WATER POLLUTION ABATEMENT PLAN

VALOR LEANDER
168 KAUFFMAN LOOP
LEANDER, WILLIAMSON COUNTY, TEXAS

Prepared For:

VALOR TEXAS EDUCATION FOUNDATION

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SECTION 1: EDWARDS AQUIFER APPLICATION COVER PAGE

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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: Valor Leander						**2. Regulated Entity No.:** N/A			
3. Customer Name: Valor Texas Education Foundation						**4. Customer No.:** 606089696			
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 Clarificatio	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		**Non-residential**			**8. Site (acres):**			13.80 (property boundary), 15.22 (total area draining to BMPs)
9. Application Fee:	$4,000		**10. Permanent BMP(s):**			Vegetative Filter Strips, Batch Detention Pond			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson		**14. Watershed:**			North and South Fork San Gabriel River			

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)	___	___	___
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 _X_Leander ___Liberty Hill ___Pflugerville ___Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. Allison Kennaugh, P.E.
Print Name of Customer/Authorized Agent
Allison Kennaugh 12/01/23
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):	

SECTION 2:
GENERAL INFORMATION

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: Allison Kennaugh, P.E.

Date: December 1, 2023

Signature of Customer/Agent:

Allison Kennaugh

_____

Project Information

1. Regulated Entity Name: Valor Leander
2. County: Williamson
3. Stream Basin: North and South Fork San Gabriel River
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: Jesse Bates
   Entity: Valor Texas Education Foundation
   Mailing Address: 220 Foremost Drive
   City, State: Austin, TX Zip: 78745
   Telephone: 214-514-3356 Fax: N/A
   Email Address: jbates@valoreducation.org

8. Agent/Representative (If any):

   Contact Person: Allison Kennaugh, P.E.
   Entity: Kimley-Horn
   Mailing Address: 10814 Jollyville Road; Bldg. IV, Suite 200
   City, State: Austin, Texas Zip: 78759
   Telephone: 512-782-0614 Fax: N/A
   Email Address: allison.kennaugh@kimley-horn.com

9. Project Location:

   ☒ The project site is located inside the city limits of Leander.
   ☐ 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.

    168 Kauffman Loop – Located along the North boundary of County Rd 267 and the west boundary of Kauffman Loop

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: 12/1/2023

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:

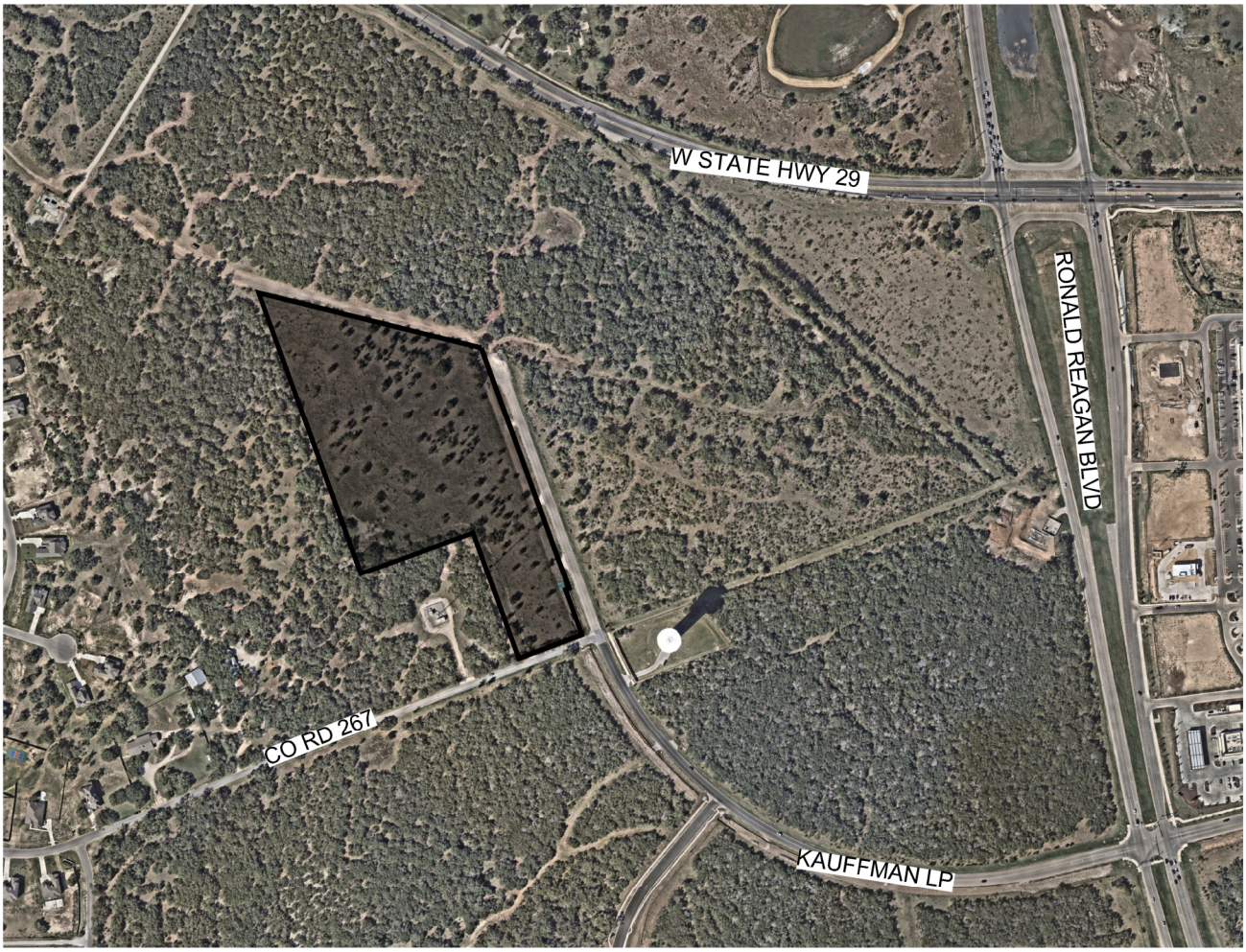
☐ TCEQ cashier
☒ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

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.

Kimley»Horn

ATTACHMENT A - Road Map



N
W E
S

SCALE: N.T.S.

DIRECTIONS FROM TCEQ HEADQUARTERS TO PROJECT SITE

1. HEAD SOUTH ON PARK 35 CIRCLE, TURNING RIGHT ONTO S IH-35 FRONTAGE ROAD
2. TAKE US-183 HWY N TO 183A FRONTAGE ROAD
3. TAKE CRYSTAL FALLS PKWY EXIT
4. TURN RIGHT ONTO E CRYSTAL FALLS PKWY
5. TURN LEFT ONTO RONALD REAGAN BLVD
6. TURN LEFT ONTO KAUFFMAN LOOP
7. CONTINUE ON KAUFFMAN LOOP FOR APPROXIMATELY 0.42 MILES.
8. SITE IS LOCATED ON THE LEFT

SHEET

EX A

Scale:	1"=1000'
Designed by:	AMF
Drawn by:	AMF
Checked by:	AK
Date:	NOVEMBER, 2023
Project No.	069252742

VALOR LEANDER
LEANDER, TEXAS

Kimley»Horn
10814 JOLLYVILLE RD, BLDG IV, SUITE 200, AUSTIN, TX 78759
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WWW.KIMLEY-HORN.COM
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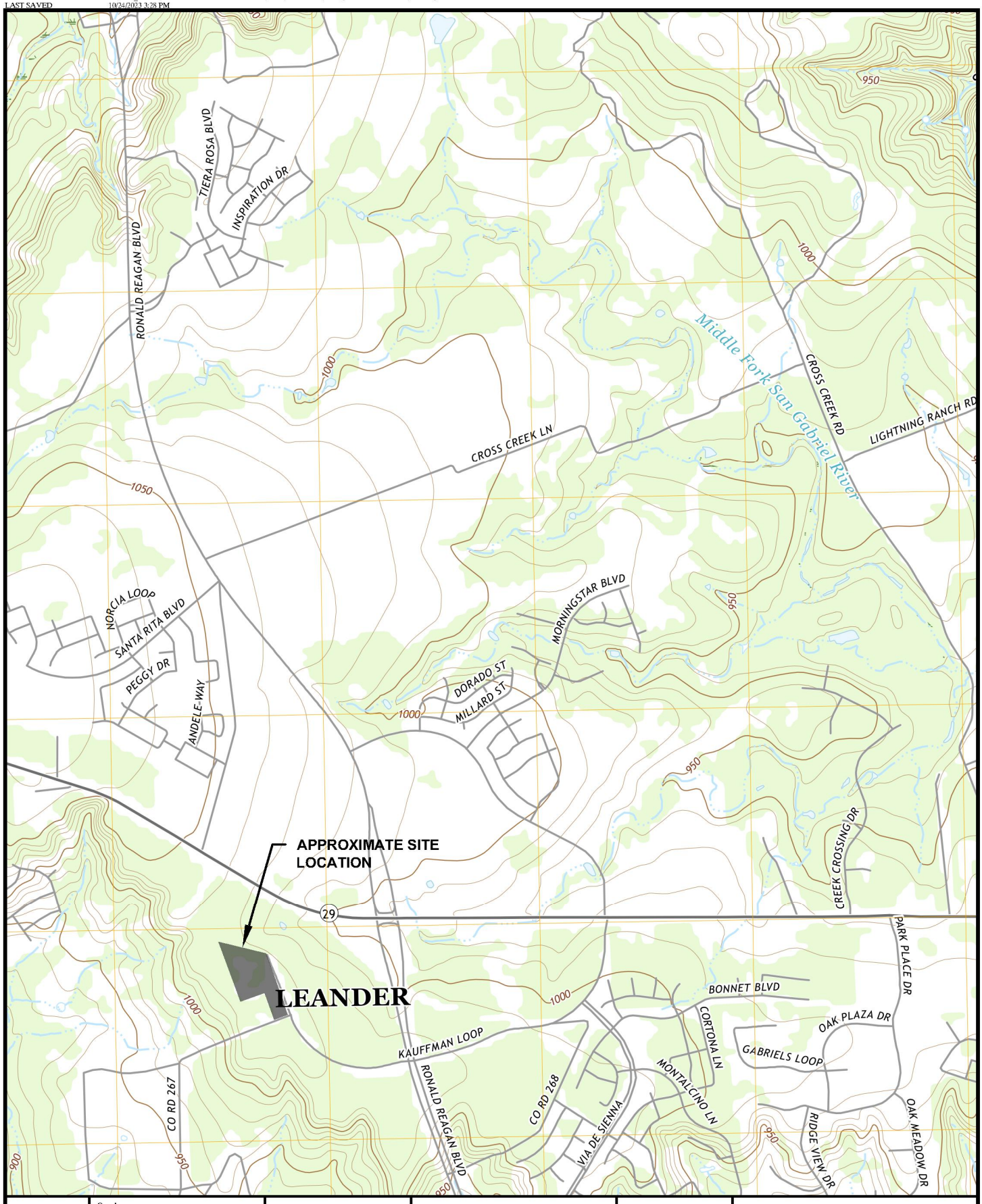
TBPE Firm No. 928

Kimley»Horn

ATTACHMENT B - USGS/Edwards Recharge Zone Map

IMAGES
XREFS XREF QuadxBorder
PLOTTED BY FLYNN, ALYSSA 11/8/2023 1:41 PM
DWG NAME K:\AUS_CIVIL\069252742-VALOR LEANDER\CAD\EXHIBITS\TCEQ ATTACHMENTS\USGS QUADRANGLE MAP.DWG
LAST SAVED 10/24/2023 3:28 PM



SHEET 1 OF 1 SHEETS	Scale: 1:2000 Designed by: AMF Drawn by: AMF Checked by: AK Date: NOVEMBER, 2023 Project No. 069252742	USGS Quadrangle	Valor Leander Leander, Williamson County, Texas	N W E S	Kimley»Horn

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-th-ground survey and represents only the approximate relative location of property boundaries.

ATTACHMENT C – Project Description

Introduction

The subject site is a largely undeveloped 13.80 (property boundary), 15.22 (total area draining to BMPs) acre lot located on 168 Kauffman Loop and within the Full Purpose city limits of the City of Leander. The subject property will be comprised of a charter school and all necessary infrastructure for the school.

The site is not located in the Federal Emergency Management Agency's 100-year floodplain according to FIRM 48491C0275E, dated September 26, 2008. The site is located within the Edwards Aquifer Recharge Zone according to TCEQ Edwards Aquifer Map.

Current Tract Conditions

Legal Description

The legal description is described as 13.80 acres of land out of the William H. Monroe Survey, Abstract 453, Williamson County, Texas, as described in Doc. #2015015610 of the deed records of Williamson County, Texas. The deed can be found by document No. 2023051200 of the Official Public Records of Williamson County, Texas.

Land Use

The lot is zoned for Single-Family Rural (SFR) but will be zoned as Activity Center for this development. The site resides within the Full Purpose city limits of the City of Leander in Williamson County, Texas.

Existing Drainage Conditions

Under existing conditions, the site has one ridge to the southwest, sending flow to one point at the western property boundary and one point on the eastern property boundary.

Proposed Development

The proposed Valor Leander project includes the construction of a charter school and infrastructure for the school. Public Water and wastewater lines will be designed according to City of Leander specifications and connect to City of Leander utility services. Access to the site will be via Kauffman Loop, which intersects Ronald Reagan Blvd. The project proposes 6.74 acres of total impervious cover. There will be 5.91 acres of impervious cover from on site, draining to a proposed batch detention pond. There will be an additional 0.83 acres of impervious cover from Kauffman Loop draining to proposed VFS. Please note that the proposed improvements within Kauffman loop are only adding 0.12 acres of impervious cover. There is already an existing 0.71 acres of impervious cover within the drainage area that will be draining to the proposed VFS. the addition of a turn lane in Kauffman Loop. Water will be treated according to TCEQ requirements through one on site Batch Detention Pond and offsite vegetative filter strips. The flow will be discharged to the Northeast of the site. Proposed flow conditions will not exceed existing conditions.

Drainage and Water Quality Analysis

Floodplain Information

According to the FEMA Flood Insurance Rate Map Panel No. 48491C0275E for Williamson County, effective September 26, 2008, no portion of the development lies within the 100-yr floodplain (Zone A).

On-Site Drainage

The proposed site will convey runoff through an underground storm pipe system into one on site Batch detention pond. A portion of offsite and onsite flow will overland flow over vegetative filter strips. The detention pond will release the runoff at or below existing condition flow rates onto rock riprap which will then be conveyed northeast. Drainage area maps and calculations are included in the construction set included in the Exhibits Section.

Off-Site Drainage

Under existing conditions, drainage from Kauffman Loop drains into an existing ditch along the west side of Kauffman Loop. The off-site drainage from this area, along with the proposed additional pavement will overland flow over proposed Vegetative Filter Strips.

In proposed conditions, once runoff is released from the detention pond it will travel northeast of the project site.

Detention and Water Quality

Water Quality Best Management Practices (BMP) for Valor Leander will address the water quality requirements for the ultimate area disturbed within this proposed development. Pond A-1 will be treated by a batch detention. VFS-1 will be treated by permanent vegetative filter strips. There is a small area in the southwest corner of the property that will have no impervious cover proposed and therefore no treatment will be provided for this area. These drainage areas are to meet all water quality requirements per TCEQ requirements. See Permanent Stormwater Section – Attachment C for a breakdown on TSS calculations.

The detention pond requirements used for the purpose of this report are assumed to be based on the requirements outlined by the City of Austin Drainage Criteria Manual. To reduce the flow to pre-developed conditions, a detention pond will be constructed as a part of this development to reduce flows to existing conditions.

Erosion and Sedimentation Controls

Temporary erosion and sedimentation controls during construction are proposed on the Erosion Control Plan and include: silt fences, inlet protection, construction staging area, concrete washout, rock berm, and a stabilized construction entrance designed to City of Austin criteria. The land disturbed during construction, including the staging and stockpile areas, will drain into the proposed on-site storm sewer system where it will be conveyed to the proposed detention and water quality pond located on-site. The detention pond will discharge onto proposed rock rip rap into an proposed drainage culvert that cuts along the north of Kauffman Loop.

SECTION 3:
GEOLOGIC ASSESSMENT

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

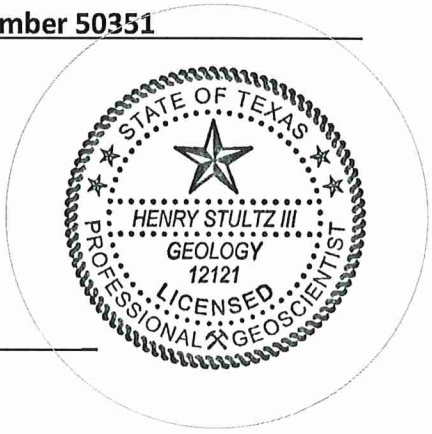
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: **Henry E. Stultz III, P.G.** Telephone: **210-375-9000**

Date: April 4, 2023 Fax: **210-375-9090**

Representing: **Pape-Dawson Engineers, Inc., TBPG registration number 50351**

Signature of Geologist:



Regulated Entity Name: **VALOR SCHOOLS**

Project Information

1. Date(s) Geologic Assessment was performed: **February 17, 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)
Fairlie clay, 1 to 2 percent slopes (FaB)	D	1-4
Georgetown stony clay loam, 1 to 3 percent slopes (GsB)	D	1-3

** 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" = **50'**
   Site Geologic Map Scale: 1" = **50'**
   Site Soils Map Scale (if more than 1 soil type): 1" = **200'**

9. Method of collecting positional data:

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

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

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

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

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

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

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

    ☐ There are ____(#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☐ The wells are not in use and will be properly abandoned.
    - ☐ The wells are in use and comply with 16 TAC Chapter 76.

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

Administrative Information

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

ATTACHMENT A
Geologic Assessment Table

GEOLOGIC ASSESSMENT TABLE			PROJECT NAME: VALOR SCHOOLS																	
LOCATION			FEATURE CHARACTERISTICS											EVALUATION			PHYSICAL SETTING			
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10			11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY			CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	≥40		<1.6	≥1.6	
S-1	30.63499	-97.83571	MB	30	Kep	7	7	10					X	5	35	35			X		Hillside

** DATUM: NAD 83

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

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

STATE OF TEXAS
HENRY STULTZ III
GEOLOGY
12121
LICENSED
PROFESSIONAL GEOSCIENTIST

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 April 4, 2023

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

ATTACHMENT A

ATTACHMENT B
Stratigraphic Column

Attachment B – Stratigraphic Column

Period	Epoch	Group	Formation	Member	Maximum Thickness	Lithology	Hydrologic Unit
Cretaceous	Early Cretaceous	Fredericksburg	Edwards	1	80–90	Gray to tan, hard, dense, thick-to thin-bedded, fine-grained limestone with soft dolomitic limestone zone near middle	Edwards Aquifer
				2		Gray to tan, soft, nodular-weathering marly limestone	
				3		Light gray to tan, fine-to-medium-grained, hard, thin-to thick-bedded limestone; chert nodules in lower third	
				4		Gray-brown, thin-to medium-bedded, porous dolomite, dolomitic limestone, and limestone; chert common; solution collapse zone at top	
			Comanche Peak		60-64	White, irregularly bedded nodular limestone interbedded with marl to gray fine-grained, nodular limestone, marly limestone, and marl. Large gastropods and pelecypods occur in abundance throughout the limestone.	
			Walnut	Keys Valley	70-120	Gray to tan, soft marl and nodular limestone with abundant fossils	
				Whitestone		Gray to tan, hard, fine-to medium-grained, thin-to thick-bedded fossiliferous limestone	
				Cedar Park		Gray to tan, thin-to thick-bedded, fine-to medium-grained, hard limestone	
				Bee Cave		Gray to tan, soft, nodular-weathering, fine-grained limestone, marly limestone, and marl with abundant fossil shells	
				Bull Creek		Gray to tan, hard, fine-to medium-grained, thin to thick-bedded limestone; shell fragments common	
		Trinity	Glen Rose	Upper Glen Rose	450	Alternating resistant and nonresistant beds of blue shale, nodular marl, and impure, fossiliferous limestone; gray to yellowish gray; stair-step topography; contains two distinct evaporite zones; distinct *Corbula* sp. bed marks the contact with the underlying lower member of the Glen Rose Limestone; *Orbitulina texana*	Upper Trinity

ATTACHMENT C
Site Geology

Attachment C – Site Geology

SUMMARY

The Valor Schools site is located north of the intersection of FM 267 and Kauffman Loop in Williamson County, Texas.

Based on the results of the field survey conducted in accordance with *Instructions for Geologists for Geologic Assessments in the Edwards Aquifer Recharge/Transition Zones (TCEQ-0585 Instructions),* no naturally occurring sensitive features were identified on site. No springs or streams were identified on site. The overall potential for fluid migration to the Edwards Aquifer for the site is low.

SITE GEOLOGY

As observed through field evidence, the geologic formation which outcrops at the surface within the subject site is the Edwards Formation, undivided (Ked). The Ked north of the Colorado river is characterized as having highly variable properties, but is generally thick bedded, fine grained, light gray to off white, thick bedded intervals of limestone and dolostone. Other textual properties include nodular chert, marly horizons, and burrowed intervals, and is generally resistant to erosion. Dissolution and re-calcification are common and may result in highly cavernous zones throughout the formation.

The predominant trend of faults in the vicinity of the site is approximately N32°E, based on faults identified during the previous mapping of the area.

FEATURE DESCRIPTIONS:

A description of the features observed onsite is provided below:

Feature S-1

Feature S-1 is a man-made feature consisting of a septic tank. Due to the non-karst nature of the feature, the probability for rapid infiltration is low.

REFERENCES

Collins, E.W., 1998, Leander NE Quadrangle, University of Texas at Austin, Bureau of Economic Geology, Series unknown, 1:24,000.

Nationwide Environmental Title Research, LLC. Historical Aerials, HistoricAerials.com. https://www.historicaerials.com/viewer, May 10, 2021.

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. http://websoilsurvey.sc.egov.usda.gov/, May 10, 2021.

Stein, W.G., and Ozuna, G.B., 1995, Geologic framework and hydrogeologic characteristics of the Edwards Aquifer recharge zone, Bexar County, Texas: U.S. Geological Survey Water-Resources Investigations Report 95–4030, 8 p.

Texas Water Development Board, Wells in TWDB Groundwater Database Viewer, https://www3.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer, May 10, 2021.

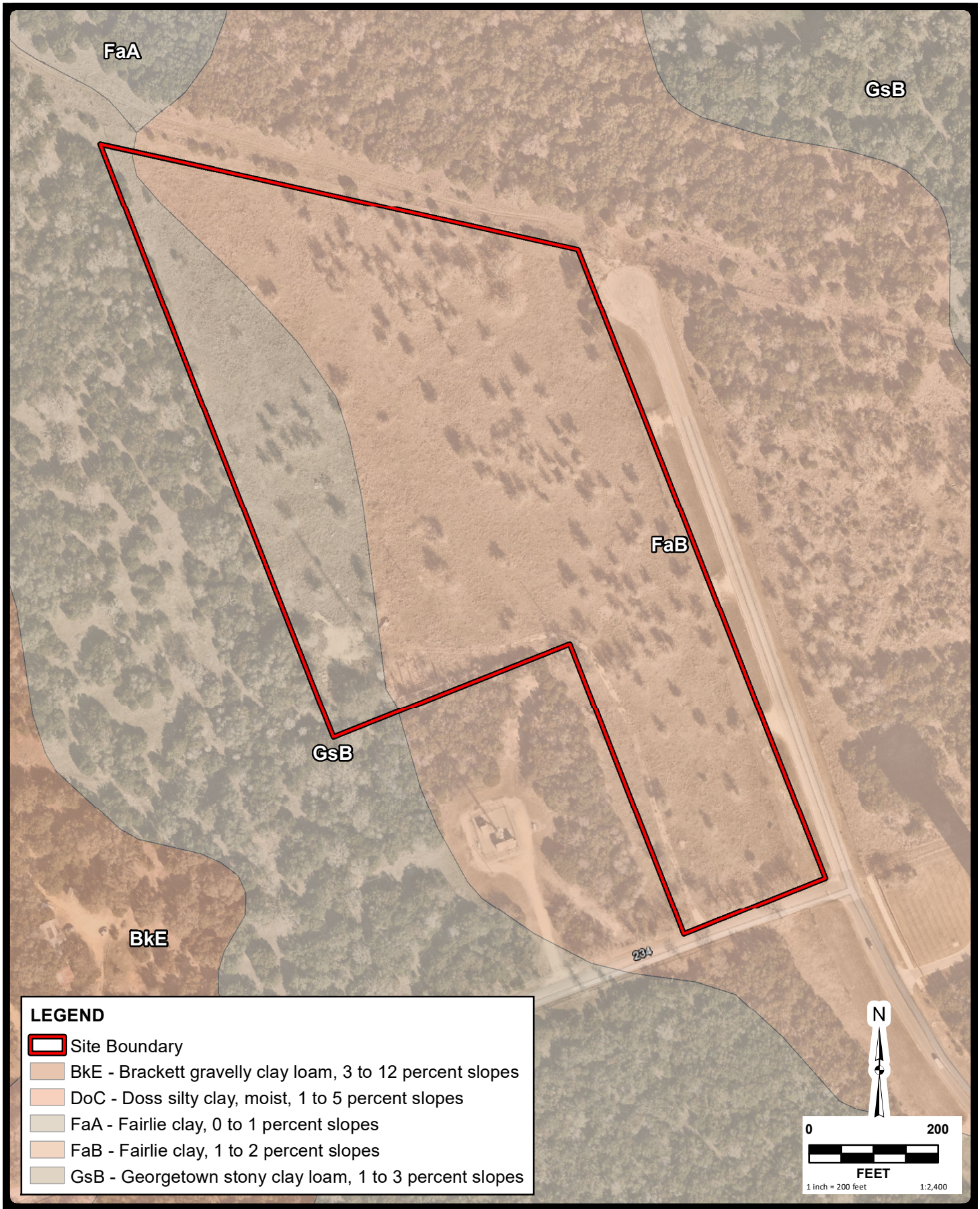
U.S. Geological Survey, National Water Information System: Mapper, https://maps.waterdata.usgs.gov/mapper/index.html, May 10, 2021. April 4, 2023.

ATTACHMENT D
Site Geologic Map(s)

Source: ESRI World Street Map & ESRI World Topographic Map (2021)

AERIAL IMAGERY PROVIDED BY GOOGLE © UNLESS OTHERWISE NOTED. Imagery ©2023, CAPCOG,Digital Globe,Texas Orthoimagery Program, USDA Farm Service Agency.

Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet



LEGEND

- Site Boundary
- BkE - Brackett gravelly clay loam, 3 to 12 percent slopes
- DoC - Doss silty clay, moist, 1 to 5 percent slopes
- FaA - Fairlie clay, 0 to 1 percent slopes
- FaB - Fairlie clay, 1 to 2 percent slopes
- GsB - Georgetown stony clay loam, 1 to 3 percent slopes

JOB NO.	51402-00
DATE	Mar 2023
DRAWN	HS
CHECKED	HDJ
SHEET	ATTACHMENT D

VALOR SCHOOLS

SITE SOILS MAP

WILLIAMSON COUNTY, TEXAS

PAPE-DAWSON ENGINEERS

SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TBPE FIRM REGISTRATION #470 | TBPLS FIRM REGISTRATION #10028800
TBPG FIRM REGISTRATION #50351

Date: Mar 23, 2023 9:16:09 AM User: hstultz
File: H:\Projects\51402\10\ENV\GIA\Attachments\SiteSoils51402.mxd

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NOTE: THE GEOSCIENTIST SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR PURPOSES OF GEOLOGIC INFORMATION. ALL OTHER INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SIGNED AND SEALED CIVIL ENGINEERING DRAWINGS.

NOTE: THE RECHARGE ZONE BOUNDARY IS NOT WITHIN THE AREA SHOWN ON THIS SHEET. THE SITE IS LOCATED ENTIRELY WITHIN THE RECHARGE ZONE.

SCALE: 1"= 50'

0' 50' 100' 150'

LEGEND

PROJECT LIMITS

100 YEAR FLOODPLAIN

STREAM

SYMBOLS AND LINES

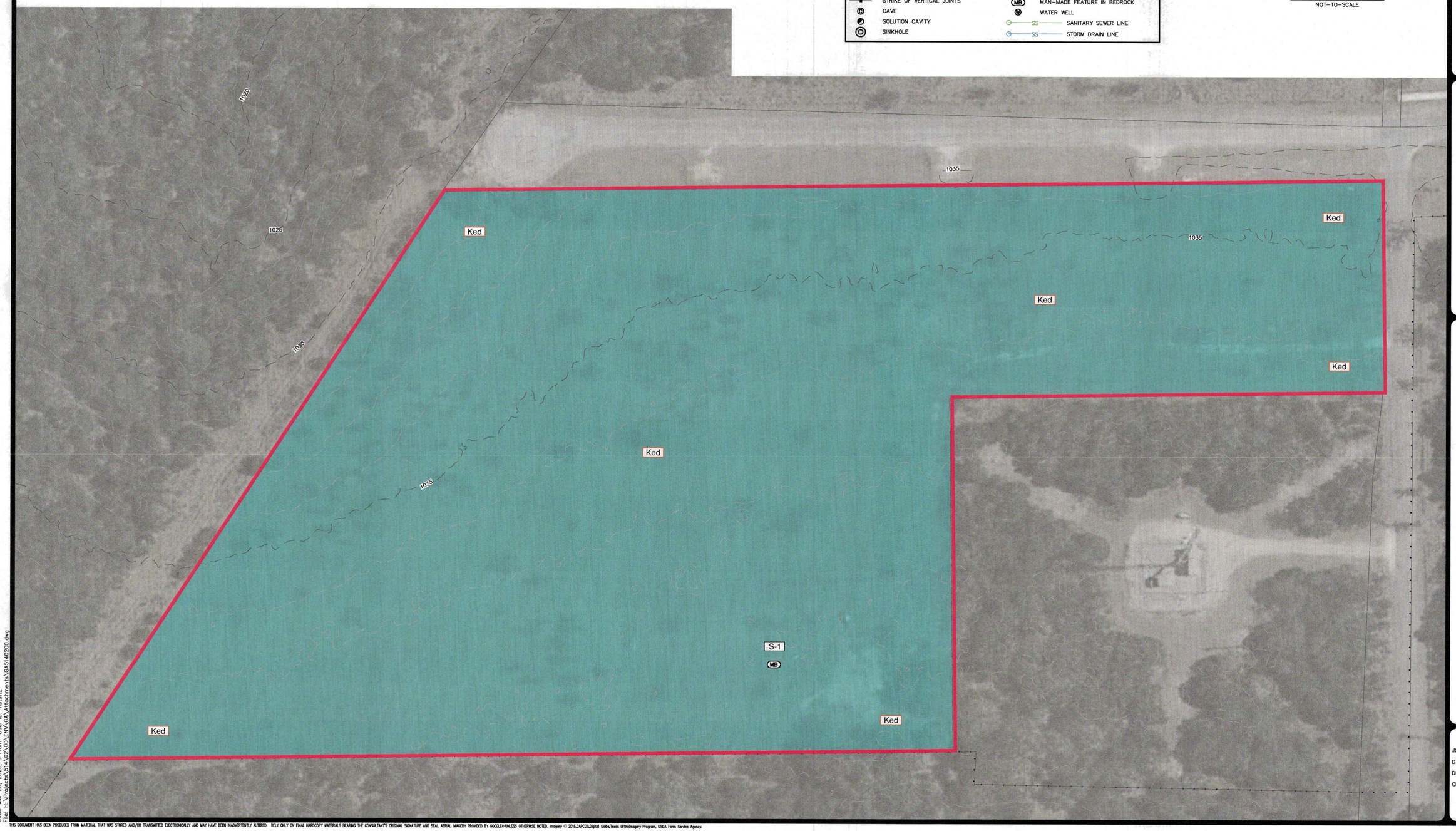
- S-1 — POTENTIAL RECHARGE FEATURE
- CONTACT, LOCATED APPROXIMATELY
- CONTACT, INFERRED
- FAULT, LOCATED APPROXIMATELY (D, DOWNTHROWN SIDE; U, UPTHROWN SIDE)
- FAULT, EXTRAPOLATED
- FAULT, INFERRED
- STRIKE AND DIP OF BEDDING
- STRIKE AND DIP OF JOINTS
- STRIKE OF VERTICAL JOINTS
- C — CAVE
- SOLUTION CAVITY
- SINKHOLE

GEOLOGIC FORMATIONS

- Kef — EAGLE FORD
- Kbu — BUDA
- Kdr — DEL RIO
- Kgt — GEORGETOWN
- Ked — EDWARDS
- Kcp — COMANCHE PEAK
- Kw — WALNUT
- Kgr — GLEN ROSE

- SOLUTION ENLARGED FRACTURE
- SWALLOW HOLE
- NON-KARST CLOSED DEPRESSION
- ZONE
- OTHER NATURAL BEDROCK FEATURES
- SPRING/SEEP
- WETLAND
- MB — MAN-MADE FEATURE IN BEDROCK
- W — WATER WELL
- SS — SANITARY SEWER LINE
- SS — STORM DRAIN LINE

LOCATION MAP
NOT-TO-SCALE



NO.	REVISION	DATE

STATE OF TEXAS
HENRY STULTZ III
GEOLOGY
12121
LICENSED
PROFESSIONAL GEOSCIENTIST
Apr 24, 2023

PAPE-DAWSON ENGINEERS
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS
2000 NW LOOP 410 | SAN ANTONIO, TX 78213 | 210.375.9000
TBPE FIRM REGISTRATION #470 | TBPG FIRM REGISTRATION #50351

VALOR SCHOOLS
LEANDER, TEXAS

SITE GEOLOGIC MAP
WATER POLLUTION ABATEMENT PLAN

JOB NO. 51402-00
DATE FEBRUARY 2023
DESIGNER HS
CHECKED HDJ DRAWN HS

ATTACHMENT D

Date: Mar 23, 2023, 9:11am User ID: hstultz
File: H:\Projects\51402\00\ENV\GA\Attachments\GA51402D0.dwg

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SECTION 4: WATER POLLUTION ABATEMENT PLAN

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: Allison Kennaugh, P.E.

Date: December 1, 2023

Signature of Customer/Agent:

Allison Kennaugh

Regulated Entity Name: Valor Leander

Regulated Entity Information

1. The type of project is:

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

2. Total site acreage (size of property): 13.80 (property boundary), 15.22 (total area draining to BMPs)

3. Estimated projected population: 109 LUEs

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	113,691	÷ 43,560 =	2.61
Other paved surfaces	180,305	÷ 43,560 =	4.13
Total Impervious Cover	293,996	÷ 43,560 =	6.74

Total Impervious Cover 6.74 **÷ Total Acreage** 13.80 (property boundary), 15.22 (total area draining to BMPs) **X 100 =** 44.28 **% 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:

_____% Domestic	_____	Gallons/day
_____% Industrial	_____	Gallons/day
100 % Commingled	26,730	Gallons/day

TOTAL gallons/day 26,730

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 Brushy Creek Regional Wastewater 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" = 60'.

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 Map No. 48491C0275E, Dated September 26, 2008

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 is zero (0) well 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 Water Quality

Materials that are anticipated to be used on site that could be a potential source of contamination include the following:

During Construction:

1. Concrete and Masonry Materials
2. Wood, plastic, and metal Materials
3. Tar and hydrocarbons from paving operations
4. Oil, Grease, fuel, and hydraulic fluid from construction equipment and vehicle drippings
5. Fertilizers, Herbicides, and Pesticides
6. Cleaning solutions and detergents
7. Miscellaneous construction trash and debris
8. Soil erosion and sedimentation due to construction activity

Ultimate Use:

1. Pollutants generated from vehicles utilizing the site
2. Fertilizers, Herbicides, and pesticides used to maintain landscaping
3. Miscellaneous trash and debris generated from the public

(This is not intended to be an all-inclusive list)

All practical management practices will be used to reduce the risk of spills and other exposure of any contaminant to surface or groundwater.

ATTACHMENT B – Volume and Character of Stormwater

The proposed Valor Leander project includes the construction of a charter school and associated civil improvements including, water, wastewater, and drainage. Two driveways will connect the Valor Texas Charter School with Kauffman Loop. Impervious cover for the site totals 6.74 acres (44.28%) of proposed impervious cover.

Under existing conditions, the site has one ridge to the southwest sending flow to one point at the western property boundary and one point on the eastern property boundary. Flow across the subject site is sheet or shallow concentrated flow.

The site is not located in the Federal Emergency Management Agency's 100-year floodplain according to FIRM 48491C 0275E, Williamson County, Texas and incorporated areas, dated September 26, 2008. In proposed conditions, onsite flow will be captured and conveyed through a proposed storm system. Water will be treated according to TCEQ requirements through one (1) set of permanent engineered vegetative filter strips, and one (1) on site detention pond. The detention pond will then outfall at or below existing conditions to an existing drainage channel running northwest of the site.

The subject site has no existing detention or water quality ponds. One water quality system and one (1) detention pond are proposed on site. The Detention and Water Quality Structures are sized per current City of Leander and TCEQ design standards. Drainage area maps and calculations are included in the plan set for reference

Regarding stormwater volume (quantity) of the stormwater runoff which is expected to occur from the proposed project, see table below depicting existing vs proposed runoff volume. This increase of runoff is being detained in proposed detention ponds to at or below existing condition runoff rates for the 2, 10, 25 and 100 year events.

	Storm Event	Volume of Runoff (CF)
EXISTING	2 10 25 100	138,252 283,223 396,026 611,472
PROPOSED	2 10 25 100	169,867 322,056 437,825 655,954

ATTACHMENT C – Suitability Letter from Authorized Agent

An on-site sewage facility will **not** be used to treat and dispose of the wastewater.

ATTACHMENT D – Exception to the Required Geologic Assessment

No sensitive geologic or manmade features were identified in the geologic assessment. Therefore, an exception to the Geologic Assessment Requirements will not be required.

SECTION 5: TEMPORARY STORMWATER SECTION

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: Allison Kennaugh, P.E.

Date: December 1, 2023

Signature of Customer/Agent:

Allison Kennaugh

Regulated Entity Name: Valor Leander

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: N/A

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

If there is an accidental spill on site, the contractor shall respond with appropriate action. The contractor will be required to contact the owner and in turn the owner will contact the TCEQ in the event of a spill on site. In addition to the following guidance, reference the latest version of TCEQ's Technical Guidance Manual (TGM) RG-348 Section 2.4.16.

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

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up immediately:

- 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

For significant or hazardous spills that are in reportable quantities:

- 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 not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

ATTACHMENT B – Potential Sources of Contamination

Potential Source: Oil, grease, fuel, and hydraulic fluid contamination from construction equipment and vehicle dripping.

Preventative Measures: Vehicle maintenance will be performed within the construction staging area or a local maintenance shop.

Potential Source: Miscellaneous trash and litter from construction workers and material wrappings.

Preventative Measures: Trash containers will be placed throughout the site to encourage proper disposal of trash.

Potential Source: Silt leaving the site.

Preventative Measures: Contractor will install all temporary best management practices prior to start of construction including the stabilized construction entrance to prevent tracking onto adjoining streets.

Potential Source: Construction Debris.

Preventative Measures: Construction debris will be monitored daily by contractor. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis.

Potential Source: Soil and Mud from Construction Vehicle tires as they leave the site.

Preventative Measures: A stabilized construction exit shall be utilized as vehicles leave the site. Any soil, mud, etc. carried from the project onto public roads shall be cleaned up within 24 hours.

Potential Source: Sediment from soil, sand, gravel and excavated materials stock piled on site.

Preventative Measures: Silt fence shall be installed on the down gradient side of the stock piled materials. Reinforced rock berms shall be installed at all downstream discharge locations.

Potential Source: Portable toilet spill.

Preventative Measures: Toilets on the site will be emptied on a regular basis by the contracted toilet company.

ATTACHMENT C - Sequence of Major Activities

The installation of erosion and sedimentation controls shall occur prior to any excavation of materials or major disturbances on the site. The sequence of major construction activities will be as follows. Approximate acreage to be disturbed is listed in parentheses next to each activity.

Intended Schedule or Sequence of Major Activities:

1. Construct Access (0.05 Acres)
2. Installation of Temporary BMPs (13.80 (property boundary), 15.22 (total area draining to BMPs) Acres)
3. Initiate Grubbing and Topsoil Stripping of Site (13.80 (property boundary), 15.22 (total area draining to BMPs) Acres)
4. Rough Subgrade Preparation (earthwork, grading, street and drainage excavation and embankment) (13.80 (property boundary), 15.22 (total area draining to BMPs) Acres)
5. Wet and Dry Utility Construction (6 Acres)
6. Final Subgrade Preparation (3 Acres)
7. Installation of Base Materials (3 Acres)
8. Concrete (foundations, curbs, flatwork) (5.5 Acres)
9. Building Construction (5 Acres)
10. Paving Activities (2.5 Acres)
11. Topsoil, Irrigation and Landscaping (13.80 (property boundary), 15.22 (total area draining to BMPs) Acres)
12. Site cleanup and Removal of Temporary BMPs (13.80 (property boundary), 15.22 (total area draining to BMPs) Acres)

Maximum total construction time is not expected to exceed 36 months.

ATTACHMENT D – Temporary Best Management Practices and Measures

A. No storm water originates up gradient that impacts the site.

B. Temporary BMPs will be installed prior to soil disturbing construction activity. Silt fencing will be placed along the down-gradient sides of the property to prevent silt from escaping the construction area. A temporary construction entrance will be placed on site to reduce vehicle "tracking" onto adjoining streets. A concrete washout pit will be used to collect all excess concrete during construction.

BMPs for this project will protect surface water or groundwater from turbid water, phosphorus, sediment, oil, and other contaminants, which may mobilize in storm water flows by slowing the flow of runoff to allow sediment and suspended solids to settle out of the runoff.

Practices may also be implemented on site for interim and permanent stabilization. Stabilization practices may include but are not limited to: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, and other similar measures.

C. There are no sensitive features or surface streams within the boundaries of the project. The temporary onsite BMPs will be used to treat stormwater runoff before it leaves the project and prevent pollutants from entering into surface streams or any sensitive features down-gradient of the site.

D. There were no sensitive features identified during the geologic assessment. However, the BMPs for this project are designed to allow water to pass through after sedimentation has occurred. Existing flow patterns will be maintained to any naturally-occurring sensitive features that are discovered during construction.

ATTACHMENT E - Request To Temporarily Seal a Feature

Naturally-occurring features will not be sealed on the site.

ATTACHMENT F - Structural Practices

Structural BMPs will be used to limit runoff discharge of pollutants from exposed areas of the site. BMPs will be installed prior to soil disturbing construction activity. Silt fencing will be placed along the down-gradient sides of the property to prevent silt from escaping the construction area. A temporary construction entrance will be placed at the site entry/exit point to reduce tracking onto adjoining streets. A construction staging area will be used onsite to perform all vehicle maintenance and for equipment and material storage. A concrete truck washout pit will be placed on site to provide containment and easier cleanup of waste from concrete operations. The location of all structural temporary BMP's are shown on the erosion control plan sheet and details and specifications are provided on the erosion control details sheet which can be found at the end of this report under Section 8.

Description of Temporary BMPs

Temporary Construction Entrance/Exit

The purpose of a temporary gravel construction entrance is to 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 purpose of a stabilized construction entrance is to 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.

Excessive amounts of mud can also present a safety hazard to roadway users. To minimize the amount of sediment loss to nearby roads, access to the construction site should be limited to as few points as possible and vegetation around the perimeter should be protected were access is not necessary. A rock stabilized construction entrance should be used at all designated access points.

Inspection and Maintenance Guidelines:

(1) 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.
(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.
(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.
(4) 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.
(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Silt Fence

The purpose of a silt fence is to intercept and detain water-borne sediment from unprotected areas of a limited extent. Silt fence is used during the period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence should remain in place until the disturbed area is permanently stabilized. Silt fence should not be used where there is a concentration of water in a channel or drainage way. If concentrated flow occurs after installation, corrective action must be taken such as placing a rock berm in the areas of concentrated flow.

Silt fencing within the site may be temporarily moved during the day to allow construction activity provided it is replaced and properly anchored to the ground at the end of the day. Silt fences on the perimeter of the site or around drainage ways should not be moved at any time.

Inspection and Maintenance Guidelines:

(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.

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.

Below grade concrete washout facilities are typical. These consist of a lined excavation sufficiently large to hold expected volume of washout material. Above grade facilities are used if excavation is not practical. Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this section, with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.

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.

Rock Berm

The purpose of a rock berm is to serve as a check dam in areas of concentrated flow, to intercept sediment-laden runoff, detain the sediment and release the water in sheet flow. The rock berm should be used when the contributing drainage area is less than 5 acres. Rock berms are used in areas where the volume of runoff is too great for a silt fence to contain. They are less effective for sediment removal than

silt fences, particularly for fine particles, but are able to withstand higher flows than a silt fence. As such, rock berms are often used in areas of channel flows (ditches, gullies, etc.). Rock berms are most effective at reducing bed load in channels and should not be substituted for other erosion and sediment control measures further up the watershed.

Inspection and Maintenance Guidelines:

(1) Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.
(2) Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
(3) Repair any loose wire sheathing.
(4) The berm should be reshaped as needed during inspection.
(5) The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
(6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

Inlet Protection

Storm sewers that are made operational prior to stabilization of the associated drainage areas can convey large amounts of sediment to natural drainage ways. In case of extreme sediment loading, the storm sewer itself may clog and lose a major portion of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets. The following guidelines for inlet protection are based primarily on recommendations by the Virginia Dept. of Conservation and Recreation (1992) and the North Central Texas Council of Governments (NCTCOG, 1993b).

In developments for which drainage is to be conveyed by underground storm sewers (i.e., streets with curbs and gutters), all 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.

Care should be taken when choosing a specific type of inlet protection. Field experience has shown that inlet protection that causes excessive ponding in an area of high construction activity may become so inconvenient that it is removed or bypassed, thus transmitting sediment-laden flows unchecked. In such situations, a structure with an adequate overflow mechanism should be utilized.

It should also be noted that inlet protection devices are designed to be installed on construction sites and not on streets and roads open to the public. When used on public streets these devices will cause ponding of runoff, which can cause minor flooding and can present a traffic hazard. An example of appropriate siting would be a new subdivision where the storm drain system is installed before the area is stabilized and the streets open to the general public. When construction occurs adjacent to active streets, the sediment should be controlled on site and not on public thoroughfares. Occasionally, roadwork or utility installation will occur on public roads. In these cases, inlet protection is an appropriate temporary BMP.

The following inlet protection devices are for drainage areas of one acre or less. Runoff from larger disturbed areas should be routed to a temporary sediment trap or basin.

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.

Excavated impoundment protection around a drop inlet may be used for protection against sediment entering a storm drain inlet. With this method, it is necessary to install weep holes to allow the impoundment to drain completely. If this measure is implemented, the impoundment should be sized such that the volume of excavation is 3,600 cubic feet per acre (equivalent to 1 inch of runoff) of disturbed area entering the inlet.

Inspection and Maintenance Guidelines:

(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.

ATTACHMENT G – Drainage Area Map

An existing and proposed drainage area map are provided at the end of this report in Section 8.

ATTACHMENT H – Temporary Sediment Pond(s) Plans and Calculations

A sedimentation basin is required, where feasible, for a common drainage location that serves an area with ten (10) or more acres disturbed at one time.

A sedimentation basin may be temporary or permanent and must provide sufficient storage to contain a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained. When calculating the volume of runoff from a 2-year, 24-hour storm event, it is not required to include the flows from offsite areas and flow from onsite areas that are either undisturbed or have already undergone permanent stabilization, if these flows are diverted around both the disturbed areas of the site and the sediment basin.

Where rainfall data is not available or a calculation cannot be performed, the sedimentation basin must provide at least 3,600 cubic feet of storage per acre drained until final stabilization of the site.

If a sedimentation basin is not feasible, then the permittee shall provide equivalent control measures until final stabilization of the site. In determining whether installing a sediment basin is feasible, the permittee may consider factors such as site soils, slope, available area, public safety, precipitation patterns, site geometry, site vegetation, infiltration capacity, geotechnical factors, depth to groundwater, and other similar considerations. The permittee shall document the reason that the sediment basins are not feasible, and shall utilize equivalent control measures, which may include a series of smaller sediment basins.

Sites With Drainage Areas Less than Ten Acres

Sediment traps and sediment basins may be used to control solids in storm water runoff for drainage locations serving less than ten (10) acres.

Alternatively, a sediment basin that provides storage for a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained may be utilized. Where rainfall data is not available or a calculation cannot be performed, a temporary or permanent sediment basin providing 3,600 cubic feet of storage per acre drained may be provided.

Proposed Sedimentation Basin Calculations

For Valor Leander, the proposed onsite batch detention pond will serve as a storage for on-site and off-site drainage. The basins will be designed to contain the 3,600 cubic feet per acre of disturbed area draining to the pond.

Temporary Sedimentation:

A batch detention pond will serve as storage for drainage for Valor Leander (as shown on sheet 23 of the construction drawings) during the construction phase. The total drainage area includes 10.75 acres and generates a volume of 38,700 ft^3. The proposed detention pond will contain a volume of 176,24 ft^3, thus the constructed detention ponds will be adequality sized required for sedimentation purposes.

ATTACHMENT I - Inspection and Maintenance for BMPs

Personnel Responsible for Inspections

The agent that performs the inspections should be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWPPP for the site. The contractor is to provide an inspector with a CPESC, CESSWI, or CISEC certification. Documentation of the inspector's qualifications is to be included in the attached Inspector Qualifications Log.

Inspection Schedule

The primary operator is required to choose one of the two inspections listed below.

☐ **Option 1:** Once every seven calendar days. If this alternative schedule is developed, then the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.

☐ **Option 2:** Once every 14 calendar days and within 24 hours of the end of a storm event of two inches or greater.

The inspections may occur on either schedule provided that documentation reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented (e.g., end of "dry" season and beginning of "wet" season).

If option 2 is the chosen frequency of inspections a rain gauge must be properly maintained on site or the storm event information from a weather station that is representative of the site location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, proper documentation of the total rainfall measured for that day must be recorded.
Personnel provided by the permittee must inspect:

- disturbed areas of the construction site that have not been finally stabilized;
- areas used for storage of materials that are exposed to precipitation;
- structural controls (for evidence of, or the potential for, pollutants entering the drainage system);
- sediment and erosion control measures identified in the SWP3 (to ensure they are operating correctly); and
- locations where vehicles enter or exit the site (for evidence of off-site sediment tracking).

Reductions in Inspection Frequency

Where sites have been finally or temporarily stabilized or where runoff is unlikely due to winter conditions (e.g. site is covered with snow, ice, or frozen ground exists), inspections must be conducted at least once every month. In arid, semi-arid, or drought-stricken areas, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater. A record of the total rainfall measured, as well as the approximate beginning and ending dates of winter or drought conditions resulting in monthly frequency of inspections in the attached Rain Gauge Log.

In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.

Inspection Report Forms

Use the Inspection Report Forms given as a checklist to ensure that all required areas of the construction site are addressed. There is space to document the inspector's name as well as when the inspections regularly take place. The tables will document that the required area was inspected. (If there were any

areas of concern, briefly describe them in this space with a more detailed description in the narrative section. Use the last table to document any discharges found during the inspections).
Describe how effective the installed BMPs are performing. Describe any BMP failures that were noted during the investigation and describe any maintenance required due to the failure. If new BMPs are needed as the construction site changes, the inspector can use the space at the bottom of the section to list BMPs to be implemented before the next inspection.

Describe the inspector's qualifications, how the inspection was conducted, and describe any areas of non-compliance in detail. If an inspection report does not identify any incidents of non-compliance, then it must contain a certifying signature stating that the facility or site is in compliance. The report must be signed by a person and in a manner required by 30 TAC 305.128. There is space at the end of the form to allow for this certifying signature.

Whenever an inspection shows that BMP modifications are needed to better control pollutants in runoff, the changes must be completed within seven calendar days following the inspection. If existing BMPs are modified or if additional BMPs are needed, you must describe your implementation schedule, and wherever possible, make the required BMP changes before the next storm event.

The Inspection Report Form functions as the required report and must be signed in accordance with TCEQ rules at 30 TAC 305.128.

Corrective Action

Personnel Responsible for Corrective Actions

Both Primary and Secondary Operators are responsible for maintaining all necessary Corrective Actions. If an individual is specifically identified as the responsible party for modifying the contact information for that individual should be documented in the attached Inspector Qualifications Log.

Corrective Action Forms

The Temporary BMPs must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the attached forms and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable. Actions taken as a result of inspections must be properly documented by completing the corrective action forms given.

ATTACHMENT J - Schedule of Interim and Permanent Soil Stabilization

Construction practices shall disturb the minimal amount of existing ground cover as required for land clearing, grading, and construction activity for the shortest amount of time possible to minimize the potential of erosion and sedimentation from the site. Existing vegetation shall be maintained and left in place until it is necessary to disturb for construction activity. For this project the following stabilization practices will be implemented:

1. Hydraulic Mulch and Seeding: Disturbed areas subject to erosion shall be stabilized with hydraulic mulch and/or seeded and watered to provide interim stabilization. For areas that are not to be sodded as per the project landscaping plan, a minimum of 85% vegetative cover will be established to provide permanent stabilization.
2. Sodding and Wood Mulch: As per the project landscaping plan, Sodding and wood mulch will be applied to landscaped areas to provide permanent stabilization prior to project completion.

Records of the following shall be maintained:

a) The dates when major grading activities occur;
b) The dates when construction activities temporarily or permanently cease on a portion of the site; and
c) The dates when stabilization measures are initiated.

Stabilization measures must be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, and except as provided in the following, must be initiated no more that fourteen (14) days after the construction activity in that portion of the site has temporarily or permanently ceased:

Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practical.

Where construction activity on a portion of the site is temporarily ceased and earth disturbing activities will be resumed within twenty-one (21) days, temporary stabilization measures do not have to be initiated on that portion of the site.

In arid areas (areas with an average rainfall of 0-10 inches), semiarid areas (areas with an average annual rainfall of 10 to 20 inches), and areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonably arid conditions, stabilization measures must be initiated as soon as practical.

Maintenance

Below are some maintenance practices to be used to maintain erosion and sediment controls:

- All measures will be maintained in good working order. The operator should correct any damage or deficiencies as soon as practicable after the inspection, but in no case later than seven (7) calendar days after the inspection.
- BMP Maintenance (as applicable)
- Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.
- Silt fence will be inspected for depth of sediment, tears, to see of the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Drainage swale will be inspected and repaired as necessary.

- Inlet control will be inspected and repaired as necessary.
- Check dam will be inspected and repaired as necessary.
- Straw bale dike will be inspected and repaired as necessary.
- Diversion dike will be inspected and any breaches promptly repaired.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event, if feasible. If the permittee does not own or operate the off-site conveyance, then the permittee must to work with the owner or operator of the property to remove the sediment.
- Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

To maintain the above practices, the following will be performed:

- Maintenance and repairs will be conducted before the next anticipated storm event or as necessary to maintain the continued effectiveness of storm water controls. Following an inspection, deficiencies should be corrected no later than seven (7) calendar days after the inspection.

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Inspector Qualifications Log*

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

Inspector Name: _____
Qualifications (Check as appropriate and provide description):
□ Training Course _____
□ Supervised Experience _____
□ Other _____

* *The agent that performs the inspections should be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWPPP for the site. The contractor is to provide an inspector with a CPESC, CESSWI, or CISEC certification.*

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Amendment Log

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Kimley»Horn

Construction Activity Sequence Log

Name of Operator	Projected dates Month/year	Activity Disturbing Soil clearing, excavation, etc.	Location on-site where activity will be conducted	Acreage being disturbed

*Construction activity sequences for linear projects may be conducted on a rolling basis. As a result, construction activities may be at different stages at different locations in the project area. The Contractor is required to complete and update the schedule and adjust as necessary.

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Stormwater Control Installation and Removal Log

Stormwater Control	Location On-Site	Installation Date	Removal Date

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Stabilization Activities Log

Date Activity Initiated	Description of Activity	Description of Stabilization Measure and Location	Date Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures Initiated

Stabilization and erosion control practices may include, but are not limited to: establishing temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, and protecting existing trees and vegetation. List practices used where they are located, when they will be implemented, and whether they are temporary (interim) or permanent.

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Inspection Frequency Log

Date	Frequency Schedule and Reason for Change

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Rain Gauge Log

Date	Location of Rain Gauge	Gauge Reading

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General Information					
Name of Project		**Tracking No.**		**Inspection Date**	
Inspector Name, Title & Contact Information					
Present Phase of Construction					
Inspection Location (if multiple inspections are required, specify location where this inspection is being conducted)					

Inspection Frequency

Standard Frequency: ☐ Weekly ☐ Every 14 days and within 24 hours of a 0.25" rain

Increased Frequency: ☐ Every 7 days and within 24 hours of a 0.25" rain

Reduced Frequency:

- ☐ Once per month (for stabilized areas)
- ☐ Once per month and within 24 hours of a 0.25" rain (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought)
- ☐ Once per month (for frozen conditions where earth-disturbing activities are being conducted)

Was this inspection triggered by a 0.25" storm event? ☐ Yes ☐ No

If yes, how did you determined whether a 0.25" storm event has occurred?

☐ Rain gauge on site ☐ Weather station representative of site. Specify weather station source:

Total rainfall amount that triggered the inspection (in inches)**:**

Unsafe Conditions for Inspection

Did you determine that any portion of your site was unsafe for inspection? ☐ Yes ☐ No

If "yes", complete the following:

- Describe the conditions that prevented you from conducting the inspection in this location:

- Location(s) where conditions were found:

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Condition and Effectiveness of Erosion and Sediment (E&S) Controls				
Type/Location of E&S Control	**Repairs or Other Maintenance Needed?**	**Corrective Action Required?**	**Date on Which Maintenance or Corrective Action First Identified?**	**Notes**
1.	☐Yes ☐No	☐Yes ☐No		
2.	☐Yes ☐No	☐Yes ☐No		
3.	☐Yes ☐No	☐Yes ☐No		
4.	☐Yes ☐No	☐Yes ☐No		
5.	☐Yes ☐No	☐Yes ☐No		
6.	☐Yes ☐No	☐Yes ☐No		
7.	☐Yes ☐No	☐Yes ☐No		
8.	☐Yes ☐No	☐Yes ☐No		
9.	☐Yes ☐No	☐Yes ☐No		
10.	☐Yes ☐No	☐Yes ☐No		

Condition and Effectiveness of Pollution Prevention (P2) Practices				
Type/Location of P2 Practices	**Repairs or Other Maintenance Needed?**	**Corrective Action Required?**	**Identification Date**	**Notes**
1.	☐Yes ☐No	☐Yes ☐No		
2.	☐Yes ☐No	☐Yes ☐No		
3.	☐Yes ☐No	☐Yes ☐No		
4.	☐Yes ☐No	☐Yes ☐No		
5.	☐Yes ☐No	☐Yes ☐No		
6.	☐Yes ☐No	☐Yes ☐No		
7.	☐Yes ☐No	☐Yes ☐No		
8.	☐Yes ☐No	☐Yes ☐No		
9.	☐Yes ☐No	☐Yes ☐No		
10.	☐Yes ☐No	☐Yes ☐No		

Stabilization of Exposed Soil			
Stabilization Area	**Stabilization Method**	**Have You Initiated Stabilization?**	**Notes**
1.		☐ YES ☐ NO If yes, provide date:	
2.		☐ YES ☐ NO If yes, provide date:	
3.		☐ YES ☐ NO If yes, provide date:	
4.		☐ YES ☐ NO If yes, provide date:	
5.		☐ YES ☐ NO If yes, provide date:	

Description of Discharges	
Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection? ☐ Yes ☐ No **If "yes", provide the following information for each point of discharge:**	
Discharge Location	**Observations**
1.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:
2.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:
3.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and/or sediment accumulation that can be attributed to your discharge? ☐ Yes ☐ No If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:

Contractor or Subcontractor Certification and Signature
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." **Signature of Contractor or Subcontractor:** _____ **Date:** **Printed Name and Affiliation:** _____
Certification and Signature by Permittee
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." **Signature of Permittee or "Duly Authorized Representative":** _____ **Date:** **Printed Name and Affiliation:** _____

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Section A – Initial Report (Complete this section within 24 hours of discovering the condition that triggered corrective action)					
Name of Project		Tracking No.		Today's Date	
Date Problem First Discovered			Time Problem First Discovered		
Name and Contact Information of Individual Completing this Form					

What site conditions triggered the requirement to conduct corrective action:

☐ A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 3

☐ The stormwater controls that have been installed and maintained are not effective enough for the discharge to meet applicable water quality standards

☐ A prohibited discharge has occurred or is occurring

Provide a description of the problem:

Deadline for completing corrective action (*Enter date that is either: (1) no more than 7 calendar days after the date you discovered the problem, or (2) if it is infeasible to complete work within the first 7 days, enter the date that is as soon as practicable following the 7th day)*:

If your estimated date of completion falls after the 7-day deadline, explain (1) why you believe it is infeasible to complete work within 7 days, and (2) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe:

Section B – Corrective Action Progress
(Complete this section no later than 7 calendar days after discovering the condition that triggered corrective action)

Section B.1 – Why the Problem Occurred

Cause(s) of Problem (Add an additional sheet if necessary)	How This Was Determined and the Date You Determined the Cause
1.	1.
2.	2.
3.	3.

Section B.2 – Stormwater Control Modifications to be Implemented to Correct the Problem

List of Stormwater Control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Completion Date	SWPPP Update Necessary?	Notes
1.		☐Yes ☐No Date:	
2.		☐Yes ☐No Date:	
3.		☐Yes ☐No Date:	

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Section A – Initial Report (Complete this section within 24 hours of discovering the condition that triggered corrective action)					
Name of Project		Tracking No.		Today's Date	
Date Problem First Discovered			Time Problem First Discovered		
Name and Contact Information of Individual Completing this Form					

What site conditions triggered the requirement to conduct corrective action:

☐ A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or 3
☐ The stormwater controls that have been installed and maintained are not effective enough for the discharge to meet applicable water quality standards
☐ A prohibited discharge has occurred or is occurring

Provide a description of the problem:

Deadline for completing corrective action (*Enter date that is either: (1) no more than 7 calendar days after the date you discovered the problem, or (2) if it is infeasible to complete work within the first 7 days, enter the date that is as soon as practicable following the 7th day)*:

If your estimated date of completion falls after the 7-day deadline, explain (1) why you believe it is infeasible to complete work within 7 days, and (2) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe:

Section B – Corrective Action Progress
(Complete this section no later than 7 calendar days after discovering the condition that triggered corrective action)

Section B.1 – Why the Problem Occurred	
Cause(s) of Problem (Add an additional sheet if necessary)	How This Was Determined and the Date You Determined the Cause
1.	1.
2.	2.
3.	3.

Section B.2 – Stormwater Control Modifications to be Implemented to Correct the Problem			
List of Stormwater Control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Completion Date	SWPPP Update Necessary?	Notes
1.		☐Yes ☐No Date:	
2.		☐Yes ☐No Date:	
3.		☐Yes ☐No Date:	

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Contractor or Subcontractor Certification and Signature
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." **Signature of Contractor or Subcontractor:** _____ **Date:** **Printed Name and Affiliation:** _____
Certification and Signature by Permittee
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." **Signature of Permittee or "Duly Authorized Representative":** _____ **Date:** **Printed Name and Affiliation:** _____

SECTION 6: PERMANENT STORMWATER

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: Allison Kennaugh, P.E.

Date: December 1, 2023

Signature of Customer/Agent

Allison Kennaugh

Regulated Entity Name: Valor Leander

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 85% 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 A – 20% or Less Impervious Cover Waiver

The site has more than 20% impervious cover. Therefore, a waiver will not be submitted for this project.

ATTACHMENT B – BMPs for *UP-GRADIENT STORMWATER*

A small area of up-gradient storm water exists west, along the southern half of the site based on current topography maps and field observations. 2.85 acres of offsite up-gradient water enters the site from the west and flows onto the property. Please refer to the Existing and Proposed Drainage Area Maps that are provided at the end of this report in Section 8.

ATTACHMENT C – BMPs for On-Site Stormwater

Valor Leander has a total of 1 on-site water quality basin and 1 off-site/on-site water quality basin. The overall required removal for this phase of development is Lm = 5,251 LBS. The system has been designed to provide 5,500 LBS of TSS removal. The basins have been broken out and are shown on the construction drawings (Water Quality Drainage Area Map, Sheet 21). Water quality drainage areas POND A-1 will overland flow to drainage inlets then pipe flow to a Batch Detention Pond built with this development. The Batch Detention Pond will provide 5146 LBS of TSS removal for the site. VFS-1 will overland flow over vegetative filter strips. The VFS will provide a total of 200 LBS of TSS removal. All TSS calculations are shown on the construction drawings sheet 22.

After construction, all disturbed areas on the site will be re-vegetated and runoff from the proposed improvements will be captured by the proposed storm system and conveyed through the proposed BMP's.

Construction plans, calculations and specifications are provided in Section 8 which is located at the end of this report.

ATTACHMENT D – BMPs for Surface Streams

There are no existing surface streams or sensitive features on site. All permanent BMP's have been designed to remove 85% of the increase in Total Suspended Solids as per current TCEQ and City of Leander requirements.

ATTACHMENT E - Request To Seal a Feature

The permanent sealing of or diversion of flow from a naturally-occurring “sensitive” or “possibly sensitive” feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed for any naturally-occurring “sensitive” or “possibly sensitive” features on this site.

ATTACHMENT F – Construction Plans

Calculations for the load removal requirements for the project and the load removal provided by the permanent BMP's are provided as an exhibit in section 8 which have been preliminary approved by a professional engineer licensed in the state of Texas. The load removal requirements are derived from the equations from the technical guidance manual based upon project area and increase in impervious cover. All stormwater runoff from impervious areas will be treated by the proposed permanent BMP's to provide the overall required removal of 85% of the increase in Total Suspended Solids. Provided within the calculations is a summary of the amount of pollutant load required to be removed from the drainage areas and the amount of removal provided by the permanent BMP's.

Construction plans, details, specifications, calculations, and construction notes are provided in section 8 which is attached at the end of this report.

ATTACHMENT G - Inspection, Maintenance, Repair and Retrofit Plan

The inspection and maintenance plan outlines the procedures necessary to maintain the performance of the Permanent Best Management Practices for this project. It should be noted that the plan provides guidelines that may have to be adjusted dependent on site specific and weather related conditions.

It is the responsibility of the owner to provide the inspections and maintenance as outlined in the plan for the duration of the project. The owner will maintain this responsibility until it is assumed or transferred to another entity in writing. If the property is leased or sold, the responsibility for the maintenance will be required to be transferred through the lease agreement, binding covenants, closing documents, or other binding legal instrument.

Disposal of accumulated silt shall be accomplished following Texas Commission on Environmental Quality guidelines and specifications.

Maintenance records shall be kept on the installation, maintenance, or removal of items necessary for the proper operation of the facilities. All inspections shall be documented.

An amended copy of this document will be provided to the Texas Commission on Environmental Quality within thirty (30) days of any changes in the following information.

Responsible Party: Valor Texas Education Foundation

Mailing Address: 220 Foremost Drive

City, State: Austin, TX Zip: 78745

Telephone: 512-646-4170 Fax: N/A

I, the owner, have read and understand the requirements of the attached Inspection and Maintenance Plan for the proposed Permanent Best Management Practices for my project. I acknowledge that I will maintain responsibility for the implementation and execution of the plan until the responsibility is transferred to or assumed by another party in writing through a binding legal instrument.

Signature of Responsible Party Jesse Bates Date 11/10/2023

This Maintenance Plan is based on TCEQ Maintenance Guidelines.

By: Allison Kennaugh Date 12/1/2023
Allison Kennaugh, P.E.

INSPECTION AND MAINTENANCE FOR BMPS

Batch Detention Basin

1. Inspections: Basins should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. When possible, inspections should be conducted during wet weather to determine if the pond is meeting the target detention times. In particular, the extended detention control device should be regularly inspected for evidence of clogging, or conversely, for too rapid a release. If the design drawdown times are exceeded by more than 24 hours, then repairs should be scheduled immediately. The upper stage pilot channel, if any, and its flow path to the lower stage should be checked for erosion problems. During each inspection, erosion areas inside and downstream of the BMP should be identified and repaired or revegetated immediately.
2. Mowing. The upper stage, side slopes, embankment, and emergency spillway of an extended detention basin must be mowed regularly to discourage woody growth and control weeds. Grass areas in and around basins should be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. When mowing of grass is performed, a mulching mower should be used, or grass clippings should be caught and removed.
3. Debris and Litter Removal. Debris and litter will accumulate near the extended detention control device and should be removed during regular mowing operations and inspections. Particular attention should be paid to floating debris that can eventually clog the control device or riser.
4. Erosion Control. The pond side slopes, emergency spillway, and embankment all may periodically suffer from slumping and erosion, although this should not occur often if the soils are properly compacted during construction. Regrading and revegetation may be required to correct the problems. Similarly, the channel connecting an upper stage with a lower stage may periodically need to be replaced or repaired. g: Grass areas in and around sand filters must be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscape areas. Vegetation on the pond embankments should be mowed as appropriate to prevent the establishment of woody vegetation
5. Structural Repairs and Replacement. With each inspection, any damage to the structural elements of the system (pipes, concrete drainage structures, retaining walls, etc.) should be identified and repaired immediately. These repairs should include patching of cracked concrete, sealing of voids, and removal of vegetation from cracks and joints. The various inlet/outlet and riser works in a basin will eventually deteriorate and must be replaced. Public works experts have estimated that corrugated metal pipe (CMP) has a useful life of about 25 yr, whereas reinforced concrete barrels and risers may last from 50 to 75 yr.
6. Nuisance Control. Standing water (not desired in a extended detention basin) or soggy conditions within the lower stage of the basin can create nuisance conditions for nearby residents. Odors, mosquitoes, weeds, and litter are all occasionally perceived to be problems. Most of these problems are generally a sign that regular inspections and maintenance are not being performed (e.g., mowing, debris removal, clearing the outlet control device).
7. Sediment Removal. When properly designed, dry extended detention basins will accumulate quantities of sediment over time. Sediment accumulation is a serious maintenance concern in extended detention dry ponds for several reasons. First, the sediment gradually reduces available stormwater management storage capacity within the basin. Second, unlike wet extended detention basins (which have a permanent pool to conceal deposited sediments), sediment accumulation can make dry extended detention basins very unsightly. Third, and perhaps most importantly, sediment tends to accumulate around the control device. Sediment deposition increases the risk that the orifice will become clogged, and gradually reduces storage capacity reserved for pollutant removal. Sediment can also be resuspended if allowed to accumulate over time and escape through the hydraulic control to downstream channels and streams. For these reasons, accumulated sediment needs to be removed from the lower stage when sediment buildup fills 20% of the volume of the basin or at least every 10 years.

Rock Berm

1. Inspection should be made weekly and after each rainfall in accordance to Section 2.4.5 of RG-348. If placed in streambeds, inspection should occur on a daily basis.

2. Accumulated silt shall be removed when it reaches a depth of six (6) inches. The silt shall be disposed of on an approved site and in such a manner that will not contribute to additional siltation.

3. Loose wire sheathing shall be repaired immediately when necessary and the berm shall be reshaped as needed during inspection.

4. Berm shall be replaced if the structure ceases to function as initially intended due to factors such as silt accumulation, washout, construction traffic damage, etc.

5. When all upstream areas are stabilized and the accumulated silt has been removed, the rock berm should be removed and disposed of.

VEGETATIVE FILTER STRIPS

First Two Months: The first two months are the most important for vegetative filter strips, or until they are well established. The following guidelines should be followed most closely during this time period. After the vegetative filter strips have been well established, little additional maintenance is necessary.

Pest Management: An Integrated Pest Management (IPM) Plan should be developed for vegetated areas. This plan should specify how problem insects and weeds will be controlled with minimal or no use of insecticides and herbicides.

Seasonal Mowing and Lawn Care: If the filter strip is made up of turf grass, it should be mowed as needed to limit vegetation height to 18 inches, using a mulching mower (or removal of clippings). If native grasses are used, the filter may require less frequent mowing, but a minimum of twice annually. Grass clippings and brush debris should not be deposited on vegetated filter strip area
Regular mowing should also include weed control practices, however herbicide use should be kept to a minimum (Urbonas et al., 1992). Healthy grass can be maintained without using fertilizers because runoff usually contains sufficient nutrients. Irrigation of the site can help assure a dense and healthy vegetative cover.
Inspection: Inspect filter strips at least twice annually for erosion or damage to vegetation; however, additional inspection after periods of heavy runoff is most desirable. The strip should be checked for uniformity of grass cover, debris and litter, and areas of sediment accumulation. More frequent inspections of the grass cover during the first few years after establishment will help to determine if any problems are developing, and to plan for long-term restorative maintenance needs. Bare spots and areas of erosion identified during semi-annual inspections must be replanted and restored to meet specifications. Construction of a level spreader device may be necessary to reestablish shallow overland flow.
Debris and Litter Removal: Trash tends to accumulate in vegetated areas, particularly along highways. Any filter strip structures (i.e. level spreaders) should be kept free of obstructions to reduce floatables being flushed downstream, and for aesthetic reasons. The need for this practice is determined through periodic inspection, but should be performed no less than 4 times per year.
Sediment Removal: Sediment removal is not normally required in filter strips, since the vegetation normally grows through it and binds it to the soil. However, sediment may accumulate along the upstream boundary of the strip preventing uniform overland flow. Excess sediment should be removed by hand or with flat-bottomed shovels.
Grass Reseeding and Mulching: A healthy dense grass should be maintained on the filter strip. If areas are eroded, they should be filled, compacted, and reseeded so that the final grade is level. Grass damaged during the sediment removal process should be promptly replaced using the same seed mix used during filter strip establishment. If possible, flow should be diverted from the damaged areas until the

grass is firmly established. Bare spots and areas of erosion identified during semi-annual inspections must be replanted and restored to meet specifications. Corrective maintenance such as weeding or replanting should be done more frequently in the first two to three years after installation to ensure stabilization. Dense vegetation may require irrigation immediately after planting, and during particularly dry periods, particularly as the vegetation is initially established.

ATTACHMENT H – Pilot-Scale Field Testing Plan

The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site; therefore pilot-scale field testing is not required.

ATTACHMENT I – Measures for Minimizing Surface Stream Contamination

Surface streams do not exist on site. Therefore, 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 not provided at the end of this form. All disturbed areas will be re-vegetated as soon as practical.

Section 7: Additional Forms

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

I Jesse Bates,
Print Name

Chief Operating Officer,
Title - Owner/President/Other

of Valor Texas Education Foundation,
Corporation/Partnership/Entity Name

have authorized Allison Kennaugh, P.E.
Print Name of Agent/Engineer

of Kimley-Horn and Associates
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:

Jesse Bates
Applicant's Signature

11/10/2023
Date

THE STATE OF TEXAS §

County of Williamson §

JULIE WILLIAMS
Notary Public, State of Texas
Comm. Expires 12-17-2024
Notary ID 129236370

BEFORE ME, the undersigned authority, on this day personally appeared Jesse Bates 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 10th day of November.

Julie Williams
NOTARY PUBLIC

Julie Williams
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 12-17-24

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Valor Leander
Regulated Entity Location: 168 Kauffman Loop
Name of Customer: Valor Texas Education Foundation
Contact Person: Jesse Bates Phone: 214-514-3356
Customer Reference Number (if issued): 604305250
Regulated Entity Reference Number (if issued):N/A

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	15.22 Acres	$ 4,000
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	
Sewage Collection System		
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: Allison Kennaugh Date: December 1, 2023

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

Check Payable to the "Texas Commission on Environmental Quality"

Kimley»Horn

Core Data Form

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☒ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal (*Core Data Form should be submitted with the renewal form*) ☐ Other

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 606089696		RN

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	12/1/2023

☐ 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:*

Valor Texas Education Foundation

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** (*if applicable*)
0802370262	32059302235	81-1145945	

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☒ Other: Foundation

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 ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:	220 Foremost Drive						
	City	Austin	**State**	TX	**ZIP**	78745	**ZIP + 4**

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

18. Telephone Number	**19. Extension or Code**	**20. Fax Number** (*if applicable*)

(512) 646-4170		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

Valor Texas

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	168 Kauffman Loop							
	City	Austin	**State**	TX	**ZIP**	78628	**ZIP + 4**	
24. County	Williamson							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	Northwest of the intersection of Kauffman Loop and Co Rd 267				
26. Nearest City			**State**	**Nearest ZIP Code**	
Leander			TX	78628	

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.635572		**28. Longitude (W) In Decimal:**	-97.834460	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	38	8.06	-97	50	16.85

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)
1542		611110	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Charter School

34. Mailing Address:	**220 Foremost Drive**							
	City	**Austin**	**State**	**TX**	**ZIP**	**78745**	**ZIP + 4**	
35. E-Mail Address:	**jbates@valoreducation.org**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(214) 514-3356		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

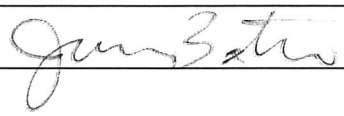
SECTION IV: Preparer Information

40. Name:	Allison Kennaugh, P.E.	41. Title:	Project Manager

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 782-0614		( ) -	allison.kennaugh@kimley-horn.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:	Valor Texas Education Foundation	Job Title:	Chief Operating Officer
Name *(In Print)*:	Jesse Bates	Phone:	(214) 514- 3356
Signature:		Date:	11/10/2023

SECTION 8: EXHIBITS

ROBIN M. GRIFFIN, AICP, EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES — DATE

EMILY TRUEMAN, P.E. — DATE

GINA ELLISON, P.E., PUBLIC WORKS DIRECTOR — DATE

MARK TUMMONS, CPRP, DIRECTOR OF PARKS AND RECREATION — DATE

CHIEF JOSHUA DAVIS, FIRE MARSHAL — DATE

THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, REGULATORY COMPLIANCE AND ADEQUACY OF THESE PLANS AND/OR SPECIFICATIONS WHETHER OR NOT THE PLANS AND/OR SPECIFICATIONS WERE REVIEWED BY THE CITY ENGINEER(S).

PLAN SUBMITTAL/REVIEW LOG:

1ST SUBMITTAL TO CITY 11/21/2023

LEGAL DESCRIPTION

13.79 ACRES OF LAND OUT OF THE WILLIAM H. MONROE SURVEY, ABSTRACT 453, WILLIAMSON COUNTY, TEXAS AS DESCRIBED IN DOC. #2015015610 OF THE DEED RECORDS OF WILLIAMSON COUNTY, TEXAS.

LAND USE SUMMARY:
ZONING: SINGLE-FAMILY RURAL (SFR-1-B) - 13.79 AC.

FUTURE LAND USE CATEGORY:
ACTIVITY CENTER - 13.79 AC

LOT #	PERMITTED USES	AREA
LOT 1	SFR-1-B	13.51 AC
ROW TAKE		0.28 AC
TOTAL AREA		13.79 AC
BUILDING IMPERVIOUS		N/A AC
TOTAL IMPERVIOUS		N/A AC

WATERSHED:
THIS SITE IS LOCATED PARTIALLY IN THE NORTH FORK SAN GABRIEL RIVER WATERSHED AND PARTIALLY IN THE SOUTH FORK SAN GABRIEL RIVER WATERSHED' THIS SITE IS LOCATED IN THE EDWARDS AQUIFER RECHARGE ZONE.

FLOODPLAIN INFORMATION:
NO PORTION OF THIS TRACT IS LOCATED WITHIN A FLOOD HAZARD AREA AS SHOWN ON THE FLOOD INSURANCE RATE MAP PANEL #48491C0275E FOR WILLIAMSON CO., EFFECTIVE SEPTEMBER 26, 2008.

GENERAL PLAN NOTES:

1. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE REGISTERED PROFESSIONAL ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
2. WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF LEANDER, CONDITIONED UPON ALL FEES AND CHARGES ARE PAID.
3. THERE ARE NO KNOWN CRITICAL ENVIRONMENTAL FEATURES ON THIS SITE.
4. NO STRUCTURES CAN BE BUILT WITHIN WATER & WASTEWATER EASEMENTS.
5. RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
6. AS PART OF THIS SITE PLAN, THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO BE ON SITE AT ALL TIMES.
7. IN ACCORDANCE WITH NOTE #10 ON THE COVER OF THE PRELIM PLAN (CP-23-0021), SIDEWALKS SHALL BE INSTALLED ON THE SIBDIVISION SIDE OF CR 267 AND KAUFFMAN LOOP. THOSE SIDEWALKS NOT ABUTTING A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL LOT (INCLUDING SIDEWALKS ALONG STREET FRONTAGES OF LOTS PROPOSED FOR SCHOOLS, CHURCHES, PARK LOTS, DETENTION LOTS, LANDSCAPE LOTS, OR SIMILAR LOTS), SIDEWALKS ON ARTERIAL STREETS TO WHICH ACCESS IS PROHIBITED, SIDEWALKS ON DOUBLE FRONTAGE LOTS ON THE SIDE TO WHICH ACCESS IS PROHIBITED, AND ALL SIDEWALKS ON SAFE SCHOOL ROUTES SHALL BE INSTALLED WHEN THE ADJOINING STREET IS CONSTRUCTED.
8. EXISTING AND PROPOSED DRAINAGE AREAS PER SP-##-###. ALL RUNOFF FROM PROPOSED PAVEMENT IMPROVEMENT IN THIS PICP IS BEING OVERDETAINED WITH THE PROPOSED POND TO BE CONSTRUCTED WITH ONSITE AND OFFSIDE IMPROVEMENTS WITH SP-##-### AND PICP-##-### AND SHALL BE BID AND CONSTRUCTED CONCURRENTLY.

DESIGNERS:

PROJECT AGENT:
ALLISON KENNAUGH, P.E.
10814 JOLLYVILLE RD, AVALON IV, SUITE 200
AUSTIN, TX 78759
ALLISON.KENNAUGH@KIMLEY-HORN.COM
(512) 782-0614

SURVEYOR
PAPE-DAWSON ENGINEERS
10801 N MOPAC EXPY.
BLDG 3, SUITE 200
AUSTIN, TX 78759
(512) 454-8711

ENGINEER:
Kimley»Horn
10814 JOLLYVILLE ROAD, AVALLON IV, SUITE 300
AUSTIN, TEXAS 78759
CERTIFICATE OF REGISTRATION #928
Tel. No. (512) 418-1771
Fax No. (512) 418-1791

OWNER/DEVELOPER:

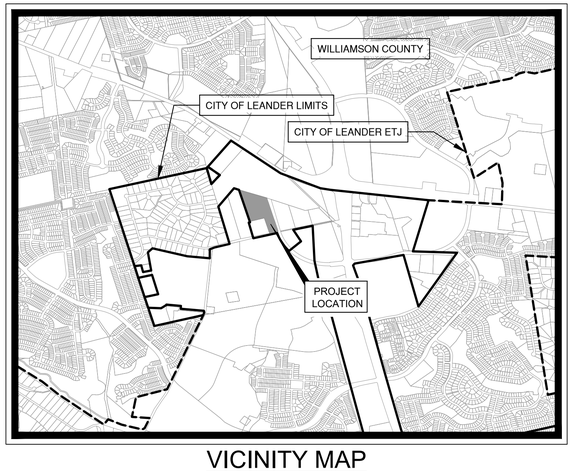
OWNER:
VALOR TEXAS EDUCATION FOUNDATION
JESSE BATES
220 FOREMOST DR
AUSTIN, TX 78745
(214) 514-3356

DEVELOPER:
PMSI
JASON ORIOL
1822 W BREAKER LANE, #81734
AUSTIN, TX 78708
JORIOL@PMSITX.COM

REVISIONS/CORRECTIONS		
REVISION #	DESCRIPTION	CITY OF LEANDER APPROVAL

VALOR LEANDER

PUBLIC IMPROVEMENT CONSTRUCTION PLANS PROJECT #23-PICP-### 168 KAUFFMAN LOOP CITY OF LEANDER WILLIAMSON COUNTY, TX



VICINITY MAP
SCALE: 1" = 2,000'

NOVEMBER 2023

SHEET INDEX

Sheet Number	Sheet Title
1	COVER SHEET
2	CITY OF LEANDER GENERAL NOTES
3	KH GENERAL NOTES
4	TCEQ GENERAL NOTES
5	FINAL PLAT (SHEET 1 OF 2)
6	FINAL PLAT (SHEET 2 OF 2)
7	APPROVED PRELIMINARY PLAT
8	EXISTING CONDITIONS AND DEMOLITION PLAN
9	EROSION CONTROL PLAN
10	REVEGETATION PLAN
11	EROSION CONTROL AND REVEGETATION DETAILS
12	GRADING PLAN
13	EXISTING DRAINAGE AREA MAP
14	PROPOSED DRAINAGE AREA MAP
15	PAVING, SIGNAGE & STRIPING PLAN
16	OVERALL UTILITY PLAN
17	WATER PLAN & PROFILE - WL-A STA 1+00 - 10+50
18	WATER PLAN & PROFILE - WL-A STA 10+50 - END
19	WASTEWATER PLAN & PROFILE - WWL-A STA 1+00 - 10+50
20	WASTEWATER PLAN & PROFILE - WWL-A STA 10+50 - 21+00
21	WASTEWATER PLAN & PROFILE - WWL-A STA 21+00 - END
22	OVERALL WATER QUALITY PLAN
23	TCEQ CALCS
24	PAVING DETAILS (SHEET 1 OF 2)
25	PAVING DETAILS (SHEET 2 OF 2)
26	WATER DETAILS
27	WASTEWATER DETAILS

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.999880014398272 2

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

VALOR LEANDER - PICP

Kimley»Horn

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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
11/21/2023

KHA PROJECT	069252742
DATE	NOVEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	AMF
CHECKED BY:	ACK

COVER SHEET

VALOR LEANDER
PICP
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
1 OF 27

CIVIL CONSTRUCTION PLANS

Plotted By:Randall, Zach Date:November 21, 2023 02:43:22pm File Path:K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheet\C-Cover Sheet.dwg
This document, together with the concepts and designs presented therein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

GENERAL NOTES FOR SUBDIVISIONS AND SITE DEVELOPMENT PLANS
REVISED March 27, 2023
CITY CONTACTS:
ENGINEERING MAIN LINE: 512-528-2721
PLANNING DEPARTMENT: 512-528-2750
PUBLIC WORKS MAIN LINE: 512-259-2640
STORMWATER INSPECTIONS: 512-285-0055
UTILITIES MAIN LINE: 512-259-1142
UTILITIES ON-CALL: 512-690-4760

GENERAL:

1. CONTRACTORS SHALL HAVE AN APPROVED SET OF PLANS WITH APPROVED REVISIONS ON SITE AT ALL TIMES. FAILURE TO HAVE APPROVED PLANS ON SITE MAY RESULT IN ISSUANCE OF WORK STOPPAGE.
2. CONTACT 811 SYSTEM FOR EXISTING WATER AND WASTEWATER LOCATIONS 48 HOURS PRIOR TO CONSTRUCTION.

a. **REFRESH ALL LOCATES BEFORE 14 DAYS** – LOCATE REFRESH REQUESTS MUST INCLUDE A COPY OF YOUR 811 TICKET. TEXAS PIPELINE DAMAGE PREVENTION LAWS REQUIRE THAT A LOCATE REFRESH REQUEST BE SUBMITTED BEFORE 14 DAYS, OR IF LOCATION MARKERS ARE NO LONGER VISIBLE.

b. **REPORT PIPELINE DAMAGE IMMEDIATELY** – IF YOU WITNESS OR EXPERIENCE PIPELINE EXCAVATION DAMAGE, PLEASE CONTACT THE CITY OF LEANDER BY PHONE AT 512-259-2640.

3. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR 48 HOURS BEFORE:

a. BEGINNING EACH PHASE OF CONSTRUCTION. CONTACT ASSIGNED CITY INSPECTOR.
b. ANY TESTING. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY THE CITY OF LEANDER AFTER COMPLETION.
c. PROOF ROLLING SUB-GRADE AND EVERY LIFT OF ROADWAY EMBANKMENT, IN-PLACE DENSITY TESTING OF EVERY BASE COURSE, AND ASPHALT CORES. ALL OF THIS TESTING MUST BE WITNESSED BY A CITY OF LEANDER REPRESENTATIVE.
d. CONNECTING TO THE EXISTING WATER LINES.
e. THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET ROW. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S ROW MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.

4. ALL RESPONSIBILITIY FOR THE ACCURACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY ON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.
5. **EXCESS SOIL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CITY OF LEANDER IF THE DISPOSAL SITE IS INSIDE THE CITY'S JURISDICTIONAL BOUNDARIES.**
6. BURNING IS PROHIBITED.
7. NO WORK IS TO BE PERFORMED BETWEEN THE HOURS OF 9:00 P.M. AND 7:00 A.M. OR WEEKENDS. THE CITY INSPECTOR RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER ALL WORK PERFORMED WITHOUT INSPECTION.
8. CONTACT THE CITY INSPECTOR 4 DAYS PRIOR TO WORK FOR APPROVAL TO SCHEDULE ANY INSPECTIONS ON WEEKENDS OR CITY HOLIDAYS.
9. NO BLASTING IS ALLOWED.
10. ANY CHANGES OR REVISIONS TO THESE PLANS MUST FIRST BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION OF THE REVISION. ALL CHANGES AND REVISIONS SHALL USE REVISION CLOUDS TO HIGHLIGHT ALL REVISIONS AND CHANGES WITH EACH SUBMITTAL. REVISION TRIANGLE MARKERS AND NUMBERS SHALL BE USED TO MARK REVISIONS. ALL CLOUDS AND TRIANGLE MARKERS FROM PREVIOUS REVISIONS MUST BE REMOVED. REVISION INFORMATION SHALL BE UPDATED ON COVER SHEET AND AFFECTED PLAN SHEET TITLE BLOCK.
11. THE CONTRACTOR AND ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. THE ENGINEER SHALL FURNISH THE CITY OF LEANDER ACCURATE "RECORD DRAWINGS" FOLLOWING THE COMPLETION OF ALL CONSTRUCTION. THESE "RECORD DRAWINGS" SHALL MEET THE SATISFACTION OF THE ENGINEERING DEPARTMENTS PRIOR TO FINAL ACCEPTANCE.
12. THE CONTRACTOR WILL REIMBURSE THE CITY FOR ALL REPAIR AND/OR COST INCURRED AS A RESULT OF ANY DAMAGE TO ANY PUBLIC INFRASTRUCTURE WITHIN CITY EASEMENT OR PUBLIC RIGHT-OF-WAY, REGARDLESS OF THESE PLANS.
13. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT EASEMENTS. CLEANUP SHALL BE TO THE SATISFACTION OF THE ENGINEER OF RECORD AND CITY.
14. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS AND PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO THE PROPERTY OWNER.
15. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 1033 LA POSADA DR. SUITE 375, AUSTIN, TEXAS 78752-3832.
16. ALL MANHOLE FRAMES/COVERS AND WATER VALVE/METER BOXES MUST BE ADJUSTED TO FINISHED GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR FOR CITY CONSTRUCTION INSPECTOR INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING. CONTRACTOR SHALL BACKFILL AROUND MANHOLES AND VALVE BOXES WITH CLASS A CONCRETE.
17. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL CITY OF LEANDER DETAILS AND CITY OF AUSTIN STANDARD SPECIFICATIONS.
18. PROJECT SPECIFICATIONS TAKE PRECEDENCE OVER PLANS AND SPECIAL CONDITIONS GOVERN OVER TECHNICAL SPECIFICATIONS.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
20. THE CONTRACTOR MUST OBTAIN A CONSTRUCTION WATER METER FOR ALL WATER USED DURING CONSTRUCTION. A COPY OF THIS PERMIT MUST BE CARRIED AT ALL TIMES BY ALL WHO USE WATER.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADS AND DRIVES ADJACENT TO AND NEAR THE SITE FREE FROM SOIL, SEDIMENT AND DEBRIS. CONTRACTOR WILL NOT REMOVE SOIL, SEDIMENT OR DEBRIS FROM ANY AREA OR VEHICLE BY MEANS OF WATER. ONLY SHOVELING AND SWEEPING WILL BE ALLOWED. THE CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE. THE CONTRACTOR SHALL KEEP THE SITE AREA CLEAN AND MAINTAINED AT ALL TIMES, TO THE SATISFACTION OF THE CITY. THE SUBDIVISION (OR SITE) WILL NOT BE ACCEPTED (OR CERTIFICATE OF OCCUPANCY ISSUED) UNTIL THE SITE HAS BEEN CLEANED TO THE SATISIFACTION OF THE CITY.
22. TREES IN EXISTING ROW SHOULD BE PROTECTED OR NOTED IN THE PLANS TO BE REMOVED.

CONSTRUCTION SEQUENCE NOTES

NOTE: BELOW IS GENERAL SEQUENCE OF CONSTRUCTION. THE ENGINEER OF RECORD SHALL UPDATE BELOW WITH NOTES SPECIFIC TO THE PROJECT.

1. REACH OUT TO THE CITY FOR PRE-CONSTRUCTION MEETING AND CONSTRUCTION PERMIT.
2. SET-UP E/S CONTROLS AND TREE PROTECTION AND REACH OUT TO CITY FOR INSPECTION.
3. SET UP TEMPORARY TRAFFIC CONTROLS.
4. CONSTRUCT THE DRAINAGE PONDS AND STORM WATER FEATURES.
5. START UTILITY, ROAD, GRADING, FRANCHISE UTILITY AND ALL NECESSARY INFRASTRUCTURE CONSTRUCTION. [NOTE: PLEASE UPDATE AS PER THE PROJECT]
6. REQUEST FINAL WALKTHROUGH AND CONDUCT WALKTHROUGH WITH ENGINEER OF RECORD AND CITY DEPARTMENT.
7. ENGINEER OF RECORD IS RESPONSIBLE TO PREPARE AND SUBMIT CLOSEOUT DOCUMENTS FOR PROJECT CLOSEOUT.

EROSION CONTROL NOTES

1. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES AND SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
2. THE TEMPORARY SPOILS DISPOSAL SITE IS TO BE SHOWN IN THE EROSION CONTROL MAP.
3. ANY ON-SITE SPOILS DISPOSAL SHALL BE REMOVED PRIOR TO ACCEPTANCE UNLESS SPECIFICALLY SHOWN ON THE PLANS. THE DEPTH OF SPOIL SHALL NOT EXCEED 10 FEET IN ANY AREA.
4. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF 6 INCHES OF TOPSOIL AND COMPOST BLEND. TOPSOIL ON SINGLE FAMILY LOTS MAY BE INSTALLED WITH HOME CONSTRUCTION. THE TOPSOIL AND COMPOST BLEND SHALL CONSIST OF 75% TOPSOIL AND 25% COMPOST.
5. SEEDING FOR REESTABLISHING VEGETATION SHALL COMPLY WITH THE AUSTIN GROW GREEN GUIDE OR WILLIAMSON COUNTY'S PROTOCOL FOR SUSTAINABLE ROADSIDES (SPEC 164--WC001 SEEDING FOR EROSION CONTROL). RESEEDING VARIETIES OF BERMUDA SHALL NOT BE USED.
6. STABILIZED CONSTRUCTION ENTRANCE IS REQUIRED AT ALL POINTS WHERE CONSTRUCTION TRAFFIC IS EXITING THE PROJECT ONTO EXISTING PAVEMENT. LINEAR CONSTRUCTION PROJECTS MAY REQUIRE SPECIAL CONSIDERATION. ROADWAYS SHALL REMAIN CLEAR OF SILT AND MUD.
7. TEMPORARY STOP SIGNS SHOULD BE INSTALLED AT ALL CONSTRUCTION ENTRANCES WHERE A STOP CONDITION DOES NOT ALREADY EXIST.
8. IN THE EVENT OF INCLEMENT WEATHER THAT MAY RESULT IN A FLOODING SITUATION, THE CONTRACTOR SHALL REMOVE INLET PROTECTION MEASURES UNTIL SUCH TIME AS THE WEATHER EVENT HAS PASSED.

WATER AND WASTEWATER NOTES

WATER AND WASTEWATER GENERAL NOTES

1. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AND ORGANIZATION ACCREDITED BY ANSI.
2. ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY STAMPED AS FOLLOWS:
   - WATER SERVICE "W" ON TOP OF CURB
   - WASTEWATER SERVICE "S" ON TOP OF CURB
   - VALVE "V" ON TOP OF CURB
3. OPEN UTILITIES SHALL NOT BE PERMITTED ACROSS THE EXISTING PAVED SURFACES. WATER AND WASTEWATER LINES ACROSS THE EXISTING PAVED SURFACES SHALL BE BORED AND INSTALLED IN STEEL ENCASEMENT PIPES. BELL RESTRAINTS SHALL BE PROVIDED AT JOINTS.
4. INTERIOR SURFACES OF ALL DUCTILE IRON POTABLE OR RECLAIMED WATER PIPE SHALL BE CEMENT-MORTAR LINED AND SEAL COATED AS REQUIRED BY AWWA C104.
5. SAND, AS DESCRIBED IN AUSTIN SPECIFICATION ITEM 510 PIPE, SHALL NOT BE USED AS BEDDING FOR WATER AND WASTEWATER LINES. ACCEPTABLE BEDDING MATERIALS ARE PIPE BEDDING STONE, PEA GRAVEL AND IN LIEU OF SAND, A NATURALLY OCCURRING OR MANUFACTURED STONE MATERIAL CONFORMING TO ASTM C33 FOR STONE QUALITY AND MEETING THE FOLLOWING GRADATION SPECIFICATION:

SIEVE SIZE	PERCENT RETAINED BY WEIGHT
1/2"	0
3/8"	0-2
#4	40-85
#10	95-100

6. DENSITY TESTING FOR TRENCH BACKFILL SHALL BE DONE IN MAXIMUM 12" LIFTS.

WATER

1. SAMPLING TAPS SHALL BE BROUGHT UP TO 3 FEET ABOVE GRADE AND SHALL BE EASILY ACCESSIBLE FOR CITY PERSONNEL. AT THE CONTRACTORS' REQUEST, AND IN HIS PRESENCE, SAMPLES FOR BACTERIOLOGICAL TESTING WILL BE COLLECTED BY THE CITY OF LEANDER NOT LESS THAN 24 HOURS AFTER THE TREATED LINE HAS BEEN FLUSHED OF THE CONCENTRATED CHLORINE SOLUTION AND CHARGED WITH WATER APPROVED BY THE CITY.
2. CITY PERSONNEL WILL OPERATE OR AUTHORIZE THE CONTRACTOR TO OPERATE ALL WATER VALVES THAT WILL PASS THROUGH THE CITY'S POTABLE WATER. THE CONTRACTOR MAY BE FINED $500 OR MORE, INCLUDING ADDITIONAL THEFT OF WATER FINES, IF A WATER VALVE IS OPERATED IN AN UNAUTHORIZED MANNER, REGARDLESS OF WHO OPERATED THE VALVE.
3. THE CONTRACTOR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY LINES MAY HAVE TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND POSSIBLY BETWEEN 12 AM AND 6 AM AFTER COORDINATING WITH CITY CONSTRUCTION INSPECTORS AND INFORMING AFFECTED PROPERTIES.
4. PRESSURE TAPS OR HOT TAPS SHALL BE IN ACCORDANCE WITH CITY OF LEANDER STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. A CITY OF LEANDER INSPECTOR MUST BE PRESENT WHEN THE CONTRACTOR MAKES A TAP, AND/OR ASSOCIATED TESTS. A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED. "SIZE ON SIZE" TAPS SHALL NOT BE PERMITTED UNLESS MADE BY THE USE OF AN APPROVED FULL-CIRCLE GASKETED TAPPING SLEEVE. CONCRETE THRUST BLOCKS SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES A MINIMUM OF 24 HOURS PRIOR TO THE BRANCH BEING PLACED INTO SERVICE. THRUST BLOCKS SHALL BE INSPECTED PRIOR TO BACKFILL.
5. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A BLACK POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP SHALL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED INTO SERVICE.
6. THRUST BLOCKS OR RESTRAINTS SHALL BE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS AND REQUIRED AT ALL FITTINGS PER DETAIL OR MANUFACTURER'S RECOMMENDATION. ALL FITTINGS SHALL HAVE BOTH THRUST BLOCKS AND RESTRAINTS.
7. ALL DEAD END WATER MAINS SHALL HAVE "FIRE HYDRANT ASSEMBLY" OR "BLOW-OFF VALVE AND THRUST BLOCK" OR "BLOW-OFF VALVE AND THRUST RESTRAINTS". THRUST RESTRAINTS SHALL BE INSTALLED ON THE MINIMUM LAST THREE PIPE LENGTHS (STANDARD 20' LAYING LENGTH). ADDITIONALL THRUST RESTRAINTS MAY BE REQUIRED BASED UPON THE MANUFACTURERS RECOMMENDATION AND/OR ENGINEER'S DESIGN.
8. PIPE MATERIAL FOR PUBLIC WATER MAINS SHALL BE PVC (AWWA C900-DR14 MIN. 305 PSI PRESSURE RATING). WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200PSI, AND SDR-(9)). COPPER PIPES AND FITTINGS ARE NOT ALLOWED IN THE PUBLIC RIGHT OF WAY. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF-PW).
9. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C115/C151 PRESSURE CLASS 350).
10. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE.
11. LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.
12. ALL WATER METER BOXES SHALL BE:

a. SINGLE, 1" METER AND BELOW DFW37F-12-1CA, OR EQUAL
b. DUAL, 1" METERS AND BELOW DFW39F-12-1CA, OR EQUAL
c. 1.5" SINGLE METER DFW65C-14-1CA, OR EQUAL
d. 2" SINGLE METER DFW1730F-12-1CA, OR EQUAL

13. ALL WATER VALVE COVERS ARE TO BE PAINTED BLUE.

WASTEWATER

1. CURVILINEAR WASTEWATER DESIGN LAYOUT IS NOT PERMITTED.
2. MANDREL TESTING SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
3. MANHOLES SHALL BE COATED PER CITY OF AUSTIN SPL WW-511 (RAVEN 405 OR SPRAYWALL). PENETRATIONS TO EXISTING WASTEWATER MANHOLES REQUIRE THE CONTRACTOR TO RECOAT THE ENTIRE MANHOLE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS SECTION NO. 506.5.
4. RECLAIMED AND RECYCLED WATER LINE SHALL BE CONSTRUCTED OF "PURPLE PIPE." ALL RECLAIMED AND RECYCLED WATER VALVE COVERS SHALL BE SQUARE AND PAINTED PURPLE.
5. FORCE MAIN PIPES NEED TO HAVE SWEEPING WYES FOR JOINTS.

STREET AND DRAINAGE NOTES

1. THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISTATION RELATED TO ACCESSIBLITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND TEXAS ACCESSIBILITY STANDARS (TAS).
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.
3. A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED BETWEEN THE CURB AND RIGHT-OF-WAY AND IN ALL DRAINAGE CHANNELS EXCEPT CHANNELS CUT IN STABLE ROCK.
4. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT, INCLUDING GAS, ELECTRIC TELEPHONE, CABLE TV, ETC., SHALL BE A MINIMUM OF 36" BELOW SUBGRADE.
5. STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF ¼" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED.
6. ALL DRAINAGE PIPE IN PUBLIC RIGHT OF WAY OR EASEMENTS SHALL BE REINFORCED CONCRETE PIPE MINIMUM CLASS III OF TONGUE AND GROOVE OR O-RING JOINT DESIGN. CORRUGATED METAL PIPE IS NOT ALLOWED IN PUBLIC RIGHT OR WAY OR EASEMENTS.
7. THE CONTRACTOR MUST PROVIDE A PNEUMATIC TRUCK PER TXDOT SPEC FOR PROOF ROLLING.
8. ALL STRIPING, WITH THE EXCEPTION OF STOP BARS, CROSS WALKS, WORDS AND ARROWS, IS TO BE TYPE II (WATER BASED). STOP BARS, CROSS WALKS, WORDS AND ARROWS REQUIRE TYPE I THERMOPLASTIC.
9. MANHOLE FRAMES, COVERS, VALVES, CLEAN-OUTS, ETC. SHALL BE RAISED TO GRADE PRIOR TO FINAL PAVEMENT CONSTRUCTION.
10. A STOP BAR SHALL BE PLACED AT ALL STOP SIGN LOCATIONS.
11. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE APPROVED CONSTRUCTION PLANS.
12. GEOTECHNICAL INVESTIGATION INFORMATION AND PAVEMENT RECOMMENDATIONS WERE PROVIDED BY PROFESSIONAL SERVICE INDUSTRIES, INC., PSI PROJECT NO. 03031748, DATED APRIL 10, 2023.
13. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CITY OF AUSTIN TRANSPORATION CRITERIA MANUAL, CITY OF LEANDER STANDARD DETAILS AND TEXAS DEPARTMENT OF TRANSPORTATION CRITERIA, SHALL BE SUBMITTED TO THE CITY OF LEANDER FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS MUST BE SITE SPECIFIC AND SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
14. ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM UNLESS OTHERWISE NOTED ON THE PLANS. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL OF THE CITY ENGINEER AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY THE CITY DURING PEAK HOURS OF 6 AM TO 9 AM OR 4 PM TO 8 PM WILL BE SUBJECT TO A FINE AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.
15. TEMPORARY ROCK CRUSHING IS NOT ALLOWED. ALL SOURCES OF FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR PROPOSED STOCK PILES ARE TO BE SUBMITTED TO THE CITY CONSTRUCTION INSPECTOR FOR REVIEW AND APPROVAL.
16. AT ROAD INTERSECTIONS THAT HAVE A VALLEY GUTTER, THE CROWN TO THE INTERSECTING ROAD WILL BE CULMINATED AT A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
17. NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAYS AND PUBLIC STREETS. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.
18. ALL DRIVEWAY APPROACHES SHALL HAVE A UNIFORM TWO PERCENT SLOPE WITHIN THE PUBLIC RIGHT OF WAY UNLESS APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
19. IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRVIEWAY TO REMAIN OPEN AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION OBTAINED BY THE CONTRACTOR FROM ALL PROPERTY OWNERS AND ACCESS EASEMENT RIGHT HOLDERS ALLOWING THE FULL CLOSURE OF THE DRIVEWAY.
20. CONTRACTOR MUST CLEAR FIVE (5) FEET BEYOND ALL PUBLIC RIGHT OF WAY TO PREVENT FUTURE VEGETATIVE GROWTH INTO THE SIDEWALK AREAS.
21. SLOPE OF NATURAL GROUND ADJACENT TO THE PUBLIC RIGHT OF WAY SHALL NOT EXCEED 3:1 SLOPE. IF A 3:1 SLOPE IS NOT POSSIBLE, SLOPE PROTECTION OR RETAINING WALL MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE.
22. THERE SHALL BE NO WATER, WASTEWATER OR DRAINAGE APPURTENANCES, INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, METERS, CLEAN-OUTS, MANHOLES, OR VAULTS IN ANY DRIVEWAY, SIDEWALK, TRAFFIC OR PEDESTRIAN AREA.
23. PUBLIC SIDEWALKS SHALL NOT USE CURB INLETS AS PARTIAL WALKING SURFACE. SIDEWALKS SHALL NOT USE TRAFFIC CONTROL BOXES, METERS, CHECK VALVE VAULTS, COMMUNICATION VAULTS, OR OTHER BURIED OR PARTIALLY BURIED INFRASTRUCTURE AS A VEHICULAR OR PEDESTRIAN SURFACE.
24. ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTION(S) PRIOR TO THE INSTALLATION OF DRY UTILITIES.
25. DRY UTILITIES SHALL BE INSTALLED AFTER SUBGRADE IS CUT AND BEFORE THE FIRST COURSE OF BASE. NO TRENCHING COMPACTED BASE. IF NECESSARY DRY UTILITIES INSTALLED AFTER FIRST COURSE BASE SHALL BE BORED ACROSS THE FULL WIDTH OF THE PUBLIC RIGHT-OF-WAY.
26. A MINIMUM OF SEVEN (7) DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF VEHICULAR TRAFFIC TO ALL STREETS.

TRENCH SAFETY NOTES

1. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT ARE DESCRIBED IN ITEM 509S "TRENCH SAFETY SYSTEMS" OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND SHALL BE IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATION SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

GRADING NOTES

1. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.
2. THE CONTRACTOR SHALL CONSTRUCT EARTHEN EMBANKMENTS WITH SLOPES NO STEEPER THAN 3:1 AND COMPACT SOIL TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
3. AREAS OF SOIL DISTURBANCE ARE LIMITED TO GRADING AND IMPROVEMENTS SHOWN. ALL OTHER AREAS WILL NOT BE DISTURBED.

BENCHMARK NOTES:

TBM #1:
SQUARE CUT ON TOP OF CONCRETE HEAD WALL ON THE SOUTH SIDE OF SAN GABRIEL R.O.W., +- 280' EAST OF THE INTERSECTION OF SAN GABRIEL PARKWAY ROAD AND CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY RAILROAD, AND +- WEST OF THE NORTHWESTERN MOST SUBJECT PROPERTY CORNER ELEVATION=970.96'.

TBM #2:
SQUARE CUT ON TOP OF CONCRETE CURB OF A CURC ISLAND IN THE SAN GABRIEL PARKWAY R.O.W., +-50' NORTH FROM A STORM SEWER MANHOLE ON A CURB INLET ON THE SOUTH SIDE OF SAN GABRIEL PARKWAY ROAD, AND +-14' FROM A TRAFFIC SIGNAL POLE ON A EASTING: 3078865.714, ELEVATION = 981.84'. (NOT SHOWN)

THE CITY OF LEANDER STANDARD CONSTRUCTION NOTES SHALL APPLY AND TAKE PRECEDENCE. FOR INSTANCES WHERE THEY CONFLICT WITH KIMLEY-HORN GENERAL NOTES OR APPLICABLE TCEQ REQUIREMENTS, THEN THE MORE RESTRICTIVE SHALL APPLY.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

Kimley»Horn
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WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
11/21/2023

KHA PROJECT 069252742
DATE: NOVEMBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: AMF
CHECKED BY: ACK

CITY OF LEANDER
GENERAL NOTES

VALOR LEANDER
PICP
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
2 OF 27

Plotted By:Rondell, Zach Date:November 21, 2023 02:43:33pm File Path:K:\AUS_Civil\069252742-Valor Leander\Civil\PICP\PlanSheets\C-General Notes.dwg
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KH GENERAL NOTES

OVERALL:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE PLANS, CITY (OR TOWN) STANDARD DETAILS AND SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. THE CITY SPECIFICATIONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION AND DETAIL SHALL BE FOLLOWED.
2. THE CONTRACTOR SHALL COMPLY WITH CITY OF (OR TOWN) GENERAL NOTES FOR CONSTRUCTION, IF EXISTING AND REQUIRED BY THE CITY. FOR INSTANCES WHERE THERE IS CONFLICT WITH THESE KH GENERAL NOTES, THEN THE MORE RESTRICTIVE SHALL APPLY.
3. THE CONTRACTOR SHALL FURNISH ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE AUTHORITIES' SPECIFICATIONS AND REQUIREMENTS.
4. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS.
5. THE EXISTING CONDITIONS SHOWN ON THESE PLANS WERE PROVIDED BY THE TOPOGRAPHIC SURVEY PREPARED BY THE PROJECT SURVEYOR, AND ARE BASED ON THE BENCHMARKS SHOWN. THE CONTRACTOR SHALL REFERENCE THE SAME BENCHMARKS.
6. THE CONTRACTOR SHALL REVIEW AND VERIFY THE EXISTING TOPOGRAPHIC SURVEY SHOWN ON THESE PLANS WITH THE EXISTING FIELD CONDITIONS PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DISCREPANCIES FOUND TO THE OWNER AND ENGINEER IMMEDIATELY.
7. IF THE CONTRACTOR DOES NOT ACCEPT THE EXISTING TOPOGRAPHIC SURVEY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY AT THEIR OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED PROFESSIONAL LAND SURVEYOR TO THE OWNER AND ENGINEER FOR REVIEW.
8. CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION SURVEYING AND STAKING.
9. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL CONTROL, INCLUDING BENCHMARKS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS. PROPERTY LINES AND CORNERS SHALL BE HELD AS THE HORIZONTAL CONTROL.
10. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS, ELEVATIONS, AND FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ARCHITECT, ENGINEER, AND IF APPLICABLE THE CITY AND OWNER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE CITY, ENGINEER, AND OWNER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
11. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK TO HAVE THEM LOCATE THEIR EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
13. CONTRACTOR SHALL CALL TEXAS 811 AN ADEQUATE AMOUNT OF TIME PRIOR TO COMMENCING CONSTRUCTION OR ANY EXCAVATION.
14. CONTRACTOR SHALL USE EXTREME CAUTION AS THE SITE CONTAINS VARIOUS KNOWN AND UNKNOWN PUBLIC AND PRIVATE UTILITIES.
15. THE LOCATIONS, ELEVATIONS, DEPTH, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY MAPS AND PLANS, AND ARE CONSIDERED APPROXIMATE AND INCOMPLETE. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO VERIFY THE PRESENCE, LOCATION, ELEVATION, DEPTH, AND DIMENSION OF EXISTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION SO THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE ENGINEER SHALL BE NOTIFIED WHEN A PROPOSED IMPROVEMENT CONFLICTS WITH AN EXISTING UTILITY.
16. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANY ADJUSTMENTS AND RELOCATIONS OF EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, ADJUSTING EXISTING MANHOLES TO MATCH PROPOSED GRADE, RELOCATING EXISTING POLES AND GUY WIRES THAT ARE LOCATED IN PROPOSED DRIVEWAYS, ADJUSTING THE HORIZONTAL OR VERTICAL ALIGNMENT OF EXISTING UNDERGROUND UTILITIES TO AVOID CONFLICTS, AND REMOVE OR CROSSING WITH A PROPOSED UTILITY, AND ANY OTHERS THAT MAY BE ENCOUNTERED THAT ARE UNKNOWN AT THIS TIME AND NOT SHOWN ON THESE PLANS.
17. CONTRACTOR SHALL ARRANGE FOR OR PROVIDE, AT ITS EXPENSE, ALL GAS, TELECOMMUNICATIONS, CABLE, OVERHEAD AND UNDERGROUND POWER LINE, AND UTILITY POLE ADJUSTMENTS NEEDED.
18. CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF FRANCHISE UTILITIES THAT ARE NECESSARY FOR ON-SITE AND OFF-SITE CONSTRUCTION, AND SERVICE TO THE PROPOSED DEVELOPMENT.
19. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGES DUE TO THE CONTRACTORS' FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR FOR AID WITH PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
20. BRACING OF UTILITY POLES MAY BE REQUIRED BY THE UTILITY COMPANIES WHEN TRENCHING OR EXCAVATING IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR, WITH NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE PAY ITEM.
21. CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND POWER LINES. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, FEDERAL AND UTILITY OWNER REGULATIONS PERTAINING TO WORK SETBACKS FROM POWER LINES.
22. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, APPROVALS, AND BONDS PRIOR TO CONSTRUCTION.
23. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES A COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, GEOTECHNICAL REPORT AND ADDENDA, PROJECT AND CITY SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.
24. ALL SHOP DRAWINGS AND OTHER DOCUMENTS THAT REQUIRE ENGINEER REVIEW SHALL BE SUBMITTED BY THE CONTRACTOR SUFFICIENTLY IN ADVANCE OF CONSTRUCTION OF THAT ITEM, SO THAT NO LESS THAN 10 BUSINESS DAYS FOR REVIEW AND RESPONSE IS AVAILABLE.
25. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES, AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO USE OF THE FACILITY AND THE FINAL CONNECTION OF SERVICES.
26. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
27. CONTRACTOR'S BID PRICE SHALL INCLUDE ALL INSPECTION FEES.
28. ALL SYMBOLS SHOWN ON THESE PLANS (E.G. FIRE HYDRANT, METERS, VALVES, INLETS, ETC....) ARE FOR PRESENTATION PURPOSES ONLY AND ARE NOT TO SCALE. CONTRACTOR SHALL COORDINATE FINAL SIZES AND LOCATIONS WITH APPROPRIATE CITY INSPECTOR.
29. THE SCOPE OF WORK FOR THE CIVIL IMPROVEMENTS SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. REFERENCE THE BUILDING PLANS (E.G. ARCHITECTURAL, STRUCTURAL, MEP) FOR AREAS WITHIN 5-FEET OF THE BUILDING AND WITHIN THE BUILDING FOOTPRINT.
30. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL FINAL BUILDING DIMENSIONS.
31. THE PROPOSED BUILDING FOOTPRINT(S) SHOWN IN THESE PLANS WAS PROVIDED TO KIMLEY-HORN AND ASSOCIATES, INC. (KH) BY THE PROJECT ARCHITECT AT THE TIME THESE PLANS WERE PREPARED. IT MAY NOT BE THE FINAL CORRECT VERSION BECAUSE THE BUILDING DESIGN WAS ONGOING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING THE FINAL CORRECT VERSION OF THE BUILDING FOOTPRINT WITH THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO LAYOUT. DIMENSIONS AND ANGLES SHOWN ON THESE PLANS WERE BASED ON THE ABOVE STATED ARCHITECTURAL FOOTPRINT, AND ARE THEREFORE A PRELIMINARY LOCATION OF THE BUILDING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY WHAT PART OF THE BUILDING THE ARCHITECT'S FOOTPRINT REPRESENTS (E.G. SLAB, OUTSIDE WALL, MASONRY LEDGE, ETC....) AND TO CONFIRM ITS FINAL POSITION ON THE SITE BASED ON THE FINAL ARCHITECTURAL FOOTPRINT, CIVIL DIMENSION CONTROL PLAN, SURVEY BOUNDARY AND/OR PLAT. ANY DIFFERENCES FOUND SHALL BE REPORTED TO KH IMMEDIATELY.
32. ALL CONSTRUCTION SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING SUBSEQUENT ADDENDA.
33. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL MATERIALS TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR AND COMPLY WITH CITY STANDARD SPECIFICATIONS AND GEOTECHNICAL REPORT. TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING MATERIALS. OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR MATERIALS TESTING.
34. ALL COPIES OF MATERIALS TEST RESULTS SHALL BE SENT TO THE OWNER, ENGINEER AND ARCHITECT DIRECTLY FROM THE TESTING AGENCY.
35. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE MATERIALS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS.
36. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING.
37. ALL CONTRACTORS MUST CONFINE THEIR ACTIVITIES TO THE WORK AREA. NO ENCROACHMENTS OUTSIDE OF THE WORK AREA WILL BE ALLOWED. ANY DAMAGE RESULTING THEREFROM SHALL BE CONTRACTOR'S SOLE RESPONSIBILITY TO REPAIR.
38. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, UTILITIES, MANHOLES, POLES, GUY WIRES, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, COMMUNICATION BOXES/PEDESTALS, AND OTHER FACILITIES TO REMAIN AND SHALL REPAIR ANY DAMAGES AT NO COST TO THE OWNER.
39. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY OR PUBLIC IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCES, WALLS, SIGNS, PAVEMENT, CURBS, UTILITIES, SIDEWALKS, GRASS, TREES, LANDSCAPING, AND IRRIGATION SYSTEMS, ETC.... TO ORIGINAL CONDITION OR BETTER AT NO COST TO THE OWNER.
40. ALL AREAS IN EXISTING RIGHT-OF-WAY DISTURBED BY SITE CONSTRUCTION SHALL BE REPAIRED TO ORIGINAL CONDITION OR BETTER, INCLUDING AS NECESSARY GRADING, LANDSCAPING, CULVERTS, AND PAVEMENT.
41. THE CONTRACTOR SHALL SALVAGE ALL EXISTING POWER POLES, SIGNS, WATER VALVES, FIRE HYDRANTS, METERS, ETC... THAT ARE TO BE RELOCATED DURING CONSTRUCTION.
42. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
43. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
44. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
45. SITE SAFETY IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
46. THESE PLANS DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE ENGINEER'S SEAL HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL REQUIRED SAFETY PROCEDURES AND PROGRAMS.
47. SIGNS RELATED TO SITE OPERATION OR SAFETY ARE NOT INCLUDED IN THESE PLANS.
48. CONTRACTOR OFFICE AND STAGING AREA SHALL BE AGREED ON BY THE OWNER AND CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING REQUIREMENTS FOR THE CONSTRUCTION OFFICE, TRAILER, STORAGE, AND STAGING OPERATIONS AND LOCATIONS.
49. LIGHT POLES, SIGNS, AND OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN ACCESSIBLE ROUTES.
50. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
51. TOP RIM ELEVATIONS OF ALL EXISTING AND PROPOSED MANHOLES SHALL BE COORDINATED WITH TOP OF PAVEMENT OR FINISHED GRADE AND SHALL BE ADJUSTED TO BE FLUSH WITH THE ACTUAL FINISHED GRADE AT THE TIME OF PAVING.
52. CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED VALVES, FIRE HYDRANTS, AND OTHER UTILITY APPURTENANCES TO MATCH ACTUAL FINISHED GRADES AT THE TIME OF PAVING.
53. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SEQUENCING AND PHASING, AND SHALL CONTACT THE APPROPRIATE CITY OFFICIALS, INCLUDING BUILDING OFFICIAL, ENGINEERING INSPECTOR, AND FIRE MARSHALL TO LEARN OF ANY REQUIREMENTS.
54. CONTRACTOR IS RESPONSIBLE FOR PREPARATION, SUBMITTAL, AND APPROVAL BY THE CITY OF A TRAFFIC CONTROL PLAN PRIOR TO THE START OF CONSTRUCTION, AND THEN THE IMPLEMENTATION OF THE PLAN.
55. CONTRACTOR SHALL KEEP A NEAT AND ACCURATE RECORD OF CONSTRUCTION, INCLUDING ANY DEVIATIONS OR VARIANCES FROM THE PLANS.
56. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT PLANS TO THE ENGINEER AND CITY IDENTIFYING ALL DEVIATIONS AND VARIATIONS FROM THESE PLANS MADE DURING CONSTRUCTION.

EROSION CONTROL:

1. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL EROSION CONTROL AND WATER QUALITY REQUIREMENTS, LAWS, AND ORDINANCES THAT APPLY TO THE CONSTRUCTION SITE LAND DISTURBANCE.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE "TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 150000".
3. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE.
4. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT.
5. CONTRACTOR IS SOLELY RESPONSIBLE FOR INSTALLATION, IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL EROSION CONTROL DEVICES, BEST MANAGEMENT PRACTICES (BMPS), AND FOR UPDATING THE EROSION CONTROL PLAN DURING CONSTRUCTION AS FIELD CONDITIONS CHANGE.
6. CONTRACTOR SHALL DOCUMENT THE DATES OF INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL FOR EACH BMP EMPLOYED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE.
7. AS STORM SEWER INLETS ARE INSTALLED ON-SITE, TEMPORARY EROSION CONTROL DEVICES SHALL BE INSTALLED AT EACH INLET PER APPROVED DETAILS.
8. THE EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE AREA IT PROTECTS HAS BEEN PERMANENTLY STABILIZED.
9. CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL DEVICES NEEDED DUE TO PROJECT PHASING.
10. CONTRACTOR SHALL OBSERVE THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND MAKE FIELD ADJUSTMENTS AND MODIFICATIONS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE. IF THE EROSION CONTROL DEVICES DO NOT EFFECTIVELY CONTROL EROSION AND PREVENT SEDIMENTATION FROM WASHING OFF THE SITE, THEN THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
11. OFF-SITE SOIL BORROW, SPOIL, AND STORAGE AREAS (IF APPLICABLE) ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS FOR THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMP'S TO CONTROL EROSION AND SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GROUND COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP AND EROSION CONTROL PLAN TO INCLUDE BMPS FOR ANY OFF-SITE THAT ARE NOT ANTICIPATED OR SHOWN ON THE EROSION CONTROL PLAN.
12. ALL STAGING, STOCKPILES, SPOIL, AND STORAGE SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. PROTECTIVE MEASURES SHALL BE PROVIDED IF NEEDED TO ACCOMPLISH THIS REQUIREMENT, SUCH AS COVERING OR ENCIRCLING THE AREA WITH AN APPROPRIATE BARRIER.
13. CONTRACTORS SHALL INSPECT ALL EROSION CONTROL DEVICES, BMPS, DISTURBED AREAS, AND VEHICLE ENTRY AND EXIT AREAS WEEKLY AND WITHIN 24 HOURS OF ALL RAINFALL EVENTS OF 0.5 INCHES OR GREATER, AND KEEP A RECORD OF THIS INSPECTION IN THE SWPPP BOOKLET IF APPLICABLE, TO VERIFY THAT THE DEVICES AND EROSION CONTROL PLAN ARE FUNCTIONING PROPERLY.
14. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS IN ACCORDANCE WITH CITY REQUIREMENTS. CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION TRAFFIC USES THE STABILIZED ENTRANCE AT ALL TIMES FOR ALL INGRESS/EGRESS.
15. SITE ENTRY AND EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING AND FLOWING OF SEDIMENT AND DIRT ONTO OFF-SITE ROADWAYS. ALL SEDIMENT AND DIRT FROM THE SITE THAT IS DEPOSITED ONTO AN OFF-SITE ROADWAY SHALL BE REMOVED IMMEDIATELY.
16. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFFECTED OFF-SITE ROADWAYS THAT ARE A RESULT OF THE CONSTRUCTION, AS REQUESTED BY OWNER AND CITY. AT A MINIMUM, THIS SHOULD OCCUR ONCE PER DAY FOR THE OFF-SITE ROADWAYS.
17. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO EXITING THE SITE, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP BMP.
18. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ON-SITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER TCEQ AND CITY STANDARDS. IF NO ENGINEERING DESIGN HAS BEEN PROVIDED FOR A SEDIMENTATION BASIN ON THESE PLANS, THEN THE CONTRACTOR SHALL ARRANGE FOR AN APPROPRIATE DESIGN TO BE PROVIDED.
19. ALL FINES IMPOSED FOR SEDIMENT OR DIRT DISCHARGED FROM THE SITE SHALL BE PAID BY THE RESPONSIBLE CONTRACTOR.
20. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION ENTRANCE VOID SPACES BETWEEN STONES OR DIRT IS BEING TRACKED ONTO A ROADWAY, THE ENTRANCE PAD SHALL BE REWORKED OR REPLACED AS NECESSARY. THE CONSTRUCTION ENTRANCE SHALL NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL SEDIMENTATION. PERIODIC RE-GRADING OR NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFECTIVENESS OF THE CONSTRUCTION ENTRANCE.
21. TEMPORARY SEEDING OR OTHER APPROVED STABILIZATION SHALL BE INITIATED WITHIN 14 DAYS OF THE LAST DISTURBANCE OF ANY AREA, UNLESS ADDITIONAL CONSTRUCTION IN THE AREA IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE.
22. CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING CONSTRUCTION, ALWAYS CLEANING UP DIRT, LOOSE MATERIAL, AND TRASH AS CONSTRUCTION PROGRESSES.
23. UPON COMPLETION OF CONSTRUCTION ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED. STABILIZATION IS ACHIEVED WHEN THE AREA IS EITHER COVERED BY PERMANENT IMPERVIOUS STRUCTURES, SUCH AS BUILDINGS, SIDEWALK, PAVEMENT, OR A UNIFORM PERENNIAL VEGETATIVE COVER.
24. AT THE CONCLUSION OF THE PROJECT, ALL SILTATION BASINS, DRAIN PIPE, CHANNELS, DRAINAGEWAYS AND BORROW DITCHES AFFECTED BY THE CONSTRUCTION SHALL BE DREDGED, AND THE SEDIMENT GENERATED BY THE PROJECT SHALL BE REMOVED AND DISPOSED IN ACCORDANCE WITH APPLICABLE REGULATIONS.

STORM WATER DISCHARGE AUTHORIZATION:

1. CONTRACTOR SHALL COMPLY WITH ALL TCEQ AND EPA STORM WATER POLLUTION PREVENTION REQUIREMENTS.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 150000.
3. THE CONTRACTOR SHALL ENSURE THAT ALL PRIMARY OPERATORS SUBMIT A NOI TO TCEQ AT LEAST SEVEN DAYS PRIOR TO COMMENCING CONSTRUCTION (IF APPLICABLE), OR AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION. ALL PRIMARY OPERATORS SHALL PROVIDE A COPY OF THE SIGNED NOI TO THE OPERATOR OF ANY MS4 (TYPICALLY THE CITY) RECEIVING DISCHARGE FROM THE SITE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE, INCLUDING POSTING SITE NOTICE, INSPECTIONS, DOCUMENTATION, AND SUBMISSION OF ANY INFORMATION REQUIRED BY THE TCEQ AND EPA (E.G. NOI).
5. ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN THE REQUIRED CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN THE SWPPP.
6. A COPY OF THE SWPPP, INCLUDING NOI, SITE NOTICE, CONTRACTOR CERTIFICATIONS, AND ANY REVISIONS, SHALL BE SUBMITTED TO THE CITY BY THE CONTRACTOR AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION.
7. A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED BY THE PRIMARY OPERATOR WITHIN 30 DAYS AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY STRUCTURES, A TRANSFER OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR HAS OBTAINED ALTERNATE AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT SHALL BE PROVIDED TO THE OPERATOR OF ANY MS4 RECEIVING DISCHARGE FROM THE SITE.

DEMOLITION:

1. KH IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS PRELIMINARY DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED AND REMOVED FROM THE SITE.
2. KH DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES, THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY, OR THAT THE DEMOLITION PLAN IS COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING ITS OWN SITE RECONNAISSANCE TO SCOPE ITS WORK AND TO CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OF THEIR FACILITIES.
3. THIS PLAN IS INTENDED AS A GENERAL GUIDE TO THE CONTRACTOR, NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE SITE IN A STATE SUITABLE FOR THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONTRACTOR IS STRONGLY CAUTIONED TO REVIEW THE FOLLOWING REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND IMPLEMENTING THE DEMOLITION PLAN:
   a. ENVIRONMENTAL SITE ASSESSMENT PROVIDED BY THE OWNER,
   b. ASBESTOS BUILDING INSPECTION REPORT(S) PROVIDED BY THE OWNER,
   c. GEOTECHNICAL REPORT PROVIDED BY THE OWNER, AND
   d. OTHER REPORTS THAT ARE APPLICABLE AND AVAILABLE.
5. CONTRACTOR SHALL CONTACT THE OWNER TO VERIFY WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS HAVE BEEN PREPARED AND TO OBTAIN/REVIEW/AND COMPLY WITH THE RECOMMENDATION OF SUCH STUDIES PRIOR TO STARTING DEMOLITION AND REMOVAL.
6. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE, DETERMINE THE APPLICABLE REGULATIONS, VERIFY AND COORDINATE ALL PERMITS RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS, AND COMPLY.
7. KH DOES NOT REPRESENT THAT THE REPORTS AND SURVEYS REFERENCED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE SHOWING ALL ITEMS THAT WILL NEED TO BE DEMOLISHED AND REMOVED.
8. SURFACE PAVEMENT INDICATED MAY OVERLAY OTHER HIDDEN STRUCTURES, SUCH AS ADDITIONAL LAYERS OF PAVEMENT, FOUNDATIONS OR WALLS, THAT ARE ALSO TO BE REMOVED.

GRADING:

1. THE CONTRACTOR AND GRADING SUBCONTRACTOR SHALL VERIFY THE SUITABILITY OF EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE CIVIL ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL OBTAIN ANY REQUIRED GRADING PERMITS FROM THE CITY.
3. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREA REFLECT TOP OF PAVEMENT SURFACE IN LOCATIONS ALONG A CURB LINE, ADD 6-INCHES (OR THE HEIGHT OF THE CURB) TO THE PAVING GRADE FOR TOP OF CURB EL

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 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 SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
   - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
   - THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
   - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:

   A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;

   B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;

   C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

TCEQ REGION 11 OFFICE
12100 PARK 35 CIRCLE,
BUILDING A, RM 179
AUSTIN, TEXAS 78753-3795
PHONE: (512) 339-2929
FAX: (512) 339-3795

TCEQ - SEWAGE COLLECTION SYSTEM PLAN NOTES

1. THIS ORGANIZED SEWAGE COLLECTION SYSTEM (SCS) MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) EDWARDS AQUIFER RULES AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROPOSED REGULATED PROJECT MUST BE PROVIDED WITH COPIES OF THE SCS PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS MUST BE REQUIRED TO KEEP ON-SITE COPIES OF THE PLAN AND THE APPROVAL LETTER.

3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
   - THE NAME OF THE APPROVED PROJECT;
   - THE ACTIVITY START DATE; AND
   - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

4. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED SCS APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF AN SCS APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.

5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERED. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING AND THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY WHILE MAINTAINING THE STRUCTURAL INTEGRITY OF THE LINE.

7. SEWER LINES LOCATED WITHIN OR CROSSING THE 5-YEAR FLOODPLAIN OF A DRAINAGE WAY WILL BE PROTECTED FROM INUNDATION AND STREAM VELOCITIES WHICH COULD CAUSE EROSION AND SCOURING OF BACKFILL. THE TRENCH MUST BE CAPPED WITH CONCRETE TO PREVENT SCOURING OF BACKFILL, OR THE SEWER LINES MUST BE ENCASED IN CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES.

8. BLASTING PROCEDURES FOR PROTECTION OF EXISTING SEWER LINES AND OTHER UTILITIES WILL BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION CRITERIA. SAND IS NOT ALLOWED AS BEDDING OR BACKFILL IN TRENCHES THAT HAVE BEEN BLASTED. IF ANY EXISTING SEWER LINES ARE DAMAGED, THE LINES MUST BE REPAIRED AND RETESTED.

9. ALL MANHOLES CONSTRUCTED OR REHABILITATED ON THIS PROJECT MUST HAVE WATERTIGHT SIZE ON SIZE RESILIENT CONNECTORS ALLOWING FOR DIFFERENTIAL SETTLEMENT. IF MANHOLES ARE CONSTRUCTED WITHIN THE 100-YEAR FLOODPLAIN, THE COVER MUST HAVE A GASKET AND BE BOLTED TO THE RING. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE OR FOR MORE THAN 1500 FEET, ALTERNATE MEANS OF VENTING WILL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE.

   THE DIAMETER OF THE MANHOLES MUST BE A MINIMUM OF FOUR FEET AND THE MANHOLE FOR ENTRY MUST HAVE A MINIMUM CLEAR OPENING DIAMETER OF 30 INCHES. THESE DIMENSIONS AND OTHER DETAILS SHOWING COMPLIANCE WITH THE COMMISSION'S RULES CONCERNING MANHOLES AND SEWER LINE/MANHOLE INVERTS DESCRIBED IN 30 TAC §217.55 ARE INCLUDED ON PLAN SHEET 109 OF 112.

   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: NONE

   IF PIPE FLEXURE IS PROPOSED, THE FOLLOWING METHOD OF PREVENTING DEFLECTION OF THE JOINT MUST BE USED: NO FLEXURE PROPOSED

   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.

    IF NO STUB-OUT IS PRESENT AN ALTERNATE METHOD OF JOINING LATERALS IS SHOWN IN THE DETAIL ON PLAN SHEET N/A OF N/A. (FOR POTENTIAL FUTURE LATERALS).

    THE PRIVATE SERVICE LATERAL STUB-OUTS MUST BE INSTALLED AS SHOWN ON THE PLAN AND PROFILE SHEETS ON PLAN SHEET N/A OF N/A AND MARKED AFTER BACKFILLING AS SHOWN IN THE DETAIL ON PLAN SHEET N/A OF N/A.

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 C-924, 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

$$T = (0.085 * D * K) / Q$$

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
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 (IN)	MINIMUM TIME (SEC)	MAXIMUM LENGTH FOR MINIMUM TIME (FT)	TIME FOR LONGER LENGTH (SEC/FT)
4	180	298	0.606
6	180	298	1.364
8	197	298	2.424
10	246	298	3.788
12	295	298	5.455
15	369	298	8.523
18	443	298	12.273
21	518	298	16.818
24	592	298	21.970
27	666	298	27.879
30	740	298	34.394
36	873	298	49.545

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

(E) IF ANY PRESSURE LOSS OR LEAKAGE HAS OCCURRED DURING THE FIRST 25% OF TESTING PERIOD, THEN THE TEST MUST CONTINUE FOR THE ENTIRE TEST DURATION AS OUTLINED ABOVE OR UNTIL FAILURE.

(F) WASTEWATER COLLECTION SYSTEM PIPES WITH A 27 INCH OR LARGER AVERAGE INSIDE DIAMETER MAY BE AIR TESTED AT EACH JOINT INSTEAD OF FOLLOWING THE PROCEDURE OUTLINED IN THIS SECTION.

(G) A TESTING PROCEDURE FOR PIPE WITH AN INSIDE DIAMETER GREATER THAN 33 INCHES MUST BE APPROVED BY THE EXECUTIVE DIRECTOR.

(2) INFILTRATION/EXFILTRATION TEST.

(A) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF 2.0 FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE.

(B) AN OWNER SHALL USE AN INFILTRATION TEST IN LIEU OF AN EXFILTRATION TEST WHEN PIPES ARE INSTALLED BELOW THE GROUNDWATER LEVEL.

(C) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE, OR AT LEAST TWO FEET ABOVE EXISTING GROUNDWATER LEVEL, WHICHEVER IS GREATER.

(D) FOR CONSTRUCTION WITHIN A 25-YEAR FLOOD PLAIN, THE INFILTRATION OR EXFILTRATION MUST NOT EXCEED 10 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT THE SAME MINIMUM TEST HEAD AS IN SUBPARAGRAPH (C) OF THIS PARAGRAPH.

(E) IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, AN OWNER SHALL UNDERTAKE REMEDIAL ACTION IN ORDER TO REDUCE THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITHIN THE LIMITS SPECIFIED. AN OWNER SHALL RETEST A PIPE FOLLOWING A REMEDIATION ACTION.

(B) IF A GRAVITY COLLECTION PIPE IS COMPOSED OF FLEXIBLE PIPE, DEFLECTION TESTING IS ALSO REQUIRED. THE FOLLOWING PROCEDURES MUST BE FOLLOWED:

(1) FOR A COLLECTION PIPE WITH INSIDE DIAMETER LESS THAN 27 INCHES, DEFLECTION MEASUREMENT REQUIRES A RIGID MANDREL.

(A) MANDREL SIZING.

(I) A RIGID MANDREL MUST HAVE AN OUTSIDE DIAMETER (OD) NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER (ID) OR AVERAGE ID OF A PIPE, AS SPECIFIED IN THE APPROPRIATE STANDARD BY THE ASTMS, AMERICAN WATER WORKS ASSOCIATION, UNI-BELL, OR AMERICAN NATIONAL STANDARDS INSTITUTE, OR ANY RELATED APPENDIX.

(II) IF A MANDREL SIZING DIAMETER IS NOT SPECIFIED IN THE APPROPRIATE STANDARD, THE MANDREL MUST HAVE AN OD EQUAL TO 95% OF THE ID OF A PIPE. IN THIS CASE, THE ID OF THE PIPE, FOR THE PURPOSE OF DETERMINING THE OD OF THE MANDREL, MUST EQUAL BE THE AVERAGE OUTSIDE DIAMETER MINUS TWO MINIMUM WALL THICKNESSES FOR OD CONTROLLED PIPE AND THE AVERAGE INSIDE DIAMETER FOR ID CONTROLLED PIPE.

(III) ALL DIMENSIONS MUST MEET THE APPROPRIATE STANDARD.

(B) MANDREL DESIGN.

(I) A RIGID MANDREL MUST BE CONSTRUCTED OF A METAL OR A RIGID PLASTIC MATERIAL THAT CAN WITHSTAND 200 PSI WITHOUT BEING DEFORMED.

(II) A MANDREL MUST HAVE NINE OR MORE ODD NUMBER OF RUNNERS OR LEGS.

(III) A BARREL SECTION LENGTH MUST EQUAL AT LEAST 75% OF THE INSIDE DIAMETER OF A PIPE.

(IV) EACH SIZE MANDREL MUST USE A SEPARATE PROVING RING.

(C) METHOD OPTIONS.

(I) AN ADJUSTABLE OR FLEXIBLE MANDREL IS PROHIBITED.

(II) A TEST MAY NOT USE TELEVISION INSPECTION AS A SUBSTITUTE FOR A DEFLECTION TEST.

(III) IF REQUESTED, THE EXECUTIVE DIRECTOR MAY APPROVE THE USE OF A DEFLECTOMETER OR A MANDREL WITH REMOVABLE LEGS OR RUNNERS ON A CASE-BY-CASE BASIS.

(2) FOR A GRAVITY COLLECTION SYSTEM PIPE WITH AN INSIDE DIAMETER 27 INCHES AND GREATER, OTHER TEST METHODS MAY BE USED TO DETERMINE VERTICAL DEFLECTION.

(3) A DEFLECTION TEST METHOD MUST BE ACCURATE TO WITHIN PLUS OR MINUS 0.2% DEFLECTION.

(4) AN OWNER SHALL NOT CONDUCT A DEFLECTION TEST UNTIL AT LEAST 30 DAYS AFTER THE FINAL BACKFILL.

(5) GRAVITY COLLECTION SYSTEM PIPE DEFLECTION MUST NOT EXCEED FIVE PERCENT (5%).

(6) IF A PIPE SECTION FAILS A DEFLECTION TEST, AN OWNER SHALL CORRECT THE PROBLEM AND CONDUCT A SECOND TEST AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.

16. ALL MANHOLES MUST BE TESTED TO MEET OR EXCEED THE REQUIREMENTS OF 30 TAC §217.58.

(A) ALL MANHOLES MUST PASS A LEAKAGE TEST.

(B) AN OWNER SHALL TEST EACH MANHOLE (AFTER ASSEMBLY AND BACKFILLING) FOR LEAKAGE, SEPARATE AND INDEPENDENT OF THE COLLECTION SYSTEM PIPES, BY HYDROSTATIC EXFILTRATION TESTING, VACUUM TESTING, OR OTHER METHOD APPROVED BY THE EXECUTIVE DIRECTOR.

(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.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

Kimley»Horn
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Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
11/21/2023

KHA PROJECT	069252742
DATE	NOVEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	AMF
CHECKED BY:	ACK

TCEQ GENERAL NOTES

VALOR LEANDER PICP
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
4 OF 27

Plotted By:Randall, Zach Date:November 21, 2023 02:43:45pm File Path:K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\C-KH General Notes.dwg
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BM #11: SET MAGNETIC NAIL (TRAVIS)
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GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

Kimley»Horn
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

KHA PROJECT	069252742
DATE	NOVEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	AMF
CHECKED BY:	ACK

FINAL PLAT
(SHEET 1 OF 2)

VALOR LEANDER
PICP
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
5 OF 27

THIS SHEET INTENTIONALLY LEFT BLANK.

Plotted By: Randall, Zach Date: November 21, 2023 02:43:55pm File Path: K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\C-Final Plot.dwg
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WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.999880014982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

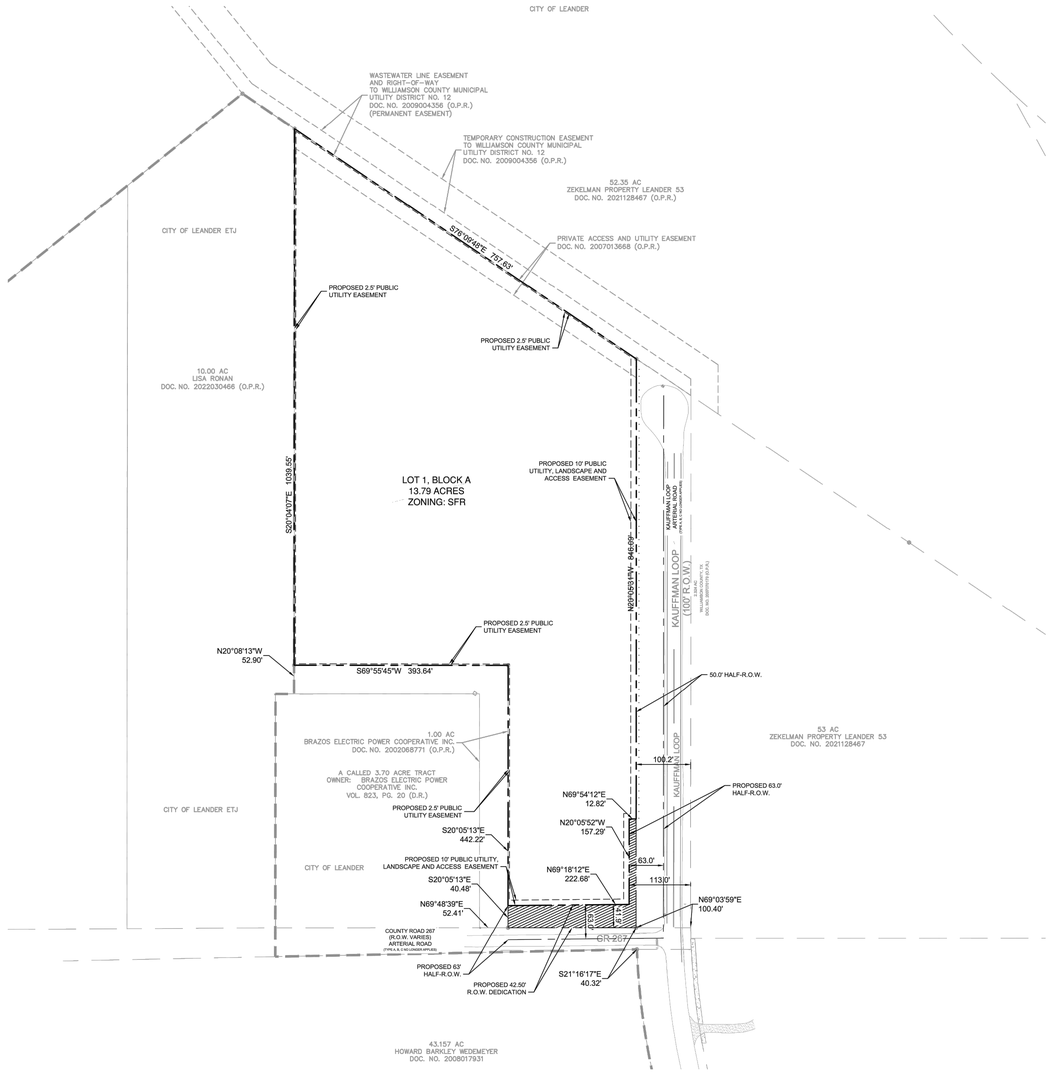
BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

FINAL PLAT
(SHEET 2 OF 2)

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
6 OF 27



N

W E

S

0 100' 200'

GRAPHIC SCALE 100'

LEGEND

- PROPERTY LINE
- R.O.W.
- PROPOSED EASEMENT LINE
- EXISTING EASEMENT LINE
- CITY OF LEANDER CITY LIMITS
- PROPOSED ROW DEDICATION
- BENCHMARK
- PROPOSED 10' SIDEWALK
- CENTERLINE OF EXISTING ROW

NOTES:

1. NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA ZONE AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP PANEL 48491C0275E, DATED SEPTEMBER 26, 2008, FOR WILLIAMSON COUNTY, TEXAS AND INCORPORATED AREAS.
2. THIS PROJECT IS LOCATED IN THE EDWARDS ACQUIFER RECHARGE ZONE.
3. ALL EASEMENTS OF RECORD, AS FOUND IN THE TITLE COMMITMENT, ARE SHOWN ON THIS SHEET PREPARED BY VALERIE ZURCHER, RPLS OF PAPE-DAWSON ENGINEERS.
4. STREET TYPES A, B, AND C NAMING CLASSIFICATION NO LONGER APPLICABLE.
5. A TEN (10) FOOT SIDEWALK IS REQUIRED ALING CR 2627 AND KAUFFMAN LOOP. SIDEWALKS SHALL BE INSTALLED ON THE SUBDIVISION SIDE OF CR 267 AND KAUFFMAN LOOP. THOSE SIDEWALKS NOT ABUTTING A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL LOT (INCLUDING SIDEWALKS ALONG STREET FRONTAGES OF LOTS PROPOSED FOR SCHOOLS, CHURCHES, PARK LOTS, DETENTION LOTS, LANDSCAPE LOTS, OR SIMILAR LOTS), SIDEWALKS ON ARTERIAL STREETS TO WHICH ACCESS IS PROHIBITED, SIDEWALKS ON DOUBLE FRONTAGE LOTS ON THE SIDE TO WHICH ACCESS IS PROHIBITED, AND ALL SIDEWALKS ON SAFE SCHOOL ROUTES SHALL BE INSTALLED WHEN THE ADJOINING STREET IS CONSTRUCTED.

LAND USE SUMMARY:
ZONING: SINGLE- FAMILY RURAL (SFR-1-B) - 13.79 AC.

FUTURE LAND USE CATEGORY:
ACTIVITY CENTER - 13.79 AC.

LOT #	PERMITTED USES	AREA
LOT 1	SFR-1-B	13.51 AC
	ROW TAKE	0.28 AC.
	TOTAL AREA	13.79 AC

BENCHMARKS

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1031.92'

**PLEASE NOTE: NOT TO SCALE.

CP-23-0021

No.	REVISIONS	DATE	BY

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WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

KHA PROJECT 069252742
DATE OCTOBER 2023
SCALE: AS SHOWN
DESIGNED BY: ZJR
DRAWN BY: ZJR
CHECKED BY: ACK

PRELIMINARY PLAT

VALOR SCHOOLS
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER 4 OF 10

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

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TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh — 114356 — LICENSED PROFESSIONAL ENGINEER — 11/21/2023

No.	REVISIONS	DATE	BY

KHA PROJECT 069252742
DATE NOVEMBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: AMF
CHECKED BY: ACK

APPROVED PRELIMINARY PLAT

VALOR LEANDER PICP
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER 7 OF 27

Plotted By:Rondall, Zach Date:November 21, 2023 02:44:04pm File Path:K:\AUS_Civil\069252742-Valor Leander\Civil\PICP\PlanSheets\C-Approved Preliminary Plot.dwg
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Plotted By:Rondall, Zach Date:October 17, 2023 04:31:54pm File Path:K:\AUS_Civil\069252742-Valor Leander\Civil\Prelim. & Concept Plan\PlanSheets\C-Preliminary Plot.dwg
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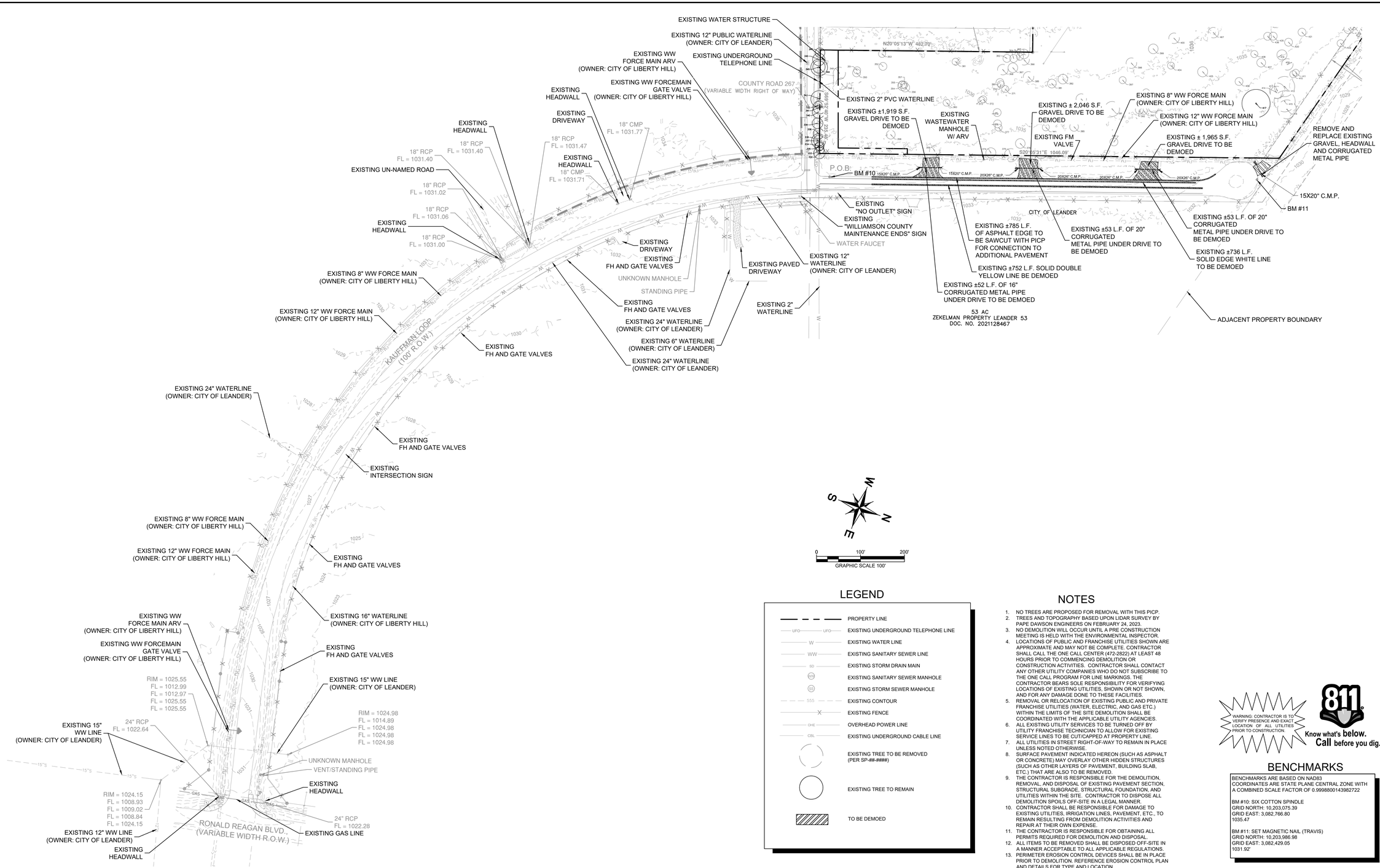

LEGEND

- PROPERTY LINE
- UFO — UFO — EXISTING UNDERGROUND TELEPHONE LINE
- W — EXISTING WATER LINE
- WW — EXISTING SANITARY SEWER LINE
- SD — EXISTING STORM DRAIN MAIN
- WW — EXISTING SANITARY SEWER MANHOLE
- SD — EXISTING STORM SEWER MANHOLE
- 555 — EXISTING CONTOUR
- X — EXISTING FENCE
- OHE — OVERHEAD POWER LINE
- CBL — EXISTING UNDERGROUND CABLE LINE
- EXISTING TREE TO BE REMOVED (PER SP-##-####)
- EXISTING TREE TO REMAIN
- TO BE DEMOED

NOTES

1. NO TREES ARE PROPOSED FOR REMOVAL WITH THIS PICP.
2. TREES AND TOPOGRAPHY BASED UPON LIDAR SURVEY BY PAPE DAWSON ENGINEERS ON FEBRUARY 24, 2023.
3. NO DEMOLITION WILL OCCUR UNTIL A PRE CONSTRUCTION MEETING IS HELD WITH THE ENVIRONMENTAL INSPECTOR.
4. LOCATIONS OF PUBLIC AND FRANCHISE UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. CONTRACTOR SHALL CALL THE ONE CALL CENTER (472-2822) AT LEAST 48 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL CONTACT ANY OTHER UTILITY COMPANIES WHO DO NOT SUBSCRIBE TO THE ONE CALL PROGRAM FOR LINE MARKINGS. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR ANY DAMAGE DONE TO THESE FACILITIES.
5. REMOVAL OR RELOCATION OF EXISTING PUBLIC AND PRIVATE FRANCHISE UTILITIES (WATER, ELECTRIC, AND GAS ETC.) WITHIN THE LIMITS OF THE SITE DEMOLITION SHALL BE COORDINATED WITH THE APPLICABLE UTILITY AGENCIES.
6. ALL EXISTING UTILITY SERVICES TO BE TURNED OFF BY UTILITY FRANCHISE TECHNICIAN TO ALLOW FOR EXISTING SERVICE LINES TO BE CUT/CAPPED AT PROPERTY LINE.
7. ALL UTILITIES IN STREET RIGHT-OF-WAY TO REMAIN IN PLACE UNLESS NOTED OTHERWISE.
8. SURFACE PAVEMENT INDICATED HEREON (SUCH AS ASPHALT OR CONCRETE) MAY OVERLAY OTHER HIDDEN STRUCTURES (SUCH AS OTHER LAYERS OF PAVEMENT, BUILDING SLAB, ETC.) THAT ARE ALSO TO BE REMOVED.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL OF EXISTING PAVEMENT SECTION, STRUCTURAL SUBGRADE, STRUCTURAL FOUNDATION, AND UTILITIES WITHIN THE SITE. CONTRACTOR TO DISPOSE ALL DEMOLITION SPOILS OFF-SITE IN A LEGAL MANNER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO EXISTING UTILITIES, IRRIGATION LINES, PAVEMENT, ETC., TO REMAIN RESULTING FROM DEMOLITION ACTIVITIES AND REPAIR AT THEIR OWN EXPENSE.
11. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
12. ALL ITEMS TO BE REMOVED SHALL BE DISPOSED OFF-SITE IN A MANNER ACCEPTABLE TO ALL APPLICABLE REGULATIONS.
13. PERIMETER EROSION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO DEMOLITION. REFERENCE EROSION CONTROL PLAN AND DETAILS FOR TYPE AND LOCATION.
14. A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

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1031.92'

No.	REVISIONS	DATE	BY

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Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
11/21/2023

KHA PROJECT 069252742	DATE NOVEMBER 2023	SCALE: AS SHOWN	DESIGNED BY: NAM	DRAWN BY: AMF	CHECKED BY: ACK

EXISTING CONDITIONS AND DEMOLITION PLAN

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
8 OF 27

Plotted By:Rondell, Zach Date:November 21, 2023 02:44:22pm File Path:K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\C-Existing Conditions and Demolition Plan.dwg
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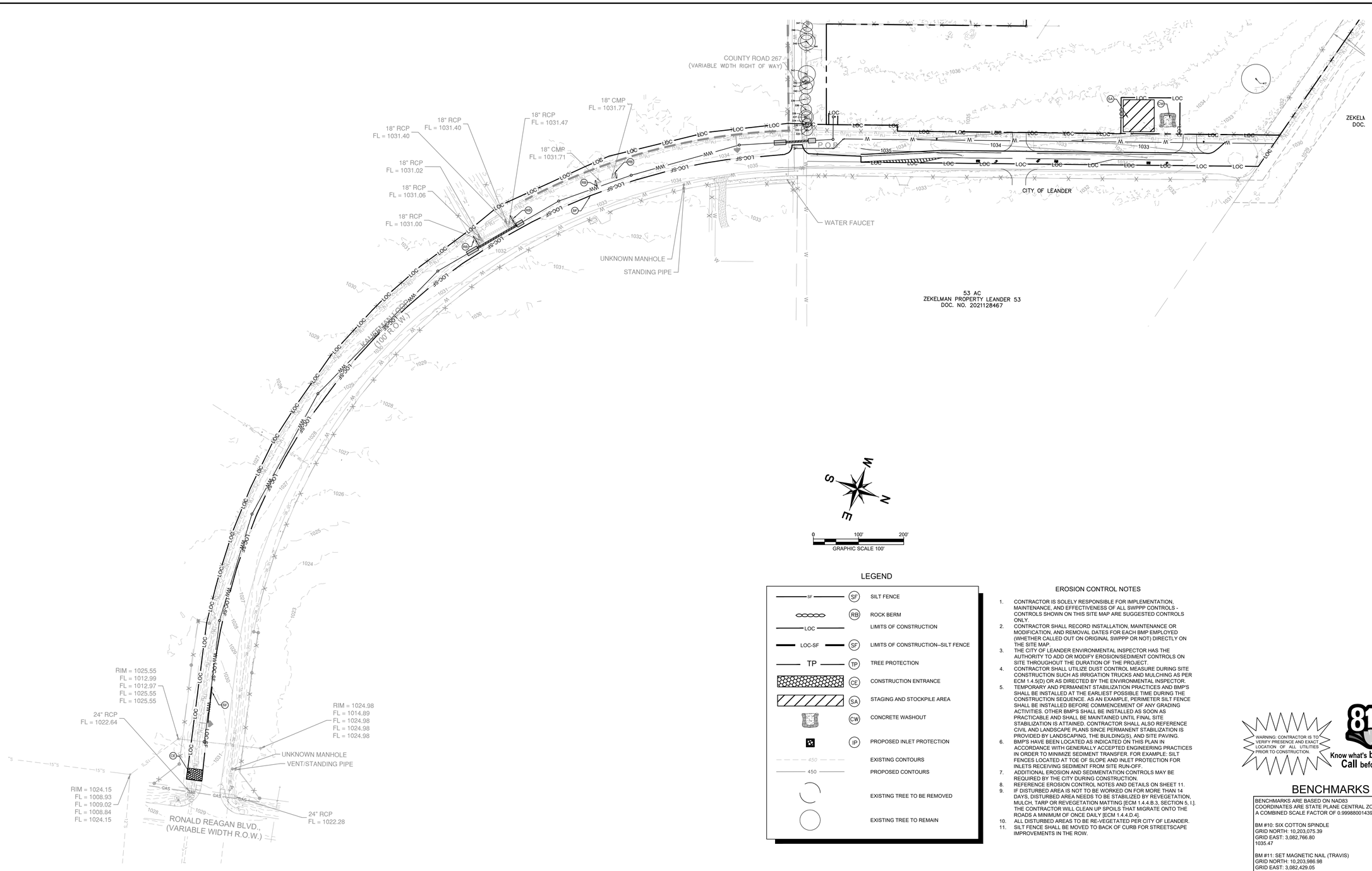

LEGEND

SF	SF	SILT FENCE
RB	RB	ROCK BERM
LOC		LIMITS OF CONSTRUCTION
LOC-SF	SF	LIMITS OF CONSTRUCTION--SILT FENCE
TP	TP	TREE PROTECTION
CE	CE	CONSTRUCTION ENTRANCE
SA	SA	STAGING AND STOCKPILE AREA
CW	CW	CONCRETE WASHOUT
IP	IP	PROPOSED INLET PROTECTION
450		EXISTING CONTOURS
450		PROPOSED CONTOURS
		EXISTING TREE TO BE REMOVED
		EXISTING TREE TO REMAIN

EROSION CONTROL NOTES

1. CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS - CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY.
2. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.
3. THE CITY OF LEANDER ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION/SEDIMENT CONTROLS ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
4. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURE DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D) OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
5. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.
6. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
7. ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION.
8. REFERENCE EROSION CONTROL NOTES AND DETAILS ON SHEET 11.
9. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING [ECM 1.4.4.B.3, SECTION 5, I.]. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
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11/21/2023

KHA PROJECT	069252742
DATE	NOVEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	AMF
CHECKED BY:	ACK

EROSION CONTROL PLAN

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
9 OF 27

Plotted By:Randall, Zach Date:November 21, 2023 02:44:44pm File Path:K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\C-Erosion Control Plan.dwg
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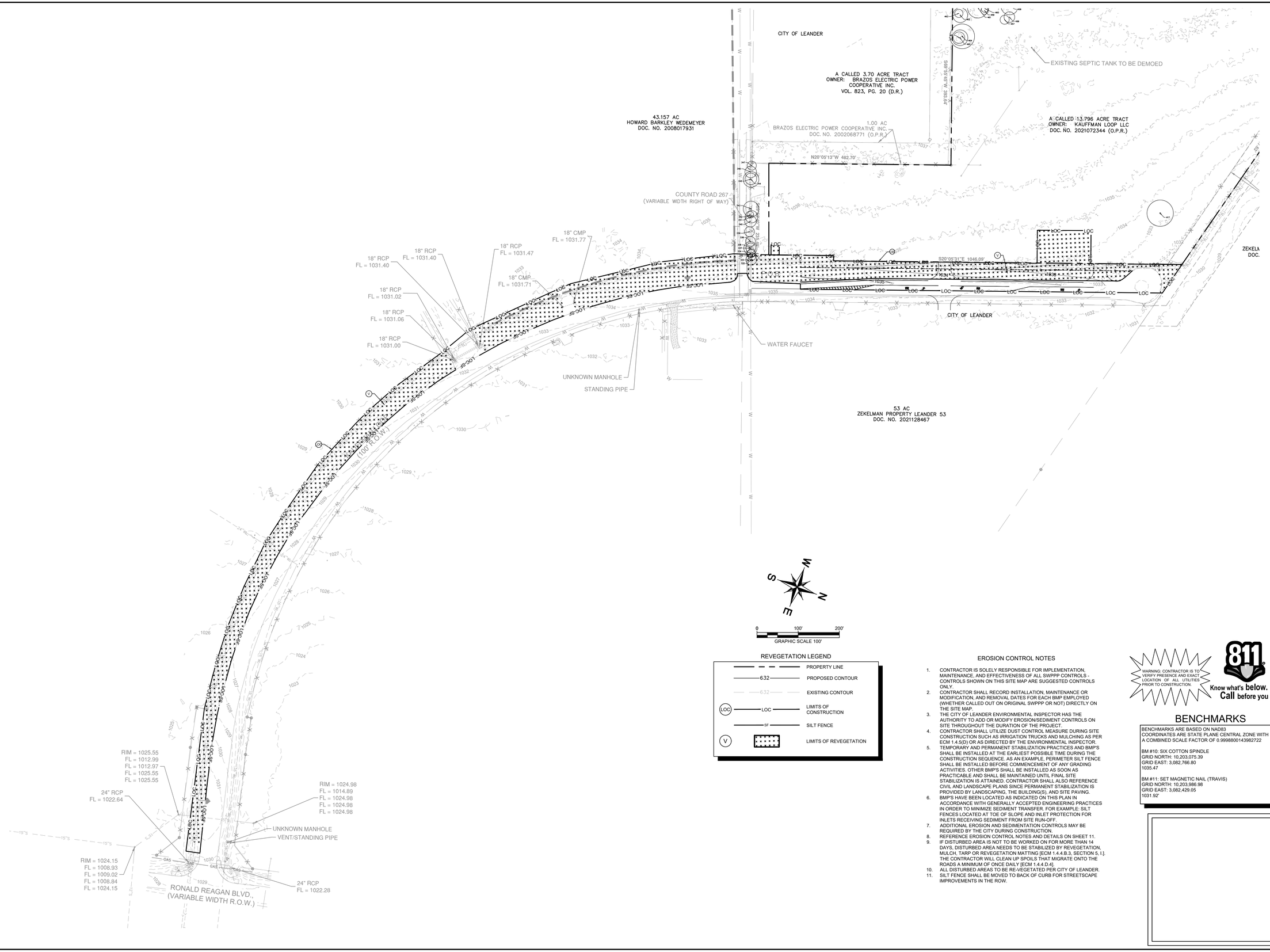

0 100' 200'
GRAPHIC SCALE 100'

REVEGETATION LEGEND

	PROPERTY LINE
632	PROPOSED CONTOUR
632	EXISTING CONTOUR
LOC	LIMITS OF CONSTRUCTION
SF	SILT FENCE
V	LIMITS OF REVEGETATION

EROSION CONTROL NOTES

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Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
11/21/2023

KHA PROJECT	069252742
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REVEGETATION PLAN

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
10 OF 27

Plotted By:Randall, Zach Date:November 21, 2023 02:45:13pm File Path:K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheet\C-Revegetation Plan.dwg
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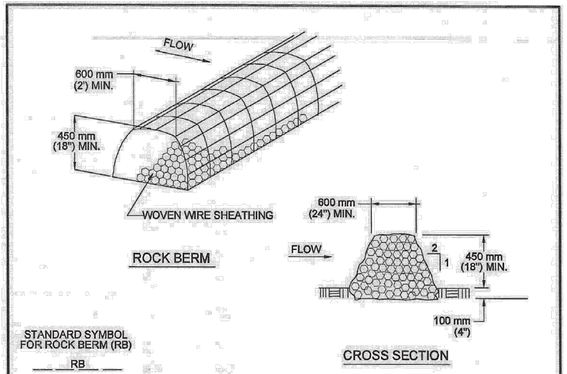
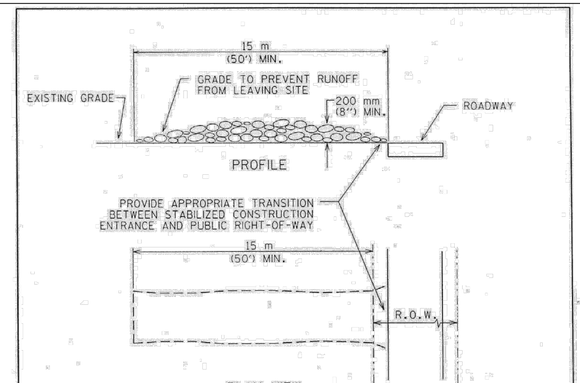


NOTES:

1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTION PROBLEM.
5. WHEN THE SITE IS COMPLETELY STABILIZED,THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

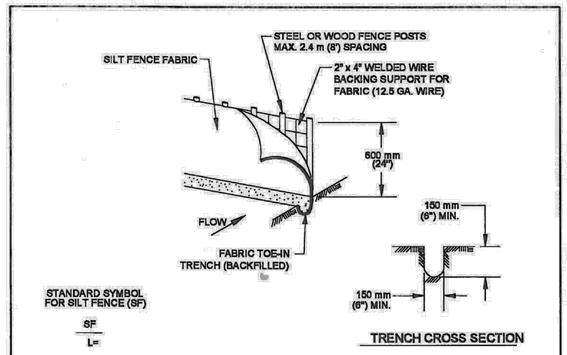
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	
Mary S. Myers P.E. 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



NOTES:

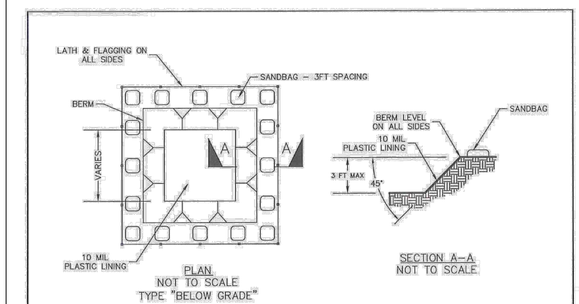
1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS: NOT LESS THAN 200 mm (8").
4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
Leon Barba 5/23/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 Inches) DEPTH, USE STEEL POSTS.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 Inches) DEEP AND 150 mm (6 Inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 Inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

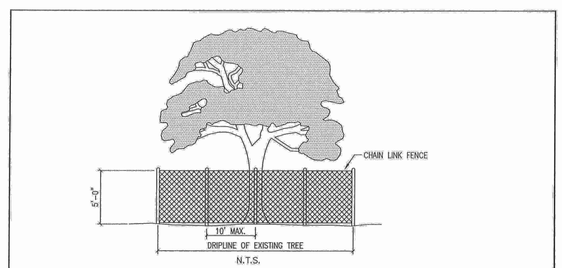
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	
Mary S. Myers 9/1/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



NOTES:
1. ACTUAL LAYOUT DETERMINED IN FIELD

STATE OF TEXAS WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER
Wayne S. Watts 01/30/15

City Of Leander, Texas
303-1
CONCRETE WASHOUT



1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
2. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES; SHALL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MATERIALS.
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN SIX INCHES (6")) CUT OR FILL, OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY.
   C. WOUNDS TO EXPOSED ROOTS, TRUNKS OR LIMBS BY MECHANICAL EQUIPMENT,
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING AND FIRE.
3. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   B. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX FEET (6'-0") TO BUILDING.
4. CRITICAL ROOT ZONE REQUIREMENTS
   A. NO CONSTRUCTION OR DISTURBANCE SHALL OCCUR WITHIN AN AREA THAT CONSTITUTES MORE THAN FIFTY (50%) OF THE TOTAL CRITICAL ROOT ZONE AND ONE HALF THE RADIAL DISTANCE OF THE CRITICAL ROOT ZONE FOR EACH TREE BEING PRESERVED INCLUDING SIGNIFICANT TREES, HERITAGE TREES, AND ANY OTHER TREES FOR WHICH PRESERVATION IS TO BE CREDITED. THE REMAINING CRITICAL ROOT ZONE SHALL CONSIST OF AT LEAST ONE HUNDRED (100) SQUARE FEET.
   B. THIS DEFINED AREA SHALL BE FLAGGED AND ENCIRCLED WITH PROTECTIVE FENCING DURING CONSTRUCTION. THE PLANNING DIRECTOR MAY APPROVE CONSTRUCTION CLOSER TO THE TRUNK THAN ONE HALF (½) THE RADIAL DISTANCE, DEPENDING ON THE SIZE, SPACING, OR SPECIES OF THE TREE, THE TYPE OF DISTURBANCE PROPOSED, AND UNIQUENESS OF THE SITUATION.
   C. CUT OR FILL THAT IS GREATER THAN FOUR (4) INCHES IN DEPTH AND THE SEVERING OF MAJOR ROOTS SHALL BE CONSIDERED DISTURBANCE FOR THE PURPOSES OF THIS ORDINANCE.
   D. WITHIN THE PROTECTED CRITICAL ROOT ZONE, ONLY FLATWORK, DECKING, OR SIMILAR CONSTRUCTION, MAY BE APPROVED AND SHALL NOT AFFECT THE BRANCHING OF THE TREE.
   E. IF PROPOSED OR ACTUAL PROTECTION OF THE CRITICAL ROOT ZONE OF A TREE DOES NOT MEET THE REQUIREMENTS OF THIS SECTION, THEN THE TREE SHALL BE CONSIDERED REMOVED AND SHALL REQUIRE MITIGATION IN ACCORDANCE WITH THIS ORDINANCE.

STATE OF TEXAS WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER
Wayne S. Watts 08/21/15

City Of Leander, Texas
303-2
TREE PROTECTION

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.99988001439827222

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

Kimley»Horn
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

STATE OF TEXAS ALLISON KENNAUGH 114356 LICENSED PROFESSIONAL ENGINEER
Allison Kennaugh
11/21/2023

KHA PROJECT 069252742
DATE NOVEMBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: AMF
CHECKED BY: ACK

EROSION CONTROL AND REVEGETATION DETAILS

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
11 OF 27

Plotted By:Flynn, Alyssa Date:November 21, 2023 02:43:52pm File Path:K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\C-Erosion Control Details.dwg
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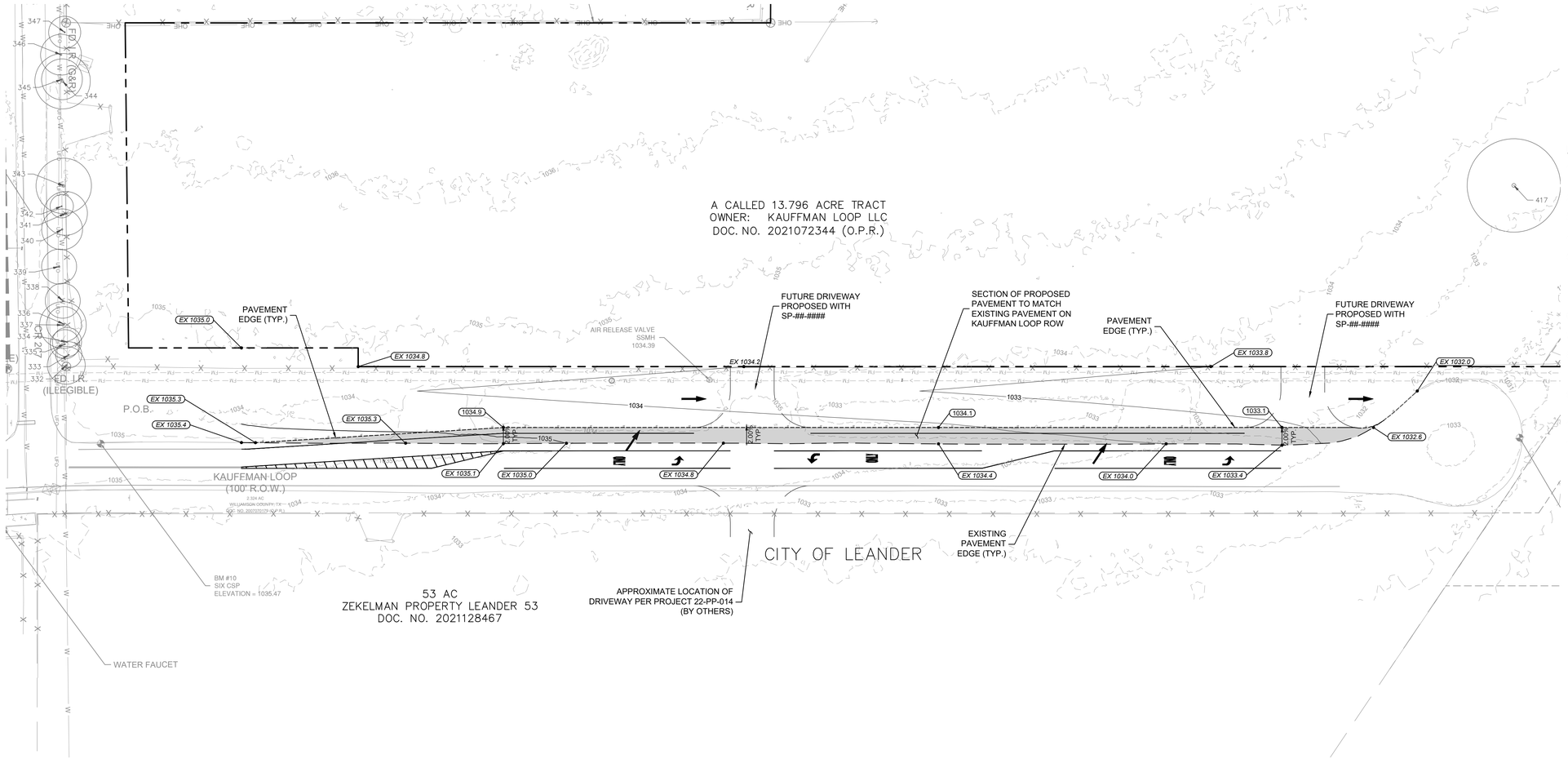

LEGEND

- PROPERTY LINE
- 555 PROPOSED CONTOUR
- 555 EXISTING CONTOUR
- PROPOSED RETAINING WALL
- PROPOSED SWALE
- LOT DRAINAGE FLOW DIRECTION
- STREET DRAINAGE FLOW DIRECTION
- EXISTING TREE TO REMAIN
- PROPOSED PAVEMENT

NOTES:

1. REFER TO GEOTECHINCAL REPORT BY TERRACON CONSULTANTS INC. GEOTECH PROJECT NUMBER 96235099. DATED: 08/14/2023
2. ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
3. ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL.
4. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL.
5. CONTRACTOR TO VERIFY A.D.A. COMPLIANCE FOR GRADES IN ALL SIDEWALK ACCESSIBLE ROUTES, INCLUDING DRIVEWAY CROSSINGS, SHALL CONFORM TO ALL APPLICABLE A.D.A. STANDARDS: NOT EXCEED 5.0% ALONG TRAVEL PATH WITH NOT MORE THAN 2.0% CROSS SLOPE AND NOT EXCEED 2.0% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
6. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.
7. CONTRACTOR TO VERIFY EXISTING ELEVATIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
8. DO NOT DIG OR GRADE WITHIN 20 FEET OF THE TRANSMISSION STRUCTURES. GRADING AROUND ELECTRIC TRANSMISSION STRUCTURES MUST BE COORDINATED WITH UTILITY PROVIDER.
9. WARNING SIGNS MUST BE PLACED UNDER THE OVERHEAD ELECTRIC TRANSMISSION FACILITIES AS NOTIFICATION OF THESE ELECTRICAL FACILITIES.
10. CONTRACTOR SHALL NOT DISTURB SOIL WITHIN 3 FEET OF EXISTING OVERHEAD ELECTRICAL POLES.
11. CONTRACTOR SHALL NOT DISTURB WITHIN 3' OF OVERHEAD ELECTRICAL POLES.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

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TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED PROFESSIONAL ENGINEER
11/21/2023

KHA PROJECT	069252742
DATE	NOVEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	AMF
CHECKED BY:	ACK

GRADING PLAN

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
12 OF 27

Plotted By: Flynn, Alyssa Date: November 21, 2023 02:44:34pm File Path: K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\VC-Grading Plan.dwg
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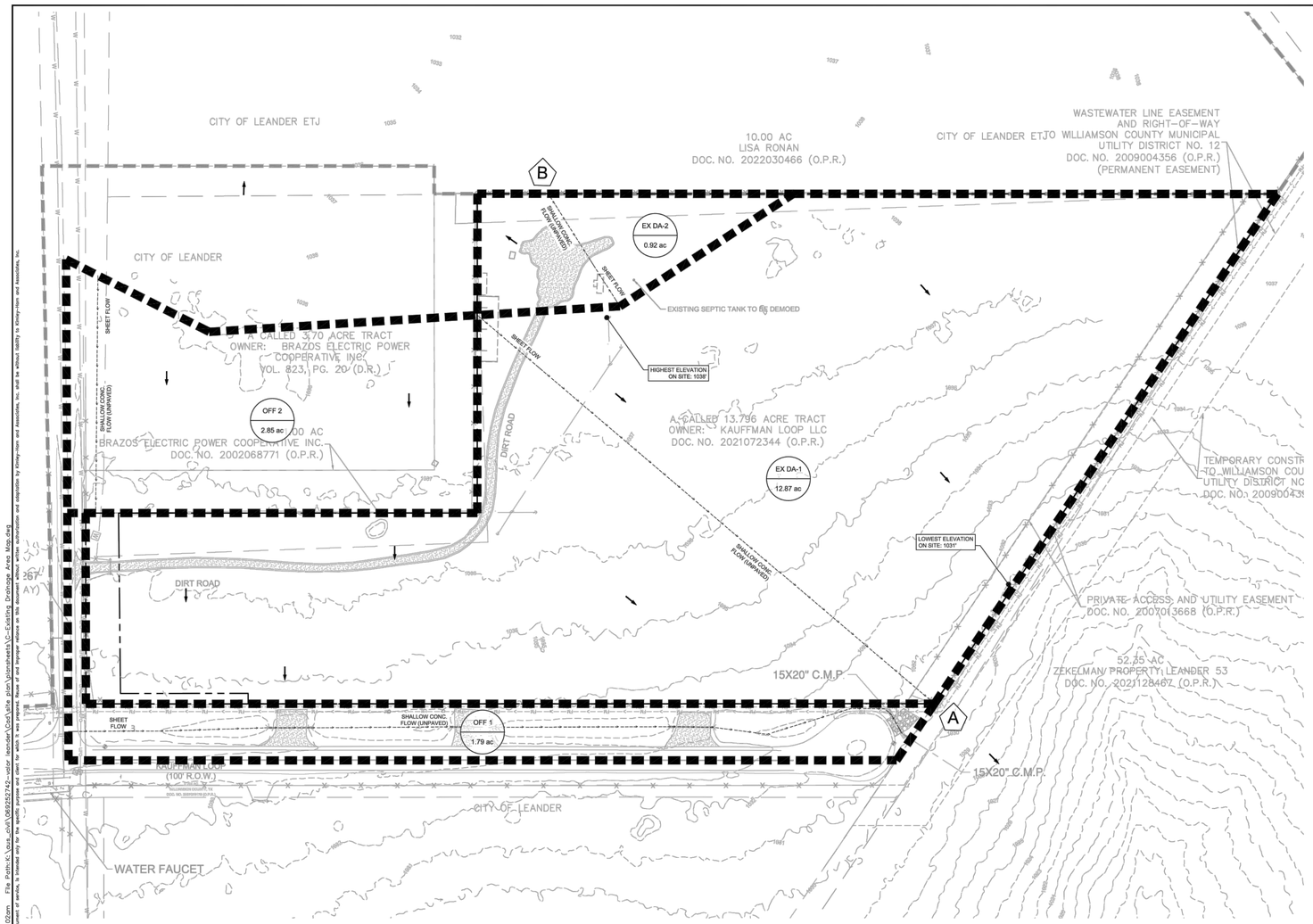
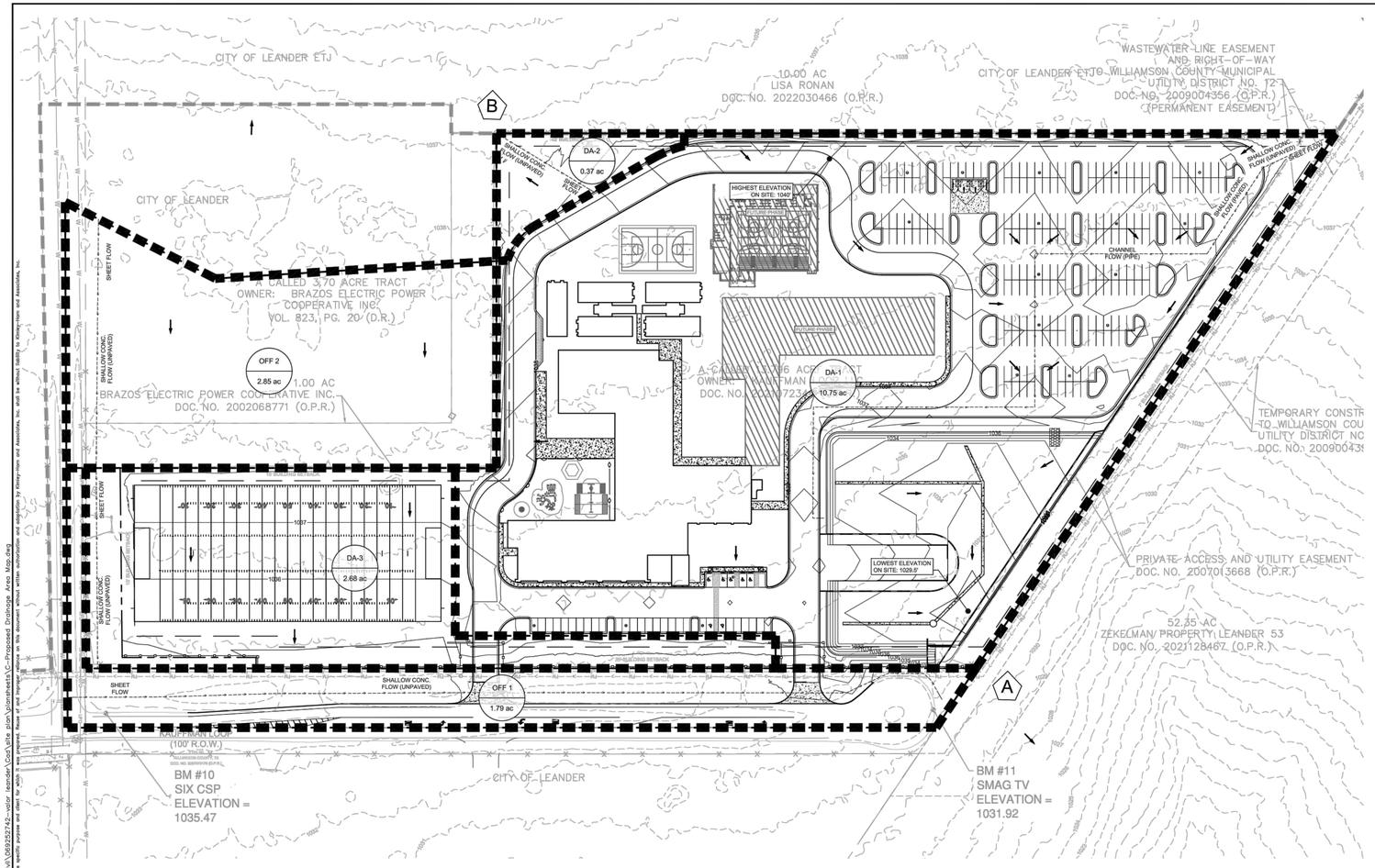

CITY OF LEANDER ETJ
CITY OF LEANDER
10.00 AC
LISA RONAN
DOC. NO. 2022030466 (O.P.R.)
WASTEWATER LINE EASEMENT
AND RIGHT-OF-WAY
CITY OF LEANDER ETJO WILLIAMSON COUNTY MUNICIPAL
UTILITY DISTRICT NO. 12
DOC. NO. 2009004356 (O.P.R.)
(PERMANENT EASEMENT)
A CALLED 3.70 ACRE TRACT
OWNER: BRAZOS ELECTRIC POWER
COOPERATIVE INC.
VOL. 823, PG. 20 (D.R.)
A CALLED 3.00 AC
BRAZOS ELECTRIC POWER COOPERATIVE INC.
DOC. NO. 2002068771 (O.P.R.)
A CALLED 13.796 ACRE TRACT
OWNER: KAUFFMAN LOOP LLC
DOC. NO. 2021072344 (O.P.R.)
EXISTING SEPTIC TANK TO BE DEMOED
HIGHEST ELEVATION
ON SITE: 1039'
LOWEST ELEVATION
ON SITE: 1031'
PRIVATE ACCESS AND UTILITY EASEMENT
DOC. NO. 2007013668 (O.P.R.)
52.25 AC
ZEKELMAN PROPERTY LEANDER 53
DOC. NO. 2021128467 (O.P.R.)
DIRT ROAD
DIRT ROAD
(100' R.O.W.)
15X20" C.M.P
15X20" C.M.P
EX DA-1
12.87 ac
EX DA-2
0.92 ac
OFF 1
1.79 ac
OFF 2
2.85 ac
SHEET FLOW
SHALLOW CONC. FLOW (UNPAVED)
SHALLOW CONC. FLOW (UNPAVED)
SHEET FLOW



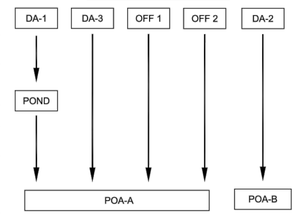
LEGEND

- X-1 / 9.9 ac — AREA DESIGNATOR / AREA IN ACRES
- A-1 — INLET NUMBER
- PROPERTY LINE
- PROPOSED STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- PROPOSED DRAINAGE DIVIDE
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN HEADWALL
- PROPOSED FLOW DIRECTION
- 555 — PROPOSED CONTOUR
- 555 — EXISTING CONTOUR
- TIME OF CONCENTRATION

NOTE:

1. CITY OF LEANDER ATLAS 14 DATA WAS USED TO CALCULATE THE PROPOSED RAINFALL RUNOFF.

PROPOSED CONDITIONS



Valor Leander
DETENTION RESULTS - SCS METHOD

PROPOSED CONDITIONS

Point of Analysis	Total Drainage Area (Acres)	Total Impervious Cover Area (acres)	Impervious Area (%)	Storm Event	Proposed Runoff (With Detention) (cfs)
A	18.07	6.76	37.42%	2	30.78
				10	51.16
				25	68.16
				100	102.43
B	0.37	0.00	0.00%	2	1.19
				10	2.31
				25	3.09
				100	4.43

PROPOSED VS. EXISTING COMPARISON

Point of Analysis	Storm Event	Existing Runoff (cfs)	Proposed Runoff (cfs)	Runoff Difference at Point of Analysis (cfs)	Is Proposed ≤ Existing?
A	2	37.38	30.78	6.60	YES
	10	71.39	51.16	20.23	YES
	25	95.08	68.16	26.92	YES
	100	135.46	102.43	33.03	YES
B	2	2.61	1.19	1.42	YES
	10	4.80	2.31	2.49	YES
	25	6.31	3.09	3.22	YES
	100	8.87	4.43	4.44	YES

Note: All detention runoff calculations were analyzed using the Soil Conservation Services Method (unless otherwise specified) as documented in the Technical Release 55: Pond Pack V8i was used to calculate the runoff and design the pond volume and outlet structure.

Valor Leander
Proposed Drainage Calculations - SCS_Method

DRAINAGE AREA	AREA (sf)	AREA (Ac.)	IMPERVIOUS COVER (Ac.)	IMPERVIOUS COVER %	PERVIOUS CURVE NO. CN^1	WEIGHTED CURVE NO. CN^2	SHEET FLOW P-2yr24hr 3.94 IN N	SHEET FLOW L (ft)	SHEET FLOW S (ft/ft)	SHEET FLOW T(min)	SHALLOW CONCENTRATED FLOW Grass Surface L (ft)	Grass Surface V (fps)	Grass Surface S (ft/ft)	Grass Surface T(min)	SHALLOW CONCENTRATED FLOW Paved Surface L	Paved Surface V (fps)	Paved Surface S	Paved Surface T(min)	CHANNEL FLOW Pipe Flow L (ft)	Pipe Flow V (fps)	Pipe Flow S (ft/ft)	Pipe Flow T(min)	TOTAL Tc^3 (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
DA-1	468,167	10.75	5.91	55.00	80.00	89.90	0.015	50	0.005	**1.40**	43.6	1.02	0.004	**0.71**	121	1.11	0.003	**1.81**	786	5.0	0.003	**2.62**	**6.54**	47.14	77.02	97.22	131.51
DA-2	16,232	0.37	0.00	0.00	80.00	80.00	0.015	50	0.005	**1.40**	83	0.88	0.003	**1.57**	-	-	-	**0.00**	-	-	-	**0.00**	**5.00**	1.19	2.31	3.09	4.43
DA-3	116,593	2.68	0.03	1.01	80.00	80.18	0.015	50	0.014	**0.94**	185	1.27	0.006	**2.43**	-	-	-	**0.00**	-	-	-	**0.00**	**5.00**	8.63	16.66	22.29	31.92
OFF 1	78,038	1.79	0.77	43.03	80.00	87.75	0.150	50	0.005	**8.83**	998.9	0.88	0.003	**18.94**	-	-	-	**0.00**	-	-	-	**0.00**	**27.67**	4.11	7.02	8.99	12.33
OFF 2	124,160	2.85	0.05	1.78	80.00	80.32	0.150	50	0.003	**10.83**	242	1.02	0.004	**3.95**	-	-	-	**0.00**	-	-	-	**0.00**	**14.79**	6.72	12.75	17.04	24.37

Proposed Condition:
[1]The Curve Number (Cn) has been determined based on Table 2-2a of Technical Release 55: The cover type, hydrologic condition, and soil group determined for the proposed conditions are open space, good condition (grass cover >75%), and Type D soil group w
[2]Cn Values based on USDA TR-55 Manual
[3]The minimum Tc is 5 minutes per the COA DCM.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

Know what's below. Call before you dig.

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.99988001439827 22

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

NOTE: PROPOSED DRAINAGE AREAS PER SP-###. ALL RUNOFF FROM PROPOSED PAVEMENT IMPROVEMENT IN THIS PICP IS BEING OVERDETAINED WITH THE PROPOSED POND TO BE CONSTRUCTED WITH ONSITE AND OFFSITE IMPROVEMENTS WITH SP##-### AND PICP ##-##### AND SHALL BE BID AND CONSTRUCTED CONCURRENTLY.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

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BENCHMARKS

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GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

FOR REFERENCE ONLY. PLEASE NOTE: NTS.

No.	REVISIONS	DATE	BY

Kimley»Horn
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

FOR REVIEW ONLY
Not for construction or permit purposes.
Kimley»Horn
Engineer: ALLISON KENNAUGH
P.E. No. 114356 Date: 10/28/2023

10/28/2023

KHA PROJECT 069252742
DATE OCTOBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: ZJR
CHECKED BY: ACK

PROPOSED DRAINAGE AREA MAP

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
12 OF 35

SD-XX-XXXX

Kimley»Horn
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
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TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh — 114356 — LICENSED PROFESSIONAL ENGINEER
11/21/2023

KHA PROJECT 069252742
DATE NOVEMBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: AMF
CHECKED BY: ACK

PROPOSED DRAINAGE AREA MAP

VALOR LEANDER
PICP
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
14 OF 27

Plotted By:Flynn, Alyssa Date:November 21, 2023 02:44:59pm File Path:K:\AUS_Civil\069252742-Valor Leander\Civil\PICP\PlanSheet\C-Proposed Drainage Area Map.dwg
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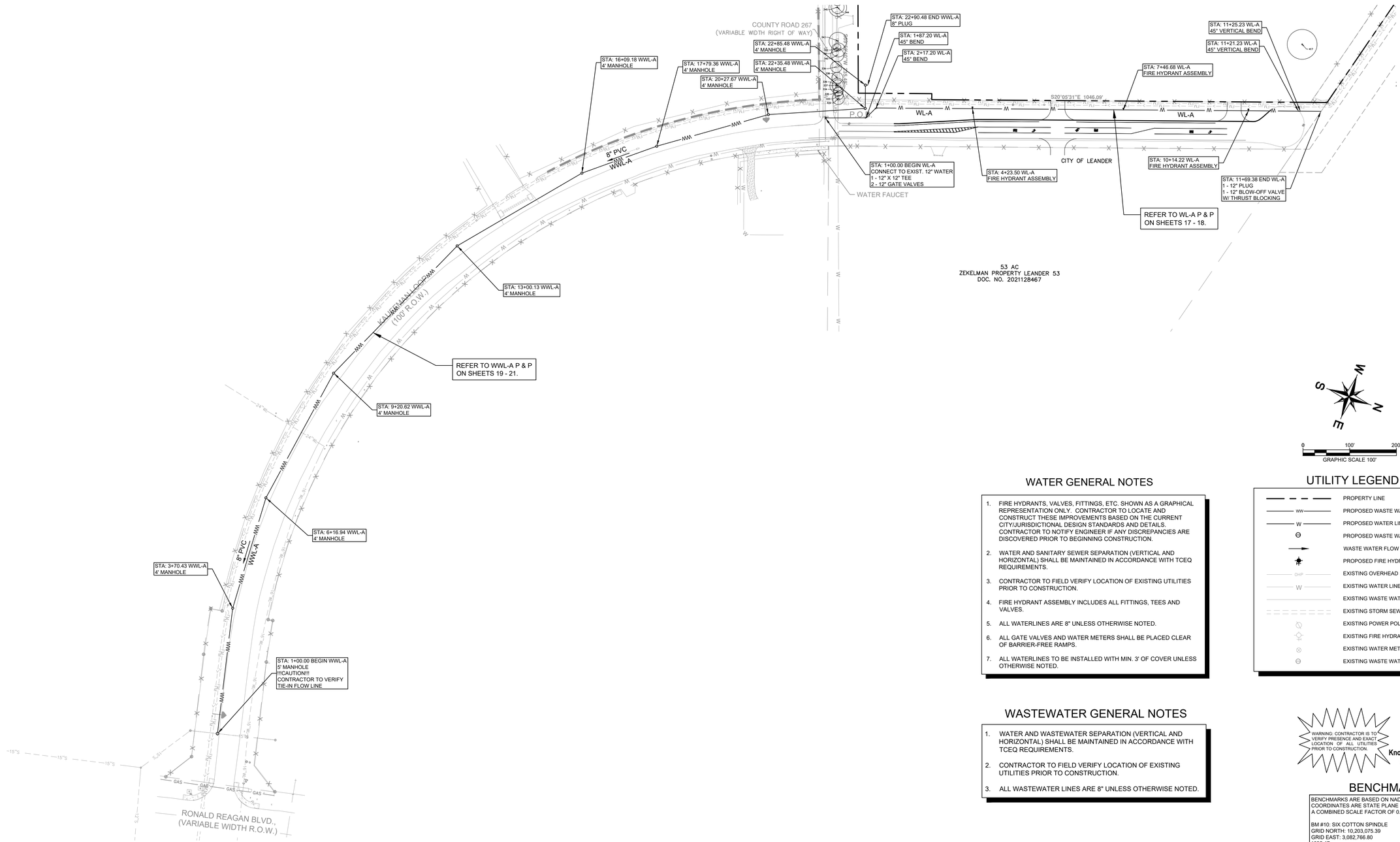

Valor Leander

DESIGN CRITERIA

Development Size: 13.79 acres

Proposed Development Intended Use (Commercial)	Units	Quantity	L.U.E. Conversion (Units per L.U.E.)
High/Middle School (Includes Gym and Cafeteria)	Students	725	13
Elementary School (Includes Gym and Cafeteria)	Students	800	15

Population: *Per CoLH Manual

	LUE's	People per LUE*	Total Pop.
High/Middle School (Includes Gym and Cafeteria)	55.77	3.50	195.19
Elementary School (Includes Gym and Cafeteria)	53.33	3.50	186.67
Total	**109.10**		**381.86**

VALOR LEANDER OFFSITE SANITARY SEWER CALCULATIONS

LINE A	Area LUE	LUE Total	Population	F (gpm)	DRY		WET		Slope (%)
					Q (gpm)	V (fps)	Q (gpm)	V (fps)	
A1	0	109.1	381.85	18.56	74.83	2.20	82.65	2.26	0.50
A2	0	109.1	381.85	18.56	74.83	2.20	82.65	2.26	0.50
A3	0	109.1	381.85	18.56	74.83	2.20	82.65	2.26	0.50
A4	0	109.1	381.85	18.56	74.83	2.20	82.65	2.26	0.50
A5	0	109.1	381.85	18.56	74.83	2.20	82.65	2.26	0.50
A6	0	109.1	381.85	18.56	74.83	2.20	82.65	2.26	0.50
A7	0	109.1	381.85	18.56	74.83	2.20	82.65	2.26	0.50
A8	0	109.1	381.85	18.56	74.83	2.20	82.65	2.26	0.50
A9	109.1	109.1	381.85	18.56	74.83	2.20	82.65	2.26	0.50

WATER GENERAL NOTES

1. FIRE HYDRANTS, VALVES, FITTINGS, ETC. SHOWN AS A GRAPHICAL REPRESENTATION ONLY. CONTRACTOR TO LOCATE AND CONSTRUCT THESE IMPROVEMENTS BASED ON THE CURRENT CITY/JURISDICTIONAL DESIGN STANDARDS AND DETAILS. CONTRACTOR TO NOTIFY ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED PRIOR TO BEGINNING CONSTRUCTION.
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WASTEWATER GENERAL NOTES

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UTILITY LEGEND

- PROPERTY LINE
- PROPOSED WASTE WATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTE WATER MANHOLE
- WASTE WATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTE WATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
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WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

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BENCHMARKS

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COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

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11/21/2023

KHA PROJECT 069252742	DESIGNED BY: NAM
DATE NOVEMBER 2023	DRAWN BY: AMF
SCALE: AS SHOWN	CHECKED BY: ACK

OVERALL UTILITY PLAN

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
16 OF 27

Plotted By: Flynn, Alyssa Date: November 21, 2023 02:45:50pm File Path: K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\VC-Utility Plan.dwg
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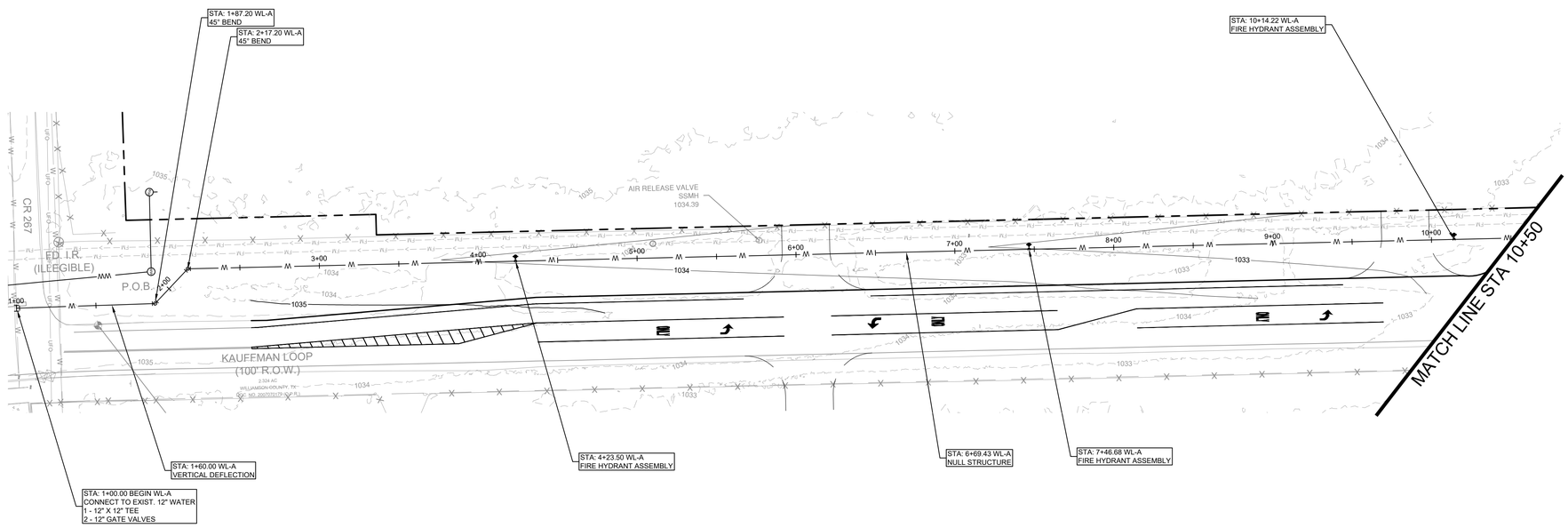

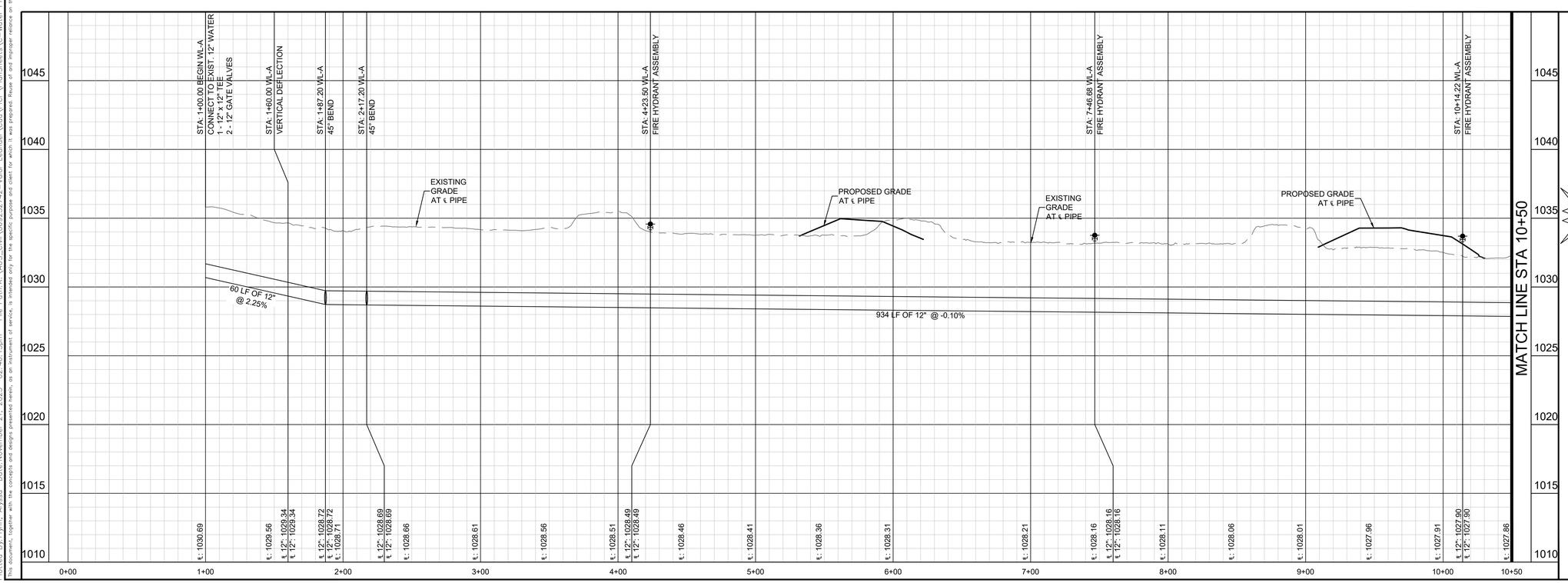

0 40' 80'

GRAPHIC SCALE 40'

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PROFILE SCALE

1" = 40' HORIZONTAL
1" = 4' VERTICAL

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WATER PLAN & PROFILE - WL-A STA 1+00 - 10+50

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
17 OF 27

Plotted By:Flynn, Alyssa Date:November 21, 2023 02:46:15pm File Path:K:\AUS_Civil\069252742--Valor Leander\Cad\PICP\PlanSheets\C-Water Plan and Profile.dwg
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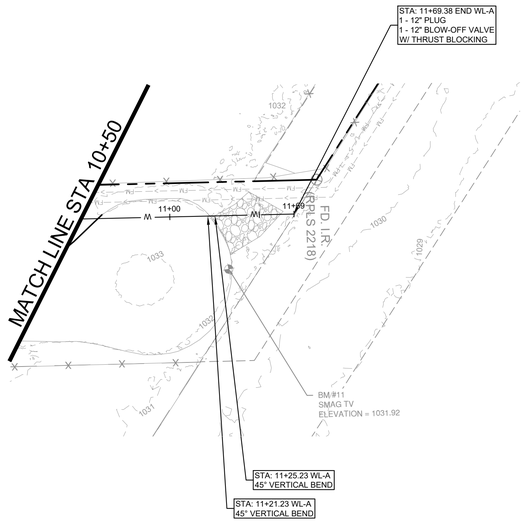

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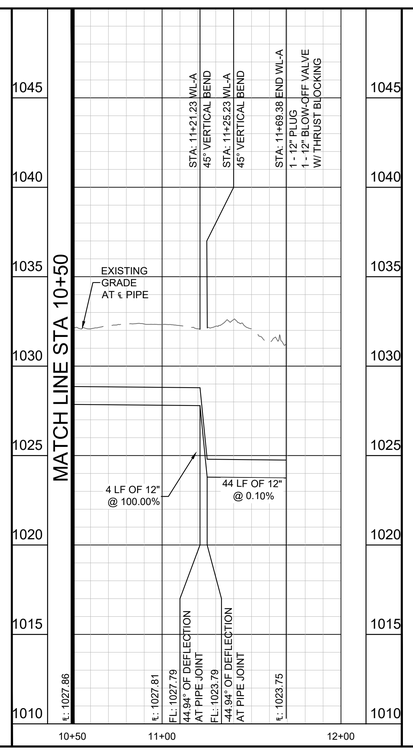
WL-A



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WATER PLAN & PROFILE - WL-A STA 10+50 - END

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
18 OF 27

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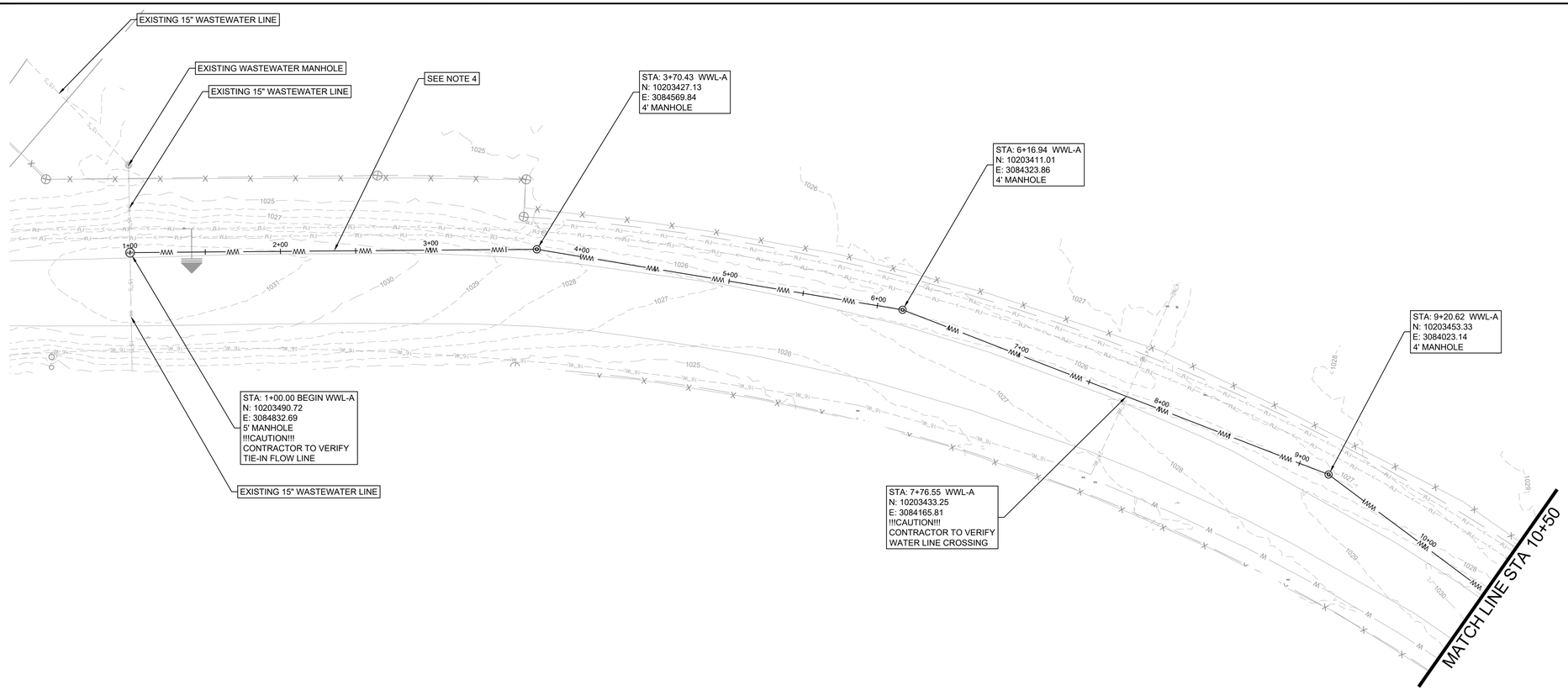

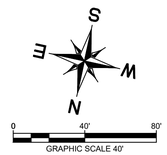

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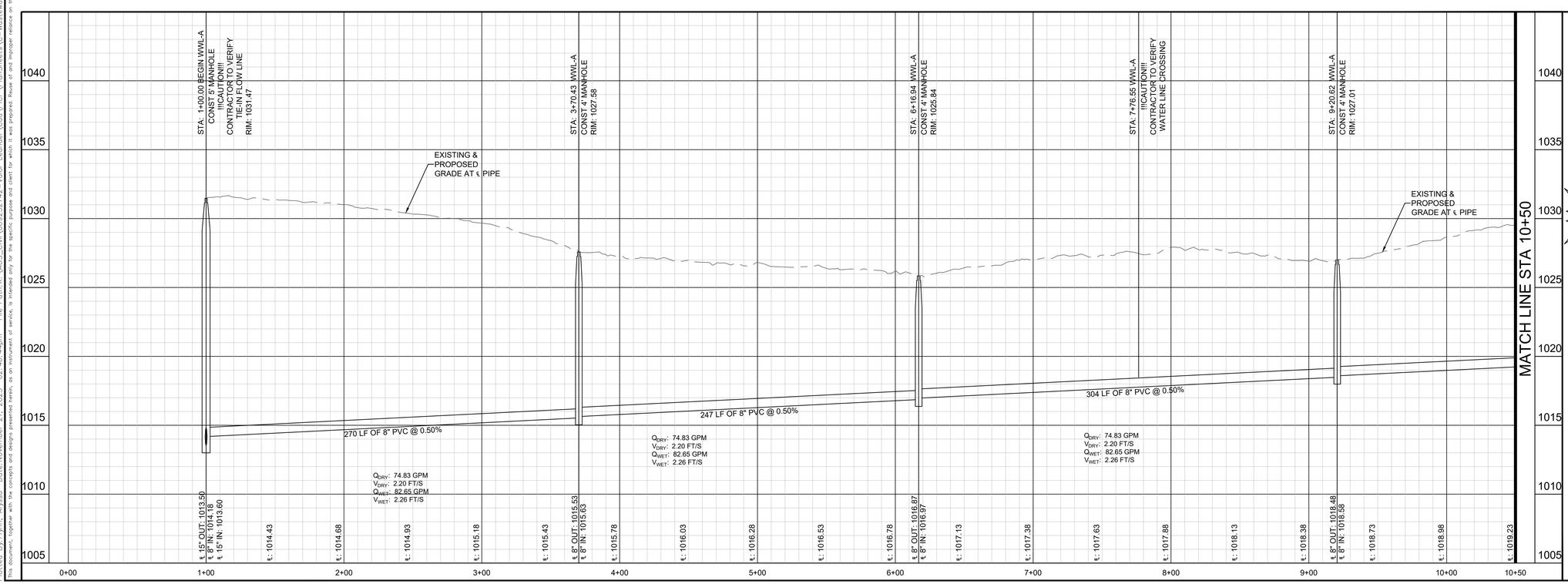
WWL-A



Q_{DRY}: 74.83 GPM
V_{DRY}: 2.20 FT/S
Q_{WET}: 82.65 GPM
V_{WET}: 2.26 FT/S

Q_{DRY}: 74.83 GPM
V_{DRY}: 2.20 FT/S
Q_{WET}: 82.65 GPM
V_{WET}: 2.26 FT/S

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WASTEWATER PLAN & PROFILE - WWL-A STA 1+00 - 10+50

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
19 OF 27

Plotted By:Flynn, Alyssa Date:November 21, 2023 02:46:44pm File Path:K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\C-Wastewater Plan and Profile.dwg
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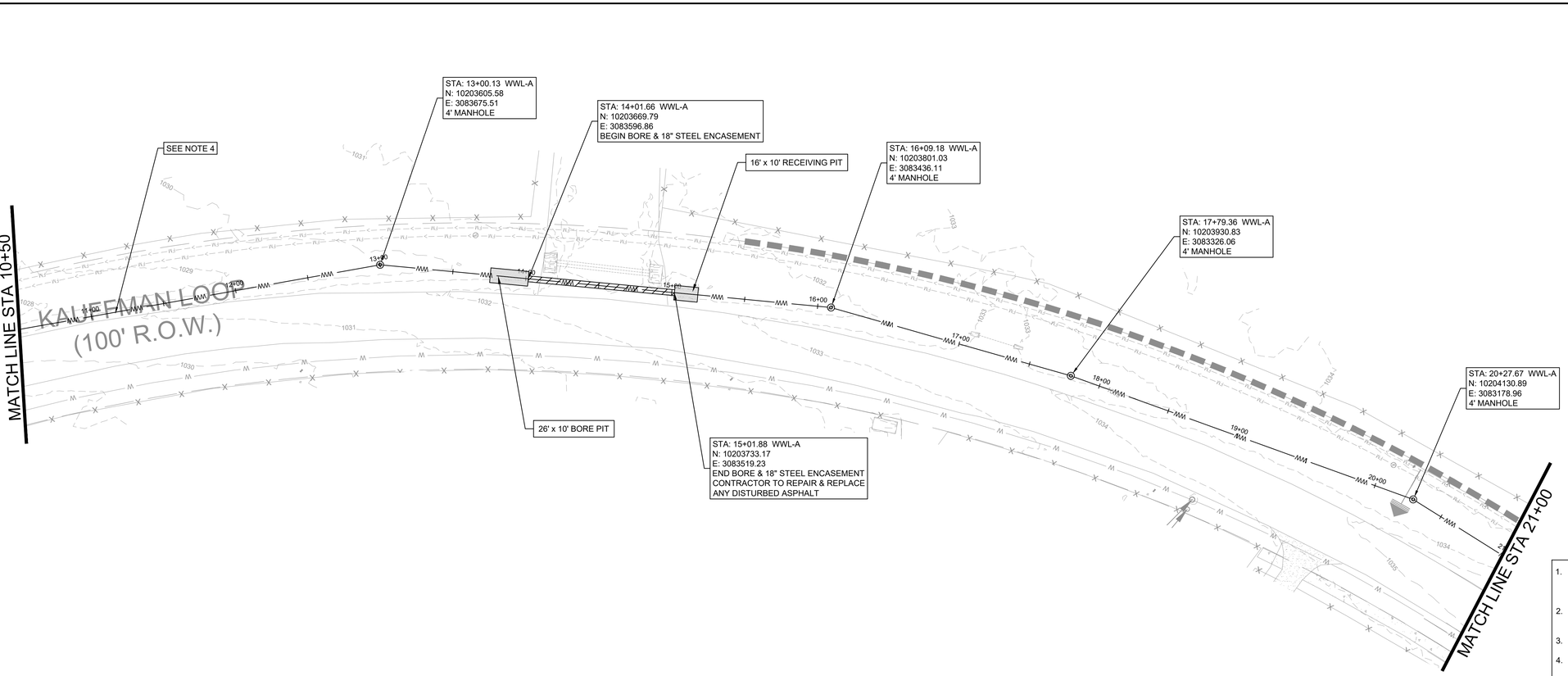

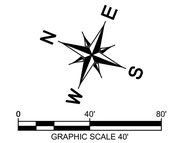

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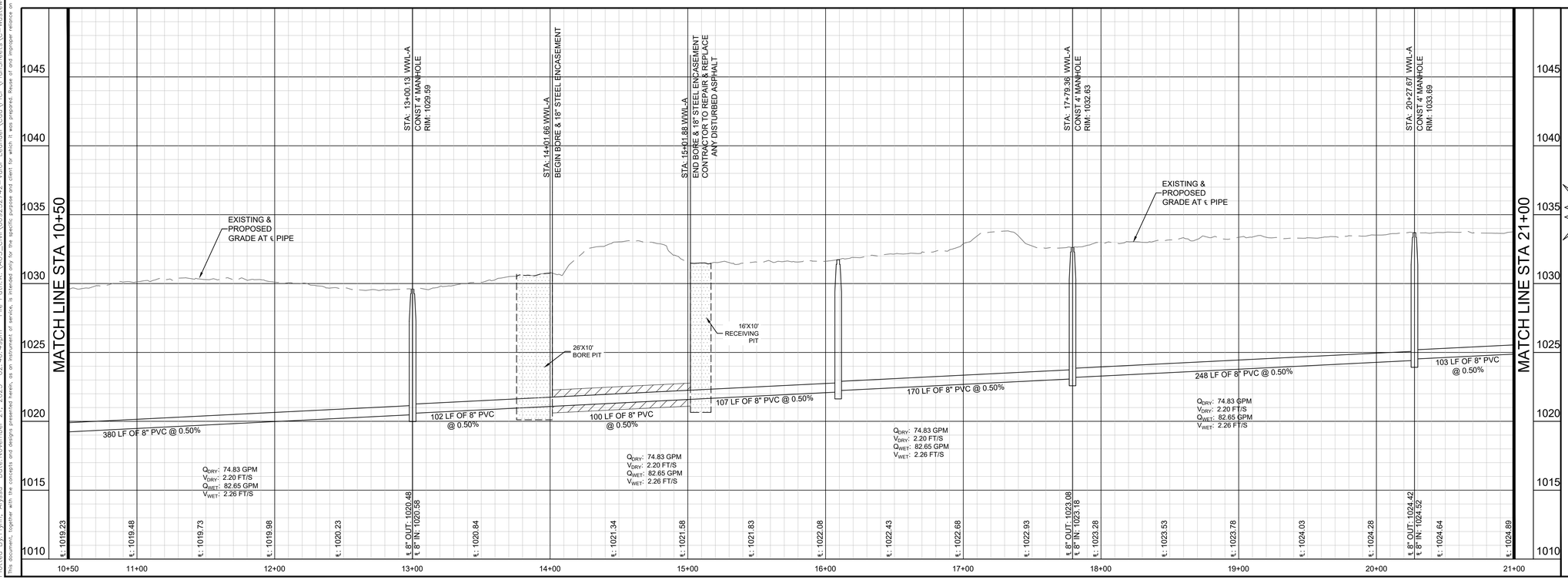

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WASTEWATER PLAN & PROFILE - WWL-A STA 10+50 - 21+00

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SHEET NUMBER
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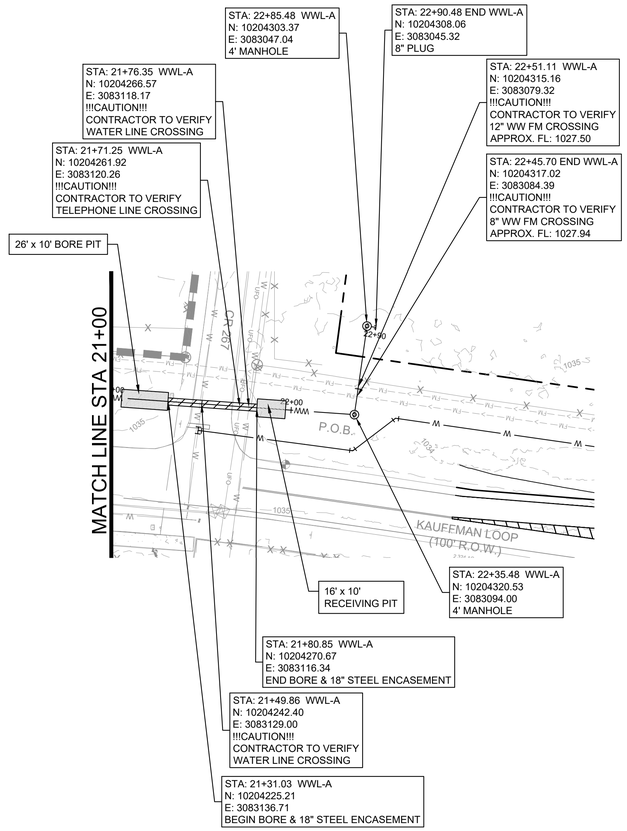
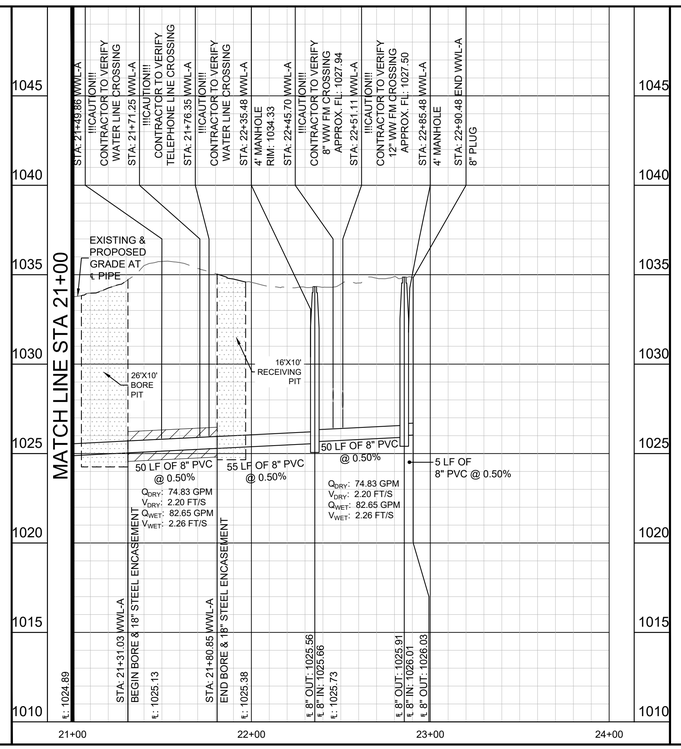
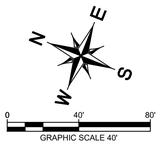


WWL-A



PROFILE SCALE
1" = 40' HORIZONTAL
1" = 4' VERTICAL



UTILITY LEGEND

- PROPERTY LINE
- WW — PROPOSED WASTE WATER LINE
- W — PROPOSED WATER LINE
- PROPOSED WASTE WATER MANHOLE
- WASTE WATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- OHP — EXISTING OVERHEAD POWER LINE
- W — EXISTING WATER LINE
- EXISTING WASTE WATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTE WATER MANHOLE

WASTEWATER GENERAL NOTES

1. WATER AND WASTEWATER SEPARATION (VERTICAL AND HORIZONTAL) SHALL BE MAINTAINED IN ACCORDANCE WITH TCEQ REQUIREMENTS.
2. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
3. ALL WASTEWATER LINES ARE 8" UNLESS OTHERWISE NOTED.
4. ANY PAVEMENT THAT IS DISTURBED DURING THE TRENCHING & INSTALLATION OF THE WASTEWATER LINE IS TO BE REMOVED AND REPLACED BY CONTRACTOR.

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.99988001439827222

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

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TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
11/21/2023

KHA PROJECT 069252742
DATE NOVEMBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: AMF
CHECKED BY: ACK

WASTEWATER PLAN & PROFILE - WWL-A STA 21+00 - END

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
21 OF 27

Plotted By:Flynn, Alyssa Date:November 21, 2023 02:46:56pm File Path:K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\C-Wastewater Plan and Profile.dwg
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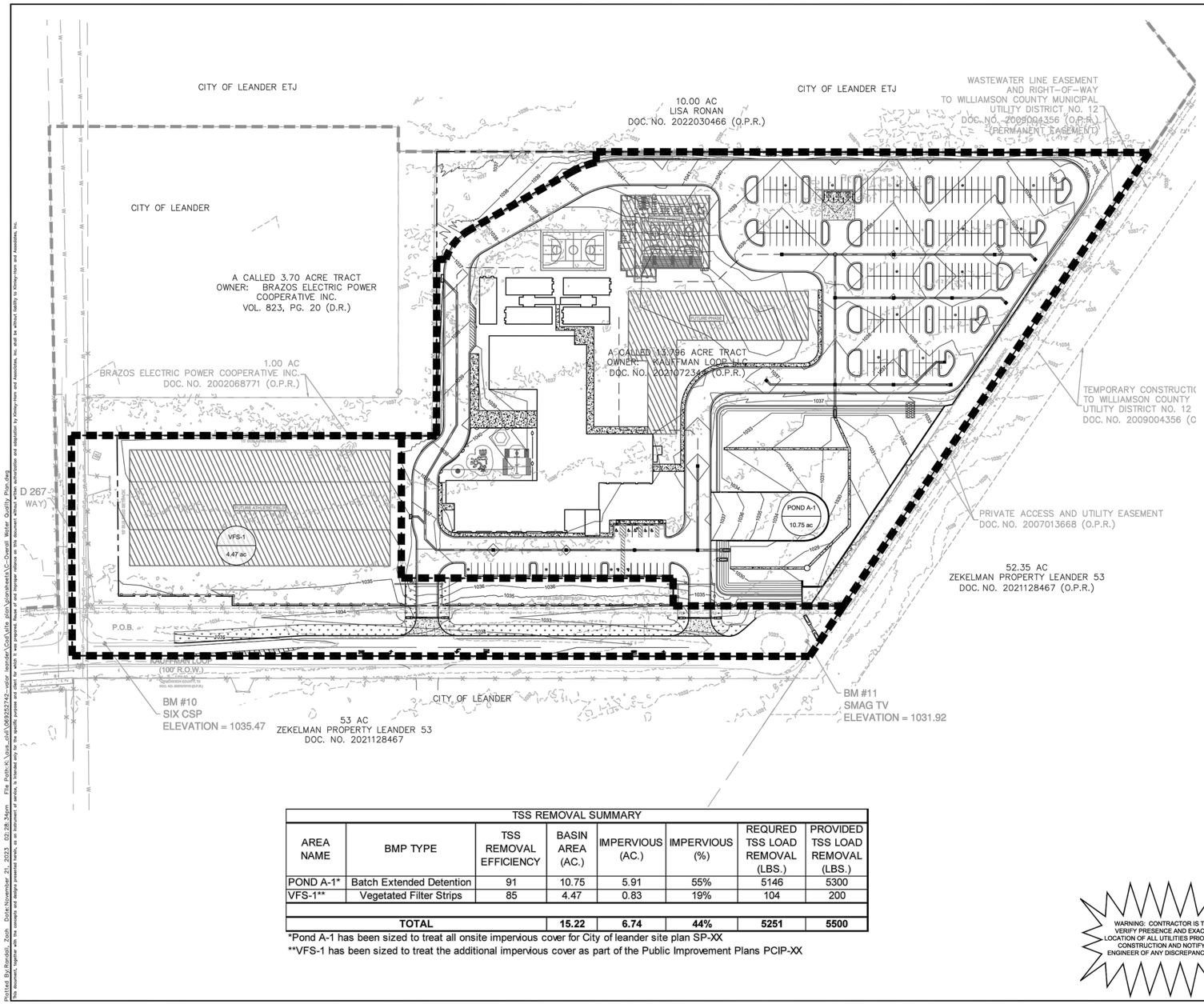

NOTES:

1. REFER TO SHEET 20 FOR TCEQ VEGETATIVE FILTER STRIP TSS REMOVAL CALCULATIONS.
2. REFER TO SHEET 20 FOR TCEQ BATCH DETENTION TSS REMOVAL CALCULATIONS.

TSS REMOVAL SUMMARY

AREA NAME	BMP TYPE	TSS REMOVAL EFFICIENCY	BASIN AREA (AC.)	IMPERVIOUS (AC.)	IMPERVIOUS (%)	REQURED TSS LOAD REMOVAL (LBS.)	PROVIDED TSS LOAD REMOVAL (LBS.)
POND A-1*	Batch Extended Detention	91	10.75	5.91	55%	5146	5300
VFS-1**	Vegetated Filter Strips	85	4.47	0.83	19%	104	200
TOTAL			**15.22**	**6.74**	**44%**	**5251**	**5500**

*Pond A-1 has been sized to treat all onsite impervious cover for City of leander site plan SP-XX

**VFS-1 has been sized to treat the additional impervious cover as part of the Public Improvement Plans PCIP-XX

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TEXAS REGISTERED ENGINEERING FIRM F-928

No.	REVISIONS	DATE	BY

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Kimley»Horn
Engineer: ALLISON KENNAUGH
P.E. No. 114356 Date: 10/28/2023

KHA PROJECT 069252742
DATE OCTOBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: ZJR
CHECKED BY: ACK

OVERALL WATER QUALITY PLAN

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
19 OF 35

SD-XX-XXXX

NOTE: WATER QUALITY AREAS PER SP-###. ALL RUNOFF FROM PROPOSED PAVEMENT IMPROVEMENT IN THIS PICP IS BEING OVERDETAINED WITH THE PROPOSED POND TO BE CONSTRUCTED WITH ONSITE AND OFFSITE IMPROVEMENTS WITH SP##-### AND PICP ##-#### AND SHALL BE BID AND CONSTRUCTED CONCURRENTLY.

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Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
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LICENSED
PROFESSIONAL ENGINEER
11/21/2023

No.	REVISIONS	DATE	BY

KHA PROJECT 069252742
DATE NOVEMBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: AMF
CHECKED BY: ACK

OVERALL WATER QUALITY PLAN

VALOR LEANDER
PICP
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
22 OF 27

**FOR REFERENCE ONLY. PLEASE NOTE: NTS.

Plotted By:Flynn, Alyssa Date:November 21, 2023 02:52:40pm File Path:K:\AUS_Civil\069252742--Valor Leander\Civil\Utils plan\sheets\C--Overall Water Quality Plan.dwg
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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Valor Leander
Date Prepared: 11/21/2023

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 * =	13.80	acres	POND A-1 + VFS-1
Predevelopment impervious area within the limits of the plan * =	0.00	acres	
Total post-development impervious area within the limits of the plan* =	6.04	acres	IC of Pond A-1 & VFS-1 (PROPOSED IC)
Total post-development impervious cover fraction * =	0.44		
P =	32	inches	
$L_{M\ TOTAL\ PROJECT}$ =	5257	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. = POND A-1

Total drainage basin/outfall area =	10.75	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	5.91	acres
Post-development impervious fraction within drainage basin/outfall area =	0.55	
$L_{M\ THIS\ BASIN}$ =	5146	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Extended 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 = (BMP efficiency) x P x (A_I x 34.6 + A_P x 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 =	10.75	acres	Excludes 1.88 AC of sod field area draining offsite
A_I =	5.91	acres	
A_P =	4.84	acres	
L_R =	6033	lbs	

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

Desired $L_{M\ THIS\ BASIN}$ = 5300 lbs.

F = 0.88

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 =	1.50	inches
Post Development Runoff Coefficient =	0.39	
On-site Water Quality Volume =	22637	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 =	4527	
Total Capture Volume (required water quality volume(s) x 1.20) =	27165	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.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Valor Leander
Date Prepared: 11/21/2023

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where:
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P = Average annual precipitation, inches

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

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Total post-development impervious area within the limits of the plan* =	6.04	acres	IC of Pond A-1 & VFS-1 (PROPOSED IC)
Total post-development impervious cover fraction * =	0.44		
P =	32	inches	
$L_{M\ TOTAL\ PROJECT}$ =	5257	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. = VFS-1

Total drainage basin/outfall area =	4.47	acres
Predevelopment impervious area within drainage basin/outfall area =	0.71	acres
Post-development impervious area within drainage basin/outfall area =	0.83	acres
Post-development impervious fraction within drainage basin/outfall area =	0.19	
$L_{M\ THIS\ BASIN}$ =	104	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 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 = (BMP efficiency) x P x (A_I x 34.6 + A_P x 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 =	4.47	acres
A_I =	0.83	acres
A_P =	3.64	acres
L_R =	835	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 200 lbs.

F = 0.24

Know what's below. Call before you dig.

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No.	REVISIONS	DATE	BY

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Kimley»Horn
Engineer: ALLISON KENNAUGH
P.E. No. 114356 Date: 10/28/2023

10/28/2023

KHA PROJECT	069252742
DATE	OCTOBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

TCEQ CALCS

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
20 OF 35

SD-XX-XXXX

NOTE: WATER QUALITY AREAS PER SP-###. ALL RUNOFF FROM PROPOSED PAVEMENT IMPROVEMENT IN THIS PICP IS BEING OVERDETAINED WITH THE PROPOSED POND TO BE CONSTRUCTED WITH ONSITE AND OFFSITE IMPROVEMENTS WITH SP##-### AND PICP ##-#### AND SHALL BE BID AND CONSTRUCTED CONCURRENTLY.

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TCEQ CALCS

VALOR LEANDER
PICP
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
23 OF 27

**FOR REFERENCE ONLY. PLEASE NOTE: NTS.

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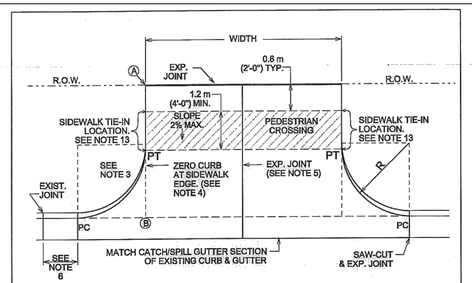
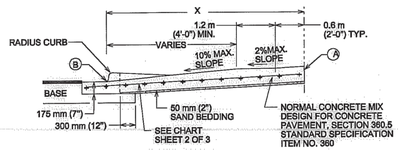


PLAN

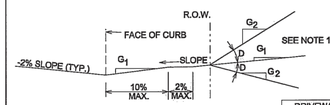
NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE. ELEVATION OF POINT Ⓐ ABOVE POINT Ⓑ IS, TYPICALLY A MINIMUM OF 150 mm (6") PLUS 20 mm/m (¼" RISE/FOOT) OVER DISTANCE "X" IN METERS (FEET).



CROSS SECTION

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE II DRIVEWAY	
2/04/16 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 1 OF 2

USE	THICKNESS	REINFORCEMENT
DRIVEWAYS FOR PASSENGER VEHICLE PARKING LOTS	150 mm (6") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS
ALL OTHERS	175 mm (7") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS

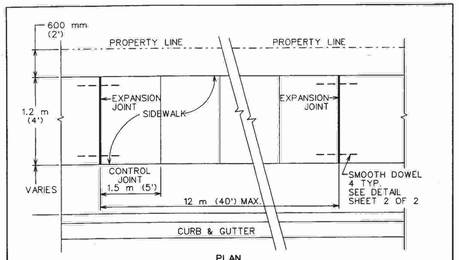


ALLOWABLE GRADES

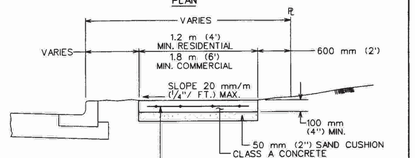
DRIVEWAY VOLUME (ADT)	D=GRADE CHANGE STD.	MAX
>1500	0%	3%
500-1500	3%	6%
<500	6%	15%

NOTES:
1. ALL TYPE II DRIVEWAYS SHALL HAVE RADIUS ENDS.
2. DRIVEWAY WIDTHS AND RADII DIMENSIONS, ONE/TWO WAY TRAVEL REQUIREMENTS, AND GEOMETRIC LAY-OUT ARE HIGHLY VARIABLE, SUBJECT TO SITE SPECIFIC CONDITIONS AND REQUIREMENTS. SEE TRANSPORTATION CRITERIA MANUAL: SECTION 5 "DRIVEWAYS".
3. THE DRIVEWAY EDGE SHALL BE SMOOTHLY TRANSITITIONED INTO THE SIDEWALK TIE-IN LOCATION BEGINNING AT THE RADIUS PC LINE.
4. "ZERO" CURB AT PT OR SIDEWALK EDGE, WHICHEVER IS ENCOUNTERED FIRST.
5. PLACE AN EXPANSION JOINT DOWN THE CENTER OF DRIVEWAY ALL DRIVEWAYS.
6. IF DIMENSION IS LESS THAN 1.5 METERS (5 FEET), REMOVE CURB AND GUTTER TO EXISTING JOINT AND POUR MONOLITHICALLY WITH DRIVEWAY.
7. IF THE BASE IS OVER-EXCAVATED WHERE THE CURB AND GUTTER WERE REMOVED, BACKFILL WITH CONCRETE MONOLITHICALLY WITH THE DRIVEWAY.
8. TYPE II DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHT OF WAY THAN 60% OF PARCEL FRONTAGE AT 30 METERS (100 FEET) WHICHEVER IS LESS.
9. DRIVEWAY SHALL NOT BE CONSTRUCTED WITHIN THE CURB RETURN OF A STREET INTERSECTION.
10. WHILE THE PROPERTY OWNER REMAINS RESPONSIBLE FOR GRADE BREAKS WITHIN PRIVATE PROPERTY, THE FIRE DEPARTMENT SHALL BE CONSULTED WHERE THE DRIVEWAY IS ESSENTIAL TO EMERGENCY VEHICLE ACCESS AND "G2 IS GREATER THAN 15%.
11. USE 12 MM (1/2") ASPHALT BOARD OR OTHER APPROVED MATERIAL FOR CURB AND GUTTER EXPANSION JOINTS. SIDEWALK, AT THE R.O.W. LINE AND AT MIDWIDTH, SEE NOTE 6.
12. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 FOR OTHER DRIVEWAY REQUIREMENTS.
13. THE SIDEWALK, REGARDLESS OF ITS LOCATION WITH RESPECT TO THE CURB OR PROPERTY LINE, SHALL BE CONNECTED TO THE DRIVEWAY AT THESE LOCATIONS.
14. WATER METER BOXES AND WASTEWATER CLEAN OUTS ARE PROHIBITED FROM BEING LOCATED IN DRIVEWAY AREAS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE II DRIVEWAY	
2/24/16 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 2 OF 2



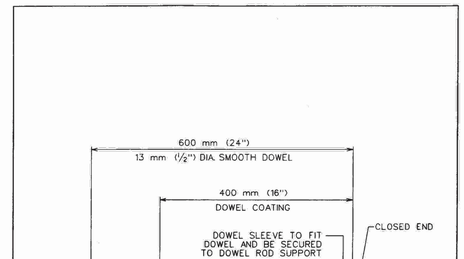
PLAN



SECTION

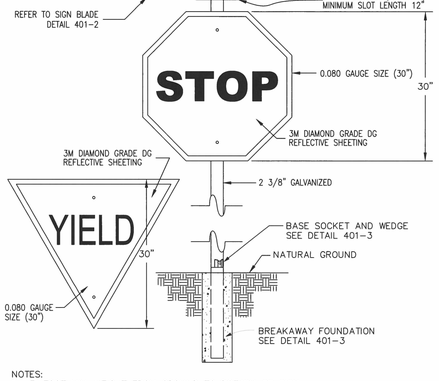
POLYPROPYLENE FIBRILLATED FIBERS, OR 150 mm X 150 mm X MW9 X MW9 (6" X 6" X W1.4 X W1.4) WELDED WIRE FABRIC OR ONE LAYER 10M (#3) BARS PLACED NOT MORE THAN 450 mm (18") C.C. BOTH DIRECTIONS.
REINFORCEMENT SHALL ACCURATELY PLACED AT SLAB MID-DEPTH AND HELD FIRMLY IN PLACE BY MEANS OF BAR SUPPORTS OF ADEQUATE STRENGTH AND NUMBER THAT WILL PREVENT DISPLACEMENT AND KEEP THE STEEL AT ITS PROPER POSITION DURING THE PLACEMENT OF THE P.C. CONCRETE. IN NO INSTANCE SHALL THE STEEL BE PLACED DIRECTLY ON THE SUBGRADE OR SAND CUSHION LAYER.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	
Bill Gardner 3/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 1 OF 3



DOWEL DETAIL

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	
Bill Gardner 3/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 2 OF 3



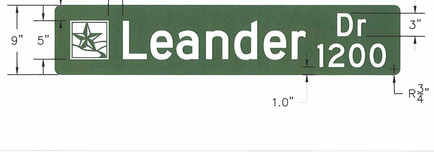
NOTES:
1. 7-FOOT MIN. HEIGHT FROM GROUND TO BOTTOM OF SIGN.
2. ALL SIGNS TO BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
3. ALL SIGNAGE SHEETINGS SHALL BE 3M DIAMOND GRADE DG REFLECTIVE SHEETING.

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

STATE OF TEXAS WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER

Wayne S. Watts 01/06/2021

City Of Leander, Texas
DETAIL #401-1
STREET SIGNS



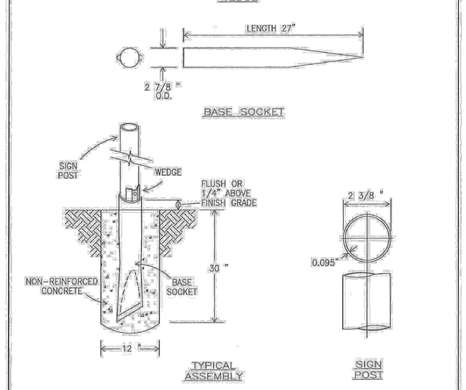
STREET NAME SIGNS:

1) HEIGHT SHALL BE EITHER:
   a) 9 INCHES WITH 5-INCH UPPER CASE AND 3.75-INCH LOWER CASE LETTERING ON STREETS WITH SPEED LIMITS 40 MPH OR LESS OR ON STREETS WITH ANY SPEED LIMIT THAT HAVE NO MORE THAN TWO LANES;
   b) 12 INCHES WITH 8-INCH UPPER CASE AND 6-INCH LOWER CASE LETTERING ON STREETS WITH SPEED LIMITS GREATER THAN 40 MPH AND MORE THAN TWO LANES.
2) 0.080 INCH THICK ALUMINUM BLANK. LENGTH DEPENDENT ON STREET NAME WITH A MINIMUM OF 24 INCHES. COVERED ON BOTH SIDES WITH 3M HIGH INTENSITY GRADE, WHITE, PRISMATIC REFLECTIVE SHEETING (3M NUMBER 3930). STREET NAME WILL BE CUT OUT OF GREEN, 3M ELECTRO CUT FILM (3M NUMBER 1177).
3) SIGN BLADES SHALL BE A MINIMUM OF TWENTY-FOUR INCHES (24") IN LENGTH AND A MAXIMUM OF FIFTY-FOUR INCHES (54") IN LENGTH.
4) STREET DESIGNATION (DR, ST, TRL, RD, ETC.) IN UPPER RIGHT-HAND CORNER, BEGINNING BLOCK NUMBER UNDERNEATH.
5) CITY LOGO WILL BE PLACED ON THE LEFT-HAND SIDE OF THE SIGN AS SHOWN IN THE ABOVE ILLUSTRATION. LOGO SHALL BE CUT OUT OF GREEN ELECTRO CUT FILM AND SHALL BE OF THE SAME HEIGHT AS THE UPPER-CASE LETTERING.
6) ALL FONTS SHALL BE TRAFFIC CAD SERIES D OR FHWA SERIES D. SERIES C OR B LETTERING MAY BE USED TO WHERE USE OF SERIES D LETTERING WILL RESULT IN SIGN BLADES LENGTHS GREATER THAN FIFTY-FOUR INCHES (54").
7) NO WATER-BASED ADHESIVES ARE PERMISSIBLE FOR USE IN ANY PART OF SIGN.

STATE OF TEXAS WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER

Wayne S. Watts 01/06/2021

City Of Leander, Texas
DETAIL #401-2
STREET NAME SIGN BLADES

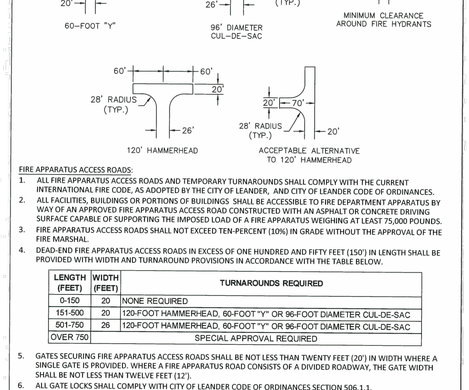


The Architect/Engineer assumes responsibility for appropriate use of this standard.

STATE OF TEXAS WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER

Wayne S. Watts 03/27/14

City Of Leander, Texas
401-3
POZ-LOC FOUNDATION



FIRE APPARATUS ACCESS ROADS:
1. ALL FIRE APPARATUS ACCESS ROADS AND TEMPORARY TURNAROUNDS SHALL COMPLY WITH THE CURRENT INTERNATIONAL FIRE CODE, AS ADOPTED BY THE CITY OF LEANDER, AND CITY OF LEANDER CODE OF ORDINANCES.
2. ALL FACILITIES, BUILDINGS OR PORTIONS OF BUILDINGS SHALL BE ACCESSIBLE TO FIRE DEPARTMENT APPARATUS BY WAY OF AN APPROVED FIRE APPARATUS ACCESS ROAD CONSTRUCTED WITH AN ASPHALT OR CONCRETE DRIVING SURFACE CAPABLE OF SUPPORTING THE IMPOSED LOAD OF A FIRE APPARATUS WEIGHING AT LEAST 75,000 POUNDS.
3. FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED TEN-PERCENT (10%) IN GRADE WITHOUT THE APPROVAL OF THE FIRE MARSHAL.
4. DEAD-END FIRE APPARATUS ACCESS ROADS IN EXCESS OF ONE HUNDRED AND FIFTY FEET (150') IN LENGTH SHALL BE PROVIDED WITH WIDTH AND TURNAROUND PROVISIONS IN ACCORDANCE WITH THE TABLE BELOW.

LENGTH (FEET)	WIDTH (FEET)	TURNAROUNDS REQUIRED
0-150	20	NONE REQUIRED
151-500	20	120-FOOT HAMMERHEAD, 60-FOOT "Y" OR 96-FOOT DIAMETER CUL-DE-SAC
501-750	26	120-FOOT HAMMERHEAD, 60-FOOT "Y" OR 96-FOOT DIAMETER CUL-DE-SAC
OVER 750	SPECIAL APPROVAL REQUIRED	

5. GATES SECURING FIRE APPARATUS ACCESS ROADS SHALL BE NOT LESS THAN TWENTY FEET (20') IN WIDTH WHERE A SINGLE GATE IS PROVIDED. WHERE A FIRE APPARATUS ROAD CONSISTS OF A DIVIDED ROADWAY, THE GATE WIDTH SHALL BE NOT LESS THAN TWELVE FEET (12').
6. ALL GATE LOCKS SHALL COMPLY WITH CITY OF LEANDER CODE OF ORDINANCES SECTION 506.1.1.
7. GATES SECURING FIRE APPARATUS ACCESS ROADS SHALL BE OF THE SWINGING OR SLIDING TYPE.
8. FIRE APPARATUS ACCESS ROADS SHALL BE TWENTY-SIX FEET (26') IN WIDTH FOR TWENTY-FEET (20') IN BOTH DIRECTIONS FROM FIRE HYDRANTS, AT MINIMUM, TO PROVIDE MINIMUM CLEARANCE FOR EMERGENCY OPERATIONS.

*THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

STATE OF TEXAS MICHAEL LAFFERTY 118706 LICENSED FIRE MARSHAL

2016-06-10

FIRE MARSHAL

City Of Leander, Texas
DETAIL #401-5
FIRE APPARATUS ACCESS ROADS & TURNAROUNDS

Rotted By:Flynn, Alyssa Date:November 21, 2023 02:47:46pm File Path:K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\C-Paving Details.dwg
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No.	REVISIONS	DATE	BY

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TEXAS REGISTERED ENGINEERING FIRM F-928

ALLISON KENNAUGH 114356 LICENSED PROFESSIONAL ENGINEER
11/21/2023

KHA PROJECT 069252742	DESIGNED BY: NAM
DATE NOVEMBER 2023	DRAWN BY: AMF
SCALE: AS SHOWN	CHECKED BY: ACK

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.99988001439827222

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

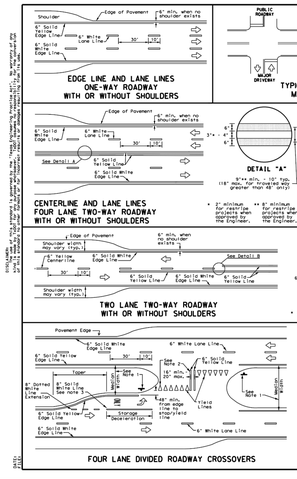
BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

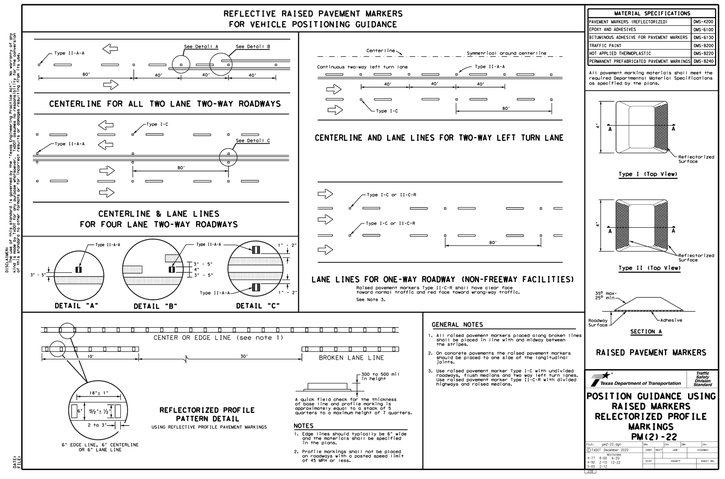
PAVING DETAILS (SHEET 1 OF 2)

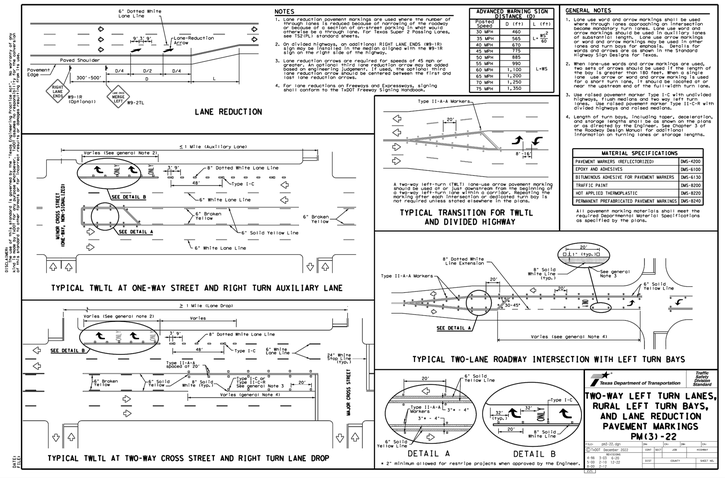
VALOR LEANDER PICP

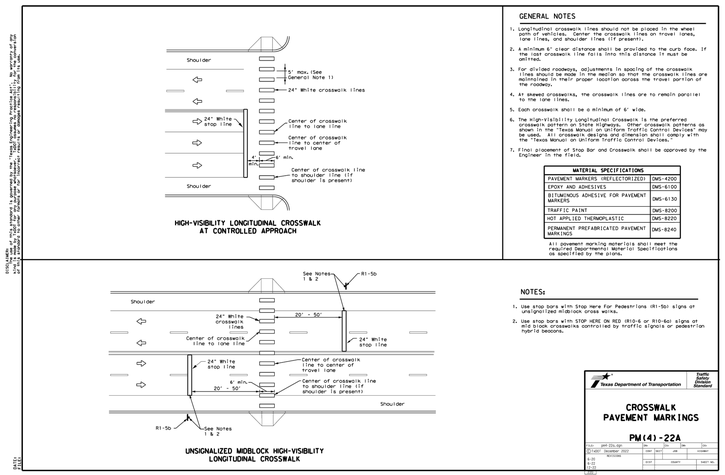
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

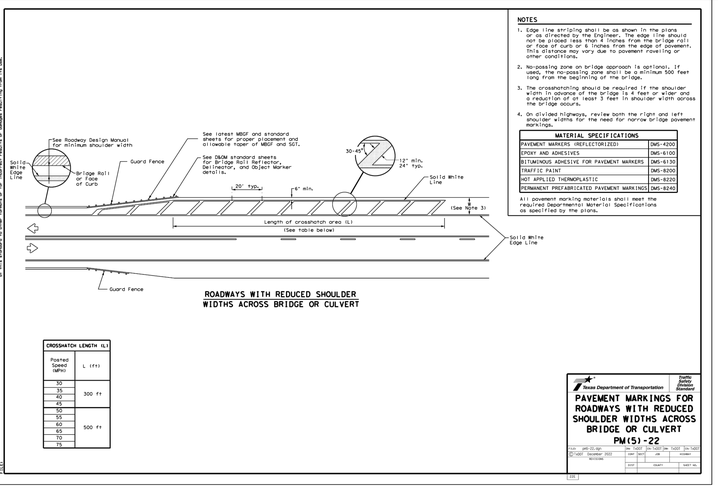
SHEET NUMBER
24 OF 27











WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

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BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.99988001439827 22

BM #10: SIX COTTON SPINDLE
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GRID NORTH: 10,203,986.98
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No.	REVISIONS	DATE	BY

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KHA PROJECT 069252742
DATE NOVEMBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: AMF
CHECKED BY: ACK

PAVING DETAILS (SHEET 2 OF 2)

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
25 OF 27

Plotted By:Flynn, Alyssa Date:November 21, 2023 02:47:57pm File Path:K:\AUS_Civil\069252742-Valor Leander\Cad\PICP\PlanSheets\C-Paving Details.dwg
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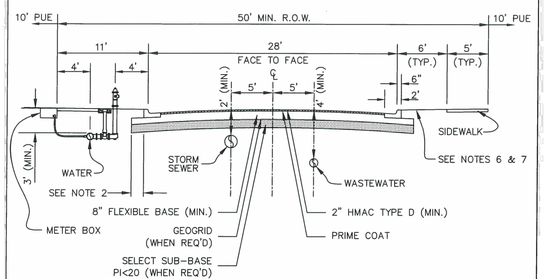
RESIDENTIAL LOCAL STREET SECTION WITH STANDARD UTILITY ASSIGNMENTS



NOTES:

1. DIMENSIONS FOR ROW AND FOC–FOC ARE FOR RESIDENTIAL LOCAL STREETS ONLY. SEE TRANSPORTATION PLAN FOR ROADWAY AND RIGHT–OF–WAY WIDTHS FOR ALL OTHER ROADWAY CLASSIFICATIONS.
2. BASE COURSE TO EXTEND 1' (MINIMUM) PAST BACK OF CURB FOR SOILS WITH PI OF 20 OR LESS, 3' FOR ALL OTHER SOILS.
3. PAVEMENT STRUCTURAL SECTION SHALL, IN NO CASE, BE LESS THAN THE VALUES SHOWN ABOVE.
4. GEOTECHNICAL ENGINEER SHALL PROVIDE A PAVEMENT DESIGN TO DETERMINE THE NEED FOR ADDITIONAL ASPHALT THICKNESS, BASE THICKNESS, SUB–BASE AND GEOGRID BASED UPON ON–SITE SOIL CONDITIONS AND TRAFFIC PROJECTIONS.
5. SIDEWALK TO HAVE MAXIMUM 2% CROSS SLOPE.
6. SLOPE FROM BACK OF CURB TO RIGHT–OF–WAY SHALL BE 2% UNLESS OTHERWISE INDICATED ON THE GRADING PLAN.
7. STREET TREES, WHERE REQUIRED, SHALL BE PLACED BETWEEN SIDEWALK AND BACK OF CURB. SEE DETAIL 204–4.
8. METER BOXES AND SEWER SERVICE STUBS SHALL BE PLACED IN THE PUBLIC UTILITY EASEMENT ABUTTING THE SIDEWALK.

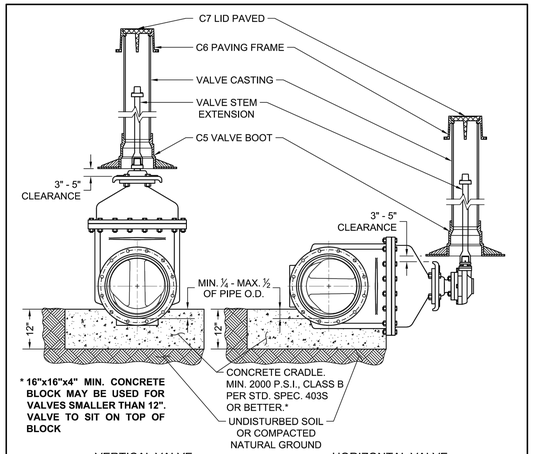
*THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

STATE OF TEXAS · WAYNE S. WATTS · 86134 · LICENSED PROFESSIONAL ENGINEER

12/21/17

City Of Leander, Texas

DETAIL #204-3
RESIDENTIAL LOCAL STREET SECTION WITH STANDARD UTILITY ASSIGNMENTS



*** 16"x16"x4" MIN. CONCRETE BLOCK MAY BE USED FOR VALVES SMALLER THAN 12". VALVE TO SIT ON TOP OF BLOCK**

VERTICAL VALVE

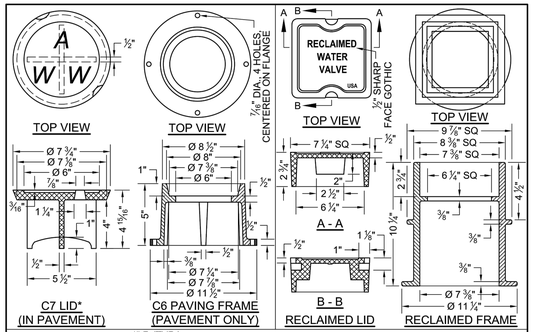
HORIZONTAL VALVE
ONLY TO BE USED WHEN CALLED OUT ON THE DRAWINGS.

NOTES:

1. WELD SOCKET 2½" x 2" DEEP TO 1" SCH. 40 CARBON STEEL ROUND STEM EXTENSION, FITTED ON OPERATING NUT. [SCH. 80 FOR LENGTHS OVER 10']
2. VALVE CASTING SHALL BE 6" DI PIPE WITH BELL OR COLLAR CENTERED OVER VALVE BOOT.
3. NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
4. VALVE STEM EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 12" AND 18" FROM FINISHED GRADE.

RECLAIMED WATER: ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE **"RECLAIMED WATER"** CAST INTO THEM.

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS *05/18/2016* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 1 OF 4



NOTES:

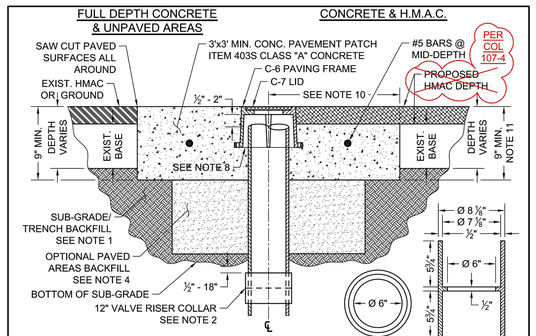
1. MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
2. THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME, COLLAR AND BASE.
3. DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
4. CASTING FINISH BY MANUFACTURER SHALL INCLUDE REMOVAL OF FINS AND FLASHING, AND PAINT WITH BLACK ASPHALT COATING.

WEIGHTS:

C7 LID: 13 LBS
RECLAIMED LID: 15 LBS
C6 FRAME: 23 LBS
RECLAIMED FRAME: 33 LBS
C5 BASE: 78 LBS

* LETTERING SHALL BE 1 ½" 2 PICK BAR SLOTS REQUIRED

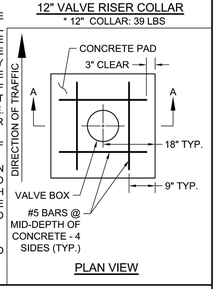
CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS *05/18/2016* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 2 OF 4



NOTES:

1. SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 201S, SUB-GRADE PREPARATION.
2. TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" LENGTH APPROXIMATELY CENTERED ON THE JOINT WITH THE TOP OF SLEEVE LOCATED ½" - 18" BELOW SUB-GRADE. THE INSIDE "LIP" OF COLLAR TO BE PAINTED WITH FLUORESCENT WHITE PAINT OR COVERED WITH FLUORESCENT WHITE TAPE. ALTERNATE: FOR OPTIONAL SINGLE PIECE RISER INSTALLATION SEE SHEET 4 OF 4.
3. CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE NUT OF THE VALVE; NUT SHALL OPERATE WITH NO OBSTRUCTION.
4. WHERE CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 402S) TO THE UNDERSIDE OF THE CONCRETE. PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
5. REINFORCING STEEL SHALL MEET SPEC. ITEM 406S.7.
6. NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
7. BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 18'.

12" VALVE RISER COLLAR
* 12" COLLAR: 39 LBS

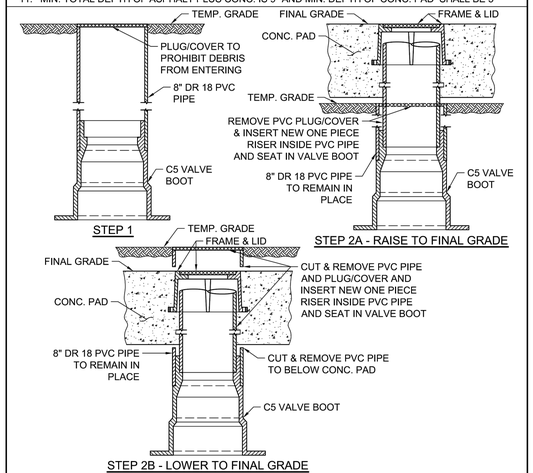


PLAN VIEW

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS *05/18/2016* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 3 OF 4

NOTES (CON'T):

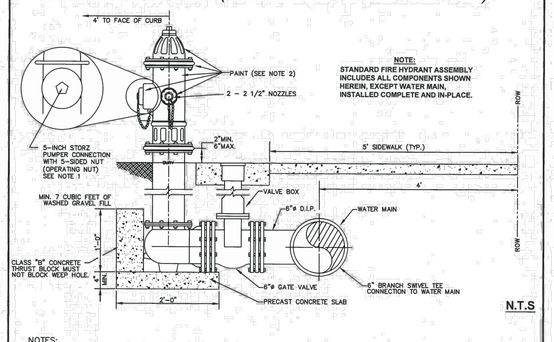
8. PAVING FRAME SHALL BE FLUSH WITH THE CONC. PAD AND PLACED ½" - 2" ABOVE RISER PIPE (FRAME SHALL NOT REST ON RISER.)
9. IN UNPAVED AREAS, INSTALL ONE DELINEATOR STAKE IMMEDIATELY ADJACENT TO THE EDGE OF THE CONCRETE PAD. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES.
10. VALVE SHALL TYPICALLY BE CENTERED IN CONCRETE DIAMOND BUT MAY BE OFFSET WITH A MIN. OF 12" FROM CENTER OF VALVE LID TO EDGE OF CONCRETE IN ALL DIRECTIONS.
11. MIN. TOTAL DEPTH OF ASPHALT PLUS CONC. IS 9" AND MIN. DEPTH OF CONC. PAD SHALL BE 5"



OPTIONAL ONE PIECE VALVE CASTING INSTALLATION

CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	
RECORD COPY SIGNED BY KATHI L FLOWERS *05/18/2016* ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-01 4 OF 4

FIRE HYDRANTS LACKING INTEGRAL STORZ CONNECTOR SHALL BE REJECTED (NO STORZ ADAPTERS ALLOWED)



NOTES:

6. SET F.H. ON LOT LINE (EXTENDED WHEN POSSIBLE)
7. F.H. LOCATED AT STREET INTERSECTIONS SHALL BE PLACED A MINIMUM OF TEN FEET (10') FROM RADIUS TANGENT POINT.
8. NO OBSTRUCTIONS SHALL BE PERMITTED WITHIN THREE FEET (3') IN ALL DIRECTIONS FROM F.H.
9. 5–INCH STORZ PUMPER NOZZLE SHALL FACE THE FIRE LANE OR TRAVEL WAY UNLESS OTHERWISE NOTED.

STATE OF TEXAS · WAYNE S. WATTS · 86134 · LICENSED PROFESSIONAL ENGINEER

02/05/19

City of Leander, Texas

DETAIL #101-4
STANDARD FIRE HYDRANT ASSEMBLY

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.99988001439827222

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

Kimley»Horn
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh · STATE OF TEXAS · ALLISON KENNAUGH · 114356 · LICENSED PROFESSIONAL ENGINEER

11/21/2023

KHA PROJECT 069252742
DATE NOVEMBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: AMF
CHECKED BY: ACK

WATER DETAILS

VALOR LEANDER PICP
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
26 OF 27

Plotted By: Flynn, Alyssa Date: November 21, 2023 02:48:14pm File Path: K:\AUS_Civil\069252742–Valor Leander\Cad\PICP\PlanSheets\C–Water Details.dwg
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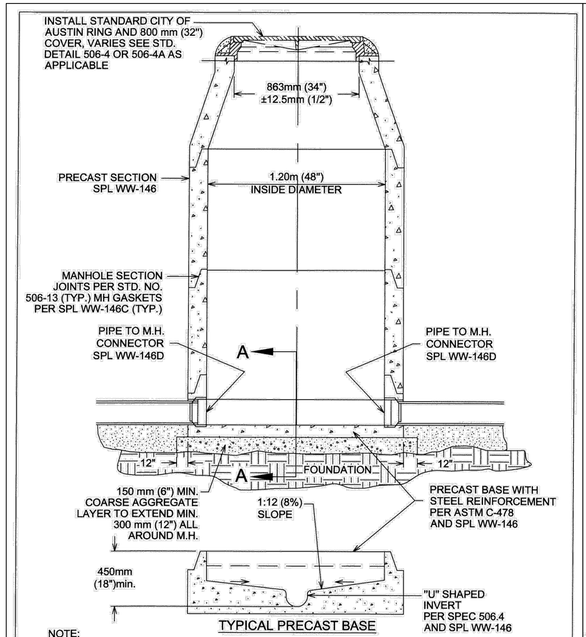
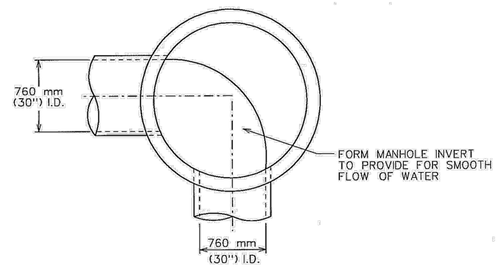


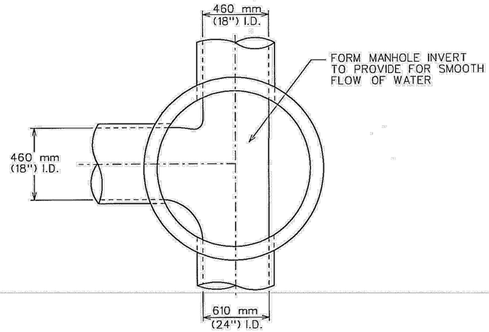
TYPICAL PRECAST BASE

NOTE:
1. THE MANHOLE BASE SHALL BE BEDDED ON 150 mm (6") COARSE AGGREGATE. THE CONTRACTOR SHALL LEVEL AND PLUMB THE BASE PRIOR TO SETTING THE PRECAST MANHOLE RISER SECTIONS ON THE PRECAST CONCRETE BASE.
2. MH FOUNDATION SHALL MEET OR EXCEED STD. SPEC. 506.5B.

CITY OF AUSTIN AUSTIN WATER UTILITY	WASTEWATER MANHOLE ON PRECAST BASE	STANDARD NO.
Kathi A Lloves 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD	506S-10

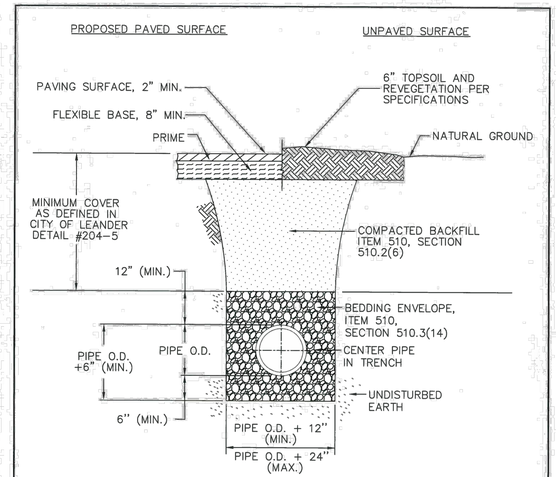


TYPICAL MANHOLE AT ANGLE IN STORM DRAIN



TYPICAL JUNCTION MANHOLE

CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW	MANHOLE INVERT PLAN	
George E. Lowe 2/14/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-1

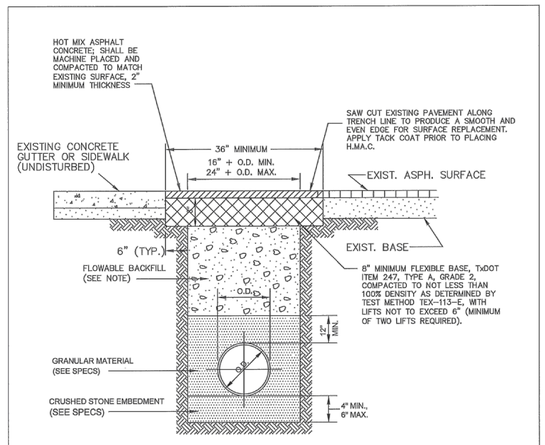


NOTES:
1. SEE CITY OF LEANDER DETAIL #104-2 FOR TYPICAL PIPE TRENCH AND EMBEDMENT IN EXISTING PAVED SURFACES.

REFERENCES:
1. CITY OF AUSTIN STANDARD SPECIFICATION MANUAL ITEM 510, SECTION 510.2(6), "SELECT BACKFILL OR BORROW"; SECTION 510.3(14), "PIPE BEDDING ENVELOPE"

STATE OF TEXAS MICHAEL LAFFERTY 118708 LICENSED PROFESSIONAL ENGINEER
2019-05-23

City Of Leander, Texas
DETAIL #104-1
TYPICAL PIPE TRENCH AND EMBEDMENT



N.T.S.

NOTES:

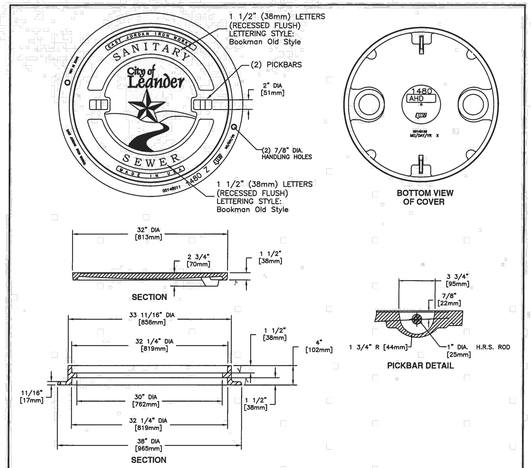
FLOWABLE BACKFILL SHALL CONSIST OF A MIXTURE OF NATIVE SOILS OR MANUFACTURED MATERIALS, CEMENT AND/OR FLY ASH, AND WATER WHICH PRODUCES A MATERIAL WITH UNCONFINED COMPRESSIVE STRENGTH OF BETWEEN 250 AND 450 PSI AFTER 28 DAYS. ANY MATERIALS USED SHALL BE PRIMARILY GRANULAR, WITH A PLASTICITY INDEX <12 AND WITH 100% PASSING A 3/4 INCH SIEVE. THE FLOWABLE MIXTURE SHALL BE MIXED IN A PUG MILL, CONCRETE MIXER, OR TRANSIT MIXER AND SHALL HAVE A MINIMUM SLUMP OF 5 INCHES. THE FLOWABLE MIXTURE MUST BE ALLOWED TO SET PRIOR TO THE PACEMENT OF ANY OVERLAYING MATERIAL.

ONE CONCRETE CYLINDER WILL BE REQUIRED FOR TESTING AND WILL BE FABRICATED BY THE CITY INSPECTOR.

THE PUBLIC WORKS DEPARTMENT IS TO BE CONTACTED AT 259-2640 PRIOR TO COMMENCEMENT OF BACKFILL OPERATIONS.

STATE OF TEXAS WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER
8/31/2012

City Of Leander, Texas
DETAIL #104-2
TYPICAL TRENCH AND H.M.A.C. SURFACE REMOVAL AND REPLACEMENT DETAIL



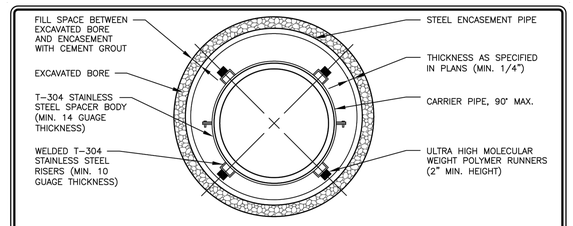
√ MACHINED SURFACE

MANHOLE ASSEMBLY	EST. WT. COVER: 200 LBS 91kg FRAME: 155 LBS 70kg UNIT: 355 LBS 161kg
EAST JORDAN IRON WORKS PRODUCT NO. 00148107 OR NEENAH FOUNDRY DF-1274 LEANDER SANITARY	OPEN AREA N/A MAT'L SPEC. COVER – GRAY IRON ASTM A48 CL35B FRAME – GRAY IRON ASTM A48 CL35B

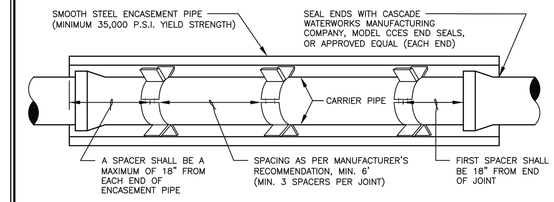
LOAD RATING
HEAVY DUTY (H20)

STATE OF TEXAS WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER
02/22/16

City Of Leander, Texas
DETAIL #107-1
SANITARY SEWER MANHOLE COVER



PIPE SIZE-CARRIER (DIAMETER)	PIPE SIZE-CASING (DIAMETER) (MIN.)	MINIMUM PIPE THICKNESS (INCHES)	
6"	16"	1/4	0.2500
8"	18"	1/4	0.2500
10"	20"	5/16	0.3125
12" ~ 14"	24"	3/8	0.3750
16" ~ 18"	30"	7/16	0.4375
20"	36"	1/2	0.5000
24"	42"	1/2	0.5000
30"	48"	1/2	0.5000



NOTES:
1. CASING SPACER CONFIGURATION AND SPACING SHALL BE AS SHOWN ON MANUFACTURER'S DRAWINGS FOR SPECIFIC WORK; THESE MUST BE ACCEPTABLE TO THE CITY OF ROUND ROCK.
2. CASING SPACER SHALL BE AS MANUFACTURED BY CASCADE WATERWORKS MANUFACTURING COMPANY, MODEL CCS, OR APPROVED EQUAL.

RECORD SIGNED COPY ON FILE AT U&ES DEPARTMENT APPROVED 03-01-18 DATE THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR THE APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)	CITY OF ROUND ROCK PIPE ENCASEMENT DETAIL	DRAWING NO: WT-16

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

811 Know what's below. Call before you dig.

BENCHMARKS

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1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

Kimley»Horn
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

STATE OF TEXAS ALLISON KENNAUGH 114356 LICENSED PROFESSIONAL ENGINEER
11/21/2023

KHA PROJECT 069252742	DESIGNED BY: NAM	DRAWN BY: AMF	CHECKED BY: ACK
DATE NOVEMBER 2023	SCALE: AS SHOWN		

WASTEWATER DETAILS

VALOR LEANDER PICP

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
27 OF 27

Plotted By: Flynn, Alyssa Date: November 21, 2023 02:48:30pm File Path: K:\AUS_Civil\069252742-Valor Leander\Civil\PICP\PlanSheets\C-Wastewater Details.dwg
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CIVIL SITE DEVELOPMENT PLANS
FOR

VALOR LEANDER

168 KAUFFMAN LOOP,
LEANDER, WILLIAMSON COUNTY, TEXAS
PROJECT

NOTES:

1. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, REGULATORY COMPLIANCE, AND ADEQUACY OF THESE PLANS AND/OR SPECIFICATIONS WHETHER OR NOT THE PLANS AND/OR SPECIFICATIONS WERE REVIEWED BY THE CITY ENGINEER(S).
2. NO PORTION OF THIS TRACT IS WITHIN THE DESIGNTATED FLOOD HAZARD AREA AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) #48491C0455F CITY OF LEANDER, TEXAS DATED DECEMBER 20TH, 2019.
3. CONTRACTOR TO NOTIFY DIGTESS PRIOR TO COMMENCING CONSTRUCTION AT 1-800-DIGTESS.
4. THIS SITE IS LOCATED WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE.
5. THE CITY OF LEANDER STANDARD CONSTRUCTION NOTES SHALL APPLY AND TAKE PRECEDENCE. FOR INSTANCES WHERE THEY CONFLICT WITH KIMLEY-HORN NOTES OR APPLICABLE TCEQ REQUIREMENTS, THEN THE MORE RESTRICTIVE SHALL APPLY.

ASSOCIATED PROJECT NUMBERS:

CP-23-0021
PICP-23-0107

LEGAL DESCRIPTION

13.796 ACRES OF LAND OUT OF THE WILLIAM H. MONROE SURVEY, ABSTRACT 451, WILLIAMSON COUNTY, TEXAS AS DESCRIBED IN DOC. #2021072344 OF THE DEED RECORDS OF WILLIAMSON COUNTY, TEXAS.

LAND USE SUMMARY:
ZONING: SINGLE- FAMILY RURAL (SFR-1-B) - 13.80 AC.

FUTURE LAND USE CATEGORY:
ACTIVITY CENTER - 13.79 AC.

LOT #	PERMITTED USES	AREA
LOT 1	SFR-1-B	13.52 AC
ROW TAKE		0.28 AC.
TOTAL AREA		13.80 AC
PAVED IMPERVIOUS		3.33 AC.
BUILDING IMPERVIOUS		2.61 AC.
TOTAL IMPERVIOUS		5.94 AC

OWNER:
VALOR TEXAS EDUCATION FOUNDATION
JESSE BATES
220 FOREMOST DR.
AUSTIN, TX 78745
(214) 514-3356

DEVELOPER:
PMSI
JASON ORIOL
1822 W. BRAKER LANE, #81734
AUSTIN, TX 78708
JORIOL@PMSITX.COM

DESIGNERS:

PROJECT AGENT:
KIMLEY-HORN AND ASSOCIATES INC.
ALLISON KENNAUGH, P.E.
10814 JOLLYVILLE RD, AVALON IV SUITE 200
AUSTIN, TX 78759
ALLISON.KENNAUGH@KIMLEY-HORN.COM
(512)782-0614

ENGINEER:
KIMLEY-HORN AND ASSOCIATES INC.
ALLISON KENNAUGH, P.E.
10814 JOLLYVILLE RD, AVALON IV SUITE 200
AUSTIN, TX 78759
ALLISON.KENNAUGH@KIMLEY-HORN.COM
(512)782-0614

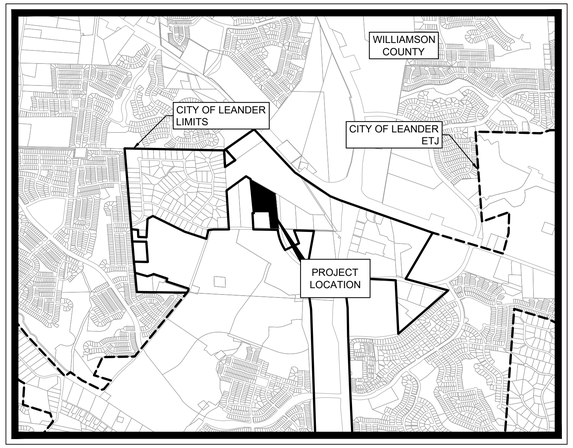
SURVEYOR
PAPE-DAWSON ENGINEERS
10801 N MOPAC EXPY.
BLDG 3, SUITE 200
AUSTIN, TX 78759
(512) 454-8711

PREPARED BY:

Kimley»Horn

10814 JOLLYVILLE ROAD, AVALLON IV, SUITE 300
AUSTIN, TEXAS 78759
CERTIFICATE OF REGISTRATION #928

Tel. No. (512) 418-1771
Fax No. (512) 418-1791



VICINITY MAP
SCALE: 1" = 2,000'

DECEMBER 2023

APPROVED BY:

ROBIN M. GRIFFIN, AICP, PLANNING DIRECTOR — DATE

EMILY TRUMAN, P.E., CFM, CITY ENGINEER — DATE

MARK TUMMONS, CPRP, DIRECTOR OF PARKS AND RECREATION — DATE

CHIEF JOSHUA DAVIS, FIRE MARSHAL — DATE

REVISION #	DESCRIPTION	APPROVAL

SHEET INDEX

Sheet Number	Sheet Title
1	COVER SHEET
2	CITY OF LEANDER GENERAL NOTES
3	KH GENERAL NOTES
4	TCEQ NOTES
5	FINAL PLAT (SHEET 1 OF 2)
6	FINAL PLAT (SHEET 2 OF 2)
7	EXISTING CONDITIONS AND DEMOLITION PLAN
8	TREE LIST
9	EROSION CONTROL PLAN
10	EROSION CONTROL DETAILS
11	OVERALL SITE PLAN
12	DIMENSION CONTROL PLAN (SHEET 1 OF 2)
13	DIMENSION CONTROL PLAN (SHEET 2 OF 2)
14	GRADING PLAN (SHEET 1 OF 2)
15	PAVING, SIGNAGE & STRIPING PLAN
16	GRADING PLAN (SHEET 2 OF 2)
17	EXISTING DRAINAGE AREA MAP
18	PROPOSED DRAINAGE AREA MAP
19	INLET DRAINAGE AREA MAP
20	DRAINAGE AREA CALCULATIONS
21	OVERALL WATER QUALITY PLAN
22	TCEQ CALCS
23	WATER QUALITY & DETENTION POND PLAN
24	POND DETAILS (SHEET 1 OF 2)
25	POND DETAILS (SHEET 2 OF 2)
26	OVERALL STORM PLAN
27	OVERALL WATER PLAN
28	OVERALL WASTEWATER PLAN
29	FIRE PROTECTION PLAN
30	ADDRESS PLAN
31	PAVING AND SITE DETAILS (SHEET 1 OF 2)
32	PAVING AND SITE DETAILS (SHEET 2 OF 2)
33	STORM DETAILS
34	UTILITY DETAILS (SHEET 1 OF 2)
35	UTILITY DETAILS (SHEET 2 OF 2)
36	BUILDING ELEVATIONS
37	LANDSCAPE PLAN (SHEET 1 OF 3)
38	LANDSCAPE PLAN (SHEET 2 OF 3)
39	LANDSCAPE PLAN (SHEET 3 OF 3)

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

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GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

VALOR LEANDER-SITE PLAN

No.	REVISIONS	DATE	BY

Kimley»Horn
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

COVER SHEET

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
1 OF 39

SD-XX-XXXX

Plotted By:Randall, Zach Date:December 01, 2023 03:06:32pm File Path:K:\Aus_civil\069252742--valor_leander\Cad\site plan\plansheets\C-Cover Sheet.dwg
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GENERAL NOTES FOR SUBDIVISIONS AND SITE DEVELOPMENT PLANS
REVISED March 27, 2023
CITY CONTACTS:
ENGINEERING MAIN LINE: 512-528-2721
PLANNING DEPARTMENT: 512-528-2750
PUBLIC WORKS MAIN LINE: 512-259-2640
STORMWATER INSPECTIONS: 512-285-0055
UTILITIES MAIN LINE: 512-259-1142
UTILITIES ON-CALL: 512-690-4760

GENERAL:

1. CONTRACTORS SHALL HAVE AN APPROVED SET OF PLANS WITH APPROVED REVISIONS ON SITE AT ALL TIMES. FAILURE TO HAVE APPROVED PLANS ON SITE MAY RESULT IN ISSUANCE OF WORK STOPPAGE.
2. CONTACT 811 SYSTEM FOR EXISTING WATER AND WASTEWATER LOCATIONS 48 HOURS PRIOR TO CONSTRUCTION.

a. REFRESH ALL LOCATES BEFORE 14 DAYS – LOCATE REFRESH REQUESTS MUST INCLUDE A COPY OF YOUR 811 TICKET. TEXAS PIPELINE DAMAGE PREVENTION LAWS REQUIRE THAT A LOCATE REFRESH REQUEST BE SUBMITTED BEFORE 14 DAYS, OR IF LOCATION MARKERS ARE NO LONGER VISIBLE.

b. REPORT PIPELINE DAMAGE IMMEDIATELY – IF YOU WITNESS OR EXPERIENCE PIPELINE EXCAVATION DAMAGE, PLEASE CONTACT THE CITY OF LEANDER BY PHONE AT 512-259-2640.

3. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR 48 HOURS BEFORE:

a. BEGINNING EACH PHASE OF CONSTRUCTION. CONTACT ASSIGNED CITY INSPECTOR.
b. ANY TESTING. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY THE CITY OF LEANDER AFTER COMPLETION.
c. PROOF ROLLING SUB-GRADE AND EVERY LIFT OF ROADWAY EMBANKMENT, IN-PLACE DENSITY TESTING OF EVERY BASE COURSE, AND ASPHALT CORES. ALL OF THIS TESTING MUST BE WITNESSED BY A CITY OF LEANDER REPRESENTATIVE.
d. CONNECTING TO THE EXISTING WATER LINES.
e. THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET ROW. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S ROW MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.

4. ALL RESPONSIBILITLY FOR THE ACCURACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY ON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.
5. **EXCESS SOIL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CITY OF LEANDER IF THE DISPOSAL SITE IS INSIDE THE CITY'S JURISDICTIONAL BOUNDARIES.**
6. BURNING IS PROHIBITED.
7. NO WORK IS TO BE PERFORMED BETWEEN THE HOURS OF 9:00 P.M. AND 7:00 A.M. OR WEEKENDS. THE CITY INSPECTOR RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER ALL WORK PERFORMED WITHOUT INSPECTION.
8. CONTACT THE CITY INSPECTOR 4 DAYS PRIOR TO WORK FOR APPROVAL TO SCHEDULE ANY INSPECTIONS ON WEEKENDS OR CITY HOLIDAYS.
9. NO BLASTING IS ALLOWED.
10. ANY CHANGES OR REVISIONS TO THESE PLANS MUST FIRST BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION OF THE REVISION. ALL CHANGES AND REVISIONS SHALL USE REVISION CLOUDS TO HIGHLIGHT ALL REVISIONS AND CHANGES WITH EACH SUBMITTAL. REVISION TRIANGLE MARKERS AND NUMBERS SHALL BE USED TO MARK REVISIONS. ALL CLOUDS AND TRIANGLE MARKERS FROM PREVIOUS REVISIONS MUST BE REMOVED. REVISION INFORMATION SHALL BE UPDATED ON COVER SHEET AND AFFECTED PLAN SHEET TITLE BLOCK.
11. THE CONTRACTOR AND ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. THE ENGINEER SHALL FURNISH THE CITY OF LEANDER ACCURATE "RECORD DRAWINGS" FOLLOWING THE COMPLETION OF ALL CONSTRUCTION. THESE "RECORD DRAWINGS" SHALL MEET THE SATISFACTION OF THE ENGINEERING DEPARTMENTS PRIOR TO FINAL ACCEPTANCE.
12. THE CONTRACTOR WILL REIMBURSE THE CITY FOR ALL REPAIR AND/OR COST INCURRED AS A RESULT OF ANY DAMAGE TO ANY PUBLIC INFRASTRUCTURE WITHIN CITY EASEMENT OR PUBLIC RIGHT-OF-WAY, REGARDLESS OF THESE PLANS.
13. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT EASEMENTS. CLEANUP SHALL BE TO THE SATISFACTION OF THE ENGINEER OF RECORD AND CITY.
14. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS AND PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO THE PROPERTY OWNER.
15. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 1033 LA POSADA DR. SUITE 375, AUSTIN, TEXAS 78752-3832.
16. ALL MANHOLE FRAMES/COVERS AND WATER VALVE/METER BOXES MUST BE ADJUSTED TO FINISHED GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR FOR CITY CONSTRUCTION INSPECTOR INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING. CONTRACTOR SHALL BACKFILL AROUND MANHOLES AND VALVE BOXES WITH CLASS A CONCRETE.
17. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL CITY OF LEANDER DETAILS AND CITY OF AUSTIN STANDARD SPECIFICATIONS.
18. PROJECT SPECIFICATIONS TAKE PRECEDENCE OVER PLANS AND SPECIAL CONDITIONS GOVERN OVER TECHNICAL SPECIFICATIONS.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
20. THE CONTRACTOR MUST OBTAIN A CONSTRUCTION WATER METER FOR ALL WATER USED DURING CONSTRUCTION. A COPY OF THIS PERMIT MUST BE CARRIED AT ALL TIMES BY ALL WHO USE WATER.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADS AND DRIVES ADJACENT TO AND NEAR THE SITE FREE FROM SOIL, SEDIMENT AND DEBRIS. CONTRACTOR WILL NOT REMOVE SOIL, SEDIMENT OR DEBRIS FROM ANY AREA OR VEHICLE BY MEANS OF WATER. ONLY SHOVELING AND SWEEPING WILL BE ALLOWED. THE CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE. THE CONTRACTOR SHALL KEEP THE SITE AREA CLEAN AND MAINTAINED AT ALL TIMES, TO THE SATISFACTION OF THE CITY. THE SUBDIVISION (OR SITE) WILL NOT BE ACCEPTED (OR CERTIFICATE OF OCCUPANCY ISSUED) UNTIL THE SITE HAS BEEN CLEANED TO THE SATISFACTION OF THE CITY.
22. TREES IN EXISTING ROW SHOULD BE PROTECTED OR NOTED IN THE PLANS TO BE REMOVED.

CONSTRUCTION SEQUENCE NOTES

NOTE: BELOW IS GENERAL SEQUENCE OF CONSTRUCTION. THE ENGINEER OF RECORD SHALL UPDATE BELOW WITH NOTES SPECIFIC TO THE PROJECT.

1. REACH OUT TO THE CITY FOR PRE-CONSTRUCTION MEETING AND CONSTRUCTION PERMIT.
2. SET-UP E/S CONTROLS AND TREE PROTECTION AND REACH OUT TO CITY FOR INSPECTION.
3. SET UP TEMPORARY TRAFFIC CONTROLS.
4. CONSTRUCT THE DRAINAGE PONDS AND STORM WATER FEATURES.
5. START UTILITY, ROAD, GRADING, FRANCHISE UTILITY AND ALL NECESSARY INFRASTRUCTURE CONSTRUCTION. [NOTE: PLEASE UPDATE AS PER THE PROJECT]
6. REQUEST FINAL WALKTHROUGH AND CONDUCT WALKTHROUGH WITH ENGINEER OF RECORD AND CITY DEPARTMENT.
7. ENGINEER OF RECORD IS RESPONSIBLE TO PREPARE AND SUBMIT CLOSEOUT DOCUMENTS FOR PROJECT CLOSEOUT.

EROSION CONTROL NOTES

1. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES AND SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
2. THE TEMPORARY SPOILS DISPOSAL SITE IS TO BE SHOWN IN THE EROSION CONTROL MAP.
3. ANY ON-SITE SPOILS DISPOSAL SHALL BE REMOVED PRIOR TO ACCEPTANCE UNLESS SPECIFICALLY SHOWN ON THE PLANS. THE DEPTH OF SPOIL SHALL NOT EXCEED 10 FEET IN ANY AREA.
4. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF 6 INCHES OF TOPSOIL AND COMPOST BLEND. TOPSOIL ON SINGLE FAMILY LOTS MAY BE INSTALLED WITH HOME CONSTRUCTION. THE TOPSOIL AND COMPOST BLEND SHALL CONSIST OF 75% TOPSOIL AND 25% COMPOST.
5. SEEDING FOR REESTABLISHING VEGETATION SHALL COMPLY WITH THE AUSTIN GROW GREEN GUIDE OR WILLIAMSON COUNTY'S PROTOCOL FOR SUSTAINABLE ROADSIDES (SPEC 164--WC001 SEEDING FOR EROSION CONTROL). RESEEDING VARIETIES OF BERMUDA SHALL NOT BE USED.
6. STABILIZED CONSTRUCTION ENTRANCE IS REQUIRED AT ALL POINTS WHERE CONSTRUCTION TRAFFIC IS EXITING THE PROJECT ONTO EXISTING PAVEMENT. LINEAR CONSTRUCTION PROJECTS MAY REQUIRE SPECIAL CONSIDERATION. ROADWAYS SHALL REMAIN CLEAR OF SILT AND MUD.
7. TEMPORARY STOP SIGNS SHOULD BE INSTALLED AT ALL CONSTRUCTION ENTRANCES WHERE A STOP CONDITION DOES NOT ALREADY EXIST.
8. IN THE EVENT OF INCLEMENT WEATHER THAT MAY RESULT IN A FLOODING SITUATION, THE CONTRACTOR SHALL REMOVE INLET PROTECTION MEASURES UNTIL SUCH TIME AS THE WEATHER EVENT HAS PASSED.

WATER AND WASTEWATER NOTES

WATER AND WASTEWATER GENERAL NOTES

1. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AND ORGANIZATION ACCREDITED BY ANSI.
2. ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY STAMPED AS FOLLOWS:
   - WATER SERVICE "W" ON TOP OF CURB
   - WASTEWATER SERVICE "S" ON TOP OF CURB
   - VALVE "V" ON TOP OF CURB
3. OPEN UTILITIES SHALL NOT BE PERMITTED ACROSS THE EXISTING PAVED SURFACES. WATER AND WASTEWATER LINES ACROSS THE EXISTING PAVED SURFACES SHALL BE BORED AND INSTALLED IN STEEL ENCASEMENT PIPES. BELL RESTRAINTS SHALL BE PROVIDED AT JOINTS.
4. INTERIOR SURFACES OF ALL DUCTILE IRON POTABLE OR RECLAIMED WATER PIPE SHALL BE CEMENT-MORTAR LINED AND SEAL COATED AS REQUIRED BY AWWA C104.
5. SAND, AS DESCRIBED IN AUSTIN SPECIFICATION ITEM 510 PIPE, SHALL NOT BE USED AS BEDDING FOR WATER AND WASTEWATER LINES. ACCEPTABLE BEDDING MATERIALS ARE PIPE BEDDING STONE, PEA GRAVEL AND IN LIEU OF SAND, A NATURALLY OCCURRING OR MANUFACTURED STONE MATERIAL CONFORMING TO ASTM C33 FOR STONE QUALITY AND MEETING THE FOLLOWING GRADATION SPECIFICATION:

SIEVE SIZE	PERCENT RETAINED BY WEIGHT
1/2"	0
3/8"	0-2
#4	40-85
#10	95-100

6. DENSITY TESTING FOR TRENCH BACKFILL SHALL BE DONE IN MAXIMUM 12" LIFTS.

WATER

1. SAMPLING TAPS SHALL BE BROUGHT UP TO 3 FEET ABOVE GRADE AND SHALL BE EASILY ACCESSIBLE FOR CITY PERSONNEL. AT THE CONTRACTORS' REQUEST, AND IN HIS PRESENCE, SAMPLES FOR BACTERIOLOGICAL TESTING WILL BE COLLECTED BY THE CITY OF LEANDER NOT LESS THAN 24 HOURS AFTER THE TREATED LINE HAS BEEN FLUSHED OF THE CONCENTRATED CHLORINE SOLUTION AND CHARGED WITH WATER APPROVED BY THE CITY.
2. CITY PERSONNEL WILL OPERATE OR AUTHORIZE THE CONTRACTOR TO OPERATE ALL WATER VALVES THAT WILL PASS THROUGH THE CITY'S POTABLE WATER. THE CONTRACTOR MAY BE FINED $500 OR MORE, INCLUDING ADDITIONAL THEFT OF WATER FINES, IF A WATER VALVE IS OPERATED IN AN UNAUTHORIZED MANNER, REGARDLESS OF WHO OPERATED THE VALVE.
3. THE CONTRACTOR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY LINES MAY HAVE TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND POSSIBLY BETWEEN 12 AM AND 6 AM AFTER COORDINATING WITH CITY CONSTRUCTION INSPECTORS AND INFORMING AFFECTED PROPERTIES.
4. PRESSURE TAPS OR HOT TAPS SHALL BE IN ACCORDANCE WITH CITY OF LEANDER STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. A CITY OF LEANDER INSPECTOR MUST BE PRESENT WHEN THE CONTRACTOR MAKES A TAP, AND/OR ASSOCIATED TESTS. A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED. "SIZE ON SIZE" TAPS SHALL NOT BE PERMITTED UNLESS MADE BY THE USE OF AN APPROVED FULL-CIRCLE GASKETED TAPPING SLEEVE. CONCRETE THRUST BLOCKS SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES A MINIMUM OF 24 HOURS PRIOR TO THE BRANCH BEING PLACED INTO SERVICE. THRUST BLOCKS SHALL BE INSPECTED PRIOR TO BACKFILL.
5. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A BLACK POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP SHALL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED INTO SERVICE.
6. THRUST BLOCKS OR RESTRAINTS SHALL BE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS AND REQUIRED AT ALL FITTINGS PER DETAIL OR MANUFACTURER'S RECOMMENDATION. ALL FITTINGS SHALL HAVE BOTH THRUST BLOCKS AND RESTRAINTS.
7. ALL DEAD END WATER MAINS SHALL HAVE "FIRE HYDRANT ASSEMBLY" OR "BLOW-OFF VALVE AND THRUST BLOCK" OR "BLOW-OFF VALVE AND THRUST RESTRAINTS". THRUST RESTRAINTS SHALL BE INSTALLED ON THE MINIMUM LAST THREE PIPE LENGTHS (STANDARD 20' LAYING LENGTH). ADDITIONALL THRUST RESTRAINTS MAY BE REQUIRED BASED UPON THE MANUFACTURERS RECOMMENDATION AND/OR ENGINEER'S DESIGN.
8. PIPE MATERIAL FOR PUBLIC WATER MAINS SHALL BE PVC (AWWA C900-DR14 MIN. 305 PSI PRESSURE RATING). WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200PSI, AND SDR-(9)). COPPER PIPES AND FITTINGS ARE NOT ALLOWED IN THE PUBLIC RIGHT OF WAY. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF-PW).
9. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C115/C151 PRESSURE CLASS 350).
10. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE.
11. LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.
12. ALL WATER METER BOXES SHALL BE:

a. SINGLE, 1" METER AND BELOW DFW37F-12-1CA, OR EQUAL
b. DUAL, 1" METERS AND BELOW DFW39F-12-1CA, OR EQUAL
c. 1.5" SINGLE METER DFW65C-14-1CA, OR EQUAL
d. 2" SINGLE METER DFW1730F-12-1CA, OR EQUAL

13. ALL WATER VALVE COVERS ARE TO BE PAINTED BLUE.

WASTEWATER

1. CURVILINEAR WASTEWATER DESIGN LAYOUT IS NOT PERMITTED.
2. MANDREL TESTING SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
3. MANHOLES SHALL BE COATED PER CITY OF AUSTIN SPL WW-511 (RAVEN 405 OR SPRAYWALL). PENETRATIONS TO EXISTING WASTEWATER MANHOLES REQUIRE THE CONTRACTOR TO RECOAT THE ENTIRE MANHOLE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS SECTION NO. 506.5.
4. RECLAIMED AND RECYCLED WATER LINE SHALL BE CONSTRUCTED OF "PURPLE PIPE." ALL RECLAIMED AND RECYCLED WATER VALVE COVERS SHALL BE SQUARE AND PAINTED PURPLE.
5. FORCE MAIN PIPES NEED TO HAVE SWEEPING WYES FOR JOINTS.

STREET AND DRAINAGE NOTES

1. THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISTATION RELATED TO ACCESSIBLITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND TEXAS ACCESSIBILITY STANDARS (TAS).
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.
3. A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED BETWEEN THE CURB AND RIGHT-OF-WAY AND IN ALL DRAINAGE CHANNELS EXCEPT CHANNELS CUT IN STABLE ROCK.
4. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT, INCLUDING GAS, ELECTRIC TELEPHONE, CABLE TV, ETC., SHALL BE A MINIMUM OF 36" BELOW SUBGRADE.
5. STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF ¼" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED.
6. ALL DRAINAGE PIPE IN PUBLIC RIGHT OF WAY OR EASEMENTS SHALL BE REINFORCED CONCRETE PIPE MINIMUM CLASS III OF TONGUE AND GROOVE OR O-RING JOINT DESIGN. CORRUGATED METAL PIPE IS NOT ALLOWED IN PUBLIC RIGHT OR WAY OR EASEMENTS.
7. THE CONTRACTOR MUST PROVIDE A PNEUMATIC TRUCK PER TXDOT SPEC FOR PROOF ROLLING.
8. ALL STRIPING, WITH THE EXCEPTION OF STOP BARS, CROSS WALKS, WORDS AND ARROWS, IS TO BE TYPE II (WATER BASED). STOP BARS, CROSS WALKS, WORDS AND ARROWS REQUIRE TYPE I THERMOPLASTIC.
9. MANHOLE FRAMES, COVERS, VALVES, CLEAN-OUTS, ETC. SHALL BE RAISED TO GRADE PRIOR TO FINAL PAVEMENT CONSTRUCTION.
10. A STOP BAR SHALL BE PLACED AT ALL STOP SIGN LOCATIONS.
11. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE APPROVED CONSTRUCTION PLANS.
12. GEOTECHNICAL INVESTIGATION INFORMATION AND PAVEMENT RECOMMENDATIONS WERE PROVIDED BY PROFESSIONAL SERVICE INDUSTRIES, INC., PSI PROJECT NO. 03031748, DATED APRIL 10, 2023.
13. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CITY OF AUSTIN TRANSPORATION CRITERIA MANUAL, CITY OF LEANDER STANDARD DETAILS AND TEXAS DEPARTMENT OF TRANSPORTATION CRITERIA, SHALL BE SUBMITTED TO THE CITY OF LEANDER FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS MUST BE SITE SPECIFIC AND SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
14. ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM UNLESS OTHERWISE NOTED ON THE PLANS. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL OF THE CITY ENGINEER AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY THE CITY DURING PEAK HOURS OF 6 AM TO 9 AM OR 4 PM TO 8 PM WILL BE SUBJECT TO A FINE AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.
15. TEMPORARY ROCK CRUSHING IS NOT ALLOWED. ALL SOURCES OF FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR PROPOSED STOCK PILES ARE TO BE SUBMITTED TO THE CITY CONSTRUCTION INSPECTOR FOR REVIEW AND APPROVAL.
16. AT ROAD INTERSECTIONS THAT HAVE A VALLEY GUTTER, THE CROWN TO THE INTERSECTING ROAD WILL BE CULMINATED AT A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
17. NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAYS AND PUBLIC STREETS. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.
18. ALL DRIVEWAY APPROACHES SHALL HAVE A UNIFORM TWO PERCENT SLOPE WITHIN THE PUBLIC RIGHT OF WAY UNLESS APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
19. IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRVIEWAY TO REMAIN OPEN AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION OBTAINED BY THE CONTRACTOR FROM ALL PROPERTY OWNERS AND ACCESS EASEMENT RIGHT HOLDERS ALLOWING THE FULL CLOSURE OF THE DRIVEWAY.
20. CONTRACTOR MUST CLEAR FIVE (5) FEET BEYOND ALL PUBLIC RIGHT OF WAY TO PREVENT FUTURE VEGETATIVE GROWTH INTO THE SIDEWALK AREAS.
21. SLOPE OF NATURAL GROUND ADJACENT TO THE PUBLIC RIGHT OF WAY SHALL NOT EXCEED 3:1 SLOPE. IF A 3:1 SLOPE IS NOT POSSIBLE, SLOPE PROTECTION OR RETAINING WALL MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE.
22. THERE SHALL BE NO WATER, WASTEWATER OR DRAINAGE APPURTENANCES, INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, METERS, CLEAN-OUTS, MANHOLES, OR VAULTS IN ANY DRIVEWAY, SIDEWALK, TRAFFIC OR PEDESTRIAN AREA.
23. PUBLIC SIDEWALKS SHALL NOT USE CURB INLETS AS PARTIAL WALKING SURFACE. SIDEWALKS SHALL NOT USE TRAFFIC CONTROL BOXES, METERS, CHECK VALVE VAULTS, COMMUNICATION VAULTS, OR OTHER BURIED OR PARTIALLY BURIED INFRASTRUCTURE AS A VEHICULAR OR PEDESTRIAN SURFACE.
24. ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTION(S) PRIOR TO THE INSTALLATION OF DRY UTILITIES.
25. DRY UTILITIES SHALL BE INSTALLED AFTER SUBGRADE IS CUT AND BEFORE THE FIRST COURSE OF BASE. NO TRENCHING COMPACTED BASE. IF NECESSARY DRY UTILITIES INSTALLED AFTER FIRST COURSE BASE SHALL BE BORED ACROSS THE FULL WIDTH OF THE PUBLIC RIGHT-OF-WAY.
26. A MINIMUM OF SEVEN (7) DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF VEHICULAR TRAFFIC TO ALL STREETS.

TRENCH SAFETY NOTES

1. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT ARE DESCRIBED IN ITEM 509S "TRENCH SAFETY SYSTEMS" OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND SHALL BE IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATION SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

GRADING NOTES

1. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.
2. THE CONTRACTOR SHALL CONSTRUCT EARTHEN EMBANKMENTS WITH SLOPES NO STEEPER THAN 3:1 AND COMPACT SOIL TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
3. AREAS OF SOIL DISTURBANCE ARE LIMITED TO GRADING AND IMPROVEMENTS SHOWN. ALL OTHER AREAS WILL NOT BE DISTURBED.

BENCHMARK NOTES:

TBM #1:
SQUARE CUT ON TOP OF CONCRETE HEAD WALL ON THE SOUTH SIDE OF SAN GABRIEL R.O.W., +- 280' EAST OF THE INTERSECTION OF SAN GABRIEL PARKWAY ROAD AND CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY RAILROAD, AND +- WEST OF THE NORTHWESTERN MOST SUBJECT PROPERTY CORNER ELEVATION=970.96'.

TBM #2:
SQUARE CUT ON TOP OF CONCRETE CURB OF A CURC ISLAND IN THE SAN GABRIEL PARKWAY R.O.W., +-50' NORTH FROM A STORM SEWER MANHOLE ON A CURB INLET ON THE SOUTH SIDE OF SAN GABRIEL PARKWAY ROAD, AND +-1+' FROM A TRAFFIC SIGNAL POLE ON A EASTING: 3076865.714, ELEVATION = 981.84'. (NOT SHOWN)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN
GENERAL CONSTRUCTION NOTES

1. WRITTEN CONSTRUCTION NOTIFICATION SHOULD BE PROVIDED TO THE APPROPRIATE TCEQ REGIONAL OFFICE NO LATER THAN 48 HOURS PRIOR TO COMMENCEMENT OF THE REGULATED ACTIVITY. INFORMATION SHOULD INCLUDE THE DATE ON WHICH THE REGULATED ACTIVITY WILL COMMENCE, THE NAME OF THE APPROVED PLAN FOR THE REGULATED ACTIVITY, AND THE NAME OF THE PRIME CONTRACTOR WITH THE NAME AND TELEPHONE NUMBER OF THE CONTACT PERSON.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ON-SITE.
3. NO TEMPORARY ABOVEGROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM MAY BE INSTALLED WITHIN 150 FEET IF A DOMESTIC, INDUSTRIAL, IRRIGATION, OR PUBLIC WATER SUPPLY WELL.
4. PRIOR TO COMMENCING CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICES. CONTROLS SPECIFIED IN THE SWPPP SECTION OF THE APPROVED EDWARDS AQUIFER CONTRIBUTING ZONE PLAN ARE REQUIRED DURING CONSTRUCTION. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
5. 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).
6. SEDIMENT MUST BE REMOVED FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS NOT LATER THAN WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50%. A PERMANENT STAKE MUST BE PROVIDED THAT CAN INDICATE WHEN THE SEDIMENT OCCUPIES 50% OF THE BASIN VOLUME.
7. 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).
8. ALL SPOILS (EXCAVATED MATERIAL)

KH GENERAL NOTES

OVERALL:

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE PLANS, CITY (OR TOWN) STANDARD DETAILS AND SPECIFICATIONS, THE FINAL GEOTECHNICAL REPORT AND ALL ISSUED ADDENDA, AND COMMONLY ACCEPTED CONSTRUCTION STANDARDS. THE CITY SPECIFICATIONS SHALL GOVERN WHERE OTHER SPECIFICATIONS DO NOT EXIST. IN CASE OF CONFLICTING SPECIFICATIONS OR DETAILS, THE MORE RESTRICTIVE SPECIFICATION AND DETAIL SHALL BE FOLLOWED.
2. THE CONTRACTOR SHALL COMPLY WITH CITY (OR TOWN) "GENERAL NOTES" FOR CONSTRUCTION, IF EXISTING AND REQUIRED BY THE CITY. FOR INSTANCES WHERE THEY CONFLICT WITH THESE KH GENERAL NOTES, THEN THE MORE RESTRICTIVE SHALL APPLY.
3. THE CONTRACTOR SHALL FURNISH ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE AUTHORITIES' SPECIFICATIONS AND REQUIREMENTS.
4. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXISTING CONDITIONS.
5. THE EXISTING CONDITIONS SHOWN ON THESE PLANS WERE PROVIDED BY THE TOPOGRAPHIC SURVEY PREPARED BY THE PROJECT SURVEYOR, AND ARE BASED ON THE BENCHMARKS SHOWN. THE CONTRACTOR SHALL REFERENCE THE SAME BENCHMARKS.
6. THE CONTRACTOR SHALL REVIEW AND VERIFY THE EXISTING TOPOGRAPHIC SURVEY SHOWN ON THESE PLANS WITH THE EXISTING FIELD CONDITIONS PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DISCREPANCIES FOUND TO THE OWNER AND ENGINEER IMMEDIATELY.
7. IF THE CONTRACTOR DOES NOT ACCEPT THE EXISTING TOPOGRAPHIC SURVEY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN THE CONTRACTOR SHALL SUPPLY AT THEIR OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED PROFESSIONAL LAND SURVEYOR TO THE OWNER AND ENGINEER FOR REVIEW.
8. CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION SURVEYING AND STAKING.
9. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL CONTROL, INCLUDING BENCHMARKS PRIOR TO COMMENCING CONSTRUCTION OR STAKING OF IMPROVEMENTS. PROPERTY LINES AND CORNERS SHALL BE HELD AS THE HORIZONTAL CONTROL.
10. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS, ELEVATIONS, AND FIELD CONDITIONS THAT MAY AFFECT CONSTRUCTION. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE ARCHITECT, ENGINEER, AND IF APPLICABLE THE CITY AND OWNER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE CITY, ENGINEER, AND OWNER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
11. CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL, AND OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. OWNER/ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY PRIOR TO COMMENCING WITH CONSTRUCTION.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK TO HAVE THEM LOCATE THEIR EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION.
13. CONTRACTOR SHALL CALL TEXAS 811 AN ADEQUATE AMOUNT OF TIME PRIOR TO COMMENCING CONSTRUCTION OR ANY EXCAVATION.
14. CONTRACTOR SHALL USE EXTREME CAUTION AS THE SITE CONTAINS VARIOUS KNOWN AND UNKNOWN PUBLIC AND PRIVATE UTILITIES.
15. THE LOCATIONS, ELEVATIONS, DEPTH, AND DIMENSIONS OF EXISTING UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM AVAILABLE UTILITY COMPANY MAPS AND PLANS, AND ARE CONSIDERED APPROXIMATE AND INCOMPLETE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE PRESENCE, LOCATION, ELEVATION, DEPTH, AND DIMENSIONS OF EXISTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION SO THAT ADJUSTMENTS CAN BE MADE TO PROVIDE ADEQUATE CLEARANCES. THE ENGINEER SHALL BE NOTIFIED WHEN A PROPOSED IMPROVEMENT CONFLICTS WITH AN EXISTING UTILITY.
16. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ANY ADJUSTMENTS AND RELOCATIONS OF EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO, ADJUSTING EXISTING MANHOLES TO MATCH PROPOSED GRADE, RELOCATING EXISTING POLES AND GUY WIRES THAT ARE LOCATED IN PROPOSED DRIVEWAYS, ADJUSTING THE HORIZONTAL OR VERTICAL ALIGNMENT OF EXISTING UNDERGROUND UTILITIES TO ACCOMMODATE PROPOSED GRADE OR CROSSING WITH A PROPOSED UTILITY, AND ANY OTHERS THAT MAY BE ENCOUNTERED THAT ARE UNKNOWN AT THIS TIME AND NOT SHOWN ON THESE PLANS.
17. CONTRACTOR SHALL ARRANGE FOR OR PROVIDE, AT ITS EXPENSE, ALL GAS, TELECOMMUNICATIONS, CABLE, OVERHEAD AND UNDERGROUND POWER LINE, AND UTILITY POLE ADJUSTMENTS NEEDED.
18. CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION OF FRANCHISE UTILITIES THAT ARE NECESSARY FOR ON-SITE AND OFF-SITE CONSTRUCTION, AND SERVICE TO THE PROPOSED DEVELOPMENT.
19. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL DAMAGES DUE TO THE CONTRACTORS' FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
20. BRACING OF UTILITY POLES MAY BE REQUIRED BY THE UTILITY COMPANIES WHEN TRENCHING OR EXCAVATING IN CLOSE PROXIMITY TO THE POLES. THE COST OF BRACING POLES WILL BE BORNE BY THE CONTRACTOR, WITH NO SEPARATE PAY ITEM FOR THIS WORK. THE COST IS INCIDENTAL TO THE PAY ITEM.
21. CONTRACTOR SHALL USE ALL NECESSARY SAFETY PRECAUTIONS TO AVOID CONTACT WITH OVERHEAD AND UNDERGROUND POWER LINES. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE, FEDERAL AND UTILITY OWNER REGULATIONS PERTAINING TO WORK SETBACKS FROM POWER LINES.
22. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL REQUIRED CONSTRUCTION PERMITS, APPROVALS, AND BONDS PRIOR TO CONSTRUCTION.
23. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES A COPY OF THE CONTRACT DOCUMENTS INCLUDING PLANS, GEOTECHNICAL REPORT AND ADDENDA, PROJECT AND CITY SPECIFICATIONS, AND SPECIAL CONDITIONS, COPIES OF ANY REQUIRED CONSTRUCTION PERMITS, EROSION CONTROL PLANS, SWPPP AND INSPECTION REPORTS.
24. ALL SHOP DRAWINGS AND OTHER DOCUMENTS THAT REQUIRE ENGINEER REVIEW SHALL BE SUBMITTED BY THE CONTRACTOR SUFFICIENTLY IN ADVANCE OF CONSTRUCTION OF THAT ITEM, SO THAT NO LESS THAN 10 BUSINESS DAYS FOR REVIEW AND RESPONSE IS AVAILABLE.
25. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES, JURISDICTIONAL AGENCIES, AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO USE OF THE FACILITY AND THE FINAL CONNECTION OF SERVICES.
26. CONTRACTOR SHALL ARRANGE FOR REQUIRED CITY INSPECTIONS.
27. CONTRACTOR'S BID PRICE SHALL INCLUDE ALL INSPECTION FEES.
28. ALL SYMBOLS SHOWN ON THESE PLANS (E.G. FIRE HYDRANT, METERS, VALVES, INLETS, ETC....) ARE FOR PRESENTATION PURPOSES ONLY AND ARE NOT TO SCALE. CONTRACTOR SHALL COORDINATE FINAL SIZES AND LOCATIONS WITH APPROPRIATE CITY INSPECTOR.
29. THE SCOPE OF WORK FOR THE CIVIL IMPROVEMENTS SHOWN ON THESE PLANS TERMINATES 5-FEET FROM THE BUILDING. REFERENCE THE BUILDING PLANS (E.G. ARCHITECTURAL, STRUCTURAL, MEP) FOR AREAS WITHIN 5-FEET OF THE BUILDING AND WITHIN THE BUILDING FOOTPRINT.
30. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR ALL FINAL BUILDING DIMENSIONS.
31. THE PROPOSED BUILDING FOOTPRINT(S) SHOWN IN THESE PLANS WAS PROVIDED TO KIMLEY-HORN AND ASSOCIATES, INC. (KH) BY THE PROJECT ARCHITECT AT THE TIME THESE PLANS WERE PREPARED. IT MAY NOT BE THE FINAL CORRECT VERSION BECAUSE THE BUILDING DESIGN WAS ONGOING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING THE FINAL CORRECT VERSION OF THE BUILDING FOOTPRINT WITH THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO LAYOUT. DIMENSIONS AND/OR COORDINATES SHOWN ON THESE PLANS WERE BASED ON THE ABOVE STATED ARCHITECTURAL FOOTPRINT, AND ARE THEREFORE A PRELIMINARY LOCATION OF THE BUILDING. THE CONTRACTOR IS SOLELY RESPONSIBLE TO VERIFY WHAT PART OF THE BUILDING THE ARCHITECT'S FOOTPRINT REPRESENTS (E.G. SLAB, OUTSIDE WALL, MASONRY LEDGE, ETC....) AND TO CONFIRM ITS FINAL POSITION ON THE SITE BASED ON THE FINAL ARCHITECTURAL FOOTPRINT, CIVIL DIMENSION CONTROL PLAN, SURVEY BOUNDARY AND/OR PLAT. ANY DIFFERENCES FOUND SHALL BE REPORTED TO KH IMMEDIATELY.
32. ALL CONSTRUCTION SHALL COMPLY WITH THE PROJECT'S FINAL GEOTECHNICAL REPORT (OR LATEST EDITION), INCLUDING SUBSEQUENT ADDENDA.
33. CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS TESTING AND CERTIFICATION, UNLESS SPECIFIED OTHERWISE BY OWNER. ALL MATERIALS TESTING SHALL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR AND COMPLY WITH CITY STANDARD SPECIFICATIONS AND GEOTECHNICAL REPORT. TESTING SHALL BE PERFORMED BY AN APPROVED INDEPENDENT AGENCY FOR TESTING MATERIALS. OWNER SHALL APPROVE THE AGENCY NOMINATED BY THE CONTRACTOR FOR MATERIALS TESTING.
34. ALL COPIES OF MATERIALS TEST RESULTS SHALL BE SENT TO THE OWNER, ENGINEER AND ARCHITECT DIRECTLY FROM THE TESTING AGENCY.
35. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SHOW, BY THE STANDARD TESTING PROCEDURES OF THE MATERIALS, THAT THE WORK CONSTRUCTED MEETS THE PROJECT REQUIREMENTS AND CITY SPECIFICATIONS.
36. DUE TO THE POTENTIAL FOR DIFFERENTIAL SOIL MOVEMENT ADJACENT TO THE BUILDING, THE CONTRACTOR SHALL ADHERE TO GEOTECHNICAL REPORT'S RECOMMENDATION FOR SUBGRADE PREPARATION SPECIFIC TO FLATWORK ADJACENT TO THE PROPOSED BUILDING. THE OWNER AND CONTRACTOR ARE ADVISED TO OBTAIN A GEOTECHNICAL ENGINEER RECOMMENDATION SPECIFIC TO FLATWORK ADJACENT TO THE BUILDING, IF NONE IS CURRENTLY EXISTING.
37. ALL CONTRACTORS MUST CONFINE THEIR ACTIVITIES TO THE WORK AREA. NO ENCROACHMENTS OUTSIDE OF THE WORK AREA WILL BE ALLOWED. ANY DAMAGE RESULTING THEREFROM SHALL BE CONTRACTOR'S SOLE RESPONSIBILITY TO REPAIR.
38. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, UTILITIES, MANHOLES, POLES, GUY WIRES, VALVE COVERS, VAULT LIDS, FIRE HYDRANTS, COMMUNICATION BOXES/PEDESTALS, AND OTHER FACILITIES TO REMAIN AND SHALL REPAIR ANY DAMAGES AT NO COST TO THE OWNER.
39. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE ANY PHYSICAL DAMAGE TO PRIVATE PROPERTY OR PUBLIC IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO: FENCES, WALLS, SIGNS, PAVEMENT, CURBS, UTILITIES, SIDEWALKS, GRASS, TREES, LANDSCAPING, AND IRRIGATION SYSTEMS, ETC.... TO ORIGINAL CONDITION OR BETTER AT NO COST TO THE OWNER.
40. ALL AREAS IN EXISTING RIGHT-OF-WAY DISTURBED BY SITE CONSTRUCTION SHALL BE REPAIRED TO ORIGINAL CONDITION OR BETTER, INCLUDING AS NECESSARY GRADING, LANDSCAPING, CULVERTS, AND PAVEMENT.
41. THE CONTRACTOR SHALL SALVAGE ALL EXISTING POWER POLES, SIGNS, WATER VALVES, FIRE HYDRANTS, METERS, ETC... THAT ARE TO BE RELOCATED DURING CONSTRUCTION.
42. CONTRACTOR SHALL MAINTAIN ADEQUATE SITE DRAINAGE DURING ALL PHASES OF CONSTRUCTION, INCLUDING MAINTAINING EXISTING DITCHES OR CULVERTS FREE OF OBSTRUCTIONS AT ALL TIMES.
43. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SUBMITTING A TRENCH SAFETY PLAN, PREPARED BY A PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, TO THE CITY PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REQUIREMENTS, INCLUDING OSHA FOR ALL TRENCHES. NO OPEN TRENCHES SHALL BE ALLOWED OVERNIGHT WITHOUT PRIOR WRITTEN APPROVAL OF THE CITY.
44. THE CONTRACTOR SHALL KEEP TRENCHES FREE FROM WATER.
45. SITE SAFETY IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
46. THESE PLANS DO NOT EXTEND TO OR INCLUDE DESIGNS OR SYSTEMS PERTAINING TO THE SAFETY OF THE CONTRACTOR OR ITS EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE ENGINEER'S SEAL HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF ALL REQUIRED SAFETY PROCEDURES AND PROGRAMS.
47. SIGNS RELATED TO SITE OPERATION OR SAFETY ARE NOT INCLUDED IN THESE PLANS.
48. CONTRACTOR OFFICE AND STAGING AREA SHALL BE AGREED ON BY THE OWNER AND CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITTING REQUIREMENTS FOR THE CONSTRUCTION OFFICE, TRAILER, STORAGE, AND STAGING OPERATIONS AND LOCATIONS.
49. LIGHT POLES, SIGNS, AND OTHER OBSTRUCTIONS SHALL NOT BE PLACED IN ACCESSIBLE ROUTES.
50. ALL SIGNS, PAVEMENT MARKINGS, AND OTHER TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
51. TOP RIM ELEVATIONS OF ALL EXISTING AND PROPOSED MANHOLES SHALL BE COORDINATED WITH TOP OF PAVEMENT OR FINISHED GRADE AND SHALL BE ADJUSTED TO BE FLUSH WITH THE ACTUAL FINISHED GRADE AT THE TIME OF PAVING.
52. CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED VALVES, FIRE HYDRANTS, AND OTHER UTILITY APPURTENANCES TO MATCH ACTUAL FINISHED GRADES AT THE TIME OF PAVING.
53. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SEQUENCING AND PHASING, AND SHALL CONTACT THE APPROPRIATE CITY OFFICIALS, INCLUDING BUILDING OFFICIAL, ENGINEERING INSPECTOR, AND FIRE MARSHALL TO LEARN OF ANY REQUIREMENTS.
54. CONTRACTOR IS RESPONSIBLE FOR PREPARATION, SUBMITTAL, AND APPROVAL BY THE CITY OF A TRAFFIC CONTROL PLAN PRIOR TO THE START OF CONSTRUCTION, AND THEN THE IMPLEMENTATION OF THE PLAN.
55. CONTRACTOR SHALL KEEP A NEAT AND ACCURATE RECORD OF CONSTRUCTION, INCLUDING ANY DEVIATIONS OR VARIANCES FROM THE PLANS.
56. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT PLANS TO THE ENGINEER AND CITY IDENTIFYING ALL DEVIATIONS AND VARIATIONS FROM THESE PLANS MADE DURING CONSTRUCTION.

EROSION CONTROL:

1. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL EROSION CONTROL AND WATER QUALITY REQUIREMENTS, LAWS, AND ORDINANCES THAT APPLY TO THE CONSTRUCTION SITE LAND DISTURBANCE.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE "TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 150000".
3. EROSION CONTROL DEVICES SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBANCE.
4. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT.
5. CONTRACTOR IS SOLELY RESPONSIBLE FOR INSTALLATION, IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL EROSION CONTROL DEVICES, BEST MANAGEMENT PRACTICES (BMPS), AND FOR UPDATING THE EROSION CONTROL PLAN DURING CONSTRUCTION AS FIELD CONDITIONS CHANGE.
6. CONTRACTOR SHALL DOCUMENT THE DATES OF INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL FOR EACH BMP EMPLOYED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE.
7. AS STORM SEWER INLETS ARE INSTALLED ON-SITE, TEMPORARY EROSION CONTROL DEVICES SHALL BE INSTALLED AT EACH INLET PER APPROVED DETAILS.
8. THE EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL THE AREA IT PROTECTS HAS BEEN PERMANENTLY STABILIZED.
9. CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL DEVICES NEEDED DUE TO PROJECT PHASING.
10. CONTRACTOR SHALL OBSERVE THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES AND MAKE FIELD ADJUSTMENTS AND MODIFICATIONS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE SITE. IF THE EROSION CONTROL DEVICES DO NOT EFFECTIVELY CONTROL EROSION AND PREVENT SEDIMENTATION FROM WASHING OFF THE SITE, THEN THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
11. OFF-SITE SOIL BORROW, SPOIL, AND STORAGE AREAS (IF APPLICABLE) ARE CONSIDERED AS PART OF THE PROJECT SITE AND MUST ALSO COMPLY WITH THE EROSION CONTROL REQUIREMENTS FOR THIS PROJECT. THIS INCLUDES THE INSTALLATION OF BMP'S TO CONTROL EROSION AND SEDIMENTATION AND THE ESTABLISHMENT OF PERMANENT GROUND COVER ON DISTURBED AREAS PRIOR TO FINAL APPROVAL OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR MODIFYING THE SWPPP AND EROSION CONTROL PLAN TO INCLUDE BMPS FOR ANY OFF-SITE THAT ARE NOT ANTICIPATED OR SHOWN ON THE EROSION CONTROL PLAN.
12. ALL STAGING, STOCKPILES, SPOIL, AND STORAGE SHALL BE LOCATED SUCH THAT THEY WILL NOT ADVERSELY AFFECT STORM WATER QUALITY. PROTECTIVE MEASURES SHALL BE PROVIDED IF NEEDED TO ACCOMPLISH THIS REQUIREMENT, SUCH AS COVERING OR ENCIRCLING THE AREA WITH AN APPROPRIATE BARRIER.
13. CONTRACTORS SHALL INSPECT ALL EROSION CONTROL DEVICES, BMPS, DISTURBED AREAS, AND VEHICLE ENTRY AND EXIT AREAS WEEKLY AND WITHIN 24 HOURS OF ALL RAINFALL EVENTS OF 0.5 INCHES OR GREATER, AND KEEP A RECORD OF THIS INSPECTION IN THE SWPPP BOOKLET IF APPLICABLE, TO VERIFY THAT THE DEVICES AND EROSION CONTROL PLAN ARE FUNCTIONING PROPERLY.
14. CONTRACTOR SHALL CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE AT ALL PRIMARY POINTS OF ACCESS IN ACCORDANCE WITH CITY SPECIFICATIONS. CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION TRAFFIC USES THE STABILIZED ENTRANCE AT ALL TIMES FOR ALL INGRESS/EGRESS.
15. SITE ENTRY AND EXITS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT THE TRACKING AND FLOWING OF SEDIMENT AND DIRT ONTO OFF-SITE ROADWAYS. ALL SEDIMENT AND DIRT FROM THE SITE THAT IS DEPOSITED ONTO AN OFF-SITE ROADWAY SHALL BE REMOVED IMMEDIATELY.
16. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL SILT AND DEBRIS FROM THE AFFECTED OFF-SITE ROADWAYS THAT ARE A RESULT OF THE CONSTRUCTION, AS REQUESTED BY OWNER AND CITY. AT A MINIMUM, THIS SHOULD OCCUR ONCE PER DAY FOR THE OFF-SITE ROADWAYS.
17. WHEN WASHING OF VEHICLES IS REQUIRED TO REMOVE SEDIMENT PRIOR TO EXITING THE SITE, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP BMP.
18. CONTRACTOR SHALL INSTALL A TEMPORARY SEDIMENT BASIN FOR ANY ON-SITE DRAINAGE AREAS THAT ARE GREATER THAN 10 ACRES, PER TCEQ AND CITY STANDARDS. IF NO ENGINEERING DESIGN HAS BEEN PROVIDED FOR A SEDIMENTATION BASIN ON THESE PLANS, THEN THE CONTRACTOR SHALL ARRANGE FOR AN APPROPRIATE DESIGN TO BE PROVIDED.
19. ALL FINES IMPOSED FOR SEDIMENT OR DIRT DISCHARGED FROM THE SITE SHALL BE PAID BY THE RESPONSIBLE CONTRACTOR.
20. WHEN SEDIMENT OR DIRT HAS CLOGGED THE CONSTRUCTION ENTRANCE VOID SPACES BETWEEN STONES OR DIRT IS BEING TRACKED ONTO A ROADWAY, THE ENTRANCE SHALL BE REWORKED OR REPLACED. RUNOFF FROM THE PAD AREA DRAINING TO THE ROADWAY SHALL NOT BE ALLOWED TO DRAIN DIRECTLY OFF SITE WITHOUT FIRST FLOWING THROUGH ANOTHER BMP TO CONTROL SEDIMENTATION. PERIODIC RE-GRADING OR NEW STONE MAY BE REQUIRED TO MAINTAIN THE EFFECTIVENESS OF THE CONSTRUCTION ENTRANCE.
21. TEMPORARY SEEDING OR OTHER APPROVED STABILIZATION SHALL BE INITIATED WITHIN 14 DAYS OF THE LAST DISTURBANCE OF ANY AREA, UNLESS ADDITIONAL CONSTRUCTION ACTIVITY IN THE AREA IS EXPECTED WITHIN 21 DAYS OF THE LAST DISTURBANCE.
22. CONTRACTOR SHALL FOLLOW GOOD HOUSEKEEPING PRACTICES DURING CONSTRUCTION, ALWAYS CLEANING UP DIRT, LOOSE MATERIAL, AND TRASH AS CONSTRUCTION PROGRESSES.
23. UPON COMPLETION OF FINE GRADING, ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED. STABILIZATION IS ACHIEVED WHEN THE AREA IS EITHER COVERED BY PERMANENT IMPERVIOUS STRUCTURES, SUCH AS BUILDINGS, SIDEWALK, PAVEMENT, OR A UNIFORM PERENNIAL VEGETATIVE COVER.
24. AT THE CONCLUSION OF THE PROJECT, ALL SILT FENCES, DRAIN PIPE, CHANNELS, DRAINAGEWAYS AND BORROW DITCHES AFFECTED BY THE CONSTRUCTION SHALL BE DREDGED, AND THE SEDIMENT GENERATED BY THE PROJECT SHALL BE REMOVED AND DISPOSED IN ACCORDANCE WITH APPLICABLE REGULATIONS.

STORM WATER DISCHARGE AUTHORIZATION:

1. CONTRACTOR SHALL COMPLY WITH ALL TCEQ AND EPA STORM WATER POLLUTION PREVENTION REQUIREMENTS.
2. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE TCEQ GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM TXR 150000.
3. THE CONTRACTOR SHALL ENSURE THAT ALL PRIMARY OPERATORS SUBMIT A NOI TO TCEQ AT LEAST SEVEN DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION (IF APPLICABLE), OR IF UTILITY CONTRACTORS SUBMIT A NOC PRIOR TO CONSTRUCTION. ALL PRIMARY OPERATORS SHALL PROVIDE A COPY OF THE SIGNED NOI TO THE OPERATOR OF ANY MS4 (TYPICALLY THE CITY) RECEIVING DISCHARGE FROM THE SITE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IF APPLICABLE, INCLUDING POSTING SITE NOTICE, INSPECTIONS, DOCUMENTATION, AND SUBMISSION OF ANY INFORMATION REQUIRED BY THE TCEQ AND EPA (E.G. NOI).
5. ALL CONTRACTORS AND SUBCONTRACTORS PROVIDING SERVICES RELATED TO THE SWPPP SHALL SIGN THE REQUIRED CONTRACTOR CERTIFICATION STATEMENT ACKNOWLEDGING THEIR RESPONSIBILITIES AS SPECIFIED IN THE SWPPP.
6. A COPY OF THE SWPPP, INCLUDING NOI, SITE NOTICE, CONTRACTOR CERTIFICATIONS, AND ANY REVISIONS, SHALL BE SUBMITTED TO THE CITY BY THE CONTRACTOR AND SHALL BE RETAINED ON-SITE DURING CONSTRUCTION.
7. A NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED BY THE OPERATOR WITHIN 30 DAYS AFTER ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND A UNIFORM VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY STRUCTURES, A TRANSFER OF OPERATIONAL CONTROL HAS OCCURRED, OR THE OPERATOR HAS OBTAINED ALTERNATE AUTHORIZATION UNDER A DIFFERENT PERMIT. A COPY OF THE NOT SHALL BE PROVIDED TO THE OPERATOR OF ANY MS4 RECEIVING DISCHARGE FROM THE SITE.

DEMOLITION:

1. KH IS NOT RESPONSIBLE FOR THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR TO IMPLEMENT THIS DEMOLITION PLAN. THIS PRELIMINARY DEMOLITION PLAN SIMPLY INDICATES THE KNOWN OBJECTS ON THE SUBJECT TRACT THAT ARE TO BE DEMOLISHED AND REMOVED FROM THE SITE.
2. KH DOES NOT WARRANT OR REPRESENT THAT THE PLAN, WHICH WAS PREPARED BASED ON SURVEY AND UTILITY INFORMATION PROVIDED BY OTHERS, SHOWS ALL IMPROVEMENTS AND UTILITIES, THAT THE IMPROVEMENTS AND UTILITIES ARE SHOWN ACCURATELY, OR THAT THE IMPROVEMENTS AND UTILITIES SHOWN ARE THE ONLY IMPROVEMENTS AFFECTING ITS OWN SITE RECONNAISSANCE TO SCOPE ITS WORK AND TO CONFIRM WITH THE OWNERS OF IMPROVEMENTS AND UTILITIES THE ABILITY AND PROCESS FOR THE REMOVAL OF THEIR FACILITIES.
3. THIS PLAN AND NOTES IS A GENERAL GUIDE TO THE CONTRACTOR, NOTHING MORE. THE GOAL OF THE DEMOLITION IS TO LEAVE THE SITE IN A STATE SUITABLE FOR THE CONSTRUCTION OF THE PROPOSED DEVELOPMENT. REMOVAL OR PRESERVATION OF IMPROVEMENTS, UTILITIES, ETC. TO ACCOMPLISH THIS GOAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
4. CONTRACTOR IS STRONGLY CAUTIONED TO REVIEW THE FOLLOWING REPORTS DESCRIBING SITE CONDITIONS PRIOR TO BIDDING AND IMPLEMENTING THE DEMOLITION PLAN:
   a. ENVIRONMENTAL SITE ASSESSMENT PROVIDED BY THE OWNER,
   b. ASBESTOS BUILDING INSPECTION REPORT(S) PROVIDED BY THE OWNER,
   c. GEOTECHNICAL REPORT PROVIDED BY THE OWNER, AND
   d. OTHER REPORTS THAT ARE APPLICABLE AND AVAILABLE.
5. CONTRACTOR SHALL CONTACT THE OWNER TO VERIFY WHETHER ADDITIONAL REPORTS OR AMENDMENTS TO THE ABOVE CITED REPORTS EXIST, IF ANY, AND TO OBTAIN/REVIEW/AND COMPLY WITH THE RECOMMENDATION OF SUCH STUDIES PRIOR TO STARTING ANY WORK ON THE SITE.
6. CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS REGARDING THE DEMOLITION OF OBJECTS ON THE SITE AND THE DISPOSAL OF THE DEMOLISHED MATERIALS OFF-SITE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO REVIEW THE SITE, TO DETERMINE THE APPLICABLE REGULATIONS, TO RECEIVE THE REQUIRED PERMITS AND AUTHORIZATIONS, AND COMPLY
7. KH DOES NOT REPRESENT THAT THE REPORTS AND SURVEYS REFERENCED ABOVE ARE ACCURATE, COMPLETE, OR COMPREHENSIVE SHOWING ALL ITEMS THAT WILL NEED TO BE DEMOLISHED AND REMOVED.
8. SURFACE FEATURES INDICATED MAY OVERLAY OTHER HIDDEN STRUCTURES, SUCH AS ADDITIONAL LAYERS OF PAVEMENT, FOUNDATIONS OR WALLS, THAT ARE ALSO TO BE REMOVED.

GRADING:

1. THE CONTRACTOR AND GRADING SUBCONTRACTOR SHALL VERIFY THE SUITABILITY OF EXISTING AND PROPOSED SITE CONDITIONS INCLUDING GRADES AND DIMENSIONS BEFORE START OF CONSTRUCTION. THE CIVIL ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL OBTAIN ANY REQUIRED GRADING PERMITS FROM THE CITY.
3. UNLESS OTHERWISE NOTED, PROPOSED CONTOURS AND SPOT ELEVATIONS SHOWN IN PAVED AREA REFLECT TOP OF PAVEMENT SURFACE, IN LOCATIONS ALONG A CURB LINE, ADD 6-INCHES (OR THE HEIGHT OF THE CURB) TO THE PAVING GRADE FOR TOP OF CURB ELEVATION.
4. PROPOSED SPOT ELEVATIONS AND CONTOUR

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 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 SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.

8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.

9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.

10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.

11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
   - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
   - THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
   - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.

12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:

   A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;

   B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;

   C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

TCEQ REGION 11 OFFICE
12100 PARK 35 CIRCLE,
BUILDING A, RM 179
AUSTIN, TEXAS 78753-3795
PHONE: (512) 339-2929
FAX: (512) 339-3795

TCEQ - SEWAGE COLLECTION SYSTEM PLAN NOTES

1. THIS ORGANIZED SEWAGE COLLECTION SYSTEM (SCS) MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) EDWARDS AQUIFER RULES AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.

2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROPOSED REGULATED PROJECT MUST BE PROVIDED WITH COPIES OF THE SCS PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS MUST BE REQUIRED TO KEEP ON-SITE COPIES OF THE PLAN AND THE APPROVAL LETTER.

3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
   - THE NAME OF THE APPROVED PROJECT;
   - THE ACTIVITY START DATE; AND
   - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.

4. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED SCS APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF AN SCS APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.

5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.

6. IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERED. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING AND THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY WHILE MAINTAINING THE STRUCTURAL INTEGRITY OF THE LINE.

7. SEWER LINES LOCATED WITHIN OR CROSSING THE 5-YEAR FLOODPLAIN OF A DRAINAGE WAY WILL BE PROTECTED FROM INUNDATION AND STREAM VELOCITIES WHICH COULD CAUSE EROSION AND SCOURING OF BACKFILL. THE TRENCH MUST BE CAPPED WITH CONCRETE TO PREVENT SCOURING OF BACKFILL, OR THE SEWER LINES MUST BE ENCASED IN CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES.

8. BLASTING PROCEDURES FOR PROTECTION OF EXISTING SEWER LINES AND OTHER UTILITIES WILL BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION CRITERIA. SAND IS NOT ALLOWED AS BEDDING OR BACKFILL IN TRENCHES THAT HAVE BEEN BLASTED. IF ANY EXISTING SEWER LINES ARE DAMAGED, THE LINES MUST BE REPAIRED AND RETESTED.

9. ALL MANHOLES CONSTRUCTED OR REHABILITATED ON THIS PROJECT MUST HAVE WATERTIGHT SIZE ON SIZE RESILIENT CONNECTORS ALLOWING FOR DIFFERENTIAL SETTLEMENT. IF MANHOLES ARE CONSTRUCTED WITHIN THE 100-YEAR FLOODPLAIN, THE COVER MUST HAVE A GASKET AND BE BOLTED TO THE RING. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE OR FOR MORE THAN 1500 FEET, ALTERNATE MEANS OF VENTING WILL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE.

   THE DIAMETER OF THE MANHOLES MUST BE A MINIMUM OF FOUR FEET AND THE MANHOLE FOR ENTRY MUST HAVE A MINIMUM CLEAR OPENING DIAMETER OF 30 INCHES. THESE DIMENSIONS AND OTHER DETAILS SHOWING COMPLIANCE WITH THE COMMISSION'S RULES CONCERNING MANHOLES AND SEWER LINE/MANHOLE INVERTS DESCRIBED IN 30 TAC §217.55 ARE INCLUDED ON PLAN SHEET 28 OF 39.

   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: NONE

    IF PIPE FLEXURE IS PROPOSED, THE FOLLOWING METHOD OF PREVENTING DEFLECTION OF THE JOINT MUST BE USED: NO FLEXURE PROPOSED

    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.

    IF NO STUB-OUT IS PRESENT AN ALTERNATE METHOD OF JOINING LATERALS IS SHOWN IN THE DETAIL ON PLAN SHEET N/A OF N/A. (FOR POTENTIAL FUTURE LATERALS).

    THE PRIVATE SERVICE LATERAL STUB-OUTS MUST BE INSTALLED AS SHOWN ON THE PLAN AND PROFILE SHEETS.

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 C-924, 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

$$T = (0.085 * D * K) / Q$$

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
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 (IN)	MINIMUM TIME (SEC)	MAXIMUM LENGTH FOR MINIMUM TIME (FT)	TIME FOR LONGER LENGTH (SEC/FT)
4	240	458	0.5240
6	360	298	1.2400
8	427	226	2.3742
10	508	180	3.9168
12	600	150	5.6400
15	1000	120	7.8400
21	1308	114	14.3178
24	1600	100	18.8700
27	1916	88	23.8680
30	1700	60	31.4800
33	1870	51	39.8880

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

(E) IF ANY PRESSURE LOSS OR LEAKAGE HAS OCCURRED DURING THE FIRST 25% OF TESTING PERIOD, THEN THE TEST MUST CONTINUE FOR THE ENTIRE TEST DURATION AS OUTLINED ABOVE OR UNTIL FAILURE.

(F) WASTEWATER COLLECTION SYSTEM PIPES WITH A 27 INCH OR LARGER AVERAGE INSIDE DIAMETER MAY BE AIR TESTED AT EACH JOINT INSTEAD OF FOLLOWING THE PROCEDURE OUTLINED IN THIS SECTION.

(G) A TESTING PROCEDURE FOR PIPE WITH AN INSIDE DIAMETER GREATER THAN 33 INCHES MUST BE APPROVED BY THE EXECUTIVE DIRECTOR.

(2) INFILTRATION/EXFILTRATION TEST.

(A) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF 2.0 FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE.

(B) AN OWNER SHALL USE AN INFILTRATION TEST IN LIEU OF AN EXFILTRATION TEST WHEN PIPES ARE INSTALLED BELOW THE GROUNDWATER LEVEL.

(C) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE, OR AT LEAST TWO FEET ABOVE EXISTING GROUNDWATER LEVEL, WHICHEVER IS GREATER.

(D) FOR CONSTRUCTION WITHIN A 25-YEAR FLOOD PLAIN, THE INFILTRATION OR EXFILTRATION MUST NOT EXCEED 10 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT THE SAME MINIMUM TEST HEAD AS IN SUBPARAGRAPH (C) OF THIS PARAGRAPH.

(E) IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, AN OWNER SHALL UNDERTAKE REMEDIAL ACTION IN ORDER TO REDUCE THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITHIN THE LIMITS SPECIFIED. AN OWNER SHALL RETEST A PIPE FOLLOWING A REMEDIATION ACTION.

(B) IF A GRAVITY COLLECTION PIPE IS COMPOSED OF FLEXIBLE PIPE, DEFLECTION TESTING IS ALSO REQUIRED. THE FOLLOWING PROCEDURES MUST BE FOLLOWED:

(1) FOR A COLLECTION PIPE WITH INSIDE DIAMETER LESS THAN 27 INCHES, DEFLECTION MEASUREMENT REQUIRES A RIGID MANDREL.

(A) MANDREL SIZING.

(I) A RIGID MANDREL MUST HAVE AN OUTSIDE DIAMETER (OD) NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER (ID) OR AVERAGE ID OF A PIPE, AS SPECIFIED IN THE APPROPRIATE STANDARD BY THE ASTMS, AMERICAN WATER WORKS ASSOCIATION, UNI-BELL, OR AMERICAN NATIONAL STANDARDS INSTITUTE, OR ANY RELATED APPENDIX.

(II) IF A MANDREL SIZING DIAMETER IS NOT SPECIFIED IN THE APPROPRIATE STANDARD, THE MANDREL MUST HAVE AN OD EQUAL TO 95% OF THE ID OF A PIPE. IN THIS CASE, THE ID OF THE PIPE, FOR THE PURPOSE OF DETERMINING THE OD OF THE MANDREL, MUST EQUAL BE THE AVERAGE OUTSIDE DIAMETER MINUS TWO MINIMUM WALL THICKNESSES FOR OD CONTROLLED PIPE AND THE AVERAGE INSIDE DIAMETER FOR ID CONTROLLED PIPE.

(III) ALL DIMENSIONS MUST MEET THE APPROPRIATE STANDARD.

(B) MANDREL DESIGN.

(I) A RIGID MANDREL MUST BE CONSTRUCTED OF A METAL OR A RIGID PLASTIC MATERIAL THAT CAN WITHSTAND 200 PSI WITHOUT BEING DEFORMED.

(II) A MANDREL MUST HAVE NINE OR MORE ODD NUMBER OF RUNNERS OR LEGS.

(III) A BARREL SECTION LENGTH MUST EQUAL AT LEAST 75% OF THE INSIDE DIAMETER OF A PIPE.

(IV) EACH SIZE MANDREL MUST USE A SEPARATE PROVING RING.

(C) METHOD OPTIONS.

(I) AN ADJUSTABLE OR FLEXIBLE MANDREL IS PROHIBITED.

(II) A TEST MAY NOT USE TELEVISION INSPECTION AS A SUBSTITUTE FOR A DEFLECTION TEST.

(III) IF REQUESTED, THE EXECUTIVE DIRECTOR MAY APPROVE THE USE OF A DEFLECTOMETER OR A MANDREL WITH REMOVABLE LEGS OR RUNNERS ON A CASE-BY-CASE BASIS.

(2) FOR A GRAVITY COLLECTION SYSTEM PIPE WITH AN INSIDE DIAMETER 27 INCHES AND GREATER, OTHER TEST METHODS MAY BE USED TO DETERMINE VERTICAL DEFLECTION.

(3) A DEFLECTION TEST METHOD MUST BE ACCURATE TO WITHIN PLUS OR MINUS 0.2% DEFLECTION.

(4) AN OWNER SHALL NOT CONDUCT A DEFLECTION TEST UNTIL AT LEAST 30 DAYS AFTER THE FINAL BACKFILL.

(5) GRAVITY COLLECTION SYSTEM PIPE DEFLECTION MUST NOT EXCEED FIVE PERCENT (5%).

(6) IF A PIPE SECTION FAILS A DEFLECTION TEST, AN OWNER SHALL CORRECT THE PROBLEM AND CONDUCT A SECOND TEST AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.

16. ALL MANHOLES MUST BE TESTED TO MEET OR EXCEED THE REQUIREMENTS OF 30 TAC §217.58.

(A) ALL MANHOLES MUST PASS A LEAKAGE TEST.

(B) AN OWNER SHALL TEST EACH MANHOLE (AFTER ASSEMBLY AND BACKFILLING) FOR LEAKAGE, SEPARATE AND INDEPENDENT OF THE COLLECTION SYSTEM PIPES, BY HYDROSTATIC EXFILTRATION TESTING, VACUUM TESTING, OR OTHER METHOD APPROVED BY THE EXECUTIVE DIRECTOR.

(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.

Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998801143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
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TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

TCEQ NOTES

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
4 OF 39

SD-XX-XXXX

Plotted By: Randall Zach Date: December 01, 2023 03:06:59pm File Path: K:\aus_civil\069252742-valor leander\Cad\site plan\plansheets\C-General Notes.dwg
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Plotted By:Randall, Zach Date:December 01, 2023 03:07:14pm File Path:K:\aus_civil\069252742-valor leander\Cad\site plan\plansheets\C-Final Plat.dwg
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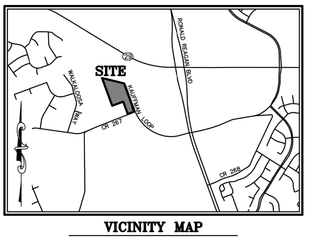
VALOR LEANDER
FINAL PLAT
CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS

OWNER:
VALOR TEXAS EDUCATION FOUNDATION
D/B/A VALOR PUBLIC SCHOOLS
220 FOREMOST DRIVE
AUSTIN, TEXAS 78745
(512) 646-4170

SURVEYOR:
4WARD LAND SURVEYING
4201 FREIDRICH LN, SUITE 200
AUSTIN, TX 78744
(512) 537-2384

ENGINEER:
KIMLEY-HORN
10814 JOLLYVILLE ROAD
AVALLON IV, SUITE 200
AUSTIN, TX 78759
(512) 646-2237

SUBMITTAL DATE: NOVEMBER 28, 2023



VICINITY MAP
SCALE: 1" = 2000'

SHEET INDEX:
1. COVER SHEET
2. FINAL PLAT
3. PLAT NOTES

LOT TABLE:

NUMBER OF BLOCKS: 1

NUMBER OF SCHOOL LOTS: 1

TOTAL NUMBER OF LOTS: 1

TOTAL ACREAGE: 13.7964

LOT SUMMARY TABLE

LOT	PROPOSED INITIAL USE	LOT AREA (ACRES)	LOT AREA (SQ. FT.)
LOT 1, BLOCK A	SCHOOL	13.5248 ACRES	589,139 SQ. FT.
R.O.W. DEDICATION	RIGHT-OF-WAY	0.2716 ACRES	11,831 SQ. FT.
TOTAL		13.7964 ACRES	600,970 SQ. FT.

Kimley»Horn

4WARD Land Surveying
A Limited Liability Company
PO Box 90876, Austin Texas 78709
INFO@4WARDLS.COM (512) 537-2384
TBPELS FIRM #10174300

Date:	11/22/2023
Project:	01773
Scale:	N/A
Reviewer:	FM
Tech:	TB
Field Crew:	NH
Survey Date:	NOV. 2023
Sheet:	1 OF 3

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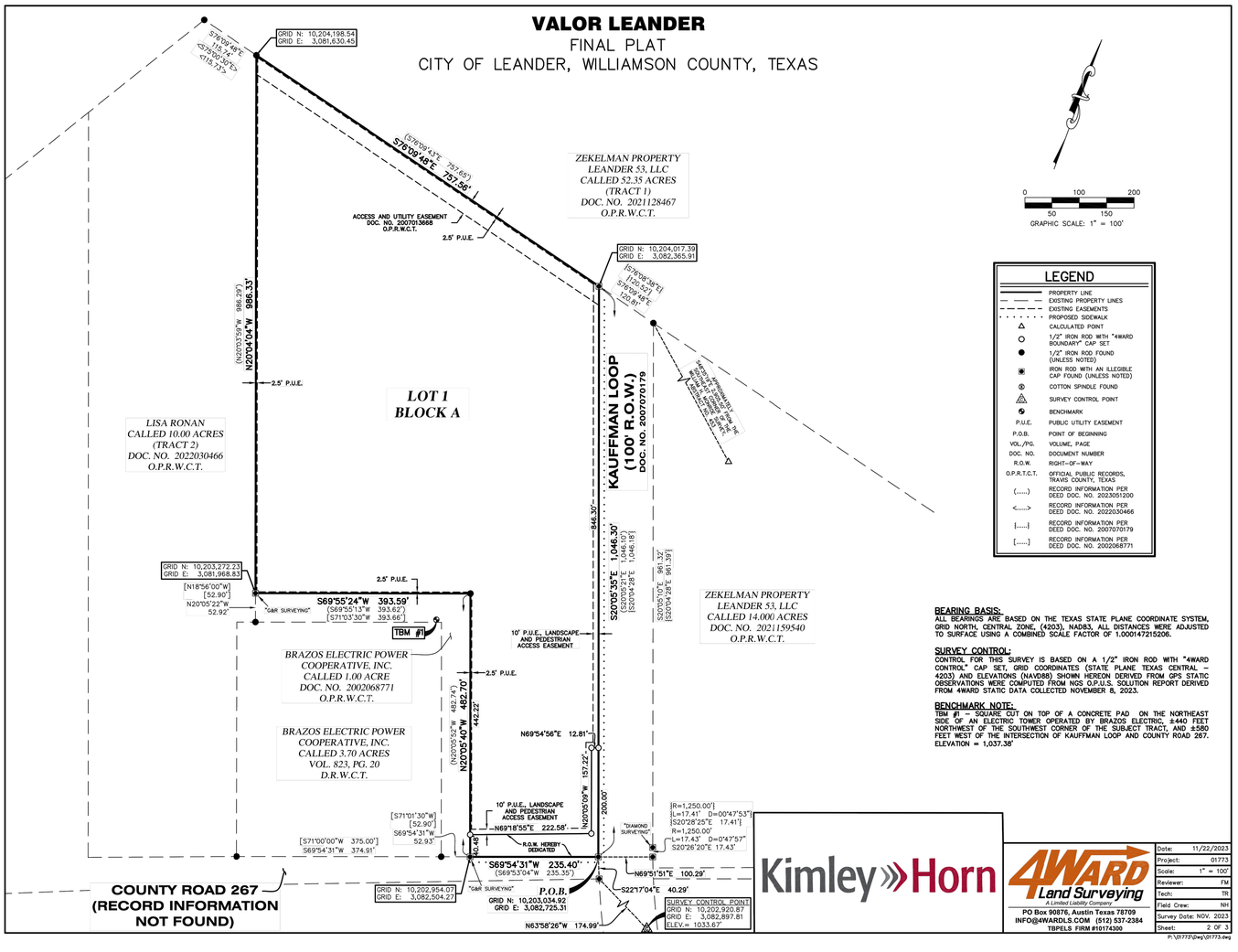
VALOR LEANDER
FINAL PLAT
CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS



LEGEND

	PROPERTY LINE
	EXISTING PROPERTY LINES
	EXISTING EASEMENTS
	PROPOSED SIDEWALK
△	CALCULATED POINT
○	1/2" IRON ROD WITH "4WARD BOUNDARY" CAP SET
●	1/2" IRON ROD FOUND (UNLESS NOTED)
◉	IRON ROD WITH AN ILLEGIBLE CAP FOUND (UNLESS NOTED)
⊗	COTTON SPINDLE FOUND
⚠	SURVEY CONTROL POINT
⚑	BENCHMARK
P.U.E.	PUBLIC UTILITY EASEMENT
P.O.B.	POINT OF BEGINNING
VOL./PG.	VOLUME, PAGE
DOC. NO.	DOCUMENT NUMBER
R.O.W.	RIGHT-OF-WAY
O.P.R.T.C.T.	OFFICIAL PUBLIC RECORDS, TRAVIS COUNTY, TEXAS
(.....)	RECORD INFORMATION PER DEED DOC. NO. 2023051200
<.....>	RECORD INFORMATION PER DEED DOC. NO. 2022030466
[.....]	RECORD INFORMATION PER DEED DOC. NO. 2007070179
{.....}	RECORD INFORMATION PER DEED DOC. NO. 2002068771

BEARING BASIS:
ALL BEARINGS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, GRID NORTH, CENTRAL ZONE, (4203), NAD83, ALL DISTANCES WERE ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.00014715206.

SURVEY CONTROL:
CONTROL FOR THIS SURVEY IS BASED ON A 1/2" IRON ROD WITH "4WARD CONTROL" CAP SET, GRID COORDINATES (STATE PLANE TEXAS CENTRAL -- 4203) AND ELEVATIONS (NAVD88) SHOWN HEREON DERIVED FROM GPS STATIC OBSERVATIONS WERE COMPUTED FROM NGS O.P.U.S. SOLUTION REPORT DERIVED FROM 4WARD STATIC DATA COLLECTED NOVEMBER 8, 2023.

BENCHMARK NOTE:
TBM #1 — SQUARE CUT ON TOP OF A CONCRETE PAD ON THE NORTHEAST SIDE OF AN ELECTRIC TOWER OPERATED BY BRAZOS ELECTRIC, ±440 FEET NORTHWEST OF THE SOUTHWEST CORNER OF THE SUBJECT TRACT, AND ±580 FEET WEST OF THE INTERSECTION OF KAUFFMAN LOOP AND COUNTY ROAD 267. ELEVATION = 1,037.38'

Kimley»Horn

4WARD Land Surveying
A Limited Liability Company
PO Box 90876, Austin Texas 78709
INFO@4WARDLS.COM (512) 537-2384
TBPELS FIRM #10174300

Date:	11/22/2023
Project:	01773
Scale:	1" = 100'
Reviewer:	FM
Tech:	TB
Field Crew:	NH
Survey Date:	NOV. 2023
Sheet:	2 OF 3

P:\01773\Dwg\01773.dwg

SD-XX-XXXX

SHEET NUMBER 5 OF 39

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

FINAL PLAT
(SHEET 1 OF 2)

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

12/1/2023
ALISON KENNADY 143581 LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS

Kimley»Horn

© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

No.	REVISIONS	DATE	BY

Plotted By:Randall, Zach Date:December 01, 2023 03:07:21pm File Path:K:\aus_civil\069252742-valor leander\Cad\site plan\plansheets\C-Final Plat.dwg
This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

VALOR LEANDER

FINAL PLAT

CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS

STATE OF TEXAS §
COUNTY OF WILLIAMSON §

THAT VALOR TEXAS EDUCATION D/B/A VALOR PUBLIC SCHOOLS, AS THE OWNER OF THAT CERTAIN 13.7964 ACRES (600,970 SQUARE FEET) TRACT OF LAND SHOWN HEREON OUT OF THE WILLIAM H. MONROE SURVEY, ABSTRACT NO. 453 IN WILLIAMSON COUNTY, TEXAS, AND BEING ALL OF A CALLED 13.796 ACRE TRACT CONVEYED TO SAID OWNER IN DOCUMENT NO. 2023051200 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS (O.P.R.W.C.T.), DOES HEREBY CERTIFY THAT THERE ARE NO LIEN HOLDERS AND DEDICATES TO THE PUBLIC FOREVER USE OF ALL ADDITIONAL ROW, STREETS, ALLEYS, EASEMENTS, PARKS, AND ALL OTHER LANDS INTENDED FOR PUBLIC DEDICATION, OR WHEN THE SUBDIVIDER HAS MADE PROVISION FOR PERPETUAL MAINTENANCE THEREOF, TO THE INHABITANTS OF THE SUBDIVISION AS SHOWN HEREON TO BE KNOWN AS:

"VALOR LEANDER"

VALOR TEXAS EDUCATION FOUNDATION
dba VALOR PUBLIC SCHOOLS

BY: _____
NAME: RAMSEY MARGISON
TITLE: CHIEF FINANCIAL OFFICER

STATE OF TEXAS §
COUNTY OF WILLIAMSON §

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE ON THIS THE _____ DAY OF _____, 2023, PERSONALLY APPEARED RAMSEY MARGISON, CHIEF FINANCIAL OFFICER OF VALOR TEXAS EDUCATION FOUNDATION, ON BEHALF OF SAID VALOR TEXAS EDUCATION FOUNDATION, A DULY AUTHORIZED AGENT WITH AUTHORITY TO SIGN SAID DOCUMENT PERSONALLY KNOWN TO ME (AND PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE) TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS _____ DAY OF _____, 20___.

_____
NOTARY PUBLIC – STATE OF TEXAS

PRINTED NAME: _____
MY COMMISSION EXPIRES ON: _____

ENGINEER'S CERTIFICATION:

THE STATE OF TEXAS §
COUNTY OF WILLIAMSON §

THAT I, ALLISON KENNAUGH, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF ENGINEERING, AND DO HEREBY STATE THAT THIS PLAT CONFORMS WITH THE APPLICABLE ORDINANCES OF THE CITY OF LEANDER, TEXAS.

_____ _____
ALLISON KENNAUGH P.E. DATE
REGISTERED PROFESSIONAL ENGINEER
NO. 114356, STATE OF TEXAS

SURVEYOR'S CERTIFICATION:

THE STATE OF TEXAS §
COUNTY OF WILLIAMSON §

THAT I, FERNANDO PEREZ, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF LAND SURVEYING AND HEREBY STATE THAT I PREPARED THIS PLAT FROM AN ACTUAL AND ACCURATE ON-THE-GROUND SURVEY OF THE LAND AND THAT THE CORNER MONUMENTS SHOWN THEREON WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH ALL CITY OF LEANDER ORDINANCE AND CODES, AND THAT ALL EXISTING EASEMENTS OF RECORD AS FOUND ON THE TITLE POLICY PROVIDED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY TITLE COMMITMENT OF NO. 2859CM (EFFECTIVE 10/30/2022), WHICH AFFECT THIS SUBDIVISION IS SHOWN.

_____ _____
FERNANDO PEREZ, R.P.L.S. DATE
TEXAS REGISTRATION NO. 7041

NOTES:

1. THIS SUBDIVISION IS WHOLLY CONTAINED WITHIN THE CURRENT CORPORATE LIMITS OF THE CITY OF LEANDER, TEXAS.
2. NO LOT IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO THE CITY OF LEANDER WATER DISTRIBUTION AND WASTEWATER COLLECTION FACILITIES.
3. NO BUILDINGS, FENCES, LANDSCAPING OR OTHER STRUCTURES ARE PERMITTED WITHIN DRAINAGE EASEMENTS SHOWN, EXCEPT AS APPROVED BY THE CITY OF LEANDER PUBLIC WORKS DEPARTMENT.
4. PROPERTY OWNER SHALL PROVIDE ACCESS TO DRAINAGE EASEMENTS AS MAY BE NECESSARY AND SHALL NOT PROHIBIT ACCESS BY CITY OF LEANDER.
5. BUILDING SETBACKS NOT SHOWN HEREON SHALL COMPLY WITH THE MOST CURRENT ZONING ORDINANCE OF THE CITY OF LEANDER. ADDITIONAL RESIDENTIAL GARAGE SETBACKS MAY BE REQUIRED AS LISTED IN THE CURRENT ZONING ORDINANCE.
6. A BUILDING PERMIT IS REQUIRED FROM THE CITY OF LEANDER PRIOR TO CONSTRUCTION OF ANY BUILDING OR SITE IMPROVEMENTS ON ANY LOT IN THIS SUBDIVISION. NO BUILDINGS, FENCES, LANDSCAPING OR OTHER STRUCTURES ARE PERMITTED WITHIN DRAINAGE EASEMENTS SHOWN EXCEPT AS APPROVED BY THE CITY OF LEANDER PUBLIC WORKS DEPARTMENT.
7. ALL EASEMENTS ON PRIVATE PROPERTY SHALL BE MAINTAINED BY THE PROPERTY OWNER OR HIS OR HER ASSIGNS.
8. SIDEWALKS SHALL BE INSTALLED ON THE SUBDIVISION SIDE OF HERO WAY, MAIN STREET AND EAST STREET. THOSE SIDEWALKS NOT ABUTTING A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL LOT (INCLUDING SIDEWALKS ALONG STREET FRONTAGES OF LOTS PROPOSED FOR SCHOOLS, CHURCHES, PARK LOTS, DETENTION LOTS, DRAINAGE LOTS, LANDSCAPE LOTS, OR SIMILAR LOTS) SIDEWALKS ON ARTERIAL STREETS TO WHICH ACCESS IS PROHIBITED, SIDEWALKS ON DOUBLE FRONTAGE LOTS ON THE SIDE TO WHICH ACCESS IS PROHIBITED, AND ALL SIDEWALKS ON SAFE SCHOOL ROUTES SHALL BE INSTALLED WHEN THE ADJOINING STREET IS CONSTRUCTED.
9. THIS PLAT CONFORMS TO THE PRELIMINARY PLAT APPROVED BY THE PLANNING AND ZONING COMMISSION ON _____, 2023.
10. APPROVAL OF THIS FINAL PLAT DOES NOT CONSTITUTE THE APPROVAL OF VARIANCES OR WAIVERS TO ORDINANCE REQUIREMENTS.
11. ALL DRIVE LANES, FIRE LANES, AND DRIVEWAYS WITHIN THIS SUBDIVISION SHALL PROVIDE FOR RECIPROCAL ACCESS FOR INGRESS AND EGRESS TO ALL OTHER LOTS WITHIN THE SUBDIVISION AND TO ADJACENT PROPERTIES.
12. ALL UTILITY LINES MUST BE LOCATED UNDERGROUND.
13. IN ADDITION TO THE EASEMENTS SHOWN HEREON, A TEN (10') FOOT WIDE PUBLIC UTILITY EASEMENT IS DEDICATED ALONG AND ADJACENT TO ALL RIGHT-OF-WAY AND A TWO AND A HALF (2.5') FOOT WIDE PUBLIC UTILITY EASEMENT IS DEDICATED ALONG ALL SIDE LOT LINES.
14. A TRAFFIC IMPACT ANALYSIS IS NOT REQUIRED FOR THIS DEVELOPMENT AS THE SMART CODE IS BEING UTILIZED.
15. A PERPETUAL PUBLIC SAFETY AND PUBLIC SERVICE EASEMENT IS HEREBY DEDICATED FOR THE PURPOSE OF PROVIDING PUBLIC SAFETY SERVICES, POLICE, FIRE AND MEDICAL SERVICES, UTILITY METER READING, CODE ENFORCEMENT, BUILDING INSPECTIONS, SOLID WASTE COLLECTION, PUBLIC SCHOOL TRANSPORTATION, ANY OTHER PUBLIC SERVICES AND ENFORCING THE CITY ORDINANCES; AND GIVING THE CITY AND ITS AUTHORIZED OFFICERS AND DESIGNEES UNINHIBITED INGRESS AND EGRESS OVER, ACROSS AND THROUGH SUCH STREETS, ROADWAYS, AND RIGHT-OF-WAY FOR THE PURPOSE OF PROVIDING PUBLIC SAFETY SERVICES, POLICE, FIRE AND MEDICAL SERVICES, AND ENFORCING THE PENAL CODE AND CITY ORDINANCES. THE HOA SHALL MAINTAIN AT ALL TIMES WITH THE CITY SECRETARY THE CURRENT GATE CODE OR KEY FOR ALL GATES REGULATING ACCESS TO AND FROM THE SUBDIVISION.
16. NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA AS SHOWN ON THE FLOOD INSURANCE RATER MAP PANEL #48491C0275E FOR WILLIAMSON COUNTY, TEXAS, EFFECTIVE SEPTEMBER 26, 2008. THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

APPROVED THIS THE _____ DAY OF _____, 20___ A.D. AT A PUBLIC MEETING OF THE PLANNING AND ZONING COMMISSION OF THE CITY OF LEANDER, TEXAS AND AUTHORIZED TO BE FILED FOR RECORD BY THE COUNTY CLERK OF WILLIAMSON COUNTY.

ATTEST:

_____ _____
RON MAY, CHAIRMAN
PLANNING AND ZONING COMMISSION
CITY OF LEANDER, TEXAS

ELLEN COUFAL, SECRETARY
PLANNING AND ZONING COMMISSION
CITY OF LEANDER, TEXAS

STATE OF TEXAS §
COUNTY OF WILLIAMSON §

I, NANCY E. RISTER, CLERK OF 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 _____, 20___, A.D., AT ___ O'CLOCK, ___M. AND DULY RECORDED THIS THE

DAY OF _____, 20___, A.D., AT ___ O'CLOCK, ___M. IN THE PLAT RECORDS OF SAID

COUNTY IN INSTRUMENT 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

LEGAL DESCRIPTION

BEING A DESCRIPTION OF A TRACT OF LAND CONTAINING 13.7964 ACRES (600,970 SQUARE FEET) OUT OF THE WILLIAM H. MONROE SURVEY, ABSTRACT NO. 453, WILLIAMSON COUNTY, TEXAS, BEING ALL OF A CALLED 13.796 ACRE TRACT CONVEYED TO VALOR TEXAS EDUCATION FOUNDATION D/B/A VALOR PUBLIC SCHOOLS IN DOCUMENT NO. 2023051200 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS (O.P.R.W.C.T.), SAID 13.7964 ACRES BEING MORE PARTICULARLY DESCRIBED BY METES AND AS FOLLOWS:

BEGINNING, AT AN IRON ROD WITH AN ILLEGIBLE CAP FOUND AT THE INTERSECTION OF THE NORTH RIGHT-OF-WAY LINE OF COUNTY ROAD 267 (NO RECORD INFORMATION FOUND) WITH THE WEST RIGHT-OF-WAY LINE OF KAUFFMAN LOOP (100' RIGHT-OF-WAY), AND BEING THE SOUTHEAST CORNER OF SAID VALOR TEXAS TRACT, FOR THE SOUTHEAST CORNER AND POINT OF BEGINNING HEREOF;

THENCE, WITH THE NORTH RIGHT-OF-WAY LINE OF SAID COUNTY ROAD 267 AND THE SOUTH LINE OF SAID VALOR TEXAS TRACT, S69°54'31"W, A DISTANCE OF 235.40 FEET TO AN IRON ROD WITH 'G&R SURVEYING'CAP FOUND FOR THE SOUTHWEST CORNER HEREOF, SAID POINT BEING THE COMMON SOUTH CORNER OF SAID VALOR TEXAS TRACT AND A CALLED 1.00 ACRE TRACT CONVEYED TO BRAZOS ELECTRIC POWER COOPERATIVE, INC. IN DOCUMENT NO. 2002058771 (O.P.R.W.C.T.), FROM WHICH A 1/2-INCH IRON ROD FOUND FOR THE COMMON SOUTH CORNER OF A CALLED 3.70 ACRE TRACT CONVEYED TO BRAZOS ELECTRIC POWER COOPERATIVE, INC. IN VOLUME 823, PAGE 20 OF THE DEED RECORDS OF WILLIAMSON COUNTY, TEXAS (D.R.W.C.T.) AND A CALLED 10.00 ACRE TRACT (DESCRIBED AS 'TRACT 2') CONVEYED TO LISA RONAN IN DOCUMENT NO. 2022030466 (O.P.R.W.C.T.), AND BEING IN THE NORTH RIGHT-OF-WAY LINE OF SAID COUNTY ROAD 267 BEARS, S69°54'31"W, PASSING AT A DISTANCE OF 52.93 FEET A 1/2-INCH IRON ROD FOUND FOR THE COMMON SOUTH CORNER OF SAID BRAZOS ELECTRIC – 1.00 ACRE TRACT AND SAID BRAZOS ELECTRIC – 3.70 ACRE TRACT, AND CONTINUING FOR A TOTAL DISTANCE OF 427.84 FEET;

THENCE, LEAVING THE NORTH RIGHT-OF-WAY LINE OF SAID COUNTY ROAD 267, WITH THE COMMON LINE OF SAID VALOR TEXAS TRACT AND SAID BRAZOS ELECTRIC – 1.00 ACRE TRACT, THE FOLLOWING TWO (2) COURSES AND DISTANCES:

1) N20°05'40"W, A DISTANCE OF 482.70 FEET TO A 1/2-INCH IRON ROD FOUND FOR AN INTERIOR ELL-CORNER HEREOF, AND
2) S69°55'24"W, A DISTANCE OF 393.59 FEET TO AN IRON ROD WITH 'G&R SURVEYING'CAP FOUND FOR AN EXTERIOR ELL-CORNER HEREOF, SAID POINT BEING THE COMMON WEST CORNER OF SAID VALOR TEXAS TRACT AND SAID BRAZOS ELECTRIC – 1.00 ACRE TRACT, AND BEING IN THE EAST LINE OF SAID LISA RONAN TRACT, FROM WHICH A 1/2-INCH IRON ROD FOUND FOR THE COMMON CORNER OF SAID BRAZOS ELECTRIC – 1.00 ACRE TRACT AND SAID LISA RONAN TRACT, AND BEING IN THE NORTH LINE OF SAID BRAZOS ELECTRIC – 3.70 ACRE TRACT BEARS, S20°05'22"E, A DISTANCE OF 52.92 FEET;

THENCE, WITH THE COMMON LINE OF SAID VALOR TEXAS TRACT AND SAID LISA RONAN TRACT, N20°04'04"W, A DISTANCE OF 986.33 FEET TO A 1/2-INCH IRON ROD FOUND FOR THE NORTHWEST CORNER HEREOF, SAID POINT BEING THE COMMON NORTH CORNER OF SAID VALOR TEXAS TRACT AND SAID LISA RONAN TRACT, AND BEING IN THE SOUTHERLY LINE OF A CALLED 52.35 ACRE TRACT (DESCRIBED AS 'TRACT 1') CONVEYED TO ZEKELMAN PROPERTY LEANDER 53, LLC IN DOCUMENT NO. 2021128467 (O.P.R.W.C.T.), FROM WHICH A 1/2-INCH IRON ROD FOUND FOR A COMMON CORNER OF SAID LISA RONAN TRACT AND SAID ZEKELMAN TRACT BEARS, N76°09'48"W, A DISTANCE OF 115.74 FEET;

THENCE, WITH THE COMMON LINE OF SAID VALOR TEXAS TRACT AND SAID ZEKELMAN TRACT, S76°09'48"E, A DISTANCE OF 757.56 FEET TO AN IRON ROD WITH AN ILLEGIBLE CAP FOUND FOR THE NORTHEAST CORNER HEREOF, SAID POINT BEING THE COMMON NORTH CORNER OF SAID VALOR TEXAS TRACT AND SAID KAUFFMAN LOOP, FROM WHICH A 1/2-INCH IRON ROD FOR THE COMMON NORTH CORNER OF SAID KAUFFMAN LOOP AND A CALLED 14.000 ACRE TRACT CONVEYED TO ZEKELMAN PROPERTY LEANDER 53, LLC IN DOCUMENT NO. 2021159540 (O.P.R.W.C.T.), AND BEING IN THE SOUTHERLY LINE OF SAID ZEKELMAN – 52.35 ACRE TRACT BEARS, S76°09'48"E, A DISTANCE OF 120.81 FEET;

THENCE, LEAVING THE SOUTHERLY LINE OF SAID ZEKELMAN – 52.35 ACRE TRACT, WITH THE EAST LINE OF SAID VALOR TEXAS TRACT AND THE WEST RIGHT-OF-WAY LINE OF SAID KAUFFMAN LOOP, S20°05'35"E, A DISTANCE OF 1,046.30 FEET TO THE POINT OF BEGINNING AND CONTAINING 13.7964 ACRES (600,970 SQUARE FEET) OF LAND, MORE OR LESS.

Kimley»Horn

4WARD Land Surveying
A Limited Liability Company
PO Box 90876, Austin Texas 78709
INFO@4WARDLS.COM (512) 537-2384
TBPELS FIRM #10174300

Date:	11/22/2023
Project:	01773
Scale:	N/A
Reviewer:	FM
Tech:	TR
Field Crew:	NH
Survey Date:	NOV. 2023
Sheet:	3 OF 3

P:\01773\Dwg\01773.dwg

SD-XX-XXXX

SHEET NUMBER 6 OF 39

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

FINAL PLAT
(SHEET 2 OF 2)

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

12/1/2023 — ALLISON KENNAUGH — 114356 — LICENSED PROFESSIONAL ENGINEER — STATE OF TEXAS

Kimley»Horn

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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

No.	REVISIONS	DATE	BY

CITY OF LEANDER ETJ

10.00 AC
LISA RONAN
DOC. NO. 2022030466 (O.P.R.)

CITY OF LEANDER ETJ

WASTEWATER LINE EASEMENT AND RIGHT-OF-WAY TO WILLIAMSON COUNTY MUNICIPAL UTILITY DISTRICT NO. 12 DOC. NO. 2009004356 (O.P.R.) (PERMANENT EASEMENT)

CITY OF LEANDER

EXISTING BUILDINGS

EXISTING SEPTIC TANK TO BE DEMOED

EXISTING BUILDING TO BE DEMOED

EXISTING BUILDING TO BE DEMOED

EXISTING FENCE

CITY OF LEANDER CITY LIMITS

BRAZOS ELECTRIC POWER COOPERATIVE INC.

A CALLED 3.70 ACRE TRACT
OWNER: BRAZOS ELECTRIC POWER COOPERATIVE INC.
VOL. 823, PG. 20 (D.R.)

EXISTING 12" PUBLIC WATER LINE (MATERIAL UNKNOWN)

EXISTING 2" PVC WATER LINE

EXISTING FENCE

EXISTING UNDERGROUND TELEPHONE LINE

EXISTING WATER STRUCTURE

1.00 AC
BRAZOS ELECTRIC POWER COOPERATIVE INC.
0206877 (O.P.R.)

EXISTING FENCE

EXISTING DIRT ROAD

EXISTING POWER POLE

A CALLED 13.796 ACRE TRACT
OWNER: KAUFFMAN LOOP LLC
DOC. NO. 2021072344 (O.P.R.)

EXISTING FENCE

TEMPORARY CONSTRUCTI(TO WILLIAMSON COUNTY UTILITY DISTRICT NO. 12 DOC. NO. 2009004356 (C

EXISTING WASTEWATER FORCE MAINS (OWNER: CITY OF LIBERTY HILL)

DIRT ROAD

D 267
WAY)

EXISTING 12" WATERLINE

EXISTING 8" WASTEWATER FORCE MAIN (OWNER: CITY OF LIBERTY HILL)

ASE VALVE
SSMH
1034.39

EXISTING WASTEWATER MANHOLE W/ ARV

EXISTING WASTEWATER FORCE MAIN (OWNER: CITY OF LIBERTY HILL)

EXISTING WASTEWATER MANHOLE

EXISTING GRAVEL DRIVE

EXISTING FENCE

EXISTING GRAVEL DRIVE

EXISTING ROCK RIPRAP

PRIVATE ACCESS AND UTILITY EASEMENT
DOC. NO. 2007013668 (O.P.R.)

52.35 AC
ZEKELMAN PROPERTY LEANDER 53
DOC. NO. 2021128467 (O.P.R.)

P.O.B.

EXISTING GRAVEL DRIVE

EXISTING FM GATE VALVE

KAUFFMAN LOOP
(100' R.O.W.)
0.534 AC.
WILLIAMSON COUNTY, TX
DOC. NO. 2007070179 (O.P.R.)

EXISTING 20" CORRUGATED METAL PIPE UNDER DRIVE

CITY OF LEANDER

18" CORRUGATED METAL PIPE

EXISTING 16" CORRUGATED METAL PIPE UNDER DRIVE

EXISTING 20" CORRUGATED METAL PIPE UNDER DRIVE

BM #10
SIX CSP
ELEVATION = 1035.47

BM #11
SMAG TV
ELEVATION = 1031.92

WATER FAUCET

0 60' 120'
GRAPHIC SCALE 60'

LEGEND

- PROPERTY LINE
- UGE — EXISTING UNDERGROUND ELECTRIC LINE
- W — EXISTING WATER LINE
- WW — EXISTING SANITARY SEWER LINE
- SD — EXISTING STORM DRAIN MAIN
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM SEWER MANHOLE
- 555 — EXISTING CONTOUR
- X — EXISTING FENCE
- OHE — OVERHEAD POWER LINE
- CBL — EXISTING UNDERGROUND CABLE LINE
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN

NOTES

1. REFERENCE SHEET 8 FOR TREE REMOVAL TABLES.
2. TREES AND TOPOGRAPHY BASED UPON LIDAR SURVEY BY PAPE DAWSON ENGINEERS ON FEBRUARY 24, 2023.
3. NO DEMOLITION WILL OCCUR UNTIL A PRE CONSTRUCTION MEETING IS HELD WITH THE ENVIRONMENTAL INSPECTOR.
4. LOCATIONS OF PUBLIC AND FRANCHISE UTILITIES SHOWN ARE APPROXIMATE AND MAY NOT BE COMPLETE. CONTRACTOR SHALL CALL THE ONE CALL CENTER (472-2822) AT LEAST 48 HOURS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL CONTACT ANY OTHER UTILITY COMPANIES WHO DO NOT SUBSCRIBE TO THE ONE CALL PROGRAM FOR LINE MARKINGS. THE CONTRACTOR BEARS SOLE RESPONSIBILITY FOR VERIFYING LOCATIONS OF EXISTING UTILITIES, SHOWN OR NOT SHOWN, AND FOR ANY DAMAGE DONE TO THESE FACILITIES.
5. REMOVAL OR RELOCATION OF EXISTING PUBLIC AND PRIVATE FRANCHISE UTILITIES (WATER, ELECTRIC, AND GAS ETC.) WITHIN THE LIMITS OF THE SITE DEMOLITION SHALL BE COORDINATED WITH THE APPLICABLE UTILITY AGENCIES.
6. ALL EXISTING UTILITY SERVICES TO BE TURNED OFF BY UTILITY FRANCHISE TECHNICIAN TO ALLOW FOR EXISTING SERVICE LINES TO BE CUT/CAPPED AT PROPERTY LINE.
7. ALL UTILITIES IN STREET RIGHT-OF-WAY TO REMAIN IN PLACE UNLESS NOTED OTHERWISE.
8. SURFACE PAVEMENT INDICATED HEREON (SUCH AS ASPHALT OR CONCRETE) MAY OVERLAY OTHER HIDDEN STRUCTURES (SUCH AS OTHER LAYERS OF PAVEMENT, BUILDING SLAB, ETC.) THAT ARE ALSO TO BE REMOVED.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL OF EXISTING PAVEMENT SECTION, STRUCTURAL SUBGRADE, STRUCTURAL FOUNDATION, AND UTILITIES WITHIN THE SITE. CONTRACTOR TO DISPOSE ALL DEMOLITION SPOILS OFF-SITE IN A LEGAL MANNER.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO EXISTING UTILITIES, IRRIGATION LINES, PAVEMENT, ETC., TO REMAIN RESULTING FROM DEMOLITION ACTIVITIES AND REPAIR AT THEIR OWN EXPENSE.
11. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
12. ALL ITEMS TO BE REMOVED SHALL BE DISPOSED OFF-SITE IN A MANNER ACCEPTABLE TO ALL APPLICABLE REGULATIONS.
13. PERIMETER EROSION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO DEMOLITION. REFERENCE EROSION CONTROL PLAN AND DETAILS FOR TYPE AND LOCATION.
14. A PRECONSTRUCTION MEETING WITH THE ENVIRONMENTAL INSPECTOR IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.

Know what's **below.**
Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

No.	REVISIONS	DATE	BY

Kimley»Horn
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

EXISTING CONDITIONS AND DEMOLITION PLAN

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
7 OF 39

SD-XX-XXXX

Plotted By:Rondell, Zach Date:December 01, 2023 03:07:46pm File Path:K:\pus_civil\069252742-valor leander\Cad\site plan\plansheets\C-Existing Conditions and Demolition Plan.dwg
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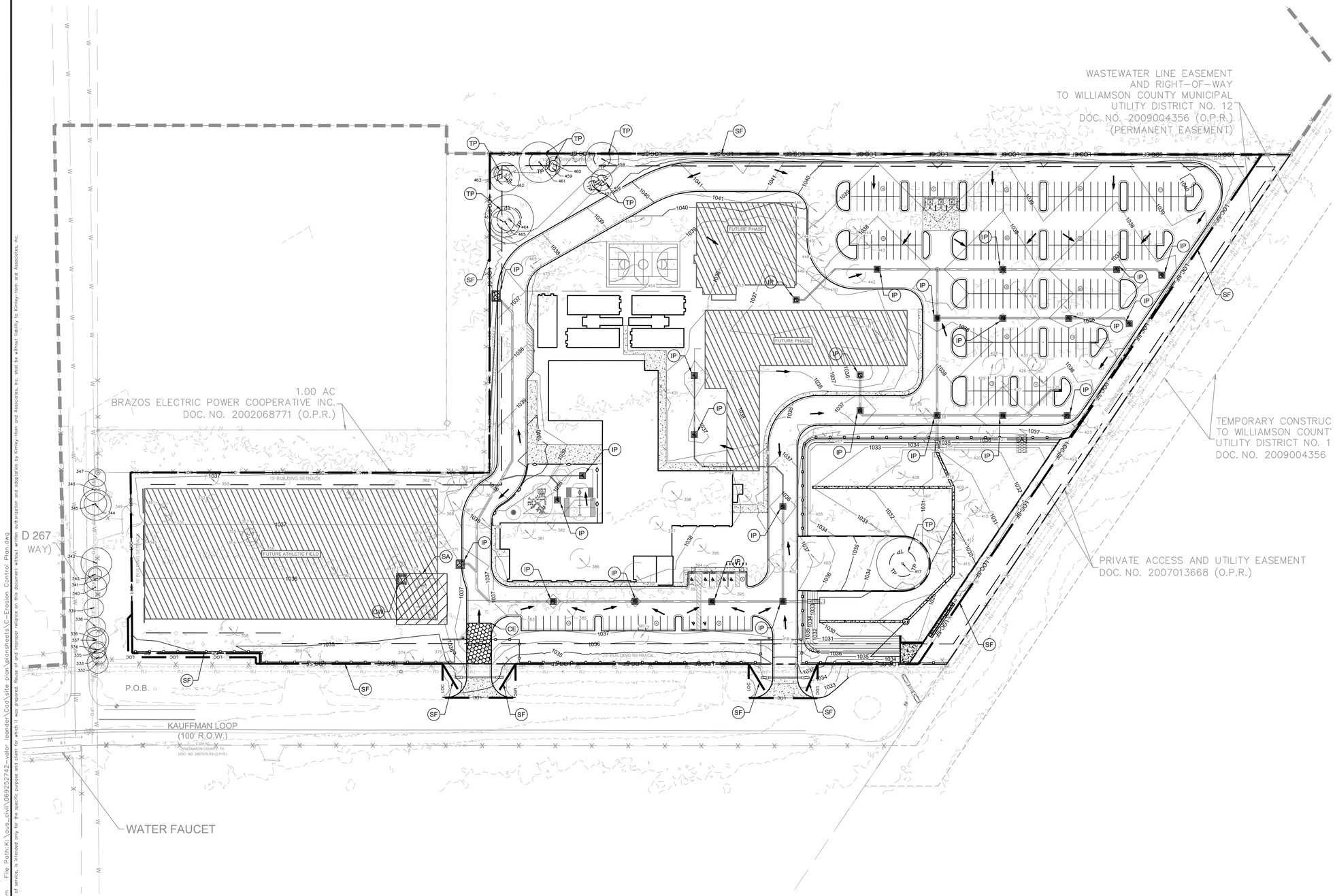

LEGEND

SF	SILT FENCE
LOC	LIMITS OF CONSTRUCTION
LOC-SF	LIMITS OF CONSTRUCTION--SILT FENCE
TP	TREE PROTECTION
CE	CONSTRUCTION ENTRANCE
SA	STAGING AND STOCKPILE AREA
CW	CONCRETE WASHOUT
IP	PROPOSED INLET PROTECTION
450	EXISTING CONTOURS
450	PROPOSED CONTOURS
	EXISTING TREE TO BE REMOVED
	EXISTING TREE TO BE REMAIN
	FLOW ARROW

EROSION CONTROL NOTES

1. CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTATION, MAINTENANCE, AND EFFECTIVENESS OF ALL SWPPP CONTROLS - CONTROLS SHOWN ON THIS SITE MAP ARE SUGGESTED CONTROLS ONLY.
2. CONTRACTOR SHALL RECORD INSTALLATION, MAINTENANCE OR MODIFICATION, AND REMOVAL DATES FOR EACH BMP EMPLOYED (WHETHER CALLED OUT ON ORIGINAL SWPPP OR NOT) DIRECTLY ON THE SITE MAP.
3. THE CITY OF LEANDER ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION/SEDIMENT CONTROLS ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
4. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURE DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(D) OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
5. TEMPORARY AND PERMANENT STABILIZATION PRACTICES AND BMP'S SHALL BE INSTALLED AT THE EARLIEST POSSIBLE TIME DURING THE CONSTRUCTION SEQUENCE. AS AN EXAMPLE, PERIMETER SILT FENCE SHALL BE INSTALLED BEFORE COMMENCEMENT OF ANY GRADING ACTIVITIES. OTHER BMP'S SHALL BE INSTALLED AS SOON AS PRACTICABLE AND SHALL BE MAINTAINED UNTIL FINAL SITE STABILIZATION IS ATTAINED. CONTRACTOR SHALL ALSO REFERENCE CIVIL AND LANDSCAPE PLANS SINCE PERMANENT STABILIZATION IS PROVIDED BY LANDSCAPING, THE BUILDING(S), AND SITE PAVING.
6. BMP'S HAVE BEEN LOCATED AS INDICATED ON THIS PLAN IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES IN ORDER TO MINIMIZE SEDIMENT TRANSFER. FOR EXAMPLE: SILT FENCES LOCATED AT TOE OF SLOPE AND INLET PROTECTION FOR INLETS RECEIVING SEDIMENT FROM SITE RUN-OFF.
7. ADDITIONAL EROSION AND SEDIMENTATION CONTROLS MAY BE REQUIRED BY THE CITY DURING CONSTRUCTION.
8. REFERENCE EROSION CONTROL NOTES AND DETAILS ON SHEET 10.
9. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING [ECM 1.4.4.B.3, SECTION 5, I.]. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY [ECM 1.4.4.D.4].
10. ALL DISTURBED AREAS TO BE RE-VEGETATED PER CITY OF LEANDER.
11. SILT FENCE SHALL BE MOVED TO BACK OF CURB FOR STREETSCAPE IMPROVEMENTS IN THE ROW.

Know what's **below.**
Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

No.	REVISIONS	DATE	BY

Kimley»Horn
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
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TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

EROSION CONTROL PLAN

VALOR LEANDER

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
9 OF 39

SD-XX-XXXX

Plotted By: Randall, Zach Date: December 01, 2023 03:08:30pm File Path: K:\aus_civil\069252742--valor leander\Civil\site plan\plansheets\C-Erosion Control Plan.dwg
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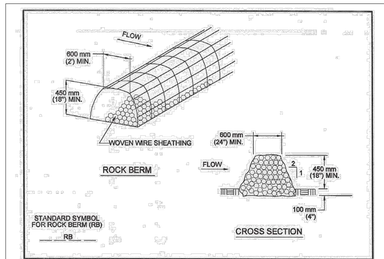
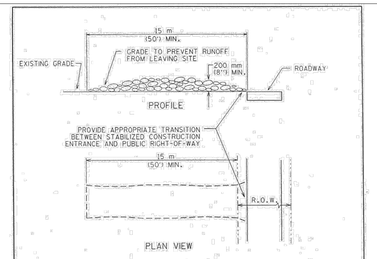


NOTES:

1. USE ONLY OPEN GRADED ROCK 75 to 125 mm (3 to 5") DIAMETER FOR ALL CONDITIONS.
2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTION PROBLEM.
5. WHEN THE SITE IS COMPLETELY STABILIZED,THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

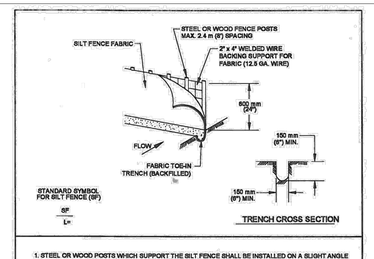
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	
Mary B. Myer, P.E. 8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



NOTES:

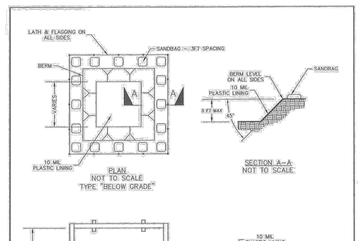
1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
2. LENGTH AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
3. THICKNESS NOT LESS THAN 200 mm (8").
4. WIDTH NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
Leon Barba 5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

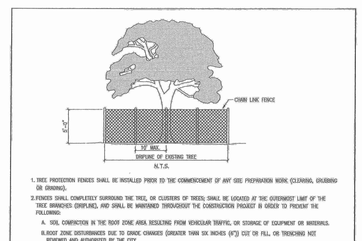


1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 Inches) DEPTH, USE STEEL POSTS.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 Inches) DEEP AND 150 mm (6 Inches) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 Inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE	
Mary B. Myer 9/1/2001 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THE STANDARD.	STANDARD NO. 642S-1



MARK S. WHITE 102647 Registered Professional Engineer STATE OF TEXAS	City Of Leander, Texas
01/20/15	BOI-1 CONCRETE WASHOUT



1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
2. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES; SHALL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PROTECT THE FOLLOWING:
   A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MATERIALS.
   B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN SIX INCHES (6") CUT OR FILL, OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY.
   C. WOUNDS TO EXPOSED ROOTS, TRUNKS OR LIMBS BY MECHANICAL EQUIPMENT.
   D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING AND FIRE.
3. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:
   A. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
   B. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX FEET (6'-0") TO BUILDING.
4. CRITICAL ROOT ZONE REQUIREMENTS
   A. NO CONSTRUCTION OR DISTURBANCE SHALL OCCUR WITHIN AN AREA THAT CONSTITUTES MORE THAN FIFTY (50%) OF THE TOTAL CRITICAL ROOT ZONE AND ONE HALF THE RADIAL DISTANCE OF THE CRITICAL ROOT ZONE FOR EACH TREE BEING PRESERVED INCLUDING DISINFECTED TREES, HERITAGE TREES, AND ANY OTHER TREES FOR WHICH PRESERVATION IS TO BE CREDITED. THE REMAINING CRITICAL ROOT ZONE SHALL CONSIST OF AT LEAST ONE HUNDRED (100) SQUARE FEET.
   B. TREE DESIRED AREA SHALL BE FLOODED AND ENCIRCLED WITH PROTECTIVE FENCING DURING CONSTRUCTION. THE PLANNING DIRECTOR MAY APPROVE CONSTRUCTION CLOSER TO THE TRUNK THAN ONE HALF (½) THE RADIAL DISTANCE, DEPENDING ON THE SIZE, SPACING, OR SPECIES OF THE TREE, THE TYPE OF DISTURBANCE PROPOSED, AND VIGOROUSNESS OF THE SITUATION.
   C. CUT OR FILL THAT IS GREATER THAN FOUR (4) INCHES IN DEPTH AND THE DEPOSITING OF WASTE ROOTS SHALL BE CONSIDERED DISTURBANCE FOR THE PURPOSES OF THIS ORDINANCE.
5. WITHIN THE PROTECTED CRITICAL ROOT ZONE, ONLY FLAMORK, DECKING, OR SIMILAR CONSTRUCTION, MAY BE APPROVED AND SHALL NOT AFFECT THE BRANCHING OF THE TREE.
   E. IF PROPOSED OR ACTUAL PROTECTION OF THE CRITICAL ROOT ZONE OF A TREE DOES NOT MEET THE REQUIREMENTS OF THIS SECTION, THEN THE TREE SHALL BE CONSIDERED REMOVED AND SHALL REQUIRE MITIGATION IN ACCORDANCE WITH THIS ORDINANCE.

MARK S. WHITE 102647 Registered Professional Engineer STATE OF TEXAS	City Of Leander, Texas
08/21/15	BOI-3 TREE PROTECTION

Figure 3.6 Schematics of Organic Filter Tube Curb Inlet Protection
(Source: Modified from City of Plano BMP SP-4)

Inlet Protection
April 2010, Revised 9/2014
CC-88

NOTE:
WHERE CURB IS IN PLACE, PROVIDE A 300 mm (12") WIDE OPENING IN THE CURB, OR USE A SANDBAG TO DAM TO FORCE WATER OVER THE CURB TO THE TRAP.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STORM INLET SEDIMENT TRAP	
3-27-00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 632S-1

GeoSolutions, Inc. — Product Data Sheet
GeoCurve Inlet Filter

The GeoCurve Inlet Filter is a stormwater filter for placement into a stormwater curb inlet for the purpose of capturing debris and sediment that is transported by stormwater runoff. The device is comprised of a filter media (woven monofilament filter fabric) affixed to the lower portion of a "C" shaped 12 gauge welded wire frame (2" x 4" openings) with an upper retention flange. The device effectively filters stormwater, can easily be removed for maintenance and cleaning and incorporates an overflow window for heavy storm events.

FILTER MEDIA PROPERTIES: Mono-filament Woven Filter Fabric

PROPERTY	ASTM TEST METHOD	VALUE	C.O.A. REQ'T
Fabric Weight	D 3776	4.5 oz/sy	3 oz/sy
Grab Tensile Strength	D 4632	170 lbs	----
Mullen Burst Strength	D 3786	410 lbs/sq in	120 lbs/sq in
UV Stability	D 4355	80 %	70 %
Water Flow Rate	D 4491	325 gal/min/sf	275 gal/min/sf

GeoSolutions, Inc. 4417 Burleson Road Austin, Texas 78744 512-330-0796

NOTE:
FILTER FABRIC SHALL ENTIRELY COVER DIKE AND SKIRT.

INSTALLATION DETAIL OPTIONS:
1. TOE-IN 150 mm (6") MINIMUM.
2. WEIGHTED WITH 75 mm-125 mm (3"-5") OPEN.
3. TRENCHED IN 100 mm (4").
4. CONTINUOUS BACKING/PLANKS ON IMPERVIOUS SURFACES.

GENERAL NOTES
1. DIKES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT DIKE.
2. THE FABRIC COVER AND SKIRT SHALL BE A CONTINUOUS WRAPPING OF GEOTEXTILE. THE SKIRT SHALL BE A CONTINUOUS EXTENSION OF THE FABRIC ON THE UPSTREAM FACE.
3. THE SKIRT SHALL BE WEIGHTED WITH A CONTINUOUS LAYER OF 75-125 mm (3-5") OPEN GRADED ROCK OR TOED-IN 150 mm (6") WITH MECHANICALLY COMPACTED MATERIAL. OTHERWISE, THE ENTIRE STRUCTURE SHALL BE TRENCHED IN 100 mm (4").
4. DIKES AND SKIRT SHALL BE SECURELY ANCHORED IN PLACE USING 150 mm (6") WIRE STAPLES ON 600 mm (2') CENTERS ON BOTH EDGES AND SKIRT, OR STAKE USING 10M (⅜") DIAMETER RE-BAR WITH TEE ENDS.
5. FILTER MATERIAL SHALL BE LAPPED OVER ENDS 150 mm (6") TO COVER DIKE TO DIKE JOINTS. JOINTS SHALL BE FASTENED WITH GALVANIZED SHOAT RINGS.
6. THE DIKE STRUCTURE SHALL BE M#40-150 mmX150 mm (6 GA. 6"X6") WIRE MESH, 450 mm (18") ON A SIDE.
7. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6") AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.
9. AFTER THE DEVELOPMENT SITE IS COMPLETLY STABILIZED, THE DIKES AND ANY REMAINING SILT SHALL BE REMOVED. SILT SHALL BE DISPOSED OF AS INDICATED IN GENERAL NOTE 8 ABOVE.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TRIANGULAR SEDIMENT FILTER DIKE	
3-27-00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 628S

811
Know what's **below.**
Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.99988001439827 22

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
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WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh — STATE OF TEXAS — ALLISON KENNAUGH — 114356 — LICENSED PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT 069252742	DATE DECEMBER 2023	SCALE: AS SHOWN	DESIGNED BY: NAM	DRAWN BY: ZJR	CHECKED BY: ACK

EROSION CONTROL DETAILS

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
10 OF 39

SD-XX-XXXX

Plotted By:Randall, Zach Date:December 01, 2023 03:08:42pm File Path:K:\Aus_civil\069252742-valor leander\Cad\site plan\planSheets\C-Erosion Control Details.dwg
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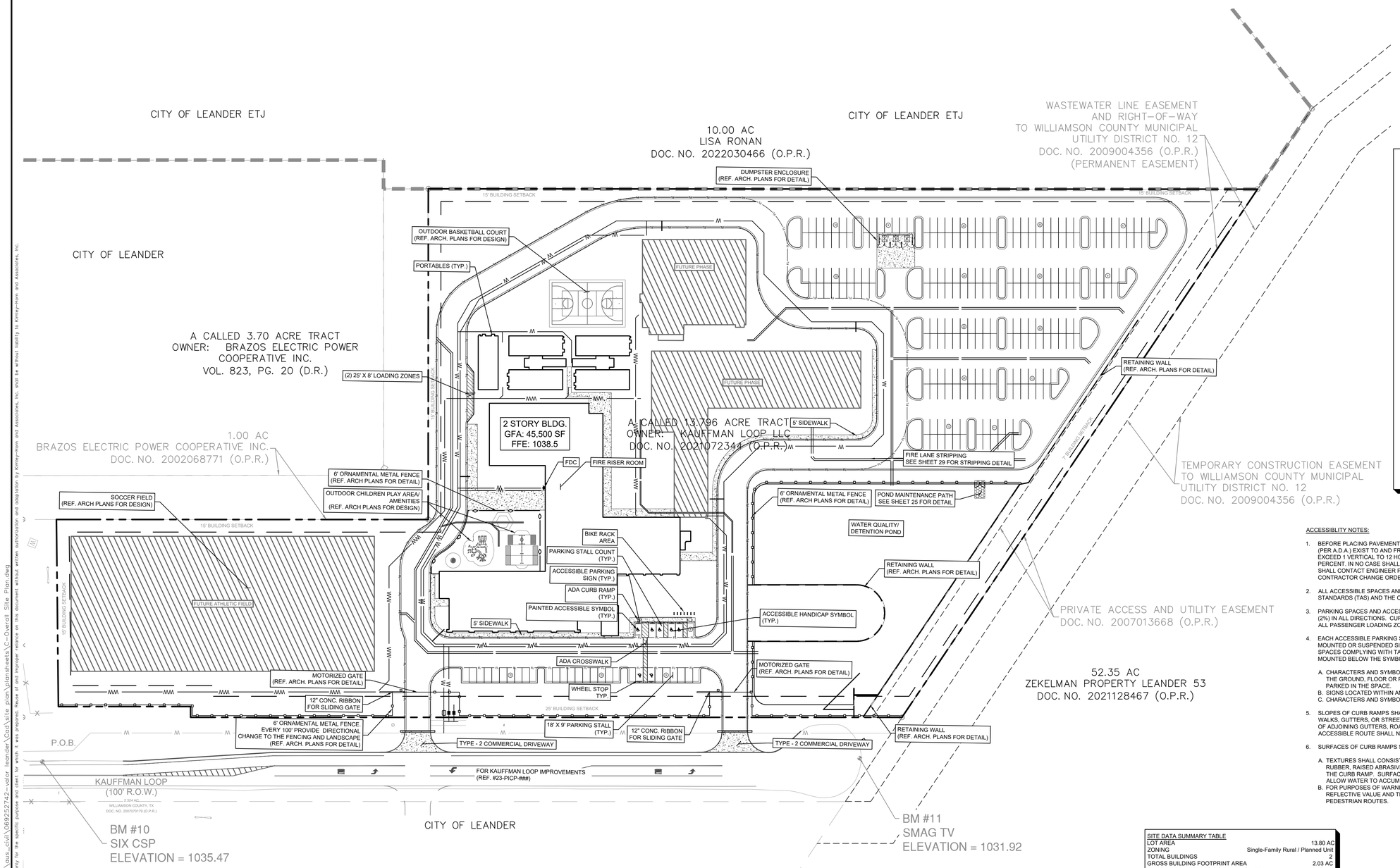

LEGEND

- PROPERTY LINE
- WW — PROPOSED WASTEWATER LINE
- W — PROPOSED WATER LINE
- PROPOSED STORM LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED RETAINING WALL. REFER TO STRUCTURAL DETAIL SHEETS.
- GAS — EXISTING GAS LINE
- W — EXISTING WATER LINE
- WW — EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WATER VALVE
- EXISTING WASTEWATER MANHOLE
- EXISTING WASTEWATER CLEANOUT
- EXISTING STORM MANHOLE
- EXISTING GAS VALVE
- x — x — x — EXISTING FENCE
- PROPOSED CONCRETE SIDEWALK

ACCESSIBLITY NOTES:

1. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE HANDICAPPED ROUTES (PER A.D.A.) EXIST TO AND FROM DESIGNATED DOORS. IN NO CASE SHALL HANDICAP RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5.0 PERCENT. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A. COMPLIANCE ISSUES.
2. ALL ACCESSIBLE SPACES AND ACCESSIBLE ROUTES SHALL COMPLY WITH THE TEXAS ACCESSIBILITY STANDARDS (TAS) AND THE CITY OF LEANDER REQUIREMENTS.
3. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 (2%) IN ALL DIRECTIONS. CURB RAMPS COMPLYING WITH TAS SECTION406 SHALL BE PROVIDED AT ALL PASSENGER LOADING ZONES.
4. EACH ACCESSIBLE PARKING SPACE SHALL BE DESIGNATED AS RESERVED BY A VERTICALLY MOUNTED OR SUSPENDED SIGN SHOWING THE SYMBOL OF ACCESSIBILITY PER TAS SECTION 703. SPACES COMPLYING WITH TAS SECTION 505.2(B) SHALL HAVE AN ADDITIONAL SIGN "VAN-ACCESSIBLE" MOUNTED BELOW THE SYMBOL OF ACCESSIBILITY.
   A. CHARACTERS AND SYMBOLS ON SUCH SIGNS SHALL BE LOCATED 60" (1525MM) MINIMUM ABOVE THE GROUND, FLOOR OR PAVING SURFACE SO THEY CANNOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.
   B. SIGNS LOCATED WITHIN AN ACCESSIBLE ROUTE SHALL COMPLY WITH TAS SECTION 307.
   C. CHARACTERS AND SYMBOLS ON OVERHEAD SIGNS SHALL COMPLY WITH TAS SECTION 703.5.5.
5. SLOPES OF CURB RAMPS SHALL COMPLY WITH TAS SECTION 405. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 1:20.
6. SURFACES OF CURB RAMPS SHALL COMPLY WITH TAS SECTION 403.2.
   A. TEXTURES SHALL CONSIST OF EXPOSED CRUSHED STONE AGGREGATE, ROUGHENED CONCRETE, RUBBER, RAISED ABRASIVE STRIPS, OR GROOVES EXTENDING THE FULL WIDTH AND DEPTH OF THE CURB RAMP . SURFACES THAT ARE RAISED, ETCHED, OR GROOVED IN A WAY THAT WOULD ALLOW WATER TO ACCUMULATE ARE PROHIBITED.
   B. FOR PURPOSES OF WARNING, THE FULL WIDTH AND DEPTH OF CURB RAMPS SHALL HAVE A LIGHT REFLECTIVE VALUE AND TEXTURE THAT SIGNIFICANTLY CONTRASTS WITH THAT OF ADJOINING PEDESTRIAN ROUTES.

SITE DATA SUMMARY TABLE	
LOT AREA	13.80 AC
ZONING	Single-Family Rural / Planned Unit
TOTAL BUILDINGS	2
GROSS BUILDING FOOTPRINT AREA	2.03 AC
MAXIMUM IMPERVIOUS COVER ALLOWED	85% (PUD)
IMPERVIOUS COVER PROPOSED	5.94 AC

SITE PLAN NOTES

1. TREES AND TOPOGRAPHY BASED UPON SURVEY BY PAPE DAWSON ENGINEERS ON FEBRUARY 24, 2023. NO WARRANTY IS EXPRESSED OR IMPLIED AS TO THEIR ACCURACY.
2. ALL FIRE DEPARTMENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 14' VERTICAL CLEARANCE.
3. FIRE ACCESS ROADS SHALL BE INSTALLED PER CITY OF LEANDER DETAIL #501-2 FIRE LANE STRIPING. REFER TO SHEETS 31 & 32.
4. ALL PARKING SPACES SHALL HAVE A MINIMUM 7'-0" VERTICAL CLEARANCE.
5. WARNING SIGNS ARE REQUIRED TO BE PLACED UNDER THE OVERHEAD ELECTRIC LINES TO MAKE ALL PERSONNEL AWARE OF THE ELECTRIC HAZARD.
6. EVERY HANDICAP ACCESSIBLE PARKING SPACE SHALL BE IDENTIFIED BY A SIGN CENTERED 5 FEET ABOVE THE PARKING SURFACE, AT THE HEAD OF THE PARKING SPACE. THE SIGN MUST INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE RESERVED, OR EQUIVALENT LANGUAGE. SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE AND SHALL MEET THE CRITERIA SET FORTH IN UBC, 3108(c) AND ANSI A117.1-1986-4.6.2.
7. CONTRACTOR TO COORDINATE WITH PROJECT ARBORIST TO TRIM TREES TO ENSURE VISIBILITY NEAR PARKING AREAS.
8. CAUTION: DO NOT PLACE THE STAGING AREA IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES.
9. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
10. ALL RADII TO BE 3' UNLESS OTHERWISE NOTED.
11. SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
12. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 IN.
13. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50.
14. GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT.
15. ALL LANDSCAPED AREAS ARE TO BE PROTECTED BY SIX-INCH WHEEL CURBS, WHEELSTOPS, OR OTHER APPROVED BARRIERS AS PER ECM 2.4.7.
16. ADEQUATE BARRIERS BETWEEN ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, SUCH AS A 6" CONCRETE CURB ARE REQUIRED. IF A STANDARD 6" CURB AND GUTTER ARE NOT PROVIDED FOR ALL VEHICULAR USE AREAS AND ADJACENT LANDSCAPE AREAS, COMPLY WITH ECM, SECTION 2.4.7, "PROTECTION OF LANDSCAPE AREAS".
17. ALL SITE UTILITY LINES ARE PROPOSED TO BE LOCATED UNDERGROUND.
18. EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PUBLIC ROW OR ADJACENT RESIDENTIAL DISTRICTS OR USED AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT PROPOSED.
19. AL CLAWSON DISPOSAL, INC. SHALL BE THE SOLE PROVIDER OF WASTE HAULING FOR THIS SITE BOTH DURING AND AFTER CONSTRUCTION.
20. AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING.
21. GARBAGE DUMPSTERS ARE LOCATED NO CLOSER TO A ROADWAY THAN THE FRONT WALL OF THE PRINCIPAL STRUCTURE LOCATED CLOSEST TO THE ROADWAY. GARBAGE DUMPSTERS ARE SCREENED BY A WALL (COMPRISED OF MASONRY COMPATIBLE WITH THE STRUCTURE OR WOODCRETE) AT LEAST AS HIGH AS THE CONTAINER. THE OPEN SIDE TO THE DUMPSTER OR OTHER TRASH RECEPTACLE IS A GATE CONSTRUCTED OF SOLID WOOD OR METAL. THE DUMPSTER IS ORIENTED FOR PICKUP BY A FRONT LOAD GARBAGE TRUCK.
22. ALL EASEMENTS OF RECORD AS INDICATED ON THE MOST RECENT TITLE RUN (DATED: XXXXX CONDUCTED BY XXXX) FOR THIS PROPERTY ARE SHOWN ON THIS SITE PLAN.
23. CONTRACTOR TO HAVE STAKING VERIFIED BY OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.
24. SOLID WASTE DUMPSTERS TO BE SCREENED AS REQUIRED BY THE CITY OF LEANDER.
25. REFER TO ARCHITECT PLANS FOR DUMPSTER DETAILS.
26. REFER TO LANDSCAPE PLANS FOR HARDSCAPE WITHIN COURTYARD AREA.
27. REFER TO MECHANICAL AND ELECTRICAL ENGINEER'S DRAWINGS FOR ELECTRICAL TRANSFORMERS AND HVAC COMPRESSOR LOCATIONS.
28. REFER TO LANDSCAPE PLANS AND MECHANICAL AND ELECTRICAL ENGINEER'S DRAWINGS FOR MONUMENT SIGN AND LIGHTING FIXTURES.

Valor Leander Parking Table
Zone Single Family , Rural Planned Unit
Building Occupation Use: Education

PHSAE	CLASSROOM AGE CLASSIFICATION	# OF CLASSROOMS	STALL / CLASSROOM*	QUANTITY
1	K - 5	21	2	42
	6 - 12	6	10	60
FUTURE	K - 5	9	2	18
	6 - 12	15	10	150
REQUIRED ADA SPACES**				7
TOTAL REQUIRED PARKING				***270***
PROVIDED PARKING				
TYPE				**QUANTITY**
STANDARD				272
STANDARD ADA				7
TOTAL PROVIDED PARKING				***279***

**2 Spaces/Primary Classroom, 10 Spaces/Secondary Classroom per City of Leander's Composite Zoning*
** 7 ADA spaces including 1 Van space required for 201-300 total parking spaces on lot.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

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© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT 069252742	DATE	DESIGNED BY:	NAM
	DECEMBER 2023	DRAWN BY:	ZJR
SCALE:	AS SHOWN	CHECKED BY:	ACK

OVERALL SITE PLAN

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
11 OF 39

SD-XX-XXXX

Plotted By:Rondell, Zach Date:December 01, 2023 03:09:24pm File Path:K:\aus_civil\069252742-valor leander\Cad\site plan\plan sheet\C-Overall Site Plan.dwg
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CITY OF LEANDER ETJ

CITY OF LEANDER

A CALLED 3.70 ACRE TRACT
OWNER: BRAZOS ELECTRIC POWER COOPERATIVE INC.
VOL. 823, PG. 20 (D.R.)

1.00 AC
BRAZOS ELECTRIC POWER COOPERATIVE INC.
DOC. NO. 2002068771 (O.P.R.)

10.00 AC
LISA RONAI
DOC. NO. 202203046

A CALLED 1.96 ACRE
OWNER: K FMAN LOC
DOC. NO. 2 072344 (C

MATCH LINE SHEET 13

OAD 267
OF WAY)

CR 267

KAUFFMAN LOOP
(100' R.O.W.)
2.324 AC
WILLIAMSON COUNTY, TX
DOC. NO. 2003039129 (O.P.R.)

WILLIAM H. MONR
SURVEY
ABSTRACT NO. 4

FUTURE PHASE

FUTURE ATHLETIC FIELD

GFA: 45,500 SF

2- 25'x8' LOADING ZONES

15' BUILDING SETBACK

25' BUILDING SETBACK

15' BUILDING SETBACK

15' BUILDING SETBACK

P.O.B.

265.4'
BLDG. TIE

72.7'
BLDG. TIE

209.4'
BLDG. TIE

602.4'

R150.0'

R114.0'

108.2'

158.9'

36.0'

158.9'

R71.0'

R35.0'

36.0'

208.4'

50.3'

84.3'

12.8'

23.7'

64.0'

16.7'

5.0'

35.7'

47.6'

25.9'

19.7'

16.7'

135.0'

138.4'

99.6'

78.8'

12.0'

80.6'

29.5'

23.5'

10.0'

10.0'

74.8'

271.2'

6.2'

160.4'

R25.0'

R61.0'

R25.0'

36.0'

55.3'

55.3'

9.0'

R61.0'

R25.0'

R25.0'

5.0'

63.6'

8.0'

5.0'

214.7'

5.0'

36.0'

9.2'

3.0'

3.0'

9.0'
TYP.

18.0'
TYP.

90.0'

90.0'

86.0'

104.8'

30.0'

50.8'

R25.0'

R25.0'

R61.0'

R25.0'

36.0'

83.3'

69.4'

69.4'

282.6'

R25.0'

R25.0'

50.8'

30.0'

R25.0'

R25.0'

0 40' 80'
GRAPHIC SCALE 40'

LEGEND

- PROPERTY LINE
- PROPOSED EASEMENT
- ROW DEDICATION
- FL — FIRE LANE
- PROPOSED WALL < 4'
- PROPOSED ADA/LOADING ZONE
- CONCRETE SIDEWALK

NOTES:

1. ALL FIRE DEPARTMENT ACCESS DRIVES/ROADS TO HAVE A MINIMUM 14' VERTICAL CLEARANCE.
2. ESTABLISH FIRE ZONES AS SHOWN ON SITE BY PAINTING CURB RED. STENCIL THE WORDS "FIRE ZONE/TOW-AWAY ZONE" IN WHITE LETTERS AT LEAST 3 INCHES HIGH AT 35-FOOT INTERVALS ALONG THE CURB. ALSO, SIGNS SHALL BE POSTED AT BOTH ENDS OF A FIRE ZONE. ALTERNATE MARKING OF THE FIRE LANES MAY BE APPROVED BY THE FIRE CHIEF, PROVIDED THE FIRE LANES ARE CLEARLY IDENTIFIED AT BOTH ENDS AND AT INTERVALS NOT TO EXCEED 35 FEET. SEC. 901.4.2
3. ALL PARKING SPACES SHALL HAVE MINIMUM 7'-0" VERTICAL CLEARANCE.
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7. ALL RADII TO BE 3' UNLESS OTHERWISE NOTED.
8. SEE OVERALL SITE PLAN ON SHEET 11 FOR ADDITIONAL NOTES.
9. SCREENING FOR SOLID WASTE COLLECTION AND LOADING AREAS SHALL BE THE SAME AS, OR OF EQUAL QUALITY TO, PRINCIPAL BUILDING MATERIALS.
10. ALL STANDARD PARKING STALLS TO BE 9.0' WIDE BY 18.0' DEEP TO FACE OF CURB.
11. REFER TO SITE ELECTRICAL AND PLUMBING PLANS (BY OTHERS) PRIOR TO PLACING PAVEMENT.
12. REFER TO IRRIGATION PLAN (BY OTHERS) PRIOR TO PLACING PAVEMENT.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

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GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

No.	REVISIONS	DATE	BY

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WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT 069252742		DESIGNED BY:	NAM
DATE	DECEMBER 2023	DRAWN BY:	ZJR
SCALE:	AS SHOWN	CHECKED BY:	ACK

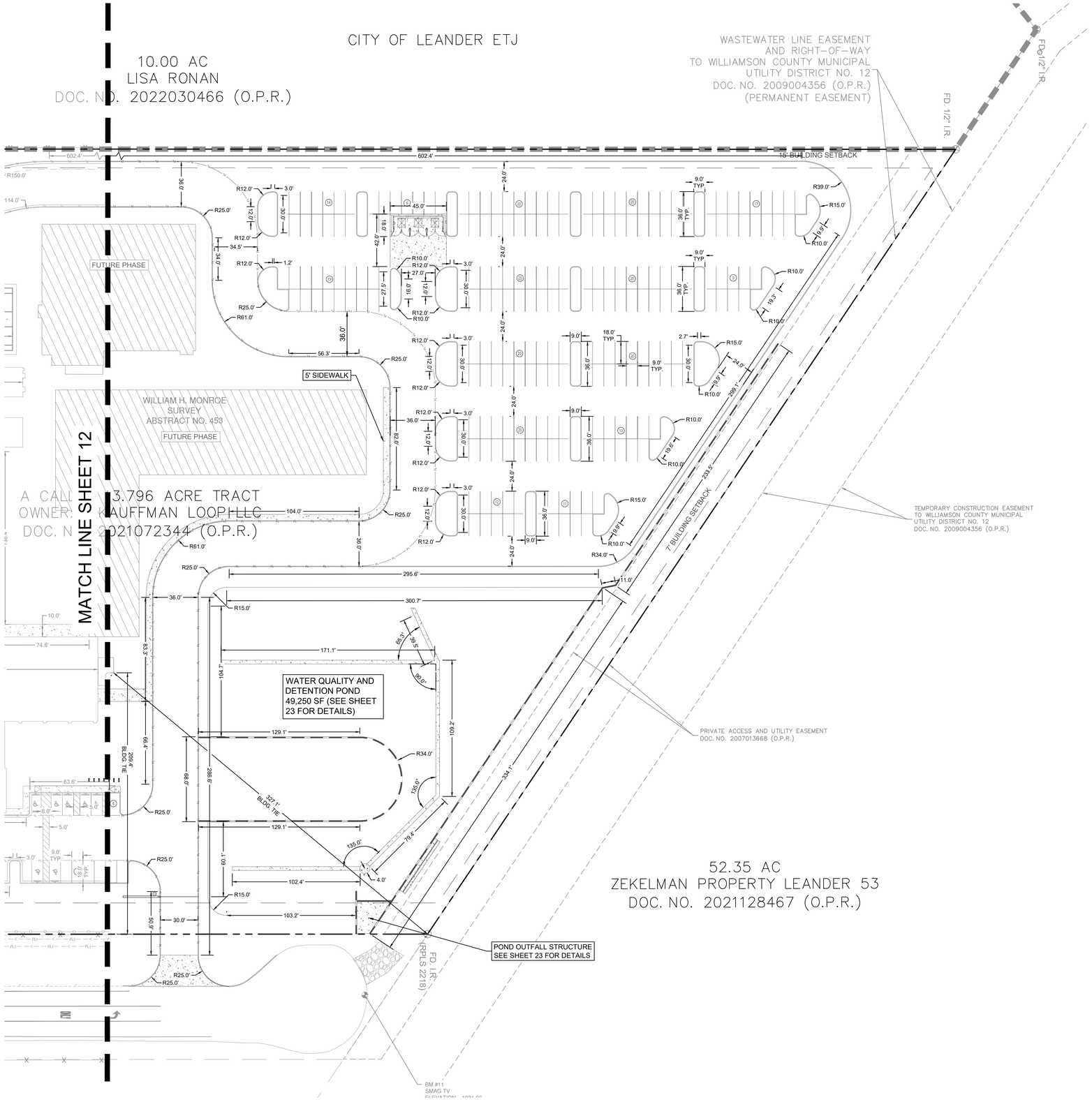
DIMENSION CONTROL PLAN (SHEET 1 OF 2)

VALOR LEANDER

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
12 OF 39

SD-XX-XXXX



LEGEND

- PROPERTY LINE
- PROPOSED EASEMENT
- ROW DEDICATION
- FL — FIRE LANE
- PROPOSED WALL < 4'
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114356
LICENSED PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

DIMENSION CONTROL PLAN (SHEET 2 OF 2)

VALOR LEANDER

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
13 OF 39

SD-XX-XXXX

Plotted By: Randall, Zach Date: December 01, 2023 03:09:58pm File Path: X:\pve_civil\069252742-valor_leander\Cad\site plan\plansheets\VC-Dimension Control Plan.dwg
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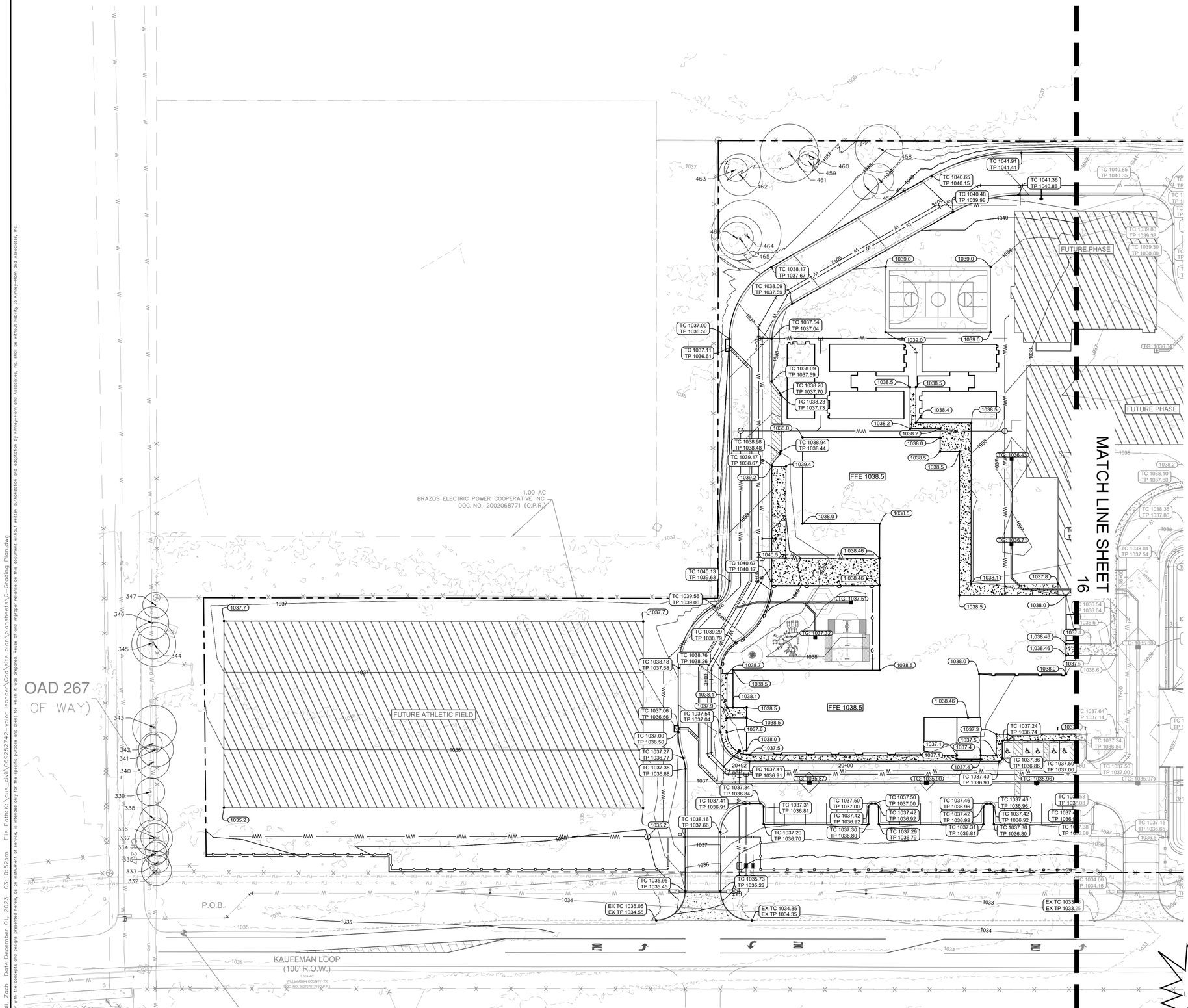

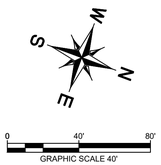

LEGEND

	PROPERTY LINE
FFE XXX.X ●	PROPOSED FINISHED FLOOR ELEVATION
TP XXX.X ●	PROPOSED TOP OF PAVEMENT ELEVATION
TC XXX.X ●	PROPOSED TOP OF CURB ELEVATION
EX XXX.X ●	EXISTING TOP OF PAVEMENT ELEVATION
TG XXX.X ●	PROPOSED TOP OF GRATE
TW XXX.X●	PROPOSED GRADE AT TOP OF WALL
BW XXX.X●	PROPOSED GRADE AT BOTTOM OF WALL
EW XXX.X●	PROPOSED GRADE AT END OF WALL
	PROPOSED SWALE
	HIGH POINT
	FLOW DIRECTION
	PROPOSED RETAINING WALL
555	PROPOSED CONTOUR
555	EXISTING CONTOUR
	EXISTING TREE TO REMAIN

NOTES:

1. REFER TO GEOTECHINCAL REPORT BY TERRACON CONSULTANTS INC. GEOTECH PROJECT NUMBER 96235099. DATED: 08/14/2023.
2. ALL PROPOSED ELEVATIONS ARE TOP OF PAVEMENT OR NATURAL GROUND UNLESS OTHERWISE NOTED.
3. ALL TOP OF WALL ELEVATIONS ARE TO TOP OF GRADE AT WALL.
4. ALL BOTTOM OF WALL ELEVATIONS ARE TO BOTTOM OF GRADE AT WALL.
5. CONTRACTOR TO VERIFY A.D.A. COMPLIANCE FOR GRADES IN ALL SIDEWALK ACCESSIBLE ROUTES, INCLUDING DRIVEWAY CROSSINGS, SHALL CONFORM TO ALL APPLICABLE A.D.A. STANDARDS: NOT EXCEED 5.0% ALONG TRAVEL PATH WITH NOT MORE THAN 2.0% CROSS SLOPE AND NOT EXCEED 2.0% IN ANY DIRECTION IN ACCESSIBLE PARKING AREAS.
6. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.
7. CONTRACTOR TO VERIFY EXISTING ELEVATIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
8. EXISTING TOPOGRAPHY IS BASED ON LIDAR SURVEY PROVIDED BY PAPE-DAWSON ENGINEERS. PROPOSED GRADING IS DESIGNED TO TIE BACK TO EXISTING GRADE AT PROPERTY LINES. CONTRACTOR SHALL FIELD VERIFY EXISTING GRADES AT THE PROPERTY LINES AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

Know what's **below.**
Call before you dig.

BENCHMARKS

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DRAWN BY:	ZJR
CHECKED BY:	ACK

GRADING PLAN (SHEET 1 OF 2)

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
15 OF 39

SD-XX-XXXX

Plotted By:Rondell, Zach Date:December 01, 2023 03:10:52pm File Path:K:\pus_civil\069252742-valor leander\Cad\site plan\plansheets\VC-Grading Plan.dwg
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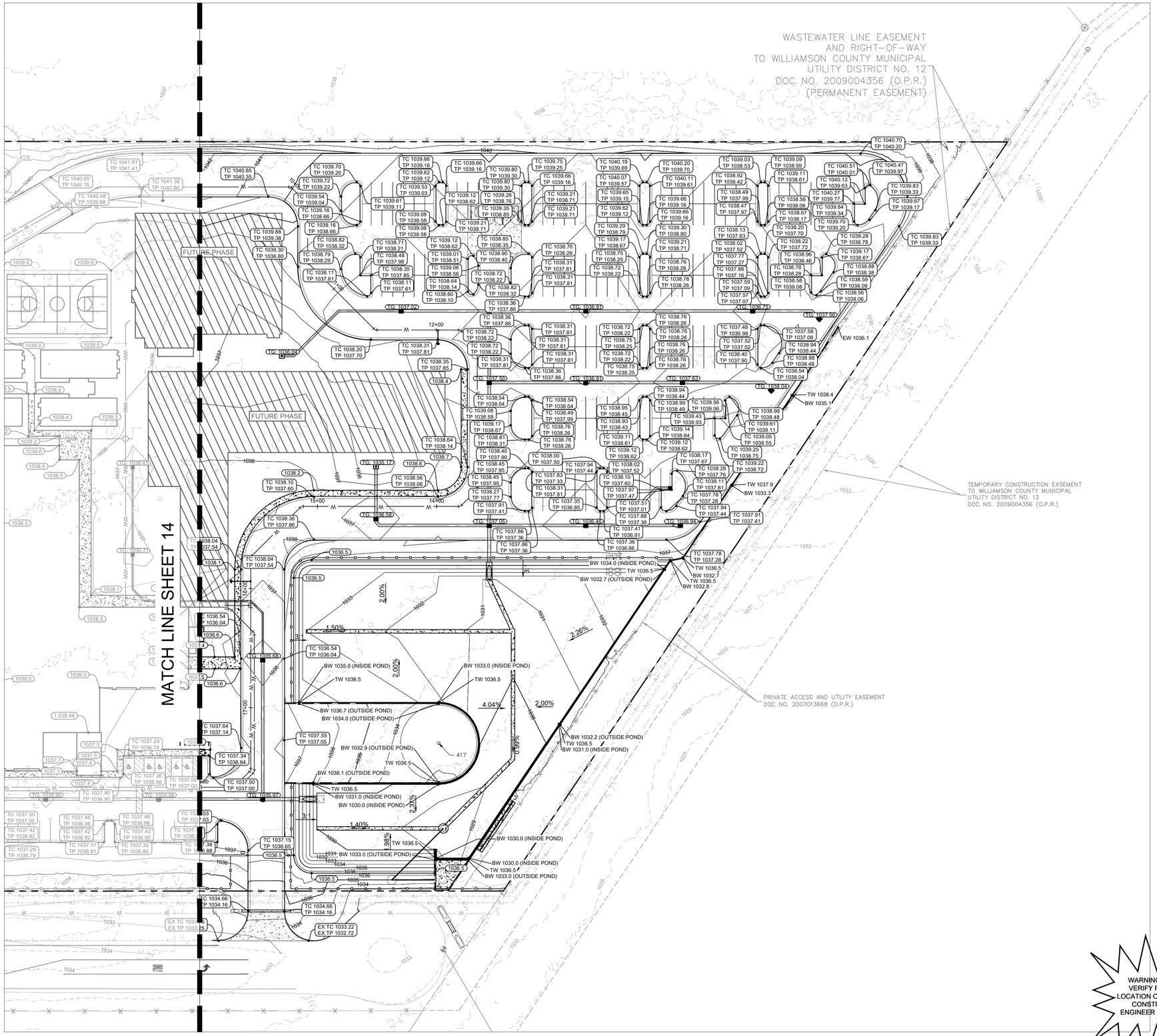

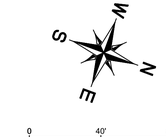

LEGEND

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- TP XXX.X ● PROPOSED TOP OF PAVEMENT ELEVATION
- TC XXX.X ● PROPOSED TOP OF CURB ELEVATION
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- EW XXX.X ● PROPOSED GRADE AT END OF WALL
- PROPOSED SWALE
- HIGH POINT
- FLOW DIRECTION
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- 555 PROPOSED CONTOUR
- 555 EXISTING CONTOUR
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6. MAINTAIN EXISTING GRADE IN TREE WELLS. CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO AREA INLETS.
7. CONTRACTOR TO VERIFY EXISTING ELEVATIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
8. EXISTING TOPOGRAPHY IS BASED ON LIDAR SURVEY PROVIDED BY PAPE-DAWSON ENGINEERS. PROPOSED GRADING IS DESIGNED TO TIE BACK TO EXISTING GRADE AT PROPERTY LINES. CONTRACTOR SHALL FIELD VERIFY EXISTING GRADES AT THE PROPERTY LINES AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

Know what's **below.**
Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

No.	REVISIONS	DATE	BY

Kimley»Horn
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TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

GRADING PLAN (SHEET 2 OF 2)

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
16 OF 39

SD-XX-XXXX

Plotted By:Rondell, Zach Date:December 01, 2023, 03:12:16pm File Path:K:\aus_civil\069252742-valor leander\Cad\site plan\plansheet\C-Grading Plan.dwg
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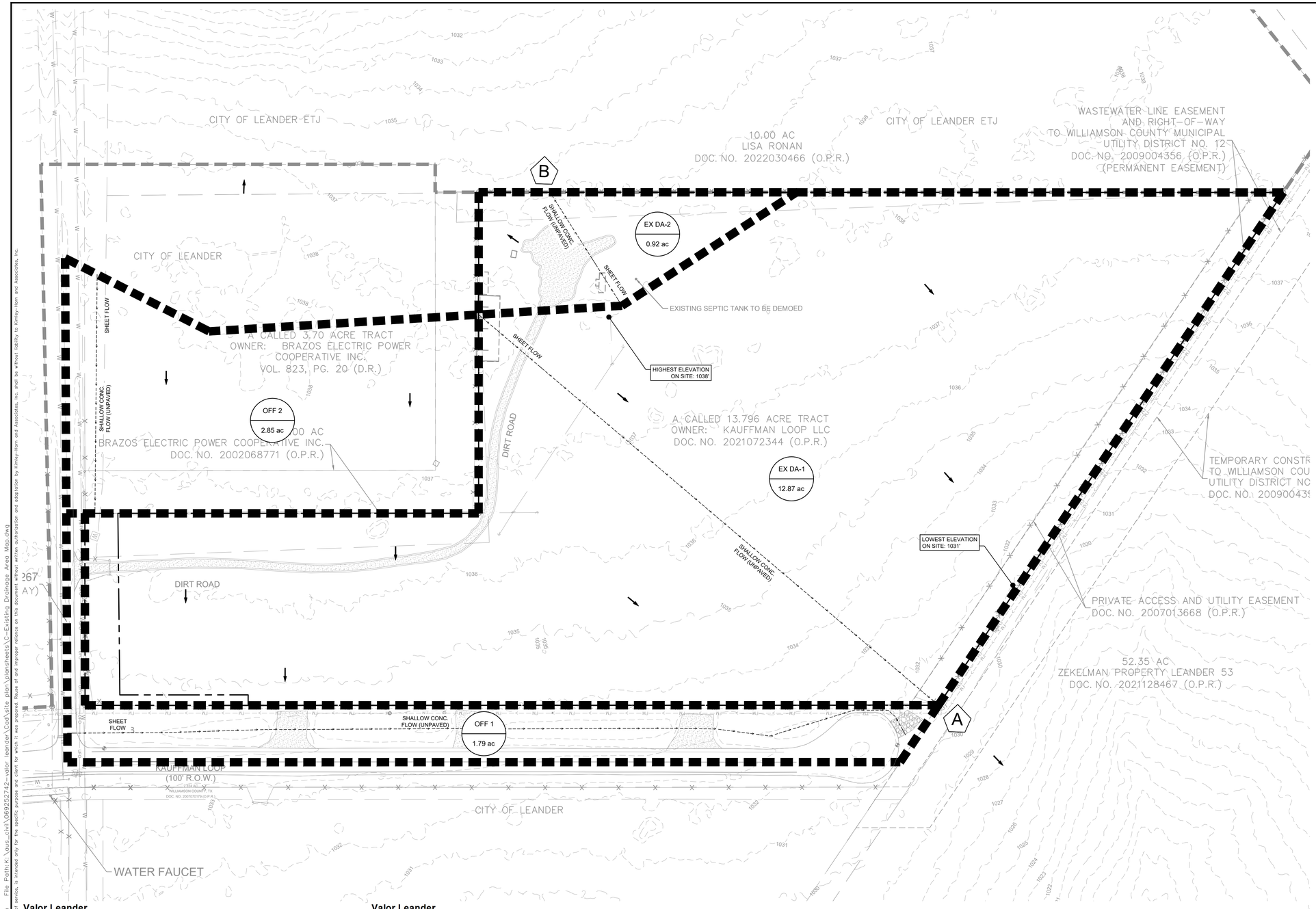


0 60' 120'
GRAPHIC SCALE 60'

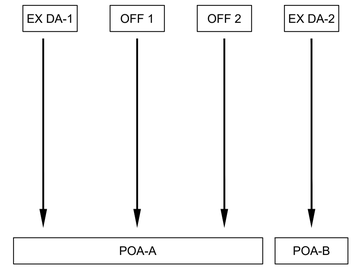
LEGEND

- X-1 / 9.9 ac — AREA DESIGNATOR / AREA IN ACRES
- PROPERTY LINE
- EXISTING STORM DRAIN LINE
- EXISTING DRAINAGE DIVIDE
- EXISTING STORM DRAIN INLET
- EXISTING STORM DRAIN MANHOLE
- EXISTING STORM DRAIN HEADWALL
- EXISTING FLOW DIRECTION
- 555 — EXISTING CONTOUR
- TIME OF CONCENTRATION

NOTE:

1. CITY OF LEANDER ATLAS 14 DATA WAS USED TO CALCULATE THE EXISTING RAINFALL RUNOFF.

EXISTING CONDITIONS



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WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

Valor Leander
DETENTION RESULTS - SCS METHOD

EXISTING CONDITIONS

Point of Analysis	Total Drainage Area (Acres)	Total Impervious Cover Area (acres)	Impervious Area (%)	Storm Event	Existing Runoff (cfs)
A	17.63	0.92	5.24%	2	37.38
				10	71.39
				25	95.08
				100	135.46
B	0.92	0.12	13.39%	2	2.61
				10	4.80
				25	6.31
				100	8.87

Note: All detention runoff calculations were analyzed using the Soil Conservation Services Method (unless otherwise specified) as documented in the Technical Release 55. Pond Pack V8i was used to calculate the runoff and design the pond volume and outlet structure.

Valor Leander
Existing Drainage Calculations - SCS Method

DRAINAGE AREA	AREA (sf)	AREA (Ac.)	IMPERVIOUS COVER (Ac.)	IMPERVIOUS COVER %	PERVIOUS CURVE NO. CN^1	WEIGHTED CURVE NO. CN^2	SHEET FLOW P-2yr24hr 3.94 IN N	L (ft)	S (ft/ft)	Tt(min)	SHALLOW CONCENTRATED FLOW Grass Surface L (ft)	V (fps)	S (ft/ft)	Tt(min)	Paved Surface L	V (fps)	S	Tt(min)	CHANNEL FLOW Pipe Flow L (ft)	V (fps)	S (ft/ft)	Tt(min)	TOTAL Tc^3 (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
EX DA-1	565,952	12.99	0.17	1.28	80.00	80.23	0.150	50	0.003	**11.65**	690	1.65	0.010	**6.99**	-	-	-	**0.00**	-	-	-	**0.00**	**18.64**	27.3	52.7	70.44	100.71
EX DA-2	40,273	0.92	0.12	13.39	80.00	82.41	0.150	50	0.003	**10.83**	115	1.49	0.009	**1.29**	-	-	-	**0.00**	-	-	-	**0.00**	**12.12**	2.61	4.80	6.31	8.87
OFF 1	78,038	1.79	0.71	39.47	80.00	87.11	0.150	50	0.005	**8.83**	1000	0.88	0.003	**18.86**	-	-	-	**0.00**	-	-	-	**0.00**	**27.69**	4.01	6.92	8.89	12.24
OFF 2	124,160	2.85	0.05	1.78	80.00	80.32	0.150	50	0.003	**11.65**	242	1.11	0.005	**3.65**	-	-	-	**0.00**	-	-	-	**0.00**	**15.30**	6.66	12.65	16.81	23.9

Existing Condition:
[1]The Curve Number (Cn) has been determined based on Table 2-2a of Technical Release 55. The cover type, hydrologic condition, and soil group determined for the proposed conditions are open space, good condition (grass cover >75%), and Type D soil group w
[2]Cn Values based on USDA TR-55 Manual
[3]The minimum Tc is 5 minutes per the COA DCM

No.	REVISIONS	DATE	BY

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Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

EXISTING DRAINAGE AREA MAP

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
17 OF 39

SD-XX-XXXX

Plotted By:Rondell Zoph Date:December 01, 2023 04:26:16pm File Path:K:\aus_civil\069252742-valor leander\Civil\site plan\plantsheet\C-Existing Drainage Area Map.dwg
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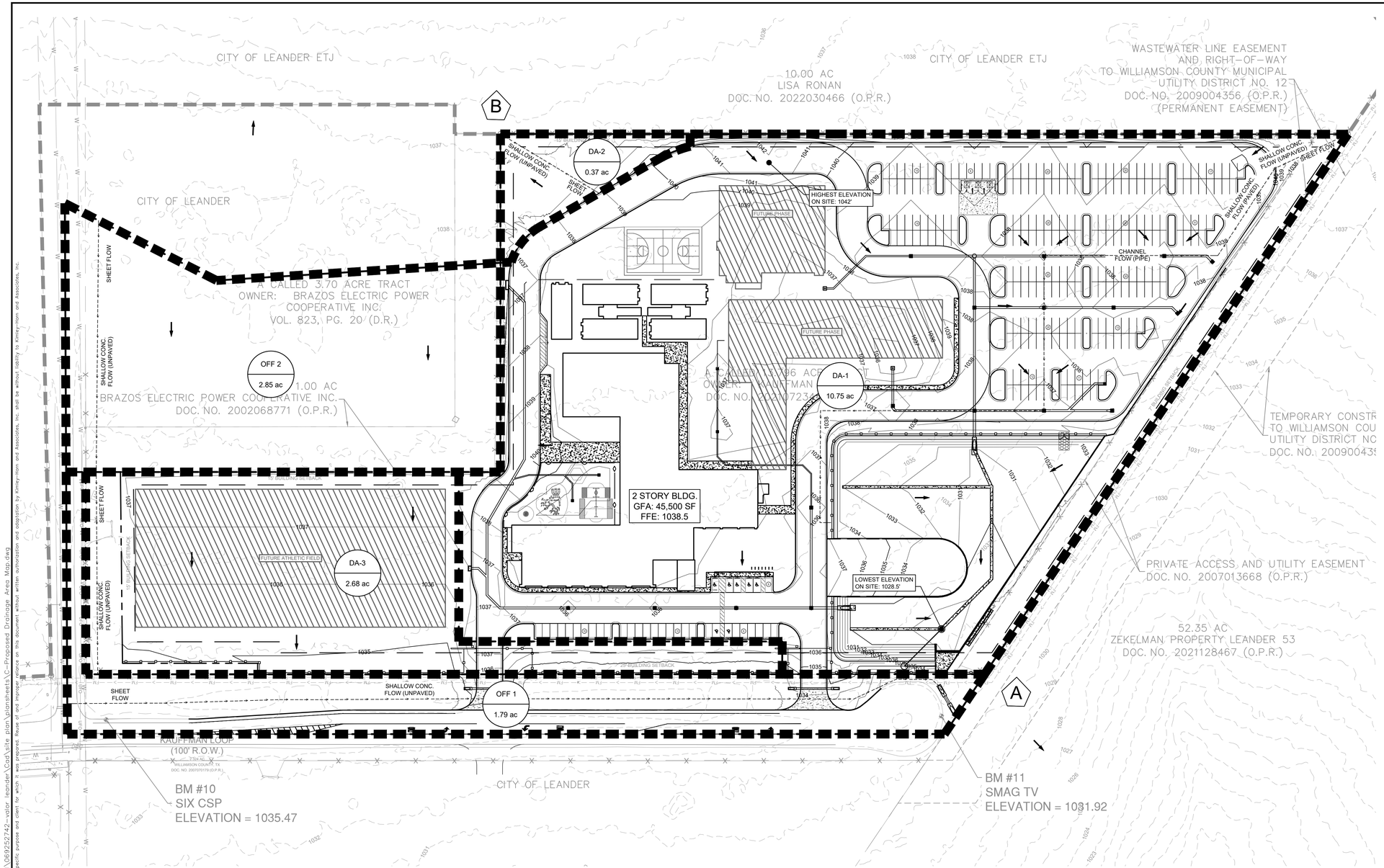
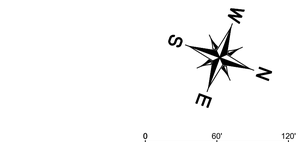




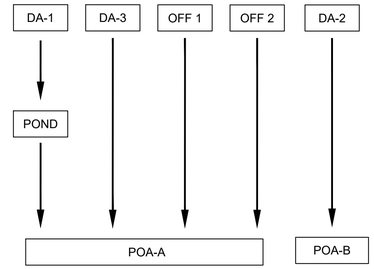
LEGEND

- X-1 / 9.9 ac — AREA DESIGNATOR / AREA IN ACRES
- A-1 — INLET NUMBER
- PROPERTY LINE
- PROPOSED STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- PROPOSED DRAINAGE DIVIDE
- PROPOSED STORM DRAIN INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN HEADWALL
- PROPOSED FLOW DIRECTION
- 555 — PROPOSED CONTOUR
- 555 — EXISTING CONTOUR
- TIME OF CONCENTRATION

NOTE:

1. CITY OF LEANDER ATLAS 14 DATA WAS USED TO CALCULATE THE PROPOSED RAINFALL RUNOFF.

PROPOSED CONDITIONS



Valor Leander
DETENTION RESULTS - SCS METHOD

PROPOSED CONDITIONS

Point of Analysis	Total Drainage Area (Acres)	Total Impervious Cover Area (acres)	Impervious Area (%)	Storm Event	Proposed Runoff (With Detention) (cfs)
A	18.07	6.80	37.62%	2	31.62
				10	54.22
				25	73.24
				100	109.37
B	0.37	0.00	0.00%	2	1.19
				10	2.31
				25	3.09
				100	4.43

PROPOSED VS. EXISTING COMPARISON

Point of Analysis	Storm Event	Existing Runoff (cfs)	Proposed Runoff (cfs)	Runoff Difference at Point of Analysis (cfs)	Is Proposed ≤ Existing?
A	2	37.38	31.62	5.76	YES
	10	71.39	54.22	17.17	YES
	25	95.08	73.24	21.84	YES
	100	135.46	109.37	26.09	YES
B	2	2.61	1.19	1.42	YES
	10	4.80	2.31	2.49	YES
	25	6.31	3.09	3.22	YES
	100	8.87	4.43	4.44	YES

Note: All detention runoff calculations were analyzed using the Soil Conservation Services Method (unless otherwise specified) as documented in the Technical Release 55. Pond Pack V8i was used to calculate the runoff and design the pond volume and outlet structure.

Valor Leander
Proposed Drainage Calculations - SCS Method

DRAINAGE AREA	AREA (sf)	AREA (Ac.)	IMPERVIOUS COVER (Ac.)	IMPERVIOUS COVER %	PERVIOUS CURVE NO. Cn[1]	WEIGHTED CURVE NO. Cn[2]	SHEET FLOW P-2yr24hr 3.94 IN N	SHEET FLOW L (ft)	SHEET FLOW S (ft/ft)	SHEET FLOW Tt(min)	SHALLOW CONCENTRATED FLOW Grass Surface L (ft)	Grass Surface V (fps)	Grass Surface S (ft/ft)	Grass Surface Tt(min)	Paved Surface L	Paved Surface V (fps)	Paved Surface S	Paved Surface Tt(min)	CHANNEL FLOW Pipe Flow L (ft)	Pipe Flow V (fps)	Pipe Flow S (ft/ft)	Pipe Flow Tt(min)	TOTAL Tc[3] (min)	Q2 (cfs)	Q10 (cfs)	Q25 (cfs)	Q100 (cfs)
DA-1	468,167	10.75	5.91	55.00	80.00	89.90	0.015	50	0.005	**1.40**	43.6	1.02	0.004	**0.71**	121	1.11	0.003	**1.81**	786	5.0	0.003	**2.62**	**6.54**	47.14	77.02	97.22	131.51
DA-2	16,232	0.37	0.00	0.00	80.00	80.00	0.015	50	0.005	**1.40**	83	0.88	0.003	**1.57**	-	-	-	**0.00**	-	-	-	**0.00**	**5.00**	1.19	2.31	3.09	4.43
DA-3	116,593	2.68	0.03	1.01	80.00	80.18	0.015	50	0.014	**0.94**	185	1.27	0.006	**2.43**	-	-	-	**0.00**	-	-	-	**0.00**	**5.00**	8.63	16.66	22.29	31.92
OFF 1	78,038	1.79	0.81	45.10	80.00	88.12	0.150	50	0.005	**8.83**	998.9	0.88	0.003	**18.84**	-	-	-	**0.00**	-	-	-	**0.00**	**27.67**	4.16	7.06	9.03	12.36
OFF 2	124,160	2.85	0.05	1.78	80.00	80.32	0.150	50	0.003	**10.83**	242	1.02	0.004	**3.95**	-	-	-	**0.00**	-	-	-	**0.00**	**14.79**	6.72	12.75	17.04	24.37

Proposed Condition:

[1]The Curve Number (Cn) has been determined based on Table 2-2a of Technical Release 55. The cover type, hydrologic condition, and soil group determined for the proposed conditions are open space, good condition (grass cover >75%), and Type D soil group w

[2]Cn Values based on USDA TR-55 Manual

[3]The minimum Tc is 5 minutes per the COA DCM

811 Know what's **below.** **Call** before you dig.

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No.	REVISIONS	DATE	BY

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TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh — STATE OF TEXAS — ALLISON KENNAUGH — 114356 — LICENSED PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT 069252742	DATE DECEMBER 2023	SCALE: AS SHOWN	DESIGNED BY: NAM	DRAWN BY: ZJR	CHECKED BY: ACK

PROPOSED DRAINAGE AREA MAP

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
18 OF 39

SD-XX-XXXX

Plotted By: Rondell, Zach Date: December 01, 2023 03:14:28pm File Path: K:\Aus_civil\069252742-valor leander\Cad\site plan\plansheets\VC-Proposed Drainage Area Map.dwg
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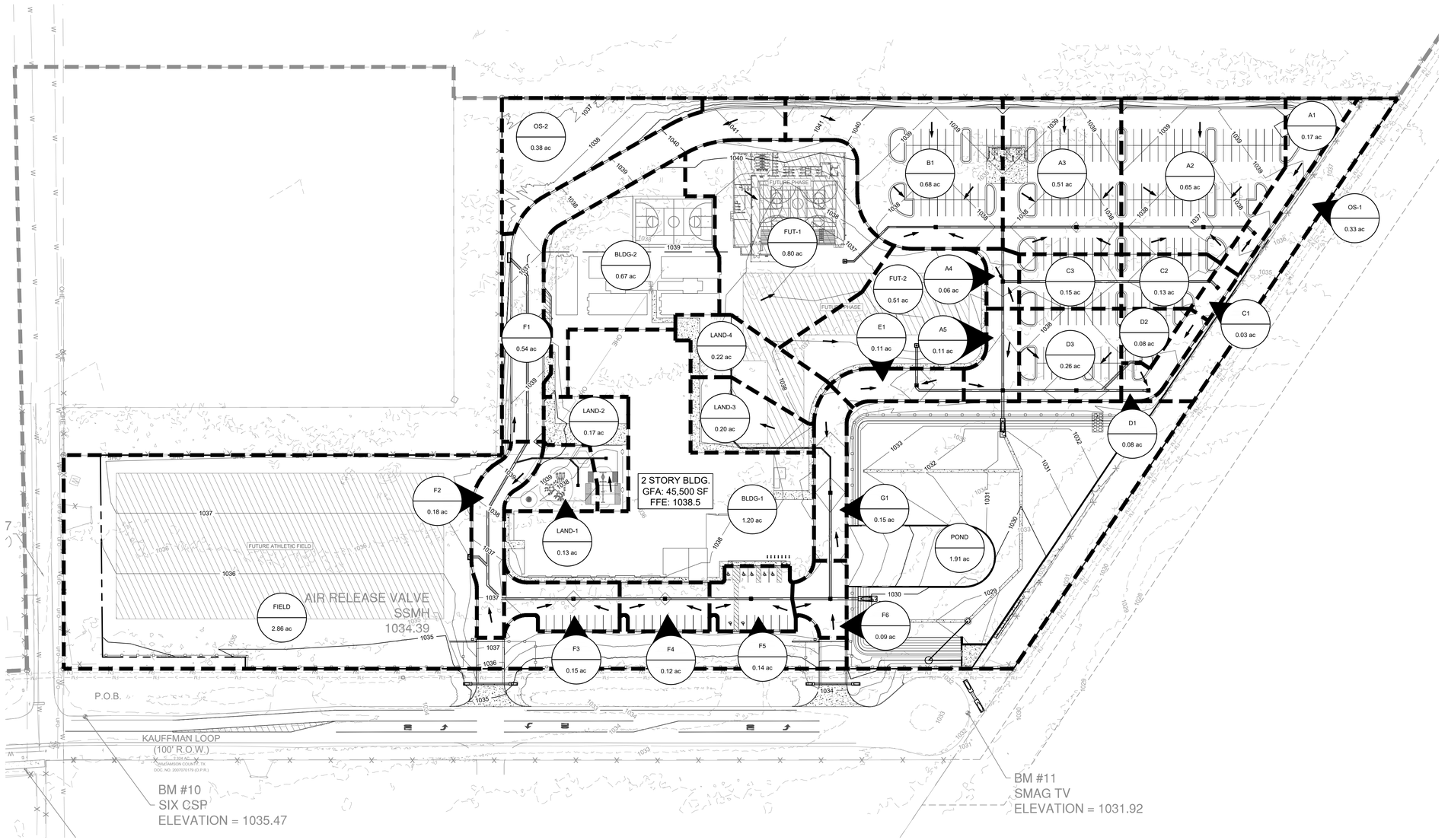

0 60' 120'
GRAPHIC SCALE 60'

LEGEND

- X-1 / 9.9 ac — AREA DESIGNATOR / AREA IN ACRES
- A-1 — INLET NUMBER
- PROPERTY LINE
- PROPOSED STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- PROPOSED DRAINAGE DIVIDE
- PROPOSED STORM GRATE/AREA INLET
- PROPOSED STORM CURB INLET
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN HEADWALL
- PROPOSED FLOW DIRECTION
- 555 — PROPOSED CONTOUR
- 555 — EXISTING CONTOUR

NOTE:

1. SEE INLET DRAINAGE AREA CALCULATIONS ON SHEET 20.

Know what's **below.**
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ALLISON KENNAUGH
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PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

INLET DRAINAGE AREA MAP

VALOR LEANDER

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
19 OF 39

SD-XX-XXXX

Plotted By: Randall Zach Date: December 01, 2023 03:15:05pm File Path: K:\Aus_civil\069252742-valor leander\Cad\site plan\plansheets\VC-Drainage Area Map.dwg
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Valor Leander

Peak Flow Calculation - Rational Method

DRAINAGE AREA	Area (Sq. Feet)	Area (Acres)	Impervious Cover (SQ. Feet)	Impervious Cover (Acres)	% I.C.	RUNOFF COEFFICIENT (C) C 2-Year	C 10-Year	C 25-Year	C 100-Year	Tc (min)	RAINFALL INTENSITY (I) I 2-Year	I 10-Year	I 25-Year	I 100-Year	PEAK FLOW (Q) Q 2-Year	Q 10-Year	Q 25-Year	Q 100-Year
A1	7405.20	0.17	7405.00	0.17	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.76	1.27	1.65	2.42
A2	28314.00	0.65	28314.00	0.65	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	2.91	4.84	6.32	9.26
A3	22215.60	0.51	22216.00	0.51	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	2.29	3.80	4.96	7.27
A4	2613.60	0.06	2614.00	0.06	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.27	0.45	0.58	0.86
A5	4791.60	0.11	4792.00	0.11	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.49	0.82	1.07	1.57
B1	29620.80	0.68	29621.00	0.68	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	3.05	5.06	6.61	9.69
C1	1306.80	0.03	1307.00	0.03	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.13	0.22	0.29	0.43
C2	5662.80	0.13	5663.00	0.13	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.58	0.97	1.26	1.85
C3	6534.00	0.15	6534.00	0.15	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.67	1.12	1.46	2.14
D1	3484.80	0.08	3485.00	0.08	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.36	0.60	0.78	1.14
D2	3484.80	0.08	3485.00	0.08	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.36	0.60	0.78	1.14
D3	11325.60	0.26	11326.00	0.26	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	1.17	1.94	2.53	3.70
E1	4791.60	0.11	4792.00	0.11	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.49	0.82	1.07	1.57
F1	23522.40	0.54	23522.00	0.54	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	2.42	4.02	5.25	7.69
F2	7840.80	0.18	7841.00	0.18	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.81	1.34	1.75	2.56
F3	6534.00	0.15	6534.00	0.15	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.67	1.12	1.46	2.14
F4	5227.20	0.12	5227.00	0.12	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.54	0.89	1.17	1.71
F5	6098.40	0.14	6098.00	0.14	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.63	1.04	1.36	1.99
F6	3920.40	0.09	3920.00	0.09	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.40	0.67	0.87	1.28
G1	6534.00	0.15	6534.00	0.15	100%	0.73	0.81	0.86	0.95	5.00	6.14	9.19	11.30	15.00	0.67	1.12	1.46	2.14
LAND-1	5662.80	0.13	3963.96	0.09	70%	0.59	0.66	0.70	0.79	5.00	6.14	9.19	11.30	15.00	0.47	0.78	1.03	1.54
LAND-2	7405.20	0.17	5183.64	0.12	70%	0.59	0.66	0.70	0.79	5.00	6.14	9.19	11.30	15.00	0.61	1.03	1.35	2.01
LAND-3	8712.00	0.20	6098.40	0.14	70%	0.59	0.66	0.70	0.79	5.00	6.14	9.19	11.30	15.00	0.72	1.21	1.59	2.36
LAND-4	9583.20	0.22	6708.24	0.15	70%	0.59	0.66	0.70	0.79	5.00	6.14	9.19	11.30	15.00	0.79	1.33	1.75	2.60
FUT-1	34848.00	0.80	24393.60	0.56	70%	0.59	0.66	0.70	0.79	5.00	6.14	9.19	11.30	15.00	2.88	4.83	6.37	9.46
FUT-2	22215.60	0.51	15550.92	0.36	70%	0.59	0.66	0.70	0.79	5.00	6.14	9.19	11.30	15.00	1.84	3.08	4.06	6.03
POND	83199.60	1.91	0.00	0.00	0%	0.25	0.30	0.34	0.41	5.00	6.14	9.19	11.30	15.00	2.93	5.27	7.34	11.75
FIELD	124581.60	2.86	2050.00	0.05	2%	0.26	0.31	0.35	0.42	5.00	6.14	9.19	11.30	15.00	4.53	8.11	11.27	17.97
OS-1	14374.80	0.33	0.00	0.00	0%	0.25	0.30	0.34	0.41	5.00	6.14	9.19	11.30	15.00	0.51	0.91	1.27	2.03
OS-2	16552.80	0.38	0.00	0.00	0%	0.25	0.30	0.34	0.41	5.00	6.14	9.19	11.30	15.00	0.58	1.05	1.46	2.34
BLDG-1	52272.00	1.20	36590.40	0.84	70%	0.59	0.66	0.70	0.79	5.00	6.14	9.19	11.30	15.00	4.32	7.25	9.55	14.18
BLDG-2	29185.20	0.67	20429.64	0.47	70%	0.59	0.66	0.70	0.79	5.00	6.14	9.19	11.30	15.00	2.41	4.05	5.33	7.92

Notes: Runoff Coefficient (C) and Rainfall Intensity (I) per City of Austin Drainage Criteria Manual; Runoff Coefficient C = Cperv*(Aperv/Atotal)+Cimperv*(Aimperv/Atotal); Rinafall Intensity I = a/(Tc+b)^c; Peak Flow Q = CIA

	Hydrologic Runoff Coefficients: Austin, TX			
	2 yr	10 yr	25 yr	100 yr
Impervious C (Asphalt)	0.73	0.81	0.86	0.95
Pervious C (Fair Condition, Grass 0-2%)	0.25	0.3	0.34	0.41

	IDF Coefficients: Leander, TX			
	2 yr	10 yr	25 yr	100 yr
a	58	77	89	106
b	11.27	10.53	10.16	9.46
c	0.805	0.775	0.759	0.732

Grate Inlet Calculation Table

Equations: Weir (Unsubmerged) Q = 3.0h1.5L — **Clogging Factor = 10% (Grate inlets in Sump)**

Inlet # or Area #	Q100 (cfs)	Required Q to Pass (w/ 10 % clogging factor)	INLET (ft.)	Available Weir Length (ft.)	Required Min. 'h' (ft.)	Provided 'h' (ft.)	Provided Capacity (cfs)
A1	2.42	2.69	3.0 X 3.0	12.00'	0.18'	0.50'	11.5 cfs
A2	9.26	10.29	4.0 X 4.0	16.00'	0.36'	0.50'	15.3 cfs
A3	7.27	8.07	3.0 X 3.0	12.00'	0.37'	0.50'	11.5 cfs
A4	0.86	0.95	3.0 X 3.0	12.00'	0.09'	0.50'	11.5 cfs
A5	1.57	1.74	3.0 X 3.0	12.00'	0.13'	0.50'	11.5 cfs
B1	9.69	10.77	4.0 X 4.0	16.00'	0.37'	0.50'	15.3 cfs
C1	0.43	0.48	3.0 X 3.0	12.00'	0.06'	0.50'	11.5 cfs
C2	1.85	2.06	3.0 X 3.0	12.00'	0.15'	0.50'	11.5 cfs
C3	2.14	2.37	3.0 X 3.0	12.00'	0.16'	0.50'	11.5 cfs
D1	1.14	1.27	3.0 X 3.0	12.00'	0.11'	0.50'	11.5 cfs
D2	1.14	1.27	2.0 X 2.0	8.00'	0.14'	0.50'	7.6 cfs
D3	3.70	4.12	3.0 X 3.0	12.00'	0.24'	0.50'	11.5 cfs
E1	1.57	1.74	3.0 X 3.0	12.00'	0.13'	0.50'	11.5 cfs
F3	2.14	2.37	3.0 X 3.0	12.00'	0.16'	0.50'	11.5 cfs
F4	1.71	1.90	3.0 X 3.0	12.00'	0.14'	0.50'	11.5 cfs
F5	1.99	2.22	3.0 X 3.0	12.00'	0.16'	0.50'	11.5 cfs
F6	1.28	1.42	3.0 X 3.0	12.00'	0.12'	0.50'	11.5 cfs
G1	2.14	2.37	3.0 X 3.0	12.00'	0.16'	0.50'	11.5 cfs
LAND-1	1.54	1.71	2.0 X 2.0	8.00'	0.17'	0.50'	7.6 cfs
LAND-2	2.01	2.23	2.0 X 2.0	8.00'	0.21'	0.50'	7.6 cfs
LAND-3	2.36	2.63	2.0 X 2.0	8.00'	0.23'	0.50'	7.6 cfs
LAND-4	2.60	2.89	2.0 X 2.0	8.00'	0.24'	0.50'	7.6 cfs
FUT-1	9.46	10.51	4.0 X 4.0	16.00'	0.36'	0.50'	15.3 cfs
FUT-2	6.03	6.70	3.0 X 3.0	12.00'	0.33'	0.50'	11.5 cfs

'h' measured from weir elevation: if required min. 'h' greater than 0.42 ft (5 in.) check using orifice equation below

Equations: Orifice (Submerged) Q = 4.82Ah0.5 — **Clogging Factor = 50% (Grate Inlets in Sump)**

Inlet # or Area #	Q100 (cfs)	Required Q to Pass (w/ 50 % clogging factor)	INLET (ft.)	Available Area (sq. ft.)	Required Min. 'h' (ft.)	Provided 'h' (ft.)	Provided Capacity (cfs)
A1	2.42	4.84	3.0 X 3.0	9.00	0.04'	0.50'	15.3 cfs
A2	9.26	18.52	4.0 X 4.0	16.00	0.12'	0.50'	27.3 cfs
A3	7.27	14.53	3.0 X 3.0	9.00	0.19'	0.50'	15.3 cfs
A4	0.86	1.71	3.0 X 3.0	9.00	0.01'	0.50'	15.3 cfs
A5	1.57	3.13	3.0 X 3.0	9.00	0.02'	0.50'	15.3 cfs
B1	9.69	19.38	4.0 X 4.0	16.00	0.13'	0.50'	27.3 cfs
C1	0.43	0.86	3.0 X 3.0	9.00	0.00'	0.50'	15.3 cfs
C2	1.85	3.70	3.0 X 3.0	9.00	0.02'	0.50'	15.3 cfs
C3	2.14	4.27	3.0 X 3.0	9.00	0.03'	0.50'	15.3 cfs
D1	1.14	2.28	3.0 X 3.0	9.00	0.01'	0.50'	15.3 cfs
D2	1.14	2.28	2.0 X 2.0	4.00	0.04'	0.50'	6.8 cfs
D3	3.70	7.41	3.0 X 3.0	9.00	0.07'	0.50'	15.3 cfs
E1	1.57	3.13	3.0 X 3.0	9.00	0.02'	0.50'	15.3 cfs
F3	2.14	4.27	3.0 X 3.0	9.00	0.03'	0.50'	15.3 cfs
F4	1.71	3.42	3.0 X 3.0	9.00	0.02'	0.50'	15.3 cfs
F5	1.99	3.99	3.0 X 3.0	9.00	0.03'	0.50'	15.3 cfs
F6	1.28	2.56	3.0 X 3.0	9.00	0.01'	0.50'	15.3 cfs
G1	2.14	4.27	3.0 X 3.0	9.00	0.03'	0.50'	15.3 cfs
LAND-1	1.54	3.07	2.0 X 2.0	4.00	0.06'	0.50'	6.8 cfs
LAND-2	2.01	4.02	2.0 X 2.0	4.00	0.10'	0.50'	6.8 cfs
LAND-3	2.36	4.73	2.0 X 2.0	4.00	0.12'	0.50'	6.8 cfs
LAND-4	2.60	5.20	2.0 X 2.0	4.00	0.14'	0.50'	6.8 cfs
FUT-1	9.46	18.91	4.0 X 4.0	16.00	0.12'	0.50'	27.3 cfs
FUT-2	6.03	12.06	3.0 X 3.0	9.00	0.15'	0.50'	15.3 cfs

Valor Leander
INLET FLOW CALCULATION TABLE (25-Yr Flows)

Straight Crown

Inlet No.	Inlet Type	Drainage Area No.	Street Width (FOC - FOC)	Crown Slope (%)	Q (cfs)	Q Pass (cfs)	Q Total (Qa) (cfs)	Slope (%)	a (in.)	yo (ft.)	Ponded Width (ft)	R.F. (%)	Qa/La	La (ft)	Length (ft)	L/La	a/yo	Q/Qa	Q (cfs)	Q Pass (cfs)
F1	Sump	F1	36"	1.50	**5.25**	0.0	5.2	1.50%	7.2	0.223	14.89				SEE SUMP CALCULATIONS BELOW					
F2	Sump	F2	36"	1.50	**1.75**	0.0	1.7	1.50%	7.2	0.148	9.86				SEE SUMP CALCULATIONS BELOW					

Sump Inlets

Inlet No.	Inlet Type	Drainage Area No.	Street Width (FOC - FOC)	Q (cfs)	Q Pass (cfs)	Q Total (Qa) (cfs)	Cw	L (ft)	W (ft)	d (ft)	Inlet Capacity (cfs)	PASS/FAIL	R.F. (%)	Length (ft)	RFx L (ft.)	Q / L (cfs/ft)	yo + a (ft.)
F1	Sump	F1	36"	**5.25**	0.0	5.2	2.3	10	1.5	0.50	10.33	PASS	10%	10.0	9.0	0.58	0.34
F2	Sump	F2	36"	**1.75**	0.0	1.7	2.3	5	1.5	0.50	6.26	PASS	10%	5.0	4.5	0.39	0.26

*All Sump Equations Assume Weir flow per City of Austin Drainage Criteria Manual Section 4.3.1

Valor Leander
INLET FLOW CALCULATION TABLE (100-Yr Flows)

Straight Crown

Inlet No.	Inlet Type	Drainage Area No.	Street Width (FOC - FOC)	Crown Slope (%)	Q (cfs)	Q Pass (cfs)	Q Total (Qa) (cfs)	Slope (%)	a (in.)	yo (ft.)	Ponded Width (ft)	R.F. (%)	Qa/La	La (ft)	Length (ft)	L/La	a/yo	Q/Qa	Q (cfs)	Q Pass (cfs)
F1	Sump	F1	36'	1.50	**7.69**	0.0	7.7	1.50%	7.2	0.258	17.19				SEE SUMP CALCULATIONS BELOW					
F2	Sump	F2	36'	1.50	**2.56**	0.0	2.6	1.50%	7.2	0.171	11.38				SEE SUMP CALCULATIONS BELOW					

Sump Inlets

Inlet No.	Inlet Type	Drainage Area No.	Street Width (FOC - FOC)	Q (cfs)	Q Pass (cfs)	Q Total (Qa) (cfs)	Cw	L (ft)	W (ft)	d (ft)	Inlet Capacity (cfs)	PASS/FAIL	R.F. (%)	Length (ft)	RFx L (ft.)	Q / L (cfs/ft)	yo + a (ft.)
F1	Sump	F1	36'	**7.69**	0.0	7.7	2.3	10	1.5	0.50	10.33	PASS	10%	10.0	9.0	0.85	0.43
F2	Sump	F2	36'	**2.56**	0.0	2.6	2.3	5	1.5	0.50	6.26	PASS	10%	5.0	4.5	0.57	0.33

*All Sump Equations Assume Weir flow per City of Austin Drainage Criteria Manual Section 4.3.1

Know what's **below.** **Call** before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2023 KIMLEY-HORN AND ASSOCIATES, INC.
10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
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TEXAS REGISTERED ENGINEERING FIRM F-928

ALLISON KENNAUGH 114356 LICENSED PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT 069252742 | DATE DECEMBER 2023 | SCALE: AS SHOWN | DESIGNED BY: NAM | DRAWN BY: ZJR | CHECKED BY: ACK

DRAINAGE AREA CALCULATIONS

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
20 OF 39

SD-XX-XXXX

Plotted By:Rondell, Zach Date:December 01, 2023 03:15:08pm File Path:K:\aus_civil\069252742--valor leander\Cad\site plan\plansheet\C-Drainage Area Map.dwg
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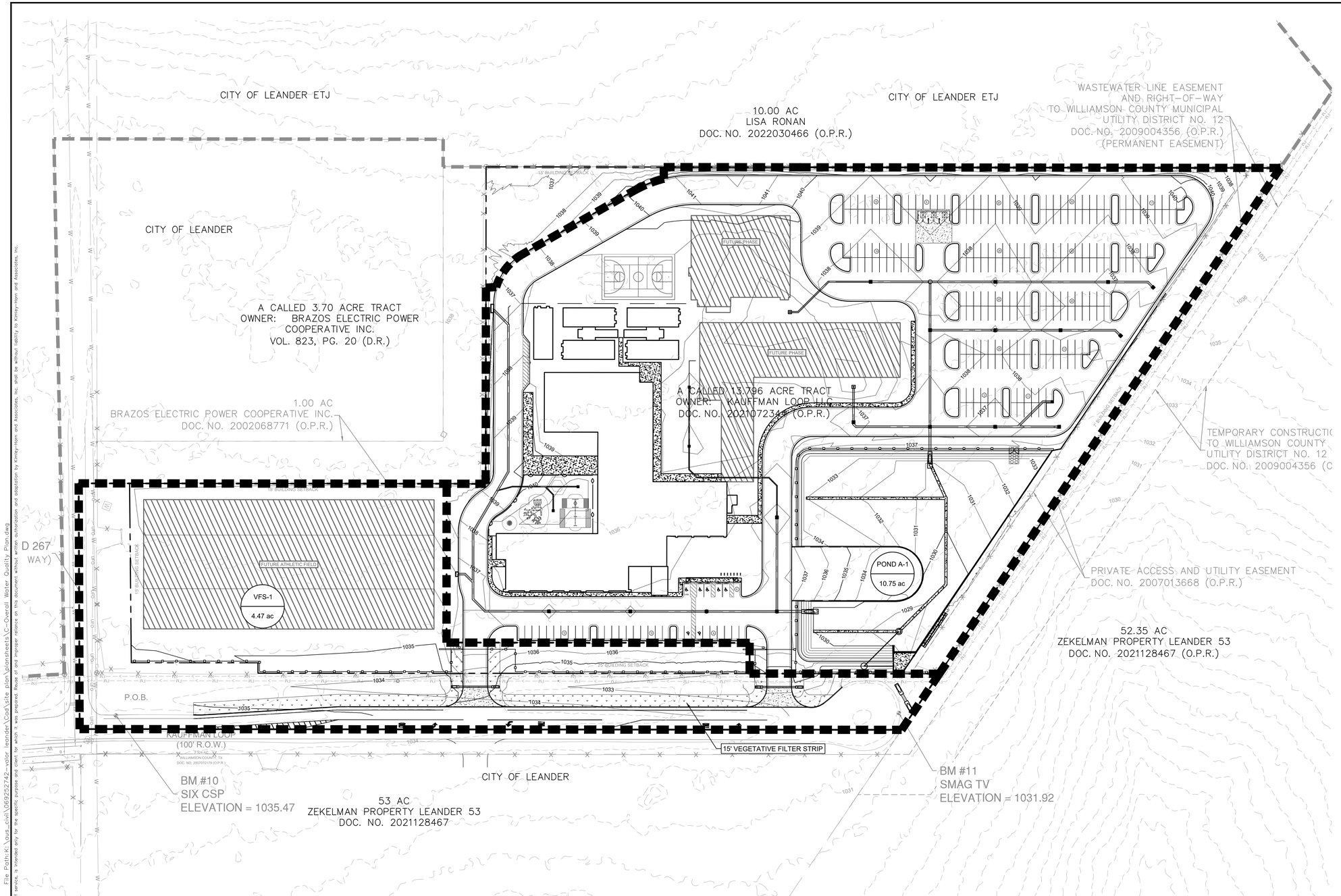

LEGEND

X-1 / 9.9 ac	AREA DESIGNATOR / AREA IN ACRES
	PROPERTY LINE
	PROPOSED STORM DRAIN LINE
	EXISTING STORM DRAIN LINE
	PROPOSED DRAINAGE DIVIDE
	PROPOSED STORM DRAIN INLET
Ⓓ	PROPOSED STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN HEADWALL
	PROPOSED FLOW DIRECTION
555	PROPOSED CONTOUR
555	EXISTING CONTOUR
	PROPOSED VEGETATIVE FILTER STRIP

NOTES:

1. REFER TO SHEET 22 FOR TCEQ VEGETATIVE FILTER STRIP TSS REMOVAL CALCULATIONS.
2. REFER TO SHEET 22 FOR TCEQ BATCH DETENTION TSS REMOVAL CALCULATIONS.

TSS REMOVAL SUMMARY

AREA NAME	BMP TYPE	TSS REMOVAL EFFICIENCY	BASIN AREA (AC.)	IMPERVIOUS (AC.)	IMPERVIOUS (%)	REQURED TSS LOAD REMOVAL (LBS.)	PROVIDED TSS LOAD REMOVAL (LBS.)
POND A-1*	Batch Extended Detention	91	10.75	5.91	55%	5146	5300
VFS-1**	Vegetated Filter Strips	85	4.47	0.83	19%	104	200
TOTAL			**15.22**	**6.74**	**44%**	**5251**	**5500**

*Pond A-1 has been sized to treat all onsite impervious cover for this site plan.
**VFS-1 has been sized to treat the additional impervious cover as part of the Public Improvement Plans PCIP-23-0107

Know what's **below.** **Call** before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
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1031.92'

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TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

OVERALL WATER QUALITY PLAN

VALOR LEANDER

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
21 OF 39

SD-XX-XXXX

Plotted By: Randall, Zach Date: December 01, 2023 03:17:05pm File Path: K:\Aus_civil\069252742-valor leander\Cad\site plan\plansheets\C-Overall Water Quality Plan.dwg
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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Valor Leander
Date Prepared: 11/21/2023

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 * =	**13.80**	acres	POND A-1 + VFS-1
Predevelopment impervious area within the limits of the plan * =	**0.00**	acres	
Total post-development impervious area within the limits of the plan* =	**6.04**	acres	IC of Pond A-1 & VFS-1 (PROPOSED IC)
Total post-development impervious cover fraction * =	**0.44**		
P =	**32**	inches	
$L_{M\ TOTAL\ PROJECT}$ =	**5257**	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. = **POND A-1**

Total drainage basin/outfall area =	**10.75**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**5.91**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.55**	
$L_{M\ THIS\ BASIN}$ =	**5146**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Extended 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 =	**10.75**	acres	Excludes 1.88 AC of sod field area draining offsite
A_I =	**5.91**	acres	
A_P =	**4.84**	acres	
L_R =	**6033**	lbs	

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

Desired $L_{M\ THIS\ BASIN}$ = **5300** lbs.

F = **0.88**

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 =	**1.50**	inches
Post Development Runoff Coefficient =	**0.39**	
On-site Water Quality Volume =	**22637**	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 =	**4527**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**27165**	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.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Valor Leander
Date Prepared: 11/21/2023

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where:
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A_N = Net increase in impervious area for the project
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County =	**Williamson**		
Total project area included in plan * =	**13.80**	acres	POND A-1 + VFS-1
Predevelopment impervious area within the limits of the plan * =	**0.00**	acres	
Total post-development impervious area within the limits of the plan* =	**6.04**	acres	IC of Pond A-1 & VFS-1 (PROPOSED IC)
Total post-development impervious cover fraction * =	**0.44**		
P =	**32**	inches	
$L_{M\ TOTAL\ PROJECT}$ =	**5257**	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. = **VFS-1**

Total drainage basin/outfall area =	**4.47**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.71**	acres
Post-development impervious area within drainage basin/outfall area =	**0.83**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.19**	
$L_{M\ THIS\ BASIN}$ =	**104**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Vegetated Filter Strips**
Removal efficiency = **85** 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 =	**4.47**	acres
A_I =	**0.83**	acres
A_P =	**3.64**	acres
L_R =	**835**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **200** lbs.

F = **0.24**

Know what's **below.**
Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.999880143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

No.	REVISIONS	DATE	BY

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PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh — 114356 — LICENSED PROFESSIONAL ENGINEER — 12/1/2023

KHA PROJECT 069252742 | DATE DECEMBER 2023 | SCALE: AS SHOWN | DESIGNED BY: NAM | DRAWN BY: ZJR | CHECKED BY: ACK

TCEQ CALCS

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
22 OF 39

SD-XX-XXXX

Plotted By:Randall, Zach Date:December 01, 2023 03:17:10pm File Path:K:\aus_civil\069252742-valor leander\Cad\site plan\plansheets\C-Overall Water Quality Plan.dwg
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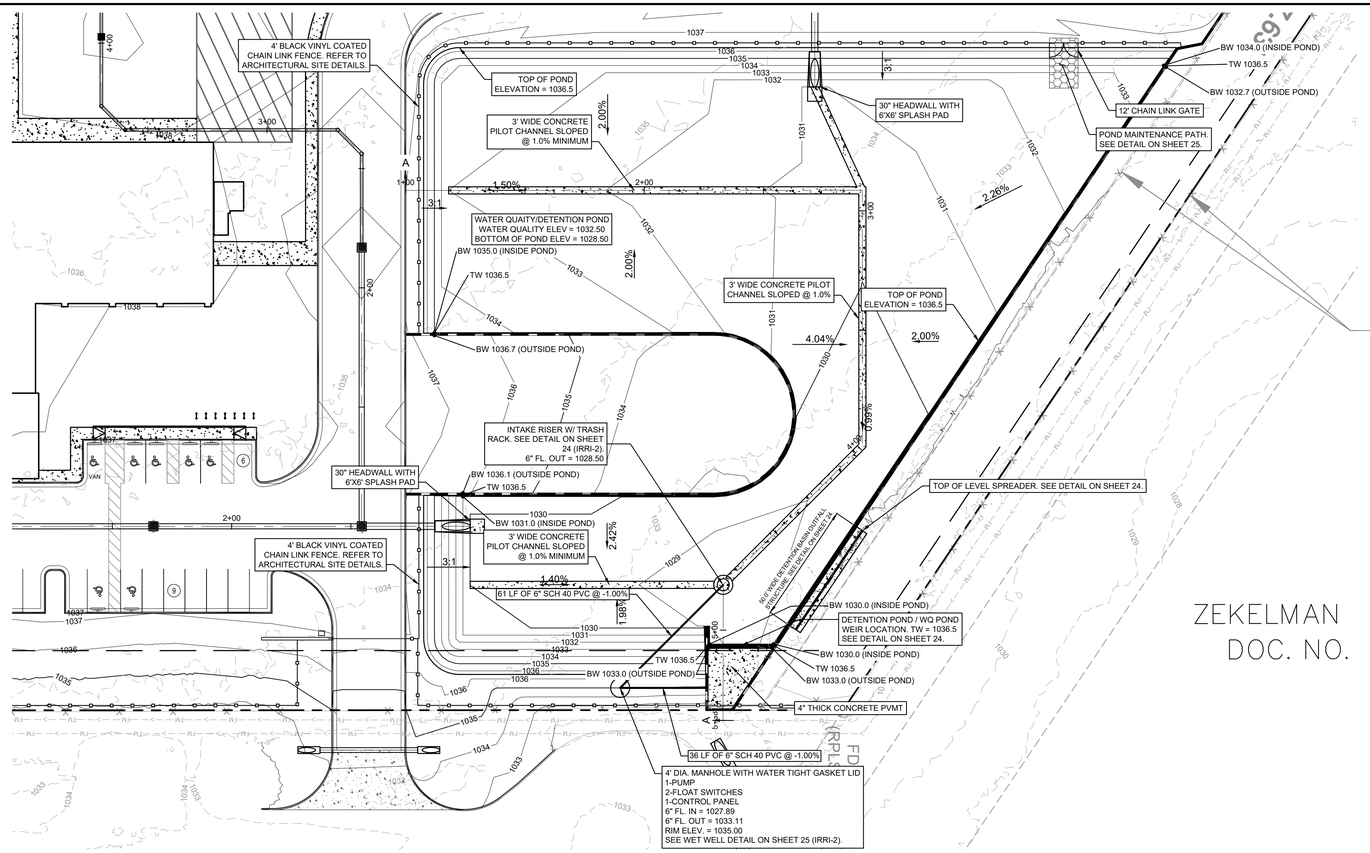

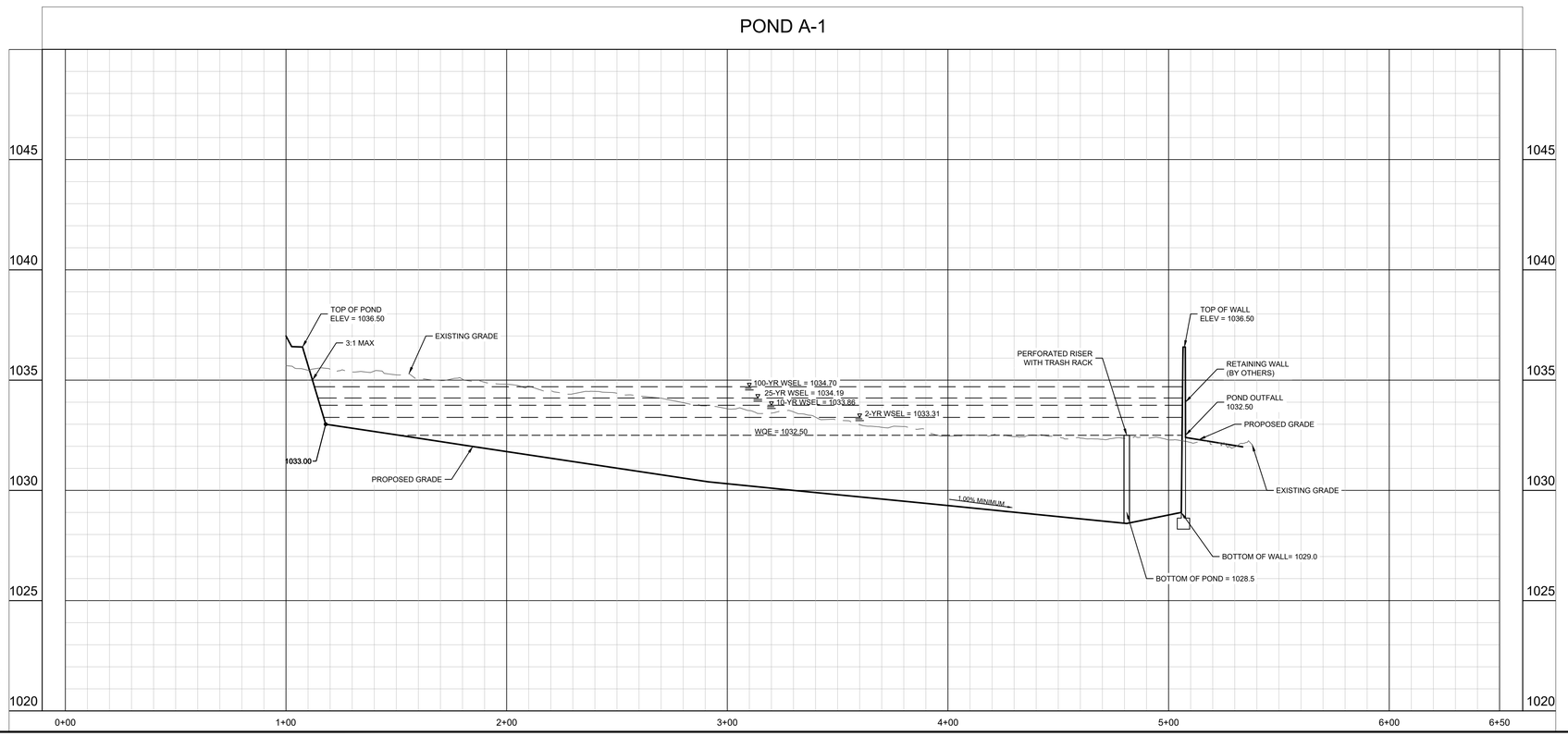

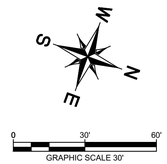

LEGEND

- PROPERTY LINE
- PROPOSED STORM SEWER LINE
- EXISTING STORM SEWER LINE
- PROPOSED STORM SEWER INLET
- PROPOSED STORM SEWER MANHOLE
- PROPOSED STORM SEWER HEADWALL
- PROPOSED FLOW DIRECTION
- PROPOSED CONTOUR (555)
- EXISTING CONTOUR (555)
- PROPOSED RIPRAP

NOTES:

1. REFER TO SHEET 24 & 25 FOR POND DETAILS.
2. REFER TO LANDSCAPE PLANS FOR POND PLANTING SCHEDULE.
3. POND OUTLET STRUCTURE TO BE FENCED OFF FROM PUBLIC ACCESS.
4. ALL RIP-RAP SHALL BE MORTARED.
5. REFER TO SHEET 24 FOR OUTLET STRUCTURE DETAILS.
6. ALL POND BOTTOMS, SIDE SLOPES, AND EARTHEN EMBANKMENTS SHALL BE COMPACTED TO NINETY-FIVE (95) PERCENT MAXIMUM DENSITY, IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS.

Know what's **below.** **Call** before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

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Allison Kennaugh — 114356 — LICENSED PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

WATER QUALITY & DETENTION POND PLAN

VALOR LEANDER

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
23 OF 39

SD-XX-XXXX

Plotted By: Randall, Zach Date: December 01, 2023 03:17:44pm File Path: K:\Aus_civil\069252742--valor_leander\Cad\site plan\planchests\C-Water Quality and Detention Pond Plan.dwg
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DETENTION POND EMERGENCY WEIR

POND OVERFLOW WEIR DESIGN

Provided Overflow Elevation	=	1035.50
Top of Pond Elevation	=	1036.50

Using the weir flow equation:
Q = C*L*H^(3/2)

Q = 100 year developed flow pond inflow (cfs)	131.5
C = Weir coefficient	3.00
L = Width of weir (feet)	50.0
H = Depth of flow (feet)	0.92
Max. WSE_{100} OVER SPILLWAY (ft) =	1036.42
V_{100} OVER SPILLWAY (ft/s) =	2.87

Detention Pond Analysis

STAGE STORAGE TABLE

Elevation	Area (SF)	Storage Volume (CF)	Cummulative Storage (CF)
1032.50	33,965.27	0	0
1033.00	38,180.72	18,036	18,036
1034.00	44,234.30	41,208	59,244
1035.00	46,380.89	45,308	104,552
1036.00	48,260.99	47,321	151,873
1036.50	49,246.23	24,377	176,249

Top of water quality pond elevation and bottom of detention pond elevation is 1032.50 ft.

ROUTING TABLE

Scenario	Computed Peak Outflow (cfs)	Max Water Surface Elevation (ft)	Maximum Storage (ac-ft)	Maximum Storage (cf)
2 YR	17.15	1033.31	0.695	30,294
10 YR	28.58	1033.86	1.222	53,242
25 YR	39.44	1034.19	1.555	67,748
100 YR	60.51	1034.70	2.081	90,642

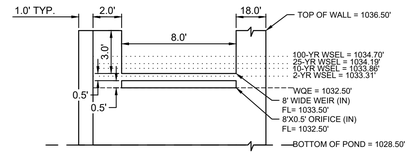
Pond Pack V8i was used to calculate the computed peak outflow from the detention pond.

Water Quality Pond Storage Table

Stage (ft msl) (Elevation)	Pond Depth (ft)	Cumulative Pond Depth (ft)	Area (sf)	Volume (cf)	Cumulative Volume (cf)
1032.50	0.00	0.00	33,965.27	0	0
1033.00	0.50	0.50	38,180.72	18,036	18,036
1034.00	1.00	1.50	44,234.30	41,208	59,244
1035.00	1.00	2.50	46,380.89	45,308	104,552
1036.00	1.00	3.50	48,260.99	47,321	151,873
1036.50	0.50	4.00	49,246.23	24,377	176,249

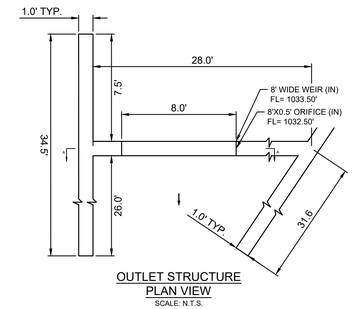
Water Quality Pond Storage Table

Stage (ft msl) (Elevation)	Pond Depth (ft)	Cumulative Pond Depth (ft)	Area (sf)	Volume (cf)	Cumulative Volume (cf)
1028.50	0.00	0.00	0.00	0	0
1029.00	0.50	0.50	2,190.27	548	548
1030.00	1.00	1.50	11,078.79	6,635	7,182
1031.00	1.00	2.50	19,821.07	15,450	22,632
1032.00	1.00	3.50	29,546.98	24,684	47,316
1032.50	0.50	4.00	33,965.27	15,878	63,194

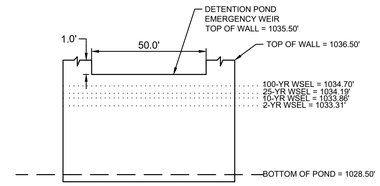


SECTION A-A
SCALE: N.T.S.

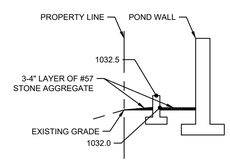
* NOTE: CONTRACTOR TO PROVIDE ENGINEER WITH STRUCTURAL CALCULATIONS FOR ALL RETAINING WALLS (CONCRETE STRUCTURE)



OUTLET STRUCTURE
PLAN VIEW
SCALE: N.T.S.



DETENTION POND
EMERGENCY WEIR
SCALE: N.T.S.



LEVEL SPREADER
DETAIL
SCALE: N.T.S.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH
A COMBINED SCALE FACTOR OF 0.9998800143982722

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1031.92'

NOTE:
CONTRACTOR TO PROVIDE SHOP DRAWING SHOWING ELEVATIONS OF ALL PROPOSED SMARTBATCH VALVE PIPING PRIOR TO FABRICATION.

No.	REVISIONS	DATE	BY

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Allison Kennaugh
STATE OF TEXAS
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114356
LICENSED
PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

POND DETAILS
(SHEET 1 OF 2)

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
24 OF 39

SD-XX-XXXX

Plotted By:Randall, Zach Date:December 01, 2023 03:18:01pm File Path:K:\Aus_civil\069252742-valor leander\Cad\site plan\plansheets\C-Detention Pond Details.dwg
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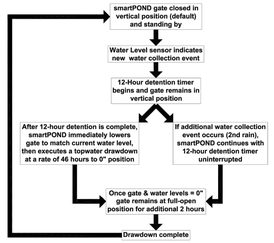
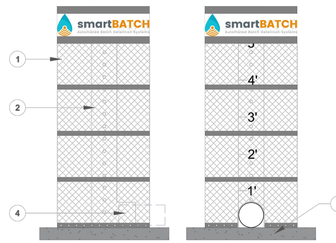
PROGRAMMABLE LOGIC FLOW CHART

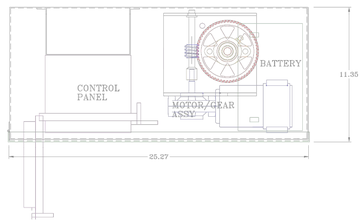


TRASH CAGE WITH PERFORATED RISER PIPE

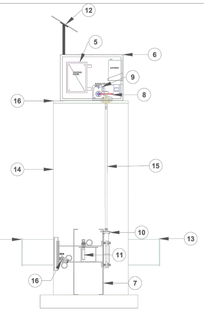


Parts List	
Item	smartPOND Valve Component
1	30" DIAMETER CAGE WITH 1 ½" GALVANIZED MESH SCREEN
2	8" SQUARE PERFORATED TUBING WITH 1" PERFORATION, WITH 4" VERTICAL SPACING ON CENTERS WITH WATER DEPTH MARKER
3	3 ½' X 3 ½' X 4" CONCRETE PAD (BY OTHERS)
4	6" PVC OUTFALL PIPE (BY OTHERS)
5	WEATHERPROOF ELECTRONIC 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 CONNECTION

PLAN VIEW OF ENCLOSER



SECTION VIEW OF SMARTBATCH



FRONT VIEW OF SMARTBATCH

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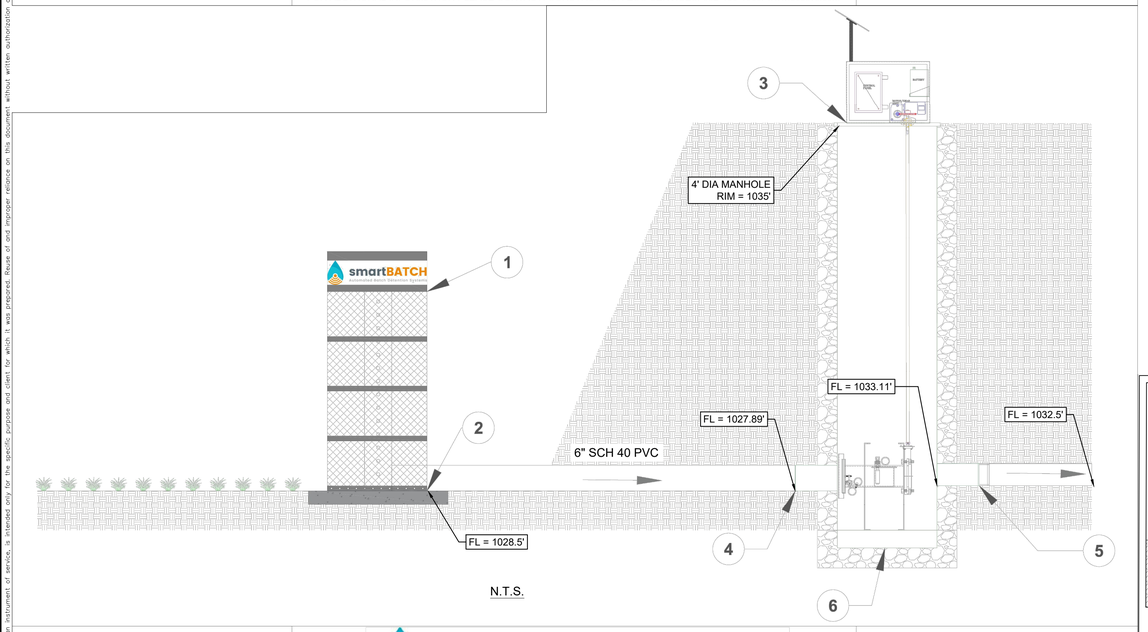
smartBATCH
Automated Batch Detention Systems

FOR ADDITIONAL INFORMATION PLEASE CONTACT: CONSTRUCTION ECO SERVICES, 832-456-1000, www.ecosvs.com

CONVERGENT WATER TECHNOLOGIES



N.T.S.

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smartBATCH
Automated Batch Detention Systems

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CONVERGENT WATER TECHNOLOGIES

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)**
  - *Cell data 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 1-inch holes every 4" on center to the height of the impoundment.

7.2 Trash Cage
The trash cage 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 drive shaft/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 straps or 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 3 or more years.

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

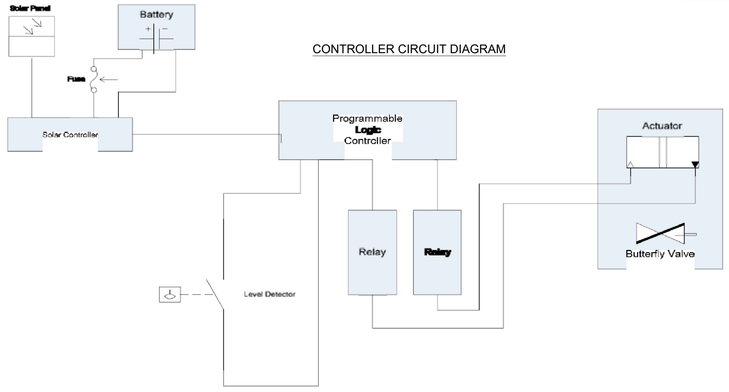
B. Acceptable System Supplier
Convergent Water Technologies, Inc.
(800)711-5428
www.convergentwater.com

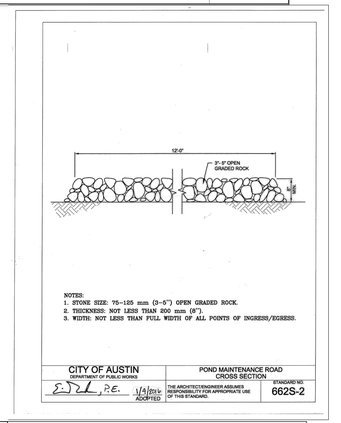
C. Authorized Value Added Reseller
Construction Ecoservices
(800)456-1000
www.ecosvs.com

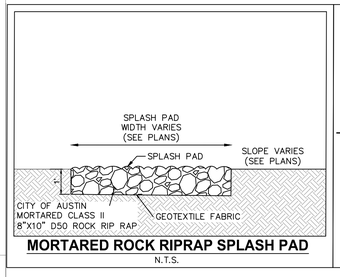
12. Quality Assurance and Performance Specifications
The quality of all system components and all other appurtenances and their assembly process shall be subject to inspection upon delivery of the system to the work site.Installation is to be performed only by skilled work people with satisfactory record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

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

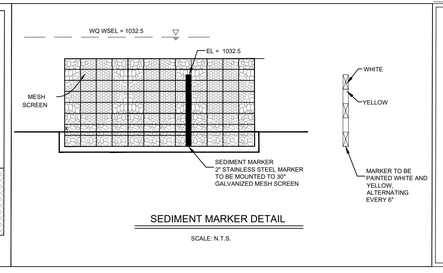
CONTROLLER CIRCUIT DIAGRAM



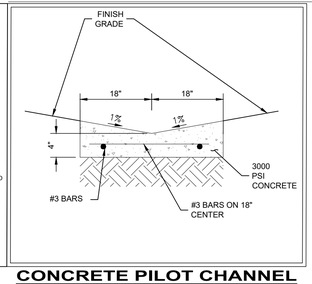




MORTARED ROCK RIPRAP SPLASH PAD
N.T.S.



SEDIMENT MARKER DETAIL
SCALE: N.T.S.



CONCRETE PILOT CHANNEL
N.T.S.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

NOTE:
CONTRACTOR TO PROVIDE SHOP DRAWING SHOWING ELEVATIONS OF ALL PROPOSED SMARTBATCH VALVE PIPING PRIOR TO FABRICATION.

smartPOND
Automated Stormwater Control
PRE-ENGINEERED, TURN-KEY FLOW CONTROL CONSTRUCTION ECO SERVICES
832-456-1000
www.ecosvs.com

smartPOND Valve
Specifications

REVISION NO. 0
DATE 5/26/2020
SHEET NO.

No.	REVISIONS	DATE	BY

Kimley»Horn
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PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

ALLISON KENNAUGH
114356
LICENSED PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

POND DETAILS
(SHEET 2 OF 2)

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
25 OF 39

SD-XX-XXXX

Plotted By: Randall, Zach Date: December 01, 2023 03:18:04pm File Path: K:\aus_civil\069252742-valor leander\Civil\site plan\plansheets\C-Detention Pond Details.dwg
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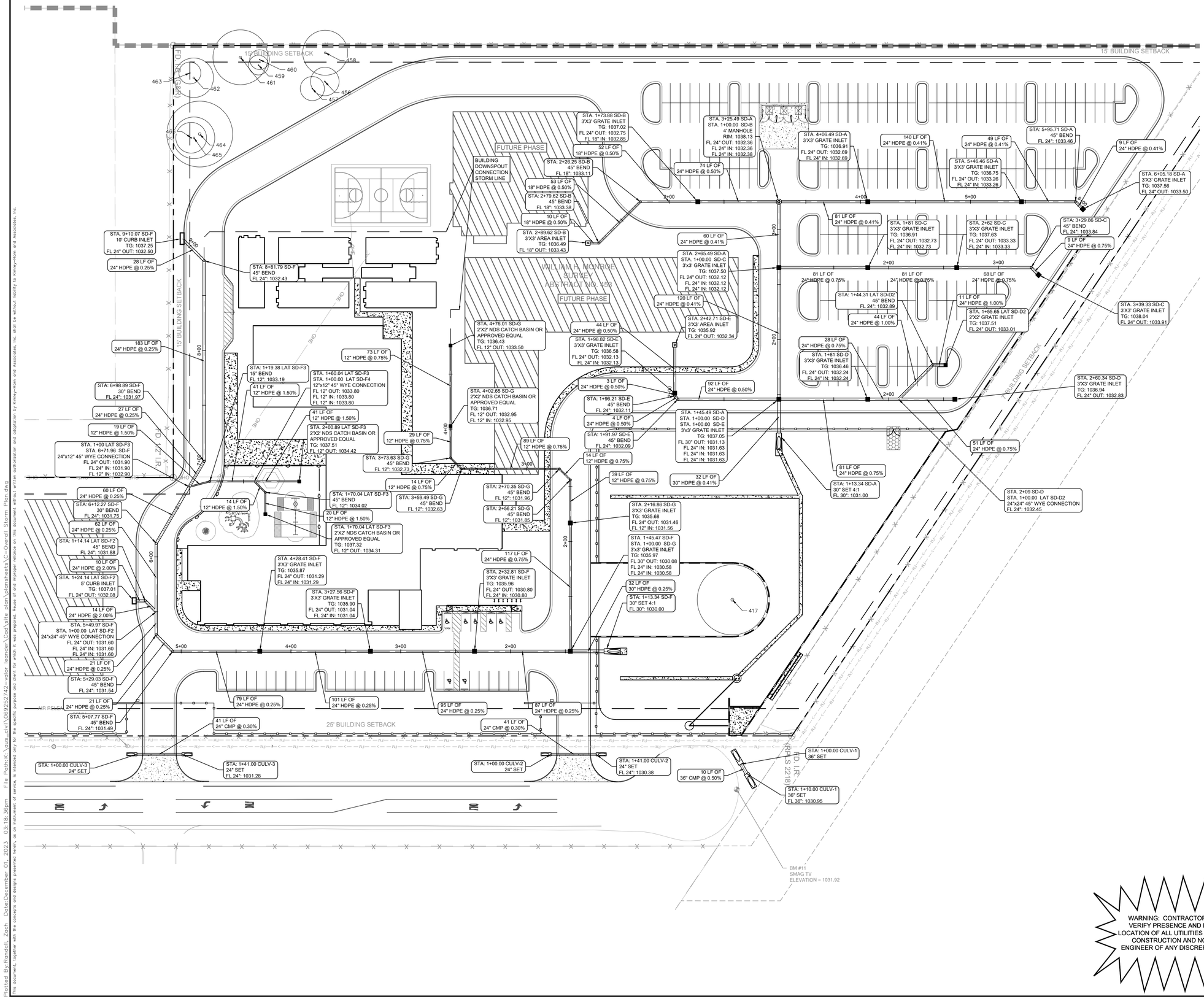

Know what's **below.** **Call** before you dig.

BENCHMARKS

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No.	REVISIONS	DATE	BY

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Allison Kennaugh — 114356 — LICENSED PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

OVERALL STORM PLAN

VALOR LEANDER

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
26 OF 39

SD-XX-XXXX

Plotted By:Rondell Zoph Date:December 01, 2023 03:18:36pm File Path:K:\aus_civil\069252742-valor leander\Cad\site plan\plan sheet\C-Overall Storm Plan.dwg
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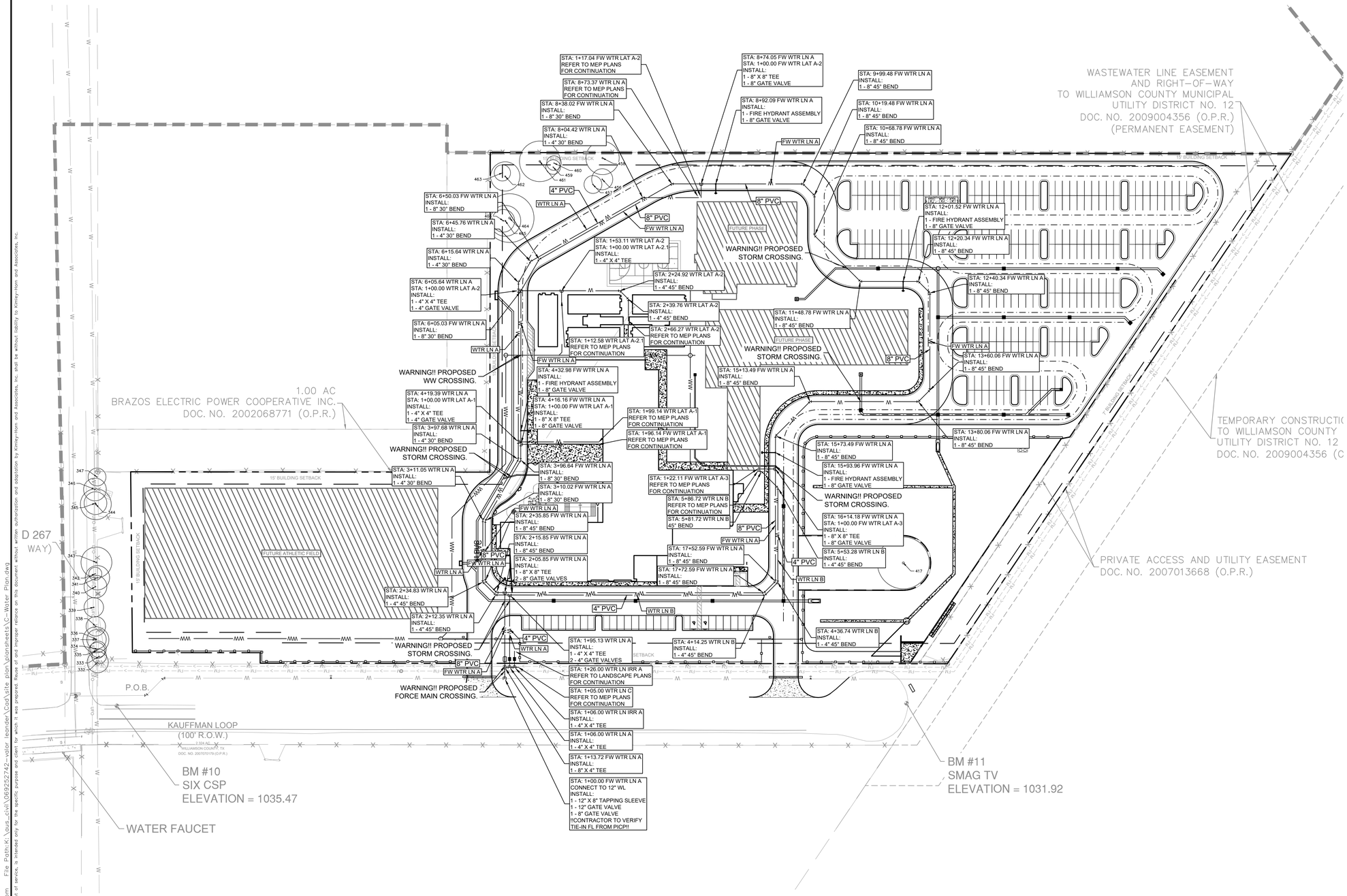

N
W
E
S

0 60' 120'
GRAPHIC SCALE 60'

LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
- PROPOSED WATER LINE
- PROPOSED WASTEWATER MANHOLE
- PROPOSED WASTEWATER CLEANOUT
- WASTEWATER FLOW DIRECTION
- PROPOSED FIRE HYDRANT
- PROPOSED TAPPING SLEEVE & VALVE
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- EXISTING OVERHEAD POWER LINE
- EXISTING WATER LINE
- EXISTING WASTEWATER LINE
- EXISTING STORM SEWER LINE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING WASTEWATER MANHOLE

NOTES:

1. UNDERGROUND MAINS FEEDING NFPA 13 SPRINKLER SYSTEMS MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA 13, AND THE FIRE CODE, BY A LICENSED SPRINKLER CONTRACTOR WITH A PLUMBING PERMIT. THE ENTIRE MAIN MUST BE HYDROSTATICALLY TESTED AT ONE TIME, UNLESS ISOLATION VALVES ARE PROVIDED BETWEEN TESTED SECTIONS.
2. UNDERGROUND MAINS FEEDING PRIVATE HYDRANTS MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA 24, AND THE FIRE CODE, BY A LICENSED CONTRACTOR WITH A PLUMBING PERMIT. THE ENTIRE MAIN MUST BE HYDROSTATICALLY TESTED AT ONE TIME, UNLESS ISOLATION VALVES ARE PROVIDED BETWEEN TESTED SECTIONS.
3. ALL PRIVATE HYDRANTS SHALL BE PAINTED RED.
4. ALL HYDRANT LEADS ARE REQUIRED TO BE CLASS 350 D.I. PIPE PER CITY OF AUSTIN HYDRANT DETAIL.
5. ALL PRIVATE 6" FIRE LINES TO BE C900 PRI 4.
6. ALL PRIVATE DOMESTIC LINES TO BE SDR 9 250 PSI POLYETHYLENE.
7. ALL PRIVATE IRRIGATION LINES TO BE SDR 9 250 PSI POLYETHYLENE.
8. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
9. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF EXISTING WASTEWATER LINE AND CONTACT ENGINEER IF IT IS NOT ACCURATE.
10. CONTRACTOR TO POTHOLE THE EXISTING GAS AND UNDERGROUND ELECTRIC LINES PRIOR TO CONSTRUCTION.

811
Know what's **below.**
Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH
A COMBINED SCALE FACTOR OF 0.999880014398272

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No.	REVISIONS	DATE	BY

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PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh
STATE OF TEXAS
ALLISON KENNAUGH
114356
LICENSED
PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT 069252742		DESIGNED BY:	NAM
DATE	DECEMBER 2023	DRAWN BY:	ZJR
SCALE:	AS SHOWN	CHECKED BY:	ACK

OVERALL WATER PLAN

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
27 OF 39

SD-XX-XXXX

Plotted By: Randall, Zach Date: December 01, 2023 03:19:05pm File Path: K:\aus_civil\069252742-valor leander\Cad\site plan\plansheets\C-Water Plan.dwg
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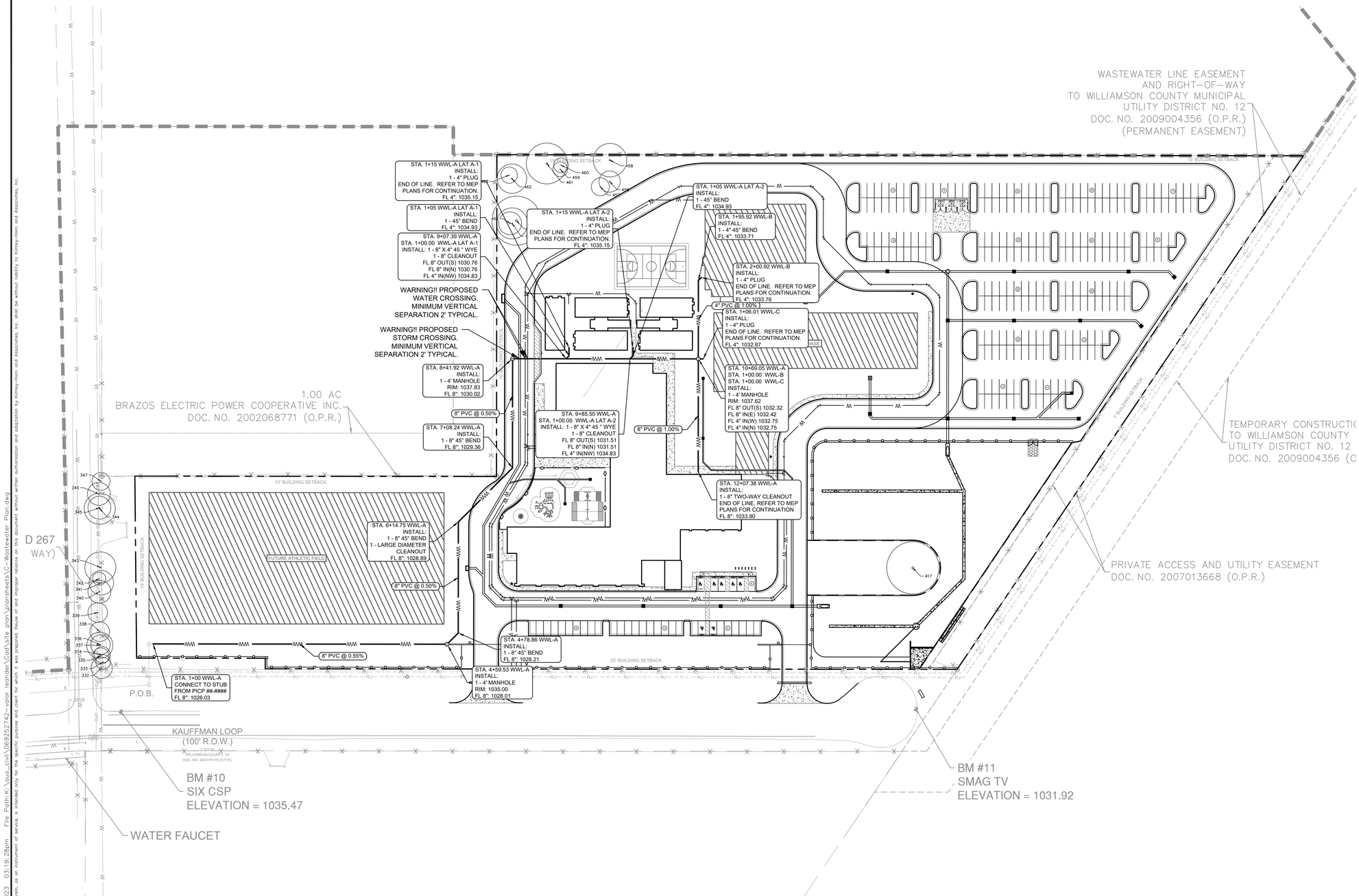

LEGEND

- PROPERTY LINE
- PROPOSED WASTEWATER LINE
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- PROPOSED WASTEWATER CLEANOUT
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Know what's **below.** **Call** before you dig.

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114356
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12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

OVERALL WASTEWATER PLAN

VALOR LEANDER

CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
28 OF 39

SD-XX-XXXX

Plotted By:Rondell, Zach Date:December 01, 2023 03:19:28pm File Path:K:\aus_civil\069252742-valor leander\Cad\site plan\sheetset\C-Wastewater Plan.dwg
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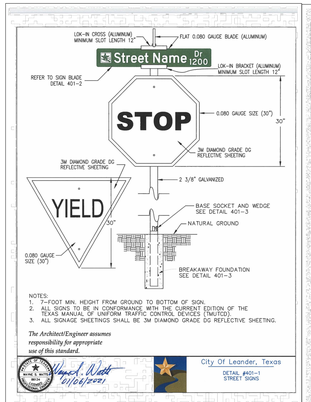
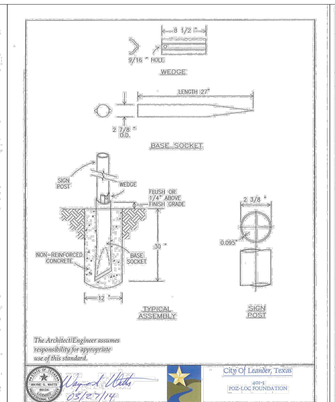
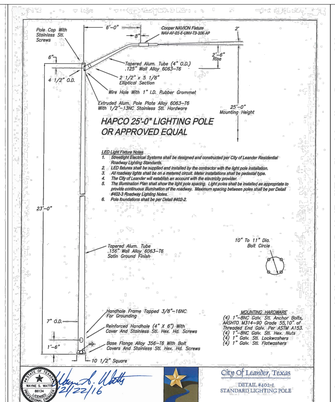
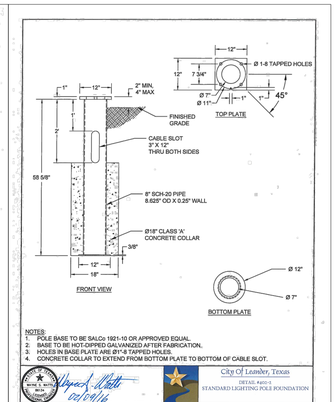








SHEET SPECIFIC NOTES

SHEET #402-4:

1. STREETLIGHTS SHALL BE MOUNTED ON THE PROPERTY LINE BETWEEN PRIVATE LOTS AND WITH A MINIMUM DISTANCE OF 4 FEET FROM ANY PRIVATE DRIVE TO THE EDGE OF THE POLE BASE.
2. ALTERNATE STREETLIGHTS ALONG EACH SIDE OF THE STREET, WITH THE FIRST STREETLIGHT ON THE SIDE OF THE ROAD WITH AT EACH STREETLIGHT LOCATION WITH CONDUIT SWEEPS AS SHOWN. PROVIDE PULL BOXES AS REQUIRED TO NOT EXCEED 300' BETWEEN PULL BOX LOCATIONS.
3. STREETLIGHTS SHALL BE SPACED A NOMINAL SPACING OF 150 FEET FROM FOLLOWING LIGHT ON THE SAME SIDE OF ROAD AND 300 FEET FROM FOLLOWING LIGHT ON THE SAME SIDE OF ROAD, LOCATED AT THE NEAREST PROPERTY LINES.
4. STREETLIGHTS MOUNTED ON THE OUTSIDE RADIUS OF A CURVED STREET SHALL BE SPACED AT THE SPACING THEY ARE CONSIDERED BETWEEN THE TWO STREETLIGHTS ON THE OUTSIDE RADIUS, AT THE NEAREST PROPERTY LINE.

SHEET #402-5:

6. EACH LOCAL STREET INTERSECTION MUST HAVE ONE STREETLIGHT MOUNTED TO ONE CORNER. COLLECTOR LEVEL AND HIGHER LEVEL STREETS SHALL HAVE TWO STREET LIGHTS MOUNTED AT OPPOSITE CORNERS. ALL STREETLIGHTS SHALL BE TO BE MOUNTED A MINIMUM OF 75 FEET AWAY FROM THE INTERSECTION CORNERS, AT THE NEAREST PROPERTY LINE.
7. PROVIDE CONDUIT SWEEPS AT INTERSECTION CORNERS AS REQUIRED. DO NOT EXCEED A MAXIMUM BEND OF 360° BETWEEN PULL LOCATIONS.
8. CONDUIT CROSSING THE ROAD SHALL TAKE THE SHORTEST PATH AVAILABLE, WITHOUT CROSSING A CORNER OF AN INTERSECTION.
9. PROVIDE ONE PULL BOX IN EACH LANDSCAPE STRIP AS SHOWN ON THE PLANS. THE PULL BOX LOCATION IS NOT A STREETLIGHT OR EITHER SIDE OF THE CROSSWALK.

SHEET #402-6:

10. ORIENT PEDESTAL SO THAT LIGHTING CONTROL PANEL FACES ROADWAY.
11. FOLLOW PEDERNALES ELECTRIC COOPERATIVE INC. DRAWING NUMBER 520--010--0911 AND 510--009--0911 FOR PEDESTAL BASE CONSTRUCTION.

SHEET #402--7:

12. EACH CONTROL PEDESTAL HAS A PHOTOCELL, TORK CATALOG # 5895.
13. PER 2014 NATIONAL ELECTRICAL CODE (NEC) ARTICLE 409.108, ENCLOSURE SHALL BE LABELED "SUITABLE FOR USE ONLY AS SERVICE EQUIPMENT". ENCLOSURE SHALL COMPLY WITH ALL OTHER MARKING REQUIREMENTS FOUND IN ARTICLE 409.110.

SHEET #402--8:

14. CONNECT ONE #6 BARE COPPER CONDUCTOR FROM THE NEUTRAL BUSS TO THE GROUND ROD IN THE PEDESTAL BASE. CONNECTION TO THE GROUND ROD MAY BE EITHER EXOTHERMIC WELD OR MECHANICAL FITTING RATED FOR DIRECT BURIAL.
15. ALL CIRCUIT BREAKERS SHALL HAVE A MINIMUM INTERRUPTING CAPACITY OF 10kAIC.

SHEET #402--9:

16. COORDINATE PLACEMENT OF PEDESTAL WITH ALL OTHER UNDERGROUND UTILITIES. INSTALL PEDESTAL ON A "DRY" LOT. PEDESTAL SHALL BE LOCATED AT LEAST 5 FEET FROM ANY TREE. A MINIMUM OF 3'--FEET SPACING IS REQUIRED. PEDESTAL SHALL NOT BE INSTALLED NEXT TO A CONDENSATION TRANSFORMER PAD.
17. IF A PEDESTAL MUST BE INSTALLED NEXT TO A UTILITY TRANSFORMER PAD, THE PEDESTAL SHALL BE LOCATED AT THE CITY OF LEANDER ENGINEER SHOWN DURING PLANNING AND COST ROUTING, AND ALL OTHER DETAILS NECESSARY TO MINIMIZE CONFLICTS WITH ALL UNDERGROUND UTILITIES. PLAN MUST BE APPROVED BY CITY ENGINEER PRIOR TO THE START OF CONSTRUCTION.
18. ALL PULL BOXES SHALL BE A HUBBELL QUAZITE 11"x18"x18".
19. ANY WIRE JUNCTIONS MADE IN AN IN GROUND PULL BOX SHALL BE MADE WITH THOMAS & BETTS PART NUMBER USK 2/0.

SHEET #402--10:

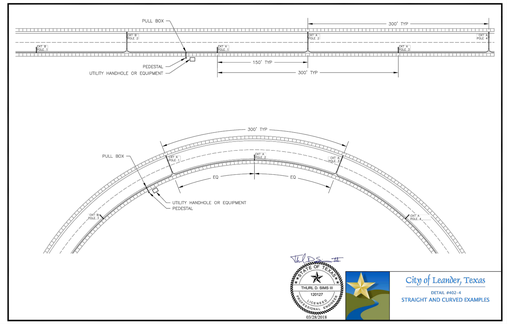
20. DYI & CONNECTORS MAY BE ELIMINATED FOR LAST POLE IN CIRCUIT, IF A CONDUCTOR SIZE CHANGE IS NECESSARY AT THE LAST POLE, USE THOMAS & BETTS PART NUMBER SDK M.
21. ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 80 PVC.
22. ALL CONNECTORS TO BE INSTALLED WITH A 3 AMP FUSE, NO COPPER.

GENERAL NOTES

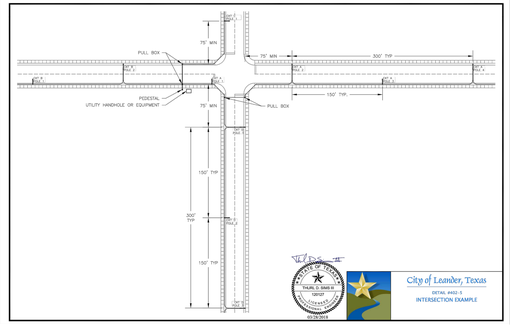
1. THESE STANDARDS APPLY TO RESIDENTIAL ROADWAY LIGHTING ONLY. ANY LIGHTING FOR OTHER ROADWAY TYPES SUCH AS ARTERIALS SHALL BE DESIGNED BY THE CITY ENGINEER BASED ON A PHOTOMETRIC STUDY IN ACCORDANCE WITH THE IESNA RP--8--14 STANDARD AND APPROPRIATE ROADWAY CLASSIFICATION.
2. ANY DEVIATIONS FROM THE FOLLOWING STANDARDS SHALL REQUIRE A WRITTEN VARIANCE REQUEST TO THE CITY ENGINEER, AND DATE OF SIGNATURE, SUBMIT TO THE CITY OF LEANDER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
3. REFER TO CITY OF LEANDER DETAIL #402--1 AND #402--2 FOR STANDARD POLE BASE, POLE, AND STREETLIGHT SELECTION.
4. THE CONTRACTOR SHALL PROVIDE POWER TO A MINIMUM OF TEN STREETLIGHTS PER CONTROL PEDESTAL WITH THE INTENT THAT THE CITY OF LEANDER WILL INSTALL ONE (1) PER SINGLE CONTROL PEDESTAL IS SIZED SUCH THAT IT MAY FEED A MINIMUM OF 4 CIRCUITS WITH 10 STREETLIGHTS EACH (40 TOTAL).
5. ACCOMMODATION MUST BE MADE FOR PHASED DEVELOPMENTS. ADDITIONAL CONTROL PEDESTALS AND ADDITIONAL LIGHTING CIRCUITS IN CONTROL PEDESTAL ARE AVAILABLE TO SERVE FUTURE PHASES WITHOUT THE NEED FOR ADDITIONAL LIGHTING CIRCUITS TO CROSS ROADWAYS OR OTHER UTILITIES AT THE BOUNDARY OF EACH ADJOINING PHASE SO THAT SUBSEQUENT PHASES MAY BE EASILY TIED IN TO THE EXISTING LIGHTING CONTROL PEDESTAL.
6. ALL STREETLIGHT BRANCH CIRCUIT WIRING SHALL BE #10AWG COPPER CONDUCTORS WITH THWN INSULATION, MINIMUM DISTANCE D, 2000' OF WIRE, AND THE MAXIMUM NUMBER OF STREETLIGHTS PER BRANCH CIRCUIT IS (12). IF CIRCUITS OR DISTANCES EXCEED THESE LIMITS, THE CITY OF LEANDER OR DESIGN ENGINEER IS RESPONSIBLE FOR PERFORMING VOLTAGE DROP CALCULATIONS DEMONSTRATING THAT THE CALCULATED VOLTAGE DROP IS AT A TOLERABLE LEVEL PER NEC ARTICLE 215.2.

M&S ENGINEERING
TEXAS REGISTERED ENGINEERING FIRM F-928

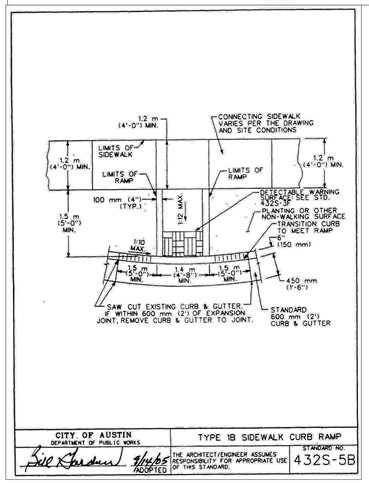
City of Leander, Texas
DETAIL #402--5
RESIDENTIAL ROADWAY LIGHTING NOTES



City of Leander, Texas
DETAIL #402--6
STRAIGHT AND CURVED EXAMPLES



City of Leander, Texas
DETAIL #402--7
INTERSECTION EXAMPLE



Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.99988001439827 22

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
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WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

No.	REVISIONS	DATE	BY

Kimley»Horn
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TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh — 114356 — LICENSED PROFESSIONAL ENGINEER — 12/1/2023

KHA PROJECT	069252742
DATE	DECEMBER 2023
SCALE:	AS SHOWN
DESIGNED BY:	NAM
DRAWN BY:	ZJR
CHECKED BY:	ACK

PAVING AND SITE DETAILS (SHEET 1 OF 2)

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
31 OF 39

SD-XX-XXXX

Plotted By:Randall, Zach Date:December 01, 2023 03:21:04pm File Path:K:\aus_civil\069252742--valor leander\Cad\site plan\plansheets\C--Paving Details.dwg
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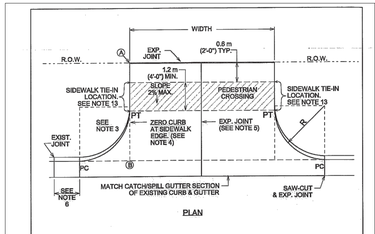
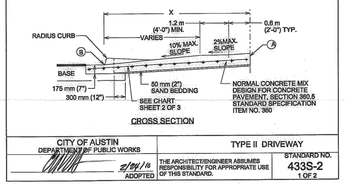


PLAN

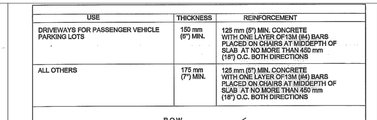
NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE. ELEVATION OF POINT (A) ABOVE POINT (B) IS, TYPICALLY A MINIMUM OF 150 mm (6") PLUS 20 mm/m (¼" RISE/FOOT) OVER DISTANCE "X" IN METERS (FEET).



CROSS SECTION

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE II DRIVEWAY	
2/19/16 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 1 OF 2

USE	THICKNESS	REINFORCEMENT
DRIVEWAYS FOR PASSENGER VEHICLE PARKING LOTS	150 mm (6") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS
ALL OTHERS	175 mm (7") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDEPTH OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS

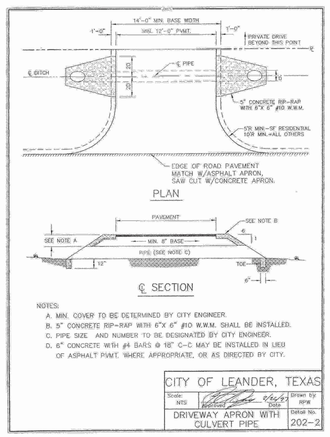


ALLOWABLE GRADES

DRIVEWAY VOLUME (ADT)	D=GRADE CHANGE STD.	MAX
>1500	0%	3%
500-1500	3%	6%
<500	6%	15%

NOTE:
1. ALL TYPE II DRIVEWAYS SHALL HAVE RADIUS ENDS.
2. DRIVEWAY WIDTHS AND RADII DIMENSIONS, ONE/TWO WAY TRAVEL REQUIREMENTS, AND GEOMETRIC LAY-OUT ARE HIGHLY VARIABLE, SUBJECTED TO SITE SPECIFIC CONDITIONS AND REQUIREMENTS. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 8 "DRIVEWAYS".
3. THE DRIVEWAY EDGE SHALL BE SMOOTHLY TRANSITIONED INTO THE SIDEWALK TIE-IN LOCATION BEGINNING AT THE RADIUS P.C. LINE.
4. "ZERO" CURB AT PT OR SIDEWALK EDGE, WHICHEVER IS ENCOUNTERED FIRST.
5. PLACE AN EXPANSION JOINT DOWN THE CENTER OF DRIVEWAY ALL DRIVEWAYS.
6. IN ESTABLISHED AREAS WITH CURB AND GUTTER, REMOVE EXISTING AND CUTTER TO EXISTING JOINT AND POUR MONOLITHICALLY WITH DRIVEWAY.
7. IF THE SLAB IS OVER-EXCAVATED WHERE THE CURB AND GUTTER WERE REMOVED, BACKFILL WITH CONCRETE MONOLITHICALLY WITH THE DRIVEWAY.
8. TYPE II DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHT OF WAY THAN 60% OF PARCEL FRONTAGE AT 30 METERS (100 FEET) WHICHEVER IS LESS.
9. DRIVEWAY SHALL NOT BE CONSTRUCTED WITHIN THE CURB RETURN OF A STREET INTERSECTION.
10. WHERE THE PROPOSED DRIVEWAY DEMAND RESPONSE IS FOR GRADE BREAKS WITHIN PRIVATE PROPERTY, THE FIRE DEPARTMENT SHALL BE CONSULTED TO WHERE THE DRIVEWAY IS ESSENTIAL TO EMERGENCY VEHICLE ACCESS AND YOU IS GREATER THAN 15%.
11. USE 12 MM (1/2") ASPHALT BOARD OR OTHER APPROVED MATERIAL FOR CURB AND GUTTER EXPANSION JOINTS. SIDEWALK AT THE R.O.W. LINE AND AT MIDWIDTH, SEE NOTE 6.
12. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 8 FOR OTHER DRIVEWAY REQUIREMENTS.
13. THE SIDEWALK, REGARDLESS OF ITS LOCATION WITH RESPECT TO THE CURB OR PROPERTY LINE, SHALL BE CONNECTED TO THE DRIVEWAY AT THESE LOCATIONS.
14. WATER METER BOXES AND WASTEWATER CLEAN OUTS ARE PROHIBITED FROM BEING LOCATED IN DRIVEWAY AREAS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE II DRIVEWAY	
2/19/16 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 2 OF 2



NOTES:
A. MIN. COVER TO BE DETERMINED BY CITY ENGINEER.
B. 5" CONCRETE RIP-RAP WITH 6"X 6" #10 W.W.M. SHALL BE INSTALLED.
C. PIPE SIZE AND NUMBER TO BE DESIGNATED BY CITY ENGINEER.
D. 6" CONCRETE WITH #4 BARS @ 18" C-C MAY BE INSTALLED IN LIEU OF ASPHALT PAINT. WHERE APPROPRIATE, OR AS DIRECTED BY CITY.

CITY OF LEANDER, TEXAS			
Scale: NTS	Date: 2/19/16	Drawn by: RPR	Detail No. 202-2
DRIVEWAY APRON WITH CULVERT PIPE			

ARTERIAL ROADWAYS	
DROPOFF HEIGHT/ CONDITION	RAIL OPTIONS
< 30" DROPOFF	TXDOT PRD-13 TY C or TY E
≥ 30" DROPOFF OR ALONG BICYCLE PATH	TXDOT PRD-13 TY E

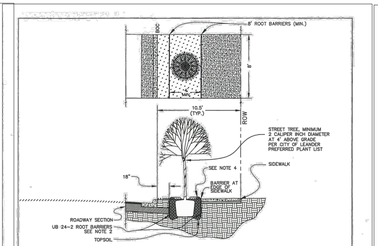
ALL OTHER ROADWAY CLASSIFICATIONS	
DROPOFF HEIGHT/ CONDITION	RAIL OPTIONS
< 30" DROPOFF	TXDOT PRD-13 TY C, TXDOT PRD-13 TY E, or COA 7075-2
≥ 30" DROPOFF OR ALONG BICYCLE PATH	TXDOT PRD-13 TY E or COA 7075-2

NOTES:
1. BICYCLE PATHS INCLUDE ALL SIDEWALKS OR PATHS GREATER THAN SIX FEET (6') IN WIDTH.
2. HANDRAIL TYPE AND FINISH SHALL REMAIN CONSISTENT AT EACH INSTALLATION LOCATION (CULVERT CROSSING, DROPOFF, ETC.).
3. ALL HANDRAIL INSTALLED ALONG ARTERIAL ROADWAYS SHALL BE GALVANIZED.
4. HANDRAIL INSTALLED ALONG ALL OTHER ROADWAYS SHALL BE GALVANIZED OR FACTORY POWDER-COATED BLACK.

REFERENCES:
1. CITY OF AUSTIN STANDARD NO. 707S-2 PEDESTRIAN HANDRAIL OPTION 1.
2. TEXAS DEPARTMENT OF TRANSPORTATION PEDESTRIAN HANDRAILS DETAIL PRD-13.

2020-04-07

City Of Leander, Texas
DETAIL #202-4
PEDESTRIAN HANDRAIL

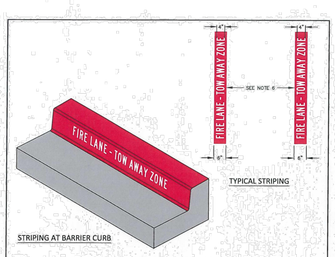


NOTES:
1. CONTRACTOR SHALL VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ALL DAMAGE THAT RESULTS FROM HIS WORK, INCLUDING ANY DAMAGE TO ROADWAY STRUCTURAL ELEMENTS SUCH AS CURB, FLEXIBLE BASE, GEOGRID, ETC.
2. "DEEPROOT" ROOT BARRIERS, OR APPROVED EQUAL, A MINIMUM OF TWENTY-FOUR INCHES (24") IN HEIGHT AND EIGHT FEET IN LENGTH (8') SHALL BE PROVIDED PARALLEL TO CURB LINE ON BOTH SIDES OF STREET TREES. ROOT BARRIERS SHALL BE PLACED WITH TOP OF ROOT BARRIER TWO INCHES (2") BELOW FINISHED GRADE AND RIBS FACING TOWARDS THE TREE.
3. TREES SHALL BE PLACED A MINIMUM OF TEN FEET (10') FROM ALL EXISTING AND PROPOSED WASTEWATER LINES, WATER SERVICES, STORM SEWER LINES, AND CURB INLETS.
4. A WATER RETENTION BASIN THREE INCHES (3") IN HEIGHT AND FOUR FEET (4') IN DIAMETER FORMED WITH TOPSOIL SHALL BE PROVIDED AROUND ALL TREES. INTERIOR OF BASIN SHALL BE FILLED WITH THREE INCH (3") LAYER OF SHREDDED BARK MULCH HELD THREE INCHES (3") BACK FROM THE TRUNK.
5. ALL TREES SHALL BE STAKED WITH 3' LENGTH STEEL "T" POSTS, PAINTED DARK GREEN. LOCATE POSTS 6" +/- FROM ROOTBALL. DO NOT DISTURB ROOTBALL. POSTS SHALL BE DRIVEN 2' INTO GROUND WITH 5' EXPOSED ABOVE GROUND. POSTS SHALL BE CONSISTENT HEIGHT AND ALIGNED PARALLEL TO ADJACENT CURBS. USE 12-GAUGE STRANDED CABLE WITH HOSE TO PROTECT TRUNK. ENSURE THERE IS NO SLACK IN WIRES.
6. IF SOLID ROCK IS ENCOUNTERED AT DEPTHS LESS THAN TWENTY-SIX INCHES (26") FROM FINISHED GRADE, INSTALL ROOT BARRIER TO TOP OF ROCK LAYER AND TRIM EXCESS LENGTH.

*THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

03/07/18

City Of Leander, Texas
DETAIL #204-4
STREET TREE INSTALLATION



STRIPING AT BARRIER CURB

NOTES:
1. ALL FIRE LANE STRIPING SHALL COMPLY WITH THE CURRENT INTERNATIONAL FIRE CODE, AS ADOPTED BY THE CITY OF LEANDER, AND CITY OF LEANDER CODE OF ORDINANCES.
2. FIRE LANES SHALL BE CONTINUOUSLY MARKED BY RED TRAFFIC PAINT THAT IS MINIMUM SIX INCHES (6") IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE.
3. "FIRE LANE - TOW AWAY ZONE" SHALL APPEAR IN FOUR INCH (4") TYPE D WHITE BLOCK LETTERS AT TWENTY-FIVE FOOT (25') INTERVALS, OR LESS, ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANE.
4. WHERE A 6" BARRIER CURB EXISTS, THE FIRE LANE STRIPING SHALL BE ON BOTH THE VERTICAL FACE OF THE CURB AND TOP OF CURB. "FIRE LANE - TOW AWAY ZONE" SHALL BE MARKED IN 4" WHITE BLOCK LETTERS ON FACE OF CURB ONLY.
5. WHERE A FIRE LANE IS ADJACENT TO PARKING SPACES THE FIRE LANE STRIPING SHALL BE AN 8" RED STRIPE PAINTED ON THE DRIVE SURFACE WITH 4" WHITE LETTERS STATING "FIRE LANE NO PARKING TOW-AWAY ZONE." FIRE LANE STRIPING SHALL EXTEND BEHIND ALL PARKING SPACES.
6. WHERE A FIRE HYDRANT, FIRE DEPARTMENT CONNECTION, OR OTHER FIRE PROTECTION EQUIPMENT IS LOCATED ON A FIRE LANE, THE FIRE LANE SHALL BE A MINIMUM OF TWENTY-SIX FEET (26') IN WIDTH, EXCLUSIVE OF SHOULDERS.

*THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

12-07-22

City Of Leander, Texas
DETAIL #601-1
FIRE LANE STRIPING

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	REINFORCED CURB AND GUTTER SECTIONS	
RECORD COPY SIGNED BY SAM ANDOORI 01/04/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-2

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	
Bill Henderson 2/16/18 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 2 OF 3

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	
Bill Henderson 2/16/18 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-1 1 OF 3

NOTES:
1. DIMENSIONS FOR ROW AND FOC-FOC ARE FOR RESIDENTIAL LOCAL STREETS ONLY. SEE TRANSPORTATION PLAN FOR ROADWAY AND RIGHT-OF-WAY WIDTHS FOR ALL OTHER ROADWAY CLASSIFICATIONS.
2. BASE COURSE TO EXTEND 1" (MINIMUM) PAST BACK OF CURB FOR SOILS WITH PI OF 20 OR LESS, 3' FOR ALL OTHER SOILS.
3. PAVEMENT STRUCTURAL SECTION SHALL, IN NO CASE, BE LESS THAN THE VALUES SHOWN ABOVE.
4. GEOTECHNICAL ENGINEER SHALL PROVIDE A PAVEMENT DESIGN TO DETERMINE THE NEED FOR ADDITIONAL ASPHALT THICKNESS, BASE THICKNESS, SUB-BASE AND GEOGRID BASED UPON ON-SITE SOIL CONDITIONS AND TRAFFIC PROJECTIONS.
5. SIDEWALK TO HAVE MAXIMUM 2% CROSS SLOPE.
6. SLOPE FROM BACK OF CURB TO RIGHT-OF-WAY SHALL BE 2% UNLESS OTHERWISE INDICATED ON THE GRADING PLAN.
7. STREET TREES, WHERE REQUIRED, SHALL BE PLACED BETWEEN SIDEWALK AND BACK OF CURB. SEE DETAIL 204-4.
8. METER BOXES AND SEWER SERVICE STUBS SHALL BE PLACED IN THE PUBLIC UTILITY EASEMENT ABUTTING THE SIDEWALK.

*THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

12/21/17

City Of Leander, Texas
DETAIL #204-3
RESIDENTIAL LOCAL STREET SECTION WITH STANDARD UTILITY ASSIGNMENTS

SITE SIGN BASE DETAIL
N.T.S.

SEE SPACES DESIGNATED " ♿ "

ACCESSIBLE PARKING SYMBOL
N.T.S.

ALL ADA DETAILS SHOWN HEREIN SHALL BE INSTALLED IN ACCORDANCE WITH THEIR RESPECTIVE 2010 FEDERAL ADA GUIDELINES. SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH BOTH THE ADA MANUAL AND TXMUTCD REFERENCES.

"ACCESSIBLE PARKING" SIGN
N.T.S.

811 Know what's below. Call before you dig.

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BY	DATE	REVISIONS	No.

Kimley»Horn

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Allison Kennaugh — 114356 — LICENSED PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT 069252742		DESIGNED BY: NAM	CHECKED BY: ACK
DATE DECEMBER 2023	SCALE: AS SHOWN	DRAWN BY: ZJR	

PAVING AND SITE DETAILS (SHEET 2 OF 2)

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
32 OF 39

SD-XX-XXXX

Plotted By: Randall, Zach Date: December 01, 2023 03:21:10pm File Path: K:\Aus_civil\069252742-valor leander\Cad\site plan\plansheets\C-Paving Details.dwg
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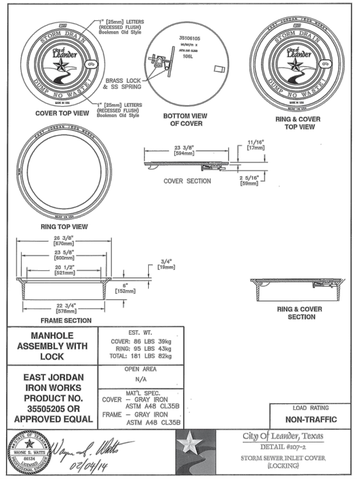

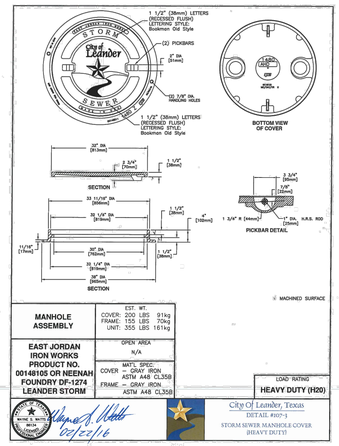

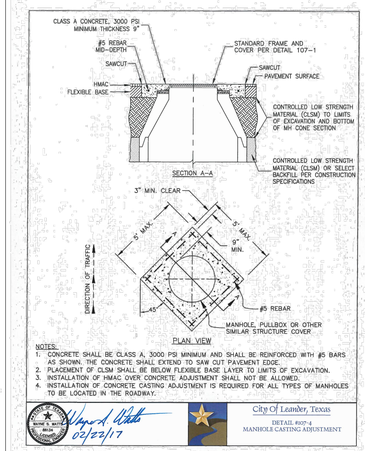

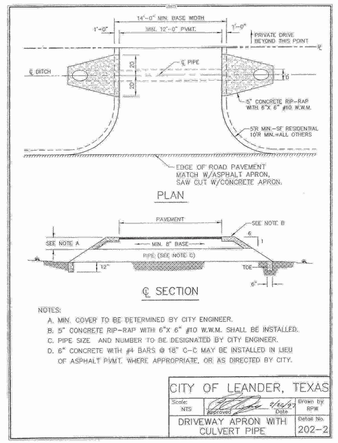

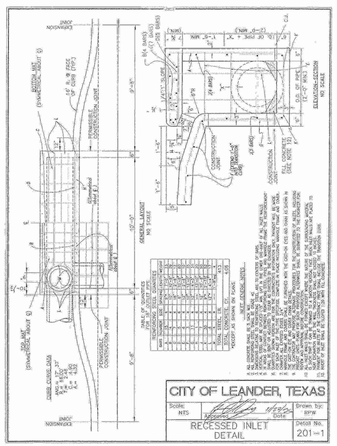

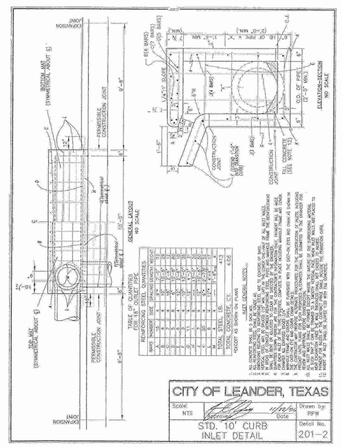

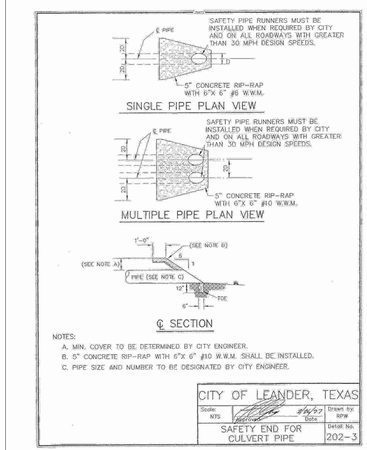

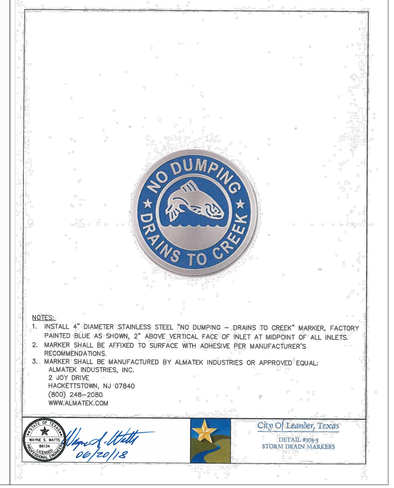

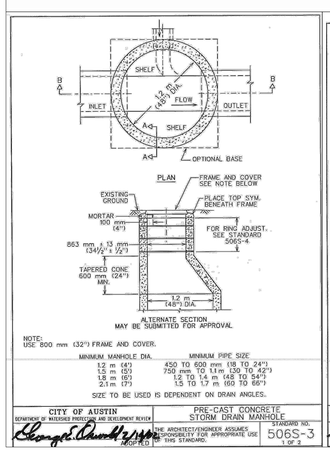

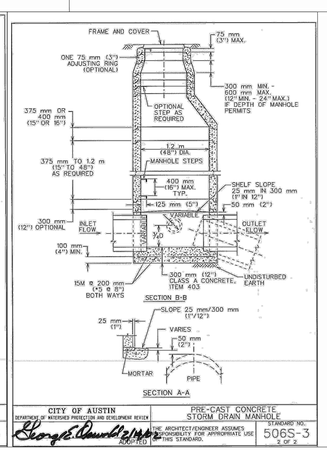

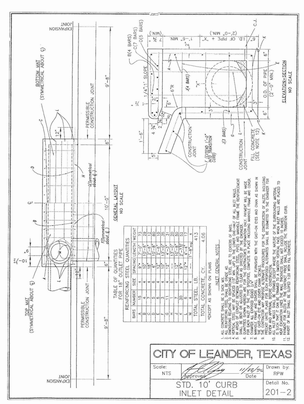

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Allison Kennaugh — STATE OF TEXAS — ALLISON KENNAUGH — 114356 — LICENSED PROFESSIONAL ENGINEER
12/1/2023

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STORM DETAILS

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
33 OF 39

SD-XX-XXXX

Plotted By: Randall, Zach Date: December 01, 2023 - 03:21:26pm File Path: K:\Aus_civil\069252742-valor_leander\Cad\site plan\planSheets\C-Storm Drain Details.dwg
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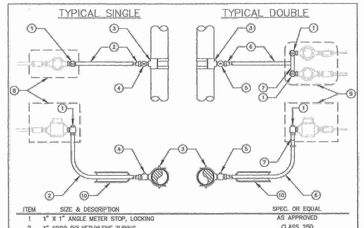
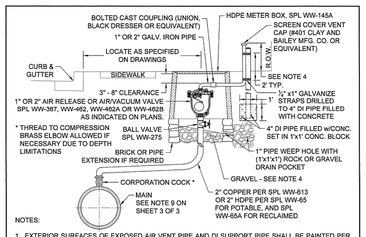


ITEM	SIZE & DESCRIPTION	SPEC. OR EQUAL
1	1" x 1" ANGLE METER STOP, LOCKING	AS APPROVED
2	1" SDR9 POLYETHYLENE TUBING	CLASS 250
3	EPOXY COATED DUCTILE IRON TAPPING SADDLE	AS APPROVED
4	1" CORPORATION STOP	AS APPROVED
5	1 1/2" CORPORATION STOP	AS APPROVED
6	1 1/2" SDR9 POLYETHYLENE TUBING	CLASS 250
7	BRASS U-BRANCH, 1 1/2" X 1"	FORD, OR EQUAL
8	METER BOX, SINGLE	DFW33F-12-1CA, OR EQUAL
9	METER BOX, DOUBLE	DFW39F-12-1CA, OR EQUAL
10	3" SCH. 40 PVC SLEEVE FOR LONG SIDE SERVICES (TYP.)	

NOTES:
1. SERVICE SADDLE SHALL BE WRAPPED COMPLETELY WITH 8 MIL POLYETHYLENE FILM.
2. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS.
3. BRANCH CONNECTION AND BOTH ANGLE METER STOPS SHALL BE INSTALLED PRIOR TO FIRST METER INSTALLATION.
4. SLEEVES FOR LONG-SIDE SERVICE TO BEGIN AND TERMINATE 6" BEHIND BACK OF CURB.
5. TOP OF METER BOXES SHOULD BE 1" ABOVE GROUND.
6. METER BOX SHALL BE BEHIND CURB AT ROW/PROPERTY LINE OR EASEMENT. METER BOX SHALL NOT BE INSTALLED IN SIDEWALK, DRIVEWAY OR VEHICULAR TRAVEL AREA.
7. 1" X 3/4" BRASS METER BUSHING REQUIRED FOR 5/8" AND 3/4" METERS.
8. AXIS OF METER ASSEMBLY (LINE THROUGH METER STOP, METER, CHECK VALVE, PIPING AND OWNER'S CUTOFF) SHALL BE 11" BELOW TOP OF BOX. METER BOXES ARE SIZED TO ACCOMODATE METER STOP, WATER METER AND CHECK VALVE.

WAYNE S. WATTS 88134 LICENSED PROFESSIONAL ENGINEER
11/20/15

City Of Leander, Texas
DETAIL #101-1
WATER SERVICE CONNECTIONS

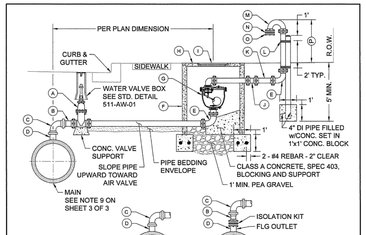


NOTES:
1. EXTERIOR SURFACES OF EXPOSED AIR VENT PIPE AND DI SUPPORT PIPE SHALL BE PAINTED PER SPL WW-3C. POTABLE WATER PIPE SHALL BE PAINTED SAFETY BLUE.
2. AIR VENT PIPE INSTALLATION SHALL BE AS NEAR AS PRACTICAL TO RIGHT-OF-WAY LINE WITH MINIMUM CLEARANCE OF 18" FROM ANY OBSTACLE.
3. HDPE METER BOX PENETRATION SHALL BE CORE BIT DRILLED. VOID SHALL BE FILLED WITH LINKSEAL LS 300 OR APPROVED EQUAL.
4. COMPACTED COARSE GRAVEL OR BROKEN STONE MIXED WITH SAND SLOPED TO DRAIN.
5. IN UNDEVELOPED AREAS, THE AIR VENT PIPE SHALL BE 4' MIN. IN HEIGHT SUPPORTED BY A 4" DIA. DI PIPE WHICH HAS BEEN FILLED WITH CONCRETE (SUPPORT PIPE SHALL BE 6' LONG, BURIED IN CLASS A CONCRETE OR CLSM 3' BELOW FINAL GRADE AND EXTENDING 3' ABOVE FINAL GRADE). INSTALL ONE DELINEATOR STAKE WITHIN 3' OF THE VAULT ON THE VEHICULAR ACCESS SIDE OF VAULT OR AS DIRECTED BY AUSTIN WATER. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES. IN DEVELOPED AREAS, THE AIR VENT PIPE SHALL BE LOCATED NOT TO CONFLICT WITH SIDEWALK, DRIVEWAY, OR OTHER PEDESTRIAN TRAFFIC.

1" - 2" AIR RELEASE OR AIR/VACUUM VALVE INSTALLATION - TYPE I

RECLAIMED WATER: ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE "RECLAIMED WATER" CAST INTO THEM.

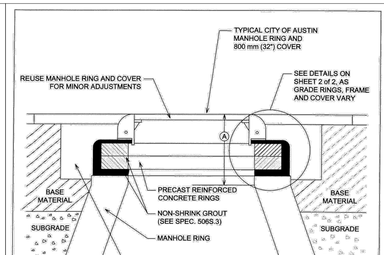
CITY OF AUSTIN AUSTIN WATER	AIR RELEASE AND AIR/VACUUM VALVE	
Kathi L Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-04 1 OF 3



A. GATE VALVE (FLG x FLG). GATE VALVE SHALL NOT BE INSTALLED DIRECTLY ABOVE WATER MAIN.
B. PIPE FLG x FACTORY RESTRAINED JOINT SPIGOT END.
C. 90° BEND w/FACTORY RESTRAINED JOINT BELL ENDS, SPL WW-27F.
D. FOR DI MAIN: WELDED-ON OUTLET w/FACTORY RESTRAINED JOINT SPIGOT END.
FOR STEEL/CSC MAIN: WELDED-ON FLANGED OUTLET w/ISOLATION KIT AND FLG x FACTORY RESTRAINED SPIGOT END.
E. 90° BEND (FLG x FLG).
F. CLASS III RCP VAULT 60" MIN. I.D.
G. AIR RELEASE VALVE w/GOOSENECK PER AIR RELEASE VALVES FOR WATER SPL WW-367 OR AIR RELEASE/VACUUM RELIEF VALVES FOR POTABLE WATER SPL WW-462A OR AIR RELEASE/VACUUM RELIEF VALVES FOR RECLAIMED WATER SPL WW-462B OR AIR RELEASE/AIR VACUUM VALVE FOR WASTEWATER SPL WW-462B.
H. REINFORCED PRECAST CONCRETE LID (AASHTO H-20 LOADING).
I. COA FRAME AND 32" COVER WITH LETTERING MODIFIED FOR WATER.
J. BOLTED CAST COUPLING (SMITH-BLAIR 441 OMNI CAST COUPLING OR APPROVED EQUAL).
K. AIR VENT PIPE, 3" PIPE - GALVANIZED IRON, 4" AND LARGER PIPE - DI ONLY.
L. ½" x1' GALVANIZE STRAPS DRILLED TO 4" DI PIPE FILLED w/CONCRETE (SEE NOTE 7).
M. RETURN BEND (FLG x FLG).
N. No. 16 MESH BRASS CLOTH.
O. COMPANION FLANGE (SEE NOTE 5).
P. 4" MIN. - UNDEVELOPED AREAS.

2" OR LARGER AIR/VACUUM VALVE INSTALLATION - TYPE II

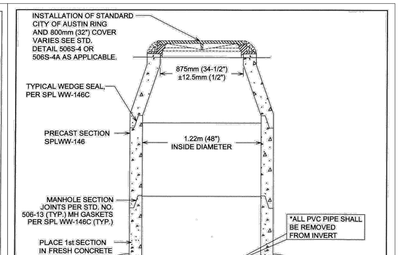
CITY OF AUSTIN AUSTIN WATER	AIR RELEASE AND AIR/VACUUM VALVE	
Kathi L Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-04 2 OF 3



Ⓐ VERTICAL FACE = ALLOWABLE THROAT OR CHIMNEY HEIGHT
= NEW CONSTRUCTION = 525mm = (21") Max.
= EXISTING CONSTRUCTION = 675mm (27") Max.

NOTES:
1. NON-SHRINK GROUT SHALL NOT EXCEED 25 mm (1") IN ANY DIMENSION.
2. SUB-GRADE AND BASE MATERIALS SHALL BE COMPACTED ACCORDING TO ITEMS 201S AND 210S, RESPECTIVELY, OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
3. REFER TO STANDARD 1100S-1 FOR REPAIRS AROUND MANHOLES.
4. SEE STANDARD 506S-4A FOR HDPE RING INSTALLATION (FOR USE IN PAVED AREAS ONLY).

CITY OF AUSTIN AUSTIN WATER UTILITY	MINOR MANHOLE ADJUSTMENT & NEW MANHOLE CONSTRUCTION	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-4 1 OF 2



NOTES:
1. FOR EXISTING WW LINES ONLY.
2. MANHOLE FOUNDATION SHALL MEET OR EXCEED STD. SPEC 506.5B
3. FLEXIBLE RISER SECTION SHALL BE PLACED PLUMB & LEVEL PRIOR TO SETTING ANY ADDITIONAL SECTIONS.

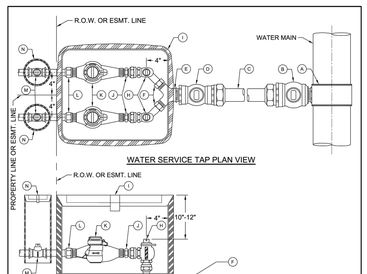
CITY OF AUSTIN AUSTIN WATER UTILITY	PRECAST MANHOLE ON CAST IN PLACE BASE	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 506S-9

NOTES:
1. ON 10" AND LARGER TWO PIECE COMBINATION AIR VALVES, THE OUTLET PIPING OF THE SMALL VALVE SHALL BE VENTED WITHIN THE VAULT INTO THE LARGER VENT PIPE.
2. AIR VENT PIPE 6" AND LARGER SHALL BE DI (CLASS 350 MIN.) PIPE FLANGE FITTINGS AND EXTERIOR SURFACES OF ALL EXPOSED PIPE SHALL BE PAINTED PER SPL WW-3C. POTABLE WATER PIPE SHALL BE PAINTED SAFETY BLUE. SURFACE PREPARATION SHALL BE PER PAINT MANUFACTURER'S REQUIREMENTS.
3. ENTIRE AIR VENT ASSEMBLY SHALL BE LOCATED WITHIN EASEMENT OR R.O.W.
4. CONCRETE PIPE PENETRATIONS SHALL BE CORE BIT DRILLED. VOID SHALL BE SEALED w/LINKSEAL LS 300 OR APPROVED EQUAL.
5. CROSS SECTIONAL AREA OF OPENING TO BE EQUAL TO OR GREATER THAN CROSS SECTIONAL AREA OF AIR VENT PIPE.
6. AIR/VACUUM VALVE SHALL BE INSTALLED IN A MANNER WHICH WILL ALLOW REMOVAL OF ASSEMBLY WITHOUT REMOVAL OF PRECAST CONCRETE LID.
7. IN UNDEVELOPED AREAS, THE AIR VENT PIPE SHALL BE 4' MIN. IN HEIGHT SUPPORTED BY A 4" DIA. DI PIPE WHICH HAS BEEN FILLED WITH CONCRETE (SUPPORT PIPE SHALL BE 6' LONG, BURIED IN CLASS A CONCRETE OR CLSM 3' BELOW FINAL GRADE AND EXTENDING 3' ABOVE FINAL GRADE). INSTALL ONE DELINEATOR STAKE WITHIN 3' OF THE VAULT ON THE VEHICULAR ACCESS SIDE OF VAULT OR AS DIRECTED BY AUSTIN WATER. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES. IN DEVELOPED AREAS, THE AIR VENT PIPE SHALL BE LOCATED NOT TO CONFLICT WITH SIDEWALK, DRIVEWAY, OR OTHER PEDESTRIAN TRAFFIC.
8. GATE VALVE, PIPE, AND FITTINGS FROM MAIN TO ARV SHALL BE OF EQUAL DIAMETER AS THE AIR VALVE EXCEPT 3" ARV SHALL HAVE 4" FITTINGS AND A 4"x3" REDUCER AT THE ARV, AND ALL PIPE AND FITTINGS ON THE OUTLET SIDE OF THE ARV SHALL BE EQUAL TO THE SIZE OF THE OUTLET OF THE ARV. VAULTS SHALL BE 8' DIAMETER FOR 3" VALVE; 6' DIAMETER FOR 4", 6", AND 8" VALVES; AND 7' DIAMETER FOR 10" AND 12" VALVES.
9. FOR 24" AND LARGER MAINS, AN 18" OUTLET WITH BLIND FLANGE SHALL BE INSTALLED AT CONNECTION OF ARV.

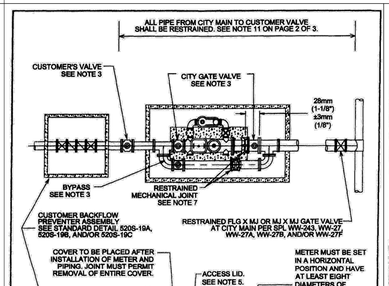
3" OR LARGER AIR/VACUUM VALVE INSTALLATION - TYPE II

RECLAIMED WATER: ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-27D. ALL COVERS SHALL HAVE "RECLAIMED WATER" CAST INTO THEM.

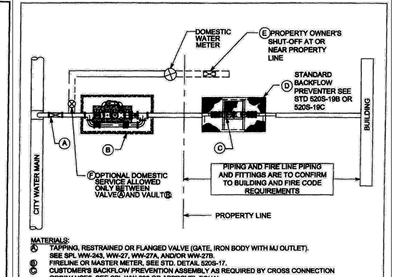
CITY OF AUSTIN AUSTIN WATER	AIR RELEASE AND AIR/VACUUM VALVE	
Kathi L Flowers 05/18/2016 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 511-AW-04 3 OF 3



CITY OF AUSTIN AUSTIN WATER	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS	
JEFF A. KYLE 08/16/2019 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-01B 1 OF 2



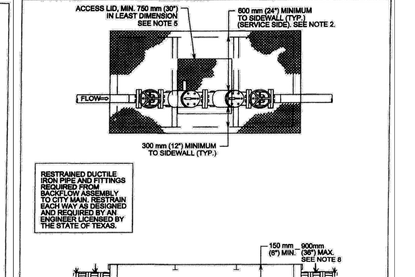
CITY OF AUSTIN AUSTIN WATER UTILITY	FIRE LINE METER INSTALLATION	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-17 1 OF 3



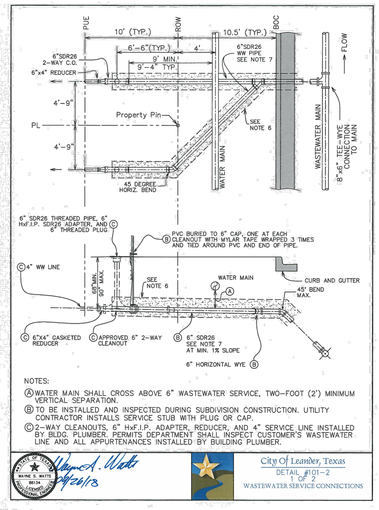
MATERIALS:
Ⓐ TAPPING, RESTRAINED OR FLANGED VALVE (GATE, IRON BODY WITH MJ OUTLET). SEE SPL WW-243, WW-27, WW-27A, AND/OR WW-27B.
Ⓑ FIRELINE OR MASTER METER, SEE STD. DETAIL 520S-17.
Ⓒ CUSTOMER'S BACKFLOW PREVENTION ASSEMBLY AS REQUIRED BY CROSS CONNECTION ORDINANCES. SEE SPL WW-293 OR APPROVEL EQUAL.
Ⓓ VAULT AND ACCESS DOOR SHALL BE PER SPL WW-286 OR SPL WW-614, RESPECTIVELY, OR APPROVED EQUAL. SEE STD. DETAIL 520S-19B OR 19C. VAULT SHALL NOT BE LOCATED IN A TRAFFIC AREA.
Ⓔ CUSTOMER'S SHUT-OFF VALVE ON DOMESTIC WATER LINE.
Ⓕ DOMESTIC WATER SERVICE LINE VALVE.

NOTES:
1. FIRE LINE SHALL BE A MINIMUM OF 150 mm (6") & GREATER THAN OR EQUAL TO METER SIZE IN THE STREET RIGHT-OF-WAY. PLANS SHALL BE PREPARED BY A LICENSED ENGINEER.
2. ALL BURIED PIPE SHALL BE WRAPPED COMPLETELY WITH A MINIMUM OF 0.2 mm (8 MIL) POLYETHYLENE FILM.
3. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SECTION 610.3.(14) OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS: BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SECTION 610.3.(28).
4. FOR STD. DETAILS 520S-19A, 19B, AND 19C, MASTER METER MEANS METER FOR FIRE AND DOMESTIC SERVICE.
5. THE TOP OF THE METER VAULT SHALL BE AT AN ELEVATION SUCH THAT THE SURROUNDING GROUND SLOPES AWAY FROM THE VAULT. ADDITIONAL DRAINAGE CONSIDERATION SUCH AS CONNECTION OF VAULT TO STORM SEWER, LATERAL DRAIN LINES FROM GRAVEL BED OR OTHER MEANS SHALL BE REQUIRED IF CONDITIONS CAUSE WATER TO COLLECT IN VAULT.

CITY OF AUSTIN AUSTIN WATER UTILITY	STANDARD FIRE LINE INSTALLATION WITH OR WITHOUT MASTER METER	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-19A



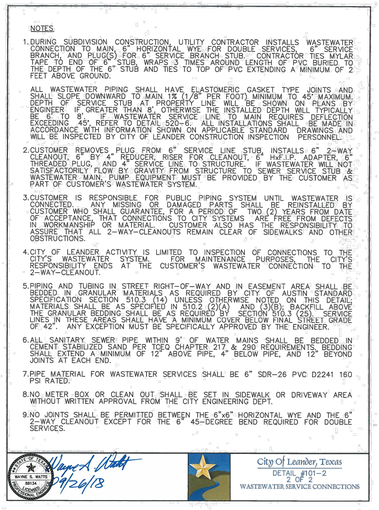
CITY OF AUSTIN AUSTIN WATER UTILITY	STANDARD BACKFLOW PREVENTER ON FIRE LINE WITH MASTER METER	
Kathi L Flowers 8/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-19B 1 OF 2



NOTES:
Ⓐ WATER MAIN SHALL CROSS ABOVE 6" WASTEWATER SERVICE, TWO-FOOT (2') MINIMUM VERTICAL SEPARATION.
Ⓑ TO BE INSTALLED AND INSPECTED DURING SUBDIVISION CONSTRUCTION. UTILITY CONTRACTOR INSTALLS SERVICE STUB WITH PLUG OR CAP.
Ⓒ 2-WAY CLEANOUTS, 6" Hxf.I.P. ADAPTER, REDUCER, AND 4" SERVICE LINE INSTALLED BY BLDG. PLUMBER. PERMITS DEPARTMENT SHALL INSPECT CUSTOMER'S WASTEWATER LINE AND ALL APPURTENANCES INSTALLED BY BUILDING PLUMBER.

WAYNE S. WATTS 88134 LICENSED PROFESSIONAL ENGINEER
04/24/13

City Of Leander, Texas
DETAIL #101-2
1 OF 2
WASTEWATER SERVICE CONNECTIONS



NOTES
1. DURING SUBDIVISION CONSTRUCTION, UTILITY CONTRACTOR INSTALLS WASTEWATER CONNECTION TO MAIN, 6" HORIZONTAL WYE FOR DOUBLE SERVICES, 6" SERVICE BRANCH, AND PLUG(S) FOR 6" SERVICE BRANCH STUB. CONTRACTOR TIES MYLAR TAPE TO END OF 6" STUB, WRAPS 3 TIMES AROUND LENGTH OF PVC BURIED TO THE DEPTH OF THE 6" STUB AND TIES TO TOP OF PVC EXTENDING A MINIMUM OF 2 FEET ABOVE GROUND.

ALL WASTEWATER PIPING SHALL HAVE ELASTOMERIC GASKET TYPE JOINTS AND SHALL SLOPE DOWNWARD TO MAIN 1% (1/8" PER FOOT) MINIMUM TO 45° MAXIMUM. DEPTH OF SERVICE STUB AT PROPERTY LINE WILL BE SHOWN ON PLANS BY ENGINEER, 8' GREATER THAN 8', OTHERWISE THE INSTALLED DEPTH WILL TYPICALLY BE 8'. 8" DIAMETER WASTEWATER SERVICE LINE TO MAIN REQUIRES DEFLECTION EXCEEDING 45° BEFORE WASTEWATER SERVICE LINE INSTALLATION SHALL BE MADE IN ACCORDANCE WITH INFORMATION SHOWN ON APPLICABLE STANDARD DRAWINGS AND WILL BE INSPECTED BY CITY OF LEANDER CONSTRUCTION INSPECTION PERSONNEL.

2. CUSTOMER REMOVES PLUG FROM 6" SERVICE LINE STUB, INSTALLS 6" 2-WAY CLEANOUT, 6" BY 4" REDUCER, RISER FOR CLEANOUT, 6" Hxf.I.P. ADAPTER, 6" THREADED PLUG, AND 4" SERVICE LINE TO STRUCTURE. IF WASTEWATER WILL NOT SATISFACTORILY FLOW BY GRAVITY FROM STRUCTURE TO SEWER SERVICE STUB & WASTEWATER MAIN, PUMP EQUIPMENT MUST BE PROVIDED BY THE CUSTOMER AS PART OF CUSTOMER'S WASTEWATER SYSTEM.

3. CUSTOMER IS RESPONSIBLE FOR PUBLIC PIPING SYSTEM UNTIL WASTEWATER IS CONNECTED. ANY MISSING OR DAMAGED PARTS SHALL BE REINSTALLED BY CUSTOMER WHO SHALL GUARANTEE, FOR A PERIOD OF TWO (2) YEARS FROM DATE OF ACCEPTANCE, THAT CONNECTIONS TO CITY SYSTEMS ARE FREE FROM DEFECTS IN WORKMANSHIP OR MATERIAL. CUSTOMER ALSO HAS THE RESPONSIBILITY TO ASSURE THAT ALL 2-WAY-CLEANOUTS REMAIN CLEAR OF SIDEWALKS AND OTHER OBSTRUCTIONS.

4. CITY OF LEANDER ACTIVITY IS LIMITED TO INSPECTION OF CONNECTIONS TO THE CITY'S WASTEWATER SYSTEM. FOR MAINTENANCE PURPOSES, THE CITY'S RESPONSIBILITY ENDS AT THE CUSTOMER'S WASTEWATER CONNECTION TO THE 2-WAY-CLEANOUT.

5. PIPING AND TUBING IN STREET RIGHT-OF-WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY CITY OF AUSTIN STANDARD SPECIFICATION SECTION 510.3 (14) UNLESS OTHERWISE NOTED ON THIS DETAIL. MATERIALS SHALL BE AS SPECIFIED IN 510.2 (2)(A) AND (3)(B); BACKFILL ABOVE THE GRANULAR BEDDING SHALL BE AS REQUIRED BY SECTION 510.3 (28). SERVICE LINES IN THESE AREAS SHALL HAVE A MINIMUM COVER BELOW FINAL STREET GRADE OF 42". ANY EXCEPTION MUST BE SPECIFICALLY APPROVED BY THE ENGINEER.

6. ALL SANITARY SEWER PIPE WITHIN 9' OF WATER MAINS SHALL BE BEDDED IN CEMENT STABILIZED SAND PER TCEQ CHAPTER 217 & 290 REQUIREMENTS. BEDDING SHALL EXTEND A MINIMUM OF 12" ABOVE PIPE, 4" BELOW PIPE, AND 12" BEYOND JOINTS AT EACH END.

7. PIPE MATERIAL FOR WASTEWATER SERVICES SHALL BE 6" SDR-26 PVC D2241 160 PSI RATED.

8. NO METER BOX OR CLEAN OUT SHALL BE SET IN SIDEWALK OR DRIVEWAY AREA WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEERING DEPT.

9. NO JOINTS SHALL BE PERMITTED BETWEEN THE 6"x6" HORIZONTAL WYE AND THE 6" 2-WAY CLEANOUT EXCEPT FOR THE 6" 45-DEGREE BEND REQUIRED FOR DOUBLE SERVICES.

WAYNE S. WATTS 88134 LICENSED PROFESSIONAL ENGINEER
04/24/13

City Of Leander, Texas
DETAIL #101-2
2 OF 2
WASTEWATER SERVICE CONNECTIONS

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83
COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

No.	REVISIONS	DATE	BY

Kimley»Horn
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WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

ALLISON KENNAUGH 114356 LICENSED PROFESSIONAL ENGINEER
12/1/2023

KHA PROJECT 069252742		
DATE	DECEMBER 2023	
SCALE:	AS SHOWN	
DESIGNED BY:	NAM	
DRAWN BY:	ZJR	
CHECKED BY:	ACK	

UTILITY DETAILS (SHEET 1 OF 2)

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER
34 OF 39

SD-XX-XXXX

Plotted By:Randall, Zach Date:December 01, 2023, 03:21:47pm File Path:K:\aus_civil\069252742-valor leander\Cad\Site plan\plansheets\C-Utility Details.dwg
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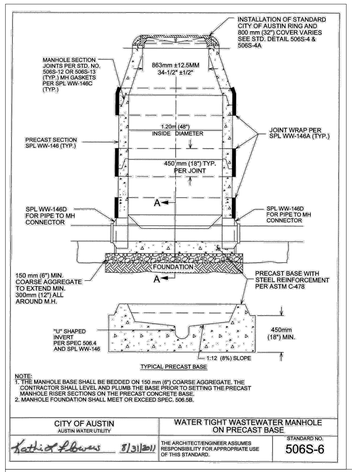

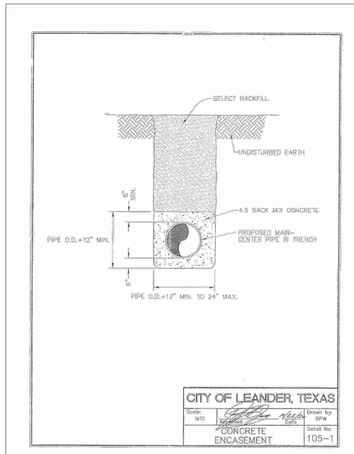

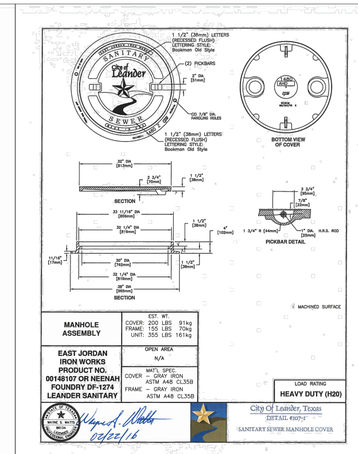

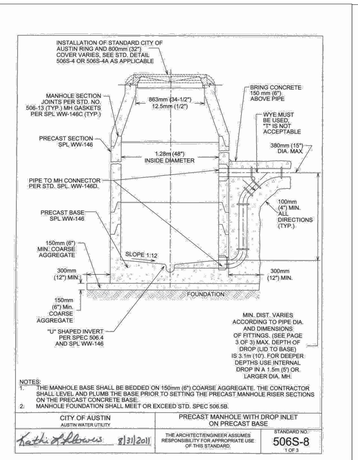

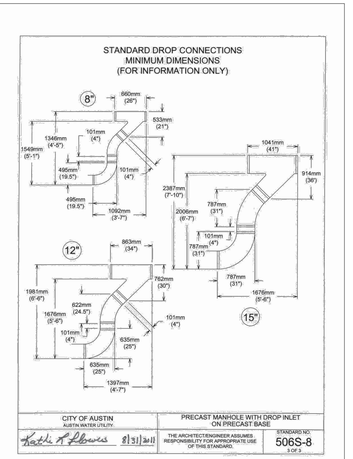

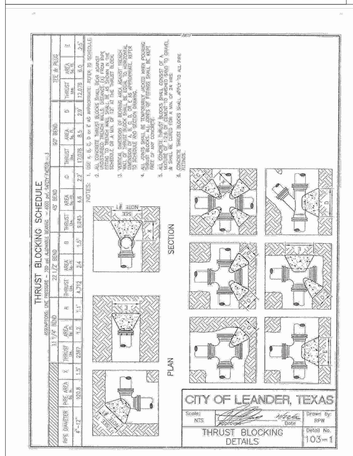

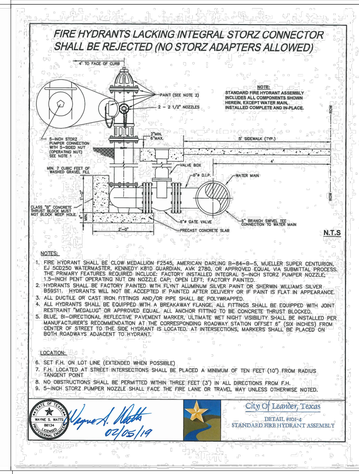

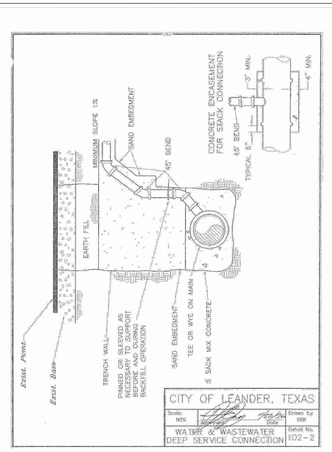

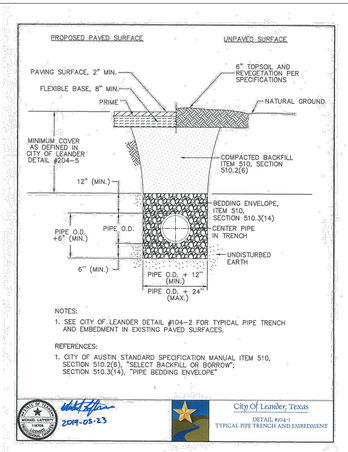

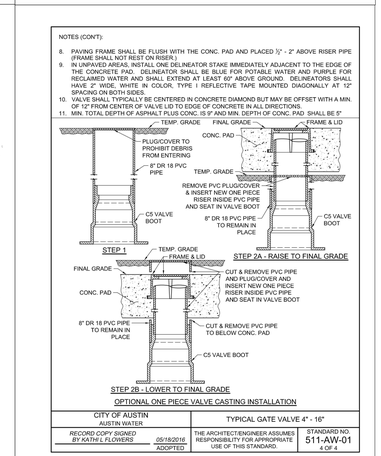

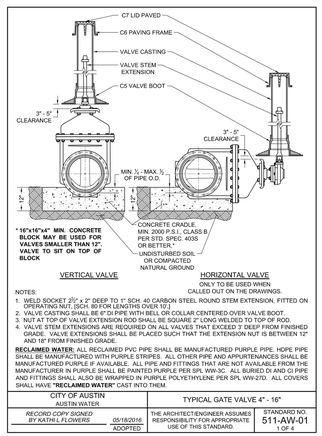

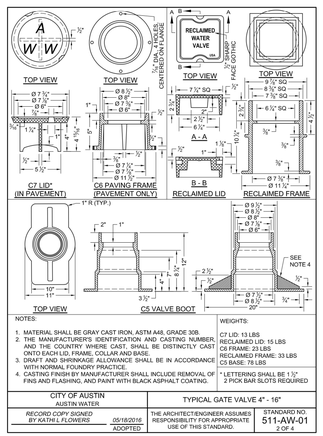

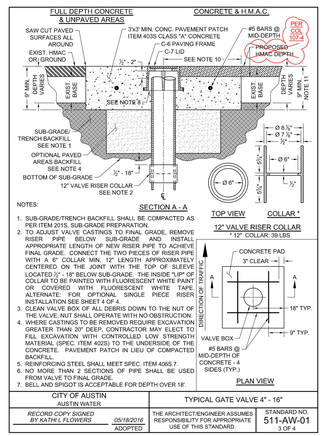

811 Know what's below. Call before you dig.

BENCHMARKS

BENCHMARKS ARE BASED ON NAD83 COORDINATES ARE STATE PLANE CENTRAL ZONE WITH A COMBINED SCALE FACTOR OF 0.9998800143982722

BM #10: SIX COTTON SPINDLE
GRID NORTH: 10,203,075.39
GRID EAST: 3,082,766.80
1035.47

BM #11: SET MAGNETIC NAIL (TRAVIS)
GRID NORTH: 10,203,986.98
GRID EAST: 3,082,429.05
1031.92'

WARNING: CONTRACTOR IS TO VERIFY PRESENCE AND EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

Kimley»Horn
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10814 JOLLYVILLE ROAD, CAMPUS IV, SUITE 200, AUSTIN, TX 78759
PHONE: 512-418-1771 FAX: 512-418-1791
WWW.KIMLEY-HORN.COM
TEXAS REGISTERED ENGINEERING FIRM F-928

Allison Kennaugh — 114356 — LICENSED PROFESSIONAL ENGINEER — 12/1/2023

No.	REVISIONS	DATE	BY

KHA PROJECT 069252742
DATE DECEMBER 2023
SCALE: AS SHOWN
DESIGNED BY: NAM
DRAWN BY: ZJR
CHECKED BY: ACK

UTILITY DETAILS (SHEET 2 OF 2)

VALOR LEANDER
CITY OF LEANDER
WILLIAMSON COUNTY, TEXAS

SHEET NUMBER 35 OF 39

SD-XX-XXXX

Plotted By: Randall, Zach Date: December 01, 2023 03:21:55pm File Path: K:\Aus_civil\069252742-valor_leander\Cad\site_plan\plansheets\C-Utility Details.dwg
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