



2P Consultants, LLC  
203 E. Main Street, Suite 204  
Round Rock, Texas 78664  
512-344-9664  
TBPE FIRM #F-19351

May 24, 2023

Franklin Anciano  
Edwards Aquifer Protection Program  
Texas Commission on Environmental Quality  
512-239-7017  
[Franklin.Anciano@tceq.texas.gov](mailto:Franklin.Anciano@tceq.texas.gov)

RE: Freehill Hero Way W CZP - Administrative NOD

Dear Mr. Anciano

Please accept this letter and the attached plan set as a response to the comments received from your office on May 23, 2023.

*Contributing Zone Plan Application (TCEQ-10257)*  
*Line 4. Entity information of the Customer/Applicant should match the Agent Authorization Form.*

**Entity information has been updated to match the agent authorization form**

*Attachment K - BMPs for On-site Stormwater - Please provide the EAPP approval letter that includes the batch detention basin which is proposed to treat stormwater from this project. Please provide written authorization from the owner of the BMP that the applicant can discharge stormwater from the project site to their water quality pond. Please include the acreage and IC from all projects that drain to the pond in Steps 2-6 of the TSS Removal Calculations. Also, the removal efficiency shows 90% rather than 91%.*

**The pond is within the site boundary. This was cleared up per phone call on 5/23/23**

**The removal efficiency has been updated.**

*Application Fee Form (TCEQ-0574)*  
*Please remove the fee for "Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling"*

**The fee has been removed.**

*Core Data Form (TCEQ-10400)*  
*Line 7, 31, 33. Please provide information.*

**Information requested has been provided.**

*Line 23. Address could not be validated by the U.S. Postal Service, please provide information on Lines 25-28.*

**The official address has not been assigned. That address is a possible address based on the carwash across the street. The no address section has been filled out.**

*Other*  
*All plan sheets submitted with this application must be final, signed and sealed by a P.E.*

**The sheets have been signed and sealed.**

If you have questions or require additional information regarding the plan, don't hesitate to contact me directly. I can be reached by telephone at (512) 344-9664 or by e-mail at [urban@2pconsultants.com](mailto:urban@2pconsultants.com).

Thank you,

A handwritten signature in black ink, appearing to read "David Urban", with a stylized, cursive script.

David Urban, PE, CFM  
Senior Project Manager



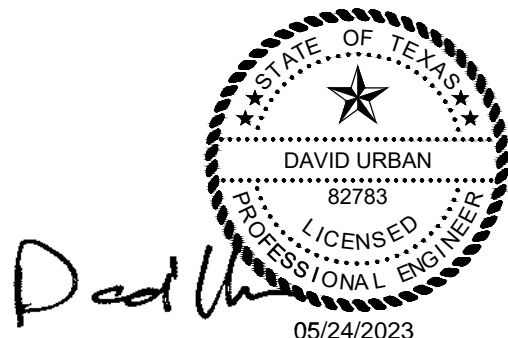
# **Freehill Hero Way W Site development**

## **Contributing Zone Plan**

**May 2023**

**Prepared for  
Freehill Leander GP, LLC  
901 S Mopac Expressway,  
Austin, Texas 78746**

**Prepared by  
2P Consultants, LLC.  
203 E. Main Street, Suite 204  
Round Rock, Texas 78664**



05/24/2023

**David O. Urban, P.E., CFM  
Project Manager**

**TBPE FIRM #F-19351**



# Texas Commission on Environmental Quality

## Edwards Aquifer Application Cover Page

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### Our Review of Your Application

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

### Administrative Review

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

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

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.
3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.
4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

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

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.
6. If the geologic assessment was completed before October 1, 2004 and the site contains “possibly sensitive” features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

### Technical Review

1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.
2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

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

3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.
4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

### Mid-Review Modifications

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

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

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

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

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

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

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

<b>1. Regulated Entity Name: Freehill Hero Way W</b>						<b>2. Regulated Entity No.:</b>			
<b>3. Customer Name: Freehill Pine Ridge Leander, LP</b>						<b>4. Customer No.:</b>			
<b>5. Project Type:</b> (Please circle/check one)	<b>New</b>		<b>Modification</b>			<b>Extension</b>		<b>Exception</b>	
<b>6. Plan Type:</b> (Please circle/check one)	<b>WPAP</b>	<b>CZP</b>	<b>SCS</b>	<b>UST</b>	<b>AST</b>	<b>EXP</b>	<b>EXT</b>	Technical Clarification	Optional Enhanced Measures
<b>7. Land Use:</b> (Please circle/check one)	<b>Residential</b>		<b>Non-residential</b>			<b>8. Site (acres):</b>		16.850	
<b>9. Application Fee:</b>	\$6,500		<b>10. Permanent BMP(s):</b>				Smart Pond batch detention		
<b>11. SCS (Linear Ft.):</b>			<b>12. AST/UST (No. Tanks):</b>						
<b>13. County:</b>	Williamson		<b>14. Watershed:</b>				South Fork Brushy Creek		

# Application Distribution

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

[http://www.tceq.texas.gov/assets/public/compliance/field\\_ops/eapp/EAPP%20GWCD%20map.pdf](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.

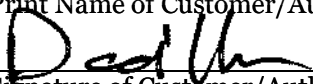
Austin Region			
County:	Hays	Travis	Williamson
Original (1 req.)	—	—	x—
Region (1 req.)	—	—	x—
County(ies)	—	—	x—
Groundwater Conservation District(s)	<input type="checkbox"/> Edwards Aquifer Authority <input type="checkbox"/> Barton Springs/ Edwards Aquifer <input type="checkbox"/> Hays Trinity <input type="checkbox"/> Plum Creek	<input type="checkbox"/> Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	<input type="checkbox"/> Austin <input type="checkbox"/> Buda <input type="checkbox"/> Dripping Springs <input type="checkbox"/> Kyle <input type="checkbox"/> Mountain City <input type="checkbox"/> San Marcos <input type="checkbox"/> Wimberley <input type="checkbox"/> Woodcreek	<input type="checkbox"/> Austin <input type="checkbox"/> Bee Cave <input type="checkbox"/> Pflugerville <input type="checkbox"/> Rollingwood <input type="checkbox"/> Round Rock <input type="checkbox"/> Sunset Valley <input type="checkbox"/> West Lake Hills	<input type="checkbox"/> Austin <input type="checkbox"/> Cedar Park <input type="checkbox"/> Florence <input type="checkbox"/> Georgetown <input type="checkbox"/> Jerrell <input checked="" type="checkbox"/> Leander <input type="checkbox"/> Liberty Hill <input type="checkbox"/> Pflugerville <input type="checkbox"/> Round Rock

San Antonio Region					
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)	—	—	—	—	—
Region (1 req.)	—	—	—	—	—
County(ies)	—	—	—	—	—
Groundwater Conservation District(s)	<input type="checkbox"/> Edwards Aquifer Authority <input type="checkbox"/> Trinity-Glen Rose	<input type="checkbox"/> Edwards Aquifer Authority	<input type="checkbox"/> Kinney	<input type="checkbox"/> EAA <input type="checkbox"/> Medina	<input type="checkbox"/> EAA <input type="checkbox"/> Uvalde
City(ies) Jurisdiction	<input type="checkbox"/> Castle Hills <input type="checkbox"/> Fair Oaks Ranch <input type="checkbox"/> Helotes <input type="checkbox"/> Hill Country Village <input type="checkbox"/> Hollywood Park <input type="checkbox"/> San Antonio (SAWS) <input type="checkbox"/> Shavano Park	<input type="checkbox"/> Bulverde <input type="checkbox"/> Fair Oaks Ranch <input type="checkbox"/> Garden Ridge <input type="checkbox"/> New Braunfels <input type="checkbox"/> Schertz	NA	<input type="checkbox"/> 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.

David Urban, PE, CFM

Print Name of Customer/Authorized Agent



05/05/2023

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):

# Contributing Zone Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Contributing Zone to the Edwards Aquifer and Relating to 30 TAC §213.24(1), 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 **Contributing Zone Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: David Urban, PE, CFM

Date: 5/23/2023

Signature of Customer/Agent:



Regulated Entity Name: Freehill Hero Way W

## Project Information

1. County: Williamson
2. Stream Basin: South Fork Brushy Creek
3. Groundwater Conservation District (if applicable): \_\_\_\_\_
4. Customer (Applicant):

Contact Person: Will Patton

Entity: FREEHILL LEANDER GP, LLC

Mailing Address: 901 S. Mopac Expressway, Suite 300

City, State: Austin, Texas

Zip: 78746

Telephone: (713) 825-3345

Fax: \_\_\_\_\_

Email Address: will.paton@freehillco.com

5. Agent/Representative (If any):

Contact Person: David Urban, PE, CFM

Entity: 2P Consultants, LLC

Mailing Address: 203 E. Main Street #204

City, State: Round Rock, Texas

Zip: 78664

Telephone: 512-344-9664

Fax: \_\_\_\_\_

Email Address: durban@2pconsultants.com

6. Project Location:

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

7. ☒ The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

The project is located at 11521 W. Hero Way which is on the south side of Hero Way midway between old 183 and Bagdad Rd. and across the street from Right Dpace Storage.

8. ☒ **Attachment A - Road Map.** A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.

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

- ☒ Project site boundaries.  
☒ USGS Quadrangle Name(s).

10. ☒ **Attachment C - Project Narrative.** A detailed narrative description of the proposed project is attached. 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

11. 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/Not cleared)
- ☐ Other: \_\_\_\_\_

12. The type of project is:

- ☐ Residential: # of Lots: \_\_\_\_\_
- ☐ Residential: # of Living Unit Equivalents: \_\_\_\_\_
- ☒ Commercial
- ☐ Industrial
- ☐ Other: \_\_\_\_\_

13. Total project area (size of site): 16.85 Acres

Total disturbed area: 16 Acres

14. Estimated projected population: \_\_\_\_\_

15. The amount and type of impervious cover expected after construction is complete is shown below:

**Table 1 - Impervious Cover**

<i><b>Impervious Cover of Proposed Project</b></i>	<i><b>Sq. Ft.</b></i>	<i><b>Sq. Ft./Acre</b></i>	<i><b>Acres</b></i>
Structures/Rooftops	225,322	÷ 43,560 =	5.1727
Parking	57,830	÷ 43,560 =	1.3276
Other paved surfaces	232,256	÷ 43,560 =	5.3319
Total Impervious Cover	515,408	÷ 43,560 =	11.832

**Total Impervious Cover  $\frac{11.832}{16.85} \times 100 = 70.22\%$  Impervious Cover**

16. ☒ **Attachment D - Factors Affecting Surface Water Quality.** A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.
17. ☒ Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

### ***For Road Projects Only***

***Complete questions 18 - 23 if this application is exclusively for a road project.***

☒ N/A

18. 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.

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

- ☐ Concrete
- ☐ Asphaltic concrete pavement
- ☐ Other: \_\_\_\_\_

20. Right of Way (R.O.W.):

Length of R.O.W.: \_\_\_\_\_ feet.

Width of R.O.W.: \_\_\_\_\_ feet.

$L \times W = \text{_____ Ft}^2 \div 43,560 \text{ Ft}^2/\text{Acre} = \text{_____ acres.}$

21. Pavement Area:

Length of pavement area: \_\_\_\_\_ feet.

Width of pavement area: \_\_\_\_\_ feet.

$L \times W = \text{_____ Ft}^2 \div 43,560 \text{ Ft}^2/\text{Acre} = \text{_____ acres.}$

Pavement area \_\_\_\_\_ acres  $\div$  R.O.W. area \_\_\_\_\_ acres  $\times 100 = \text{_____ \%}$  impervious cover.

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

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

23. ☐ 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***

24. ☒ **Attachment E - 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 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***

25. ☒ Wastewater is to be discharged in the contributing zone. Requirements under 30 TAC §213.6(c) relating to Wastewater Treatment and Disposal Systems have been satisfied.

☐ N/A

26. Wastewater will be disposed of by:

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

☐ **Attachment F - 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):

The sewage collection system will convey the wastewater to the East Regional Wastewater treatment plant (name) Treatment Plant. The treatment facility is:

☒ Existing.

☐ Proposed.

☐ N/A

### ***Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons***

***Complete questions 27 - 33 if this project includes the installation of AST(s) with volume(s) greater than or equal to 500 gallons.***

☒ N/A

27. Tanks and substance stored:

**Table 2 - Tanks and Substance Storage**

<i>AST Number</i>	<i>Size (Gallons)</i>	<i>Substance to be Stored</i>	<i>Tank Material</i>
1			
2			
3			
4			
5			

Total x 1.5 = \_\_\_\_\_ Gallons

28. ☐ The AST will be placed within a containment structure that is sized to capture one and one-half (1 1/2) times the storage capacity of the system. For facilities with more than one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.

☐ **Attachment G - Alternative Secondary Containment Methods.** Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are attached.

29. Inside dimensions and capacity of containment structure(s):

**Table 3 - Secondary Containment**

<i>Length (L)(Ft.)</i>	<i>Width(W)(Ft.)</i>	<i>Height (H)(Ft.)</i>	<i>L x W x H = (Ft3)</i>	<i>Gallons</i>

**Total: \_\_\_\_\_ Gallons**

30. Piping:

- ☐ All piping, hoses, and dispensers will be located inside the containment structure.
- ☐ Some of the piping to dispensers or equipment will extend outside the containment structure.
- ☐ The piping will be aboveground
- ☐ The piping will be underground

31. ☐ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of: \_\_\_\_\_.

32. ☐ **Attachment H - AST Containment Structure Drawings.** A scaled drawing of the containment structure is attached that shows the following:

- ☐ Interior dimensions (length, width, depth and wall and floor thickness).
- ☐ Internal drainage to a point convenient for the collection of any spillage.
- ☐ Tanks clearly labeled
- ☐ Piping clearly labeled
- ☐ Dispenser clearly labeled

33. ☐ Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.

- ☐ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.
- ☐ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

## **Site Plan Requirements**

**Items 34 - 46 must be included on the Site Plan.**

34. ☒ The Site Plan must have a minimum scale of 1" = 400'.  
Site Plan Scale: 1" = 60'.
35. 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): 48491C0455F.
36. ☒ 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, etc. are shown on the site plan.
- ☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot contour intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.
37. ☒ A drainage plan showing all paths of drainage from the site to surface streams.
38. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.
39. ☒ Areas of soil disturbance and areas which will not be disturbed.
40. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
41. ☒ Locations where soil stabilization practices are expected to occur.
42. ☒ Surface waters (including wetlands).
- ☐ N/A
43. ☒ Locations where stormwater discharges to surface water.
- ☐ There will be no discharges to surface water.
44. ☐ Temporary aboveground storage tank facilities.

- ☒ Temporary aboveground storage tank facilities will not be located on this site.
45. ☐ Permanent aboveground storage tank facilities.
- ☒ Permanent aboveground storage tank facilities will not be located on this site.
46. ☒ Legal boundaries of the site are shown.

### ***Permanent Best Management Practices (BMPs)***

#### ***Practices and measures that will be used during and after construction is completed.***

47. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.
- ☐ N/A
48. ☒ 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
49. ☒ 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
50. 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.

51. 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 I - 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.

52. ☒ **Attachment J - 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.

53. ☒ **Attachment K - 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.

54. ☐ **Attachment L - BMPs for Surface Streams.** A description of the BMPs and measures that prevent pollutants from entering surface streams is attached.

☒ N/A

55. ☒ **Attachment M - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and

dated. Construction plans for the proposed permanent BMPs and measures are attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☐ N/A

56. ☒ **Attachment N - Inspection, Maintenance, Repair and Retrofit Plan.** A site and BMP specific plan for the inspection, maintenance, repair, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan fulfills all of the following:

- ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
- ☒ Signed by the owner or responsible party
- ☒ Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit.
- ☒ Contains a discussion of record keeping procedures

☐ N/A

57. ☐ **Attachment O - 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

58. ☒ **Attachment P - 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 result in water quality degradation.

☐ N/A

***Responsibility for Maintenance of Permanent BMPs and Measures after Construction is Complete.***

59. ☒ 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.
60. ☒ 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.

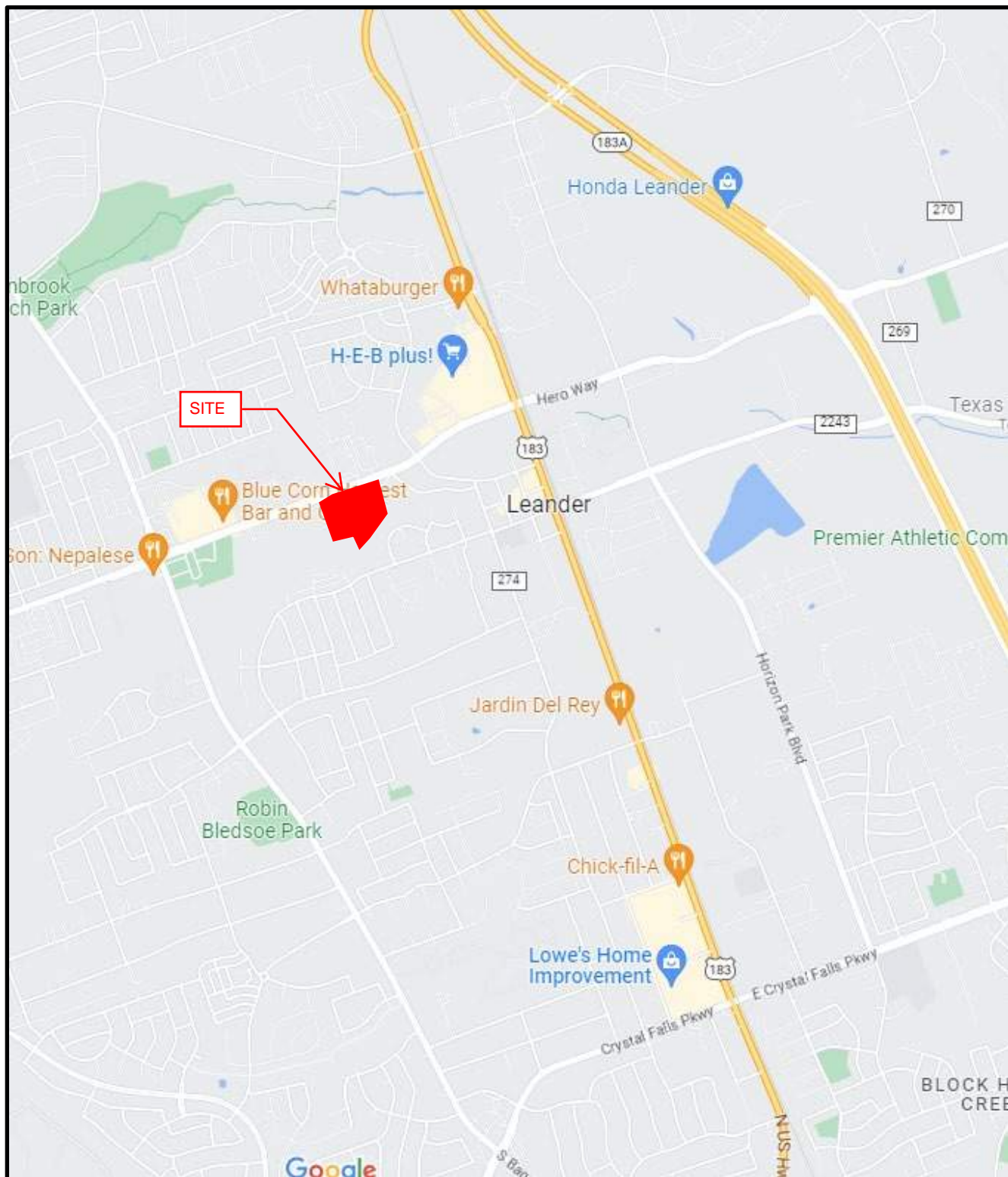
### ***Administrative Information***

- 61. ☒ 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.
- 62. ☒ Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.
- 63. ☒ The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.
- ☒ The Temporary Stormwater Section (TCEQ-0602) is included with the application.





2P Consultants, LLC  
203 E. Main Street, Suite 204  
Round Rock, Texas 78664  
512-344-9664  
TBPE FIRM #F-19351



**Freehill Hero Way  
Location Map**







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



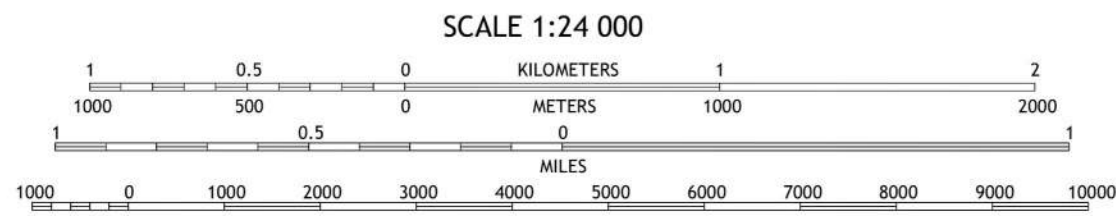
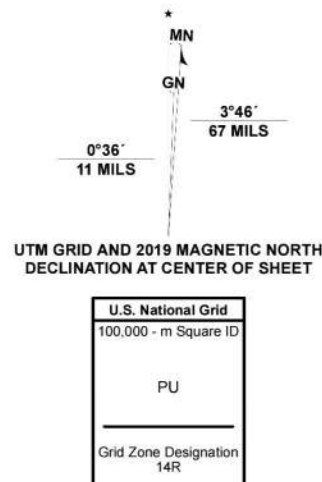
LEANDER QUADRANGLE  
TEXAS  
7.5-MINUTE SERIES



Produced by the United States Geological Survey  
North American Datum of 1983 (NAD83)  
World Geodetic System of 1984 (WGS84) Projection and  
1 000-meter grid/Universal Transverse Mercator, Zone 14R  
This map is not a legal document. Boundaries may be  
generalized for this map scale. Private lands within government  
reservations may not be shown. Obtain permission before  
entering private lands.

Imagery.....NAIP, September 2016 - November 2016  
Roads.....U.S. Census Bureau, 2015 - 2019  
Names.....GNIS, 1979 - 2022  
Hydrography.....National Hydrography Dataset, 2002 - 2020  
Contours.....National Elevation Dataset, 2019  
Boundaries.....Multiple sources; see metadata file 2019 - 2021

Wetlands.....FWS National Wetlands Inventory Not Available



CONTOUR INTERVAL 10 FEET  
NORTH AMERICAN VERTICAL DATUM OF 1988  
This map was produced to conform with the  
National Geospatial Program US Topo Product Standard.

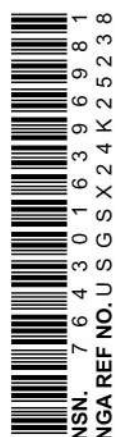


1	2	3
4	5	6
7	8	9

1 Liberty Hill  
2 Leander NE  
3 Georgetown  
4 Nameless  
5 Round Rock  
6 Mansfield Dam  
7 Jollyville  
8 Pflugerville West

ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD
Interstate Route	US Route
	State Route

LEANDER, TX  
2022









## Attachment C – Project Narrative

The proposed development is located on the south side of Hero Way West between Old 183 and Bagdad Road. The legal description for one lot is LOT 1 of the Freehill Addition. The total site area for the proposed development is 16.85 acres. The site is located within the Edwards Aquifer contributing zone. The site slopes from the north to the south to a swale in the middle of the site that flows west to east. When Hero Way was constructed, the drainage was conveyed to a detention pond southwest of the site or conveyed to a channel east of the site. The proposed site does not have any existing access drives. The site is undeveloped, and there are no signs of previous development. The surrounding fences within the property will be removed, and portions of the curbs along Hero Way will be removed to construct the driveways.

The developed site improvements consist of three warehouse buildings with the truck docks facing a central truck court. The detention and water quality pond is on the south side of the property and runs along the banks of the South Fork of Brushy Creek. The runoff for this site is to be treated by a smartPOND batch valve basin. The site's impervious cover is approximately 70.22% (11.832 acres).







## Attachment D – Factors Affecting Surface Water Quality

The factors affecting water quality as a result of proposed site improvements are as follows:

The proposed improvements for the project consist of the construction of 3 office warehouse buildings, related parking, and related utilities. The increase in impervious cover cause an increase in Total Suspended Solids (TSS) from rainfall events. Traffic from large vehicles and automobiles deposits fuels and other chemicals on the drive aisles, that result in an increase in TSS.

A smartPOND batch valve system located on the site's southeast corner is proposed to mitigate these potential sources of increased TSS. The site's grading allows all the proposed improvements' runoff to be conveyed to the SmartPOND detention water quality basin via a storm drain system or sheet flow. According to Section 3.2.17, Batch Detention Basins of TCEQ's Complying with the Edward's Aquifer Rules: Technical Guidance on Best Management Practices, batch detention basins provide a 91% TSS removal efficiency. The treated stormwater is released directly into the South Fork of Brushy Creek.





## Attachment E – Volume and Character of Stormwater

The volume and character of stormwater at the project site for both existing and post-development conditions are as follows:

The project area is 16.85 acres of grass and trees along the south side of Hero Way W. The site is undeveloped and is characterized by an SCS Curve Number of 78.0. Proposed site improvements increase the impervious cover to 11.832 acres or 70.22% of the site. The stormwater runoff from the proposed improvements will contain increased Total Suspended Solids (TSS) from pavements receiving vehicular traffic and minor levels of manmade debris. In addition, a batch detention basin that provides a 91% TSS removal efficiency is proposed as a permanent BMP for water quality.

The batch detention pond is designed to treat the entire site area. The detention pond is stacked on top of the water quality and receives storm flows from the entire development, which is less than the entire site's area. The remainder is free released. Most of these are located within the floodplain and will remain undeveloped.





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## Attachment F – Suitability Letter from Authorized Agent

The site's wastewater system will be connected to the City of Leander's Wastewater system. The wastewater is to be treated at the Brushy Creek Wastewater Treatment Plant.



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## Attachment H – AST Containment Structure Drawings

No aboveground storage tanks are proposed for this site expansion project.

**This section does not apply to this project.**



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## Attachment I – 20% or Less Impervious Cover Waiver

The proposed development does not have 20% or less impervious cover.

**This section is not applicable to this project.**







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## Attachment J – BMPs for Upgradient Stormwater

The proposed site does not receive off-site stormwater from any adjacent properties, so no permanent BMPs are required to manage stormwater runoff upstream of the proposed site. Existing infrastructure captures and conveys the upstream flows to the north and west around the site.



## Attachment K – BMPs for On-site Stormwater

A batch detention basin is proposed to remove at least 91% of the increased total suspended solids (TSS) from the proposed development. According to Section 3.2.17, Batch Detention Basins of TCEQ's Complying with the Edward's Aquifer Rules: Technical Guidance on Best Management Practices, batch detention basin systems have a 91% TSS removal efficiency. The site flows are conveyed to the smartPOND basin by sheet flow and storm drain system. The batch detention basin has a smartPOND Automated Batch Valve System by Construction ECO Services. The smartPOND system uses an 6" PVC pipe to convey the treated runoff to South Fork Brushy Creek. The drainage basin to the batch detention basin has 14.836 acres. The site is 16.85-ac and 14.836-ac drain to the pond with 2.01-ac either not draining to the pond or is in the floodplain, with 11.83-ac of post-development impervious cover. On the next sheet, a copy of TCEQ's "TSS Removal Calculations" worksheet shows how the minimum water quality pond volume and area were calculated. The water quality storage volume for the smartPOND basin is as follows:

### CITY OF LEANDER SEDIMENTATION/DETENTION POND CALCULATIONS

**PROJECT NAME:** *Freehill Hero Way*  
Pond 1

WATER QUALITY CONTROL CALCULATIONS	Required	Provided
25-yr Peak Flow Rate to Control (Q25)	70.60 cfs	
100-yr Peak Flow Rate to Control (Q100)	101.30 cfs	
Water Quality Volume	51,441.6 cf.	53,709.1 cf.
Water Quality Elevation	985.24 ft. msl	
Elevation of Splitter/Overflow Weir	985.32 ft. msl	
Length of Splitter Weir	8.00 ft	100 yr 25 yr
Required Head to Pass Q100	Max 1.0 ft.	2.44 ft 1.92 ft
Pond Freeboard Provided To Pass Q100	Min 0.25 ft.	2.74 ft 3.26 ft
Minimum Top of Berm	990.50 ft. msl	

### Sedimentation Basin Volume

Stage (ft. msl)	Area (sf)	Height (ft)	Avg. End Area	Cumul. Vol. (cf)	Cumul. Vol. (ac-ft)	
982.09	0.0	----	0.00	0.00	----	Sedimentation Pond
982.25	295.1	0.16	23.60	23.60	0.0005	
982.5	1,531.2	0.25	228.29	251.89	0.0058	
982.75	3,915.7	0.25	680.87	932.76	0.0214	
983	7,359.8	0.25	1409.43	2342.19	0.0538	
983.25	11,711.7	0.25	2383.94	4726.12	0.1085	
983.5	16,358.1	0.25	3508.73	8234.85	0.1890	
983.75	20,930.2	0.25	4661.03	12895.88	0.2960	
984	23,886.2	0.25	5602.04	18497.92	0.4247	
984.25	25,584.6	0.25	6183.84	24681.76	0.5666	
984.5	26,348.5	0.25	6491.63	31173.39	0.7156	
984.75	27,027.2	0.25	6671.96	37845.35	0.8688	
985	27,720.1	0.25	6843.41	44688.76	1.0259	
985.25	28,427.0	0.25	7018.39	51707.15	1.1870	
985.37	28,771.4	0.12	3431.91	55139.06	1.2658	Detention Pond
985.5	29,148.2	0.13	3764.77	58903.83	1.3522	
985.75	29,883.3	0.25	7378.94	66282.77	1.5216	
986	30,632.7	0.25	7564.50	73847.27	1.6953	
986.25	31,396.2	0.25	7753.61	81600.88	1.8733	
986.5	32,173.7	0.25	7946.23	89547.11	2.0557	
986.75	32,965.4	0.25	8142.39	97689.50	2.2426	
987	33,771.2	0.25	8342.08	106031.57	2.4341	
987.25	34,591.1	0.25	8545.29	114576.86	2.6303	
987.5	35,425.2	0.25	8752.04	123328.90	2.8312	
987.75	36,273.3	0.25	8962.31	132291.21	3.0370	
988	37,135.6	0.25	9176.12	141467.33	3.2476	
988.25	38,012.0	0.25	9393.45	150860.78	3.4633	
988.5	38,902.5	0.25	9614.32	160475.10	3.6840	
988.75	39,807.2	0.25	9838.71	170313.81	3.9099	
989	40,725.9	0.25	10066.63	180380.45	4.1410	

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: **Freehill Hero Way**  
Date Prepared: **2/23/2023**

**1. The Required Load Reduction for the total project:**

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

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

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

County = **Williamson**  
Total project area included in plan \* = **16.85** acres  
Predevelopment impervious area within the limits of the plan \* = **0.00** acres  
Total post-development impervious area within the limits of the plan \* = **11.83** acres  
Total post-development impervious cover fraction \* = **0.70**  
 $P$  = **32** inches

$L_M$  TOTAL PROJECT = **10299** lbs.

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

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

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

Drainage Basin/Outfall Area No. = **1**

Total drainage basin/outfall area = **16.85** acres  
Predevelopment impervious area within drainage basin/outfall area = **0.00** acres  
Post-development impervious area within drainage basin/outfall area = **11.83** acres  
Post-development impervious fraction within drainage basin/outfall area = **0.70**  
 $L_M$  THIS BASIN = **10299** lbs.

**3. Indicate the proposed BMP Code for this basin.**

Proposed BMP = **Batch Detention**  
Removal efficiency = **91** percent

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

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

where:  $A_C$  = Total On-Site drainage area in the BMP catchment area  
 $A_I$  = Impervious area proposed in the BMP catchment area  
 $A_P$  = Pervious area remaining in the BMP catchment area  
 $L_R$  = TSS Load removed from this catchment area by the proposed BMP  
 $A_C$  = **16.85** acres  
 $A_I$  = **11.83** acres  
 $A_P$  = **5.02** acres  
 $L_R$  = **12,000** lbs

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

Desired  $L_M$  THIS BASIN = **10,299** lbs.

$F$  = **0.86**

**6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.**

Calculations  
from RG-348  
Pages 3-34 to 3-36

Rainfall Depth = **1.38** inches  
Post Development Runoff Coefficient = **0.51**  
On-site Water Quality Volume = **42,868** cubic feet

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

Off-site area draining to BMP = **0.00** acres  
Off-site Impervious cover draining to BMP = **0.00** acres  
Impervious fraction of off-site area = **0**  
Off-site Runoff Coefficient = **0.00**  
Off-site Water Quality Volume = **0** cubic feet

Storage for Sediment = **8,574**  
Total Capture Volume (required water quality volume(s) x 1.20) = **51,442** cubic feet



## Attachment L – BMPs for Surface Streams

No BMPS are proposed to affect surface streams specifically. Instead, the function of the proposed on-site BMPs is to treat stormwater runoff while retaining natural flow patterns toward the creek to the south of the site. Therefore, the BMPs proposed for reducing pollutant loads in surface streams are described in the previous section: “Attachment 1K, BMPs for On-site Stormwater.”





## Attachment N – Inspection, Maintenance, Repair, and Retrofit Plan

The following are recommended maintenance procedures outlined in TCEQ's Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices.

### **smartPOND valve Batch Detention Basins:**

The maintenance activities are identical to those of extended detention basins, with the addition of maintenance and inspections of the automatic controller and the valve at the outlet.

Many factors may affect the basin's operation, which should be periodically checked. These factors can include mowing, control of pond vegetation, removal of accumulated bottom sediments, removal of debris from all inflow and outflow structures, unclogging of orifice perforations, and the upkeep of all physical structures within the detention pond area. Therefore, one should conduct periodic inspections after each significant storm. Remove floatables and correct erosion problems in the pond slopes and bottom. Pay attention to the outlet control perforations for signs of clogging. If the orifices are clogged, remove sediment and other debris.

Other recommended maintenance guidelines include the following:

- 1) **Inspections:** Inspections should take place a minimum of twice a year. One inspection should occur during wet weather to determine if the basin meets the target detention time of 12 hours and a drawdown time of no more than 48 hours. The remaining inspections should occur between storm events to verify the manual operation of the valve and controller. The level sensor in the basin should be inspected, and any debris or sediment in the area should be removed. The outlet structure and the trash screen should be inspected for signs of clogging. Debris and sediment should be removed from the orifice and outlet(s) as described in previous sections. Debris obstructing the valve should be removed. During each inspection, erosion areas inside and downstream of this BMP should be identified and repaired/revegetated immediately.
- 2) **Mowing:** The basin, side slopes, and embankment must be mowed to prevent woody growth and control weeds. A mulching mower should be used, or the grass clippings should be caught and removed. Mowing should occur at least twice yearly or more frequently if vegetation exceeds 18 inches in height. More frequent mowing to maintain aesthetic appeal may be necessary for landscaped areas.
- 3) **Litter and Debris Removal:** Litter and debris removal should occur at least twice a year during periodic mowing operations and inspections. Debris and litter should be removed from the surface of the basin. Particular attention should be paid to floatable debris around the outlet structure. In addition, the outlet should be checked for possible clogging or obstructions, and any debris should be removed.
- 4) **Erosion Control:** The basin side slopes and embankment may periodically suffer from slumping and erosion. Corrective action, such as regrading and revegetation, may be necessary to correct these problems. Correction of erosion control should occur whenever required based on periodic inspections.
- 5) **Nuisance Control:** Standing water or soggy conditions may occur in the basin. Some standing water may occur after a storm event since the valve may close with 2 to 3 inches of water in the basin. Some flow into the basin may also occur between storms due to spring flow and residential water use that enters the storm sewer system. The facility should be evaluated twice a year regarding nuisance control (insects, weeds, odors, algae, etc.).
- 6) **Structural Repairs and Replacement:** With each inspection, any damage to structural elements of the basin (pipes, concrete drainage structures, retaining walls, etc.) should be identified and repaired immediately. An example of this type of repair can include patching cracked concrete, sealing voids, and removing



vegetation from cracks and joints. In addition, a basin's various inlet/outlet structures will eventually deteriorate and must be replaced.

- 7) **Sediment Removal:** A properly designed batch detention basin will accumulate quantities of sediment over time. The accumulated sediment can detract from the appearance of the facility and reduce the pollutant removal performance of the facility. The sediment also accumulates near the outlet structure and can interfere with the level sensor operation. Sediment shall be removed from the basin at least every 5 years when sediment depth exceeds 6 inches, when the sediment interferes with the level sensor, or when the basin does not drain within 48 hours. Care should be taken not to compromise the basin lining during maintenance.
- 8) **Logic Controller:** The Logic Controller should be inspected as part of the twice-yearly investigations. Verify that the external indicators (active, cycle in progress) are operating properly by turning the controller off and on and initiating a cycle by triggering the level sensor in the basin. The valve should be manually opened and closed using the open/close switch to verify valve operation and to assist in inspecting the valve for debris. The solar panel should be inspected, and any dust or debris on the panel should be carefully removed. The controller and all other circuitry and wiring should be inspected for signs of corrosion, insect damage, water leaks, or other damage. At the end of the inspection, the controller should be reset.

**Record Keeping:**

Records of all inspections and maintenance for the facility shall be recorded and maintained for the water quality facility beginning at the facility's startup. Record keeping shall be detailed to provide the type of maintenance or repair made, the service date, and the extent of the maintenance or repair. The owner or responsible party of the facility is responsible for maintaining the facility as outlined in this plan until another entity assumes responsibility in writing or ownership of the property is transferred. A copy of the transfer of ownership or responsibility must be filed with the Executive Director of TCEQ within 30 days of the transfer.

Owner's Signature

Date

5/3/23

Engineer's Signature

Date

05/02/2023





## Attachment P – Measures for Minimizing Surface Stream Contamination

BMPs proposed to reduce pollutants in surface streams are discussed in Attachment K: “BMPs for On-Site Stormwater.” Stormwater runoff from the site will sheet flow into the proposed batch detention basin, where the initial capture runoff is to be treated for water quality while the remaining captured runoff is to be detained and released through a detention pond outfall towards the creek. The storage capacity of the proposed smartPOND detention basin is as follows:

### CITY OF LEANDER SEDIMENTATION/DETENTION POND CALCULATIONS

**PROJECT NAME:** *Freehill Hero Way*  
Pond 1

WATER QUALITY CONTROL CALCULATIONS	Required	Provided
25-yr Peak Flow Rate to Control (Q25)	<b>70.60</b> cfs	
100-yr Peak Flow Rate to Control (Q100)	<b>101.30</b> cfs	
Water Quality Volume	51,441.6 cf.	53,709.1 cf.
Water Quality Elevation	985.24 ft. msl	
Elevation of Splitter/Overflow Weir	<b>985.32</b> ft. msl	
		100 yr      25 yr
Length of Splitter Weir	<b>8.00 ft</b>	
Required Head to Pass Q100	Max 1.0 ft.	2.44 ft    1.92 ft
Pond Freeboard Provided To Pass Q100	Min 0.25 ft.	2.74 ft    3.26 ft
Minimum Top of Berm	<b>990.50</b> ft. msl	

The summary of calculations from the HEC-HMS model for the existing conditions is as follows:

<b>Existing Conditions Drainage Calculations</b>				
	Storm Event flows (cfs)			
Basin	2-yr	10-yr	25-yr	100-yr
1	26.5	52.9	71.8	104.6

The summary of calculations from the HEC-HMS model for the proposed conditions are as follows:

<b><i>Developed Conditions Drainage Calculations</i></b>				
	Storm Event flows (cfs)			
<b>Basin</b>	<b>2-yr</b>	<b>10-yr</b>	<b>25-yr</b>	<b>100-yr</b>
PR POA-A	17.9	48.4	70.6	101.3
EX POA-A	26.5	52.9	71.8	104.6
Flow $\Delta$	-8.6	-4.5	-1.2	-3.3
WSE	985.96	986.71	987.14	987.67

The natural drainage patterns are such that the stormwater runoff from this site enters the creek a point discharge and the free release area by sheet flow and discharges at flow rates that are lower than the existing flows.

# 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: David Urban, PE, CFM

Date: 5/3/23

Signature of Customer/Agent:



---

Regulated Entity Name: Freehill Hero Way W

## 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: South Fork Brush Creek

### ***Temporary Best Management Practices (TBMPs)***

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

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

- ☒ A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.
  - ☒ A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.
  - ☒ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.
  - ☒ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.
8. ☒ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.
- ☐ **Attachment E - Request to Temporarily Seal a Feature.** A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.
- ☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.
9. ☒ **Attachment F - Structural Practices.** A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.
10. ☒ **Attachment G - Drainage Area Map.** A drainage area map supporting the following requirements is attached:
- ☒ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.
  - ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.
  - ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.
  - ☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

- ☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.
11. ☒ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations.** Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.
- ☐ N/A
12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.
13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.
14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).
15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.
16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

## ***Soil Stabilization Practices***

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

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

- 18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
- 19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

### ***Administrative Information***

- 20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
- 21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
- 22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.







## Attachment A – Spill Response Actions

No spills of hydrocarbons or hazardous substances are expected. However, in the event such an incident does occur, the contractor should carefully follow the following TCEQ guidelines:

### Cleanup:

- 1) Clean up leaks and spills immediately.
- 2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.
- 3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly.

### Minor Spills:

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

### Semi-Significant Spills:

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

- 1) Contain the spread of the spill.
- 2) Notify the project foreman immediately.
- 3) If the spill occurs on paved or impermeable surfaces, clean up using “dry” methods (absorbent materials, cat litter, and/or rags). Contain the spill by encircling it with absorbent materials and do not let the spill spread widely.
- 4) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
- 5) If the spill occurs during rain, cover the spill with tarps or other material to prevent contaminating runoff.



**Significant/Hazardous Spills:**

For Reportable Quantity (RQ) events and amounts see the TCEQ website at:  
<http://www.tceq.state.tx.us/response/spills.html>.

For significant or hazardous spills that are in reportable quantities:

- 1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site. Additionally, in the event of a hazardous material spill, local Williamson county and/or city of Georgetown police, fire, and potentially EMS should be contacted in order to initiate the hazardous material response team.
- 2) For spills of federally reportable quantities, in conformance with the requirements in 40 CFR parts 110, 119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- 3) Notifications should first be made by telephone and followed up with a written report of which one copy is to be kept onsite in the report binder and one copy provided to the TCEQ.
- 4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staff have arrived at the job site.
- 5) Other agencies that may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.





## Attachment B – Potential Sources of Contamination

No particular activity or process during construction is anticipated to present a significant risk of being a potential source of contamination. However, during regular construction operations, several common and minor risks of contamination are anticipated. Should the unforeseeable mishap occur during construction or regular operation of the facility, the contractor shall follow the guidelines set forth in “Attachment A – Spill Response Plan.”

### **Potential sources of sediment to stormwater runoff:**

- Clearing and grubbing
- Grading and excavation
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscaping

### **Potential pollutants and sources, other than sediment, to stormwater runoff:**

- Combined Staging Area – small fueling, minor equipment maintenance, sanitary facilities.
- Materials Storage Area – solvents, adhesives, paving materials, aggregates, trash, etc.
- Construction Activities – paving, concrete pouring
- Concrete Washout Area

### **Potential Onsite Pollutants:**

- Fertilizer
- Concrete
- Glue, adhesives
- Gasoline, diesel fuel, hydraulic fluids, antifreeze
- Sanitary toilets





## Attachment C – Sequence of Major Activities

- 1) Temporary erosion and sedimentation controls are to be installed as indicated on the approved site plan and in accordance with the stormwater pollution prevention plan (SWPPP) that is required to be posted on the site. Install tree protection and initiate tree mitigation measures. Approximately 15.67 acres will be disturbed during this activity.
- 2) The environmental project manager, and/or site supervisor, and/or designated responsible party, and general contractor will follow the stormwater pollution prevention plan (SWPPP) posted on the site. Temporary erosion and sedimentation controls will be revised, if needed, to comply with city inspectors' directives, and revised construction schedule relative to the water quality plan requirements and the erosion and sedimentation control plan.
- 3) Temporary erosion and sedimentation controls will be inspected and maintained in accordance with the stormwater pollution plan (SWPPP) posted on the site.
- 4) Begin site clearing and demolition activities. Approximately 15.67 acres will be disturbed during this activity.
- 5) Complete construction and begin re-vegetation of the site.
- 6) After construction is complete and all disturbed areas have been re-vegetated per plan to at least 90% established, remove the temporary erosion and sedimentation controls and complete any necessary final re-vegetation resulting from the removal of the controls. Conduct any maintenance and rehabilitation that is needed.







## Attachment D – Temporary Best Management Practices and Measures

Prior to the commencement of any construction activity whatsoever, the contractor shall install the silt fencing, concrete washout, fencing rock berm, contractor staging area, and stabilized construction entrances per the Erosion and Sedimentation Control Plan. The temporary erosion controls shall be installed per TCEQ and local requirements. The proposed temporary BMPs are intended to control increased TSS from construction activities in the following manner:

- A) The site does not receive any off-site stormwater runoff from the neighboring properties since the site is located on a downstream of Hero Way (also known as FM 2243) which intercepts any uphill drainage.
- B) The temporary BMPs proposed during construction activities will prevent pollution of surface water by filtering the increased sediment loads and other pollutant sources listed in 'Attachment B – Potential Sources of Contamination' by preventing stormwater with increased TSS from exiting the site without first being filtered. The primary methods of treating sediment-laden stormwater runoff are through silt control fencing, fencing rock berm, a concrete washout area, and stabilized construction entrances. These temporary BMPs will be placed per the erosion and sedimentation control plan.
- C) There are temporary silt fences, fencing rock berm, a concrete washout, and stabilized construction entrances in place to aid in treating the site runoff before it leaves the limits of construction. No stormwater runoff enters any surface streams or sensitive features.
- D) The proposed project seeks to honor the natural drainage patterns that currently exist in the proposed project area. There are no known sensitive geologic features on the site. After construction is completed, the site will maintain its current drainage patterns with the stormwater runoff draining towards the southeast and northwest.





203 E. Main Street, Suite 204  
Round Rock, Texas 78664  
512-344-9664  
TBPE FIRM #F-19351

## Attachment E – Request to Temporarily Seal a Feature

No temporary sealing of naturally-occurring sensitive features on the site is proposed.

**This section is not applicable to this project.**





## Attachment F – Structural Practices

The following temporary BMP structural practices will be employed on the site:

- 1) Silt Fence – used as barrier protection around the downslope perimeter of the project. The fence retains sediment primarily by retarding flow and promoting deposition on the uphill side of the slope. Runoff is filtered as it passes through the geotextile fabric.
- 2) Fencing Rock Berm – used to prevent sediment from entering the storm drain channel along Ronald Reagan Boulevard.
- 3) Concrete Washout Area – used to prevent or reduce the discharge of pollutants to stormwater from concrete waste. The concrete washout area is a designated area to wash out wastes into the temporary pit where the concrete can set, be broken up, and disposed of properly.
- 4) Stabilized Construction Entrance – used to provide a stable entrance/exit condition from the construction site and keep mud and sediment off public roads. The stabilized construction entrance is a stabilized pad of crushed stone and should be located at any point traffic will be entering or leaving the construction site from a public right-of-way.
- 5) Contractor Staging Area – used as an area for the contractor to store and prepare equipment and materials before using them during the construction phase.





203 E. Main Street, Suite 204  
Round Rock, Texas 78664  
512-344-9664  
TBPE FIRM #F-19351

## Attachment G – Drainage Area Map

Existing and Proposed Drainage Area Maps for this project are attached in the construction plans at the end of this application.







203 E. Main Street, Suite 204  
Round Rock, Texas 78664  
512-344-9664  
TBPE FIRM #F-19351

## Attachment H – Temporary Sediment Pond(s) Plan and Calculations

There are no temporary sediment ponds or basins proposed as a temporary BMP for stormwater management on this project.

**This section is not applicable to this project.**





## Attachment I – Inspection and Maintenance for BMPs

The inspection and maintenance of temporary BMP's will be made according to TCEQ RG-348, Complying with the Edwards Aquifer Rules Technical Guidance on Best Management Practices.

### **Inspection Personnel:**

Inspections shall be conducted by qualified representatives of the contractor acting on behalf of the owner or a designated party if hired separately by the owner. Each operator must delegate authority to the specifically described position or person performing inspections, as provided by 30 TAC 305.128, as an authorized person for signing reports and performing certain activities requested by the director or required by the TPDES general permit. This delegation of authority must be provided to the director of TCEQ in writing and a copy shall be kept along with the signed effective copy of the SWP3.

### **Inspection Schedule and Procedures** - Inspections must comply with the following:

- A) An inspection shall occur weekly and after any rain event. This inspection should include an inspection of the temporary concrete washout area.
- B) The authorized party shall inspect all disturbed areas of the site, areas used for storage of materials that are exposed to precipitation, structural control measures, and locations where vehicles enter or exit the site.
- C) Disturbed areas and areas used for storage of materials that are exposed to precipitation or within limits of the 1% annual chance (100-year) floodplain must be inspected for evidence of, or the potential for, pollutants entering the runoff from the site. Erosion and sediment control measures identified in the plan must be observed to ensure that they are operating correctly. Observations can be made during wet or dry weather conditions. Where discharge locations or points are accessible, they must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts on receiving waters. This can be done by inspecting receiving waters to see whether any signs of erosion or sediment are associated with the discharge location. Locations, where vehicles enter or exit the site, must be inspected for evidence of off-site sediment tracking.
- D) Based on the results of the inspection, the site description and the pollution prevention measures identified in the plan must be revised as soon as possible after an inspection that reveals inadequacies. The inspection and plan review process must provide for timely implementation of any changes to the plan within 7 calendar days following the inspection.
- E) An inspection report that summarizes the scope of the inspection, name(s) and qualifications of personnel conducting the inspection, the dates of the inspection, and major observations relating to the implementation of the SW3P. Major observations shall include as a minimum location of discharges of sediment or other pollutants from the site, the location of BMPs that need to be maintained, the location of BMPs that failed to operate as designed or proved inadequate for a particular location, and locations where BMPs are needed. Actions taken as a result of the inspections must be described within and retained as a part of, the SWP3. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWP3 and the TPDES general permit. The report must be signed by the authorized representative delegated by the operators in accordance with TAC 305.128.

**Maintenance and Corrective Actions** - Maintenance of erosion control facilities shall consist of the minimum requirements as follows:

- A) In ongoing construction areas inspect erosion control improvements to confirm facilities are in place and operable. Where facilities have been temporarily set aside or damaged due to construction activity, place facilities in service before leaving job site.
- B) If weather forecast predicts possibility of rain, check entire facilities throughout site to assure facilities are in place and operable. If job site weather conditions indicate high probability of rain, make special inspection of erosion control facilities.
- C) After rainfall events review erosion control facilities as soon as site is accessible. Clean rock berms, berm/swales and other structural facilities. Determine where additional facilities or alternative techniques are needed to control sediment leaving site.
- D) After portions of site have been seeded, review these areas on regular basis in accordance with project specifications to assure proper watering until grass is established. Reseed areas where grass is not well established.
- E) Spills are to be handled as specified by the manufacturer of the product in a timely safe manner by personnel. The site superintendent will be responsible for coordinating spill prevention and cleanup operations.
- F) Concrete trucks will discharge extra concrete or wash out drum only at an approved location on site. Residual product shall be properly disposed of.
- G) Inspect vehicle entrance and exits for evidence of off-site tracking and correct as needed.
- H) If sediment escapes the site, the contractor where feasible and where access is available shall collect and remove sedimentation material by appropriate non-damaging methods. Additionally, the contractor shall correct the condition causing discharges.
- I) If inspections or other information sources reveal a control has been used incorrectly, or that a control is performing inadequately, the contractor must replace, correct or modify the control as soon as practical after discovery of the deficiency.

**Silt Fence** – Inspection and maintenance guidelines for silt fences are as follows:

- A) Inspect all fencing weekly, and after any rainfall.
- B) Remove sediment when buildup reaches 6 inches.
- C) Replace any torn fabric or install a second line of fencing parallel to the torn section.
- D) Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of fence is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. A triangular filter dike may be preferable to a silt fence at common vehicle access points.
- E) When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence should be revegetated. The fence itself should be disposed of in an approved landfill.

**Rock Berm** – Inspection and maintenance guidelines for inlet protection is as follows:

- A) Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made.
- B) Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.
- C) Repair any loose wire sheathing.
- D) The berm should be reshaped as needed during inspection.

- E) The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc.
- F) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt removed.

#### **Stabilized Construction Entrance**

- A) The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.
- B) All sediments spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.
- C) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public rights-of-way.
- D) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.
- E) All sediment should be prevented from entering any storm drain, ditch, or water course by using approved methods.

#### **Concrete Washout Area**

- A) Concrete washout areas should be located at least 50 feet from sensitive features, storm drains, open ditches, or water bodies.
- B) Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
- C) Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
- D) When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions, or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.





## Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

**Prior to Disturbance** – Install all temporary erosion and sedimentation control features.

**During Construction** – Inspect and maintain all temporary erosion and sedimentation control structures per TCEQ regulations. Permanent seeding will be applied immediately after the final design grades are achieved on portions of the site but no later than 14 days after final grading or where construction activity has temporarily ceased for more than 21 days.

**After Completion of Permanent Erosion and Sediment Controls** – Stabilize and restore all areas disturbed during construction. After the entire site is stabilized, any accumulated sediment will be removed and hauled off-site for disposal. Construction debris, trash, and temporary BMPs (silt fences, material storage areas, sanitary toilets, etc.) will also be removed, and any areas disturbed during removal will be seeded immediately.







# Notice of Intent (NOI) for an Authorization for Stormwater Discharges Associated with Construction Activity under TPDES General Permit TXR150000

## IMPORTANT INFORMATION

Please read and use the General Information and Instructions prior to filling out each question in the NOI form.

Use the NOI Checklist to ensure all required information is completed correctly.

**Incomplete applications delay approval or result in automatic denial.**

Once processed your permit authorization can be viewed by entering the following link into your internet browser: [http://www2.tceq.texas.gov/wq\\_dpa/index.cfm](http://www2.tceq.texas.gov/wq_dpa/index.cfm) or you can contact TCEQ Stormwater Processing Center at 512-239-3700.

## ePERMITS

**Effective September 1, 2018, this paper form must be submitted to TCEQ with a completed electronic reporting waiver form (TCEQ-20754).**

To submit an NOI electronically, enter the following web address into your internet browser and follow the instructions: <https://www3.tceq.texas.gov/steers/index.cfm>

## APPLICATION FEE AND PAYMENT

The application fee for submitting a paper NOI is \$325. The application fee for electronic submittal of a NOI through the TCEQ ePermits system (STEERS) is \$225.

Payment of the application fee can be submitted by mail or through the TCEQ ePay system. The payment and the NOI must be mailed to separate addresses. To access the TCEQ ePay system enter the following web address into your internet browser: <http://www.tceq.texas.gov/epay>.

Provide your payment information for verification of payment:

- If payment was mailed to TCEQ, provide the following:
  - Check/Money Order Number:
  - Name printed on Check:
- If payment was made via ePay, provide the following:
  - Voucher Number:
  - A copy of the payment voucher is attached to this paper NOI form.

**RENEWAL** (This portion of the NOI is not applicable after June 3, 2018)

Is this NOI for a renewal of an existing authorization? ☐ Yes ☒ No

If Yes, provide the authorization number here: TXR15

NOTE: If an authorization number is not provided, a new number will be assigned.

**SECTION 1. OPERATOR (APPLICANT)**

a) If the applicant is currently a customer with TCEQ, what is the Customer Number (CN) issued to this entity? CN

(Refer to Section 1.a) of the Instructions)

b) What is the Legal Name of the entity (applicant) applying for this permit? (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)

Freehill Pine Ridge Leander, LLC

c) What is the contact information for the Operator (Responsible Authority)?

Prefix (Mr. Ms. Miss): Mr.

First and Last Name: Will Patton Suffix:

Title: Credentials:

Phone Number: (713) 825-3345 Fax Number:

E-mail: will.paton@freehillco.com

Mailing Address: 901 S. Mopac Expressway #300

City, State, and Zip Code: Austin, Texas 78746

Mailing Information if outside USA:

Territory:

Country Code:

Postal Code:

d) Indicate the type of customer:

☐ Individual

☐ Limited Partnership

☐ General Partnership

☐ Trust

☐ Sole Proprietorship (D.B.A.)

☒ Corporation

☐ Estate

☐ Federal Government

☐ County Government

☐ State Government

☐ City Government

☐ Other Government

☐ Other:

e) Is the applicant an independent operator? ☒ Yes ☐ No

(If a governmental entity, a subsidiary, or part of a larger corporation, check No.)

f) Number of Employees. Select the range applicable to your company.

☒ 0-20

☐ 251-500

☐ 21-100

☐ 501 or higher

☐ 101-250

g) Customer Business Tax and Filing Numbers: (**Required** for Corporations and Limited Partnerships. **Not Required** for Individuals, Government, or Sole Proprietors.)

State Franchise Tax ID Number:

Federal Tax ID: 92-2304985

Texas Secretary of State Charter (filing) Number:

DUNS Number (if known):

## SECTION 2. APPLICATION CONTACT

Is the application contact the same as the applicant identified above?

☐ Yes, go to Section 3

☒ No, complete this section

Prefix (Mr. Ms. Miss): Mr.

First and Last Name: David Urban Suffix: II

Title: Project Manager Credential: P.E., CFM

Organization Name: 2P Consultants, LLC.

Phone Number: (512) 344-9664 Fax Number:

E-mail: durban@2pconsultants.com

Mailing Address: 203 E. Main Street, Suite 204

Internal Routing (Mail Code, Etc.):

City, State, and Zip Code: Round Rock, Texas 78664

Mailing information if outside USA:

Territory:

Country Code:  Postal Code:

## SECTION 3. REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

a) If this is an existing permitted site, what is the Regulated Entity Number (RN) issued to this site? RN

(Refer to Section 3.a) of the Instructions)

- b) Name of project or site (the name known by the community where it's located): 11521 New Hope Rd
- c) In your own words, briefly describe the type of construction occurring at the regulated site (residential, industrial, commercial, or other): Commercial
- d) County or Counties (if located in more than one): Williamson
- e) Latitude: 30°34'44"N Longitude: 97°51'49"W
- f) Site Address/Location

If the site has a physical address such as 12100 Park 35 Circle, Austin, TX 78753, complete **Section A**.

If the site does not have a physical address, provide a location description in **Section B**.  
Example: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

**Section A:**

Street Number and Name: **11521 Hero Way Rd**

City, State, and Zip Code: Leander, Texas 78641

**Section B:**

Location Description:

City (or city nearest to) where the site is located:

Zip Code where the site is located:

**SECTION 4. GENERAL CHARACTERISTICS**

- a) Is the project or site located on Indian Country Lands?
- ☐ Yes, do not submit this form. You must obtain authorization through EPA Region 6.
- ☒ No
- b) Is your construction activity associated with a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources?
- ☐ Yes. Note: The construction stormwater runoff may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization through EPA Region 6.
- ☒ No
- c) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site? **1541**
- d) What is the Secondary SIC Code(s), if applicable?
- e) What is the total number of acres to be disturbed? 2.10
- f) Is the project part of a larger common plan of development or sale?
- ☐ Yes

- ☒ No. The total number of acres disturbed, provided in e) above, must be 5 or more.  
If the total number of acres disturbed is less than 5, do not submit this form. See the requirements in the general permit for small construction sites.

- g) What is the estimated start date of the project? 12/01/2023
- h) What is the estimated end date of the project? 12/01/2024
- i) Will concrete truck washout be performed at the site? ☒ Yes ☐ No
- j) What is the name of the first water body(ies) to receive the stormwater runoff or potential runoff from the site? Suth Fork Brushy Creek
- k) What is the segment number(s) of the classified water body(ies) that the discharge will eventually reach? 100
- l) Is the discharge into a Municipal Separate Storm Sewer System (MS4)?  
☐ Yes ☒ No

If Yes, provide the name of the MS4 operator:  

Note: The general permit requires you to send a copy of this NOI form to the MS4 operator.

- m) Is the discharge or potential discharge from the site within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, as defined in 30 TAC Chapter 213?

- ☒ Yes, complete the certification below.
- ☐ No, go to Section 5

I certify that the copy of the TCEQ-approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) that is included or referenced in the Stormwater Pollution Prevention Plan will be implemented. ☒ Yes

## SECTION 5. NOI CERTIFICATION

- a) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000). ☒ Yes
- b) I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas. ☒ Yes
- c) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. ☒ Yes
- d) I certify that a Stormwater Pollution Prevention Plan has been developed, will be implemented prior to construction and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the Construction General Permit (TXR150000). ☒ Yes

Note: For multiple operators who prepare a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3, provided all obligations are confirmed by at least one operator.

## SECTION 6. APPLICANT CERTIFICATION SIGNATURE

Operator Signatory Name: Will Paton

Operator Signatory Title: Manager

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signature (use blue ink):



Date:

5/3/23

# NOTICE OF INTENT CHECKLIST (TXR150000)

Did you complete everything? Use this checklist to be sure!

Are you ready to mail your form to TCEQ? Go to the General Information Section of the Instructions for mailing addresses.

Confirm each item (or applicable item) in this form is complete. This checklist is for use by the applicant to ensure a complete application is being submitted. **Missing information may result in denial of coverage under the general permit.** (See NOI process description in the General Information and Instructions.)

## APPLICATION FEE

If paying by check:

- ☐ Check was mailed **separately** to the TCEQs Cashier's Office. (See Instructions for Cashier's address and Application address.)
- ☐ Check number and name on check is provided in this application.

If using ePay:

- ☐ The voucher number is provided in this application and a copy of the voucher is attached.

## RENEWAL

- ☐ If this application is for renewal of an existing authorization, the authorization number is provided.

## OPERATOR INFORMATION

- ☒ Customer Number (CN) issued by TCEQ Central Registry
- ☒ Legal name as filed to do business in Texas. (Call TX SOS 512-463-5555 to verify.)
- ☒ Name and title of responsible authority signing the application.
- ☒ Phone number and e-mail address
- ☒ Mailing address is complete & verifiable with USPS. [www.usps.com](http://www.usps.com)
- ☒ Type of operator (entity type). Is applicant an independent operator?
- ☒ Number of employees.
- ☒ For corporations or limited partnerships - Tax ID and SOS filing numbers.
- ☒ Application contact and address is complete & verifiable with USPS.  
<http://www.usps.com>

## REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

- ☒ Regulated Entity Number (RN) (if site is already regulated by TCEQ)
- ☒ Site/project name and construction activity description
- ☒ County

☒ Latitude and longitude <http://www.tceq.texas.gov/gis/sqmaview.html>

☒ Site Address/Location. Do not use a rural route or post office box.

#### **GENERAL CHARACTERISTICS**

☒ Indian Country Lands -the facility is not on Indian Country Lands.

☒ Construction activity related to facility associated to oil, gas, or geothermal resources

☒ Primary SIC Code that best describes the construction activity being conducted at the site. [www.osha.gov/oshstats/sicser.html](http://www.osha.gov/oshstats/sicser.html)

☒ Estimated starting and ending dates of the project.

☒ Confirmation of concrete truck washout.

☒ Acres disturbed is provided and qualifies for coverage through a NOI.

☒ Common plan of development or sale.

☒ Receiving water body or water bodies.

☒ Segment number or numbers.

☒ MS4 operator.

☒ Edwards Aquifer rule.

#### **CERTIFICATION**

☒ Certification statements have been checked indicating Yes.

☒ Signature meets 30 Texas Administrative Code (TAC) §305.44 and is original.



# Instructions for Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity under TPDES General Permit (TXR150000)

## GENERAL INFORMATION

### Where to Send the Notice of Intent (NOI):

By Regular Mail:

TCEQ

Stormwater Processing Center (MC228)

P.O. Box 13087

Austin, Texas 78711-3087

By Overnight or Express Mail:

TCEQ

Stormwater Processing Center (MC228)

12100 Park 35 Circle

Austin, TX

### Application Fee:

The application fee of \$325 is required to be paid at the time the NOI is submitted. Failure to submit payment at the time the application is filed will cause delays in acknowledgment or denial of coverage under the general permit. Payment of the fee may be made by check or money order, payable to TCEQ, or through EPAY (electronic payment through the web).

### Mailed Payments:

Use the attached General Permit Payment Submittal Form. The application fee is submitted to a different address than the NOI. Read the General Permit Payment Submittal Form for further instructions, including the address to send the payment.

**ePAY Electronic Payment:** <http://www.tceq.texas.gov/epay>

When making the payment you must select Water Quality, and then select the fee category "General Permit Construction Storm Water Discharge NOI Application". You must include a copy of the payment voucher with your NOI. Your NOI will not be considered complete without the payment voucher.

### TCEQ Contact List:

Application – status and form questions:

512-239-3700, [swpermit@tceq.texas.gov](mailto:swpermit@tceq.texas.gov)

Technical questions:

512-239-4671, [swgp@tceq.texas.gov](mailto:swgp@tceq.texas.gov)

Environmental Law Division:

512-239-0600

Records Management - obtain copies of forms:

512-239-0900

Reports from databases (as available):

512-239-DATA (3282)

Cashier's office:

512-239-0357 or 512-239-0187

### Notice of Intent Process:

When your NOI is received by the program, the form will be processed as follows:

- **Administrative Review:** Each item on the form will be reviewed for a complete response. In addition, the operator's legal name must be verified with Texas Secretary of State as valid and active (if applicable). The address(es) on the form must be verified with the US Postal service as receiving regular mail delivery. Do not give an overnight/express mailing address.

- **Notice of Deficiency:** If an item is incomplete or not verifiable as indicated above, a notice of deficiency (NOD) will be mailed to the operator. The operator will have 30 days to respond to the NOD. The response will be reviewed for completeness.
- **Acknowledgment of Coverage:** An Acknowledgment Certificate will be mailed to the operator. This certificate acknowledges coverage under the general permit.

or

**Denial of Coverage:** If the operator fails to respond to the NOD or the response is inadequate, coverage under the general permit may be denied. If coverage is denied, the operator will be notified.

### **General Permit (Your Permit)**

For NOIs submitted **electronically** through ePermits, provisional coverage under the general permit begins immediately following confirmation of receipt of the NOI form by the TCEQ.

For **paper** NOIs, provisional coverage under the general permit begins **7 days after a completed NOI is postmarked for delivery** to the TCEQ.

You should have a copy of your general permit when submitting your application. You may view and print your permit for which you are seeking coverage, on the TCEQ web site <http://www.tceq.texas.gov>. Search using keyword TXR150000.

### **Change in Operator**

An authorization under the general permit is not transferable. If the operator of the regulated project or site changes, the present permittee must submit a Notice of Termination and the new operator must submit a Notice of Intent. The NOT and NOI must be submitted no later than 10 days prior to the change in Operator status.

### **TCEQ Central Registry Core Data Form**

The Core Data Form has been incorporated into this form. Do not send a Core Data Form to TCEQ. After final acknowledgment of coverage under the general permit, the program will assign a Customer Number and Regulated Entity Number, if one has not already been assigned to this customer or site.

For existing customers and sites, you can find the Customer Number and Regulated Entity Number by entering the following web address into your internet browser:

<http://www15.tceq.texas.gov/crpub/> or you can contact the TCEQ Stormwater Processing Center at 512-239-3700 for assistance. On the website, you can search by your permit number, the Regulated Entity (RN) number, or the Customer Number (CN). If you do not know these numbers, you can select "Advanced Search" to search by permittee name, site address, etc.

The Customer (Permittee) is responsible for providing consistent information to the TCEQ, and for updating all CN and RN data for all authorizations as changes occur. For this permit, a Notice of Change form must be submitted to the program area.

## INSTRUCTIONS FOR FILLING OUT THE NOI FORM

**Renewal of General Permit.** Dischargers holding active authorizations under the expired General Permit are required to submit a NOI to continue coverage. The existing permit number is required. If the permit number is not provided or has been terminated, expired, or denied, a new permit number will be issued.

### Section 1. OPERATOR (APPLICANT)

#### a) Customer Number (CN)

TCEQ's Central Registry will assign each customer a number that begins with CN, followed by nine digits. **This is not a permit number, registration number, or license number.**

If the applicant is an existing TCEQ customer, the Customer Number is available at the following website: <http://www15.tceq.texas.gov/crpub/>. If the applicant is not an existing TCEQ customer, leave the space for CN blank.

#### b) Legal Name of Applicant

Provide the current legal name of the applicant. The name must be provided exactly as filed with the Texas Secretary of State (SOS), or on other legal documents forming the entity, as filed in the county. You may contact the SOS at 512-463-5555, for more information related to filing in Texas. If filed in the county, provide a copy of the legal documents showing the legal name.

#### c) Contact Information for the Applicant (Responsible Authority)

Provide information for the person signing the application in the Certification section. This person is also referred to as the Responsible Authority.

Provide a complete mailing address for receiving mail from the TCEQ. The mailing address must be recognized by the US Postal Service. You may verify the address on the following website: <https://tools.usps.com/go/ZipLookupAction!input.action>.

The phone number should provide contact to the applicant.

The fax number and e-mail address are optional and should correspond to the applicant.

#### d) Type of Customer (Entity Type)

Check only one box that identifies the type of entity. Use the descriptions below to identify the appropriate entity type. Note that the selected entity type also indicates the name that must be provided as an applicant for an authorization.

##### **Individual**

An individual is a customer who has not established a business, but conducts an activity that needs to be regulated by the TCEQ.

##### **Partnership**

A customer that is established as a partnership as defined by the Texas Secretary of State Office (TX SOS). If the customer is a 'General Partnership' or 'Joint Venture' filed in the county (not filed with TX SOS), the legal name of each partner forming the 'General Partnership' or 'Joint Venture' must be provided. Each 'legal entity' must apply as a co-applicant.

### **Trust or Estate**

A trust and an estate are fiduciary relationships governing the trustee/executor with respect to the trust/estate property.

### **Sole Proprietorship (DBA)**

A sole proprietorship is a customer that is owned by only one person and has not been incorporated. This business may:

1. be under the person's name
2. have its own name (doing business as or DBA)
3. have any number of employees.

If the customer is a Sole Proprietorship or DBA, the 'legal name' of the individual business 'owner' must be provided. The DBA name is not recognized as the 'legal name' of the entity. The DBA name may be used for the site name (regulated entity).

### **Corporation**

A customer that meets all of these conditions:

1. is a legally incorporated entity under the laws of any state or country
2. is recognized as a corporation by the Texas Secretary of State
3. has proper operating authority to operate in Texas

The corporation's 'legal name' as filed with the Texas Secretary of State must be provided as applicant. An 'assumed' name of a corporation is not recognized as the 'legal name' of the entity.

### **Government**

Federal, state, county, or city government (as appropriate)

The customer is either an agency of one of these levels of government or the governmental body itself. The government agency's 'legal name' must be provided as the applicant. A department name or other description of the organization is not recognized as the 'legal name'.

### **Other**

This may include a utility district, water district, tribal government, college district, council of governments, or river authority. Provide the specific type of government.

#### **e) Independent Entity**

Check No if this customer is a subsidiary, part of a larger company, or is a governmental entity. Otherwise, check Yes.

#### **f) Number of Employees**

Check one box to show the number of employees for this customer's entire company, at all locations. This is not necessarily the number of employees at the site named in the application.

**g) Customer Business Tax and Filing Numbers**

These are required for Corporations and Limited Partnerships. These are not required for Individuals, Government, and Sole Proprietors.

**State Franchise Tax ID Number**

Corporations and limited liability companies that operate in Texas are issued a franchise tax identification number. If this customer is a corporation or limited liability company, enter the Tax ID number.

**Federal Tax ID**

All businesses, except for some small sole proprietors, individuals, or general partnerships should have a federal taxpayer identification number (TIN). Enter this number here. Use no prefixes, dashes, or hyphens. Sole proprietors, individuals, or general partnerships do not need to provide a federal tax ID.

**TX SOS Charter (filing) Number**

Corporations and Limited Partnerships required to register with the Texas Secretary of State are issued a charter or filing number. You may obtain further information by calling SOS at 512-463-5555.

**DUNS Number**

Most businesses have a DUNS (Data Universal Numbering System) number issued by Dun and Bradstreet Corp. If this customer has one, enter it here.

**Section 2. APPLICATION CONTACT**

Provide the name and contact information for the person that TCEQ can contact for additional information regarding this application.

**Section 3. REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE**

**a) Regulated Entity Number (RN)**

The RN is issued by TCEQ's Central Registry to sites where an activity is regulated by TCEQ. This is not a permit number, registration number, or license number. Search TCEQ's Central Registry to see if the site has an assigned RN at <http://www15.tceq.texas.gov/crpub/>. If this regulated entity has not been assigned an RN, leave this space blank.

If the site of your business is part of a larger business site, an RN may already be assigned for the larger site. Use the RN assigned for the larger site.

If the site is found, provide the assigned RN and provide the information for the site to be authorized through this application. The site information for this authorization may vary from the larger site information.

An example is a chemical plant where a unit is owned or operated by a separate corporation that is accessible by the same physical address of your unit or facility. Other examples include industrial parks identified by one common address but different corporations have control of defined areas within the site. In both cases, an RN would be assigned for the physical address location and the permitted sites would be identified separately under the same RN.

**b) Name of the Project or Site**

Provide the name of the site or project as known by the public in the area where the site is located. The name you provide on this application will be used in the TCEQ Central Registry as the Regulated Entity name.

**c) Description of Activity Regulated**

In your own words, briefly describe the primary business that you are doing that requires this authorization. Do not repeat the SIC Code description.

**d) County**

Provide the name of the county where the site or project is located. If the site or project is located in more than one county, provide the county names as secondary.

**e) Latitude and Longitude**

Enter the latitude and longitude of the site in degrees, minutes, and seconds or decimal form. For help obtaining the latitude and longitude, go to:

<http://www.tceq.texas.gov/gis/sqmaview.html>.

**f) Site Address/Location**

If a site has an address that includes a street number and street name, enter the complete address for the site in **Section A**. If the physical address is not recognized as a USPS delivery address, you may need to validate the address with your local police (911 service) or through an online map site used to locate a site. Please confirm this to be a complete and valid address. Do not use a rural route or post office box for a site location.

If a site does not have an address that includes a street number and street name, provide a complete written location description in **Section B**. For example: "The site is located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1."

Provide the city (or nearest city) and zip code of the site location.

**Section 4. GENERAL CHARACTERISTICS**

**a) Indian Country Lands**

If your site is located on Indian Country Lands, the TCEQ does not have authority to process your application. You must obtain authorization through EPA Region 6, Dallas. Do not submit this form to TCEQ.

**b) Construction activity associated with facility associated with exploration, development, or production of oil, gas, or geothermal resources**

If your activity is associated with oil and gas exploration, development, or production, you may be under jurisdiction of the Railroad Commission of Texas (RRC) and may need to obtain authorization from EPA Region 6.

Construction activities associated with a facility related to oil, gas or geothermal resources may include the construction of a well site; treatment or storage facility; underground hydrocarbon or natural gas storage facility; reclamation plant; gas processing facility; compressor station; terminal facility where crude oil is stored prior to refining and at which refined products are stored solely for use at the facility; a carbon dioxide geologic storage facility; and a gathering, transmission, or distribution

pipeline that will transport crude oil or natural gas, including natural gas liquids, prior to refining of such oil or the use of the natural gas in any manufacturing process or as a residential or industrial fuel.

Where required by federal law, discharges of stormwater associated with construction activities under the RRC's jurisdiction must be authorized by the EPA and the RRC, as applicable. Activities under RRC jurisdiction include construction of a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources, such as a well site; treatment or storage facility; underground hydrocarbon or natural gas storage facility; reclamation plant; gas processing facility; compressor station; terminal facility where crude oil is stored prior to refining and at which refined products are stored solely for use at the facility; a carbon dioxide geologic storage facility under the jurisdiction of the RRC; and a gathering, transmission, or distribution pipeline that will transport crude oil or natural gas, including natural gas liquids, prior to refining of such oil or the use of the natural gas in any manufacturing process or as a residential or industrial fuel. The RRC also has jurisdiction over stormwater from land disturbance associated with a site survey that is conducted prior to construction of a facility that would be regulated by the RRC. Under 33 U.S.C. §1342(l)(2) and §1362(24), EPA cannot require a permit for discharges of stormwater from field activities or operations associated with {oil and gas} exploration, production, processing, or treatment operations, or transmission facilities, including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activities unless the discharge is contaminated by contact with any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of the facility. Under §3.8 of this title (relating to Water Protection), the RRC prohibits operators from causing or allowing pollution of surface or subsurface water. Operators are encouraged to implement and maintain best management practices (BMPs) to minimize discharges of pollutants, including sediment, in stormwater during construction activities to help ensure protection of surface water quality during storm events.

For more information about the jurisdictions of the RRC and the TCEQ, read the Memorandum of Understanding (MOU) between the RRC and TCEQ at 16 Texas Administrative Code, Part 1, Chapter 3, Rule 3.30, by entering the following link into an internet browser:

[http://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p\\_dir=&p\\_rloc=&p\\_tloc=&p\\_ploc=&pg=1&p\\_tac=&ti=16&pt=1&ch=3&rl=30](http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=30) or contact the TCEQ Stormwater Team at 512-239-4671 for additional information.

**c) Primary Standard Industrial Classification (SIC) Code**

Provide the SIC Code that best describes the construction activity being conducted at this site.

Common SIC Codes related to construction activities include:

- 1521 - Construction of Single Family Homes
- 1522 - Construction of Residential Buildings Other than Single Family Homes
- 1541 - Construction of Industrial Buildings and Warehouses



- 1542 - Construction of Non-residential Buildings, other than Industrial Buildings and Warehouses
- 1611 - Highway and Street Construction, except Highway Construction
- 1622 - Bridge, Tunnel, and Elevated Highway Construction
- 1623 - Water, Sewer, Pipeline and Communications, and Power Line Construction

For help with SIC Codes, enter the following link into your internet browser: <http://www.osha.gov/pls/imis/sicsearch.html> or you can contact the TCEQ Small Business and Local Government Assistance Section at 800-447-2827 for assistance.

**d) Secondary SIC Code**

Secondary SIC Code(s) may be provided. Leave this blank if not applicable. For help with SIC Codes, enter the following link into your internet browser: <http://www.osha.gov/pls/imis/sicsearch.html> or you can contact the TCEQ Small Business and Environmental Assistance Section at 800-447-2827 for assistance.

**e) Total Number of Acres Disturbed**

Provide the approximate number of acres that the construction site will disturb. Construction activities that disturb less than one acre, unless they are part of a larger common plan that disturbs more than one acre, do not require permit coverage. Construction activities that disturb between one and five acres, unless they are part of a common plan that disturbs more than five acres, do not require submission of an NOI. Therefore, the estimated area of land disturbed should not be less than five, unless the project is part of a larger common plan that disturbs five or more acres. Disturbed means any clearing, grading, excavating, or other similar activities.

If you have any questions about this item, please contact the stormwater technical staff by phone at 512-239-4671 or by email at [swgp@tceq.texas.gov](mailto:swgp@tceq.texas.gov).

**f) Common Plan of Development**

Construction activities that disturb less than five acres do not require submission of an NOI unless they are part of a common plan of development or for sale where the area disturbed is five or more acres. Therefore, the estimated area of land disturbed should not be less than five, unless the project is part of a larger common plan that disturbs five or more acres. Disturbed means any clearing, grading, excavating, or other similar activities.

For more information on what a common plan of development is, refer to the definition of “Common Plan of Development” in the Definitions section of the general permit or enter the following link into your internet browser: [www.tceq.texas.gov/permitting/stormwater/common\\_plan\\_of\\_development\\_steps.html](http://www.tceq.texas.gov/permitting/stormwater/common_plan_of_development_steps.html)

For further information, go to the TCEQ stormwater construction webpage enter the following link into your internet browser: [www.tceq.texas.gov/goto/construction](http://www.tceq.texas.gov/goto/construction) and search for “Additional Guidance and Quick Links”. If you have any further questions about the Common Plan of Development you can contact the TCEQ Stormwater Team at 512-239-4671 or the TCEQ Small Business and Environmental Assistance at 800-447-2827.



**g) Estimated Start Date of the Project**

This is the date that any construction activity or construction support activity is initiated at the site. If renewing the permit provide the original start date of when construction activity for this project began.

**h) Estimated End Date of the Project**

This is the date that any construction activity or construction support activity will end and final stabilization will be achieved at the site.

**i) Will concrete truck washout be performed at the site?**

Indicate if you expect that operators of concrete trucks will washout concrete trucks at the construction site.

**j) Identify the water body(s) receiving stormwater runoff**

The stormwater may be discharged directly to a receiving stream or through a MS4 from your site. It eventually reaches a receiving water body such as a local stream or lake, possibly via a drainage ditch. You must provide the name of the water body that receives the discharge from the site (a local stream or lake).

If your site has more than one outfall you need to include the name of the first water body for each outfall, if they are different.

**k) Identify the segment number(s) of the classified water body(s)**

Identify the classified segment number(s) receiving a discharge directly or indirectly. Enter the following link into your internet browser to find the segment number of the classified water body where stormwater will flow from the site: [www.tceq.texas.gov/waterquality/monitoring/viewer.html](http://www.tceq.texas.gov/waterquality/monitoring/viewer.html) or by contacting the TCEQ Water Quality Division at (512) 239-4671 for assistance.

You may also find the segment number in TCEQ publication GI-316 by entering the following link into your internet browser: [www.tceq.texas.gov/publications/gi/gi-316](http://www.tceq.texas.gov/publications/gi/gi-316) or by contacting the TCEQ Water Quality Division at (512) 239-4671 for assistance.

If the discharge is into an unclassified receiving water and then crosses state lines prior to entering a classified segment, select the appropriate watershed:

- 0100 (Canadian River Basin)
- 0200 (Red River Basin)
- 0300 (Sulfur River Basin)
- 0400 (Cypress Creek Basin)
- 0500 (Sabine River Basin)

Call the Water Quality Assessments section at 512-239-4671 for further assistance.

**l) Discharge into MS4 – Identify the MS4 Operator**

The discharge may initially be into a municipal separate storm sewer system (MS4). If the stormwater discharge is into an MS4, provide the name of the entity that operates the MS4 where the stormwater discharges. An MS4 operator is often a city, town, county, or utility district, but possibly can be another form of government. Please note that the Construction General Permit requires the Operator to supply the MS4 with a

copy of the NOI submitted to TCEQ. For assistance, you may call the technical staff at 512-239-4671.

**m) Discharges to the Edwards Aquifer Recharge Zone and Certification**

The general permit requires the approved Contributing Zone Plan or Water Pollution Abatement Plan to be included or referenced as a part of the Stormwater Pollution Prevention Plan.

See maps on the TCEQ website to determine if the site is located within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer by entering the following link into an internet browser:

[www.tceq.texas.gov/field/eapp/viewer.html](http://www.tceq.texas.gov/field/eapp/viewer.html) or by contacting the TCEQ Water Quality Division at 512-239-4671 for assistance.

If the discharge or potential discharge is within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, a site-specific authorization approved by the Executive Director under the Edwards Aquifer Protection Program (30 TAC Chapter 213) is required before construction can begin.

For questions regarding the Edwards Aquifer Protection Program, contact the appropriate TCEQ Regional Office. For projects in Hays, Travis and Williamson Counties: Austin Regional Office, 12100 Park 35 Circle, Austin, TX 78753, 512-339-2929. For Projects in Bexar, Comal, Kinney, Medina and Uvalde Counties: TCEQ San Antonio Regional Office, 14250 Judson Rd., San Antonio, TX 78233-4480, 210-490-3096.

**Section 5. NOI CERTIFICATION**

**Note: Failure to indicate Yes to all of the certification items may result in denial of coverage under the general permit.**

**a) Certification of Understanding the Terms and Conditions of Construction General Permit (TXR150000)**

Provisional coverage under the Construction General Permit (TXR150000) begins 7 days after the completed paper NOI is postmarked for delivery to the TCEQ. Electronic applications submitted through ePermits have immediate provisional coverage. You must obtain a copy and read the Construction General Permit before submitting your application. You may view and print the Construction General Permit for which you are seeking coverage at the TCEQ web site by entering the following link into an internet browser: [www.tceq.texas.gov/goto/construction](http://www.tceq.texas.gov/goto/construction) or you may contact the TCEQ Stormwater processing Center at 512-239-3700 for assistance.

**b) Certification of Legal Name**

The full legal name of the applicant as authorized to do business in Texas is required. The name must be provided exactly as filed with the Texas Secretary of State (SOS), or on other legal documents forming the entity, that is filed in the county where doing business. You may contact the SOS at 512-463 5555, for more information related to filing in Texas.

**c) Understanding of Notice of Termination**

A permittee shall terminate coverage under the Construction General Permit through the submittal of a NOT when the operator of the facility changes, final stabilization has

been reached, the discharge becomes authorized under an individual permit, or the construction activity never began at this site.

**d) Certification of Stormwater Pollution Prevention Plan**

The SWP3 identifies the areas and activities that could produce contaminated runoff at your site and then tells how you will ensure that this contamination is mitigated. For example, in describing your mitigation measures, your site's plan might identify the devices that collect and filter stormwater, tell how those devices are to be maintained, and tell how frequently that maintenance is to be carried out. You must develop this plan in accordance with the TCEQ general permit requirements. This plan must be developed and implemented before you complete this NOI. The SWP3 must be available for a TCEQ investigator to review on request.

**Section 6. APPLICANT CERTIFICATION SIGNATURE**

The certification must bear an original signature of a person meeting the signatory requirements specified under 30 Texas Administrative Code (TAC) §305.44.

**If you are a corporation:**

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a)(1) (see below). According to this code provision, any corporate representative may sign an NOI or similar form so long as the authority to sign such a document has been delegated to that person in accordance with corporate procedures. By signing the NOI or similar form, you are certifying that such authority has been delegated to you. The TCEQ may request documentation evidencing such authority.

**If you are a municipality or other government entity:**

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a)(3) (see below). According to this code provision, only a ranking elected official or principal executive officer may sign an NOI or similar form. Persons such as the City Mayor or County Commissioner will be considered ranking elected officials. In order to identify the principal executive officer of your government entity, it may be beneficial to consult your city charter, county or city ordinances, or the Texas statute(s) under which your government entity was formed. An NOI or similar document that is signed by a government official who is not a ranking elected official or principal executive officer does not conform to §305.44(a)(3). The signatory requirement may not be delegated to a government representative other than those identified in the regulation. By signing the NOI or similar form, you are certifying that you are either a ranking elected official or principal executive officer as required by the administrative code. Documentation demonstrating your position as a ranking elected official or principal executive officer may be requested by the TCEQ.

If you have any questions or need additional information concerning the signatory requirements discussed above, please contact the TCEQ's Environmental Law Division at 512-239-0600.

## **30 Texas Administrative Code**

### **§305.44. Signatories to Applications**

(a) All applications shall be signed as follows.

(1) For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the

corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

(2) For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

# Texas Commission on Environmental Quality General Permit Payment Submittal Form

**Use this form to submit your Application Fee only if you are mailing your payment.**

## Instructions:

- Complete items 1 through 5 below:
- Staple your check in the space provided at the bottom of this document.
- *Do not mail this form with your NOI form.*
- *Do not mail this form to the same address as your NOI.*

## Mail this form and your check to either of the following:

### *By Regular U.S. Mail*

Texas Commission on Environmental Quality  
Financial Administration Division  
Cashier's Office, MC-214  
P.O. Box 13088  
Austin, TX 78711-3088

### *By Overnight or Express Mail*

Texas Commission on Environmental Quality  
Financial Administration Division  
Cashier's Office, MC-214  
12100 Park 35 Circle  
Austin, TX 78753

**Fee Code: GPA General Permit: TXR150000**

1. Check or Money Order No:
2. Amount of Check/Money Order:
3. Date of Check or Money Order:
4. Name on Check or Money Order:
5. NOI Information:

If the check is for more than one NOI, list each Project or Site (RE) Name and Physical Address exactly as provided on the NOI. **Do not submit a copy of the NOI with this form, as it could cause duplicate permit application entries!**

If there is not enough space on the form to list all of the projects or sites the authorization will cover, then attach a list of the additional sites.

Project/Site (RE) Name: Freehill Hero Way W

Project/Site (RE) Physical Address: 11561 Hero Way W

**Staple the check or money order to this form in this space.**





203 E. Main Street, Suite 204  
Round Rock, Texas 78664  
512-344-9664  
TBPE FIRM #F-19351

## Notice of Intent (NOI) for an Authorization for Stormwater Discharges Associated with Construction Activity under TPDES General Permit TXR150000

The Notice of Intent (NOI) will be submitted before construction of the proposed development begins.





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

I \_\_\_\_\_ Will Paton \_\_\_\_\_  
Print Name  
\_\_\_\_\_  
Manager \_\_\_\_\_  
Title - Owner/President/Other  
of \_\_\_\_\_ FREEHILL PINE RIDGE LEANDER, LP \_\_\_\_\_  
Corporation/Partnership/Entity Name  
have authorized \_\_\_\_\_ David Urban, PE, CFM \_\_\_\_\_  
Print Name of Agent/Engineer  
of \_\_\_\_\_ 2P Consultants, LLC \_\_\_\_\_  
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:

[Signature]  
Applicant's Signature

5/4/23  
Date

THE STATE OF Texas §

County of Travis §

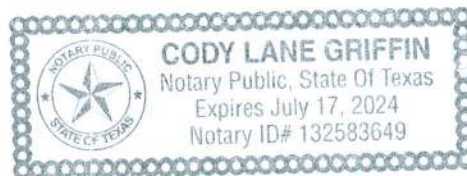
BEFORE ME, the undersigned authority, on this day personally appeared William Forbes Paton known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 4 day of May, 2023

[Signature]  
NOTARY PUBLIC

Cody Lane Griffin  
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 07-17-2023



# Application Fee Form

## Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Hero Way West

Regulated Entity Location: 11521 Hero Way Rd.

Name of Customer: Freehill Leander GP, LLC

Contact Person: Will Paton

Phone: (713) 825-3345

Customer Reference Number (if issued):CN \_\_\_\_\_

Regulated Entity Reference Number (if issued):RN \_\_\_\_\_

### 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

☐ San Antonio Regional Office

☐ Mailed to: TCEQ - Cashier

☐ Overnight Delivery to: TCEQ - Cashier

Revenues Section

Mail Code 214

P.O. Box 13088

Austin, TX 78711-3088

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

<i>Type of Plan</i>	<i>Size</i>	<i>Fee Due</i>
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	16.85 Acres	\$ 6,500
Sewage Collection System	L.F.	\$
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	Each	\$
Extension of Time	Each	\$

Signature: 

Date: 05/23/2023

# 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***

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

### ***Organized Sewage Collection Systems and Modifications***

<b><i>Project</i></b>	<b><i>Cost per Linear Foot</i></b>	<b><i>Minimum Fee- Maximum Fee</i></b>
Sewage Collection Systems	\$0.50	\$650 - \$6,500

### ***Underground and Aboveground Storage Tank System Facility Plans and Modifications***

<b><i>Project</i></b>	<b><i>Cost per Tank or Piping System</i></b>	<b><i>Minimum Fee- Maximum Fee</i></b>
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

### ***Exception Requests***

<b><i>Project</i></b>	<b><i>Fee</i></b>
Exception Request	\$500

### ***Extension of Time Requests***

<b><i>Project</i></b>	<b><i>Fee</i></b>
Extension of Time Request	\$150



# TCEQ Core Data Form

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

## SECTION I: General Information

<b>1. Reason for Submission</b> (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> Other
<b>2. Customer Reference Number</b> (if issued)	<a href="#">Follow this link to search for CN or RN numbers in Central Registry**</a>	<b>3. Regulated Entity Reference Number</b> (if issued)
CN		RN

## SECTION II: Customer Information

<b>4. General Customer Information</b>		<b>5. Effective Date for Customer Information Updates</b> (mm/dd/yyyy)			
<input checked="" type="checkbox"/> New Customer <input type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership <input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
<i>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).</i>					
<b>6. Customer Legal Name</b> (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>	
Freehill Leander GP, LLC					
<b>7. TX SOS/CPA Filing Number</b>		<b>8. TX State Tax ID</b> (11 digits)		<b>9. Federal Tax ID</b> (9 digits)	<b>10. DUNS Number</b> (if applicable)
804944666				92-2304985	
<b>11. Type of Customer:</b>		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input checked="" type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:	
<b>12. Number of Employees</b>				<b>13. Independently Owned and Operated?</b>	
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<b>14. Customer Role</b> (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input type="checkbox"/> Other: <input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
<b>15. Mailing Address:</b>		901 S. Mopac Expressway, Building 1 - Suite 300			
City		Austin		State	TX
ZIP		78746		ZIP + 4	
<b>16. Country Mailing Information</b> (if outside USA)				<b>17. E-Mail Address</b> (if applicable)	
<b>18. Telephone Number</b>		<b>19. Extension or Code</b>		<b>20. Fax Number</b> (if applicable)	

## SECTION III: Regulated Entity Information

<b>21. General Regulated Entity Information</b> (If 'New Regulated Entity' is selected, a new permit application is also required.)								
<input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information								
<i>The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>								
<b>22. Regulated Entity Name</b> (Enter name of the site where the regulated action is taking place.)								
Freehill Hero Way W								
<b>23. Street Address of the Regulated Entity:</b>  (No PO Boxes)	11561 Hero Way W.							
	<b>City</b>	Leander	<b>State</b>	TX	<b>ZIP</b>	78641	<b>ZIP + 4</b>	
<b>24. County</b>	Williamson							

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

<b>25. Description to Physical Location:</b>	The address for the site has not been assigned by 911 addressing. The site is across the street from BB Shine's Car Wash located at 11560 Hero Way w							
<b>26. Nearest City</b>					<b>State</b>	<b>Nearest ZIP Code</b>		
Leander					TX		78641	
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>								
<b>27. Latitude (N) In Decimal:</b>		30.578872			<b>28. Longitude (W) In Decimal:</b>		-97.864624	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
<b>29. Primary SIC Code</b> (4 digits)		<b>30. Secondary SIC Code</b> (4 digits)		<b>31. Primary NAICS Code</b> (5 or 6 digits)		<b>32. Secondary NAICS Code</b> (5 or 6 digits)		
1541				49311		56111		
<b>33. What is the Primary Business of this entity?</b> (Do not repeat the SIC or NAICS description.)								
<b>34. Mailing Address:</b>								
	<b>City</b>		<b>State</b>		<b>ZIP</b>		<b>ZIP + 4</b>	
<b>35. E-Mail Address:</b>								
<b>36. Telephone Number</b>			<b>37. Extension or Code</b>			<b>38. Fax Number</b> (if applicable)		
( ) -						( ) -		

**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.

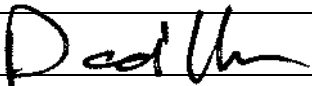
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input checked="" type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

## **SECTION IV: Preparer Information**

<b>40. Name:</b>	David Urban, PE, CFM			<b>41. Title:</b>	Project Manager
<b>42. Telephone Number</b>	<b>43. Ext./Code</b>	<b>44. Fax Number</b>	<b>45. E-Mail Address</b>		
( 512 ) 344-9664		(   ) -	durban@2pconsultants.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.

<b>Company:</b>	2P Consultants, LLC		<b>Job Title:</b>		
<b>Name (In Print):</b>	David Urban, PE, CFM			<b>Phone:</b>	( 512 ) 344- 9664
<b>Signature:</b>				<b>Date:</b>	05/24/2023





PROJECT TITLE : FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN

PROJECT LEGAL DESCRIPTION: LOT 1 BLOCK A FREEHILL ADDITION

PROJECT STREET ADDRESS: 11561 HERO WAY W  
LEANDER, TX 78641

PROPERTY OWNER: FREEHILL PINE RIDGE LEANDER, LP  
901 S. MOPAC EXPRESSWAY, SUITE 300  
AUSTIN, TEXAS 78746  
713.825.3345

ARCHITECT: RUNA WORKSHOP  
305 CAMP CRAFT RD #500  
WEST LAKE HILLS, TX 78746  
(512) 531-9532

ENGINEER:  
ADDRESS: 2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 203  
ROUND ROCK, TX 78664  
512-344-9664

LANDSCAPE ARCHITECT  
ADDRESS: STUDIO 16:19  
305 W. LIBERTY AVE, SUITE 100  
(512) 534-8680

SURVEYOR JPH LAND SURVEYING, INC.  
1516 E. PALM VALLEY BLVD., STE. A4  
ROUND ROCK, TEXAS 78664  
(512) 778-5688

SITE DATA TABLE

1	Lot	EXISTING	PROPOSED
ZONING DISTRICT		HC - Heavy Commercial	HC - Heavy Commercial
LAND USE		VACANT	Manufacturing, Processing, Assembly Limited
LOT SIZE	1	733,996 SF 16.850 AC	733,996 SF 16.850 AC
IMPERVIOUS COVER		0 SF	515,408 SF
SF		0.000 AC	11.832 AC
PERCENTAGE		0.00%	70.22%
SITE IS LOCATED WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE			
IC%			
IC Allowable	80%	16.850 AC	587,189 SF
PAVED AREA		0 SF	290,086 SF
BUILDING		0 SF	225,322 SF

**FLOODPLAIN NOTE:** A PORTION OF THIS PROJECT IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FIRM MAPS: #48491C0455F DATED: 12/20/2019

**AQUIFER NOTE:** THIS PROJECT IS LOCATED IN THE EDWARDS AQUIFER CONTRIBUTING ZONE.

**WATERSHED NOTE:** THIS SITE IS LOCATED IN THE SOUTH FORK OF BRUSHY CREEK WATERSHED, THERE ARE NO KNOWN CRITICAL ENVIRONMENTAL FEATURES EVIDENT ON THIS SITE.

**WATER QUALITY:** THIS PROJECT IS LOCATED WITHIN THE EDWARD'S AQUIFER CONTRIBUTING ZONE AND HAS AN APPROVED CZP UNDER EDWARD'S AQUIFER PROTECTION PROGRAM.

**DETENTION NOTE:** THIS SITE PROVIDES FOR ONSITE DETENTION.

**BENCHMARKS:**  
THE SITE BENCHMARK (TBM) IS A MAG NAIL WITH METAL WASHER STAMPED "JPH" BENCHMARK" SET IN A CONCRETE SIDEWALK IN THE SOUTH MARGIN OF HERO WAY, LOCATED APPROXIMATELY 5 FEET NORTHERLY FROM THE SOUTH RIGHT-OF-WAY LINE OF HERO WAY, AND APPROXIMATELY 985 FEET SOUTHWESTERLY FROM THE INTERSECTION OF HERO WAY AND W. BROADE STREET. BENCHMARK ELEVATION = 993.88' (NAVD'88).

**UTILITY CONTACTS:**  
CITY OF LEANDER 512-259-1142  
WASTEWATER: CITY OF LEANDER 512-259-1142  
ELECTRIC: PEDERNALES ELECTRIC COOPERATIVE 512-219-2602  
CABLE/TELEPHONE: xxxxxx 512-  
NATURAL GAS: TBD

IMPORTANT NOTES TO CONTRACTOR

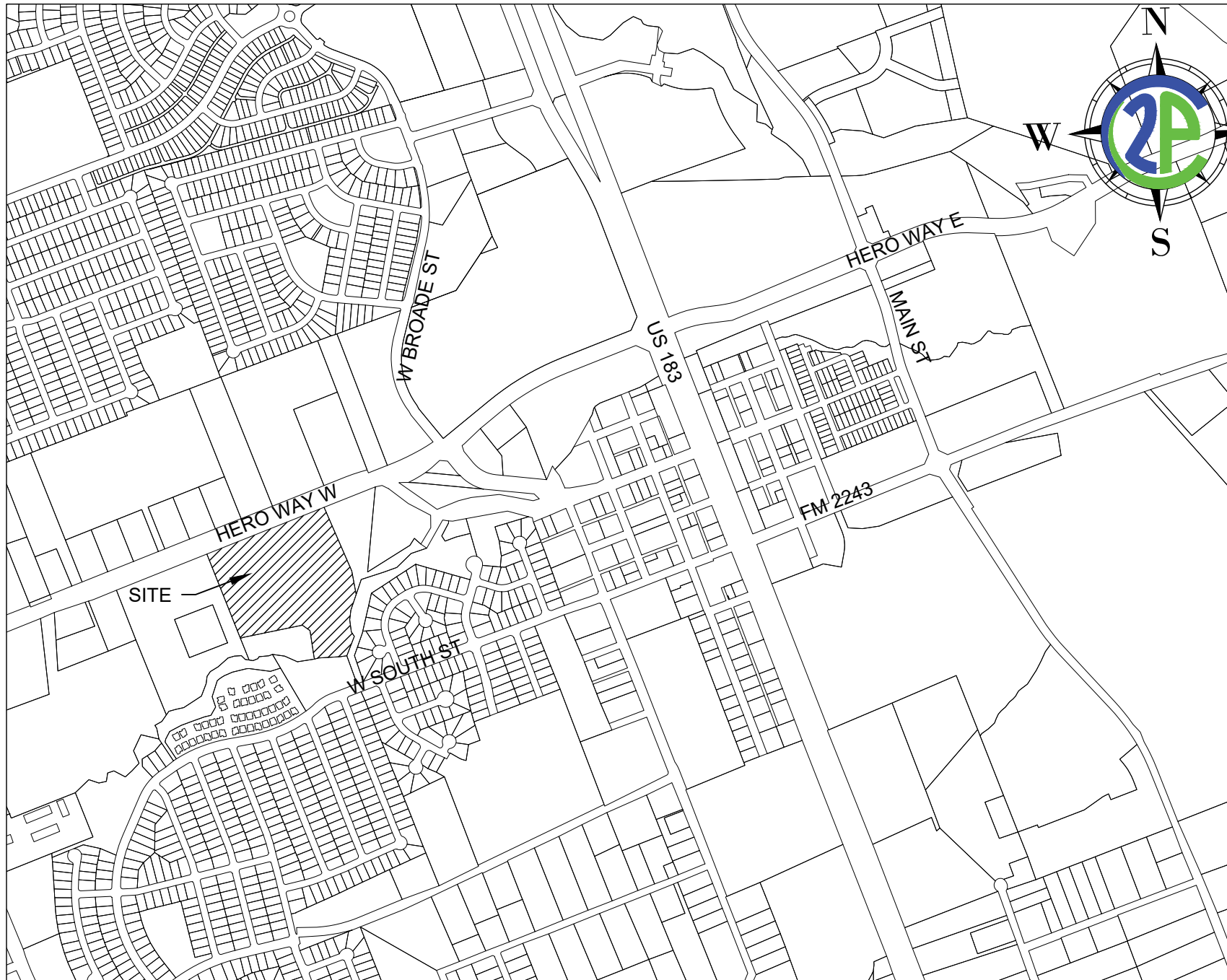
- THE LOCATIONS OF THE EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER, DESIGN ENGINEER OR THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, AND SHALL REPAIR OR REPLACE TO NEW QUALITY.
- CAUTION: DO NOT USE THESE DRAWINGS FOR STAKING BUILDINGS ON THIS PROJECT. THE SIZE AND CONFIGURATION OF THESE BUILDINGS SHOWN HEREON ARE BASED ON THE LATEST ARCHITECTURAL INFORMATION AVAILABLE TO 2P CONSULTANTS, LLC. AT THE TIME OF COMPLETION OF THESE PLANS. THE FUTURE SIZE AND CONFIGURATION OF EACH BUILDING IS SUBJECT TO CHANGE. THE LATEST APPROVED, SIGNED AND SEALED ARCHITECTURAL PLANS SHOULD BE CONSULTED FOR THE ACTUAL SIZE, CONFIGURATION AND LOCATION OF EACH BUILDING.
- CONTRACTOR SHALL REFER TO CITY OF ROUND ROCK CONSTRUCTION STANDARDS MANUAL AND SPECIFICATIONS, OR ANY REQUIRED LOCAL CODE WHICHEVER IS MOST STRINGENT.
- THIS SITE IS SUBJECT TO TPDES REGULATIONS. TXR15000

REVISIONS / CORRECTIONS

No.	Description	Approval

# FREEHILL HERO WAY WEST SITE DEVELOPMENT PLAN

11561 HERO WAY W  
LEANDER, TX 78641  
FEBRUARY 2023  
SD-23-0111



VICINITY MAP-1"=1000'  
MAPSCO PAGE  
GRID NUMBER

APPROVED BY:

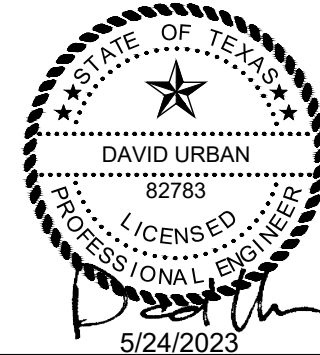
Robin M. Griffin, AICP, Executive Director of Development Services Date  
Emily Truman, P.E., CFM, City Engineer Date  
Mark Tummons, CPRP, Director of Parks and Recreation Date  
Chief Joshua Davis, Fire Marshal Date

NOTES:

- THESE PLANS ARE NOT TO BE CONSIDERED FINAL FOR CONSTRUCTION UNTIL ACCEPTED BY THE CITY / AND, OR THE COUNTY. CHANGES MAY BE REQUIRED PRIOR TO APPROVAL.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY, AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER, OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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

I, David Urban P.E., do hereby confirm that any new Public Works and Drainage Improvements described herein, have been designed in compliance with the stormwater drainage policy adopted by the City of Leander, Texas.



xxxxxxxxxxxxx, P.E. DATE  
ALL PLAN SHEETS EXCEPT  
LANDSCAPE SHEETS  
2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPE FIRM #F-19351

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GENERAL NOTES FOR SUBDIVISIONS AND SITE DEVELOPMENT PLANS

REVISED March 27, 2023

CITY CONTACTS:

ENGINEERING MAIN LINE:512-528-2721  
PLANNING DEPARTMENT:512-528-2750  
PUBLIC WORKS MAIN LINE: 512-259-2640  
STORMWATER INSPECTIONS: 512-285-0055  
UTILITIES MAIN LINE: 512-259-1142  
UTILITIES ON-CALL: 512-690-4760

GENERAL:

- CONTRACTORS SHALL HAVE AN APPROVED SET OF PLANS WITH APPROVED REVISIONS ON SITE AT ALL TIMES. FAILURE TO HAVE APPROVED PLANS ON SITE MAY RESULT IN ISSUANCE OF WORK STOPPAGE.
- CONTACT 811 SYSTEM FOR EXISTING WATER AND WASTEWATER LOCATIONS 48 HOURS PRIOR TO CONSTRUCTION.
  - REFRESH ALL LOCATES BEFORE 14 DAYS** - LOCATE REFRESH REQUESTS MUST INCLUDE A COPY OF YOUR 811 TICKET. TEXAS PIPELINE DAMAGE PREVENTION LAWS REQUIRE THAT A LOCATE REFRESH REQUEST BE SUBMITTED BEFORE 14 DAYS, OR IF LOCATION MARKERS ARE NO LONGER VISIBLE.
  - REPORT PIPELINE DAMAGE IMMEDIATELY** - IF YOU WITNESS OR EXPERIENCE PIPELINE EXCAVATION DAMAGE, PLEASE CONTACT THE CITY OF LEANDER BY PHONE AT 512-259- 2640.
- THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR 48 HOURS BEFORE:
  - BEGINNING EACH PHASE OF CONSTRUCTION. CONTACT ASSIGNED CITY INSPECTOR.
  - ANY TESTING. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY THE CITY OF LEANDER AFTER COMPLETION.
  - PROOF ROLLING SUB-GRADE AND EVERY LIFT OF ROADWAY EMBANKMENT, IN-PLACE DENSITY TESTING OF EVERY BASE COURSE, AND ASPHALT CORES. ALL OF THIS TESTING MUST BE WITNESSED BY A CITY OF LEANDER REPRESENTATIVE.
  - CONNECTING TO THE EXISTING WATER LINES.
  - THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET ROW. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S ROW MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.
- ALL RESPONSIBILITY FOR THE ACCURACY OF THESE PLANS REMAINS WITH THE ENGINEER OF RECORD WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY ON THE ADEQUACY OF THE WORK OF THE ENGINEER OF RECORD.
- EXCESS SOIL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CITY OF LEANDER IF THE DISPOSAL SITE IS INSIDE THE CITY'S JURISDICTIONAL BOUNDARIES.**
- BURNING IS PROHIBITED.
- NO WORK IS TO BE PERFORMED BETWEEN THE HOURS OF 9:00 P.M. AND 7:00 A.M. OR WEEKENDS. THE CITY INSPECTOR RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER ALL WORK PERFORMED WITHOUT INSPECTION.
- CONTACT THE CITY INSPECTOR 4 DAYS PRIOR TO WORK FOR APPROVAL TO SCHEDULE ANY INSPECTIONS ON WEEKENDS OR CITY HOLIDAYS.
- NO BLASTING IS ALLOWED.
- ANY CHANGES OR REVISIONS TO THESE PLANS MUST FIRST BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION OF THE REVISION. ALL CHANGES AND REVISIONS SHALL USE REVISION CLOUDS TO HIGHLIGHT ALL REVISIONS AND CHANGES WITH EACH SUBMITTAL. REVISION TRIANGLE MARKERS AND NUMBERS SHALL BE USED TO MARK REVISIONS. ALL CLOUDS AND TRIANGLE MARKERS FROM PREVIOUS REVISIONS MUST BE REMOVED. REVISION INFORMATION SHALL BE UPDATED ON COVER SHEET AND AFFECTED PLAN SHEET TITLE BLOCK.
- THE CONTRACTOR AND ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. THE ENGINEER SHALL FURNISH THE CITY OF LEANDER ACCURATE "RECORD DRAWINGS" FOLLOWING THE COMPLETION OF ALL CONSTRUCTION. THESE "RECORD DRAWINGS" SHALL MEET THE SATISFACTION OF THE ENGINEERING DEPARTMENTS PRIOR TO FINAL ACCEPTANCE.
- THE CONTRACTOR WILL REIMBURSE THE CITY FOR ALL REPAIR AND/OR COST INCURRED AS A RESULT OF ANY DAMAGE TO ANY PUBLIC INFRASTRUCTURE WITHIN CITY EASEMENT OR PUBLIC RIGHT-OF-WAY, REGARDLESS OF THESE PLANS.
- WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINe HIS WORK TO WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT EASEMENTS. CLEANUP SHALL BE TO THE SATISFACTION OF THE ENGINEER OF RECORD AND CITY.
- CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS AND PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO THE PROPERTY OWNER.
- ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 1033 LA POSADA DR. SUITE 375, AUSTIN, TEXAS 78752-3832.
- ALL MANHOLE FRAMES/COVERS AND WATER VALVE/METER BOXES MUST BE ADJUSTED TO FINISHED GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR FOR CITY CONSTRUCTION INSPECTOR INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING. CONTRACTOR SHALL BACKFILL AROUND MANHOLES AND VALVE BOXES WITH CLASS A CONCRETE.
- ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL CITY OF LEANDER DETAILS AND CITY OF AUSTIN STANDARD SPECIFICATIONS.
- PROJECT SPECIFICATIONS TAKE PRECEDENCE OVER PLANS AND SPECIAL CONDITIONS GOVERN OVER TECHNICAL SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
- THE CONTRACTOR MUST OBTAIN A CONSTRUCTION WATER METER FOR ALL WATER USED DURING CONSTRUCTION. A COPY OF THIS PERMIT MUST BE CARRIED AT ALL TIMES BY ALL WHO USE WATER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADS AND DRIVES ADJACENT TO AND NEAR THE SITE FREE FROM SOIL, SEDIMENT AND DEBRIS. CONTRACTOR WILL NOT REMOVE SOIL, SEDIMENT OR DEBRIS FROM ANY AREA OR VEHICLE BY MEANS OF WATER. ONLY SHOVELING AND SWEEPING WILL BE ALLOWED. THE CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE. THE CONTRACTOR SHALL KEEP THE SITE AREA CLEAN AND MAINTAINED AT ALL TIMES, TO THE SATISFACTION OF THE CITY. THE SUBDIVISION (OR SITE) WILL NOT BE ACCEPTED (OR CERTIFICATE OF OCCUPANCY ISSUED) UNTIL THE SITE HAS BEEN CLEANED TO THE SATISFACTION OF THE CITY.
- TREES IN EXISTING ROW SHOULD BE PROTECTED OR NOTED IN THE PLANS TO BE REMOVED.

CONSTRUCTION SEQUENCE NOTES

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

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

- ENGINEER OF RECORD IS RESPONSIBLE TO PREPARE AND SUBMIT CLOSEOUT DOCUMENTS FOR PROJECT CLOSEOUT.

EROSION CONTROL NOTES

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

WATER AND WASTEWATER NOTES

WATER AND WASTEWATER GENERAL NOTES

- ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AND ORGANIZATION ACCREDITED BY ANSI.
- ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY STAMPED AS FOLLOWS:

WATER SERVICE	"W" ON TOP OF CURB
WASTEWATER SERVICE	"S" ON TOP OF CURB
VALVE	"V" ON TOP OF CURB
- OPEN UTILITIES SHALL NOT BE PERMITTED ACROSS THE EXISTING PAVED SURFACES. WATER AND WASTEWATER LINES ACROSS THE EXISTING PAVED SURFACES SHALL BE BORED AND INSTALLED IN STEEL ENCASEMENT PIPES. BELL RESTRAINTS SHALL BE PROVIDED AT JOINTS.
- INTERIOR SURFACES OF ALL DUCTILE IRON POTABLE OR RECLAIMED WATER PIPE SHALL BE CEMENT-MORTAR LINED AND SEAL COATED AS REQUIRED BY AWWA C104.
- SAND, AS DESCRIBED IN AUSTIN SPECIFICATION ITEM S10 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
- DENSITY TESTING FOR TRENCH BACKFILL SHALL BE DONE IN MAXIMUM 12" LIFTS.

WATER

- SAMPLING TAPS SHALL BE BROUGHT UP TO 3 FEET ABOVE GRADE AND SHALL BE EASILY ACCESSIBLE FOR CITY PERSONNEL. AT THE CONTRACTORS' REQUEST, AND IN HIS PRESENCE, SAMPLES FOR BACTERIOLOGICAL TESTING WILL BE COLLECTED BY THE CITY OF LEANDER NOT LESS THAN 24 HOURS AFTER THE TREATED LINE HAS BEEN FLUSHED OF THE CONCENTRATED CHLORINE SOLUTION AND CHARGED WITH WATER APPROVED BY THE CITY.
- CITY PERSONNEL WILL OPERATE OR AUTHORIZE THE CONTRACTOR TO OPERATE ALL WATER VALVES THAT WILL PASS THROUGH THE CITY'S POTABLE WATER. THE CONTRACTOR MAY BE FINED \$500 OR MORE, INCLUDING ADDITIONAL THEFT OF WATER FINES, IF A WATER VALVE IS OPERATED IN AN UNAUTHORIZED MANNER, REGARDLESS OF WHO OPERATED THE VALVE.
- THE CONTRACTOR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY LINES MAY HAVE TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND POSSIBLY BETWEEN 12 AM AND 6 AM AFTER COORDINATING WITH CITY CONSTRUCTION INSPECTORS AND INFORMING AFFECTED PROPERTIES.
- PRESSURE TAPS OR HOT TAPS SHALL BE IN ACCORDANCE WITH CITY OF LEANDER STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. A CITY OF LEANDER INSPECTOR MUST BE PRESENT WHEN THE CONTRACTOR MAKES A TAP, AND/OR ASSOCIATED TESTS. A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED. "SIZE ON SIZE" TAPS SHALL NOT BE PERMITTED UNLESS MADE BY THE USE OF AN APPROVED FULL-CIRCLE GASKETED TAPPING SLEEVE. CONCRETE THRUST BLOCKS SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES A MINIMUM OF 24 HOURS PRIOR TO THE BRANCH BEING PLACED INTO SERVICE. THRUST BLOCKS SHALL BE INSPECTED PRIOR TO BACKFILL.
- FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A BLACK POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP SHALL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED INTO SERVICE.
- THRUST BLOCKS OR RESTRAINTS SHALL BE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS AND REQUIRED AT ALL FITTINGS PER DETAIL OR MANUFACTURER'S RECOMMENDATION. ALL FITTINGS SHALL HAVE BOTH THRUST BLOCKS AND RESTRAINTS.
- ALL DEAD END WATER MAINS SHALL HAVE "FIRE HYDRANT ASSEMBLY" OR "BLOW-OFF VALVE AND THRUST BLOCK" OR "BLOW-OFF VALVE AND THRUST RESTRAINTS". THRUST RESTRAINTS SHALL BE INSTALLED ON THE MINIMUM LAST THREE PIPE LENGTHS (STANDARD 20' LAYING LENGTH). ADDITIONAL THRUST RESTRAINTS MAY BE REQUIRED BASED UPON THE MANUFACTURERS RECOMMENDATION AND/OR ENGINEER'S DESIGN.
- PIPE MATERIAL FOR PUBLIC WATER MAINS SHALL BE PVC (AWWA C900-DR14 MIN. 305 PSI PRESSURE RATING). WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200PSI, AND SDR-(9)). COPPER PIPES AND FITTINGS ARE NOT ALLOWED IN THE PUBLIC RIGHT OF WAY. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF-PW).
- ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C115/C151 PRESSURE CLASS 350).
- ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE.
- LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.
- ALL WATER METER BOXES SHALL BE:
  - SINGLE, 1" METER AND BELOW DFW37F-12-1CA, OR EQUAL
  - DUAL, 1" METERS AND BELOW DFW39F-12-1CA, OR EQUAL
  - 1.5" SINGLE METER DFW65C-14-1CA, OR EQUAL
  - 2" SINGLE METER DFW1730F-12-1CA, OR EQUAL
- ALL WATER VALVE COVERS ARE TO BE PAINTED BLUE.

WASTEWATER

- CURVILINEAR WASTEWATER DESIGN LAYOUT IS NOT PERMITTED.
- MANDREL TESTING SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST

30 DAYS.

- MANHOLES SHALL BE COATED PER CITY OF AUSTIN SPL WW-511 (RAVEN 405 OR SPRAYWALL). PENETRATIONS TO EXISTING WASTEWATER MANHOLES REQUIRE THE CONTRACTOR TO RECOAT THE ENTIRE MANHOLE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS SECTION NO. 506.5.
- RECLAIMED AND RECYCLED WATER LINE SHALL BE CONSTRUCTED OF "PURPLE PIPE." ALL RECLAIMED AND RECYCLED WATER VALVE COVERS SHALL BE SQUARE AND PAINTED PURPLE.
- FORCE MAIN PIPES NEED TO HAVE SWEEPING WYES FOR JOINTS.

STREET AND DRAINAGE NOTES

- THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISLATION RELATED TO ACCESSIBILITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND TEXAS ACCESSIBILITY STANDARDS (TAS).
- BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.
- A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED BETWEEN THE CURB AND RIGHT-OF-WAY AND IN ALL DRAINAGE CHANNELS EXCEPT CHANNELS CUT IN STABLE ROCK.
- DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT, INCLUDING GAS, ELECTRIC TELEPHONE, CABLE TV, ETC., SHALL BE A MINIMUM OF 36" BELOW SUBGRADE.
- STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF 34" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED.
- ALL DRAINAGE PIPE IN PUBLIC RIGHT OF WAY OR EASEMENTS SHALL BE REINFORCED CONCRETE PIPE MINIMUM CLASS III OF TONGUE AND GROOVE OR O-RING JOINT DESIGN. CORRUGATED METAL PIPE IS NOT ALLOWED IN PUBLIC RIGHT OR WAY OR EASEMENTS.
- THE CONTRACTOR MUST PROVIDE A PNEUMATIC TRUCK PER TxDOT SPEC FOR PROOF ROLLING.
- ALL STRIPING, WITH THE EXCEPTION OF STOP BARS, CROSS WALKS, WORDS AND ARROWS, IS TO BE TYPE II (WATER BASED). STOP BARS, CROSS WALKS, WORDS AND ARROWS REQUIRE TYPE I THERMOPLASTIC.
- MANHOLE FRAMES, COVERS, VALVES, CLEAN-OUTS, ETC. SHALL BE RAISED TO GRADE PRIOR TO FINAL PAVEMENT CONSTRUCTION.
- A STOP BAR SHALL BE PLACED AT ALL STOP SIGN LOCATIONS.
- THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE APPROVED CONSTRUCTION PLANS.
- GEOTECHNICAL INVESTIGATION INFORMATION AND PAVEMENT RECOMMENDATIONS WERE PROVIDED BY PROFESSIONAL SERVICE INDUSTRIES, INC.
- PAVEMENT RECOMMENDATIONS ARE AS FOLLOWS:

TABLE 4.3: RIGID PAVEMENT SECTION OPTIONS				
Material Traffic Type	Option 1		Option 2	
	Light	Heavy	Light	Heavy
Portland Cement Concrete	5"	7"	5"	7"
Low PI Material (PI<25)	-	-	6"	6"
Lime Stabilized Subgrade	8"		-	
Compacted Subgrade	-		8"	

- A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL, CITY OF LEANDER STANDARD DETAILS AND TEXAS DEPARTMENT OF TRANSPORTATION CRITERIA, SHALL BE SUBMITTED TO THE CITY OF LEANDER FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS MUST BE SITE SPECIFIC AND SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
- ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM UNLESS OTHERWISE NOTED ON THE PLANS. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL OF THE CITY ENGINEER AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY THE CITY DURING PEAK HOURS OF 6 AM TO 9 AM OR 4 PM TO 8 PM WILL BE SUBJECT TO A FINE AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.
- TEMPORARY ROCK CRUSHING IS NOT ALLOWED. ALL SOURCES OF FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR PROPOSED STOCK PILES ARE TO BE SUBMITTED TO THE CITY CONSTRUCTION INSPECTOR FOR REVIEW AND APPROVAL.
- AT ROAD INTERSECTIONS THAT HAVE A VALLEY GUTTER, THE CROWN TO THE INTERSECTING ROAD WILL BE CULMINATED AT A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
- NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAYS AND PUBLIC STREETS. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.
- ALL DRIVEWAY APPROACHES SHALL HAVE A UNIFORM TWO PERCENT SLOPE WITHIN THE PUBLIC RIGHT OF WAY UNLESS APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
- IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRIVEWAY TO REMAIN OPEN AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION OBTAINED BY THE CONTRACTOR FROM ALL PROPERTY OWNERS AND ACCESS EASEMENT RIGHT HOLDERS ALLOWING THE FULL CLOSURE OF THE DRIVEWAY.
- CONTRACTOR MUST CLEAR FIVE (5) FEET BEYOND ALL PUBLIC RIGHT OF WAY TO PREVENT FUTURE VEGETATIVE GROWTH INTO THE SIDEWALK AREAS.
- SLOPE OF NATURAL GROUND ADJACENT TO THE PUBLIC RIGHT OF WAY SHALL NOT EXCEED 3:1 SLOPE. IF A 3:1 SLOPE IS NOT POSSIBLE, SLOPE PROTECTION OR RETAINING WALL MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE.
- THERE SHALL BE NO WATER, WASTEWATER OR DRAINAGE APPURTENANCES, INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, METERS, CLEAN-OUTS, MANHOLES, OR VAULTS IN ANY DRIVEWAY, SIDEWALK, TRAFFIC OR PEDESTRIAN AREA.
- PUBLIC SIDEWALKS SHALL NOT USE CURB INLETS AS PARTIAL WALKING SURFACE. SIDEWALKS SHALL NOT USE TRAFFIC CONTROL BOXES, METERS, CHECK VALVE VAULTS, COMMUNICATION VAULTS, OR OTHER BURIED OR PARTIALLY BURIED INFRASTRUCTURE AS A VEHICULAR OR PEDESTRIAN SURFACE.
- ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTION(S) PRIOR TO THE INSTALLATION OF DRY UTILITIES.
- DRY UTILITIES SHALL BE INSTALLED AFTER SUBGRADE IS CUT AND BEFORE THE FIRST COURSE OF BASE. NO TRENCHING COMPACTED BASE. IF NECESSARY DRY UTILITIES INSTALLED AFTER FIRST COURSE BASE SHALL BE BORED ACROSS THE FULL WIDTH OF THE PUBLIC RIGHT-OF-WAY.
- A MINIMUM OF SEVEN (7) DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF VEHICULAR TRAFFIC TO ALL STREETS.

TRENCH SAFETY NOTES

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

GRADING NOTES

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

BENCHMARK NOTES

- THE SITE BENCHMARK (TBM) IS A MAG NAIL WITH METAL WASHER STAMPED "JPH" BENCHMARK" SET IN A CONCRETE SIDEWALK IN THE SOUTH MARGIN OF HERO WAY, LOCATED APPROXIMATELY 5 FEET NORTHERLY FROM THE SOUTH RIGHT-OF-WAY LINE OF HERO WAY, AND APPROXIMATELY 985 FEET SOUTHWESTERLY FROM THE INTERSECTION OF HERO WAY AND W. BROADE STREET. BENCHMARK ELEVATION = 993.88' (NAVD'88).

TCEQ-0592A (REV. JULY 15, 2015) PAGE 1 OF 2  
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
CONTRIBUTING ZONE PLAN  
GENERAL CONSTRUCTION NOTES

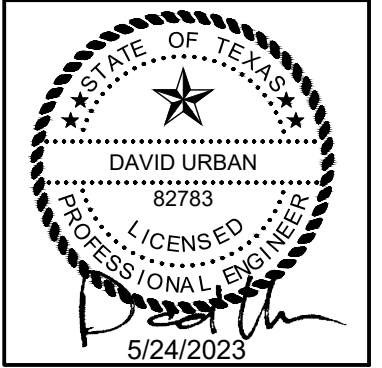
- A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY GROUND DISTURBANCE OR CONSTRUCTION ACTIVITIES. THIS NOTICE MUST INCLUDE:
  - THE NAME OF THE APPROVED PROJECT;
  - THE ACTIVITY START DATE; AND
  - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
- ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT SHOULD BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED CONTRIBUTING ZONE PLAN (CZP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTOR(S) SHOULD KEEP COPIES OF THE APPROVED PLAN AND APPROVAL LETTER ON SITE.
- NO HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.
- PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.
- SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.
- LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.
- ALL EXCAVATED MATERIAL THAT WILL BE STORED ON-SITE MUST HAVE PROPER E&S CONTROLS.
- IF PORTIONS OF THE SITE WILL HAVE A CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
- THE FOLLOWING RECORDS SHOULD BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
  - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
  - THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
  - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
- THE HOLDER OF ANY APPROVED CZP MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
  - ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY BEST ANAGEMENT PRACTICES (BMPS) OR STRUCTURE(S), INCLUDING BUT NOT LIMITED TO TEMPORARY OR PERMANENT PONDS, DAMS, BERMS, SILT FENCES, AND DIVERSIONARY STRUCTURES;
  - ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED;
  - ANY CHANGE THAT WOULD SIGNIFICANTLY IMPACT THE ABILITY TO PREVENT POLLUTION OF THE EDWARDS AQUIFER; OR
  - ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE APPROVED

CONTRIBUTING ZONE PLAN.  
AUSTIN REGIONAL OFFICE  
12100 PARK 35 CIRCLE, BUILDING A  
AUSTIN, TEXAS 78753-1808  
PHONE (512) 339-2929  
FAX (512) 339-3795

SAN ANTONIO REGIONAL OFFICE  
14250 JUDSON ROAD  
SAN ANTONIO, TEXAS 78233-4480  
PHONE (210) 490-3096  
FAX (210) 545-4329

2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
TBP# FIRM #F-19351

DESIGNED DOU  
DRAWN DOU  
REVIEWED VALUE



NO.	DATE	REVISIONS

FREEHILL

FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11661 HERO WAY W LEANDER, TX 78641

GENERAL NOTES

PERMIT No:  
**SD-23-0111**

SHEET No:  
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NOTES: 1. YOUR SIGNATURE & SEAL ARE REQUIRED FOR ALL PERMITS.  
2. THE CITY OF AUSTIN, TEXAS, IS THE OWNER OF THIS PROJECT.  
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GENERAL NOTES REVISED JUNE 22, 2022

1. THE CONTRACTOR SHALL VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES WITH CONSTRUCTION PLANS FOUND IN THE FIELD SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER.
2. THE CONTRACTOR SHALL CONTACT THE TEXAS EXCAVATION SYSTEM AT 1-800-344-8377 FOR EXISTING UTILITY LOCATIONS 48 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES THAT ARE TO BE EXTENDED, TIED TO, CROSSED, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS.
3. CONTACT THE CITY OF LEANDER PUBLIC WORKS DEPARTMENT FOR EXISTING WATER AND WASTEWATER LOCATIONS 48 HOURS PRIOR TO CONSTRUCTION.
  - a. LOCATE REQUESTS MUST INCLUDE A COPY OF YOUR 811 TICKET. THE CITY OF LEANDER IS ALLOWED UP TO 48 HOURS TO COMPLY WITH YOUR REQUEST, EXCLUDING WEEKENDS AND DESIGNATED CITY HOLIDAYS.
  - b. REFRESH ALL LOCATES BEFORE 14 DAYS - LOCATE REFRESH REQUESTS MUST INCLUDE A COPY OF YOUR 811 TICKET. SUBMIT ALL REQUESTS TO LOCATES@LEANDERTX.GOV. TEXAS PIPELINE DAMAGE PREVENTION LAWS REQUIRE THAT A LOCATE REFRESH REQUEST BE SUBMITTED BEFORE 14 DAYS, OR IF LOCATE MARKERS ARE NO LONGER VISIBLE.
  - c. REPORT PIPELINE DAMAGE IMMEDIATELY - IF YOU WITNESS OR EXPERIENCE PIPELINE EXCAVATION DAMAGE, PLEASE CONTACT THE CITY OF LEANDER BY PHONE AT 512-259-2640.
4. ANY CHANGES OR REVISIONS TO THESE PLANS MUST FIRST BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION OF THE REVISION.
5. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS SHALL BE SITE SPECIFIC AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER. LANE CLOSURES ON ARTERIALS AND ANY FULL ROAD CLOSURES REQUIRE MESSAGE BOARDS NOTIFYING THE PUBLIC ONE WEEK PRIOR TO THE CLOSURE.
6. NO WORK IS TO BE PERFORMED BETWEEN THE HOURS OF 9:00 P.M. AND 7:00 A.M. THE CITY INSPECTOR RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER ALL WORK PERFORMED WITHOUT INSPECTION FURTHER, THERE IS A NOISE ORDINANCE IN EFFECT FOR CONSTRUCTION ACTIVITY BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. REQUESTS FOR EXCEPTIONS TO THE ORDINANCE MUST BE MADE TO LEANDER CITY COUNCIL.
7. CONTACT THE CITY INSPECTOR 4 DAYS PRIOR TO WORK TO SCHEDULE ANY INSPECTIONS ON WEEKENDS OR CITY HOLIDAYS.
8. NO STREET LIGHTS OR SIGNS OF ANY KIND ARE TO BE PLACED WITHIN ANY SIDEWALKS.
9. NO BLASTING IS ALLOWED.
10. ANY EXISTING UTILITIES, PAVEMENT, CURBS, SIDEWALKS, STRUCTURES, TREES, ETC., THAT ARE DAMAGED OR REMOVED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
11. THE CONTRACTOR SHALL GIVE THE CITY OF LEANDER 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION. CONTACT ASSIGNED CITY INSPECTOR.
12. A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD WITH THE CONTRACTOR, THE CITY ENGINEER, PERMIT APPLICANT AND THE CITY OF LEANDER REPRESENTATIVES PRIOR TO INSTALLATION OF EROSION/SEDIMENTATION CONTROLS AND TREE PROTECTION MEASURES AND PRIOR TO BEGINNING ANY WORK. THE CONTRACTOR SHALL NOTIFY THE CITY OF LEANDER PLANNING DEPARTMENT PLANNING COORDINATOR AT LEAST THREE (3) DAYS PRIOR TO THE MEETING DATE.
13. THE CONTRACTOR AND ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. THE ENGINEER SHALL FURNISH THE CITY OF LEANDER ACCURATE "RECORD DRAWINGS" FOLLOWING THE COMPLETION OF ALL CONSTRUCTION. THESE "RECORD DRAWINGS" SHALL MEET THE SATISFACTION OF THE ENGINEERING DEPARTMENTS PRIOR TO FINAL ACCEPTANCE.
14. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT EASEMENTS. CLEANUP SHALL BE TO THE SATISFACTION OF THE ENGINEER.
15. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENT POINTS AND ELEVATION DATA. THE CONTRACTOR SHALL RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO OWNER.
16. THE CONTRACTOR SHALL PROTECT ALL EXISTING FENCES. IN THE EVENT THAT A FENCE MUST BE REMOVED, THE CONTRACTOR SHALL REPLACE SAID FENCE OR PORTION THEREOF WITH THE SAME TYPE OF FENCING TO A QUALITY OF EQUAL OR BETTER THAN THE ORIGINAL FENCE.
17. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE, INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 1033 LA POSADA DR, SUITE 375, AUSTIN, TEXAS 78752-3832.
18. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL CITY OF LEANDER DETAILS AND CITY OF AUSTIN STANDARD SPECIFICATIONS.
19. PROJECT SPECIFICATIONS TAKE PRECEDENCE OVER PLANS AND SPECIAL CONDITIONS GOVERN OVER TECHNICAL SPECIFICATIONS.
20. HOT MIX ASPHALTIC CONCRETE PAVEMENT SHALL BE MINIMUM THICKNESS OF 2 INCHES WITH NO RECYCLED ASPHALT SHINGLES CONTENT.
21. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY QUESTIONS THAT MAY RISE CONCERNING THE INTENT, PLACEMENT, OR LIMITS OF DIMENSIONS OR GRADES NECESSARY FOR THE CONSTRUCTION OF THIS PROJECT.
22. CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION BETWEEN HIMSELF AND OTHER CONTRACTORS AND UTILITIES IN THE VICINITY OF THE PROJECT. THIS INCLUDES GAS, WATER, WASTEWATER, ELECTRICAL, TELEPHONE, CABLE TV AND STREET DRAINAGE WORK. ONCE THE CONTRACTOR BECOMES AWARE OF A POSSIBLE CONFLICT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER WITHIN TWENTY-FOUR (24) HOURS.
24. THE CONTRACTOR MUST OBTAIN A CONSTRUCTION WATER METER FOR

25. ALL WATER USED DURING CONSTRUCTION, A COPY OF THIS PERMIT MUST BE CARRIED AT ALL TIMES BY ALL WHO USE WATER.
26. THE CITY OF LEANDER SHALL NOT BE PETITIONED FOR ACCEPTANCE UNTIL ALL NECESSARY EASEMENT DOCUMENTS HAVE BEEN SIGNED AND RECORDED.
27. AN ENGINEER'S CONCURRENCE LETTER AND RECORD DRAWINGS SHALL BE SUBMITTED TO THE ENGINEERING DEPARTMENT PRIOR TO THE ISSUANCE OF CERTIFICATE OF COMPLETION OR SUBDIVISION ACCEPTANCE. THE ENGINEER AND CONTRACTOR SHALL VERIFY THAT ALL FINAL REVISIONS AND CHANGES HAVE BEEN MADE TO THE DIGITAL COPY PRIOR TO CITY SUBMITTAL. RECORD CONSTRUCTION DRAWINGS, INCLUDING ROADWAY AND ALL UTILITIES SHALL BE PROVIDED TO THE CITY IN DIGITAL FORMAT AS AUTOCAD ".DWG" FILES, MICROSTATION ".DGN" FILES OR ESRI ".SHP" FILES ON CD ROM. LINE WEIGHTS, LINE TYPES AND TEXT SIZE SHALL BE SUCH THAT IF HALF-SIZE PRINTS (11"x17") WERE PRODUCED, THE PLANS WOULD STILL BE LEGIBLE. ALL REQUIRED DIGITAL FILES SHALL CONTAIN A MINIMUM OF TWO CONTROL POINTS REFERENCED TO THE STATE PLANE GRID COORDINATE SYSTEM - TEXAS CENTRAL ZONE (4203), IN US SURVEY FEET AND SHALL INCLUDE ROTATION INFORMATION AND SCALE FACTOR REQUIRED TO REDUCE SURFACE COORDINATES TO GRID COORDINATES IN US SURVEY FEET.
28. TREES IN EXISTING ROW SHOULD BE PROTECTED OR NOTED IN THE PLANS TO BE REMOVED.

EROSION CONTROL NOTES

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

WATER AND WASTEWATER NOTES

1. PRESSURE TAPS SHALL BE IN ACCORDANCE WITH CITY OF LEANDER STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION, ETC. AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. A CITY OF LEANDER INSPECTOR MUST BE PRESENT WHEN THE CONTRACTOR MAKES A TAP AND/OR ASSOCIATED TESTS. A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED. "SIZE ON SIZE" TAPS WILL NOT BE PERMITTED UNLESS MADE BY THE USE OF AN APPROVED FULL-CIRCLE GASKETED TAPPING SLEEVE. CONCRETE BLOCKING SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES A MINIMUM OF 24 HOURS PRIOR TO THE BRANCH BEING PLACED INTO SERVICE. BLOCKING SHALL BE INSPECTED PRIOR TO BACKFILL.
2. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A BLACK POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP SHALL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED INTO SERVICE.
3. CURVILINEAR WASTEWATER DESIGN LAYOUT IS NOT PERMITTED.
4. THRUST BLOCKING OR RESTRAINTS SHALL BE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS AND REQUIRED AT ALL FITTINGS PER DETAIL OR MANUFACTURER'S RECOMMENDATION. ALL FITTINGS SHALL HAVE BOTH THRUST BLOCKING AND RESTRAINTS. MANDEREL TESTING WILL BE REQUIRED ON ALL WASTEWATER PIPE. PER TCQ, THIS TEST MUST BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
6. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AND ORGANIZATION ACCREDITED BY ANSI.
7. DURING PERIODS OF EXTENDED DRY WEATHER, TRENCH BACKFILL MUST BE COMPACTED BY FLOODING THE TRENCHES AS DIRECTED BY THE CITY ENGINEER.
8. ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY STAMPED AS FOLLOWS:

WATER SERVICE	"W" ON TOP OF CURB
WASTEWATER SERVICE	"S" ON TOP OF CURB
VALVE	"V" ON TOP OF CURB

9. TOOLS FOR STAMPING THE CURBS SHALL BE PROVIDED BY THE CONTRACTOR. OTHER APPROPRIATE MEANS OF STAMPING SERVICE AND VALVE LOCATIONS SHALL BE PROVIDED IN AREAS WITHOUT CURBS. SUCH MEANS OF STAMPING SHALL BE SPECIFIED BY THE ENGINEER AND ACCEPTED BY THE CITY OF LEANDER.
10. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF-PW) AND HAVE AN ASTM DESIGN PRESSURE RATING OF AT LEAST 200 PSI.

11. NO PIPE OR FITTING WHICH HAS BEEN USED FOR ANY PURPOSE OTHER THAN THE CONVEYANCE OF DRINKING WATER SHALL BE ACCEPTED OR RELOCATED FOR USE IN ANY PUBLIC DRINKING WATER SUPPLY.
12. MINIMUM DEPTH OF COVER FOR ALL WASTEWATER LINES SHALL BE 48" MINIMUM. WATER LINES SHALL BE 36" MINIMUM UNDER BOTH PAVEMENT AND NATURAL GROUND. STORM SEWER SHALL BE 24" MINIMUM UNDER NATURAL GROUND.
13. THE HYDROSTATIC LEAKAGE RATE SHALL NOT EXCEED THE AMOUNT ALLOWED OR RECOMMENDED BY AWWA FORMULAS.
14. ALL WATER MAINS, DISTRIBUTION LINES AND SERVICE LINES SHALL BE INSTALLED IN ENCASEMENT PIPE UNDERNEATH EXISTING STREETS AND OTHER PAVED SURFACES UNLESS APPROVED WITH PLANS.
15. ALL MECHANICAL RESTRAINTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
16. ALL DEAD-END WATER MAINS SHALL HAVE THRUST RESTRAINTS INSTALLED ON THE LAST THREE PIPE LENGTHS (STANDARD 20' LAYING LENGTH), AT MINIMUM, AND THRUST BLOCKS INSTALLED ON THE PLUG. ADDITIONAL THRUST RESTRAINTS MAY BE REQUIRED BASED UPON THE MANUFACTURER'S RECOMMENDATIONS AND/OR CALCULATIONS BY THE ENGINEER OF RECORD.
17. WHERE WATER LINES CROSS WASTEWATER LINES AND THERE IS LESS THAN 9 FEET CLEARANCE BETWEEN LINES, THE WASTEWATER LINE SHALL BE PLACED SO THAT THE WASTEWATER PIPE SECTION IS CENTERED ON THE WATER LINE AND CONSTRUCTED IN ACCORDANCE WITH TCQ CHAPTERS 217.53(b) AND 290.44(e).
18. PIPE MATERIAL FOR WATER MAINS SHALL BE PVC (AWWA C900-16 MIN. 235 PSI PRESSURE RATING), WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200PSI, SDR-(9)). DUCTILE IRON PIPE (AWWA C115/C151, MIN. PRESSURE CLASS 250) MAY BE USED FOR WATER MAINS WITH THE EXPRESS APPROVAL OF CITY OF LEANDER ENGINEERING.
19. PIPE FOR PRESSURE WASTEWATER MAINS SHALL BE PVC (AWWA C900-16), GREEN AND MARKED FOR SEWER. PIPE MATERIAL FOR GRAVITY WASTEWATER MAINS SHALL BE PVC (ASTM D2241, D3034 MAX. SDR-26 OR PSI 115 F879) OR FIBERGLASS WITH PIPE STIFFNESS OF 72 PSI PER COA SPL VW-509.
20. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C115/C151 PRESSURE CLASS 350).
21. INTERIOR SURFACES OF ALL DUCTILE IRON POTABLE OR RECLAIMED WATER PIPE SHALL BE CEMENT-MORTAR LINED AND SEAL COATED AS REQUIRED BY AWWA C104.
22. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE.
23. THE CONTRACTOR SHALL CONTACT THE ENGINEERING DEPARTMENT INSPECTOR AT 528-2700 AT LEAST 48 HOURS PRIOR TO CONNECTING TO THE EXISTING WATER LINES.
24. ALL MANHOLES SHALL BE CONCRETE WITH CAST IRON RING AND COVER. TAPPING OF FIBERGLASS MANHOLES SHALL NOT BE ALLOWED. EXISTING MANHOLES MODIFIED BY CONSTRUCTION ACTIVITY SHALL BE TESTED FOR LEAKAGE BY VACUUM. ANY EXISTING MANHOLE WHICH FAILS TO PASS THE VACUUM TEST SHALL BE CLOSELY EXAMINED BY THE INSPECTOR AND THE CONTRACTOR TO DETERMINE IF THE MANHOLE CAN BE REPAIRED. THEREAFTER, THE CONTRACTOR SHALL EITHER REPAIR OR REMOVE AND REPLACE THE MANHOLE AS DIRECTED.
26. PIPE CONNECTIONS TO EXISTING MANHOLES AND JUNCTION BOXES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF AUSTIN SPECIFICATION 506.5.F.
27. LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.
28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER STERILIZATION OF ALL CONSTRUCTED POTABLE WATER LINES AND SHALL PROVIDE ALL EQUIPMENT (INCLUDING TEST GAUGES), SUPPLIES (INCLUDING CONCENTRATED CHLORINE DISINFECTING MATERIAL), AND NECESSARY LABOR REQUIRED FOR THE STERILIZATION PROCEDURE. THE STERILIZATION PROCEDURE SHALL BE MONITORED BY CITY OF LEANDER PERSONNEL. WATER SAMPLES WILL BE COLLECTED BY THE CITY OF LEANDER TO VERIFY EACH TREATED LINE HAS ATTAINED AN INITIAL CHLORINE CONCENTRATION OF 50 PPM. WHERE MEANS OF FLUSHING IS NECESSARY, THE CONTRACTOR, AT HIS EXPENSE, SHALL PROVIDE FLUSHING DEVICES AND REMOVE SAID DEVICES PRIOR TO FINAL ACCEPTANCE BY THE CITY OF LEANDER.
29. SAMPLING TAPS SHALL BE BROUGHT UP TO 3 FEET ABOVE GRADE AND SHALL BE EASILY ACCESSIBLE FOR CITY PERSONNEL. AT THE CONTRACTORS' REQUEST, AND IN HIS PRESENCE, SAMPLES FOR BACTERIOLOGICAL TESTING WILL BE COLLECTED BY THE CITY OF LEANDER NOT LESS THAN 24 HOURS AFTER THE TREATED LINE HAS BEEN FLUSHED OF THE CONCENTRATED CHLORINE SOLUTION AND CHARGED WITH WATER APPROVED BY THE CITY.
30. TESTING SHALL BE PERFORMED FOR ALL WASTEWATER PIPE INSTALLED AND FOR ALL POTABLE WATER PIPE INSTALLED. TESTING OF ALL PIPES CONSTRUCTED. THE OWNER'S CONTRACTOR SHALL PROVIDE ALL EQUIPMENT (INCLUDING PUMPS AND GAUGES), SUPPLIES AND LABOR NECESSARY TO PERFORM THE TESTS. THE CONTRACTOR SHALL NOTIFY THE CITY OF LEANDER ENGINEERING DEPARTMENT NO LESS THAN 48 HOURS PRIOR TO PERFORMING STERILIZATION, QUALITY TESTS, OR PRESSURE TESTS. A CITY OF LEANDER INSPECTOR SHALL BE PRESENT FOR ALL TESTS AND SHALL BE PAID FOR BY THE OWNER/CONTRACTOR. THESE SERVICES ARE PAID FOR AT THE TIME OF CONSTRUCTION PLAN SUBMITTAL.
31. THE CONTRACTOR SHALL NOT OPEN OR CLOSE ANY VALVE UNLESS AUTHORIZED BY THE CITY OF LEANDER.
32. ALL VALVE BOXES AND COVERS SHALL BE CAST IRON.
33. ALL WATER VALVE COVERS ARE TO BE PAINTED BLUE.
34. ALL WATER METER BOXES SHALL BE:
  - a. SINGLE, 1" METER AND BELOW DFW37F-12-1CA, OR EQUAL
  - b. DUAL, 1" METERS AND BELOW DFW39F-12-1CA, OR EQUAL
  - c. 1.5" SINGLE METER DFW65C-14-1CA, OR EQUAL
  - d. 2" SINGLE METER DFW1730F-12-1CA, OR EQUAL
35. SAND, AS DESCRIBED IN AUSTIN SPECIFICATION ITEM 510 PIPE, SHALL NOT BE USED AS BEDDING FOR WATER AND WASTEWATER LINES. ACCEPTABLE BEDDING MATERIALS ARE PIPE BEDDING STONE, PEA GRAVEL AND IN LIEU OF SAND, A NATURALLY OCCURRING OR MANUFACTURED STONE MATERIAL CONFORMING TO ASTM C33 FOR STONE QUALITY AND MEETING THE FOLLOWING GRADATION SPECIFICATION:

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

36. THE CONTRACTOR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY LINES MAY HAVE TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND POSSIBLY BETWEEN 12 AM AND 6 AM.
37. ALL WASTEWATER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).

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

STREET AND DRAINAGE NOTES

1. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, OR ANY OTHER ACCESSIBILITY LEGISLATION, AND DOES NOT WARRANT OR APPROVE THESE PLANS FOR ANY ACCESSIBILITY STANDARDS.
2. PRIOR TO ACCEPTANCE THE ENGINEER SHALL SUBMIT DOCUMENTATION THAT THE IMPROVEMENTS WERE INSPECTED BY TDLR OR A REGISTERED ACCESSIBILITY SPECIALIST (RAS) AND ARE IN COMPLIANCE WITH THE REQUIREMENTS OF THE TABA.
3. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY THE CITY OF LEANDER AFTER COMPLETION. THE CONTRACTOR SHALL NOTIFY THE CITY OF LEANDER ENGINEERING DEPARTMENT AT 528-2700 NO LESS THAN 48 HOURS PRIOR TO ANY TESTING.
4. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.
5. A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED BETWEEN THE CURB AND RIGHT-OF-WAY AND IN ALL DRAINAGE CHANNELS EXCEPT CHANNELS CUT IN STABLE ROCK.
6. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT, INCLUDING GAS, ELECTRIC TELEPHONE, CABLE TV, ETC., SHALL BE A MINIMUM OF 36" BELOW SUBGRADE.
7. STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF 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 OF LEANDER PUBLIC WORKS DEPARTMENT.
8. BARRICADES BUILT TO THE CITY OF LEANDER STANDARDS SHALL BE ERECTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB AND PUBLIC SAFETY.
9. ALL REINFORCED CONCRETE PIPE SHALL BE MINIMUM CLASS III OF TONGUE AND GROOVE OR O-RING JOINT DESIGN.
10. THE CONTRACTOR IS TO NOTIFY THE ENGINEERING INSPECTOR 48 HOURS PRIOR TO THE FOLLOWING TESTING: PROOF ROLLING, SUB-GRADE AND EVERY LIFT OF ROADWAY EMBANKMENT, IN-PLACE DENSITY TESTING OF EVERY BASE COURSE, AND ASPHALT CORES. ALL OF THIS TESTING MUST BE WITNESSED BY A CITY OF LEANDER REPRESENTATIVE.
11. THE CONTRACTOR MUST PROVIDE A PNEUMATIC TRUCK PER TXDOT SPEC FOR PROOF ROLLING.
12. AT INTERSECTIONS WHICH HAVE VALLEY DRAINAGE, THE CROWNS OF THE INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
13. AT THE INTERSECTION OF TWO 44' STREETS OR LARGER, THE CROWNS OF THE INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
14. A CURB LAYDOWN IS REQUIRED AT ALL POINTS WHERE THE PROPOSED SIDEWALK INTERSECTS THE CURB.
15. ALL STRIPING, WITH THE EXCEPTION OF STOP BARS, CROSS WALKS, WORDS AND ARROWS, IS TO BE TYPE II (WATER BASED), STOP BARS, CROSS WALKS, WORDS AND ARROWS REQUIRE TYPE I THERMOPLASTIC.
16. MANHOLE FRAMES, COVERS, VALVES, CLEAN-OUTS, ETC. SHALL BE RAISED TO GRADE PRIOR TO FINAL PAVEMENT CONSTRUCTION.
17. THE CONTRACTOR SHALL NOTIFY THE LEANDER ENGINEERING DEPARTMENT AT 528-2700 AT LEAST 48 HOURS PRIOR TO THE INSTALLATION OF ANY DRAINAGE FACILITY WITHIN A DRAINAGE EASEMENT OR STREET ROW. THE METHOD OF PLACEMENT AND COMPACTION OF BACKFILL IN THE CITY'S ROW MUST BE APPROVED PRIOR TO THE START OF BACKFILL OPERATIONS.
18. A STOP BAR SHALL BE PLACED AT ALL STOP SIGN LOCATIONS.
19. A MINIMUM OF SEVEN DAYS OF CURE TIME IS REQUIRED FOR HMAC PRIOR TO THE INTRODUCTION OF PUBLIC VEHICULAR TRAFFIC TO ANY STREETS.
20. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE CONSTRUCTION PLANS.
21. GEOTECHNICAL INVESTIGATION INFORMATION AND PAVEMENT RECOMMENDATIONS WERE PROVIDED BY \_\_\_\_\_. PAVEMENT RECOMMENDATIONS ARE AS FOLLOWS:

TRENCH SAFETY NOTES

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

GRADING NOTES

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

BENCHMARK NOTES

1. BENCHMARKS ARE TIED TO THE CITY OF CEDAR PARK BENCHMARKS AND BE CORRECTLY "GEO-REFERENCED" TO STATE PLANE COORDINATES. A LIST OF THE CITY'S BENCHMARKS CAN BE FOUND AT WWW.CI.CEDAR-PARK.TX.US, CLICK ON CITY SERVICES; NAVIGATE TO E SERVICES. GIS MAPPING AND GIS MAPS AND MONUMENTS. BENCHMARK-  
TBM #1: CITY OF CEDAR GPS MONUMENT 22 - 3" BRASS DISK IN CONCRETE, STANDING ON EAST ROW OF COTTONWOOD CREEK (CR 185), NORTH OF E. WHITESTONE BLVD. (FM 1431), LOOKING NORTH. ELEV= 915.49

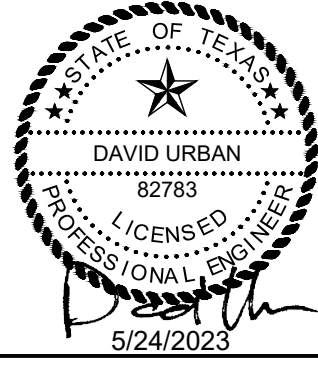
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY WATER POLLUTION ABATEMENT PLAN GENERAL CONSTRUCTION NOTES

1. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
  - THE NAME OF THE APPROVED PROJECT;
  - THE ACTIVITY START DATE; AND
  - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.
3. IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.
4. NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.
5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
6. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.
7. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.
8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.
9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.
10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14<sup>TH</sup> DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21<sup>ST</sup> DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14<sup>TH</sup> DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
  - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
  - THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
  - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
  - A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
  - B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
  - C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

AUSTIN REGIONAL OFFICE  
12100 PARK 35 CIRCLE, BUILDING A  
AUSTIN, TEXAS 78753-1808  
PHONE (512) 339-2929  
FAX (512) 339-3795

SAN ANTONIO REGIONAL OFFICE  
14250 JUDSON ROAD  
SAN ANTONIO, TEXAS 78233-4480  
PHONE (210) 490-3096  
FAX (210) 545-4329

2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBE FIRM #F-19351



NO.	DATE	REVISIONS	RECORD

FREEHILL  
FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11651 HERO WAY W LEANDER, TX 78641

TCEQ GENERAL NOTES

PERMIT No.  
**SD-23-0111**  
SHEET No.  
**3**  
OF 56







16.85 ACRES  
BEHINDCITY OF LEANDER  
WILLIAMSON COUNTY, TEXAS

WILLIAMSON COUNTY, TEXAS

1. This subdivision is wholly contained within the current corporate limits of the City of Leander, Texas.
2. No lot in this subdivision shall be occupied until connected to the City of Leander water distribution and wastewater collection facilities.
3. A Building Permit is required from the City of Leander prior to construction of any building or site improvements on any lot in this subdivision.
4. No buildings, fences, landscaping or other structures are permitted within drainage easements shown except as approved by the City of Leander Public Works Department.

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4. No buildings, fences, landscaping or other structures are permitted within drainage easements shown except as approved by the City of Lander Public Works Department.
5. Property Owner shall provide for access to drainage easements as may be necessary and shall not prohibit access by the City of Lander.
6. All easements on private property shall be maintained by the property owner or his or her assigns.
7. In addition to the easement shown herein, a ten (10') foot wide public utility, landscape, and pedestrian access easement is dedicated along and adjacent to all right-of-way and two and a half (2.5') foot wide public utility easement is dedicated along all other easements.
8. The boundary line between this subdivision and the boundaries of the 100-year flood plain as shown on the Flood Insurance Rate Map panel number 48097 (DMSF) for Williamson County, Texas, effective date December 20, 2019.
9. Building setbacks and shown herein shall comply with the most current zoning ordinance of the City of Lander. Additional residential garage setbacks are shown herein shall be required as listed in the current zoning ordinance.
10. Sidewalks shall be installed on the subdivision side of Hero Way. Those sidewalks not abutting a residential, commercial or industrial lot (including sidewalks along street frontages of lots proposed for schools, churches, park lots, detention lots, drainage lots, landscape lots, or similar lots), sidewalks on arterial streets to which access is prohibited, sidewalks on double drainage lots on the side to which access is prohibited, and all sidewalks on safe school routes shall be installed when the City of Lander determines that such sidewalks are needed.
11. All utility lines must be located underground.
12. Approval of this final plat does not constitute the approval of variances or waivers to ordinance requirements.
13. All drive lanes, fire lanes, and driveways within this subdivision shall provide for reciprocal access for ingress and egress to and from the subdivision and to the public right-of-way.
14. As the basis of the development, the applicant shall provide a payment to the City in lieu of a traffic impact analysis (TIA) and a TIA for the entire development indicating that average daily trips are estimated between 2,000.
15. A Subdivision Variance (VA-2-2008) has been approved to Permittee Block Length Section 45 (a)(3) of the Subdivision Ordinance to not require a public right-of-way through the development.
16. City of Lander roadway impact fees is applicable for this development and the fees will be assessed for this development at the date of final plat approval. The fees will be due for building permits issued on or past January 7, 2021.

STATE OF TEXAS

That I, Chris Henderson, am authorized under the laws of the State of Texas to practice the profession of land surveying and hereby state that I prepared this plat from an actual and accurate on-the-ground survey of the land and that the corner monuments shown thereon were properly placed under my personal supervision, in accordance with all City of Leander Ordinance and Codes, and that all existing easements of record as found on the Title Policy provided by Stewart Title Guaranty Company, Commitment GF Number 220069688, issued June 29, 2022 have been shown or noted herein.

Chris Henderson  
Registered Professional  
Land Surveyor, No. 6831  
chris@jphls.com  
Date: February 28, 2023



DFW | Central Texas | West Texas | Houston

5  
OF 56

FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11561 HERO WAY W LEANDER, TX 78641

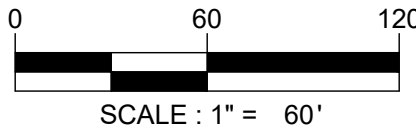
NO.	DATE	REVISIONS	RECOM'D
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2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPE FIRM #F-19351

DRAWN-DOWN

REVIEWED-VALUE





**NOTES:**

PRE-CONSTRUCTION MEETING WITH THE CITY, IS REQUIRED PRIOR TO ANY SITE DISTURBANCE.

REMOVAL OF ALL DEMOLISHED MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE IN SITU ACCORDANCE WITH ALL FEDERAL, STATE, LOCAL MUNICIPAL REQUIREMENTS.

EXISTING UTILITIES, PAVEMENT, CURBS, SIDEWALKS, STRUCTURES, TREE ETC. THAT IS DAMAGED OR MOVED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

CONTRACTOR TO ENSURE THAT NO DEMOLITION ACTIVITIES OCCUR WITHIN THE HALF CRITICAL ROOT ZONE OF TREES PROPOSED TO BE PROTECTED.

MEASURES TO EROSION AND SEDIMENTATION CONTROL SEE FOR TREE PROTECTION DETAILS.

SAFETY: THIS SITE SHALL BE COMPLIANT WITH CHAPTER 33 OF THE INTERNATIONAL FIRE CODE 2015, LINE CONSTRUCTION AND DEMOLITION.

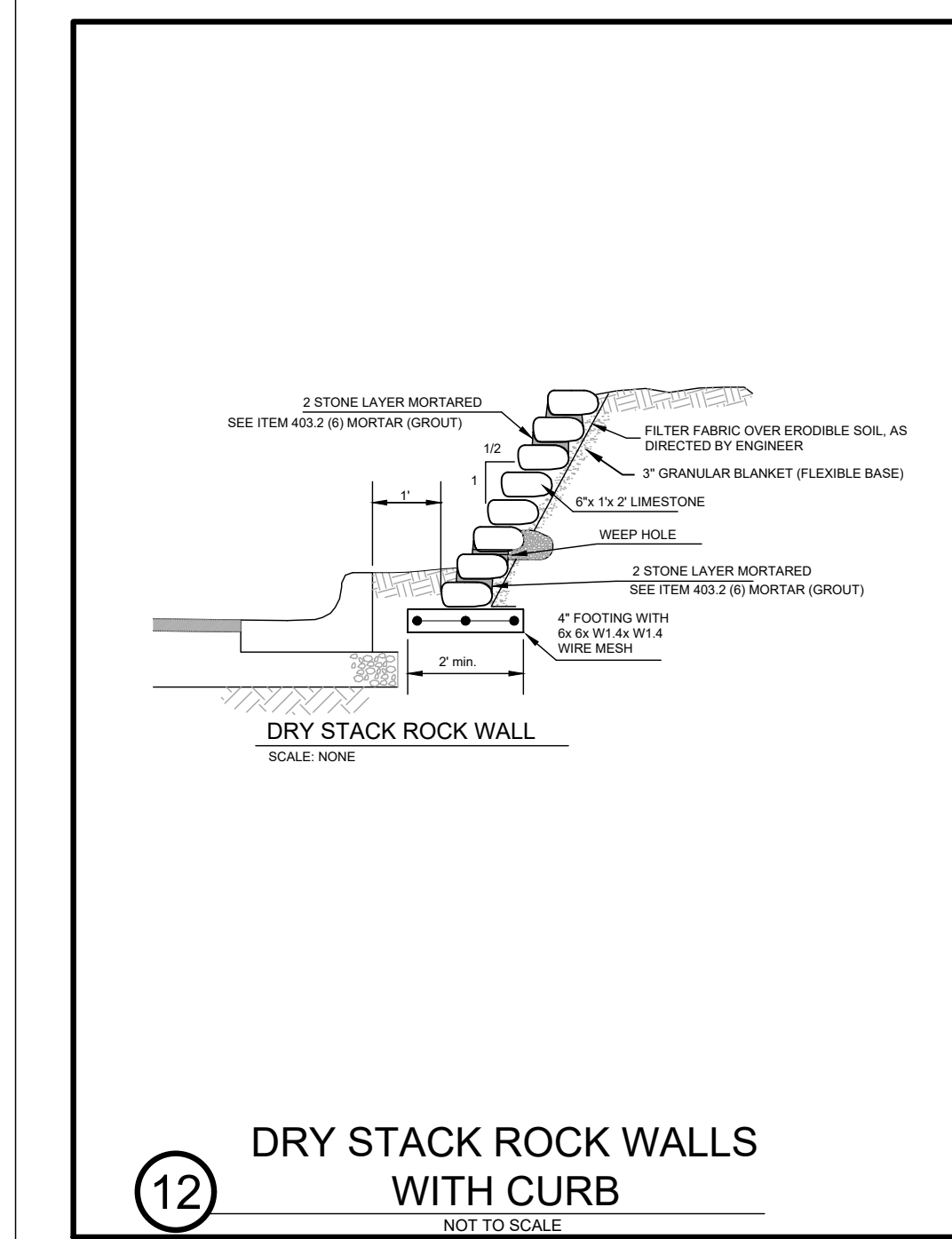
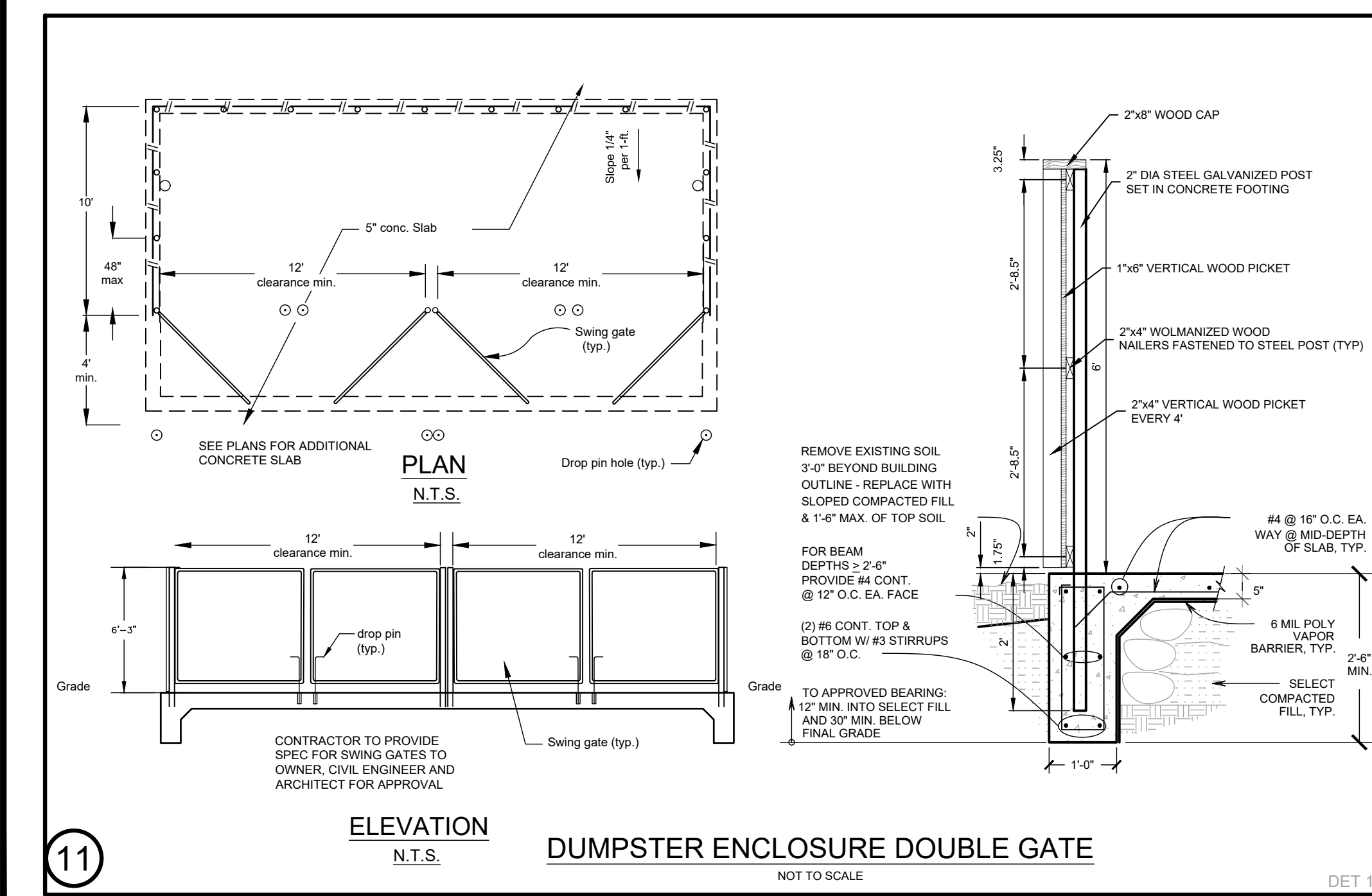
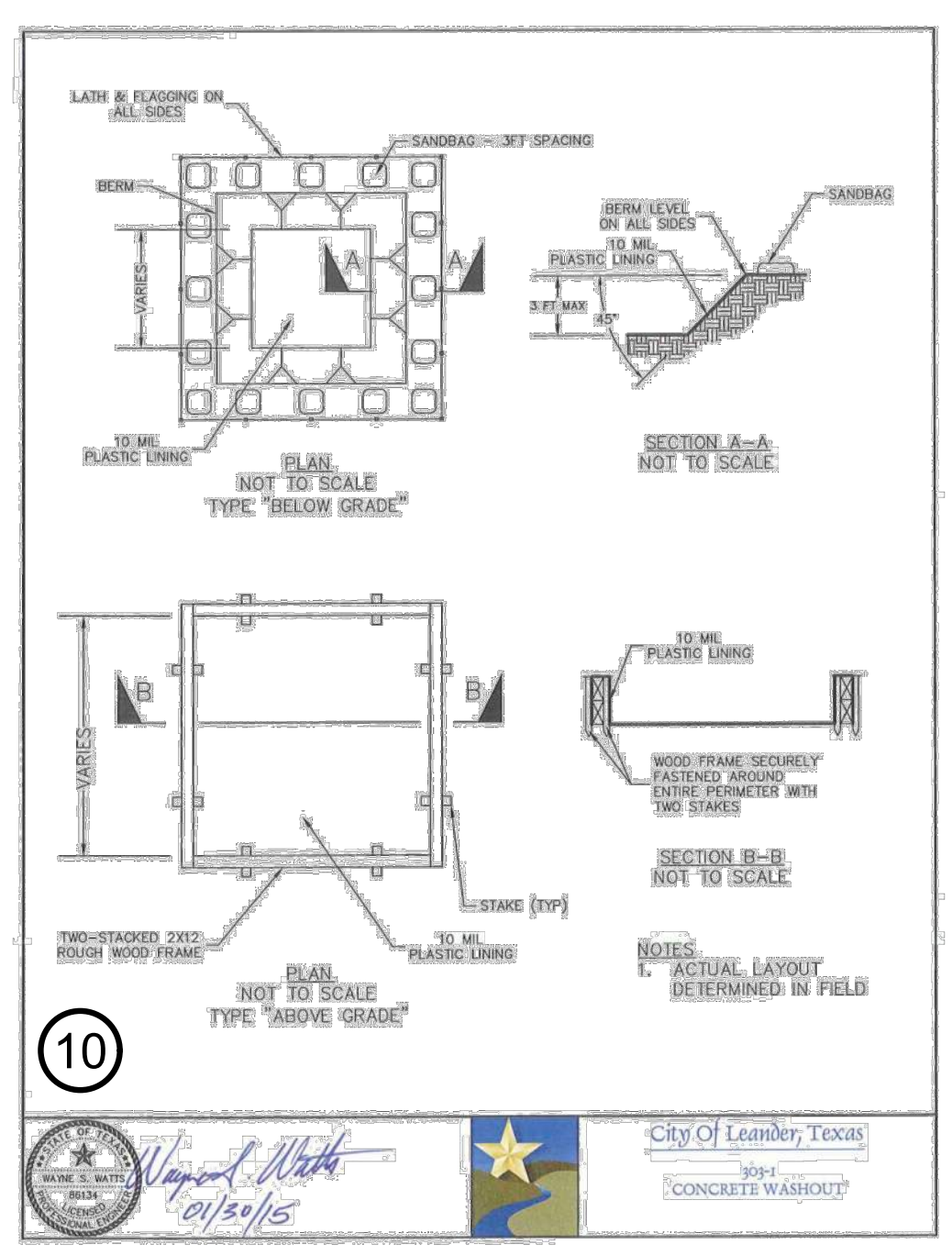
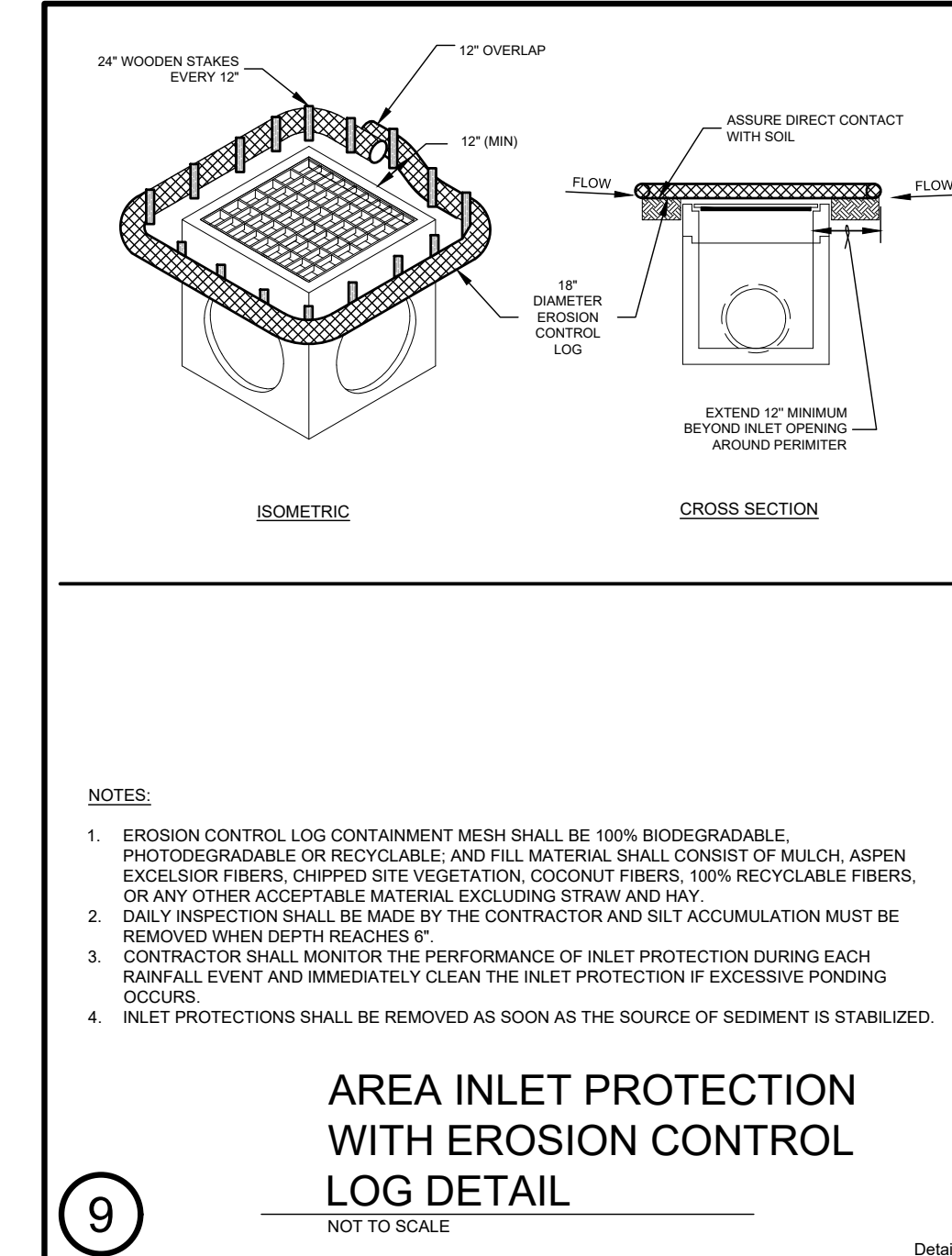
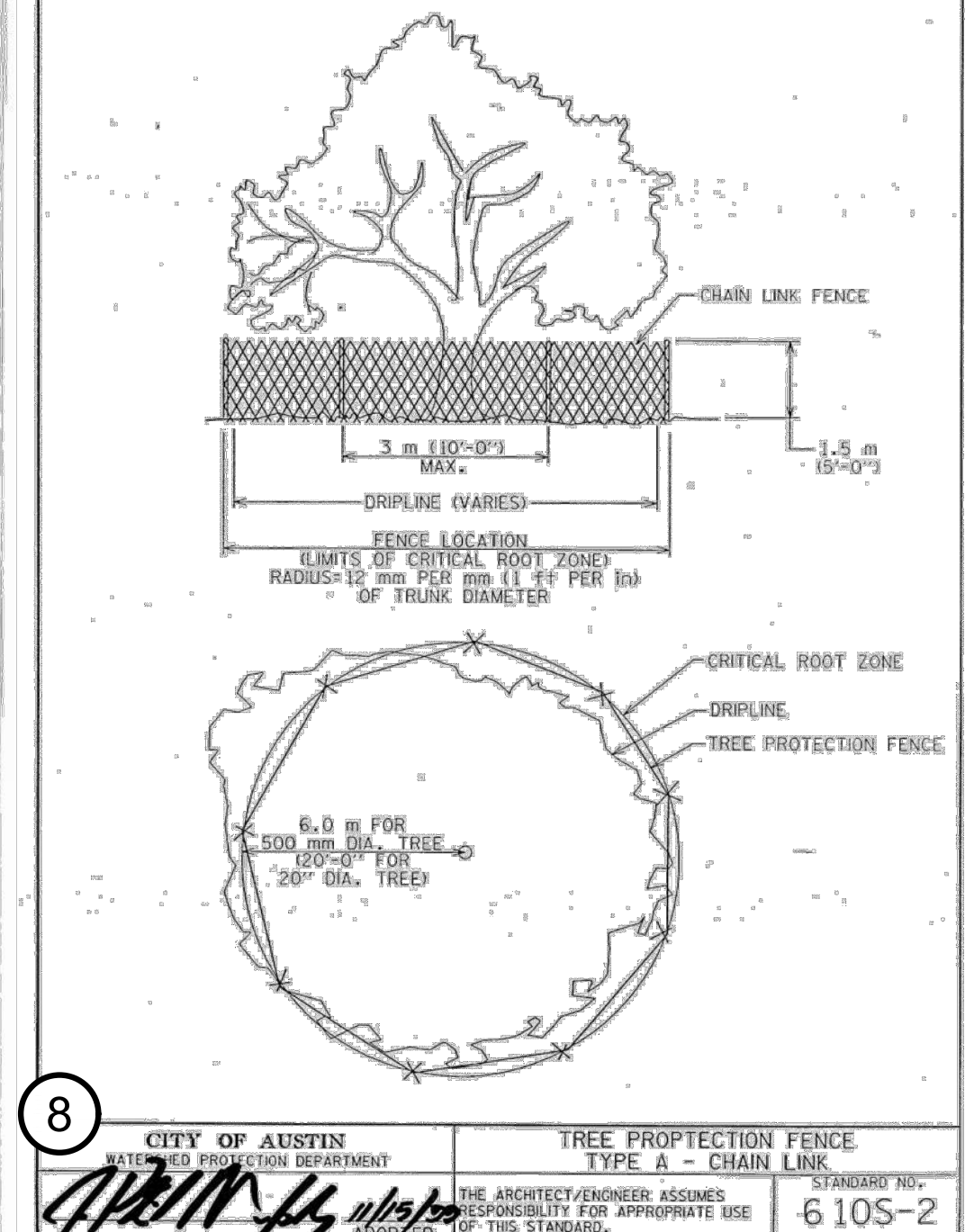
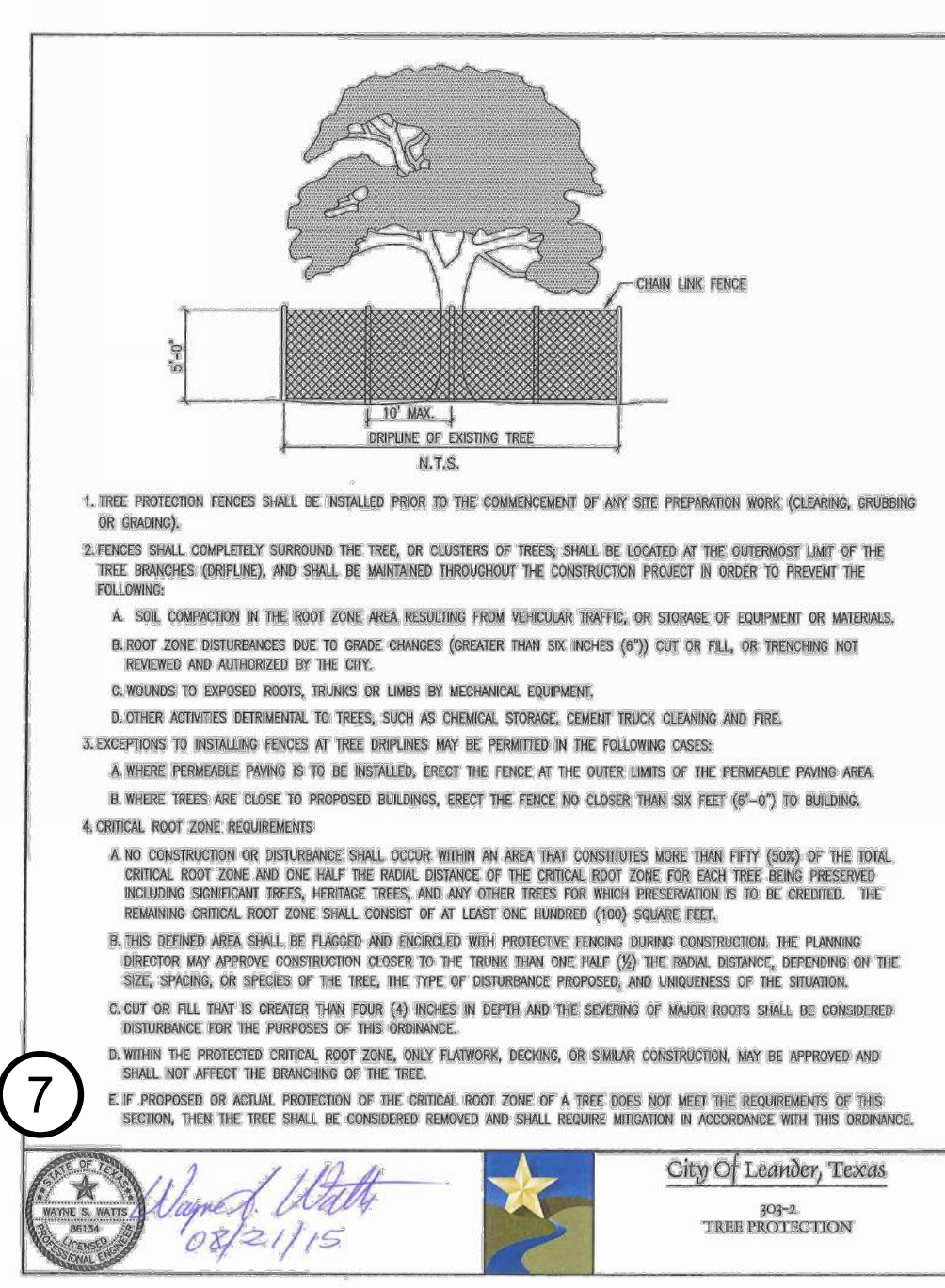
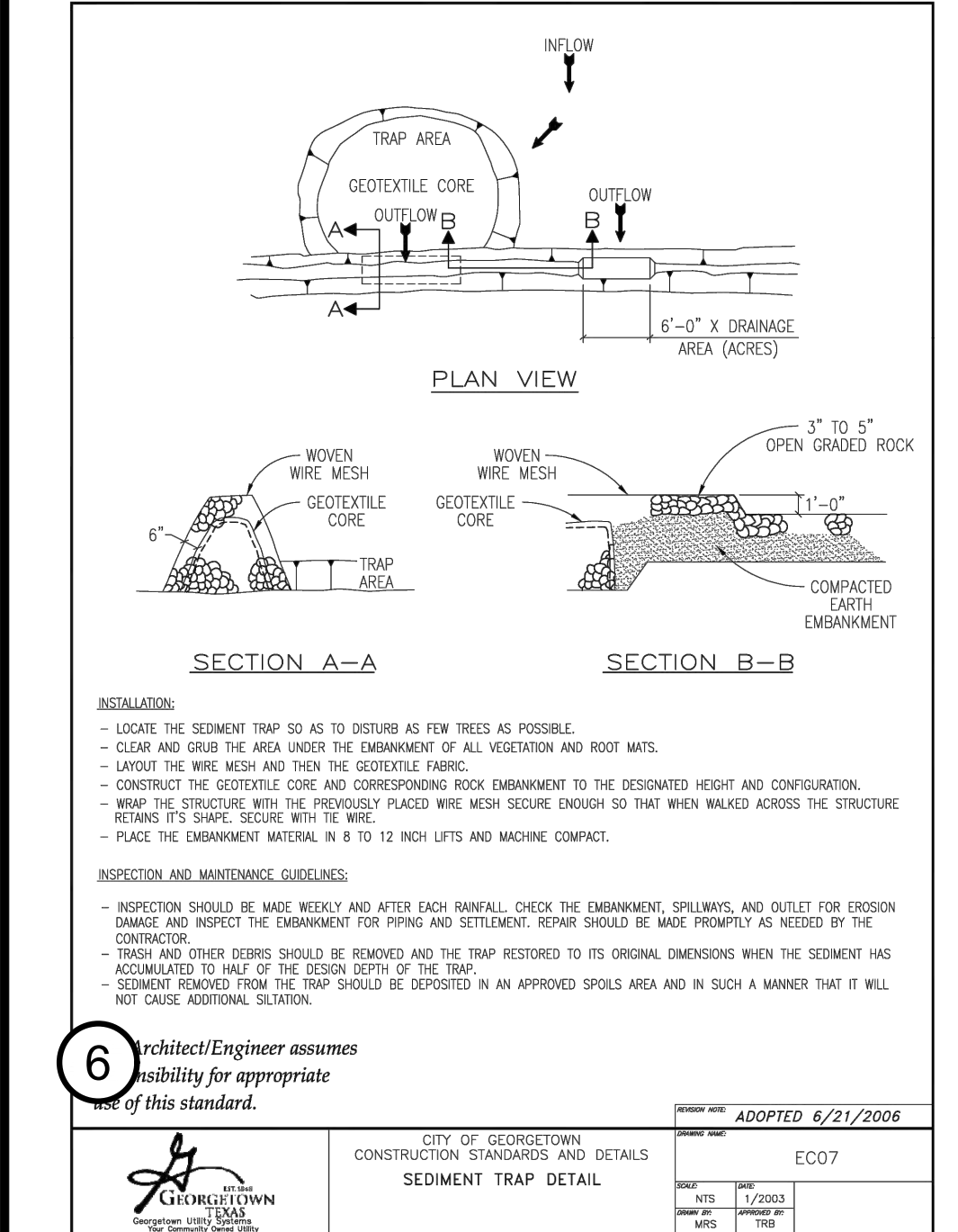
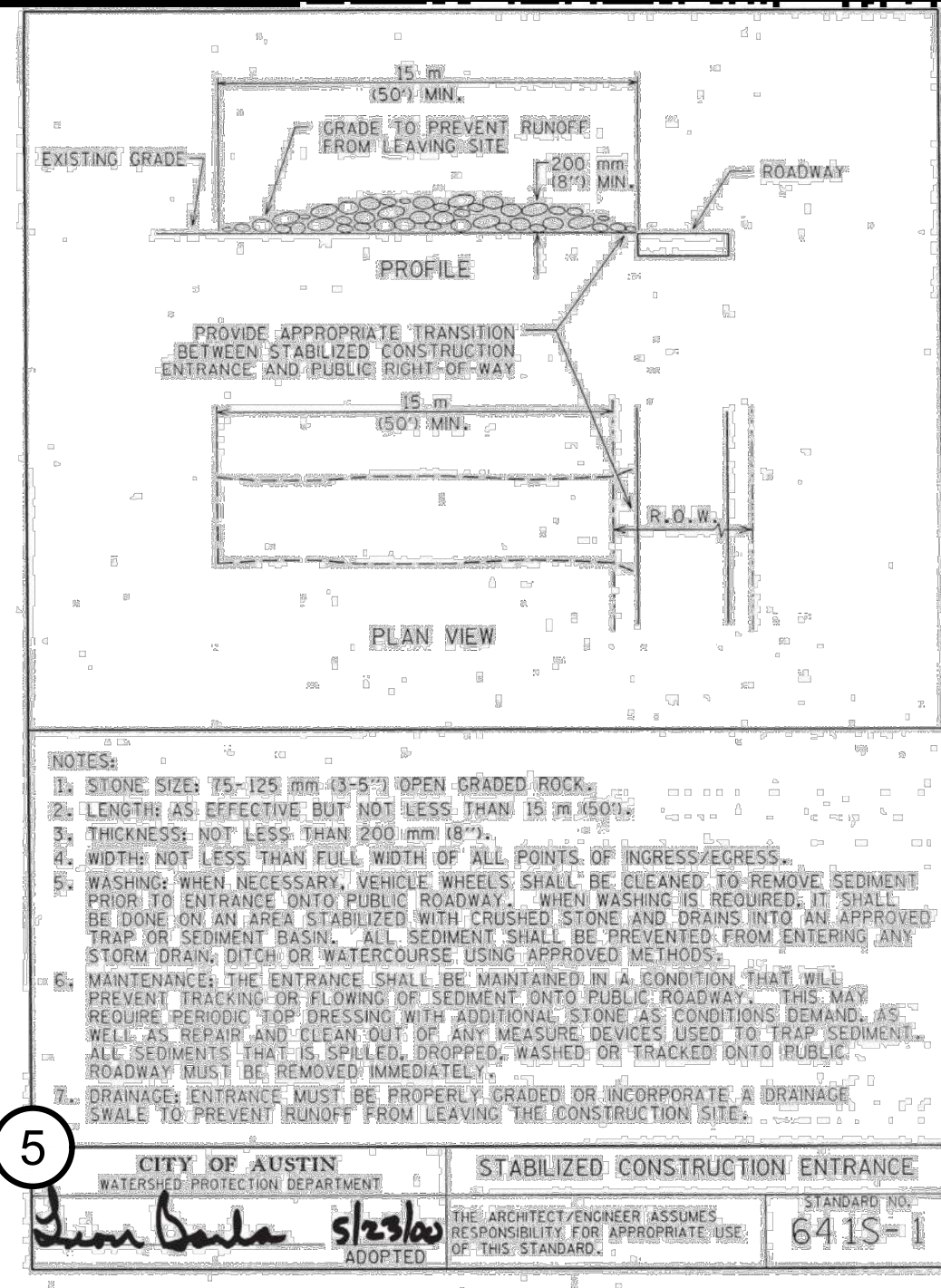
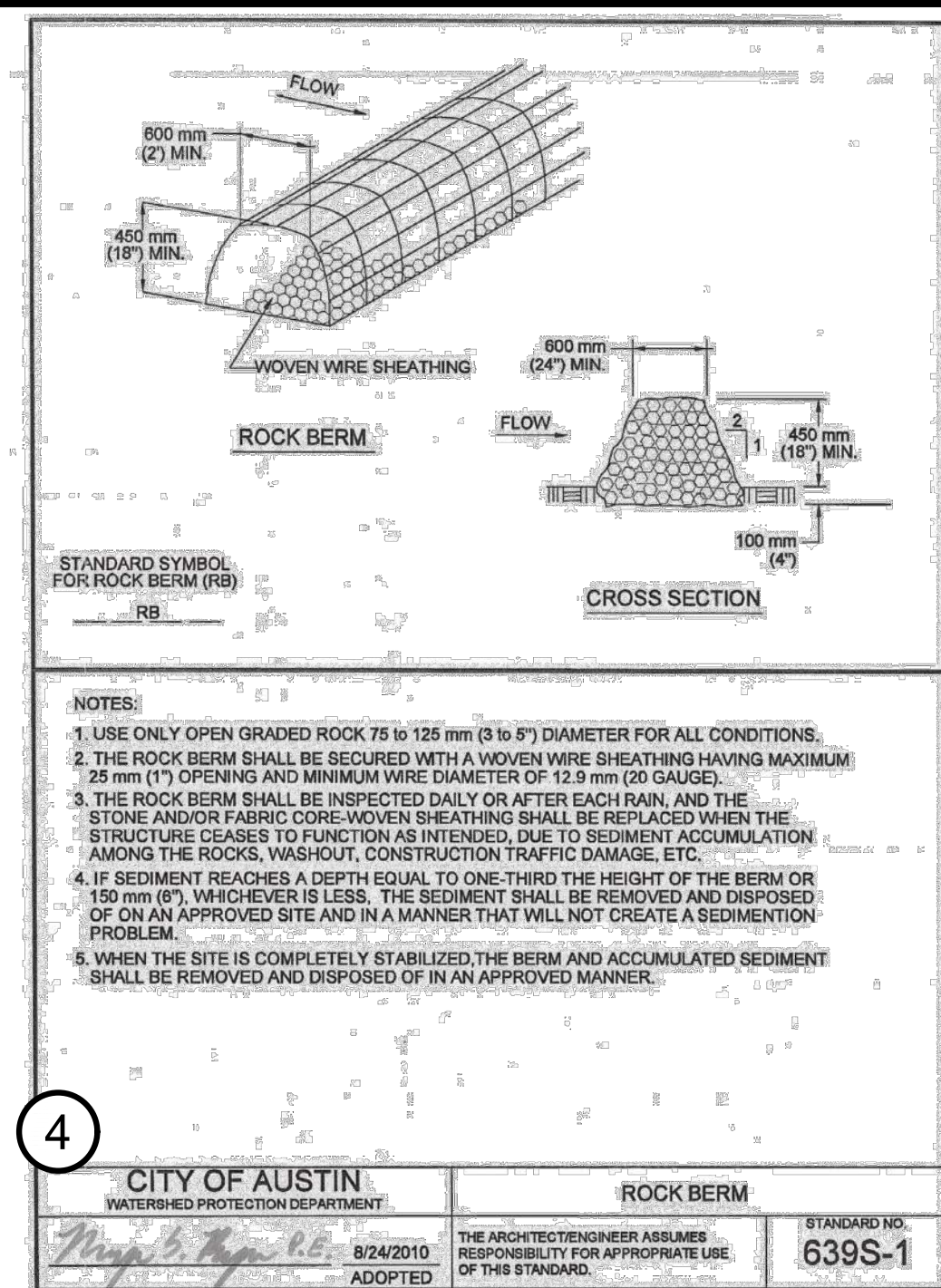
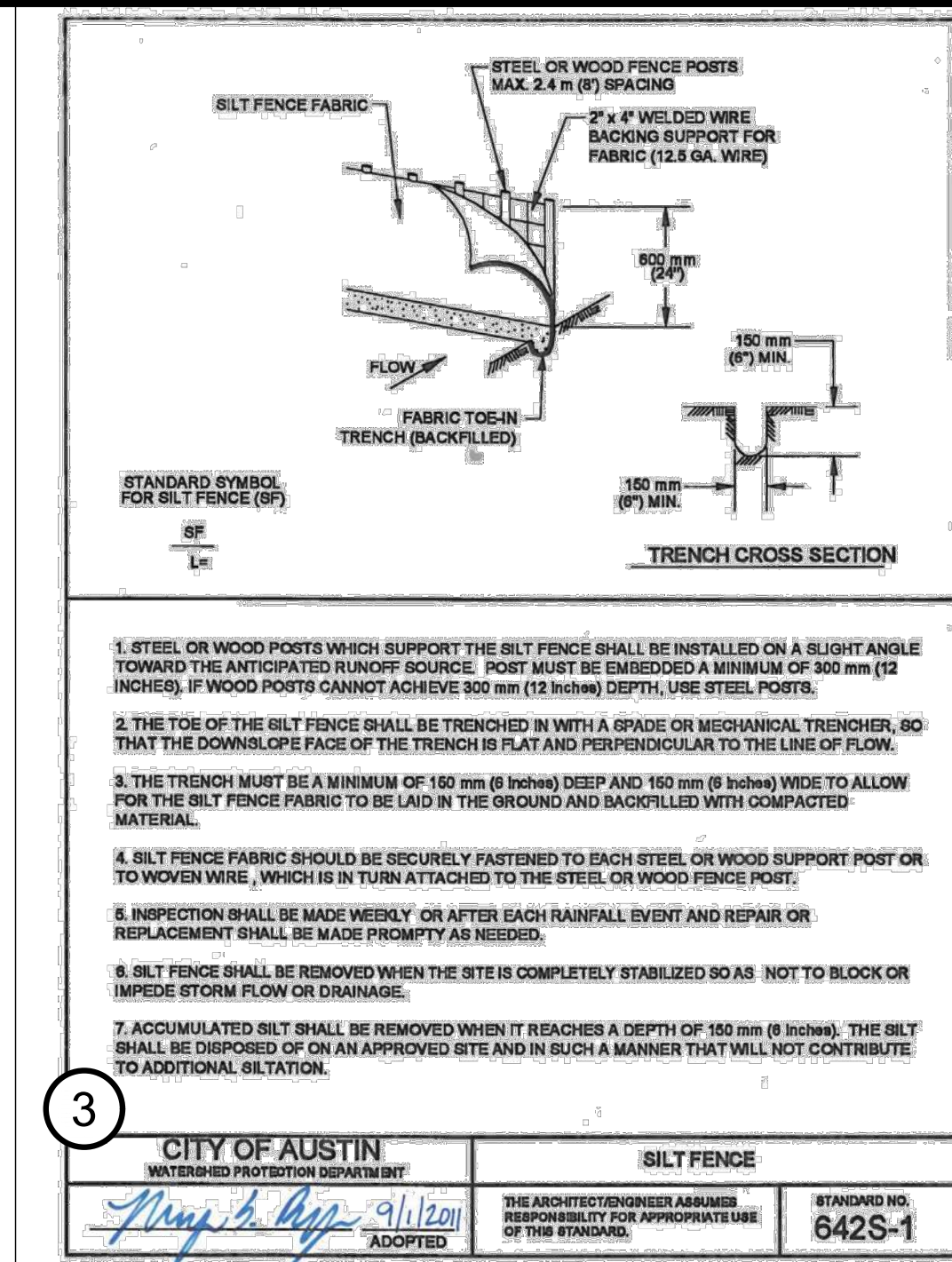
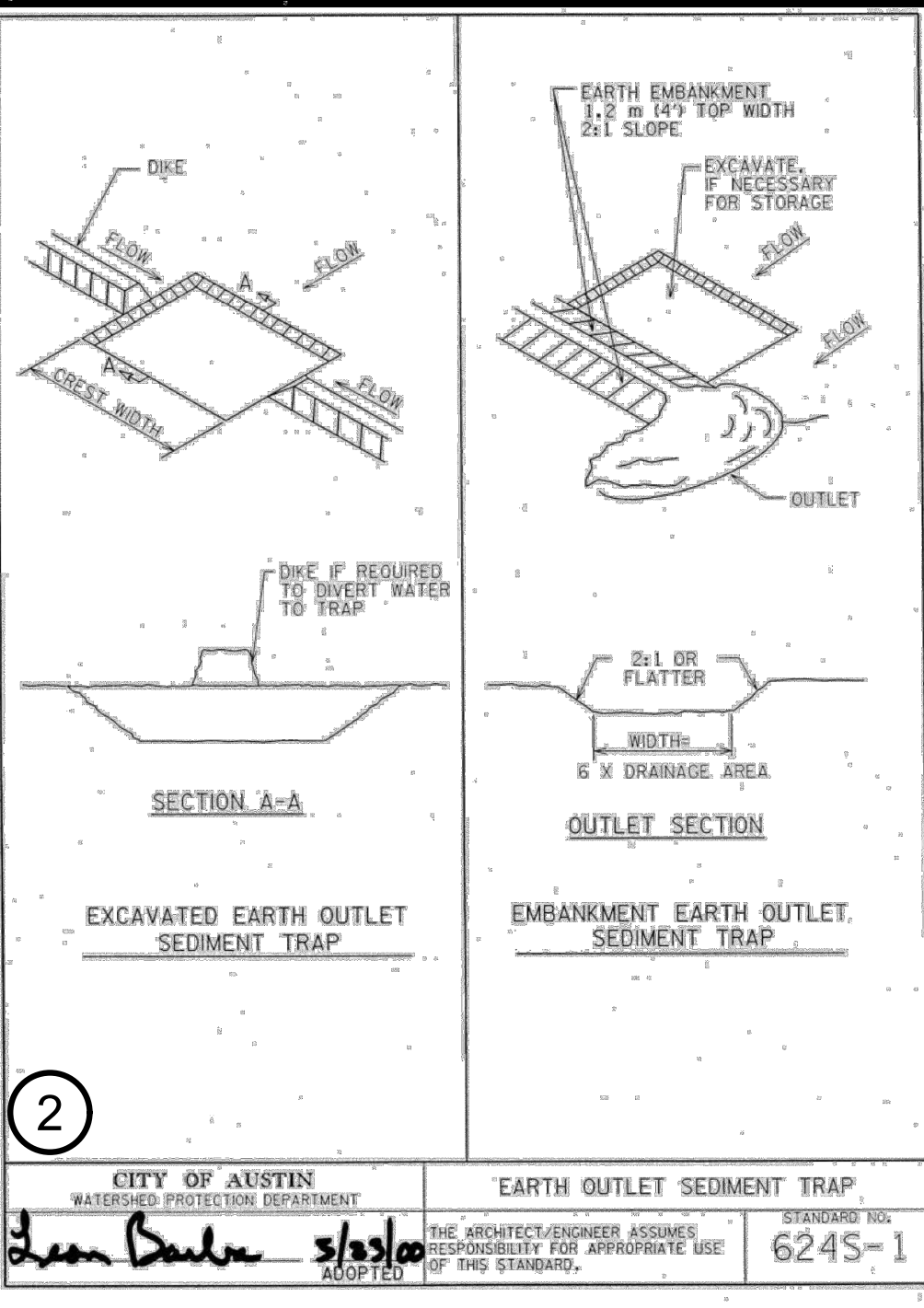
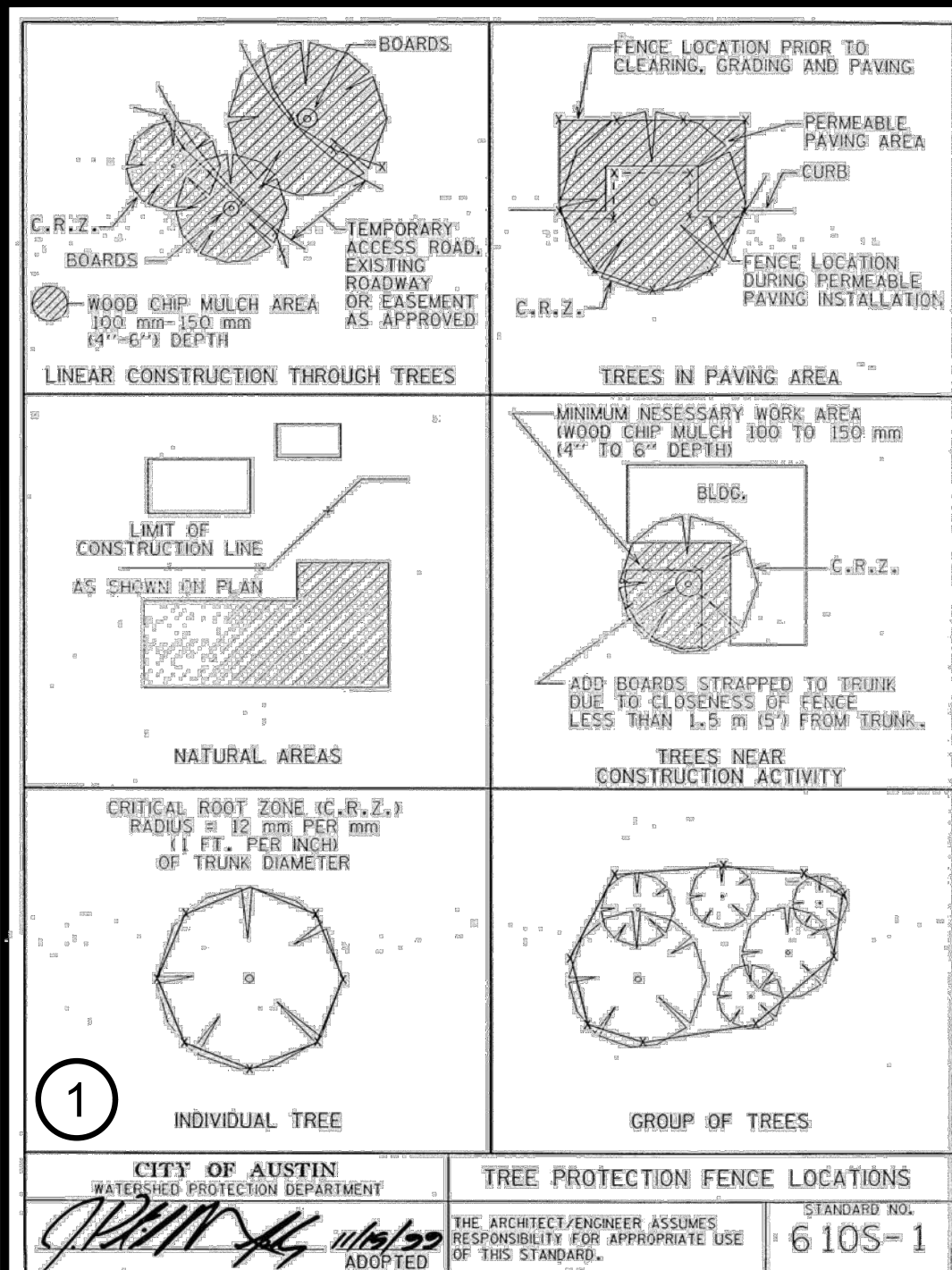
Know what's **below**.  
**Call** before you dig.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.



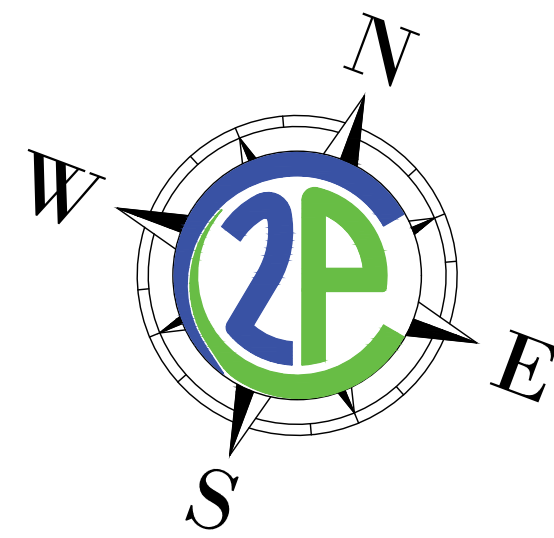
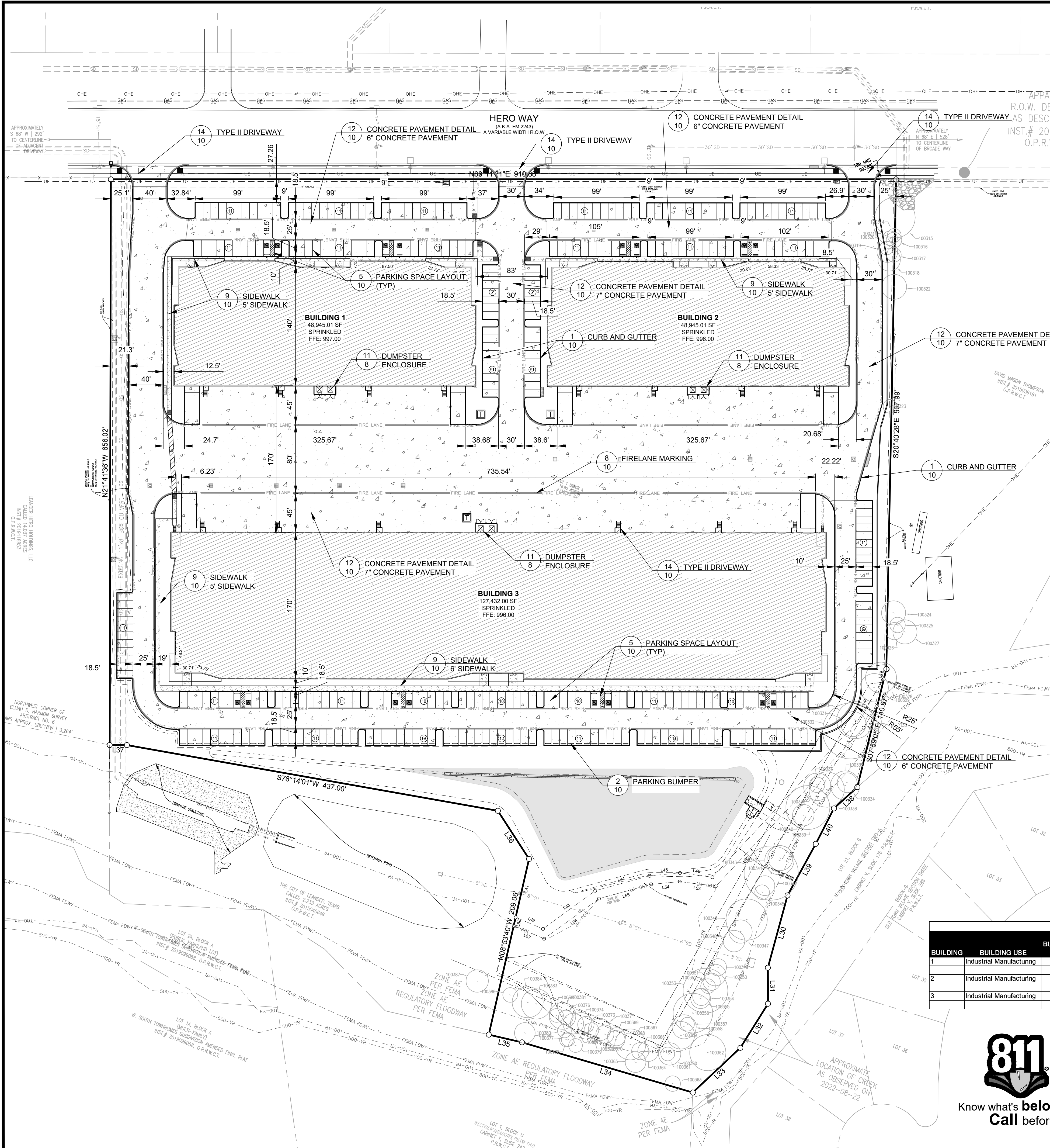








NOTES: 1. YOUR SIGNATURE AND SEAL ARE REQUIRED FOR THIS PLAN.  
2. THIS PLAN IS THE PROPERTY OF 2P CONSULTANTS, LLC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON.  
3. NO PART OF THIS PLAN IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT PERMISSION IN WRITING FROM 2P CONSULTANTS, LLC.  
4. THE CITY OF LEANDER, TEXAS, HAS REVIEWED THIS PLAN AND APPROVED IT FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON.  
5. THE CITY OF LEANDER, TEXAS, HAS REVIEWED THIS PLAN AND APPROVED IT FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON.  
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10. THE CITY OF LEANDER, TEXAS, HAS REVIEWED THIS PLAN AND APPROVED IT FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON.



GENERAL LEGEND	
SYMBOLS	
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	BACKFLOW PREVENTER
	UTILITY POLE
	LIGHT POLE
	WASTEWATER MANHOLE
	CLEAN OUT
	KEYNOTES
	PARKING COUNT
	VW SERVICE
	WATER SERVICE
	STORM SEWER MANHOLE
	SIGN
	CURB INLET
	GRATE INLET
	TABLE TOP AREA INLET
	TREE TO BE SAVED
	TREE TO BE REMOVED

SITE LEGEND	
	FIRE LANE
FIRE ZONE MARKINGS: FIRE LANES TO BE MARKED BY PAINTING THE CURB RED WITH WHITE STENCILING READING "FIRE ZONE-TOW-AWAY ZONE" WITH LETTERING AT LEAST 3-INCHES IN HEIGHT. SUCH STENCILING SHALL BE AT INTERVALS OF 35-FEET OR LESS.	
PAVEMENT TYPES	
	RIBBON CURB
	STANDARD DUTY CONCRETE
	HEAVY DUTY CONCRETE
	SIDEWALKS
	STANDARD DUTY HMA
	HEAVY DUTY HMA
DETAIL NUMBER	DETAIL NAME
SHEET NUMBER	WHERE DETAIL IS LOCATED
#	#
#	DETAIL REFERENCE CALLOUT

#### SITE DATA TABLE

	1 lot	EXISTING	PROPOSED
ZONING DISTRICT	HC - Heavy Commercial	HC - Heavy Commercial	HC - Heavy Commercial
LAND USE	VACANT	Manufacturing, Processing, Assembly Limited	
LOT SIZE	1	733,986 SF	733,986 SF
IMPERVIOUS COVER		16.850 AC	16.850 AC
SF		0 SF	515,408 SF
ACRES		0.000 AC	11.832 AC
PERCENTAGE		0.00%	70.22%
SITE IS LOCATED WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE			
IC Allowable	80%	16.850 AC	587,189 SF
PAVED AREA		0 SF	290,086 SF
BUILDING		0 SF	225,322 SF

#### SITE PLAN NOTES:

- DIMENSIONS ARE SHOWN ON THE DIMENSIONAL CONTROL PLAN. FOR PRECISE DIMENSIONS AND LOCATION OF SITE IMPROVEMENTS, ELECTRONIC FILES OF THE SITE LAYOUT WILL BE MADE AVAILABLE TO THE CONTRACTOR AND HIS SURVEYOR UPON REQUEST. FOR BUILDING DIMENSIONS, CONTRACTOR SHALL USE ARCHITECTURAL AND STRUCTURAL PLANS.
- EXISTING UTILITIES ARE SHOWN PER RECORD DRAWINGS.
- SLOPES ON ACCESSIBLE ROUTES MAY NOT EXCEED 1:20 UNLESS DESIGNED AS A RAMP. THE MAXIMUM SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12. THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 INCHES. REFER TO GRADING SHEET(S).
- ALL SITE UTILITY LINES ARE PROPOSED TO BE LOCATED UNDERGROUND.
- EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PUBLIC ROW OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT PROPOSED.
- AL CLAWSON DISPOSAL, INC. SHALL BE THE SOLE PROVIDER OF WASTE HAULING FOR THIS SITE AFTER CONSTRUCTION.
- AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING.
- GARBAGE DUMPSTERS ARE LOCATED NO CLOSER TO A ROADWAY THAN THE FRONT WALL OF THE PRINCIPAL STRUCTURE LOCATED CLOSEST TO THE ROADWAY. GARBAGE DUMPSTERS ARE SCREENED BY A WALL (COMPRISED OF MASONRY COMPATIBLE WITH THE STRUCTURE OR WOODCRETE) AT LEAST AS HIGH AS THE CONTAINER. THE OPEN SIDE TO THE DUMPSTER OR OTHER TRASH RECEPTACLE IS A GATE CONSTRUCTED OF SOLID WOOD OR METAL. THE DUMPSTER IS ORIENTED FOR PICKUP BY A FRONT LOAD GARBAGE TRUCK.
- FOR 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSED BY PRIVACY FENCE.

BUILDING	BUILDING USE	BUILDING AREA	REQUIRED PARKING/AREA	REQUIRED SPOTS PER ACCESSIBLE USE	REQUIRED SPOTS	PROVIDED STANDARD	TRUCK PARKING	PROVIDED ACCESSIBLE	TOTAL
1	Industrial Manufacturing	48,945	1 SPACE / 600 SF	82		280	44	32	
2	Industrial Manufacturing	48,945	1 SPACE / 600 SF	82					
3	Industrial Manufacturing	127,432	1 SPACE / 600 SF	213	377	312	44	32	388

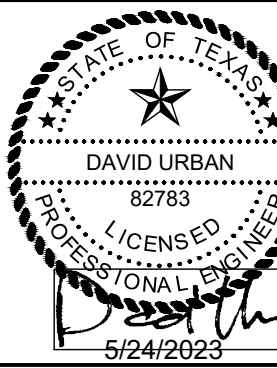


#### CONTRACTOR NOTES:

EXISTING UNDERGROUND AND OVERHEAD UTILITIES IN VICINITY. CONTRACTOR TO CONTACT UTILITY COMPANIES PRIOR TO CONSTRUCTION. CONTRACTOR TO FIELD VERIFY EXISTING UTILITY LOCATIONS & DEPTHS PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.

2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPE FIRM #F-19351



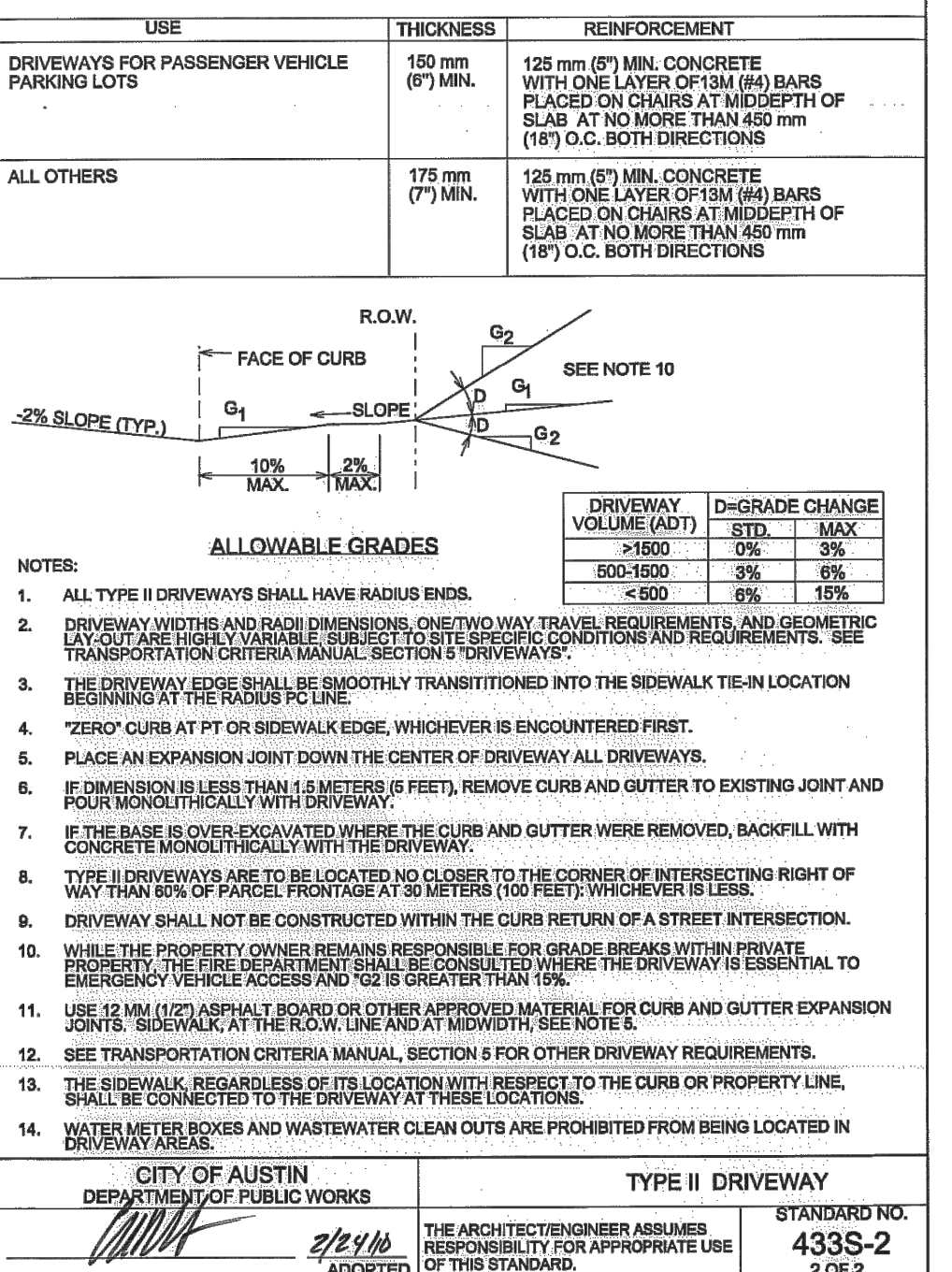
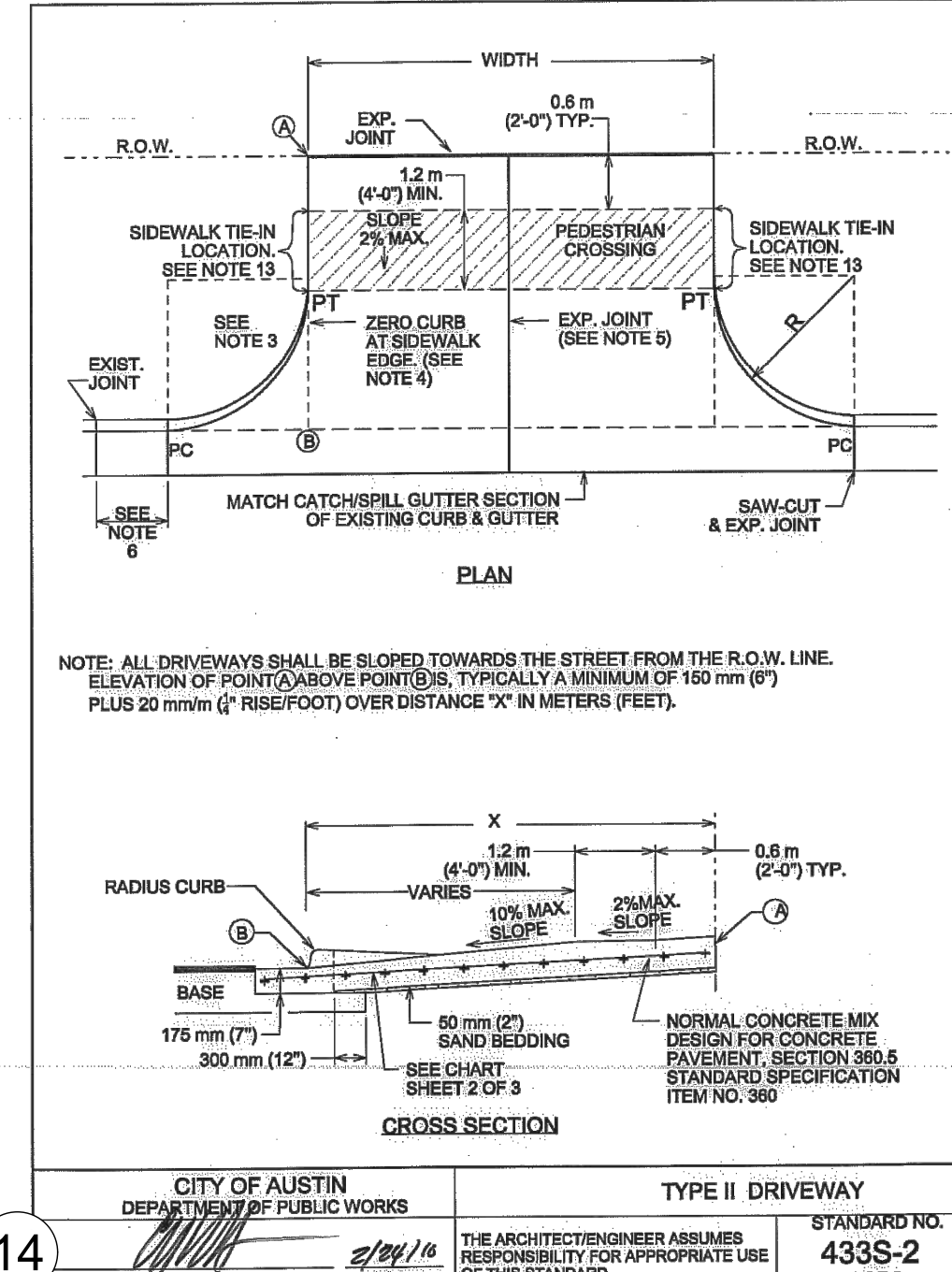
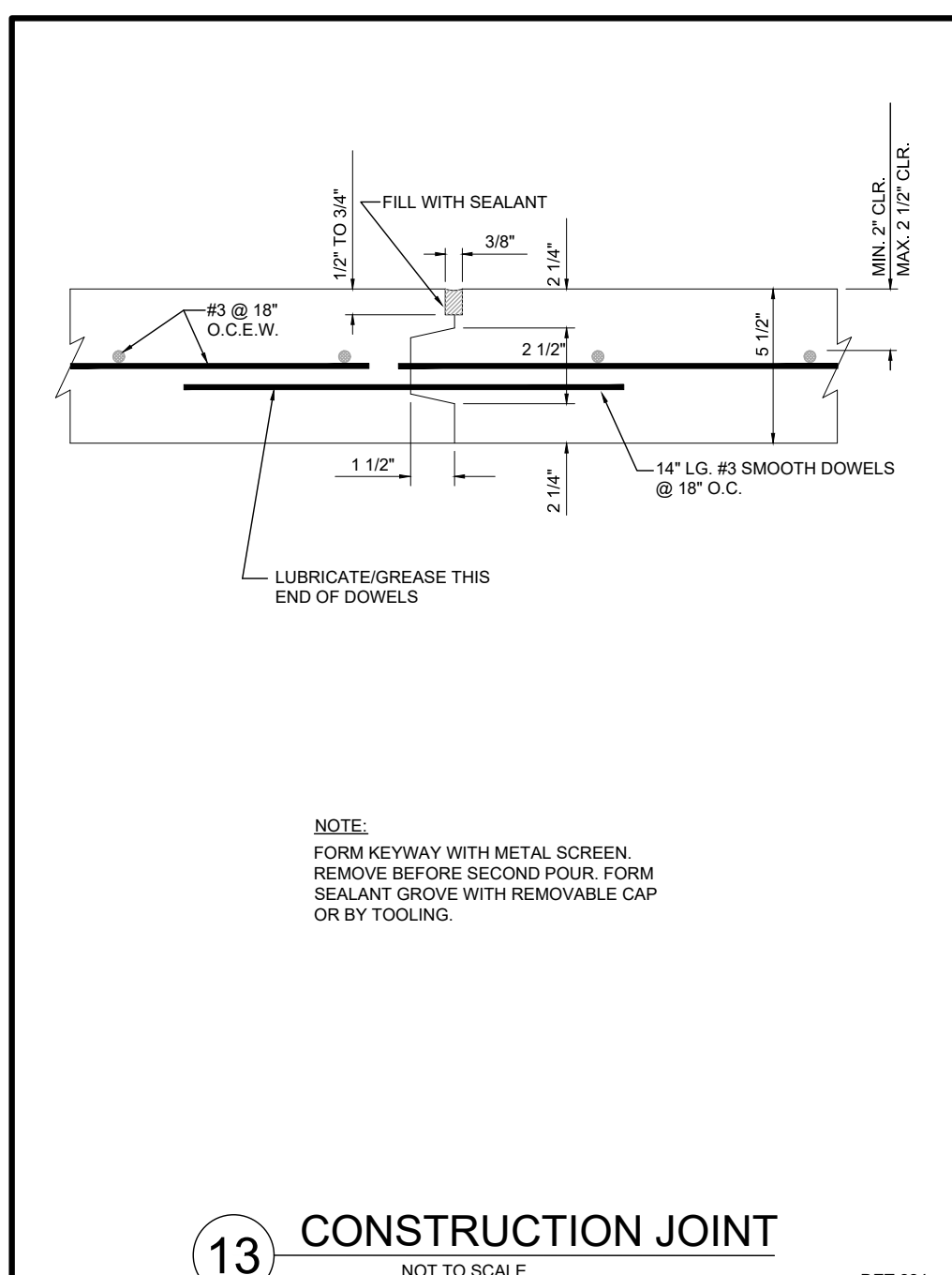
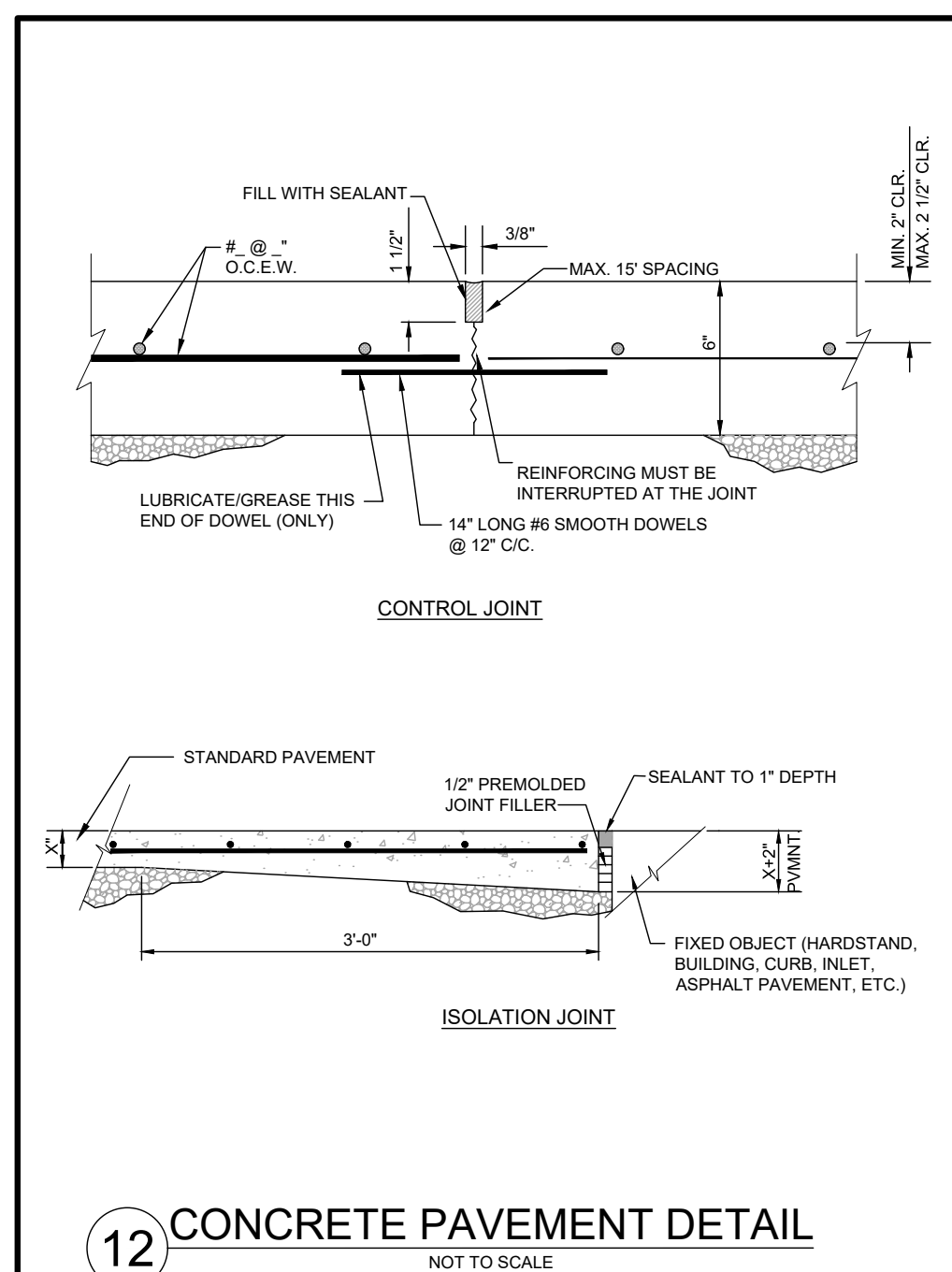
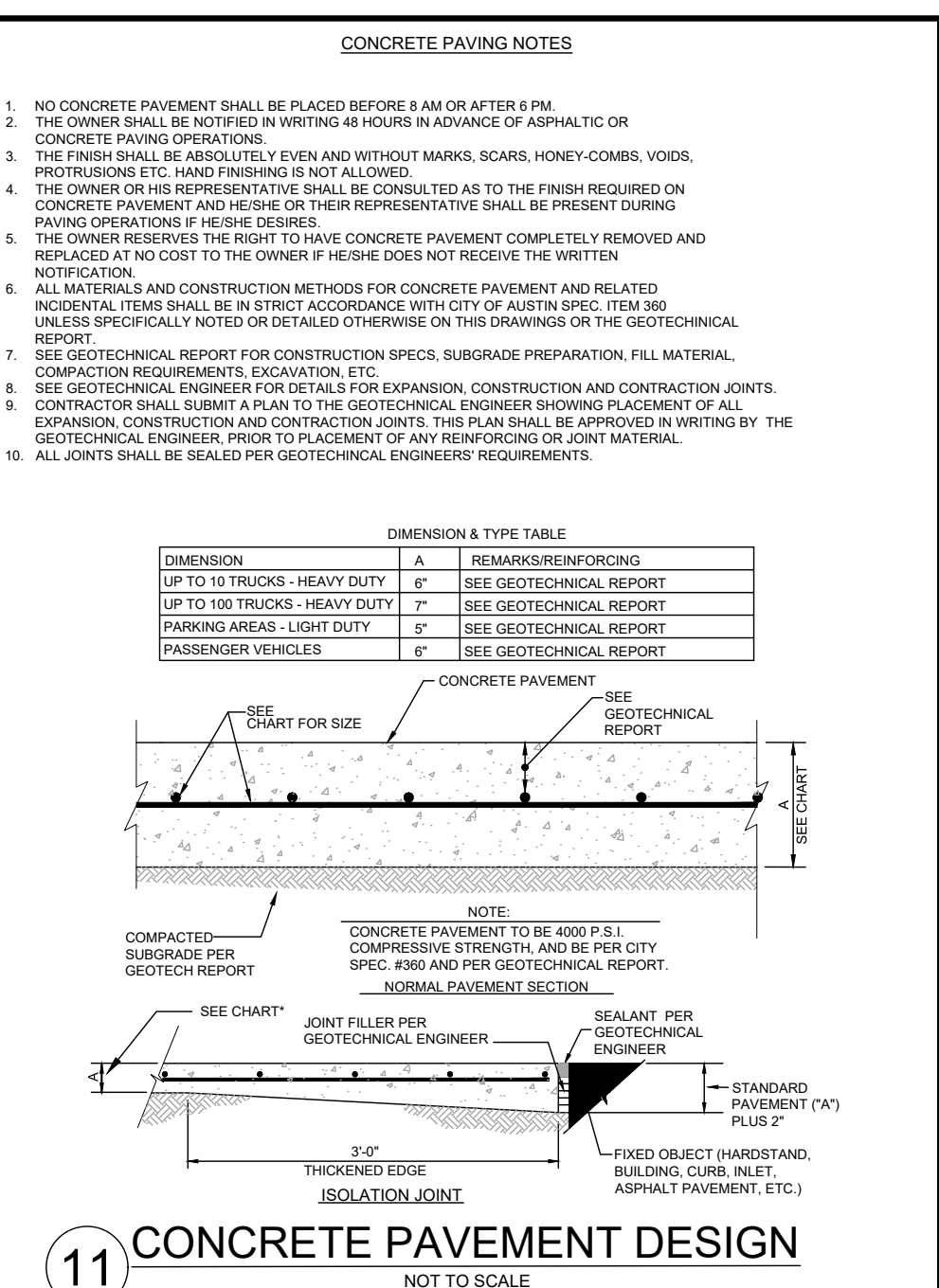
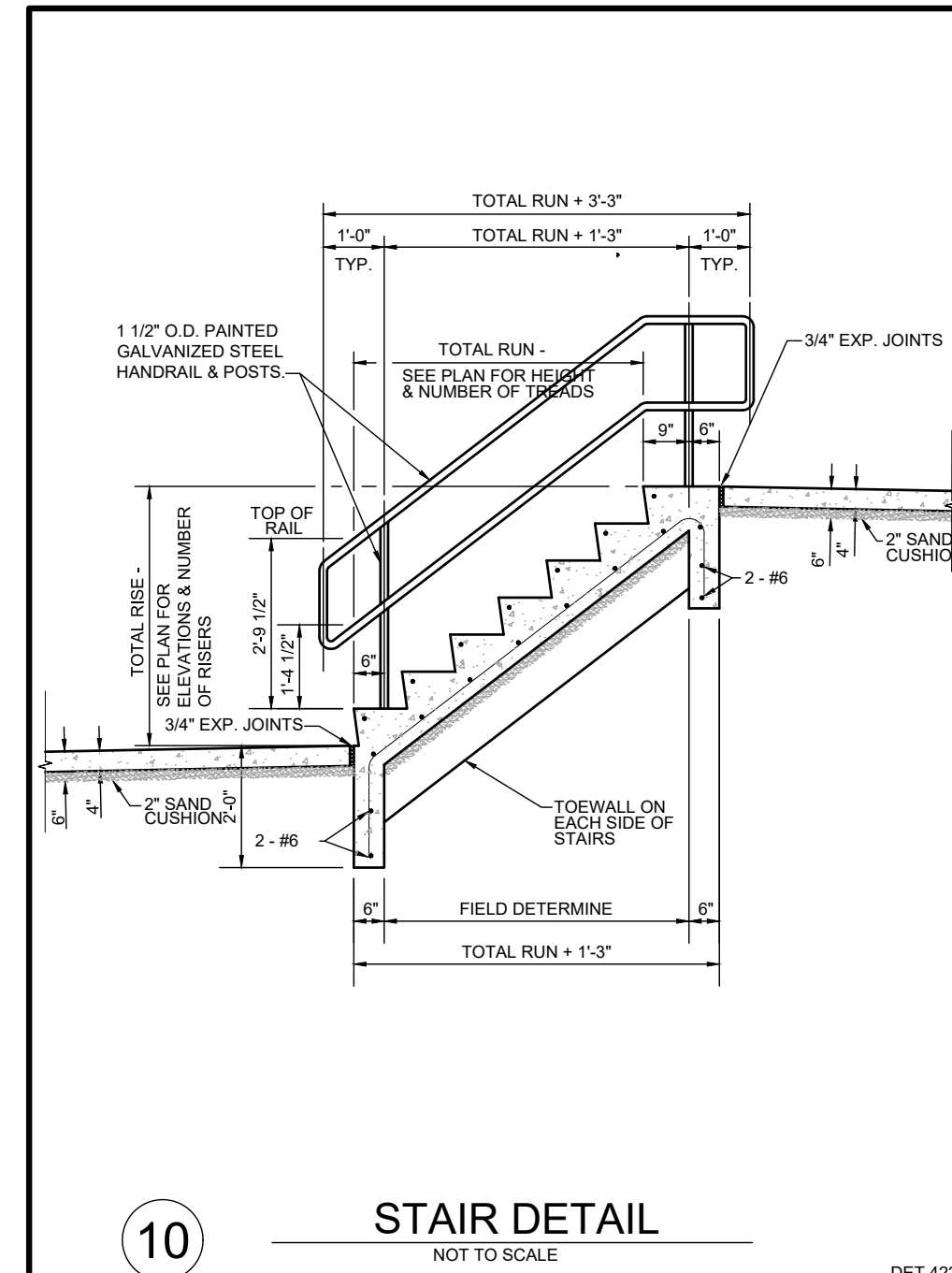
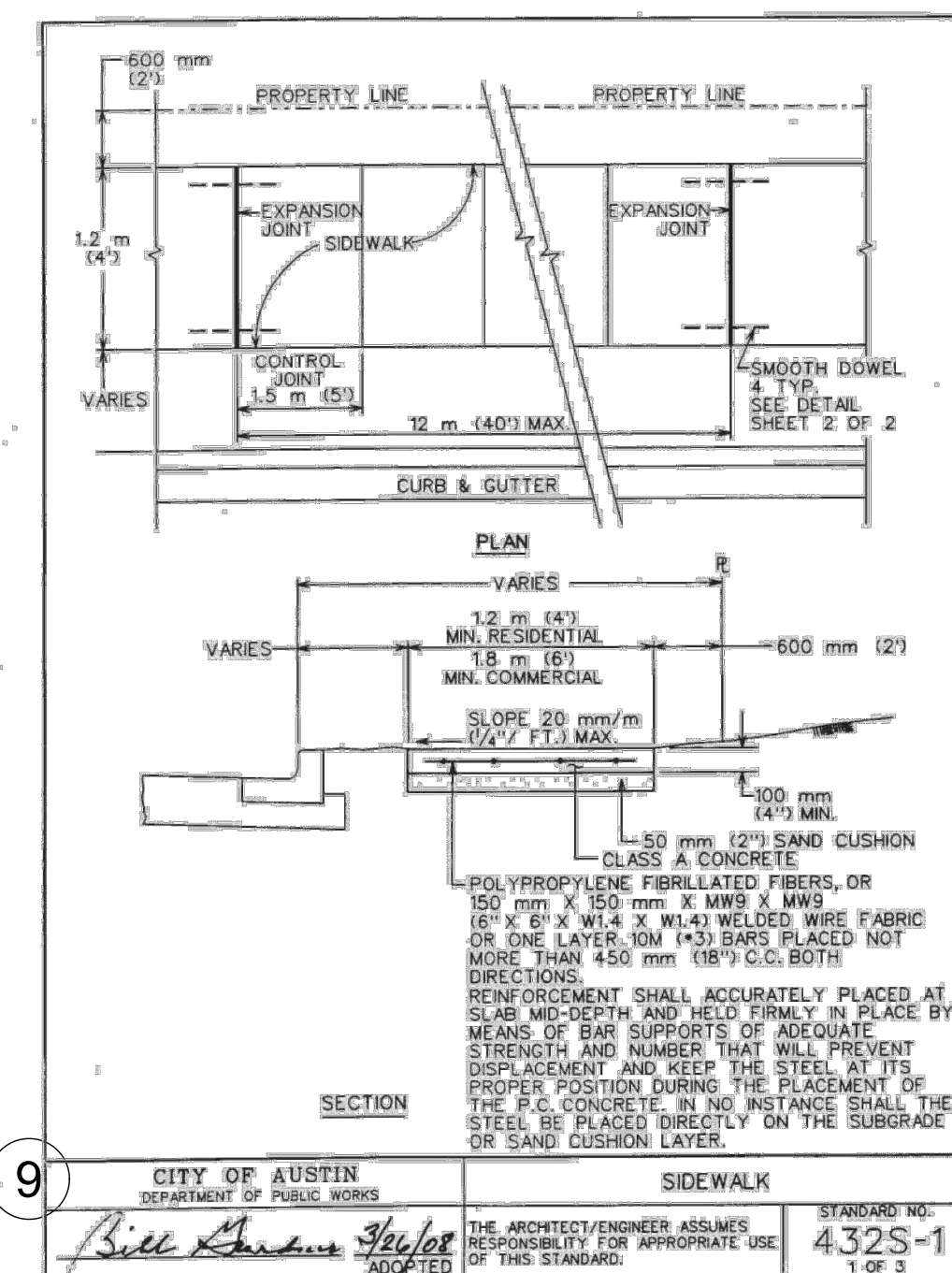
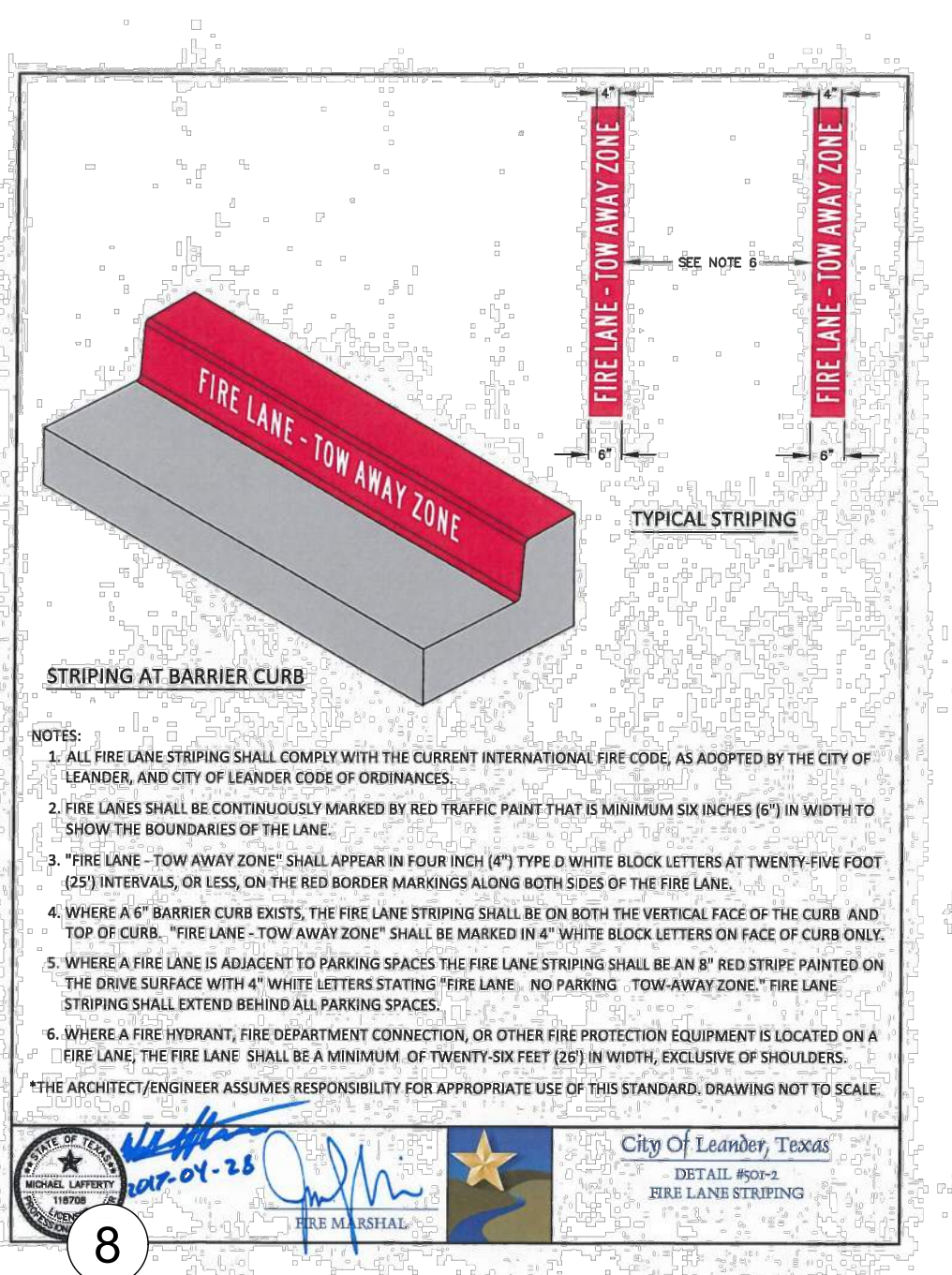
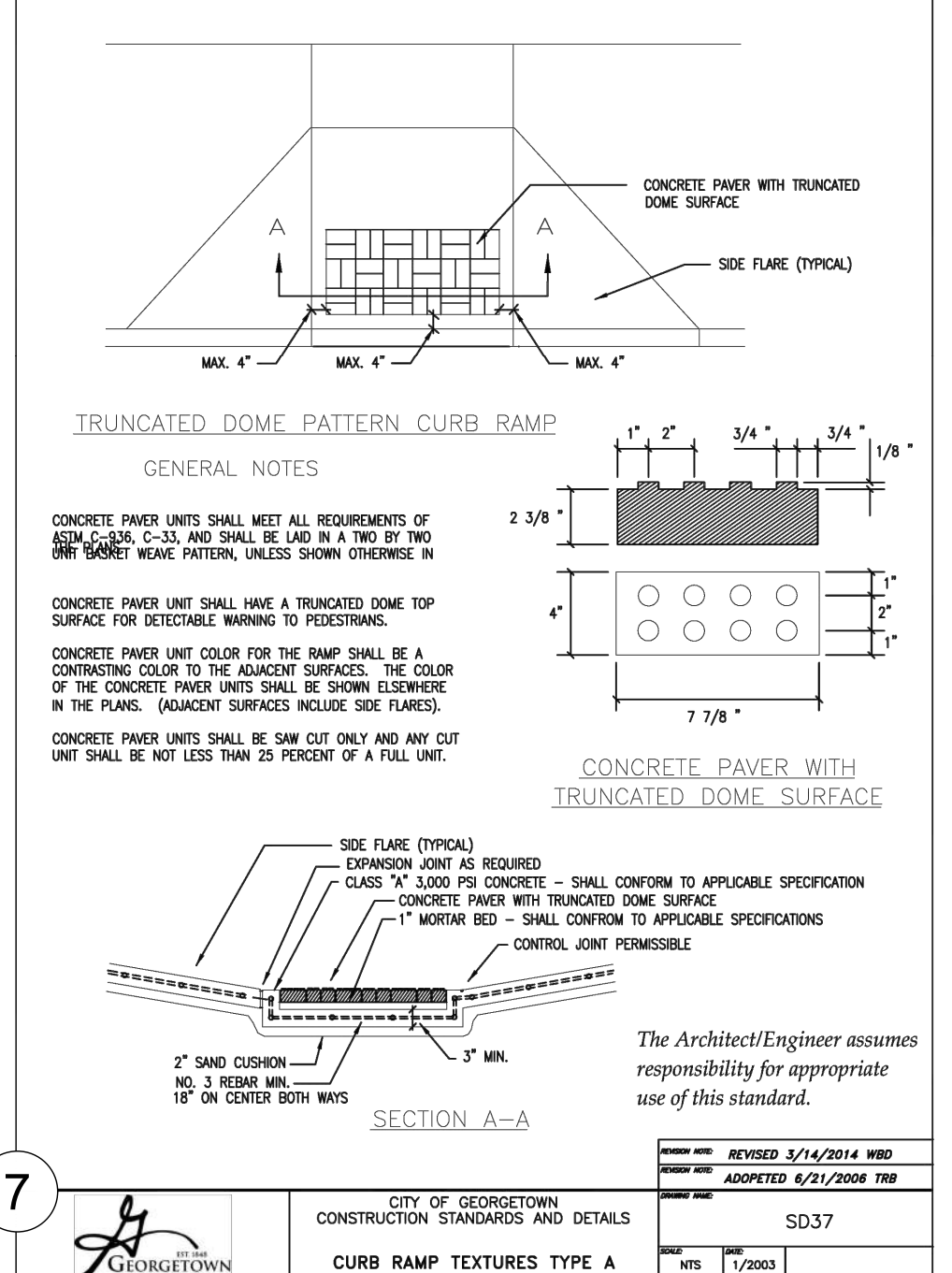
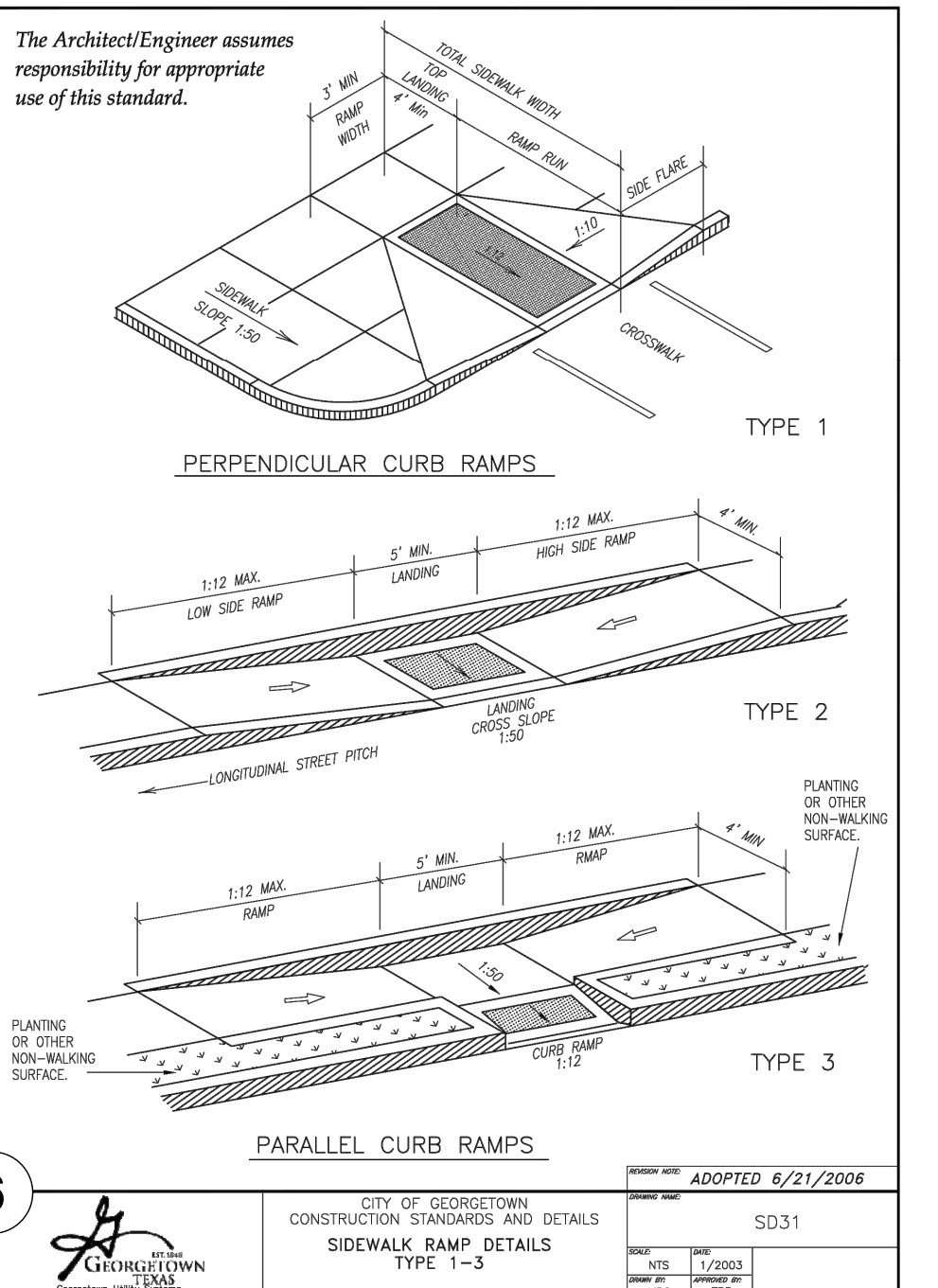
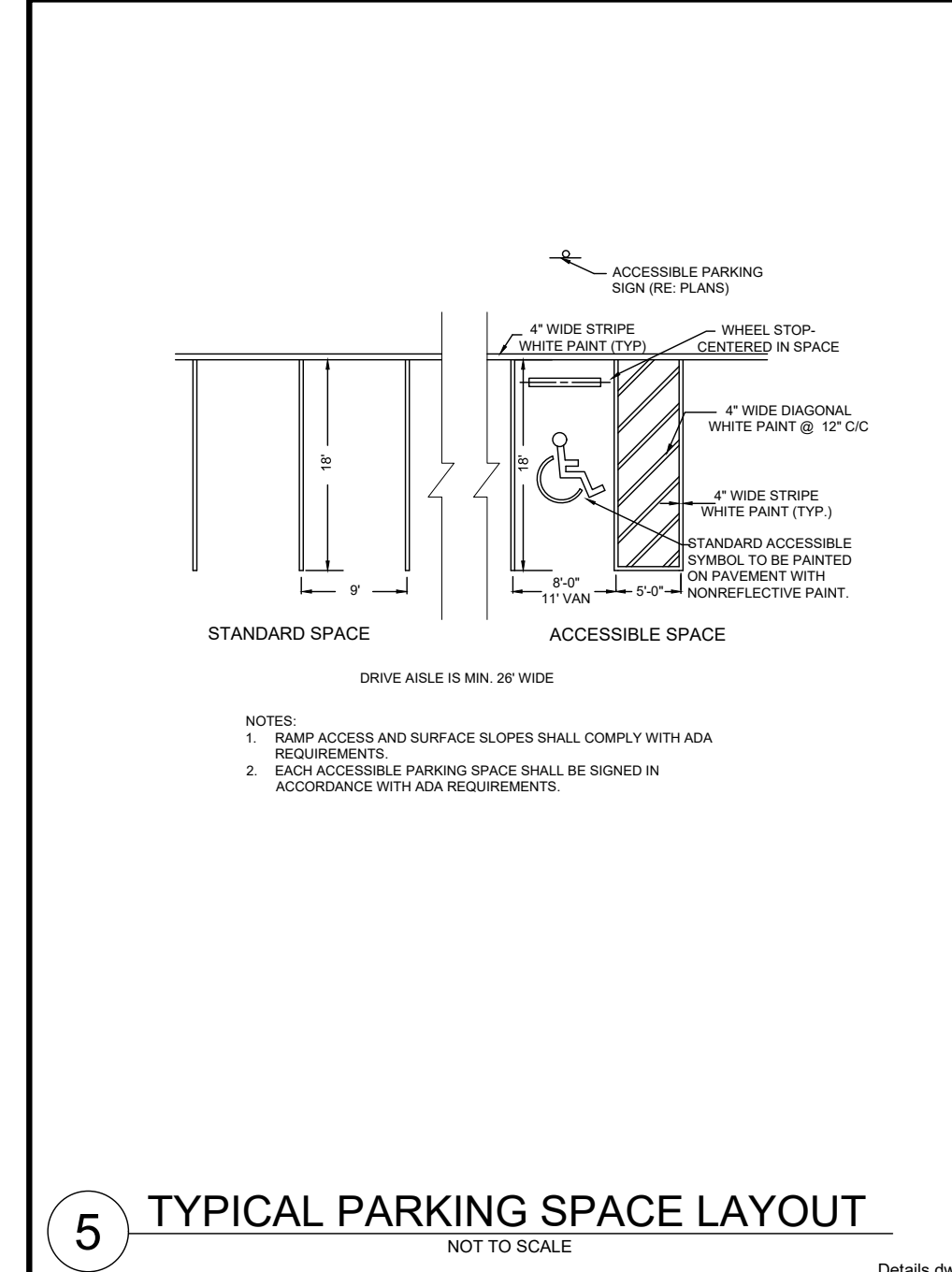
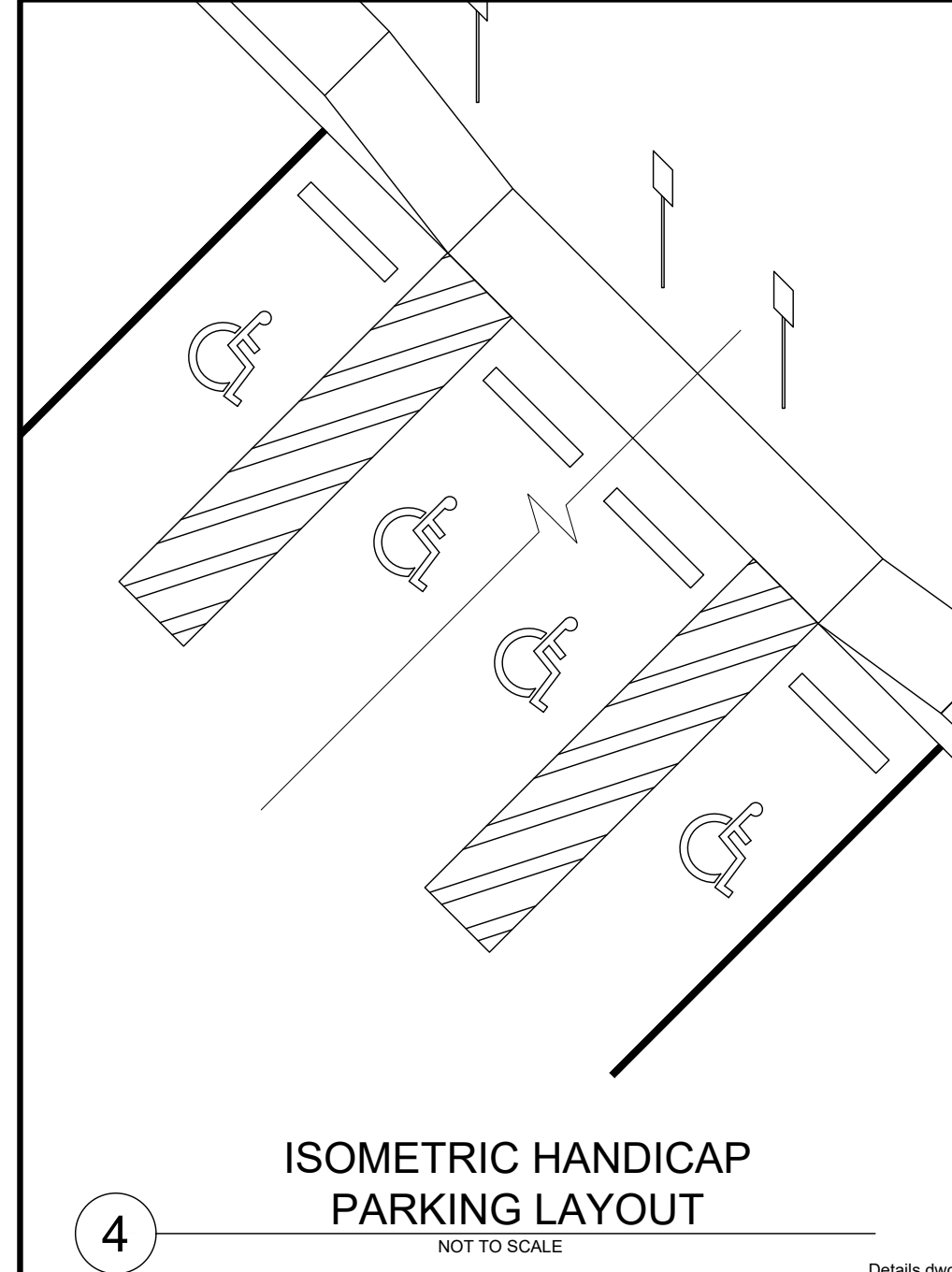
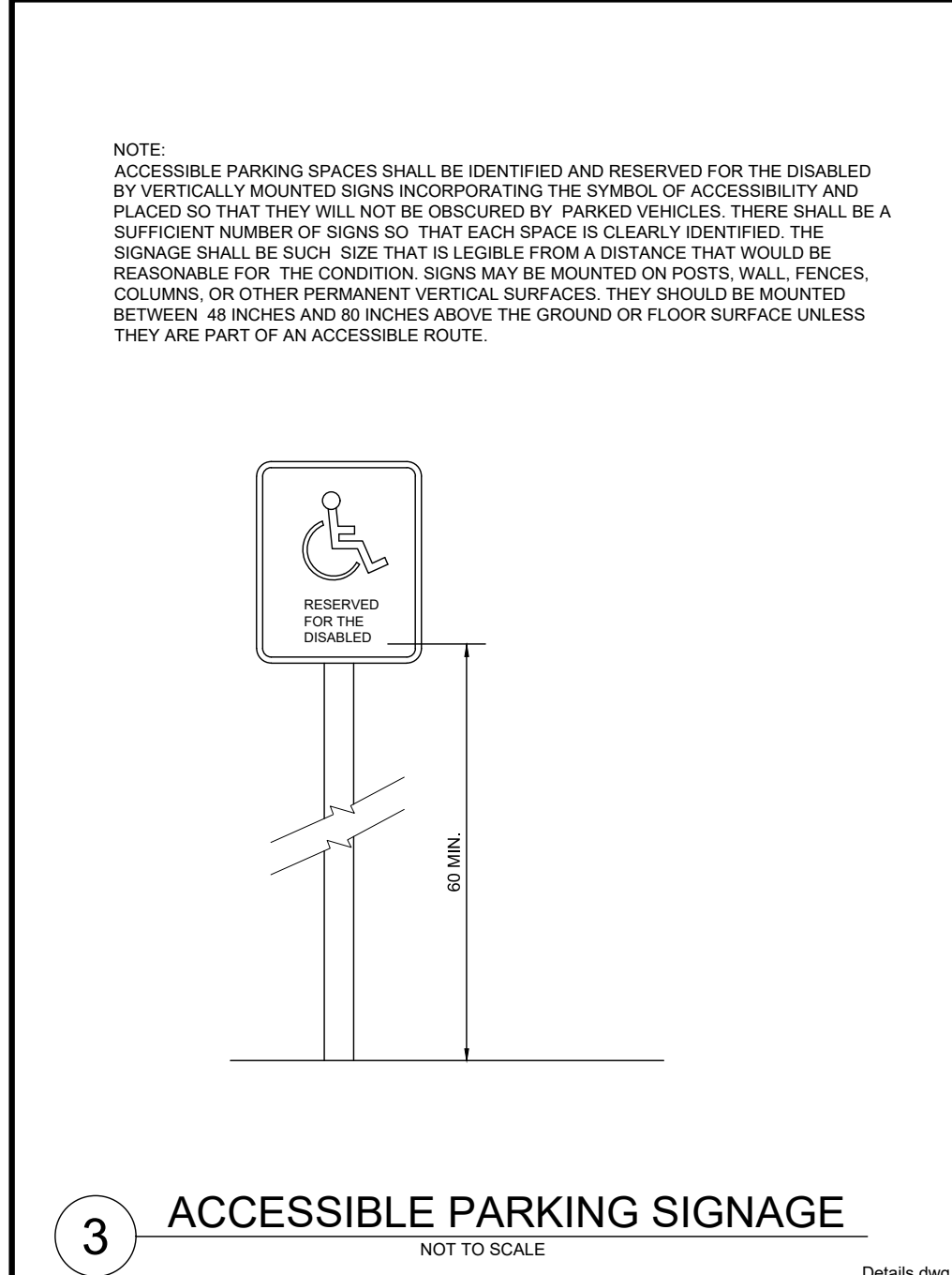
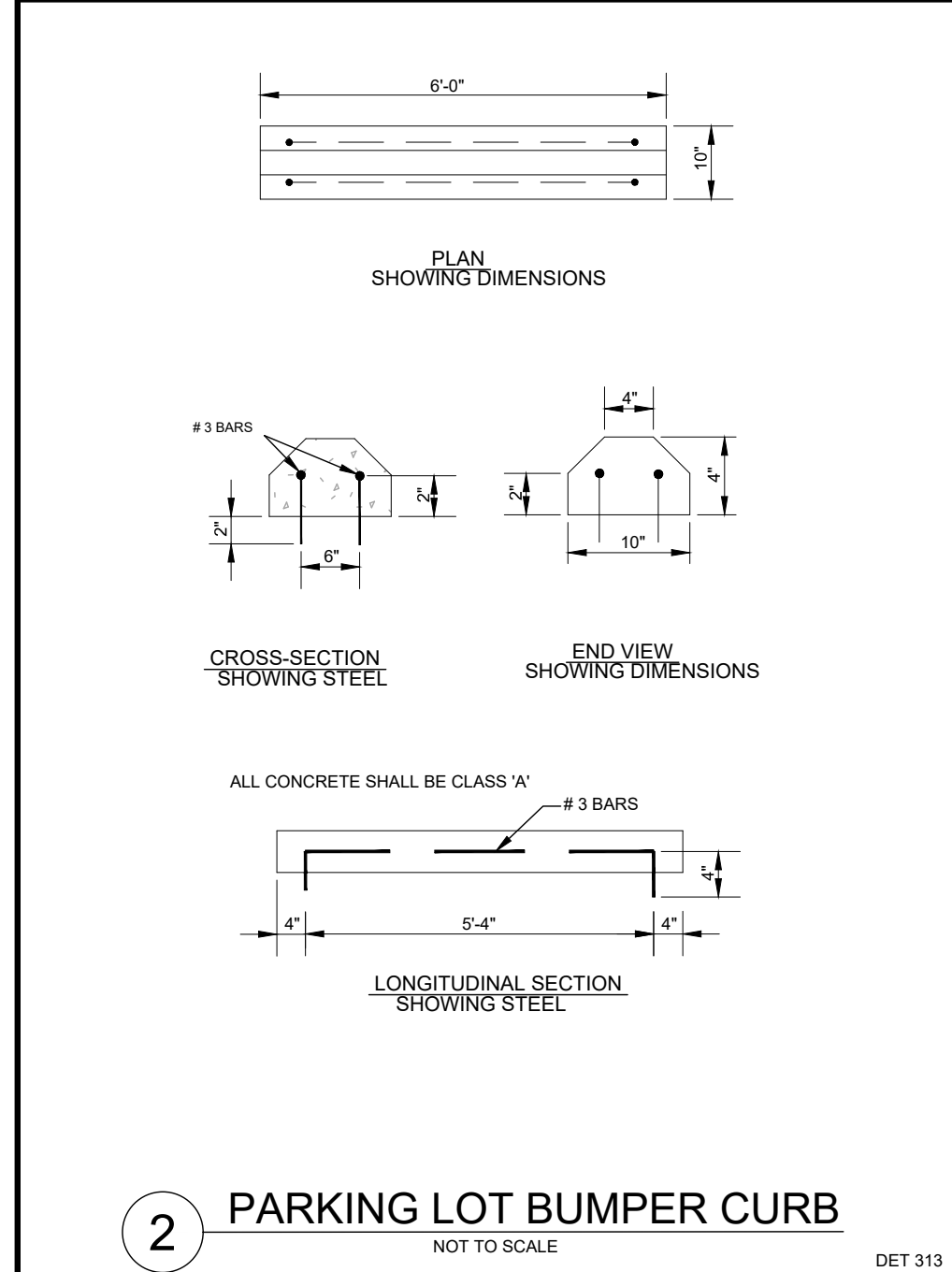
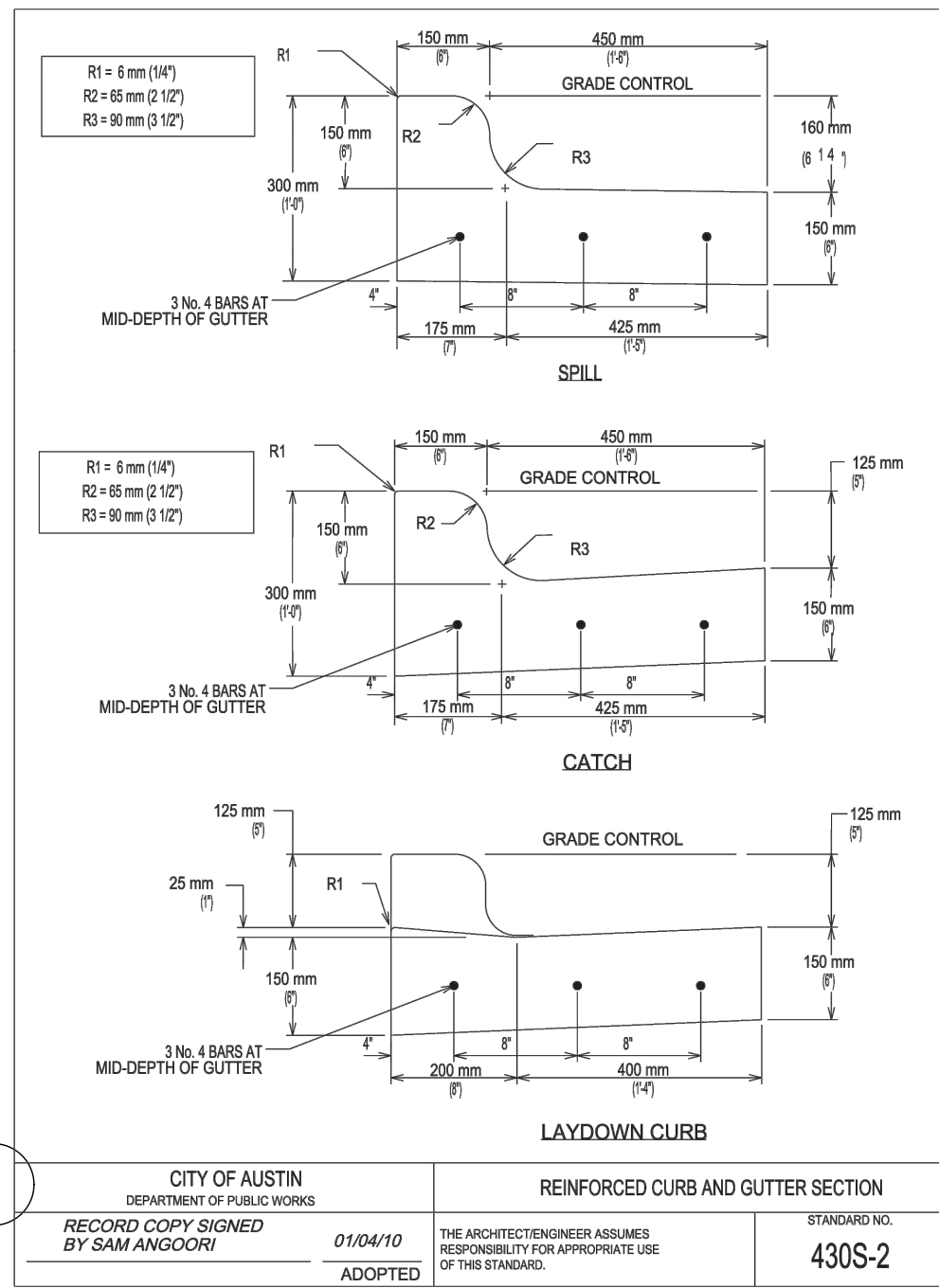
NO.	DATE	REVISIONS	RECORD

FREEHILL  
FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11661 HERO WAY W LEANDER, TX 78641

SITE & ADDRESS PLAN

PERMIT No:  
**SD-23-0111**  
SHEET No:  
**9**  
OF 56





2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
TBP# FIRM #F-19351

ENGINEERING

DAVID URBAN  
82783  
LICENSED PROFESSIONAL ENGINEER  
5/24/2023

DESIGNED: DOU  
DRAWN: DOU  
REVIEWED: VALUE

RECORD

DATE

NO.

REVISIONS

FREEHILL

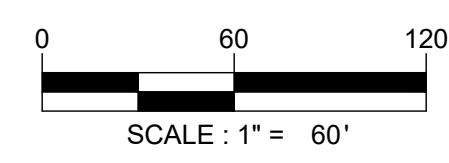
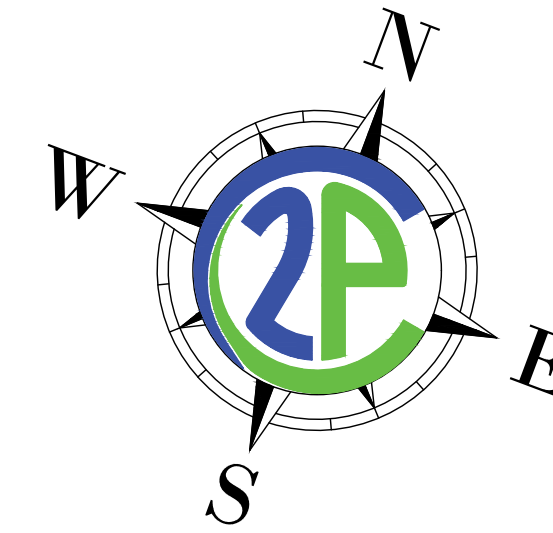
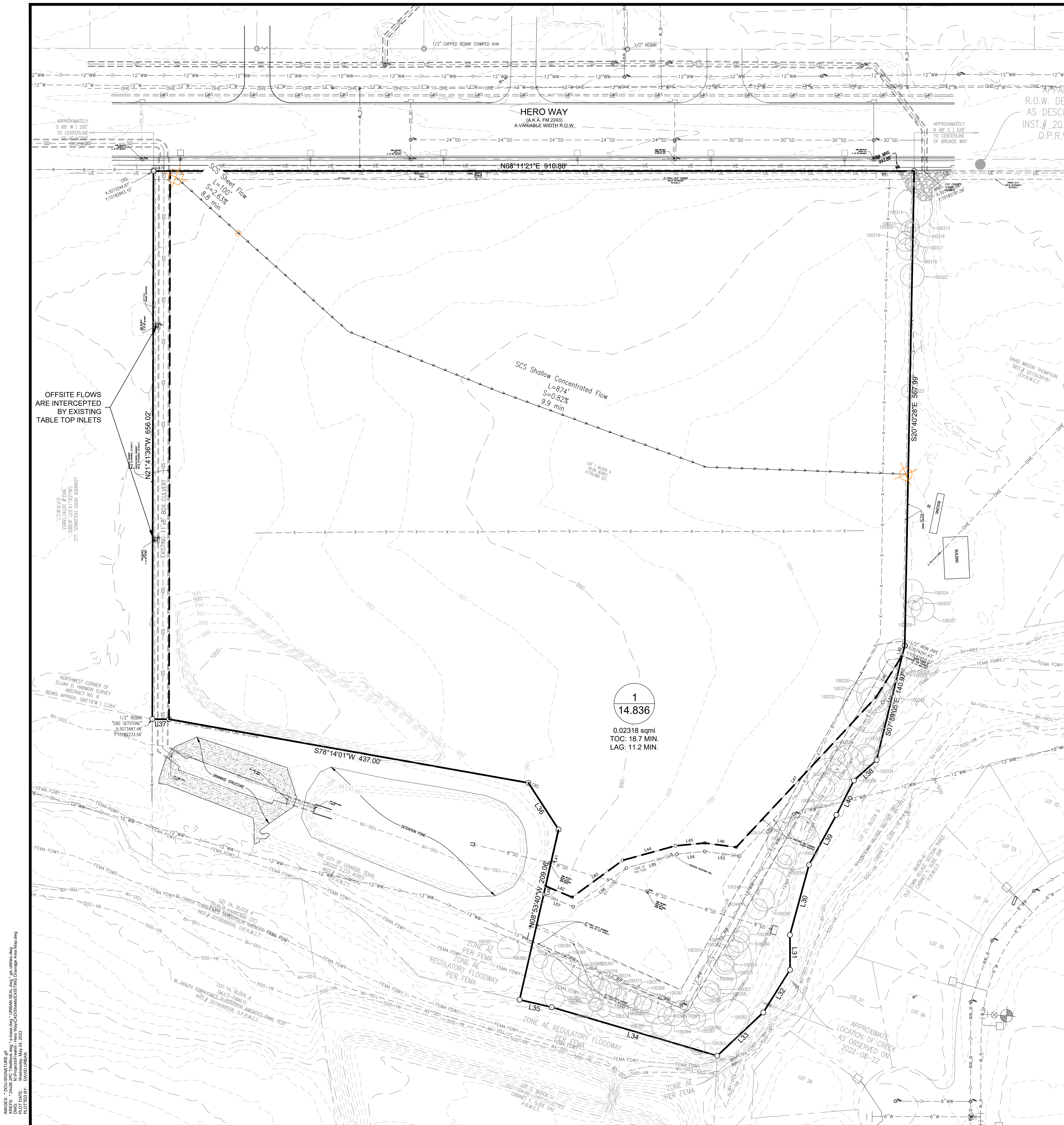
FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11661 HERO WAY W LEANDER, TX 78641

STIE PLAN DETAILS

PERMIT No.  
FREEHILL

SHEET No.  
10  
OF 56





GENERAL LEGEND	
SYMBOLS	
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	BACKFLOW PREVENTER
	UTILITY POLE
	LIGHT POLE
	CLEAN OUT
	KEYNOTES
	PARKING COUNT
	WWSERVICE
	WATER SERVICE
	STORMSEWER MANHOLE
	SIGN
	CURB INLET
	GRATE INLET
	TABLE TOP AREA INLET
	TREE TO BE SAVED
	TREE TO BE REMOVED
LINETYPES	
	PROPERTY BOUNDARY
	LIMITS OF CONSTRUCTION
	FENCES (CHAINLINK)
	FENCES (IRON)
	FENCES (WOOD)
	FENCES (BARB WIRE)
	DITCH (CREEK) LINE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	CURB & GUTTER
	UNDERGROUND ELEC.
	OVERHEAD UTILITY
	UNDERGROUND TELE.
	UNDERGROUND GAS LINE
	WATER LINE
	WASTEWATER LINE
	ACCESSIBLE ROUTE

Design Storm Method:	SCS Runoff Curve Number Method
Hydraulic Model Utilized:	HEC-HMS 4.10
Meteorological Model:	SCS Storm - Frequency based
Loss Method:	SCS Curve Number
Geologic Soil Type	Houston Black - Type D from NRCS
NOAA Rainfall Data:	Atlas 14 Leander
Duration	2-YR 10-YR 25-YR 100-YR
5 min	0.511 1.02 1.53 2.48
15 min	1.02 1.53 2.48 4.59
1 hr	1.88 2.82 3.47 4.59
2 hr	2.30 3.58 4.51 6.19
3 hr	2.54 4.05 5.18 7.27
6 hr	2.97 4.85 6.28 8.97
12 hr	3.43 5.60 7.23 10.30
24 hr	3.92 6.39 8.16 11.50

Existing conditions

Basin	ac	sm	%	IC (ac)	CN	tc	lag
1	14.836	0.02318	0.00%	0	78	18.7	11.2

Existing Conditions Drainage Calculations				
Storm Event flows (cfs)				
Basin	2-yr	10-yr	25-yr	100-yr
1	26.5	52.9	71.8	104.6

### Worksheet 3: Time of Concentration (Tc) or Travel time (Tt)

Project	By	Date
Freehill Hero Way West	David Urban	2/24/2023
Location:	Checked	Date
Leander, Texas		

Check One: ☐ Drainage Conditions Present ☐ Developed ☒ Existing

Check One: ☐ Time Value Tc ☐ Tt through subarea

Notes Space for as many as two segments per flow type can be used for each worksheet. Include a map, schematic, or description of flow segments.

Segment ID

1 Surface description (table 3-1)

2 Manning's roughness coefficient, n (table 3-1)

3 Flow Length, L (ft)

4 Two-year 24-hour rainfall, P

5 Land Slope, s

6 Tt

Residue cover >20% Bermudagrass

0.17

100

3.92

2.63%

0.146 + 0.000 = 0.146

0.41

3.44

6.00%

Segment ID

7 Surface description (paved/unpaved)

8 Flow Length, L

9 Watercourse Slope

10 Average velocity, V

11 Tt = L/3600V

Unpaved

Unpaved

874

0.82%

1.46

0.166 + 0.000 = 0.166

0.00

0.000

Segment ID

12 Cross Sectional Area, a

13 Wetted perimeter, p

14 Hydraulic radius, r = a/p Compute r

15 Channel slope, s

16 Manning's roughness coefficient, n

17 V =

18 Flow Length, L

19 Tt = L/3600V

20 Watershed or subarea Tc or Tt (add Tt in steps 6, 11, and 19)

Channel

Pipe

24.0

18.6

1.29

0.00%

0.045

0

0

0 + 0.000 = 0.000

0.31

0.31

18.74

0.19

11.2

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REVISIONS	NO.	DATE	REVIEWED

FREEHILL

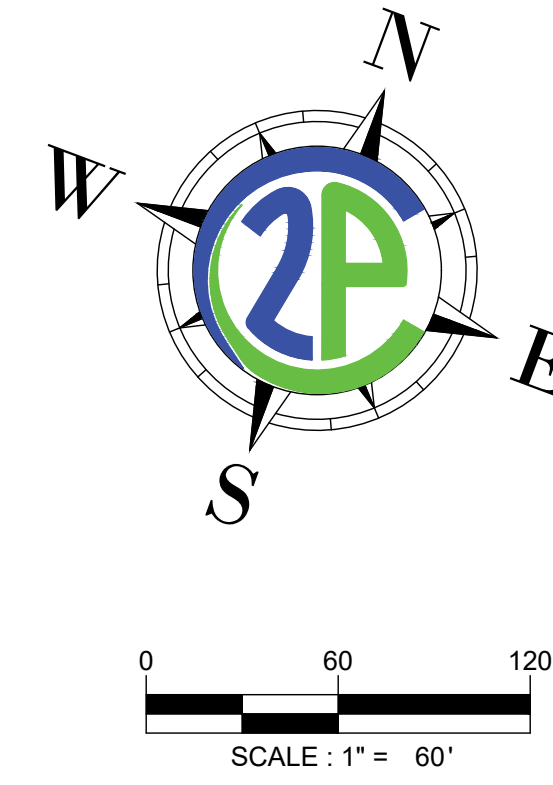
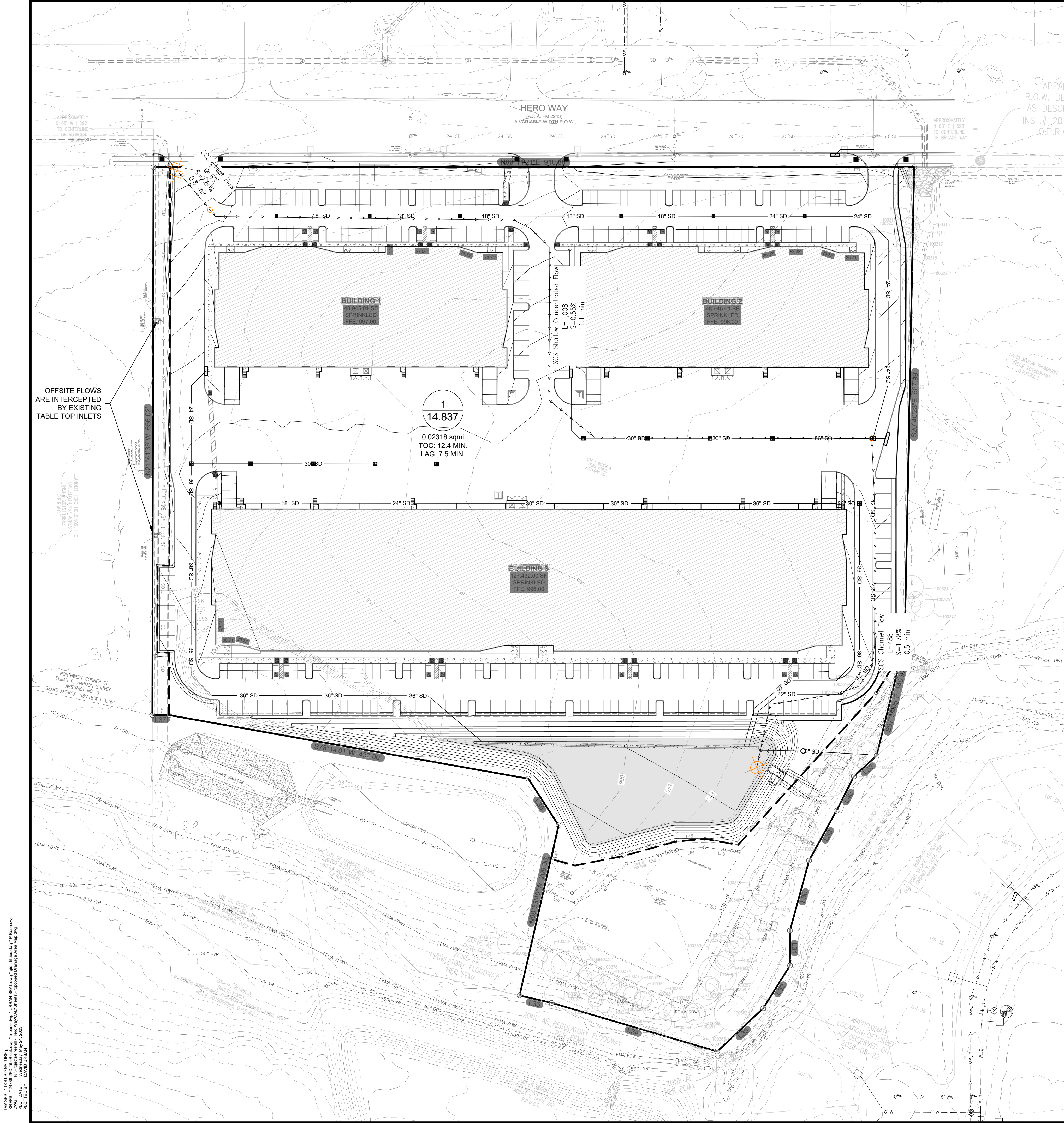
FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11561 HERO WAY W LEANDER, TX 78641

EXISTING DRAINAGE AREA MAP

PERMIT No:  
**SD-23-0111**

SHEET No:  
**11**  
OF 56





**GENERAL LEGEND**

**SYMBOLS**

- WATER METER
- WATER VALVE
- FIRE HYDRANT
- BACKFLOW PREVENTER
- UTILITY POLE
- LIGHT POLE
- CLEAN OUT
- KEYNOTES
- PARKING COUNT
- WW SERVICE
- WATER SERVICE
- STORMSEWER MANHOLE
- SIGN
- CURB INLET
- GRATE INLET
- TABLE TOP AREA INLET
- TREE TO BE SAVED
- TREE TO BE REMOVED

**LINE TYPES**

- PROPERTY BOUNDARY
- LOC - LIMITS OF CONSTRUCTION
- FENCES (CHAINLINK)
- (IRON)
- (WOOD)
- (BARB WIRE)
- DITCH (CREEK) LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- CURB & GUTTER
- UNDERGROUND ELEC.
- OVERHEAD UTILITY
- UNDERGROUND TELE.
- UNDERGROUND GAS LINE
- WATER LINE
- WASTEWATER LINE
- ACCESSIBLE ROUTE

Design Storm Method: SCS Runoff Curve Number Method  
Hydraulic Model Utilized: HEC-HMS 4.10  
Meteorological Model: SCS Storm - Frequency based  
Loss Method: SCS Curve Number  
Geologic Soil Type: Houston Black - Type D from NRCS  
NOAA Rainfall Data: Atlas 14 Leander

Duration	2-YR	10-YR	25-YR	100-YR
5 min	0.511	0.766	0.943	1.250
15 min	1.02	1.53	1.88	2.48
1 hr	1.88	2.82	3.47	4.59
2 hr	2.30	3.58	4.51	6.19
3 hr	2.54	4.05	5.18	7.27
6 hr	2.97	4.85	6.28	8.97
12 hr	3.43	5.60	7.23	10.30
24 hr	3.92	6.39	8.16	11.50

**Proposed conditions**

Basin	ac	sm	%	IC (ac)	CN	tc	lag
1	14.837	0.023183	79.75%	11.832	80	12.4	7.5

	Storm Event flows (cfs)			
	1	51.6	80.4	100.3
pond		17.9	48.4	70.6
poi-a		17.9	48.4	70.6

**Developed Conditions Drainage Calculations**

Basin	2-yr	10-yr	25-yr	100-yr
PR POA-A	17.9	48.4	70.6	101.3
EX POA-A	26.5	52.9	71.8	104.6
Flow Δ	-8.6	-4.5	-1.2	-3.3
WSE	985.96	986.71	987.14	987.67

**Worksheet 3: Time of Concentration (Tc) or Travel time (Tt)**

Project: Freehill Hero Way West  
Location: Leander, Texas  
By: David Urban  
Checked:   
Date: 2/24/2023

Check One: ☒ Present ☐ Developed ☐ Proposed  
Check One: ☐ Tc ☐ Tt through subarea

Notes Space for as many as two segments per flow type can be used for each worksheet. Include a map, schematic, or description of flow segments.

Segment ID	Surface description (table 3-1)	Smooth Surfaces	Bermudagrass
1	Surface description (table 3-1)	0.013	0.41
2	Manning's roughness coefficient, n (table 3-1)	ft	61.937
3	Flow Length, L (ft<300)	in	3.92
4	Two-year 24-hour rainfall, P	%	2.60%
5	Land Slope, s	hr	0.013
6	Tt	hr	0.000

Segment ID	Surface description (paved or unpaved)	Paved	Unpaved
7	Surface description (paved or unpaved)	ft	1007.535
8	Flow Length, L	%	0.55%
9	Watercourse Slope	ft/s	1.51
10	Average velocity, V	hr	0.188
11	Tt = L/3600V	hr	0.000

Segment ID	Channel	Pipe	
12	Cross Sectional Area, a	sf	12.6
13	Wetted perimeter, p	ft	12.6
14	Hydraulic radius, r = a/p	ft	1.00
15	Channel slope, s	%	1.78%
16	Manning's roughness coefficient, n	ft	0.013
17	V =	ft	15.29159958
18	Flow Length, L	hr	488.148
19	Tt = L/3600V	hr	0.00867396
20	Watershed or subarea Tc or Tt (add Tt in steps 6, 11, and 19)	hr	0.21

Tc	hr	0.21
Tc	min	12.44
Lag	hr	0.12
Lag	min	7.5

**DRAINAGE STUDY LEGEND**

- DA ACRE
- NO
- FLOW ARROW
- TIME OF CONCENTRATION LINE
- EXISTING 100-YR FLOOD PLAIN LINE
- PROPOSED 100-YR FLOOD PLAIN LINE
- LP LOW POINT
- HP HIGH POINT

2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPE FIRM #F-19351

DESIGNED: DOU  
DRAWN: DOU  
REVIEWED: VALUE

RECORD

REVISIONS

DATE

NO.

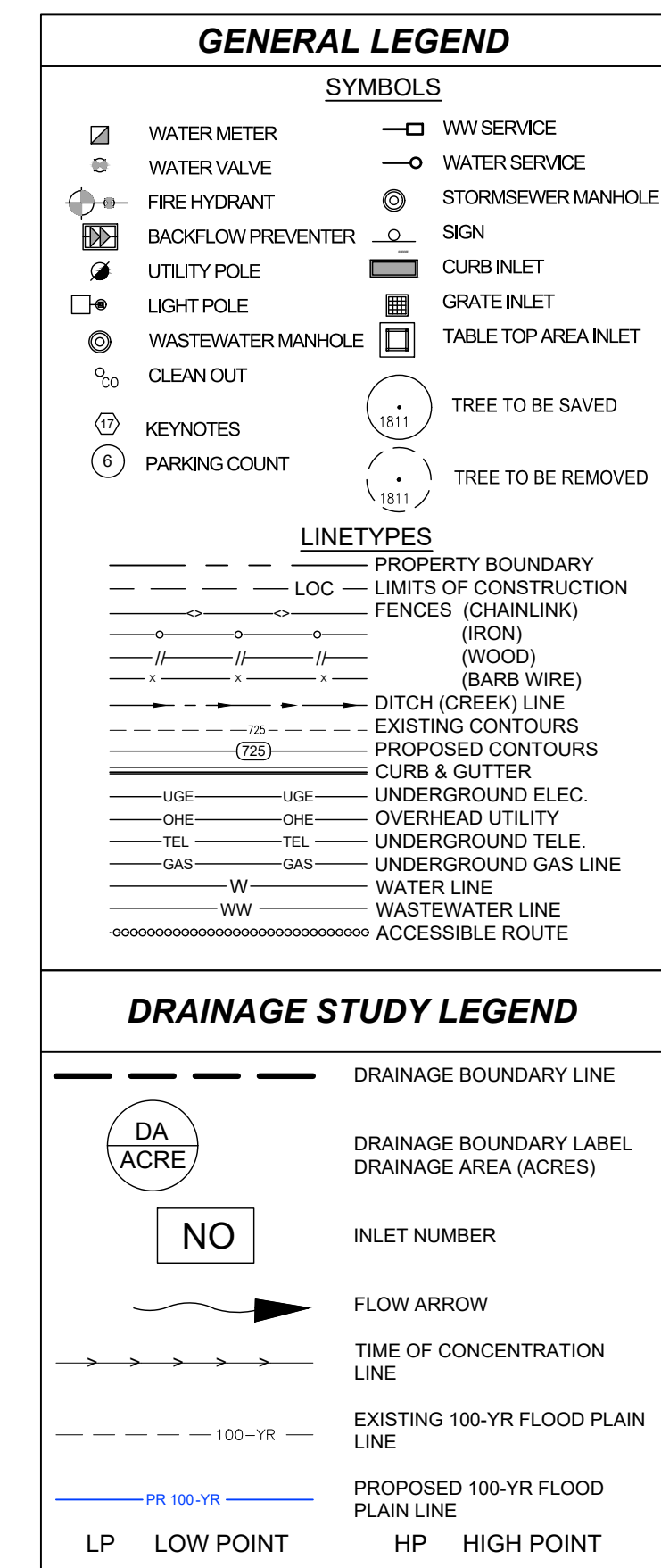
FREEHILL

FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11561 HERO WAY W LEANDER, TX 78641

PROPOSED DRAINAGE AREA MAP

PERMIT No: SD-23-0111  
SHEET No: 12 OF 56





PERMIT No.  
**SD-23-0111**

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SHEET No.  
**13**  
OF 56

IMAGES: \* DOU-SIGNATURE.gif  
XREFS: \* 2x36 2PC TitleBlock.dwg \* e-base.dwg \* URBAN SEAL.dwg \* gis utilities.dwg \* P-Base.dwg  
DWG: N:\Projects\Freelink - Hero Way\CADSheets\Proposed Sub Drainage Area Map.dwg  
PLOT DATE: Wednesday, May 24, 2023  
PLOTTED BY: DAVID URBAN



Area	Acres	T <sub>c</sub> (min)	I <sub>25</sub> (in/hr)	I <sub>100</sub> (in/hr)	C <sub>25</sub>	C <sub>100</sub>	Q <sub>25</sub> (cfs)	Q <sub>100</sub> (cfs)	Remarks
1	0.39	5	11.30	15.00	0.70	0.78	3.1	4.6	
2	0.26	5	11.30	15.00	0.69	0.77	2.1	3.0	
3	0.28	5	11.30	15.00	0.69	0.77	2.2	3.2	
4	0.45	5	11.30	15.00	0.68	0.76	3.5	5.2	
5	0.26	5	11.30	15.00	0.69	0.77	2.0	3.0	
6	0.26	5	11.30	15.00	0.68	0.76	2.0	3.0	
7	0.20	5	11.30	15.00	0.84	0.93	1.9	2.8	
8	0.80	5	11.30	15.00	0.81	0.90	7.3	10.8	
9	0.52	5	11.30	15.00	0.88	0.97	5.2	7.5	
10	0.45	5	11.30	15.00	0.88	0.97	4.5	6.5	
11	0.80	5	11.30	15.00	0.89	0.97	8.0	11.6	
12	0.82	5	11.30	15.00	0.52	0.60	4.8	7.4	
13	0.25	5	11.30	15.00	0.84	0.92	2.4	3.5	
14	0.56	5	11.30	15.00	0.88	0.97	5.5	8.1	
15	0.53	5	11.30	15.00	0.88	0.97	5.3	7.7	
16	0.57	5	11.30	15.00	0.88	0.97	5.7	8.4	
17	1.04	5	11.30	15.00	0.82	0.91	9.7	14.2	
18	0.10	5	11.30	15.00	0.88	0.97	1.0	1.4	#3 Roof
19	0.13	5	11.30	15.00	0.88	0.97	1.3	1.9	#3 Roof
20	0.14	5	11.30	15.00	0.88	0.97	1.4	2.1	#3 Roof
21	0.14	5	11.30	15.00	0.88	0.97	1.4	2.1	#3 Roof
22	0.15	5	11.30	15.00	0.88	0.97	1.5	2.2	#3 Roof
23	0.17	5	11.30	15.00	0.88	0.97	1.6	2.4	#3 Roof
24	0.14	5	11.30	15.00	0.88	0.97	1.4	2.1	#3 Roof
25	0.15	5	11.30	15.00	0.88	0.97	1.5	2.2	#3 Roof
26	0.17	5	11.30	15.00	0.88	0.97	1.6	2.4	#3 Roof
27	0.20	5	11.30	15.00	0.88	0.97	2.0	2.9	#3 Roof
28	0.20	5	11.30	15.00	0.88	0.97	2.0	2.9	#3 Roof
29	0.17	5	11.30	15.00	0.88	0.97	1.6	2.4	#3 Roof
30	0.15	5	11.30	15.00	0.88	0.97	1.5	2.2	#3 Roof
31	0.14	5	11.30	15.00	0.88	0.97	1.4	2.1	#3 Roof
32	0.17	5	11.30	15.00	0.88	0.97	1.6	2.4	#3 Roof
33	0.15	5	11.30	15.00	0.88	0.97	1.5	2.2	#3 Roof
34	0.14	5	11.30	15.00	0.88	0.97	1.4	2.1	#3 Roof
35	0.14	5	11.30	15.00	0.88	0.97	1.4	2.1	#3 Roof
36	0.13	5	11.30	15.00	0.88	0.97	1.3	1.9	#3 Roof
37	0.10	5	11.30	15.00	0.88	0.97	1.0	1.4	#3 Roof
38	1.38	5	11.30	15.00	0.84	0.93	13.1	19.3	to pond
39	0.18	5	11.30	15.00	0.83	0.92	1.7	2.5	to pond

Character of Surface	25-year	100-year
Concrete	0.88	0.97
Asphaltic	0.86	0.95
Pasture/Range 7% + Steep	0.46	0.53
Grass Good 2-7% Average	0.39	0.46

Area Number	Area (ac)	%C	C <sub>25</sub>	C <sub>100</sub>	Remarks
1	0.39	62%	0.7	0.78	
2	0.26	60%	0.69	0.77	
3	0.28	61%	0.69	0.77	
4	0.45	58%	0.68	0.76	
5	0.26	61%	0.69	0.77	
6	0.26	60%	0.68	0.76	
7	0.20	92%	0.84	0.93	
8	0.80	86%	0.81	0.90	
9	0.52	100%	0.88	0.97	
10	0.45	100%	0.88	0.97	
11	0.80	100%	0.88	0.97	
12	0.82	27%	0.52	0.60	
13	0.25	91%	0.84	0.92	
14	0.56	100%	0.88	0.97	
15	0.53	100%	0.88	0.97	
16	0.57	100%	0.88	0.97	
17	1.04	88%	0.82	0.91	
18	0.10	100%	0.88	0.97	#3 Roof
19	0.13	100%	0.88	0.97	#3 Roof
20	0.14	100%	0.88	0.97	#3 Roof
21	0.14	100%	0.88	0.97	#3 Roof
22	0.15	100%	0.88	0.97	#3 Roof
23	0.17	100%	0.88	0.97	#3 Roof
24	0.14	100%	0.88	0.97	#3 Roof
25	0.15	100%	0.88	0.97	#3 Roof
26	0.17	100%	0.88	0.97	#3 Roof
27	0.20	100%	0.88	0.97	#3 Roof
28	0.20	100%	0.88	0.97	#3 Roof
29	0.17	100%	0.88	0.97	#3 Roof
30	0.15	100%	0.88	0.97	#3 Roof
31	0.14	100%	0.88	0.97	#3 Roof
32	0.17	100%	0.88	0.97	#3 Roof
33	0.15	100%	0.88	0.97	#3 Roof
34	0.14	100%	0.88	0.97	#3 Roof
35	0.14	100%	0.88	0.97	#3 Roof
36	0.13	100%	0.88	0.97	#3 Roof
37	0.10	100%	0.88	0.97	#3 Roof
38	1.38	91%	0.84	0.93	to pond
39	1.18	89%	0.83	0.92	to pond

Inlet Number	Area Number	Area Number 2	Q25 cfs	Qpass cfs	Qtotal cfs	RF %	Inlet Type	Yweir ft	Yorif ft
1	1	0	3.1	0.0	3.1	50%	Grate Inlet 3x3'	0.29	0.02
2	2	0	2.1	0.0	2.1	50%	Grate Inlet 3x3'	0.22	0.01
3	3	0	2.2	0.0	2.2	50%	Grate Inlet 3x3'	0.23	0.01
4	4	0	3.5	0.0	3.5	50%	Grate Inlet 3x3'	0.31	0.03
5	5	0	2.0	0.0	2.0	50%	Grate Inlet 3x3'	0.22	0.01
6	6	0	2.0	0.0	2.0	50%	Grate Inlet 3x3'	0.22	0.01
8	8	0	7.3	0.0	7.3	50%	Grate Inlet 4x4'	0.42	0.05
9	9	0	5.2	0.0	5.2	50%	Grate Inlet 4x4'	0.34	0.02
10	10	0	4.5	0.0	4.5	50%	Grate Inlet 4x4'	0.31	0.02
11	11	0	8.0	0.0	8.0	50%	Grate Inlet 4x4'	0.45	0.05
12	12	0	4.8	0.0	4.8	10%	Curb Inlet 10'	0.30	
13	13	0	2.4	0.0	2.4	50%	Grate Inlet 4x4'	0.20	0.00
14	14	0	5.5	0.0	5.5	50%	Grate Inlet 4x4'	0.35	0.03
15	15	0	5.3	0.0	5.3	50%	Grate Inlet 4x4'	0.34	0.02
16	16	0	5.7	0.0	5.7	50%	Grate Inlet 4x4'	0.36	0.03
17	17	0	9.7	0.0	9.7	10%	Curb Inlet 15'	0.36	
18	18	0	1.0	0.0	1.0	50%	Grate Inlet 2x2'	0.18	0.03
19	19	0	1.3	0.0	1.3	50%	Grate Inlet 2x2'	0.21	0.06
20	20	0	1.4	1.0	2.4	50%	Grate Inlet 2x2'	0.32	0.19
21	21	0	1.4	0.0	1.4	50%	Grate Inlet 2x2'	0.22	0.01
22	22	0	1.5	0.0	1.5	50%	Grate Inlet 2x2'	0.22	0.08
23	23	0	1.6	0.0	1.6	50%	Grate Inlet 2x2'	0.24	0.09
24	24	0	1.4	0.0	1.4	50%	Grate Inlet 2x2'	0.22	0.07
25	25	0	1.5	0.0	1.5	50%	Grate Inlet 2x2'	0.23	0.08
26	26	0	1.6	0.0	1.6	50%	Grate Inlet 2x2'	0.24	0.09
27	27	0	2.0	0.0	2.0	50%	Grate Inlet 2x2'	0.28	0.14
28	28	0	2.0	0.0	2.0	50%	Grate Inlet 2x2'	0.28	0.14
29	29	0	1.6	0.0	1.6	50%	Grate Inlet 2x2'	0.24	0.09
30	30	0	1.5	0.0	1.5	50%	Grate Inlet 2x2'	0.23	0.08
31	31	0	1.4	0.0	1.4	50%	Grate Inlet 2x2'	0.22	0.07
32	32	0	1.6	0.0	1.6	50%	Grate Inlet 2x2'	0.24	0.09
33	33	0	1.5	0.0	1.5	50%	Grate Inlet 2x2'	0.23	0.08
34	34	0	1.4	0.0	1.4	50%	Grate Inlet 2x2'	0.22	0.07
35	35	0	1.4	0.0	1.4	50%	Grate Inlet 2x2'	0.22	0.07
36	36	0	1.3	0.0	1.3	50%	Grate Inlet 2x2'	0.21	0.06
37	37	0	1.0	0.0	1.0	50%	Grate Inlet 2x2'	0.18	0.03
38	38	0	13.1	0.0	13.1	10%		0.37	
39	39	0	1.7	0.0	1.7	10%		0.15	

Inlet Number	Area Number	Area Number 2	Q100 cfs	Qpass cfs	Qtotal cfs	RF %	Inlet Type	Yweir ft	Yorif ft
1	1	0	4.6	0.0	4.6	50%	Grate Inlet 3x3'	0.38	0.05
2	2	0	3.0	0.0	3.0	50%	Grate Inlet 3x3'	0.28	0.02
3	3	0	3.2	0.0	3.2	50%	Grate Inlet 3x3'	0.30	0.03
4	4	0	5.2	0.0	5.2	50%	Grate Inlet 3x3'	0.41	0.07
5	5	0	3.0	0.0	3.0	50%	Grate Inlet 3x3'	0.28	0.02
6	6	0	3.0	0.0	3.0	50%	Grate Inlet 3x3'	0.28	0.02
8	8	0	10.8	0.0	10.8	50%	Grate Inlet 4x4'	0.55	0.10
9	9	0	7.5	0.0	7.5	50%	Grate Inlet 4x4'	0.43	0.05
10	10	0	6.5	0.0	6.5	50%	Grate Inlet 4x4'	0.39	0.04
11	11	0	11.6	0.0	11.6	50%	Grate Inlet 4x4'	0.58	0.11
12	12	0	7.4	0.0	7.4	10%	Curb Inlet 10'	0.40	
13	13	0	3.5	0.0	3.5	50%	Grate Inlet 4x4'	0.26	0.01
14	14	0	8.1	0.0	8.1	50%	Grate Inlet 4x4'	0.45	0.06
15	15	0	7.7	0.0	7.7	50%	Grate Inlet 4x4'	0.44	0.05
16	16	0	8.4	0.0	8.4	50%	Grate Inlet 4x4'	0.47	0.06
17	17	0	14.2	0.0	14.2	10%	Curb Inlet 15'	0.47	
18	18	0	1.4	0.0	1.4	50%	Grate Inlet 2x2'	0.22	0.07
19	19	0	1.9	0.0	1.9	50%	Grate Inlet 2x2'	0.27	0.12
20	20	0	2.1	0.0	2.1	50%	Grate Inlet 2x2'	0.29	0.15
21	21	0	2.1	0.0	2.1	50%	Grate Inlet 2x2'	0.29	0.15
22	22	0	2.2	0.0	2.2	50%	Grate Inlet 2x2'	0.30	0.16
23	23	0	2.4	0.0	2.4	50%	Grate Inlet 2x2'	0.32	0.19
24	24	0	2.1	0.0	2.1	50%	Grate Inlet 2x2'	0.29	0.15
25	25	0	2.2	0.0	2.2	50%	Grate Inlet 2x2	0.30	0.16
26	26	0	2.4	0.0	2.4	50%	Grate Inlet 2x2	0.32	0.19
27	27	0	2.9	0.0	2.9	10%	Grate Inlet 2x2	0.25	0.09
28	28	0	2.9	0.0	2.9	10%	Grate Inlet 2x2	0.25	0.09
29	29	0	2.4	0.0	2.4	10%	Grate Inlet 2x2	0.22	0.06
30	30	0	2.2	0.0	2.2	10%	Grate Inlet 2x2	0.20	0.05
31	31	0	2.1	0.0	2.1	10%	Grate Inlet 2x2	0.20	0.05
32	32	0	2.4	0.0	2.4	10%	Grate Inlet 2x2	0.22	0.06
33	33	0	2.2	0.0	2.2	10%	Grate Inlet 2x2	0.20	0.05
34	34	0	2.1	0.0	2.1	10%	Grate Inlet 2x2	0.20	0.05
35	35	0	2.1	0.0	2.1	10%	Grate Inlet 2x2	0.20	0.05
36	36	0	1.9	0.0	1.9	10%	Grate Inlet 2x2	0.19	0.04
37	37	0	1.4	0.0	1.4	10%	Grate Inlet 2x2	0.15	0.02
38	38	0	19.3	0.0	19.3	10%		0.47	
39	39	0	2.5	0.0	2.5	10%		0.19	

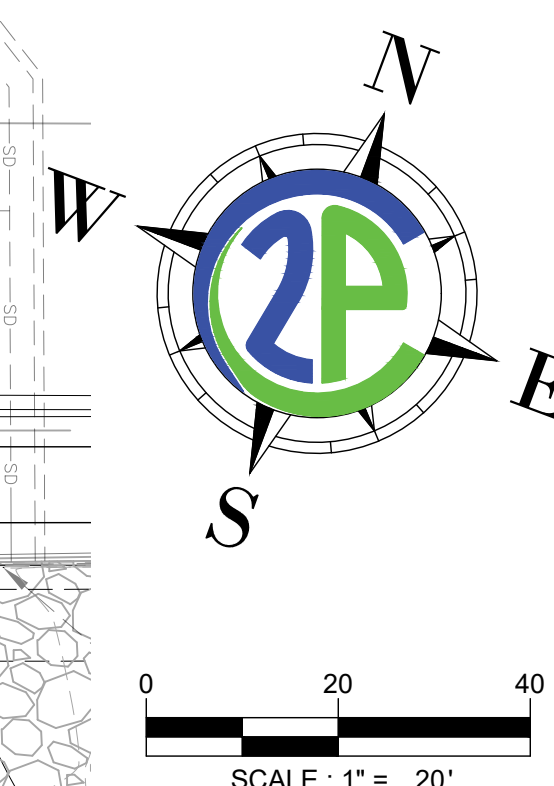
Inlet Number	Area Number	Q25 cfs	Qpass cfs	Qtotal cfs	Slope %	Road Width	a (in)	Yo (in)	Ponded Width	RF %	Qa/La	La	Length h	L/La	a/Yo	Q/Qa	Qint	Qpass	Remark
7	7	1.90	0.00	1.90	1.60%	40	5	0.26	5.11	0	0.71	2.67	10	3.75	1.60	1.00	1.9	0.0	

Inlet Number	Area Number	Q100 cfs	+ Ospill cfs	- Ospill cfs	Qpass cfs	Qtotal cfs	Slope %	Road Width	a Width (in)	Yo (ft)	Ponded Width	RF %	Qa/La	La ft	Length ft	L/La	a/Yo	Q/Qa	Qint cfs	Qpass cfs	Remarks
7	7	2.80	0.00	0.00	0	2.80	1.60%	40	5	0.30	6.06	0	0.75	3.72	10	2.69	1.39	1.00	2.8	0.0	









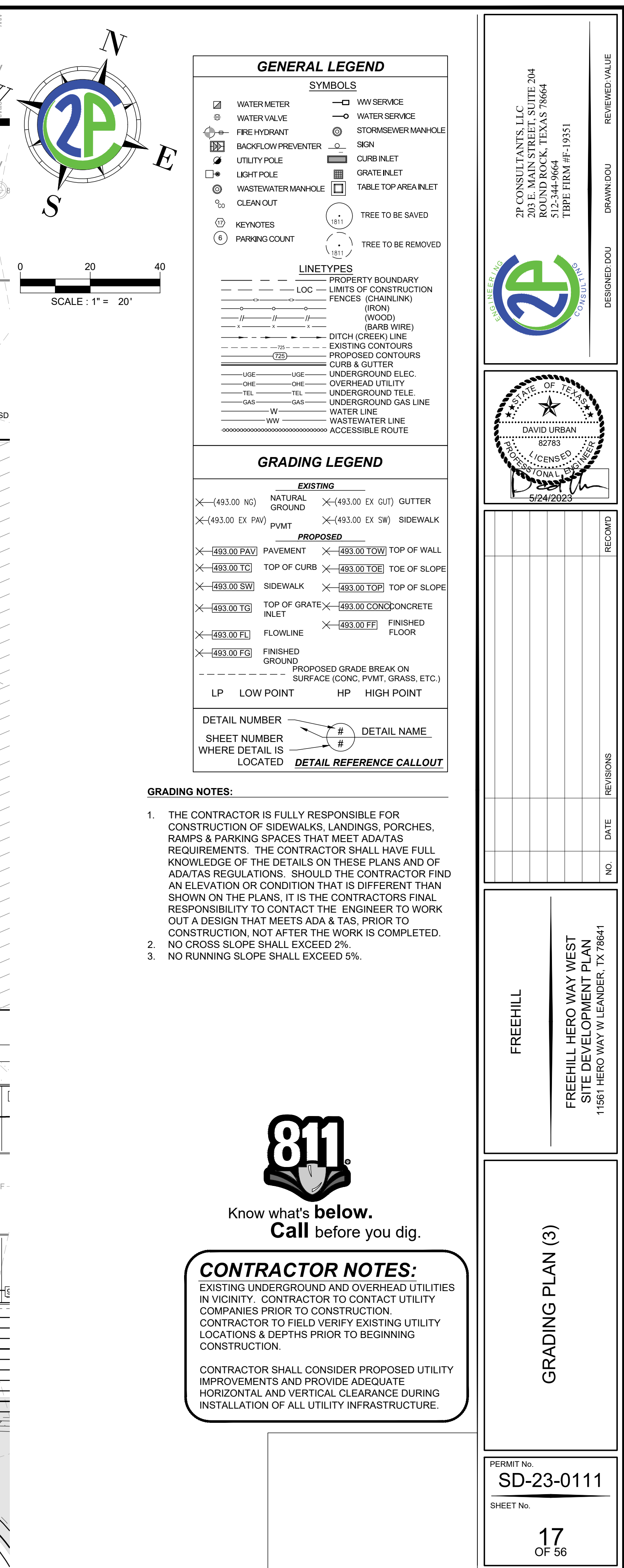
**GRADING NOTES:**

1. THE CONTRACTOR IS FULLY RESPONSIBLE FOR CONSTRUCTION OF SIDEWALKS, LANDINGS, PORCHES, RAMPS & PARKING SPACES THAT MEET ADAS/TAS REQUIREMENTS. THE CONTRACTOR SHALL HAVE FULL KNOWLEDGE OF THE DETAILS ON THESE PLANS AND OF ADAS/TAS REGULATIONS. SHOULD THE CONTRACTOR FIND AN ELEVATION OR CONDITION THAT IS DIFFERENT THAN SHOWN ON THE PLANS, IT IS THE CONTRACTOR'S FINAL RESPONSIBILITY TO CONTACT THE ENGINEER TO WORK OUT A DESIGN THAT MEETS ADA & TAS, PRIOR TO CONSTRUCTION, NOT AFTER THE WORK IS COMPLETED.
2. NO CROSS SLOPE SHALL EXCEED 2%.
3. NO RUNNING SLOPE SHALL EXCEED 5%.



CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.





PERMIT No.  
**SD-23-0111**  
SHEET No.  
**17**  
OF 56



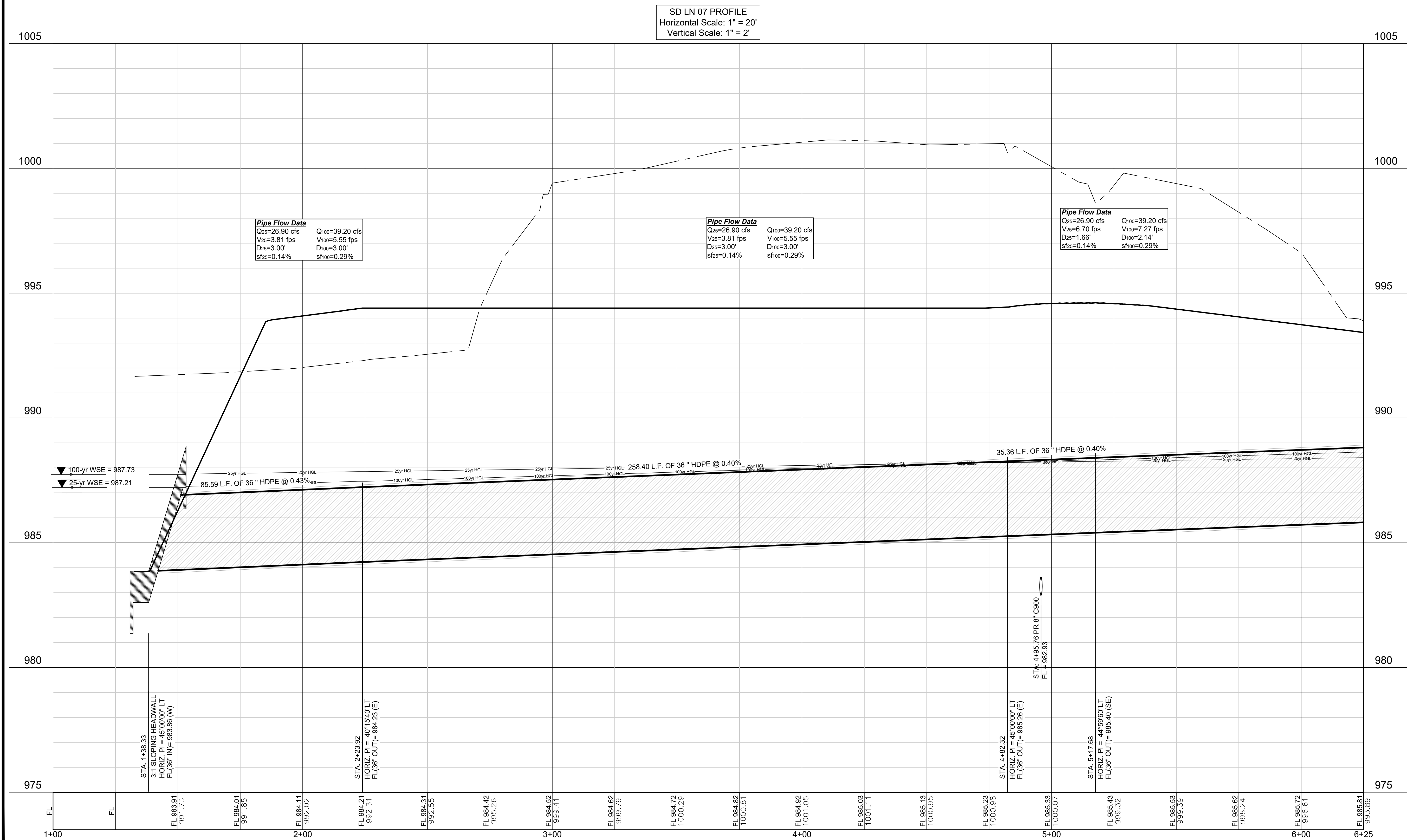




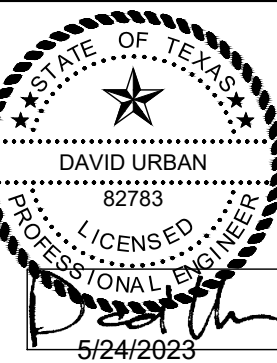




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XREFS: \* 2x4x8 2PC TiltBlock.dwg \* e-base.dwg \* URBAN SEAL.dwg \* gis utilities.dwg \* P-Base.dwg  
DWG: N:\Projects\Firehill - Hero Way\CAD Sheets\Storm Drain Plan.dwg  
PLOT DATE: Wednesday, May 24, 2023



2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPE FIRM #F-19351

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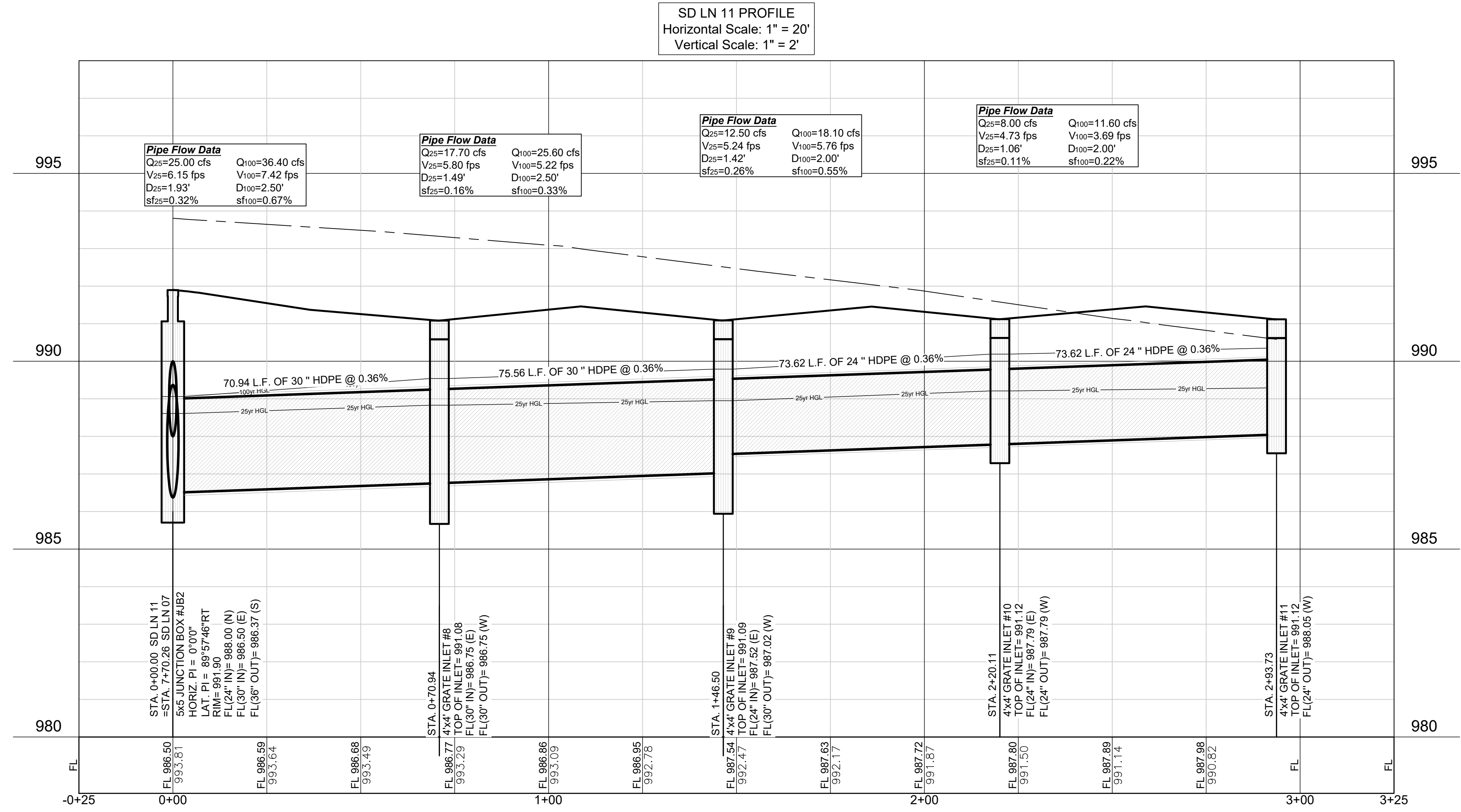
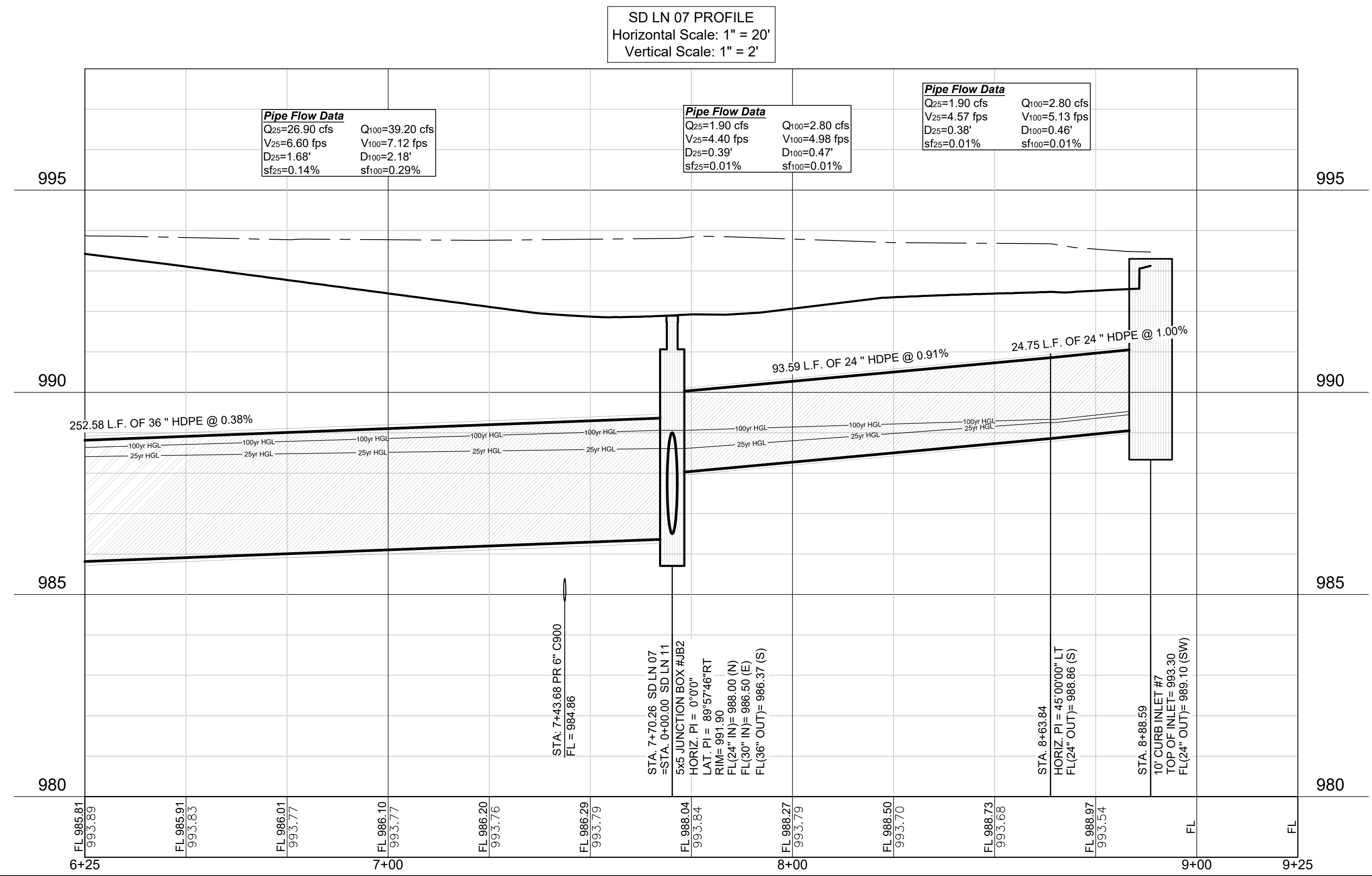
FREEHILL

FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11561 HERO WAY W LEANDER, TX 78641

# STORM DRAIN PROFILE 07

PERMIT No.  
**SD-23-0111**  
EET No.  
**20**  
OF 56

IMAGES: \* DOU-SIGNATURE.gif  
XREFS: \* 24x36 2PC TitleBlock.dwg  
DWG: N:\Projects\Fred  
PLOT DATE: Wednesday, Ma



FREEHILL

FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11561 HERO WAY W LEANDER, TX 78641

STORM DRAIN PROFILE 07 (2)

PERMIT No.  
**SD-23-0111**

SHEET No.

21  
OF 56

STATE OF TEXAS  
DAVID URBAN  
82783  
LICENSED  
PROFESSIONAL ENGINEER  
5/24/2023

[illegible]

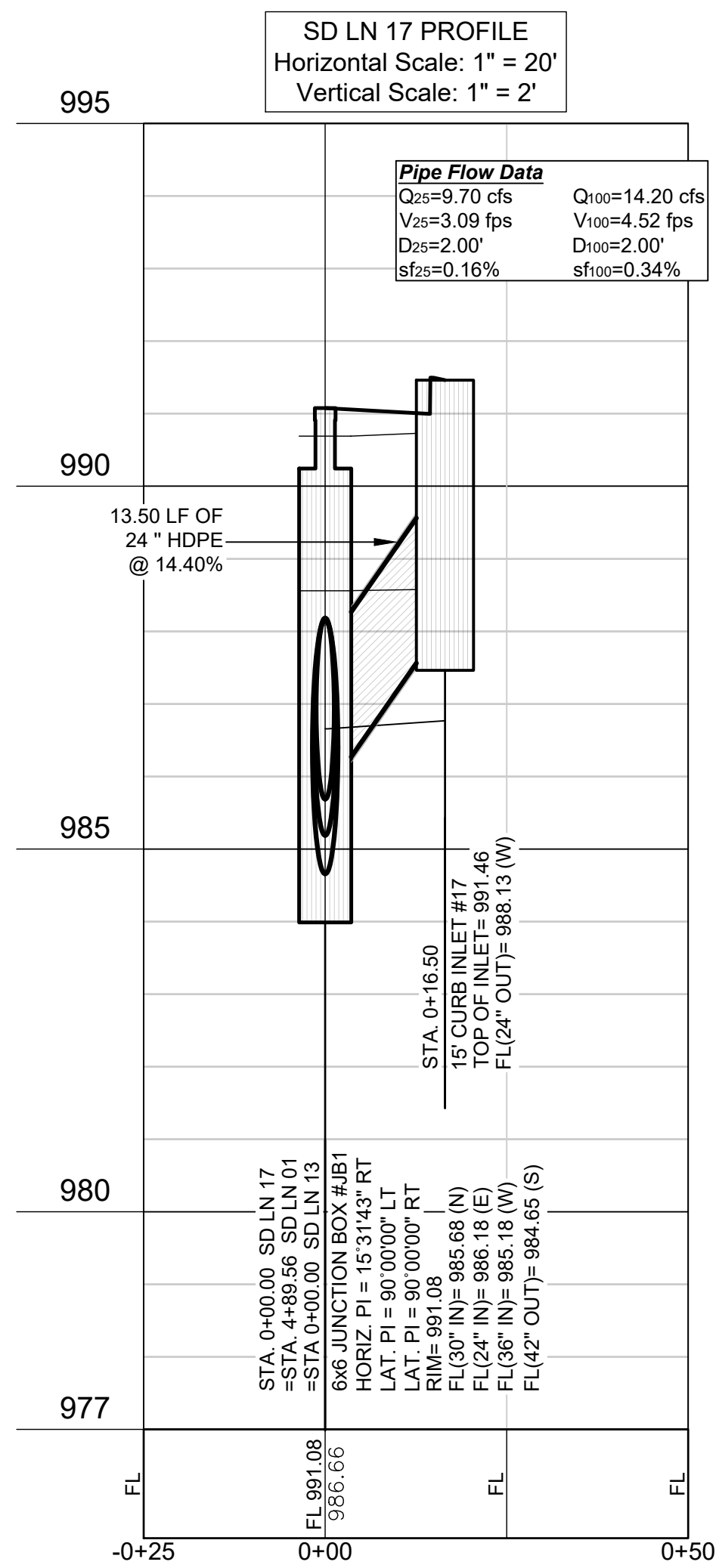
2P CONSULTANTS, LLC 203 E. MAIN STREET, SUITE 204 ROUND ROCK, TEXAS 78664 512-344-9664 TBPE FIRM #F-19351	DRAWN:DOI REVIEWED:VAU:IE
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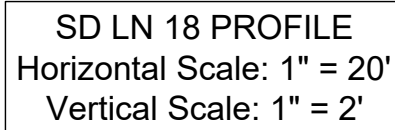






23  
OF 56

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PLOT DATE: Wednesday, Ma



FREEHILL

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FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
111561 HERO WAY W LEANDER, TX 78641

## STORM DRAIN PROFILE 18

PERMIT No.  
**SD-23-0111**

SHEET No.  
**24**  
OF 56

2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPB FIRM #F-19351

STATE OF TEXAS  
DAVID URBAN  
82783  
LICENSED  
PROFESSIONAL ENGINEER  
5/24/2023

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FREEHILL  
FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11561 HERO WAY W LEANDER, TX 78641

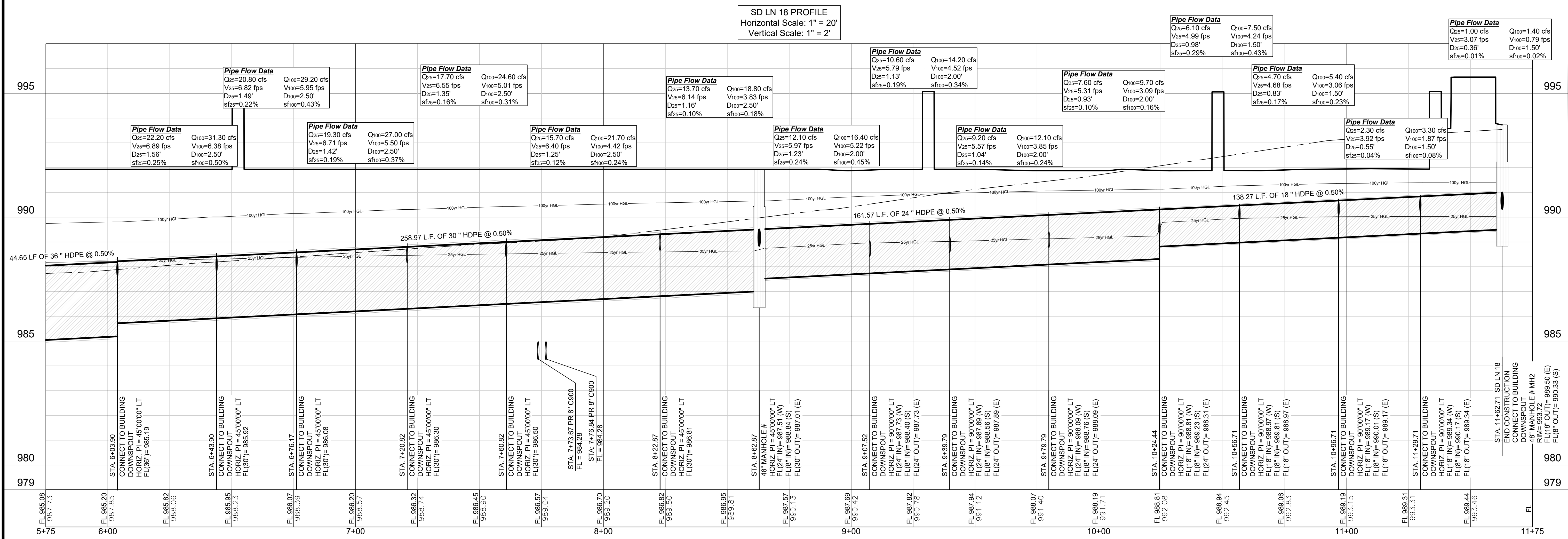
## STORM DRAIN PROFILE 18

PERMIT No.  
**SD-23-0111**

SHEET No.  
**24**  
OF 56



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PLOT DATE: Wednesday, May 24, 2023



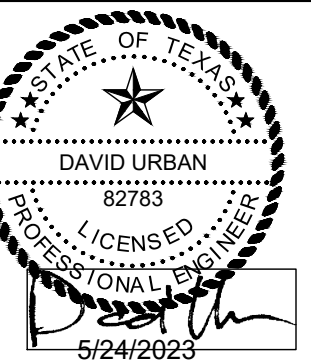
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FREEHILL

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FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11561 HERO WAY W LEANDER, TX 78641

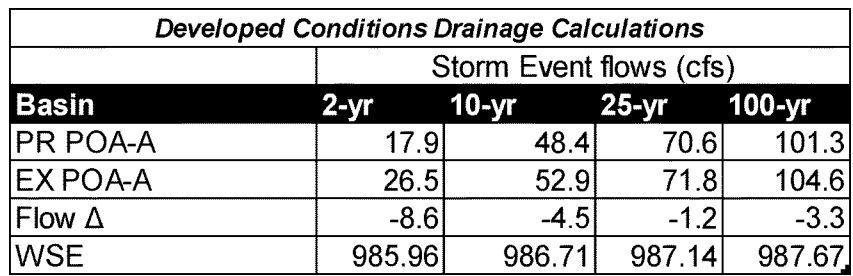
NO.	DATE	REVISIONS



2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPE FIRM #F-19351

DESIGNED: DOU	DRAWN: DOU	REVIEWED: VALUE
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<b>PROJECT NAME:</b> <i>Freetail Hero Way</i> Pond 1			
<b>WATER QUALITY CONTROL CALCULA</b>			
	Required	Provided	
25-yr Peak Flow Rate to Control (Q25)	<b>70.69</b> cfs		
100-yr Peak Flow Rate to Control (Q100)	<b>101.30</b> cfs		
Water Quality Volume	51,441.6 cf.	53,709.1 cf.	
Water Quality Elevation	985.24 ft. msl		
Elevation of Splitter/Overflow Weir	<b>985.32</b> ft. msl		
		100 yr	25 yr
Length of Splitter Weir	<b>8.00</b> ft		
Required Head to Pass Q100	Max 1.0 ft.	2.44 ft	1.92 ft
Pond Freeboard Provided To Pass Q100	Min 0.25 ft.	2.74 ft	3.26 ft
Minimum Top of Berm	<b>990.50</b> ft. msl		

Stage (ft. msl)	Area (sf)	Height (ft)	Avg. End Area	Cumul. Vol. (cf)	Cumul. Vol. (ac-ft)
982.09	0.0	---	0.00	0.00	---
982.25	295.1	0.16	23.60	23.60	0.0005
982.5	1,531.2	0.25	228.29	251.89	0.0058
982.75	3,915.7	0.25	680.87	932.76	0.0214
983	7,359.8	0.25	1409.43	2342.19	0.0538
983.25	11,711.7	0.25	2383.94	4726.12	0.1085
983.5	16,358.1	0.25	3508.73	8234.85	0.1890
983.75	20,930.2	0.25	4661.03	12895.88	0.2960
984	23,886.2	0.25	5602.04	18497.92	0.4247
984.25	25,584.6	0.25	6183.84	24681.76	0.5666
984.5	26,348.5	0.25	6491.63	31173.39	0.7156
984.75	27,027.2	0.25	6671.96	37845.35	0.8688
985	27,720.1	0.25	6843.41	44688.76	1.0259
985.25	28,427.0	0.25	7018.39	51707.15	1.1870
985.37	28,771.4	0.12	3431.91	55139.06	1.2658
985.5	29,148.2	0.13	3764.77	58903.83	1.3522
985.75	29,863.3	0.25	7378.94	66282.77	1.5216
986	30,632.7	0.25	7564.50	73847.27	1.6953
986.25	31,422.2	0.25	7753.61	81600.88	1.8733
986.5	32,173.7	0.25	7946.23	89547.11	2.0557
986.75	32,965.4	0.25	8142.39	97689.50	2.2426
987	33,771.2	0.25	8342.08	106031.57	2.4341
987.25	34,591.1	0.25	8545.29	114576.86	2.6303
987.5	35,425.2	0.25	8752.04	123328.90	2.8312
987.75	36,273.3	0.25	8962.31	132291.21	3.0370
988	37,135.6	0.25	9176.12	141467.33	3.2476
988.25	38,012.0	0.25	9393.45	150860.78	3.4633
988.5	38,902.5	0.25	9614.32	160475.10	3.6840
988.75	39,807.2	0.25	9838.71	170313.81	3.9099
989	40,725.9	0.25	10066.63	180380.45	4.1410

- 



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

**CONTRACTOR NOTES:**  
EXISTING UNDERGROUND AND OVERHEAD UTILITIES  
IN VICINITY. CONTRACTOR TO CONTACT UTILITY  
COMPANIES PRIOR TO CONSTRUCTION.  
CONTRACTOR TO FIELD VERIFY EXISTING UTILITY  
LOCATIONS & DEPTHS PRIOR TO BEGINNING  
CONSTRUCTION.

CONTRACTOR SHALL CONSIDER PROPOSED UTILITY IMPROVEMENTS AND PROVIDE ADEQUATE HORIZONTAL AND VERTICAL CLEARANCE DURING INSTALLATION OF ALL UTILITY INFRASTRUCTURE.









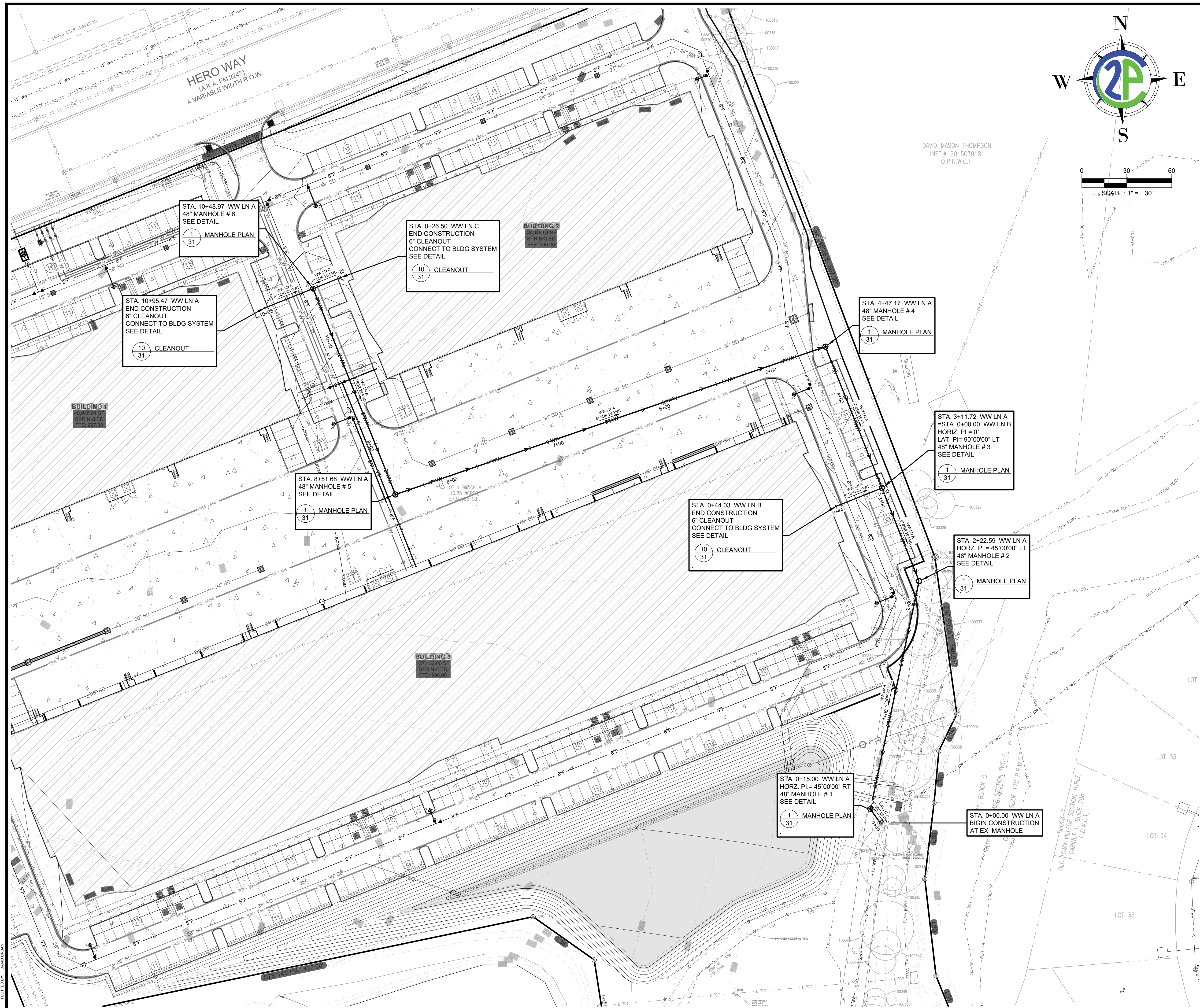
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**SD-23-0111**

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SHEET No.  
**28**  
OF 56

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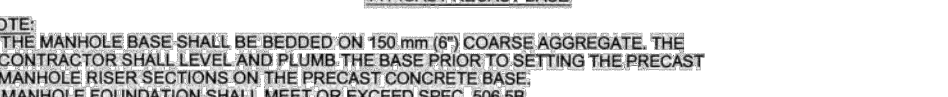
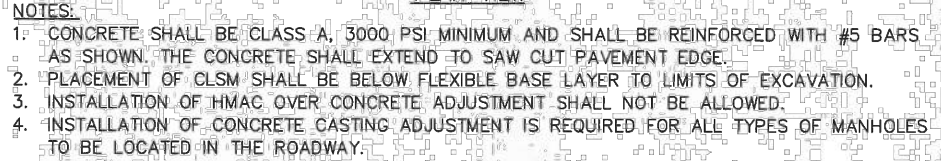
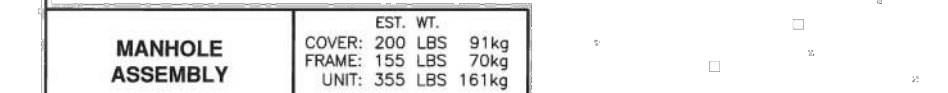
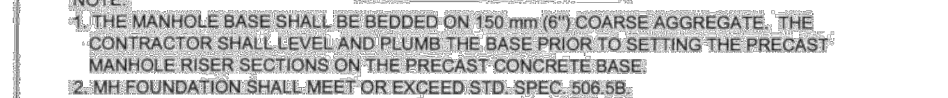
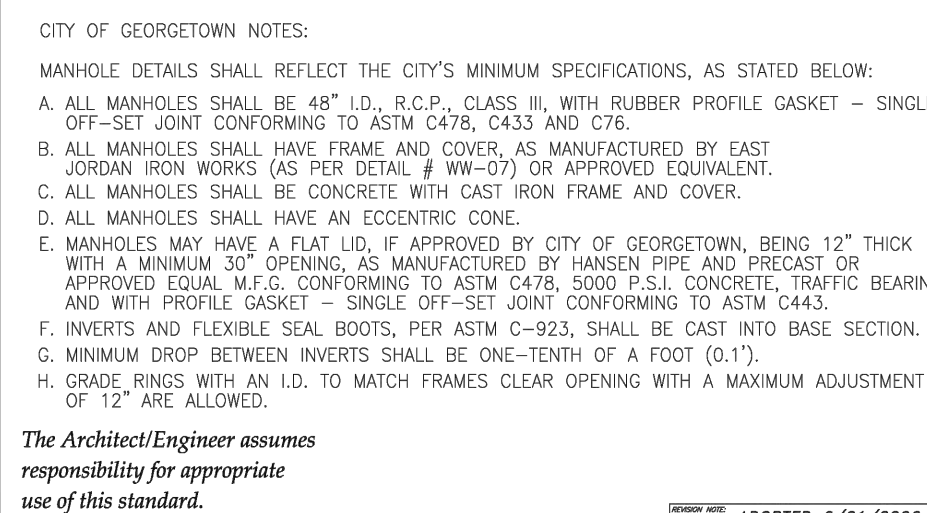
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**SD-23-0111**  
SHEET No.  
**29**  
OF 56

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PLOT DATE: Wednesday, May 24, 2023  
PLOTTED BY: DAVID URBAN





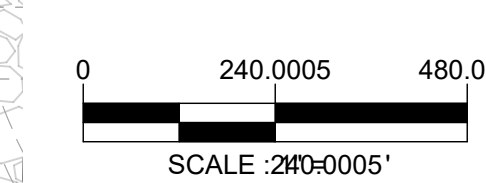










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**WATER NOTES:**

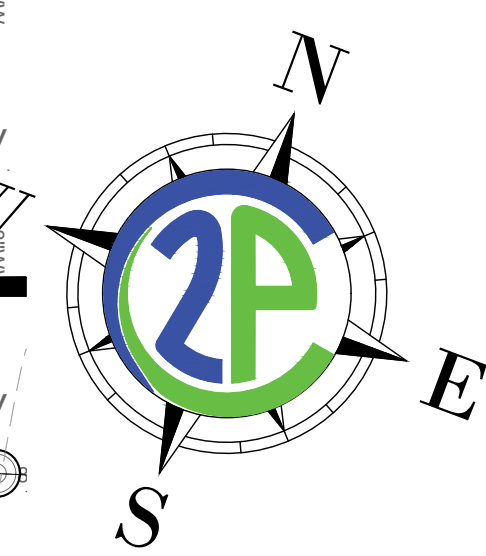
1. UNLESS OTHERWISE NOTED, ALL WATER LINES 4"-12" IN DIAMETER SHALL BE C900 DR14 PVC PIPE. WATERLINES LESS THAN 4" DIAMETER SHALL 200 PSI BLACK POLYETHYLENE DR9 TUBING.
2. DUCTILE IRON PIPE SHALL BE CLASS 350.
3. ALL FITTINGS 4" AND LARGER SHALL BE DUCTILE IRON.
4. ALL FIRE LINES TO BE COMPLIANT WITH NFPA OR CITY STANDARDS WHICHEVER IS MORE STRINGENT.
5. CONTRACTOR TO COORDINATE AND INSTALL NECESSARY IRRIGATION, ELECTRICAL AND TELECOMMUNICATIONS SLEEVES PRIOR TO PLACEMENT OF CONCRETE.
6. MINIMUM CLEARANCE BETWEEN WATER AND SANITARY SEWER LINES SHALL COMPLY WITH TCEQ REQUIREMENTS.
7. GATE VALVE OPERATOR NUTS SHALL BE BETWEEN 18" AND 36" BELOW GRADE. EXTENSIONS SHALL BE PROVIDED AS NECESSARY TO MEET THIS REQUIREMENT. EXTENSIONS SHALL NOT BE FIXED TO THE OPERATING NUT.
8. ALL WATERLINE VALVES AND FITTINGS SHALL BE JOINT-RESTRAINED AND THRUST-BLOCKED PER CITY STANDARDS.
9. FIRE SAFETY: THIS SITE SHALL BE COMPLIANT WITH CHAPTER 33 OF THE INTERNATIONAL FIRE CODE 2015, DURING CONSTRUCTION & DEMOLITION.



**CONTRACTOR NOTES:**  
EXISTING UNDERGROUND AND OVERHEAD UTILITIES  
IN VICINITY. CONTRACTOR TO CONTACT UTILITY  
COMPANIES PRIOR TO CONSTRUCTION.  
CONTRACTOR TO FIELD VERIFY EXISTING UTILITY  
LOCATIONS & DEPTHS PRIOR TO BEGINNING  
CONSTRUCTION.  
  
CONTRACTOR SHALL CONSIDER PROPOSED UTILITY  
IMPROVEMENTS AND PROVIDE ADEQUATE  
HORIZONTAL AND VERTICAL CLEARANCE DURING  
INSTALLATION OF ALL UTILITY INFRASTRUCTURE.



MATCH LINE SEE SHEET 15



**GENERAL LEGEND**

**SYMBOLS**

WATER METER	WW SERVICE
WATER VALVE	WATER SERVICE
FIRE HYDRANT	STORMSEWER MANHOLE
BACKFLOW PREVENTER	SIGN
UTILITY POLE	CURB INLET
LIGHT POLE	GRATE INLET
WASTEWATER MANHOLE	TABLE TOP AREA INLET
CLEAN OUT	
KEYNOTES	TREE TO BE SAVED
PARKING COUNT	TREE TO BE REMOVED

**LINE TYPES**

---	PROPERTY BOUNDARY
- - -	LOC - LIMITS OF CONSTRUCTION
- - -	FENCES (CHAINLINK)
- - -	(IRON)
- - -	(WOOD)
- - -	(BARB WIRE)
- - -	DITCH (CREEK) LINE
- - -	EXISTING CONTOURS
- - -	PROPOSED CONTOURS
- - -	CURB & GUTTER
- - -	UNDERGROUND ELEC.
- - -	OVERHEAD UTILITY
- - -	TEL - UNDERGROUND TELE.
- - -	GAS - UNDERGROUND GAS LINE
- - -	W - WATER LINE
- - -	WV - WASTEWATER LINE
- - -	ACCESSIBLE ROUTE

**DETAIL NUMBER**

**SHEET NUMBER**

**WHERE DETAIL IS LOCATED**

**DETAIL NAME**

**DETAIL REFERENCE CALLOUT**

- WATER NOTES:**
- UNLESS OTHERWISE NOTED, ALL WATER LINES 4"-12" IN DIAMETER SHALL BE C900 DR14 PVC PIPE. WATERLINES LESS THAN 4" DIAMETER SHALL 200 PSI BLACK POLYETHYLENE DR9 TUBING.
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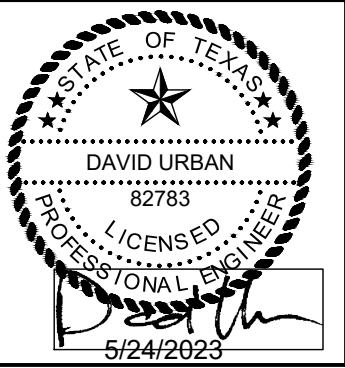


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2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPE FIRM #F-19351



NO.	DATE	REVISIONS	RECORD

**FREEHILL**

**FREEHILL HERO WAY WEST**  
**SITE DEVELOPMENT PLAN**  
11661 HERO WAY W LEANDER, TX 78641

**WATER PLAN (3)**

PERMIT No.  
**SD-23-0111**

SHEET No.  
**34**  
OF 56

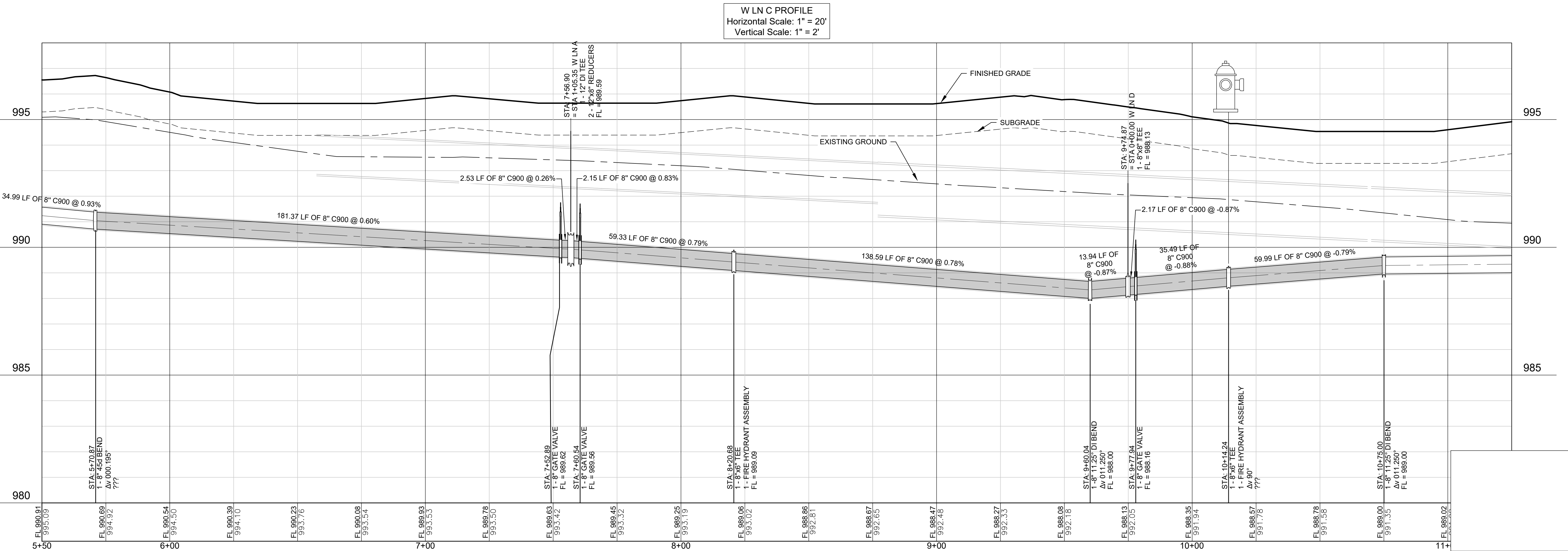
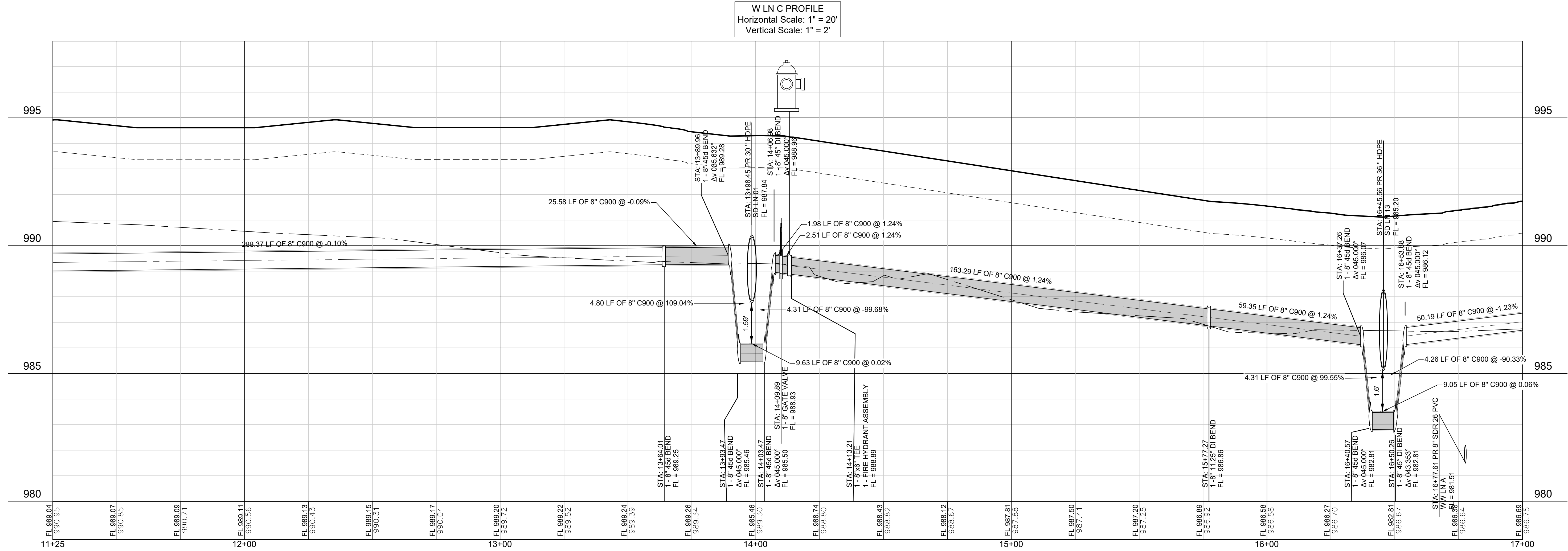




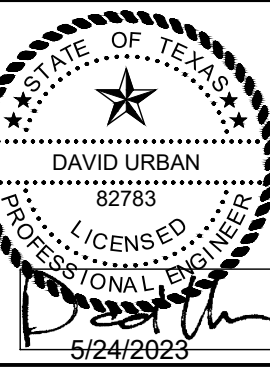




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2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPE FIRM #F-19351

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# FREE!!!

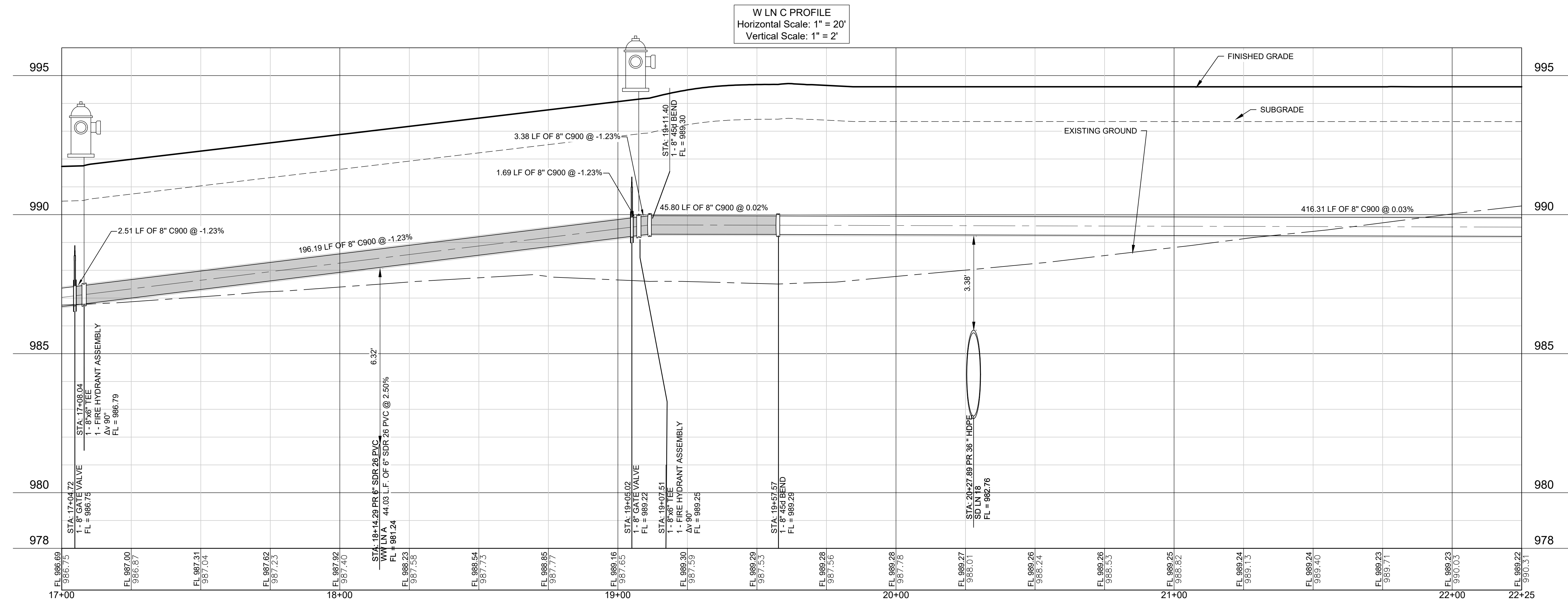
**FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN**  
11561 HERO WAY W LEANDER, TX 78641

WATER PROFILE C2

SD-23-0111

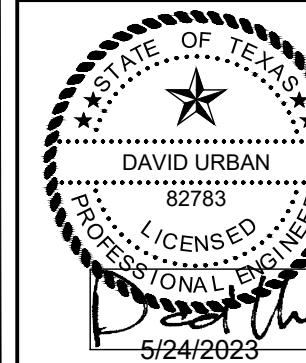
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2P CONSULTANTS, LLC  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPE FIRM #F-19351

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FREEHILL  
FREEHILL HERO WAY WEST  
SITE DEVELOPMENT PLAN  
11561 HERO WAY W LEANDER, TX 78641

WATER PROFILE C 3

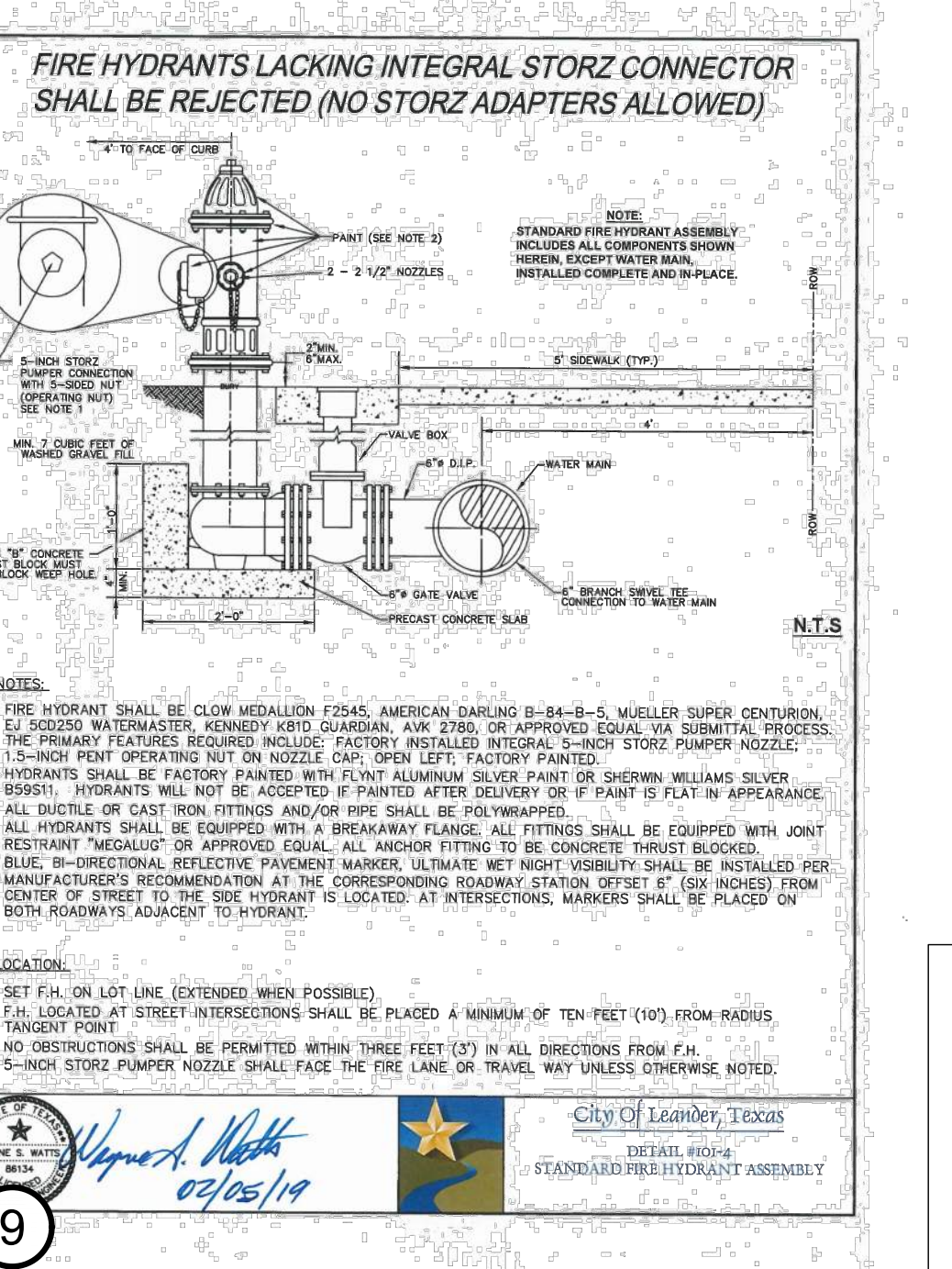
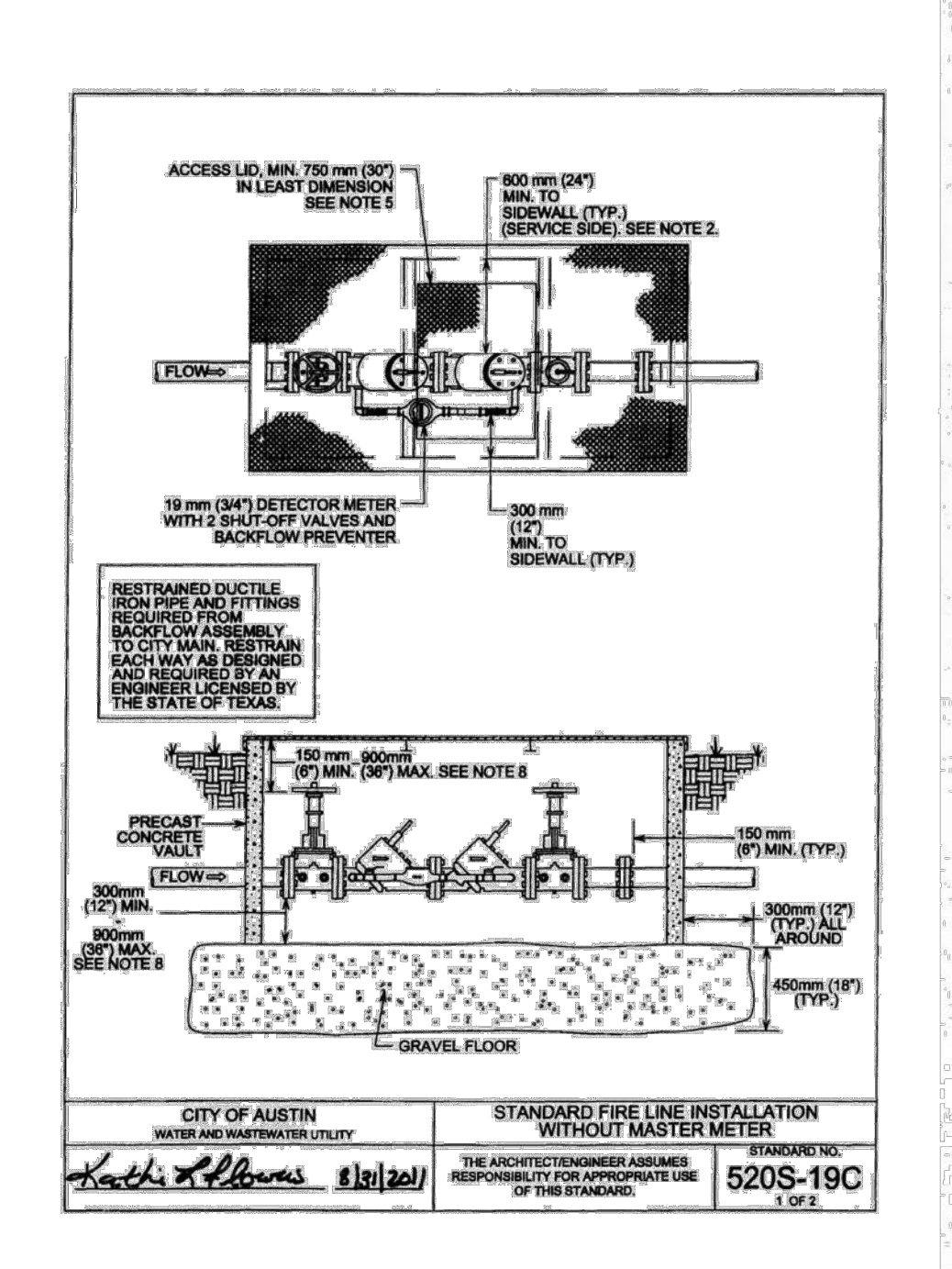
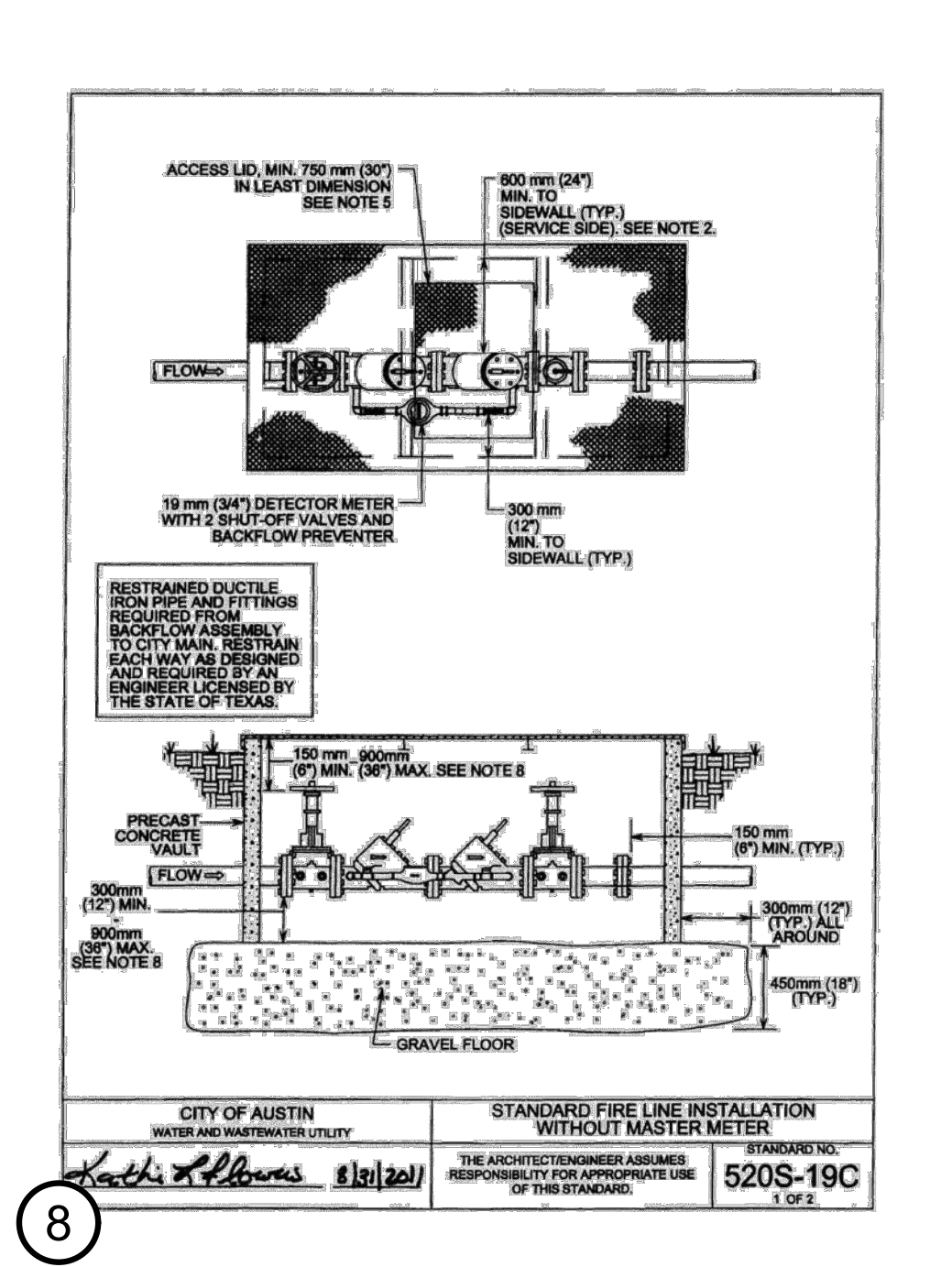
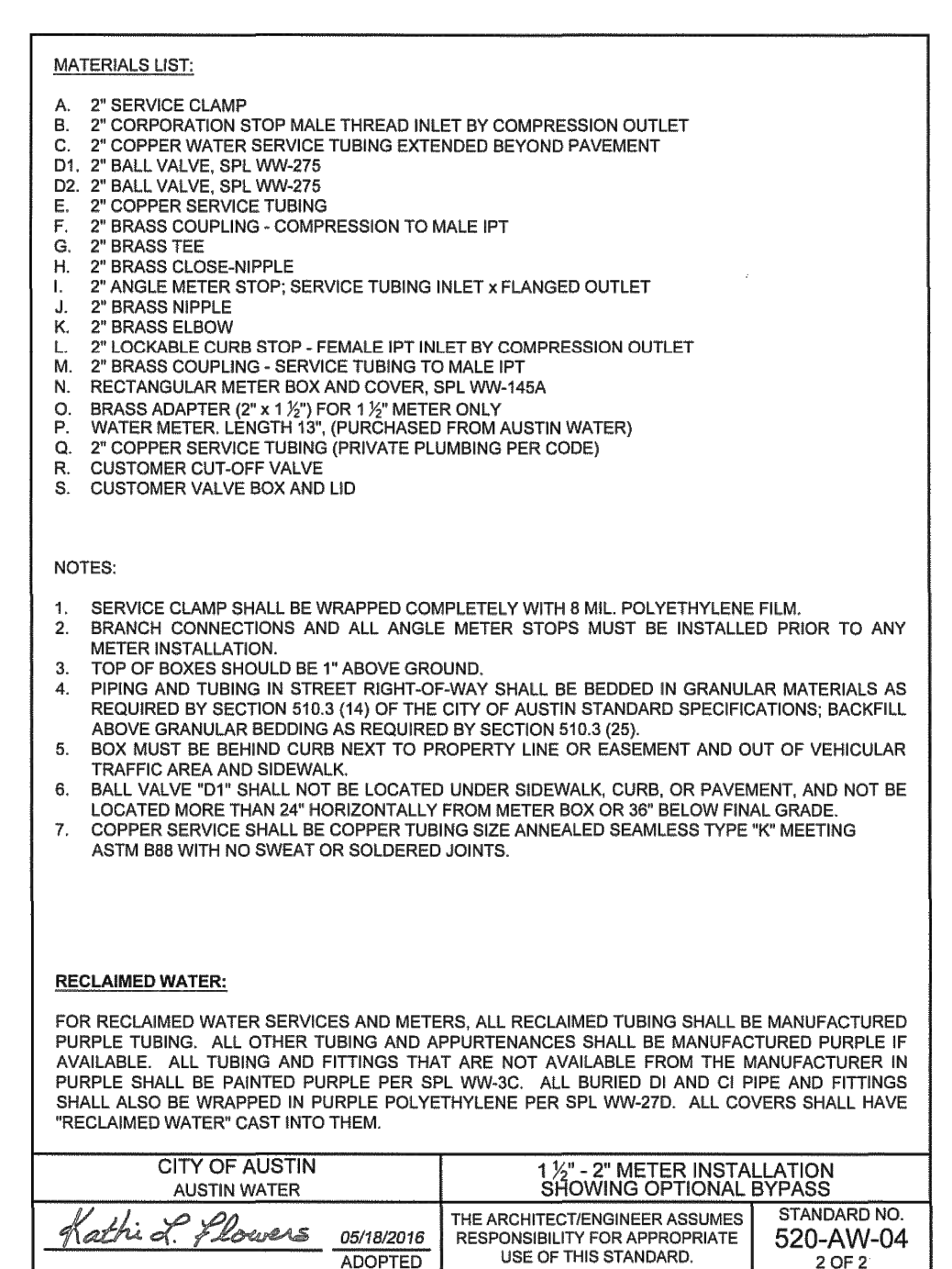
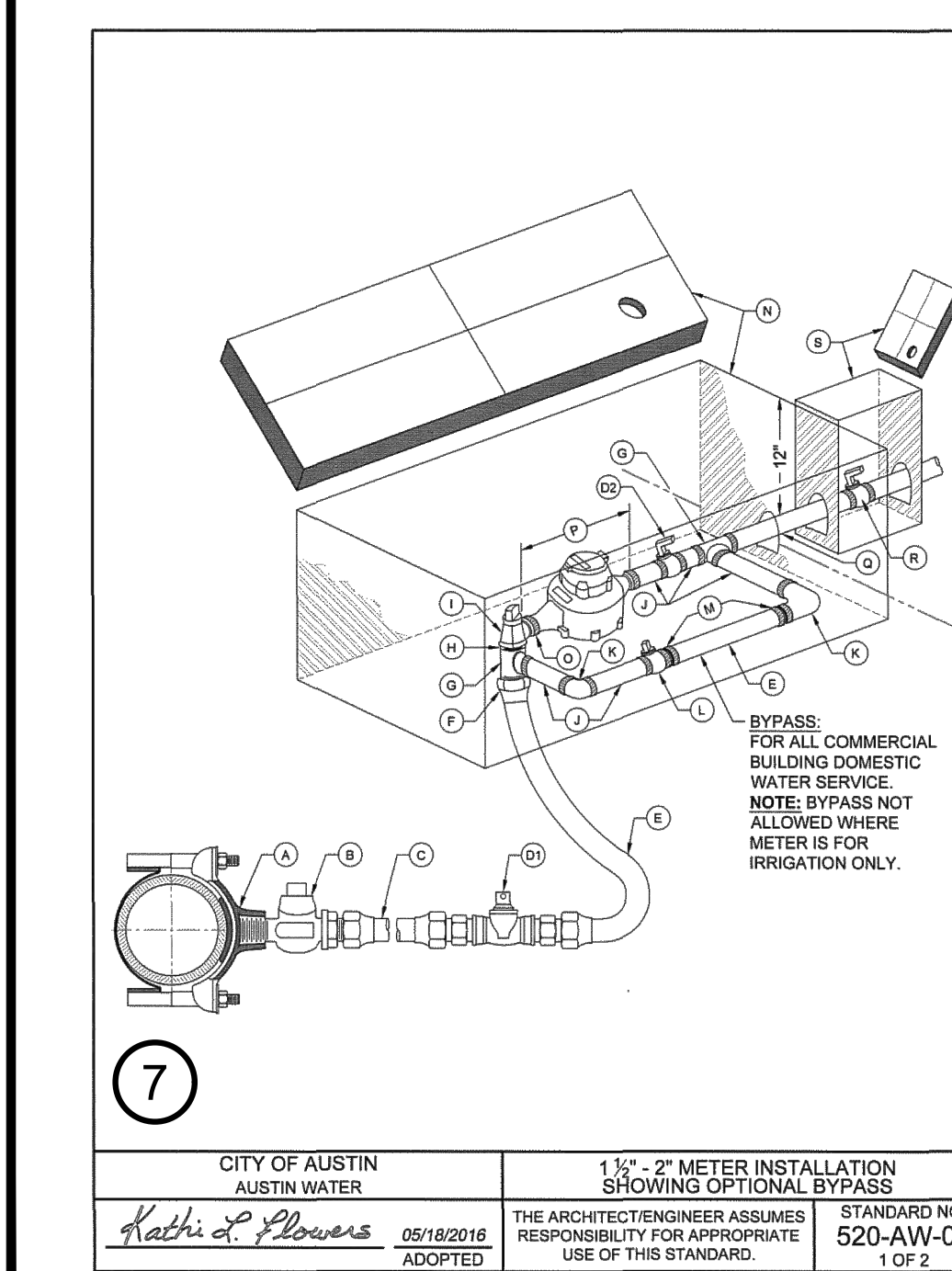
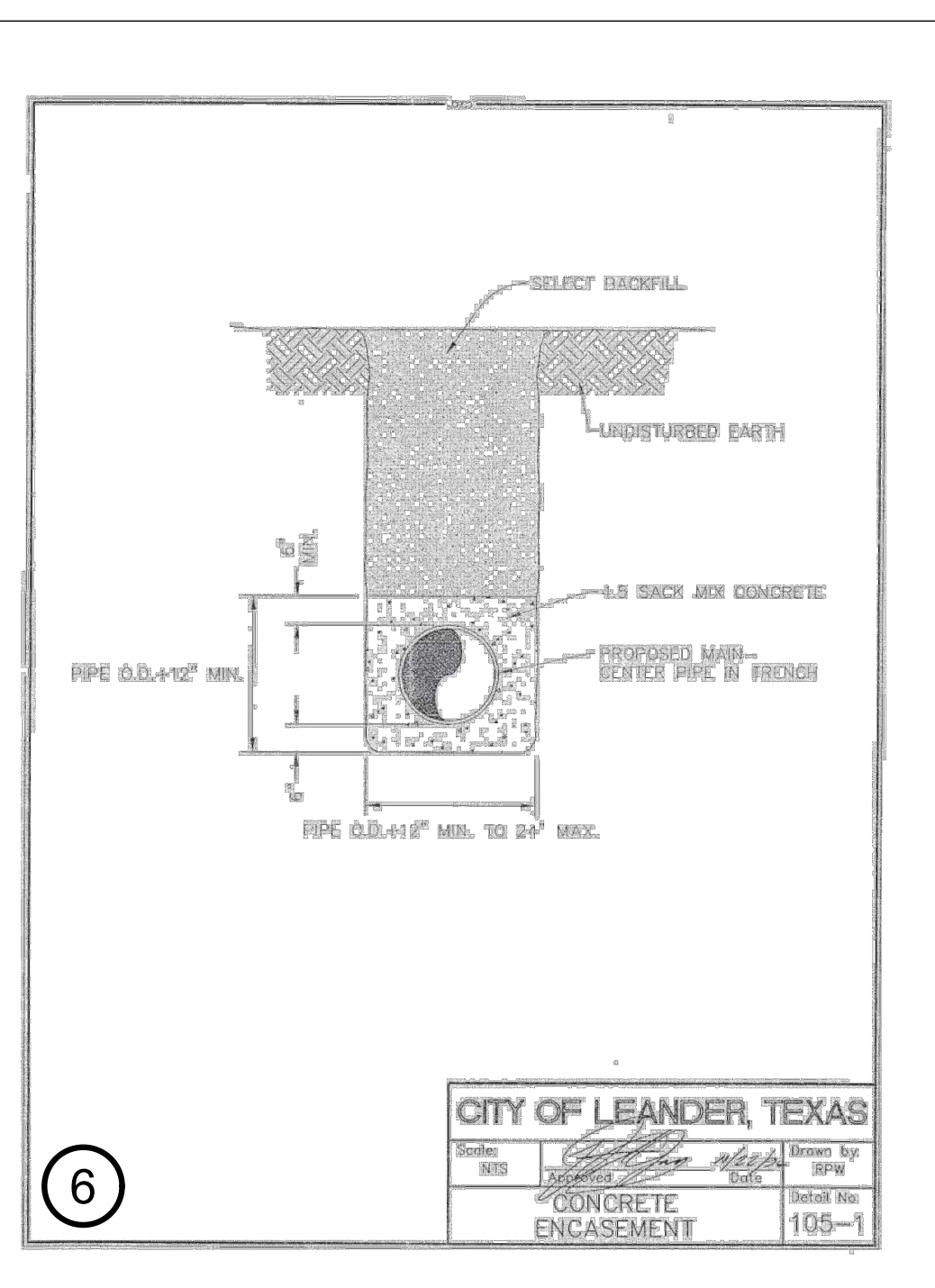
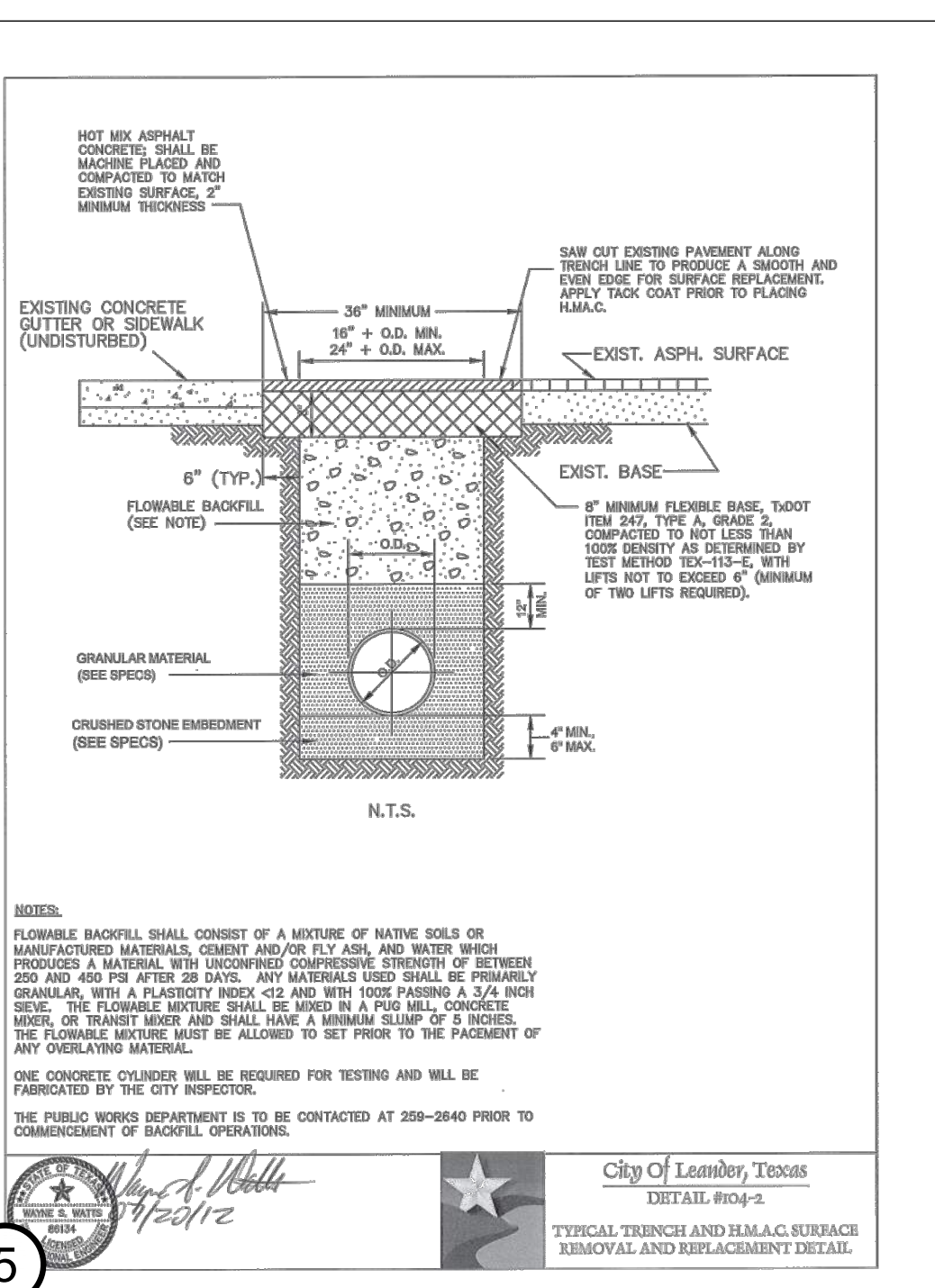
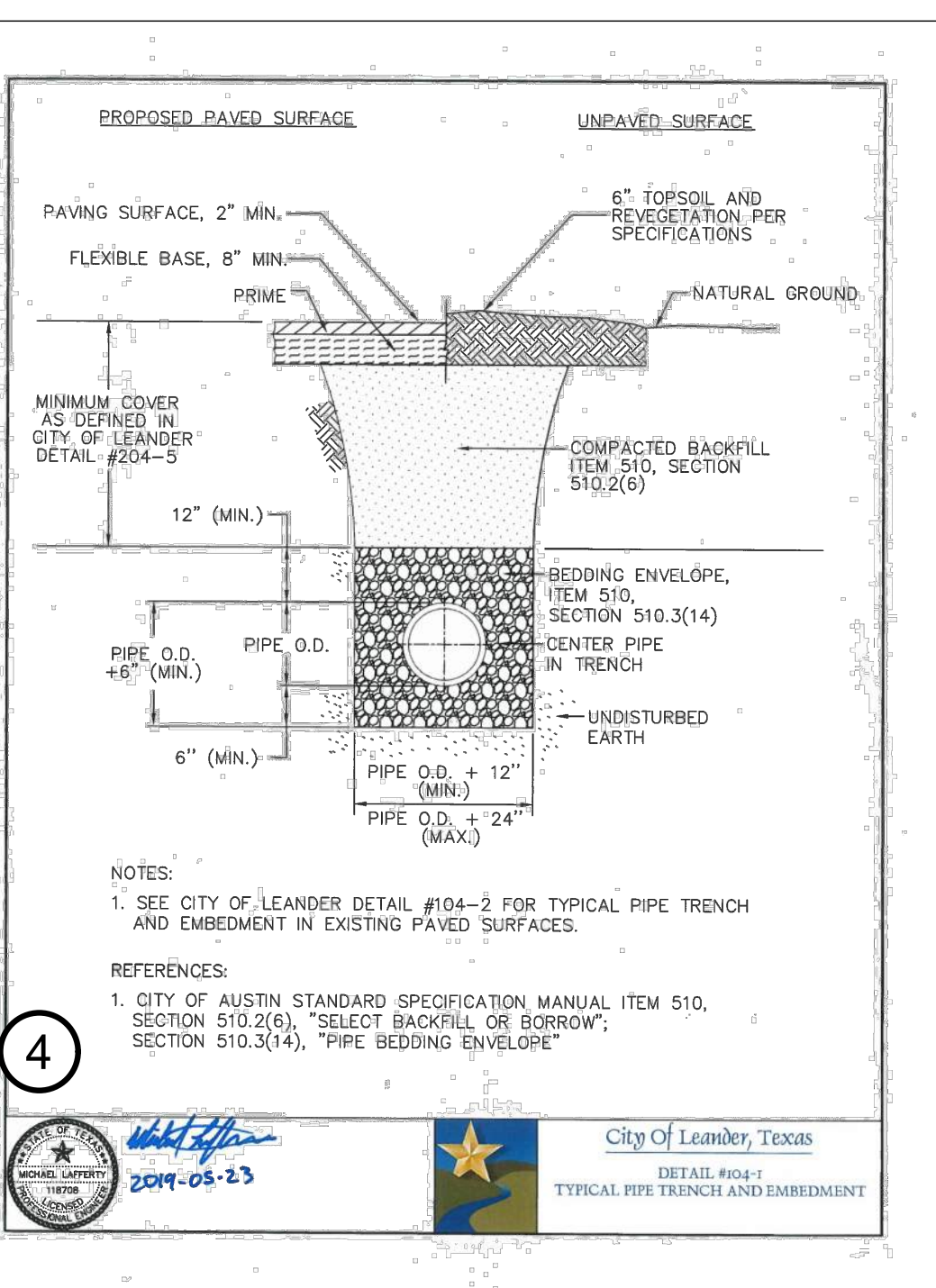
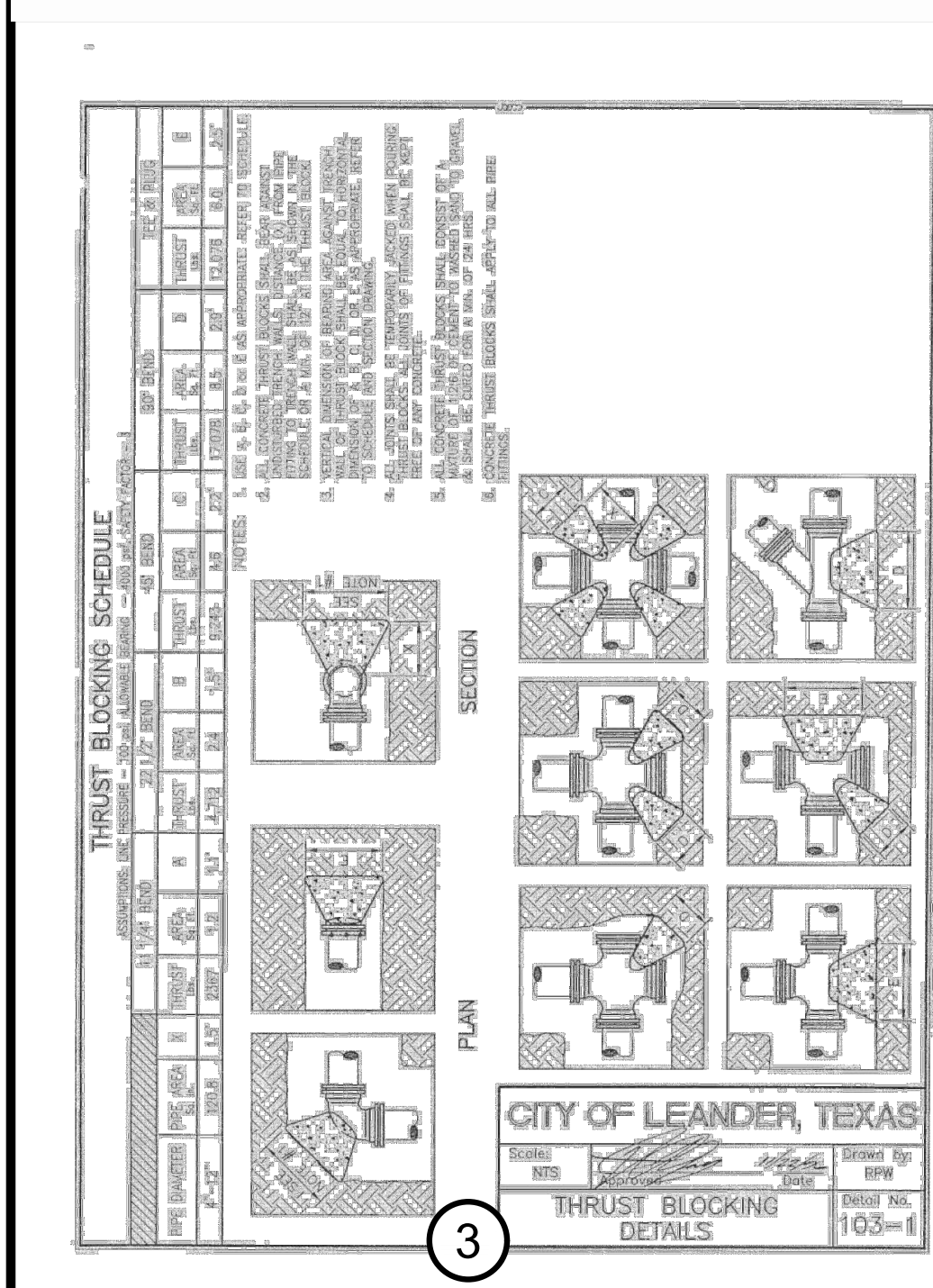
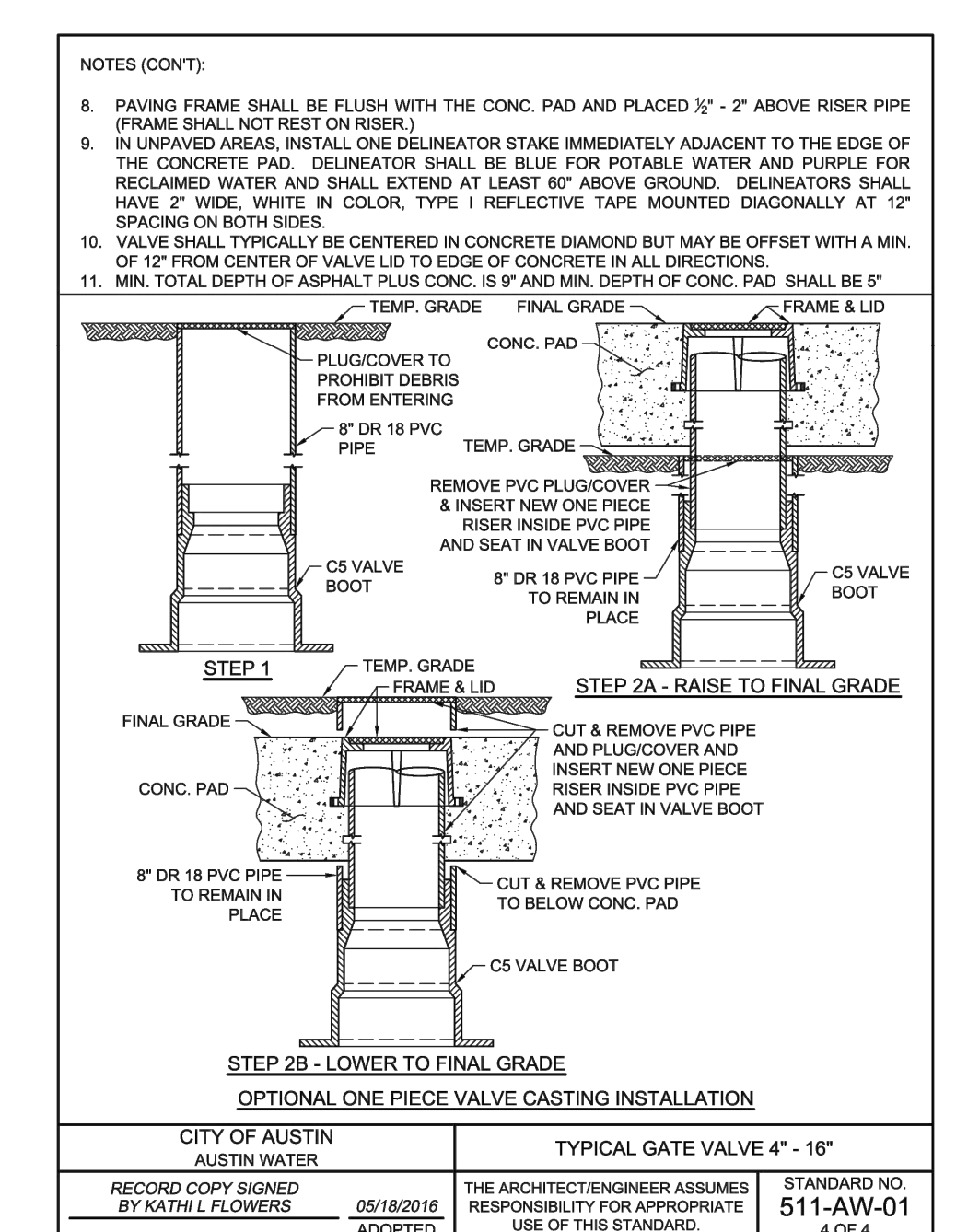
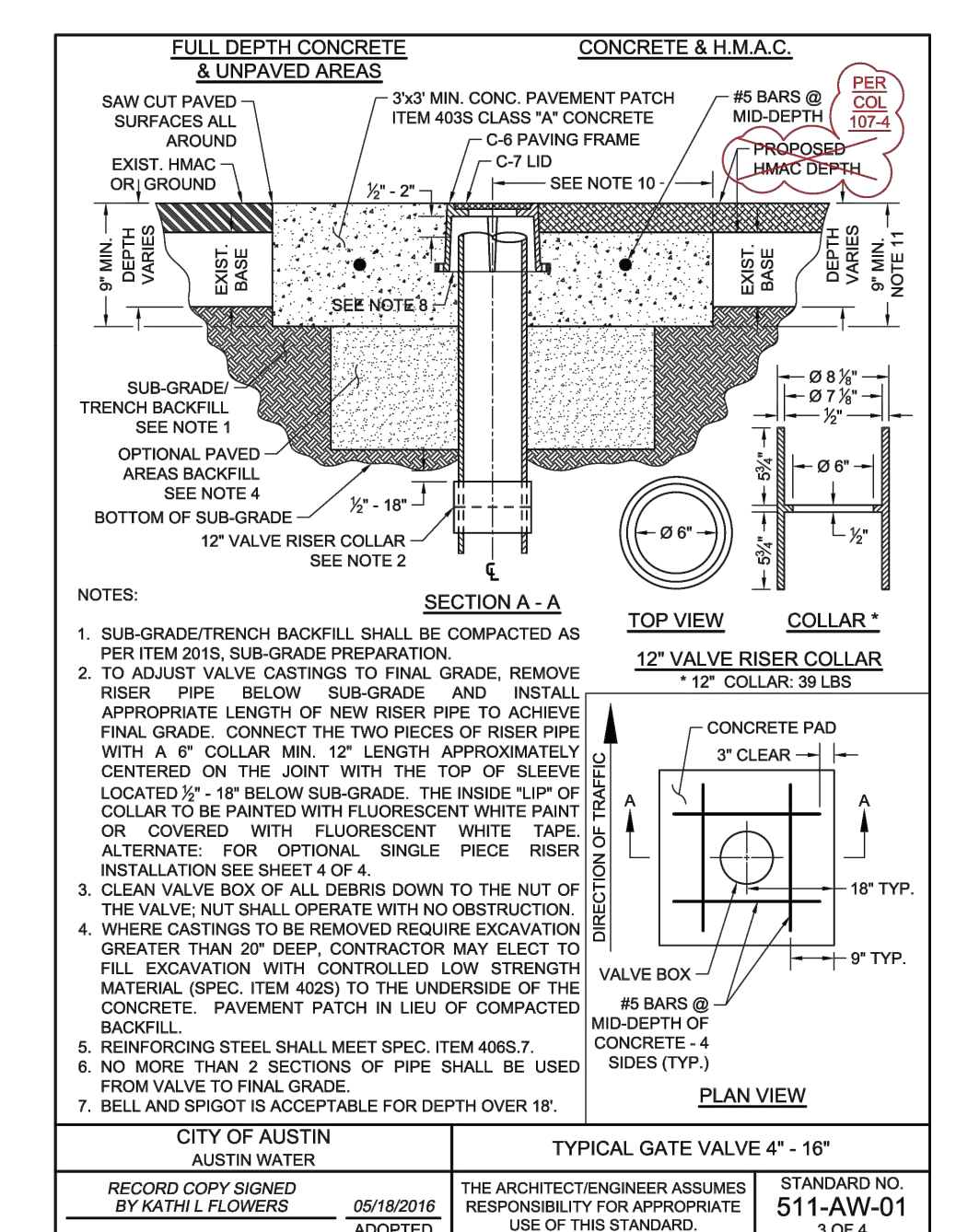
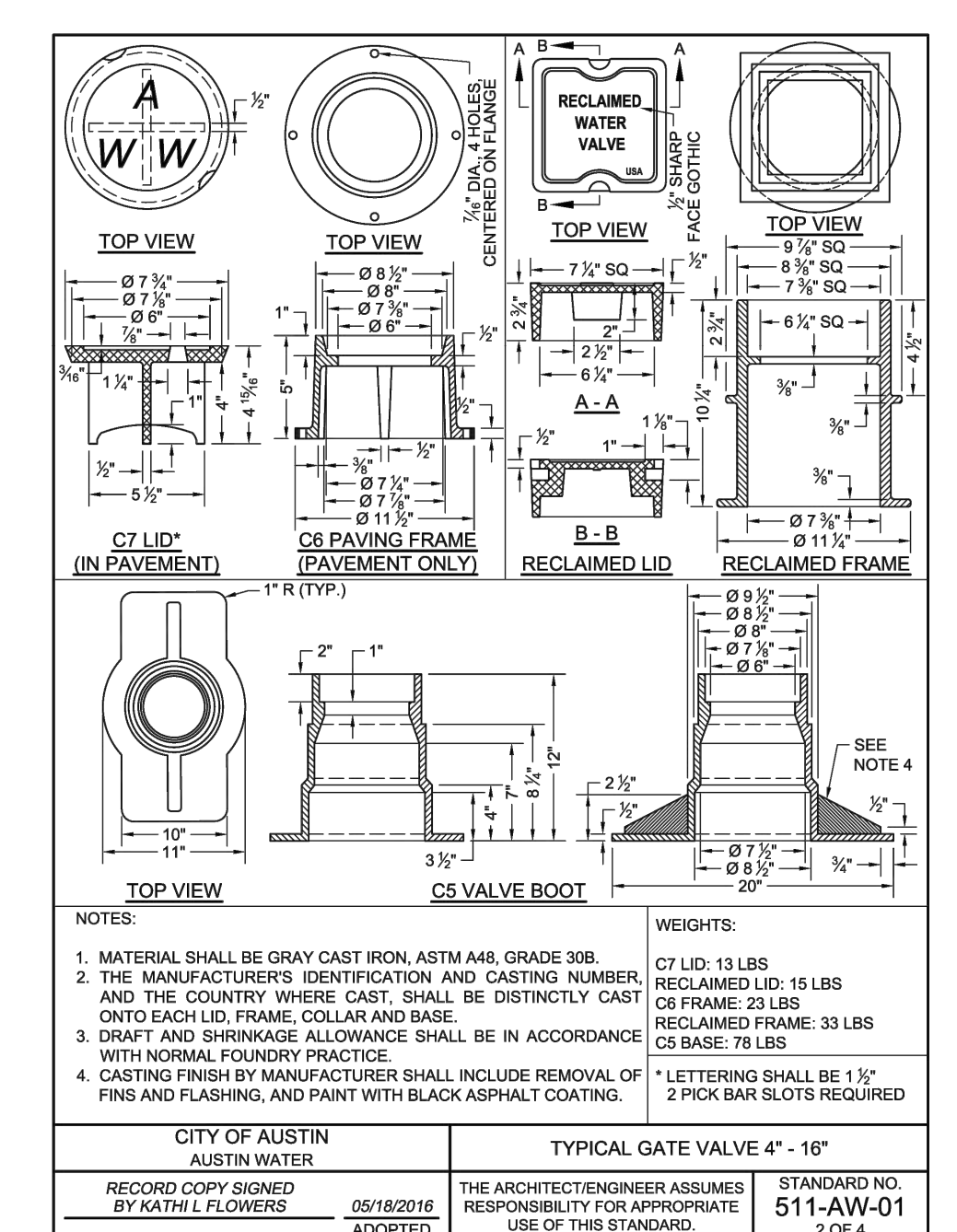
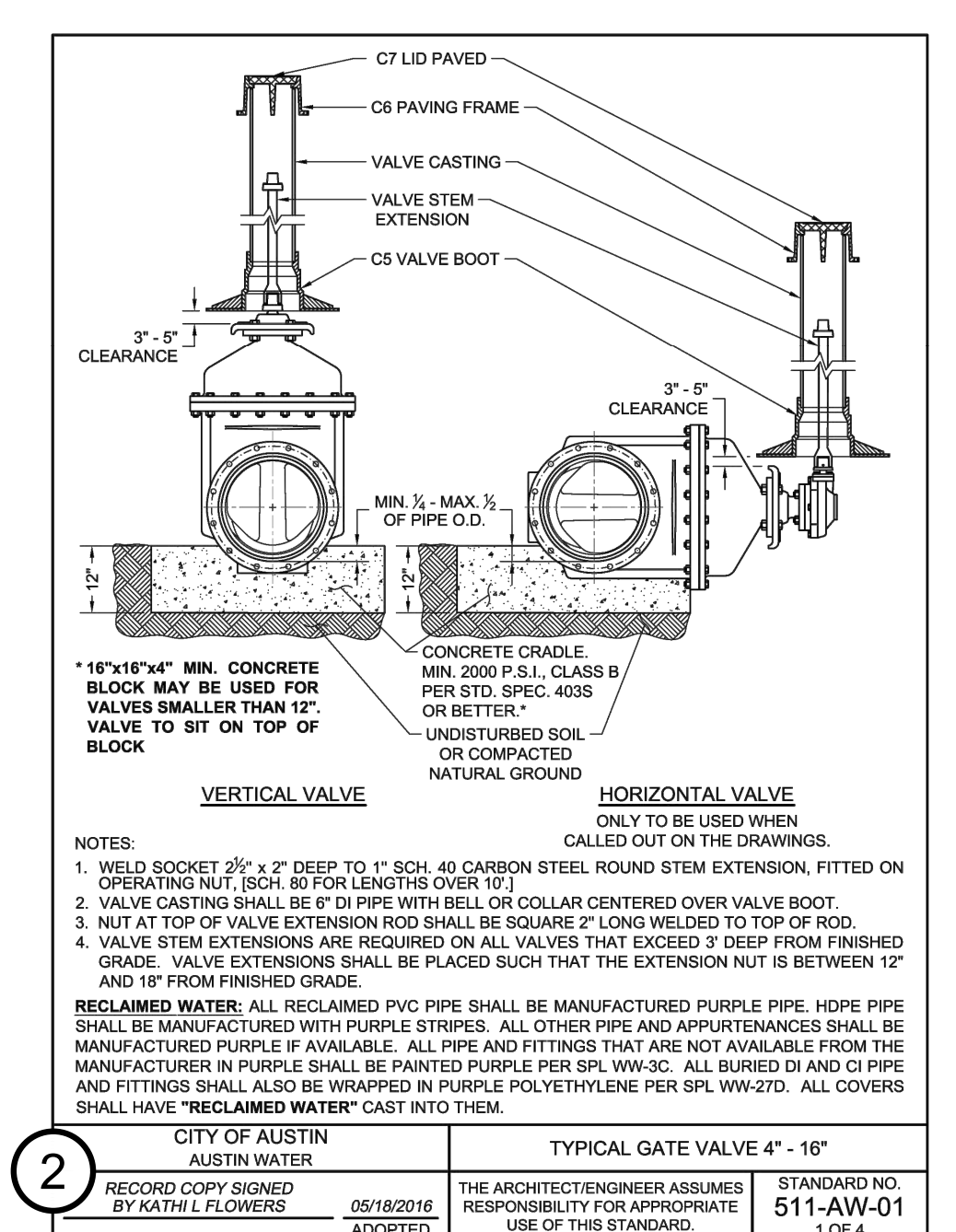
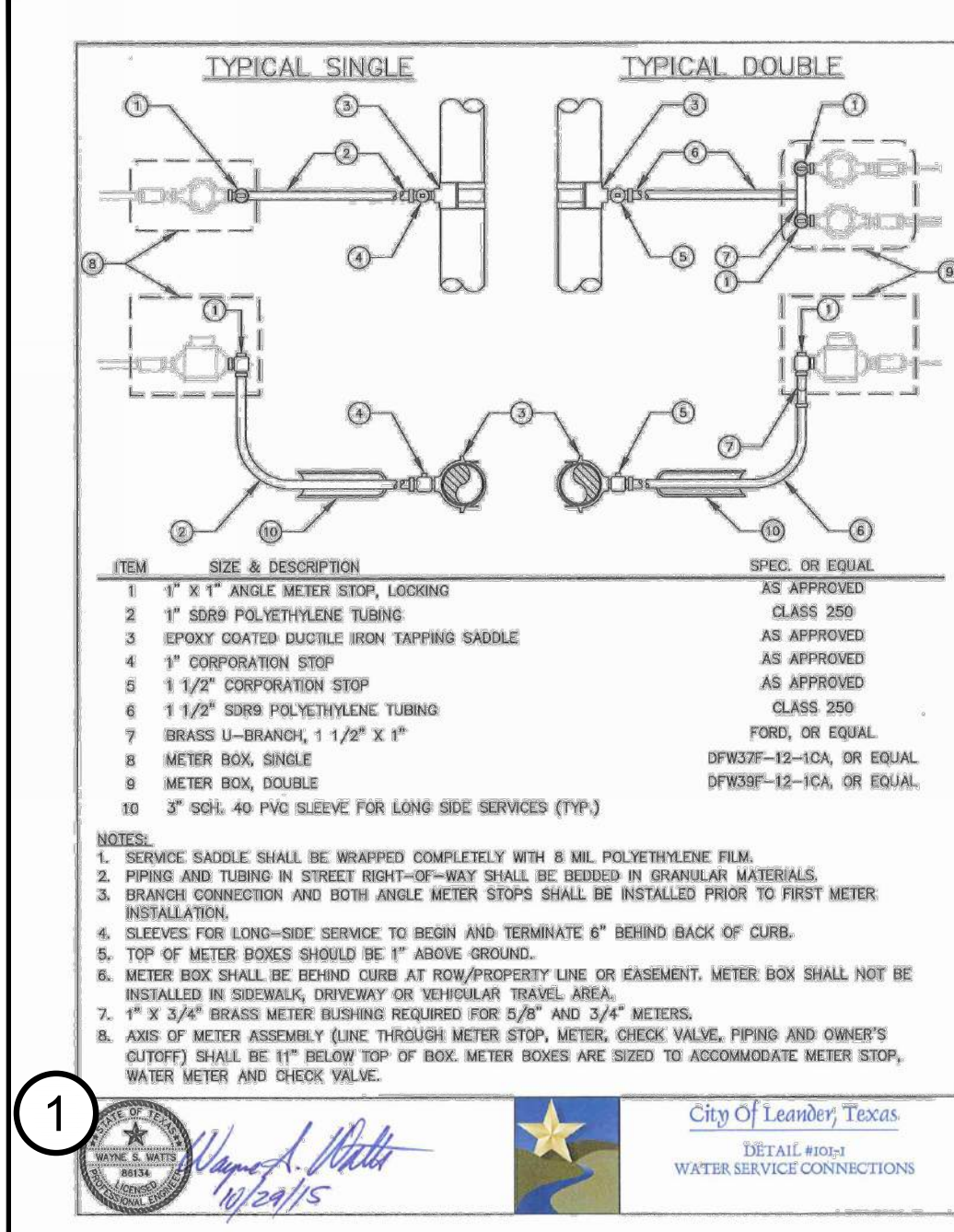
PERMIT No.  
**SD-23-0111**

SHEET No.

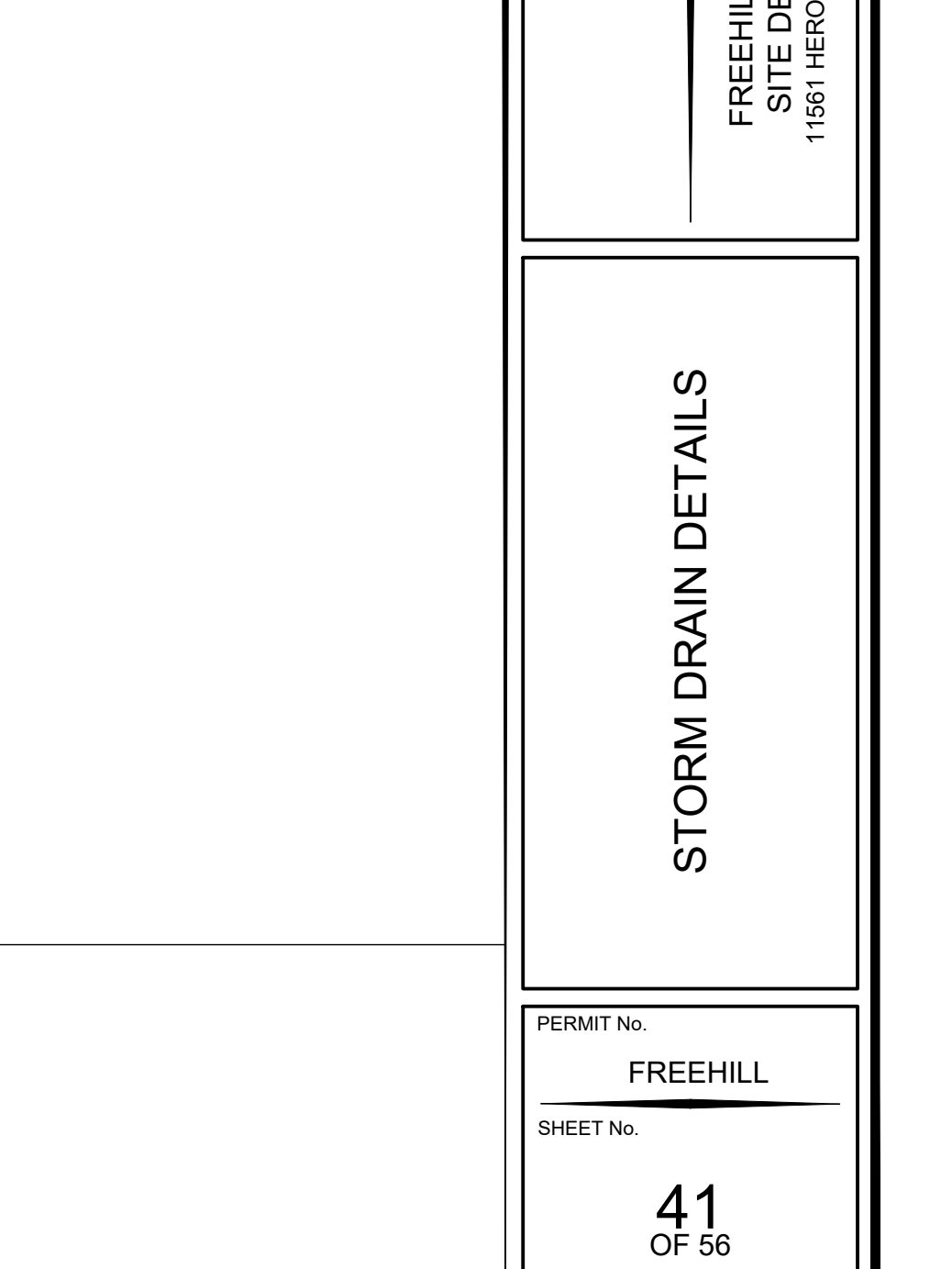
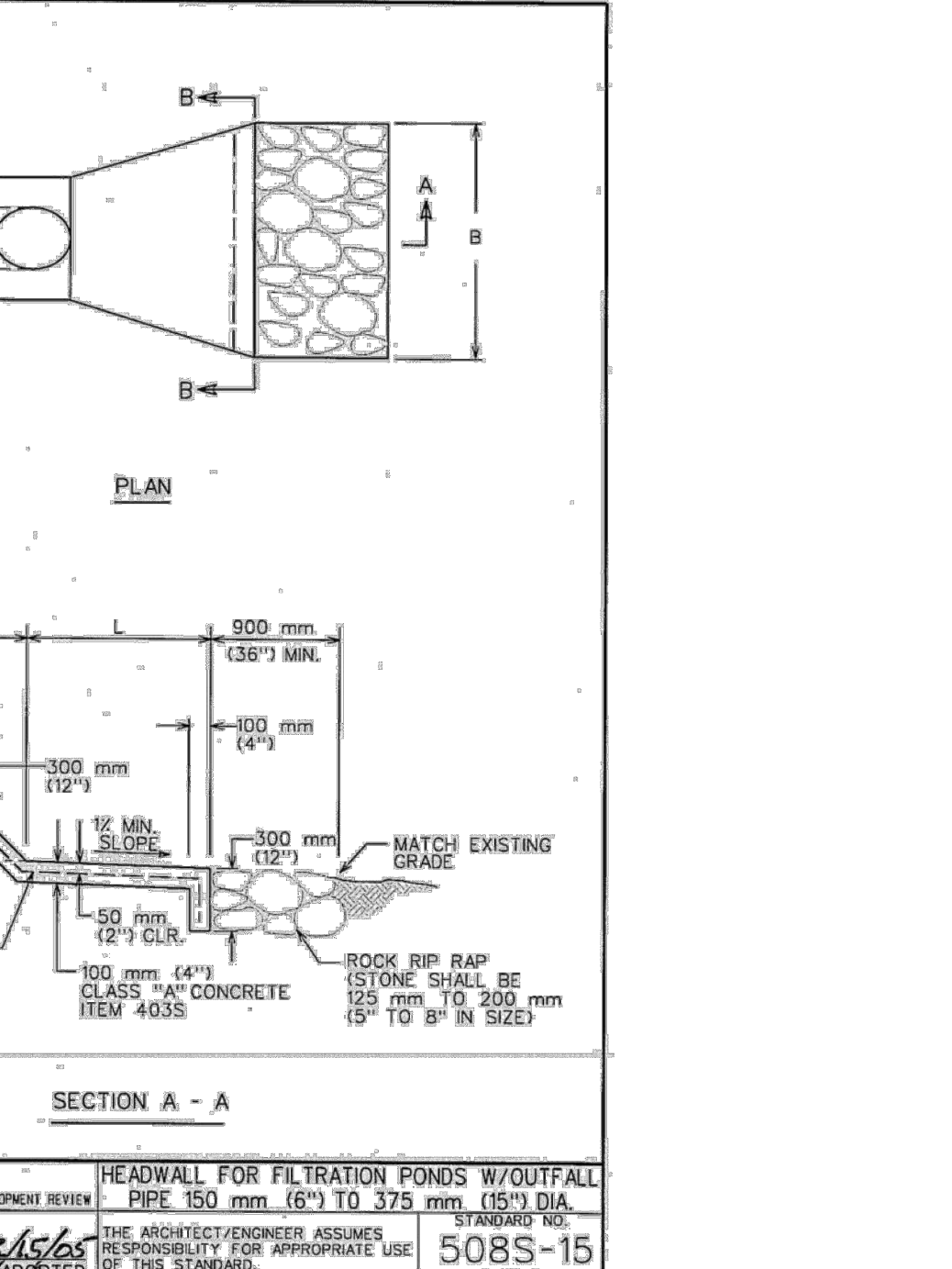
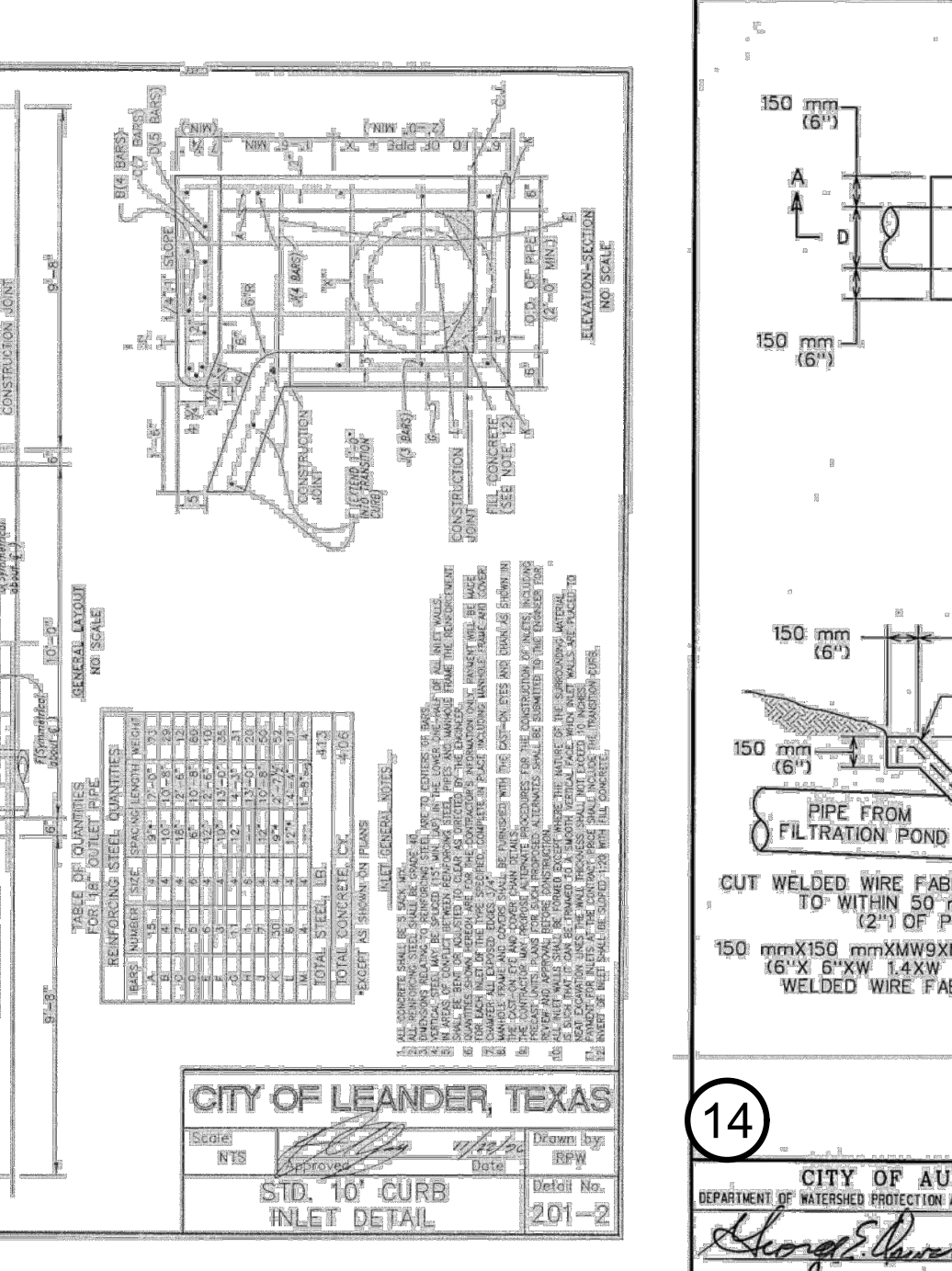
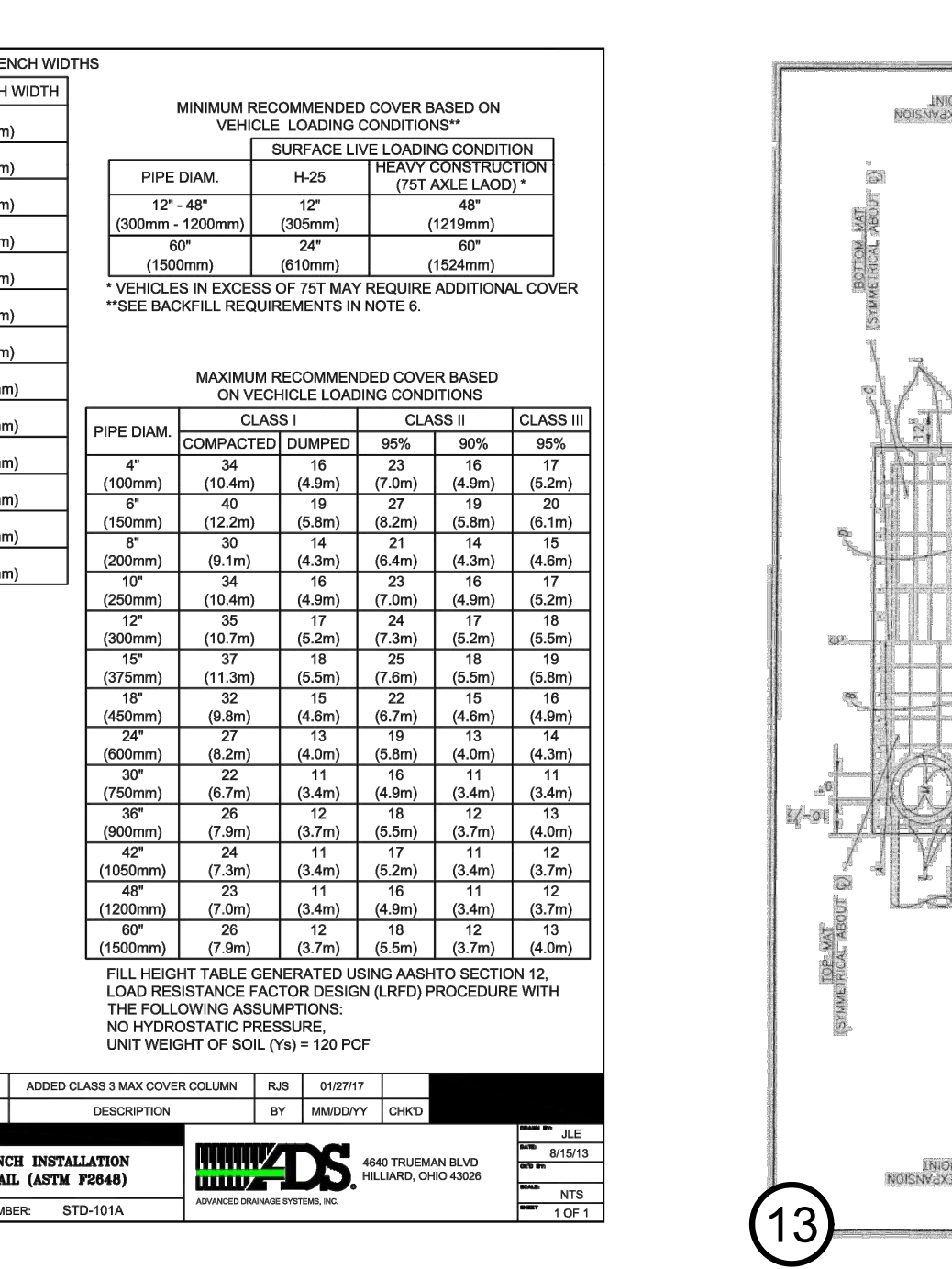
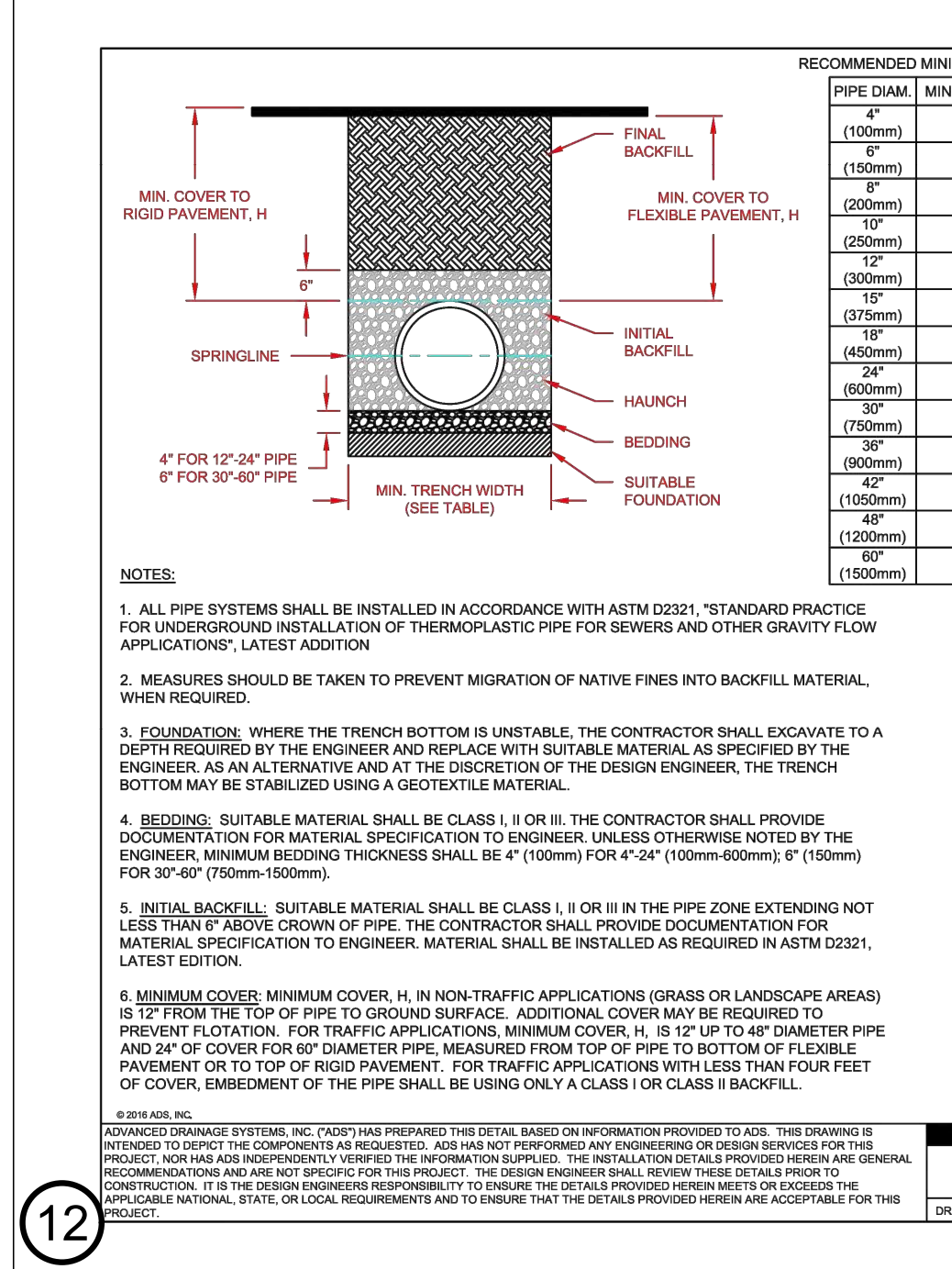
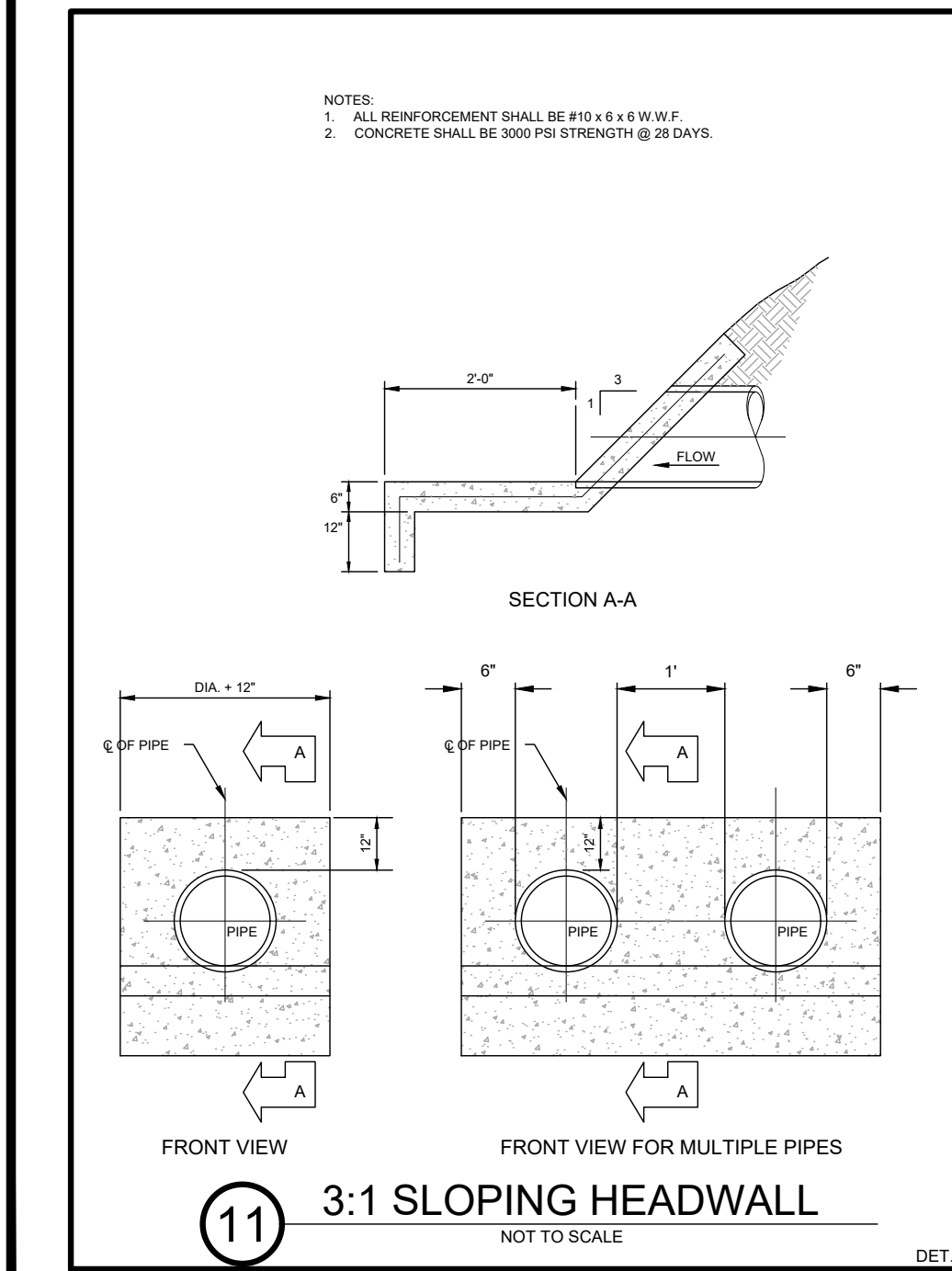
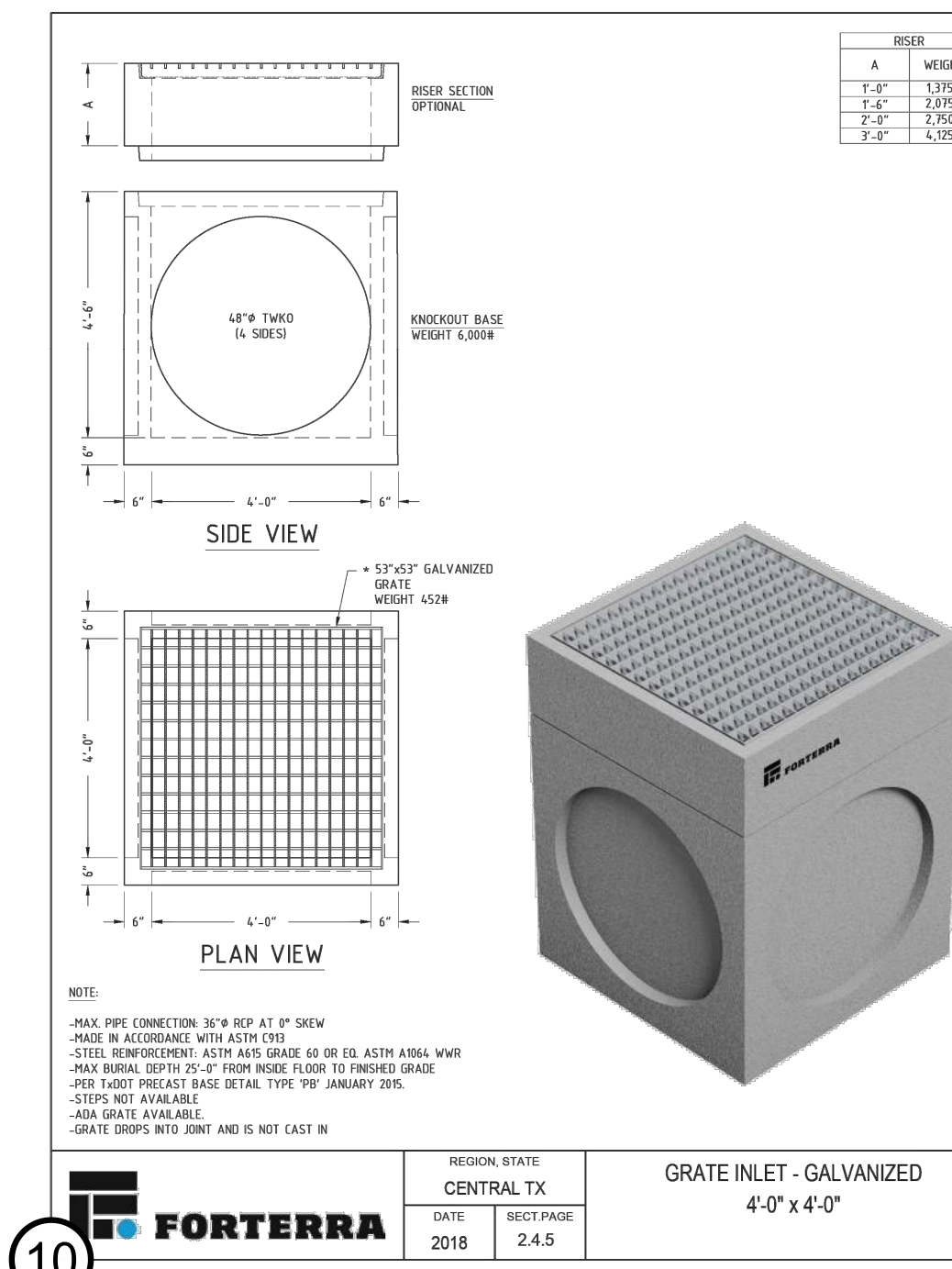
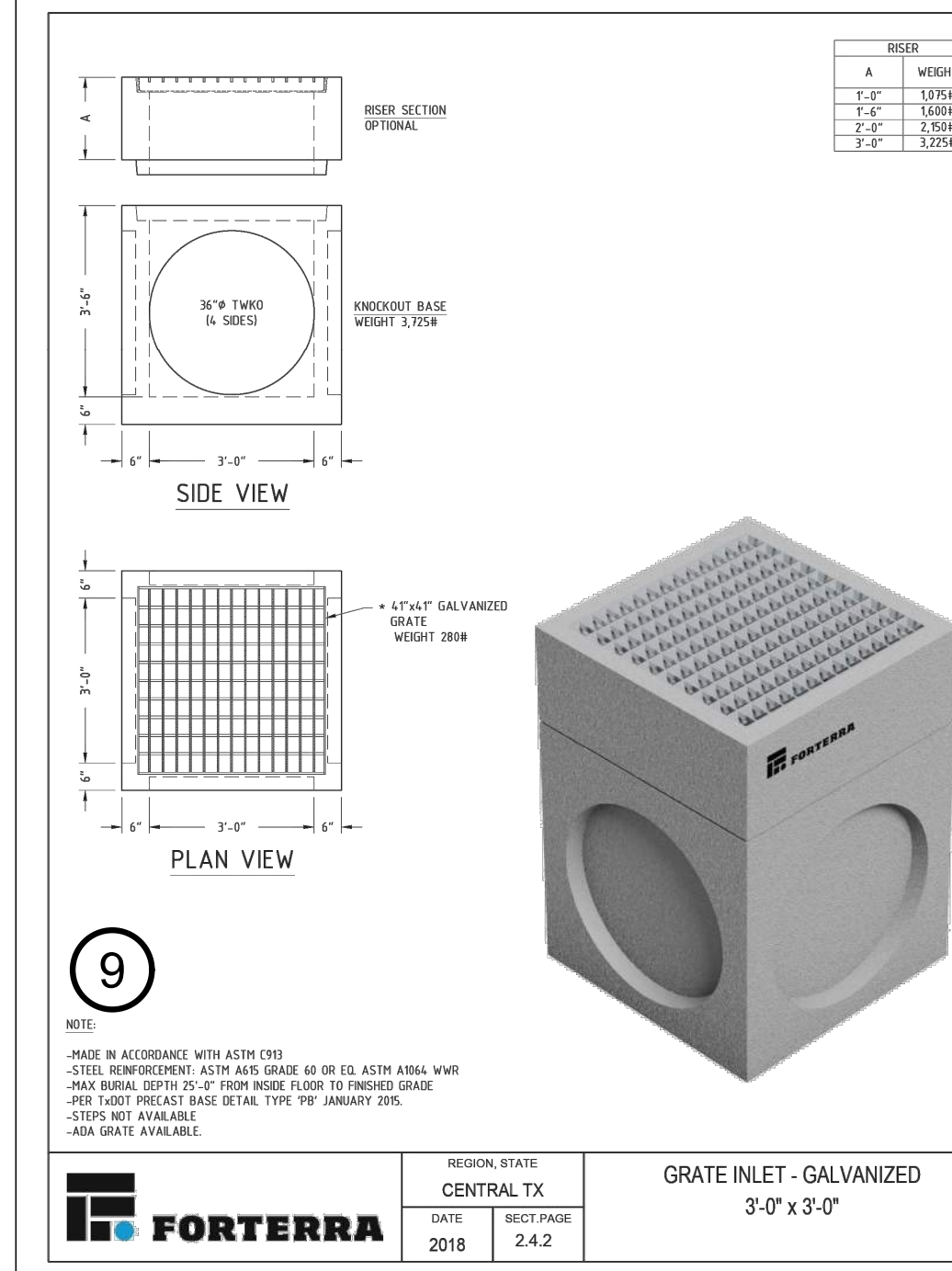
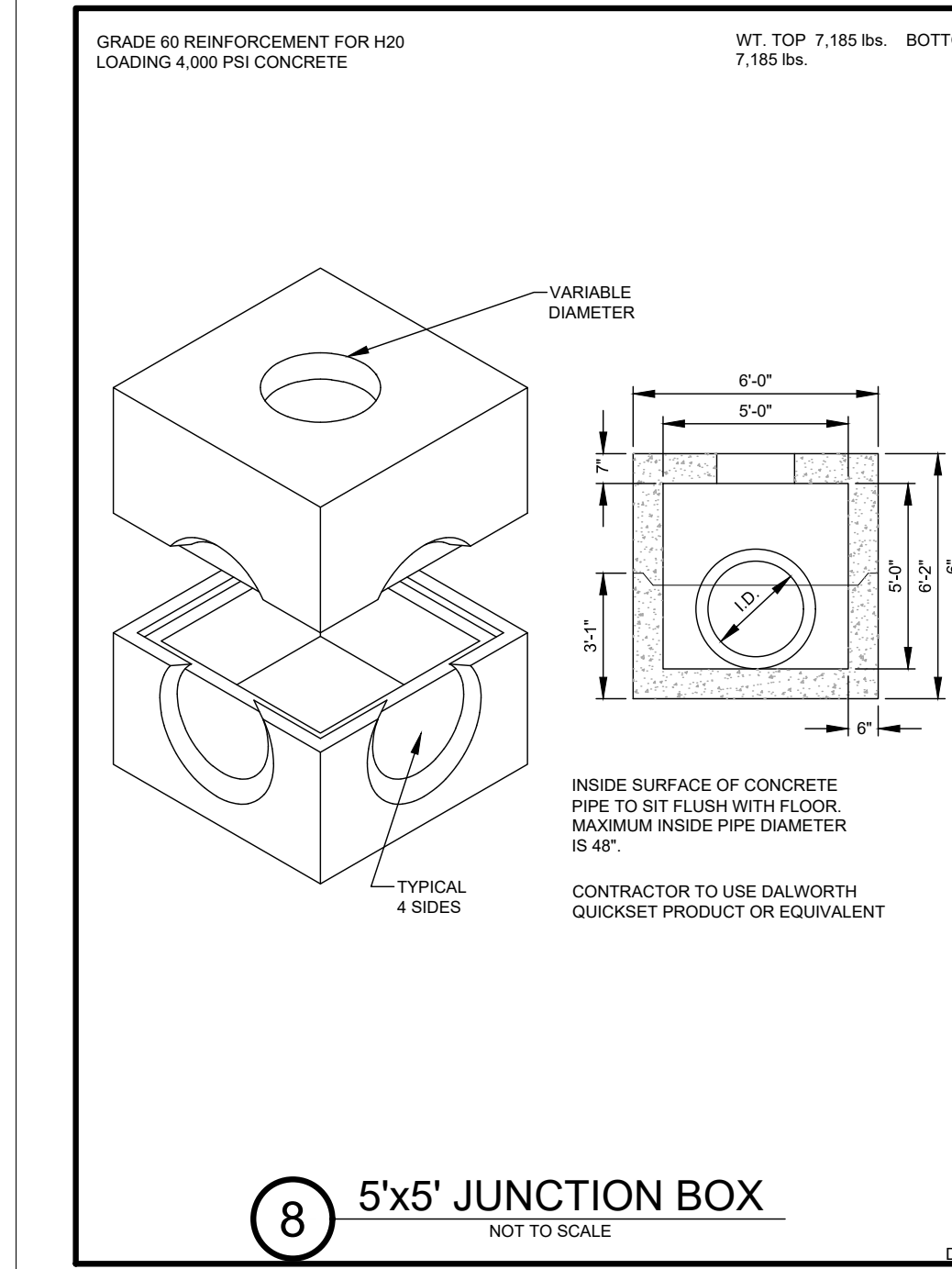
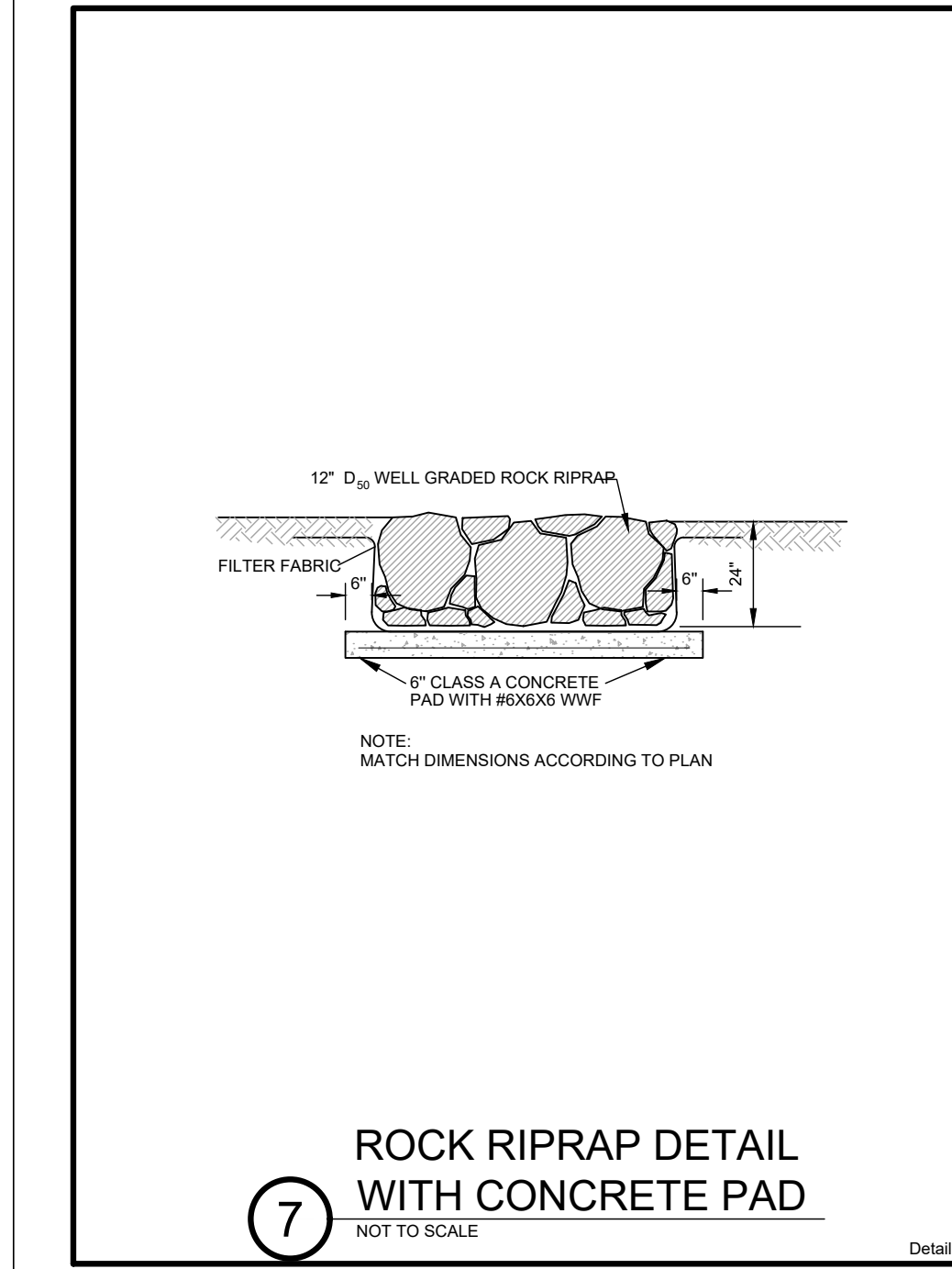
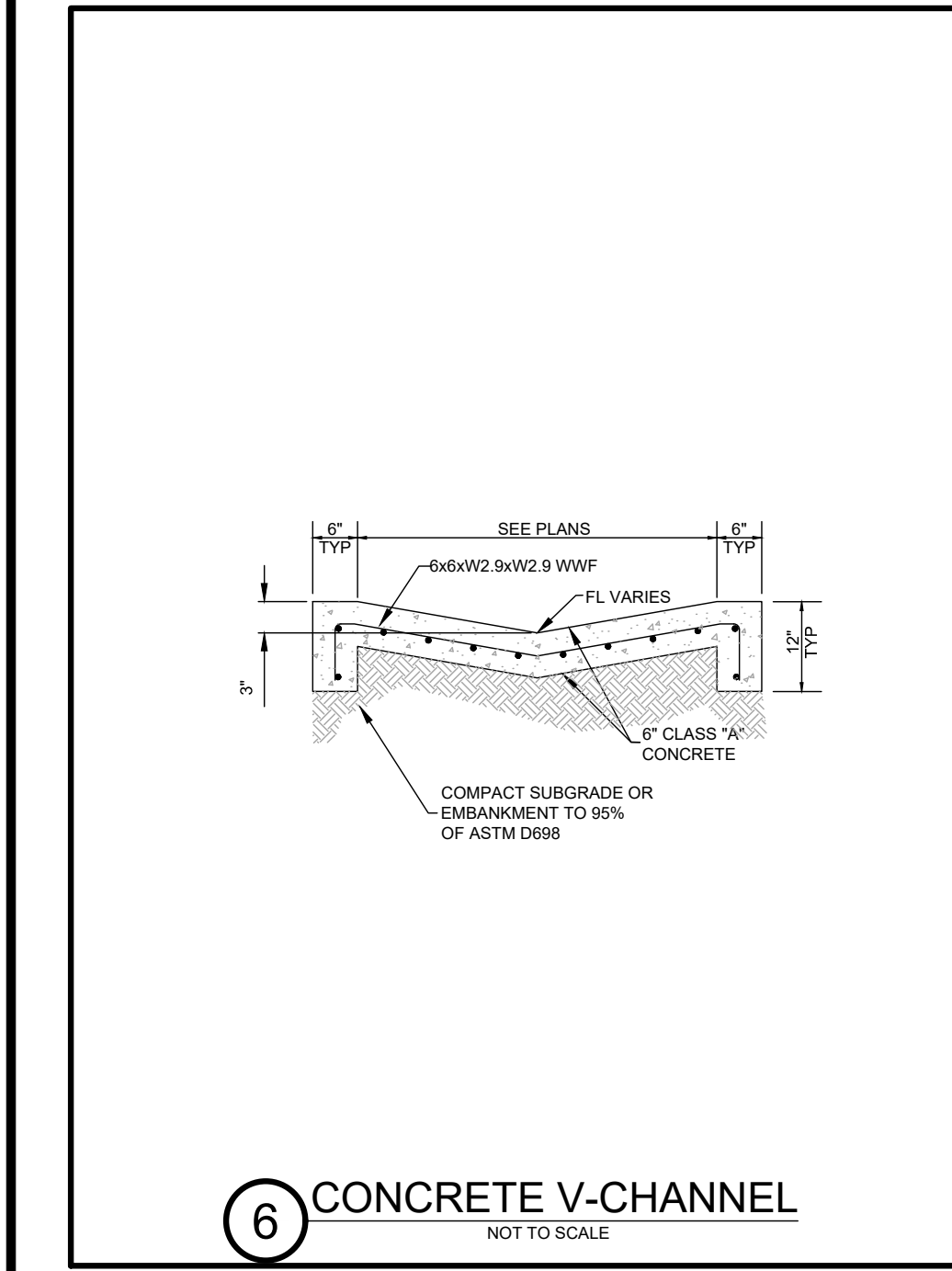
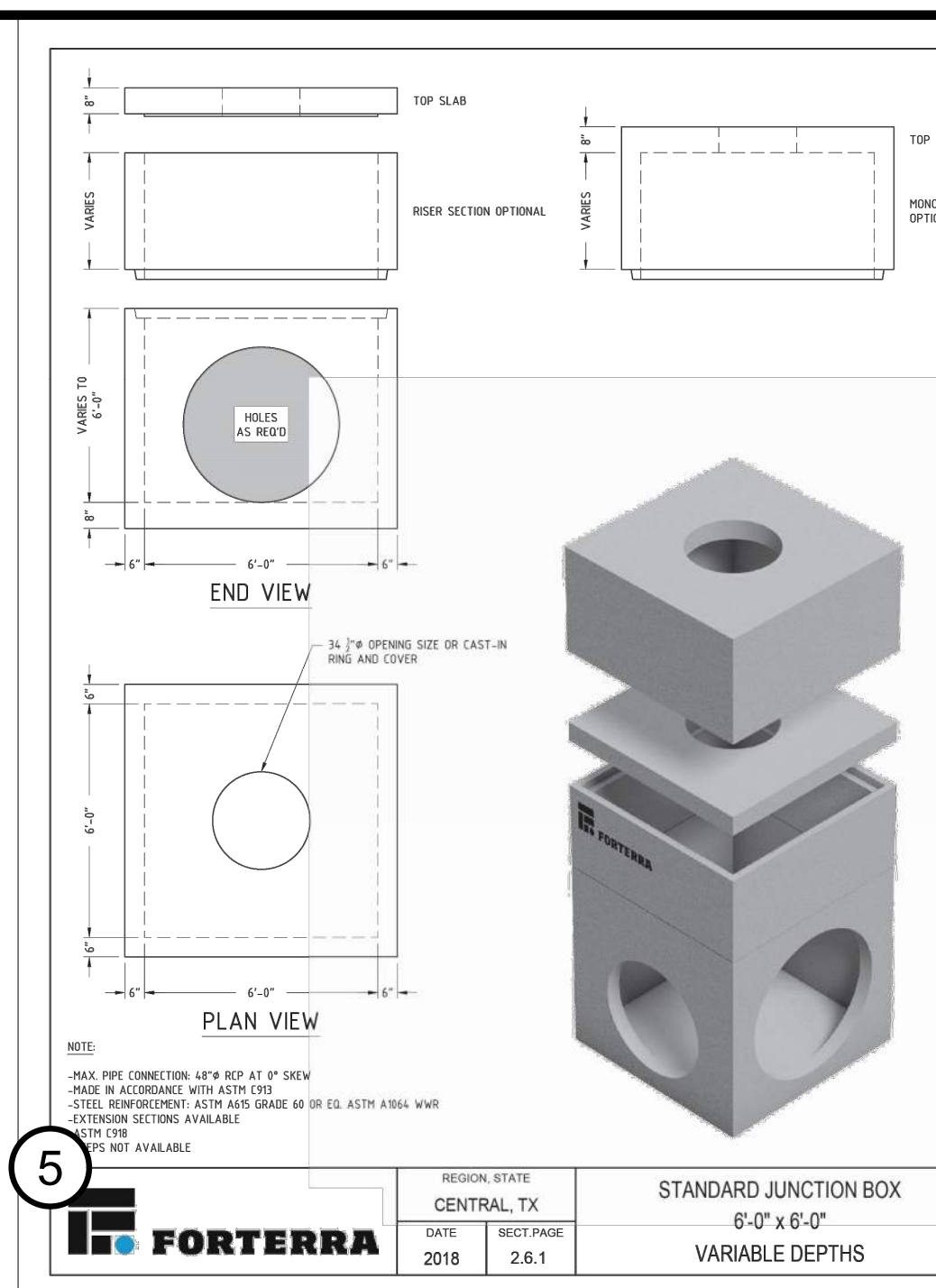
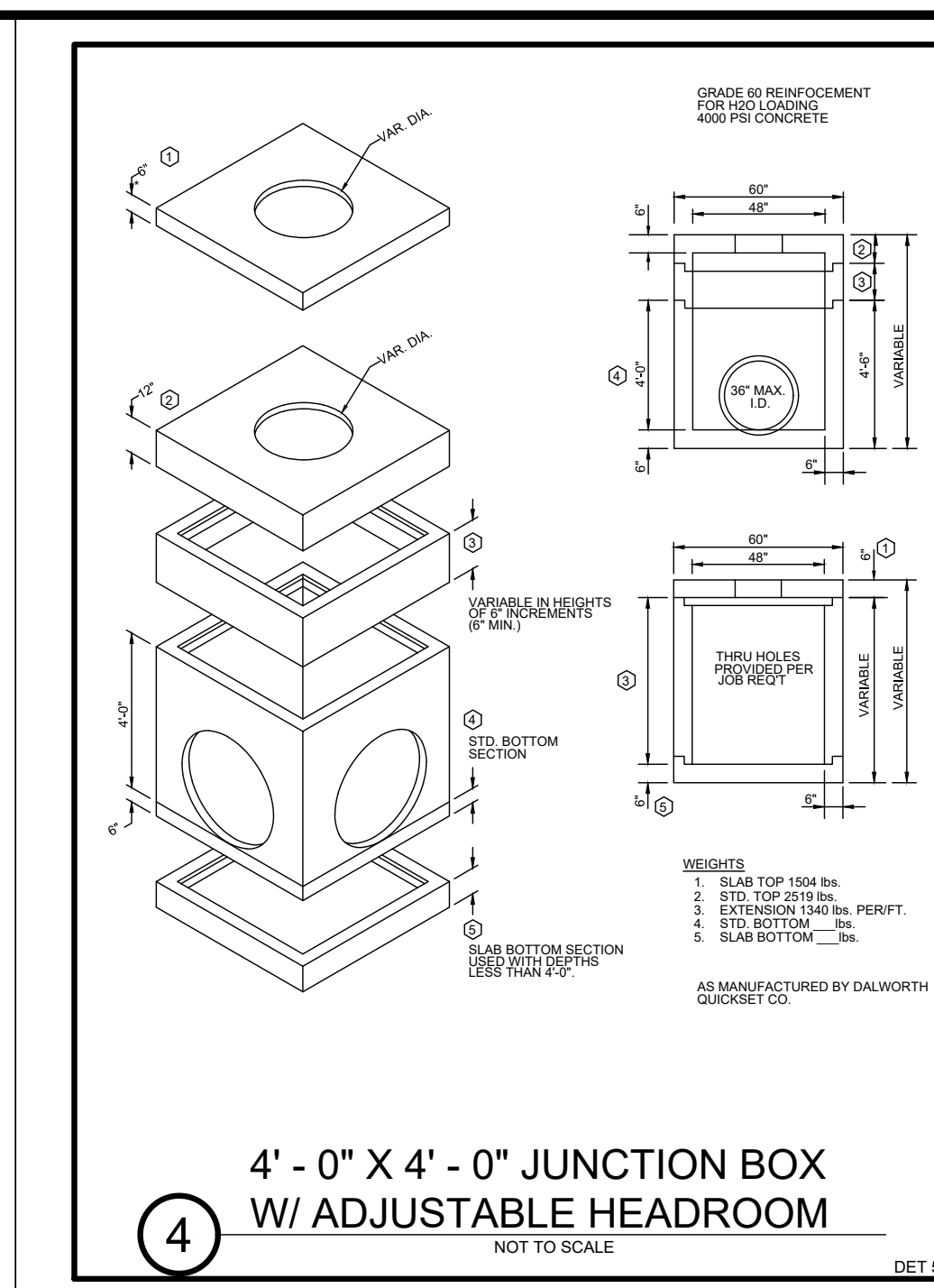
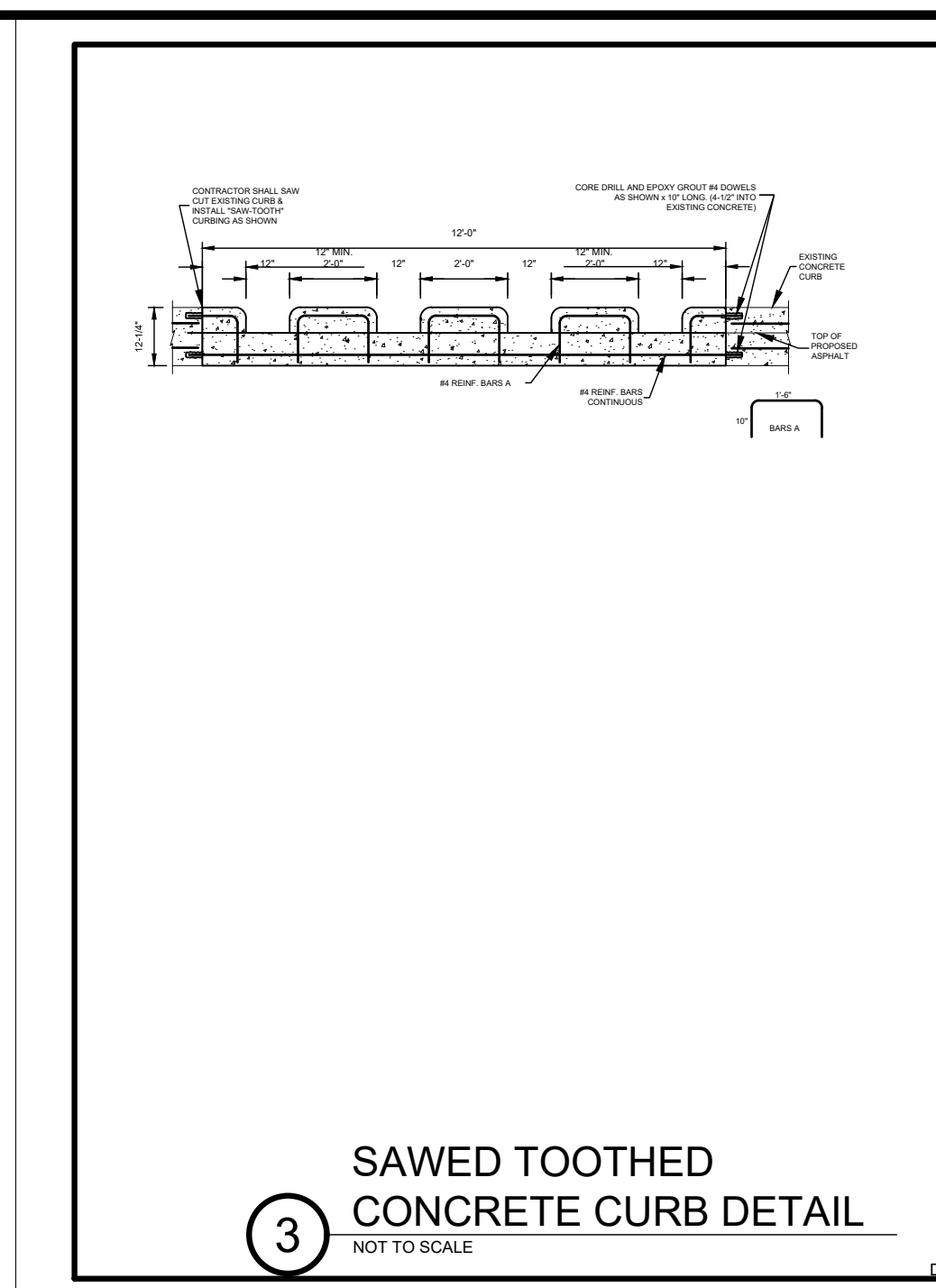
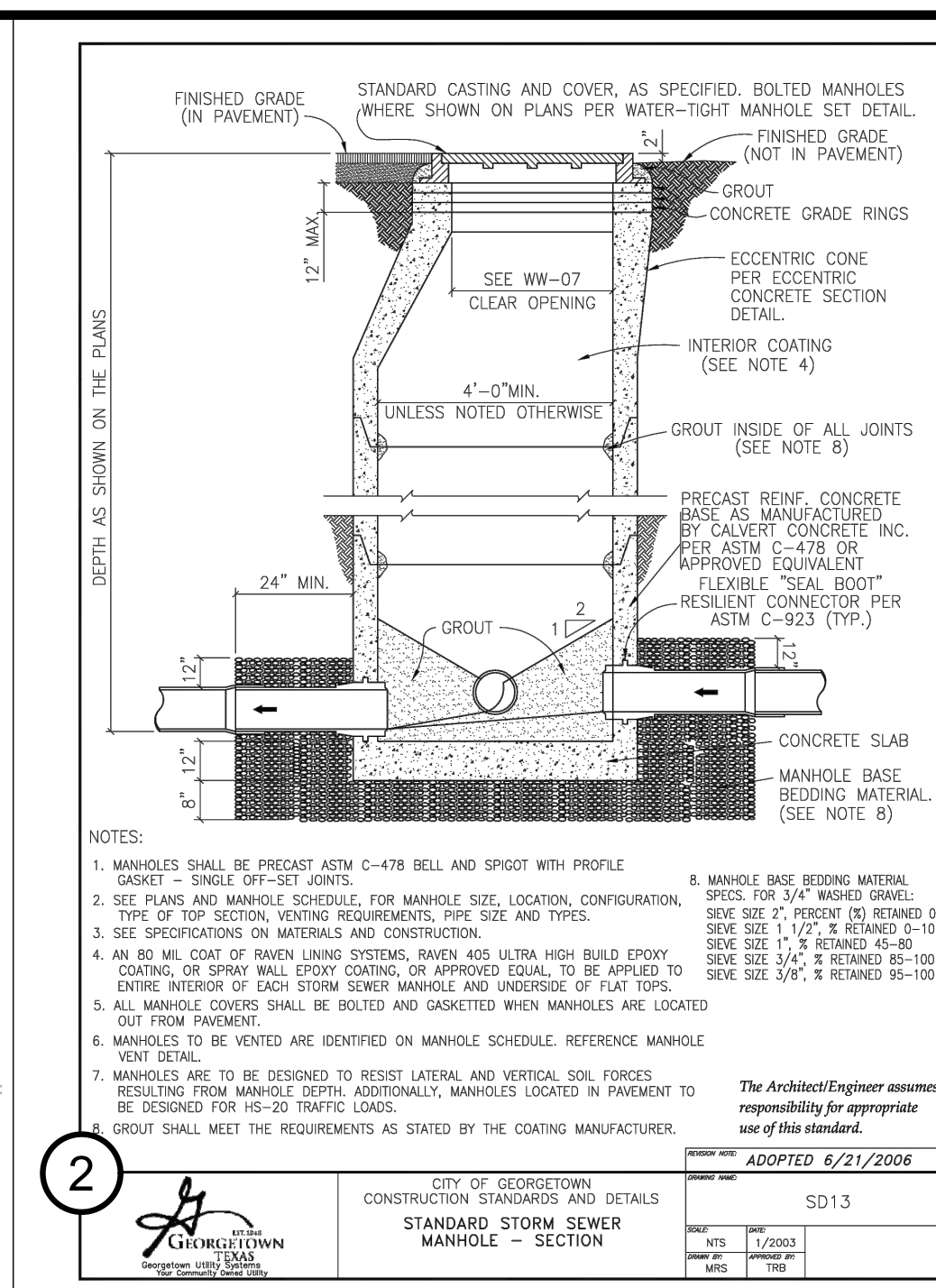
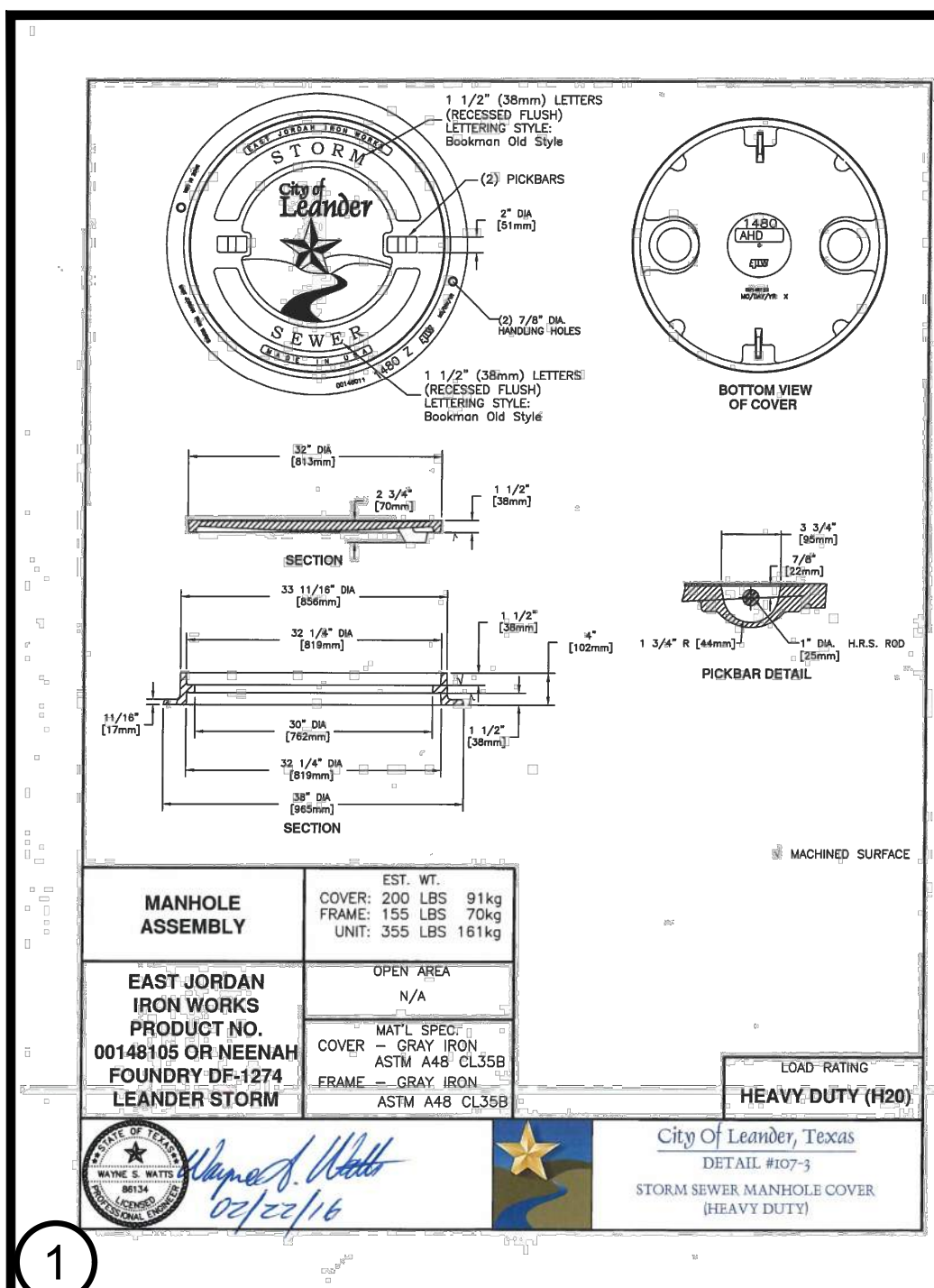
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OF 56











**2P CONSULTANTS, LLC**  
203 E. MAIN STREET, SUITE 204  
ROUND ROCK, TEXAS 78664  
512-344-9664  
TBPE FIRM #F-19351

**DAVID URBAN**  
82783  
LICENSED PROFESSIONAL ENGINEER  
5/24/2023

**DESIGNED BY** **DRAWN BY** **REVIEWED BY**

**RECORD**

**NO.** **DATE** **REVISIONS**

**FREEHILL**

**FREEHILL HERO WAY WEST**  
**SITE DEVELOPMENT PLAN**  
11561 HERO WAY W LEANDER, TX 78641

**STORM DRAIN DETAILS**

**PERMIT No.** **FREEHILL**

**SHEET No.** **41**  
**OF 56**



## LANDSCAPE NOTES:

1. COMPLETE ALL LANDSCAPE PLANTING AND RELATED EARTHWORK INCLUDING ALL PRODUCTS, MATERIALS 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.
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 SEEDDED. 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 OCCURRENCES 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 APPEARANCE 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.

- 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 HERBICIDES 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 OF LEANDER LANDSCAPE NOTES:

THE DEVELOPER 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. SAID AREAS SHALL BE MAINTAINED SO AS TO PRESENT A HEALTHY, NEAT AND ORDERLY APPEARANCE AT ALL TIMES AND SHALL BE KEPT FREE OF REFUSE AND DEBRIS. ALL PLANTED AREAS SHALL BE PROVIDED WITH AN AUTOMATIC IRRIGATION SYSTEM 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 LANDSCAPE ORDINANCE.

TREE CALIPER IS THE TRUNK DIAMETER AT TWELVE (12") INCHES ABOVE NATURAL GRADE PER THE COMPOSITE ZONING ORDINANCE.

ALL NEW LANDSCAPES (NON-RESIDENTIAL AND RESIDENTIAL) ARE REQUIRED TO HAVE A MINIMUM OF SIX INCHES (6") OF SOIL DEPTH IN AREAS PLANTED WITH TURFGRASS. THIS SIX-INCH (6") MINIMUM SOIL DEPTH WILL CONSIST OF 75 PERCENT SOIL BLENDED WITH 25 PERCENT COMPOST. THE SOIL/COMPOST BLEND SHALL BE INCORPORATED INTO THE TOP TWO INCHES OF NATIVE SOIL. THE SIX-INCH (6") DEPTH REQUIREMENT DOES NOT APPLY TO THE AREA BETWEEN THE DRIP LINE AND TRUNK OF EXISTING TREES, SHRUB BEDS OR WILDSCAPE AREAS. AREAS WITH EXISTING NATIVE VEGETATION THAT REMAIN UNDISTURBED SHALL BE EXEMPTED FROM THE SOIL DEPTH PROVISION; PROVIDED THAT NATIVE SOIL AND VEGETATION IN SUCH AREA IS FENCED DURING CONSTRUCTION AND PROTECTED FROM DISTURBANCE AND COMPACTION DURING THE CONSTRUCTION PROCESS.

ALL DISTURBED AREAS AND ROW WILL BE RE-VEGETATED BY THE DEVELOPER

ALL INVASIVE SPECIES SHALL BE REMOVED FROM THE PROPERTY.

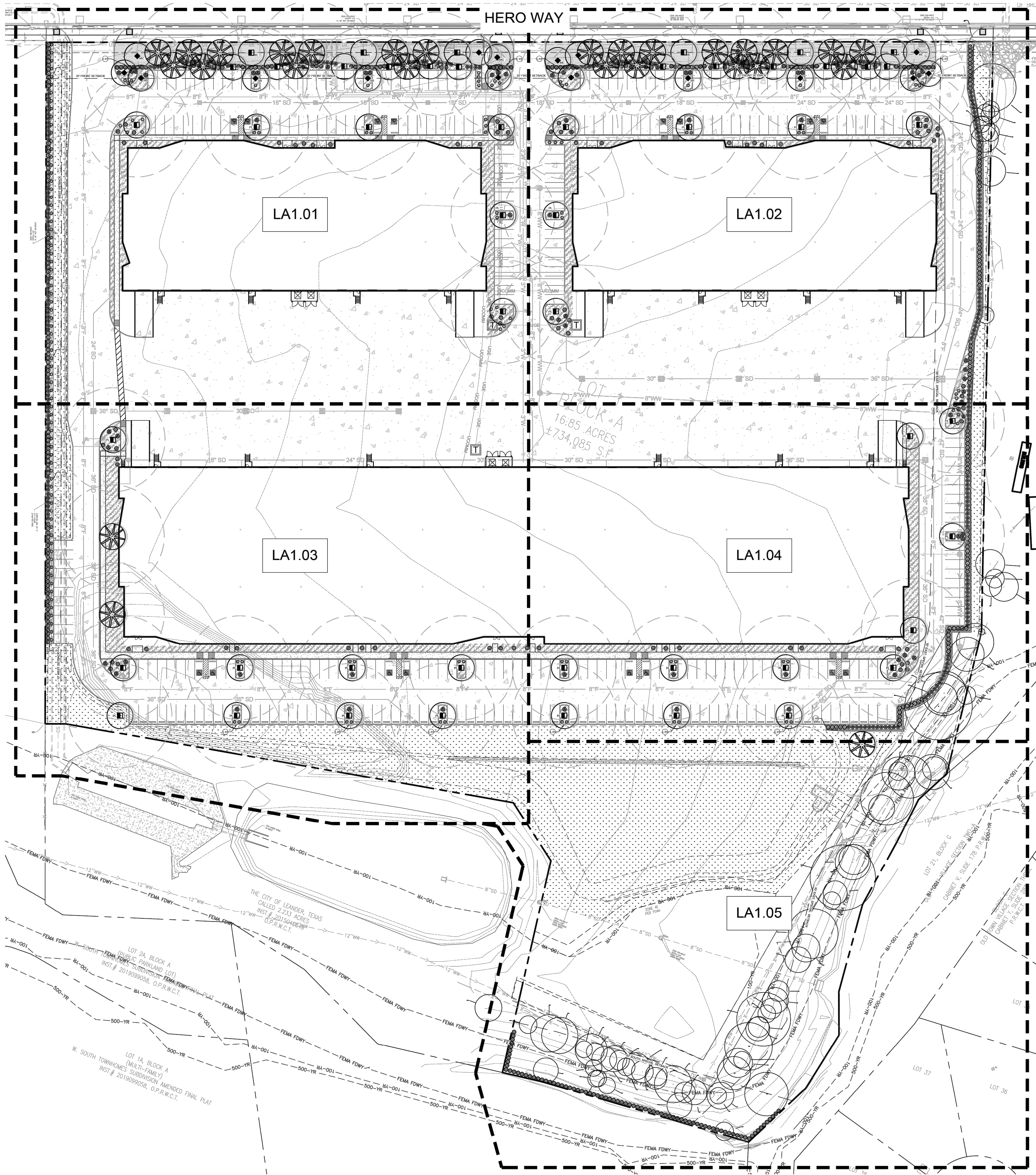
NO MORE THAN 50% OF THE SAME SPECIES MAY BE PLANTED TO MEET THE TREE PLANTING REQUIREMENTS.

IN THE EVENT OF A CONFLICT WITH TREE REMOVAL/ PRESERVATION CALL OUTS ON PLAN SHEET(S) VERSUS TREE REMOVAL/ PRESERVATION MATRIX, THE TREE REMOVAL/ PRESERVATION MATRIX SHALL APPLY. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY WITH CITY STAFF SHOULD ANY INCONSISTENCY EXIST WITHIN AN APPROVED PLAN SET. NO IN-FIELD CHANGES ARE MADE TO APPROVED PLANS, NO EXCEPTIONS.

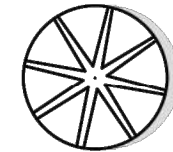
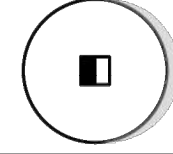
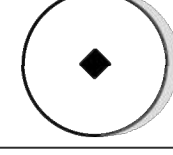






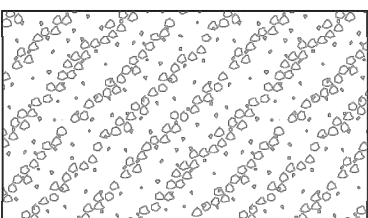
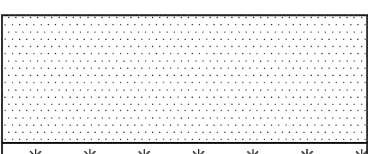



LANDSCAPE CALCULATION CHART - Freehill Leander									
LANDSCAPE AREA				Total	Required	Provided			
Total Property Lot Area				724,886	sf				
A. Total Required Landscape Area					72,409	sf	140,341		
Required Landscape Area (10% for Industrial or Manufacturing)					72,409	sf			
Credit					0	sf			
2. SETBACK REQUIREMENTS				Total	Required	Provided			
Total Setback Area					110,275	sf	77,748		
A. Standard Setbacks					41,729	sf	30,813		
Max. Front N/A				0	sf	0	0		
Min. Front 35' setback				911	sf	31,885	(21,699)		
Min. Side 15' setback				0	sf	0	0		
West side				856	sf	15	9,114		
East side				0	sf	0	0		
Min. Street Side 35' setback				0	sf	0	0		
Max. Street Side N/A				0	sf	0	0		
Min. Rear 15'				0	sf	0	0		
B. Special Setbacks (" = calculated below do to being considered special setbacks)					69,550	sf	46,935		
Side Setback: Abutting Single Family Urban				1,125	sf	56,250	(33,867)		
Rear Setback: Abutting Single Family Urban				249	sf	12,300	(12,075)		
Total Setback Landscape Requirements									
C. Total Required Setback Trees					368	shade trees	17		
2 shade trees 12" cal. per 600 sf									
Standard Setbacks					130	shade trees	17		
Max. Front N/A				0	sf	(600)*2	0	shade trees	0
Min. Front 35' setback				31,885	sf	(600)*2	17	shade trees	17
Min. Side 15' setback				0	sf	0	0	shade trees	0
West side				9,640	sf	(600)*2	32	shade trees	0
East side				0	sf	0	0	shade trees	0
Min. Street Side 35' setback				0	sf	(600)*2	0	shade trees	0
Max. Street Side N/A				0	sf	(600)*2	0	shade trees	0
Min. Rear 15'				0	sf	(600)*2	0	shade trees	0
Special Setbacks (" = calculated below due to being considered special setbacks)					229	shade trees	**		
Side Setback: Abutting Single Family Urban				56,250	sf	(600)*2	188	shade trees	0
Rear Setback: Abutting Single Family Urban				12,300	sf	(600)*2	51	shade trees	0
**NOTE: Special Setback Requirement tree quantities are met through existing trees.									
***NOTE: Due to utility easement and existing box culvert, we are unable to plant trees.									
D. Total Required Setback Shrubs					735	shrubs	716		
4 shrubs 5 gal. per 600 sf									
Standard Setbacks					279	shrubs	440		
Max. Front N/A				0	sf	(600)*4	0	shrubs	0
Min. Front 35' setback				31,885	sf	(600)*4	123	shrubs	218
Min. Side 15' setback				0	sf	0	86	shrubs	221
West side				9,640	sf	(600)*4	0	shrubs	221
East side				0	sf	(600)*4	0	shrubs	0
Min. Street Side 35' setback				0	sf	(600)*4	0	shrubs	0
Max. Street Side N/A				0	sf	(600)*4	0	shrubs	0
Min. Rear 15'				0	sf	(600)*4	0	shrubs	0
Special Setbacks (" = calculated below due to being considered special setbacks)					457	shrubs	276		
Side Setback: Abutting Single Family Urban				56,250	sf	(600)*4	1375	shrubs	1194
Rear Setback: Abutting Single Family Urban				12,300	sf	(600)*4	82	shrubs	182
3. MAJOR CORRIDOR OVERLAY				Total	Required	Provided			
Old 2243 West				911	sf	150	31 trees	31	
Street tree spacing shall not exceed 30 ft on center									
4. PARKING LOT LANDSCAPE					Required	Provided			
Total Proposed Parking Stalls					Yes	Yes			
No parking lot to be located further than 50 ft from the break of a tree									
5. COMPATIBILITY BUFFER					Required	Provided			
Total Bufferyard Requirements									
NOTE: Buffer Requirements met through setback landscape requirements									
6. SCREENING					Required	Provided			
A. Parking Lot Screening					YES	YES			
100% of parking lots to be screened from street view and adjacent properties									
Plantings shall be at least 3 ft in height									
Plantings shall be set back a min. of 3 ft from curb or wheel stops									
B. Mechanical Equipment Screening					YES	YES			
Screening materials shall be the same as, or of equal quality to, primary building materials									
C. Outside Storage					YES	YES			
Privacy fence or wall at least the height of the items to be screened									
Screening materials shall be the same as, or of equal quality to, primary building materials									
5' wide landscape area on exterior of fence									
D. Loading Dock Screening					YES	YES			
Screening shall be provided on 3 sides of the area by a wall or other screening mechanism, not less than 8 ft in height, constructed of 1/4" gal. of the same as, or of equal quality to, the primary building materials									
(Screening comprised of large evergreen shrubs, may be proposed as an alternative if the Director determines it meets the intent of the screening requirement.									
Note:									
Loading areas shall be not located closer than 50 feet to the property line of a single family or two-family residence									
E. Detention Facilities					YES	YES			
Detention ponds and/or water quality ponds shall be screened from view									
Evergreen Vegetative Screens					YES	YES			
Shall be shrubs at least 30 inches in height and 48 inches on center spacing minimum									
Shade trees shall be no more than 50 feet apart									
Landscape trees in combination with trees at least 3 feet in height can be used. Max. side slopes of 4:1									
7. LANDSCAPE CREDIT				Available	Total	Provided			
Total Landscape Credits for Existing Trees					1817	credit			
<18" = 1 credit for 1" saved				697	inches	(x 1)	1817	credit	
>18" = 2 credit for 1" saved				955	inches	(x 2)	1,910	credit	
Total Landscape Credits for Existing Shrubs					10	credit			
1:1 ratio if existing shrubs comparable to a 5 gal. container grown				0	shrubs	(x 1)	10	credit	
8. MITIGATION				Removed	Required	Provided			
Total Mitigation Requirements					0	inches			
A. Removed Significant Trees (8" <= 17.9")					0	inches			
50% of total diameter inches of Protected Trees removed				0	inches	(x 0.5 x 1)	0	inches	
1:1 replacement ratio									
B. Removed Significant Trees (18" < 25.9")					0	inches			
2:1 replacement ratio				0	inches	(x 2)	0	inches	
C. Removed Heritage Trees (>26")					0	inches			
Total diameter inches of Heritage Trees removed				0	inches	(x 3)	0	inches	
3:1 replacement ratio									
D. Removed Protected Tree >26" that is not a Heritage Tree					0	inches			
Total diameter inches of Protected Tree >26"				0	inches	(x 2)	0	inches	
2:1 replacement ratio									
Mitigation by Payment (IF TAKEN)									
Total to be paid for fee in lieu of planted trees:							0	0	
8" - 17.9" cal.				0	inches	(x \$150)	0	0	
18" - 25.9" cal.				0	inches	(x \$150)	0	0	
Heritage Trees (>26")				0	inches	(x \$300)	0	0	
9. PLANT MATERIAL				Total	Allowed	Provided			
Species									
All required plant materials shall be from the City preferred plant list and in the Crown Green Guide									
At least 75% of planted trees are required to be large shade trees				399	trees	(30.50)	199	trees	YES
2 ornamental trees (10 gal) w/ 1 shade tree AS LOW AS at least 50% of the required # of shade trees is installed							199	e.o. trees	YES
50% of req. landscape to be planted b/w the front property line and the building				399	trees	(40.5)	200	trees	YES
Sight Triangles: 40' from any street intersection; no landscaping over 3'				226	shrubs		388	shrubs	
No more than 50% of the same species may be planted to meet req.									
Minimum Size Requirements for Plants and Trees									
A. Landscape Trees									
Trees shall be 2" cal. min.									
Ornamental trees shall be at least 10-gallon container grown									
B. Mitigation Trees									
Trees shall be 2" cal. min.									
C. Shrubs									
Shrubs shall be at least 5-gallon									
D. Vines, Ornamental Grasses and Ground Covers									
Vines shall be at least 1-gallon									
Groundcover, planted shall be at least 4-inch container grown									
E. Lawn or Turf Grasses									
Disturbed areas shall be planted with drought resistant species such as:									
Stamensia, Zoysia, Stature or any other variety approved by the director.									






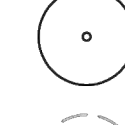


PLANT SCHEDULE

TREES	QTY	COMMON / BOTANICAL NAME	CONT	DESCRIPTION	CAL
	27	BALD CYPRESS TAXODIUM DISTICHUM	65 GAL	10'-12' H X 5'-6" W	3" CAL
	50	MEXICAN SYCAMORE PLATANUS MEXICANA	65 GAL	10'-12' H X 5'-6" W	3" CAL
	16	SOUTHERN LIVE OAK QUERCUS VIRGINIANA	65 GAL	10'-12' H X 5'-6" W	3" CAL
SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	DESCRIPTION	
	131	DWARF YAUPOON HOLLY ILEX VOMITORIA 'NANA'	5 GAL	PER TNLA STANDARDS & SPECS	
	245	JAPANESE PITTOSPORUM PITTOSPORUM TOBIRA	5 GAL	PER TNLA STANDARDS & SPECS	
	172	KNOCKOUT ROSE ROSA SHRUB 'KNOCK OUT'	5 GAL	PER TNLA STANDARDS & SPECS	
	157	NEW GOLD LANTANA LANTANA X 'NEW GOLD'	5 GAL	PER TNLA STANDARDS & SPECS	
	116	RED YUCCA YUCCA PARVIFOLIA	5 GAL	PER TNLA STANDARDS & SPECS	
	93	TRAILING ROSEMARY ROSMARINUS OFFICINALIS 'PROSTRATUS'	5 GAL	PER TNLA STANDARDS & SPECS	
MATERIALS	QTY	COMMON / BOTANICAL NAME	CONT	DESCRIPTION	
	41,472 SF	WASHED GRANITE GRAVEL	NONE	1 1/2" - 1" WASHED GRANITE GRAVEL, NO FINES, INSTALL W/ WEED BARRIER FABRIC, PROVE SAMPLE PRIOR TO CONSTRUCTION	
	15,151 SF	COMMON BERMUDA GRASS CYNODON SP.	SOLID SOD	PER TNLA STANDARDS & SPECS	
	83,718 SF	COMMON BERMUDA GRASS CYNODON SP.	HYDROSEED	PER TNLA STANDARDS & SPECS	

NOTES:

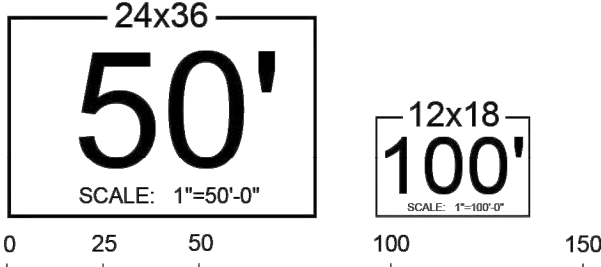
- CALIPER INCH SIZING FOR ALL TREES, CANOPY AND UTILITY COMPATIBLE, TO TAKE PRECEDENCE OVER GALLON SIZE
- FROM APRIL 1 TO SEPTEMBER 30, ONLY CONTAINER GROWN TREES MAY BE PLANTED. FROM OCTOBER 1 TO MARCH 31, EITHER CONTAINER GROWN OR BALL AND BURLAP TREES MAY BE PLANTED WITH OWNER/ LANDSCAPE ARCHITECT APPROVAL.
- 80" CLEAR TRUNK HEIGHT MUST BE MAINTAINED ON ALL TREES PLANTED ADJACENT TO SIDEWALKS AND PEDESTRIAN WALKWAYS.
- CONTRACTOR TO PROVIDE SUBMITTAL FOR LANDSCAPE ARCHITECT APPROVAL FOR ALL LANDSCAPE MATERIALS AS SPECIFIED

TREE LEGEND

-  HERITAGE TREE
-  SAVED TREE
-  REMOVED TREE
-  50' RADIUS

GENERAL LANDSCAPE NOTES:

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- CONTRACTOR TO EXERCISE EXTREME CAUTION WHEN WORKING AROUND MONARCH TREES AND THAT ANY TRIMMING OF LIMBS OF DESIGNATED MONARCH TREES MUST REQUIRE AN ARBORIST AND LANDSCAPE ARCHITECT ON-SITE PRIOR TO ANY WORK PERFORMED.
- SCREENING FOR SOLID WASTE COLLECTION AND LOADING AREAS SHALL BE THE SAME AS, OR OF EQUAL QUALITY TO, PRINCIPAL BUILDING MATERIALS.
- ALL CITY OF LEANDER LAND DEVELOPMENT AGREEMENT TREES ARE LABELED AS SETBACK (SB), EXISTING CREDIT (EC), MAJOR CORRIDOR (MC), OR PARKING LOT (PL). ANY TREES NOT LABELED ARE TO BE COUNTED TOWARDS MITIGATION REQUIREMENTS.



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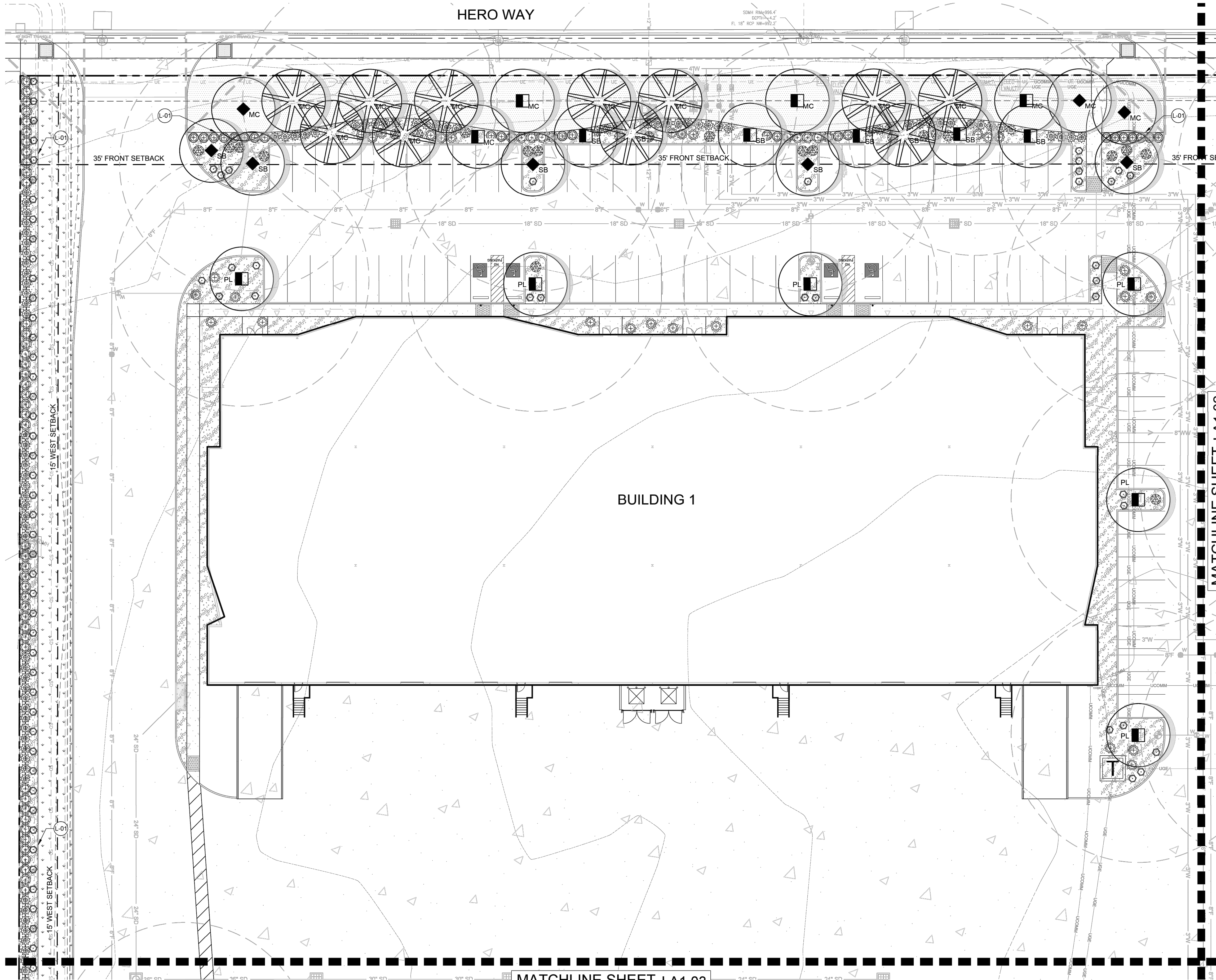
FREEHILL HERO WAY  
11561 HERO WAY W.,  
LEANDER, TX 78641

sheet information ::

project #: 22.929  
date :: 05.12.2023  
designed :: ag  
drawn :: ag  
checked :: bs  
approved :: bab

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LA1.00  
OVERALL  
LANDSCAPE PLAN

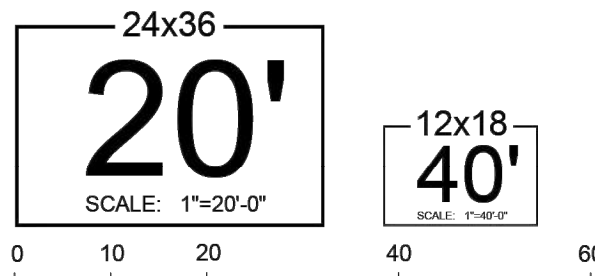




**MATCHLINE SHEET LA1.03**

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**KEY LEGEND**

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SYM DESCRIPTION	QTY
LANDSCAPE	
L-01 3/16" THICK STEEL EDGING	1,297 LF

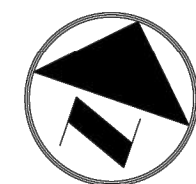
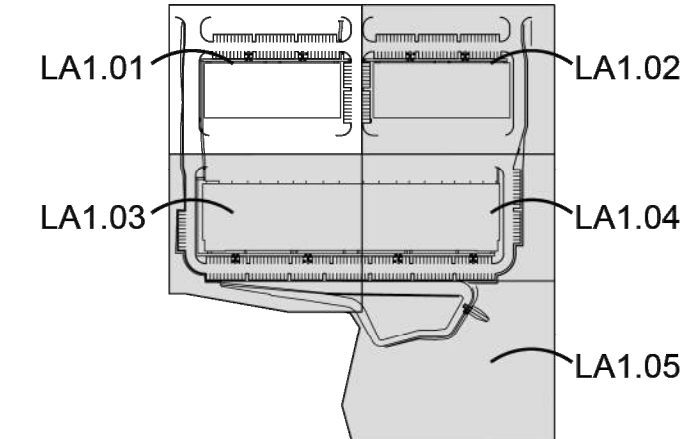
**PLANT SCHEDULE**

TREES	COMMON / BOTANICAL NAME
	BALD CYPRESS TAXODIUM DISTICHUM
	MEXICAN SYCAMORE PLATANUS MEXICANA
	SOUTHERN LIVE OAK QUERCUS VIRGINIANA
SHRUBS	COMMON / BOTANICAL NAME
	DWARF YAUPOON HOLLY ILEX VOMITORIA 'NANA'
	JAPANESE PITTOSPORUM PITTOSPORUM TOBIRA
	KNOCKOUT ROSE ROSA SHRUB 'KNOCK OUT'
	NEW GOLD LANTANA LANTANA X 'NEW GOLD'
	RED YUCCA YUCCA PARVIFOLIA
	TRAILING ROSEMARY ROSMARINUS OFFICINALIS 'PROSTRATUS'
MATERIALS	COMMON / BOTANICAL NAME
	WASHED GRANITE GRAVEL
SOD/ SEED	COMMON / BOTANICAL NAME
	BERMUDA GRASS CYNODON SP.
	TIFFWAY 419 BERMUDA CYNODON TIFF 419

**TREE LEGEND**

- HERITAGE TREE
- SAVED TREE
- REMOVED TREE
- 50' RADIUS

**KEY MAP - NTS**



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**FREEHILL HERO WAY**

11561 HERO WAY W.,  
LEANDER, TX 78641

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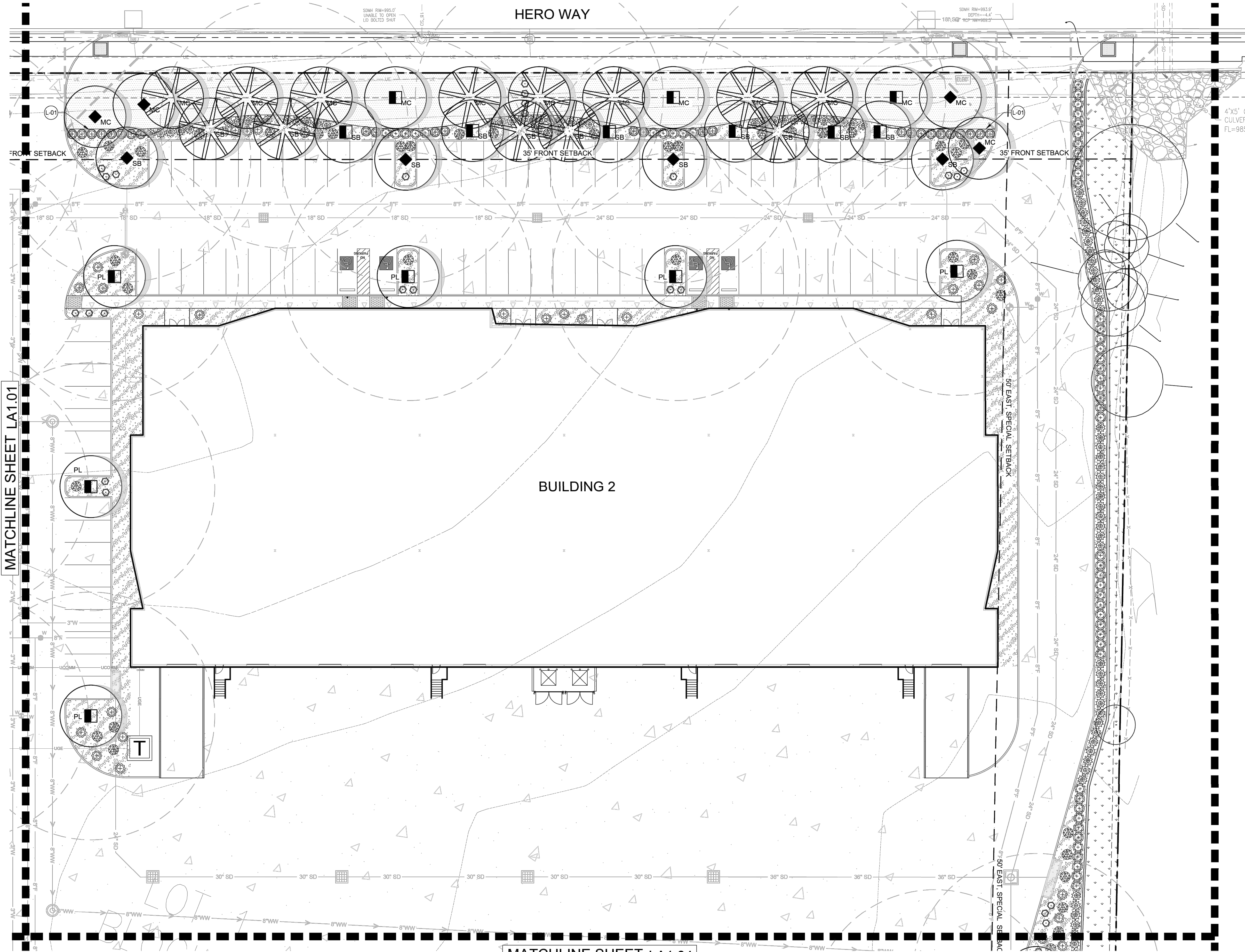
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date :: 05.12.2023  
designed :: ag  
drawn :: ag  
checked :: bs  
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**45** OF 56  
**LA1.01**

LANDSCAPE PLAN

SD-23-0111

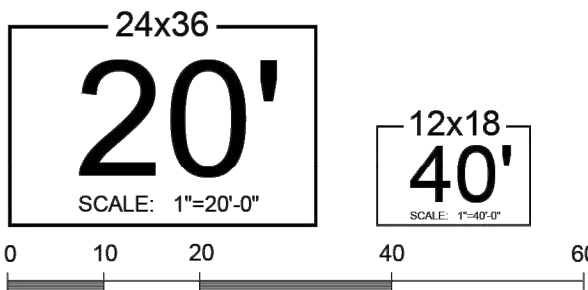




MATCHLINE SHEET LA1.04

GENERAL LANDSCAPE NOTES:

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KEY LEGEND

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SYM DESCRIPTION	QTY
LANDSCAPE	
L-01 3/16" THICK STEEL EDGING	1,297 LF

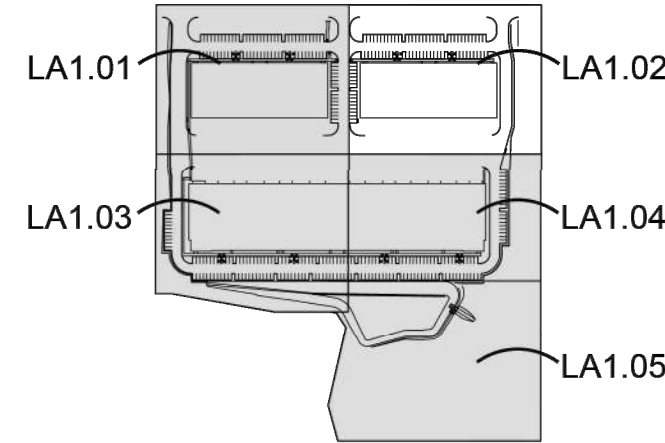
PLANT SCHEDULE

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SHRUBS	COMMON / BOTANICAL NAME
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	TIFFWAY 419 BERMUDA CYNODON TIFF 419

TREE LEGEND

- HERITAGE TREE
- SAVED TREE
- REMOVED TREE
- 50' RADIUS

KEY MAP - NTS



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FREEHILL HERO WAY

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sheet information ::

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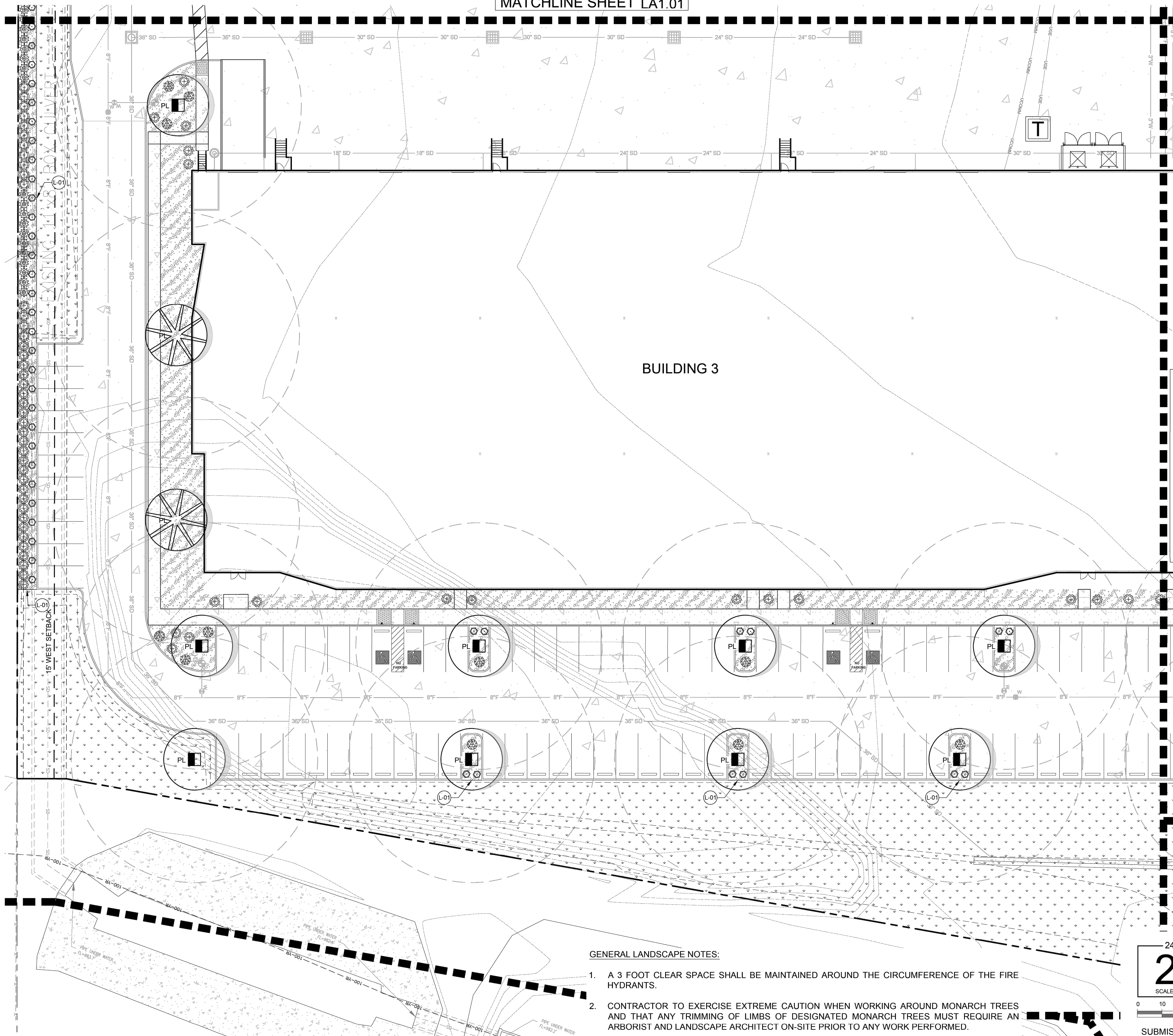
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LA1.02

LANDSCAPE PLAN

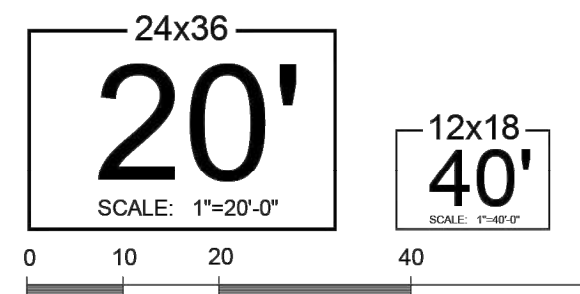
SD-23-0111





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SYM	DESCRIPTION	QTY
L-01	3/16" THICK STEEL EDGING	1,297 LF

## PLANT SCHEDULE

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TAXODIUM DISTICHUM

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PLATANUS MEXICANA

SOUTHERN LIVE OAK  
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ROSMARINUS OFFICINALIS  
'PROSTRATUS'

MATERIALS	COMMON / BOTANICAL NAME
-----------	-------------------------

WASHED GRANITE GRAVEL

SOD/ SEED	COMMON / BOTANICAL NAME
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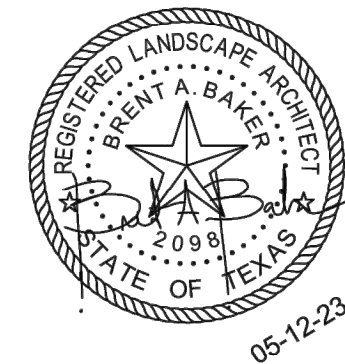
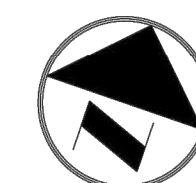
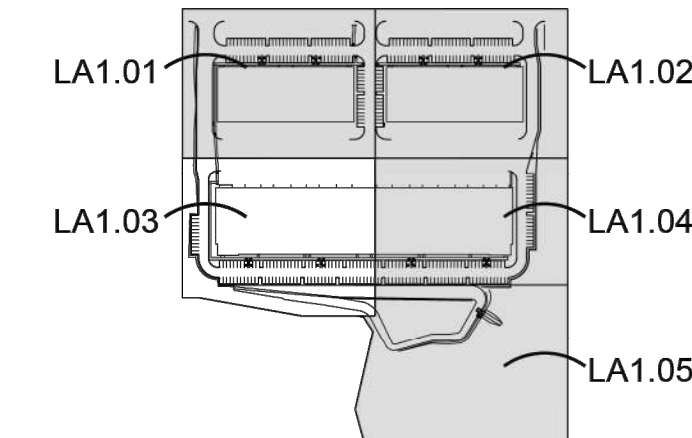
BERMUDA GRASS  
CYNODON SP.

TIFFWAY 419 BERMUDA  
CYNODON TIFF 419

## TREE LEGEND

- HERITAGE TREE
- SAVED TREE
- REMOVED TREE
- 50' RADIUS

## KEY MAP - NTS



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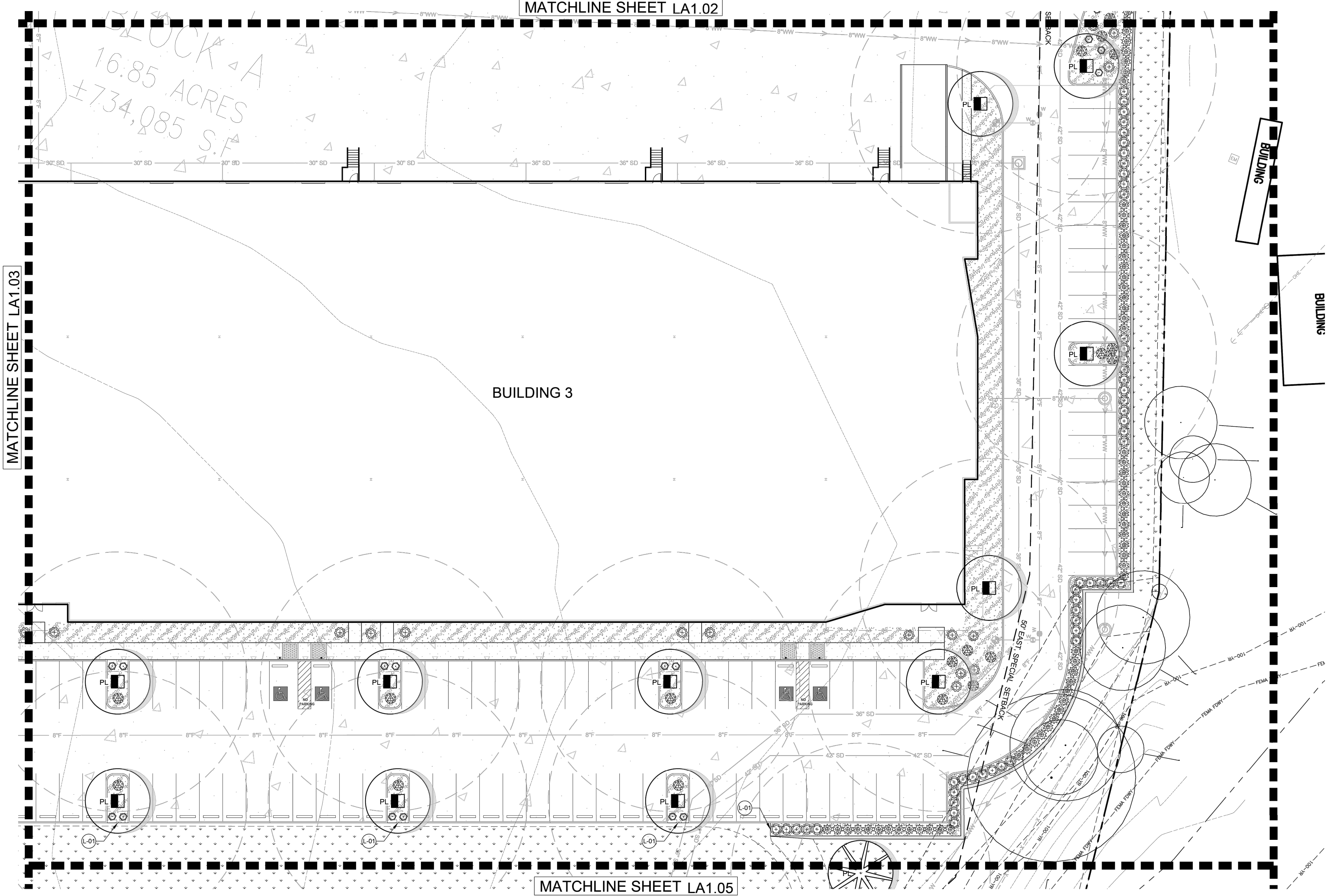
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LA1.03

LANDSCAPE PLAN





KEY LEGEND

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SYM	DESCRIPTION	QTY
L-01	3/16" THICK STEEL EDGING	1,297 LF

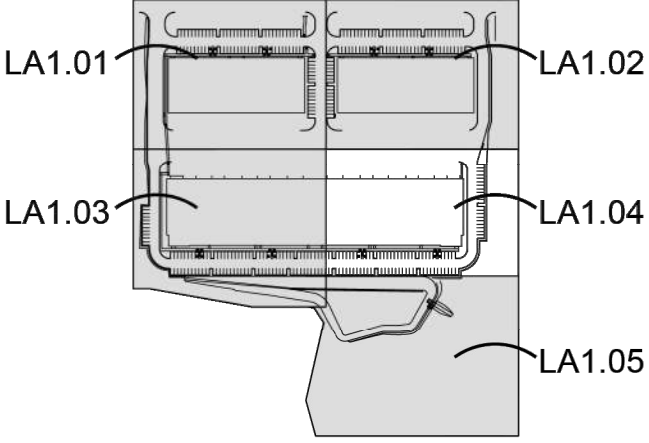
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TREE LEGEND

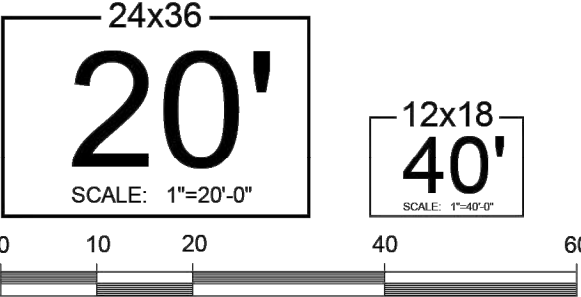
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- REMOVED TREE
- 50' RADIUS

KEY MAP - NTS



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SUBMISSIONS | REVISIONS::

05.12.2023 SITE DEVELOPMENT PERMIT SET

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FREEHILL HERO WAY

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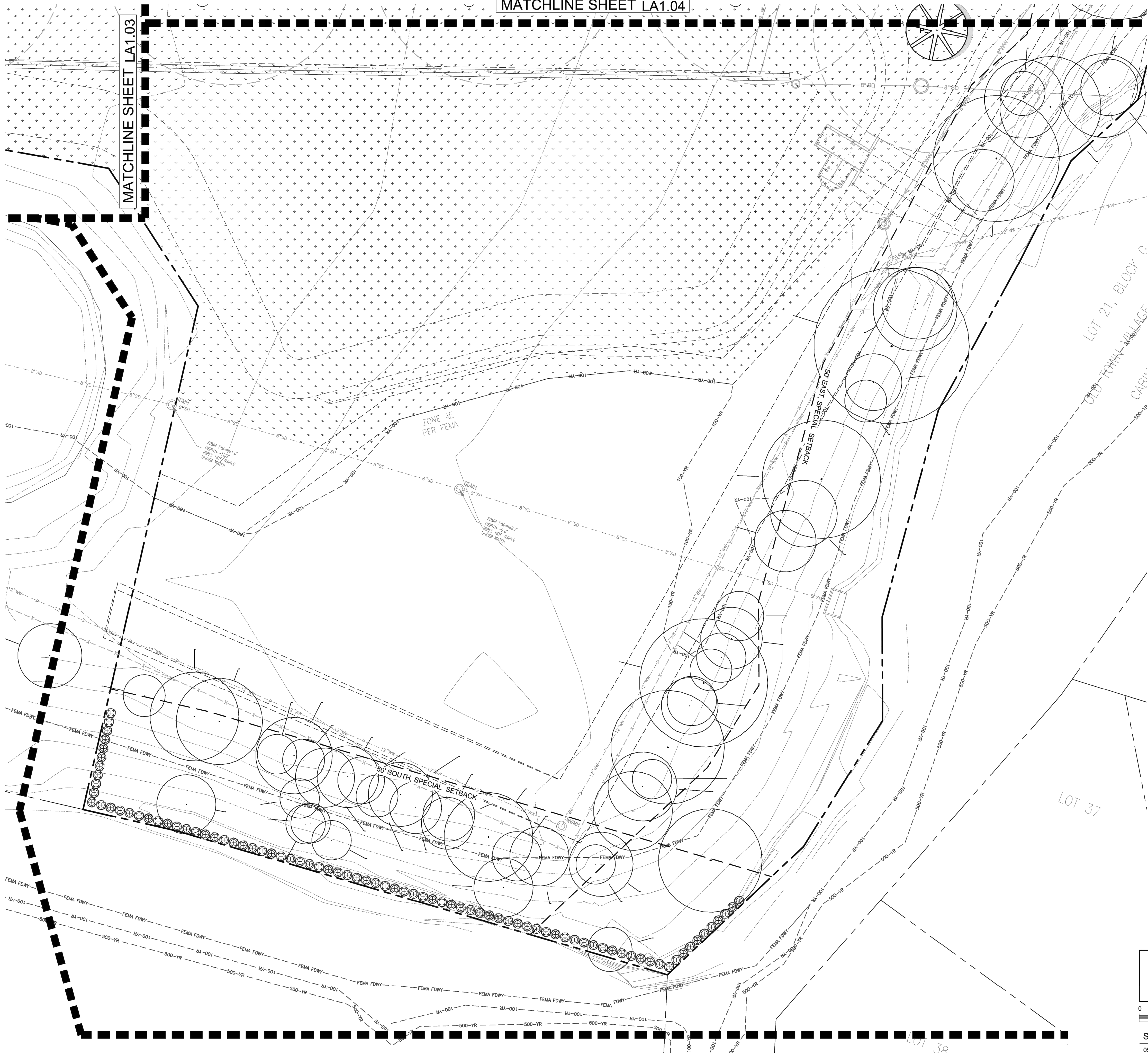
sheet information ::

project #: 22.929  
date :: 05.12.2023  
designed :: ag  
drawn :: ag  
checked :: bs  
approved :: bab

48 OF 56  
LA1.04

LANDSCAPE PLAN





KEY LEGEND

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

SYM	DESCRIPTION	QTY
L-01	3/16" THICK STEEL EDGING	1,297 LF

PLANT SCHEDULE

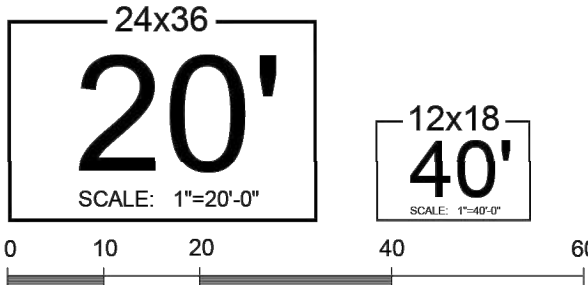
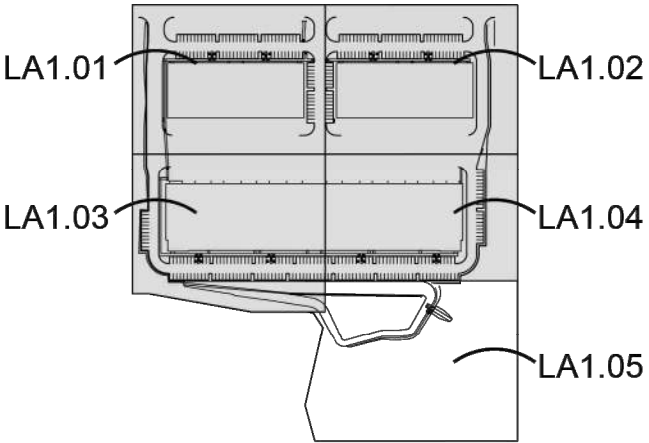
TREES	COMMON / BOTANICAL NAME
	BALD CYPRESS TAXODIUM DISTICHUM
	MEXICAN SYCAMORE PLATANUS MEXICANA
	SOUTHERN LIVE OAK QUERCUS VIRGINIANA
SHRUBS	COMMON / BOTANICAL NAME
	DWARF YAUAPON HOLLY ILEX VOMITORIA 'NANA'
	JAPANESE PITTOSPORUM PITTOSPORUM TOBIRA
	KNOCKOUT ROSE ROSA SHRUB 'KNOCK OUT'
	NEW GOLD LANTANA LANTANA X 'NEW GOLD'
	RED YUCCA YUCCA PARVIFOLIA
	TRAILING ROSEMARY ROSMARINUS OFFICINALIS 'PROSTRATUS'

MATERIALS	COMMON / BOTANICAL NAME
	WASHED GRANITE GRAVEL
SOD/ SEED	COMMON / BOTANICAL NAME
	BERMUDA GRASS CYNODON SP.
	TIFFWAY 419 BERMUDA CYNODON TIFF 419

TREE LEGEND

- HERITAGE TREE
- SAVED TREE
- REMOVED TREE
- 50' RADIUS

KEY MAP - NTS



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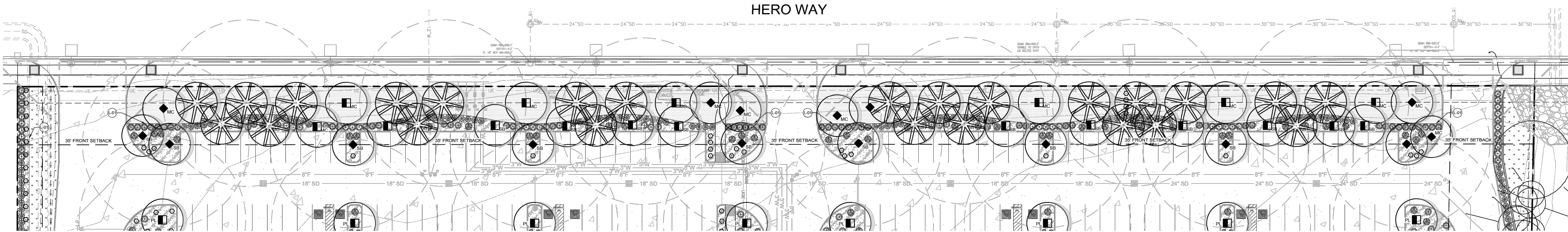
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49 OF 56  
LA1.05  
LANDSCAPE PLAN

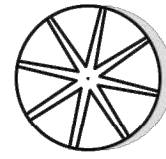
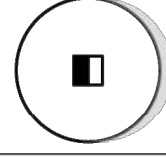
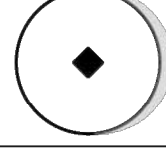







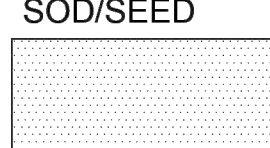




## MAJOR CORRIDOR PLANT SELECTION

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

### MAJOR CORRIDOR PLANT SCHEDULE

TREES	QTY	COMMON / BOTANICAL NAME	CONT	DESCRIPTION	CAL
	24	BALD CYPRESS TAXODIUM DISTICHUM	65 GAL	10'-12'H X 5'-6" W	3" CAL
	18	MEXICAN SYCAMORE PLATANUS MEXICANA	65 GAL	10'-12'H X 5'-6" W	3" CAL
	16	SOUTHERN LIVE OAK QUERCUS VIRGINIANA	65 GAL	10'-12'H X 5'-6" W	3" CAL
SHRUBS	QTY	COMMON / BOTANICAL NAME	SIZE	DESCRIPTION	
	49	DWARF YAUAPON HOLLY ILEX VOMITORIA 'NANA'	5 GAL	PER TNLA STANDARDS & SPECS	
	82	JAPANESE PITTOSPORUM PITTOSPORUM TOBIRA	5 GAL	PER TNLA STANDARDS & SPECS	
	20	KNOCK OUT ROSE ROSA SHRUB 'KNOCK OUT'	5 GAL	PER TNLA STANDARDS & SPECS	
	6	NEW GOLD LANTANA LANTANA X 'NEW GOLD'	5 GAL	PER TNLA STANDARDS & SPECS	
	15	RED YUCCA YUCCA PARVIFLORA	5 GAL	PER TNLA STANDARDS & SPECS	
	47	TRAILING ROSEMARY ROSMARINUS OFFICINALIS 'PROSTRATUS'	5 GAL	PER TNLA STANDARDS & SPECS	
MATERIALS	QTY	COMMON / BOTANICAL NAME	CONT	DESCRIPTION	
	6,548 SF	WASHED GRANITE GRAVEL	NONE	1/2" - 1" WASHED GRANITE GRAVEL, INSTALL W/ WEED BARRIER FABRIC. PROVED SAMPLE PRIOR TO CONSTRUCTION	
SOD/SEED	QTY	COMMON / BOTANICAL NAME	CONT	DESCRIPTION	
	15,151 SF	BERMUDA GRASS CYNODON SP.	SOLID SOD	PER TNLA STANDARDS & SPECS	

#### NOTES:

- CALIPER INCH SIZING FOR ALL TREES, CANOPY AND UTILITY COMPATIBLE, TO TAKE PRECEDENCE OVER GALLON SIZE
- 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 BURLAP TREES MAY BE PLANTED WITH OWNER/ LANDSCAPE ARCHITECT APPROVAL.
- 80" CLEAR TRUNK HEIGHT MUST BE MAINTAINED ON ALL TREES PLANTED ADJACENT TO SIDEWALKS AND PEDESTRIAN WALKWAYS.
- CONTRACTOR TO PROVIDE SUBMITTAL FOR LANDSCAPE ARCHITECT APPROVAL FOR ALL LANDSCAPE MATERIALS AS SPECIFIED

### TREES



BALD CYPRESS  
*Taxodium distichum*



MEXICAN SYCAMORE  
*Platanus mexicana*



SOUTHERN LIVE OAK  
*Quercus virginiana*

### SHRUBS



DWARF YAUAPON HOLLY  
*Ilex vomitoria 'nana'*



JAPANESE PITTOSPORUM  
*Pittosporum tobira*



KNOCK OUT ROSE  
*Rosa shrub 'knock out'*



NEW GOLD LANTANA  
*Lantana x 'new gold'*



RED YUCCA  
*Yucca parvifolia*



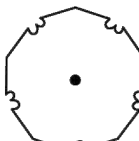
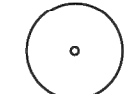

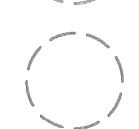
TRAILING ROSEMARY  
*Rosmarinus officinalis 'prostratus'*

### GROUNDCOVERS



COMMON BERMUDA SOD  
*Cynodon sp.*

### TREE LEGEND

-  HERITAGE TREE
-  SAVED TREE
-  REMOVED TREE
-  50' RADIUS



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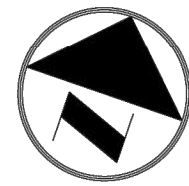
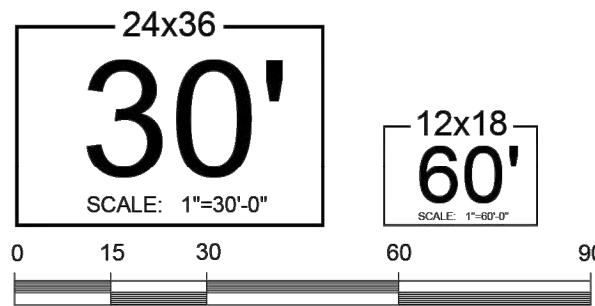
#### sheet information ::

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date :: 05.12.2023  
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drawn :: ag  
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approved :: bab

50 OF 56

LA1.06

MAJOR CORRIDOR  
STREETSCAPE PLAN



#### SUBMISSIONS | REVISIONS::

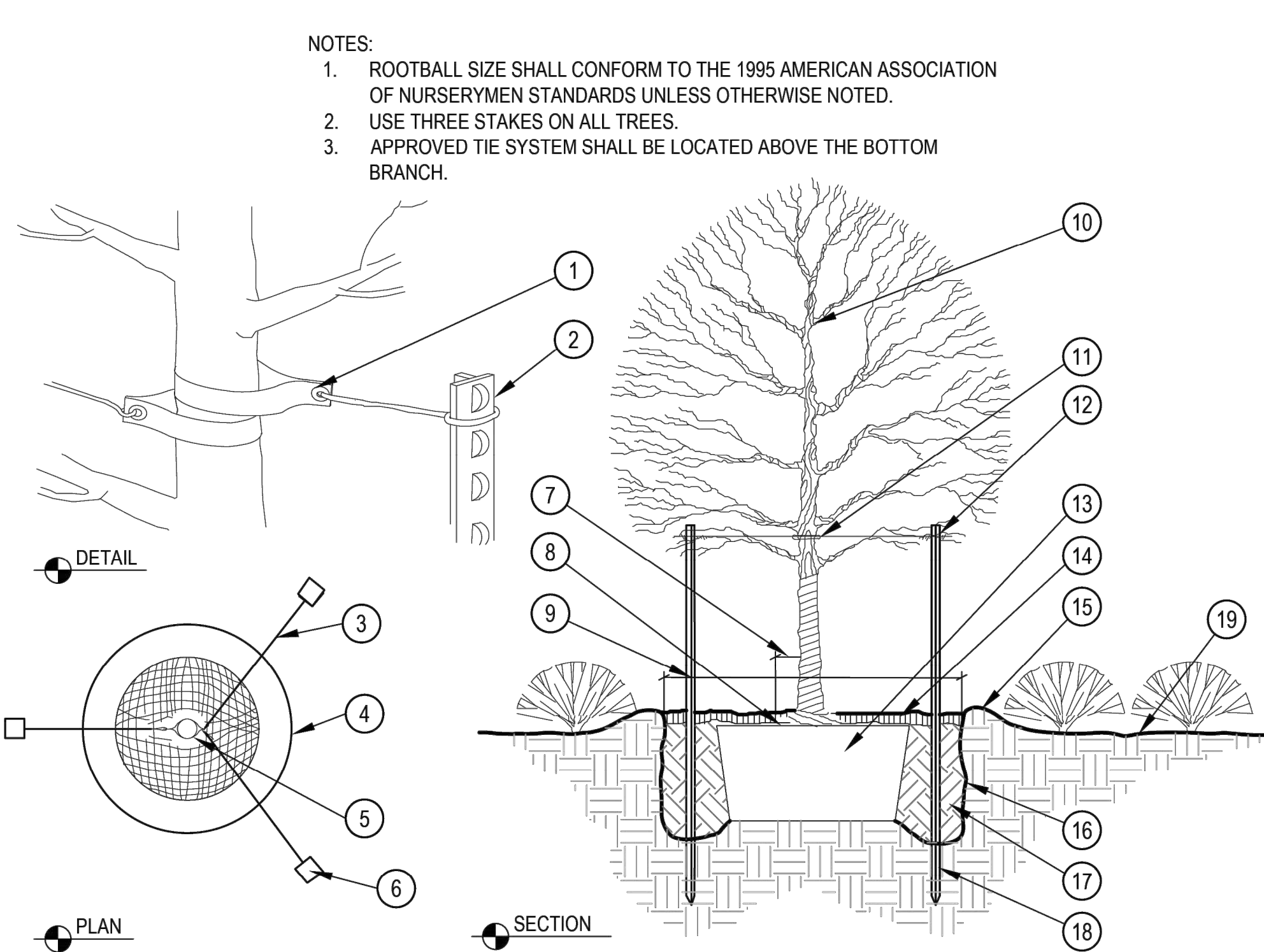
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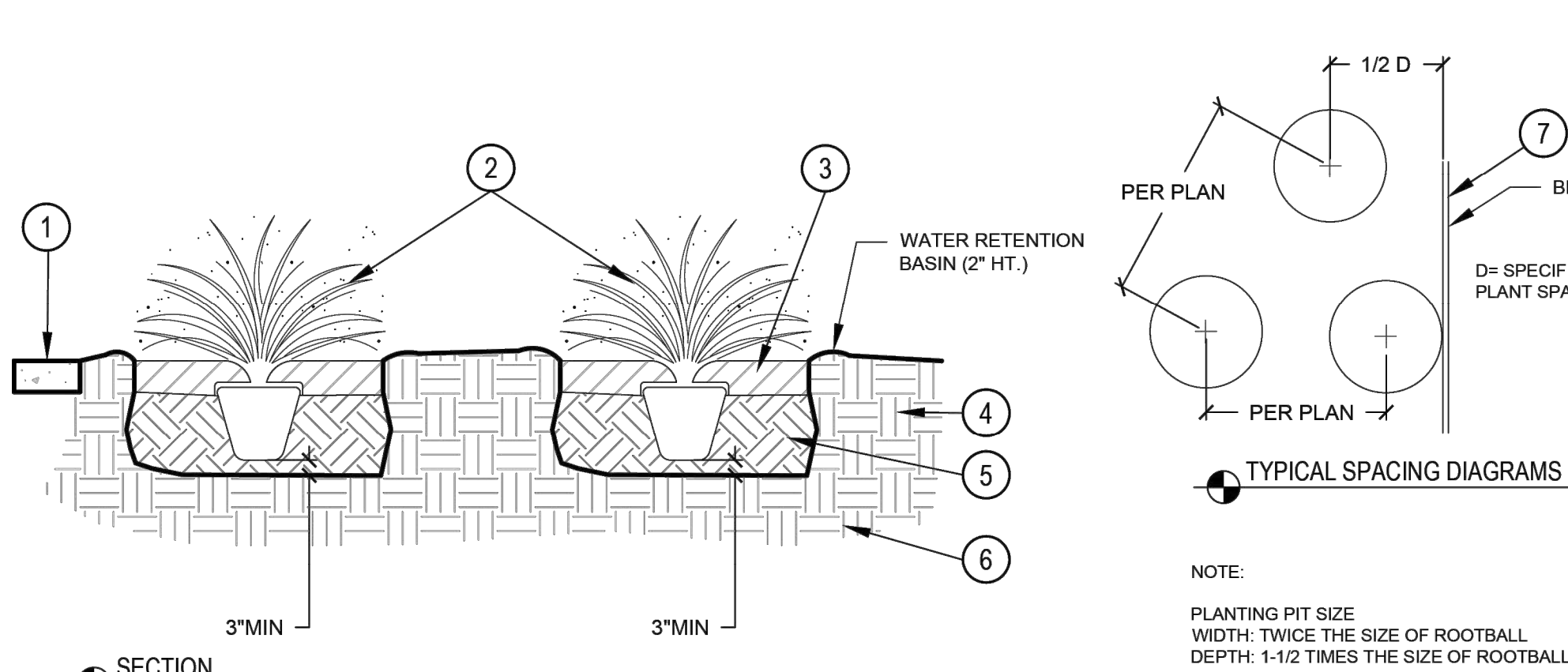
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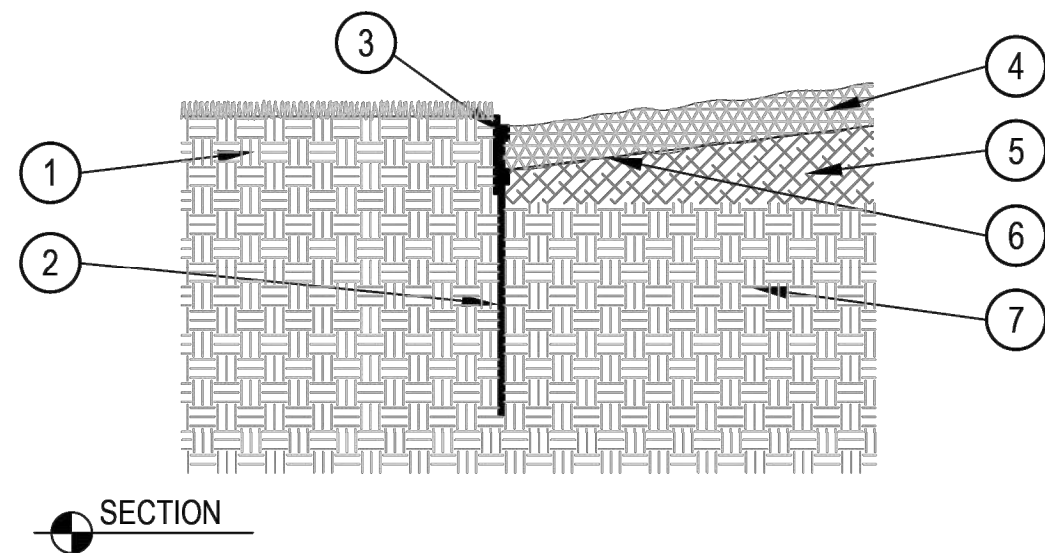
- APPROVED TREE TIE SYSTEM (SEE NOTES)
- 1 LOOP SHALL BE 3X THE DIAMETER OF TRUNK IN ORDER TO PREVENT SCARING, CUTTING, GIRDLING, OR OTHER DAMAGE TO TREE
- 2 STEEL STUDDED FENCE POST-STUDS MUST FACE AWAY FROM TREE
- 3 APPROVED TREE TIE SYSTEM (SEE NOTES)
- 4 EDGE OF TREE PIT
- 5 TREE TRUNK
- 6 STUDDED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

SCALE: NTS



## 4 SHRUB/ GRASS POCKET PLANTING DETAIL

SCALE: NTS

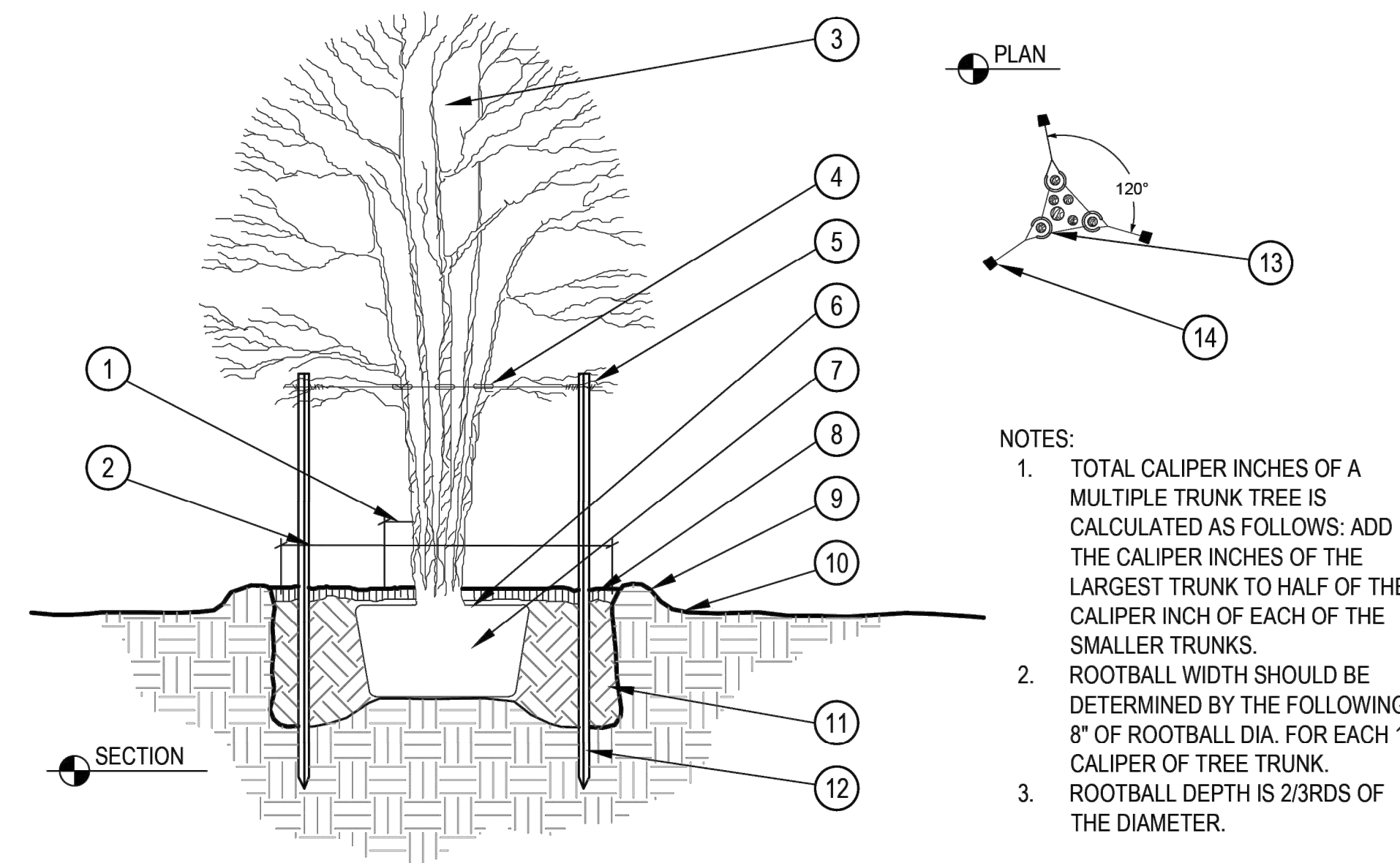


## 5 STEEL EDGING

SCALE: NTS

- 1 ADJACENT HARDSCAPE
- 2 SHRUB/ GRASSES (AS SPECIFIED PER PLAN)
- 3 3" MULCH AS SPECIFIED
- 4 LEAVE NO ROOTS EXPOSED
- 5 PLANTING SOIL MIX AS SPECIFIED ON NOTE #13
- 6 UNDISTURBED SUBGRADE
- 7 BED EDGE

## 1 SINGLE TRUNK TREE PLANTING AND STAKING

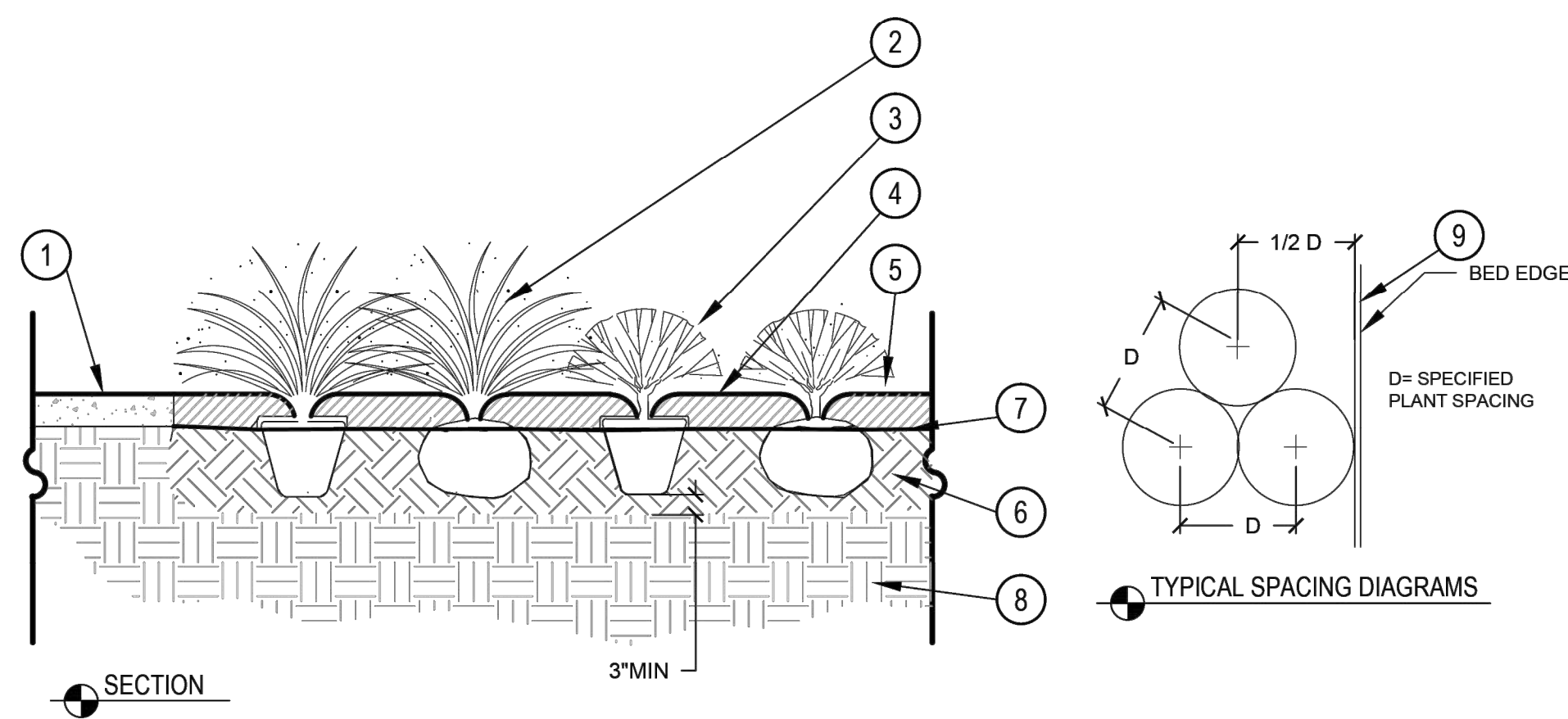


- NOTES:
1. TOTAL CALIPER INCHES OF A MULTIPLE TRUNK TREE IS CALCULATED AS FOLLOWS: ADD THE CALIPER INCHES OF THE LARGEST TRUNK TO HALF OF THE CALIPER INCH OF EACH OF THE SMALLER TRUNKS.
  2. ROOTBALL WIDTH SHOULD BE DETERMINED BY THE FOLLOWING: 8" OF ROOTBALL DIA. FOR EACH 1" CALIPER OF TREE TRUNK.
  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
- NEVER CUT LEADER - THIN UP TO 1/3 OF BRANCHES
- 3 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
- DO NOT BREAK ROOT BALL. IF ROOT BALL IS BROKEN PLANT WILL BE REJECTED. REMOVE BURLAP FROM TOP OF ROOT BALL
- 8 3" 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"
- 13 LONG STAKE TO BE 18" BELOW PIT IN UNDISTURBED SUBGRADE
- 14 LACE HOSE GUARDS TOGETHER WITH SINGLE WIRE STAY
- MIN. 3 STAKES PER TREE PAINTED BLACK STEEL STAKE 3 LARGEST STEMS ON TREE

SCALE: NTS

## 2 MULTI-STEM TREE PLANTING AND STAKING STANDARD



## 3 SHRUB/ GRASS PLANTING

SCALE: NTS

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LEANDER**

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**STRUCTURAL** DUNAWAY  
MAKENZIE CASTONGUE  
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TBPE FIRM F-XXXX



05.04.2023

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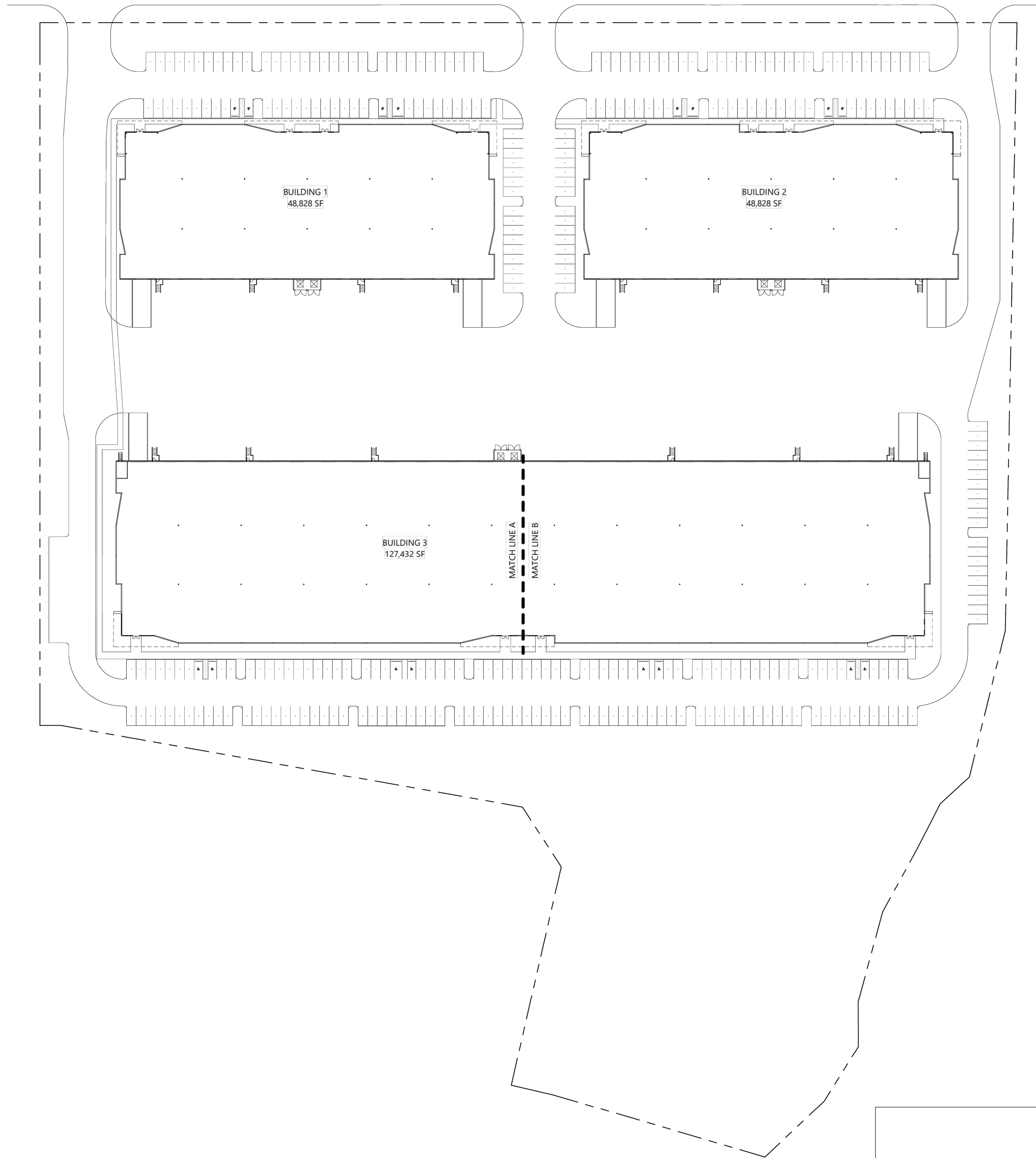
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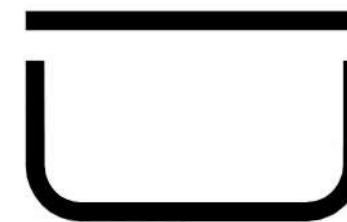
SD-23-0111

52  
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**SDP-1**



1 SITE PLAN  
1" = 60'-0"



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FINISH SCHEDULE KEY

GL.1	GLASS: VITRO SOLARBAN GREY
M.PAN.1	WALL PANEL: 11 GA BLACK METAL PANEL
MTL.1	ALUMINUM MULLIONS: COLOR DARK BRONZE, STAIN FINISH
PNT.1	CONCRETE WALL PAINT, SHERWIN WILLIAMS SW 7020 BLACK FOX, FLAT FINISH
PNT.2	CONCRETE WALL PAINT, SHERWIN WILLIAMS COLOR LIGHT WARM GREY, FLAT FINISH
WD.1	WALL CLADDING, WOOD LOOKING ARCHITECTURAL ALUMINUM PLANKS, WESTERN CEDAR

EXTERIOR WALL STANDARDS:  
TYPE D ARCHITECTURAL COMPONENTS

REQUIRED:

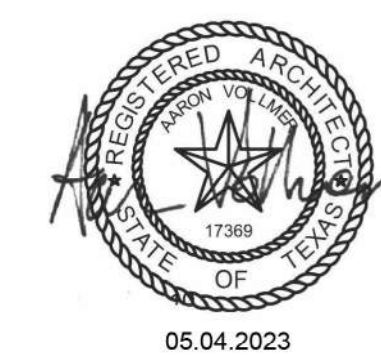
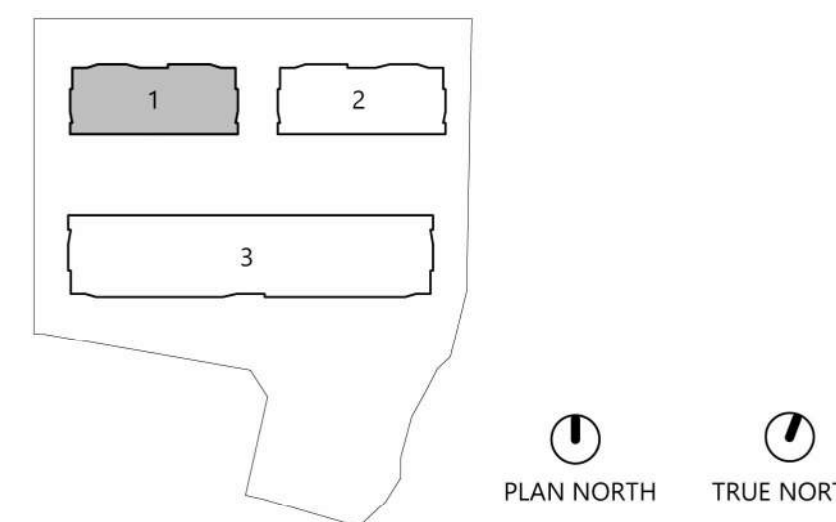
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BUILDING 03:	BUILDING FRONT SHALL HAVE AT LEAST FIVE DESIGN FEATURES IF OVER 100,000 SF

PROVIDED:

SIX DESIGN FEATURES IN TOTAL FOR ALL BUILDING FRONTS. REFER TO ELEVATIONS

DESIGN FEATURES LEGEND

- 1 RECESSED CONCRETE TILT WALL PANELS
- 2 PROJECTED CANOPIES OVER ENTRIES
- 3 DISPLAY WINDOWS
- 4 VERTICAL "ELEVATION" OFF-SETS
- 5 ARCHITECTURAL DETAILS INTO FACADE
- 6 ACCENT MATERIALS AS TAGGED IN ELEVATIONS

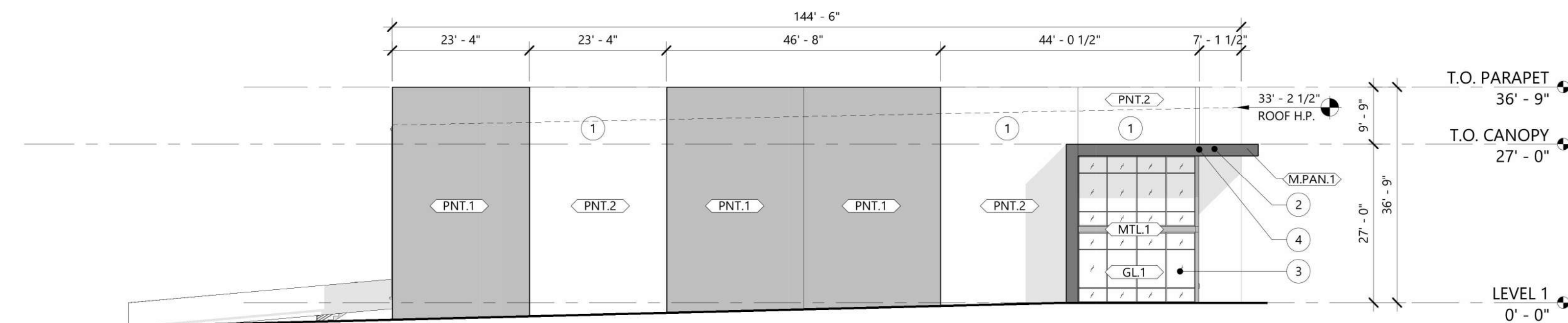


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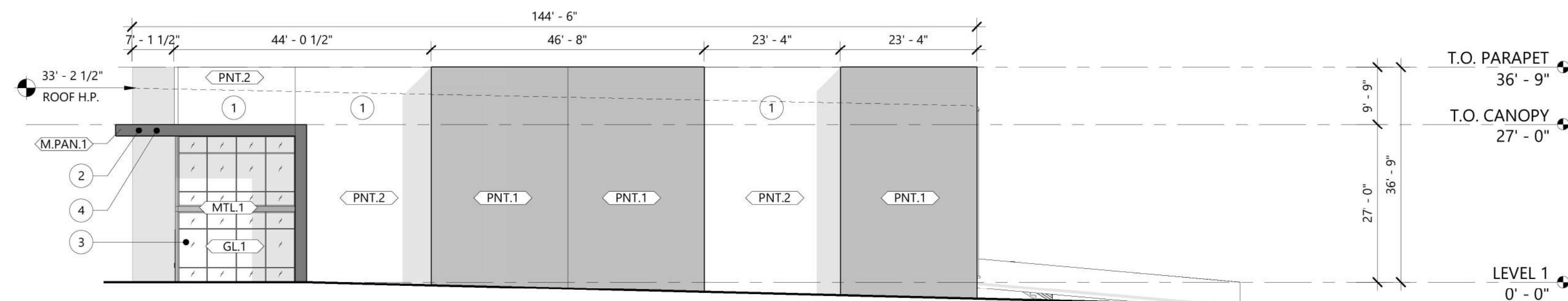
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BUILDING  
ELEVATIONS SD-23-0111

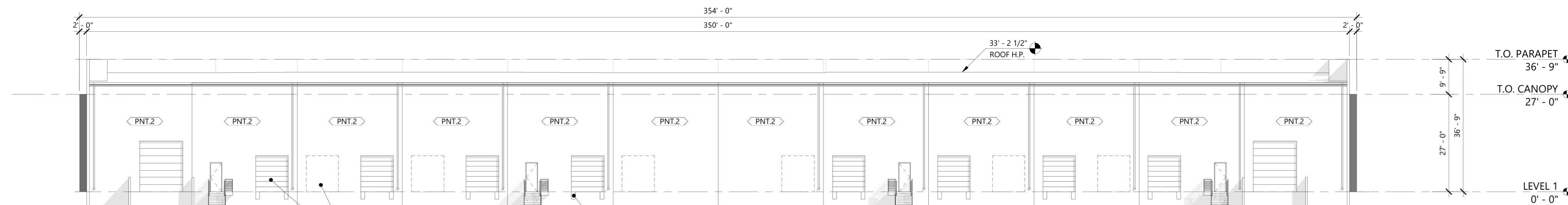
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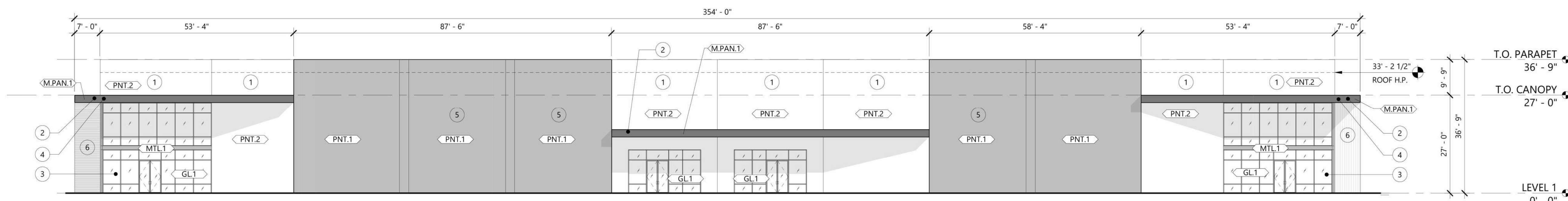
4 BUILDING 01 - EAST ELEVATION  
1/16" = 1'-0"



3 BUILDING 01 - WEST ELEVATION  
1/16" = 1'-0"

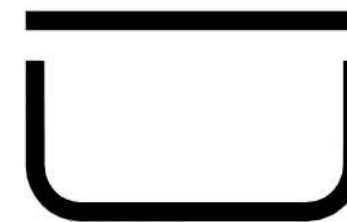


2 BUILDING 01 - SOUTH ELEVATION  
1/16" = 1'-0"



1 BUILDING 01 - NORTH ELEVATION  
1/16" = 1'-0"





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WD.1	WALL CLADDING, WOOD LOOKING ARCHITECTURAL ALUMINUM PLANKS, WESTERN CEDAR

EXTERIOR WALL STANDARDS:  
TYPE D ARCHITECTURAL COMPONENTS

REQUIRED:

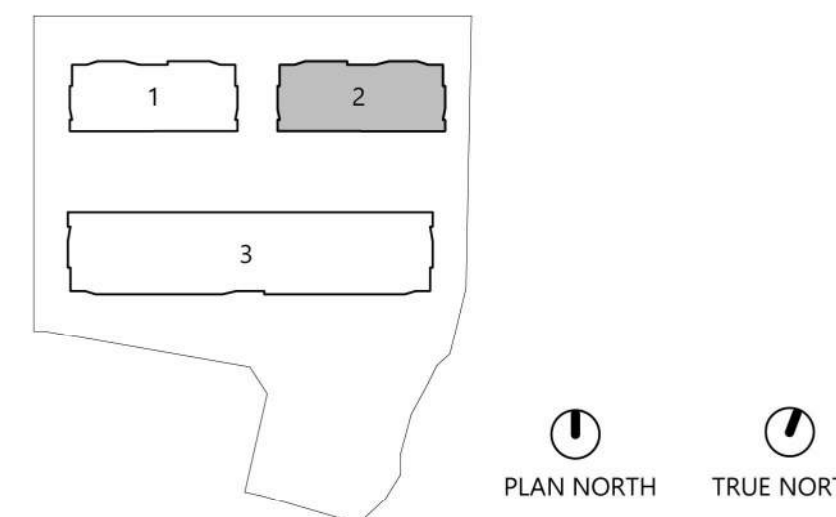
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PROVIDED:

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DESIGN FEATURES LEGEND

- 1 RECESSED CONCRETE TILT WALL PANELS
- 2 PROJECTED CANOPIES OVER ENTRIES
- 3 DISPLAY WINDOWS
- 4 VERTICAL "ELEVATION" OFF-SETS
- 5 ARCHITECTURAL DETAILS INTO FACADE
- 6 ACCENT MATERIALS AS TAGGED IN ELEVATIONS

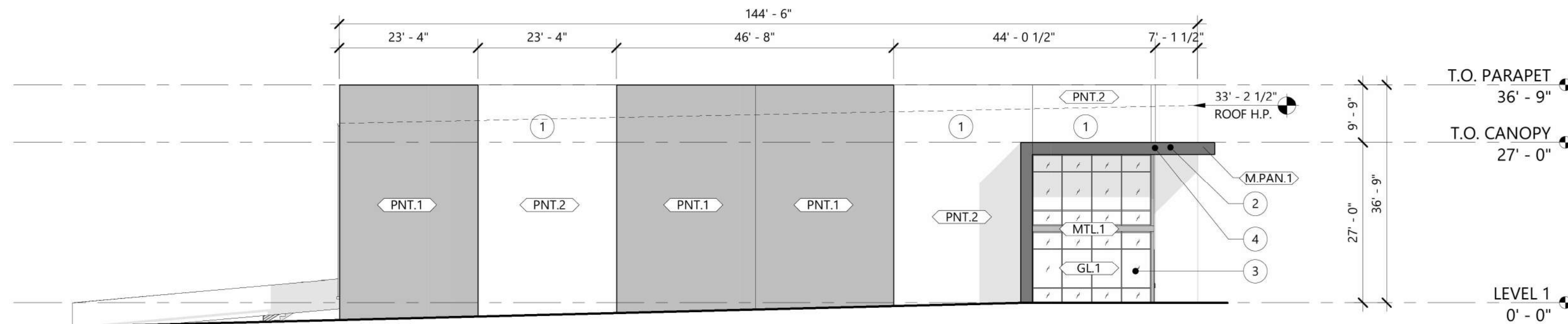


50% SCHEMATIC DESIGN

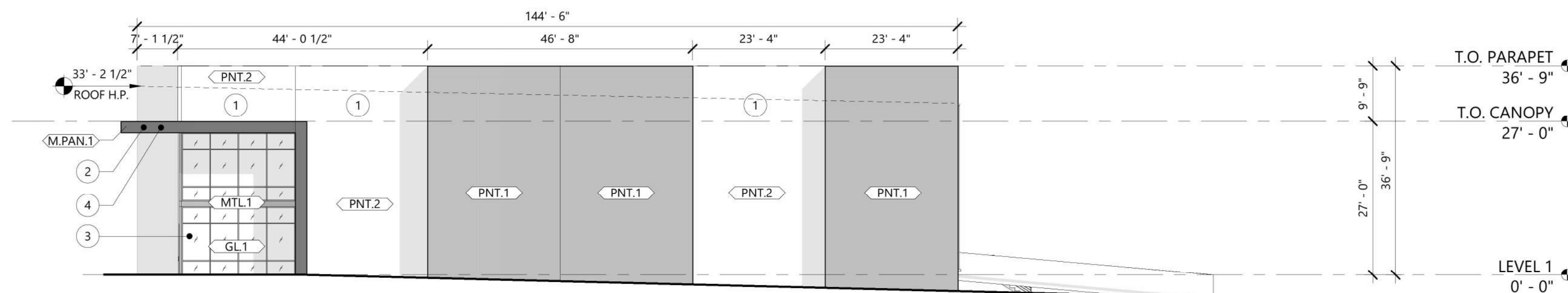
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BUILDING  
ELEVATIONS SD-23-0111

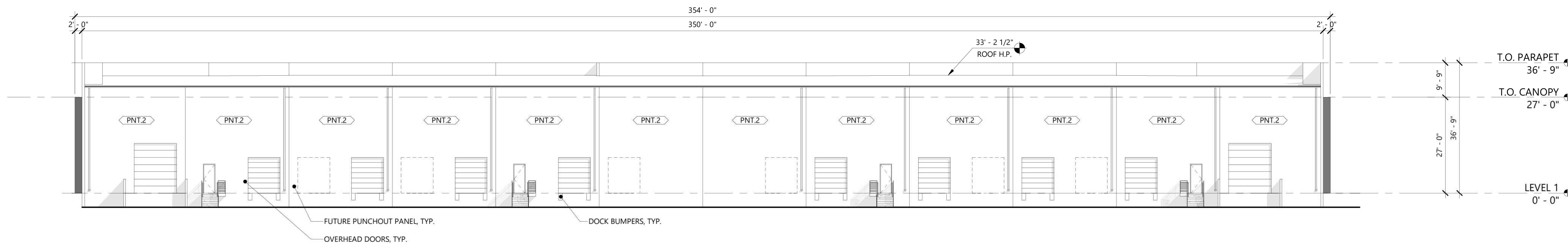
54  
OF 56  
SDP-3



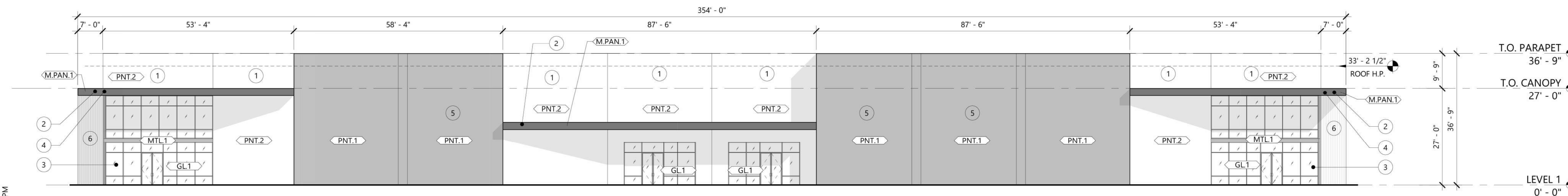
4 BUILDING 02 - EAST ELEVATION  
1/16" = 1'-0"



3 BUILDING 02 - WEST ELEVATION  
1/16" = 1'-0"

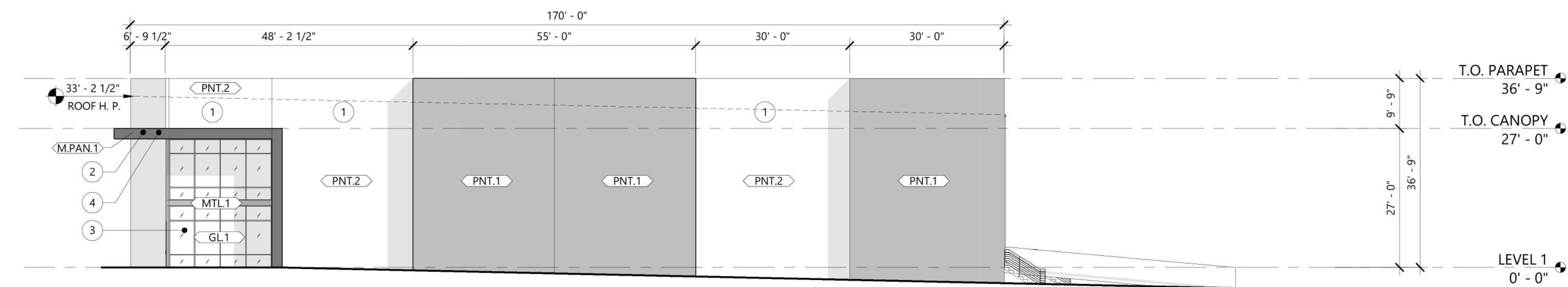


2 BUILDING 02 - SOUTH ELEVATION  
1/16" = 1'-0"

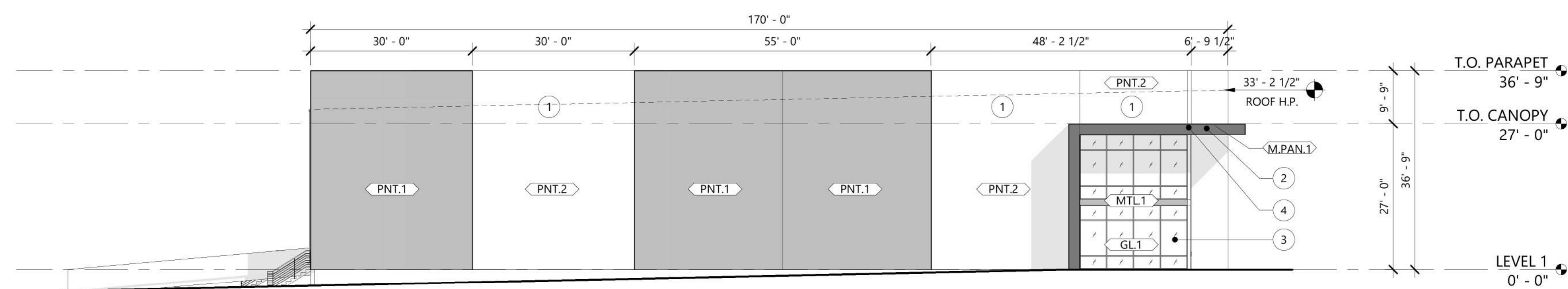


1 BUILDING 02 - NORTH ELEVATION  
1/16" = 1'-0"

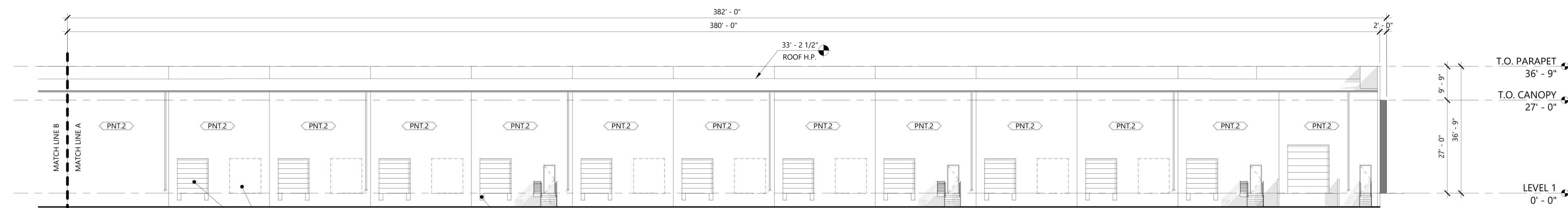




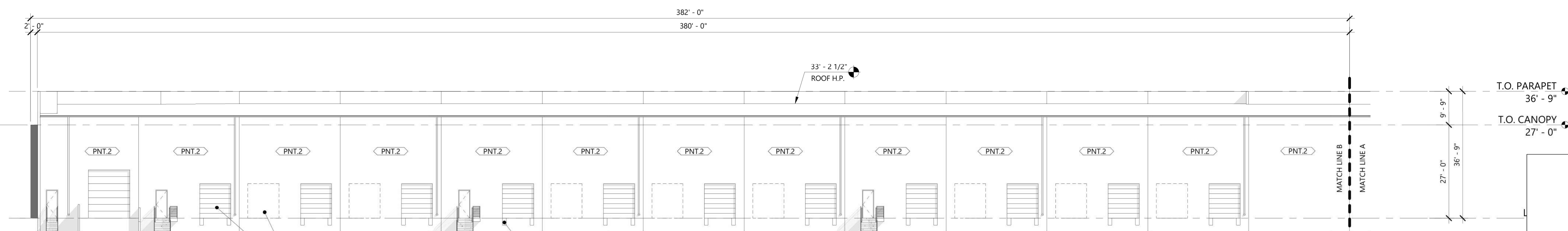
4 BUILDING 03 - EAST ELEVATION  
1/16" = 1'-0"



3 BUILDING 03 - WEST ELEVATION  
1/16" = 1'-0"



2 BUILDING 03 - NORTH ELEVATION - A  
1/16" = 1'-0"



1 BUILDING 03 - NORTH ELEVATION - B  
1/16" = 1'-0"

#### FINISH SCHEDULE KEY

GL.1	GLASS: VITRO SOLARBAN GREY
M.PAN.1	WALL PANEL: 11 GA BLACK METAL PANEL
MTL.1	ALUMINUM MULLIONS: COLOR DARK BRONZE, STAIN FINISH
PNT.1	CONCRETE WALL PAINT, SHERWIN WILLIAMS SW 7020 BLACK FOX, FLAT FINISH
PNT.2	CONCRETE WALL PAINT, SHERWIN WILLIAMS COLOR LIGHT WARM GREY, FLAT FINISH
WD.1	WALL CLADDING, WOOD LOOKING ARCHITECTURAL ALUMINUM PLANKS, WESTERN CEDAR

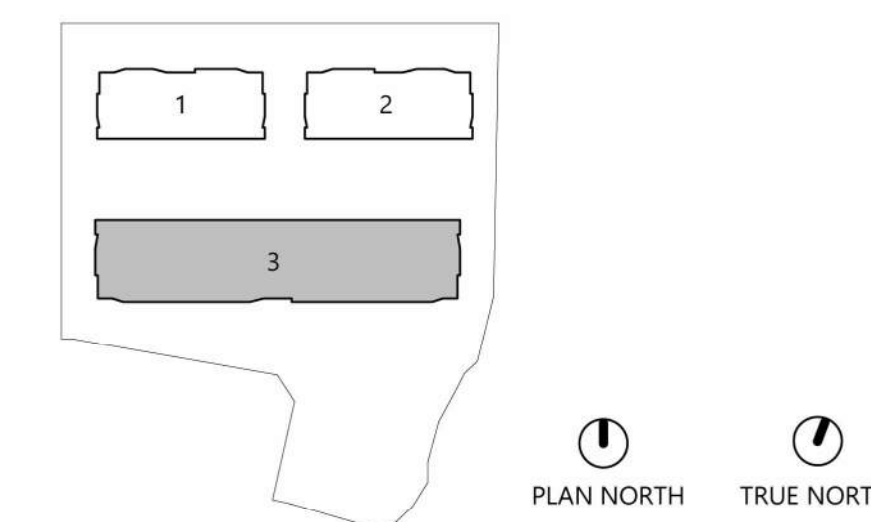
#### EXTERIOR WALL STANDARDS: TYPE D ARCHITECTURAL COMPONENTS

REQUIRED:	
BUILDING 01 & 02:	BUILDING FRONTS SHALL HAVE AT LEAST TWO DESIGN FEATURES
BUILDING 03:	BUILDING FRONT SHALL HAVE AT LEAST FIVE DESIGN FEATURES IF OVER 100,000 SF

PROVIDED:  
SIX DESIGN FEATURES IN TOTAL FOR ALL BUILDING FRONTS. REFER TO ELEVATIONS

#### DESIGN FEATURES LEGEND

- 1 RECESSED CONCRETE TILT WALL PANELS
- 2 PROJECTED CANOPIES OVER ENTRIES
- 3 DISPLAY WINDOWS
- 4 VERTICAL "ELEVATION" OFF-SETS
- 5 ARCHITECTURAL DETAILS INTO FACADE
- 6 ACCENT MATERIALS AS TAGGED IN ELEVATIONS



## FREEHILL LEANDER

11561 HERO WAY W LEANDER, TX,  
78641  
22.012

CLIENT FREEHILL DEVELOPMENT  
WILLIAM PATON  
713.825.3345

ARCHITECT RUNA WORKSHOP, LLC.  
AARON VOLLMER  
512.531.9532  
TBAE#17369

STRUCTURAL DUNAWAY  
MAKENZIE CASTONGUE  
512.717.6305  
TBPE FIRM F-XXXX



#### 50% SCHEMATIC DESIGN

NO. REVISION DESCRIPTION DATE

BUILDING  
ELEVATIONS SD-23-0111

55  
OF 56  
SDP-4





FREEHILL  
LEANDER

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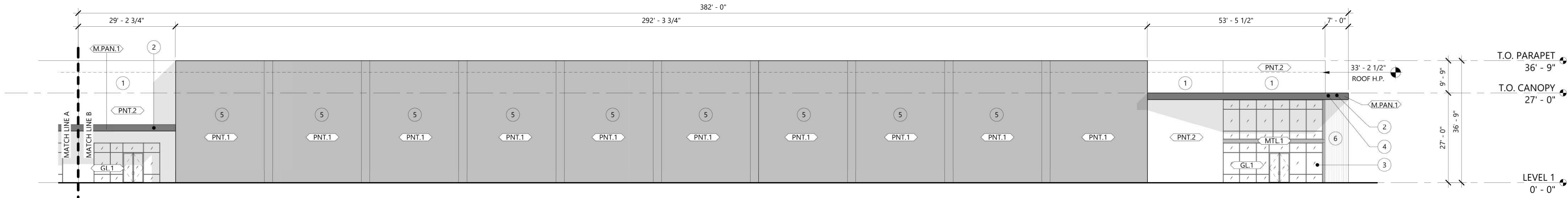
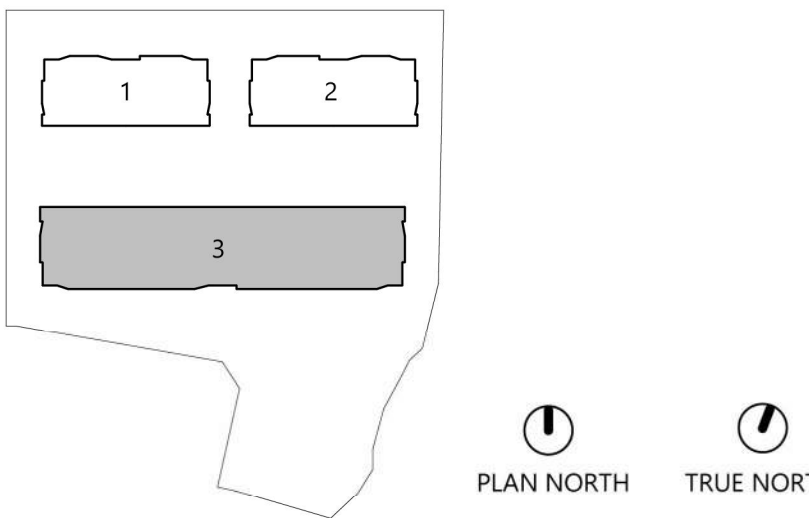
EXTERIOR WALL STANDARDS:  
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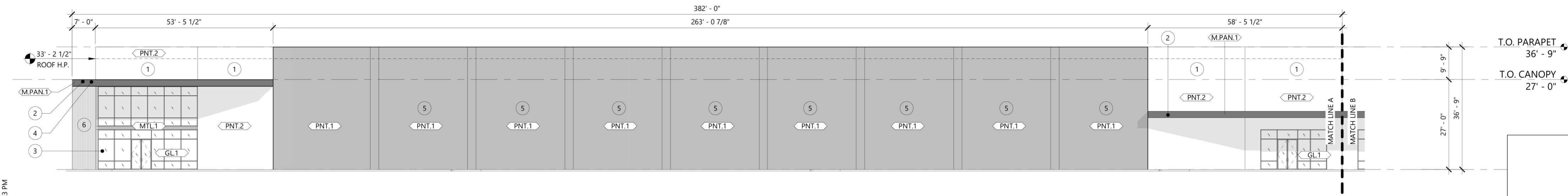
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2 BUILDING 03 - SOUTH ELEVATION - B  
1/16" = 1'-0"



1 BUILDING 03 - SOUTH ELEVATION - A  
1/16" = 1'-0"



50% SCHEMATIC DESIGN  
NO. REVISION DESCRIPTION DATE

BUIDLING  
ELEVATIONS SD-23-0111

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OF 56  
SDP-5