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.: Not yet assigned**			
3. Customer Name: Fidelis Realty Partners						**4. Customer No.: CN603034521**			
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):**		56.73 ac	
9. Application Fee:	$8,000		**10. Permanent BMP(s):**			Batch Detention			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson County		**14. Watershed:**			Berry Creek			

Application Distribution

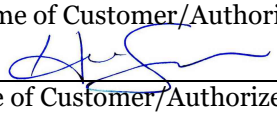
Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which 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 ___Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville _x_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. Hollis Scheffler, P.E.
Print Name of Customer/Authorized Agent
 12/20/2022 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.

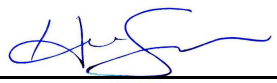
Signature

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: Hollis Scheffler, P.E.

Date: 12/20/22

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: Steven Kimosh
   Entity: Fidelis Realty Partners
   Mailing Address: 8140 Walnut Hill Lane 400
   City, State: Dallas, Texas Zip: 75231
   Telephone: (512)554-6191 FAX: n/a
   Email Address: skimosh@frpltd.com

8. Agent/Representative (If any):

   Contact Person: Hollis Scheffler, 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: hollis.scheffler@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 property is located off the I 35 Service Road and at the end of William Scotsman Street.

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: 1/1/2023

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:

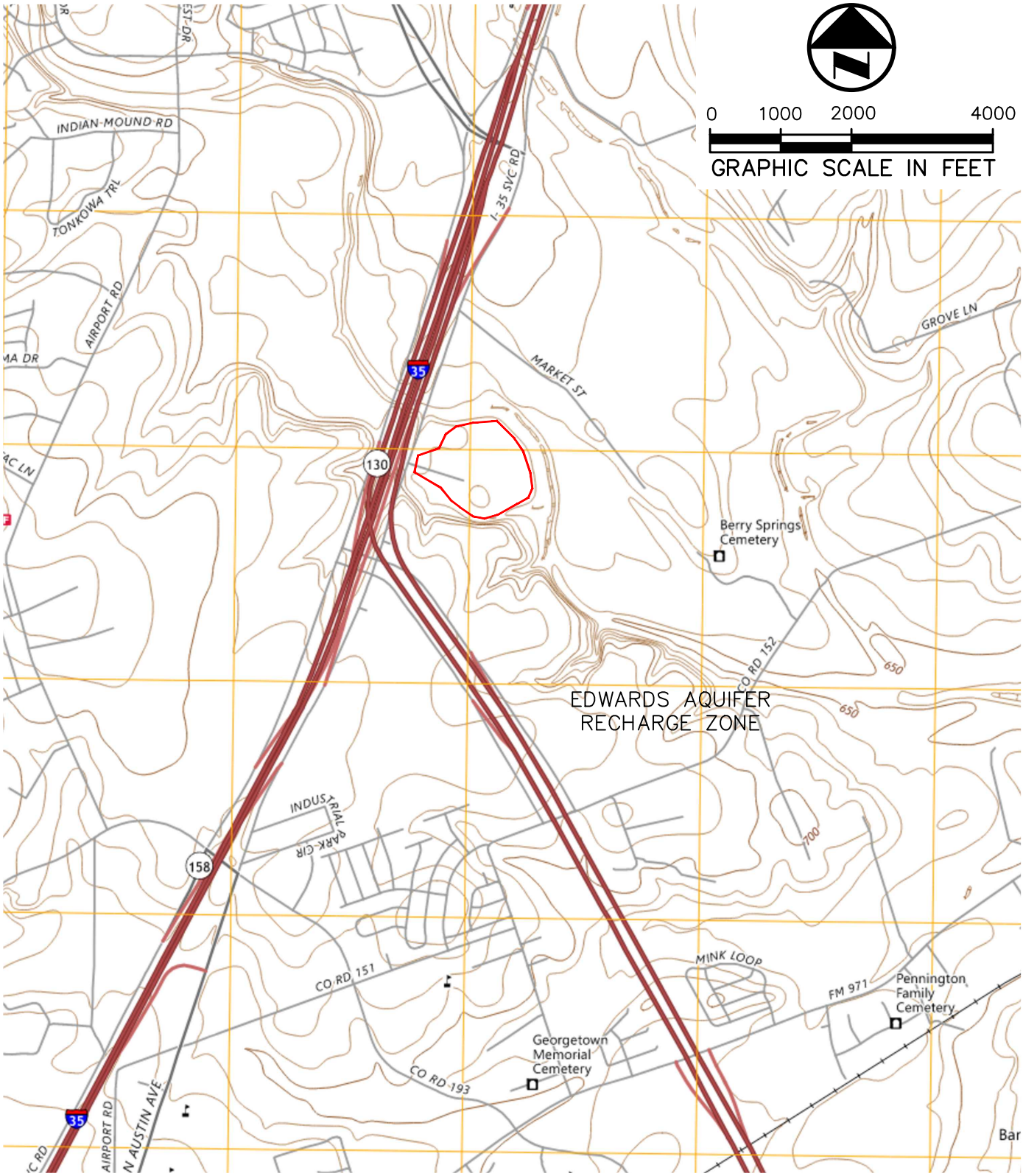
☐ TCEQ cashier
☒ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

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

Pacheco Koch
a Westwood company
8701 N. MOPAC EXPWY. STE. 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
JPQ	HAS	1"=2000'	12/2/2022	4670-22.125

BERRY CREEK BUSINESS PARK

JPQUINTANA 12/19/2022 4:56 PM
M:\DWG-46\4670-22.125\SUBMITTALS\2022-12-20 WPAP SUBMITTAL\ARCHIVE\QUAD MAP\QUAD MAP.DWG

Attachment C – Project Description

The proposed development includes the construction of three industrial buildings with all associated grading, drainage, utility, detention, parking, vehicular conveyance, and water quality improvements on 56.73 acres of a combination of developed and undeveloped land. The proposed site is located at 3000 N IH 35 NB in Georgetown, Texas 78626. The existing site consists of light paving, gravel, and Class D soil classification. According to FEMA Maps 48491C0285F (dated 12/20/2019) and 48491C0292F (dated 12/20/2019), the subject site does not fall within a regulatory floodplain.

The site generally slopes at ±0.5% from the middle of the north side of the site to the south of the site. Around the site there is only undeveloped land.

The project will consist of three industrial buildings, associated grading, utilities, parking, public roadways, and tie into existing sewer and water lines down the South Interstate 35 Service Road. The total impervious cover on the site is 28.12 acres. All proposed impervious cover is to be treated with the proposed batch detention pond.

As included in our demolition plans, we will first be removing the existing fences throughout the property in order to have the space open for construction. The existing buildings and pavement throughout the site will be demolished for the design of the three new proposed industrial buildings. We will also be removing any existing signs and gravel throughout the property.

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: 3/28/2023

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

Signature of Geologist:

Melissa L Wann 3-28-2023

STATE OF TEXAS
MELISSA L. WANN
GEOLOGY
3484
LICENSED
PROFESSIONAL GEOSCIENTIST

Exp. 5.31.2023

Regulated Entity Name: Berry Creek Business Park

Project Information

1. Date(s) Geologic Assessment was performed: 10/28/2022, 11/2/2022, and 3/21/2023
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)

Soil Name	Group *	Thickness(feet)
SvA - Sunev silty loam	B	6.67
KrB - Krum silty clay	C	6
OkA - Oakalla silty clay loam	B	6.67
BkrG - Brackett-Rock outcrop/Gravelly clay loam	D	5

** 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" = 40'
   Site Geologic Map Scale: 1" = 40'
   Site Soils Map Scale (if more than 1 soil type): 1" = 40'

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 1 (#) 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

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: Fidelis Industrial - 58 Acre Property, 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)	DIP	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	
Berry Creek	30.689250	-97.652162	Z	30	Kgt	2,575	varies	varies	S40°E	--	--	--	C,O	34	64		x		x	Streambed
Dry Creek Bed	30.687209	-97.653381	Z	30	Kgt	1,126	varies	varies	N40°E	--	--	--	N,C,O	45	75		x		x	Streambed
Water Well	30.688260	-97.653479	MB	30	Ked	0.8	0.8	225	--	--	--	0.5	X	45	75		x	x		Hilltop

* 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.

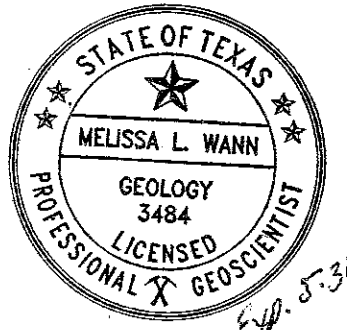
My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date 3/28/2023

Melissa L Wann

Melissa Wann, P.G.

Sheet 1 of 1 (Attachment)



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

Geologic Assessment Table - Attachment 1
GPS Requirements

DATUM: WGS 84
METHOD: GPS Unit - Garmin eTrex 30x
DATE: October 28, 2022
USER: Melissa Wann

DATUM: WGS 84
METHOD: GPS Unit - Trimble R1 99133
DATE: March 21, 2023
USER: Melissa Wann

Attachment B

Stratigraphic Column

BRAUN INTERTEC

SYSTEM	GROUP	FORMATION or MEMBER	APPROX. THICKNESS (ft)
QUATERNARY	N/A	Fluviatile Terrace Deposits, undivided (Qu)	Up to 50 ft
LOWER CRETACEOUS	WASHITA	Georgetown Limestone, (Kgt)	30 to 80 ft
	FREDRICKSBURG	Edwards and Commanche Peak Limestones, undivided (Kec)	60 to 350 ft

Attachment B
Stratigraphic Column
Fidelis Industrial - 58-Acre Property
Georgetown, Texas

BRAUN INTERTEC
The Science You Build On.

11/3/2022	Braun Project No.: B2210531	Drawn by: WW	Checked by: PF	Revised by:

Attachment C

Site Geology & Photographic Log

BRAUN INTERTEC

The approximately 58-acre property is located east of the intersection of the northbound North IH-35 Frontage Road and William Scotsman Road in Georgetown, Williamson County, Texas (Site). The Site consists of approximately 25 acres of agriculture land and an approximately 8.5-acre area developed as a gravel, fenced commercial mobile trailer storage facility. The remaining approximately 24.5 acres are riparian forest that includes Berry Creek along the north and east of the Site and a dry creek bed along the southern Site boundary.

The Site is located in central Williamson County 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 and few faults. The nearest mapped fault is located approximately 1 mile southwest of the Site. The Site is within the mapped Edwards Aquifer Recharge Zone.

The Site is relatively flat and elevation ranges from approximately 670 to 680 feet above mean sea level (AMSL). Surface water runoff appears to occur as overland flow across the Site with a general radial drainage pattern to Berry Creek on the north and east, and toward the dry creek bed channel along the southern Site boundary; several rills were observed emanating from the fenced off developed area toward the dry creek bed, with the most significant located just outside the fence at the southwestern corner of the fenced facility.

Based on a review of the Bureau of Economic Geology (BEG) Geologic Atlas of Texas, Austin Sheet (1974), Fluviatile Terrace Deposits (undivided, Qu) underlay the Site. The Georgetown Limestone (Kgt) underlays the Fluviatile Terrace Deposits. The Fluviatile Terrace Deposits consist of various proportions of gravel, sand, silt and clay with a thickness that ranges up to 50 feet. The Georgetown Limestone in this area consists of fine-grained limestone and marl with a thickness that ranges from 30–80 feet and outcrops in a small area along the dry creek bed on the southern property boundary, as well as throughout the region to the west of the Site. The Edwards and Comanche Peak Limestones (undivided, Kec) underlay the Georgetown Limestone. 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 riparian forest area and agricultural portion of the Site was conducted by Patrick Fortson, Melissa Wann, and Wesmond Williams on October 28, 2022; Ms. Wann returned to conduct a survey of the developed (fenced) portion of the Site on November 2, 2022. The initial field survey included reconnaissance of the property performed on foot on approximately 30-foot or smaller transects. The forested portion of the Site was vegetated with herbaceous cover, woody vines, understory shrub, and trees ranging from approximately 1-inch diameter to large live oak and pecan trees with up to 2-foot diameter trucks. The agricultural portion of the Site was vegetated and contained recently mowed hay. Minimal areas were bare soil cover with no vegetation. Soil cover was observed in the agricultural and fenced portion of the Site. According to the well report for the water well at the Site, limestone was encountered at 14 ft below ground surface. Rock outcrops indicative of the Georgetown Limestone were observed in the dry creek bed along the southern Site boundary and in cut banks of Berry Creek along the northern and eastern Site boundary during the field survey. Soil cover in the dry creek bed, was estimated to be 0-10 ft thick. No evidence of sinkholes or faults was observed during the field survey; however, karst features such as solution cavities were observed in portions of the dry creek bed. Berry Creek and the dry creek bed are interpreted to be recharge features because they are assumed to be losing streams with direct recharge into the Georgetown Limestone and then to the Edwards Limestone. Additionally, a review

of published records did not reveal any caves or other mapped karst features in the general Site vicinity. An additional field survey was conducted on March 21, 2023 by Patrick Fortson, P.G., and Melissa Wann, P.G., from Braun Intertec, and James "Bo" Sloan, P.G., and Colin Gearing from the Texas Commission of Environmental Quality (TCEQ). The additional field survey was conducted to further assess Berry Creek along the northern Site boundary and the dry creek bed along the southern Site boundary. Both features are discussed in more detail below. Photographs from the initial field survey and follow up field survey are provided in **Attachment C**.

The following sensitive features were observed during Site reconnaissance and are listed in the Geologic Assessment Table. The sensitive features and associated buffer, where applicable, are presented on the **Attachment D Geologic, Soils, and Sensitive Feature Location Maps (Attachment D Maps)**.

Berry Creek: Berry Creek is present along the northern and eastern Site boundary. Water was flowing during each field survey. Berry Creek flows from west to east before curving to the south/southeast. The creek cuts through fluvial terrace deposits and mostly low-cut banks were observed. However, a steep cut bank, approximately 18 to 20 feet high, forms the southern bank along the western portion of the creek. Bedrock outcrops were observed along some of the cut banks and limestone cobbles were observed along creek banks. Along the northern Site boundary, limestone bedrock was observed in the creek bed. Along the northeastern and eastern Site boundary, the creek bed was not observable but it is assumed bedrock is present beneath sediment.

Berry Creek is listed as a feature on the Geologic Assessment Table as it was observed to be shallow and is assumed to be a losing stream with recharge into the Georgetown Limestone and then to the Edwards Limestone. Based on observations along the western reach of Berry Creek, and given the extent of Berry Creek, Mr. Sloan and Mr. Gearing of the TCEQ indicated that a minimum 50-foot buffer would be required adjacent to Berry Creek. The buffer is shown on the **Attachment D Maps**.

Dry Creek bed: A dry creek bed is present along the southern Site boundary extending from the North IH-35 Frontage Road at the western Site boundary to Berry Creek at the southeastern portion of the Site, as shown on the **Attachment D Maps**. The creek bed was dry during the initial field survey, but small pools of ponded water were observed along a portion of the central to western reach during the March 21, 2023 field survey, which occurred following precipitation events a week prior. Based on topography, observed vegetation patterns, and aerial imagery, when water is present it flows from west to east and discharges to Berry Creek.

Outcrop of the Georgetown Limestone (approximately 20 feet high) was observed along the southern bank in the eastern portion of the dry creek bed during the field surveys. The outcrop is deeply weathered, several small slides, and some solution cavities were observed.

The thickness of soil cover in the dry creek bed varies. In the western reach, soil cover up to approximately 1 foot thick was observed; however, soil cover decreases to the east as the dry creek bed cuts into exposed bedrock. The western reach of the dry creek bed is not considered a sensitive feature as the thickness of soil cover in this area appears to prevent rapid infiltration to the Edwards Aquifer. Additionally, the pools of water in this portion of the creek bed appeared stagnant during the March 21, 2023 field survey indicating the potential for rapid infiltration was low. Mr. Sloan and Mr. Gearing of the TCEQ agreed with this interpretation. Although no significant direct recharge features were observed within and along the creek bed, solution cavities in the bedrock outcrop area and limestone cobbles with signs of karst weathering were observed. As a result, the eastern portion of the dry creek bed is considered a sensitive

feature and assumed to be a losing stream (following precipitation events) with direct recharge into the Georgetown Limestone and then to the Edwards Limestone.

Based on conditions observed within the sensitive portion of the dry creek bed and minimal soil cover, Mr. Sloan and Mr. Gearing indicated that a minimum 50-foot buffer would be required around the eastern portion of the dry creek bed identified as a sensitive feature.

Water Well #5819633: A water well (State Well number 5819633) is located in a small pump house on the southwestern portion of the fenced area. As indicated on the well log obtained from the TCEQ well data base, the well was installed in 1998 and consists of plastic casing to a depth of 60 feet, grouted to a depth of 18 feet; the well was drilled to a total depth of 225 feet below ground surface and produces from the Edwards Aquifer. The location of the well is shown on the **Attachment D Maps**. Based on review of the well log obtained from TCEQ, information from the Texas Water Development Board (TWDB), and observations of the wellhead during Site reconnaissance, the wellhead is secure and not exposed; however, the well is considered a rapid infiltration feature due to the nature of the well being a direct conduit into the Edwards Limestone should a release occur and impact the well, or if the wellhead was damaged. The water well is planned to be plugged and abandoned prior to development of the Site, which would remove the potential for a release to the well affecting the Edwards Aquifer.

No other manmade features, natural features, or documented features that would be considered sensitive features were observed in the area during the field survey. Berry Springs, located approximately 2,500 feet southeast of the Site was identified on aerial images reviewed as part of this assessment.

Other notable features observed during the field survey include:

- One small (10-inch diameter) animal burrow was observed in soil (no bedrock observed) on the north side of the fenced developed area, near the eastern corner of the fence. Because bedrock was not observed and there were no indications of infiltration or a recharge feature, it was not considered a sensitive feature at the Site.

- A small depression, approximately 5 feet across, was observed in the southwestern corner of the developed area. This depression is adjacent to a low (less than 4 feet) manmade berm along the southern fence and adjacent to an observed drainage feature outside of the southwest corner of the fence that drains to the dry creek bed. Based on observations of this area, from upslope of the creek on the developed property and from the dry creek bed, the drainage feature and the small depression appear to be the result of headward erosion from surface drainage. Bedrock was not observed in this area of the developed property and no evidence of rapid infiltration was observed. The depression is not considered a sensitive feature at the Site.

Photo 1: View of northwest field, viewed facing northwest.

Photo 2: View of southwest field, viewed facing southwest.

BRAUN INTERTEC

Attachment C
Photographic Log
Fidelis Industrial—58-Acre Property
Georgetown, Texas

10/28/2022	Geologic Assessment	Project No. B2210531

Photo 3: View of dry creek bed along the southwest Site boundary, viewed facing southeast.

Photo 4: View of dry creek bed along the south Site boundary, viewed facing east.

Photo 5: Common root collapse found in the dry creek bed along the southern Site boundary.

Photo 6: Common soil depression found in the dry creek bed .

Photo 7: View of bedrock outcrop found at the southern Site boundary, viewed facing southeast.

Photo 8: View of bedrock outcrop found at the southern Site boundary, viewed facing south.

Photo 9: View of Berry Creek along the east Site boundary, viewed facing east.

Photo 10: View of Berry Creek along the north Site boundary, viewed facing south.

Photo 11: View of solution cavity in bedrock in dry creek bed at southern Site boundary.

Photo 12: View of on-site water well (State Well ID 5819633).

Photo 13: View of central field, viewed facing southeast.

Photo 14: View of burrow opening at north exterior fencing, viewed facing northeast.

Photo 15: View of southwest corner berm and depression, viewed facing southeast.

Photo 16: View of southern boundary fencing and berm, viewed facing west.

Photo 17: View of drainage at southwestern fence corner, viewed facing northwest.

Photo 18: View of drainage at southwestern fence corner, viewed facing southeast.

Photo 18: View of cliff along Berry Creek on northwestern portion of the site, viewed facing west.

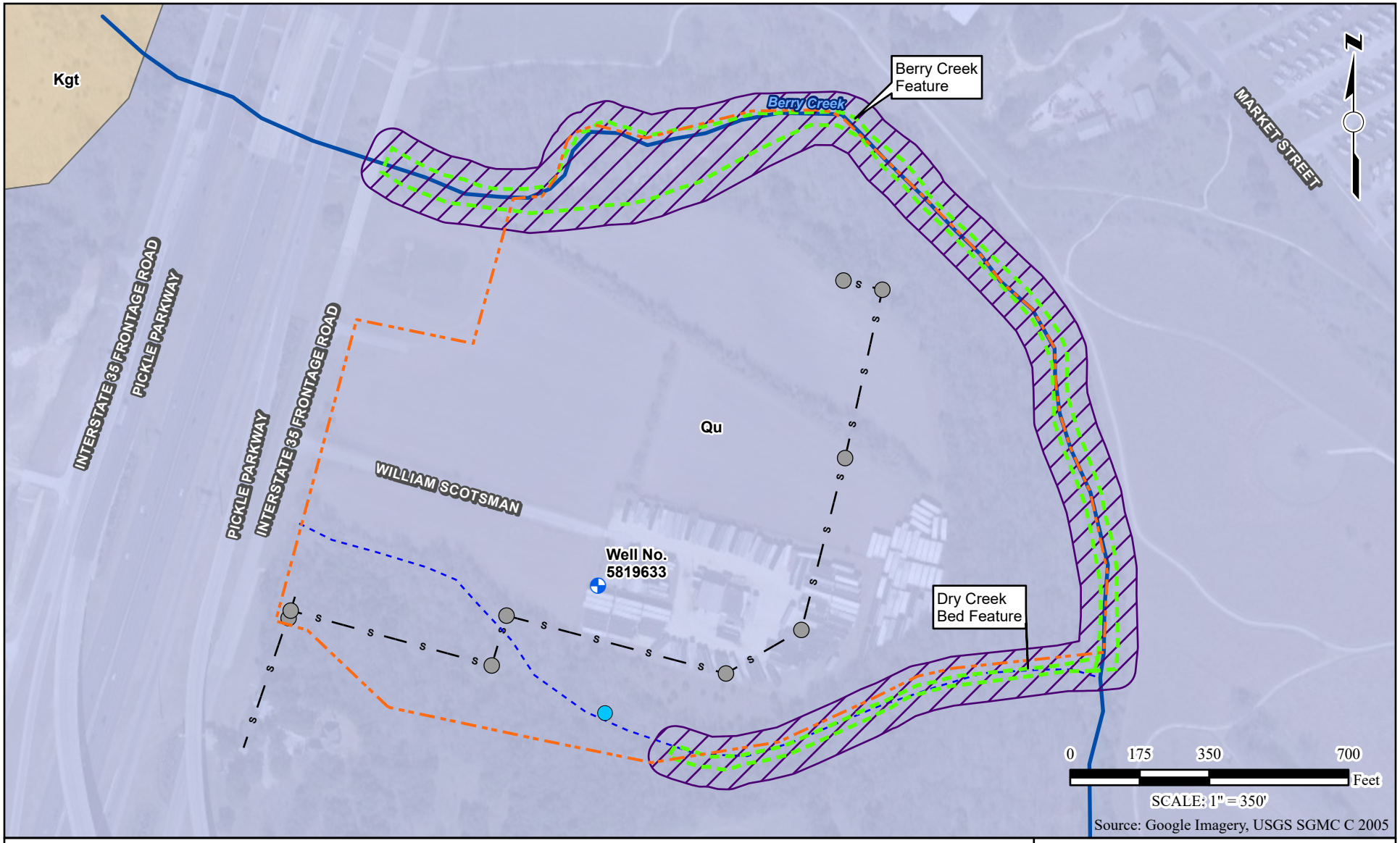
Photo 19: View of western portion of dry creek bed, viewed facing east.

Photo 20: View of dry creek bed at bedrock outcrop, viewed facing east.

Photo 21: View of western portion of dry creek bed showing ponded water and soil cover supporting vegetation, viewed facing east.

Attachment D

Site Maps



Legend

- Approximate Site Boundary
- Buffer Zone
- Sensitive Feature
- Ponded Water
- Water Supply Well
- Proposed Manhole
- Proposed Sewer Line
- Creek
- Dry Creek Bed
- Georgetown Formation (Kgt)
- Quaternary deposits, undivided (Qu)

Attachment D
Site Geologic Map

58-Acre Property
Georgetown, Texas

BRAUN INTERTEC
The Science You Build On.

3/29/2023	Braun Project No.: B2210531	Drawn by: KJS	Checked by: MW	Revised by:

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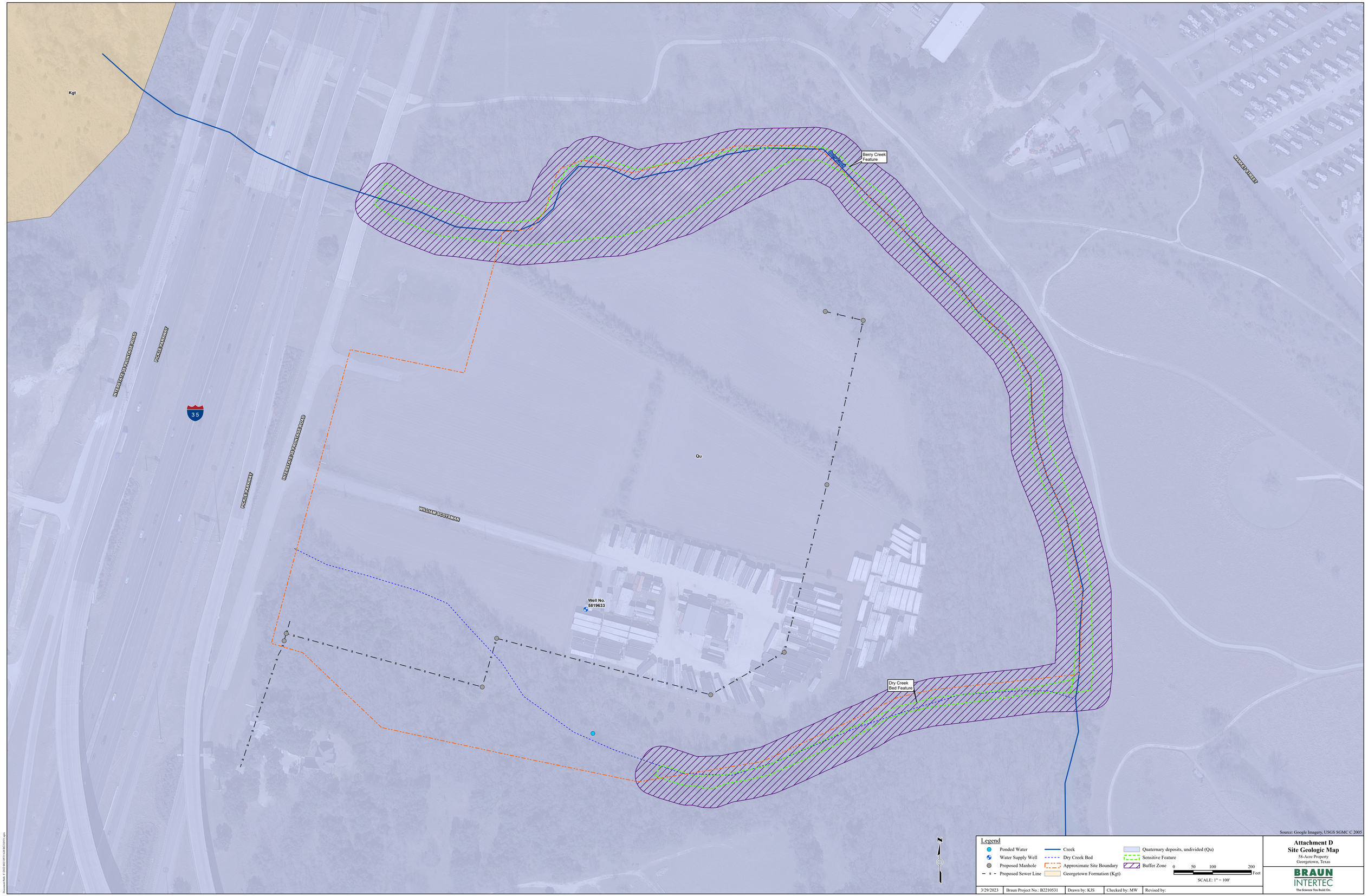
Kgt
Berry Creek Feature
MARKET STREET
INTERSTATE 35 FRONTAGE ROAD
PICKLE PARKWAY
35
INTERSTATE 35 FRONTAGE ROAD
PICKLE PARKWAY
WILLIAM SCOTSMAN
Qu
Well No. 5819633
Dry Creek Bed Feature
Source: Google Imagery, USGS SGMC C 2005
N
Legend
Ponded Water
Water Supply Well
Proposed Manhole
Proposed Sewer Line
Creek
Dry Creek Bed
Approximate Site Boundary
Georgetown Formation (Kgt)
Quaternary deposits, undivided (Qu)
Sensitive Feature
Buffer Zone
0 50 100 200 Feet
SCALE: 1" = 100'
3/29/2023
Braun Project No.: B2210531
Drawn by: KJS
Checked by: MW
Revised by:
Attachment D
Site Geologic Map
58-Acre Property
Georgetown, Texas
BRAUN INTERTEC
The Science You Build On.
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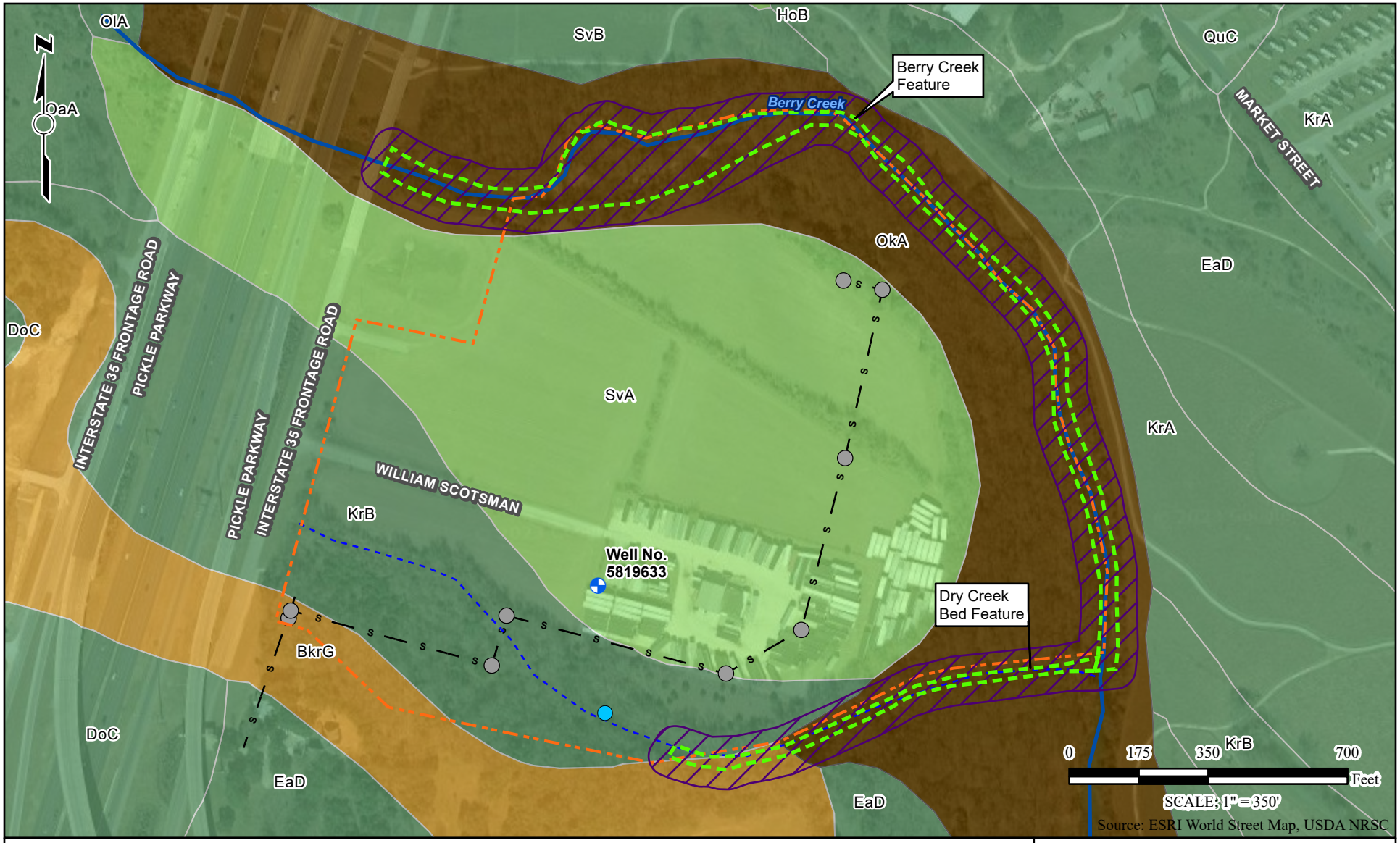


Legend

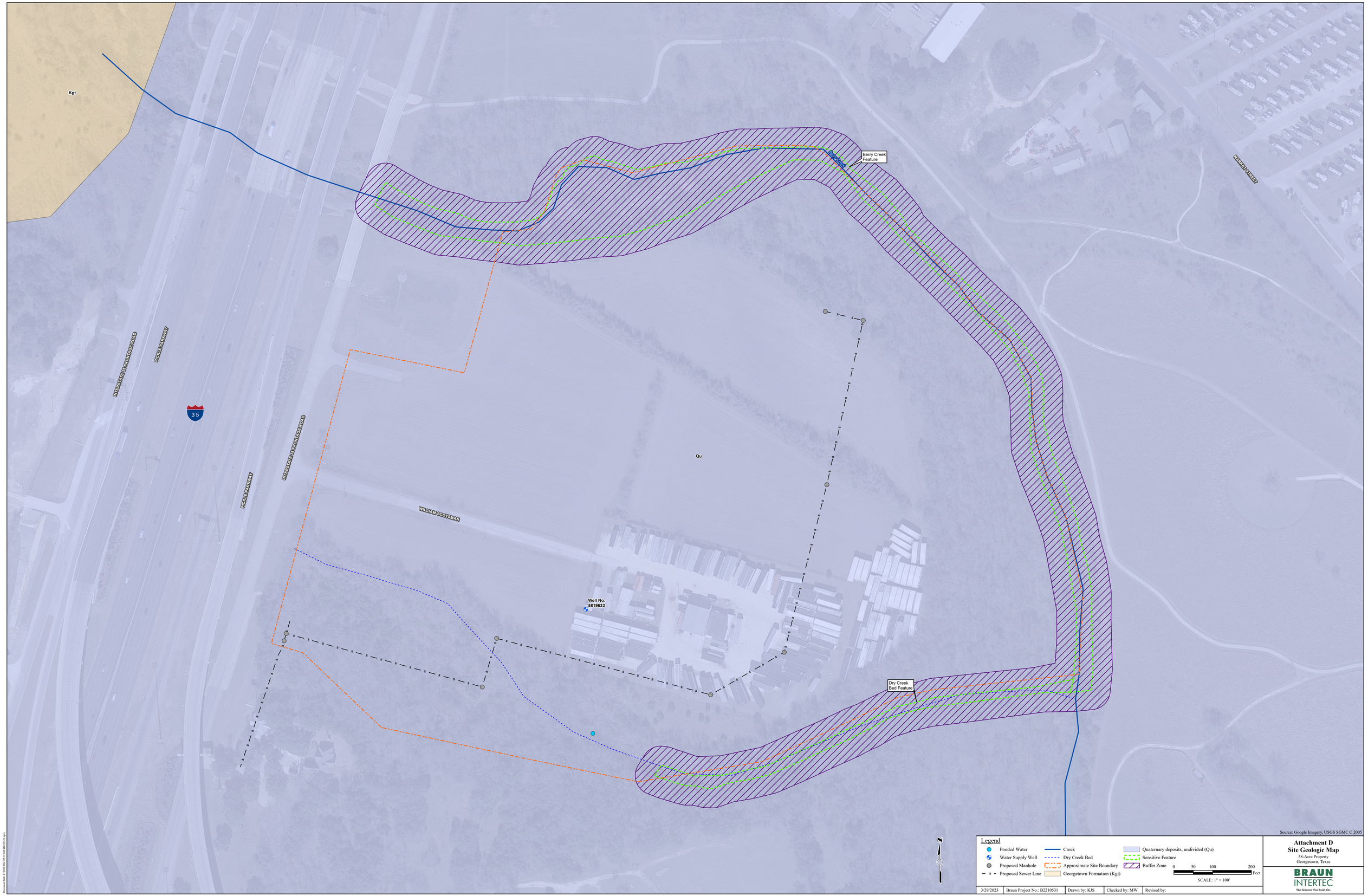
- Approximate Site Boundary
- Sensitive Feature
- Buffer Zone
- Ponded Water
- Water Supply Well
- Proposed Manhole
- Proposed Sewer Line
- Creek
- Dry Creek Bed
- Brackett-Rock outcrop/Gravelly clay loam (BkrG)
- Krum Silty Clay (KrB)
- Oakalla Silty Clay Loam (OkA)
- Sunev Silty Loan (SvA)

3/29/2023	Braun Project No.: B2210531	Drawn by: KJS	Checked by: MW	Revised by:

Attachment D
Site Soils Map
58-Acre Property
Georgetown, Texas

BRAUN INTERTEC
The Science You Build On.

Document Path: F:\2022\B2210531\GIS\B2210531.aprx


Kgt
Berry Creek Feature
MARKET STREET
INTERSTATE 35 FRONTAGE ROAD
PICKLE PARKWAY
35
INTERSTATE 35 FRONTAGE ROAD
PICKLE PARKWAY
WILLIAM SCOTSMAN
Qu
Well No. 5819633
Dry Creek Bed Feature
Source: Google Imagery, USGS SGMC C 2005
N
Legend
Ponded Water
Water Supply Well
Proposed Manhole
Proposed Sewer Line
Creek
Dry Creek Bed
Approximate Site Boundary
Georgetown Formation (Kgt)
Quaternary deposits, undivided (Qu)
Sensitive Feature
Buffer Zone
0 50 100 200 Feet
SCALE: 1" = 100'
3/29/2023
Braun Project No.: B2210531
Drawn by: KJS
Checked by: MW
Revised by:
Attachment D
Site Geologic Map
58-Acre Property
Georgetown, Texas
BRAUN INTERTEC
The Science You Build On.
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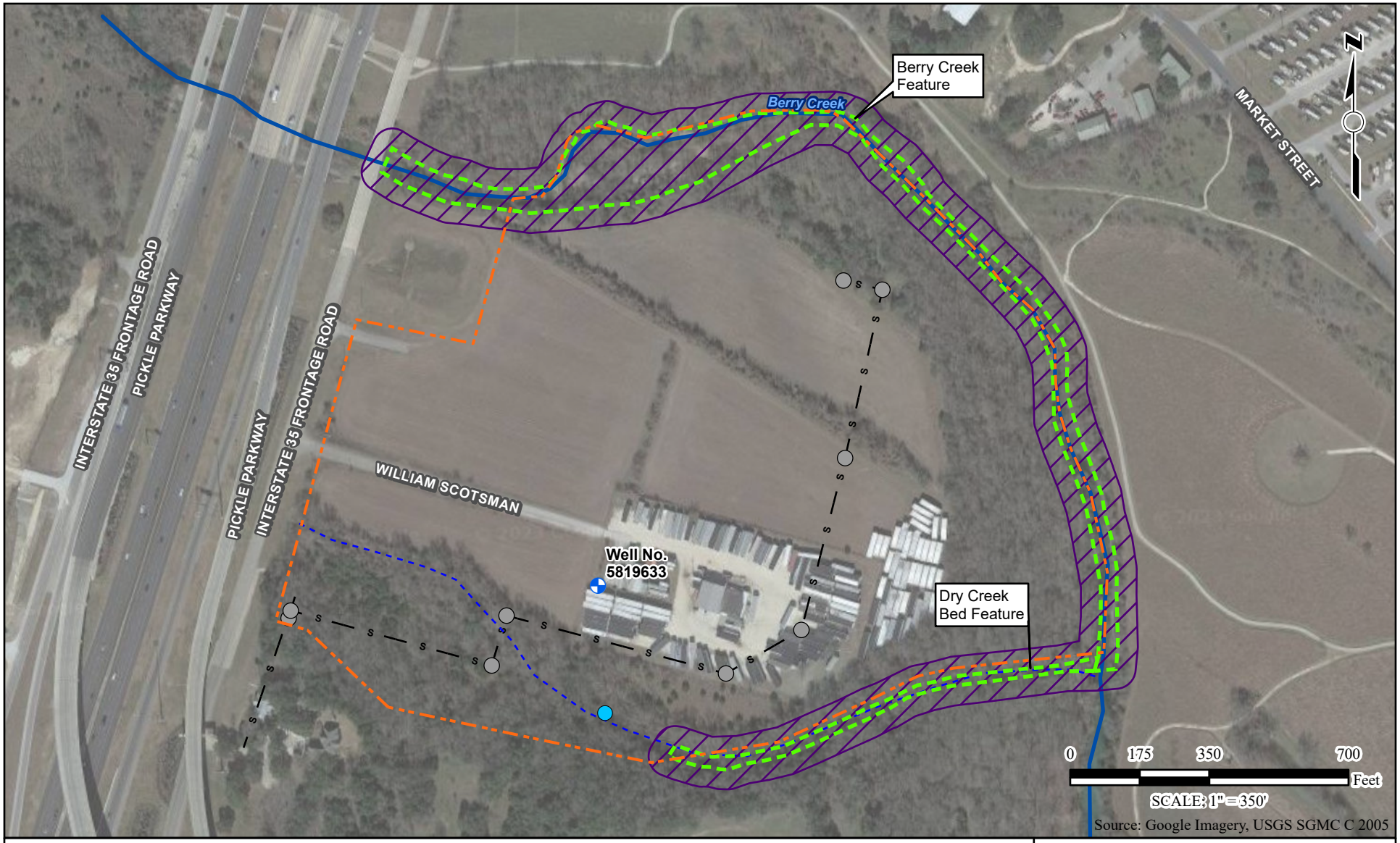


Legend

- Approximate Site Boundary
- Sensitive Feature
- Buffer Zone
- Ponded Water
- Water Supply Well
- Proposed Manhole
- Proposed Sewer Line
- Creek
- Dry Creek Bed

Attachment D
Sensitive Feature Location Map

58-Acre Property
Georgetown, Texas

BRAUN INTERTEC
The Science You Build On.

3/29/2023	Braun Project No.: B2210531	Drawn by: KJS	Checked by: MW	Revised by:

Document Path: F:\2022\B2210531\GIS\B2210531.aprx

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(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 **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Print Name of Customer/Agent: Hollis Scheffler, P.E.

Date: 12/20/2022

Signature of Customer/Agent:

Regulated Entity Name: Berry Creek Business Park

Regulated Entity Information

1. The type of project is:

   ☐ Residential: Number of Lots:_____
   ☐ Residential: Number of Living Unit Equivalents:_____
   ☐ Commercial
   ☒ Industrial
   ☐ Other:_____

2. Total site acreage (size of property):56.73

3. Estimated projected population:n/a

4. The amount and type of impervious cover expected after construction are shown below:

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	518,100	÷ 43,560 =	11.89
Parking	368,750	÷ 43,560 =	8.47
Other paved surfaces	520542	÷ 43,560 =	7.76
Total Impervious Cover	1,407,420	÷ 43,560 =	28.12

Total Impervious Cover 28.12 **÷ Total Acreage** 56.73 **X 100 =** 49.57**% Impervious Cover**

5. ☒ **Attachment A - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.

6. ☒ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

For Road Projects Only

Complete questions 7 - 12 if this application is exclusively for a road project.

7. Type of project:

   ☐ TXDOT road project.
   ☐ County road or roads built to county specifications.
   ☐ City thoroughfare or roads to be dedicated to a municipality.
   ☐ Street or road providing access to private driveways.

8. Type of pavement or road surface to be used:

   ☐ Concrete
   ☐ Asphaltic concrete pavement
   ☐ Other: _____

9. Length of Right of Way (R.O.W.): _____ feet.

   Width of R.O.W.: _____ feet.
   L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

10. Length of pavement area: _____ feet.

    Width of pavement area: _____ feet.
    L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
    Pavement area _____ acres ÷ R.O.W. area _____ acres x 100 = _____% impervious cover.

11. ☐ A rest stop will be included in this project.

    ☐ A rest stop will not be included in this project.

12. ☐ Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

Stormwater to be generated by the Proposed Project

13. ☒ **Attachment B - Volume and Character of Stormwater**. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on the area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Wastewater to be generated by the Proposed Project

14. The character and volume of wastewater is shown below:

100% Domestic	138,001 Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day _____	

15. Wastewater will be disposed of by:

☐ On-Site Sewage Facility (OSSF/Septic Tank):

- ☐ **Attachment C - Suitability Letter from Authorized Agent**. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.
- ☐ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

☐ Sewage Collection System (Sewer Lines):

- ☐ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
- ☒ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.

- ☐ The SCS was previously submitted on_____.
- ☐ The SCS was submitted with this application.
- ☒ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

☒ The sewage collection system will convey the wastewater to the Pecan Branch WWTP (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

16. ☒ All private service laterals will be inspected as required in 30 TAC §213.5.

Site Plan Requirements

Items 17 – 28 must be included on the Site Plan.

17. ☒ The Site Plan must have a minimum scale of 1" = 400'.

Site Plan Scale: 1" = 40'.

18. 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)

19. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, open space, etc. are shown on the plan.

☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, open space, etc. are shown on the site plan.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

☒ There are 1 (#) 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 §76.

☐ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:

☒ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
☐ No sensitive geologic or manmade features were identified in the Geologic Assessment.
☐ **Attachment D - Exception to the Required Geologic Assessment**. A request and justification for an exception to a portion of the Geologic Assessment is attached.

22. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

23. ☒ Areas of soil disturbance and areas which will not be disturbed.

24. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

25. ☒ Locations where soil stabilization practices are expected to occur.

26. ☐ Surface waters (including wetlands).

    ☒ N/A

27. ☐ Locations where stormwater discharges to surface water or sensitive features are to occur.

    ☒ There will be no discharges to surface water or sensitive features.

28. ☒ Legal boundaries of the site are shown.

Administrative Information

29. ☒ 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.

30. ☒ Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

Attachment A – Factors Affecting Surface Water Quality

The following are potential sources of surface and groundwater contamination from construction activities:

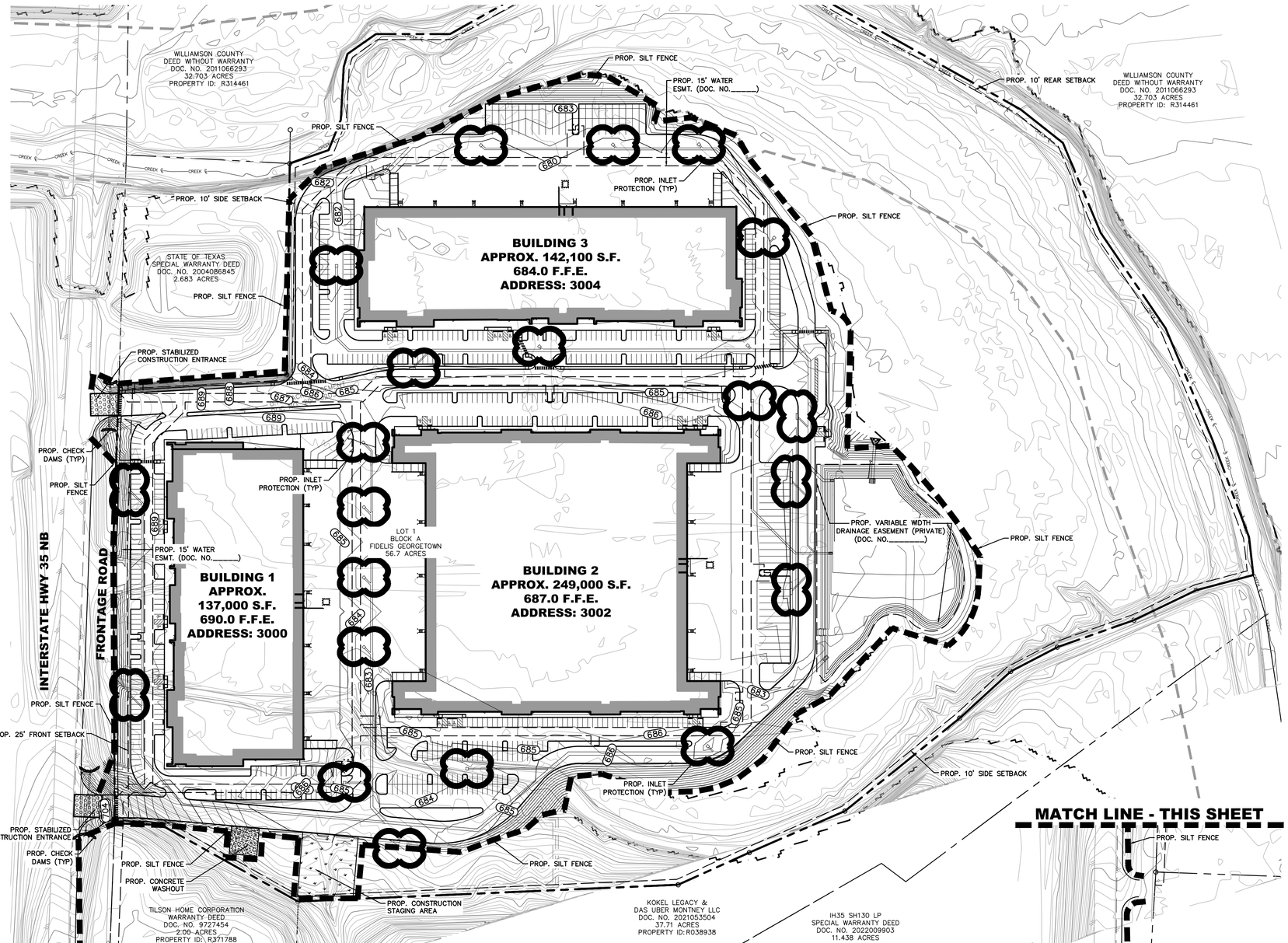
- Clearing and grubbing
- Grading and site excavation
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscaping operations
- Staging and storage area
- Paving (including curb and gutter)
- Building Construction
- Concrete washout area

Attachment B – Volume and Character of Stormwater

The existing site generates approximately 152.0 cfs flowing over 30.33 acres primarily from the northwest to southeast over 75% grass cover at roughly 1.0% slope. The runoff coefficient utilized for the existing site is 0.40.

The proposed development generates an approximate 304.61 cfs and has a required TSS removal of 85%. The runoff from the site is generated from the streets, building roof, driveways, parking, and other paved and impervious surfaces. The runoff coefficient utilized for the proposed site is 0.97. Flow is directed from the previously listed impervious structures and sent into catch basins to then be piped into the proposed batch detention pond, WQ Pond A.

Site Plan



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
- FENCE
- OVERHEAD UTILITY LINE
- 613 EXIST CONTOUR
- 450 PROPOSED CONTOUR
- PROPOSED DRAINAGE FLOW DIRECTION
- PROPOSED CONSTRUCTION ENTRANCE
- INLET PROTECTION
- SILT FENCE (LIMITS OF DISTURBED AREA)
- CHECK DAM
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CREEK CENTERLINE

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. CLEARING AND GRUBBING
   - 2.B. ROUGH GRADING
   - 2.C. FINAL GRADING
   - 2.D. UTILITY INSTALLATION
   - 2.E. PAVEMENT INSTALLATION
   - 2.F. BUILDING CONSTRUCTION
3. THE TOTAL ESTIMATED LAND AREA TO BE DISTURBED IS 27.94 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.

XXXX-XX-SDP

Pacheco Koch
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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

EROSION CONTROL PLAN

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO. 8

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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: Hollis Scheffler, P.E.

Date: 12/20/22

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)
- Building Construction
- 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 =56.73 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 = 56.73 ac
   Estimated timing = 6 weeks

4. Site staking and rough grading.
   Estimated area disturbed = 56.73 ac
   Estimated timing = 6 weeks

5. Storm sewers to be installed.
   Estimated area disturbed = 56.73 ac
   Estimated timing = 8 weeks

6. Water, wastewater and paving improvements to begin.
   Estimated area disturbed = 56.73 ac
   Estimated timing = 8 weeks

7. 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

8. Site to be cleaned up and revegetated.
   Estimated area disturbed = 56.73 ac
   Estimated timing = 6 weeks

9. Temporary erosion controls to be removed after permanent restoration of site is established.
   Estimated area disturbed = n/a
   Estimated timing = 1 week

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.

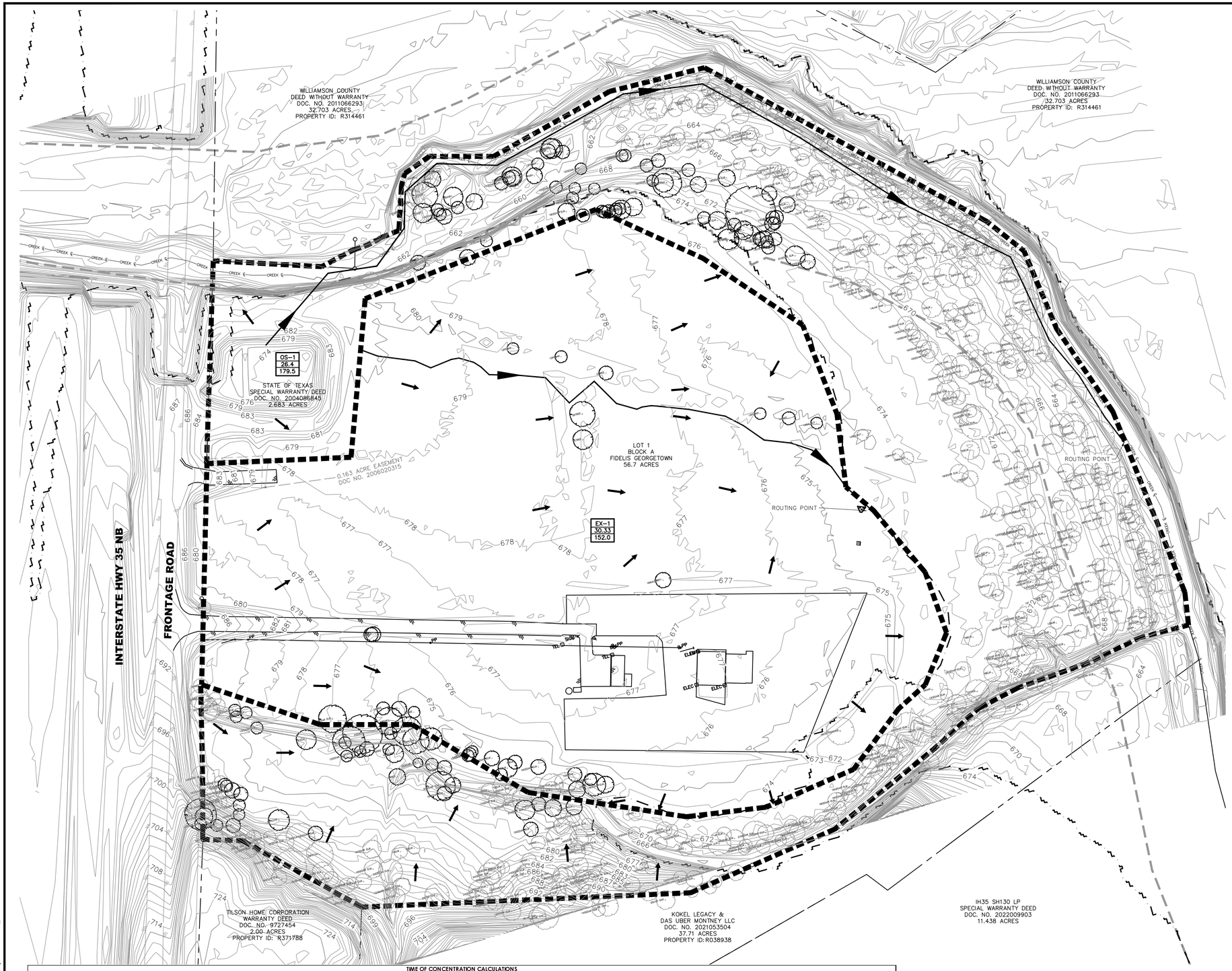
For onsite washout:

- 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. The proposed permanent BMPs are to be constructed as to intercept stormwater flowing from the parking lots, streets, building roofs, and other impervious areas. The silt fence will provide temporary sedimentation control during construction prior to the permanent BMPs being finalized. 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



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
- 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 (EX 8 / 1.00 / 7.99)
- 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_h	T_c	T_c (design)	Lag Time
	(ft)	(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	

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

EXISTING DRAINAGE AREA MAP

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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HAS	NBB	DEC 2022

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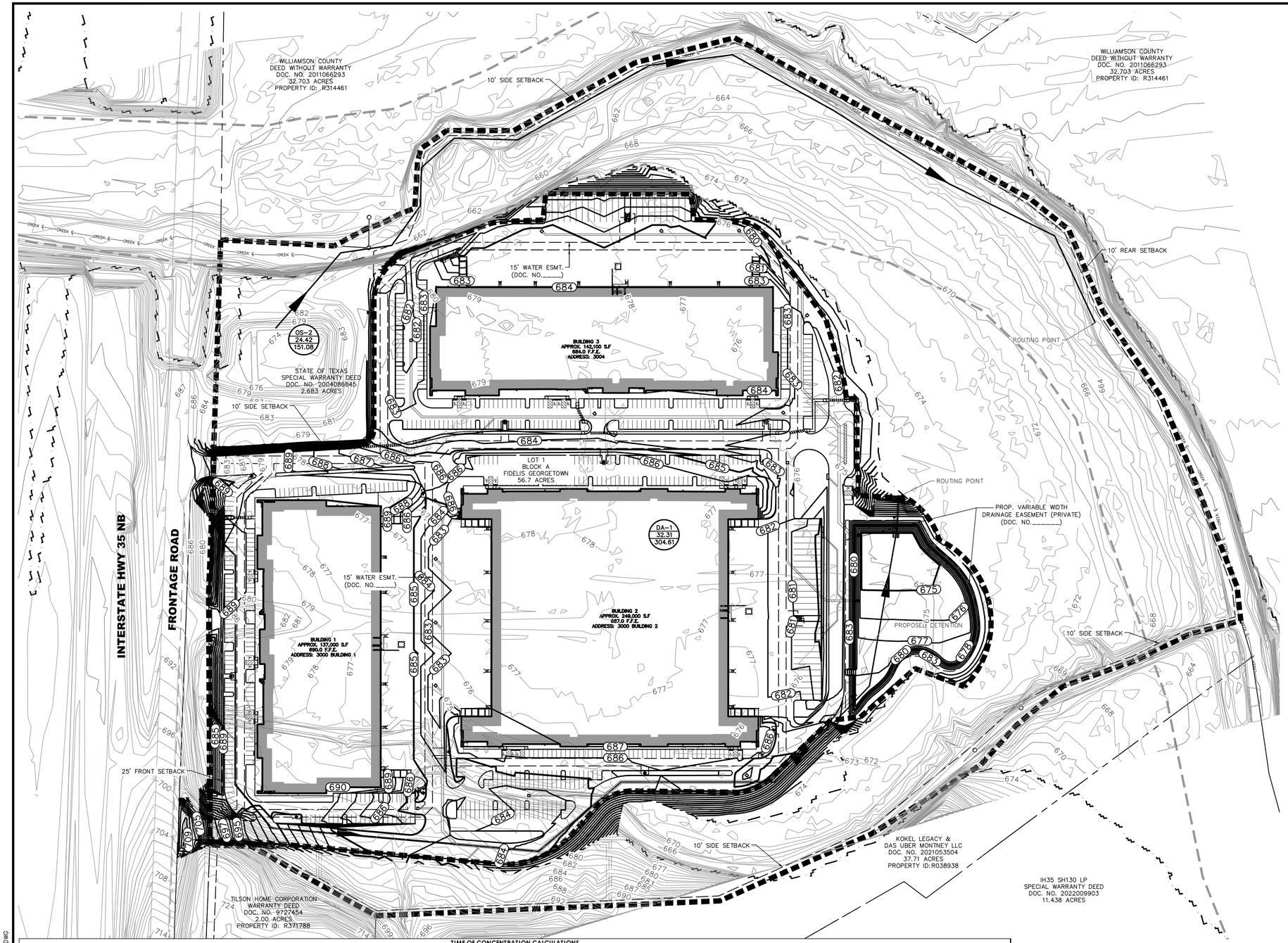

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GRAPHIC SCALE IN FEET
1"=100'

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_h			
		(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	9.57	9.57	5.74
														566	0.009	24" RCP	72.01	6.9	1.37			
														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	

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

PROPOSED DRAINAGE AREA MAP

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
HAS	NBB	NOV 2022

SHEET NO. 11

XXXX-XX-SDP

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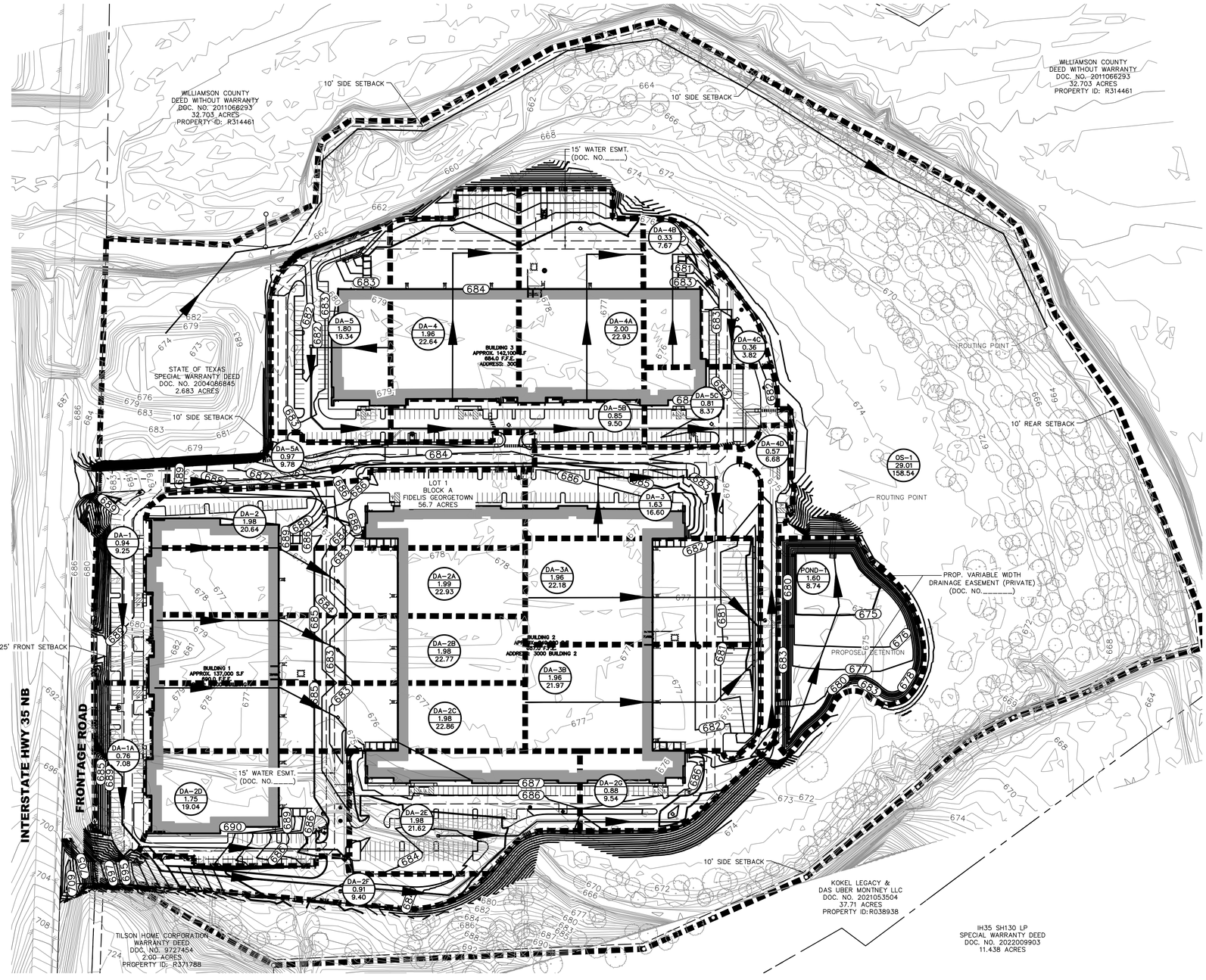

0 50 100 200 300

GRAPHIC SCALE IN FEET
1"=100'

LEGEND

- BOLLARD
- ELECTRIC METER
- POWER POLE
- LIGHT STANDARD
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- TC FLOW PATH

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TX REG. ENGINEERING FIRM F-469
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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

ULTIMATE DRAINAGE AREA MAP

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
HAS	NBB	DEC 2022

SHEET NO.
12

XXXX-XX-SDP

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MASTER DRAINAGE

Drainage Number	AREA	IC	PC	%IC	2 year perv C		2 year imp C		2 year weighted C	10 year perv C		10 year imp C		10 year weighted C	25 year perv C		25 year imp C		25 year weighted C	100 year perv C		100 year imp C		100 year 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

DRAINAGE NUMBER	INLET NUMBER	AREA (acres)	C_2	C_{10}	C_{25}	C_{100}	SHEET FLOW Length (ft)	Slope (ft/ft)	Surface Cover	Velocity (ft/s)	Manning's n	T_{sheet} (min)	SHALLOW CONCENTRATED FLOW Length (ft)	Slope (ft/ft)	Surface Type	Velocity (ft/s)	K	$T_{shallow}$ (min)	CHANNEL FLOW 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)	INTENSITY I 2yr (in/hr)	I 10yr (in/hr)	I 25yr (in/hr)	I 100yr (in/hr)	DISCHARGE 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
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

ULTIMATE DRAINAGE AREA CALCULATIONS

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER
SHEET X OF 7

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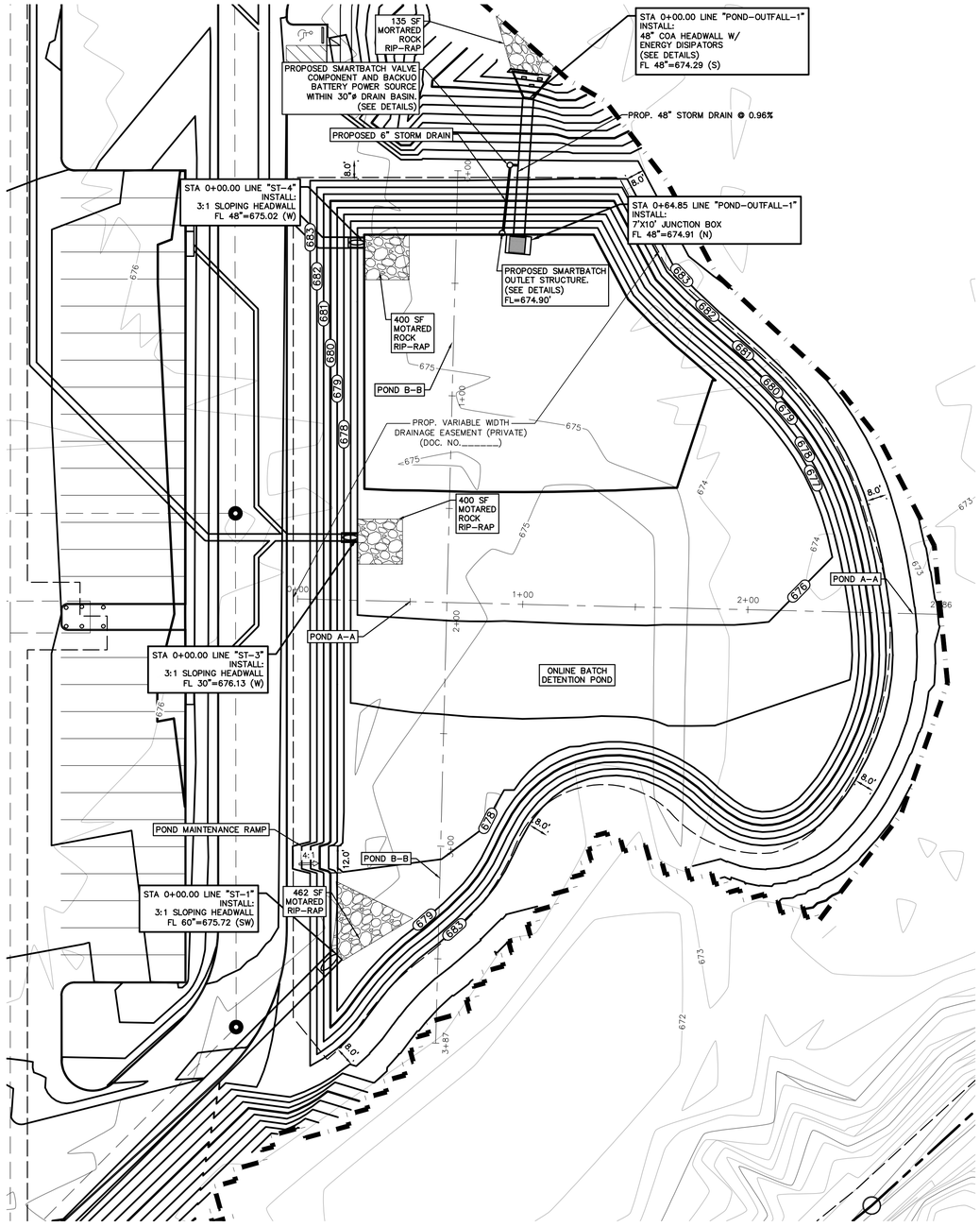
DESIGN	DRAWN	DATE
HAS	NBB	DEC 2022

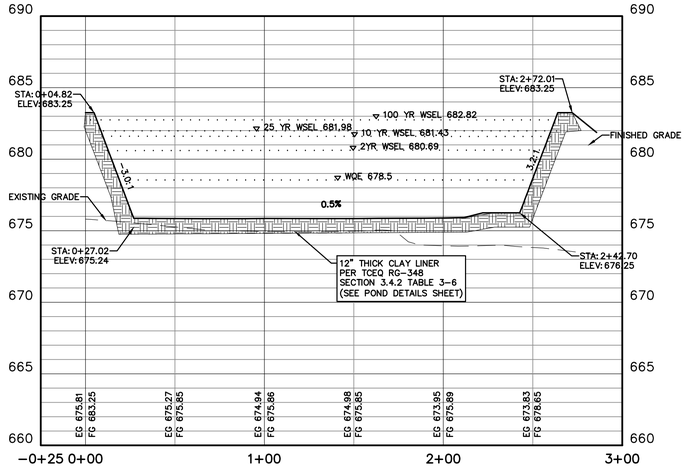
SHEET NO. 13

XXXX-XX-SDP

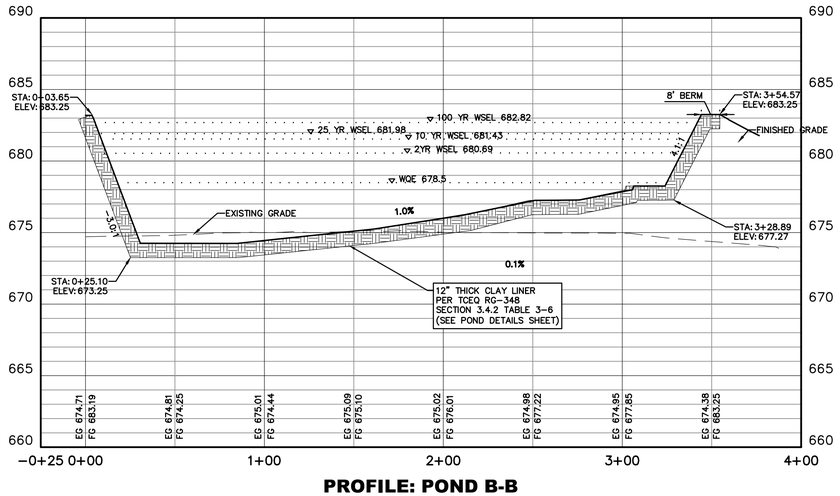
Attachment H – Temporary Sediment Pond Plans and Calculations

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.

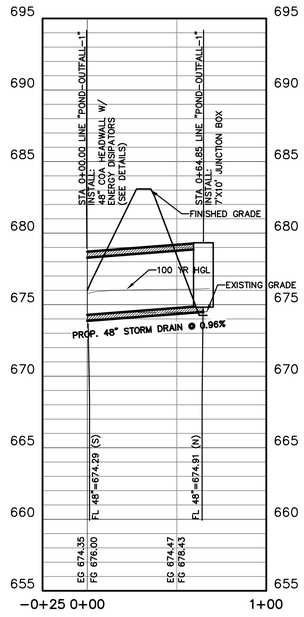




PROFILE: POND A-A



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

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
34

XXXX-XX-SDP

NBBRUCE
12/19/2022 10:31 AM
M:\DWG-46\4670-22.125\DWG\CIVIL C3D 2018\4670-22.125_POND.DWG

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.

Permanent 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)(C), (D)(Ii), (E), and (5), 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 **Permanent Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Hollis Scheffler, P.E.

Date: 12/20/2022

Signature of Customer/Agent

Regulated Entity Name: Berry Creek Business Park

Permanent Best Management Practices (BMPs)

Permanent best management practices and measures that will be used during and after construction is completed.

1. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

   ☐ N/A

2. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

   ☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____

☐ N/A

3. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

   ☐ N/A

4. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.
   ☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.
   ☒ The site will not be used for low density single-family residential development.

5. The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ **Attachment A - 20% or Less Impervious Cover Waiver**. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.
   ☐ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.
   ☒ The site will not be used for multi-family residential developments, schools, or small business sites.

6. ☒ **Attachment B - BMPs for Upgradient Stormwater**.

☐ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.

☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.

☒ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

7. ☒ **Attachment C - BMPs for On-site Stormwater**.

☒ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.

☐ Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.

8. ☒ **Attachment D - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.

☐ N/A

9. ☐ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

☒ The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.

☐ **Attachment E - Request to Seal Features**. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.

10. ☒ **Attachment F - Construction Plans**. All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:

☒ Design calculations (TSS removal calculations)

☒ TCEQ construction notes

☒ All geologic features

☒ All proposed structural BMP(s) plans and specifications

☐ N/A

11. ☒ **Attachment G - Inspection, Maintenance, Repair and Retrofit Plan**. A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
    ☐ A discussion of record keeping procedures

    ☐ N/A

12. ☐ **Attachment H - Pilot-Scale Field Testing Plan**. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.

    ☒ N/A

13. ☐ **Attachment I -Measures for Minimizing Surface Stream Contamination**. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.

    ☒ N/A

Responsibility for Maintenance of Permanent BMP(s)

Responsibility for maintenance of best management practices and measures after construction is complete.

14. ☒ The applicant is 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 (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

    ☐ N/A

15. ☐ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

    ☒ N/A

Attachment B – BMPs for Upgradient Stormwater

There will be no upstream surface waters running onto the site and will not be treated with the proposed pond. The proposed batch detention basin and all associated ESC practices are designed for the subject site. The proposed primary batch detention WQ Pond will be used to receive onsite flows from stormwater coming from the proposed site.

Attachment C – BMPs for On-site Stormwater

The Berry Creek Business Park Entity is proposing one primary batch detention basin based on 56.730 acres of contributing area, encompassing 49.57% of impervious cover across the site. The stormwater is diverted through impervious structures and piped into a batch detention basin. The batch detention basin has adequate water quality storage to account for the proposed development and acts as the primary treatment for TSS removal.

Attachment D – BMPs for Surface Streams

The Berry Creek Business Park Entity is proposing one primary batch detention basin based on 56.730 acres of contributing area, encompassing 49.57% of impervious cover across the site. The stormwater is diverted through impervious structures and piped into a batch detention basin. The batch detention basin has adequate water quality storage to account for the proposed development and acts as the primary treatment for TSS removal. The aforementioned BMP will provide adequate measures to prevent pollutant removal from entering the aquifer. No surface streams or sensitive features are located on the site.

Attachment F – Construction Plans

SITE DEVELOPMENT PERMIT PLANS

FOR

BERRY CREEK BUSINESS PARK

3000, 3002, & 3004 N-IH 35 NB

GEORGETOWN, TEXAS, 78626

OWNER

KOKEL LEGACY LLC &
DAS UBER MONTNEY LLC
404 W 9TH ST SUITE 201
GEORGETOWN, TX, 78626

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

ARCHITECT

GSR ANDRADE ARCHITECTS
IGNACIO ANGUIANO
4121 COMMERCE STREET, #1
DALLAS, TX, 75226
PHONE: 214.824.7040
IANGUIANO@GSR-ANDRADE.COM
WWW.GSR-ANDRADE.COM

ENGINEER

HOLLIS SCHEFFLER, P.E.
8701 N. MOPAC EXPY. SUITE 320
AUSTIN, TEXAS 78759
PHONE: 512.485.0831
HOLLIS.SCHEFFLER@WESTWOODPS.COM
WWW.PKCE.COM

LANDSCAPE ARCHITECT

AMBER DAVIS, LPA
7557 RAMBLER RD, SUITE 1400
DALLAS, TEXAS 75231
PHONE: 872.235.3031
AMBER.DAVIS@WESTWOODPS.COM
WWW.PKCE.COM

LEGAL DESCRIPTION:

LOT 1, BLOCK A, FIDELIS, GEORGETOWN
DOC. NO. _____ (O.P.R.)

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:

WAREHOUSING AND DISTRIBUTION, GENERAL

ACREAGE:

56.73 AC (2,471,138 SF)

AVERAGE DAILY TRIPS:

DAILY: 754 VPD
AM PEAK: 92 (43 IN / 33 OUT) VPH
PM PEAK: 54 (15 IN / 39 OUT) VPH

TOTAL IMPERVIOUS COVER:

EXISTING: 0 ACRES (00.0%)
PROPOSED: 27.94 ACRES (54.19%)

FIRE DEPARTMENT:

GEORGETOWN FIRE DEPARTMENT
3500 DB WOOD RD.
GEORGETOWN, TEXAS 78628
(512) 930-3473

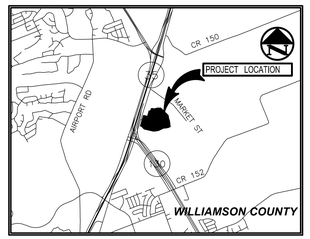
ELECTRICITY, WATER & WASTEWATER:

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. THIS SITE DEVELOPMENT PLAN SHALL MEET THE UDC STORMWATER REQUIREMENTS.
4. ALL SIGNAGE REQUIRES A SEPARATE APPLICATION AND APPROVAL FROM THE INSPECTION SERVICES DEPARTMENT. NO SIGNAGE IS APPROVED WITH THE SITE DEVELOPMENT PLAN.
5. SIDEWALKS SHALL BE PROVIDED IN ACCORDANCE WITH THE UDC.
6. DRIVEWAYS WILL REQUIRE APPROVAL BY THE DEVELOPMENT ENGINEER OF THE CITY OF GEORGETOWN.
7. OUTDOOR LIGHTING SHALL COMPLY WITH SECTION 7.04 OF THE UDC.
8. 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.
9. THE COMPANION LANDSCAPE PLAN HAS BEEN DESIGNED AND PLANT MATERIALS SHALL BE INSTALLED TO MEET ALL REQUIREMENTS OF THE UDC.
10. ALL MAINTENANCE OF REQUIRED LANDSCAPE SHALL COMPLY WITH THE MAINTENANCE STANDARDS OF CHAPTER 8 OF THE UDC.
11. A SEPARATE IRRIGATION PLAN SHALL BE REQUIRED AT THE TIME OF BUILDING PERMIT APPLICATION.
12. FIRE FLOW REQUIREMENTS OF 2,000 GPM ARE BEING MET BY THIS PLAN.
13. 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.
14. 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.
15. 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.
16. 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.
17. ALL ELECTRIC AND COMMUNICATION INFRASTRUCTURE SHALL COMPLY WITH UDC SECTION 13.06.
18. THE PROPERTY SUBJECT TO THIS APPLICATION IS SUBJECT TO THE WATER QUALITY REGULATIONS OF THE CITY OF GEORGETOWN
19. A GEOLOGIC ASSESSMENT, IN ACCORDANCE WITH THE CITY OF GEORGETOWN WATER QUALITY REGULATIONS, WAS COMPLETED ON 11/04/2022. ANY SPRINGS AND STREAMS AS IDENTIFIED IN THE GEOLOGIC ASSESSMENT ARE SHOWN HEREIN.
20. SCREENING AND LOCATION OF OUTDOOR STORAGE SHALL COMPLY WITH SECTION 5.09 OF THE UDC.



VICINITY MAP
(1"=5,000')

PROJECT ZONING: BUSINESS PARK (PUD)

PROJECT ADDRESS: 3000, 3002, 3004 N IH 35 NB

SUBMITTAL DATE: DECEMBER 19, 2022

C.O.G.T. DIGITAL APPROVAL

REVISIONS/CORRECTIONS

NO.	DESCRIPTION	REVISE (R) ADD (A) VOID (V) SHEET NO.S	TOTAL # SHEETS IN PLAN SET	NET CHANGE TO IMP. COVER (sq. ft.)	TOTAL SITE IMP. COVER (sq. ft.) (%)	CITY OF GEORGETOWN APPROVAL/DATE	DATE IMAGED

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'

PREPARED BY

Pacheco Koch
8701 N. MOPAC EXPY, SUITE 320 T: 512.485.0831
AUSTIN, TX 78759
TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

DRAWING SHEET INDEX

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

COVER

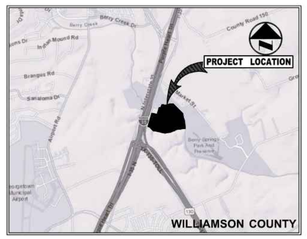
STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION 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.
1

XXXX-XX-SDP



VICINITY MAP
(1"=4,000')

SHEET 1 OF 4
SHEET 2 OF 4

AREA TABLE		
LOT 1, BLOCK A	56.730 ACRES	2,471,138 SF
TOTAL PLAT AREA	56.730 ACRES	2,471,138 SF
TOTAL BLOCK	1	
TOTAL LOT	1	

LEGEND
- PROPERTY LINE
- EASEMENT LINE
- LIMITS OF FLOOD ZONE
- P.U.E. PUBLIC UTILITY EASEMENT
- HERITAGE TREE
- HERITAGE TREE TO BE REMOVED

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	FRONTAGE	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, OWNER'S SIGNATURE, PROPERTY DESCRIPTION, AND TABLES
SHEET 4 OF 4: ENGINEER, SURVEYOR, AND CITY/COUNTY OFFICIAL SIGNATURES

ENGINEER:
PACHECO KOCH, INC.
8701 N. MOPAC EXPY, SUITE 320
AUSTIN, TX 78759
PH: 512-485-0831
CONTACT: CLAYTON J. STROLLE

SURVEYOR:
PACHECO KOCH, INC.
8701 N. MOPAC EXPY, SUITE 320
AUSTIN, TX 78759
PH: 512-485-0831
CONTACT: MICHAEL J. NEEDHAM

OWNER:
LARRY D. KOKEL
TEXAG REAL ESTATE SERVICES, INC.
404 WEST 9TH STREET, SUITE 201
GEORGETOWN, TEXAS 78626
PH: 512-930-5258

1ST SUBMITTAL DATE: NOVEMBER 7, 2022

TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

PRELIMINARY/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

Pacheco Koch
a Westwood company
8701 N. MOPAC EXPY, SUITE 320
AUSTIN, TX 78759
512.485.0831

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER	CITY PROJECT NUMBER
ZNBM	ETB	1"=100'	NOV 2022	4670-22.125	

PRELIMINARY/FINAL PLAT - FIDELIS GEORGETOWN

ZIMOORE
11/7/2022 9:45 AM
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12/19/2022 9:33 AM
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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

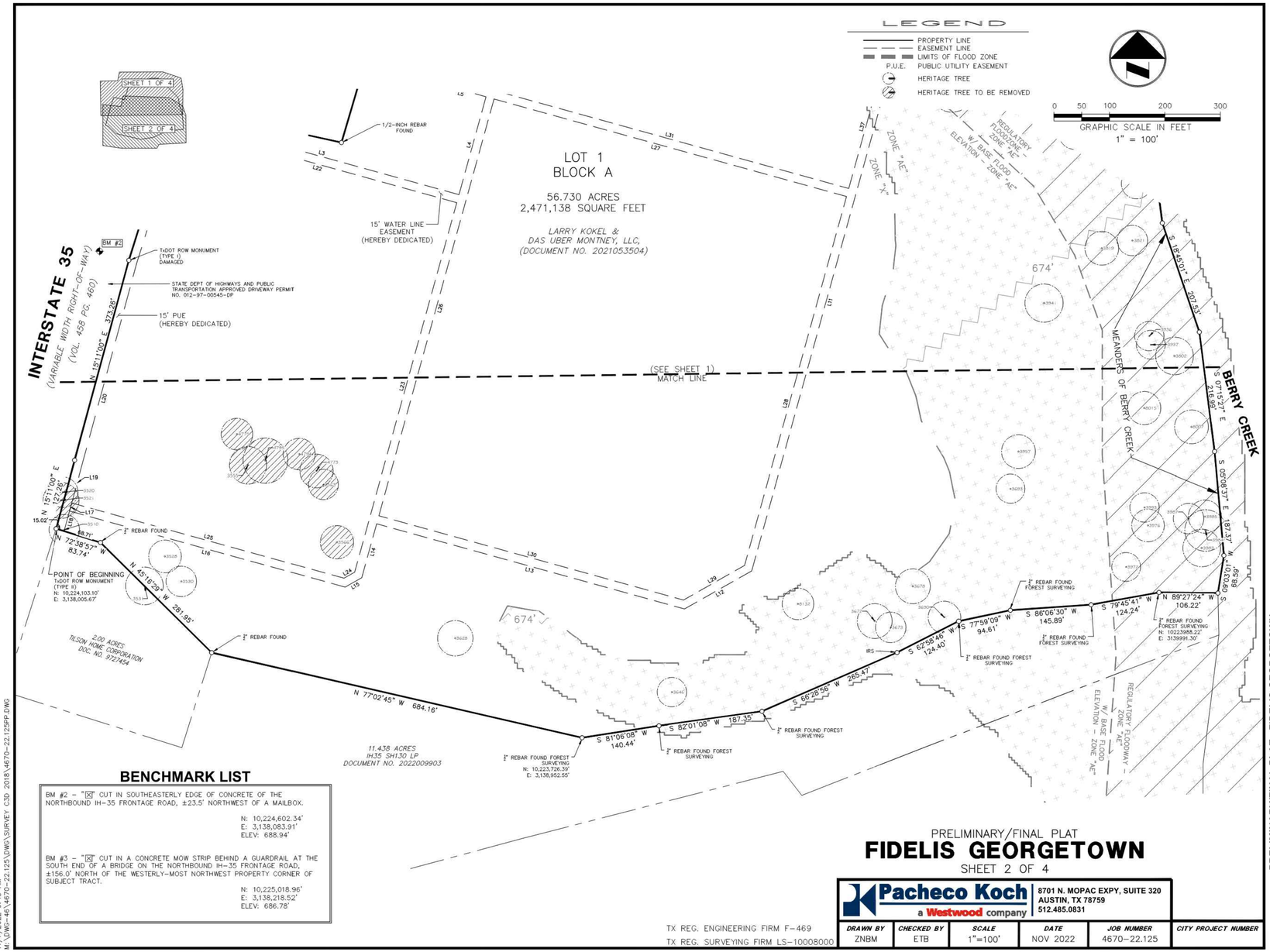
BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

FINAL PLAT SHEET 1 OF 4

DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
2

XXXX-XX-SDP



BENCHMARK LIST

BM #2 – "X" CUT IN SOUTHEASTERLY EDGE OF CONCRETE OF THE NORTHBOUND IH-35 FRONTAGE ROAD, ±23.5' NORTHWEST OF A MAILBOX.

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ELEV: 686.78'

PRELIMINARY/FINAL PLAT
FIDELIS GEORGETOWN
SHEET 2 OF 4

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	CITY PROJECT NUMBER
ZNBM	ETB	1"=100'	NOV 2022	4670-22.125	

PRELIMINARY/FINAL PLAT - FIDELIS GEORGETOWN

ZNMOORE
11/7/2022 9:45 AM
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NBBRUCE
12/19/2022 9:33 AM
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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.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

FINAL PLAT SHEET 2 OF 4

DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
3

XXXX-XX-SDP

GENERAL NOTES

1. Bearing system for this survey is based on the State Plane Coordinate System, North American Datum of 1983 (2011), Texas Central Zone 4203. Distances and areas reported have been scaled by applying the surface adjustment factor of 1.0001200000. To obtain grid values, apply a scale factor of 0.999880014398.
2. Coordinates shown hereon are grid values.
3. The water, wastewater/septic, and electric utility provider for this development is the City of Georgetown.
4. All structures/obstructions are prohibited in drainage easements.
5. 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
6. 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.
7. The monuments of this plat have been rotated to the NAD 83/93 HARN - Texas Central Zone and NAVD 88.
8. All sedimentation, filtration, detention, and/or retention basins and related appurtenances shown shall be situated within a drainage easement or drainage lot. The owners 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. This plat is subject to the provisions of the City of Georgetown Water Conservation Ordinance.
14. The subdivision subject to this application is subject to the Water Quality Regulations of the City of Georgetown.
15. A geologic assessment, in accordance with the City of Georgetown water quality regulations, was completed on November 4, 2022. Any springs and streams as identified in the geologic assessment are shown herein.
16. 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.
17. No development shall begin prior to the issuance of a Floodplain Development Permit for Lot 1, Block A.
18. Any heritage tree as noted on this plat is 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.
19. A 15-foot Public Utility Easement is dedicated along all street frontages within this plat.
20. 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.
21. 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 covered by this grant.
22. All easements dedicated to the City of Georgetown by this plat additionally include the following rights:
    (1) the right of the City to change the size of any facilities installed, maintained, or operated within the easement area,
    (2) the right of the City to relocate any facilities within the easement area; and
    (3) the right of the City to remove from the easement area all trees and parts thereof, or other obstructions, which endanger or interfere with the efficiency and maintenance of any facilities within the easement area.

TREE TABLE

POINT NO.	DESCRIPTION
3510	27.5" LIVE OAK
3520	27.5" LIVE OAK
3521	32.5" LIVE OAK
3528	29.5" PECAN
3530	27.5" PECAN
3531	34" CEDAR ELM
3555	33.5" ELM
3563	27" PECAN
3566	30" 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
3690	29" ASH
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

TREE TABLE

POINT NO.	DESCRIPTION
3854	34.5" ASH
3885	37.5" LIVE OAK
3936	26.5" PECAN
3937	26" PECAN
3941	34.5" CEDAR ELM
3957	30.5" ELM
3972	26" PECAN
3976	29.5" PECAN
3983	34" ASH
3984	37.5" ASH
3985	30" ASH
3987	27.5" PECAN
3993	26.5" PECAN
4773	30" CEDAR ELM
4775	28.5" CEDAR ELM
4794	28.5" ELM
4795	40.5" ELM
8007	30.5" PECAN
8015	30" PECAN
8074	27.5" ASH
8075	26.5" ASH
8077	28.5" ASH
8084	43.5" ASH

TREE TABLE

POINT NO.	DESCRIPTION
8116	34.5" ASH
8132	28.5" COTTONWOOD
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	S 17°28'25" W	18.68'
L2	S 17°28'25" W	15.01'
L3	S 74°32'29" E	516.37'
L4	N 15°27'52" E	182.99'
L5	N 74°32'08" W	90.61'
L6	N 29°32'08" W	34.50'
L7	N 15°27'52" E	245.75'
L8	N 60°27'52" E	197.13'
L9	S 74°32'08" E	566.21'
L10	S 29°32'08" E	139.15'
L11	S 15°27'52" W	1006.20'
L12	S 60°27'52" W	139.15'
L13	N 74°32'08" W	575.61'

LINE TABLE

LINE	BEARING	LENGTH
L14	S 15°27'52" W	100.69'
L15	S 60°27'52" W	34.50'
L16	N 74°32'37" W	514.34'
L17	S 15°10'51" W	15.00'
L18	S 15°10'51" W	37.63'
L19	S 15°10'51" W	75.18'
L20	S 15°10'59" W	372.80'
L21	S 17°28'25" W	257.74'
L22	S 74°32'29" E	516.90'
L23	S 15°27'52" W	689.93'
L24	S 60°27'52" W	22.07'
L25	N 74°32'37" W	508.13'
L26	N 15°27'52" E	778.45'

OWNER'S SIGNATURE BLOCK

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF _____{

That, TEXAG REAL ESTATE SERVICES, acting by LARRY D. KOKEL, Manager, owner of the certain 56.730 acres tract of land shown hereon and described in 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 ____ day of _____ 2022.

TEXAG REAL ESTATE SERVICES
404 WEST 9TH STREET, SUITE 201
GEORGETOWN, TEXAS 78626

BY: LARRY D. KOKEL
404 WEST 9TH STREET, SUITE 201
GEORGETOWN, TEXAS 78626
Its Manager

_____
LARRY D. KOKEL, Manager

STATE OF TEXAS {
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF _____{

Before me, the undersigned, a notary public in and for said county and state, on this day personally appeared _____, known to me to be the person whose name is subscribed to the foregoing instrument.

GIVEN UNDER MY HAND AND SEAL of office this ____ day of _____ 2022.

_____
Notary Public in and for the State of Texas

My Commission expires on: _____

DESCRIPTION OF PROPERTY SURVEYED

56.730 ACRES of land in Georgetown, Williamson County, Texas, being out of the John Berry Survey 3, 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).

LINE TABLE

LINE	BEARING	LENGTH
L27	S 74°32'08" E	659.00'
L28	S 15°27'52" W	688.85'
L29	S 60°27'52" W	126.72'
L30	N 74°32'08" W	569.39'
L31	N 74°32'08" W	758.39'
L32	N 29°32'08" W	22.07'
L33	N 15°27'52" E	233.32'
L34	N 60°27'52" E	184.71'
L35	S 74°32'08" E	553.79'
L36	S 29°32'08" E	126.72'
L37	S 15°27'52" W	289.93'

TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

PRELIMINARY/FINAL PLAT
FIDELIS GEORGETOWN
SHEET 3 OF 4

Pacheco Koch
a Westwood company
8701 N. MOPAC EXPY, SUITE 320
AUSTIN, TX 78759
512.485.0831

DRAWN BY	CHECKED BY	SCALE	DATE	JOB NUMBER	CITY PROJECT NUMBER
ZNBM	ETB	N/A	NOV 2022	4670-22.125	

PRELIMINARY/FINAL PLAT - FIDELIS GEORGETOWN

XXXX-XX-SDP

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

FINAL PLAT SHEET 3 OF 4

DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO. 4

ZNMOORE
11/7/2022 9:45 AM
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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 7TH DAY OF NOVEMBER, 2022

PRELIMINARY

THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. RELEASED 11/4/22.

_____

MICHAEL J. NEEDHAM
REGISTERED PROFESSIONAL LAND SURVEYOR
NO. 5183 STATE OF TEXAS

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 __ DAY OF NOVEMBER, 2022

PRELIMINARY

THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. RELEASED 11/4/22.

_____

HOLLIS A. SCHEFFLER
REGISTERED PROFESSIONAL ENGINEER
NO. 136049 STATE OF TEXAS

FOR REVIEW. THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF HOLLIS A. SCHEFFLER, REGISTERED PROFESSIONAL ENGINEER NO. 136049, ON NOVEMBER 7, 2022. IT IS NOT TO BE USED FOR BIDDING, PERMIT OR CONSTRUCTION.

CITY BUILDING OFFICIAL

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.

_____

Glen Holcomb, Building Official Date
City of Georgetown

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 ____ day of _____, 20____, A.D.

_____ _____

R. Travis Perthuis, Chairman Date

_____ _____

Kaylah McCord, Secretary Date

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.

_____

Sofia Nelson, Planning Director Date

COUNTY CLERK SIGNATURE BLOCK

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 ____ day of _____, 2022, A.D., at ___ o'clock,__.M., and duly recorded this the ___ day of _____, 2022, A.D., at ___ o'clock, __.M., in the Official Public Records of said County in Document No. _____.

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: _____, Deputy

PRELIMINARY/FINAL PLAT
FIDELIS GEORGETOWN
SHEET 4 OF 4

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	CITY PROJECT NUMBER
ZNBM	ETB	N/A	NOV 2022	4670-21.337	

PRELIMINARY/FINAL PLAT - FIDELIS GEORGETOWN

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

FINAL PLAT SHEET 4 OF 4

DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO. 5

XXXX-XX-SDP

ZNMOORE
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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: N/A
IF PIPE FLEXURE IS PROPOSED, THE FOLLOWING METHOD OF PREVENTING DEFLECTION OF THE JOINT MUST BE N/A
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. NEW SEWAGE COLLECTION SYSTEM LINES MUST BE CONSTRUCTED WITH STUB OUTS FOR THE CONNECTION OF ANTICIPATED EXTENSIONS. THE LOCATION OF SUCH STUB OUTS MUST BE MARKED ON THE GROUND SUCH THAT THEIR LOCATION CAN BE EASILY DETERMINED AT THE TIME OF CONNECTION OF THE EXTENSIONS. SUCH STUB OUTS MUST BE MANUFACTURED WYES OR TEES THAT ARE COMPATIBLE IN SIZE AND MATERIAL WITH BOTH THE SEWER LINE AND THE EXTENSION. AT THE TIME OF ORIGINAL CONSTRUCTION, NEW STUB-OUTS MUST BE CONSTRUCTED SUFFICIENTLY TO EXTEND BEYOND THE END OF THE STREET PAVEMENT. ALL STUB-OUTS MUST BE SEALED WITH A MANUFACTURED CAP TO PREVENT LEAKAGE. EXTENSIONS THAT WERE NOT ANTICIPATED AT THE TIME OF ORIGINAL CONSTRUCTION OR THAT ARE TO BE CONNECTED TO AN EXISTING SEWER LINE NOT FURNISHED WITH STUB OUTS MUST BE CONNECTED USING A MANUFACTURED SADDLE AND IN ACCORDANCE WITH ACCEPTED PLUMBING TECHNIQUES.
TCEQ-0596 (REV. JULY 15, 2015) PAGE 3 OF 6
IF NO STUB-OUT IS PRESENT AN ALTERNATE METHOD OF JOINING LATERALS IS SHOWN IN THE DETAIL ON PLAN SHEET __ OF __. (FOR POTENTIAL FUTURE LATERALS).
THE PRIVATE SERVICE LATERAL STUB-OUTS MUST BE INSTALLED AS SHOWN ON THE PLAN AND PROFILE SHEETS ON PLAN SHEET __ OF __ AND MARKED AFTER BACKFILLING AS SHOWN IN THE DETAIL ON PLAN SHEET __ OF __.

13. 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.

14. 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).

15. 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

$$T = \frac{0.085 * D * K}{Q}$$

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

(A) AN OWNER MAY STOP A TEST IF NO PRESSURE LOSS HAS OCCURRED DURING THE FIRST 25% OF THE CALCULATED TESTING TIME.
(B) 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.
(C) 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.
(D) 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.
(1) 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 SERVICE LATERAL 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.

GENERAL NOTES

1. ALL WORK, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION SPECIFICATIONS OR THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ISSUED BY 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 ELEVATIONS SHOWN AND ENSURE 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 AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
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.

DEMOLITION GENERAL NOTES

1. CONTRACTOR IS TO REVIEW ALL GENERAL NOTES PRIOR TO BEGINNING WORK.
2. REMOVE ALL EXISTING PAVEMENT AND STRUCTURES WITHIN THE LIMITS OF DEMOLITION UNLESS OTHERWISE NOTED.
3. 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.
4. CONSULT THE DIMENSIONAL CONTROL PLAN. VERIFY THE PORTION OF EXISTING CONCRETE CURBS AND PAVEMENT WHICH ARE TO REMAIN.
5. COORDINATE WITH LOCAL POWER, TELEPHONE, CABLE, AND GAS COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES.
6. ALL UTILITIES SHOULD BE CUT AND PLUGGED IN ACCORDANCE WITH THEIR RESPECTIVE UTILITY COMPANY REQUIREMENTS AND PRIOR TO DEMOLITION OF THE EXISTING BUILDINGS.
7. CONTRACTOR TO PLUG ALL EXISTING EXPOSED ENDS OF ABANDONED UTILITIES.
8. CONTRACTOR TO DETERMINE SOURCE OF ALL EXPOSED UTILITIES AND, IF REQUIRED, RECONNECT TO PROPOSED UTILITIES.
9. 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.
10. 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 LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION DETAILS.
11. 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.
12. 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.
13. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO ALLOW FOR POSITIVE DRAINAGE. GRADING SLOPES ARE NOT TO EXCEED 3:1.
14. AREAS EXCAVATED FOR FOUNDATION OR UNDERGROUND STRUCTURE REMOVAL SHALL BE BACK-FILLED AND COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
15. CONTRACTOR IS RESPONSIBLE FOR SECURITY OF THE SITE DURING DEMOLITION ACTIVITIES AND UNTIL SUBSTANTIAL COMPLETION.
16. 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.
17. 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.
18. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
19. BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
20. 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.
21. CONTRACTOR WILL PROVIDE ON-SITE PARKING FOR WORKERS. VEHICLE PARKING WILL NOT BE ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY.
22. CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ADEQUATE DUST CONTROL MEASURES DURING DEMOLITION ACTIVITIES.
23. CONTRACTOR IS TO COORDINATE DEMOLITION ACTIVITIES WITH THE HAZARDOUS MATERIAL ABATEMENT CONTRACTORS' ACTIVITIES, IF APPLICABLE.
24. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL TEMPORARY UTILITY SERVICES REQUIRED TO COMPLETE THE SCOPE OF WORK.

GRADING & DRAINAGE GENERAL NOTES

1. REFER TO GEOTECHNICAL REPORT 19106100.094 BY MLA GEOTECHNICAL FOR REQUIREMENTS REGARDING FILL COMPACTION AND MOISTURE CONTENT.
2. UNLESS NOTED, ALL FILL IS TO BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT. FILL TO BE PLACED IN MAXIMUM LIFTS OF 6 INCHES.
3. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS OTHERWISE NOTED) AND A CROSS SLOPE NO GREATER THAN 2%.
4. GRADING OF ALL HANDICAPPED SPACES AND ROUTES TO CONFORM TO FEDERAL, STATE, AND LOCAL GUIDELINES.
5. ALL PROPOSED AND EXISTING GRADES IN NON-PAVED AREAS ARE "FINISHED GRADE" (i.e. IN LANDSCAPE BEDS, TOP OF MULCH/BEDDING MATERIAL).
6. UNLESS NOTED, STORM DRAIN LINES SHALL BE OF THE FOLLOWING MATERIALS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS:
   - 6.A. RCP C-76, CLASS III
   - 6.B. ADS N-12
   - 6.C. HANCOR HI-Q
   - 6.D. CONTECH ALUMINIZED ULTRA FLOW
   - 6.E. LANE ENTERPRISES HDPE OR APPROVED EQUAL
7. UNLESS NOTED, STORM STRUCTURES TO BE "FORTERRA PIPE AND PRECAST" SIZED AS SHOWN, OR APPROVED EQUAL.
8. FINAL PAVING, CURB, AND SIDEWALK ELEVATIONS WILL BE PLACED AT PLUS OR MINUS 0.03 FOOT.
9. REFER TO LANDSCAPE SPECIFICATIONS FOR SEEDING AND SODDING REQUIREMENTS.
10. ANY CONCRETE, ROCK, OR MATERIAL DEEMED BY THE ENGINEER TO BE UNSUITABLE FOR SUBGRADE SHALL BE DISPOSED OF OFFSITE AT CONTRACTOR'S EXPENSE.
11. TRENCH BACKFILL MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF CITY OF GEORGETOWN STANDARDS 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 CITY OF GEORGETOWN STANDARDS UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
12. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF CITY OF AUSTIN ITEM 510 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
13. A ROUND MANHOLE COVER MEETING CITY SPECIFICATIONS SHALL BE PLACED IN ALL INLET TOPS NEAR THE OUTLET PIPE.
14. ALL CONCRETE FOR INLETS AND DRAINAGE STRUCTURES SHALL CONFORM TO CITY OF GEORGETOWN, CLASS "A" (3000 PSI) UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN STANDARD CITY SPECIFICATIONS.
15. CRUSHED STONE BEDDING OR APPROVED EQUAL SHALL BE PROVIDED BY THE CONTRACTOR WHEN ROCK IS ENCOUNTERED IN TRENCHES. THERE SHALL BE NO ADDITIONAL PAY ITEM FOR CRUSHED STONE BEDDING.
16. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.

WATER & SANITARY SEWER GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "A" (3000 PSI), UNLESS OTHERWISE NOTED.
2. ALL WATER MAINS SHALL BE PVC C900, DR 18, CLASS 235. FIRE PROTECTION SERVICES SHALL BE PVC C900, DR 14, CLASS 305 AND INSTALLED IN ACCORDANCE WITH THE DESIGN AND SPECIFICATIONS OF THE FIRE PROTECTION PLANS TO BE PREPARED BY A LICENSED FIRE PROTECTION CONTRACTOR.
3. WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
4. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 48 INCHES BELOW IMPROVED FINISHED GRADE, UNLESS OTHERWISE NOTED.
5. SANITARY SEWER PIPE SHALL BE PVC SDR-35.
6. 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:
   - 6.A. TCEQ CHAPTER 217.53 PIPE DESIGN, SECTION (d) SEPARATION DISTANCES.
   - 6.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
7. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
8. 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.
9. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
10. THE UTILITY CONTRACTOR SHALL INSTALL THE WATER SERVICES TO A POINT TWO FEET BACK OF THE CURB LINE AT A DEPTH OF 12 INCHES. THE METER BOX SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AFTER THE PAVING CONTRACTOR HAS COMPLETED THE FINE GRADING BEHIND THE BACK OF THE CURB. EACH SERVICE LOCATION SHALL BE MARKED ON THE CURB WITH A BLUE LETTER "W" BY THE UTILITY CONTRACTOR AND TIED TO PROPERTY CORNERS ON THE "RECORD DRAWINGS."
11. ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS.
12. 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.
13. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
14. VALVE BOXES SHALL BE FURNISHED AND SET ON EACH GATE VALVE. AFTER THE FINAL CLEAN-UP AND ALIGNMENT HAS BEEN COMPLETED, THE UTILITY CONTRACTOR SHALL POUR A 24"X24"X6" CONCRETE BLOCK AROUND ALL VALVE BOX TOPS LEVEL WITH THE FINISHED GRADE.
15. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
16. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.

FIRE GENERAL NOTES

AT THE CONCLUSION OF CONSTRUCTION AND AS PART OF THE PROCESS FOR THE CITY TO ACCEPT THIS PHASE, THE FIRE HYDRANTS SHALL BE FLOWED AND TESTED AND A COPY OF THE REPORT SHALL BE EMAILED INTO THE FIRE DEPARTMENT AND THE HYDRANTS SHALL BE PAINTED AND COLOR CODED.
CAUTION: IF PRESSURE REDUCING VALVES WERE INSTALLED IN THIS PHASING THEY MUST BE SET PRIOR TO FIRE HYDRANT FLOW TESTING.
LA-507.5.7
A. ALL PRIVATE HYDRANT BARRELS WILL BE PAINTED RED WITH THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN PARAGRAPH C OF THIS SECTION TO INDICATE FLOW. IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO TEST AND MAINTAIN THEIR PRIVATE FIRE HYDRANT(S).
B. ALL PRIVATE FIRE HYDRANTS SHOULD BE TESTED ANNUALLY AND SHALL BE COLOR CODED TO INDICATE THE EXPECTED FIRE FLOW FROM THE HYDRANT DURING NORMAL OPERATION. SUCH COLOR APPLIED TO THE FIRE HYDRANT BY PAINTING THE BONNET THE APPROPRIATE COLOR FOR THE EXPECTED FLOW CONDITION.
C. HYDRANT FLOW CODING STANDARDS.

FLOW	COLOR
GREATER THAN 1500 GPM	BLUE
1000 TO 1500 GPM	GREEN
500 TO 999 GPM	ORANGE
LESS THAN 500 GPM	RED
NOT WORKING	BLACK OR BAGGED

PAVING GENERAL NOTES

1. ALL DIMENSIONS ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED.
2. ALL CONCRETE SHALL CONFORM TO CITY OF GEORGETOWN STANDARDS, UNLESS OTHERWISE SHOWN ON THESE PLANS, STATED IN STANDARD CITY SPECIFICATIONS OR STATED IN TXDOT STANDARD SPECIFICATIONS.
3. SUBGRADE PREPARATION IN RIGHT OF WAY SHALL CONFORM TO STANDARD CITY SPECIFICATIONS OR TXDOT STANDARD SPECIFICATIONS.
4. ALL FILL PLACED UNDER PAVING SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 6 INCH LIFTS, UNLESS OTHERWISE NOTED, OR STATED IN GEOTECH REPORT. REFER TO STRUCTURAL SPECIFICATIONS FOR FILL PLACED BENEATH BUILDING AREAS. ALL OTHER FILL AREAS TO BE COMPACTED TO 90% STANDARD PROCTOR.
5. THE CONTRACTOR SHALL SUBMIT A JOINT SPACING PLAN TO THE ENGINEER FOR APPROVAL. EXPANSION JOINT SPACING SHALL BE 90' MAXIMUM EACH WAY WITH NO KEYWAYS AND SAWED DUMMY JOINTS SHALL BE 15' EACH WAY, UNLESS OTHERWISE NOTED.
6. TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED AT THE END OF EACH DAYS PAVING AND WHERE INTERRUPTIONS SUSPEND OPERATIONS FOR 30 MINUTES OR MORE.
7. ALL PAVING TO BE REMOVED SHALL BE SAWCUT TO A NEAT LINE, MINIMUM 1-1/2" DEEP, AND THE PAVEMENT REMOVED IN SUCH A MANNER AS TO PRESERVE THE EXISTING TRANSVERSE REINFORCING STEEL TO THE MAXIMUM EXTENT POSSIBLE.
8. ALL CURB AND GUTTER SHALL BE INTEGRAL WITH THE PAVEMENT AND HAVE THE SAME COMPRESSIVE STRENGTH.
9. PAVEMENT REINFORCEMENT SHALL BE #3 BARS, SPACED AT 18 INCHES CENTER TO CENTER EACH WAY EXCEPT WHERE OTHERWISE NOTED IN THE PLANS OR GEOTECH REPORT.
10. BAR LAPS SHALL BE 30 DIAMETERS IN LENGTH.
11. ALL STRIPES SHALL BE 4 INCHES WIDE, UNLESS OTHERWISE NOTED.
12. INSTALLATION AND PLACEMENT OF IRRIGATION SLEEVES AND UTILITY CONDUITS SHALL BE IN ACCORDANCE WITH LANDSCAPE ARCHITECT AND MEP PLANS. CONTRACTOR TO VERIFY ALL SLEEVES HAVE BEEN PLACED PRIOR TO PAVING BEING PLACED.
13. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS OTHERWISE NOTED) AND A CROSS SLOPE NO GREATER THAN 2%.

FIRE PROTECTION NOTES

1. APPROVAL OF THIS SITE PLAN DOES NOT IMPLY APPROVAL TO INSTALL UNDERGROUND FIRE LINES. PRIOR TO INSTALLATION OF UNDERGROUND FIRE LINES, A SEPARATE PERMIT SHALL BE SUBMITTED, UNDER GROUND FIRE LINE SUPPLY.
2. BACKFLOW PROTECTION WILL BE PROVIDED IN ACCORDANCE WITH THE CITY OF GEORGETOWN REQUIREMENTS WHEN REQUIRED. BACKFLOW PROTECTION WILL BE INSTALLED IN ACCORDANCE WITH THE DETAIL PROVIDED IN THE UTILITY DRAWINGS.
3. ALL PRIVATE FIRE LINES AND WHAT THEY PROVIDE SERVICE TO WILL BE INSTALLED IN ACCORDANCE WITH NFPA 24 INSTULLATION OF PRIVATE SERVICE MAINS AND THEIR APPURTENANCES.
4. ALL TEES, PLUGS, CAPS, BENDS, REDUCERS, VALVES SHALL BE RESTRAINED AGAINST MOVEMENT. THRUST BLOCKING WILL BE INSTALLED IN ACCORDANCE WITH NFPA 24.
5. ALL UNDERGROUND SHALL REMAIN UNCOVERED UNTIL A VISUAL INSPECTION IS CONDUCTED BY THE GEORGETOWN FIRE MARSHAL'S OFFICE (FMO). ALL JOINTS AND THRUST BLOCKING SHALL BE UNCOVERED FOR VISUAL INSPECTION.
6. ALL UNDERGROUND SHALL BE FLUSHED PER THE REQUIREMENTS OF NFPA STANDARD 24 AND WITNESSED BY GEORGETOWN FMO.
7. ALL UNDERGROUND SHALL PASS A HYDROSTATIC TEST WITNESSED BY GEORGETOWN FMO. ALL JOINTS SHALL BE UNCOVERED FOR HYDROSTATIC TESTING. ALL PIPING AND ATTACHMENTS SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE TESTED AT 200 PSI. OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESSURE + OR - 5 PSI FOR 2 HOURS.
8. FENCES, LANDSCAPING AND OTHER ITEMS WILL NOT BE INSTALLED WITHIN 3 FT, AND WHERE THEY WILL OBSTRUCT THE VISIBILITY OR ACCESS TO HYDRANTS, OR REMOTE FDCS.
9. LICENSE REQUIREMENTS OF EITHER RME-U OR G. WHEN CONNECTING BY UNDERGROUND TO THE WATER PURVEYOR'S MAIN FROM THE POINT OF CONNECTION OR VALVE WHERE THE PRIMARY PURPOSE OF WATER IS FOR FIRE PROTECTION SPRINKLER SYSTEM.

CITY OF GEORGETOWN GENERAL NOTES

1. THESE CONSTRUCTION PLANS WERE PREPARED, SEALED, SIGNED, AND DATED BY A TEXAS LICENSED PROFFESIONAL ENGINEER. THEREFORE BASED ON THE ENGINEER'S CONCURRAENCE 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.
2. THIS PROJECT IS SUBJECT TO ALL CITY STANDARD SPECIFICATIONS AND DETAILS IN EFFECT AT THE TIME OF SUBMITTAL OF THE PROJECT TO THE CITY.
3. THE SITE CONSTRUCTION PLANS SHALL MEET ALL REQUIREMENTS OF THE APPROVED SITE PLAN.
4. WASTEWATER MAINS AND SERVICE LINES SHALL BE SDR 26 PVC
5. WASTEWATER MAINS SHALL BE INSTALLED WITHOUT HORIZONTAL OR VERTICAL BENDS.
6. MAXIMUM DISTANCE BETWEEN WASTEWATER MANHOLES IS 500 FEET.
7. WASTEWATER MAINS SHALL BE LOW PRESSURE AIR TESTED AND MANDREL TESTED BY THE CONTRACTOR ACCORDING TO CITY OF GEORGETOWN AND TCEQ REQUIREMENT.
8. WASTEWATER MANHOLES SHALL BE VACUUM TESTED AND COATED BY THE CONTRACTOR ACCORDING TO CITY OF GEORGETOWN AND TCEQ REQUIREMENTS.
9. WASTEWATER MAINS SHALL BE CAMERA TESTED BY THE CONTRACTOR AND SUBMITTED TO THE CITY ON DVD FORMAT PRIOR TO PAVING THE STREETS.
10. PRIVATE WATER SYSTEM FIRE LINES SHALL BE TESTED BY THE CONTRACTOR TO 200 PSI FOR 2 HOURS.
11. PRIVATE WATER SYSTEM FIRE LINES SHALL BE DUCTILE IRON PIPING FROM THE WATER MAIN TO THE BUILDING SPRINKLER SYSTEM, AND 200 PSI C900 PVC FOR ALL OTHERS.
12. PUBLIC WATER SYSTEM MAINS SHALL BE 150 PSI C900 PVC AND TESTED BY THE CONTRACTOR AT 150 PSI FOR 4 HOURS.
13. ALL BENDS AND CHANGES IN DIRECTION ON WATER MAINS SHALL BE RESTRAINED AND THRUST BLOCKED.
14. LONG FIRE HYDRANT LEADS SHALL BE RESTRAINED.
15. ALL WATER LINES ARE TO BE BACTERIA TESTED BY THE CONTRACTOR ACCORDING TO CITY STANDARDS AND SPECIFICATIONS.
16. WATER AND SEWER MAIN CROSSINGS SHALL MEET ALL REQUIREMENTS OF THE TCEQ AND THE CITY.
17. FLEXIBLE BASE MATERIAL FOR PUBLIC STREETS SHALL BE TXDOT TYPE A GRADE 1.
18. HOT MIX ASPHALTIC CONCRETE PAVEMENT SHALL BE TYPE D UNLESS OTHERWISE SPECIFIED AND SHALL BE A MINIMUM OF 2 INCHES THICK ON PUBLIC STREETS AND ROADWAYS.
19. ALL SIDEWALK RAMPS ARE TO BE INSTALLED WITH THE PUBLIC INFRASTRUCTURE.
20. A MAINTENANCE BOND IS REQUIRED TO BE SUBMITTED TO THE CITY PRIOR TO ACCEPTANCE OF THE PUBLIC IMPROVEMENTS. THIS BOND SHALL BE ESTABLISHED FOR 2 YEARS IN THE AMOUNT OF 10% OF THE COST OF THE PUBLIC IMPROVEMENTS AND SHALL FOLLOW THE CITY FORMAT.
21. RECORD DRAWINGS OF PUBLIC IMPROVEMENTS SHALL BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER PRIOR TO ACCEPTANCE OF THE PROJECT. THESE DRAWINGS SHALL BE ON MYLAR OR ON TIFF OR PDF DISK (300DPI). IF A DISK IS SUBMITTED, A BOND SET SHALL BE INCLUDED WITH THE DISK.

XXXX-XX-SDP

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

GENERAL NOTES

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION 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.
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WILLIAMSON COUNTY
DEED WITHOUT WARRANTY
DOC. NO. 2011066293
32.703 ACRES
PROPERTY ID: R314461

WILLIAMSON COUNTY
DEED WITHOUT WARRANTY
DOC. NO. 2011066293
33.703 ACRES
PROPERTY ID: R314461

STATE OF TEXAS
SPECIAL WARRANTY DEED
DOC. NO. 2004086845
2.683 ACRES

INTERSTATE HWY 35 NB

FRONTAGE ROAD

DEMO EXISTING PAVEMENT

52.2'

59.0'

127.9'

55.0'

0.163 ACRE EASEMENT
DOC NO. 2006020315

LOT 1
BLOCK A
FIDELIS GEORGETOWN
56.7 ACRES

DEMO EXISTING PAVEMENT

REMOVE EXISTING SIGN

CONTACT PEC
FOR REMOVAL/RELOCATION
OF EXISTING POWER LINE

CONTACT PEC
FOR REMOVAL/RELOCATION
OF EXISTING POWER LINE

DEMO EXISTING GRAVEL

DEMO EXISTING BUILDING

CONTACT FRONTIER COMM.
FOR REMOVAL/RELOCATION
OF TELEPHONE BOX

DEMO EXISTING BUILDING

CAP WELL PER
TCEQ STANDARDS

CONTACT PEC
FOR REMOVAL-RELOCATION
OF EXISTING POWER METERS

DEMO EXISTING GRAVEL

TILSON HOME CORPORATION
WARRANTY DEED
DOC. NO. 9727454
2.00 ACRES
PROPERTY ID: R371788

KOKEL LEGACY &
DAS UBER MONTNEY LLC
DOC. NO. 2021053504
37.71 ACRES
PROPERTY ID: R038938

IH35 SH130 LP
SPECIAL WARRANTY DEED
DOC. NO. 2022009903
11.438 ACRES

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
- 1/2-INCH IRON ROD
- IRS W/"PACHECO KOCH" CAP SET
- (C.M.) CONTROLLING MONUMENT
- PROPERTY LINE
- 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 CREEK CENTERLINE
- DEMOLITION AREA

TREE TO BE REMOVED

TREE TO REMAIN

REFERENCE LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION

DEMOLITION GENERAL NOTES

1. CONTRACTOR IS TO REVIEW ALL GENERAL NOTES PRIOR TO BEGINNING WORK.
2. REMOVE ALL EXISTING PAVEMENT AND STRUCTURES WITHIN THE LIMITS OF DEMOLITION UNLESS OTHERWISE NOTED.
3. SAWCUT AND REMOVE ALL EXISTING DRIVE APPROACHES (WITHIN THE LIMITS OF DEMOLITION) TWO (2) FEET FROM BACK OF CURB. SIDEWALKS, PAVEMENT, AND UTILITIES WITHIN THE PUBLIC RIGHT-OF-WAY ARE TO REMAIN UNLESS OTHERWISE NOTED.
4. CONSULT THE DIMENSIONAL CONTROL PLAN, VERIFY THE PORTION OF EXISTING CONCRETE CURBS AND PAVEMENT WHICH ARE TO REMAIN.
5. COORDINATE WITH LOCAL POWER, TELEPHONE, CABLE, AND GAS COMPANIES PRIOR TO THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES.
6. ALL UTILITIES SHOULD BE CUT AND PLUGGED IN ACCORDANCE WITH THEIR RESPECTIVE UTILITY COMPANY REQUIREMENTS AND PRIOR TO DEMOLITION OF THE EXISTING BUILDINGS.
7. CONTRACTOR TO PLUG ALL EXISTING EXPOSED ENDS OF ABANDONED UTILITIES.
8. CONTRACTOR TO DETERMINE SOURCE OF ALL EXPOSED UTILITIES AND, IF REQUIRED, RECONNECT TO PROPOSED UTILITIES.
9. 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.
10. 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 LANDSCAPE PLANS FOR TREE REMOVAL AND PROTECTION DETAILS.
11. 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.
12. 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.
13. CONTRACTOR IS RESPONSIBLE FOR GRADING ALL DISTURBED AREAS TO ALLOW FOR POSITIVE DRAINAGE. GRADING SLOPES ARE NOT TO EXCEED 3:1.
14. AREAS EXCAVATED FOR FOUNDATION OR UNDERGROUND STRUCTURE REMOVAL SHALL BE BACK-FILLED AND COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.
15. CONTRACTOR IS RESPONSIBLE FOR SECURITY OF THE SITE DURING DEMOLITION ACTIVITIES AND UNTIL SUBSTANTIAL COMPLETION.
16. 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.
17. 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.
18. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS REGARDING TRENCH SAFETY.
19. BARRICADING AND PROJECT SIGNS SHALL CONFORM TO TEXAS DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND LATEST UPDATES.
20. 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.
21. CONTRACTOR WILL PROVIDE ON-SITE PARKING FOR WORKERS. VEHICLE PARKING WILL NOT BE ALLOWED WITHIN THE PUBLIC RIGHT-OF-WAY.
22. CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING ADEQUATE DUST CONTROL MEASURES DURING DEMOLITION ACTIVITIES.
23. CONTRACTOR IS TO COORDINATE DEMOLITION ACTIVITIES WITH THE HAZARDOUS MATERIAL ABATEMENT CONTRACTORS' ACTIVITIES, IF APPLICABLE.
24. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL TEMPORARY UTILITY SERVICES REQUIRED TO COMPLETE THE SCOPE OF WORK.

XXXX-XX-SDP

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TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

EXIST. CONDITIONS & DEMO PLAN

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
HAS	NBB	DEC 2022

SHEET NO.
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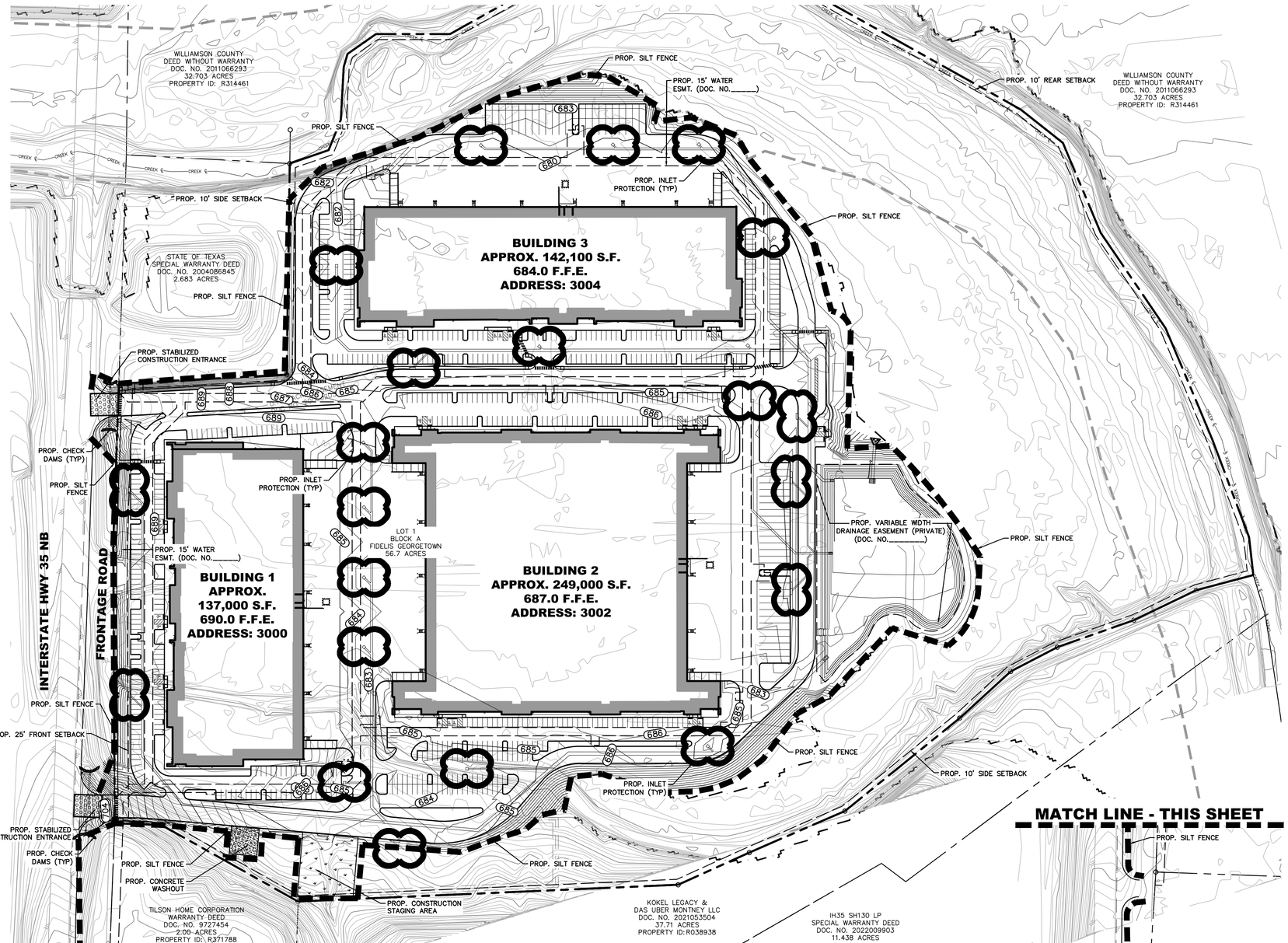

LEGEND

- 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
- FENCE
- OVERHEAD UTILITY LINE
- 613 EXIST CONTOUR
- 450 PROPOSED CONTOUR
- PROPOSED DRAINAGE FLOW DIRECTION
- PROPOSED CONSTRUCTION ENTRANCE
- INLET PROTECTION
- SILT FENCE (LIMITS OF DISTURBED AREA)
- CHECK DAM
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CREEK CENTERLINE

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. CLEARING AND GRUBBING
   - 2.B. ROUGH GRADING
   - 2.C. FINAL GRADING
   - 2.D. UTILITY INSTALLATION
   - 2.E. PAVEMENT INSTALLATION
   - 2.F. BUILDING CONSTRUCTION
3. THE TOTAL ESTIMATED LAND AREA TO BE DISTURBED IS 27.94 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.

XXXX-XX-SDP

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a Westwood company
8701 N. MOPAC EXPY ■ STE. 320 ■ AUSTIN, TX 78759 ■ 512.485.0831
TX REG. ENGINEERING FIRM F-469
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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

EROSION CONTROL PLAN

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

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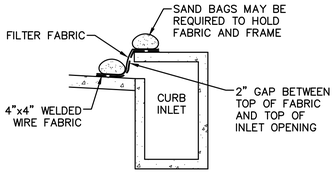

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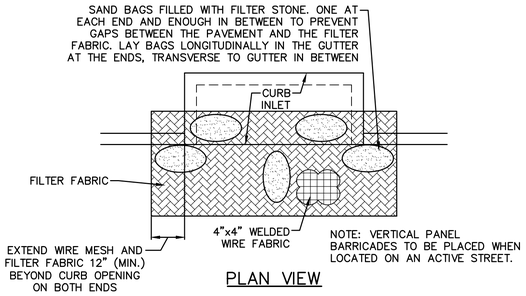
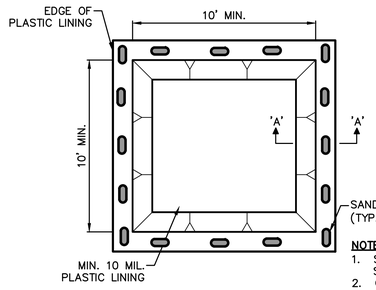


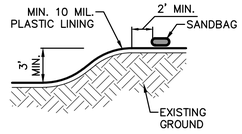
PLAN VIEW

1 CURB INLET PROTECTION

NOT TO SCALE



PLAN VIEW



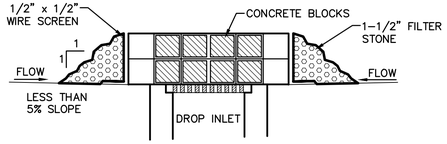
SECTION A–A

NOTE:

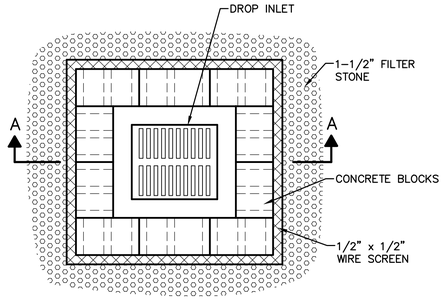
1. SANDBAGS MAY BE REPLACED BY A SOIL BERM TO ANCHOR PLASTIC LINING.
2. CONCRETE WASHOUT AREA TO BE CHECKED REGULARLY FOR REPAIRS.
3. REGULARLY REMOVE CONCRETE WASTE TO PREVENT OVERFLOWING.
4. PROVIDE MINIMUM 6 CF OF CONTAINMENT VOLUME FOR EVERY 10 CY OF CONCRETE PLACED. PROVIDE MINIMUM 1' FREEBOARD ABOVE CONTAINMENT VOLUME.

2 CONCRETE WASHOUT AREA

NOT TO SCALE



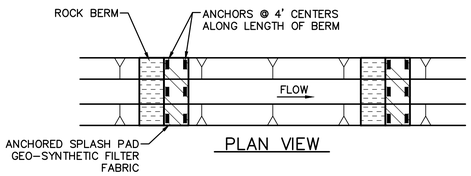
SECTION A–A



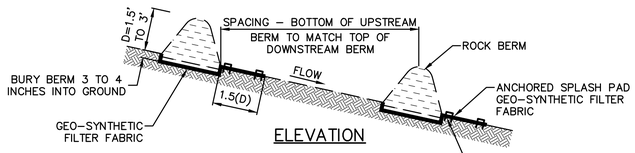
PLAN VIEW

3 DROP INLET PROTECTION

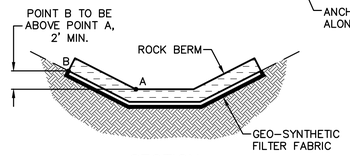
NOT TO SCALE



PLAN VIEW



ELEVATION



SECTION

4 CHECK DAMS

NOT TO SCALE

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.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TEMPORARY EROSION AND SEDIMENTATION CONTROL GUIDELINES

REVISION NOTES: ADOPTED 6/21/2006
DRAWING NUMBER: EC01
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

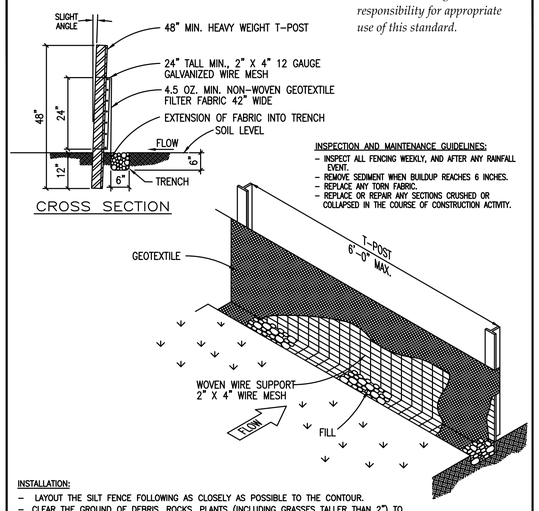
NOTE: THIS SECTION IS INTENDED TO ASSIST THOSE PERSONS PREPARING WATER POLLUTION ABATEMENT PLANS (WPAP) OR STORM WATER POLLUTION PREVENTION PLANS (SW3P) THAT COMPLY WITH FEDERAL, STATE AND/OR LOCAL STORM WATER REGULATIONS.

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 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, IMPERVIOUS 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.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
EROSION AND SEDIMENTATION AND TREE PROTECTION NOTES

REVISION NOTES: ADOPTED 6/21/2006
DRAWING NUMBER: EC01A
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB



CROSS SECTION

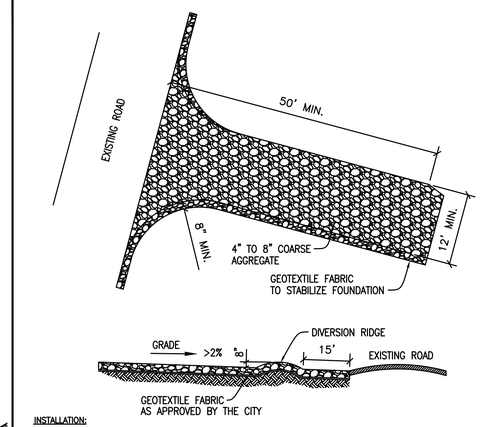
INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECT ALL FENCING WEEKLY, AND AFTER ANY RAINFALL EVENT.
- REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.
- REPLACE ANY TORN FABRIC.
- REPLACE OR REPAIR ANY SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY.

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.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SILT FENCE DETAIL

REVISION NOTES: ADOPTED 6/21/2006
DRAWING NUMBER: EC02
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.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STABILIZED CONSTRUCTION ENTRANCE

REVISION NOTES: ADOPTED 6/21/2006
DRAWING NUMBER: EC06
SCALE: NTS | DATE: 1/2003
DRAWN BY: MRS | APPROVED BY: TRB

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GEORGETOWN, TEXAS, 78626

EROSION CONTROL DETAILS & NOTES

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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JPQ	NBB	DEC 2022

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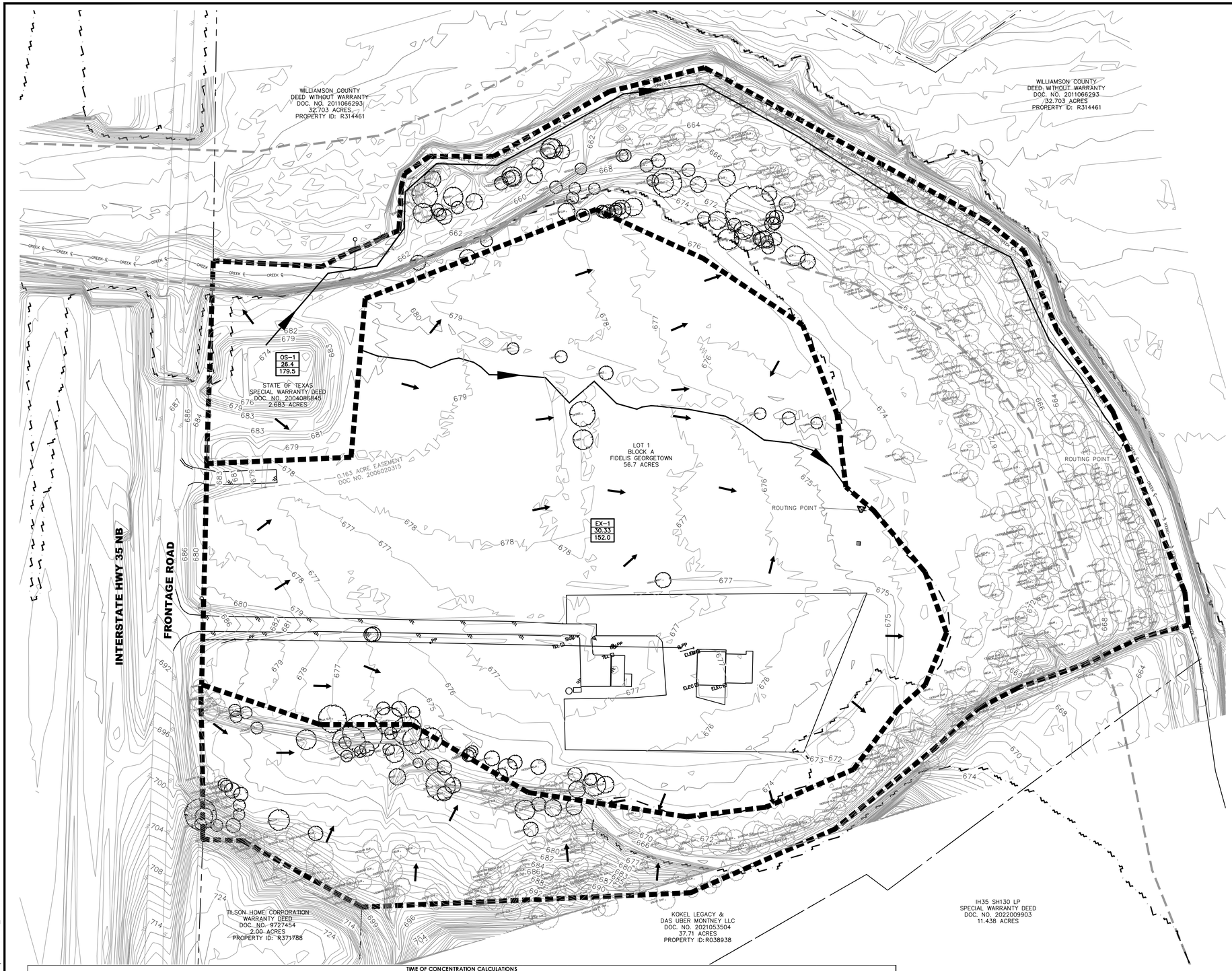

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GRAPHIC SCALE IN FEET
1"=100'

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
- 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 (EX 8 / 1.00 / 7.99)
- 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_h	T_c	T_c (design)	Lag Time
	(ft)	(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	

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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

EXISTING DRAINAGE AREA MAP

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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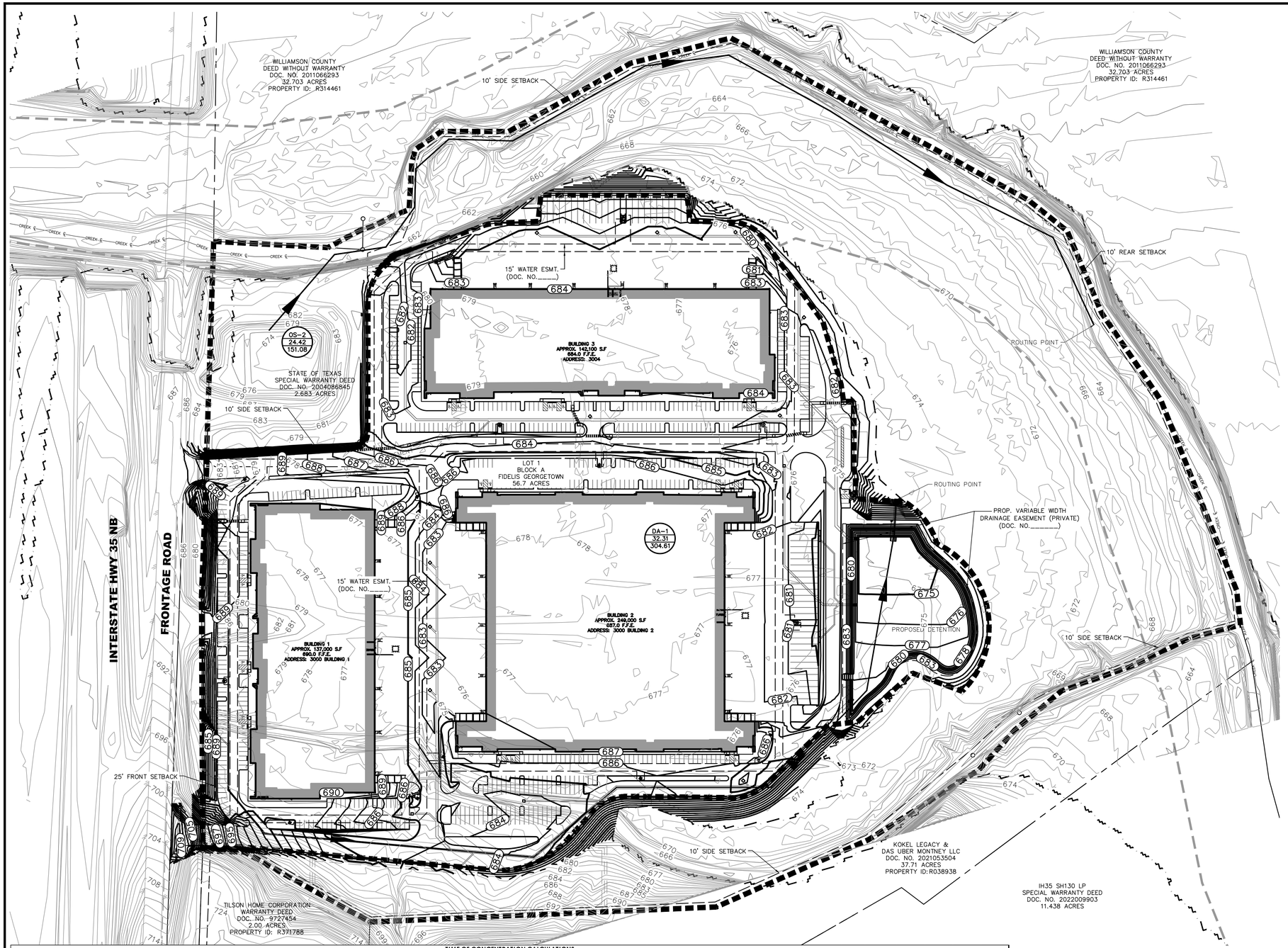

TIME OF CONCENTRATION CALCULATIONS

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_1	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	9.57	9.57	5.74
														566	0.009	24" RCP	72.01	6.9	1.37			
														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	30.71	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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NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

PROPOSED DRAINAGE AREA MAP

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
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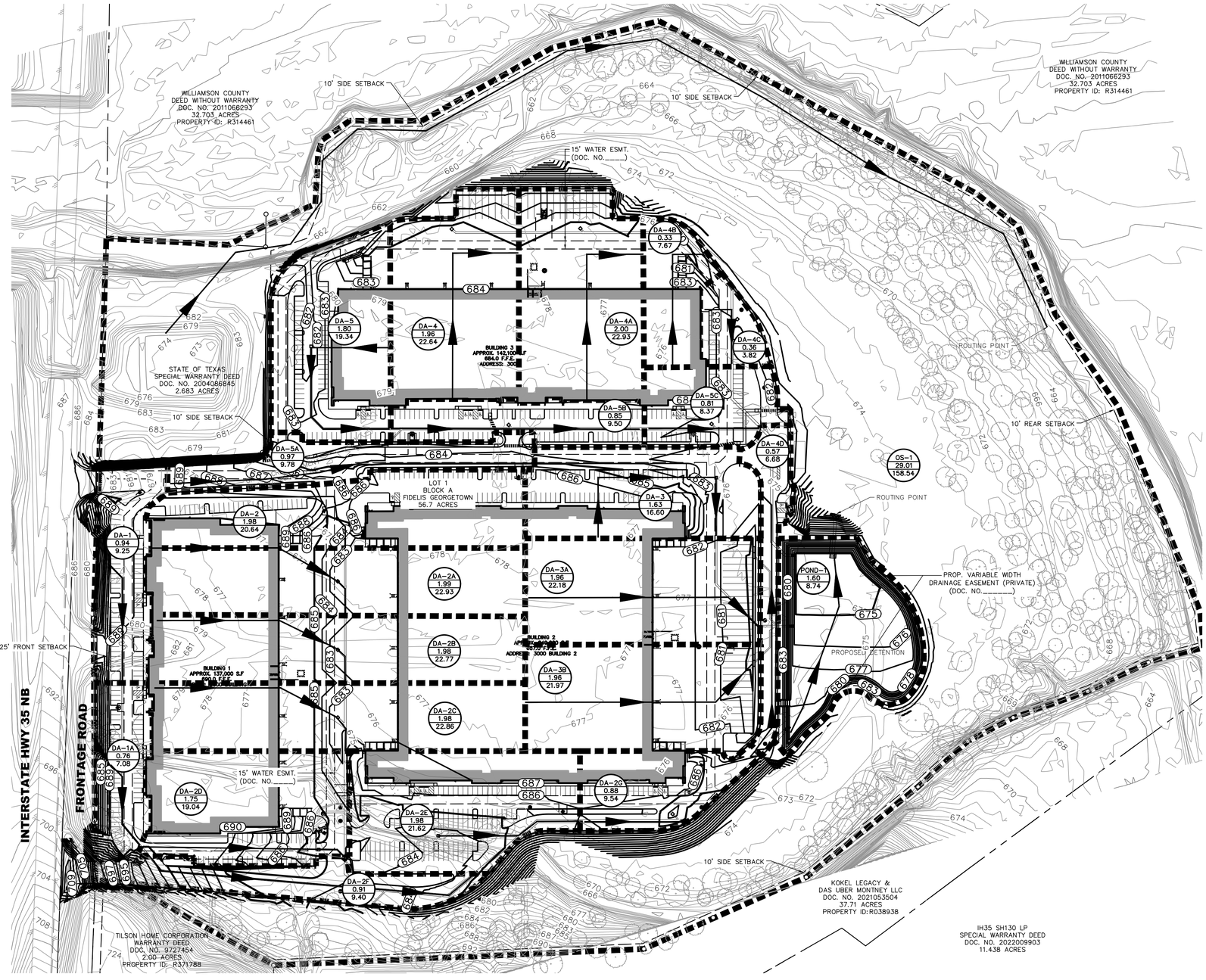

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GRAPHIC SCALE IN FEET
1"=100'

LEGEND

- BOLLARD
- ELECTRIC METER
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- DRAINAGE DIVIDE
- ULTIMATE DRAINAGE AREA ID / AREA IN ACRES / Q_{100} IN CUBIC FEET PER SECOND
- TC FLOW PATH

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REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

ULTIMATE DRAINAGE AREA MAP

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
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MASTER DRAINAGE

Drainage Number	AREA	IC	PC	%IC	2 year perv C		2 year imp C		2 year weighted C	10 year perv C		10 year imp C		10 year weighted C	25 year perv C		25 year imp C		25 year weighted C	100 year perv C		100 year imp C		100 year 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

DRAINAGE NUMBER	INLET NUMBER	AREA (acres)	C_2	C_{10}	C_{25}	C_{100}	SHEET FLOW Length (ft)	Slope (ft/ft)	Surface Cover	Velocity (ft/s)	Manning's n	T_{sheet} (min)	SHALLOW CONCENTRATED FLOW Length (ft)	Slope (ft/ft)	Surface Type	Velocity (ft/s)	K	$T_{shallow}$ (min)	CHANNEL FLOW 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)	INTENSITY I 2yr (in/hr)	I 10yr (in/hr)	I 25yr (in/hr)	I 100yr (in/hr)	DISCHARGE 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
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

ULTIMATE DRAINAGE AREA CALCULATIONS

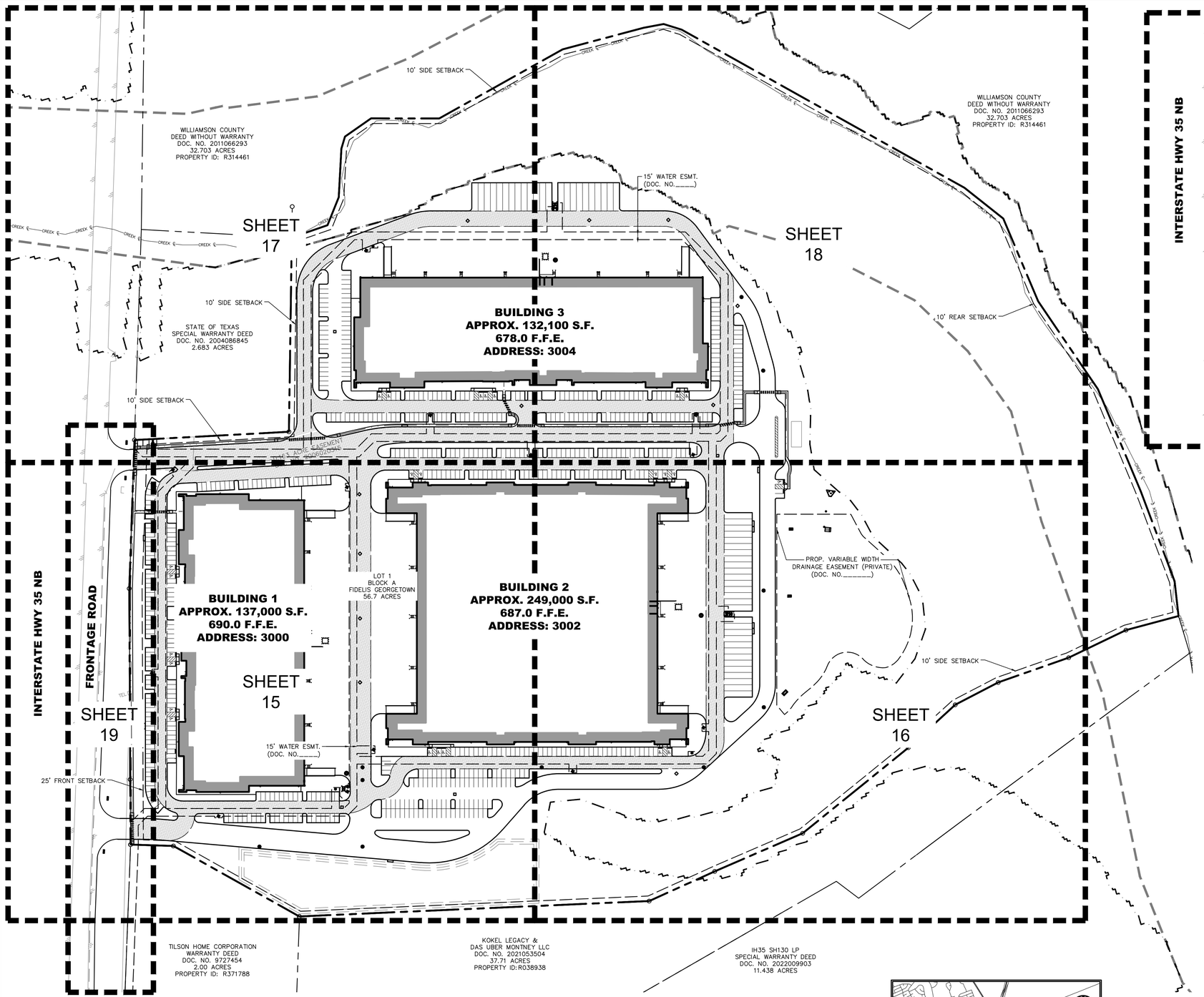
STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER
SHEET X OF 7

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION 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



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 (C.M.) — 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET CONTROLLING MONUMENT
- PROPERTY LINE
- X — FENCE
- # — COORDINATE DESIGNATION
- X — PROPOSED FENCE
- FIRE LANE
- ADA ACCESSWAY
- PROP. SIDEWALK
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK — CREEK CENTERLINE

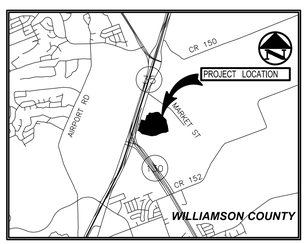
ALL DIMENSIONS ARE TO BACK-OF-CURB UNLESS OTHERWISE NOTED

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.



VICINITY MAP
(1"=5,000')

IMPERVIOUS COVER CALCULATIONS

LOT 1, BLOCK A - 56.73 AC (4,471,138 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)	32.83%
TOTAL	27.94 AC (1,217,178 SF)	54.19%

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

XXXX-XX-SDP

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

OVERALL SITE PLAN

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISON 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.

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14

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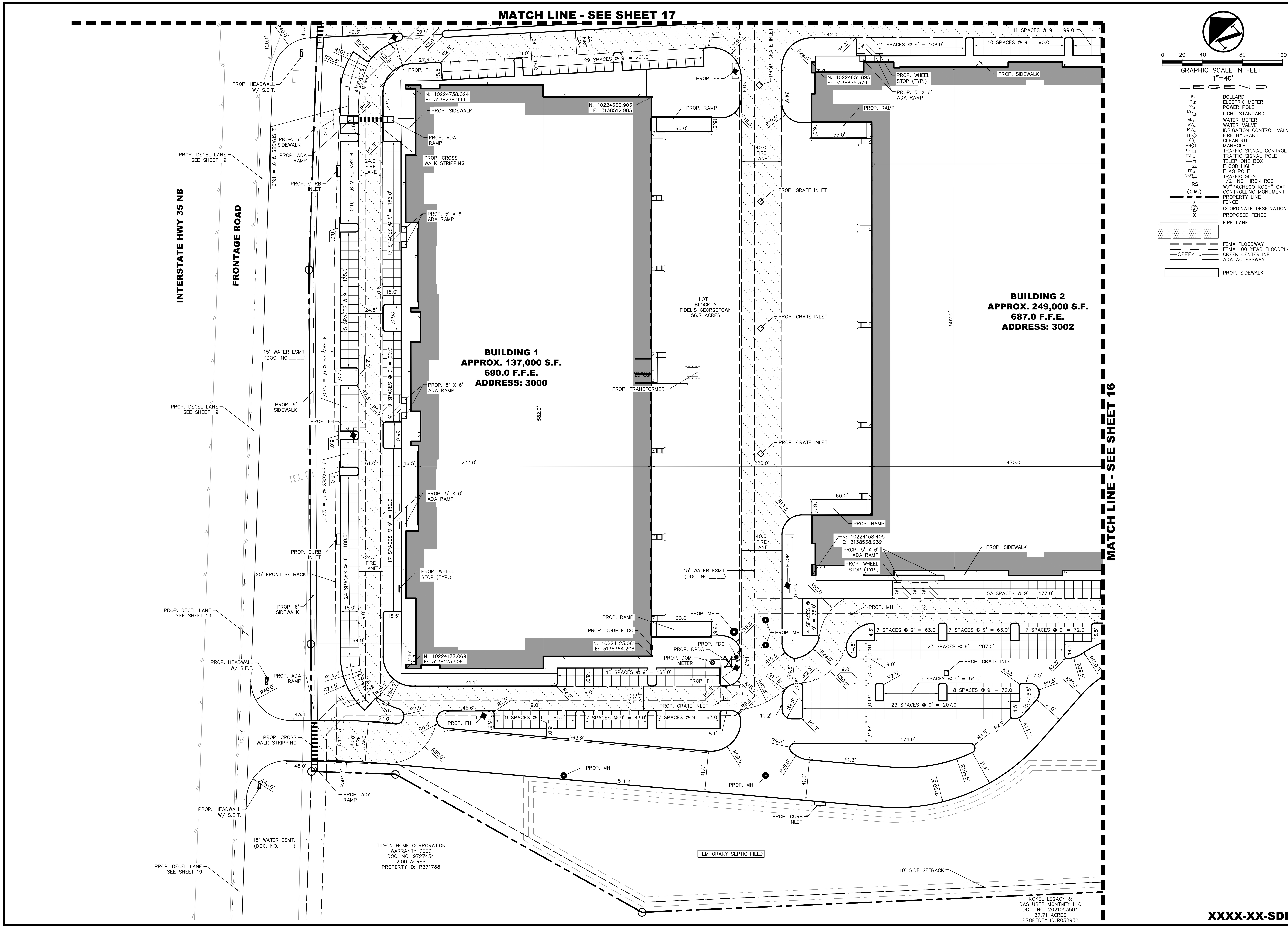

XXXX-XX-SDP

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

DIMENSIONAL CONTROL PLAN SHEET 1 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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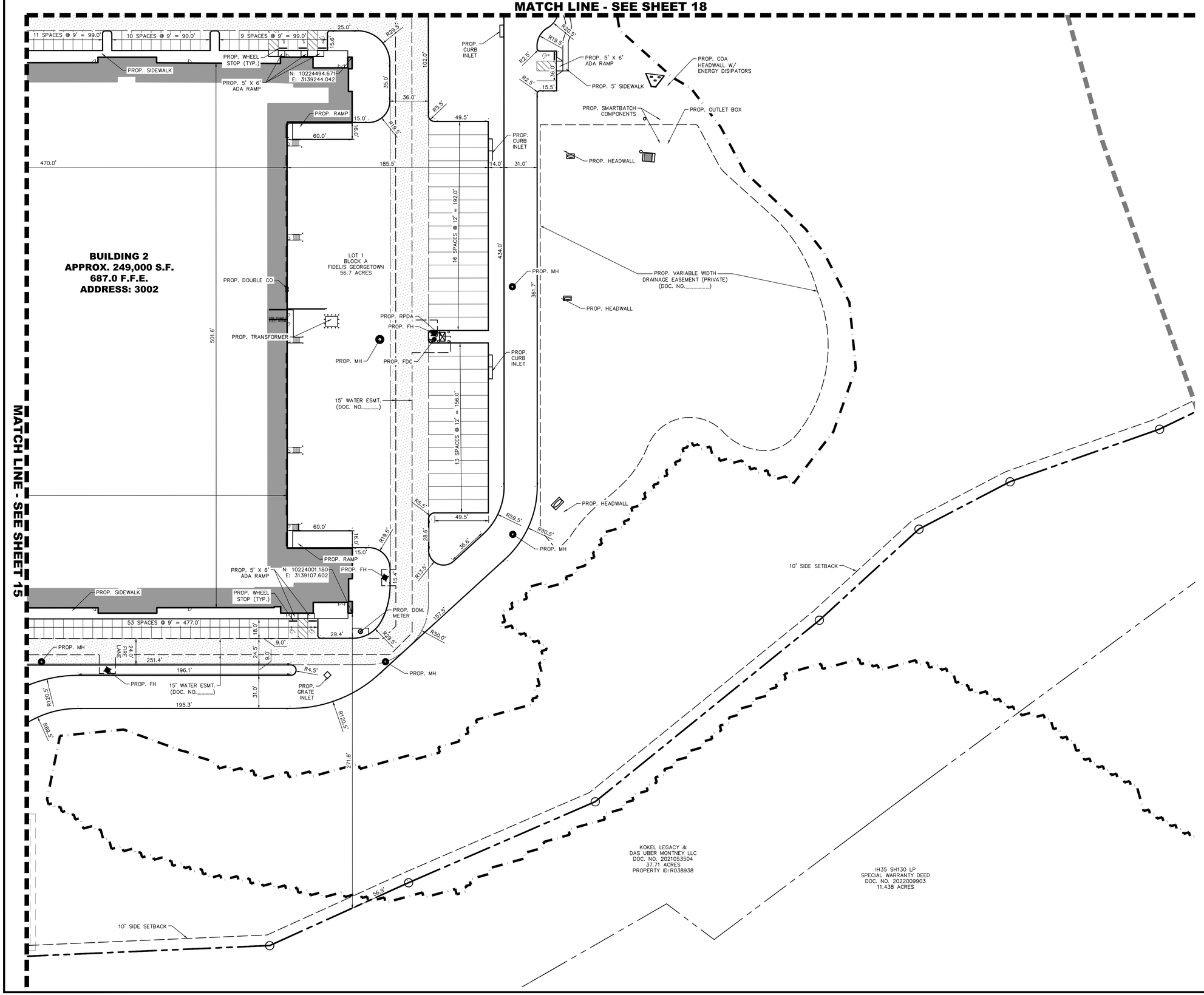
MATCH LINE - SEE SHEET 18

MATCH LINE - SEE SHEET 15



0 20 40 80 120

GRAPHIC SCALE IN FEET
1"=40'

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
- IRS (C.M.) CONTROLLING MONUMENT
- PROPERTY LINE
- FENCE
- COORDINATE DESIGNATION
- PROPOSED FENCE
- FIRE LANE
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE
- ADA ACCESSWAY
- PROP. SIDEWALK

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

DIMENSIONAL CONTROL PLAN SHEET 2 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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16

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WILLIAMSON COUNTY
DEED WITHOUT WARRANTY
DOC. NO. 2011066293
32.703 ACRES
PROPERTY ID: R314461

STATE OF TEXAS
SPECIAL WARRANTY DEED
DOC. NO. 2004086845
2.683 ACRES

INTERSTATE HWY 35 NB

FRONTAGE ROAD

10' SIDE SETBACK

LOT 1
BLOCK A
FIDELIS GEORGETOWN
56.7 ACRES

15' WATER ESMT.
(DOC. NO._____)

BUILDING 3
APPROX. 142,100 S.F.
678.0 F.F.E.
ADDRESS: 3004

N: 10225052.376
E: 3138733.936

N: 10224847.172
E: 3138664.922

PROP. DOM. METER

PROP. FH

PROP. RAMP

PROP. GRATE INLET

PROP. WHEEL STOP (TYP.)

PROP. 5' X 6' ADA RAMP

PROP. SIDEWALK

PROP. CROSSWALK STRIPPING

PROP. CURB RAMP

PROP. CURB INLET

PROP. 5' SIDEWALK

PROP. 6' SIDEWALK

PROP. ADA RAMP

PROP. IRR METER & RPZ

PROP. HEADWALL W/ S.E.T.

PROP. CURB RAMP

25' FRONT SETBACK

30.0' FIRE LANE

40.0' FIRE LANE

7 SPACES @ 9' = 63.0'

7 SPACES @ 9' = 63.0'

24 SPACES @ 9' = 216.0'

7 SPACES @ 9' = 63.0'

3 SPACES @ 9' =27.0'

23 SPACES @ 9' = 234.0'

5 SPACES @ 9' = 45.0'

4 SPACES @ 9' = 36.0'

16 SPACES @ 9' = 144.0'

11 SPACES @ 9' = 99.0'

11 SPACES @ 9' = 99.0'

10 SPACES @ 9' = 90.0'

7 SPACES @ 9' = 63.0'

13 SPACES @ 12' = 156.0'

MATCH LINE - SEE SHEET 18

MATCH LINE - SEE SHEET 15

XXXX-XX-SDP

0 20 40 80 120
GRAPHIC SCALE IN FEET
1"=40'

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 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
- (C.M.) CONTROLLING MONUMENT
- PROPERTY LINE
- FENCE
- COORDINATE DESIGNATION
- PROPOSED FENCE
- FIRE LANE
- FEMA FLOOD PLAIN
- 100 YEAR FLOOD PLAIN
- CREEK CREEK CENTERLINE
- ADA ACCESSWAY
- PROP. SIDEWALK

Pacheco Koch
a Westwood company
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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

DIMENSIONAL CONTROL PLAN SHEET 3 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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SHEET NO.
17

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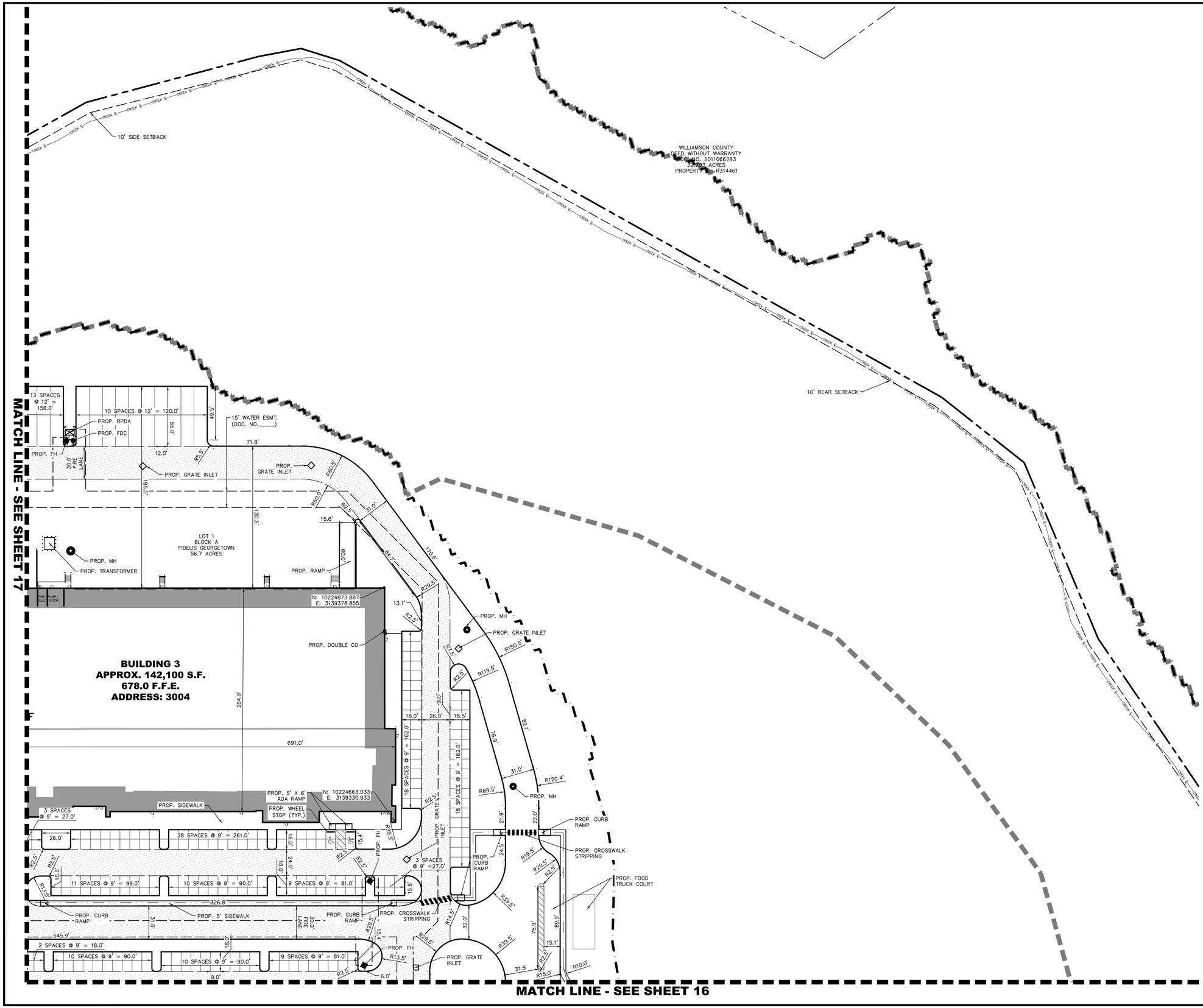

0 20 40 80 120

GRAPHIC SCALE IN FEET
1"=40'

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
- IRS (C.M.) CONTROLLING MONUMENT
- PROPERTY LINE
- FENCE
- COORDINATE DESIGNATION
- PROPOSED FENCE
- FIRE LANE
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE
- ADA ACCESSWAY
- PROP. SIDEWALK

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BERRY CREEK BUSINESS PARK
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GEORGETOWN, TEXAS, 78626

DIMENSIONAL CONTROL PLAN SHEET 4 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
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SHEET NO.
18

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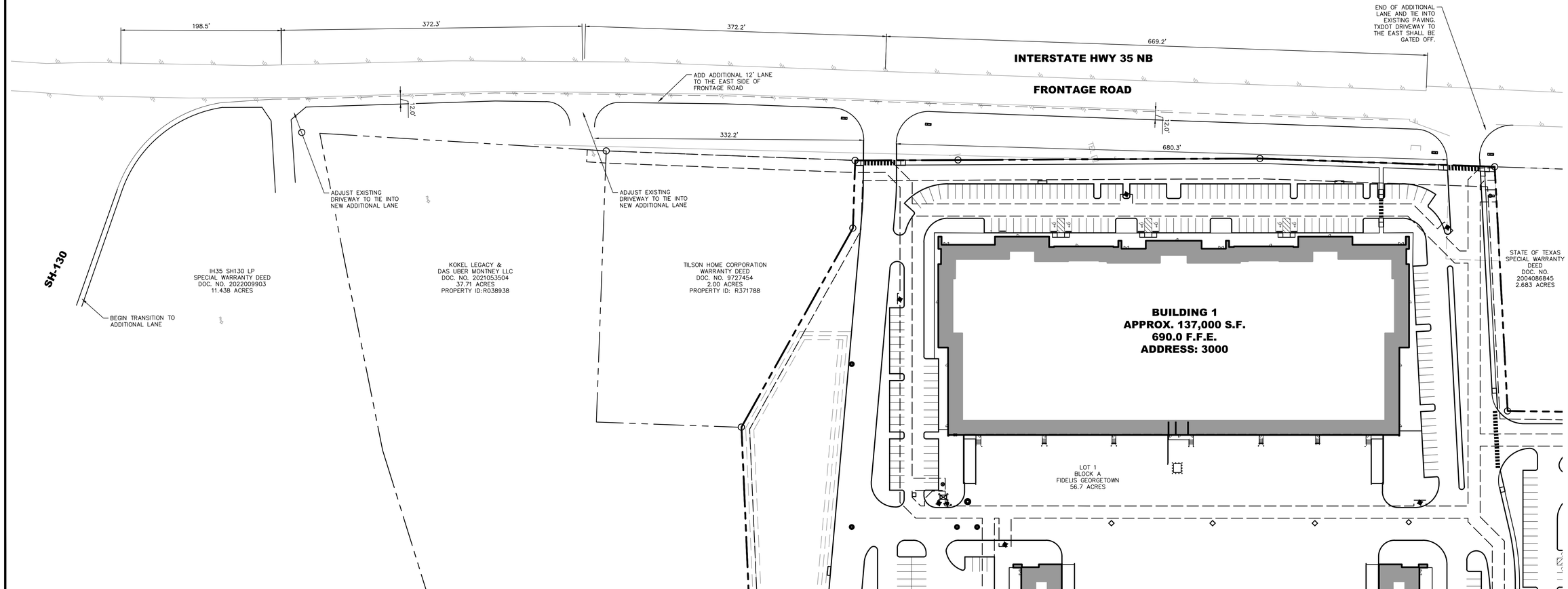

0 30 60 120 180

GRAPHIC SCALE IN FEET
1"=60'

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
- IRS (C.M.) CONTROLLING MONUMENT
- PROPERTY LINE
- FENCE
- COORDINATE DESIGNATION
- PROPOSED FENCE
- FIRE LANE
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE
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- PROP. SIDEWALK

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3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

DECEL LANE PLAN SHEET

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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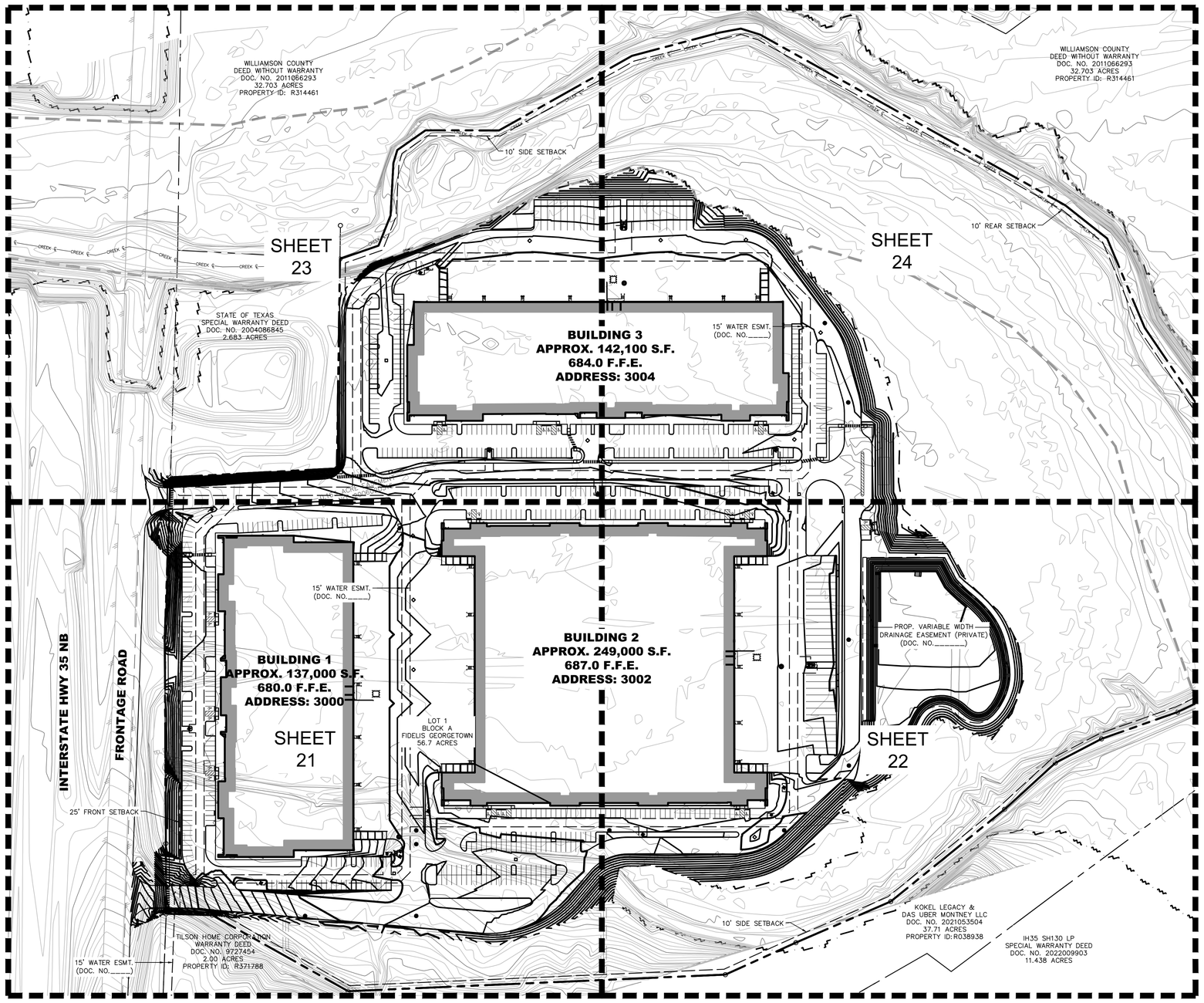

0 50 100 200 300

GRAPHIC SCALE IN FEET
1"=100'

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
613	EXIST CONTOUR
612.39	EXIST SPOT ELEVATION
TC 612.39	EXIST TOP OF CURB ELEVATION
G 611.89	EXIST GUTTER ELEVATION
400	PROPOSED CONTOUR
TC 614.50	PROPOSED TOP OF CURB ELEVATION
G 614.00	PROPOSED GUTTER ELEVATION
EL 614.25	PROPOSED SPOT ELEVATION
TW 620.50	PROPOSED TOP OF WALL ELEVATION
EL 614.00	PROPOSED GROUND ELEVATION AT BOTTOM OF WALL
M.G.	MATCH EXISTING GRADE
	PROPOSED SWALE
	PROPOSED GRADE BREAK
	PROPOSED DRAINAGE FLOW DIRECTION
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
CREEK	CREEK CENTERLINE

GRADING & DRAINAGE GENERAL NOTES

1. REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS REGARDING FILL COMPACTION AND MOISTURE CONTENT.
2. UNLESS NOTED, ALL FILL IS TO BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT. FILL TO BE PLACED IN MAXIMUM LIFTS OF 6 INCHES.
3. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS OTHERWISE NOTED) AND A CROSS SLOPE NO GREATER THAN 2%.
4. GRADING OF ALL HANDICAPPED SPACES AND ROUTES TO CONFORM TO FEDERAL, STATE, AND LOCAL GUIDELINES.
5. ALL PROPOSED AND EXISTING GRADES IN NON-PAVED AREAS ARE "FINISHED GRADE" (i.e. IN LANDSCAPE BEDS, TOP OF MULCH/BEDDING MATERIAL).
6. UNLESS NOTED, STORM DRAIN LINES SHALL BE OF THE FOLLOWING MATERIALS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS:
   - 6.A. RCP C-76, CLASS III
   - 6.B. ADS N-12
   - 6.C. HANCOR Hi-Q
   - 6.D. CONTECH ALUMINIZED ULTRA FLOW
7. UNLESS NOTED, GRATE INLETS TO BE "FORTERRA PIPE AND PRECAST" CATCH BASIN SIZED AS SHOWN, OR APPROVED EQUAL.
8. FINAL PAVING, CURB, AND SIDEWALK ELEVATIONS WILL BE PLACED AT PLUS OR MINUS 0.03 FOOT.
9. REFER TO LANDSCAPE SPECIFICATIONS FOR SEEDING AND SODDING REQUIREMENTS.
10. ANY CONCRETE, ROCK, OR MATERIAL DEEMED BY THE ENGINEER TO BE UNSUITABLE FOR SUBGRADE SHALL BE DISPOSED OF OFFSITE AT CONTRACTOR'S EXPENSE.
11. 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.
12. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
13. A ROUND MANHOLE COVER MEETING CITY SPECIFICATIONS SHALL BE PLACED IN ALL INLET TOPS NEAR THE OUTLET PIPE.
14. ALL CONCRETE FOR INLETS AND DRAINAGE STRUCTURES SHALL CONFORM TO NCTCOG ITEM 702.2.4, CLASS "A" (3000 PSI) UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN STANDARD CITY SPECIFICATIONS.
15. CRUSHED STONE BEDDING OR APPROVED EQUAL SHALL BE PROVIDED BY THE CONTRACTOR WHEN ROCK IS ENCOUNTERED IN TRENCHES. THERE SHALL BE NO ADDITIONAL PAY ITEM FOR CRUSHED STONE BEDDING.
16. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.

XXXX-XX-SDP

Pacheco Koch
a Westwood company
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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

OVERALL GRADING PLAN

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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SHEET NO.
20

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MATCH LINE - SEE SHEET 23

MATCH LINE - SEE SHEET 22

INTERSTATE HWY 35 NB

FRONTAGE ROAD

FF=690.00

FF=687.00

FOR ADA RAMP GRADING SEE DETAIL 1 THIS SHEET

FOR ADA RAMP GRADING SEE DETAIL 3 THIS SHEET

FOR ADA RAMP GRADING SEE DETAIL 2 THIS SHEET

LOT 1
BLOCK A
FIDELIS GEORGETOWN
56.7 ACRES

BUILDING 1
APPROX. 137,000 S.F.
690.0 F.F.E.
ADDRESS: 3000

BUILDING 2
APPROX. 249,000 S.F.
687.0 F.F.E.
ADDRESS: 3002

25' FRONT SETBACK

10' SIDE SETBACK

15' WATER ESMT. (DOC. NO._____)

60.0'

TILSON HOME CORPORATION
WARRANTY DEED
DOC. NO. 9727454
2.00 ACRES
PROPERTY ID: R371788

KOKEL LEGACY &
DAS UBER MONTNEY LLC
DOC. NO. 2021053504
37.71 ACRES
PROPERTY ID:R038938

EL ???

EL 706.86

EL 705.67

EL 685.031

EL 682.03

EL 682.00

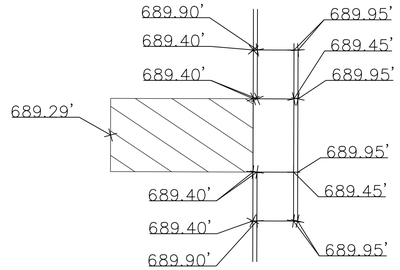
EL 682.02

EL 683.60

0 20 40 80 120
GRAPHIC SCALE IN FEET
1"=40'

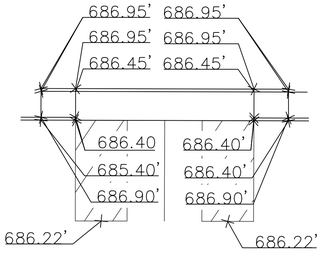
LEGEND

BOLLARD	OVERHEAD UTILITY LINE
ELECTRIC METER	EXIST CONTOUR
POWER POLE	EXIST SPOT ELEVATION
LIGHT STANDARD	EXIST TOP OF CURB ELEVATION
WATER METER	EXIST GUTTER ELEVATION
WATER VALVE	PROPOSED CONTOUR
IRRIGATION CONTROL VALVE	PROPOSED TOP OF CURB ELEVATION
FIRE HYDRANT	PROPOSED GUTTER ELEVATION
CLEANOUT	PROPOSED SPOT ELEVATION
MANHOLE	PROPOSED TOP OF WALL ELEVATION
TRAFFIC SIGNAL CONTROL	PROPOSED GROUND ELEVATION AT BOTTOM OF WALL
TRAFFIC SIGNAL POLE	MATCH EXISTING GRADE
TELEPHONE BOX	PROPOSED SWALE
FLOOD LIGHT	PROPOSED GRADE BREAK
FLAG POLE	PROPOSED DRAINAGE FLOW DIRECTION
TRAFFIC SIGN	FEMA FLOODWAY
1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET	FEMA 100 YEAR FLOODPLAIN
CONTROLLING MONUMENT	CREEK CENTERLINE
PROPERTY LINE	
FENCE	



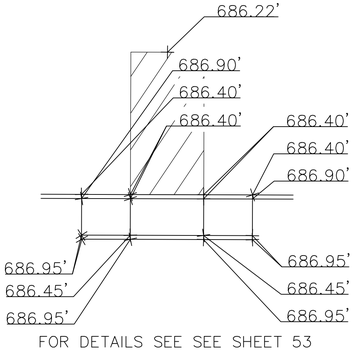
FOR DETAILS SEE SEE SHEET 53
DETAIL NUMBER 1

1 ADA RAMP BLOWUP
NOT TO SCALE



FOR DETAILS SEE SEE SHEET 53
DETAIL NUMBER 1

2 ADA RAMP BLOWUP
NOT TO SCALE



FOR DETAILS SEE SEE SHEET 53
DETAIL NUMBER 1

3 ADA RAMP BLOWUP
NOT TO SCALE

XXXX-XX-SDP

Pacheco Koch
a Westwood company
8701 N. MOPAC EXPY ■ STE. 320 ■ AUSTIN, TX 78759 ■ 512.485.0831
TX REG. ENGINEERING FIRM F-469
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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

GRADING PLAN SHEET 1 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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SHEET NO. 21

JPQUINTANA
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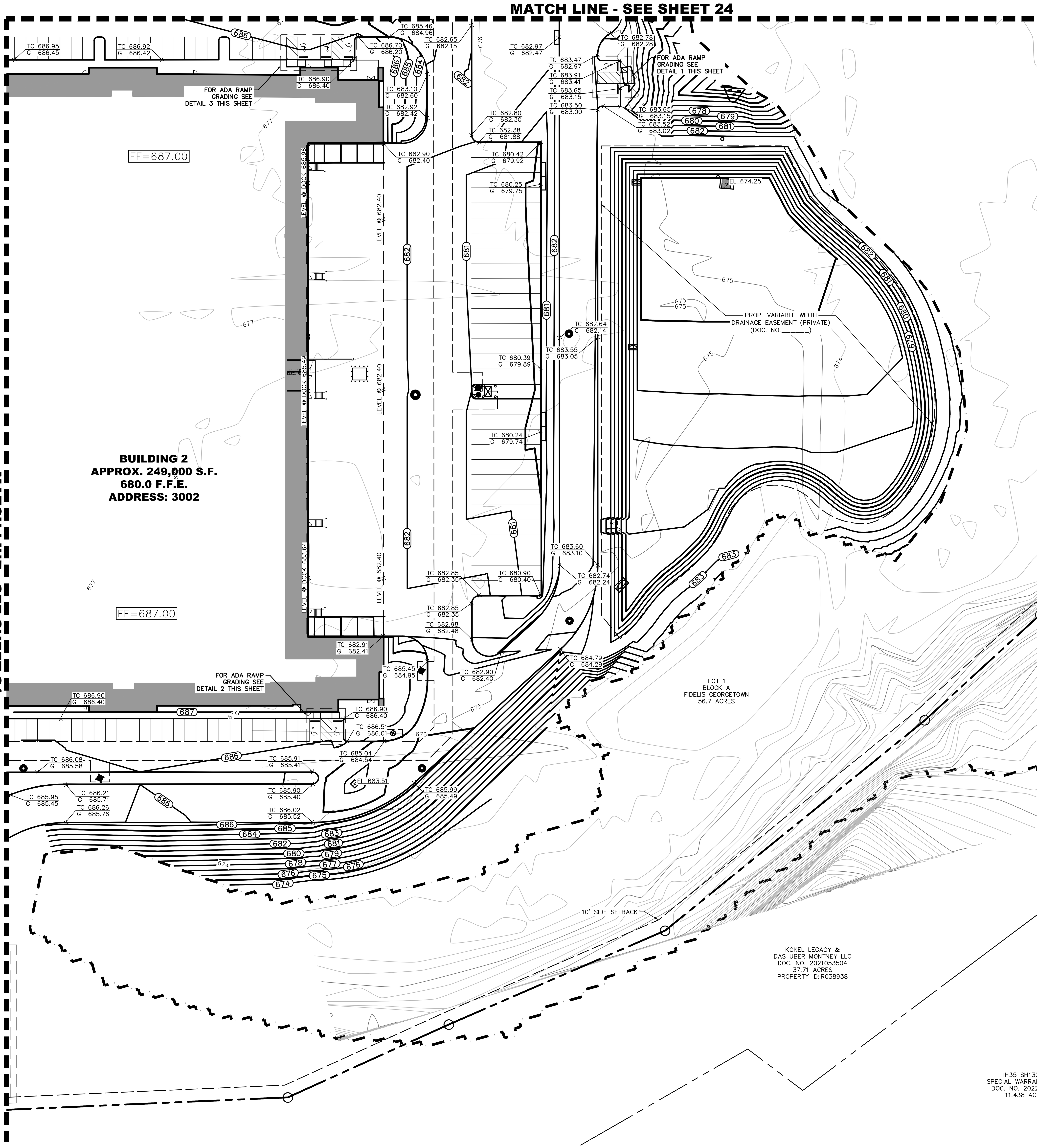
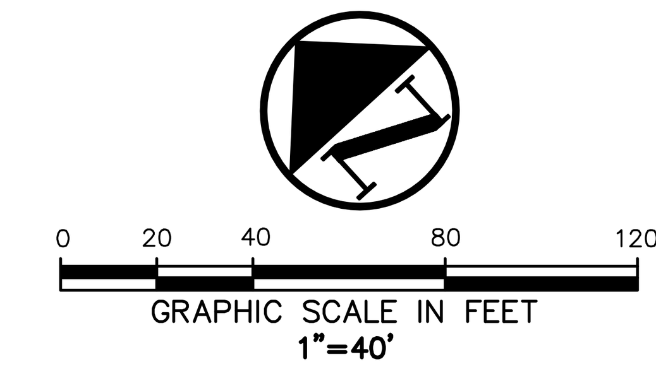
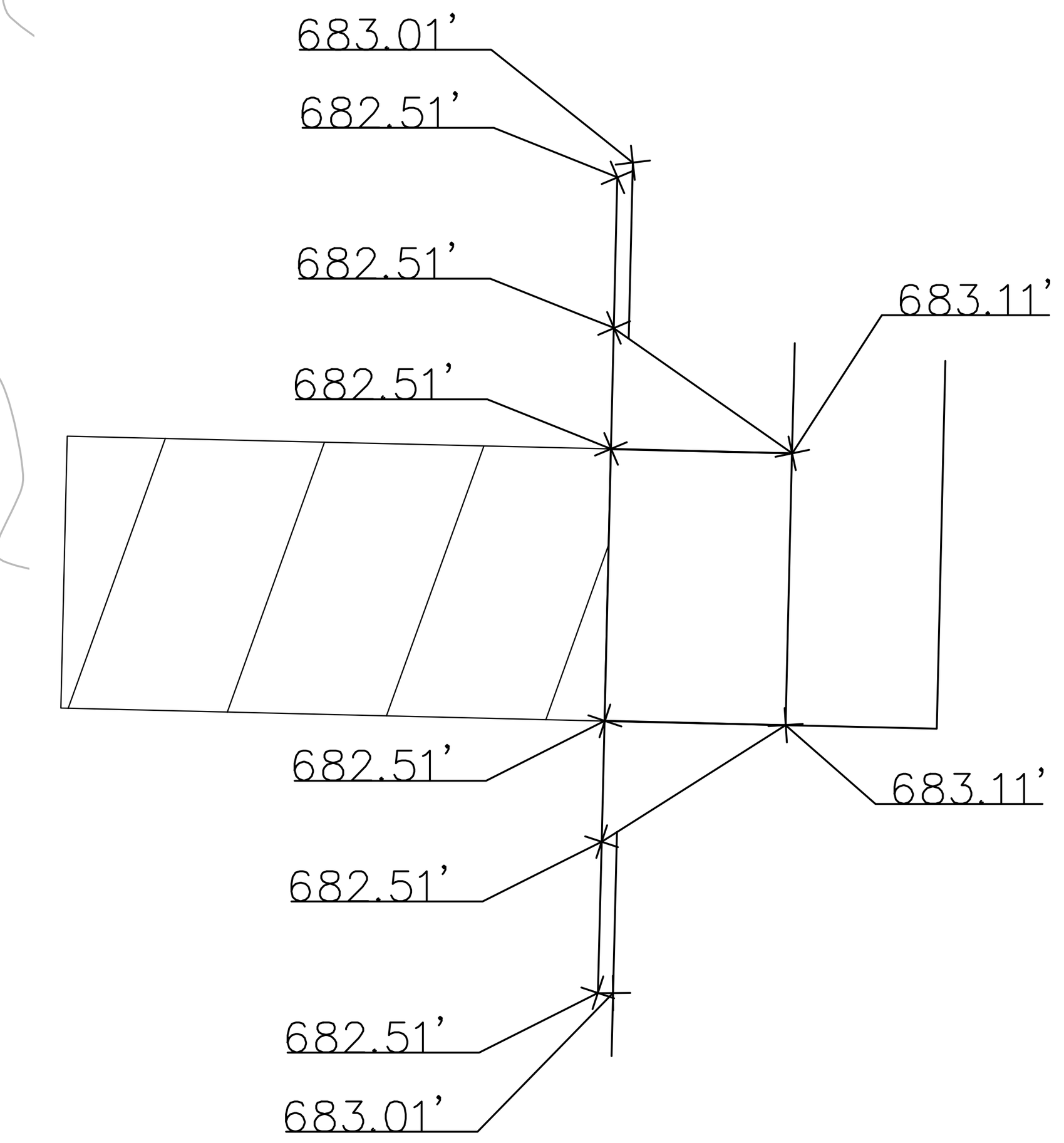
PK-4670-22.125_GRAD.DWG





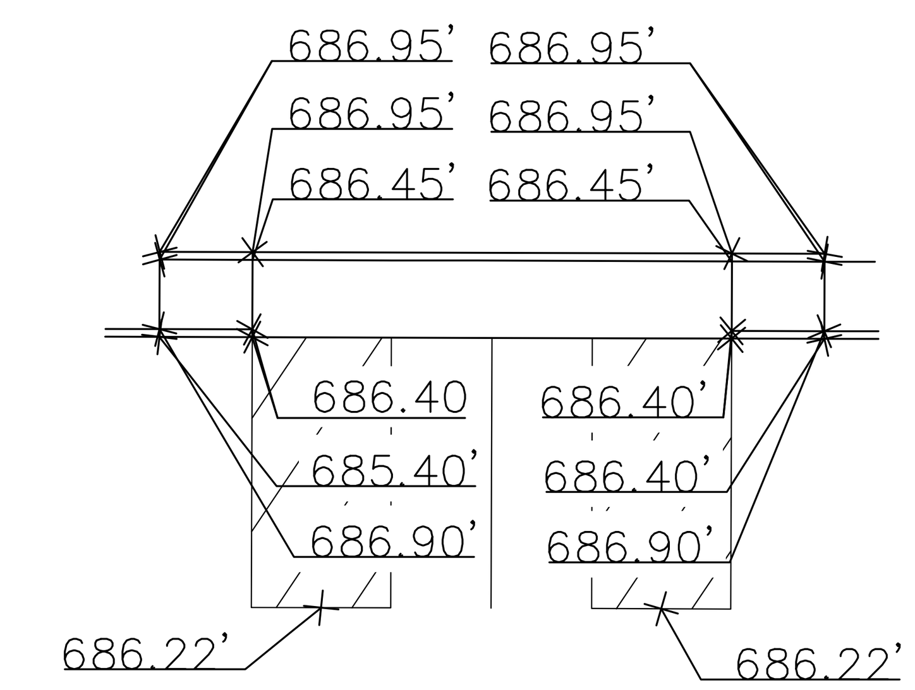
LEGEND

- 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
- OVERHEAD UTILITY LINE
- EXIST CONTOUR
- EXIST SPOT ELEVATION
- EXIST TOP OF CURB ELEVATION
- EXIST GUTTER ELEVATION
- PROPOSED CONTOUR
- TC 614.50 G 614.00 PROPOSED TOP OF CURB ELEVATION / PROPOSED GUTTER ELEVATION
- EL 614.25 PROPOSED SPOT ELEVATION
- TW 620.50 EL 614.00 PROPOSED TOP OF WALL ELEVATION / PROPOSED GROUND ELEVATION AT BOTTOM OF WALL
- M.G. MATCH EXISTING GRADE
- PROPOSED SWALE
- PROPOSED GRADE BREAK
- PROPOSED DRAINAGE FLOW DIRECTION
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE



1 ADA RAMP BLOWUP

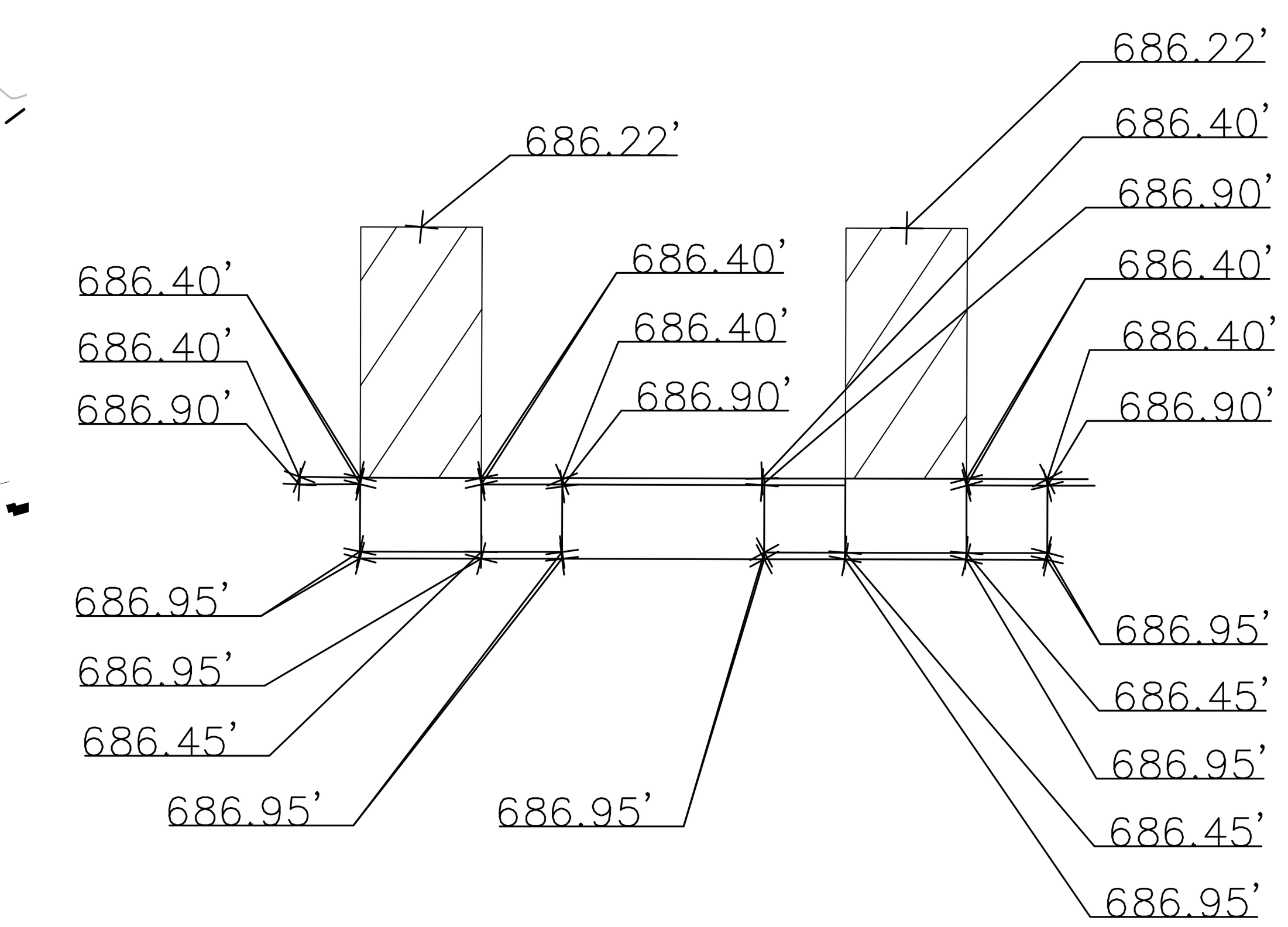
NOT TO SCALE



FOR DETAILS SEE SEE SHEET 53
DETAIL NUMBER 1

2 ADA RAMP BLOWUP

NOT TO SCALE



FOR DETAILS SEE SEE SHEET 53
DETAIL NUMBER 1

3 ADA RAMP BLOWUP

NOT TO SCALE

XXXX-XX-SDP

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

GRADING PLAN SHEET 2 OF 4

STATE OF TEXAS — HOLLIS ANN SCHEFFLER — 136049 — LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION 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.
22

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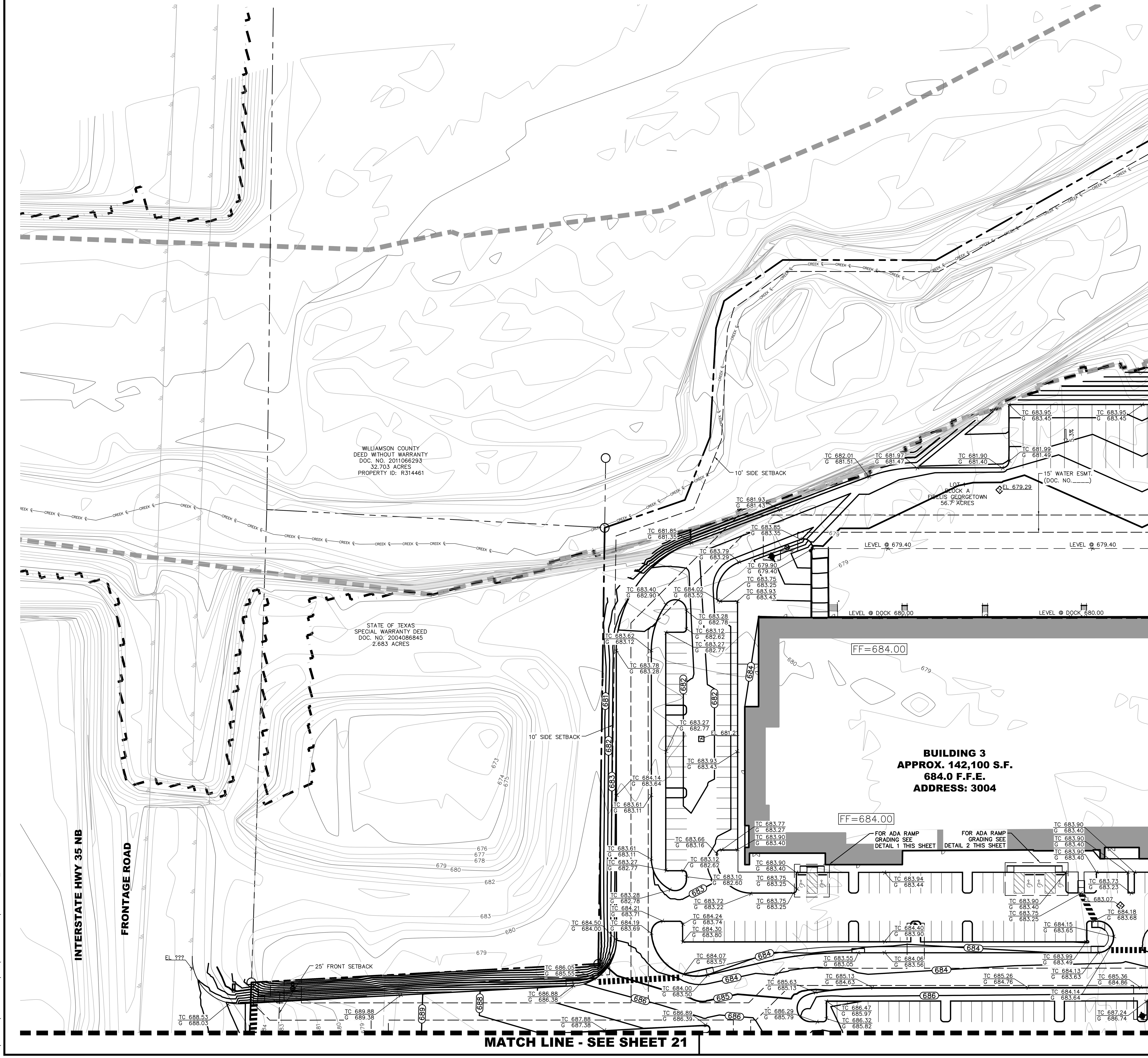
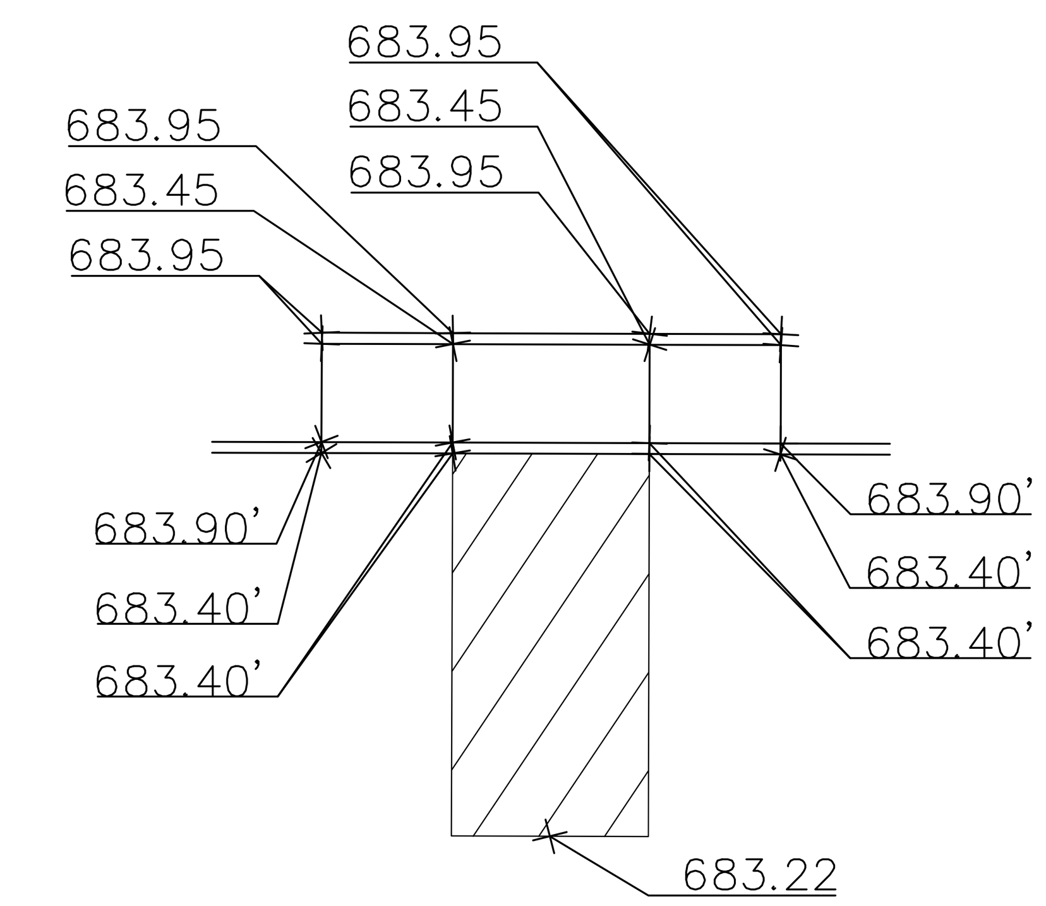
PK-4670-22.125_GRAD.DWG



GRAPHIC SCALE IN FEET
1"=40'
0 20 40 80 120

LEGEND

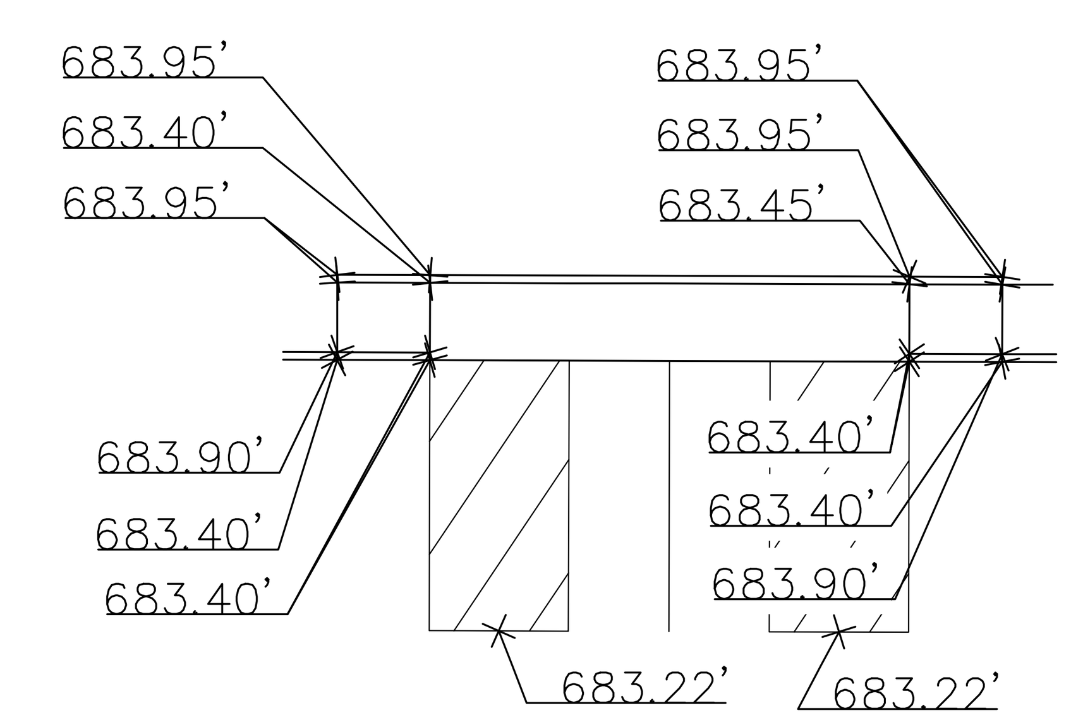
B.	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
WM	WATER METER
WV	WATER VALVE
ICV	IRRIGATION CONTROL VALVE
FH	FIRE HYDRANT
CO	CLEANOUT
MH	MANHOLE
TSC	TRAFFIC SIGNAL CONTROL
TSP	TRAFFIC SIGNAL POLE
TELE	TELEPHONE BOX
	FLOOD LIGHT
FP	FLAG POLE
SIGN	TRAFFIC SIGN
IRS	1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
(C.M.)	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
613	EXIST CONTOUR
612.39	EXIST SPOT ELEVATION
TC 612.39 / G 611.89	EXIST TOP OF CURB ELEVATION / EXIST GUTTER ELEVATION
400	PROPOSED CONTOUR
TC 614.50 / G 614.00	PROPOSED TOP OF CURB ELEVATION / PROPOSED GUTTER ELEVATION
EL 614.25	PROPOSED SPOT ELEVATION
TW 620.50 / EL 614.00	PROPOSED TOP OF WALL ELEVATION / PROPOSED GROUND ELEVATION AT BOTTOM OF WALL
M.G.	MATCH EXISTING GRADE
	PROPOSED SWALE
	PROPOSED GRADE BREAK
	PROPOSED DRAINAGE FLOW DIRECTION
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
CREEK ℄	CREEK CENTERLINE



FOR DETAILS SEE SEE SHEET 53
DETAIL NUMBER 1

1 ADA RAMP BLOWUP

NOT TO SCALE



FOR DETAILS SEE SEE SHEET 53
DETAIL NUMBER 1

2 ADA RAMP BLOWUP

NOT TO SCALE

XXXX-XX-SDP

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

GRADING PLAN SHEET 3 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER
[illegible]

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION 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.
23

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12/19/2022 10:00 AM
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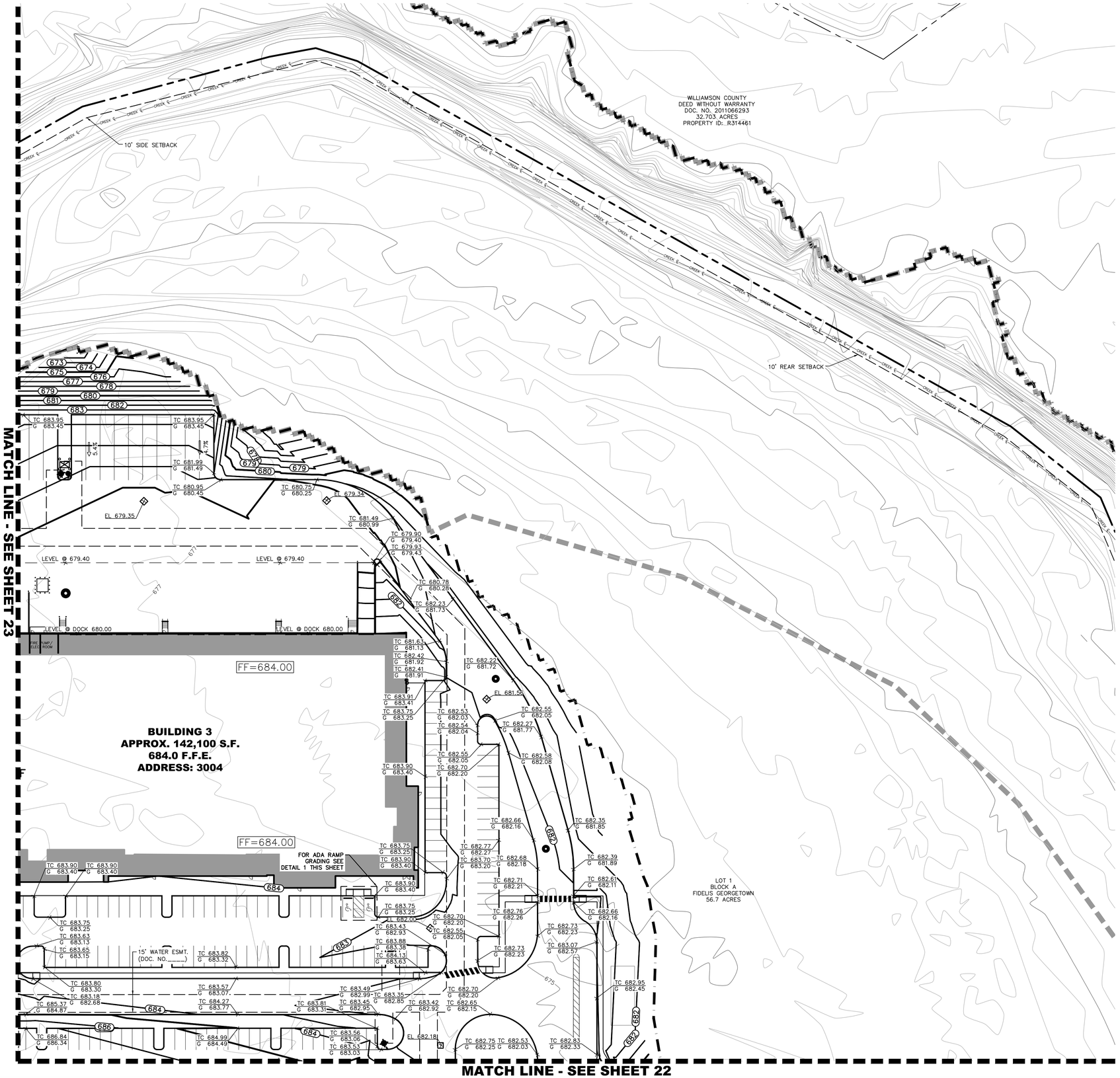
PK-4670-22.125_GRAD.DWG

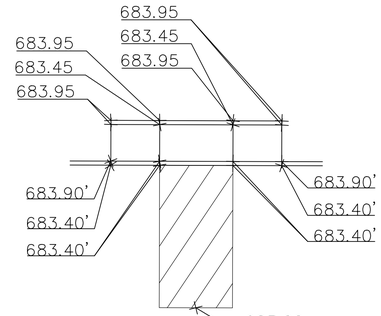


0 20 40 80 120

GRAPHIC SCALE IN FEET
1"=40'

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LT	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
613	EXIST CONTOUR
612.39	EXIST SPOT ELEVATION
TC 612.39 G 611.89	EXIST TOP OF CURB ELEVATION EXIST GUTTER ELEVATION
400	PROPOSED CONTOUR
TC 614.50 G 614.00	PROPOSED TOP OF CURB ELEVATION PROPOSED GUTTER ELEVATION
EL 614.25	PROPOSED SPOT ELEVATION
TW 620.50 EL 614.00	PROPOSED TOP OF WALL ELEVATION PROPOSED GROUND ELEVATION AT BOTTOM OF WALL
M.G.	MATCH EXISTING GRADE
	PROPOSED SWALE
	PROPOSED GRADE BREAK
	PROPOSED DRAINAGE FLOW DIRECTION
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
CREEK ℄	CREEK CENTERLINE



FOR DETAILS SEE SEE SHEET 53
DETAIL NUMBER 1

1 ADA RAMP BLOWUP

NOT TO SCALE

XXXX-XX-SDP

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

GRADING PLAN SHEET 4 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
24

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12/19/2022 10:00 AM
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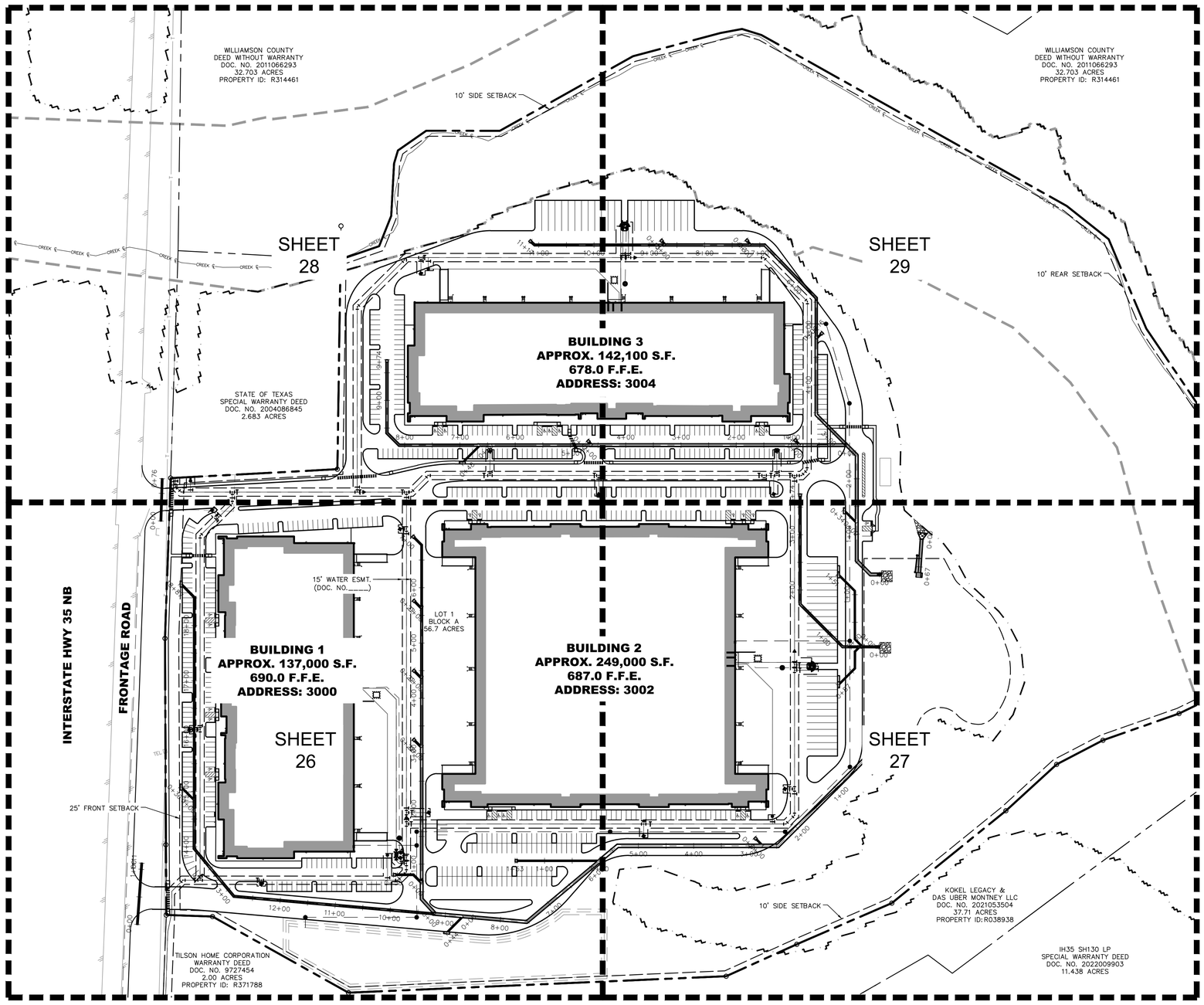
PK-4670-22.125_GRAD.DWG



0 50 100 200 300

GRAPHIC SCALE IN FEET
1"=100'

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
(C.M.)	W/"PACHECO KOCH" CAP SET
	CONTROLLING MONUMENT
	PROPERTY LINE
X	FENCE
OHL	OVERHEAD UTILITY LINE
30' ESMT.	EXISTING STORM LINE
	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
	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

GRADING & DRAINAGE GENERAL NOTES

1. REFER TO GEOTECHNICAL REPORT FOR REQUIREMENTS REGARDING FILL COMPACTION AND MOISTURE CONTENT.
2. UNLESS NOTED, ALL FILL IS TO BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY WITHIN 3% OF OPTIMUM MOISTURE CONTENT. FILL TO BE PLACED IN MAXIMUM LIFTS OF 6 INCHES.
3. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS OTHERWISE NOTED) AND A CROSS SLOPE NO GREATER THAN 2%.
4. GRADING OF ALL HANDICAPPED SPACES AND ROUTES TO CONFORM TO FEDERAL, STATE, AND LOCAL GUIDELINES.
5. ALL PROPOSED AND EXISTING GRADES IN NON-PAVED AREAS ARE "FINISHED GRADE" (i.e. IN LANDSCAPE BEDS, TOP OF MULCH/BEDDING MATERIAL).
6. UNLESS NOTED, STORM DRAIN LINES SHALL BE OF THE FOLLOWING MATERIALS AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS:
   - 6.A. RCP C-76, CLASS III
   - 6.B. ADS N-12
   - 6.C. HANCOR HI-Q
   - 6.D. CONTECH ALUMINIZED ULTRA FLOW
7. UNLESS NOTED, GRATE INLETS TO BE "FORTERRA PIPE AND PRECAST" CATCH BASIN SIZED AS SHOWN, OR APPROVED EQUAL.
8. FINAL PAVING, CURB, AND SIDEWALK ELEVATIONS WILL BE PLACED AT PLUS OR MINUS 0.03 FOOT.
9. REFER TO LANDSCAPE SPECIFICATIONS FOR SEEDING AND SODDING REQUIREMENTS.
10. ANY CONCRETE, ROCK, OR MATERIAL DEEMED BY THE ENGINEER TO BE UNSUITABLE FOR SUBGRADE SHALL BE DISPOSED OF OFFSITE AT CONTRACTOR'S EXPENSE.
11. 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.
12. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
13. A ROUND MANHOLE COVER MEETING CITY SPECIFICATIONS SHALL BE PLACED IN ALL INLET TOPS NEAR THE OUTLET PIPE.
14. ALL CONCRETE FOR INLETS AND DRAINAGE STRUCTURES SHALL CONFORM TO NCTCOG ITEM 702.2.4, CLASS "A" (3000 PSI) UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN STANDARD CITY SPECIFICATIONS.
15. CRUSHED STONE BEDDING OR APPROVED EQUAL SHALL BE PROVIDED BY THE CONTRACTOR WHEN ROCK IS ENCOUNTERED IN TRENCHES. THERE SHALL BE NO ADDITIONAL PAY ITEM FOR CRUSHED STONE BEDDING.
16. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.

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'

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.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

OVERALL STORM SEWER PLAN

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

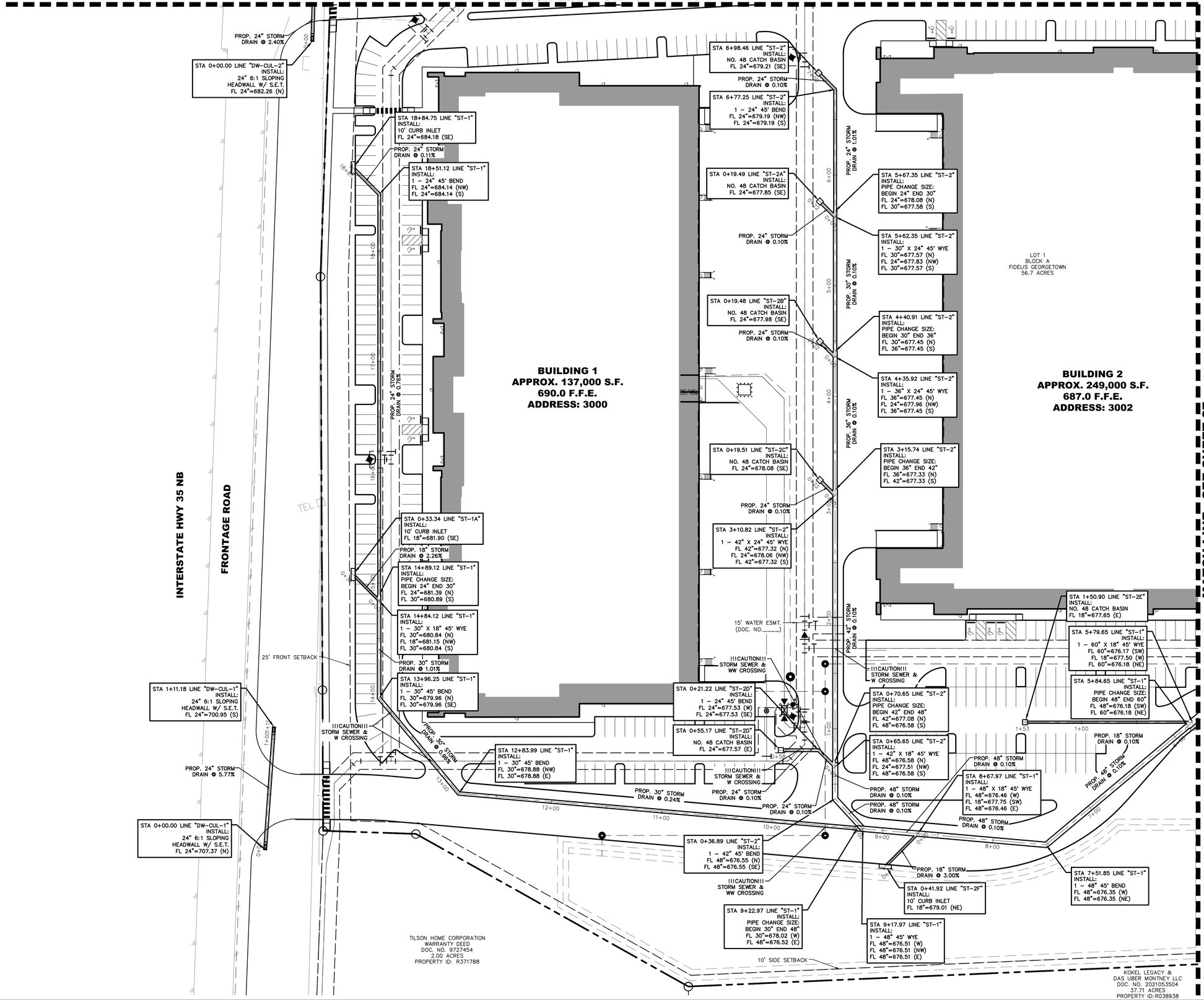
SHEET NO.
25

XXXX-XX-SDP

NBBRUCE
12/19/2022 9:39 AM
M:\DWG-46\4670-22.125\DWG\CIVIL C3D 2018\4670-22.125_STORM.DWG

MATCH LINE - SEE SHEET 28

MATCH LINE - SEE SHEET 27



XXXX-XX-SDP

Pacheco Koch
a Westwood company
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TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

REVISIONS

NO.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

STORM SEWER PLAN SHEET 1 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
26

NBBRUCE
12/19/2022 9:39 AM
M:\DWG-46\4670-22.125\DWG\CIVIL C3D 2018\4670-22.125_STORM.DWG

MATCH LINE - SEE SHEET 29

MATCH LINE - SEE SHEET 26

BUILDING 2
APPROX. 249,000 S.F.
687.0 F.F.E.
ADDRESS: 3002

STA 0+31.32 LINE "ST-4D"
INSTALL:
10' CURB INLET
FL 18"=676.14 (SE)

!!!CAUTION!!!
STORM SEWER &
WW CROSSING

STA 1+23.12 LINE "ST-4"
INSTALL:
1 – 48" X 18" 45° WYE
FL 48"=675.14 (N)
FL 18"=676.10 (NW)
FL 48"=675.14 (S)

PROP. 30" STORM
DRAIN @ 0.36%

STA 1+48.18 LINE "ST-3A"
INSTALL:
20' CURB INLET
FL 18"=677.26 (SE)

PROP. 48" STORM
DRAIN @ 0.10%

PROP. 18" STORM
DRAIN @ 0.10%

!!!CAUTION!!!
STORM SEWER &
WW CROSSING

PROP. 30" STORM
DRAIN @ 0.36%

STA 1+75.97 LINE "ST-3"
INSTALL:
1 – 30" 45° BEND
FL 30"=676.76 (N)
FL 30"=676.76 (SE)

PROP. 30" STORM
DRAIN @ 0.36%

STA 1+66.95 LINE "ST-3"
INSTALL:
1 – 30" 45° BEND
FL 30"=676.37 (E)
FL 30"=676.37 (NW)

PROP. 18" STORM
DRAIN @ 6.79%

PROP. 18" STORM
DRAIN @ 0.10%

STA 0+42.53 LINE "ST-3B"
INSTALL:
1 – 18" 45° BEND
FL 18"=677.15 (SW)
FL 18"=677.15 (N)

STA 0+84.38 LINE "ST-3B"
INSTALL:
20' CURB INLET
FL 18"=677.19 (NE)

PROP. 18" STORM
DRAIN @ 0.10%

15' WATER ESMT.
(DOC. NO._____)

PROP. 48" STORM
DRAIN @ 0.10%

PROP. 48" STORM
DRAIN @ 0.10%

STA 0+54.93 LINE "ST-4"
INSTALL:
1 – 48" 45° BEND
FL 48"=675.07 (N)
FL 48"=675.07 (SE)

STA 0+19.56 LINE "ST-4"
INSTALL:
1 – 48" 45° BEND
FL 48"=675.04 (NW)
FL 48"=675.04 (E)

400 SF
ROCK RIP-RAP

PROP. 48" STORM
DRAIN @ 0.10%

STA 1+06.74 LINE "ST-3A"
INSTALL:
1 – 18" 45° BEND
FL 18"=677.22 (NW)
FL 18"=677.22 (S)

PROP. 18" STORM
DRAIN @ 0.10%

STA 0+31.08 LINE "ST-3"
INSTALL:
1 – 30" X 18" 45° WYE
FL 30"=676.24 (E)
FL 30"=676.24 (W)
FL 18"=676.29 (NW)

400 SF
ROCK RIP-RAP

PROP. 30" STORM
DRAIN @ 0.36%

STA 0+36.26 LINE "ST-3"
INSTALL:
1 –30" X 18" 45° WYE
FL 30"=676.26 (E)
FL 30"=676.26 (W)
FL 18"=676.30 (SW)

STA 0+12.11 LINE "ST-3B"
INSTALL:
1 – 18" 45° BEND
FL 18"=677.12 (NE)
FL 18"=677.12 (S)

!!!CAUTION!!!
STORM SEWER &
WW CROSSING

462 SF
MOTARED RIP-RAP

STA 0+00.00 LINE "ST-1"
INSTALL:
3:1 SLOPING HEADWALL
FL 60"=675.72 (SW)

253 SF
MOTARED RIP-RAP

PROP. 48" STORM
DRAIN @ 0.96%

STA 0+00.00 LINE "POND-OUTFALL-1"
INSTALL:
48" COA HEADWALL W/
ENERGY DISPATORS
(SEE DETAILS)
FL 48"=674.29 (S)

PROPOSED SMART
BATCH COMPONENTS
(SEE SHEETS 34 TO 36)

STA 0+64.85 LINE "POND-OUTFALL-1"
INSTALL:
7'X10' JUNCTION BOX
FL 48"=674.91 (N)

400 SF
ROCK RIP-RAP

STA 0+00.00 LINE "ST-4"
INSTALL:
3:1 SLOPING HEADWALL
FL 48"=675.02 (W)

PROP. VARIABLE WIDTH
DRAINAGE EASEMENT (PRIVATE)
(DOC. NO._____)

STA 0+00.00 LINE "ST-3"
INSTALL:
3:1 SLOPING HEADWALL
FL 30"=676.13 (W)

LOT 1
BLOCK A
FIDELIS GEORGETOWN
56.7 ACRES

10' SIDE SETBACK

PROP. 60" STORM
DRAIN @ 0.04%

STA 5+37.48 LINE "ST-1"
INSTALL:
1 – 60" 45° BEND
FL 60"=676.13 (SW)
FL 60"=676.13 (E)

STA 0+18.77 LINE "ST-2G"
INSTALL:
NO. 48 CATCH BASIN
FL 18"=676.87 (SE)

PROP. 18" STORM
DRAIN @ 0.10%

PROP. 60" STORM
DRAIN @ 0.11%

PROP. 60" STORM
DRAIN @ 0.10%

STA 2+74.55 LINE "ST-1"
INSTALL:
1 – 60" X 18" 45° WYE
FL 60"=675.86 (W)
FL 18"=676.85 (NW)
FL 60"=675.86 (E)

PROP. 60" STORM
DRAIN @ 0.10%

STA 2+47.19 LINE "ST-1"
INSTALL:
1 – 60" 45° BEND
FL 60"=675.83 (W)
FL 60"=675.83 (NE)

KOKEL LEGACY &
DAS UBER MONTNEY LLC
DOC. NO. 2021053504
37.71 ACRES
PROPERTY ID: R038938

IH35 SH130 LP
SPECIAL WARRANTY DEED
DOC. NO. 2022009903
11.438 ACRES

10' SIDE SETBACK

GRAPHIC SCALE IN FEET
1"=40'
0 20 40 80 120

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
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' ESMT.	EXISTING STORM LINE
	UNDERGROUND ELECTRIC LINE
T	UNDERGROUND TELEPHONE LINE
	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

XXXX-XX-SDP

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.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

STORM SEWER PLAN SHEET 2 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISON 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.

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SHEET NO.
27

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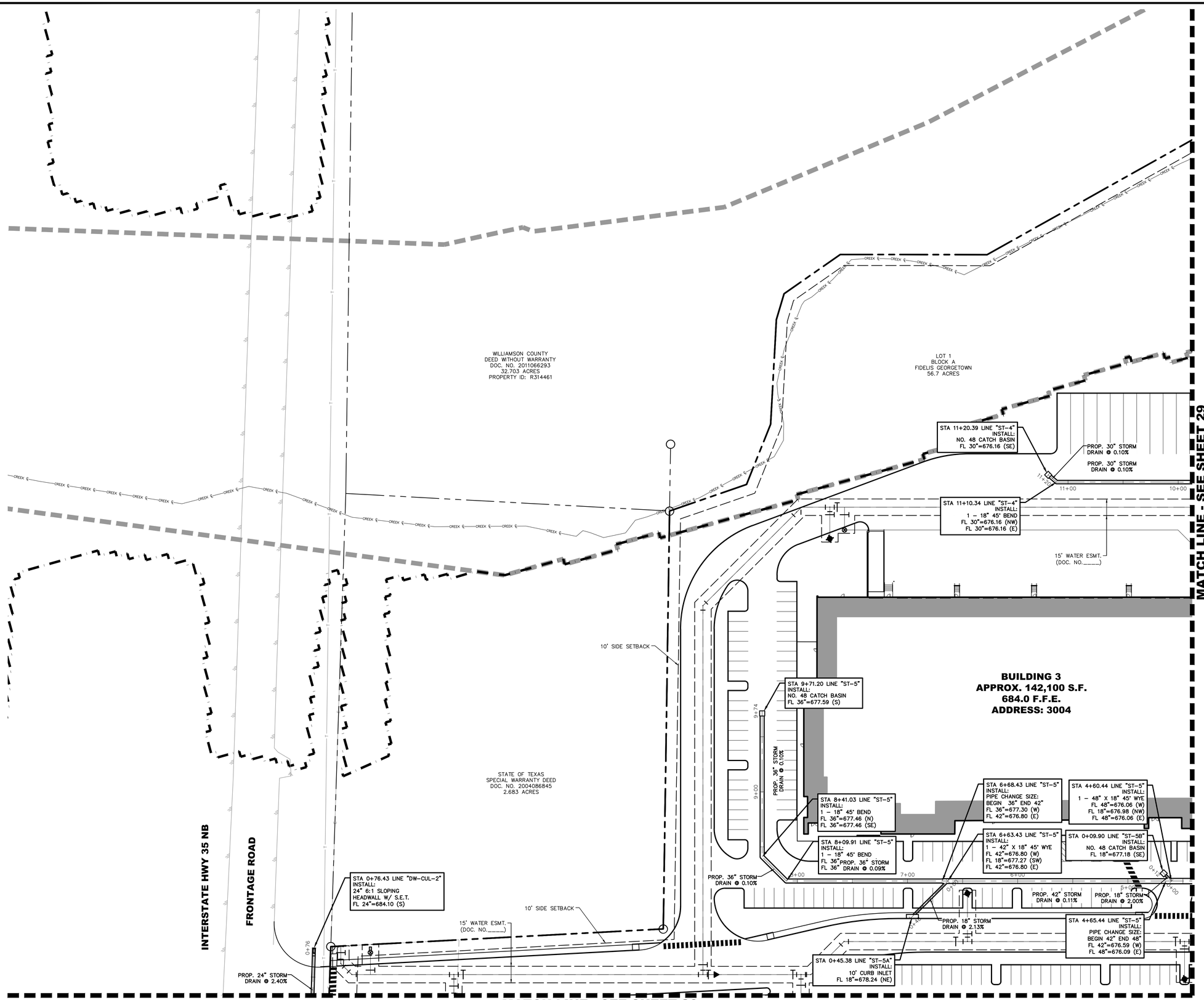

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PK-4670-22.125_STORM.DWG

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3000, 3002, & 3004 N IH 35 NB
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STORM SEWER PLAN SHEET 3 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
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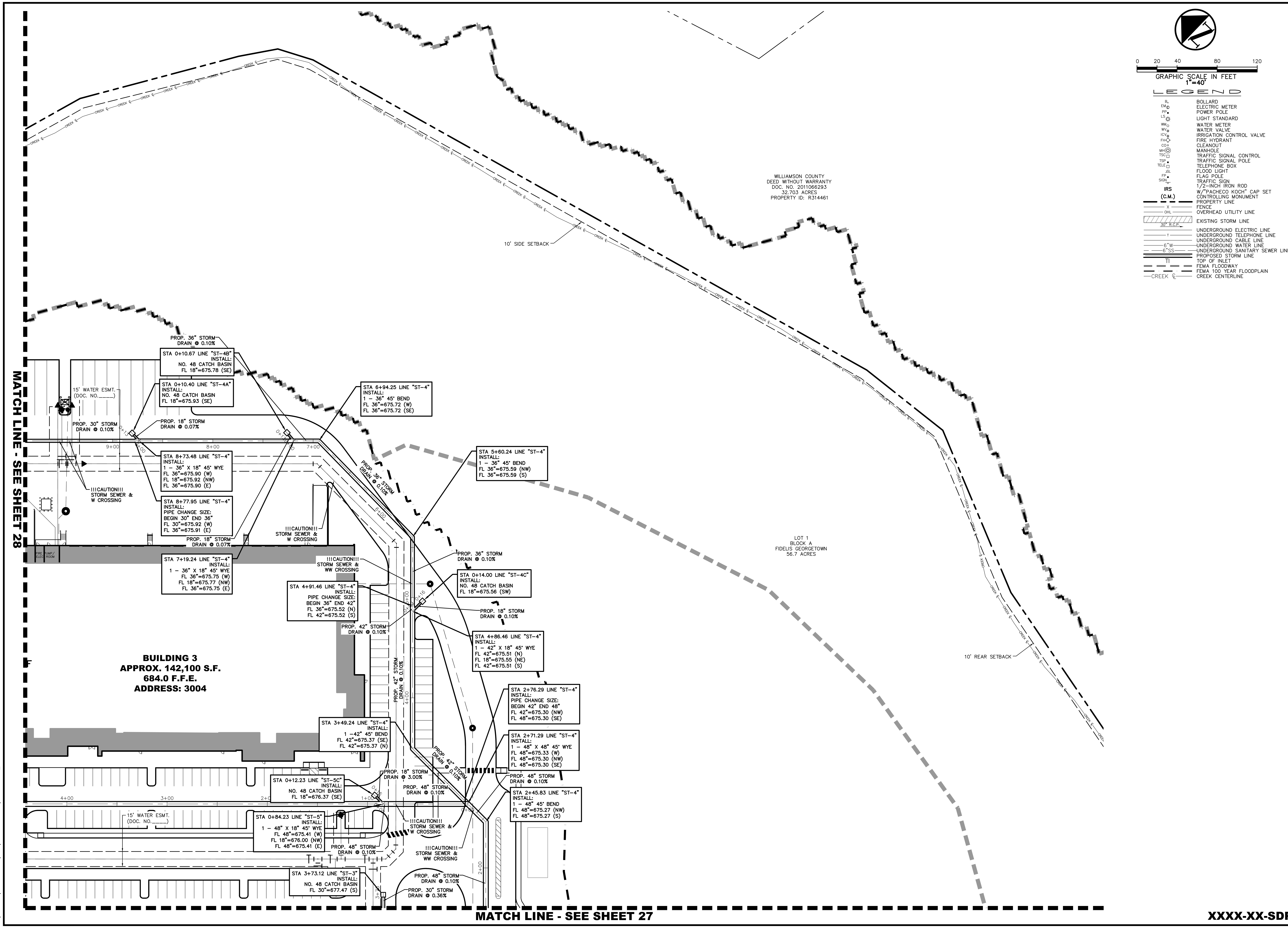
28



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BERRY CREEK BUSINESS PARK
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STORM SEWER PLAN SHEET 4 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
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29

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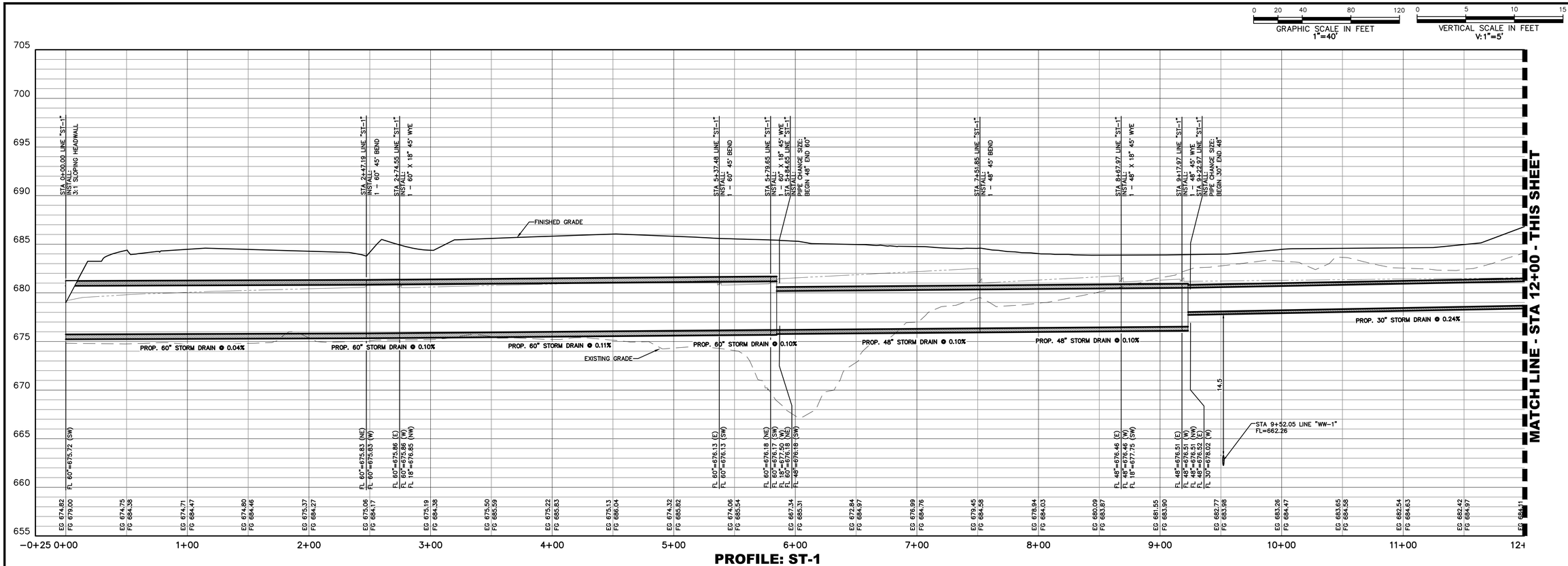

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NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
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STORM SEWER PROFILE SHEET 1 OF 3

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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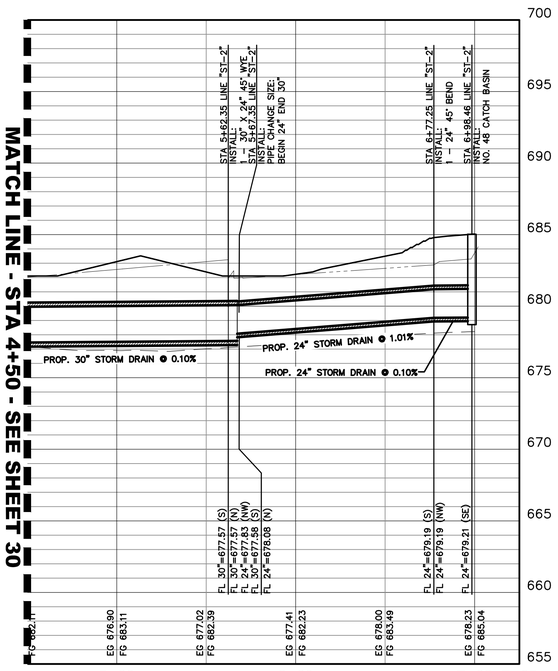
SHEET NO.
30



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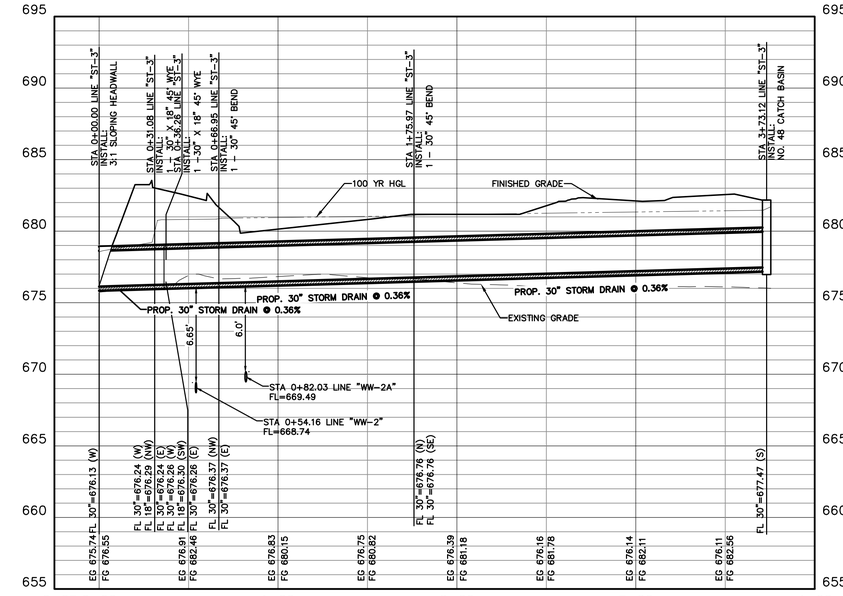

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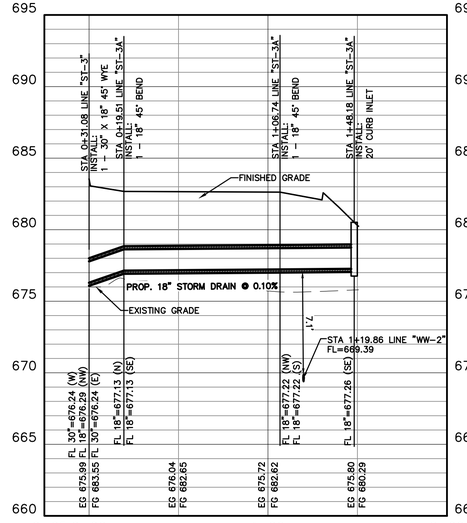

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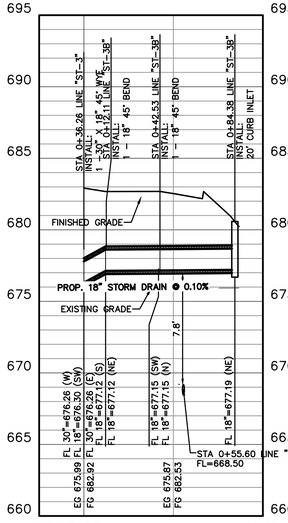

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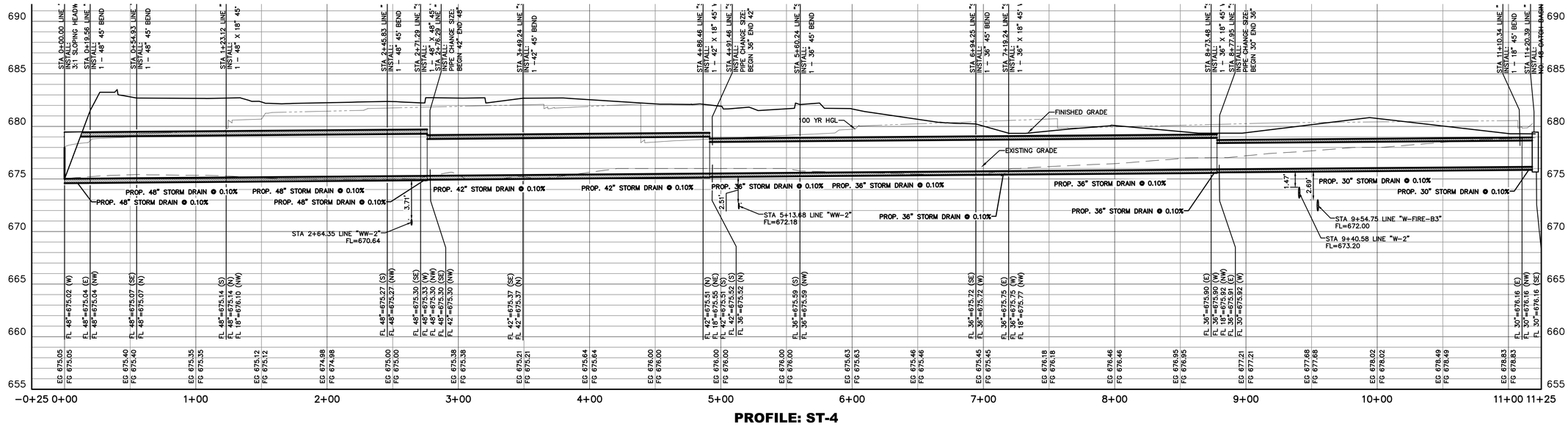

PROFILE: ST-4

0 20 40 80 120
GRAPHIC SCALE IN FEET
1"=40'

0 5 10 15
VERTICAL SCALE IN FEET
V:1"=5'

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NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

STORM SEWER PROFILE SHEET 2 OF 3

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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SHEET NO.
31

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PK-4670-22.125_STORM.DWG

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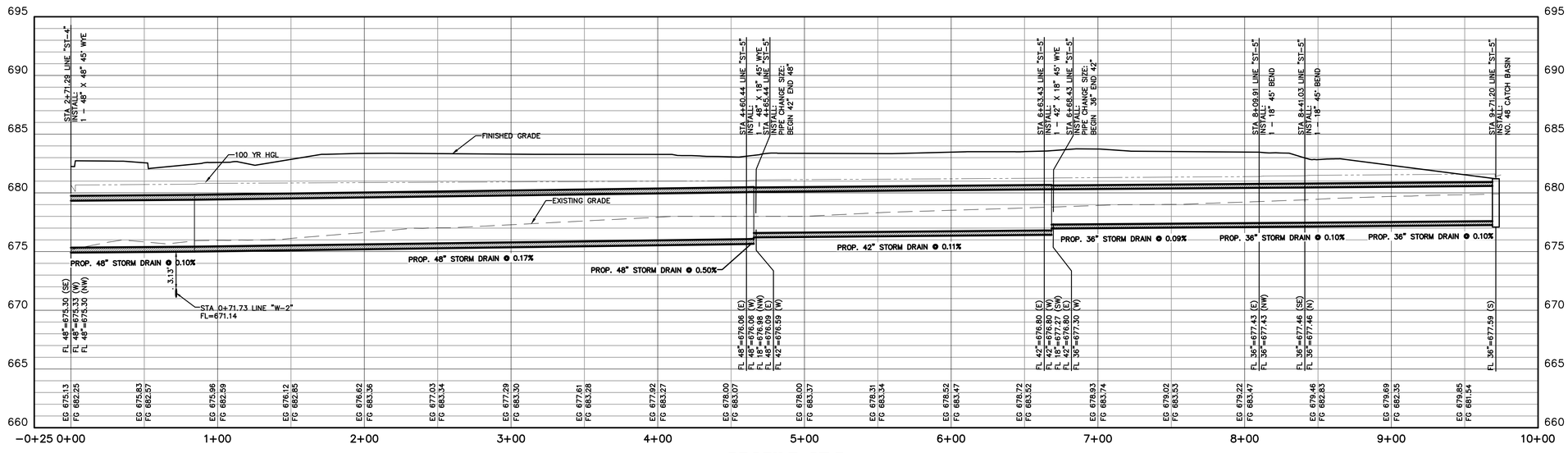
VERTICAL SCALE IN FEET
V: 1"=5'



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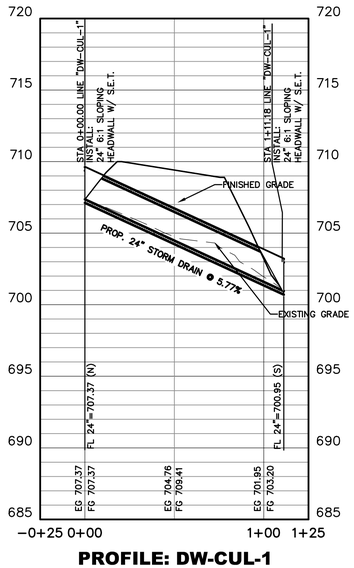

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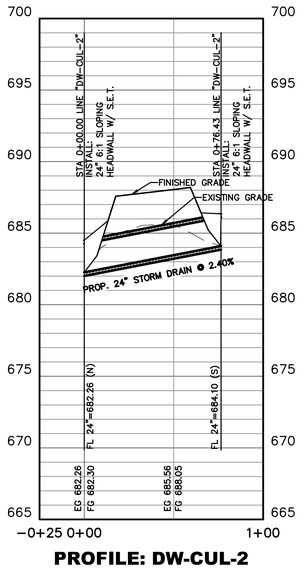

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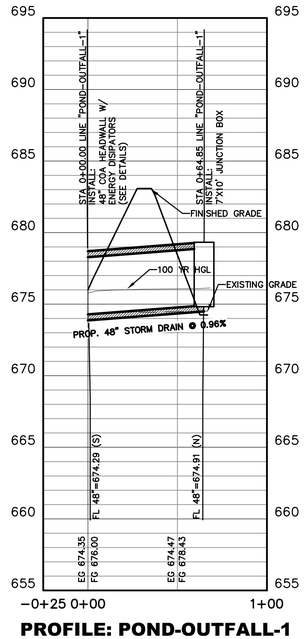

PROFILE: POND-OUTFALL-1

XXXX-XX-SDP

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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

STORM SEWER PROFILE SHEET 3 OF 3

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL
ENGINEER

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SHEET NO.
32

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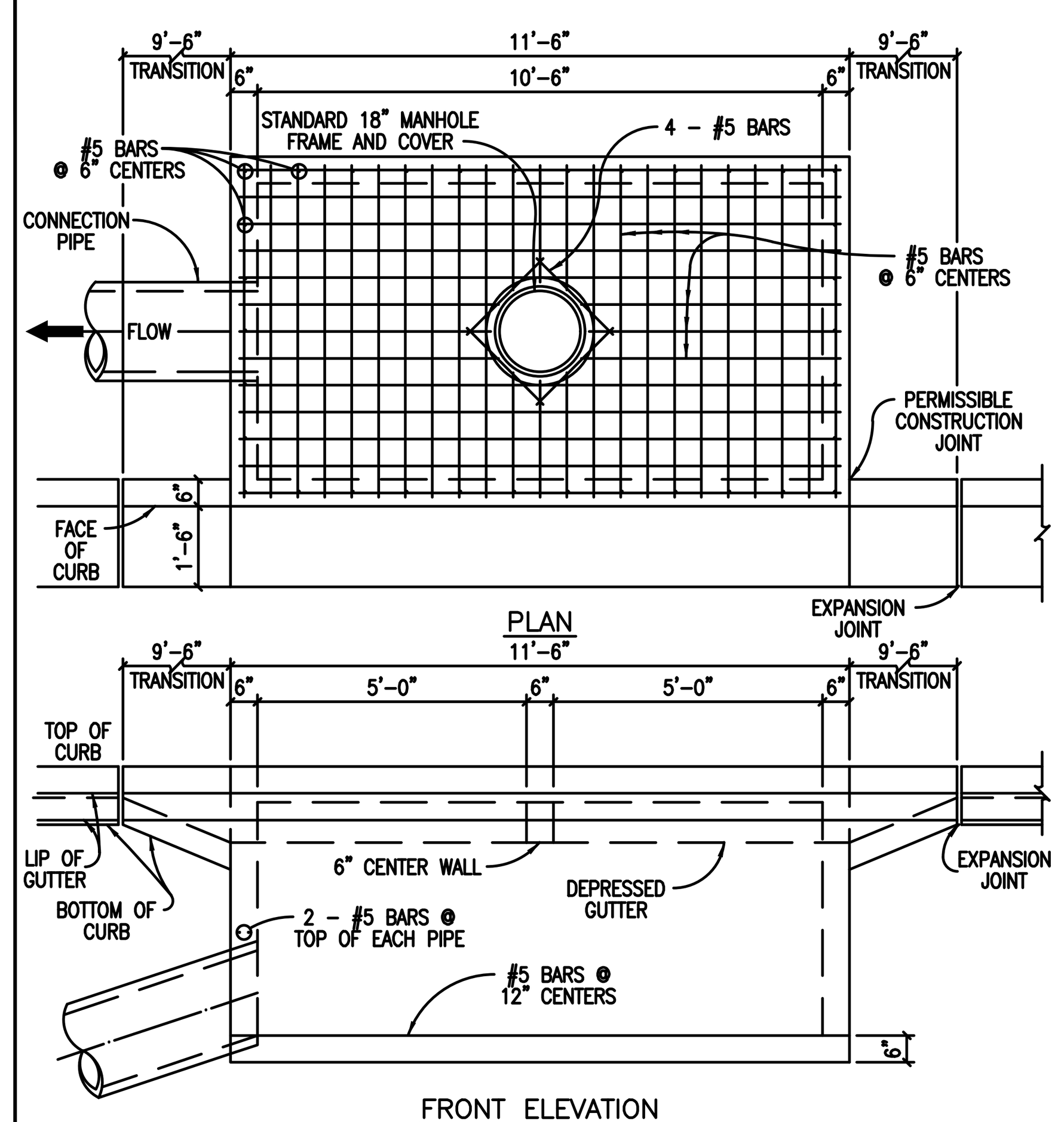
PK-4670-22.125_STORM.DWG

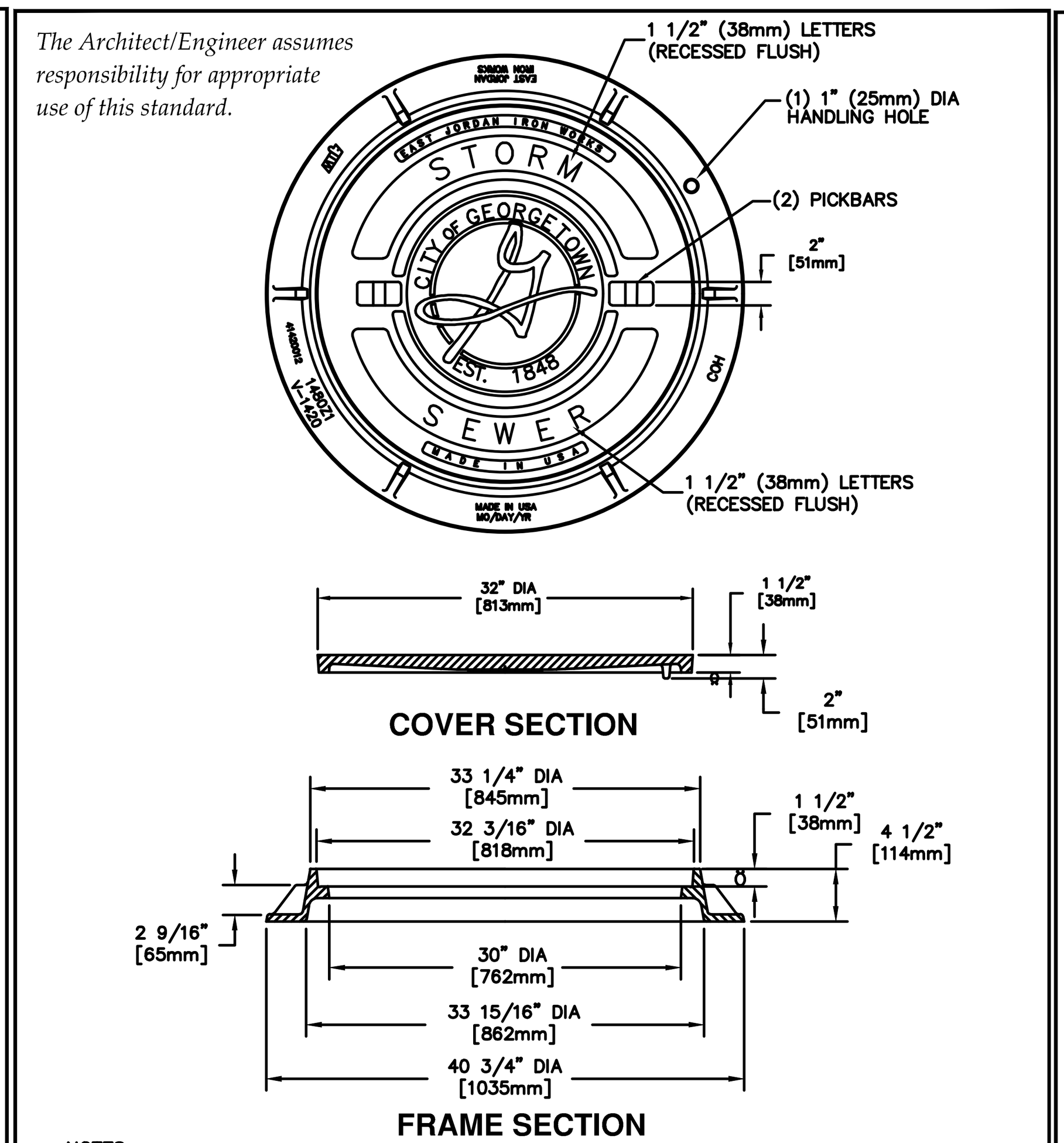


NOTES:
1. ALL CONCRETE SHALL BE CLASS "A" 3,000 PSI CONCRETE.
2. STORM SEWER PIPE MATERIAL TO BE R.C.P. (CLASS III) UNLESS OTHERWISE APPROVED BY THE CITY OF GEORGETOWN.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
CURB INLET DETAIL
SD09
NTS 1/2003 MRS TRB

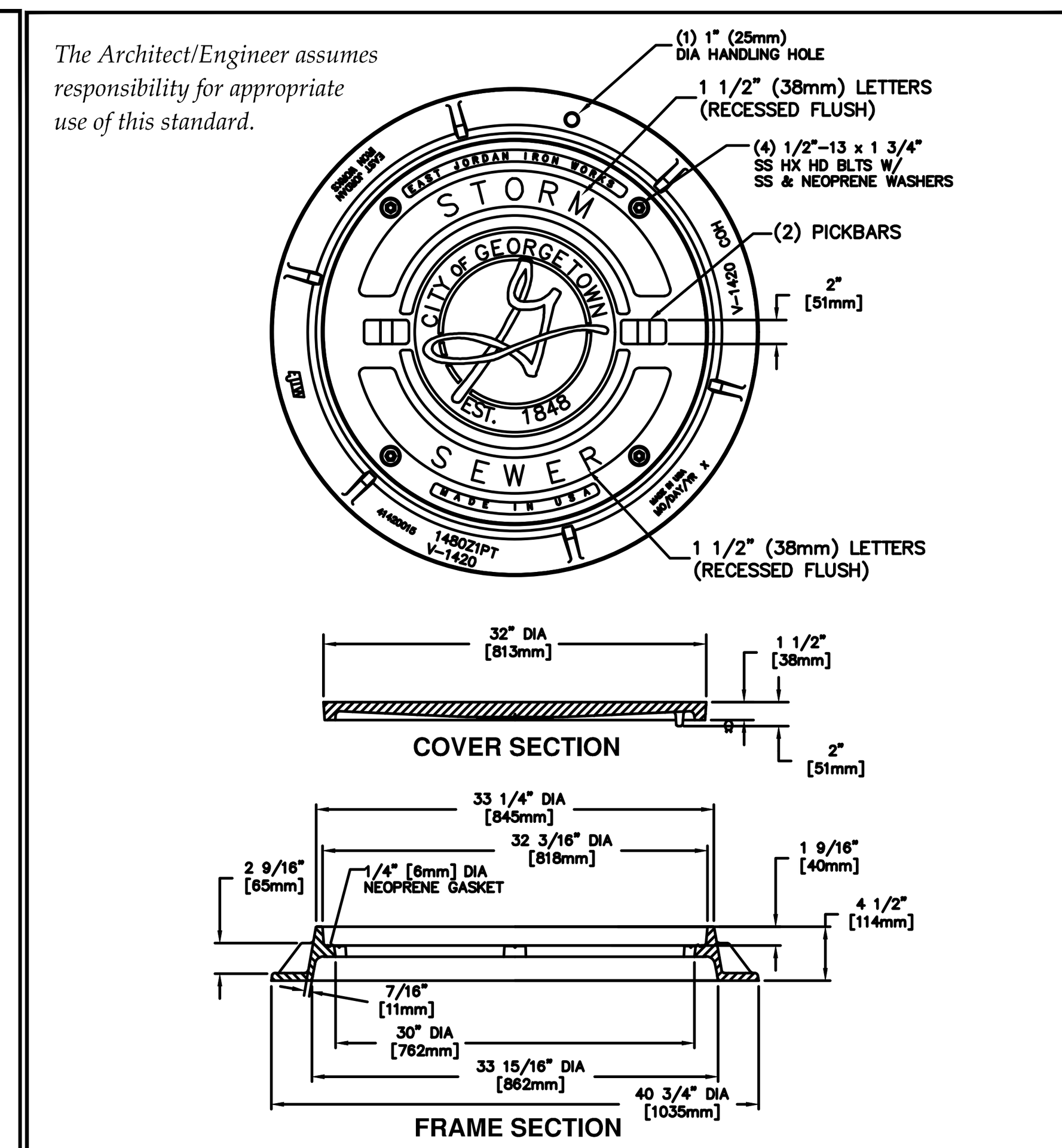
The Architect/Engineer assumes responsibility for appropriate use of this standard.



NOTES:
1. STANDARD STORM SEWER MANHOLE SET TO BE EAST JORDAN IRON WORKS, INC. CATALOG NO. 1480A V-1420\1480Z1, COVER TO BE STAMPED WITH "STORM SEWER".
2. STANDARD STORM SEWER MANHOLE SET TO BE HEAVY DUTY LOAD RATED.
3. FOR MORE DETAILED SPECIFICATIONS REFER TO EAST JORDAN IRON WORKS, INC. REFERENCE PRODUCT DRAWING 41420012 00148391.
4. FOR BOLTED STORM SEWER MANHOLE SET REFER TO DETAIL SD11A.

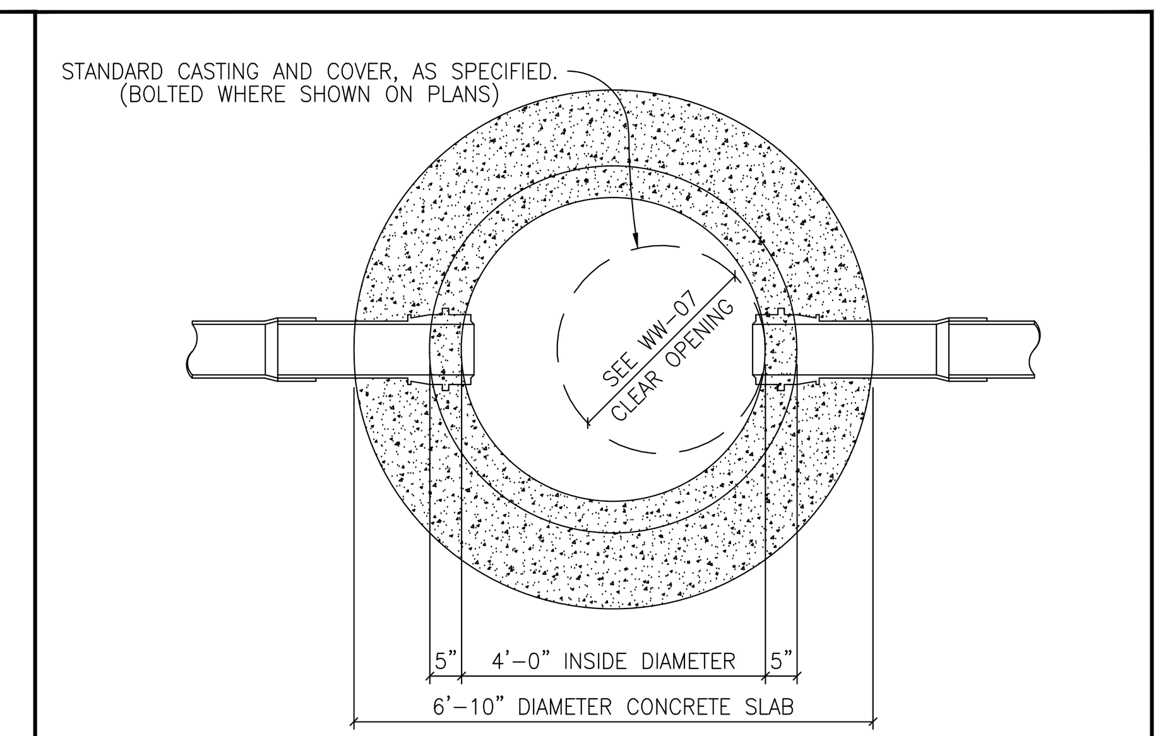
ADOPTED 6/21/2006
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD STORM SEWER MANHOLE SET
SD11
NTS 1/2003 MRS TRB

The Architect/Engineer assumes responsibility for appropriate use of this standard.



NOTES:
1. BOLTED STORM SEWER MANHOLE SET TO BE EAST JORDAN IRON WORKS, INC. CATALOG NO. 1480APT V-1420\1480Z1PT. COVER TO BE STAMPED WITH "STORM SEWER"
2. BOLTED STORM SEWER MANHOLE SET TO BE HEAVY DUTY LOAD RATED.
3. FOR MORE DETAILED SPECIFICATIONS REFER TO EAST JORDAN IRON WORKS, INC. REFERENCE PRODUCT DRAWING 00148393 41420015.
4. FOR STANDARD STORM SEWER MANHOLE SET REFER TO DETAIL SD11.

ADOPTED 6/21/2006
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
BOLTED STORM SEWER MANHOLE SET
SD11A
NTS 1/2006 MRS TRB



MANHOLE PLAN

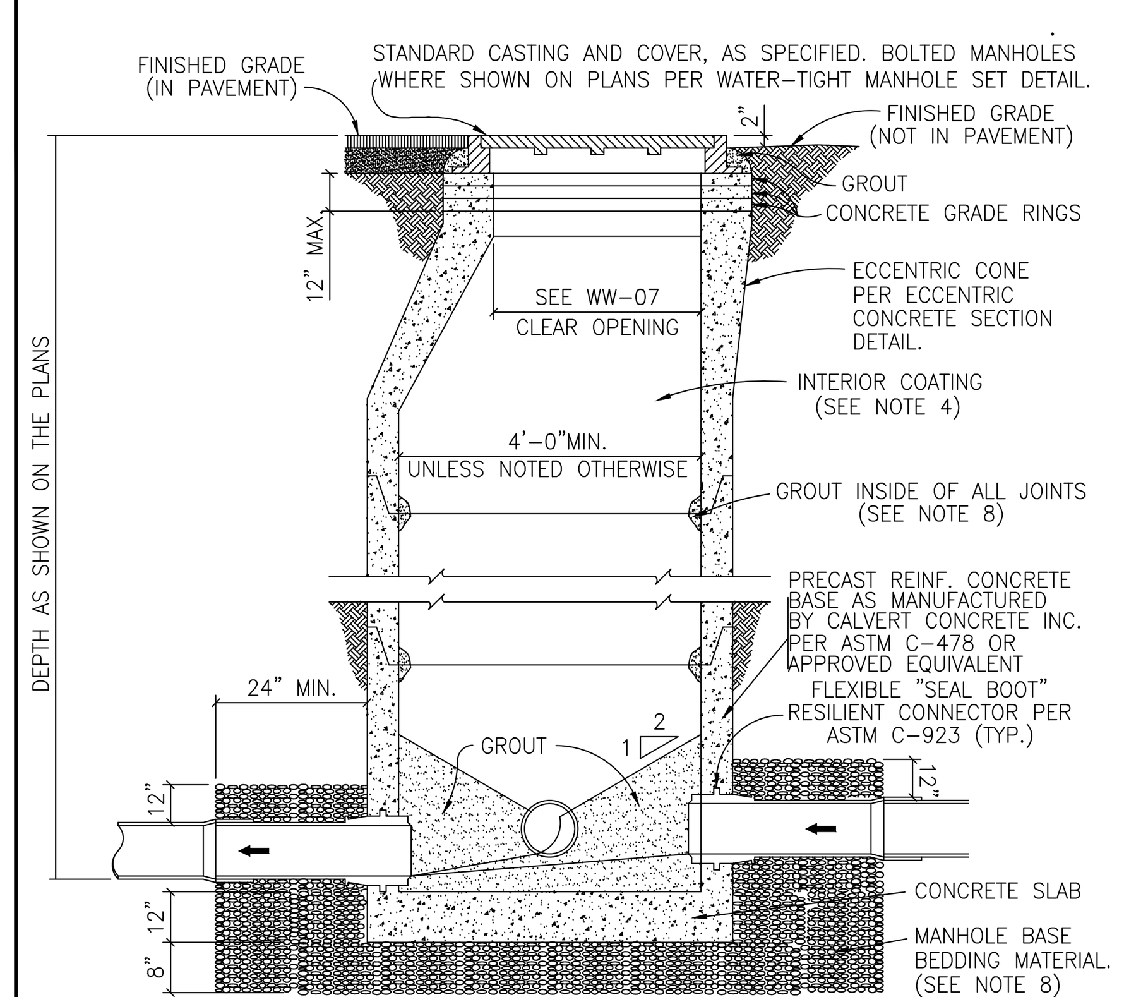
CITY OF GEORGETOWN NOTES:

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 O-RING GASKET JOINTS 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 CALVERT CONCRETE OR APPROVED EQUAL M.F.G. CONFORMING TO ASTM C478, 5000 P.S.I. CONCRETE, TRAFFIC BEARING, AND O-RING 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 OF FIVE (5) GRADE RINGS ARE ALLOWED.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD STORM SEWER MANHOLE PLAN
SD12
NTS 1/2003 MRS TRB

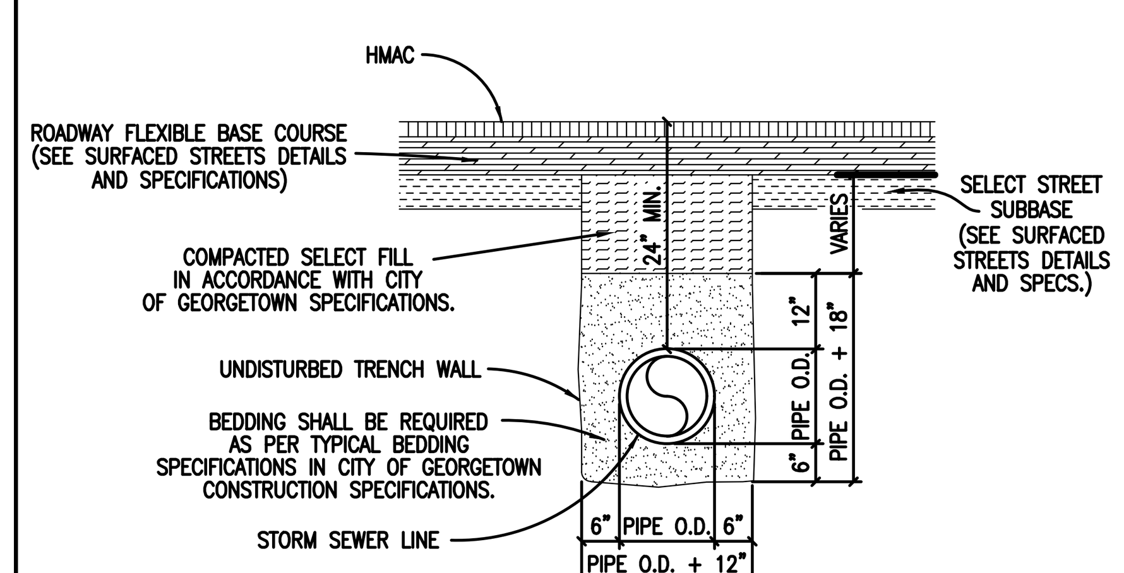


NOTES:
1. MANHOLES SHALL BE PRECAST ASTM C-478 BELL AND SPIGOT WITH PROFILE GASKET - SINGLE OFF-SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE, FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
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 STORM SEWER 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.

8. 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.

ADOPTED 6/21/2006
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD STORM SEWER MANHOLE - SECTION
SD13
NTS 1/2003 MRS TRB

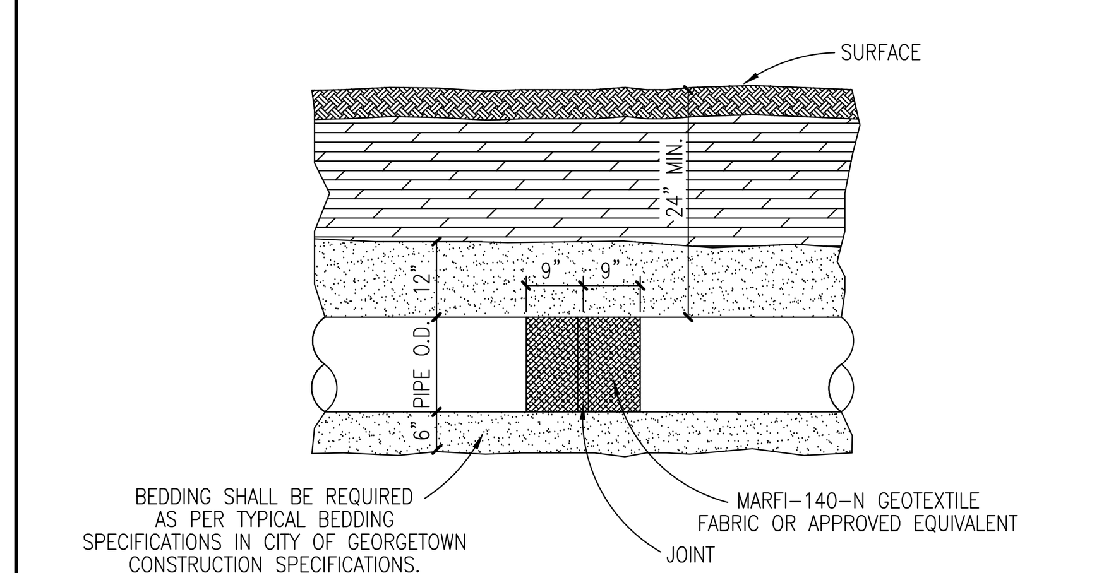


NOTES:
1. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
2. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

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.

ADOPTED 6/21/2006
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRENCH AND EMBEDMENT DETAIL UNDER PROPOSED ROADWAY FOR STORM SEWER
SD41
NTS 1/2003 MRS TRB



NOTES
1. PIPE SHALL BE REINFORCED CONCRETE PIPE CLASS III UNLESS THE DEPTH OF PIPE REQUIRES A STRONGER CLASS.
2. ALL FITTINGS AND WYES SHALL BE MANUFACTURED AND NOT CONSTRUCTED ON THE PROJECT WITHOUT PRIOR APPROVAL FROM THE CITY.
3. ALL JOINTS SHALL BE WRAPPED WITH MARF1-140-N GEOTEXTILE FABRIC OR APPROVED EQUIVALENT. EACH JOINT SHALL BE WRAPPED WITH 18" WIDE FABRIC CENTERED ON THE JOINT.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRENCH AND EMBEDMENT DETAIL (PROFILE) FOR STORM SEWER
SD42
NTS 1/2003 MRS TRB

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

STORM SEWER DETAILS

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
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33

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NBBRUCE
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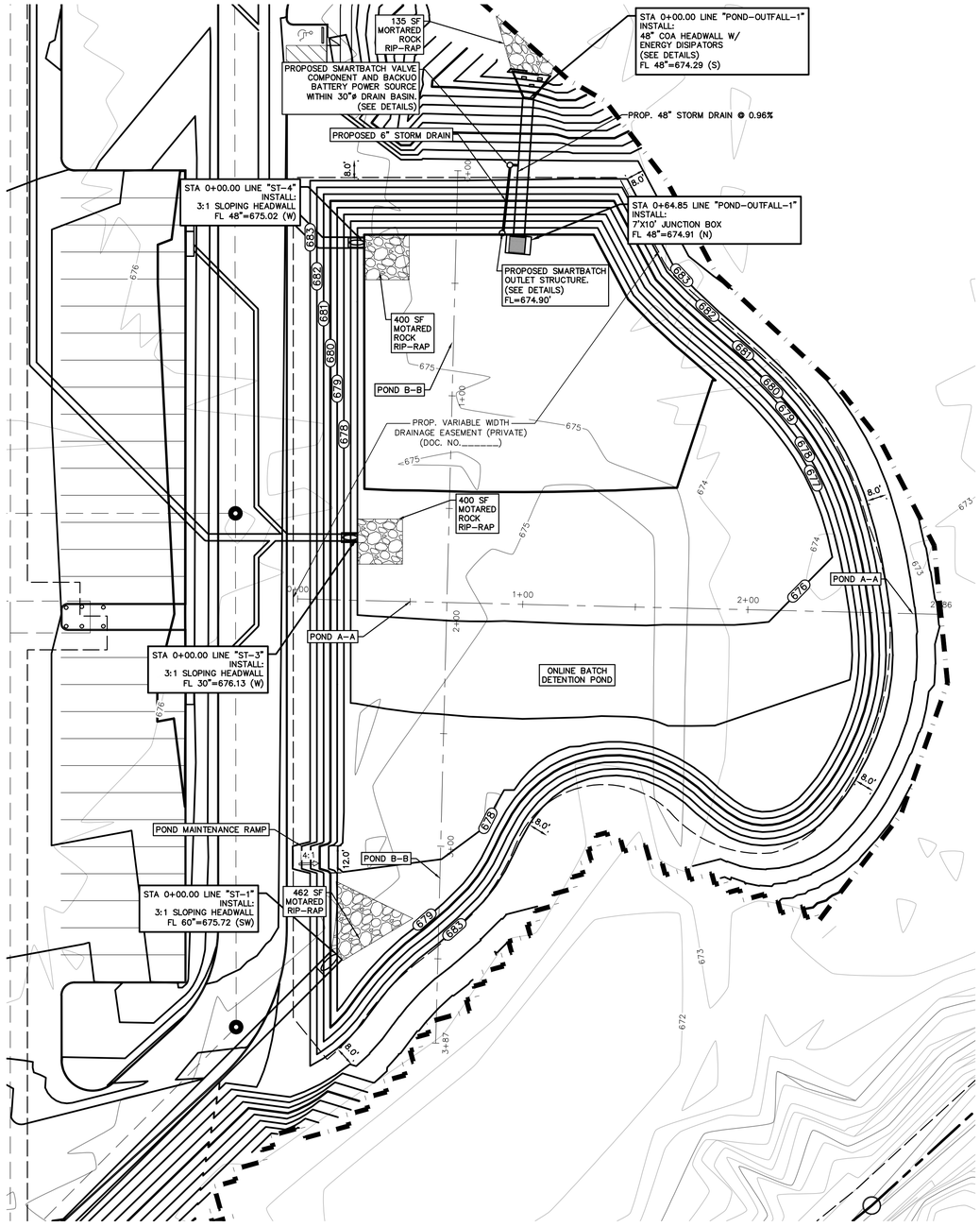
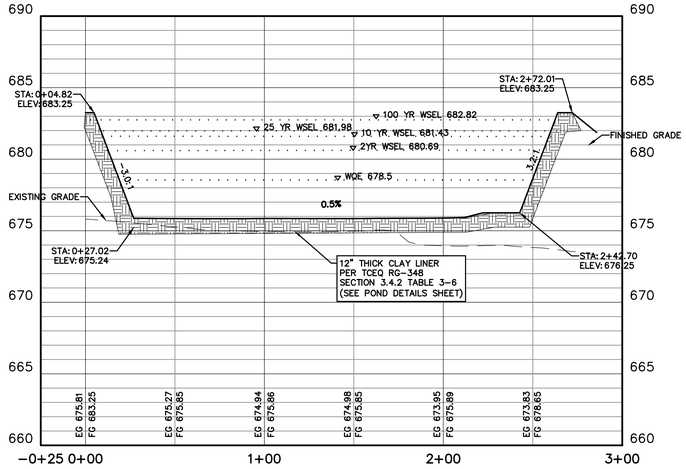
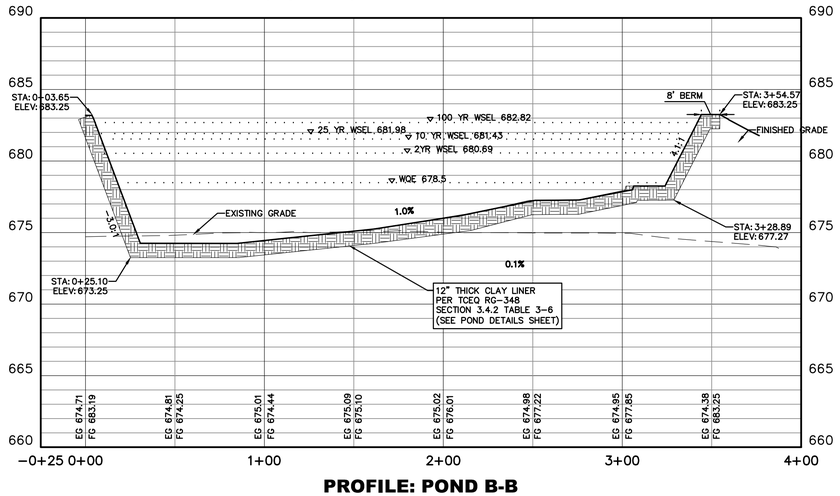
PK-4670-22.125_STORM.DWG

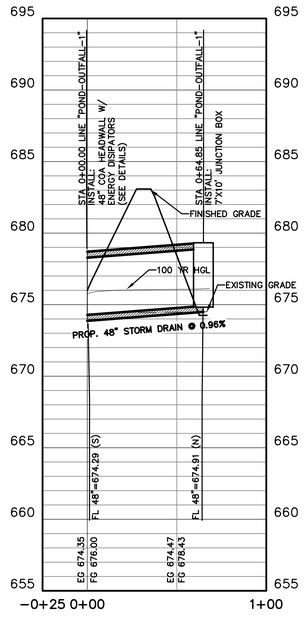




PROFILE: POND A-A



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

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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

POND PLAN & PROFILE

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Berry Creek Business Park
Date Prepared: 12/20/2022

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 27.2(A_N \times P)$

where:
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 80% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Williamson	
Total project area included in plan * =	56.73	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	28.12	acres
Total post-development impervious cover fraction * =	0.50	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	24476	lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	32.31	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	28.12	acres
Post-development impervious fraction within drainage basin/outfall area =	0.87	
$L_{M\ THIS\ BASIN}$ =	24476	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	Batch Detention	
Removal efficiency =	91	percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: $L_R = (\text{BMP efficiency}) \times P \times (A_I \times 34.6 + A_P \times 0.54)$

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	32.31	acres
A_I =	28.12	acres
A_P =	4.19	acres
L_R =	28398	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\ THIS\ BASIN}$ =	24476	lbs.
F =	0.86	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	1.38	inches
Post Development Runoff Coefficient =	0.71	
On-site Water Quality Volume =	115030	cubic feet

Calculations from RG-348 Pages 3-36 to 3-37

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet
Storage for Sediment =	23006	
Total Capture Volume (required water quality volume(s) x 1.20) =	138036	cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C45 will show NA.

8. Extended Detention Basin System Designed as Required in RG-348 Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin =	138,036	cubic feet

CONVERGENT WATER TECHNOLOGIES

SMARTPOND DESIGN WORKSHEET

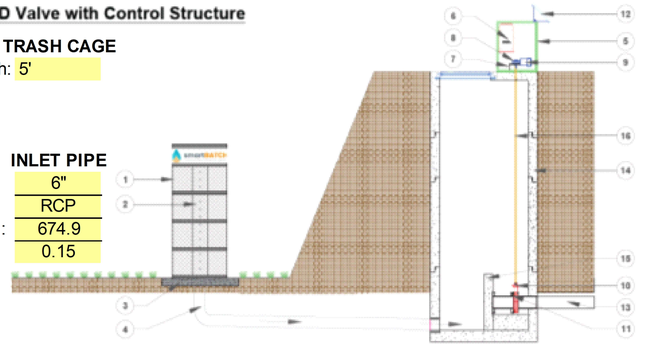
Uptream Storm Structure # Pond 1 [L = 91 FT.}

Downstream Storm Structure # 1 [L = 20 FT.]

smartPOND Valve with Control Structure

TRASH CAGE
WQv Depth: 5'

INLET PIPE
Dia.: 6"
Material: RCP
Inv. Elev.: 674.9
Slope: 0.15



CONTROL STRUCTURE
FG: 683.25
Material: CONCRETE
Size: 48"
Shape: Round

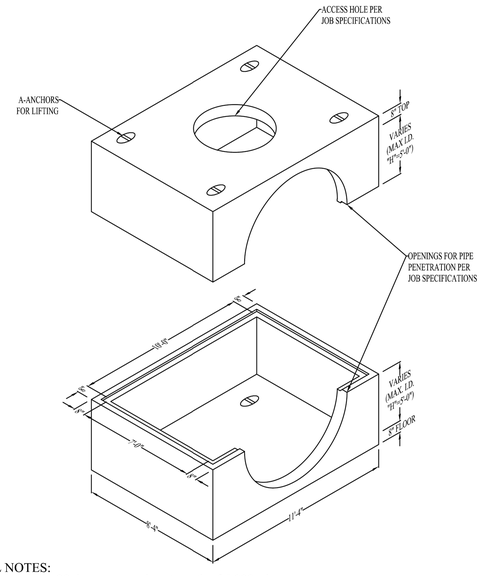
OUTLET PIPE
Dia.: 6"
Material: PVC
Inv. Elev.: 674.29
Slope: 1

General Project Data	
Name:	Berry Creek Business Park
Location:	Georgetown, Texas
Engineer:	Hollis Scheffler, P.E.
Date:	12/16/2022
Fail Command	Open

Sediment Load	
Water Quality Vol:	115030 CF
Required Storage Vol:	138036 CF
Sediment Load Calcs	28398 lbs

Distribute By:
Construction EcoServices
832.456.1000
www.ecosvs.com

7' x 10' I.D. Junction Box



GENERAL NOTES:
All concrete to have 28 day compressive strength of 5,000psi.
Reinforcing steel shall comply with ASTM A615 Grade 60.
Bar bending and placement shall comply with latest ACI standards.
Design based on AASHTO HS 20 loading.

Capital Precast
CAPITAL PRECAST, INC.
6905 SOUTH OLD BASTROP HWY
SAN MARCOS, TEXAS 78666
PH. (830) 606-6200

FOR 7 x 10 JUNCTION BOX
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DRAWN DK | DATE 03/13/18 | Rev. No.
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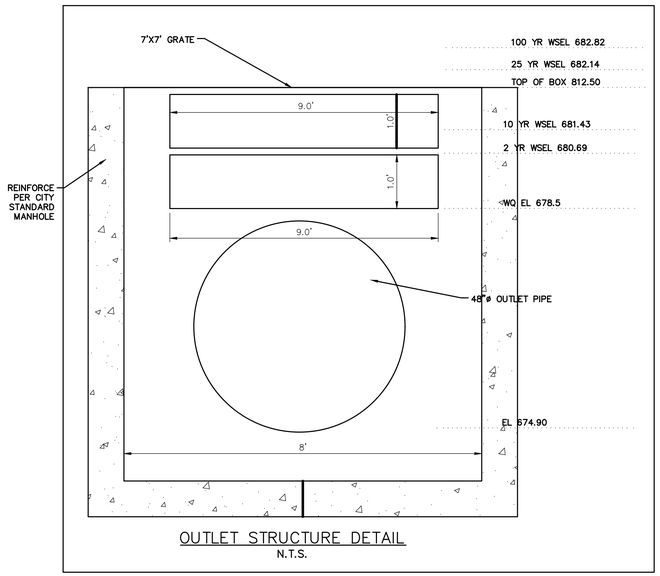
SHEET 1 OF 1



OUTLET STRUCTURE DETAIL
N.T.S.

CLAY LINER SPECIFICATION (CAO, 2004)

PROPERTY	TEST METHOD	UNIT	SPECIFICATION
PERMEABILITY	ASTM D-2434	CM/SEC	1×10^{-6}
PLASTICITY INDEX OF CLAY	ASTM D-423 & D-424	%	NOT LESS THAN 15
LIQUID LIMIT OF CLAY	ASTM D-2216	%	NOT LESS THAN 30
CLAY PARTICLES PASSING	ASTM D-422	%	NOT LESS THAN 30
CLAY COMPACTION	ASTM D-2216	%	95% OF STANDARD PROCTOR DENSITY

XXXX-XX-SDP

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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

POND DETAIL SHEET 1 OF 2

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
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DESIGN	DRAWN	DATE
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SHEET NO. 35

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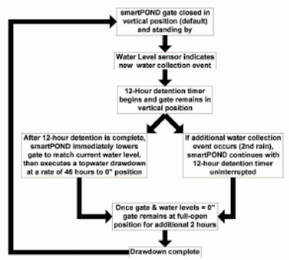
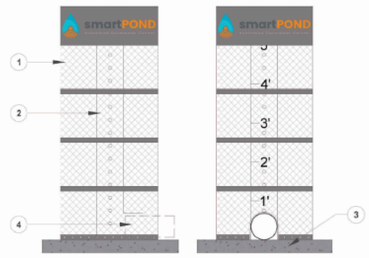
PROGRAMMABLE LOGIC FLOW CHART



TRASH CAGE WITH PERFORATED RISER PIPE



Parts List

Item	smartPOND Valve Component
1	30" DIAMETER CAGE WITH 1 ½" GALVANIZED MESH SCREEN
2	8" SQUARE PERFORATED TUBING WITH 1" PERFORATION, WITH 4" VERTICAL SPACING ON CENTERS WITH WATER DEPTH MARKER
3	3 ½" X 3 ½" X 4" CONCRETE PAD (BY OTHERS)
4	6" PVC OUTFALL PIPE (BY OTHERS)
5	WEATHERPROOF ELECTRONIC BOX
6	CONTROL BOX
7	PEDESTAL
8	ACTUATOR
9	MOTOR
10	6" VALVE
11	LEVEL TRANSDUCER
12	SOLAR PANEL
13	OUTLET PIPE (BY OTHERS)
14	30" DRAIN BASIN
15	VALVE STEM
16	QUICK DISCONNECT VALVE STEM

smartPOND
Automated Stormwater Control.

FOR ADDITIONAL INFORMATION PLEASE CONTACT:
CONVERGENT WATER TECHNOLOGIES
1-800-711-5428
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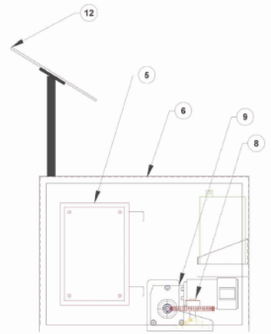
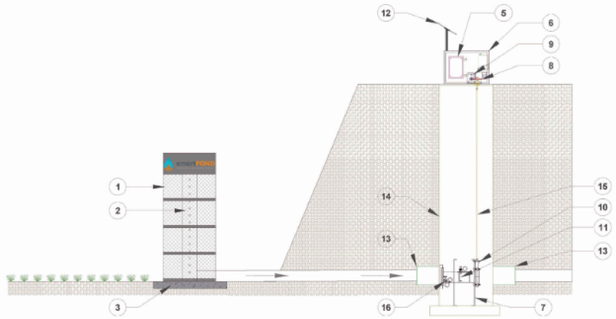
CONVERGENT WATER TECHNOLOGIES

CONTROL STRUCTURE DETAILS



smartPOND Valve with Control Structure



smartPOND Valve with Control Structure Details

REVISION NO. 0
DATE 3/11/2022
SHEET NO.

NOTE: ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

smartPOND Valve SPECIFICATION

Continuously Monitored Automated Stormwater System with Valve

1. Introduction
The following specifications describe the components, general functions, and applications of a smartPOND Continuously Monitored Automated Stormwater System (C-MASS) with Valve. The system functions as an electronically controlled, solar powered stormwater management device, providing precision management capabilities and real-time data. Using sensors, solar power, an electronic actuator, and an internet-based control interface, the smartPOND valve connects to a specialized perforated riser inside the stormwater impoundment to enable managers to precisely control water retention and detention automatically or in real time.

2. smartPOND Valve Applications in Stormwater Management
The smartPOND valve is a device for active Stormwater management. As opposed to passive devices such as floating skimmers or stationary weirs, active water management dramatically increases the efficiency and effectiveness of a detention or retention pond. Where a passive stormwater detention system allows water to leave immediately upon collection, the smartPOND valve can detain newly caught Stormwater and allow it to settle for a programmed period before automatically dewatering the impoundment completely. For stormwater retention systems, it is possible to manage the treatment volume while maintaining a specified amount of capacity for flood storage or other use.

2.1 Pre-Programmed Control
Many functions can be pre-programmed without any human interactions, leaving the valve to automatically receive commands based on environmental conditions and respond as programmed.

2.1.1 Batch Detention Function for Stormwater Quality
The smartPOND valve meets TCEQ Batch Detention specifications for a 91% Total Suspended Solid removal rate. The function proceeds as follows. With the valve in the closed position and the impoundment dry, the system will stand by and wait for a water collection event. At the first sign of water collection, the unit will begin a 12-hour detention timer. At the end of the 12-hour detention period, the valve will open and release all of the water that has been collected. After the water level drops to 0", the valve will remain open for an additional 2 hours to facilitate final drainage, then return to the closed position to stand by for the next water collection event.

2.1.2 Predevelopment Hydrograph Function for Flood Control
The smartPOND valve predevelopment hydrograph function takes in site specific variables to determine a maximum release rate based on predevelopment conditions. The valve reads water depth in the pond every 15 minutes to determine the maximum release rate desirable to ensure the impoundment neither overtops, nor exceeds its maximum release based on predevelopment flows.

2.1.3 Hazmat Function for Spill Containment
smartPOND when specified for hazmat spill containment can be equipped with pollutant specific sensors that when triggered automatically close the valve until the command is overridden.

2.2 Real Time Monitoring
smartPOND comes standard with telemetry available on each unit and access to the user app available at no additional cost for 1 year. This option allows for real time monitoring of the unit and the data that comes along with it. From the real time monitoring app, a user can:
- Control the valve, either open or close
- See the water level
- See if trash or debris is surrounding the Inlet
- Get maintenance alerts (Low Battery, Valve Failure, Etc.)
- Maintain specified water level

3. Components
The smartPOND valve may be implemented either above or below ground, and is comprised of the following components:

3.1 Hardware and Configuration
The standard smartPOND valve features a cast 6" valve. An extended spool and mounting flange on each side of the valve allows it to be attached to the outfall pipe in various configurations. The valve is actuated with an electric motor connected by an extendable drive shaft for underground applications.

For above ground applications, the entire system including all necessary components for operation assemble into one kit and are housed under a single lockable steel enclosure with the solar panel mounted on top. In this configuration, the unit can be installed on a stable, level pad and be bolted onto the back of the outfall pipe with six ¾" bolts and then switched to the "ON" position.

For underground applications, the valve is installed in a vault or concrete encasement as needed. An extended drive shaft connects between the underground valve and the rest of the components, including the motor and all electronics, which are housed in the lockable steel enclosure directly above ground.

3.2 Electronics and Software Specifications
- **Main board** - The main board of the smartPOND valve's electronics box serves as the main connection terminal for all sensors and additional control boards
- **Motor Controller Board** - The motor controller board of the smartPOND valve regulates the connection between the battery and the motor and receives inputs from the main board to control motor direction. It also powers the main board.
- **Motor** - The smartPOND valve's motor operates on 12-volts and has two wires connecting to the motor controller board. It is mounted on a bracket and connects to the directly to the valve with a driveshaft.
- **Battery** - The smartPOND valve is powered by a 12-volt, 30 amp/hour gel battery. Two terminals at the top connect the power wires to the motor controller board and the solar charge controller to the battery.
- **Solar Panel** – The solar panel of the smartPOND valve is 12-volts with 15 watt charging capability. It connects to a solar charge controller which regulates the voltage and current before connecting with two wires to the positive and negative battery terminals.
- **Sensors**
  - *Pressure Transducer* - The water level sensor is a pressure transducer sensor capable of staying submersed in water indefinitely. It mounts on the side of the smartPOND valve's center spool.
  - *Valve position sensor* - A proximity sensor senses the position of the valve's drive shaft in order to control and determine the position of the valve.
- **(Optional)**
  - *Cellular modem* - A cellular data modem will be required for real time control and alert options as well as predevelopment hydrograph functions.
  - *Hydrocarbon Sensor* - This optional sensor may be fitted to the smartPOND valve to perform specific functions based on the presence of hydrocarbon contamination.

4. Real Time Monitoring Interface (optional)
If the real time monitoring option is selected, the smartPOND valve may be monitored in real time through the Autoflow app. Live and historical data from each unit may be viewed in the app, as well as alerts (detailed in section 5).

4.1 Accessing unit data
To access live and historical data in the Autoflow app, select the unit of interest on the home page by clicking on the unit's name. From there, select the "Data" button, and the data page for that unit will be displayed.

4.2 Sending a command
To send a remote-control command to the SmartPOND valve, click the "Send New Command" button on the unit's home page. The unit's current position will be displayed at the top. To change the unit's position, simply select "OPEN" or "CLOSE". Within 1-3 minutes, the unit will move to the new position and update its status in the app.

5. Alerts
The smartPOND valve will indicate the following alerts by illuminating an exteriorly visible red LED light
- Low battery
- Loss of function
- Valve malfunction
- Hydrocarbon contamination (optional)

If the telemetry option is selected, the unit will upload the above alerts to the Autoflow app and notify the operator via text or email.

6. In Case of Failure
To bypass the smartPOND valve's normal automated functions and control the valve position in case of failure:

6.1 Removal of motor and manual direct control
In case of a total electronic or motor failure, the motor and motor bracket can be uninstalled together by removing the two bolts at the bottom of the motor bracket. With the motor and motor bracket removed, the output shaft on the butterfly valve can be manually controlled with a socket wrench, or any other tool that can grip the output shaft.

7. Additional Components List

7.1 Perforated Riser
The smartPOND valve system includes a stackable perforated steel riser which installs on the inlet side of the outfall pipe within the impoundment area. The perforated riser features an 8-inch steel perforated square tube within a 24" round steel mesh tube. At the bottom of the 8-inch square tube, there is a female threaded fitting for a six inch PVC outfall pipe to connect. The steel tube is perforated with 3-inch holes every 4" on center to the height of the impoundment.

7.2 Trash Cage
The trashcage attaches to the perforated riser with a coupling and calder pin. The trash cage will be comprised of steel banding and a 1.5" x 1.5" mesh to prevent floatable's and other contaminants from entering and clogging the perforated riser. The trash cage will sit 0.5" above the bottom of the impoundment to allow the last 0.5" out of the impoundment.

7.3 Valve Stem Extension
The driveshaft/valve stem of the smartPOND system may be extended to any length necessary for instances where the valve will be in an underground vault or manhole. The valve stem will connect the valve to the above ground controls.

8. Maintenance

8.1 Grease
The smartPOND valve includes a grease fitting on the valve itself which should be greased twice per year. It is also recommended that a thick, mildly heat-resistant grease be used to avoid grease melting out of the groove in warmer temperatures.

8.2 Flange Bolts
There are 6 bolts connecting the smartPOND valve's flange to the outfall pipe or fixture. During routine maintenance intervals, these bolts should be checked for tightness. All bolts should be tightened evenly.

8.3 Perforated Riser
Silt, sediment, and debris can build up around the perforated riser with time. An annual inspection of the unit is necessary to ensure that excess debris or sediment has not limited the drainage capacity of the perforated riser. To access the perforated riser for maintenance, lift the trash cage off of the riser, dig out any accumulated sediment, and clear all perforations.

8.4 Trash Cage
As a part of routine maintenance, it is advisable to remove trash and debris that has accumulated on the trash cage and properly dispose.

8.5 Solar Panel
On all inspection visits, it is necessary to confirm that the solar panel is facing south and is well secured. The solar panel is commonly utilized by birds and insects. It is important to keep the surface clean of bird litter, insect nests and debris in order to maintain optimal performance.

8.6 Battery
Over time, battery terminals may corrode. Check annually for corrosion and clean as needed. The battery should be replaced every 4 to 6 years.

8.7 Storage
The smartPOND valve is shipped in a near-fully assembled configuration and should be stored likewise. The systems are transported and stored on pallets and must remain secured via strapsor steel bands to said pallet at all times. The solar panel is not installed at times of transport or storage and should not be installed until the unit is ready to begin operation. The battery may be stored inside the electronics box and if removed, should never be stored on a concrete surface.

9. Installation
The smartPOND valve can be installed in a near-completely assembled configuration. Only the solar panel should be removed during the installation process. There are several ways to install the smartPOND valve with the key being structured support.

9.1 Structural Support
If the smartPOND valve is mounted to a steel pipe in an above ground/fully assembled configuration, the weight of the unit may be supported by the steel pipe. For plastic or concrete pipes, it is recommended that the weight of the unit be supported by either a concrete pad or steel frame. For below ground installations, the upper unit (electronics and actuator) should be fastened to the surface of the concrete vault. For vault installations, see design details for standard vault design.

10. Important Safety Information and Warnings:
- Always keep hands clear of the valve and motor when unit is in operation.
- Turn the power switch off when doing any electrical work.
- Do not enter the water when the device is actively draining water
- Always use proper PPE and confined space protocol when servicing a valve beneath ground.

11. PRODUCTS
Manufacturer/Supplier/Reseller shall be an established stormwater company that has at least 5 installations of automated stormwater management devices that have been in use and functional for the past 5 or more years.

A. Acceptable smartPOND Valve
"smartBATCH" Automated Batch Detention System
"smartPOND" Automated Detention System

B. Acceptable System Supplier
Convergent Water Technologies, Inc.
(800)715-5428
www.convergentwater.com

C. Authorized Value Added Reseller
Construction EcoServices
(800)669-1000
www.ecosvs.com

12. Quality Assurance and Performance Specifications
The quality of all system components and all other appurtenances and their assembly process shall be subject to inspection upon delivery of the system to the work site.Installation is to be performed only by skilled work people with satisfactory record of performance on earthworks, pipe, welding, chamber, or pond/landfill construction projects of comparable size and quality.

smartPOND
Automated Stormwater Control.

FOR ADDITIONAL INFORMATION PLEASE CONTACT:
CONVERGENT WATER TECHNOLOGIES
1-800-711-5428
www.convergentwater.com

CONVERGENT WATER TECHNOLOGIES

smartPOND Valve Specifications

REVISION NO. 0
DATE 3/11/2022
SHEET NO.

NOTE: ENGINEER OF RECORD TO REVIEW, APPROVE AND ENDORSE FINAL SITE SPECIFIC DESIGN.

Pacheco Koch
a Westwood company
8701 N. MOPAC EXPY ■ STE. 320 ■ AUSTIN, TX 78759 ■ 512.485.0831
TX REG. ENGINEERING FIRM F–469
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REVISIONS

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BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

POND DETAIL SHEET 2 OF 2

STATE OF TEXAS
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136049
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISON 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.

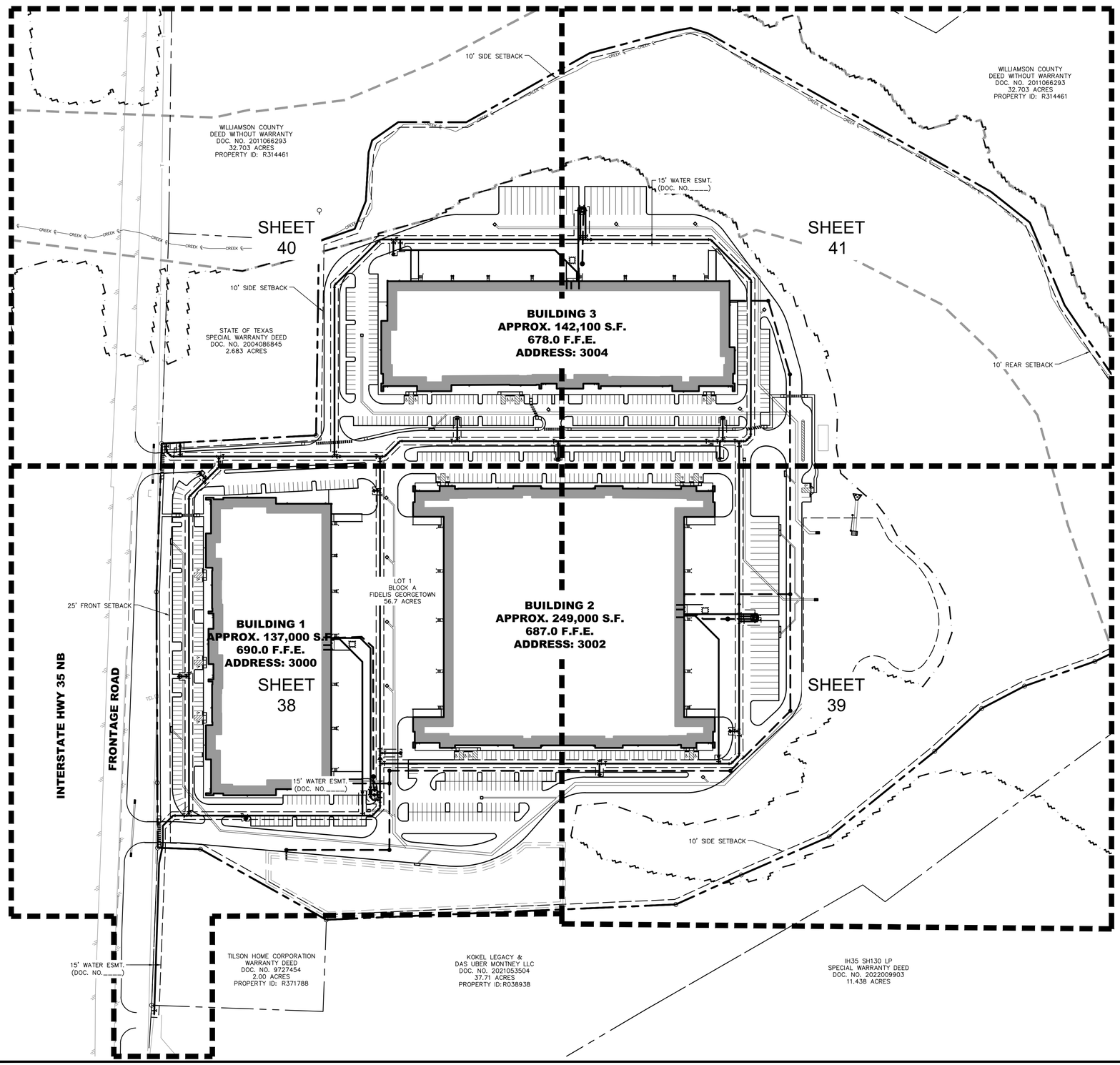
DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO. 36

XXXX-XX-SDP

NBBRUCE
12/19/2022 9:41 AM
M:\DWG-46\4670-22.125\DWG\CIVIL C3D 2018\4670-22.125_POND.DWG

PK–4670–22.125_POND.DWG



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
JX	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
C	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
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
CREEK	CREEK CENTERLINE

WATER & SANITARY SEWER GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "A" (3000 PSI), UNLESS OTHERWISE NOTED.
2. ALL WATER MAINS SHALL BE PVC C900, DR 18, CLASS 235. FIRE PROTECTION SERVICES SHALL BE PVC C900, DR 14, CLASS 305 AND INSTALLED IN ACCORDANCE WITH THE DESIGN AND SPECIFICATIONS OF THE FIRE PROTECTION PLANS TO BE PREPARED BY A LICENSED FIRE PROTECTION CONTRACTOR.
3. WATER AND SANITARY SEWER SERVICES SHALL MEET PLUMBING CODE REQUIREMENTS.
4. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 48 INCHES BELOW IMPROVED FINISHED GRADE, UNLESS OTHERWISE NOTED.
5. SANITARY SEWER PIPE SHALL BE PVC SDR-35.
6. 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:
   6.A. TCEQ CHAPTER 217.53 PIPE DESIGN, SECTION (d) SEPARATION DISTANCES.
   6.B. TCEQ CHAPTER 290.44 WATER DISTRIBUTION, SECTION (e) LOCATION OF WATERLINES.
7. CONTRACTOR TO VERIFY ALL EXISTING SEWER FLOW LINES BEFORE BEGINNING CONSTRUCTION.
8. 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.
9. ALL SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD CITY SPECIFICATIONS.
10. THE UTILITY CONTRACTOR SHALL INSTALL THE WATER SERVICES TO A POINT TWO FEET BACK OF THE CURB LINE AT A DEPTH OF 12 INCHES. THE METER BOX SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AFTER THE PAVING CONTRACTOR HAS COMPLETED THE FINE GRADING BEHIND THE BACK OF THE CURB. EACH SERVICE LOCATION SHALL BE MARKED ON THE CURB WITH A BLUE LETTER "W" BY THE UTILITY CONTRACTOR AND TIED TO PROPERTY CORNERS ON THE "RECORD DRAWINGS."
11. ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS.
12. 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.
13. EMBEDMENT SHALL CONFORM TO THE REQUIREMENTS OF NCTCOG ITEM 504.5 UNLESS OTHERWISE SHOWN ON THESE PLANS OR STATED IN THE STANDARD CITY SPECIFICATIONS.
14. VALVE BOXES SHALL BE FURNISHED AND SET ON EACH GATE VALVE. AFTER THE FINAL CLEAN-UP AND ALIGNMENT HAS BEEN COMPLETED, THE UTILITY CONTRACTOR SHALL POUR A 24"X24"X6" CONCRETE BLOCK AROUND ALL VALVE BOX TOPS LEVEL WITH THE FINISHED GRADE.
15. CONTRACTOR SHALL RECONNECT ALL EXISTING SERVICES AND MAINTAIN EXISTING SERVICES THROUGHOUT CONSTRUCTION.
16. IF REQUIRED DUE TO CONSTRUCTION, POWER POLES TO BE BRACED OR RELOCATED AT CONTRACTOR'S EXPENSE.

FIRE PROTECTION NOTES

1. APPROVAL OF THIS SITE PLAN DOES NOT IMPLY APPROVAL TO INSTALL UNDERGROUND FIRE LINES. PRIOR TO INSTALLATION OF UNDERGROUND FIRE LINES, A SEPARATE PERMIT SHALL BE SUBMITTED, UNDER GROUND FIRE LINE SUPPLY.
2. BACKFLOW PROTECTION WILL BE PROVIDED IN ACCORDANCE WITH THE CITY OF GEORGETOWN REQUIREMENTS WHEN REQUIRED. BACKFLOW PROTECTION WILL BE INSTALLED IN ACCORDANCE WITH THE DETAIL PROVIDED IN THE UTILITY DRAWINGS.
3. ALL PRIVATE FIRE LINES AND WHAT THEY PROVIDE SERVICE TO WILL BE INSTALLED IN ACCORDANCE WITH NFPA 24 INSTULLATION OF PRIVATE SERVICE MAINS AND THEIR APPURTENANCES.
4. ALL TEES, PLUGS, CAPS, BENDS, REDUCERS, VALVES SHALL BE RESTRAINED AGAINST MOVEMENT. THRUST BLOCKING WILL BE INSTALLED IN ACCORDANCE WITH NFPA 24.
5. ALL UNDERGROUND SHALL REMAIN UNCOVERED UNTIL A VISUAL INSPECTION IS CONDUCTED BY THE GEOROETOWN FIRE MARSHAL'S OFFICE (FMO). ALL JOINTS AND THRUST BLOCKING SHALL BE UNCOVERED FOR VISUAL INSPECTION.
6. ALL UNDERGROUND SHALL BE FLUSHED PER THE REQUIREMENTS OF NFPA STANDARD 24 AND WITNESSED BY GEORGETOWN FMO.
7. ALL UNDERGROUND SHALL PASS A HYDROSTATIC TEST WITNESSED BY GEORGETOWN FMO. ALL JOINTS SHALL BE UNCOVERED FOR HYDROSTATIC TESTING. ALL PIPING AND ATTACHMENTS SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE TESTED AT 200 PSI. OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESSURE + OR - 5 PSI FOR 2 HOURS.
8. FENCES, LANDSCAPING AND OTHER ITEMS WILL NOT BE INSTALLED WITHIN 3 FT, AND WHERE THEY WILL OBSTRUCT THE VISIBILITY OR ACCESS TO HYDRANTS, OR REMOTE FDCS.
9. LICENSE REQUIREMENTS OF EITHER RME-U OR G. WHEN CONNECTING BY UNDERGROUND TO THE WATER PURVEYOR'S MAIN FROM THE POINT OF CONNECTION OR VALVE WHERE THE PRIMARY PURPOSE OF WATER IS FOR FIRE PROTECTION SPRINKLER SYSTEM.

LA-507.5.7 FIRE HYDRANT COLOR CODE SYSTEM

PRIVATE FIRE HYDRANT MAINTENANCE SHALL BE IN ACCORDANCE WITH NFPA 291.

A. ALL PRIVATE HYDRANT BARRELS WILL BE PAINTED RED WITH THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN PARAGRAPH C OF THIS SECTION TO INDICATE FLOW. IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO TEST AND MAINTAIN THEIR PRIVATE FIRE HYDRANT(S).
B. ALL PRIVATE FIRE HYDRANTS SHOULD BE INSPECTED, MAINTAINED AND FLOW TESTED ANNUALLY AND COLOR CODED TO INDICATE THE EXPECTED FIRE FLOW FROM THE HYDRANT DURING NORMAL OPERATION. SUCH COLOR APPLIED TO THE FIRE HYDRANT BY PAINTING THE BONNET THE APPROPRIATE COLOR FOR THE EXPECTED FLOW CONDITION.
C. HYDRANT FLOW CODING STANDARDS. PUBLIC HYDRANTS WILL BE PAINTED SILVER, THE HYDRANTS WILL BE FLOW TESTED, AND THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN AS FOLLOWS: AT 20 PSI RESIDUAL.
   FLOW COLOR:
   1. GREATER THAN 1500 GPM BLUE
   2. 1000 TO 1500 GPM GREEN
   3. 500 TO 999 GPM ORANGE
   4. LESS THAN 500 GPM RED
   5. NOT WORKING BLACK OR BAGGED
D. AT THE CONCLUSION OF CONSTRUCTION FIRE HYDRANTS SHALL BE FLOW TESTED AND COLOR CODED IN ACCORDANCE WITH CITY'S STANDARDS. AND RESULTS SHALL BE EMAILED TO THE FIRE DEPARTMENT. IFC-LA-507.5.7 FIRE HYDRANT SYSTEMS.

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

OVERALL WATER & WASTEWATER PLAN

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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NBBRUCE
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M:\DWG-46\4670-22.125\DWG\CIVIL C3D 2018\4670-22.125_UTILITY.DWG

PK-4670-22.125_UTILITY.DWG

MATCH LINE - SEE SHEET 40

STA 10+31.16 LINE "W-2" INSTALL:
1 – 8" X 6" TEE
1 – 8" GATE VALVE
1 – 6" GATE VALVE
1 – FIRE HYDRANT ASSEMBLY
11 LF 6" D.I. FIRE
N: 10224660.33
E: 3138610.64

PROP. 8" WATER – PUBLIC

STA 7+05.55 LINE "W-3" INSTALL:
1 – 12" 45° BEND
N: 10224788.73
E: 3138319.19

STA 6+23.21 LINE "W-3" INSTALL:
1 – 12" 45° BEND
N: 10224748.13
E: 3138247.56

STA 6+71.01 LINE "W-3" INSTALL:
1 – 12" X 6" TEE
1 – 12" GATE VALVE
1 – 6" GATE VALVE
1 – FIRE HYDRANT ASSEMBLY
18 LF 6" D.I. FIRE
N: 10224771.70
E: 3138289.14

15' WATER ESMT. (DOC. NO._____)

!!!CAUTION!!! OVERHEAD ELECTRIC LINE

!!!CAUTION!!! BURIED TELEPHONE LINE

LOT 1
BLOCK A
FIDELIS GEORGETOWN
56.7 ACRES

SEE DETAIL 1 SHEET 42 FOR A BLOW UP OF THE FIRE/DOM CONNECTION INTO THE BUILDING.

BUILDING 1
APPROX. 137,000 S.F.
690.0 F.F.E.
ADDRESS: 3000

BUILDING 2
APPROX. 249,000 S.F.
687.0 F.F.E.
ADDRESS: 3002

INTERSTATE HWY 35 NB

FRONTAGE ROAD

PROP. 12" WATER – PUBLIC

PROP. 8" WATER – PUBLIC

PROP. 2" WATER – PRIVATE

STA 2+72.31 LINE "W-3" INSTALL:
1 – 12" X 6" TEE
1 – 12" GATE VALVE
1 – 6" GATE VALVE
1 – FIRE HYDRANT ASSEMBLY
19 LF 6" D.I. FIRE
N: 10224409.91
E: 3138154.05

STA 3+97.46 LINE "W-FIRE-B1" INSTALL:
12" FIRE CONNECTION (CONTRACTOR TO END 5' FROM BUILDING FACE, REFER TO MEP PLANS FOR CONTINUATION.)
N: 10224408.10
E: 3138441.97

±48 LF 6" D.I. FDC LINE AT MIN. 18" DEPTH

12" D.I. FIRE WATER – PRIVATE

STA 5+18.15 LINE "W-2" INSTALL:
1 – 8" X 6" TEE
1 – 8" GATE VALVE
1 – 6" GATE VALVE
1 – FIRE HYDRANT ASSEMBLY
39 LF 6" D.I. FIRE
N: 10224165.89
E: 3138473.90

REDUCED PRESSURE DETECTOR ASSEMBLY:
ZURN MODEL 375DA
WITH OS & Y GATE VALVES

ENCLOSURE:
SAFE-T-COVER SERIES 100/200 – LIFT-OFF DESIGN

STA 3+80.14 LINE "W-DOM-B1" 2" DOM. SERVICE (CONTRACTOR TO END 5' FROM BUILDING FACE, REFER TO MEP PLANS FOR CONTINUATION.)
N:10224406.18
E:3138441.44

STA 3+63.70 LINE "W-DOM-B1" 1 – 2" 45° BEND
N:10224401.79
E:3138457.29

STA 2+99.92 LINE "W-DOM-B1" 1 – 2" 45° BEND
N:10224345.95
E:3138488.94

CITY OF GEORGETOWN PRESSURE:
PLANE: 866'-906'

CALCULATED PRESSURE AT BUILDING FINISHED FLOOR:
76-93 PSI

STA 4+97.58 LINE "W-2" INSTALL:
1 – 12" X 12" TEE
2 – 12" GATE VALVES
N: 10224146.06
E: 3138468.41

!!!CAUTION!!! STORM SEWER & W CROSSING

PROP. 8" DIA STEEL BOLLARD (SEE SHEET 50)

STA 5+07.58 LINE "W-2" INSTALL:
1 – 12" X 8" REDUCER
N: 10224155.69
E: 3138471.08

STA 3+50.05 LINE "WW-1" INSTALL:
4' DIA. SSMH
RIM=684.22
FL 8"=663.09 (S)
FL 8"=663.19 (E)

6" W.W. @ 5.4%

STA 4+63.82 LINE "WW-1" INSTALL:
1 – 6" DOUBLE CLEANOUT
6" WASTEWATER SERVICE (CONTRACTOR TO END 5' FROM BUILDING FACE, REFER TO MEP PLANS FOR CONTINUATION.)
FL 6"=669.08 (E)

4' MANHOLE & RING TO BE LABELED WATER

8" W.W. @ 0.5%

!!!CAUTION!!! BURIED TELEPHONE LINE

!!!CAUTION!!! OVERHEAD ELECTRIC LINE

!!!CAUTION!!! STORM SEWER & W CROSSING

STA 0+31.27 LINE "W-2" INSTALL:
1 – 12" X 12" TEE
2 – 12" GATE VALVES
N: 10224147.45
E: 3138081.48

STA 0+45.39 LINE "W-DOM-B1" 1 – 1.5" DOM. METER (MASTER METER)
N:10224100.85
E:3138420.28

STA 0+00.00 LINE "WW-2" INSTALL:
4' DIA. SSMH
RIM=684.54
FL 12"=662.87 (S)
FL 8"=662.97 (N)
FL 6"=662.97 (W)

REMOTE FDC

2" WATER – PUBLIC

12" D.I. FIRE WATER – PUBLIC

!!!CAUTION!!! STORM SEWER & W CROSSING

STA 3+97.46 LINE "W-1" INSTALL:
1 – 12" 45° BEND
N: 10224155.79
E: 3138051.34

PROP. 12" WATER – PUBLIC

STA 1+41.83 LINE "W-2" INSTALL:
1 – 12" X 6" TEE
1 – 12" GATE VALVE
1 – 6" GATE VALVE
1 – FIRE HYDRANT ASSEMBLY
7 LF 6" D.I. FIRE
N: 10224117.98
E: 3138188.04

STA 3+70.26 LINE "W-2" INSTALL:
1 – 12" X 2" TEE
1 – 2" GATE VALVE
N: 10224057.10
E: 3138408.21

STA 3+89.57 LINE "W-2" INSTALL:
1 – 12" 45° BEND
N: 10224051.95
E: 3138426.82

12" W.W. @ 0.5%

STA 4+36.13 LINE "W-2" INSTALL:
1 – 12" X 6" TEE
1 – 12" GATE VALVE
1 – 6" GATE VALVE
1 – FIRE HYDRANT ASSEMBLY
10 LF 6" D.I. FIRE
N: 10224086.82
E: 3138452.05

STA 3+31.46 LINE "W-1" INSTALL:
1 – 12" 11.5° BEND
N: 10224105.48
E: 3138016.68

STA 4+26.13 LINE "W-2" INSTALL:
1 – 12" X 12" TEE
2 – 12" GATE VALVES
N: 10224077.19
E: 3138449.37

!!!CAUTION!!! STORM SEWER & WW CROSSING

STA 2+95.12 LINE "W-1" INSTALL:
1 – 12" 11.5° BEND
N: 10224073.09
E: 3138000.20

PROP. 12" WATER – PUBLIC

STA 0+18.56 LINE "WW-1" INSTALL:
4' DIA. SSMH
RIM=685.71
FL 12"=661.01 (S)
FL 12"=661.11 (E)

STA 2+19.90 LINE "WW-1" INSTALL:
4' DIA. SSMH
RIM=683.96
FL 12"=662.12 (W)
FL 12"=662.22 (N)

STA 4+10.79 LINE "W-2" INSTALL:
1 – 12" 45° BEND
N: 10224062.41
E: 3138445.28

STA 0+00.00 LINE "WW-1" DISCHARGE INTO SEPTIC FIELD
FL 12"=660.92 (N)

PROPOSED TEMPORARY SEPTIC FIELD

10' SIDE SETBACK

25' FRONT SETBACK

15' WATER ESMT. (DOC. NO._____)

TILSON HOME CORPORATION
WARRANTY DEED
DOC. NO. 9727454
2.00 ACRES
PROPERTY ID: R371788

MATCH LINE - THIS SHEET

MATCH LINE - SEE SHEET 39

0 20 40 80 120
GRAPHIC SCALE IN FEET
1"=40'

LEGEND

BL	BOLLARD
EM	ELECTRIC METER
PP	POWER POLE
LS	LIGHT STANDARD
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	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
CREEK	CREEK CENTERLINE

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LA-507.5.7 FIRE HYDRANT COLOR CODE SYSTEM

PRIVATE FIRE HYDRANT MAINTENANCE SHALL BE IN ACCORDANCE WITH NFPA 291.

A. ALL PRIVATE HYDRANT BARRELS WILL BE PAINTED RED WITH THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN PARAGRAPH C OF THIS SECTION TO INDICATE FLOW. IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO TEST AND MAINTAIN THEIR PRIVATE FIRE HYDRANT(S).
B. ALL PRIVATE FIRE HYDRANTS SHOULD BE INSPECTED, MAINTAINED AND FLOW TESTED ANNUALLY AND COLOR CODED TO INDICATE THE EXPECTED FIRE FLOW FROM THE HYDRANT DURING NORMAL OPERATION. SUCH COLOR APPLIED TO THE FIRE HYDRANT BY PAINTING THE BONNET THE APPROPRIATE COLOR FOR THE EXPECTED FLOW CONDITION.
C. HYDRANT FLOW CODING STANDARDS. PUBLIC HYDRANTS WILL BE PAINTED SILVER, THE HYDRANTS WILL BE FLOW TESTED, AND THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN AS FOLLOWS: AT 20 PSI RESIDUAL.
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   5. NOT WORKING BLACK OR BAGGED
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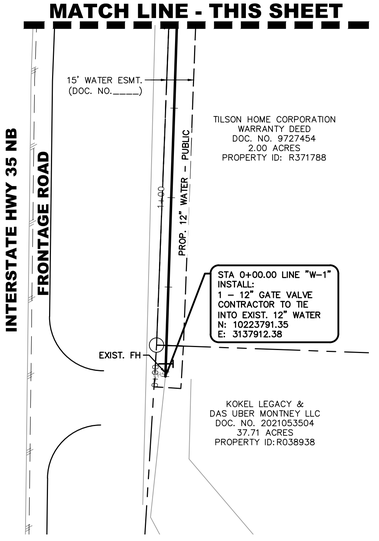
MATCH LINE - THIS SHEET



XXXX-XX-SDP

Pacheco Koch
a Westwood company
8701 N. MOPAC EXPY ■ STE. 320 ■ AUSTIN, TX 78759 ■ 512.485.0831
TX REG. ENGINEERING FIRM F-469
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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

WATER & WASTEWATER PLAN SHEET 1 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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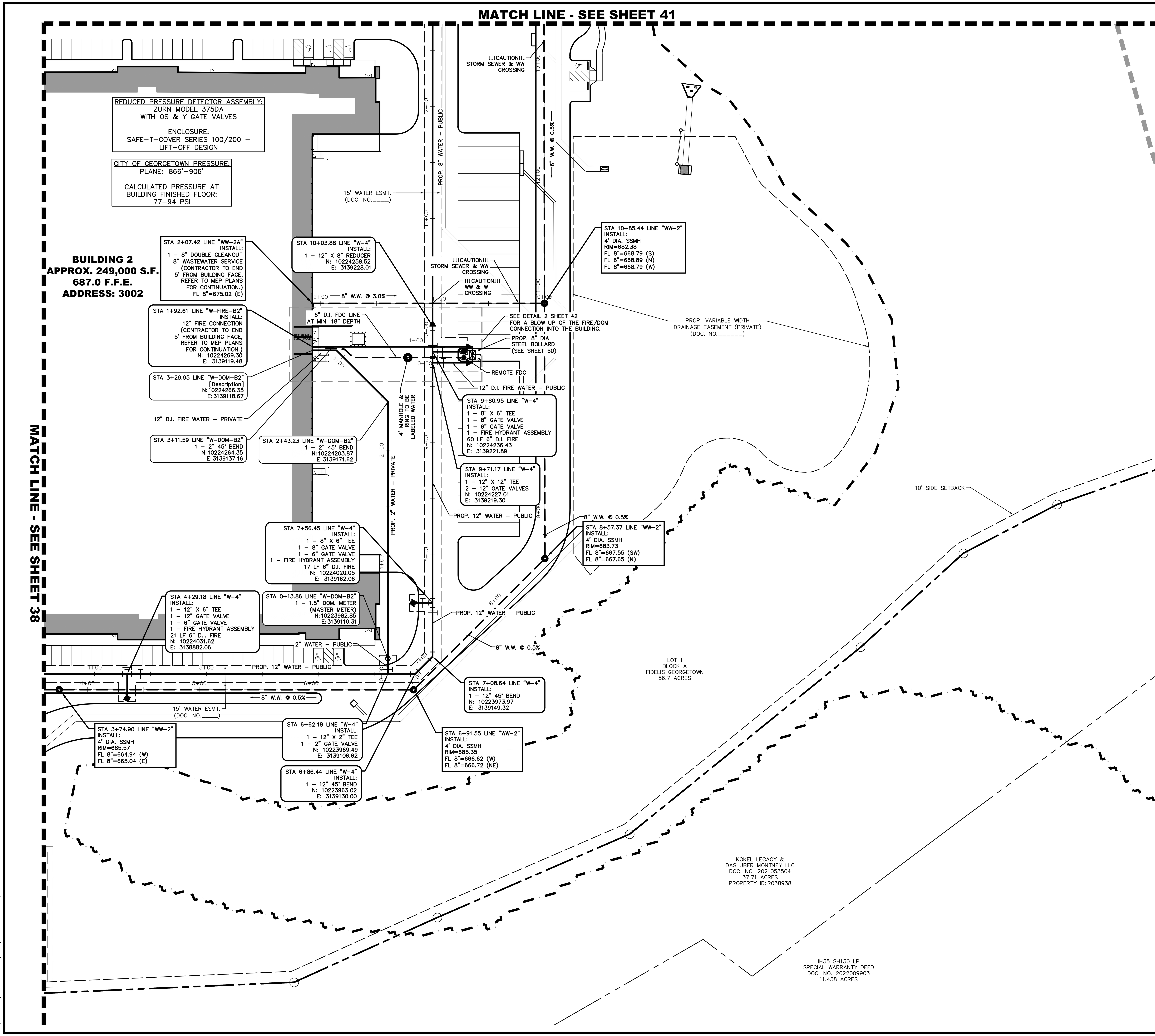

GRAPHIC SCALE IN FEET
1"=40'

0 20 40 80 120

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 — 1/2-INCH IRON ROD W/"PACHECO KOCH" CAP SET
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- FEMA 100 YEAR FLOODPLAIN
- CREEK CENTERLINE

FIRE PROTECTION NOTES

1. APPROVAL OF THIS SITE PLAN DOES NOT IMPLY APPROVAL TO INSTALL UNDERGROUND FIRE LINES. PRIOR TO INSTALLATION OF UNDERGROUND FIRE LINES, A SEPARATE PERMIT SHALL BE SUBMITTED, UNDER GROUND FIRE LINE SUPPLY.
2. BACKFLOW PROTECTION WILL BE PROVIDED IN ACCORDANCE WITH THE CITY OF GEORGETOWN REQUIREMENTS WHEN REQUIRED. BACKFLOW PROTECTION WILL BE INSTALLED IN ACCORDANCE WITH THE DETAIL PROVIDED IN THE UTILITY DRAWINGS.
3. ALL PRIVATE FIRE LINES AND WHAT THEY PROVIDE SERVICE TO WILL BE INSTALLED IN ACCORDANCE WITH NFPA 24 INSTULLATION OF PRIVATE SERVICE MAINS AND THEIR APPURTENANCES.
4. ALL TEES, PLUGS, CAPS, BENDS, REDUCERS, VALVES SHALL BE RESTRAINED AGAINST MOVEMENT. THRUST BLOCKING WILL BE INSTALLED IN ACCORDANCE WITH NFPA 24.
5. ALL UNDERGROUND SHALL REMAIN UNCOVERED UNTIL A VISUAL INSPECTION IS CONDUCTED BY THE GEORGETOWN FIRE MARSHAL'S OFFICE (FMO). ALL JOINTS AND THRUST BLOCKING SHALL BE UNCOVERED FOR VISUAL INSPECTION.
6. ALL UNDERGROUND SHALL BE FLUSHED PER THE REQUIREMENTS OF NFPA STANDARD 24 AND WITNESSED BY GEORGETOWN FMO.
7. ALL UNDERGROUND SHALL PASS A HYDROSTATIC TEST WITNESSED BY GEORGETOWN FMO. ALL JOINTS SHALL BE UNCOVERED FOR HYDROSTATIC TESTING. ALL PIPING AND ATTACHMENTS SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE TESTED AT 200 PSI. OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESSURE + OR - 5 PSI FOR 2 HOURS.
8. FENCES, LANDSCAPING AND OTHER ITEMS WILL NOT BE INSTALLED WITHIN 3 FT, AND WHERE THEY WILL OBSTRUCT THE VISIBILITY OR ACCESS TO HYDRANTS, OR REMOTE FDCS.
9. LICENSE REQUIREMENTS OF EITHER RME-U OR G. WHEN CONNECTING BY UNDERGROUND TO THE WATER PURVEYOR'S MAIN FROM THE POINT OF CONNECTION OR VALVE WHERE THE PRIMARY PURPOSE OF WATER IS FOR FIRE PROTECTION SPRINKLER SYSTEM.

LA-507.5.7 FIRE HYDRANT COLOR CODE SYSTEM

PRIVATE FIRE HYDRANT MAINTENANCE SHALL BE IN ACCORDANCE WITH NFPA 291.

A. ALL PRIVATE HYDRANT BARRELS WILL BE PAINTED RED WITH THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN PARAGRAPH C OF THIS SECTION TO INDICATE FLOW. IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO TEST AND MAINTAIN THEIR PRIVATE FIRE HYDRANT(S).
B. ALL PRIVATE FIRE HYDRANTS SHOULD BE INSPECTED, MAINTAINED AND FLOW TESTED ANNUALLY AND COLOR CODED TO INDICATE THE EXPECTED FIRE FLOW FROM THE HYDRANT DURING NORMAL OPERATION. SUCH COLOR APPLIED TO THE FIRE HYDRANT BY PAINTING THE BONNET THE APPROPRIATE COLOR FOR THE EXPECTED FLOW CONDITION.
C. HYDRANT FLOW CODING STANDARDS, PUBLIC HYDRANTS WILL BE PAINTED SILVER, THE HYDRANTS WILL BE FLOW TESTED, AND THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN AS FOLLOWS: AT 20 PSI RESIDUAL.
   FLOW COLOR:
   1. GREATER THAN 1500 GPM BLUE
   2. 1000 TO 1500 GPM GREEN
   3. 500 TO 999 GPM ORANGE
   4. LESS THAN 500 GPM RED
   5. NOT WORKING BLACK OR BAGGED

D. AT THE CONCLUSION OF CONSTRUCTION FIRE HYDRANTS SHALL BE FLOW TESTED AND COLOR CODED IN ACCORDANCE WITH CITY'S STANDARDS, AND RESULTS SHALL BE EMAILED TO THE FIRE DEPARTMENT. IFC-LA-507.5.7 FIRE HYDRANT SYSTEMS.

XXXX-XX-SDP

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
WATER & WASTEWATER PLAN SHEET 2 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION 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.
39

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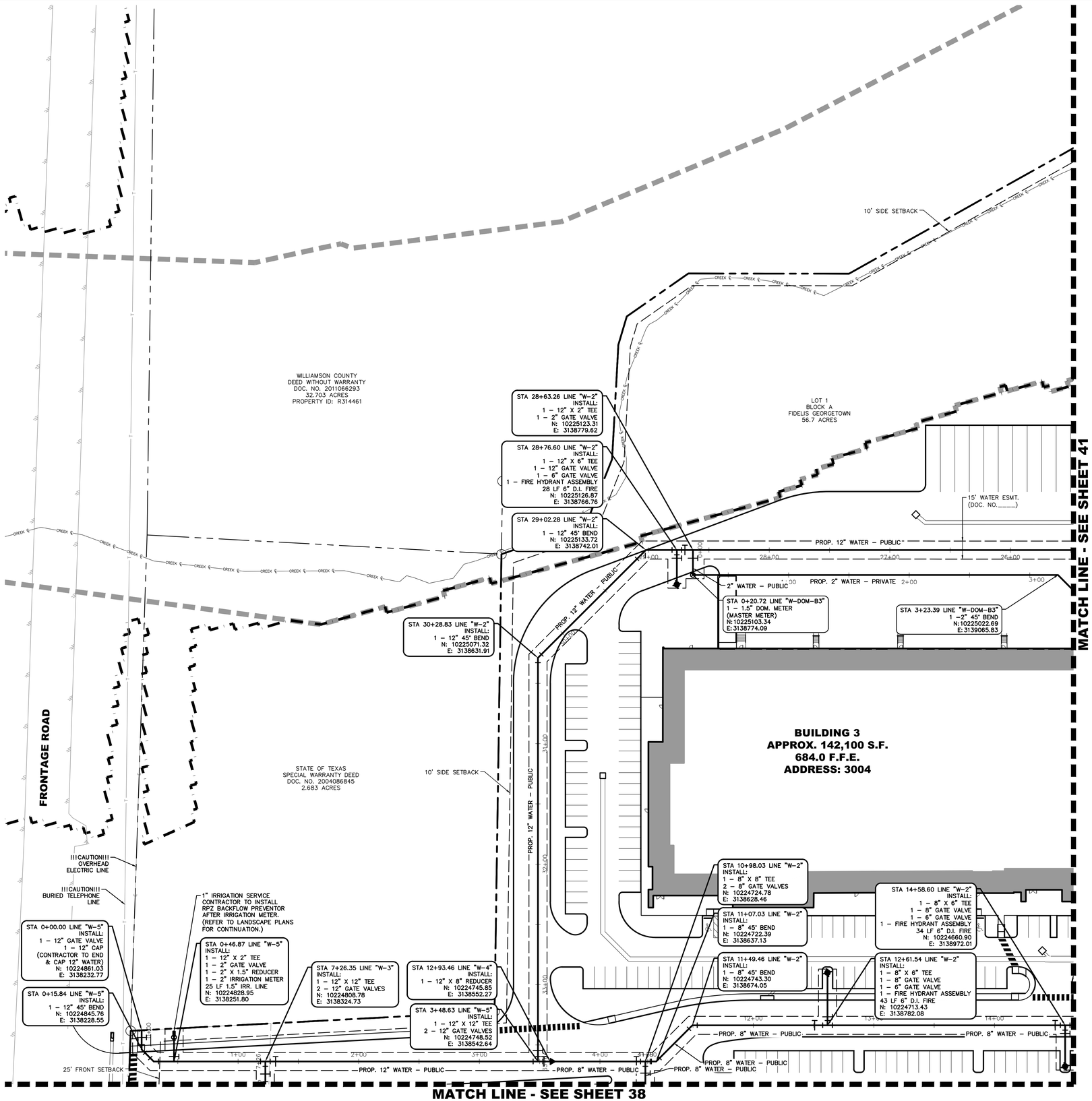

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GRAPHIC SCALE IN FEET
1"=40'

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
- JX — 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
- 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
- FEMA FLOODWAY
- FEMA 100 YEAR FLOODPLAIN
- CREEK ℄ — CREEK CENTERLINE

FIRE PROTECTION NOTES

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LA-507.5.7 FIRE HYDRANT COLOR CODE SYSTEM

PRIVATE FIRE HYDRANT MAINTENANCE SHALL BE IN ACCORDANCE WITH NFPA 291.

A. ALL PRIVATE HYDRANT BARRELS WILL BE PAINTED RED WITH THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN PARAGRAPH C OF THIS SECTION TO INDICATE FLOW. IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO TEST AND MAINTAIN THEIR PRIVATE FIRE HYDRANT(S).
B. ALL PRIVATE FIRE HYDRANTS SHOULD BE INSPECTED, MAINTAINED AND FLOW TESTED ANNUALLY AND COLOR CODED TO INDICATE THE EXPECTED FIRE FLOW FROM THE HYDRANT DURING NORMAL OPERATION. SUCH COLOR APPLIED TO THE FIRE HYDRANT BY PAINTING THE BONNET THE APPROPRIATE COLOR FOR THE EXPECTED FLOW CONDITION.
C. HYDRANT FLOW CODING STANDARDS. PUBLIC HYDRANTS WILL BE PAINTED SILVER, THE HYDRANTS WILL BE FLOW TESTED, AND THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN AS FOLLOWS: AT 20 PSI RESIDUAL.
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XXXX-XX-SDP

Pacheco Koch
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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

WATER & WASTEWATER PLAN SHEET 3 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
40

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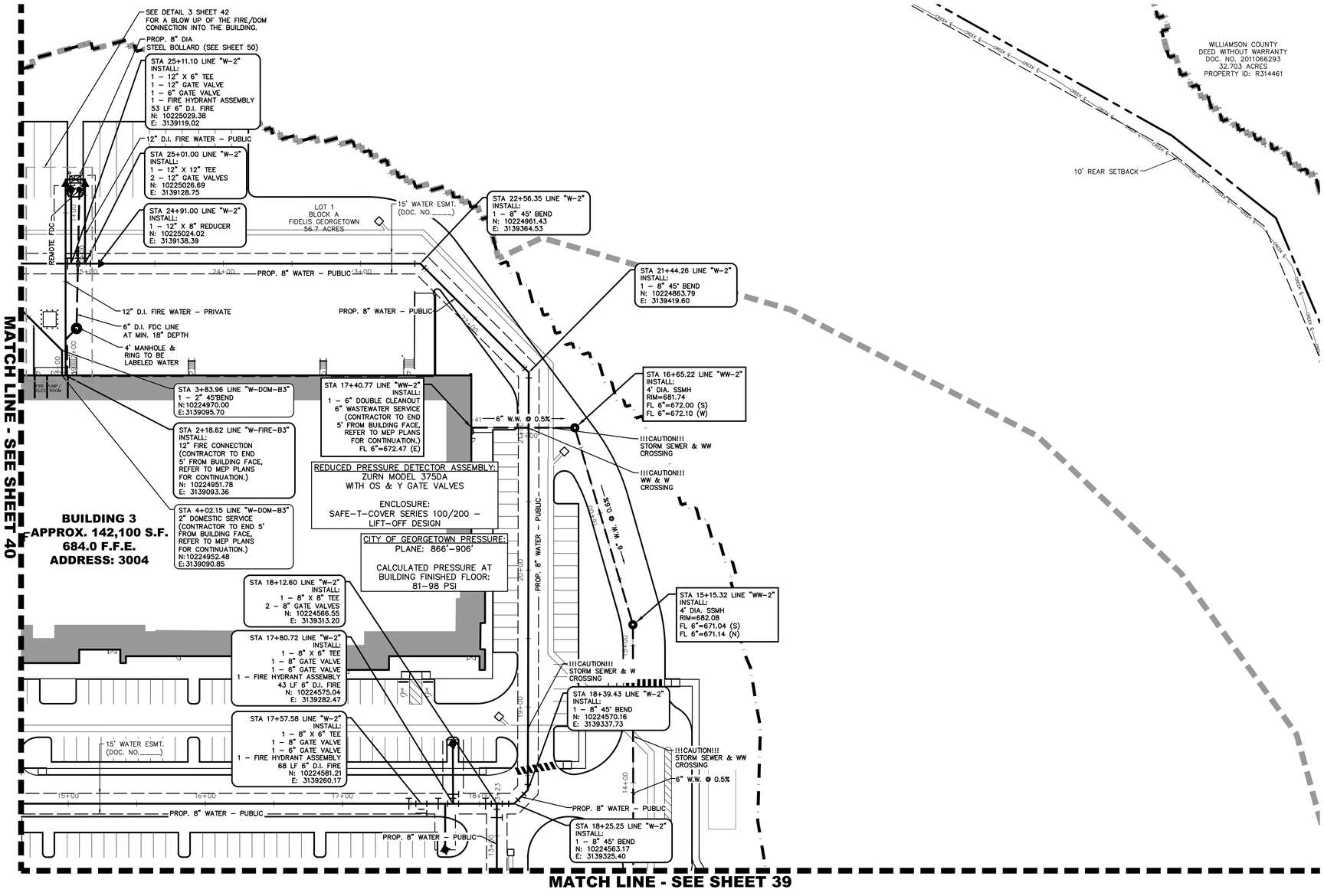
PK–4670–22.125_UTILITY.DWG



FIRE PROTECTION NOTES

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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.	DESCRIPTION	DATE	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

WATER & WASTEWATER PLAN SHEET 4 OF 4

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO. 41

XXXX-XX-SDP

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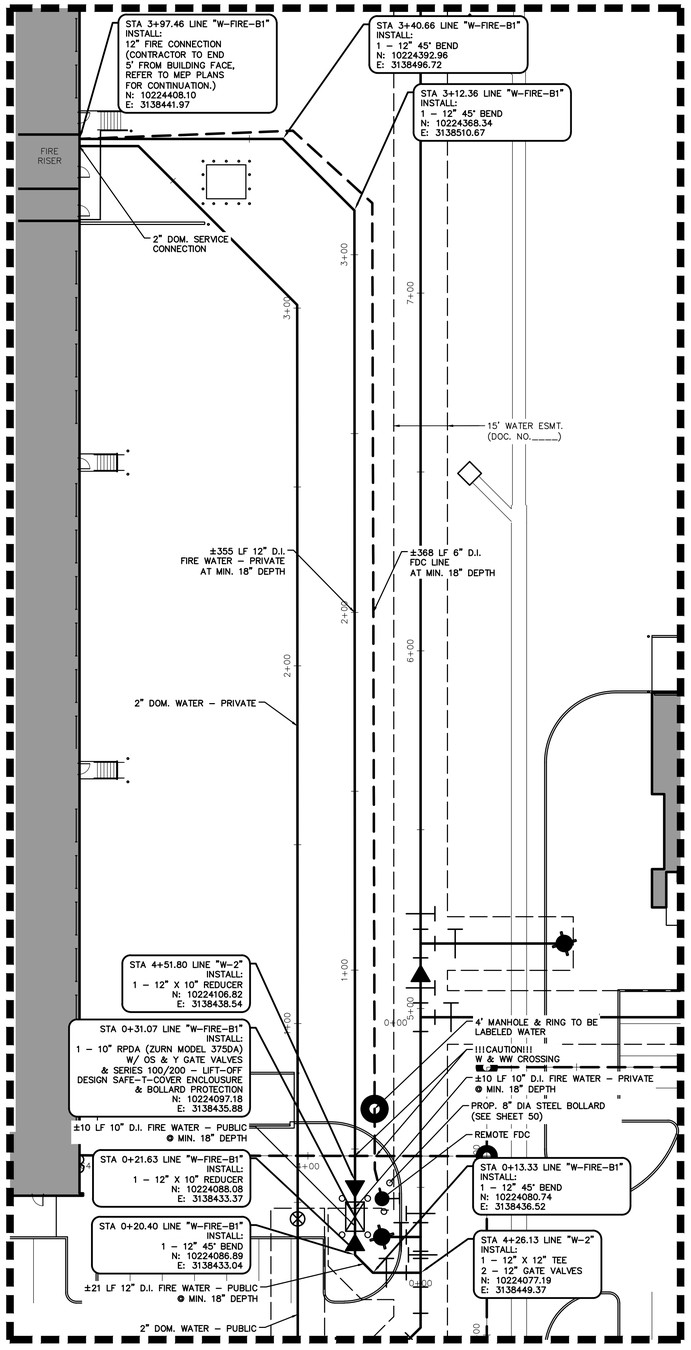
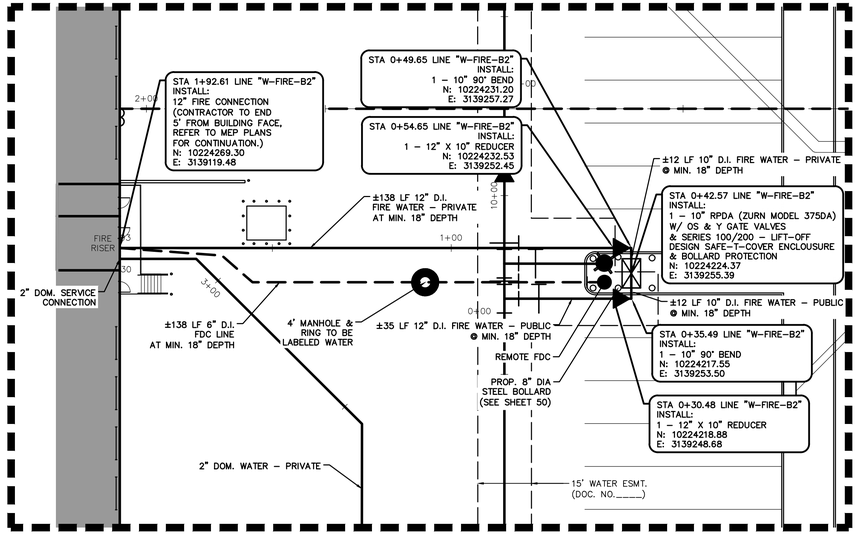


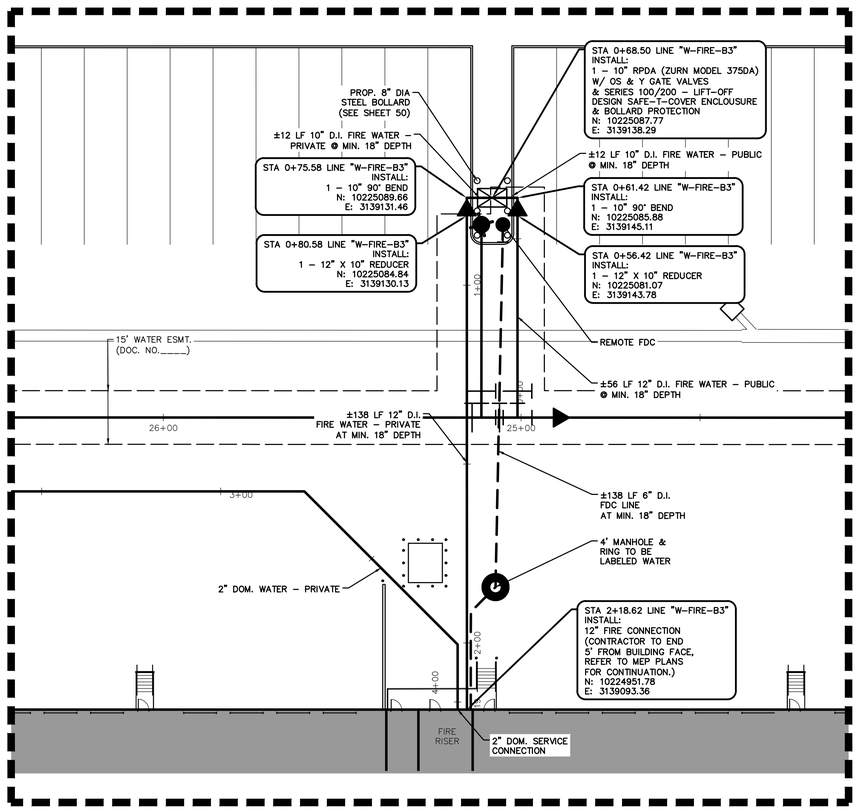
1.) BUILDING 1: FIRE & DOMESTIC CONNECTION

1"=20



2.) BUILDING 2: FIRE & DOMESTIC CONNECTION

1"=20



3.) BUILDING 3: FIRE & DOMESTIC CONNECTION

1"=20

0 20 40 80 120

GRAPHIC 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
	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
C	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
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
CREEK	CREEK CENTERLINE

FIRE PROTECTION NOTES

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LA-507.5.7 FIRE HYDRANT COLOR CODE SYSTEM

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XXXX-XX-SDP

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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

FIRE & DOMESTIC CONNECTION BLOWUPS

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
42

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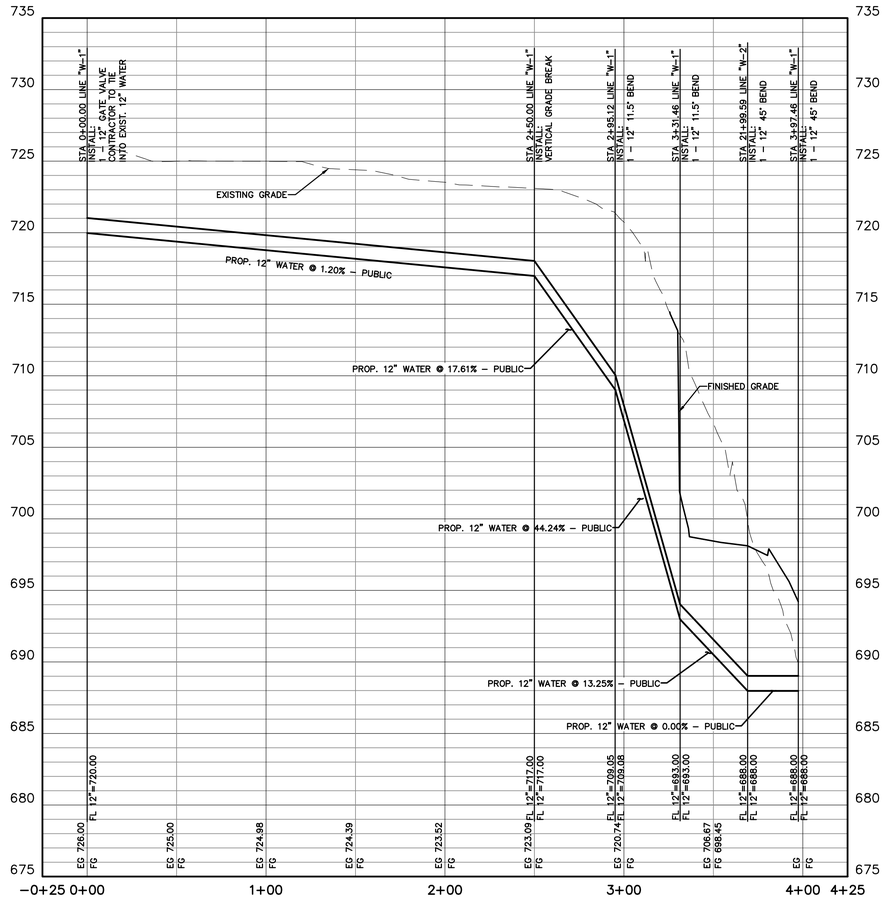

PROFILE: W-1
(PUBLIC)

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GRAPHIC SCALE IN FEET
1"=40'

0 5 10 15
VERTICAL SCALE IN FEET
V:1"=5'

Pacheco Koch
a Westwood company
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TX REG. ENGINEERING FIRM F-469
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REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

UTILITY PROFILE SHEET 1 OF 6

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
43

XXXX-XX-SDP

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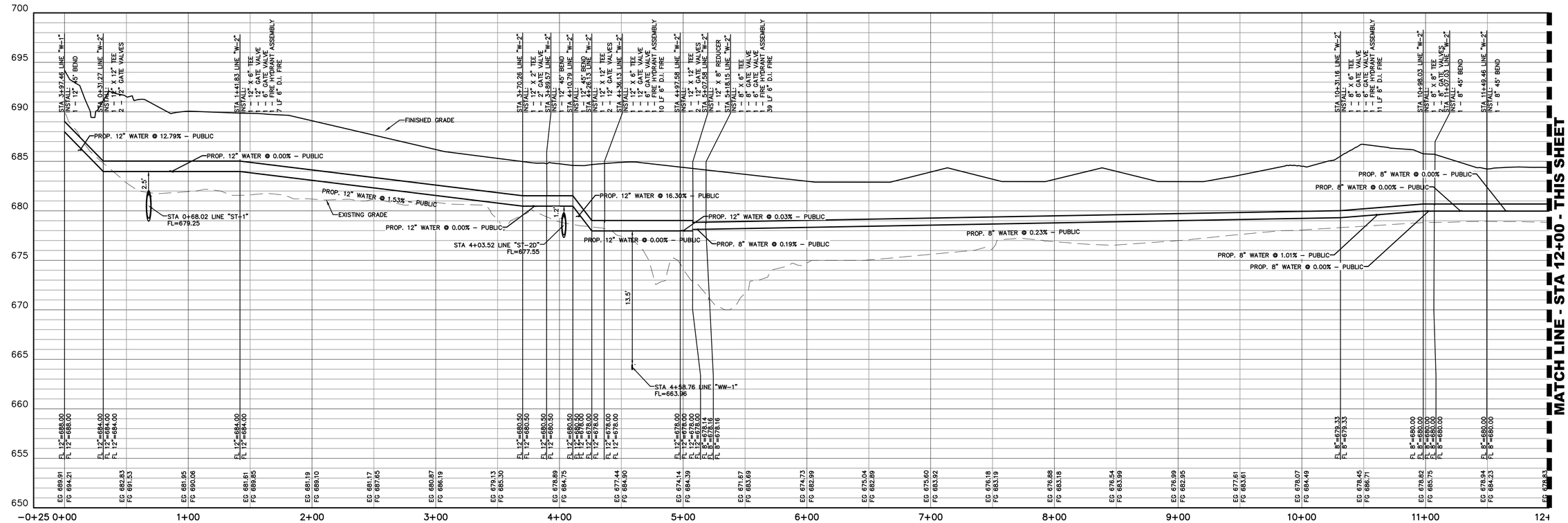

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REVISIONS

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BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

UTILITY PROFILE SHEET 2 OF 6

HOLLIS ANN SCHEFFLER
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LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

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SHEET NO.
44

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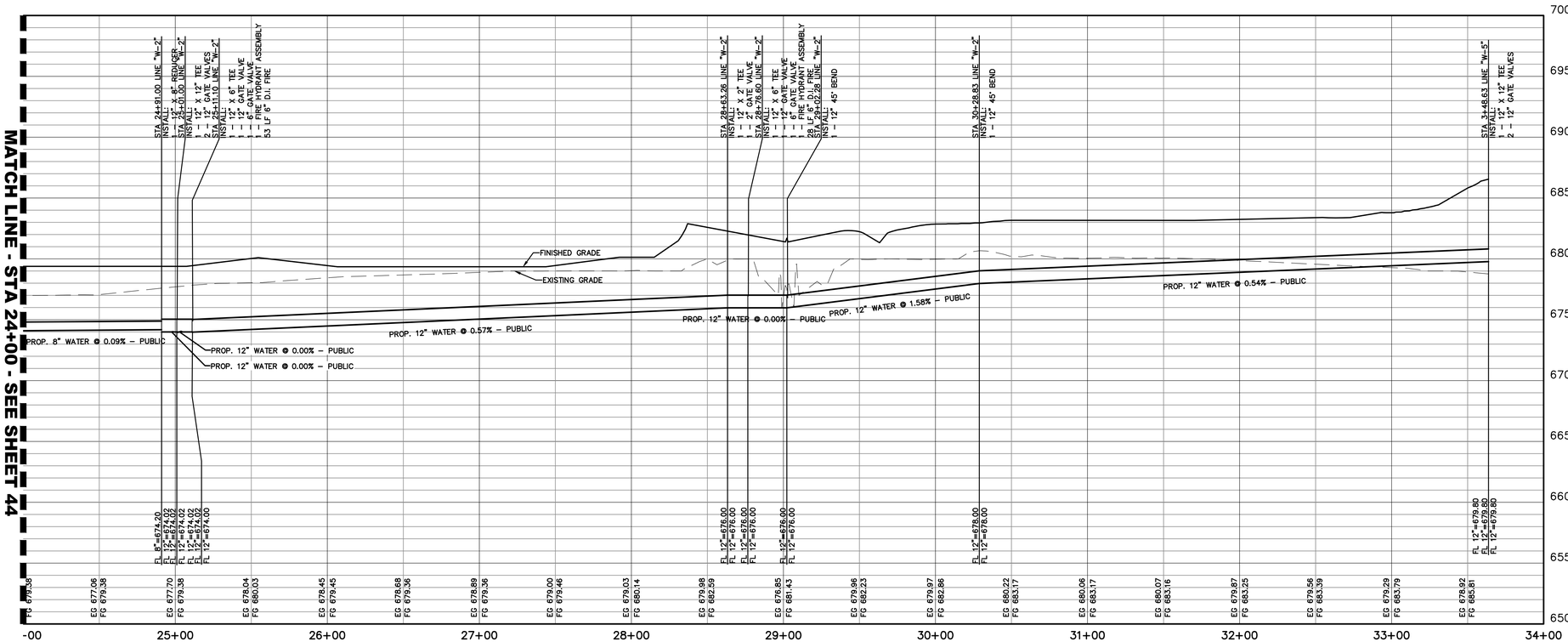

XXXX-XX-SDP

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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
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GEORGETOWN, TEXAS, 78626

UTILITY PROFILE SHEET 3 OF 6

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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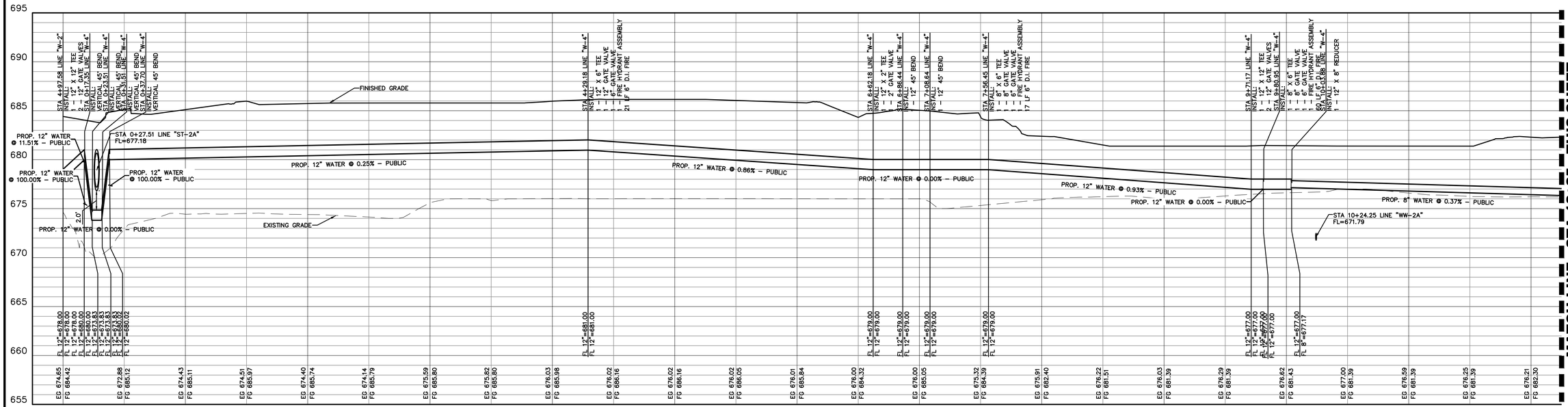
VERTICAL SCALE IN FEET V:1"=5' (0, 5, 10, 15)



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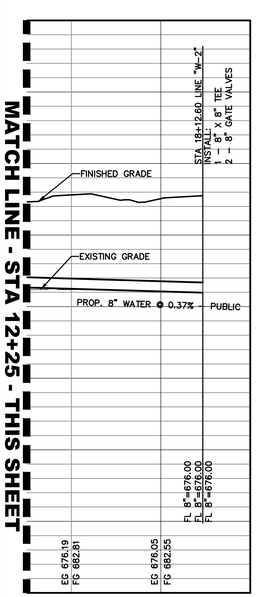

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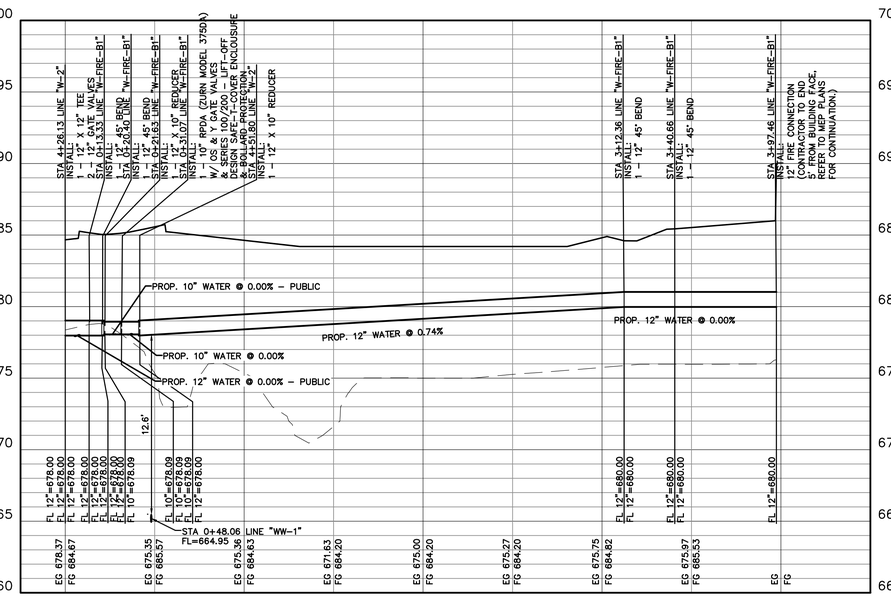

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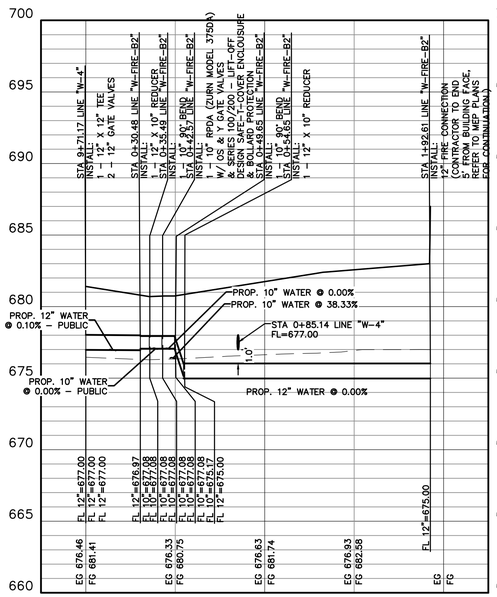

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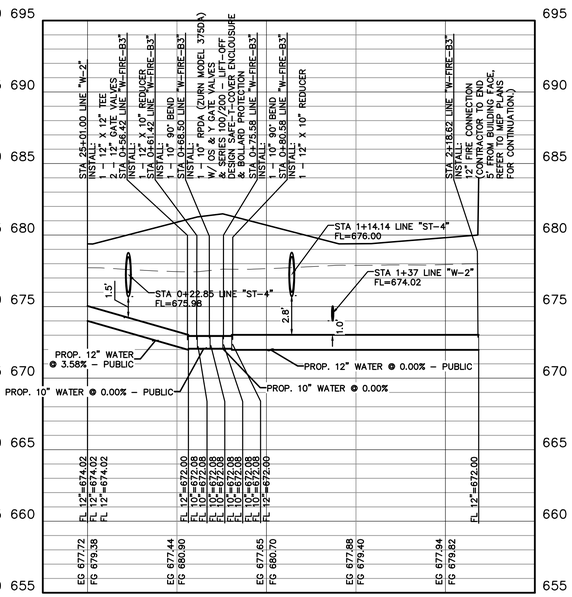

PROFILE: W-FIRE-B3 (PRIVATE)

XXXX-XX-SDP

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UTILITY PROFILE SHEET 4 OF 6

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
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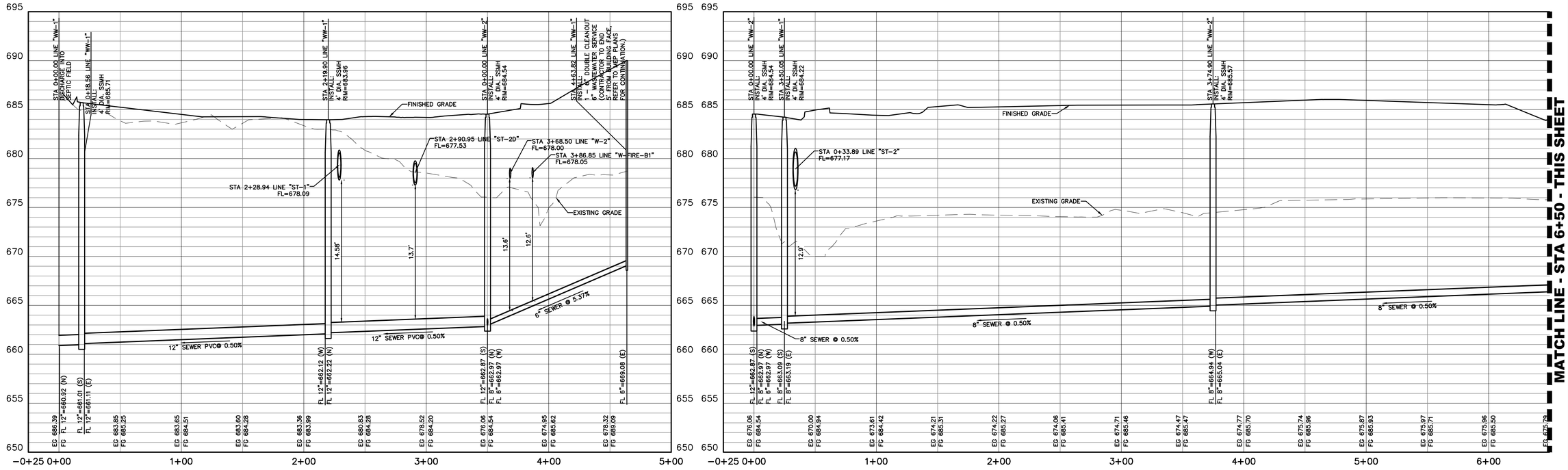

XXXX-XX-SDP

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UTILITY PROFILE SHEET 5 OF 6

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED PROFESSIONAL ENGINEER

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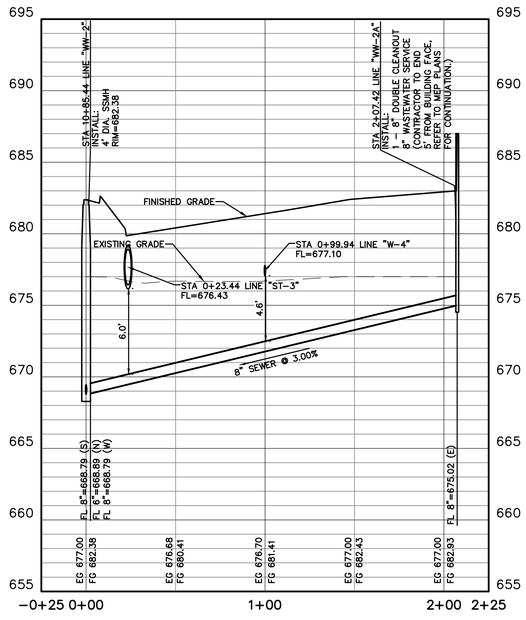
VERTICAL SCALE IN FEET
V: 1"=5'



PROFILE: WW-2A

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UTILITY PROFILE SHEET 6 OF 6

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
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LICENSED PROFESSIONAL ENGINEER

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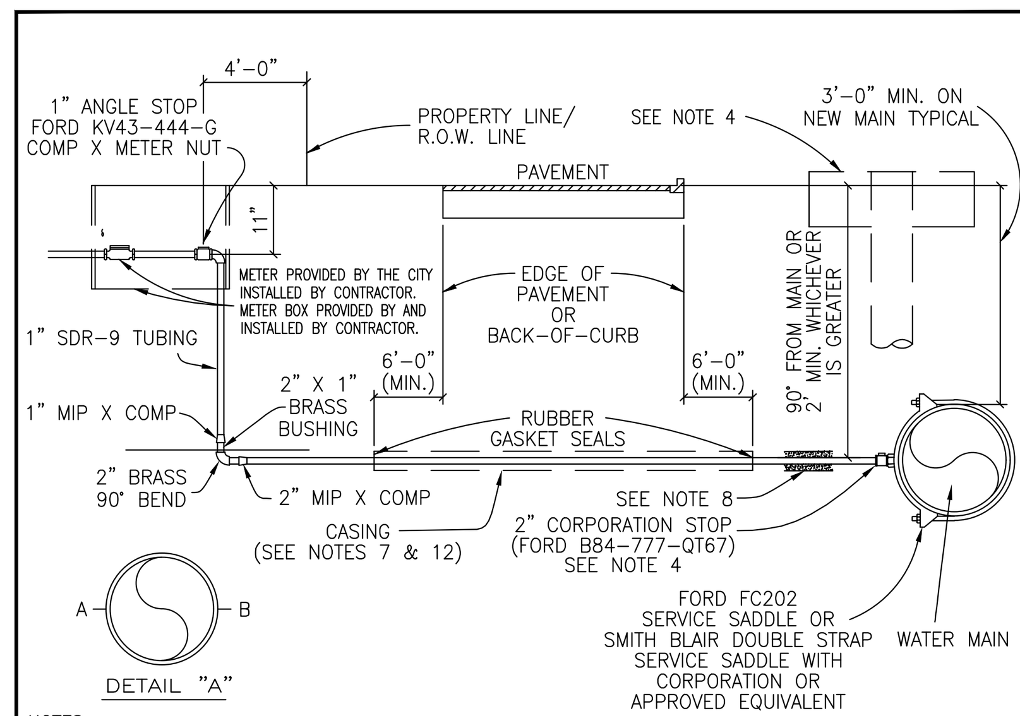


NOTES:
1. SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18" OFFSET AND AT THE CENTERLINE AS SHOWN ON DETAIL "A".
2. WHERE NO SIDEWALK EXISTS, METER BOXES SHALL BE SET TO CONFORM TO FINISHED GRADE.
3. AUTHORIZED SERVICE LINE MATERIAL: POLYETHYLENE TUBING SHALL BE SDR-9. CLASS 200, SDR TUBING SHALL HAVE STAINLESS STEEL STIFFENERS.
4. ROTATE THE CORPORATION STOP SO THAT THE OPERATING NUT IS ACTUATED FROM THE VERTICAL POSITION RATHER THAN THE HORIZONTAL. SEE STD. RISER FOR CORP. STOP DETAIL, (DWG # W08).
5. SERVICE LINES SHALL BE CONTINUOUS FROM CORPORATION STOP TO CORPORATION STOP WITH NO FITTINGS IN BETWEEN.
6. SERVICE CASING SHALL NOT BE INSTALLED BY WATER JETTING UNDER ROADWAY.
7. CASING REQUIRED FOR ALL PAVEMENT CROSSINGS. 4" SDR-26 REQUIRED FOR OPEN-CUT. STEEL CASING PIPE REQUIRED FOR JACK AND BORE. LIMITS OF CASING SHOULD EXTEND SIX FEET BEYOND THE EDGE OF PAVEMENT OR BACK-OF-CURB.
8. BEDDING MATERIAL AS PER CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS.
9. ANY VARIATIONS ON FITTINGS MUST BE APPROVED BY THE CITY ENGINEER.
10. METER BOX TO BE CAPABLE OF HOUSING ITRON AUTOMATIC METER READING DEVICE. USE DFW-PLASTICS, INC. PART NO. 1200.SBAMR OR APPROVED EQUAL.
11. ALL SERVICE LINES SHALL BE PLACED 90° PERPENDICULAR TO THE ROADWAY. SEE DETAIL W23.
12. CASING SHALL EXTEND OUT TO WITHIN 4' INSIDE OF THE R.O.W. LINE, ON BOTH SIDES.

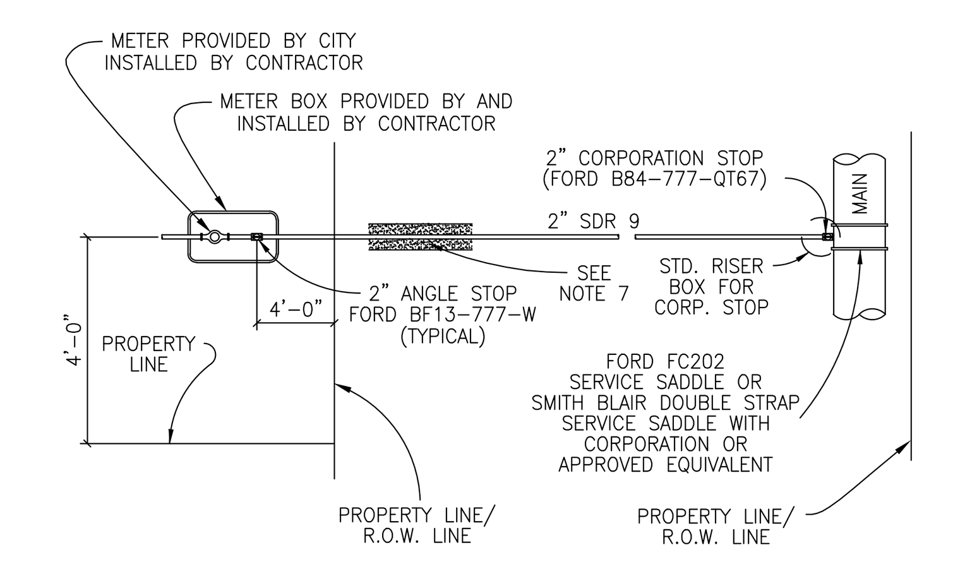
The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 01/23/2013

GEORGETOWN TEXAS EST. 1848 Georgetown Utility Systems Your Community Owned Utility

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL WATER SERVICE-ELEVATION

W03 | NTS | 1/2013 | – | MH



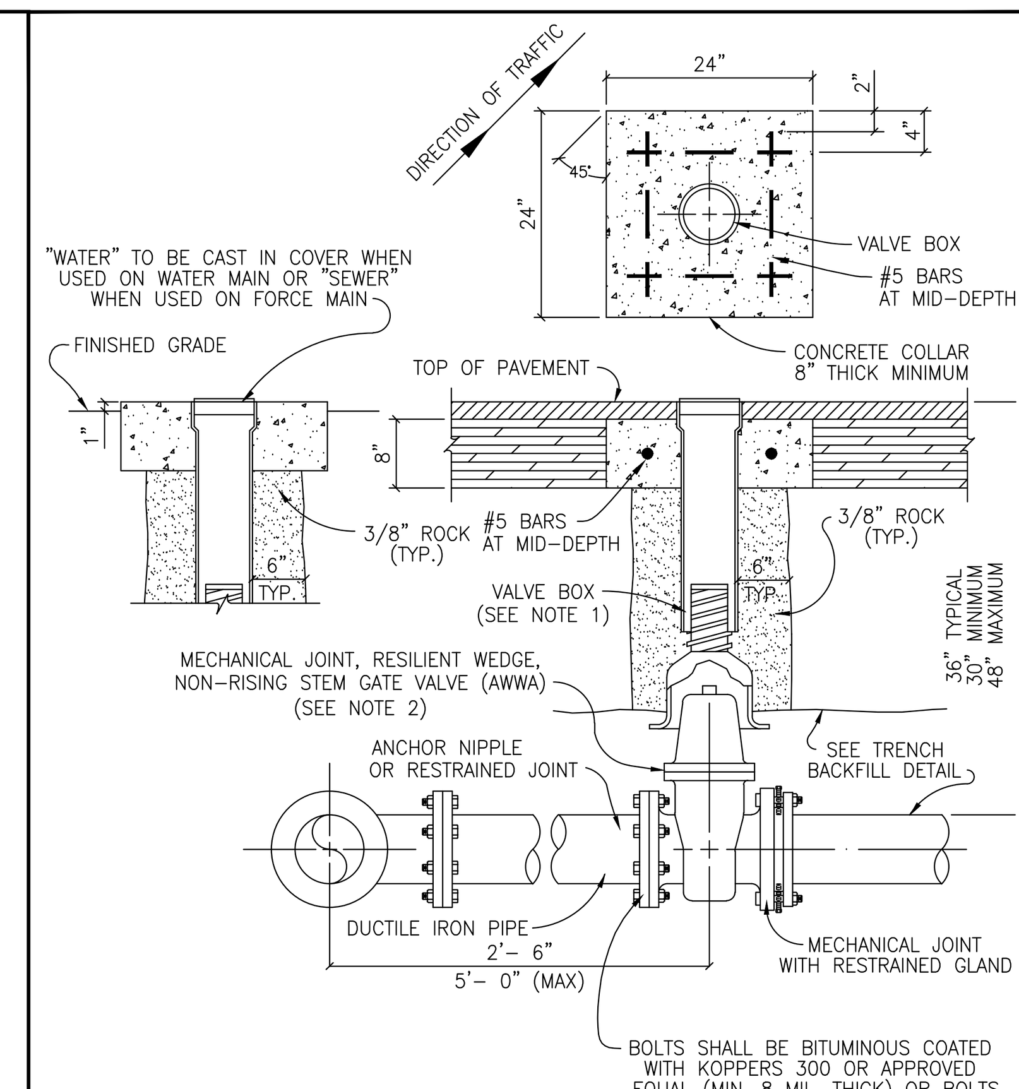
NOTES:
1. AUTHORIZED SERVICE LINE MATERIAL: POLYETHYLENE TUBING SHALL BE SDR-9. CLASS 200, SDR TUBING SHALL HAVE STAINLESS STEEL STIFFENERS.
2. ANGLE STOP SHALL BE 1" MINIMUM.
3. 1" ANGLE STOPS WITH 3/4" VALVES SHALL NOT BE PERMITTED.
4. MULTIPLE SERVICE/METER INSTALLATIONS OF MORE THAN 4 METERS PER SERVICE AND SERVICE LINES LARGER THAN 2" IN DIAMETER SHALL BE HANDLED ON AN INDIVIDUAL BASIS.
5. ANGLE STOPS 1 1/2" AND 2" IN SIZE SHALL BE PROVIDED WITH BOTH A LOCKING CAP AND METER FLANGE.
6. ANGLE STOPS SHALL BE INSTALLED 8" BELOW FINISHED GRADE AND MARKED WITH A 2" X 2" X 48" TREATED WOOD STAKE, PAINTED BLUE.
7. BEDDING MATERIAL AS PER CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS.
8. CASING REQUIREMENTS FOR SERVICE LINES CROSSING ROADWAYS SEE DETAIL W-03 NOTE #7.
9. ANY VARIATIONS ON FITTINGS MUST BE APPROVED BY THE CITY ENGINEER.
10. ALL SERVICE LINES SHALL BE PLACED 90° PERPENDICULAR TO THE ROADWAY.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 01/23/2013

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SINGLE WATER SERVICE PLAN

W04 | NTS | 1/2013 | – | MH



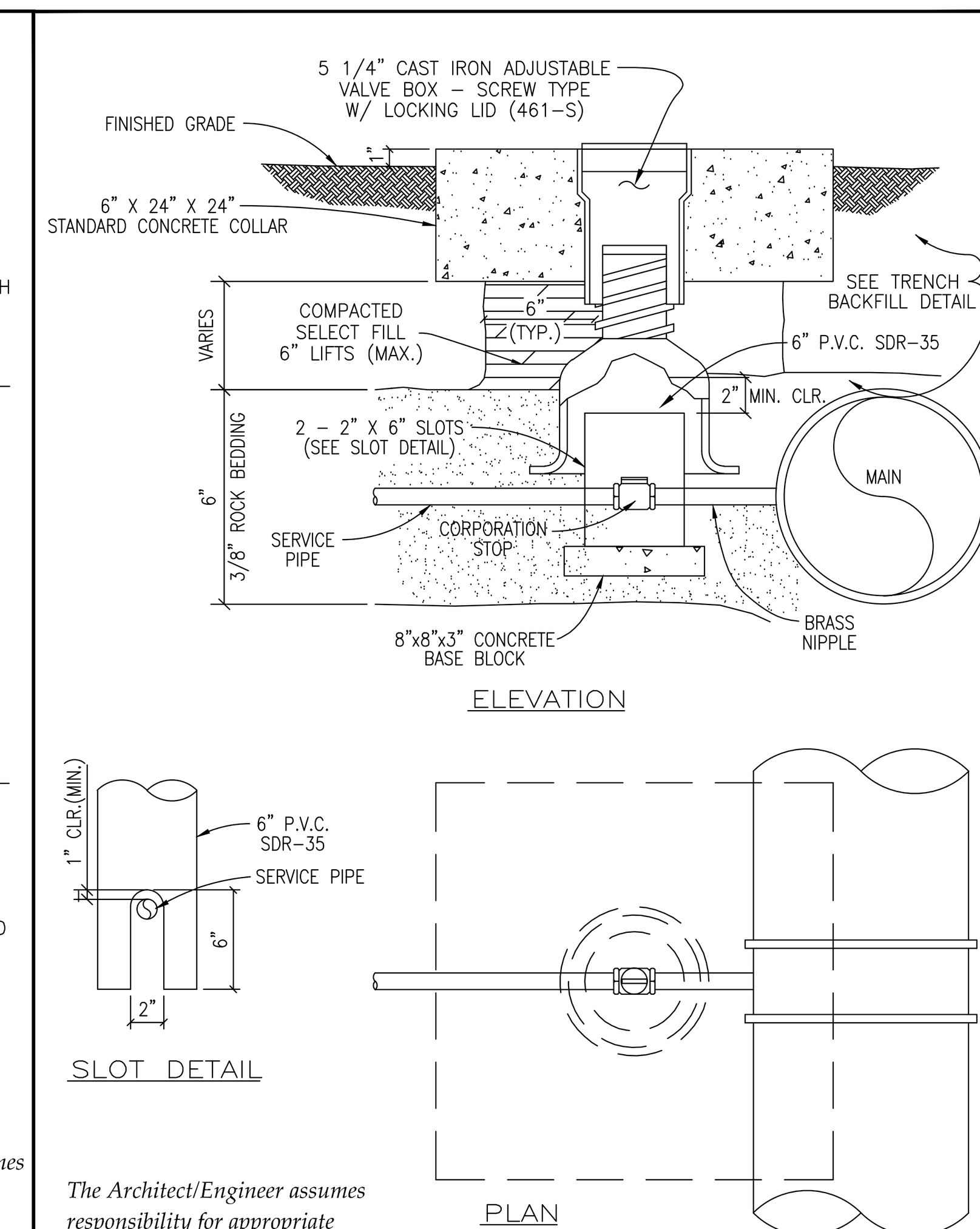
NOTES:
1. VALVE BOX SHALL BE 5 1/4" CAST IRON ADJUSTABLE HAVING AN ADJUSTABLE RANGE OF + OR – 6 INCHES FROM INSTALLED FINISH GRADE.
2. ACCEPTABLE GATE VALVES ARE:
   A. AMERICAN FLOW CONTROL – SERIES 2500
   B. MUELLER – 2360 SERIES
   C. CLOW

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL VALVE SETTING

W07 | NTS | 1/2003 | MRS | TRB



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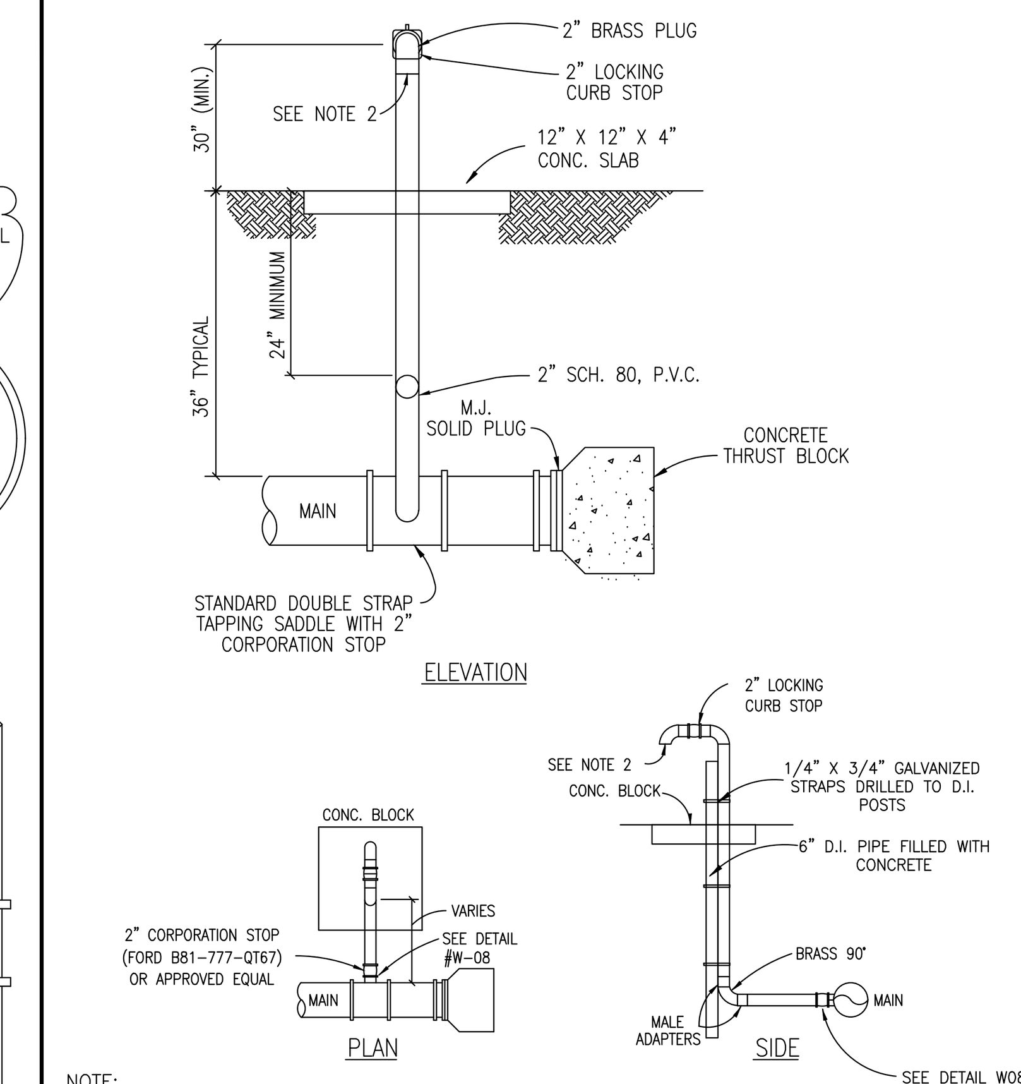
ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD RISER BOX FOR CORPORATION STOP

W08 | NTS | 1/2003 | MRS | TRB



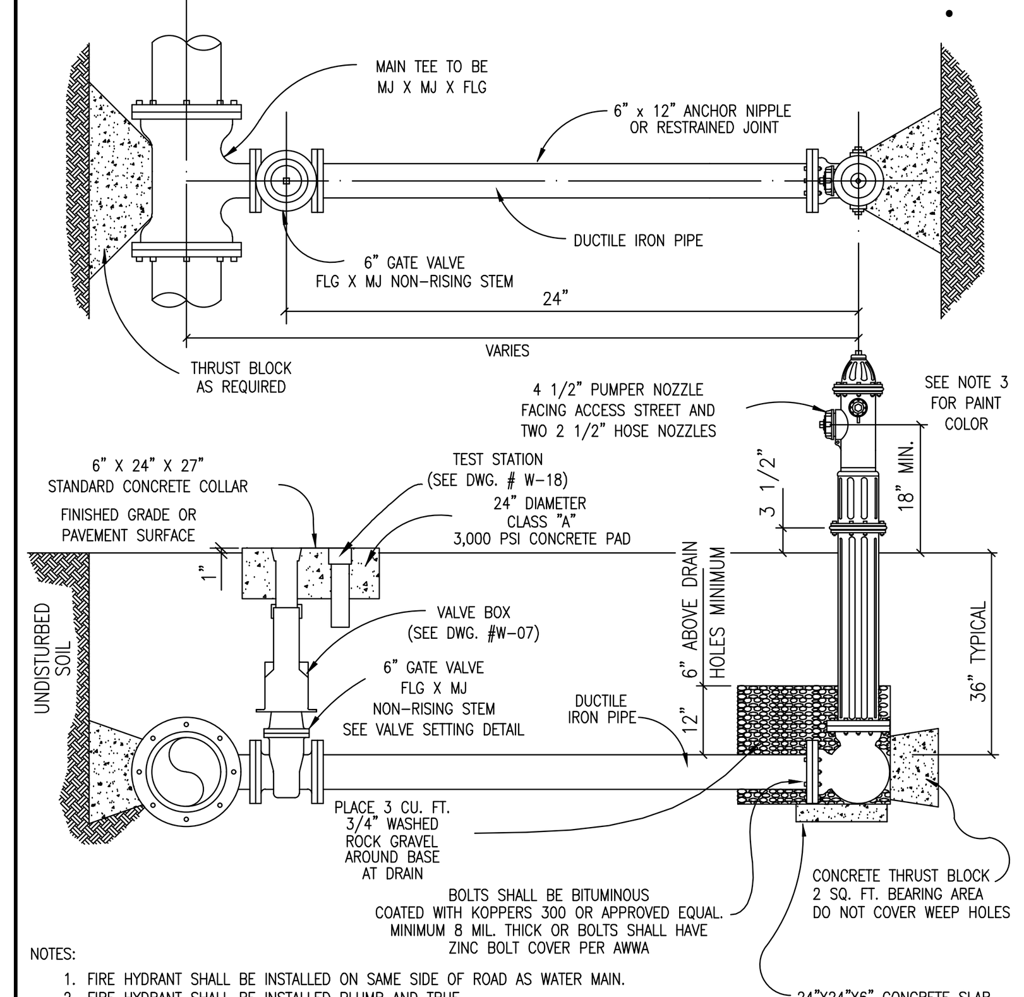
NOTE:
1. ATTACH FIRE HYDRANT CONNECTION AT THE END OF THE BLOW OFF VALVE.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD BLOW-OFF

W09 | NTS | 1/2003 | MRS | TRB



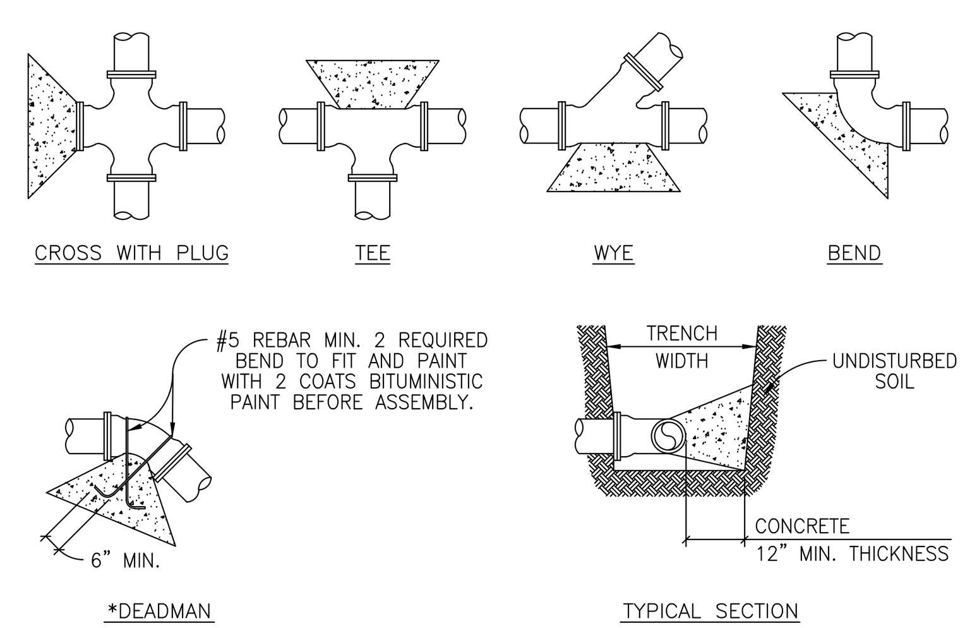
NOTES:
1. FIRE HYDRANT SHALL BE INSTALLED ON SAME SIDE OF ROAD AS WATER MAIN.
2. FIRE HYDRANT SHALL BE INSTALLED PLUMB AND TRUE.
3. ALL FIRE HYDRANT EXTERIORS SHALL BE FACTORY PRIMED AND PAINTED SILVER USING A HIGH GRADE ENAMEL.
4. HEEL AND THRUST BLOCKS TO REST IN UNDISTURBED SOIL.
5. THE ONLY FIRE HYDRANTS ACCEPTABLE ARE:
   A. KENNEDY – K81
   B. AMERICAN DARLING – B84B
   C. CLOW MEDALLION
6. DOUBLE BLUE REFLECTOR "HYE-LITES" BRAND, MANUFACTURED BY PAVEMENT MARKERS INC. TO BE INSTALLED AT CENTERLINE OF STREET PERPENDICULAR TO HYDRANT.
7. ALL METALLIC PIPES AND FITTINGS SHALL BE WRAPPED WITH 8 MILL. POLYETHELENE FILM.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL FIRE HYDRANT INSTALLATION

W10 | NTS | 1/2003 | MRS | TRB



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.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL THRUST BLOCKS FOR WATER AND FORCE MAIN

W11 | NTS | 1/2003 | MRS | TRB

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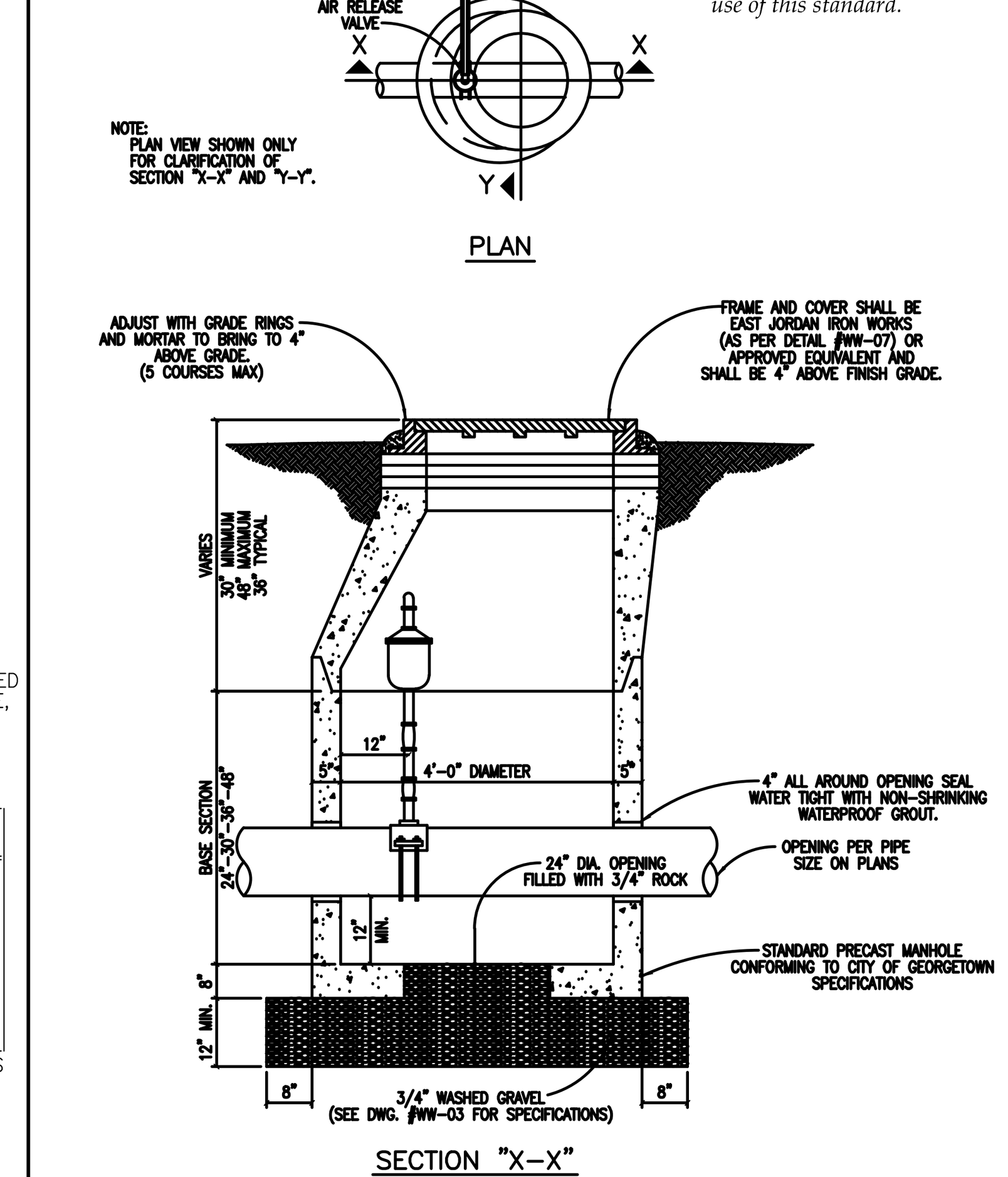
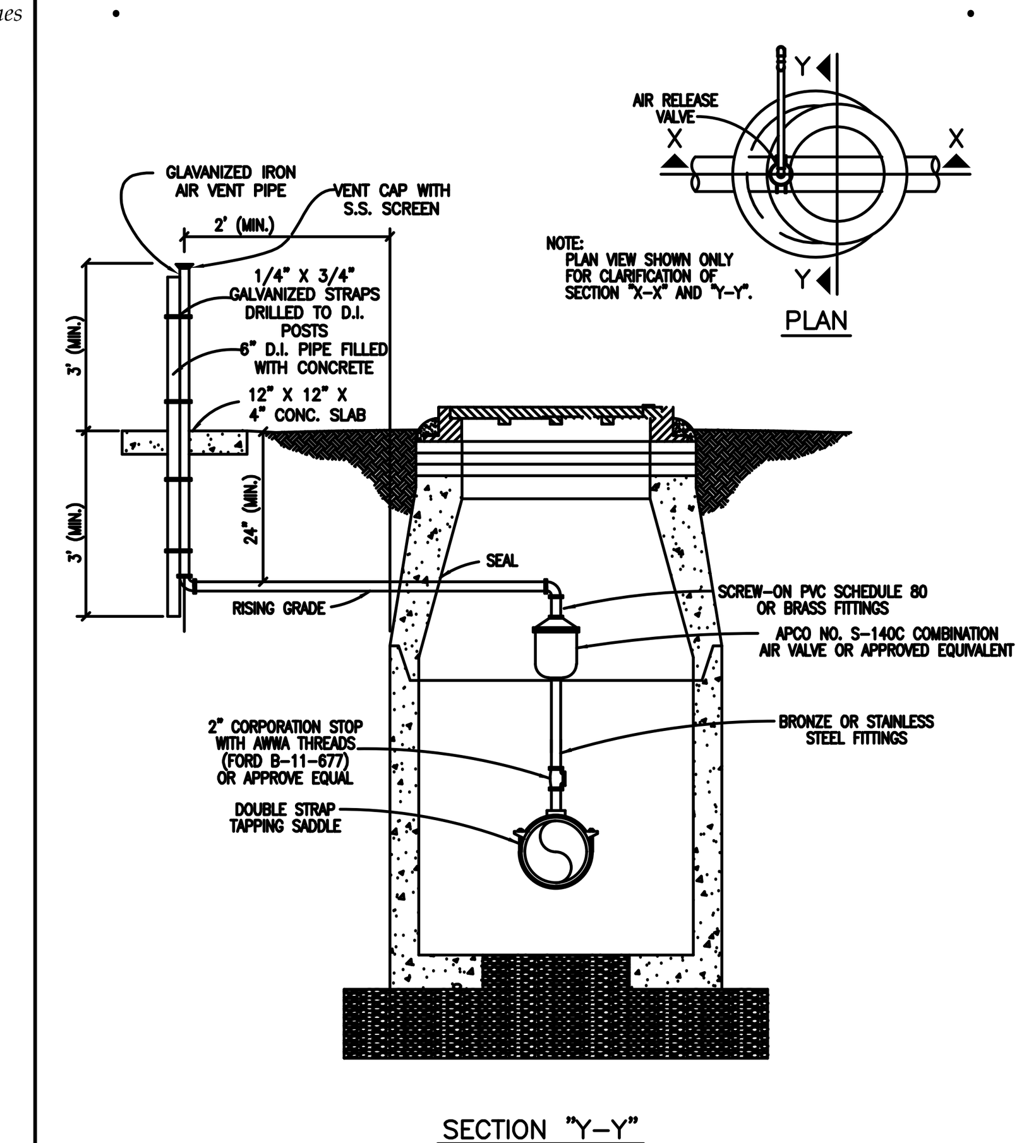


ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD AIR RELEASE VALVE FOR WATER MAIN

W12 | NTS | 1/2003 | MRS | TRB



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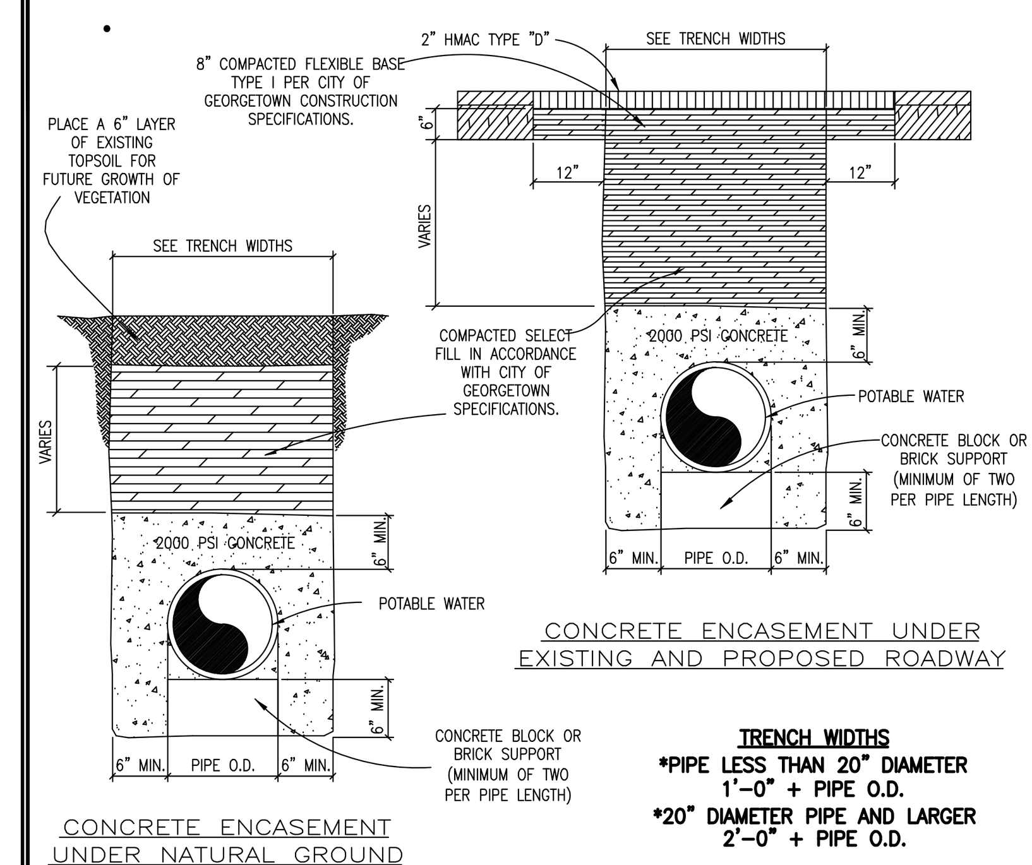
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD AIR RELEASE VALVE FOR WATER MAIN

W13 | NTS | 1/2003 | MRS | TRB



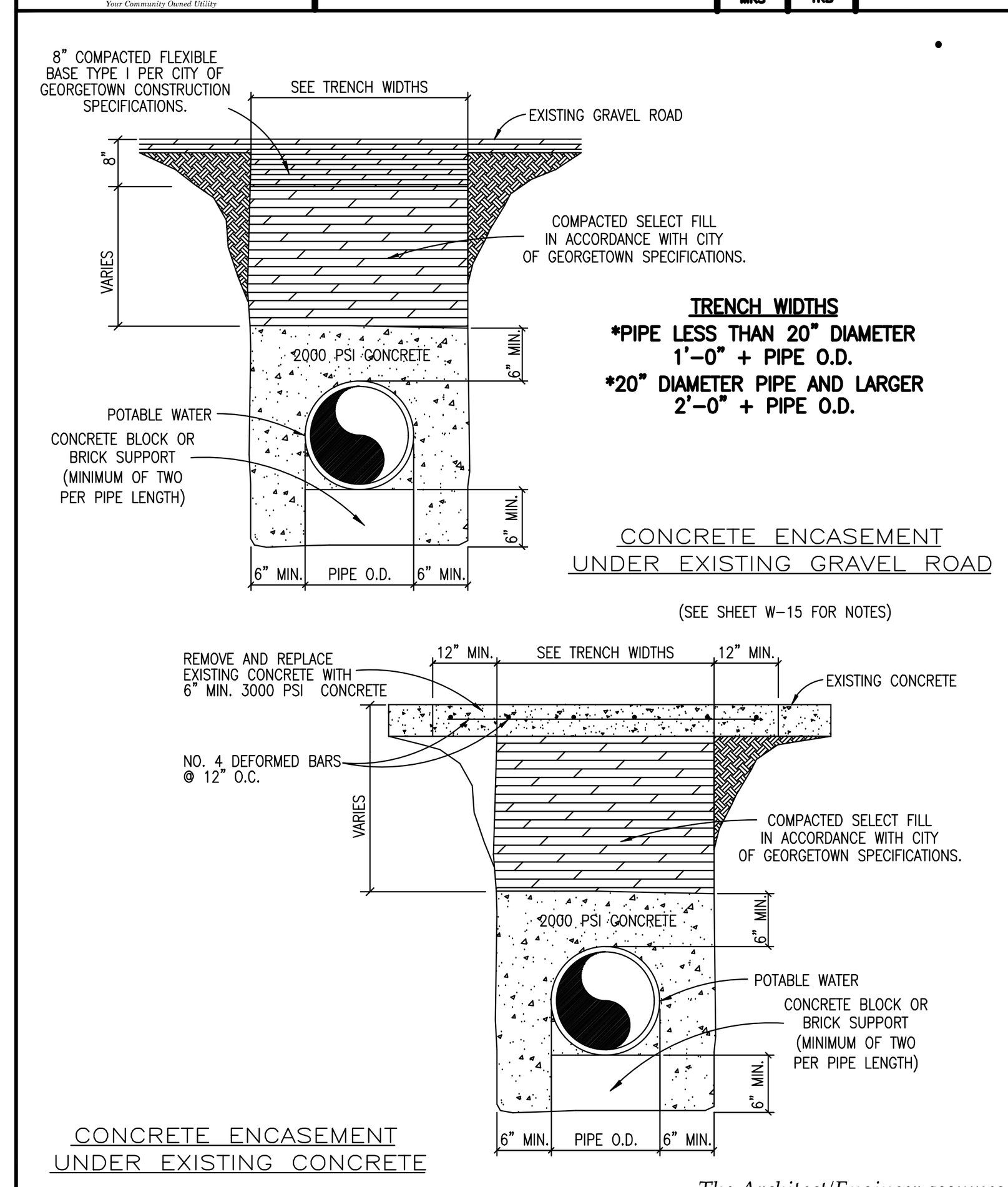
NOTES:
1. ENCASEMENT TO BE CONSTRUCTED WHERE SEWER LINES PASS OVER OR UNDER A WATER MAIN WITH LESS THAN TWELVE INCHES (12") CLEAR DISTANCE.
2. AT CROSSINGS, ENCASEMENT SHALL EXTEND TEN FEET (10'-0") ON EITHER SIDE OF CROSSING.
3. BEGINNING AND ENDING OF ENCASEMENTS SHALL NOT BE MORE THAN SIX INCHES (6") 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.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
CONCRETE ENCASEMENT DETAIL

W15 | NTS | 1/2003 | MRS | TRB



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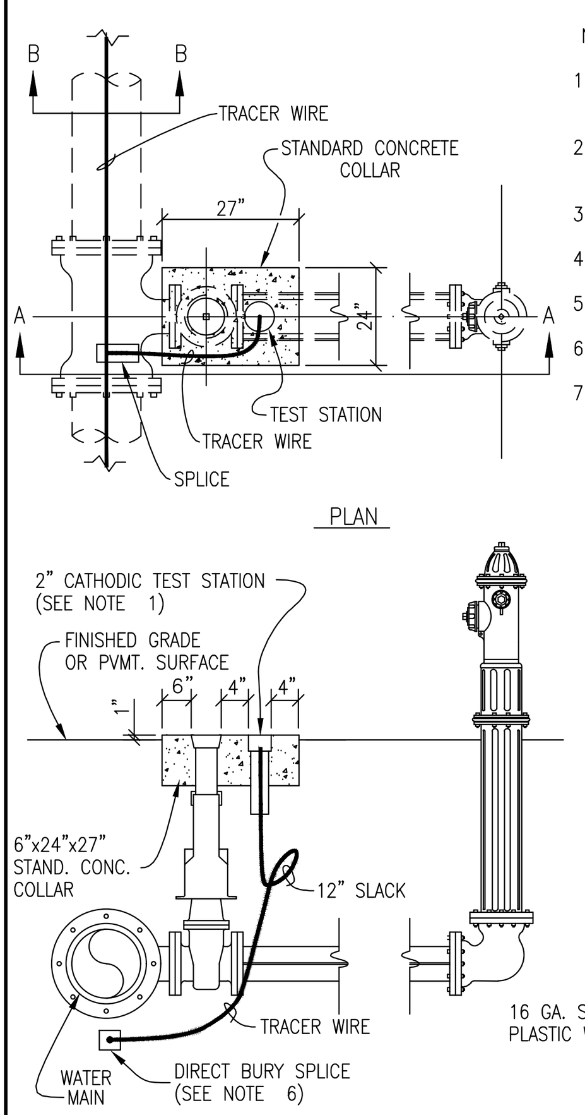
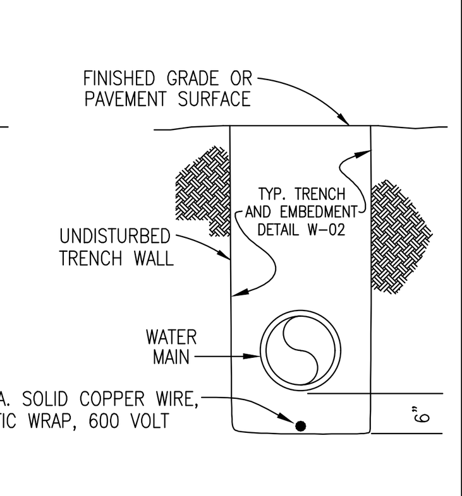
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
CONCRETE ENCASEMENT DETAIL

W16 | NTS | 1/2003 | MRS | TRB



NOTES:
1. TEST STATION SHALL BE HANDLEY INDUSTRIES INC. – 2 INCH CATHODIC TEST STATIONS OR APPROVED EQUAL.
2. THE 15" ABS PLASTIC BOX SHALL BE A FLANGED TOP FOR INSTALLATION AT GROUND LEVEL.
3. ALL TERMINALS ARE TO BE MADE OF SOLID BRASS.
4. PLASTIC LIDS SHALL BE COLOR BLUE AND MARKED "WATER".
5. TEST TERMINALS ARE TO BE INCORPORATED WITH HANDLEY VALVE BOXES.
6. BURY SPLICE SHALL BE 3M DIRECT BURY SPLICE (DBR) OR APPROVED EQUAL.
7. TEST STATIONS SHALL BE INSTALLED AT EACH FIRE HYDRANT LOCATION.



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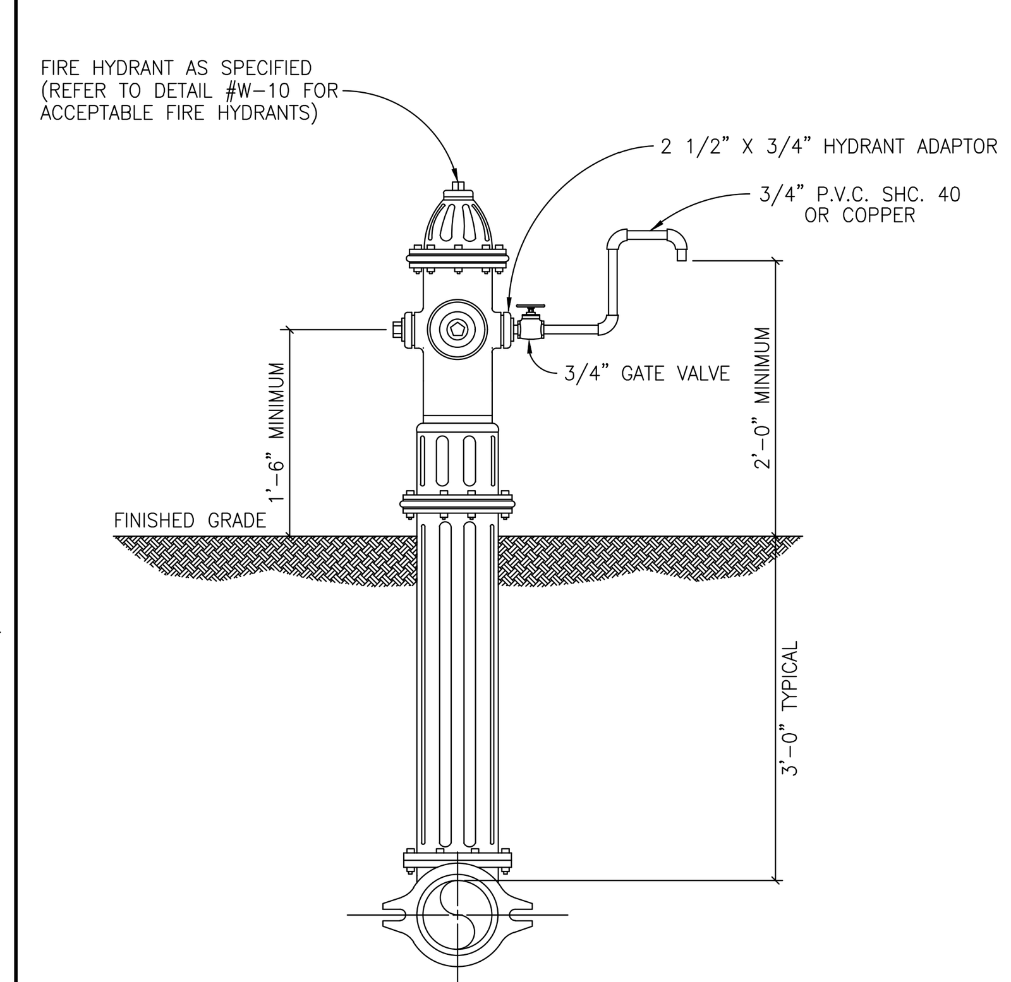
ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRACER WIRE INSTALLATION AND TEST STATION LOCATION

W18 | NTS | 1/2003 | MRS | TRB



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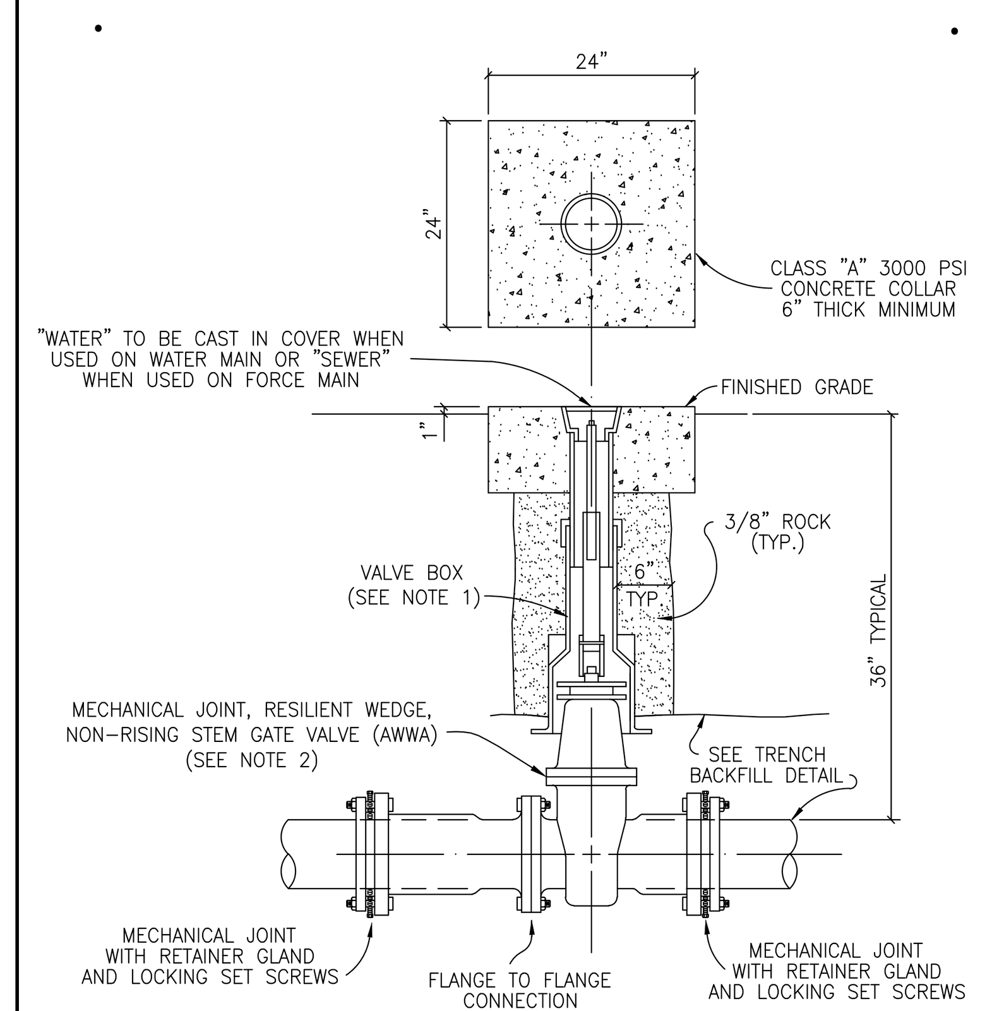
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
FIRE HYDRANT SAMPLING POINT

W19 | NTS | 1/2003 | MRS | TRB



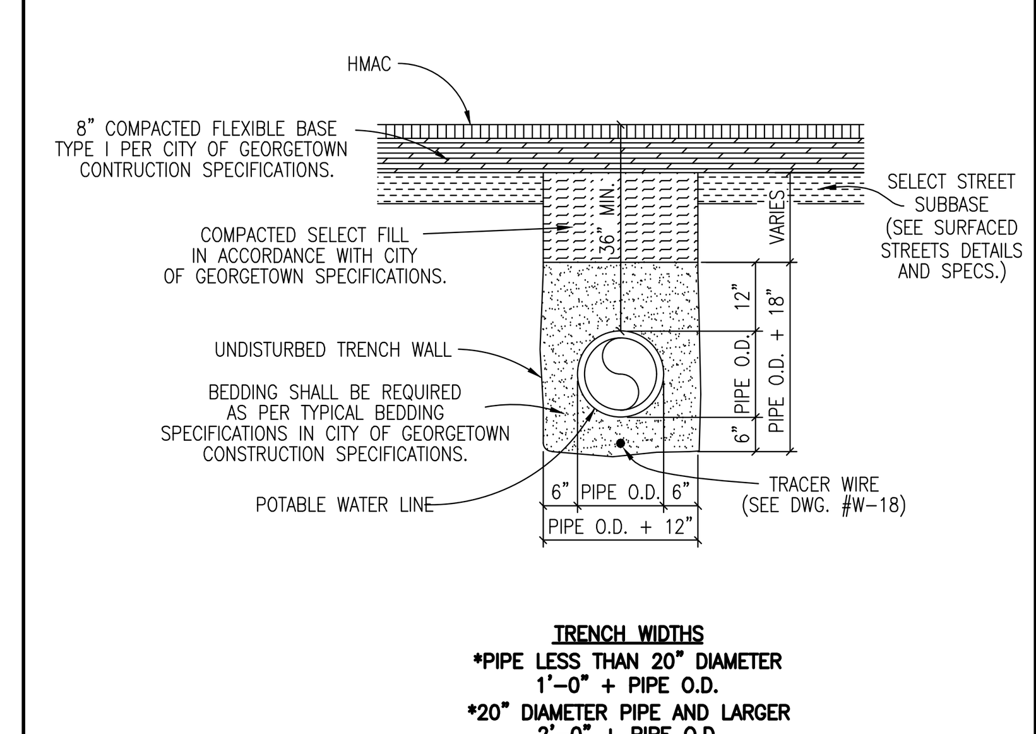
NOTES:
1. SEE VALVE SETTING DETAIL, DWG. #W-07.
2. ACCEPTABLE GATE VALVES ARE:
   A. MUELLER – 2360 SERIES
   B. CLOW

The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
INLINE VALVE INSTALLATION

W21 | NTS | 1/2003 | MRS | TRB



NOTES: 1. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
2. 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.

ADOPTED 6/21/2006

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRENCH AND EMBEDMENT DETAIL UNDER PROPOSED ROADWAY

W22 | NTS | 1/2003 | MRS | TRB

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

UTILITY DETAIL SHEET 1 OF 3

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

[illegible]

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
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XXXX-XX-SDP

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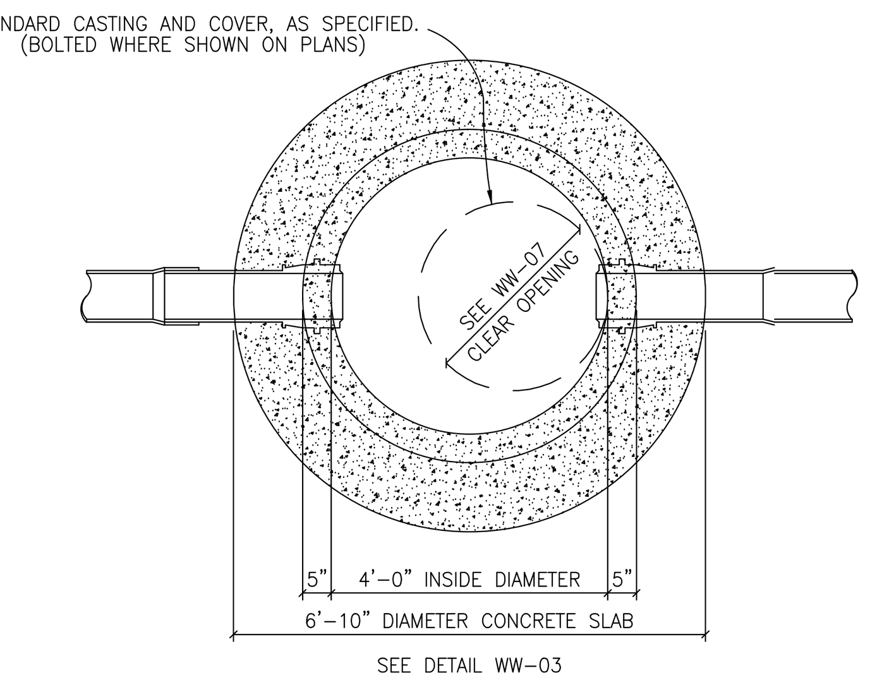


MANHOLE PLAN

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.

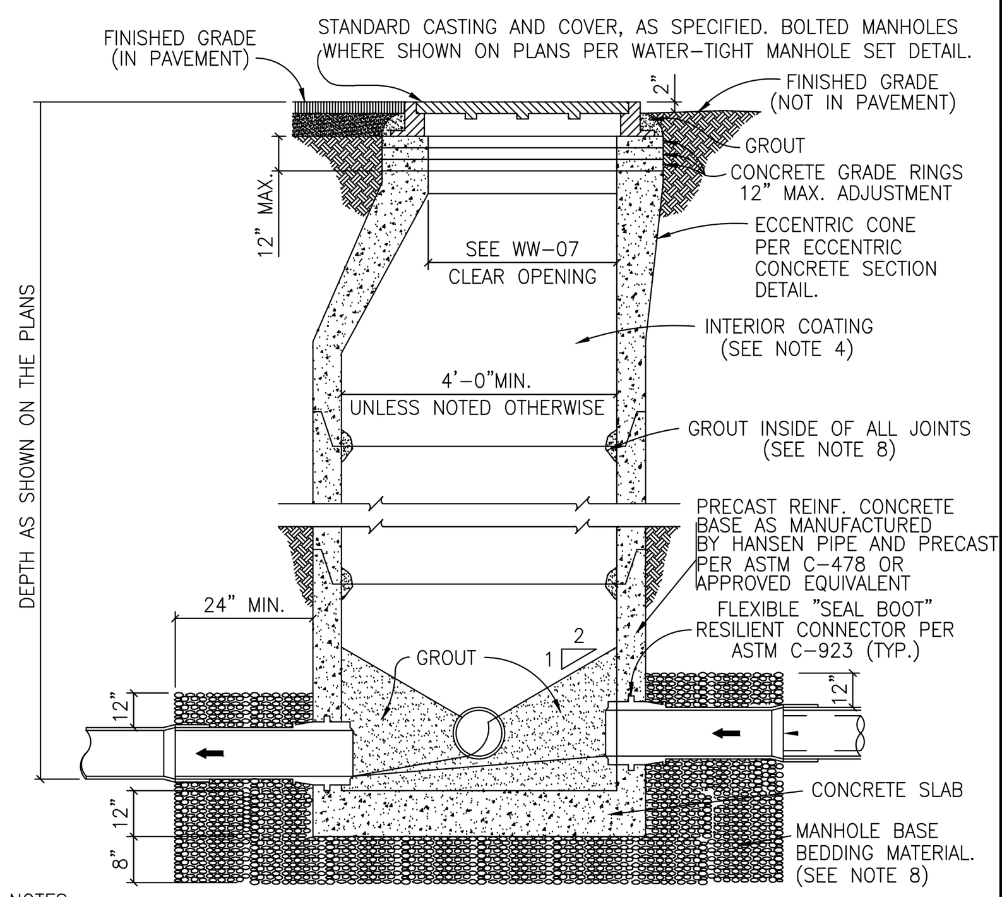
The Architect/Engineer assumes responsibility for appropriate use of this standard.

ADOPTED 6/21/2006

GEORGETOWN TEXAS EST. 1848 — Georgetown Utility Systems — Your Community Owned Utility

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STANDARD MANHOLE – PLAN

WW02 — NTS — 1/2003 — MRS — 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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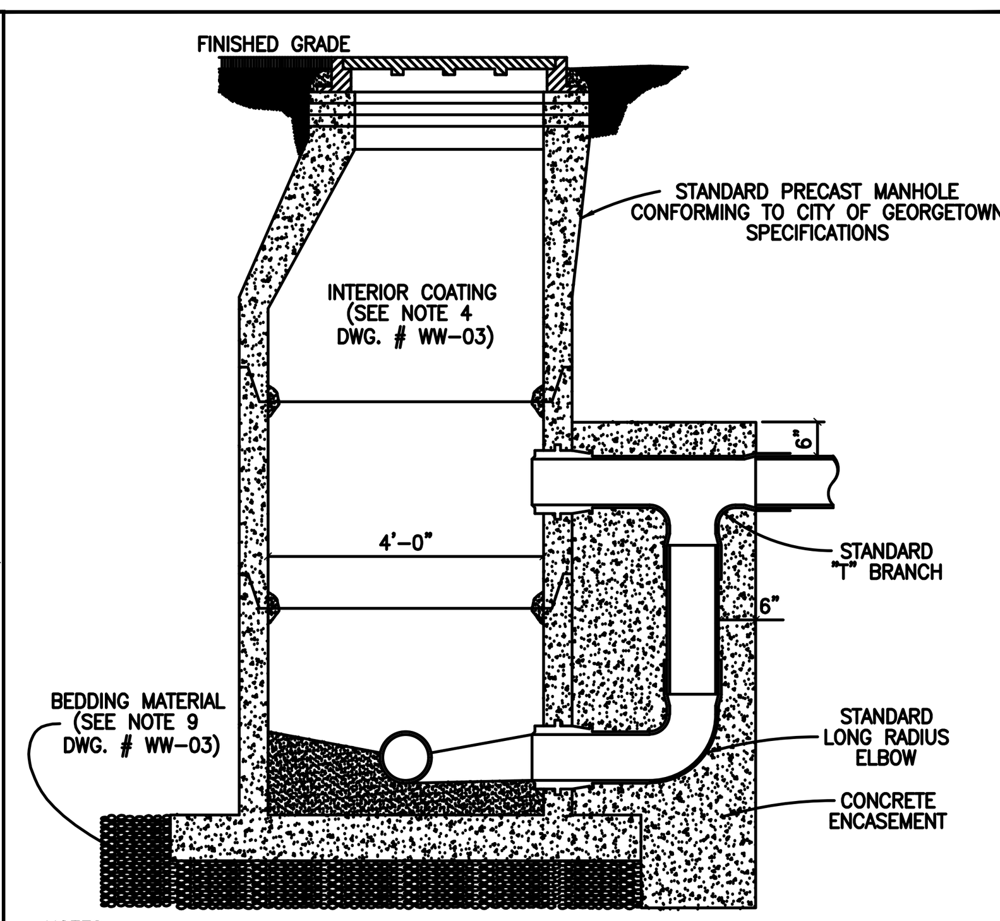
CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STANDARD MANHOLE – SECTION

WW03 — NTS — 1/2003 — MRS — TRB



NOTES:
1. CONCRETE ENCASEMENT FOR DROP CONNECTION TO BE POURED INTEGRALLY WITH BOTH MANHOLE SLAB AND WALL.
2. DROP CONNECTIONS SHALL BE REQUIRED WHENEVER AN INFLUENT SEWER IS LOCATED TWO FEET (2') OR MORE ABOVE THE MAIN INVERT CHANNEL.
3. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM.
4. WHEN P.V.C. IS USED IN SANITARY SEWER LINES, SOLVENT TYPE JOINT P.V.C. FITTINGS MAY BE UTILIZED IN THE DROP ASSEMBLY ONLY.
5. MINIMUM PIPE SIZE FOR DROP IS EIGHT INCHES (8").
6. SEE STANDARD MANHOLE DETAIL (DWG. # WW-03) FOR ADDITIONAL REQUIREMENTS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

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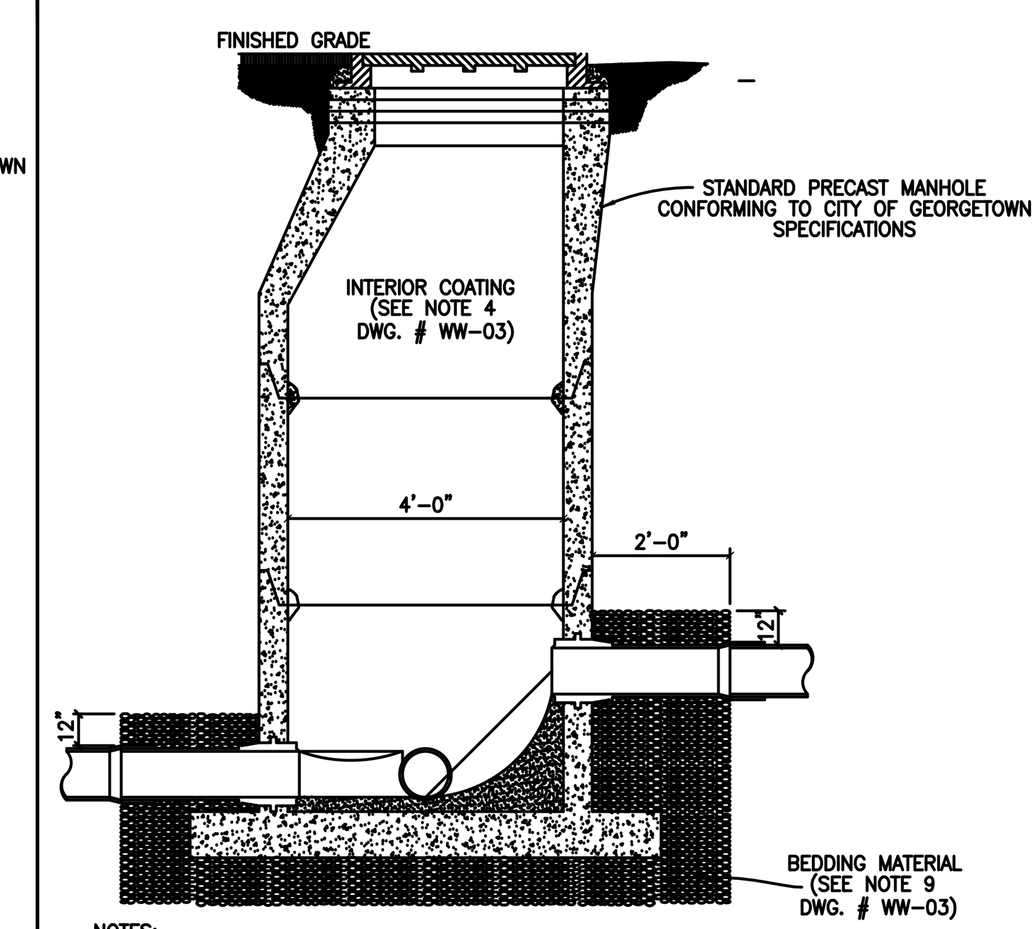
CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
DROP CONNECTION–PRECAST MANHOLE TYPE "A"

WW04 — NTS — 1/2003 — MRS — TRB



NOTES:
1. TO BE USED WHERE DROP IS SIX INCHES (6") TO TWO FEET (2'-0").
2. A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM.
3. CONSTRUCTION OF DROP SHALL PROVIDE AN OVERSIZED SLAB TO EXTEND UNDER THE DROP CONNECTION.
4. MINIMUM PIPE SIZE FOR DROP IS EIGHT INCHES (8").
5. SEE STANDARD MANHOLE DETAIL (DWG. # WW-03) FOR ADDITIONAL REQUIREMENTS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

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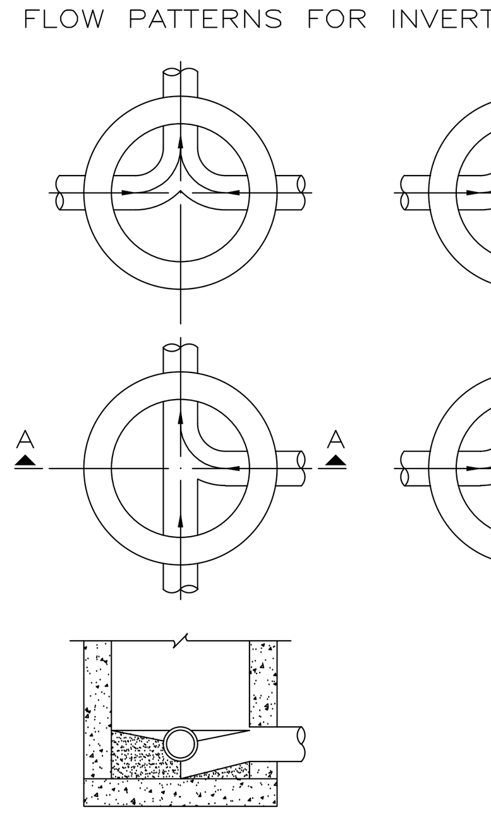
CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
DROP CONNECTION–PRECAST MANHOLE TYPE "B"

WW05 — NTS — 1/2003 — MRS — 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.

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CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
FLOW PATTERNS FOR INVERT CHANNELS

WW06 — NTS — 1/2003 — MRS — TRB

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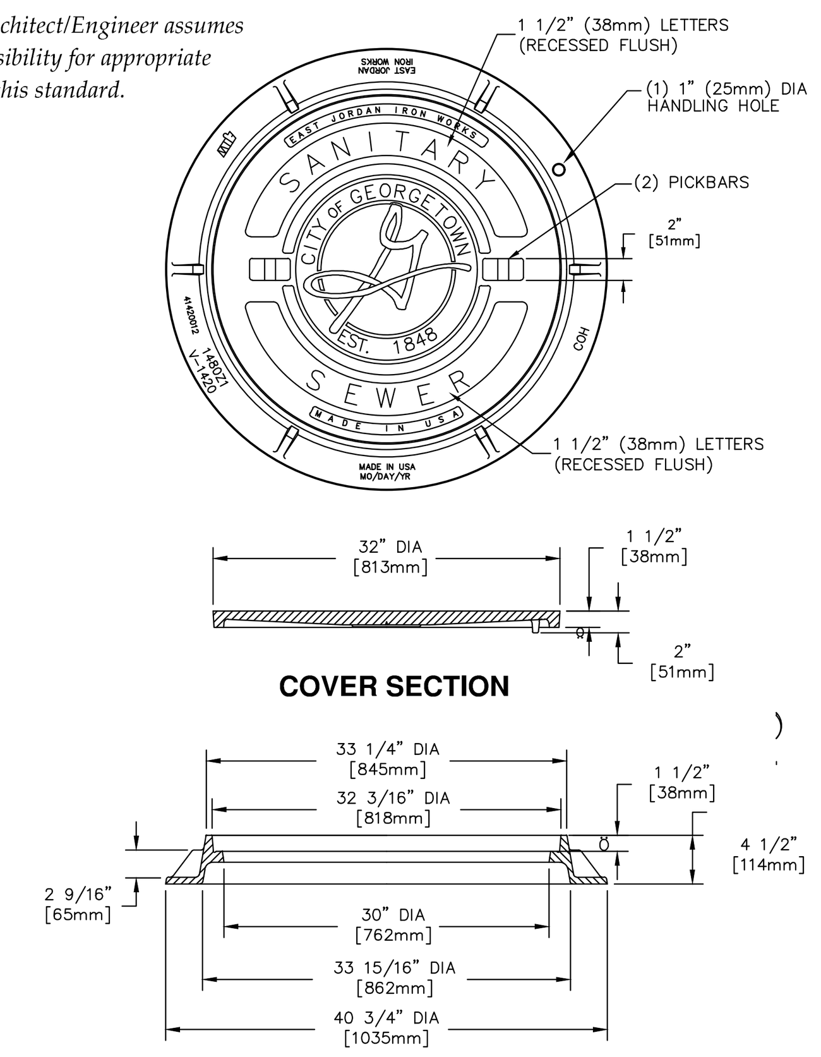

NOTES:
1. STANDARD WASTEWATER MANHOLE SET TO BE EAST JORDAN IRON WORKS, INC. CATALOG NO. 1480A V-1420/1480Z1, COVER TO BE STAMPED WITH "SANITARY SEWER".
2. STANDARD WASTEWATER MANHOLE SET TO BE HEAVY DUTY LOAD RATED.
3. FOR MORE DETAILED SPECIFICATIONS REFER TO EAST JORDAN IRON WORKS, INC. REFERENCE PRODUCT DRAWING 41420012 00148390.
4. FOR BOLTED WASTEWATER MANHOLE SET REFER TO DETAIL WW07A.

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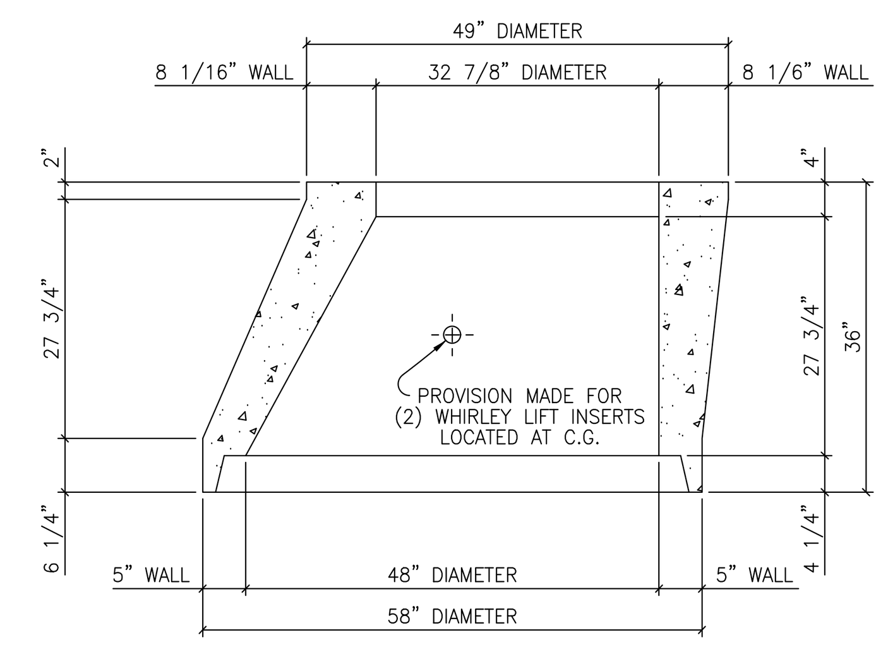
CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
STANDARD WASTEWATER MANHOLE SET

WW07 — NTS — 1/2003 — MRS — TRB



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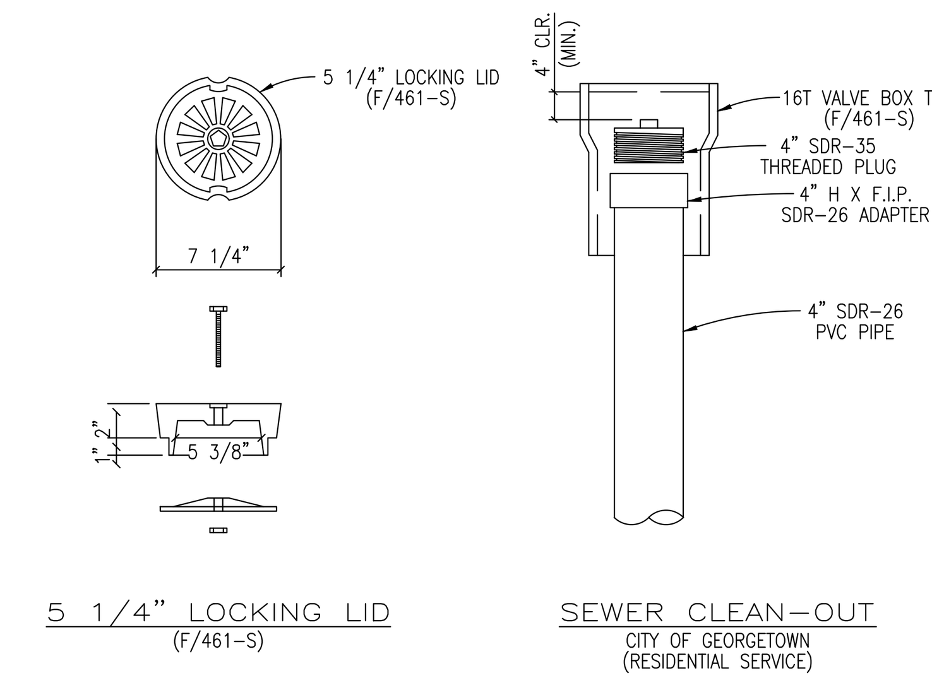
CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
48"X5" TO 33"X36" TALL ECCENTRIC CONCRETE SECTION

WW08 — NTS — 1/2003 — MRS — TRB



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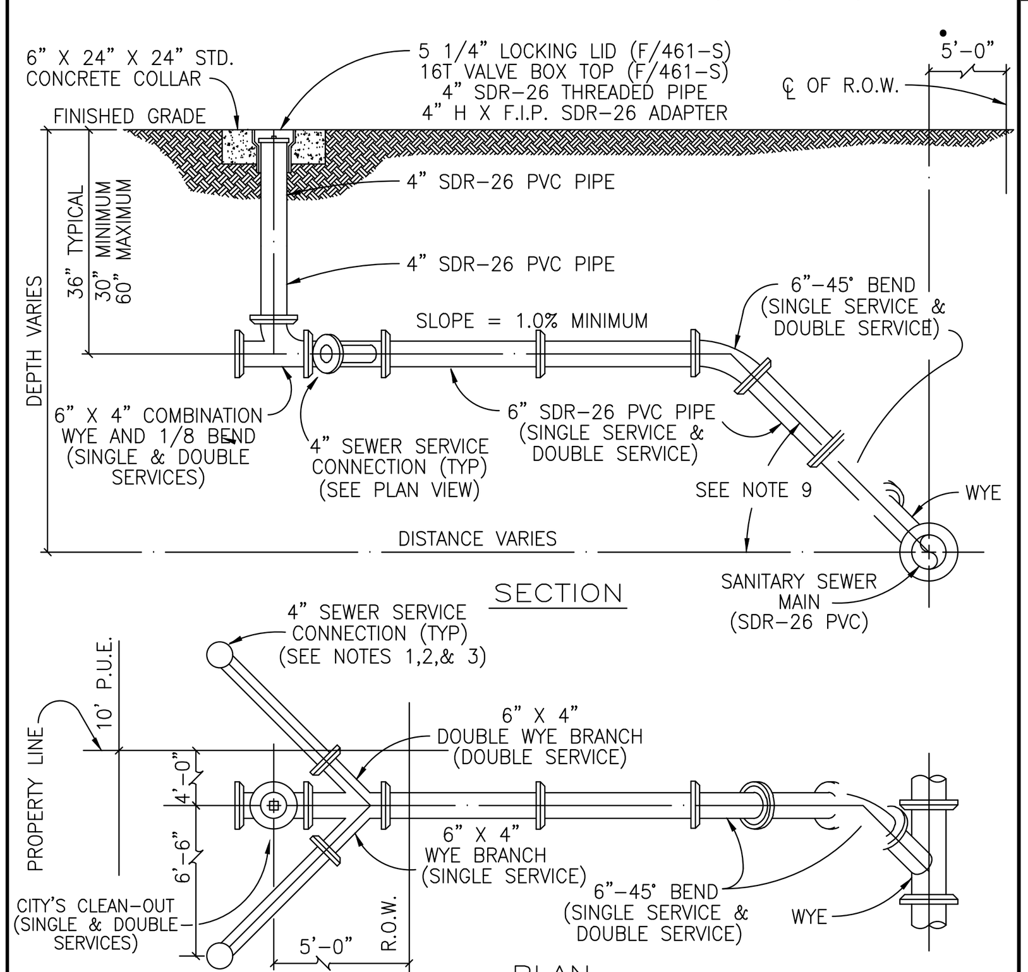
CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
SEWER CLEAN-OUT DETAIL

WW12 — NTS — 1/2003 — MRS — TRB



NOTES:
1. SERVICE CONNECTION RISERS SHALL TERMINATE 8' INSIDE THE PROPETY LINE.
2. THE END OF EACH SERVICE CONNECTION RISER SHALL BE EXTENDED 12" ABOVE FINISH GRADE.
3. EACH SERVICE CONNECTION SHALL BE PLUGGED WATER-TIGHT WITH AN APPROVED CAP OR PLUG.
4. FOR P.V.C. INSTALLATIONS, CONNECT TO EXISTING "BELL END" AND CONNECT OPPSITE END WITH P.V.C. TO P.V.C. KNOCK ON SLEEVE.
5. SOLIDLY TAMP BACKFILL AT LEAST ONE FOOT (1'-0") ABOVE TOP OF PIPE. SERVICES UNDER PAVED AREAS SHALL BE BACKFILLED TO THE SAME SPECIFICATIONS AS SHOWN ON PAVEMENT REPLACEMENT DETAIL.
6. CONTRACTOR SHALL MARK ON A CLEAN SET OF PLANS THE FINAL STATIONING OR DISTANCE AND DIRECTION FROM MANHOLE TO EACH SERVICE LATERAL AND GIVE TO ENGINEER FOR RECORD DRAWING PURPOSES.
7. ANY DEVIATION FROM THESE METHODS MUST BE APPROVED BY THE CITY OF GEORGETOWN ENGINEERING DEPARTMENT.
8. SERVICE LINE MATERIAL SHALL BE P.V.C., SDR-26.
9. SEWER SERVICE SLOPE TO BE 45° OFF CENTERLINE OF MAIN.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

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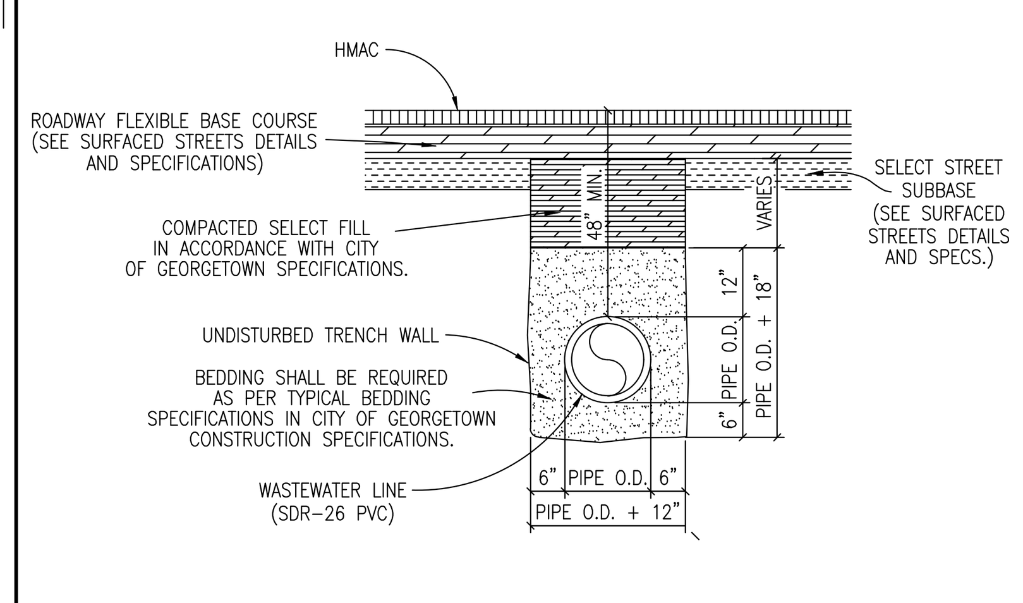
CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
SEWER SERVICE CONNECTIONS

WW13 — NTS — 1/2003 — MRS — TRB



TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.

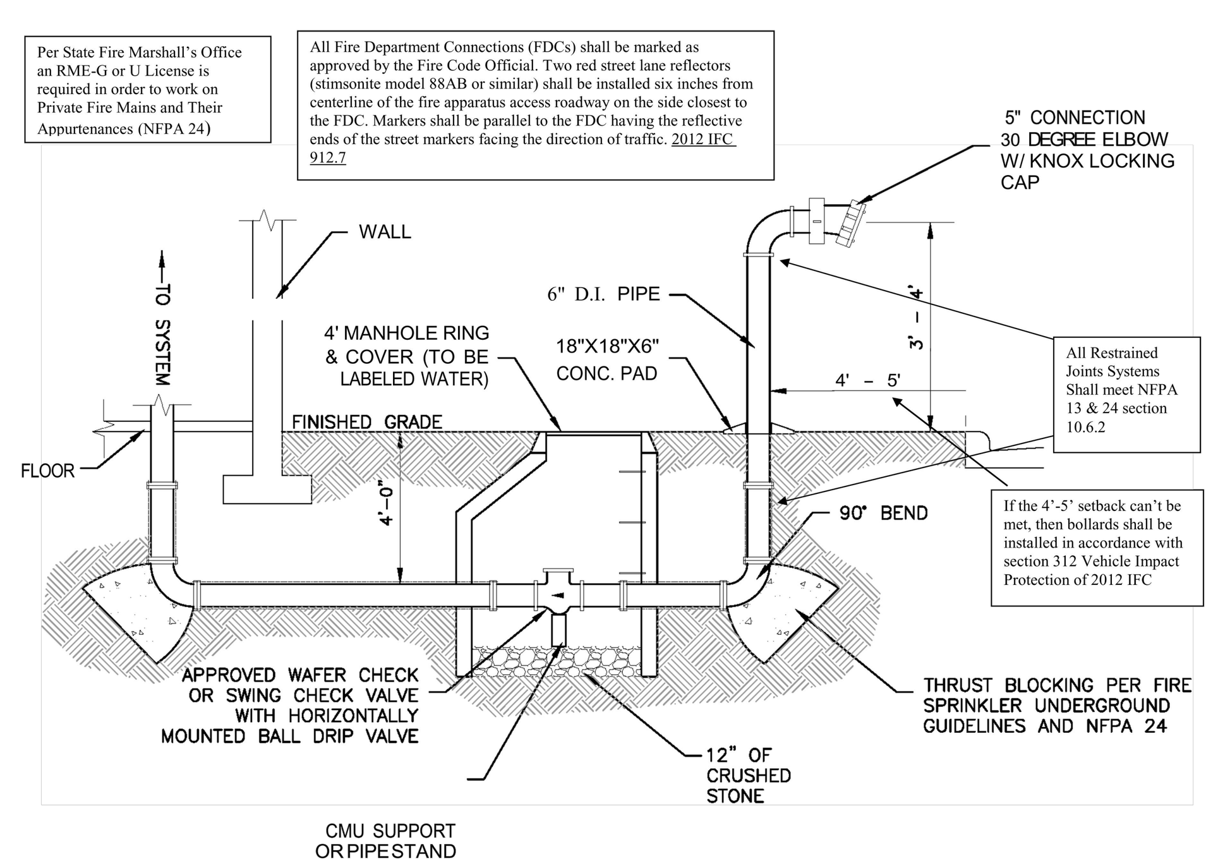
NOTES:
1. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
2. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

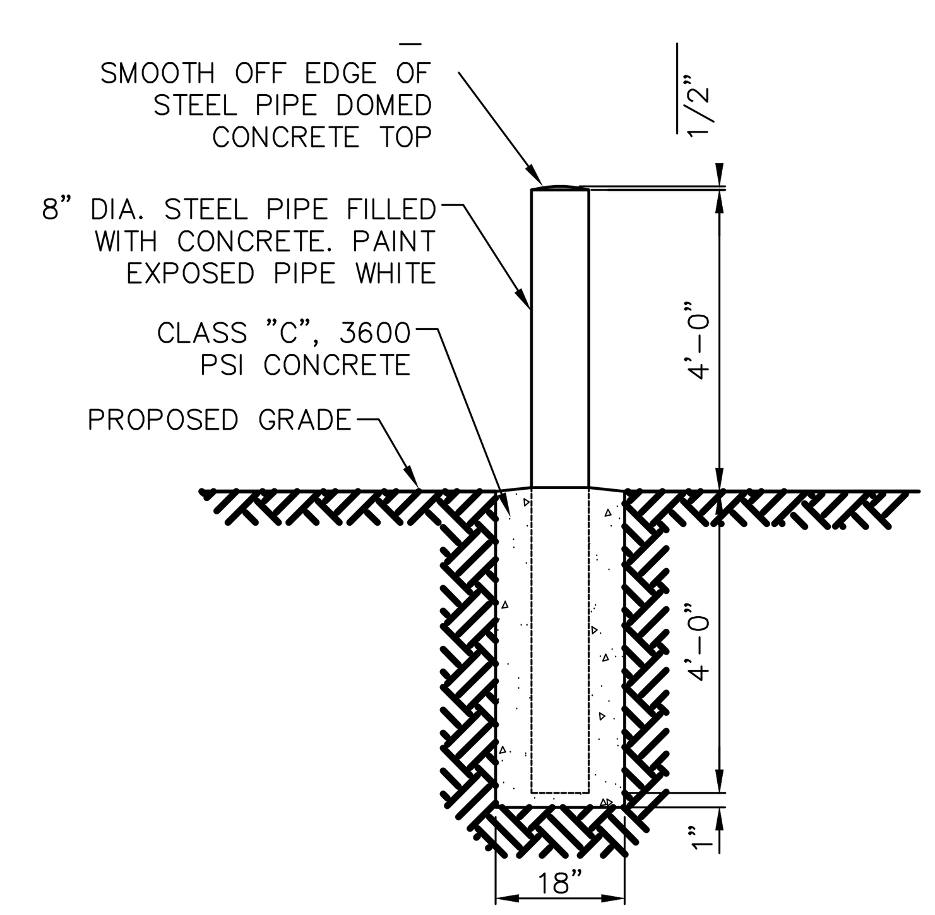
ADOPTED 6/21/2006

CITY OF GEORGETOWN
CONSTRUCTION STANDARDS AND DETAILS
TRENCH AND EMBEDMENT DETAIL UNDER PROPOSED ROADWAY

WW18 — NTS — 1/2003 — MRS — TRB



FIRE DEPARTMENT CONNECTION
NOT TO SCALE



1 **BOLLARD DETAIL**
NOT TO SCALE

XXXX-XX-SDP

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

UTILITY DETAIL SHEET 2 OF 3

STATE OF TEXAS — HOLLIS ANN SCHEFFLER — 136049 — LICENSED PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

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PK-4670-22.125_UTILITY.DWG

ZURN Model 375DA
Reduced Pressure Detector Assembly

LEAD FREE

NSF/ANSI 61

Application
Designed for installation on water lines in fire protection systems to protect against both backsiphonage and back-pressure of contaminated water into the potable water supply. The Model 375DA shall provide protection where a potential health hazard exists. Incorporates metered by-pass to detect leaks and unauthorized water use.

Standards Compliance
(Unless otherwise noted, applies to sizes 2 1/2" thru 10")
- ASSE® Listed 1047
- UL® Classified
- AWWA Compliant C550
- CSA® Certified B64.4 (4" & 6")
- C-UL® Classified
- FM® Approved
- NYC MEA 218-01-M VOL 3
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California
- Meets the requirements of NSF/ANSI 61*

*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

By-Pass Backflow Assembly 3/4" Model 975XLD

Materials

Main valve body	Ductile Iron ASTM A 536
Access covers	Ductile Iron ASTM A 536
Coatings	NSF Approved fusion epoxy finish
Internals	Stainless steel, 300 Series NORYL™
Fasteners	Stainless Steel, 300 Series
Elastomers	EPDM (FDA approved) Buna Nitrile (FDA approved)
Polymers	NORYL™
Springs	Stainless steel, 300 series
Sensing line	Stainless steel, braided hose

Features

Sizes:	2 1/2", 3", 4", 6", 8", 10"
Maximum working water pressure	175 PSI
Maximum working water temperature	140°F
Hydrostatic test pressure	350 PSI
End connections (Grooved for steel pipe)	AWWA C606
(Flanged bolt pattern)	ASME B16.42 Class 150

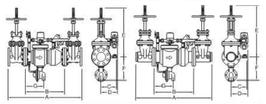
Options
(Suffixes can be combined)
- ☐ - with OS & Y gate valves (standard)
- ☐ L - less shut-off valves (flanged body connections)
- ☐ LM - less water meter
- ☐ - with gpm meter (standard)
- ☐ CFM - with cu ft/min meter
- ☐ G - with groove end gate valves
- ☐ FG - with flanged inlet gate connection and grooved outlet gate connection
- ☐ PI - with Post Indicator Gate Valve
- ☐ GF - with flanged inlet connection and grooved outlet connection
- ☐ BG - with grooved end butterfly valves with integral monitor switches (2 1/2" - 10")

Accessories
- ☐ Air gap (Model AG)
- ☐ Repair kit (rubber only)
- ☐ Thermal expansion tank (Model XT)
- ☐ OS & Y Gate valve tamper switch (OSY-40)
- ☐ QT-SET Quick Test Fitting Set

Attention:
Model 375DA (flange body) and Model 375ADA (grooved body) have different lay lengths.

Relief Valve discharge port:
2 1/2" - 6" - 2.75 sq. in.
8" - 10" - 3.69 sq. in.

Model 375DAG SHOWN BELOW



Dimensions & Weights (do not include pkg.)

MODEL 375DA SIZE	DIMENSION (approximate) A	A WITH BUTTERFLY VALVES	B LESS GATE VALVES	C	D	E OSGY OPEN	E OSGY CLOSED	E WITH BUTTERFLY VALVES	F	G	WEIGHT LESS SHUT-OFF VALVES	OSGY GATE VALVES FLANGED	OSGY GATE VALVES GROOVED	BUTTERFLY VALVES GROOVED
in. / mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	lbs. kg	lbs. kg	lbs. kg	lbs. kg
2 1/2 / 65	31 787	28 711	15 7/8 403	7 1/4 184	9 229	17 3/4 451	15 3/8 391	13 3/4 349	9 1/2 241	8 3/8 213	75 34	185 84	187 76	147 67
3 / 80	32 813	28 1/2 724	15 7/8 403	7 1/4 184	9 229	20 1/4 514	17 432	13 3/4 349	9 1/2 241	8 3/8 213	78 35	206 94	160 73	130 59
4 / 100	37 5/8 956	32 5/8 828	19 1/2 495	8 203	9 229	22 1/2 572	19 1/4 464	17 432	11 279	9 1/4 235	116 53	306 139	260 118	200 91
6 / 150	44 5/8 1133	37 5/8 956	23 1/2 597	10 254	10 1/2 267	30 1/2 775	24 1/4 616	17 1/2 445	12 3/8 314	9 1/4 235	194 88	494 224	466 212	312 142
8 / 200	50 7/8 1546	53 7/8 1369	37 3/4 959	11 279	15 1/2 394	37 940	28 1/2 724	18 15/16 430	15 3/8 391	16 3/4 426	382 173	898 369	810 367	556 252
10 / 250	59 7/8 1520	57 7/8 1470	37 3/4 959	11 279	15 1/2 394	45 5/8 1159	34 3/4 883	18 15/16 480	15 3/8 391	16 3/4 426	412 187	1230 558	1164 528	800 363

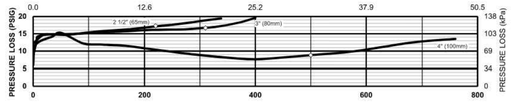
Zurn Industries, LLC | Wilkins
1747 Commerce Way, Paso Robles, CA U.S.A. 93446 Ph: 855-663-9876, Fax 805-238-5766
In Canada | Zurn Industries Limited
7900 Goreway Drive, Unit 10, Brampton, Ontario L6T 5W6, 877-892-5216
www.zurn.com

Rev. N
Date: 3/20
Document No.: BF-375DA
Patent No. 5, 913, 331
Product No. Model 375DA

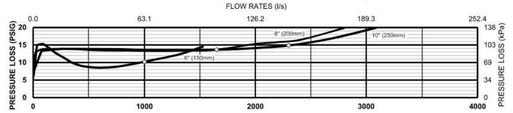
Flow Characteristics

○Rated Flow (established by approval agencies)

MODEL 375DA 2 1/2", 3" & 4" (STANDARD & METRIC)
FLOW RATES (l/s)

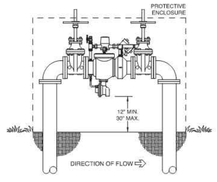


MODEL 375DA 6", 8" & 10" (STANDARD & METRIC)
FLOW RATES (l/s)

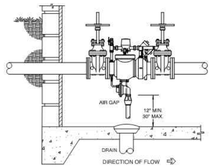


Typical Installation
Local codes shall govern installation requirements. To be installed in accordance with the manufacturer's instructions and the latest edition of the Uniform Plumbing Code. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 30" (762mm) above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.

Capacity thru Schedule 40 Pipe (GPM)				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
2 1/2"	75	112	149	224
3"	115	173	230	346
4"	198	298	397	595
6"	450	675	900	1351
8"	780	1169	1559	2339
10"	1229	1843	2458	3687
12"	1763	2644	3525	5288



OUTDOOR INSTALLATION



INDOOR INSTALLATION

Specifications
The Reduced Pressure Detector Backflow Prevention Assembly shall be certified to NSF/ANSI 61, ASSE® Listed 1047, and supplied with full port OS & Y gate valves. The main body and access cover shall be epoxy coated ductile iron (ASTM A 536), the seat ring and check valve shall be NORYL™, the stem shall be stainless steel (ASTM A 276) and the seat disc elastomers shall be EPDM. The checks and the relief valve shall be accessible for maintenance without removing the device from the line. The Reduced Pressure Detector Backflow Prevention Assembly shall be a ZURN WILKINS Model 375DA.

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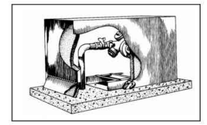
www.zurn.com

Specification Submittal Sheet

Series 100/200 – Lift-off Design

Insulated Enclosure for Backflow Prevention Assemblies

Specifications
- Roof, walls, drain flap – 5052-H32 marine grade aluminum (.050/18 gauge), mill finish, ASTM B209 outside
- Drain flap hinge and spring – stainless steel
- Insulation 1 1/2" (9 "R" value) minimum thickness polyisocyanurate foam laminated to a glass fiber reinforced facer (each side).
- Mounting hardware – 5052-H32 marine grade aluminum
- Masonry fasteners – metal hit anchors



Description
The enclosure is designed to provide freeze and vandal protection of above ground backflow prevention assemblies. The enclosure provides for safe and easy testing and maintenance or replacement of the backflow prevention assembly.

Standards
- ASSE 1060
- ASTM B209

Advantages
- Fast and simple installation, no special tools required
- Durable
- Lockable

Heating Required
❒ Yes – see separate specification submittal sheet
❒ No

Dimensions

Model	Inside Diameter W	L	H	Concrete Pad W	L	H	Weight	Drain Opening W	H
100S-AL	7	32	22	14	39	4	26	7	5 1/4
200S-AL	14	43	29	21	50	4	44	14	5 1/4

All dimensions in inches.

Specifications
A freeze and vandal protection enclosure shall be installed with above ground backflow prevention assemblies. The enclosure shall be mounted securely to a concrete pad and completely removable by way of a lockable stainless steel rod only. All mounting brackets shall be on the inside of the enclosure. The enclosure shall be constructed of 5052-H32 marine grade aluminum with a minimum R-value of 9 in the walls and roof. Drain panel shall be fully insulated and designed to remain closed except when backflow prevention device is discharging water. Drain panel shall be sized to accommodate the maximum discharge of a 1" device (Series 100) or 2" device (Series 200). All mounting hardware shall be furnished. The enclosure shall be certified to ASSE Standard 1060 (Class I, Class II and Class III). The insulated lift-off enclosure shall be a Safe-T-Cover Series 100/200.

Hydrocowl, Inc.
Nashville, TN • Phone 1-800-245-6333
FAX (615) 259-4481 • www.safe-t-cover.com

SS2 1212

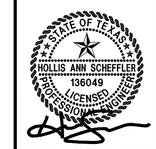
Pacheco Koch
a Westwood company
8701 N. MOPAC EXPY ■ STE. 320 ■ AUSTIN, TX 78759 ■ 512.485.0831
TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

UTILITY DETAIL SHEET 3 OF 3



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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
51

XXXX-XX-SDP

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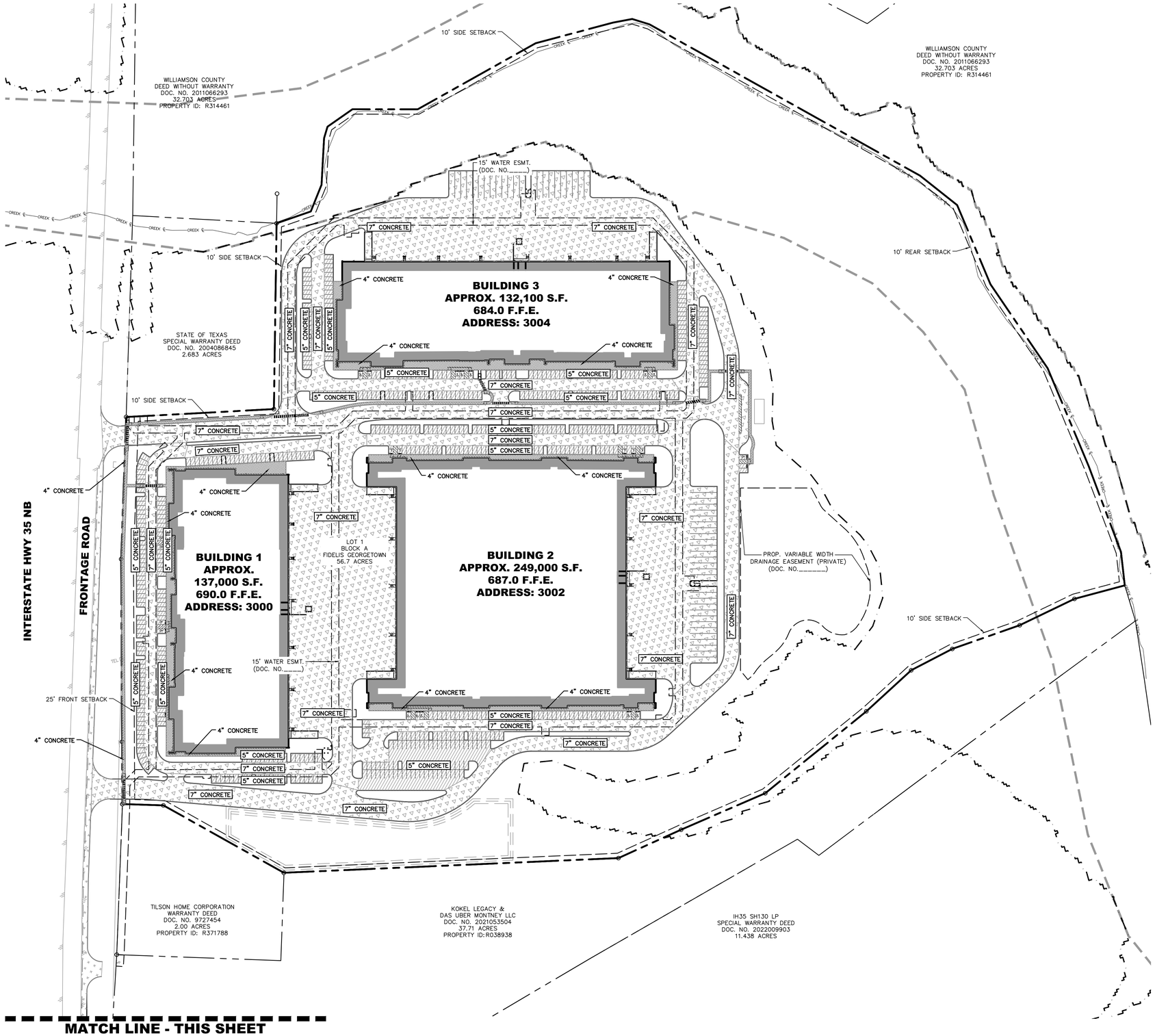


0 50 100 200 300

GRAPHIC SCALE IN FEET
1"=100'

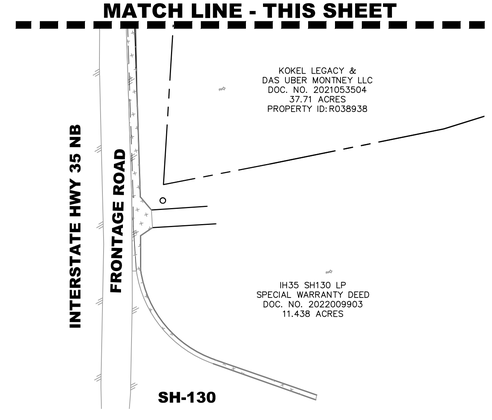
LEGEND

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
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
	FIRE LANE
	FEMA FLOODWAY
	FEMA 100 YEAR FLOODPLAIN
CREEK	CREEK CENTERLINE
	4" REINFORCED CONCRETE (CLASS "A", 3000 PSI)
	PARKING AND DRIVE AREAS, 5" REINFORCED CONCRETE PVMT (CLASS "C", 3600 PSI)
	TRUCK COURTS/DRIVES, FIRE LANE 7" REINFORCED CONCRETE PVMT (CLASS "C", 3600 PSI)
	PER TX-DOT DETAILS

PAVING GENERAL NOTES

1. ALL DIMENSIONS ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED.
2. ALL CONCRETE SHALL CONFORM TO NCTCOG ITEM 303.3.4, CLASS "A" (3000 PSI) UNLESS OTHERWISE SHOWN ON THESE PLANS, STATED IN STANDARD CITY SPECIFICATIONS OR STATED IN TXDOT STANDARD SPECIFICATIONS.
3. SUBGRADE PREPARATION IN RIGHT OF WAY SHALL CONFORM TO STANDARD CITY SPECIFICATIONS OR TXDOT STANDARD SPECIFICATIONS.
4. ALL FILL PLACED UNDER PAVING SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 6 INCH LIFTS, UNLESS OTHERWISE NOTED, OR STATED IN GEOTECH REPORT. REFER TO STRUCTURAL SPECIFICATIONS FOR FILL PLACED BENEATH BUILDING AREAS. ALL OTHER FILL AREAS TO BE COMPACTED TO 90% STANDARD PROCTOR.
5. THE CONTRACTOR SHALL SUBMIT A JOINT SPACING PLAN TO THE ENGINEER FOR APPROVAL. EXPANSION JOINT SPACING SHALL BE 90' MAXIMUM EACH WAY WITH NO KEYWAYS AND SAWED DUMMY JOINTS SHALL BE 15' EACH WAY, UNLESS OTHERWISE NOTED.
6. TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED AT THE END OF EACH DAYS PAVING AND WHERE INTERRUPTIONS SUSPEND OPERATIONS FOR 30 MINUTES OR MORE.
7. ALL PAVING TO BE REMOVED SHALL BE SAWCUT TO A NEAT LINE, MINIMUM 1-1/2" DEEP, AND THE PAVEMENT REMOVED IN SUCH A MANNER AS TO PRESERVE THE EXISTING TRANSVERSE REINFORCING STEEL TO THE MAXIMUM EXTENT POSSIBLE.
8. ALL CURB AND GUTTER SHALL BE INTEGRAL WITH THE PAVEMENT AND HAVE THE SAME COMPRESSIVE STRENGTH.
9. PAVEMENT REINFORCEMENT SHALL BE #3 BARS, SPACED AT 18 INCHES CENTER TO CENTER EACH WAY EXCEPT WHERE OTHERWISE NOTED IN THE PLANS OR GEOTECH REPORT.
10. BAR LAPS SHALL BE 30 DIAMETERS IN LENGTH.
11. ALL STRIPES SHALL BE 4 INCHES WIDE, UNLESS OTHERWISE NOTED.
12. INSTALLATION AND PLACEMENT OF IRRIGATION SLEEVES AND UTILITY CONDUITS SHALL BE IN ACCORDANCE WITH LANDSCAPE ARCHITECT AND MEP PLANS. CONTRACTOR TO VERIFY ALL SLEEVES HAVE BEEN PLACED PRIOR TO PAVING BEING PLACED.
13. SIDEWALKS AND ACCESSIBLE ROUTES SHALL HAVE A RUNNING SLOPE NO GREATER THAN 5% (UNLESS OTHERWISE NOTED) AND A CROSS SLOPE NO GREATER THAN 2%.

MATCH LINE - THIS SHEET



XXXX-XX-SDP

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

PAVING PLAN

THE STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

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DESIGN	DRAWN	DATE
JPQ	NBB	DEC 2022

SHEET NO.
52

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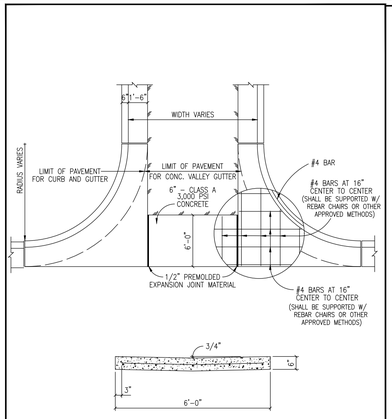
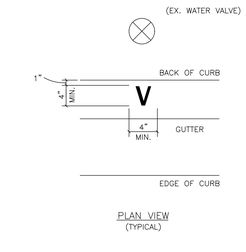


The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
CONCRETE VALLEY GUTTER DETAIL	SD03
NTS	1/2003



PLAN VIEW
(TYPICAL)

NOTES:

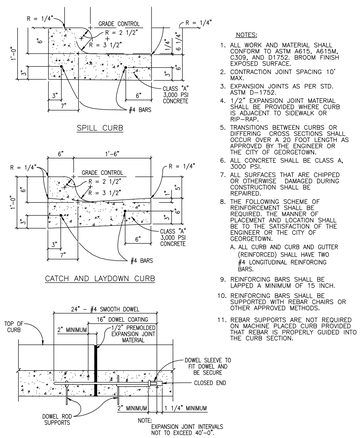
1. ALL WATER SERVICE, WASTE WATER SERVICE AND VALVE LOCATIONS SHALL BE APPROXIMATELY MARKED AS FOLLOWS:

WATER SERVICE	"W"	TOP OF CURB
WASTE WATER SERVICE	"S"	TOP OF CURB
VALVE	"V"	TOP OF CURB

2. LETTERS SHALL HAVE A 1/2" MAX. WIDTH.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
CURB STAMP DETAIL	SD05
NTS	1/2003

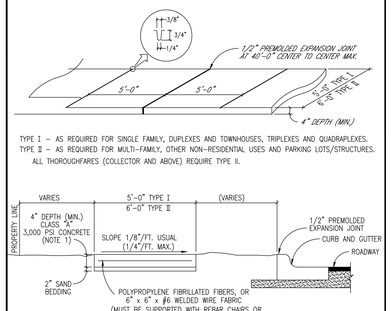


NOTES:

1. ALL WORK AND MATERIAL SHALL CONFORM TO ASTM A615, A615M, C309, AND D1752. BROOM FINISH EXPOSED SURFACE.
2. CONTRACTION JOINT SPACING 10' MAX.
3. EXPANSION JOINTS AS PER STD. ASTM D-1752.
4. 1/2" EXPANSION JOINT MATERIAL SHALL BE PROVIDED WHERE CURB IS ADJACENT TO SIDEWALK OR RIP-RAP.
5. TRANSITIONS BETWEEN CURBS OR DIFFERING CROSS SECTIONS SHALL OCCUR OVER A 20 FOOT LENGTH AS APPROVED BY THE ENGINEER OR THE CITY OF GEORGETOWN.
6. ALL CONCRETE SHALL BE CLASS A, 3000 PSI.
7. ALL SURFACES THAT ARE CHIPPED OR OTHERWISE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED.
8. THE FOLLOWING SCHEME OF REINFORCEMENT SHALL BE REQUIRED. THE MANNER OF PLACEMENT AND LOCATION SHALL BE TO THE SATISFACTION OF THE ENGINEER OR THE CITY OF GEORGETOWN.
   A. ALL CURB AND GUTTER (REINFORCED) SHALL HAVE TWO #4 LONGITUDINAL REINFORCING BARS.
9. REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 15 INCH.
10. REINFORCING BARS SHALL BE SUPPORTED WITH REBAR CHAIRS OR OTHER APPROVED METHODS.
11. REBAR SUPPORTS ARE NOT REQUIRED ON MACHINE PLACED CURB PROVIDED THAT REBAR IS PROPERLY GUIDED INTO THE CURB SECTION.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
CURB AND GUTTER DETAILS	SD06
NTS	



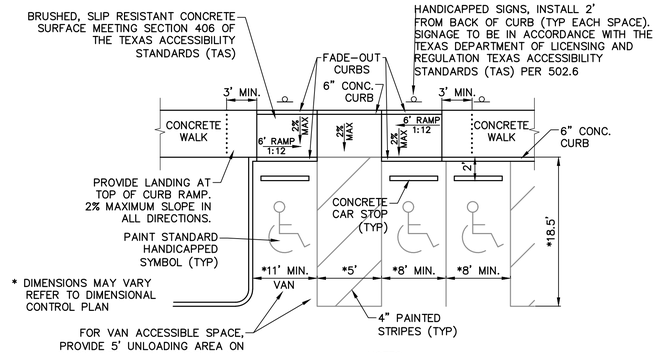
TYPE I – AS REQUIRED FOR SINGLE FAMILY, DUPLEXES AND TOWNHOUSES, TRIPLEXES AND QUADRAPLEXES.
TYPE II – AS REQUIRED FOR MULTI-FAMILY, OTHER NON-RESIDENTIAL USES AND PARKING LOTS/STRUCTURES.
ALL THOROUGHFARES (COLLECTOR AND ABOVE) REQUIRE TYPE II.

NOTES:

1. STANDARD LOCATION OF SIDEWALK SHALL BE IN CONFORMANCE WITH THE UDC.
2. SIDEWALK SHALL CONFORM TO CURRENT TDLR/TAS STANDARDS.
3. ALL SIDEWALKS SHALL BE SUBMITTED AND APPROVED BY THE REGISTERED ACCESSIBILITY SPECIALIST (RAS) AND ENGINEER OF RECORD.
4. ANY VARIANCE IN TEXTURE, GRADE OR ALIGNMENT SHALL BE APPROVED BY THE REGISTERED ACCESSIBILITY SPECIALIST (RAS) AND BY THE CITY ENGINEER.
5. SLIP DOWEL SHALL BE INSTALLED AT EVERY LONGITUDINAL EXPANSION JOINT (UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER DURING ENGINEERING PLAN REVIEW PRIOR TO FINAL DESIGN).

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006 TRB
SIDEWALK SECTION AND JOINT DETAIL	SD14
NTS	1/2003

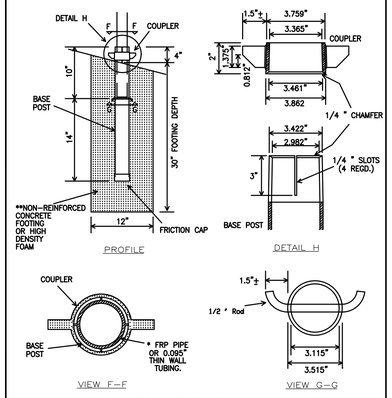


NOTES:

1. MAXIMUM RUNNING SLOPE FOR ALL PATHS IS 5%; MAXIMUM CROSS SLOPE IS 2%; FOR THE FIRST FIVE FEET FROM THE DOOR A 2% SLOPE (MAX) MUST BE MAINTAINED.
2. SIGNAGE AND MARKINGS TO BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

1 90° HANDICAP PARKING & TWO-WAY CURB RAMP

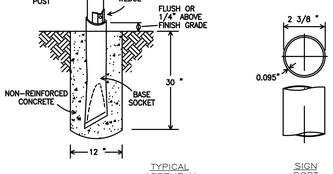
NOT TO SCALE (PRIVATE ONLY)



* PLASTING INSERT MUST BE USED WITH 1/16 " THIN WALL TUBING.
** FOOTING SHALL BE REMOVED AND BACKFILLED WHEN BARRICADE IS REMOVED.

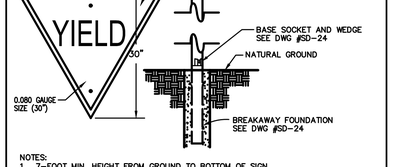
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
UNIVERSAL ANCHOR SYSTEM	SD23
NTS	1/2003



The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
POZ-LOC (BREAKAWAY FOUNDATION)	SD24
NTS	1/2003



NOTES:

1. 7-FOOT MIN. HEIGHT FROM GROUND TO BOTTOM OF SIGN.
2. ALL SIGNS TO BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
3. ALL SIGNAGE SHEETINGS SHALL BE HIGH-INTENSITY "3M" SHEETING.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

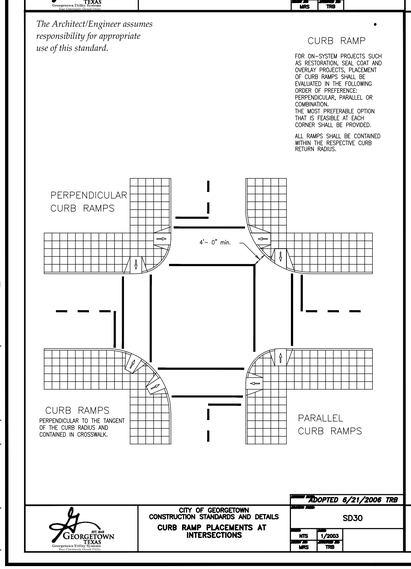
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	REVISED 1/14/2014 WBD ADOPTED 6/21/2006 TRB
STANDARD STREET SIGN DETAIL	SD25
NTS	1/2003

NOTES:

1. COMMERCIAL SIDEWALKS WIDTHS – 6'
   RESIDENTIAL SIDEWALKS WIDTHS – 5'
2. ALL SLOPES ARE MAXIMUM ALLOWABLE. FLATTER SLOPES THAT WILL STILL DRAIN PROPERLY ARE ENCOURAGED.
3. ALL CONCRETE SURFACES SHALL RECEIVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE IN THE PLANS.
4. FOR PURPOSES OF WARNING, THE CURB RAMPS SHALL HAVE A LIGHT REFLECTIVE VALUE AND TEXTURE THAT SIGNIFICANTLY CONTRASTS WITH THAT OF ADJOINING PEDESTRIAN ROUTES.
5. TEXTURES MAY CONSIST OF PAVERS WITH TRUNCATED DOMED SURFACES. TEXTURES ARE REQUIRED TO BE DETECTABLE UNDERFOOT. SURFACES THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED.
6. COLOR CONTRAST, FOR EXAMPLE, MAY BE ACCOMPLISHED WITH COLORED CONCRETE PAVERS THAT HAVE TRUNCATED DOMES WHICH WOULD PROVIDE A CONTRAST WITH TYPICALLY LIGHT COLORED CONCRETE.
7. ADDITIONAL INFORMATION ON CURB RAMP LOCATION, DESIGN, VISIBILITY AND TEXTURE MAY BE FOUND IN THE CURRENT EDITION OF THE TEXAS ACCESSIBILITY STANDARDS (TAS) PREPARED AND ADMINISTERED BY THE TEXAS DEPARTMENT OF LICENSING AND REGULATION (TDLR).
8. RAISED MEDIANS SEPARATE OPPOSING DIRECTIONS OF TRAFFIC AND PROVIDE A REFUGE AREA FOR PEDESTRIANS IF THEY ARE UNABLE TO CROSS THE ENTIRE ROADWAY IN THE ALLOTTED SIGNAL PHASE. MEDIAN CROSSING SHALL BE A MINIMUM OF 5' WIDE. MEDIANS SHOULD BE DESIGNED TO PROVIDE ACCESSIBLE PASSAGE OVER OR TROUGH THEM.
9. ALL SIDEWALK PLANS AND DETAILS SHALL BE SUBMITTED AND APPROVED BY "REGISTERED ACCESSIBILITY SPECIALIST" (RAS).
10. ANY PART OF THE ACCESSIBLE ROUTE WITH A SLOPE GRATER THAN 1:20 (5%) SHALL BE CONSIDERED A RAMP. IF A RAMP HAS A RISE GREATER THAN 6 INCHES OR A HORIZONTAL PROJECTION GREATER THAN 72 INCHES, THEN IT SHALL MEET THE REQUIREMENTS OF A RAMP PER TAS 405.THE ONLY EXCEPTION IS AT CURB RAMPS. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. CURB RAMPS SHALL BE PROVIDED WHERE EVER AN ACCESSIBLE ROUTE CROSSES (PENETRATES) A CURB.
11. TRAFFIC SIGNAL OR ILLUMINATION POLES, GROUND BOXES, CONTROLLER BOXES, SIGNS, DRAINAGE FACILITIES AND OTHER ITEMS SHALL BE PLACED SO NOT TO OBSTRUCT THE ACCESSIBLE ROUTE OR ACT PROTRUDING OBJECTS.
12. ALL SIDEWALKS SHALL BE DOWELED INTO EXISTING SIDEWALKS, DRIVEWALKS, DRIVEWAYS, INLET BOXES, RETAINING WALLS, ETC.
13. ALL SIDEWALK CROSS-SLOPES SHALL NOT EXCEED 1:50, UNLESS A VARIANCE IS PROVIDED BY TDLR.

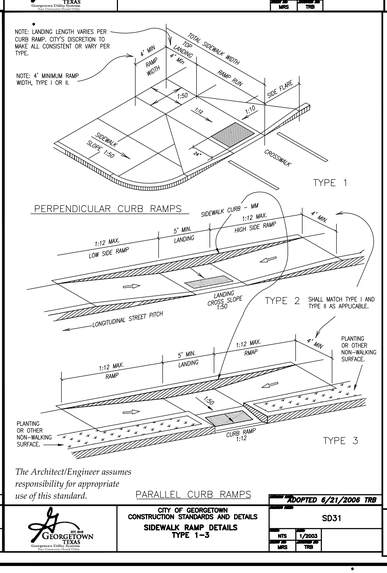
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006 TRB
PEDESTRIAN RAMPS GENERAL NOTES	SD28
NTS	1/2003



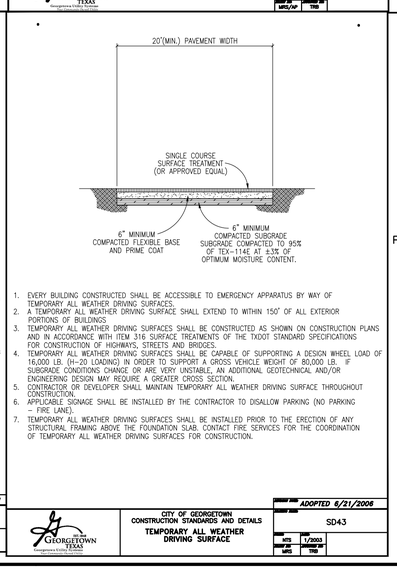
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006 TRB
CURB RAMP PLACEMENTS AT INTERSECTIONS	SD30
NTS	1/2003



The Architect/Engineer assumes responsibility for appropriate use of this standard.

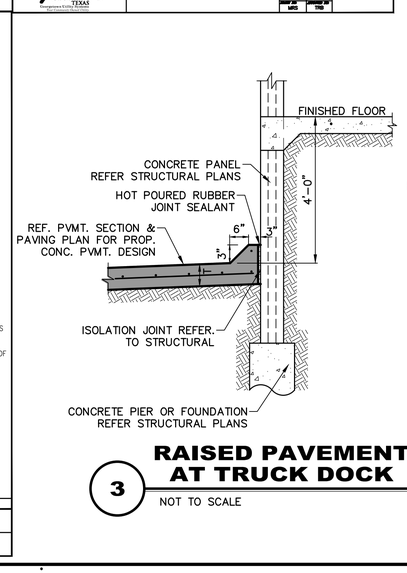
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006 TRB
SIDEWALK RAMP DETAILS TYPE 1-3	SD31
NTS	1/2003



1. EVERY BUILDING CONSTRUCTED SHALL BE ACCESSIBLE TO EMERGENCY APPARATUS BY WAY OF TEMPORARY ALL WEATHER DRIVING SURFACES.
2. A TEMPORARY ALL WEATHER DRIVING SURFACE SHALL EXTEND TO WITHIN 150' OF ALL EXTERIOR PORTIONS OF BUILDINGS.
3. TEMPORARY ALL WEATHER DRIVING SURFACES SHALL BE CONSTRUCTED AS SHOWN ON CONSTRUCTION PLANS AND IN ACCORDANCE WITH ITEM 316 SURFACE TREATMENTS OF THE TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES.
4. TEMPORARY ALL WEATHER DRIVING SURFACES SHALL BE CAPABLE OF SUPPORTING A DESIGN WHEEL LOAD OF 16,000 LB. (H-20 LOADING) IN ORDER TO SUPPORT A GROSS VEHICLE WEIGHT OF 80,000 LB. IF SUBGRADE CONDITIONS CHANGE OR ARE VERY UNSTABLE, AN ADDITIONAL GEOTECHNICAL AND/OR ENGINEERING DESIGN MAY REQUIRE A GREATER CROSS SECTION.
5. CONTRACTOR OR DEVELOPER SHALL MAINTAIN TEMPORARY ALL WEATHER DRIVING SURFACE THROUGHOUT CONSTRUCTION.
6. APPLICABLE SIGNAGE SHALL BE INSTALLED BY THE CONTRACTOR TO DISALLOW PARKING (NO PARKING – FIRE LANE).
7. TEMPORARY ALL WEATHER DRIVING SURFACES SHALL BE INSTALLED PRIOR TO THE ERECTION OF ANY STRUCTURAL FRAMING ABOVE THE FOUNDATION SLAB. CONTACT FIRE SERVICES FOR THE COORDINATION OF TEMPORARY ALL WEATHER DRIVING SURFACES FOR CONSTRUCTION.

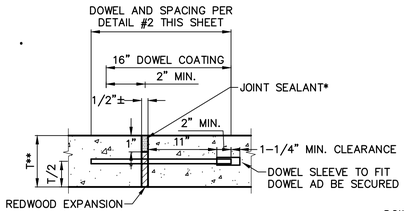
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS	ADOPTED 6/21/2006
TEMPORARY ALL WEATHER DRIVING SURFACE	SD43
NTS	1/2003



3 RAISED PAVEMENT AT TRUCK DOCK

NOT TO SCALE

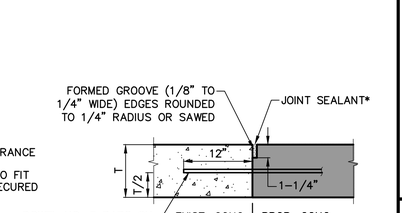


* READY-MIXED COLD-APPLIED JOINT SEALANT (EZ-7 OR APPROVED EQUAL)

**REFER TO PAVEMENT THICKNESS PER SECTIONS

4 EXPANSION JOINT

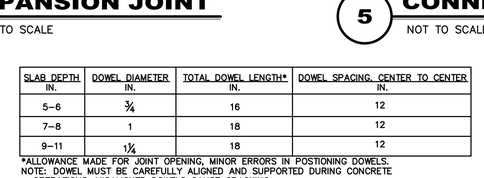
NOT TO SCALE



* READY-MIXED COLD-APPLIED JOINT SEALANT (EZ-7 OR APPROVED EQUAL)

5 PAVEMENT CONNECTION

NOT TO SCALE



GENERAL NOTE:
A. STRIPING TO BE DONE IN ACCORDANCE WITH CITY STANDARDS.

LA-503.3.2 DETAILS OF FIRE LANE MARKING:
1. ALL CURBS AND CURB ENDS SHALL BE PAINTED RED WITH FOUR-INCH WHITE LETTERING STATING "FIRE LANE --TOW AWAY ZONE". THE WORDS "FIRE LANE" BY THEMSELVES ARE NOT ACCEPTABLE. WORDING MAY NOT BE SPACED MORE THAN 30 FEET APART.

STRIPING DETAIL NOTE:
A. PAINT:
   1. STRIPE SHALL BE SIX (6) INCHES WIDE PAINTED WITH AN EXTERIOR ACRYLIC LATEX PAINT.
      A. COLOR SHALL BE "TRAFFIC RED" GLIDDEN NO. 63251 OR EQUAL.
   2. LETTERS SHALL BE FOUR (4) INCHES HIGH PAINTED WITH AN EXTERIOR ACRYLIC LATEX PAINT.
      B. COLOR SHALL BE "TRAFFIC WHITE" GLIDDEN NO. 563245 OR EQUAL.
B. APPLICATION:
   1. STRIPE MAY BE BRUSHED OR SPRAYED, ONE COAT TO FINISH.
   2. LETTERS SHALL BE STENCIL FORMED, BRUSH APPLIES AND SPACED AS DETAILED ON THIS SHEET.

2 FIRE LANE STRIPING

NOT TO SCALE

SLAB DEPTH IN.	DOWEL DIAMETER IN.	TOTAL DOWEL LENGTH* IN.	DOWEL SPACING, CENTER TO CENTER IN.
5–6	¾	16	12
7–8	1	18	12
9–11	1¼	18	12

*ALLOWANCE MADE FOR JOINT OPENING, MINOR ERRORS IN POSTIONING DOWELS.
NOTE: DOWEL MUST BE CAREFULLY ALIGNED AND SUPPORTED DURING CONCRETE OPERATIONS. MISALIGNED DOWELS CAUSE CRACKING.

6 DOWEL SIZE AND SPACING TABLE

NOT TO SCALE

XXXX-XX-SDP

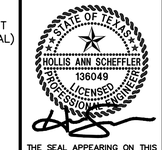
Pacheco Koch
a Westwood company
8701 N. MOPAC EXPY ■ STE. 320 ■ AUSTIN, TX 78759 ■ 512.485.0831
TX REG. ENGINEERING FIRM F-469
TX REG. SURVEYING FIRM LS-10008000

REVISIONS

NO.	DATE	DESCRIPTION	BY

BERRY CREEK BUSINESS PARK
3000, 3002, & 3004 N IH 35 NB
GEORGETOWN, TEXAS, 78626

PAVING DETAILS



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISON 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. 53

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12/19/2022 9:44 AM
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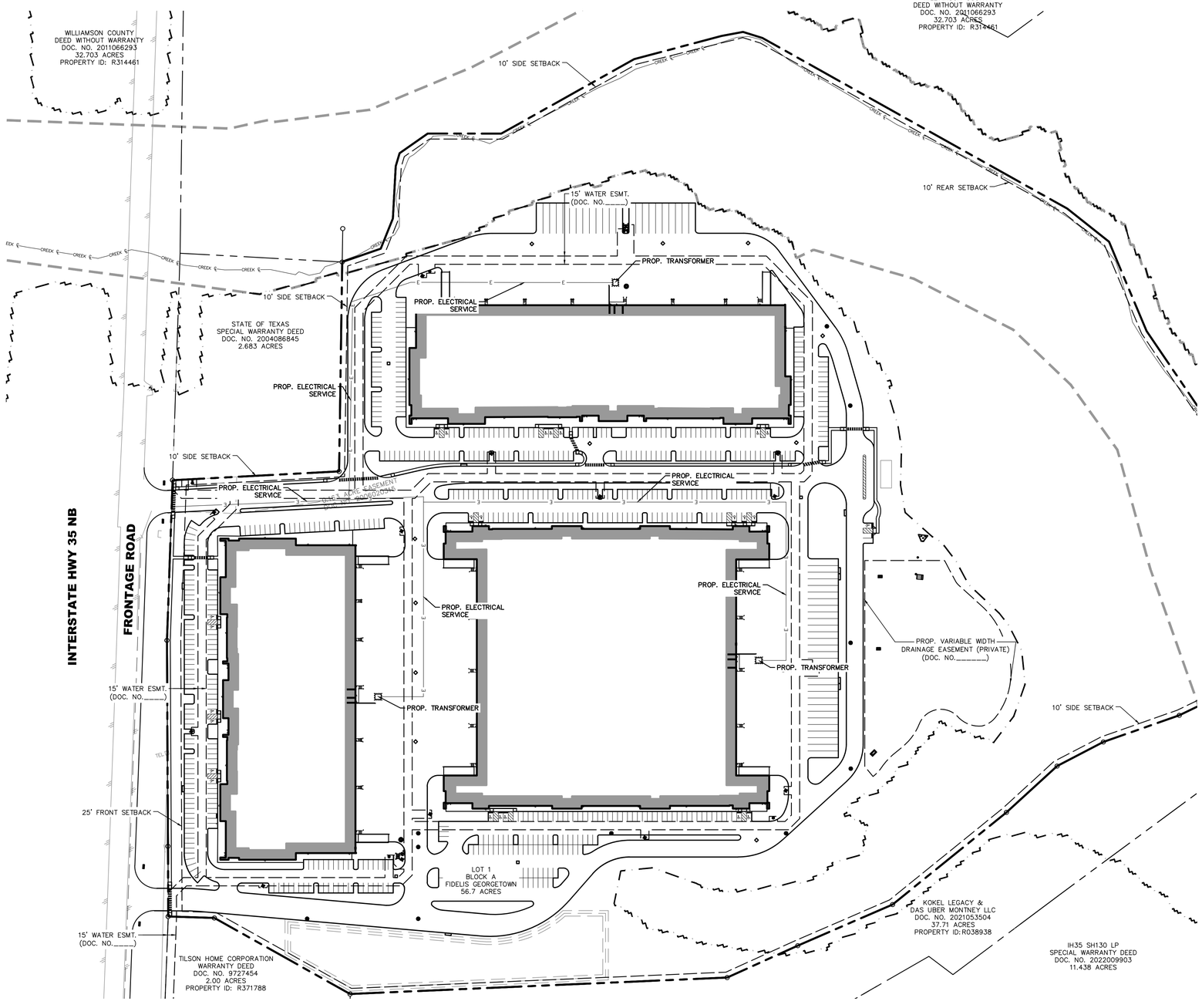
PK-4670-22.125_PVMT.DWG



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

ALL DIMENSIONS ARE TO BACK-OF-CURB UNLESS OTHERWISE NOTED

XXXX-XX-SDP

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

ELECTRICAL SERVICE PLAN

STATE OF TEXAS
HOLLIS ANN SCHEFFLER
136049
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SUPERVISION 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.
54

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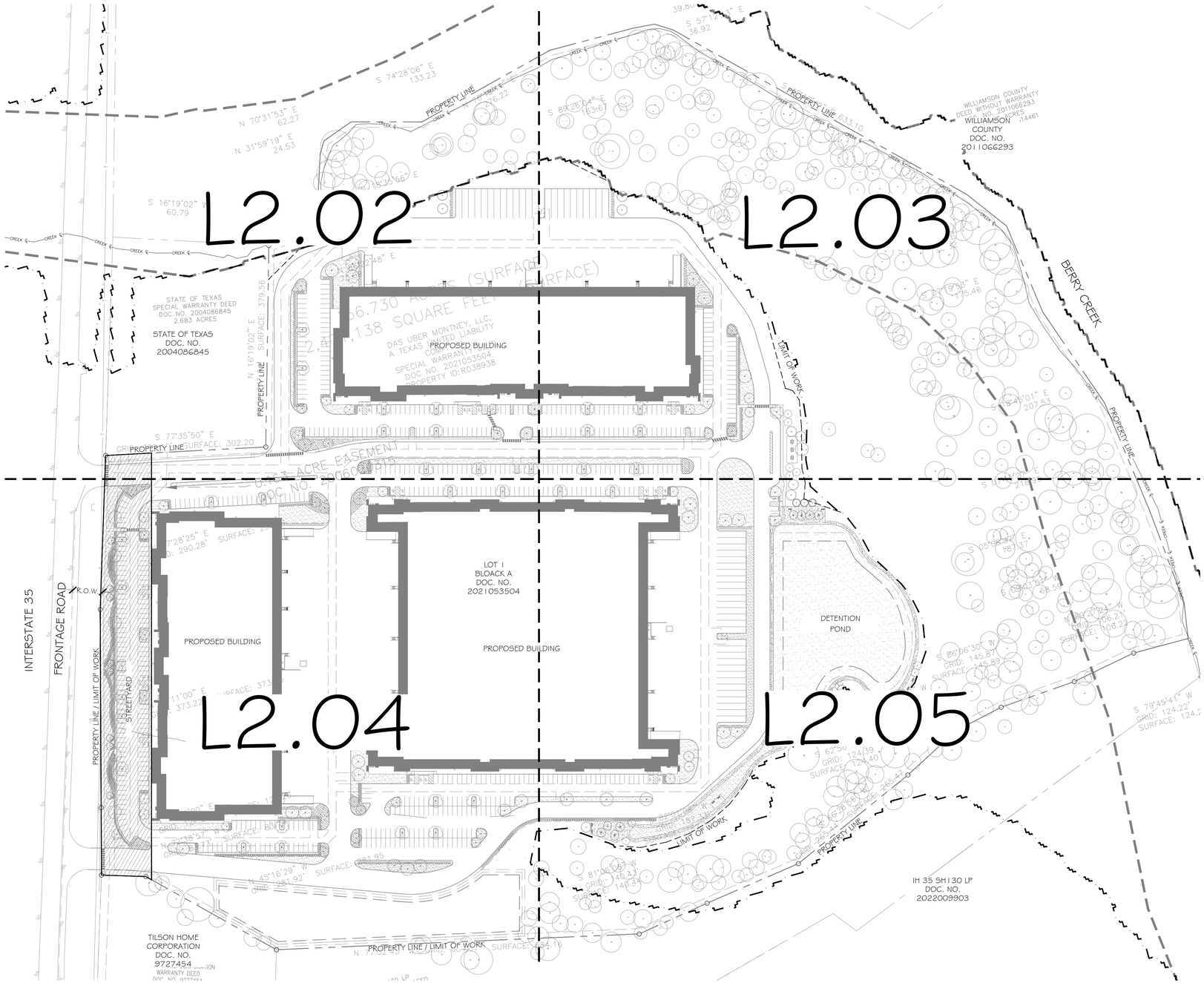

1 OVERALL PLANTING PLAN
1" = 100'-0"

0 50 100 200 300
GRAPHIC SCALE IN FEET

Pacheco Koch
a Westwood company
8701 N. MOPACY 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
1	12/19/22	CITY SUBMITTAL	AMD

FIDELIS INDUSTRIAL
2990 IH 35 GEORGETOWN, TEXAS
50.257 ACRES

OVERALL PLANTING PLAN

REGISTERED LANDSCAPE ARCHITECT
AMBER M. DAVIS
3363
STATE OF TEXAS
12/19/2022

DESIGN	DRAWN	DATE
AMD	CJD	DEC 2022

SHEET NO.
L2.01

MATCH LINE - SEE SHEET L2.03

MATCH LINE - SEE SHEET L2.04

SIDEWALK, REF. CIVIL

PROPOSED BUILDING

LOT 1
BLOACK A
DOC. NO.
2021053504

WATER LINE, REF. CIVIL

SEWER LINE, REF. CIVIL

STORM WATER LINE, REF. CIVIL

PROPOSED DETENTION POND

LIMIT OF WORK

FLOODPLAIN

PROPERTY LINE

IH 35 SH130 LP
DOC. NO.
2022009903

LEGEND

BT - BUFFER TREE

PT - PARKING LOT TREE

ST - STREETYARD TREE

1 PLANTING PLAN
1" = 40'-0"

0 20 40 80 120
GRAPHIC SCALE IN FEET

Pacheco Koch
a Westwood company
8701 N. MOPACEXPY ■ 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
1	12/19/22	CITY SUBMITTAL	AMD

FIDELIS INDUSTRIAL
2990 IH 35 GEORGETOWN, TEXAS
50.257 ACRES

PLANTING PLAN

REGISTERED LANDSCAPE ARCHITECT
AMBER M. DAVIS
3363
STATE OF TEXAS
12/19/2022

DESIGN	DRAWN	DATE
AMD	CJD	DEC 2022

SHEET NO.

L2.05

Attachment G – Inspection, Maintenance, Repair and Retrofit Plan

Batch Detention

- *Batch detention*. Basins may have somewhat higher maintenance requirements than an extended detention basin since they are active stormwater controls. The maintenance activities are identical to those of extended detention basins with the addition of maintenance and inspections of the automatic controller and the valve at the outlet.
- *Inspections.* Inspections should take place a minimum of twice a year. One inspection should take place during wet weather to determine if the basin is meeting the target detention time of 12 hours and a drawdown time of no more than 48 hours. The remaining inspections should occur between storm events so that manual operation of the valve and controller can be verified. The level sensor in the basin should be inspected and any debris or sediment in the area should be removed. The outlet structure and the trash screen should be inspected for signs of clogging. Debris and sediment should be removed from the orifice and outlet{s) as described in previous sections. Debris obstructing the valve should be removed. During each inspection, erosion areas inside and downstream of this BMP should be identified and repaired/revegetated immediately.
- *Mowing*. The basin, basin side-slopes, and embankment of the basin must be mowed to prevent woody growth and control weeds. A mulching mower should be used, or the grass clippings should be caught and removed. Mowing should take place at least twice a year, or more frequently if vegetation exceeds 18 inches in height. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas
- *Litter and Debris Removal*, Litter and debris removal should take place at least twice a year, as part of the periodic mowing operations and inspections. Debris and litter should be removed from the surface of the basin. Particular attention should be paid to floatable debris around the outlet structure. The outlet should be checked for possible Clogging or obstructions and any debris removed
- *Erosion control*. The basin side slopes and embankment all may periodically suffer from slumping and erosion. To correct these problems, corrective action, such as regrading and revegetation, may be necessary. Correction of erosion control should take place whenever required based on the periodic inspections.
- *Nuisance Control*. Standing water or soggy conditions may occur in the basin. Some standing water may occur after a storm event since the valve may close with 2 to 3 inches of water in the basin. Some flow into the basin may also occur between storms due to spring flow and residential water use that enters the storm sewer system. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.).
- *Structural Repairs and Replacement*. With each inspection, any damage to structural elements of the basin (pipes, concrete drainage structures, retaining walls, etc.) should be identified and repaired immediately. An example of this type of repair can include patching of cracked concrete, sealing of voids, removal of vegetation from cracks and joints. The various inlet/outlet structures in a basin will eventually deteriorate and must be replaced.
- *Sediment Removal*, A properly designed batch detention basin will accumulate quantities of sediment over time. The accumulated sediment can detract from the appearance of the facility and reduce the pollutant removal performance of the facility. The sediment also tends to accumulate near the outlet structure and can interfere with

the level sensor operation. Sediment shall be removed from the basin at least every 5 years, when sediment depth exceeds 6 inches, when the sediment interferes with the level sensor or when the basin does not drain within 48 hours. Care should be taken not to compromise the basin lining during maintenance.

- *Logic Controller.* The Logic Controller should be inspected as part of the twice yearly investigations. Verify that the external indicators (active, cycle in progress) are operating properly by turning the controller off and on, and by initiating a cycle by triggering the level sensor in the basin. The valve should be manually opened and closed using the open/close switch to verify valve operation and to assist in inspecting the valve for debris, The solar panel should be inspected and any dust or debris on the panel should be carefully removed. The controller and all other circuitry and wiring should be inspected for signs of corrosion, damage from insects, water leaks, or other damage. At the end of the inspection, the controller should be reset.

Engineer Signature

Hollis Scheffler, P.E.
Printed Name

Project Manager
Title

12/05/2022
Date

Owner Signature

KEVIN C ONEIL
Printed Name

PRESIDENT
Title

12/6/22
Date

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Berry Creek Business Park
Regulated Entity Location: Georgetown; Williamson County
Name of Customer: Kevin O'Neil
Contact Person: Hollis Scheffler, P.E. Phone: 512-485-0831
Customer Reference Number (if issued):CN 603034521
Regulated Entity Reference Number (if issued):RN Not yet assigned

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	56.73 Acres	$ 8,000
Sewage Collection System	L.F.	$
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: 12/20/2022

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 regarding completion of 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

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 n/a

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 Realty Partners LTD	

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 ☐ 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
☐ Occupational Licensee ☒ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:	8140 Walnut Hill Lane, Suite 400						
	City	Dallas	State	TX	ZIP	75231	ZIP + 4

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	skimosh@frpltd.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 554-6191		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (*If 'New Regulated Entity" is selected below this form should be accompanied by a permit application*)

☒ 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 Agency 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							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	This property is located at the end of the William Scotsman drive down the I 35 Service Road.

26. Nearest City	**State**	**Nearest ZIP Code**
Georgetown	TX	78633

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 Warehouse

34. Mailing Address:	**3000 N IH 35 NB**							
	City	**Georgetown**	**State**	**TX**	**ZIP**	**78664**	**ZIP + 4**	

35. E-Mail Address:	

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
		n/a		
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Hollis Scheffler, P.E.	**41. Title:**	Senior Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 485-0831		( ) -	hollis.scheffler@westwoodps.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):*	Hollis Scheffler	**Phone:**	(512) 485- **0831**

Signature:		Date:	12/20/2022

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I Kevin O'Neil,
Print Name

President,
Title - Owner/President/Other

of Fidelis Realty Partners,
Corporation/Partnership/Entity Name

have authorized Hollis Scheffler, 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:

Kevin C. O'Neil
12/6/22
Applicant's Signature Date

THE STATE OF TEXAS §

County of DALLAS §

BEFORE ME, the undersigned authority, on this day personally appeared KEVIN O'NEIL 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 6TH day of DECEMBER, 2022.

Melanie Messick
NOTARY PUBLIC

MELANIE MESSICK
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: DECEMBER 27, 2025

Owner Authorization Form

for Required Signature for submitting and signing an application for an Edwards Aquifer Protection Plan (Plan) and conducting regulated activities in accordance with an approved Plan.

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Relating to the Edwards Aquifer Rules of
Title 30 of the Texas Administrative Code
(30 TAC), Chapter 213
Effective June 1, 1999

Land Owner Authorization

I, LARRY D. KOKEL of KOKEL LEGACY LLC ~~& DAS UBER MONTNEY LLC~~

Land Owner Name (Individual) — Firm (applicable to Legal Entities)

am the Owner of Record or Title Holder of the property located at:

5401 IH 35 N, Georgetown, TX 78633

(Legal description of the property referenced in the application)

and being duly authorized under 30 TAC § 213.4(c)(2) and § 213.4(d)(1) or § 213.23(c)(2) and § 213.23(d) to submit and sign an application for a Plan, do hereby authorize:

Fidelis Realty Partners

(Applicant Name / Plan Holder (Legal Entity or Individual))

to conduct:

Water Pollution Abatement Plan and Sewer Collection System Plan

(Description of the proposed regulated activities)

on the property described above or at:

3000, 3002, 3004 N IH 35 NB, Georgetown, Texas 78626

(If applicable to a precise location for the authorized regulated activities)

Land Owner Acknowledgement

I, LARRY D. KOKEL of KOKEL LEGACY LLC ~~& DAS UBER MONTNEY LLC~~

Land Owner Name (Individual) — Firm (applicable to Legal Entities)

understand that while Fidelis Realty Partners

Applicant Name / Plan Holder (Legal Entity or Individual)

is responsible for compliance with the approved or conditionally approved Plan and any special conditions of the approved Plan through all phases of Plan implementation,

I, Larry D. Kokel of KOKEL LEGACY LLC ~~& DAS UBER MONTNEY LLC~~

Land Owner Name (Individual) Firm (applicable to Legal Entities)

as Owner of Record or Title Holder of the property described above, I am ultimately responsible for ensuring that compliance with the approved or conditionally approved Plan and any special conditions of the approved Plan, through all phases of Plan implementation, is achieved even if the responsibility for compliance and the right to possess and control of the property referenced in the application has been contractually assumed by another legal entity.

I, Larry D. Kokel of KOKEL LEGACY LLC ~~& DAS UBER MONTNEY LLC~~

Land Owner Name (Individual) Firm (applicable to Legal Entities)

further understand that any failure to comply with any condition of the Executive Director's approval is a violation and is subject to administrative rule or orders and penalties as provided under 30 TAC § 213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Land Owner Signature

Land Owner Signature

12/6/22

Date

THE STATE OF § TEXAS

County of § WILLIAMSON

BEFORE ME, the undersigned authority, on this day personally appeared known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 6th day of December

NOTARY PUBLIC

Jeannie C. Coffman

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: _____

Attached: (Mark all that apply)

- ☐ Lease Agreement
- ☐ Signed Contract
- ☐ Deed Recorded Easement
- ☐ Other legally binding document

JEANNIE C. COFFMAN
Notary Public, State of Texas
Comm. Expires 02-02-2024
Notary ID 1626743

Applicant Acknowledgement

I, Kevin O'Neil of Fidelis Realty Partners
Applicant Name (Individual) Firm (applicable to Legal Entities)

acknowledge that Larry Kokel
Land Owner Name (Legal Entity or Individual)

has provided Fidelis Realty Partners
Applicant Name (Legal Entity or Individual)

with the right to possess and control the property referenced in the Edwards Aquifer Protection Plan (Plan).

I understand that Fidelis Realty Partners
Applicant Name (Legal Entity or Individual)

is responsible, contractually or not, for compliance with the approved or conditionally approved Plan and any special conditions of the approved Plan through all phases of Plan implementation. I further understand that failure to comply with any condition of the Executive Director's approval is a violation and is subject to administrative rule or orders and penalties as provided under § 213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Applicant Signature

K C. O'Neil
Applicant Signature

12/6/22
Date

THE STATE OF § TEXAS

County of § DALLAS

BEFORE ME, the undersigned authority, on this day personally appeared known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 6TH day of DECEMBER, 2022

MELANIE MESSICK
My Notary ID # 131078242
Expires December 27, 2025

Melanie Messick
NOTARY PUBLIC

MELANIE MESSICK
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: DECEMBER 27, 2025

Owner Authorization Form

for Required Signature for submitting and signing an application for an Edwards Aquifer Protection Plan (Plan) and conducting regulated activities in accordance with an approved Plan.

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program
Relating to the Edwards Aquifer Rules of
Title 30 of the Texas Administrative Code
(30 TAC), Chapter 213
Effective June 1, 1999

Land Owner Authorization

I, Dale Illig, President of DAS UBER MONTNEY LLC

Land Owner Name (Individual) | Firm (applicable to Legal Entities)

am the Owner of Record or Title Holder of the property located at:

5401 IH 35 N, Georgetown, TX 78633

(Legal description of the property referenced in the application)

and being duly authorized under 30 TAC § 213.4(c)(2) and § 213.4(d)(1) or § 213.23(c)(2) and § 213.23(d) to submit and sign an application for a Plan, do hereby authorize:

Fidelis Realty Partners

(Applicant Name / Plan Holder (Legal Entity or Individual))

to conduct:

Water Pollution Abatement Plan and Sewer Collection System Plan

(Description of the proposed regulated activities)

on the property described above or at:

3000, 3002, 3004 N IH 35 NB, Georgetown, Texas 78626

(If applicable to a precise location for the authorized regulated activities)

Land Owner Acknowledgement

I, Dale Illig, President of DAS UBER MONTNEY LLC

Land Owner Name (Individual) | Firm (applicable to Legal Entities)

understand that while Fidelis Realty Partners

Applicant Name / Plan Holder (Legal Entity or Individual)

is responsible for compliance with the approved or conditionally approved Plan and any special conditions of the approved Plan through all phases of Plan implementation,

I, Dale Illig, President of DAS UBER MONTNEY LLC

Land Owner Name (Individual) Firm (applicable to Legal Entities)

as Owner of Record or Title Holder of the property described above, I am ultimately responsible for ensuring that compliance with the approved or conditionally approved Plan and any special conditions of the approved Plan, through all phases of Plan implementation, is achieved even if the responsibility for compliance and the right to possess and control of the property referenced in the application has been contractually assumed by another legal entity.

I, Dale Illig, President of DAS UBER MONTNEY LLC

Land Owner Name (Individual) Firm (applicable to Legal Entities)

further understand that any failure to comply with any condition of the Executive Director's approval is a violation and is subject to administrative rule or orders and penalties as provided under 30 TAC § 213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Land Owner Signature

Land Owner Signature

12/6/22
Date

THE STATE OF § Texas

County of § Williamson

BEFORE ME, the undersigned authority, on this day personally appeared known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 6th day of December

NOTARY PUBLIC

CARL ILLIG
Notary ID #129631763
My Commission Expires
November 19, 2025

Carl Illig
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: Nov. 19, 2025

Attached: (Mark all that apply)

- ☐ Lease Agreement
- ☐ Signed Contract
- ☐ Deed Recorded Easement
- ☐ Other legally binding document

Applicant Acknowledgement

I, Kevin O'Neil of Fidelis Realty Partners
Applicant Name (Individual) Firm (applicable to Legal Entities)

acknowledge that Dale Illig
Land Owner Name (Legal Entity or Individual)

has provided Fidelis Realty Partners
Applicant Name (Legal Entity or Individual)

with the right to possess and control the property referenced in the Edwards Aquifer Protection Plan (Plan).

I understand that Fidelis Realty Partners
Applicant Name (Legal Entity or Individual)

is responsible, contractually or not, for compliance with the approved or conditionally approved Plan and any special conditions of the approved Plan through all phases of Plan implementation. I further understand that failure to comply with any condition of the Executive Director's approval is a violation and is subject to administrative rule or orders and penalties as provided under § 213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Applicant Signature

Kevin C. O'Neil
Applicant Signature

12/6/22
Date

THE STATE OF § TEXAS

County of § DALLAS

BEFORE ME, the undersigned authority, on this day personally appeared known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 6TH day of DECEMBER

MELANIE MESSICK
My Notary ID # 131078242
Expires December 27, 2025

Melanie Messick
NOTARY PUBLIC

MELANIE MESSICK
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: DECEMBER 27, 2025