WATER POLLUTION ABATEMENT PLAN MODIFICATION

FOR

BAR W COMMERCIAL

CITY OF LEANDER, WILLIAMSON COUNTY, TX

PREPARED FOR:

HALLE PROPERTIES, LLC D/B/A
DISCOUNT TIRE

DATE:

FEBRUARY 2024

Bowman
TBPE No. F-14309

1445 North Loop West, Suite 450, Houston, TX 77008
P: 713.993.0333
bowman.com

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: Bar W Ranch Commercial						**2. Regulated Entity No.:** 110866175			
3. Customer Name: Halle Properties						**4. Customer No.:**			
5. Project Type: (Please circle/check one)	New		Modification			Extension		Exception	
6. Plan Type: (Please circle/check one)	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Residential		Non-residential				**8. Site (acres):**		1.346
9. Application Fee:	$4,000.00		**10. Permanent BMP(s):**					Sedimentation/Filtration Pond	
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**					N/A	
13. County:	WILLIAMSON		**14. Watershed:**					North Fork San Gabriel	

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.)	__	__	__
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 XLeander __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. Kevin Polasek, P.E. (agent)
Print Name of Customer/Authorized Agent Kevin Polasek, P.E. 02/01/24
Signature of Customer/Authorized Agent Date

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

General Information Form

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Kevin B. Polasek

Date: 02/01/24

Signature of Customer/Agent: Kevin Polasek, P.E.

Project Information

1. Regulated Entity Name: Bar W Ranch Commercial
2. County: Williamson
3. Stream Basin: Middle Fork San Gabriel
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): Halle Properties, LLC

8. Contact Person: Matthew Johnson
   Entity: Halle Properties d/b/a Discount Tire
   Mailing Address: 20225 N. Scottsdale Rd
   City, State: Scottsdale, AZ Zip: 85255
   Telephone: 480-606-5758 FAX: _____
   Email Address: matthew.johnson@discounttire.com

9. Agent/Representative (If any): Contact Person: Kevin Polasek, P.E.
   Entity: Bowman Consulting
   Mailing Address: 1445 N. Loop West; Ste. 450 Zip: 77008
   City, State: Houston, TX FAX: _____
   Telephone: 713-993-0333
   Email Address: kpolasek@bowman.com

10. Project Location: 19410 Ronald Raegan Blvd

■ 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 .

10. ☐ The project site is not located within any city's limits or ETJ.

■ 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. SE corner of Ronald Reagan Blvd and SH 29

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: completed 10/2/23

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:

- [x] 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. [x] 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:

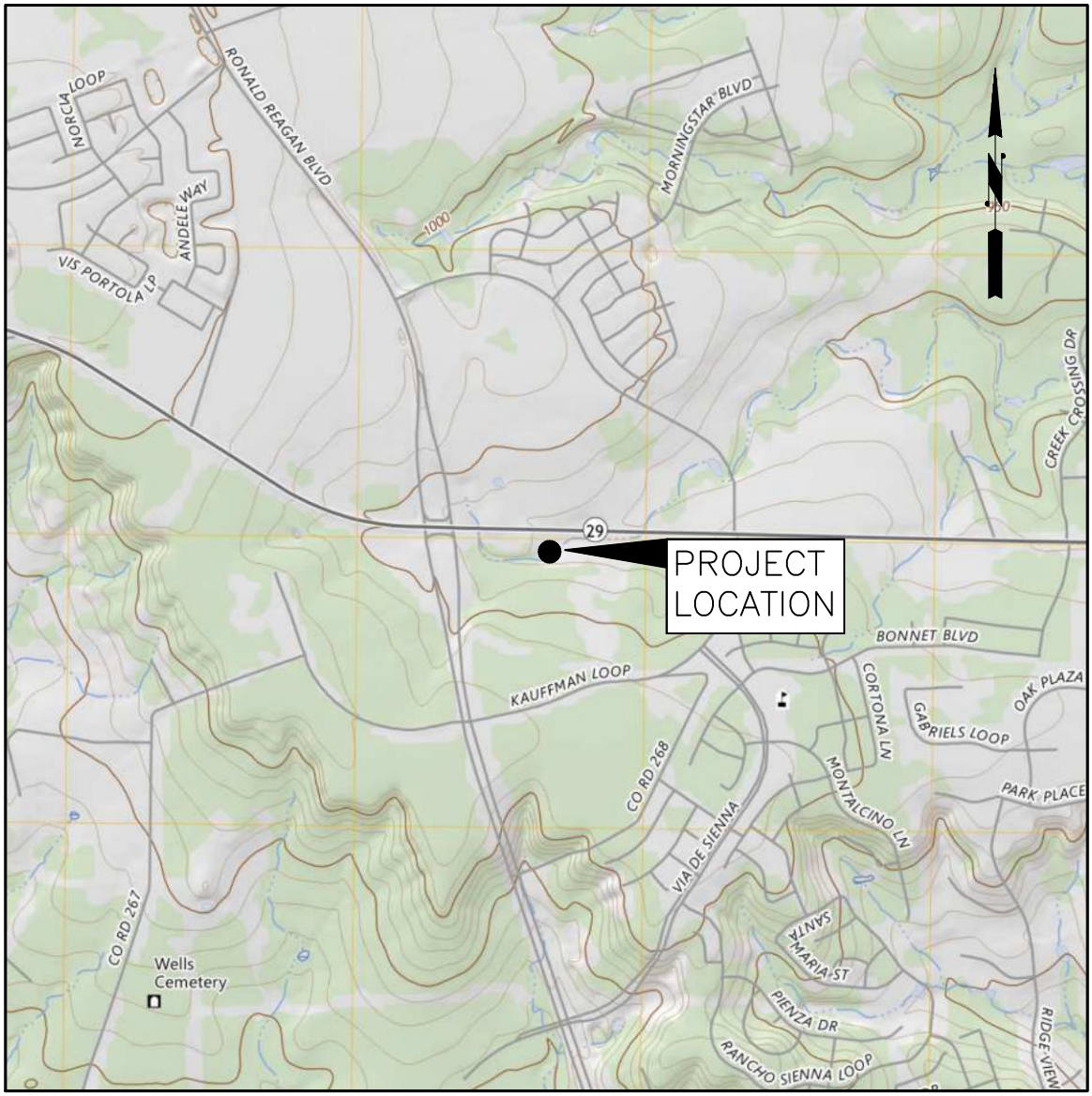
- [ ] TCEQ cashier
- [x] Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
- [ ] San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

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

ATTACHMENT A

Road Map



LEANDER, TEXAS

VICINITY MAP

SCALE 1" = 2000'

VICINITY MAP
BAR W RANCH COMMERCIAL
LOT 8

Bowman
1445 N. LOOP WEST – SUITE 450
713-993-0333 HOUSTON, TEXAS 77008
TBPE Registration No.: F-14309

JOB No. 250430-003	12/XX/23	ATTACHMENT A

S:\250430- Discount Tire\250430-01-003 Leander\Reports\TCEQ\Developer WPAP\DT WPAP Modification App\Road Map.dwg Dec 01, 2023-12:38pm Terra Associates Inc., dbuckson

ATTACHMENT B

USGS/Edwards Aquifer Recharge Zone Map

1445 North Loop West, Suite 450, Houston, TX 77008
P: 713.993.0333
bowman.com

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map
OnDemand Topo

LEANDER NE QUADRANGLE
TEXAS - WILLIAMSON COUNTY
7.5-MINUTE TOPO

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R

Data is provided by The National Map (TNM), is the best available at the time of map generation, and includes data content from supporting themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover, and Orthoimagery. Refer to associated Federal Geographic Data Committee (FGDC) Metadata for additional source data information.

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands. Temporal changes may have occurred since these data were collected and some data may no longer represent actual surface conditions.

Learn About The National Map: https://nationalmap.gov

MN
GN
3°31′
63 MILS
0°36′
11 MILS
UTM GRID AND 2021 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
PV
00
PU
Grid Zone Designation
14R

SCALE 1:24 000

KILOMETERS: 1 0.5 0 1 2
METERS: 1000 500 0 1000 2000
MILES: 1 0.5 0 1
FEET: 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR SMOOTHNESS = Medium

USER DEFINED CONTENT

TEXAS

QUADRANGLE LOCATION

Mahomet	Florence	Cobbs Cavern
Liberty Hill	Leander NE	Georgetown
Nameless	Leander	Round Rock

ADJOINING QUADRANGLES

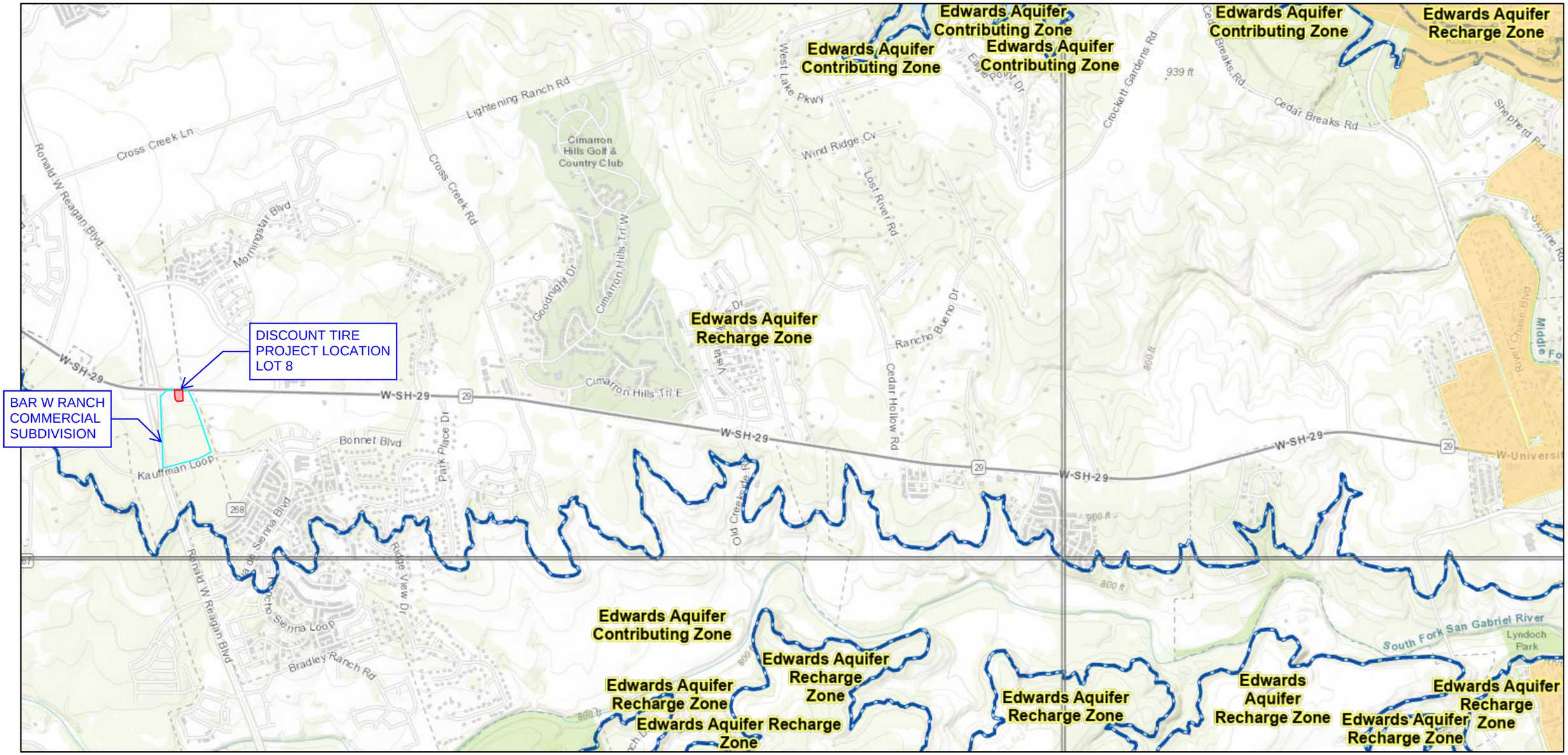
ROAD CLASSIFICATION

Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD

Interstate Route
US Route
State Route

LEANDER NE, TX
2023

Edwards Aquifer Viewer Custom Print



12/15/2023, 8:31:39 AM

1:36,112

0 0.35 0.7 1.4 mi

0 0.5 1 2 km

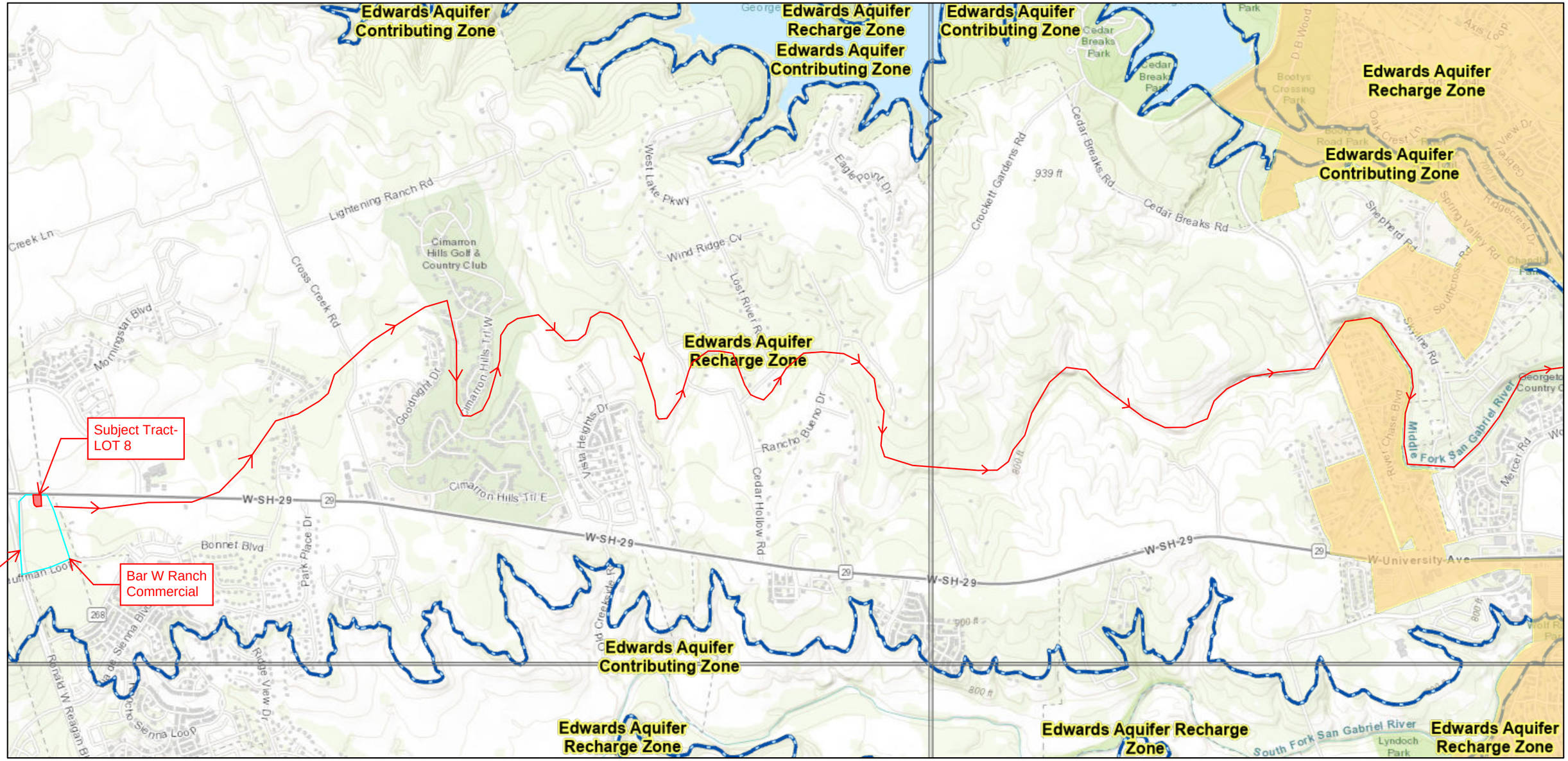
- Edwards Aquifer Label
- Edwards Aquifer Boundary
- Edwards Aquifer Boundary central line
- City/Place
- TX Counties
- 7.5 Minute Quad Grid
- TCEQ_EDWARDS_OFFICIAL_MAPS

County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, TCEQ

Web AppBuilder for ArcGIS

TCEQ | County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA |

Edwards Aquifer Map - Lot 8



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0 0.35 0.7 1.4 mi

0 0.5 1 2 km

Edwards Aquifer Label

Edwards Aquifer Boundary

Edwards Aquifer Boundary central line

City/Place

TX Counties

7.5 Minute Quad Grid

TCEQ_EDWARDS_OFFICIAL_MAPS

County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, TCEQ

Web AppBuilder for ArcGIS

TCEQ | County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA |

ATTACHMENT C

Project Narrative

On behalf of Halle Properties, LLC, d/b/a Discount Tire, Bowman Consulting is submitting development plans for the Bar W Ranch Commercial – Lot 8 located at the southeastern corner of Ronald Reagan Blvd. and State Highway 29 in the City of Leander city limits, Williamson County, Texas. The site is approximately 1.347 Acres and has been delivered as a pad ready site and is currently undeveloped.

The proposed development consists of approximately One (1) building which included 7,020 SF of retail space (includes garage repair space) with an attached air check/sales lane canopy. Also included are the necessary parking, drive aisles, private water, sewer, and drainage facilities. All PVT utilities will connect to existing infrastructure constructed by the overall developer. The site lies within the Edwards Aquifer Recharge Zone, therefore, water quality is required for the site. The site will connect to an existing and approved Sedimentation filtration pond.

According to FEMA Panel No. 48491C0275E, dated September 26, 2008, no portion of the site lies within the 100-year floodplain.

Wastewater service for this area is provided by the City of Leander. Wastewater from this site will be conveyed to the on-site lift station within the Bar W Ranch Commercial subdivision. The Organized Sewage Collection System (SCS) was approved by TCEQ on January 17, 2020 and approval letter is attached.

Horizon™
Environmental Services, Inc.

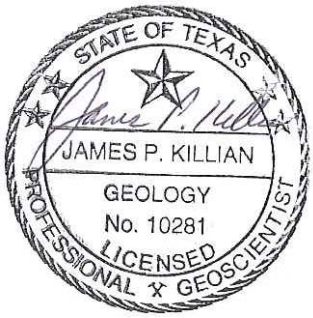
GEOLOGIC ASSESSMENT
RR 29 SHOPPING CENTER
RONALD REAGAN BOULEVARD AND STATE HIGHWAY 29 WEST
LEANDER, WILLIAMSON COUNTY, TEXAS
HJN 190092 GA

PREPARED FOR:

RR 29 RETAIL, LTD
AUSTIN, TEXAS

PREPARED BY:

HORIZON ENVIRONMENTAL SERVICES, INC.
TBPG FIRM REGISTRATION NO. 50488



JUNE 2019

190092 GA

CORPORATE HEADQUARTERS
1507 South IH 35 ★ Austin, Texas 78741 ★ 512.328.2430 ★ Fax 512.328.1804 ★ www.horizon-esi.com
An LJA Company

Horizon
Environmental Services, Inc.

TABLE OF CONTENTS

I. GEOLOGIC ASSESSMENT FORM (TCEQ-0585)

II. ATTACHMENTS:

A GEOLOGIC ASSESSMENT TABLE
B STRATIGRAPHIC COLUMN
C DESCRIPTION OF SITE GEOLOGY
D SITE GEOLOGIC MAP
E SUPPORTING INFORMATION
F ADDITIONAL SITE MAPS

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

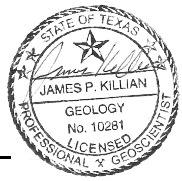
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: James Killian Telephone: 512-328-2430

Date: 10 June 2019 Fax: 512-328-1804

Representing: Horizon Environmental Services, Inc. and TBPG Firm Registration No. 50488
(Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: 49.7-acre RR 29 Shopping Center, Ronald Reagan Blvd. and SH 29 West, Leander, Williamson County, Texas

Project Information

1. Date(s) Geologic Assessment was performed: 7 May 2019
2. Type of Project:

   ☒ WPAP ☐ AST
   ☒ SCS ☐ 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)
Eckrant cobbly clay, 1 to 8% slopes (EaD)	D	0 to 1
Fairlie clay, 1 to 2% slopes (FaB)	D	2 to 4
Georgetown clay loam, 0 to 2% slopes (GeB)	D	1 to 3
Georgetown stony clay loam, 1 to 3% slopes (GsB)	D	1 to 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" = 100'
Site Geologic Map Scale: 1" = 100'
Site Soils Map Scale (if more than 1 soil type): 1" = 300'

ATTACHMENT A

GEOLOGIC ASSESSMENT TABLE

GEOLOGIC ASSESSMENT TABLE			PROJECT NAME: RR29 Shopping Center, Ronald Reagan Blvd/SH29, Leander, Williamson Co., TX																	
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	
M-1	30.63545	-97.82638	MB	30	Ked	80	60	3	--	0	--	--	C,F,O	5	35	X			X	Hillside

* DATUM:_____

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	Man-made 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	Loc T
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
JAMES P. KILLIAN
GEOLOGY
No. 10281
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 : 10 June 2019

Sheet 1 of 1

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

ATTACHMENT B

STRATIGRAPHIC COLUMN

Geologic Unit	Hydrologic Unit	Approx. Thickness at Project Site (ft)	Elevation (ft msl)	Depth (ft)
			1020	0
Edwards Formation (Ked)	Edwards Aquifer	70	950	70
Comanche Peak Formation (Kc)		50	900	120
Walnut Formation (Kwa)	Confining Unit	175	725	295

Note: Unit elevation and thickness given with respect to a ground surface elevation of 1020 feet on the southwest boundary of the subject site.

Horizon Environmental Services, Inc.

Date:	05/07/2019
Drawn:	TED
HJN NO:	190092.001GA

Attachment B

Stratigraphic Column
RR 29 Shopping Center
Ronald Reagan and State HWY 29 West
Leander, Williamson County, Texas

STATE OF TEXAS
JAMES P. KILLIAN
GEOLOGY
No. 10281
LICENSED
PROFESSIONAL GEOSCIENTIST

190092 - RR 29 Shopping Center\Graphics\190092-001GA_05A_Strat.mxd

Horizon
Environmental Services, Inc.

ATTACHMENT C

DESCRIPTION OF SITE GEOLOGY

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.

Geologic information for the subject site obtained via literature review is provided in Attachment E, Supporting Information.

A geologic assessment of the approximately 49.7-acre subject site was conducted pursuant to Texas rules for regulated activities on the Edwards Aquifer Recharge Zone (EARZ) (30 TAC 213). The subject site consists primarily of undeveloped rangeland and woodlands located at Ronald Reagan Boulevard and State Highway (SH) 29 West, Leander, Williamson County, Texas (Attachment F, Figure 1). Assessment findings were used to develop recommendations for site construction measures intended to be protective of water resources at the subject site and adjacent areas.

The entire subject site is located within the Edwards Aquifer Recharge Zone (EARZ), as defined by the Texas Commission on Environmental Quality (TCEQ). The EARZ occurs where surface water enters the subsurface through exposed limestone bedrock containing faults, fractures, sinkholes, and caves.

A review of existing literature shows the subject site is predominantly underlain by undifferentiated Edwards Limestone formation (Ked) (UT-BEG, 1995), with an estimated maximum thickness of about 70 feet. In general, the rock strata beneath the site dip to the southeast at about 10 to 30 feet per mile.

No natural geologic features and 1 man-made feature (M-1) were identified at the subject site. Further information pertaining to the man-made feature is presented in Attachments D, E, and F. Photographs of the man-made feature are presented in Attachment G.

Horizon
Environmental Services, Inc.

ATTACHMENT D

SITE GEOLOGIC MAP

Horizon
Environmental Services, Inc.

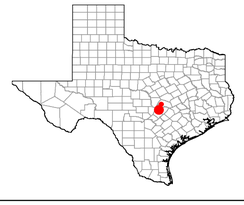
Date:	06/11/2019
Drawn:	TED
HJN NO:	190092.001 GA
Source:	UT-BEG, 1995: USDA, 2016

Legend

- Man-made Feature
- 10-Foot Contours
- Edwards Limestone (Ked)
- Subject Site

Attachment D

Site Geologic Map
RR 29 Shopping Center
Ronald Reagan and State HWY 29 West
Leander, Williamson County, Texas



STATE OF TEXAS
JAMES P. KILLIAN
GEOLOGY
No. 10281
LICENSED
PROFESSIONAL GEOSCIENTIST

0 50 100
Feet
Scale: 1" = 100'

190092- RR 29 Shopping Center\Graphics\190092-001ERI_06D_SGM.mxd

Horizon
Environmental Services, Inc.

ATTACHMENT E

SUPPORTING INFORMATION

1.0 INTRODUCTION AND METHODOLOGY

This report and any proposed abatement measures are intended to fulfill Texas Commission on Environmental Quality (TCEQ) reporting requirements (TCEQ, 2005). This geologic assessment includes a review of the subject site for potential aquifer recharge and documentation of general geologic characteristics for the subject site. Horizon Environmental Services, Inc. (Horizon) conducted the necessary field and literature studies according to TCEQ *Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones* (TCEQ, 2004).

Horizon walked transects spaced 50 feet apart, mapped the locations of features using a sub-foot accurate Trimble Geo HX handheld GPS, and posted processed data utilizing GPS Pathfinder Office software, topographic maps, and aerial photographs. Horizon also searched the area around any potential recharge features encountered to look for additional features. When necessary, Horizon removed loose rocks and soil (by hand) to preliminarily assess each feature's subsurface extent while walking transects. However, labor-intensive excavation was not conducted during this assessment. Features that did not meet the TCEQ definition of a potential recharge feature (per TCEQ, 2004), such as surface weathering, karren, or animal burrows, were evaluated in the field and omitted from this report.

The results of this survey do not preclude the possibility of encountering subsurface voids or abandoned test or water wells during the clearing or construction phases of the proposed project. If a subsurface void is encountered during any phase of the project, work should be halted until the TCEQ (or appropriate agency) is contacted and a geologist can investigate the feature.

2.0 ENVIRONMENTAL SETTING

2.1 LOCATION AND GENERAL DESCRIPTION

The subject site consists of approximately 49.7 acres of rangeland and woodlands located immediately southeast of the intersection of Ronald Reagan Boulevard and State Highway (SH) 29 West in Leander, Williamson County, Texas (Appendix F, Figure 1).

2.2 LAND USE

The subject site is currently vacant and has previously been used for raising beef cattle. No habitable structures were observed on the site. Surrounding lands have seen recent rapid residential and commercial development. In the past, these areas were used for rural residences, farming, and raising livestock.

2.3 TOPOGRAPHY AND SURFACE WATER

The subject site is situated on gently sloping terrain within the San Gabriel River watershed. Drainage on the site occurs primarily by overland sheet flow in multiple directions based on location near 2 unnamed tributaries located near the northern and west-central portions

of the site (Appendix F, Figures 2 and 3). The unnamed tributaries flow northeast/east and eventually into the Middle Fork of the San Gabriel River. Surface elevations on the subject site vary from a minimum of approximately 975 feet above mean sea level (amsl) along the eastern property boundary to a maximum of approximately 1020 feet amsl near the southwestern property boundary (USGS, 1976).

2.4 EDWARDS AQUIFER ZONE

The subject site is found within the Edwards Aquifer Recharge Zone (TCEQ, 2019) (Attachment F, Figure 2).

2.5 SURFACE SOILS

Four soil units are mapped within the subject site (NRCS, 2019) (Appendix F, Figure 4). Generally, the soil series are similar in their physical, chemical, and engineering properties, with the principal exception being rock fragment content and thickness. The soil units are described in further detail below.

Eckrant cobbly clay, 1 to 8% slopes (EaD). This soil has a surface layer about 13 inches thick. The upper part is dark grayish-brown, cobbly clay and the lower part is dark brown, cobbly clay. The underlying material is coarsely fractured, indurated limestone. This soil is calcareous and moderately alkaline. The surface has about 50% cover of limestone fragments that are mostly 4 to 8 inches across. This soil is well-drained, permeability is moderately slow, and runoff is rapid. The available water capacity is very low.

Fairlie clay, 1 to 2% slopes (FaB): This gently sloping soil is found along broad flats and on the edges of drainageways on uplands. Typically, this soil has a dark gray clay upper layer about 21 inches thick. The layer below that, to 46 inches, is clay that is gray in the upper part and dark grayish-brown in the lower part. The underlying material is weakly cemented limestone interbedded with limy material. This soil is calcareous and moderately alkaline throughout. This soil is moderately well-drained. When dry, this soil cracks extensively, and water enters it rapidly. When this soil is wet and the cracks are closed, water enters the soil very slowly. Runoff is medium. The available water capacity is high. Erosion is a slight hazard.

Georgetown clay loam, 0 to 2% slopes (GeB): This nearly level to gently sloping soil is found on uplands. Most areas are irregular in shape and range from 10 to 50 acres. Typically, the surface layer is slightly acidic, brown clay loam about 7 inches thick. The subsoil extends to about 35 inches; it is neutral to slightly acidic reddish-brown clay in the upper part, and cobbly clay in the lower part. The underlying material is indurated limestone that has limy earth imbedded in the crevices. This soil is well-drained. Permeability is slow. Surface runoff is medium. The available water capacity is low.

Georgetown stony clay loam, 1 to 3% slopes (GsB): This gently sloping soil is mostly found on the higher parts of uplands. Typically, this soil has a slightly acidic, brown stony clay

loam surface layer about 7 inches thick, and few to common stones on or near the surface. The subsoil, which extends down to a depth of about 35 inches, is neutral reddish-brown clay in the upper part and slightly acidic reddish-brown cobbly clay in the lower part. The underlying material is indurated, fractured limestone that has clay loam in crevices and fractures. This soil is well-drained. Permeability is slow, and surface runoff is medium. The available water capacity is low. Reaction is neutral to slightly acidic. The erosion hazard ranges to slight.

2.6 WATER WELLS

A review of TCEQ and Texas Water Development Board (TWDB) records revealed no water wells on the subject site or within 0.5 miles of the subject site (TCEQ, 2005; TWDB, 2019). Horizon did not observe wells on the subject site during field assessment.

The results of this assessment do not preclude the existence of undocumented/abandoned wells on the site. If a water well or casing is encountered during construction, work should be halted near the feature until the TCEQ is contacted.

2.7 GEOLOGY

Literature Review

A review of existing literature shows the subject site is underlain by the undifferentiated Edwards Limestone Formation (Ked) (UT-BEG, 1995), with an estimated maximum thickness of approximately 70 feet at higher elevations located near the southwestern property boundary. In general, the rock strata beneath the site dip to the southeast at 10 to 30 feet per mile.

The subject site is located several miles west of the Balcones Fault Zone, and available geologic reports indicate the immediate area has not been affected by geologically inactive, normal faulting. A normal fault is an inclined fault in which the hanging wall appears to have slipped downward relative to the footwall. The nearest mapped fault is approximately 2.5 miles to the west of the site, and strikes N30°E (UT-BEG, 1995). The figure in Attachment B depicts the stratigraphic relationship and approximate thicknesses of the uppermost geologic unit found at the subject site.

Field Assessment

A field survey of the subject site was conducted by a licensed Horizon geologist on 7 May 2019. No geologic features were identified at the subject site. Horizon identified 1 man-made feature (dry stock pond, M-1) at the subject site that meets the TCEQ definition of a potential recharge feature. Horizon observed no springs or streams at the subject site.

The Geologic Assessment Table (Attachment A) summarizes this evaluation and assigns the feature's sensitivity a total point value. Features with a point value of 40 or higher are

deemed to be sensitive groundwater recharge features and should be protected during site development pursuant to TCEQ rules for protection of the Edwards Aquifer (30 TAC 213).

3.0 CONCLUSIONS AND RECOMMENDATIONS

One man-made feature (M-1) on the subject site has been evaluated as non-sensitive for groundwater recharge capability and would therefore not require protection or mitigation pursuant to TCEQ rules for protection of the Edwards Aquifer (30 TAC 213).

The site appears generally well-suited to development prospectus. It should be noted that soil and drainage erosion would increase with ground disturbance. Native grasses and the cobbly content of the soil aid to prevent erosion. Soil and sedimentation fencing should be placed in all appropriate areas prior to any site construction activities.

Because the project site is located over the Edwards Aquifer Recharge Zone, it is possible that subsurface voids underlie the site. The nature of the sub-grade is fault-influenced, which can result in variable-sized voids in materials that may otherwise not be noted as void- or cave-forming. If any subsurface voids are encountered during the proposed development, construction should halt immediately so that a geologist may assess potential for the void(s) to provide meaningful recharge to the Edwards Aquifer.

4.0 REFERENCES

(COA) City of Austin. *GIS Data Sets*, Year 2003 10-foot contours of the City of Austin and ETJ only, <ftp://ftp.ci.austin.tx.us/GIS-Data/Regional/coa_gis.html>. Updated by City of Austin 2012.

(NRCS) Natural Resources Conservation Service (formerly the Soil Conservation Service) US Department of Agriculture, Engineering Division. Web Soil Survey, <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed 16 May 2019.

(OSM) OpenStreetMap contributors. Open Street Map, <http://www.openstreetmap .org>. Available under the Open Database License (www.opendatacommons.org/ licenses/odbl). Accessed 15 May 2019.

(TCEQ) Texas Commission on Environmental Quality. *Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones*. Revised October 2004.

_____. RG-348, *Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices.* Revised July 2005.

_____. Edwards Aquifer Protection Program. Edwards Aquifer Viewer, <https://www.tceq.texas.gov/gis/edwards-viewer.html>. Accessed 15 May 2019.

(TWDB) Texas Water Development Board. Water Information Integration and Dissemination System. TWDB Groundwater Database, <http://www2.twdb.texas.gov/apps/ waterdatainteractive/groundwaterdataviewer>. Accessed 15 May 2019.

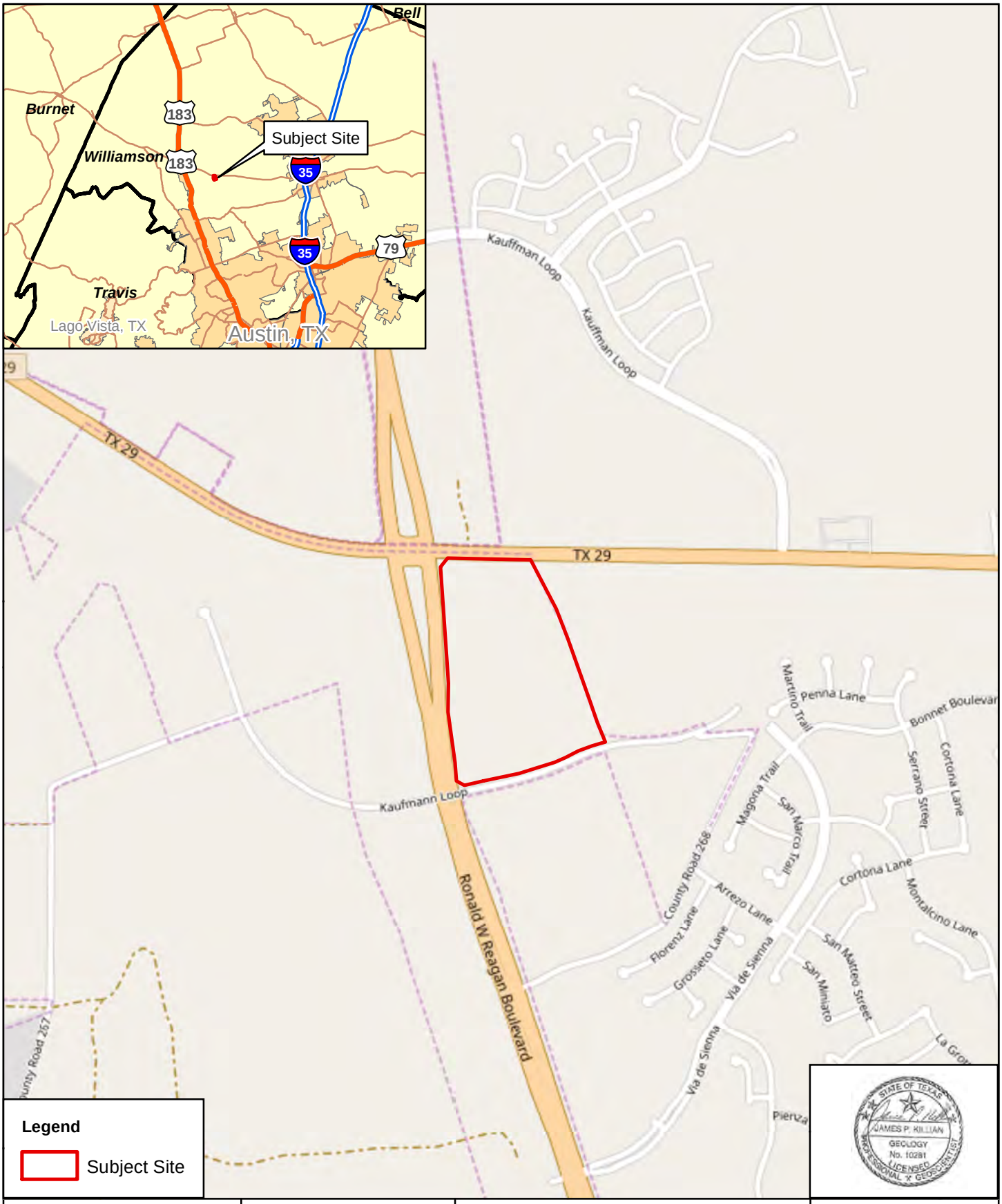
(USDA) US Department of Agriculture. National Agriculture Imagery Program, Farm Service Agency, Aerial Photography Field Office. Williamson County, Texas. 2016.

(USGS) US Geological Survey. 7.5-minute series topographic maps, Leander NE, Texas, quadrangle. 1976.

(UT-BEG) University of Texas Bureau of Economic Geology, C.V. Proctor, Jr., T.E. Brown, J.H. McGowen, N.B. Waechter, and V.E. Barnes. *Geologic Atlas of Texas*, Austin Sheet, Francis Luther Whitney Memorial Edition. 1974; reprinted 1995.

ATTACHMENT F

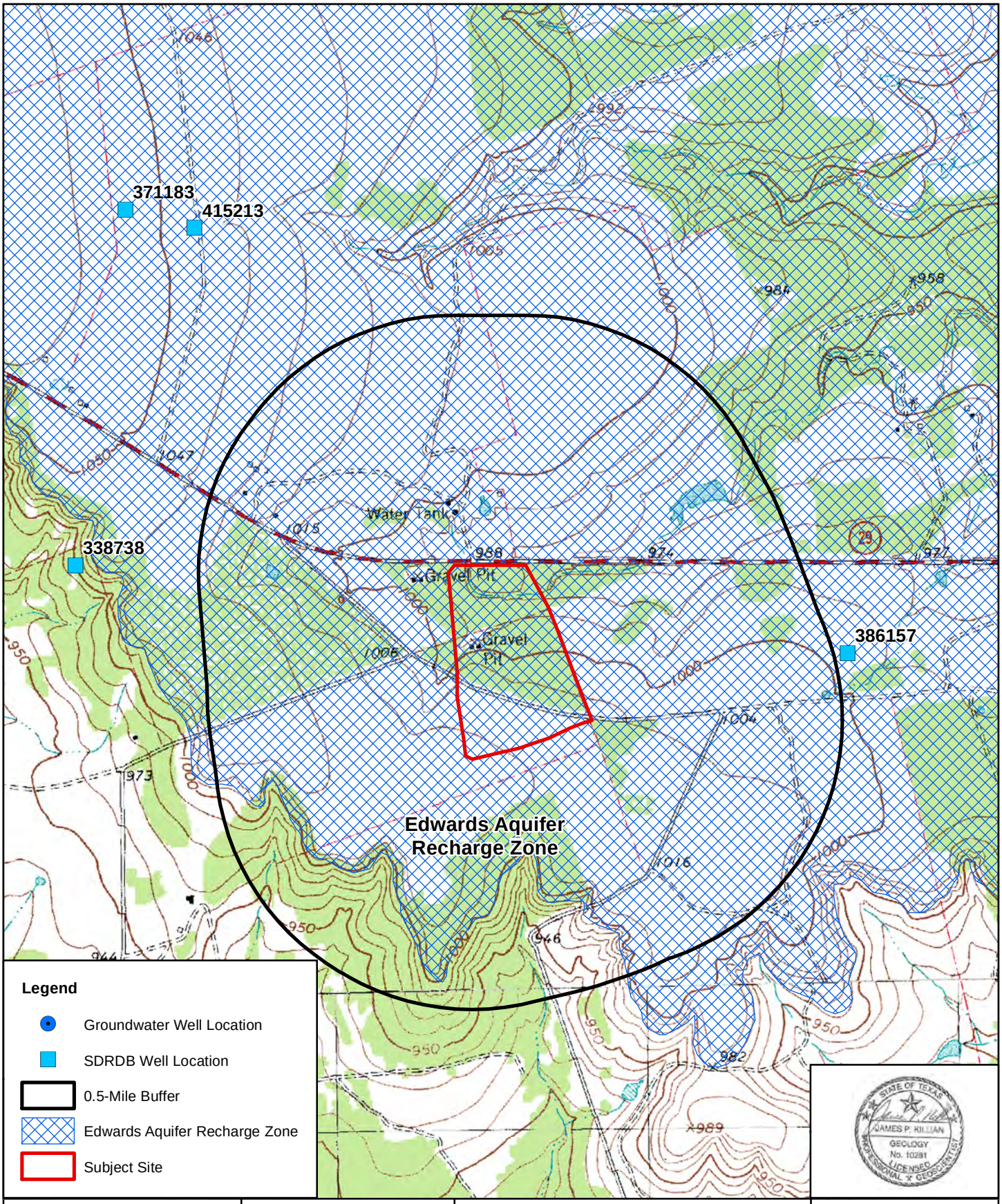
ADDITIONAL SITE MAPS



Horizon Environmental Services, Inc.	Date: 05/07/2019	**Attachment F, Figure 1**
	Drawn: TED	Vicinity Map
	HJN NO: 190092.001GA	RR 29 Shopping Center
	Source: OSM, 2019	Ronald Reagan and State HWY 29 West
		Leander, Williamson County, Texas

0 600 1,200
Feet

190092 - RR 29 Shopping Center\Graphics\190092-001GA_01A_Vicinity



Horizon Environmental Services, Inc.

Date:	05/07/2019
Drawn:	TED
HJN NO:	190092.001GA
Source:	TCEQ, 2019; TWDB, 2019; USGS, 1976

Attachment F, Figure 2

Topography and Hydrogeology Map
RR 29 Shopping Center
Ronald Reagan and State HWY 29 West
Leander, Williamson County, Texas

0 700 1,400
Feet

190092 - RR 29 Shopping Center\Graphics\190092-001GA_02A_Topo_Hydro

STATE OF TEXAS
JAMES P. KILLIAN
GEOLOGY
No. 10281
LICENSED
PROFESSIONAL GEOSCIENTIST

Horizon Environmental Services, Inc.

Date:	05/07/2019
Drawn:	TED
HJN NO:	190092.001GA
Source:	COA, 2012; USDA, 2016

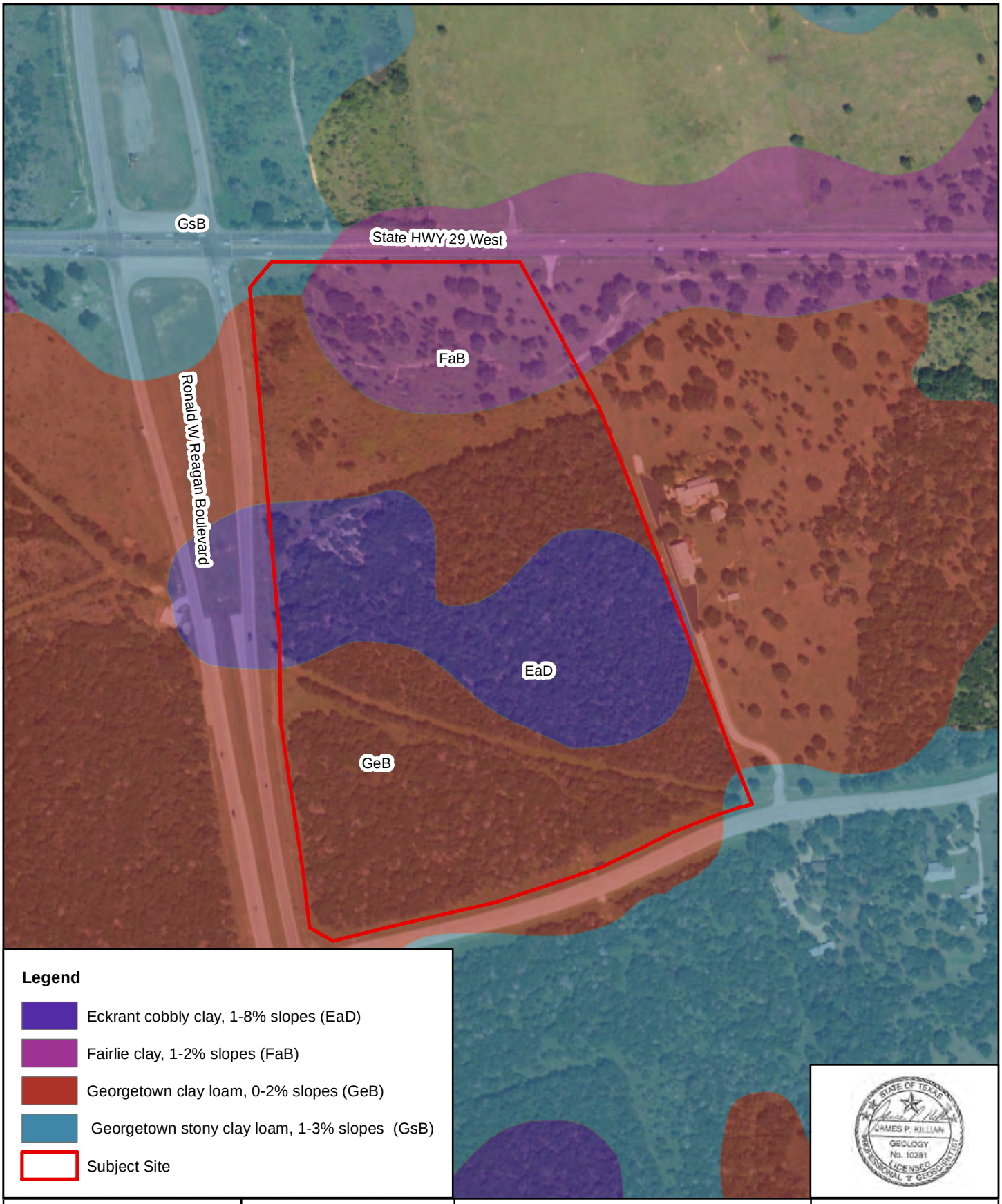
Attachment F, Figure 3

Site Topography Map
RR 29 Shopping Center
Ronald Reagan and State HWY 29 West
Leander, Williamson County, Texas

N

0 150 300
Feet

190092 - RR 29 Shopping Center\Graphics\190092-001GA_03A_Topo



Legend

- Eckrant cobbly clay, 1-8% slopes (EaD)
- Fairlie clay, 1-2% slopes (FaB)
- Georgetown clay loam, 0-2% slopes (GeB)
- Georgetown stony clay loam, 1-3% slopes (GsB)
- Subject Site

STATE OF TEXAS
JAMES P. KILLIAN
GEOLOGY
No. 10281
LICENSED
PROFESSIONAL GEOSCIENTIST

Horizon Environmental Services, Inc.

Date:	05/07/2019
Drawn:	TED
HJN NO:	190092.001GA
Source:	USDA, 2016; NRCS, 2019

Attachment F, Figure 4

Site Soil Map
RR 29 Shopping Center
Ronald Reagan and State HWY 29 West
Leander, Williamson County, Texas

N

0 200 400
Feet

190092 - RR 29 Shopping Center\Graphics\190092-001GA_04A_Soil

ATTACHMENT G

PHOTOGRAPHS

Horizon
Environmental Services, Inc.

PHOTO 1
View of man-made feature M-1 (dry stock pond), facing east

Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), Effective June 1, 1999

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

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

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This request for a **Modification of a Previously Approved Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Kevin B. Polasek

Date: 02/01/24

Signature of Customer/Agent:

Kevin Polasek, P.E.

Project Information

1. Current Regulated Entity Name: Bar W Ranch Commercial
   Original Regulated Entity Name: Bar W Ranch Commercial
   Regulated Entity Number(s) (RN): 110866175
   Edwards Aquifer Protection Program ID Number(s): 11001744; 11001745
   ☐ The applicant has not changed and the Customer Number (CN) is: _____
   ☒ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. ☒ **Attachment A: Original Approval Letter and Approved Modification Letters**. A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):
   - ☐ Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
   - ☐ Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
   - ☒ Development of land previously identified as undeveloped in the original water pollution abatement plan;
   - ☐ Physical modification of the approved organized sewage collection system;
   - ☐ Physical modification of the approved underground storage tank system;
   - ☐ Physical modification of the approved aboveground storage tank system.

4. ☒ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	49.7 Acres	49.70 Acres
Type of Development	COMMERCIAL	COMMERCIAL
Number of Residential Lots	0	0
Impervious Cover (acres)	24.93	25.81
Impervious Cover (%	50.1%	51.9%
Permanent BMPs	2	2
Other		

SCS Modification Summary	***Approved Project***	***Proposed Modification***
Linear Feet	N/A	N/A
Pipe Diameter		
Other		

AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs	_____	_____
Volume of ASTs	_____	_____
Other	_____	_____

UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs	_____	_____
Volume of USTs	_____	_____
Other	_____	_____

5. ☒ **Attachment B: Narrative of Proposed Modification**. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved, including any previous modifications, and how this proposed modification will change the approved plan.

6. ☒ **Attachment C: Current Site Plan of the Approved Project**. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
   - ☐ The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
   - ☒ The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
   - ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. ☐ The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage.
   ☒ Acreage has not been added to or removed from the approved plan.

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

ATTACHMENT A

Original Approval Letters

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Toby Baker, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 17, 2020

Mr. Milo Burdette
RR 29 Retail Ltd.
801 Congress Avenue, Suite 300
Austin, Texas 78701

Re: Edwards Aquifer, Williamson County
Bar W Ranch Commercial; Southeast corner of Ronald Reagan Boulevard and SH 29, Leander, Texas
Request for Approval of a Water Pollution Abatement Plan (WPAP)
30 Texas Administrative Code (TAC) Chapter 213
Edwards Aquifer Protection Program ID No. 11001744; RN110866175

Dear Mr. Burdette:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP for the above-referenced project submitted to the Austin Regional Office by CEC/KBGE on behalf of RR 29 Retail Ltd. on October 1, 2019. Final review of the application was completed after additional materials were received on December 27, 2019 and January 14, 2020. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas licensed professional engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas licensed professional engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this WPAP. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10% of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed construction will add 178,050 SF of retail space containing multiple buildings with parking lot and sidewalks, utility infrastructure, and access to both Ronald Reagan Boulevard and SH 29 via turn lane. The project drains to the Middle Fork San Gabriel River watershed. The sewage collection system and any underground storage tanks will be authorized separately.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent pollution of stormwater runoff originating on-site or up-gradient of the site and potentially flowing across and off the site after construction, one sand filter system (SFS) and one wet basin (WB) will be constructed, using the TCEQ technical guidance document Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 33943 pounds of TSS generated from the 39.0 acres of impervious cover within the 49.7-acre site. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project. Treatment design calculations were sealed by Jennifer Garcia, P.E., on December 23, 2019 to demonstrate the total treatment load removal to exceed the required additional total suspended solids (TSS) loading.

GEOLOGY

According to the Geologic Assessment, the site contains the Edwards Limestone Group up to 70 feet thick. The site has not been previously disturbed by construction and contains woodlands. No evidence of sensitive geologic features or water wells exist. The site visit of November 15, 2019 confirms this general description.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the Austin Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.

3. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.

4. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.

5. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.

6. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

7. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

<u>During Construction</u>:

8. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.

9. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the Austin Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas licensed professional engineer.

10. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

11. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.

12. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

After Completion of Construction:

13. 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 Austin Regional Office within 30 days of site completion.

14. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (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. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through Austin Regional Office within 30 days of the transfer.

15. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director.

16. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Mr. Kevin Lee Smith, P.E. of the Edwards Aquifer Protection Program of the Austin Regional Office at 512-339-2929.

Sincerely,

Robert Sadlier, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

RCS/kls

Enclosures: Deed Recordation Affidavit, Form TCEQ-0625
Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

Deed Recordation Affidavit
Edwards Aquifer Protection Plan

THE STATE OF TEXAS §

County of _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ who, being duly sworn by me, deposes and says:

(1) That my name is _____and that I own the real property described below.

(2) That said real property is subject to an EDWARDS AQUIFER PROTECTION PLAN which was required under the 30 Texas Administrative Code (TAC) Chapter 213.

(3) That the EDWARDS AQUIFER PROTECTION PLAN for said real property was approved by the Texas Commission on Environmental Quality (TCEQ) on _____.

A copy of the letter of approval from the TCEQ is attached to this affidavit as Exhibit A and is incorporated herein by reference.

(4) The said real property is located in _____ County, Texas, and the legal description of the property is as follows:

_____
LANDOWNER-AFFIANT

SWORN AND SUBSCRIBED TO before me, on this __ day of _____, ____.

_____
NOTARY PUBLIC

THE STATE OF _____ §

County of _____ §

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

GIVEN under my hand and seal of office on this __ day of _____, _____.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: _____

Change in Responsibility for Maintenance on Permanent Best Management Practices and Measures

The applicant is no longer responsible for maintaining the permanent best management practice (BMP) and other measures. The project information and the new entity responsible for maintenance is listed below.

Customer: _____

Regulated Entity Name: _____

Site Address: _____

City, Texas, Zip: _____

County: _____

Approval Letter Date: _____

BMPs for the project: _____

New Responsible Party: _____

Name of contact: _____

Mailing Address: _____

City, State: _____ Zip: _____

Telephone: _____ FAX: _____

_____ _____

Signature of New Responsible Party Date

I acknowledge and understand that I am assuming full responsibility for maintaining all permanent best management practices and measures approved by the TCEQ for the site, until another entity assumes such obligations in writing or ownership is transferred.

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Toby Baker, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 17, 2020

Mr. Milo Burdette
RR 29 Retail Ltd.
801 Congress Avenue, Suite 300
Austin, Texas 78701

Re: Edwards Aquifer, Williamson County
Bar W Ranch Commercial; Southeast corner of Ronald Reagan Boulevard and SH 29, Leander, Texas
Request for Approval of an Organized Sewage Collection System (SCS)
30 Texas Administrative Code (TAC) Chapter 213 & 217
Edwards Aquifer Protection Program ID No. 11001745, RN110866175

Dear Mr. Burdette:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the SCS Application for the above-referenced project submitted to the Austin Regional Office by CEC/KBGE on behalf of RR 29 Retail Ltd. on October 1, 2019. Final review of the application was completed after additional materials were received on December 27, 2019 and January 14, 2020. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas licensed professional engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas licensed professional engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed sewage collection system consists of 3675 linear feet of 8-inch diameter SDR 26 D2241 PVC pipe, and pipe for lateral stub outs, manholes, and appropriate appurtenances. The pressurized lines consist of approximately 2170 linear feet of 4-inch diameter SDR 21 D2241 PVC pipe for force main, FM #1.

The proposed LS #1 will consist of a 10-foot diameter wet well with an approximate depth of 20 feet, with two submersible wastewater pumps, and will be provided with an emergency power generator. Each pump will have a pumping capacity of 129 gallons per minute (gpm) at a total dynamic head (TDH) of 93 feet. Additional equipment will include a control panel, an audio-

visual alarm, auto-dial telemetry, hoisting equipment, level pump controllers, pump supports and discharge piping with valves, and a security fence with controlled access.

The proposed sewage collection system will provide disposal service for the Bar W Ranch Commercial development (EAPP ID 11001744) and ultimately connects to an existing manhole at a 12-inch line and onto the Liberty Hill WWTP. The project is located within the City of Leander and will conform to all applicable codes, ordinances, and requirements of the City of Leander.

GEOLOGY

According to the Geologic Assessment, the site contains the Edwards Limestone Group up to 70 feet thick. The site has not been previously disturbed by construction and contains woodlands. No evidence of sensitive geologic features or water wells exist. The site visit of November 15, 2019 confirms this general description.

SPECIAL CONDITIONS

I. It is emphasized that where wastewater lines must bridge faults, caverns, sinkholes, or solution features the lines shall be constructed in a manner that will maintain the structural integrity of the pipe. When such sensitive features area encountered, 30 TAC §213.5(f)(2) requires that all regulated activities near the feature must be immediately suspended and the owner/developer shall immediately notify the Austin Regional Office. Additionally, when such geologic features are encountered which are bridged by construction, the location and extend of those features must be assessed by a geologist and must be reported to the Austin Regional Office in writing within two working days of discovery as required by 30 TAC §213.5(c)(3)(K). Construction may not resume in the area of the feature until the executive director has reviewed and approved the methods proposed to protect the aquifer from any potential adverse impacts.

II. Upon completion of any lift station excavation, a geologist shall certify that the excavation has been inspected for the presence of sensitive features. Certification that the excavation has been inspected must be submitted to the Austin Regional Office.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

Prior to Commencement of Construction:

2. All contractors conducting regulated activities at the project location shall be provided a copy of this notice of approval. At least one complete copy of the approved SCS plan and this notice of approval shall be maintained at the project location until all regulated activities are completed.

3. Modification to the activities described in the referenced SCS application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.

4. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.

5. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved application, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

<u>During Construction</u>:

6. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213 and Chapter 217. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity, upon which that person or entity shall assume responsibility for all provisions and conditions of this approval.

7. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

8. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the Austin Regional Office of the discovery of the feature.

9. The following records shall be maintained by the applicant and made available to the executive director upon request: the dates trenching 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 and completed.

10. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

11. Intentional discharges of sediment laden water during construction are not allowed. If dewatering of excavated areas becomes necessary, the discharge will be filtered through appropriately selected temporary best management practices. These may include vegetative filter strips, sediment traps, rock berms, sit fence rings, etc.

12. No part of the system shall be used as a holding tank for a pump-and-haul operation.

After Completion of Construction:

13. Certification by a Texas licensed professional engineer of the testing of sewage collection systems required by 30 TAC Chapter 213 and Chapter 217 shall be submitted to the Austin Regional Office within 30 days of test completion and prior to the new sewage collection system being put into service. The certification should include the project name as it appeared on the approved application, the program ID number, and two copies of a site plan sheet(s) indicating the wastewater lines that were tested and are being certified as complying with the appropriate regulations.

    Every five years after the initial certification, the sewage collection system shall be retested. Any lines that fail the test must be repaired and retested. Certification that the system continues to meet the requirements of 30 TAC Chapter 213 and Chapter 217 shall be submitted to the Austin Regional Office.

14. If ownership of this organized sewage collection system is legally transferred, the new owner is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

15. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Mr. Kevin Lee Smith, P.E. of the Edwards Aquifer Protection Program of the Austin Regional Office at 512-339-2929.

Sincerely,

Robert Sadlier, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

RCS/kls

ATTACHMENT B

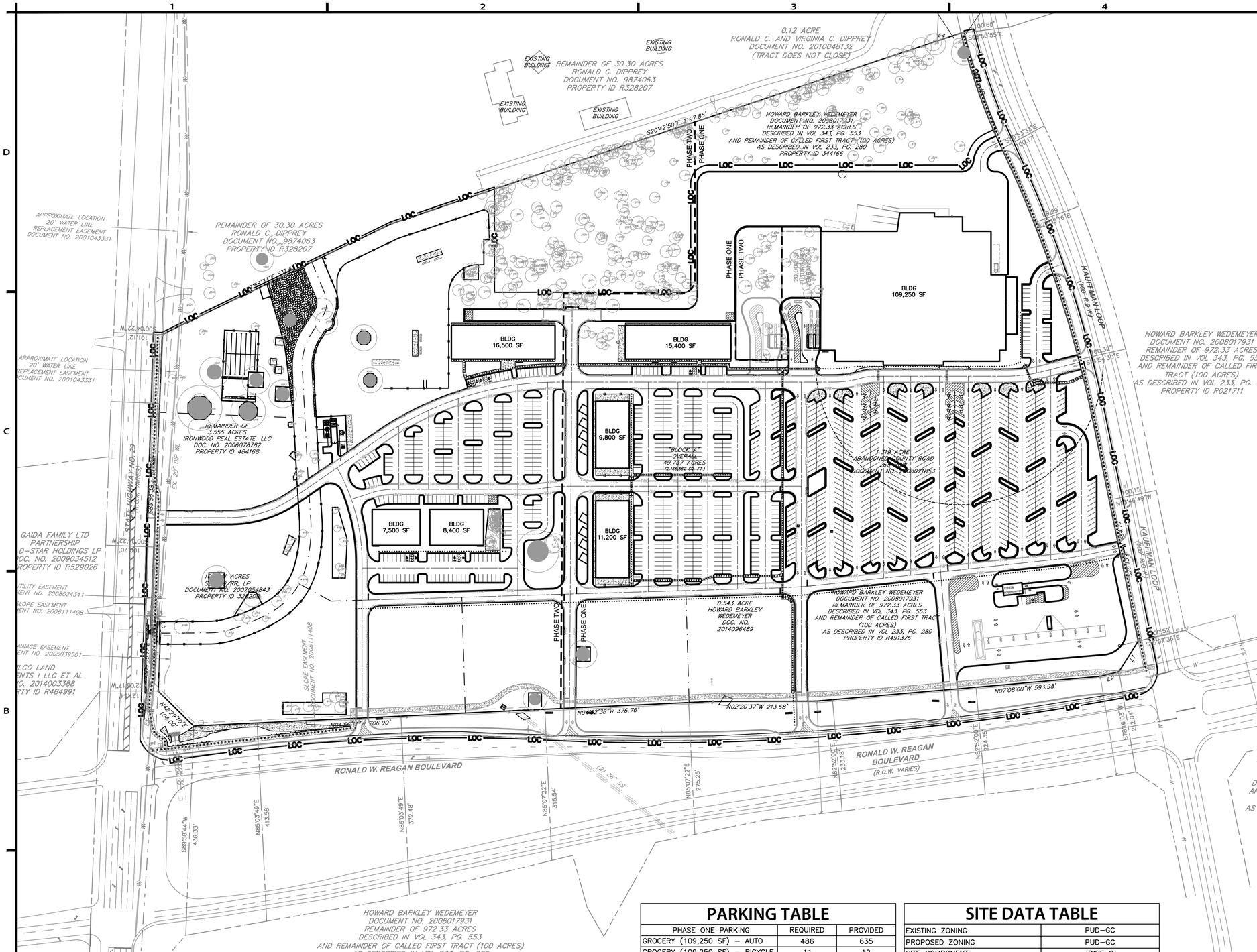
Narrative of Proposed Modification

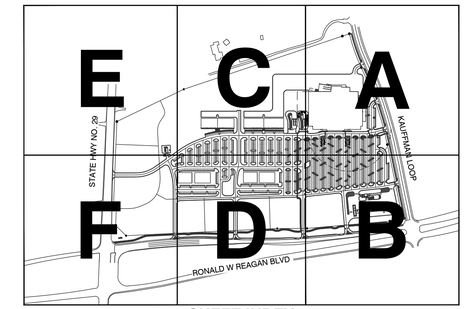
This modification includes accounting/confirming that the impervious cover and TSS calculations proposed on Lot 8 will meet the approved criteria in the previously approved WPAP.

The impervious cover being constructed on Lot 8 equates to 38,333 SF (0.88 Acres) which equates to 65% of the site being impervious. The most recently approved WPAP indicated that the existing sedimentation/filtration pond was designed considering our site would be 85% impervious cover. Therefore, no additional permanent BMP's shall be required as a result of these improvements. The current approved WPAP indicates 85.1% impervious cover (42.28 acres) at full buildout. Since the site improvements proposed on Lot 8 reflect less impervious cover than designed, there is a reduction of 11,504 sf of impervious cover. This information is reflected in Item 4, Table 1 of TCEQ-0584. The total sum of impervious cover approved at the time of this WPAP modification application, included 24.93 acres of impervious cover (24.24 Acres– Application 110022037 & 0.69 Acres-Application 11003621. Including the proposed impervious cover on LOT 8 (0.88 Acres), the total impervious cover for the Bar W Ranch Commercial subdivision will now be a total of 25.81 Acres of impervious cover. Lot 8 is the first project which will be draining to the water quality pond.

ATTACHMENT C

Current Site Plan of the Approved Project and BMP Calculations





SHEET INDEX

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		LOT BOUNDARY
		BENCHMARK
		IRON PIPE
		IRON ROD
		NAIL
		UTILITY VALVE
		UTILITY METER
		FIRE HYDRANT
		FENCE
WWMH		SANITARY MANHOLE
CO		CLEANOUT
SSMH		STORM SEWER MANHOLE
		ELECTRIC MANHOLE
		AREA INLET
		CURB INLET
		CURB AND GUTTER
		POWER POLE
		GUY WIRE
		LIGHT FIXTURE
		UTILITY PULLBOX
	OE	OVERHEAD ELEC LINE
UE	UE	UNDERGROUND ELEC LINE
FO	FO	FIBER OPTIC LINE
G	G	GAS LINE
SAN	SAN	SANITARY SEWER LINE
W	W	WATER LINE
F	F	FIRE LINE
		EASEMENT
		ADA ROUTE
FIRE		FIRE LANE STRIPING
LOC		LIMITS OF CONSTRUCTION
		CONCRETE
		TREE
		HERITAGE TREE

NOTES:

1. ALL EASEMENTS OF RECORD AS INDICATED ON THE MOST RECENT TITLE RUN (DATED: MAY 3, 2019, CONDUCTED BY FIRST AMERICAN TITLE) FOR THIS PROPERTY ARE SHOWN ON THIS SITE PLAN.
2. USES FOR THIS SITE ARE CURRENTLY UNKNOWN. THIS PERMIT THEREFORE PROPOSES NO USES AT THIS TIME. USES WILL BE PROPOSED AT A LATER DATE IN CONJUNCTION WITH FUTURE PERMITS AND IN COMPLIANCE WITH THE ZONING ORDINANCE OF THE CITY OF LEANDER.
3. ALL SITE UTILITY LINES ARE PROPOSED TO BE LOCATED UNDERGROUND.
4. EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PUBLIC ROW OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT PROPOSED.
5. AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING.
6. 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 DUMPSTERS 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.
7. FOR 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSE BY PRIVACY FENCE.
8. REFERENCE PHASING PLAN FOR PHASING CONSTRUCTION TIMING.

PARKING TABLE

PHASE ONE PARKING	REQUIRED	PROVIDED
GROCERY (109,250 SF) – AUTO	486	635
GROCERY (109,250 SF) – BICYCLE	11	12
RETAIL (35,900 SF) – AUTO	160	365
RETAIL (35,900 SF) – BICYCLE	7	16
TOTAL SPACES – AUTO	646	1000
TOTAL SPACES – BICYCLE	18	20
ACCESSIBLE PARKING	20	24
ACCESSIBLE VAN PARKING	3	4
PHASE TWO PARKING		
GROCERY (20,000 SF) – AUTO	89	PROVIDED IN PHASE ONE
GROCERY (20,000 SF) – BICYCLE	0	0
RETAIL (32,400 SF) – AUTO	144	292
RETAIL (32,400 SF) – BICYCLE	5	12
TOTAL SPACES – AUTO	233	292
TOTAL SPACES – BICYCLE	5	12
ACCESSIBLE PARKING	3	3
ACCESSIBLE VAN PARKING	1	1

SITE DATA TABLE

EXISTING ZONING	PUD–GC
PROPOSED ZONING	PUD–GC
SITE COMPONENT	TYPE 2
ARCHITECTURAL COMPONENT	TYPE C
FUTURE LAND USE CATEGORY	ACTIVITY CENTER, MIXED USE CORRIDOR
SITE AREA	2,166,674.4 SF
SITE ACREAGE	49.74 AC
IMPERVIOUS COVER ALLOWED	1,841,673 SF (85%)
IMPERVIOUS COVERAGE: AREA	1,052,716 SF
IMPERVIOUS COVERAGE: PERCENT	48.63 %
BUILDING SQUARE FOOTAGE	178,050 SF

NORTH

SCALE IN FEET
0 100 200

REV	REVISION / DESCRIPTION	DATE

CLIENT INFORMATION
RR 29 RETAIL, LTD.
901 S MOPAC EXPY,
BARTON OAKS PLAZA II
SUITE 550
AUSTIN, TEXAS 78701
CONTACT: MILO BURDETTE
PHONE: (512) 637-0482
EMAIL:
MILO@BARSHOP-OLES.COM

kbge Part of Civil & Environmental Consultants, Inc.
3711 S. Mopac Expy Bldg I, Suite 550, Austin, Tx 78746
T (512) 439-0400 www.cecinc.com
TBPE Firm No: F-38 & TBPLS Firm No:10194419

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BAR W RANCH COMMERCIAL
SE CORNER OF RONALD REAGAN BLVD. AND RR 29
CITY OF LEANDER, WILLIAMSON COUNTY, TX

OVERALL SITE PLAN

December 23, 2019

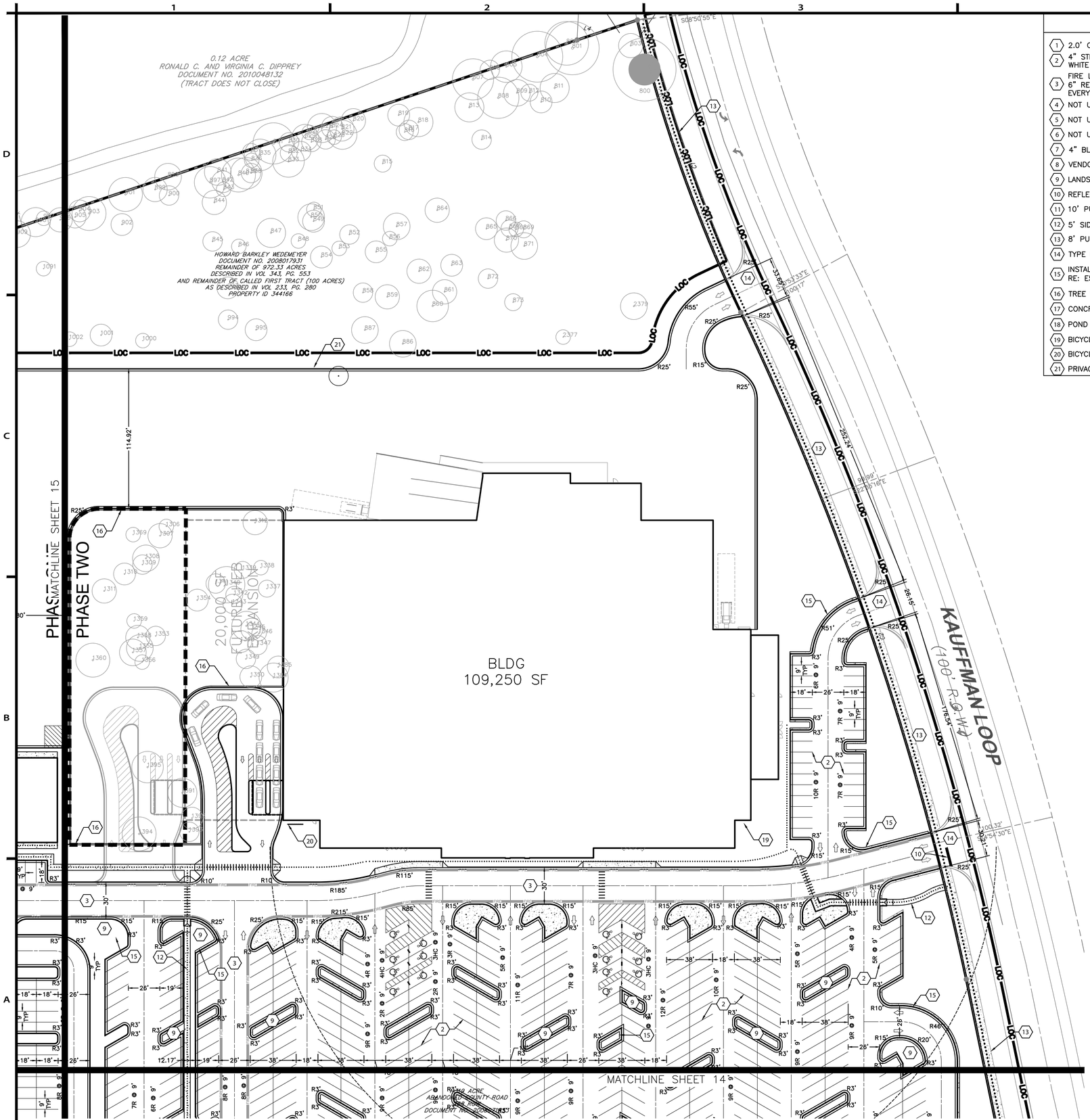
STATE OF TEXAS
JENNIFER M. GARCIA
106000
LICENSED
PROFESSIONAL ENGINEER

CHECKED BY:
####

JOB NUMBER:	ISSUE DATE:
192-031	12/23/19

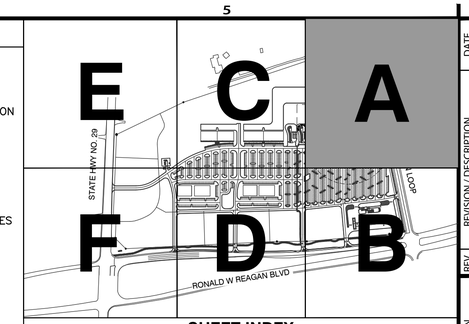
SHEET:

19-SD-023



KEY NOTES

1. 2.0' OVERHANG (TYP.)
2. 4" STRIPE COLOR YELLOW ON CONCRETE AND COLOR WHITE ON ASPHALT
3. FIRE LANE SHALL HAVE 3" WHITE LETTERS STENCILED ON 6" RED STRIPE STATING "FIRE LANE – NO PARKING" EVERY 50 FEET.
4. NOT USED
5. NOT USED
6. NOT USED
7. 4" BLUE STRIPE DESIGNATING PARTNER PARKING SPACES
8. VENDOR PARKING
9. LANDSCAPE END ISLAND RE:
10. REFLECTIVE WHITE STOP BAR
11. 10' PUBLIC SIDEWALK (RONALD REAGAN BLVD)
12. 5' SIDEWALK
13. 8' PUBLIC SIDEWALK (KAUFFMAN LOOP)
14. TYPE II COMMERCIAL DRIVEWAY
15. INSTALL 18" CONCRETE STRIPS WITH PLANTER ISLANDS; RE: E5/C-6.0 WHEN USING SPRAY HEAP IRRIGATION.
16. TREE WALL
17. CONCRETE DUMPSTER PAD
18. POND ACCESS RAMPS (4:1 MAX)
19. BICYCLE RACK (4 SPOTS TYP.)
20. BICYCLE RACK (8 SPOTS TYP.)
21. PRIVACY FENCE



SHEET INDEX

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		ELECTRIC MANHOLE
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		CURB INLET
		CURB AND GUTTER
		POWER POLE
		GUY WIRE
		LIGHT FIXTURE
		UTILITY PULLBOX
	OE	OVERHEAD ELEC LINE
UE	UE	UNDERGROUND ELEC LINE
FO	FO	FIBER OPTIC LINE
G	G	GAS LINE
SAN	SAN	SANITARY SEWER LINE
W	W	WATER LINE
F	F	FIRE LINE
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6. 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 DUMPSTERS 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.
7. FOR 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSE BY PRIVACY FENCE.
8. REFERENCE PHASING PLAN FOR PHASING CONSTRUCTION TIMING.

NORTH

SCALE IN FEET
0 40 80

REV	REVISION / DESCRIPTION	DATE

CLIENT INFORMATION
RR 29 RETAIL, LTD.
901 S MOPAC EXPY.
BARTON OAKS PLAZA II
SUITE 550
AUSTIN, TEXAS 78701
CONTACT: MILO BURDETTE
PHONE: (512) 637-0482
EMAIL:
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T (512) 439-0400 www.cecinc.com
TBPE Firm No: F-38 & TBPLS Firm No:10194419

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BAR W RANCH COMMERCIAL

SE CORNER OF RONALD REAGAN BLVD. AND RR 29

CITY OF LEANDER, WILLIAMSON COUNTY, TX

SITE PLAN A

December 23, 2019

STATE OF TEXAS
JENNIFER M. GARCIA
106000
LICENSED
PROFESSIONAL ENGINEER

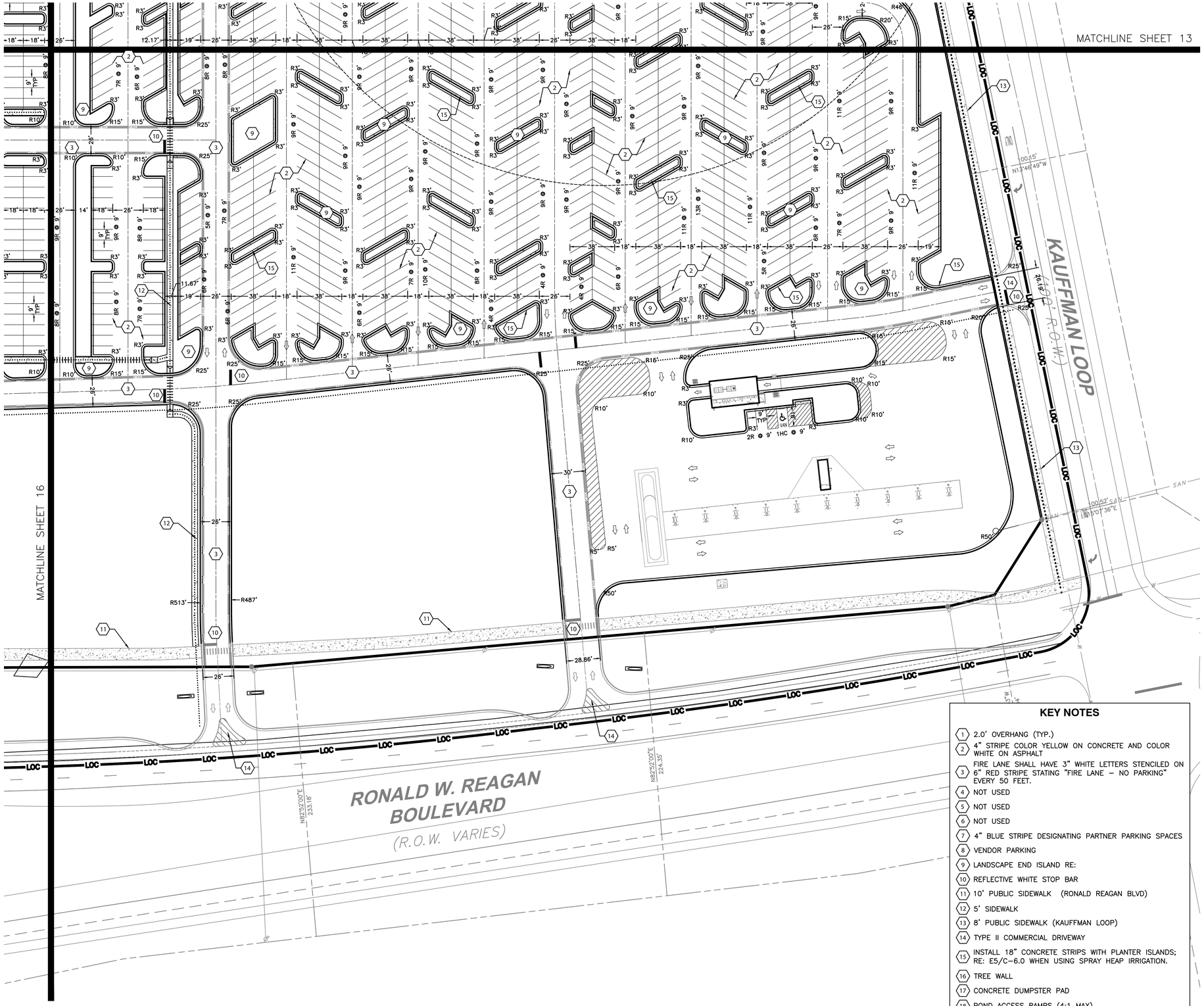
CHECKED BY:
####

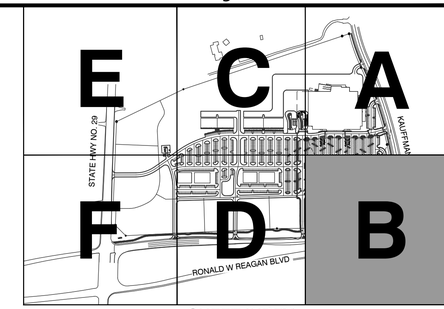
JOB NUMBER:	ISSUE DATE:
192-031	12/23/19

SHEET:

13 OF 104

19-SD-023





SHEET INDEX

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		LOT BOUNDARY
		BENCHMARK
		IRON PIPE
		IRON ROD
		NAIL
		UTILITY VALVE
		UTILITY METER
		FIRE HYDRANT
		FENCE
WWMH		SANITARY MANHOLE
CO		CLEANOUT
SSMH		STORM SEWER MANHOLE
		ELECTRIC MANHOLE
		AREA INLET
		CURB INLET
		CURB AND GUTTER
		POWER POLE
		GUY WIRE
		LIGHT FIXTURE
		UTILITY PULLBOX
	OE	OVERHEAD ELEC LINE
UE	UE	UNDERGROUND ELEC LINE
FO	FO	FIBER OPTIC LINE
G	G	GAS LINE
SAN	SAN	SANITARY SEWER LINE
W	W	WATER LINE
F	F	FIRE LINE
		EASEMENT
		ADA ROUTE
FIRE		FIRE LANE STRIPING
LOC		LIMITS OF CONSTRUCTION
		CONCRETE
		TREE
		HERITAGE TREE

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KEY NOTES

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8. VENDOR PARKING
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10. REFLECTIVE WHITE STOP BAR
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12. 5' SIDEWALK
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17. CONCRETE DUMPSTER PAD
18. POND ACCESS RAMPS (4:1 MAX)
19. BICYCLE RACK (4 SPOTS TYP.)

NORTH

SCALE IN FEET
0 100 200

REV	REVISION / DESCRIPTION	DATE

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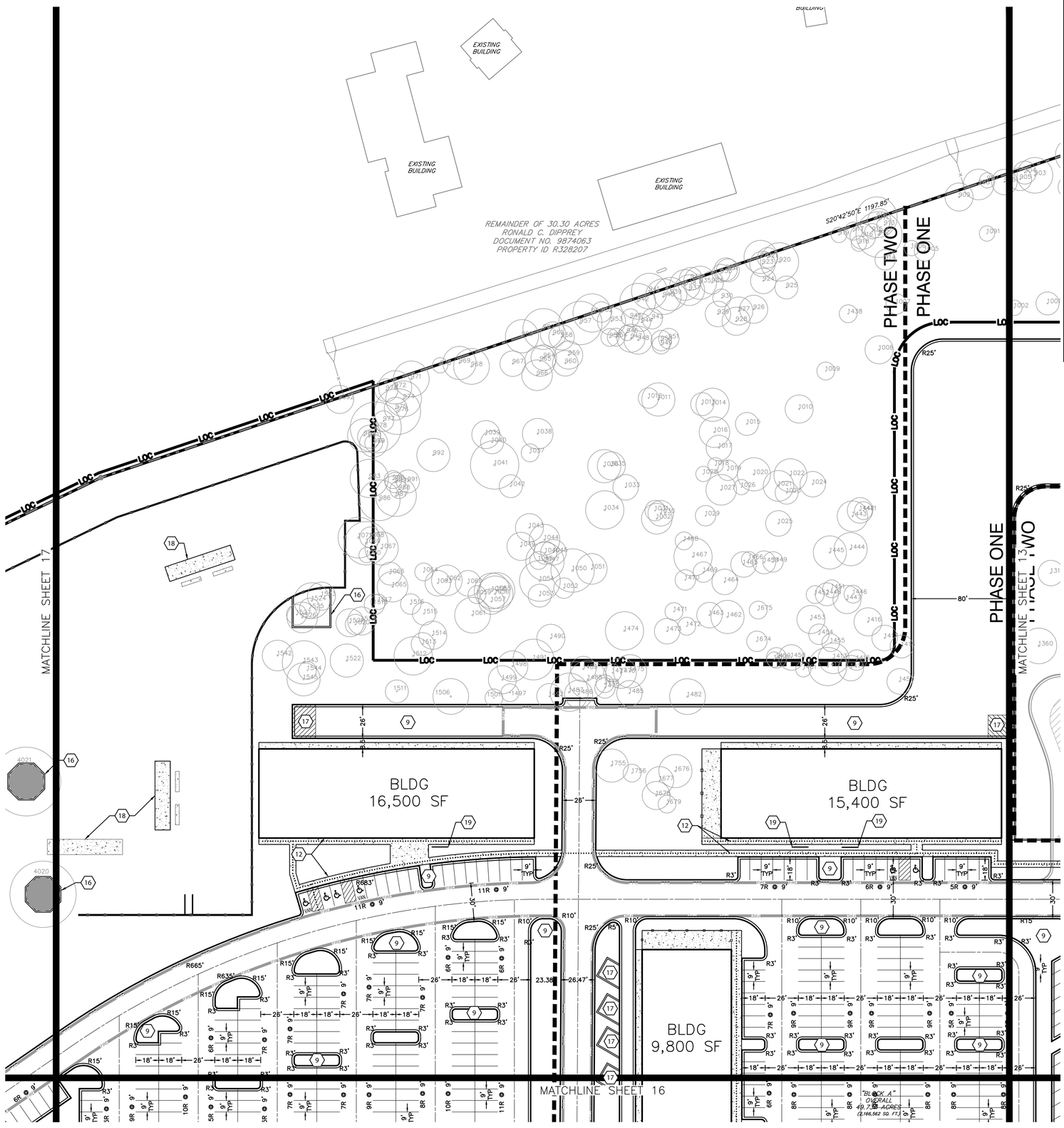
BAR W RANCH COMMERCIAL
SE CORNER OF RONALD REAGAN BLVD. AND RR 29
CITY OF LEANDER, WILLIAMSON COUNTY, TX

SITE PLAN B

December 23, 2019

STATE OF TEXAS
JENNIFER M. GARCIA
106000
LICENSED
PROFESSIONAL ENGINEER

CHECKED BY: ####
JOB NUMBER: 192-031
ISSUE DATE: 12/23/19
SHEET:
14 OF 104
19-SD-023



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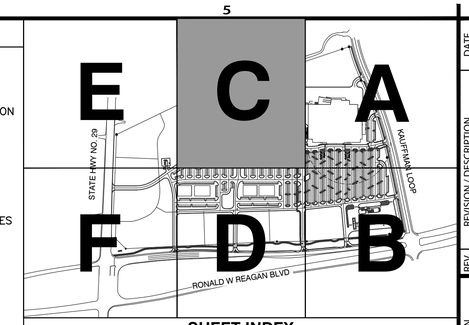

SHEET INDEX

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		LOT BOUNDARY
		BENCHMARK
		IRON PIPE
		IRON ROD
		NAIL
		UTILITY VALVE
		UTILITY METER
		FIRE HYDRANT
		FENCE
WWMH		SANITARY MANHOLE
CO		CLEANOUT
SSMH		STORM SEWER MANHOLE
		ELECTRIC MANHOLE
		AREA INLET
		CURB INLET
		CURB AND GUTTER
		POWER POLE
		GUY WIRE
		LIGHT FIXTURE
		UTILITY PULLBOX
	OE	OVERHEAD ELEC LINE
UE	UE	UNDERGROUND ELEC LINE
FO	FO	FIBER OPTIC LINE
G	G	GAS LINE
SAN	SAN	SANITARY SEWER LINE
W	W	WATER LINE
F	F	FIRE LINE
		EASEMENT
		ADA ROUTE
FIRE		FIRE LANE STRIPING
LOC		LIMITS OF CONSTRUCTION
		CONCRETE
		TREE
		HERITAGE TREE

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NORTH

SCALE IN FEET
0 100 200

REV	REVISION / DESCRIPTION	DATE

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BAR W RANCH COMMERCIAL

SE CORNER OF RONALD REAGAN BLVD. AND RR 29

CITY OF LEANDER, WILLIAMSON COUNTY, TX

SITE PLAN C

December 23, 2019

STATE OF TEXAS
JENNIFER M. GARCIA
106000
LICENSED
PROFESSIONAL ENGINEER

CHECKED BY:
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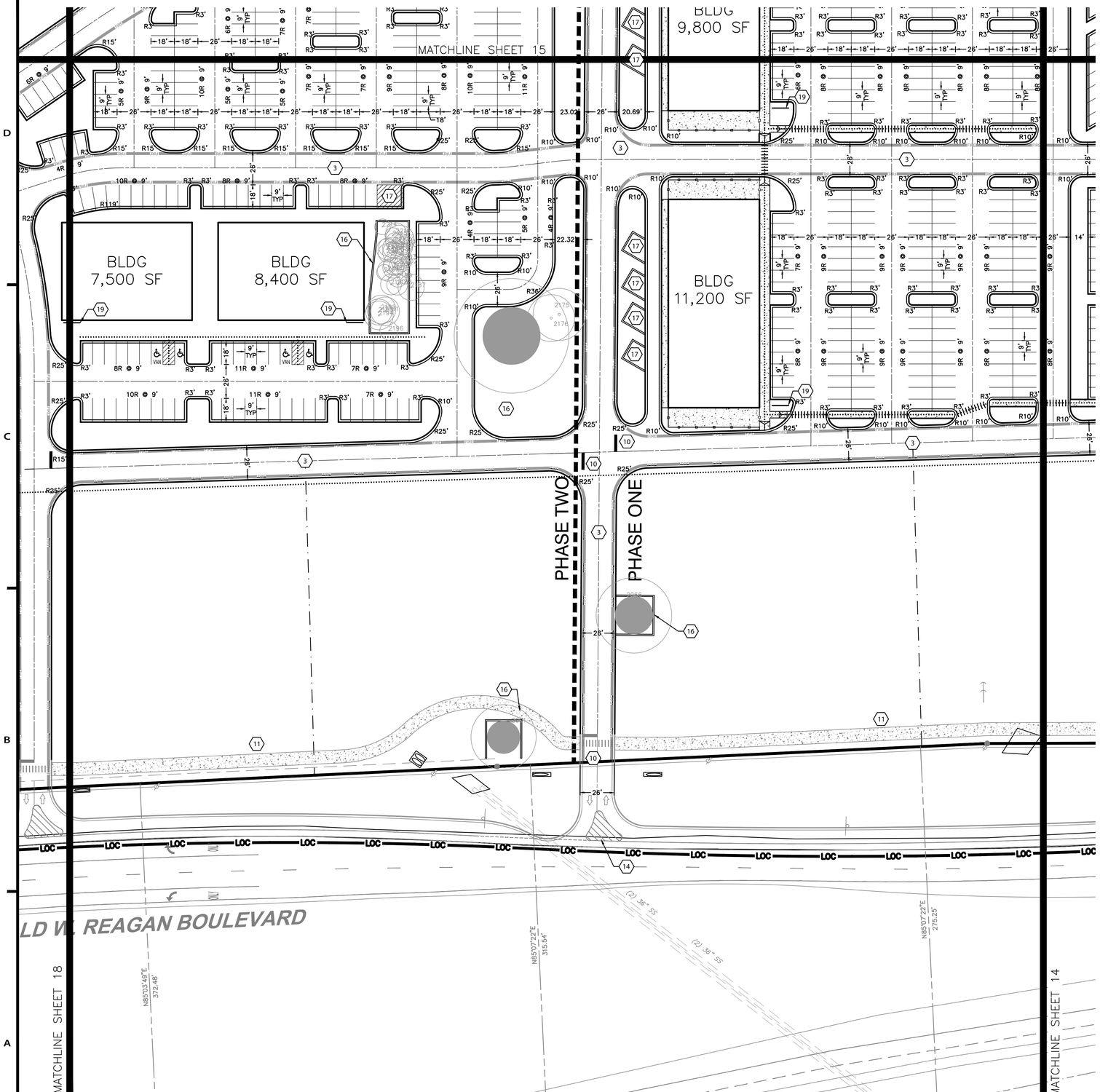
JOB NUMBER:	ISSUE DATE:
192-031	12/23/19

SHEET:

15 OF 104

19-SD-023



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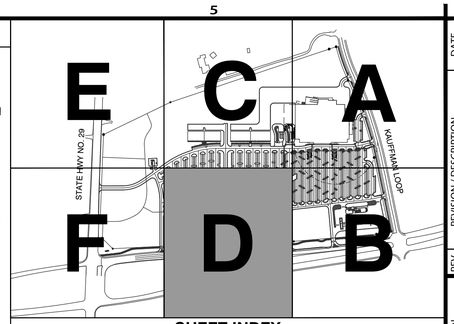

SHEET INDEX

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		LOT BOUNDARY
		BENCHMARK
		IRON PIPE
		IRON ROD
		NAIL
		UTILITY VALVE
		UTILITY METER
		FIRE HYDRANT
		FENCE
WWMH		SANITARY MANHOLE
CO		CLEANOUT
SSMH		STORM SEWER MANHOLE
		ELECTRIC MANHOLE
		AREA INLET
		CURB INLET
		CURB AND GUTTER
		POWER POLE
		GUY WIRE
		LIGHT FIXTURE
		UTILITY PULLBOX
	OE	OVERHEAD ELEC LINE
UE	UE	UNDERGROUND ELEC LINE
FO	FO	FIBER OPTIC LINE
G	G	GAS LINE
SAN	SAN	SANITARY SEWER LINE
W	W	WATER LINE
F	F	FIRE LINE
		EASEMENT
		ADA ROUTE
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XXX		TREE
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NORTH

SCALE IN FEET
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REV	REVISION / DESCRIPTION	DATE

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BAR W RANCH COMMERCIAL

SE CORNER OF RONALD REAGAN BLVD. AND RR 29

CITY OF LEANDER, WILLIAMSON COUNTY, TX

SITE PLAN D

December 23, 2019

STATE OF TEXAS
JENNIFER M. GARCIA
106000
LICENSED PROFESSIONAL ENGINEER

CHECKED BY: ####

JOB NUMBER: 192-031

ISSUE DATE: 12/23/19

SHEET:

16 OF 104

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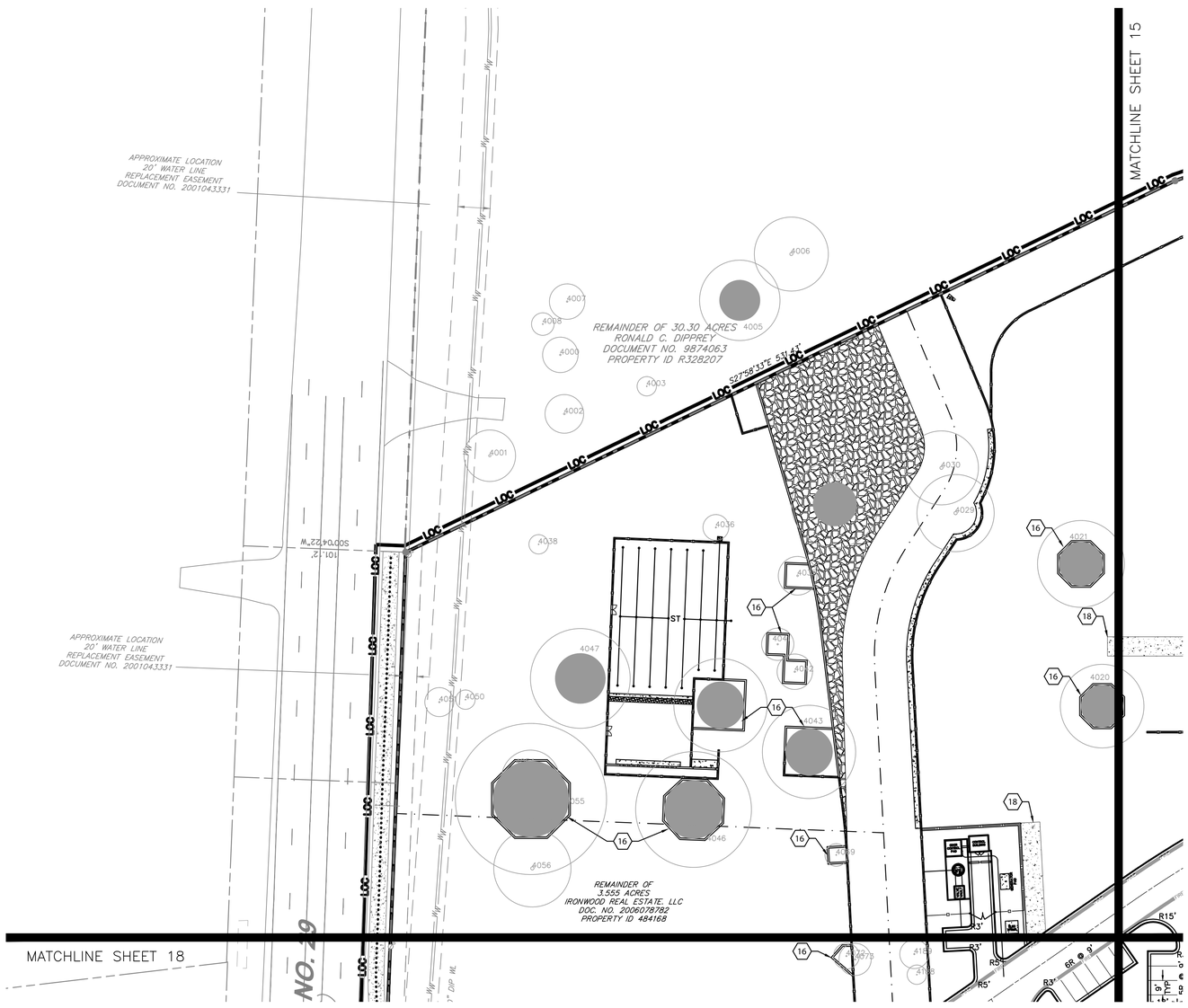

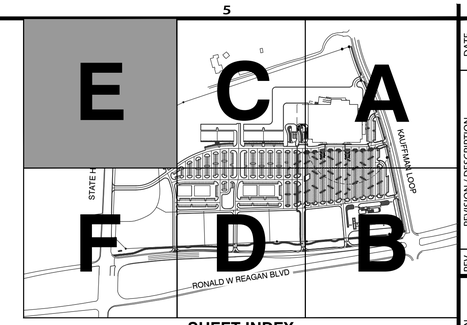

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BAR W RANCH COMMERCIAL

SE CORNER OF RONALD REAGAN BLVD. AND RR 29

CITY OF LEANDER, WILLIAMSON COUNTY, TX

SITE PLAN E

December 23, 2019

STATE OF TEXAS
JENNIFER M. GARCIA
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CHECKED BY:
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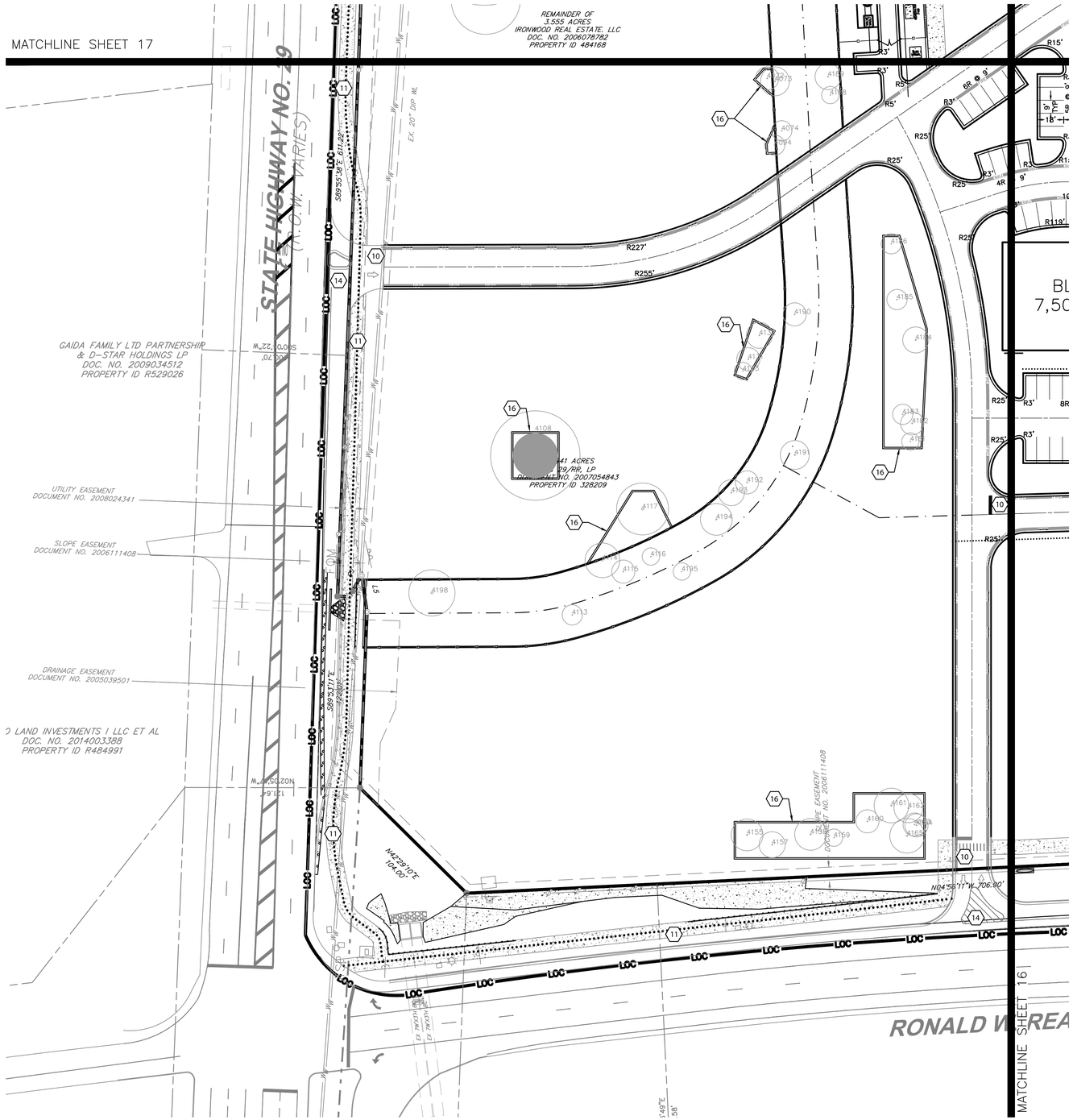
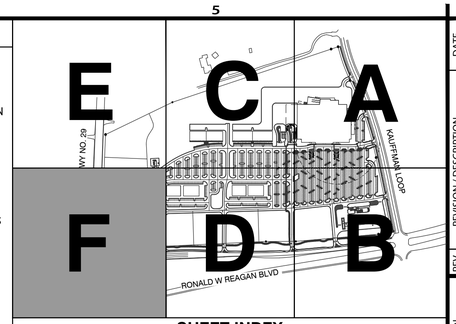
19-SD-023



KEY NOTES

1. 2.0' OVERHANG (TYP.)
2. 4" STRIPE COLOR YELLOW ON CONCRETE AND COLOR WHITE ON ASPHALT
3. FIRE LANE SHALL HAVE 3" WHITE LETTERS STENCILED ON 6" RED STRIPE STATING "FIRE LANE – NO PARKING" EVERY 50 FEET.
4. NOT USED
5. NOT USED
6. NOT USED
7. 4" BLUE STRIPE DESIGNATING PARTNER PARKING SPACES
8. VENDOR PARKING
9. LANDSCAPE END ISLAND RE:
10. REFLECTIVE WHITE STOP BAR
11. 10' PUBLIC SIDEWALK (RONALD REAGAN BLVD)
12. 5' SIDEWALK
13. 8' PUBLIC SIDEWALK (KAUFFMAN LOOP)
14. TYPE II COMMERCIAL DRIVEWAY
15. INSTALL 18" CONCRETE STRIPS WITH PLANTER ISLANDS; RE: E5/C-6.0 WHEN USING SPRAY HEAP IRRIGATION.
16. TREE WALL
17. CONCRETE DUMPSTER PAD
18. POND ACCESS RAMPS (4:1 MAX)
19. BICYCLE RACK (4 SPOTS TYP.)



SHEET INDEX

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		LOT BOUNDARY
		BENCHMARK
		IRON PIPE
		IRON ROD
		NAIL
		UTILITY VALVE
		UTILITY METER
		FIRE HYDRANT
		FENCE
WWMH		SANITARY MANHOLE
CO		CLEANOUT
SSMH		STORM SEWER MANHOLE
		ELECTRIC MANHOLE
		AREA INLET
		CURB INLET
		CURB AND GUTTER
		POWER POLE
		GUY WIRE
		LIGHT FIXTURE
		UTILITY PULLBOX
	OE	OVERHEAD ELEC LINE
UE	UE	UNDERGROUND ELEC LINE
FO	FO	FIBER OPTIC LINE
G	G	GAS LINE
SAN	SAN	SANITARY SEWER LINE
W	W	WATER LINE
F	F	FIRE LINE
		EASEMENT
		ADA ROUTE
FIRE		FIRE LANE STRIPING
LOC		LIMITS OF CONSTRUCTION
		CONCRETE
		TREE
		HERITAGE TREE

NOTES:

1. ALL EASEMENTS OF RECORD AS INDICATED ON THE MOST RECENT TITLE RUN (DATED: MAY 3, 2019, CONDUCTED BY FIRST AMERICAN TITLE) FOR THIS PROPERTY ARE SHOWN ON THIS SITE PLAN.
2. USES FOR THIS SITE ARE CURRENTLY UNKNOWN. THIS PERMIT THEREFORE PROPOSES NO USES AT THIS TIME. USES WILL BE PROPOSED AT A LATER DATE IN CONJUNCTION WITH FUTURE PERMITS AND IN COMPLIANCE WITH THE ZONING ORDINANCE OF THE CITY OF LEANDER.
3. ALL SITE UTILITY LINES ARE PROPOSED TO BE LOCATED UNDERGROUND.
4. EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PUBLIC ROW OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT PROPOSED.
5. AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING.
6. 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 DUMPSTERS 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.
7. FOR 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSE BY PRIVACY FENCE.
8. REFERENCE PHASING PLAN FOR PHASING CONSTRUCTION TIMING.

NORTH

SCALE IN FEET
0 100 200

REV	REVISION / DESCRIPTION	DATE

CLIENT INFORMATION
RR 29 RETAIL, LTD.
901 S MOPAC EXPY.
BARTON OAKS PLAZA II
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T (512) 439-0400 www.cecinc.com
TBPE Firm No: F-38 & TBPLS Firm No:10194419

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BAR W RANCH COMMERCIAL

SE CORNER OF RONALD REAGAN BLVD. AND RR 29

CITY OF LEANDER, WILLIAMSON COUNTY, TX

SITE PLAN F

December 23, 2019

STATE OF TEXAS
JENNIFER M. GARCIA
106000
LICENSED
PROFESSIONAL ENGINEER

CHECKED BY:
####

JOB NUMBER:	ISSUE DATE:
192-031	12/23/19

SHEET:

18 OF 104

19-SD-023

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

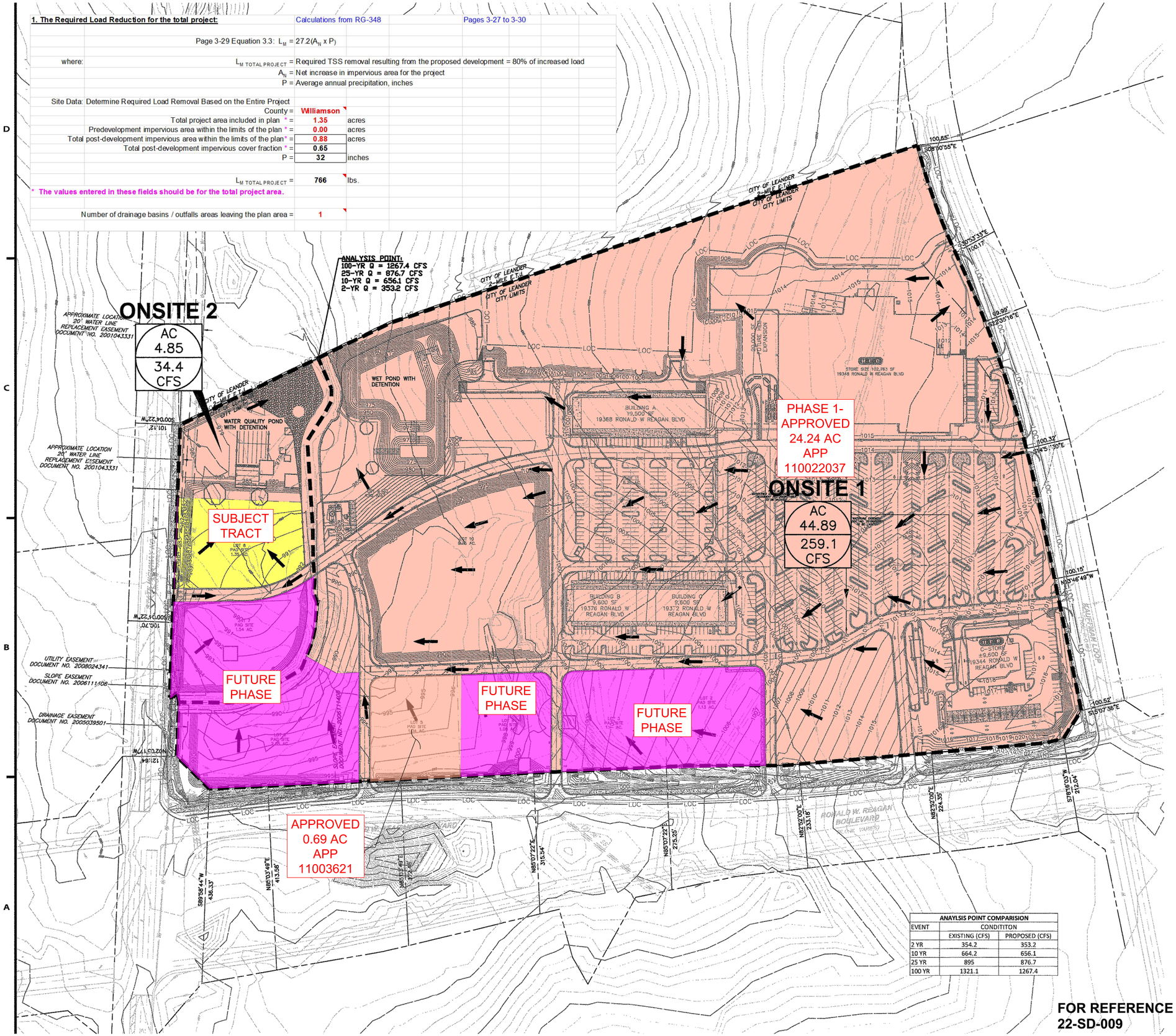
P = Average annual precipitation, inches

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

County =	Williamson	
Total project area included in plan * =	1.35	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	0.88	acres
Total post-development impervious cover fraction * =	0.65	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	766	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



ANAYLSIS POINT COMPARISION		
EVENT	CONDITITON	
	EXISTING (CFS)	PROPOSED (CFS)
2 YR	354.2	353.2
10 YR	664.2	656.1
25 YR	895	876.7
100 YR	1321.1	1267.4

FOR REFERENCE ONLY
22-SD-009

LEGEND

PROPOSED	EXISTING	DESCRIPTION
		LOT BOUNDARY
		BENCHMARK
		IRON PIPE
		IRON ROD
		NAIL
		UTILITY VALVE
		UTILITY METER
		FIRE HYDRANT
		FENCE
WWMH		SANITARY MANHOLE
CO		CLEANOUT
SSMH		STORM SEWER MANHOLE
		ELECTRIC MANHOLE
	EX. X" SS	STORM SEWER LINE
		AREA INLET
		CURB INLET
		CURB AND GUTTER
		POWER POLE
		GUY WIRE
		LIGHT FIXTURE
		UTILITY PULLBOX
OE	OE	OVERHEAD ELEC LINE
UE	UE	UNDERGROUND ELEC LINE
FO	FO	FIBER OPTIC LINE
G	G	GAS LINE
SAN	SAN	SANITARY SEWER LINE
W	W	WATER LINE
F	F	FIRE LINE
		EASEMENT
385	385	MAJOR CONTOUR
381	381	MINOR CONTOUR
FIRE		FIRE LANE STRIPING
LOC		LIMITS OF CONSTRUCTION
		CONCRETE
XXX	XXX	TREE
		HERITAGE TREE
		DRAINAGE BOUNDARY
		DRAINAGE FLOW ARROW
A-1 AC X.X X.X CFS		DRAINAGE AREA

Kevin Polasek, P.E.

STATE OF TEXAS
KEVIN POLASEK
96632
LICENSED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KEVIN POLASEK, P.E. 96632

ON JANUARY 22, 20 23

FOR TCEQ REFERENCE ONLY

NORTH

SCALE IN FEET
0 100 200

NOTES:
1. OFFSITE FLOWS ARE FOR EXISTING CONDITIONS
2. DRAINAGE AREAS AND CALCULATIONS FOR DRAINAGE AREAS N50, N60, N60A, N70, N70A ARE PER TXDOT RONALD REAGAN BOULEVARD CONSTRUCTION PLANS DONE BY TCB AECOM, DATED JULY 8, 2005.
3. ALL DRAINAGE CALCULATIONS HAVE BEEN DETERMINED VIA THE SCS METHOD (TR-55)
4. DRAINAGE CALCULATIONS HAVE BEEN DETERMINED USING UPDATED RAINFALL DATA FROM THE NOAA ATLAS 14 STUDY

APPROVED
RMG

REV	REVISION / DESCRIPTION	DATE

CLIENT INFORMATION
RR 29 RETAIL, LTD.
901 S MOPAC EXPY.
BARTON OAKS PLAZA II
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T (512) 439-0400 www.cecinc.com
TBPE Firm No: F-38 & TBPLS Firm No:10194419

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BAR W RANCH COMMERCIAL
SE CORNER OF RONALD REAGAN BLVD. AND RR 29
CITY OF LEANDER, WILLIAMSON COUNTY, TX

PROPOSED DRAINAGE AREA MAP - DETENTION

August 24, 2020

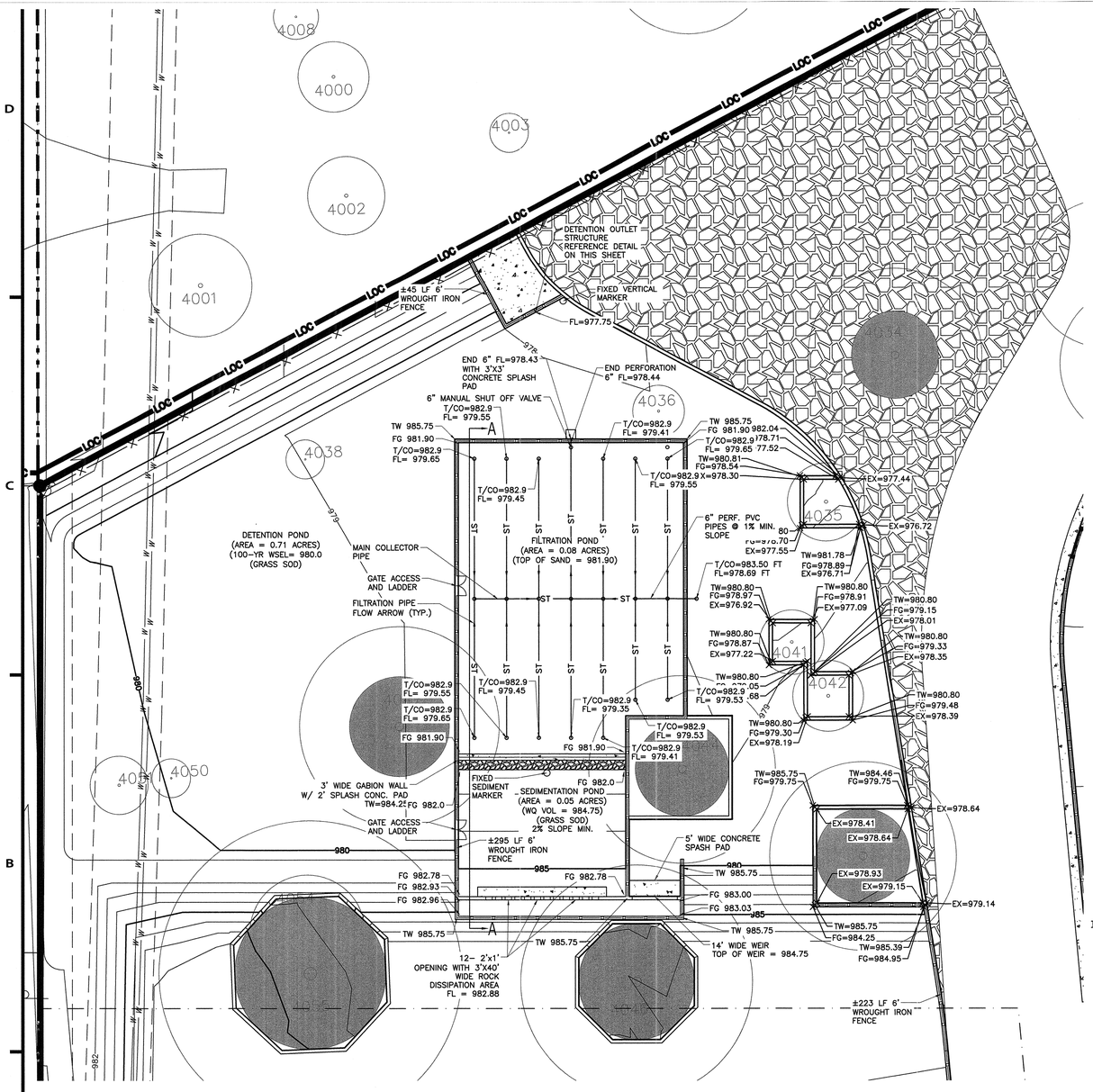
STATE OF TEXAS
JENNIFER M. GARCIA
106000
LICENSED PROFESSIONAL ENGINEER

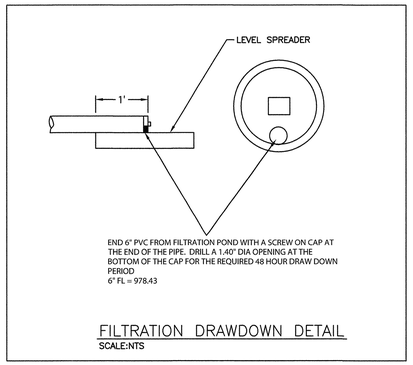
CHECKED BY: ####

JOB NUMBER:	ISSUE DATE:
192-031	08/24/20

SHEET:
31 OF 114

19-SD-023





FILTRATION DRAWDOWN DETAIL
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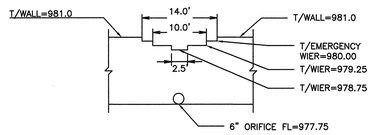

OUTLET STRUCTURE DETAIL
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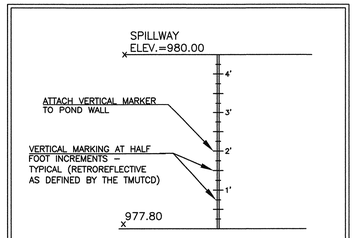

FIXED VERTICAL MARKER
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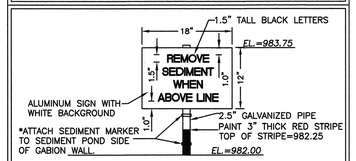
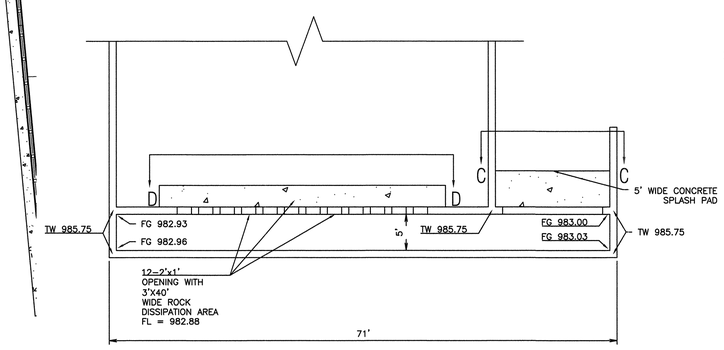
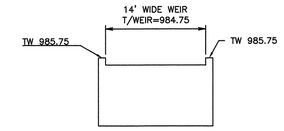


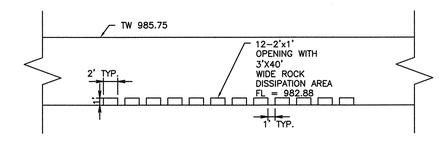
SEDIMENT MARKER
SCALE:NTS



SPLITTER BOX DETAIL
SCALE: NTS



SECTION C–C
SCALE: NTS



SECTION D–D
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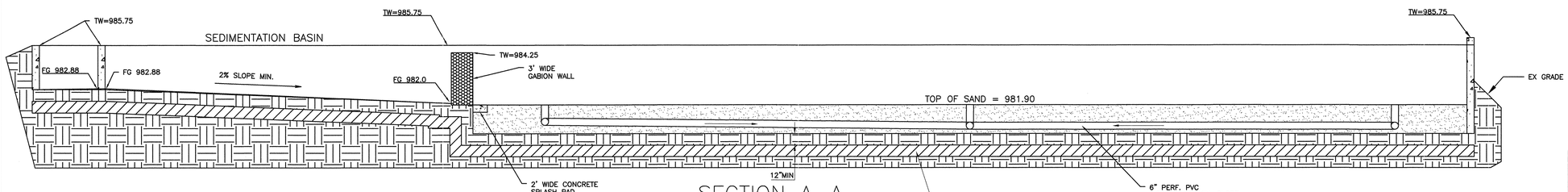

SECTION A–A
SCALE: NTS

12" CLAY LINER (UNDER A 12" MIN. SOIL LAYER) IS REQUIRED FOR THE WET POND. ALL LINER SPECIFICATIONS, INSTALLATION & TESTING SHALL BE PER THE QA/QC REPORT PREPARED BY TERRACON DATED NOVEMBER 26, 2019

APPROVED
PMG

REV	REVISION / DESCRIPTION

CLIENT INFORMATION
RR 29 RETAIL, LTD.
901 S MOPAC EXPY.
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AUSTIN, TEXAS 78701
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BAR W RANCH COMMERCIAL
SE CORNER OF RONALD REAGAN BLVD. AND RR 29
CITY OF LEANDER, WILLIAMSON COUNTY, TX

SEDIMENTATION FILTRATION POND

August 24, 2020

STATE OF TEXAS
JENNIFER M. GARCIA
106000
LICENSED
PROFESSIONAL ENGINEER

CHECKED BY: ####
JOB NUMBER: 192-031
ISSUE DATE: 08/24/20
SHEET:
37 OF 114

19-SD-023

Appendix R-3
Partial Sedimentation / Filtration Pond Calculations
For Development Permits

Project Name:	**Bar W Ranch Commercial**
Date Prepared:	**5/29/2020**
Created by:	MT
Reviewed by:	SB

Drainage Area Data

Drainage Area to Control (DA)	4.85 ac
Drainage Area Impervious Cover (IC)	49.3 %
Capture Depth (CD)	0.793 in.

Water Quality Control Calculations

The Water Quality Control is to be **PARTIAL SEDIMENTATION/FILTRATION**

25-year Peak Flow Rate to Control (Q25-Rational)	28.40 cfs.
100-year Peak Flow Rate to Control (Q100-Rational)	40.10 cfs.

		Required	Provided
Water Quality Volume (WQV=CD*DA*3630)		21998 cf.	22664 cf.
Maximum Ponding Depth above Sand Bed (H)			2.75 ft.
Sedimentation Pond Area (TCEQ Technical Guidance Manual - RG 348)	Min. 458 sf.		2184 sf.
	Max. 7333 sf.		
Sedimentation Pond Volume (minimum 20% WQV)		4400 cf.	4550 cf.
Filtration Pond Area (WQV/(4+1.33*H))		2873 sf.	6508 sf.
Filtration Pond Volume		N/A cf.	18114 cf.
Water Quality Elevation		984.75 ft. msl	
Elevation of Splitter/Overflow Weir		(min. WQ elev.)	984.75 ft. msl
Height of Gabion Wall		(WQ elev.-0.5ft.)	984.25 ft. msl
Length of Splitter Weir			14.00 ft.
Required Head to Pass Q100		maximun 1.0 ft.	1.00 ft.
Pond Freeboard Provided to Pass Q100		minimum 0.25 ft.	1.00 ft.

Sedimentation Pond:

Elevation * Ft. msl	Depth Ft.	Area S. F.	Area Ac.	Avg. Area S. F.	Inc. Vol C. F.	Total Vol. C. F.
982.00	0.00	-	-		-	-
983.00	1.00	2,184	0.05	1,092	728	728
984.00	1.00	2,184	0.05	2,184	2,184	2,912
984.75	0.75	2,184	0.05	2,184	1,638	4,550

Filtration Pond:

Elevation * Ft. msl	Depth Ft.	Area S. F.	Area Ac.	Avg. Area S. F.	Inc. Vol C. F.	Total Vol. C. F.
981.90	-	-	-		-	-
982.00	0.10	6,508	0.15	3,254	217	217
983.00	1.00	6,508	0.15	6,508	6,508	6,725
984.00	1.00	6,508	0.15	6,508	6,508	13,233
984.75	0.75	6,508	0.15	6,508	4,881	18,114

* In one foot or less increments

Drawdown Time in Filtration Pond

Volume (cf)	48 hr. Release Rate (cfs)	W.S.E.L.	Flow Out Elev.
22664.39	0.13	984.75	978.43

Diameter of Opening (in)	Diameter of Opening (ft)	Calulated	Head (ft)	Area of Opening (ft^2)	Q Released (cfs)	Drawdown Time (hrs.)
1.40	0.117	6.262		0.011	0.13	48.82

SPLITTER BOX WEIR LENGTH CALC.

weir equation: $q = 3.33\ (b - 0.2\ h)\ h^{3/2}$	
Q (100-yr storm) =	40.10 cfs
max Q over weir	45.95 cfs
b = length of weir	14.00 ft.
h = head abv. Weir	1.00 ft.

SPLITTER BOX ORIFICE CALCULATION

Orifice flow equation: $Q = C_o A(2gH)^{0.5}$	
No. of openings	12
Width of Opening =	2.00 ft.
Height of Opening =	1.00 ft.
Flow line of opening =	982.88 msl
A = Total area of openings	24.00 sqft.
C_o = Orifice Coefficient	0.60
Q (25-yr storm) =	28.40 cfs
Max. Q thru opening(s) =	135.26 cfs
g = Gravitation Const	32.20 ft./sec.^{2}
H = head on orifice	1.37 ft.

SPLITTER BOX ORIFICE VELOCITY

Orifice Velocity Q = VA	
Q (25-yr storm) =	28.40 cfs
V = VELOCITY MAX.	1.99 ft./sec
A = Total area of openings	24.00 sqft.
Vel. thru openings =	1.67 ft./sec.

WATER QUALITY FILTRATION PIPE OUTLET CALCULATIONS

978.4 Pipe outlet elevation, ft.	0.25 Add 3" gravel
0.010 pipe slope, ft/ft.	980.40 Top of gravel
122.0 Pipe run, ft.	1.5 Add 18" sand
1.220 Pipe rise ft.	981.90 Top of sand
979.65 Inlet FL	
0.5 Pipe diameter, ft.	
980.15 Top of pipe	

Texas Commission on Environmental Quality — Sedimentation Filtration Pond

TSS Removal Calculations 04-20-2009

Project Name: Bar W Marketplace
Date Prepared: 7/8/2020

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 * =	**51.02**	acres
Predevelopment impervious area within the limits of the plan * =	**0.00**	acres
Total post-development impervious area within the limits of the plan* =	**43.56**	acres
Total post-development impervious cover fraction * =	**0.85**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**37915**	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = **2**

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

Drainage Basin/Outfall Area No. = 2

Total drainage basin/outfall area =	**4.85**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**4.12**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.85**	
$L_{M\ THIS\ BASIN}$ =	**3588**	lbs.

TSS Based on 85% impervious cover; Lot 8 Proposed impervious = 65%

3. Indicate the proposed BMP Code for this basin:

Proposed BMP = **Sand Filter**
Removal efficiency = **89** 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 =	**4.85**	acres
A_I =	**4.12**	acres
A_P =	**0.73**	acres
L_R =	**4074**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **3588** 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 =	**0.69**	
On-site Water Quality Volume =	**18331**	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 =	**3666**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**21998**	cubic feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins =	**21998**	cubic feet	
Minimum filter basin area =	**1833**	square feet	
Maximum sedimentation basin area =	**7333**	square feet	**For minimum water depth of 2 feet**
Minimum sedimentation basin area =	**458**	square feet	**For maximum water depth of 8 feet**

FILTER CONFIGURATION DETAIL

TABLE 1-7
GEOTEXTILE FABRIC SPECIFICATIONS

PROPERTY	TEST METHOD	UNIT	SPECS.
MATERIAL	NONWOVEN GEOTEXTILE		
UNIT WEIGHT		OZ/SQ.YD.	8 (MIN.)
FILTRATION RATE		IN/SEC	0.08 (MIN.)
PUNCTURE STRENGTH	ASTM D-751(MOD.)	LB.	125 (MIN.)
MULLEN BURST STRENGTH	ASTM D-751	PSI.	400 (MIN.)
TENSILE STRENGTH	ASTM D-1682	LB.	200 (MIN.)
EQUIV. OPENING SIZE	US STANDARD SIEVE	NO.	80 (MIN.)

NOTE FOR SAND BED PROFILE SPECIFICATION:

THE TOP LAYER IS TO BE A MINIMUM OF EIGHTEEN (18) INCHES OF 0.02—0.04 INCH DIAMETER SAND WHICH CORRESPONDS

WITH ASTM C-33 CONCRETE SAND (SMALLER SAND SIZE IS NOT ACCEPTABLE). UNDER THE SAND SHALL BE A LAYER OF

ONE-HALF (0.5) TO ONE AND ONE-HALF (1.5) INCH DIAMETER WASHED, ROUNDED, RIVER GRAVEL WHICH PROVIDES THREE (3) INCHES

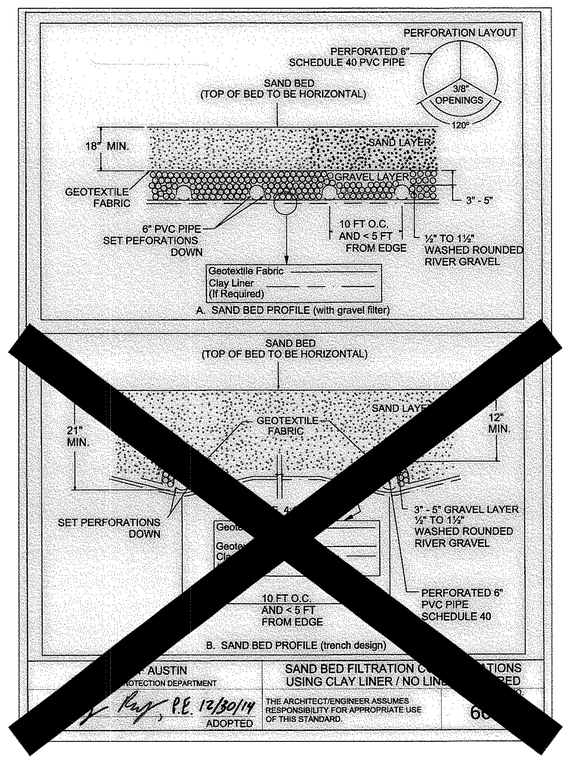
TO FIVE (5) INCHES OF COVER OVER THE TOP OF THE UNDERDRAIN LATERAL PIPES. CLEAN, SCREENED, CRUSHED RECYCLED GLASS

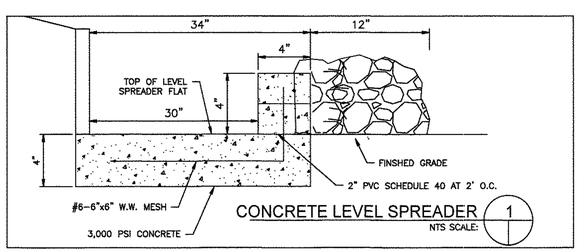
NO SMALLER THAN 3/8 INCH IS ALSO ACCEPTABLE. THE SAND AND GRAVEL MUST BE SEPARATED BY A LAYER OF GEOTEXTILE FABRIC

City of Austin Environmental Criteria Manual (ECM)

Table 1.6.5.A-1 Material Requirements

Property	Test method	ASTM Requirements
Fabric Weight	D 3776	≥ 3.0 ounces/square yard
Ultraviolet (UV) Radiation Stability	D 4355	70% strength retained min., After 500 hours in xenon arc device
Mullen Burst Strength	D 3786	≥ 120 pound per square inch
Water Flow Rate	D 4491	≥ 275 gallons/minute/square feet





FOR REFERENCE ONLY
22-SD-009

APPROVED
DMG

REV	REVISION / DESCRIPTION	DATE

CLIENT INFORMATION
RR 29 RETAIL, LTD.
901 S MOPAC EXPY.
BARTON OAKS PLAZA II
SUITE 550
AUSTIN, TEXAS 78701
CONTACT: MILO BURDETTE
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MILO@BARSHOP-OLES.COM

kbge Part of Civil & Environmental Consultants, Inc.
3711 S. Mopac Expy Bldg I, Suite 550, Austin, Tx 78746
T (512) 439-0400 www.cecinc.com
TBPE Firm No: F-38 & TBPLS Firm No:10194419

FILE: P:\2019\192-031_CADD\DWG\CV01\192031-CV01-C400-POND PLAN 2.DWG PLOTTED BY: MONLITY, SEAN PLOTTED ON: 08/24/20 5:58:02 PM

BAR W RANCH COMMERCIAL
SE CORNER OF RONALD REAGAN BLVD. AND RR 29
CITY OF LEANDER, WILLIAMSON COUNTY, TX

SEDIMENTATION FILTRATION POND DETAILS

August 24, 2020

STATE OF TEXAS — JENNIFER M. GARCIA — 106000 — LICENSED PROFESSIONAL ENGINEER

CHECKED BY: ####
JOB NUMBER: 192-031
ISSUE DATE: 08/24/20
SHEET:
38 OF 114

19-SD-023

DETENTION POND VOLUMES

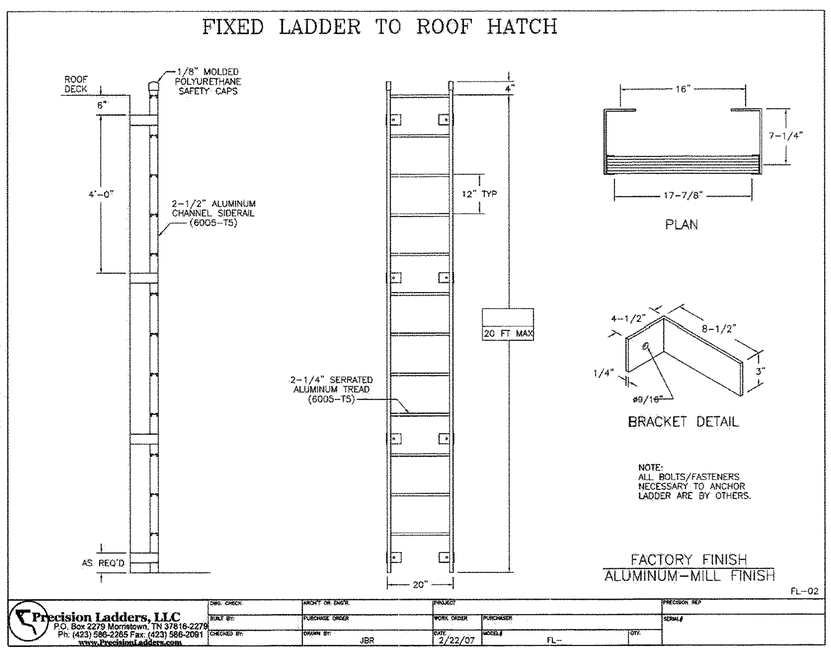
Elevation * Ft. msl	Depth Ft.	Area S. F.	Area Ac.	Area Sq. Mi.	Avg. Area S. F.	Inc. Vol. C. F.	Total Vol. C. F.
977.75	-	-					
978.00	0.25	115	0.003	0.0000041082	57	10	10
979.00	1.00	8,494	0.195	0.0003046803	4,304	3,198	3,208
980.00	1.00	23,293	0.535	0.0008355214	15,894	15,285	18,493
981.00	1.00	26,607	0.611	0.0009543840	24,950	24,932	43,425

DETENTION POND ORIFICE AND WEIR CALCULATIONS

	ORIFICE #1	ORIFICE #1	ORIFICE #2	ORIFICE #2	ORIFICE #3	ORIFICE #3	WEIR #1	WEIR #1	WEIR #3	WEIR #3	TOTAL
Elevation * Ft. msl	h ft.	Q cfs	h ft.	Q cfs	h ft.	Q cfs	h ft.	Q cfs	h ft.	Q cfs	Q cfs
977.75	0.00	-	305.75	-	304.25	-	0.00	-	0.00	-	-
978.00	0.00	-	306.00	-	304.50	-	0.00	-	0.00	-	-
979.00	1.00	0.95	307.00	-	305.50	-	0.25	0.94	0.00	-	1.88
980.00	2.00	1.34	308.00	-	306.50	-	1.25	10.48	0.75	19.49	31.30
981.00	3.00	1.64	309.00	-	307.50	-	2.25	25.31	1.75	69.45	96.40

	DIA.	AREA	ELEV.
ORIFICE #1 (CIRCULAR)	0.50	0.20	977.75

	WIDTH	ELEV.
WEIR #1	2.50	978.75
WEIR #3	10.00	979.25



Project: 20200528 Bar W Simulation Run: 2 YEAR

Start of Run: 01Jan2000, 00:00 Basin Model: Proposed
End of Run: 02Jan2000, 00:05 Meteorologic Model: 2 YR-24 HOUR
Compute Time: 01Jun2020, 11:28:21 Control Specifications: Control 1

Show Elements: All Elements Volume Units: ○ IN ◉ ACRE-FT Sorting: Alphabetic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (ACRE-FT)
N-50	0.0537500	38.0	01Jan2000, 12:50	7.2
N-60	0.1814063	136.2	01Jan2000, 12:40	24.4
N-60A	0.0093750	10.0	01Jan2000, 12:25	1.5
N-70	0.3437500	177.8	01Jan2000, 13:20	50.0
N-70A	0.0114063	10.2	01Jan2000, 12:30	1.6
N60_N60-A	0.1907813	143.9	01Jan2000, 12:40	25.9
N70_N70A	0.3551563	181.1	01Jan2000, 13:20	51.6
OFFSITE-1	0.0091406	7.6	01Jan2000, 12:30	1.1
OFFSITE-2	0.0012813	2.3	01Jan2000, 12:10	0.2
OFFSITE-3	0.0022188	3.5	01Jan2000, 12:10	0.4
OFFSITE-4	0.0048594	4.1	01Jan2000, 12:45	0.8
ONSITE-1	0.0701406	131.1	01Jan2000, 12:05	14.4
ONSITE-2	0.0075781	13.0	01Jan2000, 12:05	1.4
R-IN	0.5585783	282.5	01Jan2000, 12:50	79.2
R-OUT	0.6949064	353.2	01Jan2000, 13:05	102.6
R-1	0.6171877	319.6	01Jan2000, 12:55	87.1
R-2	0.6949064	353.8	01Jan2000, 13:00	102.7
R1	0.5585783	281.8	01Jan2000, 12:55	79.1
R2	0.6171877	318.8	01Jan2000, 13:00	87.0
R3	0.6949064	353.2	01Jan2000, 13:05	102.6
SEDFIL	0.0075781	10.8	01Jan2000, 12:15	1.4
WETPOND	0.0701406	41.1	01Jan2000, 12:30	14.4

Project: 20200528 Bar W Simulation Run: 2 YEAR
Reservoir: SEDFIL

Start of Run: 01Jan2000, 00:00 Basin Model: Proposed
End of Run: 02Jan2000, 00:05 Meteorologic Model: 2 YR-24 HOUR
Compute Time: 01Jun2020, 11:28:21 Control Specifications: Control 1

Volume Units: ○ IN ◉ ACRE-FT

Computed Results

Peak Inflow: 13.0 (CFS) Date/Time of Peak Inflow: 01Jan2000, 12:00
Peak Discharge: 10.8 (CFS) Date/Time of Peak Discharge: 01Jan2000, 12:15
Inflow Volume: 1.4 (ACRE-FT) Peak Storage: 0.2 (ACRE-FT)
Discharge Volume: 1.4 (ACRE-FT) Peak Elevation: 979.3 (FT)

Project: 20200528 Bar W Simulation Run: 10 YEAR

Start of Run: 01Jan2000, 00:00 Basin Model: Proposed
End of Run: 02Jan2000, 00:05 Meteorologic Model: 10 YR-24 HOUR
Compute Time: 01Jun2020, 11:26:50 Control Specifications: Control 1

Show Elements: All Elements Volume Units: ○ IN ◉ ACRE-FT Sorting: Alphabetic

Hydrologic Element	Drainage Area (MI2)	Peak Discha... (CFS)	Time of Peak	Volume (ACRE-FT)
N-50	0.0537500	54.3	01Jan2000, 12:50	13.6
N-60	0.1814063	256.3	01Jan2000, 12:40	46.2
N-60A	0.0093750	17.7	01Jan2000, 12:25	2.6
N-70	0.3437500	323.4	01Jan2000, 13:20	92.0
N-70A	0.0114063	18.9	01Jan2000, 12:30	3.0
N60_N60-A	0.1907813	269.8	01Jan2000, 12:40	48.8
N70_N70A	0.3551563	329.2	01Jan2000, 13:20	95.0
OFFSITE-1	0.0091406	14.8	01Jan2000, 12:30	2.2
OFFSITE-2	0.0012813	3.7	01Jan2000, 12:10	0.4
OFFSITE-3	0.0022188	6.0	01Jan2000, 12:10	0.6
OFFSITE-4	0.0048594	7.1	01Jan2000, 12:45	1.4
ONSITE-1	0.0701406	213.4	01Jan2000, 12:05	23.5
ONSITE-2	0.0075781	22.1	01Jan2000, 12:05	2.3
R-IN	0.5585783	524.9	01Jan2000, 12:50	147.1
R-OUT	0.6949064	656.1	01Jan2000, 13:05	187.3
R-1	0.6171877	594.7	01Jan2000, 12:55	161.9
R-2	0.6949064	656.5	01Jan2000, 13:00	187.5
R1	0.5585783	524.2	01Jan2000, 12:55	146.9
R2	0.6171877	593.8	01Jan2000, 13:00	161.7
R3	0.6949064	656.1	01Jan2000, 13:05	187.3
SEDFIL	0.0075781	18.4	01Jan2000, 12:15	2.3
WETPOND	0.0701406	83.0	01Jan2000, 12:25	23.5

Project: 20200528 Bar W Simulation Run: 25 YEAR
Reservoir: SEDFIL

Start of Run: 01Jan2000, 00:00 Basin Model: Proposed
End of Run: 02Jan2000, 00:05 Meteorologic Model: 25 YR-24 HOUR
Compute Time: 01Jun2020, 11:25:40 Control Specifications: Control 1

Volume Units: ○ IN ◉ ACRE-FT

Computed Results

Peak Inflow: 28.8 (CFS) Date/Time of Peak Inflow: 01Jan2000, 12:00
Peak Discharge: 23.9 (CFS) Date/Time of Peak Discharge: 01Jan2000, 12:15
Inflow Volume: 3.0 (ACRE-FT) Peak Storage: 0.3 (ACRE-FT)
Discharge Volume: 3.0 (ACRE-FT) Peak Elevation: 979.7 (FT)

Project: 20200528 Bar W Simulation Run: 25 YEAR

Start of Run: 01Jan2000, 00:00 Basin Model: Proposed
End of Run: 02Jan2000, 00:05 Meteorologic Model: 25 YR-24 HOUR
Compute Time: 01Jun2020, 11:25:40 Control Specifications: Control 1

Show Elements: All Elements Volume Units: ○ IN ◉ ACRE-FT Sorting: Alphabetic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (ACRE-FT)
N-50	0.0537500	86.9	01Jan2000, 12:50	18.5
N-60	0.1814063	345.4	01Jan2000, 12:40	62.8
N-60A	0.0093750	23.4	01Jan2000, 12:25	3.5
N-70	0.3437500	430.5	01Jan2000, 13:20	123.7
N-70A	0.0114063	25.2	01Jan2000, 12:30	4.1
N60_N60-A	0.1907813	363.4	01Jan2000, 12:35	66.3
N70_N70A	0.3551563	438.2	01Jan2000, 13:20	127.7
OFFSITE-1	0.0091406	20.1	01Jan2000, 12:30	3.0
OFFSITE-2	0.0012813	4.8	01Jan2000, 12:10	0.5
OFFSITE-3	0.0022188	7.9	01Jan2000, 12:10	0.9
OFFSITE-4	0.0048594	9.3	01Jan2000, 12:45	1.9
ONSITE-1	0.0701406	274.0	01Jan2000, 12:05	30.2
ONSITE-2	0.0075781	28.8	01Jan2000, 12:05	3.0
R-IN	0.5585783	704.2	01Jan2000, 12:50	198.4
R-OUT	0.6949064	876.7	01Jan2000, 13:05	251.3
R-1	0.6171877	798.3	01Jan2000, 12:55	218.6
R-2	0.6949064	876.9	01Jan2000, 13:00	251.6
R1	0.5585783	703.6	01Jan2000, 12:55	198.2
R2	0.6171877	797.5	01Jan2000, 13:00	218.4
R3	0.6949064	876.7	01Jan2000, 13:05	251.3
SEDFIL	0.0075781	23.9	01Jan2000, 12:15	3.0
WETPOND	0.0701406	136.8	01Jan2000, 12:25	30.2

Project: 20200528 Bar W Simulation Run: 10 YEAR
Reservoir: SEDFIL

Start of Run: 01Jan2000, 00:00 Basin Model: Proposed
End of Run: 02Jan2000, 00:05 Meteorologic Model: 10 YR-24 HOUR
Compute Time: 01Jun2020, 11:26:50 Control Specifications: Control 1

Volume Units: ◉ IN ○ ACRE-FT

Computed Results

Peak Inflow: 22.1 (CFS) Date/Time of Peak Inflow: 01Jan2000, 12:00
Peak Discharge: 18.4 (CFS) Date/Time of Peak Discharge: 01Jan2000, 12:15
Inflow Volume: 5.76 (IN) Peak Storage: 0.3 (ACRE-FT)
Discharge Volume: 5.74 (IN) Peak Elevation: 979.6 (FT)

Project: 20200528 Bar W Simulation Run: 100 YEAR

Start of Run: 01Jan2000, 00:00 Basin Model: Proposed
End of Run: 02Jan2000, 00:05 Meteorologic Model: 100 YR-24 HOUR
Compute Time: 01Jun2020, 11:21:26 Control Specifications: Control 1

Show Elements: All Elements Volume Units: ○ IN ◉ ACRE-FT Sorting: Alphabetic

Hydrologic Element	Drainage Area (MI2)	Peak Discharge (CFS)	Time of Peak	Volume (ACRE-FT)
N-50	0.0537500	128.5	01Jan2000, 12:50	27.8
N-60	0.1814063	510.0	01Jan2000, 12:40	94.1
N-60A	0.0093750	33.9	01Jan2000, 12:25	5.2
N-70	0.3437500	627.8	01Jan2000, 13:20	181.1
N-70A	0.0114063	37.0	01Jan2000, 12:30	6.1
N60_N60-A	0.1907813	537.1	01Jan2000, 12:35	99.7
N70_N70A	0.3551563	638.9	01Jan2000, 13:20	189.1
OFFSITE-1	0.0091406	30.0	01Jan2000, 12:25	4.6
OFFSITE-2	0.0012813	6.8	01Jan2000, 12:10	0.8
OFFSITE-3	0.0022188	11.4	01Jan2000, 12:10	1.4
OFFSITE-4	0.0048594	13.1	01Jan2000, 12:40	2.7
ONSITE-1	0.0701406	386.5	01Jan2000, 12:05	42.7
ONSITE-2	0.0075781	41.1	01Jan2000, 12:05	4.4
R-IN	0.5585783	1034.9	01Jan2000, 12:50	295.0
R-OUT	0.6949064	1267.4	01Jan2000, 13:05	371.4
R-1	0.6171877	1173.9	01Jan2000, 12:55	325.2
R-2	0.6949064	1267.8	01Jan2000, 13:00	371.8
R1	0.5585783	1034.4	01Jan2000, 12:55	294.6
R2	0.6171877	1173.1	01Jan2000, 13:00	324.8
R3	0.6949064	1267.4	01Jan2000, 13:05	371.4
SEDFIL	0.0075781	34.4	01Jan2000, 12:15	4.4
WETPOND	0.0701406	259.1	01Jan2000, 12:15	49.7

Project: 20200528 Bar W Simulation Run: 100 YEAR
Reservoir: SEDFIL

Start of Run: 01Jan2000, 00:00 Basin Model: Proposed
End of Run: 02Jan2000, 00:05 Meteorologic Model: 100 YR-24 HOUR
Compute Time: 01Jun2020, 11:21:26 Control Specifications: Control 1

Volume Units: ○ IN ◉ ACRE-FT

Computed Results

Peak Inflow: 41.1 (CFS) Date/Time of Peak Inflow: 01Jan2000, 12:00
Peak Discharge: 34.4 (CFS) Date/Time of Peak Discharge: 01Jan2000, 12:15
Inflow Volume: 4.4 (ACRE-FT) Peak Storage: 0.5 (ACRE-FT)
Discharge Volume: 4.4 (ACRE-FT) Peak Elevation: 980.0 (FT)

FOR REFERENCE ONLY
22-SD-009

APPROVED
RMG

REV	REVISION / DESCRIPTION	DATE

CLIENT INFORMATION
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901 S MOPAC EXPY.
BARTON OAKS PLAZA II
SUITE 550
AUSTIN, TEXAS 78701
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TBPE Firm No: F-38 & TBPLS Firm No:10194419

FILE: P:\2019\192-031_CADD\DWG\CV01\192031-CV01-C400-POND PLAN 2.DWG PLOTTED BY: MCNULTY, SEAN PLOTTED ON: 08/24/20 5:58:05 PM

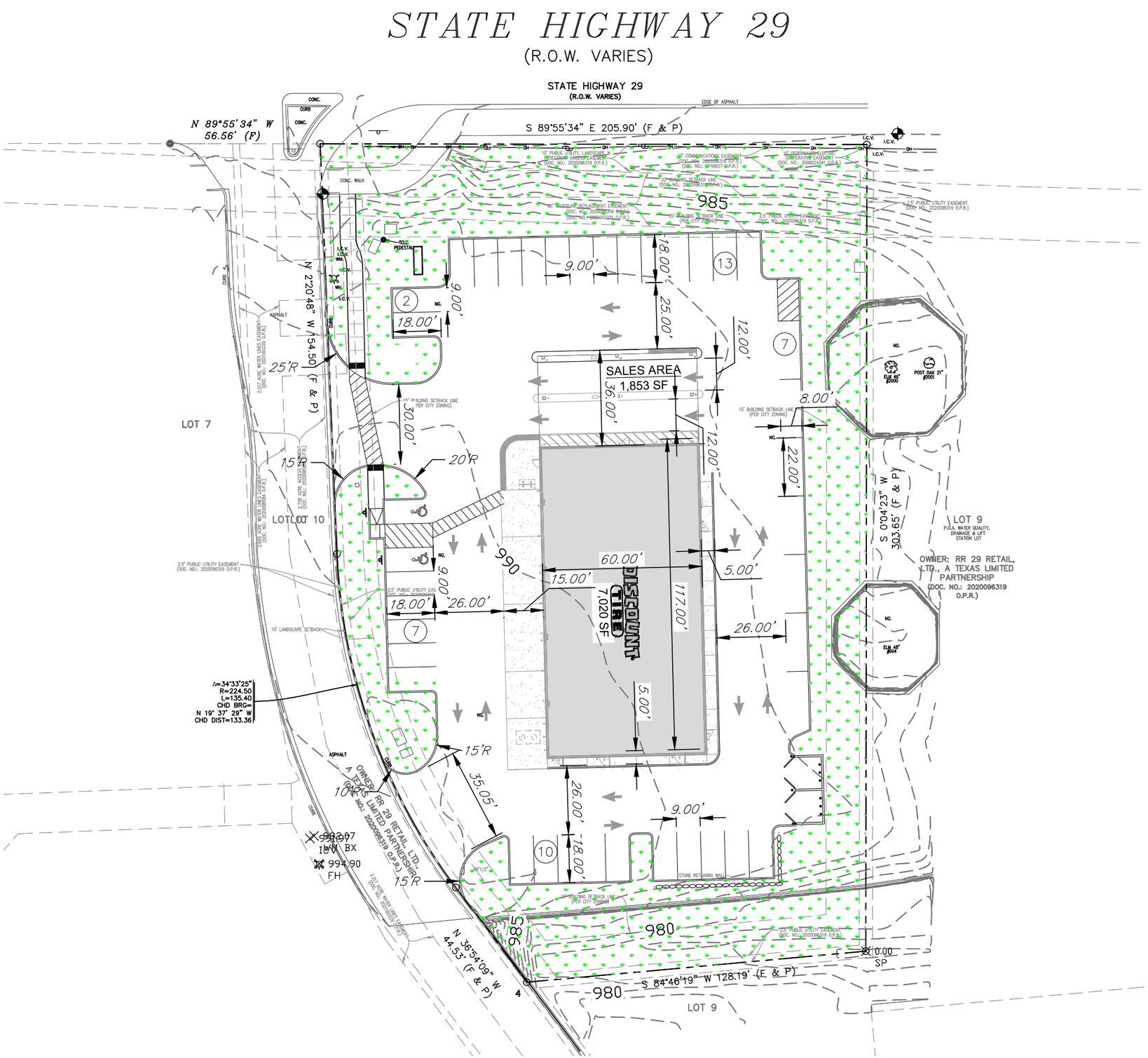
BAR W RANCH COMMERCIAL
SE CORNER OF RONALD REAGAN BLVD. AND RR 29
CITY OF LEANDER, WILLIAMSON COUNTY, TX

SEDIMENTATION FILTRATION POND DETAILS 2

August 24, 2020

STATE OF TEXAS
JENNIFER M. GARCIA
106000
LICENSED
PROFESSIONAL ENGINEER

CHECKED BY: ####
JOB NUMBER: 192-031
ISSUE DATE: 08/24/20
SHEET:
39 OF 114
19-SD-023



40 0 40

SCALE: 1" = 40'

PARKING SUMMARY

1 SPACE/1,000 SF FLOOR AREA	
GEN RETAIL/COMMERCIAL AREA	7,020 S.F.
REQUIRED PARKING COUNT (MIN)	36 SPACES
PROPOSED PARKING COUNT	39 SPACES

SITE SUMMARY

ZONING CLASSIFICATION:	PUD – GENERAL COMMERCIAL
BLDG SETBACKS:	15 FT (FRONT AND BACK) 15 FT (LT) 35 FT (RT)
BUFFER YARDS:	10 FT (FRONT)
TOTAL ACREAGE:	1.35± AC.
TOTAL GREENSPACE:	0.47± AC. (65% IMPERVIOUS)

DISCOUNT TIRE - LEANDER
SITE PLAN EXHIBIT
TWIN FLEX - OPTION 2
01-04-24

Bowman

8122 DATAPOINT RD, STE. 202
SAN ANTONIO, TEXAS 78216
PHONE: 210–298–1600
EMAIL: bschock@bowman.com
TBPE Registration No.: F–14309

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: Kevin B. Polasek

Date: 02/01/24

Signature of Customer/Agent:

Kevin Polasek, P.E.

Regulated Entity Name: Bar W Ranch Commercial

Regulated Entity Information

1. The type of project is:

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

2. Total site acreage (size of property): 1.346 Acres

3. Estimated projected population: 0

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	8,873	÷ 43,560 =	0.20
Parking	28,541	÷ 43,560 =	0.65
Other paved surfaces	1,005	÷ 43,560 =	0.02
Total Impervious Cover	38,419	1.35 ÷ 43,560 =	0.88

Total Impervious Cover 0.88 **÷ Total Acreage** 1.35 **X 100 =** 65.18 **% Impervious Cover**

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

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

For Road Projects Only

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

7. Type of project:

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

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

   ☐ Concrete
   ☐ Asphaltic concrete pavement
   ☐ Other: _____

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

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

10. Length of pavement area: _____ feet.

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

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

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

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

100 % Domestic	160 Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day 160	

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 LIBERTY HILL 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" = 20 '.

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 Panel 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 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 §76.

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

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

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

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

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

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

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

26. ☐ Surface waters (including wetlands).

    ☐ N/A

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

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

28. ☒ Legal boundaries of the site are shown.

Administrative Information

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

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

ATTACHMENT A

Factors Affecting Surface Water Quality

Possible factors that could affect ground water quality during construction:

Activities include sediment laden storm water and pollutants from construction materials and equipment including concrete, petroleum, oil, diesel, detergents, lubricants, fertilizers, lead-based paint, solvents, cleaners, concrete wash water, concrete curing compound, pipe joint lubrication and sanitary waste from onsite portable units.

Possible factors that could affect ground water quality post construction:

Activities pollutants from petroleum, oil, and diesel spills, landscape fertilizers, concrete wash water, solvents, and cleaners.

ATTACHMENT B

Volume and Character of Stormwater

All proposed flows from onsite drainage areas are to be captured and on-site and match drainage patterns in the previously approved WPAP. Flows from Onsite Drainage Area Basin 2 are treated by a sedimentation/filtration pond designed to treat up to 85% impervious cover and the contributing drainage are to this BMP is 4.85 Acres. At the analysis point for the overall site, the pre-development peak flow for a 100-yr storm is 1321.1 CFS and the post-development peak flow for a 100-yr storm is 1279.8 CFS. This phase of the project is for a Discount Tire Store and the total acreage is 1.346, which is a part of the 4.85 acres contributing to the sedimentation/filtration pond. The proposed site is approximately 65% impervious cover, whereas the approved WPAP is for 85% impervious cover. Please reference the drainage area map phase plan for TSS calculations posed by this area.

ATTACHMENT C

Suitability Letter from Authorized Agent

An on-site sewage facility is not proposed for this development and a Suitability Letter from an Authorized Agent will not be necessary.

ATTACHMENT D

Exception to the Required Geological Assessment Site Plan

A Geological Assessment has been submitted with the previous WPAP modification application and has been provided for reference in this application. No exception to Geological Assessment is being requested for this project.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Texas State Plane central zone (FIPSZONE 4203). The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242,** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was provided in digital format by CAPCOG. This information was digitized at a scale of at least 1:2,400 from aerial photography dated 2002.

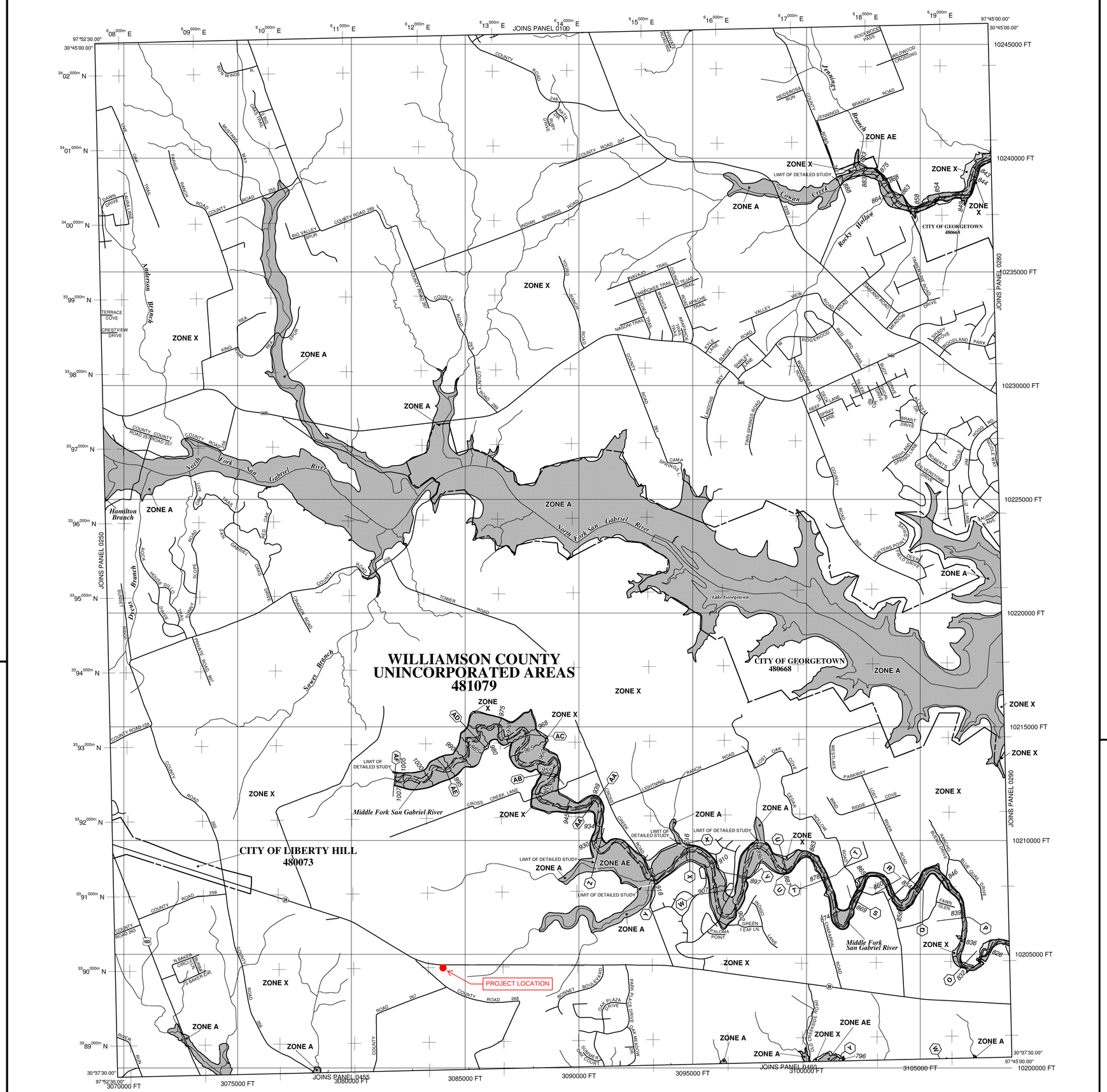
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study report*, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	Floodplain boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A — A	Cross section line
23 - - - - 23	Transect line
97°07'30", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
$^{42}75^{000m}$N	1000-meter Universal Transverse Mercator grid , zone 14
6000000 FT	5000-foot grid : Texas State Plane coordinate system, central zone (FIPSZONE 4203), Lambert Conformal Conic
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 27, 1991
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
November 2, 1995, January 3, 1997
September 26, 2008 - to update corporate limits, to update map format, to add roads and road names, to incorporate previously issued Letters of Map Revisions, to reflect updated topographic information.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET
600 0 600 1200 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0275E

FIRM
FLOOD INSURANCE RATE MAP
WILLIAMSON COUNTY, TEXAS
AND INCORPORATED AREAS

PANEL 275 OF 750
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
WILLIAMSON COUNTY	481079	0275	E
GEORGETOWN, CITY OF	480668	0275	E
LIBERTY HILL, CITY OF	480073	0275	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
48491C0275E

MAP REVISED
SEPTEMBER 26, 2008

Federal Emergency Management Agency

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: Kevin B. Polasek

Date: 02/01/24

Signature of Customer/Agent:

Kevin Polasek, P.E.

Regulated Entity Name: Bar W Ranch Commercial

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: Middle Fork San Gabriel River

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 (Temporary Stormwater)

1.4.16 Spill Prevention and Control

The objective of this section is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

The following steps will help reduce the storm water impacts of leaks and spills:

Education

1) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.
2) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
3) Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
4) Establish a continuing education program to indoctrinate new employees.
5) Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

1) To the extent that work can be accomplished safely, spills of oil, petroleum products, and substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
2) Store hazardous materials and wastes in covered containers and protect from vandalism.
3) Place a stockpile of spill cleanup materials where it will be readily accessible.
4) Train employees in spill prevention and cleanup.
5) Designate responsible individuals to oversee and enforce control measures.
6) Spills should be covered and protected from storm water runon during rainfall to the extent that it doesn't compromise clean up activities.
7) Do not bury or wash spills with water.
8) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.
9) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.
10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.
11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.
12) Keep waste storage areas clean, well organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

1) Clean up leaks and spills immediately.
2) 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.
3) 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

1) Minor spill typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.
2) Use absorbent materials on small spills rather than hosing down or burying the spill.
3) Absorbent materials should be promptly removed and disposed of properly. Follow the practice below for a minor spill.
    a. Contain the spread of the spill.
    b. Recover spilled materials.
    c. 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:

1) Contain the spread of the spill.
2) Notify the project foreman immediately.
3) 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.
4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
5) 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:

1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin District) or 210-490-3096 (San Antonio District) between 8 a.m. and 5 p.m. 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.
2) 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 1-800-424-8802.
3) Notification should first be made by telephone and followed up with a written report.
4) 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.
5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff’s Office, Fire Departments, etc. More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tceq.texas.gov/response/spill_rules.html

Vehicle Equipment and Maintenance

1) If vehicle maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runoff of storm water and the runoff of spills.
2) Regularly inspect onsite vehicles and equipment for leaks and repair immediately.
3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.
4) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.
5) Place drip pans or absorbent materials under paving equipment when not in use.
6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.
7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
8) Oil filters disposed of in trashcans or dumpsters can leak oil and pollute storm water. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.
9) Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it was cracked. Put it into the containment area until you are sure that it is not leaking.

Vehicle and Equipment Fueling

1) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runon of storm water and the runoff of spills.
2) Discourage "topping off" of fuel tanks.
3) Always use secondary containment, such as a drain pan, when fueling to catch spills/leaks.

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ATTACHMENT B

Potential Sources of Contamination

Other potential sources of contamination include:

1) Oil and grease from the construction equipment.
2) Human wastes
    a. Must be disposed of properly (i.e. Port-O-Let with proper maintenance)
3) Food wastes
    a. Must be disposed of in an appropriate trash receptacle and emptied on a regular basis.
4) Concrete washout pits
    a. A concrete washout pit will be provided on site to allow concrete trucks to wash out.

ATTACHMENT C

Sequence of Major Activities

The installation of erosion and sedimentation controls shall occur prior to any excavation or materials or major disturbances on the site.

The order of construction is:

1) Setup of temporary storm water controls
2) Clearing (1.346 acres).
3) Grading of the site for parking and buildings
4) Finish construction of parking and buildings
5) Stabilizing disturbed area (1.346 acres)
6) Removal of temporary storm water controls

The area to be disturbed equals approximately 1.346 acres.

ATTACHMENT D

Temporary Best Management Practices and Measures

1) Silt fencing and rock berms will be placed at down gradient portions of the site to prevent contaminated storm water originating on-site to leave the site. See attached Storm Water Pollution Prevention Plan (SWPPP) for locations of the TBMPs.
2) There are no sensitive features or surface streams located on the site.

ATTACHMENT E

Request to Temporarily Seal a Feature

There will be no request to temporarily seal a feature for the purposes of this project.

1445 North Loop West, Suite 450, Houston, TX 77008
P: 713.993.0333
bowman.com

ATTACHMENT F

Structural Practices

Inlet protection for newly constructed and existing inlets is proposed and silt fence will line the perimter boundary of the limits of construction to remove construction sediment from runoff (see SWPPP).

The contractor shall supply a concrete truck wash out area in an area as set forth by the construction plans.

A stabilized construction entrance will prevent sediment from vehicles from leaving the site.

ATTACHMENT G

Drainage Area Map

Please see attached construction documents submitted under separate cover for Drainage Area Map.
Lot 8 will be served by existing sedimentation and filtration pond constructed by the overall developer on Lot 9 for the 4.85 acres north of the channel running through the Bar W Commercial subdivision.

ATTACHMENT H

Temporary Sediment Pond(s) Plans and Calculations

No on-site temporary sediment pond not required.

ATTACHMENT I

Inspection and Maintenance for BMP's

Silt Fencing Inspection and Maintenance*

1) Inspect all fencing weekly, and after any rainfall.
2) Remove sediment when buildup reaches 6 inches, or install a second line of fencing parallel to the old fence.
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.

*Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices, Revised July 2005

Rock Berm Inspection and Maintenance*

1) Inspections 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.
3) Repair any loose wire sheathing.
4) The berm should be reshaped as needed during inspection.
5) The berm should be replaced when the structures 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.

*Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices, Revised July 2005

Contractor is to keep written documentation on attached forms. Forms should be available on-site at all times when workers are present.

ATTACHMENT J

Schedule of Interim and Permanent Soil Stabilization Practices

Whenever construction has stopped – temporarily or permanently – for 14 days in any part of your site, the contractor must begin stabilizing any exposed soil in that area. There are two exceptions to this requirement:

1) If drought prevents you from meeting this requirement, the contractor does not have to try to stabilize the soil. However, the contractor must begin to stabilize the soil as soon as the weather allows.
2) If excavation, grading, or any other earth-disturbing activity will resume in this area within another 7 days – a total of 21 days after construction has stopped – the contractor does not have to stabilize the soil in the meantime.

Contractor to utilize temporary vegetation to achieve temporary stabilization. Other methods are available in the TCEQ Technical Guidance Manual.

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: Kevin B. Polasek

Date: 02/01/24

Signature of Customer/Agent

Kevin Polasek, P.E.

Regulated Entity Name: Bar W Ranch Commercial

Permanent Best Management Practices (BMPs)

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

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

   ☐ N/A

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

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

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

☐ N/A

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

   ☐ N/A

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

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

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

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

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

- ☐ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.
- ☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.
- ☒ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

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

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

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

   ☐ N/A

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

   - ☒ The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.
   - ☐ **Attachment E - Request to Seal Features**. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.

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

    - ☒ Design calculations (TSS removal calculations)
    - ☒ TCEQ construction notes
    - ☒ All geologic features
    - ☒ All proposed structural BMP(s) plans and specifications

    ☐ N/A

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

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

    ☐ N/A

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

    ☒ N/A

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

    ☐ N/A

Responsibility for Maintenance of Permanent BMP(s)

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

14. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

    ☐ N/A

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

    ☐ N/A

ATTACHMENT A

20% OR Less Impervious Cover Waiver

The proposed impervious cover is approximately 65%, which exceeds the maximum impervious cover to be eligible for a waiver from the permanent Best Management Practices requirements.

ATTACHMENT B

BMP's for Upgradient Stormwater

Upgradient stormwater flows are conveyed through a channel onsite, matching existing drainage patterns. These flows are not treated or detained. Existing and proposed drainage area maps are provided in the Site Development Plans as Sheets 27-29 submitted under separate cover.

ATTACHMENT C

BMP's for On-Site Stormwater

This development outfalls into a partial filtration and sedimentation pond to provide water quality on-site. The partial filtration and sedimentation pond treats stormwater generated in the 4.85 acre drainage area basin to the north of the channel running through the site, providing a water quality volume of 22,664 cubic feet.

The partial sedimentation and filtration pond was designed accordingly with TCEQ Edwards Aquifer Technical Guidance on BMPs.

ATTACHMENT D

BMP's for Surface Streams

There is an unnamed stream immediately adjacent and to the south of Lot 8. Existing retaining walls prevent untreated flows from entering the stream.

ATTACHMENT E

Request to Seal Features

The Geologic Assessment found no sensitive feature on site. There is no request to seal any features for this project.

ATTACHMENT F

Construction Plans

Construction plans for permanent BMP's have been included and submitted with this WPAP at the end of this section.

PLANS FOR CONSTRUCTION OF

SITE WORK

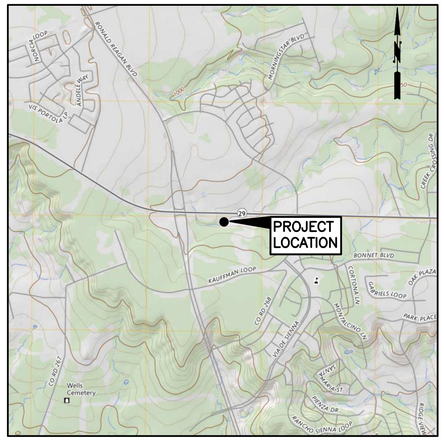
TO SERVE

DISCOUNT® TIRE

(TXA 13016)

19410 RONALD REAGAN BLVD.

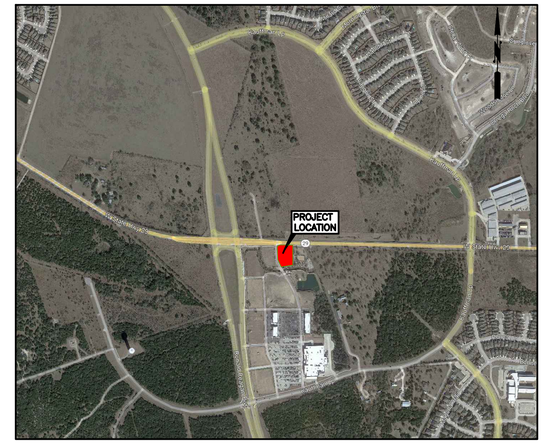
LEANDER, TEXAS 77630



LEANDER, TEXAS

VICINITY MAP

SCALE 1" = 2000'



LEANDER, TEXAS

LOCATION MAP

NOT-TO-SCALE

INDEX OF DRAWINGS

Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL NOTES
3	PRELIMINARY PLAT
4	EXISTING CONDITIONS
5	SITE GRADING PLAN
6	SITE DRAINAGE PLAN
7	UTILITY PLAN
8	DIMENSIONAL CONTROL PLAN
9	FIRE PROTECTION PLAN
10	DRAINAGE CALCULATIONS
11	STORM WATER POLLUTION PREVENTION PLAN
12	STORM WATER POLLUTION PREVENTION PLAN DETAILS
13	PAVING PLAN
14	PAVING DETAILS
15	UTILITY DETAILS (1 OF 3)
16	UTILITY DETAILS (2 OF 3)
17	UTILITY DETAILS (3 OF 3)
18	CITY OF LEANDER PAVING DETAILS
19	CITY OF LEANDER FIRE DETAILS

ISSUE FOR PERMIT REVIEW
01/30/24

ARCHITECT: **KDF ARCHITECTURAL GROUP, LLC**
1747 E MORTEN AVE.; SUITE 111
PHOENIX, AZ 85020
PHONE: (602) 234-1868

DEVELOPER: DISCOUNT TIRE
20225 N. SCOTTSDALE ROAD
SCOTTSDALE, AZ 85255
TEL: (480) 606-5931

ADDRESS: 19410 RONALD REAGAN BLVD.
LEANDER, TX 77630

APPROVED BY:

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

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

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

CHIEF JOSHUA DAVIS, FIRE MARSHAL — DATE

K. Polasek, P.E.

STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KEVIN POLASEK, P.E. 96632

ON JANUARY 30, 20 24

REVISIONS			
REV.NO.	DESCRIPTION	DATE	APP.

Bowman
1445 N. LOOP WEST – SUITE 450
HOUSTON, TEXAS 77008
713-993-0333
TBPE Registration No.: F-14309

Texas 811
CALL 2 DAYS BEFORE YOU DIG

PROJECT NO. 250430-01-001
CONTRACT NO. 1
JANUARY 2024

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\1 COVER SHEET.dwg Jan 30, 2024-4:22pm Terra Associates Inc., dbuckson

DISCOUNT TIRE - TXA 13016 - (250430)

GENERAL CONSTRUCTION NOTES

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

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 RESPONSIBILITILY 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 GOVERNMENTPRINTING 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 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.

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\2 GENERAL NOTES.dwg, 2 GENERAL NOTES, January 30, 2024, 4:22 PM, dbuckson

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE PROTECTIVE FENCING PRIOR TO ANY WORK (CLEARING, GRUBBING OR EXCAVATION). CONTACT STORMWATER INSPECTOR FOR ON SITE INSPECTION PRIOR TO BEGINNING CONSTRUCTION.
2. 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 PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
3. THE TEMPORARY SPOILS DISPOSAL SITE IS TO BE SHOWN IN THE EROSION CONTROL MAP.
4. 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.
5. 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.
6. 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.
7. 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.
8. TEMPORARY STOP SIGNS SHOULD BE INSTALLED AT ALL CONSTRUCTION ENTRANCES WHERE A STOP CONDITION DOES NOT ALREADY EXIST.
9. 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

1. PRESSURE TAPS SHALL BE IN ACCORDANCE WITH CITY OF LEANDER STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION, ETC. 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 WILL NOT BE PERMITTED UNLESS MADE BY THE USE OF AN APPROVED FULL–CIRCLE GASKETED TAPPING SLEEVE. CONCRETE BLOCKING SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES A MINIMUM OF 24 HOURS PRIOR TO THE BRANCH BEING PLACED INTO SERVICE. BLOCKING SHALL BE INSPECTED PRIOR TO BACKFILL.
2. 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.
3. CURVILINEAR WASTEWATER DESIGN LAYOUT IS NOT PERMITTED.
4. THRUST BLOCKING 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 BLOCKING AND RESTRAINTS.
5. MANDREL TESTING WILL BE REQUIRED ON ALL WASTEWATER PIPE. PER TCEQ, THIS TEST MUST BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
6. 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
7. IN ADDITION TO NORMAL COMPACTION METHODS DURING DRY WEATHER CONDITIONS, TRENCH AND MANHOLE BACKFILL IN AND/OR ADJACENT TO STREETS, STRUCTURES, DRIVEWAYS, ETC., SHOULD BE FLOODED TO PROVIDE ADDITIONAL CONSOLIDATION OF BACKFILL DURING CONSTRUCTION PERIODS THAT DO NOT EXPERIENCE SIGNIFICANT RAINFALL EVENTS PRIOR TO SUBGRADE PREPARATION, FLEXIBLE BASE PLACEMENT, PAVING OPERATIONS.
8. 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

9. TOOLS FOR STAMPING THE CURBS SHALL BE PROVIDED BY THE CONTRACTOR. OTHER APPROPRIATE MEANS OF STAMPING SERVICE AND VALVE LOCATIONS SHALL BE PROVIDED IN AREAS WITHOUT CURBS. SUCH MEANS OF STAMPING SHALL BE SPECIFIED BY THE ENGINEER AND ACCEPTED BY THE CITY OF LEANDER.
10. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF–PW) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 200 PSI.
11. NO PIPE OR FITTING WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY.
12. TYPICAL DEPTH OF COVER FOR ALL WASTEWATER LINES SHALL BE 48" MINIMUM, WATER LINES SHALL BE 36" MINIMUM UNDER BOTH PAVEMENT AND NATURAL GROUND. STORM SEWER SHALL BE 24" MINIMUM UNDER NATURAL GROUND.
13. THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY AWWA FORMULAS.
14. ALL WATER MAINS, DISTRIBUTION LINES AND SERVICE LINES SHALL BE INSTALLED IN ENCASEMENT PIPE UNDERNEATH EXISTING STREETS AND OTHER PAVED SURFACES UNLESS APPROVED WITH PLANS.
15. ALL MECHANICAL RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
16. ALL DEAD–END WATER MAINS SHALL HAVE THRUST RESTRAINTS INSTALLED ON THE LAST THREE PIPE–LENGTHS (STANDARD 20' LAYING LENGTH), AT MINIMUM, AND THRUST BLOCKS INSTALLED ON THE PLUG. ADDITIONAL THRUST RESTRAINTS MAY BE REQUIRED BASED UPON THE MANUFACTURER'S RECOMMENDATIONS AND/OR CALCULATIONS BY THE ENGINEER OF RECORD.
17. WHERE WATER LINES CROSS WASTEWATER LINES AND THERE IS LESS THAN 9 FEET CLEARANCE BETWEEN LINES, THE WASTEWATER LINE SHALL BE PLACED SO THAT THE WASTEWATER PIPE SECTION IS CENTERED ON THE WATER LINE AND CONSTRUCTED IN ACCORDANCE WITH TCEQ CHAPTERS 217.53(b) AND 290.44(e).
18. PIPE MATERIAL FOR WATER MAINS SHALL BE PVC (AWWA C900–16 MIN. 235 PSI PRESSURE RATING). WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200PSI, SDR–(9)). DUCTILE IRON PIPE (AWWA C115/C151, MIN. PRESSURE CLASS 250) MAY BE USED FOR WATER MAINS WITH THE EXPRESS APPROVAL OF CITY OF LEANDER ENGINEERING.
19. PIPE FOR PRESSURE WASTEWATER MAINS SHALL BE PVC (AWWA C900–16), GREEN AND MARKED FOR SEWER. PIPE MATERIAL FOR GRAVITY WASTEWATER MAINS SHALL BE PVC (ASTM D2241, D3034 MAX. SDR–26 OR PS115 F679) OR FIBERGLASS WITH PIPE STIFFNESS OF 72 PSI PER COA SPL WW–509.
20. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C115/C151 PRESSURE CLASS 350).
21. INTERIOR SURFACES OF ALL DUCTILE IRON POTABLE OR RECLAIMED WATER PIPE SHALL BE CEMENT–MORTAR LINED AND SEAL COATED AS REQUIRED BY AWWA C104.
22. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8–MIL POLYETHYLENE.
23. THE CONTRACTOR SHALL CONTACT THE ENGINEERING DEPARTMENT INSPECTOR AT 528–2700 AT LEAST 48 HOURS PRIOR TO CONNECTING TO THE EXISTING WATER LINES.
24. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON RING AND COVER. TAPPING OF FIBERGLASS MANHOLES SHALL NOT BE ALLOWED.
25. EXISTING MANHOLES MODIFIED BY CONSTRUCTION ACTIVITY SHALL BE TESTED FOR LEAKAGE BY VACUUM. ANY EXISTING MANHOLE WHICH FAILS TO PASS THE VACUUM TEST SHALL BE CLOSELY EXAMINED BY THE INSPECTOR AND THE CONTRACTOR TO DETERMINE IF THE MANHOLE CAN BE REPAIRED. THEREAFTER, THE CONTRACTOR SHALL EITHER REPAIR OR REMOVE AND REPLACE THE MANHOLE AS DIRECTED.
26. PIPE CONNECTIONS TO EXISTING MANHOLES AND JUNCTION BOXES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF AUSTIN SPECIFICATION 506.5.F.
27. LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.
28. THE CONTRACTOR, AT HIS EXPENSE, SHALL PERFORM STERILIZATION OF ALL CONSTRUCTED POTABLE WATER LINES AND SHALL PROVIDE ALL EQUIPMENT (INCLUDING TEST GAUGES), SUPPLIES (INCLUDING CONCENTRATED CHLORINE DISINFECTING MATERIAL), AND NECESSARY LABOR REQUIRED FOR THE STERILIZATION PROCEDURE. THE STERILIZATION PROCEDURE SHALL BE MONITORED BY CITY OF LEANDER PERSONNEL. WATER SAMPLES WILL BE COLLECTED BY THE CITY OF LEANDER TO VERIFY EACH TREATED LINE HAS ATTAINED AN INITIAL CHLORINE CONCENTRATION OF 50 PPM. WHERE MEANS OF FLUSHING IS NECESSARY, THE CONTRACTOR, AT HIS EXPENSE, SHALL PROVIDE FLUSHING DEVICES AND REMOVE SAID DEVICES PRIOR TO FINAL ACCEPTANCE BY THE CITY OF LEANDER.
29. 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.
30. TESTING SHALL BE PERFORMED FOR ALL WASTEWATER PIPE INSTALLED AND PRESSURE PIPE HYDROSTATIC TESTING OF ALL WATER LINES CONSTRUCTED. THE OWNER'S CONTRACTOR SHALL PROVIDE ALL EQUIPMENT (INCLUDING PUMPS AND GAUGES), SUPPLIES AND LABOR NECESSARY TO PERFORM THE TESTS. THE CONTRACTOR SHALL NOTIFY THE CITY OF LEANDER ENGINEERING DEPARTMENT NO LESS THAN 48 HOURS PRIOR TO PERFORMING STERILIZATION, QUALITY TESTS, OR PRESSURE TESTS. A CITY OF LEANDER INSPECTOR SHALL BE PRESENT FOR ALL TESTS AND SHALL BE PAID FOR BY THE OWNER/CONTRACTOR. THESE SERVICES ARE PAID FOR AT THE TIME OF CONSTRUCTION PLAN SUBMITTAL.
31. THE CONTRACTOR SHALL NOT OPEN OR CLOSE ANY VALVE UNLESS AUTHORIZED BY THE CITY OF LEANDER.
32. ALL VALVE BOXES AND COVERS SHALL BE CAST IRON.
33. ALL WATER VALVE COVERS ARE TO BE PAINTED BLUE.
34. 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

35. 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

36. 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.
37. ALL WASTEWATER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) REGULATIONS, 30 TAC CHAPTER 213 AND 30 TAC CHAPTER 217, AS APPLICABLE. WHENEVER TCEQ AND CITY OF LEANDER SPECIFICATION CONFLICT, THE MORE STRINGENT SHALL APPLY.
38. MANHOLES SHALL BE COATED PER CITY OF AUSTIN SPL WW–511 (RAVEN 405 OR SPRAYWALL).
39. DENSITY TESTING FOR TRENCH BACKFILL LOCATED WITHIN THE LIMITS OF THE PAVED AREA IS TO BE DONE IN 12" LIFTS EVERY 500' AND AT LEAST ONCE PER LINE SEGMENT
40. ALL GRAVITY WASTEWATER MAINS TO BE TESTED BY CAMERA AND PAID FOR BY THE CONTRACTOR. CAMERA TESTING FOR WASTEWATER LINES IN ROADWAY SHALL OCCUR BEFORE PAVING. CONTRACTOR SHALL PROVIDE THE CITY WITH A DVD COPY OF THE FULL CAMERA INSPECTION.
41. RECLAIMED AND RECYCLED WATER LINE SHALL BE CONSTRUCTED OF "PURPLE PIPE." ALL RECLAIMED AND RECYCLED WATER VALVE COVERS SHALL BE SQUARE AND PAINTED PURPLE.

STREET AND DRAINAGE NOTES

1. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, OR ANY OTHER ACCESSIBILITY LEGISLATION, AND DOES NOT WARRANTY OR APPROVE THESE PLANS FOR ANY ACCESSIBILITY STANDARDS.
2. PRIOR TO ACCEPTANCE THE ENGINEER SHALL SUBMIT DOCUMENTATION THAT THE IMPROVEMENTS WERE INSPECTED BY TDLR OR A REGISTERED ACCESSIBILITY SPECIALIST (RAS) AND ARE IN COMPLIANCE WITH THE REQUIREMENTS OF THE TABA.
3. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY THE CITY OF LEANDER AFTER COMPLETION. THE CONTRACTOR SHALL NOTIFY THE CITY OF LEANDER ENGINEERING DEPARTMENT AT 528–2700 NO LESS THAN 48 HOURS PRIOR TO ANY TESTING.
4. 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
5. 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.
6. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT, INCLUDING GAS, ELECTRIC TELEPHONE, CABLE TV, ETC., SHALL BE A MINIMUM OF 36" BELOW SUBGRADE.
7. STREET RIGHT–OF–WAY SHALL BE GRADED AT A SLOPE OF ¼" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED. HOWEVER, IN NO CASE SHALL THE WIDTH OF RIGHT–OF–WAY AT ¼" PER FOOT SLOPE BE LESS THAN 10 FEET UNLESS A SPECIFIC REQUEST FOR AN ALTERNATE GRADING SCHEME IS MADE TO AND ACCEPTED BY THE CITY OF LEANDER PUBLIC WORKS DEPARTMENT.
8. BARRICADES BUILT TO THE CITY OF LEANDER STANDARDS SHALL BE ERECTED ON ALL DEAD–END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB AND PUBLIC SAFETY.
9. ALL REINFORCED CONCRETE PIPE SHALL BE MINIMUM CLASS III OF TONGUE AND GROOVE OR O–RING JOINT DESIGN.
10. THE CONTRACTOR IS TO NOTIFY THE ENGINEERING INSPECTOR 48 HOURS PRIOR TO THE FOLLOWING TESTING: 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.
11. THE CONTRACTOR MUST PROVIDE A PNEUMATIC TRUCK PER TXDOT SPEC FOR PROOF ROLLING.
12. AT INTERSECTIONS WHICH HAVE VALLEY DRAINAGE, THE CROWNS OF THE INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
13. AT THE INTERSECTION OF TWO 44' STREETS OR LARGER, THE CROWNS OF THE INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
14. A CURB LAYDOWN IS REQUIRED AT ALL POINTS WHERE THE PROPOSED SIDEWALK INTERSECTS THE CURB.
15. 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.
16. MANHOLE FRAMES, COVERS, VALVES, CLEAN–OUTS, ETC. SHALL BE RAISED TO GRADE PRIOR TO FINAL PAVEMENT CONSTRUCTION.
17. CONTRACTOR SHALL NOTIFY THE LEANDER ENGINEERING DEPARTMENT AT 528–2700 AT LEAST 48 HOURS PRIOR TO 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.
18. A STOP BAR SHALL BE PLACED AT ALL STOP SIGN LOCATIONS.
19. A MINIMUM OF SEVEN DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF PUBLIC VEHICULAR TRAFFIC TO ANY STREETS.
20. 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 CONSTRUCTION PLANS.
21. GEOTECHNICAL INVESTIGATION INFORMATION AND PAVEMENT RECOMMENDATIONS WERE PROVIDED BY GEOTECHNICAL REPORT NO. 23–423171.2, TTILED, " DISCOUNT TIRE – TXA 13016", PREPARED BY PARTNER ENGINEERING AND SCIENCE, INC., DATED OCTOBER 26, 2023 AND ANY ADDENDUMS THEREAFTER. PAVEMENT RECOMMENDATIONS ARE AS FOLLOWS:

DI–1: AUTOMOBILE PARKING AREAS (LIGHT DUTY)
DI–2: DRIVE LANES (HEAVY DUTY)
DI–3: TRASH ENCLOSURE/DUMPSTER PAD (HEAVY DUTY)

RIGID PAVEMENT SYSTEM			
	MATERIAL THICKNESS, INCHES		
COMPONENT	DI–1	DI–2	DI–3
REINFORCED CONCRETE	6.0	7.0	7.0
PROOFROLLED/COMPACTED SUBGRADE	6.0	6.0	6.0

*GEOTECH HAS APPROVED AN ALTERNATE TO DECREASE THE PAVEMENT THICKNESS BY 1–INCH (6–INCH TO 5–INCH, 7–INCH TO 6–INCH) IF 6–INCH SUBGRADE IS LIME OR CEMENT–TREATED (500 PSI AT 28 DAYS).

A. PARKING LIGHT DUTY: 6–INCHES OF PORTLAND CEMENT CONCRETE (5 1/2 SACK, 4–INCH MAX. SLUMP) WITH ASTM A615, GRADE 60 STEEL BARS, OVER MIN. 6–INCH PROOFROLLED/COMPACTED SUBGRADE PREPARED IN CONFORMANCE WITH SOILS REPORTS. REINFORCING TO BE #3 BARS SPACED AT 18 INCHES ON CENTERS IN BOTH DIRECTIONS.

B. DRIVE LANES HEAVY DUTY: 7–INCHES OF PORTLAND CEMENT CONCRETE (5 1/2 SACK, 4–INCH MAX. SLUMP) WITH ASTM A615, GRADE 60 STEEL BARS, OVER MIN. 6–INCH PROOFROLLED/COMPACTED SUBGRADE PREPARED IN CONFORMANCE WITH SOILS REPORTS. REINFORCING TO BE #3 BARS SPACED AT 18 INCHES ON CENTERS IN BOTH DIRECTIONS.

C. TRASH ENCLOSURE/DUMPSTER PAD: 7–INCHES OF PORTLAND CEMENT CONCRETE (5 1/2 SACK, 4–INCH MAX. SLUMP) WITH ASTM A615, GRADE 60 STEEL BARS, OVER MIN. 6–INCH PROOFROLLED/COMPACTED SUBGRADE PREPARED IN CONFORMANCE WITH SOILS REPORTS. REINFORCING TO BE #3 BARS SPACED AT 18 INCHES ON CENTERS IN BOTH DIRECTIONS.

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

NGS MONUMENT DESIGNATION Q 89 PID BK1780
DISK IN CONCRETE STAMPED "16.329 Q 89 1932" FOUND ON THE SOUTHWEST SIDE OF WOMAK ROAD APPROXIMATELY 19 WEST OF THE EDGE OF ASPHALT, AND APPROXIMATELY 210 FEET NORTHWEST THE INTERSECTION WITH OLD HIGHWAY 90. ELEVATION=15.35 NAVD88.

TEMPORARY BENCHMARKS:

TBM #1
NAIL SET IN CONCRETE CURB ON THE EAST CURB RETURN OF ACCESS DRIVE, APPROXIMATELY 19–FT SOUTH OF THE NORTHWEST CORNER OF THE SUBJECT TRACT.
ELEVATION=987.26'

TBM #2
NAIL SET IN CONCRETE SIDEWALK APPROXIMATELY 12–FT EAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.
ELEVATION=983.22'

ENVIROMENMENTAL NOTES

1. TEMPORARY EROSION/SEDIMENTATION CONTROLAND TREE/NATURAL AREA PROTECTION MEASURES:
   A. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
   B. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN.
   C. THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
   D. AS REQUIRED BY CITY ORDINANCE, A PRE–CONSTRUCTION CONFERENCE SHALL BE HELD SUBSEQUENT TO INSTALLATION OF THE INITIAL PHASE OF THE EROSION AND SEDIMENTATION CONTROLS AND PRIOR TO THE SITE TO DEMONSTRATE COMPLIANCE WITH THE ENVIRONMENT CRITERIA MANUAL AND THE APPROVED PLANS, AND TO PRESENT A PLAN INCLUDING FUTURE EROSION AND SEDIMENTATION CONTROLS, TREE PROTECTION, DRAINAGE, UTILITY AND STREET LAYOUTS. THE PUBLIC WORK'S CONSTRUCTION INSPECTOR SHALL BE ARRANGE A MEETING DATE FOR THE CONTRACTOR WITH THE SUPERVISOR OF ENVIRONMENTAL INSPECTION, AT LEAST THREE (3) DAYS PRIOR TO THE MEETING TIME. THE CONSTRUCTION INSPECTOR, DESIGN ENGINEER AND/OR FIELD ENGINEER SHALL ALSO BE PRSENT AT THIS MEETING.
   E. ANY SIGNIFICANT VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS MUST BE APPROVED BY THE ENGINEER, ENVIRONMENTAL SPECIALIST OR CITY ARBORIST AS APPROPRIATE.
   F. THE CONTRACTOR IS TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER EVERY SIGNIFICANT RAINFALL TO ENSURE THEY HAVE NOT BEEN SUBSTANTIALLY DISTURBED. THE PERSON(S) OR FIRM(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL BE IMMEDIATELY DIRECTED TO MAKE ANY NECESSARY REPAIRS.
   G. ANY SEDIMENT BUILD–UP OCCURING AFTER A SIGNIFICANT RAIN SHALL BE REMOVED AND PLACED IN THE DESIGNATED SPOIL DISPOSAL SITE.
2. PERMANENT EROSION CONTROL
   A. ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW (FOR SPECIFICS, REFERENCE THE CITY OF AUSTIN STANDARD SPECIFICATIONS–SERIES 600, ENVIRONMENTAL ENHANCEMENT AND THE PROJECT MANUAL).
   B. A MINIMUM OF SIX INCHES OF TOPSOIL SHALL BE PLACED IN ALL DRAINAGE CHANNELS (EXCEPT ROCK) AND BETWEEN THE CURB AND RIGHT–OF–WAY LINE.
   C. THE CONTRACTOR SHALL HYDROMULCH OR SOD ALL DISTURBED AREAS UPON COMPLETION OF CONSTRUCTION, EXCEPT WHERE CUTS ARE MADE IN SOLID ROCK.
   D. THE SEEDING FOR EROSION CONTROL SHALL BE APPLIED OVER AREAS DISTURBED BY CONSTRUCTION AS FOLLOWS:

      SEED SHALL CONFORM TO CITY OF AUSTIN STANDARD #609S OR TXDOT EQUIVALENT. COMMON BERMUDA IS NOT ACCEPTABLE (HYBRID BERMUDA OR TEFF GRASS MAY BE UTILIZED).
   E. FERTILIZER SHALL HAVE AN ANALYSIS OF 15–15–15 AND SHALL BE APPLIED AT THE RATE OF 653 POUNDS PER ACRE.
   F. THE PLANTED AREA SHALL IRRIGATED OR SPRINKLER IN MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF SIX INCHES. THE IRRIGATION SHALL OCCUR AT TEN DAY INTERVALS DURING THE FIRST TWO MONTHS. RAINFALL OCCURENCES OF 1/2 INCH OR GREATER SHALL POSTPONE THE WATERING SCHEDULE ONE WEEK.
   G. MULCH TYPE USED SHALL BE EITHER CELLULOSE FIBER MULCH APPLIED AT A RATE OF 2000 POUNDS PER ACRE, OR WOOD FIBER MULCH APPLIED AT A RATE OF 2500 POUNDS PER ACRE.
   H. RESTORATION SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1–1/2" HIGH WITH 95% COVERAGE, PROVIDED THAT NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST (SEE ITEM 604.7 OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS).
   I. WHEN REQUIRED, NATIVE GRASS SEEDINGS SHALL COMPLY WITH ITEM 609S OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.

DEVELOPER INFORMATION:

OWNER HALLE PROPERTIES, LLC PHONE # (480) 606–6847
ADDRESS 20225 N. SCOTTSDALE RD, SCOTTSDALE, AZ 85255
OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
BOWMAN CONSULTING PHONE # (713) 993–0333
PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENT CONTROL MAINTENANCE:
CONTRACTOR

PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:
CONTRACTOR

DRY UTILITY GENERAL CONSTRUCTION NOTES

1. CONTACTOR SHALL MAINTAIN MINIMUM 24" CLEARANCE FROM ALL EXISTING UTILITIES.
2. FOR PUBLIC WATER & WASTEWATER LINE EMERGENCIES, CONTACT THE CITY OF LEANDER PUBLIC WORKS EMERGENCY 24–HOUR ON–CALL LINE AT 512–690–4760.
3. THE CONTRACTOR SHALL CONTACT THE TEXAS EXCAVATION SAFETY SYSTEM AT 1–800–344–8377 FOR EXISTING UTILITY LOCATIONS 48 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES THAT ARE TO BE EXTENDED, TIED TO, CROSSED, OR ALTERED; OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS.
4. CONTACT THE CITY OF LEANDER PUBLIC WORKS DEPARTMENT FOR EXISTING WATER, WASTEWATER, STREET LIGHT ELECTRICAL WIRING, AND TRAFFIC SIGNAL WIRING LOCATIONS A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.
   a. LOCATE REQUESTS MUST INCLUDE A COPY OF YOUR 811 TICKET.
   b. 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.
   c. REPORT ALL DAMAGE TO CITY INFRASTRUCTURE IMMEDIATELY – IF YOU WITNESS OR EXPERIENCE EXCAVATION DAMAGE, PLEASE CONTACT THE CITY OF LEANDER PUBLIC WORKS DEPARTMENT BY PHONE. IF DAMAGE IS WITNESSED OR EXPERIENCED AFTER HOURS, CALL THE CITY OF LEANDER UTILITIES ON–CALL LINE AT THE NUMBER LISTED ABOVE.
5. A PRECONSTRUCTION CONFERENCE SHALL BE HELD WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT & CITY OF LEANDER REPRESENTATIVES PRIOR TO INSTALLATION OF EROSION/SEDIMENTATION CONTROLS & TREE PROTECTION MEASURES AS WELL AS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE CITY OF LEANDER PLANNING DEPARTMENT AT 512–528–2750 AT LEAST THREE (3) DAYS PRIOR TO MEETING DATE.
6. CITY OF LEANDER NOISE ORDINANCE PROHIBITS CONSTRUCTION ACTIVITY BETWEEN THE HOURS OF 9 PM AND 7 AM. REQUESTS FOR EXCEPTIONS TO THE ORDINANCE MUST BE MADE TO LEANDER CITY COUNCIL.
7. CONTRACTOR SHALL BORE UNDER ALL DRIVEWAYS, STREET CROSSINGS AND OTHER PAVED AREAS. OPEN CUT CROSSING SHALL NOT BE ALLOWED.
8. CONTRACTOR SHALL REPLACE ALL DAMAGED PAVEMENT, CURB & GUTTER, SIDEWALK, CURB INLETS AND ALL OTHER INFRASTRUCTURE DAMAGED BY CONSTRUCTION PER CITY OF LEANDER STANDARDS & SPECIFICATIONS.
9. AL CLAWSON DISPOSAL, INC. SHALL BE THE SOLE PROVIDER OF WASTE HAULING FOR THIS SITE BOTH DURING AND AFTER CONSTRUCTION.
10. ALL UNDERGROUND UTILITY LINES SHALL CROSS UNDERNEATH WATERLINES.
11. THE MINIMUM DEPTH OF COVER FOR UTILITY LINES INSTALLED UNDER CITY OF LEANDER ROADWAYS SHALL BE 36" BENEATH FINISHED GRADE.

EROSION CONTROL & RESTORATION

1. THE CITY OF LEANDER ENVIRONMENT INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION/SEDIMENTATION CONTROL ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
2. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE RESTORES WITH A MINIMUM 6" TOPSOIL. THE 6" MINIMUM SOIL DEPTH SHALL CONSIST OF 75% SOIL BLENDED WITH 25% COMPOST.
3. ALL DISTURBED AREAS SHALL BE RE–VEGETATED USING ONLY APPROVED GRASSES FROM THE GROW GREEN GUIDE.

PHASING PLAN & CONSTRUCTION SEQUENCE NOTE

1. INSTALL TEMPORARY EROSION CONTROL MEASURES ACCORDING TO PLAN AND SPECIFICATION PRIOR TO ANY CLEARING AND GRUBBING, GRADING, EXCAVATING, ETC.
2. HOLD PRE–CONSTRUCTION MEETING CONFERENCE WITH CONTRACTOR, THE CITY OF LEANDER, AND DESIGN ENGINEER
3. BEGIN CONSTRUCTION OF THE PROJECT AS FOLLOWS: DEMOLITION, TREE PROTECTION, PLACE OF MATERIALS, EXCAVATION, INSTALL UTILITIES FOR WATER AND STORM IMPROVEMENTS, INSTALL STORM SEWER, INSPECT AND KEEP RECORDS ON TEMPORARY EROSION CONTROLS ON A REGULAR BASIS PER SWPPP AND ADJUST CONTROLS AND/OR REMOVE ANY SEDIMENT BUILD UP, ENSURE THAT ALL OTHER PROVIDED (ATT ,ATMOS, ONCOR, ETC.) UNDERGROUND UTILITIES AND INSTALLED AND CROSSING ARE PROTECTED. INSTALL PAVING IMPROVEMENTS, INCLUDING DRIVEWAY APRONS. INSTALL PAVING MARKINGS PER PLAN. INSTALL FOUNDATION PER GEOTECHNICAL REPORT. INSTALL LANDSCAPING PER PLANS.
4. CLEAN UP SITE AND RESTORE ALL DISTURBED AREAS
5. FINAL WALK THROUGH AND ACCEPTANCE OF WORK.
6. REMOVE ANY TEMPORARY EROSION CONTROL MEASURES WITH PHASED CONSTRUCTION EROSION CONTROL MEASURES TO REMAIN.
7. COMPLETE ANY PUNCH LIST ITEMS AND FINAL DRESSED UP OF ANY DISTURBED AREA.
8. PROVIDE AS–BUILT MARK–UP DRAWINGS TO THE ENGINEER.
9. THE PLAN DOCUMENTS CONTAINED WITHIN ARE FOR THE SINGLE COMMERCIAL BUILDING, THE UTILITIES AND PAVING THROUGHOUT THE PLAN SET. THIS IS CONSIDERED TO BE FOR PHASE 1 ONLY.

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

GENERAL NOTES

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

Kevin Polasek, P.E.
STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED
PROFESSIONAL ENGINEER
JANUARY 30, 2024

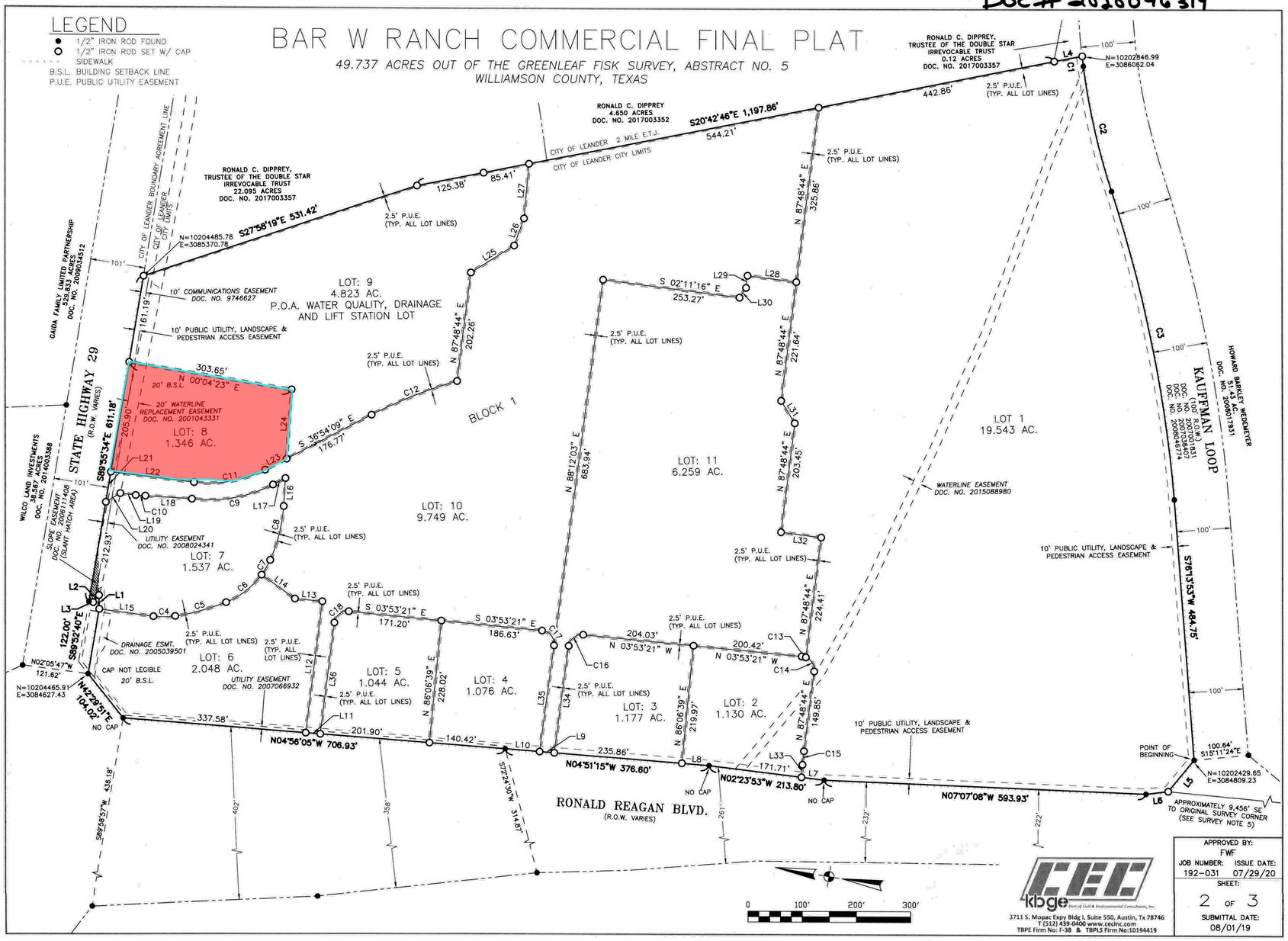
DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: NTS
JOB No. 250430-01-003
SHEET NO. 2 OF 19

Doc# 2020096319

BAR W RANCH COMMERCIAL FINAL PLAT

49.737 ACRES OUT OF THE GREENLEAF FISK SURVEY, ABSTRACT NO. 5
WILLIAMSON COUNTY, TEXAS



RECORDED PLAT
(FOR INFO ONLY)

VICINITY MAP

FLOODPLAIN INFORMATION :

THE SUBJECT PROPERTY IS LOCATED IN ZONE "X" UNSHADED, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP NUMBER 48491C0275E, WILLIAMSON COUNTY, TEXAS, LATEST REVISION SEPTEMBER 26, 2008.

BENCHMARK NOTE :

TEMPORARY BENCHMARKS:
TBM #1
NAIL SET IN CONCRETE CURB ON THE EAST CURB RETURN OF ACCESS DRIVE, APPROXIMATELY 19-FT SOUTH OF THE NORTHWEST CORNER OF THE SUBJECT TRACT.
ELEVATION=987.26'

TBM #2
NAIL SET IN CONCRETE SIDEWALK APPROXIMATELY 12-FT EAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.
ELEVATION=983.22'

LEGAL DESCRIPTION:

BEING A 1.347 ACRE (58,657 S.F.) TRACT OF LAND, LOCATED IN THE GREENLEAF FISK SURVEY, ABSTRACT NO. 5, WILLIAMSON COUNTY, TEXAS; ALSO BEING ALL OF LOT 8, BLOCK 1, OUT OF THE BAR W RANCH COMMERCIAL FINAL PLAT SUBDIVISION, CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS, AS RECORDED IN DOCUMENT 2020096319, O.P.R.W.C.T.

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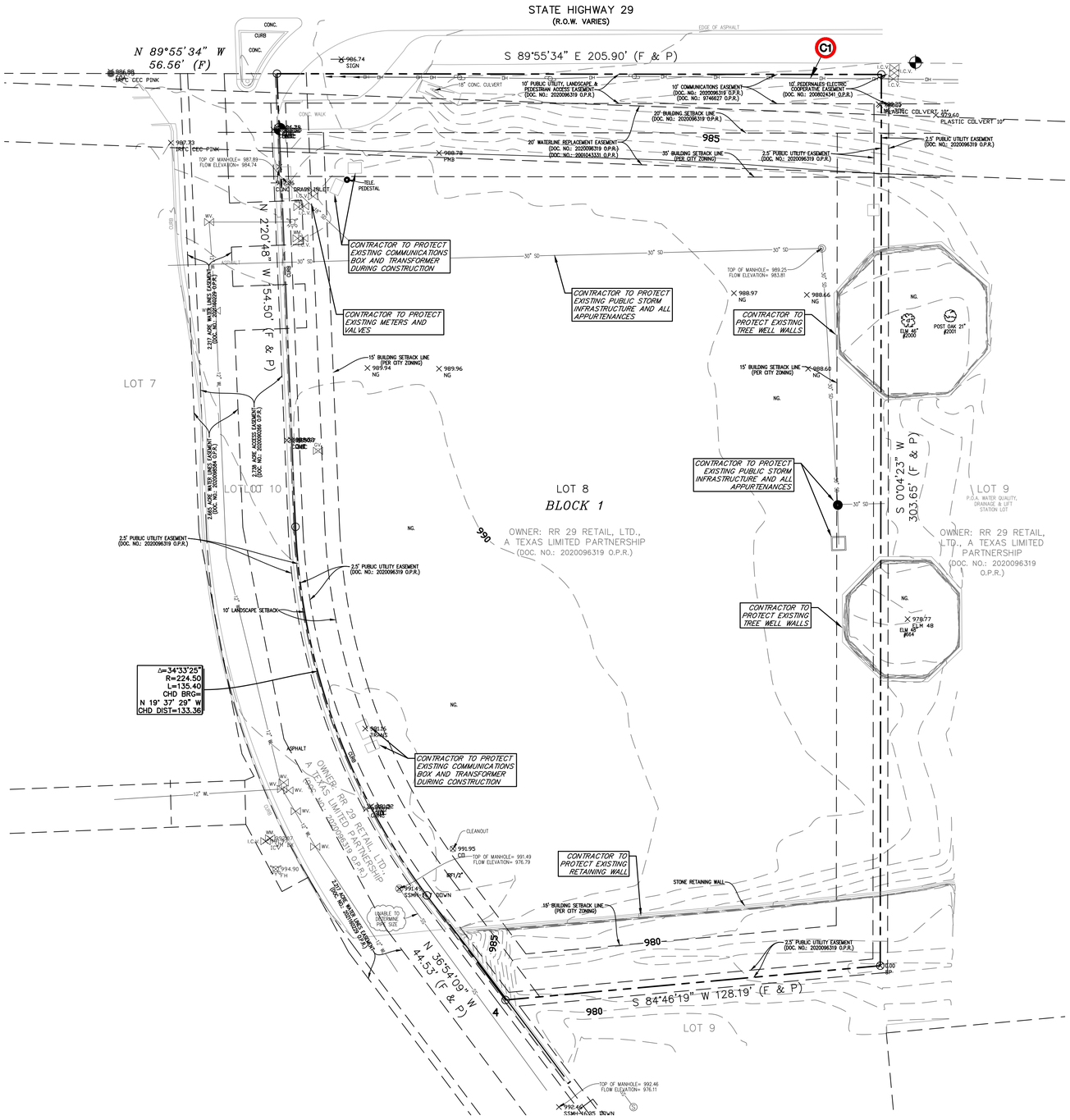
SCALE: 1:100
JOB No. 250430-01-003
SHEET NO. 3 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\3 RECORDED PLAT\3 RECORDED PLAT.dwg, January 30, 2024, 4:22 PM, dbuckson



VICINITY MAP

NOTE:
THE INFORMATION ON THIS SHEET IS FROM A SURVEY PREPARED BY SINCLAIR LAND SURVEYING COMPANY, INC., JOB NO. S-202372321, DATED OCTOBER 2, 2023, LAST REVISED NOVEMBER 2, 2023, AND WAS PROVIDED FOR OUR USE ON THIS PROJECT. NO REPRESENTATION FOR THE ACCURACY OF THE INFORMATION THEREIN AND NO LIABILITY BY ENGINEER IS ASSUMED FOR USE THEREOF.

FLOODPLAIN INFORMATION :

THE SUBJECT PROPERTY IS LOCATED IN ZONE "X" UNSHADED, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP NUMBER 48491C0275E, WILLIAMSON COUNTY, TEXAS, LATEST REVISION SEPTEMBER 26, 2008.

BENCHMARK NOTE :

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LEGEND:

1	= FOUND 1/2" IRON BAR WITHOUT A CAP	O.P.R.	= OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS
2	= SET 1/2" IRON BAR WITH AN ORANGE CAP MARKED "SLS RPLS 5142"	CONC.	= CONCRETE
3	= 1/2" IRON BAR WITH A PINK CAP MARKED "CEC" FOUND SET IN THE GROUND	NG.	= NATURAL GROUND
4	= FOUND NAIL WITH A WASHER MARKED "CEC" SET IN CONCRETE	TELE.	= TELEPHONE
5	= FOUND NAIL WITH A WASHER MARKED "CEC" SET IN ASPHALT	DOC.	= DOCUMENT
		NO.	= NUMBER
		OHE	= OVERHEAD ELECTRIC
		WL	= WATER LINE
		FO	= UNGROUND FIBER OPTIC
		SD	= STORM DRAIN LINE
		SS	= SANITARY SEWER LINE
		#	= NUMBER
(F)	= FIELD BEARING		= FIRE HYDRANT
(P)	= PLAT BEARING	WM.	= WATER METER
Δ	= DELTA ANGLE	WV.	= WATER VALVE
CHD BRG	= CHORD BEARING	I.C.V.	= IRRIGATION CONTROL VALVE
CHD DIST	= CHORD DISTANCE	G.V.	= GAS VALVE
R	= RADIUS		= LIGHT POLE
L	= LENGTH		= SIGN
N/A	= NOT APPLICABLE		= BENCHMARK
NA	= NATIONAL ADJUSTMENT		= POWER POLE
S	= SANITARY SEWER MANHOLE		
D	= STORM DRAIN MANHOLE		

GENERAL NOTES:

1.) This survey relies on a Commitment for Title Insurance issued by Chicago Title Insurance Company, under G.F. No. ATA-57-1706572300502E effective date Septpember 17, 2023 at 8:00 a.m.; issued September 25, 2023 at 8:00 a.m., for all matters of record, including easements, rights-of-way, and other encumbrances of public record affecting the subject property. No additional research has been performed by Sinclair Land Surveying, Inc., to determine the existence of any other encumbrances.

2.) All bearings and coordinates herein are based on the Texas State Plane Coordinate System, Texas Central Zone (4203), North American Datum 1983 (NA2011), Epoch 2010. All distances herein are grid and may be converted to surface by multiplying by a combined scale factor of 1.000120.)

3.) The subject property is located in Zone "X" unshaded area per the National Flood Insurance Program FIRM Map Number 48491C0275E, Williamson County, Texas, latest revision September 26, 2008.

4.) There are no designated wetland areas located within the subject tract per the U.S. Fish and Wildlife Service's "National Wetlands Inventory" on-line mapping website.

5.) Surface or subsurface faulting, hazardous waste, or other environmental issues have not been addressed within the scope of this survey. Further, there is no surface evidence that this site is being used as a solid waste dump, sump, or sanitary land fill.

6.) There was no evidence of recent dirt work or earth moving within subject property.

7.) Underground utility lines shown hereon are from record drawings by others and have not been verified in the field. Depths of these lines are unknown. There may be other buried utility lines of which this surveyor is unaware. The building contractor is responsible to verify actual locations of all underground utilities, prior to commencement of construction.

8.) This property is located within the City of Leander, Williamson County, Texas, and is subject to the platting and development ordinances of the City of Leander and Williamson County.

9.) This property is located in the City of Leander according to the City of Leander city limits map this property is located within PUD -General Commercial.

Texas811

CAUTION NOTES:

C1 CAUTION!! OVERHEAD POWER LINES. USE EXTREME CAUTION DURING CONSTRUCTION.

C2 CAUTION!! UNDERGROUND GAS LINE. USE EXTREME CAUTION DURING CONSTRUCTION.

C3 CAUTION!! UNDERGROUND TELEPHONE LINE/BURIED CABLE. USE EXTREME CAUTION DURING CONSTRUCTION.

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

EXISTING CONDITIONS

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED
PROFESSIONAL ENGINEER

JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: 1:20
JOB No. 250430-01-003
SHEET NO. 4 OF 19

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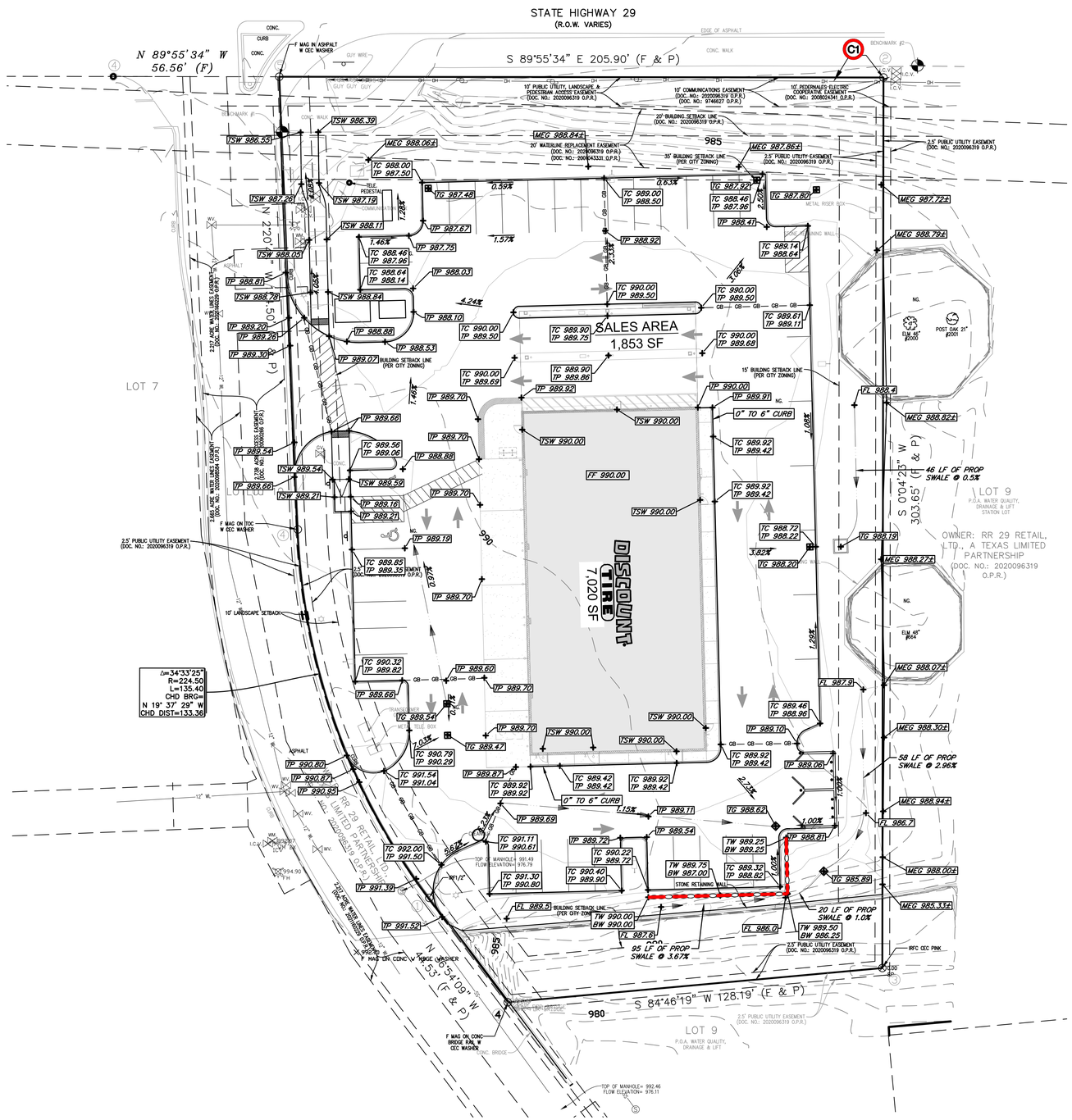

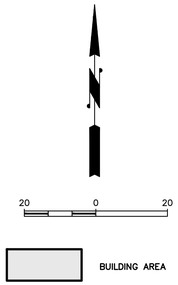

VICINITY MAP

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GRADING LEGEND

FF 990.00	FINISHED FLOOR ELEVATION
TC 989.75	TOP OF CURB
TP 989.25	TOP OF PAVEMENT
TW 988.25	TOP OF SIDEWALK
TG 987.90	TOP OF GRATE
FL 987.5	FLOW LINE ELEVATION
M.E.C.	MATCH EXISTING CURB
M.E.P.	MATCH EXISTING PAVEMENT
M.E.G.	MATCH EXISTING GRADE
— GB— GB— GB— GB— GB—	PROPOSED GRADE BREAK
	PROPOSED SWALE/DRAINAGE LOW
1.5%	PROPOSED SLOPE/GRADE
	PROPOSED RETAINING WALL

NOTE:
MAXIMUM CROSS SLOPES FOR SIDEWALKS AND A.D.A. ACCESS ROUTES SHALL NOT EXCEED 2.0% RAMP SLOPES SHALL NOT EXCEED 1-INCH PER FOOT (8.33%).

Texas811

CAUTION NOTES:

C1 CAUTION!!! OVERHEAD POWER LINES. USE EXTREME CAUTION DURING CONSTRUCTION.

C2 CAUTION!!! UNDERGROUND ELECTRICAL. USE EXTREME CAUTION DURING CONSTRUCTION.

C3 CAUTION!!! UNDERGROUND GAS LINE. USE EXTREME CAUTION DURING CONSTRUCTION.

C4 CAUTION!!! UNDERGROUND TELEPHONE LINE/BURIED CABLE. USE EXTREME CAUTION DURING CONSTRUCTION.

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TBPE Firm Registration No. F-14309

REVISIONS

REVISION	DESCRIPTION	DATE
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SITE GRADING PLAN

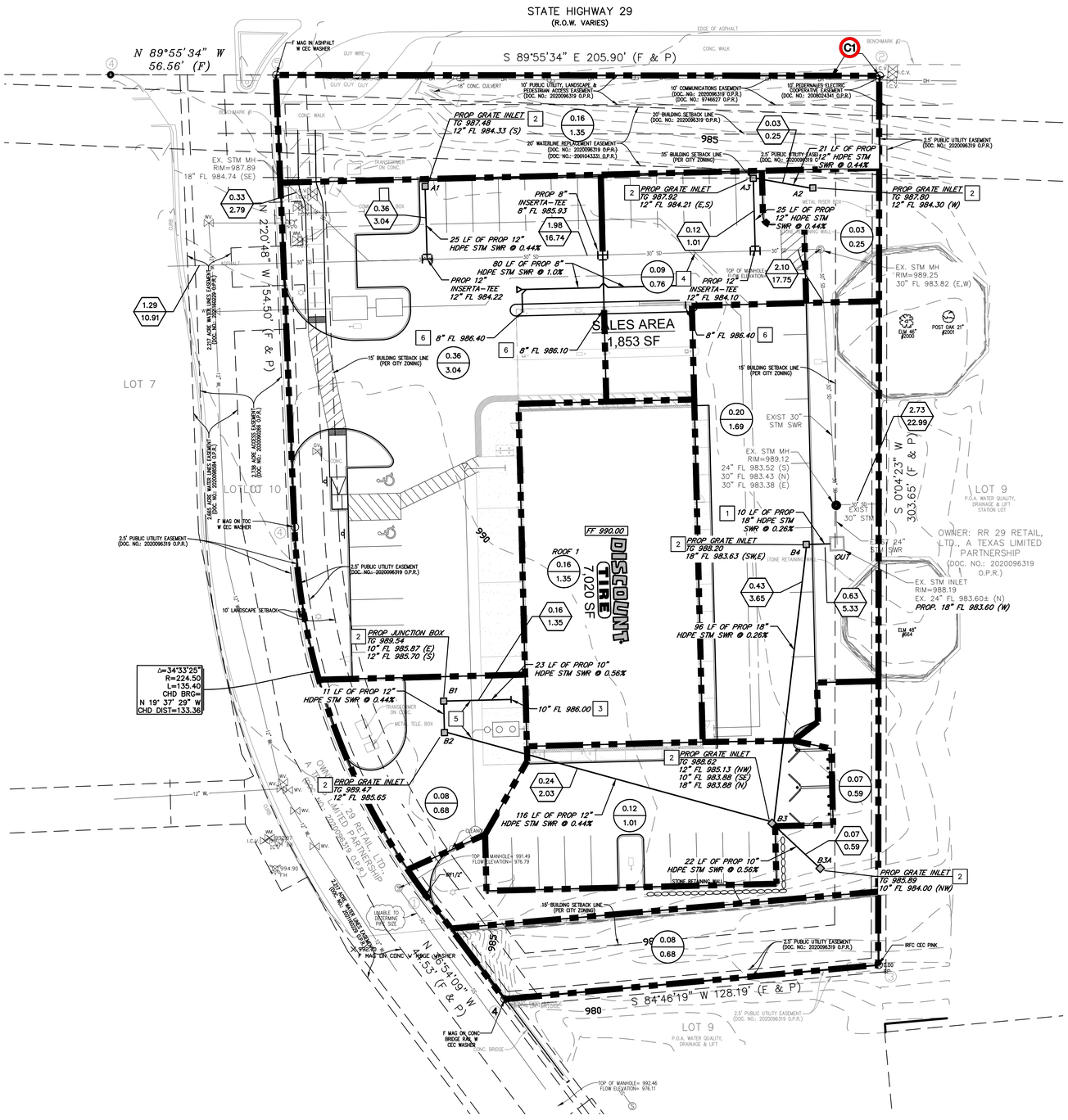
DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

Kevin Polasek, P.E.
STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED PROFESSIONAL ENGINEER
JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: 1:20
JOB No. 250430-01-003
SHEET NO. 5 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\5 SITE GRADING PLAN_dwg, 5 SITE GRADING PLAN, January 30, 2024, 4:23 PM, dbuckson



VICINITY MAP

20 0 20

BUILDING AREA

LEGEND

- PROPOSED DRAINAGE AREA DIVIDE
- EXISTING INLET
- PROPOSED INLET
- PROPOSED JUNCTION BOX
- PROPOSED STORM SEWER
- 0.16 / 1.35 — PROPOSED DRAINAGE AREA ACRES / 25-YR INCREMENTAL FLOW, CFS
- 2.72 / 22.99 — CUMULATIVE AREA, ACRES / 25-YR CUMULATIVE FLOW, CFS

STORM SEWER GRADES

CATCH BASIN	PIPE SIZE	MIN. GRADE
CB12	4"	1.00%
CB12	6"	1.00%
CB12	8"	1.00%
CB12	10"	0.56%
CB18	12"	0.44%
CB20	15"	0.33%
CB24	18"	0.26%
CB30	24"	0.18%
CB36	30"	0.13%
CBTA36	36"	0.11%
CBTA48	42"	0.10%
CBTA48	48"	0.10%
CBTA60	60"	0.10%

ALL STORM SEWER PIPE TO BE H.D.P.E. AT MINIMUM GRADE IN THE ABOVE TABLE UNLESS OTHERWISE NOTED.

STORM SEWER NOTES:

1. CONTRACTOR TO CONNECT PROPOSED ON-SITE STORM SEWER TO EXISTING STORM INFRASTRUCTURE. CONTRACTOR TO VERIFY DEPTH OF EXISTING INLET AND REPORT TO ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES DURING CONSTRUCTION. PROP. 18" FL 983.60 EX. 24" FL 983.60±
2. CONSTRUCT CATCH BASIN PER PARK EQUIPMENT DETAIL CB-18 OR APPROVED EQUAL, WITH TRAFFIC DUTY IRON GRATE WITHIN PAVEMENT AREAS (SEE DETAIL ON SHEET C15).
3. STUB 5' FROM BUILDING WITH PLUG. SEE PLUMBING PLANS TO VERIFY EXACT LOCATION.
4. CONTRACTOR TO MAINTAIN VERTICAL CLEARANCE BETWEEN WATER AND STORM.
5. CONTRACTOR TO MAINTAIN VERTICAL CLEARANCE BETWEEN SANITARY AND STORM.
6. CONTRACTOR TO PROVIDE 8" DOWNSPOUT LEAD (9 LF)/TEMP PLUG TO AIR CHECK CANOPY COLUMNS. 6" AIR GAP REQUIRED. CLEANOUTS TO BE PROVIDED AS SHOWN AND AT ALL BENDS.

FLOODPLAIN INFORMATION :

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DETENTION NOTE:

DETENTION FOR THIS SITE IS PROVIDED IN PLAN SET TITLED "BAR W RANCH COMMERICAL", PREPARED BY KBGE, PART OF CEC, INC., LAST REVISED SEPTEMBER 30, 2021.

TOTAL IMPERVIOUS

SITE TOTAL AREA – 1.347 AC

IMPERVIOUS AREA – 0.872 AC (65%)

PERVIOUS AREA – 0.475 AC (35%)

CAUTION NOTES:

- C1 CAUTION!! OVERHEAD POWER LINES. USE EXTREME CAUTION DURING CONSTRUCTION.
- C2 CAUTION!! UNDERGROUND ELECTRICAL. USE EXTREME CAUTION DURING CONSTRUCTION.
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Texas 811

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SITE DRAINAGE PLAN

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JANUARY 30, 2024

DESIGN	DRAWN	CHKD
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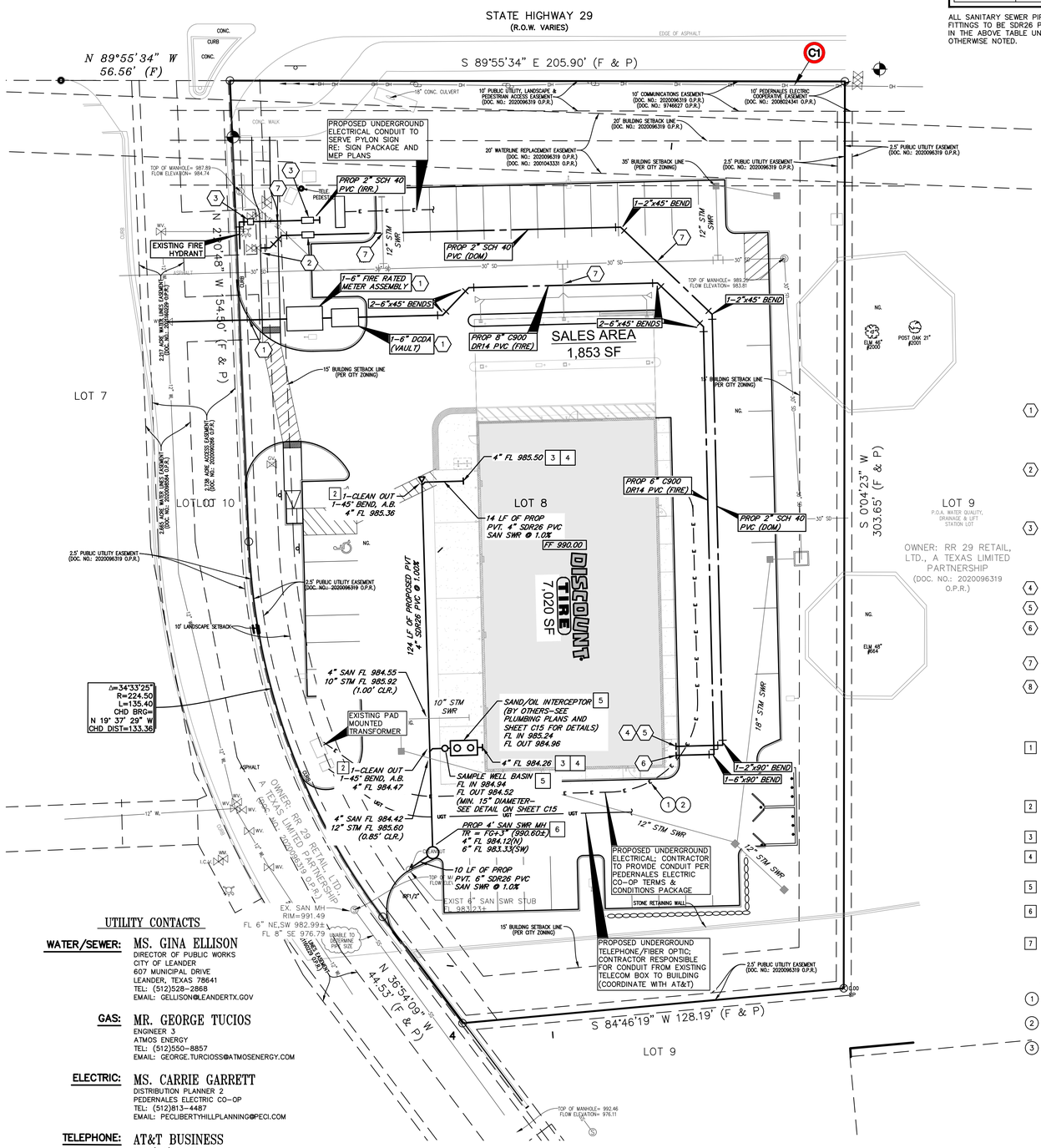

BUILDING AREA

SANITARY SEWER GRADES	
PIPE SIZE	MIN. GRADE
4"	1.00%
6"	1.00%
8"	0.50%

ALL SANITARY SEWER PIPE AND FITTINGS TO BE SDR26 PVC AT GRADES IN THE ABOVE TABLE UNLESS OTHERWISE NOTED.

20 0 20

LEGEND

- EXISTING SANITARY MANHOLE
- EXISTING INLET
- EXISTING STORM MANHOLE
- EXISTING CURB INLET
- EXISTING FIRE HYDRANT
- PROPOSED INLET
- PROPOSED MANHOLE
- PROPOSED MANHOLE w/ GRATE TOP
- PROPOSED CLEANOUT
- PROPOSED GATE VALVE
- PROPOSED WATER METER
- PROPOSED BACKFLOW PREVENTER
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED WATER LINE

NOTE:
SEE SHEET 2 FOR GENERAL NOTES AND UTILITY NOTES

WATER NOTES:

1. CONTRACTOR TO CONNECT PROPOSED 6" FIRE LINE TO EXISTING 6" WATERLINE STUB AND INSTALL 6" FIRE METER ASSEMBLY AND INSTALL (PVT) 8" DOUBLE CHECK DETECTOR ASSEMBLY (D.C.D.A.) IN CONCRETE VAULT AT OWNER'S EXPENSE. ALL UNDERGROUND FIRE LINES TO BE PERMITTED AND INSPECTED BY THE CITY OF LEANDER. SEE CITY OF AUSTIN DETAIL ON SHEET 20.
2. CONTRACTOR TO CONNECT PROPOSED 2" WATER LINE (DOMESTIC) AFTER EXISTING METER AND INSTALL 2" (PVT) REDUCED PRESSURE ZONE BACKFLOW PREVENTION DEVICE (RPZD) IN FREEZE AND THEFT PROOF ENCLOSURE. RPZD TO BE PLACED OUTSIDE OF PUBLIC UTILITY ESMT. WITHININ LANDSCAPE AREA AND EXTEND 2" SCH40 PVC DOMESTIC WATERLINE TO BUILDING.
3. CITY TO INSTALL PROPOSED 2" SERVICE CONNECTION AND INSTALL 2" METER. CONTRACTOR TO INSTALL INSTALL 2" (PVT) REDUCED PRESSURE ZONE BACKFLOW PREVENTION DEVICE (RPZD) IN FREEZE AND THEFT PROOF ENCLOSURE. RPZD TO BE PLACED OUTSIDE OF PUBLIC UTILITY ESMT. WITHIN LANDSCAPE AREA AND STUB 2" SCH40 PVC FOR IRRIGATION PURPOSES.
4. STUB 5' FROM BUILDING WITH 2" DOMESTIC SCH 40 PVC WATERLINE, PLUG & CLAMP.
5. SEE PLUMBING PLANS FOR CONTINUATION, VERIFY EXACT LOCATION.
6. CONTRACTOR TO. EXTEND 6" C900 PVC FIRE LINE AND INSTALL PLUG & CLAMP 5' FROM BUILDING. SEE PLUMBING AND FIRE PROTECTION PLANS TO VERIFY EXACT LOCATION AND CONTINUATION.
7. CONTRACTOR TO PROVIDE 1-FT CLEARANCE (MIN.) BETWEEN WATER AND STORM.
8. ALL UTILITY CROSSINGS TO MEET TCEQ REQUIREMENTS. 2-FT MINIMUM CLEARANCE REQUIRED. CONTRACTOR SHALL PLACE 1 FULL SECTION OF WL CENTERED OVER PROPOSED 8" SANITARY SEWER PIPE AT THE CROSSING. (NOT USED)

SEWER NOTES:

1. CONTRACTOR TO CONNECT PROPOSED 6" SANITARY SEWER TO EXISTING 6" SAN SWR STUB AT OWNER'S EXPENSE. CONTRACTOR SHALL VERIFY EXISTING 6" FLOWLINE(S) ELEVATION PRIOR TO CONSTRUCTION, AND REPORT ANY DISCREPANCIES TO THE ENGINEER. (EXISTING 6" FL 983.23±) (PROP 6" FL 983.23)
2. INSTALL 4" CLEANOUT TO GRADE AT ALL BENDS. SEE DETAIL ON SHEET C15 FOR CLEANOUT. ALL CLEANOUTS IN PAVEMENT AREA TO BE TRAFFIC RATED.
3. STUB 4" LINE AS SHOWN AND INSTALL 4" TEMPORARY PLUG.
4. SEE PLUMBING PLANS FOR CONTINUATION. VERIFY EXACT LOCATION. CONTRACTOR TO PROVIDE CLAY TRENCH PLUG WHERE UTILITIES PENETRATE THE FOUNDATION PER GEOTECH REPORT.
5. BEDDING AND BACKFILL OF GREASE TRAP, SAMPLE WELL AND LINE TO BE IN CEMENT STABILIZED SAND.
6. CONTRACTOR TO INSTALL 4-FT DIAMETER PRECAST SANITARY MANHOLE. RIM ELEVATION TO BE SET 3-INCHES ABOVE FINISHED GRADE (990.50±). SEE SHEET 15 FOR DETAILS.
7. CONTRACTOR SHALL CENTER ONE FULL JOINT OF SANITARY SEWER ON PROPOSED 2" WATER LINE. 2-FT (MIN.) HORIZONTAL CLEARANCE REQUIRED. (NOT USED)

DRY UTILITY NOTES:

1. COORDINATE WITH M.E.P. PLANS FOR LOCATION OF PROPOSED DRY UTILITIES, ELECTRICAL AND TELEPHONE.
2. CONTRACTOR TO INSTALL ALL NECESSARY CONDUITS PRIOR TO PAVING.
3. CONTRACTOR TO COORDINATE WITH DEVELOPER AND PEDERNALES ELECTRIC CO-OP TO INSTALL TRANSFORMER. COORDINATE WITH PEDERNALES ELECTRIC CO-OP FOR THE CONDUIT SCHEDULE FOR INSTALLATION AND SECONDARY POWER FROM TRANSFORMER TO BUILDING.

VICINITY MAP

FLOODPLAIN INFORMATION :

THE SUBJECT PROPERTY IS LOCATED IN ZONE "X" UNSHADED, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP NUMBER 48491C0275E, WILLIAMSON COUNTY, TEXAS, LATEST REVISION SEPTEMBER 26, 2008.

BENCHMARK NOTE :

TEMPORARY BENCHMARKS:
TBM #1
NAIL SET IN CONCRETE CURB ON THE EAST CURB RETURN OF ACCESS DRIVE, APPROXIMATELY 19-FT SOUTH OF THE NORTHWEST CORNER OF THE SUBJECT TRACT.
ELEVATION=987.26'

TBM #2
NAIL SET IN CONCRETE SIDEWALK APPROXIMATELY 12-FT EAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.
ELEVATION=983.22'

LEGAL DESCRIPTION:

BEING A 1.347 ACRE (58,657 S.F.) TRACT OF LAND, LOCATED IN THE GREENLEAF FISK SURVEY, ABSTRACT NO. 5, WILLIAMSON COUNTY, TEXAS; ALSO BEING ALL OF LOT 8, BLOCK 1, OUT OF THE BAR W RANCH COMMERCIAL FINAL PLAT SUBDIVISION, CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS, AS RECORDED IN DOCUMENT 2020096319, O.P.R.W.C.T.

NOTE:
SITE UTILITY CONTRACTOR TO REVIEW GEOTECH REPORT FOR WATER TABLE DEPTHS AND PROVIDE FOR WET STABLE TRENCH AND DE-WATERING AS NECESSARY IN THEIR BID.

TRENCH EXCAVATION SAFETY PROTECTION:
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY/EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITE(S) WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES. THE CONTRACTOR'S IMPLEMENTATION OF THE SYSTEMS PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLIES WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

REDUCED PRESSURE ZONE BACKFLOW PREVENTION ASSEMBLY (RPZ BPA) NOTE:
CONTRACTOR SHALL INSTALL RPZ BPA A MINIMUM OF 12 INCHES ABOVE GRADE AND IN A LOCATION WHERE IT CANNOT BE SUBMERGED. ASSEMBLY SHALL BE INSTALLED IN A FREEZE AND THEFT PROOF ENCLOSURE.

ALL SANITARY SEWER AND WATER WORK IN THIS SET OF PLANS SHALL BE INSTALLED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE, PERMITTED AND INSPECTED BY THE COUNTY BUILDING INSPECTION DIVISION AND INSTALLED BY A LICENSED PLUMBER.

CONTRACTOR TO CONTACT THE CITY OF LEANDER PUBLIC WORKS AT LEAST 48 HRS BEFORE STARTING CONSTRUCTION.

THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING PUBLIC AND PRIVATE UTILITIES THAT HAVE OR MAY HAVE ANY EFFECT ON THE PROPOSED IMPROVEMENTS BEFORE ANY WORK COMMENCES. THE INSTALLATION OF ALL GRAVITY FLOW PIPES SHALL BEGIN AT THE OUTFALL OR CONNECTION TO THE EXISTING SYSTEM AND PROCEED UPSTREAM. IF ANY DISCREPANCY FROM THE PLAN IS FOUND, THE CONTRACTOR IS TO NOTIFY TERRA ASSOCIATES, INC. BEFORE PROCEEDING FURTHER.

CONTRACTOR TO INCLUDE IN THEIR BID PRICE ALL FEES ASSOCIATED WITH WATER AND SEWER TAPPING, IMPACT, CONNECTION, AND INSPECTIONS.

ALL MATERIALS AND METHODS SHALL MEET THE CITY OF LEANDER STANDARDS AND SPECIFICATIONS.

EQUIVALENT SERVICE UNIT TABLE GALLONS PER DAY (GPD)

USE	SF	S.U.E.*	SERVICE UNITS	GPD (1 S.U.=280)
RETAIL	7,039	0.000281	1.977	553.56

*SERVICE UNIT EQUIVALENT

SANITARY SEWER FLOWS

Peak Dry Flows
Qpd = [(18+(0.0206 × F)^0.5)/(4+(0.0206 × F)^0.5)] × F
= F = 70 gal/person/day × population/1440
Assume F = 40 gpm
= 154.13 gpd
Peak Wet Flow
= 154.13 + 750*AC = 154.13 + 1009.5
= 1163.63 gpd

UTILITY CONTACTS

WATER/SEWER: MS. GINA ELLISON
DIRECTOR OF PUBLIC WORKS
CITY OF LEANDER
607 MUNICIPAL DRIVE
LEANDER, TEXAS 78641
TEL: (512)528-2868
EMAIL: GELLISON@LEANDERTX.GOV

GAS: MR. GEORGE TUCIOS
ENGINEER 3
ATMOS ENERGY
TEL: (512)550-8857
EMAIL: GEORGE.TURCIOSS@ATMOSENERGY.COM

ELECTRIC: MS. CARRIE GARRETT
DISTRIBUTION PLANNER 2
PEDERNALES ELECTRIC CO-OP
TEL: (512)813-4487
EMAIL: PECLIBERTYHILLPLANNING@PECI.COM

TELEPHONE: AT&T BUSINESS
TEL: (512)259-7770

CABLE: SPECTRUM
TEL: (888)406-7063

CAUTION NOTES:

C1 CAUTION!! OVERHEAD POWER LINES. USE EXTREME CAUTION DURING CONSTRUCTION.

C2 CAUTION!! UNDERGROUND GAS LINE. USE EXTREME CAUTION DURING CONSTRUCTION.

C3 CAUTION!! UNDERGROUND TELEPHONE LINE/BURIED CABLE. USE EXTREME CAUTION DURING CONSTRUCTION.

Texas 811

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TBPE Firm Registration No. F-14309

REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

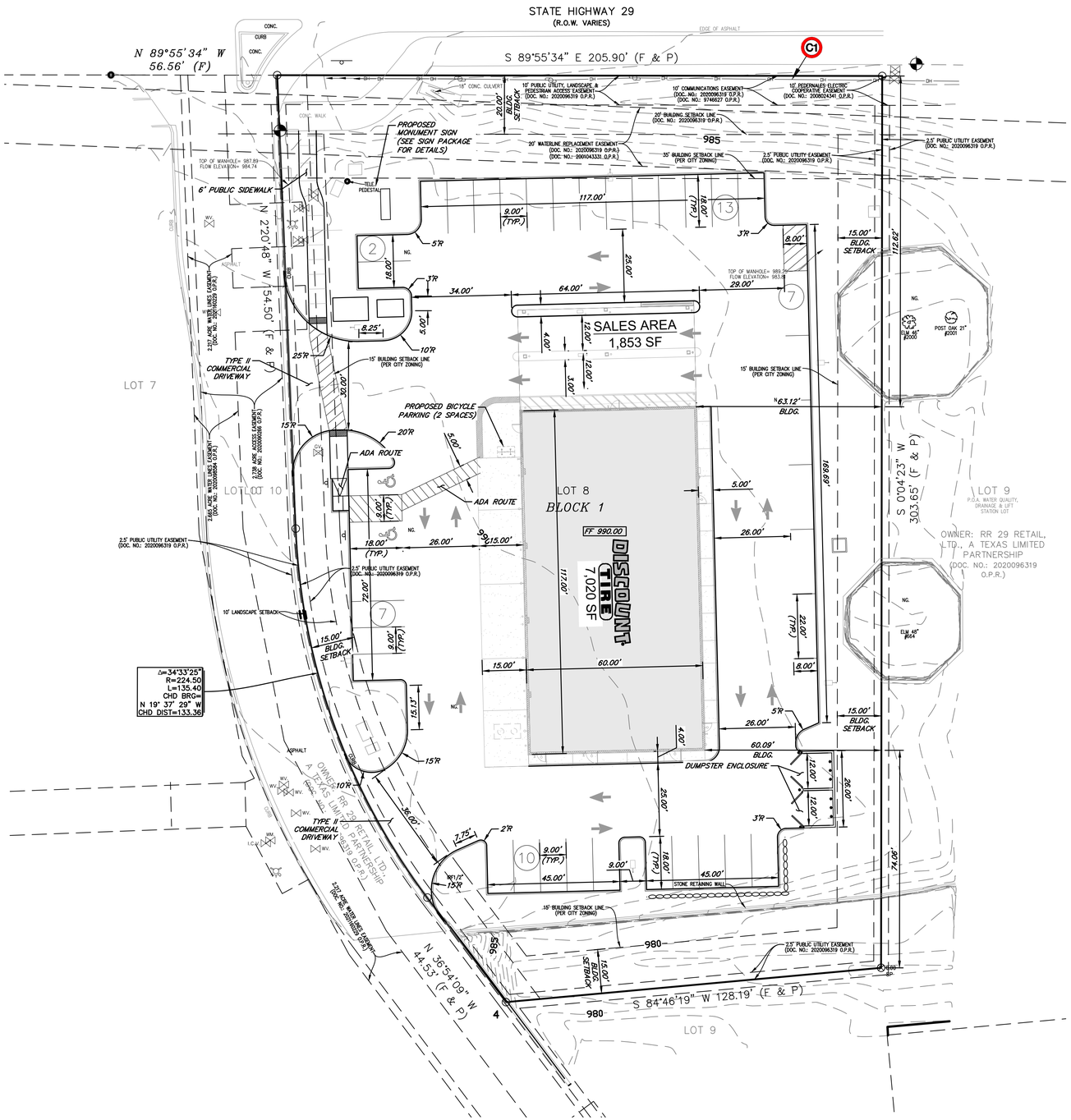
UTILITY PLAN
DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD REAGAN BLVD.
LEANDER, TX 78641

STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED PROFESSIONAL ENGINEER
JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: 1:20
JOB No. 250430-01-003
SHEET NO. 7 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\7 UTILITY PLAN.dwg, 7 UTILITY PLAN, January 30, 2024, 4:49 PM, jallonzo



VICINITY MAP

FLOODPLAIN INFORMATION :

THE SUBJECT PROPERTY IS LOCATED IN ZONE "X" UNSHADED, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP NUMBER 48491C0275E, WILLIAMSON COUNTY, TEXAS, LATEST REVISION SEPTEMBER 26, 2008.

BENCHMARK NOTE :

TEMPORARY BENCHMARKS:
TBM #1
NAIL SET IN CONCRETE CURB ON THE EAST CURB RETURN OF ACCESS DRIVE, APPROXIMATELY 19-FT SOUTH OF THE NORTHWEST CORNER OF THE SUBJECT TRACT.
ELEVATION=987.26'

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NAIL SET IN CONCRETE SIDEWALK APPROXIMATELY 12-FT EAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.
ELEVATION=983.22'

LEGAL DESCRIPTION:

BEING A 1.347 ACRE (58,657 S.F.) TRACT OF LAND, LOCATED IN THE GREENLEAF FISK SURVEY, ABSTRACT NO. 5, WILLIAMSON COUNTY, TEZAS; ALSO BEING ALL OF LOT 8, BLOCK 1, OUT OF THE BAR W RANCH COMMERCIAL FINAL PLAT SUBDIVISION, CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS, AS RECORDED IN DOCUMENT 2020096319, O.P.R.W.C.T.

DISCOUNT TIRE – PARKING SUMMARY

TOTAL REQUIRED PARKING (5:1,000 SF)	36 SPACES
TOTAL STANDARD PARKING COUNT	40 SPACES
TOTAL ADA PARKING COUNT	2 SPACES
TOTAL PROPOSED PARKING COUNT	42 SPACES
TOTAL PROPOSED BICYCLE COUNT	2 SPACES

OVERALL SITE SUMMARY

ZONING CLASSIFICATION:	COMMERCIAL
NORTH SIDE (FRONT) BLDG SETBACK:	35 FEET
WEST SIDE BLDG SETBACK:	15 FEET
SOUTH SIDE (REAR) BLDG SETBACK:	15 FEET
EAST SIDE BLDG SETBACK:	15 FEET

NOTES:

1. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB UNLESS OTHERWISE NOTED. ALL RADII SHOWN ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS ARE PARALLEL AND PERPENDICULAR TO PROPERTY LINES, UNLESS OTHERWISE NOTED OR DIMENSIONED.
3. ALL CURB RETURN RADII SHALL BE 3', AS SHOWN TYPICAL ON THIS PLAN, UNLESS OTHERWISE NOTED.
4. CONTRACTOR TO COORDINATE EXACT BUILDING DIMENSIONS WITH ARCHITECT'S PLANS.
5. ALL SITE UTILITIES ARE PROPOSED TO BE LOCATED UNDERGROUND.
6. EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PUBLIC ROW OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT PROPOSED.
7. AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING. GARBAGE DUMPSTER ARE LOCATED NO CLOSER TO A ROADWAY THAN THE FONT WALL OF THE PRINCIPLE STRUCTURE LOCATED CLOSEST TO THE ROADWAY. GARBAGE DUMPSTER 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 ORIENTED FOR PICKUP BY A FRONT LOAD GARBAGE TRUCK.
8. FOR 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSED BY PRIVACY FENCE.
9. HOURS OF OPERATION TO THE GENERAL PUBLIC SHALL BE LIMITED TO 5:00 AM TO 10:00 PM SUNDAY THROUGH THURSDAY, AND 5:00 AM TO 11:00 PM FRIDAY AND SATURDAY.
10. ALL EASEMENTS OF RECORD AS INDICATED ON THE MOST RECENT TITLE RUN DATED SEPTEMBER 25, 2023, CONDUCTED BY CHICAGO TITLE INSURANCE COMPANY FOR THIS PROPERTY ARE SHOWN ON THIS SITE PLAN.

ADDRESS:

19410 RONALD REAGAN BLVD.
LEANDER, TX 77630

CAUTION NOTES:

- C1 CAUTION: OVERHEAD POWER LINES. USE EXTREME CAUTION DURING CONSTRUCTION.
- C2 CAUTION: UNDERGROUND ELECTRICAL. USE EXTREME CAUTION DURING CONSTRUCTION.
- C3 CAUTION: UNDERGROUND GAS LINE. USE EXTREME CAUTION DURING CONSTRUCTION.
- C4 CAUTION: UNDERGROUND TELEPHONE LINE/BURIED CABLE. USE EXTREME CAUTION DURING CONSTRUCTION.

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www.bowmanconsulting.com

REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

DIMENSIONAL CONTROL PLAN

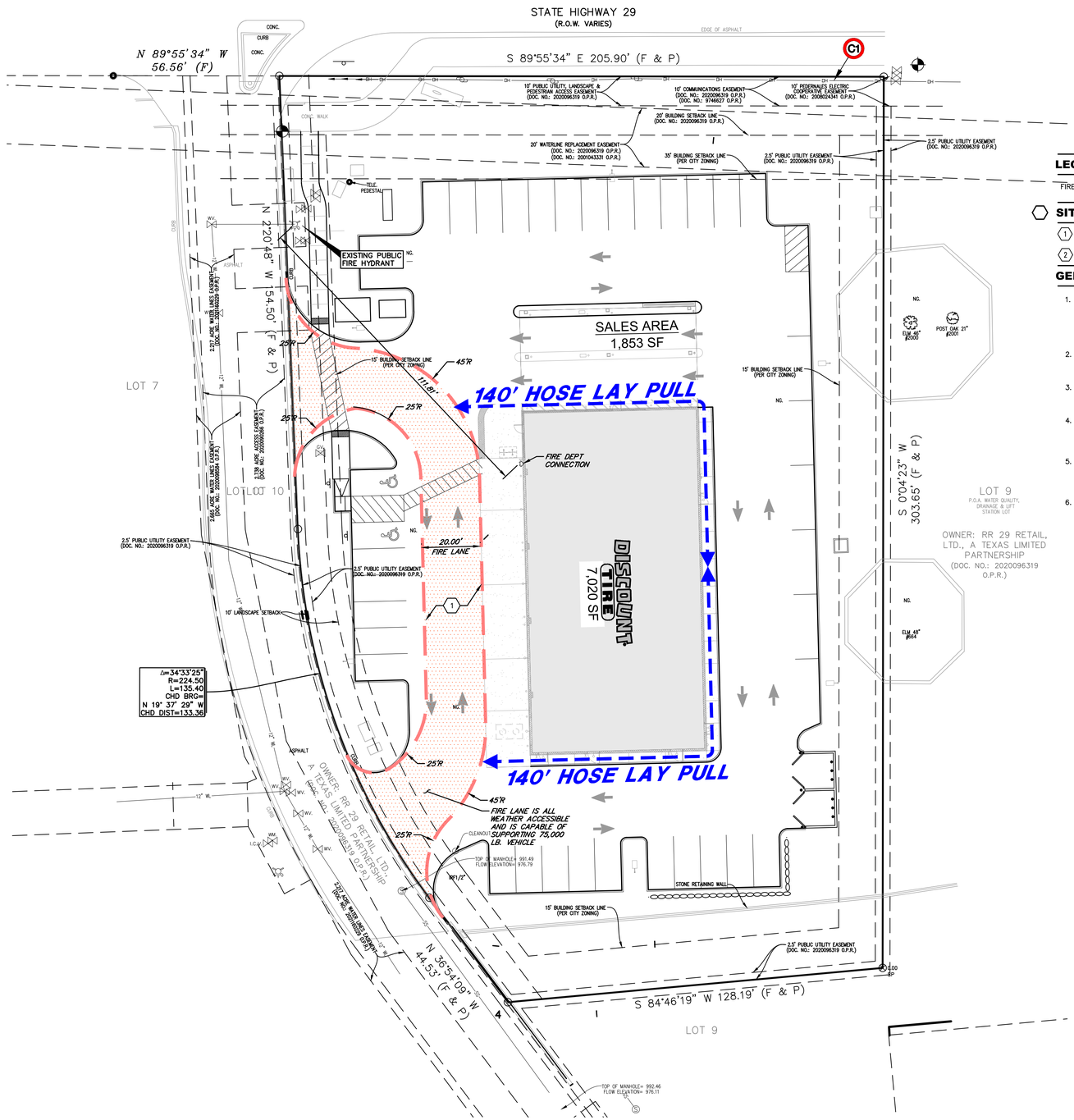
DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED
PROFESSIONAL ENGINEER
JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: 1:20
JOB No. 250430-01-003
SHEET NO. 8 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\8 DIMENSIONAL CONTROL PLAN.dwg, 8 DIMENSIONAL CONTROL PLAN, January 30, 2024, 4:23 PM, dbuckson



20 0 20

BUILDING AREA

LEGEND

FIRE LANE — (GRAPHIC ILLUSTRATION ONLY. ACTUAL LOCATION OF PAINT STRIPE TO BE COORDINATED WITH FIRE MARSHAL.)

SITE DETAILS

1. FIRE LANE STRIPING, SEE GENERAL NOTE #1.
2. PROPOSED FIRE LANE SIGN, SEE DETAIL THIS SHEET (NOT USED).

GENERAL SITE NOTES

1. FIRE LANE IS SHOWN FOR SCHEMATIC PURPOSES ONLY. FIRE MARSHAL WILL DETERMINE EXACT LIMITS OF FIRE LANE AFTER PROJECT IS COMPLETE. CONTRACTOR SHALL PROVIDE ACTUAL FIRE LANE STRIPING AND SIGNAGE AFTER MEETING WITH FIRE MARSHAL IN THE FIELD. 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 FOUN 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.

VICINITY MAP

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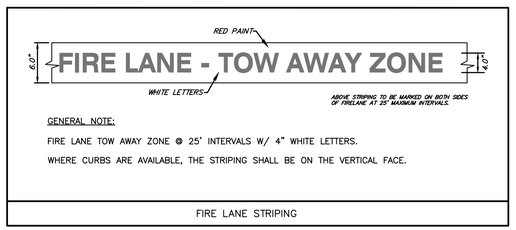

GENERAL NOTE:

FIRE LANE TOW AWAY ZONE @ 25' INTERVALS W/ 4" WHITE LETTERS.

WHERE CURBS ARE AVAILABLE, THE STRIPING SHALL BE ON THE VERTICAL FACE.

FIRE LANE STRIPING

CAUTION NOTES:

- C1 CAUTION!!! OVERHEAD POWER LINES. USE EXTREME CAUTION DURING CONSTRUCTION.
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- C4 CAUTION!!! UNDERGROUND TELEPHONE LINE/BURIED CABLE. USE EXTREME CAUTION DURING CONSTRUCTION.

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

FIRE PROTECTION PLAN

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED
PROFESSIONAL ENGINEER
JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: 1:20
JOB No. 250430-01-003
SHEET NO. 9 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\9 FIRE PROTECTION PLAN.dwg, 9 FIRE PROTECTION PLAN, January 30, 2024, 4:23 PM, dbuckson

STORM SEWER CALCULATION FORM

PRINTED: 1:38 PM

PROJECT: Discount Tire - Leander (TX13016) — 25 YR — cumulative

PROJ. NO.: 250430 — "b" 109.8397

PREPARED BY: JDA — DATE: 1/18/2024 — "d" 13.7038

CHECKED BY: KBP — DATE: 1/18/2024 — "e" 0.7994

FILENAME: Williamson County 25yr

LINE	MH or Inlet FROM	MH or Inlet TO	AREA INCR ac.	AREA TOTAL ac.	"C"	"CA"	"TC" min.	"I"	Q cfs	L FT	LINE SIZE IN.	LINE SLOPE %	LINE "N" VALUE	DESIGN Q cfs	DESIGN V fps	FALL FT	OTHER LOSS FT	FLOWLINE UPSTM	FLOWLINE DNSTM	ACT V fps	HYD GRAD %	H	ELEV HYD GRAD UPSTM	ELEV HYD GRAD DNSTM	TOP OF PIPE DNSTM	T.P. ELEV. UPSTM	T.P. ELEV. DNSTM	TP LESS HG
A	1	Ex 30"	0.36	0.36	0.80	0.29	5.00	10.57	3.04	25	12	0.44	0.013	2.37	3.0	0.11	0.00	984.33	984.22	3.88	0.727	0.182	986.50	986.32	985.22	987.33	989.25	0.83
																	OUT =	983.82		STARTING HG 30" STM =			986.32					
A	2	3	0.03	0.03	0.80	0.02	5.00	10.57	0.25	21	12	0.44	0.013	2.37	3.0	0.09	0.00	984.30	984.21	0.32	0.005	0.001	986.34	986.34	985.21	987.80	987.92	1.46
A	3	Ex 30"	0.09	0.12	0.80	0.10	5.00	10.57	1.01	25	12	0.44	0.013	2.37	3.0	0.11	0.00	984.21	984.10	1.29	0.081	0.020	986.34	986.32	985.10	987.92	989.25	1.58
																	OUT =	983.82		STARTING HG 30" STM =			986.32					
B	1	2	0.00	0.16	0.80	0.13	5.00	10.57	1.35	13	12	0.44	0.013	2.37	3.0	0.06	0.00	985.70	985.64	1.72	0.144	0.019	986.66	986.64	986.64	989.56	989.47	2.90
B	2	3	0.08	0.24	0.80	0.19	5.00	10.57	2.03	116	12	0.44	0.013	2.37	3.0	0.51	0.00	985.64	985.13	2.59	0.323	0.375	986.51	986.13	986.13	989.47	988.62	2.96
B	3	4	0.12	0.43	0.80	0.34	5.00	10.57	3.64	96	18	0.26	0.013	5.37	3.0	0.25	0.00	983.88	983.63	2.06	0.119	0.115	985.74	985.63	985.13	988.62	988.20	2.88
B	4	OUT	0.20	0.63	0.80	0.50	5.00	10.57	5.33	10	18	0.26	0.013	5.37	3.0	0.03	0.00	983.63	983.60	3.02	0.256	0.026	985.63	985.60	985.10	988.20	988.19	2.57
																	OUT =	983.60		STARTING HG 24" STM =			985.60					
B	3A	3	0.07	0.07	0.80	0.06	5.00	10.57	0.59	22	10	0.56	0.013	1.64	3.0	0.12	0.00	984.00	983.88	1.09	0.073	0.016	985.76	985.74	984.71	985.89	988.62	0.13
ROOF	R1	B1	0.16	0.16	0.80	0.13	5.00	10.57	1.35	23	10	0.56	0.013	1.64	3.0													

STORM SEWER CALCULATION FORM

PRINTED: 1:38 PM

PROJECT: Discount Tire - Leander (TX13016) — 100 YR — cumulative

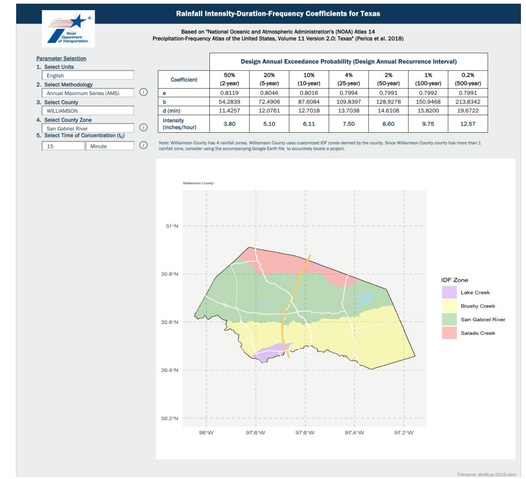
PROJ. NO.: 250430 — "b" 150.9468

PREPARED BY: JDA — DATE: 1/18/2024 — "d" 15.82

CHECKED BY: KBP — DATE: 1/18/2024 — "e" 0.7992

FILENAME: Williamson County 25yr

LINE	MH or Inlet FROM	MH or Inlet TO	AREA INCR ac.	AREA TOTAL ac.	"C"	"CA"	"TC" min.	"I"	Q cfs	L FT	LINE SIZE IN.	LINE SLOPE %	LINE "N" VALUE	DESIGN Q cfs	DESIGN V fps	FALL FT	OTHER LOSS FT	FLOWLINE UPSTM	FLOWLINE DNSTM	ACT V fps	HYD GRAD %	H	ELEV HYD GRAD UPSTM	ELEV HYD GRAD DNSTM	TOP OF PIPE DNSTM	T.P. ELEV. UPSTM	T.P. ELEV. DNSTM	TP LESS HG
A	1	Ex 30"	0.36	0.36	0.80	0.29	5.00	13.34	3.84	25	12	0.44	0.013	2.37	3.0	0.11	0.00	984.33	984.22	4.89	1.158	0.289	986.61	986.32	985.22	987.33	989.25	0.72
																	OUT =	983.82		STARTING HG 30" STM =			986.32					
A	2	3	0.03	0.03	0.80	0.02	5.00	13.34	0.32	21	12	0.44	0.013	2.37	3.0	0.09	0.00	984.30	984.21	0.41	0.008	0.002	986.35	986.35	985.21	987.80	987.92	1.45
A	3	Ex 30"	0.09	0.12	0.80	0.10	5.00	13.34	1.28	25	12	0.44	0.013	2.37	3.0	0.11	0.00	984.21	984.10	1.63	0.129	0.032	986.35	986.32	985.10	987.92	989.25	1.57
																	OUT =	983.82		STARTING HG 30" STM =			986.32					
B	1	2	0.00	0.16	0.80	0.13	5.00	13.34	1.71	13	12	0.44	0.013	2.37	3.0	0.06	0.00	985.70	985.64	2.18	0.229	0.030	986.76	986.73	986.64	989.56	989.47	2.80
B	2	3	0.08	0.24	0.80	0.19	5.00	13.34	2.56	116	12	0.44	0.013	2.37	3.0	0.51	0.00	985.64	985.13	3.26	0.515	0.597	986.73	986.13	986.13	989.47	988.62	2.74
B	3	4	0.12	0.43	0.80	0.34	5.00	13.34	4.59	96	18	0.26	0.013	5.37	3.0	0.25	0.00	983.88	983.63	2.60	0.190	0.182	985.82	985.64	985.13	988.62	988.20	2.80
B	4	OUT	0.20	0.63	0.80	0.50	5.00	13.34	6.72	10	18	0.26	0.013	5.37	3.0	0.03	0.00	983.63	983.60	3.81	0.408	0.041	985.64	985.60	985.10	988.20	988.19	2.56
																	OUT =	983.60		STARTING HG 24" STM =			985.60					
B	3A	3	0.07	0.07	0.80	0.06	5.00	13.34	0.75	22	10	0.56	0.013	1.64	3.0	0.12	0.00	984.00	983.88	1.37	0.116	0.025	985.85	985.82	984.71	985.89	988.62	0.04
ROOF	R1	B1	0.16	0.16	0.80	0.13	5.00	13.34	1.71	23	10	0.56	0.013	1.64	3.0													



Texas Department of Transportation
Release: ebdlkup-2019.xlsm

11/17/2023

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

DRAINAGE CALCULATIONS

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

Kevin Polasek, P.E.

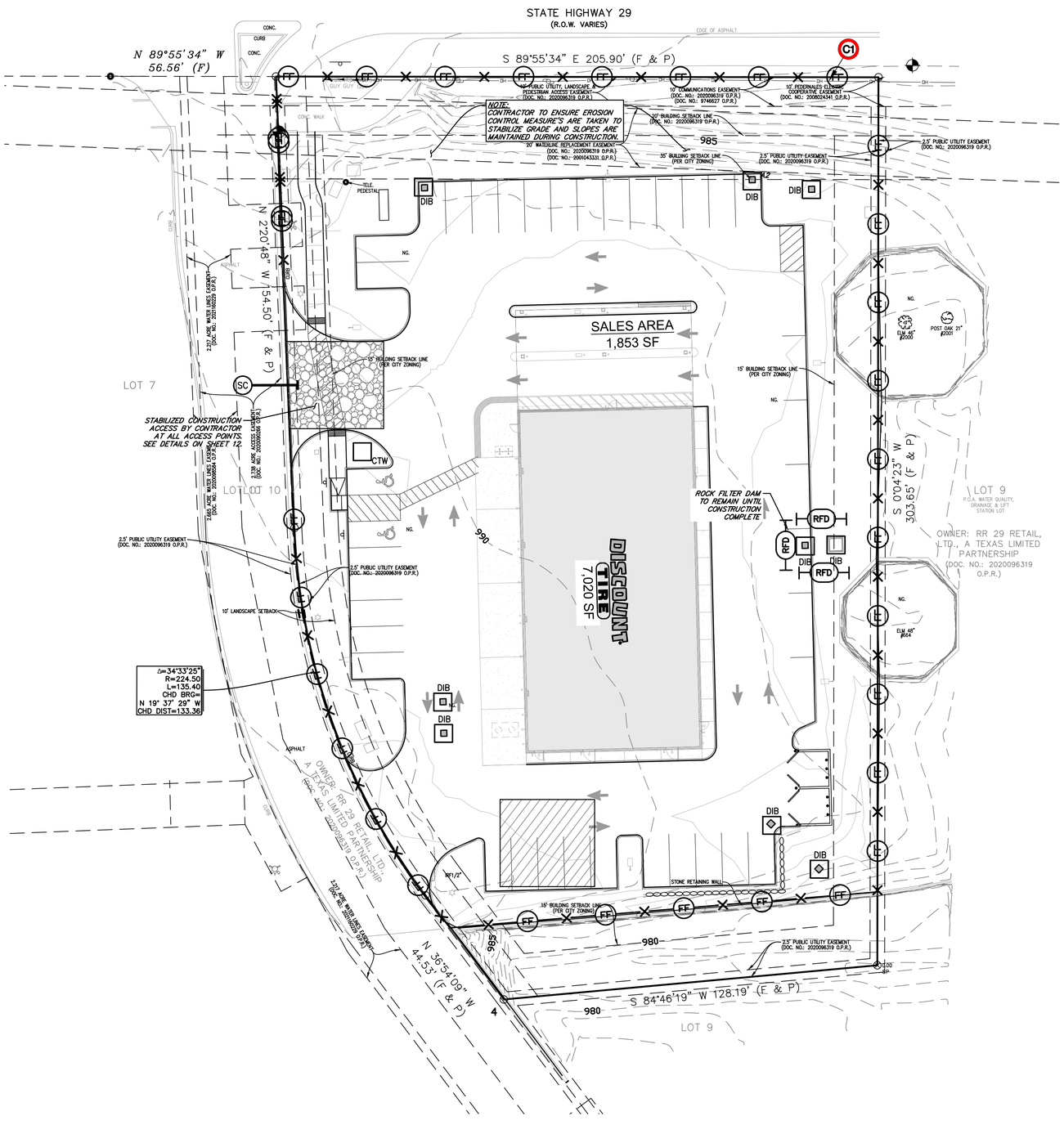
STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED
PROFESSIONAL ENGINEER

JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: NTS
JOB No. 250430-01-003
SHEET NO. 10 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\10 DRAINAGE CALCULATIONS\dwg, 10 DRAINAGE CALCULATIONS, January 30, 2024, 4:23 PM, dbuckson



LEGEND

—SF—	SILT FENCE SEE DETAIL COA 642S-1, SHEET 12
SC	STABILIZED CONSTRUCTION EXIT SEE DETAIL COA 641S-1, SHEET 12
IPB	INLET PROTECTION BARRIER SEE SHEET 12
IPB2	INLET PROTECTION – STAGING 2 INLET SEE SHEET 12
DIB	DROP INLET INSERT BASKET SEE DETAIL HVRF300F8, SHEET 12
CTW	CONCRETE TRUCK WASHOUT SEE DETAIL COL 303-1, SHEET 12
RFD	ROCK FILTER DAM SEE SHEET 12
	PROPOSED STAGING AREA

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 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 ABOVE GROUND HYDROCARBON AND HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM MAY BE INSTALLED WITHIN 150 FEET OF 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. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS ARE REVEGETATED AND THE AREAS HAVE BECOME PERMANENTLY STABILIZED.
5. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFFSITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVE 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 THE 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) GENERATE FROM THE PROJECT SITE AND STORED ON SITE MUST HAVE PROPER E&S CONTROLS INSTALLED.
9. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, AND CONSTRUCTION ACTIVITIES WILL NOT RESUME WITHIN 21 DAYS. WHEN THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY IS PRECLUDED BY WEATHER CONDITIONS, STABILIZATION MEASURES SHALL BE INITIALED AS SOON AS PRACTICABLE.
10. THE FOLLOWING RECORDS SHOULD 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.
11. THE HOLDER OF ANY APPROVED CONTRIBUTING ZONE PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR IN INITIATING ANY OF THE FOLLOWINGS:
    A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY BEST MANAGEMENT PRACTICES OR STRUCTURE(S), INCLUDING BUT NOT LIMITED TO TEMPORARY OR PERMANENT PONDS, DAMS, BERMS, SILT FENCES, AND DIVERSIONARY STRUCTURES.
    B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED.
    C. ANY CHANGE THAT WOULD SIGNIFICANTLY IMPACT THE ABILITY TO PREVENT POLLUTION OF THE EDWARDS AQUIFER AND HYDROLOGICALLY CONNECTED SURFACE WATER; OR
    D. ANY DEVELOPMENT OF LAND PREVIOUS IDENTIFIED IN A CONTRIBUTING ZONE PLAN AS UNDEVELOPED.

CAUTION NOTES:

- C1 CAUTION!! OVERHEAD POWER LINES. USE EXTREME CAUTION DURING CONSTRUCTION.
- C2 CAUTION!! UNDERGROUND ELECTRICAL. USE EXTREME CAUTION DURING CONSTRUCTION.
- C3 CAUTION!! UNDERGROUND GAS LINE. USE EXTREME CAUTION DURING CONSTRUCTION.
- C4 CAUTION!! UNDERGROUND TELEPHONE LINE/BURIED CABLE. USE EXTREME CAUTION DURING CONSTRUCTION.

VICINITY MAP

FLOODPLAIN INFORMATION :

THE SUBJECT PROPERTY IS LOCATED IN ZONE "X" UNSHADED, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP NUMBER 48491C0275E, WILLIAMSON COUNTY, TEXAS, LATEST REVISION SEPTEMBER 26, 2008.

BENCHMARK NOTE :

TEMPORARY BENCHMARKS:
TBM #1
NAIL SET IN CONCRETE CURB ON THE EAST CURB RETURN OF ACCESS DRIVE, APPROXIMATELY 19-FT SOUTH OF THE NORTHWEST CORNER OF THE SUBJECT TRACT.
ELEVATION=987.26'

TBM #2
NAIL SET IN CONCRETE SIDEWALK APPROXIMATELY 12-FT EAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.
ELEVATION=983.22'

LEGAL DESCRIPTION:

BEING A 1.347 ACRE (58,657 S.F.) TRACT OF LAND, LOCATED IN THE GREENLEAF FISK SURVEY, ABSTRACT NO. 5, WILLIAMSON COUNTY, TEZAS; ALSO BEING ALL OF LOT 8, BLOCK 1, OUT OF THE BAR W RANCH COMMERCIAL FINAL PLAT SUBDIVISION, CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS, AS RECORDED IN DOCUMENT 2020096319, O.P.R.W.C.T.

Austin Regional Office 2800 S. IH 35, Suite 100 Austin, Texas 78704-5712 Phone (512) 339-2929 Fax (512) 339-3795	San Antonio Regional Office 14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS

NOTES:

1. SEE LEGEND ON GENERAL NOTES AND LEGEND SHEET.
2. ALL EROSION SEDIMENTATION CONTROLS ON THIS SHEET ARE TO BE INSTALLED WITH THE INITIAL EROSION SEDIMENTATION CONTROLS.
3. GRADED AREAS MUST BE STABILIZED PRIOR TO ACCEPTANCE OR EROSION CONTROLS MUST BE IN PLACE TO PREVENT SEDIMENT FROM ENTERING THE ROADWAYS.
4. NO LOTS SHOULD BE CLEARED OUTSIDE LIMITS OF CONSTRUCTION.
5. THE CITY OF LEANDER ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD OR MODIFY EROSION/SEDIMENT CONTROLS ON SITE THROUGHOUT THE DURATION OF THE PROJECT.
6. CONTRACTOR TO MAINTAIN SILT FENCE & INSPECT ALL EROSION CONTROL MEASURE THROUGHOUT PROJECT.
7. ALL DISTURBED AREAS ARE TO BE SEEDED & STABILIZE BEFORE EROSION CONTROLS ARE REMOVED.
8. PHASE 2 & 3 WILL REQUIRE ADDITION EROSION CONTROL FEATURES DESIGNED WITH FUTURE PHASE.
9. VARIANCES FROM PLAN DURING CONSTRUCTION MUST BE APPROVED BY ENGINEER OF RECORD.

20 0 20

BUILDING AREA

Bowman
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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

EROSION & SEDIMENT CONTROL PLAN

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

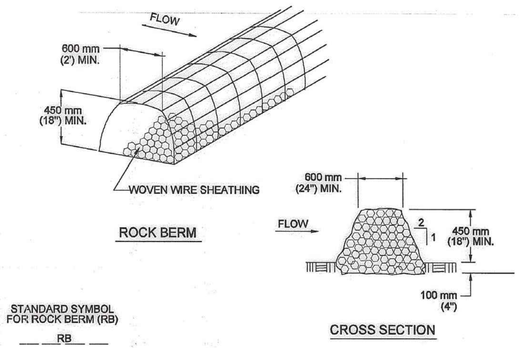
STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED
PROFESSIONAL ENGINEER

JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: 1:20
JOB No. 250430-01-003
SHEET NO. 11 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\11 EROSION & SEDIMENT CONTROL PLAN.dwg, 11 EROSION & SEDIMENT CONTROL PLAN, January 30, 2024, 4:24 PM, dbuckson



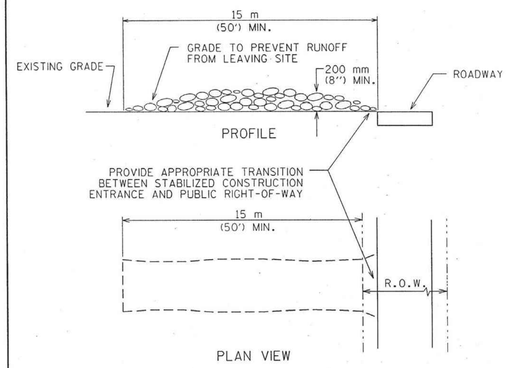
STANDARD SYMBOL FOR ROCK BERM (RB)

RB

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.

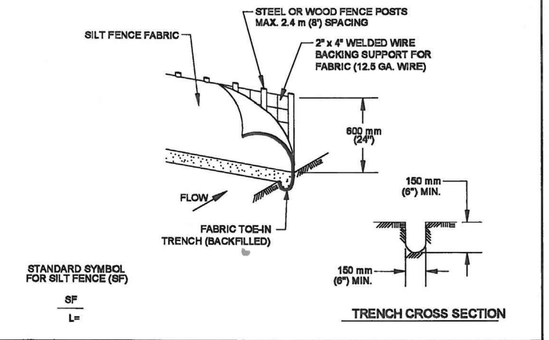
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM	
8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 639S-1



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	
5/23/00 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1



STANDARD SYMBOL FOR SILT FENCE (SF)

SF

L=

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.

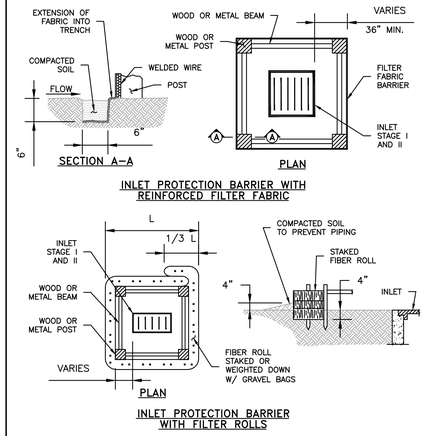
4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE , WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

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	
9/1/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1

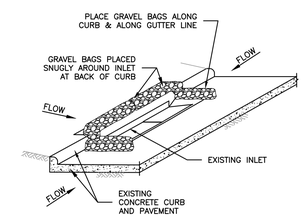


GENERAL NOTES:

1. FIBER ROLLS WILL BE UTILIZED ONLY WHEN SITE CONDITIONS DO NOT PERMIT THE USE OF FILTER FABRIC BARRIER, AND AS APPROVED BY THE ENGINEER.

INLET PROTECTION BARRIERS FOR STAGE I INLETS

IPB SYMBOL

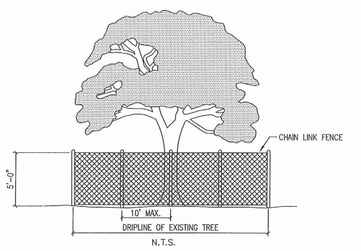


GENERAL NOTES:

1. REMOVE SEDIMENT DEPOSIT WHEN THE SEDIMENT HAS ACCUMULATED TO ONE–THIRD THE HEIGHT OF THE BARRIER.
2. GRAVEL BAGS SHALL NOT BLOCK THROAT OF INLET UNLESS DIRECTED BY ENGINEER.

INLET PROTECTION BARRIERS FOR STAGE II INLETS

IPB–II SYMBOL



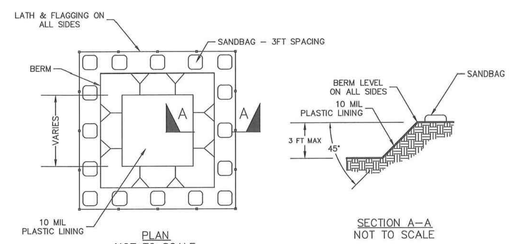
1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
2. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES; SHALL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND SHALL BE MAINTAINED THROUGHOUT 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.

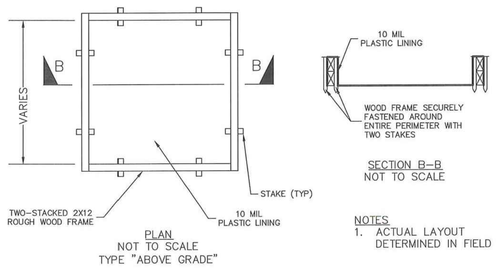
STATE OF TEXAS WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER

08/21/15

City Of Leander, Texas

303-2
TREE PROTECTION





NOTES

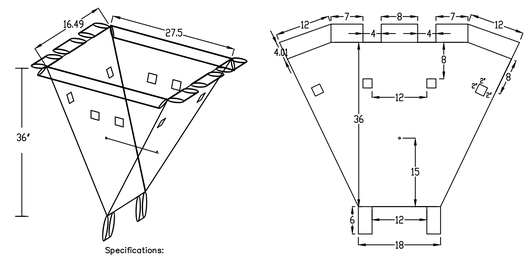
1. ACTUAL LAYOUT DETERMINED IN FIELD

STATE OF TEXAS WAYNE S. WATTS 86134 LICENSED PROFESSIONAL ENGINEER

01/30/15

City Of Leander, Texas

303-1
CONCRETE WASHOUT



Specifications:

a) 2 Square holes burned 2"x2" on two of the sides forming the siltsack – see design.
b) Fabric used should not be laminated.
c) Silt sack to have two #2 grommets, one on each of the two sides, 15" from the bottom of the silt sack
d) Tie 1/4" wide yellow rope 19" long through the grommets on two sides of the silt sack.

DROP INSERT BASKET

DB

SYMBOL

		UNLESS OTHERWISE SPECIFIED		NAME	DATE	
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DRAWN	JT	6/23/14	TITLE: Hi Vis. Reg. Flow Siltsack By Construction Eco Services
			CHECKED	AB	6/23/14	
			ENG APPR.			
			MFG APPR.			
		INTERPRET GEOMETRIC TOLERANCING PER:	QA			
		MATERIAL	COMMENTS:			
NEXT ASSY	USED ON	FINISH				
APPLICATION		DO NOT SCALE DRAWING				

SIZE	DWG. NO.	REV
	HVRF300F8	
SCALE: 1:2		SHEET 1 OF 1

Bowman
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www.bowmanconsulting.com

REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

EROSION & SEDIMENT CONTROL DETAILS

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

STATE OF TEXAS KEVIN B. POLASEK 96632 LICENSED PROFESSIONAL ENGINEER

JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

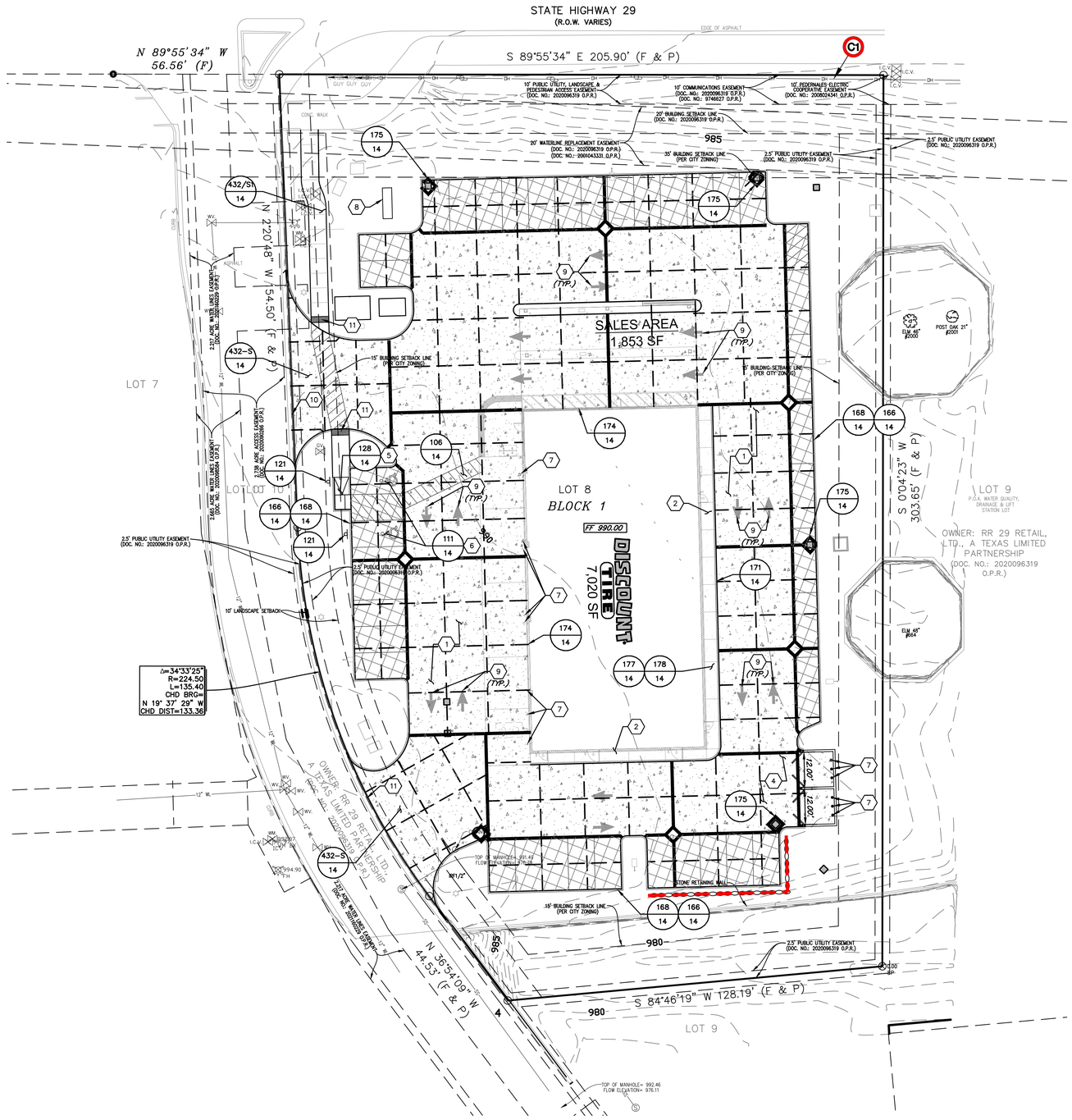
DATE: 01/30/2024

SCALE: NTS

JOB No. 250430-01-003

SHEET NO. 12 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\12 EROSION & SEDIMENT CONTROL DETAILS.dwg, 12 EROSION & SEDIMENT CONTROL DETAILS, January 30, 2024, 4:24 PM, dbuckson



VICINITY MAP

FLOODPLAIN INFORMATION :

THE SUBJECT PROPERTY IS LOCATED IN ZONE "X" UNSHADED, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP NUMBER 48491C0275E, WILLIAMSON COUNTY, TEXAS, LATEST REVISION SEPTEMBER 26, 2008.

BENCHMARK NOTE :

TEMPORARY BENCHMARKS:
TBM #1
NAIL SET IN CONCRETE CURB ON THE EAST CURB RETURN OF ACCESS DRIVE, APPROXIMATELY 19-FT SOUTH OF THE NORTHWEST CORNER OF THE SUBJECT TRACT.
ELEVATION=987.26'

TBM #2
NAIL SET IN CONCRETE SIDEWALK APPROXIMATELY 12-FT EAST OF THE NORTHEAST CORNER OF THE SUBJECT TRACT.
ELEVATION=983.22'

LEGAL DESCRIPTION:

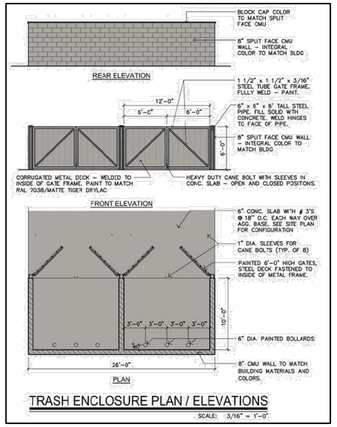
BEING A 1.347 ACRE (58,657 S.F.) TRACT OF LAND, LOCATED IN THE GREENLEAF FISK SURVEY, ABSTRACT NO. 5, WILLIAMSON COUNTY, TEXAS; ALSO BEING ALL OF LOT 8, BLOCK 1, OUT OF THE BAR W RANCH COMMERCIAL FINAL PLAT SUBDIVISION, CITY OF LEANDER, WILLIAMSON COUNTY, TEXAS, AS RECORDED IN DOCUMENT 2020096319, O.P.R.W.C.T.

PAVING KEY NOTES

1. CONTRACTOR TO CONSTRUCT 6" REINFORCED CONCRETE OVER 6" 6" PROOFROLLED/COMPACTED SUBGRADE WITH JOINT CONTROL PER SOILS REPORT AS PREPARED BY PARTNER ENGINEERING AND SCIENCE, INC., PROJECT NO. 23-423171.2, DATED OCTOBER 26, 2023, AND ANY ADDENDUMS THEREAFTER. GEOTECH ENGINEER HAS PROVIDED AN ALTERNATE LIME OR CEMENT STABILIZED SUBGRADE RECOMMENDATION TO REDUCE PAVING THICKNESS BY 1-INCH IF DESIRED. SEE REPORT EXACT DETAILS. CONTRACTOR TO CONFIRM ALL SLEEVES/CONDUIT FOR ELECTRICAL, GAS, AND IRRIGATION ARE IN PLACE PRIOR TO PAVING. SEE PAVEMENT SECTION DETAIL ON SHEET 14 AND SITE PREPARATION NOTES ON SHEET 2.
2. CONSTRUCT 4 1/2" THICK PRIVATE SIDEWALK, CONSTRUCTION JOINTS EVERY 5 FEET IN SIDEWALK (TYPICAL). SEE DETAIL ON SHEET 14 AND NOTES ON SHEET 2.
3. CONCRETE SLAB. SEE ARCH PLANS FOR DETAILS.
4. TRASH ENCLOSURE, SEE ARCHITECTURAL PLANS FOR DETAILS. HEAVY DUTY CONCRETE SHALL EXTEND 40-FT FROM THE FACE OF THE ENCLOSURE. 10-FT CLEARANCE (MIN.) REQUIRED BETWEEN GATE POSTS.
5. PRIVATE RECESSED CURB RAMP. SEE DETAIL ON SHEET 14.
6. ACCESSIBLE PARKING. SEE DETAILS ON SHEET 14 AND ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS.
7. CONCRETE FILLED PIPE BOLLARD. REFER TO ARCHITECTURAL PLANS FOR DETAILS.
8. PROPOSED MONUMENT SIGN. CONTRACTOR TO VERIFY ALL SLEEVES/CONDUIT FOR ELECTRICAL ARE IN PLACE PRIOR TO PAVING.
9. PROPOSED DIRECTIONAL/PAVEMENT STRIPING. SEE ARCH PLANS FOR DETAILS.
10. CONTRACTOR TO TIE PROPOSED DRIVE INTO EXISTING STREET PER CITY OF LEANDER/AUSTIN DRIVEWAY SPECIFICATIONS. CONTRACTOR TO NEATLY SAW CUT. SEE DETAILS ON SHEET 18.
11. PROPOSED TACTILE WARNING PER CITY OF LEANDER DETAILS

PAVING LEGEND

- 6" CONC. PAVEMENT OVER 6" COMPACTED SUBGRADE
- 7" CONC. PAVEMENT OVER 6" COMPACTED SUBGRADE
- CONTROL (SAWCUT) JOINTS
- EXPANSION JOINTS
- 166/14 DETAIL NO.
- PROPOSED RETAINING WALL



TRASH ENCLOSURE PLAN / ELEVATIONS

SCALE: 3/16" = 1'-0"

Texas 811

CAUTION NOTES:

- C1 CAUTION!! OVERHEAD POWER LINES. USE EXTREME CAUTION DURING CONSTRUCTION.
- C2 CAUTION!! UNDERGROUND ELECTRICAL. USE EXTREME CAUTION DURING CONSTRUCTION.
- C3 CAUTION!! UNDERGROUND GAS LINE. USE EXTREME CAUTION DURING CONSTRUCTION.
- C4 CAUTION!! UNDERGROUND TELEPHONE LINE/BURIED CABLE. USE EXTREME CAUTION DURING CONSTRUCTION.

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PAVING PLAN

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

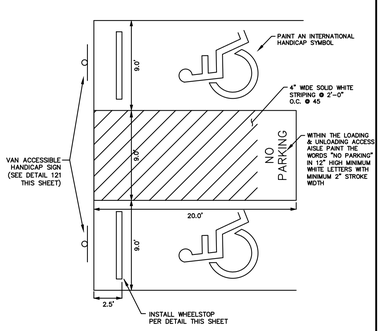
Kevin Polasek, P.E.
STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED
PROFESSIONAL ENGINEER
JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

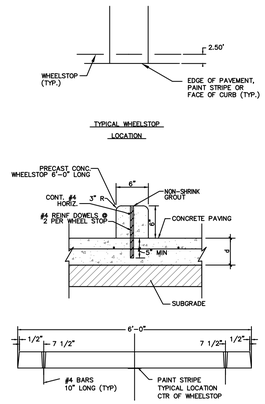
DATE: 01/30/2024
SCALE: 1:20
JOB No. 250430-01-003
SHEET NO. 13 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\13 PAVING PLAN.dwg, 13 PAVING PLAN, January 30, 2024, 4:24 PM, dbuckson

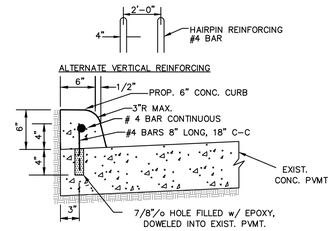
NOTE:
CONTRACTOR TO MAINTAIN A 1:48 SLOPE IN ALL DIRECTIONS – HC SPACE AND AISLES.



TYPICAL HANDICAP PARKING DETAIL — No. 111



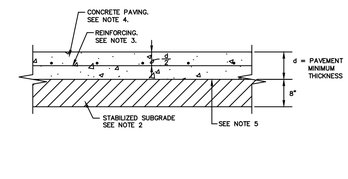
WHEELSTOP DETAIL — No. 137



NOTES:

1. AT EACH PAVEMENT CONSTRUCTION JOINT, THERE SHALL BE A 1/4" THICK PREMOLDED EXPANSION JOINT THE FULL HEIGHT AND WIDTH OF THE CURB.
2. AT EACH PAVEMENT EXPANSION JOINT, THERE SHALL BE A PREMOLDED EXPANSION JOINT THE FULL WIDTH AND HEIGHT OF THE CURB AND OF THE SAME THICKNESS AS THE PAVEMENT EXPANSION JOINT.

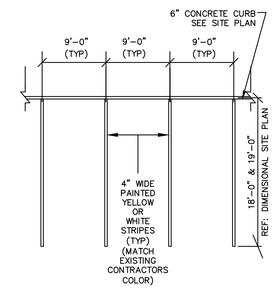
CONCRETE DOWELED ON CURB FOR CONCRETE PAVEMENT — No. 171



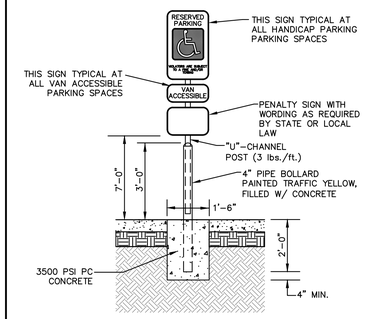
NOTES:

1. d = 5 OR 6.5–INCHES MINIMUM IN AREAS DESIGNATED ON THE SITE PAVING PLAN.
2. SUBGRADE TO BE PREPARED, STABILIZED & COMPACTED IN CONFORMANCE WITH GEOTECHNICAL STUDY.
3. ASTM A615, GRADE 60 DEFORMED BARS. BAR SIZE & SPACING PER NOTES ON SHEET C3, ON CENTER. MINIMUM LAP 30–INCHES.
4. PORTLAND CEMENT CONCRETE, 6 SACK, 4–INCH SLUMP, 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS, 500 PSI FLEXURAL STRENGTH AT 7 DAYS.
5. SHAPE SUBGRADE SURFACE TO FINAL GRADE. DO NOT INSTALL SAND CUSHION. DO NOT INSTALL SAND LEVELING COURSE.

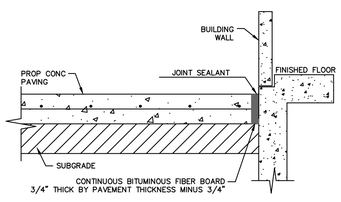
TYPICAL SECTION CONCRETE PAVING — No. 156



90° PERIMETER PARKING STRIPES — No. 103



HANDICAP SIGN ASSEMBLY — No. 121



PAVING ISOLATION JOINT AT BUILDING — No. 174

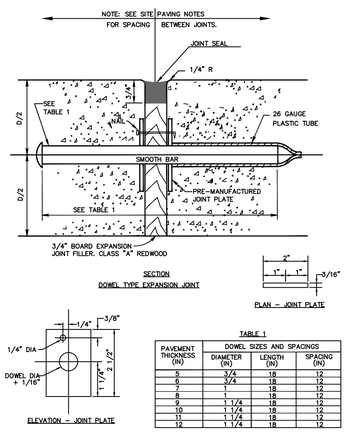
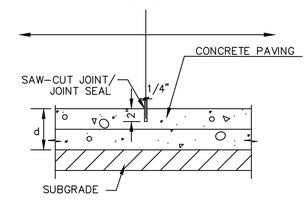


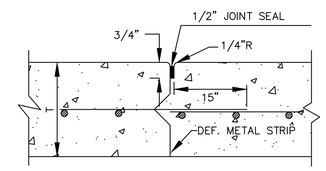
TABLE 1

PAVEMENT THICKNESS (IN)	DOWEL SIZES AND SPACINGS		
	DIAMETER (IN)	LENGTH (IN)	SPACING (IN)
5	3/4	18	12
6	3/4	18	12
7	1	18	12
8	1	18	12
9	1 1/4	18	12
10	1 1/4	18	12
11	1 1/4	18	12
12	1 1/4	18	12

EXPANSION JOINT DETAIL — No. 158

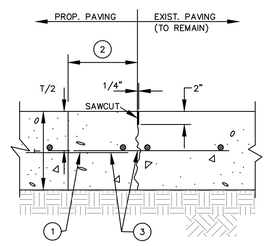


CONCRETE PAVING CRACK CONTROL JOINT — No. 159



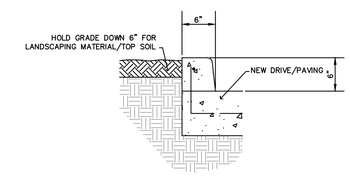
NOTE: EXPANSION JOINT MAY BE USED IN LIEU OF CONSTRUCTION JOINT.

CONCRETE PAVING CONSTRUCTION JOINT — No. 160

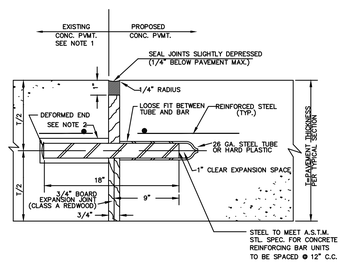


1. REINFORCING CENTERED IN PROPOSED PAVEMENT, 3" CLEAR AT EDGES.
2. SAW–CUT & REMOVE EXISTING PAVEMENT OR PAVEMENT WITH CURB. EXPOSE AND CLEAN EXISTING REINFORCING.
3. 24 BAR DIAMETER LAP OR WELD, IF DIRECTED.

CONCRETE TO CONCRETE STANDARD PAVEMENT TIE – IN — No. 164



TYPICAL CURB @ LANDSCAPING — No. 168

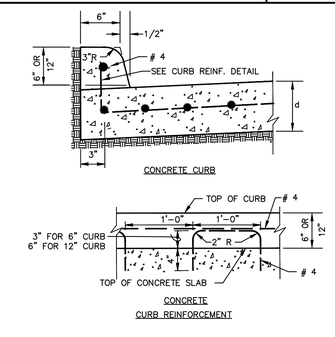


NOTES:

1. WHERE EXISTING PAVEMENT IS NOT TO BE SAWCUT, MAKE CONNECTION TO EXISTING EDGE OF PAVEMENT. IF CURB EXISTS, REMOVE IT AND REFINISH PAVEMENT SURFACE. WHERE CONNECTION IS TO BE MADE BY SAWCUT, SAWCUT EXISTING PAVEMENT FULL DEPTH OF PAVEMENT AND MAKE CONNECTION.
2. DRILL AND EMBED PROPOSED DOWELS TO DEPTH INDICATED WITH "PO–ROC" OR EQUAL.
3. DOWEL SIZES SHALL BE AS FOLLOWS:

DOWEL SIZE	PAVEMENT THICKNESS
5/8"	5"
3/4"	6" TO LESS THAN 7"
7/8"	7" TO LESS THAN 9"
1–1/4"	9" OR GREATER

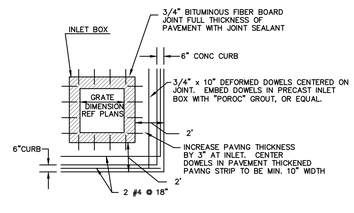
DOWELED JOINT CONNECTION TO EXISTING PAVEMENT — No. 165



NOTES:

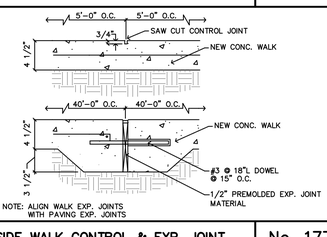
1. PROVIDE 1/2–INCH CLASS "A" REDWOOD BOARD EXPANSION JOINT IN CURB 20'–0" ON CENTER. ALIGN CURB JOINTS WITH PAVING JOINTS. SEAL CURB JOINTS.
2. WHERE SHOWN ON PLANS TO BEGIN OR END CONCRETE CURB, BEGINNING OR ENDING POINT SHALL BE A 2–INCH HIGH CURB WITH A UNIFORM TRANSITION TO 6–INCH HIGH CURB IN 10–FEET. BEGIN REINFORCING IN CURB WHEN WHEN CURB HEIGHT REACHES 6–INCHES.

CONC. CURB & CURB REINFORCEMENT — No. 166



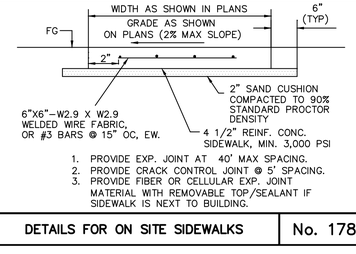
1. SLOPE CONCRETE PAVING TO DRAIN TO GRATE.
2. WHEN ADJACENT TO CURB SET INLET BOX @ 2' FROM BACK CURB (TYP)

GRATE INLET JOINT & CURB DETAIL — No. 175



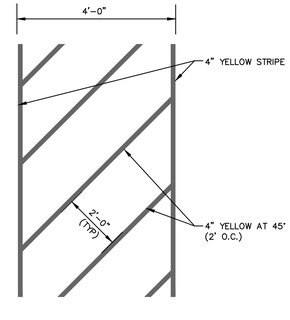
NOTE: ALIGN WALK EXP. JOINTS WITH PAVING EXP. JOINTS

SIDE WALK CONTROL & EXP. JOINT — No. 177

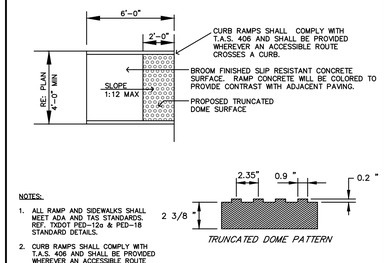


1. PROVIDE EXP. JOINT AT 40' MAX SPACING.
2. PROVIDE CRACK CONTROL JOINT @ 5' SPACING.
3. PROVIDE FIBER OR CELLULAR EXP. JOINT MATERIAL WITH REMOVABLE TOP/SEALANT IF SIDEWALK IS NEXT TO BUILDING.

DETAILS FOR ON SITE SIDEWALKS — No. 178



HANDICAP ACCESSIBLE STRIPING DETAIL — No. 106



NOTES:

1. ALL RAMP AND SIDEWALKS SHALL MEET ADA AND TAS STANDARDS. REF. TXDOT PED–12a & PED–18 STANDARD DETAILS.
2. CURB RAMPS SHALL COMPLY WITH T.A.S. 406 AND SHALL BE PROVIDED WHEREVER AN ACCESSIBLE ROUTE CROSSES A CURB.

CURBED RAMP PLAN — No. 128

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

PAVING DETAILS

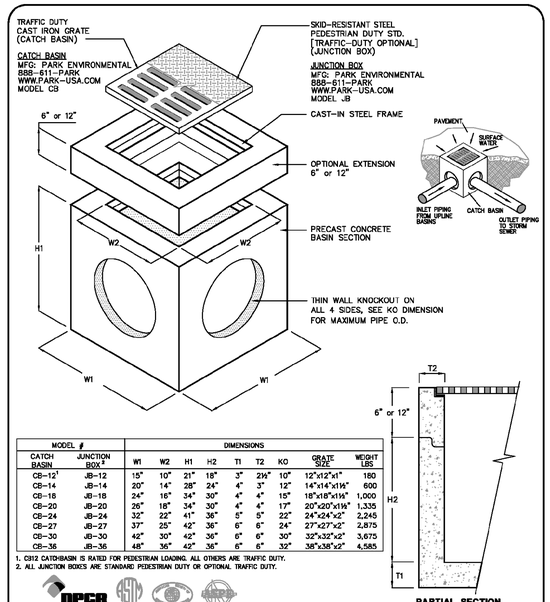
DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD REAGAN BLVD.
LEANDER, TX 78641

STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED PROFESSIONAL ENGINEER
JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/24
SCALE: NTS
JOB No. 250430-01-003
SHEET NO. 14 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\14 PAVING DETAILS.dwg, 14 PAVING DETAILS, January 30, 2024, 4:24 PM, dbuckson



MODEL #		DIMENSIONS								
CATCH BASIN	JUNCTION BOX ‡	W1	W2	H1	H2	T1	T2	KO	GRATE SIZE	WEIGHT LBS
CB-12†	JB-12	15"	10"	21"	18"	3"	2½"	10"	12"x12"x1"	180
CB-14	JB-14	20"	14"	28"	24"	4"	3"	12"	14"x14"x1½"	600
CB-18	JB-18	24"	16"	34"	30"	4"	4"	15"	18"x18"x1½"	1,000
CB-20	JB-20	26"	18"	34"	30"	4"	4"	17"	20"x20"x1½"	1,335
CB-24	JB-24	32"	22"	41"	36"	5"	5"	22"	24"x24"x2"	2,245
CB-27	JB-27	37"	25"	42"	36"	6"	6"	24"	27"x27"x2"	2,875
CB-30	JB-30	42"	30"	42"	36"	6"	6"	30"	32"x32"x2"	3,675
CB-36	JB-36	48"	36"	42"	36"	6"	6"	32"	38"x38"x2"	4,585

1. CB12 CATCH-BASIN IS RATED FOR PEDESTRIAN LOADING. ALL OTHERS ARE TRAFFIC DUTY.
2. ALL JUNCTION BOXES ARE STANDARD PEDESTRIAN DUTY OR OPTIONAL TRAFFIC DUTY.

PARTIAL SECTION

©Park 2010

SPECIFICATIONS

CONCRETE : Class II concrete with of design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

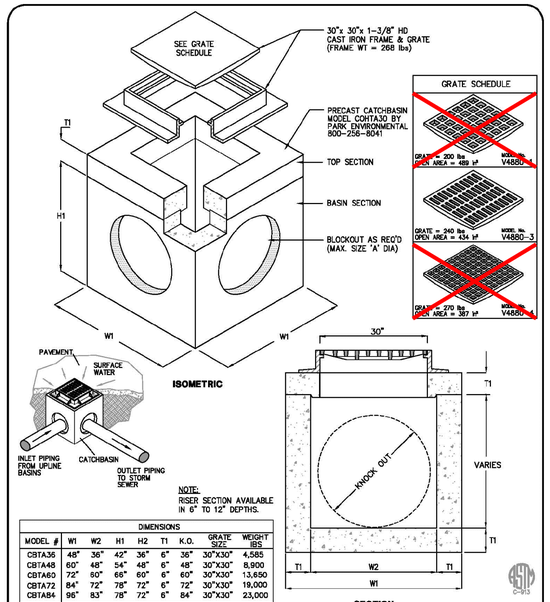
C.I. CASTINGS: Cast iron frames and grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 35.

PARK ENVIRONMENTAL EQUIPMENT 888-611-PARK www.park-USA.com

"Expect the Best"

CATCH BASIN MODEL CB - 12" THRU 36"
JUNCTION BOX MODEL JB - 12" THRU 36"

SCALE	NONE	DWG. NO.	REV.
DATE	2010	CBJB36	A



NOTE:
RISER SECTION AVAILABLE IN 6" TO 12" DEPTHS.

DIMENSIONS								
MODEL #	W1	W2	H1	H2	T1	K.O.	GRATE SIZE	WEIGHT lBS
CBTA36	48"	36"	42"	36"	6"	36"	30"X30"	4,585
CBTA48	60"	48"	54"	48"	6"	48"	30"X30"	8,900
CBTA60	72"	60"	66"	60"	6"	60"	30"X30"	13,650
CBTA72	84"	72"	78"	72"	6"	72"	30"X30"	19,000
CBTA84	96"	83"	78"	72"	6"	84"	30"X30"	23,000

SECTION

© Park 2002

SPECIFICATIONS

CONCRETE : Class 1 concrete with of design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth. Rated for H-20 Loading.

REINFORCEMENT: Grade 60 reinforced with steel rebar to conform to ASTM A615 on required centers or equal.

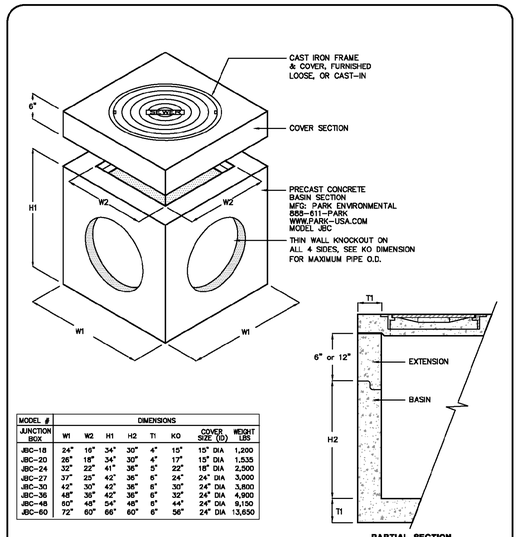
C.I. CASTINGS: Cast iron frames and grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 30.

PARK ENVIRONMENTAL EQUIPMENT 888-611-PARK www.park-USA.com

"Expect the Best"

TYPE-A GRATE INLET
36" THRU 84"

SCALE	NONE	DWG. NO.	REV.
DATE	01/02	CBTA3684	A



MODEL #	DIMENSIONS							
JUNCTION BOX	W1	W2	H1	H2	T1	KO	COVER SIZE (D)	WEIGHT LBS
JBC-18	24"	16"	34"	30"	4"	15"	15" DIA	1,200
JBC-20	26"	18"	34"	30"	4"	17"	15" DIA	1,535
JBC-24	32"	22"	41"	36"	5"	22"	18" DIA	2,500
JBC-27	37"	25"	42"	36"	6"	24"	24" DIA	3,000
JBC-30	42"	30"	42"	36"	6"	30"	24" DIA	3,800
JBC-36	48"	36"	42"	36"	6"	32"	24" DIA	4,900
JBC-48	60"	48"	54"	48"	6"	44"	24" DIA	9,150
JBC-60	72"	60"	66"	60"	6"	56"	24" DIA	13,650

PARTIAL SECTION

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SPECIFICATIONS

CONCRETE : Class 1 concrete with of design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

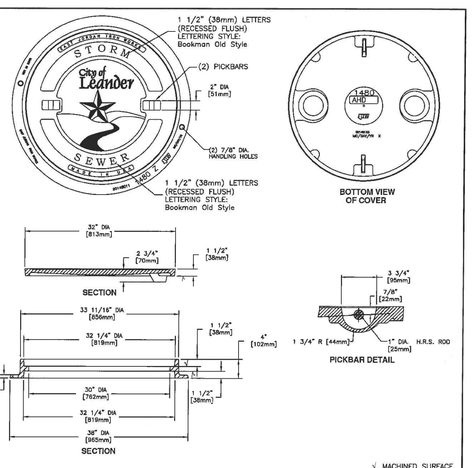
C.I. CASTINGS: Cast iron frames and grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 30.

PARK ENVIRONMENTAL EQUIPMENT 888-611-PARK www.park-USA.com

"Expect the Best"

JUNCTION BOX
MODEL JBC - 18" THRU 60"

SCALE	NONE	DWG. NO.	REV.
DATE	12/09	JBC-1	A

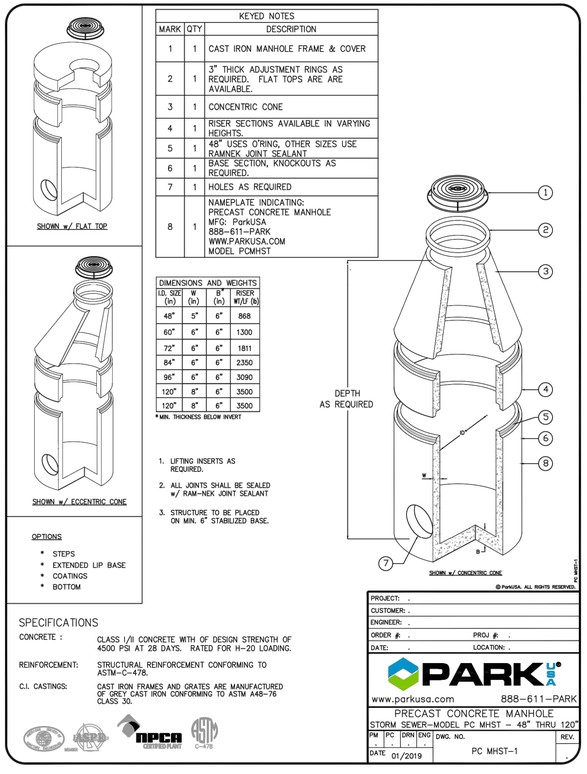


√ MACHINED SURFACE

MANHOLE ASSEMBLY	EST. WT. COVER: 200 LBS 91kg FRAME: 155 LBS 70kg UNIT: 355 LBS 161kg
EAST JORDAN IRON WORKS PRODUCT NO. 00148105 OR NEENAH FOUNDRY DF-1274 LEANDER STORM	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 88134 LICENSED PROFESSIONAL ENGINEER 02/22/16

City Of Leander, Texas
DETAIL #107-3
STORM SEWER MANHOLE COVER
(HEAVY DUTY)



KEYED NOTES		
MARK	QTY	DESCRIPTION
1	1	CAST IRON MANHOLE FRAME & COVER
2	1	3" THICK ADJUSTMENT RINGS AS REQUIRED. FLAT TOPS ARE ARE AVAILABLE.
3	1	CONCENTRIC CONE
4	1	RISER SECTIONS AVAILABLE IN VARYING HEIGHTS.
5	1	48" USES O'RING, OTHER SIZES USE RAMNEK JOINT SEALANT
6	1	BASE SECTION, KNOCKOUTS AS REQUIRED.
7	1	HOLES AS REQUIRED
8	1	NAMEPLATE INDICATING: PRECAST CONCRETE MANHOLE MFG: ParkUSA 888-611-PARK WWW.PARKUSA.COM MODEL PCMHST

DIMENSIONS AND WEIGHTS			
I.D. SIZE (in)	W (in)	B* (in)	RISER W/Lf (lb)
48"	5"	6"	868
60"	6"	6"	1300
72"	6"	6"	1811
84"	6"	6"	2350
96"	6"	6"	3090
120"	8"	6"	3500
120"	8"	6"	3500

* MIN. THICKNESS BELOW INVERT

1. LIFTING INSERTS AS REQUIRED.
2. ALL JOINTS SHALL BE SEALED w/ RAM-NEK JOINT SEALANT
3. STRUCTURE TO BE PLACED ON MIN. 6" STABILIZED BASE.

OPTIONS
- STEPS
- EXTENDED LIP BASE
- COATINGS
- BOTTOM

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SPECIFICATIONS

CONCRETE : CLASS I/II CONCRETE WITH OF DESIGN STRENGTH OF 4500 PSI AT 28 DAYS. RATED FOR H-20 LOADING.

REINFORCEMENT: STRUCTURAL REINFORCEMENT CONFORMING TO ASTM-C-478.

C.I. CASTINGS: CAST IRON FRAMES AND GRATES ARE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30.

PROJECT: .	
CUSTOMER: .	
ENGINEER: .	
ORDER #: .	PROJ #: .
DATE: .	LOCATION: .

PARK USA www.parkusa.com 888-611-PARK

PRECAST CONCRETE MANHOLE
STORM SEWER-MODEL PC MHST – 48" THRU 120"

PM	PC	DRN	ENG	DWG. NO.	REV.
				PC MHST-1	
DATE 01/2019					

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www.bowmanconsulting.com
TBPE Firm Registration No. F-14309

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

UTILITY DETAILS (1 OF 3)

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

Kevin Polasek, P.E.
STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED PROFESSIONAL ENGINEER
JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: NTS
JOB No. 250430-01-003
SHEET NO. 15 OF 19

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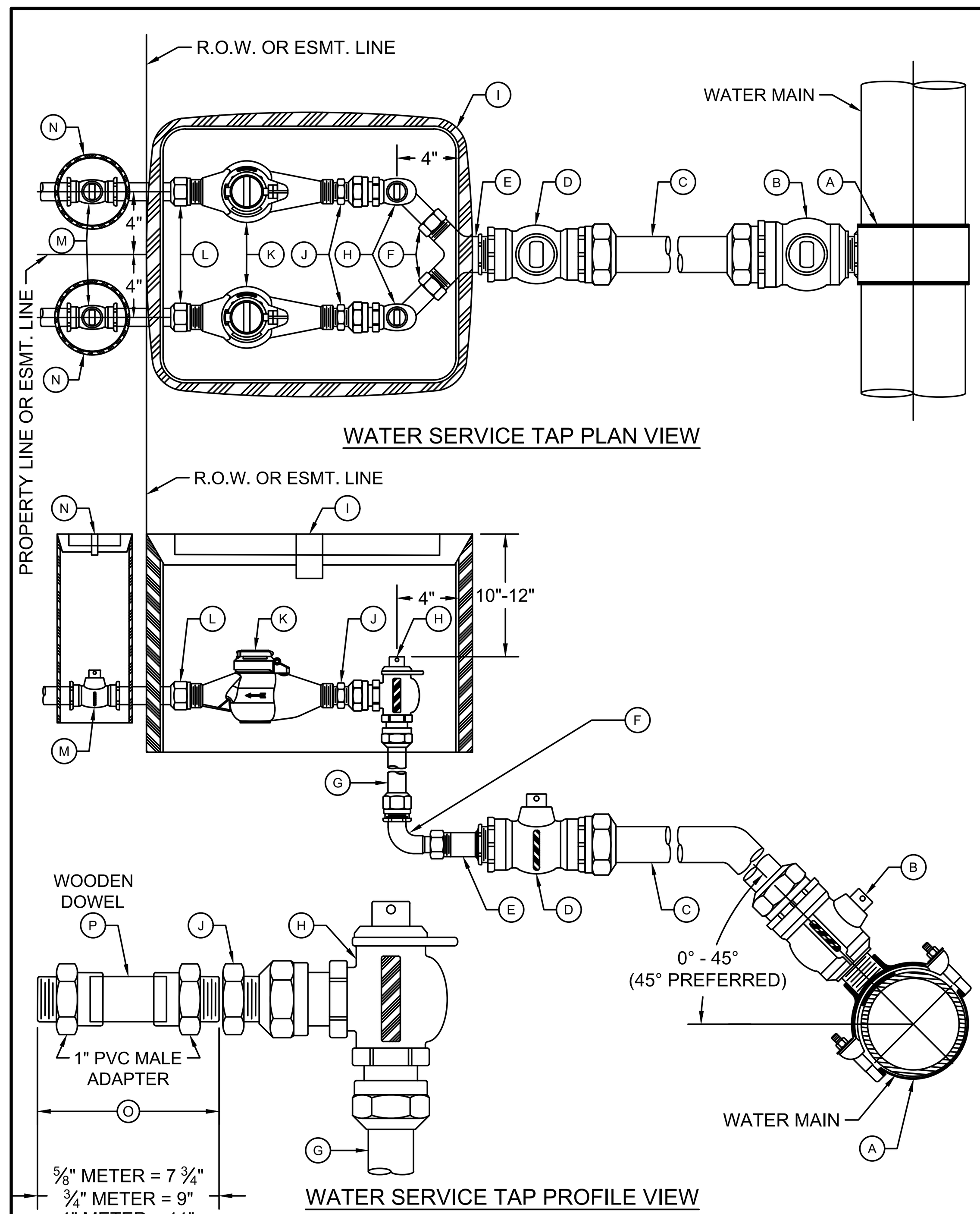


MATERIALS LIST:

A. 2" SERVICE CLAMP, SPL WW-264
B. 2" CORPORATION STOP, SPL WW-68
C. 2" HDPE WATER SERVICE TUBING, SPL WW-65
D. 2" BALL VALVE, SPL WW-68
E. SINGLE SERVICE: 2" MIP X 1" COPPER FLARE FITTING, SPL WW-68 OR DOUBLE SERVICE: 2" MIP X 1" COPPER FLARE WYE, SPL WW-68
F. 1" SWIVEL NUT x 1" COMPRESSION 90° BEND, SPL WW-68
G. 1" HDPE WATER SERVICE TUBING, SPL WW-65
H. 1" ANGLE METER STOP, SPL WW-68
I. METER BOX AND LID, SPL WW-145A; FOR DUAL 1" METERS: USE TWO SINGLE METER BOXES

MATERIALS TO BE INSTALLED BY PLUMBER:

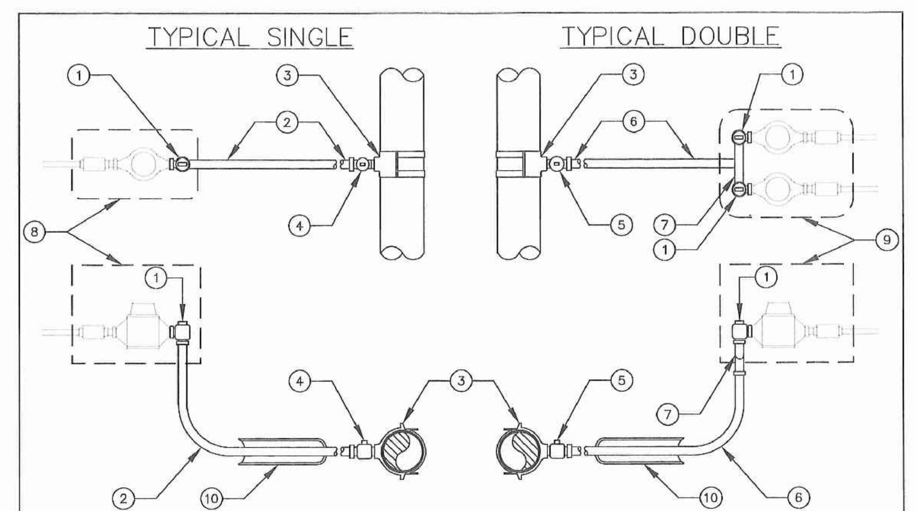
J. BRASS METER BUSHING - SIZE AS NEEDED TO CONNECT ANGLE METER STOP TO METER
K. WATER METER PURCHASED FROM AUSTIN WATER
L. BRASS WATER METER COUPLING MALE IPT x SWIVEL COUPLING NUT: ⅝" AND ¾" METERS: 8 ½" LONG x ¾" DIA. 1" METERS: 8 ½" LONG x 1" DIA.
M. PROPERTY OWNER'S CUT OFF VALVE, SPL WW-276
N. PROPERTY OWNER'S CUT OFF VALVE BOX AND LID
O. TEMPORARY METER SPACER (REQUIRED TO ASSURE METER WILL FIT APPROPRIATELY)
P. 1" WOODEN DOWEL (SHOW ADDRESS ON DOWEL USING WATERPROOF MARKER)

NOTES:

1. SERVICE CLAMP SHALL BE WRAPPED COMPLETELY WITH 8 MIL. POLYETHYLENE FILM, SPL WW-27D.
2. BRANCH CONNECTIONS AND ALL ANGLE METER STOPS MUST BE INSTALLED PRIOR TO ANY METER INSTALLATION.
3. TOP OF METER BOXES SHOULD BE 4" ABOVE GROUND.
4. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY SECTION 510.3 (14) OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS; BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY SECTION 510.3 (25).
5. METER BOX MUST BE BEHIND CURB NEXT TO PROPERTY LINE OR EASEMENT AND OUT OF VEHICULAR TRAFFIC AREA AND SIDEWALK.
6. BALL VALVE "D" SHALL NOT BE LOCATED UNDER SIDEWALK, CURB, OR PAVEMENT, AND NOT BE LOCATED MORE THAN 36" BELOW FINAL GRADE.
7. METER SIZES TO BE SHOWN ON PLANS.
8. METER BOX CUT OUTS SHALL NOT EXCEED TWO TIMES THE PIPE DIAMETER.
9. INSTALL METALLIC TRACER TAPE, SPL WW-597, MINIMUM 1' ABOVE TUBING FROM SERVICE CLAMP "A" TO BALL VALVE "D".
10. TUBING SHALL BE PLACED IN A STRAIGHT ALIGNMENT AND ALLOWED TO RELAX AND "SNAKE" LOOSELY IN THE TRENCH. TUBING BEHIND CURB AND GUTTER SHALL BE INSTALLED WITH A MINIMUM 2' DEPTH OF COVER.
11. 1" TUBING, WHEN BENT, SHALL HAVE A RADIUS NO SMALLER THAN 3'. 2" TUBING, WHEN BENT, SHALL HAVE A RADIUS NO SMALLER THAN 5'. BRASS FITTINGS SHALL NOT BE CONNECTED TO A BENT SECTION OF TUBING.
12. SOLID, TUBULAR STAINLESS STEEL INSERT STIFFENERS FOR HDPE TUBING SHALL BE USED AT ALL COMPRESSION FITTINGS. INSERT STIFFENERS SHALL BE FROM THE SAME MANUFACTURER AS THE COMPRESSION FITTING USED.
13. FOR RECLAIMED WATER SERVICES AND METERS, ALL RECLAIMED TUBING SHALL BE MANUFACTURED SOLID PURPLE, SPL WW-65A. ALL APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL METER BOX LIDS SHALL BE PURPLE AND HAVE **"RECLAIMED WATER"** CAST INTO THEM, SPL WW-145A.

CITY OF AUSTIN AUSTIN WATER	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS	
DRAFT - NOTICE OF RULE ADOPTION ONLY *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	WATER SERVICE & METER INSTALLATION - 1" & SMALLER METERS	
DRAFT - NOTICE OF RULE ADOPTION ONLY *JEFF A. KYLE* 08/16/2019 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520-AW-01B 2 OF 2



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	DFW37F-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 ACCOMMODATE METER STOP, WATER METER AND CHECK VALVE.

STATE OF TEXAS — WAYNE S. WATTS — 86134 — LICENSED PROFESSIONAL ENGINEER
10/29/15

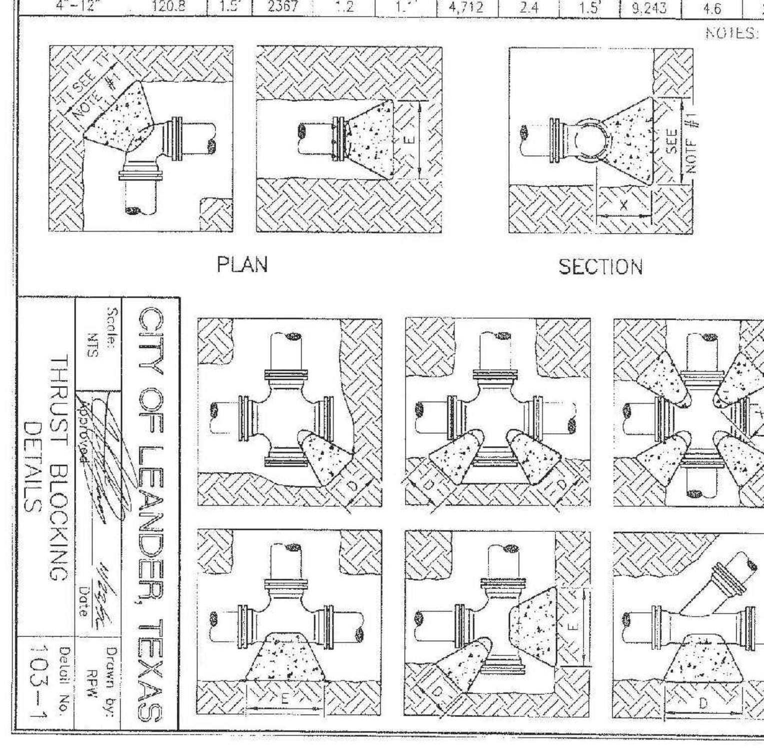
City Of Leander, Texas
DETAIL #101-1
WATER SERVICE CONNECTIONS

THRUST BLOCKING SCHEDULE

ASSUMPTIONS: LINE PRESSURE = 100 psi, ALLOWABLE BEARING = 4000 psf, SAFETY FACTOR = 3

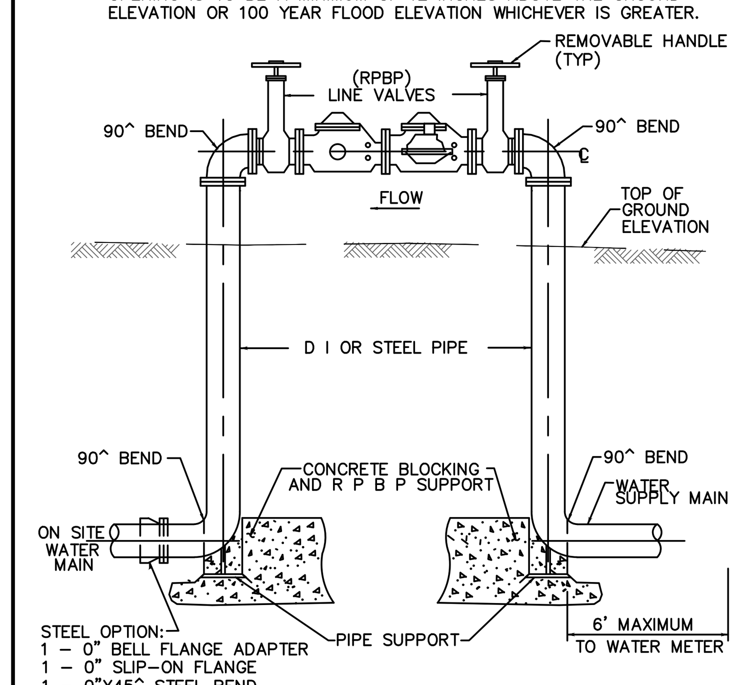
			11 1/4° BEND			22 1/2° BEND			45° BEND			90° BEND			TEE & PLUG		
PIPE DIAMETER	PIPE AREA Sq. In.	X	THRUST Lbs.	AREA Sq. Ft.	A	THRUST Lbs.	AREA Sq. Ft.	B	THRUST Lbs.	AREA Sq. Ft.	C	THRUST Lbs.	AREA Sq. Ft.	D	THRUST Lbs.	AREA Sq. Ft.	E
4"-12"	120.8	1.5'	2367	1.2	1.1'	4,712	2.4	1.5'	9,243	4.6	2.2'	17,078	8.5	2.9'	12,076	6.0	2.5'

NOTES:
1. USE A, B, C, D or E AS APPROPRIATE. REFER TO SCHEDULE.
2. ALL CONCRETE THRUST BLOCKS SHALL BEAR AGAINST UNDISTURBED TRENCH WALLS. DISTANCE (X) FROM PIPE FITTING TO TRENCH WALL SHALL BE AS SHOWN IN THE SCHEDULE OR A MIN. OF 12" AT THE THRUST BLOCK.
3. VERTICAL DIMENSION OF BEARING AREA AGAINST TRENCH WALL OF THRUST BLOCK SHALL BE EQUAL TO HORIZONTAL DIMENSION OF A, B, C, D, OR E AS APPROPRIATE. REFER TO SCHEDULE AND SECTION DRAWING.
4. ALL JOINTS SHALL BE TEMPORARILY JACKED WHEN POURING THRUST BLOCKS. ALL JOINTS OF FITTINGS SHALL BE KEPT FREE OF ANY CONCRETE.
5. ALL CONCRETE THRUST BLOCKS SHALL CONSIST OF A MIXTURE OF 1:2:6 OF CEMENT TO WASHED SAND TO GRAVEL & SHALL BE CURED FOR A MIN. OF 24 HRS.
6. CONCRETE THRUST BLOCKS SHALL APPLY TO ALL PIPE FITTINGS.



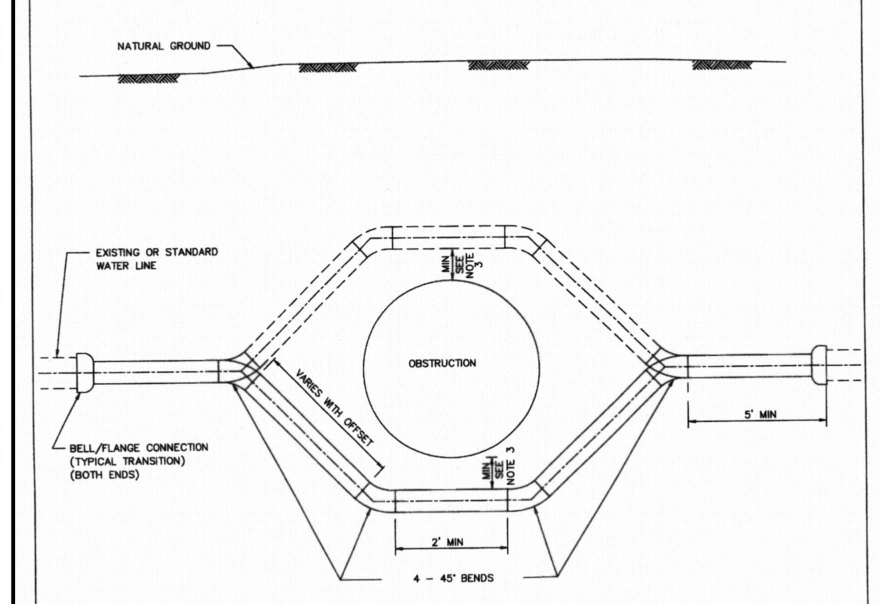
CITY OF LEANDER, TEXAS
THRUST BLOCKING DETAILS
Scale: NTS
Date
Drawn by: RFW
Detail No. 103-1

NOTES:
1. INSULATE THE REDUCED PRESSURE BACKFLOW PREVENTER TO AVOID FREEZING.
2. THE REDUCED PRESSURE BACKFLOW PREVENTER'S DISCHARGE OPENING IS TO BE A MINIMUM OF 12 INCHES ABOVE THE GROUND ELEVATION OR 100 YEAR FLOOD ELEVATION WHICHEVER IS GREATER.



REDUCED PRESSURE BACKFLOW PREVENTER	No. 202

NOTE:
1. MATERIALS AND COATINGS TO BE IN ACCORDANCE WITH WATER LINE STANDARD SPECIFICATIONS.
2. RESTRAIN EXISTING PIPING BEYOND STEEL SECTION AS REQUIRED TO PREVENT MOVEMENT.
3. AS PER DESIGN GUIDELINE.



PIPE OFFSET ALTERNATES
1. DUCTILE IRON PIPE PRESSURE 250 PSI WITH APPROVED RESTRAINED JOINTS.
2. PVC PIPE WITH INTEGRAL RESTRAINED JOINT SYSTEM, OR DUCTILE – IRON RESTRINED JOINT FITTINGS, EPOXY LINED AND COATED. USE 250 PSI AWWA C900 DR 14 FOR PVC RESTRAINED JOINTS.
3. PVC NOT ALLOWED FOR GREATER THAN 20 FT OF COVER OR FOR DIAMETER LARGER THAN 20 IN.
4. USE ONLY DUCTILE IRON AND PVC PRODUCTS LISTED ON OCE DIVISION APPROVED PRODUCTS LIST AND IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS.

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING
TYPICAL STEEL PIPE OFFSET SECTION FOR WATER LINES
(NOT TO SCALE)
APPROVED BY: CITY ENGINEER — APPROVED: DIRECTOR OF PUBLIC WORKS AND ENGINEERING
EFF DATE: JULY-01-2010 — DWG NO: 02511-01

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

UTILITY DETAILS (2 OF 3)

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

Kevin Polasek, P.E.
STATE OF TEXAS — KEVIN B. POLASEK — 96632 — LICENSED PROFESSIONAL ENGINEER
JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: NTS
JOB No. 250430-01-003
SHEET NO. 16 OF 19

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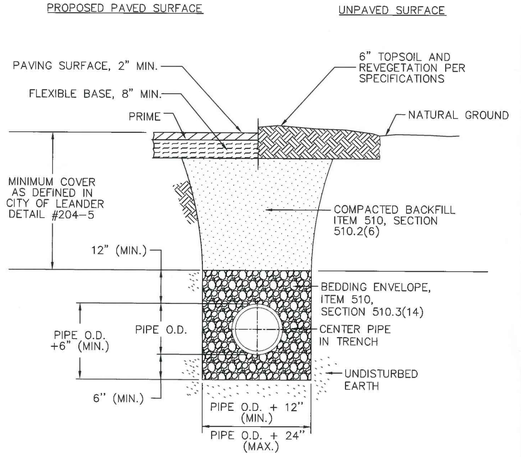


NOTES:

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

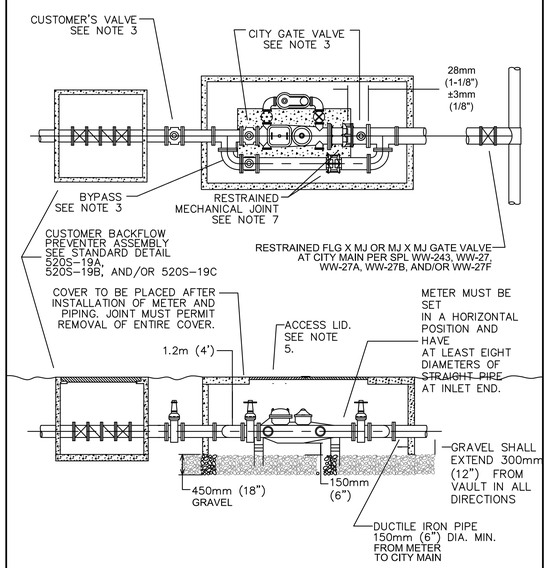
REFERENCES:

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

ALL PIPE FROM CITY MAIN TO CUSTOMER VALVE SHALL BE RESTRAINED. SEE NOTE 11 ON PAGE 2 OF 3.



CITY OF AUSTIN AUSTIN WATER UTILITY	FIRE LINE METER INSTALLATION	
RECORD COPY SIGNED BY KATHI L FLOWERS 08/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-17 1 OF 3

NOTES:

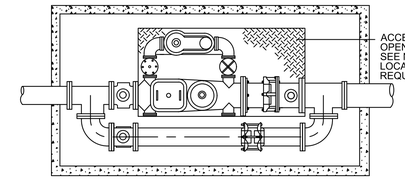
1. VAULT PER SPL WW-298 OR APPROVED EQUAL. VAULT SHALL INCLUDE THRUST COLLAR WALL PIPES IF CAST IN PLACE. ALL PIPE SHALL BE RESTRAINED REGARDLESS IF VAULT PRE-CAST OR CAST IN PLACE, RESTRAINED BOTH WAYS. H20 LOADING REQUIRED FOR ALL VAULTS.
2. METER VAULT SHALL BE BEHIND CURB AND/OR WALK, AND NOT IN VEHICULAR TRAFFIC AREA.
3. MAIN LINE AND BYPASS GATE VALVES WILL BE RESILIENT SEAT TYPE WITH CORROSION RESISTANT FUSION BONDED EPOXY COATING INSIDE AND OUTSIDE, NON-RISING STEM. MAIN LINE VALVES SHALL HAVE HAND-WHEELS. BYPASS VALVES SHALL HAVE HAND-WHEELS. PROPERTY OWNER'S VALVE SHALL NOT BE LOCATED IN THE CITY OF AUSTIN METER VAULT. HAND-WHEEL EXCEPTION: IF HAND-WHEEL IS NOT LOCATED WITHIN 300mm (12") HORIZONTALLY OF ACCESS HATCH, GATE VALVE SHALL BE INSTALLED WITH OPERATING NUT ACCESSIBLE FROM RING AND COVER LOCATED ON VAULT LID PER SPL WW-622.
4. APPROVAL REQUIRED IF HEIGHT OF VAULT EXCEEDS 1.8m (72"), CONTACT THE PIPELINE ENGINEERING DIVISION OF AUSTIN WATER UTILITY. METER SHALL BE LEGIBLE TO READ FROM TOP OF VAULT.
5. ACCESS LID SHALL BE 1.2 m x 1.8 m (4'x6') DOUBLE LEAF PER SPL WW-614 (H2O LOADING REQUIRED) WITH SLAM LOCK BY HALLIDAY PRODUCTS OR APPROVED EQUAL. LOCK TO INCLUDE SECURITY OPERATOR.
6. ALL BURIED PIPE SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY CITY OF AUSTIN STANDARD SPECIFICATIONS 510.3 (14); BACKFILL ABOVE GRANULAR BEDDING AS REQUIRED BY 510.3 (25). ALL BURIED PIPE SHALL BE WRAPPED IN POLYETHYLENE ENCASEMENT PER SPL WW-27D.
7. FITTINGS IN VAULT SHALL BE FLANGED WITH EXCEPTION OF ONE RESTRAINED MJ ON MAIN AND BYPASS LINES EACH PER SPL WW-27A.
8. VOIDS AT PIPE WALL HOLES SHALL BE FILLED WITH NON-SHRINK GROUT, OR OTHER SEAL OR SEALANT PER SPL WW-146A.
9. 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.
10. BYPASS AND MAIN PIPE SHALL BE SAME DIAMETER. ALL PIPE FROM CITY MAIN TO CUSTOMERS VALVE SHALL BE D.I.
11. ALL EQUIPMENT IN VAULT SHALL BE REMOVABLE WITHOUT ADDITIONAL RESTRAINT OR SUPPORT OF PIPE.
12. ALL CLEARANCES INDICATED ARE MINIMUM, ADDITIONAL CONSIDERATION SHALL BE MADE FOR ACCESS TO ALL COMPONENTS IN VAULT. ALL CLEARANCES SHALL BE INCLUDED ON PLANS SUBMITTED FOR APPROVAL TO AUSTIN WATER UTILITY.
13. LOCATION OF ACCESS DOORS ARE SHOWN TO INDICATE POSSIBLE LOCATION. AN ENGINEER LICENSED BY THE STATE OF TEXAS SHALL DETERMINE SIZE OF VAULT, LOCATION OF ACCESS DOOR AND/OR VALVE CASINGS APPROPRIATE FOR EQUIPMENT, ACCESS, MAINTENANCE AND CLEARANCES. METER VAULTS PER SPL WW-298 ARE ACCEPTABLE IF ALL DESIGN PARAMETERS ARE MET AND SO DETERMINED BY TEXAS LICENSED ENGINEER.

CITY OF AUSTIN AUSTIN WATER UTILITY	FIRE LINE METER INSTALLATION	
RECORD COPY SIGNED BY KATHI L FLOWERS 08/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-17 2 OF 3

NOTES:

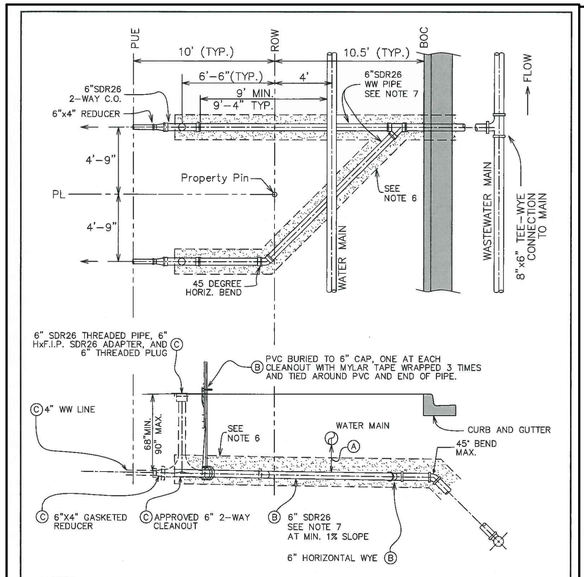
14. IN ALL CASES, MINIMUM CLEARANCE FROM WALL TO TEST PORTS SHALL BE 600mm (24"). LICENSED ENGINEER SHALL CONFIRM WITH METER MANUFACTURER LOCATION OF TEST PORTS PRIOR TO SUBMITTAL OF PLANS TO AUSTIN WATER UTILITY FOR APPROVAL. PLANS SHALL INDICATE LOCATION OF TEST PORTS.
15. VAULT SIZES INDICATED ON WATER METER SCHEDULE ARE SUGGESTIONS. ACTUAL EQUIPMENT, PIPE LAYOUT, CLEARANCE, ACCESS AND OTHER INFORMATION SHALL BE TAKEN INTO CONSIDERATION BY AN ENGINEER LICENSED BY THE STATE OF TEXAS.

MINIMUM CLEARANCES	
6"	-FLOOR TO ANY PART OF FIRELINE METER ASSEMBLY -INTERIOR WALL TO FLANGE.
12"	-INTERIOR WALL TO PARALLEL PIPE, VALVE OR METER. -ALL AROUND FIRELINE METER ASSEMBLY
24"	-INTERIOR WALL TO TEST PORTS
48"	-TOP OF PIPE TO INTERIOR TOP OF VAULT



WATER METER SCHEDULE				
WATER METER SIZE	SIZE OF BY-PASS	BY-PASS VALVE W/HANDWHEEL	MAIN LINE VALVE WITH HANDWHEEL	VAULT SIZE PER SPL WW-298, SEE NOTE 15
150 mm x 50 mm (6" x 2")	150 mm (6")	150 mm (6")	150 mm (6")	2.4m x 3.6m (8' x 12')
200 mm x 50 mm (8" x 2")	200 mm (8")	200 mm (8")	200 mm (8")	3.0m x 3.6m (10' x 12')
250mm x 50mm (10" x 2")	250 mm (10")	250 mm (10")	250 mm (10")	3.0m x 4.5m (10' x 15')

CITY OF AUSTIN AUSTIN WATER UTILITY	FIRE LINE METER INSTALLATION	
RECORD COPY SIGNED BY KATHI L FLOWERS 08/31/2011	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 520S-17 3 OF 3



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.

STATE OF TEXAS — WAYNE S. WATTS — 68134 — LICENSED PROFESSIONAL ENGINEER
09/26/18

City Of Leander, Texas
DETAIL #101-2
1 OF 2
WASTEWATER SERVICE CONNECTIONS

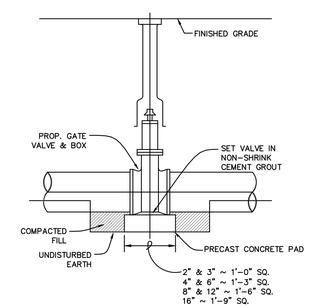
NOTES

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.

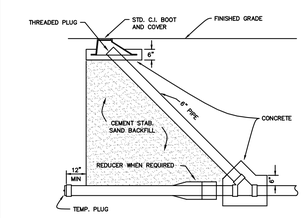
   ALL WASTEWATER PIPING SHALL HAVE ELASTOMERIC GASKET TYPE JOINTS AND SHALL SLOPE DOWNWARD TO MAIN 1% (1/8" PER FOOT) MINIMUM TO 45° MAXIMUM. DEPTH OF SERVICE STUB AT PROPERTY LINE WILL BE SHOWN ON PLANS BY ENGINEER IF GREATER THAN 8', OTHERWISE THE INSTALLED DEPTH WILL TYPICALLY BE 6' TO 8'. IF WASTEWATER SERVICE LINE TO MAIN REQUIRES DEFLECTION EXCEEDING 45°, REFER TO DETAIL 520-6. ALL INSTALLATIONS 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 (25). 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.

STATE OF TEXAS — WAYNE S. WATTS — 68134 — LICENSED PROFESSIONAL ENGINEER
09/26/18

City Of Leander, Texas
DETAIL #101-2
2 OF 2
WASTEWATER SERVICE CONNECTIONS



TYPICAL GATE VALVE INSTALLATION — No. 210



PRIVATE SEWER CLEANOUT SANITARY AND STORM — No. 203

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

UTILITY DETAILS (3 OF 3)

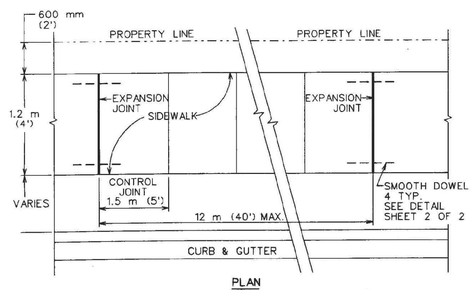
DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

STATE OF TEXAS — KEVIN B. POLASEK — 96632 — LICENSED PROFESSIONAL ENGINEER
JANUARY 30, 2024

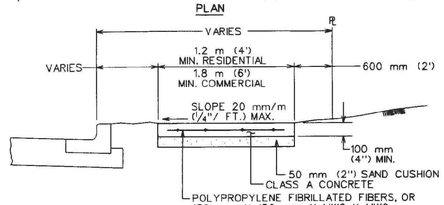
DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: NTS
JOB No. 250430-01-003
SHEET NO. 17 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\17 UTILITY DETAILS (3 OF 3).dwg, 17 UTILITY DETAILS (3 OF 3), January 30, 2024, 4:24 PM, dbuckson



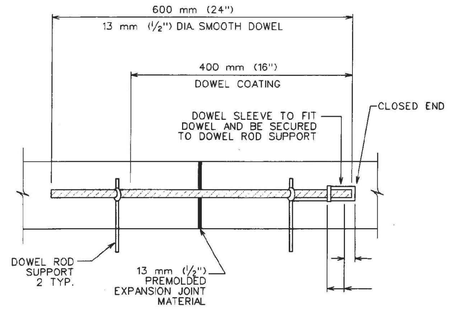
PLAN



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.

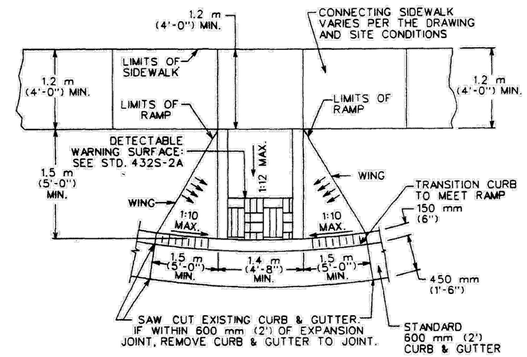
SECTION

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

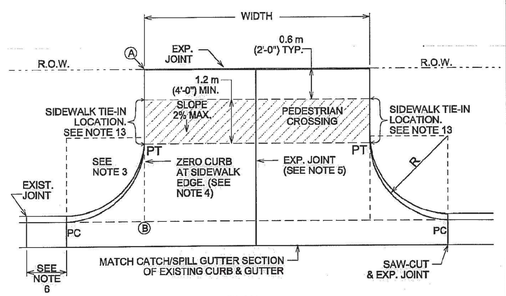


DOWEL DETAIL

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

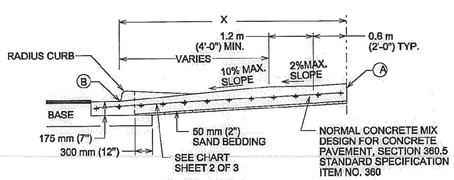


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE 1 SIDEWALK CURB RAMP	
Bill Gardner 9/14/05 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-5



PLAN

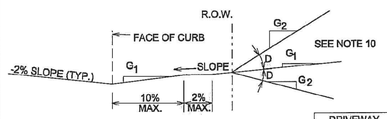
NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE. ELEVATION OF POINT(A)ABOVE POINT(B)IS, TYPICALLY A MINIMUM OF 150 mm (6") PLUS 20 mm/m (1/4" RISE/FOOT) OVER DISTANCE "X" IN METERS (FEET).



CROSS SECTION

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 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



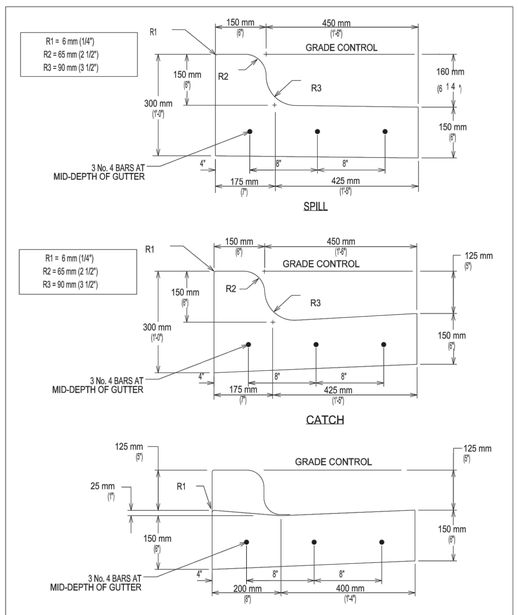
ALLOWABLE GRADES

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 5.
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



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	REINFORCED CURB AND GUTTER SECTION	
RECORD COPY SIGNED BY SAM ANGOORI 01/04/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-2

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

CITY OF LEANDER
PAVING DETAILS
DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

Kevin B. Polasek, P.E.
STATE OF TEXAS
KEVIN B. POLASEK
96632
LICENSED PROFESSIONAL ENGINEER
JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: NTS
JOB No. 250430-01-003
SHEET NO. 18 OF 19

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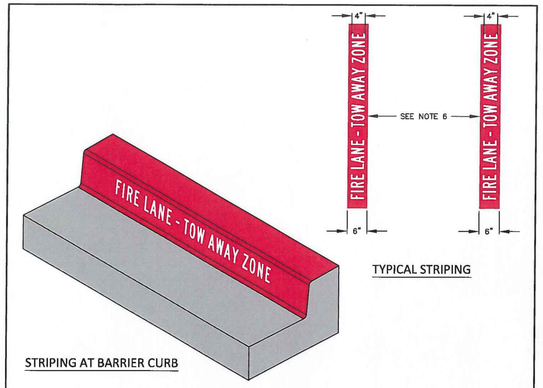


TYPICAL STRIPING

STRIPING AT BARRIER CURB

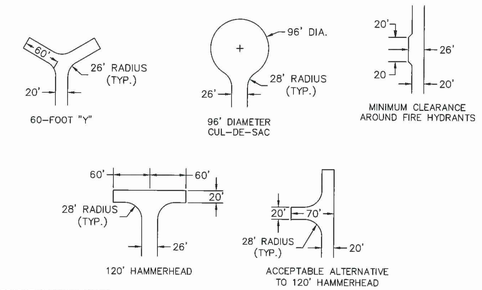
NOTES:

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.

STATE OF TEXAS MICHAEL LAFFERTY 118708 LICENSED PROFESSIONAL ENGINEER 2017-04-28 FIRE MARSHAL

City Of Leander, Texas
DETAIL #501-2.
FIRE LANE STRIPING



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.

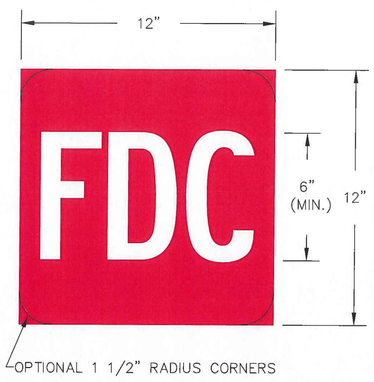
LENGTH (FEET)	WIDTH (FEET)	TURNAROUNDS REQUIRED
0-150	20	NONE REQUIRED
151-500	20	120-FOOT HAMMERHEAD, 60-FOOT "Y" OR 96-FOOT DIAMETER CUL-DE-SAC
501-750	26	120-FOOT HAMMERHEAD, 60-FOOT "Y" OR 96-FOOT DIAMETER CUL-DE-SAC
OVER 750	SPECIAL APPROVAL REQUIRED	

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 118708 LICENSED PROFESSIONAL ENGINEER 2016-06-15 FIRE MARSHAL

City Of Leander, Texas
DETAIL #501-3
FIRE APPARATUS ACCESS ROADS & TURNAROUNDS



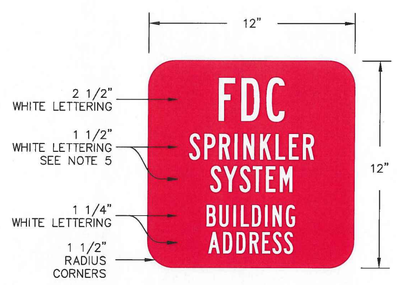
NOTES:

1. 12-INCH BY 12-INCH, 0.080 INCH THICK ALUMINUM BLANKS. COVERED WITH 3M DIAMOND GRADE, WHITE, REFLECTIVE SHEETING. LETTERING SHALL BE UPPER CASE, MINIMUM OF 6" IN HEIGHT WITH 1-1/4" LETTER STROKE, AND CUT FROM RED 3M ELECTRO CUT FILM.
2. ALL FONTS SHALL BE TRAFFIC CAD SERIES B OR FHWA SERIES B.
3. ON BUILDINGS, WHERE THE FIRE DEPARTMENT CONNECTION (FDC) IS NOT VISIBLE FROM THE FIRE LANE, THE FDC SHALL BE INDICATED BY AN APPROVED SIGN MOUNTED AS DIRECTED BY THE FIRE MARSHAL.
4. SIGN SHALL BE INSTALLED WITH ITS HORIZONTAL CENTERLINE A MINIMUM OF FOUR FEET (4') ABOVE THE FIRE DEPARTMENT CONNECTION AND PROVIDING AN UNOBSTRUCTED VIEW FROM THE FIRE DEPARTMENT ACCESS ROAD, TO INCLUDE CONSIDERATION FOR FUTURE VEGETATIVE GROWTH.
5. NO WATER-BASED ADHESIVES ARE PERMISSIBLE FOR USE IN ANY PART OF THE SIGN.

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

STATE OF TEXAS MICHAEL LAFFERTY 118708 LICENSED PROFESSIONAL ENGINEER 2017-04-28 FIRE MARSHAL

City Of Leander, Texas
DETAIL #501-4
FIRE DEPARTMENT CONNECTION SIGN



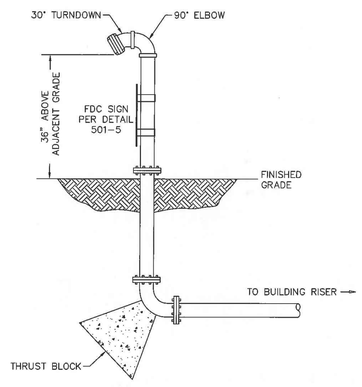
NOTES:

1. 12-INCH BY 12-INCH, 0.080 INCH THICK ALUMINUM BLANKS. COVERED WITH 3M DIAMOND GRADE, WHITE, REFLECTIVE SHEETING. LETTERING SHALL BE UPPER CASE AND CUT FROM RED 3M ELECTRO CUT FILM.
2. ALL FONTS SHALL BE TRAFFIC CAD SERIES B OR FHWA SERIES B.
3. SIGN SHALL BE MOUNTED TO THE REMOTE FIRE DEPARTMENT CONNECTION (FDC) WITH THE FACE OF THE SIGN PERPENDICULAR TO THE FIRE LANE USING TWO MOUNTING STRAPS WITH NUT AND BOLT FASTENERS. FASTENERS SHALL NOT OBSTRUCT TEXT ON THE REMOTE FDC SIGN.
4. NO WATER-BASED ADHESIVES ARE PERMISSIBLE FOR USE IN ANY PART OF THE SIGN.
5. "SPRINKLER SYSTEM" SHALL BE REPLACED WITH BUILDING NUMBER OR LETTER (E.G. BLDG A) WHEN THERE ARE MULTIPLE REMOTE FIRE DEPARTMENT CONNECTIONS WITHIN A DEVELOPMENT.

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

STATE OF TEXAS MICHAEL LAFFERTY 118708 LICENSED PROFESSIONAL ENGINEER 2017-04-28 FIRE MARSHAL

City Of Leander, Texas
DETAIL #501-5
REMOTE FDC SIGN



REMOTE FIRE DEPARTMENT CONNECTIONS:

1. REMOTE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE LOCATED REMOTELY FROM THE STRUCTURE AND OUT OF THE COLLAPSE ZONE.
2. REMOTE FDC SHALL BE LOCATED WITHIN ONE HUNDRED FEET (100') OF A FIRE HYDRANT ASSEMBLY.
3. FDC'S SHALL HAVE A LOCKING KNOX CAP INSTALLED.
4. FDC'S SHALL BE A FIVE INCH (5") STORZ CONNECTION WITH THIRTY DEGREE (30°) ELBOW.
5. A SIGN SHALL BE PERMANENTLY AFFIXED TO THE FDC STATING THE ADDRESS IT SERVES PER STANDARD DETAIL #501-5.
6. PIPE SIZE SHALL BE DETERMINED BY HYDRAULIC CALCULATIONS, BUT SHALL BE A MINIMUM OF FOUR INCH (4") DIA .
7. A STROBE OPERATED BY THE FIRE SUPPRESSION SYSTEM'S WATER FLOW ALARM SHALL BE MOUNTED ABOVE THE REMOTE FDC WHEN THERE ARE MULTIPLE FDC'S ADJACENT TO ONE ANOTHER WITHIN A SITE OR DEVELOPMENT.

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

STATE OF TEXAS MICHAEL LAFFERTY 118708 LICENSED PROFESSIONAL ENGINEER 2017-04-28 FIRE MARSHAL

City Of Leander, Texas
DETAIL #501-6
REMOTE FIRE DEPARTMENT CONNECTION

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www.bowmanconsulting.com

REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

CITY OF LEANDER
FIRE DETAILS
DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

STATE OF TEXAS KEVIN B. POLASEK 96632 LICENSED PROFESSIONAL ENGINEER
JANUARY 30, 2024

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: NTS
JOB No. 250430-01-003
SHEET NO. 19 OF 19

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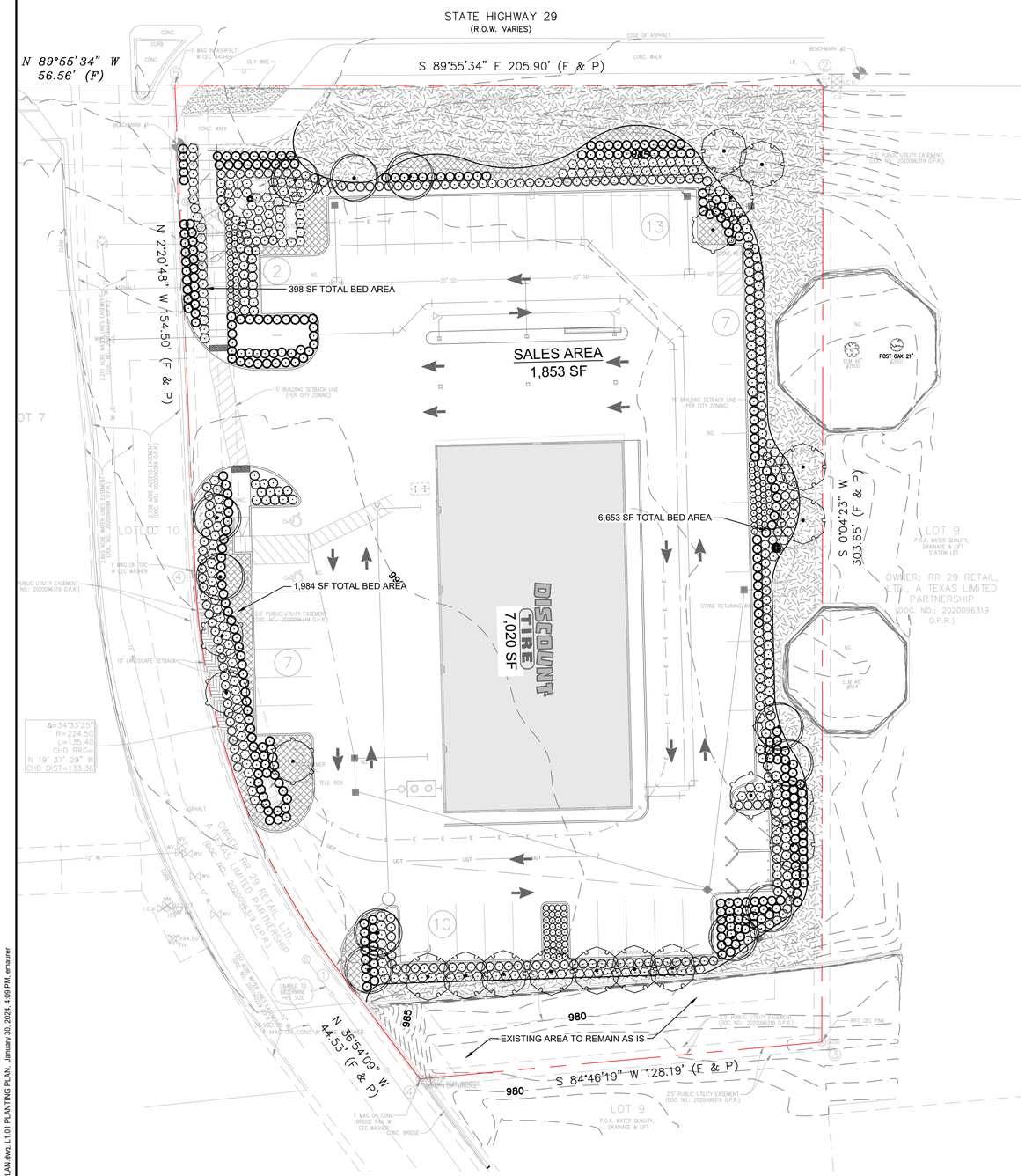

LANDSCAPE REQUIREMENTS

TOTAL LOT AREA: 58,656 SF
REQUIRED LANDSCAPE AREA (15%): 8,798 SF
PROVIDED LANDSCAPE AREA OVERALL TOTAL: 21,061 SF (35.9%)
PROVIDED LANDSCAPE AREA BED SPACE: 9,035 SF

FOR EVERY 600 SF OF LANDSCAPE AREA AND SETBACK AREA REQUIRED, 2 SHADE TREES AND 4 SHRUBS SHALL BE PLANTED:

8,798 SF / 600 = 14.6 ~ 15

15 X 2 = 30 SHADE TREES REQUIRED
15 X 4 = 60 SHRUBS REQUIRED

30 SHADE TREES PROVIDED
124 SHRUBS PROVIDED

PLANT SCHEDULE

SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	CONT.	CAL.	HT.	SP.	BR. HT.
TREES								
	QF	11	Texas Live Oak / Quercus fusiformis	30 gal	2"Cal	8`-10`	4`-5`	4`-5`
	QM	14	Burr Oak / Quercus macrocarpa	30 gal	2"Cal	8`-10`	4`-5`	4`-5`
	UC	5	Cedar Elm / Ulmus crassifolia	30 gal	2"Cal	8`-10`	4`-5`	4`-5`

SYMBOL	CODE	QTY	COMMON / BOTANICAL NAME	CONT.	HT.	O.C.
SHRUBS						
	IB	193	Burford Holly / Ilex cornuta 'Burfordii'	5 gal	30"	36"
	IN	198	Dwarf Yaupon Holly / Ilex vomitoria 'Nana'	5 gal	10"	36"
	LC	104	Lantana / Lantana camara `Chapel Hill Yellow`	3 gal	12"	24"
	LF	109	Texas Sage / Leucophyllum frutescens	5 gal	18"	36"
	MB	309	Big Lindheimer's Muhly / Muhlenbergia lindheimeri 'Big'	5 gal	18"	36"
GROUND COVERS						
	CT SEED	6,869 sf	Bermuda Grass / Cynodon dactylon	seed		
	CT SOD	246 sf	Bermuda Grass / Cynodon dactylon `Tif 419`	sod		
	LM	70	Lilyturf / Liriope muscari	1 gal	6"	18"
	SC	330	Seasonal Color	flat		
	AJ	1,240	Asiatic Jasmine / Trachelospermum asiaticum `Asiatic`	1 gal	12"	12"

LANDSCAPE NOTES

1. ALL MATERIAL QUANTITIES ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. CONTRACTOR SHALL VERIFY ALL QUANTITIES.
2. CONTRACTOR SHALL HAVE ALL UTILITY LINES LOCATED BEFORE PERFORMING ANY EXCAVATION FOR LANDSCAPE AND/OR IRRIGATION INSTALLATION. CONTRACTOR SHALL TAKE NECESSARY STEPS TO PROTECT EXISTING UTILITIES.
3. PRIOR TO APPLYING SOD OR HYDROSEED, ALL STONES AND DEBRIS LARGER THAN 1 INCH IN ANY DIMENSION SHALL BE REMOVED AND SURFACE MUST BE TOP DRESSED WITH 2" OF TOPSOIL AND FINE GRADED SMOOTH.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A FULL AND HEALTHY STAND OF GRASS AT THE TIME OF POSSESSION BY THE OWNER.
5. ALL AREAS DISTURBED BY CONSTRUCTION (INCLUDING AREAS OUTSIDE PROPERTY LINES) SHALL BE PLANTED AND WATERED A MINIMUM OF 10 WEEKS OR UNTIL GRASS IS FULLY ESTABLISHED.
6. LANDSCAPE BED EDGING SHALL BE PROVIDED WHERE INDICATED ON PLANS AND BETWEEN PLANTING/STONE BEDS AND LAWN AREAS/SIDEWALKS.
7. OPEN AREAS WITHIN LANDSCAPE BEDS SHALL BE MULCHED.
8. CONTRACTOR IS RESPONSIBLE FOR OBTAINING PHOTOGRAPHS OF ACTUAL LANDSCAPE MATERIALS AND SUBMITTING THEM TO THE LANDSCAPE ARCHITECT OF RECORD FOR APPROVAL PRIOR TO INSTALLATION.
9. PLANT MATERIAL SELECTED SHALL FOLLOW THE GUIDELINES OF THE AMERICAN STANDARD FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND MEET OR EXCEED ALL SIZE REQUIREMENTS LISTED ON PLANT SCHEDULE.
10. ALL PLANTINGS SHALL BE MAINTAINED IN A HEALTHY STATE BY LANDSCAPE CONTRACTOR AND SHALL BE WARRANTED (FOR REPLACEMENT) FOR ONE (1) CALENDAR YEAR AFTER ACCEPTANCE OF THE LANDSCAPE INSTALLATION.

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

PLANTING PLAN

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

REGISTERED LANDSCAPE ARCHITECT
ROBERT K. BUSCHOW
2422
STATE OF TEXAS

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: 1:20
JOB No. 250430-01-003
SHEET NO. 20 OF 19

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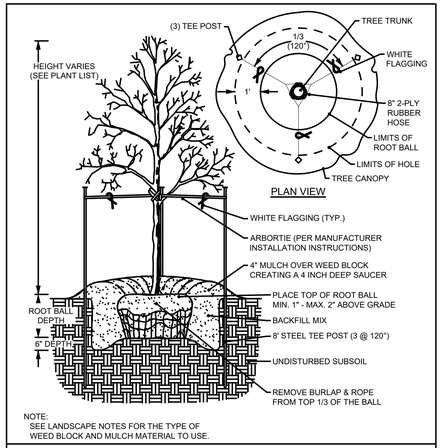
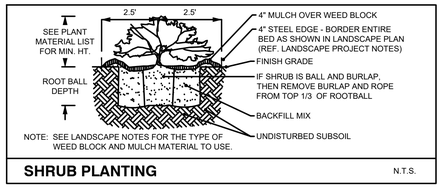


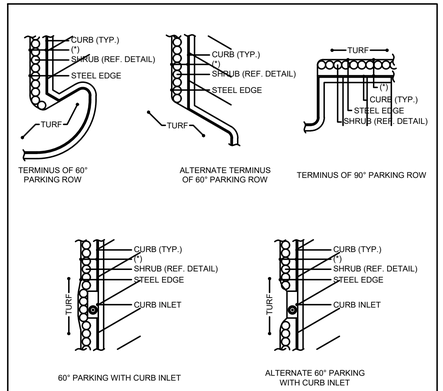
NOTE:
SEE LANDSCAPE NOTES FOR THE TYPE OF
WEED BLOCK AND MULCH MATERIAL TO USE.

TREE PLANTING N.T.S.



NOTE: SEE LANDSCAPE NOTES FOR THE TYPE OF
WEED BLOCK AND MULCH MATERIAL TO USE.

SHRUB PLANTING N.T.S.



(*) SEE SHRUB PLANTING DETAIL FOR DIMENSIONS.
REFERENCE PLANT MATERIAL LIST FOR PLANT TYPES AND LOCATIONS.

GENERAL STEEL EDGE ALIGNMENT EXAMPLES N.T.S.

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REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

PLANTING DETAILS

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

REGISTERED LANDSCAPE ARCHITECT
KEVIN B. PARKER
STATE OF TEXAS
2423

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: AS SHOWN
JOB No. 250430-01-003
SHEET NO. 21 OF 19

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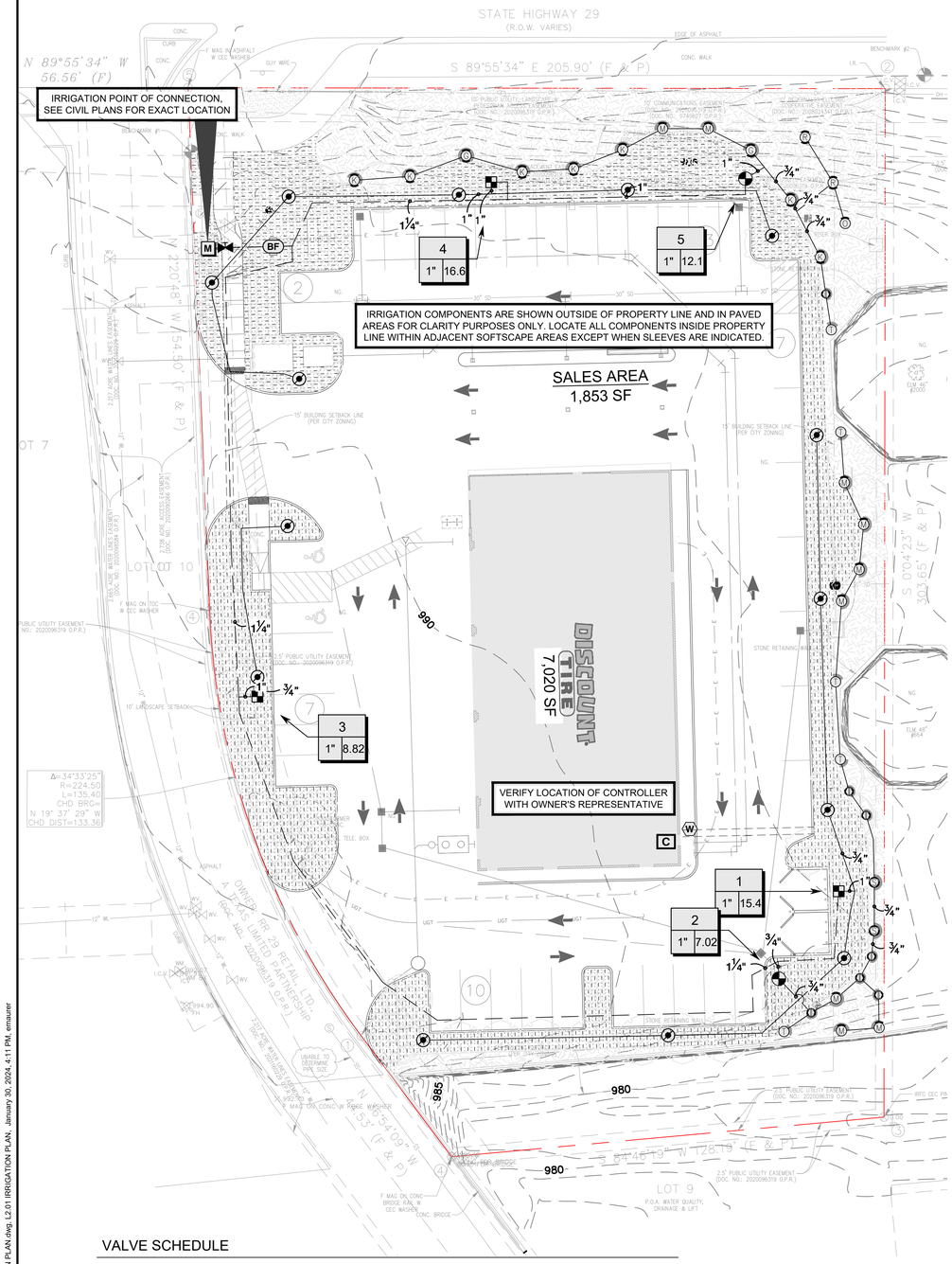


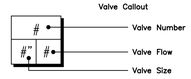
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
T	Hunter MP Corner PROS-04-PRS40-CV-F Turf Rotator, 4in. pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle. T=Turquoise adj arc 45-105 on PRS40 body.	5	40
LST SST RST	Hunter MP Strip PROS-04-PRS40-CV-F Turf Rotator, 4in. pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip.	2	40
M M M	Hunter MP1000 PROS-04-PRS40-CV-F Turf Rotator, 4in. pop-up with check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. M=Maroon adj arc 90 to 210, L=Light Blue 210 to 270 arc, O=Olive 360 arc.	10	40
M M M	Hunter MP2000 PROS-04-PRS40-CV-F Turf Rotator, 4in. pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc.	11	40
800 A 800 F	Hunter MP800SR PROS-04-PRS40-CV-F Turf Rotator, 4in. pop-up with check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. ADJ=Orange and Gray (arc 90-210), 360=Lime Green and Gray (arc 360)	7	40

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Hunter ICZ-101-25 Drip Control Zone Kit. 1in. ICV Globe Valve with 1in. HY100 filter system. Pressure Regulation: 25psi. Flow Range: 2 GPM to 20 GPM. 150 mesh stainless steel screen.	3
	Pipe Transition Point in Drip Box Pipe transition point from PVC lateral to drip tubing with riser in 6in. drip box.	14
	Area to Receive Dripline Hunter HDL-06-18-PC HDL-06-18-PC: Hunter Dripline with 0.6 GPH flow. Light brown tubing with gray striping. Emitters at 18" O.C. Dripline laterals spaced at 18" apart, with emitters offset for triangular pattern. Install with Hunter PLD barbed or PLD-LOC fittings.	6,117 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Hunter ICV-G 1in., 1-1/2in., 2in., and 3in. Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use.	2
	Shut Off Valve	1
BF	Febco 825Y 2" Reduced Pressure Backflow Preventer	1
C	Hunter P2C-400 with (01) PCM-300 Light Commercial & Residential Controller, 7-station expanded module controller, 120 VAC, Outdoor/Indoor model	1
W	Hunter WRF-CLIK Rain/freeze Sensor, install within 1000 ft of controller, in line of sight. 22-28 VAC/VDC 100 mA power from timer transformer. Mount as noted. Includes Gutter Mount.	1
M	Water Meter 2" Reference Civil Utility Plan For Point Of Connection Location. 62 P.S.I. Assumed Pressure.	1
	Irrigation Lateral Line: PVC Class 200 SDR 21	1,069 l.f.
	Irrigation Mainline: PVC Schedule 40	606.0 l.f.
	Pipe Sleeve: PVC Schedule 40	127.7 l.f.

Valve Callout



NORTH

20 0 20

DRIP IRRIGATION NOTES:

1. INSTALL MANUAL FLUSH VALVE(S) IN EACH ZONE AT LOW POINT(S), PER MANUFACTURER SPECIFICATIONS.
2. INSTALL ONE AIR/VACUUM RELIEF VALVE IN EACH SUB-SURFACE ZONE AT HIGHEST POINT PER MANUFACTURER SPECIFICATIONS.
3. INSTALL RAIN BIRD OPERATION INDICATOR(S) IN EACH ZONE. FOR END-FED ZONES PLACE INDICATOR AT OPPOSITE END FROM VALVE. FOR CENTER-FED ZONES AN INDICATOR SHALL BE PLACED AT EACH END OF ZONE. WHEN ZONE HAS MULTIPLE END AREAS, I.E. PARKING LOTS, PLACE ONE INDICATOR PER END AREA. PLACEMENT SHOULD BE ACCESSIBLE BUT SCREENED FROM PUBLIC VIEW.
4. ALL ON-SURFACE DRIPLINE SHALL BE COVERED BY A MULCH LAYER (MIN. 3" DEEP) AND WEED BARRIER FABRIC (EXCEPT IN AREAS OF SEASONAL COLOR AND SURFACE SPREADING GROUNDCOVERS).
5. ALL DRIPLINE, IN ON-SURFACE INSTALLATIONS, MUST BE SECURED EVERY THREE (3) LINEAR FEET WITH RAINBIRD GALVANIZED TIE-DOWN STAKES, OR APPROVED EQUAL.
6. INSTALL CONTROL VALVES WITH MAXIMUM 18 GAUGE WIRE.

IRRIGATION NOTES:

1. IRRIGATION HAS BEEN DESIGNED WITH AN ASSUMED PRESSURE OF 62 PSI AT THE IRRIGATION METER. IF AVAILABLE PRESSURE IS LESS THAN ASSUMED NOTIFY LICENSED IRRIGATOR OF RECORD PRIOR TO SYSTEM INSTALLATION FOR DESIGN MODIFICATION INSTRUCTIONS.
2. INSTALL WEATHER SENSING DEVICE AS SPECIFIED. AFFIX TO INSIDE OF PARAPET WALL ABOVE CONTROLLER. COORDINATE EXACT LOCATION WITH OWNER AND ARCHITECT AND CONDUIT FOR WIRING WITH ELECTRICAL CONSULTANT.
3. A LICENSED IRRIGATOR MUST BE ON-SITE AND PROVIDE SUPERVISION FOR THE ENTIRE DURATION OF THE IRRIGATION SYSTEM INSTALLATION, PER TAC RULE 344.36. ON-SITE SUPERVISING LICENSED IRRIGATOR ASSUMES ALL RESPONSIBILITY FOR THE IRRIGATION SERVICES PERFORMED IN ACCORDANCE WITH THESE DOCUMENTS.
4. BACKFLOW PREVENTER MUST BE WINTERIZED UPON INSTALLATION.
5. EACH IRRIGATION CONTROL VALVE SHALL BE ADJUSTED TO PROVIDE THE MINIMUM AMOUNT OF PRESSURE REQUIRED (PER MANUFACTURER'S RECOMMENDATIONS) TO OPERATE THE IRRIGATION ZONE IT IS SERVING.
6. ALL IRRIGATION PIPING AND VALVES MUST MEET THE SEPARATION DISTANCES FROM THE ON-SITE SEWAGE FACILITIES SYSTEM AS REQUIRED FROM A PRIVATE WATER LINE IN 289.91(10) OF TAC TITLE 30 RELATING TO MINIMUM REQUIRED SEPARATION DISTANCES FOR ON-SITE SEWAGE FACILITIES.
7. ALL IRRIGATION EMISSION DEVICES MUST DIRECT FLOW AWAY FROM ANY ADJACENT IMPERVIOUS SURFACE AND SHALL NOT BE INSTALLED CLOSER THAN FOUR INCHES FROM A HARDSCAPE AREA, SUCH AS, BUT NOT LIMITED TO, A BUILDING, FENCE, CONCRETE, OR ANY OTHER IMPERVIOUS MATERIAL.
8. IRRIGATION EMISSION DEVICES MUST BE INSTALLED TO OPERATE AT THE MINIMUM AND NOT ABOVE THE MAXIMUM SPRINKLER HEAD PRESSURE AS PUBLISHED BY THE MANUFACTURER FOR THE NOZZLE AND HEAD SPACING THAT IS USED.
9. ALL PVC IRRIGATION PIPING MUST NOT EXCEED THE MAXIMUM WATER VELOCITY WITHIN FIVE FEET PER SECOND.
10. ALL UNLABELED PVC IRRIGATION PIPING THAT IS DOWN STREAM OF PIPE SIZES LABELED 3/4" SHALL BE 1/2" CLASS 315 PVC.
11. ALL PVC FITTINGS MUST BE PRIMED WITH A COLORED PRIMER PRIOR TO APPLYING THE PVC CEMENT IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE (SECTION 316) OF THE INTERNATIONAL PLUMBING CODE (SECTION 605)
12. RAIN/MOISTURE SHUT-OFF TECHNOLOGY MUST BE INSTALLED AND DONE SO IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS.
13. AN ISOLATION VALVE MUST BE INCLUDED ON ALL IRRIGATION INSTALLATIONS AND SHALL BE PLACED BETWEEN THE WATER METER AND THE BACKFLOW PREVENTION DEVICE.
14. ALL IRRIGATION PIPING MUST HAVE A MINIMUM DEPTH COVERAGE OF SIX (6) INCHES OF SELECT BACKFILL BETWEEN THE TOP OF THE PIPE AND THE FINISHED GRADE OF THE TOPSOIL. MOUNDING SOIL TO MEET THIS REQUIREMENT MUST BE NOTED ON THE IRRIGATION PLAN AND DISCUSSED WITH THE IRRIGATION SYSTEM OWNER OR OWNER'S REPRESENTATIVE AND LICENSED IRRIGATOR OF RECORD TO ADDRESS ANY SAFETY ISSUES.
15. ALL TRENCHES AND HOLES CREATED DURING INSTALLATION OF AN IRRIGATION SYSTEM MUST BE BACKFILLED AND COMPACTED TO FINISHED GRADE.
16. ALL UNDERGROUND WIRING MUST BE LISTED BY UNDERWRITERS LABORATORIES AS ACCEPTABLE FOR BURIAL AND MUST BE BURIED WITH A MINIMUM OF SIX (6) INCHES OF BACKFILL.
17. ALL ELECTRICAL WIRE SPLICES EXPOSED TO MOISTURE MUST BE WATERPROOFED WITH RAIN BIRD DB SERIES WIRE CONNECTORS OR APPROVED EQUAL.
18. ALL QUICK COUPLERS MUST BE INSTALLED USING A QUICK COUPLER KEY AND PLACED IN A VALVE BOX. AN ISOLATION VALVE MUST BE INSTALLED UPSTREAM OF EACH QUICK COUPLER.
19. A FINAL WALK THROUGH WITH OWNER'S REPRESENTATIVE MUST BE SCHEDULED PRIOR TO FINAL COMPLETION, TO EXPLAIN OPERATION OF THE SYSTEM.
20. UPON COMPLETION OF THE IRRIGATION SYSTEM INSTALLATION, PROVIDE THE OWNER OR OWNER'S REPRESENTATIVE WITH A DOCUMENT CONTAINING, BUT NOT LIMITED TO THE FOLLOWING INFORMATION:
    - DRAWING SHOWING ACTUAL INSTALLATION (ALL VARIANCES FROM ORIGINAL PLAN MUST BE AUTHORIZED BY LICENSED IRRIGATOR OF RECORD). DRAWING MUST INCLUDE THE STATEMENT "THIS IRRIGATION SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL LAWS, ORDINANCES, RULES, REGULATIONS OR ORDERS. I HAVE TESTED THE SYSTEM AND DETERMINED THAT IT HAS BEEN INSTALLED ACCORDING TO THE IRRIGATION PLAN AND IS PROPERLY ADJUSTED FOR THE MOST EFFICIENT APPLICATION OF WATER AT THIS TIME."
    - HOW TO OPERATE AND REPAIR THE IRRIGATION SYSTEM
    - MANUFACTURER'S MANUAL FOR THE AUTOMATIC CONTROLLER
    - HOW TO CHECK THE RAIN/MOISTURE SENSOR
    - A LIST OF COMPONENTS THAT REQUIRE MAINTENANCE, SUCH AS FILTERS, AND THE RECOMMENDED FREQUENCY FOR THE SERVICE.
    - HOW TO PRUNE GRASS AND PLANTS AWAY FROM IRRIGATION EMITTERS
    - LIST OF PRECIPITATION RATES OF EACH IRRIGATION ZONE WITHIN THE SYSTEM
    - DOCUMENTATION OUTLINING ANY WATER CONSERVATION MEASURES CURRENTLY IN EFFECT FROM THE WATER PURVEYOR
    - THE NAME OF THE WATER PURVEYOR
    - A SUGGESTED SEASONAL OR MONTHLY WATERING SCHEDULE BASED ON CURRENT EVAPOTRANSPIRATION DATA FOR THE GEOGRAPHIC REGION AND MINIMUM WATER REQUIREMENTS FOR THE PLANT MATERIAL IN EACH ZONE BASED ON THE SOIL TYPE AND PLANT MATERIAL WHERE THE SYSTEM IS INSTALLED.
    - A WRITTEN WARRANTY COVERING MATERIALS AND LABOR FURNISHED IN THE NEW INSTALLATION OF THE IRRIGATION SYSTEM FOR A MINIMUM PERIOD OF ONE YEAR. WARRANTY MUST INCLUDE THE ON-SITE LICENSED IRRIGATION CONTRACTOR'S SEAL, NAME, SIGNATURE, DATE, BUSINESS ADDRESS AND BUSINESS TELEPHONE NUMBER(S). WARRANTY MUST INCLUDE THE STATEMENT, "IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ), MC-178, P.O. BOX 130897, AUSTIN, TEXAS 78711-3087. TCEQ'S WEBSITE IS: WWW.TCEQ.STATE.TX.US." IRRIGATION CONTRACTOR SHALL ALSO SUPPLY INFORMATION REGARDING APPLICABLE MANUFACTURER'S WARRANTIES.
21. AFFIX A PERMANENT STICKER TO THE IRRIGATION CONTROLLER THAT LISTS THE ON-SITE LICENSED IRRIGATOR'S NAME, LICENSE NUMBER, COMPANY NAME, TELEPHONE NUMBER(S) AND THE DATES OF THE WARRANTY PERIOD.
22. AFFIX A LAMINATED AS-BUILT IRRIGATION ZONE MAP TO THE INSIDE COVER OF THE CONTROLLER. NUMBER ALL ZONES ON THE MAP. PROVIDE A CHART SHOWING THE PROGRAM, WATERING DAYS, START TIMES, AND RUN TIMES FOR EACH ZONE.
23. REFER TO IRRIGATION SPECIFICATIONS FOR MORE INFORMATION.
24. WHEN INSTALLING IRRIGATION UNDER OR NEAR EXISTING TREES, ALL TRENCHES MUST BE HAND DUG. ROOTS LARGER THAN THREE (3) INCHES IN DIAMETER MAY NOT BE CUT.

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	Hunter ICZ-101-25	1"	Area for Dripline	15.39	25	38.2		0.43 in/h
2	Hunter ICV-G	1"	Turf Rotary	7.02	40	44.0	57.5	0.38 in/h
3	Hunter ICZ-101-25	1"	Area for Dripline	8.82	25	32.5	45.4	0.43 in/h
4	Hunter ICZ-101-25	1"	Area for Dripline	16.57	25	39.0	52.7	0.43 in/h
5	Hunter ICV-G	1"	Turf Rotary	12.06	40	44.0	59.7	0.28 in/h

WATERING SCHEDULE

NUMBER	MODEL	TYPE	PRECIP	IN./WEEK	MIN./WEEK	GAL./WEEK	GAL./DAY
1	Hunter ICZ-101-25	Area for Dripline	0.43 in/h	0.9	127	1,955	279
2	Hunter ICV-G	Turf Rotary	0.38 in/h	0.9	144	1,011	144
3	Hunter ICZ-101-25	Area for Dripline	0.43 in/h	0.9	126	1,111	159
4	Hunter ICZ-101-25	Area for Dripline	0.43 in/h	0.9	127	2,104	301
5	Hunter ICV-G	Turf Rotary	0.28 in/h	0.9	194	2,339	334
		TOTALS:			718	8,520	1,217

Bowman
© 2023 Bowman Consulting Group, Ltd.
TBPE Firm Registration No. F-14309
8122 Datapoint RD.
Suite 200
San Antonio, Texas 78229
Phone: (210) 298-1600
EMAIL: bschrock@bowman.com
www.bowmanconsulting.com

REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

IRRIGATION PLAN

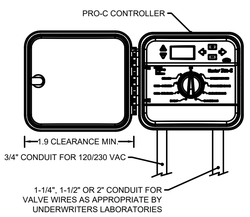
DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

STATE OF TEXAS
R. ERIC MAURER
12117
LICENSED IRRIGATOR

DESIGN	DRAWN	CHKD
DAB	FV	KBP

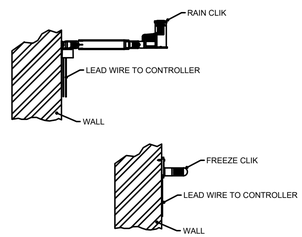
DATE: 01/30/2024
SCALE: 1:20
JOB No. 250430-01-003
SHEET NO. 22 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\L2.01 IRRIGATION PLAN.dwg, L2.01 IRRIGATION PLAN, January 30, 2024, 4:11 PM, emaurer



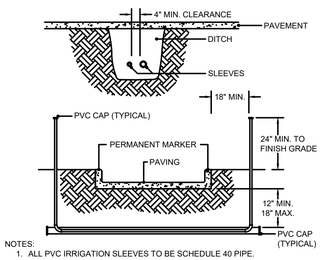
NOTE:
1. WEATHER SENSORS ARE TO BE PROVIDED AS REQUIRED BY LOCAL CODES. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.

PRO-C CONTROLLER (OUTDOOR) N.T.S.



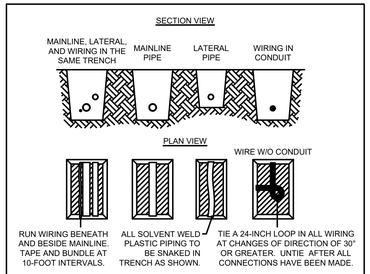
NOTE:
1. MOUNT RAIN CLICK ON ANY SURFACE WHERE IT WILL BE EXPOSED TO UNOBSTRUCTED RAINFALL, BUT NOT IN THE PATH OF SPRINKLERS.
2. MOUNT FREEZE-CLIK OUT OF DIRECT SUNLIGHT AND WHERE FREE AIR CIRCULATION IS POSSIBLE.

WEATHER SENSORS N.T.S.



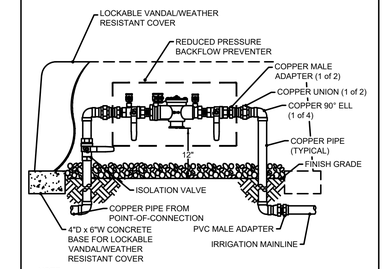
NOTES:
1. ALL PVC IRRIGATION SLEEVES TO BE SCHEDULE 40 PIPE.
2. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24-INCHES MINIMUM ABOVE FINISH GRADE.
4. MECHANICALLY TAMP TO 95% PROCTOR.
5. SLEEVE LOCATIONS SHALL BE MARKED ONTO THE TOP OF CURB WITH A SAWCUT OF TWO PARALLEL LINES THAT ARE 2" LONG AND 1" APART.

IRRIGATION PVC SLEEVES N.T.S.



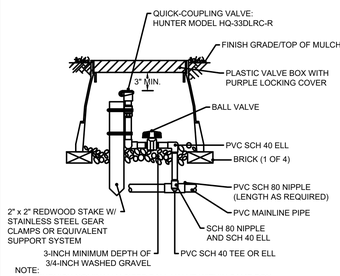
NOTES:
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCH 40 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS, SEE SPECIFICATIONS. MINIMUM - 12"
3. BACKFILL AND COMPACT TRENCHES TO ORIGINAL GRADE.

PIPE AND WIRING TRENCHING N.T.S.



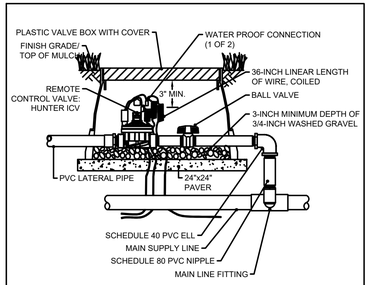
NOTE:
1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION. PRIOR TO BACKFLOW PREVENTER, INSTALL A NOMINALLY SIZED ISOLATION VALVE.

REDUCED PRESSURE BACKFLOW N.T.S.



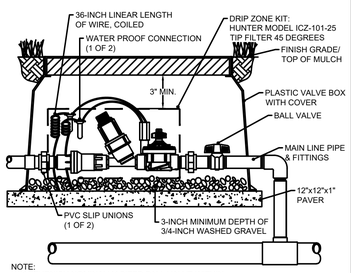
NOTE:
1. FURNISH NOMINALLY SIZED BALL VALVE WITHIN SAME BOX AND PRIOR TO MAINLINE TEE.
2. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

QUICK COUPLING VALVE N.T.S.



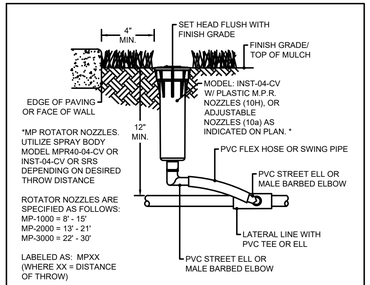
NOTE:
1. FURNISH NOMINALLY SIZED BALL VALVE WITHIN SAME BOX AND PRIOR TO MAINLINE TEE.

ICV IN VALVE BOX N.T.S.



NOTE:
1. FURNISH NOMINALLY SIZED BALL VALVE WITHIN SAME BOX AND PRIOR TO MAINLINE TEE.

DRIP ZONE CONTROL KITS N.T.S.



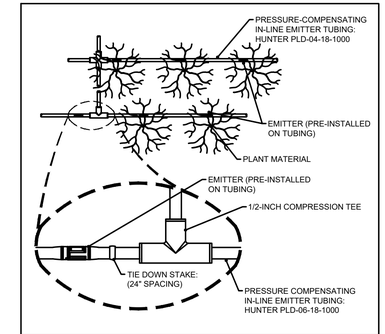
*MP ROTATOR NOZZLES. UTILIZE SPRAY BODY MODEL MPR40-04-CV OR INST-04-CV OR SRS DEPENDING ON DESIRED THROW DISTANCE

ROTATOR NOZZLES ARE SPECIFIED AS FOLLOWS:
MP-1000 = 8' - 15'
MP-2000 = 13' - 21'
MP-3000 = 22' - 30'

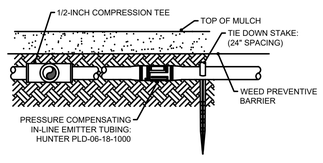
LABELED AS: MPXX (WHERE XX = DISTANCE OF THROW)

NOTE:
1. MAY NOT BE USED IN LANDSCAPE AREAS LESS THAN FORTY-EIGHT INCHES (48") IN LENGTH OR WIDTH.

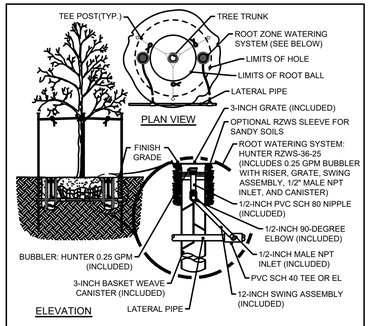
TURF POP-UP SPRAY HEAD N.T.S.



PROFESSIONAL LANDSCAPE DRIPLINE N.T.S.



PROFESSIONAL LANDSCAPE DRIPLINE N.T.S.



ROOT ZONE WATERING SYSTEM N.T.S.

Bowman
© 2023 Bowman Consulting Group, Ltd.
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San Antonio, Texas 78229
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EMAIL: bschrock@bowman.com
www.bowmanconsulting.com

REVISIONS

REVISION	DESCRIPTION	DATE
	ISSUED FOR PERMIT REVIEW	01/30/24

IRRIGATION DETAILS

DISCOUNT TIRE (TXA 13016)
LOT 8 BAR W RANCH
19140 RONALD RAEGAN BLVD.
LEANDER, TX 78641

STATE OF TEXAS
R. ERIC MAURER
12117
LICENSED IRRIGATOR

DESIGN	DRAWN	CHKD
DAB	FV	KBP

DATE: 01/30/2024
SCALE: AS SHOWN
JOB No. 250430-01-003
SHEET NO. 23 OF 19

S:\250430- Discount Tire\250430-01-003 Leander\Drawings\L2.01 IRRIGATION PLAN.dwg, L2.02 IRRIGATION DETAILS, January 30, 2024, 4:13 PM, emaurer

ATTACHMENT G

Inspection, Maintenance, Repair and Retrofit Plan

Required inspection, maintenance and repair for permanent SWQ features that serve this proposed site are the responsibility of the "Association". Barshop & Oles Company (owner) shall be responsible for routine and non-routine maintenance of the facilities and costs shall be pro-rata shared with the members of the Association per Master Declaration of CCR's (File No 2021090470).

In general the filtration and sedimentation pond should be subject to the following:

MAINTENANCE PLAN AND SCHEDULE FOR PERMANENT BMPs

REGULATED ENTITY NAME: Bar W Ranch Commercial

Sand Filter Basin

Inspections. BMP facilities must be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. During each inspection, erosion areas inside and downstream of the BMP must be identified and repaired or revegetated immediately. With each inspection, any damage to the structural elements of the system (pipes, concrete drainage structures, retaining walls, etc.) must be identified and repaired immediately. Cracks, voids and undermining should be patched/filled to prevent additional structural damage. Trees and root systems should be removed to prevent growth in cracks and joints that can cause structural damage.

Record Keeping. All inspections, maintenance, repairs and retrofits required for temporary and permanent BMPs shall be logged in the Record of Construction Activities and/or in the Inspections Reports logs provided in in the section TCEQ-0602. Records shall be kept update to date and stored at the site. Once construction is complete and final inspection has been achieved, permanent BMPs will be inspected and logged. Records shall be kept by owner for 3 years.

Sediment Removal. Remove sediment from the inlet structure and sedimentation chamber when sediment buildup reaches a depth of 6 inches or when the proper functioning of inlet and outlet structures is impaired. Sediment should be cleared from the inlet structure at least every year and from the sedimentation basin at least every 5 years.

Media Replacement. Maintenance of the filter media is necessary when the drawdown time exceeds 48 hours. When this occurs, the upper layer of sand should be removed and replaced with new material meeting the original specifications. Any discolored sand should also be removed and replaced. In filters that have been regularly maintained, this should be limited to the top 2 to 3 inches.

Debris and Litter Removal. Debris and litter will accumulate near the sedimentation basin outlet 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.

Filter Underdrain. Clean underdrain piping network to remove any sediment buildup as needed to maintain design drawdown time.

Mowing. 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 landscaped areas. Vegetation on the pond embankments should be mowed as appropriate to prevent the establishment of woody vegetation.

ATTACHMENT H

Pilot-Scale Field Testing Plan

The TCEQ Technical Guidance Manual (TGM) was used to design the existing water quality facilities that serve the subject tract. Therefore, no Pilot-Scale Testing Plan was necessary.

ATTACHMENT I

Measures for Minimizing Surface Stream Contamination

There is an unnamed surface stream adjacent to and immediately south of Lot 8. Existing walls were constructed to prevent untreated flows from entering the stream and due to the BMPs proposed on-site, there are no anticipated impacts to surface streams.

Owner Authorization Form

Texas Commission on Environmental Quality
for Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

Land Owner Authorization

I, Milo Burdette of RR 29 Retail, Ltd.
Land Owner Signatory Name — Land Owner Name (Legal Entity or Individual)

am the owner of the property located at
Bar W Commercial - Lot 8
Legal description of the property referenced in the application

and am duly authorized in accordance with §213.4(c)(2) and §213.4(d)(1) or §213.23(c)(2) and §213.23(d) relating to the right to submit an application, signatory authority, and proof of authorized signatory.

I do hereby authorize Halle Properties, LLC (dba Discount Tire)
Applicant Name (Legal Entity or Individual)

to conduct WPAP modification
Description of the proposed regulated activities

at Bar W Commercial - Lot 8.
Precise location of the authorized regulated activities

Land Owner Acknowledgement

I understand that RR 29 Retail, Ltd.
Land Owner Name (Legal Entity or Individual)

Is ultimately responsible for compliance with the approved or conditionally approved Edwards Aquifer protection plan and any special conditions of the approved plan through all phases of plan implementation even if the responsibility for compliance and the right to possess and control the property referenced in the application has been contractually assumed by another legal entity. I further understand that any failure to comply with any condition of the executive director's approval is a violation is subject to administrative rule or orders and penalties as provided under §213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Land Owner Signature

Milo Burdette

Land Owner Signature

2/7/24

Date

THE STATE OF § Texas

County of § Travis

BEFORE ME, the undersigned authority, on this day personally appeared Milo Buradette 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 7 day of February

Delaney Ryann Williams

NOTARY PUBLIC

DELANEY RYANN WILLIAMS
Notary Public, State of Texas
Comm. Expires 07-14-2027
Notary ID 134454758

Delaney Ryann Williams

Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 07-14-2027

Attached: (Mark all that apply)

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

Applicant Acknowledgement

I, Matthew Johnson of Halle Properties, LLC
Applicant Signatory Name — Applicant Name (Legal Entity or Individual)

acknowledge that Milo Burdette (RR 29 Retail, Ltd)
Land Owner Name (Legal Entity or Individual)

has provided Kevin Polasek (Bowman Consulting)
Applicant Name (Legal Entity or Individual)

with the right to possess and control the property referenced in the Edwards Aquifer protection plan. I understand that Halle Properties, LLC
Applicant Name (Legal Entity or Individual)

is contractually responsible for compliance with the approved or conditionally approved Edwards Aquifer protection plan and any special conditions of the approved plan through all phases of plan implementation. I further understand that failure to comply with any condition of the executive director's approval is a violation is subject to administrative rule or orders and penalties as provided under §213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Applicant Signature

Applicant Signature — Date: 2.8.2024

THE STATE OF § Arizona

County of § Maricopa

BEFORE ME, the undersigned authority, on this day personally appeared Matthew Johnson 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 8th day of February, 2024

DONNA M WARNER
Notary Public
Maricopa County, Arizona
My Comm. Expires 04-06-24
Commission No. 581521

NOTARY PUBLIC

Donna M Warner
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 4.6.2024

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

I Matthew Johnson,
Print Name

Owner Agent,
Title - Owner/President/Other

of Halle Properties, LLC,
Corporation/Partnership/Entity Name

have authorized Kevin B. Polasek, P.E.
Print Name of Agent/Engineer

of Bowman Consulting, Inc.
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

11·30·2023
Date

THE STATE OF ARIZONA §

County of MARICOPA §

BEFORE ME, the undersigned authority, on this day personally appeared Matthew Johnson 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 30th day of November 2023

DONNA M WARNER
Notary Public
Maricopa County, Arizona
My Comm. Expires 04-06-24
Commission No. 581521

NOTARY PUBLIC

Donna Warner
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 4.6.2024

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Bar W Ranch Commercial

Regulated Entity Location: SE corner of Ronald Reagan Blvd and SH 29

Name of Customer: Halle Properties, LLC (applicant)/ Bowman Consulting (Agent)

Contact Person: Matthew Johnson; Kevin Polasek Phone: 480-606-5758 713-993-0333

Customer Reference Number (if issued):CN _____

Regulated Entity Reference Number (if issued):RN 110866175

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde

☐ Comal ☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment**. This payment is being submitted to:

☒ Austin Regional Office

☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office

☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	*Size*	*Fee Due*
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	1.346 Acres Acres	$ 4,000.00
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: Kim Polasek, P.E. Date: 02/01/24

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	*Project Area in Acres*	*Fee*
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

Project	*Cost per Linear Foot*	*Minimum Fee-Maximum Fee*
Sewage Collection Systems	$0.50	$650 - $6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	*Cost per Tank or Piping System*	*Minimum Fee-Maximum Fee*
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)		
☒ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)		
☐ Renewal (*Core Data Form should be submitted with the renewal form*)		☐ Other
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		**RN 110866175**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	
☒ 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:*	
HALLE PROPERTIES		

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

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

12. Number of Employees	**13. Independently Owned and Operated?**
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher	☒ **Yes** ☐ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*			
☐ Owner	☐ Operator	☐ Owner & Operator	☒ Other: Leasee of Lot 8
☐ Occupational Licensee	☐ Responsible Party	☐ VCP/BSA Applicant	

15. Mailing Address:								
	20225 N. Scottsdale Road							
	City	Scottsdale	**State**	AZ	**ZIP**	85255	**ZIP + 4**	

16. Country Mailing Information (*if outside USA*)	**17. E-Mail Address** (*if applicable*)
	matthew.johnson@discounttire.com

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

(480) 606-5758		( ) -

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.)*

Bar W Ranch Commercial - Lot 8

23. Street Address of the Regulated Entity: ***(No PO Boxes)***								
	19410 Ronald Raegan Blvd							
	City	Leander	**State**	TX	**ZIP**	78641	**ZIP + 4**	
24. County	Williamson							

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

25. Description to Physical Location:					
26. Nearest City			**State**	**Nearest ZIP Code**	

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:			**28. Longitude (W) In Decimal:**		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

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)
5014			

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

Commercial Retail Tire Store

34. Mailing Address:								
	20225 N. Scottsdale Road							
	City	**Scottsdale**	**State**	**AZ**	**ZIP**	**85255**	**ZIP + 4**	
35. E-Mail Address:								

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(480) 606-5758		**( ) -**

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:	Kevin Polasek	**41. Title:**	Principal
42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(713 **)** 993-0333	9056	**(** 713 **)** 396-5464	kpolasek@bowman.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:	Bowman Consulting	**Job Title:**	Principal
Name *(In Print):*	Kevin Polasek	**Phone:**	**(** 713 **)** 993- **0333**
Signature:	Kevin Polasek, P.E.	**Date:**	12/11/2023