HAGOOD
ENGINEERING ASSOCIATES
Registration No. F-12709

WATER POLLUTION ABATEMENT PLAN

FOR

VELOCITY TIRE

4229 WILLIAMS DRIVE
GEORGETOWN, TEXAS 78628

APPLICANT:
VELO LAND HOLDING LLC
1610 STONEBRIDGE DR.
SAN ANGELO, TEXAS 76904

SUBMITTED TO:
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
REGION 11 OFFICE
12100 PARK 35 CIRCLE, BLDG A.
AUSTIN, TEXAS 78753

SEPTEMBER/2023

HEA#22-034
ORIGINAL

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 if not withdrawn the application will be denied and 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 to you:

- You can withdraw your application, and your fees will be refunded or credited for a resubmittal.
- 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 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 effected 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: VELOCITY TIRE						**2. Regulated Entity No.: 111709994**			
3. Customer Name : VELO LAND HOLDINGS LLC						**4. Customer No.:606125409**			
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):**		0.92	
9. Application Fee:	$3,000.00		**10. Permanent BMP(s):**			Jellyfish Unit			
11. SCS (Linear Ft.):			**12. AST/UST (No. Tanks):**						
13. County:	WMSN		**14. Watershed:**			Granger Lake-San Gabriel River			

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	___	_X_
Region (1 req.)	___	___	_X_
County(ies)	___	___	_X_
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___Leander _X_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. LAKSHAY SHARMA
Print Name of Customer/Authorized Agent
Lakshay Sharma 09/05/2023 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: LAKSHAY SHARMA

Date: 09/05/2023

Signature of Customer/Agent:

Lakshay Sharma

_____

Project Information

1. Regulated Entity Name: VELOCITY TIRE
2. County: WILLIAMSON
3. Stream Basin: PECAN BRANCH
4. Groundwater Conservation District (If applicable): _____
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

Contact Person: DEVIN ROBERSON
Entity: VELO LAND HOLDINGS LLC
Mailing Address: 1610 STONEBRIDGE DRIVE
City, State: SAN ANGELO, TEXAS Zip: 76904
Telephone: 432.935.1014 FAX: _____
Email Address: DEVIN@VELOCITYTIREUSA.COM

8. Agent/Representative (If any):

Contact Person: LAKSHAY SHARMA
Entity: HAGOOD ENGINEERING ASSOCIATES, INC.
Mailing Address: 900 E. MAIN STREET
City, State: ROUND ROCK, TEXAS Zip: 78664
Telephone: 512.244.1546 FAX: _____
Email Address: LAKSHAYS@HEAENG.COM

9. Project Location:

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

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

APPROXIAMETLY ONE-HALF MILE EAST OF DB WOODS RD

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: _____

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

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

15. Existing project site conditions are noted below:

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

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

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

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

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

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

GENERAL INFORMATION

Attachments to form TCEQ-0587

ATTACHMENT A - Road Map

See attached

ATTACHMENT B - USGS / Edwards Recharge Zone Map

See attached

ATTACHMENT C - Project Description

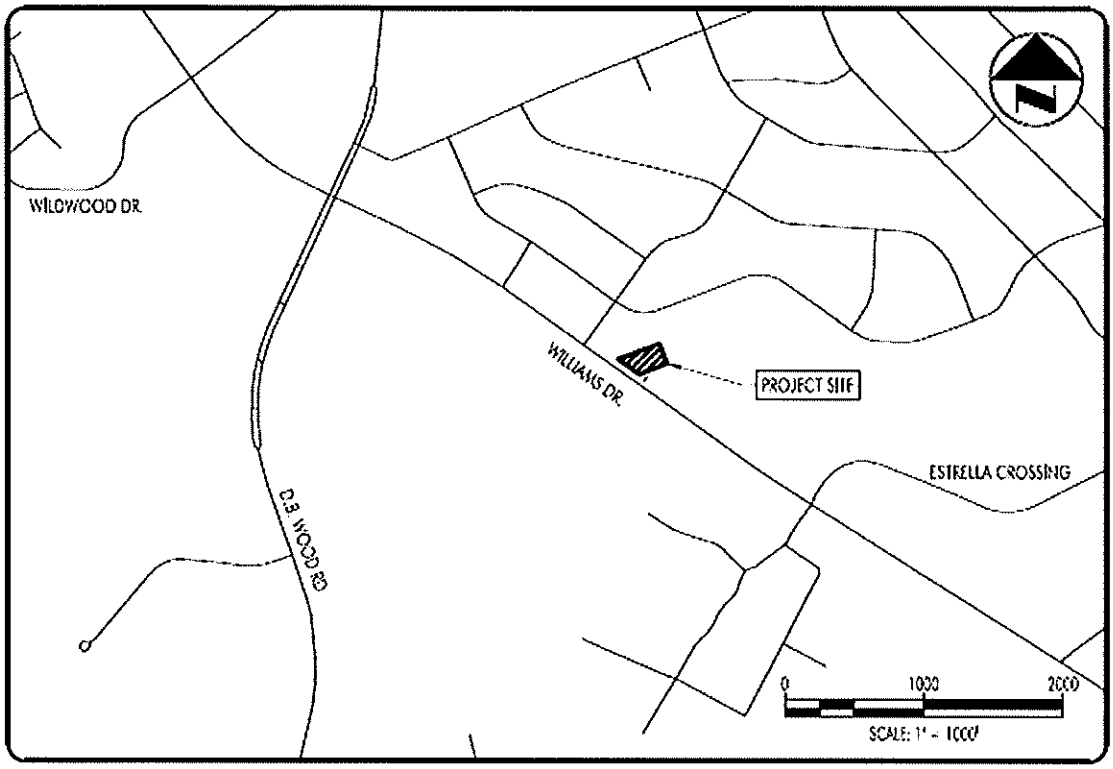
The project site is located within the corporate limits of the City of Georgetown. Please refer to the attached plans for the site improvement layout. This site is also located within the Edwards Aquifer Recharge Zone.

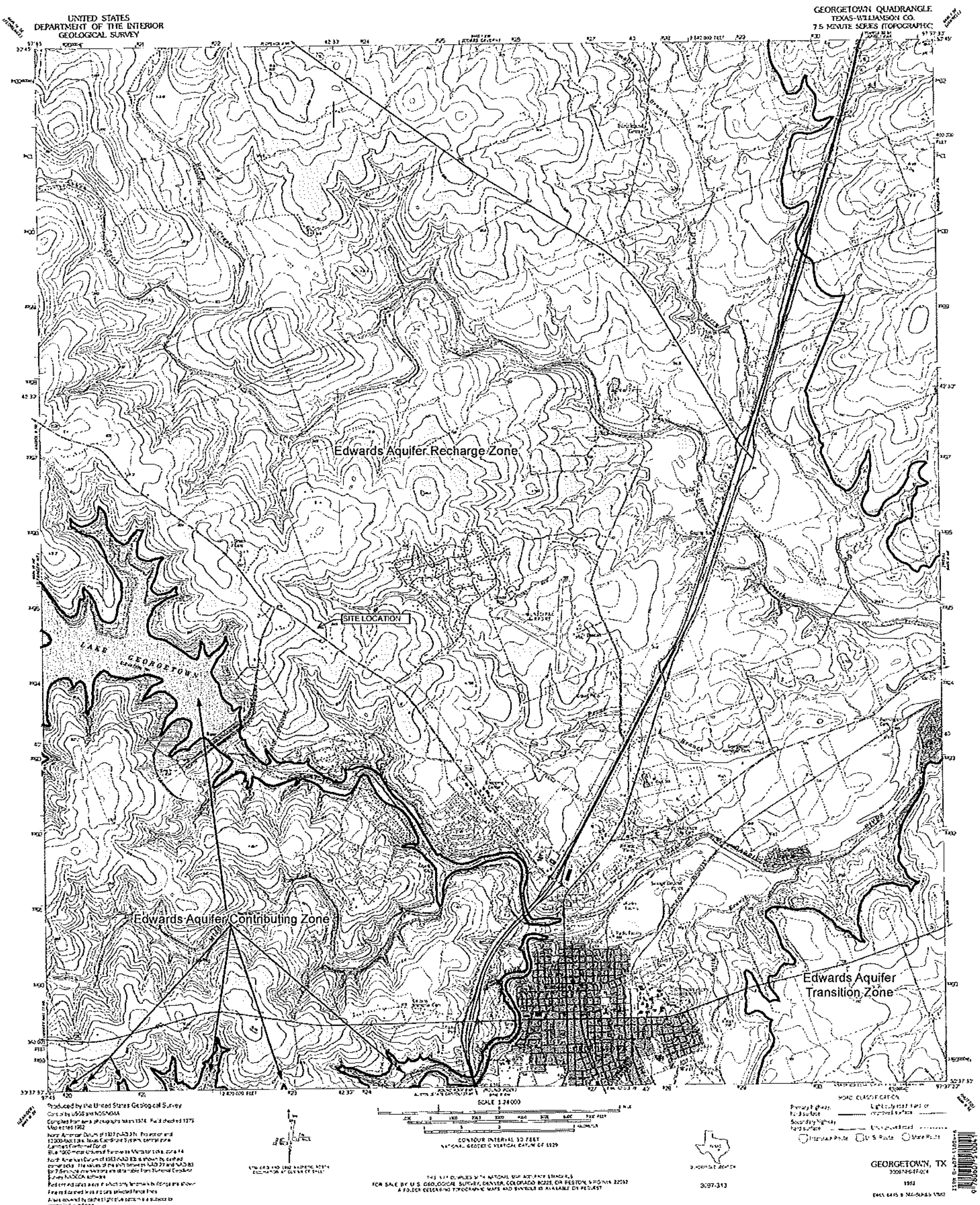
This WPAP modification is for Site Development on the 0.92-acre tract within the Final Plat of Loper-Seebock Subdivision in Georgetown, TX.

The Velocity Tire development will be on the 0.92-acre tract with 0.615 acres of impervious cover (66.76%) when fully developed. Currently, the site is undeveloped with grass vegetation. The proposed development is for Commercial (Retail) use and the site development improvements consist of one 5,724 sq. ft. retail building, driveways, sidewalks, drainage, and utility infrastructure. This development will be utilizing 2 - Jellyfish Units as Permanent BMPs.
There are currently no major improvements on site to be demolished.
A storm sewer system and underground detention system will be constructed to collect and convey stormwater to the property's east boundary.

TSS Load Removal Calculations are provided on Sheet C31 in the attached Site Development plans for the project.

SITE LOCATION MAP




UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
GEORGETOWN QUADRANGLE
TEXAS-WILLIAMSON CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
Edwards Aquifer Recharge Zone
SITE LOCATION
LAKE GEORGETOWN
Edwards Aquifer Contributing Zone
Edwards Aquifer
Transition Zone
SCALE 1:24 000
CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
GEORGETOWN, TX
3097-313

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program

TCEQ

Regulatory Zones
30 TAC Chapter 213- Edwards Aquifer
Effective March 1990

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.

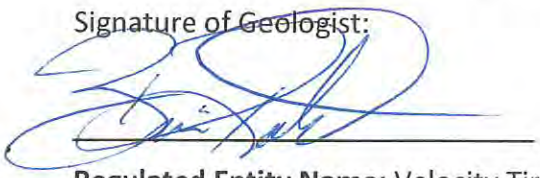
Print Name of Geologist: Brian Ratajczyk Telephone: 512-996-9199

Date: 09/05/2023 Fax: 844-462-0439

Representing: SCI Engineering, Inc. - TBPG 13035

(Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: Velocity Tire

Project Information

1. Date(s) Geologic Assessment was performed: 08/21/2023
2. Type of Project:
   - ☒ WPAP
   - ☐ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

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

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

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)

Soil Name	Group*	Thickness(feet)
(EeB) Eckrant stony clay, 0 to 3 persent slopes	D	<5

** Soil Group Definitions (Abbreviated)*

A. *Soils having a high infiltration rate when thoroughly wetted.*
B. *Soils having a moderate infiltration rate when thoroughly wetted.*
C. *Soils having a slow infiltration rate when thoroughly wetted.*
D. *Soils having a very slow infiltration rate when thoroughly wetted.*

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

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

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

   Applicant's Site Plan Scale: 1" = 50'
   Site Geologic Map Scale: 1" = 50'
   Site Soils Map Scale (if more than 1 soil type): 1" = 50'

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 ASSESSMENT TABLE

PROJECT NAME: Velocity Tire Georgetown

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	
CD-1	30.679642	-97.710754	CD	5	ked	3	6	-0.5					O-V	5	10	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	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials: Engineered Fill

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

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.

Brian C Ratajczyk

Date 9/5/2023

STATE OF TEXAS
BRIAN C RATAJCZYK
GEOLOGY
13035
LICENSED
PROFESSIONAL GEOSCIENTIST

9/5/23

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

Attachment B

Attachment B - Stratigraphic Column

AGE	GROUP	STRATIGRAPHIC FORMATION	THICKNESS (ft)	LITHOLOGY	
Upper Cretaceous	Buda	**Buda Limestone (Kbu)**	~ 45	Fine grained, bioclastic, commonly glauconitic, pyritiferous, hard, massive, poorly bedded to nodular, thinner bedded and argillaceous near upper contact, light gray to pale orange; weathers dark gray to brown, burrows filled with chalky marl. Abundant pelecypods.	
	Grayson	**Del Rio Clay (Kdr)**	40 to 70	Calcareous and gypsiferous clay, blocky, medium gray, weathers light gray to yellowish gray; some thin lenticular beds of highly calcareous siltstone. Marine mega fossils include abundant Exogyra arietina and other pelecypods.	
	Washita	**Georgetown Formation (Kgt)**	~ 90	Unit consists of thick bedded nodular limestone with interbedded chalky, argillaceous limestone and light gray to buff shale. Interbedded, thin, chalky limestone and light gray marl can be present near the bottom of the formation.	**Edwards Aquifer**
Lower Cretaceous	Fredericksburg	**Edwards Formation (Ked)**	~ 210	Formation consists of massive limestone bed with chert nodules and dolomite. The limestone is aphanitic to fine-grained, massive to thin bedded, hard, brittle, some rudistid biostromes, and milliollid biosparite. Zones of recrystallized weathering and vuggy porosity.	
	Fredericksburg	**Comanche Peak Formation (Kcp)**	~ 65	Unit consists of fine to very fine grained, fairly hard, nodular, light gray weathers to white. Extensively burrowed, irregularly interbedded with marl.	
	Fredericksburg	**Walnut Formation (Kwa)**	70 to 90	Limestone and claystone interbedded. Argillaceous, nodular, thin to medium bedded, iron stained, and burrowed. unit consist of marly limestone alternating with harder more crystalline limestone.	

Note: Stratigraphic Column adapted from; Housh, Todd B. 2007, Bedrock Geology of Round Rock and Surrounding areas, Williamson and Travis Counties, Texas.

*Blue shading represents lithology underling the project site.

Attachment C

Attachment C – Site Geology Narrative

INTRODUCTION

This Geologic Assessment Narrative accompanies the TCEQ Geologic Assessment Form TCEQ-0585 completed for the approximately 0.92-acre property located at 4229 Williams Drive in Georgetown, Williamson County, Texas. The site location is depicted on the *Vicinity and Topographic Map,* Attachment D, Figure 1. SCI understands that the proposed development will likely include the construction of a new vehicle maintenance facility with associated pavement areas and infrastructure.

GEOLOGIC SETTING

Located within Williamson County, Texas, the project site is located in northwest Georgetown. The site is located on the east edge of the Edwards Plateau, within the Balcones Escarpment. With the region's semi-arid climate, precipitation is approximately 36 inches per year, with temperate grasslands, savannas, and shrublands. Outcrops of Cretaceous aged limestone belonging to the Edwards Limestone of the Fredericksburg Group were occasionally seen throughout the property. Lake Georgetown is less than a mile west-southwest of the site. The site is located in the Edwards Aquifer Recharge Zone.

Soils:

Information regarding the following soil description is derived from the soil survey of Williamson County published by the Soil Conservation Service via the Web Soil Survey application. The project site soils maps within the Eckrant stony clay unit, 0 to 3 percent slope (EeB). Soils are classified as Hydrologic Soil Group D which have a high runoff potential when thoroughly wet, and water movement through the soil is restricted or very restricted. Parent material consists of residuum weathered form limestone, with a soil profile range of stony clay to bedrock.

Table 1 – Soil Description

Map Symbol and Map Unit Name	Component/ Local Phase	Component Percent	Landform	Depth to Restrictive Feature	Depth to Water Table	Hydrologic Soil Group
EeB- Eckrant stony clay, 0 to 3 percent slopes, stony	Eckrant stony	100	Ridges	4 to 20-inches to lithic bedrock	>80"	D

Stratigraphy:

The bedrock lithology underlying the site consists of the Edwards Limestone (Ked), and the tract is located entirely within the Edwards Aquifer Recharge Zone *Geologic Formation Map,* Attachment D, Figure 2. Edwards Limestone is a cretaceous age limestone within the Fredericksburg Group of the Comanchean - Albian series. Edwards Limestone consists of limestone, dolostone, and chert. The limestone is aphanitic to fine grained, massive to thin bedded, hard, brittle, in part rudistid biostromes, many miliolid biospartie. Exposed outcrops are generally susceptible to chemical weathering, and secondary porosity may vary from microscopic to megascopic in scale.

A Stratigraphic Column Illustrating the Generalized Stratigraphy of the Edwards and Trinity Aquifers, underlaying the proposed project is provided in Attachment B. (Barton Springs Edwards Aquifer Conservation District (2022) defines the generalized stratigraphy and aquifers around the project site, accessed from https://bseacd.org/aquifer-science/about-the-aquifers).

Attachment C – Site Geology Narrative

Structure:

The Balcones Escarpment is a geologic fault zone several miles wide consisting of several faultings. The Balcones fault zone ultimately controls the structural geology of the region, displacing eastward dipping strata of the Early and Late Cretaceous as much as 1,000 feet down to the east through north to northeast-trending normal faults. It is thought that this displacement occurred primarily during the late Oligocene or early Miocene; others have argued instead that movement during the Late Cretaceous and Pliocene is plausible.

In general, aquifer recharge occurs where formations are exposed at or near the surface, but it may also occur in the presence of faults, fractures, and karst features. Exposure of the Edwards Formation is often correlated to karst development within the region. Karst features are commonly found along fractures, joints, and bedding planes within the Edwards Formation.

SITE SUMMARY

The site investigation was conducted on August 21, 2023, by an SCI Staff Scientist under the supervision of a State of Texas Licensed Professional Geoscientist (PG). Vegetation consisted of grasses with deciduous and coniferous trees and scrub-shrub. There were multiple stands throughout the property of older cedar elms, live oaks, and red cedar, with varying vegetation of scrub-shrub around older stands and smaller growth section throughout the property. White limestone outcrops and surficial limestone was observed. Some of the limestone outcrop appeared to be disturbed or graded due to past site work.

The site is undeveloped with utilities running parallel to the adjacent Williams Drive roadway. The site is surrounded by a mix of residential and commercial properties, with a religious facility adjacently located to the northeast. Based on historical aerial images available online, it appears that this site has never been developed. The adjacent religious facility appears to have been developed around the 1990's and expanded the gravel parking lot during the 2000's. Residential housing to the north of the property began to develop in the 2000's. Properties to the south of the site have been varying developed residential to commercial since the 1990s. The commercial property to the northwest is currently under construction.

The investigation was performed in maximum 50-foot transects to evaluate the property for potential sensitive/recharge features. One feature was documented and evaluated for recharge potential, but no sensitive features (ex. caves, sinkholes, faults/fractures) were identified within the 0.92-acre lot, nor along its perimeter.

Feature Description:

CD-1: Feature CD-1 is a topographic depression that is approximately 3 feet by 6 feet in diameter and approximately 6 inches deep. The depression appeared to develop by multiple surficial limestone slabs being displaced and edges of limestone slabs elevated along the rim of the depression. The depression was filled with soil and rock and vegetation covered. Other limestone cobbles were observed exposed around the rim. Probing with tool indicated that the feature was closed. Further evaluation suggests that CD-1 formed independently of karst processes.

Manmade Features:

While the site is undeveloped, some infrastructure does exist. Above-ground electric lines trending parallel to the road on the south side of the site. SCI did observe underground utility connections at the corners of adjacent properties but did not observe any grading or disturbance for any underground utilities within the site. SCI did not identify any manmade features within the property.

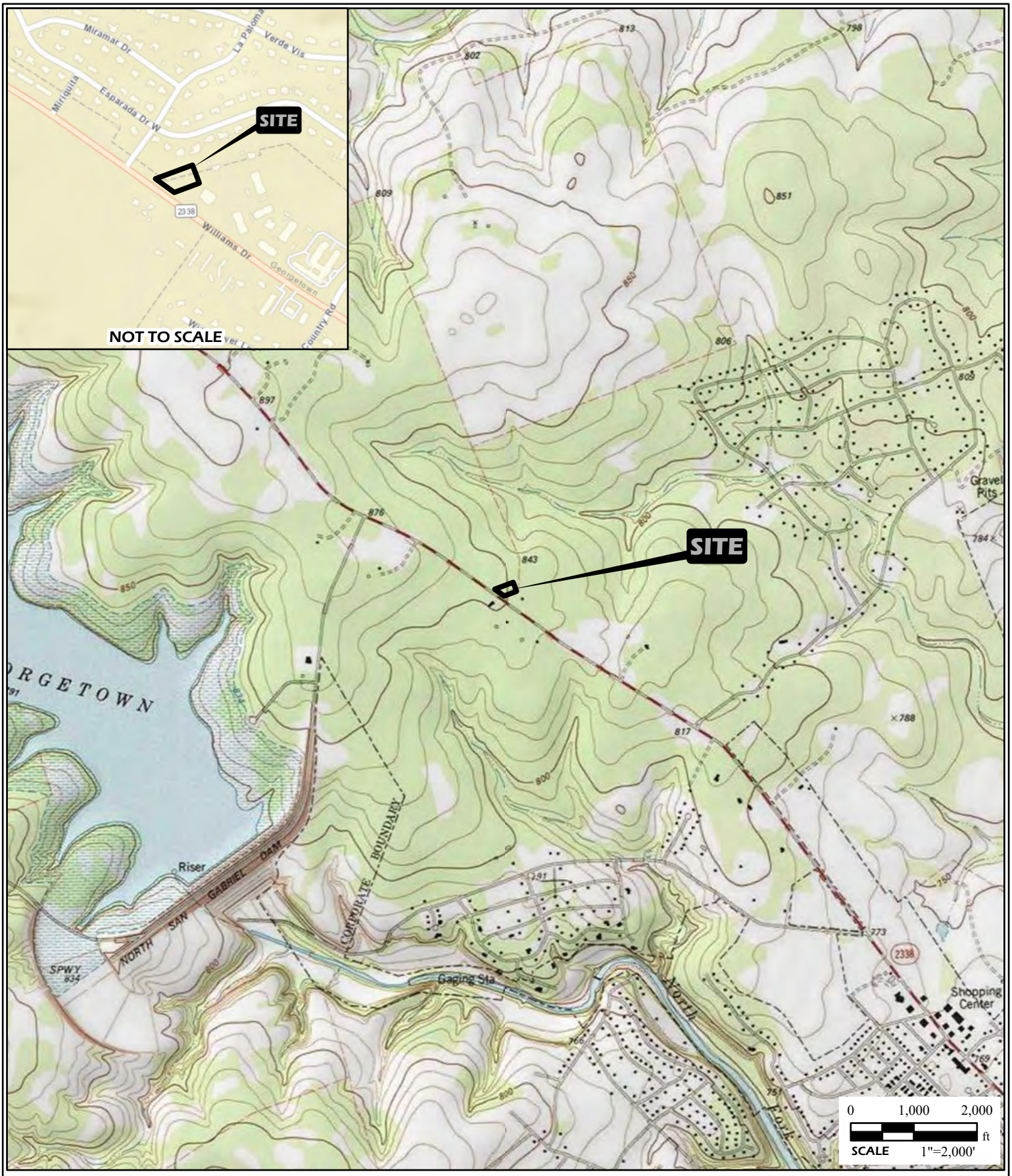
Attachment C – Site Geology Narrative

City of Georgetown Ordinance:

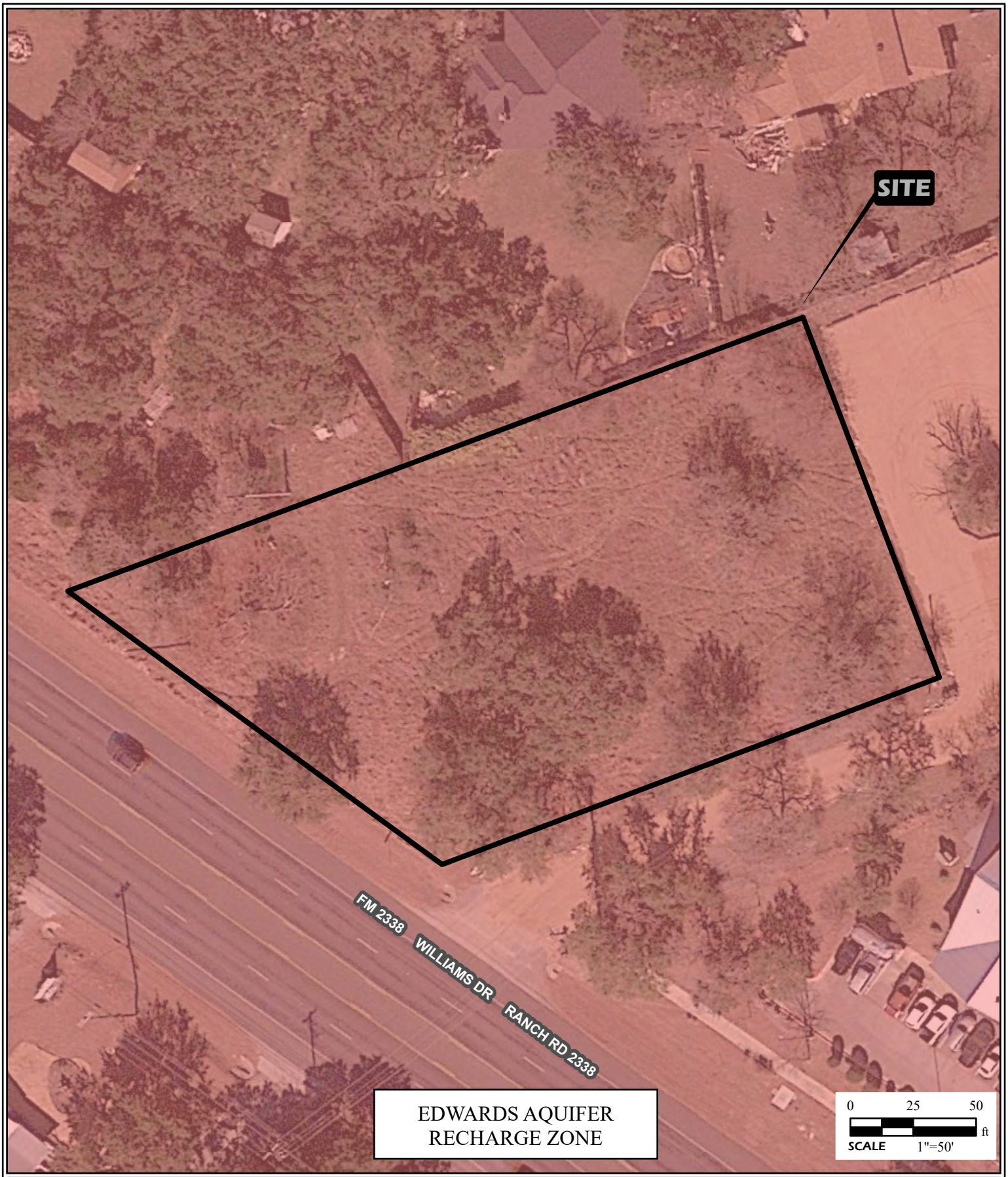
No springs or streams were identified on the property during the assessment site survey, and therefore no occupied site protection, or spring or stream buffer protections measures will be required for the property.

All regulated activities within the recharge zone must follow water quality best management practices, and development of the property will need to comply with the water quality protection measures as outlined in the City of Georgetown Unified Development Code, Section 11.07.040.

Attachment D

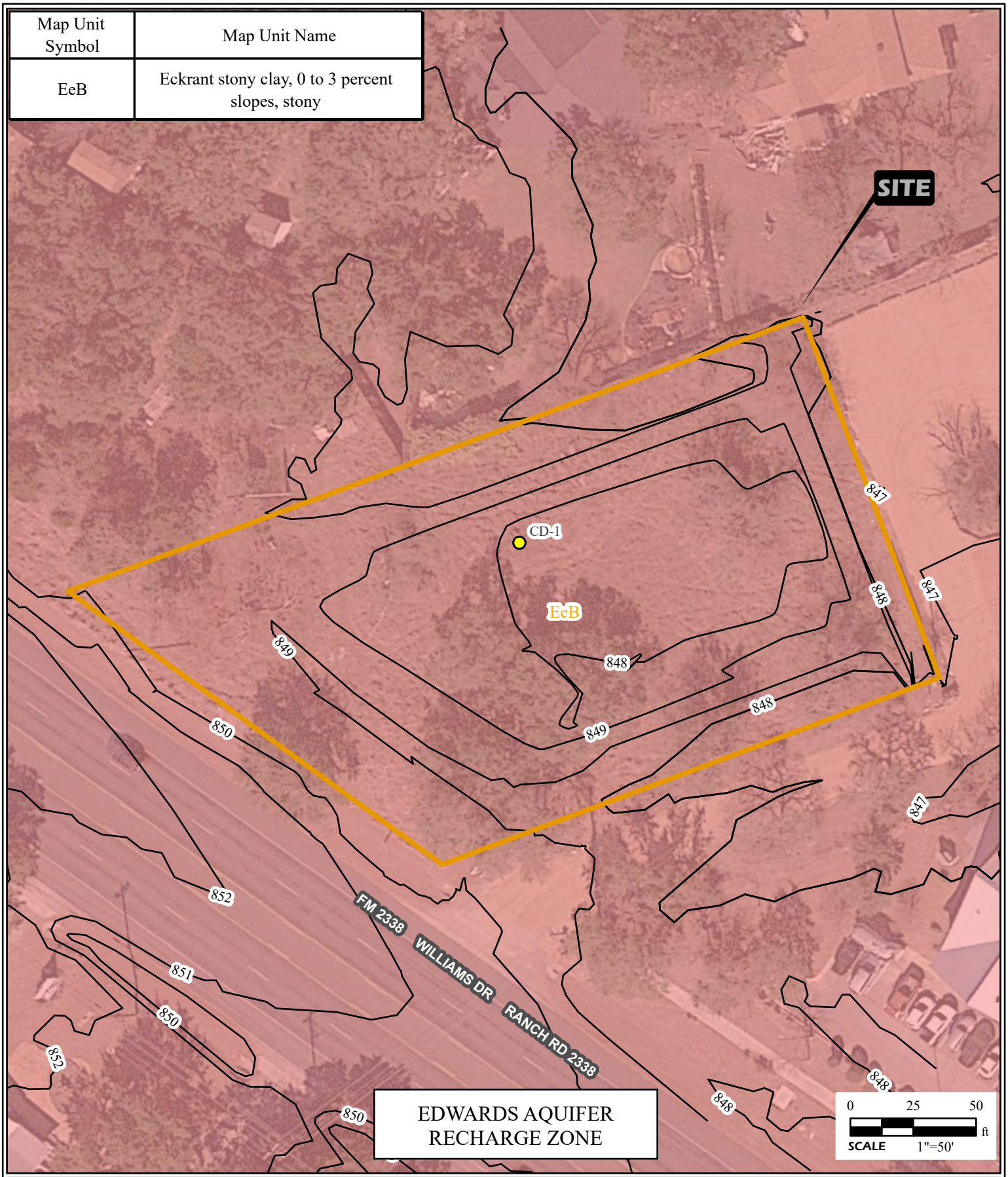


	PROJECT NAME VELOCITY TIRE GEORGETOWN GEORGETOWN, TEXAS			**GENERAL NOTES/LEGEND** USGS TOPOGRAPHIC MAP GEORGETOWN, TEXAS QUADRANGLE DATED 1995 10' CONTOURS
	VICINITY AND TOPOGRAPHIC MAP			
	DRAWN BY ACV	**DATE**	**JOB NUMBER**	STREET MAP HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_STREET_MAP
	CHECKED BY TSS	09/2023	2023-1178.1G	**FIGURE** 1



PROJECT NAME				GENERAL NOTES/LEGEND
VELOCITY TIRE GEORGETOWN GEORGETOWN, TEXAS				Edwards Limestone (Ked)
GEOLOGICAL FORMATION MAP				AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH 01/2022. GEOLOGIC FORMATION: HTTPS://TXPUB.USGS.GOV/TXGEOLOGY/ DIMENSIONS AND LOCATIONS ARE APPROXIMATE; ACTUAL MAY VARY. DRAWING SHALL NOT BE USED OUTSIDE THE CONTEXT OF THE REPORT FOR WHICH IT WAS GENERATED.
DRAWN BY ACV	DATE	JOB NUMBER		
CHECKED BY TSS	09/2023	2023-1178.1G		FIGURE 2

Map Unit Symbol	Map Unit Name
EeB	Eckrant stony clay, 0 to 3 percent slopes, stony



PROJECT NAME

VELOCITY TIRE GEORGETOWN
GEORGETOWN, TEXAS

GEOLOGICAL FORMATION MAP

DRAWN BY	ACV	DATE	JOB NUMBER
CHECKED BY	TSS	09/2023	2023-1178.1G

GENERAL NOTES/LEGEND

Edwards Limestone (Ked)

FEATURE LOCATION

AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH 01/2022.
SOILS DATA OBTAINED FROM HTTPS://WEBSOILSURVEY.SC.EGOV.USDA.GOV/
GEOLOGIC FORMATION: HTTPS://TXPUB.USGS.GOV/TXGEOLOGY/
DIMENSIONS AND LOCATIONS ARE APPROXIMATE; ACTUAL MAY VARY.
DRAWING SHALL NOT BE USED OUTSIDE THE CONTEXT OF THE REPORT FOR WHICH IT WAS GENERATED.

N
W
E
S

FIGURE
3

Attachment E

Photo 1. Southeast central side of site, facing north.

Photo 2. West corner of site, facing northeast.

Photo 3. Central site, facing north.

Photo 4. East side of CD-1, facing west.

Photo 5. CD-1, facing south.

Photo 6. North side of CD-1, facing south.

Photo 7. Tree stand understory with limestone stockpile.

Photo 8. Adjacent road, facing southeast.

Photo 9. Adjacent road, facing northwest.

Photo 10. South side of site, facing southwest.

Photo 11. East side of site, facing north.

Photo 12. West side of site, facing south.

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: LAKSHAY SHARMA

Date: 09/05/2023

Signature of Customer/Agent:

Lakshay Sharma

Regulated Entity Name: VELOCITY TIRE

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):0.92

3. Estimated projected population:23

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	5,724	÷ 43,560 =	0.13
Parking	18,375.26	÷ 43,560 =	0.42
Other paved surfaces	2,880.54	÷ 43,560 =	0.07
Total Impervious Cover	26,799.74	÷ 43,560 =	0.615

Total Impervious Cover 0.615 **÷ Total Acreage** 0.92 **X 100 =** 66.76**% 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	788Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day 788	

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 _____ (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = 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): _____

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.

WATER POLLUTION ABATEMENT PLAN APPLICATION

Attachments to form TCEQ-0584

ATTACHMENT A

There are several factors that could affect surface and ground water quality. During construction, fuels and hazardous substances could spill. These spills shall be contained on-site and immediately cleaned up and properly discarded. Any spills or discharges of oil, petroleum products and used oil onto land having a volume greater than 25 gallons also, spills or discharges directly into waters of the state having a quantity sufficient enough to create a sheen, shall be reported immediately to TCEQ at (512) 339-2929 or the State Emergency Response Center at 1-800-832-8224. There are no significant factors proposed which could affect surface and ground water quality relating to the permanent use of the facility.

ATTACHMENT B

The character of the storm water leaving the site shall be filtered and all pollutants will remain onsite. The Permanent BMPSs (Jellyfish Units) shall will filter first flush of runoff from the proposed impervious cover. The outflow from these water quality BMPs will be daylighted after being released from the downstream underground detention system.

ATTACHMENT C

Attachment C is not required. (Sustainability Letter for OSSF/Septic Tank)

ATTACHMENT D

The Geologic Assessment report is attached for this site.

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: LAKSHAY SHARMA

Date: 09/05/2023

Signature of Customer/Agent:

Lakshay Sharma

_____

Regulated Entity Name: VELOCITY TIRE

Project Information

Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

   ☐ The following fuels and/or hazardous substances will be stored on the site: _____

   These fuels and/or hazardous substances will be stored in:

   ☐ Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

☒ Fuels and hazardous substances will not be stored on the site.

2. ☒ **Attachment A - Spill Response Actions.** A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.

3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ☒ **Attachment B - Potential Sources of Contamination.** A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

5. ☒ **Attachment C - Sequence of Major Activities.** A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.

   ☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

   ☐ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

6. ☒ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: N/A

Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. ☒ **Attachment D – Temporary Best Management Practices and Measures.** TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

☒ A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

☐ A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

☐ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

☐ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. ☒ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

   ☐ **Attachment E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

   ☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. ☒ **Attachment F - Structural Practices.** A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.

10. ☒ **Attachment G - Drainage Area Map.** A drainage area map supporting the following requirements is attached:

    ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

    ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

    ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

    ☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

☒ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

11. ☐ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations**. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

☒ N/A

12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.

13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. ☒ **Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices.** A schedule of the interim and permanent soil stabilization practices for the site is attached.

18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

TEMPORARY STORWATER SECTION

Attachments to form TCEQ-0602

ATTACHMENT A

There are several factors that could affect surface and ground water quality. During construction, fuels and hazardous substances could spill. These spills shall be contained on-site and immediately cleaned up and properly discarded. Any spills or discharges of oil, petroleum products and used oil onto land having a volume greater than 25 gallons, and spills or discharges directly into waters of the state having a quantity sufficient enough to create a sheen, shall be reported immediately to TCEQ at (512) 339-2929 or the State Emergency Response Center at 1-800-832-8224. There are no significant factors proposed which could affect surface and ground water quality relating to the permanent use of the facility.

ATTACHMENT B

Potential Sources of Contamination:

1. Soil disturbance during construction.
2. Hydrocarbon-based fluids from Construction Equipment.
3. Landscaping – Fertilizer and Pesticides.

ATTACHMENT C

Sequence of major activities for each phase is as follows:

1. The installation of Erosion/Sedimentation Controls –0.05 Ac. Disturbed
2. Clearing, grubbing, and removal of topsoil from entire site – 1.173 Ac. Disturbed
3. Rough grading and building pad excavation – 1.173 Ac. Disturbed
4. Excavating for utilities – 0.29 Ac. Disturbed
5. Finish grading and landscaping – 1.173 Ac. Disturbed

ATTACHMENT D

The Temporary Best Management Practices (TBMP) for this project will consist of:

1. A stabilized construction entrance.
2. Silt fencing and rock berms around down gradient boundary of site.

All TBMP's will be in place prior to any regulated activities commencing. The stabilized construction entrance will remove excess spoils from construction vehicles leaving the site. The silt fencing will collect silt runoff and debris during construction activities. These controls will be maintained during construction and will remain until after all construction activities are complete and permanent re-vegetation is established.

ATTACHMENT F

Due to the limited area of the site, the silt fence will provide control to retain any runoff from the exposed site.

ATTACHMENT G

Refer to the drawings, sheet PDA

TEMPORARY STORWATER SECTION

Attachments to form TCEQ-0602

ATTACHMENT H

The total site area is 0.92 acres and will not require a temporary sediment pond.

ATTACHMENT I

The contractor is required to inspect all of the erosion and sediment controls and fences at weekly intervals and after significant rainfall events to insure 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. Records described in the SWPPP must be retained on site for 5 years beyond the date of the cover letter notifying the facility of coverage under a storm water permit, and shall be made available to the state or federal compliance inspection officer upon request. Additionally, employee training records and waste and recycling receipts or vouchers shall also be maintained.

ATTACHMENT J

Schedule of Interim Soil Stabilization Practices:

1. Erosion and sediment control measures including perimeter sediment controls must be in place before vegetation is disturbed and must remain in place and be maintained and repaired.
2. Temporary stabilization or covering of soil stockpiles and protection of stockpile located away from construction activity must be maintained
3. Should construction activities cease for fifteen (15) days or more on any significant portion of the construction site, temporary stabilization is required for that portion of the site to prevent soil and wind erosion until work resumes on that portion of the site.
4. Should all construction activities cease for thirty days or more, the entire site must be temporarily stabilized using vegetation or a heavy mulch layer, temporary seeding or other method.

Schedule of Permanent Soil Stabilization Practices:

1. Stabilized any unpaved area that is final grade or remain unpaved for the next two weeks. Permanent stabilization may consist of sodding, seeding, or mulching that must be maintained to prevent erosion from the site until re-vegetation has achieved 70% coverage
2. Once construction is complete, remove all the pollution prevention measures that were temporary.

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: LAKSHAY SHARMA

Date: 09-25-2023

Signature of Customer/Agent

Lakshay Sharma

Regulated Entity Name: VELOCITY TIRE

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

PERMANENT STORMWATER SECTION

Attachments to form TCEQ-0600

ATTACHMENT A

The site is a commercial site with more than 20% impervious cover.

ATTACHMENT B

Water quality will be provided by two (2) Jellyfish unit BMPs. Please refer to Sheet C30. There are two up-gradient drainage areas that will bypass the site drainage areas.

ATTACHMENT C

Two (2) Jellyfish units will be used to prevent pollution of surface water or groundwater originating on-site.

ATTACHMENT D

There are no surface streams, sensitive features or aquifer entrance points on this site. The two (2) Jellyfish units will significantly reduce the pollutants being released downstream of the site.

ATTACHMENT E

This attachment is not needed. (Request to Seal Features)

ATTACHMENT F

See attached drawings. (Construction Plans)

ATTACHMENT G

See the attached maintenance plan for the Jellyfish units. (TCEQ-0589).

ATTACHMENT H

This attachment is not needed. (Pilot-Scale Field Testing Plan)

ATTACHMENT I

All flows from the site will be conveyed through proposed BMPs to an on-site underground detention facility. There will be no increase in the flows as demonstrated in the calculations in the plan sheets.

JELLYFISH SYSTEM MAINTENANCE PLAN RESTRICITIVE COVENANT

OWNER: VELO LAND HOLDINGS, LLC

PROPERTY (legal description): LOT 1, LANDGRAF SUBDIVISION, 0.92 ACRES

PROPERTY ADDRESS: 4229 WILLIAMS DRIVE GEORGETOWN, TX 78626

PROJECT NAME: VELOCITY TIRE

WHEREAS, the Owner of the Property and the City of Round Rock, Texas have agreed that the Property should be impressed with certain covenants and restrictions;

NOW, THEREFORE, Owner hereby declares that the Property shall be subject to the following covenants and restrictions herby imposed upon the Property by this Pond Maintenance Plan Restrictive Covenant (the "Restrictive Covenant"). This Restrictive Covenant shall run with the land, and shall be binding on the Owner of the Property, its heirs, successors and assigns.

Detention Pond Maintenance:

The Owner shall be responsible for the inspection, maintenance, and repair of the detention ponds located on the Property shown on Exhibit "A" attached hereto (the "Jellyfish System") and shall keep the Jellyfish System in good condition and repair.

Owner shall perform, or cause to be performed, the following with respects to the Jellyfish System.

1. Structural Repairs and Replacement. With each inspection, any damage to structural elements of the Jellyfish System (pipes, concrete drainage structures, retaining walls, etc.) shall be identified and repaired. Owner shall maintain a written record of inspection results and corrective measures taken.
2. Discharge Pipe. The Jellyfish discharge pipes shall be inspected for accumulation of silt, debris or other obstructions which could block flow. Soil accumulations, vegetative overgrowth and other blockages should be cleared from the pipe discharge point as necessary. Owner shall maintain a written record of inspection findings and corrective actions performed.
3. Guardrails. Any handrails shall be inspected for damage and structural integrity. Damage to guard shall be promptly repaired. Owner shall maintain a written record of inspection findings and corrective actions performed.
4. Recordkeeping Procedures for Inspections, Maintenance and Repairs. Written records of inspection findings and corrective actions required above shall be retained by Owner for no less than five (5) years.

The Best Management Practice for water quality control is a Contech Jellyfish System. The system includes a concrete splitter box for peak flow diversion of 100 year storm flows. The jellyfish system is a proprietary system. The maintenance of the Jellyfish system is to be in strict accordance with the attached "Jellyfish Filter Maintenance Guide" (the "Guide"). The "Guide" shall be permanent attached as a part of this Maintenance Plan and any updates or modifications to the "Guide" shall be fully incorporate into this Plan.

GENERAL MAINTENANCE FOR SUPPORTING STRUCTURES AND SURROUNDING AREAS:

Monthly: The vegetative growth around the structures shall be checked. The growth shall not exceed 18 inches in height. Remove debris and litter and any obstructions along trails which would prohibit the flow of storm water onto the adjacent grass. Remove all debris and accumulated sediment within the splitter when the depth reaches 6".

Quarterly: Inspect for erosion or damage to structures. The ground surface shall have uniform grass cover, no debris, litter, or obstructions. Bare spots and areas of erosion shall be reseeded and restored to complete coverage and density.

After Rainfall: Fill and level eroded areas with topsoil and reseed and restore. Remove any debris, obstructions or litter from splitter boxes or manholes.

[See next page for signatures]

Executed effective the 29 day of September, 2023.

OWNER: _____

By: Devin Roberson

TITLE Developing Manager

ADDRESS

STATE OF Texas §

COUNTY OF Tom Green §

Before me, the undersigned notary, on this day personally appeared Devin Roberson and N/A, the developing manager and N/A, respectively, of Velo Land Holdings limited partnership, known to me through valid identification to be the persons whose names are subscribed to the preceding instrument and acknowledged to me that the person executed the instrument in the persons' official capacities for the purposes and consideration expressed in the instrument.

Given under my hand and seal of office on September 29, 2023.

[SEAL]

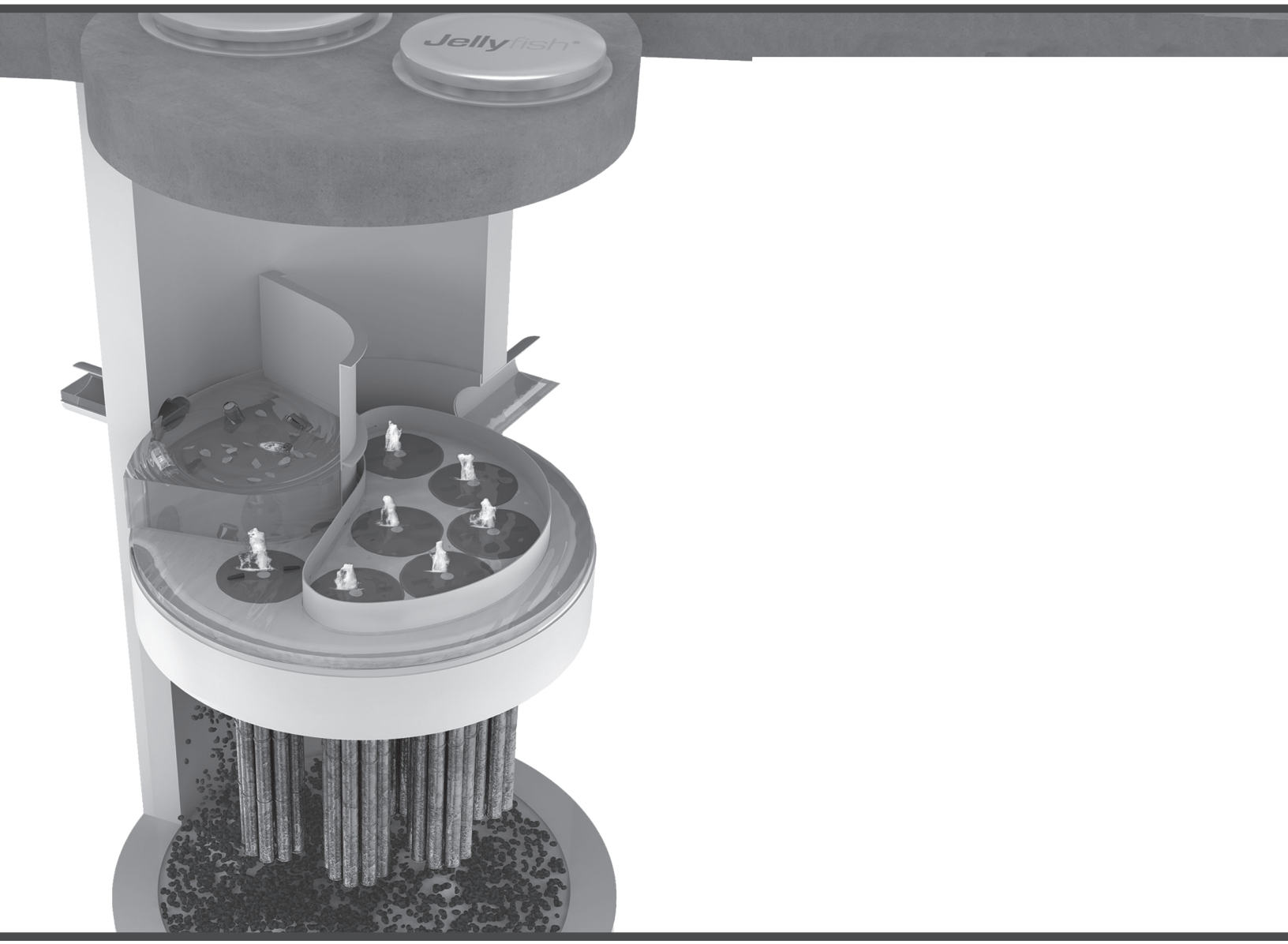
YVONNE CUEVAS
Notary Public
STATE OF TEXAS
ID#12922257-1
My Comm. Exp. Dec. 6, 2024

Yvonne Cuevas

Notary Public, State of Texas

CONTECH®
ENGINEERED SOLUTIONS

JellyFish® Filter Maintenance Guide



Jellyfish®

JELLYFISH® FILTER MANHOLE CONFIGURATIONS
INSPECTION & MAINTENANCE GUIDE

TABLE OF CONTENTS

1.0 Inspection and Maintenance Overview

The primary purpose of the Jellyfish® Filter is to capture and remove pollutants from stormwater runoff. As with any filtration system, these pollutants must be removed to maintain the filter's maximum treatment performance. Regular inspection and maintenance are required to insure proper functioning of the system.

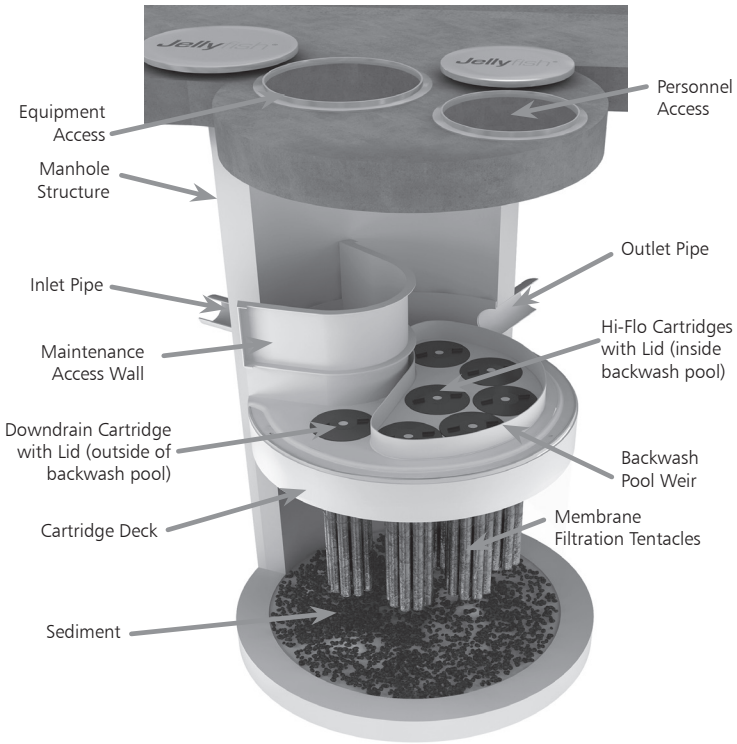
Maintenance frequencies and requirements are site specific and vary depending on pollutant loading. Additional maintenance activities may be required in the event of non-storm event runoff, such as base-flow or seasonal flow, an upstream chemical spill or due to excessive sediment loading from site erosion or extreme runoff events. It is a good practice to inspect the system after major storm events.

Inspection activities are typically conducted from surface observations and include:

- Observe if standing water is present
- Observe if there is any physical damage to the deck or cartridge lids
- Observe the amount of debris in the Maintenance Access Wall (MAW)

Maintenance activities typically include:

- Removal of oil, floatable trash and debris
- Removal of collected sediments
- Rinsing and re-installing the filter cartridges
- Replace filter cartridge tentacles, as needed



Note: Separator Skirt not shown

2.0 Inspection Timing

Inspection of the Jellyfish Filter is key in determining the maintenance requirements for, and to develop a history of the site's pollutant loading characteristics. In general, inspections should be performed at the times indicated below; *or per the approved project stormwater quality documents (if applicable), whichever is more frequent*.

1. Post-construction inspection is required prior to putting the Jellyfish Filter into service. All construction debris or construction-related sediment within the device must be removed, and any damage to system components repaired, before installing the filter cartridges.
2. A minimum of two inspections during the first year of operation to assess the sediment and floatable pollutant accumulation, and to ensure proper functioning of the system.
3. Inspection frequency in subsequent years is based on the inspection and maintenance plan developed in the first year of operation. Minimum frequency should be once per year.
4. Inspection is recommended after each major storm event.
5. Inspection is required immediately after an upstream oil, fuel or other chemical spill.

3.0 Inspection Procedure

The following procedure is recommended when performing inspections:

1. Provide traffic control measures as necessary.
2. Inspect the MAW for floatable pollutants such as trash, debris, and oil sheen.
3. Measure oil and sediment depth in several locations, by lowering a sediment probe through the MAW opening until contact is made with the floor of the structure. Record sediment depth, and presences of any oil layers.
4. Inspect cartridge lids. Missing or damaged cartridge lids to be replaced.
5. Inspect the MAW, cartridge deck, and backwash pool weir, for cracks or broken components. If damaged, repair is required.

3.1 Dry weather inspections

- Inspect the cartridge deck for standing water, and/or sediment on the deck.
- No standing water under normal operating conditions.
- Standing water inside the backwash pool, but not outside the backwash pool indicates that the filter cartridges need to be rinsed.

Inspection Utilitzing Sediment Probe

- Standing water outside the backwash pool may indicate a backwater condition caused by high water elevation in the receiving water body, or possibly a blockage in downstream infrastructure.
- Any appreciable sediment (≥1/16") accumulated on the deck surface should be removed.

3.2 Wet weather inspections

- Observe the rate and movement of water in the unit. Note the depth of water above deck elevation within the MAW.
- Less than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges (i.e. cartridges located outside the backwash pool).
- Greater than 6 inches, flow should be exiting the cartridge lids of each of the draindown cartridges and each of the hi-flo cartridges (i.e. cartridges located inside the backwash pool), and water should be overflowing the backwash pool weir.
- 18 inches or greater and relatively little flow is exiting the cartridge lids and outlet pipe, this condition indicates that the filter cartridges are occluded with sediment and need to be rinsed

4.0 Maintenance Requirements

Required maintenance for the Jellyfish Filter is based upon results of the most recent inspection, historical maintenance records, or the site specific water quality management plan; whichever is more frequent. In general, maintenance requires some combination of the following:

1. Sediment removal for depths reaching 12 inches or greater, or within 3 years of the most recent sediment cleaning, whichever occurs sooner.
2. Floatable trash, debris, and oil removal.
3. Deck cleaned and free from sediment.
4. Filter cartridges rinsed and re-installed as required by the most recent inspection results, or within 12 months of the most recent filter rinsing, whichever occurs sooner.
5. Replace tentacles if rinsing does not restore adequate hydraulic capacity, remove accumulated sediment, or if damaged or missing. It is recommended that tentacles should remain in service no longer than 5 years before replacement.
6. Damaged or missing cartridge deck components must be repaired or replaced as indicated by results of the most recent inspection.
7. The unit must be cleaned out and filter cartridges inspected immediately after an upstream oil, fuel, or chemical spill. Filter cartridge tentacles should be replaced if damaged or compromised by the spill.

5.0 Maintenance Procedure

The following procedures are recommended when maintaining the Jellyfish Filter:

1. Provide traffic control measures as necessary.
2. Open all covers and hatches. Use ventilation equipment as required, according to confined space entry procedures.
3. Caution: Dropping objects onto the cartridge deck may cause damage.
4. Perform Inspection Procedure prior to maintenance activity.
5. To access the cartridge deck for filter cartridge service, descend the ladder and step directly onto the deck. Caution: Do not step onto the maintenance access wall (MAW) or backwash pool weir, as damage may result. Note that the cartridge deck may be slippery.
6. Maximum weight of maintenance crew and equipment on the cartridge deck not to exceed 450 lbs.

5.1 Filter Cartridge Removal

1. Remove a cartridge lid.
2. Remove cartridges from the deck using the lifting loops in the cartridge head plate. Rope or a lifting device (available from Contech) should be used. Caution: Should a snag occur, do not force the cartridge upward as damage to the tentacles may result. Wet cartridges typically weigh between 100 and 125 lbs.
3. Replace and secure the cartridge lid on the exposed empty receptacle as a safety precaution. Contech does not recommend exposing more than one empty cartridge receptacle at a time.

5.2 Filter Cartridge Rinsing

1. Remove all 11 tentacles from the cartridge head plate. Take care not to damage or break the plastic threaded nut or connector.
2. Position tentacles in a container (or over the MAW), with the

Cartridge Removal & Lifting Device

threaded connector (open end) facing down, so rinse water is flushed through the membrane and captured in the container.

3. Using the Jellyfish rinse tool (available from Contech) or a low-pressure garden hose sprayer, direct water spray onto the tentacle membrane, sweeping from top to bottom along the length of the tentacle. Rinse until all sediment is removed from the membrane. Caution: Do not use a high pressure sprayer or focused stream of water on the membrane. Excessive water pressure may damage the membrane.

4. Collected rinse water is typically removed by vacuum hose.
5. Reattach tentacles to cartridge head plate. Reuse O-rings and nuts, ensuring proper placement on each tentacle.

5.3 Cleaning Procedure

1. Perform vacuum cleaning of the Jellyfish Filter only after filter cartridges have been removed from the system. Access the lower chamber for vacuum cleaning only through the maintenance access wall (MAW) opening, being careful not to damage the flexible plastic separator skirt that is attached to the underside of the deck. The separator skirt surrounds the filter cartridge zone, and could be torn if contacted by the wand. Do not lower the vacuum wand through a cartridge receptacle, as damage to the receptacle will result.
2. Vacuum floatable trash, debris, and oil, from the MAW opening. Alternatively, floatable solids may be removed by a net or skimmer.

Tentacle Rinse Using Jellyfish Rinse Tool

3. Pressure wash cartridge deck and receptacles to remove all sediment and debris. Sediment should be rinsed into the sump area. Take care not to flush rinse water into the outlet pipe.
4. Remove water from the sump area. Vacuum or pump equipment should only be introduced through the MAW.
5. Remove the sediment from the bottom of the unit through the MAW opening.

Vacuuming Sump Through MAW

6. For larger diameter Jellyfish Filter manholes (≥8-ft) and vaults without an MAW opening, complete sediment removal may be facilitated by removing a cartridge lid from an empty receptacle and inserting a jetting wand (not a vacuum wand) through the receptacle. Use the sprayer to rinse loosened sediment toward the vacuum hose in the MAW opening, being careful not to damage the receptacle.
7. After the unit is clean, re-fill the lower chamber with water if required by the local jurisdiction, and re-install filter cartridges.
8. Dispose of sediment, floatable trash and debris, oil, spent tentacles, and water according to local regulatory requirements.

5.4 Filter Cartridge Replacement

1. Cartridges should be installed after the deck has been cleaned. It is important that the receptacle surfaces be free from grit and debris.
2. If rinsing is ineffective in removing sediment from the tentacles, or if tentacles are damaged, provisions must be made to replace the spent or damaged tentacles with new tentacles. Contact Contech to order replacement tentacles.
3. Lower filter cartridge to the cartridge deck. Remove cartridge lid from deck and carefully lower the filter cartridge into the receptacle until head plate gasket is seated squarely in receptacle. Caution: Should a snag occur when lowering the cartridge into the receptacle, do not force the cartridge downward; damage may occur.
4. Replace the cartridge lid and check fit before completing rotation to a firm hand-tight attachment.

5.5 Chemical Spills

Caution: If a chemical spill has been captured, do not attempt maintenance. Immediately contact the local hazard response agency and contact Contech.

6.0 Related Maintenance Activities

Jellyfish units are often just one of many structures in a more comprehensive stormwater drainage and treatment system.

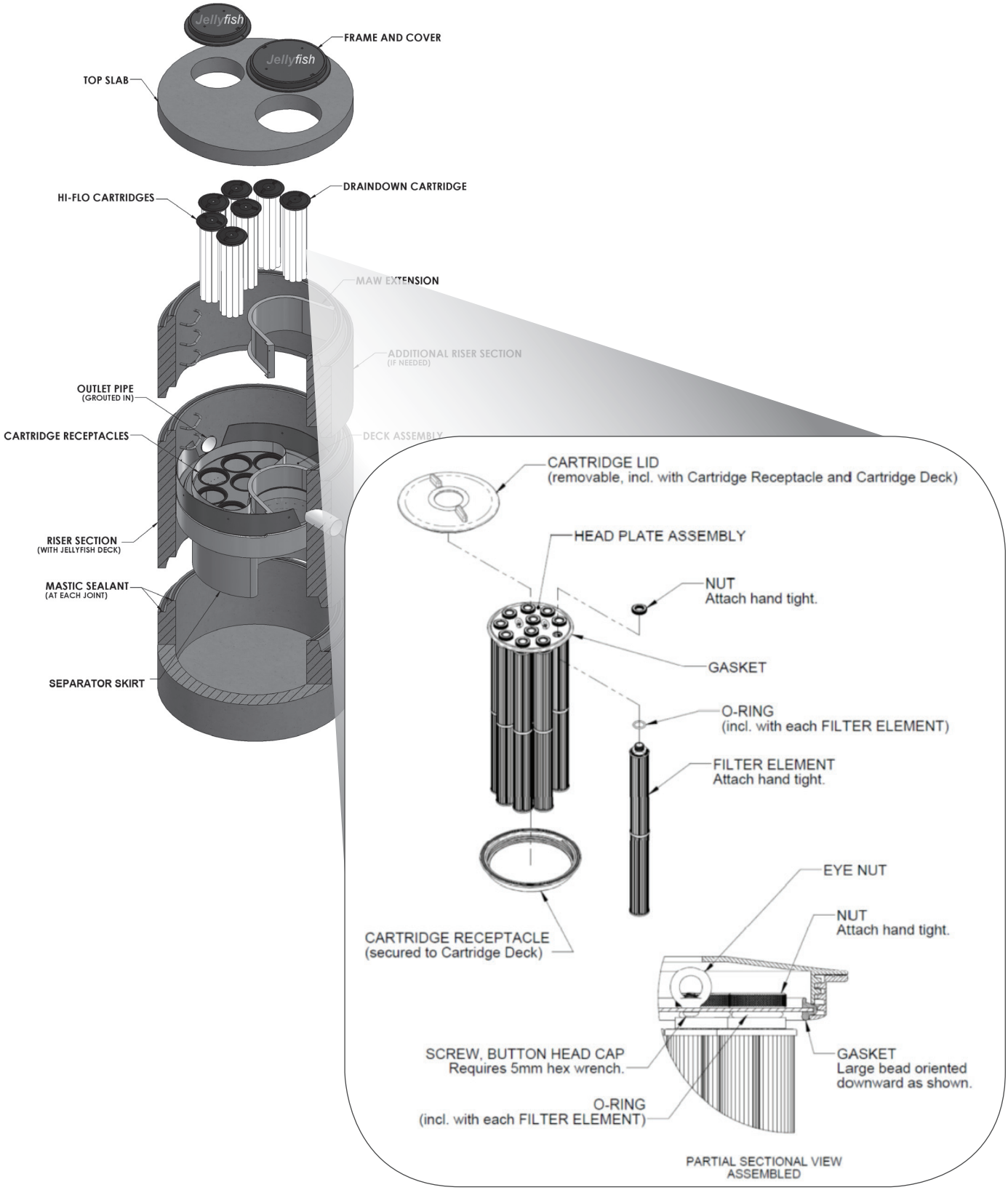
In order for maintenance of the Jellyfish filter to be successful, it is imperative that all other components be properly maintained. The maintenance and repair of upstream facilities should be carried out prior to Jellyfish maintenance activities.

In addition to considering upstream facilities, it is also important to correct any problems identified in the drainage area. Drainage area concerns may include: erosion problems, heavy oil loading, and discharges of inappropriate materials.

7.0 Material Disposal

The accumulated sediment found in stormwater treatment and conveyance systems must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals (such as pesticides and petroleum products). Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads. Sediments and water must be disposed of in accordance with all applicable waste disposal regulations. When scheduling maintenance, consideration must be made for the disposal of solid and liquid wastes. This typically requires coordination with a local landfill for solid waste disposal. For liquid waste disposal a number of options are available including a municipal vacuum truck decant facility, local waste water treatment plant or on-site treatment and discharge.

Jellyfish Filter Components & Filter Cartridge



Jellyfish Filter Inspection and Maintenance Log

Owner:				Jellyfish Model No:		
Location:				GPS Coordinates:		
Lande Use:	Commercial:		Industrial:		Service Station:	
	Roadway/Highway:		Airport:		Residential:	

Date/Time:						
Inspector:						
Maintenance Contractor:						
Visible Oil Present: (Y/N)						
Oil Quantity Removed:						
Floatable Debris Present: (Y/N)						
Floatable Debris Removed: (Y/N)						
Water Depth in Backwash Pool						
Draindown Cartridges externally rinsed and recommissioned: (Y/N)						
New tentacles put on Cartridges: (Y/N)						
Hi-Flo Cartridges externally rinsed and recommissioned: (Y/N)						
New tentacles put on Hi-Flo Cartridges: (Y/N)						
Sediment Depth Measured: (Y/N)						
Sediment Depth (inches or mm):						
Sediment Removed: (Y/N)						
Cartridge Lids intact: (Y/N)						
Observed Damage:						
Comments:						

Jellyfish®

CONTECH ENGINEERED SOLUTIONS

Support

- Drawings and specifications are available at ContechES.com/jellyfish.
- Site-specific design support is available from Contech Engineered Solutions.

800.338.1122
www.ContechES.com

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater, wastewater treatment and earth stabilization products. For information on other Contech segment offerings, visit ContechES.com or call 800.338.1122

The product(s) described may be protected by one or more of the following US patents: 5,322,629; 5,624,576; 5,707,527; 5,759,415; 5,788,848; 5,985,157; 6,027,639; 6,350,374; 6,406,218; 6,641,720; 6,511,595; 6,649,048; 6,991,114; 6,998,038; 7,186,058; related foreign patents or other patents pending.

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

I DEVIN ROBERSON,
Print Name

_____,
Title - Owner/President/Other

of VELO LAND HOLDINGS LLC,
Corporation/Partnership/Entity Name

have authorized TERRY R. HAGOOD
Print Name of Agent/Engineer

of HAGOOD ENGINEERING ASSOCIATES, 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

12/21/22
Date

THE STATE OF Texas §

County of Tom Green §

BEFORE ME, the undersigned authority, on this day personally appeared Devin Roberson 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 21 day of December, 2022.

SHILOH M. SALINAS
Notary Public
STATE OF TEXAS
ID# 13112159-7
My Comm. Exp. May 9, 2025

NOTARY PUBLIC

Shiloh Salinas
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: May 9, 2025

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: VELOCITY TIRE
Regulated Entity Location: 4229 WILLIAMS DRIVE GEORGETOWN, TEXAS 78628
Name of Customer: VELO LAND HOLDINGS LLC
Contact Person: DEVIN ROBERSON Phone: 432.935.1014
Customer Reference Number (if issued):CN 606125409
Regulated Entity Reference Number (if issued):RN 111709994

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	.92 Acres	$ 3,000.00
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: Lakshay Sharma Date: 09/05/2023

Application Fee Schedule

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	*Project Area in Acres*	*Fee*
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

Project	*Cost per Linear Foot*	*Minimum Fee-Maximum Fee*
Sewage Collection Systems	$0.50	$650 - $6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	*Cost per Tank or Piping System*	*Minimum Fee-Maximum Fee*
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

TCEQ Core Data Form

TCEQ Use Only

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

SECTION I: General Information

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

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

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

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 606125409		RN 111709994

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:*
VELO LAND HOLDINGS LLC	

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
804196808	32080650024	87-2326173	

11. Type of Customer:	☐ Corporation	☐ Individual	Partnership: ☐ General ☒ Limited
Government: ☐ City ☐ County ☐ Federal ☐ 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

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

15. Mailing Address:	1610 STONEBRIDGE DRIVE						
	City	SAN ANGELO	State	TX	ZIP	76904	ZIP + 4

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

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(432) 935-1014	0	(0) -

SECTION III: Regulated Entity Information

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

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

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

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

VELOCITY TIRE

23. Street Address of the Regulated Entity: *(No PO Boxes)*	4229 WILLIAMS DRIVE							
	City	GEORGETOWN	State	TX	ZIP	78628	ZIP + 4	
24. County	WILLIAMSON							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	1585' NW OF THE INTERSECTION OF WILLIAMS DRIVE AND COUNTY RD				
26. Nearest City			State	Nearest ZIP Code	
GEORGETOWN			TX	78628	
27. Latitude (N) In Decimal:			28. Longitude (W) In Decimal:		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	40'46	48	97	42'38	42

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)
7534		441320	

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

TIRE REPAIR

34. Mailing Address:	4229 WILLIAMS DRIVE							
	City	GEORGETOWN	State	TX	ZIP	78628	ZIP + 4	
35. E-Mail Address:	DEVIN@VELOCITYTIREUSA.COM							

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(432) 935-1014		( ) -

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	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	RAQUEL SAENZ	41. Title:	PROJECT ASSISTANT

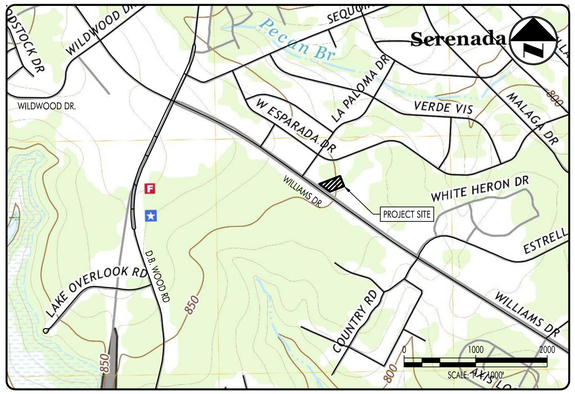
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 244-1546		( ) -	RAQUELR@HEAENG.COM

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:	HAGOOD ENGINEERING ASSOCIATES	Job Title:	PROJECT MANAGER
Name*(In Print)* :	LAKSHAY SHARMA	Phone:	(512) 244-1546
Signature:	Lakshay Sharma	Date:	09/05/2023

SITE LOCATION MAP



BENCHMARKS

BM #500 - BRASS DISC MONUMENT FOUND (SEE SP1)
ELEV = 849.26'

LEGAL DESCRIPTION

LOT 1, BLOCK 1, LANDGRAF SUBDIVISION, ACCORDING TO THE MAP OR PLAT THEREOF, RECORDED IN CABINET W, SLIDE 238, PLAT RECORDS, WILLIAMSON COUNTY, TEXAS

PLAN SUBMITTALS

NO.	DATE	COMMENTS
1	9/5/2023	SUBMITTAL TO CITY OF GEORGETOWN
2	10/24/2023	SUBMITTAL TO TCEQ (CC UPDATE 1)
3		
4		
5		
6		
7		
8		
9		
10		

NOTES:

1. NO PORTION OF THE ABOVE LEGALLY DESCRIBED PROPERTY IS WITHIN THE DESIGNATED 1% ANNUAL CHANCE FLOODPLAIN AREA AS DESIGNATED BY F.E.M.A. FLOOD INSURANCE RATE MAP (FIRM) ON COMMUNITY PANEL NO. 48491C0290E, DATED SEPTEMBER 26, 2008 FOR THE CITY OF GEORGETOWN, WILLIAMSON COUNTY, TEXAS.
2. THIS PROPERTY IS WITHIN THE EDWARDS AQUIFER RECHARGE ZONE.
3. SEE SHEET C00 FOR GENERAL NOTES.

SITE DEVELOPMENT PLANS
SUBMITTED FOR
VELOCITY TIRE - GEORGETOWN
4229 WILLIAMS DRIVE
GEORGETOWN, TX 78628

Sheet List Table

SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
01	CVR	COVER
02	SRV	SURVEY
03	PLAT	PLAT
04	PLAT	PLAT
05	SP	SITE PLAN
06	FPP	FIRE PROTECTION PLAN
07	EDA	EXISTING DRAINAGE AREA MAP
08	PDA	PROPOSED DRAINAGE AREA MAP
09	C00	GENERAL NOTES
10	C10	EROSION AND SEDIMENTATION CONTROL PLAN
11	C11	DEMOLITION PLAN
12	C20	UTILITY PLAN
13	C21	UTILITY PROFILES
14	C30	DRAINAGE PLAN
15	C31	STORM PROFILE & DETAILS
16	C32	CONTECH DETAIL
17	C40	GRADING PLAN
18	C41	WALL PROFILES
19	C50	DIMENSION CONTROL PLAN
20	C60	PAVING AND STRIPING PLAN
21	C70	GENERAL DETAILS
22	C71	EROSION AND STORM DETAILS
23	C72	UTILITY DETAILS
24	A1	ARCHITECTURAL DETAILS
25	LA0.00	LANDSCAPE NOTES
26	LA0.01	TREE SURVEY LIST & MITIGATION CHART
27	LA1.00	LANDSCAPE PLAN
28	LA5.01	LANDSCAPE NOTES & DETAILS

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN ACCEPTING THESE PLANS, THE CITY OF GEORGETOWN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

STATE OF TEXAS ★
COUNTY OF WILLIAMSON ★

I, TERRY R. HAGOOD, DO HEREBY CERTIFY THAT THE PUBLIC WORKS AND DRAINAGE IMPROVEMENTS DESCRIBED HEREIN HAVE BEEN DESIGNED IN COMPLIANCE WITH THE SUBDIVISION AND BUILDING REGULATION ORDINANCES AND STORM WATER DRAINAGE POLICY ADOPTED BY THE CITY OF GEORGETOWN, TEXAS.

STATE OF TEXAS · TERRY R. HAGOOD · 92960 · REGISTERED PROFESSIONAL ENGINEER

10/24/2023

ACCEPTED FOR CONSTRUCTION BY:

Planning and Development Services — Date
City of Georgetown, Texas

★ UTILITY PROVIDERS

1. WATER, WASTEWATER & ELEC: CITY OF GEORGETOWN, 300-1 INDUSTRIAL AVE, GEORGETOWN, TX 78626, (512)930-3640
2. GAS: ATMOS, BRAD CROSSWHITE, 3110 N. I-35, ROUND ROCK, TX 78681, (512)310-3800
3. FIRE: GEORGETOWN FIRE DEPARTMENT, JASON FRYER (FIRE MARSHAL), 3500 D B WOOD RD, GEORGETOWN, TX 78628, (512)930-8453

PROPOSED USE	RETAIL	
ZONING	C-3 - GENERAL COMMERCIAL	
AREA	40,144.45 S.F./0.92 AC.	
UTILITY PROVIDERS	WATER	COG
	WW	COG
	GAS	ATMOS
	ELEC	COG

SITE PLAN PERMIT NO.	____-__
RECORDED FINAL PLAT DOC. NO.	CABINET W, SLIDE 238
IMPERVIOUS COVER	
PUBLIC SIDEWALK, STREET, CURB AND GUTTER	6,325.45 SF
BUILDING FOOTPRINT	5,724 SF
PARKING, PRIVATE SIDEWALK	20,178.1 SF
TOTAL SF	32,227.55 SF
TOTAL I.C. %	66.76%
TOTAL AREA OF DISTURBANCE (LOC)	50,067.85 SF

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

OWNER
VELOCITY TIRE
12404 SH 29
LIBERTY HILL, TEXAS 78624
DEVIN ROBERSON
(432) 935-1014
DEVIN@VELOCITYTIREUSA.COM

SURVEYOR
ALL COUNTY SURVEYING
4330 S. 5TH STREET
TEMPLE, TEXAS 76502
CHARLES C. LUCKO, RPLS
(512) 688-5485
INFO@ALLCOUNTYSURVEYING.COM

ENGINEER
HAGOOD ENGINEERING ASSOCIATES, INC.
900 E. MAIN STREET
ROUND ROCK, TEXAS 78664
TERRY R. HAGOOD, P.E.
(512) 244-1546
TERRYH@HEAENG.COM

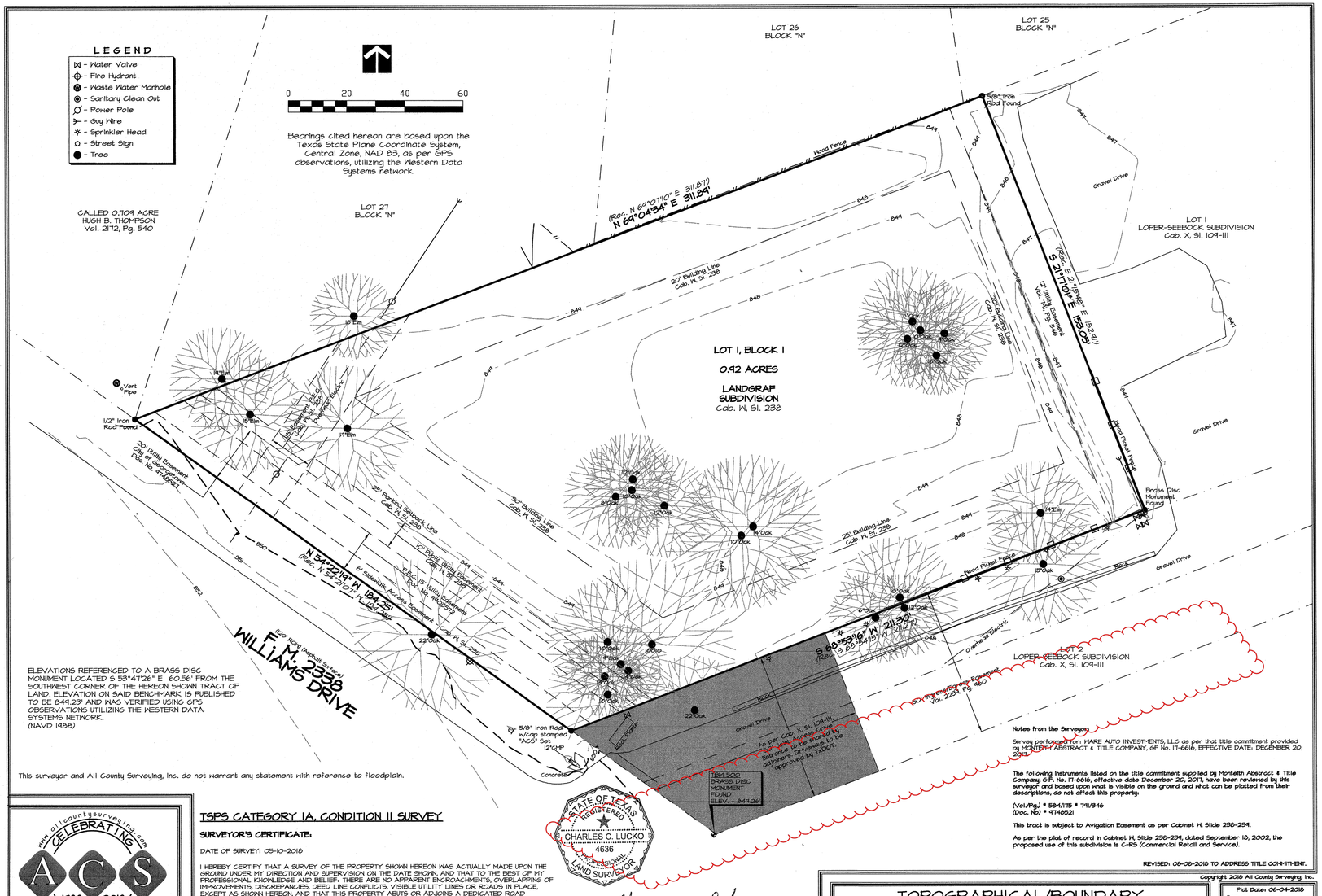
LANDSCAPE ARCHITECT
STUDIO 16:19
305 W. LIBERTY AVENUE
ROUND ROCK, TEXAS 78664
BRENT BAKER, PLA, ASLA
(512) 534-8680
BRENT@STUDIO1619.COM

REVISIONS

NO.	DATE	DESCRIPTION	APPROVED BY
1			
2			
3			
4			
5			

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.hea.eng.pro
TBPE Registration No. F-12709

JOB NO:	22-033
DRAWN BY:	TA
CHECKED BY:	TRH
P.I.C.:	TRH
FILE NO:	22-033 CVR
DATE:	10/24/2023
SHEET:	01 OF 28



ELEVATIONS REFERENCED TO A BRASS DISC MONUMENT LOCATED S 53°41'26" E 60.56' FROM THE SOUTHWEST CORNER OF THE HEREON SHOWN TRACT OF LAND. ELEVATION ON SAID BENCHMARK IS PUBLISHED TO BE 849.23' AND WAS VERIFIED USING GPS OBSERVATIONS UTILIZING THE WESTERN DATA SYSTEMS NETWORK. (NAVD 1988)

This surveyor and All County Surveying, Inc. do not warrant any statement with reference to floodplain.

Notes from the Surveyor:

Survey performed for: WARE AUTO INVESTMENTS, LLC as per that title commitment provided by MONTEITH ABSTRACT & TITLE COMPANY, GF No. 17-6616, EFFECTIVE DATE: DECEMBER 20, 2017.

The following instruments listed on the title commitment supplied by Monteith Abstract & Title Company, G.F. No. 17-6616, effective date December 20, 2017, have been reviewed by this surveyor and based upon what is visible on the ground and what can be platted from their descriptions, do not affect this property:

(Vol/Pg.) * 584/175 * 741/346
(Doc. No) * 9748521

This tract is subject to Avigation Easement as per Cabinet W, Slide 238-239.

As per the plat of record in Cabinet W, Slide 238-239, dated September 18, 2002, the proposed use of this subdivision is C-RS (Commercial Retail and Service).

REVISED: 08-08-2018 TO ADDRESS TITLE COMMITMENT.

www.allcountysurveying.com
CELEBRATING
ACS
1988 2018
30 YEARS
Tx. Firm No. 10023600
4330 South 5th Street
Temple, Texas 76502
254-778-2272 Killeen 254-634-4636
Fax 254-774-7606

TSPS CATEGORY 1A, CONDITION II SURVEY

SURVEYOR'S CERTIFICATE:

DATE OF SURVEY: 05-10-2018

I HEREBY CERTIFY THAT A SURVEY OF THE PROPERTY SHOWN HEREON WAS ACTUALLY MADE UPON THE GROUND UNDER MY DIRECTION AND SUPERVISION ON THE DATE SHOWN, AND THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF, THERE ARE NO APPARENT ENCROACHMENTS, OVERLAPPING OF IMPROVEMENTS, DISCREPANCIES, DEED LINE CONFLICTS, VISIBLE UTILITY LINES OR ROADS IN PLACE, EXCEPT AS SHOWN HEREON, AND THAT THIS PROPERTY ABUTS OR ADJOINS A DEDICATED ROAD RIGHT-OF-WAY OR ACCESS EASEMENT, UNLESS NOTED HEREON.

THIS SURVEY WAS MADE SUBSTANTIALLY IN ACCORDANCE WITH THE STANDARDS AND CONDITIONS SET FORTH FOR A CATEGORY 1A, CONDITION II, LAND TITLE SURVEY, BASED ON THE MANUAL OF PRACTICE FOR LAND SURVEYING IN TEXAS, 2006 REVISED ELEVENTH EDITION, PREPARED BY THE TEXAS SOCIETY OF PROFESSIONAL SURVEYORS.

Charles C Lucko 9.12.19

CHARLES C. LUCKO DATE
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF TEXAS NO. 4636

TOPOGRAPHICAL/BOUNDARY

Survey showing LOT ONE (1), in BLOCK ONE (1), of LANDGRAF SUBDIVISION, a subdivision in Williamson County, Texas, according to the plat of record in Cabinet W, Slide 238, Plat Records of Williamson County, Texas.

Plot Date:	06-04-2018
Survey completed	05-10-2018
Scale:	1" = 20'
Job No.	180445
Dwg No.	180445
Drawn by	SLM
Surveyor	CCL #4636

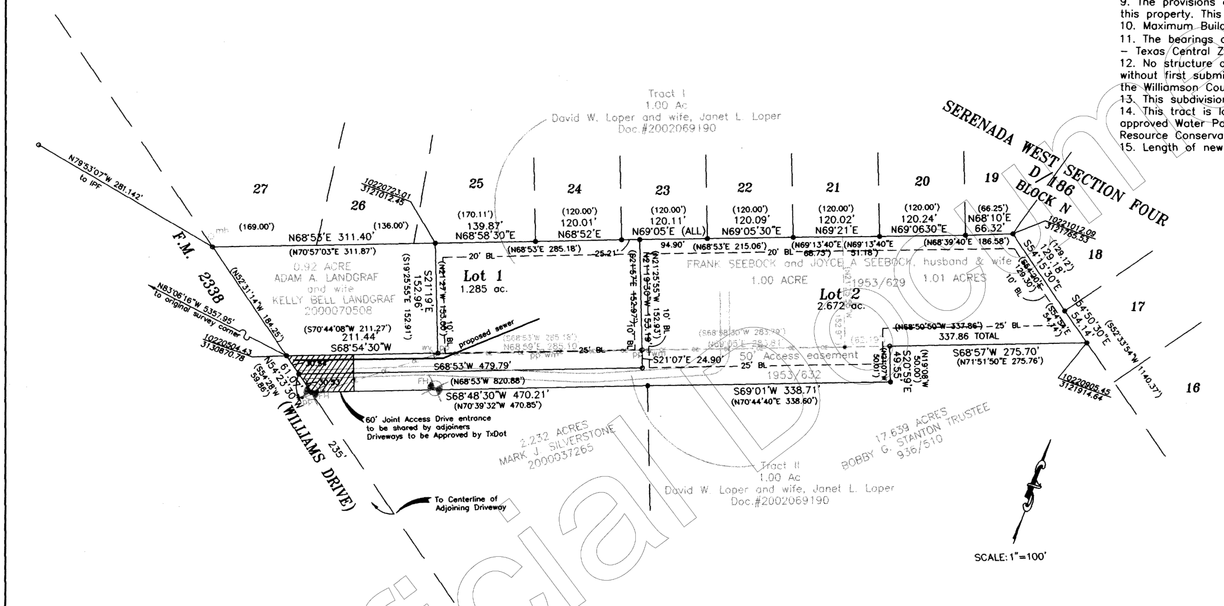
HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

SURVEY

SRV
02

THIS SHEET IS FOR REFERENCE ONLY

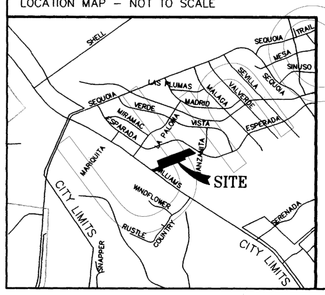
Cabinet X Slide 109 Document #2003024795



GENERAL NOTES:

1. Total Acres: 3.957
2. Number of lots: 2
3. Number of blocks: 1
4. Area of smallest lot: 1.285 ac.
5. Proposed use: Residential, Single Family Detached (R-SFD)
6. There are no areas within the boundaries of this subdivision in the 100-year Flood plain as defined by FIRM Map Number 48491C0230C, effective date of September 27, 1991.
7. Water,and electric service shall be provided by the City of Georgetown, ~~Both Lots shall utilize EXISTING Septic systems.~~
8. In order to promote drainage away from a structure, the slab elevation should be built at least one foot above the surrounding ground, and the ground should be graded away from the structure at a slope of 1/2" per foot for a distance of a least 10 feet.
9. The provisions of the Century Plan-Development Plan shall also govern this property. This property is designated Intensity Level 3.
10. Maximum Building cover: 30% Maximum Impervious cover: 40%
11. The bearings on this plat have been rotated to the NAD 83/93 HARN - Texas Central Zone and NAVD 88.
12. No structure or land on this plat shall hereafter be located or altered without first submitting a CERTIFICATE OF COMPLIANCE Application Form to the Williamson County Flood Plain Administrator.
13. This subdivision is located in the City of Georgetown's E.T.J.
14. This tract is located in the Edwards Aquifer Recharge Zone. An approved Water Pollution Abatement Plan is required by the Texas Natural Resource Conservation Commission prior to construction.
15. Length of new streets: None

LOCATION MAP - NOT TO SCALE



This property is subject to the following easements of record:

1. General Telephone Company of the Southwest, Vol. 584, Page 175
2. City of Georgetown , Vol. 841, Page 144
3. City of Georgetown, Document No. 9748522
4. GTE Southwest Incorporated, Vol. 2003, Page 912
5. Access Easements, Vol. 791, Page 346, Vol. 879, Page 359 Vol. 894, Page 295, Vol. 894, Page 298, and Vol. 936, Page 510
6. Magnolia-Lone Star, Inc., Document No. 9726082

OWNERS:
Dr. David W. Loper, D.C.
5352 Williams drive
Georgetown, Texas 78628
512-863-5343

Joyce Seebock
4221 Andice Rd.
Georgetown, Texas 78628
512-869-0583

Earl L. Watson
124 Elderberry Street
Georgetown, Texas 78628
512-864-3762

ENGINEER/SURVEYOR:
DON H. BIZZELL, P.E./R.P.L.S.
1978 S. Austin Ave.
Georgetown, TX 78626
(512)930-9412

LEGEND
● - IRON PIN FOUND
○ - IRON PIN SET
P.U.E. - PUBLIC UTILITY EASEMENT

PUBLIC REVIEW FINAL PLAT
LOPER-SEEBOCK SUBDIVISION

A 3.957 ACRE SUBDIVISION LOCATED IN THE
DAVID WRIGHT SURVEY, ABSTRACT No. 13
CITY OF GEORGETOWN, WILLIAMSON COUNTY, TEXAS

Steger & Bizzell Engineering, Inc.
Consulting Engineers Surveyors
1978 South Austin Avenue
Georgetown, Texas 78626
Telephone: (512)930-9412 Facsimile: (512)930-9416

DATE: SEPT., 2002 SHEET 1 of 3 JOB No.20078

ALPHA/20078 LOPER/PLAT.DWG

PHOTOGRAPHIC MYLAR

Cabinet X Slide 110

PERIMETER DESCRIPTION

BEING 3.957 acres of land, situated in the David Wright Survey, Abstract No. 13, Williamson County Texas, said land being that certain Tract I, called 1.00 acre, and Tract II, as conveyed to David W. Loper and wife, Janet L. Loper, by deed recorded as Document No. 2002069190 of the Official Records of Williamson County, Texas, and those certain tracts of land, called 1.00 acre and 1.01 acres, as conveyed to Frank Seebock and Joyce A. Seebock, husband and wife, of record in Volume 1953, Page 629, of the Official Records of Williamson County, Texas. Surveyed on the ground in the month of August, 2000, under the supervision of Don H. Bizzell, Registered Professional Land Surveyor, and being more particularly described as follows;

BEGINNING at an iron pin found on the Northeast line of Farm to Market Highway No. 2338 (Williams Drive), marking the Northwest corner of the Loper Tract II, being the Southwest corner of that certain tract of land, called 0.92 of an acre, as conveyed to Adam A. Landgraf and wife, Kelly Bell Landgraf, by deed recorded as Document No. 2000070508 of the Official Records of Williamson County, Texas, for the most westerly Northwest corner hereof;

THENCE, along the north line of the said Loper Tract II, N 68° 54' 30" E, 211.44 feet to a Brass Disc in concrete found marking the Southwest corner of the above-referenced Loper Tract I, being the Southeast corner of the said 0.92 of an acre Landgraf tract, for an interior corner hereof;

THENCE, N 21° 19' W, 152.96 feet to an iron pin found on the south line of Lot 25, Block N, Serenada West, Section Four, a subdivision of record in Cabinet D, Slide 186, of the Plat Records of Williamson County, Texas, marking the Northwest corner of the said Loper Tract I, being the Northeast corner of the said 0.92 of an acre Landgraf tract, for the most northerly Northwest corner hereof;

THENCE, along the north line of the said Loper Tract I, being a southerly line of the said Serenada West, Section Four, N 68° 58' 30" E, 139.87 feet to an iron pin found; N 68° 52' E, 120.01 feet to an iron pin found; N 69° 05' E, at 25.21 feet pass an iron pin set for the Northeast corner of the said Loper Tract I, being the Northwest corner of the above-referenced 1.00 acre Seebock tract, continuing along the north line of the said 1.00 acre Seebock tract, for a total distance of 120.11 feet, in all, to an iron pin found; N 69° 05' 30" E, 120.09 feet to an iron pin found; N 69° 21' E, at 68.73 feet, more or less, pass the Northeast corner of the said 1.00 acre Seebock tract, being the Northwest corner of above-referenced 1.01 acre Seebock tract, and continuing along the north line of the said 1.01 acre Seebock tract, for a total distance of 120.02 feet, in all, to an iron pin found; N 69° 06' 30" E, 120.24 feet to an iron pin found; and N 68° 10' E, 66.32 feet to an iron pin found marking the Northeast corner of the said 1.01 acre Seebock tract, being an interior corner of the said Serenada West, Section Four, for the Northeast corner hereof;

THENCE, along the east line of the said 1.01 acre Seebock tract, being a westerly line of the said Serenada West, Section Four, S 54° 15' 30" E, 129.18 feet to an iron pin found and S 54° 50' 30" E, 54.14 feet to an iron pin found marking the Southeast corner of the said 1.01 acre Seebock tract, being the Northeast corner of that certain tract of land, called 17.639 acres, as conveyed to Bobby G. Stanton, Trustee, by deed as recorded in Volume 936, Page 510, of the Deed Records of Williamson County, Texas, for the most easterly Southeast corner hereof;

THENCE, along the line of the said 1.01 acre Seebock tract, S 68° 57' W, 275.70 feet to an iron pin set for the Northeast corner of the said Loper Tract II, being the most northerly Northwest corner of the said 17.639 acre Stanton tract, for an interior corner hereof;

THENCE, S 20° 59' E, 49.55 feet to an iron pin found marking the Southeast corner of the said Loper Tract II, being an interior corner of the said 17.639 acre Stanton tract, for the most southerly Southeast corner hereof;

THENCE, along the south line of the said Loper Tract II, S 69° 01' W, 338.71 feet to an iron pin found marking the most westerly Northwest corner of the said 17.639 acre Stanton tract, being the Northeast corner of that certain tract of land, called 2.232 acres, as conveyed to Mark J. Silverstone by deed recorded as Document No. 2000037265 of the Official Records of Williamson County, Texas, and S 68° 48' 30" W, 470.21 feet to an iron pin set on the said Northeast line of F.M. Highway No. 2338, for the Northwest corner of the said 2.232 acre Silverstone tract, being the Southwest corner of the said Loper Tract II, for the Southwest corner hereof;

THENCE, along the said Northeast line of F.M. Highway No. 2338, N 54° 23' 30" W, 61.07 feet to the Place of BEGINNING and containing 3.957 acres of land.

STATE OF TEXAS | KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON |

I, Don H. Bizzell, Registered Professional Land Surveyor, in the State of Texas, do hereby certify that this plat is true and correctly made from an actual survey on the ground of the property legally described hereon, and that there are no apparent discrepancies, conflicts, overlapping of improvements, visible utility lines or roads in place, except as shown on the accompanying plat, and that the corner monuments shown thereon were properly placed under my supervision in accordance with the Subdivision Regulations of the City of Georgetown, Texas, and that the perimeter field notes hereon have a mathematical closure in compliance with standards as set out in the "Manual of Practice" of the Texas Society of Professional Surveyors, to the best of my knowledge and belief.

TO CERTIFY WHICH, WITNESS my hand and seal at Georgetown, Williamson County, Texas, this the 8th day of January, 2003 A. D.

Don H. Bizzell
Registered Professional Land Surveyor, No. 2218
State of Texas

STATE OF TEXAS
DON H. BIZZELL
2218
REGISTERED PROFESSIONAL LAND SURVEYOR

STATE OF TEXAS | KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON |

I, Don H. Bizzell, Registered Professional Engineer, in the State of Texas, do hereby certify that this subdivision is in the Edwards Aquifer Recharge Zone and is not encroached by a Zone A flood area, as denoted hereon, and as defined by Federal Emergency Management Administration Flood Hazard Boundary Map, Community-Panel Number 48491C0230C, effective date September 27, 1991 and that each lot conforms to the Georgetown Subdivision Regulations.

TO CERTIFY WHICH, WITNESS my hand and seal at Georgetown, Williamson County, Texas, this the 8th day of January, 2003, A.D.

Don H. Bizzell
Professional Engineer, No. 28782
State of Texas

STATE OF TEXAS
DON H. BIZZELL
28782
LICENSED PROFESSIONAL ENGINEER

Based upon the above representations of the engineer or surveyor whose seal is affixed hereto, and after a review of the plat as represented by the said engineer or surveyor, I find that this plat complies with the requirements of Edwards Aquifer Regulations for Williamson County, the Williamson County Flood Plain Regulations and Williamson County On-Site Sewerage Facility Regulations. This certification is made solely upon such representations and should not be relied upon for verification of the facts alleged. The Williamson County & Cities Health District and Williamson County disclaims any responsibility to any member of the public for independent verification of the representation, factual or otherwise, contained in this plat and the documents associated with it.

Paulo Pinto
Director of Environmental Services
1/31/03
Date

Road name and address assignment verified this the 6th day of January, 2003

Emily Soluke
Williamson County Address Coordinator

STATE OF TEXAS §
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON §

I, Nancy Rister, Clerk of the County Court of said County, do hereby certify that the foregoing instrument in writing, with its certificate of authentication was filed for record in my office on the day of March 17th, 2003 A.D., at 3:45 o'clock, P. M., and duly recorded this the 20th day of March, 2003 A.D., at 10:37 o'clock, A. M., in the Plat Records of said County in Cabinet X, Slide 109 and 111

TO CERTIFY WHICH, WITNESS my hand and seal of the County Court of said County, at my office in Georgetown, Texas, the date last shown above written.

Nancy Rister, Clerk County Court
of Williamson County, Texas
By: Cindy Hodges Deputy

COUNTY COURT
OF WILLIAMSON COUNTY, TEXAS

STATE OF TEXAS §
KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON §

In approving this plat by the Commissioners' Court of Williamson County, Texas, it is understood that the building of all street, roads, and other public thoroughfares and any bridges or culverts necessary to be constructed or placed is the responsibility of the owners of the tract of land covered by this plat in accordance with the plans and specifications prescribed by the Commissioners' Court of Williamson County, Texas. Said Commissioners' Court assumes no obligation to build any of the streets, roads, or other public thoroughfares shown on this plat or of construction of any of the bridges or drainage improvements in connection therewith. The County will assume no responsibility for drainage ways or easements in the subdivision, other than those draining or protecting the road systems and streets.

The County assumes no responsibility for the accuracy of representations by other parties in this plat. Flood plain data, in particular, may change depending on subsequent development. It is further understood that the owners of the tract of land covered by this plat must install at their own expense all traffic control devices and signage that may be required before the streets in the subdivision have finally been accepted for maintenance.

I, John C. Doerfler, County Judge of Williamson County, Texas, do hereby certify that this ~~map~~ or plat, with field notes hereon, that a subdivision having been fully presented to the Commissioners' Court of Williamson County, Texas, and by the said Court duly considered, were on this day approved and plat is authorized to be registered and recorded in the proper records of the County Clerk of Williamson County, Texas.

John C. Doerfler, County Judge
Williamson County, Texas
3-19-03
Date

2-11-03

The subdivision, known as LOPER-SEEBOCK has been approved for filing for record according to the minutes of the meeting of the Georgetown City Council on the 25th day of January, 2003 A.D.

Attest:
Gary Nelon, Mayor
City of Georgetown, Texas

Sandra Lee, City Secretary
City of Georgetown, Texas

I, Paul E. Brandenburg, City Manager of the City of Georgetown, Texas, hereby certify that this subdivision plat conforms to all requirements of the Subdivision Regulations as to which approval is required.

Date: 3-7-03

Paul E. Brandenburg, City Manager
City of Georgetown, Texas

Accepted and authorized for record by the City Planning and Zoning Commission of the City of Georgetown, Texas.

Date: 3/4/03
Christopher Pedersen, Chair
City of Georgetown, Texas

Date: 3/18/03
Amelia Sondgeroth, Secretary

Road name and address assignment verified this the 14th day of FEB., 2003.

Clay Sloan, Authorized Address Coordinator
City of Georgetown, Texas

Based upon the above representations of the engineer or surveyor whose seal is affixed hereto, and after a review of the plat as represented by the said engineer or surveyor, I find that this plat complies with the requirements of Chapter 15.44, Flood Damage Prevention, of the Georgetown Municipal Code. This certification is made solely upon such representations and should not be relied upon for verifications of the facts alleged. The City of Georgetown disclaims any responsibility to any member of the public for independent verifications of the representation, factual or otherwise, contained in this plat and the documents associated with it.

Date: 3/18/03
David T. Hall
Building Official

STATE OF TEXAS | KNOW ALL MEN BY THESE PRESENTS
COUNTY OF WILLIAMSON |

I, Nancy Rister, Clerk of the County Court of said County, do hereby certify that the foregoing instrument in writing, with its certificate of authentication was filed for record in my office on the 14th day of March, 2003 A.D., at 3:45 o'clock P. M., and duly recorded this the 20th day of March, 2003 A.D., at 10:37 o'clock A. M., in the Plat Records of said County in Cabinet X, Slide 109, 110 and 111

TO CERTIFY WHICH, WITNESS my hand and seal of the County Court of said County, at my office in Georgetown, Texas, the date last shown above written.

Nancy Rister, Clerk County Court
of Williamson County, Texas
By: Cindy Hodges Deputy

COUNTY COURT
OF WILLIAMSON COUNTY, TEXAS

PUBLIC REVIEW FINAL PLAT
LOPER-SEEBOCK SUBDIVISION

A 3.957 ACRE SUBDIVISION LOCATED IN THE
DAVID WRIGHT SURVEY, ABSTRACT No. 13
CITY OF GEORGETOWN, WILLIAMSON COUNTY, TEXAS

Steger & Bizzell Engineering, Inc.
Consulting Engineers Surveyors
1978 South Austin Avenue
Georgetown, Texas 78626
Telephone: (512)930-9412 Facsimile: (512)930-9416

DATE: SEPT., 2002 SHEET 2 of 3 JOB No.20078

ALPHA/20078 LOPER/PLAT.DWG

PHOTOGRAPHIC MYLAR

Cabinet X Slide 111

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

That I, Dr. David W. Loper D.C., co-owner of the certain tract of land shown hereon and described in a deed recorded in Document No. 2002069190, of the Official Records of Williamson County, Texas, do hereby amend said Lots as shown hereon, and do hereby consent to all plat note requirements shown hereon, and do hereby dedicate to the City of Georgetown the streets, alleys, rights-of-way, easements, and public places shown hereon for such public purposes as the City of Georgetown may deem appropriate. This subdivision is to be known as Loper-Seebock Subdivision. It is the responsibility of the owner, not the County, to assure compliance with the provisions of all applicable state, federal, and local laws and regulations relating to the environment, including (but not limited to) the Endangered Species Act, state Aquifer Regulations, and municipal watershed Ordances.

TO CERTIFY WHICH, WITNESS by my hand this 4th day of February 200 3

David W. Loper DC
Dr. David W. Loper, D.C.
5352 Williams Drive
Georgetown, TX 78628

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

Before me, the undersigned authority, on this day personally appeared Dr. David W. Loper, D.C., known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that they executed the same for the purposes and consideration therein expressed, in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL of office this the 4 day of February 200 3 A.D.

Notary Public in and for the State of Texas

P.J. STEVENS
Notary Public
State of Texas
My Commission Expires:
NOVEMBER 06, 2006

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

That I, Janet L. Loper, co-owner of the certain tract of land shown hereon and described in a deed recorded in Document No. 2002069190, of the Official Records of Williamson County, Texas, do hereby amend said Lots as shown hereon, and do hereby consent to all plat note requirements shown hereon, and do hereby dedicate to the City of Georgetown the streets, alleys, rights-of-way, easements, and public places shown hereon for such public purposes as the City of Georgetown may deem appropriate. This subdivision is to be known as Loper-Seebock Subdivision. It is the responsibility of the owner, not the County, to assure compliance with the provisions of all applicable state, federal, and local laws and regulations relating to the environment, including (but not limited to) the Endangered Species Act, state Aquifer Regulations, and municipal watershed Ordances.

TO CERTIFY WHICH, WITNESS by my hand this 3 day of February 200 3

Janet L. Loper
Janet L. Loper
5352 Williams Drive
Georgetown, TX 78628

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

Before me, the undersigned authority, on this day personally appeared Janet L. Loper known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that they executed the same for the purposes and consideration therein expressed, in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL of office this the 3 day of February 200 3 A.D.

Notary Public in and for the State of Texas

P.J. STEVENS
Notary Public
State of Texas
My Commission Expires:
NOVEMBER 06, 2006

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

That I, Earl L. Watson, co-trustee of the Earl L. Watson and Myrtle L. Watson revocable living trust, the lein Holder of the certain tract od land shown hereon and described in a deed recorded in Document No. 2002069190, of the Official Records of Williamson County, Texas, do hereby consent to the amendment of said Lots as shown hereon, do further hereby join, approve, and consent to all plat note requirements shown hereon, and to the dedication to the City of Georgetown the streets, alleys, rights-of-way, easements, and public places shown hereon for such public purposes as the City of Georgetown may deem appropriate. This subdivision is to be known as Loper-Seebock Subdivision.
It is the responsibility of the owner, not the County, to assure compliance with the provisions of all applicable state, federal, and local laws and regulations relating to the environment, including (but not limited to) the Endangered Species Act, state Aquifer Regulations, and municipal watershed Ordances.

TO CERTIFY WHICH, WITNESS by my hand this 31 day of January 200 3

Earl L. Watson
Earl L. Watson
124 Elderberry Street
Georgetown, TX 78628

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

Before me, the undersigned authority, on this day personally appeared Earl L. Watson, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that they executed the same for the purposes and consideration therein expressed, in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL of office this the 31 day of January 200 3 A.D.

Notary Public in and for the State of Texas

P.J. STEVENS
Notary Public
State of Texas
My Commission Expires:
NOVEMBER 06, 2006

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

That I, Myrtle L. Watson, co-trustee of the Earl L. Watson and Myrtle L. Watson revocable living trust, the lein Holder of the certain tract od land shown hereon and described in a deed recorded in Document No. 2002069190, of the Official Records of Williamson County, Texas, do hereby consent to the amendment of said Lots as shown hereon, do further hereby join, approve, and consent to all plat note requirements shown hereon, and to the dedication to the City of Georgetown the streets, alleys, rights-of-way, easements, and public places shown hereon for such public purposes as the City of Georgetown may deem appropriate. This subdivision is to be known as Loper-Seebock Subdivision.
It is the responsibility of the owner, not the County, to assure compliance with the provisions of all applicable state, federal, and local laws and regulations relating to the environment, including (but not limited to) the Endangered Species Act, state Aquifer Regulations, and municipal watershed Ordances.

TO CERTIFY WHICH, WITNESS by my hand this 31 day of January 200 3

Myrtle L. Watson
Myrtle L. Watson
124 Elderberry Street
Georgetown, TX 78628

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

Before me, the undersigned authority, on this day personally appeared Myrtle L. Watson, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that they executed the same for the purposes and consideration therein expressed, in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL of office this the 31 day of January 200 3 A.D.

Notary Public in and for the State of Texas

P.J. STEVENS
Notary Public
State of Texas
My Commission Expires:
NOVEMBER 06, 2006

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

That I, Joyce Seebock, owner of the certain tract of land shown hereon and described in a deed recorded in Volume 1953, Page 629, of the Deed Records of Williamson County, Texas, do hereby state that there are no lien holders of the certain tract of land, and do hereby amend said lot as shown hereon, and do hereby consent to all plat note requirements shown hereon, and do hereby dedicate to the City of Georgetown the streets, alleys, rights-of-way, easements, and public places shown hereon for such public purposes as the City of Georgetown may deem appropriate. This subdivision is to be known as Loper-Seebock Subdivision. It is the responsibility of the owner, not the County, to assure compliance with the provisions of all applicable state, federal, and local laws and regulations relating to the environment, including (but not limited to) the Endangered Species Act, state Aquifer Regulations, and municipal watershed Ordances.

TO CERTIFY WHICH, WITNESS by my hand this 31st day of January 200 3

Joyce Seebock
Joyce Seebock
4221 Williams Drive
Georgetown, TX 78628

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

Before me, the undersigned authority, on this day personally appeared Joyce Seebock, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that they executed the same for the purposes and consideration therein expressed, in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL of office this the 31 day of January 200 3 A.D.

Notary Public in and for the State of Texas

P.J. STEVENS
Notary Public
State of Texas
My Commission Expires:
NOVEMBER 06, 2006

PUBLIC REVIEW FINAL PLAT
LOPER-SEEBOCK SUBDIVISION

A 3.957 ACRE SUBDIVISION LOCATED IN THE
DAVID WRIGHT SURVEY, ABSTRACT No. 13
CITY OF GEORGETOWN, WILLIAMSON COUNTY, TEXAS

Steger & Bizzell Engineering, Inc.
Consulting Engineers Surveyors
1978 South Austin Avenue
Georgetown, Texas 78626
Telephone: (512)930-9412 Facsimile: (512)930-9416

DATE: SEPT., 2002 SHEET 3 of 3 JOB No.20078

ALPHA/20078 LOPER/PLAT.DWG

ALPHA/20078 LOPER/PLAT.DWG

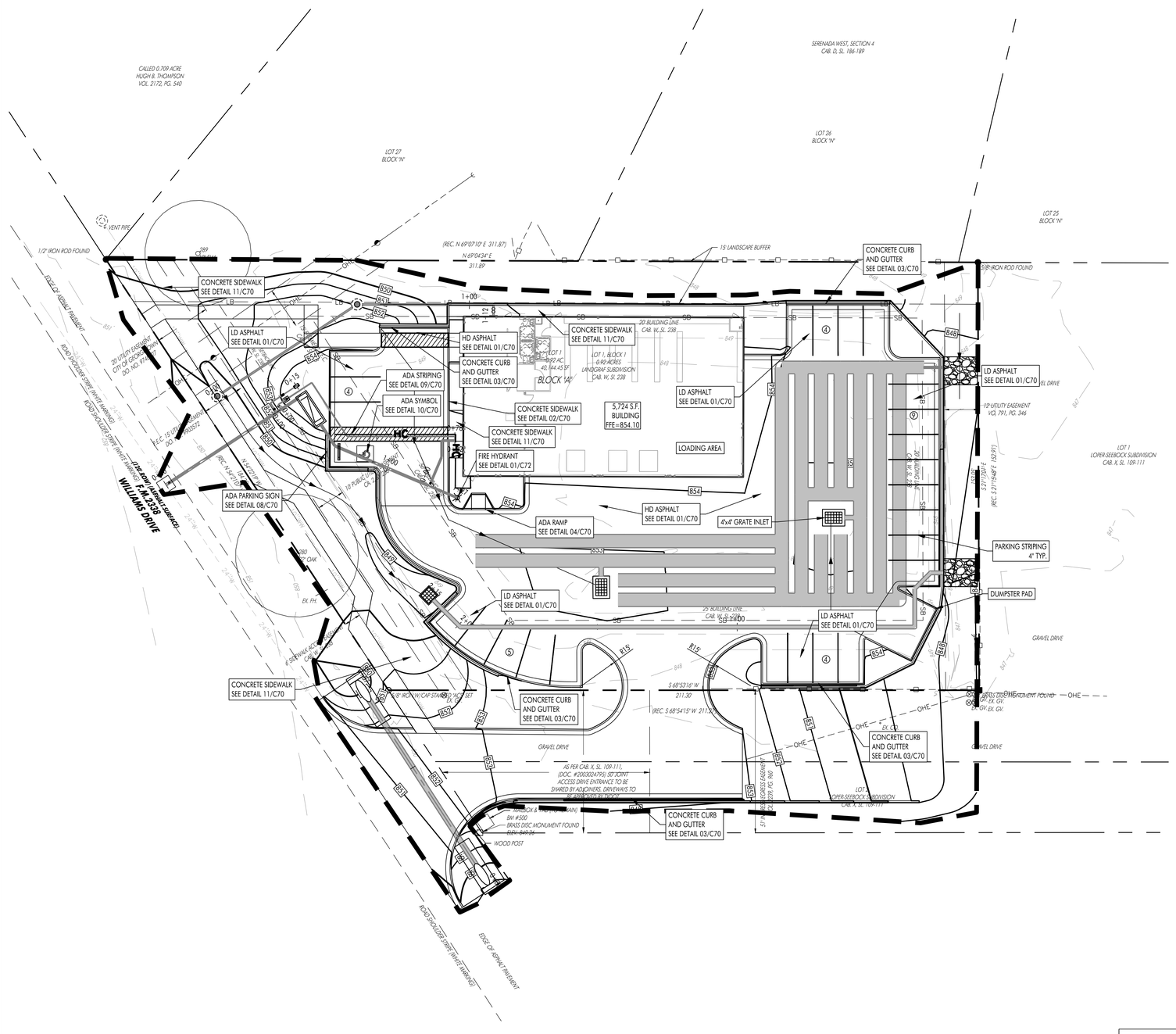
PHOTOGRAPHIC MYLAR

HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

PLAT

PLAT
04

THIS SHEET IS FOR REFERENCE ONLY



TREE SURVEY

TREE NUMBER	CALIPERS	TOTAL CALIPERS	SPECIES
263	9"	0.00"	OAK
264	16"	0.00"	OAK
265	10"	0.00"	OAK
266	11"	0.00"	OAK
267	12"	0.00"	OAK
268	14"	0.00"	OAK
270	10"	0.00"	OAK
271	12"	0.00"	OAK
272	6"	0.00"	OAK
273	14"	0.00"	OAK
274	10"	0.00"	OAK
275	12"	0.00"	OAK
276	10"	0.00"	OAK
277	12"	0.00"	OAK
278	8"	0.00"	OAK
279	22"	0.00"	OAK
281	10"	0.00"	OAK
282	9"	0.00"	OAK
283	4"	0.00"	OAK
284	13"	0.00"	OAK
285	10"	0.00"	OAK
286	22"	0.00"	OAK
287	17	0.00"	ELM
288	15"	0.00"	ELM
290	16"	0.00"	ELM

TREE SURVEY

TREE NUMBER	CALIPERS	TOTAL CALIPERS	SPECIES
269	15"	0.00"	OAK
280	22"	0.00"	OAK
289	19"	0.00"	ELM

SITE SQ.FT. / ACREAGE	40,144.45 SF	0.921590 AC.
IMPERVIOUS COVER TOTAL SF / ACRE / %	26,799.74 SF / 0.62 ACRES / 66.76 %	
MAXIMUM ALLOWABLE	40.00%	
BUILDING FOOTPRINT	5,724.00 SF	
PARKING (SEC. 9.02.030 OF THE UDC)	TOTAL AVAILABLE	27
ZONING: C-3 - GENERAL COMMERCIAL	TOTAL REQ.	23
	ADA REQ.	1
	ADA AVAILABLE	1

0 20 40
SCALE:1"=20'

LEGEND

● ○ IRON ROD FOUND/SET
■ □ CONCRETE MONUMENT FOUND/SET
▲ △ NAIL FOUND/SET
PIPE FOUND
STORMWATER MANHOLE (DRAWN TO SCALE)
JUNCTION BOX (DRAWN TO SCALE)
GRATE INLET (DRAWN TO SCALE)
WASTEWATER MANHOLE (DRAWN TO SCALE)
EX. CO WASTEWATER CLEANOUT
GAS TEST STATION
G GAS METER
E ELECTRIC METER
LIGHT POLE
SIGNAL LIGHT POLE
UTILITY POLE
T TELEPHONE MANHOLE
EX. FH FIRE HYDRANT
EX. WV GATE VALVE
EX. ICV IRRIGATION CONTROL VALVE
WATER METER
100 99 EXISTING CONTOURS
100 PROPOSED CONTOUR
PROPOSED CURB AND GUTTER
PROPOSED ASPHALT
X" GAS LINE PROPOSED X" DIA. GAS LINE
X" STORM SEWER LINE PROPOSED X" DIA. STORM SEWER LINE
X" WASTEWATER LINE PROPOSED X" DIA. WASTEWATER LINE
X" WATER LINE PROPOSED X" DIA. WATER LINE
EXISTING CHAIN LINK FENCE
EXISTING WIRE FENCE
EXISTING WOOD FENCE
SB SETBACK LINE
EASEMENT LINE
EXISTING ASPHALT
OHE EXISTING OVERHEAD ELECTRIC LINE
UGE EXISTING UNDERGROUND ELECTRIC LINE
OHT EXISTING OVERHEAD TELEPHONE LINE
UGT EXISTING UNDERGROUND TELEPHONE LINE
W EXISTING WATER LINE (SIZE VARIES)
WW EXISTING WASTEWATER LINE (SIZE VARIES)
FM EXISTING FORCE MAIN (SIZE VARIES)
FOC EXISTING FIBER OPTIC LINE
GAS EXISTING GAS LINE (SIZE VARIES)
BENCHMARK LOCATION
EXISTING TREE TO REMAIN (SIZE VARIES)
EXISTING TREE TO BE REMOVED (SIZE VARIES)
MONARCH/HERITAGE TREE (SIZE VARIES)
7 PARKING COUNT
PARCEL LINES
HANDICAP ACCESS LINES
CONCRETE PAVING
ASPHALT PAVING
CONCRETE SIDEWALK
CONCRETE WASHOUT
STABILIZED CONSTRUCTION ENTRANCE
SF SILT FENCE
RB ROCK BERM
IP INLET PROTECTION
TP TREE PROTECTION
MS MULCH SOCK
LIMITS OF CONSTRUCTION

NOTES:

1. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A SUBSURFACE UTILITY INVESTIGATION. CONTRACTOR TO VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CARRY CONTINGENCY FOR UNFORESEEN CONDITIONS ARISING DUE TO EXISTING UTILITIES.

HAGOOD
ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

TERRY R. HAGOOD
52960

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960
THIS DRAWING MAY NOT BE MODIFIED WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ENGINEER, AND THEN ONLY IN ACCORDANCE WITH THE RULES OF THE TEXAS ENGINEERING PRACTICE ACT.

JOB NO. 22-033 © 2023 HEA, Inc.
DATE SIGNED: 10/24/2023
ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN
4229 WILLIAMS DRIVE
GEORGETOWN, TX 78628

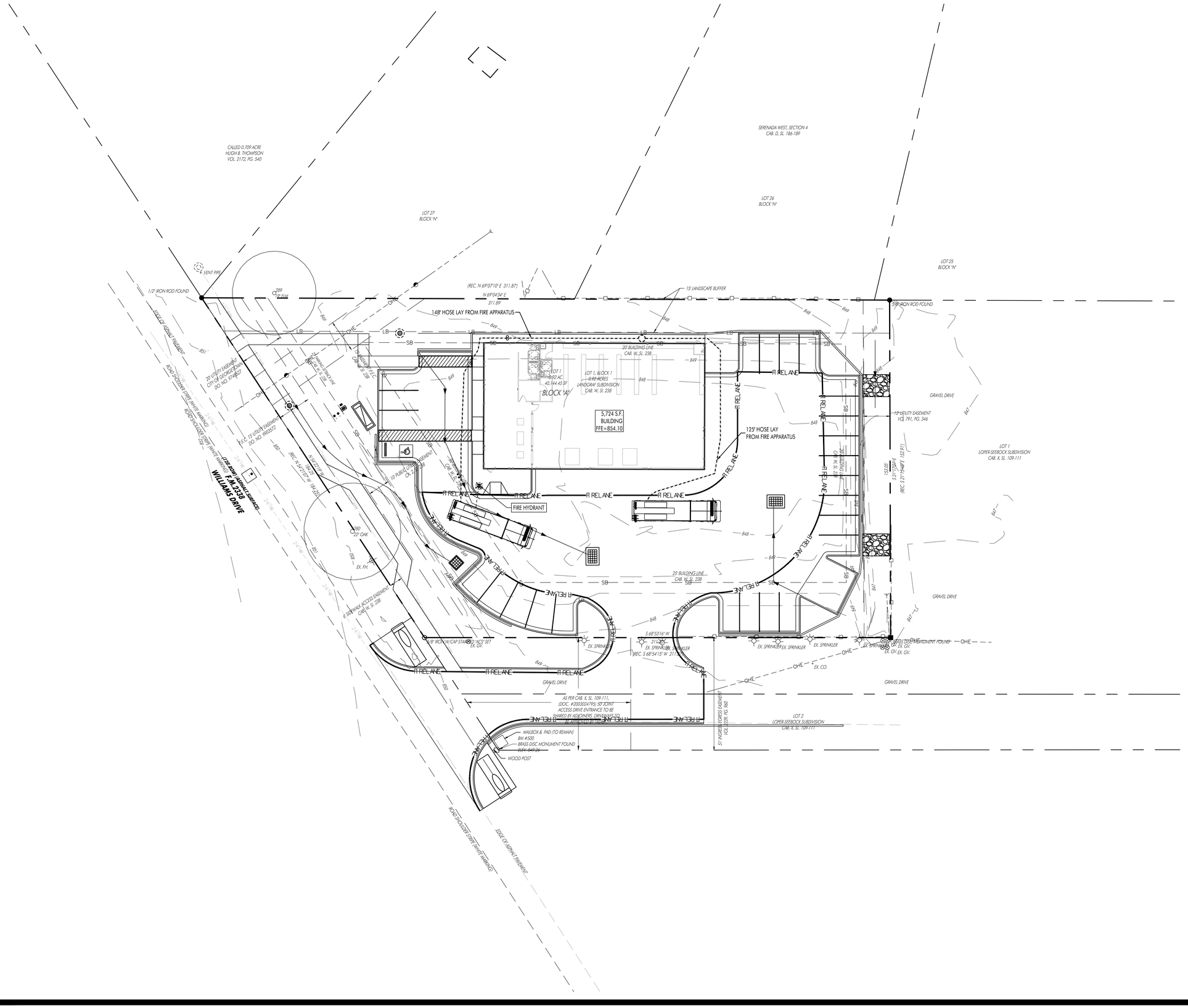
REVISIONS

NO.	DATE	DESCRIPTION

HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

SITE PLAN

SHEET NO.
SP
05
____-___



0 20 40
SCALE:1"=20'

LEGEND

IRON ROD FOUND/SET
CONCRETE MONUMENT FOUND/SET
NAIL FOUND/SET
PIPE FOUND
STORMWATER MANHOLE (DRAWN TO SCALE)
JUNCTION BOX (DRAWN TO SCALE)
GRATE INLET (DRAWN TO SCALE)
WASTEWATER MANHOLE (DRAWN TO SCALE)
EX. CO — WASTEWATER CLEANOUT
GAS TEST STATION
GAS METER
ELECTRIC METER
LIGHT POLE
SIGNAL LIGHT POLE
UTILITY POLE
TELEPHONE MANHOLE
EX. FH — FIRE HYDRANT
EX. WV — GATE VALVE
EX. ICV — IRRIGATION CONTROL VALVE
WATER METER
100 / 99 — EXISTING CONTOURS
100 — PROPOSED CONTOUR
PROPOSED CURB AND GUTTER
PROPOSED ASPHALT
X" GAS LINE — PROPOSED X" DIA. GAS LINE
X" STORM SEWER LINE — PROPOSED X" DIA. STORM SEWER LINE
X" WASTEWATER LINE — PROPOSED X" DIA. WASTEWATER LINE
X" WATER LINE — PROPOSED X" DIA. WATER LINE
EXISTING CHAIN LINK FENCE
EXISTING WIRE FENCE
EXISTING WOOD FENCE
SB — SETBACK LINE
EASEMENT LINE
EXISTING ASPHALT
OHE — EXISTING OVERHEAD ELECTRIC LINE
UGE — EXISTING UNDERGROUND ELECTRIC LINE
OHT — EXISTING OVERHEAD TELEPHONE LINE
UGT — EXISTING UNDERGROUND TELEPHONE LINE
W — EXISTING WATER LINE (SIZE VARIES)
WW — EXISTING WASTEWATER LINE (SIZE VARIES)
FM — EXISTING FORCE MAIN (SIZE VARIES)
FOC — EXISTING FIBER OPTIC LINE
GAS — EXISTING GAS LINE (SIZE VARIES)
BENCHMARK LOCATION
EXISTING TREE TO REMAIN (SIZE VARIES)
EXISTING TREE TO BE REMOVED (SIZE VARIES)
MONARCH/HERITAGE TREE (SIZE VARIES)
7 — PARKING COUNT
PARCEL LINES
HANDICAP ACCESS LINES
CONCRETE PAVING
ASPHALT PAVING
CONCRETE SIDEWALK
CONCRETE WASHOUT
STABILIZED CONSTRUCTION ENTRANCE
SF — SILT FENCE
RB — ROCK BERM
IP — INLET PROTECTION
TP — TREE PROTECTION
MS — MULCH SOCK
LIMITS OF CONSTRUCTION

HAGOOD ENGINEERING ASSOCIATES

900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
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TERRY R. HAGOOD
52960

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JOB NO. 22-033 © 2023 HEA, Inc.
DATE SIGNED: 10/24/2023
ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN
4229 WILLIAMS DRIVE
GEORGETOWN, TX 78628

REVISIONS

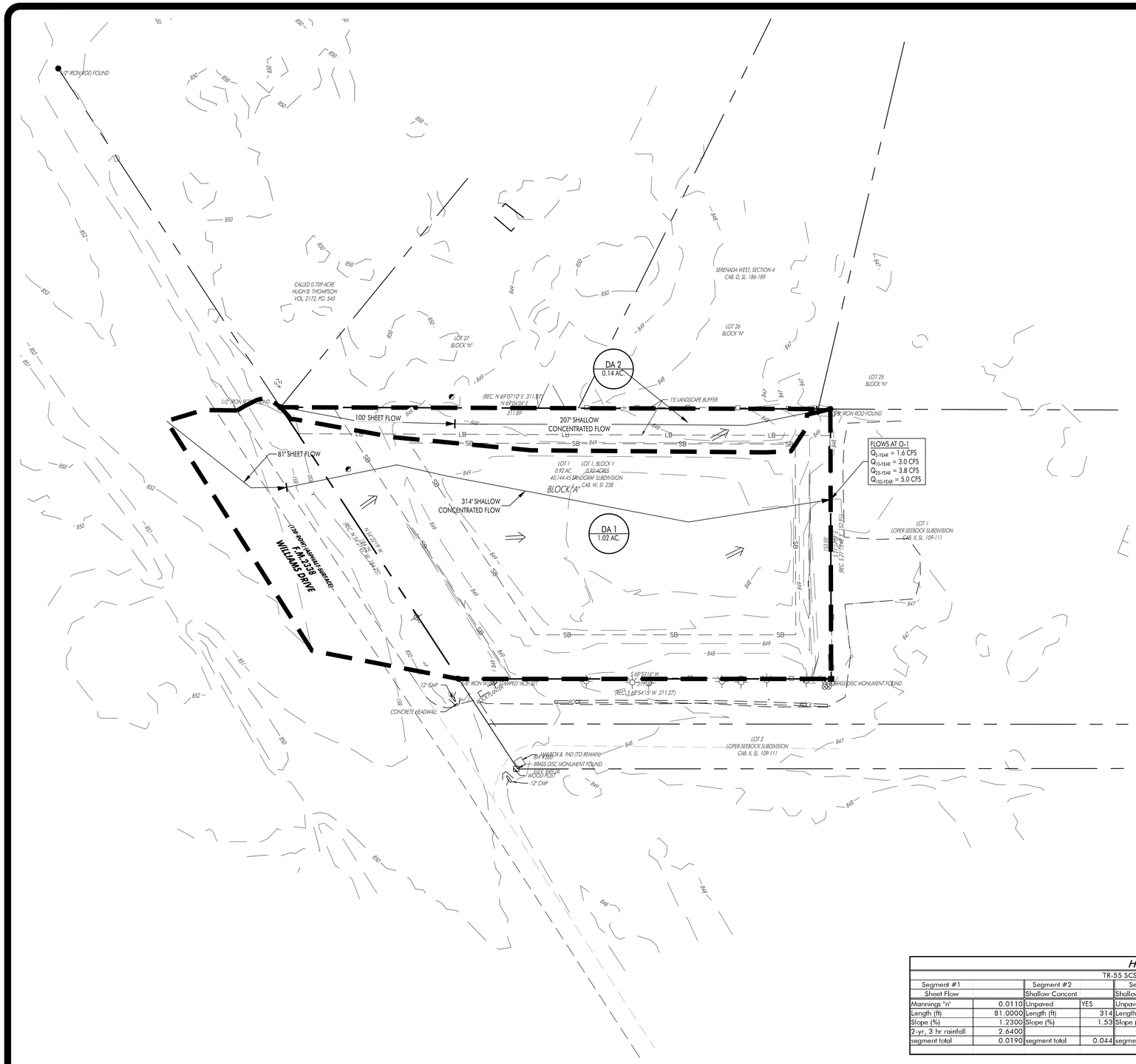
NO.	DATE	DESCRIPTION

HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

FIRE PROTECTION PLAN

SHEET NO.
FPP
06
____-___

Oct 24,2023-9:16am Z:\HEA\HEA Projects\Projects 22-000\22-033 Velocity Tire - Georgetown\CAD Files\Civil\SD\22-033 FPP.dwg



0 30 60
SCALE: 1" = 30'

HEC-HMS HYDROLOGIC ROUTING SUMMARY for DA 1

TR-55 SCS Lag Time (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.0110	Unpaved	YES	Unpaved		Mannings "n"	0.013	Mannings "n"	0.013	1.020	0.063	72	1.6	3	3.8	N/A	5
Length (ft)	81.0000	Length (ft)	314	Length (ft)	0	Length (ft)	0	Length (ft)	0	*Impervious Cvr =*		54.9%					
Slope (%)	1.2300	Slope (%)	1.53	Slope (%)	0.00	Slope (%)	0.00	Slope (%)	0.00								
2-yr, 3 hr rainfall	2.6400					Velocity (fps)	0	Velocity (fps)	0								
segment total	0.0190	segment total	0.044	segment total		segment total	0	segment total	0								
						time of conc.(hrs)		*0.063*		*SCS Lag Time (.6 x Tc)=*		0.0378 hours			2.3 minutes		

HEC-HMS HYDROLOGIC ROUTING SUMMARY for DA 2

TR-55 SCS Lag Time (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.1300	Unpaved	YES	Unpaved		Mannings "n"	0.013	Mannings "n"	0.013	0.140	0.228	72	0.1	0.3	0.4	N/A	0.5
Length (ft)	100.0000	Length (ft)	207	Length (ft)	0	Length (ft)	0	Length (ft)	0	*Impervious Cvr =*		54.9%					
Slope (%)	0.7500	Slope (%)	1.03	Slope (%)	0.00	Slope (%)	0.00	Slope (%)	0.00								
2-yr, 3 hr rainfall	2.6400					Velocity (fps)	0	Velocity (fps)	0								
segment total	0.1930	segment total	0.035	segment total		segment total	0	segment total	0								
						time of conc.(hrs)		*0.228*		*SCS Lag Time (.6 x Tc)=*		0.1368 hours			8.2 minutes		

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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960

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DATE SIGNED: 10/24/2023
ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN 4229 WILLIAMS DRIVE GEORGETOWN, TX 78628

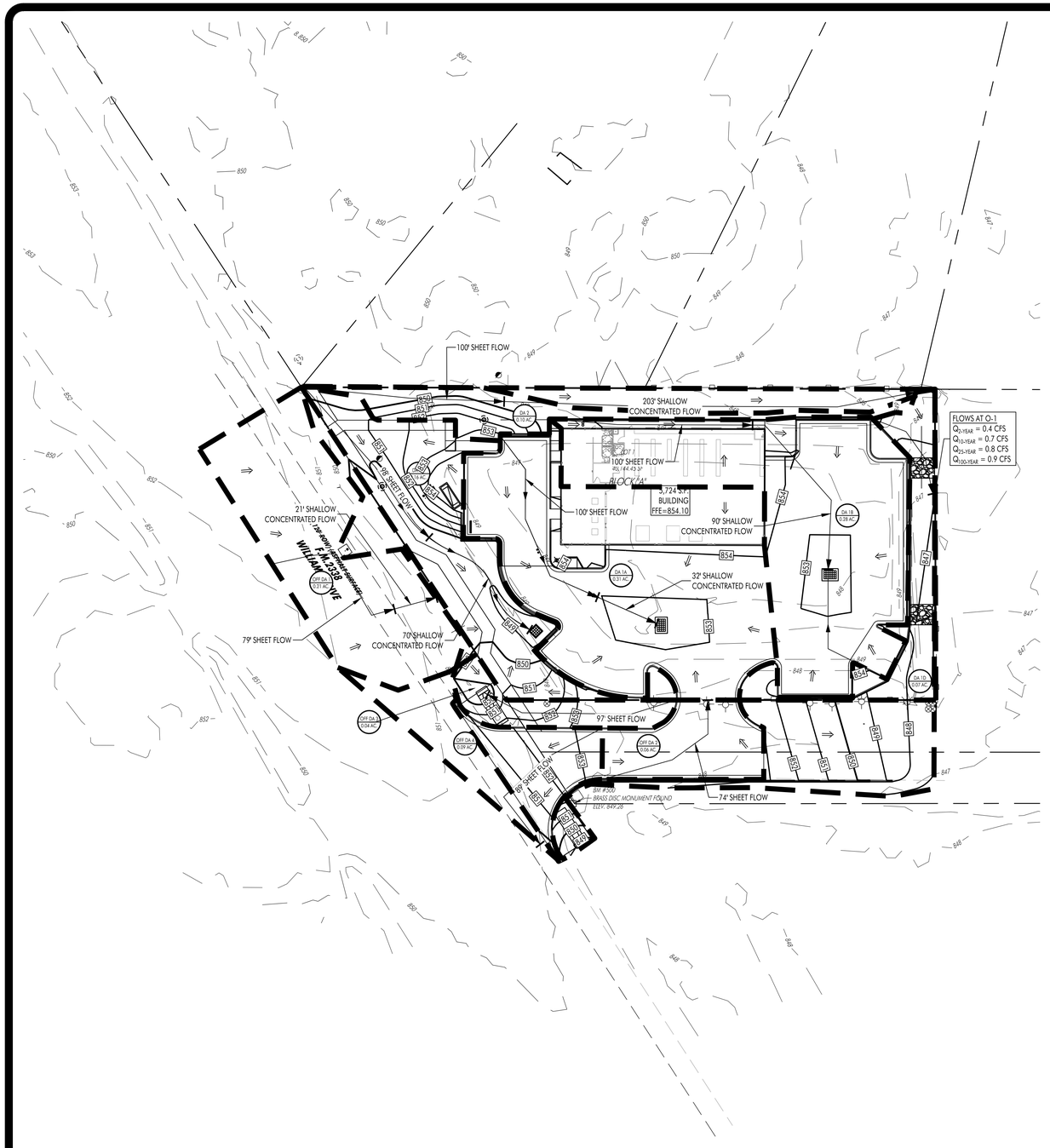
NO.	DATE	DESCRIPTION
REVISIONS		

HEA PROJECT NO 22-033
ISSUED DATE: 10/24/2023

EXISTING DRAINAGE AREA MAP

SHEET NO.
EDA
07

Oct 24,2023-9:17am Z:\HEA\HEA Projects\Projects 22-000\22-033 Velocity Tire - Georgetown\CAD Files\Civil\SD\22-033 EDA.dwg



0 30 60

SCALE: 1" = 30'

HEC-HMS HYDROLOGIC ROUTING SUMMARY for DA 1A

TR-55 SCS Lag Time (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.011	Unpaved	0.011	Unpaved	no	Mannings "n"	0.013	Mannings "n"	0.013	0.31	0.024	72	0.9	1.3	1.5	N/A	1.8
Length (ft)	100	Length (ft)	32.000	Length (ft)	0	Length (ft)		Length (ft)		*Impervious Cvr =*		99.7%					
Slope (%)	2.04	Slope (%)	0.470	Slope (%)	0	Slope (%)		Slope (%)									
2-yr, 3 hr rainfall	2.64					Velocity (fps)		Velocity (fps)									
segment total	0.018	segment total	0.006	segment total	0	segment total		segment total									
								time of conc.(hrs)	*0.024*	*SCS Lag Time (.6 x Tc)=*		0.0144 hours		0.9 minutes			

HEC-HMS HYDROLOGIC ROUTING SUMMARY for DA 1B

TR-55 SCS Tc (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.011	Unpaved	0.011	Unpaved	no	Mannings "n"	0.1	Mannings "n"	0	0.28	0.0452	72	0.8	1.1	1.3	N/A	1.6
Length (ft)	100	Length (ft)	90.000	Length (ft)		Length (ft)		Length (ft)	0	*Impervious Cvr =*		93.0%					
Slope (%)	0.47	Slope (%)	0.870	Slope (%)		Slope (%)		Slope (%)	0								
2-yr, 3 hr rainfall	2.64					Velocity (fps)		Velocity (fps)	0								
segment total	0.032	segment total	0.013	segment total		segment total		segment total	0								
								time of conc.(hrs)	*0.0452*	*SCS Lag Time (.6 x Tc)=*		0.027111 hours		1.6 minutes			

HEC-HMS HYDROLOGIC ROUTING SUMMARY for DA 1C

TR-55 SCS Lag Time (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.011	Unpaved	0.130	Unpaved	no	Mannings "n"	0.1	Mannings "n"	0	0.16	0.0419	72	0.3	0.5	0.6	N/A	0.8
Length (ft)	98	Length (ft)	70.000	Length (ft)		Length (ft)		Length (ft)	0	*Impervious Cvr =*		27.1%					
Slope (%)	0.42	Slope (%)	1.160	Slope (%)		Slope (%)		Slope (%)	0								
2-yr, 3 hr rainfall	2.64					Velocity (fps)		Velocity (fps)	0								
segment total	0.033	segment total	0.009	segment total	0	segment total		segment total	0								
								time of conc.(hrs)	*0.0419*	*SCS Lag Time (.6 x Tc)=*		0.025129 hours		1.5 minutes			

HEC-HMS HYDROLOGIC ROUTING SUMMARY for DA 1D

TR-55 SCS Lag Time (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.13	Unpaved	0.130	Unpaved	no	Mannings "n"	0	Mannings "n"	0	0.07	0.047	72	0.1	0.2	0.3	N/A	0.3
Length (ft)	20	Length (ft)	0.000	Length (ft)		Length (ft)	0	Length (ft)	0	*Impervious Cvr =*		1.1%					
Slope (%)	1	Slope (%)	0.000	Slope (%)		Slope (%)	0	Slope (%)	0								
2-yr, 3 hr rainfall	2.64					Velocity (fps)	0	Velocity (fps)	0								
segment total	0.047	segment total	0.000	segment total		segment total	0	segment total	0								
								time of conc.(hrs)	*0.047*	*SCS Lag Time (.6 x Tc)=*		0.0282 hours		1.7 minutes			

HEC-HMS HYDROLOGIC ROUTING SUMMARY for OFF DA 1

TR-55 SCS Lag Time (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.011	Unpaved	0.130	Unpaved		Mannings "n"		Mannings "n"		0.21	0.026	72	0.5	0.7	0.9	N/A	1.1
Length (ft)	79	Length (ft)	70.000	Length (ft)		Length (ft)		Length (ft)		*Impervious Cvr =*		62.5%					
Slope (%)	1.45	Slope (%)	1.760	Slope (%)		Slope (%)		Slope (%)									
2-yr, 3 hr rainfall	2.64					Velocity (fps)		Velocity (fps)									
segment total	0.017	segment total	0.009	segment total		segment total		segment total									
								time of conc.(hrs)	*0.026*	*SCS Lag Time (.6 x Tc)=*		0.0156 hours		0.9 minutes			

HEC-HMS HYDROLOGIC ROUTING SUMMARY for OFF DA 2

TR-55 SCS Lag Time (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.011	Unpaved	0.130	Unpaved		Mannings "n"		Mannings "n"		0.06	0.018	72	0.2	0.2	0.3	N/A	0.3
Length (ft)	74	Length (ft)	0.000	Length (ft)		Length (ft)		Length (ft)		*Impervious Cvr =*		99.9%					
Slope (%)	1.07	Slope (%)	0.000	Slope (%)		Slope (%)		Slope (%)									
2-yr, 3 hr rainfall	2.64					Velocity (fps)		Velocity (fps)									
segment total	0.018	segment total	0.000	segment total		segment total		segment total									
								time of conc.(hrs)	*0.018*	*SCS Lag Time (.6 x Tc)=*		0.0108 hours		0.6 minutes			

HEC-HMS HYDROLOGIC ROUTING SUMMARY for OFF DA 3

TR-55 SCS Lag Time (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.011	Unpaved		Unpaved		Mannings "n"		Mannings "n"		0.04	0.013	72	0.1	0.1	0.2	N/A	0.2
Length (ft)	97	Length (ft)	0.000	Length (ft)		Length (ft)		Length (ft)		*Impervious Cvr =*		28.0%					
Slope (%)	4.4	Slope (%)	0.000	Slope (%)		Slope (%)		Slope (%)									
2-yr, 3 hr rainfall	2.64					Velocity (fps)		Velocity (fps)									
segment total	0.013	segment total	0.000	segment total		segment total		segment total									
								time of conc.(hrs)	*0.013*	*SCS Lag Time (.6 x Tc)=*		0.0078 hours		0.5 minutes			

HEC-HMS HYDROLOGIC ROUTING SUMMARY for DA 2

TR-55 SCS Lag Time (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.13	Unpaved		Unpaved		Mannings "n"		Mannings "n"		0.1	0.273	72	0.1	0.2	0.3	N/A	0.3
Length (ft)	100	Length (ft)	203.000	Length (ft)		Length (ft)		Length (ft)		*Impervious Cvr =*		0.0%					
Slope (%)	0.43	Slope (%)	1.210	Slope (%)		Slope (%)		Slope (%)									
2-yr, 3 hr rainfall	2.64					Velocity (fps)		Velocity (fps)									
segment total	0.241	segment total	0.032	segment total		segment total		segment total									
								time of conc.(hrs)	*0.273*	*SCS Lag Time (.6 x Tc)=*		0.1638 hours		9.8 minutes			

HEC-HMS HYDROLOGIC ROUTING SUMMARY for OFF DA 4

TR-55 SCS Lag Time (hours)										Flow Summary							
Segment #1		Segment #2		Segment #3		Segment #4		Segment #5		Area	Tc	Cn	Q2	Q10	Q25	Q50	Q100
Sheet Flow		Shallow Concent		Shallow Concent		Channelized		Channelized		acres	hours	-	cfs	cfs	cfs	cfs	cfs
Mannings "n"	0.011	Unpaved		Unpaved		Mannings "n"		Mannings "n"		0.09	0.012	72	0.3	0.4	0.4	N/A	0.5
Length (ft)	89	Length (ft)	0.000	Length (ft)		Length (ft)		Length (ft)		*Impervious Cvr =*		98.7%					
Slope (%)	4.42	Slope (%)	0.000	Slope (%)		Slope (%)		Slope (%)									
2-yr, 3 hr rainfall	2.64					Velocity (fps)		Velocity (fps)									
segment total	0.012	segment total	0.000	segment total		segment total		segment total									
								time of conc.(hrs)	*0.012*	*SCS Lag Time (.6 x Tc)=*		0.0072 hours		0.4 minutes			

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DATE SIGNED: 10/24/2023
ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN 4229 WILLIAMS DRIVE GEORGETOWN, TX 78628

NO.	DATE	DESCRIPTION
		REVISIONS

HEA PROJECT NO 22-033
ISSUED DATE: 10/24/2023

PROPOSED DRAINAGE AREA MAP

SHEET NO.
PDA
08

Oct 24,2023-9:17am Z:\HEA\HEA Projects\Projects 22-000\22-033 Velocity Tire - Georgetown\CAD Files\Civil\SD\22-033 PDA.dwg

GEORGETOWN GENERAL NOTES

GENERAL NOTES:

1. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER, AND SUCCESSORS TO THE CURRENT PROPERTY OWNER, TO ENSURE THE SUBJECT PROPERTY AND ANY IMPROVEMENTS ARE MAINTAINED IN CONFORMANCE WITH THIS SITE DEVELOPMENT PLAN.
2. THIS DEVELOPMENT SHALL COMPLY WITH ALL STANDARDS OF THE UNIFIED DEVELOPMENT CODE (UDC), THE CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND SPECIFICATIONS MANUAL, THE DEVELOPMENT MANUAL AND ALL OTHER APPLICABLE CITY STANDARDS.
3. THIS SITE DEVELOPMENT PLAN SHALL MEET THE UDC STORMWATER REQUIREMENTS.
4. ALL SIGNAGE REQUIRES A SEPARATE APPLICATION AND APPROVAL FROM THE INSPECTION SERVICES DEPARTMENT. NO SIGNAGE IS APPROVED WITH THE SITE DEVELOPMENT PLAN.
5. SIDEWALKS SHALL BE PROVIDED IN ACCORDANCE WITH THE UDC.
6. DRIVEWAYS WILL REQUIRE APPROVAL BY THE DEVELOPMENT ENGINEER OF THE CITY OF GEORGETOWN.
7. OUTDOOR LIGHTING SHALL COMPLY WITH SECTION 7.04 OF THE UDC.
8. SCREENING OF MECHANICAL EQUIPMENT, DUMPSTERS AND PARKING SHALL COMPLY WITH CHAPTER 8 OF THE UDC. THE SCREENING IS SHOWN ON THE LANDSCAPE AND ARCHITECTURAL PLANS, AS APPLICABLE.
9. THE COMPANION LANDSCAPE PLAN HAS BEEN DESIGNED AND PLANT MATERIALS SHALL BE INSTALLED TO MEET ALL REQUIREMENTS OF THE UDC.
10. ALL MAINTENANCE OF REQUIRED LANDSCAPE SHALL COMPLY WITH THE MAINTENANCE STANDARDS OF CHAPTER 8 OF THE UDC.
11. A SEPARATE IRRIGATION PLAN SHALL BE REQUIRED AT THE TIME OF BUILDING PERMIT APPLICATION.
12. FIRE FLOW REQUIREMENTS OF 1500 PER MINUTE ARE BEING MET BY THIS PLAN.
13. ANY HERITAGE TREE NOTED ON THIS SITE DEVELOPMENT PLAN IS SUBJECT, IN PERPETUITY, TO THE MAINTENANCE, CARE, PRUNING AND REMOVAL REQUIREMENTS OF THE UNIFIED DEVELOPMENT CODE.
14. THE CONSTRUCTION PORTION OF THESE PLANS WERE PREPARED, SEALED, SIGNED AND DATED BY A TEXAS LICENSED PROFESSIONAL ENGINEER. THEREFORE, BASED ON THE ENGINEER'S CONCURRENCE OF COMPLIANCE, THE CONSTRUCTION PLANS FOR CONSTRUCTION OF THE PROPOSED PROJECT ARE HEREBY APPROVED SUBJECT TO THE STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS MANUAL AND ALL OTHER APPLICABLE CITY, STATE AND FEDERAL REQUIREMENTS AND CODES.
15. THIS PROJECT IS SUBJECT TO ALL CITY STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS IN EFFECT AT THE TIME OF SUBMITTAL OF THE PROJECT TO THE CITY.
16. WHERE NO EXISTING OVERHEAD INFRASTRUCTURE EXISTS, UNDERGROUND ELECTRIC UTILITY LINES SHALL BE LOCATED ALONG THE STREET AND WITHIN THE SITE. WHERE EXISTING OVERHEAD INFRASTRUCTURE IS TO BE RELOCATED, IT SHALL BE RE-INSTALLED UNDERGROUND AND THE EXISTING FACILITIES SHALL BE REMOVED AT THE DISCRETION OF THE DEVELOPMENT ENGINEER.
17. ALL ELECTRIC AND COMMUNICATION INFRASTRUCTURE SHALL COMPLY WITH UDC SECTION 13.06.

CITY OF GEORGETOWN FIRE MARSHAL'S OFFICE

Fire Suppression Private Service Mains

The following are contractors' guidelines for the installation of fire protection underground piping.

1) Prior to the installation of any underground fire line piping a permit shall be obtained from the Georgetown Fire Marshal's Office. Work shall not start before a permit is obtained. If work begins before a permit is issued the fee will be 500% (five hundred percent) of the original permit fee.
   a. The permit shall be requested by the installation contractor.
2) Plans shall be submitted to the Fire Marshal's office for review. Once plans are acceptable a permit will be issued. Planning (Design) of the fire protection underground system shall be by a **Licensed SCR-G/RME-G or a Professional Engineer**. All designs must be in accordance with NFPA 24 (2019 Edition) 2015 IFC and The City of Georgetown's Local Amendments. All areas of NFPA 24 shall be followed. Listed below are a few specific details that require close attention.
   a. Plans shall be specifically for a private fire service main. All other unrelated items shall be removed for clarity.
   b. NFPA 24 (2019 Edition) – 4.1 Plans – this section specifically outlines the requirements and what shall be included when submitting plans. **All items shall be included**.
   c. NFPA 24 (2019 Edition) – 5.1 Connection to Waterworks Systems – This section specifically outlines the requirements for connection to a water supply. Hydraulic calculations will be required for all private fire service mains. This may require coordination with your fire sprinkler contractor to determine the demand. A current flow test shall be obtained. Flow Test Instructions can be found at https://fire.georgetown.org/fire-flow-test-procedure-and-safety-margins-external/
      i. The City of Georgetown has a specific detail pertaining to remote FDC installation. This detail shall be included on the plans. Installation shall conform to the detail.
      ii. Section 5.2.1 Private Fire Service mains – Hydraulic Calculations shall be included.
   d. Hydraulic Calculations – Shall follow the procedures and use the forms outlined in NFPA 13. Reference NFPA 13 – 27 Hydraulic Calculations. The reports required can be found in 27.4 and 27.4.5
   e. Backflow Prevention – The City of Georgetown has two specific details pertaining to the installation of backflow preventers. One detail pertains to an RPDA that must be placed above ground in a hot box. The second detail pertains to a double check backflow in a pit. The applicable detail shall be included on the submitted plans.
   f. Fire Hydrants – The City of Georgetown has a specific detail outlining how hydrants are installed. This shall be included on the submitted plans.
   g. Sectional Valve or Isolation Valves – NFPA 24 shall be followed. See 6.6.1 "Sectional Valves" Valves shall be installed to allow independent maintenance and service of all components.
3) All fire protection underground fire line piping shall be installed by an SCR-G or SCR-U contractor. An Active RME-G or RME-U shall be on staff to oversee the installation. Installation by an unlicensed contractor will result in reporting to the Texas State Fire Marshal's office.
   a. Inspections shall be scheduled through my permit now.
      i. All underground piping shall be visually inspected before it is covered. Piping that has been covered prior to and inspection will need to be uncovered before acceptance.

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CITY OF GEORGETOWN FIRE MARSHAL'S OFFICE

      ii. All piping shall be **flushed first** at the required flow rates listed in NFPA 24 (2019 Edition). This includes all FDC piping.
      iii. After the piping has been flushed it can then be hydrostatically tested at 200psi for 2 hours. This includes the FDC from the point of connection to the cap.

WATER AND WASTEWATER NOTES:

1. PIPE MATERIAL FOR WATER MAINS SHALL BE PVC (AWWA C-900, MIN. CLASS 200), OR DUCTILE IRON (AWWA C-100, MIN. CLASS 200). WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200 PSI, DR 9).
2. PIPE MATERIAL FOR PRESSURE WASTEWATER MAINS SHALL BE PVC (AWWA C-900, MIN. CLASS 150), OR DUCTILE IRON (AWWA C-100, MIN. CLASS 200). PIPE MATERIAL FOR GRAVITY WASTEWATER MAINS SHALL BE PVC (ASTM D2241 OR D3034, MAX. DR-26), DUCTILE IRON (AWWA C-100, MIN. CLASS 200).
3. UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER, DEPTH OF COVER FOR ALL LINES OUT OF THE PAVEMENT SHALL BE 42" MINIMUM AND DEPTH OF COVER FOR ALL LINES UNDER PAVEMENT SHALL BE A MINIMUM OF 30" BELOW SUBGRADE.
4. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C-100, MIN. CLASS 200).
5. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE AND SEALED WITH DUCT TAPE OR EQUAL ACCEPTED BY THE CITY ENGINEER.
6. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR TO COORDINATE UTILITY TIE-INS AND NOTIFY HIM AT LEAST 48 HOURS PRIOR TO CONNECTING TO EXISTING LINES.
7. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON RING AND COVER. ALL MANHOLES LOCATED OUTSIDE OF THE PAVEMENT SHALL HAVE BOLTED COVERS. TAPPING OF FIBERGLASS MANHOLES SHALL NOT BE ALLOWED.
8. THE CONTRACTOR MUST OBTAIN A BULK WATER PERMIT OR PURCHASE AND INSTALL A WATER METER FOR ALL WATER USED DURING CONSTRUCTION. A COPY OF THIS PERMIT MUST BE CARRIED AT ALL TIMES BY ALL WHO USE WATER.
9. LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE SCHEDULED WITH THE CITY INSPECTOR.
10. THE CONTRACTOR, AT HIS EXPENSE, SHALL PERFORM STERILIZATION OF ALL POTABLE WATER LINES CONSTRUCTED 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 PERSONNEL. WATER SAMPLES WILL BE COLLECTED BY THE CITY 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 GEORGETOWN.
11. 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 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. THE CONTRACTOR SHALL SUPPLY A CHECK OR MONEY ORDER, PAYABLE TO THE CITY OF GEORGETOWN, TO COVER THE FEE CHARGED FOR TESTING EACH WATER SAMPLE. CITY FEE AMOUNTS MAY BE OBTAINED BY CALLING THE ENGINEERING AND DEVELOPMENT SERVICES DEPARTMENT.
12. THE CONTRACTOR, AT HIS EXPENSE, SHALL PERFORM QUALITY TESTING FOR ALL WASTEWATER PIPE INSTALLED AND PRESSURE PIPE HYDROSTATIC TESTING OF ALL WATER LINES CONSTRUCTED AND SHALL PROVIDE ALL EQUIPMENT (INCLUDING PUMPS AND GAUGES), SUPPLIES AND LABOR NECESSARY TO PERFORM THE TESTS. QUALITY AND PRESSURE TESTING SHALL BE MONITORED BY CITY PERSONNEL.
13. THE CONTRACTOR SHALL COORDINATE TESTING WITH THE CITY INSPECTOR AND PROVIDE NO LESS THAN 24 HOURS NOTICE PRIOR TO PERFORMING STERILIZATION, QUALITY TESTING OR PRESSURE TESTING.
14. THE CONTRACTOR SHALL NOT OPEN OR CLOSE ANY VALVES UNLESS AUTHORIZED BY THE CITY.
15. ALL VALVE BOXES AND COVERS SHALL BE CAST IRON.
16. ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY MARKED AS FOLLOWS:

WATER SERVICE	'W' ON TOP OF CURB
WASTEWATER SERVICE	'S' ON TOP OF CURB
CURB VALVE	'V' ON FACE OF CURB

TOOLS FOR MARKING THE CURB SHALL BE PROVIDED BY THE CONTRACTOR. OTHER APPROPRIATE MEANS OF MARKING SERVICE AND VALVE LOCATIONS SHALL BE PROVIDED IN AREAS WITHOUT CURBS. SUCH MEANS OF MARKING SHALL BE AS SPECIFIED BY THE ENGINEER AND ACCEPTED BY THE CITY OF GEORGETOWN.

17. CONTACT THE CITY ENGINEERING AND DEVELOPMENT SERVICES DEPARTMENT FOR ASSISTANCE IN OBTAINING EXISTING WATER AND WASTEWATER LOCATIONS.
18. THE CITY FIRE DEPARTMENT SHALL BE NOTIFIED 48 HOURS PRIOR TO TESTING OF ANY BUILDING SPRINKLER PIPING IN ORDER THAT THE FIRE DEPARTMENT MAY MONITOR SUCH TESTING.
19. SAND, AS DESCRIBED IN 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

20. 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 A.M. AND 6 A.M.
21. ALL WASTEWATER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) REGULATIONS, 30 TAC CHAPTER 213 AND 317, AS APPLICABLE. WHENEVER TCEQ AND CITY SPECIFICATIONS CONFLICT, THE MORE STRINGENT SHALL APPLY.

FIRE DEPARTMENT CONNECTION (FDC) NOTES

1. 2018 IFC 912.2 - LOCATION
WITH RESPECT TO HYDRANTS, DRIVEWAYS, BUILDINGS AND LANDSCAPING, FIRE DEPARTMENT CONNECTIONS SHALL BE SO LOCATED THAT FIRE APPARATUS AND HOSE CONNECTED TO SUPPLY THE SYSTEM WILL NOT OBSTRUCT ACCESS TO THE BUILDINGS FOR OTHER FIRE APPARATUS.
2. 2018 IFC 912.4 - ACCESS
IMMEDIATE ACCESS TO FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED AT ALL TIMES AND WITHOUT OBSTRUCTION BY FENCES, BUSHES, TREES, WALLS, BEHIND PARKING STALLS, OR ANY OTHER FIXED OR MOVABLE OBJECT.
3. 2018 IFC 912.5 - SIGNS
INSTALL A SIGN ABOVE THE FIRE DEPARTMENT CONNECTION STATING "FDC". THE SIGN SHALL BE 7' ABOVE GRADE. THE SIGN SHALL HAVE REFLECTIVE WHITE LETTERS UPON A REFLECTIVE RED BACKGROUND. THE LETTERING SHALL BE MINIMUM 2 INCH STROKE AND MINIMUM 6 INCHES IN HEIGHT.
4. 2018 IFC 912.7 - INSPECTION
ALL FIRE DEPARTMENT CONNECTIONS SHALL BE MARKED AS APPROVED BY THE FIRE CODE OFFICIAL.
5. TWO RED STREET LANE REFLECTORS (STIMSONITE MODEL 88AB OR SIMILAR) SHALL BE INSTALLED SIX INCHES FROM CENTERLINE OF THE FIRE APPARATUS ACCESS ROADWAY ON THE SIDE CLOSEST TO THE FDC. MARKERS SHALL BE PARALLEL TO THE FDC HAVING THE REFLECTIVE ENDS OF THE STREET MARKERS FACING THE DIRECTION OF TRAFFIC.
6. THE FDC FOR THE FIRE SPRINKLER SYSTEM SHALL HAVE A 5 INCH STORTZ CONNECTION ON A 30 DEGREE DOWNTURN WITH A KNOX BRAND LOCKING CAP.

SEQUENCE OF CONSTRUCTION:

A. INSTALL EROSION CONTROLS AS INDICATED ON APPROVED SITE PLAN.
B. INSTALL TREE PROTECTION AS NOTED ON APPROVED SITE PLAN.
C. SCHEDULE PRE CONSTRUCTION MEETING WITH THE CITY INSPECTION DEPT., CONTRACTOR, UTILITY CONTRACTOR, AND ENGINEER.
D. EVALUATION OF TEMPORARY EROSION CONTROL INSTALLATION. REVIEW CONSTRUCTION SCHEDULE AND THE EROSION CONTROL PLAN.
E. BEGIN SITE CLEARING.
F. INSTALL TEMPORARY SEDIMENTATION PONDS AND ROUGH GRADE SITE. INSPECT AND MAINTAIN ALL CONTROLS AS PER GENERAL NOTES.
G. CONSTRUCT SITE UTILITIES.
H. MID-CONSTRUCTION ON-SITE MEETING TO COORDINATE CHANGES IN CONSTRUCTION SCHEDULE AND EVALUATE EFFECTIVENESS OF EROSION CONTROL PLAN (CITY INSPECTOR, PROJECT ENGINEER, GENERAL CONTRACTOR).
I. CONSTRUCT PAVING, PARKING AND BUILDINGS.
J. COMPLETE CONSTRUCTION AND INSTALL LANDSCAPING.
K. PROVIDE AS-BUILTS TO ENGINEER.
L. REVEGETATE DISTURBED AREAS OR COMPLETE A DEVELOPERS CONTRACT FOR THE RE-VEGETATION ALONG WITH THE ENGINEERS CONCURRENCE LETTER.
M. PROJECT ENGINEER INSPECTS JOB AND WRITES CONCURRENCE LETTER TO THE CITY, FINAL INSPECTION IS SCHEDULED UPON RECEIPT OF THE LETTER
N. RECEIVE CITY CLEARANCE FOR OCCUPANCY.
O. REMOVE TEMPORARY EROSION/SEDIMENTATION CONTROLS.

FIRE DEPARTMENT NOTES

1. PRIVATE FIRE HYDRANT MAINTENANCE SHALL BE IN ACCORDANCE WITH NFPA 291.
2. ALL PRIVATE HYDRANT BARRELS WILL BE PAINTED RED WITH THE BONNET PAINTED
USING THE HYDRANT FLOW STANDARD IN PARAGRAPH C OF THIS SECTION TO INDICATE FLOW. IT WILL BE THE CUSTOMER'S RESPONSIBILITY TO TEST AND MAINTAIN
THEIR PRIVATE FIRE HYDRANT(S).
a. ALL PRIVATE FIRE HYDRANTS SHOULD BE INSPECTED, MAINTAINED, AND FLOW TESTED ANNUALLY AND COLOR CODED TO INDICATE THE EXPECTED FIRE FLOW FROM THE HYDRANT DURING NORMAL OPERATION. SUCH COLOR APPLIED TO THE
FIRE HYDRANT BY PAINTING THE BONNET THE APPROPRIATE COLOR FOR THE EXPECTED FLOW CONDITION.
b.HYDRANT FLOW CODING STANDARDS: PUBLIC HYDRANT BARRELS WILL BE PAINTED
SILVER, THE HYDRANTS WILL BE FLOW TESTED, AND THE BONNET PAINTED USING THE HYDRANT FLOW STANDARD IN AS FOLLOWS:
i. BLUE - GREATER THAN 1500 GPM
ii. GREEN - 1000-1500 GPM
iii.ORANGE - 500-999 GPM
iv.RED - LESS THAN 500 GPM
v.BLACK OR BAGGED - NOT WORKING
3. FIRE LANE MARKING
a.ON PAVEMENT FIRE LANE, STRIPES SHALL BE A CONTINUOUS 8' RED COLOR STRIPE
WITH:
'NO PARKING - FIRE LANE - TOW AWAY ZONE' IN 4" WHITE COLOR LETTERS.
b.ALONG CURBS, PAINT FACE WITH RED COLOR AND WRITE:
' NO PARKING - FIRE LANE - TOW AWAY ZONE' IN 4" WHITE COLOR LETTERS.

FIRE PROTECTION NOTES

1. APPROVAL OF THIS SITE PLAN DOES NOT IMPLY APPROVAL TO INSTALL UNDERGROUND FIRE LINES. PRIOR TO INSTALLATION OF UNDERGROUND FIRE LINES, A SEPARATE PERMIT SHALL BE SUBMITTED, UNDER GROUND FIRE LINE SUPPLY.
2. BACKFLOW PROTECTION WILL BE PROVIDED IN ACCORDANCE WITH THE CITY OF GEORGETOWN REQUIREMENTS WHEN REQUIRED. BACKFLOW PROTECTION WILL BE INSTALLED IN ACCORDANCE WITH THE DETAIL PROVIDED IN THE UTILITY DRAWINGS.
3. ALL PRIVATE FIRE LINES AND WHAT THEY PROVIDE SERVICE TO WILL BE INSTALLED IN ACCORDANCE WITH NFPA 24 INSTALLATION OF PRIVATE SERVICE MAINS AND THEIR APPURTENANCES.
4. ALL TEES, PLUGS, CAPS, BENDS, REDUCERS, VALVES SHALL BE RESTRAINED AGAINST MOVEMENT. THRUST BLOCKING AND JOINT RESTRAINTS WILL BE INSTALLED IN ACCORDANCE WITH NFPA 24.
5. ALL UNDERGROUND SHALL REMAIN UNCOVERED UNTIL A VISUAL INSPECTION IS CONDUCTED BY THE GEORGETOWN FIRE MARSHAL'S OFFICE (FMO). ALL JOINT RESTRAINTS AND THRUST BLOCKING SHALL BE UNCOVERED FOR VISUAL INSPECTION.
6. ALL UNDERGROUND SHALL BE FLUSHED PER THE REQUIREMENTS OF NFPA STANDARD 24 AND WITNESSED BY GEORGETOWN FMO.
7. ALL UNDERGROUND SHALL PASS A HYDROSTATIC TEST WITNESSED BY GEORGETOWN FMO. ALL JOINTS SHALL BE UNCOVERED FOR HYDROSTATIC TESTING. ALL PIPING AND ATTACHMENTS SUBJECTED TO SYSTEM WORKING P4RESSURE SHALL BE TESTED AT 200 PSI OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESSURE + OR - 5 PSI FOR 2 HOURS.
8. FENCES, LANDSCAPING, AND OTHER ITEMS WILL NOT BE INSTALLED WITHIN 3 FEET, AND WHERE THEY WILL OBSTRUCT THE VISIBILITY OR ACCESS TO HYDRANTS OR REMOTE FDCS.
9. LICENSE REQUIREMENTS OF EITHER RME-U OR G WHEN CONNECTING BY UNDERGROUND TO THE WATER PURVEYOR'S MAIN FROM THE POINT OF CONNECTION OR VALVE WHERE THE PRIMARY PURPOSE OF WATER IS FORE FIRE PROTECTION SPRINKLER SYSTEM.

STREET AND DRAINAGE NOTES:

1. ALL TESTING SHALL BE DONE BY AN INDEPENDENT LABORATORY AT THE OWNER'S EXPENSE. ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR. A CITY INSPECTOR SHALL BE PRESENT DURING ALL TESTS. TESTING SHALL BE COORDINATED WITH THE CITY INSPECTOR AND HE SHALL BE GIVEN A MINIMUM OF 24 HOURS NOTICE PRIOR TO ANY TESTING.
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 3' OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 3' SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.
3. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT INCLUDING GAS, ELECTRIC, TELEPHONE, CABLE TV, WATER SERVICES, ETC., SHALL BE A MINIMUM OF 30" BELOW SUBGRADE.
4. STREET RIGHTS-OF-WAY SHALL BE GRADED AT A SLOPE OF 1/4" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED. HOWEVER, IN NO CASE SHALL THE WIDTH OF RIGHT-OF-WAY AT 1/4" 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 ENGINEERING AND DEVELOPMENT SERVICES DEPARTMENT.
5. BARRICADES BUILT TO CITY STANDARDS SHALL BE CONSTRUCTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB AND PUBLIC SAFETY.
6. ALL R.C.P. SHALL BE MINIMUM CLASS III.
7. THE SUBGRADE MATERIAL FOR THE STREETS SHOWN HEREIN WAS TESTED BY: SKG ENGINEERING IN A REPORT DATED OCTOBER 2022, AND THE PAVING SECTIONS DESIGNED IN ACCORDANCE WITH THE CURRENT CITY DESIGN CRITERIA. THE PAVING SECTIONS ARE TO BE CONSTRUCTED AS FOLLOWS: SEE DETAIL SHEET C70

   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 REVISION OF THE CONSTRUCTION PLANS.
8. WHERE PI'S ARE OVER 20, SUBGRADES MUST BE STABILIZED UTILIZING A METHOD ACCEPTABLE TO THE CITY ENGINEER. THE GEOTECHNICAL ENGINEER SHALL RECOMMEND AN APPROPRIATE SUBGRADE STABILIZATION IF SULFATES ARE DETERMINED TO BE PRESENT.

GENERAL NOTES: CITY OF GEORGETOWN

1. THESE CONSTRUCTION PLANS WERE PREPARED, SEALED, SIGNED AND DATED BY A TEXAS LICENSED PROFESSIONAL ENGINEER. THEREFORE, BASED ON THE ENGINEER'S CONCURRENCE OF COMPLIANCE, THE CONSTRUCTION PLANS FOR CONSTRUCTION OF THE PROPOSED PROJECT ARE HEREBY APPROVED SUBJECT TO THE STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS MANUAL AND ALL OTHER APPLICABLE CITY, STATE AND FEDERAL REQUIREMENTS AND CODES.
2. THIS PROJECT IS SUBJECT TO ALL CITY STANDARD SPECIFICATIONS AND DETAILS IN AFFECT AT THE TIME OF SUBMITTAL OF THE PROJECT TO THE CITY.
3. THIS SITE CONSTRUCTION PLANS SHALL MEET ALL REQUIREMENTS OF THE APPROVED SITE PLAN.
4. WASTEWATER MAINS AND SERVICE LINES SHALL BE SDR 26 PVC.
5. WASTEWATER MAINS SHALL BE INSTALLED WITHOUT HORIZONTAL OR VERTICAL BENDS.
6. MAXIMUM DISTANCE BETWEEN WASTEWATER MANHOLES IS 500 FEET.
7. WASTEWATER MAINS SHALL BE LOW PRESSURE AIR TESTED AND MANDREL TESTED BY THE CONTRACTOR ACCORDING TO CITY OF GEORGETOWN AND TCEQ REQUIREMENTS.
8. WASTEWATER MANHOLES SHALL BE VACUUM TESTED AND COATED BY THE CONTRACTOR ACCORDING TO THE CITY OF GEORGETOWN AND TCEQ REQUIREMENTS.
9. WASTEWATER MAINS SHALL BE CAMERA TESTED BY THE CONTRACTOR AND SUBMITTED TO THE CITY OF GEORGETOWN ON DVD FORMAT PRIOR TO PAVING THE STREETS.
10. PRIVATE WATER SYSTEM FIRE LINES SHALL BE TESTED BY CONTRACTOR TO 200 PSI FOR 4 HOURS.
11. PRIVATE WATER SYSTEM FIRE LINES SHALL BE DUCTILE IRON PIPING FROM THE WATER MAIN TO THE BUILDING SPRINKLER SYSTEM, AND 200 PSI C900 PVC FOR ALL OTHERS.
12. PUBLIC WATER SYSTEM MAINS SHALL BE 150 PSI C900 PVC AND TESTED BY THE CONTRACTOR AT 150 PSI FOR 4 HOURS.
13. ALL BENDS AND CHANGES IN DIRECTION ON WATER MAINS SHALL BE RESTRAINED AND THRUST BLOCKED.
14. LONG FIRE HYDRANT LEAD SHALL BE RESTRAINED.
15. ALL WATER LINES ARE TO BE BACTERIA TESTED BY THE CONTRACTOR ACCORDING TO THE CITY STANDARDS AND SPECIFICATIONS.
16. WATER AND SEWER MAIN CROSSINGS SHALL MEET ALL REQUIREMENTS OF TCEQ AND THE CITY.
17. FLEXIBLE BASE MATERIAL FOR PUBLIC STREETS SHALL BE TXDOT TYPE A GRADE 1.
18. HOT MIX ASPHALT CONCRETE PAVEMENT SHALL BE TYPE D UNLESS OTHERWISE SPECIFIED AND SHALL BE A MINIMUM OF 2 INCHES THICK ON PUBLIC STREETS AND ROADWAYS.
19. ALL SIDEWALK RAMPS ARE TO BE INSTALLED WITH THE PUBLIC INFRASTRUCTURE.
20. A MAINTENANCE BOND IS REQUIRED TO BE SUBMITTED TO THE CITY PRIOR TO ACCEPTANCE OF THE PUBLIC IMPROVEMENT. THIS BOND SHALL BE ESTABLISHED FOR 2YEARS IN THE AMOUNT OF 10% OF THE COST OF THE PUBLIC IMPROVEMENTS AND SHALL FOLLOW THE CITY FORMAT.
21. RECORD DRAWINGS OF THE PUBLIC IMPROVEMENTS SHALL BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER PRIOR TO ACCEPTANCE OF THE PROJECT. THESE DRAWINGS SHALL BE ON A PDF EMAILED TO THE DEVELOPMENT ENGINEER.
22. PRIOR TO CONSTRUCTION ABOVE THE SLAB, PROVIDE AN ALL-WEATHER DRIVE SURFACE OF ASPHALT OR CONCRETE OR CHIP SEAL PLACED ONTO BASE MATERIAL ENGINEERED TO WITHSTAND 75,000 LBS. AN ACCEPTANCE INSPECTION BY FIRE INSPECTIONS IS REQUIRED (2012 IFC 503 AND D102.1).
23. IN GENERAL ACCORDANCE WITH UDC SECT. 3.09.090, AN SDP SHALL EXPIRE 24 MONTHS AFTER APPROVAL, UNLESS AN ASSOCIATED BUILDING PERMIT APPLICATION HAS BEEN APPROVED.

NOTES:
1. FOR REVIEW. THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF TERRY HAGOOD (52960), ON 3/21/2022. IT IS NOT TO BE USED FOR BIDDING, PERMIT, OR CONSTRUCTION.

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STATE OF TEXAS · TERRY R. HAGOOD · 52960 · REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960.

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DATE SIGNED: 10/24/2023
ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN
4229 WILLIAMS DRIVE
GEORGETOWN, TX 78628

NO.	DATE	DESCRIPTION
		REVISIONS

HEA PROJECT NO 22-033
ISSUED DATE: 10/24/2023

GENERAL NOTES

SHEET NO.
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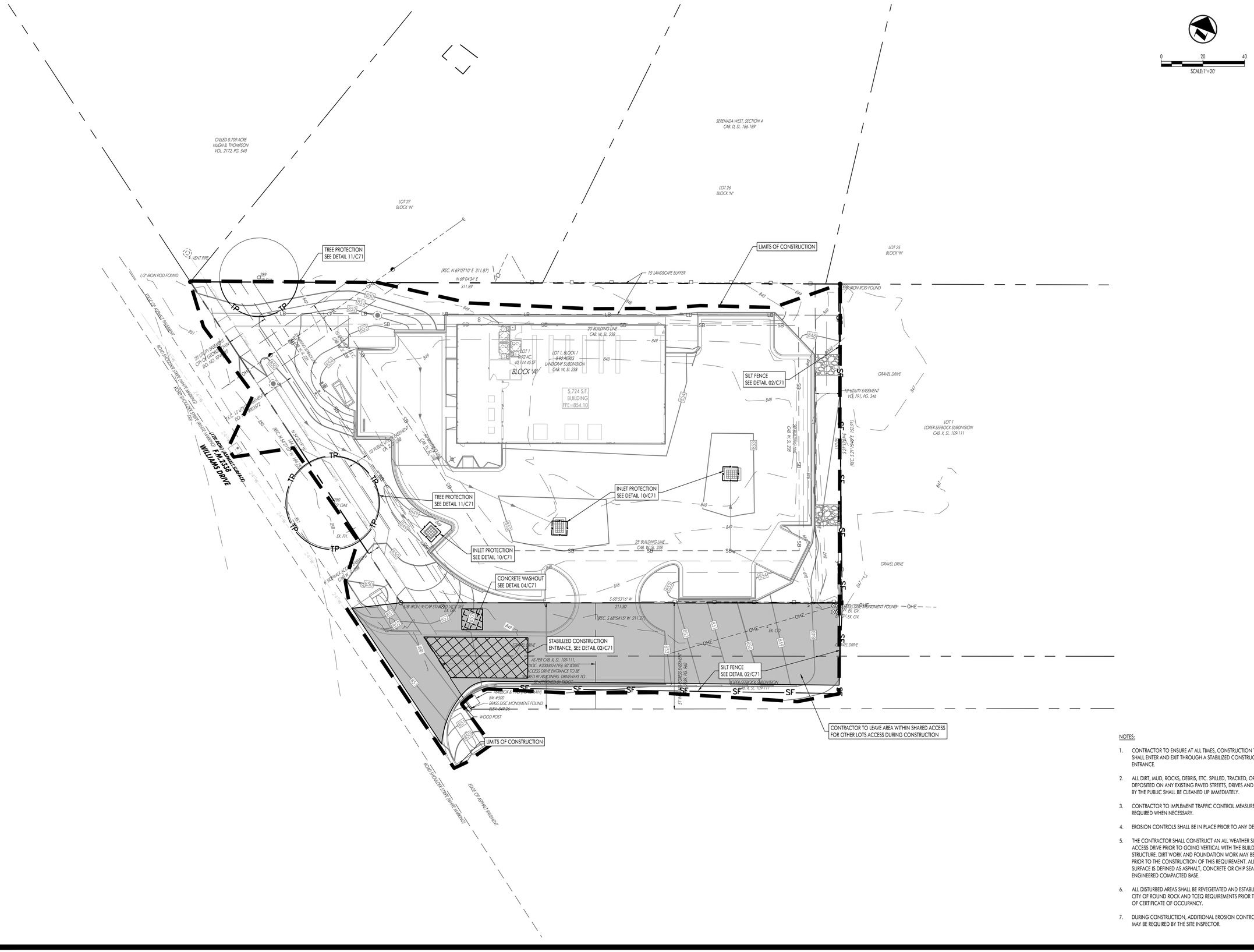

NOTES:

1. CONTRACTOR TO ENSURE AT ALL TIMES, CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THROUGH A STABILIZED CONSTRUCTION ENTRANCE.
2. ALL DIRT, MUD, ROCKS, DEBRIS, ETC. SPILLED, TRACKED, OR OTHERWISE DEPOSITED ON ANY EXISTING PAVED STREETS, DRIVES AND AREAS USED BY THE PUBLIC SHALL BE CLEANED UP IMMEDIATELY.
3. CONTRACTOR TO IMPLEMENT TRAFFIC CONTROL MEASURES AS REQUIRED WHEN NECESSARY.
4. EROSION CONTROLS SHALL BE IN PLACE PRIOR TO ANY DEMOLITION.
5. THE CONTRACTOR SHALL CONSTRUCT AN ALL WEATHER SURFACE ACCESS DRIVE PRIOR TO GOING VERTICAL WITH THE BUILDING STRUCTURE. DIRT WORK AND FOUNDATION WORK MAY BE DONE PRIOR TO THE CONSTRUCTION OF THIS REQUIREMENT. ALL WEATHER SURFACE IS DEFINED AS ASPHALT, CONCRETE OR CHIP SEAL OVER AN ENGINEERED COMPACTED BASE.
6. ALL DISTURBED AREAS SHALL BE REVEGETATED AND ESTABLISHED PER CITY OF ROUND ROCK AND TCEQ REQUIREMENTS PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY.
7. DURING CONSTRUCTION, ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY THE SITE INSPECTOR.

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STATE OF TEXAS
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REGISTERED
PROFESSIONAL ENGINEER

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GEORGETOWN, TX 78628

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EROSION AND SEDIMENTATION CONTROL PLAN

SHEET NO.
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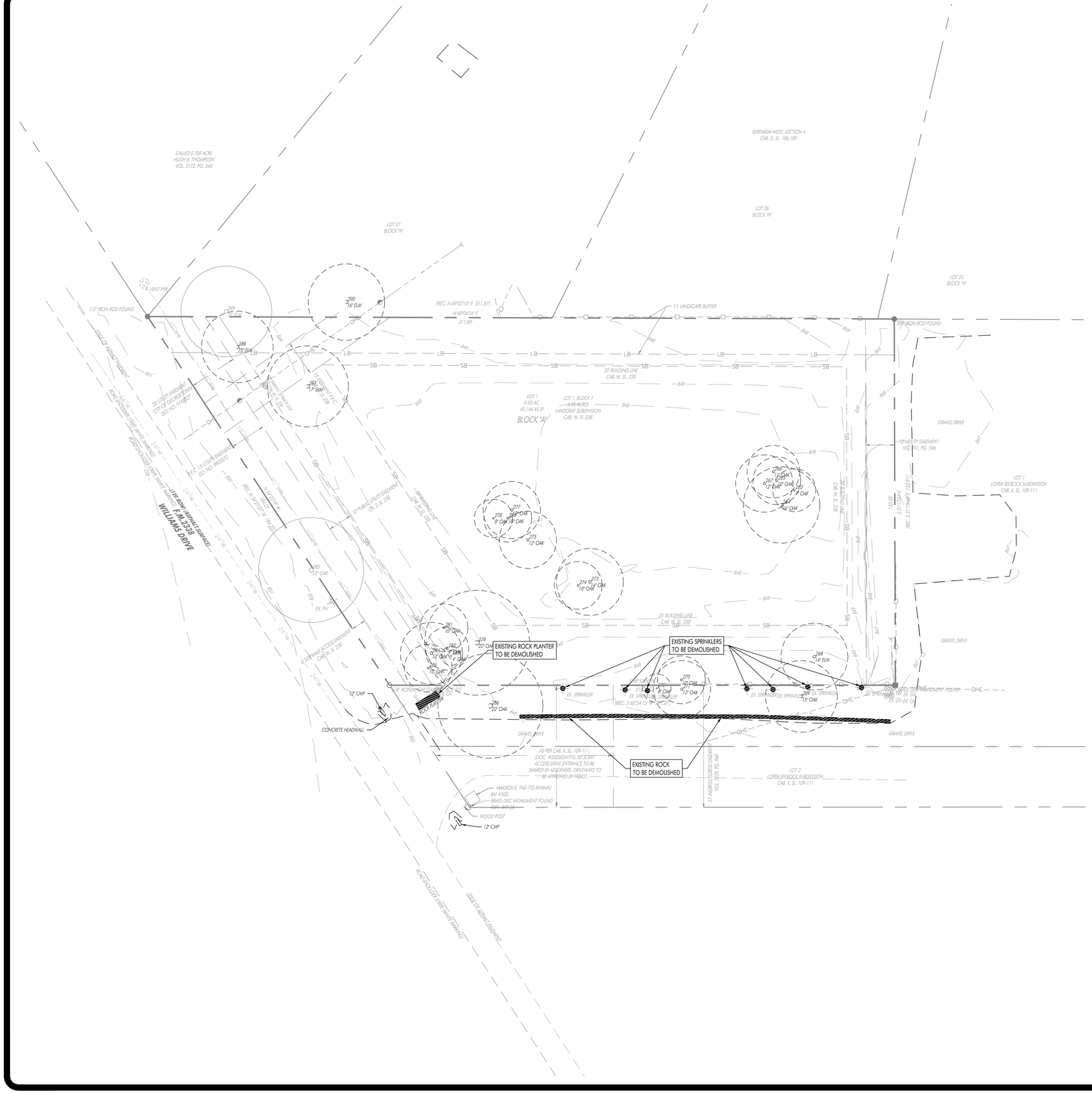

0 20 40
SCALE:1"=20'

LEGEND

- ● ○ IRON ROD FOUND/SET
- ■ □ CONCRETE MONUMENT FOUND/SET
- ▲ △ NAIL FOUND/SET
- ⊙ PIPE FOUND
- (S) Ⓢ STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- ○ EX. CO • WASTEWATER CLEANOUT
- GAS TEST STATION
- G GAS METER
- E ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- Ⓣ TELEPHONE MANHOLE
- EX. FH FIRE HYDRANT
- ⊗ EX. WV ⊗ GATE VALVE
- ⊗ EX. ICV IRRIGATION CONTROL VALVE
- WATER METER
- 100 99 EXISTING CONTOURS
- 100 PROPOSED CONTOUR
- PROPOSED CURB AND GUTTER
- // PROPOSED ASPHALT
- X" GAS LINE PROPOSED X" DIA. GAS LINE
- X" STORM SEWER LINE PROPOSED X" DIA. STORM SEWER LINE
- X" WASTEWATER LINE PROPOSED X" DIA. WASTEWATER LINE
- X" WATER LINE PROPOSED X" DIA. WATER LINE
- —○— EXISTING CHAIN LINK FENCE
- —×— EXISTING WIRE FENCE
- —□— EXISTING WOOD FENCE
- —SB— SETBACK LINE
- EASEMENT LINE
- // EXISTING ASPHALT
- —OHE— EXISTING OVERHEAD ELECTRIC LINE
- —UGE— EXISTING UNDERGROUND ELECTRIC LINE
- —OHT— EXISTING OVERHEAD TELEPHONE LINE
- —UGT— EXISTING UNDERGROUND TELEPHONE LINE
- —W— EXISTING WATER LINE (SIZE VARIES)
- —WW— EXISTING WASTEWATER LINE (SIZE VARIES)
- —FM— EXISTING FORCE MAIN (SIZE VARIES)
- —FOC— EXISTING FIBER OPTIC LINE
- —GAS— EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- ⑦ PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK
- CONCRETE WASHOUT
- ▨ STABILIZED CONSTRUCTION ENTRANCE
- —SF— SILT FENCE
- —RB— ROCK BERM
- —IP— INLET PROTECTION
- —TP— TREE PROTECTION
- —MS— MULCH SOCK
- ▬ ▬ ▬ LIMITS OF CONSTRUCTION

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SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN
4229 WILLIAMS DRIVE
GEORGETOWN, TX 78628

REVISIONS

NO.	DATE	DESCRIPTION

HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

DEMOLITION PLAN

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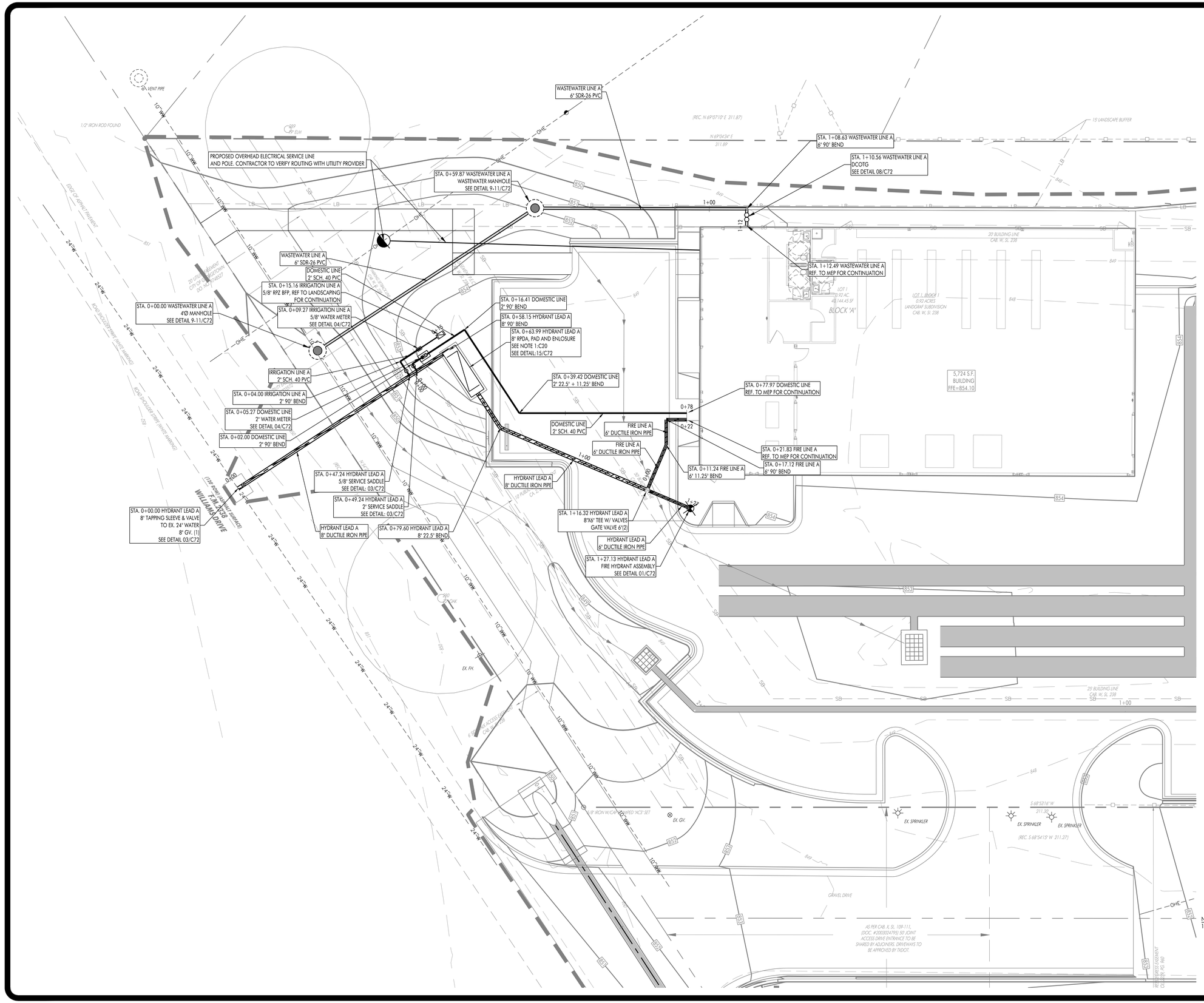

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- EX. CO — WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
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- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- EX. FH — FIRE HYDRANT
- EX. WV — GATE VALVE
- EX. CV — IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- 100 — PROPOSED CONTOUR
- PROPOSED CURB AND GUTTER
- PROPOSED ASPHALT
- X" GAS LINE — PROPOSED X" DIA. GAS LINE
- X" STORM SEWER LINE — PROPOSED X" DIA. STORM SEWER LINE
- X" WASTEWATER LINE — PROPOSED X" DIA. WASTEWATER LINE
- X" WATER LINE — PROPOSED X" DIA. WATER LINE
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SB — SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- OHE — EXISTING OVERHEAD ELECTRIC LINE
- UGE — EXISTING UNDERGROUND ELECTRIC LINE
- OHT — EXISTING OVERHEAD TELEPHONE LINE
- UGT — EXISTING UNDERGROUND TELEPHONE LINE
- W — EXISTING WATER LINE (SIZE VARIES)
- WW — EXISTING WASTEWATER LINE (SIZE VARIES)
- FM — EXISTING FORCE MAIN (SIZE VARIES)
- FOC — EXISTING FIBER OPTIC LINE
- GAS — EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- 7 — PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK
- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- SF — SILT FENCE
- RB — ROCK BERM
- IP — INLET PROTECTION
- TP — TREE PROTECTION
- MS — MULCH SOCK
- LIMITS OF CONSTRUCTION

NOTES:
1. BACKFLOW PREVENTER TO BE 8" WATTS SERIES 909-RPDA-FS. CONTRACTOR TO SUBMIT SUBMITTAL FOR ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION.

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
www.heaeng.com
TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY TERRY R. HAGOOD, P.E. 52960.

JOB NO. 22-033 © 2023 HEA, Inc.
DATE SIGNED: 10/24/2023
ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN 4229 WILLIAMS DRIVE GEORGETOWN, TX 78628

REVISIONS

NO.	DATE	DESCRIPTION

HEA PROJECT NO. 22-033
ISSUED DATE: 10/24/2023

UTILITY PLAN

SHEET NO.
C20
12

Oct 24,2023-9:18am Z:\HEA\HEA Projects\Projects 22-000\22-033 Velocity Tire - Georgetown\CAD Files\Civil\SD\22-033 C20.dwg

NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. ALL EXISTING GROUND LEVEL APPURTENANCES ARE SUBJECT TO ELEVATION CHANGES AND SHALL BE ADJUSTED TO FINAL GRADE.
3. ALL WASTEWATER MANHOLES SHALL BE COATED AND VACUUM TESTED.
4. MANHOLES OUTSIDE OF PAVEMENT SHALL HAVE BOLTED COVERS.
5. ALL GRAVITY WASTEWATER LINES ARE TO BE CONSTRUCTED OF SDR-26.
6. ALL NON-CITY INFRASTRUCTURE INCLUDING GAS, ELECTRIC CABLE, AND TELECOMMUNICATIONS SHALL TRAVERSE UNDERNEATH CITY INFRASTRUCTURE, INCLUDING BUT NOT LIMITED TO WATERLINES, WASTEWATER LINES, AND STORM SEWERS, WITH A MINIMUM OUTSIDE-TO-OUTSIDE CLEARANCE OF 18" WHERE NON-CITY INFRASTRUCTURE WOULD HAVE TO BE PLACED AT A DEPTH OF 8' OR GREATER TO MEET THE PRECEDING REQUIREMENT, TRAVERSING ABOVE CITY INFRASTRUCTURE MAY BE ALLOWED, SUBJECT TO THE APPROVAL OF THE CITY ENGINEER, BUT ONLY IN CONFORMANCE WITH CROSS-SECTIONS, PROFILES, AND / OR OTHER DETAILED INFORMATION INCORPORATED IN THESE PLANS.
7. CONTRACTOR TO STAKEOUT WATERLINE EASEMENT PRIOR TO THE INSTALLATION OF THE WATERLINE, FOR INSTALLATION ACCURACY.
8. FOR ALL POINTS WHERE A WASTEWATER GRAVITY OR FORCE MAIN LINE CROSSES UNDER A PUBLIC WATER SUPPLY OR WATER SERVICE:
   - 8.1. VERTICAL SEPARATION MUST BE AT LEAST TWO FEET FROM OUTSIDE DIAMETERS OF PIPES;
   - 8.2. WASTEWATER PIPE WITH A MINIMUM PRESSURE RATING OF 150 PSI;
   - 8.3. ONE SEGMENT OF WATER LINE SHALL BE CENTERED ON CROSSING.
9. FOR ALL POINTS WHERE A WASTEWATER GRAVITY OR FORCE MAIN LINE CROSSES OVER A PUBLIC WATER SUPPLY OR WATER SERVICE:
   - 9.1. VERTICAL SEPARATION MUST BE AT LEAST TWO FEET FROM OUTSIDE DIAMETERS OF PIPE;
   - 9.2. WATER SHALL BE PLACED IN AN ENCASEMENT CENTERED ON THE CROSSING, SEALED AT BOTH ENDS WITH CEMENT GROUT OR MANUFACTURED SEAL, AT LEAST TWO NOMINAL SIZES LARGER, AND SUPPORTED BY SPACERS AT 5' INTERVALS;
   - 9.3. ONE SEGMENT OF WATERLINE SHALL BE CENTERED ON CROSSING.
10. FOR WASTEWATER OR FORCE MAIN LINES THAT PARALLEL PUBLIC WATER OR WATER SERVICES:
    - 10.1. SEPARATION MUST BE AT LEAST NINE FEET FROM OUTSIDE DIAMETERS OF PIPE IN ANY DIRECTION;
11. ALL WATER LINE FITTINGS SHALL BE RESTRAINED AND THRUST BLOCKED.
12. UNLESS OTHERWISE SPECIFIED, ALL WATER MAINS SHALL BE CONSTRUCTED OF C900 DR-14 PVC.
13. PROVIDE 3' CLEAR AREA AROUND FIRE HYDRANTS.
14. ALL FIRE SERVICE LEADS SHALL BE DUCTILE IRON.
15. VALVES SHALL BE AMERICAN DARLING BRAND.
16. FIRE HYDRANTS SHALL BE AMERICAN DARLING BRAND.
17. CONTRACTOR SHALL PATCH ALL PAVEMENT PER DETAIL VIEWNUMBER/SHEETTITLE.
18. 6" RPDA TO BE WATTS 909/LF909 6" OR EQUAL. 6" RPDA FOR FIRE PROTECTION USE ONLY. RPDA TO BE ENCLOSED IN INSULATED ALUMINUM ENCLOSURE CONFORMING WITH ASSE 1060 - PERFORMANCE REQUIREMENTS FOR OUTDOOR ENCLOSURES FOR BACKFLOW PREVENTION ASSEMBLIES. CONTRACTOR TO PROVIDE SUBMITTAL TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

HAGOOD ENGINEERING ASSOCIATES
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SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN
4229 WILLIAMS DRIVE
GEORGETOWN, TX 78628

NO.	DATE	DESCRIPTION
		REVISIONS

HEA PROJECT NO 22-033
ISSUED DATE: 10/24/2023

UTILITY PROFILES

SHEET NO.
C21
13

Oct 24,2023-9:18am Z:\HEA\HEA Projects\Projects 22-000\22-033 Velocity Tire - Georgetown\CAD Files\Civil\SD\22-033 C21.dwg

NOTES:

1. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
2. ALL EXISTING GROUND LEVEL APPURTENANCES ARE SUBJECT TO ELEVATION CHANGES AND SHALL BE ADJUSTED TO FINAL GRADE.
3. ALL WASTEWATER MANHOLES SHALL BE COATED AND VACUUM TESTED.
4. MANHOLES OUTSIDE OF PAVEMENT SHALL HAVE BOLTED COVERS.
5. ALL GRAVITY WASTEWATER LINES ARE TO BE CONSTRUCTED OF SDR-26.
6. ALL NON-CITY INFRASTRUCTURE INCLUDING GAS, ELECTRIC CABLE, AND TELECOMMUNICATIONS SHALL TRAVERSE UNDERNEATH CITY INFRASTRUCTURE, INCLUDING BUT NOT LIMITED TO WATERLINES, WASTEWATER LINES, AND STORM SEWERS, WITH A MINIMUM OUTSIDE-TO-OUTSIDE CLEARANCE OF 18" WHERE NON-CITY INFRASTRUCTURE WOULD HAVE TO BE PLACED AT A DEPTH OF 8' OR GREATER TO MEET THE PRECEDING REQUIREMENT, TRAVERSING ABOVE CITY INFRASTRUCTURE MAY BE ALLOWED, SUBJECT TO THE APPROVAL OF THE CITY ENGINEER, BUT ONLY IN CONFORMANCE WITH CROSS-SECTIONS, PROFILES, AND / OR OTHER DETAILED INFORMATION INCORPORATED IN THESE PLANS.
7. CONTRACTOR TO STAKEOUT WATERLINE EASEMENT PRIOR TO THE INSTALLATION OF THE WATERLINE, FOR INSTALLATION ACCURACY.
8. FOR ALL POINTS WHERE A WASTEWATER GRAVITY OR FORCE MAIN LINE CROSSES UNDER A PUBLIC WATER SUPPLY OR WATER SERVICE:
   - 8.1. VERTICAL SEPARATION MUST BE AT LEAST TWO FEET FROM OUTSIDE DIAMETERS OF PIPES;
   - 8.2. WASTEWATER PIPE WITH A MINIMUM PRESSURE RATING OF 150 PSI;
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10. FOR WASTEWATER OR FORCE MAIN LINES THAT PARALLEL PUBLIC WATER OR WATER SERVICES:
    - 10.1. SEPARATION MUST BE AT LEAST NINE FEET FROM OUTSIDE DIAMETERS OF PIPE IN ANY DIRECTION;
11. ALL WATER LINE FITTINGS SHALL BE RESTRAINED AND THRUST BLOCKED.
12. UNLESS OTHERWISE SPECIFIED, ALL WATER MAINS SHALL BE CONSTRUCTED OF C900 DR-14 PVC.
13. PROVIDE 3' CLEAR AREA AROUND FIRE HYDRANTS.
14. ALL FIRE SERVICE LEADS SHALL BE DUCTILE IRON.
15. VALVES SHALL BE AMERICAN DARLING BRAND.
16. FIRE HYDRANTS SHALL BE AMERICAN DARLING BRAND.
17. CONTRACTOR SHALL PATCH ALL PAVEMENT PER DETAIL VIEWNUMBER/SHEETTITLE.
18. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A SUBSURFACE UTILITY INVESTIGATION. CONTRACTOR TO VERIFY EXISTING UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR TO CARRY CONTINGENCY FOR UNFORESEEN CONDITIONS ARISING DUE TO EXISTING UTILITIES.

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DATE SIGNED: 10/24/2023
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SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN 4229 WILLIAMS DRIVE GEORGETOWN, TX 78628

NO.	DATE	DESCRIPTION
		REVISIONS

HEA PROJECT NO 22-033
ISSUED DATE: 10/24/2023

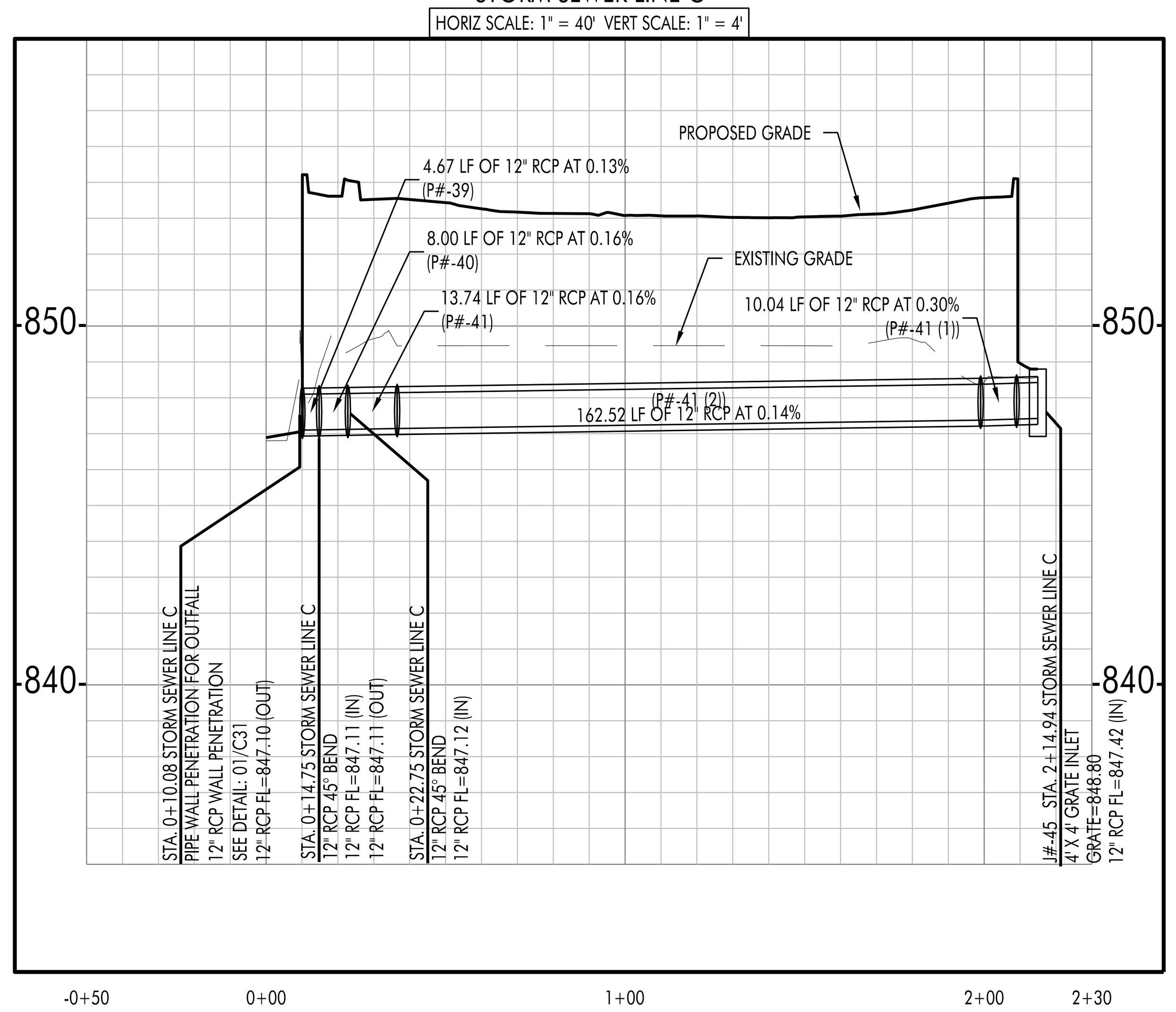
DRAINAGE PLAN

SHEET NO.
C30
14

Oct 24,2023-9:18am Z:\HEA\HEA Projects\Projects 22-000\22-033 Velocity Tire - Georgetown\CAD Files\Civil\SD\22-033 C30.dwg

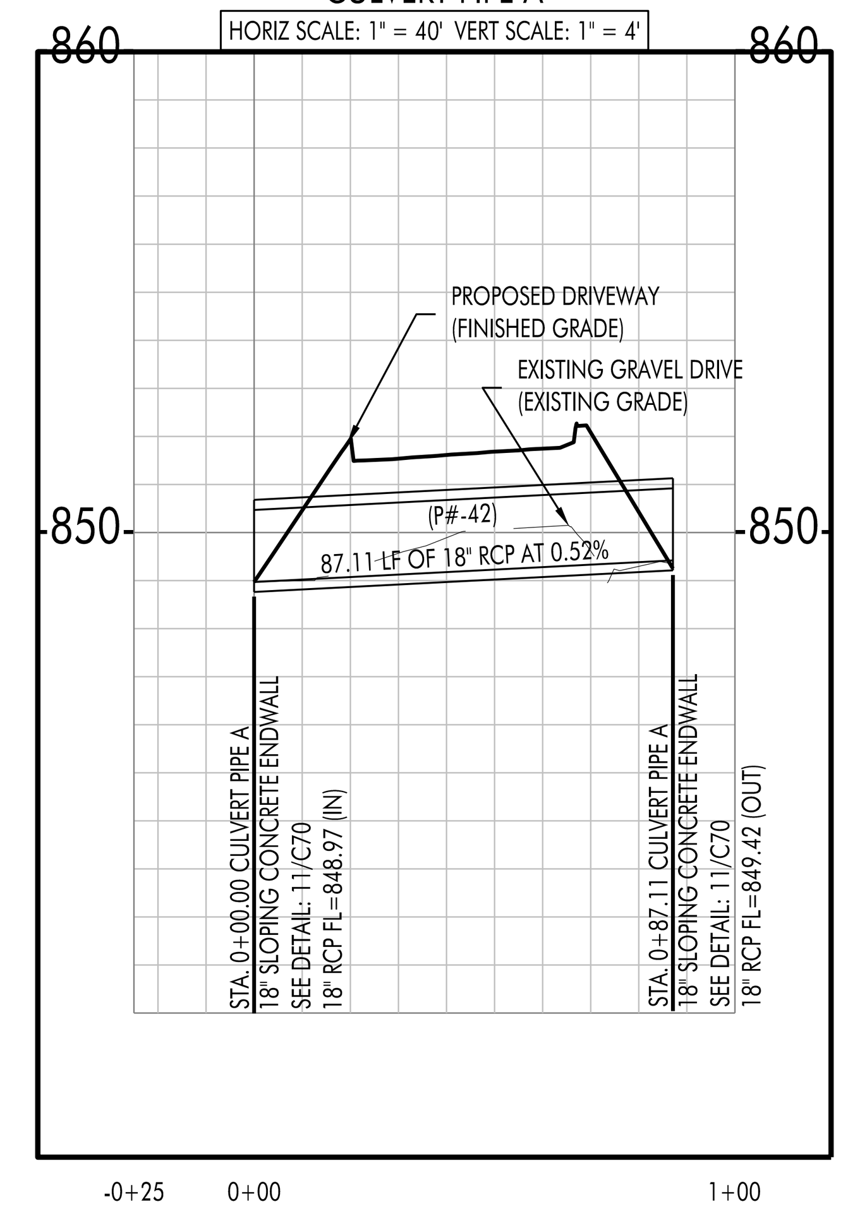
STORM SEWER LINE C

HORIZ SCALE: 1" = 40' VERT SCALE: 1" = 4'



CULVERT PIPE A

HORIZ SCALE: 1" = 40' VERT SCALE: 1" = 4'



Contech Engineered Solutions Calculations for Texas Commission on Environmental Quality
TSS Removal Calculations

Project Name: Velocity Tire - Georgetown
Date Prepared: 8/3/2023

1. The Required Load Reduction for the total project:

Calculations from RG-348 — Page 3-29 Equation 3.3: $L_M = 28.9(A_N \times P)$
Pages 3-27 to 3-30

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 85% 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 * =	0.63	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	0.63	acres
Total post-development impervious cover fraction * =	1.00	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	583	lbs.
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. =	1	
Total drainage basin/outfall area =	0.37	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.37	acres
Post-development impervious fraction within drainage basin/outfall area =	1.00	
$L_{M\ THIS\ BASIN}$ =	342	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	JF	abbreviation
Removal efficiency =	86	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:
$LR = (\text{BMP efficiency}) \times P \times (A_I \times 34.6 + A_P \times 0.54)$

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 =	0.37	acres
A_I =	0.37	acres
A_P =	0.00	acres
L_R =	352	lbs.

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

Desired $L_{M\ THIS\ BASIN}$ =	342	lbs.
F =	0.97	

6. Calculate Treated Flow required by the BMP Type for this drainage basin / outfall area.

Calculations from RG-348
Pages Section 3.2.22

Offsite area draining to BMP =	0.00	acres
Offsite impervious cover draining to BMP =	0.00	acres
Rainfall Intensity =	2.00	inches per hour
Effective Area =	0.33	acres
Cartridge Length =	54	inches
Peak Treatment Flow Required =	0.67	cubic feet per second

7. Jellyfish
Designed as Required in RG-348
Section 3.2.22

Flow Through Jellyfish Size — Vault

Jellyfish Size for Flow-Based Configuration =	JFPD0406-4-1	
Jellyfish Treatment Flow Rate =	0.80	cfs

Contech Engineered Solutions Calculations for Texas Commission on Environmental Quality
TSS Removal Calculations

Project Name: Velocity Tire - Georgetown
Date Prepared: 8/3/2023

1. The Required Load Reduction for the total project:

Calculations from RG-348 — Page 3-29 Equation 3.3: $L_M = 28.9(A_N \times P)$
Pages 3-27 to 3-30

$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 85% 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 * =	0.63	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	0.63	acres
Total post-development impervious cover fraction * =	1.00	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	583	lbs.
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 =	0.26	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.26	acres
Post-development impervious fraction within drainage basin/outfall area =	1.00	
$L_{M\ THIS\ BASIN}$ =	240	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP =	JF	abbreviation
Removal efficiency =	86	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:
$LR = (\text{BMP efficiency}) \times P \times (A_I \times 34.6 + A_P \times 0.54)$

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 =	0.26	acres
A_I =	0.26	acres
A_P =	0.00	acres
L_R =	248	lbs.

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

Desired $L_{M\ THIS\ BASIN}$ =	240	lbs.
F =	0.97	

6. Calculate Treated Flow required by the BMP Type for this drainage basin / outfall area.

Calculations from RG-348
Pages Section 3.2.22

Offsite area draining to BMP =	0.00	acres
Offsite impervious cover draining to BMP =	0.00	acres
Rainfall Intensity =	2.00	inches per hour
Effective Area =	0.23	acres
Cartridge Length =	54	inches
Peak Treatment Flow Required =	0.47	cubic feet per second

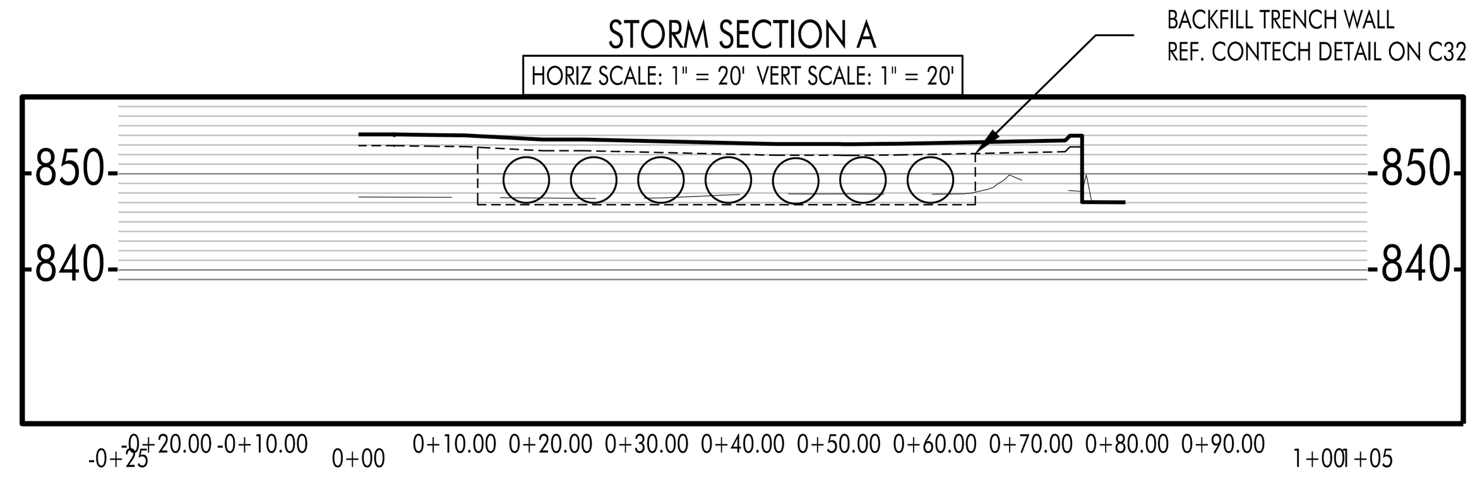
7. Jellyfish
Designed as Required in RG-348
Section 3.2.22

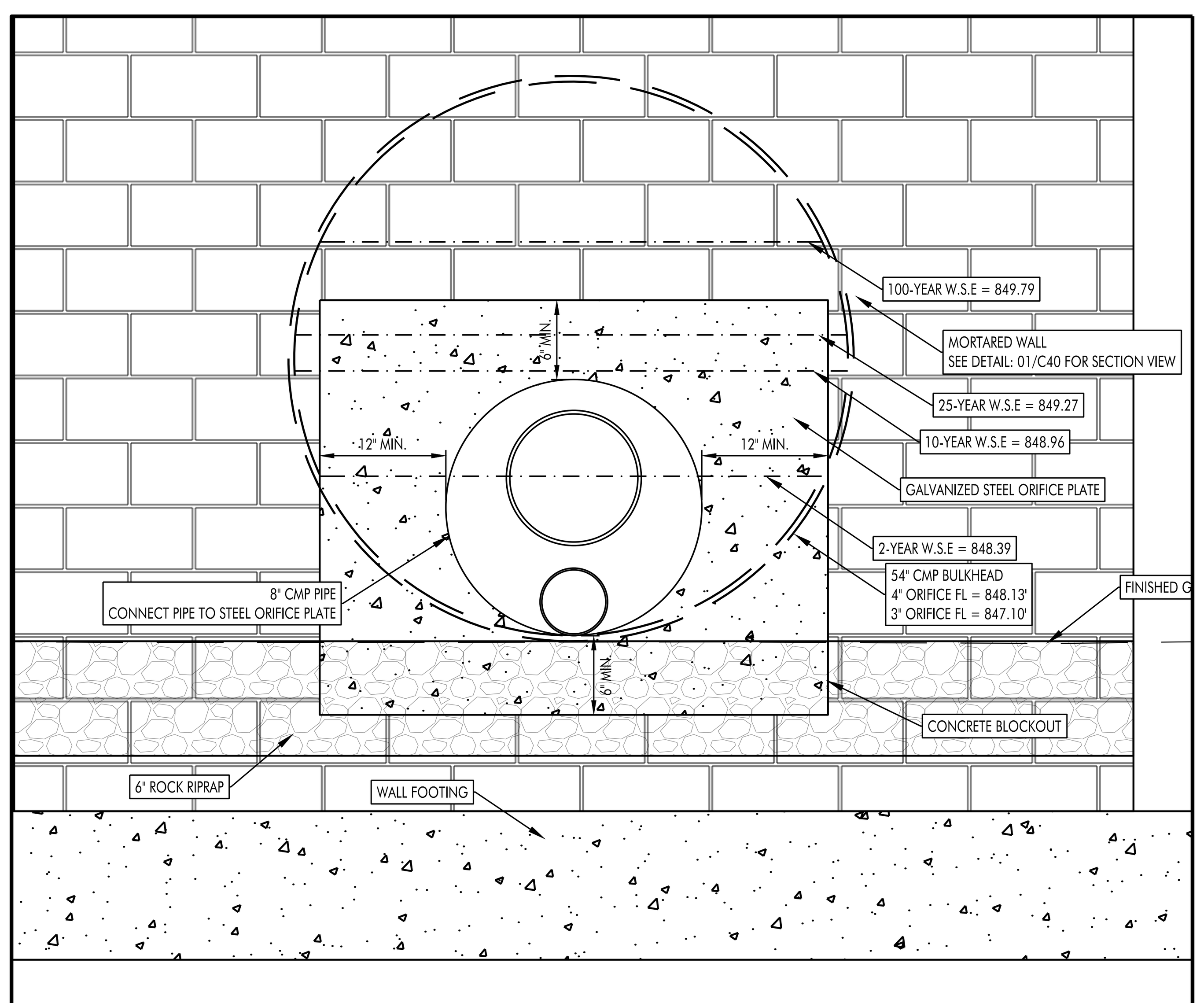
Flow Through Jellyfish Size — Vault

Jellyfish Size for Flow-Based Configuration =	JFSI0406-3-1	
Jellyfish Treatment Flow Rate =	0.62	cfs

STORM SECTION A

HORIZ SCALE: 1" = 20' VERT SCALE: 1" = 20'





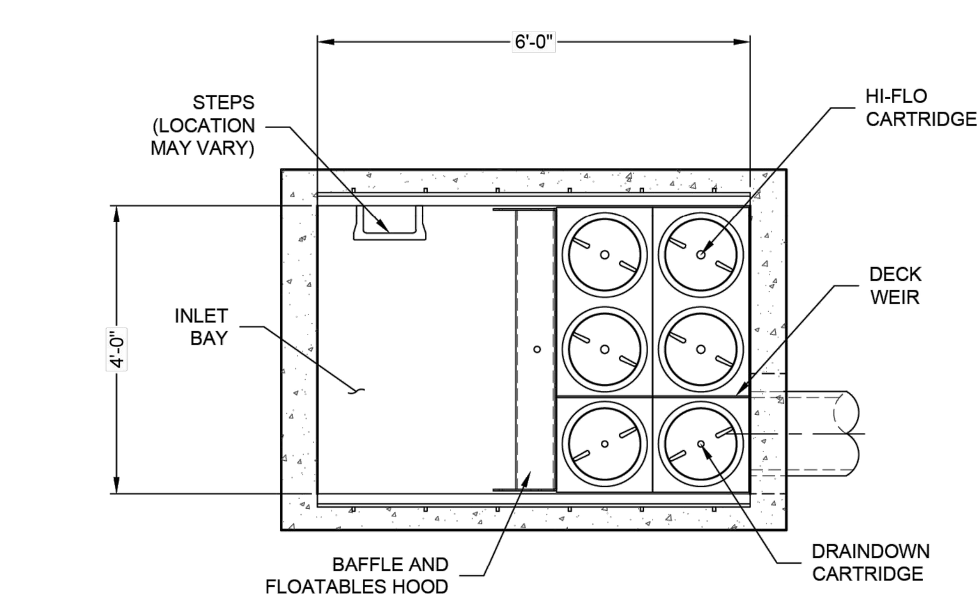
01	POND OUTLET DETAIL	NTS

JELLYFISH DESIGN NOTES

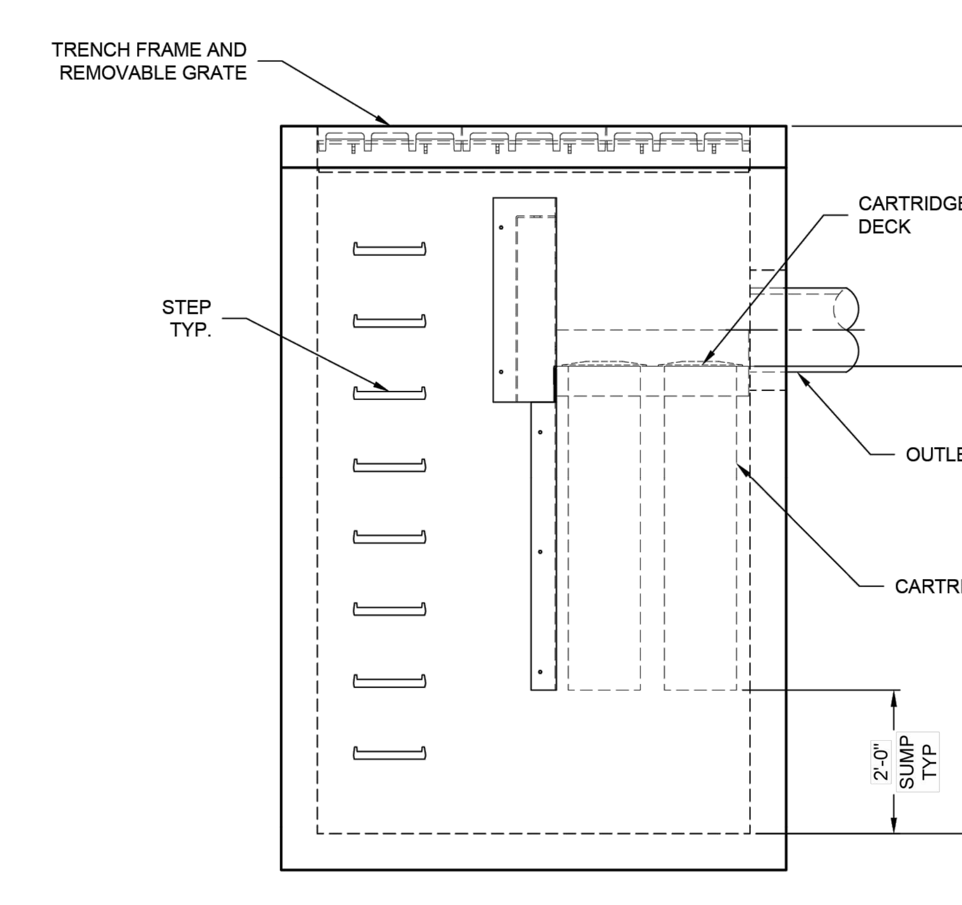
JELLYFISH TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE LENGTH AND THE NUMBER OF CARTRIDGES. THE STANDARD SURFACE INLET STYLE WITH TRENCH GRATE AND COVER IS SHOWN. ALTERNATE CURB INLET OR PIPE INLET OPTIONS ARE AVAILABLE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.

CARTRIDGE SELECTION

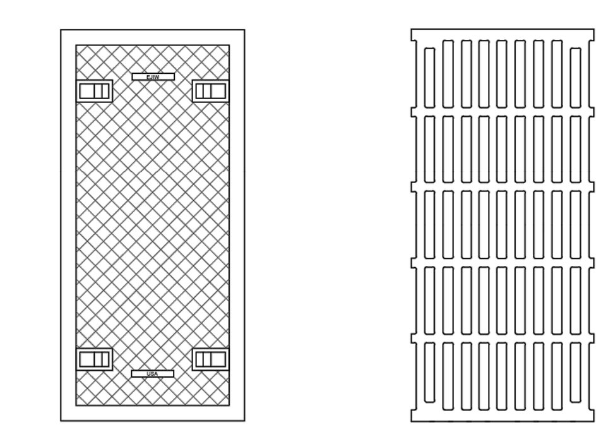
CARTRIDGE LENGTH	54"	40"	27"	15"
OUTLET INVERT TO STRUCTURE INVERT (A)	6'-6"	5'-4"	4'-3"	3'-3"
FLOW RATE HIGH-FLO / DRAINDOWN (CFS) (PER CART)	0.178 / 0.089	0.133 / 0.067	0.089 / 0.045	0.049 / 0.025
MAX. TREATMENT (CFS)	0.89	0.67	0.45	0.25
OUTLET INVERT TO RIM (MIN) (B)	3'-4"	3'-4"	3'-4"	3'-4"



PLAN VIEW
(TOP SLAB NOT SHOWN FOR CLARITY)



ELEVATION VIEW



24" TRENCH COVER
N.T.S.

24" TRENCH GRATE
N.T.S.

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID					*
WATER QUALITY FLOW RATE (cfs)					*
PEAK FLOW RATE (cfs)					*
RETURN PERIOD OF PEAK FLOW (yrs)					*
# OF CARTRIDGES REQUIRED (HF / DD)					*
CARTRIDGE LENGTH					*
PIPE DATA:	I.E.	MAT'L	DIA	SLOPE %	HGL
INLET #1	*	*	*	*	*
INLET #2	*	*	*	*	*
OUTLET	*	*	*	*	*
SEE GENERAL NOTES 6-7 FOR INLET AND OUTLET HYDRAULIC AND SIZING REQUIREMENTS.					
RIM ELEVATION					*
ANTI-FLOTATION BALLAST			WIDTH		HEIGHT
			*		*
NOTES/SPECIAL REQUIREMENTS:					
* PER ENGINEER OF RECORD					

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS REPRESENTATIVE. www.ContechES.com
3. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STRUCTURE SHALL MEET AASHTO HS-20 OR PER APPROVING JURISDICTION REQUIREMENTS, WHICHEVER IS MORE STRINGENT. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION AND SITE SPECIFIC EARTH COVER REQUIREMENT. TYPICAL CASTINGS SHALL MEET AASHTO M306 LOAD RATING AND BE CAST WITH THE CONTECH LOGO.
5. STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-857, ASTM C-918, AND AASHTO LOAD FACTOR DESIGN METHOD.
6. OUTLET PIPE INVERT IS EQUAL TO THE CARTRIDGE DECK ELEVATION.
7. THE OUTLET PIPE DIAMETER FOR NEW INSTALLATIONS IS RECOMMENDEDTO BE ONE PIPE SIZE LARGER THAN THE INLET PIPE (WHERE APPLICABLE) AT EQUAL OR GREATER SLOPE.
8. NO PRODUCT SUBSTITUTIONS SHALL BE ACCEPTED UNLESS SUBMITTED 10 DAYS PRIOR TO PROJECT BID DATE, OR AS DIRECTED BY THE ENGINEER OF RECORD.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE.
C. CONTRACTOR WILL INSTALL AND LEVEL THE STRUCTURE, SEALING THE JOINTS, LINE ENTRY AND EXIT POINTS (NON-SHRINK GROUT WITH APPROVED WATERSTOP OR FLEXIBLE BOOT).
D. CARTRIDGE INSTALLATION, BY CONTECH, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT CONTECH TO COORDINATE CARTRIDGE INSTALLATION WITH SITE STABILIZATION.

Jellyfish® Filter

CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

JELLYFISH JFSI0406
STANDARD DETAIL
SURFACE INLET CONFIGURATION

HAGOOD ENGINEERING ASSOCIATES
900 E. Main Street
Round Rock, TX 78664
Phone (512) 244-1546
Fax (512) 244-1010
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TBPE Registration No. F-12709

STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

DATE SIGNED: 10/24/2023
ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN
4229 WILLIAMS DRIVE
GEORGETOWN, TX 78628

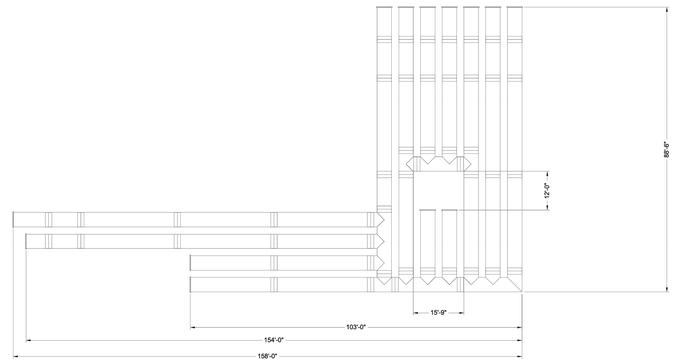
NO.	DATE	DESCRIPTION

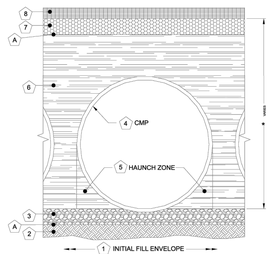
REVISIONS

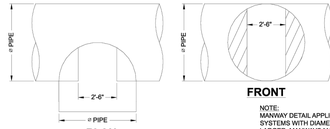
HEA PROJECT NO: 22-033
ISSUED DATE: 10/24/2023

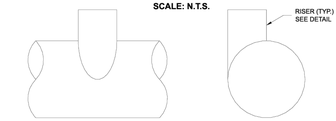
STORM PROFILE & DETAILS

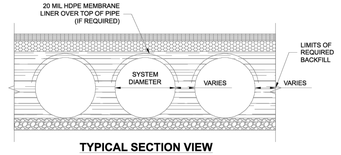
SHEET NO.
C31
15

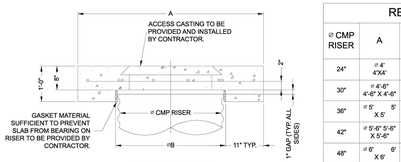


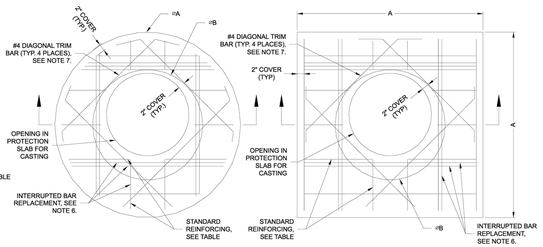


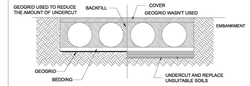


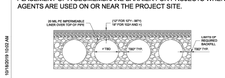


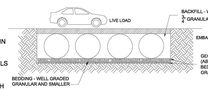


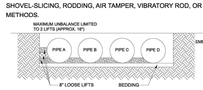


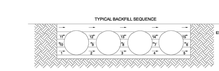


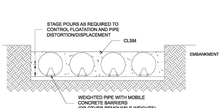


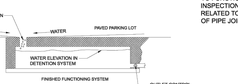












PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 954 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 15,000 CF
- PIPE STORAGE VOLUME = 15,169 CF
- BACKFILL STORAGE VOLUME = 0 CF
- TOTAL STORAGE PROVIDED = 15,169 CF

PIPE DETAILS
- DIAMETER = 54"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = ALT2
- WALL TYPE = SOLID
- BARREL SPACING = 27"

BACKFILL DETAILS
- WIDTH AT ENDS = 12"
- ABOVE PIPE = 0"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 0"

NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE $2\frac{2}{3}$" x $\frac{1}{2}$" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

ASSEMBLY
SCALE: 1" = 20'

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CONTECH® CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO35881 Velocity Tire - Georgetown
54" Solid Underground Detention System
Georgetown, TX
DETENTION SYSTEM

PROJECT No.: 24361	SEQ. No.: 35881	DATE: 8/3/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

Material Location	Description	Material Designation	Designation
DETENTION SYSTEMS - CMP DETENTION / CMP DRAINAGE			
8 Rigid or Flexible Pavement (if applicable)			
7 Road Base (if applicable)			
A Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45	Engineer Decision for consideration to prevent soil migration into varying soil types
6 Backfill	Well graded granular material which may contain small amounts of silt or clay.	AASHTO M 145- A-1, A-2, A-3	Placed in 8" +/- loose lifts and compacted to 90% Standard Proctor Per AASHTO T 99
3 Bedding Stone	Well graded granular bedding material w/maximum particle size of 3"	AASHTO M43 - 3,357,4,467, 5, 56, 57	Engineer to determine if bedding is required. Pipe may be placed on the trench bottom of a relatively loose, native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation. See AASHTO 26.3.8.1 / 26.5.3 Bedding info.
A Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45	Engineer Decision for consideration to prevent soil migration into varying soil types

* *Note: Backfill using controlled low-strength material (CLSM, "flash fill" or "flowable fill") when the spacing between the pipes will not allow for placement and adequate compaction of the backfill.*

① MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT

FOUNDATION/BEDDING PREPARATION

② PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.

⑤ HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMALLY COMPACTED WITHOUT SOFT SPOTS.

BACKFILL

WHEN PLACING THE FIRST LIFTS OF BACKFILL IT IS IMPORTANT TO MAKE SURE THAT THE BACKFILL IS PROPERLY COMPACTED UNDER AND AROUND THE PIPE HAUNCHES. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO LIFT (16") DIFFERENTIAL BETWEEN ANY OF THE PIPES AT ANY TIME DURING THE BACKFILL PROCESS. THE BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE DETENTION SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON THE PIPE.

OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS, AS APPROVED BY SITE ENGINEER.

PLAN

FRONT

NOTE:
MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.

TYPICAL MANWAY DETAIL

SCALE: N.T.S.

ELEVATION

END

NOTE:
LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.

TYPICAL RISER DETAIL

SCALE: N.T.S.

TYPICAL SECTION VIEW

LINER OVER ROWS
SCALE: N.T.S.

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, AN HDPE MEMBRANE LINER IS RECOMMENDED WITH THE SYSTEM. THE IMPERMEABLE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

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DYO35881 Velocity Tire - Georgetown
54" Solid Underground Detention System
Georgetown, TX
DETENTION SYSTEM

PROJECT No.: 24361	SEQ. No.: 35881	DATE: 8/3/2023
DESIGNED: DYO	DRAWN: DYO	
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CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM:

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

MATERIAL
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE OF AASHTO M-197 OR ASTM B-744.

CONSTRUCTION LOADS
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

PIPE
THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

APPLICABLE POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745
APPLICABLE
HANDLING AND ASSEMBLY
SHALL BE IN ACCORDANCE WITH NCSP'S (NATIONAL CORRUGATED STEEL APPLICABLE PIPE ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL. SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ALUMINUM PIPE.
REQUIREMENTS
INSTALLATION
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II DIVISION II OR ASTM A-798 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

NOTE:
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SECTION VIEW

REINFORCING TABLE

⌀ CMP RISER	A	⌀ B	REINFORCING	**BEARING PRESSURE (PSF)
24"	⌀ 4' 4'X4'	26"	#5 @ 12" OCEW #5 @ 12" OCEW	2,410 1,780
30"	⌀ 4'-6" 4'-6" X 4'-6"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	2,120 1,530
36"	⌀ 5' 5' X 5'	38"	#5 @ 10" OCEW #5 @ 10" OCEW	1,890 1,350
42"	⌀ 5'-6" 5'-6" X 5'-6"	44"	#5 @ 10" OCEW #5 @ 9" OCEW	1,720 1,210
48"	⌀ 6' 6' X 6'	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,600 1,100

** ASSUMED SOIL BEARING CAPACITY

ROUND OPTION PLAN VIEW

SQUARE OPTION PLAN VIEW

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL

SCALE: N.T.S.

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CMP DETENTION INSTALLATION GUIDE

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

FOUNDATION

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION.

IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR PAVEMENT ABOVE. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOGRID REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE. IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME, IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING SATURATION OF THE SUBGRADE.

GEOMEMBRANE BARRIER

A SITE'S RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DEICING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE LIFE.

THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.

IN-SITU TRENCH WALL

IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF THE OUTER MOST PIPES.

IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN.

BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE GEOTECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE LEVEL OF COMPACTION.

FOR LARGE SYSTEMS, CONVEYOR SYSTEMS, BACKHOES WITH LONG REACHES OR DRAGLINES WITH STONE BUCKETS MAY BE USED TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACROSS THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE AGAIN UNTIL THE SYSTEM IS COMPLETELY BACKFILLED. THIS TYPE OF CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL DIRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED DETENTION SYSTEM SHOULD BE LIMITED TO 8- TO 10-FEET HIGH AND MUST PROVIDE BALANCED LOADING ACROSS ALL BARRELS. TO DETERMINE THE PROPER COVER OVER THE PIPES TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT SEE TABLE 1, OR CONTACT YOUR LOCAL CONTECH SALES ENGINEER.

WHEN FLOWABLE FILL IS USED, YOU MUST PREVENT PIPE FLOATATION. TYPICALLY, SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN ALLOWED TO SET-UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE OPPOSING WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING MEASURES. THE PIPE CAN CARRY LIMITED FLUID PRESSURE WITHOUT PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP DETERMINE THE PROPER LIFT THICKNESS.

CONSTRUCTION LOADING

TYPICALLY, THE MINIMUM COVER SPECIFIED FOR A PROJECT ASSUMES H-20 LIVE LOAD. BECAUSE CONSTRUCTION LOADS OFTEN EXCEED DESIGN LIVE LOADS, INCREASED TEMPORARY MINIMUM COVER REQUIREMENTS ARE NECESSARY. SINCE CONSTRUCTION EQUIPMENT VARIES FROM JOB TO JOB, IT IS BEST TO ADDRESS EQUIPMENT SPECIFIC MINIMUM COVER REQUIREMENTS WITH YOUR LOCAL CONTECH SALES ENGINEER DURING YOUR PRE-CONSTRUCTION MEETING.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION; POTENTIALLY CAUSING FLOATATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.

CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ABRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALTING/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM, IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE SPRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

C:\EXPORTS\TEMPLATES\CMP_V8.DWG 10/18/2019 10:02 AM

DATE	REVISION DESCRIPTION	BY

CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH® CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO35881 Velocity Tire - Georgetown
54" Solid Underground Detention System
Georgetown, TX
DETENTION SYSTEM

PROJECT No.: 24361	SEQ. No.: 35881	DATE: 8/3/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

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ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT PLANS FOR
VELOCITY TIRE - GEORGETOWN
4229 WILLIAMS DRIVE
GEORGETOWN, TX 78628

REVISIONS

NO.	DATE	DESCRIPTION

HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

CONTECH DETAIL

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C32
16

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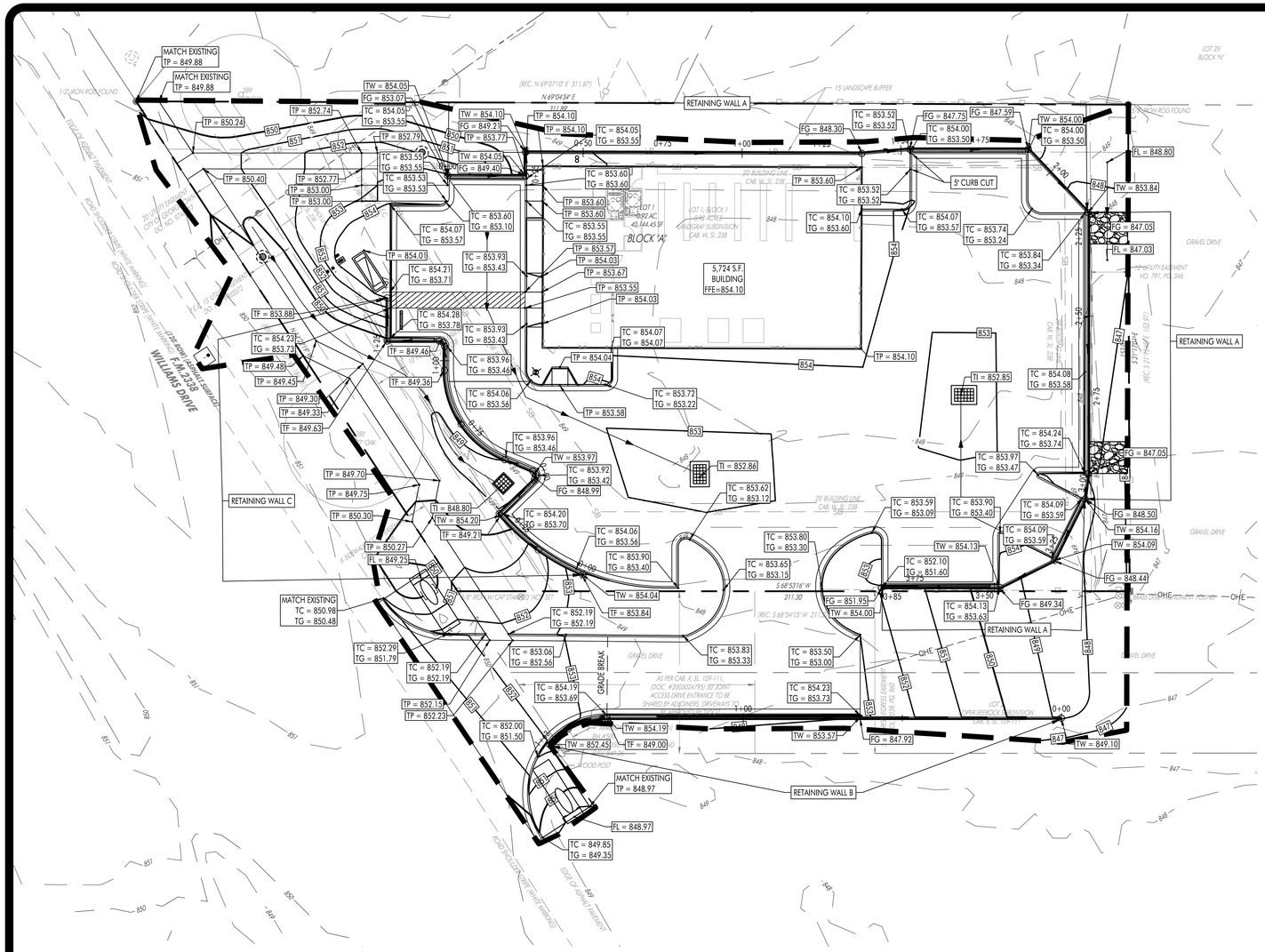

SCALE:1"=20'

NOTES:

1. SLOPES OF ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP.
2. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30". RAMPS SHALL BE PROVIDED WITH HANDRAILS AND GROUND SURFACE EDGE PROTECTION EACH SIDE AND ENTIRE LENGTH OF RAMP PER TDLR ADA REQUIREMENTS.
3. ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50.
4. GROUND SURFACE ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM AND SLIP RESISTANT.
5. SPOT ELEVATION LEGEND:
   - BW = BOTTOM OF WALL
   - EX. = EXISTING ELEVATION
   - FG = FINISHED GRADE
   - FL = FLOW LINE
   - TC = TOP OF CURB
   - TF = TOP OF FOOTING
   - TG = GUTTER
   - TI = TOP OF INLET
   - TP = TOP OF PAVEMENT (CONCRETE/ASPHALT/SIDEWALK)
   - TW = TOP OF WALL

▨ NO CROSS SLOPES GREATER THAN 2% ANY DIRECTION IN THIS AREA.

MORTARED WALL AT CURB & GUTTER

MORTARED WALL AT SIDEWALK

01 **MORTARED WALL** **NTS**

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GEORGETOWN, TX 78628

REVISIONS

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HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

GRADING PLAN

SHEET NO.
C40
17

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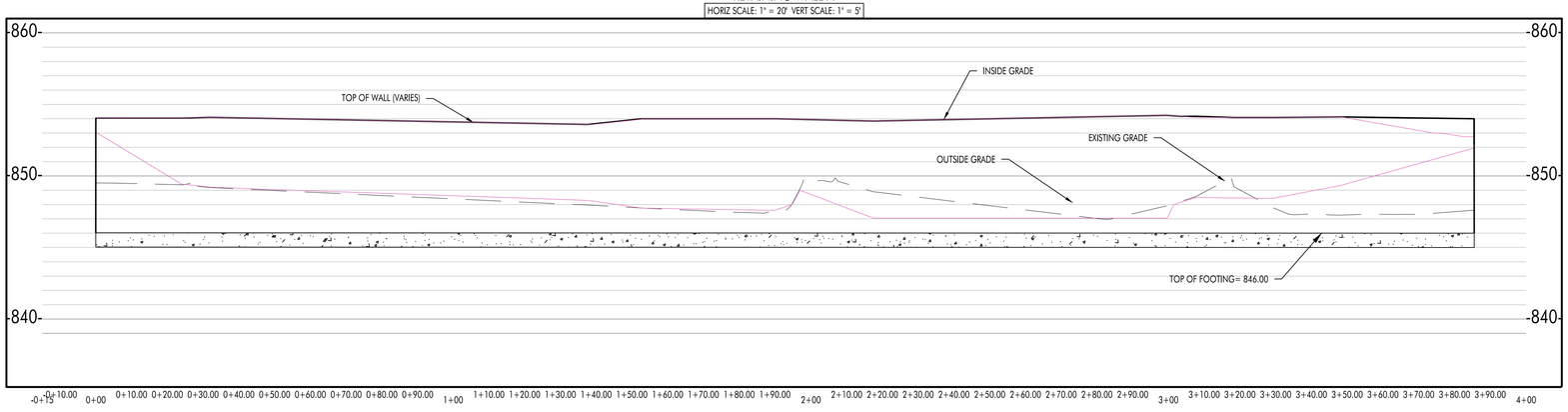
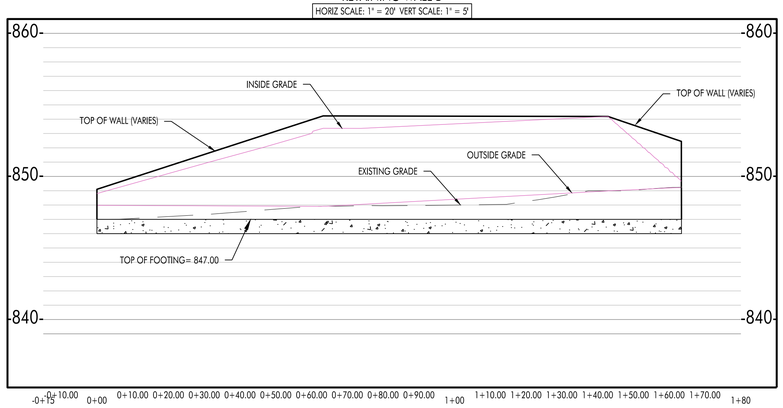
RETAINING WALL A

HORIZ SCALE: 1" = 20' VERT SCALE: 1" = 5'



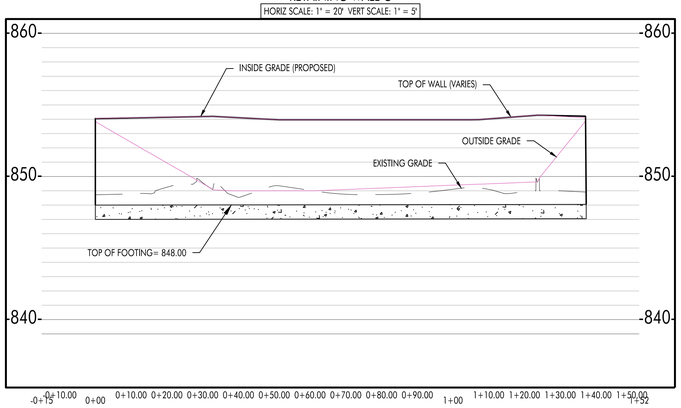
RETAINING WALL B

HORIZ SCALE: 1" = 20' VERT SCALE: 1" = 5'



RETAINING WALL C

HORIZ SCALE: 1" = 20' VERT SCALE: 1" = 5'



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REVISIONS

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WALL PROFILES

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C41
18

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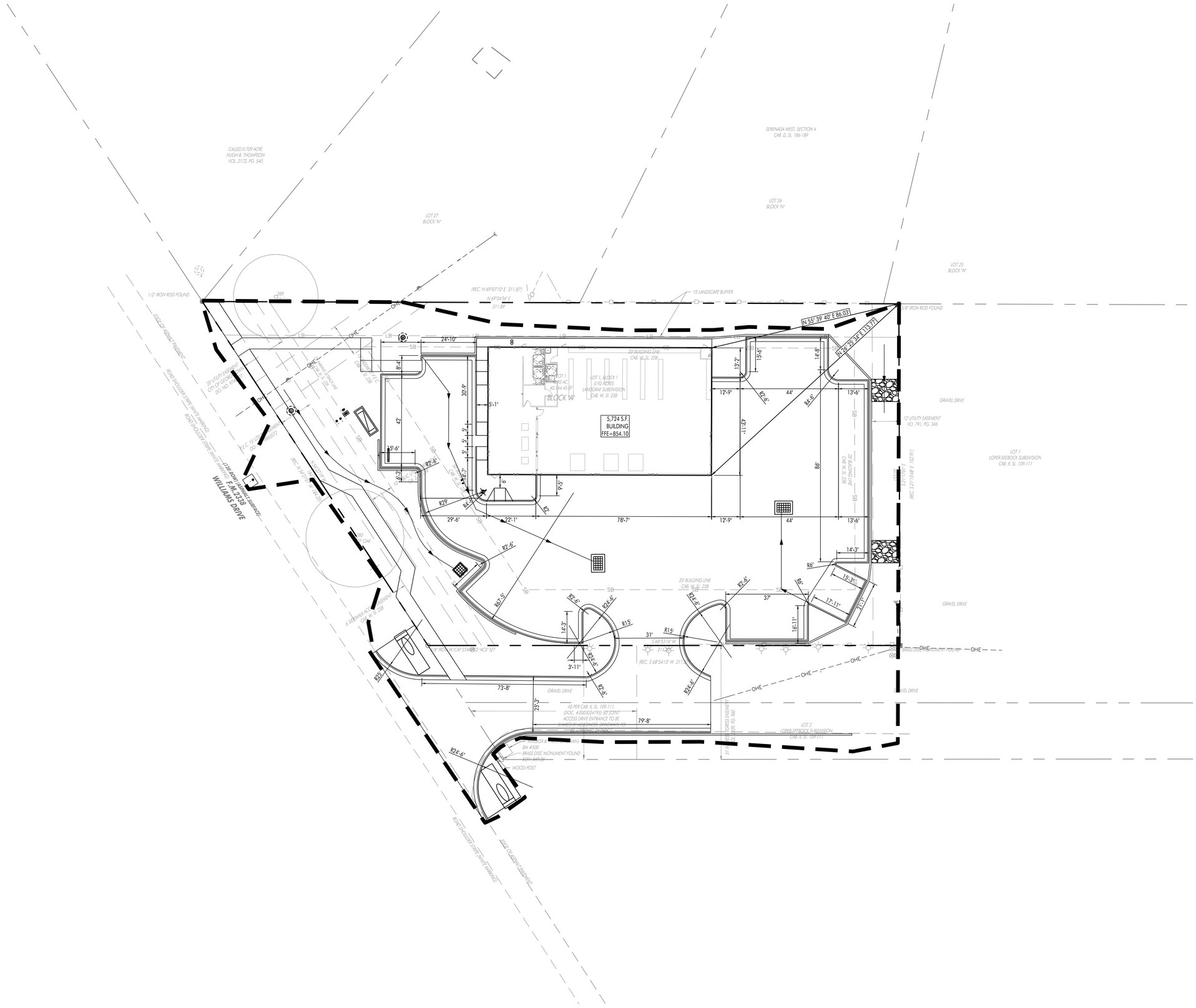

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DIMENSION CONTROL PLAN

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C50
19

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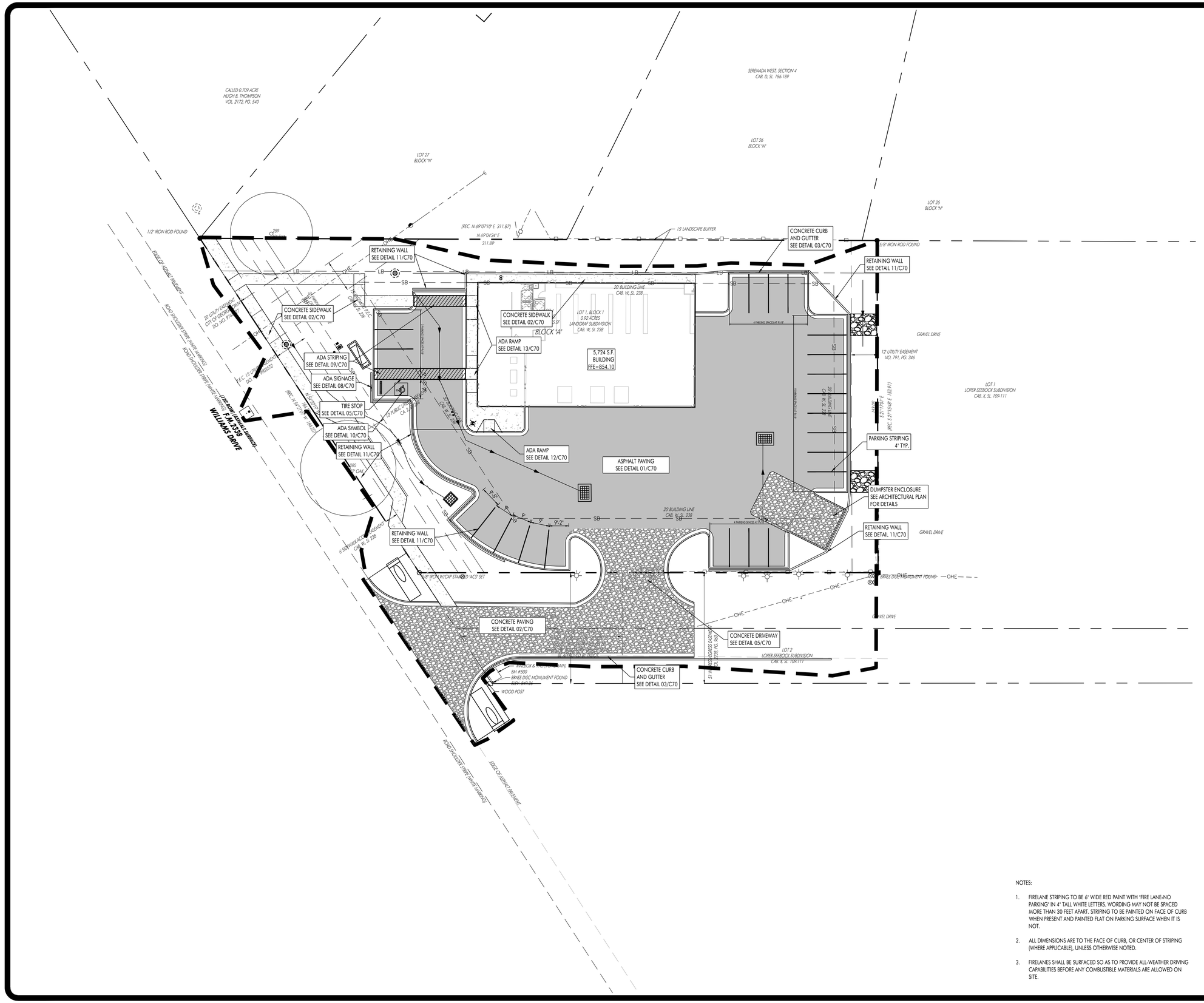

0 20 40

SCALE:1"=20'

LEGEND

- IRON ROD FOUND/SET
- CONCRETE MONUMENT FOUND/SET
- NAIL FOUND/SET
- PIPE FOUND
- STORMWATER MANHOLE (DRAWN TO SCALE)
- JUNCTION BOX (DRAWN TO SCALE)
- GRATE INLET (DRAWN TO SCALE)
- WASTEWATER MANHOLE (DRAWN TO SCALE)
- WASTEWATER CLEANOUT
- GAS TEST STATION
- GAS METER
- ELECTRIC METER
- LIGHT POLE
- SIGNAL LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- FIRE HYDRANT
- GATE VALVE
- IRRIGATION CONTROL VALVE
- WATER METER
- EXISTING CONTOURS
- PROPOSED CONTOUR
- PROPOSED CURB AND GUTTER
- PROPOSED ASPHALT
- PROPOSED X" DIA. GAS LINE
- PROPOSED X" DIA. STORM SEWER LINE
- PROPOSED X" DIA. WASTEWATER LINE
- PROPOSED X" DIA. WATER LINE
- EXISTING CHAIN LINK FENCE
- EXISTING WIRE FENCE
- EXISTING WOOD FENCE
- SETBACK LINE
- EASEMENT LINE
- EXISTING ASPHALT
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING OVERHEAD TELEPHONE LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATER LINE (SIZE VARIES)
- EXISTING WASTEWATER LINE (SIZE VARIES)
- EXISTING FORCE MAIN (SIZE VARIES)
- EXISTING FIBER OPTIC LINE
- EXISTING GAS LINE (SIZE VARIES)
- BENCHMARK LOCATION
- EXISTING TREE TO REMAIN (SIZE VARIES)
- EXISTING TREE TO BE REMOVED (SIZE VARIES)
- MONARCH/HERITAGE TREE (SIZE VARIES)
- PARKING COUNT
- PARCEL LINES
- HANDICAP ACCESS LINES
- CONCRETE PAVING
- ASPHALT PAVING
- CONCRETE SIDEWALK
- CONCRETE WASHOUT
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- ROCK BERM
- INLET PROTECTION
- TREE PROTECTION
- MULCH SOCK
- LIMITS OF CONSTRUCTION

NOTES:

1. FIRELANE STRIPING TO BE 6' WIDE RED PAINT WITH 'FIRE LANE-NO PARKING' IN 4" TALL WHITE LETTERS. WORDING MAY NOT BE SPACED MORE THAN 30 FEET APART. STRIPING TO BE PAINTED ON FACE OF CURB WHEN PRESENT AND PAINTED FLAT ON PARKING SURFACE WHEN IT IS NOT.
2. ALL DIMENSIONS ARE TO THE FACE OF CURB, OR CENTER OF STRIPING (WHERE APPLICABLE), UNLESS OTHERWISE NOTED.
3. FIRELANES SHALL BE SURFACED SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES BEFORE ANY COMBUSTIBLE MATERIALS ARE ALLOWED ON SITE.

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PAVING AND STRIPING PLAN

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20

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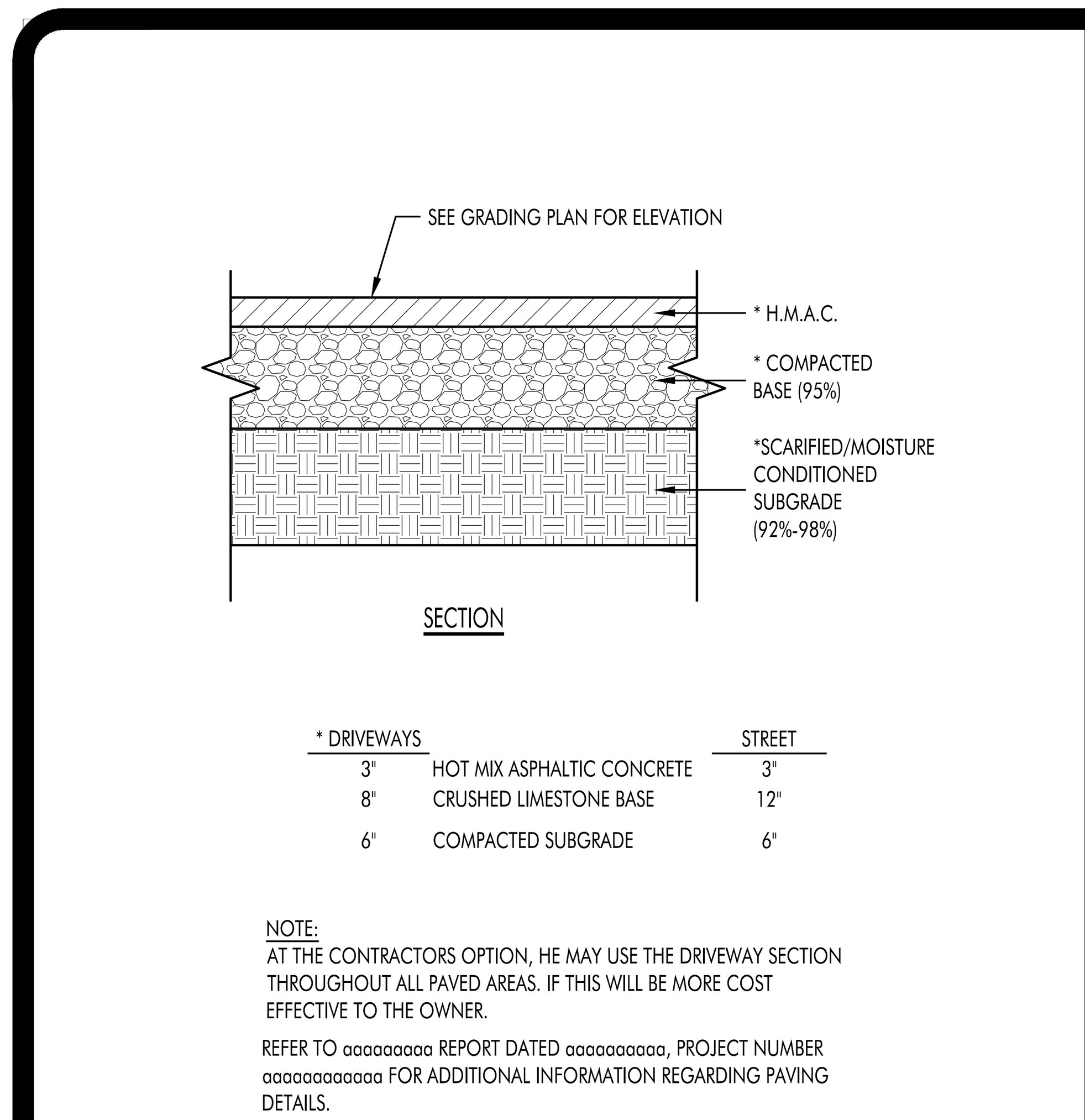
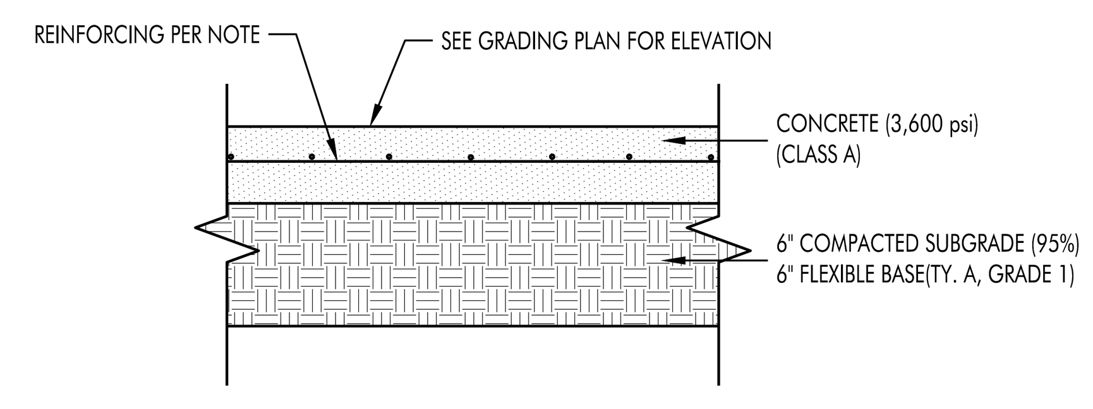


01 ASPHALT PAVING SECTION — NTS



TRAFFIC CONDITIONS	PAVEMENT SECTION	
PARKING AREAS	5" CONCRETE PAVEMENT	6"CONCRETE PAVEMENT
	6" CONCRETE BASE	6"COMPACTED SUBGRADE
MAIN DRIVE LANE, FIRELANE, DUMPSTER PAD AND APPROACH	6" CONCRETE PAVEMENT	6" CONCRETE PAVEMENT
	6" FLEXIBLE BASE	6"COMPACTED SUBGRADE

REINFORCING STEEL:
MIN #4 BARS SPACED AT 16" OCEW (DRIVES, MECHANICAL PAD & PARKING AREAS)
MIN #4 BARS SPACED AT 12" OCEW (DUMPSTER PAD)

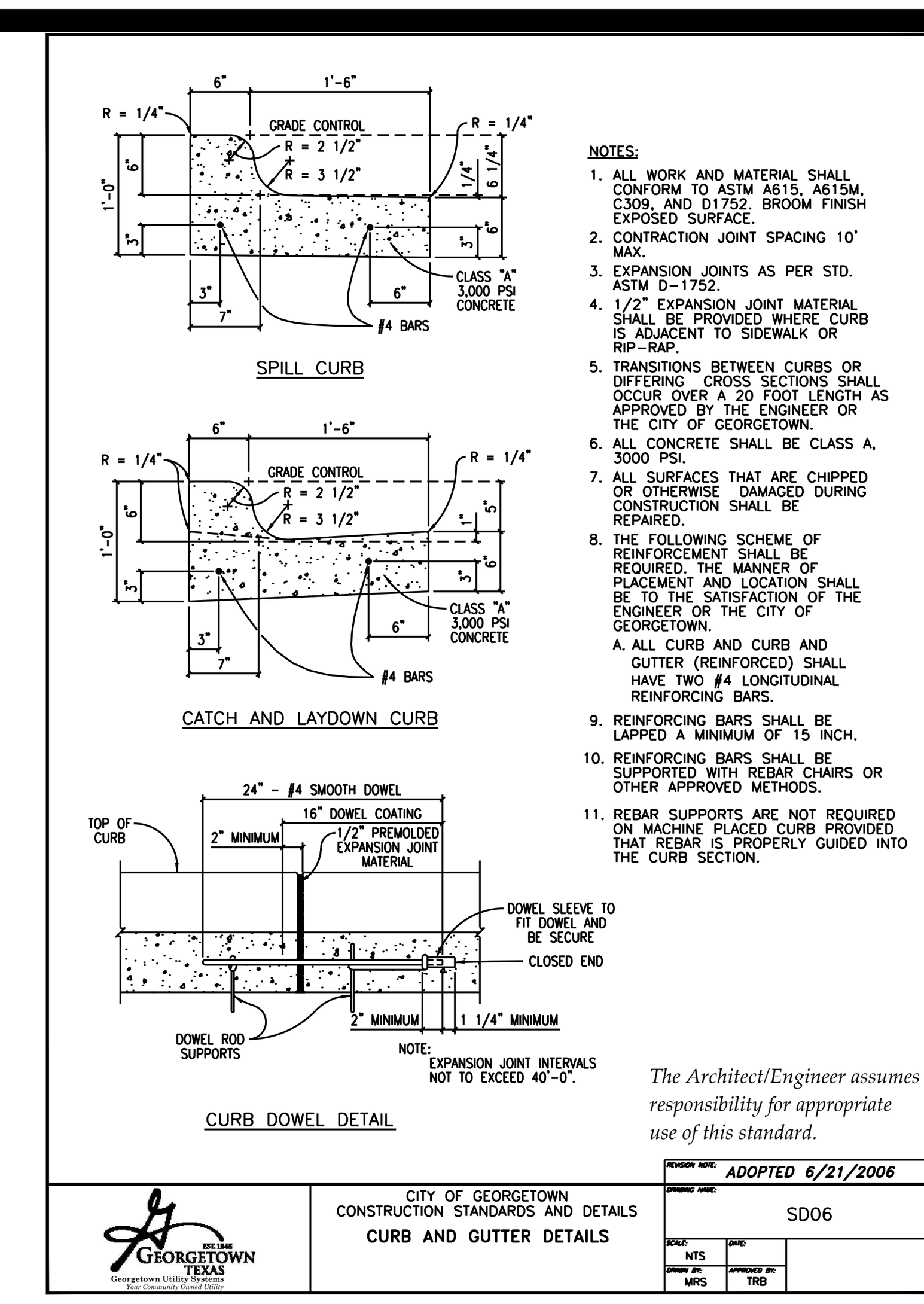
REINFORCED CONCRETE:
28-DAY COMPRESSIVE STRENGTH GREATER OR EQUAL 3,600 PSI

COMPACTED SUBGRADE:
COMPACTED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY OF AN ASTM D-698 STANDARD PROCTOR WITH A MOISTURE CONTENT OF OPTIMUM MOISTURE CONTENT TO 4% OVER OPTIMUM MOISTURE CONTENT.

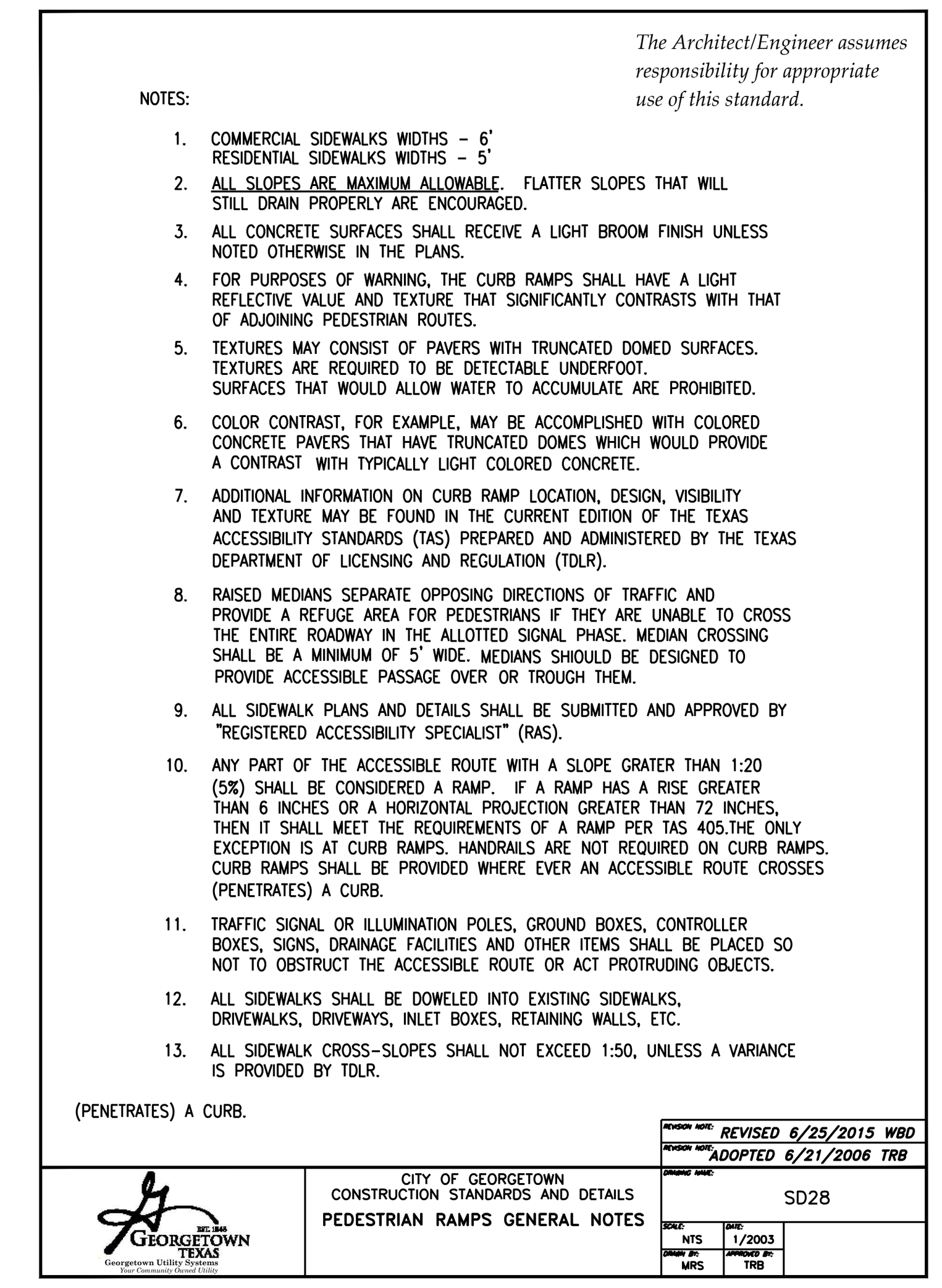
FLEXIBLE BASE:
TxDOT ITEM 247, TYPE A, GRADE 1, OR EQUIVALENT, COMPACTED TO A MINIMUM OF 100% OF THE MAXIMUM DRY DENSITY AS PER THE TEX 113E PROCTOR METHOD OR 95% OF THE MAXIMUM DRY DENSITY AS DEFINED BY AN ASTM D-1557 MODIFIED PROCTOR.

NOTE:
REFER TO ALLIANCE ENGINEERING GROUP REPORT DATED 07/21/2017, PROJECT NUMBER AE17-0404 FOR ADDITIONAL INFORMATION REGARDING PAVING DETAILS.

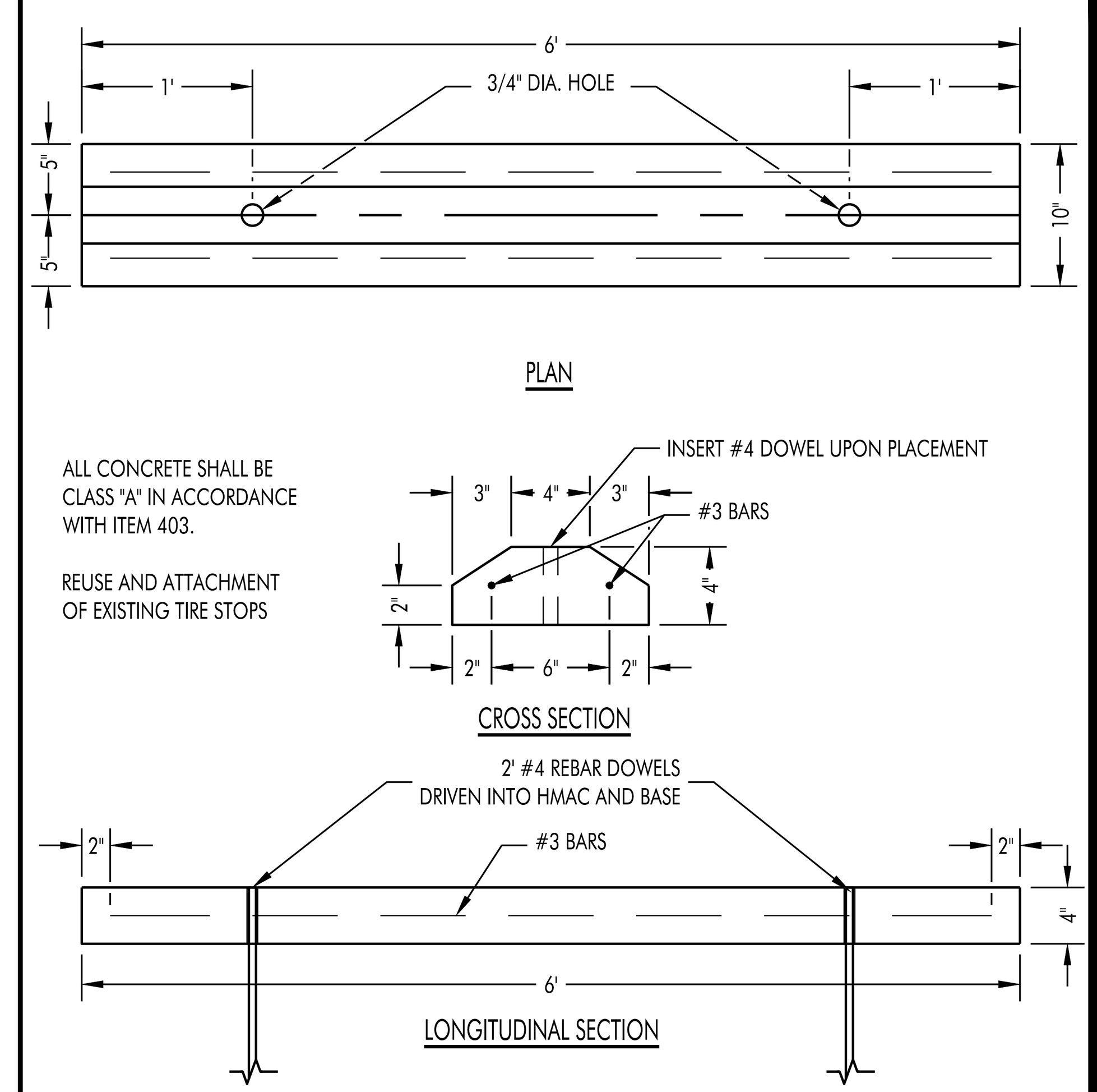
02 CONCRETE PAVING SECTION — NTS



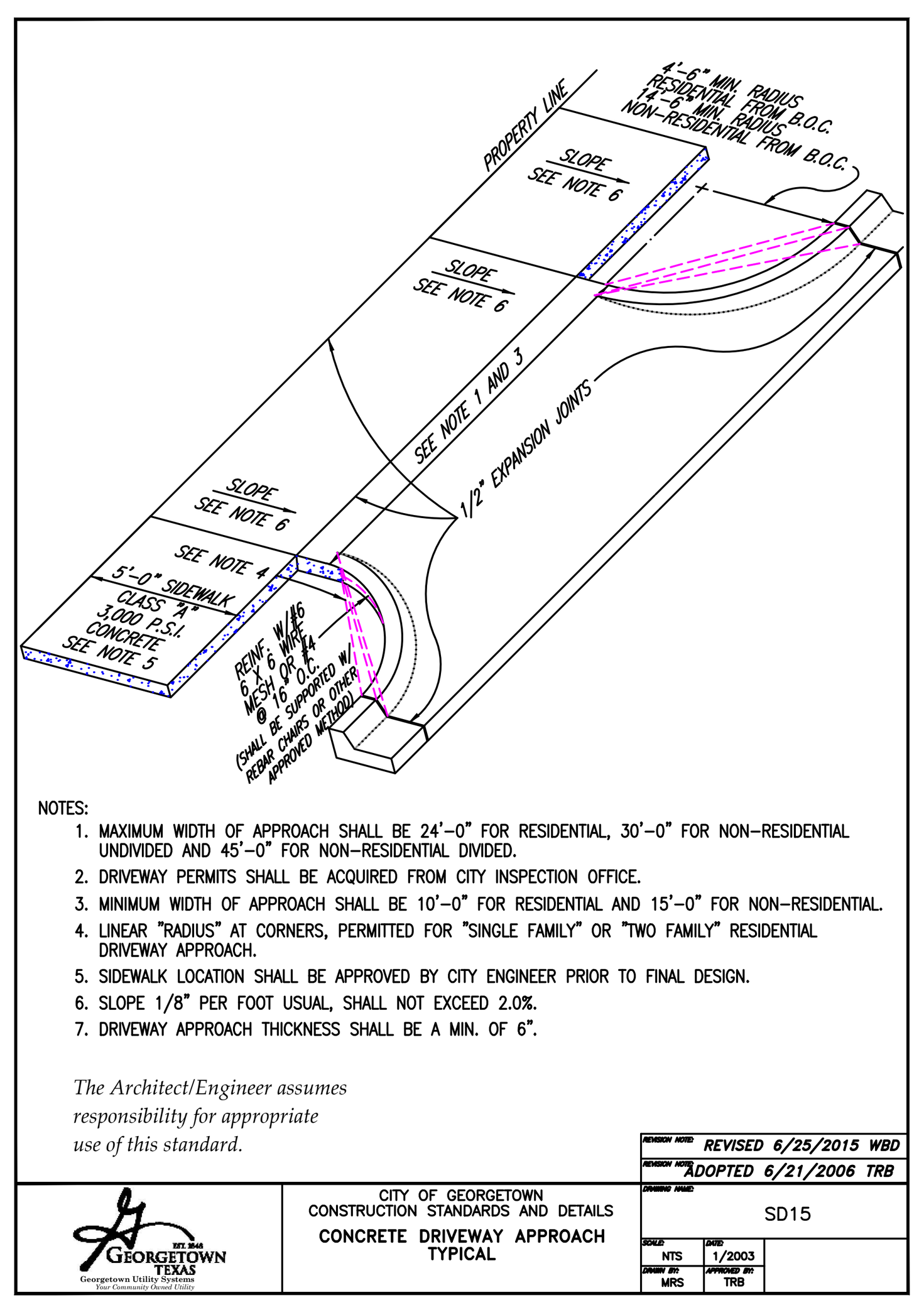
03 CURB AND GUTTER — NTS



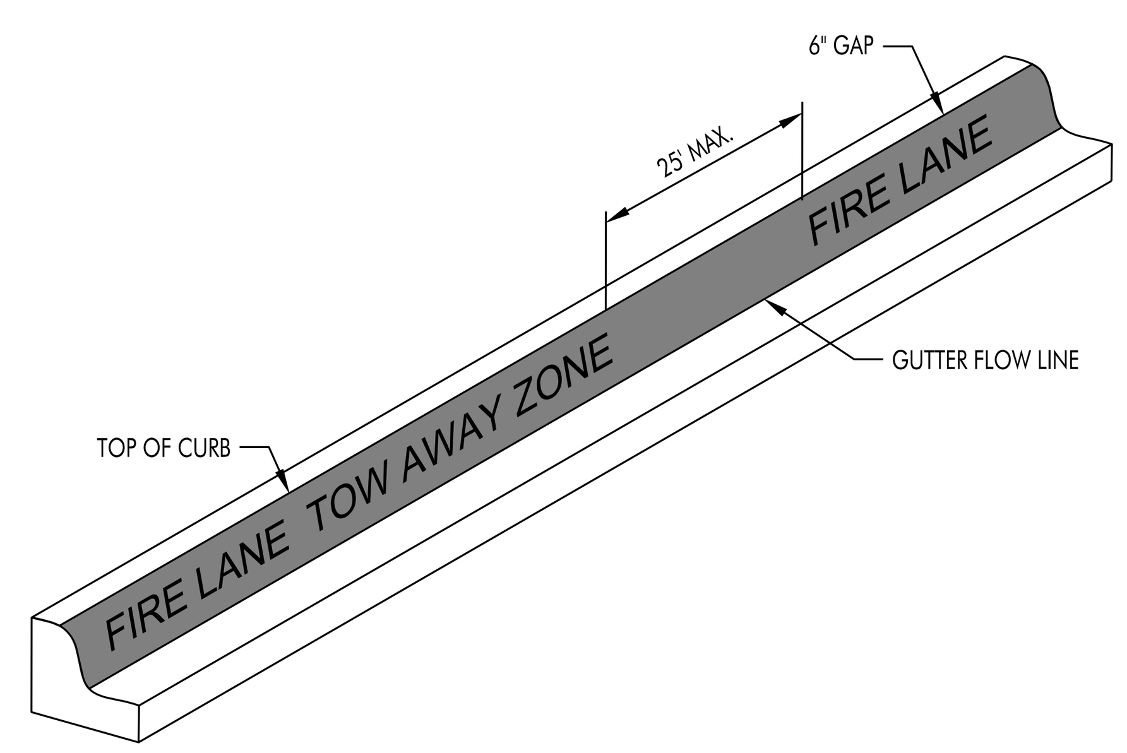
04 SIDEWALK RAMP — NTS



05 TIRE STOP — NTS

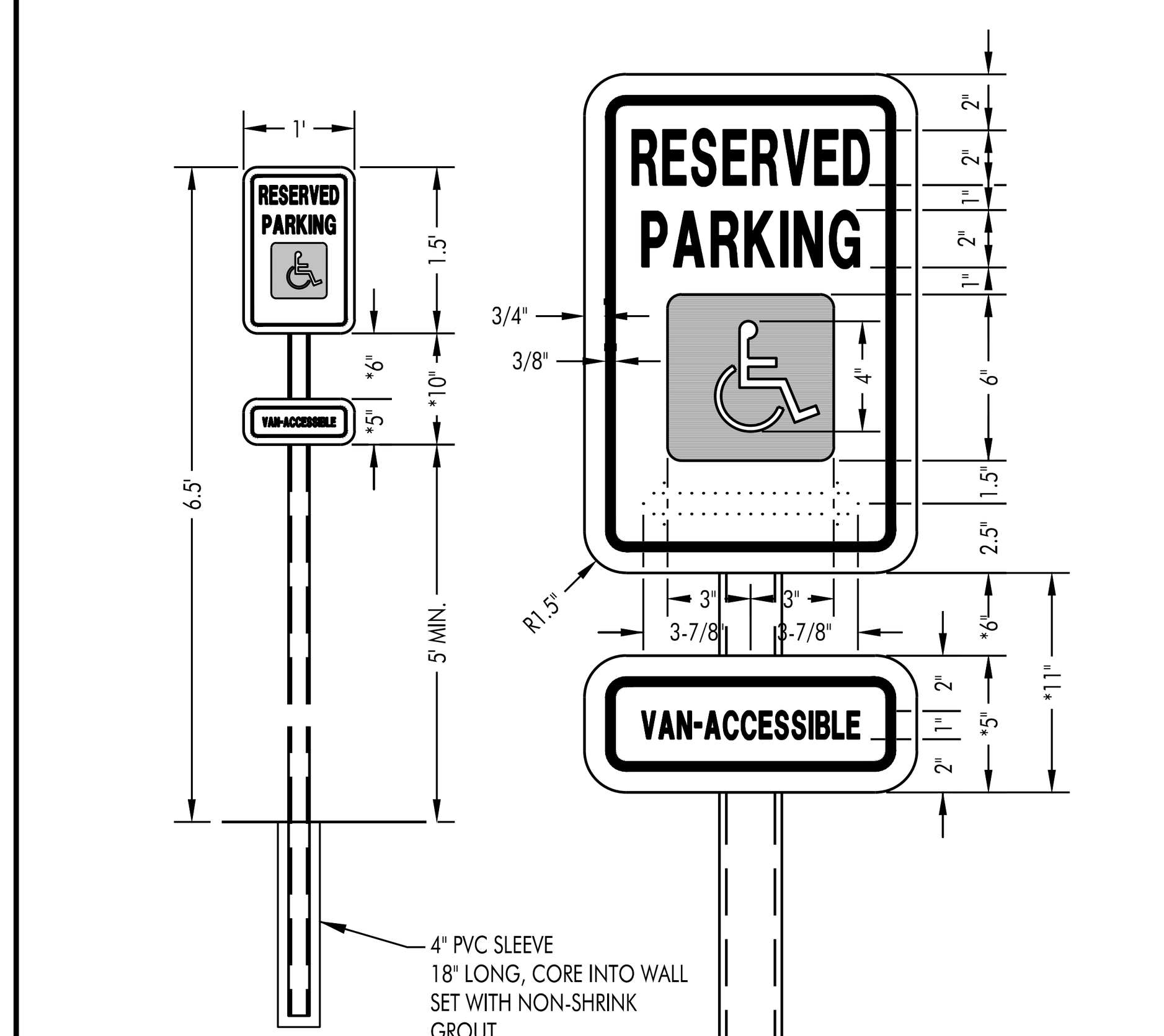


06 CONCRETE DRIVEWAY — NTS



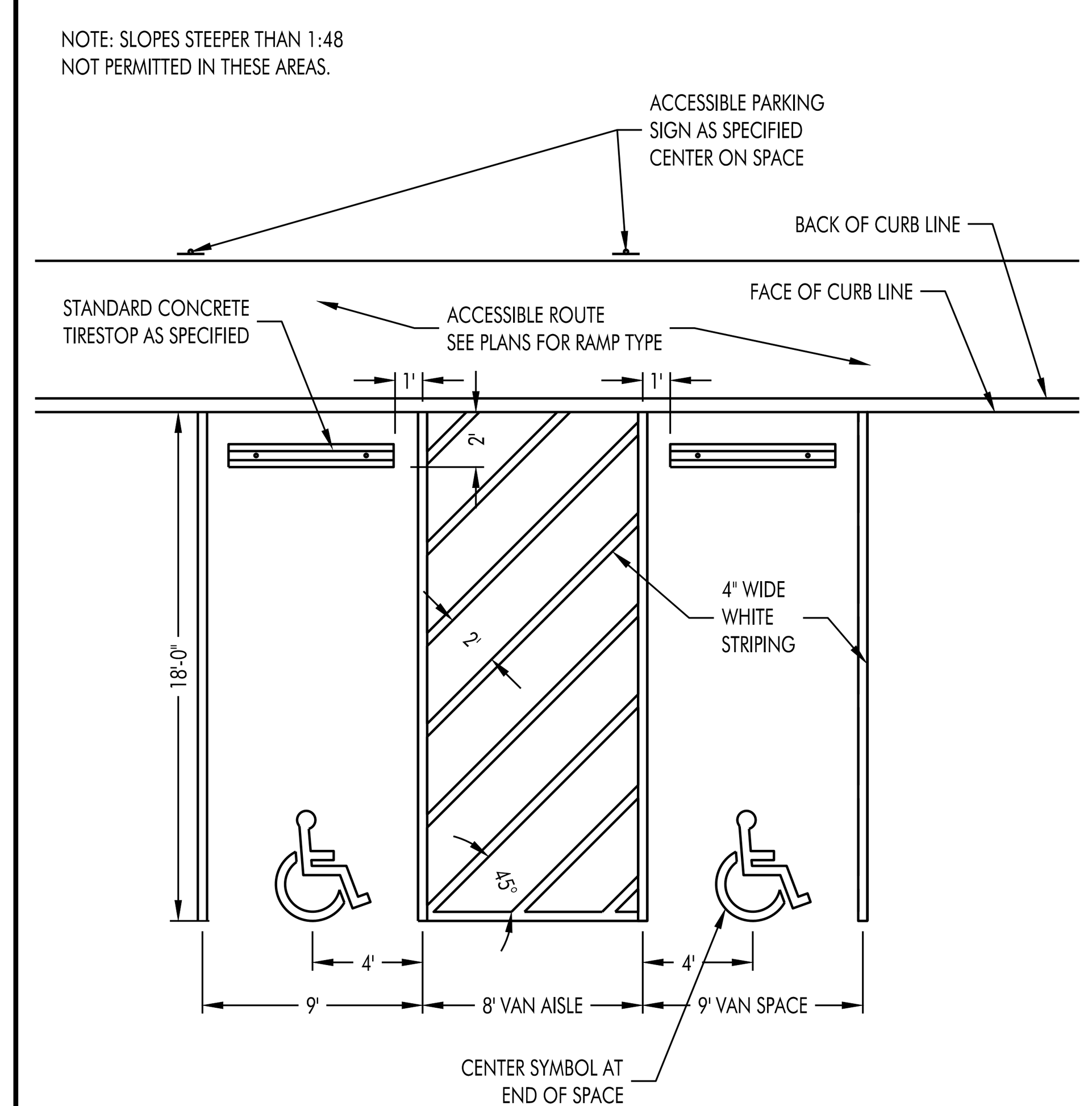
NOTES:
FIRE LANE STRIPING TO BE 6" WIDE RED PAINT WITH "FIRE LANE TOW AWAY ZONE" IN 4" TALL WHITE LETTERS. WORDING MAY NOT BE SPACED GREATER THAN 25' APART. STRIPING TO BE PAINTED ON THE FACE OF CURB WHEN PRESENT AND PAINTED FLAT ON THE PARKING SURFACE WHEN IT IS NOT.

07 FIRE LANE STRIPING — NTS

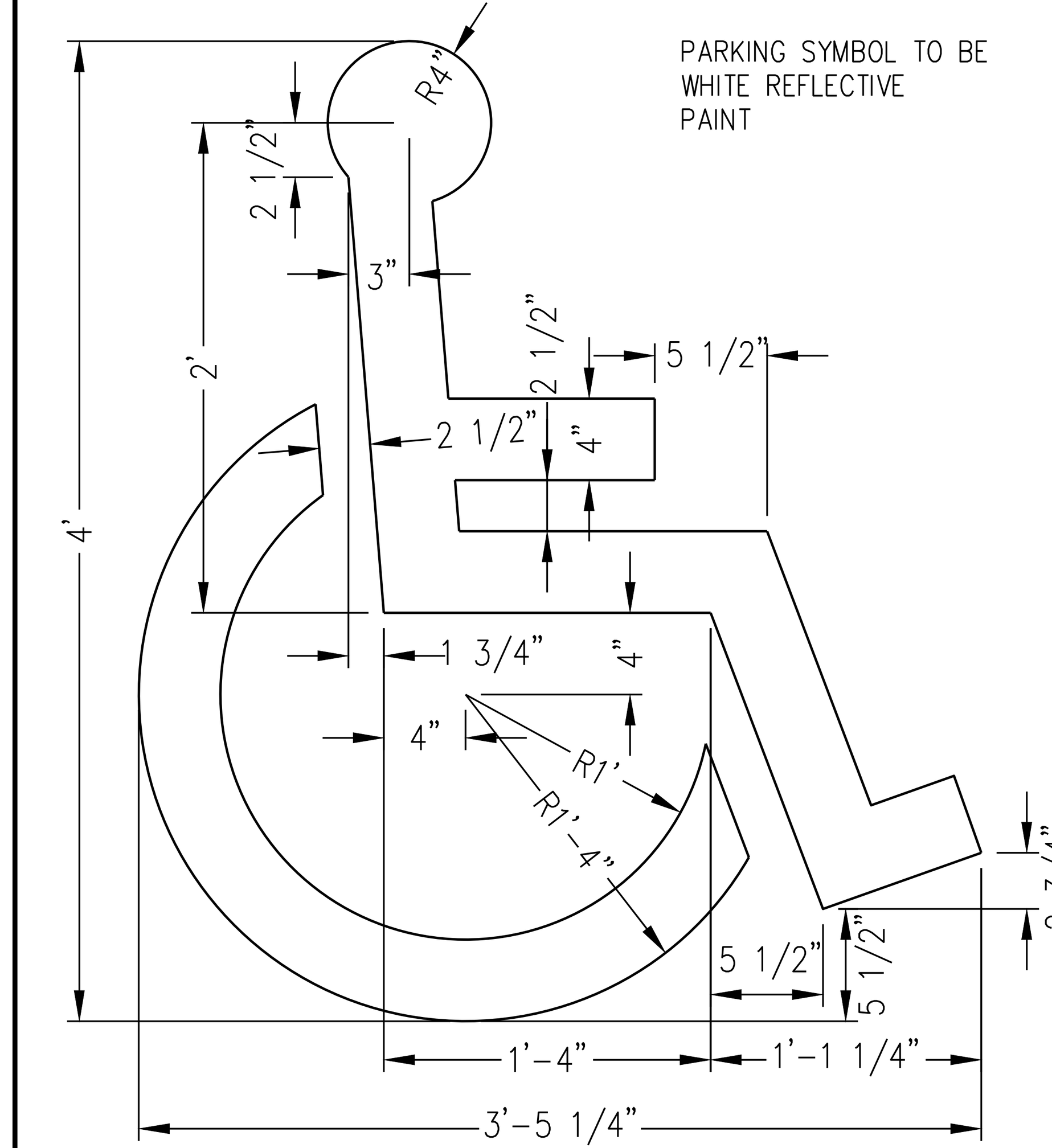


NOTES:
1. SIGN COLORS TO BE: LEGEND & BORDER - GREEN BACKGROUND - WHITE SYMBOL - WHITE ON BLUE BACKGROUND
2. SINGLE &/OR DOUBLE HEADED ARROWS MAY BE USED ON SIGNS TO MARK MULTIPLE RESERVED PARKING SPACES. OMIT ARROW AT SINGLE SPACES.
*3. HANDICAP VAN ACCESSIBLE SIGN TO BE USED ON VAN ACCESSIBLE PARKING SPOTS ONLY, SEE PLANS FOR LOCATIONS.

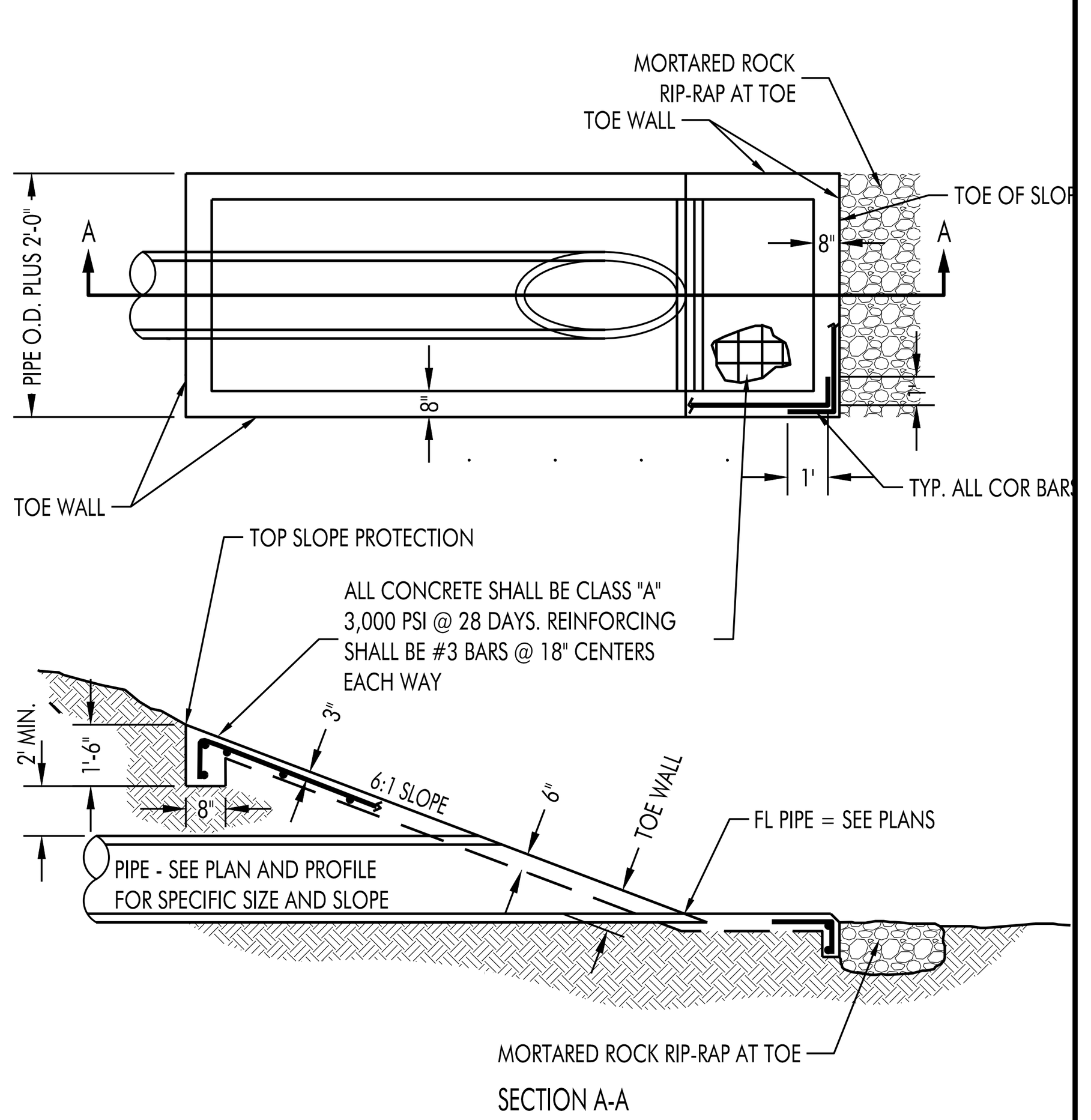
08 ADA SIGNAGE — NTS



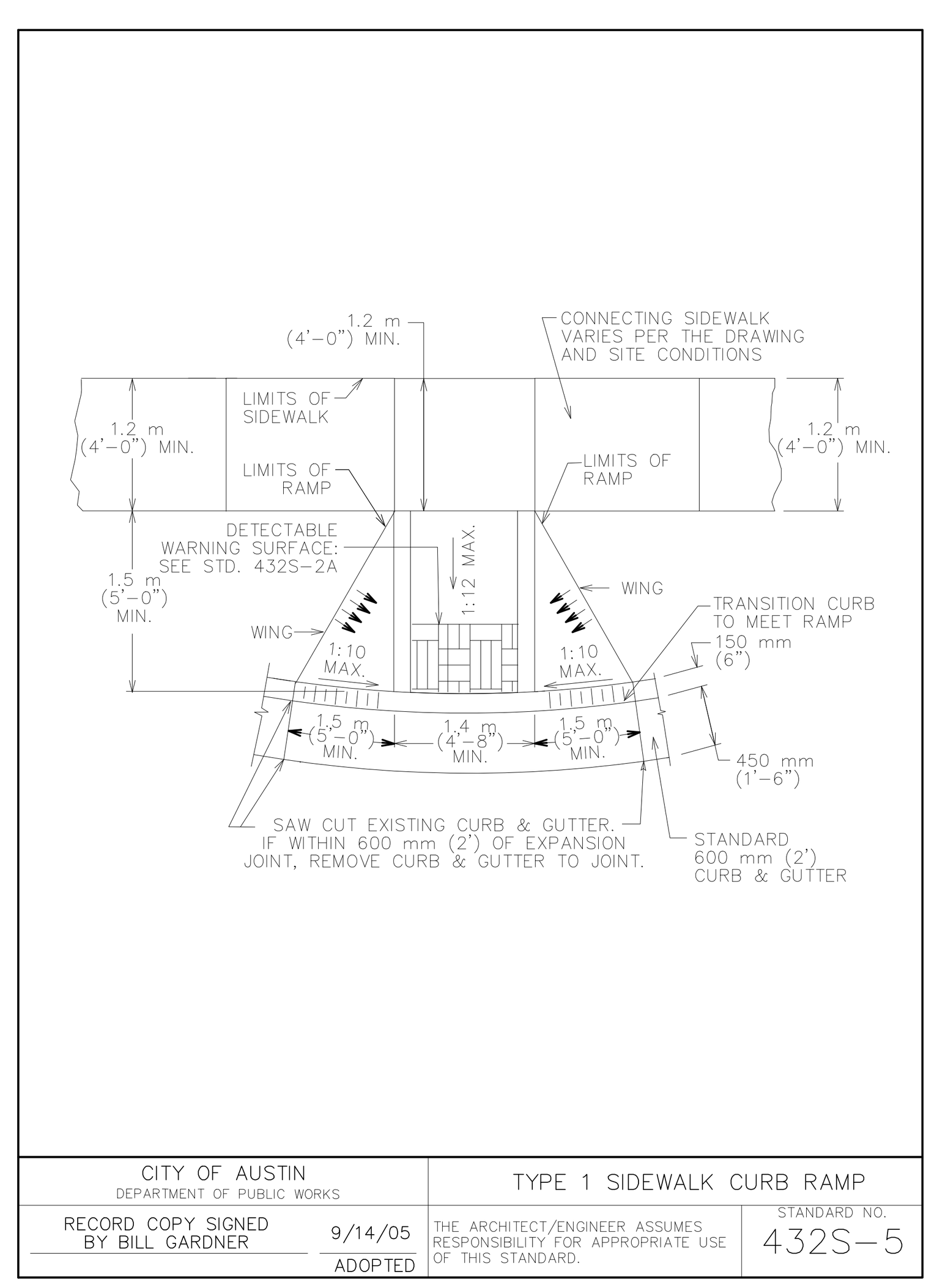
09 ADA PARKING STRIPING — NTS



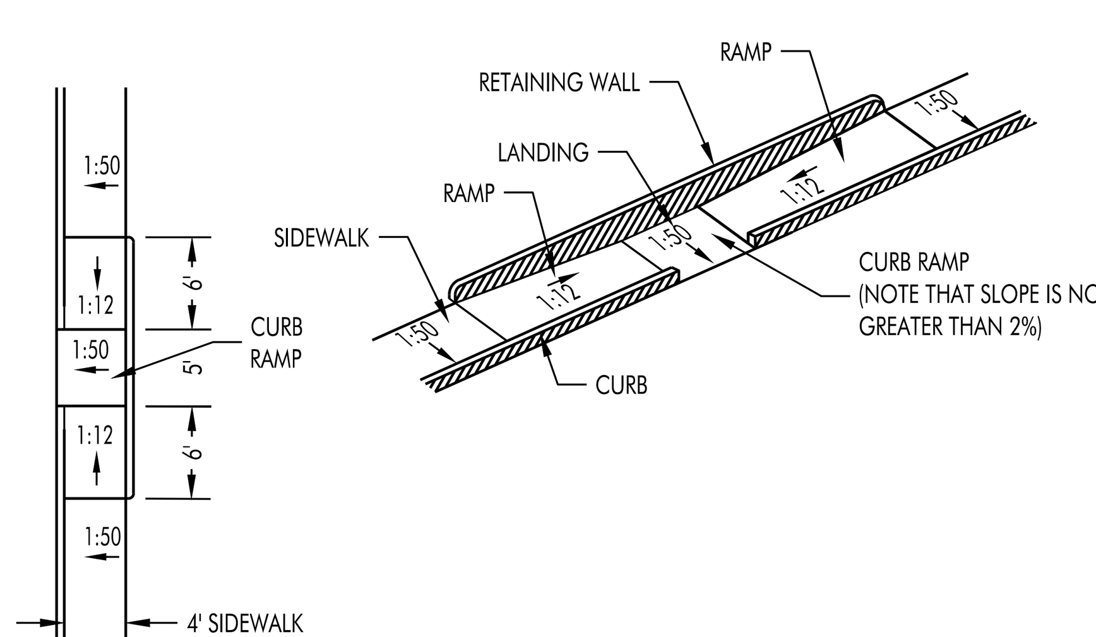
10 ADA PARKING SYMBOL — NTS



11 SLOPED ENDWALL FOR CULVERT — NTS



12 CURB RAMP WITH WINGS — NTS



13 CURB RAMP - PARALLEL TO CURB — NTS

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SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN 4229 WILLIAMS DRIVE GEORGETOWN, TX 78628

REVISIONS

NO.	DATE	DESCRIPTION

HEA PROJECT NO: 22-033
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GENERAL DETAILS

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C70
21

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GUIDELINES FOR DESIGN AND INSTALLATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS

TYPE OF STRUCTURE	REACH LENGTH	MAXIMUM DRAINAGE AREA	SLOPE
SILT FENCE	N/A	2 ACRES	0 - 10%
	200 FEET	2 ACRES	10 - 20%
	100 FEET	1 ACRE	20 - 30%
	50 FEET	1/2 ACRE	> 30%
TRIANGLE FILTER DIKE	100 FEET	1/2 ACRE	< 30% SLOPE
	50 FEET	1/4 ACRE	> 30% SLOPE
ROCK BERM *, **	500 FEET	< 5 ACRES	0 - 10%

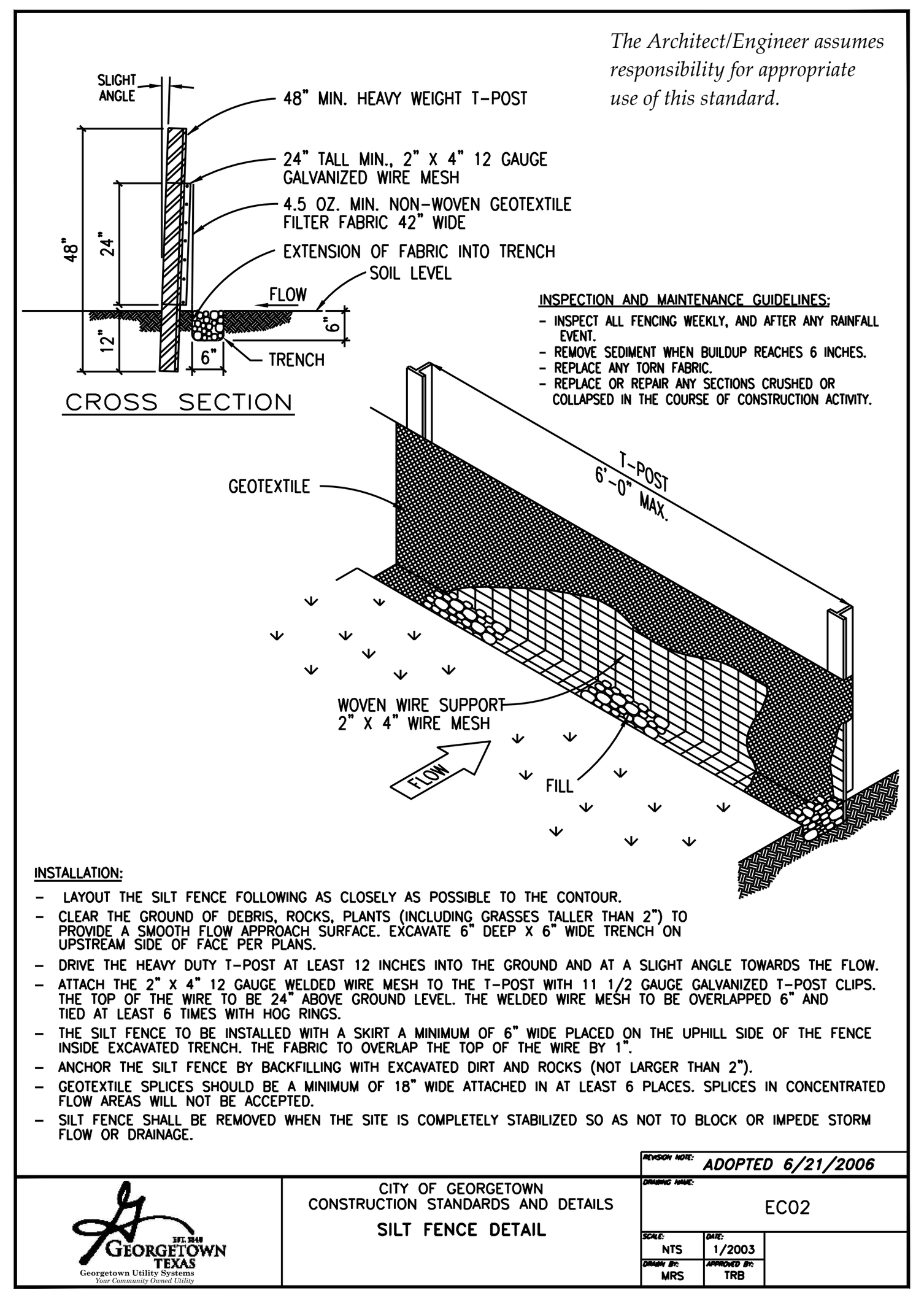
* FOR ROCK BERM DESIGN WHERE PARAMETERS ARE OTHER THAN STATED, DRAINAGE AREA CALCULATIONS AND ROCK BERM DESIGN MUST BE SUBMITTED FOR REVIEW.

** HIGH SERVICE ROCK BERMS MAY BE REQUIRED IN AREAS OF ENVIRONMENTAL SIGNIFICANCE AS DETERMINED BY THE CITY OF GEORGETOWN.

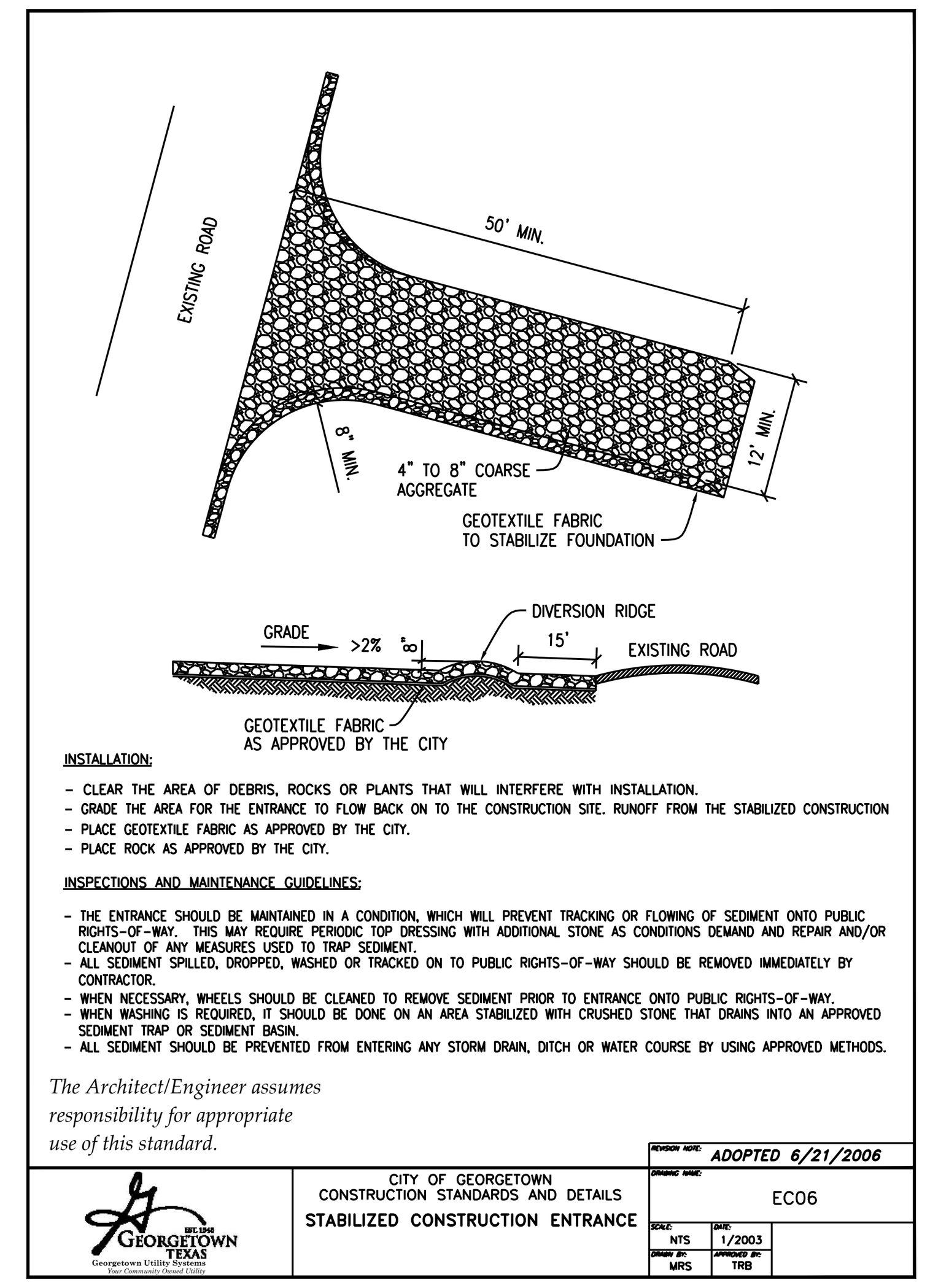
The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TEMPORARY EROSION AND SEDIMENTATION CONTROL GUIDELINES
ADOPTED 6/21/2006
EC01

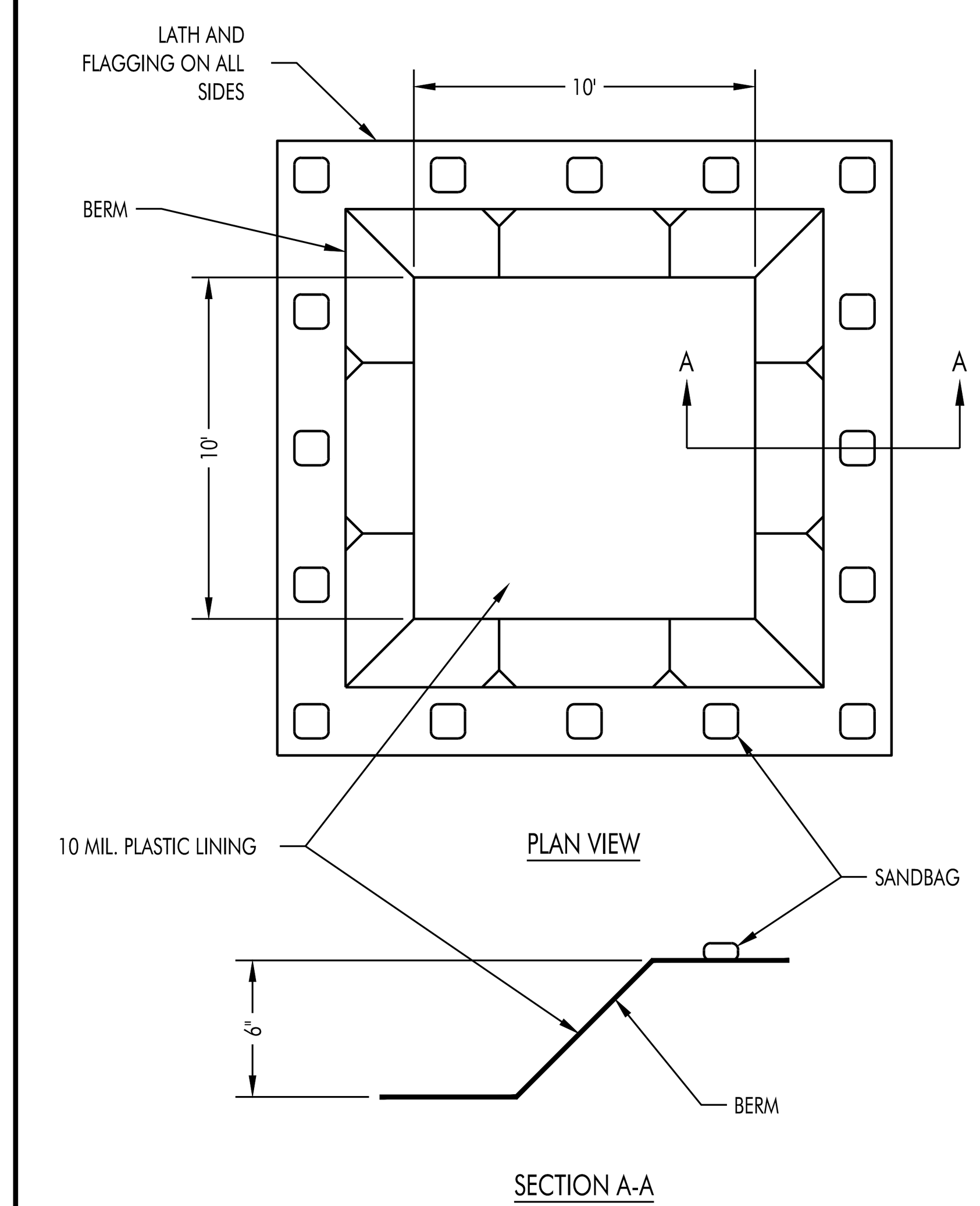
01 ESC NOTES NTS



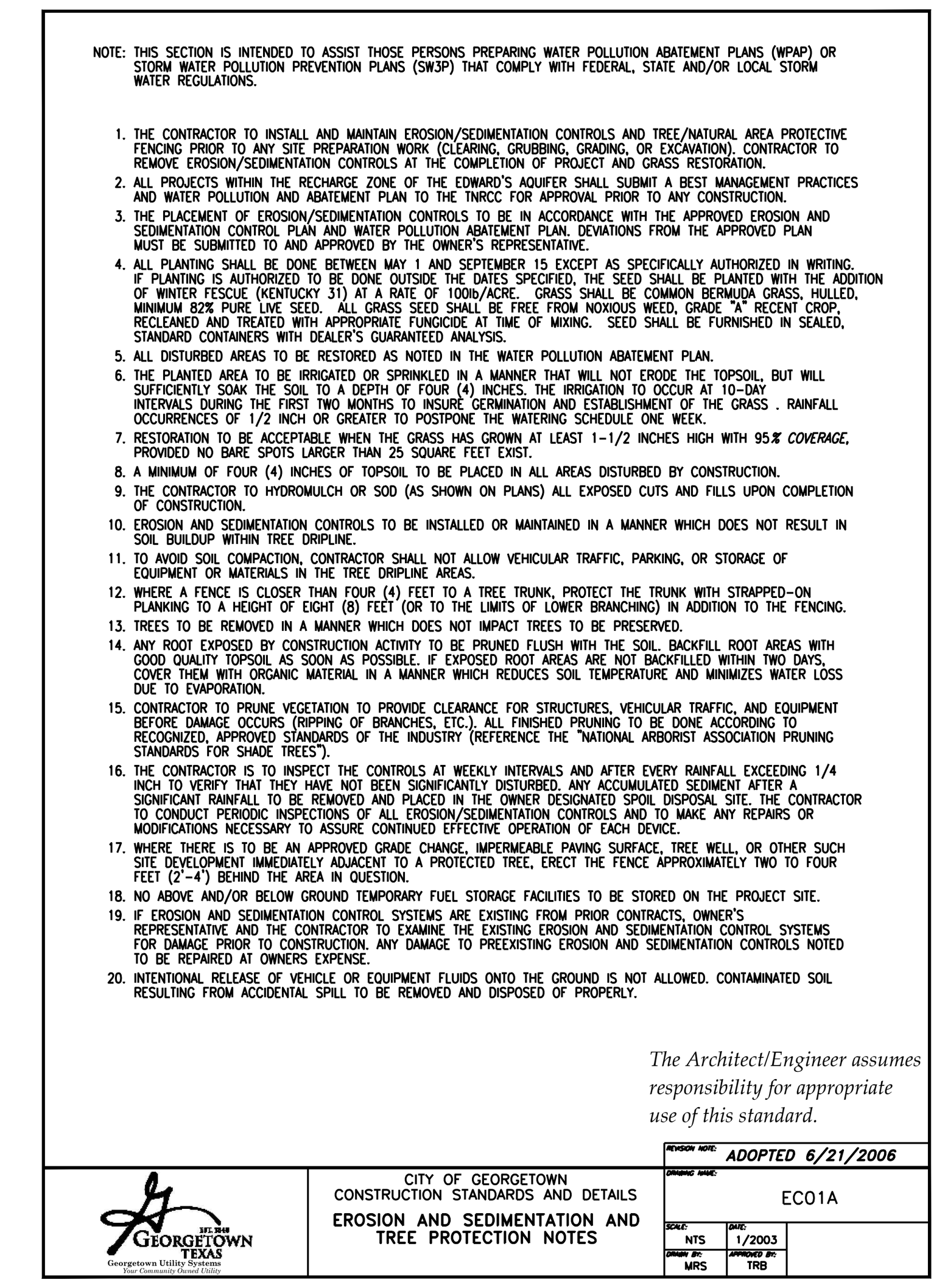
02 SILT FENCE NTS



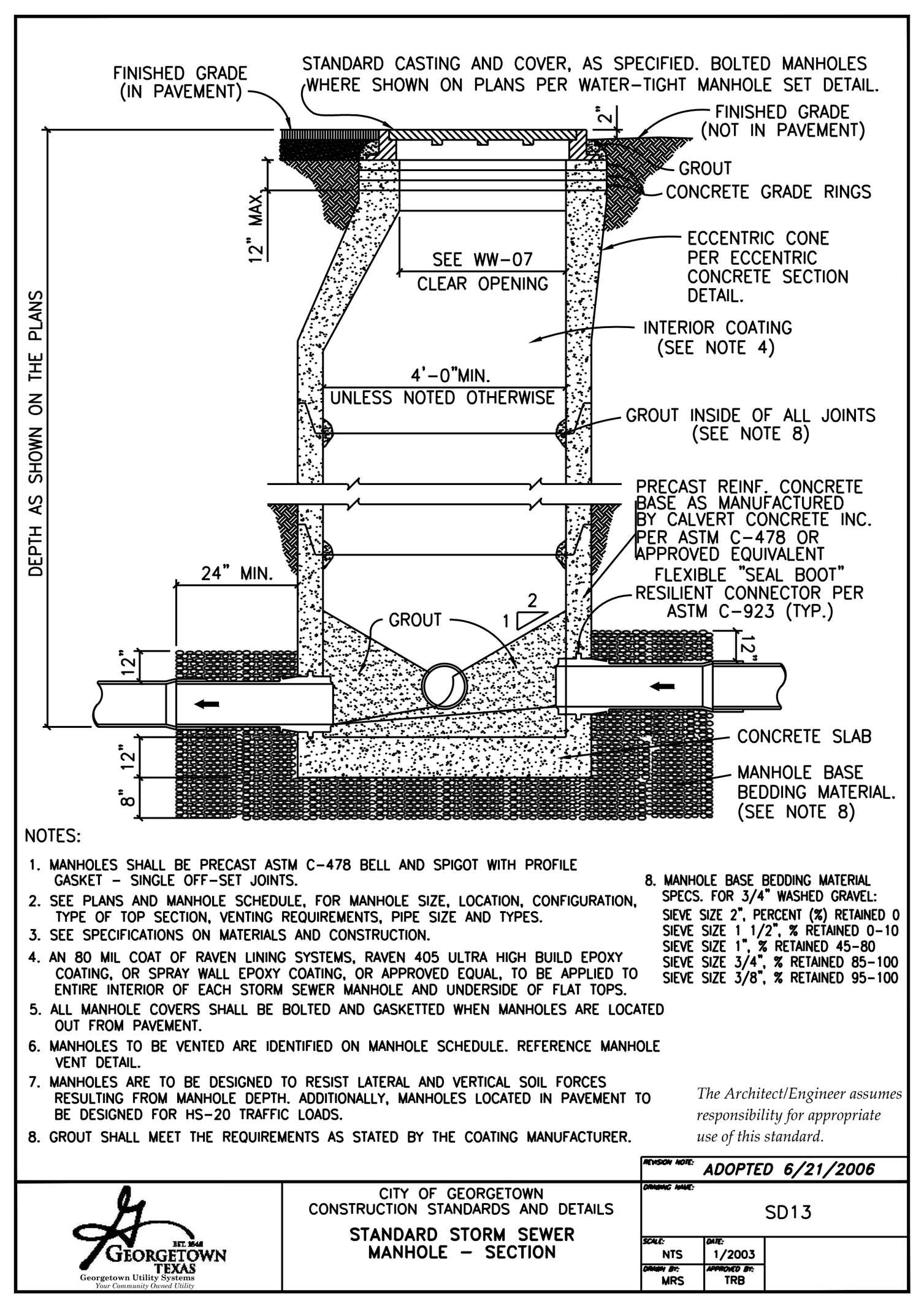
03 STABILIZED CONSTRUCTION ENTRANCE NTS



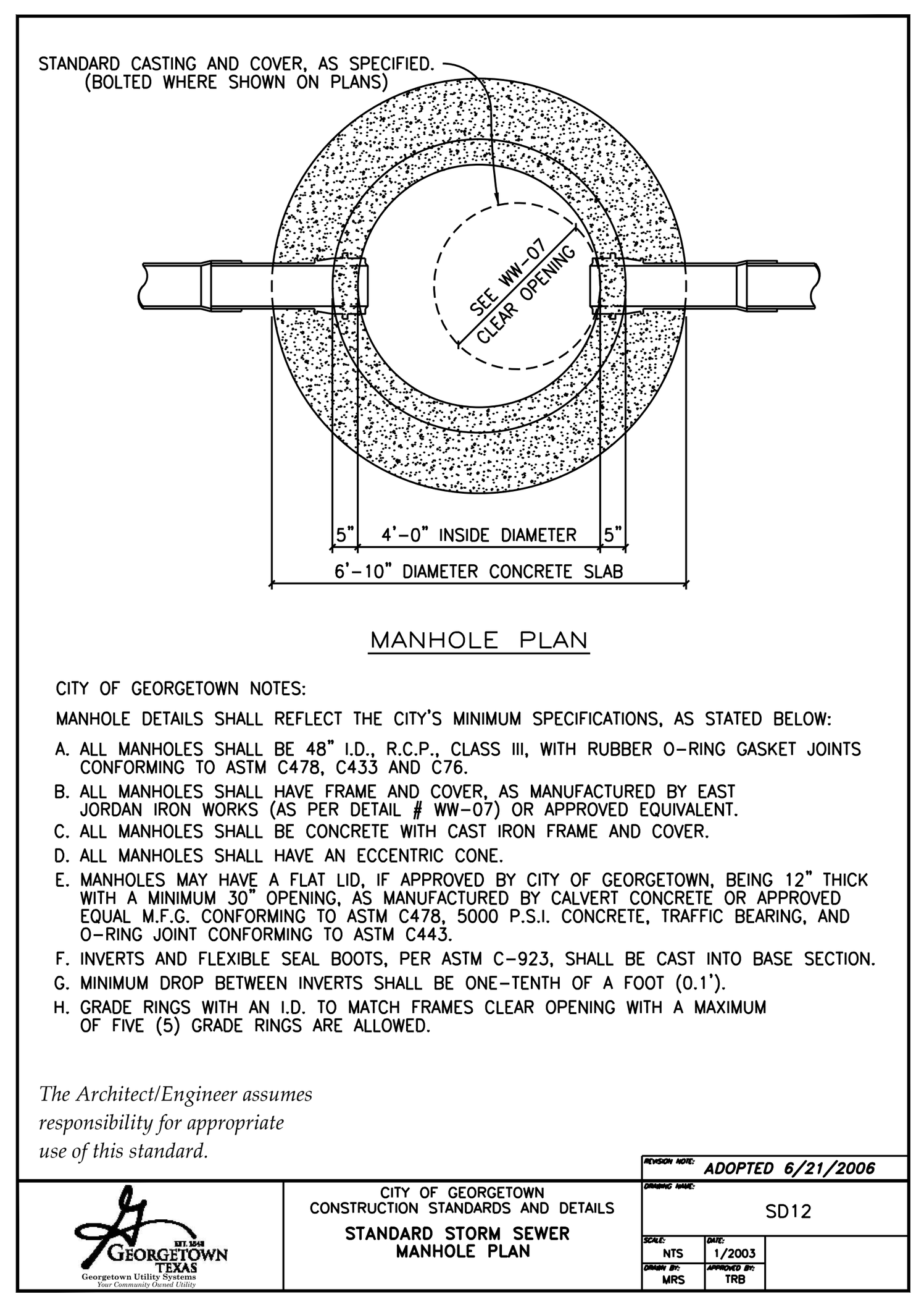
04 CONCRETE WASHOUT NTS



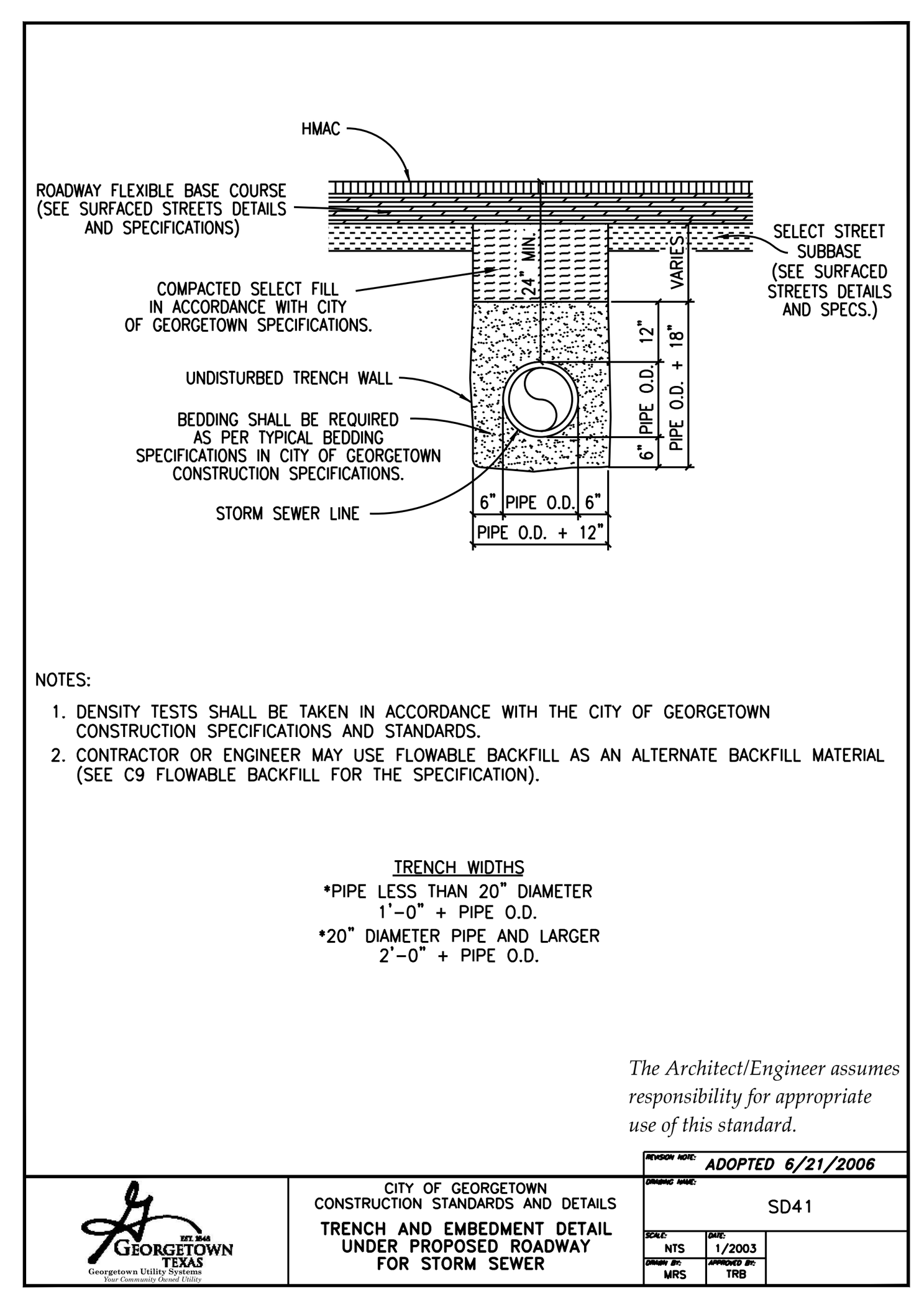
05 ESC TREE NOTES NTS



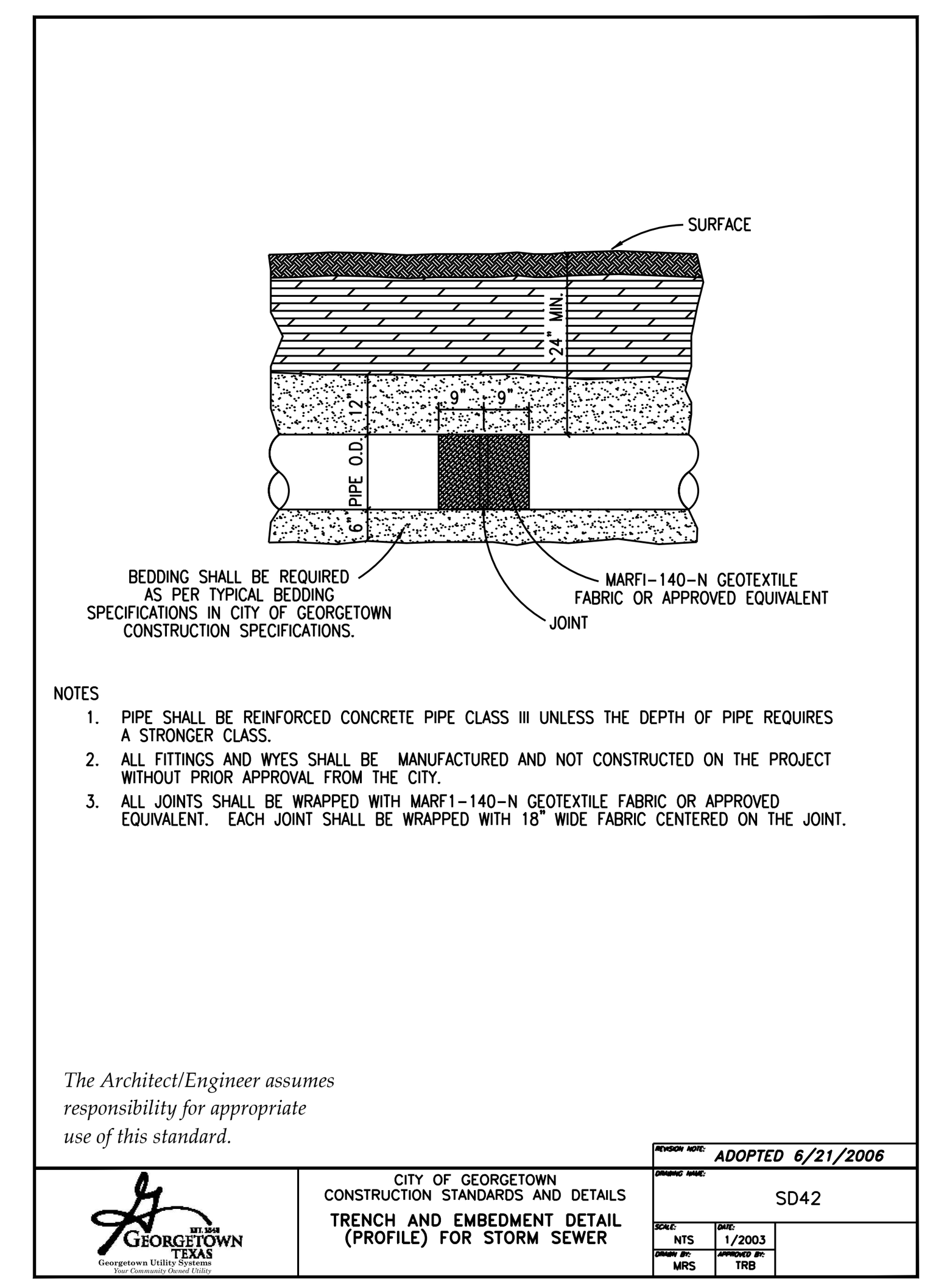
06 STORM MANHOLE SECTION NTS



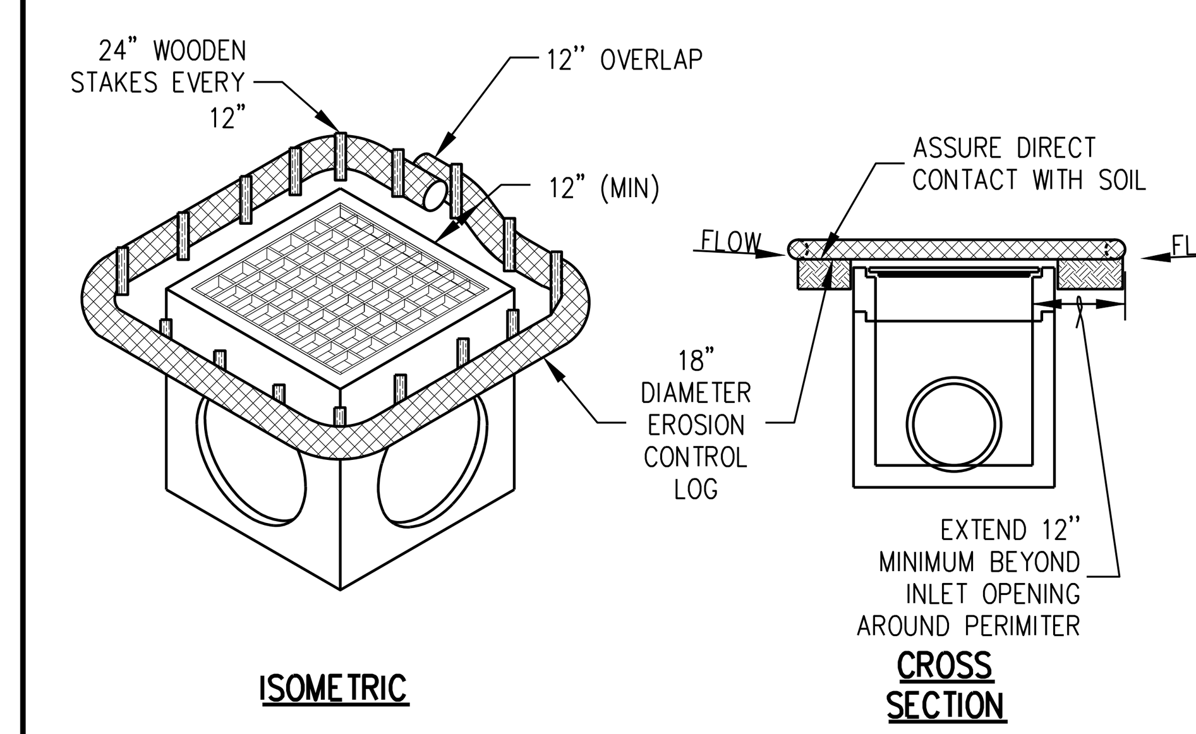
07 STORM MANHOLE PLAN NTS



08 STORM TRENCH EMBED UNDER ROAD NTS



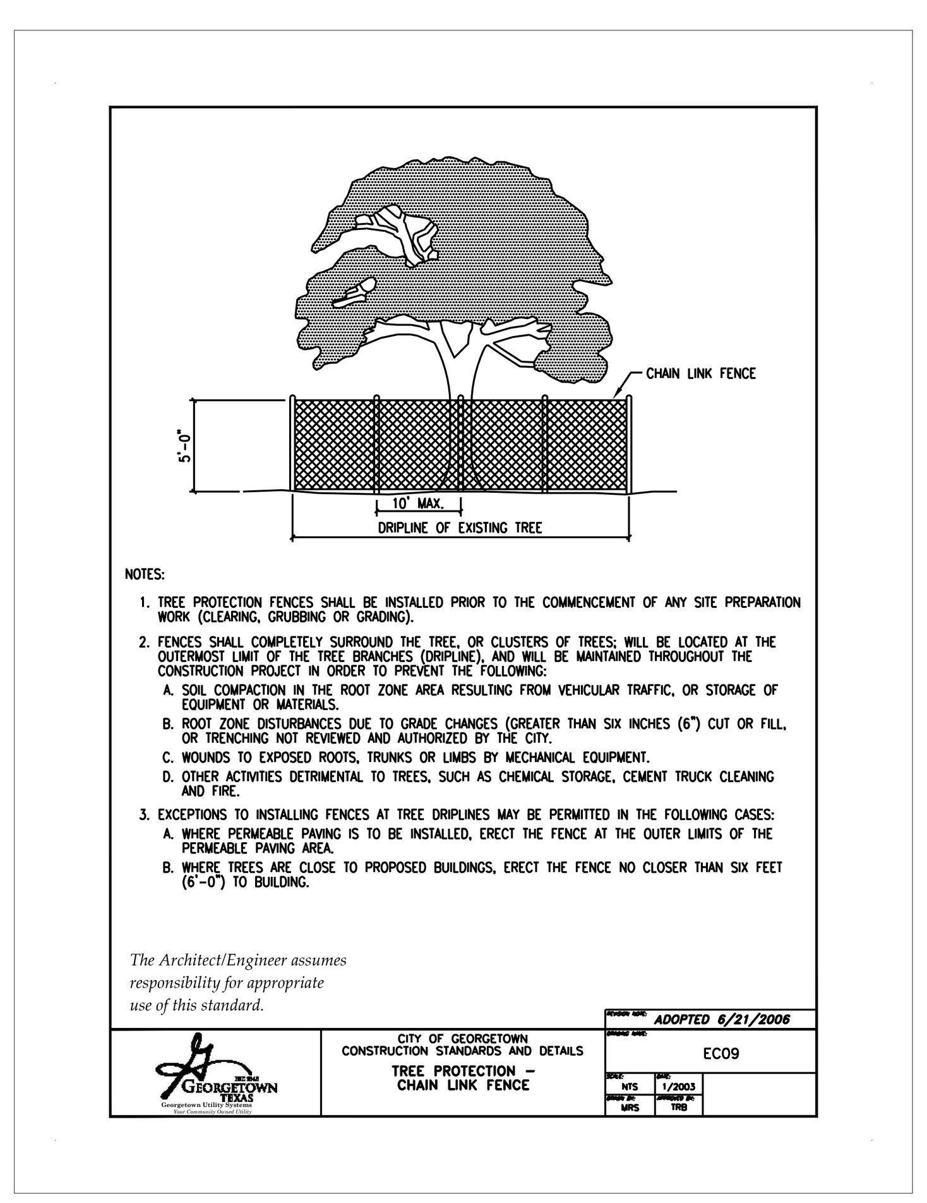
09 STORM TRENCH EMBED UNDER GRADE NTS



NOTES:

1. EROSION CONTROL LOG CONTAINMENT MESH SHALL BE 100% BIODEGRADABLE, PHOTODEGRADABLE OR RECYCLABLE; AND FILL MATERIAL SHALL CONSIST OF MULCH, ASPEN EXCELSIOR FIBERS, CHIPPED SITE VEGETATION, COCONUT FIBERS, 100% RECYCLABLE FIBERS, OR ANY OTHER ACCEPTABLE MATERIAL EXCLUDING STRAW AND HAY.
2. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 6".
3. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY CLEAN THE INLET PROTECTION IF EXCESSIVE PONDING OCCURS.
4. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS

10 GRATE INLET PROTECTION NTS



11 TREE PROTECTION CHAIN NTS

HAGOOD ENGINEERING ASSOCIATES

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STATE OF TEXAS
TERRY R. HAGOOD
52960
REGISTERED PROFESSIONAL ENGINEER

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DATE SIGNED: 10/24/2023
ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN 4229 WILLIAMS DRIVE GEORGETOWN, TX 78628

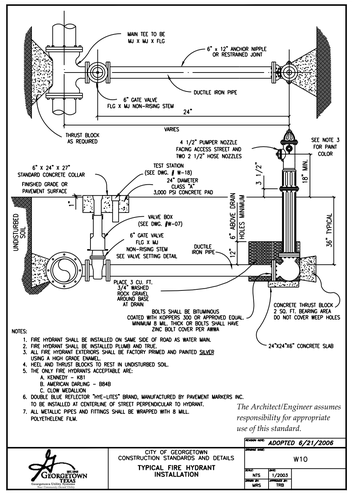
NO.	DATE	DESCRIPTION	REVISIONS

HEA PROJECT NO: 22-033
ISSUED DATE: 10/24/2023

EROSION AND STORM DETAILS

SHEET NO.
C71
22

01 FIRE HYDRANT — NTS

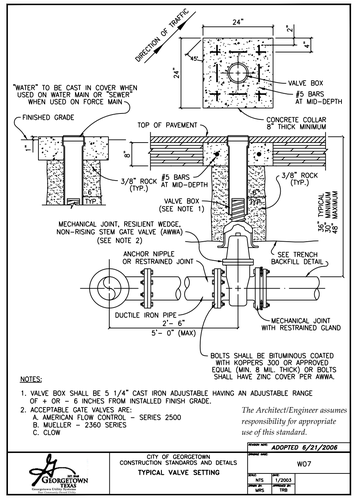


NOTES:
1. FIRE HYDRANT SHALL BE INSTALLED ON SAME SIDE OF ROAD AS WATER MAIN.
2. FIRE HYDRANT SHALL BE INSTALLED PLUMB AND TRUE.
3. ALL FIRE HYDRANT EXTERIORS SHALL BE FACTORY PRIMED AND PAINTED SILVER USING A HIGH GRADE ENAMEL.
4. HEEL AND THRUST BLOCKS TO REST IN UNDISTURBED SOIL.
5. THE ONLY FIRE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

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL FIRE HYDRANT INSTALLATION
ADOPTED 6/21/2006 — W10 — NTS — 1/2003

02 VALVE SETTING — NTS

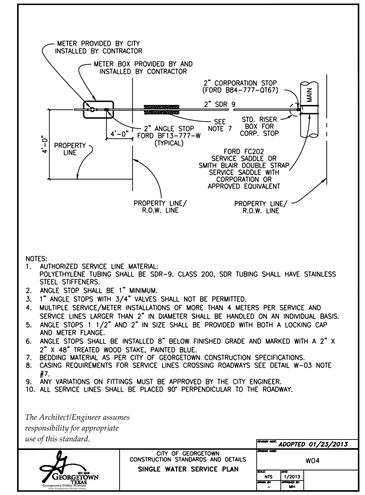


NOTES:
1. VALVE BOX SHALL BE 5 1/4" CAST IRON ADJUSTABLE HAVING AN ADJUSTABLE RANGE OF + OR – 6 INCHES FROM INSTALLED FINISH GRADE.
2. ACCEPTABLE GATE VALVES ARE:
   A. AMERICAN FLOW CONTROL – SERIES 2500
   B. MUELLER – 2360 SERIES
   C. CLOW

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL VALVE SETTING
ADOPTED 6/21/2006 — W07 — NTS — 1/2003

03 SINGLE WATER SERVICE — NTS

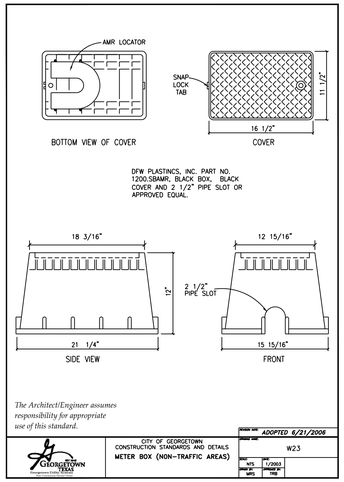


NOTES:
1. AUTHORIZED SERVICE LINE MATERIAL: POLYETHYLENE TUBING SHALL BE SDR-9. CLASS 200, SDR TUBING SHALL HAVE STAINLESS STEEL STIFFENERS.
2. ANGLE STOP SHALL BE 1" MINIMUM.
3. 1" ANGLE STOPS WITH 3/4" VALVES SHALL NOT BE PERMITTED.
4. MULTIPLE SERVICE/METER INSTALLATIONS OF MORE THAN 4 METERS PER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

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SINGLE WATER SERVICE PLAN
ADOPTED 01/23/2013 — W04 — NTS — 1/2013

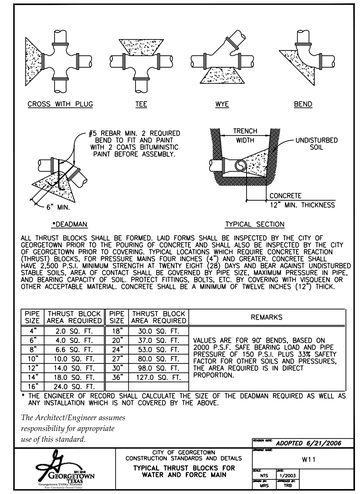
04 WATER METER BOX — NTS



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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
METER BOX (NON-TRAFFIC AREAS)
ADOPTED 6/21/2006 — W23 — NTS — 1/2003

05 THRUST BLOCKS — NTS



*DEADMAN

TYPICAL SECTION

ALL THRUST BLOCKS SHALL BE FORMED. LAID FORMS SHALL BE INSPECTED BY THE CITY OF GEORGETOWN PRIOR TO THE POURING OF CONCRETE AND SHALL ALSO BE INSPECTED BY THE CITY OF GEORGETOWN PRIOR TO COVERING. TYPICAL LOCATIONS WHICH REQUIRE CONCRETE REACTION (THRUST) BLOCKS, FOR PRESSURE MAINS FOUR INCHES (4") AND GREATER, CONCRETE SHALL HAVE 2,500 P.S.I. MINIMUM STRENGTH AT TWENTY EIGHT (28) DAYS AND BEAR AGAINST UNDISTURBED STABLE SOILS. AREA OF CONTACT SHALL BE GOVERNED BY PIPE SIZE, MAXIMUM PRESSURE IN PIPE, AND BEARING CAPACITY OF SOIL. PROTECT FITTINGS, BOLTS, ETC., BY COVERING WITH VISQUEEN OR OTHER ACCEPTABLE MATERIAL. CONCRETE SHALL BE A MINIMUM OF TWELVE INCHES (12") THICK.

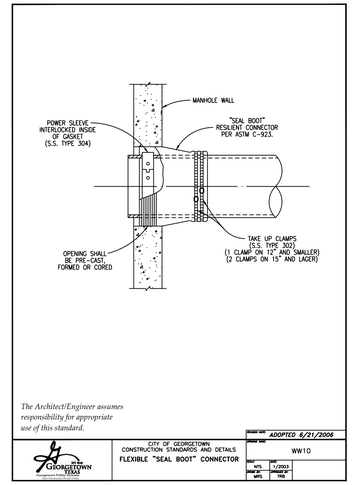
PIPE SIZE	THRUST BLOCK AREA REQUIRED	PIPE SIZE	THRUST BLOCK AREA REQUIRED	REMARKS
4"	2.0 SQ. FT.	18"	30.0 SQ. FT.	
6"	4.0 SQ. FT.	20"	37.0 SQ. FT.	VALUES ARE FOR 90° BENDS, BASED ON 2000 P.S.F. SAFE BEARING LOAD AND PIPE PRESSURE OF 150 P.S.I. PLUS 53% SAFETY FACTOR FOR OTHER SOILS AND PRESSURES, THE AREA REQUIRED IS IN DIRECT PROPORTION.
8"	6.6 SQ. FT.	24"	53.0 SQ. FT.	
10"	10.0 SQ. FT.	27"	80.0 SQ. FT.	
12"	14.0 SQ. FT.	30"	98.0 SQ. FT.	
14"	18.0 SQ. FT.	36"	127.0 SQ. FT.	
16"	24.0 SQ. FT.			

* THE ENGINEER OF RECORD SHALL CALCULATE THE SIZE OF THE DEADMAN REQUIRED AS WELL AS ANY INSTALLATION WHICH IS NOT COVERED BY THE ABOVE.

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TYPICAL THRUST BLOCKS FOR WATER AND FORCE MAIN
ADOPTED 6/21/2006 — W11 — NTS — 1/2003

06 WATER TRENCH AND EMBED UNDER ROAD — NTS



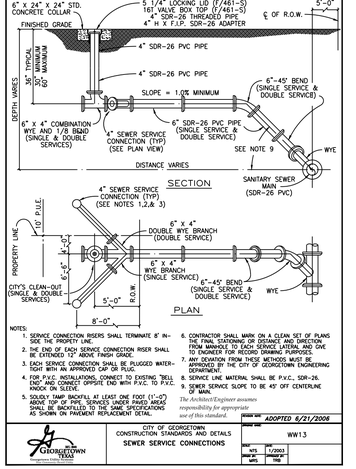
TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.

NOTES:
1. REPLACED BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE.
2. BASE MATERIAL SHALL BE IN LIFTS NOT TO EXCEED 6" AND EACH LIFT THOROUGHLY ROLLED OR TAMPED TO SPECIFIED MAXIMUM DENSITY.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. SURFACE MATERIAL WILL BE CONSISTENT WITH THE EXISTING SURFACE.
5. DENSITY TESTS SHALL BE TAKEN IN ACCORDANCE WITH THE CITY OF GEORGETOWN CONSTRUCTION SPECIFICATIONS AND STANDARDS.
6. CONTRACTOR OR ENGINEER MAY USE FLOWABLE BACKFILL AS AN ALTERNATE BACKFILL MATERIAL (SEE C9 FLOWABLE BACKFILL FOR THE SPECIFICATION).

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRENCH AND EMBEDMENT AND PAVEMENT REPLACEMENT DETAIL UNDER EXISTING ROADWAY
ADOPTED 6/21/2006 — W17 — NTS — 1/2003

07 WATER TRENCH EMBED UNDER GRADE — NTS

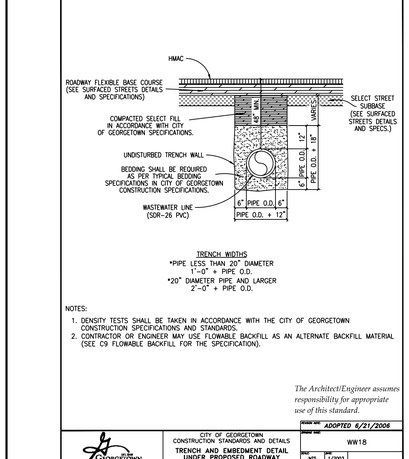


TRENCH WIDTHS
*PIPE LESS THAN 20" DIAMETER
1'-0" + PIPE O.D.
*20" DIAMETER PIPE AND LARGER
2'-0" + PIPE O.D.

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRENCH AND EMBEDMENT DETAIL UNDER NON-PAVED AREAS
ADOPTED 6/21/2006 — W02 — NTS — 1/2003

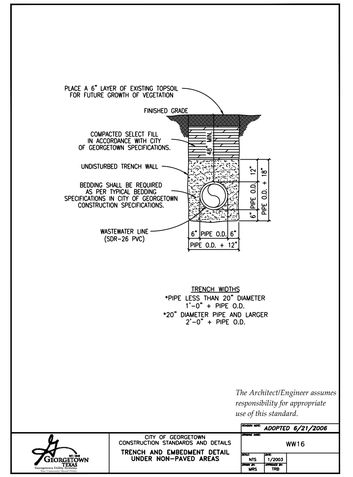
08 DUAL CLEANOUT TO GRADE — NTS



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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD MANHOLE – PLAN
ADOPTED 6/21/2006 — WW02 — NTS — 1/2003

09 STANDARD MANHOLE PLAN — NTS



MANHOLE PLAN

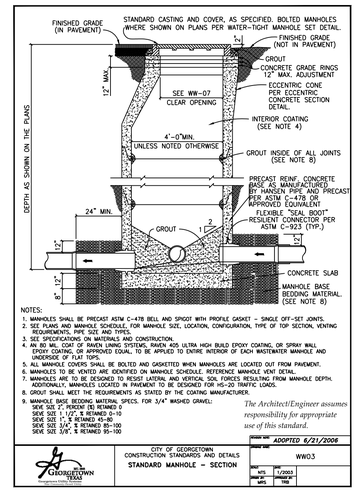
CITY OF GEORGETOWN NOTES:

MANHOLE DETAILS SHALL REFLECT THE CITY'S MINIMUM SPECIFICATIONS, AS STATED BELOW:
A. ALL MANHOLES SHALL BE 48" I.D., R.C.P., CLASS III, WITH RUBBER PROFILE GASKET – SINGLE OFF-SET JOINT CONFORMING TO ASTM C478, C433 AND C76.
B. ALL MANHOLES SHALL HAVE FRAME AND COVER, AS MANUFACTURED BY EAST JORDAN IRON WORKS (AS PER DETAIL # WW-07) OR APPROVED EQUIVALENT.
C. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON FRAME AND COVER.
D. ALL MANHOLES SHALL HAVE AN ECCENTRIC CONE.
E. MANHOLES MAY HAVE A FLAT I.D. IF APPROVED BY CITY OF GEORGETOWN, BEING 12" THICK WITH A MINIMUM 30" OPENING, AS MANUFACTURED BY HANSEN PIPE AND PRECAST OR APPROVED EQUAL, M.F.G. CONFORMING TO ASTM C478, 5000 P.S.I. CONCRETE, TRAFFIC BEARING AND WITH PROFILE GASKET – SINGLE OFF-SET JOINT CONFORMING TO ASTM C443.
F. INVERTS AND FLEXIBLE SEAL BOOTS, PER ASTM C-923, SHALL BE CAST INTO BASE SECTION.
G. MINIMUM DROP BETWEEN INVERTS SHALL BE ONE-TENTH OF A FOOT (0.1').
H. GRADE RINGS WITH AN I.D. TO MATCH FRAMES CLEAR OPENING WITH A MAXIMUM ADJUSTMENT OF 12" ARE ALLOWED.

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD MANHOLE – SECTION
ADOPTED 6/21/2006 — WW03 — NTS — 1/2003

10 STANDARD MANHOLE SECTION — NTS



NOTES:
1. MANHOLES SHALL BE PRECAST ASTM C-478 BELL AND SPIGOT WITH PROFILE GASKET – SINGLE OFF-SET JOINTS.
2. SEE PLANS AND MANHOLE SCHEDULE FOR MANHOLE SIZE, LOCATION, CONFIGURATION, TYPE OF TOP SECTION, VENTING REQUIREMENTS, PIPE SIZE AND TYPES.
3. SEE SPECIFICATIONS ON MATERIALS AND CONSTRUCTION.
4. AN 80 MIL. COAT OF RAVEN LINING SYSTEMS, RAVEN 405 ULTRA HIGH BUILD EPOXY COATING, OR SPRAY WALL EPOXY COATING, OR APPROVED EQUAL, TO BE APPLIED TO ENTIRE INTERIOR OF EACH WASTEWATER MANHOLE AND UNDERSIDE OF FLAT TOPS.
5. ALL MANHOLE COVERS SHALL BE BOLTED AND GASKETTED WHEN MANHOLES ARE LOCATED OUT FROM PAVEMENT.
6. MANHOLES TO BE VENTED ARE IDENTIFIED ON MANHOLE SCHEDULE. REFERENCE MANHOLE VENT DETAIL.
7. MANHOLES ARE TO BE DESIGNED TO RESIST LATERAL AND VERTICAL SOIL FORCES RESULTING FROM MANHOLE DEPTH. ADDITIONALLY, MANHOLES LOCATED IN PAVEMENT TO BE DESIGNED FOR HS-20 TRAFFIC LOADS.
8. GROUT SHALL MEET THE REQUIREMENTS AS STATED BY THE COATING MANUFACTURER.
9. MANHOLE BASE BEDDING MATERIAL SPECS. FOR 3/4" WASHED GRAVEL:
   SIEVE SIZE 2", PERCENT (%) RETAINED 0
   SIEVE SIZE 1 1/2", % RETAINED 0–10
   SIEVE SIZE 1", % RETAINED 45–80
   SIEVE SIZE 3/4", % RETAINED 85–100
   SIEVE SIZE 3/8", % RETAINED 95–100

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STANDARD MANHOLE – SECTION
ADOPTED 6/21/2006 — WW03 — NTS — 1/2003

11 SEAL BOOT CONNECTOR — NTS

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
FLEXIBLE "SEAL BOOT" CONNECTOR
ADOPTED 6/21/2006 — WW10 — NTS — 1/2003

11 SERVICE CONNECTION — NTS

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

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SEWER SERVICE CONNECTIONS
ADOPTED 6/21/2006 — WW13 — NTS — 1/2003

13 TRENCH UNDER PROPOSED ROAD — NTS

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

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

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRENCH AND EMBEDMENT DETAIL UNDER PROPOSED ROADWAY
ADOPTED 6/21/2006 — WW18 — NTS — 1/2003

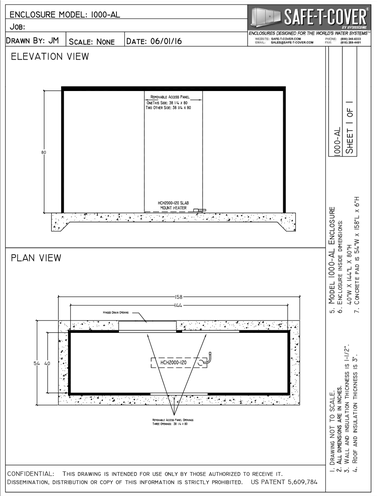
14 WATER TRENCH UNDER GRADE — NTS

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

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

CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TRENCH AND EMBEDMENT DETAIL UNDER NON-PAVED AREAS
ADOPTED 6/21/2006 — WW16 — NTS — 1/2003

15 BACKFLOW PREVENTOR ENCLOSURE — NTS



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CITY OF GEORGETOWN, TEXAS — CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
BACKFLOW PREVENTOR ENCLOSURE
ADOPTED 6/21/2006 — WW16 — NTS — 1/2003

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TBPE Registration No. F-12709

STATE OF TEXAS — TERRY R. HAGOOD — 52960 — REGISTERED — PROFESSIONAL ENGINEER

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JOB NO. 22.033 © 2023 HEA, Inc.
DATE SIGNED: 10/24/2023
ISSUED FOR: AGENCY REVIEW

SITE DEVELOPMENT PLANS FOR VELOCITY TIRE - GEORGETOWN
4229 WILLIAMS DRIVE
GEORGETOWN, TX 78628

REVISIONS

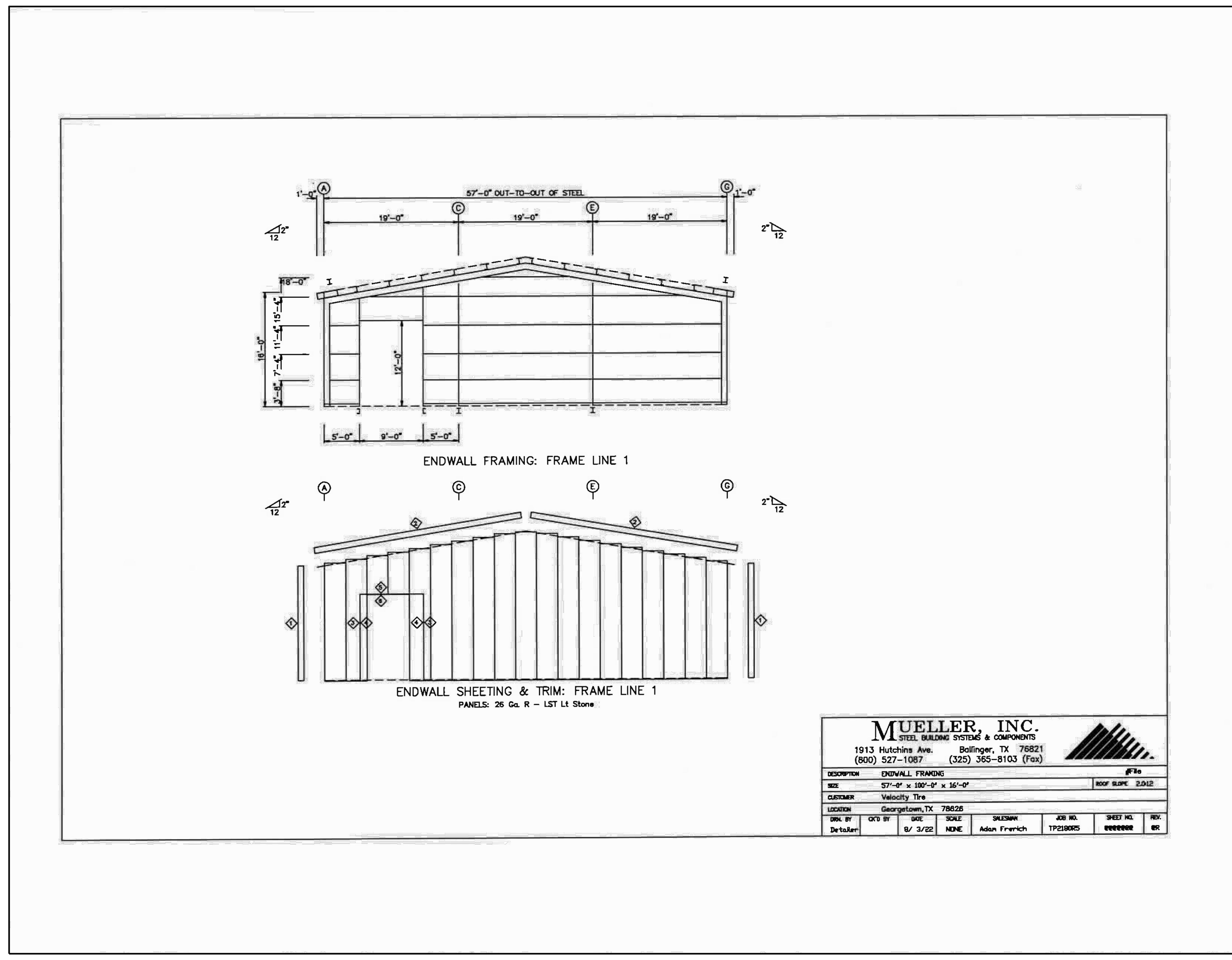
NO.	DATE	DESCRIPTION

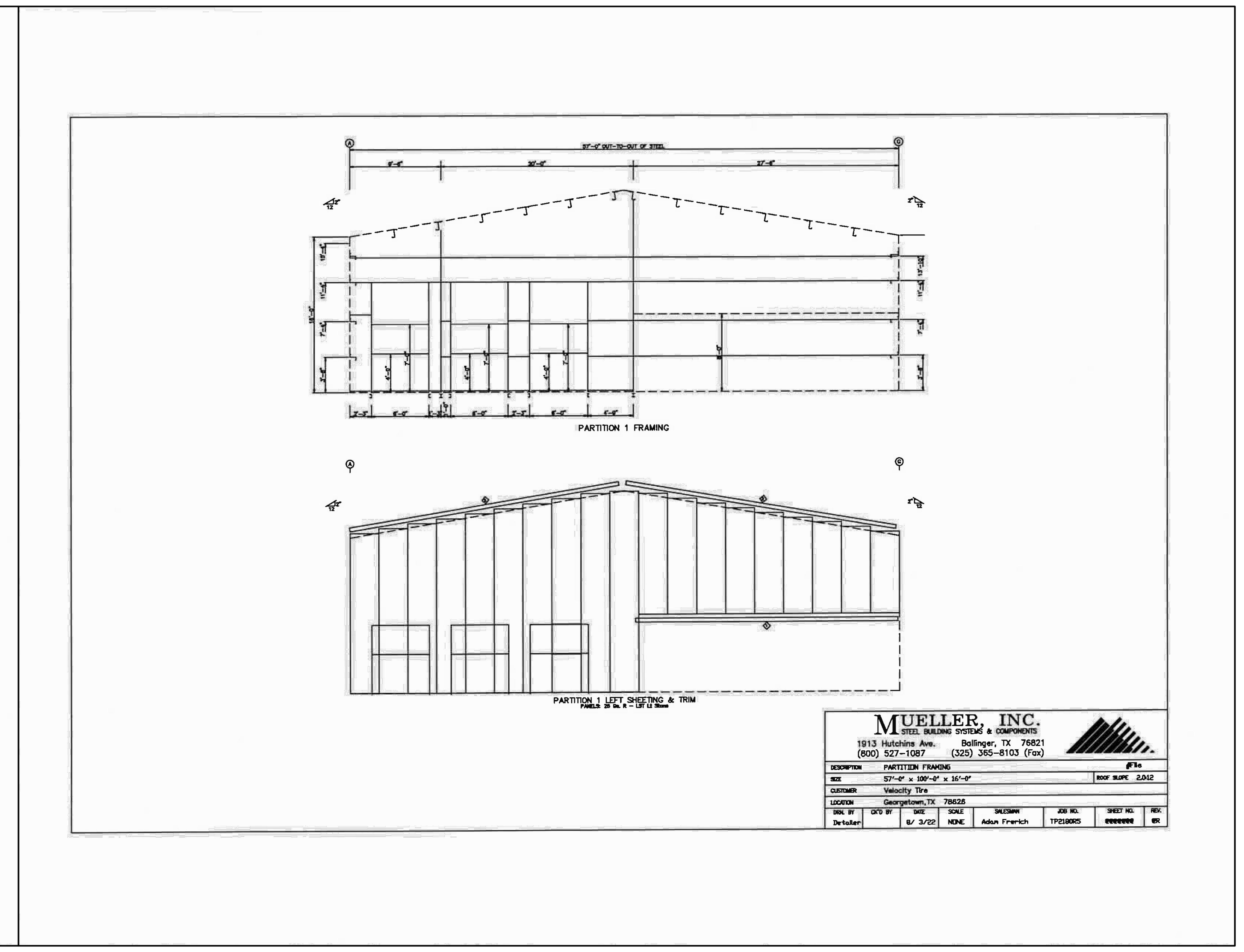
HEA PROJECT NO. 22-033
ISSUED DATE: 10/24/2023

UTILITY DETAILS

SHEET NO.
C72
23

Oct 24,2023-9:21am Z:\HEA\HEA Projects\Projects 22.000\22-033 Velocity Tire - Georgetown\CAD Files\Civil\SD\22-033 C72.dwg





(877) 268-3553

MUELLER, INC. METAL BUILDINGS, ROOFING & COMPONENTS

Purchase Agreement Specifications

Steel Building Systems & Components

Salesperson: **Adam Frerich** Date: **8/3/2022** Job #:

Submittals

- ○ Mueller Supplied Components Designed to meet TX Windstorm Criteria
- ○ See Additional Architectural Drawings
- ○ Request for Express
- ○ Request for Pre-Approved Custom

Customer Data

Customer:	**Velocity Tire**	End User:	**Georgetown store**
Cust. No:		Name:	
Mail Address:	**Client Address 1**	Jobsite Address:	
City, State, Zip:	**San Angelo, Tx 76901**	City, State, Zip:	**Georgetown, TX 78626**
Contact:	**Contact**	County:	**Williamson**
Day Phone:	-	General Contr:	
Home Phone:	-	Address:	
Cell Phone:	-	City, State, Zip:	
Fax:	-	Customer Type:	
Email:	**noel.snchez7744@gmail.com**		

Building Details

Building Type: ● RF ○ SS ○ LT
Width: **57.000'** Peak Offset: **28.500'**
Length: **100.000'**

	Eave Ht	Roof Slope	Girt Type
Front Side:	**16.000'**	**2.000 in 12**	**Flush**
Back Side:	**16.000'**	**2.000 in 12**	**Flush**

Sidewall Bay Spacing **3 @ 26.0000', 1 @ 22.0000'**

Frame ID	Frame Type*	Col Type*	Rafter Type*	Frame Line	# Int Col's
1	Rigid Frame	Tapered	Tapered	1	2
2	Rigid Frame	Tapered	Tapered	2	-
3	Rigid Frame	Tapered	Tapered	3	-
4	HP	Tapered	Tapered	4	1
5	HP	Tapered	Tapered	5	3

* May change due to engineering requirements

Building Code (Provided by customer):

Design Code:	IBC'15
Closed/Open:	C
Exposure:	C
Importance - Wind:	1.00
Site Class:	D
Importance -Seismic:	1.00
Seismic Coefficient:	0.1
Importance - Snow:	1.00

Building Loads:

Dead Load:	2.50 psf
Live Load:	20.00 psf
Load Reduction:	Yes
Ground Snow:	5.00 psf
Collateral	5.00 psf
Wind Load:	115.00 mph

Other Loads:

Crane Load? ○ Yes ● No
Floor Load? ○ Yes ● No
Parapet / Mansard? ● Yes ○ No
(Attach Separate Data Sheet)

Stepped elevations or structures within 20 feet? ○ Yes ● No

Building Use Classification: **Standard Building**
Description of building use: **SHOP/OFFICE**

HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

ARCHITECTURAL DETAILS

A1

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THIS SHEET IS FOR REFERENCE ONLY

GENERAL NOTES:

EXISTING UTILITY INFORMATION THAT IS SHOWN IN THESE DOCUMENTS IS APPROXIMATE AND FOR GENERAL INFORMATION ONLY. IT IS NOT INTENDED TO DEPICT EXACT LOCATIONS OF ALL UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES TO STAKE AND FIELD VERIFY THE LOCATIONS INCLUDING DEPTHS OF ALL UTILITIES (EXISTING, PROPOSED BY OTHERS, OR CURRENTLY UNDER CONSTRUCTION), PRIOR TO COMMENCING ANY RELATED OPERATIONS. CONTRACTOR SHALL MAINTAIN UTILITY LOCATIONS/STRUCTURES DURING ALL PHASES OF WORK. THE CONTRACTOR SHALL REPORT TO THE OWNER'S REPRESENTATIVE ANY UTILITIES THAT MAY CONFLICT WITH PROPOSED WORK. THE CONTRACTOR SHALL EXPLORE, UNDERSTAND, AND COORDINATE (WITH OTHER SUBCONTRACTORS) ALL UTILITY IMPACTS PRIOR TO SUBMITTING BID AND SHALL BE RESPONSIBLE FOR ANY MODIFICATION OR DAMAGE TO UTILITY LINES, STRUCTURES, OR INJURIES THEREFROM. FOR EXISTING UTILITY INFORMATION, CONTACT THE ONE-CALL BOARD OF TEXAS @ 811 OR 800-545-6005. A MINIMUM NOTICE OF 3 BUSINESS DAYS IN ADVANCE OF LOCATIONAL NEEDS IS REQUIRED.

LANDSCAPE NOTES:

1. COMPLETE ALL LANDSCAPE PLANTING AND RELATED EARTHWORK INCLUDING ALL PRODUCTS, EQUIPMENT AND LABOR, FOR THE LANDSCAPE AREAS SHOWN ON THE DRAWING AND DESCRIBED IN THE SPECIFICATIONS.

2. ALL QUESTIONS SHOULD BE REFERRED TO THE PROJECT LANDSCAPE ARCHITECT.

3. INFORMATION PROVIDED ON THIS PLAN IS GENERAL IN NATURE. DIMENSIONS, LOCATIONS, AND AREAS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO BIDDING & INSTALLATION.

4. QUANTITIES SHOWN FOR PLANT MATERIALS ARE APPROXIMATE. ACTUAL INSTALLED QUANTITIES OF PLANT MATERIALS MAY VARY FROM THE PLAN AND SHOULD BE FIELD DETERMINED ACCORDING TO THE GIVEN SPACING AND FIELD CONDITIONS. DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE PLAN WHICH LIMIT THE CONTRACTOR SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

5. BY BIDDING, THE CONTRACTOR ACKNOWLEDGES THAT HE/SHE HAS SATISFIED HIMSELF/HERSELF AS TO THE NATURE AND LOCATION OF THE WORK AND TO THE QUALITY OF SURFACE AND SUBSURFACE MATERIALS OR OBSTACLES INSOFAR AS THIS DATA IS REASONABLY ASCERTAINABLE FROM AN INSPECTION OF THE SITE. ANY FAILURE BY THE CONTRACTOR TO ACQUAINT HIMSELF/ HERSELF WITH THE AVAILABLE INFORMATION WILL NOT RELIEVE HIM/HER FROM RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK AS DESCRIBED.

6. INSTALLATION OF ALL LANDSCAPING MUST BE COORDINATED WITH THE INSTALLATION OF RELATED IRRIGATION, SITE WORK, AND GRADING.

7. UNLESS SPECIFICALLY NOTED, INSTALL ALL MASSED PLANTING UTILIZING EQUILATERAL TRIANGULAR SPACING.

8. EVENLY APPLY 3" OF MULCH TO ALL CONTINUOUS PLANTING BEDS. MULCH TO BE TRANSPORTED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR TO ENSURE ALL SUBSURFACE IRRIGATION IS COMPLETELY COVERED BY MULCH.

9. SUBSTITUTIONS OF PLANT SPECIES, SIZES, OR OTHER SPECIFIED MATERIALS WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL BY THE PROJECT LANDSCAPE ARCHITECT.

10. PLANT MATERIAL AND LAYOUT MUST BE APPROVED BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

11. ALL IDENTIFICATION TAGS PROVIDED BY GROWERS AND PLACED ON TREES AND SHRUBS ARE TO REMAIN ON THE PLANTS THROUGH THE PUNCH-LIST INSPECTION. TAGS ARE TO BE REMOVED PRIOR TO FINAL ACCEPTANCE, OR UPON REQUEST OF THE PROJECT LANDSCAPE ARCHITECT.

12. SEED MIX/SOLID SOD WILL BE APPLIED TO ALL CONSTRUCTION-DAMAGED GROUND SURFACES NOT OTHERWISE PLANTED. CONTRACTOR SHALL REVIEW RELATED CONSTRUCTION DRAWINGS FOR LIMITS OF CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR COORDINATING WITH OTHER SITE CONTRACTORS TO DETERMINE ACTUAL AREAS OF SEEDING REQUIRED, INCLUDING AREAS DISTURBED BY UTILITY EXTENSIONS. **CONTRACTOR TO INSTALL EROSION CONTROL BLANKETS ON ALL AREAS WITH SLOPE GREATER THAN 4:1.**

13. THE LANDSCAPE CONTRACTOR SHALL EXCAVATE FULLY PREPARED PLANT BEDS AS REQUIRED TO ACCOMMODATE A FULL 8" OF PREPARED SOIL AND 3" MULCH LAYER. CLEAN, NATIVE TOPSOIL REMOVED FROM THESE BEDS MAY BE SPREAD ON NEARBY AREAS TO BE SODDED OR SEEDED. STONES LARGER THAN 1" DIAMETER SHALL BE REMOVED AND DISPOSED OF OFF SITE. FOLLOWING EXCAVATION, PLACE PREPARED SOIL IN THESE PLANT BEDS. PREPARED SOIL SHALL CONSIST OF 5" IMPORTED "CHOCOLATE" LOAM TOPSOIL AND 3" ORGANIC COMPOST SOIL CONDITIONER (SUCH AS "LIVING EARTH TECHNOLOGIES", "BACK-TO-EARTH" OR OTHER APPROVED MANUFACTURER), THOROUGHLY BLENDED TOGETHER TO 20% MINIMUM ORGANIC CONTENT. THIS MIX SHALL ALSO BE USED TO BACKFILL PLANTING PITS OF ALL TREES. **CONTRACTOR SHALL SUBMIT PLANTING SOIL MATERIAL TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO PURCHASE**.

14. ALL PLANTING BEDS INDICATED WILL BE IRRIGATED WITH UNDERGROUND AUTOMATIC IRRIGATION. IRRIGATION CONTRACTOR IS TO BE A STATE OF TEXAS LICENSED IRRIGATOR, AND SHALL FOLLOW ALL TCEQ CODES AND REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS AND SPECIFICATIONS FOR IRRIGATION SYSTEM INCLUDING PIPE SIZES AND LOCATIONS.

15. ALL SEEDING AREAS DISTURBED BY CONSTRUCTION SHALL BE TEMPORARILY IRRIGATED OR SPRINKLED IN A 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 MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK. RESTORATION SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1-1/2 INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.

16. REGULAR MAINTENANCE IS REQUIRED OF ALL LANDSCAPE AREAS AND PLANT MATERIALS IN A VIGOROUS AND HEALTHY CONDITION, FREE FROM DISEASES, PEST WEEDS, AND LITTER. THIS MAINTENANCE SHALL INCLUDE WEEDING, WATERING, FERTILIZATION, PRUNING, MOWING, EDGING, MULCHING OR OTHER NEEDED MAINTENANCE, IN ACCORDANCE WITH GENERALLY ACCEPTED HORTICULTURAL PRACTICES UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE PROJECT LANDSCAPE ARCHITECT.

17. THE OWNERS OF THE LANDSCAPED PROPERTY, OR THE MANAGER OR AGENT OF THE OWNER, SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE AREAS. SAID AREAS SHALL BE MAINTAINED SO AS TO PRESENT A HEALTHY, NEAT AND ORDERLY APPERARANCE AT ALL TIMES AND SHALL BE KEPT FREE OF REFUSE AND DEBRIS. ALL PLANTING BEDS SHALL BE PROVIDED WITH A READILY AVAILABLE WATER SUPPLY AND WATERED AS NECESSARY TO ENSURE CONTINUOUS HEALTHY GROWTH AND DEVELOPMENT. MAINTENANCE SHALL INCLUDE THE REPLACEMENT OF ALL DEAD PLANT MATERIAL IF THAT MATERIAL WAS USED TO MEET THE REQUIREMENTS OF THE ORDINANCE.

18. NO TOPSOIL SHALL BE PLACED UNTIL SUBGRADE IS APPROVED BY LANDSCAPE ARCHITECT. CONTRACTOR TO FURNISH AND SPREAD TOPSOIL ON LAWN AREAS TO A DEPTH OF FOUR INCHES. WORK TOPSOIL TO A SMOOTH UNIFORM SURFACE AND COMPACT FIRMLY. FEATHER TOPSOIL INTO UNDISTURBED AREAS CREATING A SMOOTH, EVEN TRANSITION. SPREAD ADDITIONAL TOPSOIL IN UNDISTURBED AREAS TO ELIMINATE WATER PONDING. STONES LARGER THAN 1" DIAMETER SHALL BE REMOVED FROM TURF AREAS AND DISPOSED OF OFF SITE.

19. NO CUTTING, FILLING, TRENCHING, ROOT DISTURBANCE, SOIL DISTURBANCE, OR CONSTRUCTION IMPACTS SHALL OCCUR TO THE TRUNK WITHIN THE CRITICAL ROOT ZONE UNLESS DONE BY HAND.

20. FROM APRIL 1 TO SEPTEMBER 30, ONLY CONTAINER GROWN TREES MAY BE PLANTED. FROM OCTOBER 1 TO MARCH 31, EITHER CONTAINER GROWN OR BALL AND BURLAPPED TREES MAY BE PLANTED.

LANDSCAPE MAINTENANCE NOTES:

PROPERTY LANDSCAPING SHALL BE MAINTAINED AT ALL TIMES. THE QUALITY OF THE LANDSCAPE MAINTENANCE SHALL MEET STANDARDS OF PERFORMANCE PROVIDED BY LANDSCAPE COMPANIES IN THE REGION. LANDSCAPE AREAS WILL AT ALL TIMES HAVE A NEAT, CLEAN, HEALTHY, MANICURED APPEARANCE.

1. TURF AREAS
   - A. MOWING & EDGING OF ALL TURF AREAS SHALL BE PERFORMED AT LEAST ONCE PER WEEK.
   - B. PERENNIAL GRASS OVERSEEDING SHALL BE SEPARATE & MUST BE APPROVED BY THE OWNER PRIOR TO START. OVERSEEDING SHALL BE SPREAD AT A RATE TO INSURE A LUSH, THICK CONSISTENT WINTER TURF. TRIMMING & EDGING OF TURF AREAS TO BE PERFORMED EACH VISIT.
   - C. ALL TURF AREAS ARE TO BE FERTILIZED A MINIMUM OF FOUR TIMES PER YEAR W/ A HIGH QUALITY, SLOW RELEASE FERTILIZER FROM A REPUTABLE MANUFACTURER.
   - D. CONTRACTOR SHALL APPLY APPROPRIATE FUNGICIDES AS NECESSARY & PRE-EMERGENT HERBICIDE TWO TIMES PER YEAR & POST-EMERGENT HERBICIDE AT THE TIME DEEMED MOST EFFICIENT & FAVORABLE BY CONTRACTOR.
   - E. TURF TO BE TREATED AS NECESSARY W/ APPROPRIATE INSECTICIDE TO CONTROL SOIL PESTS.
   - F. RAKING TO BE PERFORMED AS NEEDED TO MAINTAIN APPEARANCE. DE-THATCH & AERATE TURF ONCE DURING THE YEAR IN CONJUNCTION W/ RYE OVERSEEDING. IF OWNER OPTS TO NOT PERFORM OVERSEED, DE-THATCHING & AERATING TO BE PERFORMED IN EARLY SPRING.
   - G. BAG ALL AREAS WITHIN 45 FEET OF BUILDINGS, DRIVEWAYS, & SIDEWALKS.

2. SHRUBS, GROUND COVER, BEDS & ANNUALS
   - A. TO BE MAINTAINED WEED FREE, AS NEEDED USING APPROPRIATE HERBICIDES & MANUAL WEEDING. USE A MINIMUM OF TWO PRE-EMERGENT APPLICATIONS & MANUALLY WEED EACH VISIT.
   - B. TO BE FERTILIZED FOUR TIMES PER YEAR W/ A BALANCED HIGH QUALITY, SLOW RELEASE FERTILIZER, APPROPRIATE TO THE SHRUBS ON THE PROJECT.
   - C. SHRUBBERY TO BE HAND TRIMMED AS SPECIFIED TO MAINTAIN A MANICURED APPEARANCE OR AS OTHERWISE REQUESTED BY OWNER. USE ONLY SKILLED PERSONNEL W/ SIGNIFICANT EXPERIENCE IN CLASS A PROPERTIES. NO SHEARING, ALL TO BE DONE W/ SELECTIVE HAND PRUNING TO KEEP PLANT WITHIN BOUNDS BUT TO MAINTAIN A NATURAL SHAPE & APPEARANCE.
   - D. TO BE INSPECTED WEEKLY BY QUALIFIED SUPERVISOR, FOLLOWED BY A WRITTEN REPORT OF PROBLEMS DISCOVERED & ACTIONS TO BE TAKEN.
   - E. AREAS TO BE SPRAYED W/ APPROPRIATE INSECTICIDES & FUNGICIDES, AS NECESSARY.
   - F. ANNUALS TO BE CHANGED OUT FOUR (4) TIMES PER YEAR USING FOUR (4) INCH POTS & FERTILIZED AT EACH CHANGE. MONITOR & APPLY FUNGICIDES & INSECTICIDES TO INSURE MAXIMUM VIGOR.
   - G. APPLY SHREDDED HARDWOOD MULCH TO A DEPTH OF TWO INCHES, A MINIMUM OF THREE TIMES ANNUALLY. IF MULCH DEPTH ACCUMULATION BECOMES SO EXCESSIVE AS TO BE DETRIMENTAL TO PLANT HEALTH, RAKE OUT & DISPOSE OF EXCESS QUANTITIES OF THE OLDEST MATERIAL, OFF-SITE.
   - H. ALL TRAFFIC & DIRECTIONAL SIGNAGE TO BE KEPT FREE & CLEAR FROM ALL BUSHES/SHRUBS, ETC.
   - I. A THREE-FOOT PERIMETER AROUND ALL FIRE HYDRANTS SHALL BE MAINTAINED

3. LANDSCAPE TREES (4" CALIPER OR LESS)
   - A. TO BE LIGHTLY PRUNED AS NECESSARY (AT LEAST ONCE A MONTH DURING GROWING SEASON).
   - B. TO BE PRUNED & SHAPED ONCE DURING WINTER MONTHS. PRUNE TO CLASS I STANDARDS. NOTIFY MANAGEMENT PRIOR TO & IMMEDIATELY FOLLOWING PRUNING ACTIVITY. PRUNING TO BE DONE BY QUALIFIED TREE CARE FIRM, SUBJECT TO MANAGEMENT APPROVAL.
   - C. DEEP ROOT FERTILIZE ALL LANDSCAPE TREES ONE TIME PER YEAR. SUBMIT INFORMATION ON MATERIALS, APPLICATION METHODS & APPLICATOR QUALIFICATION ONE WEEK PRIOR TO PERFORMING WORK TO OWNER'S REPRESENTATIVE.
   - D. ALL TRAFFIC & DIRECTIONAL SIGNAGE TO BE KEPT FREE OF TREE LIMBS & BRANCHES

4. LARGE TREES (GREATER THAN 4" CALIPER)
   - A. CONTRACTOR SHALL INSPECT FOR INSECT, DISEASE INFESTATIONS & TREE DAMAGE SUCH AS LIGHTNING OR VEHICULAR DAMAGE. CONTRACTOR SHALL NOTIFY MANAGEMENT IMMEDIATELY OF SUCH DANGER OR DISEASE SO THAT CORRECTIVE ACTION CAN BE TAKEN.
   - B. WHEN PRUNING IS REQUIRED TO REMOVE DEAD OR DAMAGED LIMBS, WORK IS TO BE DONE BY QUALIFIED TREE CARE FIRM. MANAGEMENT APPROVAL IS REQUIRED PRIOR TO PRUNING.
   - C. ANY FERTILIZING RECOMMENDED BY QUALIFIED TREE CARE FIRM IS SUBJECT TO APPROVAL.
   - D. ALL TRAFFIC & DIRECTIONAL SIGNAGE TO BE KEPT FREE OF TREE LIMBS & BRANCHES

5. DEBRIS & LITTER
   - A. NORMAL TRASH & LITTER WILL BE REMOVED FROM ALL LAWN & LANDSCAPED AREAS WEEKLY.
   - B. ALL DEBRIS RESULTING FROM ANY & ALL LANDSCAPE WORK SHALL BE CLEANED UP IMMEDIATELY.

6. PAVED AREAS
   - A. AT PARKING LOT PERIMETERS & PAVING JOINTS, WEEDS & GRASSES ARE TO BE CONTROLLED W/ CONTACT HERBICIDE SPRAYS & MANUAL WEEDING AS REQUIRED.
   - B. ALL DEBRIS RESULTING FROM ANY & ALL LANDSCAPE WORK SHALL BE CLEANED UP IMMEDIATELY.

7. IRRIGATION
   - A. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING & OPERATING ALL IRRIGATION SYSTEMS AT THE PROPERTY EXCEPT AS MAY BE OTHERWISE NOTED.
   - B. IRRIGATION SYSTEMS MUST BE INSPECTED MONTHLY & A REPORT MUST BE SUBMITTED TO MANAGEMENT. MANAGEMENT MUST APPROVE REPAIRS GREATER THAN $250.00.
   - C. CONTRACTOR WILL ENSURE THAT WATERING CYCLES ARE IN COMPLIANCE W/ ANY CITY GUIDELINES AS A RESULT OF WATER RATIONING OR WATER CONSERVATION. ANY FEES OR PENALTIES INCURRED BY VIOLATION OF ORDINANCES WILL BE BILLED TO CONTRACTOR.
   - D. ALL HEADS & NOZZLES BROKEN BY LANDSCAPE MAINTENANCE OPERATIONS WILL BE REPAIRED OR REPLACED AT CONTRACTOR EXPENSE, ALL NOZZLES WILL BE CLEANED MONTHLY IF NECESSARY, & ALL HEADS WILL BE ADJUSTED AS NEEDED.

8. GENERAL
   - A. CONTRACTOR SHALL PROVIDE ADEQUATE SUPERVISION TO ASSURE THAT ALL WORK WILL BE DONE IN ACCORDANCE W/ THIS AGREEMENT & GENERALLY ACCEPTED GOOD PRACTICE. A WEEKLY VISIT BY A QUALIFIED SUPERVISOR IS A MINIMUM REQUIREMENT. ADEQUATE TIME SHALL BE ALLOWED FOR A THOROUGH & COMPLETE EXAMINATION OF THE ENTIRE PROPERTY.
   - B. CONTRACTOR SHALL REPLACE AT CONTRACTOR'S EXPENSE ANY PLANT MATERIAL THAT DIES DUE TO DAMAGE BY LAWN MAINTENANCE, EQUIPMENT OR CONTRACTOR'S NEGLIGENCE.
   - C. ALL WORK SHALL BE PERFORMED BY CONTRACTOR'S EMPLOYEES; NO WORK SHALL BE PERFORMED BY SUBCONTRACTORS WITHOUT WRITTEN CONSENT OF MANAGEMENT.
   - D. EMPLOYEES TO WEAR UNIFORMS & PROVIDE NEAT APPEARANCE & PROFESSIONAL BEHAVIOR.
   - E. CREW MEMBERS WILL OBSERVE ALL OSHA REGULATIONS. ALL EQUIPMENT WILL BE PROPERLY MAINTAINED & KEPT IN A SAFE OPERATING CONDITION.
   - F. ALL DEBRIS RESULTING FROM ANY & ALL LANDSCAPE WORK SHALL BE IMMEDIATELY CLEANED UP & REMOVED FROM SITE. USE OF AN ON-SITE DUMPSTER IS PROHIBITED.
   - G. ADDITIONAL PROJECTS, LANDSCAPE UPGRADES, ETC. WILL BE NEGOTIATED AS NEEDED.
   - H. POTS OR SIDEWALK PLANTERS AT PROPERTY SHALL BE MAINTAINED IN ACCORDANCE W/ ALL SPECS NOTED ABOVE. IRRIGATION SHALL BE MAINTAINED OR HAND WATER AS NEEDED.

CITY IRRIGATION NOTES

1. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH AN ELECTRONIC CONTROLLER CAPABLE OF DUAL OR MULTIPLE PROGRAMMING.
2. CONTROLLER(S) SHALL HAVE MULTIPLE CYCLE START CAPACITY AND A FLEXIBLE CALENDAR PROGRAM, INCLUDING THE CAPABILITY OF BEING SET TO WATER EVERY FIVE DAYS.
3. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A RAIN AND FREEZE SENSOR SHUTOFF DEVICE.
4. THE IRRIGATION SYSTEM SHALL BE DESIGNED BY A LICENSED IRRIGATOR.
5. TREE IRRIGATION ZONES SHALL NOT SHARE THE SAME IRRIGATION ZONES, INCLUDING VALVES AND CIRCUITS, AS SHRUBS AND PLANTS DUE TO DIFFERENT WATERING REQUIREMENTS.
6. A MINIMUM OF ONE (1) BUBBLER SHALL BE PROVIDED FOR ALL NEWLY PLANTED TREES. TREES LARGER THAN 3 INCHES IN CALIPER SHALL HAVE TWO (2) BUBBLERS. THE BUBBLER(S) SHALL BE INSTALLED AT EACH TREE, LOCATED 12-18 INCHES FROM THE TRUNK, AND SHALL OPERATE ON VALVES SEPARATE FROM THE SPRAY ZONES.
7. NO TRENCHING OR BORING SHALL OCCUR WITHIN THE TREE PROTECTION FENCING OR CRZ WITHOUT PRIOR APPROVAL FROM THE CITY ARBORIST OR ADMINISTRATOR.
8. IRRIGATION PLANS SHALL BE SUBMITTED AND APPROVED PRIOR TO IRRIGATION INSTALLATION AND FINAL SITE INSPECTION.

LANDSCAPE PLAN NOTES:

1. THE CONVENTIONAL SYSTEM FOR IRRIGATION HAS BEEN SELECTED FOR THIS DEVELOPMENT. (CHOOSE ONE FROM BELOW)
   - 1.1. CONVENTIONAL SYSTEM: AN AUTOMATIC OR MANUAL UNDERGROUND IRRIGATION SYSTEM, WHICH MAY HAVE CONVENTIONAL SPRAY OR BUBBLER TYPE HEADS.
   - 1.2. DRIP OR LEAKY-PIPE SYSTEM: AN AUTOMATIC OR MANUAL UNDERGROUND IRRIGATION SYSTEM IN CONJUNCTION WITH A WATER-SAVING SYSTEM, WHICH IS A DRIP OR A LEAKY-PIPE SYSTEM.
   - 1.3. TEMPORARY AND ABOVE-GROUND WATERING: LANDSCAPE AREAS UTILIZING XERISCAPING PLANTS AND INSTALLATION TECHNIQUES, INCLUDING AREAS PLANTED WITH NATIVE GRASSES, WILDFLOWERS, AND TREES MAY USE A TEMPORARY AND ABOVE GROUND SYSTEM, AND SHALL BE REQUIRED TO PROVIDE IRRIGATION FOR THE FIRST THREE (3) GROWING SEASONS.
2. A SEPARATE IRRIGATION PLAN SHALL BE PROVIDED AT THE TIME OF APPLICATION FOR A BUILDING PERMIT.
3. MAINTENANCE: THE CURRENT OWNER AND SUBSEQUENT OWNERS OF THE LANDSCAPED PROPERTY, OR THE MANAGER OR AGENT OF THE OWNER, SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPED AREAS AND MATERIALS, REQUIRED BUFFER YARD AREAS AND MATERIALS AND REQUIRED SCREENING MATERIALS. SAID AREAS MUST BE MAINTAINED SO AS TO PRESENT A HEALTHY, NEAT AND ORDERLY APPEARANCE AT ALL TIMES AND SHALL BE KEPT FREE OF REFUSE AND DEBRIS. MAINTENANCE WILL INCLUDE REPLACEMENT OF ALL DEAD PLANT MATERIAL IF THAT MATERIAL WAS USED TO MEET THE REQUIREMENTS OF THE UDC. ALL SUCH PLANTS SHALL BE REPLACED WITHIN SIX (6) MONTHS OF NOTIFICATION, OR BY THE NEXT PLANTING SEASON, WHICHEVER COMES FIRST. A PROPERTY/ HOMEOWNERS ASSOCIATION MAY ASSUME RESPONSIBILITY OF MAINTENANCE OF COMMON AREAS.
4. THIS LANDSCAPE PLAN HAS BEEN PREPARED AND CERTIFIED BY A LANDSCAPE ARCHITECT TO MEET ALL THE REQUIREMENTS OF THE CITY OF GEORGETOWN UNIFIED DEVELOPMENT CODE. (PROVIDE INDIVIDUALS CONTACT INFORMATION AND CERTIFICATION ON LANDSCAPE PLAN.)
5. ALL PLANT SELECTIONS HAVE BEEN CHOSEN FROM THE CITY OF GEORGETOWN PREFERRED PLANT LIST.
6. NO MORE THAN 25% OF PLANTINGS HAVE BEEN SELECTED FROM ANY ONE SPECIES (IF PLANTING MORE THAN 5 TREES OR 10 SHRUBS).
7. AT LEAST 50% OF THE REQUIRED PLANT MATERIALS ARE LOW WATER USERS AS IDENTIFIED ON THE PREFERRED PLANT LIST.

HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

LANDSCAPE NOTES

LA0.00

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THIS SHEET IS FOR REFERENCE ONLY

SUBMISSIONS | REVISIONS::

09.05.2023 SDP SET

NOT FOR CONSTRUCTION

studio 16:19
design • collaborate • solve • impact
305 w liberty ave, suite100 p. 512.534.8680
round rock, texas 78664 studio1619.com

REGISTERED LANDSCAPE ARCHITECT
BRENT A. BAKER
2698
STATE OF TEXAS
09.05.23

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hagood engineering assoc.
900 e. main street
round rock, texas 78664
p:: 512.244.1546
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owner ::
VELOCITY TIRE, LLC
Devin Roberson
p:: 432.935.1014

VELOCITY TIRE

4229 WILLIAMS DRIVE, GEORGETOWN, TEXAS 78628

sheet information ::

project #::	23.996
date ::	09.05.23
designed ::	rk
drawn ::	rk
checked ::	bs
approved ::	bab

LAo.oo

LANDSCAPE NOTES

KEY	TREE #	SIZE (in inches)	Species	Condition
NP	263	9	Oak	
R	264	16	Oak	
NP	265	10	Oak	
NP	266	11	Oak	
R	267	12	Oak	
R	268	14	Oak	
R	269	15	Oak	
NP	270	10	Oak	
R	271	12	Oak	
NP	272	6	Oak	
R	273	14	Oak	
NP	274	10	Oak	
R	275	12	Oak	
NP	276	10	Oak	
R	277	12	Oak	
NP	278	8	Oak	
R	279	22	Oak	
P	280	22	Oak	
NP	281	10	Oak	
NP	282	9	Oak	
NP	283	4	Oak	
R	284	13	Oak	
NP	285	10	Oak	
R	286	22	Oak	
R	287	17	Elm	
R	289	19	Elm	
OFFSITE	288	15	Elm	
OFFSITE	290	16	Elm	

Column Summary::

P	1	ea. /	22	in.
R	13	ea. /	200	in.
HT	0	ea. /	0	in.
R-HT	0	ea. /	0	in.
C	0	ea. /	0	in.

Key Legend:

P	Protected Trees Preserved (12"+)
NP	Not a Protected Tree (Removed)
R	Protected Trees Removed (1:1 replacement ratio 12"-25.5")
HT	Heritage Tree Preserved (26"+)
R-HT	Removal of Heritage Tree (3:1 replacement ratio)
C	Credit Trees Preserved (6"-11.5")
D	Tree is Dead, Diseased or Determined to not be Suitible for Preservation
OFFSITE	Surveyed Tree Outside Property Boundary (Not included in Calculations)

Tree Mitigation Calculations:

Protected Trees Removed: 200.0 Inches x 40% 80 Inches to Mitigate
Credit Trees - On Site Existing: - Inches Preserved
80 Inches owed
Proposed (1:1) Mitigation: 14 Trees x 3" 42
13 Trees x 1.5" 19.5
61.5 **On-Site Inches Proposed**
Mitigation by Payment: 19 Inches x $175 **$ 3,237.50 Payment to be Paid**
Payment rate: (12"-17" x $125) , (18"+ x $175)

Heritage Trees Removed: 0 Inches x 3 0 Inches owed
Proposed (3:1) Mitigation: 0 Trees x 3" cal. **0 On-Site Inches Proposed**

Additional Mitigatioin by Payment:

Per City Ordinance 8.02.030 (E)(2)(b) - mitigation of 1.5x for tree (inches) removed beyond the min. req. to be preserved

Total Number of Protected Trees Required to Remain: 3
Total Number of Protected Trees Proposed to Remain: 1
Delta in Protected Trees to Remain: 2
Assume Last 2 Trees on the list:

1	R	289	19	Elm	0
2	R	287	17	Elm	0

36 inches to be mitigated at 1.5x ($125 x 1.5=$187.50)

Total Fee to be Paid: **$ 6,750.00 Payment to be Paid**

$ 9,987.50 Total Fee-In-Lieu of Planting

Tree Mitigation Summary

Required Protected Tree Preservation Percentage (UDC Sec. 8.02.030.E)
Percentage of Protected Trees that must be retained on site (not applicable to residential subdivisions or Heritage Trees)

Project acreage: 0.92 acres
Total number of Protected Trees existing on-site: 14
Average number of protected trees per acre: 15.2
Applicable Required Protected Tree Preservation percentage: 20%
Number of existing protected trees to remain on-site: 3

Owed Mitigation for Protected Removals

Protected tree mitigation inches owed within required percentage: 80 in. (40% of 200 in. removed)
Protected tree mitigation inches owed more than the allowable percentage: 0 in.
Overall protected tree mitigation inches owed: 80 in.

Credit Trees – On-Site Planted Trees

Inches of shade trees planted on-site: 61.5 in.

Credit Trees – On-Site Existing Trees (3 - <12" trees only)
May count for up to 75% of overall required Protected Tree mitigation inches (does not count towards Heritage Tree mitigation)
Note: Credit trees count tree per tree toward landscape requirement tree replacements not in inches

Maximum available on-site credit tree discount: n/a
Number of on-site credit trees (6 - <12" trees only) available for maximum discount: n/a
Number of on-site credit trees (3 - <6" trees only) available for maximum discount: n/a

Soil Aeration & Supplemental Nutrients Credit – Up To 30%
Must provide Fiscal Surety before Certificate of Occupancy may be issued

Maximum inches that can count towards soil aeration & supplemental nutrient credit: n/a
Maximum soil aeration or supplemental nutrient payment: n/a
Total inches used for soil aeration or supplemental nutrient: n/a

Owed Mitigation for Heritage Tree Removals

Overall Heritage Tree mitigation inches owed: n/a
Number of three-inch trees owed: n/a

Cash Payout
Goes into the Tree Fund for both Protected and Heritage Trees

Amount owed by fee-in-lieu: $9,987.50.00
Protected Tree fee-in-lieu payment: $3,237.50
Heritage Tree fee-in-lieu payment: n/a

Mitigation for Trees removed beyond the minimum required amount to be preserved (per 8.02.030(E)(2)(b)) $6,750.00

PLANT SCHEDULE

TREES	QTY	COMMON / BOTANICAL NAME	SIZE	DESCRIPTION
	7	LIVE OAK QUERCUS VIRGINIANA	3" CAL	10`-12`H X 5`-6` W
	7	TEXAS RED OAK QUERCUS TEXANA	3" CAL	10`-12`H X 5`-6` W
	7	WAX MYRTLE MYRICA CERIFERA	15 GAL	5`-6` H X 5`-6` W
	6	YAUPON HOLLY ILEX VOMITORIA	15 GAL	5`-6` H X 5`-6` W

SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	DESCRIPTION
	41	DWARF SOUTHERN WAX MYRTLE MYRICA PUSILLA	3 GAL	PER TNLA STANDARDS & SPECS
	41	DWARF YAUPON ILEX VOMITORIA `NANA`	3 GAL	PER TNLA STANDARDS & SPECS
	41	PLUM DELIGHT FRINGE-FLOWER LOROPETALUM CHINENSE	3 GAL	PER TNLA STANDARDS & SPECS
	42	TEXAS SAGE LEUCOPHYLLUM FRUTESCENS	3 GAL	PER TNLA STANDARDS & SPECS
	59	TRAILING LANTANA LANTANA MONTEVIDENSIS `PURPLE`	1 GAL	PER TNLA STANDARDS & SPECS

SOD/SEED	QTY	COMMON / BOTANICAL NAME	CONT	DESCRIPTION
	16,505 SF	BUFFALO GRASS BOUTELOUA DACTYLOIDES	HYDROSEED	PER TNLA STANDARDS & SPECS

	Landscape Area Required	Landscape Area Proposed	Shrubs Required	Shrubs Proposed	Evergreen Shrubs Required	Evergreen Shrubs Proposed	Evergreen Ornamental Trees Required	Evergreen Ornamental Trees Proposed	Shade Trees Required	Shade Trees Proposed
Gateway Overlay District Landscaping - Section 8.04.050 (if applicable)										
Gateway Landscape Required										
Minus < 20" Landscape Credit Trees Counted										
Minus 20"+ Landscape Credit Trees Counted x 2										
Gateway Landscape Provided										
Total	N/A									
Street Yard Landscaping - Section 8.04.030										
Street Yard Landscape Required	2,730 sf		3 ea		N/A		N/A		1 ea	
Minus < 20" Landscape Credit Trees Counted				N/A		N/A		N/A		N/A
Minus 20"+ Landscape Credit Trees Counted x 2				N/A		N/A		N/A		2
Minus area or plantings that can be credited from Gateway Landscaping		N/A		N/A		N/A		N/A		N/A
Street Yard Landscape Provided		8,464 sf		53 ea		N/A		N/A		5 ea
Total	2,730 sf	8,464 sf	3 ea	53 ea		N/A		N/A	1 ea	7 ea
Parking Lot Landscaping -Section 8.04.040										
Parking Lot Landscape Required	350 sf								2 ea	
Minus area or plantings that can be credited towards Street Yard Landscaping		N/A						N/A		N/A
Minus < 20" Landscape Credit Trees Counted		N/A						N/A		N/A
Minus 20"+ Landscape Credit Trees Counted x 2		N/A						N/A		N/A
Parking Lot Landscape Provided		994 sf						N/A		9 ea
Total	350 sf	994 sf						N/A	2 ea	9 ea
Bufferyard Landscaping - Section 8.04.060 (if applicable)										
Bufferyard Landscape Required	4,680 sf		N/A		48 ea		12 ea		6 ea	
Minus < 20" Landscape Credit Trees Counted		N/A		N/A		N/A		N/A		N/A
Minus 20"+ Landscape Credit Trees Counted x 2		N/A		N/A		N/A		N/A		N/A
Total	4,680 sf	4,680 sf	N/A	N/A	48 ea	48 ea	12 ea	12 ea	6 ea	6 ea
Screening - Section 8.04.060 (if applicable)										
Total					YES	YES				
Grand Total	7,760 sf	14,138 sf	3 ea	53 ea	48 ea	48 ea	12 ea	12 ea	9 ea	22 ea

HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

TREE SURVEY LIST & MITIGATION CHART

LA0.01

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09.05.2023 SDP SET

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REGISTERED LANDSCAPE ARCHITECT BRENT A. BAKER 2691 STATE OF TEXAS 09.05.23

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Devin Roberson
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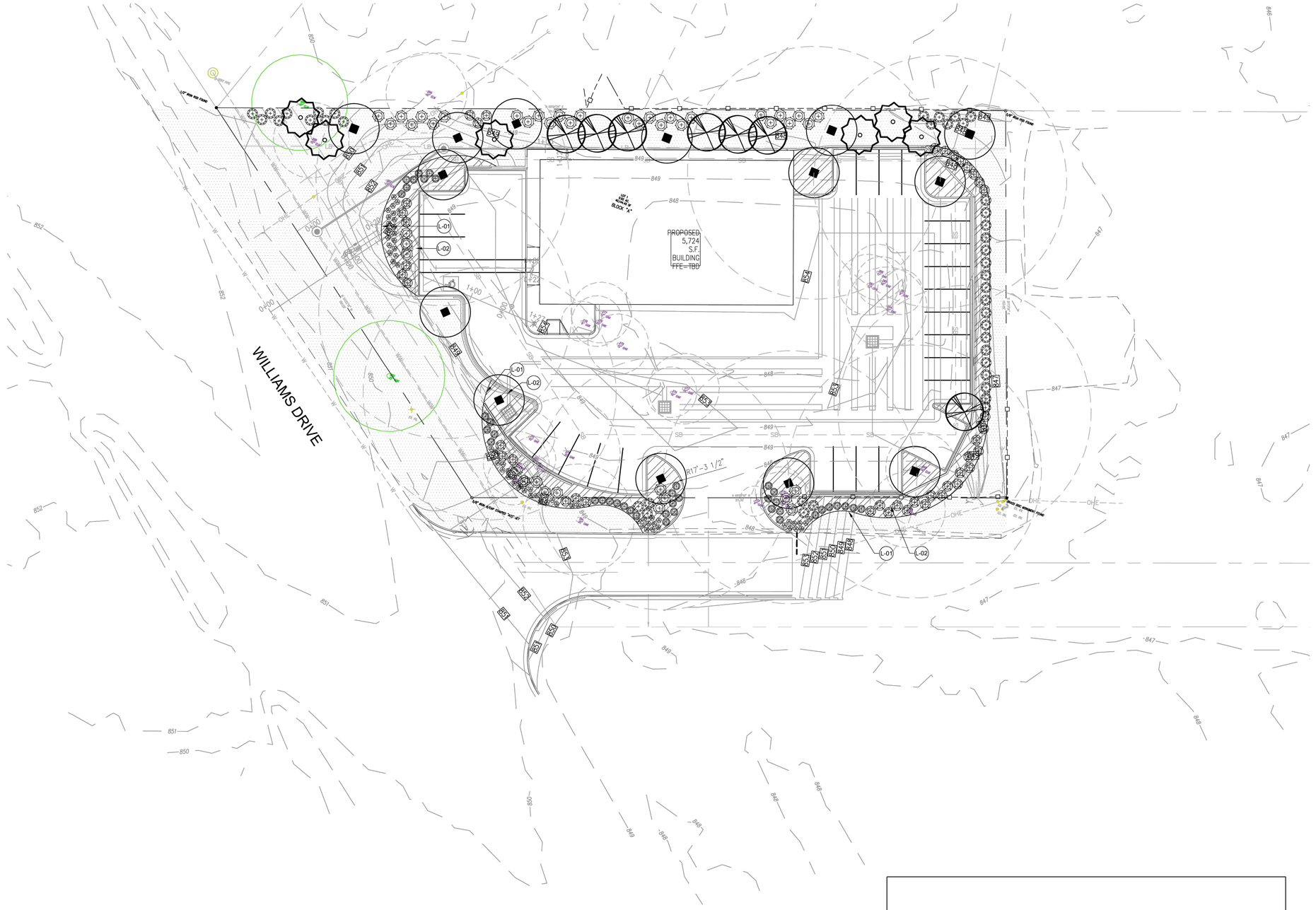
sheet information ::

project #::	23.996
date ::	09.05.23
designed ::	rk
drawn ::	rk
checked ::	bs
approved ::	bab

LA0.01
TREE SURVEY LIST & MITIGATION CHART



KEY LEGEND

NOTE: ITEMS LISTED BELOW REFERENCE ALL SHEETS. QUANTITIES ARE INCLUDED FOR CONTRACTOR CONVENIENCE AND CONTRACTOR SHALL VERIFY ASSOCIATED QUANTITIES.

SYM	DESCRIPTION	QTY
L-01	STEEL EDGING, TYP.; COLOR: GREEN REF. DETAIL 4/L5.01	438 LF
L-02	LANDSCAPE BED MIX; REFER TO LA0.00 LANDSCAPE NOTES #8 & #13	4,842 SF

PLANT SCHEDULE

TREES	COMMON / BOTANICAL NAME
	LIVE OAK QUERCUS VIRGINIANA
	TEXAS RED OAK QUERCUS TEXANA
	WAX MYRTLE MYRICA CERIFERA
	YAUPON HOLLY ILEX VOMITORIA
SHRUBS	**COMMON / BOTANICAL NAME**
	DWARF SOUTHERN WAX MYRTLE MYRICA PUSILLA
	DWARF YAUPON ILEX VOMITORIA `NANA`
	PLUM DELIGHT FRINGE-FLOWER LOROPETALUM CHINENSE
	TEXAS SAGE LEUCOPHYLLUM FRUTESCENS
	TRAILING LANTANA LANTANA MONTEVIDENSIS `PURPLE`
SOD/SEED	**COMMON / BOTANICAL NAME**
	BUFFALO GRASS BOUTELOUA DACTYLOIDES

TREE LEGEND

- HERITAGE TREE (26"+ CAL.)
- PRESERVED TREE (12"-25.5" CAL.)
- REMOVED TREE (PROTECTED, NOT PROTECTED, DEAD, AND HERITAGE)
- CREDIT TREE (6"-11.5" CAL.)
- PROPOSED TREE (3" CAL., REF. SHT. LA0.00)

HEA PROJECT NO.22-033
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LANDSCAPE PLAN

LA1.00

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24x36 20' SCALE: 1"=20'-0"
12x18 40' SCALE: 1"=40'-0"
0 10 20 40 60

SUBMISSIONS | REVISIONS::

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The Texas Board of Architectural Examiners, P.O. Box 12337, Austin, Texas 78701-2337 or 333 Guadalupe, Suite 2-330, Austin, Texas 78701-3942, (512)305-9000, has jurisdiction over individuals licensed under the Landscape Architects Registration Law, Texas Civil Statutes, Article 249c.

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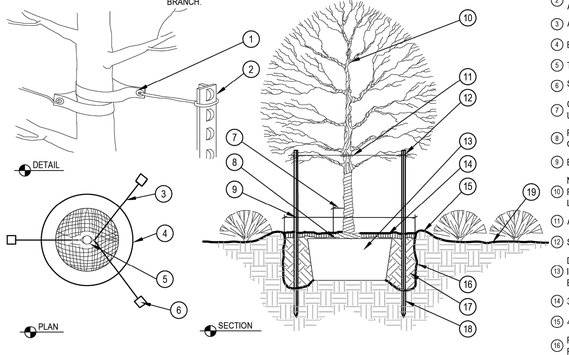
sheet information ::

project #::	23.996
date ::	09.05.23
designed ::	rk
drawn ::	rk
checked ::	bs
approved ::	bab

LA1.00

LANDSCAPE PLAN

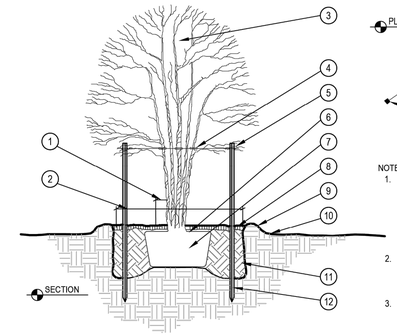
NOTES:
1. ROOTBALL SIZE SHALL CONFORM TO THE 1995 AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS UNLESS OTHERWISE NOTED.
2. USE THREE STAKES ON ALL TREES.
3. APPROVED TIE SYSTEM SHALL BE LOCATED ABOVE THE BOTTOM BRANCH.



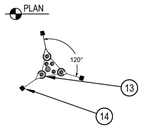
1. APPROVED TREE TIE SYSTEM (SEE NOTES)
2. LOOP SHALL BE 3X THE DIAMETER OF TRUNK IN ORDER TO PREVENT SCARING, CUTTING, GIRDLING, OR OTHER DAMAGE TO TREE
3. STEEL STUDDED FENCE POST-STUDS MUST FACE AWAY FROM TREE
4. APPROVED TREE TIE SYSTEM (SEE NOTES)
5. EDGE OF TREE PIT
6. TREE TRUNK
7. STUDDED STEEL FENCE POST
8. CONTRACTOR TO LEAVE 6" MIN. ROOT FLAIR UNCOVERED BY MULCH, SOIL, AND PLANTING MIX
9. PLACE TOP OF ROOT CROWN 2" ABOVE FINISH GRADE
10. EXCAVATE HOLE 2X ROOT BALL DIAMETER
11. NEVER CUT LEADER-THIN UP TO 1/3 OF BRANCHES RETAINING NATURAL SHAPE OF TREE - DO NOT LEAVE STUBS
12. APPROVED TIE SYSTEM ABOVE THE FIRST BRANCH
13. STAKE ALL TREES USING METAL STAKES-3 PER TREE
14. DO NOT BREAK ROOT BALL. IF ROOT BALL IS BROKEN PLANT WILL BE REJECTED. REMOVE BURLAP FROM TOP OF ROOT BALL
15. 3" ORGANIC MULCH LAYER AS SPECIFIED
16. 4" HT. SAUCER AROUND PLANTING PIT
17. ROUGHEN SURFACE TO IMPROVE ROOT PENETRATION
18. 50% EXCAVATED SOIL AND 50% PLANTING SOIL MIX
19. MIN. 3 STAKES PER TREE PAINTED BLACK STEEL STAKE 3 LARGEST STEMS ON TREE
20. FINISH GRADE

1 SINGLE TRUNK TREE PLANTING AND STAKING

N.T.S.



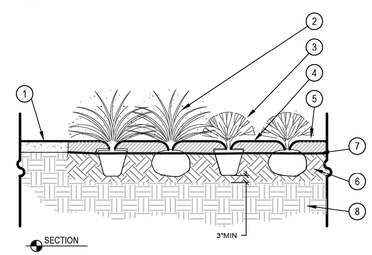
NOTES:
1. TOTAL CALIPER INCHES OF A MULTIPLE TRUNK TREE IS CALCULATED AS FOLLOWS: ADD THE CALIPER INCHES OF THE LARGEST TRUNK TO HALF OF THE CALIPER INCH OF EACH OF THE SMALLER TRUNKS.
2. ROOTBALL WIDTH SHOULD BE DETERMINED BY THE FOLLOWING: 8" OF ROOTBALL DIA. FOR EACH 1" CALIPER OF TREE TRUNK.
3. ROOTBALL DEPTH IS 2/3RDS OF THE DIAMETER.

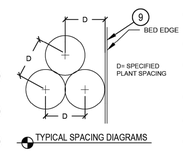


1. CONTRACTOR TO LEAVE 6" MIN. ROOT FLAIR UNCOVERED BY MULCH, SOIL, AND PLANTING MIX
2. EXCAVATE HOLE 2X ROOT BALL DIAMETER
3. NEVER CUT LEADER - THIN UP TO 1/3 OF BRANCHES RETAINING NATURAL SHAPE OF TREE - DO NOT LEAVE STUBS
4. ATTACH GUY WIRE & HOSE ABOVE FIRST BRANCH.
5. STAKE ALL TREES USING METAL STAKES-3 PER TREE
6. PLACE TOP OF ROOT CROWN 2" ABOVE FINISH GRADE
7. DO NOT BREAK ROOT BALL. IF ROOT BALL IS BROKEN PLANT WILL BE REJECTED. REMOVE BURLAP FROM TOP OF ROOT BALL
8. 3" ORGANIC MULCH LAYER AS SPECIFIED
9. 4" HT. SAUCER AROUND PLANTING PIT
10. FINISH GRADE
11. 50% EXCAVATED SOIL AND 50% PLANTING SOIL MIX
12. HEAVY DUTY, METAL STAKE TO BE MINIMUM 8'-0" LONG STAKE TO BE 18" BELOW PIT IN UNDISTURBED SUBGRADE
13. LACE HOSE GUARDS TOGETHER WITH SINGLE WIRE STAY
14. MIN. 3 STAKES PER TREE PAINTED BLACK STEEL STAKE 3 LARGEST STEMS ON TREE

2 MULTI-STEM TREE PLANTING AND STAKING

N.T.S.

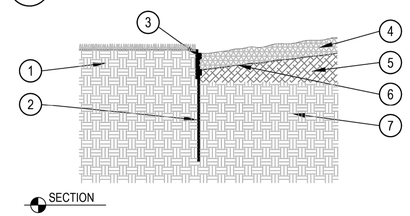




1. ADJACENT HARDSCAPE
2. GRASSES (AS SPECIFIED PER PLAN)
3. SHRUB (AS SPECIFIED PER PLAN)
4. 3" ORGANIC MULCH LAYER AS SPECIFIED, SUBSURFACE IRRIGATION TO BE COMPLETELY COVERED BY MULCH
5. LEAVE NO ROOTS EXPOSED
6. 8" DEPTH PLANTING SOIL MIX AS SPECIFIED THIS SHEET, NOTE #13
7. GEOTEXTILE FABRIC TO MEET TYPAR 3301 MIN. SPECIFICATIONS OR APPROVED EQUAL
8. UNDISTURBED SUBGRADE
9. BED EDGE

3 SHRUB / GRASS PLANTING

N.T.S.



1. ADJACENT TURF OR AGGREGATE
2. 8" STEEL STAKE
3. STEEL LANDSCAPE EDGING 3/16" X 4", ENSURE TOP EDGE IS FLUSH WITH ANY ADJACENT HARDSCAPE SURFACE
4. FINISHED GRADE, PLANT BED, OR GROUND COVER
5. TOP SOIL AS SPECIFIED
6. GEOTEXTILE FABRIC TO MEET TYPAR 3301 MIN. SPECIFICATIONS OR APPROVED EQUAL
7. UNDISTURBED SUBGRADE

4 STEEL EDGING

N.T.S.

HEA PROJECT NO.22-033
ISSUED DATE: 10/24/2023

LANDSCAPE NOTES & DETAILS

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LANDSCAPE
NOTES & DETAILS