED SEWAGE COLLECTION SYSTEM GENERAL CONSTRUCTION NOTES

1. THIS ORGANIZED SEWAGE COLLECTION SYSTEM (SCS) MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) EDWARDS AQUIFER RULES AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROPOSED REGULATED PROJECT
MUST BE PROVIDED WITH COPIES OF THE SCS PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS MUST BE REQUIRED TO KEEP ON-SITE COPIES OF THE PLAN AND THE APPROVAL LETTER.
3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
4. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED SCS APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF AN SCS APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.
5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
6. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERED. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING AND THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE
TCEQ-0596 (REV. JULY 15, 2015) PAGE 2 OF 6
EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY WHILE MAINTAINING THE STRUCTURAL INTEGRITY OF THE LINE.
7. SEWER LINES LOCATED WITHIN OR CROSSING THE 5-YEAR FLOODPLAIN OF A DRAINAGE WAY WILL BE PROTECTED
FROM INUNDATION AND STREAM VELOCITIES WHICH COULD CAUSE EROSION AND SCOURING OF BACKFILL. THE TRENCH MUST BE CAPPED WITH CONCRETE TO PREVENT SCOURING OF BACKFILL, OR THE SEWER LINES MUST BE ENCASED IN CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES.
8. BLASTING PROCEDURES FOR PROTECTION OF EXISTING SEWER LINES AND OTHER UTILITIES WILL BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION CRITERIA. SAND IS NOT ALLOWED AS BEDDING OR BACKFILL IN TRENCHES THAT HAVE BEEN BLASTED. IF ANY EXISTING SEWER LINES ARE DAMAGED, THE LINES MUST BE REPAIRED AND RETESTED.
9. ALL MANHOLES CONSTRUCTED OR REHABILITATED ON THIS PROJECT MUST HAVE WATERTIGHT SIZE ON SIZE RESILIENT CONNECTORS ALLOWING FOR DIFFERENTIAL SETTLEMENT. IF MANHOLES ARE CONSTRUCTED WITHIN THE 100-YEAR FLOODPLAIN, THE COVER MUST HAVE A GASKET AND BE BOLTED TO THE RING. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE OR FOR MORE THAN 1500 FEET, ALTERNATE MEANS OF VENTING WILL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE.
THE DIAMETER OF THE MANHOLES MUST BE A MINIMUM OF FOUR FEET AND THE MANHOLE FOR ENTRY MUST HAVE A MINIMUM CLEAR OPENING DIAMETER OF 30 INCHES. THESE DIMENSIONS AND OTHER DETAILS SHOWING COMPLIANCE WITH THE COMMISSION'S RULES CONCERNING MANHOLES AND SEWER LINE/MANHOLE INVERTS DESCRIBED IN 30 TAC §217.55 ARE INCLUDED ON PLAN SHEET __ OF __.
IT IS SUGGESTED THAT ENTRANCE INTO MANHOLES IN EXCESS OF FOUR FEET DEEP BE ACCOMPLISHED BY MEANS OF A PORTABLE LADDER. THE INCLUSION OF STEPS IN A MANHOLE IS PROHIBITED.
10. WHERE WATER LINES AND NEW SEWER LINE ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE
FEET (I.E., WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC §217.53(D) (PIPE DESIGN) AND 30 TAC §290.44(E) (WATER DISTRIBUTION).
11. WHERE SEWERS LINES DEVIATE FROM STRAIGHT ALIGNMENT AND UNIFORM GRADE ALL CURVATURE OF SEWER PIPE MUST BE ACHIEVED BY THE FOLLOWING PROCEDURE WHICH IS RECOMMENDED BY THE PIPE MANUFACTURER:
IF PIPE FLEXURE IS PROPOSED, THE FOLLOWING METHOD OF PREVENTING DEFLECTION OF THE JOINT MUST BE:
_____
SPECIFIC CARE MUST BE TAKEN TO ENSURE THAT THE JOINT IS PLACED IN THE CENTER OF THE TRENCH AND PROPERLY BEDDED IN ACCORDANCE WITH 30 TAC §217.54.

12. TRENCHING, BEDDING AND BACKFILL MUST CONFORM WITH 30 TAC §217.54. THE BEDDING AND BACKFILL FOR FLEXIBLE PIPE MUST COMPLY WITH THE STANDARDS OF ASTM D-2321, CLASSES IA, IB, II OR III.
RIGID PIPE BEDDING MUST COMPLY WITH THE REQUIREMENTS OF ASTM C 12 (ANSI A 106.2) CLASSES A, B OR C.
13. SEWER LINES MUST BE TESTED FROM MANHOLE TO MANHOLE. WHEN A NEW SEWER LINE IS CONNECTED TO AN EXISTING STUB OR CLEAN-OUT, IT MUST BE TESTED FROM EXISTING MANHOLE TO NEW MANHOLE. IF A STUB OR CLEAN-OUT IS USED AT THE END OF THE PROPOSED SEWER LINE, NO PRIVATE SERVICE ATTACHMENTS MAY BE CONNECTED BETWEEN THE LAST MANHOLE AND THE CLEANOUT UNLESS IT CAN BE CERTIFIED AS CONFORMING WITH THE PROVISIONS OF 30 TAC §213.5(C)(3)(E).
14. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH 30 TAC §217.57. THE ENGINEER MUST RETAIN COPIES OF ALL TEST RESULTS WHICH MUST BE MADE AVAILABLE TO THE EXECUTIVE DIRECTOR UPON REQUEST. THE ENGINEER MUST CERTIFY IN WRITING THAT ALL WASTEWATER LINES HAVE PASSED ALL REQUIRED TESTING TO THE APPROPRIATE REGIONAL OFFICE WITHIN 30 DAYS OF TEST COMPLETION AND PRIOR TO USE OF THE NEW COLLECTION SYSTEM. TESTING METHOD WILL BE:
(A) FOR A COLLECTION SYSTEM PIPE THAT WILL TRANSPORT WASTEWATER BY GRAVITY FLOW, THE DESIGN MUST SPECIFY AN INFILTRATION AND EXFILTRATION TEST OR A LOW-PRESSURE AIR TEST. A TEST MUST CONFORM TO THE FOLLOWING REQUIREMENTS:
(1) LOW PRESSURE AIR TEST.
(A) A LOW PRESSURE AIR TEST MUST FOLLOW THE PROCEDURES DESCRIBED IN AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C-828, ASTM C924, OR ASTM F-1417 OR OTHER PROCEDURE APPROVED BY THE EXECUTIVE DIRECTOR, EXCEPT AS TO TESTING TIMES AS REQUIRED IN TABLE C.3 IN SUBPARAGRAPH (C) OF THIS PARAGRAPH OR EQUATION C.3 IN SUBPARAGRAPH (B)(II) OF THIS PARAGRAPH.
(B) FOR SECTIONS OF COLLECTION SYSTEM PIPE LESS THAN 36 INCH AVERAGE INSIDE DIAMETER, THE FOLLOWING PROCEDURE MUST APPLY, UNLESS A PIPE IS TO BE TESTED AS REQUIRED BY PARAGRAPH (2) OF THIS SUBSECTION.
(I) A PIPE MUST BE PRESSURIZED TO 3.5 POUNDS PER SQUARE INCH (PSI) GREATER THAN THE PRESSURE EXERTED BY GROUNDWATER ABOVE THE PIPE.
(II) ONCE THE PRESSURE IS STABILIZED, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 PSI GAUGE TO 2.5 PSI GAUGE IS COMPUTED FROM THE FOLLOWING EQUATION:
EQUATION C.3

$$T = \frac{0.085 \times D \times K}{Q}$$

WHERE,
T = TIME FOR PRESSURE TO DROP 1.0 POUND PER SQUARE INCH GAUGE IN SECONDS
K = 0.000419 X D X L, BUT NOT LESS THAN 1.0
D = AVERAGE INSIDE PIPE DIAMETER IN INCHES
L = LENGTH OF LINE OF SAME SIZE BEING TESTED, IN FEET
Q = RATE OF LOSS, 0.0015 CUBIC FEET PER MINUTE PER SQUARE FOOT INTERNAL SURFACE
(C) SINCE A K VALUE OF LESS THAN 1.0 MAY NOT BE USED, THE MINIMUM TESTING TIME FOR EACH PIPE DIAMETER IS SHOWN IN THE FOLLOWING TABLE C.3:

PIPE DIAMETER(INCHES)	MINIMUM TIME (SECONDS)	MAXIMUM LENGTH FOR MINIMUM TIME (FEET)	TIME FOR LONGER LENGTH (SECONDS/FOOT)
6	340	398	0.855
8	454	298	1.520
10	467	239	2.374
12	680	199	3.419
15	850	159	5.342
19	1020	133	7.693
21	1190	114	10.471
14	1360	100	13.676
17	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

(D) AN OWNER MAY STOP A TEST IF NO PRESSURE LOSS HAS OCCURRED DURING THE FIRST 25% OF THE CALCULATED TESTING TIME.
(E) IF ANY PRESSURE LOSS OR LEAKAGE HAS OCCURRED DURING THE FIRST 25% OF A TESTING PERIOD, THEN THE TEST MUST CONTINUE FOR THE ENTIRE TEST DURATION AS OUTLINED ABOVE OR UNTIL FAILURE.
(F) WASTEWATER COLLECTION SYSTEM PIPES WITH A 27 INCH OR LARGER AVERAGE INSIDE DIAMETER MAY BE AIR TESTED AT EACH JOINT INSTEAD OF FOLLOWING THE PROCEDURE OUTLINED IN THIS SECTION.
(G) A TESTING PROCEDURE FOR PIPE WITH AN INSIDE DIAMETER GREATER THAN 33 INCHES MUST BE APPROVED BY THE EXECUTIVE DIRECTOR.
(2) INFILTRATION/EXFILTRATION TEST.
(A) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF 2.0 FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE.
(B) AN OWNER SHALL USE AN INFILTRATION TEST IN LIEU OF AN EXFILTRATION TEST WHEN PIPES ARE INSTALLED BELOW THE GROUNDWATER LEVEL.
(C) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE, OR AT LEAST TWO FEET ABOVE EXISTING GROUNDWATER LEVEL, WHICHEVER IS GREATER.
(D) FOR CONSTRUCTION WITHIN A 25-YEAR FLOOD PLAIN, THE INFILTRATION OR EXFILTRATION MUST NOT EXCEED 10 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT THE SAME MINIMUM TEST HEAD AS IN SUBPARAGRAPH (C) OF THIS PARAGRAPH.
(E) IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, AN OWNER SHALL UNDERTAKE REMEDIAL ACTION IN ORDER TO REDUCE
TCEQ-0596 (REV. JULY 15, 2015) PAGE 5 OF 6
THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITHIN THE LIMITS SPECIFIED. AN OWNER SHALL RETEST A PIPE FOLLOWING A REMEDIATION ACTION.
(b) IF A GRAVITY COLLECTION PIPE IS COMPOSED OF FLEXIBLE PIPE, DEFLECTION TESTING IS ALSO REQUIRED. THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
(1) FOR A COLLECTION PIPE WITH INSIDE DIAMETER LESS THAN 27 INCHES, DEFLECTION MEASUREMENT REQUIRES A RIGID MANDREL.
(A) MANDREL SIZING.
(i) A RIGID MANDREL MUST HAVE AN OUTSIDE DIAMETER (OD) NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER (ID) OR AVERAGE ID OF A PIPE, AS SPECIFIED IN THE APPROPRIATE STANDARD BY THE ASTMS, AMERICAN WATER WORKS ASSOCIATION, UNI-BELL, OR AMERICAN NATIONAL STANDARDS INSTITUTE, OR ANY RELATED APPENDIX.
(ii) IF A MANDREL SIZING DIAMETER IS NOT SPECIFIED IN THE APPROPRIATE STANDARD, THE MANDREL MUST HAVE AN OD EQUAL TO 95% OF THE ID OF A PIPE. IN THIS CASE, THE ID OF THE PIPE, FOR THE PURPOSE OF DETERMINING THE OD OF THE MANDREL, MUST EQUAL BE THE AVERAGE OUTSIDE DIAMETER MINUS TWO MINIMUM WALL THICKNESSES FOR OD CONTROLLED PIPE AND THE AVERAGE INSIDE DIAMETER FOR ID CONTROLLED PIPE.
(iii) ALL DIMENSIONS MUST MEET THE APPROPRIATE STANDARD.
(B) MANDREL DESIGN.
(i) A RIGID MANDREL MUST BE CONSTRUCTED OF A METAL OR A RIGID PLASTIC MATERIAL THAT CAN WITHSTAND 200 PSI WITHOUT BEING DEFORMED.
(ii) A MANDREL MUST HAVE NINE OR MORE ODD NUMBER OF RUNNERS OR LEGS.
(iii) A BARREL SECTION LENGTH MUST EQUAL AT LEAST 75% OF THE INSIDE DIAMETER OF A PIPE.
(iv) EACH SIZE MANDREL MUST USE A SEPARATE PROVING RING.
(C) METHOD OPTIONS.
(i) AN ADJUSTABLE OR FLEXIBLE MANDREL IS PROHIBITED.
(ii) A TEST MAY NOT USE TELEVISION INSPECTION AS A SUBSTITUTE FOR A DEFLECTION TEST.
(iii) IF REQUESTED, THE EXECUTIVE DIRECTOR MAY APPROVE THE USE OF A DEFLECTOMETER OR A MANDREL WITH REMOVABLE LEGS OR RUNNERS ON A CASE-BY-CASE BASIS.
(2) FOR A GRAVITY COLLECTION SYSTEM PIPE WITH AN INSIDE DIAMETER 27 INCHES AND GREATER, OTHER TEST METHODS MAY BE USED TO DETERMINE VERTICAL DEFLECTION.
(3) A DEFLECTION TEST METHOD MUST BE ACCURATE TO WITHIN PLUS OR MINUS 0.2% DEFLECTION.
(4) AN OWNER SHALL NOT CONDUCT A DEFLECTION TEST UNTIL AT LEAST 30 DAYS AFTER THE FINAL BACKFILL.
(5) GRAVITY COLLECTION SYSTEM PIPE DEFLECTION MUST NOT EXCEED FIVE PERCENT (5%).
(6) IF A PIPE SECTION FAILS A DEFLECTION TEST, AN OWNER SHALL CORRECT THE PROBLEM AND CONDUCT A SECOND TEST AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
16. ALL MANHOLES MUST BE TESTED TO MEET OR EXCEED THE REQUIREMENTS OF 30 TAC §217.58.
(a) ALL MANHOLES MUST PASS A LEAKAGE TEST.
(b) AN OWNER SHALL TEST EACH MANHOLE (AFTER ASSEMBLY AND BACKFILLING) FOR LEAKAGE, SEPARATE AND INDEPENDENT OF THE COLLECTION SYSTEM PIPES, BY HYDROSTATIC EXFILTRATION TESTING, VACUUM TESTING, OR OTHER METHOD APPROVED BY THE EXECUTIVE DIRECTOR.
(4) HYDROSTATIC TESTING.
(A) THE MAXIMUM LEAKAGE FOR HYDROSTATIC TESTING OR ANY ALTERNATIVE TEST METHODS IS 0.025 GALLONS PER FOOT DIAMETER PER FOOT OF MANHOLE DEPTH PER HOUR.
(B) TO PERFORM A HYDROSTATIC EXFILTRATION TEST, AN OWNER SHALL SEAL ALL WASTEWATER PIPES COMING INTO A MANHOLE WITH AN INTERNAL PIPE PLUG, FILL THE MANHOLE WITH WATER, AND MAINTAIN THE TEST FOR AT LEAST ONE HOUR.
(C) A TEST FOR CONCRETE MANHOLES MAY USE A 24-HOUR WETTING PERIOD BEFORE TESTING TO ALLOW SATURATION OF THE CONCRETE.
(2) VACUUM TESTING.
(A) TO PERFORM A VACUUM TEST, AN OWNER SHALL PLUG ALL LIFT HOLES AND EXTERIOR JOINTS WITH A NON-SHRINK GROUT AND PLUG ALL PIPES ENTERING A MANHOLE.
(B) NO GROUT MUST BE PLACED IN HORIZONTAL JOINTS BEFORE TESTING.
(C) STUB-OUTS, MANHOLE BOOTS, AND PIPE PLUGS MUST BE SECURED TO PREVENT MOVEMENT WHILE A VACUUM IS DRAWN.
(D) AN OWNER SHALL USE A MINIMUM 60 INCH/LB TORQUE WRENCH TO TIGHTEN THE EXTERNAL CLAMPS THAT SECURE A TEST COVER TO THE TOP OF A MANHOLE.
(E) A TEST HEAD MUST BE PLACED AT THE INSIDE OF THE TOP OF A CONE SECTION, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
(F) THERE MUST BE A VACUUM OF 10 INCHES OF MERCURY INSIDE A MANHOLE TO PERFORM A VALID TEST.
(G) A TEST DOES NOT BEGIN UNTIL AFTER THE VACUUM PUMP IS OFF.
(H) A MANHOLE PASSES THE TEST IF AFTER 2.0 MINUTES AND WITH ALL VALVES CLOSED, THE VACUUM IS AT LEAST 9.0 INCHES OF MERCURY.
17. ALL PRIVATE SERVICE LATERALS MUST BE INSPECTED AND CERTIFIED IN ACCORDANCE WITH 30 TAC §213.5(C)(3)(I). AFTER INSTALLATION OF AND, PRIOR TO COVERING AND CONNECTING A PRIVATE SERVICELATERAL TO AN EXISTING ORGANIZED SEWAGE COLLECTION SYSTEM, A TEXAS LICENSED PROFESSIONAL ENGINEER, TEXAS REGISTERED SANITARIAN, OR APPROPRIATE CITY INSPECTOR MUST VISUALLY INSPECT THE PRIVATE SERVICE LATERAL AND THE CONNECTION TO THE SEWAGE COLLECTION SYSTEM, AND CERTIFY THAT IT IS CONSTRUCTED IN CONFORMITY WITH THE APPLICABLE PROVISIONS OF THIS SECTION. THE OWNER OF THE COLLECTION SYSTEM MUST MAINTAIN SUCH CERTIFICATIONS FOR FIVE YEARS AND FORWARD COPIES TO THE APPROPRIATE REGIONAL OFFICE UPON REQUEST. CONNECTIONS MAY ONLY BE MADE TO AN APPROVED SEWAGE COLLECTION SYSTEM.

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THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY LIFT STATION AND FORCE MAIN GENERAL CONSTRUCTION NOTES

THE FOLLOWING/LISTED "CONSTRUCTION NOTES" ARE INTENDED TO BE ADVISORY IN NATURE ONLY AND DO NOT CONSTITUTE AN APPROVAL OR CONDITIONAL APPROVAL BY THE EXECUTIVE DIRECTOR (ED), NOR DO THEY CONSTITUTE A COMPREHENSIVE LISTING OF RULES OR CONDITIONS TO BE FOLLOWED DURING CONSTRUCTION. FURTHER ACTIONS MAY BE REQUIRED TO ACHIEVE COMPLIANCE WITH TCEQ REGULATIONS FOUND IN TITLE 30, TEXAS ADMINISTRATIVE CODE (TAC), CHAPTERS 213 AND 217, AS WELL AS LOCAL ORDINANCES AND REGULATIONS PROVIDING FOR THE PROTECTION WATER QUALITY. ADDITIONAL, NOTHING CONTAINED IN THE FOLLOWING/LISTED "CONSTRUCTION NOTES" RESTRICTS THE POWERS OF THE ED, THE COMMISSION OR ANY THER GOVERNMENTAL ENTITY TO PREVENT, CORRECT, OR CURTAIN ACTIVITIES THAT RESULT OR MAY RESULT IN POLLUTION OF THE EDWARDS AQUIFER OR HYDROLOGICALLY CONNECTED SURFACE WATERS. THE HOLDER OF ANY EDWARDS AQUIFER PROTECTION PLAN CONTAINING "CONSTRUCTION NOTES" IS STILL RESPONSIBLE FOR COMPLIANCE WITH TITLE 30, TAC, CHAPTERS 213 OR ANY OTHER APPLICABLE TCEQ REGULATION, AS WELL AS ALL CONDITIONS OF AN EDWARDS AQUIFER PROTECTION PLAN THOUGH ALL PHASES OF PLAN IMPLEMENTATION. FAILURE TO COMPLY WITH ANY CONDITION OF THE ED'S APPROVAL, WHETHER OR NOT IN CONTRADICTION OF ANY "CONSTRUCTION NOTES," IS A VIOLATION OF TCEQ REGULATIONS AND ANY VIOLATION IS SUBJECT TO ADMINISTRATIVE RULES, ORDERS, AND PENALTIES AS PROVIDED UNDER TITLE 30, TAC §213.10 (RELATING TO ENFORCEMENT). SUCH VIOLATIONS MAY ALSO BE SUBJECT TO CIVIL PENALTIES AND INJUNCTION. THE FOLLOWINGLISTED "CONSTRUCTION NOTES" DO NOT REPRESENT AN APPROVAL EXCEPTION BY THE ED TO ANY PART OF THE TITLE 30 TAC, CHAPTERS 213 AND 217, OR ANY OTHER TCEQ APPLICABLE REGULATION.

1. THIS LIFT STATION AND/OR FORCE MAIN MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) EDWARDS AQUIFER RULES, AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.
2. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED LIFT STATION/FORCE MAIN (LSFM) SYSTEM APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF A LSFM SYSTEM APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.
3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
4. UPON COMPLETION OF ANY LIFT STATION EXCAVATION, GEOLOGIST MUST CERTIFY THAT THE EXCAVATION HAS BEEN INSPECTED FOR THE PRESENCE OF SENSITIVE FEATURES. THE CERTIFICATION MUST BE SIGNED, SEALED, AND DATED BY THE GEOLOGIST PREPARING THE CERTIFICATION. CERTIFICATION THAT THE EXCAVATION HAS BEEN INSPECTED MUST BE SUBMITTED TO THE APPROPRIATE REGIONAL OFFICE.
- THE NAME OF THE APPROVED PROJECT IF SENSITIVE FEATURE(S) ARE IDENTIFIED, ALL REGULATED ACTIVITIES NEAR A SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY AND MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY FROM THE LIFT STATION.
- CONSTRUCTION MAY CONTINUE IF THE GEOLOGIST CERTIFIES THAT NO SENSITIVE FEATURE OR FEATURES WERE PRESENT.
5. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERY. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING WITHIN TWO WORKING DAYS. THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL TH

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.

3. IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.

4. NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.

5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.

7. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN

WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING
LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
- THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
- THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
- THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
ORGANIZED SEWAGE COLLECTION SYSTEM
GENERAL CONSTRUCTION NOTES

1. THIS ORGANIZED SEWAGE COLLECTION SYSTEM (SCS) MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) EDWARDS AQUIFER RULES AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROPOSED REGULATED PROJECT
MUST BE PROVIDED WITH COPIES OF THE SCS PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS MUST BE REQUIRED TO KEEP ON-SITE COPIES OF THE PLAN AND THE APPROVAL LETTER.

3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

4. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED SCS APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF AN SCS APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.

5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERED. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING AND THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE

EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY WHILE MAINTAINING THE STRUCTURAL INTEGRITY OF THE LINE.

7. SEWER LINES LOCATED WITHIN OR CROSSING THE 5-YEAR FLOODPLAIN OF A DRAINAGE WAY WILL BE PROTECTED
FROM INUNDATION AND STREAM VELOCITIES WHICH COULD CAUSE EROSION AND SCOURING OF BACKFILL. THE TRENCH MUST BE CAPPED WITH CONCRETE TO PREVENT SCOURING OF BACKFILL, OR THE SEWER LINES MUST BE ENCASED IN CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES.

8. BLASTING PROCEDURES FOR PROTECTION OF EXISTING SEWER LINES AND OTHER UTILITIES WILL BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION CRITERIA. SAND IS NOT ALLOWED AS BEDDING OR BACKFILL IN TRENCHES THAT HAVE BEEN BLASTED. IF ANY EXISTING SEWER LINES ARE DAMAGED, THE LINES MUST BE REPAIRED AND RETESTED.

9. ALL MANHOLES CONSTRUCTED OR REHABILITATED ON THIS PROJECT MUST HAVE WATERTIGHT SIZE ON SIZE RESILIENT CONNECTORS ALLOWING FOR DIFFERENTIAL SETTLEMENT. IF MANHOLES ARE CONSTRUCTED WITHIN THE 100-YEAR FLOODPLAIN, THE COVER MUST HAVE A GASKET AND BE BOLTED TO THE RING. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE OR FOR MORE THAN 1500 FEET, ALTERNATE MEANS OF VENTING WILL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE.
THE DIAMETER OF THE MANHOLES MUST BE A MINIMUM OF FOUR FEET AND THE MANHOLE FOR ENTRY MUST HAVE A MINIMUM CLEAR OPENING DIAMETER OF 30 INCHES. THESE DIMENSIONS AND OTHER DETAILS SHOWING COMPLIANCE WITH THE COMMISSION'S RULES CONCERNING MANHOLES AND SEWER LINE/MANHOLE INVERTS DESCRIBED IN 30 TAC §217.55 ARE INCLUDED ON PLAN SHEET __ OF __.
IT IS SUGGESTED THAT ENTRANCE INTO MANHOLES IN EXCESS OF FOUR FEET DEEP BE ACCOMPLISHED BY MEANS OF A PORTABLE LADDER. THE INCLUSION OF STEPS IN A MANHOLE IS PROHIBITED.

10. WHERE WATER LINES AND NEW SEWER LINE ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE
FEET (I.E., WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC §217.53(D) (PIPE DESIGN) AND 30 TAC §290.44(E) (WATER DISTRIBUTION).

11. WHERE SEWERS LINES DEVIATE FROM STRAIGHT ALIGNMENT AND UNIFORM GRADE ALL CURVATURE OF SEWER PIPE MUST BE ACHIEVED BY THE FOLLOWING PROCEDURE WHICH IS RECOMMENDED BY THE PIPE MANUFACTURER: _____
IF PIPE FLEXURE IS PROPOSED, THE FOLLOWING METHOD OF PREVENTING DEFLECTION OF THE JOINT MUST BE: _____
SPECIFIC CARE MUST BE TAKEN TO ENSURE THAT THE JOINT IS PLACED IN THE CENTER OF THE TRENCH AND PROPERLY BEDDED IN ACCORDANCE WITH 30 TAC §217.54.

12. TRENCHING, BEDDING AND BACKFILL MUST CONFORM WITH 30 TAC §217.54. THE BEDDING AND BACKFILL FOR FLEXIBLE PIPE MUST COMPLY WITH THE STANDARDS OF ASTM D-2321, CLASSES IA, IB, II OR III. RIGID PIPE BEDDING MUST COMPLY WITH THE REQUIREMENTS OF ASTM C 12 (ANSI A 106.2) CLASSES A, B OR C.

13. SEWER LINES MUST BE TESTED FROM MANHOLE TO MANHOLE. WHEN A NEW SEWER LINE IS CONNECTED TO AN EXISTING STUB OR CLEAN-OUT, IT MUST BE TESTED FROM EXISTING MANHOLE TO NEW MANHOLE. IF A STUB OR CLEAN-OUT IS USED AT THE END OF THE PROPOSED SEWER LINE, NO PRIVATE SERVICE ATTACHMENTS MAY BE CONNECTED BETWEEN THE LAST MANHOLE AND THE CLEANOUT UNLESS IT CAN BE CERTIFIED AS CONFORMING WITH THE PROVISIONS OF 30 TAC §213.5(C)(3)(E).

14. ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH 30 TAC §217.57. THE ENGINEER MUST RETAIN COPIES OF ALL TEST RESULTS WHICH MUST BE MADE AVAILABLE TO THE EXECUTIVE DIRECTOR UPON REQUEST. THE ENGINEER MUST CERTIFY IN WRITING THAT ALL WASTEWATER LINES HAVE PASSED ALL REQUIRED TESTING TO THE APPROPRIATE REGIONAL OFFICE WITHIN 30 DAYS OF TEST COMPLETION AND PRIOR TO USE OF THE NEW COLLECTION SYSTEM. TESTING METHOD WILL BE:
(A) FOR A COLLECTION SYSTEM PIPE THAT WILL TRANSPORT WASTEWATER BY GRAVITY FLOW, THE DESIGN MUST SPECIFY AN INFILTRATION AND EXFILTRATION TEST OR A LOW-PRESSURE AIR TEST. A TEST MUST CONFORM TO THE FOLLOWING REQUIREMENTS:
(1) LOW PRESSURE AIR TEST.
(A) A LOW PRESSURE AIR TEST MUST FOLLOW THE PROCEDURES DESCRIBED IN AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C-828, ASTM C924, OR ASTM F-1417 OR OTHER PROCEDURE APPROVED BY THE EXECUTIVE DIRECTOR, EXCEPT AS TO TESTING TIMES AS REQUIRED IN TABLE C.3 IN SUBPARAGRAPH (C) OF THIS PARAGRAPH OR EQUATION C.3 IN SUBPARAGRAPH (B)(II) OF THIS PARAGRAPH.
(B) FOR SECTIONS OF COLLECTION SYSTEM PIPE LESS THAN 36 INCH AVERAGE INSIDE DIAMETER, THE FOLLOWING PROCEDURE MUST APPLY, UNLESS A PIPE IS TO BE TESTED AS REQUIRED BY PARAGRAPH (2) OF THIS SUBSECTION.
(I) A PIPE MUST BE PRESSURIZED TO 3.5 POUNDS PER SQUARE INCH (PSI) GREATER THAN THE PRESSURE EXERTED BY GROUNDWATER ABOVE THE PIPE.
(II) ONCE THE PRESSURE IS STABILIZED, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 PSI GAUGE TO 2.5 PSI GAUGE IS COMPUTED FROM THE FOLLOWING EQUATION:
EQUATION C.3

$$T = \frac{0.085 \cdot D \cdot K}{Q}$$

WHERE:
T = TIME FOR PRESSURE TO DROP 1.0 POUND PER SQUARE INCH GAUGE IN SECONDS
K = 0.000419 X D X L, BUT NOT LESS THAN 1.0
D = AVERAGE INSIDE PIPE DIAMETER IN INCHES
L = LENGTH OF LINE OF SAME SIZE BEING TESTED, IN FEET
Q = RATE OF LOSS, 0.0015 CUBIC FEET PER MINUTE PER SQUARE FOOT INTERNAL SURFACE
(C) SINCE A K VALUE OF LESS THAN 1.0 MAY NOT BE USED, THE MINIMUM TESTING TIME FOR EACH PIPE DIAMETER IS SHOWN IN THE FOLLOWING TABLE C.3:

PIPE DIAMETER(INCHES)	MINIMUM TIME (SECONDS)	MAXIMUM LENGTH FOR MINIMUM TIME (FEET)	TIME FOR LONGER LENGTH (SECONDS/FOOT)
6	340	398	0.855
8	454	298	1.520
10	467	239	2.374
12	680	199	3.419
15	850	159	5.342
19	1020	133	7.693
21	1190	114	10.471
14	1360	100	13.676
17	1530	88	17.309
30	1700	80	21.369
33	1870	72	25.856

(D) AN OWNER MAY STOP A TEST IF NO PRESSURE LOSS HAS OCCURRED DURING THE FIRST 25% OF THE CALCULATED TESTING TIME.
(E) IF ANY PRESSURE LOSS OR LEAKAGE HAS OCCURRED DURING THE FIRST 25% OF A TESTING PERIOD, THEN THE TEST MUST CONTINUE FOR THE ENTIRE TEST DURATION AS OUTLINED ABOVE OR UNTIL FAILURE.
(F) WASTEWATER COLLECTION SYSTEM PIPES WITH A 27 INCH OR LARGER AVERAGE INSIDE DIAMETER MAY BE AIR TESTED AT EACH JOINT INSTEAD OF FOLLOWING THE PROCEDURE OUTLINED IN THIS SECTION.
(G) A TESTING PROCEDURE FOR PIPE WITH AN INSIDE DIAMETER GREATER THAN 33 INCHES MUST BE APPROVED BY THE EXECUTIVE DIRECTOR.
(2) INFILTRATION/EXFILTRATION TEST.
(A) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF 2.0 FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE.
(B) AN OWNER SHALL USE AN INFILTRATION TEST IN LIEU OF AN EXFILTRATION TEST WHEN PIPES ARE INSTALLED BELOW THE GROUNDWATER LEVEL.
(C) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE, OR AT LEAST TWO FEET ABOVE EXISTING GROUNDWATER LEVEL, WHICHEVER IS GREATER.
(D) FOR CONSTRUCTION WITHIN A 25-YEAR FLOOD PLAIN, THE INFILTRATION OR EXFILTRATION MUST NOT EXCEED 10 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT THE SAME MINIMUM TEST HEAD AS IN SUBPARAGRAPH (C) OF THIS PARAGRAPH.
(E) IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, AN OWNER SHALL UNDERTAKE REMEDIAL ACTION IN ORDER TO REDUCE

THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITHIN THE LIMITS SPECIFIED. AN OWNER SHALL RETEST A PIPE FOLLOWING A REMEDIATION ACTION.
(b) IF A GRAVITY COLLECTION PIPE IS COMPOSED OF FLEXIBLE PIPE, DEFLECTION TESTING IS ALSO REQUIRED. THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
(1) FOR A COLLECTION PIPE WITH INSIDE DIAMETER LESS THAN 27 INCHES, DEFLECTION MEASUREMENT REQUIRES A RIGID MANDREL.
(A) MANDREL SIZING.
(i) A RIGID MANDREL MUST HAVE AN OUTSIDE DIAMETER (OD) NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER (ID) OR AVERAGE ID OF A PIPE, AS SPECIFIED IN THE APPROPRIATE STANDARD BY THE ASTMS, AMERICAN WATER WORKS ASSOCIATION, UNI-BELL, OR AMERICAN NATIONAL STANDARDS INSTITUTE, OR ANY RELATED APPENDIX.
(ii) IF A MANDREL SIZING DIAMETER IS NOT SPECIFIED IN THE APPROPRIATE STANDARD, THE MANDREL MUST HAVE AN OD EQUAL TO 95% OF THE ID OF A PIPE. IN THIS CASE, THE ID OF THE PIPE, FOR THE PURPOSE OF DETERMINING THE OD OF THE MANDREL, MUST EQUAL BE THE AVERAGE OUTSIDE DIAMETER MINUS TWO MINIMUM WALL THICKNESSES FOR OD CONTROLLED PIPE AND THE AVERAGE INSIDE DIAMETER FOR ID CONTROLLED PIPE.
(iii) ALL DIMENSIONS MUST MEET THE APPROPRIATE STANDARD.
(B) MANDREL DESIGN.
(i) A RIGID MANDREL MUST BE CONSTRUCTED OF A METAL OR A RIGID PLASTIC MATERIAL THAT CAN WITHSTAND 200 PSI WITHOUT BEING DEFORMED.
(ii) A MANDREL MUST HAVE NINE OR MORE ODD NUMBER OF RUNNERS OR LEGS.
(iii) A BARREL SECTION LENGTH MUST EQUAL AT LEAST 75% OF THE INSIDE DIAMETER OF A PIPE.
(iv) EACH SIZE MANDREL MUST USE A SEPARATE PROVING RING.
(C) METHOD OPTIONS.
(i) AN ADJUSTABLE OR FLEXIBLE MANDREL IS PROHIBITED.
(ii) A TEST MAY NOT USE TELEVISION INSPECTION AS A SUBSTITUTE FOR A DEFLECTION TEST.
(iii) IF REQUESTED, THE EXECUTIVE DIRECTOR MAY APPROVE THE USE OF A DEFLECTOMETER OR A MANDREL WITH REMOVABLE LEGS OR RUNNERS ON A CASE-BY-CASE BASIS.
(2) FOR A GRAVITY COLLECTION SYSTEM PIPE WITH AN INSIDE DIAMETER 27 INCHES AND GREATER, OTHER TEST METHODS MAY BE USED TO DETERMINE VERTICAL DEFLECTION.
(3) A DEFLECTION TEST METHOD MUST BE ACCURATE TO WITHIN PLUS OR MINUS 0.2% DEFLECTION.
(4) AN OWNER SHALL NOT CONDUCT A DEFLECTION TEST UNTIL AT LEAST 30 DAYS AFTER THE FINAL BACKFILL.
(5) GRAVITY COLLECTION SYSTEM PIPE DEFLECTION MUST NOT EXCEED FIVE PERCENT (5%).
(6) IF A PIPE SECTION FAILS A DEFLECTION TEST, AN OWNER SHALL CORRECT THE PROBLEM AND CONDUCT A SECOND TEST AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
16. ALL MANHOLES MUST BE TESTED TO MEET OR EXCEED THE REQUIREMENTS OF 30 TAC §217.58.
(a) ALL MANHOLES MUST PASS A LEAKAGE TEST.
(b) AN OWNER SHALL TEST EACH MANHOLE (AFTER ASSEMBLY AND BACKFILLING) FOR LEAKAGE, SEPARATE AND INDEPENDENT OF THE COLLECTION SYSTEM PIPES, BY HYDROSTATIC EXFILTRATION TESTING, VACUUM TESTING, OR OTHER METHOD APPROVED BY THE EXECUTIVE DIRECTOR.
(4) HYDROSTATIC TESTING.
(A) THE MAXIMUM LEAKAGE FOR HYDROSTATIC TESTING OR ANY ALTERNATIVE TEST METHODS IS 0.025 GALLONS PER FOOT DIAMETER PER FOOT OF MANHOLE DEPTH PER HOUR.
(B) TO PERFORM A HYDROSTATIC EXFILTRATION TEST, AN OWNER SHALL SEAL ALL WASTEWATER PIPES COMING INTO A MANHOLE WITH AN INTERNAL PIPE PLUG, FILL THE MANHOLE WITH WATER, AND MAINTAIN THE TEST FOR AT LEAST ONE HOUR.
(C) A TEST FOR CONCRETE MANHOLES MAY USE A 24-HOUR WETTING PERIOD BEFORE TESTING TO ALLOW SATURATION OF THE CONCRETE.
(2) VACUUM TESTING.
(A) TO PERFORM A VACUUM TEST, AN OWNER SHALL PLUG ALL LIFT HOLES AND EXTERIOR JOINTS WITH A NON-SHRINK GROUT AND PLUG ALL PIPES ENTERING A MANHOLE.
(B) NO GROUT MUST BE PLACED IN HORIZONTAL JOINTS BEFORE TESTING.
(C) STUB-OUTS, MANHOLE BOOTS, AND PIPE PLUGS MUST BE SECURED TO PREVENT MOVEMENT WHILE A VACUUM IS DRAWN.
(D) AN OWNER SHALL USE A MINIMUM 60 INCH/LB TORQUE WRENCH TO TIGHTEN THE EXTERNAL CLAMPS THAT SECURE A TEST COVER TO THE TOP OF A MANHOLE.
(E) A TEST HEAD MUST BE PLACED AT THE INSIDE OF THE TOP OF A CONE SECTION, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
(F) THERE MUST BE A VACUUM OF 10 INCHES OF MERCURY INSIDE A MANHOLE TO PERFORM A VALID TEST.
(G) A TEST DOES NOT BEGIN UNTIL AFTER THE VACUUM PUMP IS OFF.
(H) A MANHOLE PASSES THE TEST IF AFTER 2.0 MINUTES AND WITH ALL VALVES CLOSED, THE VACUUM IS AT LEAST 9.0 INCHES OF MERCURY.
17. ALL PRIVATE SERVICE LATERALS MUST BE INSPECTED AND CERTIFIED IN ACCORDANCE WITH 30 TAC §213.5(C)(3)(I). AFTER INSTALLATION OF AND, PRIOR TO COVERING AND CONNECTING A PRIVATE SERVICELATERAL TO AN EXISTING ORGANIZED SEWAGE COLLECTION SYSTEM, A TEXAS LICENSED PROFESSIONAL ENGINEER, TEXAS REGISTERED SANITARIAN, OR APPROPRIATE CITY INSPECTOR MUST VISUALLY INSPECT THE PRIVATE SERVICE LATERAL AND THE CONNECTION TO THE SEWAGE COLLECTION SYSTEM. AND CERTIFY IN WRITING THAT IT IS CONSTRUCTED IN CONFORMITY WITH THE APPLICABLE PROVISIONS OF THIS SECTION. THE OWNER OF THE COLLECTION SYSTEM MUST MAINTAIN SUCH CERTIFICATIONS FOR FIVE YEARS AND FORWARD COPIES TO THE APPROPRIATE REGIONAL OFFICE UPON REQUEST. CONNECTIONS MAY ONLY BE MADE TO AN APPROVED SEWAGE COLLECTION SYSTEM.

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12100 Park 35 Circle, Building A
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Fax (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
LIFT STATION AND FORCE MAIN
GENERAL CONSTRUCTION NOTES

THE FOLLOWING/LISTED "CONSTRUCTION NOTES" ARE INTENDED TO BE ADVISORY IN NATURE ONLY AND DO NOT CONSTITUTE AN APPROVAL OR CONDITIONAL APPROVAL BY THE EXECUTIVE DIRECTOR (ED), NOR DO THEY CONSTITUTE A COMPREHENSIVE LISTING OF RULES OR CONDITIONS TO BE FOLLOWED DURING CONSTRUCTION. FURTHER ACTIONS MAY BE REQUIRED TO ACHIEVE COMPLIANCE WITH TCEQ REGULATIONS FOUND IN TITLE 30, TEXAS ADMINISTRATIVE CODE (TAC), CHAPTERS 213 AND 217, AS WELL AS LOCAL ORDINANCES AND REGULATIONS PROVIDING FOR THE PROTECTION WATER QUALITY. ADDITIONAL, NOTHING CONTAINED IN THE FOLLOWING/LISTED "CONSTRUCTION NOTES" RESTRICTS THE POWERS OF THE ED, THE COMMISSION OR ANY THER GOVERNMENTAL ENTITY TO PREVENT, CORRECT, OR CURTAIN ACTIVITIES THAT RESULT OR MAY RESULT IN POLLUTION OF THE EDWARDS AQUIFER OR HYDROLOGICALLY CONNECTED SURFACE WATERS. THE HOLDER OF ANY EDWARDS AQUIFER PROTECTION PLAN CONTAINING "CONSTRUCTION NOTES" IS STILL RESPONSIBLE FOR COMPLIANCE WITH TITLE 30, TAC, CHAPTERS 213 OR ANY OTHER APPLICABLE TCEQ REGULATION, AS WELL AS ALL CONDITIONS OF AN EDWARDS AQUIFER PROTECTION PLAN THOUGH ALL PHASES OF PLAN IMPLEMENTATION. FAILURE TO COMPLY WITH ANY CONDITION OF THE ED'S APPROVAL, WHETHER OR NOT IN CONTRADICTION OF ANY "CONSTRUCTION NOTES," IS A VIOLATION OF TCEQ REGULATIONS AND ANY VIOLATION IS SUBJECT TO ADMINISTRATIVE RULES, ORDERS, AND PENALTIES AS PROVIDED UNDER TITLE 30, TAC §213.10 (RELATING TO ENFORCEMENT). SUCH VIOLATIONS MAY ALSO BE SUBJECT TO CIVIL PENALTIES AND INJUNCTION. THE FOLLOWING/LISTED "CONSTRUCTION NOTES" IN NO WAY REPRESENT AN APPROVAL EXCEPTION BY THE ED TO ANY PART OF THE TITLE 30 TAC, CHAPTERS 213 AND 217, OR ANY OTHER TCEQ APPLICABLE REGULATION.

1. THIS LIFT STATION AND/OR FORCE MAIN MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) EDWARDS AQUIFER RULES, AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.
2. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED LIFT STATION/FORCE MAIN (LSFM) SYSTEM APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF A LSFM SYSTEM APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.
3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
- THE NAME OF THE APPROVED PROJECT;
- THE ACTIVITY START DATE; AND
- THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
4. UPON COMPLETION OF ANY LIFT STATION EXCAVATION, GEOLOGIST MUST CERTIFY THAT THE EXCAVATION HAS BEEN INSPECTED FOR THE PRESENCE OF SENSITIVE FEATURES. THE CERTIFICATION MUST BE SIGNED, SEALED, AND DATED BY THE GEOLOGIST PREPARING THE CERTIFICATION. CERTIFICATION THAT THE EXCAVATION HAS BEEN INSPECTED MUST BE SUBMITTED TO THE APPROPRIATE REGIONAL OFFICE.
- THE NAME OF THE APPROVED PROJECT IF SENSITIVE FEATURE(S) ARE IDENTIFIED, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY AND MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY FROM THE LIFT STATION.
- CONSTRUCTION MAY CONTINUE IF THE GEOLOGIST CERTIFIES THAT NO SENSITIVE FEATURE OR FEATURES WERE PRESENT.
5. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERY. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING WITHIN TWO WORKING DAYS. THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SY

APPROVED: 08/02/2024

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Pipe Bursting of existing sanitary sewers.

1.02 UNIT PRICES

A. Measurement for installing replacement pipe using pipe bursting method is on a linear foot basis for installed pipe, measured from center line of upstream manhole to center line of downstream manhole. Final footage to be confirmed by Post-TV Survey.

B. Heavy mechanical cleaning of all line segments (to remove debris and grease), insertion or access pits, clamp installation, embedment (bedding, haunching and initial backfill), field quality control (testing), pipe connection at manhole, coating at manhole, grouting annular space, building up, shaping and reworking the manhole inverts and benches shall be incidental to installation of pipe bursting.

C. Excavations initially begun as an obstruction removal or point repair which the Contractor later decides to use as an insertion pit shall be considered as an insertion pit and not paid separately.

D. Trench safety systems, well pointing, backfill with cement-stabilized sand or bank sand, and other items associated with insertion pits and pipe bursting scope shall be incidental to installation of pipe bursting.

1.03 REFERENCES

A. ASTM D1248 – Polyethylene Plastics Molding and Extrusion Materials.

B. ASTM D2122 – Dimensions of Thermoplastic Pipe and Fittings, Determining.

C. ASTM D2412 – External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading, Determination of.

D. ASTM D3350 – Polyethylene Plastics Pipe and Fittings Materials.

E. ASTM F714 - Polyethylene (PE) Plastic Pipe (DR-PR) Based on Outside Diameter

1.04 DEFINITIONS

A. Pipe bursting: The pipe bursting process is defined as the construction of sanitary sewers by the insertion of a pipe within the bore of the existing pipe, enlarged by breaking and expanding the old pipe.

1.05 SYSTEM DESCRIPTION

A. The pipe bursting process involves replacement of existing gravity sewer pipe by installing new pipe material within the enlarged bore created by using a static, hydraulic, or pneumatic hammer “moling” device, suitably sized to break the existing sewer pipe or by using a modified boring “knife” with a flared plug that crushes the existing sewer pipe. Forward progress of the “mole” or the “knife” may be aided by hydraulic equipment or other apparatus. Replacement pipe is either pulled or pushed into the bore.

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1.06 QUALITY ASSURANCE

A. Pipe Acceptance: Provide pipe material which is homogenous without defects and manufactured to the standards and dimensions specified. Cause for rejection includes physical defects of the pipe, such as concentrated ridges, discoloration, excessive spot roughness, pitting, visible cracks, foreign inclusions, and varying wall thickness.

B. Coating Acceptance: Provide coating material per City of Georgetown specifications.

1.07 DELVIERY, STORAGE, AND HANDLING

A. Prevent injury or abrasion to pipe during loading, transportation, and unloading. Do not drop pipe from cars or trucks, nor allow pipe to roll down skids without proper restraining ropes. Use suitable pads, strips, skids, or blocks for each pipe during transportation and while awaiting installation in the field.

B. Pipe with cuts, gashes, nicks, abrasions, or any such physical damage which may have occurred during shipping, storage, or handling, which are deeper than 10 percent of the wall thickness shall not be used and shall be removed from the construction site.

C. Use wide belly band slings for lifting and moving pipe. Do not use bare chains in contact with pipe.

1.08 PERFORMANCE REQUIREMENTS

A. Maintain flow of sewage as specified in Section 01506 – Bypass Pumping.

B. Install pipe bursting according to this Section.

C. Grout annular space with non-shrink grout.

D. Shape manhole invert in accordance with City of Georgetown and TCEQ requirements.

E. Test lines in accordance with City of Georgetown and TCEQ requirements.

F. Televise lines in accordance with City of Georgetown and TCEQ requirements.

1.09 SUBMITTALS

A. Submit manufacturer’s product data with complete information on pipeline materials, physical properties, and dimensions pertinent to this job. Furnish a certificate of compliance with specifications for materials to be supplied.

B. Submit test reports prepared by an independent testing laboratory certifying that polyethylene pipe conforms to the requirements of ASTM D1248 and ASTM D3350.

C. Submit manufacturer’s product data on clamps.

D. Submit video tapes as required per City of Georgetown and TCEQ specifications.

Westwood

1.10 TESTING

A. The City may require, and Contractor will pay for any tests run on field samples following applicable ASTM specifications at an independent laboratory to verify the required physical properties and characteristics of supplied materials. Provide product samples as requested by the Engineer or City Inspector.

B. The Contractor shall pay for any tests required for pipe bursting or manhole coating to be accepted by the City.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Pipe systems shall be high density polyethylene only.

2.02 HIGH DENSITY POLYETHEYLENE PIPE AND FITTINGS

A. Provide High Density Polyethylene (HDPE) pipe, manufactured of solid wall, high density, high molecular weight, polyethylene compound conforming to ASTM D1248, Type III, Class B, Grade P-34, Category 5, with a PPI rating of PE 3408. Use polyethylene material with a minimum cell classification of 345434D or E (inner wall of light color) under ASTM D3350. A higher numbered cell classification limit which gives a desirable higher primary property, according to ASTM D3350, is also acceptable. Dimensions and workmanship shall be in accordance with ASTM F714 and ASTM D2122.

B. The maximum Standard Dimension Ratio (SDR), the ratio of outside diameter of pipe to wall thickness, is specified below. Select the SDR for the deeper of two (2) manholes in a particular pipeline segment.

DIPS Pipe Size	Nominal Outside Diameter (Inches)	Minimum Wall Thickness (Inches)		
		>5’ Deep	14’-20’ Deep	>20’ Deep
		SDR 21 (100 psi)	SDR 17 (100- psi)	SDR 13.5 (160 psi)
16	17.70	0.829	1.024	1.582

C. HDPE pipe required to have a minimum pipe stiffness of 46 psi for 12 inch through 48" diameter pipe and 115 psi for 8 inch through 10-inch diameters as required by TCEQ.

2.03 NEW PIPE SEAL AT MANHOLE

A. The annular space between new pipe and host sewer at manhole shall be sealed with oakum strips soaked in Scotchseal 5600 as manufactured by 3M Corporation or approved equal.

B. Grout mix shall be non-shrink grout.

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2.04 CLAMPS AND GASKETS

A. Clamps shall be stainless steel, including bolts and lugs as manufactured by JCM Industries, Type 108, or equal. Furnish full circle, universal clamp couplings with a minimum 3/16-inch-thick neoprene, grid-type gasket. Select clamps to fit outside diameter of pipe. Use minimum clamp (length) as specified in the following table:

Pipe (O.D.) (Inches)	Maximum (Length of Clamp) (Inches)
9.05	18
11.10 or greater	30

2.05 BEDDING MATERIAL

A. Provide bedding conforming to requirements of the City of Georgetown specifications.

PART 3 EXECUTION

3.01 OBSTRUCTION REMOVAL AND POINT REPAIR

A. Make point repairs and remove obstructions such as roots, rocks or other debris, prior to installing pipe. Debris shall be removed and legally disposed of in accordance with applicable jurisdiction.

3.02 BYPASS PUMPING

A. See Section 015060 – Bypass Pumping.

3.03 INSERTION OR ACCESS PITS

A. Locate pits so that the total number is minimized and footage of pipe installed in a single pull is maximized. Use excavations at point repair locations for insertion pits, where possible.

B. Before excavating, check with various utility companies and determine the location of utilities in the vicinity of the work area. For damage done to utilities, the resulting repair, temporary service, and other such costs shall be borne by the Contractor.

C. Perform excavation and backfill in accordance with requirements of City of Georgetown specifications.

D. Perform work in accordance with OSHA standards. Employ Trench Safety System for excavations requiring trench safety.

E. Install and operate necessary dewatering and surface water control measures, as necessary, in accordance with requirements of City of Georgetown and TCEQ requirements.

3.04 HIGH DENSITY POLYETHYLENE PIPE INSTALLATION

A. Joints:

1. Assemble and join sections of HDPE pipe on site above the ground. Make joints by heating and butt-fusion method in strict conformance with manufacturer’s instructions.

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2. Use operators who are experienced with the butt-fusion method for pipe jointing in the field. Operators should be trained in fusing polyethylene pipe with similar equipment using proper jigs and tools per standard procedures outlined by pipe manufacturer.

3. Form joints with a smooth, uniform double rolled back bead made while applying the proper melt, pressure, and alignment. Joints will be inspected by the Engineer and City Inspector before insertion.

B. Preparation: After completing insertion pit excavation, remove top of existing sanitary sewer line down to the spring line. Connect a power winch cable to the end of pipe by use of a suitable pulling head equal to the outside diameter of pipe. Secure pulling head to pipe and attach to power winch cable so that pipe can be satisfactorily fed and pulled through sanitary sewer main. Prevent ragged edges of existing pipe from scarring pipe. Refer to insertion procedures given in ASTM F585. Do not allow sand or other debris to enter the pipe.

C. Pulling Pipe:

1. The maximum length of continuous pipe which may be assembled above ground and pulled at any one (1) time is the length recommended by the manufacturer’s printed instructions.

2. Limit pulling force exerted on pipe to that indicated below for the appropriate outside diameter of the HDPE pipe. Provide a suitable pulling force measuring device connected to the winch or pulling mechanism.

HDPE Pipe O.D. (Inches)	Maximum Pulling Force (Tons)
8.625	4.0
10.75	7.5
14.0	10.5
16.0	12.0
18.0	21.5

D. Alternate Installation Techniques. Pushing the pipe as an insertion method, or a combination of pulling and pushing, may be used subject to Engineer’s approval. Avoid pipe buckling or dimpling by limiting the stroke of the pushing implement. Cut out and remove any portion damaged during insertion process.

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3.05 CLAMP INSTALLATION

A. Where excavations of pipe insertion are made between two (2) manholes, cut ends of the pipe smooth, square to its axis. Join pipes with appropriately sized stainless steel universal clamp couplings. Gap between ends of pipe shall be butted together with space between ends not exceeding one (1) inch.

B. Bedding shall be stabilized cement sand conforming to the requirements of the City of Georgetown.

3.06 FIELD QUALITY CONTROL

A. After pipe installation, perform the following tests:

1. Low pressure air test before has been sealed in place at the manholes, and before any service reconnections have been made to the pipe. Check integrity of joints that have been made and verify that pipe has not been damaged by inserting it into sanitary sewer.

2. Service lateral connection test; after all service laterals have been completed for a particular sewer section. Verify integrity of re-connections at points where they join the pipes and existing service lines by performing smoke test.

B. Testing for acceptance of pipe to conform to City of Georgetown and TCEQ specifications.

3.07 SEALING PIPE IN MANHOLE

A. Allow pipe to normalize to ambient temperatures as well as recover from imposed stretch before cutting to fit between manholes, sealing at manholes, and manhole invert shaping. Normalization usually takes at least 12 hours for polyethylene.

B. Cut pipe so that it extends four (4) inches into manhole. Make a smooth, vertical cut and slope area over top of exposed pipe using non-shrink grout.

C. Seal the annular space between pipe and sanitary sewer main at each manhole with a chemical seal and nonshrink grout. Place strips of oakum soaked in sealer in a band to form an effective water-tight gasket in the annular space between pipe and existing pipes in manhole. Make width of the sealing band a minimum of 12 inches or one-half (1/2) the diameter of pipe, whichever is greater.

D. Finish seal with a non-shrink grout placed around annular space from inside manhole. Apply grout in a band not less than six (6) inches wide.

E. Reshape and smooth the manhole invent as specified in City of Georgetown Specifications. Use approved manhole rehabilitation material to form a smooth transition with a reshaped invert and a raised manhole bench to eliminate sharp edges of pipe, concrete bench, and channeled invert. Build up and smooth invert of manhole to match flow line of new pipe.

3.08 POST-INSTALLATION TELEVISING OF COMPLETED WORK

A. Provide the Engineer and City Inspector with footage showing completed Work including condition of restored connections. Post-Installation televising is incidental to Contract.

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3.09 FINAL CLEANUP

A. Upon completion of installation work and testing, clean and restore project area affected by the Work to pre-construction condition or better.

B. Contractor responsible for watering re-seeded/re-sodded areas.

C. Contractor responsible for warranty work should restored area settle.

END OF SECTION

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

GENERAL NOTES SHEET 2 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER

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APPROVED: 08/02/2024

PART 1 GENERAL

1.01 DEFINITIONS

A. Bypass Pumping: Installation and operation of bulkheads, plugs, hoses, piping, and pumps required to maintain sanitary sewer flow and prevent backups and overflows.

1.02 SYSTEM DESCRIPTION

A. Provides continuous sanitary sewer service to users while maintenance or construction operations are in progress, by diverting flow around construction locations as required for the Work. Maintain sewer flow to prevent backup or overflow onto streets, yards and unpaved areas or into buildings, adjacent ditches, storm sewers, and waterways. Do not divert sewage outside of sanitary sewer system.

B. When pumps are operating, have a system monitor with automatic communication including an alarm system.

1.03 SUBMITTALS

A. Submit a Bypass Pumping Plan prior to installation for all sized pipes. Show location, number and size of pumps, number, location, size and type of hoses or rigid piping, and location of downstream discharge; and special features where pipes or hoses cross roadways, temporary trenches, support bridges.

B. Bypass Pumping Plan to meet requirements as indicated on drawings and all other items for a complete working system.

1.04 SCHEDULING

A. When the Contractor operates or maintains bypass pumping in construction areas, coordinate construction activities with the Engineer and City Inspector.

B. Cease operation of bypass pumping when approved by the Engineer and City Inspector.

PART 2 PRODUCTS

2.01 MATERIALS

A. Design piping, joints and accessories to withstand a minimum of required pumping flowrate and pressure.

B. Use self-priming or submersible pumps, with a working pressure gauge on the discharge. Pumps shall meet requirements of Jurisdiction and Owner Noise and Sound Level Regulations.

PART 3 EXECUTION

3.01 FIELD QUALITY CONTROL

A. During bypass pumping, do not allow sewage to leak, dump, or spill into or onto areas outside of existing sanitary sewer systems.

B. In the event of an accidental spill or overflow, immediately stop discharge and take action to

011100 1/2

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clean up and disinfect spill as required by the Texas Commission on Environmental Quality (TCEQ). Promptly notify the City Inspector and Engineer so required reporting can be made to the TCEQ.

3.02 CLEANING

A. When bypass pumping operations are complete, drain sewage within piping into sanitary sewers prior to disassembly.

END OF SECTION

011100 2/2

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BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

GENERAL NOTES SHEET 3 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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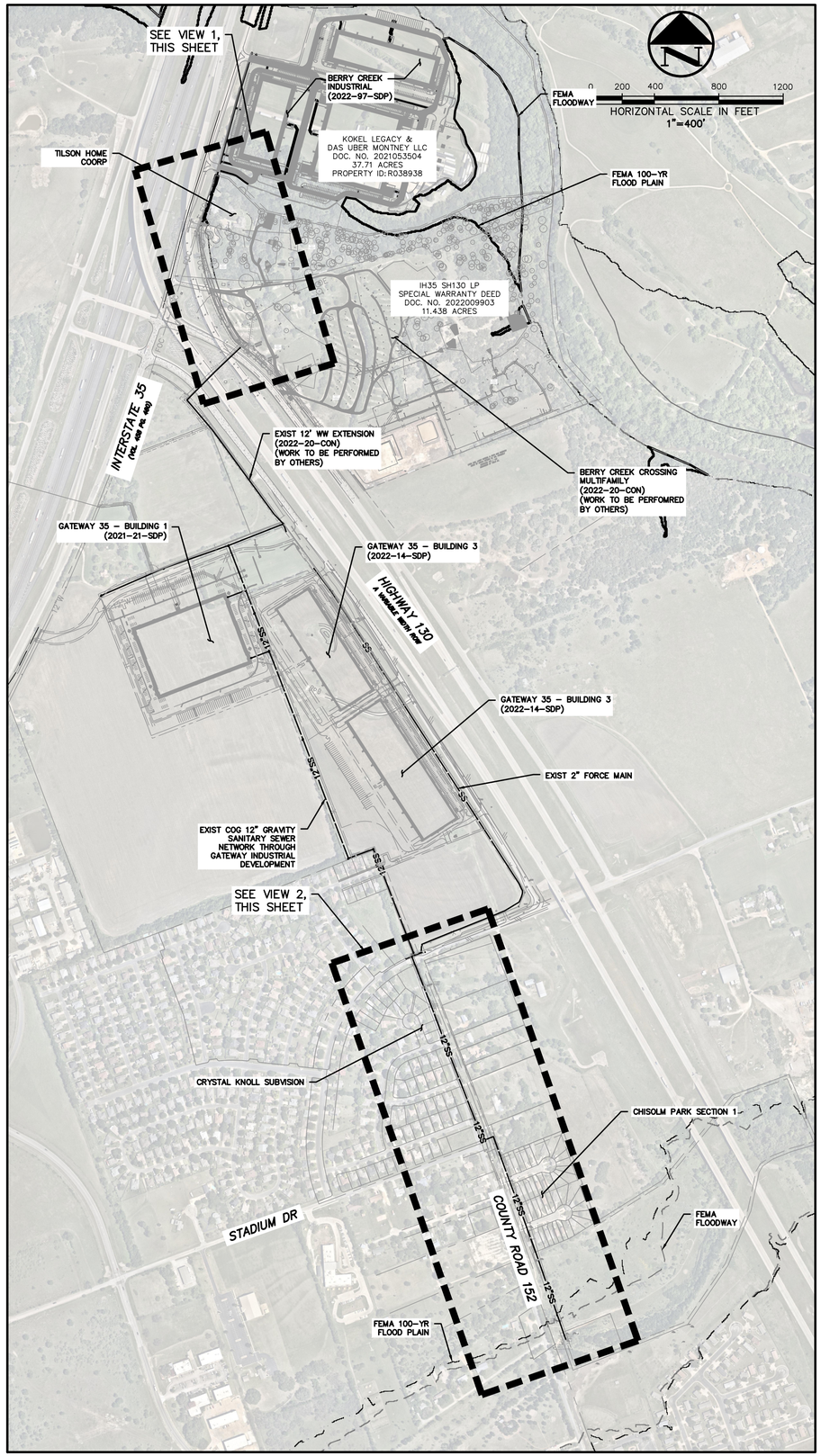

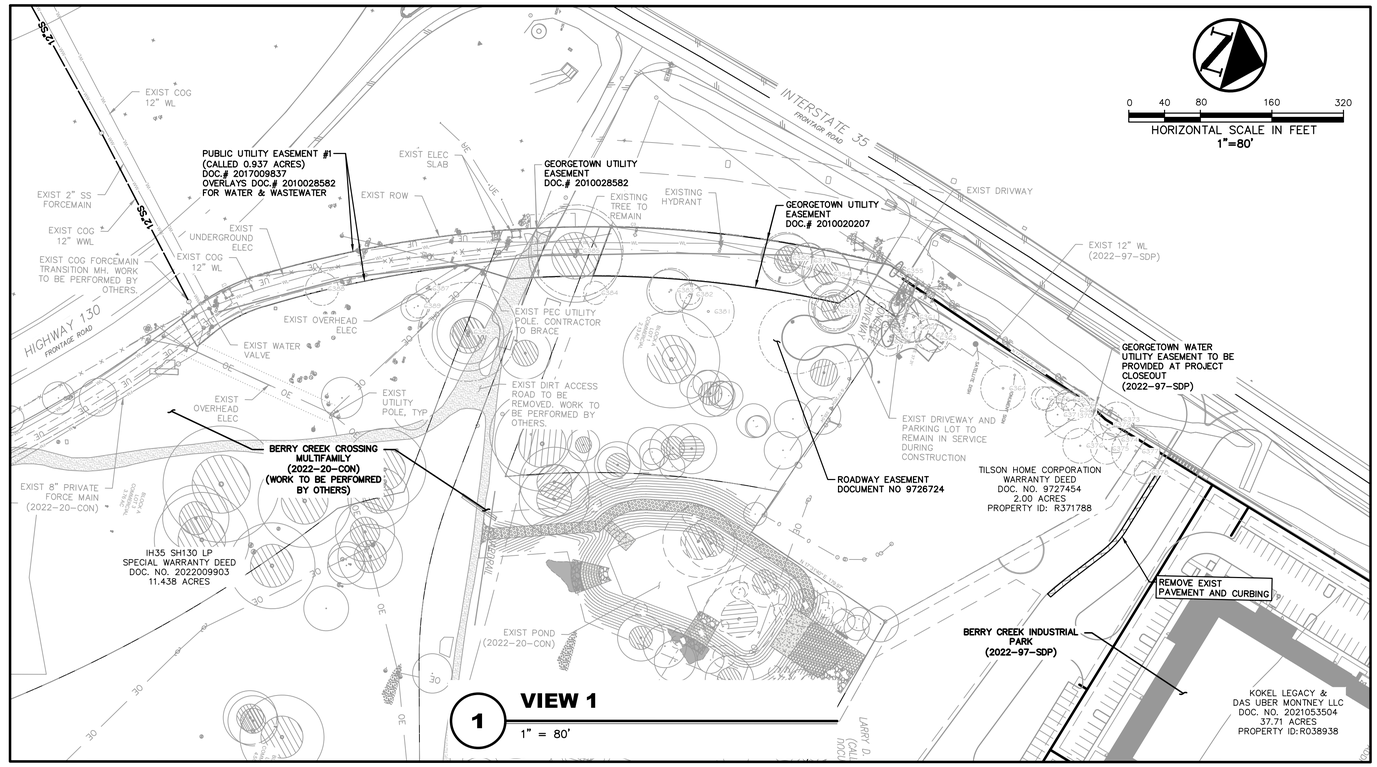

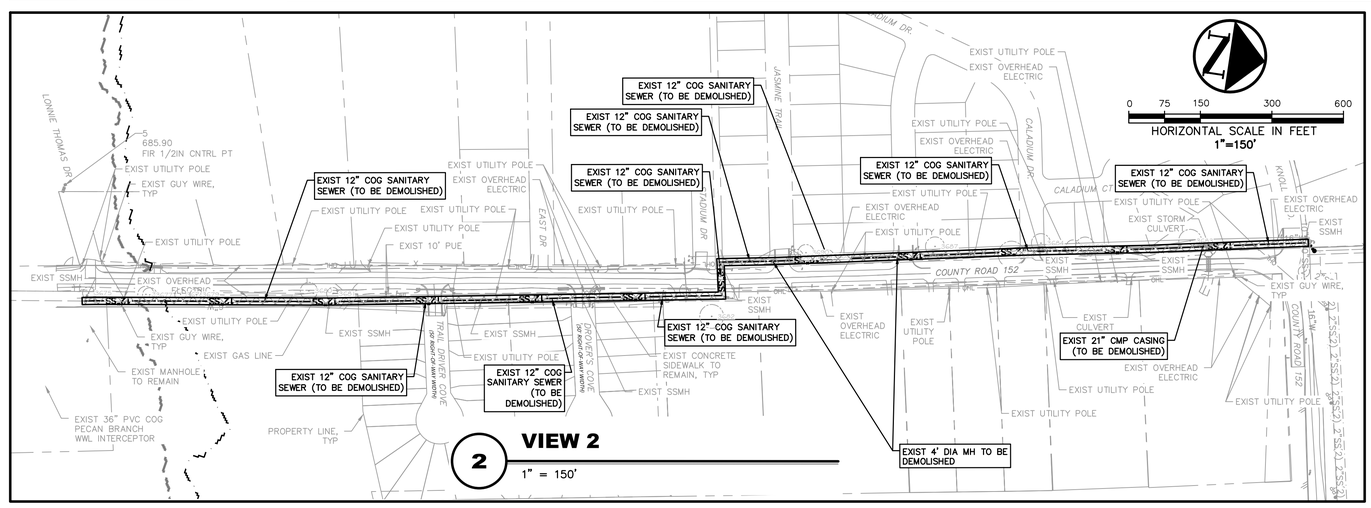

LEGEND

B	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
FL	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
	FIBER OPTIC LINE
	UNDERGROUND STORM LINE
30" RCP	
	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
612.39	EXIST SPOT ELEVATION
TC 612.39 / G 611.89	EXIST TOP OF CURB ELEVATION / EXIST GUTTER ELEVATION
SAWCUT	LIMITS OF SAWCUT
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
	BUFFER ZONE
	DEMOLITION AREA

DEMOLITION GENERAL NOTES

1. CONTRACTOR IS TO REVIEW ALL GENERAL NOTES PRIOR TO BEGINNING WORK.
2. SAWCUT AND REMOVE ALL EXISTING DRIVE APPROACHES (WITHIN THE LIMITS OF DEMOLITION) TWO FEET FROM BACK OF CURB. SIDEWALKS, PAVEMENT, AND UTILITIES WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO REMAIN UNLESS OTHERWISE NOTED.
3. COORDINATE WITH LOCAL POWER, TELEPHONE, CABLE, AND GAS COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES.
4. ALL UTILITIES SHOULD BE CUT AND PLUGGED IN ACCORDANCE WITH THEIR RESPECTIVE UTILITY COMPANY REQUIREMENTS AND PRIOR TO DEMOLITION OF THE EXISTING BUILDINGS.
5. CONTRACTOR TO PLUG ALL EXISTING EXPOSED ENDS OF ABANDONED UTILITIES.
6. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND LEGAL DISPOSAL OF ALL THE UNSUITABLE MATERIALS FROM THE PROJECT SITE. CONTRACTOR SHALL CONTACT ALL LOCAL AUTHORITIES TO DETERMINE DISPOSAL REQUIREMENTS.
7. ALL TREES ON THE PROPERTY SHALL BE PROTECTED AGAINST DAMAGE DURING DEMOLITION OPERATIONS UNLESS OTHERWISE NOTED. THE TREE PROTECTION SHALL BE PLACED AROUND TREES PRIOR TO ANY DEMOLITION OR GRADING. TREE PROTECTION SHALL REMAIN UNTIL ALL WORK IS COMPLETED. REFER TO BERRY CREEK BUSINESS PARK (2022-20-LSP) LANDSCAPE SHEETS.
8. ANY DAMAGE DONE TO EXISTING TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY BY AN APPROVED TREE SURGEON AT THE OWNER'S DIRECTION. ROOTS EXPOSED AND/OR DAMAGED DURING DEMOLITION AND/OR GRADING OPERATIONS SHALL BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA, CUT SURFACES PAINTED WITH AN APPROVED TREE PAINT, AND TOPSOIL AND MULCH PLACED OVER THE EXPOSED ROOT AREA IMMEDIATELY.
9. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING EROSION CONTROL MEASURES ON THE SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS UNTIL THE SITE HAS BEEN STABILIZED.
10. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO ALLOW FOR POSITIVE DRAINAGE. GRADING SLOPES ARE NOT TO EXCEED 3:1.
11. AREAS EXCAVATED FOR FOUNDATION OR UNDERGROUND STRUCTURE REMOVAL SHALL BE BACK-FILLED AND COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
12. CONTRACTOR IS RESPONSIBLE FOR SECURITY OF THE SITE DURING DEMOLITION ACTIVITIES AND UNTIL SUBSTANTIAL COMPLETION.
13. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND CITY STANDARD CONSTRUCTION SPECIFICATIONS.
14. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITY MAINS, MANHOLES, CLEANOUTS, VALVE BOXES, AND FIRE HYDRANTS, ETC. IN THE AREA OF DEMOLITION.
15. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
16. BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
17. CONTRACTOR SHALL MAINTAIN EXISTING PAVEMENT AND ACCESS TO FIRE HYDRANTS ON SITE UNTIL THE BUILDINGS AND STRUCTURES IN THAT AREA HAVE BEEN DEMOLISHED AND REMOVED.
18. CONTRACTOR WILL PROVIDE ON-SITE PARKING FOR WORKERS. VEHICLE PARKING WILL NOT BE ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY.
19. CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ADEQUATE DUST CONTROL MEASURES DURING DEMOLITION ACTIVITIES.
20. CONTRACTOR IS TO COORDINATE DEMOLITION ACTIVITIES WITH THE HAZARDOUS MATERIAL ABATEMENT CONTRACTORS' ACTIVITIES, IF APPLICABLE.
21. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL TEMPORARY UTILITY SERVICES REQUIRED TO COMPLETE THE SCOPE OF WORK.

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BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

EXISTING CONDITIONS AND DEMOLITION PLAN

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER
08/02/2024

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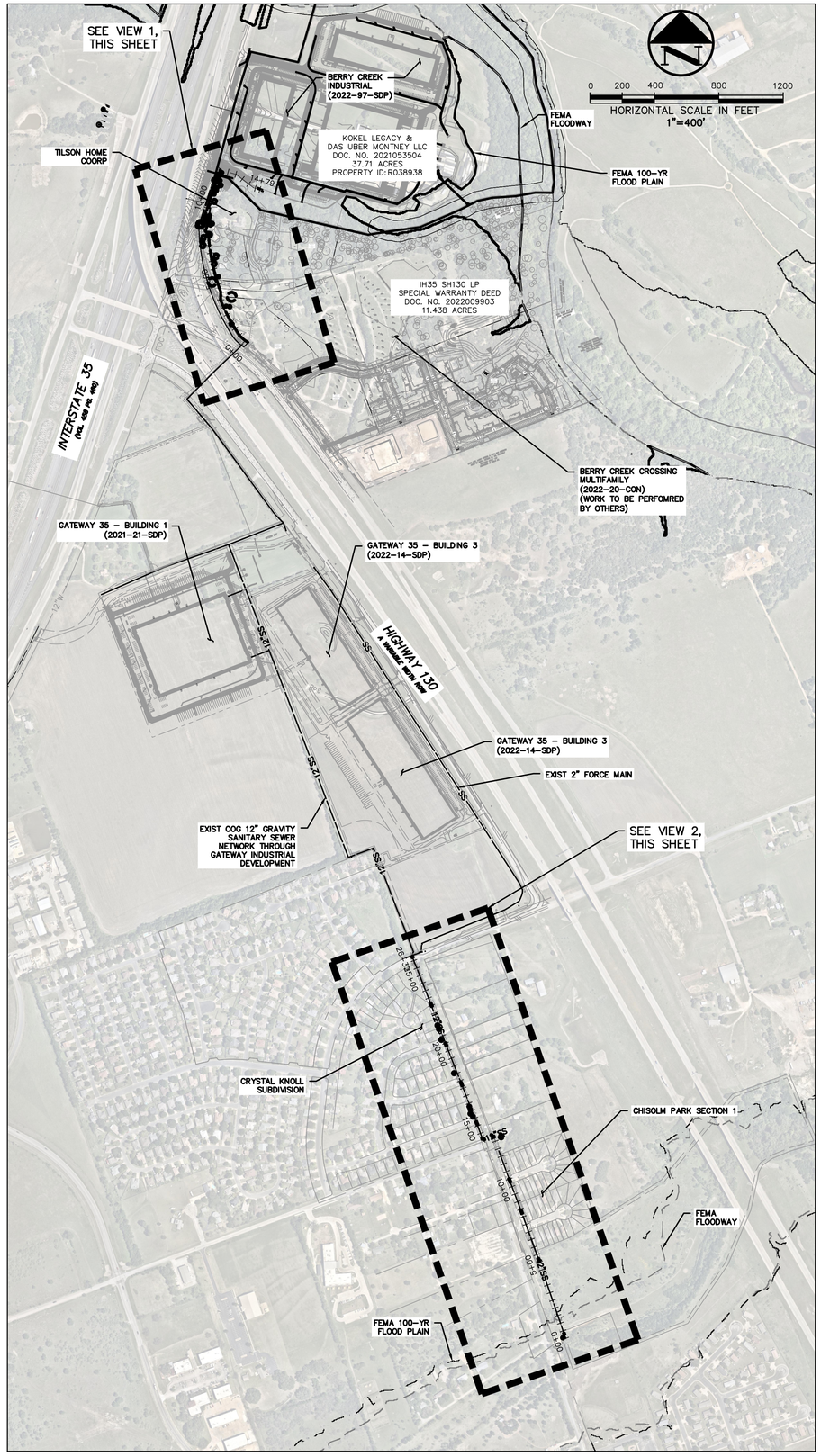
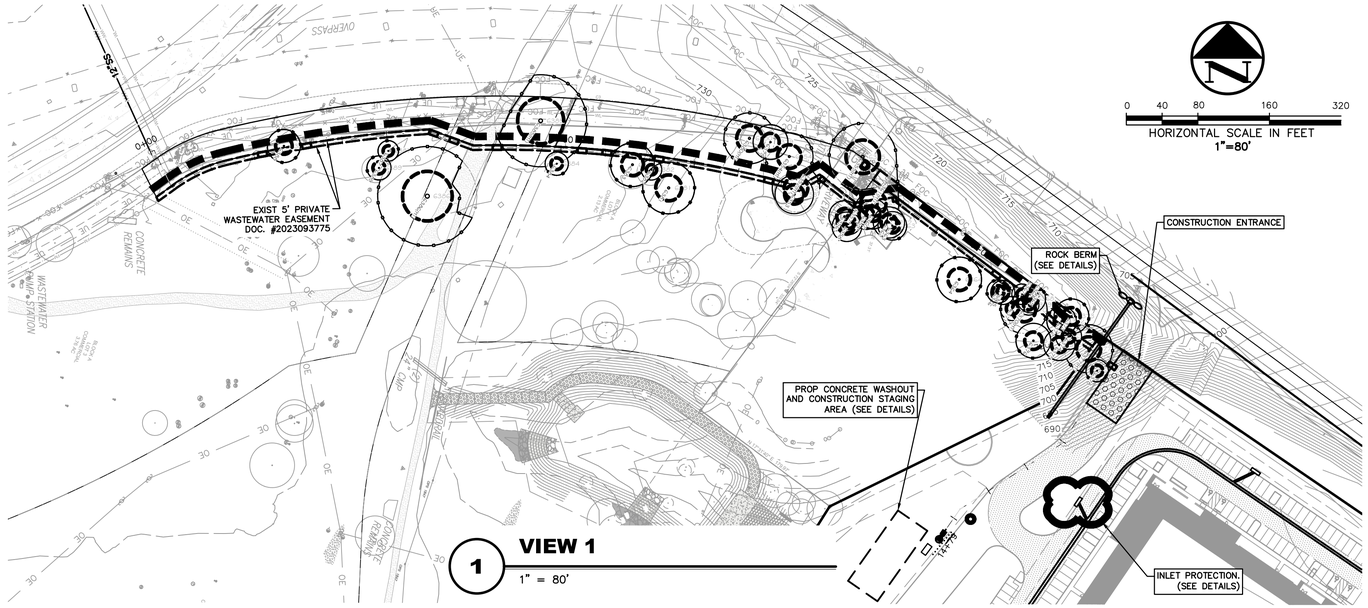
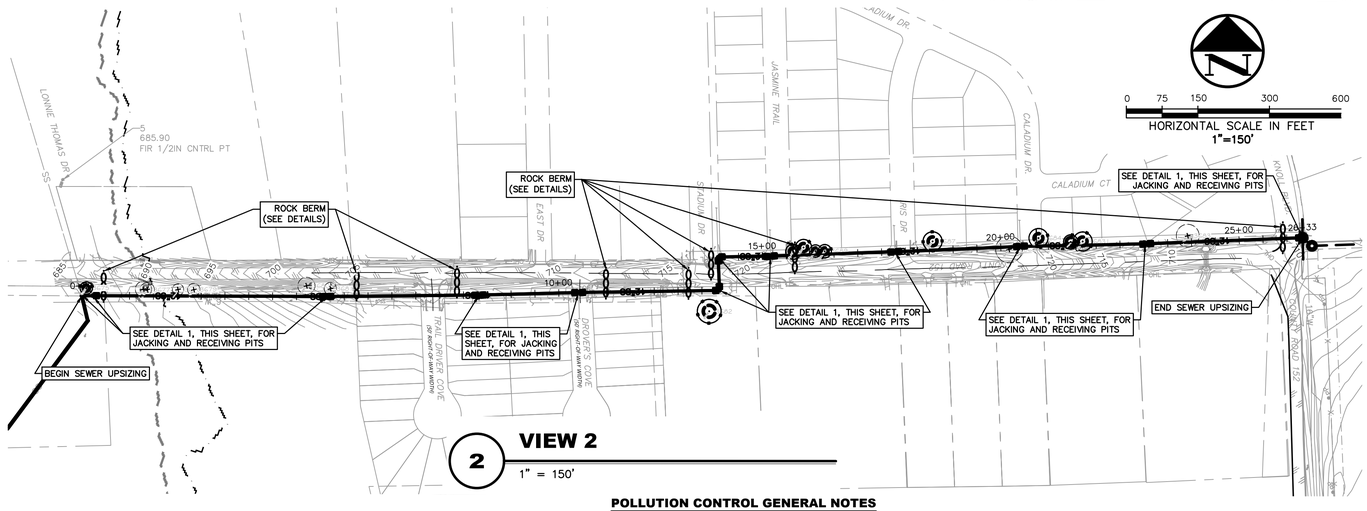




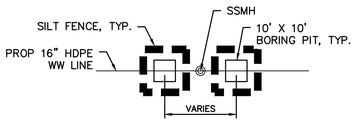
1 VIEW 1
1" = 80'



2 VIEW 2
1" = 150'

LEGEND

BOLLARD	FENCE
ELECTRIC METER	OVERHEAD UTILITY LINE
POWER POLE	EXIST CONTOUR
LIGHT STANDARD	PROPOSED CONTOUR
WATER METER	PROPOSED DRAINAGE FLOW DIRECTION
WATER VALVE	
IRRIGATION CONTROL VALVE	PROPOSED CONSTRUCTION ENTRANCE
FIRE HYDRANT	
CLEANOUT	
MANHOLE	INLET PROTECTION
TRAFFIC SIGNAL CONTROL	
TRAFFIC SIGNAL POLE	
TELEPHONE BOX	SILT FENCE (LIMITS OF DISTURBED AREA)
FLOOD LIGHT	
FLAG POLE	ROCK BERM
TRAFFIC SIGN	
1/2-INCH IRON ROD	FEMA FLOODWAY
W/"PACHECO KOCH" CAP SET	
CONTROLLING MONUMENT	FEMA 100 YEAR FLOODPLAIN
PROPERTY LINE	



1 JACKING AND RECEIVING PIT DETAIL
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POLLUTION CONTROL GENERAL NOTES

1. THIS PLAN HAS BEEN PREPARED TO PROVIDE MEANS TO PREVENT OR MINIMIZE POLLUTION OF STORM WATER.
2. THE CONSTRUCTION ACTIVITY INCLUDED IN THIS PLAN WILL INCLUDE:
   2.A. UTILITY INSTALLATION
3. THE TOTAL ESTIMATED LAND AREA TO BE DISTURBED IS 168 ACRES.
4. THE ESTIMATED RUNOFF COEFFICIENT UPON COMPLETION OF THE PROJECT IS 0.97.
5. THE STORM WATER EXITING THE SITE IS COLLECTED IN AN EXISTING DRAINAGE SYSTEM MAINTAINED BY THE CITY OF GEORGETOWN, TEXAS.
6. THE SOILS ON THE SITE ARE GENERALLY EXPANSIVE CLAYS.
7. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION PROTECTION AROUND THE WORK AREA PERIMETER AND AT ALL INLET MOUTHS PRIOR TO COMMENCING WORK AND UNTIL THE WORK AREA HAS BEEN STABILIZED.
8. THE CONTRACTOR WILL REMOVE ALL EXCESS SOIL FROM CONSTRUCTION VEHICLES PRIOR TO EXITING THE SITE.
9. ALL DISTURBED AREAS WHICH WILL NOT BE RE-DISTURBED MUST BEGIN BEING STABILIZED IMMEDIATELY BY THE CONTRACTOR TO CONTROL EROSION. THE CONTRACTOR HAS 14 DAYS TO HAVE ALL STABILIZATION AND EROSION CONTROL DEVICES IN PLACE.
10. THE CONTRACTOR SHALL UNDERTAKE PROPER METHODS TO REDUCE DUST GENERATION FROM THE SITE.
11. THE CONTRACTOR MUST COMPLY WITH FEDERAL, STATE AND LOCAL REGULATIONS REGARDING SEDIMENT AND EROSION CONTROL.
12. A COPY OF THIS PLAN, AS PART OF THE SWPPP, MUST BE KEPT AT THE CONSTRUCTION FACILITY DURING THE ENTIRE CONSTRUCTION PERIOD.
13. CONSTRUCTION SEQUENCING MUST PROVIDE FOR THE EXCAVATION OF AN ON-SITE BASIN AS A SEDIMENT COLLECTION BASIN PRIOR TO THE DISTURBANCE OF GREATER THAN 10 ACRES OF LAND.
14. ALL FINISHED GRADES ARE TO BE HYDROMULCHED, SPOT SODDED OR SEEDED AND WATERED UNTIL GROWTH IS ESTABLISHED ON AND OFF-SITE.
15. A PIT OR WASH OUT BASIN SHALL BE CONSTRUCTED ON-SITE BY THE CONTRACTOR FOR THE "WASH OUT" OF CONCRETE TRUCKS.
16. A BERM OR OTHER SPILL PROTECTION MEASURE SHALL BE USED FOR ANY TEMPORARY FUEL STORAGE TANK ON-SITE.
17. IF "SUMP" PUMPS ARE USED TO REMOVE WATER FROM EXCAVATED AREAS, FILTER THE DISCHARGE TO REMOVE SEDIMENT AND OTHER POLLUTANTS BEFORE THE WATER LEAVES THE SITE.
18. TO PREVENT DAMAGE TO VEGETATION IN DOWNSTREAM WATER COURSES, LIMIT ANY PROPOSED LIME STABILIZATION OPERATIONS TO THAT WHICH CAN BE MIXED AND COMPACTED BY THE END OF EACH WORK DAY. GEOTEXTILE FABRIC IS NOT EFFECTIVE IN FILTERING LIME SINCE THE GRAIN SIZE IS SMALLER THAN THE OPENING IN THE FABRIC.
19. VEHICLE PARKING AREAS, STAGING AREAS, STOCKPILES, SPOILS, ETC. SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. OTHERWISE, COVERING OR ENCIRCLING THE AREAS WITH PROTECTIVE MEASURES SHALL BE NECESSARY.
20. STORE ALL TRASH AND BUILDING MATERIALS WASTE IN AN ENCLOSURE UNTIL IT CAN BE PROPERLY DISPOSED OF AT THE APPROPRIATE OFF-SITE FACILITIES.
21. TRACKING OF SEDIMENT OFF-SITE BY TRUCK TRAFFIC SHALL BE HANDLED THROUGH REGULAR CLEANING.
22. INSPECTIONS SHALL BE CONDUCTED BY THE PERMITEE ONCE EVERY TWO WEEKS AND WITHIN 24 HOURS AFTER STORM EVENT OF 0.5 INCHES OR MORE OR ONCE PER WEEK ON A SPECIFIC PRE-DEFINED DAY. THE INSPECTIONS WILL INCLUDE:
   22.A. DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN STABILIZED.
   22.B. AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
   22.C. STRUCTURAL CONTROL MEASURES.
   22.D. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.
   22.E. IDENTIFICATIONS OF MEASURES THAT NEED TO BE MAINTAINED, MODIFIED, OR ADDED TO CORRECT PROBLEMS.
23. CONTRACTOR SHALL MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS PRESENT ON THE SITE TO PRECIPITATION AND TO STORMWATER.
24. PERMANENTLY STABILIZE EXPOSED SOIL, WITHIN AND ADJACENT TO THE SITE, THAT IS DISTURBED BY VEHICLES, GRADING AND OTHER CONSTRUCTION ACTIVITIES.
25. CONTAIN ALL RUNOFF FROM MATERIAL USED IN SUBGRADE STABILIZATION.
26. MATERIAL STOCKPILES SHALL BE COVERED BY PLASTIC OR SURROUNDED BY EROSION CONTROL STRUCTURES TO CONTROL SEDIMENT RELEASES.
27. CONTRACTOR SHALL PROTECT SLOPES IN EXCESS OF 15% IN ORDER TO MINIMIZE EROSION OF SOILS AND THE DISTURBANCE OF SLOPES.
28. VEGETATION TO BE PRESERVED WHERE EVER POSSIBLE TO HELP REDUCE EROSION. WHERE VEGETATION MUST BE REMOVED, PRESERVE NATIVE TOPSOIL IN ALL AREAS POSSIBLE.
29. MINIMIZE SOIL COMPACTION IN AREAS INTENDED FOR POST CONSTRUCTION PERVIOUS SURFACE.
30. EROSION CONTROL MEASURES TO BE INSTALLED AROUND TRENCHLESS PIPE INSTALLATION JACKING AND RECEIVING PITS FOLLOWING CITY OF GEORGETOWN SPECIFICATIONS. CONTRACTOR TO SUBMIT EROSION CONTROL PLAN FOR REVIEW BY ENGINEER PRIOR TO IMPLEMENTATION.
31. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

EROSION CONTROL PLAN

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER

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APPROVED: 08/02/2024

GUIDELINES FOR DESIGN AND INSTALLATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS

TYPE OF STRUCTURE	REACH LENGTH	MAXIMUM DRAINAGE AREA	SLOPE
SILT FENCE	N/A	2 ACRES	0 – 10%
	200 FEET	2 ACRES	10 – 20%
	100 FEET	1 ACRE	20 – 30%
	50 FEET	1/2 ACRE	> 30%
TRIANGLE FILTER DIKE	100 FEET	1/2 ACRE	< 30% SLOPE
	50 FEET	1/4 ACRE	> 30% SLOPE
ROCK BERM *, **	500 FEET	< 5 ACRES	0 – 10%

* FOR ROCK BERM DESIGN WHERE PARAMETERS ARE OTHER THAN STATED, DRAINAGE AREA CALCULATIONS AND ROCK BERM DESIGN MUST BE SUBMITTED FOR REVIEW.

** HIGH SERVICE ROCK BERMS MAY BE REQUIRED IN AREAS OF ENVIRONMENTAL SIGNIFICANCE AS DETERMINED BY THE CITY OF GEORGETOWN.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
TEMPORARY EROSION AND SEDIMENTATION CONTROL GUIDELINES

DRAWING NAME: EC01
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

NOTE: THIS SECTION IS INTENDED TO ASSIST THOSE PERSONS PREPARING WATER POLLUTION ABATEMENT PLANS (WPAP) OR STORM WATER POLLUTION PREVENTION PLANS (SW3P) THAT COMPLY WITH FEDERAL, STATE AND/OR LOCAL STORM WATER REGULATIONS.

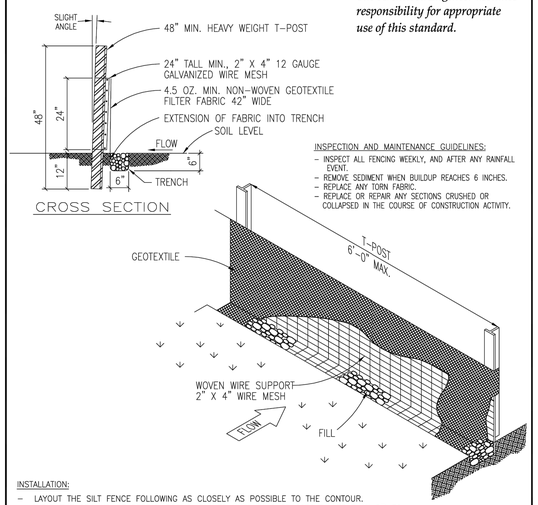
1. THE CONTRACTOR TO INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, GRADING, OR EXCAVATION). CONTRACTOR TO REMOVE EROSION/SEDIMENTATION CONTROLS AT THE COMPLETION OF PROJECT AND GRASS RESTORATION.
2. ALL PROJECTS WITHIN THE RECHARGE ZONE OF THE EDWARD'S AQUIFER SHALL SUBMIT A BEST MANAGEMENT PRACTICES AND WATER POLLUTION AND ABATEMENT PLAN TO THE TNRCC FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
3. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS TO BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN AND WATER POLLUTION ABATEMENT PLAN. DEVIATIONS FROM THE APPROVED PLAN MUST BE SUBMITTED TO AND APPROVED BY THE OWNER'S REPRESENTATIVE.
4. ALL PLANTING SHALL BE DONE BETWEEN MAY 1 AND SEPTEMBER 15 EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING. IF PLANTING IS AUTHORIZED TO BE DONE OUTSIDE THE DATES SPECIFIED, THE SEED SHALL BE PLANTED WITH THE ADDITION OF WINTER FESCUE (KENTUCKY 31) AT A RATE OF 100lb/ACRE. GRASS SHALL BE COMMON BERMUDA GRASS, HULLED, MINIMUM 82% PURE LIVE SEED. ALL GRASS SEED SHALL BE FREE FROM NOXIOUS WEED, GRADE "A" RECENT CROP, RECLEANED AND TREATED WITH APPROPRIATE FUNGICIDE AT TIME OF MIXING. SEED SHALL BE FURNISHED IN SEALED, STANDARD CONTAINERS WITH DEALER'S GUARANTEED ANALYSIS.
5. ALL DISTURBED AREAS TO BE RESTORED AS NOTED IN THE WATER POLLUTION ABATEMENT PLAN.
6. THE PLANTED AREA TO BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF FOUR (4) INCHES. THE IRRIGATION TO OCCUR AT 10-DAY INTERVALS DURING THE FIRST TWO MONTHS TO INSURE GERMINATION AND ESTABLISHMENT OF THE GRASS . RAINFALL OCCURRENCES OF 1/2 INCH OR GREATER TO POSTPONE THE WATERING SCHEDULE ONE WEEK.
7. RESTORATION TO BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1-1/2 INCHES HIGH WITH 95% *COVERAGE*, PROVIDED NO BARE SPOTS LARGER THAN 25 SQUARE FEET EXIST.
8. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL TO BE PLACED IN ALL AREAS DISTURBED BY CONSTRUCTION.
9. THE CONTRACTOR TO HYDROMULCH OR SOD (AS SHOWN ON PLANS) ALL EXPOSED CUTS AND FILLS UPON COMPLETION OF CONSTRUCTION.
10. EROSION AND SEDIMENTATION CONTROLS TO BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILDUP WITHIN TREE DRIPLINE.
11. TO AVOID SOIL COMPACTION, CONTRACTOR SHALL NOT ALLOW VEHICULAR TRAFFIC, PARKING, OR STORAGE OF EQUIPMENT OR MATERIALS IN THE TREE DRIPLINE AREAS.
12. WHERE A FENCE IS CLOSER THAN FOUR (4) FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF EIGHT (8) FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE FENCING.
13. TREES TO BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
14. ANY ROOT EXPOSED BY CONSTRUCTION ACTIVITY TO BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOPSOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
15. CONTRACTOR TO PRUNE VEGETATION TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.). ALL FINISHED PRUNING TO BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE "NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES").
16. THE CONTRACTOR IS TO INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY RAINFALL EXCEEDING 1/4 INCH TO VERIFY THAT THEY HAVE NOT BEEN SIGNIFICANTLY DISTURBED. ANY ACCUMULATED SEDIMENT AFTER A SIGNIFICANT RAINFALL TO BE REMOVED AND PLACED IN THE OWNER DESIGNATED SPOIL DISPOSAL SITE. THE CONTRACTOR TO CONDUCT PERIODIC INSPECTIONS OF ALL EROSION/SEDIMENTATION CONTROLS AND TO MAKE ANY REPAIRS OR MODIFICATIONS NECESSARY TO ASSURE CONTINUED EFFECTIVE OPERATION OF EACH DEVICE.
17. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT IMMEDIATELY ADJACENT TO A PROTECTED TREE, ERECT THE FENCE APPROXIMATELY TWO TO FOUR FEET (2'-4') BEHIND THE AREA IN QUESTION.
18. NO ABOVE AND/OR BELOW GROUND TEMPORARY FUEL STORAGE FACILITIES TO BE STORED ON THE PROJECT SITE.
19. IF EROSION AND SEDIMENTATION CONTROL SYSTEMS ARE EXISTING FROM PRIOR CONTRACTS, OWNER'S REPRESENTATIVE AND THE CONTRACTOR TO EXAMINE THE EXISTING EROSION AND SEDIMENTATION CONTROL SYSTEMS FOR DAMAGE PRIOR TO CONSTRUCTION. ANY DAMAGE TO PREEXISTING EROSION AND SEDIMENTATION CONTROLS NOTED TO BE REPAIRED AT OWNERS EXPENSE.
20. INTENTIONAL RELEASE OF VEHICLE OR EQUIPMENT FLUIDS ONTO THE GROUND IS NOT ALLOWED. CONTAMINATED SOIL RESULTING FROM ACCIDENTAL SPILL TO BE REMOVED AND DISPOSED OF PROPERLY.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
EROSION AND SEDIMENTATION AND TREE PROTECTION NOTES

DRAWING NAME: EC01A
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



CROSS SECTION

The Architect/Engineer assumes responsibility for appropriate use of this standard.

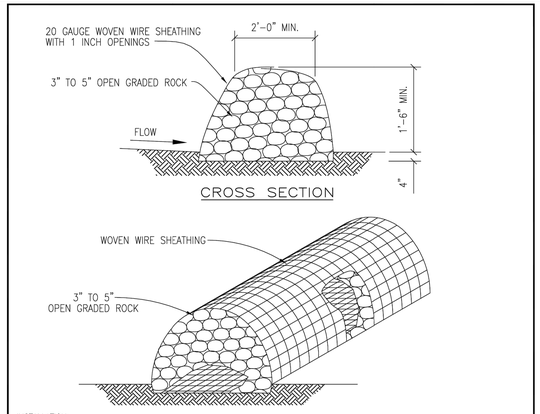
INSTALLATION:
- LAYOUT THE SILT FENCE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS, PLANTS (INCLUDING GRASSES TALLER THAN 2") TO PROVIDE A SMOOTH FLOW APPROACH SURFACE. EXCAVATE 6" DEEP X 6" WIDE TRENCH ON UPSTREAM SIDE OF FACE PER PLANS.
- DRIVE THE HEAVY DUTY T-POST AT LEAST 12 INCHES INTO THE GROUND AND AT A SLIGHT ANGLE TOWARDS THE FLOW.
- ATTACH THE 2" X 4" 12 GAUGE WELDED WIRE MESH TO THE T-POST WITH 11 1/2 GAUGE GALVANIZED T-POST CLIPS. THE TOP OF THE WIRE TO BE 24" ABOVE GROUND LEVEL. THE WELDED WIRE MESH TO BE OVERLAPPED 6" AND TIED AT LEAST 6 TIMES WITH HOG RINGS.
- THE SILT FENCE TO BE INSTALLED WITH A SKIRT A MINIMUM OF 6" WIDE PLACED ON THE UPHILL SIDE OF THE FENCE INSIDE EXCAVATED TRENCH. THE FABRIC TO OVERLAP THE TOP OF THE WIRE BY 1".
- ANCHOR THE SILT FENCE BY BACKFILLING WITH EXCAVATED DIRT AND ROCKS (NOT LARGER THAN 2").
- GEOTEXTILE SPLICES SHOULD BE A MINIMUM OF 18" WIDE ATTACHED IN AT LEAST 6 PLACES. SPLICES IN CONCENTRATED FLOW AREAS WILL NOT BE ACCEPTED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECT ALL FENCING WEEKLY, AND AFTER ANY RAINFALL EVENT.
- REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.
- REPLACE ANY TORN FABRIC.
- REPLACE OR REPAIR ANY SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
SILT FENCE DETAIL

DRAWING NAME: EC02
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



CROSS SECTION

INSTALLATION:
- LAYOUT THE ROCK BERM FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- PLACE WOVEN WIRE FABRIC ON THE GROUND ALONG THE PROPOSED INSTALLATION WITH ENOUGH OVERLAP TO COMPLETELY ENCIRCLE THE FINISHED SIZE OF THE BERM.
- PLACE THE ROCK ALONG THE CENTER OF THE WIRE TO THE DESIGNATED HEIGHT.
- WRAP THE STRUCTURE WITH THE PREVIOUSLY PLACED WIRE MESH SECURE ENOUGH SO THAT WHEN WALKED ACROSS THE STRUCTURE RETAINS IT'S SHAPE.
- SECURE WITH TIE WIRE.
- THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROX. 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.
- THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

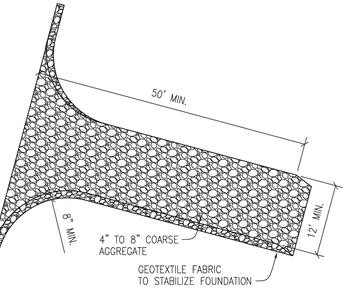
INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL EVENT BY THE RESPONSIBLE PARTY. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.
- REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER.
- REMOVE ANY LOOSE WIRE SHEATHING.
- THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.
- THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

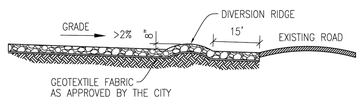
The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
ROCK BERM DETAIL

DRAWING NAME: EC03
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB





INSTALLATION:
- CLEAR THE AREA OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- GRADE THE AREA FOR THE ENTRANCE TO FLOW BACK ON TO THE CONSTRUCTION SITE. RUNOFF FROM THE STABILIZED CONSTRUCTION
- PLACE GEOTEXTILE FABRIC AS APPROVED BY THE CITY.
- PLACE ROCK AS APPROVED BY THE CITY.

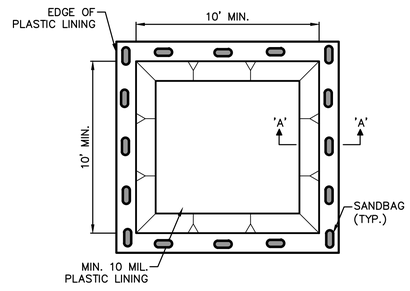
INSPECTIONS AND MAINTENANCE GUIDELINES:
- THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.
- WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

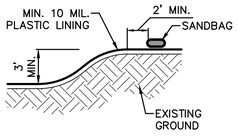
REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STABILIZED CONSTRUCTION ENTRANCE

DRAWING NAME: EC06
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



PLAN VIEW

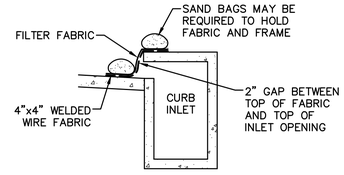


SECTION A–A

NOTE:
1. SANDBAGS MAY BE REPLACED BY A SOIL BERM TO ANCHOR PLASTIC LINING.
2. CONCRETE WASHOUT AREA TO BE CHECKED REGULARLY FOR REPAIRS.
3. REGULARLY REMOVE CONCRETE WASTE TO PREVENT OVERFLOWING.
4. PROVIDE MINIMUM 6 CF OF CONTAINMENT VOLUME FOR EVERY 10 CY OF CONCRETE PLACED. PROVIDE MINIMUM 1' FREEBOARD ABOVE CONTAINMENT VOLUME.

CONCRETE WASHOUT AREA

NOT TO SCALE



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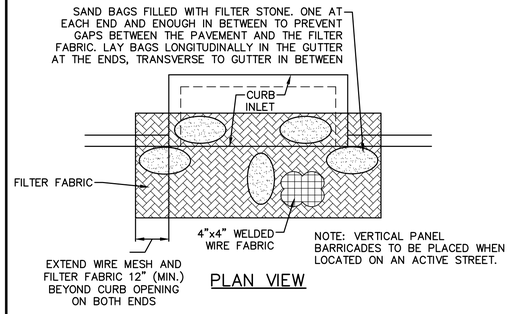

PLAN VIEW

CURB INLET PROTECTION

NOT TO SCALE

Westwood
Phone (512) 485-0831
Toll Free (888) 937-5150
8701 N. Mopac Expy, Suite 320
Austin, TX 78759
westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

EROSION CONTROL DETAILS & NOTES

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. 11
11 OF 26

2023-35-CON

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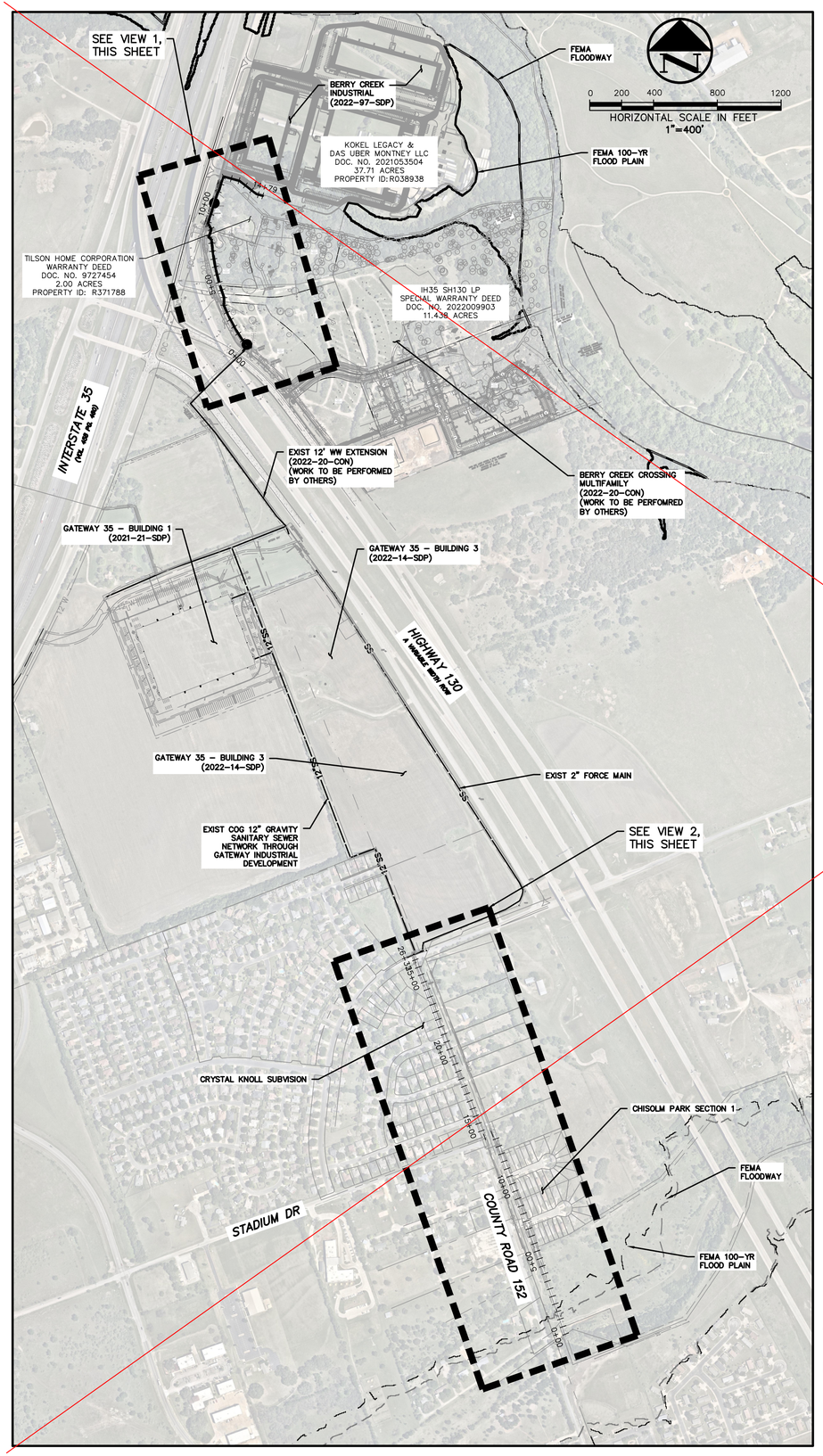
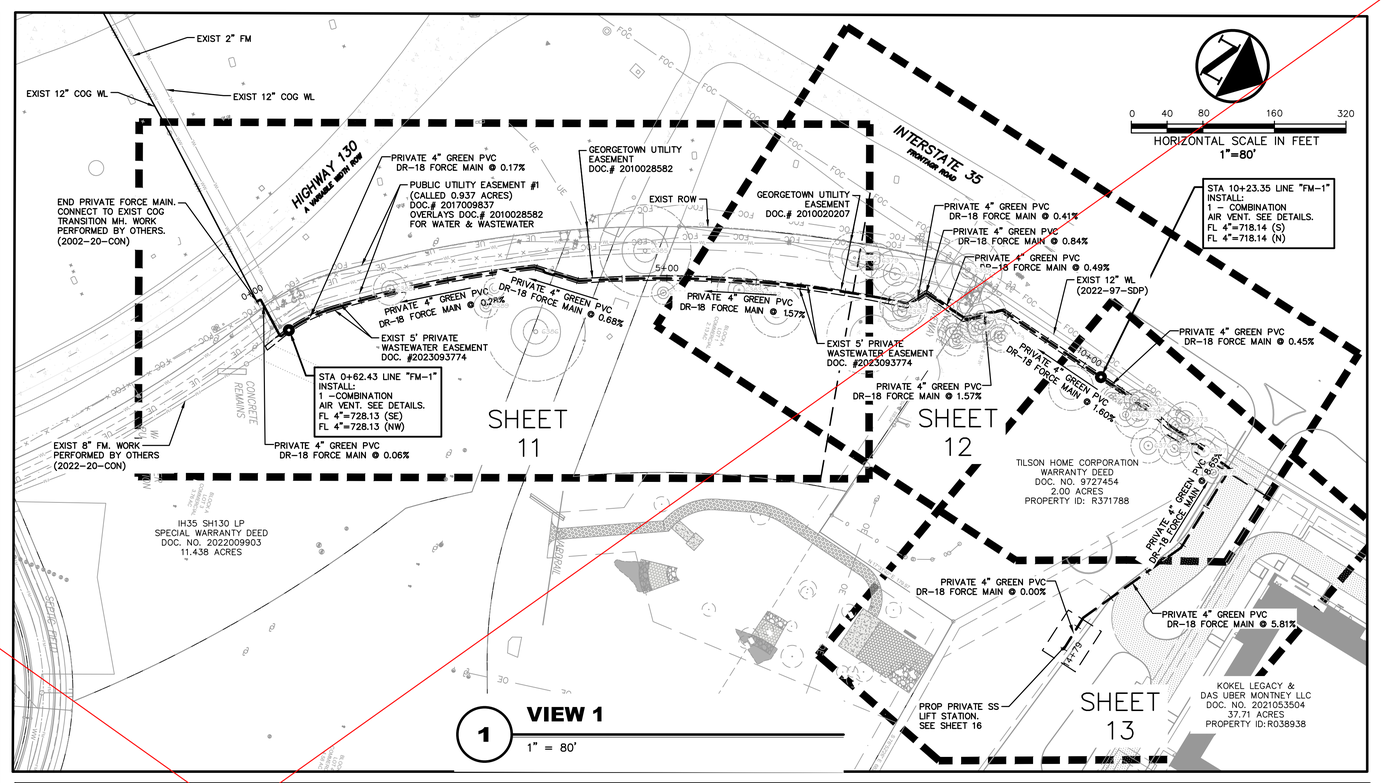
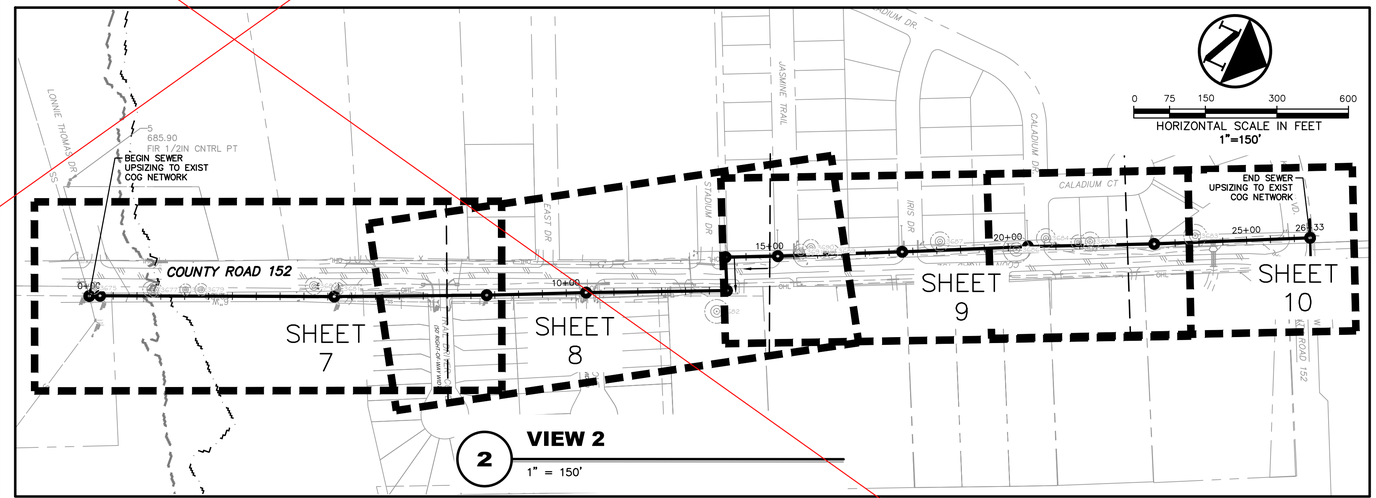
APPROVED: 08/02/2024





1 **VIEW 1**
1" = 80'



2 **VIEW 2**
1" = 150'

LEGEND

- BOLLARD
- ELECTRIC METER
- POWER POLE
- LIGHT STANDARD
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- FIRE HYDRANT
- CLEANOUT
- MANHOLE
- TRAFFIC SIGNAL CONTROL
- TRAFFIC SIGNAL POLE
- TELEPHONE BOX
- FLOOD LIGHT
- FLAG POLE
- TRAFFIC SIGN
- 1/2-INCH IRON ROD
- W/"PACHECO KOCH" CAP SET
- CONTROLLING MONUMENT
- PROPERTY LINE
- FENCE
- OVERHEAD UTILITY LINE
- FIBER OPTIC LINE
- UNDERGROUND STORM LINE
- UNDERGROUND ELECTRIC LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND CABLE LINE
- UNDERGROUND WATER LINE
- UNDERGROUND SANITARY SEWER LINE
- EXIST CONTOUR
- EXIST SPOT ELEVATION
- EXIST TOP OF CURB ELEVATION
- EXIST GUTTER ELEVATION
- LIMITS OF SAWCUT
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE
- CREEK SENSITIVE FEATURE
- BUFFER ZONE

GENERAL NOTES

1. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND THE CITY OF GEORGETOWN STANDARD CONSTRUCTION SPECIFICATIONS.
2. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL BE FAMILIAR WITH THE PLANS, ALL NOTES, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, THE CITY STANDARDS FOR CONSTRUCTION, AND ANY OTHER APPLICABLE STANDARDS AND SPECIFICATIONS RELEVANT TO THE PROPER COMPLETION OF THE WORK SPECIFIED. FAILURE ON THE PART OF THE CONTRACTOR TO BE FAMILIAR WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THIS WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY OF PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
3. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. CONTRACTOR SHALL VERIFY THAT NECESSARY CROSSING CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES EXIST PRIOR TO CONSTRUCTION OF ANY SUCH CROSSINGS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR TO VERIFY SIZE AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL MANHOLES, CLEANOUTS, VALVE BOXES, AND FIRE HYDRANTS, ETC.. CONTRACTOR TO ADJUST TO PROPER LINE AND GRADE PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING AND GRADING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING THE CONSTRUCTION OF THE PAVING FOR THIS DEVELOPMENT.
5.
   - 5.1. PROTECT AND MAINTAIN ROADWAY TRAFFIC THROUGHOUT THE PROJECT, PROVIDING A MINIMUM OF ONE (1) LANE OPEN IN EACH DIRECTION;
   - 5.2. PROVIDE AND MAINTAIN INTERIM ACCESS FROM ROADWAYS CURRENTLY IN USE TO ALL DRIVEWAYS AND INTERSECTING STREETS OR ALLEYS;
   - 5.3. MAINTAIN NORMAL PROJECT DRAINAGE UNTIL NEW DRAINAGE FACILITIES ARE FUNCTIONAL, INCLUDING, WHERE NECESSARY, INTERIM REPLACEMENT OF EXISTING DRAINAGE STRUCTURES REMOVED FOR CONSTRUCTION OF NEW DRAINAGE FACILITIES;
   - 5.4. MAINTAIN ALL WORK AND MATERIAL STORAGE AREAS IN ORDERLY CONDITION, FREE OF DEBRIS AND WASTE. ON COMPLETION OF CONSTRUCTION, CLEAN UP THE PROJECT AND ADJACENT AFFECTED AREAS TO ACCEPTABLE CONDITION, ALL AS PROVIDED IN THE GENERAL CONDITIONS.
6. PRIOR TO COMMENCEMENT OF CONSTRUCTION, BONDS AND THREE-WAY CONTRACTS SHALL BE SUBMITTED TO THE CITY AS REQUIRED.
7. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
8. BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
9. IF REQUIRED, EXACT SAWCUT PAVEMENT REMOVAL AND REPLACEMENT LIMITS WITHIN THE PUBLIC RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH THE CITY PAVEMENT REPAIR MANUAL AND INCLUDED IN THE BASE BID.
10. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

2023-35-CON

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Toll Free (888) 937-5150
8701 N. Mopac Expy, Suite 320
Austin, TX 78759
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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

OVERALL WASTEWATER PLAN

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. **12**
12 OF 30

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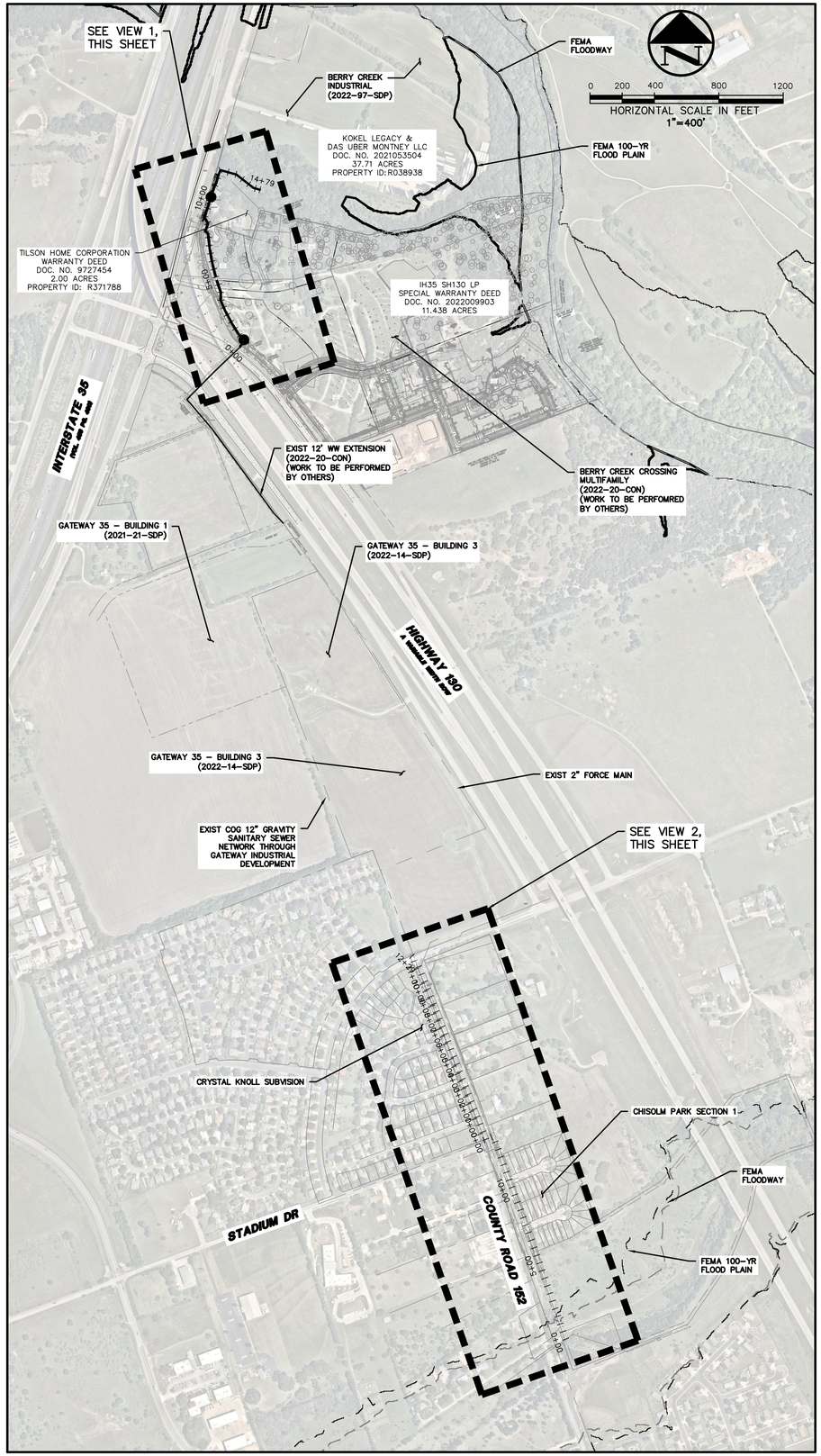
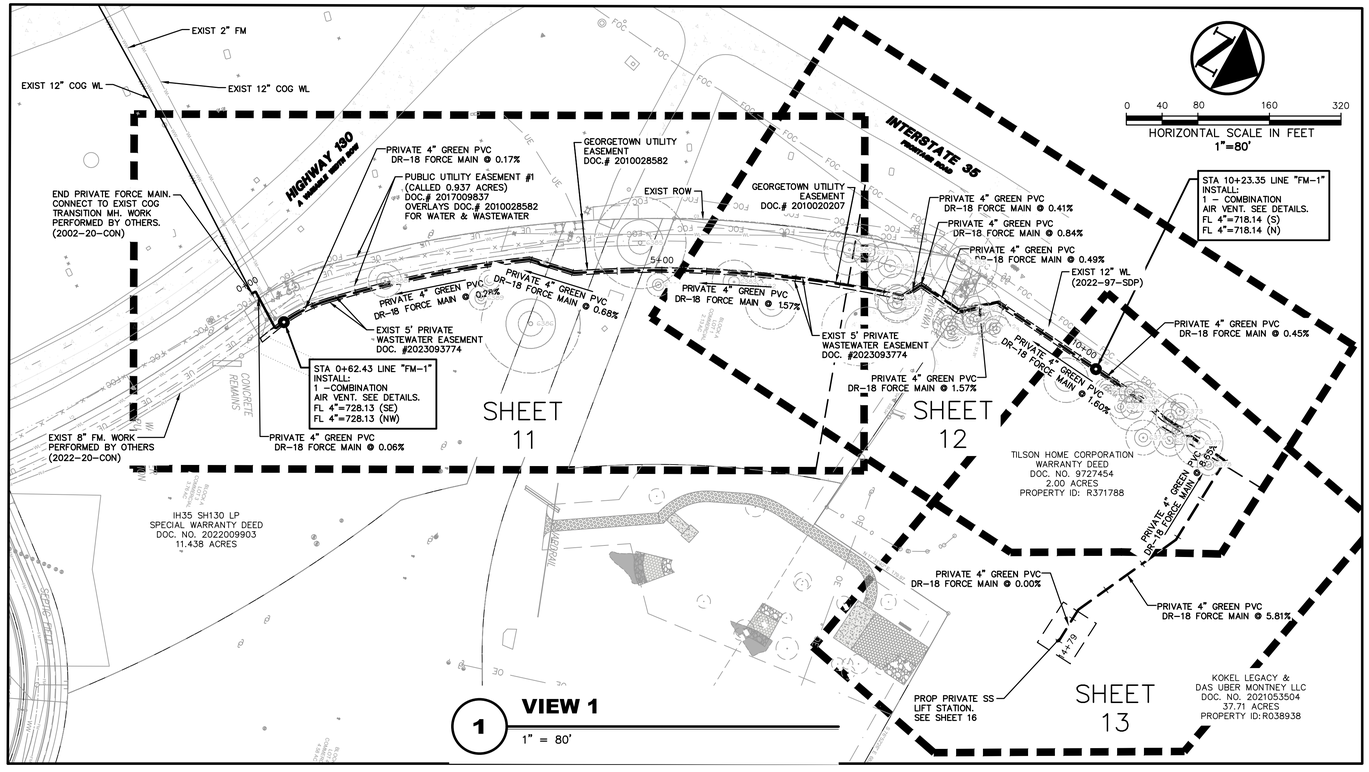
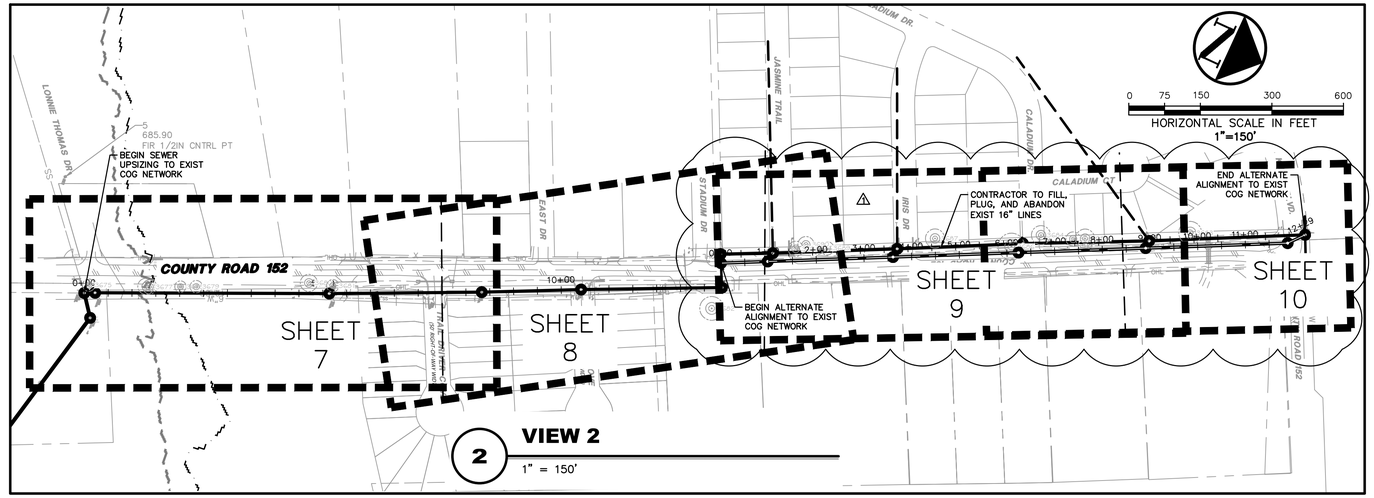




1 **VIEW 1**
1" = 80'



2 **VIEW 2**
1" = 150'

LEGEND

- BOLLARD
- ELECTRIC METER
- POWER POLE
- LIGHT STANDARD
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- FIRE HYDRANT
- CLEANOUT
- MANHOLE
- TRAFFIC SIGNAL CONTROL
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- LIMITS OF SAWCUT
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE
- CREEK SENSITIVE FEATURE
- BUFFER ZONE

FOR REVISION NO. 1 ONLY:

STATE OF TEXAS — JACOB W. VALENTIEN — 124993 — LICENSED PROFESSIONAL ENGINEER

06/01/2026

GENERAL NOTES

1. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS AND THE CITY OF GEORGETOWN STANDARD CONSTRUCTION SPECIFICATIONS.
2. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL BE FAMILIAR WITH THE PLANS, ALL NOTES, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS, THE CITY STANDARDS FOR CONSTRUCTION, AND ANY OTHER APPLICABLE STANDARDS AND SPECIFICATIONS RELEVANT TO THE PROPER COMPLETION OF THE WORK SPECIFIED. FAILURE ON THE PART OF THE CONTRACTOR TO BE FAMILIAR WITH ALL STANDARDS AND SPECIFICATIONS PERTAINING TO THIS WORK SHALL IN NO WAY RELIEVE THE CONTRACTOR OF RESPONSIBILITY OF PERFORMING THE WORK IN ACCORDANCE WITH ALL SUCH APPLICABLE STANDARDS AND SPECIFICATIONS.
3. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SUBSURFACE UTILITIES HAVE BEEN DETERMINED FROM DATA RECORDED BY OTHERS. CONTRACTOR SHALL VERIFY THAT NECESSARY CROSSING CLEARANCES BETWEEN EXISTING AND PROPOSED UTILITIES EXIST PRIOR TO CONSTRUCTION OF ANY SUCH CROSSINGS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR TO VERIFY SIZE AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL MANHOLES, CLEANOUTS, VALVE BOXES, AND FIRE HYDRANTS, ETC.. CONTRACTOR TO ADJUST TO PROPER LINE AND GRADE PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING AND GRADING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING THE CONSTRUCTION OF THE PAVING FOR THIS DEVELOPMENT.
5.
   - 5.1. PROTECT AND MAINTAIN ROADWAY TRAFFIC THROUGHOUT THE PROJECT, PROVIDING A MINIMUM OF ONE (1) LANE OPEN IN EACH DIRECTION;
   - 5.2. PROVIDE AND MAINTAIN INTERIM ACCESS FROM ROADWAYS CURRENTLY IN USE TO ALL DRIVEWAYS AND INTERSECTING STREETS OR ALLEYS;
   - 5.3. MAINTAIN NORMAL PROJECT DRAINAGE UNTIL NEW DRAINAGE FACILITIES ARE FUNCTIONAL, INCLUDING, WHERE NECESSARY, INTERIM REPLACEMENT OF EXISTING DRAINAGE STRUCTURES REMOVED FOR CONSTRUCTION OF NEW DRAINAGE FACILITIES;
   - 5.4. MAINTAIN ALL WORK AND MATERIAL STORAGE AREAS IN ORDERLY CONDITION, FREE OF DEBRIS AND WASTE. ON COMPLETION OF CONSTRUCTION, CLEAN UP THE PROJECT AND ADJACENT AFFECTED AREAS TO ACCEPTABLE CONDITION, ALL AS PROVIDED IN THE GENERAL CONDITIONS.
6. PRIOR TO COMMENCEMENT OF CONSTRUCTION, BONDS AND THREE-WAY CONTRACTS SHALL BE SUBMITTED TO THE CITY AS REQUIRED.
7. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
8. BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
9. IF REQUIRED, EXACT SAWCUT PAVEMENT REMOVAL AND REPLACEMENT LIMITS WITHIN THE PUBLIC RIGHT-OF-WAY IS TO BE IN ACCORDANCE WITH THE CITY PAVEMENT REPAIR MANUAL AND INCLUDED IN THE BASE BID.
10. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

2023-35-CON

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TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

STATE OF TEXAS — JUSTIN FAURE — 147805 — LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. **12R**
12R OF 30

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

OVERALL WASTEWATER PLAN

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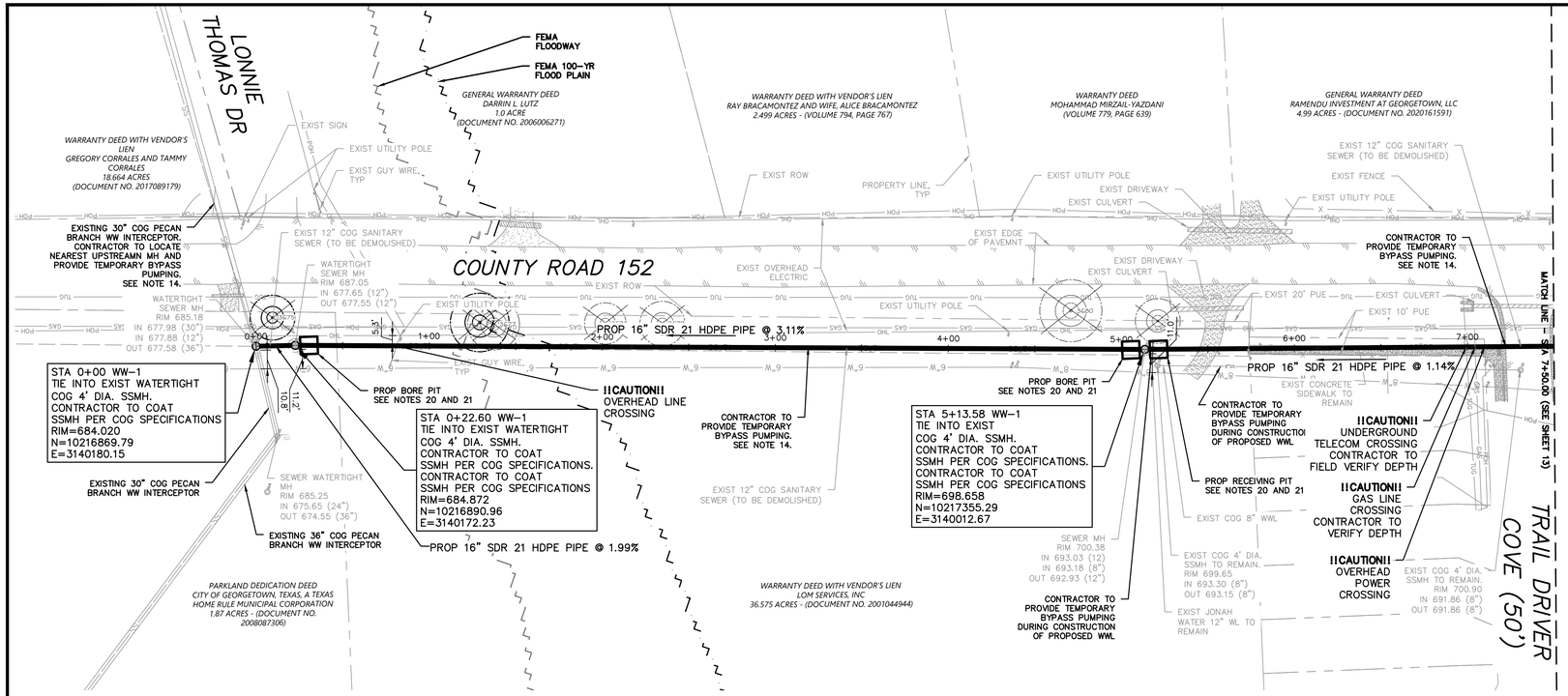

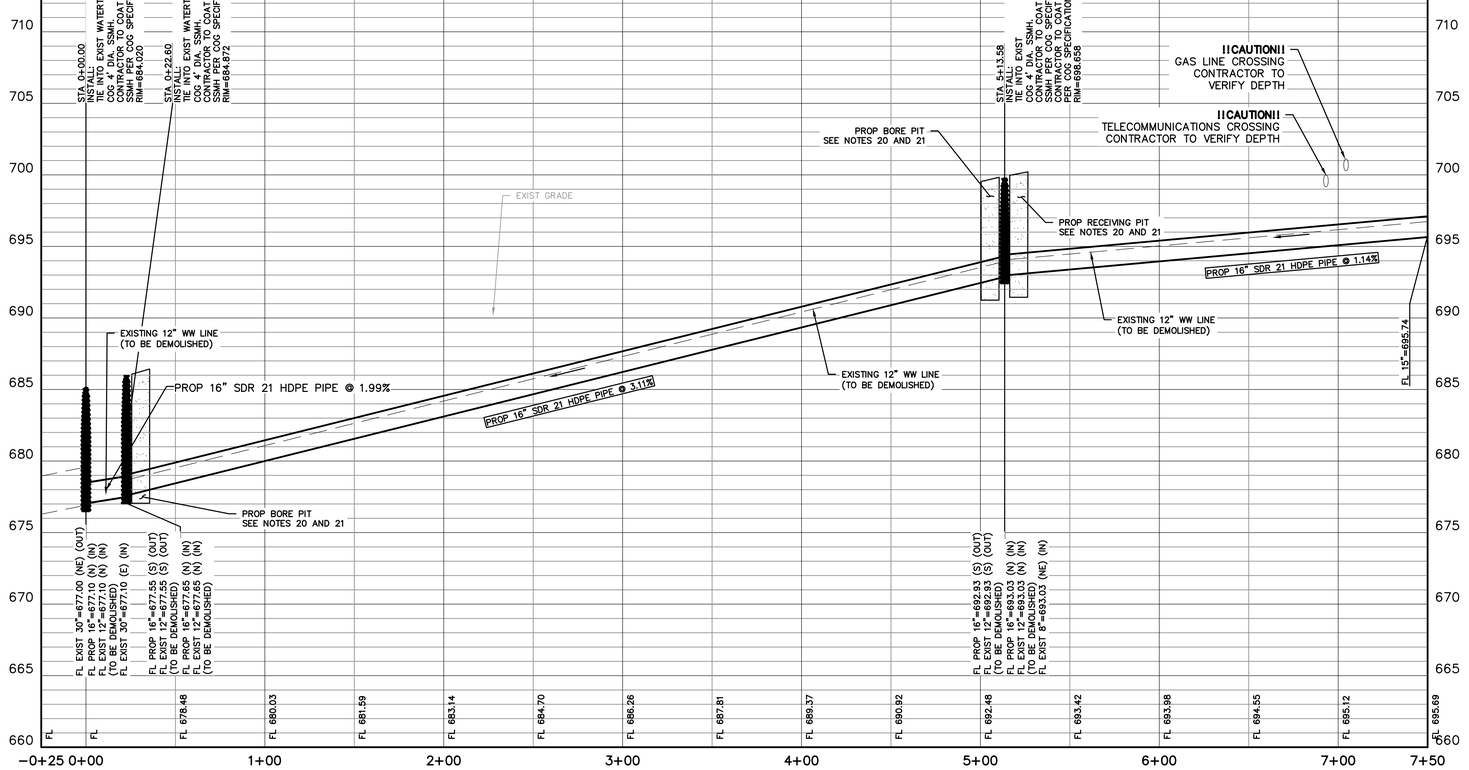

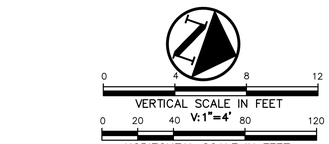

LEGEND

	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
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613	EXIST CONTOUR
	PROP SANITARY SEWER LINE
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
	TREE TO BE REMOVED

SANITARY SEWER GENERAL NOTES

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2. WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
3. SANITARY SEWER PIPE SHALL BE DIPS FUSION BONDED HDPE AND FOLLOW THE REQUIREMENTS AS SHOWN ON SHEET 7. PROP 16" FUSION BONDED HDPE SELECTED TO PROVIDE THE SAME OR GREATER ID CAPACITY AS 15" SDR 26 PVC DJ3034. USE OF FUSION BONDED HDPE FOR GRAVITY SEWER APPLICATIONS OF THIS PROJECT APPROVED BY COG IN FEBRUARY 2024.
4. WHEN WATER AND SANITARY SEWER MAINS, SERVICES, AND LATERALS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING TCEQ CHAPTERS SHALL APPLY:
   4.A. TCEQ CHAPTER 217.53 PIPE DESIGN, SECTION (d) SEPARATION DISTANCES.
   4.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
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6. CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
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8. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
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12. CONTRACTOR TO INSTALL PROPOSED PIPELINE USING TRENCHLESS METHODS AS SPECIFIED ON SHEET 7, WHEREVER FEASIBLE. CONTRACTOR TO SUBMIT LIMITS OF TRENCHLESS INSTALLATION PRIOR TO CONSTRUCTION FOR APPROVAL. PLACEMENT OF JACKING AND RECEIVING PITS WITHIN EXIST TREE 1/2 CRV IS PROHIBITED. IN THE INSTANCE THAT EXIST TREE CONFLICTS WITH TRENCHLESS OPERATIONS AND MUST BE REMOVED, CONTRACTOR TO NOTIFY ENGINEER. IF A SECTION OF PIPE CANNOT BE UPSIZED VIA PIPE BURSTING, CONTRACTOR SHALL NOTIFY ENGINEER AND CITY INSPECTOR FOR VERIFICATION OF ALTERNATIVE METHODS.
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REVISIONS

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

PROP WW LINE PLAN & PROFILE 1 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER
8/2/2024

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2023-35-CON

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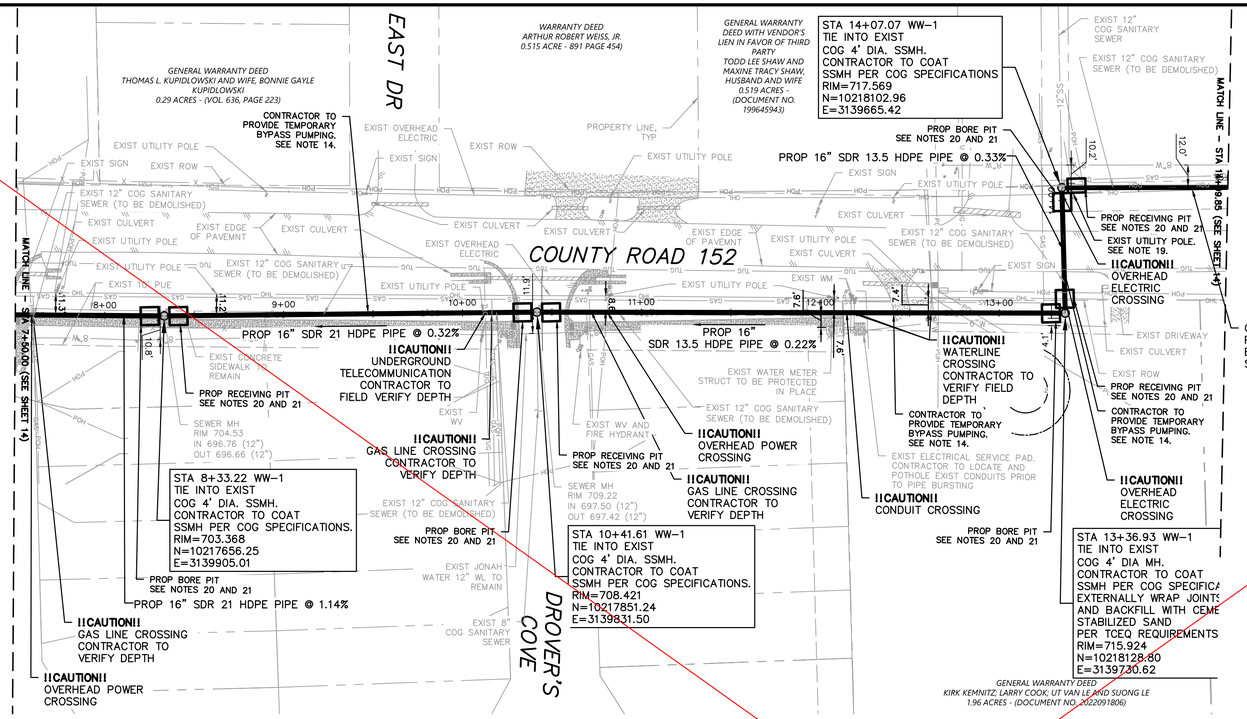

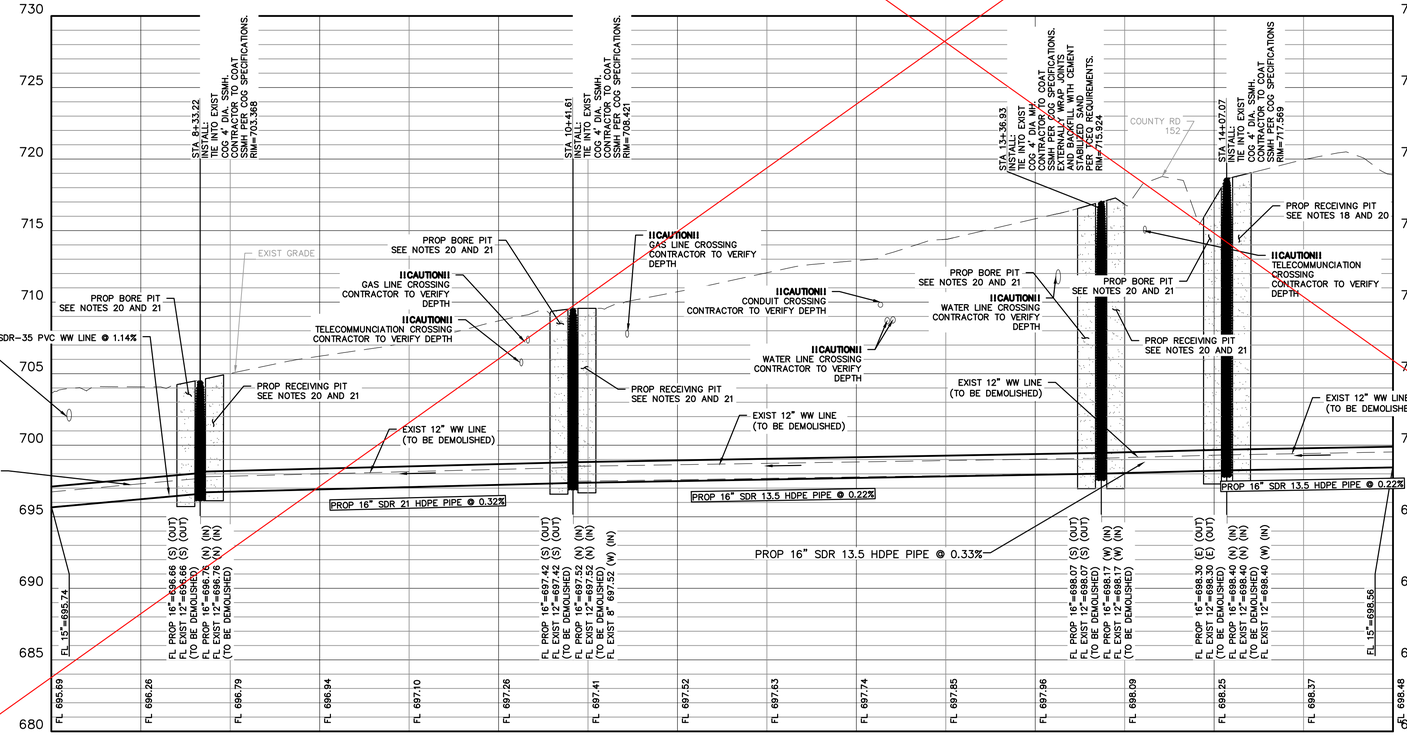

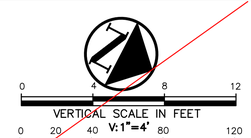

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6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
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REVISIONS

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BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
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PROP WW LINE PLAN & PROFILE 2 OF 4



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14 OF 32

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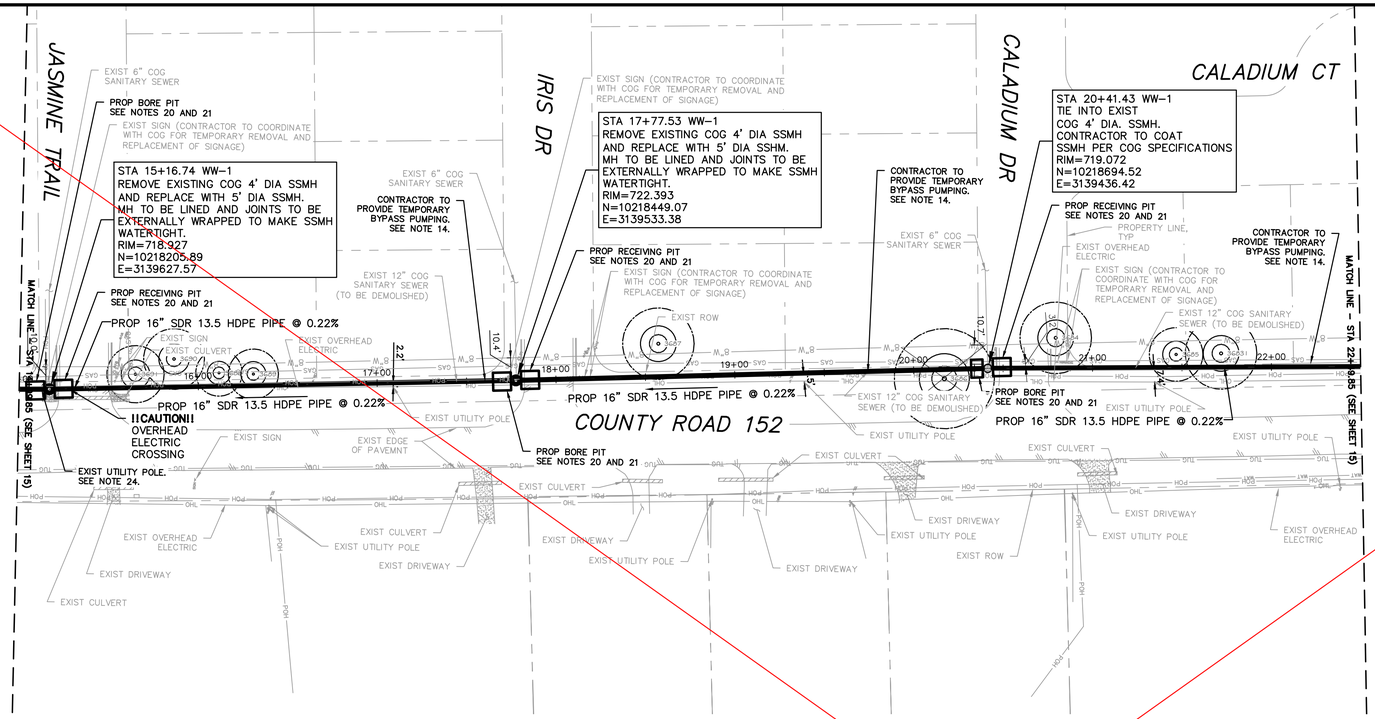

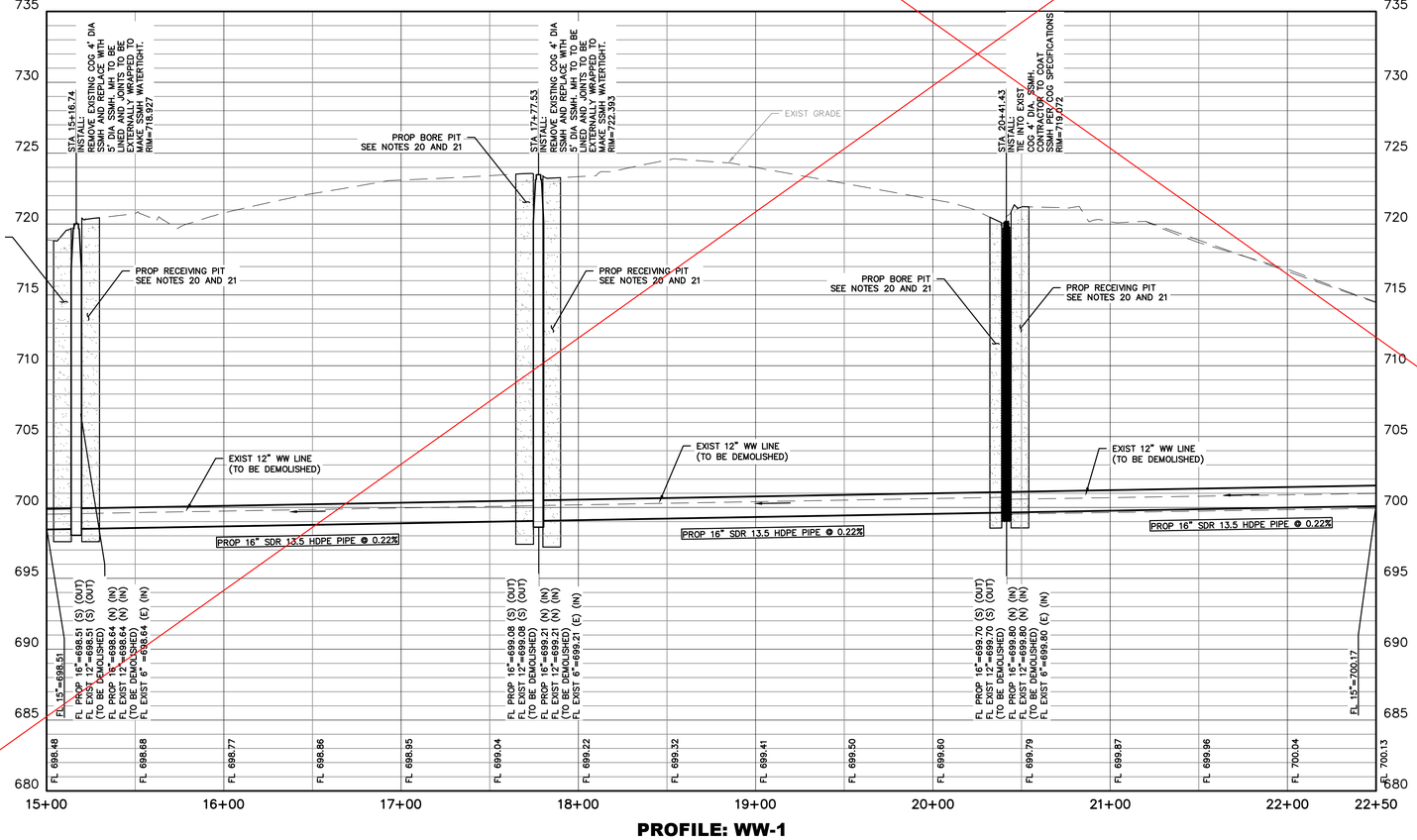

PROFILE: WW-1

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VERTICAL SCALE IN FEET
0 20 40 80 120
V: 1"=4'
HORIZONTAL SCALE IN FEET
1"=40'

LEGEND

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5. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
6. CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
7. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS AND TCEQ REGULATIONS.
8. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 8-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
9. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
10. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
11. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
12. CONTRACTOR TO INSTALL PROPOSED PIPELINE USING TRENCHLESS METHODS AS SPECIFIED ON SHEET 7, WHEREVER FEASIBLE. CONTRACTOR TO SUBMIT LIMITS OF TRENCHLESS INSTALLATION PRIOR TO CONSTRUCTION FOR APPROVAL. PLACEMENT OF JACKING AND RECEIVING PITS WITHIN EXIST TREE 1/2 CRZ IS PROHIBITED. IN THE INSTANCE THAT EXIST TREE CONFLICTS WITH TRENCHLESS OPERATIONS AND MUST BE REMOVED, CONTRACTOR TO NOTIFY ENGINEER. IF A SECTION OF PIPE CANNOT BE UPSIZED VIA PIPE BURSTING, CONTRACTOR SHALL NOTIFY ENGINEER AND CITY INSPECTOR FOR VERIFICATION OF ALTERNATIVE METHODS.
13. PIPELINE SLOPES AND DIAMETERS HAVE BEEN APPROVED BY THE COG DURING THE REVIEW OF THE SEWER STUDY TITLED "HIGHWAY 130 WASTEWATER EVALUATION FOR FIDELIS INDUSTRIAL" SUBMITTED AND APPROVED BY THE COG IN JULY OF 2022. SEE 6 FOR FLOW ESTIMATIONS.
14. SEE GENERAL NOTES PAGE SHEET 8 FOR INFORMATION REGARDING TEMPORARY BYPASS PUMPING.
15. MANHOLES MUST PASS LEAKAGE TESTING IN COMPLIANCE WITH TCEQ REGULATIONS PRIOR TO USE. IF LEAKAGE TESTING IS FAILED, CONTRACTOR TO CONTACT ENGINEER IMMEDIATELY.
16. ALL EXISTING MANHOLES BEING TIED-INTO WITHIN THE PROJECT SCOPE TO BE COATED PER COG SPECIFICATIONS.
17. EXISTING UTILITY INFORMATION DISPLAYED USING SURVEY AND AVAILABLE COG INFORMATION. IN THE INSTANCE THE CONTRACTOR FINDS A WATER LINE WITHIN 9 FT OF THE PROPOSED SCOPE, CONTRACTOR IS TO CONTACT THE ENGINEER AND REPORT FINDINGS. CONTRACTOR TO EXTERNALLY WRAP MANHOLE JOINTS AND BACKFILL WITH CEMENT STABILIZED SAND IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS. MH MUST BE TESTED IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS.
18. PRIOR TO BEGINNING PIPE BURSTING, CONTRACTOR SHALL CALL 811 FOR ALL EXISTING UTILITIES WITHIN OR AFFECTED BY LIMITS OF CONSTRUCTION ALONG THE SANITARY SEWER ALIGNMENT. ALL UTILITY CROSSINGS OF THE SANITARY SEWER ALIGNMENT SHALL BE HORIZONTALLY AND VERTICALLY LOCATED PRIOR TO COMMENCEMENT OF ACTIVITIES. CONTRACTOR SHALL REPORT ANY INFORMATION RELATED TO UTILITY CROSSINGS TO ENGINEER. CONTRACTOR SHALL COORDINATE WITH PERTINENT UTILITY PROVIDER AND ENGINEER FOR EACH UTILITY CROSSING PRIOR TO COMMENCEMENT OF ACTIVITIES.
19. ANY AND ALL DISTURBANCE TO THE ROADWAY, SIDEWALK OR CURB AND GUTTER MUST BE REPAIRED PER COG SPECIFICATIONS.
20. PROPOSED BORE PITS ARE PRELIMINARY AND SHALL BE COORDINATED WITH CONTRACTOR PRIOR TO COMMENCEMENT OF ACTIVITY. UPON COMPLETION OF EXISTING UTILITY CROSSING IDENTIFICATION, CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION PLAN INCLUDING LOCATIONS OF BORE/RECEIVING PITS, LIMITS OF CONSTRUCTION, EROSION CONTROL, AND ANY NECESSARY TREE PROTECTION.
21. CONTRACTOR SHALL STAGE BORE PITS TO NOT IMPACT 1/2 CRZ ON ANY PROTECTED OR HERITAGE TREE.
22. CONTRACTOR TO TEMPORARILY BRACE EXISTING POWER POLES, AS NECESSARY. CONTRACTOR TO INFORM COG ELECTRICAL 72 HOURS PRIOR TO PERFORMING PIPE BURSTING BELOW EXISTING POLES.
23. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.
24. CONTRACTOR TO COORDINATE WITH COG ELECTRICAL FOR RELOCATION OF EXISTING UTILITY POLE 8-WEEKS BEFORE PERFORMING WORK ADJACENT TO MH:

RICHARD PAJESETKA
512 - 930 - 8498
RICHARD.PAJESTKA@GEORGETOWN.ORG

2023-35-CON

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Phone (512) 485-0831
Toll Free (888) 937-5150
8701 N. Mopac Expy, Suite 320
Austin, TX 78759
westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

PROP WW LINE PLAN & PROFILE 3 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
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15 OF 32

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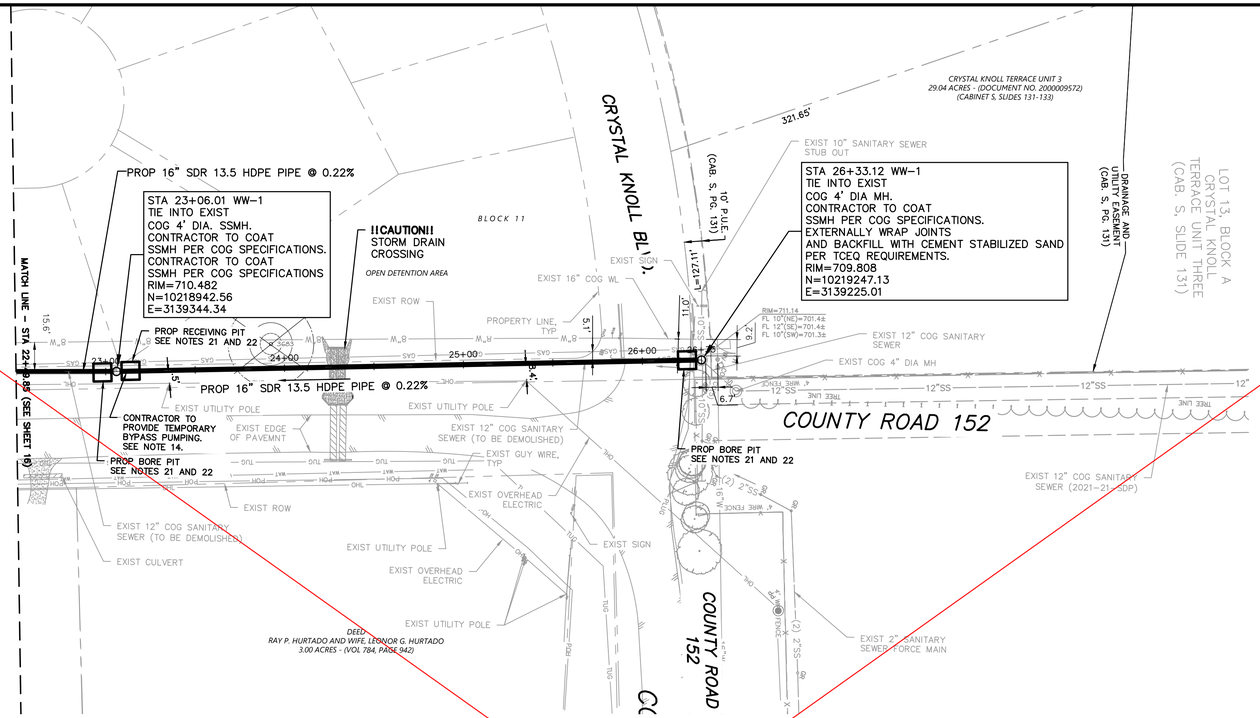
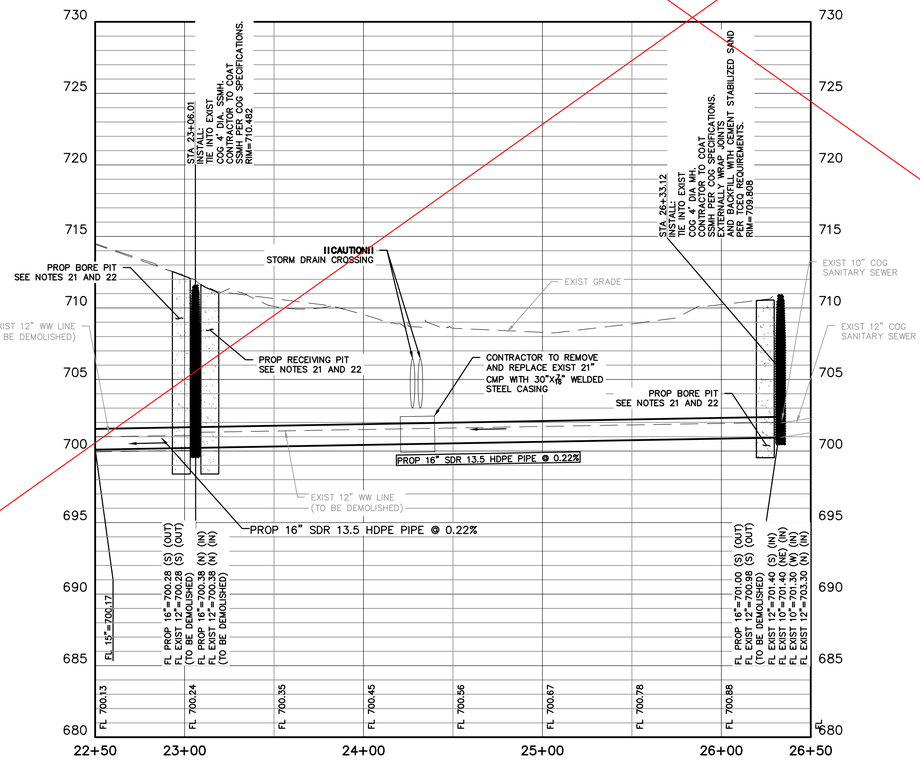
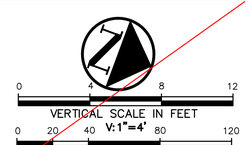
APPROVED: 08/02/2024





PROFILE: WW-1



LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE
	TREE TO BE REMOVED

SANITARY SEWER GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "A" (3000 PSI), UNLESS OTHERWISE NOTED.
2. WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
3. SANITARY SEWER PIPE SHALL BE DIPS FUSION BONDED HDPE AND FOLLOW THE REQUIREMENTS AS SHOWN ON SHEET 7. PROP 16" FUSION BONDED HDPE SELECTED TO PROVIDE THE SAME OR GREATER ID CAPACITY AS 15" SDR 26 PVC D3034. USE OF FUSION BONDED HDPE FOR GRAVITY SEWER APPLICATIONS OF THIS PROJECT APPROVED BY COG IN FEBRUARY 2024.
4. WHEN WATER AND SANITARY SEWER MAINS, SERVICES, AND LATERALS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING TCEQ CHAPTERS SHALL APPLY:
   - 4.A. TCEQ CHAPTER 217.53 PIPE DESIGN, SECTION (d) SEPARATION DISTANCES.
   - 4.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
5. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
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7. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS AND TCEQ REGULATIONS.
8. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
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23. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

2023-35-CON

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westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626
PROP WW LINE PLAN & PROFILE 4 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
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16 OF 32

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FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED
PROFESSIONAL ENGINEER

06/01/2026

EAST DR

GENERAL WARRANTY DEED
THOMAS L. KUPIDLOWSKI AND WIFE, BONNIE GAYLE KUPIDLOWSKI
0.29 ACRES - (VOL. 636, PAGE 223)

WARRANTY DEED
ARTHUR ROBERT WEISS, JR.
0.515 ACRE - 891 PAGE 454)

GENERAL WARRANTY DEED WITH VENDOR'S LIEN IN FAVOR OF THIRD PARTY
TODD LEE SHAW AND MAXINE TRACY SHAW, HUSBAND AND WIFE
0.519 ACRES - (DOCUMENT NO. 1996459437)

GENERAL WARRANTY DEED
KIRK KEMNITZ; LARRY COOK; UT VAN LE AND SUONG LE
1.96 ACRES - (DOCUMENT NO. 2022091806)

COUNTY ROAD 152

DROVER'S COVE

CONTRACTOR TO PROVIDE TEMPORARY BYPASS PUMPING. SEE NOTE 14.

MATCH LINE WW-1 – STA 7+50.00 (SEE SHEET 14)

MATCH LINE ALT_ALIGN – STA 1+50.00 (SEE SHEET 15)

STA 0+00.00 LINE "ALT_ALIGN"
1. CONTRACTOR TO INSTALL NEW DOGHOUSE MANHOLE ON EXIST 16" HDPE LINE (SEE DETAIL WW20 SHEET 22.1).
2. CONTRACTOR TO CONNECT EXIST 16" PVC AND PROP 18" PVC LINE.
3. CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS
RIM=719.04
FL EXIST 16"=699.07 (NE) (OUT)
FL PROP 18"=699.19 (NW) (IN)
FL EXIST 16"=699.09 (SW) (IN)

TIE INTO EXIST COG 4' DIA. SSMH.
1. CONTRACTOR TO FILL, PLUG, AND ABANDON 16" LINES
2. CONTRACTOR TO CONNECT PROP LATERAL TO EXIST SSMH
RIM=717.57
FL 16"=699.30 (N) (IN) (ABANDON)
FL 12"=699.20 (W) (IN)
FL 16"=699.20 (E) (OUT)

EXIST 16" LINE TO BE ABANDONED IN PLACE. FILL WITH FLOWABLE FILL.

EXIST 6" COG SANITARY SEWER @ 4.64%

EXIST UTILITY POLE. SEE NOTE 24.

EXIST 4' DIA. SSMH.
1. CONTRACTOR TO FILL, PLUG, AND ABANDON 16" LINES
2. CONTRACTOR TO CONNECT PROP LATERAL TO EXIST SSMH
RIM=718.927
FL 16"=699.60 (N) (IN) (ABANDON)
FL 6"=699.70 (W) (IN)
FL 16"=699.50 (S) (OUT) (ABANDON)
FL 6"=699.60 (E) (OUT)

EXIST 12" COG SANITARY SEWER @ 3.17%

!!CAUTION!! OVERHEAD ELECTRIC CROSSING

!!CAUTION!! OVERHEAD ELECTRIC CROSSING

EXIST 16" LINE TO REMAIN AS IS

PROP 18" @ 0.11% (SEE ALT_ALIGN)

EXIST 16" LINE TO REMAIN AS IS (SEE ALT_ALIGN_LAT_1)

PROP 18" @ 0.12% (SEE ALT_ALIGN)

EXIST 12" COG SANITARY SEWER (TO BE DEMOLISHED)

EXIST CULVERT

EXIST EDGE OF PAVEMENT

EXIST OVERHEAD ELECTRIC

EXIST UTILITY POLE

EXIST SIGN

EXIST ROW

EXIST 10" PUE

PROPERTY LINE, TYP

EXIST DRIVEWAY

EXIST CULVERT

EXIST CONCRETE SIDEWALK TO REMAIN

PROP RECEIVING PIT SEE NOTES 20 AND 21

SDR 21 HDPE PIPE @ 0.32% (SEE ???)

!!CAUTION!! UNDERGROUND TELECOMMUNICATION CONTRACTOR TO FIELD VERIFY DEPTH

PROP 16" SDR 13.5 HDPE PIPE @ 0.40%

EXIST WATER METER STRUCT TO BE PROTECTED IN PLACE

EXIST 12" COG SANITARY SEWER (TO BE DEMOLISHED)

!!CAUTION!! WATERLINE CROSSING CONTRACTOR TO VERIFY FIELD DEPTH

STA 13+36.93 "WW-1"
EXIST 4' DIA. SSMH.
RIM=717.83
FL 16"=698.80 (SW) (IN)
FL 16"=698.70 (SE) (OUT)

STA 0+98.10 LINE "ALT_ALIGN"
CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS
INSTALL:
5' DIA. SSMH
RIM=718.88
FL 18"=699.30 (S) (OUT)
FL 18"=699.40 (N) (IN)
FL 6"=699.50 (W) (IN)

CONTRACTOR TO REMOVE AND REPLACE RESIDENTIAL MAILBOXES ALONG NEW PROPOSED ALIGNMENT.

PROP 6" @ 0.50%
1. CONTRACTOR TO PROVIDE TEMPORARY BYPASS PUMPING. SEE NOTE 14 SHEET 16R. (SEE ALT_ALIGN_LAT_2)

PROP PAVEMENT REPAIR

STA 8+33.22 WW-1
TIE INTO EXIST COG 4' DIA. SSMH.
CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS.
RIM=703.368
N=10217656.25
E=3139905.01

PROP BORE PIT SEE NOTES 20 AND 21

SDR 21 HDPE PIPE @ 1.14% (SEE ???)

!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH

!!CAUTION!! OVERHEAD POWER CROSSING

!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH

!!CAUTION!! CONDUIT CROSSING

STA 10+41.61 WW-1
TIE INTO EXIST COG 4' DIA. SSMH.
CONTRACTOR TO COAT SSMH PER COG SPECIFICATIONS.
RIM=708.421
N=10217851.24
E=3139831.50

EXIST 12" COG SANITARY SEWER (TO BE DEMOLISHED)

EXIST JONAH WATER 12" WL TO REMAIN

EXIST 8" COG SANITARY SEWER

EXIST WV AND FIRE HYDRANT

SEWER MH RIM 704.53 IN 696.76 (12") OUT 696.66 (12")

SEWER MH RIM 709.22 IN 697.50 (12") OUT 697.42 (12")

EXIST ELECTRICAL SERVICE PAD CONTRACTOR TO LOCATE AND POTHOLE EXIST CONDUITS PRIOR TO PIPE BURSTING

SEE ALTERNATE ALIGNMENT THIS SHEET

SEE WW-1 PROFILE CONTINUATION THIS SHEET

VERTICAL SCALE IN FEET
0 4 8 12
HORIZONTAL SCALE IN FEET
0 20 40 80 120
1"=40'

LEGEND

BOLLARD	
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2–INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE

PROFILE: WW-1

PROP 15" SDR-35 PVC WW LINE @ 1.14%
EXIST GRADE
PROP BORE PIT SEE NOTES 20 AND 21
PROP RECEIVING PIT SEE NOTES 20 AND 21
!!CAUTION!! GAS LINE CROSSING CONTRACTOR TO VERIFY DEPTH
!!CAUTION!! TELECOMMUNICATION CROSSING CONTRACTOR TO VERIFY DEPTH
!!CAUTION!! CONDUIT CROSSING CONTRACTOR TO VERIFY DEPTH
!!CAUTION!! WATER LINE CROSSING CONTRACTOR TO VERIFY DEPTH
EXIST 12" WW LINE (TO BE DEMOLISHED)
PROP 16" SDR 21 HDPE PIPE @ 0.32%
PROP 16" SDR 13.5 HDPE PIPE @ 0.40%
EXIST 16" SDR 13.5 HDPE PIPE @ 0.57%
EXIST 12" SDR-26 PVC WW LINE @ 3.17%
PROP 18" SDR-26 PVC WW LINE @ 0.11%
PROP 18" SDR-26 PVC WW LINE @ 0.12%

PROFILE: ALT_ALIGN

PROFILE: ALT_ALIGN_LAT_1

2023-35-CON

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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

PROP WW LINE PLAN & PROFILE 2 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
TCG	MAW	MAR 2026

SHEET NO.
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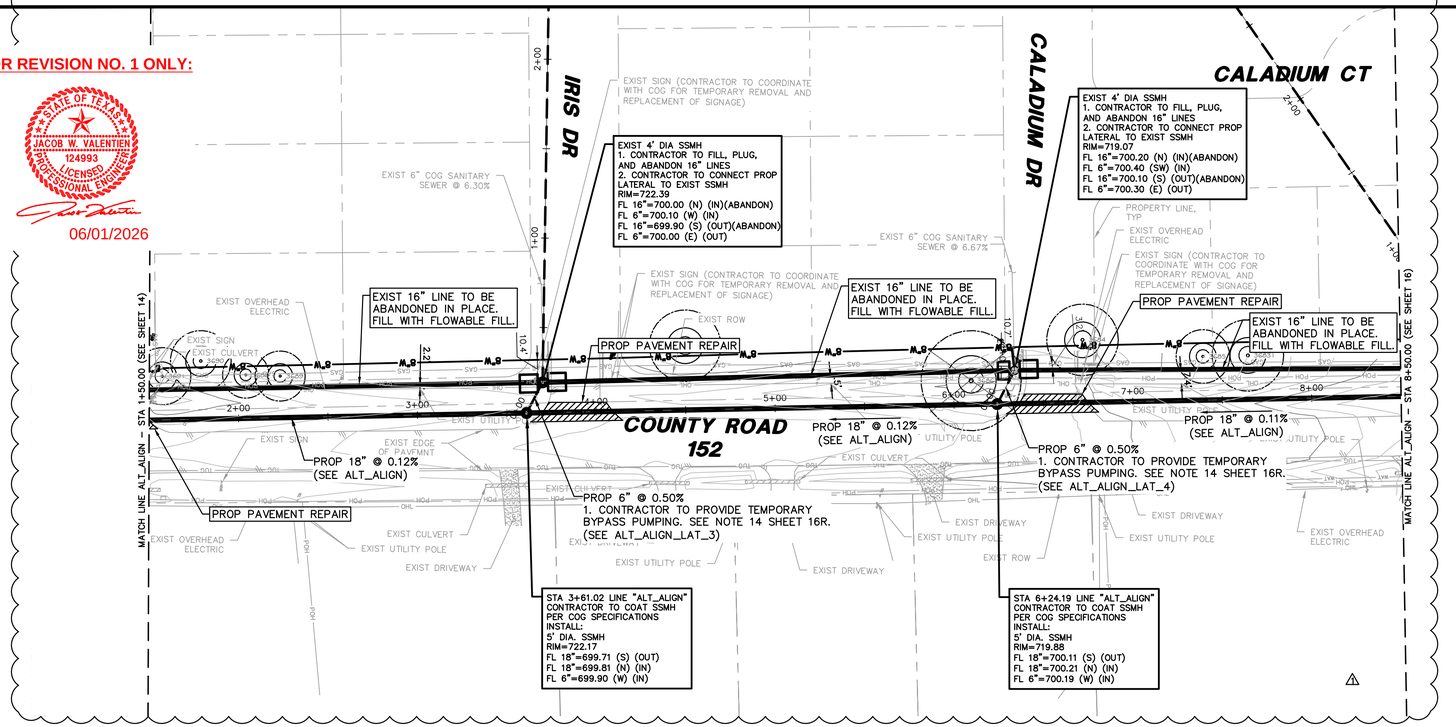
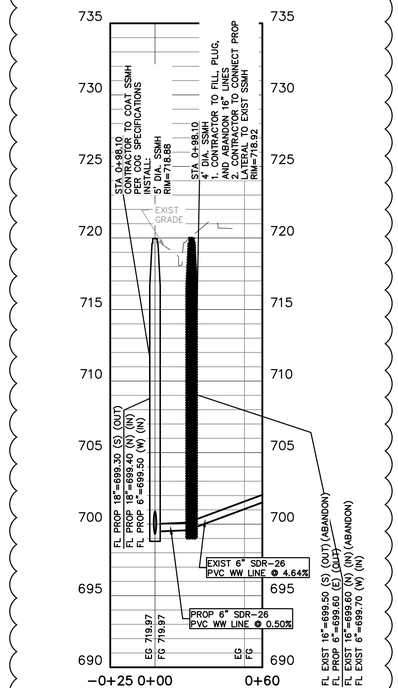
FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED
PROFESSIONAL ENGINEER

06/01/2026



PROFILE: ALT_ALIGN



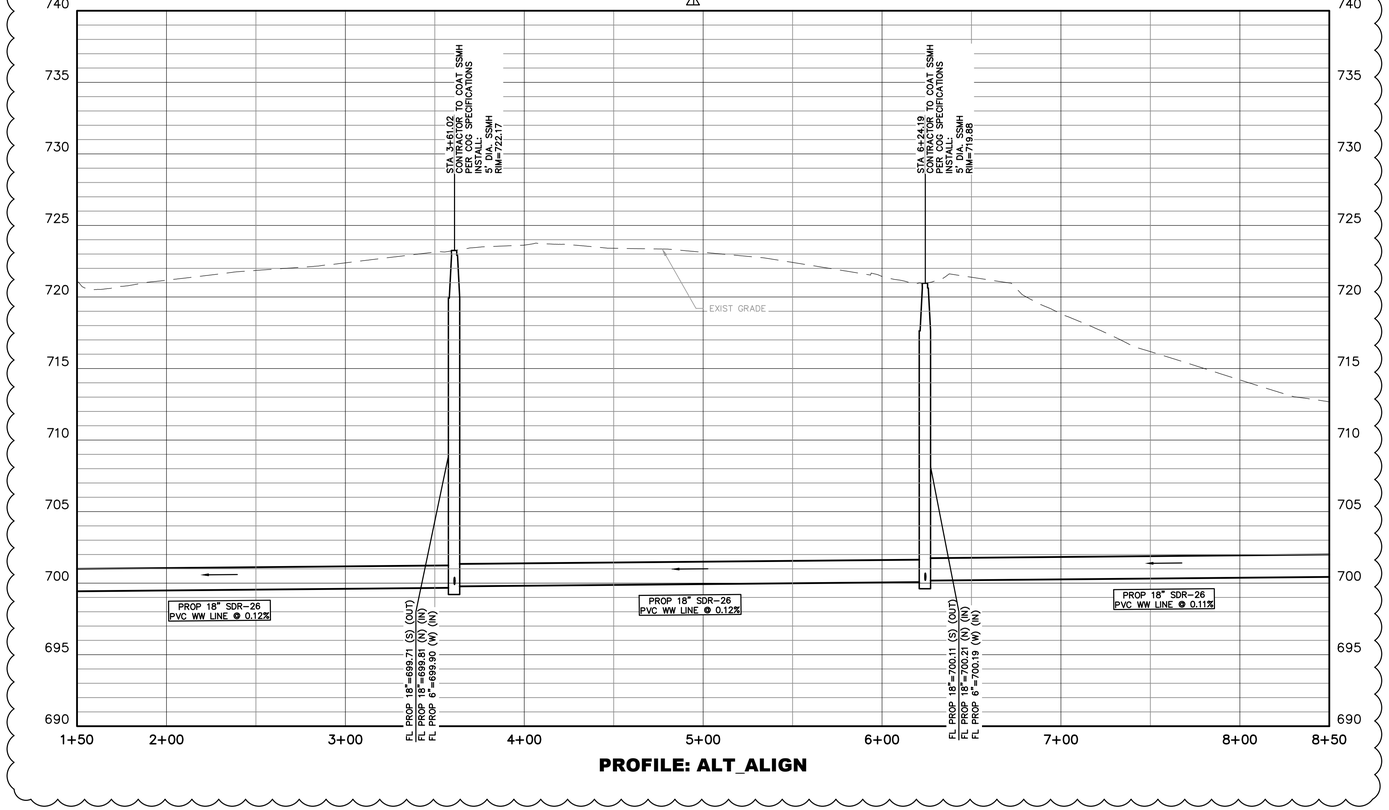
PROFILE: ALT_ALIGN_LAT_2

CONTRACTOR TO REMOVE AND REPLACE RESIDENTIAL MAILBOXES ALONG NEW PROPOSED ALIGNMENT.

VERTICAL SCALE IN FEET
0 4 8 12
0 20 40 V: 1"=4' 80 120
HORIZONTAL SCALE IN FEET
1"=40'

LEGEND

BOLLARD	
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
E	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
C	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE
	TREE TO BE REMOVED



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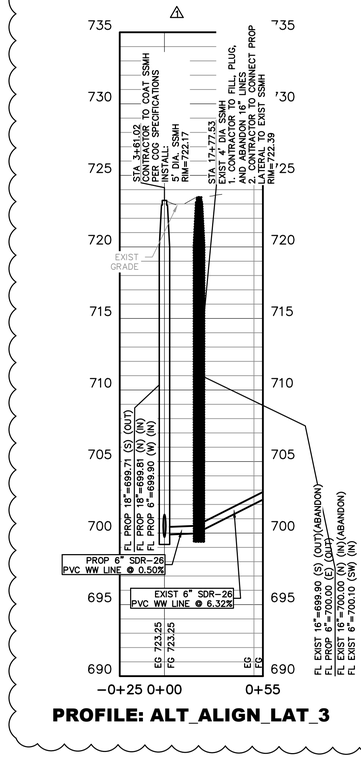

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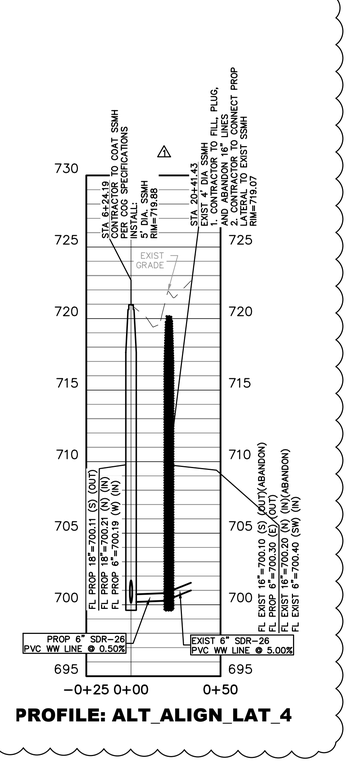

PROFILE: ALT_ALIGN_LAT_4

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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

PROP WW LINE PLAN & PROFILE 3 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
TCG	MIZ	AUG 2024

SHEET NO.
15R
15R OF 32

2023-35-CON

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4/16/2026 1:21 PM
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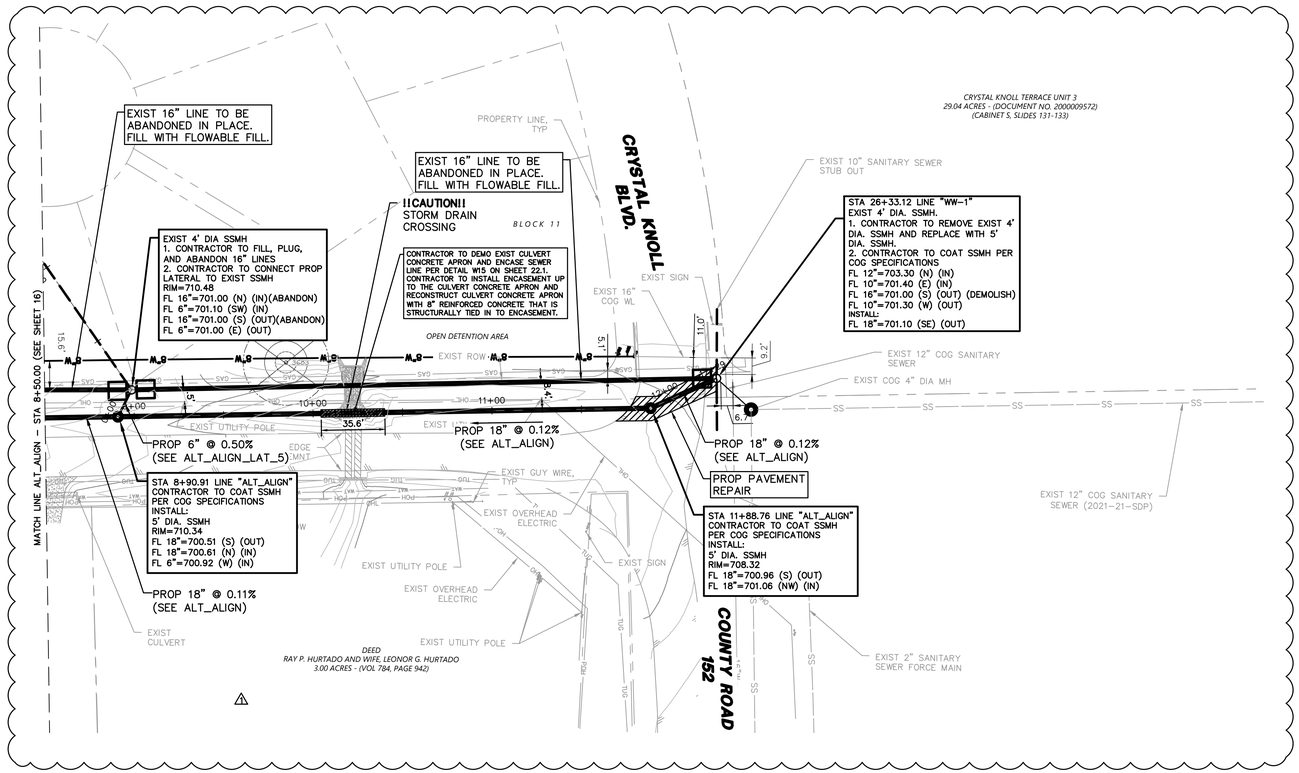

SANITARY SEWER GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "A" (3000 PSI), UNLESS OTHERWISE NOTED.
2. WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
3. SANITARY SEWER PIPE SHALL BE DIPS FUSION BONDED HDPE AND FOLLOW THE REQUIREMENTS AS SHOWN ON SHEET 7. PROP 16" FUSION BONDED HDPE SELECTED TO PROVIDE THE SAME OR GREATER ID CAPACITY AS 15" SDR 26 PVC D3034. USE OF FUSION BONDED HDPE FOR GRAVITY SEWER APPLICATIONS OF THIS PROJECT APPROVED BY COG IN FEBRUARY 2024.
4. WHEN WATER AND SANITARY SEWER MAINS, SERVICES, AND LATERALS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING TCEQ CHAPTERS SHALL APPLY:
   4.A. TCEQ CHAPTER 217.53 PIPE DESIGN, SECTION (d) SEPARATION DISTANCES.
   4.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
5. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
6. CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
7. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS AND TCEQ REGULATIONS.
8. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
9. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
10. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
11. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
12. CONTRACTOR TO INSTALL PROPOSED PIPELINE USING TRENCHLESS METHODS AS SPECIFIED ON SHEET 7, WHEREVER FEASIBLE. CONTRACTOR TO SUBMIT LIMITS OF TRENCHLESS INSTALLATION PRIOR TO CONSTRUCTION FOR APPROVAL. PLACEMENT OF JACKING AND RECEIVING PITS WITHIN EXIST TREE 1/2 CRZ IS PROHIBITED. IN THE INSTANCE THAT EXIST TREE CONFLICTS WITH TRENCHLESS OPERATIONS AND MUST BE REMOVED, CONTRACTOR TO NOTIFY ENGINEER. IF A SECTION OF PIPE CANNOT BE UPSIZED VIA PIPE BURSTING, CONTRACTOR SHALL NOTIFY ENGINEER AND CITY INSPECTOR FOR VERIFICATION OF ALTERNATIVE METHODS.
13. PIPELINE SLOPES AND DIAMETERS HAVE BEEN APPROVED BY THE COG DURING THE REVIEW OF THE SEWER STUDY TITLED "HIGHWAY 130 WASTEWATER EVALUATION FOR FIDELIS INDUSTRIAL" SUBMITTED AND APPROVED BY THE COG IN JULY OF 2022. SEE 6 FOR FLOW ESTIMATIONS.
14. SEE GENERAL NOTES PAGE SHEET 8 FOR INFORMATION REGARDING TEMPORARY BYPASS PUMPING.
15. MANHOLES MUST PASS LEAKAGE TESTING IN COMPLIANCE WITH TCEQ REGULATIONS PRIOR TO USE. IF LEAKAGE TESTING IS FAILED, CONTRACTOR TO CONTACT ENGINEER IMMEDIATELY.
16. ALL EXISTING MANHOLES BEING TIED-INTO WITHIN THE PROJECT SCOPE TO BE COATED PER COG SPECIFICATIONS.
17. EXISTING UTILITY INFORMATION DISPLAYED USING SURVEY AND AVAILABLE COG INFORMATION. IN THE INSTANCE THE CONTRACTOR FINDS A WATER LINE WITHIN 9 FT OF THE PROPOSED SCOPE, CONTRACTOR IS TO CONTACT THE ENGINEER AND REPORT FINDINGS. CONTRACTOR TO EXTERNALLY WRAP MANHOLE JOINTS AND BACKFILL WITH CEMENT STABILIZED SAND IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS. MH MUST BE TESTED IN ACCORDANCE WITH COG SPECIFICATIONS AND TCEQ REGULATIONS.
18. PRIOR TO BEGINNING PIPE BURSTING, CONTRACTOR SHALL CALL 811 FOR ALL EXISTING UTILITIES WITHIN OR AFFECTED BY LIMITS OF CONSTRUCTION ALONG THE SANITARY SEWER ALIGNMENT. ALL UTILITY CROSSINGS OF THE SANITARY SEWER ALIGNMENT SHALL BE HORIZONTALLY AND VERTICALLY LOCATED PRIOR TO COMMENCEMENT OF ACTIVITIES. CONTRACTOR SHALL REPORT ANY INFORMATION RELATED TO UTILITY CROSSINGS TO ENGINEER. CONTRACTOR SHALL COORDINATE WITH PERTINENT UTILITY PROVIDER AND ENGINEER FOR EACH UTILITY CROSSING PRIOR TO COMMENCEMENT OF ACTIVITIES.
19. ANY AND ALL DISTURBANCE TO THE ROADWAY, SIDEWALK OR CURB AND GUTTER MUST BE REPAIRED PER COG SPECIFICATIONS.
20. CONTRACTOR TO TEMPORARILY BRACE EXISTING POWER POLES, AS NECESSARY. CONTRACTOR TO INFORM COG ELECTRICAL 72 HOURS PRIOR TO PERFORMING PIPE BURSTING BELOW EXISTING POLES.
21. PROPOSED BORE PITS ARE PRELIMINARY AND SHALL BE COORDINATED WITH CONTRACTOR PRIOR TO COMMENCEMENT OF ACTIVITY. UPON COMPLETION OF EXISTING UTILITY CROSSING IDENTIFICATION, CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION PLAN INCLUDING LOCATIONS OF BORE/RECEIVING PITS, LIMITS OF CONSTRUCTION, EROSION CONTROL, AND ANY NECESSARY TREE PROTECTION.
22. CONTRACTOR SHALL STAGE BORE PITS TO NOT IMPACT 1/2 CRZ ON ANY PROTECTED OR HERITAGE TREE.
23. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.

0 4 8 12
VERTICAL SCALE IN FEET
0 20 40 80 120
HORIZONTAL SCALE IN FEET
1"=40'

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
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IRS	1/2-INCH IRON ROD
(C.M.)	W/"PACHECO KOCH" CAP SET
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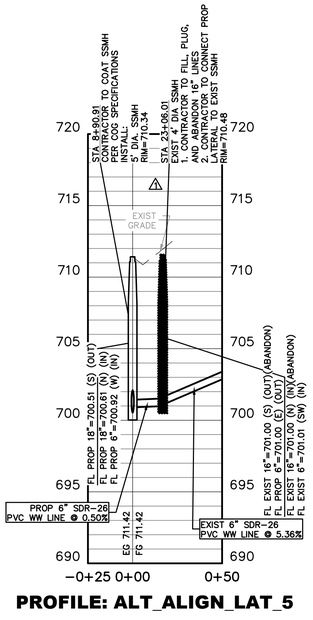
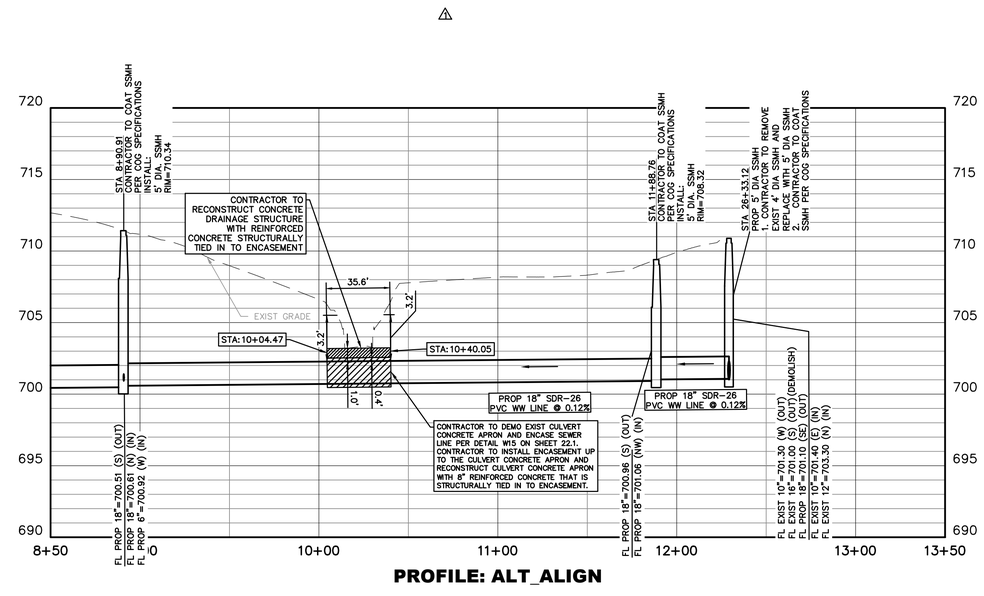
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
613	EXIST CONTOUR
	PROP SANITARY SEWER LINE
	TREE TO BE REMOVED

CONTRACTOR TO REMOVE AND REPLACE RESIDENTIAL MAILBOXES ALONG NEW PROPOSED ALIGNMENT. ⚠





FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED
PROFESSIONAL ENGINEER
06/01/2026

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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	4/16/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626
PROP WW LINE PLAN & PROFILE 4 OF 4

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
TCG	MW	AUG 2024

SHEET NO.
16R
16R OF 32

2023-35-CON

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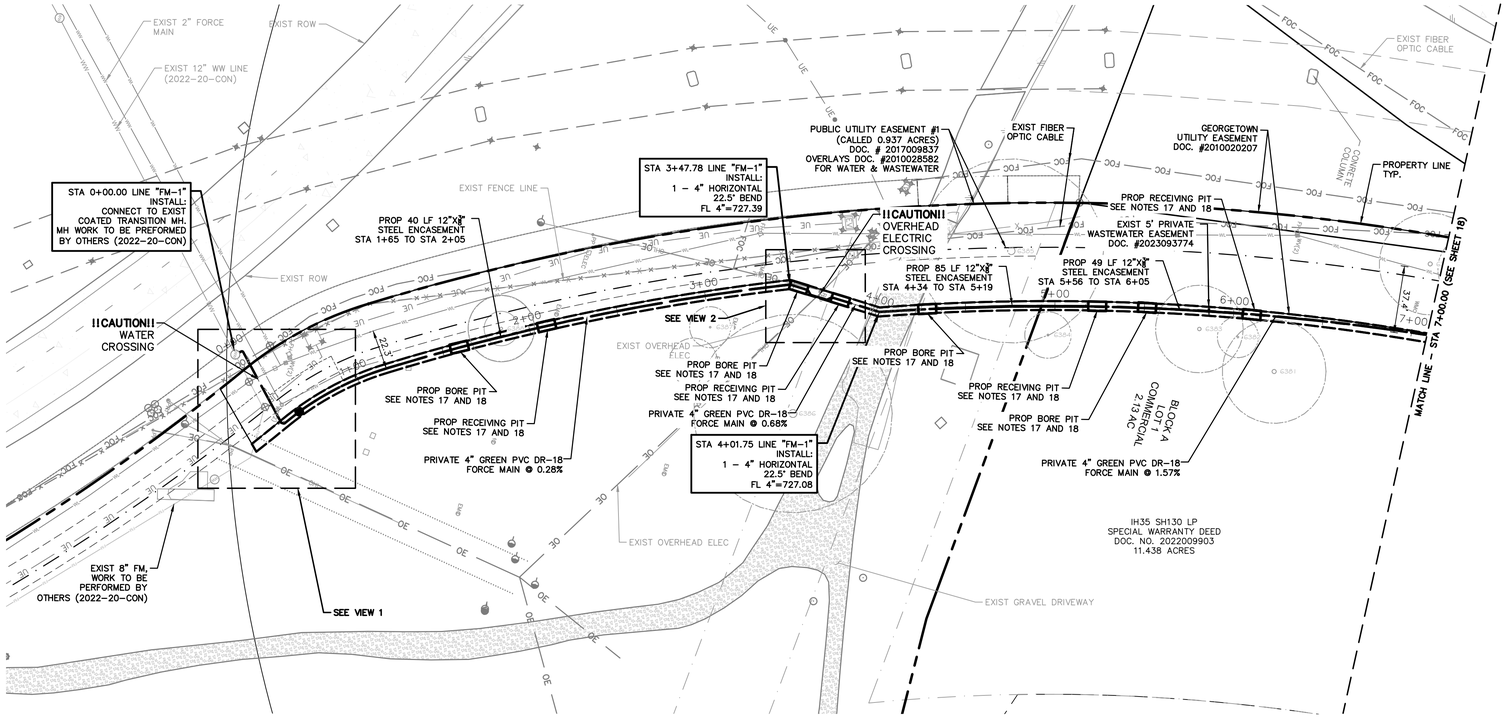
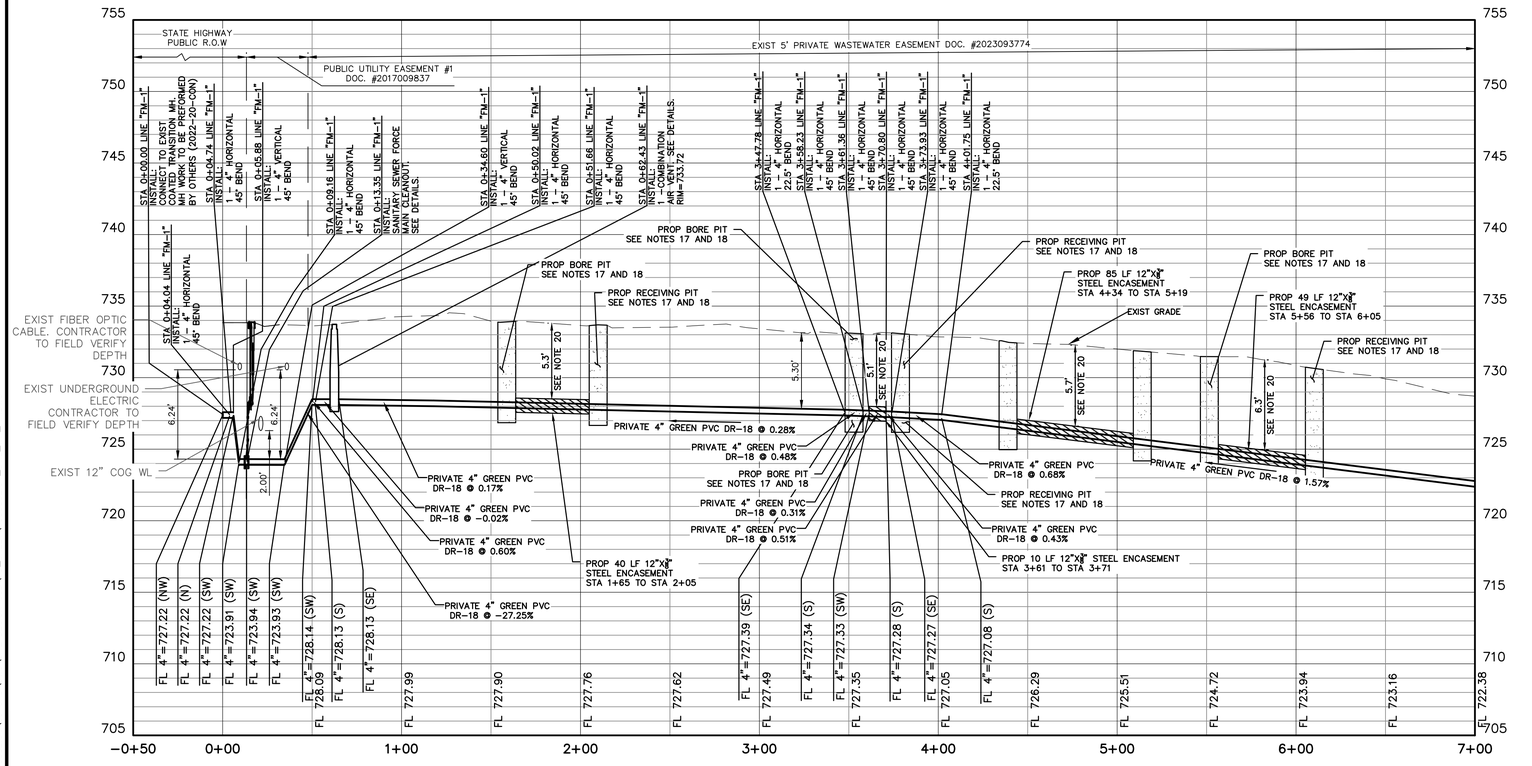
APPROVED: 08/02/2024





SANITARY SEWER GENERAL NOTES

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3. FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-110 AND MUST BE RESTRAINED. CONTRACTOR TO INSTALL THRUST BLOCKS PER DETAILS.
4. WHEN REQUIRED, CONTRACTOR TO ROTATE FITTINGS TO ACHIEVE OFFSET IN VERTICAL AND HORIZONTAL DIRECTIONS. CONTRACTOR TO MAINTAIN DEPTH OF COVER AS CALLED OUT IN THE PLANS.
5. WHEN WATER AND SANITARY SEWER MAINS, SERVICES, AND LATERALS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING TCEQ CHAPTERS SHALL APPLY:
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   5.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
6. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
7. CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
8. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
9. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
10. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
11. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
12. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
13. CONTRACT TO CONTACT PEC 48 HOURS IN ADVANCE PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES NEAR EXISTING POWER POLES.
14. CONTRACTOR TO PROVIDE 72 HOUR NOTICE PRIOR TO BEGINNING TIE IN TO THE CITY OF GEORGETOWN SANITARY SEWER NETWORK.
15. CONTRACTOR TO PLACE WARNING TAPE IN TRENCH OVERTOP FORCE MAIN. WARNING MUST BEAR THE LABEL "PRESSURIZED SEWER" CONTINUOUSLY REPEATED WITH LETTERS ATLEAST 1.5" TALL. TAPE MUST BE INSTALLED 2' MAX ABOVE THE TOP OF PIPE AND SHALL HAVE MINIMUM THICKNESS OF 5 MILS.
16. CONTRACTOR TO INSTALL THRUST BLOCKS AT BENDS, SEE DETAILS.
17. PROPOSED BORE PITS ARE PRELIMINARY AND SHALL BE COORDINATED WITH CONTRACTOR PRIOR TO COMMENCEMENT OF ACTIVITY. UPON COMPLETION OF EXISTING UTILITY CROSSING IDENTIFICATION, CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION PLAN INCLUDING LOCATIONS OF BORE/RECEIVING PITS, LIMITS OF CONSTRUCTION, EROSION CONTROL, AND ANY NECESSARY TREE PROTECTION.
18. CONTRACTOR SHALL STAGE BORE PITS TO NOT IMPACT 1/2 CRZ ON ANY PROTECTED OR HERITAGE TREE.
19. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.
20. MINIMUM DEPTH OF COVER FOR CASING INSTALLATION SHALL BE 5FT.
21. CONTRACTOR TO STAGE AND OPERATE EQUIPMENT TO MITIGATE DAMAGE TO OR TRIMMING OF TREE CANOPIES.

0 20 40 80 120
GRAPHIC SCALE IN FEET
0 4 8 12
VERTICAL SCALE IN FEET

LEGEND

B	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
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SIGN	TRAFFIC SIGN
IRS (C.M.)	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET CONTROLLING MONUMENT
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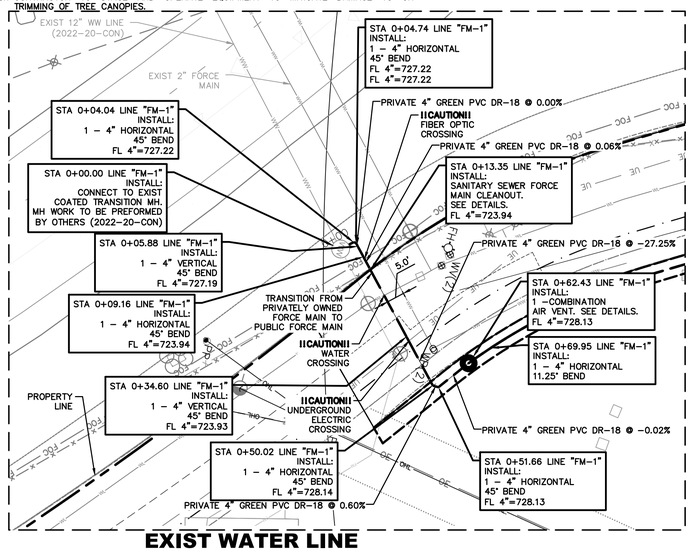
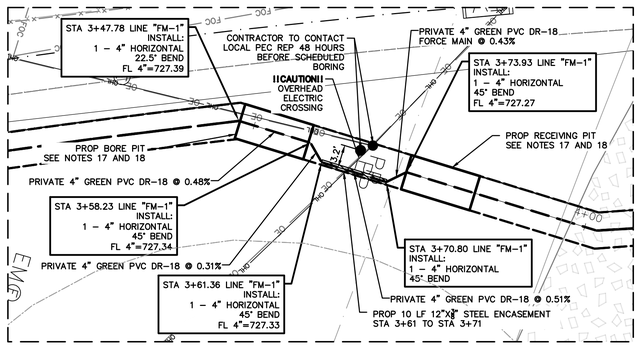
X	FENCE
OHL	OVERHEAD UTILITY LINE
	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
	UNDERGROUND CABLE LINE
6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
	PROP SANITARY SEWER LINE
	PROP SANITARY SEWER MANHOLE
	PROP SANITARY SEWER CLEANOUT



1 EXIST WATER LINE CROSSING

1"=20'



2 EXIST POWER POLES

1"=10'

2023-35-CON

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

PROP WW FORCE MAIN PLAN & PROFILE 1 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. 17

17 OF 30

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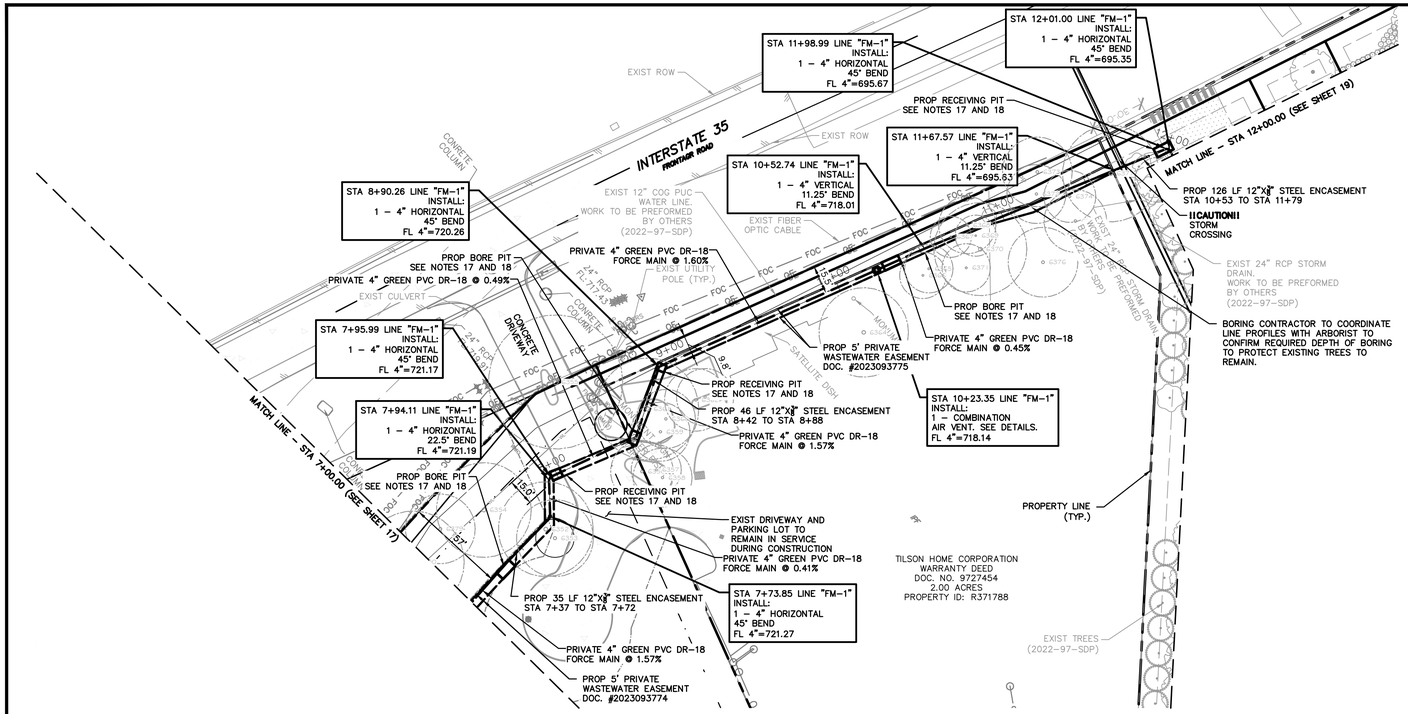
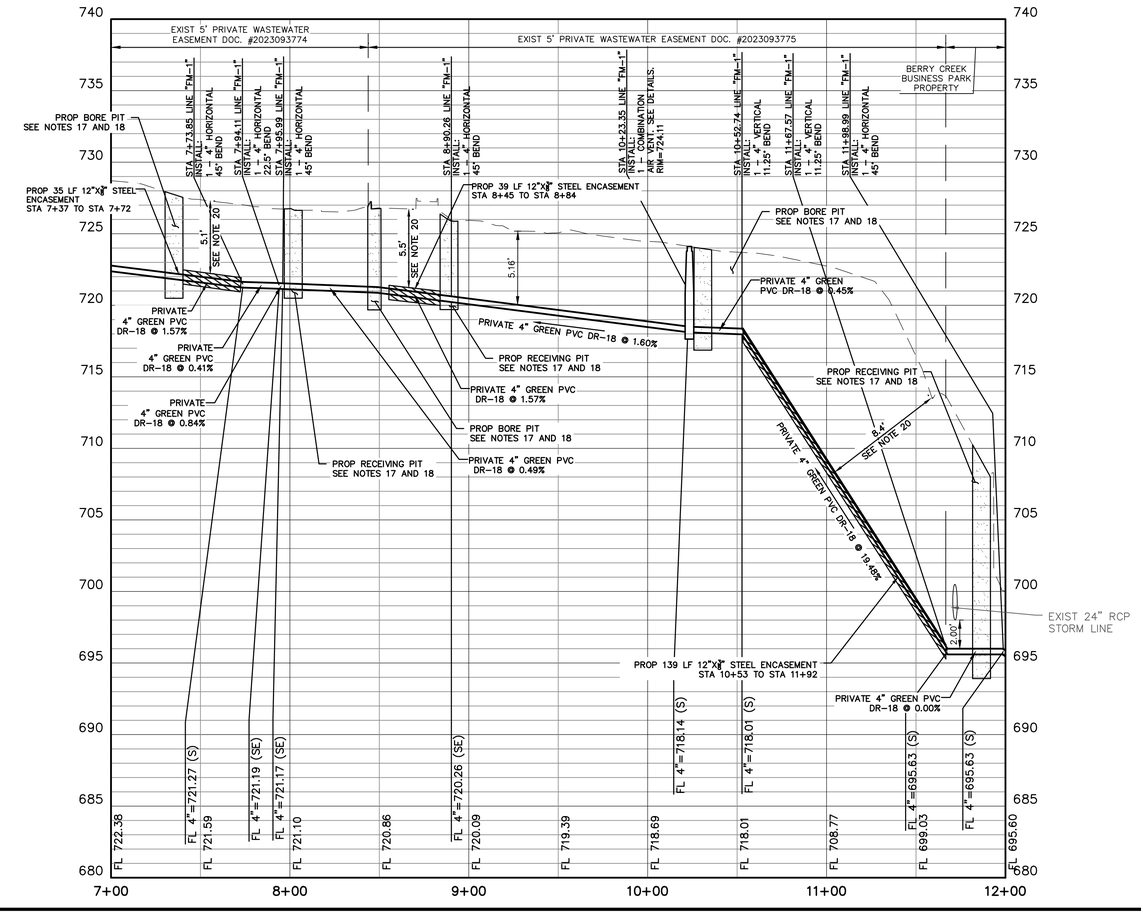
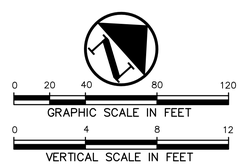
APPROVED: 08/02/2024







LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
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6"W	UNDERGROUND WATER LINE
6"SS	UNDERGROUND SANITARY SEWER LINE
	PROP FDC LOCATION
	PROP WATER VALVE
	PROP FIRE HYDRANT
	PROP WATER LINE W/ BEND
	PROP SANITARY SEWER LINE
	PROP SANITARY SEWER MANHOLE
	PROP SANITARY SEWER CLEANOUT

SANITARY SEWER GENERAL NOTES

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3. FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-110 AND MUST BE RESTRAINED. CONTRACTOR TO INSTALL THRUST BLOCKS PER DETAILS.
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7. CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
8. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
9. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
10. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
11. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
12. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.
13. CONTRACT TO CONTACT PEC 48 HOURS IN ADVANCE PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES NEAR EXISTING POWER POLES.
14. CONTRACTOR TO PROVIDE 72 HOUR NOTICE PRIOR TO BEGINNING TIE IN TO THE CITY OF GEORGETOWN SANITARY SEWER NETWORK.
15. CONTRACTOR TO PLACE WARNING TAPE IN TRENCH OVERTOP FORCE MAIN. WARNING MUST BEAR THE LABEL "PRESSURIZED SEWER" CONTINUOUSLY REPEATED WITH LETTERS ATLEAST 1.5" TALL. TAPE MUST BE INSTALLED 2' MAX ABOVE THE TOP OF PIPE AND SHALL HAVE MINIMUM THICKNESS OF 5 MILS.
16. CONTRACTOR TO INSTALL THRUST BLOCKS AT BENDS, SEE DETAILS.
17. PROPOSED BORE PITS ARE PRELIMINARY AND SHALL BE COORDINATED WITH CONTRACTOR PRIOR TO COMMENCEMENT OF ACTIVITY. UPON COMPLETION OF EXISTING UTILITY CROSSING IDENTIFICATION, CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION PLAN INCLUDING LOCATIONS OF BORE/RECEIVING PITS, LIMITS OF CONSTRUCTION, EROSION CONTROL, AND ANY NECESSARY TREE PROTECTION.
18. CONTRACTOR SHALL STAGE BORE PITS TO NOT IMPACT 1/2 CRZ ON ANY PROTECTED OR HERITAGE TREE.
19. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.
20. MINIMUM DEPTH OF COVER FOR CASING INSTALLATION SHALL BE 5 FT.
21. CONTRACTOR TO STAGE AND OPERATE EQUIPMENT TO MITIGATE DAMAGE TO OR TRIMMING OF TREE CANOPIES.

2023-35-CON

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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS			
NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626
PROP WW FORCE MAIN PLAN & PROFILE 2 OF 3



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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO. **18**
18 OF 30

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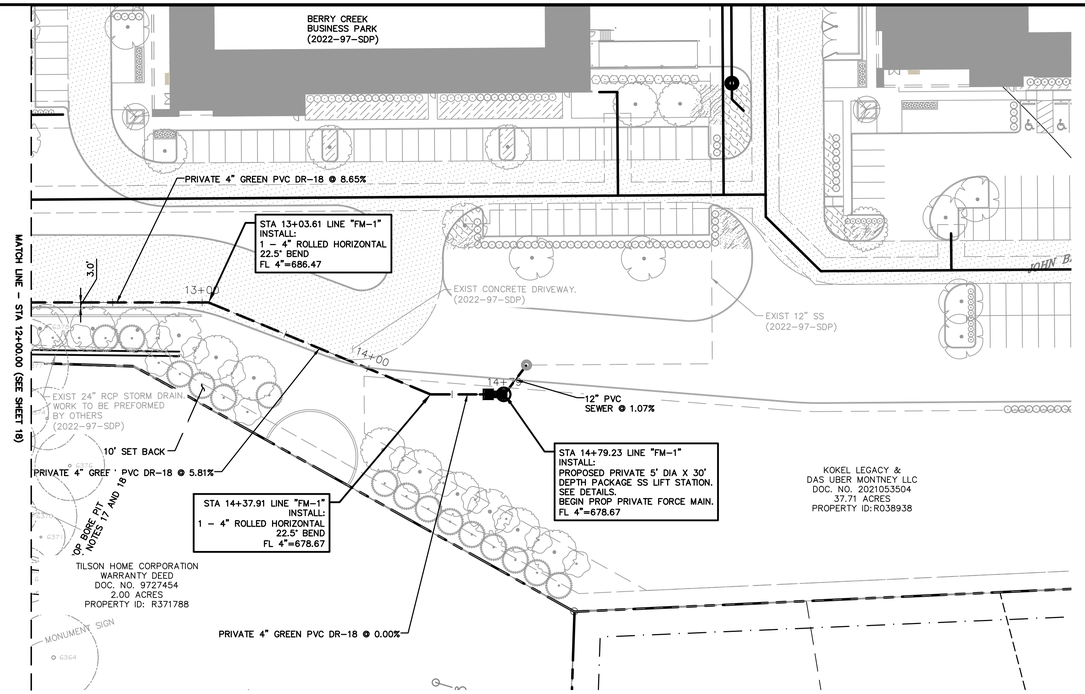
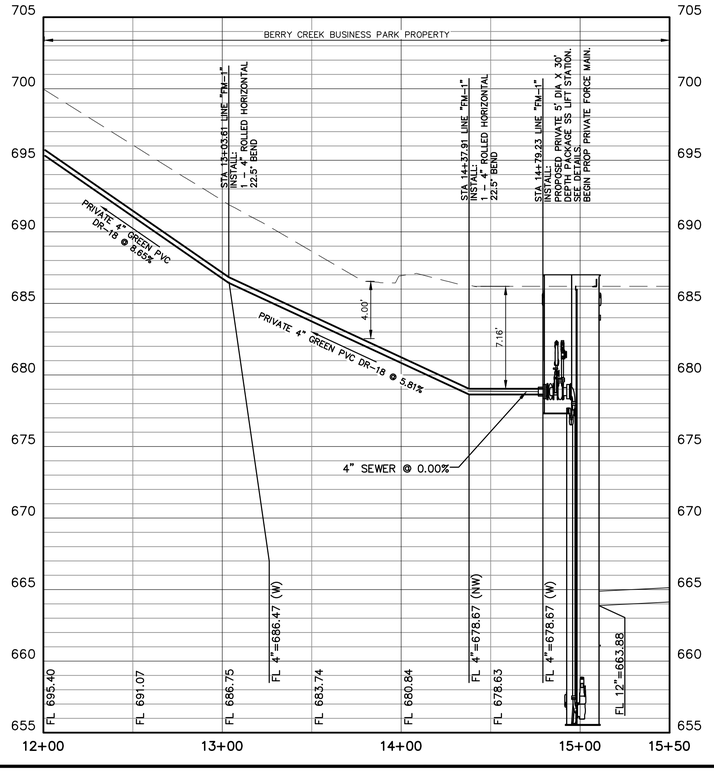
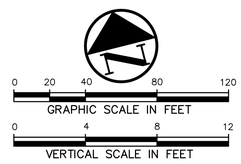
APPROVED: 08/02/2024







LEGEND

- BOLLARD
- ELECTRIC METER
- POWER POLE
- LIGHT STANDARD
- WATER METER
- WATER VALVE
- IRRIGATION CONTROL VALVE
- FIRE HYDRANT
- CLEANOUT
- MANHOLE
- TRAFFIC SIGNAL CONTROL
- TRAFFIC SIGNAL POLE
- TELEPHONE BOX
- FLOOD LIGHT
- FLAG POLE
- TRAFFIC SIGN
- 1/2-INCH IRON ROD
- IRS (C.M.) W/"PACHECO KOCH" CAP SET CONTROLLING MONUMENT
- PROPERTY LINE
- X FENCE
- OHL OVERHEAD UTILITY LINE
- UNDERGROUND ELECTRIC LINE
- T UNDERGROUND TELEPHONE LINE
- UNDERGROUND CABLE LINE
- 6"W UNDERGROUND WATER LINE
- 6"SS UNDERGROUND SANITARY SEWER LINE
- PROP FDC LOCATION
- PROP WATER VALVE
- PROP FIRE HYDRANT
- PROP WATER LINE W/ BEND
- PROP SANITARY SEWER LINE
- PROP SANITARY SEWER MANHOLE
- PROP SANITARY SEWER CLEANOUT

SANITARY SEWER GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "A" (3000 PSI), UNLESS OTHERWISE NOTED.
2. FORCE MAIN PIPE SHALL BE DR-18 GREEN PVC C900 AND MEET THE REQUIREMENTS OF THE CITY OF GEORGETOWN. PIPE MATERIAL ALTERNATIVES MAY BE FUSION BONDED HDPE DR 11. CONTRACTOR TO SUBMIT PIPE MATERIAL FOR ENGINEER APPROVAL.
3. FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF AWWA C-110 AND MUST BE RESTRAINED. CONTRACTOR TO INSTALL THRUST BLOCKS PER DETAILS.
4. WHEN REQUIRED, CONTRACTOR TO ROTATE FITTINGS TO ACHIEVE OFFSET IN VERTICAL AND HORIZONTAL DIRECTIONS. CONTRACTOR TO MAINTAIN DEPTH OF COVER AS CALLED OUT IN THE PLANS.
5. WHEN WATER AND SANITARY SEWER MAINS, SERVICES, AND LATERALS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO EACH OTHER THAN NINE FEET IN ALL DIRECTIONS AND PARALLEL LINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING TCEQ CHAPTERS SHALL APPLY:
   - 5.A. TCEQ CHAPTER 217.53 PIPE DESIGN, SECTION (d) SEPARATION DISTANCES.
   - 5.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
6. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
7. CONTRACTOR SHALL TIE A ONE INCH WIDE PIECE OF RED PLASTIC FLAGGING TO THE END OF SEWER SERVICE AND SHALL LEAVE A MINIMUM OF 36 INCHES OF FLAGGING EXPOSED AFTER BACKFILL. AFTER CURB AND PAVING IS COMPLETED, CONTRACTOR SHALL MARK THE LOCATION OF THE SEWER SERVICE ON THE CURB OR ALLEY IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
8. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
9. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.2 AND SHALL BE MECHANICALLY COMPACTED IN 6-INCH LIFTS TO THE TOP OF SUBGRADE TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY IN ACCORDANCE WITH NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
10. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
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18. CONTRACTOR SHALL STAGE BORE PITS TO NOT IMPACT 1/2 CRZ ON ANY PROTECTED OR HERITAGE TREE.
19. SEE LANDSCAPE SHEETS FOR TREE PROTECTION AND REMOVAL INFORMATION.
20. CONTRACTOR TO STAGE AND OPERATE EQUIPMENT TO MITIGATE DAMAGE TO OR TRIMMING OF TREE CANOPIES.

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Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

PROP WW FORCE MAIN PLAN & PROFILE 3 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL
ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
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19 OF 30

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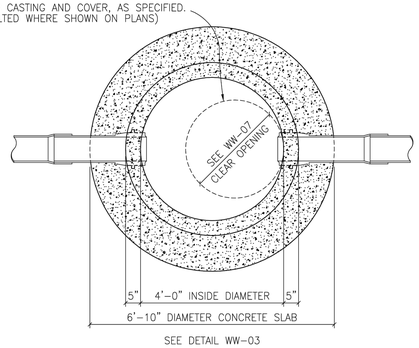
APPROVED: 08/02/2024



MANHOLE PLAN

CITY OF GEORGETOWN NOTES:

MANHOLE DETAILS SHALL REFLECT THE CITY'S MINIMUM SPECIFICATIONS, AS STATED BELOW:

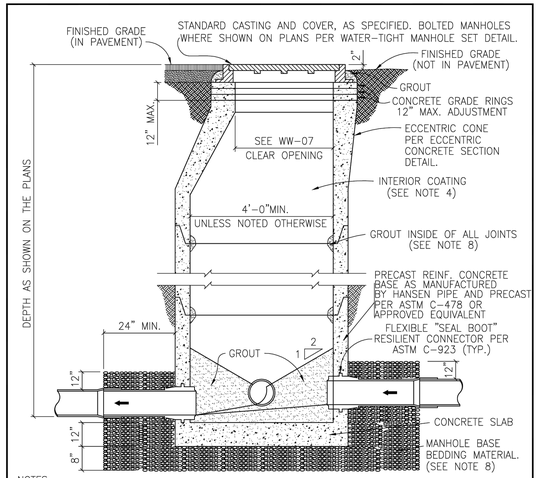
A. ALL MANHOLES SHALL BE 48" I.D., R.C.P., CLASS III, WITH RUBBER PROFILE GASKET – SINGLE OFF-SET JOINT CONFORMING TO ASTM C478, C433 AND C76.
B. ALL MANHOLES SHALL HAVE FRAME AND COVER, AS MANUFACTURED BY EAST JORDAN IRON WORKS (AS PER DETAIL # WW-07) OR APPROVED EQUIVALENT.
C. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON FRAME AND COVER.
D. ALL MANHOLES SHALL HAVE AN ECCENTRIC CONE.
E. MANHOLES MAY HAVE A FLAT LID, IF APPROVED BY CITY OF GEORGETOWN, BEING 12" THICK WITH A MINIMUM 30" OPENING, AS MANUFACTURED BY HANSEN PIPE AND PRECAST OR APPROVED EQUAL M.F.G. CONFORMING TO ASTM C478, 5000 P.S.I. CONCRETE, TRAFFIC BEARING AND WITH PROFILE GASKET – SINGLE OFF-SET JOINT CONFORMING TO ASTM C443.
F. INVERTS AND FLEXIBLE SEAL BOOTS, PER ASTM C-923, SHALL BE CAST INTO BASE SECTION.
G. MINIMUM DROP BETWEEN INVERTS SHALL BE ONE-TENTH OF A FOOT (0.1').
H. GRADE RINGS WITH AN I.D. TO MATCH FRAMES CLEAR OPENING WITH A MAXIMUM ADJUSTMENT OF 12" ARE ALLOWED.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STANDARD MANHOLE – PLAN

DRAWING NAME: WW02
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:

1. MANHOLES SHALL BE PRECAST ASTM C-478 BELL AND SPIGOT WITH PROFILE GASKET – SINGLE OFF-SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE, FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
4. AN 80 MIL. COAT OF RAVEN LINING SYSTEMS, RAVEN 405 ULTRA HIGH BUILD EPOXY COATING, OR SPRAY WALL EPOXY COATING, OR APPROVED EQUAL, TO BE APPLIED TO ENTIRE INTERIOR OF EACH WASTEWATER MANHOLE AND UNDERSIDE OF FLAT TOPS.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETTED WHEN MANHOLES ARE LOCATED OUT FROM PAVEMENT.
6. MANHOLES TO BE VENTED ARE IDENTIFIED ON MANHOLE SCHEDULE. REFERENCE MANHOLE VENT DETAIL.
7. MANHOLES ARE TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR HS-20 TRAFFIC LOADS.
8. GROUT SHALL MEET THE REQUIREMENTS AS STATED BY THE COATING MANUFACTURER.
9. MANHOLE BASE BEDDING MATERIAL SPECS. FOR 3/4" WASHED GRAVEL:
   SIEVE SIZE 2", PERCENT (%) RETAINED 0
   SIEVE SIZE 1 1/2", % RETAINED 0-10
   SIEVE SIZE 1", % RETAINED 45-80
   SIEVE SIZE 3/4", % RETAINED 85-100
   SIEVE SIZE 3/8", % RETAINED 95-100

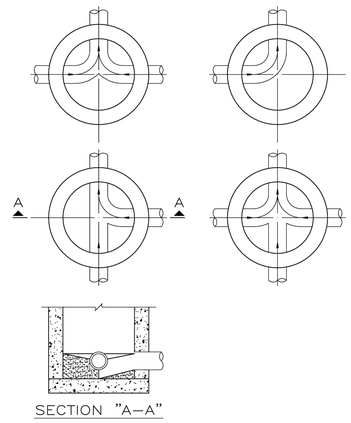
The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STANDARD MANHOLE – SECTION

DRAWING NAME: WW03
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

FLOW PATTERNS FOR INVERT CHANNELS



SECTION "A–A"

NOTES:

1. INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
2. SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOW.
3. CHANNELS FOR FUTURE CONSTRUCTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND, AND COVERED WITH 1" OF MORTAR.
4. SLOPE MANHOLE ITSELF WITH A 1:2 SLOPE FROM MANHOLE WALL TO CHANNEL.
5. INVERT SHALL BE A MINIMUM OF 1/2 THE DIAMETER OF THE LARGEST PIPE OR 4" DEEP.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
FLOW PATTERNS FOR INVERT CHANNELS

DRAWING NAME: WW06
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

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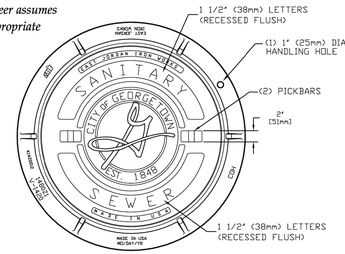
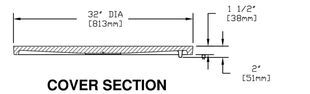
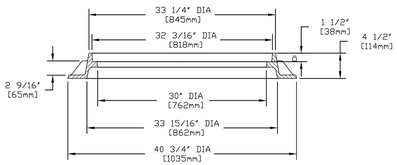




COVER SECTION



FRAME SECTION

NOTES:

1. STANDARD WASTEWATER MANHOLE SET TO BE EAST JORDAN IRON WORKS, INC. CATALOG NO. 1480A V-1420/1480Z1, COVER TO BE STAMPED WITH "SANITARY SEWER".
2. STANDARD WASTEWATER MANHOLE SET TO BE HEAVY DUTY LOAD RATED.
3. FOR MORE DETAILED SPECIFICATIONS REFER TO EAST JORDAN IRON WORKS, INC. REFERENCE PRODUCT DRAWING 41420012 00148390.
4. FOR BOLTED WASTEWATER MANHOLE SET REFER TO DETAIL WW07A.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STANDARD WASTEWATER MANHOLE SET

DRAWING NAME: WW07
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

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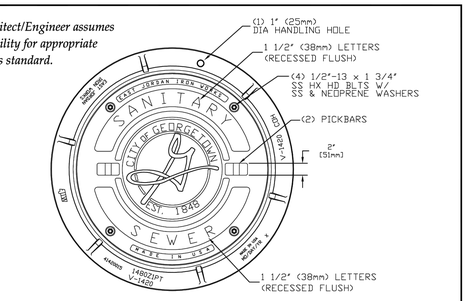

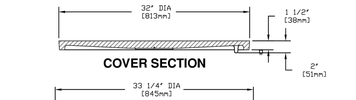

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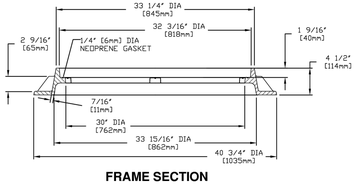


FRAME SECTION

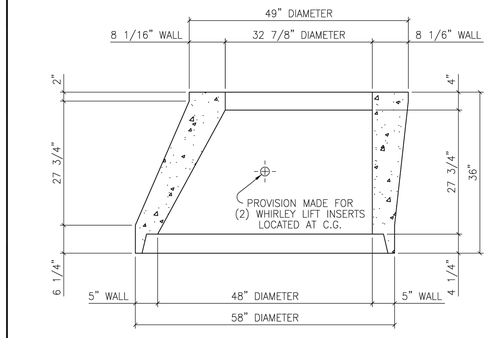
NOTES:

1. BOLTED WASTEWATER MANHOLE SET TO BE EAST JORDAN IRON WORKS, INC. CATALOG NO. 1480APT V-1420/1480Z1PT, COVER TO BE STAMPED WITH "SANITARY SEWER".
2. BOLTED WASTEWATER MANHOLE SET TO BE HEAVY DUTY LOAD RATED.
3. FOR MORE DETAILED SPECIFICATIONS REFER TO EAST JORDAN IRON WORKS, INC. REFERENCE PRODUCT DRAWING 00148392 41420015.
4. FOR STANDARD WASTEWATER MANHOLE SET REFER TO DETAIL WW07.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
BOLTED WASTEWATER MANHOLE SET

DRAWING NAME: WW07A
SCALE: NTS | DATE: 1/2006
DRAWN BY: MRS | APPROVED BY: TRB



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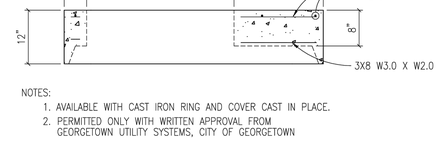
REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
48"X5" TO 33"X8"X36" TALL
ECCENTRIC CONCRETE SECTION

DRAWING NAME: WW08
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:

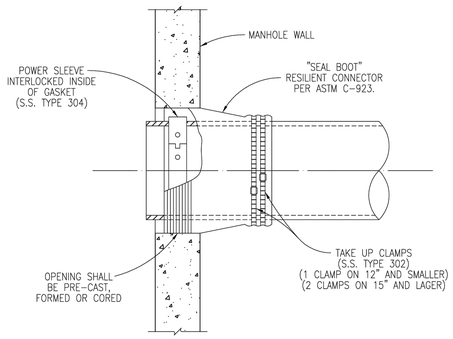
1. AVAILABLE WITH CAST IRON RING AND COVER CAST IN PLACE.
2. PERMITTED ONLY WITH WRITTEN APPROVAL FROM GEORGETOWN UTILITY SYSTEMS, CITY OF GEORGETOWN

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
48" MANHOLE FLAT LID

DRAWING NAME: WW09
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
FLEXIBLE "SEAL BOOT" CONNECTOR

DRAWING NAME: WW10
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

SANITARY SEWER DETAILS 1 OF 2



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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

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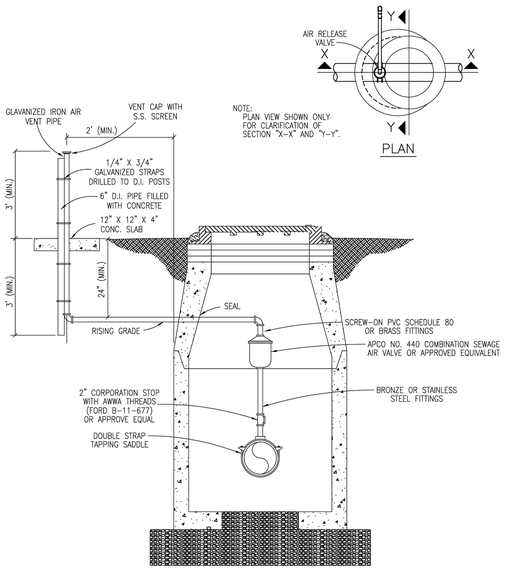
APPROVED: 08/02/2024



SECTION "Y-Y"

The Architect/Engineer assumes responsibility for appropriate use of this standard.

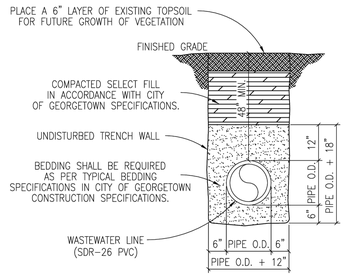
REVISION NOTE: ADOPTED 6/21/2006

DRAWING NAME: WW15

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

STANDARD AIR RELEASE VALVE FOR FORCE MAIN

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

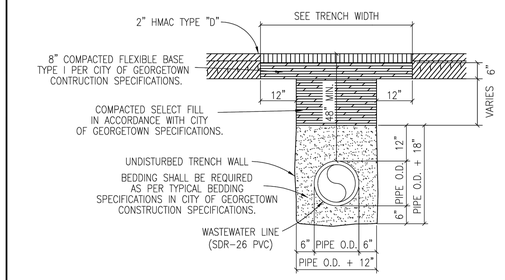
REVISION NOTE: ADOPTED 6/21/2006

DRAWING NAME: WW16

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

TRENCH AND EMBEDMENT DETAIL UNDER NON-PAVED AREAS

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.

NOTES:
1. REPLACED BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE.
2. BASE MATERIAL SHALL BE PLACED IN MULTIPLE LIFTS NOT TO EXCEED 6". EACH LAYER SHALL BE THOROUGHLY ROLLED OR TAMPED TO SPECIFIED MAXIMUM DENSITY.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. SURFACE MATERIAL WILL BE CONSISTENT WITH THE EXISTING SURFACE.
5. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
6. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

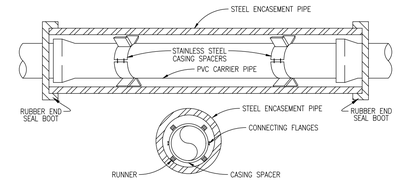
REVISION NOTE: ADOPTED 6/21/2006

DRAWING NAME: WW17

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

TRENCH AND EMBEDMENT AND PAVEMENT REPLACEMENT DETAIL UNDER EXISTING ROADWAY

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:
1. CASING SPACERS SHALL BE BOLT ON STYLE WITH A SHELL MADE IN TWO SECTIONS OF HEAVY 1-304 STAINLESS STEEL. CONNECTING FLANGES SHALL BE RIBBED FOR EXTRA STRENGTH. CASING SPACERS SHALL BE MADE BY CASCADE WATERWORKS MFG. CO. OR APPROVED EQUAL.
2. CASING SPACERS SHALL HAVE RUNNERS MADE OF ULTRA HIGH MOLECULAR WEIGHT POLYMER, WITH A MINIMUM HEIGHT OF 2 INCHES.
3. DO NOT USE WEDGES BETWEEN TOP OF PVC CARRIER PIPE AND INSIDE OF CASING TO KEEP PVC FROM MOVING.
4. PRIOR TO INSERTING PVC CARRIER PIPE, ANY WATER SHOULD BE PUMPED OUT OF THE CASING PIPE SO THAT NO MORE THAN A FEW INCHES OF WATER REMAINS.
5. SPACERS WILL BE REQUIRED WITHIN AT LEAST 3 FEET FROM BOTH OPENINGS OF THE ENCASEMENT PIPE AND SPACED NO GREATER THAN 6 FEET THROUGHOUT THE ENCASEMENT PIPE.
6. ENCASEMENT PIPE SHALL BE SMOOTH STEEL 35,000 PSI YIELD STRENGTH WITH THICKNESS ACCORDING TO THE FOLLOWING TABLE:
7. WHEN CASING IS REQUIRED UNDER PAVEMENT WITHIN THE R.O.W., THE CASING SHALL EXTEND OUT TO WITHIN 4' INSIDE OF THE R.O.W. LINE, ON BOTH SIDES.
8. ALL JOINTS SHALL BE RESTRAINED ON PVC CARRIER PIPE.

PIPE SIZE-CARRIER (DIAMETER)	PIPE SIZE-CASING (DIAMETER)(MIN.)	MINIMUM PIPE THICKNESS (INCHES)	
6"	16"		
8"	18"	1/4	0.2500
10"	20"	5/16	0.3125
12" - 14"	24"	3/8	0.3750
16" - 18"	30"	7/16	0.4375
20"	36"	1/2	0.5000
24"	42"	1/2	0.5000
30"	48"	1/2	0.5000

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

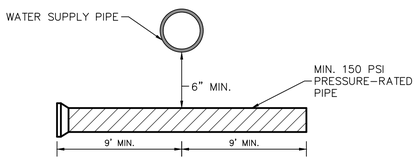
DRAWING NAME: W14

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

INSTALLATION OF P.V.C. PIPE THROUGH CASING

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

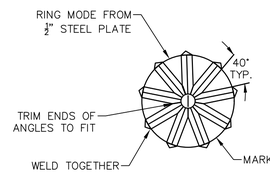
1. A COLLECTION SYSTEM PIPE THAT CROSSES BELOW A WATER SUPPLY PIPE AND IS CONSTRUCTED OF AT LEAST 150 PSI PRESSURE CLASS, CORROSION-RESISTANT, NON-BRITTLE PIPE MUST:
   1.A. HAVE AT LEAST SIX INCHES OF SEPARATION BETWEEN THE OUTSIDES OF THE PIPES;
   1.B BE CENTERED ON THE CROSSING;
   1.C BE AT LEAST 18 FEET LONG; AND
   1.D ERMINATE AT JOINTS THAT ARE DESIGNED TO SEAL AT ATMOSPHERIC PRESSURE.



NEW WASTEWATER COLLECTION SYSTEM PIPE (PRESSURE-RATED) BELOW AND CROSSING A WATER SUPPLY PIPE

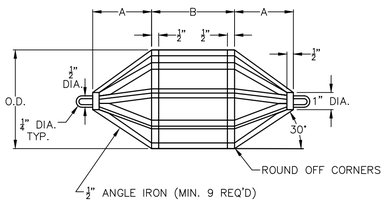
1

REFER NOTE: 1



FRONT VIEW

GO, NO GO DEFLECTION TESTING MANDREL



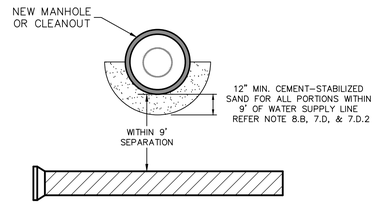
SIDE OR TOP VIEW

DEFLECTION TESTING MANDREL

2

NOT TO SCALE

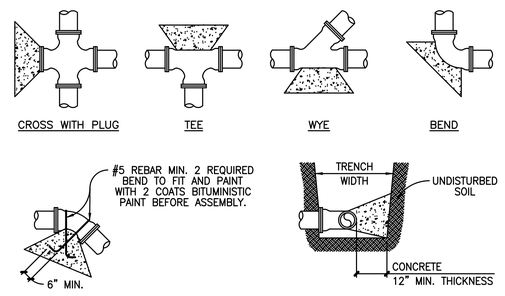
1. IF A NINE-FOOT SEPARATION DISTANCE BETWEEN A MANHOLE AND A WATER SUPPLY PIPE CANNOT BE ACHIEVED, THE MANHOLE MUST EITHER:
   1.A HAVE NO MEASURABLE LEAKAGE DURING A LEAKAGE TEST CONDUCTED ACCORDING TO THE REQUIREMENTS IN TCEQ CHAPTER 217.58 (RELATED TO TESTING REQUIREMENTS FOR MANHOLES); OR
   1.B HAVE ALL PORTIONS OF THE MANHOLE WITHIN NINE-FEET OF A WATER SUPPLY PIPE ENCASED IN AT LEAST ONE FOOT OF CEMENT-STABILIZED SAND THAT MEETS THE REQUIREMENTS OF PARAGRAPH 7.D.1 AND 7.D.2 OF THIS SUBSECTION.



NEW WASTEWATER MANHOLE OR CLEANOUT WITHIN NINE FEET OF A WATER SUPPLY PIPE

3

REFER NOTE: 1



*DEADMAN

TYPICAL SECTION

ALL THRUST BLOCKS SHALL BE FORMED. LAID FORMS SHALL BE INSPECTED BY THE CITY OF GEORGETOWN PRIOR TO THE POURING OF CONCRETE AND SHALL ALSO BE INSPECTED BY THE CITY OF GEORGETOWN PRIOR TO COVERING. TYPICAL LOCATIONS WHICH REQUIRE CONCRETE REACTION (THRUST) BLOCKS, FOR PRESSURE MAINS FOUR INCHES (4") AND GREATER. CONCRETE SHALL HAVE 2,500 P.S.I. MINIMUM STRENGTH AT TWENTY EIGHT (28) DAYS AND BEAR AGAINST UNDISTURBED STABLE SOILS, AREA OF CONTACT SHALL BE GOVERNED BY PIPE SIZE, MAXIMUM PRESSURE IN PIPE, AND BEARING CAPACITY OF SOIL. PROTECT FITTINGS, BOLTS, ETC. BY COVERING WITH VISQUEEN OR OTHER ACCEPTABLE MATERIAL. CONCRETE SHALL BE A MINIMUM OF TWELVE INCHES (12") THICK.

PIPE SIZE	THRUST BLOCK AREA REQUIRED	PIPE SIZE	THRUST BLOCK AREA REQUIRED	REMARKS
4"	2.0 SQ. FT.	18"	30.0 SQ. FT.	VALUES ARE FOR 90° BENDS, BASED ON 2000 P.S.F. SAFE BEARING LOAD AND PIPE PRESSURE OF 150 P.S.I. PLUS 33% SAFETY FACTOR FOR OTHER SOILS AND PRESSURES, THE AREA REQUIRED IS IN DIRECT PROPORTION.
6"	4.0 SQ. FT.	20"	37.0 SQ. FT.	
8"	6.6 SQ. FT.	24"	53.0 SQ. FT.	
10"	10.0 SQ. FT.	27"	80.0 SQ. FT.	
12"	14.0 SQ. FT.	30"	98.0 SQ. FT.	
14"	18.0 SQ. FT.	36"	127.0 SQ. FT.	
16"	24.0 SQ. FT.			

* THE ENGINEER OF RECORD SHALL CALCULATE THE SIZE OF THE DEADMAN REQUIRED AS WELL AS ANY INSTALLATION WHICH IS NOT COVERED BY THE ABOVE.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

DRAWING NAME: W11

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS

TYPICAL THRUST BLOCKS FOR WATER AND FORCE MAIN

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

2023-35-CON

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TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

SANITARY SEWER DETAILS 2 OF 2

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
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21 OF 32

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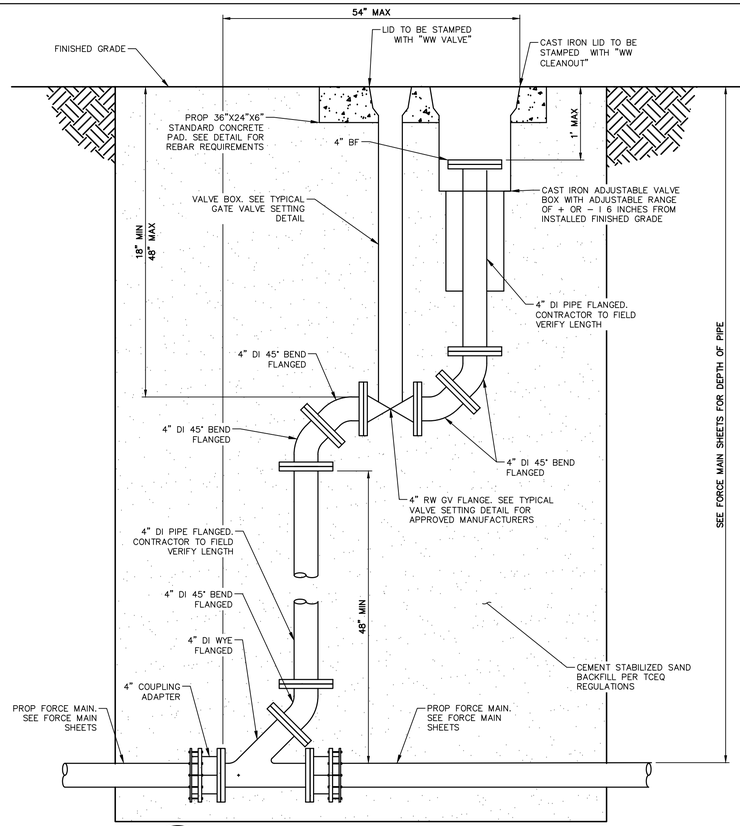
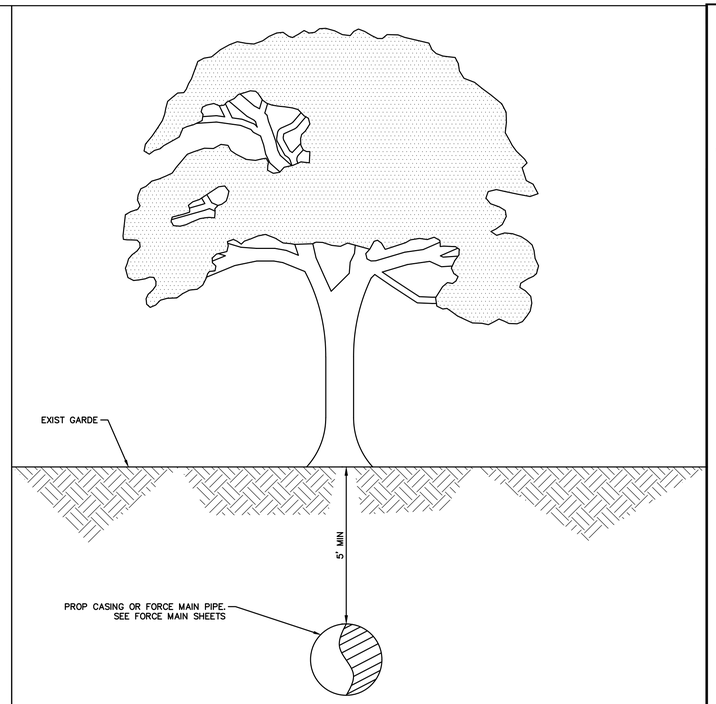
APPROVED: 08/02/2024



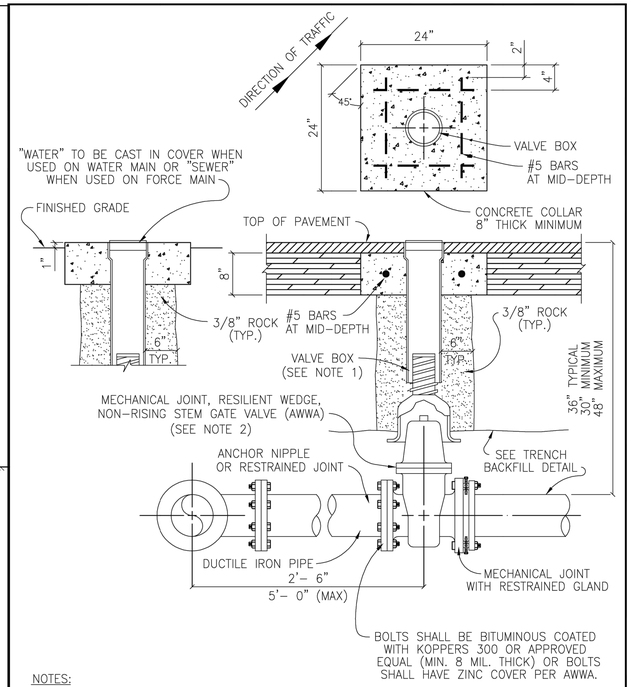
1 SANITARY SEWER FORCE MAIN CLEANOUT
NOT TO SCALE



NOTE

1. CONTRACTOR TO ENSURE THAT CASING PIPE OR FORCE MAIN IS INSTALLED WITH A MINIMUM OF 5' DEPTH OF COVER WHEN PERFORMING TRENCHLESS INSTALLATION BELOW TREES.

2 INSTALLATION BELOW TREES
NOT TO SCALE



NOTES:

1. VALVE BOX SHALL BE 5 1/4" CAST IRON ADJUSTABLE HAVING AN ADJUSTABLE RANGE OF + OR – 6 INCHES FROM INSTALLED FINISH GRADE.
2. ACCEPTABLE GATE VALVES ARE:
   A. AMERICAN FLOW CONTROL – SERIES 2500
   B. MUELLER – 2360 SERIES
   C. CLOW

The Architect/Engineer assumes responsibility for appropriate use of this standard.

EST. 1848 GEORGETOWN TEXAS Georgetown Utility Systems Your Community Owned Utility

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
TYPICAL VALVE SETTING

REVISION NOTE: ADOPTED 6/21/2006
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SCALE: NTS | DATE: 1/2003
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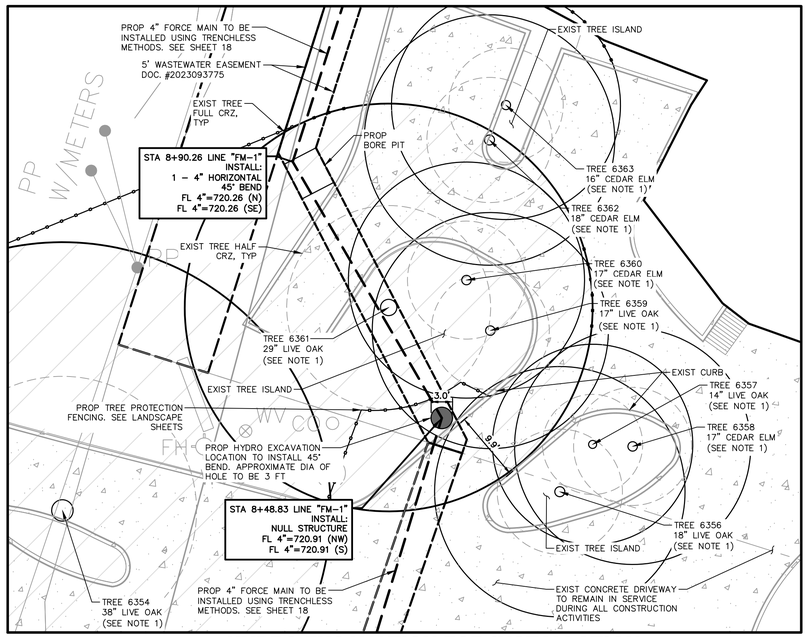
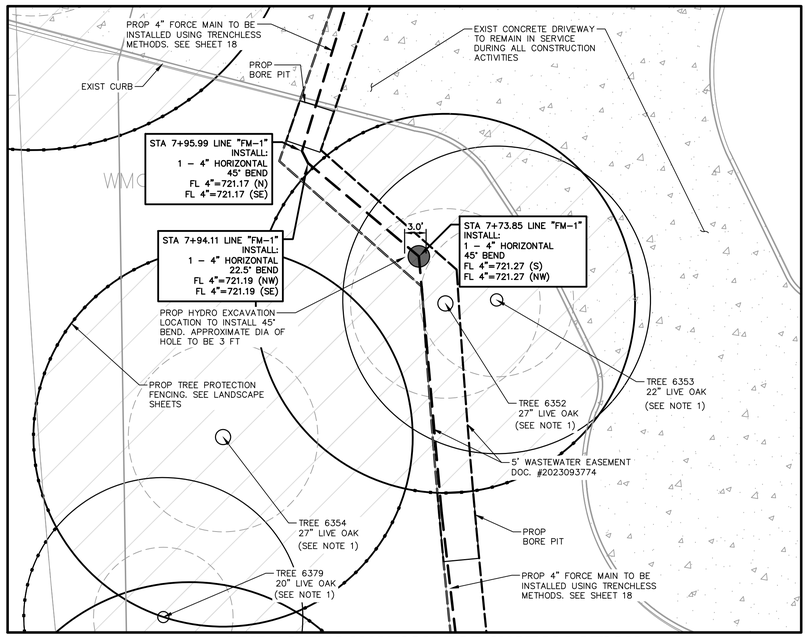


3 HYDRO-EXCAVATION FOR INSTALLATION OF BENDS - AREA 1 OF 2
NOT TO SCALE



4 HYDRO-EXCAVATION FOR INSTALLATION OF BENDS - AREA 2 OF 2
NOT TO SCALE

NOTES

1. TREES TO RECEIVE DEEP ROOT INVIGORATION. SEE LANDSCAPE ARCHITECTURE SHEETS FOR TREE PROTECTION PLANS.
2. INFORMATION PROVIDED IN THE DETAILS FOR INSTALLATION USING HYDRO-EXCAVATION IS FOR REFERENCE ONLY. MEANS AND METHODS FOR INSTALLATION OF PIPE AND FITTINGS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER IS NOT LIABLE FOR THE SELECTION OF INSTALLATION METHODS OR THE EXECUTION THEREOF.
3. CONTRACTOR TO STAGE AND OPERATE EQUIPMENT TO MITIGATE DAMAGE TO OR TRIMMING OF TREE CANOPIES.

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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

SANITARY SEWER DETAILS 3 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER
Justin Faure

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22 OF 32

2023-35-CON

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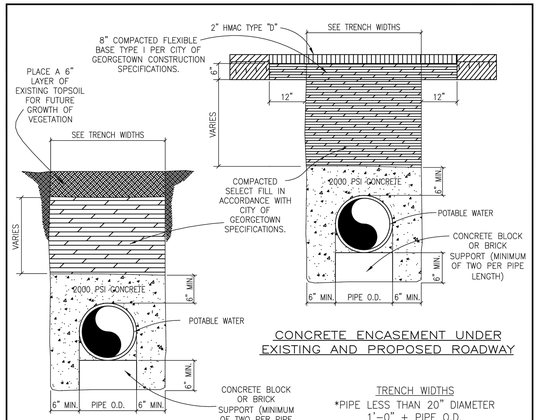


CONCRETE ENCASEMENT UNDER EXISTING AND PROPOSED ROADWAY

CONCRETE ENCASEMENT UNDER NATURAL GROUND

TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'–0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'–0" + PIPE O.D.

NOTES:
1. ENCASEMENT TO BE CONSTRUCTED WHERE SEWER LINES PASS OVER OR UNDER A WATER MAIN WITH LESS THAN TWELVE INCHES (12") CLEAR DISTANCE.
2. AT CROSSINGS, ENCASEMENT SHALL EXTEND TEN FEET (10'–0") ON EITHER SIDE OF CROSSING.
3. BEGINNING AND ENDING OF ENCASEMENTS SHALL NOT BE MORE THAN SIX INCHES (6") FROM A PIPE JOINT.
4. WHERE WATER AND SEWER LINES PARALLEL WITH LESS THAN TEN FEET (10'–0") HORIZONTAL CLEAR DISTANCE, NO ENCASEMENT IS REQUIRED IF BOTH LINES ARE 150 PSI PRESSURE PIPE.
5. RAW WATER MAINS SHALL BE 150 PSI PRESSURE RATED WHEN PARALLELING POTABLE WATER MAINS WITH LESS THAN NINE FEET (9'–0") HORIZONTAL CLEARANCE.
6. WHERE MINIMUM COVER, THIRTY SIX INCHES (36") IS NOT AVAILABLE, ENCASEMENT WILL BE REQUIRED.
7. ALL CONCRETE ENCASEMENTS MUST BE FORMED AND INSPECTED BY THE CITY OF GEORGETOWN INSPECTOR PRIOR TO PLACING CONCRETE AND BACKFILLING.
8. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

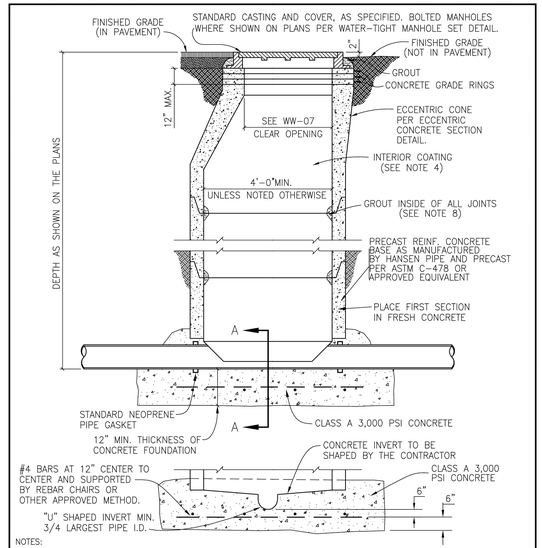
The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
CONCRETE ENCASEMENT DETAIL

DRAWING NAME: W15

SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:
1. MANHOLES SHALL BE PRECAST ASTM C–478 BELL AND SPIGOT WITH PROFILE GASKET – SINGLE OFF–SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE, FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
4. AN 80 MIL. COAT OF RAVEN LINING SYSTEMS, RAVEN 405 ULTRA HIGH BUILD EPOXY COATING, OR SPRAY WALL EPOXY COATING, OR APPROVED EQUAL, TO BE APPLIED TO ENTIRE INTERIOR OF EACH WASTEWATER MANHOLE AND UNDERSIDE OF FLAT TOPS.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETTED WHEN MANHOLES ARE LOCATED OUT FROM PAVEMENT.
6. MANHOLES TO BE VENTED ARE IDENTIFIED ON MANHOLE SCHEDULE. REFERENCE MANHOLE VENT DETAIL.
7. MANHOLES ARE TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR HS–20 TRAFFIC LOADS.
8. GROUT SHALL MEET THE REQUIREMENTS AS STATED BY THE COATING MANUFACTURER.
9. MANHOLE BASE BEDDING MATERIAL SPECS. FOR 3/4" WASHED GRAVEL:
   SIEVE SIZE 2", PERCENT (%) RETAINED 0 — SIEVE SIZE 1 1/2", % RETAINED 0–10
   SIEVE SIZE 1", % RETAINED 45–80 — SIEVE SIZE 3/4", % RETAINED 85–100
   SIEVE SIZE 3/8", % RETAINED 95–100
10. ALL PVC PIPE SHALL BE REMOVED FROM INVERT.

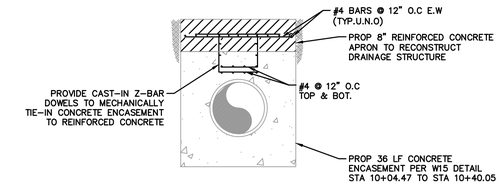
The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
PRECAST MANHOLE ON CAST–IN–PLACE FOUNDATION

DRAWING NAME: WW20

SCALE: NTS | DATE: 1/2006
DRAWN BY: MRS | APPROVED BY: TRB



NOTES:
1. CONTRACTOR TO DEMO EXIST CULVERT CONCRETE APRON AND ENCASE SEWER LINE PER DETAIL W15 ON SHEET 22.1.
2. CONTRACTOR TO INSTALL ENCASEMENT UP TO THE CULVERT CONCRETE APRON AND RECONSTRUCT CULVERT CONCRETE APRON WITH 8" REINFORCED CONCRETE.
3. CONTRACTOR TO TIE CONCRETE ENCASEMENT TO 8–INCH REINFORCED CONCRETE APRON WITH DOWELS AS DETAILED.
4. MAINTAIN MINIMUM CONCRETE COVER AT ALL REINFORCEMENT.
5. DO NOT PLACE REINFORCING STEEL OR DOWELS IN CONTACT WITH PIPE. MAINTAIN MINIMUM CLEARANCE TO OUTSIDE DIAMETER (OD) OF PIPE.
6. INSTALL AND SECURE PIPE TO LINE AND GRADE PRIOR TO CONCRETE PLACEMENT.
7. PLACE ENCASEMENT CONCRETE IN A MANNER THAT DOES NOT DISPLACE, DEFORM, OR DAMAGE PIPE.
8. WHERE SLAB IS PLACED AFTER ENCASEMENT, PREPARE TOP SURFACE OF ENCASEMENT AND INSTALL DOWELS AS DETAILED.
9. SLAB REINFORCING SHALL REMAIN CONTINUOUS ACROSS PIPE CROSSINGS UNLESS NOTED OTHERWISE.
10. CONTRACTOR TO COORDINATE REINFORCEMENT PLACEMENT TO AVOID CONFLICTS WITH PIPE JOINTS, BELLS, FITTINGS, AND APPURTENANCES.

1 CONCRETE ENCASEMENT & APRON TIE-IN DETAIL

NOT TO SCALE
MODIFIED DETAIL W15

FOR REVISION NO. 1 ONLY:

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED PROFESSIONAL ENGINEER

06/01/2026

2023-35-CON

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REVISIONS

NO.	DATE	DESCRIPTION	BY
1	5/29/2026	WASTEWATER REDESIGN	JWV

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

SANITARY SEWER DETAILS 4 OF 4

STATE OF TEXAS
JACOB W. VALENTIEN
124993
LICENSED PROFESSIONAL ENGINEER

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22.1 OF 32

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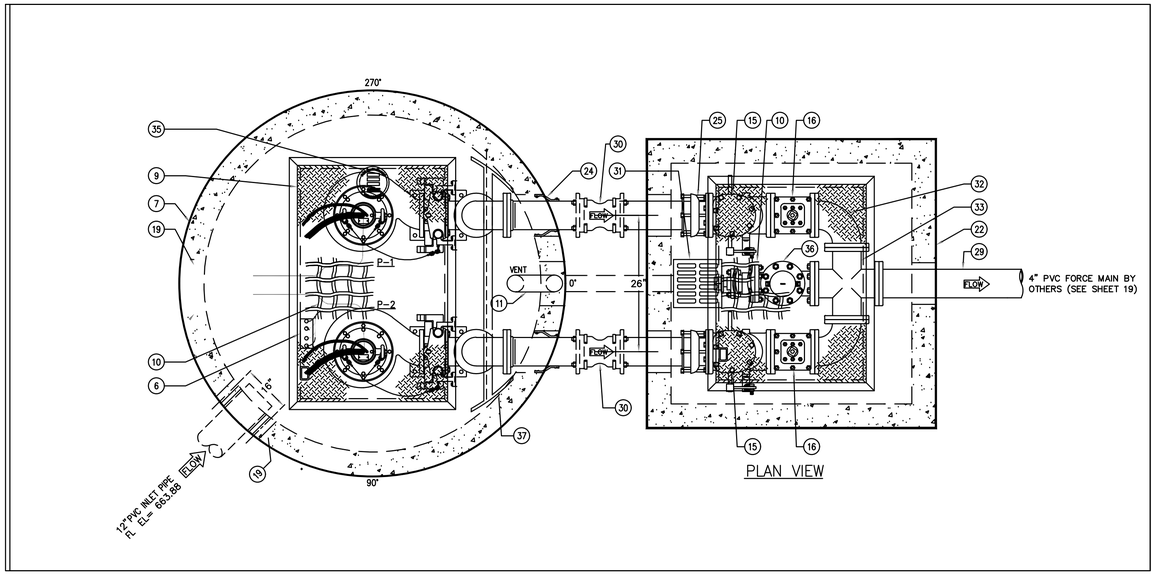
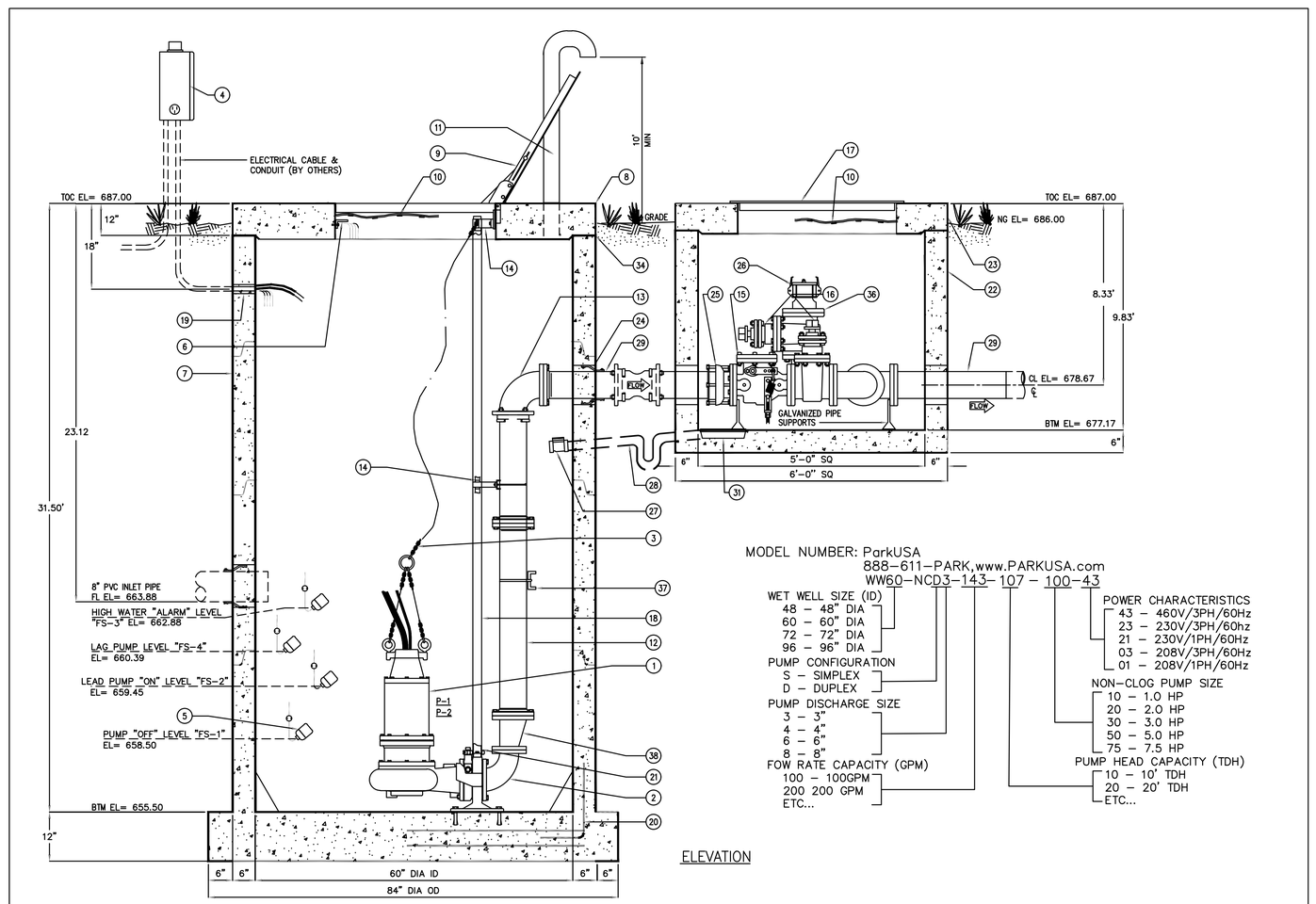
APPROVED: 08/02/2024





MODEL NUMBER: ParkUSA
888-611-PARK,www.PARKUSA.com
WW60-NCD3-143-107 - 100-43

- WET WELL SIZE (ID)
  - 48 – 48" DIA
  - 60 – 60" DIA
  - 72 – 72" DIA
  - 96 – 96" DIA
- PUMP CONFIGURATION
  - S – SIMPLEX
  - D – DUPLEX
- PUMP DISCHARGE SIZE
  - 3 – 3"
  - 4 – 4"
  - 6 – 6"
  - 8 – 8"
- FOW RATE CAPACITY (GPM)
  - 100 – 100GPM
  - 200 200 GPM
  - ETC...
- POWER CHARACTERISTICS
  - 43 – 460V/3PH/60Hz
  - 23 – 230V/3PH/60Hz
  - 21 – 230V/1PH/60Hz
  - 03 – 208V/3PH/60Hz
  - 01 – 208V/1PH/60Hz
- NON-CLOG PUMP SIZE
  - 10 – 1.0 HP
  - 20 – 2.0 HP
  - 30 – 3.0 HP
  - 50 – 5.0 HP
  - 75 – 7.5 HP
- PUMP HEAD CAPACITY (TDH)
  - 10 – 10' TDH
  - 20 – 20' TDH
  - ETC...

STATION OPERATION LEVELS		
RISING LEVEL CYCLE		
WATER LEVEL ELEVATION	ACTION	PUMPS IN OPERATION
659.45	LEAD PUMP TURNS "ON", FS-2	LEAD PUMP "ON"
660.39	LAG PUMP TURNS "ON", FS-4	LEAD & LAG PUMPS "ON"
662.88	HIGH WATER "ALARM" LEVEL, FS-3	HIGH LEVEL ALARM "ON"
FALLING LEVEL CYCLE		
662.88	HIGH WATER ALARM, FS-3	HIGH LEVEL ALARM "OFF"
658.50	PUMPS "OFF" LEVEL, FS-1	ALL PUMPS "OFF" LAG PUMP SWITCHES TO LEAD PUMP

SPECIFICATION:
CONCRETE:
CLASS I/N CONCRETE WITH DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR, FIRST STAGE OF WALL AND BAFFLE WITH SECTIONAL RISER TO REQUIRED DEPTH.

REINFORCEMENT:
GRADE 60 REINFORCEMENT WITH STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OF EQUAL.

ALUMINUM HATCH:
300 PSF RATED, ¼" ALUMINUM SKID-RESISTANT FLOOR PLATE, STAINLESS STEEL TAMPERPROOF BOLTING, HINGES & SLAMLOCK. (H-20 RATING OPTIONAL)

PUMPS:
PUMPS SHALL BE CENTRIFUGAL SOLIDS HANDLING NON-CLOG UNIT AND SUBMERSIBLE TYPE MOTOR. PUMPS SHALL HAVE A CAPACITY AS FOLLOWS:

PUMP No.	TYPE	GPM	TDH	RPM	ELECTRICAL HP	V	PH	Hz
P-1	NON-CLOG	143	107	2,300	10	480	3	60
P-2	NON-CLOG	143	107	2,300	10	480	3	60

NOTE:
ALL DASHED PIPING TO BE FURNISHED BY CONTRACTOR

NOTE:
VERIFY ALL ELEVATIONS PRIOR TO FABRICATION

NOTE:
VERIFY ALL INLET/OUTLET ORIENTATIONS PRIOR TO FABRICATION

NOTE:
WET WELL AND VALVE VAULT JOINTS TO BE EXTERNALLY WRAPPED AND WATERTIGHT

KEYED NOTES		
MARK	QTY	DESCRIPTION
1	2	3 SUBMERSIBLE VORTEX NON=CLOG PUMP
2	2	3" BASE ELBOWS
3	2	SS STEEL CHAINS
4	1	CONTROLS PROVIDED, VWIRED & MOUNTED BY CONTRACTOR
5	4	FLOAT SWITCH
6	1	SS CABLE BRACKET
7	1	60" DIA x 35'-6" DEEP CONCRETE WET WELL
8	1	12" THK FLAT CONCRETE TOP
9	1	30"x48" SINGLE LEAF ALUMINUM HATCHWAY
10	2	SAFETY NET
11	1	4" GALVANIZED VENT, SUPPORTED WITH BOLLARD AND STEEL STRAPS
12	2	4" D.I. FL x PE PIPE
13	2	4" DI 90° ELBOW FL x MJ w/ STAR GRIPS
14	2	SS UPPER/INTER GUIDE BRACKETS
15	2	4" SWING CHECK VALVE
16	2	4" PLUG VALVE
17	1	36"x36" SINGLE LEAF ALUMINUM HATCHWAY
18	4	SS GUIDE RAILS
19	2	3" CONDUIT
20	–	REBAR AS REQ'D
21	2	LIFT-OUT ASSEMBLY
22	1	5'-0" x 5'-0" x 5'-9" DEEP PRECAST CONCRETE VALVE VAULT
23	1	6" THK VALVE VAULT LID
24	3	RESILIENT RUBBER BOOT
25	2	JCM 301 FCA
26	1	3" CAMLOCK w/ DUST COVER
27	1	3" BACKWATER VALVE (BY OTHERS)
28	1	3" VALVE VAULT DRAIN (BY OTHERS)
29	–	4" DI PIPE
30	–	MJ x MJ CONNECTION (BY OTHERS)
31	1	12"x12"x3" DEEP SUMP w/CAST IRON GRATE
32	2	4" DI 90° ELL
33	1	4" DI TEE
34	–	ALL JOINTS MADE WATER-TIGHT w/ PLASTIC FLEXIBLE GASKET (RAM-NEK)
35	1	NAMEPLATE INDICATING: MFG: PARKUSA 888-611-PARK WWW.PARKUSA.COM MODEL: WW60-NCD3-158-36.6-5-43 DATE MANUFACTURED
36	1	3" BLIND FLANGE
37	1	STAINLESS STEEL PIPE SUPPORT
38	2	3"x4" ECCENTRIC REDUCER

2023-35-CON

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westwoodps.com
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TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

LIFT STATION DETAILS 1 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
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23 OF 32

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APPROVED: 08/02/2024

Concertor XPC N80-6900

Technical specification

Motor - General

Motor number N6020.182 18-08-1AZ-W 10hp	**Phases** 3~	**Rated speed** 800-3213 rpm	**Rated power** 10 hp
ATEX approved No	**Insulation class** H	**Rated current** 10.1 A	**Type of Duty** S1
Frequency 60 Hz	**Rated voltage** 480 V	**Motor efficiency clas** IE4 according to IEC/TS 60034-30-2 Ed. 1	

Motor - Technical

Power factor - 1/1 Load 0.95	**Motor efficiency - 1/1 Load** 90.0 %	**Nominal speed - 1/1 Load** 2300 rpm
Power factor - 3/4 Load 0.95	**Motor efficiency - 3/4 Load** 91.0 %	**Nominal speed - 3/4 Load** 2070 rpm
Power factor - 1/2 Load 0.95	**Motor efficiency - 1/2 Load** 91.0 %	**Nominal speed - 1/2 Load** 1840 rpm

Starting current
10.1 A

Project	Xylect-22064717	**Created by**			
Block		**Created on**	3/27/2024	**Last update**	3/27/2024

Program version 7.0.2 - 2.05.0024 (Build 175) | Data version 10/4/2024 19:45 ASPS | User group(s) Xylem | SA - SKT

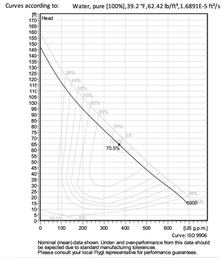
Concertor XPC N80-6900

Designed for sewage pumping stations in collection systems, the XPC system powered by Nexicon consists of 1-4 pumps, the Nexicon control, and 1 Dirigo module for each of the pumps Perfect for users who require the full functionality of the Concertor system, including maximum energy savings and clean wet well.

Technical specification



Curves according to: Water, pure [100%], 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft²/s



Nominal (mean) data shown. Under- and overperformance from this data should be expected due to standard manufacturing tolerances.
Please consult your local Flygt representative for performance guarantees.

Configuration

Motor number N6020.182 18-08-1AZ-W 10hp	**Installation type** P - Semi permanent, Wet
Impeller diameter 170 mm	**Discharge diameter** 3 inch

Pump information

Impeller diameter
170 mm

Discharge diameter
3 inch

Inlet diameter
110 mm

Maximum operating speed
800-3213.4 rpm

Number of blades
2

Max. fluid temperature
40 °C

Materials

Impeller
Hard-Iron ™

Project	Xylect-22064717	**Created by**			
Block		**Created on**	3/27/2024	**Last update**	3/27/2024

Program version 7.0.2 - 2.05.0024 (Build 175) | Data version 10/4/2024 19:45 ASPS | User group(s) Xylem | SA - SKT

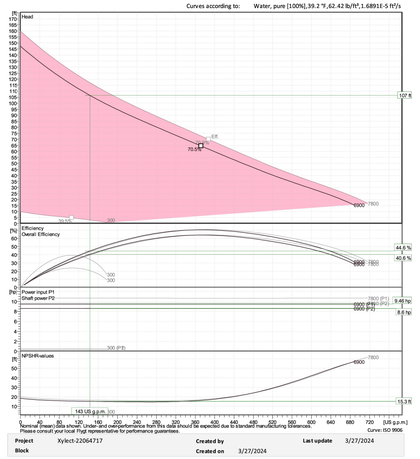
Concertor XPC N80-6900

Performance curve

Duty point

Flow 143 US g.p.m.	**Head** 107 ft

Curves according to: Water, pure [100%], 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft²/s



Nominal (mean) data shown. Under- and overperformance from this data should be expected due to standard manufacturing tolerances.
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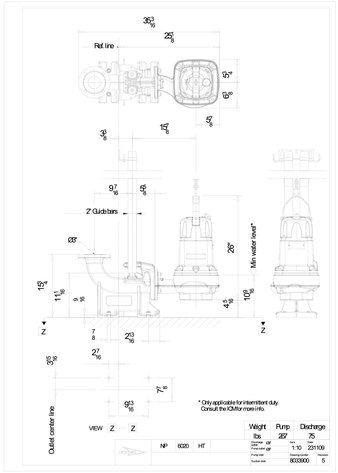
Program version 7.0.2 - 2.05.0024 (Build 175) | Data version 10/4/2024 19:45 ASPS | User group(s) Xylem | SA - SKT

Concertor XPC N80-6900

Dimensional drawing



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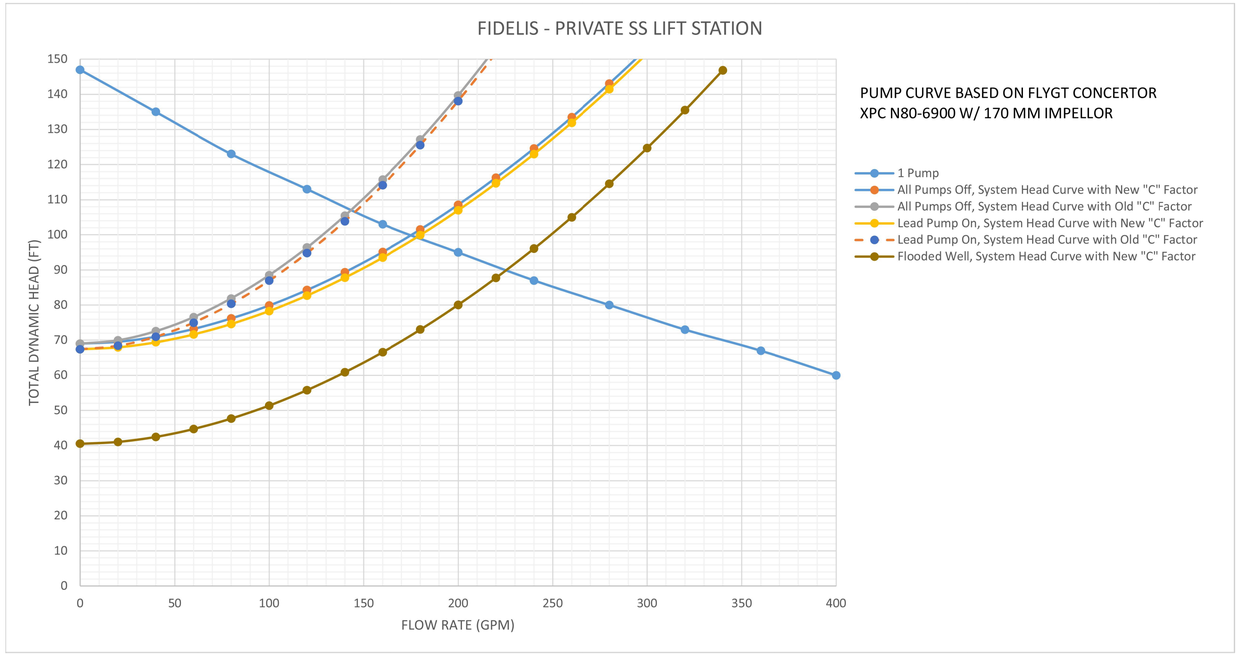
Block		**Created on**	3/27/2024	**Last update**	3/27/2024

Program version 7.0.2 - 2.05.0024 (Build 175) | Data version 10/4/2024 19:45 ASPS | User group(s) Xylem | SA - SKT



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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

LIFT STATION DETAILS 2 OF 3

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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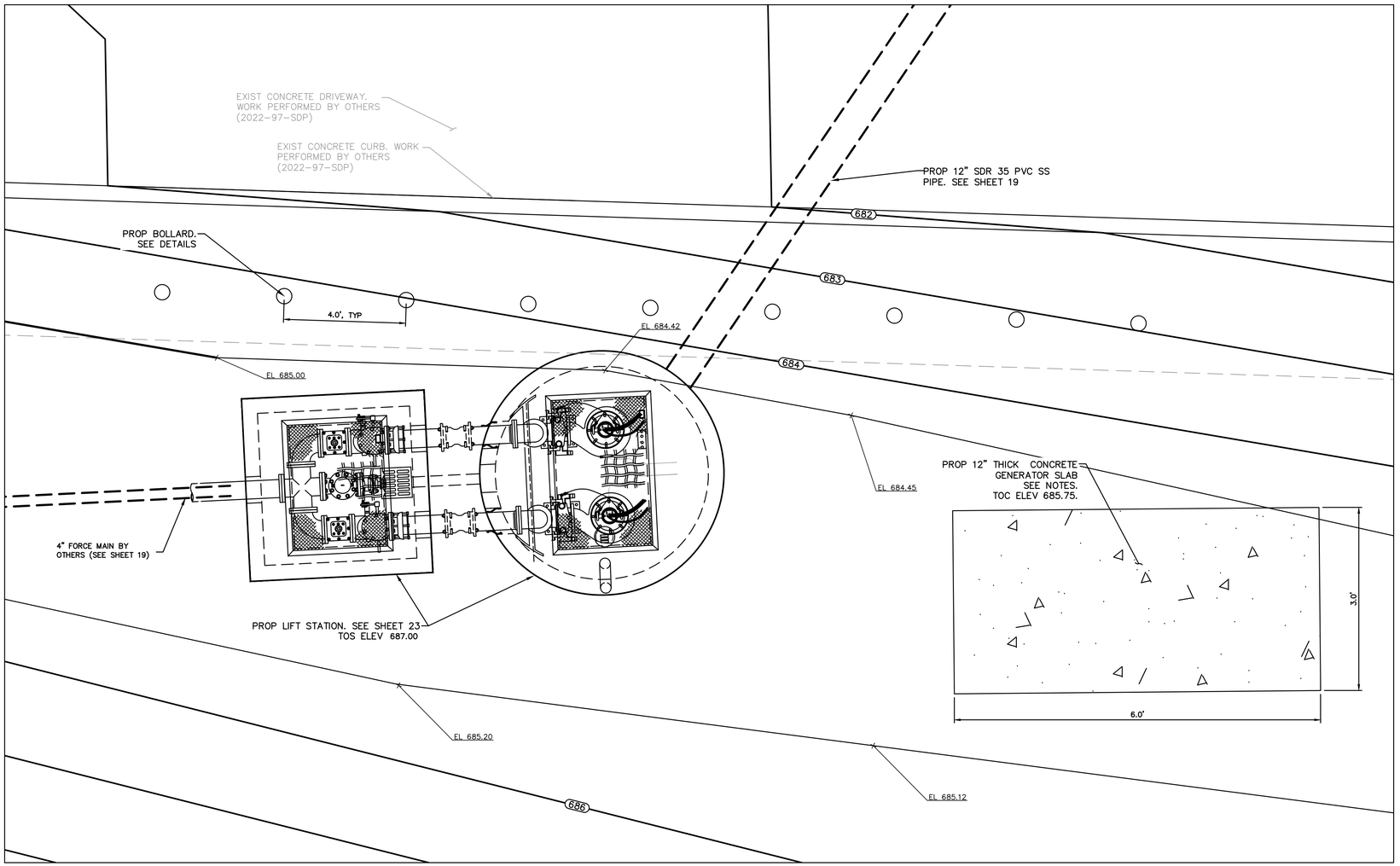
APPROVED: 08/02/2024

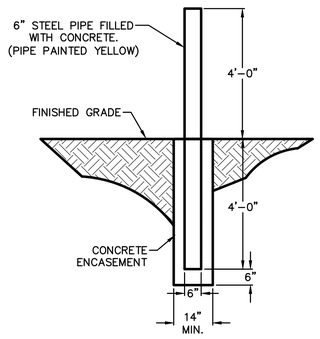


1 LIFT STATION SITE PLAN

1" = 2'

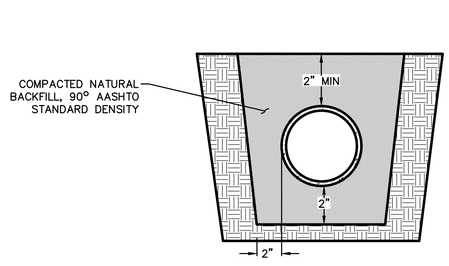
NOTES

1. SLAB REINFORCEMENT TO BE #4@12" OCEW WITH 2' X 1'-2" WIDE GRADE BEAM WITH #5 T&B WITH #4 STIRRUPS @ 12" OC.
2. SUBGRADE PREPERATION TO FOLLOW THE REQUIREMENTS OF THE GEOTECHNICAL REPORT ISSUEED IN MAY 2022 BY RONE ENGINEERING.
3. CONTRACTOR TO VERIFY LAYOUT AND DIMENSIONS PRIOR TO INSTALLATION.
4. ALL FERROUS METRALS WITHIN WET WELL AND VALVE VAULT SHALL BE STAINLESS STEEL, UNLESS OTHERWISE NOTED.



4 PIPE BOLLARD DETAIL

NOT TO SCALE

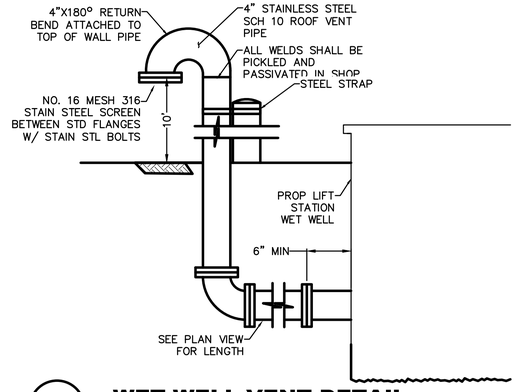


NOTE:

ALL PVC PIPING TO BE INSTALLED IN ACCORDANCE WITH MFR'S SPECIFICATIONS

3 BEDDING FOR SMALL DIAMETER PIPING UNDER 3" DIAMETER

NOT TO SCALE



5 WET WELL VENT DETAIL

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LIFT STATION DETAILS 3 OF 3

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APPROVED: 08/02/2024

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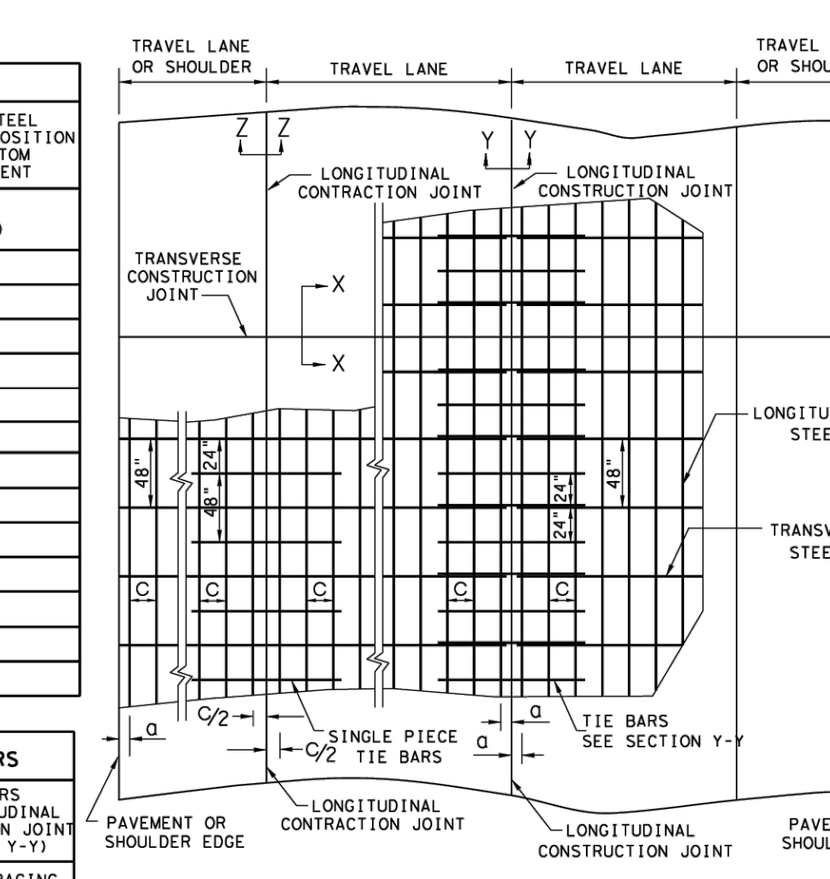
TABLE NO. 1 LONGITUDINAL STEEL

SLAB THICKNESS AND BAR SIZE		LONGITUDINAL STEEL BARS	FIRST SPACING AT EDGE OR JOINT	LONG. STEEL VERTICAL POSITION FROM BOTTOM OF PAVEMENT
T (IN.)	BAR SIZE	SPACING c (IN.)	SPACING a (IN.)	T1 (IN.)
7.0	#5	6.5	3 TO 4	3.5
7.5	#5	6.0	3 TO 4	3.75
8.0	#6	9.0	3 TO 4	4.0
8.5	#6	8.5	3 TO 4	4.25
9.0	#6	8.0	3 TO 4	4.5
9.5	#6	7.5	3 TO 4	4.75
10.0	#6	7.0	3 TO 4	5.0
10.5	#6	6.75	3 TO 4	5.5
11.0	#6	6.5	3 TO 4	6.0
11.5	#6	6.25	3 TO 4	6.5
12.0	#6	6.0	3 TO 4	7.0
12.5	#6	5.75	3 TO 4	7.5
13.0	#6	5.5	3 TO 4	8.0

TABLE NO. 2 TRANSVERSE STEEL AND TIE BARS

SLAB THICKNESS (IN.)	TRANSVERSE STEEL		TIE BARS AT LONGITUDINAL CONTRACTION JOINT (SECTION Z-Z)		TIE BARS AT LONGITUDINAL CONSTRUCTION JOINT (SECTION Y-Y)	
	BAR SIZE	SPACING (IN.)	BAR SIZE	SPACING (IN.)	BAR SIZE	SPACING (IN.)
7.0 - 7.5	#5*	48	#5*	48	#5*	24
8.0 - 13.0	#5*	48	#6	48	#6	24

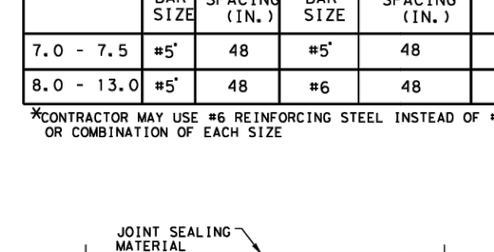
*CONTRACTOR MAY USE #6 REINFORCING STEEL INSTEAD OF #5 REINFORCING STEEL OR COMBINATION OF EACH SIZE



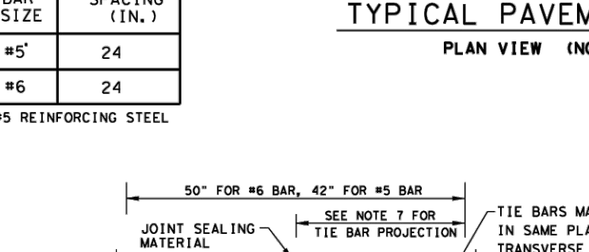
TYPICAL PAVEMENT LAYOUT
PLAN VIEW (NOT TO SCALE)

GENERAL NOTES

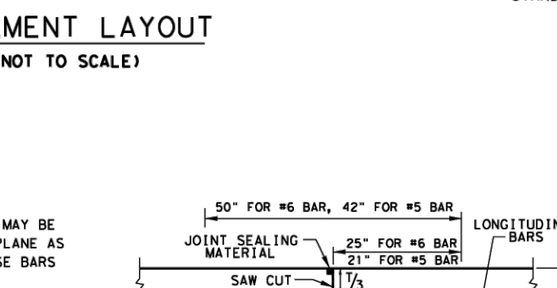
1. DETAILS FOR PAVEMENT WIDTH, PAVEMENT THICKNESS AND THE CROWN CROSS-SLOPE SHALL BE SHOWN ELSEWHERE IN THE PLANS. FOR PAVEMENTS WIDER THAN 100 FT. WITHOUT A FREE LONGITUDINAL JOINT, ADDITIONAL DETAIL MAY BE SHOWN ELSEWHERE IN THE PLANS.
2. USE COARSE AGGREGATES WITH A RATED COEFFICIENT OF THERMAL EXPANSION (CoTE) OF NOT MORE THAN 5.5 X 10^{-6} IN/IN/ °F AS LISTED IN THE CONCRETE RATED SOURCE QUALITY CATALOG (CRSQC).
3. ALL THE REINFORCING STEEL AND TIE BARS SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A 615 (GRADE 60) OR ASTM A 996 (GRADE 60) OR ABOVE. STEEL BAR SIZES AND SPACINGS SHALL CONFORM TO TABLE NO. 1 AND TABLE NO. 2.
4. STEEL BAR PLACEMENT TOLERANCE SHALL BE +/- 1 IN. HORIZONTALLY AND +/- 0.5 IN. VERTICALLY. CALCULATED AVERAGE BAR SPACING (CONCRETE PLACEMENT WIDTH / NUMBER OF LONGITUDINAL BARS) SHALL CONFORM TO TABLE NO. 1.
5. ADJUST REINFORCING STEEL VERTICALLY USING SHIMS OR OTHER METHODS, AS APPROVED, TO MEET VERTICAL TOLERANCES PRIOR TO CONCRETE PLACEMENT.
6. PAVEMENT WIDTHS OF MORE THAN 15 FT. SHALL HAVE A LONGITUDINAL JOINT (SECTION Z-Z OR SECTION Y-Y). THESE JOINTS SHALL BE LOCATED WITHIN 6 IN. OF THE LANE LINE UNLESS THE JOINT LOCATION IS SHOWN ELSEWHERE ON THE PLANS.
7. THE MINIMUM PROJECTION OF TIE BARS INTO THE ADJACENT PLACEMENT IS 22.5 IN. for #6 BARS AND 18.5 IN. FOR #5 BARS.
8. SEE STANDARD SHEET "CONCRETE CURB AND CURB AND GUTTER," FOR DETAILS WHEN TYING CONCRETE CURB OR CURB GUTTER AT A LONGITUDINAL JOINT.
9. REPLACE MISSING OR DAMAGED TIE BARS WITHOUT ADDITIONAL COMPENSATION BY DRILLING MIN. 10 IN. DEEP AND GROUTING TIE BARS WITH TYPE III, CLASS C EPOXY. MEET THE PULL-OUT TEST REQUIREMENTS IN ITEM 361.
10. OMIT TIE BARS LOCATED WITHIN 18-IN. OF THE TRANSVERSE CONSTRUCTION JOINTS (SECTION X-X). USE HAND-OPERATED IMMERSION VIBRATORS TO CONSOLIDATE THE CONCRETE ADJACENT TO ALL FORMED JOINTS.
11. THE DETAIL FOR THE JOINT SEALANT AND RESERVOIR IS SHOWN ON STANDARD SHEET "CONCRETE PAVING DETAILS, JOINT SEALS."



TRANSVERSE CONSTRUCTION JOINT
SECTION X - X



LONGITUDINAL CONSTRUCTION JOINT
SECTION Y - Y



LONGITUDINAL CONTRACTION JOINT
SECTION Z - Z

SHEET 1 OF 2

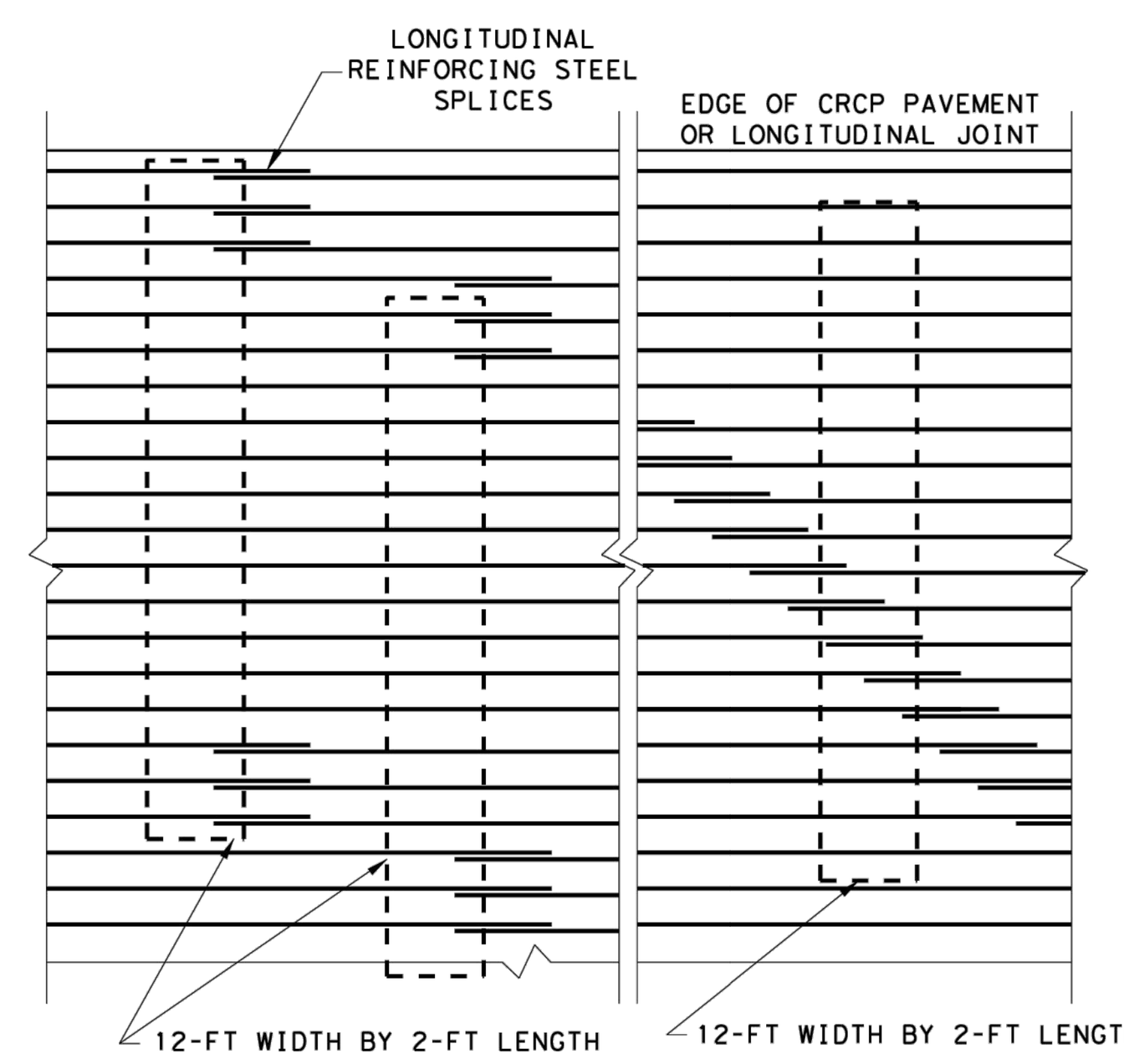
Texas Department of Transportation — Design Division Standard

CONTINUOUSLY REINFORCED CONCRETE PAVEMENT
ONE LAYER STEEL BAR PLACEMENT
T - 7 to 13 INCHES
CRCP(1)-23

FILE: crcp123.dgn | DN: TxDOT | CK: KM | DW: CES | ©TxDOT: APRIL 2023

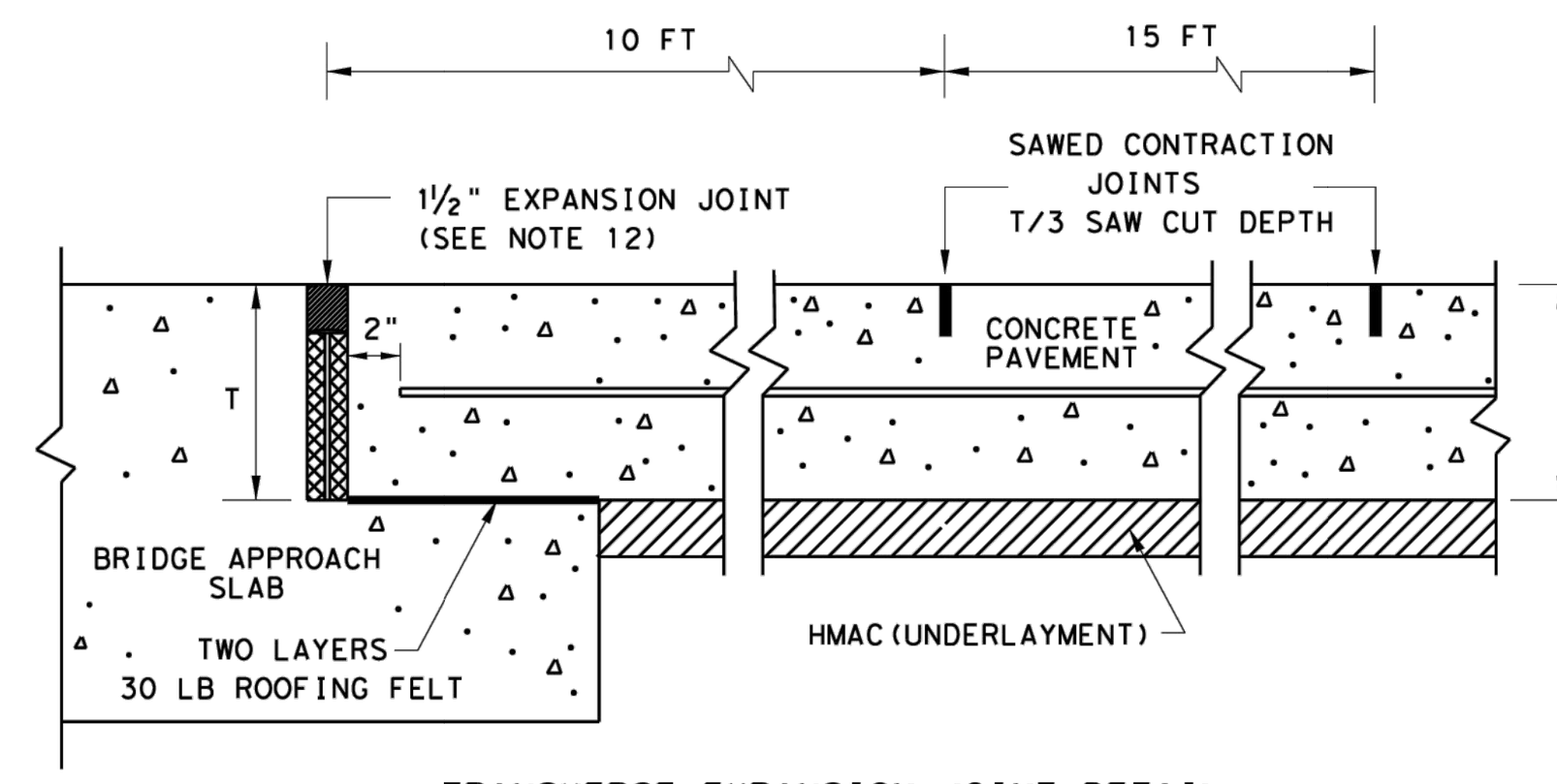
TABLE NO. 1A LONGITUDINAL STEEL FOR LOW CoTE CONCRETE AS APPROVED BY THE ENGINEER

SLAB THICKNESS AND BAR SIZE		REGULAR STEEL BARS	FIRST SPACING AT EDGE OR JOINT	ADDITIONAL STEEL BARS AT TRANSVERSE CONSTRUCTION JOINT (SECTION X-X)	
T (IN.)	BAR SIZE	SPACING c (IN.)	SPACING a (IN.)	SPACING 2 x c (IN.)	LENGTH L (IN.)
7.0	#5	7.5	3 TO 4	15	50
7.5	#5	7.0	3 TO 4	14	50
8.0	#6	10.0	3 TO 4	20	50
8.5	#6	9.5	3 TO 4	19	50
9.0	#6	9.0	3 TO 4	18	50
9.5	#6	8.5	3 TO 4	17	50
10.0	#6	8.0	3 TO 4	16	50
10.5	#6	7.5	3 TO 4	15	50
11.0	#6	7.0	3 TO 4	14	50
11.5	#6	6.75	3 TO 4	13.5	50
12.0	#6	6.50	3 TO 4	13	50
12.5	#6	6.25	3 TO 4	12.5	50
13.0	#6	6.0	3 TO 4	12	50

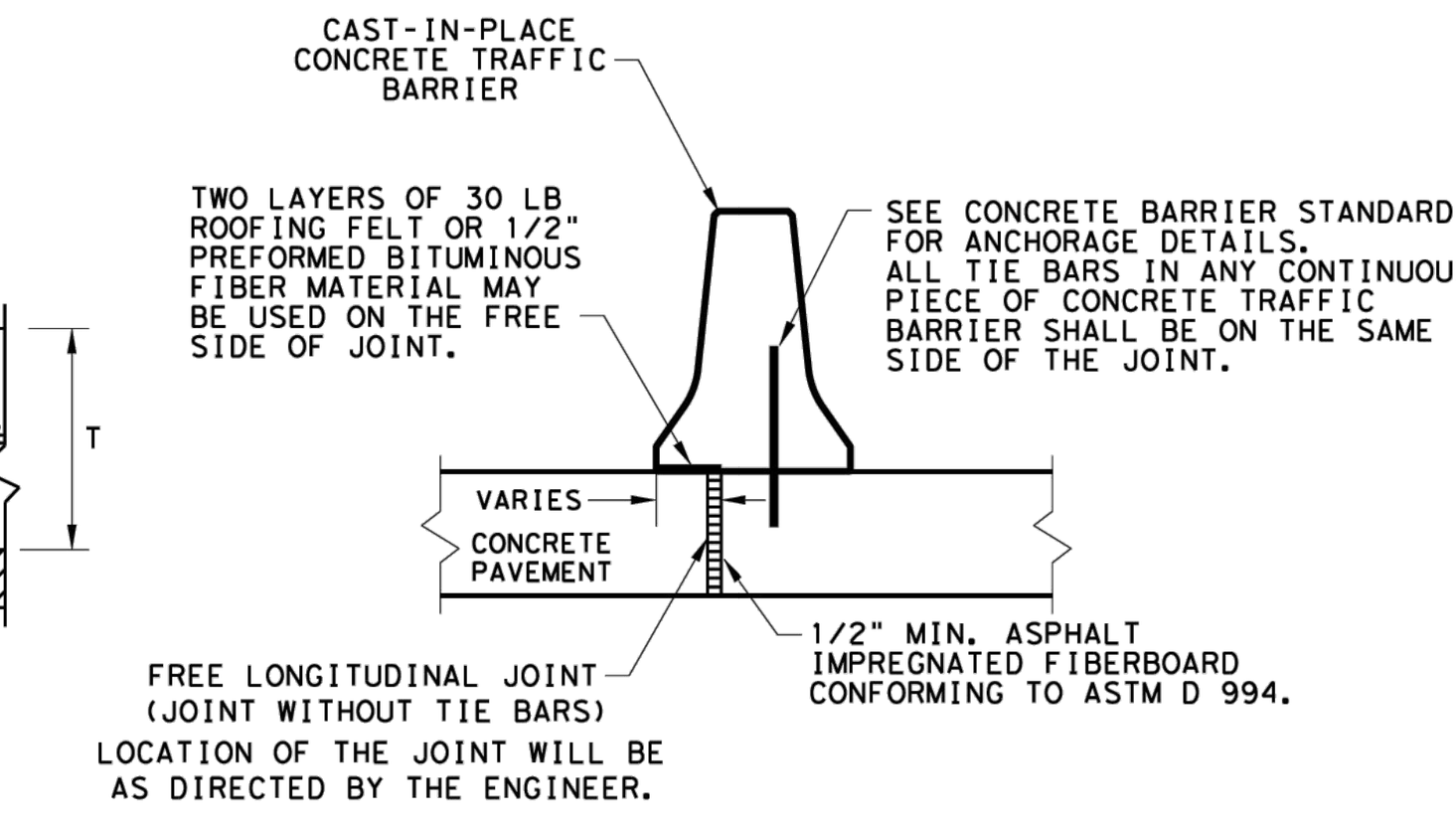


STAGGER THE LAP LOCATIONS SO THAT NO MORE THAN 1/3 OF THE LONGITUDINAL STEEL IS SPLICED IN ANY GIVEN 12-FT. WIDTH AND 2-FT. LENGTH OF THE PAVEMENT. ANY OTHER LAP CONFIGURATION MEETING THIS REQUIREMENT WILL BE ALLOWED.

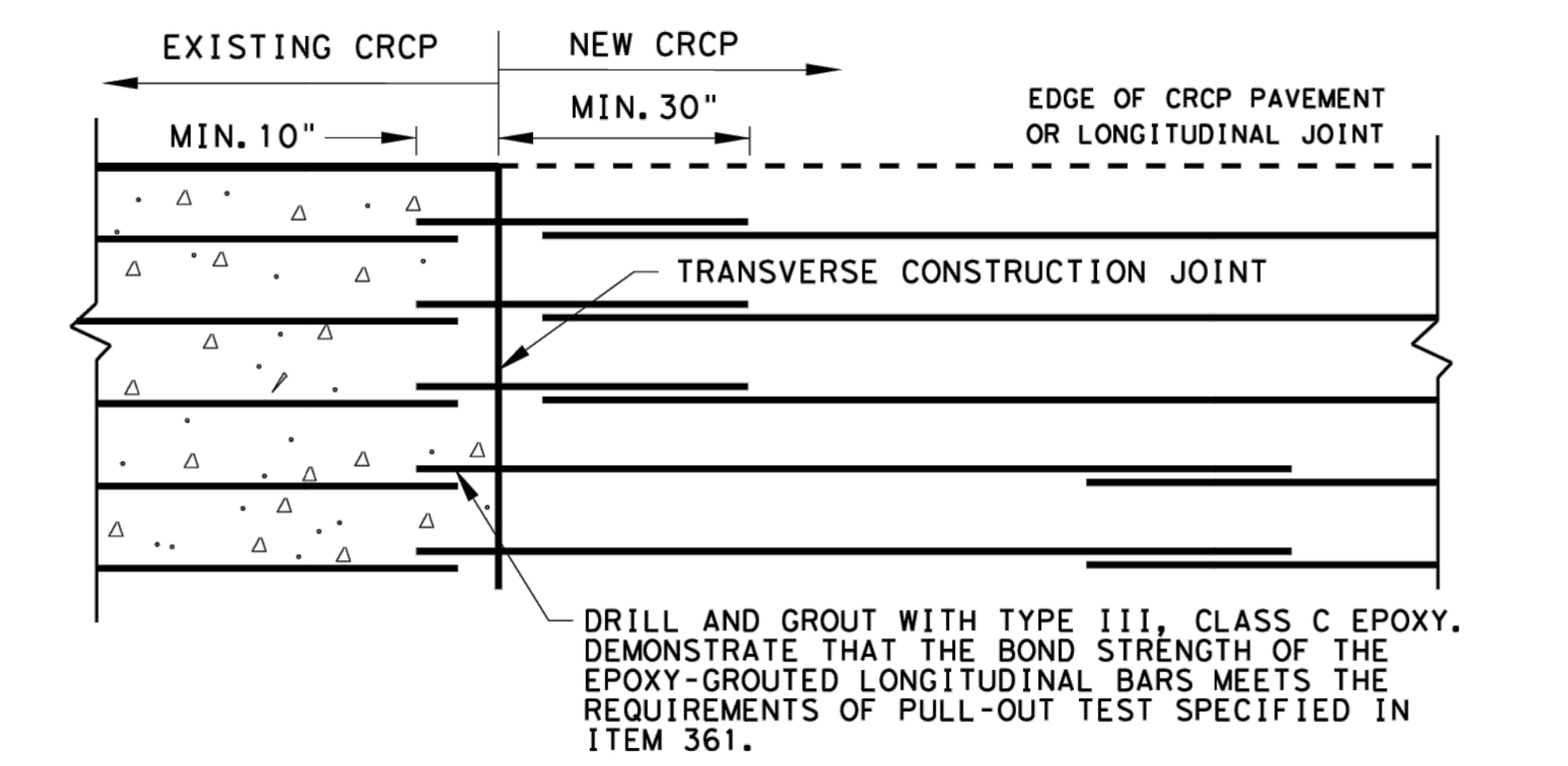
EXAMPLES OF LAP CONFIGURATION
PLAN VIEW (NOT TO SCALE)



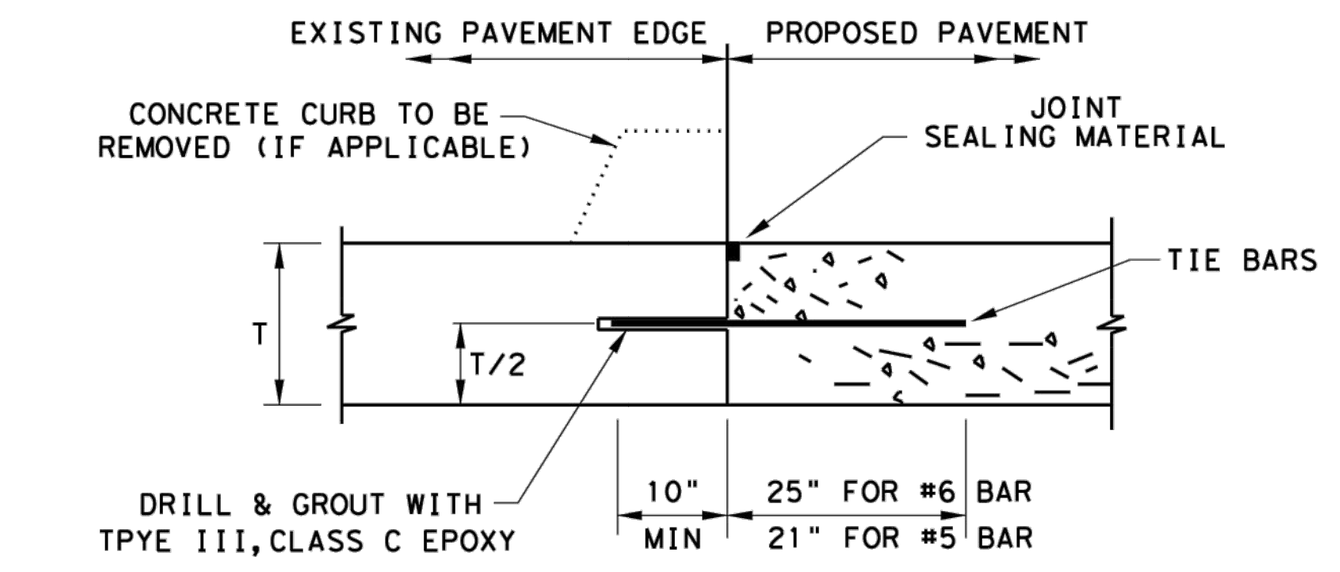
TRANSVERSE EXPANSION JOINT DETAIL
AT BRIDGE APPROACH



FREE LONGITUDINAL JOINT DETAIL

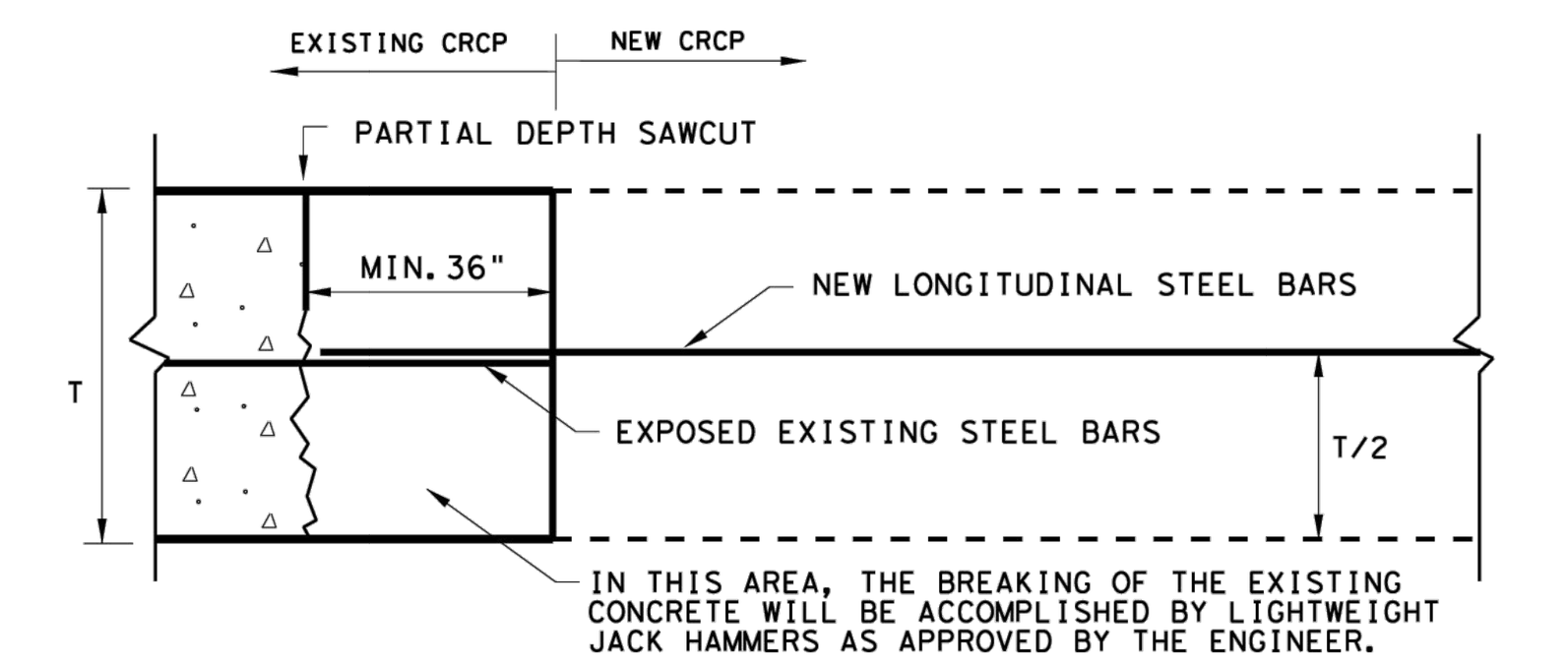


OPTION A: DRILL AND EPOXY
PLAN VIEW (NOT TO SCALE)



1. BEFORE WIDENING WORK, DEMONSTRATE THAT THE BOND STRENGTH OF THE EPOXY-GROUTED TIE BARS MEETS THE REQURIMENTS OF PULL-OUT TEST SPECIFIED IN ITEM 361.
2. SPACE TIE BARS AT 24" SPACING. USE #6 TIE BARS FOR 8" AND THICKER SLABS, USE #5 TIE BARS FOR LESS THAN 8" THICK SLABS.

LONGITUDINAL WIDENING JOINT DETAIL



OPTION B: BREAKBACK AND LAP

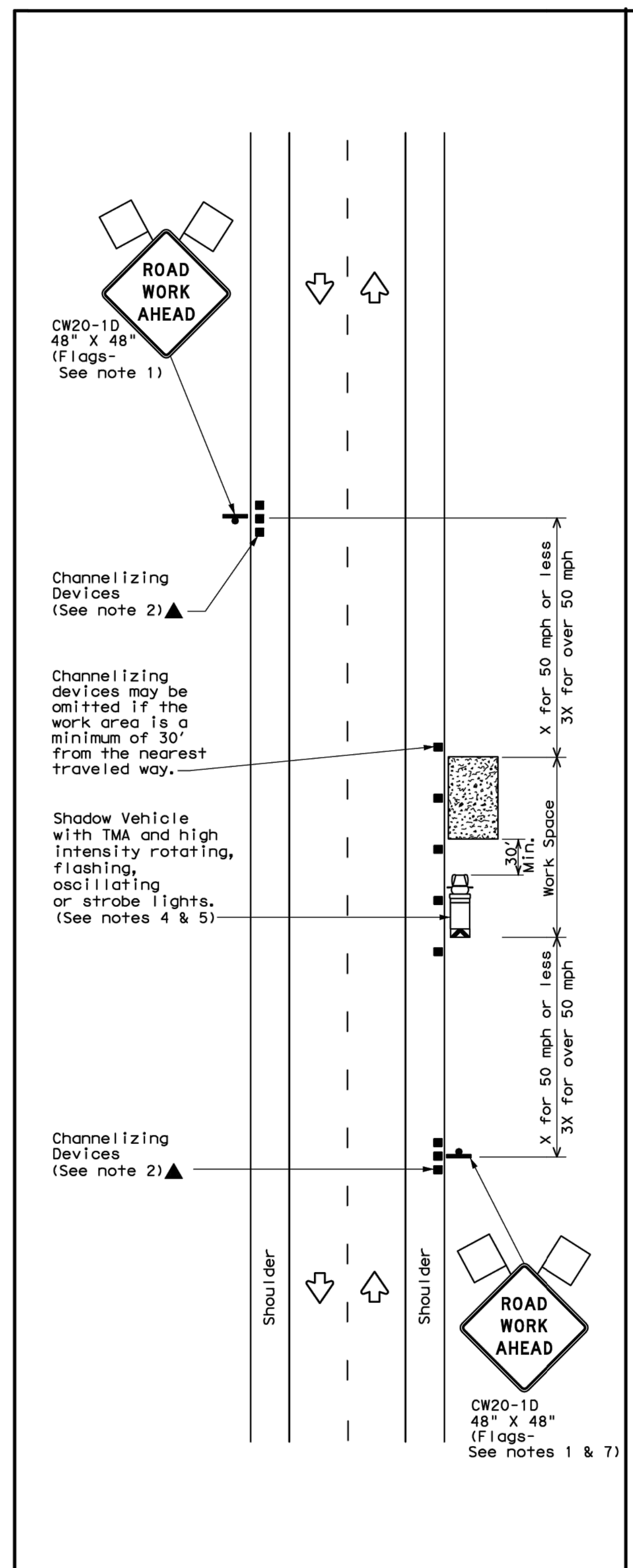
TRANSVERSE TIE JOINT DETAIL
EXISTING CRCP TO NEW CRCP

SHEET 2 OF 2

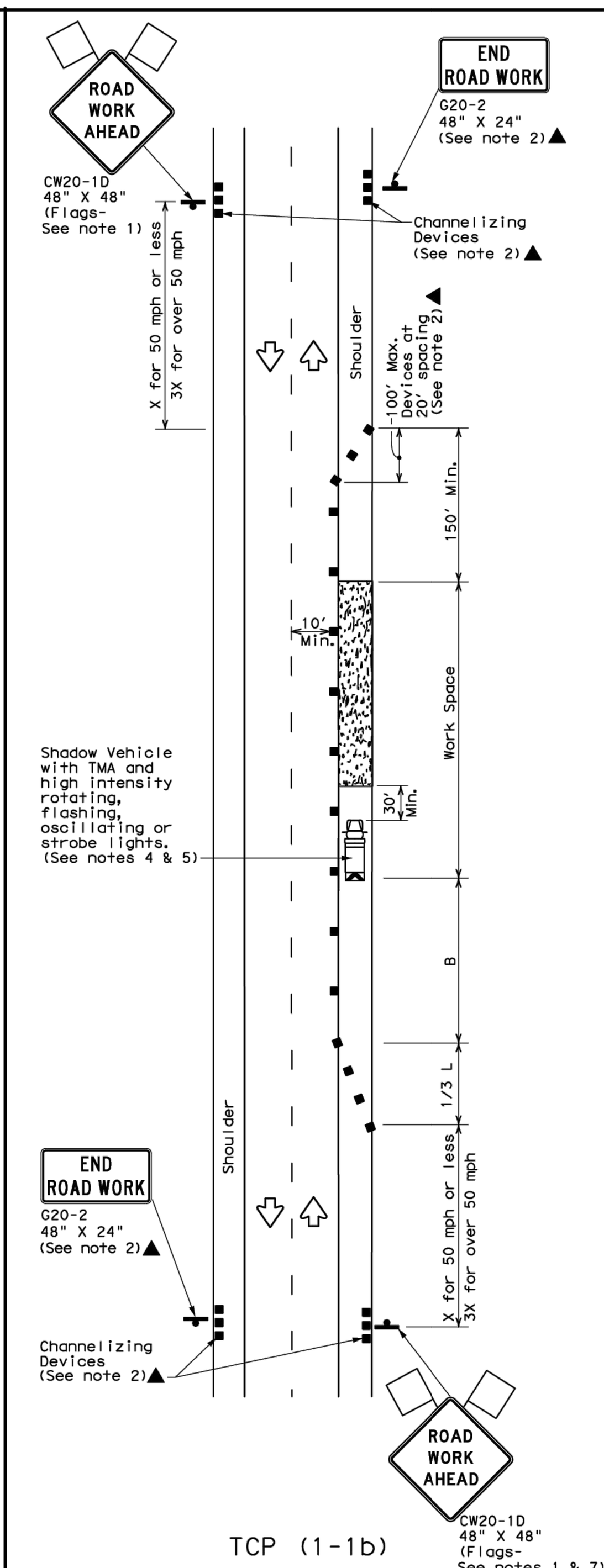
Texas Department of Transportation — Design Division Standard

CONTINUOUSLY REINFORCED CONCRETE PAVEMENT
ONE LAYER STEEL BAR PLACEMENT
T - 7 to 13 INCHES
CRCP(1)-17

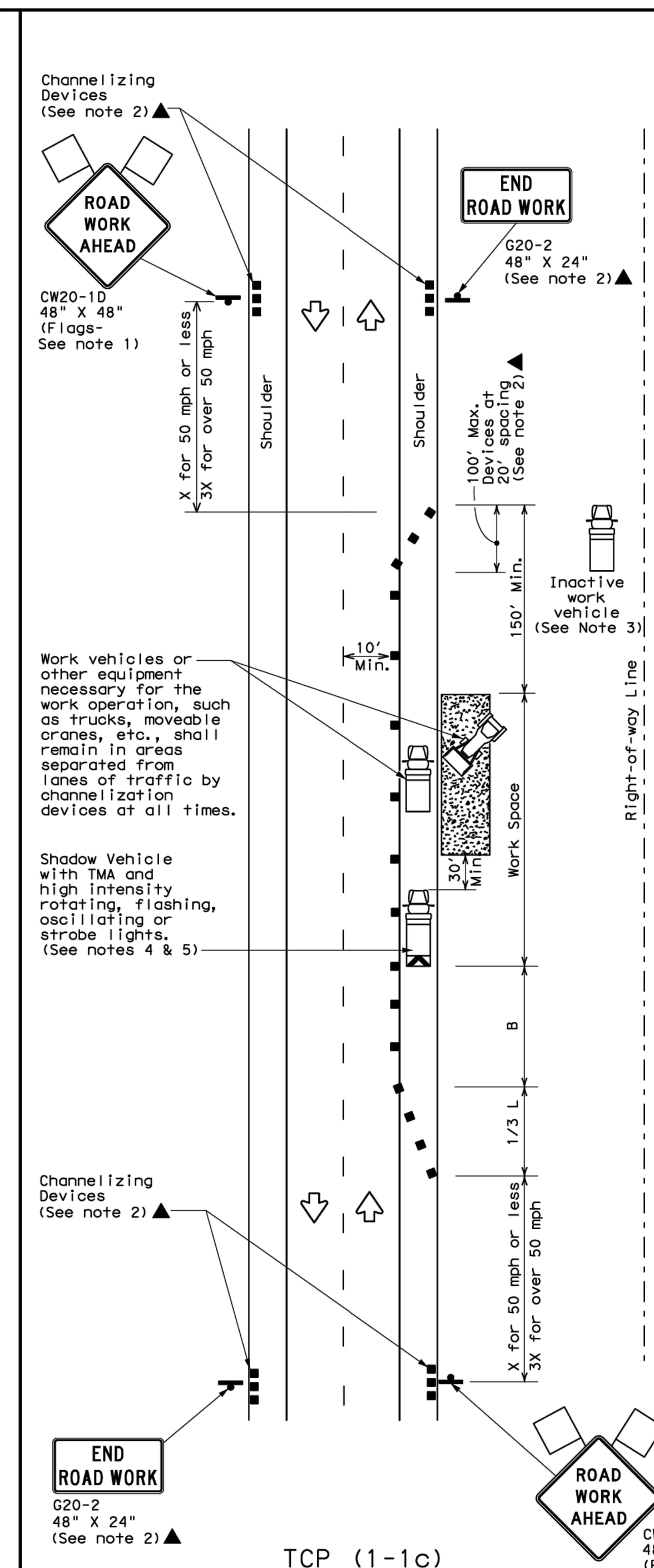
FILE: crcp117.dgn | DN: TxDOT | CK: AN | DW: HC | CK: VP/KM | ©TxDOT: May 2017



TCP (1-1a)
WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (1-1b)
WORK SPACE ON SHOULDER
Conventional Roads



TCP (1-1c)
WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND			
(symbol)	Type 3 Barricade	(symbol)	Channelizing Devices
(symbol)	Heavy Work Vehicle	(symbol)	Truck Mounted Attenuator (TMA)
(symbol)	Trailer Mounted Flashing Arrow Board	(symbol)	Portable Changeable Message Sign (PCMS)
(symbol)	Sign	(symbol)	Traffic Flow
(symbol)	Flag	(symbol)	Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

1. Flags attached to signs where shown are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
3. Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
4. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
5. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
6. See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
7. CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation
Traffic Operations Division

TRAFFIC CONTROL PLAN
CONVENTIONAL ROAD
SHOULDER WORK

TCP(1-1)-12

©TxDOT December 1985 | DN: TXDOT | CK: TXDOT | DW: TXDOT | CK: TXDOT
REVISIONS: 2-94 2-12, 8-95, 1-97, 4-98
151

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

PAVEMENT REPAIR AND TRAFFIC CONTROL DETAILS

STATE OF TEXAS — JUSTIN FAURE — 147805 — LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION OF JUSTIN FAURE, P.E. 147805 ON 8/2/2024. ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

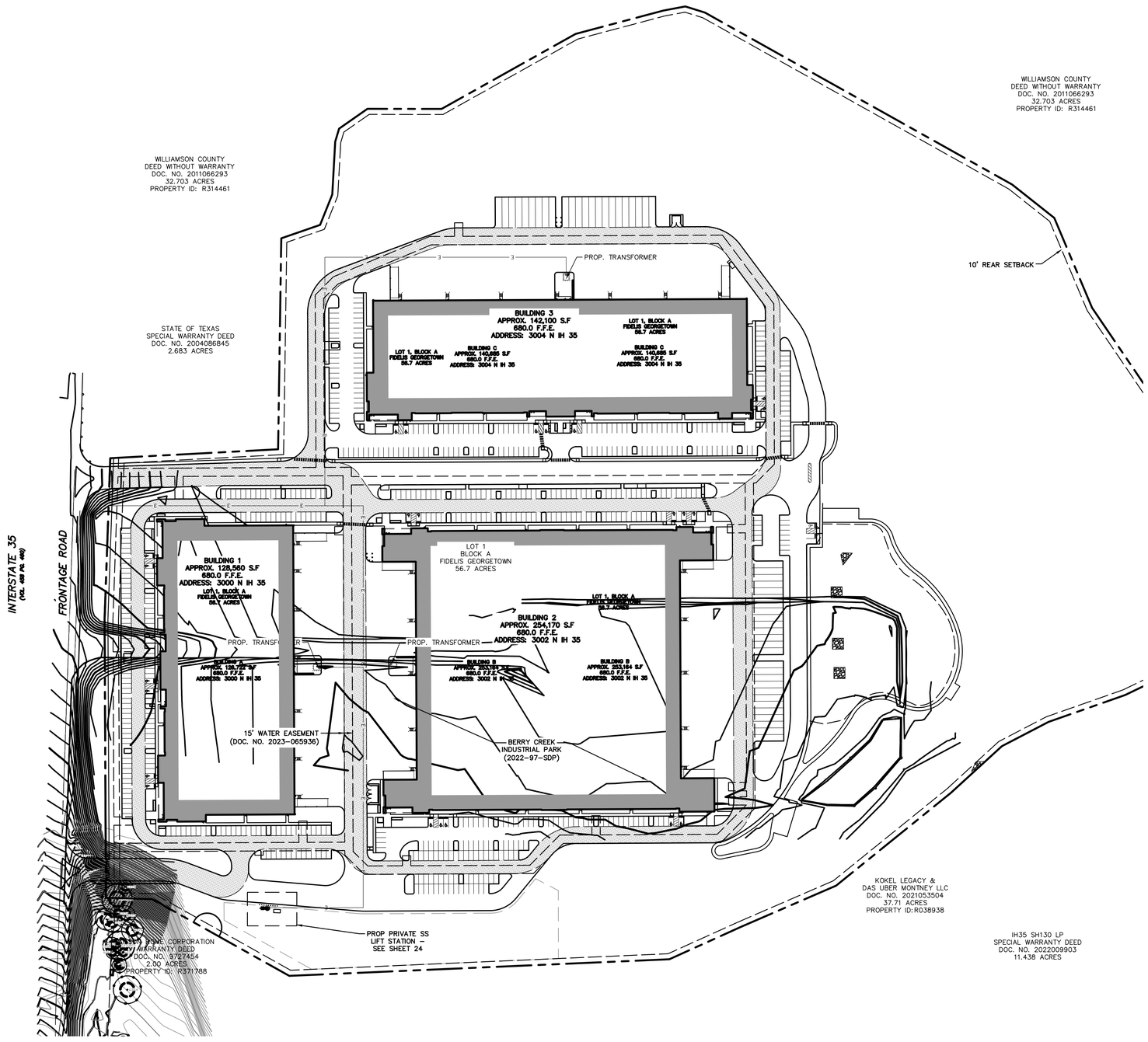
SHEET NO. 26
26 OF 32

2023-35-CON

JFAURE
8/2/2024 12:04 PM
N:\0039532.04\06 CAD\DWG\SITE DESIGN C3D\03_SHEET\0039532.04_DETAILS.DWG

PK—0039532.04_DETAILS.DWG

APPROVED: 08/02/2024



0 50 100 200 300

GRAPHIC SCALE IN FEET
1"=100'

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
FL	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
#	COORDINATE DESIGNATION
X	PROPOSED FENCE
	FIRE LANE
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
CREEK	CREEK CENTERLINE
E	PROP. ELECTRIC SERVICE

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK WASTEWATER EXTENSION GEORGETOWN, TEXAS, 78626

ELECTRICAL SERVICE PLAN

STATE OF TEXAS
JUSTIN FAURE
147805
LICENSED
PROFESSIONAL ENGINEER

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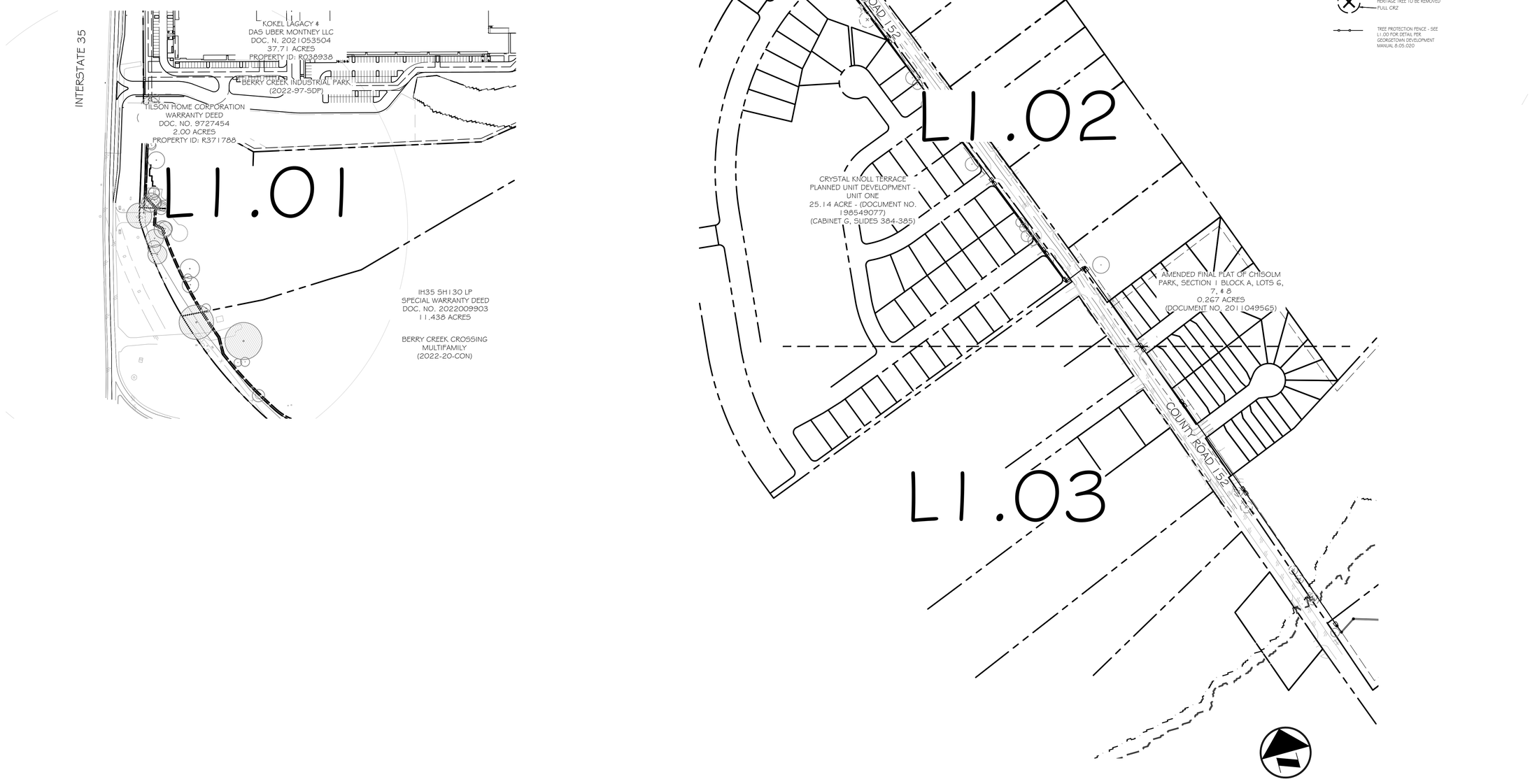
DESIGN	DRAWN	DATE
JCF	MIZ	AUG 2024

SHEET NO.
27
27 OF 32

2023-35-CON

APPROVED: 08/02/2024



TREE PRESERVATION LEGEND

- PROTECTED TREE TO REMAIN
  1/2 CRZ
  FULL CRZ
- HERITAGE TREE TO REMAIN
  1/2 CRZ
  FULL CRZ
- TREE TO BE REMOVED
  FULL CRZ
- DEVELOPMENT - OFFSITE TREE
  FULL CRZ
- HERITAGE TREE TO BE REMOVED
  FULL CRZ
- TREE PROTECTION FENCE - SEE L1.00 FOR DETAIL PER GEORGETOWN DEVELOPMENT MANUAL 8.05.020

1 OVERALL TREE MITIGATION PLAN
1" = 150'-0"

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

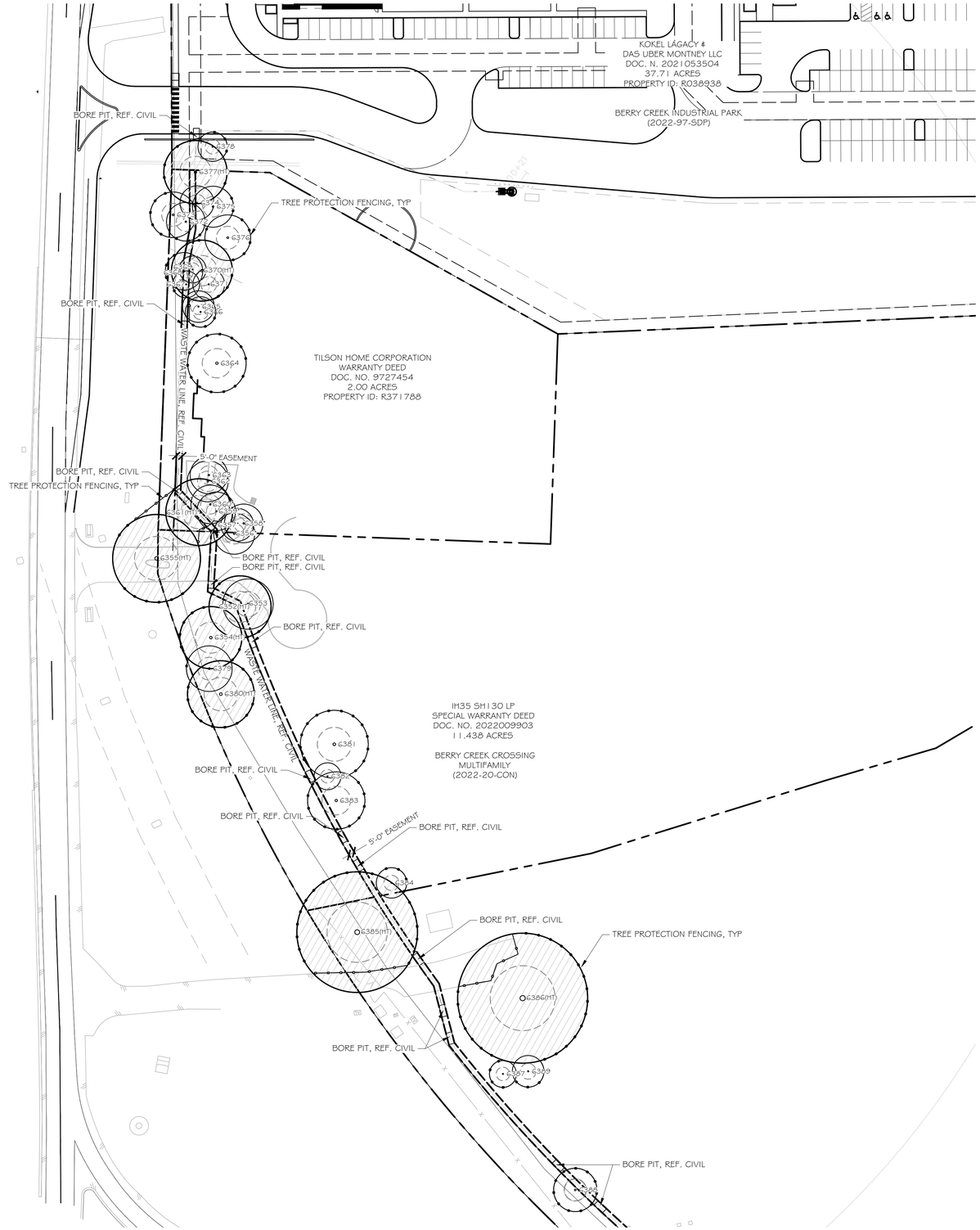
OVERALL TREE MITIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
SCOTT SINN
3352
STATE OF TEXAS
02/19/2024

DESIGN	DRAWN	DATE
EEO	EEO	JUL 2024

SHEET NO.
L1.00

APPROVED: 08/02/2024



TREE PRESERVATION LEGEND

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  1/2 CRZ
  FULL CRZ
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  1/2 CRZ
  FULL CRZ
- TREE TO BE REMOVED
  FULL CRZ
- DEVELOPMENT - OFFSITE TREE
  FULL CRZ
- HERITAGE TREE TO BE REMOVED
  FULL CRZ
- TREE PROTECTION FENCE - SEE L1.00 FOR DETAIL PER GEORGETOWN DEVELOPMENT MANUAL 8.05.020

NOTE :

TREES PRESERVED DUE TO TRENCHLESS BORING CONSTRUCTION OF PROPOSED PRIVATE WASTEWATER FORCE MAIN.

TREE PROTECTION FENCING SHOWN PER CITY OF GEORGETOWN TYPICAL DETAILS.

TREES TO RECEIVE POST CONSTRUCTION DEEP ROOT INVIGORATION TREATMENT:

6356
6357
6358
6359
6360
6361

1 TREE MITIGATION PLAN
1" = 50'-0"

0 20 40 80 120
GRAPHIC SCALE IN FEET

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TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

TREE MITIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
SCOTT SIMM
3352
STATE OF TEXAS
02/19/2024

DESIGN	DRAWN	DATE
EEO	EEO	JUL 2024

SHEET NO.
L1.01

APPROVED: 08/02/2024

DEED
RAY P. HURTADO AND WIFE,
LEONOR G. HURTADO
3.00 ACRES - (VOL 784, PAGE 942)

WARRANTY DEED
THE MOOSHES, LLC
1.99 ACRES - (DOCUMENT NO. 2022119009)

WARRANTY DEED
CECIL WYATT AND ELAINE WYATT
0.996 ACRES - (DOCUMENT NO. 1997010636)

WARRANTY DEED
WILLIAM H. HARRIS AND RACHEL V. HARRIS, HUSBAND AND WIFE
0.992 ACRES - (DOCUMENT NO. 1998070283)

GENERAL WARRANTY DEED
(DOCUMENT NO. 1998101142)

DEED
(VOLUME 763, PAGE 480)
2.944 ACRES

GENERAL WARRANTY DEED
KIRK KEMNITZ; LARRY COOK; UT VAN LE AND SUONG LE
1.96 ACRES - (DOCUMENT NO. 2022091806)

AMENDED FINAL PLAT OF CHISOLM PARK, SECTION 1 BLOCK A, LOTS 6, 7, & 8
0.267 ACRES
(DOCUMENT NO. 2011049565)

GENERAL WARRANTY DEED WITH VENDOR'S LIEN IN FAVOR OF THIRD PARTY
TODD LEE SHAW AND MAXINE TRACY SHAW, HUSBAND AND WIFE
0.519 ACRES - (DOCUMENT NO. 1999645943)

CRYSTAL KNOLL TERRACE
PLANNED UNIT DEVELOPMENT - UNIT ONE
25.14 ACRE - (DOCUMENT NO. 1985490777)
(CABINET G, SLIDES 384-385)

CALADIUM DR.
IRIS DR
JASMINE TRAIL
STADIUM DR
COUNTY ROAD 152

BORE PIT, REF. CIVIL
WASTE WATER LINE REF. CIVIL
TREE PROTECTION FENCING, TYP

MATCH LINE - SEE SHEET L1.03

1 TREE MITIGATION PLAN
1" = 50'-0"

TREE PRESERVATION LEGEND

- PROTECTED TREE TO REMAIN — 1/2 CRZ, FULL CRZ
- HERITAGE TREE TO REMAIN — 1/2 CRZ, FULL CRZ
- TREE TO BE REMOVED — FULL CRZ
- DEVELOPMENT - OFFSITE TREE — FULL CRZ
- HERITAGE TREE TO BE REMOVED — FULL CRZ
- TREE PROTECTION FENCE - SEE L1.00 FOR DETAIL PER GEORGETOWN DEVELOPMENT MANUAL 8.05.020

NOTE :

TREES PRESERVED DUE TO TRENCHLESS BORING CONSTRUCTION OF PROPOSED PRIVATE WASTEWATER FORCE MAIN.

TREE PROTECTION FENCING SHOWN PER CITY OF GEORGETOWN TYPICAL DETAILS.

TREES TO RECEIVE POST CONSTRUCTION DEEP ROOT INVIGORATION TREATMENT:

6356
6357
6358
6359
6360
6361

0 25 50 100 150
GRAPHIC SCALE IN FEET

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

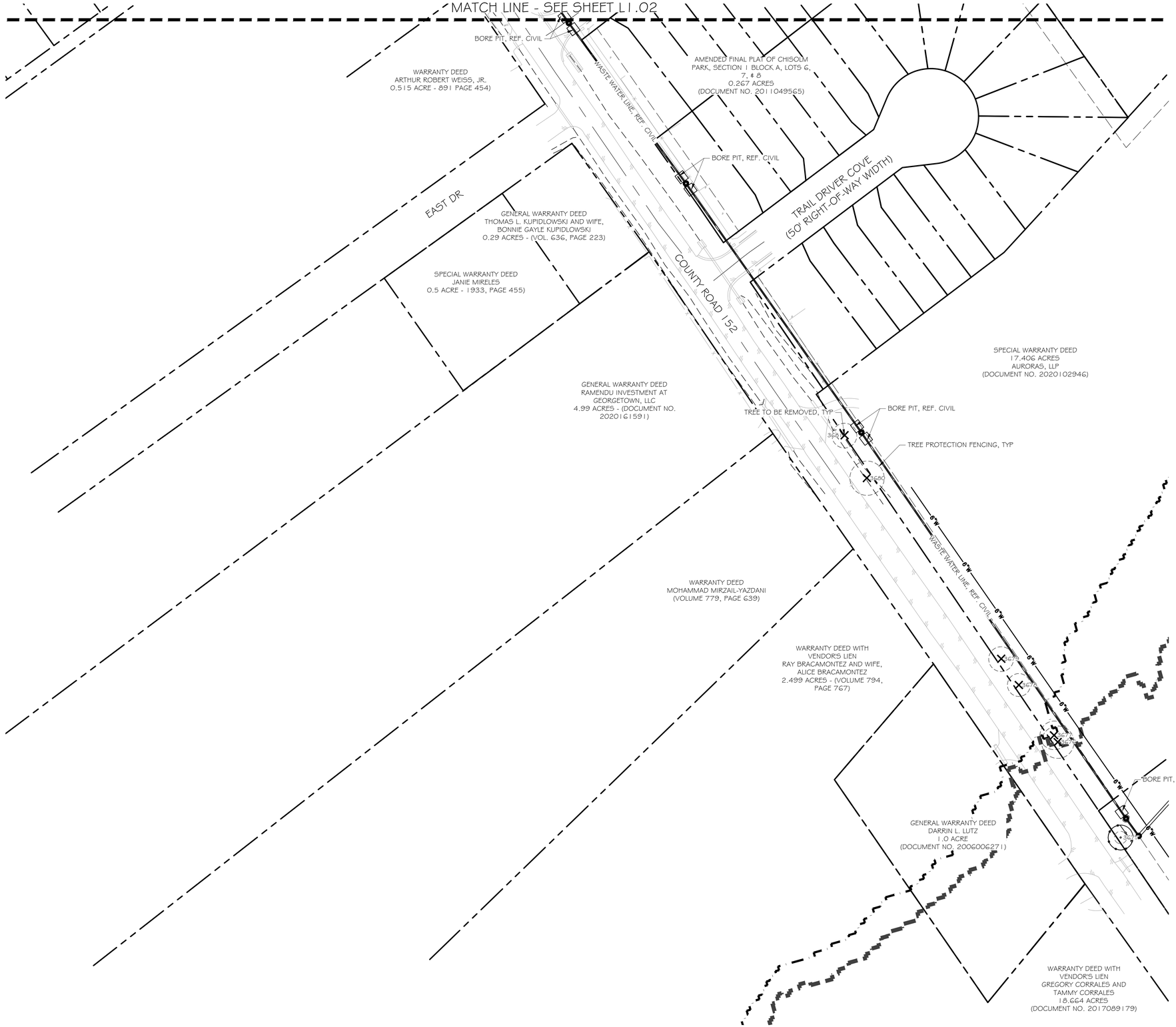
TREE MITIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
SCOTT SINN
3352
STATE OF TEXAS
02/19/2024

DESIGN	DRAWN	DATE
EEO	EEO	JUL 2024

SHEET NO.
L1.02

APPROVED: 08/02/2024



TREE PRESERVATION LEGEND

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  1/2 CRZ
  FULL CRZ
- HERITAGE TREE TO REMAIN
  1/2 CRZ
  FULL CRZ
- TREE TO BE REMOVED
  FULL CRZ
- DEVELOPMENT - OFFSITE TREE
  FULL CRZ
- HERITAGE TREE TO BE REMOVED
  FULL CRZ
- TREE PROTECTION FENCE - SEE L1.00 FOR DETAIL PER GEORGETOWN DEVELOPMENT MANUAL 8.05.020

NOTE :

TREES PRESERVED DUE TO TRENCHLESS BORING CONSTRUCTION OF PROPOSED PRIVATE WASTEWATER FORCE MAIN.

TREE PROTECTION FENCING SHOWN PER CITY OF GEORGETOWN TYPICAL DETAILS.

* TREES TO RECEIVE POST CONSTRUCTION DEEP ROOT INVIGORATION TREATMENT, REFER TO SPEC ON ARBORIST PROPOSAL TO MEET CITY OF GEORGETOWN REQUEST:

6356
6357
6358
6359
6360
6361

0 25 50 100 150
GRAPHIC SCALE IN FEET

1 TREE MITIGATION PLAN
1" = 50'-0"

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

TREE MITIGATION PLAN

REGISTERED LANDSCAPE ARCHITECT
SCOTT SINN
3352
STATE OF TEXAS
02/19/2024

DESIGN	DRAWN	DATE
EEO	EEO	JUL 2024

SHEET NO.
L1.03

APPROVED: 08/02/2024

KEY	#	SPECIES	SCIENTIFIC NAME	CONDITION	TOTAL DIAMETER (IN)	REMOVE/PRESERVE	HERITAGE MITIGATION INCHES (3:1)	PROTECTED MITIGATION INCHES (11.9-17.9")	PROTECTED MITIGATION INCHES (18-26")	PROTECTED MITIGATION INCHES (26"+)	ON-SITE CREDIT TREE (6-11.99")	NOTES
HT	6352	LIVE OAK	QUERCUS VIRGINIANA	Fair	27	PRESERVE						
P	6353	LIVE OAK	QUERCUS VIRGINIANA	Fair	22	PRESERVE						
HT	6354	LIVE OAK	QUERCUS VIRGINIANA	Good	27	PRESERVE						
HT	6355	LIVE OAK	QUERCUS VIRGINIANA	Fair	38	PRESERVE						
P	6356	LIVE OAK	QUERCUS VIRGINIANA	Fair	18	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
P	6357	LIVE OAK	QUERCUS VIRGINIANA	Fair	14	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
P	6358	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	17	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
P	6359	LIVE OAK	QUERCUS VIRGINIANA	Fair	17	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
P	6360	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	17	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
HT	6361	LIVE OAK	QUERCUS VIRGINIANA	Fair	29	PRESERVE						* DEEP ROOT INVIGORATION TREATMENT
P	6362	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	18	PRESERVE						
P	6363	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	16	PRESERVE						
P	6364	LIVE OAK	QUERCUS VIRGINIANA	Good	25	PRESERVE						
P	6365	LIVE OAK	QUERCUS VIRGINIANA	Fair	14	PRESERVE						
P	6366	LIVE OAK	QUERCUS VIRGINIANA	Fair	13	PRESERVE						
P	6367	LIVE OAK	QUERCUS VIRGINIANA	Very Poor	12	PRESERVE						
P	6368	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	16	PRESERVE						
NP	6369	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	12	PRESERVE						
HT	6370	LIVE OAK	QUERCUS VIRGINIANA	Fair	26	PRESERVE						
NP	6371	CHINABERRY	MELIA AZEDARACH	Invasive	14	PRESERVE						
P	6372	LIVE OAK	QUERCUS VIRGINIANA	Poor	17	PRESERVE						
P	6373	LIVE OAK	QUERCUS VIRGINIANA	Fair	20	PRESERVE						
NP	6374	ASHE JUNIPER	JUNIPERUS ASHEI	Fair	15	PRESERVE						
P	6375	LIVE OAK	QUERCUS VIRGINIANA	Fair	18	PRESERVE						
P	6376	LIVE OAK	QUERCUS VIRGINIANA	Fair	20	PRESERVE						
HT	6377	LIVE OAK	QUERCUS VIRGINIANA	Fair	27	PRESERVE						
P	6378	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	13	PRESERVE						
P	6379	LIVE OAK	QUERCUS VIRGINIANA	Fair	20	PRESERVE						
HT	6380	LIVE OAK	QUERCUS VIRGINIANA	Fair	29	PRESERVE						
NP	6381	MESQUITE	PROSOPIS SPP.	Poor	29	PRESERVE						
NP	6382	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	12	PRESERVE						
P	6383	LIVE OAK	QUERCUS VIRGINIANA	Fair	25	PRESERVE						
NP	6384	MESQUITE	PROSOPIS SPP.	Poor	13	PRESERVE						
HT	6385	LIVE OAK	QUERCUS VIRGINIANA	Very Poor	52	PRESERVE						
HT	6386	LIVE OAK	QUERCUS VIRGINIANA	Good	56	PRESERVE						
NP	6387	RED OAK	QUERCUS RUBRA	Fair	12	PRESERVE						
NP	6388	WHITE MULBERRY	MORUS SPP.	Invasive	19	PRESERVE						
NP	6389	WHITE MULBERRY	MORUS SPP.	Invasive	14	PRESERVE						
P	3675	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	13	PRESERVE						
R	3676	CEDAR ELM	ULMUS CRASSIFOLIA	Fair	17	REMOVE		17				MITIGATED AT 1:1
NP	3677	HACKBERRY	CELTIS OCCIDENTALIS	Very Poor	15	REMOVE						EXEMPT FOR SPECIES
NP	3678	HACKBERRY	CELTIS OCCIDENTALIS	Fair	12	REMOVE						EXEMPT FOR SPECIES
NP	3679	HACKBERRY	CELTIS OCCIDENTALIS	Fair	13	REMOVE						EXEMPT FOR SPECIES
NP	3680	HACKBERRY	CELTIS OCCIDENTALIS	Very Poor	18	REMOVE						EXEMPT FOR SPECIES
NP	3681	HACKBERRY	CELTIS OCCIDENTALIS	Fair	13	REMOVE						EXEMPT FOR SPECIES
P	3682	AMERICAN ELM	ULMUS AMERICANA	Poor	25	PRESERVE						
NP	3683	HACKBERRY	CELTIS OCCIDENTALIS	Fair	24	REMOVE						
P	3684	SYCAMORE	PLATANUS SPP.	Fair	20	PRESERVE						
P	3685	ARIZONA ASH	FRAXINUS VELUTINA	Fair	15	PRESERVE						
R	3686	COTTONWOOD	POPULUS SPP.	Fair	28	REMOVE				56		MITIGATED AT 2:1
P	3687	ARIZONA ASH	FRAXINUS VELUTINA	Fair	20	PRESERVE						
P	3688	PEAR	PYRUS SPP.	Fair	13	PRESERVE						
P	3689	PEAR	PYRUS SPP.	Poor	14	PRESERVE						
P	3690	RED OAK	QUERCUS ROBUR	Fair	17	PRESERVE						
P	3691	PEAR	PYRUS SPP.	Fair	16	PRESERVE						
P	3683.1	PEAR	PYRUS SPP.	Fair	20	PRESERVE						

TREE MITIGATION SUMMARY

TOTAL NUMBER OF PROTECTED TREES:	41
TOTAL NUMBER OF PROTECTED TREES TO REMAIN:	39
REQUIRED PROTECTED TREE PRESERVATION CALCULATION (41 PROTECTED TREES X 30%):	12
PROTECTED TREE INCHES REMOVED (12"-17.9") (1:1 RATIO) =	17
PROTECTED TREE INCHES REMOVED (18"-25") (1:1 RATIO) =	0
PROTECTED TREE INCHES REMOVED (26"+) (2:1 RATIO) =	56
HERITAGE TREE INCHES REMOVED (3:1 RATIO) =	0
TOTAL PROTECTED MITIGATION INCHES (17+0) X 40%):	63
TOTAL MITIGATION INCHES (63+0):	63
TOTAL MITIGATION INCHES BY ON-SITE REPLACEMENT (0 TREES x 3")**:	0
TOTAL MITIGATION INCHES TO BE MADE BY PAYMENT:	0

*TREES TO RECEIVE POST CONSTRUCTION DEEP ROOT INVIGORATION TREATMENT, REFER TO SPEC ON ARBORIST PROPOSAL TO MEET CITY OF GEORGETOWN REQUEST.

**PRIVATE WASTEWATER FORCE MAIN TO BE CONSTRUCTED THROUGH BORE TRENCHING CONSTRUCTION METHODS.

***NO ON-SITE PLANTING.

ADDITIONAL NOTES:

0	HERITAGE INCHES REMOVED TO BE MITIGATED BY PAYMENT
$0.00	HERITAGE TREE COST ($225 PER INCH)
56	(18+) PROTECTED INCHES REMOVED TO BE MITIGATED BY PAYEMENT
$9,800.00	PROTECTED TREE COST ($175 PER INCH)
7	(12"-17") PROTECTED INCHES REMOVED TO BE MITIGATED BY PAYEMENT
$850.00	PROTECTED TREE COST ($125 PER INCH)
$10,650.00	TOTAL ESTIMATED COST BY DEVELOPER FOR PAYMENT

NOTES :

1) PRESERVED TREES ARE UNDISTURBED DUE TO TRENCHLESS BORING CONSTRUCTION OF PROPOSED PRIVATE WASTEWATER FORCE MAIN.

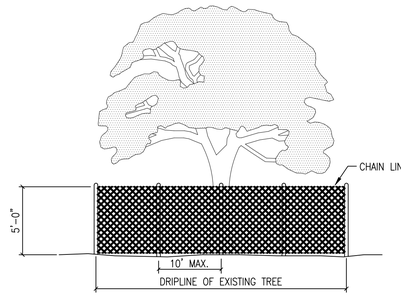
2) TREE PROTECTION FENCING SHOWN PER CITY OF GEORGETOWN TYPICAL DETAILS.

3) PROPOSED BORE PITS LOCATIONS ARE PRELIMINARY AND SHALL BE COORDINATED WITH CONTRACTOR PRIOR TO COMMENCEMENT OF ACTIVITY. UPON COMPLETION OF EXISTING UTILITY CROSSING IDENTIFICATION, CONTRACTOR SHALL SUBMIT A PROPOSED CONSTRUCTION PLAN INCLUDING LOCATIONS OF BORE/RECIEVING PITS, LIMITS OF CONSTRUCTION, EROSION CONTROL, AND ANY NECESSARY TREE PROTECTION.

NOTE :

*TREES TO RECEIVE POST CONSTRUCTION DEEP ROOT INVIGORATION TREATMENT, REFER TO SPEC ON ARBORIST PROPOSAL TO MEET CITY OF GEORGETOWN REQUEST:

6356
6357
6358
6359
6360
6361



NOTES:

1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
2. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES; WILL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND WILL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MATERIALS.
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN SIX INCHES (6") CUT OR FILL, OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY.
   C. WOUNDS TO EXPOSED ROOTS, TRUNKS OR LIMBS BY MECHANICAL EQUIPMENT.
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING AND FIRE.
3. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   B. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX FEET (6'-0") TO BUILDING.

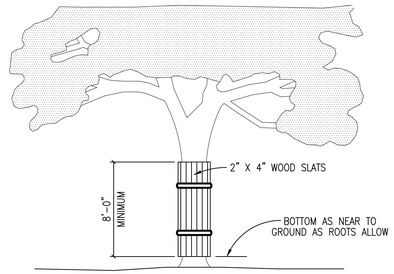
The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
TREE PROTECTION – CHAIN LINK FENCE

DRAWING NAME: EC09

SCALE: NTS | DATE: 1/2003 | DRAWN BY: MRS | APPROVED BY: TRB



NOTES:

1. WHERE ANY EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN FOUR FEET (4'-0") TO A TREE TRUNK; PROTECT THE TRUNK WITH STRAPPED-ON-PLANKING TO A HEIGHT OF EIGHT FEET (8'-0"), OR TO THE LIMITS OF LOWER BRANCHING IN ADDITION TO THE REDUCED FENCING PROVIDED.
2. ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO (2) DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE, AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
3. PRIOR EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINE. MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT, TO MINIMIZE DAMAGE TO REMAINING ROOTS.
4. TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHOULD BE WATERED DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. TREE CROWNS SHOULD BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
5. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
6. NO LANDSCAPE TOPSOIL DRESSING GREATER THE FOUR INCHES (4") SHALL BE PERMITTED WITHIN THE DRIPLINE OF A TREE. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
7. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

REVISION NOTE: ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
TREE PROTECTION – WOOD SLATS

DRAWING NAME: EC10

SCALE: NTS | DATE: 1/2003 | DRAWN BY: MRS | APPROVED BY: TRB

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westwoodps.com
Westwood Professional Services, Inc.
TBPE FIRM REGISTRATION NO. F-11756
TBPLS FIRM REGISTRATION NO. LS-10074301

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
WASTEWATER EXTENSION
GEORGETOWN, TEXAS, 78626

TREE DATA AND DETAILS

REGISTERED LANDSCAPE ARCHITECT
SCOTT SINN
3352
STATE OF TEXAS
02/19/2024

DESIGN	DRAWN	DATE
EEO	EEO	JUL 2024

SHEET NO.
L1.04