

CONTRIBUTING ZONE PLAN

for

**SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4  
WILLIAMSON COUNTY, TEXAS**

Prepared For:

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Prepared By:

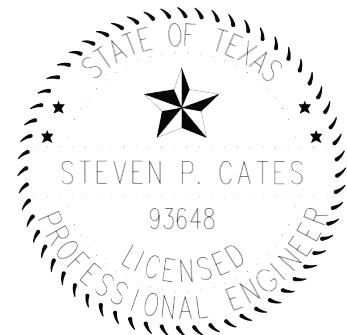
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CBD No. 5742  
December 2025



CARLSON, BRIGANCE & DOERING, INC.  
ID# F3791

**12-5-2025**

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# 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:</b> Saddleback at Santa Rita Ranch Phase 2 Section 4					<b>2. Regulated Entity No.:</b>				
<b>3. Customer Name:</b> Pulte Homes of Texas, LP					<b>4. Customer No.:</b> 603410499				
<b>5. Project Type:</b> (Please circle/check one)	<input checked="" type="radio"/> New	Modification			Extension		Exception		
<b>6. Plan Type:</b> (Please circle/check one)	<input type="radio"/> WPAP	<input checked="" type="radio"/> CZP	<input type="checkbox"/> SCS	<input type="checkbox"/> UST	<input type="checkbox"/> AST	<input type="checkbox"/> EX P	<input type="checkbox"/> EXT	Technical Clarification	Optional Enhanced Measures
<b>7. Land Use:</b> (Please circle/check one)	<input checked="" type="radio"/> Residential		<input type="checkbox"/> Non-residential			<b>8. Site (acres):</b>		7.04	
<b>9. Application Fee:</b>	\$3,000.00		<b>10. Permanent BMP(s):</b>			Batch Detention Pond			
<b>11. SCS (Linear Ft.):</b>	N/A		<b>12. AST/UST (No. Tanks):</b>			N/A			
<b>13. County:</b>	Williamson		<b>14. Watershed:</b>			North Fork San Gabriel River			

# Application Distribution

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

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

<b>Austin Region</b>			
<b>County:</b>	<b>Hays</b>	<b>Travis</b>	<b>Williamson</b>
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 checked="" type="checkbox"/> Georgetown <input type="checkbox"/> Jerrell <input type="checkbox"/> Leander <input checked="" type="checkbox"/> Liberty Hill <input type="checkbox"/> Pflugerville <input type="checkbox"/> Round Rock

<b>San Antonio Region</b>					
<b>County:</b>	<b>Bexar</b>	<b>Comal</b>	<b>Kinney</b>	<b>Medina</b>	<b>Uvalde</b>
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.

Pulte Homes of Texas, LP / Carlson, Brigance, & Doering, Inc.

Print Name of Customer/Authorized Agent



**12-5-2025**

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: Steven P. Cates, P.E.

Date: 12/05/2025

Signature of Customer/Agent:



Regulated Entity Name: Saddleback at Santa Rita Ranch Phase 2 Section 4

## Project Information

1. County: Williamson
2. Stream Basin: North Fork San Gabriel River
3. Groundwater Conservation District (if applicable): N/A
4. Customer (Applicant):

Contact Person: Stephen Ashlock

Entity: Pulte Homes of Texas, LP

Mailing Address: 9401 Amberglen Blvd., Bldg. I, Suite 150

City, State: Austin, TX

Zip: 78729

Telephone: (512) 532-3355

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

Email Address: Stephen.Ashlock@PulteGroup.com

5. Agent/Representative (If any):

Contact Person: Steven P. Cates, P.E.

Entity: Carlson, Brigance & Doering, Inc.

Mailing Address: 5501 West William Cannon

City, State: Austin, TX

Zip: 78749

Telephone: (512) 280-5160

Fax: (512) 280-5165

Email Address: steve@cbdeng.com

6. Project Location:

- The project site is located inside the city limits of \_\_\_\_\_.
- The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of the City of Liberty Hill.
- 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.

West of Ronald Reagan Blvd., South of County 258 Rd.

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: 0
- Residential: # of Living Unit Equivalents: \_\_\_\_\_
- Commercial
- Industrial
- Other: \_\_\_\_\_

13. Total project area (size of site): 7.04 Acres

Total disturbed area: 7.24 Acres

14. Estimated projected population: 0

15.

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

**Table 1 - Impervious Cover**

<i>Impervious Cover of Proposed Project</i>	<i>Sq. Ft.</i>	<i>Sq. Ft./Acre</i>	<i>Acres</i>
Structures/Rooftops	0	÷ 43,560 =	0
Parking	0	÷ 43,560 =	0
Other paved surfaces	95,832	÷ 43,560 =	2.20
Total Impervious Cover	95,832	÷ 43,560 =	2.20

**Total Impervious Cover 2.20 ÷ Total Acreage 7.24 X 100 = 30.38% Impervious Cover**

17.  **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.

18.  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

19. 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.

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

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

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

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

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

L x W = \_\_\_\_\_ Ft<sup>2</sup> ÷ 43,560 Ft<sup>2</sup>/Acre = \_\_\_\_\_ acres.

				TOTAL
Length (R.O.W)	2345.2	589.342	76.08	16
Width (R.O.W)	120	50	60	
L x W (acres)	6.46	0.68	0.10	7.24
Length Pavement	2485.2	589.342	231.238	
Width Pavement	27	33	40	
L x W (acres)	1.54	0.45	0.21	2.20
Total Pavement area/R.O.W area:	2.19 ÷ 7.24 =			<b>30.37%</b>

22. Pavement Area:

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

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

L x W = \_\_\_\_\_ Ft<sup>2</sup> ÷ 43,560 Ft<sup>2</sup>/Acre = \_\_\_\_\_ acres.

Pavement area \_\_\_\_\_ acres ÷ R.O.W. area \_\_\_\_\_ acres x 100 = \_\_\_\_\_ % impervious cover.

23.  A rest stop will be included in this project.

A rest stop will not be included in this project.

24.  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***

25.  **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***

26.  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

27. 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 Liberty Hill (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

28. 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

29.  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.

30. 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

31. 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

32.  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: \_\_\_\_\_.

33.  **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

34.  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.**

35.  The Site Plan must have a minimum scale of 1" = 400'.  
Site Plan Scale: 1" = 40'.
36. 100-year floodplain boundaries:
- Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
  - No part of the project site is located within the 100-year floodplain.  
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA- FIRM Panel #48491C0275E; Effective Date: September 26, 2008.
37.  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.
38.  A drainage plan showing all paths of drainage from the site to surface streams.
39.  The drainage patterns and approximate slopes anticipated after major grading activities.
40.  Areas of soil disturbance and areas which will not be disturbed.
41.  Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
42.  Locations where soil stabilization practices are expected to occur.
43.  Surface waters (including wetlands).  
 N/A
44.  Locations where stormwater discharges to surface water.  
 There will be no discharges to surface water.
45.  Temporary aboveground storage tank facilities.

- Temporary aboveground storage tank facilities will not be located on this site.
- 46.  Permanent aboveground storage tank facilities.
  - Permanent aboveground storage tank facilities will not be located on this site.
- 47.  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.***

- 48.  Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.
  - N/A
- 49.  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
- 50.  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
- 51. 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.

52. 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.

53.  **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.

54.  **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.

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

N/A

56.  **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

57.  **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

58.  **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

59.  **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.***

60.  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.

61.  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***

- 62.  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.
- 63.  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.
- 64.  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.

*Contributing Zone Plan Application*

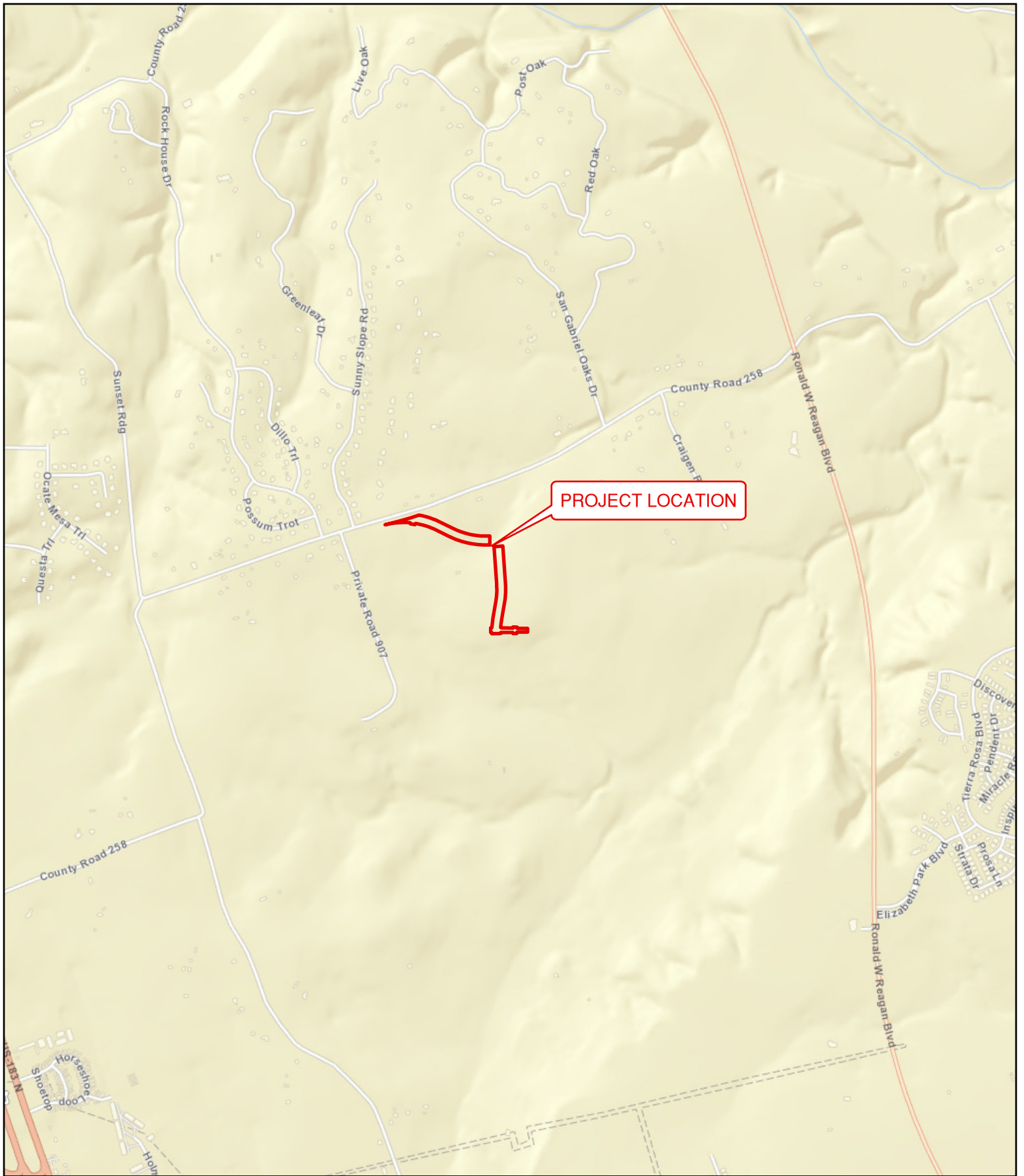
**ATTACHMENT A**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**ROAD MAP**



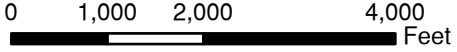
PROJECT LOCATION

 Subject Boundary

# Santa Rita Ranch

## Water Pollution Abatement Plan Map

### Leander NE Quadrant



*Contributing Zone Plan Application*

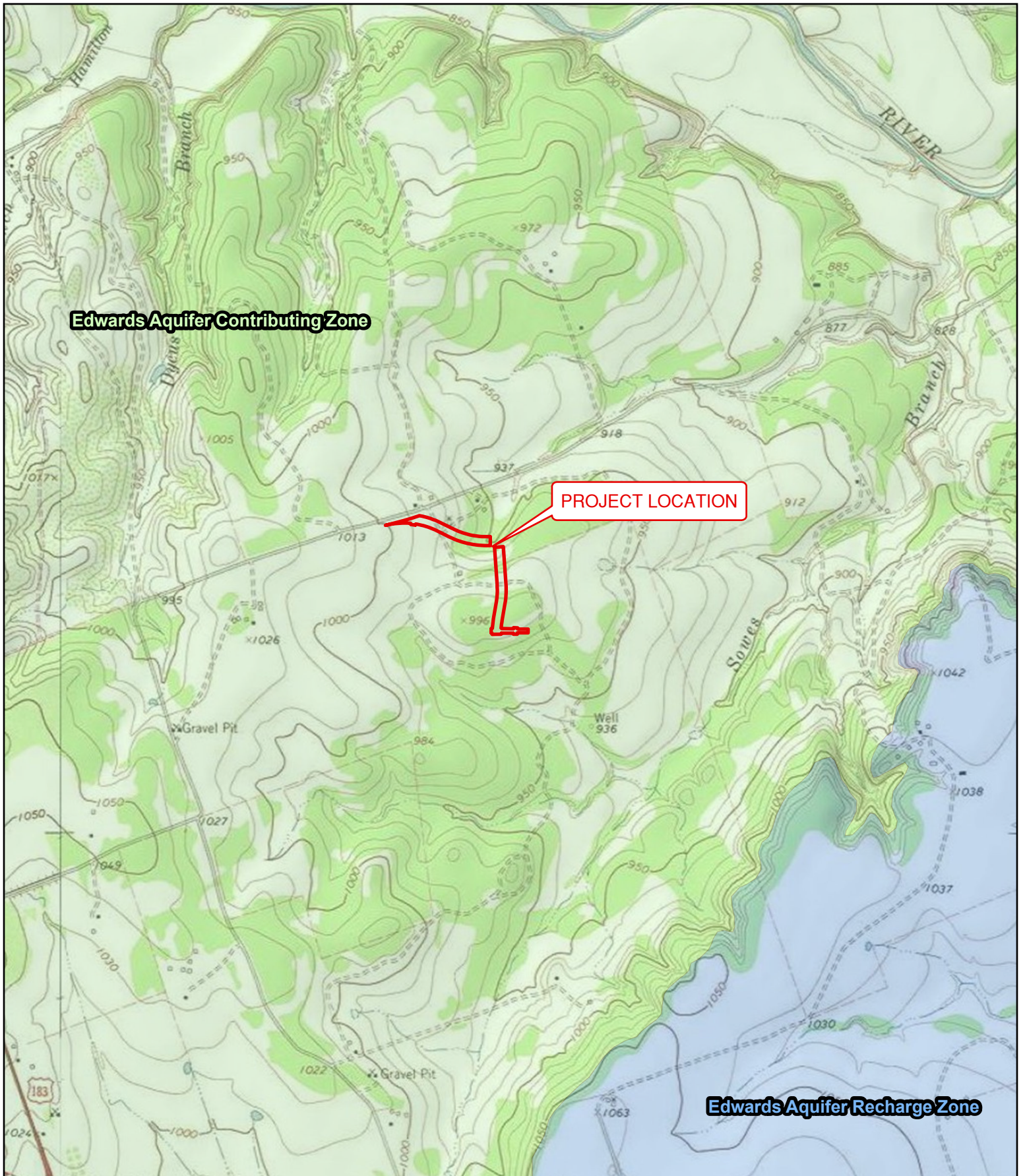
**ATTACHMENT B**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**USGS QUADRANGLE MAP**



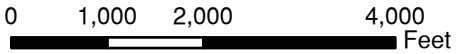
**Edwards Aquifer Contributing Zone**

**PROJECT LOCATION**

**Edwards Aquifer Recharge Zone**

**Santa Rita Ranch**  
 Water Pollution Abatement Plan Map  
 Leader NE Quadrant

 Subject Boundary



 Carlson, Brignace & Doering, Inc.  
 Civil Engineering & Surveying

Carlson, Brignace & Doering, Inc. shall not be liable for errors, omissions, or inaccuracies contained in this map. For informational purposes only.

*Contributing Zone Plan Application*

**ATTACHMENT C**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Project Narrative:**

Saddleback at Santa Rita Ranch Phase 2 Section 4 is a 7.04-acre roadway development that is composed of 3,076 LF of roadway. A small portion of roadway development is outside of the boundary making the total disturbed area consist of 7.24 acres and a total of 3,306 LF of roadway. The roadway development consists of an extension of Saddleback Parkway, Tower Rd, Donovan Drive, and County Road 258. The project is located on the west side of Ronald Reagan Boulevard, and South of County Road 258. The project is located within the City of Liberty Hill ETJ, in Williamson County, Texas.

The site may have soil imported. The fill material shall consist of crushed limestone, select fill, and topsoil. The fill material will be used to facilitate drainage, roadway construction, revegetation of the property, and to elevate the building foundations.

This project is located within the Edwards Aquifer Contributing Zone. Flows were calculated using the National Resource Conservation hydrologic method. Water Quality will be provided by existing batch detention ponds constructed with existing sections.

Within the 7.24-acre improvement area, approximately 2.20 acres of impervious cover will be installed (37.50% of total project site). Existing batch detention ponds have been designed in accordance with the January 20, 2017 Addendum Sheet to RG-348 which establishes Batch Detention Basins in Section 3.2.17. They have been sized to treat and detain for Phase 2 Section 4 as well as the future sections.

*Contributing Zone Plan Application*

**ATTACHMENT D**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Factors Affecting Surface Water Quality:**

**During Construction**

The following non-stormwater discharges may occur from the site during the construction period:

- Utility water line flushing during the initial line testing must use uncontaminated water that is not hyperchlorinated.
- Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred)
- Groundwater (from dewatering of excavation) must be uncontaminated.
- Water used to wash vehicles or control dust must be accomplished using potable water without detergents.

All non-stormwater discharge will be directed to the temporary Erosion and Sedimentation Controls (Best Management Practices) to remove any suspended solids contained therein. Stormwater during construction will remove loose material and transport it downstream.

**Post Construction**

The following non-stormwater discharges may occur from the site after construction has been completed:

- Fertilizers and pesticides
- Household chemicals
- Pet Waste
- Used oil
- Car washing
- Mulching
- Sediment

Post-construction stormwater discharges typically transport sediment in the form of dirt and dust accumulated on the streets and other impervious flatwork, rooftops, and sediment from erosion of grassy areas. That material will be transported through the storm sewer system to the wet basins, where most of the pollutants will be removed.

Contributing Zone Plan Application

ATTACHMENT E

TCEQ CZP APPLICATION

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Volume and Character of Stormwater:**

Existing and developed hydrology models were created in HEC-HMS, v.4.8. A 24-hour frequency storm was applied to the meteorological models for the 2, 10, 25, and 100-year storm events. The model was run over a 24-hour period with a computational time interval of 1 minute. Subbasins utilized an SCS Curve Number Loss Method and SCS Unit Hydrograph Transform Method. Reaches utilized either a Muskingum-Cunge or Lag Routing Method. See below for specific model input data.

Meteorological Model

Frequency storms with the following parameters were used to model storm events:

**HEC-HMS Meteorological Model Parameters**

<b>Probability</b>	2-yr = 50%, 10-yr = 10%, 25-100-yr = Other
<b>Input Type</b>	Partial Duration
<b>Output Type</b>	Annual Duration (only applicable for 2-10-yr)
<b>Intensity Duration</b>	5 Minutes
<b>Storm Duration</b>	1 Day
<b>Intensity Position</b>	50%
<b>Storm Area</b>	(Blank if less than 10 mi <sup>2</sup> )
<b>Curve</b>	Uniform for all subbasins

Partial-duration precipitation depths are per the Depth-Duration-Frequency Estimates for the San Gabriel River Zone in Williamson County, Texas, according to NOAA Atlas 14, Volume 11, Version 2. See the table below:

**Precipitation Depths (in) per Recurrence Interval**

<b>Duration</b>	<b>2-YR</b>	<b>10-YR</b>	<b>25-YR</b>	<b>100-YR</b>
<b>5-min</b>	0.51	0.757	0.921	1.19
<b>15-min</b>	1.02	1.51	1.84	2.37
<b>60-min</b>	1.88	2.79	3.4	4.39
<b>2-hr</b>	2.3	3.55	4.43	5.98
<b>3-hr</b>	2.55	4.02	5.09	7.06
<b>6-hr</b>	2.98	4.81	6.18	8.75
<b>12-hr</b>	3.44	5.54	7.12	10.1
<b>24-hr</b>	3.94	6.3	8.04	11.2

Land Use & Curve Numbers

In existing conditions, the soils are primarily hydrologic soil group D, as per the USDA Web Soil Survey. The soils map and data have been included in Appendix B. The curve numbers were selected from Urban

Hydrology for Small Watersheds<sup>1</sup> based on hydrologic soil groups and aerial maps. See table below. Curve numbers were assessed independently from impervious cover.

#### Runoff Curve Numbers

Cover Type	Hydrologic Condition	Hydrologic Soil Group	Curve Number
Pasture	Good	D	80
Woods-grass combination	Good	D	79
Meadow	Good	D	78

Existing impervious cover was determined from aerial imagery. Proposed impervious cover was estimated from the proposed and anticipated future layout using TCEQ assumptions for residential tracts. Impervious cover was calculated as a percent of the total drainage basin. Curve number and impervious cover percents were loss inputs for subbasins in the model.

#### Time of Concentration

All time of concentration calculations were generated using SCS methodology provided in Urban Hydrology for Small Watersheds<sup>2</sup> for sheet, shallow concentrated, and channel flow. A maximum of 100 feet was used for sheet flow calculations. Lag times were calculated as 60 percent of the time of concentration. Lag times were transform inputs for subbasins and reaches in the model. Times of concentration for future developed drainage areas were approximated based on assumed basin size.

#### Reaches

Reaches representing the Middle Fork San Gabriel River were modeled using the Muskingum-Cunge routing method with 8-point cross-sections. In developed conditions, reaches contributing to the Middle Fork were modeled with the Lag method.

#### Reservoirs

All reservoirs were modeled using outflow structures with an elevation-storage method. Initial conditions were elevations set to the bottom of pond elevation for batch detention facilities. The model assumed no tailwater condition. Future batch detention ponds were modeled with a generic stage-storage and outflow spillways assigned to the assumed water quality volume elevation.

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<sup>1</sup> Natural Resources Conservation Service, Conservation Engineering Division. 1986. Urban Hydrology for Small Watersheds. Technical Release 55. U.S. Department of Agriculture. [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1044171.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044171.pdf)

<sup>2</sup> Ibid.

*Contributing Zone Plan Application*

**ATTACHMENT J**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Best Management Practices for Upgradient Stormwater:**

Upgradient stormwater will travel overland to the curb and gutter and be captured by the curb inlets to be conveyed to existing Batch detention pond S3 and Batch Detention Pond S5. Batch Detention Pond S5 will treat future development as well.

*Contributing Zone Plan Application*

**ATTACHMENT K**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Best Management Practices for On-site Stormwater:**

Stormwater runoff from this section will sheet flow overland, be captured in gutters and curb inlets, and piped into existing Batch Detention S3 and Batch Detention Pond S5. Batch Detention Pond S5 will also treat future development. The water quality volume provided in these ponds will be sufficient to accommodate TSS removal for this and future sections.

TCEQ project and drainage area maps are provided in the included construction plans. TCEQ TSS removal calculations are provided in Appendix A of this application.

*Contributing Zone Plan Application*

**ATTACHMENT L**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Best Management Practices for Surface Streams Contamination:**

Stormwater runoff in this section will sheet flow across existing land, be captured in gutters and curb inlets, and piped into existing batch detention pond S3 and Batch Detention Pond S5, as shown on the Overall Drainage Area Plan.

The existing batch detention ponds discharge through rock rip-rap and rock berms which deters heavy floods from entering streams and aids in sediment collection. The remaining site stormwater runoff will sheet flow across the lots and discharge directly into Soves Branch which feeds the North Fork of the San Gabriel River.

No stormwater from the improved area will drain to sensitive geological features.

*Contributing Zone Plan Application*

**ATTACHMENT M**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Construction Plans:**

Construction Plans for the erosion and sedimentation control measures proposed with this development are included at the end of this report.

*Contributing Zone Plan Application*  
**ATTACHMENT P**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Measures for Minimizing Surface Stream Contamination:**

The development minimizes surface stream contamination by maintaining the naturally occurring sheet flow across the land. Drainage from this development will be directed towards batch detention ponds which will reduce the developed flow rated to predeveloped flow rates. There are no surface streams within this site.

# Temporary Stormwater Section

## Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

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

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

## Signature

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

Print Name of Customer/Agent: Steven P. Cates, P.E.

Date: 12/05/2025

Signature of Customer/Agent:



Regulated Entity Name: Saddleback at Santa Rita Ranch Phase 2 Section 4

## 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: North Fork of the San Gabriel River

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

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

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

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

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

### ***Soil Stabilization Practices***

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

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

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

### ***Administrative Information***

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

*Temporary Stormwater Section*

**ATTACHMENT A**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Spill Response Actions:**












1. Contain the spill.
2. Immediately stake off area.
3. Notify Hazardous Material team (if necessary); notify TCEQ:  
(512) 339-2929 or Emergency # 1-800-832-8224
4. Take necessary steps to clean up, i.e. notify remediation contractor if large spill, or small spills will be cleaned by the construction contractor.

All site personnel will be made aware of the manufactures' recommended methods for spill cleanup, and the location of the information and cleanup supplies.

Spills will be reported according to the Reportable Quantity, attached on the following page.

Materials and equipment necessary for spill cleanup will be kept onsite in an accessible location known to site personnel.

All Spills will be cleaned up immediately upon discovery. Any spill of hydrocarbons or hazardous substances greater than 25 gallons will require notification to the fire Department Hazardous Materials Team and TCEQ. As with all spills, an effort shall be made to prevent material from entering surface streams and storm drains by using rock or earth berms to contain the material.

Kind of spill	Where discharged	Reportable quantity	Rule, statute, or responsible agency
Hazardous substance	onto land	“Final RQ” in Table 302.4 in <a href="#">40 CFR 302.4</a> (PDF) 	<a href="#">30 TAC 327</a> 
	into water	“Final RQ” or 100 lbs, whichever is <b>less</b>	
Any oil	coastal waters	as required by the Texas General Land Office	<a href="#">Texas General Land Office</a> 
Crude oil, oil that is neither a petroleum product nor used oil	onto land	210 gallons (five barrels)	<a href="#">30 TAC 327</a> 
	directly into water	enough to create a sheen	
Petroleum product, used oil	onto land, from an exempt PST facility	210 gallons (five barrels)	<a href="#">30 TAC 327</a> 
	onto land, or onto land from a non-exempt PST facility	25 gallons	
	directly into water	enough to create a sheen	
Associated with the exploration, development and production of oil, gas, or geothermal resources	under the jurisdiction of the Railroad Commission of Texas	as required by the Railroad Commission of Texas	<a href="#">Railroad Commission of Texas</a> 
Industrial solid waste or other substances	into water	100 lbs	<a href="#">30 TAC 327</a> 
From petroleum storage tanks, underground or aboveground	into water	enough to create a sheen on water	<a href="#">30 TAC 334.75-81</a> 
From petroleum storage tanks, underground or aboveground	onto land	25 gallons or equal to the RQ under <a href="#">40 CFR 302</a> 	<a href="#">30 TAC 327</a> 
Other substances that may be useful or valuable and are not ordinarily considered to be waste, but will cause pollution if discharged into water in the state	into water	100 lbs	<a href="#">30 TAC 327</a> 

### **1.4.16 Spill Prevention and Control**

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

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

#### ***Education***

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

#### ***General Measures***

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

#### ***Cleanup***

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

### **Minor Spills**

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

### **Significant/Hazardous Spills**

For significant or hazardous spills that are in reportable quantities:

- (1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512- 339-2929 (Austin) 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.
- (2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- (3) Notification should first be made by telephone and followed up with a written report.
- (4) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- (5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at:

[http://www.tnrcc.state.tx.us/enforcement/emergency\\_response.html](http://www.tnrcc.state.tx.us/enforcement/emergency_response.html)

### ***Vehicle and Equipment Maintenance***

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

### ***Vehicle and Equipment Fueling***

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

*Temporary Stormwater Section*

**ATTACHMENT B**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Potential Sources of Contamination:**

Gasoline, Diesel, and Hydraulic Fluid from construction equipment,  
Asphalt products,  
Construction Materials,  
Trash and Debris,  
Paint,  
Concrete,  
Gypsum from sheet rock,  
Sediment.

All materials shall be hauled in a manner consistent with the manufacturer's recommendations. Disposal of waste material shall be in conformance with all state and local laws.

*Temporary Stormwater Section*

**ATTACHMENT C**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Sequence of Major Activities:**

1. Install and maintain Erosion Control and Tree Protection per the Approved Plans and specifications prior to any clearing and grubbing, grading, excavating, etc... Notify Construction Inspection Division when installed.
2. Prior to beginning construction, the owner or his representative shall hold a Pre-Construction Conference between TCEQ, Williamson County, Contractor, and any other affected parties. Notify TCEQ at least 48 hours prior to the time of the conference and 48 hours prior to beginning construction. Prior to Pre-Construction Conference.
3. Hold Pre-Construction Conference with contractor, TCEQ, EV Inspector, Engineer, and owner or his representative.
4. Rough grade roadway.  
(Estimate of disturbed area = 2.07 ac)
5. Begin installation of storm sewer. Upon completion, restore as much disturbed areas as possible, particularly channels and large open areas.
6. Regrade streets to subgrade (Estimate of disturbed area = 2.07 ac)
7. Ensure that all underground utility crossings are completed. Lay first course base material on all streets. (2.07 ac)
8. Install curb and gutter. (Estimate of disturbed area = 0.56 ac)
9. Place concrete for common area 4' sidewalk. (Estimate of disturbed area = 0.56ac)
10. Lay final base course on all streets. (2.07 ac)

11. Lot grading. (Estimate of disturbed area = 0.00 ac)
12. Lay asphalt. (1.51 ac)
13. Clean site and revegetate all disturbed area according to the plans and specifications. Stabilization measures should include seeding and/or mulching.
14. Complete permanent erosion control and restoration of site vegetation.
15. Project Engineer to provide a written concurrence letter, and scheduling final inspection with EV Inspector, prior to the removal of erosion controls.
16. Remove and dispose of temporary erosion/sedimentation control measures.
17. Complete any necessary final dress up of areas disturbed by Item 16.
18. Conduct a final inspection and complete all punch list items.

Clearing and grubbing under a development permit, solely for the purpose of surveying and soil exploration, shall be a hand-cutting or blade-up operation.

*Temporary Stormwater Section*

**ATTACHMENT D**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Temporary Best Management Practices and Measures:**

Install temporary erosion control measures, stabilized construction entrance, concrete washout area, inlet protection, and tree protection according to the plans and specifications prior to any clearing and grubbing, grading, excavating, etc. Upgradient stormwaters during construction crossing disturbed areas will be filtered utilizing standard Best Management Practices, such as erosion logs and silt fences, prior to leaving the site. The silt fences will be placed along down gradient areas of the site to prevent any sediment from entering storm sewers or surface streams.

Geological features on this site are located outside of the Limits of Construction and no stormwater from the disturbed areas will drain to the geological features.

*Temporary Stormwater Section*

**ATTACHMENT F**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Structural Practices:**

There are no areas 10 acres or greater being disturbed at one time, therefore no temporary practice will be used.

*Temporary Stormwater Section*

**ATTACHMENT G**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Drainage Area Map:**

An overall drainage area map is included within the plan set submitted with this application.

*Temporary Stormwater Section*

**ATTACHMENT I**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Inspection and Maintenance for Best Management Practices:**

The Best Management Practices installed during construction will be maintained in accordance with the requirements of the EPA's NPDES/TPDES storm water pollution prevention program (SWPPP). The following maintenance procedures shall be followed until permanent stabilization is complete.

**Silt Fence**

- a. Inspect weekly or after each rainfall event and repair or replacement shall be made promptly as needed.
- b. Silt Fence shall be removed when the site is completely stabilized so as to not block or impede storm flow or drainage.
- c. Accumulated silt shall be removed when it reaches a depth of 6 inches. The Silt shall be disposed of on an approved site and in such a manner that will not contribute to additional siltation.

**Fiber Rolls**

- a. Inspect prior to forecast rain, daily during extended rain events, after rain events, and weekly.
- b. Repair or replace split, torn, unraveling, or slumping fiber rolls.
- c. If the fiber roll is used as a sediment capture device, or as an erosion control device to maintain sheet flows, sediment that accumulates behind the roll shall be periodically removed in order to maintain its effectiveness. Sediment shall be removed when the accumulation reaches one-half the designated sediment storage depth, usually one-half the distance between the top of the fiber roll and the adjacent ground surface. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed of at an appropriate location.

**Stabilized Construction Entrance**

- a. The entrance shall be maintained in a condition that will prevent tracking or flowing of sediment onto a public roadway. This may require periodic top dressing with additional stone as conditions demand, as well as repair and clean out of any devices used to trap sediment.
- b. Entrance must be properly graded to incorporate a drain swale or similar measure to prevent runoff from leaving the construction site.

#### Inlet Protection

- a. Inspection shall be made weekly or after each rainfall event and replacement or repair shall be made promptly as needed.
- b. Accumulated silt shall be removed when it reaches a depth of 6 inches. The Silt shall be disposed of on an approved site and in such a manner that will not contribute to additional siltation
- c. The dyke shall be removed when the site is completely stabilized so as to not block or impede storm flow or drainage.

#### Temporary Sediment Basins

- a. Inspection shall be made weekly or after each rainfall event. Check the embankment spillways, and outlet for erosion damage, and inspect the embankment for piping and settlement. Repair should be made promptly as needed.
- b. Trash and other debris should be removed after each rainfall event to prevent clogging of the outlet structure.
- c. Accumulated silt should be removed and the basin should be regraded to its original dimensions at such point that the capacity of the impoundment has been reduced to 75% of its storage capacity.
- d. The removed sediment should be stockpiled or redistributed in areas that are protected from erosion.

#### Concrete Washout

- a. Inspection shall be made daily or after each rainfall event to check for leaks, identify any plastic linings and sidewalls which have been damaged by construction activities.
- b. When the washout container is filled over 75 % of its capacity, the washwater should be vacuumed off or allowed to evaporate to avoid overflows. When the remaining cementitious solids have hardened, they should be removed and recycled.
- c. Damages to the container should be repaired promptly and as needed.
- d. Before heavy rains, the washout containers liquid level should be lowered or the container should be covered to avoid an overflow during the rain event.

The owner shall hire an E&S compliance company to inspect E&S measures and keep reports of onsite inspections with deficiencies and solutions.

*Temporary Stormwater Section*

**ATTACHMENT J**

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

**Schedule of Interim and Permanent Soil Stabilization Practices:**

Soil Stabilization for all disturbed areas shall be accomplished by hydraulic planting. Following is an outline to accomplish the required stabilization.

1. **Preparing Seed Bed.** After the designated areas have been rough graded to the lines, grades and typical sections indicated in the Drawings or as provided for in other items of this contract and for any other soil area disturbed by the construction, a suitable seedbed shall be prepared. The seedbed shall consist of a minimum of either 4 inches (100 millimeters) of approved topsoil or 4 inches (100 millimeters) of approved salvaged topsoil, cultivated and rolled sufficiently to enhance the soil to a state of good health, when the soil particles on the surface are small enough and lie closely enough together to prevent the seed from being covered too deeply for optimum germination. The optimum depth for seeding shall be 1/4 inch (6 millimeters). Water shall be gently applied as required to prepare the seedbed prior to the planting operation either by broadcast seeding or hydraulic planting. Bare soils should be seeded or otherwise stabilized within 14 calendar days after final grading or where construction activity has temporarily ceased for more than 21 days. Seeding shall be performed in accordance with the requirements hereinafter described.
2. **Watering.** All watering shall comply with Chisholm Trail Subdivision Rules and Regulations. Broadcast seeded areas shall immediately be watered with a minimum of 5 gallons of water per square yard (22.5 liters of water per square meter) or as needed and in the manner and quantity as directed by the Engineer or designated representative. Hydraulic seeded areas and native grass seeded areas shall be watered commencing after the tackifier has dried with a minimum of 5 gallons of water per square yard (22.5 liters of water per square meter) or as needed to keep the seedbed in a wet condition favorable for the growth of grass. Watering applications shall constantly maintain the seedbed in a wet condition favorable for the growth of grass. Watering shall continue until the grass is uniformly 1 1/2 inches (40 mm) in height and accepted by the Engineer or designated representative. Watering can be postponed immediately after a 1/2 inch (12.5 mm) or greater rainfall on the site but shall be resumed before the soil dries out.
3. **Hydraulic Planting.** The seedbed shall be prepared as specified above and hydraulic planting equipment, which is capable of placing all materials in a single operation, shall be used.

March 1 to September 15

Hydraulic planting mixture and minimum rate of application pounds per 1000 square feet (kilograms per 100 square meters):

Planting Mixture			
Hulled Bermuda Seed (PLS=0.83)	Fiber Mulch		Soil Tackifier
	Cellulose	Wood	
1 lbs/1000 ft2 (0.5 kgs/100 m2)	45.9 Lbs/1000 ft2 (22.5 kgs/100m2)		1.4 lbs/1000 ft2 (0.7 kgs/100 m2)
		57.4 lbs/1000 ft2 (28.01 kgs/100 m2)	1.5 lbs/1000 ft2 (0.75 kgs/100 m2)

September 15 to March 1

Add 1.5 pounds per 1000 square feet (0.75 kgs/ 100 m@) of cool season cover crop (see table 1) to above mixture. The fertilizer shall conform to City of Austin Standard Specification Item No. 606S, "Fertilizer".

Table 1 : Cool Season Cover Crop			
Common Name	Botanical Name	Application rates	
		Lbs/1000 feet <sup>2</sup>	Kg/ 100 meter <sup>2</sup>
Wheat	Triticum aestivum	0.5	0.25
Oats	Avena sativa	0.5	0.25
Cereal Rye Grain	Secale cereal	0.5	0.25
Total Cool Season Cover Crop Seeding Rate		1.5	0.75
Total Cool Season Seeding Rate (Grass Wildflowers, & Cover Crop)		4.5	2.25

*Appendix A*

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

*BMP TSS Removal Worksheet*

*Saddleback Phase 2 Section 4*

*Sites*

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

**1. The Required Load Reduction for the total project:** Calculations from RG-348 Pages 3-27 to 3-30  
 Page 3-29 Equation 3.3:  $L_M = 27.2(A_N \times P)$

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

Site Data: Determine Required Load Removal Based on the Entire Project  
 County = **Williamson**

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

**SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4**

Total project area included in plan *	7.24	acres
Predevelopment impervious area within the limits of the plan *	0.00	acres
Total post-development impervious area within the limits of the plan *	2.20	acres
Total post-development impervious cover fraction *	0.30	
P =	32	inches
$L_M$ TOTAL PROJECT =	1,915	lbs.

**EXISTING BATCH DETENTION POND S3**

**SADDLEBACK AT SANTA RITA RANCH PHASE 1 SECTION 1 (EXISTING)**

Total project area included in plan *	24.63	acres
Predevelopment impervious area within the limits of the plan *	0.00	acres
Total post-development impervious area within the limits of the plan *	10.29	acres
Total post-development impervious cover fraction *	0.42	
P =	32	inches
$L_M$ TOTAL PROJECT =	8956	lbs.

**SADDLEBACK AT SANTA RITA RANCH PHASE 1 SECTION 2**

Total project area included in plan *	47.42	acres
Predevelopment impervious area within the limits of the plan *	0.00	acres
Total post-development impervious area within the limits of the plan *	23.13	acres
Total post-development impervious cover fraction *	0.49	
P =	32	inches
$L_M$ TOTAL PROJECT =	20132	lbs.

**SADDLEBACK AT SANTA RITA RANCH PHASE 1 SECTION 3**

Total project area included in plan *	5.89	acres
Predevelopment impervious area within the limits of the plan *	0.00	acres
Total post-development impervious area within the limits of the plan *	4.11	acres
Total post-development impervious cover fraction *	0.70	
P =	32	inches
$L_M$ TOTAL PROJECT =	3577	lbs.

**SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 1**

Total project area included in plan *	0.25	acres
Predevelopment impervious area within the limits of the plan *	0.00	acres
Total post-development impervious area within the limits of the plan *	0.14	acres
Total post-development impervious cover fraction *	0.56	
P =	32	inches
$L_M$ TOTAL PROJECT =	122	lbs.

**SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4**

Total project area included in plan *	0.18	acres
Predevelopment impervious area within the limits of the plan *	0.00	acres
Total post-development impervious area within the limits of the plan *	0.15	acres
Total post-development impervious cover fraction *	0.83	
P =	32	inches
$L_M$ TOTAL PROJECT =	131	lbs.

**SADDLEBACK AT SANTA RITA RANCH PHASE 2 FUTURE**

Total project area included in plan *	0.78	acres
Predevelopment impervious area within the limits of the plan *	0.00	acres
Total post-development impervious area within the limits of the plan *	0.00	acres
Total post-development impervious cover fraction *	0.00	
P =	32	inches
$L_M$ TOTAL PROJECT =	0	lbs.



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*Steven P. Cates*

**12-5-2025**

$L_M$  TOTAL = 32,918 lbs.

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**EXISTING BATCH DETENTION POND S5**

**SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 1**

Total project area included in plan *	=	15.63	acres
Predevelopment impervious area within the limits of the plan *	=	0.00	acres
Total post-development impervious area within the limits of the plan *	=	4.43	acres
Total post-development impervious cover fraction *	=	0.28	
P =	=	32	inches
$L_M$ TOTAL PROJECT =	=	3856	lbs.

**SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 2**

Total project area included in plan *	=	2.99	acres
Predevelopment impervious area within the limits of the plan *	=	0.00	acres
Total post-development impervious area within the limits of the plan *	=	1.38	acres
Total post-development impervious cover fraction *	=	0.46	
P =	=	32	inches
$L_M$ TOTAL PROJECT =	=	1201	lbs.

**SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4**

Total project area included in plan *	=	7.06	acres
Predevelopment impervious area within the limits of the plan *	=	0.00	acres
Total post-development impervious area within the limits of the plan *	=	2.05	acres
Total post-development impervious cover fraction *	=	0.29	
P =	=	32	inches
$L_M$ TOTAL PROJECT =	=	1784	lbs.

**SADDLEBACK AT SANTA RITA RANCH OPEN SPACE FUTURE**

Total project area included in plan *	=	7.79	acres
Predevelopment impervious area within the limits of the plan *	=	0.00	acres
Total post-development impervious area within the limits of the plan *	=	0.00	acres
Total post-development impervious cover fraction *	=	0.00	
P =	=	32	inches
$L_M$ TOTAL PROJECT =	=	0	lbs.

**SADDLEBACK AT SANTA RITA RANCH FUTURE**

Total project area included in plan *	=	55.25	acres
Predevelopment impervious area within the limits of the plan *	=	0.00	acres
Total post-development impervious area within the limits of the plan *	=	0.00	acres
Total post-development impervious cover fraction *	=	0.00	
P =	=	32	inches
$L_M$ TOTAL PROJECT =	=	0	lbs.

$L_M$  TOTAL = 6,841 lbs.

*Appendix A*

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

*BMP TSS Removal Worksheet*

*Saddleback Phase 2 Section 4*

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.

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

Calculations from RG-348

Pages 3-27 to 3-30

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

where:

$L_{M \text{ TOTAL PROJECT}}$  = 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 = **7.24** acres  
 Predevelopment impervious area within the limits of the plan = **0.00** acres  
 Total post-development impervious area within the limits of the plan = **2.20** acres  
 Total post-development impervious cover fraction = **0.30**  
 P = **32** inches

$L_{M \text{ TOTAL PROJECT}}$  = **1915** 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 = **7.24** acres  
 Predevelopment impervious area within drainage basin/outfall area = **0.00** acres  
 Post-development impervious area within drainage basin/outfall area = **2.20** acres  
 Post-development impervious fraction within drainage basin/outfall area = **0.30**  
 $L_{M \text{ THIS BASIN}}$  = **1915** lbs.

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

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

- Aqualogic Cartridge Filter
- Batch Detention
- Bioretention
- Contech StormFilter
- Constructed Wetland
- Extended Detention
- Grassy Swale
- Retention / Irrigation
- Sand Filter
- Stormceptor
- Vegetated Filter Strips
- Vortechs
- Wet Basin
- Wet Vault

**SOURCE:**  
 "COMPLYING WITH THE EDWARDS AQUIFER RULES TECHNICAL GUIDANCE ON BEST MANAGEMENT PRACTICES RG-348 (REVISED JULY 2005)", ADDENDUM DATED JANUARY 20, 2017, SECTION 3.2.17 'BATCH'

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

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

where:

$A_C$  = Total On-Site drainage area in the BMP catchment area  
 $A_i$  = Impervious area proposed in the BMP catchment area  
 $A_p$  = Pervious area remaining in the BMP catchment area  
 $L_R$  = TSS Load removed from this catchment area by the proposed BMP

$A_C$  = **7.24** acres  
 $A_i$  = **2.20** acres  
 $A_p$  = **5.04** acres  
 $L_R$  = **2296** lbs

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

Desired  $L_{M \text{ THIS BASIN}}$  = **1915** lbs.

F = **0.83**

**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

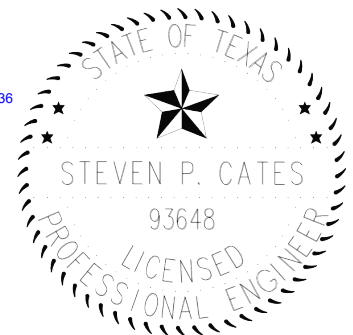
Rainfall Depth = **1.20** inches  
 Post Development Runoff Coefficient = **0.26**  
 On-site Water Quality Volume = **8203** cubic feet

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 = **1641**

Total Capture Volume (required water quality volume(s) x 1.20) = **9844** cubic feet



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 ID# F3791

*Steven P. Cates*

**12-5-2025**

*Appendix A*

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

*BMP TSS Removal Worksheet*

*Drainage Basin POND S3*

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where:

$L_{M \text{ TOTAL PROJECT}}$  = 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 = **79.15** acres  
Predevelopment impervious area within the limits of the plan = **0.00** acres  
Total post-development impervious area within the limits of the plan = **37.68** acres  
Total post-development impervious cover fraction = **0.48**  
 $P$  = **32** inches

$L_{M \text{ TOTAL PROJECT}}$  = **32797** 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 = **78.78** acres  
Predevelopment impervious area within drainage basin/outfall area = **0.00** acres  
Post-development impervious area within drainage basin/outfall area = **37.40** acres  
Post-development impervious fraction within drainage basin/outfall area = **0.47**  
 $L_{M \text{ THIS BASIN}}$  = **32553** lbs.

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

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

- Aqualogic Cartridge Filter
- Batch Detention
- Bioretention
- Contech StormFilter
- Constructed Wetland
- Extended Detention
- Grassy Swale
- Retention / Irrigation
- Sand Filter
- Stormceptor
- Vegetated Filter Strips
- Vortechs
- Wet Basin
- Wet Vault

**SOURCE:**  
"COMPLYING WITH THE EDWARDS AQUIFER RULES TECHNICAL GUIDANCE ON BEST MANAGEMENT PRACTICES RG-348 (REVISED JULY 2005)", ADDENDUM DATED JANUARY 20, 2017, SECTION 3.2.17 'BATCH'

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

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

where:

$A_C$  = Total On-Site drainage area in the BMP catchment area  
 $A_i$  = Impervious area proposed in the BMP catchment area  
 $A_p$  = Pervious area remaining in the BMP catchment area  
 $L_R$  = TSS Load removed from this catchment area by the proposed BMP

$A_C$  = **78.78** acres  
 $A_i$  = **37.40** acres  
 $A_p$  = **41.38** acres  
 $L_R$  = **38333** lbs

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

Desired  $L_{M \text{ THIS BASIN}}$  = **32797** 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 = **0.34**  
On-site Water Quality Volume = **135744** 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 = **27149**

Total Capture Volume (required water quality volume(s) x 1.20) = **162893** cubic feet



CARLSON, BRIGANCE & DOERING, INC.  
ID# F3791

*Steven P. Cates*

**12-5-2025**

*Appendix A*

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

*BMP TSS Removal Worksheet*

*Drainage Basins POND S5*

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.

Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.

Characters shown in red are data entry fields.

Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

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

Calculations from RG-348

Pages 3-27 to 3-30

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

where:

$L_{M \text{ TOTAL PROJECT}}$  = 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 = **88.72** acres  
Predevelopment impervious area within the limits of the plan = **0.00** acres  
Total post-development impervious area within the limits of the plan = **7.86** acres  
Total post-development impervious cover fraction = **0.09**  
 $P$  = **32** inches

$L_{M \text{ TOTAL PROJECT}}$  = **6841** 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 = **84.42** acres  
Predevelopment impervious area within drainage basin/outfall area = **0.00** acres  
Post-development impervious area within drainage basin/outfall area = **5.96** acres  
Post-development impervious fraction within drainage basin/outfall area = **0.07**  
 $L_{M \text{ THIS BASIN}}$  = **5188** lbs.

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

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

- Aqualogic Cartridge Filter
- Batch Detention
- Bioretention
- Contech StormFilter
- Constructed Wetland
- Extended Detention
- Grassy Swale
- Retention / Irrigation
- Sand Filter
- Stormceptor
- Vegetated Filter Strips
- Vortechs
- Wet Basin
- Wet Vault

**SOURCE:**  
"COMPLYING WITH THE EDWARDS AQUIFER RULES TECHNICAL GUIDANCE ON BEST MANAGEMENT PRACTICES RG-348 (REVISED JULY 2005)", ADDENDUM DATED JANUARY 20, 2017, SECTION 3.2.17 'BATCH'

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

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

where:

$A_C$  = Total On-Site drainage area in the BMP catchment area  
 $A_i$  = Impervious area proposed in the BMP catchment area  
 $A_p$  = Pervious area remaining in the BMP catchment area  
 $L_R$  = TSS Load removed from this catchment area by the proposed BMP

$A_C$  = **84.42** acres  
 $A_i$  = **5.96** acres  
 $A_p$  = **78.46** acres  
 $L_R$  = **7239** lbs

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

Desired  $L_{M \text{ THIS BASIN}}$  = **6841** lbs.

$F$  = **0.95**

**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 = **2.60** inches  
Post Development Runoff Coefficient = **0.10**  
On-site Water Quality Volume = **77782** 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 = **15556**

Total Capture Volume (required water quality volume(s) x 1.20) = **93338** cubic feet



CARLSON, BRIGANCE & DOERING, INC.  
ID# F3791

*Steven P. Cates*

**12-5-2025**

*Appendix B*

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

*Water Quality Calculation*

*Spreadsheet*

**SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4**

**Table 1 - Impervious Cover per Section**

Sections	TCEQ Project Area Per Section						Onsite Drainage Basin to BMP Per Section						TSS Removal Required (lbs)
	Contributing Sections	Project Area (ac)	# Lots	Impervious Areas (ac)			Drainage Basin (ac)	# Lots	Impervious Areas (ac)				
				Lots	ROW	Misc.			Total	Lots	ROW	Misc.	
<b>EXISTING BATCH DETENTION POND S3</b>													
1-1	24.63	91	7.31	2.98	0.00	10.29	24.63	91	7.31	2.98	0.00	10.29	8,956
1-2	47.42	182	14.88	8.25	0.00	23.13	47.05	179	14.63	8.25	0.00	22.88	20,132
1-3	5.89	38	3.06	1.04	0.00	4.11	5.89	38	3.06	1.04	0.00	4.11	3,577
2-1	0.25	0	0.00	0.00	0.14	0.00	0.25	0	0.00	0.00	0.14	0.00	122
2-4	0.18	0	0.00	0.15	0.00	0.15	0.18	0	0.00	0.12	0.00	0.12	131
2-FUTURE	0.78	0	0.00	0.00	0.00	0.00	0.78	0	0.00	0.00	0.00	0.00	0
<b>EXISTING BATCH DETENTION POND S5</b>													
2-1	15.63	0	0.13	3.86	0.44	4.43	15.02	0	0.13	3.57	0.44	4.14	3,856
2-2	2.99	13	1.07	0.31	0.00	1.38	0.00	0	0.00	0.00	0.00	0.00	1,201
2-4	7.06	0	0.00	2.05	0.00	2.05	6.36	0	0.00	1.82	0.00	1.82	1,784
2-FUTURE	55.25	0	0.00	0.00	0.00	0.00	55.25	0	0.00	0.00	0.00	0.00	0
OPEN SPACE	7.79	0	0.00	0.00	0.00	0.00	7.79	0	0.00	0.00	0.00	0.00	0
<b>SADDLEBACK AT SANTA RITA BATCH PHASE 2 SECTION 4</b>													
2-2	7.24	0	0.00	2.20	0.00	2.20							1,915

**Table 2 - BMP Treatment Requirements**

Project Area			Drainage Basin						BMP Treatment Provided	
Total (ac)	Impv Area (ac)	Required TSS Removal (lbs)	Onsite		Offsite		Total (ac)	Impv Area (ac)	Permanent Pool (cf)	
			Total (ac)	Impv Area (ac)	Total (ac)	Impv Area (ac)			Required	Provided
<b>EXISTING BATCH DETENTION POND S3</b>										
79.15	37.68	32,918	78.78	37.40	0.00	0.00	78.78	37.40	162,893	174,205
<b>EXISTING BATCH DETENTION POND S5</b>										
88.72	7.86	6,841	84.42	5.96	0.00	0.00	84.42	5.96	93,338	269,946

**Pond S3 Stage-Storage**

Stage	Area (sf)	Area (ac)	Incremental Storage (cf)	Cumulative Storage (cf)	Cumulative Storage (ac-ft)	
904.75	15	0.00	0	0	0.00	Pond Bottom
905.00	3,927	0.09	493	493	0.01	
906.00	32,354	0.74	18,141	18,633	0.43	
907.00	77,977	1.79	55,166	73,799	1.69	
908.00	122,835	2.82	100,406	174,205	4.00	WQV Provided
909.00	160,219	3.68	141,527	315,732	7.25	
910.00	196,873	4.52	178,546	494,278	11.35	
911.00	217,119	4.98	206,996	701,274	16.10	
912.00	225,080	5.17	221,100	922,373	21.17	Top of Berm

\*Pond S3 Stage-Storage per Saddleback at Santa Rita Ranch Phase 1, Section 1 Construction Plans

**Pond S5 Stage-Storage**

Stage	Area (sf)	Area (ac)	Incremental Storage (cf)	Cumulative Storage (cf)	Cumulative Storage (ac-ft)	
942.00	182	0.00	0	0	0.00	Pond Bottom
943.00	34,979	0.80	17,581	17,581	0.40	
944.00	77,026	1.77	56,003	73,583	1.69	
945.00	99,864	2.29	88,445	162,028	3.72	
946.00	115,971	2.66	107,918	269,946	6.20	WQV Provided
947.00	126,010	2.89	120,990	390,936	8.97	
948.00	130,723	3.00	128,366	519,302	11.92	
949.00	135,484	3.11	133,104	652,406	14.98	
950.00	140,288	3.22	137,886	790,292	18.14	
951.00	145,133	3.33	142,711	933,002	21.42	Top of Berm

\*Pond S5 Stage-Storage per Saddleback at Santa Rita Ranch Phase 2, Section 1 Construction Plans



CARLSON, BRIGANCE & DOERING, INC.  
ID# F3791

*Steven P. Cates*

**12-5-2025**

*Appendix C*

**TCEQ CZP APPLICATION**

**Saddleback at Santa Rita Ranch Phase 2 Section 4**

**Williamson County, Texas**

*CZP Approval Letter*

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



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

August 13, 2021

Mr. James Edward Horne  
Santa Rita KC, LLC  
1700 Cross Creek Lane, Suite 100  
Liberty Hill, Texas 78642

Re: Edwards Aquifer, Williamson County

NAME OF PROJECT: Saddleback at Santa Rita Ranch Phase 1 Section 1; Located Southwest of Ronald Reagan Blvd. and Tower Rd.; Liberty Hill (ETJ), Texas

TYPE OF PLAN: Request for Approval of a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer

Edwards Aquifer Protection Program ID No. 11002565; Regulated Entity No. RN111283701

Dear Mr. Horne:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the CZP application for the above-referenced project submitted to the Austin Regional Office by Carlson, Brigance & Doering, Inc. on behalf of Santa Rita KC, LLC on June 18, 2021. Final review was completed after additional material was received on August 12, 2021. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) were selected and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

### PROJECT DESCRIPTION

The proposed single-family residential project will have an area of approximately 79.21 acres. It will include the development of 222 single-family residential lots, roads and drives, utilities, and three water quality basins (Ponds S1, S2, and S3). The impervious cover will be 30.63 acres (38.7 percent). The wastewater generated by this project will be conveyed to the existing Liberty Hill Wastewater Treatment Plant.

### PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, three batch detentions (Ponds S1, S2, and S3), designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 26,664 pounds of TSS generated from the 30.63 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

The proposed water quality basins are sized for future development. Pond S1 is designed to have a capacity of 62,314 cubic feet (cf), to remove 9,732 pounds of TSS to treat stormwater runoff from a maximum of 11.18 acres of impervious cover. Pond S2 is designed to have a capacity of 208,303 cf, to remove 28,915 pounds of TSS to treat stormwater runoff from a maximum of 33.22 acres of impervious cover. Pond S3 is designed to have a capacity of 174,205 cf, to remove 26,181 pounds of TSS to treat stormwater runoff from a maximum of 30.08 acres of impervious cover.

### SPECIAL CONDITIONS

- I. All permanent pollution abatement measures shall be operational prior to occupancy of the houses.
- II. All sediment and/or media removed from the water quality basins during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.

### STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.
3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

#### Prior to Commencement of Construction:

4. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved CZP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
5. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
6. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will

commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person.

7. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP), must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

During Construction:

8. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
9. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. 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).
10. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
11. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
12. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.
13. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 5, above.

After Completion of Construction:

14. Owners of permanent BMPs and measures must insure that the 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 Austin Regional Office within 30 days of site completion.
15. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of

Mr. James Edward Horne

Page 4

August 13, 2021

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. A copy of the transfer of responsibility must be filed with the executive director through the Austin Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.

16. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Contributing Zone Plan. If the new owner intends to commence any new regulated activity on the site, a new Contributing Zone Plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
17. A Contributing Zone Plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Contributing Zone Plan must be submitted to the Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
18. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

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

Sincerely,



Lillian Butler, Section Manager  
Edwards Aquifer Protection Program  
Texas Commission on Environmental Quality

LIB/mec

Enclosure: Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

Jon Niermann, *Chairman*  
Bobby Janecka, *Commissioner*  
Catarina R. Gonzales, *Commissioner*  
Kelly Keel, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

September 13, 2024

Mr. Stephen Ashlock  
Pulte Homes of Texas, LP  
9401 Amberglen Blvd., Bldg. I, Ste. 150  
Austin, Texas 78729-1192

Re: Approval of a Contributing Zone Plan (CZP)  
Saddleback at Santa Rita Ranch Phase 2 Section 1; Located West of Ronald Reagan Blvd.  
and Tower Rd.; Liberty Hill (ETJ), Williamson County, Texas  
Edwards Aquifer Protection Program ID: 11004092; Regulated Entity No. RN111283701

Dear Mr. Ashlock:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the CZP application for the above-referenced project submitted to the Edwards Aquifer Protection Program (EAPP) by Carlson, Brigance & Doering, Inc. on behalf of the applicant, Pulte Homes of Texas, LP, on July 31, 2024.

As presented to the TCEQ, the application was prepared in general compliance with the requirements of 30 Texas Administrative Codes (TAC) Chapter §213. The permanent best management practices (BMPs) and measures represented in the application were prepared by a Texas licensed professional engineer (PE). All construction plans and design information were sealed, signed, and dated by a Texas licensed PE. Therefore, the application for the construction of the proposed project and methods to protect the Edwards Aquifer are approved, subject to applicable state rules and the conditions in this letter.

This approval expires two years from the date of this letter, unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been officially requested. This approval or extension will expire, and no extension will be granted if more than 50 percent of the project has not been completed within ten years from the date of this letter.

The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this contributing zone plan or modification to a plan. A motion for reconsideration must be filed in accordance with 30 TAC §50.139.

### BACKGROUND

The Saddleback at Santa Rita Ranch Phase 1 Section 1 CZP approved by letter dated August 13, 2021 (EAPP ID No. 11002565), included the construction of three batch detention basins (Ponds S1, S2, and S3).

### PROJECT DESCRIPTION

The proposed commercial project will have an area of approximately 17.23 acres. The project will include the development of an amenity center, roadways, and utilities. The impervious cover will be 5.85 acres (33.95 percent). Project wastewater will be conveyed to the existing Liberty Hill Wastewater Treatment Plant.

### PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, two existing (Ponds S2 and S3; EAPP ID No. 11002565) and one proposed batch detention basin (pond S5), designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be utilized/constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 5,092 pounds of TSS generated from the 5.85 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

### STANDARD CONDITIONS

1. The plan holder (applicant) must comply with all provisions of 30 TAC Chapter §213 and all technical specifications in the approved plan. The plan holder should also acquire and comply with additional and separate approvals, permits, registrations or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, Dam Safety, Underground Injection Control) as required based on the specifics of the plan.
2. In addition to the rules of the Commission, the plan holder must also comply with state and local ordinances and regulations providing for the protection of water quality as applicable.

#### Prior to Commencement of Construction:

3. The plan holder of any approved contributing zone plan must notify the EAPP and obtain approval from the executive director prior to initiating any modification to the activities described in the referenced application following the date of the approval.
4. The plan holder must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the EAPP no later than 48 hours prior to commencement of the regulated activity. Notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person.
5. Temporary erosion and sedimentation (E&S) controls as described in the referenced application, must be installed prior to construction, and maintained during construction. Temporary E&S controls may be removed when vegetation is established, and the construction area is stabilized. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

#### During Construction:

6. The application must indicate the placement of permanent aboveground storage tanks facilities for static hydrocarbons and hazardous substances with cumulative storage capacity of 500 gallons or more. Subsequent permanent storage tanks on this project site require a modification to be submitted and approved prior to installation.
7. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.
8. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge must be filtered through appropriately selected BMPs.
9. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction

activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

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

After Completion of Construction:

11. Owners of permanent BMPs and temporary measures must ensure that the BMPs and measures are constructed and function as designed. A Texas licensed PE **must certify** in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the EAPP within 30 days of site completion.
12. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property or the ownership of the property is transferred to the entity. A copy of the transfer of responsibility must be filed with the executive director through the EAPP within 30 days of the transfer. TCEQ form, Change in Responsibility for Maintenance on Permanent BMPs and Measures (TCEQ-10263), may be used.

The holder of the approved contributing zone plan is responsible for compliance with Chapter §213 subchapter B and any condition of the approved plan through all phases of plan implementation. Failure to comply with any condition within this approval letter is a violation of Chapter §213 subchapter B and is subject to administrative rule or orders and penalties as provided under §213.25 of this title (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. Upon legal transfer of this property, the new owner is required to comply with all terms of the approved contributing zone plan.

This action is taken as delegated by the executive director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Ms. Mihaela (Miki) Chilarescu, P.E. of the Edwards Aquifer Protection Program at 512-239-6175 or the regional office at 512-339-2929.

Sincerely,



Monica Reyes, Section Manager  
Edwards Aquifer Protection Program  
Texas Commission on Environmental Quality

MR/mec

cc: Steven P. Cates, P.E. - Carlson, Brigance & Doering, Inc.



SIGNATURE PAGE:

[Signature]  
Applicant's Signature

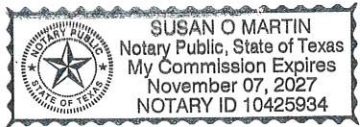
12-2-2025  
Date

THE STATE OF TEXAS §

County of DAVIS §

BEFORE ME, the undersigned authority, on this day personally appeared STEPHEN ASHLOCK 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 2<sup>nd</sup> day of DECEMBER, 2025.



[Signature]  
NOTARY PUBLIC

SUSAN O. MARTIN  
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 11/07/2027

# Application Fee Form

## Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Saddleback at Santa Rita Ranch Phase 2 Section 4

Regulated Entity Location: West of Ronald Reagan Blvd., South of County Rd. 258

Name of Customer: Pulet Homes of Texas LP

Contact Person: Stephen Ashlock

Phone: (512) 532-3355

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	7.04 Acres	\$ 3000.00
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	\$
Sewage Collection System	L.F.	\$
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	Each	\$
Extension of Time	Each	\$

Signature: 

Date: 12/05/2025

# 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**

<i>Project</i>	<i>Project Area in Acres</i>	<i>Fee</i>
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**

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

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

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

### **Exception Requests**

<i>Project</i>	<i>Fee</i>
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

TCEQ Use Only

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

## SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<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	
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in <a href="#">Central Registry**</a>	3. Regulated Entity Reference Number (if issued)
CN 603410499		RN

## SECTION II: Customer Information

4. General Customer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy)		
<input type="checkbox"/> New Customer	<input checked="" 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)			
<b>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).</b>			
6. Customer Legal Name (If an individual, print last name first: e.g.: Doe, John)		If new Customer, enter previous Customer below:	
Pulte Homes of Texas, LP			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
0010034910	17527201275	752720127	
11. Type of Customer:	<input checked="" type="checkbox"/> Corporation	<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Sole Proprietorship	<input checked="" type="checkbox"/> Other: Limited Partnership	
12. Number of Employees		13. Independently Owned and Operated?	
<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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
14. Customer Role (Proposed or Actual) - as it relates to the Regulated Entity listed on this form. Please check one of the following:			
<input type="checkbox"/> Owner	<input type="checkbox"/> Operator	<input checked="" type="checkbox"/> Owner & Operator	
<input type="checkbox"/> Occupational Licensee	<input type="checkbox"/> Responsible Party	<input type="checkbox"/> Voluntary Cleanup Applicant	<input type="checkbox"/> Other:
15. Mailing Address:	9401 Amberglen Blvd.		
	Bldg. I, Suite 150		
	City	Austin	State TX ZIP 78729 ZIP + 4
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
		Stephen.Ashlock@PulteGroup.com	
18. Telephone Number		19. Extension or Code	20. Fax Number (if applicable)
( 512 ) 532 - 3355			( ) -

## SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If "New Regulated Entity" is selected below this form should be accompanied by a permit application)	
<input checked="" type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input type="checkbox"/> Update to Regulated Entity Information	
<b>The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).</b>	
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)	
Saddleback at Santa Rita Ranch Phase 2 Section 4	

23. Street Address of the Regulated Entity: (No PO Boxes)							
	City		State		ZIP		ZIP + 4
24. County							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	west of Ronald Reagan Boulevard and North of County Road 258.						
26. Nearest City	Liberty Hill			State	TX		Nearest ZIP Code
							78642
27. Latitude (N) In Decimal:	30.676944		28. Longitude (W) In Decimal:	-97.857222			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		
30	40	37N	97	51	26W		
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)		31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)			
1521							
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)							
Roadway Development							
34. Mailing Address:	Pulte Group						
	9401 Amberglen Blvd., Bldg. I, Suite 150						
	City	Austin	State	TX	ZIP	78729	ZIP + 4
35. E-Mail Address:		Stephen.Ashlock@PulteGroup.com					
36. Telephone Number		37. Extension or Code		38. Fax Number (if applicable)			
( 512 ) 532 - 3355				( ) -			

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.

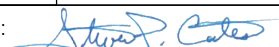
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input checked="" type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
		EAPP # 11002565		
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input checked="" 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"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Steven P. Cates, P.E.		41. Title:	Senior Project Manager
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address	
( 512 ) 280 - 5160		( 512 ) 280 - 5165	steve@cbdeng.com	

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Carlson, Brigrance and Doering, Inc.	Job Title:	Senior Project Manager
Name(In Print):	Steven P. Cates	Phone:	( 512 ) 280 - 5160
Signature:		Date:	12-5-2025



CONSTRUCTION SEQUENCING

- 1. GENERAL CONTRACTOR TO INSTALL AND MAINTAIN EROSION CONTROLS AND TREE PROTECTION PER APPROVED PLANS.
2. HOLD PRE-CONSTRUCTION CONFERENCE. PROVIDE 72 HOUR NOTIFICATION TO THE OWNER, THE DESIGN ENGINEER, THE CONTRACTOR AND SUBCONTRACTORS, THE M.U.D. ENGINEER
3. ROUGH CUT ALL REQUIRED OR NECESSARY PONDS. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF ANY EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS.

GEORGETOWN UTILITY SYSTEMS GENERAL NOTES:

- 1. THESE CONSTRUCTION PLANS WERE PREPARED, SEALED AND DATED BY A TEXAS LICENSED PROFESSIONAL ENGINEER. THEREFORE BASED ON THE ENGINEER'S CONCERN OF COMPLIANCE, THE CONSTRUCTION PLANS FOR CONSTRUCTION OF THE PROPOSED PROJECT ARE HEREBY APPROVED SUBJECT TO THE STANDARD CONSTRUCTION SPECIFICATIONS AND DETAILS MANUAL AND ALL OTHER APPLICABLE CITY, STATE AND FEDERAL REQUIREMENTS AND CODES.
2. THIS PROJECT IS SUBJECT TO ALL CITY STANDARD SPECIFICATIONS AND DETAILS IN EFFECT AT THE TIME OF SUBMITTAL OF THE PROJECT OF THE CITY.
3. THE SITE CONSTRUCTION PLANS SHALL MEET ALL REQUIREMENTS OF THE APPROVED SITE PLAN.

STREET AND DRAINAGE NOTES:

- 1. ROADWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT "WILLIAMSON COUNTY SUBDIVISION REGULATIONS," AS APPLICABLE.
2. ALL MATERIALS SHALL BE SAMPLED AND TESTED BY AN INDEPENDENT TESTING LABORATORY IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE COUNTY ENGINEER.
3. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 3" OF TOP OF CURB.

RECOMMENDATIONS PAVEMENT THICKNESS SECTIONS

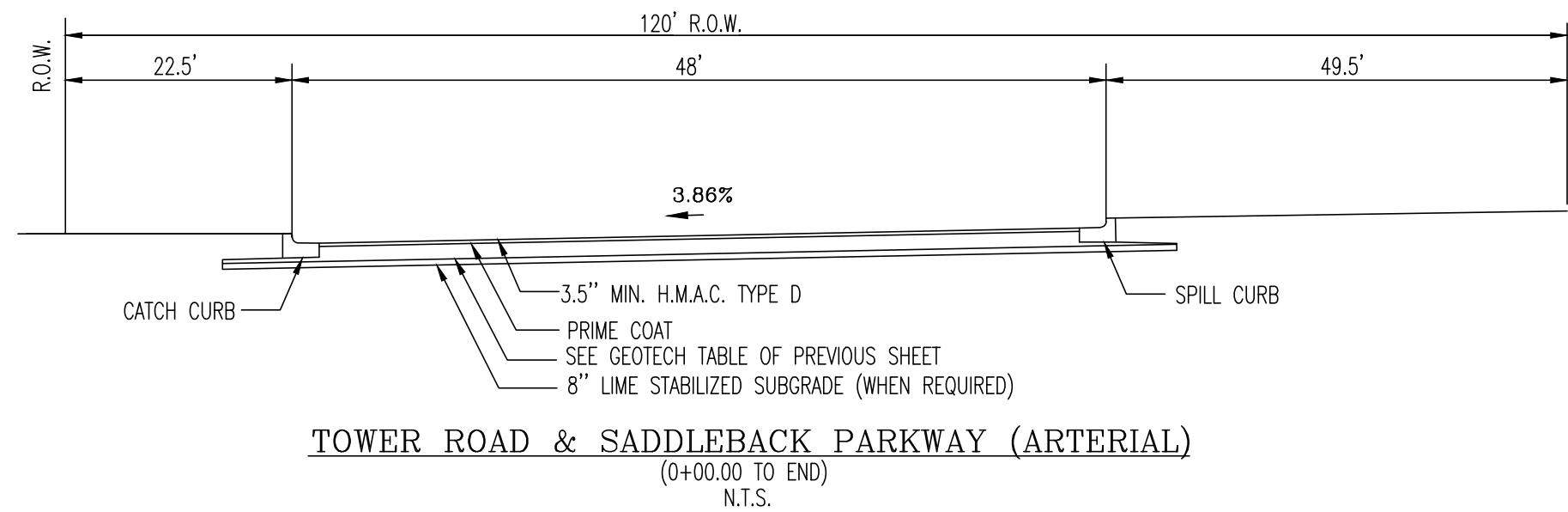
Table with 5 columns: Street Classification, Subgrade Material, Hot Mix Asphaltic Concrete, in, Crushed Limestone Base, in, Lime Stabilized Subgrade, in. Rows include Neighborhood Collectors, Local Streets, and Residential Collectors.

- Notes:
1. Where the subgrade is comprised of limestone or low PI clay (PI < 20), lime stabilization may be omitted.
2. The surface clay must first be tested for sulfate reaction and a mix design should be completed to determine the proper lime content, lime type, mixing procedure and curing conditions required.

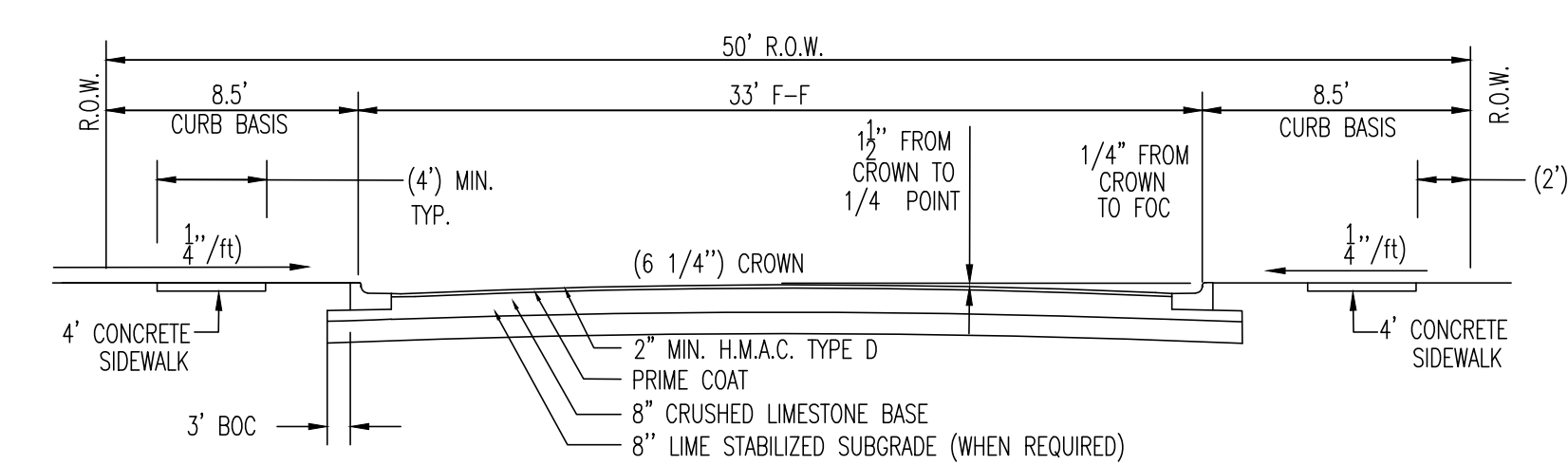
THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISION OF THE CONSTRUCTION PLANS.

- 8. WHERE PI'S ARE OVER 20, SUBGRADES MUST BE STABILIZED UTILIZING A METHOD ACCEPTABLE TO THE COUNTY ENGINEER. THE GEOTECHNICAL ENGINEER SHALL RECOMMEND AN APPROPRIATE SUBGRADE STABILIZATION IF SULFATES ARE DETERMINED TO BE PRESENT. SEE THE GEOTECHNICAL REPORT FOR DESIGN GUIDES FOR DIFFERENT PI VALUES.
9. CONTRACTOR IS TO AVOID INSTALLATION OF IRRIGATION, PLANTINGS, SILT FENCE, ETC. IN THE SUBGRADE IMPROVEMENT EXTENDED BEHIND THE CURB.

PER THE WILLIAMSON COUNTY ENGINEER, THERE MUST BE A TxDOT HMAc WEARING SURFACE 340 TYPE D, WITHOUT RAP OR RAZ. WILLIAMSON COUNTY REQUIRES THE 2 INCH WEARING SURFACE TO BE "VIRGIN MIX"



TOWER ROAD & SADDLEBACK PARKWAY (ARTERIAL) (0+00 TO END) N.T.S.



ALL OTHER LOCAL STREETS (0+00 TO END) N.T.S.

GENERAL NOTES:

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH WILLIAMSON COUNTY, CITY OF ROUND ROCK (WASTEWATER), AND GEORGETOWN UTILITY SYSTEMS (WATER) SPECIFICATIONS.
2. DESIGN PROCEDURES ARE IN COMPLETE COMPLIANCE WITH THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL AND ALL VARIANCES TO THE MANUAL ARE NOTED.
3. ANY EXISTING UTILITIES, PAVEMENT, CURBS, SIDEWALKS, STRUCTURES, TREES, ETC., NOT PLANNED FOR DESTRUCTION OR REMOVAL THAT ARE DAMAGED OR REMOVED SHALL BE REPAIRED OR REPLACED AT HIS EXPENSE.

BENCHMARKS:

Table with 4 columns: Description, Elevation, Northing, Easting. Includes benchmarks for Mag Nail @ Top of Curb, Mag Nail W/ Shiner on Headwall, and Mag Nail W/ Shiner in the Eastern Row.

TRENCH SAFETY NOTES:

- 1. IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U. S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ALL TRENCHES OVER 5 FEET IN DEPTH IN EITHER HARD AND COMPACT OR SOFT AND UNSTABLE SOIL SHALL BE SLOPED, SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED.
2. IN ACCORDANCE WITH THE U. S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, WHEN PERSONS ARE IN TRENCHES 4- FEET DEEP OR MORE, ADEQUATE MEANS OF EXIT, SUCH AS A LADDER OR STEPS, MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.

TRAFFIC MARKING NOTES:

- 1. ANY METHODS, STREET MARKINGS AND SIGNAGE NECESSARY FOR WARNING MOTORISTS, WARNING PEDESTRIANS OR DIVERTING TRAFFIC DURING CONSTRUCTION SHALL CONFORM TO THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION.
2. ALL PAVEMENT MARKINGS, MARKERS, PAINT, TRAFFIC BUTTONS, TRAFFIC CONTROLS AND SIGNS SHALL BE INSTALLED IN ACCORDANCE WITH THE TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION OF HIGHWAYS, STREETS AND BRIDGES AND, THE TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITIONS.

EROSION AND SEDIMENTATION CONTROL NOTES:

- 1. EROSION CONTROL MEASURES, SITE WORK AND RESTORATION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF LIBERTY HILL EROSION AND SEDIMENTATION CONTROL ORDINANCE.
2. ALL SLOPES SHALL BE SOODED OR SEEDED WITH APPROVED GRASS, GRASS MIXTURES OR GROUND COVER SUITABLE TO THE AREA AND SEASON IN WHICH THEY ARE APPLIED.

WILLIAMSON COUNTY SUBDIVISION REGULATIONS

APPENDIX B

ADOPTED AND EFFECTIVE AS OF JANUARY 18, 2018

CONSTRUCTION - GENERAL

- 1. A PRECONSTRUCTION MEETING SHALL BE SCHEDULED PRIOR TO THE START OF CONSTRUCTION. THE DESIGN ENGINEER, M.U.D. ENGINEER, OWNER, CONTRACTOR, SUBCONTRACTORS, AND COUNTY ENGINEER SHALL ATTEND THIS MEETING.
2. ALL MATERIALS SHALL BE SAMPLED AND TESTED BY AN INDEPENDENT TESTING LABORATORY IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE COUNTY ENGINEER.
3. EXCEPT FOR ELECTRICAL LINES, ALL UNDERGROUND NONFERROUS UTILITIES WITHIN A RIGHT-OF-WAY OR EASEMENT MUST BE ACCOMPANIED BY FERROUS METAL LINES TO AID IN TRACING THE LOCATION OF SAID UTILITIES THROUGH THE USE OF A METAL DETECTOR.

SUBGRADE:

- 1. THE PREPARATION OF THE SUBGRADE SHALL FOLLOW GOOD ENGINEERING PRACTICES AS DIRECTED BY THE COUNTY ENGINEER IN CONJUNCTION WITH RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT.
2. THE SUBGRADE SHALL BE INSPECTED AND APPROVED BY AN INDEPENDENT TESTING LABORATORY AND A CERTIFIED COPY OF ALL INSPECTION REPORTS FURNISHED TO THE COUNTY ENGINEER.

BASE MATERIAL:

- 1. BASE MATERIAL SHALL CONFORM TO ITEM 247 OF THE CURRENT EDITION OF THE TxDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, "FLEXIBLE BASE".
2. EACH LAYER OF BASE COURSE SHALL BE TESTED FOR IN-PLACE DRY DENSITY AND MEASURED FOR COMPACTED THICKNESS.

BITUMINOUS PAVEMENT:

- 1. URBAN ROADS REQUIRE A MINIMUM 2 INCH WEARING SURFACE OF HMAc TxDOT TYPE D. THE MIX SHALL BE FROM A TxDOT CERTIFIED PLANT.
2. RURAL ROADS MAY USE EITHER THE SPECIFICATIONS FOUND IN SECTION 87.1 OR A TWO-COURSE SURFACE IN ACCORDANCE WITH ITEM 316, TREATMENT WEARING SURFACE.

CONCRETE PAVEMENT:

IN LIEU OF BITUMINOUS PAVEMENT, PORTLAND CEMENT CONCRETE PAVEMENT MAY BE USED. IN SUCH CASES, THE PAVEMENT THICKNESS SHALL BE A MINIMUM OF 9 INCHES OF CONCRETE, AND SHALL BE JOINED AND REINFORCED IN ACCORDANCE WITH THE DETAIL INCLUDED IN APPENDIX J. THE MIX SHALL BE FROM A TxDOT CERTIFIED PLANT.

CONCRETE GENERAL:

- 1. UNLESS OTHERWISE SPECIFIED, CONCRETE SHALL BE IN ACCORDANCE WITH ITEM 421 OF THE CURRENT EDITION OF THE TxDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND BE PLACED IN ACCORDANCE WITH THE APPLICABLE ITEM.
2. ALL CONCRETE SHALL BE TESTED FOR COMPRESSIVE STRENGTH. ONE SET OF THREE CONCRETE TEST CYLINDERS SHALL BE MOLDED FOR EVERY 50 CUBIC YARDS OF CONCRETE PLACED FOR EACH CLASS OF CONCRETE PER DAY, OR AT ANY OTHER INTERVAL AS DETERMINED BY THE COUNTY ENGINEER.

ROAD NAMES, SIGNS AND MARKERS:

- 1. ALL ROADS SHALL BE NAMED, WITH PRIOR APPROVAL FOR SAID NAME FROM THE WILLIAMSON COUNTY 911 ADDRESSING COORDINATOR.
2. TRAFFIC CONTROL SIGNS (SUCH AS STOP, YIELD, AND SPEED LIMIT SIGNS) SHALL BE INSTALLED BY THE OWNER OF SAID SUBDIVISION IN COMPLIANCE WITH THE TxDOT AND AT THE LOCATIONS AS INDICATED ON THE APPROVED CONSTRUCTION PLANS.
3. A SPEED LIMIT OF 25 MPH FOR LOCAL ROADS, 30 MPH FOR COLLECTOR ROADS AND 40 MPH FOR ARTERIAL ROADS WITHIN ALL PLATTED SUBDIVISIONS IS HEREBY ADOPTED.

DRAINAGE AND FLOOD CONTROL:

- 1. STORM WATER MANAGEMENT CONTROLS, WHEN NEEDED, SHALL BE DESIGNED, CONSTRUCTED AND MAINTAINED TO RESTRICT THE RATE OF DRAINAGE FROM THE PLATTED AREA TO THE RATE OF DRAINAGE OF THE LAND IN ITS NATURAL STATE.
2. DRAINAGE CALCULATIONS SHALL BE MADE USING THE EDITION OF THE CITY OF AUSTIN'S DRAINAGE CRITERIA MANUAL IN EFFECT AS OF THE DATE OF THESE REGULATIONS OR OTHER METHODS SATISFACTORY TO THE COUNTY ENGINEER.
3. ALL DRAINAGE STRUCTURES AND APPURTENANCES SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
4. DRIVEWAY CULVERTS SHALL HAVE A MINIMUM INTERIOR DIAMETER OF 18" OR EQUAL AND A MINIMUM LENGTH OF 22 FEET, AND SHALL INCLUDE A CONCRETE APRON SAFETY TREATMENT.

Vertical sidebar containing: DESIGNED BY: SPC, DRAFTED BY: CJH, DATE, REVISION, PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS, SHEET NAME: GENERAL NOTES (1 OF 2), JOB NAME: SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4, SHEET NO. 2 OF 52, DATE: DEC 2025, JOB NUMBER: 5742, SHEET NO.: 2, and a professional seal for Steven P. Gates, Registered Professional Engineer, No. 93648, State of Texas.

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

EDWARDS AQUIFER PROTECTION PROGRAM CONSTRUCTION NOTES - LEGAL DISCLAIMER

THE FOLLOWING LISTED "CONSTRUCTION NOTES" ARE INTENDED TO BE ADVISORY IN NATURE ONLY AND DO NOT CONSTITUTE AN APPROVAL OR CONDITIONAL APPROVAL BY THE EXECUTIVE DIRECTOR, NOR DO THEY CONSTITUTE A COMPREHENSIVE LISTING OF RULES OR CONDITIONS TO BE FOLLOWED DURING CONSTRUCTION. FURTHER ACTIONS MAY BE REQUIRED TO ACHIEVE COMPLIANCE WITH TCEQ REGULATIONS FOUND IN TITLE 30, TEXAS ADMINISTRATIVE CODE (TAC), CHAPTERS 213 AND 217, AS WELL AS LOCAL ORDINANCES AND REGULATIONS PROVIDING FOR THE PROTECTION OF WATER QUALITY. ADDITIONALLY, NOTHING CONTAINED IN THE FOLLOWING LISTED "CONSTRUCTION NOTES" RESTRICTS THE POWERS OF THE E.D. THE COMMISSION OR ANY OTHER GOVERNMENTAL ENTITY TO PREVENT, CORRECT, OR CURTAIL ACTIVITIES THAT RESULT OR MAY RESULT IN VIOLATION OF THE EDWARDS AQUIFER OR HYDROLOGICALLY CONNECTED SURFACE WATERS. THE HOLDER OF ANY EDWARDS AQUIFER PROTECTION PLAN CONTAINING "CONSTRUCTION NOTES" IS STILL RESPONSIBLE FOR COMPLIANCE WITH TITLE 30, TAC, CHAPTERS 213 OR ANY OTHER APPLICABLE TCEQ REGULATION, AS WELL AS ALL CONDITIONS OF THE EDWARDS AQUIFER PROTECTION PLAN THROUGH ALL PHASES OF PLAN IMPLEMENTATION. FAILURE TO COMPLY WITH ANY CONDITION OF THE E.D.'S APPROVAL, WHETHER OR NOT IN CONNECTION OF ANY "CONSTRUCTION NOTES" IS A VIOLATION OF TCEQ REGULATIONS AND ANY VIOLATIONS SUBJECT TO ADMINISTRATIVE RULES, ORDERS, AND PENALTIES AS PROVIDED UNDER TITLE 30, TAC § 213.11 RELATING TO ENFORCEMENT; SUCH VIOLATIONS MAY ALSO BE SUBJECT TO CIVIL PENALTIES AND SANCTIONS. THE FOLLOWING LISTED "CONSTRUCTION NOTES" IN NO WAY REPRESENT AN APPROVED EXCEPTION BY THE E.D. TO ANY PART OF TITLE 30, TAC, CHAPTERS 213 AND 217, OR ANY OTHER TCEQ APPLICABLE REGULATION.

- 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.
- 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.
- IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SNK 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.
- 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.
- PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (EAS) 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.
- 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 NOT LATER THAN 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 SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER EAS 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.
- IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
- 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.
- THE HOLDER OF ANY APPROVED EDWARDS 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:
  - 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;
  - 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;
  - 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  
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FAX (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.  
TCEQ-0699 (REV. JULY 18, 2015)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
ORGANIZED SEWAGE COLLECTION SYSTEM  
GENERAL CONSTRUCTION NOTES

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- THIS ORGANIZED SEWAGE COLLECTION SYSTEM (SCS) MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S (TCEQ) EDWARDS AQUIFER RULES AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.
- ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROPOSED REGULATED PROJECT MUST BE PROVIDED WITH COPIES OF THE SCS PLAN AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS MUST BE REQUIRED TO KEEP ON-SITE COPIES OF THE PLAN AND THE APPROVAL LETTER.
- A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
  - THE NAME OF THE APPROVED PROJECT;
  - THE ACTIVITY START DATE; AND
  - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
- ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED SCS APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF AN SCS APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.
- PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (EAS) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- IF ANY SENSITIVE FEATURES ARE DISCOVERED DURING THE WASTEWATER LINE TRENCHING ACTIVITIES, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPLICANT MUST IMMEDIATELY NOTIFY THE APPROPRIATE REGIONAL OFFICE OF THE TCEQ OF THE FEATURE DISCOVERED. A GEOLOGIST'S ASSESSMENT OF THE LOCATION AND EXTENT OF THE FEATURE DISCOVERED MUST BE REPORTED TO THAT REGIONAL OFFICE IN WRITING AND THE APPLICANT MUST SUBMIT A PLAN FOR ENSURING THE STRUCTURAL INTEGRITY OF THE SEWER LINE OR FOR MODIFYING THE PROPOSED COLLECTION SYSTEM ALIGNMENT AROUND THE FEATURE. THE REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT THE SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM ANY POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY WHILE MAINTAINING THE STRUCTURAL INTEGRITY OF THE LINE.
- SEWER LINES LOCATED WITHIN OR CROSSING THE 5-YEAR FLOODPLAIN OF A DRAINAGE WAY WILL BE PROTECTED FROM INUNDATION AND STREAM VEGETIES WHICH COULD CAUSE EROSION AND SCOURING OF BACKFILL. THE TRENCH MUST BE FILLED WITH CONCRETE TO PREVENT SCOURING OF BACKFILL, OR THE SEWER LINES MUST BE ENCASED IN CONCRETE. ALL CONCRETE SHALL HAVE A MINIMUM THICKNESS OF 6 INCHES.
- BLASTING PROCEDURES FOR PROTECTION OF EXISTING SEWER LINES AND OTHER UTILITIES WILL BE IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION CRITERIA. SAND IS NOT ALLOWED AS BEDDING OR BACKFILL IN TRENCHES THAT HAVE BEEN BLASTED. IF ANY EXISTING SEWER LINES ARE DAMAGED, THE LINES MUST BE REPAIRED AND RETESTED.
- ALL MANHOLES CONSTRUCTED OR REHABILITATED ON THIS PROJECT MUST HAVE WATERTIGHT SIZE ON SIZE RESILIENT CONNECTORS ALLOWING FOR DIFFERENTIAL SETTLEMENT. IF MANHOLES ARE CONSTRUCTED WITHIN THE 100-YEAR FLOODPLAIN, THE COVER MUST HAVE A GASKET AND BE BOLTED TO THE RING. WHERE GASKETED MANHOLE COVERS ARE REQUIRED FOR MORE THAN THREE MANHOLES IN SEQUENCE OR FOR MORE THAN 150 FEET, ALTERNATE MEANS OF VENTING WILL BE PROVIDED. BRICKS ARE NOT AN ACCEPTABLE CONSTRUCTION MATERIAL FOR ANY PORTION OF THE MANHOLE. THE DIAMETER OF THE MANHOLES MUST BE A MINIMUM OF FOUR FEET AND THE MANHOLE FOR ENTRY MUST HAVE A MINIMUM CLEAR OPENING DIAMETER OF 30 INCHES. THESE DIMENSIONS AND OTHER DETAILS SHOWING COMPLIANCE WITH THE COMMISSION'S RULES CONCERNING MANHOLES AND SEWER LINE/MANHOLE INVERTS DESCRIBED IN 30 TAC §217.55 ARE INCLUDED ON PLAN SHEET 24 - 25 OF 30.
- IT IS SUGGESTED THAT ENTRANCE INTO MANHOLES IN EXCESS OF FOUR FEET DEEP BE ACCOMPLISHED BY MEANS OF A PORTABLE LADDER. THE INCLUSION OF STEPS IN A MANHOLE IS PROHIBITED.
- WHERE WATER LINES AND NEW SEWER LINE ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE FEET (I.E., WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEET THE REQUIREMENTS OF 30 TAC §217.53(D) (PIPE DESIGN) AND 30 TAC §290.44(E) (WATER DISTRIBUTION).
- WHERE SEWERS LINES DEVIATE FROM STRAIGHT ALIGNMENT AND UNIFORM GRADE ALL CURVATURE OF SEWER PIPE MUST BE ACHIEVED BY THE FOLLOWING PROCEDURE WHICH IS RECOMMENDED BY THE PIPE MANUFACTURER. THERE SHALL BE NO CURVATURE OF SANITARY SEWER LINE PIPES. IF PIPE FLEXURE IS PROPOSED, THE FOLLOWING METHOD OF PREVENTING DEFLECTION OF THE JOINT MUST BE USED: THERE SHALL BE NO FLEXURE OF SANITARY SEWER LINE PIPES.
  - (1) SPECIFIC CARE MUST BE TAKEN TO ENSURE THAT THE JOINT IS PLACED IN THE CENTER OF THE TRENCH AND PROPERLY BEDDED IN ACCORDANCE WITH 30 TAC §217.54.
- NEW SEWAGE COLLECTION SYSTEM LINES MUST BE CONSTRUCTED WITH STUB OUTS FOR THE CONNECTION OF ANTICIPATED EXTENSIONS. THE LOCATION OF SUCH STUB OUTS MUST BE MARKED ON THE GROUND SUCH THAT THEIR LOCATION CAN BE EASILY DETERMINED AT THE TIME OF CONNECTION OF THE EXTENSIONS. SUCH STUB OUTS MUST BE MANUFACTURED WYES OR TEES THAT ARE COMPATIBLE IN SIZE AND MATERIAL WITH BOTH THE SEWER LINE AND THE EXTENSION. AT THE TIME OF ORIGINAL CONSTRUCTION, NEW STUB-OUTS MUST BE CONSTRUCTED SUFFICIENTLY TO EXTEND BEYOND THE END OF THE STREET PAVEMENT. ALL STUB-OUTS MUST BE SEALED WITH A MANUFACTURED CAP TO PREVENT LEAKAGE. EXTENSIONS THAT WERE NOT ANTICIPATED AT THE TIME OF ORIGINAL CONSTRUCTION OR THAT ARE TO BE CONNECTED TO AN EXISTING SEWER LINE NOT FURNISHED WITH STUB OUTS MUST BE CONNECTED USING A MANUFACTURED SADDLE AND IN ACCORDANCE WITH ACCEPTED PUMPING TECHNIQUES. IF NON-DRINKING-WATER PRESURE METHOD OF JOINING LATERALS IS SHOWN IN THE DETAIL ON PLAN SHEET \_\_\_ OF \_\_\_ (FOR POTENTIAL FUTURE LATERALS), (NOT APPLICABLE).
- THE PRIVATE SERVICE LATERAL STUB-OUTS MUST BE INSTALLED AS SHOWN ON THE PLAN AND PROFILE SHEETS ON PLAN SHEET 30\_ OF 30\_ AND MARKED AFTER BACKFILLING AS SHOWN IN THE DETAIL ON PLAN SHEET 30\_ OF 30\_.
- TRENCHING, BEDDING AND BACKFILL MUST CONFORM WITH 30 TAC §217.54. THE BEDDING AND BACKFILL FOR FLEXIBLE PIPE MUST COMPLY WITH THE STANDARDS OF ASTM D-2321, CLASSES IA, IB, II OR III. RIGID PIPE BEDDING MUST COMPLY WITH THE REQUIREMENTS OF ASTM C 12 (ANSI A 106.2) CLASSES A OR C.
- SEWER LINES MUST BE TESTED FROM MANHOLE TO MANHOLE. WHEN A NEW SEWER LINE IS CONNECTED TO AN EXISTING STUB OR CLEAN-OUT, IT MUST BE TESTED FROM EXISTING MANHOLE TO NEW MANHOLE. IF A STUB OR CLEAN-OUT IS USED AT THE END OF THE PROPOSED SEWER LINE, NO PRIVATE SERVICE ATTACHMENTS MAY BE CONNECTED BETWEEN THE LAST MANHOLE AND THE CLEANOUT UNLESS IT CAN BE CERTIFIED AS CONFORMING WITH THE PROVISIONS OF 30 TAC §213.5(C)(3)(E).
- ALL SEWER LINES MUST BE TESTED IN ACCORDANCE WITH 30 TAC §217.57. THE ENGINEER MUST RETAIN COPIES OF ALL TEST RESULTS WHICH MUST BE MADE AVAILABLE TO THE EXECUTIVE DIRECTOR UPON REQUEST. THE ENGINEER MUST CERTIFY IN WRITING THAT ALL WASTEWATER LINES HAVE PASSED ALL REQUIRED TESTING TO THE APPROPRIATE REGIONAL OFFICE WITHIN 30 DAYS OF TEST COMPLETION AND PRIOR TO USE OF THE NEW COLLECTION SYSTEM. TESTING METHOD WILL BE:
  - FOR A COLLECTION SYSTEM PIPE THAT WILL TRANSPORT WASTEWATER BY GRAVITY FLOW, THE DESIGN MUST SPECIFY AN INFILTRATION AND EXFILTRATION TEST OR A LOW-PRESSURE AIR TEST. A TEST MUST CONFORM TO THE FOLLOWING REQUIREMENTS:
    - LOW PRESSURE AIR TEST.
      - (A) A LOW PRESSURE AIR TEST MUST FOLLOW THE PROCEDURES DESCRIBED IN AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) C-828, ASTM C-924, OR ASTM F-4417 OR OTHER PROCEDURE APPROVED BY THE EXECUTIVE DIRECTOR, EXCEPT AS TO TESTING TIMES AS REQUIRED IN TABLE C.3 IN SUBPARAGRAPH (C) OF THIS PARAGRAPH OR EQUATION C.3 IN SUBPARAGRAPH (B)(II) OF THIS PARAGRAPH.
      - FOR SECTIONS OF COLLECTION SYSTEM PIPE LESS THAN 36 INCH AVERAGE INSIDE DIAMETER, THE FOLLOWING PROCEDURE MUST APPLY, UNLESS A PIPE IS TO BE TESTED AS REQUIRED BY PARAGRAPH (2) OF THIS SUBSECTION.
        - (i) A PIPE MUST BE PRESSURIZED TO 3.5 POUNDS PER SQUARE INCH (PSI) GREATER THAN THE PRESSURE EXERTED BY GROUNDWATER ABOVE THE PIPE.
        - (ii) ONCE THE PRESSURE IS STABILIZED, THE MINIMUM TIME ALLOWABLE FOR THE PRESSURE TO DROP FROM 3.5 PSI GAUGE TO 2.5 PSI GAUGE IS COMPUTED FROM THE FOLLOWING EQUATION:
 
$$T = \frac{0.0018 \times D \times L}{Q}$$

EQUATION C.3

$$T = \frac{0.0018 \times D \times L}{Q}$$

WHERE:

- T = TIME FOR PRESSURE TO DROP 1.0 POUND PER SQUARE INCH GAUGE IN SECONDS
- K = 0.00418 X D X L, BUT NOT LESS THAN 1.0
- D = AVERAGE INSIDE PIPE DIAMETER IN INCHES
- L = LENGTH OF LINE OF SAME SIZE BEING TESTED, IN FEET
- Q = RATE OF LOSS, 0.0015 CUBIC FEET PER MINUTE PER SQUARE FOOT INTERNAL SURFACE

(C) SINCE A K VALUE OF LESS THAN 1.0 MAY NOT BE USED, THE MINIMUM TESTING TIME FOR EACH PIPE DIAMETER IS SHOWN IN THE FOLLOWING TABLE C.3:

PIPE DIAMETER (INCHES)	Minimum Time (seconds)	Maximum Length for Minimum Time (feet)	Time for Longer Length (seconds/foot)
6	340	398	0.8550
8	454	298	1.5200
10	567	239	2.3740
12	680	199	3.4190
15	850	159	5.3420
18	1020	133	7.6930
21	1190	114	10.4710
24	1360	100	13.6760
27	1530	88	17.3090
30	1700	80	21.3690
33	1870	72	25.8560

- AN OWNER MAY STOP A TEST IF NO PRESSURE LOSS HAS OCCURRED DURING THE FIRST 25% OF THE CALCULATED TESTING TIME. IF ANY PRESSURE LOSS OR LEAKAGE HAS OCCURRED DURING THE FIRST 25% OF A TESTING PERIOD, THEN THE TEST MUST CONTINUE FOR THE ENTIRE TEST DURATION AS OUTLINED ABOVE OR UNTIL FAILURE.
  - WASTEWATER COLLECTION SYSTEM PIPES WITH A 27 INCH OR LARGER AVERAGE INSIDE DIAMETER MAY BE AIR TESTED AT EACH JOINT INSTEAD OF FOLLOWING THE PROCEDURE OUTLINED IN THIS SECTION.
  - A TESTING PROCEDURE FOR PIPE WITH AN INSIDE DIAMETER GREATER THAN 33 INCHES MUST BE APPROVED BY THE EXECUTIVE DIRECTOR.
    - INFILTRATION/EXFILTRATION TEST.
      - (A) THE TOTAL INFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH OF DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF 2.0 FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE.
      - (B) AN OWNER SHALL USE AN INFILTRATION TEST IN LIEU OF AN EXFILTRATION TEST WHEN PIPES ARE INSTALLED BELOW THE GROUNDWATER LEVEL.
      - (C) THE TOTAL EXFILTRATION, AS DETERMINED BY A HYDROSTATIC HEAD TEST, MUST NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO FEET ABOVE THE CROWN OF A PIPE AT AN UPSTREAM MANHOLE. OR AT LEAST TWO FEET ABOVE EXISTING GROUNDWATER LEVEL, WHICHEVER IS GREATER.
      - (D) FOR CONSTRUCTION WITHIN A 25-YEAR FLOOD PLAIN, THE INFILTRATION OR EXFILTRATION MUST NOT EXCEED 10 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT THE SAME MINIMUM TEST HEAD AS IN SUBPARAGRAPH (C) OF THIS PARAGRAPH.
      - (E) IF THE QUANTITY OF INFILTRATION OR EXFILTRATION EXCEEDS THE MAXIMUM QUANTITY SPECIFIED, AN OWNER SHALL UNDERTAKE REMEDIAL ACTION IN ORDER TO REDUCE THE INFILTRATION OR EXFILTRATION TO AN AMOUNT WITHIN THE LIMITS SPECIFIED. AN OWNER SHALL RETEST A PIPE FOLLOWING A REMEDIATION ACTION.
    - IF A GRAVITY COLLECTION PIPE IS COMPOSED OF FLEXIBLE PIPE, DEFLECTION TESTING IS ALSO REQUIRED. THE FOLLOWING PROCEDURES MUST BE FOLLOWED:
      - FOR A COLLECTION PIPE WITH INSIDE DIAMETER LESS THAN 27 INCHES, DEFLECTION MEASUREMENT REQUIRES A RIGID MANDREL.
        - (A) MANDREL SIZING
          - (i) A RIGID MANDREL MUST HAVE AN OUTSIDE DIAMETER (OD) NOT LESS THAN 95% OF THE BASE INSIDE DIAMETER (ID) OR AVERAGE ID OF A PIPE, AS SPECIFIED IN THE APPROPRIATE STANDARD BY THE ASTM, AMERICAN WATER WORKS ASSOCIATION, UNI-BELL, OR AMERICAN NATIONAL STANDARDS INSTITUTE, OR ANY RELATED AGENCY.
          - (ii) A MANDREL SIZING DIAMETER IS NOT SPECIFIED IN THE APPROPRIATE STANDARD, THE MANDREL MUST HAVE AN OD EQUAL TO 95% OF THE ID OF A PIPE, IN THIS CASE, THE ID OF THE PIPE, FOR THE PURPOSE OF DETERMINING THE OD OF THE MANDREL, MUST EQUAL BE THE AVERAGE OUTSIDE DIAMETER MINUS TWO MINIMUM WALL THICKNESSES FOR OD CONTROLLED PIPE AND THE AVERAGE INSIDE DIAMETER FOR ID CONTROLLED PIPE.
        - ALL DIMENSIONS MUST MEET THE APPROPRIATE STANDARD.
      - MANDREL DESIGN.
        - (i) A RIGID MANDREL MUST BE CONSTRUCTED OF A METAL OR A RIGID PLASTIC MATERIAL THAT CAN WITHSTAND 200 PSI WITHOUT BEING DEFORMED.
        - (ii) A MANDREL MUST HAVE NINE OR MORE ODD NUMBER OF RUNNERS OR LEGS.
        - (iii) A BARREL SECTION LENGTH MUST BE EQUAL AT LEAST 75% OF THE INSIDE DIAMETER OF A PIPE.
        - (iv) EACH SIZE MANDREL MUST USE A SEPARATE PROVING RING.
      - METHOD OPTIONS.
        - (i) AN ADJUSTABLE OR FLEXIBLE MANDREL IS PROHIBITED.
        - (ii) A TEST MAY NOT USE TELEVISION INSPECTION AS A SUBSTITUTE FOR A DEFLECTION TEST.
        - (iii) IF REQUESTED, THE EXECUTIVE DIRECTOR MAY APPROVE THE USE OF A DEFLECTOMETER OR A MANDREL WITH REMOVABLE LEGS OR RUNNERS ON A CASE-BY-CASE BASIS.
      - FOR A GRAVITY COLLECTION SYSTEM PIPE WITH AN INSIDE DIAMETER 27 INCHES AND GREATER, OTHER TEST METHODS MAY BE USED TO DETERMINE VERTICAL DEFLECTION.
        - (i) A DEFLECTION TEST METHOD MUST BE ACCURATE TO WITHIN PLUS OR MINUS 0.2% DEFLECTION.
        - (ii) AN OWNER SHALL NOT CONDUCT A DEFLECTION TEST UNTIL AT LEAST 30 DAYS AFTER THE FINAL BACKFILL.
        - (iii) GRAVITY COLLECTION SYSTEM PIPE DEFLECTION MUST NOT EXCEED FIVE PERCENT (5%).
        - (iv) IF A PIPE SECTION FAILS A DEFLECTION TEST, AN OWNER SHALL CORRECT THE PROBLEM AND CONDUCT A SECOND TEST AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
- ALL MANHOLES MUST BE TESTED TO MEET OR EXCEED THE REQUIREMENTS OF 30 TAC §217.58.
  - ALL MANHOLES MUST PASS A LEAKAGE TEST.
  - AN OWNER SHALL TEST EACH MANHOLE (AFTER ASSEMBLY AND BACKFILLING) FOR LEAKAGE, SEPARATE AND INDEPENDENT OF THE COLLECTION SYSTEM PIPES, BY HYDROSTATIC EXFILTRATION, TESTING, VACUUM TESTING, OR OTHER METHOD APPROVED BY THE EXECUTIVE DIRECTOR.
    - HYDROSTATIC TESTING.
      - (A) THE MAXIMUM LEAKAGE FOR HYDROSTATIC TESTING OR ANY ALTERNATIVE TEST METHODS IS 0.025 GALLONS PER FOOT DIAMETER PER FOOT OF MANHOLE DEPTH PER HOUR.
      - (B) TO PERFORM A HYDROSTATIC EXFILTRATION TEST, AN OWNER SHALL SEAL ALL WASTEWATER PIPES COMING INTO A MANHOLE WITH AN INTERNAL PIPE PLUG, FILL THE MANHOLE WITH WATER, AND MAINTAIN THE TEST FOR AT LEAST ONE HOUR.
      - (C) A TEST FOR CONCRETE MANHOLES MAY USE A 24-HOUR WETTING PERIOD BEFORE TESTING TO ALLOW SATURATION OF THE CONCRETE.
    - VACUUM TESTING.
      - (A) TO PERFORM A VACUUM TEST, AN OWNER SHALL PLUG ALL LIFT HOLES AND EXTERIOR JOINTS WITH A NON-SHRINK GROUT AND PLUG ALL PIPES ENTERING A MANHOLE.
      - (B) NO GROUT MUST BE PLACED IN HORIZONTAL JOINTS BEFORE TESTING.
      - (C) STUB-OUTS, MANHOLE BOOTTS, AND PIPE PLUGS MUST BE SECURED TO PREVENT MOVEMENT WHILE A VACUUM IS DRAWN.
      - (D) AN OWNER SHALL USE A MINIMUM 60 INCH LB TORQUE WRENCH TO TIGHTEN THE EXTERNAL CLAMPS THAT SECURE A TEST COVER TO THE TOP OF A MANHOLE.
      - (E) A TEST HEAD MUST BE PLACED AT THE INSIDE OF THE TOP OF A COEN SECTION, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
      - (F) THERE MUST BE A VACUUM OF 10 INCHES OF MERCURY INSIDE A MANHOLE TO PERFORM A VALID TEST.
      - (G) A TEST DOES NOT BEGIN UNTIL AFTER THE VACUUM PUMP IS OFF.
      - (H) A MANHOLE PASSES THE TEST IF AFTER 2.0 MINUTES AND WITH ALL VALVES CLOSED, THE VACUUM IS AT LEAST 9.0 INCHES OF MERCURY.
- ALL PRIVATE SERVICE LATERALS MUST BE INSPECTED AND CERTIFIED IN ACCORDANCE WITH 30 TAC §213.5(C)(3)(I). AFTER INSTALLATION OF AND, PRIOR TO COVERING AND CONNECTING A PRIVATE SERVICE LATERAL TO AN EXISTING ORGANIZED SEWAGE COLLECTION SYSTEM, A TEXAS LICENSED PROFESSIONAL ENGINEER, TEXAS REGISTERED SANITARIAN, OR APPROPRIATE CITY INSPECTOR MUST VISUALLY INSPECT THE PRIVATE SERVICE LATERAL AND THE CONNECTION TO THE SEWAGE COLLECTION SYSTEM, AND CERTIFY THAT IT IS CONSTRUCTED IN CONFORMITY WITH THE APPLICABLE PROVISIONS OF THIS SECTION. THE OWNER OF THE COLLECTION SYSTEM MUST MAINTAIN SUCH CERTIFICATIONS FOR FIVE YEARS AND FORWARD COPIES TO THE APPROPRIATE REGIONAL OFFICE UPON REQUEST. CONNECTIONS MAY ONLY BE MADE TO AN APPROVED SEWAGE COLLECTION SYSTEM.

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

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.  
TCEQ-0699 (REV. JULY 18, 2015)

TCEQ WATER DISTRIBUTION SYSTEM  
GENERAL CONSTRUCTION NOTES

- This water distribution system must be constructed in accordance with the current Texas Commission on Environmental Quality (TCEQ) Rules and Regulations for Public Water Systems 30 Texas Administrative Code (TAC) Chapter 290 Subchapter D. When conflicts are noted with local standards, the more stringent requirement shall be applied. At a minimum, construction for public water systems must always meet TCEQ's "Rules and Regulations for Public Water Systems."
- All newly installed pipes and related products must conform to American National Standards Institute (ANSI)/NSF International Standard 61 and must be certified by an organization accredited by ANSI [§290.44(a)(1)].
- Plastic pipe for use in public water systems must bear the NSF International Seal of Approval (NSF-pw) and have an ASTM design pressure rating of at least 150 psi or a standard dimension ratio of 26 or less [§290.44(a)(2)].
- No pipe 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 [§290.44(a)(3)].
- All water line crossings of wastewater mains shall be perpendicular [§290.44(e)(4)(B)].
- Water transmission and distribution lines shall be installed in accordance with the manufacturer's instructions. However, the top of the water line must be located below the frost line and in no case shall the top of the water line be less than 24 inches below ground surface [§290.44(a)(4)].
- The maximum allowable lead content of pipes, pipe fittings, plumbing fittings, and fixtures is 0.25 percent [§290.44(b)].
- The contractor shall install appropriate air release devices with vent openings to the atmosphere covered with 16-mesh or finer, corrosion resistant screening material or an acceptable equivalent [§290.44(d)(1)].
- The contractor shall not place the pipe in water or where it can be flooded with water or sewage during its storage or installation [§290.44(f)(0)].
- When waterlines are laid under any flowing or intermittent stream or semi-permanent body of water the waterline shall be installed in a separate watertight pipe encasement. Valves must be provided on each side of the crossing with facilities to allow the underwater portion of the system to be isolated and tested [§290.44(f)(2)].
- Pursuant to 30 TAC §290.44(a)(5), the hydrostatic leakage rate shall not exceed the amount allowed or recommended by the most current AWWA formulas for PVC pipe, cast iron and ductile iron pipe. Include the formulas in the notes on the plans.
  - The hydrostatic leakage rate for polyvinyl chloride (PVC) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-605 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

$$Q = \frac{LD\sqrt{P}}{148,000}$$

Where:

- Q = the quantity of makeup water in gallons per hour,
- L = the length of the pipe section being tested, in feet,
- D = the nominal diameter of the pipe in inches, and
- P = the average test pressure during the hydrostatic test in pounds per square inch (psi).

- The hydrostatic leakage rate for ductile iron (DI) pipe and appurtenances shall not exceed the amount allowed or recommended by formulas in America Water Works Association (AWWA) C-600 as required in 30 TAC §290.44(a)(5). Please ensure that the formula for this calculation is correct and most current formula is in use;

$$L = \frac{SD\sqrt{P}}{148,000}$$

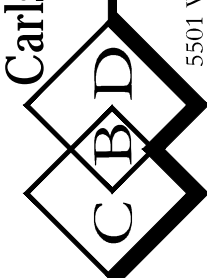
Where:

- L = the quantity of makeup water in gallons per hour,
- S = the length of the pipe section being tested, in feet,
- D = the nominal diameter of the pipe in inches, and
- P = the average test pressure during the hydrostatic test in pounds per square inch (psi).

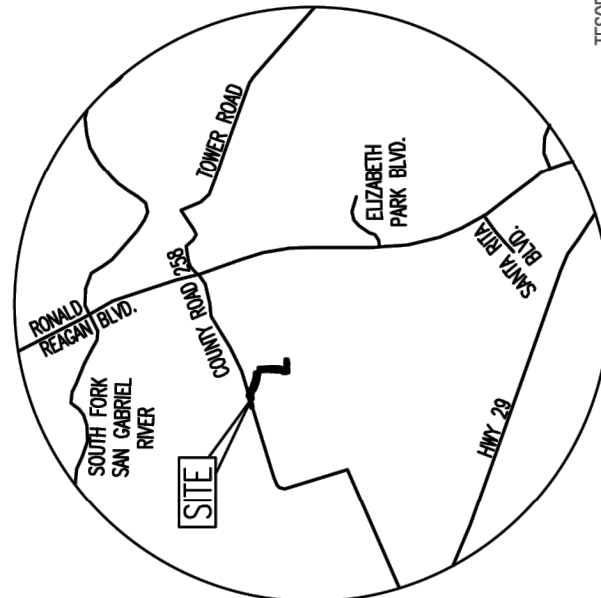
- The contractor shall maintain a minimum separation distance in all directions of nine feet between the proposed waterline and wastewater collection facilities including manholes. If this distance cannot be maintained, the contractor must immediately notify the project engineer for further direction. Separation distances, installation methods, and materials utilized must meet §290.44(e)(1)-(4).
- The separation distance from a potable waterline to a wastewater main or lateral manhole or cleanout shall be a minimum of nine feet. Where the nine-foot separation distance cannot be achieved, the potable waterline shall be encased in a joint of at least 150 psi pressure class pipe at least 18 feet long and two nominal sizes larger than the new conveyance. The space around the carrier pipe shall be supported at five-foot intervals with spacers or be filled to the springline with washed sand. The encasement pipe shall be centered on the crossing and both ends sealed with cement grout or manufactured sealant [§290.44(e)(5)].
- Fire hydrants shall not be installed within nine feet vertically or horizontally of any wastewater line, wastewater lateral, or wastewater service line regardless of construction [§290.44(e)(6)].
- Suction mains to pumping equipment shall not cross wastewater mains, wastewater laterals, or wastewater service lines. Raw water supply lines shall not be installed within five feet of any tile or concrete wastewater main, wastewater lateral, or wastewater service line [§290.44(e)(7)].
- Waterlines shall not be installed closer than ten feet to septic tank drainfields [§290.44(e)(8)].
- The contractor shall disinfect the new waterlines in accordance with AWWA Standard C-651-14 or most recent, then flush and sample the lines before being placed into service. Samples shall be collected for microbiological analysis to check the effectiveness of the disinfection procedure which shall be repeated if contamination persists. A minimum of one sample for each 1,000 feet of completed waterline will be required or at the next available sampling point beyond 1,000 feet as designated by the design engineer [§290.44(f)(3)].

- Dechlorination of disinfecting water shall be in strict accordance with current AWWA Standard C655-09 or most recent.

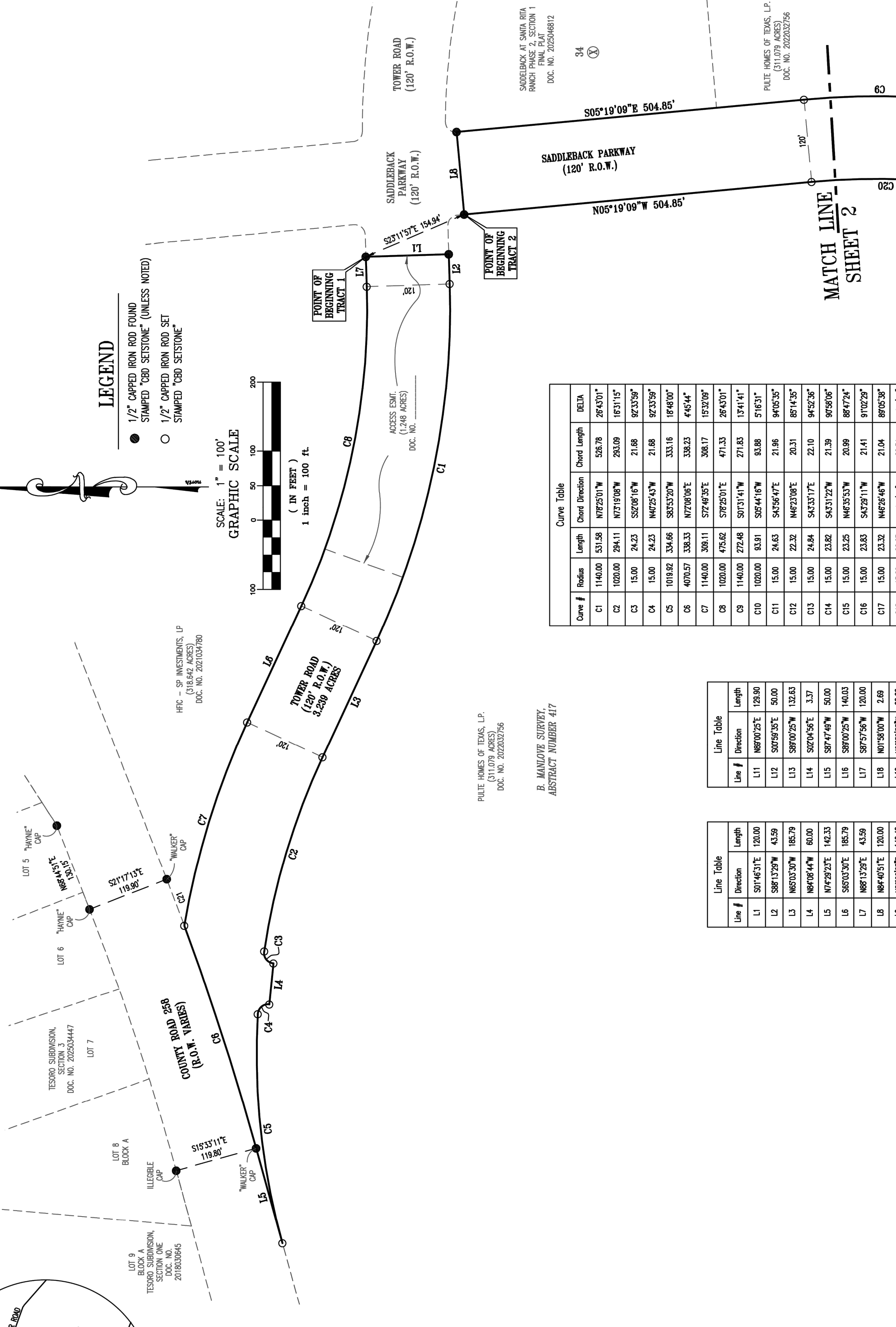
Revised October 2017

DESIGNED BY: SPC	DRAPPED BY: CFJ
DATE	
REVISION	
	
Carlsson, Brigrance & Doering, Inc. Civil Engineering • Surveying FIRM ID #E3791 Main Office: 5501 West Williams Canyon Dr., Austin, Texas 78749 North Office: 12129 RR (23) N. St., 600 Austin, Texas 78750 Phone No. (512) 280-5160 Fax No. (512) 280-5165	
GENERAL NOTES (2 OF 2) SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4 STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS	
SHEET NAME:	
JOB NAME:	
PROJECT:	
	
DATE:	
JOB NUMBER:	
SHEET:	
SHEET NO.:	

# SADDLEBACK AT SANTA RITA RANCH PHASE 2, SECTION 4 FINAL PLAT

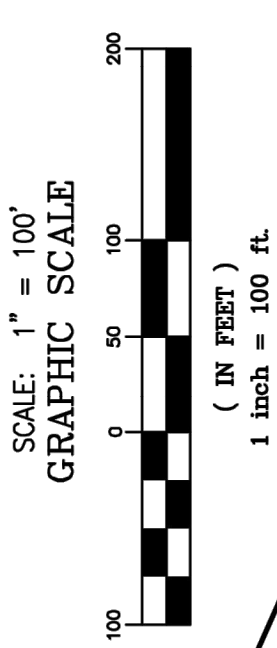


LOCATION MAP  
SCALE  
1" = 2000'



### LEGEND

- 1/2" CAPPED IRON ROD FOUND
- STAMPED "CBO SEISTONE" (UNLESS NOTED)
- 1/2" CAPPED IRON ROD SET
- STAMPED "CBO SEISTONE"



TOTAL ACRES: 7.042 ACRES  
SURVEY: B. MANLOVE SURVEY,  
ABSTRACT NO. 417

ORIGINAL SUBMITTAL DATE:  
DATE: SEPTEMBER 2, 2025

OWNER AND DEVELOPER:  
PULTE HOMES OF TEXAS, L.P.  
9401 AMERIKLEN BLVD.,  
BLDG. 1, SUITE 150  
AUSTIN, TEXAS 78729  
PHONE: (512) 532-3300

ENGINEER & SURVEYOR:  
CARLSON, BRIGANCE & DOERING, INC.  
5501 WEST WILLIAM CANNON  
AUSTIN, TEXAS 78749  
(512) 280-5160 PHONE

PULTE HOMES OF TEXAS, L.P.  
(311,079 ACRES)  
DOC. NO. 202504812

B. MANLOVE SURVEY,  
ABSTRACT NUMBER 417

### Curve Table

Curve #	Radius	Length	Chord Direction	Chord Length	DELTA
C1	1140.00	531.38	N78°25'01"W	526.78	26°43'01"
C2	1020.00	294.11	N73°19'08"W	293.09	16°31'15"
C3	15.00	24.23	S82°05'16"W	21.68	82°33'59"
C4	15.00	24.23	N47°25'43"W	21.68	92°33'59"
C5	1019.82	334.66	S83°33'20"W	333.16	18°48'00"
C6	4070.57	338.33	N72°02'05"E	338.33	4°45'44"
C7	1140.00	399.11	S74°49'35"E	306.17	19°32'09"
C8	1020.00	475.62	S78°22'01"E	471.33	26°43'01"
C9	1140.00	272.48	S07°31'41"W	271.83	1°34'41"
C10	1020.00	93.91	S05°44'16"W	93.88	5°16'31"
C11	15.00	24.63	S45°26'47"E	21.96	94°05'55"
C12	15.00	23.32	N42°30'27"E	20.31	85°14'35"
C13	15.00	24.94	S43°31'17"E	21.10	94°52'36"
C14	15.00	23.82	S43°12'27"W	21.39	90°38'06"
C15	15.00	23.25	N45°33'31"W	20.89	88°47'24"
C16	15.00	23.83	S43°29'11"W	21.41	91°02'29"
C17	15.00	23.32	N42°30'27"W	20.84	88°05'58"
C18	15.00	22.63	N42°17'15"E	20.54	86°25'29"
C19	1140.00	115.55	N67°28'18"E	115.50	5°48'27"
C20	1020.00	243.90	N07°31'41"E	243.22	1°34'41"
C21	4070.57	72.02	N67°14'30"E	72.02	1°04'46"

### Line Table

Line #	Direction	Length
L1	N69°02'25"E	129.90
L2	S07°59'35"E	50.00
L3	S89°02'25"W	133.63
L4	S02°04'56"E	3.37
L5	S87°47'48"W	50.00
L6	S89°02'25"W	140.03
L7	N87°12'39"E	43.59
L8	N67°40'51"E	120.00
L9	N69°02'25"E	60.00
L10	N89°02'25"E	50.03

### Line Table

Line #	Direction	Length
L11	N69°02'25"E	129.90
L12	S07°59'35"E	50.00
L13	S89°02'25"W	133.63
L14	S02°04'56"E	3.37
L15	S87°47'48"W	50.00
L16	S89°02'25"W	140.03
L17	N87°12'39"E	43.59
L18	N67°40'51"E	120.00
L19	N69°02'25"E	60.00
L20	N89°02'25"E	2.09

BASES OF BEARINGS - TEXAS COORDINATE SYSTEM, CENTRAL ZONE (4203), NAD83

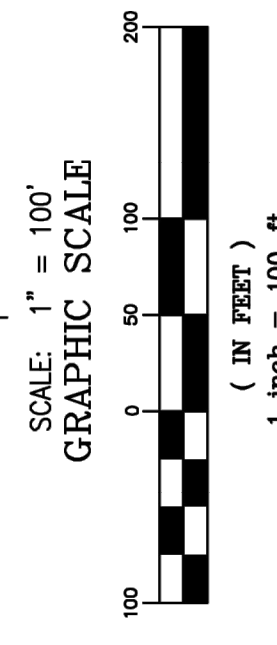
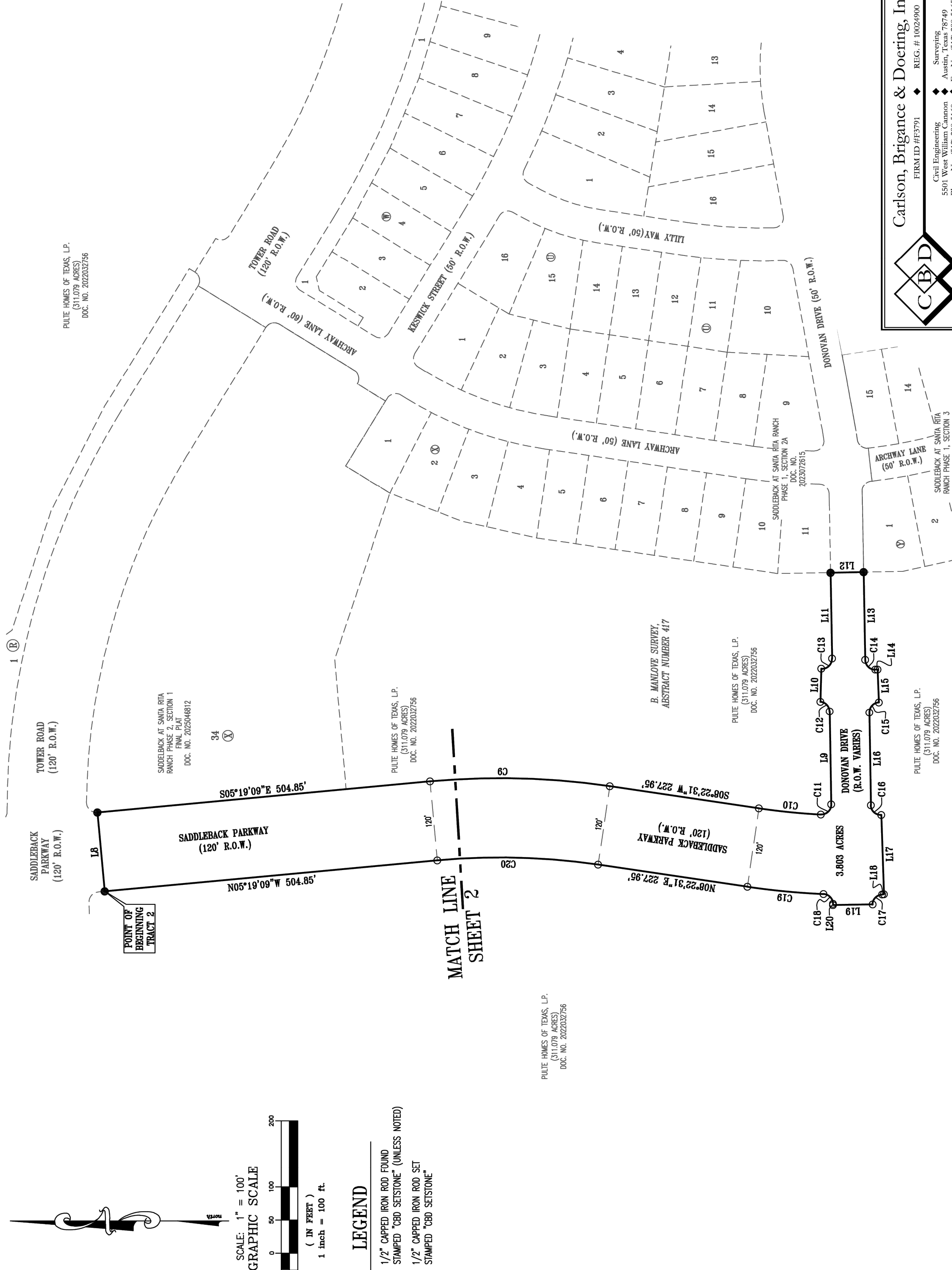
FEELA MAP NO. 484610272ES  
WILLAMSON COUNTY, TEXAS AND INCORPORATED AREAS.  
DATED: SEPTEMBER 26, 2008

STREET NAMES	LINEAR FOOTAGE	R.O.W. WIDTH	PAVEMENT WIDTH	DESIGN SPEED	DESIGNATION	CLASSIFICATION
DONOVAN DRIVE	503'	50'-60' R.O.W.	35'-40'	FOC-FOC	25 M.P.H.	PUBLIC LOCAL
SADDLEBACK PARKWAY	1,187'	120' R.O.W.	48'	FOC-FOC	35 M.P.H.	PUBLIC COLLECTOR
TOWER ROAD	1,149'	120' R.O.W.	48'	EOC-FOC	25 M.P.H.	PUBLIC COLLECTOR
TOTAL	2,839'					

Carlson, Brigrance & Doering, Inc.  
FIRM ID #F3791 REG. # 10024900  
C&B&D ENGINEERS, ARCHITECTS & SURVEYORS  
5501 West William Cannon  
Austin, Texas 78749  
Phone No. (512) 280-5160 Fax No. (512) 280-5165  
DOC. NO. 202504812

SHEET NO. 1 OF 4

# SADDLEBACK AT SANTA RITA RANCH PHASE 2, SECTION 4 FINAL PLAT



### LEGEND

- 1/2" CAPPED IRON ROD FOUND
- STAMPED "CBO SEISTONE" (UNLESS NOTED)
- 1/2" CAPPED IRON ROD SET
- STAMPED "CBO SEISTONE"

PULTE HOMES OF TEXAS, L.P.  
(311,079 ACRES)  
DOC. NO. 202504812

B. MANLOVE SURVEY,  
ABSTRACT NUMBER 417

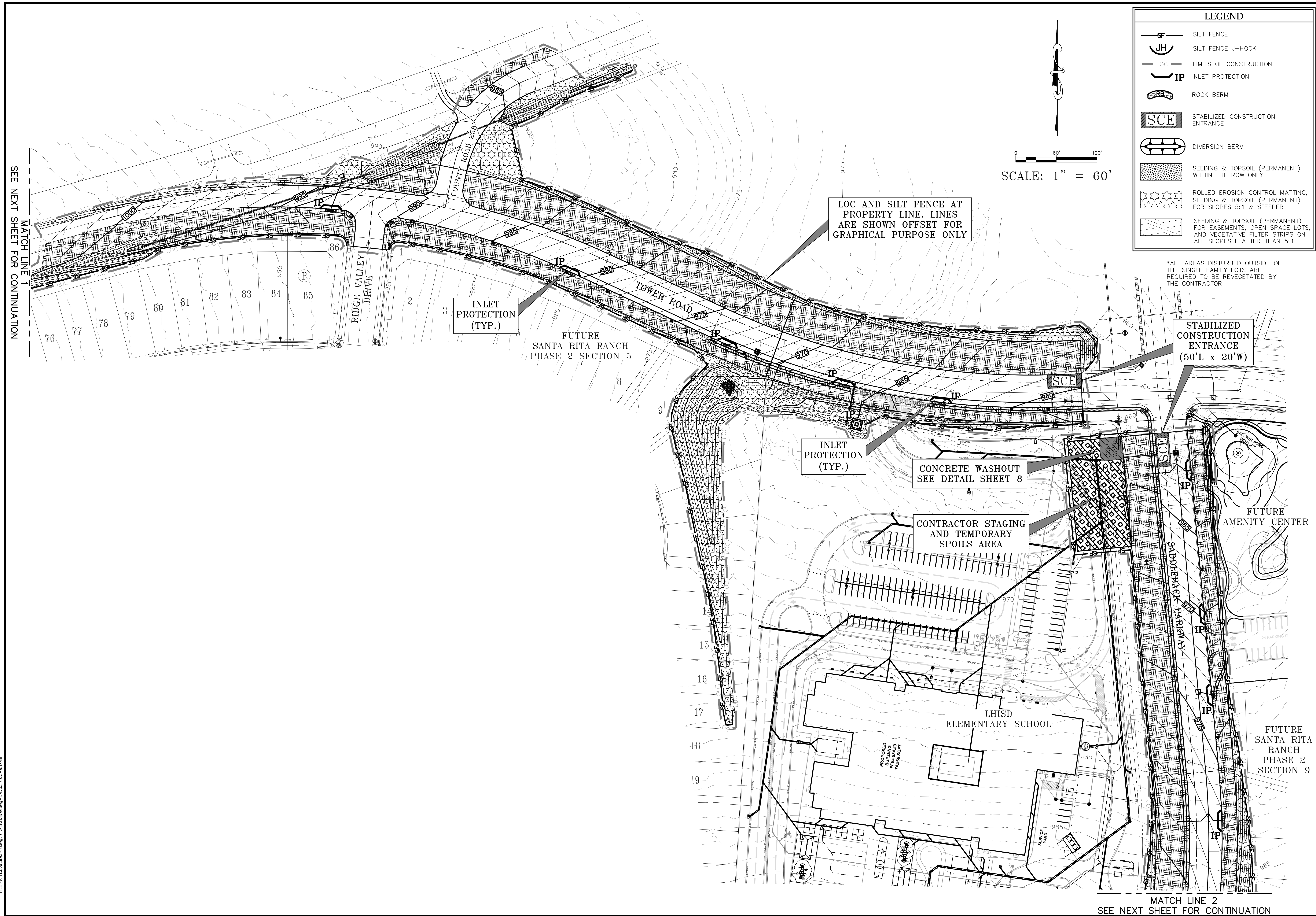
PULTE HOMES OF TEXAS, L.P.  
(311,079 ACRES)  
DOC. NO. 202504812

PULTE HOMES OF TEXAS, L.P.  
(311,079 ACRES)  
DOC. NO. 202504812

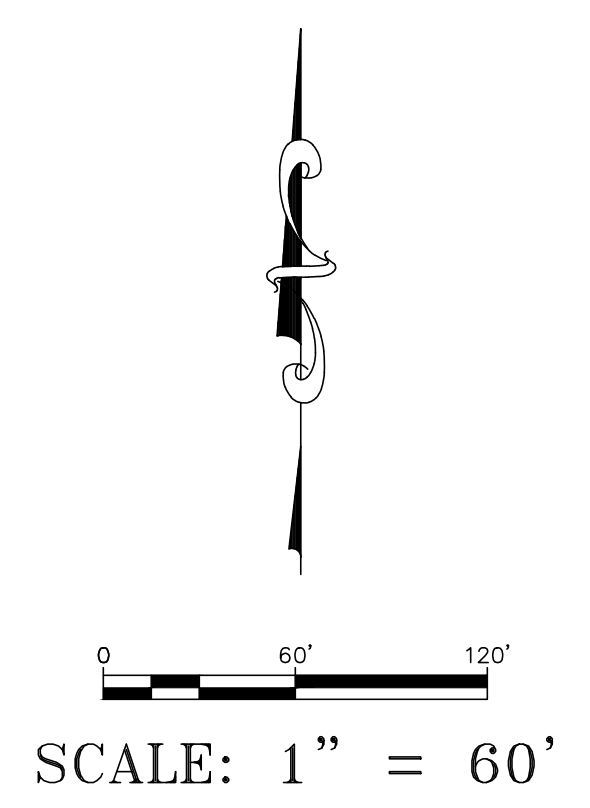
Carlson, Brigrance & Doering, Inc.  
FIRM ID #F3791 REG. # 10024900  
C&B&D ENGINEERS, ARCHITECTS & SURVEYORS  
5501 West William Cannon  
Austin, Texas 78749  
Phone No. (512) 280-5160 Fax No. (512) 280-5165  
DOC. NO. 202504812

SHEET NO. 2 OF 4





SEE NEXT SHEET FOR CONTINUATION



SCALE: 1" = 60'

LOC AND SILT FENCE AT PROPERTY LINE. LINES ARE SHOWN OFFSET FOR GRAPHICAL PURPOSE ONLY

INLET PROTECTION (TYP.)

FUTURE SANTA RITA RANCH PHASE 2 SECTION 5

INLET PROTECTION (TYP.)

CONCRETE WASHOUT SEE DETAIL SHEET 8

CONTRACTOR STAGING AND TEMPORARY SPOILS AREA

STABILIZED CONSTRUCTION ENTRANCE (50'L x 20'W)

FUTURE AMENITY CENTER

LHSD ELEMENTARY SCHOOL

FUTURE SANTA RITA RANCH PHASE 2 SECTION 9

LEGEND	
	SILT FENCE
	SILT FENCE J-HOOK
	LIMITS OF CONSTRUCTION
	INLET PROTECTION
	ROCK BERM
	STABILIZED CONSTRUCTION ENTRANCE
	DIVERSION BERM
	SEEDING & TOPSOIL (PERMANENT) WITHIN THE ROW ONLY
	ROLLED EROSION CONTROL MATTING, SEEDING & TOPSOIL (PERMANENT) FOR SLOPES 5:1 & STEEPER
	SEEDING & TOPSOIL (PERMANENT) FOR EASEMENTS, OPEN SPACE LOTS, AND VEGETATIVE FILTER STRIPS ON ALL SLOPES FLATTER THAN 5:1

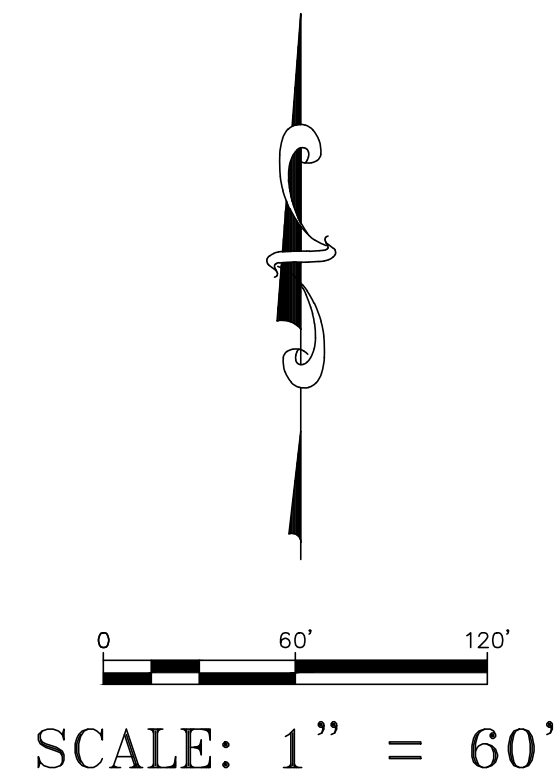
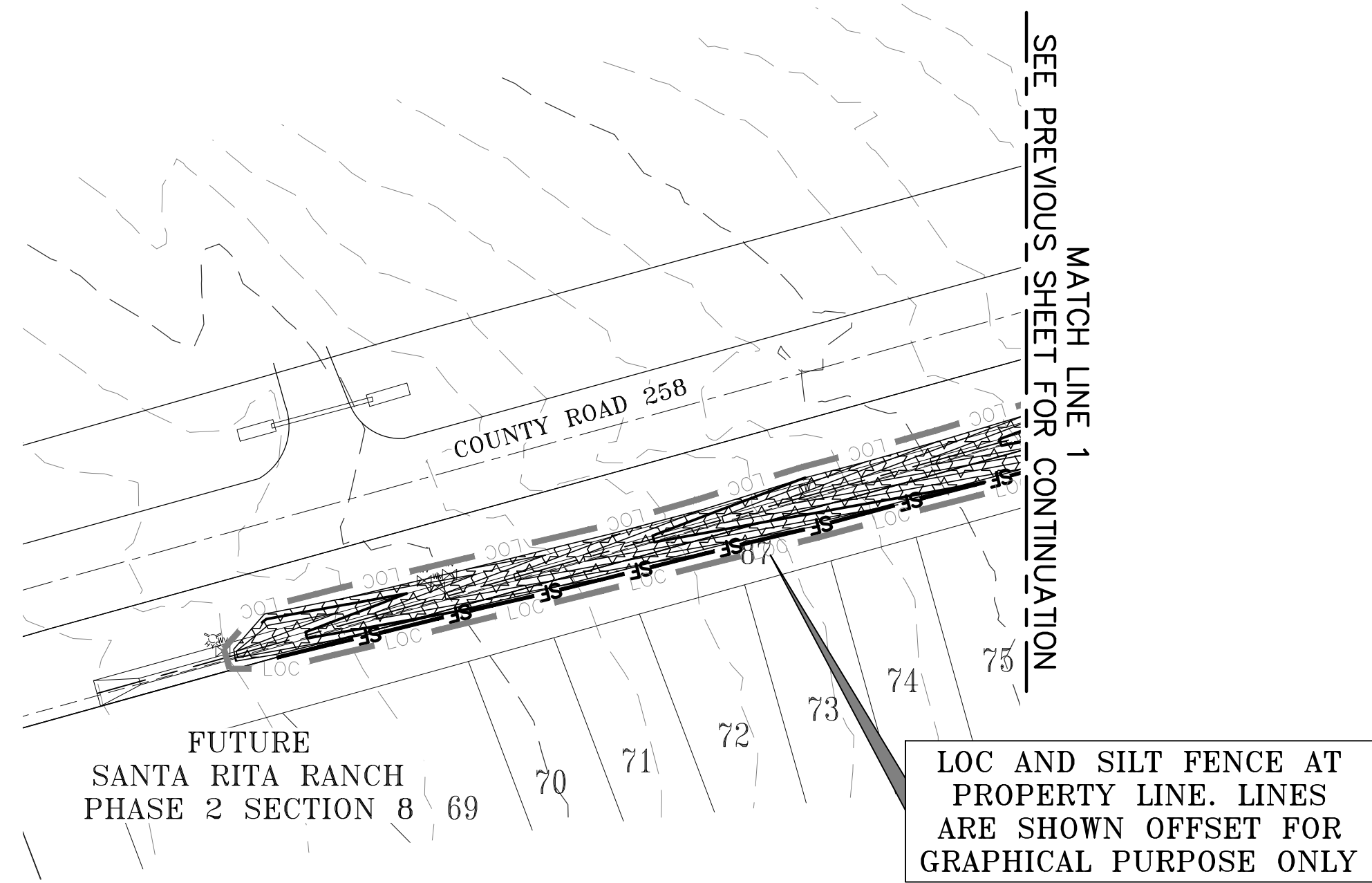
\*ALL AREAS DISTURBED OUTSIDE OF THE SINGLE FAMILY LOTS ARE REQUIRED TO BE REVEGETATED BY THE CONTRACTOR

FILE PATH: J:\ACCD\5142\Ang5142-EROSION.dwg - Dec 05, 2025 - 8:18am

DESIGNED BY: SPC	DRAFTED BY: CTJ
DATE	
REVISION	
 Carlson, Brigrance & Doering, Inc. Civil Engineering & Surveying FIRM ID #E3791 Main Office: 5501 West Williams Canyon Dr., Austin, Texas 78750 North Office: 12129 RR 030 N., Suite 600, Austin, Texas 78750 Phone No. (512) 290-5160 Fax No. (512) 290-5165	
SHEET NAME: EROSION CONTROL (1 OF 2) JOB NAME: SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4 PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS	
 STEVEN P. GATES 93648 LICENSED PROFESSIONAL ENGINEER CARLSON, BRIGRANCE & DOERING, INC. ID# F3791 12-5-2025	
DATE	DEC 2025
JOB NUMBER	5742
SHEET	6 OF 52
SHEET NO.	6

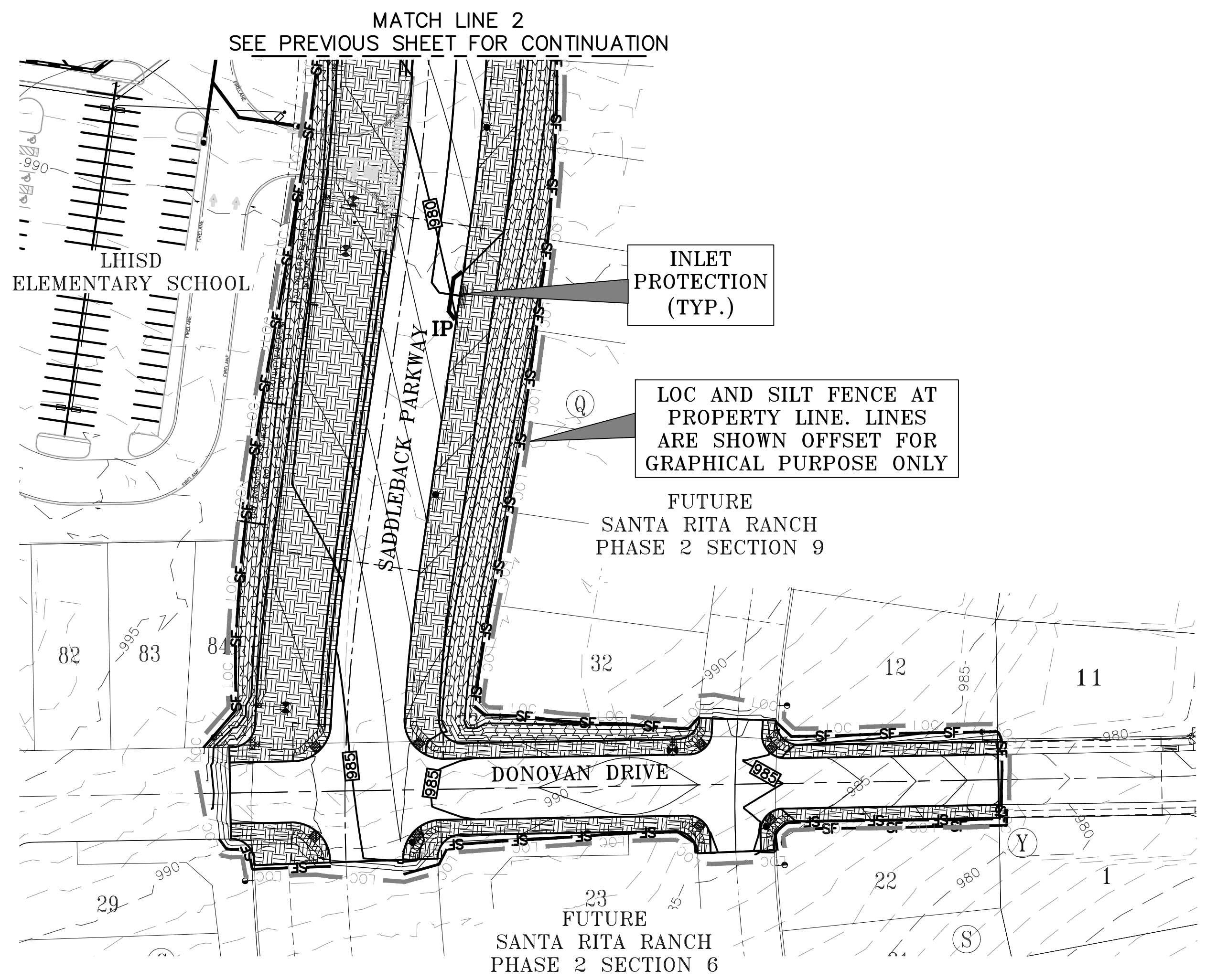
MATCH LINE 2  
SEE NEXT SHEET FOR CONTINUATION

FILE PATH: J:\ACCD\5742\5742-EROSION.dwg - Dec 05, 2025 - 8:18am



LEGEND	
	SILT FENCE
	SILT FENCE J-HOOK
	LIMITS OF CONSTRUCTION
	INLET PROTECTION
	ROCK BERM
	STABILIZED CONSTRUCTION ENTRANCE
	DIVERSION BERM
	SEEDING & TOPSOIL (PERMANENT) WITHIN THE ROW ONLY
	ROLLED EROSION CONTROL MATTING, SEEDING & TOPSOIL (PERMANENT) FOR SLOPES 5:1 & STEEPER
	SEEDING & TOPSOIL (PERMANENT) FOR EASEMENTS, OPEN SPACE LOTS, AND VEGETATIVE FILTER STRIPS ON ALL SLOPES FLATTER THAN 5:1

\*ALL AREAS DISTURBED OUTSIDE OF THE SINGLE FAMILY LOTS ARE REQUIRED TO BE REVEGETATED BY THE CONTRACTOR



DESIGNED BY:	DATE	DRAPED BY:
SPC		CTJ

Carlson, Brigrance & Doering, Inc.  
Civil Engineering & Surveying

5501 West Williams Canyon Dr. Austin, Texas 78750  
12129 RR (23) N. Sec. 600 Austin, Texas 78750

PHONE NO. (512) 290-5160 FAX NO. (512) 290-5165

SHEET NAME:	EROSION CONTROL (2 OF 2)
JOB NAME:	SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4
PROJECT:	STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS

STEVEN P. CATES  
93648  
LICENSED PROFESSIONAL ENGINEER

CARLSON, BRIGRANCE & DOERING, INC.  
ID# F3791

12-5-2025

DATE:	DEC 2025
JOB NUMBER:	5742
SHEET:	7 OF 52
SHEET NO.:	7



**Specifications**

Western Excelsior manufactures a full line of Rolled Erosion Control Products (RECPs). EXCEL SS-2 temporary Erosion Control Blanket is composed of a 100% certified weed free agricultural straw matrix mechanically (stitch) bound on two inch centers between two photodegradable, synthetic nets. EXCEL SS-2 is intended for use in channels or on slopes requiring erosion protection for a period up to twelve months. Actual field longevity is dependent on soil and climatic conditions. Each roll of EXCEL SS-2 is made in the USA and manufactured under Western Excelsior's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness. Typical manufactured properties are provided in Table 1 and product characteristics are provided in Table 2.

Table 1 - Specified Expected Values

Tested Property	Test Method	Value
Tensile Strength (MD) x (TD)	ASTM D6818	10.0 lb/in (1.8 kN/m) x 5.2 lb/in (1.1 kN/m)
Elongation (MD) x (TD)	ASTM D6818	20% x 26%
Mass Per Unit Area	ASTM D6475	8.0 oz/yd <sup>2</sup> (271 g/m <sup>2</sup> )
Thickness	ASTM D6525	0.28 in (7 mm)
Light Penetration	ASTM D6567	22 % open
Water Absorption	ASTM D1117	450 %

Table 2 - Netting

Top Net Type	Synthetic, Photodegradable
Bottom Net Type	Synthetic, Photodegradable
Top Net Opening Dimensions	0.5 in (13 mm) x 0.5 in (13 mm)
Bottom Net Opening Dimensions	0.5 in (13 mm) x 0.5 in (13 mm)

EXCEL SS-2 is available in multiple roll sizes ranging in width from 8.0 ft. to 16.0 ft. and 112.5 ft. to 600 ft. in length. Standard roll sizes are 100 square yards, measuring 8.0 ft wide by 112.5 ft long. Custom roll sizes are available upon request.

Document # WE\_EXCEL\_SS2\_SPEC. This document has been developed to provide the characteristic properties of the product described. For questions, cost performance data or installation recommendations, contact Western Excelsior at 866-540-9810 or wexc@westernexcelsior.com. Updated 4/14/2014.

**I. PERMANENT EROSION CONTROL:**

- All disturbed areas outside of the single family lots shall be revegetated as noted below.
- All revegetated areas require a minimum of four (4) inches of topsoil to be placed prior to revegetation. Do not add topsoil within the critical root zone of existing trees.
- All revegetated areas are required to be watered immediately after installation to achieve germination and a healthy stand of plants that can ultimately survive without supplemental water. Apply the water uniformly to the planted areas without causing displacement or erosion of the materials or soil. Maintain the seedbed in a moist condition favorable for grass growth. A temporary sprinkler system must be installed in areas not accessible to a water truck. The sprinkler system must remain in place until acceptable grass growth per #4 below is established.
- Permanent erosion control shall be acceptable when the grass has grown at least 1 1/2 inches high with a minimum of 95 percent with no bare spots larger than 10 square feet.

**II. VEGETATIVE STABILIZATION:**

- Seed Mix:**
  - Seed mix shall be ordered from Native American Seed - 10101 FM 1102 New Braunfels, TX 78130 - (800) 728-4043
  - Dam Slope Mix Item #2808MIX 31222 (see mix below). You must submit to the engineer (via email at steve@cbdeng.com), a receipt showing total pounds purchased is equal to the seed rate multiplied by the total square footage of area to be revegetated. The dam slope mix seed rate is 2 lbs. per 1000 sq.ft. for Hydromulch.

Name	% by wt	Test Date	Germination	Dormant	Total Germ
Prairie Wildrye	16.70%	8/20/22	15%	70%	85%
Virginia Wildrye	14.32%	8/20/22	7%	85%	92%
Sideoats Grama	11.93%	8/20/22	54%	14%	68%
Big Bluestem	11.93%	7/20/22	97%	2%	99%
Tall Dropseed	8.95%	11/20/22	31%	51%	82%
Indiangrass	5.97%	7/20/22	51%	47%	98%
Purity: 85.18%	Inert: 14.81%	Other: 0.01%	Weed: 0%	Noxious: None	Origin: USA
Germ: 39.47%	Dormant: 45.22%	Til Germ: 84.69%	PLS: 72.14%	Seeds/lb: 264,245	Net Weight: 50 Lbs

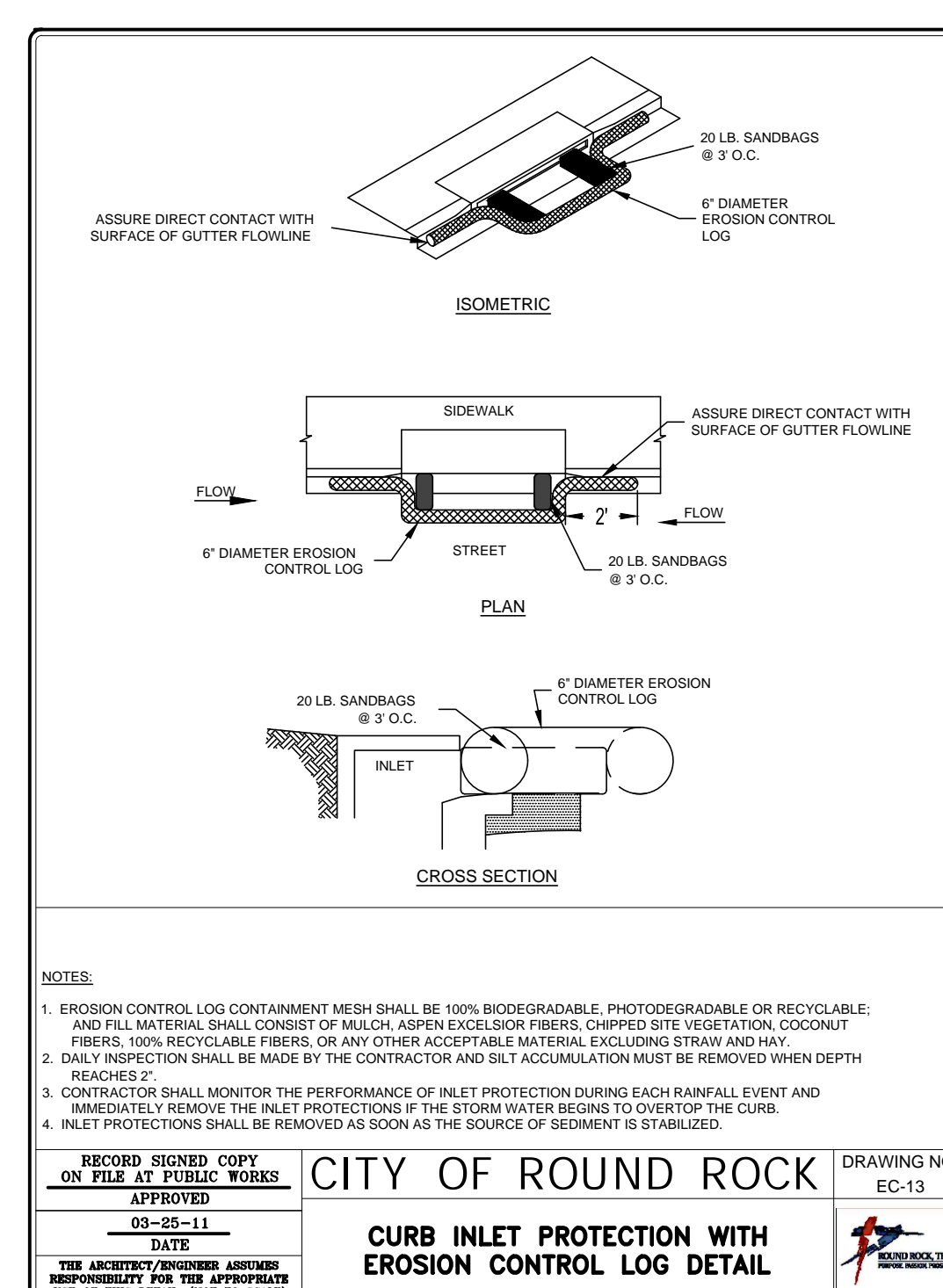
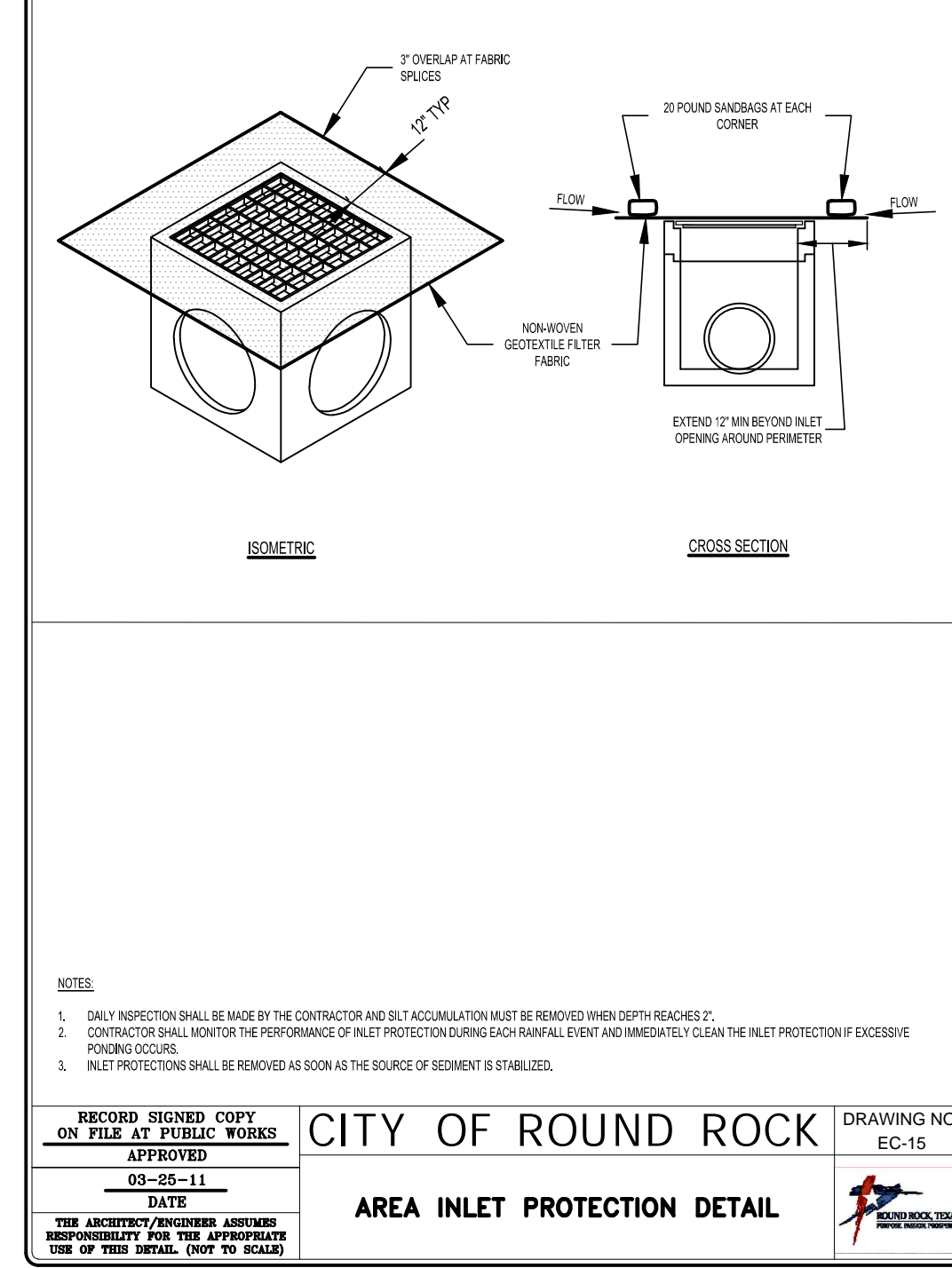
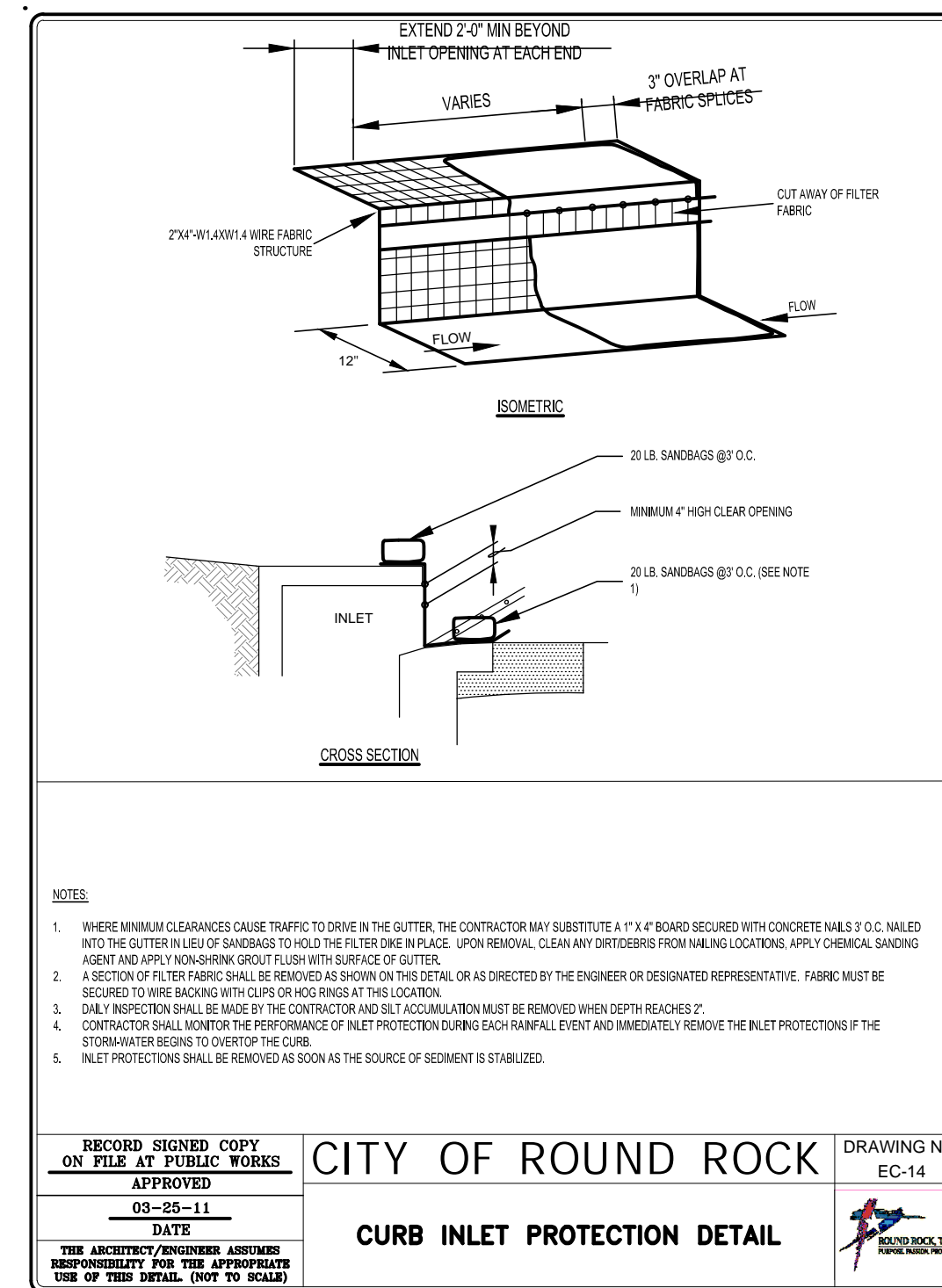
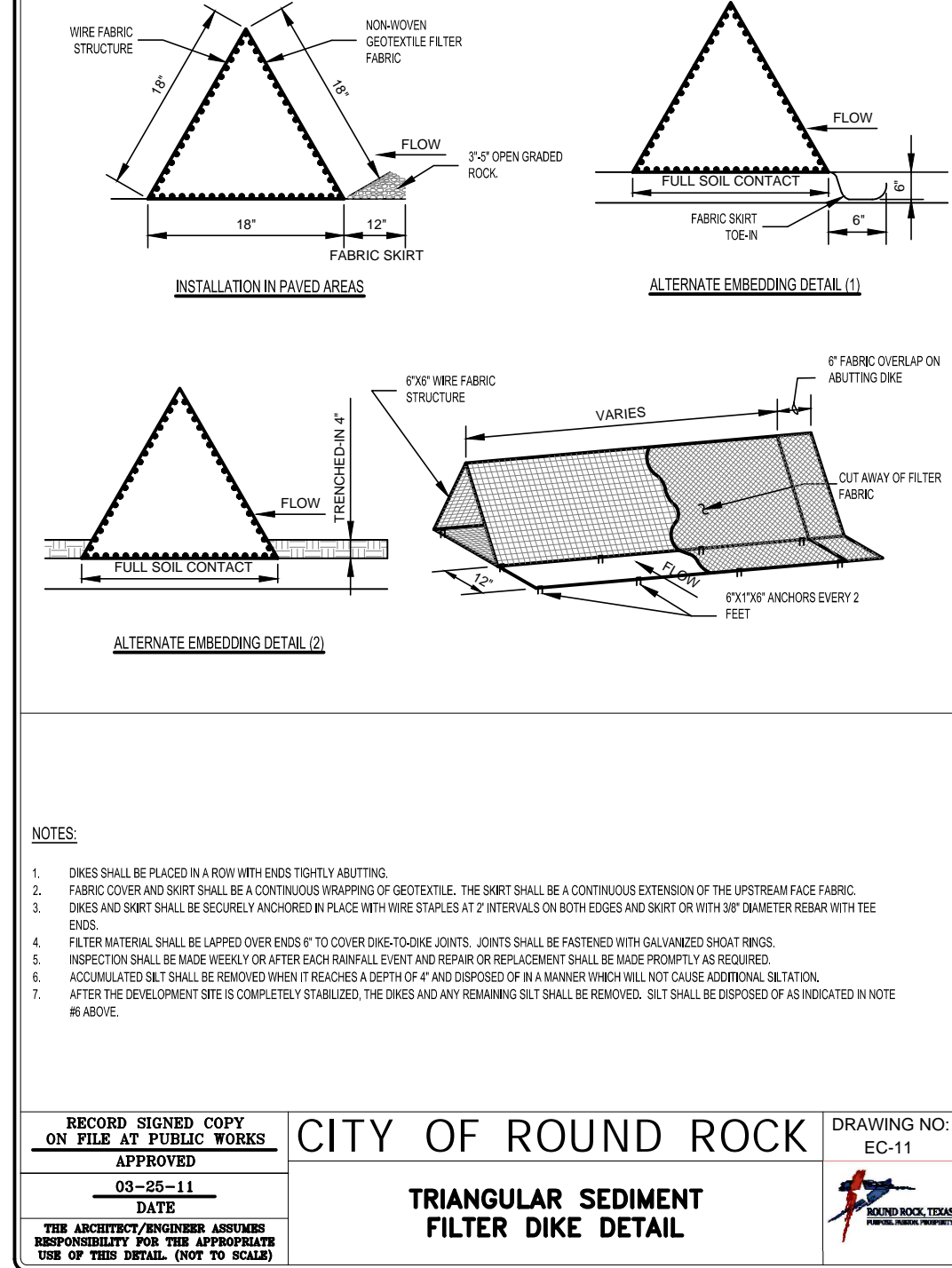
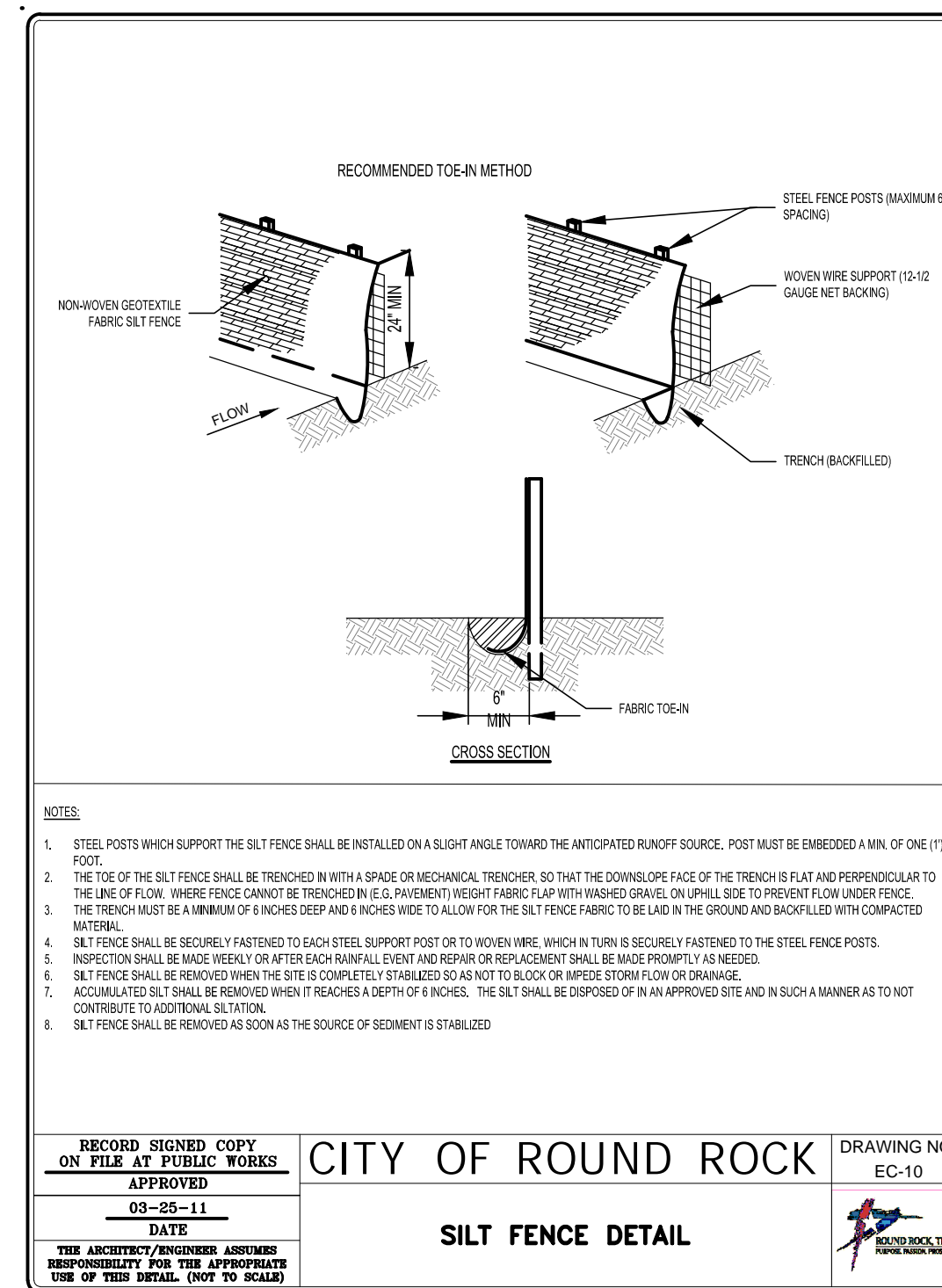
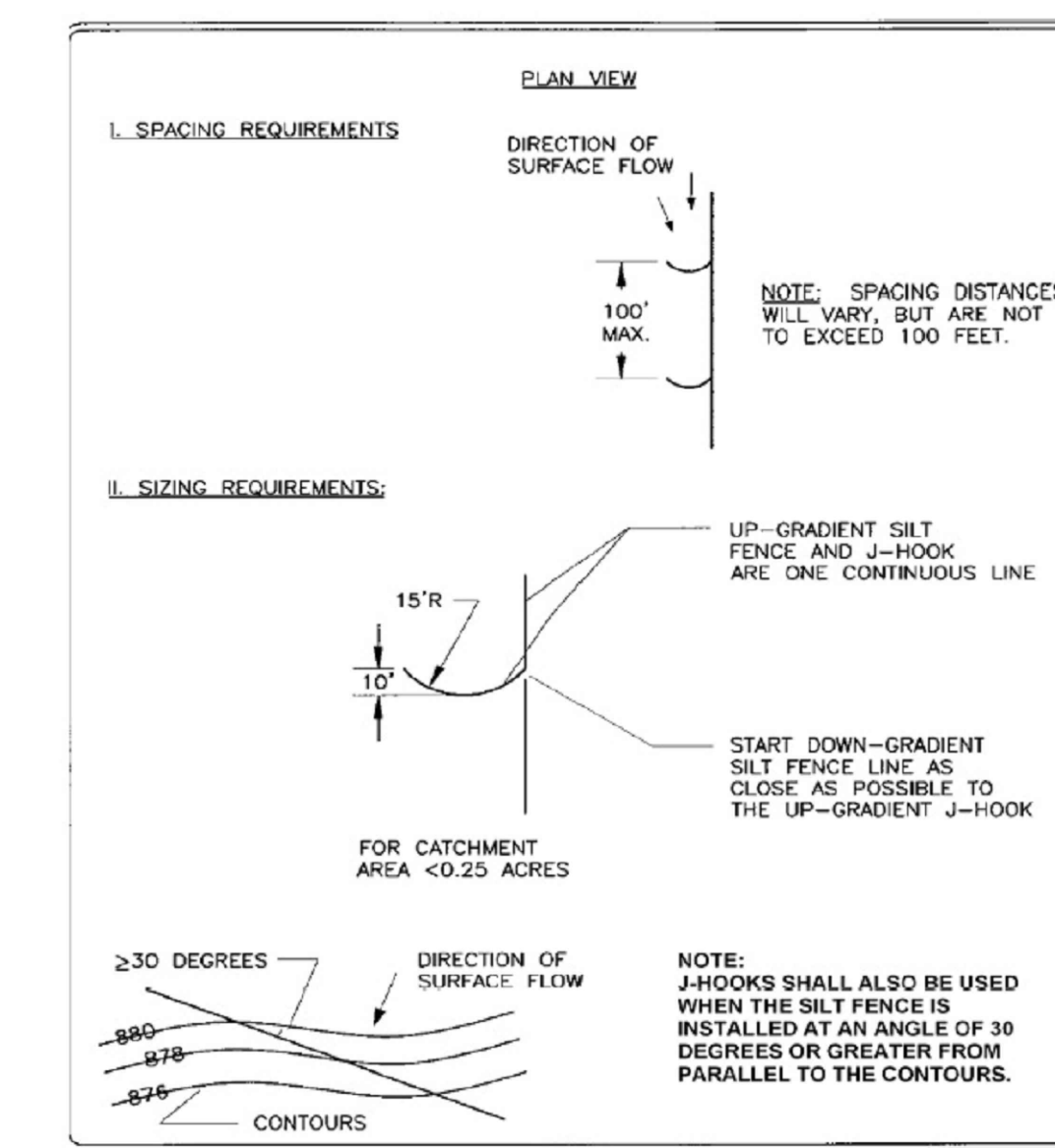
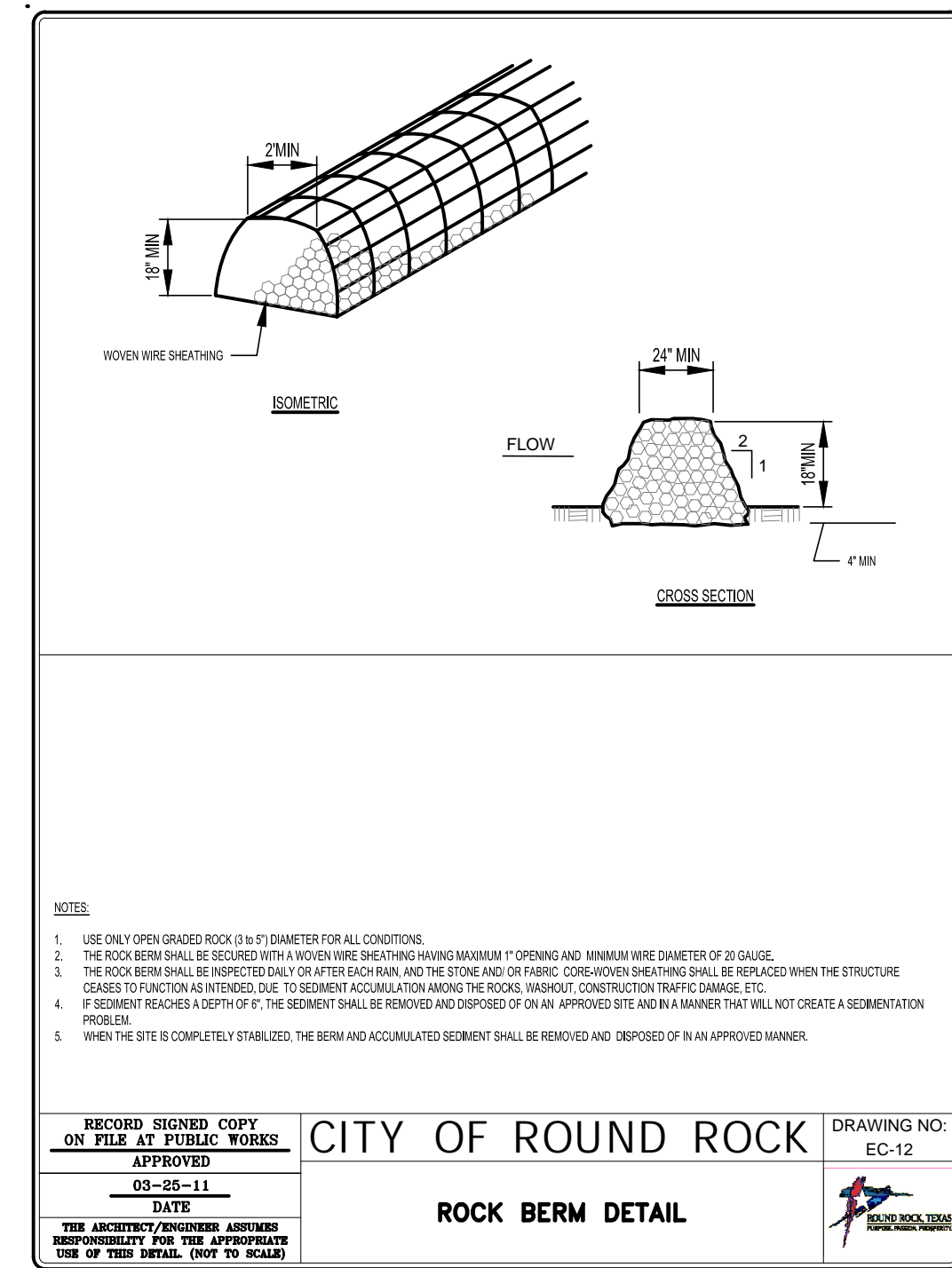
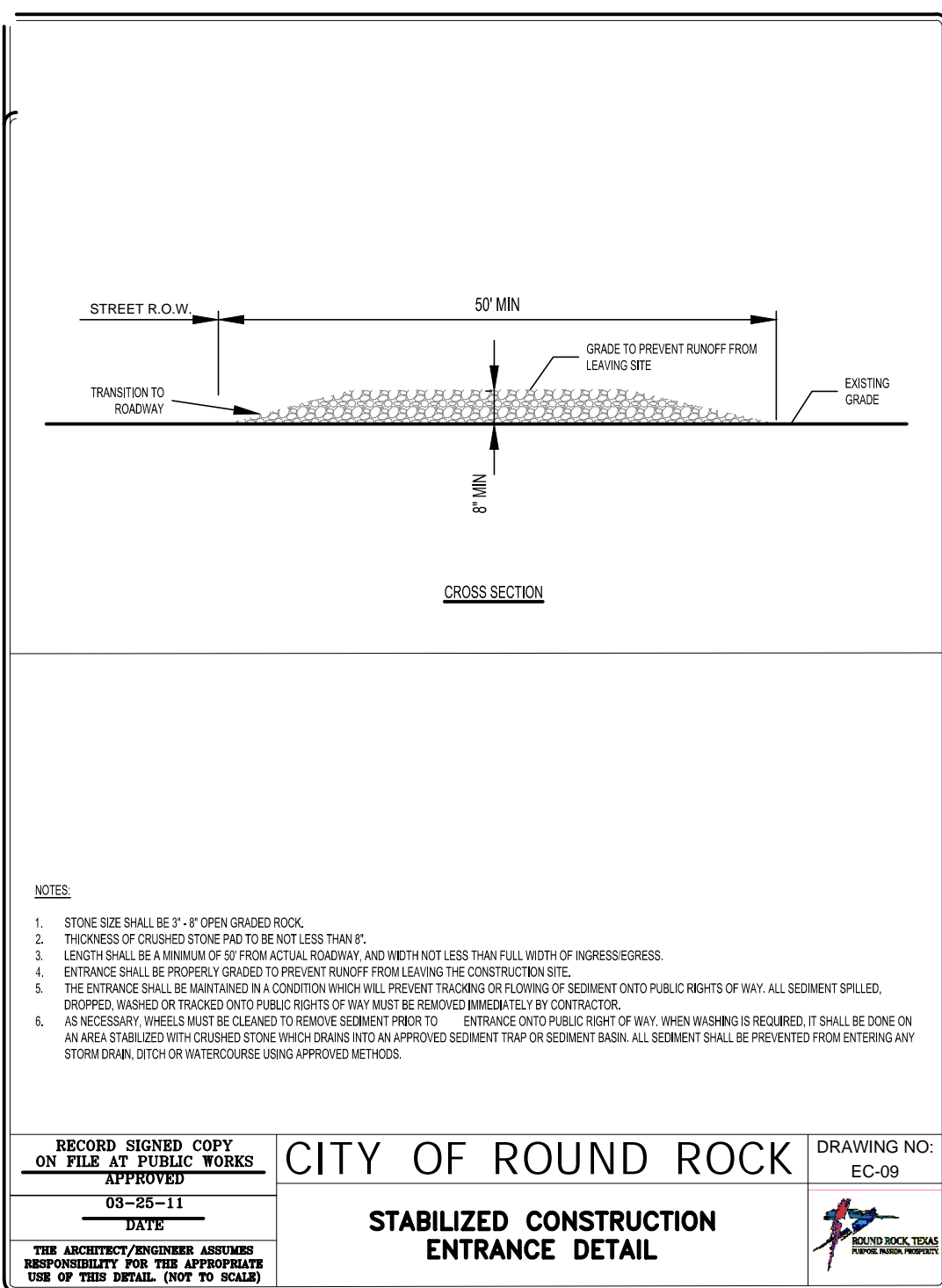
Little Bluestem 4.89%, Blue Grama 4.89%, Little Bluestem - Phenywoods 4.89%, Buffalograss 2.98%, Western Wheatgrass 2.98%, Switchgrass 1.79%, Eastern Gamagrass 1.12%, Sand Lovegrass 1.01%, Cane Bluestem 0.89%, Sand Dropseed 0.89%, Curly Mesquite 0.36%, Texas Cupgrass 0.18%, Slender Grama 0.030%

**2. Revegetation between September 15<sup>th</sup> to March 1<sup>st</sup>:**

- Add Cereal Rye Grain to Dam Slope Mix. You must submit to the engineer (via email at steve@cbdeng.com), a receipt showing total pounds purchased is equal to the seed rate multiplied by the total square footage of area to be revegetated. The cereal rye grain seed rate is 10 lbs. per 1000 sq.ft. for Hydromulch.
- Hydromulch shall comply with Table 1, below.

Material	Description	Longevity	Typical Applications	Application Rates
Bonded Fiber Matrix (BFM)	80% Organic defibrated fibers		On slopes up to 2:1 and erosive soil conditions	2,500 to 4,000 lbs per acre (see manufacturers recommendations)
10% Tackifier		6 months	On slopes up to 2:1 and erosive soil conditions	
Fiber Reinforced Matrix (FRM)	65% Organic defibrated fibers 25% Reinforcing Fibers or less 10% Tackifier	Up to 12 months	On slopes up to 1:1 and erosive soil conditions	3,000 to 4,500 lbs per acre (see manufacturers recommendations)

- Erosion Control Matting:**
  - Erosion control matting shall be installed within areas delineated on the Erosion Control Plan. Matting shall be EXCEL SS-2 per the specification on this sheet.



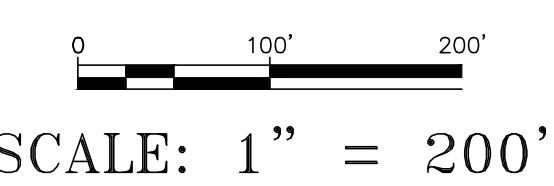
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DESIGNED BY: SPC	DRAFTED BY: CJJ
DATE:	
REVISION:	
SHEET NAME: EROSION CONTROL NOTES & DETAILS JOB NAME: SADDLEBACK AT SANTA RITA RANCH PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS	
DATE: DEC 2025 JOB NUMBER: 5742 SHEET: 8 OF 52 SHEET NO.: 8	



**LEGEND**

- PROPERTY BOUNDARY
- DRAINAGE BOUNDARY LINE
- FUTURE DRAINAGE BOUNDARY
- (A1) DRAINAGE AREA LABEL
- 940- EXISTING CONTOUR MAJOR
- EXISTING CONTOUR MINOR
- FLOW ARROW
- HP/LP HIGH POINT/LOW POINT



- NOTES:**
- REFERS TO DEVELOPED AREAS THAT DO NOT DRAIN TO A TREATMENT BMP. TREATMENT PONDS HAVE BEEN SIZED TO TREAT DRAINING AREA BEYOND THE REQUIRED 80% TSS REDUCTION TO ACCOUNT FOR TSS REMOVAL FROM OFFSET AREAS.
  - REFERS TO DEVELOPED AREAS THAT ARE ACCOUNTED FOR IN THE PROJECT AREA FOR AN EXISTING BMP, BUT ARE DRAINING TO A PROPOSED BMP. THESE AREAS DO NOT CONTRIBUTE TO PROJECT AREA, BUT ARE INCLUDED IN ONSITE DRAINAGE BASIN OF PROPOSED BMP.

RANDOLPH HENSON  
(11.9683 ACRE)  
1997033419

JAMES & MARY WADE  
(11.9992 ACRES)  
2008094091

MICHAEL FLEETWOOD  
(12.0052 ACRES)  
2013118510

JESLACKRP2  
10.106 ACRES  
DOC. #  
2017109336

**SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4**

**Table 1 - Impervious Cover per Section**

Sections	TCEQ Project Area Per Section				Onsite Drainage Basin to BMP Per Section				TSS Removal Required (lbs)				
	Contributing Sections	Project Area (ac)	# Lots	Impervious Areas (ac)	Drainage Basin (ac)	# Lots	Impervious Areas (ac)	Total					
			Lots	ROW	Misc.	Total	Lots	ROW	Misc.	Total			
<b>EXISTING BATCH DETENTION POND S3</b>													
1-1	24.63	91	7.31	2.98	0.00	10.29	24.63	91	7.31	2.98	0.00	10.29	8,956
1-2	47.42	182	14.88	8.25	0.00	23.13	47.05	179	14.63	8.25	0.00	22.88	20,132
1-3	5.89	38	3.06	1.04	0.00	4.11	5.89	38	3.06	1.04	0.00	4.11	3,577
2-1	0.25	0	0.00	0.00	0.14	0.00	0.25	0	0.00	0.00	0.14	0.00	122
2-4	0.18	0	0.00	0.15	0.00	0.15	0.18	0	0.00	0.12	0.00	0.12	131
2-FUTURE	0.78	0	0.00	0.00	0.00	0.00	0.78	0	0.00	0.00	0.00	0.00	0
<b>EXISTING BATCH DETENTION POND S5</b>													
2-1	15.63	0	0.13	3.86	0.44	4.43	15.02	0	0.13	3.57	0.44	4.14	3,856
2-2	2.99	13	1.07	0.31	0.00	1.38	0.00	0	0.00	0.00	0.00	0.00	1,201
2-4	7.06	0	0.00	2.05	0.00	2.05	6.36	0	0.00	1.82	0.00	1.82	1,784
2-FUTURE	55.25	0	0.00	0.00	0.00	0.00	55.25	0	0.00	0.00	0.00	0.00	0
OPEN SPACE	7.79	0	0.00	0.00	0.00	0.00	7.79	0	0.00	0.00	0.00	0.00	0
<b>SADDLEBACK AT SANTA RITA BATCH PHASE 2 SECTION 4</b>													
2-2	7.24	0	0.00	2.20	0.00	2.20							1,915

**Table 2 - BMP Treatment Requirements**

Project Area	Drainage Basin				BMP Treatment Provided					
	Total (ac)	Impv Area (ac)	Required TSS Removal (lbs)	Onsite	Offsite	Total	Permanent Pool (cf)			
				Total (ac)	Impv Area (ac)	Total (ac)	Impv Area (ac)	Required	Provided	
<b>EXISTING BATCH DETENTION POND S3</b>										
79.15	37.68	32,918	78.78	37.40	0.00	0.00	78.78	37.40	162,893	174,205
<b>EXISTING BATCH DETENTION POND S5</b>										
88.72	7.86	6,841	84.42	5.96	0.00	0.00	84.42	5.96	93,338	269,946

DESIGNED BY: SPC  
DRAFTED BY: CTJ

DATE: \_\_\_\_\_

REVISION: \_\_\_\_\_

**Carlson, Brigrance & Doering, Inc.**  
Civil Engineering & Surveying  
FIRM ID #E3791  
12129 RR (23) N. Ste. 600  
Austin, Texas 78750  
Phone No. (512) 280-5160 Fax No. (512) 280-5165

**C&D**

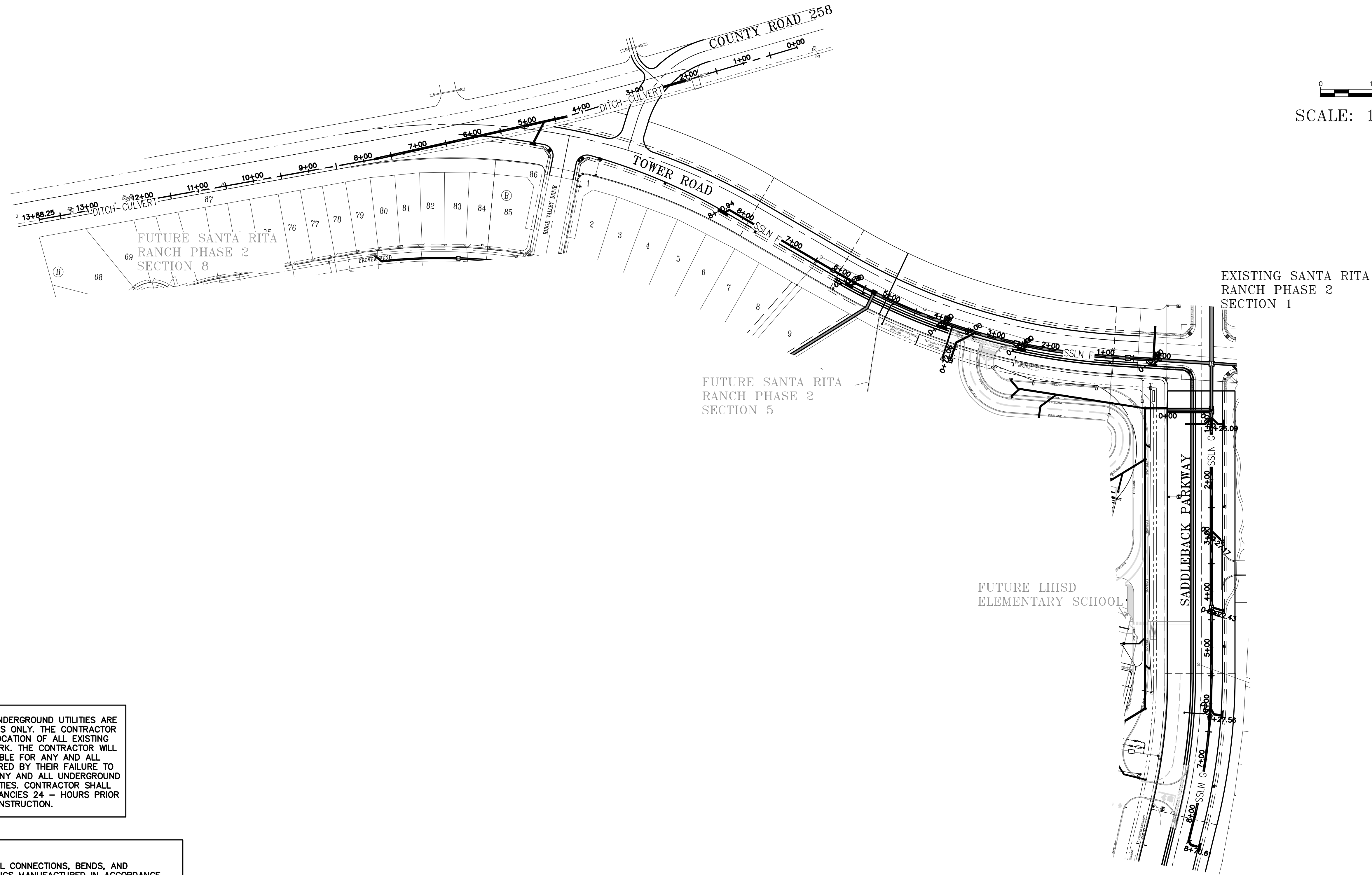
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JOB NAME: SADDLEBACK AT SANTA RITA RANCH  
PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS  
PHASE 2 SECTION 4

STATE OF TEXAS  
STEVEN P. GATES  
93648  
LICENSED PROFESSIONAL ENGINEER

CARLSON, BRIGRANCE & DOERING, INC.  
ID# F3791  
*Steven P. Gates*  
**12-5-2025**

DATE: DEC 2025  
JOB NUMBER: 5742  
SHEET: 11 OF 52  
SHEET NO.: 11

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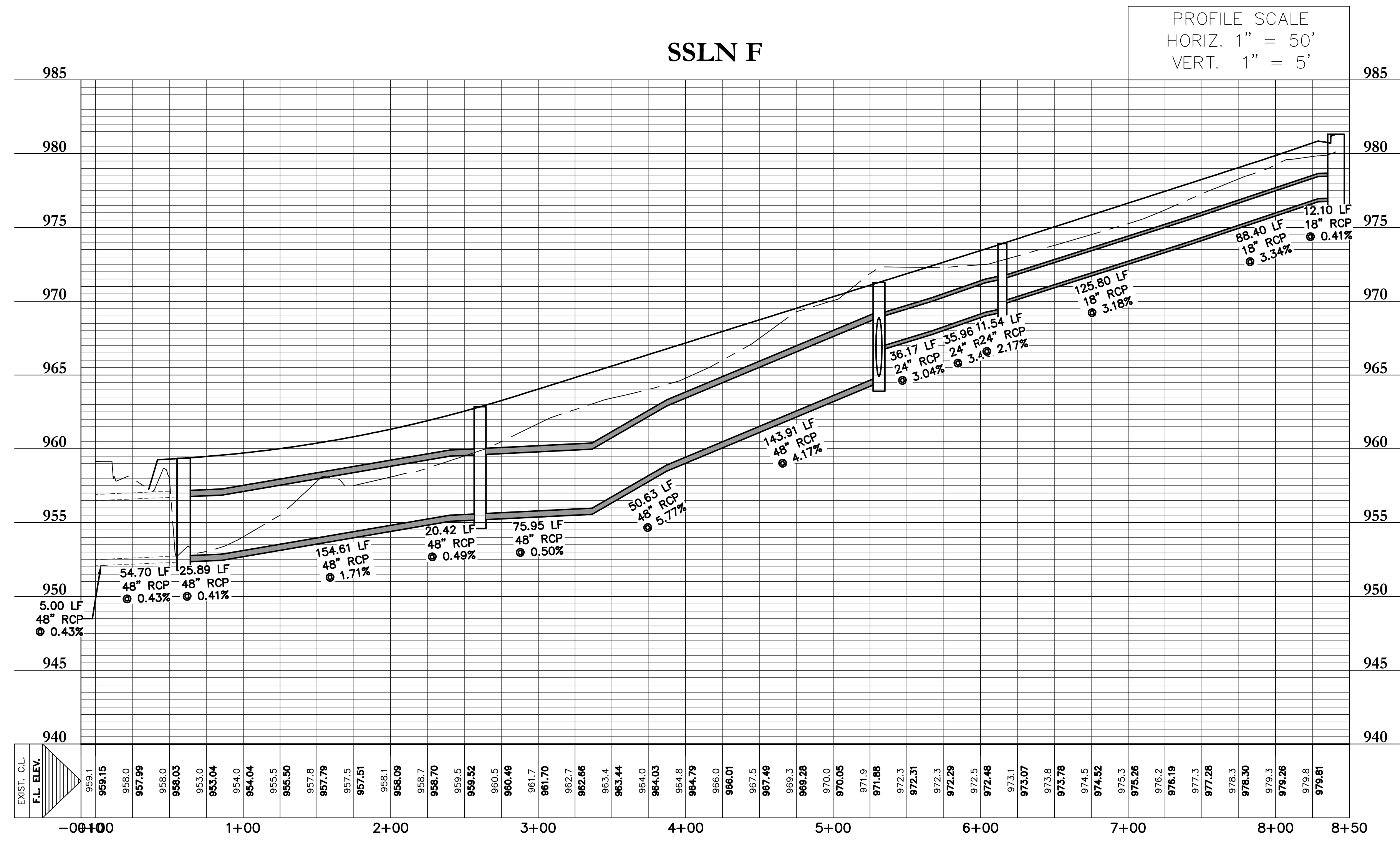
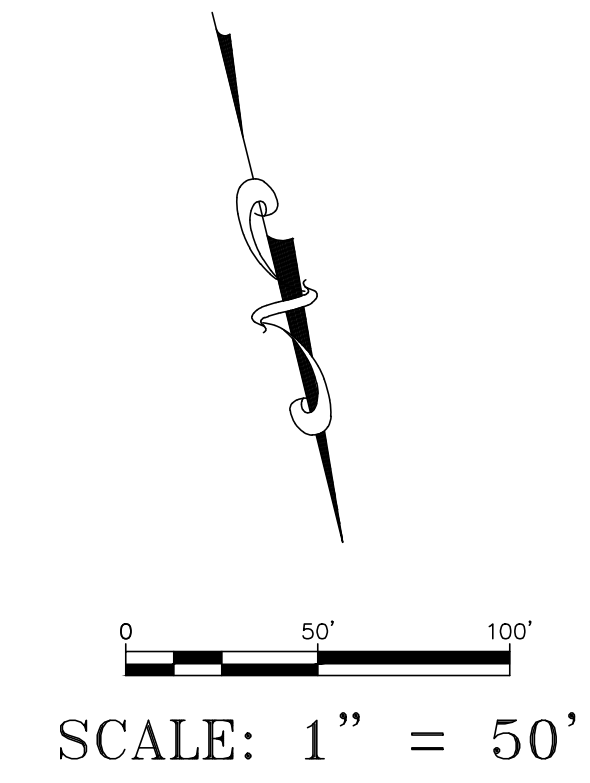
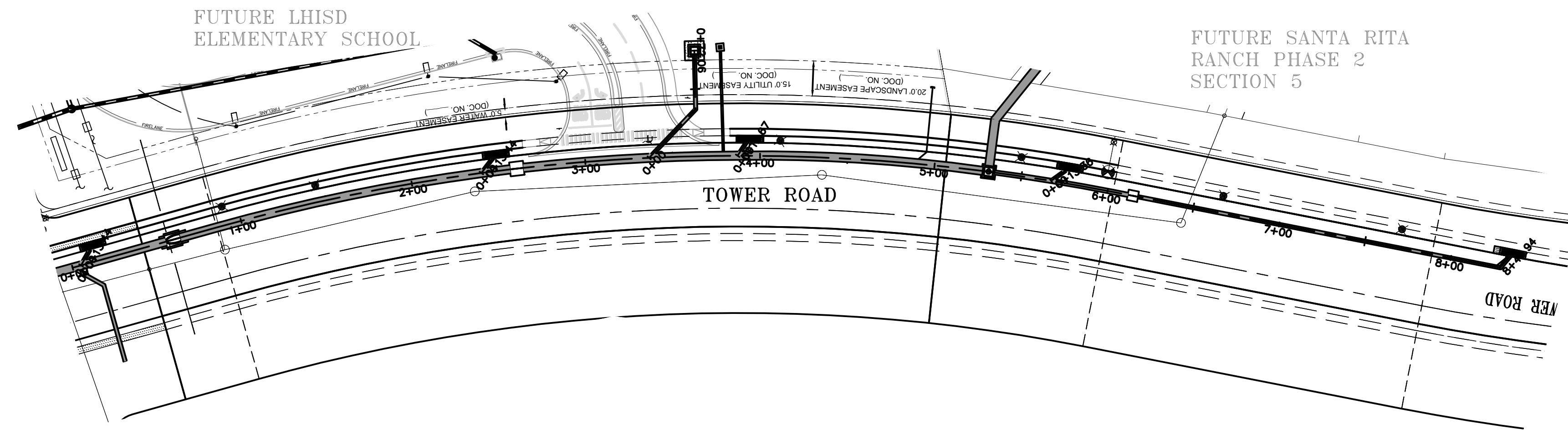
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SCALE: 1" = 100'

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  2. WHERE STORM DRAINAGE IS SHOWN TO BE INSTALLED ON A CURVE THE CONTRACTOR SHALL SUBMIT A LAYING SCHEDULE DEMONSTRATING ANTICIPATED JOINT SEPARATIONS USING 8' JOINTS, A COMBINATION OF 8' AND 4' JOINTS, OR LONG RADIUS PIPE TO ACHIEVE THE NECESSARY RADIUS WITHOUT EXCESSIVE JOINT SEPARATION. PROPOSED INSTALLATION METHOD SHALL BE APPROVED BY THE ENGINEER AND WILLIAMSON COUNTY PRIOR TO COMMENCING PIPE LAYING OPERATIONS.

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DESIGNED BY: SPC	DRAFTED BY: CTJ
DATE	
REVISION	
Carlsson, Brigrance & Doering, Inc. Civil Engineering & Surveying FIRM ID #E3791 Main Office: 5501 West Williams Canyon Dr., Austin, Texas 78749 North Office: 12129 RR (23) N., Suite 600, Austin, Texas 78750 Phone No. (512) 290-5160 Fax No. (512) 290-5165	
<b>OVERALL STORMSEWER PLAN</b> <b>SADDLEBACK AT SANTA RITA RANCH</b> <b>PHASE 2 SECTION 4</b>	
SHEET NAME: OVERALL STORMSEWER PLAN JOB NAME: SADDLEBACK AT SANTA RITA RANCH PHASE 2 SECTION 4 PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS	
CARLSSON, BRIGRANCE & DOERING, INC. ID# F3791 <b>12-5-2025</b>	
DATE	DEC 2025
JOB NUMBER	5742
SHEET	29 OF 52
SHEET NO.	29

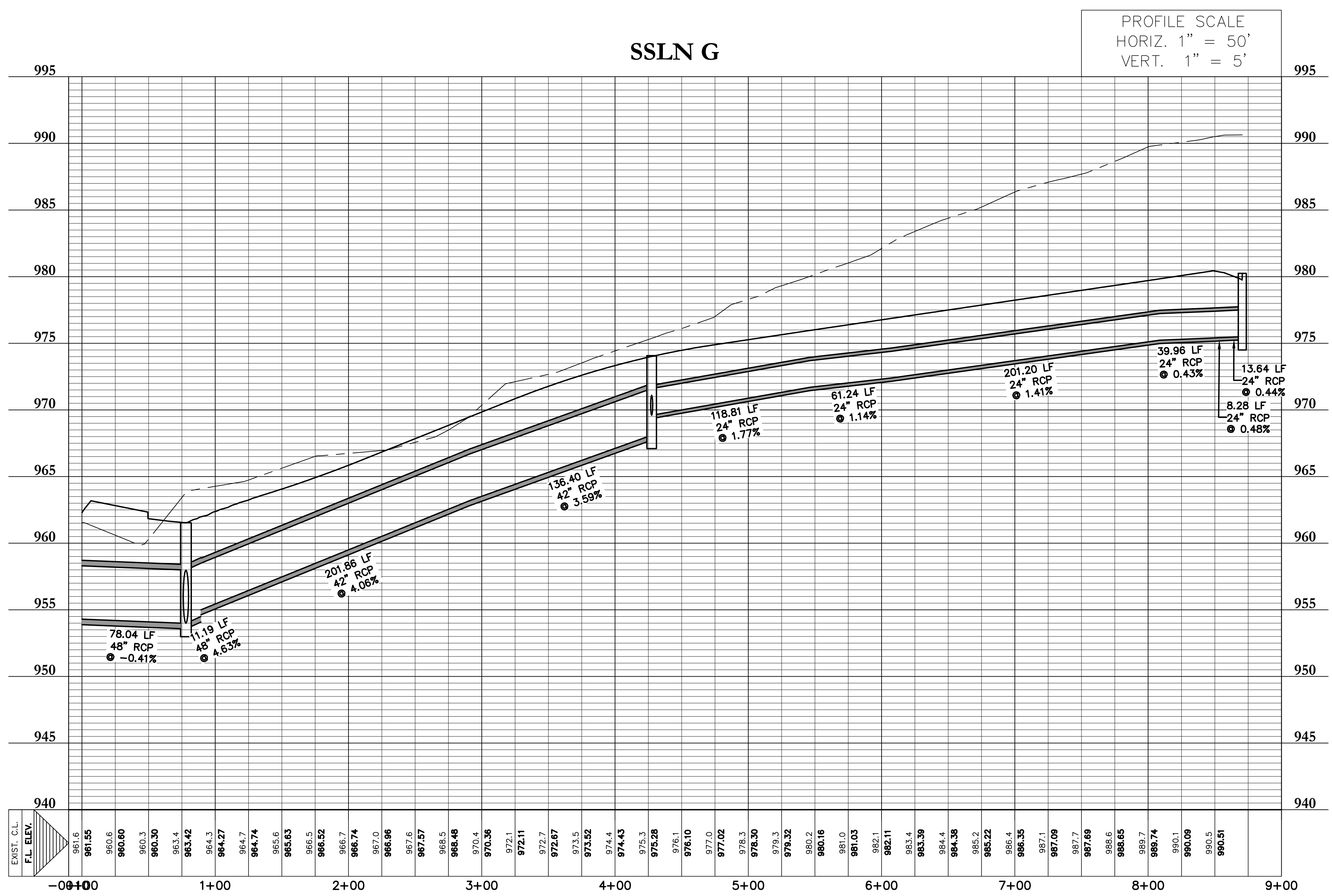
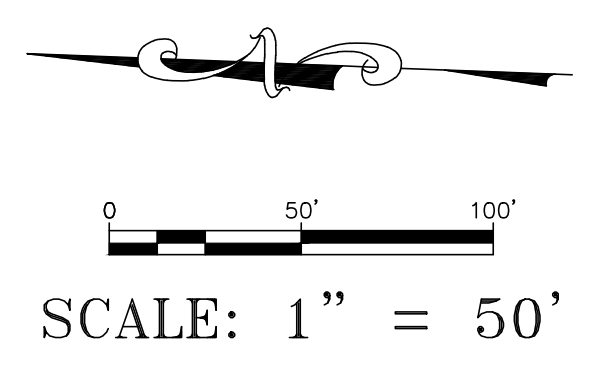
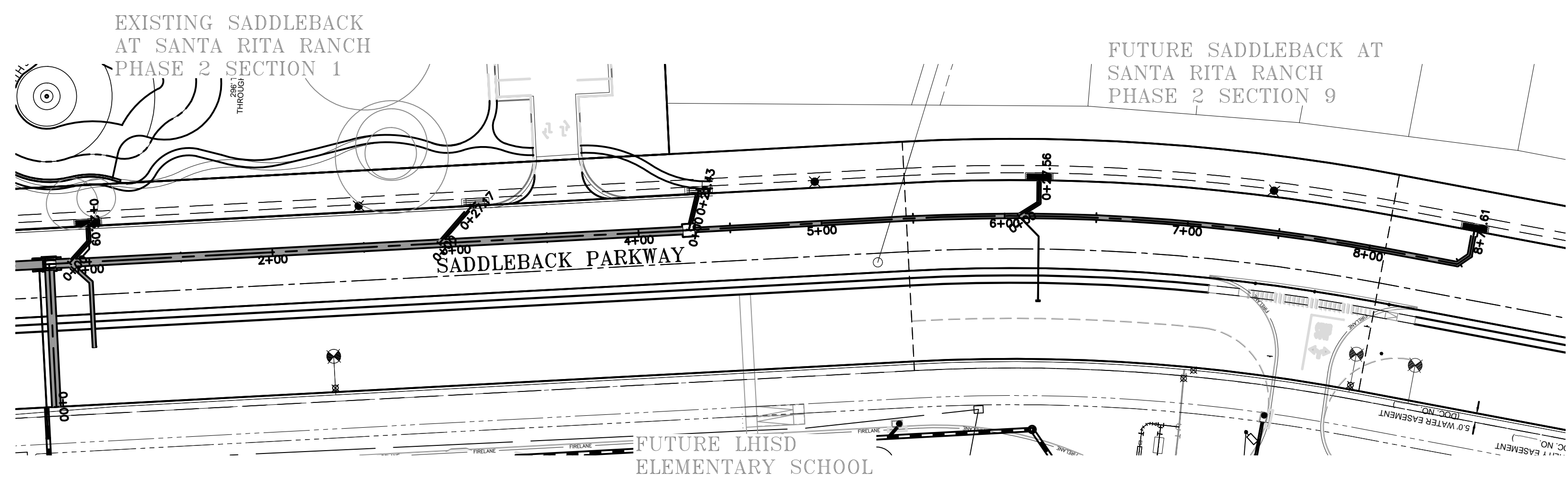


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DESIGNED BY: SPC	DRAFTED BY: CTJ
DATE	
REVISION	
Carlsson, Brigrance & Doering, Inc. Civil Engineering & Surveying FIRM ID #E3791 5501 West Williams Canyon Dr. Austin, Texas 78749 Phone No. (512) 290-5160 Fax No. (512) 290-5165	
SHEET NAME: STORM SEWER LINE F (0+00 TO END) JOB NAME: SADDLEBACK AT SANTA RITA RANCH PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS	
DATE: DEC 2025 JOB NUMBER: 5742 SHEET: 30 OF 52 SHEET NO.: 30	

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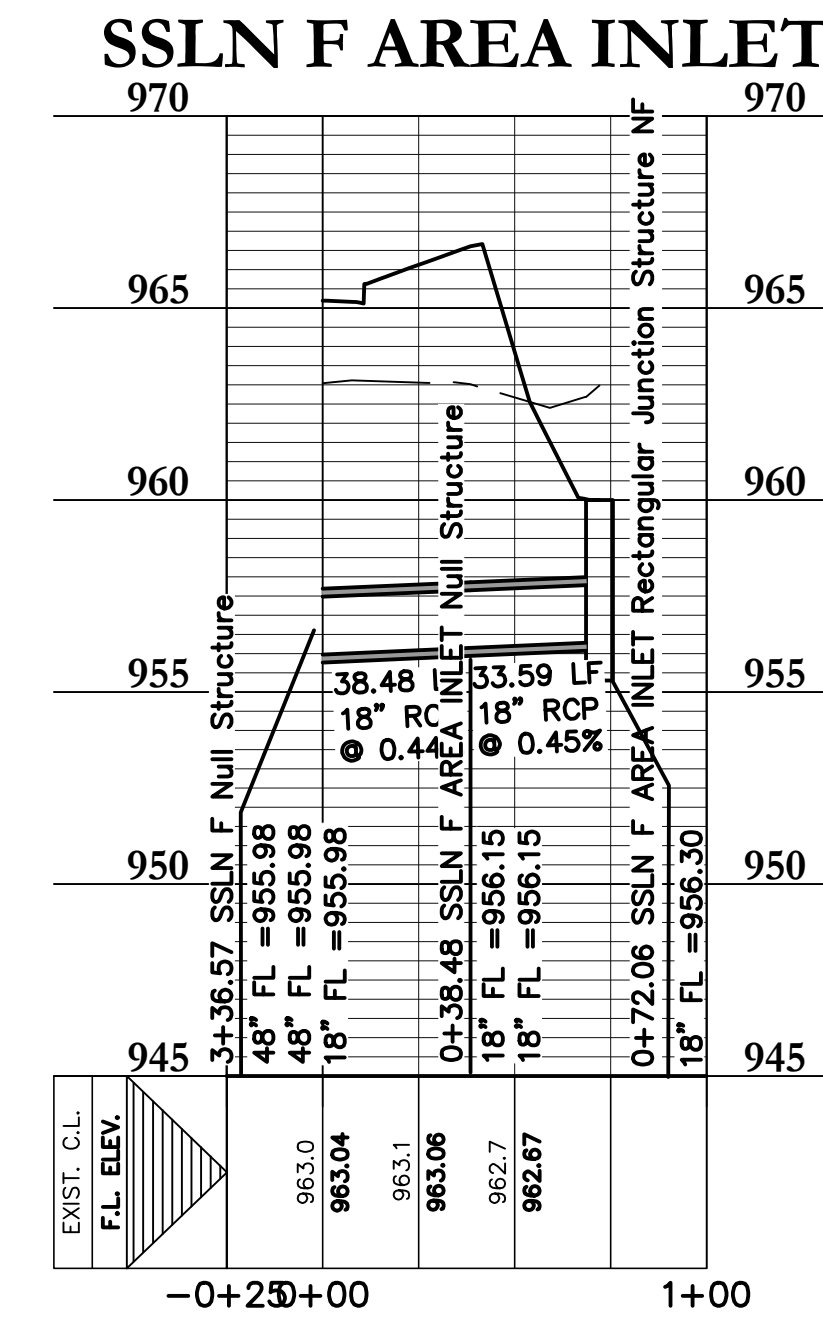
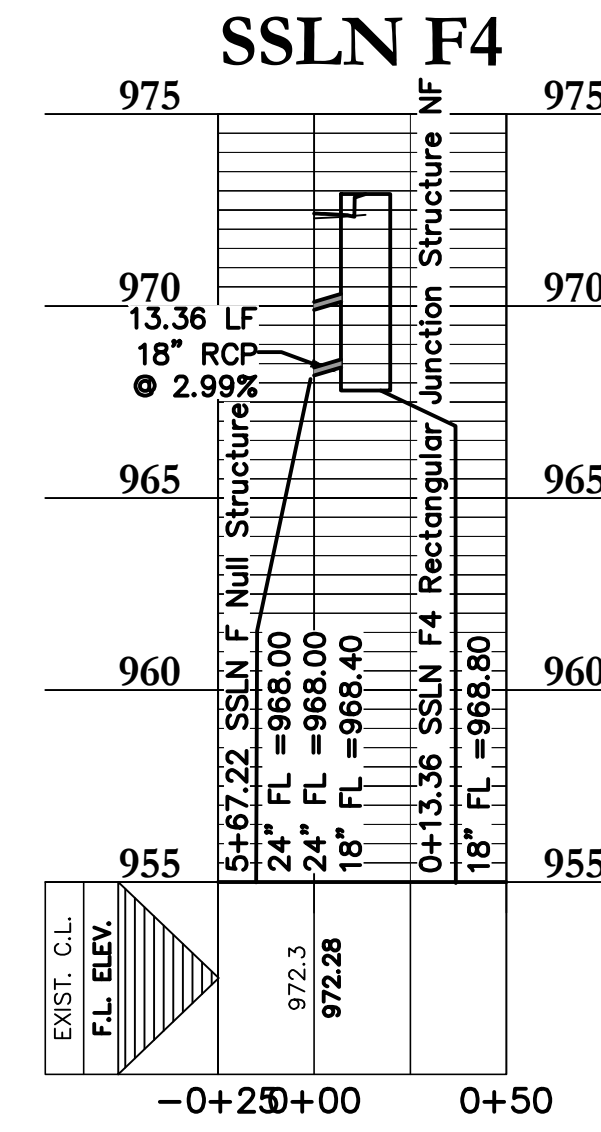
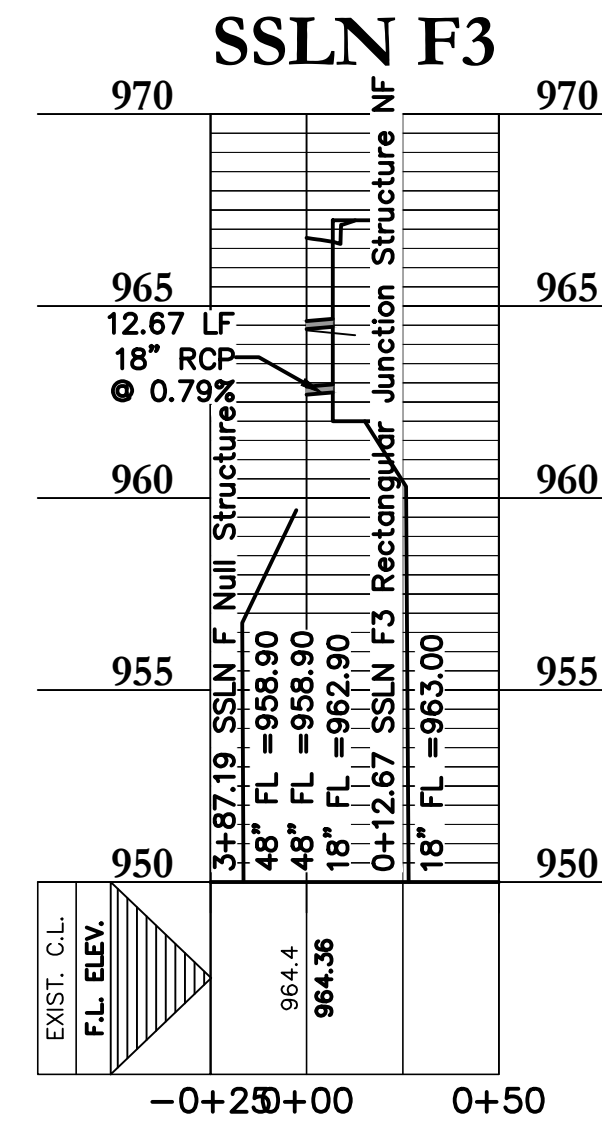
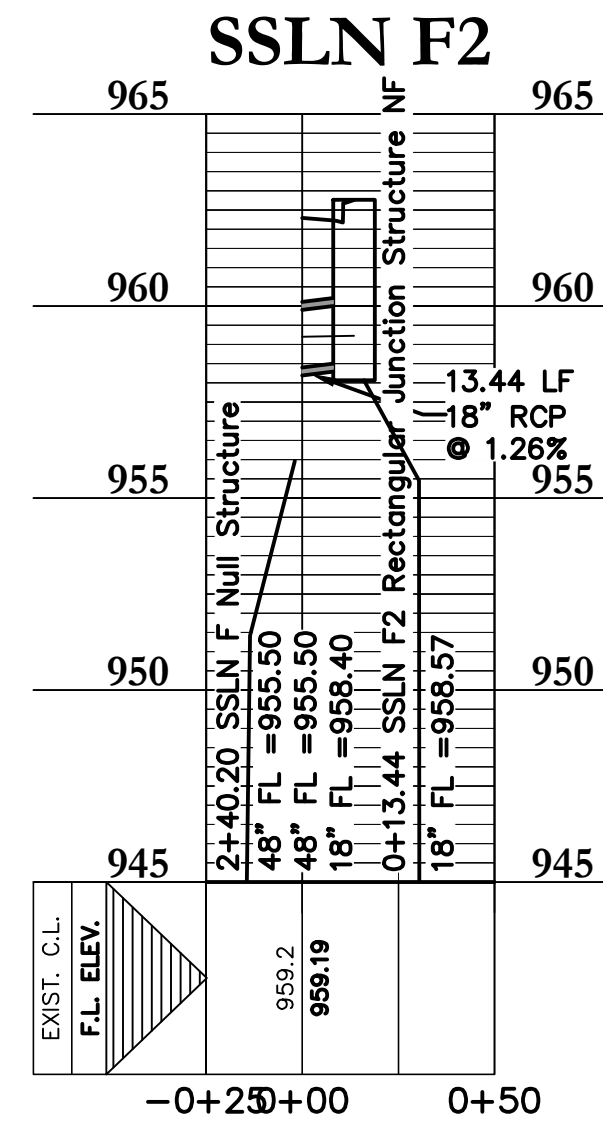
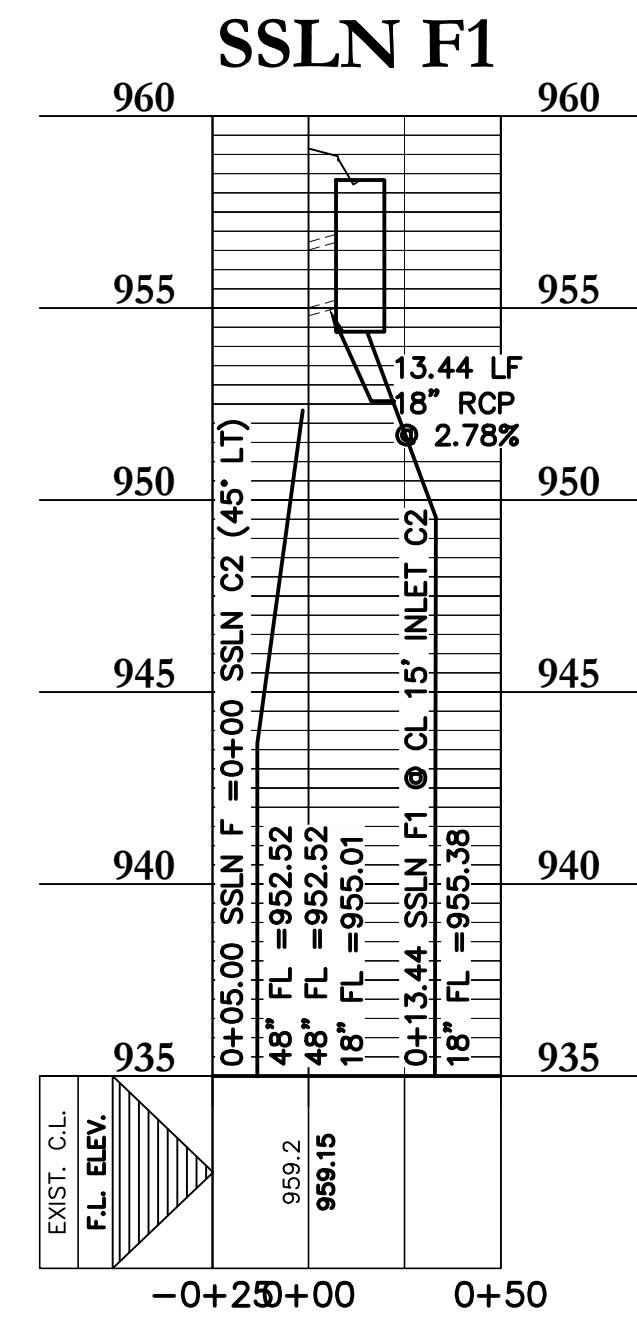
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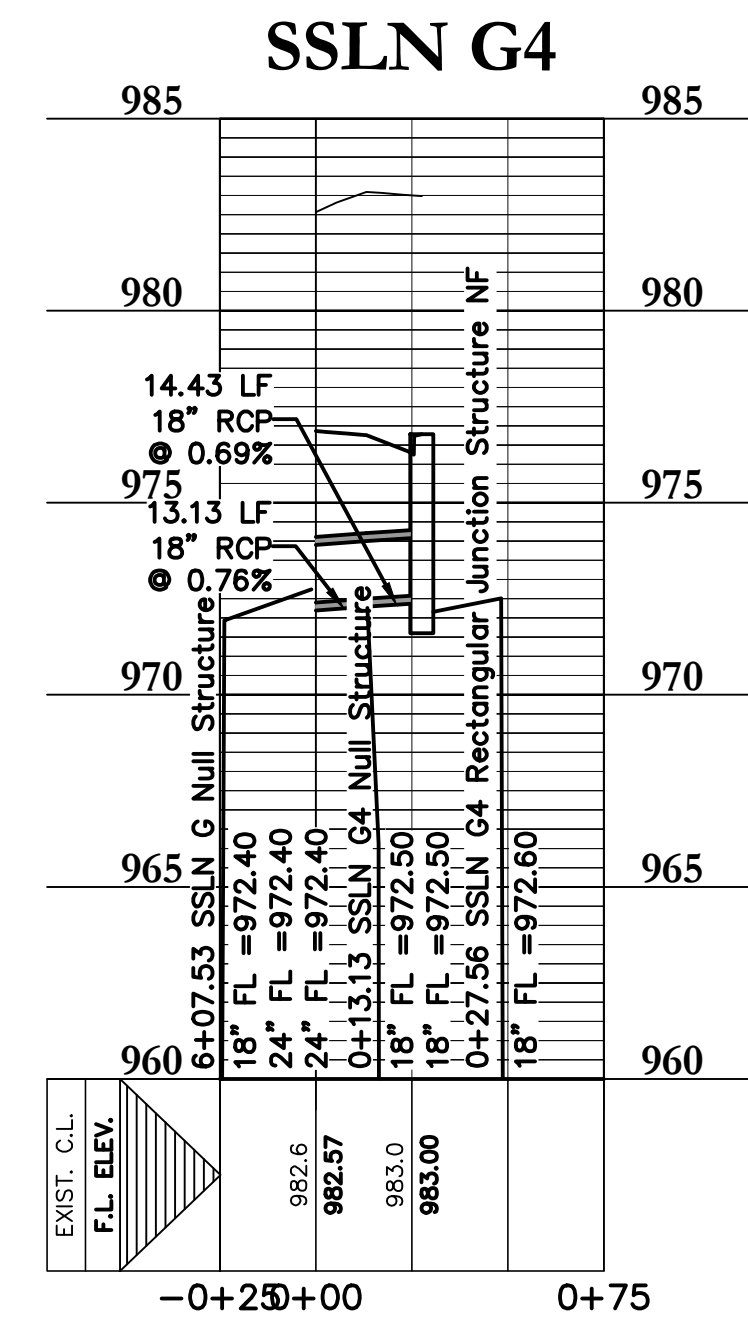
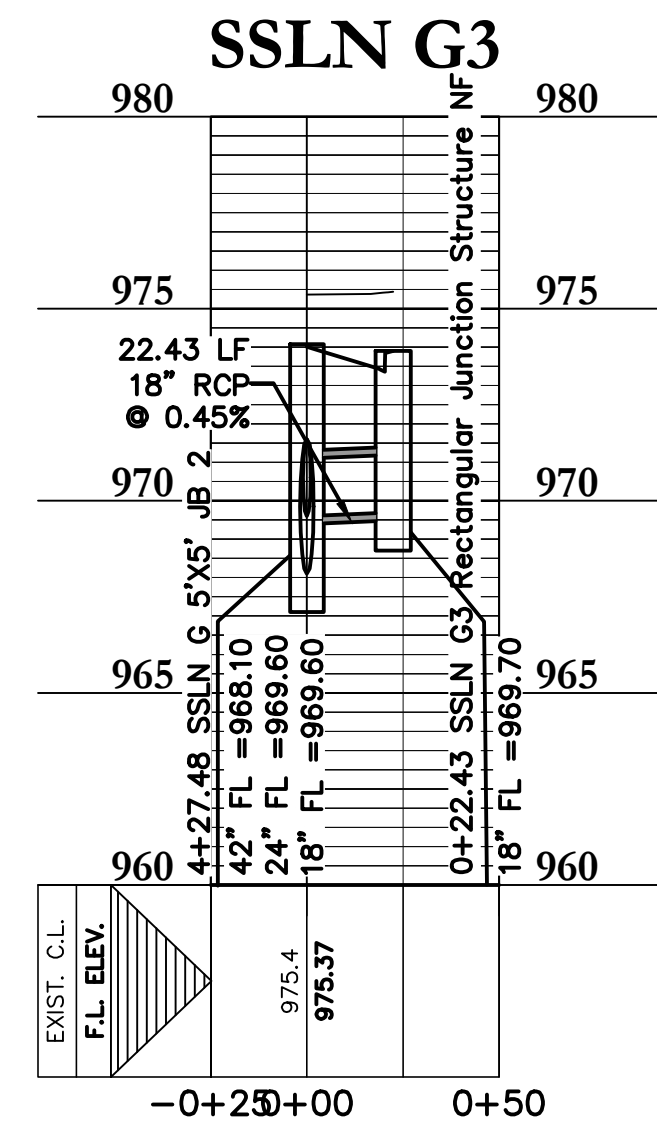
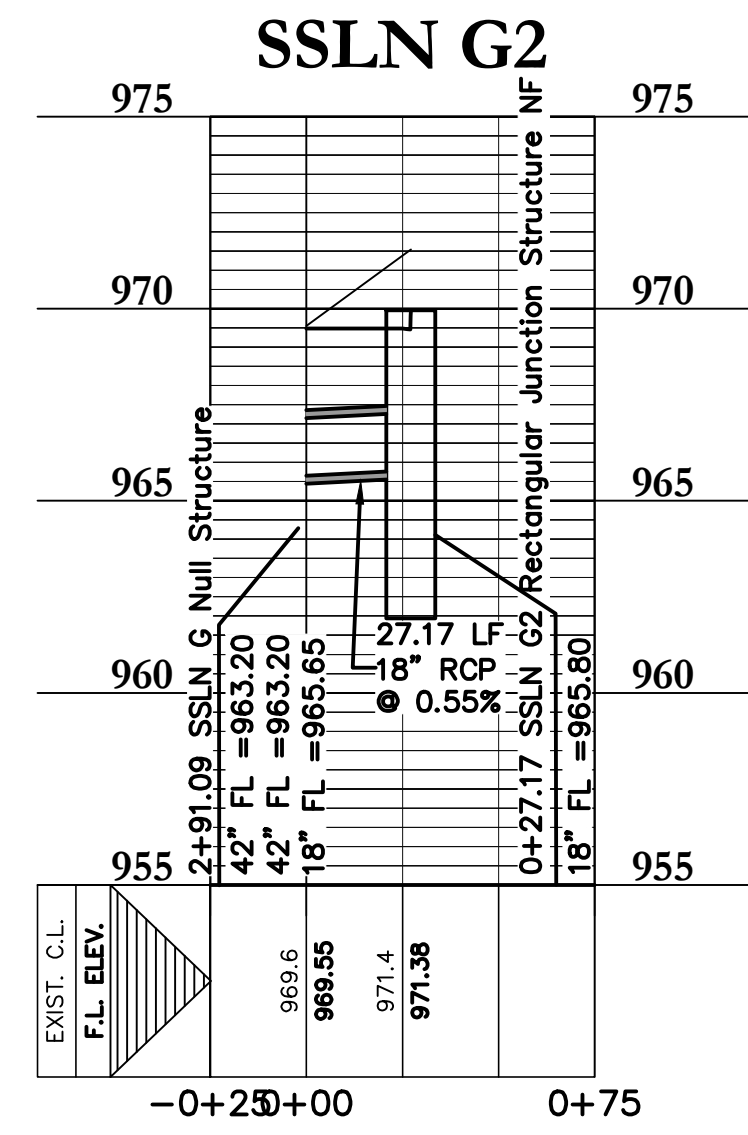
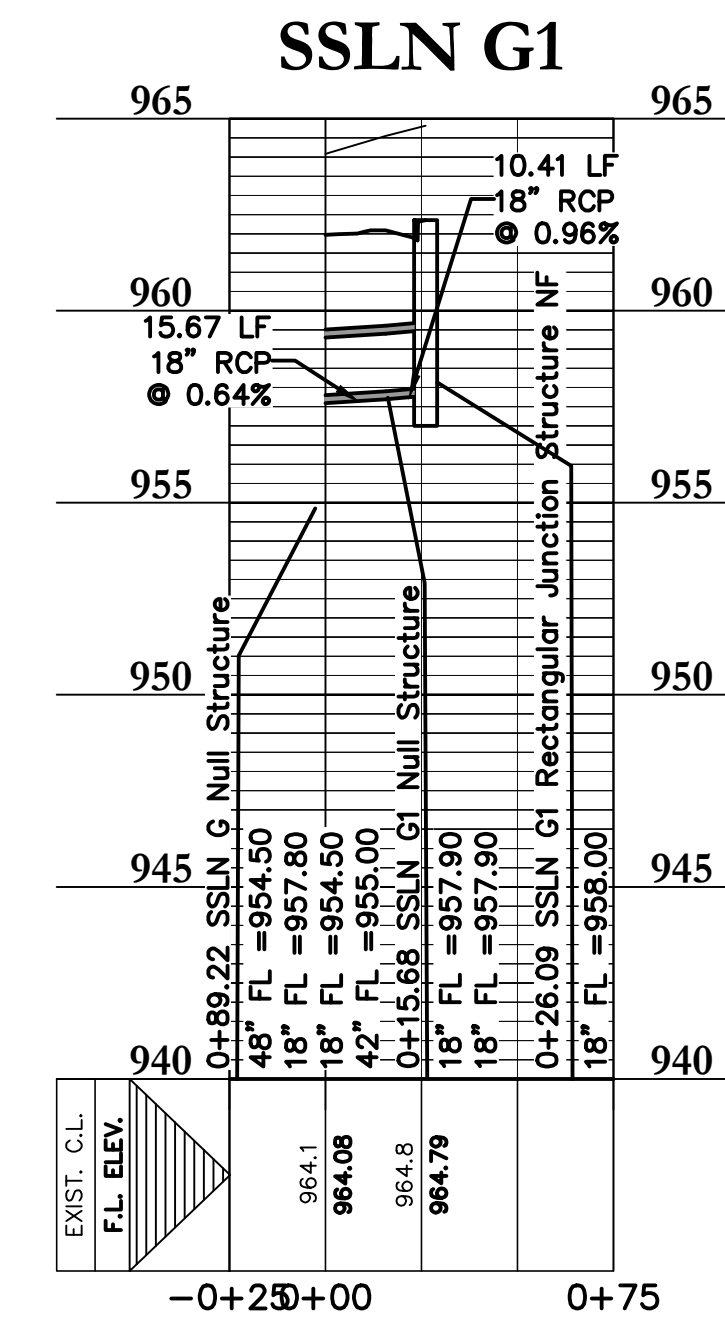
DESIGNED BY: SPC	DRAFTED BY: CTJ
DATE	
REVISION	
Carlsson, Brigrance & Doering, Inc. Civil Engineering & Surveying FIRM ID #E3791 5501 West Williams Canyon Dr. Austin, Texas 78749 Phone No. (512) 290-5160 Fax No. (512) 290-5165	
<b>SHEET NAME: STORM SEWER LINE G (0+00 TO END)</b> <b>JOB NAME: SADDLEBACK AT SANTA RITA RANCH</b> <b>PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS</b>	
<b>12-5-2025</b>	
DATE	DEC 2025
JOB NUMBER	5742
SHEET	31 OF 52
SHEET NO.	31

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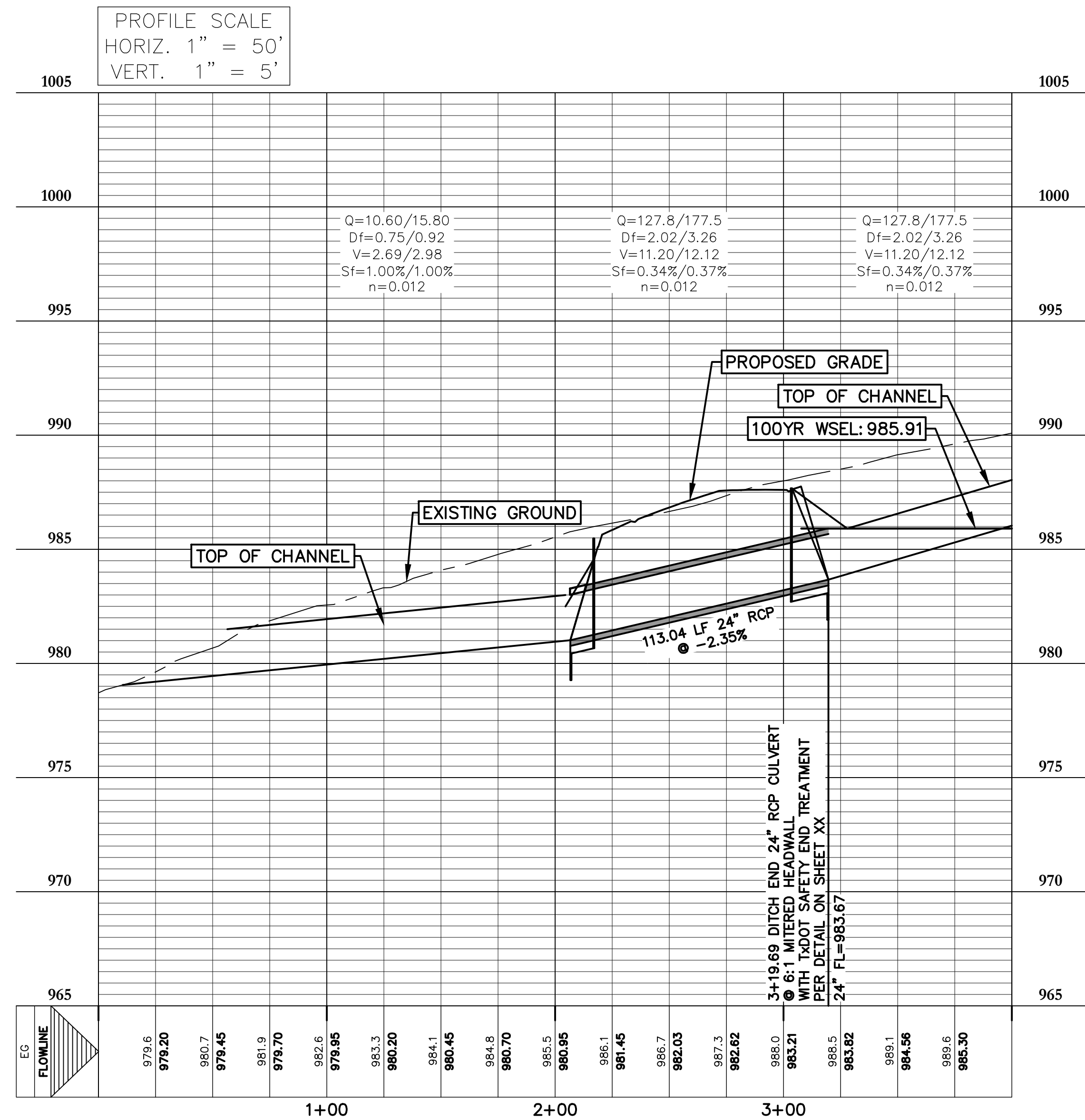
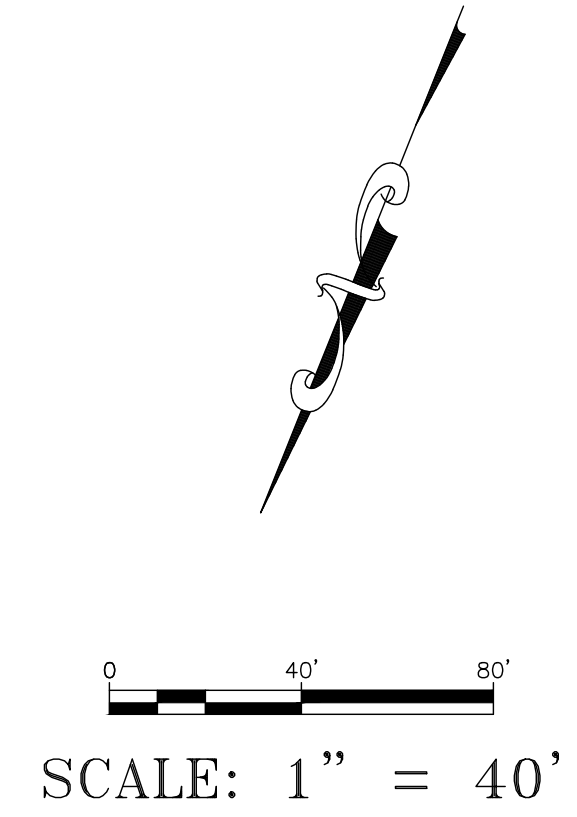
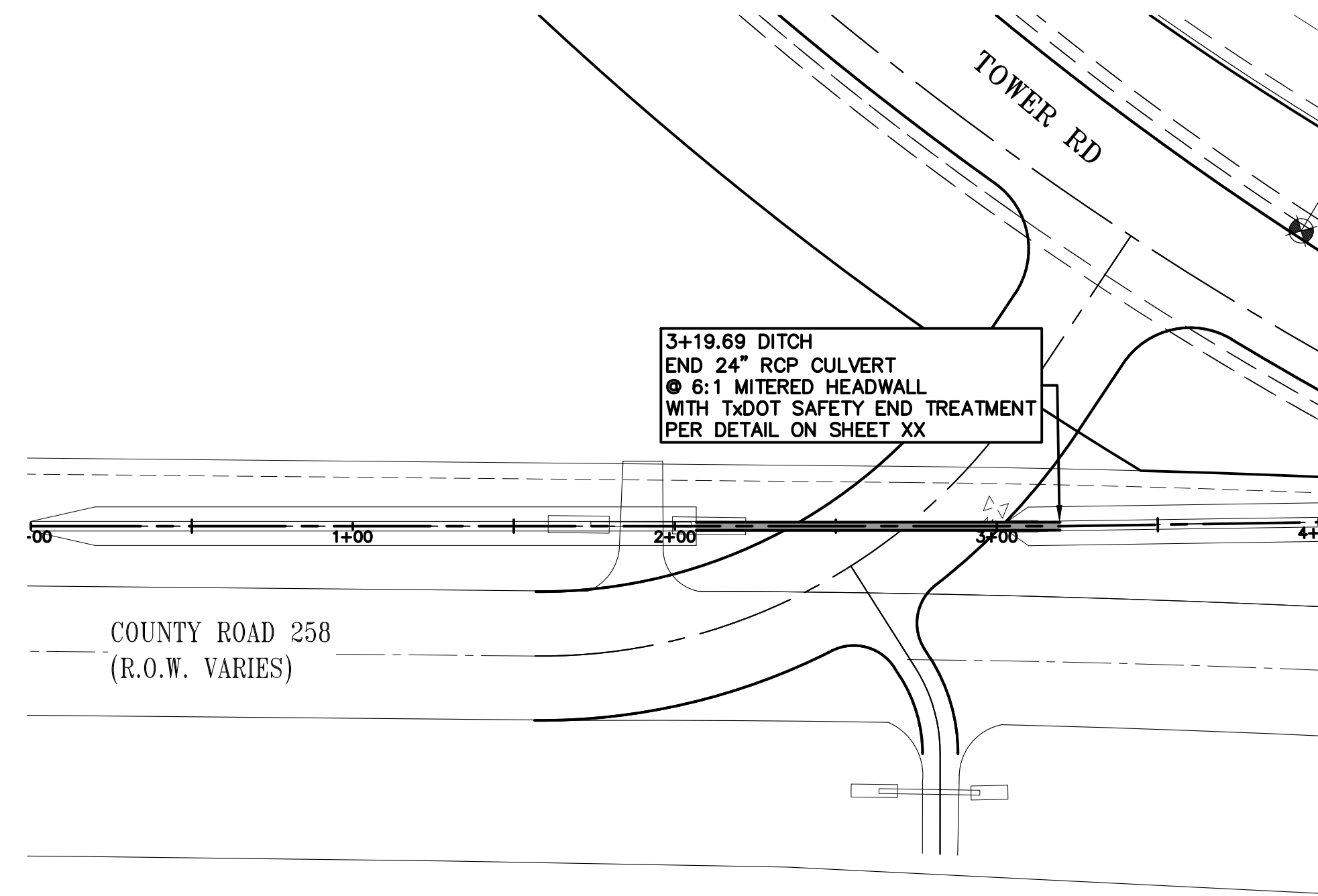


PROFILE SCALE  
HORIZ. 1" = 50'  
VERT. 1" = 5'



DESIGNED BY: SPC	DRAFTED BY: CTJ
DATE	
REVISION	
SHEET NAME: <b>STORM SEWER LATERALS</b> JOB NAME: <b>SADDLEBACK AT SANTA RITA RANCH</b> PROJECT: <b>STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS</b>	
DATE: <b>DEC 2025</b> JOB NUMBER: <b>5742</b> SHEET: <b>32 OF 52</b> SHEET NO.: <b>32</b>	

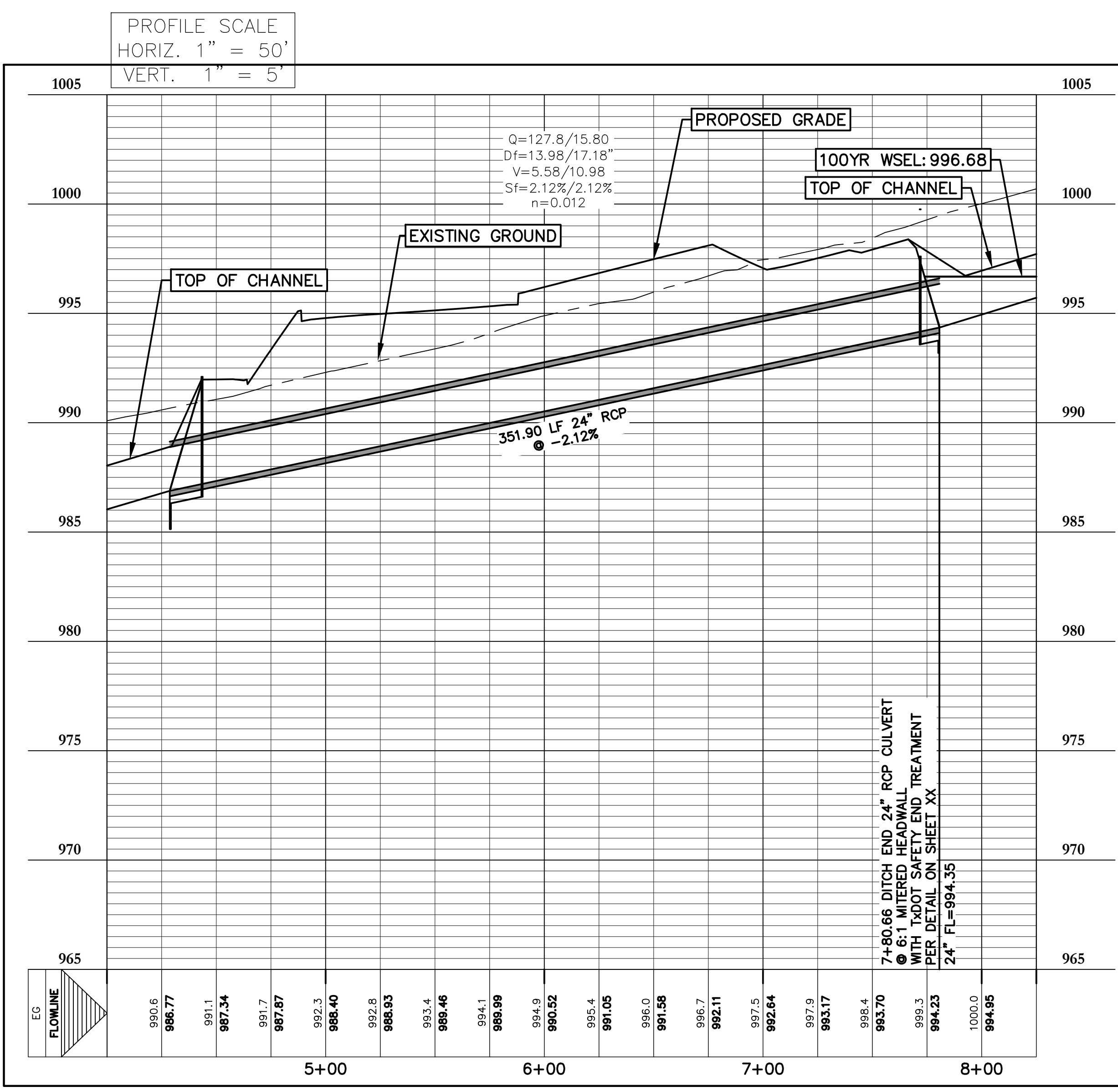
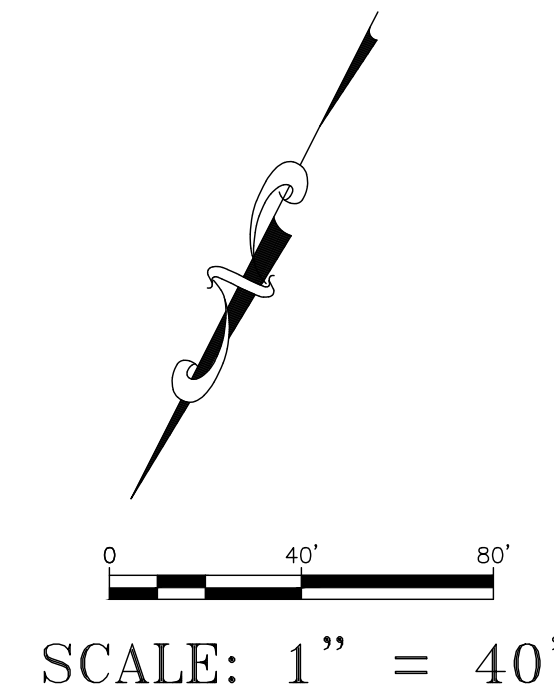
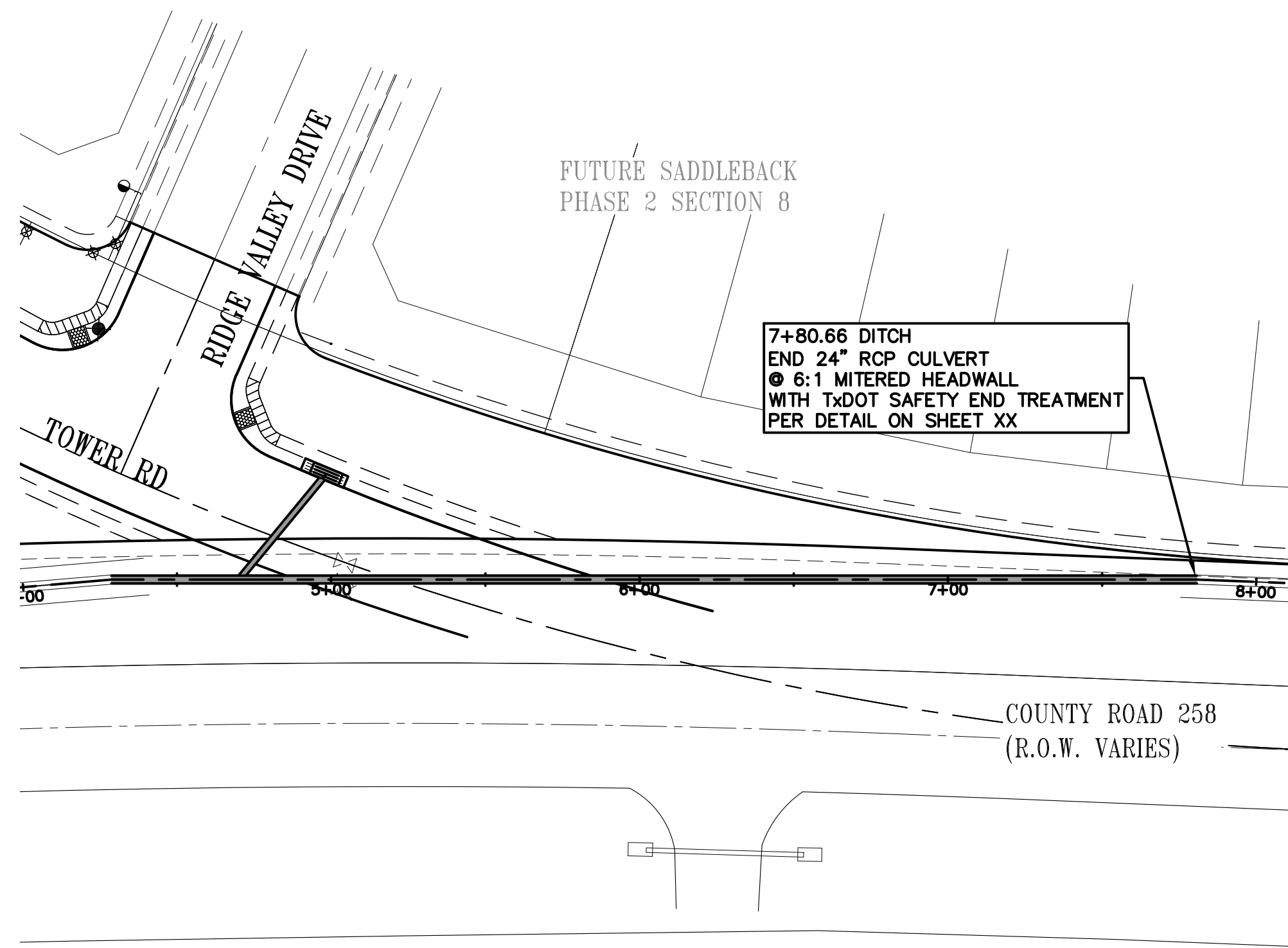
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DATE	
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Carlsson, Brigrance & Doering, Inc. Civil Engineering & Surveying FIRM ID #E3791 5501 West Williams Canyon Dr. 12129 RR (23) N. Ste. 600 Austin, Texas 78750 Phone No. (512) 290-5160 Fax No. (512) 290-5165	
<b>SHEET NAME: DITCH-CULVERT 1</b> <b>JOB NAME: SADDLEBACK AT SANTA RITA RANCH</b> <b>PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS</b> <b>PHASE 2 SECTION 4</b>	
CARLSON, BRIGRANCE & DOERING, INC. 12-5-2025	
DATE	DEC 2025
JOB NUMBER	5742
SHEET	33 OF 52
SHEET NO.	33



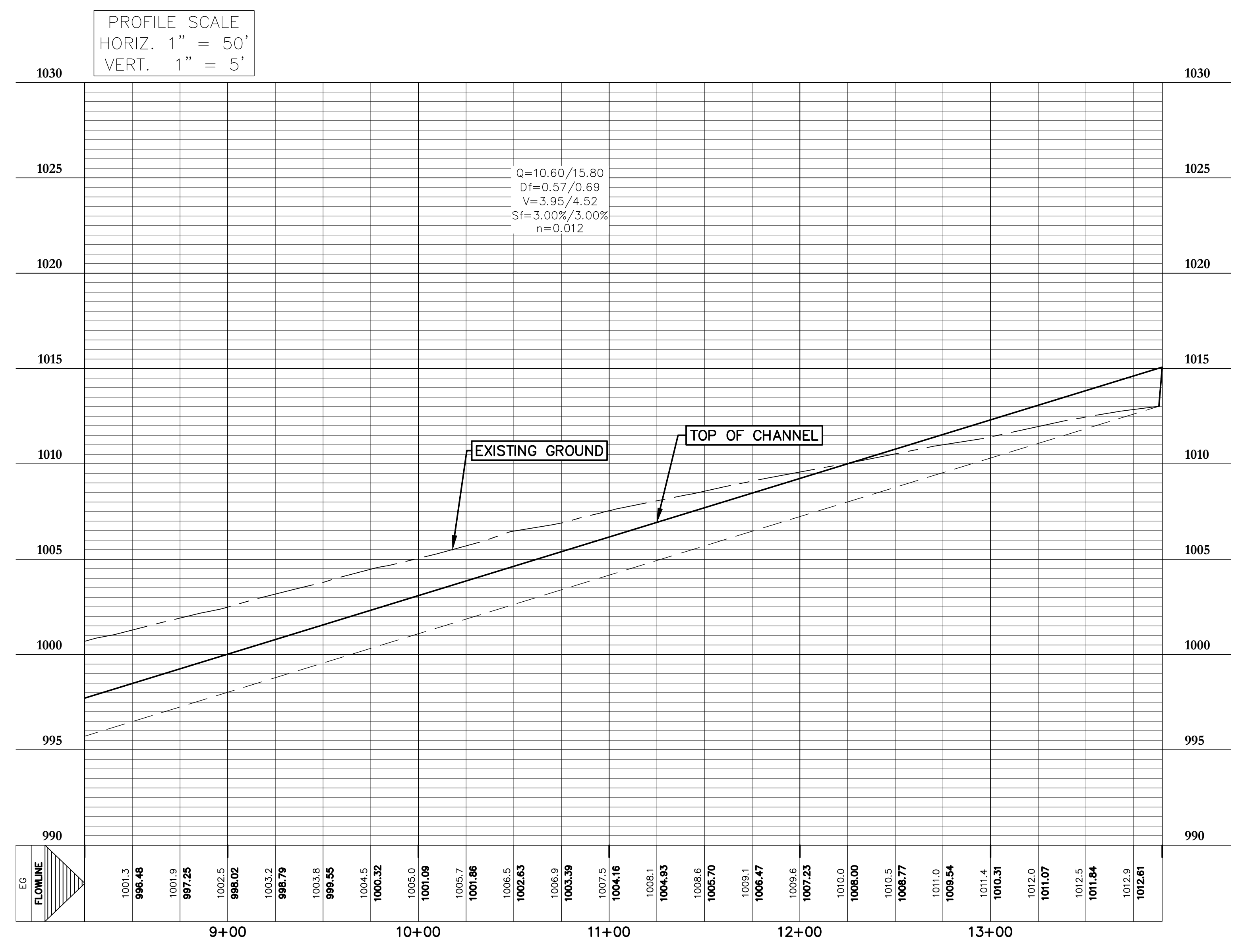
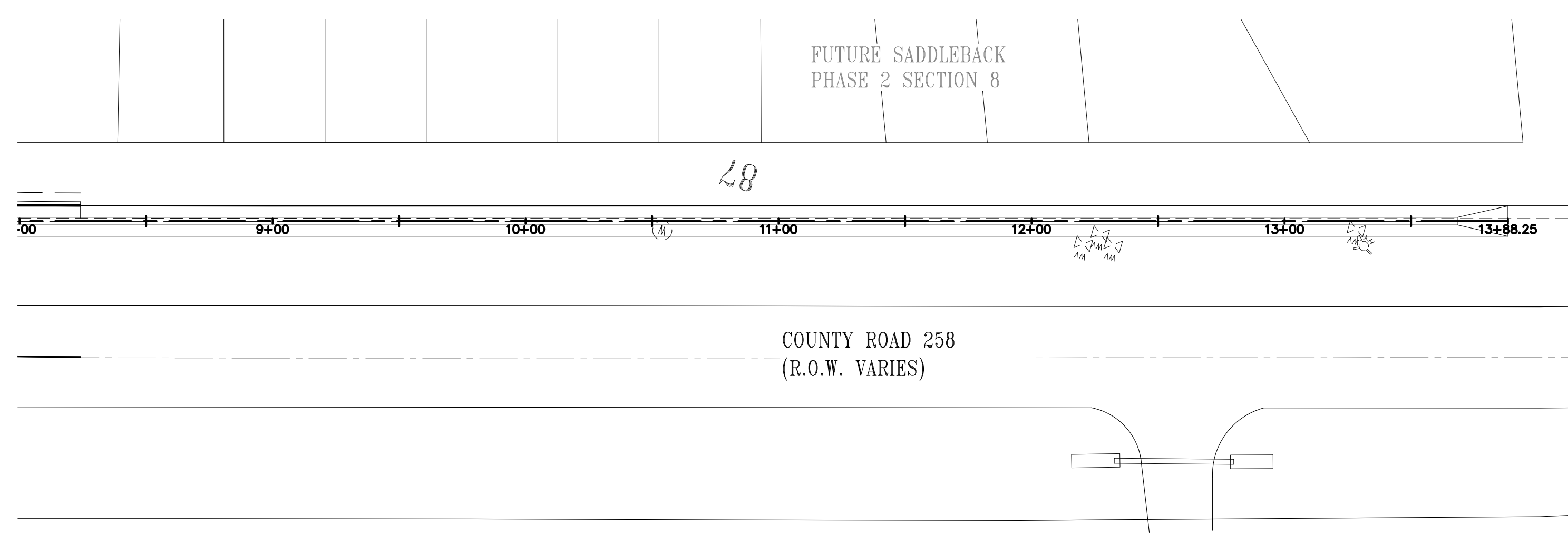
THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24 - HOURS PRIOR TO COMMENCING CONSTRUCTION.

- NOTES:**
1. THE DESIGN INTENT OF THESE PLANS IS FOR ALL CONNECTIONS, BENDS, AND REDUCTIONS TO BE MADE WITH PRE-CAST FITTINGS MANUFACTURED IN ACCORDANCE WITH ASTM C-76, CLASS 3 REQUIREMENTS. IF THE CONTRACTOR ELECTS TO USE ALTERNATE CONNECTION METHODS THEN A SUBMITTAL SHALL BE APPROVED BY THE ENGINEER AND WILLIAMSON COUNTY PRIOR TO COMMENCING PIPE LAYING OPERATIONS.
  2. WHERE STORM DRAINAGE IS SHOWN TO BE INSTALLED ON A CURVE THE CONTRACTOR SHALL SUBMIT A LAYING SCHEDULE DEMONSTRATING ANTICIPATED JOINT SEPARATIONS USING 8' JOINTS, A COMBINATION OF 8' AND 4' JOINTS, OR LONG RADIUS PIPE TO ACHIEVE THE NECESSARY RADIUS WITHOUT EXCESSIVE JOINT SEPARATION. PROPOSED INSTALLATION METHOD SHALL BE APPROVED BY THE ENGINEER AND WILLIAMSON COUNTY PRIOR TO COMMENCING PIPE LAYING OPERATIONS.

DESIGNED BY: SPC	DRAFTED BY: CFJ
DATE	
REVISION	
Carlsson, Brigrance & Doering, Inc. Civil Engineering & Surveying FIRM ID #E3791 5501 West Williams Canyon Dr. Austin, Texas 78750 Phone No. (512) 290-5160 Fax No. (512) 290-5165	
<b>SHEET NAME: DITCH-CULVERT 2</b> <b>JOB NAME: SADDLEBACK AT SANTA RITA RANCH</b> <b>PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS</b>	
<b>12-5-2025</b> DATE	
<b>5742</b> JOB NUMBER	
<b>34 OF 52</b> SHEET NO.	
<b>34</b> SHEET NO.	

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THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24 - HOURS PRIOR TO COMMENCING CONSTRUCTION.

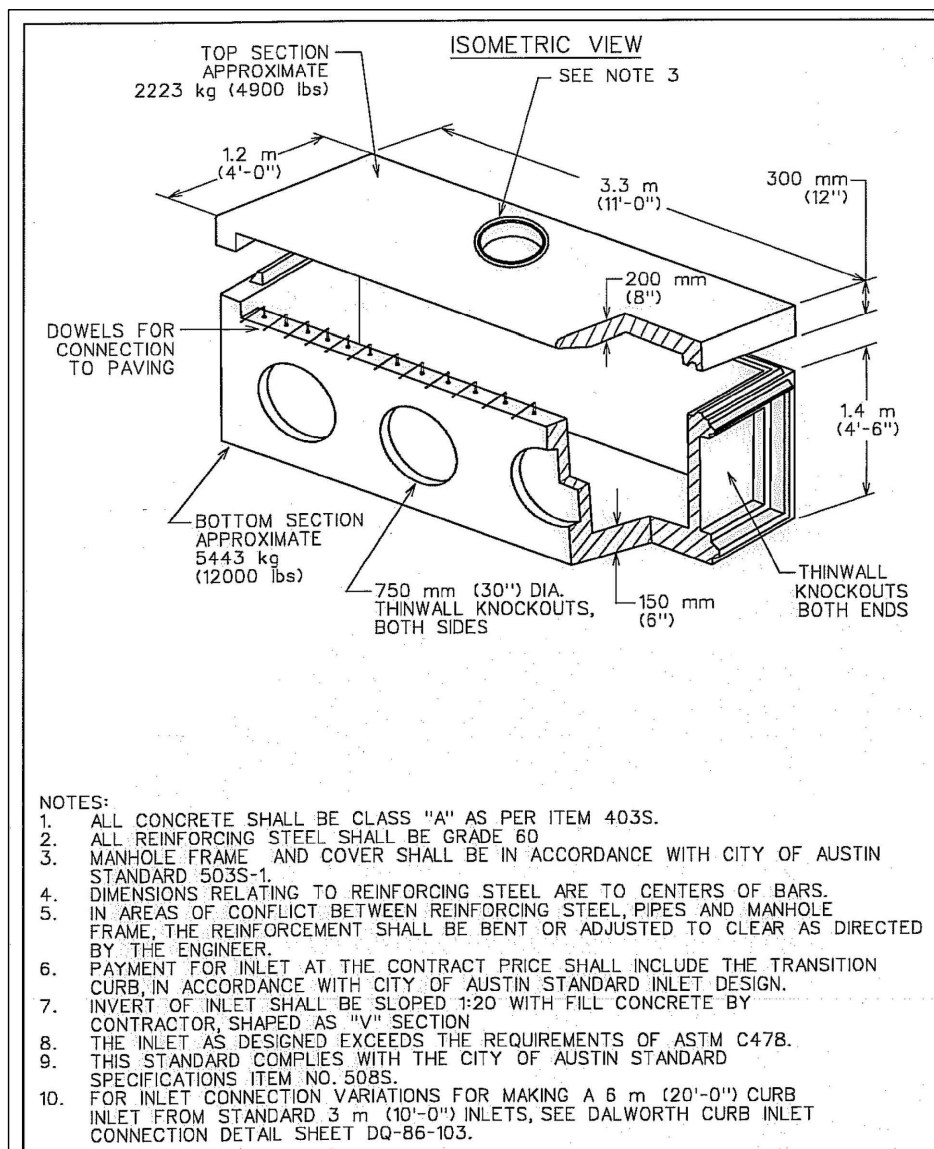
- NOTES:**
1. THE DESIGN INTENT OF THESE PLANS IS FOR ALL CONNECTIONS, BENDS, AND REDUCTIONS TO BE MADE WITH PRE-CAST FITTINGS MANUFACTURED IN ACCORDANCE WITH ASTM C-76, CLASS 3 REQUIREMENTS. IF THE CONTRACTOR ELECTS TO USE ALTERNATE CONNECTION METHODS THEN A SUBMITTAL SHALL BE APPROVED BY THE ENGINEER AND WILLIAMSON COUNTY PRIOR TO COMMENCING PIPE LAYING OPERATIONS.
  2. WHERE STORM DRAINAGE IS SHOWN TO BE INSTALLED ON A CURVE THE CONTRACTOR SHALL SUBMIT A LAYING SCHEDULE DEMONSTRATING ANTICIPATED JOINT SEPARATIONS USING 8' JOINTS, A COMBINATION OF 8' AND 4' JOINTS, OR LONG RADIUS PIPE TO ACHIEVE THE NECESSARY RADIUS WITHOUT EXCESSIVE JOINT SEPARATION. PROPOSED INSTALLATION METHOD SHALL BE APPROVED BY THE ENGINEER AND WILLIAMSON COUNTY PRIOR TO COMMENCING PIPE LAYING OPERATIONS.

DESIGNED BY: SPC	DRAWN BY: CFJ
DATE	
REVISION	
Carlsson, Brigrance & Doering, Inc. Civil Engineering & Surveying FIRM ID #E3791 5501 West Williams Canyon Dr. 12129 RR (23) N. Sec. 600 Austin, Texas 78749 Phone No. (512) 280-5160 Fax No. (512) 280-5165	
SHEET NAME: DITCH-CULVERT 3 JOB NAME: SADDLEBACK AT SANTA RITA RANCH PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS PHASE 2 SECTION 4	
DATE: DEC 2025 JOB NUMBER: 5742 SHEET: 35 OF 52 SHEET NO.: 35	



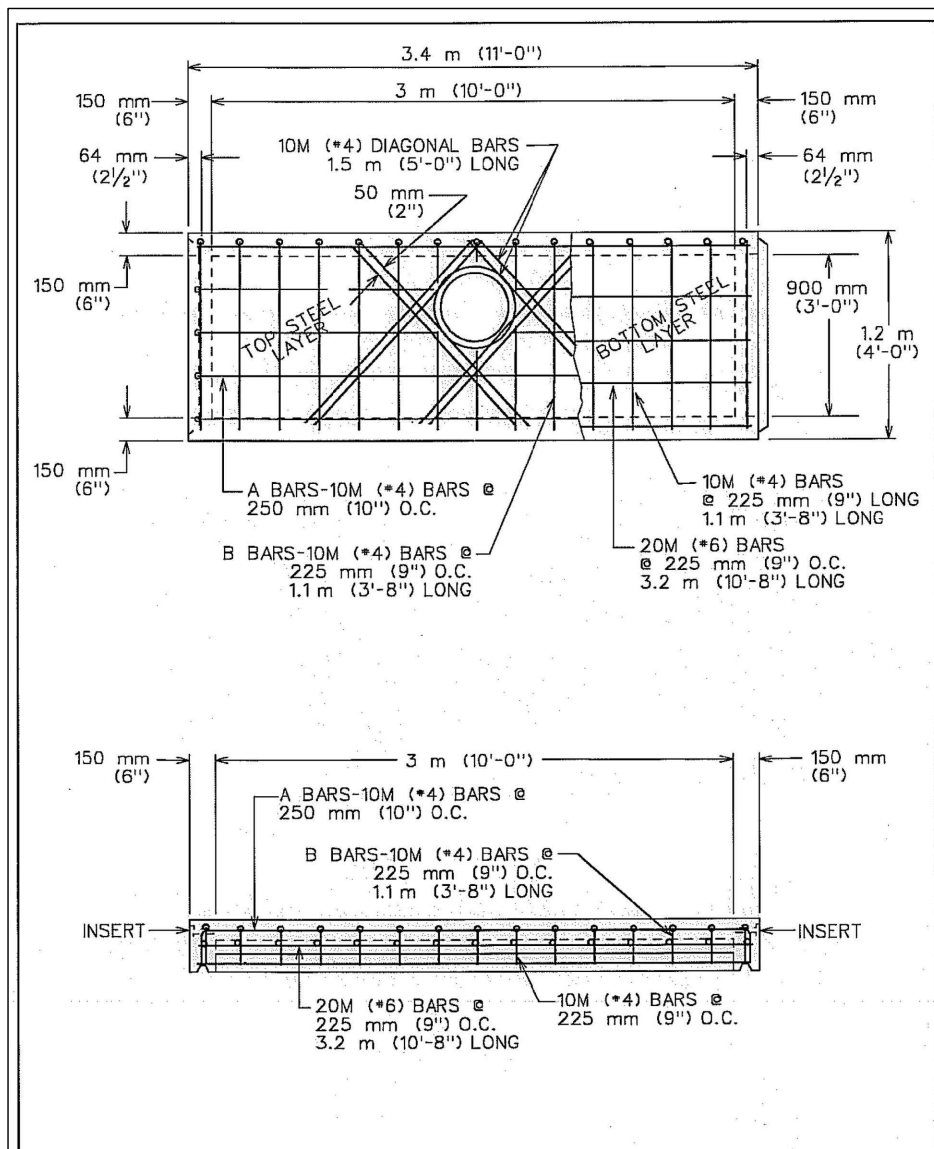




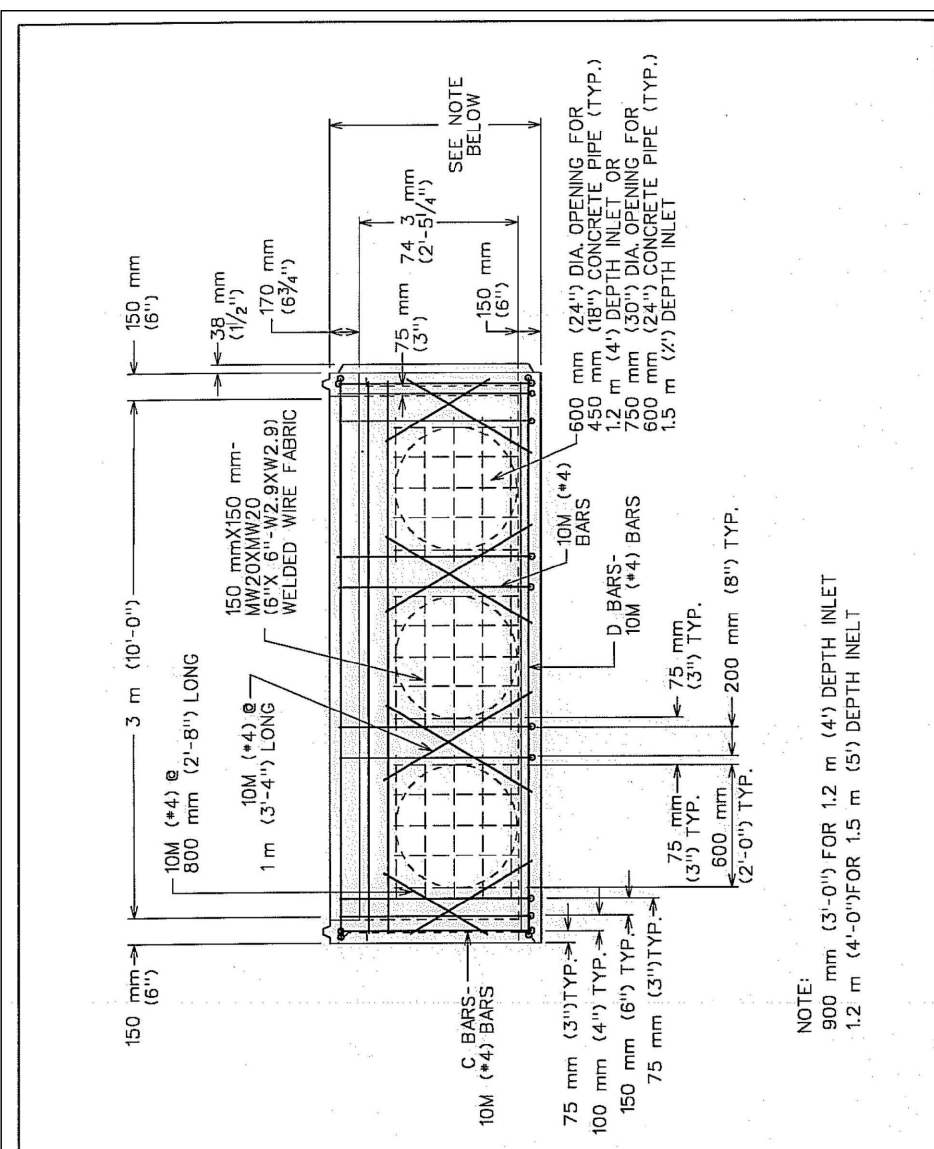


NOTES:  
 1. ALL CONCRETE SHALL BE CLASS "A" AS PER ITEM 4033.  
 2. ALL REINFORCING STEEL SHALL BE GRADE 60.  
 3. MANHOLE FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 5035-1.  
 4. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.  
 5. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.  
 6. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB IN ACCORDANCE WITH CITY OF AUSTIN STANDARD INLET DESIGN.  
 7. INVERT OF INLET SHALL BE SLOPED 1:20 WITH FULL CONCRETE BY CONTRACTOR, SHAFED AS "V" SECTION.  
 8. THE INLET AS DESIGNED EXCEEDS THE REQUIREMENTS OF ASTM C478.  
 9. THIS STANDARD COMPLIES WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS ITEM NO. 1035.  
 10. FOR INLET CONNECTION VARIATIONS FOR MAKING A 6 m (20'-0") CURB INLET FROM STANDARD 3 m (10'-0") INLETS, SEE DA/WORTH CURB INLET CONNECTION DETAIL SHEET D0-86-103.

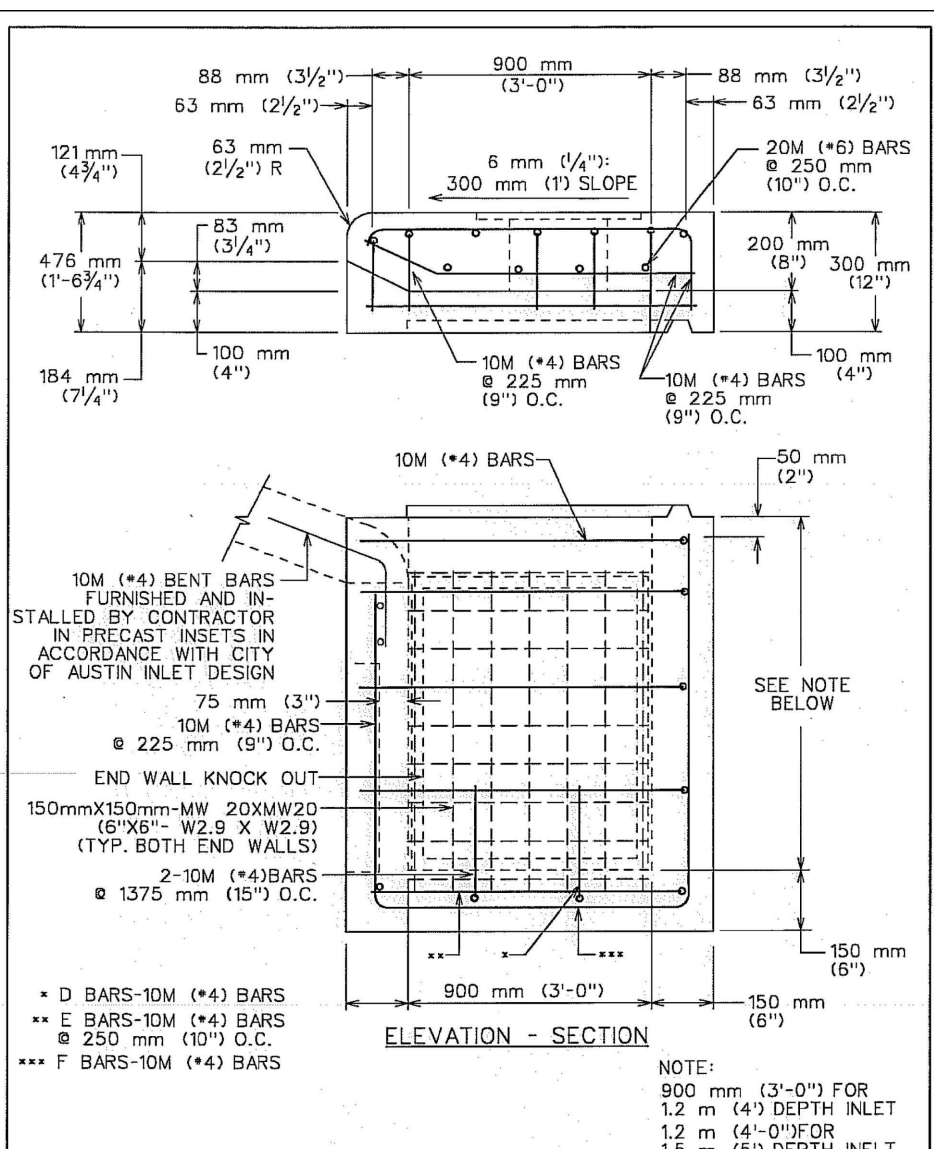
CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 CURB INLET 3 m (10'-0") PRECAST  
 TYPE 1 OR TYPE 1-R  
 STANDARD NO. 508S-4  
 1 of 5  
 Bill Anderson 12/9/08  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



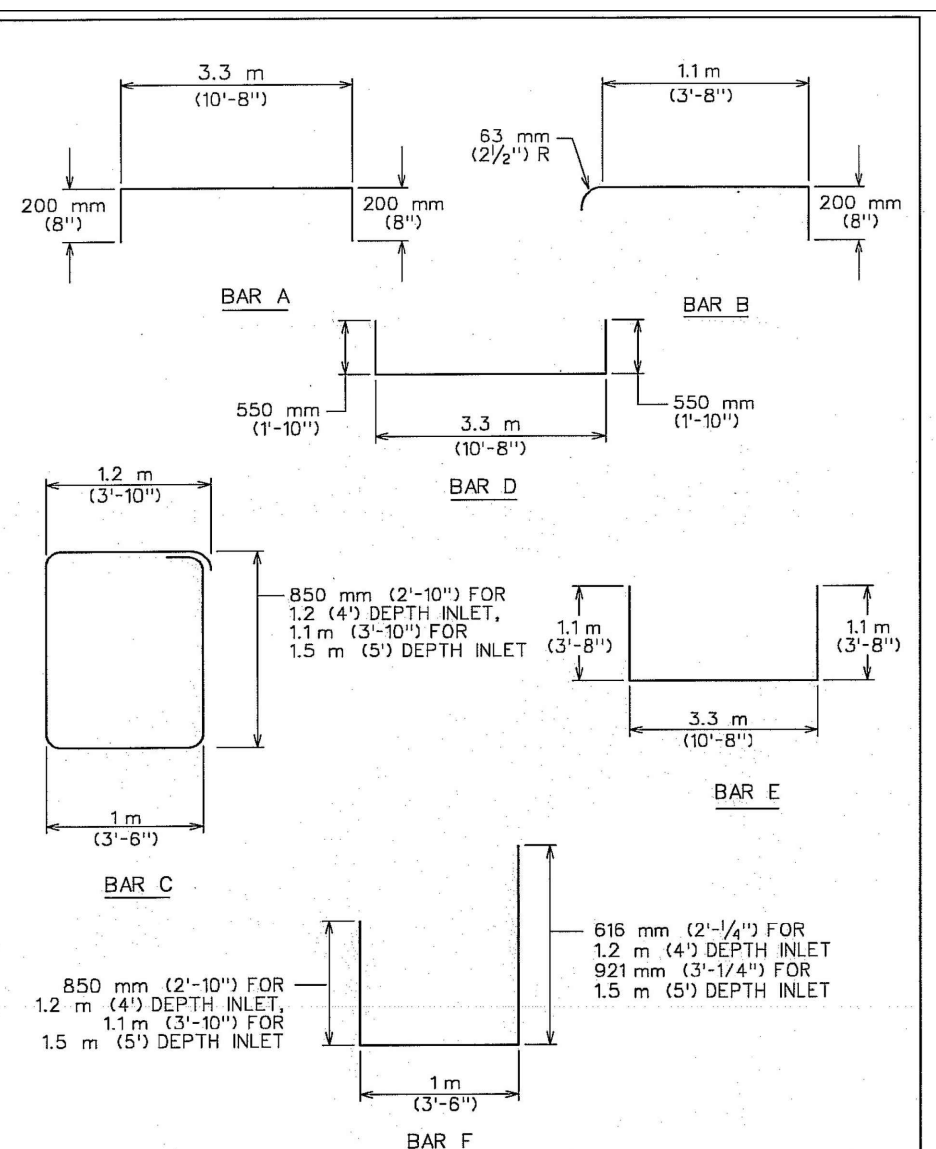
CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 CURB INLET 3 m (10'-0") PRECAST  
 TYPE 1 OR TYPE 1-R  
 STANDARD NO. 508S-4  
 2 of 5  
 Bill Anderson 12/9/08  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



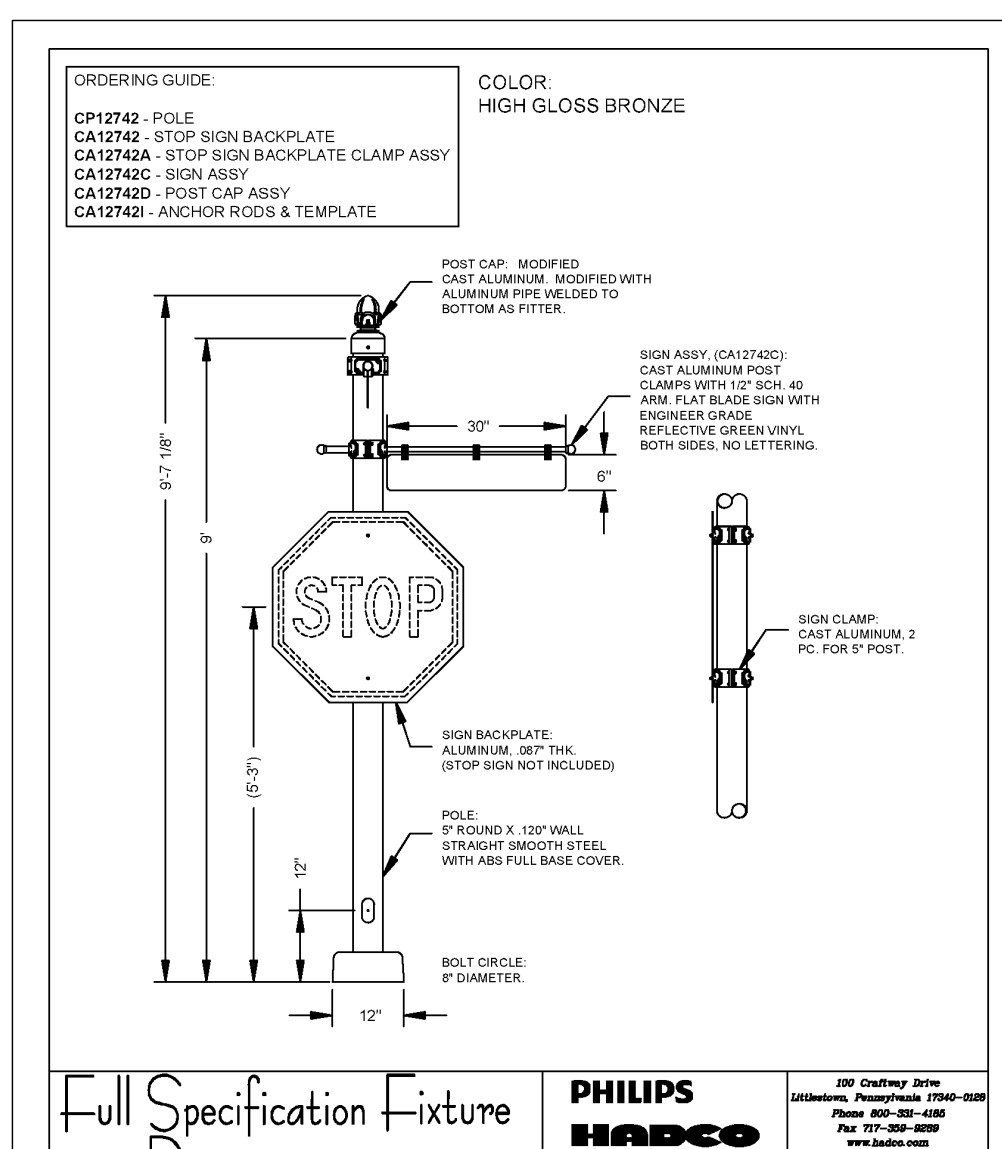
CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 CURB INLET 3 m (10'-0") PRECAST  
 TYPE 1 OR TYPE 1-R  
 STANDARD NO. 508S-4  
 3 of 5  
 Bill Anderson 12/9/08  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 CURB INLET 3 m (10'-0") PRECAST  
 TYPE 1 OR TYPE 1-R  
 STANDARD NO. 508S-4  
 4 of 5  
 Bill Anderson 12/9/08  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 CURB INLET 3 m (10'-0") PRECAST  
 TYPE 1 OR TYPE 1-R  
 STANDARD NO. 508S-4  
 5 of 5  
 Bill Anderson 12/9/08  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

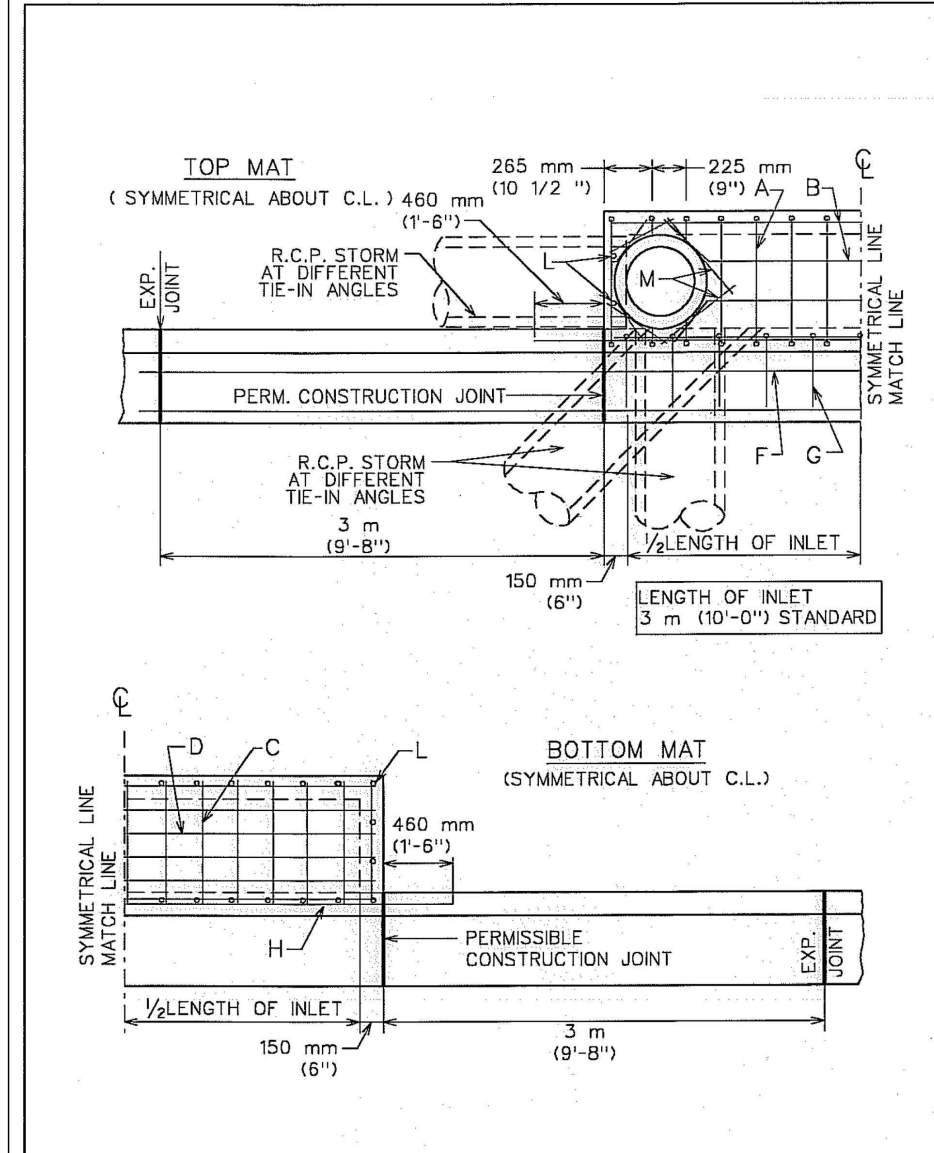


ORDERING GUIDE:  
 CP12742 - POLE  
 CA12742 - STOP SIGN BACKPLATE  
 CA12742A - STOP SIGN BACKPLATE CLAMP ASSEMBLY  
 CA12742C - SIGN ASSEMBLY  
 CA12742D - POST CAP ASSEMBLY  
 CA12742E - ANCHOR RODS & TEMPLATE

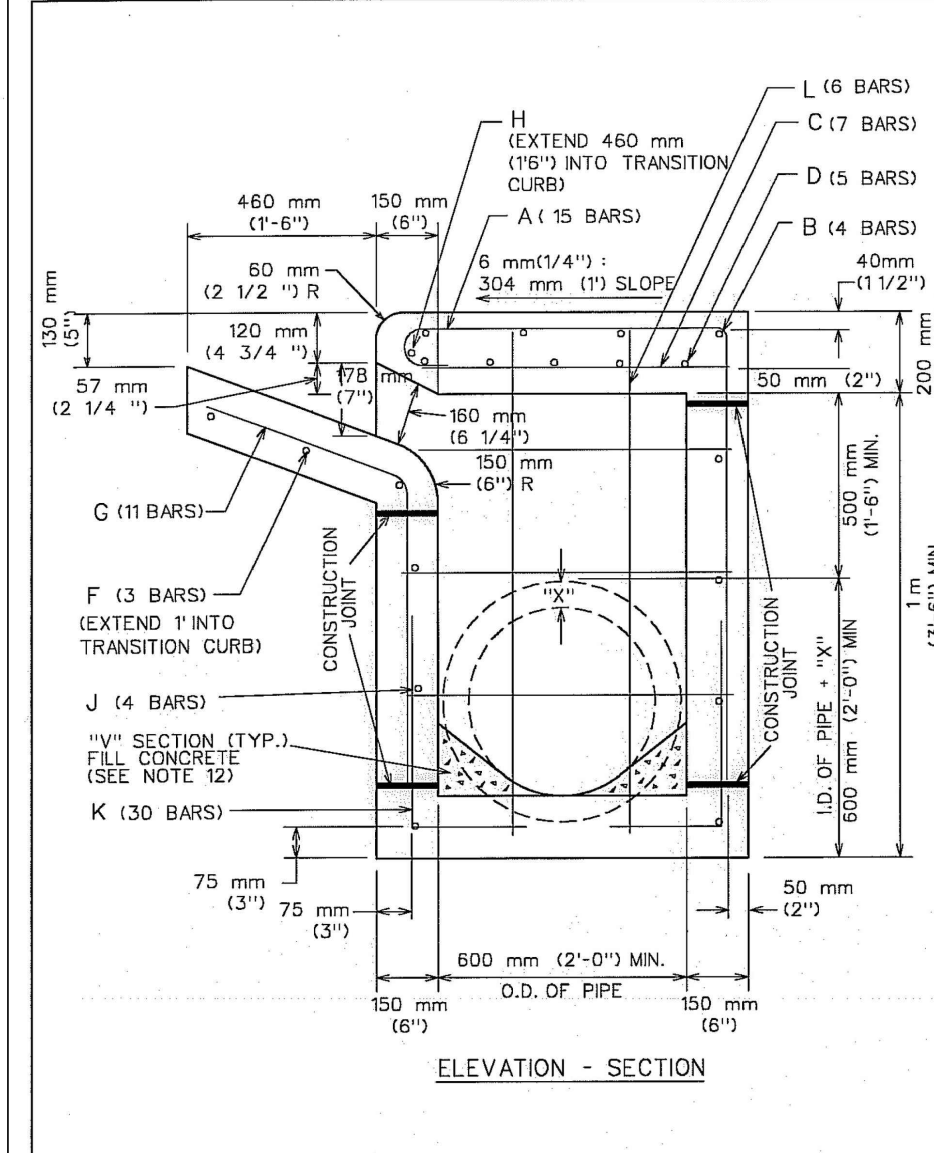
COLOR:  
 HIGH GLOSS BRONZE

PHILIPS  
 HADCO  
 Middlebrook Signs

Full Specification Fixture Drawing



CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 TYPICAL DETAILS FOR CURB INLET  
 STANDARD NO. 508S-3  
 1 of 4  
 Bill Anderson 12/9/08  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 TYPICAL DETAILS FOR CURB INLET  
 STANDARD NO. 508S-3  
 2 of 4  
 Bill Anderson 12/9/08  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

TABLE OF QUANTITIES  
 FOR 18" OUTLET PIPE  
 REINFORCING STEEL QUANTITIES

BAR SIZE	SPACING	NUMBER	LENGTH	WEIGHT	
A	4	230 mm (9 1/8")	15	2 m (7'-0")	73
B	4	250 mm (10")	4	3.25 m (10'-8")	29
C	4	460 mm (18 1/2")	7	780 mm (2'-6 3/4")	12
D	6	150 mm (6")	5	3.25 m (10'-8")	80
E	4	300 mm (12")	6	760 mm (2'-8")	10
F	4	250 mm (10")	3	4 m (13'-0")	35
G	4	300 mm (12")	11	1.65 m (5'-4 1/2")	31
H	6	-	1	4.25 m (14'-0")	20
J	4	300 mm (12")	7	3.25 m (10'-8")	50
K	4	230 mm (9 1/8")	30	800 mm (2'-7 1/2")	52
L	4	300 mm (12")	6	1.3 m (4'-4")	17
M	4	-	4	500 mm (1'-8")	4
TOTAL STEEL, LB.				413	
TOTAL CONCRETE, C.Y.				4.06	

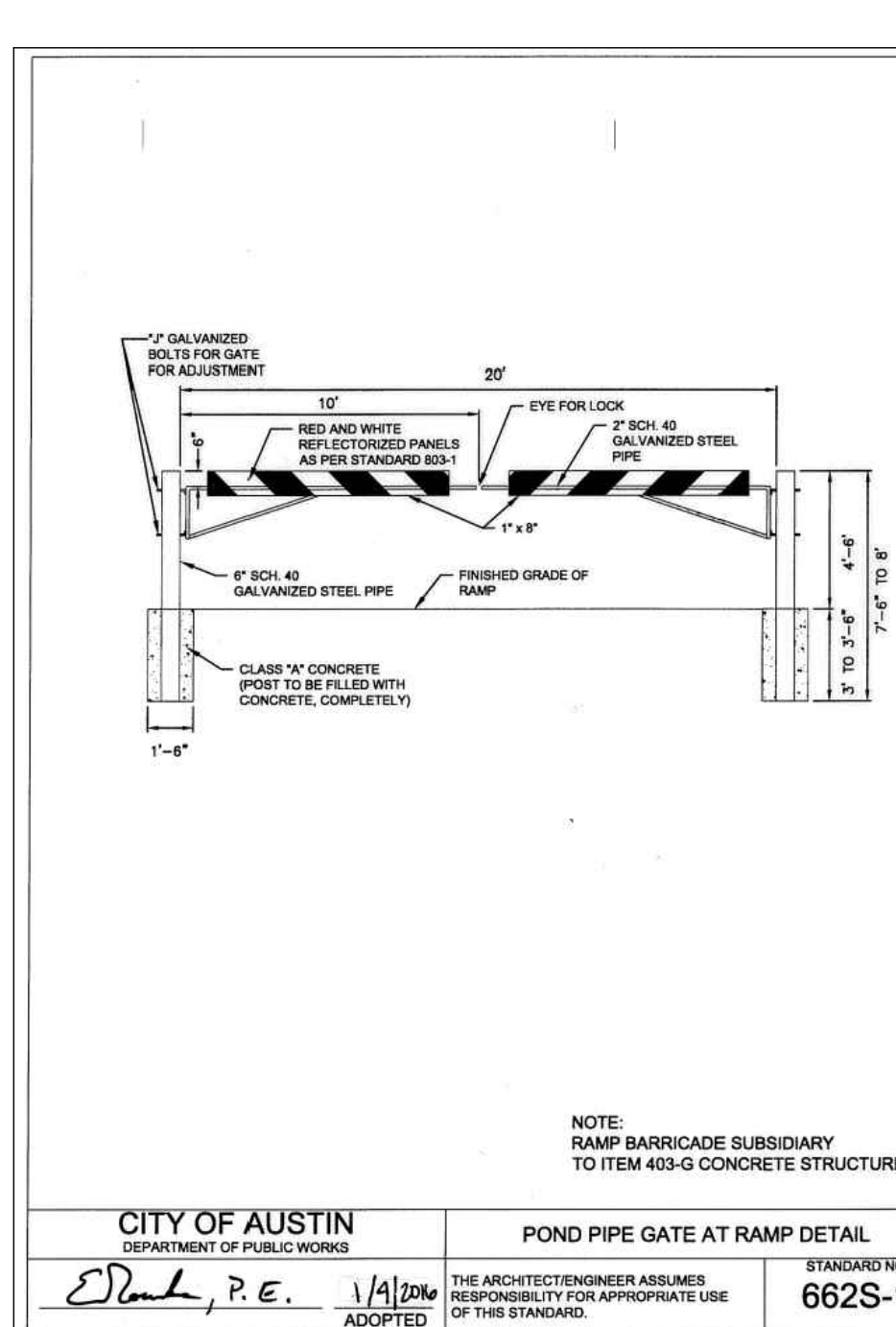
\* EXCEPT AS SHOWN ON PLAN

CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 TYPICAL DETAILS FOR CURB INLET  
 STANDARD NO. 508S-3  
 3 of 4  
 Bill Anderson 12/9/08  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

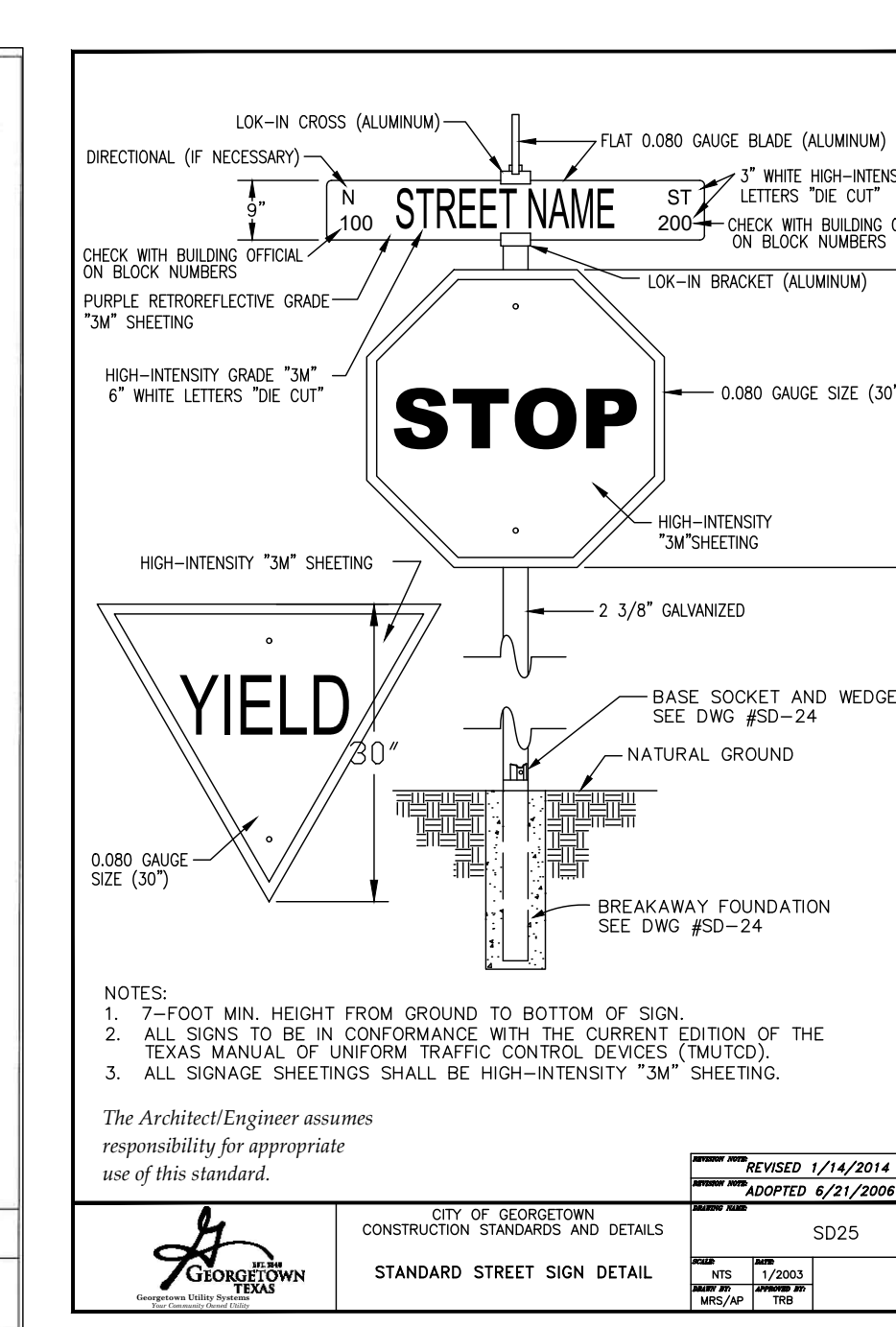
NOTES:  
 1. ALL CONCRETE SHALL BE CLASS "A".  
 2. ALL REINFORCING STEEL SHALL BE GRADE 60.  
 3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTERS OF BARS.  
 4. VERTICAL STEEL MAY BE SPICED 380 mm or 15" MIN. LAP IN THE LOWER ONE-HALF OF ALL INLET WALLS. IN AREAS OF CONFLICT BETWEEN REINFORCING STEEL, PIPES AND MANHOLE FRAME, THE REINFORCEMENT SHALL BE BENT OR ADJUSTED TO CLEAR AS DIRECTED BY THE ENGINEER.  
 5. QUANTITIES SHOWN HEREON ARE FOR THE CONTRACTOR'S INFORMATION ONLY. PAYMENT WILL BE MADE FOR EACH INLET OF THE TYPE SPECIFIED, COMPLETE IN PLACE INCLUDING MANHOLE FRAME AND COVER.  
 6. CHAMFER ALL EXPOSED EDGES 20 mm (3/4").  
 7. MANHOLE FRAME AND COVER SHALL BE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD 5035-1.  
 8. THE CONTRACTOR MAY PROPOSE ALTERNATE PROCEDURES FOR THE CONSTRUCTION OF INLETS, INCLUDING PRECAST UNITS, PLANS FOR SUCH PROPOSED ALTERNATES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION.  
 9. ALL INLET WALLS SHALL BE FORMED EXCEPT WHERE THE NATURE OF THE SURROUNDING MATERIAL IS SUCH THAT IT CAN BE TRIMMED TO A SMOOTH VERTICAL FACE. WHEN INLET WALLS ARE PLACED TO NEAT EXCAVATION LINES THE WALL THICKNESS SHALL NOT EXCEED 10 INCHES.  
 10. PAYMENT FOR INLET AT THE CONTRACT PRICE SHALL INCLUDE THE TRANSITION CURB.  
 11. INVERT OF INLET SHALL BE SLOPED 1:20 WITH FULL CONCRETE, SHAFED AS "V" SECTION.  
 12. NO SPlicing OF REINFORCING STEEL SHALL BE PERMITTED UNLESS OTHERWISE NOTED ON THE PLANS OR PERMITTED IN WRITING BY THE ENGINEER.

REFERENCES:  
 FOR EXPANSION JOINT DOWEL AND DOWEL LOCATION DETAILS SEE STD. 430S-3, "CURB EXPANSION JOINT DOWEL DETAIL".  
 FOR 18" MANHOLE FRAME AND COVER DETAILS SEE STD. 503S-1, "18" COVER AND FRAME".

CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 TYPICAL DETAILS FOR CURB INLET  
 STANDARD NO. 508S-3  
 4 of 4  
 Bill Anderson 12/9/08  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN  
 DEPARTMENT OF PUBLIC WORKS  
 RAMP PIPE GATE AT RAMP DETAIL  
 STANDARD NO. 662S-1  
 Edna, P.E. 1/14/2010  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF GEORGETOWN  
 CONSTRUCTION STANDARDS AND DETAILS  
 SD25  
 1/14/2010 REVISED  
 6/21/2008 REVISED  
 The Architect/Engineer assumes responsibility for appropriate use of this standard.

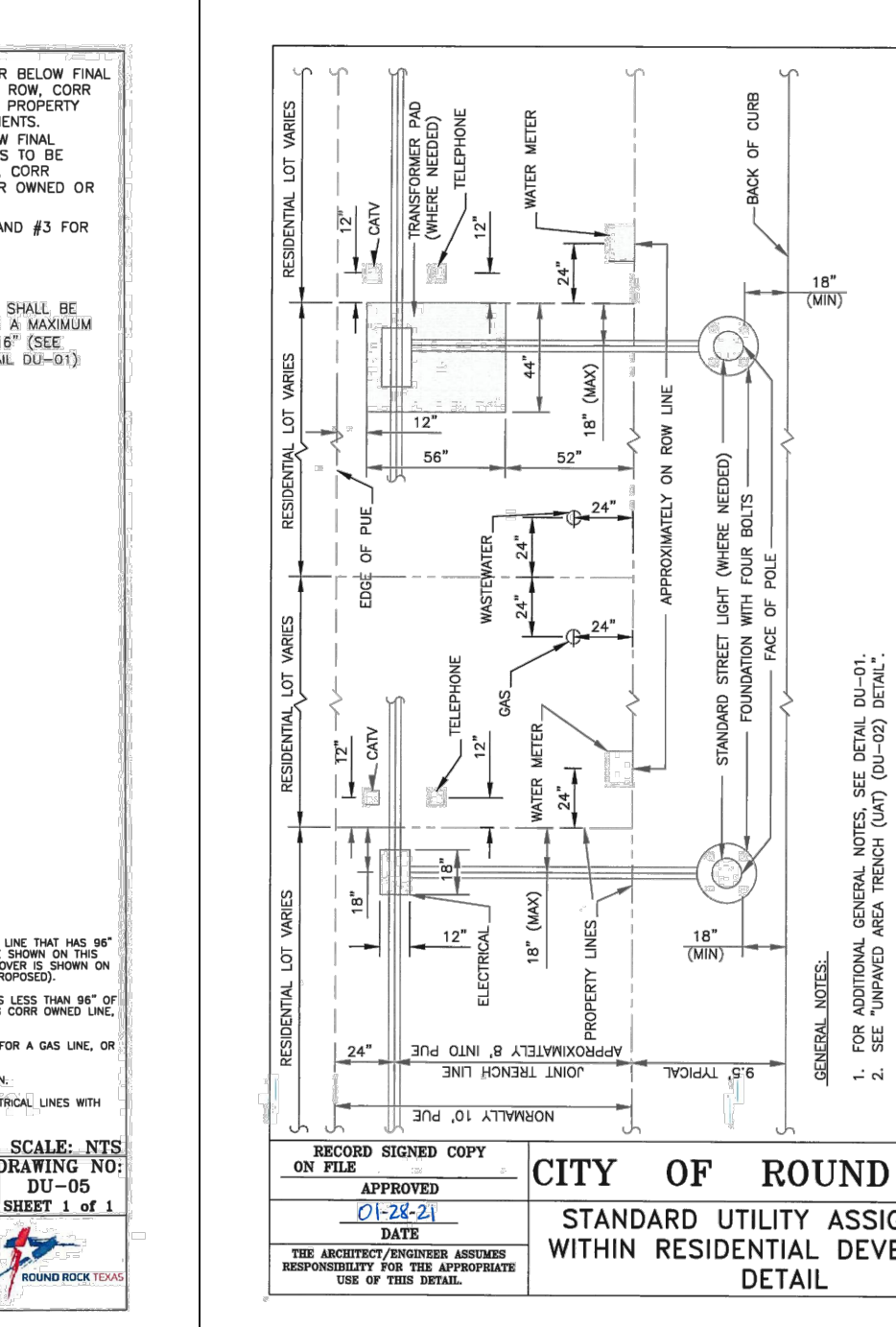
UTILITY CROSSING INSTALLATION (UC) DETAIL

UTILITY	CORR OWNED (AS NEAR 90° AS POSSIBLE)	CROSSING PARALLEL ROUTES
POTABLE WATERLINES	LESS THAN 6" - 12"	36"
RECYCLE AND WASTEWATER LINES	6" - 36"	48"
STORMWATER LINES	LARGER - 6" - 12"	36"
	LARGER - 12" - 24"	48"
	LARGER - 24" - 36"	60"
	LARGER - 36" - 48"	72"
	LARGER - 48" - 60"	84"
	LARGER - 60" - 72"	96"
	LARGER - 72" - 84"	108"
	LARGER - 84" - 96"	120"
	LARGER - 96" - 108"	132"
	LARGER - 108" - 120"	144"
	LARGER - 120" - 132"	156"
	LARGER - 132" - 144"	168"
	LARGER - 144" - 156"	180"
	LARGER - 156" - 168"	192"
	LARGER - 168" - 180"	204"
	LARGER - 180" - 192"	216"
	LARGER - 192" - 204"	228"
	LARGER - 204" - 216"	240"
	LARGER - 216" - 228"	252"
	LARGER - 228" - 240"	264"
	LARGER - 240" - 252"	276"
	LARGER - 252" - 264"	288"
	LARGER - 264" - 276"	300"
	LARGER - 276" - 288"	312"
	LARGER - 288" - 300"	324"
	LARGER - 300" - 312"	336"
	LARGER - 312" - 324"	348"
	LARGER - 324" - 336"	360"
	LARGER - 336" - 348"	372"
	LARGER - 348" - 360"	384"
	LARGER - 360" - 372"	396"
	LARGER - 372" - 384"	408"
	LARGER - 384" - 396"	420"
	LARGER - 396" - 408"	432"
	LARGER - 408" - 420"	444"
	LARGER - 420" - 432"	456"
	LARGER - 432" - 444"	468"
	LARGER - 444" - 456"	480"
	LARGER - 456" - 468"	492"
	LARGER - 468" - 480"	504"
	LARGER - 480" - 492"	516"
	LARGER - 492" - 504"	528"
	LARGER - 504" - 516"	540"
	LARGER - 516" - 528"	552"
	LARGER - 528" - 540"	564"
	LARGER - 540" - 552"	576"
	LARGER - 552" - 564"	588"
	LARGER - 564" - 576"	600"
	LARGER - 576" - 588"	612"
	LARGER - 588" - 600"	624"
	LARGER - 600" - 612"	636"
	LARGER - 612" - 624"	648"
	LARGER - 624" - 636"	660"
	LARGER - 636" - 648"	672"
	LARGER - 648" - 660"	684"
	LARGER - 660" - 672"	696"
	LARGER - 672" - 684"	708"
	LARGER - 684" - 696"	720"
	LARGER - 696" - 708"	732"
	LARGER - 708" - 720"	744"
	LARGER - 720" - 732"	756"
	LARGER - 732" - 744"	768"
	LARGER - 744" - 756"	780"
	LARGER - 756" - 768"	792"
	LARGER - 768" - 780"	804"
	LARGER - 780" - 792"	816"
	LARGER - 792" - 804"	828"
	LARGER - 804" - 816"	840"
	LARGER - 816" - 828"	852"
	LARGER - 828" - 840"	864"
	LARGER - 840" - 852"	876"
	LARGER - 852" - 864"	888"
	LARGER - 864" - 876"	900"
	LARGER - 876" - 888"	912"
	LARGER - 888" - 900"	924"
	LARGER - 900" - 912"	936"
	LARGER - 912" - 924"	948"
	LARGER - 924" - 936"	960"
	LARGER - 936" - 948"	972"
	LARGER - 948" - 960"	984"
	LARGER - 960" - 972"	996"
	LARGER - 972" - 984"	1008"
	LARGER - 984" - 996"	1020"
	LARGER - 996" - 1008"	1032"
	LARGER - 1008" - 1020"	1044"
	LARGER - 1020" - 1032"	1056"
	LARGER - 1032" - 1044"	1068"
	LARGER - 1044" - 1056"	1080"
	LARGER - 1056" - 1068"	1092"
	LARGER - 1068" - 1080"	1104"
	LARGER - 1080" - 1092"	1116"
	LARGER - 1092" - 1104"	1128"
	LARGER - 1104" - 1116"	1140"
	LARGER - 1116" - 1128"	1152"
	LARGER - 1128" - 1140"	1164"
	LARGER - 1140" - 1152"	1176"
	LARGER - 1152" - 1164"	1188"
	LARGER - 1164" - 1176"	1200"

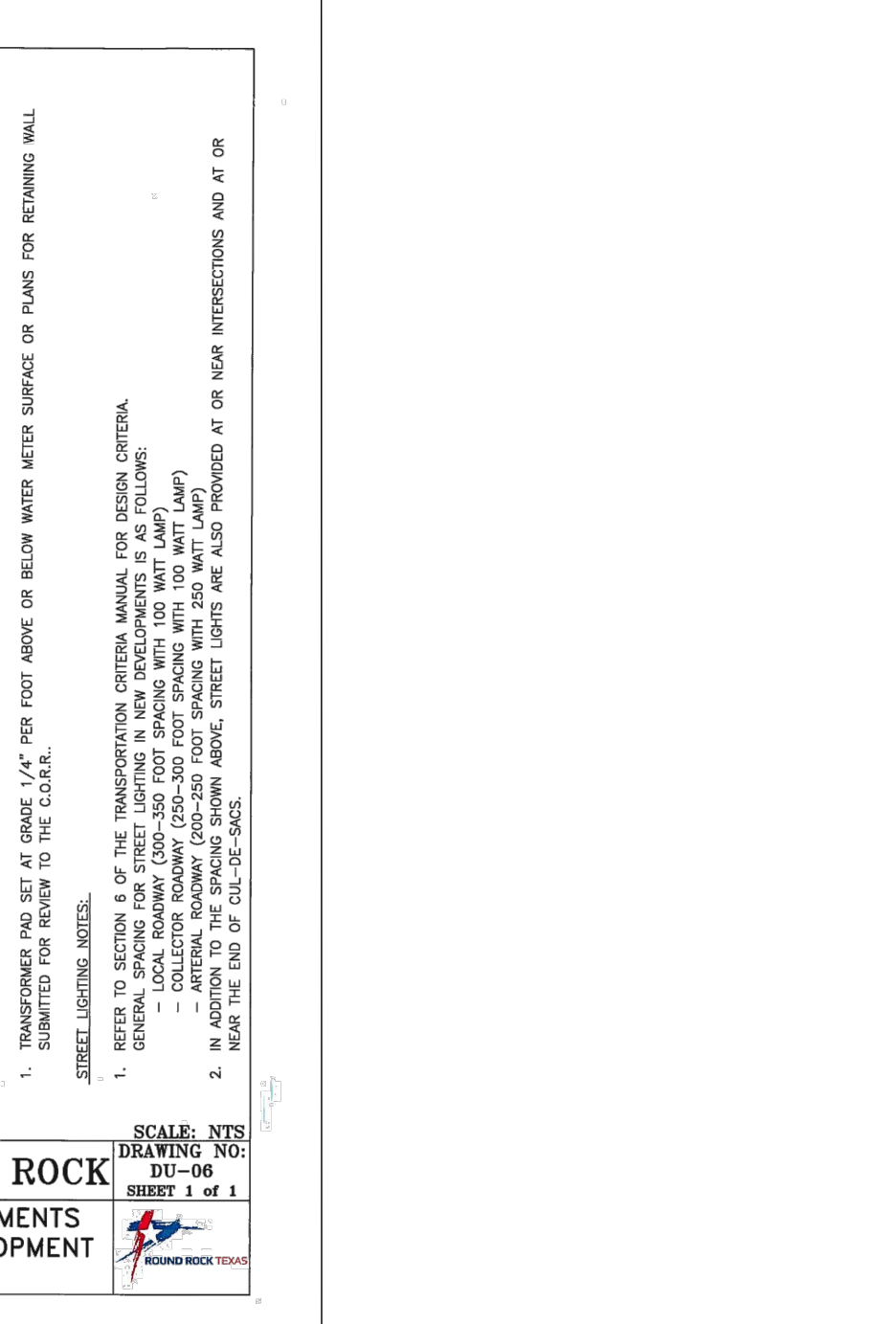
NOTE: NORMALLY, CROSSINGS GO UNDER CORR OWNED LINES WITH LESS THAN 90° OF CORNER.

SCALE: NTS  
 DRAWING NO. DU-06  
 SHEET 1 of 1

CITY OF ROUND ROCK  
 STANDARD UTILITY ASSIGNMENTS WITHIN RESIDENTIAL DEVELOPMENT  
 DETAIL  
 01-28-21  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS DETAIL.



CITY OF ROUND ROCK  
 STANDARD UTILITY ASSIGNMENTS WITHIN RESIDENTIAL DEVELOPMENT  
 DETAIL  
 01-28-21  
 THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS DETAIL.



CITY OF GEORGETOWN  
 CONSTRUCTION STANDARDS AND DETAILS  
 SD25  
 1/14/2010 REVISED  
 6/21/2008 REVISED  
 The Architect/Engineer assumes responsibility for appropriate use of this standard.

DESIGNED BY: [Signature]  
 DRAFTED BY: [Signature]  
 DATE: [Blank]  
 REVISION: [Blank]

SHEET NAME: CONSTRUCTION DETAILS (4 OF 4)  
 JOB NAME: SADDLEBACK AT SANTA RITA RANCH  
 PROJECT: STREET, DRAINAGE, WATER, AND WASTEWATER IMPROVEMENTS

PHASE 2 SECTION 4

CARLSON, BRIGANCE & DOERING, Inc.  
 Civil Engineering & Surveying  
 5501 West Williams Canyon Dr., Austin, Texas 78750  
 Phone No. (512) 290-5160 Fax No. (512) 290-5165

STATE OF TEXAS  
 STEVEN P. GATES  
 93648  
 LICENSED PROFESSIONAL ENGINEER  
 12-5-2025

DATE: DEC 2025  
 JOB NUMBER: 5742  
 SHEET: 52 OF 52  
 SHEET NO.: 52