

**MODIFICATION TO A PREVIOUSLY APPROVED
CONTRIBUTING ZONE PLAN WITH
OPTIONAL ENHANCED MEASURES**

FOR

Silver Creek (Lunaroya) Subdivision

**Silver Creek Rd.
Dripping Springs, Texas 78620**

Prepared for:

Dripping Springs Owner, LLC
3990 Hillsboro Pike, Suite 400
Nashville, TN 37215

For Review by:

Texas Commission on Environmental Quality


Prepared by:



**Doucet & Associates, Inc.
TBPELS Firm #F-3937
JACOB HARRIS, P.E.
7401B Highway 71 W., Ste. 160
Austin, Texas 78735**

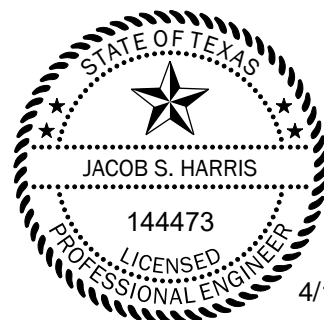
Engineer's Certification:

To the best of my knowledge, this application and all attachments accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer and were prepared in compliance with the rules of TAC Title 30, Part 1, Chapter 213, Subchapter B.



Jacob Harris, P.E.

**April 2025
Doucet Project No. 2408-002**



4/17/2025

Contributing Zone Plan

Table of Contents

0) Edwards Aquifer Application Cover Page	Section 0
1) Modification of a Previously Approved CZP Form (TCEQ-10259)	Section 1
A. Original Approval Letters	Attachment A
B. Narrative of Proposed Modification	Attachment B
C. Current Site Plan of the Approved Project	Attachment C
2) Contributing Zone Plan Application (TCEQ-10257)	Section 2
A. Road Map	Attachment A
B. USGS Quadrangle Map	Attachment B
C. Project Narrative	Attachment C
D. Factors Affecting Surface Water Quality	Attachment D
E. Volume and Character Of Stormwater	Attachment E
F. Suitability Letter from Authorized Agent	Attachment F
G. Alternative Secondary Containment Methods (if AST)	Attachment G
H. AST Containment Structure Drawings (if AST)	Attachment H
I. 20% Or Less Impervious Cover Waiver	Attachment I
J. BMPs for Upgradient Stormwater	Attachment J
K. BMPs for On-Site Stormwater	Attachment K
L. BMPs for Surface Streams	Attachment L
M. Construction Plans	Attachment M
N. Inspection, Maintenance, Repair & Retrofit Plan	Attachment N
O. Pilot-Scale Field Testing Plan	Attachment O
P. Measures For Minimizing Surface Stream Contamination	Attachment P
3) Storm Water Pollution Prevention Plan (SWPPP)	Section 3
4) Copy of Notice of Intent (NOI)	Section 4
5) Agent Authorization Form (TCEQ-0599)	Section 5
6) Application Fee Form (TCEQ-0574)	Section 6
7) Check Submitted to TCEQ (copy omitted per TCEQ)	Section 7
8) Core Data Form (TCEQ-10400)	Section 8
9) Optional Enhanced Measures (per TCEQ RG-348A)	Section 9
10) Construction Plans (folded)	Section 10

SECTION 0

EDWARDS AQUIFER APPLICATION COVERPAGE

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

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

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

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

Technical Review

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

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: Silver Creek (Lunaroya) Subdivision					2. Regulated Entity No.: RN111781852				
3. Customer Name: Dripping Springs Owner, LLC					4. Customer No.: CN606165884				
5. Project Type: (Please circle/check one)	New		Modification		Extension		Exception		
6. Plan Type: (Please circle/check one)	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Residential		Non-residential			8. Site (acres):		70 acres	
9. Application Fee:	\$6,500		10. Permanent BMP(s):			N/A			
11. SCS (Linear Ft.):	0		12. AST/UST (No. Tanks):			N/A			
13. County:	Hays		14. Watershed:			Barton Creek			

Application Distribution

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

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

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

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

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

Jacob Harris, P.E.

Print Name of Customer/Authorized Agent

April 16, 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):

SECTION 1

MODIFICATION OF A PREVIOUSLY APPROVED CONTRIBUTING ZONE PLAN FORM

(TCEQ-10259)

Modification of a Previously Approved Contributing Zone Plan

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Jacob Harris, P.E.

Date: April 16, 2025

Signature of Customer/Agent:



Project Information

- Current Regulated Entity Name: Silver Creek (Lunaroja) Subdivision
Original Regulated Entity Name: Silver Creek Subdivision
Assigned Regulated Entity Number(s) (RN): 111781852
Edwards Aquifer Protection Program ID Number(s): 11003657
☒ The applicant has not changed and the Customer Number (CN) is: CN606165884
☐ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.
- ☒ **Attachment A: Original Approval Letter and Approved Modification Letters.** A copy of the original approval letter and copies of any modification approval letters are attached.
- A modification of a previously approved plan is requested for (check all that apply):

- ☐ Any physical or operational modification of any best management practices or structure(s), including but not limited to temporary or permanent ponds, dams, berms, silt fences, and diversionary structures;
- ☒ Any change in the nature or character of the regulated activity from that which was originally approved;
- ☐ A change that would significantly impact the ability to prevent pollution of the Edwards Aquifer and hydrologically connected surface water; or
- ☐ Any development of land previously identified in a contributing zone plan as undeveloped.
4. ☒ **Summary of Proposed Modifications** (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

<i>CZP Modification</i>	<i>Approved Project</i>	<i>Proposed Modification</i>
<i>Summary</i>		
Acres	<u>70</u>	<u>70</u>
Type of Development	<u>ROW, Utils, Lot Grading</u>	<u>ROW, Utils, Lot Grading</u>
Number of Residential Lots	<u>28</u>	<u>26</u>
Impervious Cover (acres)	<u>12.98</u>	<u>8.49</u>
Impervious Cover (%)	<u>18.54</u>	<u>12.13</u>
Permanent BMPs	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>
<i>AST Modification</i>		
<i>Summary</i>		
Number of ASTs	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>
<i>UST Modification</i>		
<i>Summary</i>		
Number of USTs	<u>N/A</u>	<u>N/A</u>
Other	<u>N/A</u>	<u>N/A</u>

5. ☒ **Attachment B: Narrative of Proposed Modification.** A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved,

including previous modifications, and how this proposed modification will change the approved plan.

6. ☒ **Attachment C: Current Site Plan of the Approved Project.** A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
- ☒ The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
- ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
- ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.
- ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.
- ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.
7. ☐ Acreage has not been added to or removed from the approved plan.
- ☒ Acreage has been added to or removed from the approved plan and is discussed in *Attachment B: Narrative of Proposed Modification*.
8. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

ATTACHMENT A

ORIGINAL APPROVAL LETTERS

**MODIFICATION TO APPROVED CONTRIBUTING ZONE PLAN
(TCEQ-10259)**

Jon Niermann, *Chairman*
Emily Lindley, *Commissioner*
Bobby Janecka, *Commissioner*
Kelly Keel, *Interim Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 10, 2023

Brian Sewell
Dripping Springs Owner, LLC
3990 Hillsboro Pike, Suite 400
Nashville, TN 37215

Re: Approval of a Contributing Zone Plan (CZP)
Silver Creek Subdivision; Located 1 mile southwest of Fitzhugh Rd. and Silver Creek Rd.;
Dripping Springs ETJ, Hays County, Texas
Edwards Aquifer Protection Program ID: 11003657, Regulated Entity No. RN111781852

Dear Mr. Sewell:

The Texas Commission on Environmental Quality (TCEQ) has completed its review on the application for the above-referenced project submitted to the Edwards Aquifer Protection Program (EAPP) by Doucet on behalf of the applicant, Dripping Springs Owner, LLC on July 27, 2023. Final review of the application was completed after additional material was received on October 26, 2023.

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.

PROJECT DESCRIPTION

The proposed single-family residential project will have an area of approximately 70 acres. The project will include 28 single-family large residential lots with access, paving, on-site sewage facility for each lot, water supply well, and installation of above ground storage tank for fire protection. The impervious cover will be 12.98 acres (18.54- percent). According to a letter dated, July 5, 2023, signed by Mr. Eric Van Gaasbeek, R.S., C.F.M., with Hays County, the site in the development is acceptable for the use of on-site sewage facilities.

PERMANENT POLLUTION ABATEMENT MEASURES

This low density, single-family residential project will have 20-percent or less impervious cover, other permanent BMPs are not required.

SPECIAL CONDITIONS

- I. The 20-percent or less impervious cover waiver for the project must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20-percent or land use changes, the exemption for the whole site as described in the property boundaries required by §213.4(g) of this title, may no longer apply and the property owner must notify the EAPP of these changes. TCEQ form, Deed Recordation Affidavit (TCEQ-0625A), may be used.

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.

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 Neri B. Valdez of the Edwards Aquifer Protection Program at 210-403-4087 or the regional office at 512-339-2929.

Sincerely,



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

LIB/nbv

cc: Ms. Sumita Kadariya, P.E., Doucet

ATTACHMENT B

NARRATIVE OF PROPOSED MODIFICATION

**MODIFICATION TO APPROVED CONTRIBUTING ZONE PLAN
(TCEQ-10259)**

ATTACHMENT B

NARRATIVE OF PROPOSED MODIFICATION

The previously approved Silver Creek Subdivision project (EAPP ID #11003657) is located along Silver Creek Rd., approximately 4,100 ft. southwest of the intersection with Fitzhugh Rd. in the City of Dripping Springs Extraterritorial Jurisdiction (ETJ) with a total of 70 acres for a low density single-family residential subdivision. At the time of the original approval, the development was proposed to have 12.98 acres of impervious cover (18.54-percent) and as such it was determined that the low density, single-family residential project was not required to install any permanent BMPs. The proposed modification reduces the density further due to updated floodplain, required buffer zones and a change in water provider for the subdivision. The development now includes 26 single-family large residential lots (each lot a minimum of 1.5 acres) with access, paving, on-site sewage facility for each lot, and water line extension via West Travis County Public Utility Agency (WTCPUA) and undisturbed open space. The limit of disturbance is 13.38 acres with 8.49 acres of impervious cover (12.13-percent) for the 70-acre development. The proposed modification of the previously approved Contributing Zone Plan is to add Optional Enhanced Measures (OEM), pursuant to Appendix A of RG-348a.

The subject tract is located within the Barton Creek Watershed. Per current FEMA floodplain map panel #48209C0106G dated January 17, 2025, the southern portion of the property is located within the 100-year and 500-year floodplain. The site generally slopes to the south towards Barton Creek. In the existing and proposed overall conditions, drainage from the site generally conveys from north to south towards Barton Creek. The site will have less than 15% impervious cover, therefore, per drainage analysis, detention is not required. Because the site will be used for low density single-family residential development and has 15% or less impervious cover, we request an exemption from providing permanent BMPs as they are not required when these conditions are met per TCEQ guidance. Specifically, this development proposes 8.49 acres of impervious cover which is 12.13% of the 70-acre site.

It is understood that if the impervious cover percentage increases above 15% or the 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 roadside ditches within the right of way and the conveyance channels along the lot line are sized appropriately to contain 100-year runoff with required freeboard. The channel sections and the water surface elevations are provided in the construction plans.

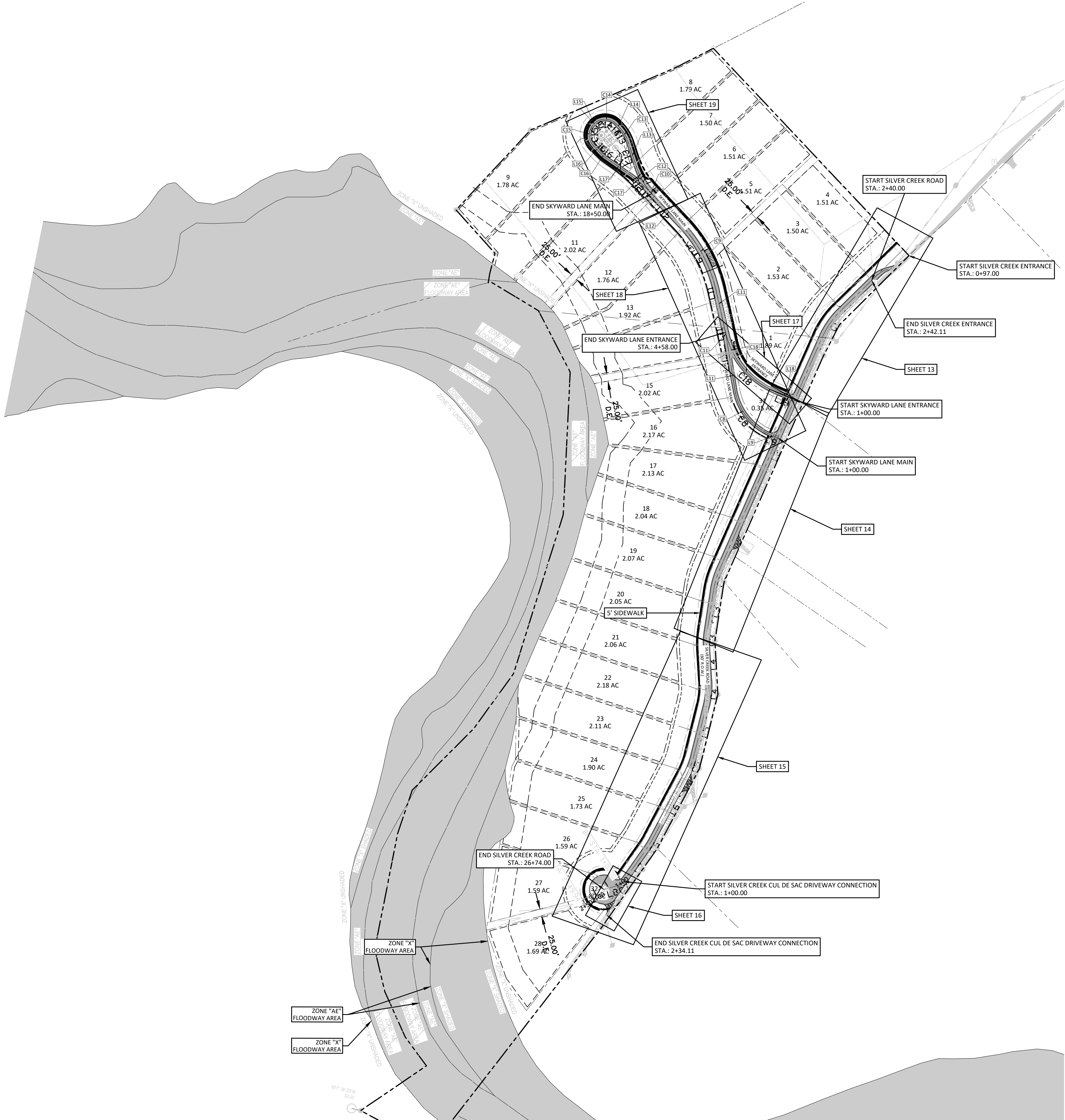
Water service will be provided by West Travis County Public Utility Agency via an offsite waterline that enters the site on the east side of Silver Creek Road. Utilizing this water source triggered optional enhanced measures. Although there is less than 15% impervious cover, the owner is adhering to the required WQ buffer zones per the current RG-348a standard.

Wastewater service will be provided by an on-site sewage facility (OSSF) with septic spray field for each lot. The location of each OSSF is illustrated within the Utility Plan (Section 10).

ATTACHMENT C

CURRENT SITE PLAN OF APPROVED PROJECT

MODIFICATION TO APPROVED CONTRIBUTING ZONE PLAN
(TCEQ-10259)



LOT SETBACKS

FRONT	25'
REAR	25'
SIDE	15'

R.O.W. WIDTHS

SILVER CREEK ROAD	LOCAL	60' OR AS SHOWN
SKYWARD LANE	LOCAL	60' OR AS SHOWN

PAVEMENT WIDTHS

SILVER CREEK ROAD	LOCAL	20' OR AS SHOWN
SKYWARD LANE	LOCAL	20' OR AS SHOWN

SILVER CREEK ROAD			
Number	Length	Radius	Line/Chord Direction
C1	114.286	300.000	S34° 36' 07.65"W
L2	892.536		S23° 49' 30.55"W
C2	81.864	300.000	S16° 00' 27.83"W
L3	142.680		S08° 41' 07.74"W
C3	64.592	300.000	S02° 31' 02.72"W
L4	109.952		S03° 39' 02.30"E
C4	92.363	300.000	S05° 10' 09.67"W
L5	177.578		S13° 59' 21.64"W
C5	72.316	300.000	S20° 53' 42.14"W
L6	258.935		S27° 48' 02.64"W
C6	38.434	300.000	S31° 28' 15.14"W
L7	142.490		S35° 08' 27.64"W
C7	23.650	35.000	S54° 29' 57.03"W
L8	51.645		S73° 51' 26.41"W

SKYWARD LANE MAIN			
Number	Length	Radius	Line/Chord Direction
L9	32.566		N66° 17' 11.00"W
C8	194.373	207.750	N39° 28' 59.49"W
L10	211.414		N09° 18' 57.79"W
C11	11.742	200.000	N10° 59' 52.88"W
L11	144.285		N12° 40' 47.98"W
C9	267.384	500.000	N27° 59' 59.90"W
L12	146.128		N43° 19' 11.83"W
C10	4.809	249.913	N42° 46' 07.99"W

SKYWARD LANE CDS			
Number	Length	Radius	Line/Chord Direction
C12	105.460	250.000	N30° 07' 58.82"W
L13	93.237		N18° 02' 53.49"W
C13	66.161	150.000	N30° 41' 02.66"W
L14	13.322		N43° 19' 11.83"W
C14	86.394	55.000	N88° 19' 11.83"W
L15	1.901		S46° 40' 48.17"W
C15	86.394	55.000	S01° 40' 48.17"W
L16	33.734		S43° 19' 11.83"E
C16	30.636	150.000	S49° 10' 15.87"E
L17	100.104		S55° 01' 19.92"E
C17	102.121	500.000	S49° 10' 15.87"E

SKYWARD LANE ENTRANCE			
Number	Length	Radius	Line/Chord Direction
L18	77.274		N66° 17' 10.99"W
C18	280.682	300.000	N39° 28' 59.49"W

LEGEND

- IRON ROD FOUND (SIZE NOTED)
- ⊙ IRON PIPE FOUND (SIZE NOTED)
- ⊗ BENCHMARK FOUND
- △ CALCULATED POINT
- ⊗ COTTON SPINDLE FOUND
- ▲ NAIL FOUND
- ⊙ FENCE POST OCCUPIES PROPERTY CORNER
- ⊙ MONUMENT FOUND
- ⊙ CONCRETE MARKER FOUND
- BOLLARD (SIZE NOTED)
- - - BOUNDARY LINE
- - - PROPERTY LINES
- - - EASEMENTS
- - - WIRE FENCE (EXISTING)
- - - OVERHEAD ELECTRIC (EXISTING)
- PROPOSED HMAC SURFACE

SITE TABLE		
SITE AREA	3,049,200 SF	70.00 ACRES
IMPERVIOUS COVER		
STRUCTURES/ROOFTOPS	464,240 SF	10.66 ACRES
ROADWAYS/OTHER PAVED SURFACES	101,104 SF	2.32 ACRES
TOTAL IMPERVIOUS COVER	565,344 SF	12.98 ACRES
I.C. PERCENTAGE		
		18.54%

- NOTES:
- ALL SIDEWALKS TO HAVE A MINIMUM CROSS-SLOPE OF 1.0% TOWARDS THE NEAREST CHANNEL TO ENSURE PROPER DRAINAGE.
 - ALL MEDIAN ISLANDS AND CURBED MEDIANS WITH PERVIOUS SURFACES TO HAVE A MOISTURE BARRIER INSTALLED. REFER TO DETAIL ON ROADWAYS DETAILS SHEETS FOR MORE INFORMATION.
 - ALL CONNECTIONS TO EXISTING GRAVEL DRIVEWAYS TO BE CONNECTED WITH HEADER CURBS. REFER TO DETAIL ON ROADWAY DETAILS SHEETS FOR MORE INFORMATION.
 - RIBBON CURB TO HAVE EXPANSION JOINTS EVERY 40 FEET. REFER TO DETAILS ON ROADWAYS DETAILS SHEETS FOR MORE INFORMATION.

OVERALL ROADWAY PLAN

SILVER CREEK SUBDIVISION
DRIPPING SPRINGS OWNER, LLC.
HAYS COUNTY, TEXAS 78620



SECTION 2
CONTRIBUTING ZONE PLAN
(TCEQ-10257)

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.

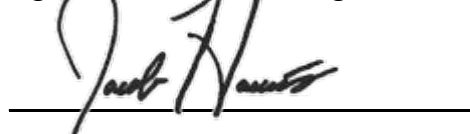
Signature

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: Jacob Harris, P.E.

Date: April 16, 2025

Signature of Customer/Agent:



Regulated Entity Name: Silver Creek (Lunaroya) Subdivision

Project Information

1. County: Hays
2. Stream Basin: Barton Creek
3. Groundwater Conservation District (if applicable): Hays-Trinity Groundwater Conservation District

4. Customer (Applicant):

Contact Person: Brian Sewell

Entity: Dripping Springs Owner, LLC

Mailing Address: 3990 Hillsboro Pike, Suite 400

City, State: Nashville, TN

Telephone: 615-778-2889

Zip: 37215

Fax: _____

Email Address: brian.sewell@southernland.com

5. Agent/Representative (If any):

Contact Person: Jacob Harris, P.E.

Entity: Doucet

Mailing Address: 7401B Highway 71 W, Ste. 160

City, State: Austin, TX

Zip: 78735

Telephone: 512-583-2656

Fax: _____

Email Address: jacharris@kleinfelder.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 Dripping Springs, TX.
- ☐ 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.

Silver Creek Rd., approximately 4,100 ft. southwest of the intersection with Fitzhugh Rd.,
Dripping Springs, TX 78620

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: 26
- ☒ Residential: # of Living Unit Equivalents: 26
- ☐ Commercial
- ☐ Industrial
- ☐ Other: _____

13. Total project area (size of site): 70 Acres

Total disturbed area: 13.38 Acres

14. Estimated projected population: 104

15. 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	130,000	÷ 43,560 =	2.98
Parking		÷ 43,560 =	
Other paved surfaces	239,825	÷ 43,560 =	5.51
Total Impervious Cover	369,825	÷ 43,560 =	8.49

Total Impervious Cover 8.49 ÷ Total Acreage 70 X 100 = 12.13% Impervious Cover

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

For Road Projects Only

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

☒ N/A

18. Type of project:

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

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

- ☐ Concrete
- ☐ Asphaltic concrete pavement
- ☐ Other: _____

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

Length of R.O.W.: _____ feet.

Width of R.O.W.: _____ feet.

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

21. Pavement Area:

Length of pavement area: _____ feet.

Width of pavement area: _____ feet.

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

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

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

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

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

☐ N/A

26. Wastewater will be disposed of by:

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

☒ **Attachment F - Suitability Letter from Authorized Agent.** An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.

☒ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

☐ Sewage Collection System (Sewer Lines):

The sewage collection system will convey the wastewater to the _____ (name) Treatment Plant. The treatment facility is:

☐ Existing.

☐ Proposed.

☐ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

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

☒ N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

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

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

Total x 1.5 = N/A Gallons

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

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

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

Table 3 - Secondary Containment

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

Total: _____ Gallons

30. Piping:

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

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

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

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

- ☐ Dispenser clearly labeled
33. ☐ Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.
- ☐ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.
- ☐ In the event of a spill, any spillage will be drained from the containment structure through a drain and valve within 24 hours of the spill and disposed of properly. The drain and valve system are shown in detail on the scaled drawing.

Site Plan Requirements

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

34. ☒ The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = 80'.
35. 100-year floodplain boundaries:
- ☒ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
- ☐ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA FIRMette Panel #48209C0106G effective date 1/17/2025.
36. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.
- ☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot contour intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, etc. are shown on the site plan.
37. ☒ A drainage plan showing all paths of drainage from the site to surface streams.
38. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.
39. ☒ Areas of soil disturbance and areas which will not be disturbed.
40. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
41. ☒ Locations where soil stabilization practices are expected to occur.
42. ☐ Surface waters (including wetlands).
- ☒ N/A

43. ☒ Locations where stormwater discharges to surface water.
☐ There will be no discharges to surface water.
44. ☐ Temporary aboveground storage tank facilities.
☒ Temporary aboveground storage tank facilities will not be located on this site.
45. ☐ Permanent aboveground storage tank facilities.
☒ Permanent aboveground storage tank facilities will not be located on this site.
46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

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

47. ☐ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.
☒ N/A
48. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.
☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.
☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____.
☐ N/A
49. ☐ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.
☒ N/A
50. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

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

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

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

52. ☒ **Attachment J - BMPs for Upgradient Stormwater.**

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

53. ☒ **Attachment K - BMPs for On-site Stormwater.**

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

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

☒ N/A

55. ☒ **Attachment M - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. Construction plans for the proposed permanent BMPs and measures are attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

☐ N/A

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

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

☒ N/A

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

☒ N/A

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

☒ N/A

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

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

responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

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

Administrative Information

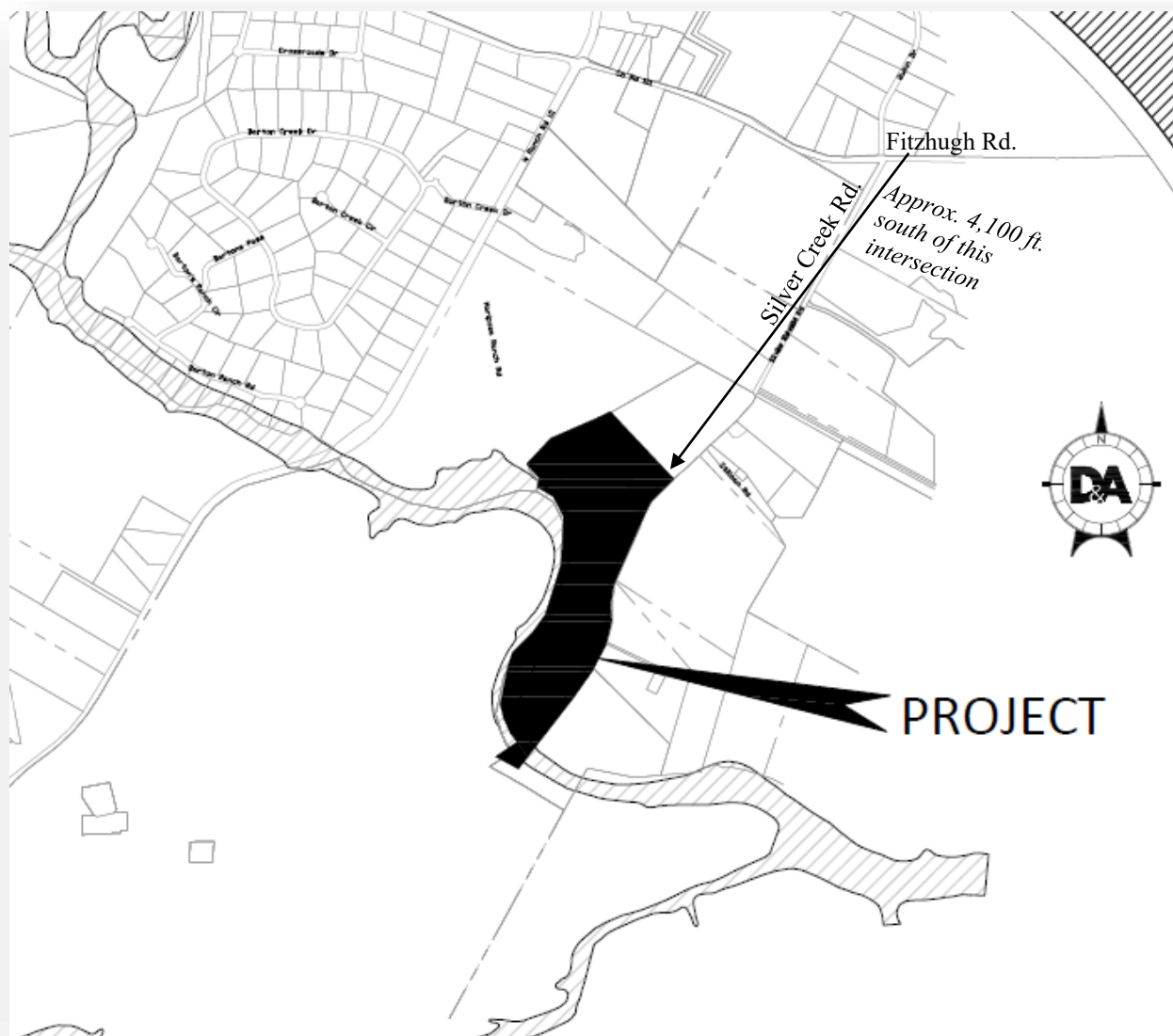
61. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions.
62. ☒ Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.
63. ☒ The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.
- ☐ The Temporary Stormwater Section (TCEQ-0602) is included with the application.

ATTACHMENT A

ROAD MAP

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

ROAD MAP



Section 2: Attachment A

ATTACHMENT B

USGS MAP

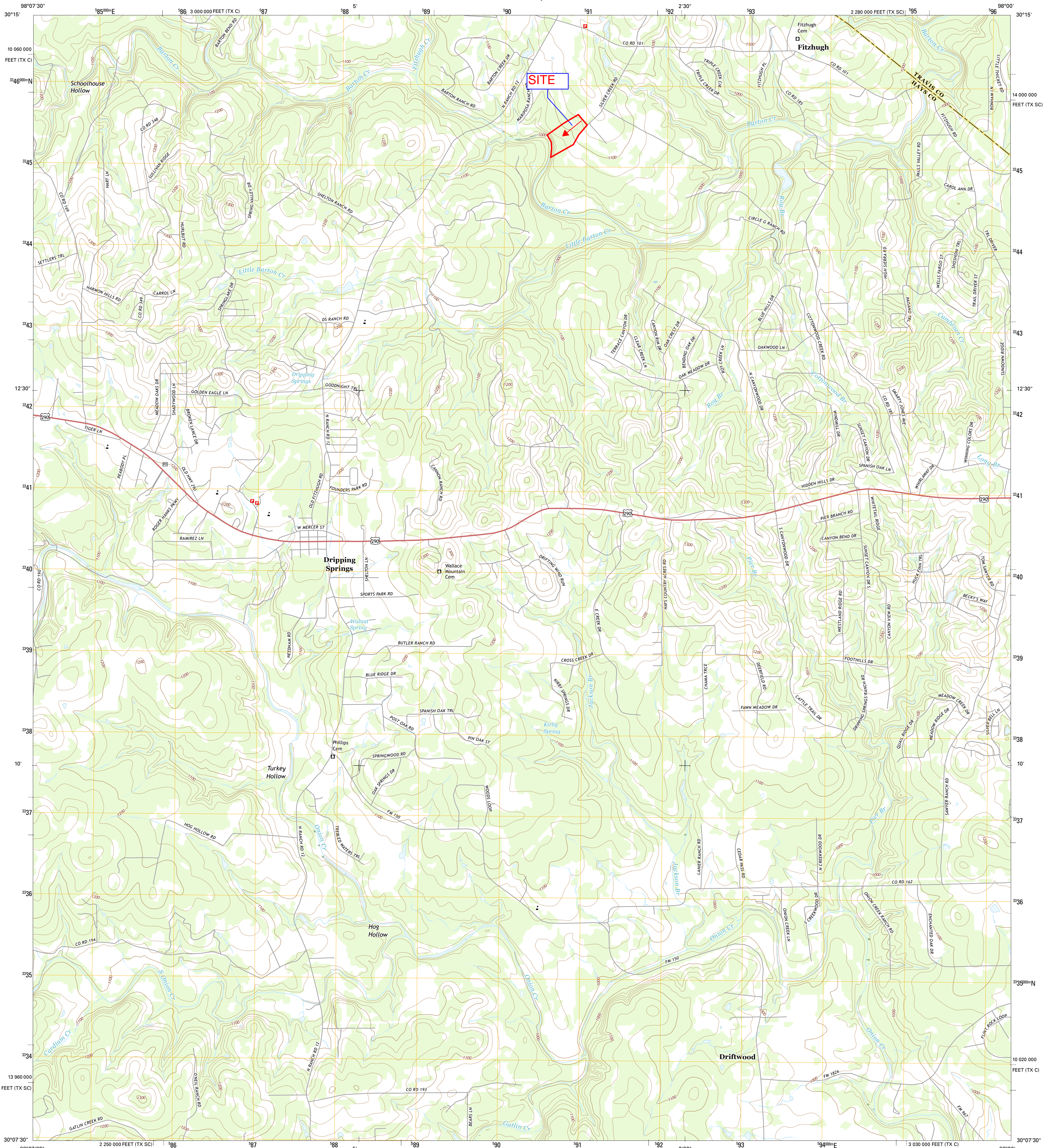
**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**



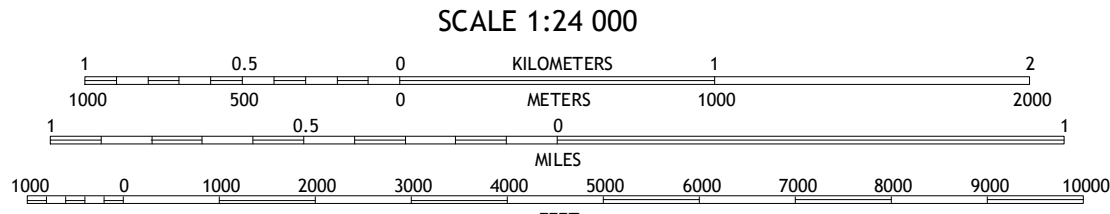
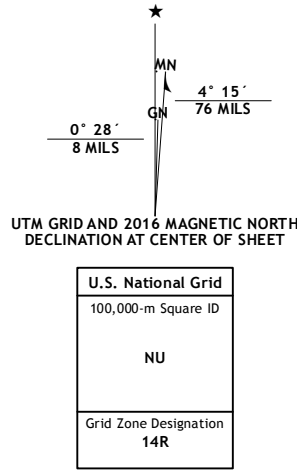
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY



DRIPPING SPRINGS QUADRANGLE
TEXAS
7.5-MINUTE SERIES



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1000-meter grid: Universal Transverse Mercator, Zone 14R
10 000-foot ticks: Texas Coordinate System of 1983 (south
central and central zones)
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.
Imagery.....NAIP, October 2014
Roads.....U.S. Census Bureau, 2014 - 2015
Names.....GNIS, 2015
Hydrography.....National Hydrography Dataset, 2014
Contours.....National Elevation Dataset, 2002
Boundaries.....Multiple sources; see metadata file 1972 - 2015
Wetlands.....FWS National Wetlands Inventory 1977 - 2014



CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.19

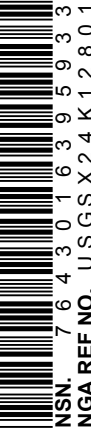


ROAD CLASSIFICATION			
Expressway	Local Connector	Local Road	4WD
Secondary Hwy	Interstate Route	US Route	State Route
Ramp			

1	2	3
4	5	6
7	8	9

ADJOINING QUADRANGLES

DRIPPING SPRINGS, TX
2016



ATTACHMENT C

PROJECT NARRATIVE

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

ATTACHMENT C

PROJECT NARRATIVE

The previously approved Silver Creek Subdivision project (EAPP ID #11003657) is located along Silver Creek Rd., approximately 4,100 ft. southwest of the intersection with Fitzhugh Rd. in the City of Dripping Springs Extraterritorial Jurisdiction (ETJ) with a total of 70 acres for a low density single-family residential subdivision. At the time of the original approval, the development was proposed to have 12.98 acres of impervious cover (18.54-percent) and as such it was determined that the low density, single-family residential project was not required to install any permanent BMPs. The proposed modification reduces the density further due to updated floodplain, required buffer zones and a change in water provider for the subdivision. The development now includes 26 single-family large residential lots (each lot a minimum of 1.5 acres) with access, paving, on-site sewage facility for each lot, and water line extension via West Travis County Public Utility Agency (WTCPUA) and undisturbed open space. The limit of disturbance is 13.38 acres with 8.49 acres of impervious cover (12.13-percent) for the 70-acre development. The proposed modification of the previously approved Contributing Zone Plan is to add Optional Enhanced Measures (OEM), pursuant to Appendix A of RG-348a.

The subject tract is located within the Barton Creek Watershed. Per current FEMA floodplain map panel #48209C0106G dated January 17, 2025, the southern portion of the property is located within the 100-year and 500-year floodplain. The site generally slopes to the south towards Barton Creek. In the existing and proposed overall conditions, drainage from the site generally conveys from north to south towards Barton Creek. The site will have less than 15% impervious cover, therefore, per drainage analysis, detention is not required. Because the site will be used for low density single-family residential development and has 15% or less impervious cover, we request an exemption from providing permanent BMPs as they are not required when these conditions are met per TCEQ guidance. Specifically, this development proposes 8.49 acres of impervious cover which is 12.13% of the 70-acre site.

It is understood that if the impervious cover percentage increases above 15% or the 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 roadside ditches within the right of way and the conveyance channels along the lot line are sized appropriately to contain 100-year runoff with required freeboard. The channel sections and the water surface elevations are provided in the construction plans.

Water service will be provided by West Travis County Public Utility Agency via an offsite waterline that enters the site on the east side of Silver Creek Road. Utilizing this water source triggered optional enhanced measures. Although there is less than 15% impervious cover, the owner is adhering to the required WQ buffer zones per the current RG-348a standard.

Wastewater service will be provided by an on-site sewage facility (OSSF) with septic spray field for each lot. The location of each OSSF is illustrated within the Utility Plan (Section 10).

ATTACHMENT D

FACTORS AFFECTING SURFACE WATER QUALITY

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

ATTACHMENT D

FACTORS AFFECTING SURFACE WATER QUALITY

Surface water quality can be affected by disturbance during construction and by development after construction. Soil disturbance from clearing and grubbing and cut and fill operations can lead to discharge of sediment unless adequate temporary erosion control measures are in place. For this project, perimeter silt fence and rock berms will prevent sediment from leaving the site. Siltation collected by the control measures will be cleaned from fences, berms, etc. on a routine schedule as outlined in the SWPPP and contract specifications. A comprehensive list of potential site pollutants is shown on the attached 'Table 1. Potential Construction Site Pollutants'.

The drainage area of Barton Creek upstream from the site is made up of approximately 25 square miles. However, the on-site and off-site contributing area that the drainage system is designed for is approximately 110 acres (on-site area is approximately 70 acres). During construction, surface water quality may also be affected by a spill of hydrocarbons or other hazardous substances used in construction. The most likely instances of a spill of hydrocarbons or hazardous substances are:

1. Refueling construction equipment.
2. Performing operator-level maintenance, including adding petroleum, oils, or lubricants.
3. Unscheduled or emergency repairs, such as hydraulic fluid leaks.







Every effort will be taken to be cautious and prevent spills. In the event of a fuel or hazardous substance spill as defined by the Reportable Quantities Table (30 TAC 327 and printed from TCEQ website), the contractor is required to clean up the spill and notify the TCEQ as required in 30 TAC 327. During business hours report spills to the TCEQ's Austin Regional Office at (512) 339-2929, after business hours call 1-800-832-8224, the State Emergency Response Center.

After construction is complete, impervious cover for the subject tract is the major reason for degradation of water quality. Impervious cover includes mainly the asphaltic pavement surface. Oil and fuel discharge from vehicles is anticipated. The proposed development of a low density single-family residential subdivision with less than 15% impervious cover (12.13% or 8.49 acres of the 70-acre site is impervious with 13.38 acres of disturbance) is exempt from providing permanent BMPs.

Spills: Reportable Quantities

The RQ depends on the substance released and where released. Use this table to determine whether you must report and under what rule.

In Texas, upon determining that a reportable discharge or spill has occurred, the responsible person must notify the state. The threshold quantity that triggers the requirement to report a spill is called the **reportable quantity (RQ)**. The reportable quantity depends on the type of substance released and where released (e.g. into water vs. on land); different kinds of spills are subject to different provisions of state and federal rules.

Kind of spill	Where discharged	Reportable quantity	Rule, statute, or responsible agency
Hazardous substance	onto land	“Final RQ” in Table 302.4 in 40 CFR 302.4 (PDF) 	30 TAC 327 
	into water	“Final RQ” or 100 lbs, whichever is less	
Any oil	coastal waters	as required by the Texas General Land Office	Texas General Land Office 
Crude oil, oil that is neither a petroleum product nor used oil	onto land	210 gallons (five barrels)	30 TAC 327 
	directly into water	enough to create a sheen	
Petroleum product, used oil	onto land, from an exempt PST facility	210 gallons (five barrels)	30 TAC 327 
	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	as required by the Railroad Commission of Texas	Railroad Commission of Texas 

	Texas		
Industrial solid waste or other substances	into water	100 lbs	30 TAC 327 Exit...
From petroleum storage tanks, underground or aboveground	into water	enough to create a sheen on water	30 TAC 334.75-81 Exit...
From petroleum storage tanks, underground or aboveground	onto land	25 gallons or equal to the RQ under 40 CFR 302 Exit...	30 TAC 327 Exit...
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	30 TAC 327

Table 1. Potential Construction Site Pollutants

Material/Chemical	Physical Description	Stormwater Pollutants	Location or related Construction Activity
Sediment	Various colored soil particles, turbid water (dissolved sediments)	Turbidity, suspended sediment, metals and nutrients attached to sediment particles	Clearing and grubbing operations, grading and site excavation operations, vehicle tracking, topsoil stripping and stockpiling, landscaping operations
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	Herbicides used for noxious weed control
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas
Plaster	White granules or powder	Calcium sulphate, calcium carbonate, sulfuric acid	Wall construction
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits
Asphalt	Black solid	Oil, petroleum distillates	Streets and roofing
Concrete	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, building construction
Glue, adhesives	White or yellow liquid	Polymers, epoxies	General construction
Paints	Various colored liquid	Metal oxides, stoddard solvent, talc, calcium carbonate, arsenic	General construction
Curing compounds	Creamy white liquid	Naphtha	Curb and gutter
Wood preservatives	Clear amber or dark brown liquid	Stoddard solvent, petroleum distillates, arsenic, copper, chromium	General construction
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment/staging area, vehicle leaks
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes	Secondary containment/staging area, vehicle leaks
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates	Secondary containment/staging area

ATTACHMENT E

VOLUME AND CHARACTER OF STORMWATER

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

ATTACHMENT E

VOLUME AND CHARACTER OF STORMWATER

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

ATTACHMENT E

VOLUME AND CHARACTER OF STORMWATER

The 70-acre Silver Creek Subdivision project has a maximum of 15% impervious cover (12.13% or 8.49 acres proposed) consisting of rooftops, sidewalks and street pavement. The remaining pervious portion of the site will consist of landscape and natural areas. The roadside ditches within the right of way and the conveyance channels along the lot line are sized appropriately to contain 100-year runoff with required freeboard. The channel sections and the water surface elevations are provided in the construction plans.

Because the site will be used for low density single-family residential development and has 15% or less impervious cover, the development is exempt from providing permanent BMPs as they are not required when these conditions are met per TCEQ guidance.

The site-specific drainage area map demonstrating drainage conveyance through the site is provided on the Proposed Drainage Area Map in Section 10 of this application.

- Drainage area DA #A1-A4 consists of offsite and onsite flow from the north and is collected by the roadside ditch on the north side of Skyward Lane. The roadside ditch carries the flow to a 6'x2' RCP (Culvert 6) culvert that crosses Skyward Lane to the south. The flow continues along a earthen ditch between lots 15 and 16 to Barton Creek.
- Drainage area DA #B1-B4 also consists of offsite and onsite flow from the north and is collected by the roadside ditch on the north side of Skyward Lane. The roadside ditch carries the flow to a 30" RCP (Culvert 6) culvert that crosses Skyward Lane to the south. The flow continues along a earthen ditch between lots 15 and 16 to Barton Creek.
- Drainage area DA #C1-C4 consists of offsite and onsite drainage from the east and along the Silver Creek ROW. The drainage concentrates within the roadside ditches along Silver Creek Road and flows to Barton Creek to the south.

NOTE: No detention is proposed for this development as the increase in runoff does not ultimately affect the flows within the Barton Creek Watershed at the point of analysis adjacent to this development.

ATTACHMENT F

SUITABILITY LETTER FROM AUTHORIZED AGENT

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**



Hays County Development Services

2171 Yarrington Road, Suite 100, Kyle TX 78640
512-393-2150 main / 512-493-1915 fax

July 5, 2023

To Whom It May Concern:

Re: On Site Sewage Facility Suitability (OSSF) for the Silver Creek Subdivision located at approximately 13755 Silver Creek Road, Dripping Springs, Texas 78620, parcel ID: R184803 per Hays Central Appraisal District.

I have completed my preliminary review of the Facility Planning Report submitted in support of the above referenced development in Hays County. I concur with Stan Burrier, P.E., findings that this 28-lot subdivision can be adequately served by individual on-site sewage facilities. These lots will be served by a public ground water supply served by a public water well.

This review does not authorize the start of any construction and all Hays County development authorizations and subdivision requirements must be obtained before the start of any development.

Please contact me if you have any questions concerning this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Van Gaasbeek", with a stylized flourish at the end.

Eric Van Gaasbeek, R.S., C.F.M.
Chief Environmental Health Specialist
Floodplain Administrator
OS# 0028967

**FACILITY PLANNING REPORT
FOR
Silver Creek Subdivision
LOCATED IN
HAYS COUNTY, TEXAS**

**Prepared for:
Southern Land Company
c/o Dan Hutts
3990 Hillsboro Pike, Suite 400
Nashville, TN 37215**

**Prepared by:
Banks & Associates**

Firm F-2002
820 Currie Ranch Road
Wimberley, Texas 78676
(512) 801-9049

July 31, 2022



7/31/22

INTRODUCTION

This Facility Planning Report has been prepared to evaluate the ability for the proposed Silver Creek Subdivision to accommodate an on-site sewage facility (“OSSF”) in accordance with Chapter 30 of the Texas Administrative Code (“TAC”) §285. This report specifically addresses the approximately 70 acres, to be subdivided into twenty-eight single family residential lots, as shown on the plat and attached Site Plan (prepared by Doucet and used with permission). The recommendations in this Report utilize the typical planning materials (“Planning Materials”), as required in 30 TAC §285.4. Since this report contains a Preliminary Site Evaluation, a detailed site evaluation (“Site Evaluation”) for each lot will be. Unless specifically defined in this report, all capitalized terms shall have the same meaning set forth in 30 TAC §285.

SITE SUMMARY

General Location

The Site consists of approximately 70 acres of land on Silver Creek Road. The Site is located on the west side of Silver Creek Road, and goes to the end of Silver Creek Road, Hays County, Texas.

Layout and Use

The site is currently undeveloped, aside from one old barn. The proposed development will have 28 single family residential lots and some community owned lots. The lots range in size from 1.5 to 2.54 acres. Wastewater at the Site will be served by private on-site sewage facilities (OSSFs) and potable water will be supplied by a public water supply well at the site. The wastewater usage for each lot will be dependent upon the size and number of bedrooms in each house. Each lot will have to be evaluated during the site planning process to determine the wastewater usage and the required wastewater disposal area.

Physical Characteristics

The Site is undeveloped, other than the barn, and minimally disturbed. There are currently no water wells on the site. The vegetation consists of low lying brush, mixed hardwood trees, ashe juniper, and native grasses. The site is gently to moderately sloping towards the creek. The site contains Barton Creek on the west and southern border. There are no surface water bodies on the site. Site drainage is primarily to the southwest, towards Barton Creek. The site topography is shown on the attached site plan. Drainage is to the south and west, towards Barton Creek. The site is located in the Edwards Aquifer Contributing Zone. There were no environmental features identified at the site.

The surface drainage is adequate to prevent ponding and pooling on the treatment and disposal areas. There are some steep slopes on the site, associated with Barton Creek. The only named surface water body or spring encountered at the site is Barton Creek. There was no shallow groundwater encountered in any of the profile holes. There is FEMA floodplain located on the property, associated with Barton Creek, as shown on the site plan and in accordance with the

FEMA floodplain map. The FEMA 100-year floodplain is shown on the attached site map. Disposal fields are required to be located outside of any drainage easement and the floodway.

Based upon our observations, the drainage and groundwater conditions at the site do not prohibit the use of any of the standard, approved on site wastewater treatment and disposal systems for OSSFs. OSSF treatment and disposal methods currently in successful service and accepted by the regulatory authority, Hays County, will be appropriate for this site. A subsurface drip irrigation system or a surface spray irrigation system is appropriate for most of this site. In some locations, where the soils are deeper a conventional or panel system may be utilized.

PLANNING MATERIALS

Planning Materials have been prepared and analyzed to provide the recommendations herein. Five (5) test pits were excavated throughout the site and the soil profile in each test pit was analyzed. The test pits were inspected by Erin K. Banks, P.E. The test pits were excavated with a backhoe, the total depths ranged from 2" to 60" below grade, a more detailed description of each hole follows this report. A restrictive horizon (backhoe refusal) was encountered in four of the test pits. The soils encountered consisted of silty clay loams and weathered limestone. The soils encountered in all test pits but one would be classified as Class IV soils. The test pit locations are indicated on Site Plan.

According to the USDA Soils Map for the Site, the on site soils consist of clay loam, stony clays and cobbly clays, of the Bolar, Comfort and Doss Series', weathered limestone and marl (caliche) of the Real Series, and loamy, gravelly sand, located in the creek bed, of the Orif Series. Vegetation within the areas to be utilized for the application of treated effluent consists primarily of grasses, hardwoods, ashe juniper, and some herbaceous species.

FINDINGS AND RECCOMENDATIONS

The Site is located in the Edwards Aquifer Contributing Zone. The Site will be served by a public water supply well on site. The lots meet the minimum lot size for lots served by a public water supply well and OSSFs in Hays County. The lots are large enough that there is adequate space on the lots for OSSFs. OSSFs are required to be outside of the drainage easements and outside of the setbacks required, based upon disposal method and application rate.

Based upon the results of this preliminary study, the lots are suitable for OSSFs. The owners will have the option, based upon site specific conditions, of utilizing a subsurface disposal method consisting of drip irrigation, or a surface spray system, possibly panels or a conventional system.

The OSSF field should be located and graded such that surface runoff is directed away from the disposal area. The disposal area should be located in an area where the slope is appropriate for the disposal method. Some instances may require berms or curtain drains upstream of the disposal area to prevent soil saturation.

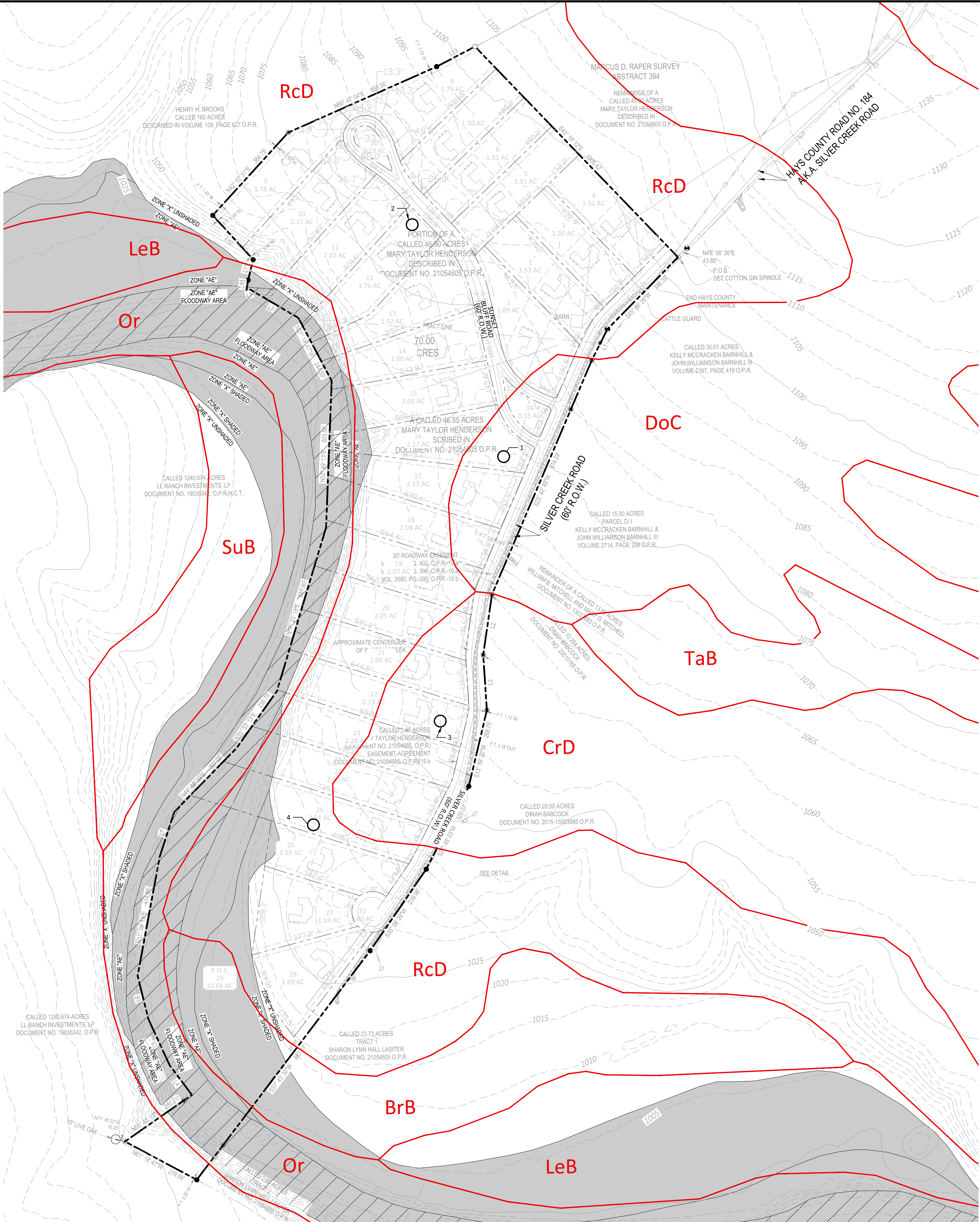
Treatment and disposal areas should be located outside of public utility easements and a one foot setback is required for subsurface easements. The designer of the system shall take into account the requirements of 30 TAC Chapter 285 when siting the systems.

PROFILE HOLES

- #1- 0-10" Topsoil
10-60" Tan/Gray Caliche, < 20% gravel
No groundwater encountered
- #2- 0-18" Dark Brown Silty Clay Loam, < 15% gravel
Backhoe Refusal @ 18"
No groundwater encountered
- #3- 0-12" Dark Brown Silty Clay Loam, < 15% gravel
Backhoe Refusal @ 12"
No groundwater encountered
- #4- 0-5" Brown Silty Clay Loam, < 20% gravel
Backhoe Refusal @ 5"
No groundwater encountered
- #5- 0-4" Brown Silty Clay Loam, < 20% gravel
Backhoe Refusal @ 4"
No groundwater encountered



7/31/22



LEGEND

- SUBDIVISION BOUNDARY
- LOT LINES
- SOIL BOUNDARY
- FEMA 100-YR FLOODPLAIN
- PROFILE HOLE

NOTE:
SOILS MAP PER DOUCET'S
PHASE I ENVIRONMENTAL SITE
ASSESSMENT ON DECEMBER
14, 2021.

DOUCET

Civil Engineering // Entitlements // Geospatial

7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512)-583-2600
www.doucetengineers.com
TBPE Firm Number: 3937
TBPELS Firm Number: 10105800

SITE PLAN

SOUTHERN LAND COMPANY
SILVER CREEK SUBDIVISION
SILVER CREEK ROAD, HAYS COUNTY, TX 78620

Designed: RP
Drawn: RP
Reviewed: TB
Date:

SHEET
1

Project No.:
2408-002

ATTACHMENT G

ALTERNATIVE SECONDARY CONTAINMENT METHODS

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

(NOT APPLICABLE)

ATTACHMENT H

AST CONTAINMENT STRUCTURE DRAWINGS (IF AST)

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

(NOT APPLICABLE)

ATTACHMENT I

20% OR LESS IMPERVIOUS COVER WAIVER

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

(NOT APPLICABLE)

ATTACHMENT J

BMPs FOR UPGRADIENT STORMWATER

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

ATTACHMENT J

BMPs FOR UPGRAIDENT STORMWATER

Surface water, groundwater and storm water that originates upgradient from the site flows across the site through the 300-foot Optional Enhanced Measures (OEM) water quality buffer zone established along Barton Creek.

Because the site will be used for low density single-family residential development and has 15% or less impervious cover (12.13% of the 70-acre site, 8.49 acres impervious cover proposed), the development is exempt from providing permanent BMPs as they are not required when these conditions are met per TCEQ guidance.

All temporary BMPs are shown on the plan set (see Section 10 of this application) and are described more fully in the SWPPP in Section 3 of this application.

ATTACHMENT K

BMPs FOR ON-SITE STORMWATER

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

ATTACHMENT K

BMPs FOR ON-SITE STORMWATER

On-site stormwater will travel as sheet flow or shallow concentrated flow across pervious and impervious areas. Because the site will be used for low density single-family residential development and has 15% or less impervious cover (12.13% of the 70-acre site, 8.49 acres impervious cover proposed), the development is exempt from providing permanent BMPs as they are not required when these conditions are met per TCEQ guidance.

ATTACHMENT L

BMPs FOR SURFACE STREAMS

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

ATTACHMENT L

BMPs FOR SURFACE STREAMS

The south/western boundary of the site is immediately adjacent to Barton Creek and is the ultimate point of discharge for the proposed development. Because the site will be used for low density single-family residential development and has 15% or less impervious cover (12.13% of the 70-acre site, 8.49 acres impervious cover proposed), the development is exempt from providing permanent BMPs as they are not required when these conditions are met per TCEQ guidance.

ATTACHMENT M

CONSTRUCTION PLANS

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

ATTACHMENT M

CONSTRUCTION PLANS

Full size construction plans of the proposed development are included in Section 10 of this application; 11x17" copies of the following sheets have been included with this attachment: Overall Existing Drainage Area Map, Overall Proposed Drainage Area Map, Proposed Drainage Area Map and Proposed Channel Sections (Sheets 32-35) and General Notes (Sheets 2-3) which includes the required CZP and WTCPUA General Construction Notes.

Because the site will be used for low density single-family residential development and has 15% or less impervious cover (12.13% of the 70-acre site, 8.49 acres impervious cover proposed), the development is exempt from providing permanent BMPs as they are not required when these conditions are met per TCEQ guidance.

Drawing: C:\pwworking\Jd\cdec\prod\Jonathan.Banister\0114892\2408002 CD\CV.dwg
User: JBAUNSTER
Date: 2/10/2025 10:25:08 AM
Plot Date/Time: Feb. 10, 2025 - 10:22:16

STREET AND DRAINAGE NOTES:

1. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY THE CITY OF DRIPPING SPRINGS AFTER COMPLETION. THE CONTRACTOR SHALL NOTIFY THE CITY OF DRIPPING SPRINGS NO LESS THAN 48 HOURS PRIOR TO ANY TESTING.
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANTLIFE.
3. STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF 1/4" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED. HOWEVER IN NO CASE SHALL THE WIDTH OF THE RIGHT-OF-WAY AT 1/4" PER FOOT SLOPE BE LESS THAN 10 FEET UNLESS A SPECIFIC REQUEST FOR AN ALTERNATE GRADING SCHEME IS MADE TO AND ACCEPTED BY THE CITY OF DRIPPING SPRINGS.
4. BARRICADES BUILT TO THE CITY OF DRIPPING SPRINGS STANDARDS SHALL BE ERECTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB AND PUBLIC SAFETY.
5. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE MINIMUM CLASS III.
6. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE CONSTRUCTION PLANS.
7. MOISTURE CONDITIONED SUBGRADE: THE SUBGRADE SHOULD BE SCARIFIED TO A DEPTH OF 6 INCHES AND MOISTURE ADJUSTED TO BETWEEN OPTIMUM AND +4 PERCENT OF OPTIMUM MOISTURE CONTENT. THE SUBGRADE SHOULD THEN BE RECOMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698. CARE SHOULD BE TAKEN TO INSURE THAT THE SUBGRADE DOES NOT DRY OUT OR BECOME SATURATED PRIOR TO PAVEMENT CONSTRUCTION.
8. WHENEVER SOIL INVESTIGATION OR EXCAVATION SHOWS MORE THAN 2 FEET OF EXPANSIVE SUBGRADE, WITH P.I. GREATER THAN 25, THE GEOTECHNICAL ENGINEER OF RECORD SHALL BE CONSULTED FOR ALTERNATIVE PAVEMENT DESIGN MEASURES.
9. AT INTERSECTIONS WHICH HAVE VALLEY DRAINAGE, THE CROWNS OF THE INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
10. A CURB LAYDOWN IS REQUIRED AT ALL POINTS WHERE THE PROPOSED SIDEWALK INTERSECTS THE CURB.
11. ALL MACHINE LAID CURB SHALL HAVE EXPANSION JOINTS AT 40' INTERVALS.
12. WHEN USING LIME FOR STABILIZATION OF THE SUBGRADE, IT SHALL BE PLACED IN SLURRY OR PELLET FORM. NO DRY LIME PLACEMENT IS PERMITTED.
13. ALL CURB SHALL BE REINFORCED WITH THREE #4 REBAR. INCLUDE DETAIL IN THE PLANS.
14. A LICENSE AGREEMENT FOR LANDSCAPING MAINTENANCE AND IRRIGATION IN STREET RIGHT-OF-WAYS SHALL BE EXECUTED BY THE DEVELOPER IN PARTY WITH THE CITY OF DRIPPING SPRINGS PRIOR TO FINAL ACCEPTANCE OF THE SUBDIVISION.

SPOIL SITE NOTES:

1. THE TEMPORARY SPOILS DISPOSAL SITE IS TO BE SHOWN ON THE EROSION CONTROL PLAN. THE DEPTH OF SPOIL WILL NOT EXCEED 10 FEET IN ANY AREA.
2. NO PERMANENT SPOILS DISPOSAL ON-SITE EXCEPT AS SHOWN ON THE PLANS.

CONSTRUCTION SEQUENCE:

1. HOLD PRE-CONSTRUCTION MEETING.
2. NO CLEARING OR ROUGH CUTTING MAY BE DONE UNTIL THE APPROVED EROSION AND SEDIMENT CONTROLS ARE IN PLACE AND APPROVED BY HAYS COUNTY.
3. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS AND STABILIZED CONSTRUCTION ENTRANCE, IF REQUIRED, IN THE APPROVED PLANS.
4. ROUGH CUT DRAINAGE CHANNELS.
5. ROUGH GRADE STREETS
6. INSTALL ALL UTILITIES IN THE RIGHTS-OF-WAY.
7. REGRADE AND COMPACT SUBGRADE. MEET WITH INSPECTOR AND /DESIGN ENGINEER TO DETERMINE AREAS OF DIFFERING STREET SECTIONS OR SUBGRADE PREPARATION, IF CALLED FOR IN THE GEOTECHNICAL REPORT.
8. INSURE ALL UNDERGROUND UTILITY CROSSINGS ARE IN PLACE INCLUDING SLEEVES FOR DRY UTILITIES AND INSTALL FIRST COURSE OF BASE.
9. INSTALL CURBS, RIP-RAP AND MISCELLANEOUS CONCRETE.
10. INSTALL SECOND COURSE OF BASE.
11. PRIOR TO PAVING, ALL UTILITY TESTING MUST BE COMPLETE AND APPROVED BY THE UTILITY OWNER.
12. LAY ASPHALT.
13. FINAL GRADE ANY DITCHES AND PARKWAYS.
14. REVEGETATE ALL DISTURBED AREAS. DISPOSE OF SPOIL IN AN APPROVED MANNER.
15. SCHEDULE A FINAL INSPECTION.
16. AFTER ACCEPTANCE OF CONSTRUCTION, TEMPORARY EROSION CONTROLS MAY BE REMOVED.

TCEQ WATER DISTRIBUTION SYSTEM GENERAL CONSTRUCTION NOTES

1. 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. CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS, AT A MINIMUM, MEET TCEQ'S RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS.
2. AN APPOINTED ENGINEER SHALL NOTIFY IN WRITING THE LOCAL TCEQ'S REGIONAL OFFICE WHEN CONSTRUCTION WILL START. PLEASE KEEP IN MIND THAT UPON COMPLETION OF THE WATER WORKS PROJECT, THE ENGINEER OR OWNER SHALL NOTIFY THE COMMISSION'S WATER SUPPLY DIVISION, IN WRITING, AS TO ITS COMPLETION AND ATTEST TO THE FACT THAT THE WORK HAS BEEN COMPLETED ESSENTIALLY ACCORDING TO THE PLANS AND CHANGE ORDERS ON FILE WITH THE COMMISSION AS REQUIRED IN 30 TAC §290.39(h)(3).
3. 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, AS REQUIRED BY 30 TAC §290.44(A)(1).
4. 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, AS REQUIRED BY 30 TAC §290.44(A)(2).
5. 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, AS REQUIRED BY 30 TAC §290.44(A)(3).
6. 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, AS REQUIRED BY 30 TAC §290.44(A)(4).
7. 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;

WHERE:

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

- 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-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;

WHERE:

$$Q = \frac{SD \cdot P}{148,000}$$

- 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).

8. THE MAXIMUM ALLOWABLE LEAD CONTENT OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES TO 0.25 PERCENT.
9. THE SYSTEM MUST BE DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 35 PSI AT ALL POINTS WITHIN THE DISTRIBUTION NETWORK AT FLOW RATES OF AT LEAST 1.5 GALLONS PER MINUTE PER CONNECTION. WHEN THE SYSTEM IS INTENDED TO PROVIDE FIREFIGHTING CAPABILITY, IT MUST ALSO BE DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI UNDER COMBINED FIRE AND DRINKING WATER FLOW CONDITIONS AS REQUIRED BY 30 TAC §290.44(D).
10. THE CONTRACTOR SHALL INSTALL APPROPRIATE AIR RELEASE DEVICES IN THE DISTRIBUTION SYSTEM AT ALL POINTS WHERE TOPOGRAPHY OR OTHER FACTORS MAY CREATE AIR LOCKS IN THE LINES. ALL VENT OPENINGS TO THE ATMOSPHERE SHALL BE COVERED WITH 16-MESH OR FINER, CORROSION RESISTANT SCREENING MATERIAL OR AN ACCEPTABLE EQUIVALENT AS REQUIRED BY 30 TAC §290.44(D)(1).
11. PURSUANT TO 30 TAC §290.44(D)(4), ACCURATE WATER METERS SHALL BE PROVIDED. SERVICE CONNECTIONS AND METER LOCATIONS SHOULD BE SHOWN ON THE PLANS.
12. PURSUANT TO 30 TAC §290.44(D)(5), SUFFICIENT VALVES AND BLOWOFFS TO MAKE REPAIRS. THE ENGINEERING REPORT SHALL ESTABLISH CRITERIA FOR THIS DESIGN.
13. PURSUANT TO 30 TAC §290.44(D)(6), THE SYSTEM SHALL BE DESIGNED TO AFFORD EFFECTIVE CIRCULATION OF WATER WITHIN A LEAD-ENDS. PULL DEAD-END MAINS SHALL BE PROVIDED WITH ACCEPTABLE FLUSH VALVES AND DISCHARGE PIPING. ALL DEAD-END LINES LESS THAN TWO INCHES IN DIAMETER WILL NOT REQUIRE FLUSH VALVES IF THEY END AT A CUSTOMER SERVICE. WHERE DEAD ENDS ARE NECESSARY AS A STAGE IN THE GROWTH OF THE SYSTEM, THEY SHALL BE LOCATED AND ARRANGED TO ULTIMATELY CONNECT THE ENDS TO PROVIDE CIRCULATION.
14. THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTIONS OF NINE FEET BETWEEN THE PROPOSED WATERLINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES AND SEPTIC TANK DRAINFIELDS. 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 30 TAC §290.44(E)(1-4) OF THE CURRENT RULES.
15. PURSUANT TO 30 TAC §290.44(E)(5), 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.
16. PURSUANT TO 30 TAC §290.44(E)(6), 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.
17. PURSUANT TO 30 TAC §290.44(E)(7), 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.
18. PURSUANT TO 30 TAC §290.44(E)(8), WATERLINES SHALL NOT BE INSTALLED CLOSER THAN TEN FEET TO SEPTIC TANK DRAINFIELDS.
19. PURSUANT TO 30 TAC §290.44(F)(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.
20. PURSUANT TO 30 TAC §290.44(F)(2), WHEN WATERLINES ARE LAD UNDER ANY FLOWING OR INTERMITTENT STREAM OR SEMI-PERMANENT BODY OF WATER THE WATER MAIN 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.
21. THE CONTRACTOR SHALL DISINFECT THE NEW WATER MAINS IN ACCORDANCE WITH AWWA STANDARD C-651 AND 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 WATER LINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1,000 FEET AS DESIGNATED BY THE DESIGN ENGINEER, IN ACCORDANCE WITH 30 TAC §290.44(F)(3).

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN
GENERAL CONSTRUCTION NOTES
TCEQ-4592A (REV. 07/15/2015)

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

HAYS COUNTY GENERAL CONSTRUCTION NOTES

TO ALL CONTRACTORS: THESE PLANS ARE NOT TO BE CONSIDERED FINAL FOR CONSTRUCTION UNTIL APPROVED BY HAYS COUNTY. CHANGES MAY BE REQUIRED PRIOR TO APPROVAL.

1. SEVENTY-TWO (72) HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION, THE DEVELOPER SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH ALL PERTINENT PARTIES.
2. ALL ROADWAY AND DRAINAGE IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH HAYS COUNTY SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS FROM HAYS COUNTY ROAD AND BRIDGE DEPARTMENT PRIOR TO BEGINNING ANY ON-SITE CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING THE NECESSARY INSPECTIONS FROM THE HAYS COUNTY ROAD AND BRIDGE DEPARTMENT. ALL REPAIRS TO IMPROVEMENTS CAUSED BY CONTRACTOR'S FAILURE TO INSTALL IMPROVEMENTS IN ACCORDANCE WITH HAYS COUNTY SPECIFICATIONS AND THESE CONSTRUCTION PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. HAYS COUNTY TRANSPORTATION DEPARTMENT'S ACCEPTANCE OF THE IMPROVEMENTS ARE CONTINGENT ON REPAIRS BEING MADE TO HAYS COUNTY'S SATISFACTION. DELAYS CAUSED BY REPAIRS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. A MINIMUM OF TWO (2) BENCHMARKS SHALL BE SHOWN ON THE CONSTRUCTION PLANS.
4. ALL BEDDING MATERIALS USED WITHIN THE ROW SHALL COMPLY WITH COA ITEM 510.
5. ALL CONCRETE PLACED WITHIN THE ROW SHALL BE A MINIMUM OF CLASS A. THE USE OF REBAR CHAIRS AND TESTS CYLINDERS WILL BE REQUIRED ON PCC VALLEY GUTTER PLACEMENTS.
6. THE PROPOSED FULLY DEVELOPED STORMWATER RUNOFF RATE CANNOT EXCEED EXISTING CONDITIONS RUNOFF RATE.
7. DEWATERING OPERATIONS MUST USE SWPPP-SPECIFIED METHODS ONLY. IF SUCH METHODS ARE ONLY GENERAL OR NOT APPLICABLE, PUMP FROM THE TOP OF THE POOL (RATHER THAN THE BOTTOM) AND DISCHARGE TO A VEGETATED, UPLAND AREA (AWAY FROM WATERBODIES OR DRAINAGES) OR USE ANOTHER TYPE OF FILTRATION PRIOR TO DISCHARGE. REFER TO THE EPA 2017 GENERAL CONSTRUCTION PERMIT, SECTION 2.4, AS APPLICABLE.
8. THE CONTRACTOR SHALL SUPPLY QUALIFIED PERSONNEL TO PERFORM SWPPP INSPECTIONS ON PROJECT ≥ 1 ACRE. QUALIFIED PERSONNEL SHALL HAVE OISE, CESSWI, OR EQUIVALENT CERTIFICATION APPROVED BY THE MS4.
9. CONTRACTOR SHALL ENSURE THAT MUD AND DEBRIS TRACKED ONTO PUBLICLY MAINTAINED ROADWAYS FROM VEHICLES LEAVING THE CONSTRUCTION SITE WILL BE CLEANED UP DAILY.
10. NO EXPLOSIVES SHALL BE USED FOR THIS PROJECT WITHOUT TCEQ APPROVAL.
11. ALL HOLES, TRENCHES AND OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY BARRICADES, FENCING, LIGHTS AND/OR OTHER PROTECTIVE DEVICES IN COMPLIANCE WITH COA 509S AND OSHA REGULATIONS AT ALL TIMES.
12. THE CONTRACTOR SHALL SUBMIT A TRENCH SAFETY PLAN PREPARED AND SEALED BY AN ENGINEER LICENSED BY THE STATE OF TEXAS PRIOR TO THE START OF THE PROJECT. THE CONTRACTOR SHALL ASSIGN A COMPETENT PERSON THAT HAS BEEN PROPERLY TRAINED AND IS QUALIFIED TO MAKE INSPECTIONS AND SUPERVISE THE INSTALLATION, MAINTENANCE, AND REMOVAL OF THE TRENCH SAFETY OR EXCAVATION SAFETY SYSTEM.
13. HAYS COUNTY IS NOT RESPONSIBLE FOR SIDEWALK MAINTENANCE. A FULLY EXECUTED LICENSE AGREEMENT MUST BE IN-PLACE PRIOR TO CONSTRUCTION OF SIDEWALKS WITHIN HAYS COUNTY ROW.
14. CONTRACTOR SHALL COMPLY WITH CONSTRUCTION SEQUENCING WHICH MAY BE SPECIFIED SOMEWHERE IN THE CONSTRUCTION PLANS.
15. PERMIT IS REQUIRED FOR CONSTRUCTION IN "RIGHT OF WAY": ORDINANCE 7.10. NODRIVEWAY, UTILITY CONSTRUCTION, MAILBOXES, LANDSCAPING OR ANY OTHER ENCROACHMENT INTO RIGHT-OF-WAY OR EASEMENT SHALL BE ALLOWED WITHOUT FIRST OBTAINING A PERMIT FROM THE HAYS COUNTY ROAD AND BRIDGE DEPARTMENT.
16. PRIOR TO THE INSTALLATION OF ANY ROAD BUILDING MATERIAL THE SUBGRADE SHALL BE INSPECTED BY HAYS COUNTY. PRIOR TO PAVING, BASE MATERIAL SHALL BE INSPECTED BY HAYS COUNTY. THE OWNER OR HIS AGENT SHALL NOTIFY HAYS COUNTY FORTY-EIGHT (48) HOURS PRIOR TO THE TIME WHEN THE INSPECTION IS NEEDED: ORDINANCE 1.05; 2.06.
17. ALL OUTFALLS CONSTRUCTED WITHIN HAYS COUNTY MUST BE SUBMITTED TO HAYS COUNTY WITH GPS COORDINATES AT THE END OF EACH PROJECT. COORDINATES WILL BE SUBMITTED ON THE NAD 1983 STATE PLANE SOUTH CENTRAL FIPS 4204 FEET COORDINATE SYSTEM. ALL COORDINATES WILL BE SUBMITTED IN GRID UNITS. THE REQUIRED FILE TYPE FOR COORDINATE DATA SUBMISSIONS IS *.TXT FORMAT.
18. AT THE TIME A FINAL INSPECTION AND RELEASE OF PERFORMANCE SECURITY IS REQUESTED; THE DESIGN ENGINEER SHALL PROVIDE A COMPLETE SET OF "AS-BUILT" RECORD DRAWINGS IN PDF FORMAT (300DPI) ON A VIRUS FREE DISK AND SHALL CERTIFY THAT ALL ROAD AND DRAINAGE CONSTRUCTION HAS BEEN COMPLETED IN SUBSTANTIAL ACCORDANCE WITH PREVIOUSLY APPROVED PLANS AND SPECIFICATIONS, EXCEPT AS NOTED. NO PERFORMANCE SECURITY WILL BE RELEASED WITHOUT THESE EXHIBITS.

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

DOUCET



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

GENERAL NOTES

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

2
OF 44

Project No.:
2408-002



WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY
GENERAL CONSTRUCTION NOTES

CONTACT INFORMATION

Facilities Owner: (name/address/phone)
West Travis County PUA
13215 Bee Cave Parkway Building B, Suite 110
Bee Cave, Texas 78738
512/263-0100
jriechers@wtcpua.org

Land Owner: name/address/phone

Owner's representative responsible for plan alterations: name/phone

Maintenance: Person or firm responsible for erosion/ sedimentation control

Contractor: name/address/ phone

Person or firm responsible for tree/natural area protection. Contractor: name/address/phone

SPOILS MANAGEMENT AND DISPOSAL NOTES

- Temporary holding sites as necessary to stockpile excavated soils, embedment material, and/or piping and appurtenances may be located within the limits of construction as shown on the plans.
- No permanent spoils disposal shall be allowed on-site, unless approved by the owner and governing authority.
- All spoils materials shall be disposed of by the Contractor at an approved spoil disposal site. The Contractor shall be responsible for locating and securing a permit for the site; and shall notify the Owner and/or Engineer at least forty-eight (48) hours prior to disposal of any spoil material.

EROSION/SEDIMENTATION CONTROL NOTES

Use latest City of Austin, City of Dripping Springs, City of Bee Cave, Travis County, Hays County Erosion/Sedimentation Control notes, as appropriate.

STANDARD TREE PROTECTION NOTES

Use latest City of Austin, City of Dripping Springs, City of Bee Cave, Travis County, Hays County Erosion/Sedimentation Control notes, as appropriate

WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY (WTCPUA) NOTES

COVER SHEET NOTES

- The West Travis County Public Utility Agency is the _____ provider. Designate – water and/or wastewater provider, and if Retail or Wholesale customer.
- ___ Number/size of meter(s) for domestic purposes only.
_____ number/size landscape irrigation meter(s), as applicable.
- WTCPUA does not guarantee fire flow.
- A WTCPUA representative must be present at the time of connection to the existing system.
- All water and wastewater infrastructure shall be constructed in accordance with City of Austin water and wastewater construction specifications and with materials from the current approved City of Austin Standard Products List (SPL).

WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY (WTCPUA) NOTES - to be placed on General Notes Sheet

HOURS OF CONSTRUCTION

- No work shall be done between the hours of 8:00 P.M. and 6:00 A.M.; nor on Sundays or Legal Holidays without the written permission of the WTCPUA in each case, except such work as may be necessary for the proper care, maintenance and protection of the work already done or in the case of an emergency.

LIMITS OF CONSTRUCTION

- The limits of construction shall be bounded by the right of way line or permanent / temporary easement limits shown on the Plans. Limits of construction may be further restricted by placement of silt fence, tree protection fencing, or other appurtenances as shown on the Plans.
- Limits of construction shall be clearly delineated by the Contractor by installing silt fence, orange tensor fencing (4 - foot roll tied to 6-foot posts set at 10-foot intervals) or other barriers as approved by the Engineer. All temporary barriers shall be removed at the end of the project.
- Any areas outside the limits of construction disturbed by the Contractor shall immediately be restored to preconstruction condition.

SANITARY FACILITIES

- Provisions shall be made for necessary sanitary conveniences for the use of laborers on the work. The facilities must be properly secluded from public observation and shall be installed and maintained by the contractor.

PROTECTION OF BORE PITS

- Install barrier fencing (Tensor orange fencing or chain link fencing) to surround the bore pits. Barrier fencing shall remain in place at all times while the bore pit is open. Contractor shall be responsible for security and safety at the bore pits.

HORIZONTAL CONTROLS

- All linework shall be staked prior to construction with sealed cut sheets provided to the WTCPUA inspector prior to construction.

CONSTRUCTION SEQUENCING (modify to fit project)

- 48 hours prior to beginning any work, call the One-Call Board of Texas at 811 or 1-800-545-6005 for utility locations and obtain street cut permit for any work within city, county, and/or state right-of-way.
- Install temporary erosion controls and tree/natural area protection fencing prior to pre-construction meeting and prior to any site clearing, grubbing, excavation, material stockpiling, or other construction operations.

- Schedule and convene a preconstruction meeting including but not limited to the Owner's representative, Engineer, WTCPUA representative, Fire Department, City, County, TxDOT representative, and TCEQ representative, as applicable.
- Install traffic control measures.
- Contractor shall locate all existing utilities prior to initiating construction.
- Rough cut water quality ponds and direct runoff to ponds to act as a sediment trap.
- Remove and stockpile topsoil in areas as required.
- Rough cut roads/site, as necessary.
- Install all underground utilities. Contractor shall be responsible for coordinating with the WTCPUA when switching service to the WTCPUA system. It shall be the contractor's responsibility to provide materials/facilities to ensure service is maintained during switchover.
- Complete all underground installations, including installation of sleeves.
- Complete subgrade.
- Complete 1" course base.
- Complete final course base.
- Lay pavement and/or complete any pavement repair.
- Complete water quality ponds.
- Complete permanent erosion control and site restoration.
- Remove and dispose of temporary erosion controls.
- Complete any necessary final dress up of areas disturbed by construction operations.

TRAFFIC CONTROL NOTES (include if applicable)

- Plans shall indicate responsible agent for traffic control (Engineer or Contractor).
- Contractor shall maintain reasonable local vehicular traffic throughout construction operations.
- Contractor shall provide signs, barricades, flaggers, and other measures as required to allow for vehicular and pedestrian traffic to proceed safely with minimum inconvenience.
- Signs, barricades, flaggers, and related work shall be in accordance with the Texas Manual on Uniform Traffic Control Devices and with the requirements of the governing city/county.
- For any activity within TxDOT right-of-way, project must ha, e a TxDOT permit. A copy of the TxDOT permit shall be provided to the WTCPUA prior to construction.

SWPPP NOTES

This project is subject to the Texas Commission on Environmental Quality's (TCEQ) Texas Pollution Discharge Elimination System (TPDES) General Permit TXR150000 for Construction Activities. The General Permit requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP), which has been provided by the OWNER for use by the CONTRACTOR. The OWNER shall provide the OWNER'S Notice of Intent (NOI) and Notice of Termination (NOT) to the TCEQ. The CONTRACTOR'S responsibilities are as follows:

- Maintain a copy of the SWPPP and a set of construction plans with the temporary erosion and sediment control plan at the Work site at all times.
- File a Notice of Intent (NOI) and applicable payment to the TCEQ at least 2 days prior to site disturbance.
- Post a copy of the OWNER'S and CONTRACTOR'S NO forms at the Work site.
- Sign the certification and obtain a signed certification statement from all Subcontractors responsible for implementing the erosion and sediment control measures which indicates that the CONTRACTOR and Subcontractor understands the permit requirements (forms are in the SWPPP)
- Follow and comply with all aspects of the TPDES General Permit No. TXR150000. This includes but is not limited to field inspections and report, maintaining and repairing erosion controls and updating erosion controls and updating erosion control plan sheets based on field changes and modifications.
- File a copy of the CONTRACTOR'S Notice of Termination (NOT) with the TCEQ once the work is completed in accordance with the TPDES general permit no TXR.150000 and has been accepted by the owner.

WTCPUA WATER & WASTEWATER GENERAL CONSTRUCTION NOTES

- All construction operations shall be accomplished in accordance with applicable state statutes and U.S. Occupational Safety and Health Administration regulations (O.S.H.A.). Copies of O.S.H.A. standards may be purchased from the U.S. Government printing office. Information and related reference materials may be obtained from O.S.H.A. Austin Area Office - La Costa Green Bldg 1033, La Posada Dr, Suite 375, Austin, Texas 78752-3832, 512-374-0271.
- The attention of the contractor is directed to The City of Austin Standard Specifications and to the State Law, (Vernon's Annotated Texas Statutes, Article 1436 ©) and the need for effective precautionary measures when operating in the vicinity of electrical lines. The contractor is responsible for all safety requirements, and for coordination of all work with the appropriate electric utility company.
- The Contractor shall contact the One-Call Board of Texas at 811 or 1-800-545-6005 for existing utility locations prior to any excavation. The location and type of utilities and underground facilities shown on these plans are not guaranteed to be accurate or all-inclusive. It is the Contractor's responsibility to locate and protect all existing utilities. The Contractor shall verify all depths and locations of existing utilities prior to any construction. In addition to normal precautions when excavating, use extra caution when excavating within 25 feet of any utilities shown on the plans.
- The Contractor shall be responsible for all coordination between himself and other contractors and utilities in the vicinity of the project. This includes all water, wastewater, gas, electrical, telephone, cable television, and street and drainage work. Once the contractor becomes aware of a possible conflict, it is the contractor's responsibility to notify the engineer and WTCPUA inspector within twenty-four (24) hours.
- The contractor shall be responsible for disposing of all spoil material from the construction site. All spoils material shall be disposed of by the contractor at an approved spoil site. The contractor shall be responsible for locating and securing a permit for the site. The contractor shall notify the WTCPUA inspector at least forty-eight (48) hours prior to disposal of the material. No spoils are to remain overnight in the floodplain.
- No blasting or burning will be allowed.
- It shall be the responsibility of the contractor to repair, at his expense, all utilities, pavement, curb, fences or any other items damaged during construction regardless of whether these items are shown on the construction plans.

- Whenever existing utilities, indicated or not on plans, present obstructions to grade and/or alignment of proposed pipe, contractor is to immediately notify the engineer who will determine if existing improvements are to be relocated or if the grade and/or alignment of proposed pipe is to be changed.
- Dust prevention shall be provided by the Contractor at his own expense. Dust control shall include spraying of water on all disturbed areas, spoil piles, or haul materials associated with the project or other methods approved by the WTCPUA.
- Cleanup - upon completion and before making application for acceptance of the work, the contractor shall clean all streets and all ground occupied by him in connection with the work of all rubbish, excess materials, excess excavated materials, temporary structures and equipment. All parts of the work shall be left in a neat and presentable condition satisfactory to the WTCPUA and other governmental bodies having jurisdiction prior to submittal of the final payment.
- The contractor shall maintain access to businesses and residences at all times. The contractor shall coordinate with property owners to minimize disruption of deliveries, parking, and other activities.
- Dewatering, if necessary, shall be considered incidental to the work and shall not constitute a basis for additional payment.
- The minimum depth of cover from top of pipe to finished grade for all water lines shall be four feet. Install lines to avoid high points.
- Concrete shall be Class 'A' with a minimum 28-day compressive strength of 3,000 psi, unless otherwise noted.
- Reinforcing steel shall be ASTM A 615M, Grade 60 unless otherwise noted.
- All responsibility for the adequacy of these plans remains with the engineer who prepared them. In reviewing these plans, the WTCPUA must rely on the adequacy of the design engineer. Approval of these plans by the WTCPUA does not release the design engineer of these responsibilities.

WEST TRAVIS COUNTY PUA WATER AND WASTEWATER UTILITY NOTES

- West Travis County PUA is the water and / or wastewater service provider for this project. A pre-construction meeting with the WTCPUA shall be held prior to commencement of construction to schedule inspection of installation of water/wastewater facilities. Water facilities will be inspected up to, and including, the water meter and/or fire hydrants. The contact number for WTCPUA is (512) 263- 0100.
- The City of Austin standard specifications and standard details current at the time of construction shall govern materials and methods used to perform this work. City of Austin Specifications and Standard Details are available at <https://library.municode.com/tx/austin/codes/>
- Contractor shall obtain all approvals and permits, including but not limited to street/driveway cut and utility cut permits from the appropriate governmental agency before beginning construction within the right-of-way of a public street or alley.
- The WTCPUA shall be contacted at (512) 263-0100 at least 48 hours before connecting to their existing water and/or wastewater facilities.
- The Contractor shall contact the Austin Area "One Call" System at 811 or 1-800-545-6005 for existing utility locations prior to any excavation. In advance of construction, the contractor shall verify the location of all utilities to be extended, tied to, or altered, or subject to damage/inconvenience by the construction operations.
- No other utility service/appurtenances shall be placed near the property line, or other assigned location designated for water and wastewater utility service that would interfere with the water and/or wastewater services.
- Where water lines and 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). Any deviation these standards shall require a variance approved by TCEQ before submitting piping assignments to the WTCPUA.
- The City of Austin Specification item §95 will be required as a minimum trench safety measure. Contract documents, which include a trench safety plan signed and sealed by a Texas Professional Engineer and a pay item for trench safety measures, in compliance with OSHA, State, County, and City requirements before beginning work on the project.
- All material tests, including soil density tests and related soil analysis, shall be accomplished by an independent laboratory funded by the owner in accordance with City of Austin Standard Specification Item 1804S.4.
- Connections to existing WTCPUA water lines shall be made by cut-in tees in accordance with City of Austin Standard Specification Item §10.3(24). Isolation valves shall be installed on the ends of the cut-in tee, as necessary. A shut-out valve plan shall be provided showing the location of existing gate valves in the vicinity of the connection. The shut-out plan shall identify all affected property owners. Contractor shall perform all work and shall furnish all materials, including draining and cutting into existing piping and connecting a new pipeline or other extension into the existing pressure piping, forming an addition to the potable water transmission and distribution network and performing necessary shutoffs. Contractor shall schedule all such connections in advance and such schedule shall be approved by the WTCPUA before beginning the work. At least 48 hours-notice shall be given to the WTCPUA prior to making the connection, and a representative from the WTCPUA shall be present when the connection is made. Pressure taps may be approved on a case-by-case basis. "Size on Size" taps will NOT be permitted. When approved, any taps shall be made by use of and approved full circle, gasketed cast iron or ductile iron tapping sleeve. Concrete blocking shall be placed behind and under all tap sleeves prior to making the pressure tap and the use of precast blocks may be used to hold the tap in its correction position prior to blocking. The blocking behind and under the tap shall have a minimum of 24 hours curing time before the valve can be reopened for service from that tap. The contractor shall notify the WTCPUA inspector a minimum of seventy-two (72) hours in advance for the WTCPUA to notify the affected customers. The WTCPUA shall be present while all work is performed to make the connection.
- Thrust restraint shall be by metal thrust restraints in accordance with City of Austin Standard Specification Item §10.3(22).
- Fire hydrants shall be set in accordance with City of Standard Specification Item §11S.3 E and shall be approved Fire Department or other appropriate party prior to installation. Fire hydrants on mains under construction shall be securely wrapped with a poly wrap bag and taped into place. The poly wrap will be removed when the mains are accepted and placed in service. Fire hydrants that are to be used as drain hydrants shall be painted silver w/ blue caps prior to acceptance. Where Storz adaptors are required (Hays County), fire hydrants shall be manufactured with integral Storz adaptors.
- Water line testing and sterilization shall be performed in accordance with City of Austin Standard Specification Item §10.3(29) and/or TCEQ rules.
- Test pressure for 2-hour test shall be at 175 psi at the lowest point in the line.

Note:

Prior to pressure testing, contractor shall verify that thrust blocking and/or thrust restraint back to and including the valve against which the pressure test shall be performed, has been installed to at least the specifications of this project. Failure to verify that thrust blocking

- Water lines shall be filled with water and all air expelled at least 24 hours before testing. All service laterals and drain valve leads, with the hydrant valves closed and nozzle caps open shall be included in the tests.
- Contractor shall submit a Disinfection and Flushing Plan in accordance with AWWA standards to the WTCPUA for approval. Required flushing volumes, flushing schedule, and method of disposal of flush water shall be in accordance with the approved plan.
- Gate valves shall be resilient seated gate valves conforming to AWWA C509, with a minimum rated working pressure of 250 psig.
- Force main testing shall be performed in accordance with the City of Austin Standard Specification Item §10.3(27) and/or TCEQ rules.
- Gravity sanitary sewer main testing shall be performed in accordance with the City of Austin Standard Specification Items §10.3(26) and/or TCEQ rules. In addition, all gravity sanitary sewer mains shall be televised prior to acceptance by WTCPUA. Digital files (via CD-ROM) clearly showing televised recording shall be submitted to the Engineer of Record following inspection.
- Locator 'Finder' Wire - All non-metallic water lines shall have a finder wire located above the pipe. The wire shall be poly-insulated No. 10 solid copper and will terminate at each isolation valve such that it is accessible from the valve box.
- Locator 'Finder' Wire - All non-metallic wastewater lines shall have a finder wire located above the pipe. The wire shall be poly-insulated No. 10 solid copper and will terminate at readily accessible locations throughout the collection system.
- All valve risers shall have a 1'-6" square concrete box poured around them at finished grade.
- All manholes shall be lined with a corrosion resistant lining approved by the WTCPUA.
- Bolted and gasketed covers shall be used for all manholes located in the 100-year floodplain. Where there are more than three gasketed manholes in a row, vents shall be provided on every third manhole.
- The downstream end of any force main shall be terminated in a sanitary sewer manhole in a manner to minimize turbulence.
- Contractor shall have necessary Erosion and Sedimentation Controls in place prior to commencing water/wastewater facility construction.
- Record drawings, as stipulated by the WTCPUA, shall be submitted to the Engineer of Record for verification and furnished to the WTCPUA upon completion of the project.
- The WTCPUA will own and operate all water lines and appurtenances up to and including the water meter. These improvements will be defined by a recorded easement or in public right-of-way.
- Any portions of wastewater lines including services that are located outside of a recorded easement or public right-of-way will be owned and maintained by the property owner, or his/her assigns.
- Where existing water and/or wastewater infrastructure is to be abandoned, the engineer shall submit an abandonment plan for approval by the WTCPUA.
- Water services shall be installed using HDPE pipe. Copper is not allowed.
- For any storm sewer line crossing a water or wastewater line closer than 18", the storm sewer pipe shall be laid such that no storm sewer joints will be over the water pipe crossing.

TCEQ WATER DISTRIBUTION SYSTEM
GENERAL CONSTRUCTION NOTES
(Revised February 2019 or latest version)

- 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)(1)].
- 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;

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

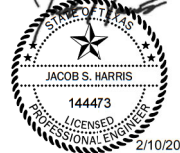
- Where:
- Q = the quantity of makeup water in gallons per hour,
 - L = the length of the pipe section being tested, in feet,
 - D = the nominal diameter of the pipe in inches, and
 - P = the average test pressure during the hydrostatic test in pounds per square inch (psi).
- o The hydrostatic leakage 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)].
 - De-chlorination of disinfecting water shall be in strict accordance with current AWWA Standard C655-09 or most recent.

OTHER NOTES – Engineer is responsible for including all applicable notes, including but not limited to County, City, TxDOT, State, Fire Department, TCEQ (CZP, WPAP, Organized Sewage Collection System Notes, General Construction Notes). Engineer is responsible for ensuring the current adopted version of all notes is included in the construction plans.

DOUCET



2/10/2025

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

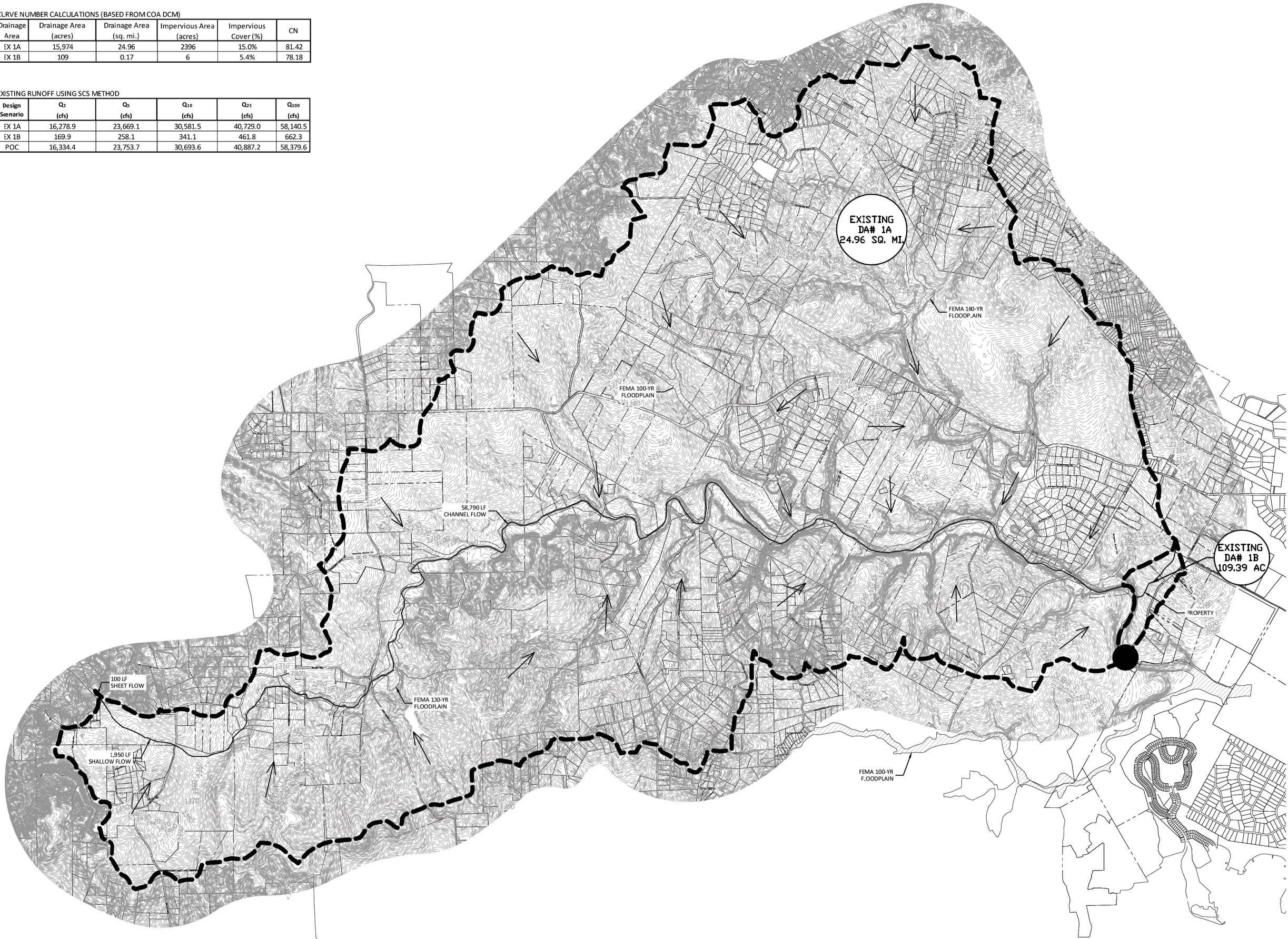
WTCPUA NOTES

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025
SHEET
3
OF 44
Project No.: 2408-002

TIME OF CONCENTRATION CALCULATIONS (BASED FROM COA DCM)																				
Drainage Area	Drainage Area (acres)	Drainage Area (sq. mi.)	Sheet Flow					Shallow Concentrated Flow					Channel/Storm Drain Flow						Time of Concentration	Lag Time
			Length	n	ΔElev	Slope	Sub Tc	Length	ΔElev	Slope	n	Sub Tc	Length	Velocity	n	Slope	Area (sf)	Pw (ft)	Sub Tc	
EX 1A	15,974	24.96	100	0.15	2.97	0.030	7.44 min	1,950	63.03	0.032	0.05	11.21	58,790	16.07	0.03	0.007	4594.25	591.72	60.99 min	79.64
EX 1B	109	0.17	100	0.15	1	0.010	11.49 min	2,693	92.65	0.034	0.05	14.99	250	44.60	0.03	0.239	310.50	124.60	0.09 min	26.58

CURVE NUMBER CALCULATIONS (BASED FROM COA DCM)					
Drainage Area	Drainage Area (acres)	Drainage Area (sq. mi.)	Impervious Area (acres)	Impervious Cover (%)	CN
EX 1A	15,974	24.96	2396	15.0%	81.42
EX 1B	109	0.17	6	5.4%	78.18

EXISTING RUNOFF USING SCS METHOD					
Design Scenario	Q ₂ (cfs)	Q ₅ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
EX 1A	16,278.9	23,669.1	30,581.5	40,729.0	58,140.5
EX 1B	169.9	258.1	341.1	461.8	662.3
POC	16,334.4	23,753.7	30,693.6	40,887.2	58,379.6



LEGEND

- DRAINAGE AREA
- TIME OF CONCENTRATION
- POINT OF CONFLUENCE
- 100-YR FLOODPLAIN (FEMA)
- FLOW ARROW

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512)-583-2400
www.doucetengineers.com
TBPES Engineering Firm No. F-3937
TBPES Surveying Firm No. 10194551

2/10/2025

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

OVERALL EXISTING DRAINAGE
AREA MAP

Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025
SHEET	
32	
OF 44	
Project No.: 2408-002	

Drawing: C:\pwworking\JHB\cadd\pro\Jonathan\banister\0014942\2408002 CD DA PR.dwg
User: JBAKSTER
Plot Date/Time: Feb. 10, 2025 10:25:11 AM
Plot Date/Time: Feb. 10, 2025 10:25:11 AM



Proposed Conditions - ATLAS 14														
DRG AREA LABEL	Area	AREA _{TOT}	LENGTH	n	Δ ELEV	SLOPE	SHEET TC	LENGTH	P/U	K	Δ ELEV	SLOPE	VEL	SHAL TC
A1	17.00	17.00	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
A2	4.19	21.19	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
A3	2.32	23.51	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
A4	1.00	24.51	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
B1	6.73	6.73	300	0.24	8.96	0.030	20.0	1218	U	16.13	44.86	0.037	3.1	6.6
B2	2.39	9.12	300	0.24	8.69	0.029	20.0	1218	U	16.13	44.86	0.037	3.1	6.6
B3	1.94	11.06	300	0.24	8.69	0.029	20.0	1218	U	16.13	44.86	0.037	3.1	6.6
B4	1.07	12.13	300	0.24	5.41	0.018	20.0	1123	U	16.13	44.77	0.040	3.2	5.8
C1	6.39	6.39	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
C2	7.91	14.30	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
C3	5.01	19.31	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
C4	0.41	19.72	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
D1	1.78	1.78												
D2	1.50	3.28												
D3	1.48	24.48	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5

Proposed Conditions - ATLAS 14														
DRG AREA LABEL	AREA _{TOT}	TC	C ₂	C ₁₀	C ₂₅	C ₅₀	C ₁₀₀	I ₂	I ₁₀	I ₂₅	I ₅₀	I ₁₀₀	Q ₂	Q ₁₀
A1	17.00	28.9	0.36	0.41	0.45	0.48	0.52	3.02	4.60	5.65	6.46	7.36	18.45	32.08
A2	21.19	29.5	0.36	0.41	0.45	0.48	0.52	2.97	4.54	5.56	6.37	7.25	22.68	39.41
A3	23.51	29.6	0.36	0.41	0.45	0.48	0.52	2.96	4.52	5.54	6.34	7.22	25.05	43.53
A4	24.51	31.1	0.36	0.41	0.45	0.48	0.52	2.89	4.42	5.42	6.20	7.06	25.54	44.39
B1	6.73	27.8	0.36	0.41	0.46	0.49	0.53	3.11	4.74	5.82	6.66	7.60	7.52	13.09
B2	9.12	28.2	0.36	0.41	0.46	0.49	0.53	3.08	4.70	5.77	6.60	7.52	10.11	17.57
B3	11.06	28.3	0.36	0.41	0.46	0.49	0.53	3.07	4.69	5.75	6.58	7.50	12.22	21.25
B4	12.13	29.5	0.36	0.41	0.46	0.49	0.53	2.97	4.54	5.56	6.37	7.25	12.98	22.56
C1	6.39	26.3	0.41	0.47	0.51	0.54	0.58	3.23	4.93	6.06	6.94	7.91	8.46	14.69
C2	14.30	27.6	0.41	0.47	0.51	0.54	0.58	3.12	4.77	5.85	6.70	7.64	18.31	31.78
C3	19.31	30.1	0.41	0.47	0.51	0.54	0.58	2.93	4.47	5.48	6.26	7.13	23.18	40.19
C4	19.72	31.7	0.41	0.47	0.51	0.54	0.58	2.87	4.38	5.37	6.15	7.00	23.22	40.28
D1	1.78	5.1	0.49	0.55	0.60	0.63	0.67	6.20	9.53	11.77	13.57	15.46	5.41	9.33
D2	3.28	11.1	0.49	0.55	0.60	0.63	0.67	4.76	7.33	9.05	10.47	11.92	7.65	13.23
D3	24.48	33.0	0.43	0.49	0.53	0.56	0.61	2.83	4.32	5.30	6.06	6.91	29.79	51.82

LEGEND

- DRAINAGE AREA
- TIME OF CONCENTRATION
- POINT OF CONFLUENCE
- 100-YR FLOODPLAIN (FEMA)
- VEGETATIVE FILTER STRIP
- FLOW ARROW

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735 Tel: (512) 583-2600
www.doucetengineers.com
TBPES Engineering Firm No. F-3937
TBPES Surveying Firm No. 10194551

JACOB S. HARRIS
144473
LICENSED PROFESSIONAL ENGINEER
2/10/2025

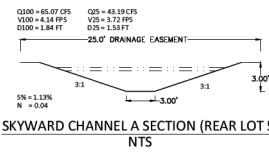
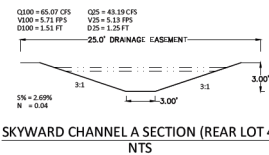
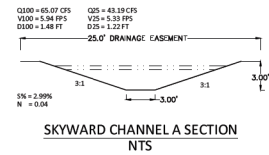
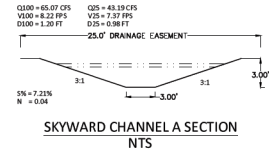
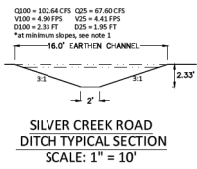
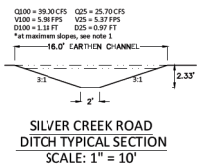
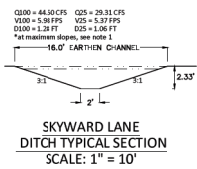
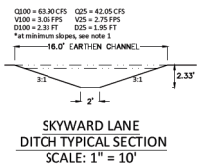
LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

PROPOSED DRAINAGE AREA MAP

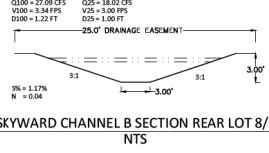
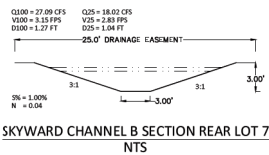
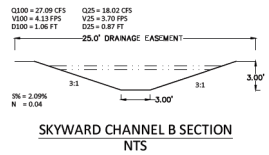
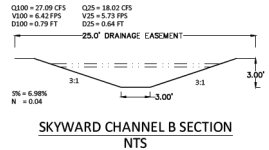
Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET
34
OF 44

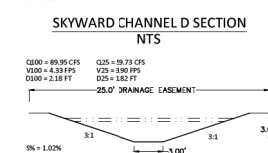
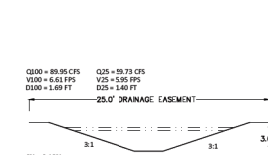
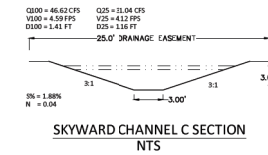
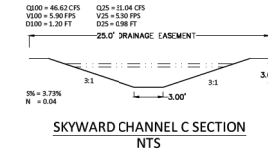
Project No.:
2408-002



PM STATION	PM ELEVATION	GRADE IN	GRADE OUT	UNNING YIN
0+39.88	1071.40	1.00%	7.21%	Y
1+32.19	1078.05	7.21%	3.14%	Y
2+25.89	1081.00	3.14%	6.46%	Y
3+18.72	1087.00	6.46%	4.08%	Y
3+67.93	1089.00	4.08%	2.99%	Y
5+56.65	1094.65	2.99%	0.00%	N

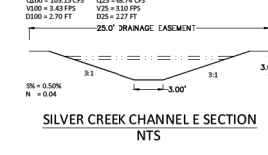
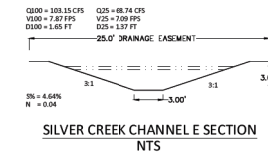


PM STATION	PM ELEVATION	GRADE IN	GRADE OUT	UNNING YIN
0+39.54	1080.81	1.00%	6.98%	Y
1+48.15	1088.39	6.98%	2.09%	Y
2+16.89	1089.83	2.09%	3.42%	N
4+39.90	1097.46	3.42%	0.00%	N

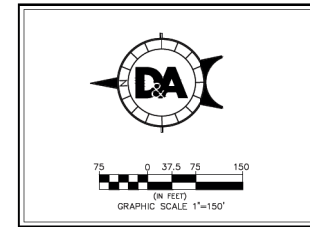


PM STATION	PM ELEVATION	GRADE IN	GRADE OUT	UNNING YIN
0+12.50	1078.80	0.00%	3.73%	N
3+49.58	1066.23	3.73%	1.88%	N
3+87.61	1065.52			N

PM STATION	PM ELEVATION	GRADE IN	GRADE OUT	UNNING YIN
0+35.70	1068.36	1.02%	3.19%	N
1+40.82	1065.00	3.19%	1.35%	Y
3+00.00	1062.85	1.35%	1.00%	Y
3+91.51	1061.94			



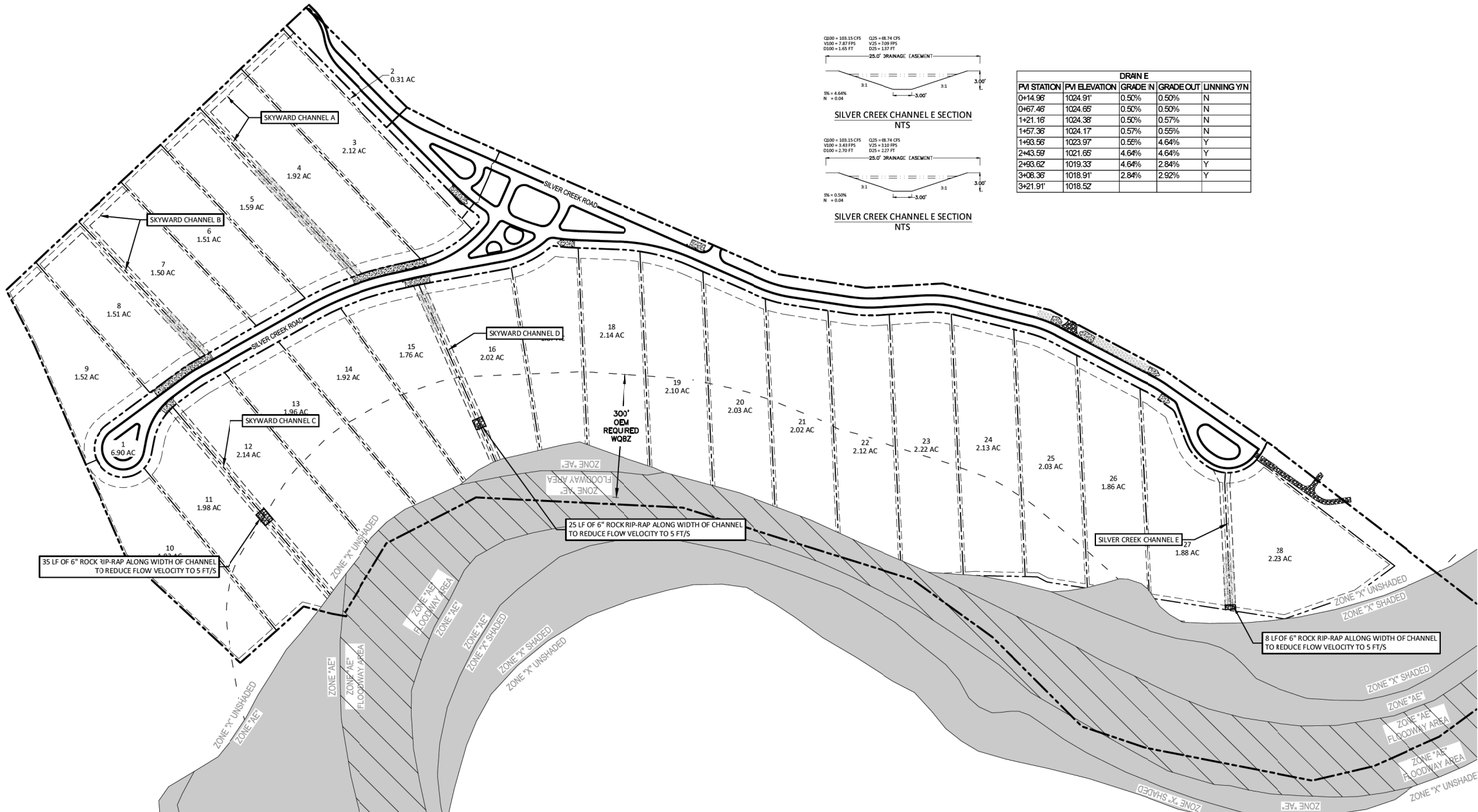
PM STATION	PM ELEVATION	GRADE IN	GRADE OUT	UNNING YIN
0+14.95	1024.91	0.50%	0.50%	N
0+67.46	1024.85	0.50%	0.50%	N
1+21.16	1024.38	0.50%	0.57%	N
1+57.38	1024.17	0.57%	0.55%	N
1+63.56	1023.97	0.55%	4.64%	Y
2+43.59	1021.65	4.64%	4.64%	Y
2+93.62	1019.33	4.64%	2.84%	Y
3+08.36	1018.91	2.84%	2.92%	Y
3+21.91	1018.52			



- NOTE:
- 1) THESE CROSS SECTIONS ARE INCLUDED TO DEMONSTRATE THAT IN EXTREME CONDITIONS THESE ROADSIDE DITCHES PROVIDE ENOUGH CAPACITY AND AVOID EROSION ISSUES AS THEY DO NOT INTERCEPT ENOUGH RUNOFF TO EXCEED THESE PARAMETERS. THESE CONDITIONS ARE PRESUMED TO GOVERN UNLESS ANOTHER CROSS SECTION IS PROVIDED ALONG THESE DITCHES.
 - 2) ROCK RIP-RAP FOR CHANNEL OUTFALLS SIZED IN ACCORDANCE WITH SECTION 3.2.5 OF THE LCRA WQ MANAGMENT TECHNICAL MANUAL.
 - 3) PYRAMAT 25 TO BE INSTALLED AS SHOWN TO IMPROVE CHANNEL STABILITY AND EROSION. PLEASE SEE THE DETAILS SHEET FOR MORE INFORMATION.

PYRAMAT 25

- 4) ALL ROADWAY CHANNELS FOLLOW THE SLOPE OF ITS CORRESPONDING ROADWAY.



ATTACHMENT N

INSPECTION, MAINTENANCE, REPAIR & RETROFIT PLAN

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

(NOT APPLICABLE)

ATTACHMENT N

INSPECTION, MAINTENANCE, REPAIR & RETROFIT PLAN

Because the site will be used for low density single-family residential development and has 15% or less impervious cover (12.13% of the 70-acre site, 8.49 acres impervious cover proposed), the development is exempt from providing permanent BMPs as they are not required when these conditions are met per TCEQ guidance.

ATTACHMENT O

PILOT-SCALE FIELD TESTING PLAN

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

(NOT APPLICABLE)

ATTACHMENT P

**MEASURES FOR MINIMIZING SURFACE STREAM
CONTAMINATION**

**CONTRIBUTING ZONE PLAN APPLICATION
(TCEQ-10257)**

ATTACHMENT P

MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

During construction, standard erosion measures will be used as shown in the construction plans. The entire construction site will be contained by a silt fence until construction is complete. Entry and exit from the site will be through a stabilized construction entrance.

After completion of the project, temporary erosion and sedimentation measures (silt fence and rock berm) will remain in place until vegetative cover is established. Details concerning the erosion/sedimentation protection plan can be found on the Erosion & Sedimentation Control Plans of the construction drawings; see Section 10 of this application.

SECTION 3

STORM WATER POLLUTION PREVENTION PLAN

(SWPPP)

STORMWATER POLLUTION PREVENTION PLAN

TABLE OF CONTENTS

- I. EXECUTIVE SUMMARY**
- II. INTRODUCTION**
- III. SITE DESCRIPTION**
- IV. STORM WATER POLLUTION PREVENTION MEASURES AND CONTROLS**
- V. LOCAL PLANS**
- VI. INSPECTIONS AND SYSTEM MAINTENANCE**

ATTACHMENTS

- ATTACHMENT A - LOCATION MAP**
- ATTACHMENT B - DRAINAGE AREA MAPS (EXISTING & PROPOSED)**
- ATTACHMENT C - EROSION SEDIMENTATION CONTROL PLANS**
- ATTACHMENT D - EXISTING CONDITIONS PLAN**

APPENDICES

- APPENDIX A - PRE-CONSTRUCTION FORMS**
 - Responsible Party Schedule
 - Responsible Party Form Certification
- APPENDIX B - INSPECTION REPORT (SAMPLE FORM)**
- APPENDIX C - DELEGATION OF SIGNATORIES TO REPORTS**
- APPENDIX D - RECORD OF STABILIZATION AND CONSTRUCTION ACTIVITY DATES**
- APPENDIX E - TPDES GENERAL PERMIT NO. TXR150000, effective March 5, 2023**
- APPENDIX F - PERMIT FORMS (NOTICE OF INTENT, CONSTRUCTION SITE NOTICE (LARGE), CZP APPROVAL LETTER)**
- APPENDIX G - POST-CONSTRUCTION FORMS (NOTICE OF TERMINATION - BLANK)**
- APPENDIX H - TEMPORARY STORMWATER SECTION**

Certification Page

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

Sign as required by 30 TAC 305.128

Signature of Primary Operator:

Signed: _____ Date: _____ TPDES#: _____
Brian Sewell

Company: Dripping Springs Owner, LLC Date NOI was submitted to MS4: _____

If plan is shared by more than one entity (other Operators):

Signed: _____ Date: _____ TPDES#: _____

Company: _____ Date NOI was submitted to MS4: _____

I. EXECUTIVE SUMMARY

The general contractor, and all subcontractors involved with a construction activity that disturbs site soil or who implement a pollutant control measure identified in the Storm Water Pollution Prevention Plan (SWPPP) must comply with the following requirements of the Texas Pollution Discharge Elimination Systems (TPDES) General Permit, as transferred to TCEQ, and any local governing agency having jurisdiction concerning erosion and sedimentation control:

- A. The contractor shall notify the following agencies 48 hours prior to construction and shall have a pre-construction meeting prior to start of construction. The Contractor shall notify the City of Dripping Springs, Hays County, TCEQ and Doucet at least 48 hours prior to the pre-construction meeting. The contractor shall have erosion control plans and copy of approved Contributing Zone Plan available for review and discussion. A representative from each of the following agencies or companies, but not limited to the following, shall be present at the pre-construction meeting.

City of Dripping Springs	(512) 858-4725
Hays County	(512) 393-2150
TCEQ	(512) 339-2929
Doucet	(512) 583-2600

- B. The Silver Creek (Lunaroya) Subdivision site is located in the Contributing Zone to the Edwards Aquifer which is regulated by the Texas Commission on Environmental Quality. Contractor must adhere to the approved Contributing Zone Plan (hard copy kept on site) and TCEQ Contributing Zone Plan General Construction Notes listed on sheet 3 of the approved Construction Plans.
- C. A copy of the Site Notice and Notice of Intent (NOI) and a description of the project must be posted in a prominent place for public viewing at the construction site.
- D. The contractor must mail a copy of the NOI and Construction Site Notice to the MS4 Operator – the City of Dripping Springs at P.O. Box 384, Dripping Springs, TX 78620.
- E. Complete copy of the SWPPP, including copies of all inspection reports, plan revisions, etc., must be retained at the project site at all times during working hours and kept in the permanent project records for at least three years following completion of construction.
- F. As described previously, regular inspections must be made to determine effectiveness of the SWPPP. It shall be modified as needed to prevent pollutants from discharging from the site. The inspector must be a person familiar with the site, the nature of the major construction activities, and qualified to evaluate both overall system performance and individual component performance. Additionally, the inspector must either be someone empowered to implement modifications to this SWPPP and the pollutant control devices, if needed, in order to increase effectiveness to an acceptable level, or someone with the authority to cause such things to happen.
- G. Oil and hazardous substances releases are to be reported per TCEQ and Federal requirements. For the TCEQ, it's 55 gallons, and EPA depends on the type of substance according to the codified Reportable Quantity.

- H. This SWPPP intends to control water-borne and liquid pollutant discharges by some combination of interception, filtration, and containment. The general contractor and subcontractors implementing this SWPPP must remain alert to the need to periodically refine and update the SWPPP in order to accomplish the intended goals.
- I. This SWPPP must be amended as necessary during the course of construction in order to keep it current with the pollutant control measures utilized at the site. Amending the SWPPP does not mean that it has to be reprinted. It is acceptable to add addenda, sketches, and/or revised drawings.
- J. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated must be maintained until final site stabilization is achieved. A log for keeping such records is included in the Appendices. A different form for the log may be substituted if it is found to be more useful.

II. INTRODUCTION

This SWPPP has been prepared for major activities associated with construction of Silver Creek Subdivision located on Silver Creek Rd., approximately 4,100 ft. southwest of the intersection with Fitzhugh Rd. in the extraterritorial jurisdiction (ETJ) of Dripping Springs, Texas. This SWPPP includes the elements necessary to comply with the TPDES General Permit for construction activities formerly administered by the U.S. Environmental Protection Agency (EPA) under the Texas Pollutant Discharge Elimination System (TPDES) program, as transferred to TCEQ, and all local governing agency requirements. This SWPPP must be implemented before the start of construction.

Construction phase pollutant sources anticipated at the site are disturbed (bare) soil, vehicle fuels and lubricants, chemicals associated with pavement construction, and pavement materials. Without adequate control there is the potential for each type of pollutant to be transported by storm water.

Project construction will consist primarily of site grading, paving, storm drainage, on-site sewage facility for each lot and water line connection. Because the site will be used for low density single-family residential development and has 15% or less impervious cover, we requested an exemption from providing permanent BMPs as they are not required when these conditions are met per TCEQ guidance.

A. Purpose

A major goal of pollution prevention efforts during project construction is to control soil and pollutants that originate on the site and prevent them from flowing to surface waters. The purpose of this SWPPP is to provide guidelines for achieving that goal. A successful pollution prevention program also relies upon careful inspection and adjustments during the construction process in order to enhance its effectiveness.

B. Scope

This SWPPP must be implemented before construction begins on the site. It primarily addresses the impact of storm rainfall and runoff on areas of the ground surface disturbed during the construction process. In addition, there are recommendations for controlling other sources of pollution that could accompany the major construction activities. This SWPPP will terminate when disturbed areas are stabilized, construction activities covered herein have ceased.

Particular forms are included which are necessary for implementing the SWPPP.

The TPDES General Permit, see Appendix E, for Storm Water Discharges from Construction Activities, as transferred to TCEQ, prohibits most non-storm water discharges during the construction phase. Allowable non-storm water discharges that could occur during construction on this project, which would therefore be covered by the General Permit, include:

1. Discharges from firefighting activities;
2. Fire hydrant flushing;
3. Water used to wash vehicles or control dust;
4. Water flowing from potable sources and water line flushing;
5. Irrigation drainage;
6. External building wash down which does not use detergents;
7. Runoff from pavement wash down where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents have not been used;
8. Air conditioning condensate;
9. Springs and uncontaminated groundwater; and
10. Foundation or footing drains where flows are not contaminated with process materials such as solvents.
11. The techniques described in this SWPPP focus on providing control of pollutant discharges with practical approaches that utilize readily available expertise, materials, and equipment. The Owner referred to in this SWPPP is Dripping Springs Owner, LLC. The general contractor will construct the site while working under contract with the owner.

PROJECT DESCRIPTION

Described below are the major construction activities that are the subject of this SWPPP. They are presented in the order (or sequence) they are expected to begin, but each activity will not necessarily be completed before the next begins. Also, these activities could occur in a different order if necessary to maintain adequate erosion and sedimentation control:

- A. Call City of Dripping Springs and Hays County at least 48 hours prior to beginning any work. Call the One Call Center at 512-472-2822 for utility locations and obtain permit for any work within TxDOT or Hays County right-of-way.
- B. The Contractor shall install temporary erosion/sedimentation control and tree protection measures shown within these plans.
- C. The Owner or his authorized representative shall convene a Pre-Construction Conference.
- D. With the approval of all affected parties, the Contractor may begin clearing and grubbing.
- E. Complete all grading and underground installations within the project.
- F. Complete driveways and roadway (pavement construction).
- G. Complete building construction.
- H. Complete permanent erosion control and restoration of site vegetation.
- I. Remove and dispose of temporary erosion control, including construction spoils area.
- J. Complete any necessary final dress up of areas disturbed.
- K. If disturbed area is not to be worked on for more than 14 days, disturbed area needs to be stabilized by re-vegetation, mulch, tarp or revegetation matting.

The actual schedule for implementing pollutant control measures will be determined by project construction progress. Down slope protective measures must always be in place before soil is disturbed.

III. SITE DESCRIPTION

Included as part of this SWPPP are the project construction drawings. Refer to them for detailed site information.

- A. Site Location – The 70-acre site is located on Silver Creek Rd. approximately 4,100 ft. southwest of the intersection with Fitzhugh Rd. in the ETJ of Dripping Springs, Texas. Water will be provided by West Travis County Public Utility Agency (WTCPUA).

Wastewater will be provided by individual on-site sewage facility with septic spray field for each lot as approved by Hays County.

- B. Site Topography – The site consists of predominantly undeveloped land. Topography throughout the site is moderate with a 300-foot Optional Enhanced Measures (OEM) water quality buffer zone established along Barton Creek. The Site wanders from Barton Creek at 1000 ft (amsl) up to 1100 ft amsl. The site generally slopes to the south towards Barton Creek. Barton Creek is part of the City of Austin Colorado River Watershed. Colorado River Basin is a Traditional Navigable Waterway. Existing trees are scattered throughout the property. In the existing and proposed overall conditions, drainage from the site generally conveys from north to south towards Barton Creek.
- C. Rainfall Information – The typical yearly rainfall pattern for the Dripping Springs area is approximately 36 inches per year.
- D. Site Soils – The majority of all drainage basins are comprised of Type D soils, with small portions of the onsite property (along Barton Creek) comprised of Types A, B and C soils.
- E. Total Area and Disturbed Area - The total project area (size of site) is 70 acres, and the disturbed area is 13.38 acres. The site will be disturbed for site grading, paving, storm drainage, water supply and water lines. Project construction will consist primarily of site grading, paving, storm drainage, on-site sewage facility for each lot and water line connection.
- F. Quality Receiving Surface Waters and Wetlands Waters and Wetlands – The project site discharges primarily to the southwest to Barton Creek. A portion of the site is located within the 100-year and 500-year floodplain as indicated by FIRM Panel No. 48209C0106G, effective date January 17, 2025.
- G. Erosion Control Plan – Erosion control plans are included in the Construction Documents on sheets 11-12.

IV. STORM WATER POLLUTION PREVENTION MEASURES AND CONTROLS

A variety of storm water pollutant controls are recommended for this project. Some controls are intended to function temporarily and will be used as needed for pollutant control during the construction period. These include temporary sediment barriers and a temporary sediment basin. For most disturbed areas, permanent stabilization will be accomplished by covering the soil with pavement, or vegetation.

A. Erosion and Sediment Controls

- 1. Soil Stabilization - The purpose of soil stabilization is to prevent soil from leaving the site. In the natural condition, soil is stabilized by native vegetation. The primary technique to be used at this project for stabilizing

site soil will be to provide a protective cover of grass, pavement, or building.

- (a) Temporary Seeding - Within 14 days after construction activity ceases on any particular area, all disturbed ground where there will not be construction for longer than 21 days must be seeded with fast-germinating temporary seed and protected with mulch.
- (b) Permanent Seeding - All areas at final grade must be seeded within 14 days after completion of the major construction activity
- (c) Structural Controls – The stormwater runoff from the site will be routed through underground storm sewer lines to the detention ponds.

B. Other Pollutant Controls

Control of sediments has been described previously. Other aspects of this SWPPP are listed below:

1. Dust Control - Construction traffic must enter and exit the site at the stabilized construction entrance. The purpose is to trap dust and mud that would otherwise be carried off-site by construction traffic.

Water trucks will be used as needed during construction to reduce dust generated on the site. Dust control must be provided by the general contractor to a degree that is acceptable to the Construction Manager, and in compliance with applicable local and state dust control regulations. After construction, the site will be stabilized (as described elsewhere), which will reduce the potential for dust generation.

2. Solid Waste Disposal - No solid materials, including building materials, are allowed to be discharged from the site with storm water. All solid waste, including disposable materials incidental to the major construction activities, must be collected and placed in containers. The containers will be emptied periodically by a contract trash disposal service and hauled away from the site.

Substances that have the potential for polluting surface and/or groundwater must be controlled by whatever means necessary in order to ensure that they do not discharge from the site. As an example, special care must be exercised during equipment fueling and servicing operations. If a spill occurs, it must be contained and disposed so that it will not flow from the site or enter groundwater, even if this requires removal, treatment, and disposal of soil. In this regard, potentially polluting substances should be handled in a manner consistent with the impact they represent.

3. Sanitary Facilities - All personnel involved with construction activities must comply with state and local sanitary or septic system regulations. Temporary sanitary facilities will be provided at the site throughout the construction phase. They must be utilized by all construction personnel and will be serviced by a commercial operator.
4. Long-Term Pollutant Controls - Storm water pollutant control measures installed during construction, that will also provide benefits after construction, include permanent detention ponds, grass lined channels, rip-rapped outfalls, grass coverage, etc. Those sediment barriers that do not interfere with normal operations and appear to provide long-term benefits can be left in place after construction is completed.

C. Construction Phase "Best Management Practices"

During the construction phase, the general contractor will implement the following measures:

1. Material resulting from the clearing and grubbing operation will be stockpiled up slope from adequate sedimentation controls.
2. Use of detergents for large scale washing is prohibited (i.e., vehicles, pavement surfaces, etc.)
3. Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Except during application, the contents must be kept in trucks or within storage facilities. Runoff containing such material must be collected, removed from the site, treated, and disposed at an approved solid waste or chemical disposal facility.
4. Procedures and/or practices should be taken to control dust.
5. Sediment to be removed from roadways daily or when work begins after weather events if construction activities have ceased due to weather event.

V. LOCAL PLANS

In addition to this SWPPP, construction activities associated with this project must comply with any guidelines set forth by local regulatory agencies.

VI. INSPECTIONS AND SYSTEM MAINTENANCE

The general contractor may choose to use a third party to install erosion controls, conduct inspections and maintain the inspections log.

Between the time this SWPPP is implemented and final site stabilization is achieved, all disturbed areas and pollutant controls must be inspected every seven calendar days. The purpose of site inspections is to assess performance of pollutant controls. The general contractor's designated representative will conduct the inspections. Based on these inspections, the general contractor will decide whether it is necessary to modify this SWPPP, add or relocate sediment barriers, or whatever else may be needed in order to prevent pollutants from leaving the site via storm water runoff. The general contractor has the duty to cause pollutant control measures to be repaired,

modified, maintained, supplemented, or whatever else is necessary in order to achieve effective pollutant control.

Examples of particular items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

A. Temporary Construction Entrance/Exit

Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction entrance will be constructed where vehicles enter and exit and maintained as followed:

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

B. Silt Fence

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

C. Rock Berm

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

D. Concrete Washout

- Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- Avoid mixing excess amounts of fresh concrete.
- Perform washout of concrete trucks in designated areas only. • Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped onsite, except in designated areas.
- For onsite washout:
 - Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
 - Washout wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.
- When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

- E. Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered, or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.
- F. Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas are covered with building foundation or pavement or have a stand of grass with at least 70 percent density. The density of 70 percent or greater must be maintained to be considered as stabilized. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.
- G. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

Based on inspection results, any modification necessary to increase effectiveness of this SWPPP to an acceptable level must be made within seven calendar days of the inspection. The inspection reports must be completed entirely, and additional remarks should be included if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the SWPPP at the time of inspection and specifically identify all incidents of non-compliance.

The general contractor as an integral part of this SWPPP must keep inspection reports on file for at least three years from the date of completion of the project.

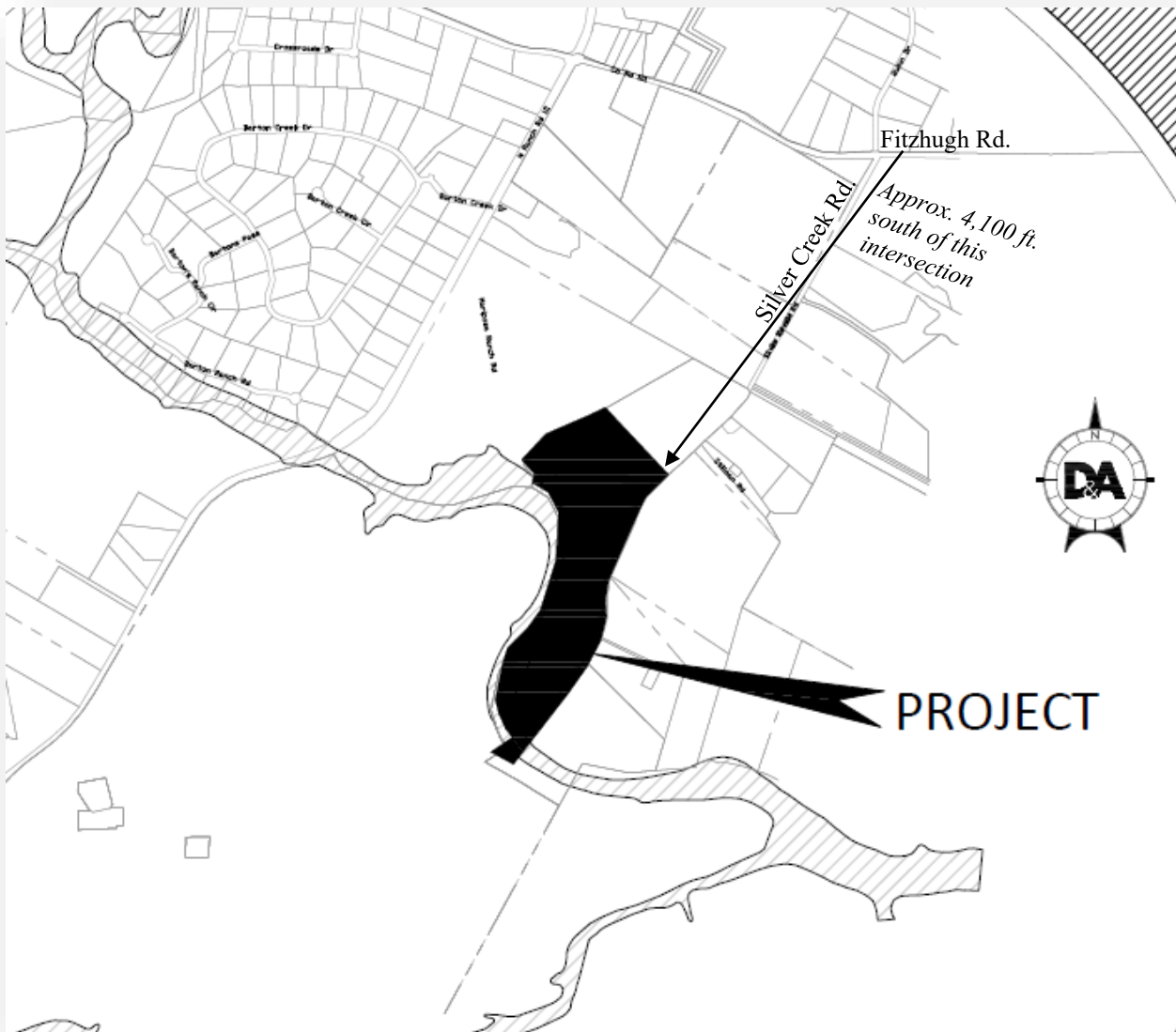
Ultimately, it is the responsibility of the general contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than are shown on the plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization.

ATTACHMENT A

LOCATION MAP

ATTACHMENT A

LOCATION MAP



Silver Creek Rd., approximately 4,100 ft. southwest of the intersection with Fitzhugh Rd.
Dripping Springs, TX 78620

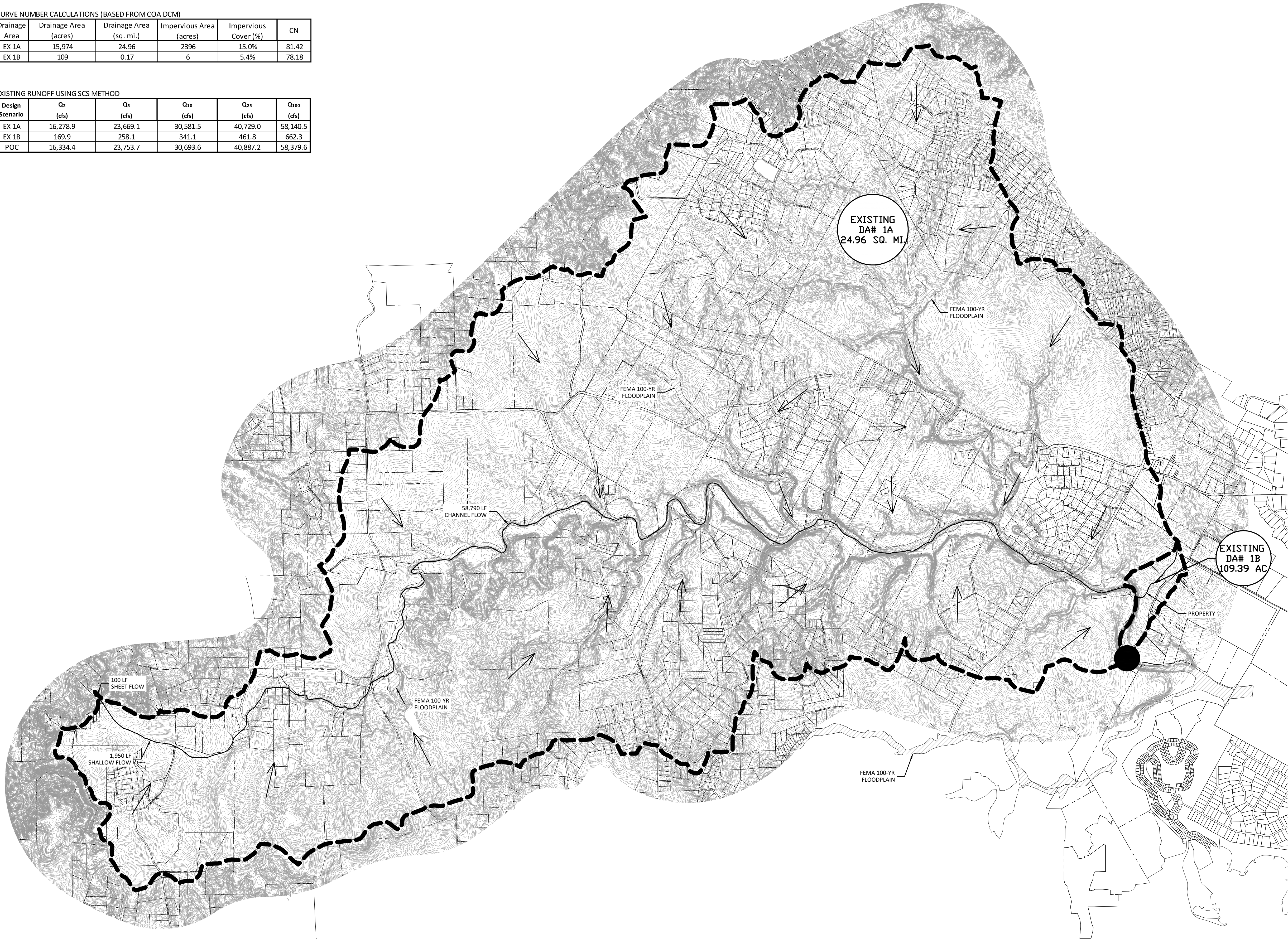
ATTACHMENT B

DRAINAGE AREA MAPS (EXISTING & PROPOSED)

TIME OF CONCENTRATION CALCULATIONS (BASED FROM COA DCM)																				
Drainage Area	Drainage Area (acres)	Drainage Area (sq. mi.)	Sheet Flow					Shallow Concentrated Flow					Channel/Storm Drain Flow						Time of Concentration	Lag Time
			Length	n	ΔElev	Slope	Sub Tc	Length	ΔElev	Slope	n	Sub Tc	Length	Velocity	n	Slope	Area (sf)	Pw (ft)	Sub Tc	
EX 1A	15,974	24.96	100	0.15	2.97	0.030	7.44 min	1,950	63.03	0.032	0.05	11.21	58,790	16.07	0.03	0.007	4594.25	591.72	60.99 min	79.64
EX 1B	109	0.17	100	0.15	1	0.010	11.49 min	2,693	92.65	0.034	0.05	14.99	250	44.60	0.03	0.239	310.50	124.60	0.09 min	26.58

CURVE NUMBER CALCULATIONS (BASED FROM COA DCM)					
Drainage Area	Drainage Area (acres)	Drainage Area (sq. mi.)	Impervious Area (acres)	Impervious Cover (%)	CN
EX 1A	15,974	24.96	2396	15.0%	81.42
EX 1B	109	0.17	6	5.4%	78.18

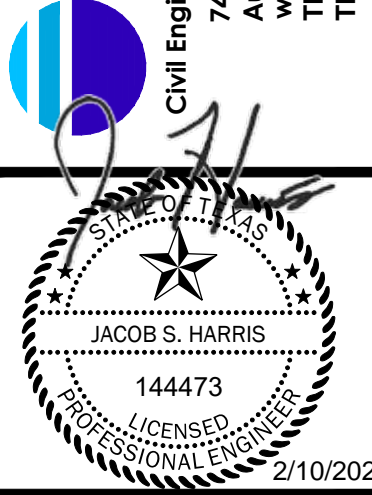
EXISTING RUNOFF USING SCS METHOD					
Design Scenario	Q ₂ (cfs)	Q ₅ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
EX 1A	16,278.9	23,669.1	30,581.5	40,729.0	58,140.5
EX 1B	169.9	258.1	341.1	461.8	662.3
POC	16,334.4	23,753.7	30,693.6	40,887.2	58,379.6



LEGEND

- DRAINAGE AREA
- TIME OF CONCENTRATION
- POINT OF CONFLUENCE
- 100-YR FLOODPLAIN (FEMA)
- FLOW ARROW

DOUCET
A Kleinfelder Company

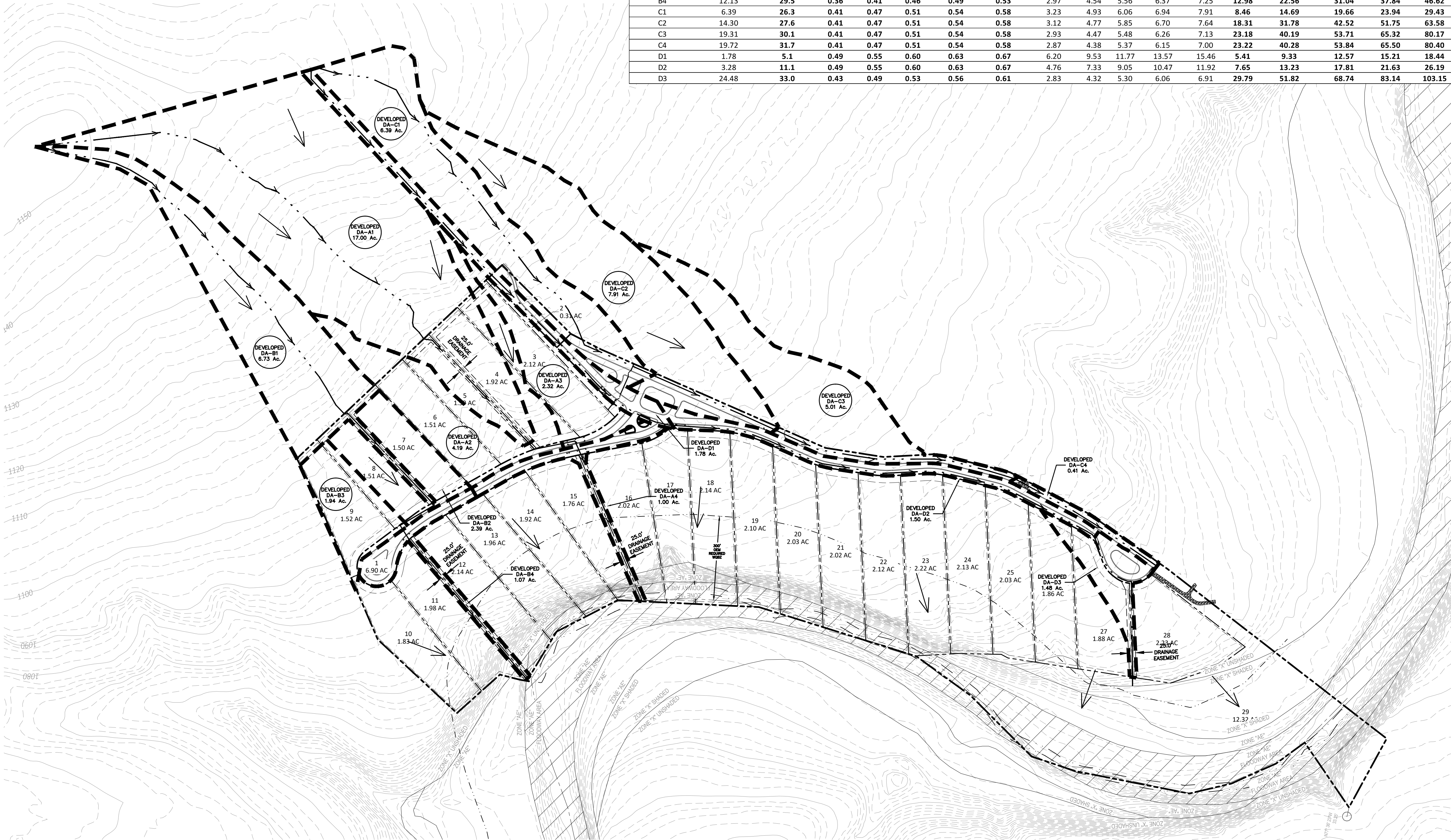


LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

OVERALL EXISTING DRAINAGE
AREA MAP

Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025
SHEET	
32	
OF 44	
Project No.: 2408-002	

Drawing: C:\pwworking\MT-dcc-prod\jonathan.banister\0014942\2408002 CD DA-RP.dwg
User: JBANISTER
Plot Date/Time: Feb. 10 25 - 10:38:17



Proposed Conditions - ATLAS 14														
DRG AREA LABEL	Area	AREA _{TOT}	LENGTH	n	Δ ELEV	SLOPE	SHEET TC	LENGTH	P/U	K	Δ ELEV	SLOPE	VEL	SHAL TC
A1	17.00	17.00	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
A2	4.19	21.19	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
A3	2.32	23.51	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
A4	1.00	24.51	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
B1	6.73	6.73	300	0.24	8.96	0.030	20.0	1218	U	16.13	44.86	0.037	3.1	6.6
B2	2.39	9.12	300	0.24	8.69	0.029	20.0	1218	U	16.13	44.86	0.037	3.1	6.6
B3	1.94	11.06	300	0.24	8.69	0.029	20.0	1218	U	16.13	44.86	0.037	3.1	6.6
B4	1.07	12.13	300	0.24	5.41	0.018	20.0	1123	U	16.13	44.77	0.044	3.4	5.5
C1	6.39	6.39	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
C2	7.91	14.30	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
C3	5.01	19.31	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
C4	0.41	19.72	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
D1	1.78	1.78												
D2	1.50	3.28												
D3	1.48	24.48	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5

Proposed Conditions - ATLAS 14														
DRG AREA LABEL	AREA _{TOT}	TC	C ₂	C ₁₀	C ₂₅	C ₅₀	C ₁₀₀	I ₂	I ₁₀	I ₂₅	I ₅₀	I ₁₀₀	Q ₂	Q ₁₀
A1	17.00	28.9	0.36	0.41	0.45	0.48	0.52	3.02	4.60	5.65	6.46	7.36	18.45	32.08
A2	21.19	29.5	0.36	0.41	0.45	0.48	0.52	2.97	4.54	5.56	6.37	7.25	22.68	39.41
A3	23.51	29.6	0.36	0.41	0.45	0.48	0.52	2.96	4.52	5.54	6.34	7.22	25.05	43.53
A4	24.51	31.1	0.36	0.41	0.45	0.48	0.52	2.89	4.42	5.42	6.20	7.06	25.54	44.39
B1	6.73	27.8	0.36	0.41	0.46	0.49	0.53	3.11	4.74	5.82	6.66	7.60	7.52	13.09
B2	9.12	28.2	0.36	0.41	0.46	0.49	0.53	3.08	4.70	5.77	6.60	7.52	10.11	17.57
B3	11.06	28.3	0.36	0.41	0.46	0.49	0.53	3.07	4.69	5.75	6.58	7.50	12.22	21.25
B4	12.13	29.5	0.36	0.41	0.46	0.49	0.53	2.97	4.54	5.56	6.37	7.25	12.98	22.56
C1	6.39	26.3	0.41	0.47	0.51	0.54	0.58	3.23	4.93	6.06	6.94	7.91	8.46	14.69
C2	14.30	27.6	0.41	0.47	0.51	0.54	0.58	3.12	4.77	5.85	6.70	7.64	18.31	31.78
C3	19.31	30.1	0.41	0.47	0.51	0.54	0.58	2.93	4.47	5.48	6.26	7.13	23.18	40.19
C4	19.72	31.7	0.41	0.47	0.51	0.54	0.58	2.87	4.38	5.37	6.15	7.00	23.22	40.28
D1	1.78	5.1	0.49	0.55	0.60	0.63	0.67	6.20	9.53	11.77	13.57	15.46	5.41	9.33
D2	3.28	11.1	0.49	0.55	0.60	0.63	0.67	4.76	7.33	9.05	10.47	11.92	7.65	13.23
D3	24.48	33.0	0.43	0.49	0.53	0.56	0.61	2.83	4.32	5.30	6.06	6.91	29.79	51.82

LEGEND

DRAINAGE AREA

TIME OF CONCENTRATION

POINT OF CONFLUENCE

100-YR FLOODPLAIN (FEMA)

VEGETATIVE FILTER STRIP

FLOW ARROW

DOUCET
A Kleinfelder Company

Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512) 563-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

PROPOSED DRAINAGE AREA MAP

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

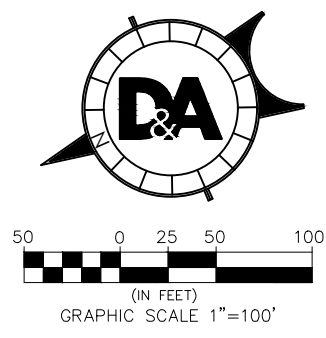
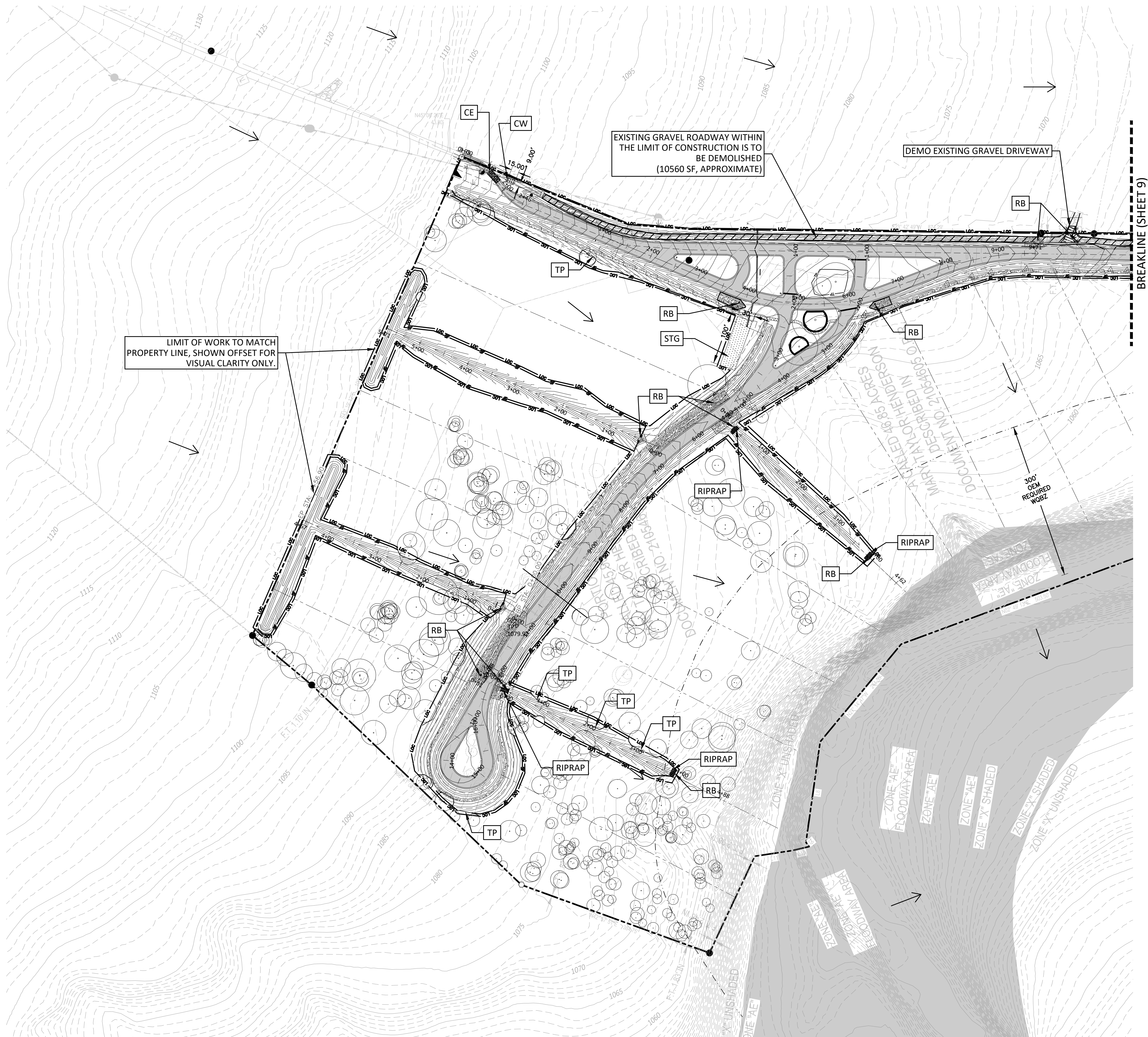
SHEET
34
OF 44

Project No.:
2408-002

ATTACHMENT C

EROSION SEDIMENTATION CONTROL PLANS

Drawing: C:\pwworking\JF\dc-prod\jonathan.lanier\14011402\2408002 CD ESC & DEMO.dwg
User: JBAUSTIK
Date: 02-25-2023
Plot Date/Time: Feb. 10 25 - 10:23:41



LEGEND

- SUBDIVISION BOUNDARY
- LOT LINES
- EASEMENTS
- NOAA ATLAS 14 100-YR DEVELOPED FLOODPLAIN
- OVERALL LIMITS OF CONSTRUCTION
- CE TEMPORARY STONE CONSTRUCTION ENTRANCE. SEE DETAIL SHEET
- RB ROCK BERM SEE DETAIL SHEET
- SF SILT FENCE SEE DETAIL SHEET
- TP TREE PROTECTION FENCE SEE DETAIL SHEET
- TREES TO REMAIN AND TO REMOVE
- STG STAGING AND SPOILS AREA
- CW CONCRETE WASH OUT AREA
- BACK-FILL STORAGE AREA
- GRAVEL ROADWAY TO BE DEMOLISHED
- GRAVEL DRIVEWAY TO BE DEMOLISHED AND RECONSTRUCTED
- FLOW ARROW

SILVER CREEK SUBDIVISION Erosion Control	
Silt Fence	7,677 LF
Tree Protection Fencing	1,097 LF
Rock Berm	116 LF
Staging Area	1 EACH
Construction Entrance	1 EACH
Concrete Washout	1 EACH
Limits of Construction	10.05 ACRES



WARNING !!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

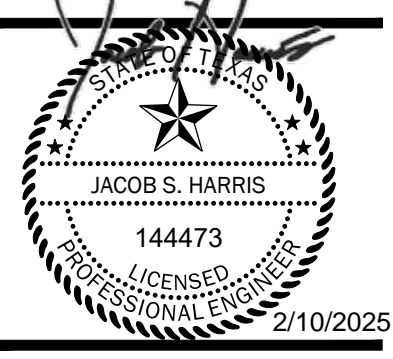
ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

- NOTES:
- PROPOSED CHANNELS WITHIN PROJECT AREA CAN BE USED AS TEMPORARY SEDIMENTATION BASIN.
 - 100 FT NATIVE BUFFER TO BE CLEARED OF CEDARS AND RE-SEED WITH NATIVE CENTRAL TEXAS DRAUGHT TOLERANT GRASSES. GRASS MIX SHALL BE APPROVED BY THE CITY.
 - WITHIN 100 FT NATIVE BUFFER, ALL HEALTHY OAK TREES 8 INCHES IN DIAMETER AND LARGER SHALL REMAIN.
 - SEE SHEET 10 FOR TREE LIST

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	130,000	÷ 43,560 =	2.98
Parking		÷ 43,560 =	
Other paved surfaces	239,825	÷ 43,560 =	5.51
Total Impervious Cover	369,825	÷ 43,560 =	8.49

Total Impervious Cover 8.49 ÷ Total Acreage 70 X 100 = 12.13% Impervious Cover



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

**EROSION & SEDIMENTATION
CONTROL PLAN & DEMOLITION
PLAN 1**

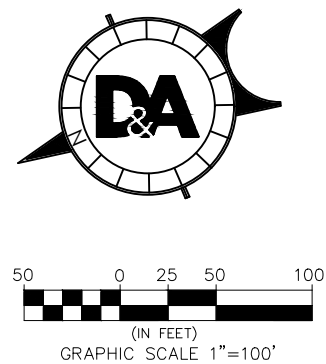
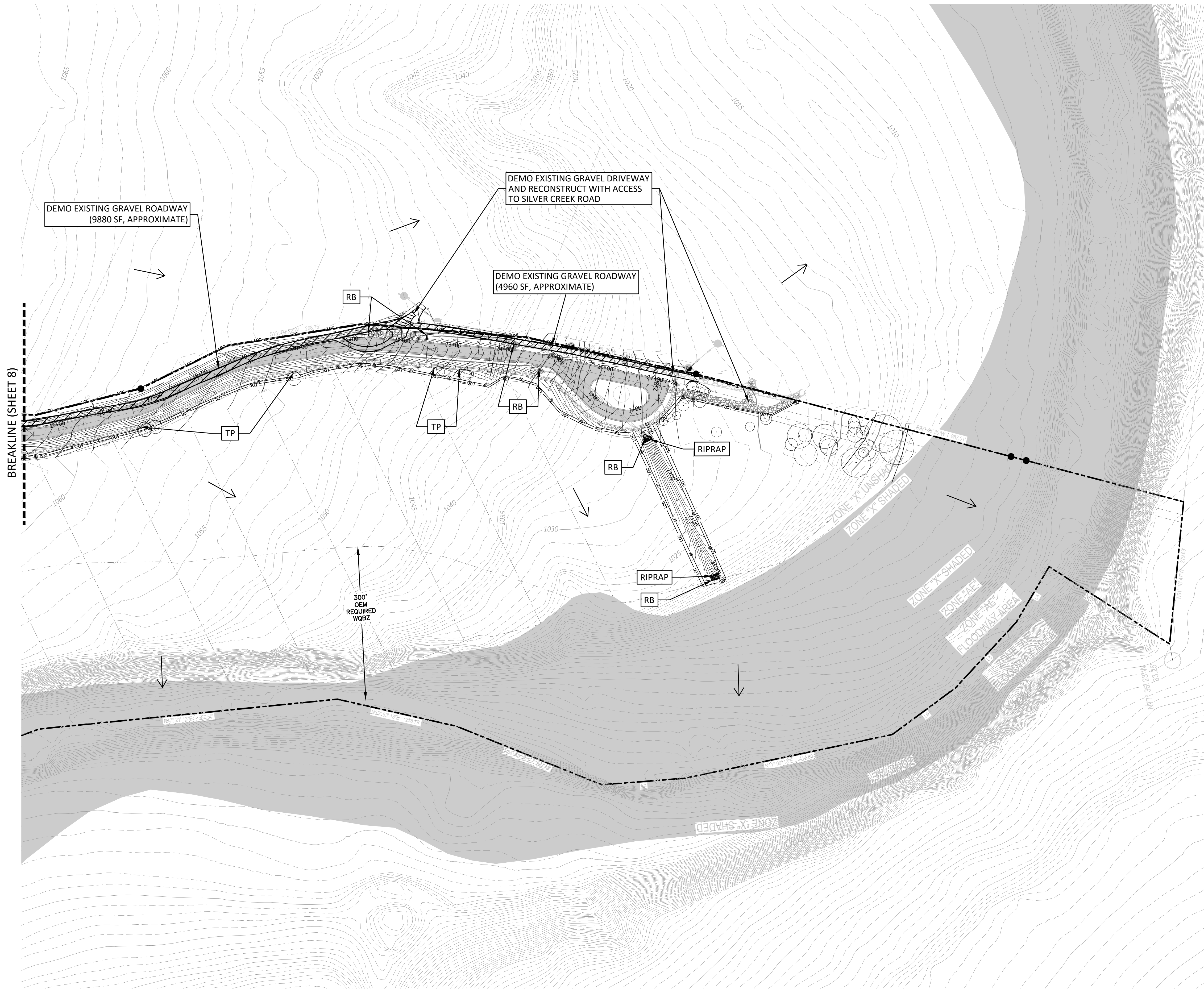
Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

11

OF 44

Project No.:
2408-002



LEGEND

- SUBDIVISION BOUNDARY
- LOT LINES
- EASEMENTS
- NOAA ATLAS 14 100-YR DEVELOPED FLOODPLAIN
- LOC OVERALL LIMITS OF CONSTRUCTION
- CE TEMPORARY STONE CONSTRUCTION ENTRANCE. SEE DETAIL SHEET
- RB ROCK BERM SEE DETAIL SHEET
- SF SILT FENCE SEE DETAIL SHEET
- TP TREE PROTECTION FENCE SEE DETAIL SHEET
- TREES TO REMAIN AND TO REMOVE
- STG STAGING AND SPOILS AREA
- CW CONCRETE WASH OUT AREA
- BACK-FILL STORAGE AREA
- GRAVEL ROADWAY TO BE DEMOED
- GRAVEL DRIVEWAY TO BE DEMOED AND RECONSTRUCTED
- FLOW ARROW



WARNING !!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

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

SILVER CREEK SUBDIVISION

Erosion Control

Silt Fence	7,677 LF
Tree Protection Fencing	1,097 LF
Rock Berm	116 LF
Staging Area	1 EACH
Construction Entrance	1 EACH
Concrete Washout	1 EACH
Limits of Construction	10.05 ACRES

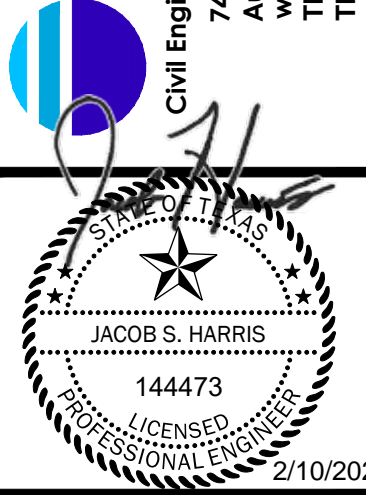
NOTES:

- PROPOSED CHANNELS WITHIN PROJECT AREA CAN BE USED AS TEMPORARY SEDIMENTATION BASIN.
- 100 FT NATIVE BUFFER TO BE CLEARED OF CEDARS AND RE-SEED WITH NATIVE CENTRAL TEXAS DRAUGHT TOLERANT GRASSES. GRASS MIX SHALL BE APPROVED BY THE CITY.
- WITHIN 100 FT NATIVE BUFFER, ALL HEALTHY OAK TREES 8 INCHES IN DIAMETER AND LARGER SHALL REMAIN.

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	130,000	÷ 43,560 =	2.98
Parking		÷ 43,560 =	
Other paved surfaces	239,825	÷ 43,560 =	5.51
Total Impervious Cover	369,825	÷ 43,560 =	8.49

Total Impervious Cover $\frac{8.49}{10.05} \times 100 = 84.5\%$ Impervious Cover



LUNAROYA SUBDIVISION

DRIPPING SPRINGS, TX

EROSION & SEDIMENTATION CONTROL PLAN & DEMOLITION PLAN 2

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

12

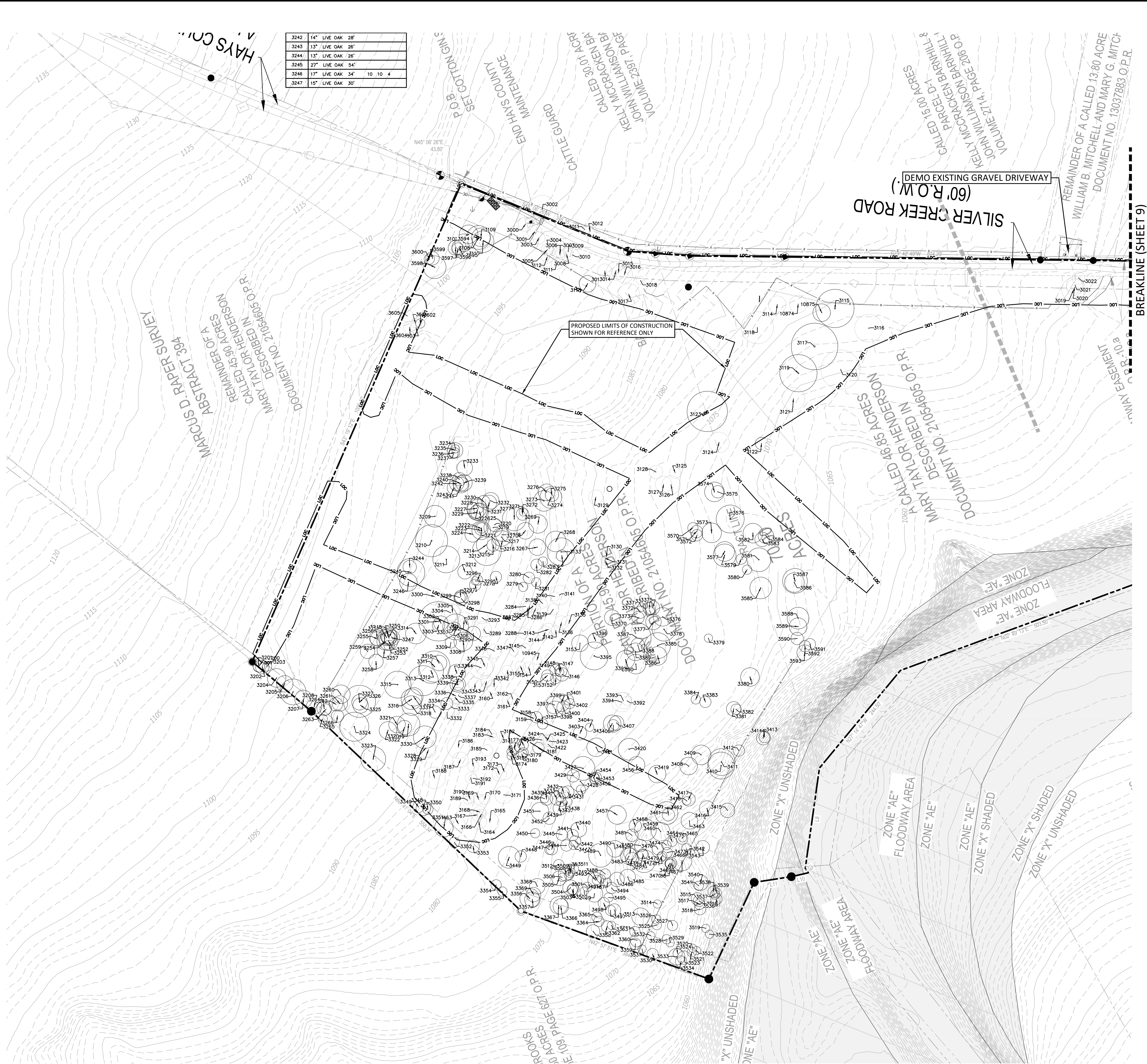
OF 44

Project No.:
2408-002

ATTACHMENT D

EXISTING CONDITIONS PLAN

Drawing: C:\pwworking\mf\dc-prod\jonathan.banister\0114942\2408002 CD EX.dwg
User: BANISTER
C: 05:25:08Z
Plot Date/Time: Feb. 10 25 - 10:23:05



LEGEND

- IRON ROD FOUND (SIZE NOTED)
- ⊙ IRON PIPE FOUND (SIZE NOTED)
- ⬢ BENCHMARK FOUND
- ⬢ CALCULATED POINT
- ⊙ COTTON SPINDLE FOUND
- ⬢ NAIL FOUND
- ⬢ FENCE POST OCCUPIES PROPERTY CORNER
- ⬢ MONUMENT FOUND
- ⬢ CONCRETE MARKER FOUND
- CO ● CLEAN OUT
- ⬢ BOLLARD (SIZE NOTED)
- ⬢ ELECTRIC PULL BOX
- ⬢ ELECTRIC METER
- ⬢ ELECTRIC TRANSFORMER
- ⬢ ELECTRIC MANHOLE
- ⬢ POWER POLE
- ⬢ DOWN GUY
- ⬢ GRAVEL ROADWAY
- ⬢ EXISTING TREE
- PROPERTY BOUNDARY
- WIRE FENCE
- OE --- OVERHEAD ELECTRIC

UTILITY NOTE:
SOME POSSIBLE LOCATIONS OF UNDERGROUND UTILITIES ARE SHOWN HEREON AS A PRECAUTIONARY MEASURE BASED UPON OBSERVED SURVEY LOCATIONS. DOUCET & ASSOCIATES DOES NOT TAKE RESPONSIBILITY FOR DETERMINING THE DEPTH OR LOCATION OF UNDERGROUND UTILITIES WITHIN OR AROUND THE SUBJECT SITE. ALL UTILITIES SHOULD BE FIELD VERIFIED AND CHECKED BY CONTRACTOR.

FLOODPLAIN NOTE:
A PORTION OF THIS PROPERTY (AS SHOWN HEREON) IS LOCATED WITHIN - ZONE "X" UNSHADED, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- ZONE "X" SHADED, AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVELS FROM 1% ANNUAL CHANCE FLOOD.
- ZONE "AE", BASE FLOOD ELEVATIONS DETERMINED, SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD. THE 1% ANNUAL CHANCE FLOOD (100-YEAR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZARD AREA IS THE AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD. THE BASE FLOOD ELEVATION IS THE WATER-SURFACE ELEVATION OF THE 1% ANNUAL CHANCE FLOOD.
- FLOODWAY AREAS IN ZONE "AE", THE FLOODWAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREAS THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANCE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL INCREASE IN FLOOD HEIGHTS.

AS SHOWN ON F.I.R.M. PANEL NO. 48209C0106F, HAYS COUNTY, TEXAS DATED SEPTEMBER 2, 2005.

THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

CONTROL NOTE:
BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204), NORTH AMERICAN DATUM 1983 (NAD83), 2011 ADJUSTMENT (EPOCH 2010). ALL COORDINATE VALUES AND DISTANCES SHOWN ARE LOCAL SURFACE VALUES AND MAY BE CONVERTED TO GRID BY DIVIDING THE SURFACE ADJUSTMENT FACTOR OF 1.00006 USING BM1 AS POINT OF ORIGIN.

BASE POINT INFORMATION (GRID)
BENCHMARK # 1
N=13,999,321.2205
E=2,287,631.156
ELEV.=1,137.3763
CP=IRSAC 1/2 DOUCET
*NOT SHOW HERE ON THIS EXHIBIT

UNITS: US SURVEY FEET.

BENCHMARK # 200
N=13,999,334.62
E=2,287,638.10
ELEVATION: 1,136.60'
DESCRIPTION: MAGNAIL WITH SHINER SET IN ROAD LOCATED APPROXIMATELY 574 FEET NORTH FROM THE INTERSECTION STILLMAN ROAD AND SILVERCREEK ROAD

TREE SURVEY NOTE:
THE CRITICAL ROOT ZONE (CRZ) SHOWN HEREON WAS DETERMINED BY USING THE FORMULA OF TREE DIAMETER (IN INCHES) X 2 = CRITICAL ROOT ZONE (IN FEET). MULTI-TRUNK TREE DIAMETER WAS DETERMINED BY THE SUM OF THE PRIMARY TRUNK DIAMETER (IN INCHES) PLUS HALF THE DIAMETER (IN INCHES) OF EACH ADDITIONAL TRUNK.

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512)-583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

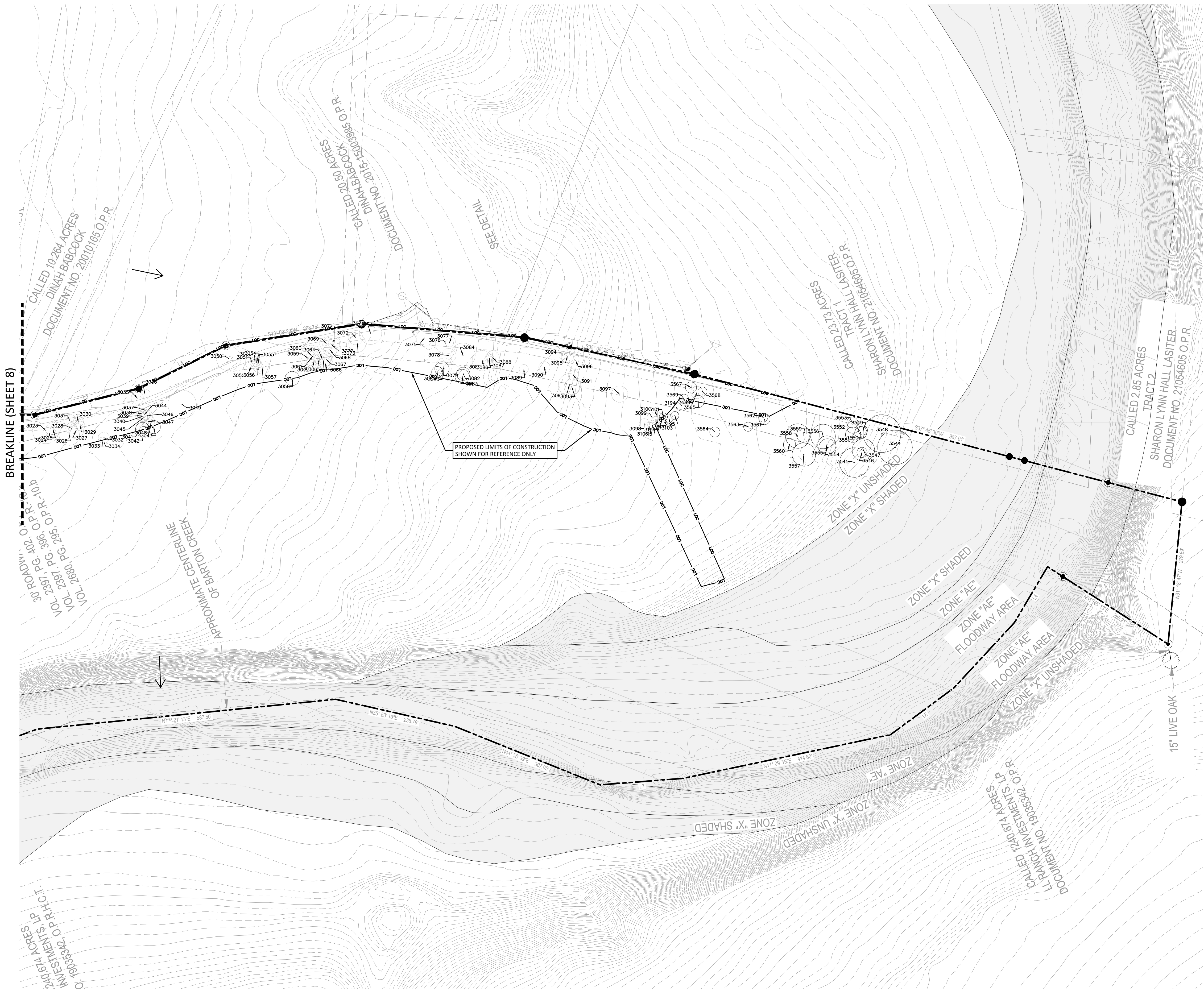
LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

EXISTING CONDITIONS PLAN

Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025

SHEET
8
OF 44

Project No.:
2408-002



LEGEND

●	IRON ROD FOUND (SIZE NOTED)
⊙	IRON PIPE FOUND (SIZE NOTED)
⬤	BENCHMARK FOUND
△	CALCULATED POINT
⊗	COTTON SPINDLE FOUND
▲	NAIL FOUND
⬢	FENCE POST OCCUPIES PROPERTY CORNER
⬢	MONUMENT FOUND
■	CONCRETE MARKER FOUND
CO	CLEAN OUT
●	BOLLARD (SIZE NOTED)
⊠	ELECTRIC PULL BOX
⊞	ELECTRIC METER
⊞	ELECTRIC TRANSFORMER
⊞	ELECTRIC MANHOLE
⬆	POWER POLE
⬇	DOWN GUY
	GRAVEL ROADWAY
○	EXISTING TREE
---	PROPERTY BOUNDARY
- - -	WIRE FENCE
- - -	OVERHEAD ELECTRIC

UTILITY NOTE:
SOME POSSIBLE LOCATIONS OF UNDERGROUND UTILITIES ARE SHOWN HEREON AS A PRECAUTIONARY MEASURE BASED UPON OBSERVED SURVEY LOCATIONS. DOUCET & ASSOCIATES DOES NOT TAKE RESPONSIBILITY FOR DETERMINING THE DEPTH OR LOCATION OF UNDERGROUND UTILITIES WITHIN OR AROUND THE SUBJECT SITE. ALL UTILITIES SHOULD BE FIELD VERIFIED AND CHECKED BY CONTRACTOR.

FLOODPLAIN NOTE:
A PORTION OF THIS PROPERTY (AS SHOWN HEREON) IS LOCATED WITHIN - ZONE "X" UNSHADED, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- ZONE "X" SHADED, AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVELS FROM 1% ANNUAL CHANCE FLOOD.
- ZONE "AE", BASE FLOOD ELEVATIONS DETERMINED, SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD. THE 1% ANNUAL CHANCE FLOOD (100-YEAR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALED OR EXCEEDED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZARD AREA IS THE AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD. THE BASE FLOOD ELEVATION IS THE WATER-SURFACE ELEVATION OF THE 1% ANNUAL CHANCE FLOOD.
- FLOODWAY AREAS IN ZONE "AE", THE FLOODWAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREAS THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANCE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL INCREASE IN FLOOD HEIGHTS.

AS SHOWN ON F.I.R.M. PANEL NO. 48209C0106F, HAYS COUNTY, TEXAS DATED SEPTEMBER 2, 2005.

THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

CONTROL NOTE:
BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204), NORTH AMERICAN DATUM 1983 (NAD83), 2011 ADJUSTMENT (EPOCH 2010). ALL COORDINATE VALUES AND DISTANCES SHOWN ARE LOCAL SURFACE VALUES AND MAY BE CONVERTED TO GRID BY DIVIDING THE SURFACE ADJUSTMENT FACTOR OF 1.00006 USING BM1 AS POINT OF ORIGIN.

BASE POINT INFORMATION (GRID)
BENCHMARK # 1
N=13,999,321.2205
E=2,287,673.1156
ELEV.=1,137.3763
CP=IRSAC 1/2 DOUCET
*NOT SHOW HERE ON THIS EXHIBIT

UNITS: US SURVEY FEET.

BENCHMARK # 200
N=13,999,334.62
E=2,287,689.10
ELEVATION: 1,136.60'
DESCRIPTION: MAGNAIL WITH SHINER SET IN ROAD LOCATED APPROXIMATELY 574 FEET NORTH FROM THE INTERSECTION STILLMAN ROAD AND SILVERCREEK ROAD

THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE COMMITMENT, EASEMENTS OR OTHER MATTERS OF RECORD MAY EXIST WHERE NONE ARE SHOWN.

TREE SURVEY NOTE:
THE CRITICAL ROOT ZONE (CRZ) SHOWN HEREON WAS DETERMINED BY USING THE FORMULA OF TREE DIAMETER (IN INCHES) X 2 = CRITICAL ROOT ZONE (IN FEET). MULTI-TRUNK TREE DIAMETER WAS DETERMINED BY THE SUM OF THE PRIMARY TRUNK DIAMETER (IN INCHES) PLUS HALF THE DIAMETER (IN INCHES) OF EACH ADDITIONAL TRUNK.

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512) 583-2600
www.doucetengineers.com
TPELS Engineering Firm No. F-3937
TPELS Surveying Firm No. 10194551

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

EXISTING CONDITIONS PLAN

Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025

SHEET
9
OF 44

Project No.: 2408-002

TREES TO REMAIN				
NUMBER	SIZE(N)	SPECIES	CRZ(FT)	MT(N)
3000	14"	LIVE OAK 28'		
3001	14"	LIVE OAK 28'		
3002	27"	CEDAR ELM 54'	14 14 12	
3003	12"	LIVE OAK 24'		
3004	10"	LIVE OAK 20'		
3005	12"	LIVE OAK 24'		
3006	10"	LIVE OAK 20'		
3007	10"	LIVE OAK 20'		
3008	12"	LIVE OAK 24'		
3009	10"	LIVE OAK 20'		
3010	13"	LIVE OAK 26'		
3011	10"	LIVE OAK 20'		
3012	13"	LIVE OAK 26'		
3013	14"	LIVE OAK 28'		
3014	18"	LIVE OAK 36'	13 11	
3015	13"	LIVE OAK 26'		
3016	16"	LIVE OAK 32'		
3017	21"	LIVE OAK 42'		
3018	8"	LIVE OAK 16'		
3107	18"	LIVE OAK 36'		
3108	23"	LIVE OAK 46'		
3109	18"	LIVE OAK 36'		
3110	21"	LIVE OAK 42'		
3111	11"	LIVE OAK 22'		
3112	12"	LIVE OAK 24'		
3113	16"	LIVE OAK 32'		
3114	17"	LIVE OAK 34'		
3115	37"	LIVE OAK 74'		
3116	27"	LIVE OAK 54'		
3117	45"	LIVE OAK 90'		
3118	31"	LIVE OAK 62'		
3119	36"	LIVE OAK 72'	27 19	
3120	38"	LIVE OAK 76'		
3121	22"	LIVE OAK 44'		
3122	12"	LIVE OAK 24'		
3123	39"	LIVE OAK 78'	33 13	
3124	20"	LIVE OAK 40'		
3125	11"	LIVE OAK 22'	8 5 3	
3126	18"	LIVE OAK 36'		
3127	16"	LIVE OAK 32'		
3128	13"	LIVE OAK 26'		
3129	14"	LIVE OAK 28'		
3130	13"	LIVE OAK 26'	10 7	
3131	20"	LIVE OAK 40'	10 9 8 4	
3132	8"	LIVE OAK 16'		
3133	27"	LIVE OAK 54'	20 15	
3134	11"	LIVE OAK 22'		
3135	15"	LIVE OAK 30'		
3136	13"	LIVE OAK 26'		
3137	9"	LIVE OAK 18'		
3138	9"	LIVE OAK 18'		
3139	11"	LIVE OAK 22'		
3140	9"	LIVE OAK 18'		
3141	19"	LIVE OAK 38'	15 8	
3142	9"	LIVE OAK 18'		
3143	12"	LIVE OAK 24'		
3144	13"	LIVE OAK 26'		
3145	9"	LIVE OAK 18'		
3146	13"	LIVE OAK 26'		
3147	12"	LIVE OAK 24'		
3148	8"	LIVE OAK 16'		
3149	11"	LIVE OAK 22'		
3150	11"	LIVE OAK 22'		
3151	13"	LIVE OAK 26'		
3152	10"	LIVE OAK 20'		
3153	16"	LIVE OAK 32'	13 6	
3154	10"	LIVE OAK 20'		
3155	10"	LIVE OAK 20'		
3156	10"	LIVE OAK 20'		
3157	10"	LIVE OAK 20'		
3158	11"	LIVE OAK 22'	8 6	
3159	10"	LIVE OAK 20'		
3160	12"	LIVE OAK 24'		
3161	10"	LIVE OAK 20'		
3162	11"	LIVE OAK 22'		
3163	13"	LIVE OAK 26'		
3164	15"	LIVE OAK 30'	11 9	
3165	18"	LIVE OAK 36'		
3166	9"	LIVE OAK 18'		
3167	11"	LIVE OAK 22'		
3168	12"	LIVE OAK 24'		
3169	10"	LIVE OAK 20'		
3170	10"	LIVE OAK 20'		
3171	17"	LIVE OAK 34'	13 8	
3172	14"	LIVE OAK 28'		
3173	16"	LIVE OAK 32'		
3174	8"	LIVE OAK 16'		
3175	9"	LIVE OAK 18'		
3176	11"	LIVE OAK 22'		
3177	10"	LIVE OAK 20'		
3178	10"	LIVE OAK 20'		
3179	10"	LIVE OAK 20'		
3180	10"	LIVE OAK 20'		
3181	11"	LIVE OAK 22'		
3182	9"	LIVE OAK 18'		
3183	8"	LIVE OAK 16'		
3184	9"	LIVE OAK 18'		
3185	11"	LIVE OAK 22'	9 4	
3186	22"	LIVE OAK 44'	16 13	
3187	15"	LIVE OAK 30'		
3188	21"	LIVE OAK 42'	16 11	
3189	8"	LIVE OAK 16'		
3190	8"	LIVE OAK 16'		
3191	11"	LIVE OAK 22'	8 6	
3192	8"	LIVE OAK 16'		
3193	11"	LIVE OAK 22'	8 6	
3200	13"	LIVE OAK 26'		
3201	11"	LIVE OAK 22'		
3202	13"	LIVE OAK 26'	10 7	
3203	9"	LIVE OAK 18'		

TREES TO REMAIN				
NUMBER	SIZE(N)	SPECIES	CRZ(FT)	MT(N)
3204	18"	LIVE OAK 36'		
3205	16"	LIVE OAK 32'		
3206	25"	LIVE OAK 50'		
3207	17"	LIVE OAK 34'	12 11	
3208	15"	LIVE OAK 30'		
3209	21"	LIVE OAK 42'		
3210	31"	LIVE OAK 62'		
3211	26"	LIVE OAK 52'	15 10 6	
3212	14"	LIVE OAK 28'	10 6	
3213	28"	LIVE OAK 56'	13 10 10 10	
3214	16"	LIVE OAK 32'	12 6 7	
3215	12"	LIVE OAK 24'		
3216	20"	LIVE OAK 40'	14 12	
3217	18"	LIVE OAK 36'	12 12	
3218	13"	LIVE OAK 26'		
3219	16"	LIVE OAK 32'		
3220	13"	LIVE OAK 26'		
3221	10"	LIVE OAK 20'		
3222	13"	LIVE OAK 26'		
3223	16"	LIVE OAK 36'		
3224	15"	LIVE OAK 30'		
3225	17"	LIVE OAK 34'		
3226	20"	LIVE OAK 40'		
3227	19"	LIVE OAK 38'		
3228	10"	LIVE OAK 20'		
3229	14"	LIVE OAK 28'		
3230	12"	LIVE OAK 24'		
3231	15"	LIVE OAK 30'		
3232	16"	LIVE OAK 32'		
3233	15"	LIVE OAK 30'		
3234	8"	LIVE OAK 16'		
3235	15"	LIVE OAK 30'	11 8	
3236	10"	LIVE OAK 20'		
3237	9"	LIVE OAK 18'		
3238	13"	LIVE OAK 26'		
3239	16"	LIVE OAK 32'		
3240	15"	LIVE OAK 30'		
3241	15"	LIVE OAK 30'		
3242	14"	LIVE OAK 28'		
3243	13"	LIVE OAK 26'		
3244	13"	LIVE OAK 26'		
3245	27"	LIVE OAK 54'		
3246	17"	LIVE OAK 34'	10 10 4	
3247	15"	LIVE OAK 30'		
3248	14"	LIVE OAK 28'		
3249	16"	LIVE OAK 32'		
3250	16"	LIVE OAK 32'		
3251	16"	LIVE OAK 32'		
3252	18"	LIVE OAK 36'		
3253	10"	LIVE OAK 20'		
3254	16"	LIVE OAK 32'		
3255	14"	LIVE OAK 28'		
3256	15"	LIVE OAK 30'		
3257	14"	LIVE OAK 28'		
3258	14"	LIVE OAK 28'		
3259	14"	LIVE OAK 28'		
3260	18"	LIVE OAK 36'		
3261	15"	LIVE OAK 30'		
3262	13"	LIVE OAK 26'		
3263	11"	LIVE OAK 22'		
3264	14"	LIVE OAK 28'		
3265	9"	LIVE OAK 18'		
3266	12"	LIVE OAK 24'		
3267	16"	LIVE OAK 32'		
3268	20"	LIVE OAK 40'		
3269	18"	LIVE OAK 36'		
3270	16"	LIVE OAK 32'	10 6 6	
3271	12"	LIVE OAK 24'		
3272	8"	LIVE OAK 16'		
3273	20"	LIVE OAK 40'		
3274	21"	LIVE OAK 42'		
3275	13"	LIVE OAK 26'		
3276	16"	LIVE OAK 32'		
3277	23"	LIVE OAK 46'	14 11 8	
3278	11"	LIVE OAK 22'		
3279	9"	LIVE OAK 18'		
3280	11"	LIVE OAK 22'		
3281	9"	LIVE OAK 18'		
3282	11"	LIVE OAK 22'		
3283	9"	LIVE OAK 18'		
3284	13"	LIVE OAK 26'	10 6	
3285	10"	LIVE OAK 20'		
3286	13"	LIVE OAK 26'	10 6	
3287	16"	LIVE OAK 32'		
3288	10"	LIVE OAK 20'		
3289	15"	LIVE OAK 30'		
3290	14"	LIVE OAK 28'		
3291	15"	LIVE OAK 30'		
3292	17"	LIVE OAK 34'		
3293	12"	LIVE OAK 24'		
3294	11"	LIVE OAK 22'		
3295	8"	LIVE OAK 16'		
3296	10"	LIVE OAK 20'		
3297	12"	LIVE OAK 24'		
3298	13"	LIVE OAK 26'	10 6	
3299	11"	LIVE OAK 22'		
3300	16"	LIVE OAK 32'		
3301	38"	LIVE OAK 76'	21 21 14	
3302	14"	LIVE OAK 28'		
3303	12"	LIVE OAK 24'		
3304	18"	LIVE OAK 36'		
3305	16"	LIVE OAK 32'		
3306	25"	LIVE OAK 50'	13 12 12	
3307	13"	LIVE OAK 26'		
3308	18"	LIVE OAK 36'		
3309	11"	LIVE OAK 22'		
3310	15"	LIVE OAK 30'		
3311	30"	LIVE OAK 60'	21 19	
3312	24"	LIVE OAK 48'	17 15	
3313	29"	LIVE OAK 58'	15 15 14	

TREES TO REMAIN				
NUMBER	SIZE(N)	SPECIES	CRZ(FT)	MT(N)
3314	20"	LIVE OAK 40'	11 11 8	
3315	26"	LIVE OAK 52'		
3316	20"	LIVE OAK 40'		
3317	18"	LIVE OAK 36'		
3318	19"	LIVE OAK 38'	14 10	
3319	22"	LIVE OAK 44'	17 10	
3320	14"	LIVE OAK 28'		
3321	16"	LIVE OAK 32'		
3322	17"	LIVE OAK 34'		
3323	24"	LIVE OAK 48'	17 14	
3324	28"	LIVE OAK 56'		
3325	15"	LIVE OAK 30'		
3326	15"	LIVE OAK 30'		
3327	31"	LIVE OAK 62'	16 16 14	
3328	19"	LIVE OAK 38'		
3329	15"	LIVE OAK 30'		
3330	22"	LIVE OAK 44'		
3331	12"	LIVE OAK 24'		
3332	14"	LIVE OAK 28'		
3333	17"	LIVE OAK 34'		
3334	20"	LIVE OAK 23'		
3335	12"	LIVE OAK 24'		
3336	17"	LIVE OAK 34'		
3337	16"	LIVE OAK 32'		
3338	15"	CEDAR ELM 30'		
3339	11"	LIVE OAK 22'		
3340	17"	LIVE OAK 34'		
3341	13"	LIVE OAK 26'		
3342	14"	LIVE OAK 28'		
3343	11"	LIVE OAK 22'		
3344	22"	LIVE OAK 44'		
3345	18"	LIVE OAK 36'		
3346	14"	LIVE OAK 28'		
3347	9"	LIVE OAK 18'		
3348	14"	LIVE OAK 28'		
3349	11"	LIVE OAK 22'		
3350	10"	LIVE OAK 20'		
3351	18"	LIVE OAK 36'		
3352	10"	LIVE OAK 20'		
3353	12"	LIVE OAK 24'	9 6	
3354	10"	LIVE OAK 20'		
3355	9"	LIVE OAK 18'		
3356	19"	LIVE OAK 38'		
3357	15"	LIVE OAK 30'		
3358	13"	LIVE OAK 26'		
3359	11"	LIVE OAK 22'		
3360	13"	LIVE OAK 26'		
3361	10"	LIVE OAK 20'		
3362	11"	LIVE OAK 22'	8 7	
3363	8"	LIVE OAK 16'		
3364	10"	LIVE OAK 20'		
3365	10"	LIVE OAK 20'		
3366	15"	LIVE OAK 30'	11 9	
3367	17"	LIVE OAK 34'		
3368	15"	LIVE OAK 30'		
3369	14"	LIVE OAK 28'		
3370	15"	LIVE OAK 30'	11 8	
3371	8"	LIVE OAK 16'		
3372	12"	LIVE OAK 24'		
3373	12"	LIVE OAK 24'		
3374	12"	LIVE OAK 24'		
3375	14"	LIVE OAK 28'		
3376	18"	LIVE OAK 36'		
3377	15"	LIVE OAK 30'		
3378	23"	LIVE OAK 46'	18 10	
3379	8"	SHIN OAK 16'		
3380	18"	SHIN OAK 36'	10 7 6 5	
3381	14"	SHIN OAK 28'	8 8 5	
3382	10"	SHIN OAK 20'		
3383	11"	CEDAR ELM 22'		
3384	9"	CEDAR ELM 18'		
3385	25"	LIVE OAK 50'	16 10 8	
3386	18"	LIVE OAK 36'		
3387	29"	LIVE OAK 58'	20 18	
3388	13"	LIVE OAK 26'		
3389	17"	LIVE OAK 34'	12 11	
3390	19"	LIVE OAK 38'		
3391	18"	LIVE OAK 36'		
3392	9"	LIVE OAK 18'		
3393	16"	LIVE OAK 32'	14 5	
3394	19"	LIVE OAK 38'		
3395	27"	LIVE OAK 54'	17 10 10	
3396	15"	LIVE OAK 30'	11 9	
3397	17"	LIVE OAK 34'		
3398	16"	LIVE OAK 32'		
3399	17"	LIVE OAK 34'		
3400	13"	LIVE OAK 26'		
3401	10"	LIVE OAK 20'		
3402	10"	LIVE OAK 20'		
3403	13"	LIVE OAK 26'		
3404	8"	LIVE OAK 16'		
3405	17"	LIVE OAK 34'		
3406	11"	LIVE OAK 22'		
3407	14"	LIVE OAK 28'		
3408	17"	LIVE OAK 34'		
3409	19"	LIVE OAK 38'		
3410	26"	LIVE OAK 52'	19 14	
3411	26"	LIVE OAK 52'	14 13 13	
3412	11"	LIVE OAK 22'		
3413	11"	LIVE OAK 22'	8 7	
3414	13"	LIVE OAK 26'	9 8	
3415	14"	SHIN OAK 28'		
3416	15"	LIVE OAK 30'		
3417	13"	LIVE OAK 26'		
3418	8"	LIVE OAK 16'		
3419	17"	LIVE OAK 34'		
3420	21"	LIVE OAK 42'	11 10 10	
3421	18"	LIVE OAK 36'		
3422	9"	LIVE OAK 18'		
3423	11"	LIVE OAK 22'		

APPENDIX A

PRE-CONSTRUCTION FORMS

Responsible Party Form Schedule
Responsible Party Form Certification

Silver Creek (Lunaroya) Subdivision
Silver Creek Rd.
Dripping Springs, TX 78620

Responsible Party Form Schedule

Prevention Measure	Pollution	Responsible Party Company Name											
BEST MANAGEMENT PRACTICES													
Silt fences													
Rock berms													
Drain inlet protection													
Gravel filter bags													
Vehicle exits (offsite tracking)													
Concrete washout pit (leaks, failure)													
Temporary vegetation													
Permanent vegetation													
Sediment control basin													
Other structural controls													
Material storage areas (leakage)													
Equipment areas (leaks, spills)													
Construction debris													
General site cleanliness													
Trash receptacles													
Natural vegetation buffer strips													
Inspections													
SWP3 Modification & Records													
POTENTIAL EROSION SOURCES													
Clearing													
Grading													
Excavation													
Drainage Construction													
Utility Construction													
Roadway or Parking Lot Construction													
Foundation Construction													
Building Construction													
Landscaping Activities													

Identify responsible parties and indicate responsible party for each pollution prevention item listed above by marking an X under the Responsible Party Name.

Silver Creek (Lunaroya) Subdivision
Silver Creek Rd.
Dripping Springs, TX 78620

Responsible Party Form Certifications

“I certify under penalty of law that I understand the terms and conditions of the general Texas Pollutant Discharge Elimination System (TPDES) permit that authorizes the storm water discharges associated with construction activity from the construction site identified as part of this certification.”

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: General Contractor
Date: _____

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: Earthwork
Date: _____

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: Plumbing
Date: _____

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: Paving
Date: _____

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: Electrical
Date: _____

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: _____
Date: _____

(Note: Use additional sheets if necessary)

Silver Creek (Lunaroya) Subdivision
Silver Creek Rd.
Dripping Springs, TX 78620

Responsible Party Form Certifications

“I certify under penalty of law that I understand the terms and conditions of the general Texas Pollutant Discharge Elimination System (TPDES) permit that authorizes the storm water discharges associated with construction activity from the construction site identified as part of this certification.”

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: _____
Date: _____

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: _____
Date: _____

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: _____
Date: _____

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: _____
Date: _____

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: _____
Date: _____

Company: _____
Name: _____
Signed: _____

Phone: _____
Responsible for: _____
Date: _____

(Note: Use additional sheets if necessary)

APPENDIX B

INSPECTION REPORT (SAMPLE FORM)

Inspection Report

Prevention Pollution Measure	Inspected in Compliance	Corrective Action Required	
		Description (use additional sheet if necessary)	Date Completed
	(Y/N)		
BEST MANAGEMENT PRACTICES			
Silt fences			
Rock berms			
Drain inlet protection			
Gravel filter bags			
Vehicle exits (offsite tracking)			
Concrete washout pit (leaks, failure)			
Temporary vegetation			
Permanent vegetation			
Sediment control basin			
Other structural controls			
Material storage areas (leakage)			
Equipment areas (leaks, spills)			
Construction debris			
General site cleanliness			
Trash receptacles			
Natural vegetation buffer strips			
EVIDENCE OF EROSION			
Site preparation			
Roadway or Parking Lot Construction			
Utility Construction			
Drainage Construction			
Building Construction			
MAJOR OBSERVATIONS			
Sediment discharges from site			
BMPs requiring maintenance			
BMPs requiring modification			
Additional BMPs required			

Certification Statement

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

_____ Inspector's Name (Superintendent)	_____ Inspector's Signature	_____ Date
_____ Name of Owner/Operator (Firm)	_____ Authorized Signature	_____ Date

APPENDIX C

DELEGATION OF SIGNATORIES TO REPORTS

Executive Director
Texas Commission on Environmental Quality
Storm Water and Pretreatment Team
P.O. Box 13087, MC-148
Austin, TX 78711-3087

Subject: Delegation of Signatories to Reports

Facility/Company/Site Name: Dripping Springs Owner, LLC

TPDES Authorization Number: _____

Dear Executive Director:

This letter serves to designate the following people or positions as authorized personnel for signing reports, storm water pollution prevention plans, certifications or other information requested by the Executive Director or required by the general permit, as set forth by 30 TAC §305.128 (see page 2).

Name or Position	
Name or Position	
Name or Position	
Name or Position	

I understand that this authorization does not extend to the signing of a Notice of Intent for obtaining coverage under a storm water general permit.

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in 30 TAC §305.44 (see page 2).

Sincerely,

Signature

Title

Date

Brian Sewell
Printed Name

615-778-2889
Contact Number

RELEVANT PROVISIONS

305.128(a) All reports requested by permits and other information requested by the executive director shall be signed by a person described in §305.44(a) of this title (relating to Signatories to Applications) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) the authorization is made in writing by a person described in §305.44(a) of this title (relating to Signatories to Applications);

(2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity or for environmental matters for the applicant, such as the position of plant manager, operator of a well or well field, environmental manager, or a position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(3) the written authorization is submitted to the executive director.

(b) If an authorization under this section is no longer accurate because of a change in individuals or position, a new authorization satisfying the requirements of this section must be submitted to the executive director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(c) Any person signing a report required by a permit shall make the certification set forth in §305.44(b) of this title (relating to Signatories to Applications).

305.44(a) All applications shall be signed as follows.

(1) For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

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

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

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

APPENDIX D

**RECORD OF STABILIZATION AND
CONSTRUCTION ACTIVITY DATES**

SITE STABILIZATION and CONSTRUCTION

ACTIVITY DATES

A record of dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated shall be maintained until final site stabilization is achieved. The dates can be entered in the following form, or on a different form.

MAJOR GRADING ACTIVITIES

Description of Activity: _____

Begin (date): _____

Site Contractor: _____

Location: _____

End (date): _____

Description of Activity: _____

Begin (date): _____

Site Contractor: _____

Location: _____

End (date): _____

Description of Activity: _____

Begin (date): _____

Site Contractor: _____

Location: _____

End (date): _____

Description of Activity: _____

Begin (date): _____

Site Contractor: _____

Location: _____

End (date): _____

Description of Activity: _____

Begin (date): _____

Site Contractor: _____

Location: _____

End (date): _____

Description of Activity: _____

Begin (date): _____

Site Contractor: _____

Location: _____

End (date): _____

Description of Activity: _____

Begin (date): _____

Site Contractor: _____

Location: _____

End (date): _____

Description of Activity: _____

Begin (date): _____

Site Contractor: _____

Location: _____

End (date): _____

Description of Activity: _____

Begin (date): _____

Site Contractor: _____

Location: _____

End (date): _____

APPENDIX E

TPDES GENERAL CONSTRUCTION PERMIT NO. TXR150000
EFFECTIVE DATE MARCH 5, 2023

Texas Commission on Environmental Quality

P.O. Box 13087, Austin, Texas 78711-3087



GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

This permit supersedes and replaces
TPDES General Permit No. TXR150000,
effective March 5, 2018, and amended January 28, 2022

Construction sites that discharge stormwater associated with construction activity located in the state of Texas may discharge to surface water in the state only according to monitoring requirements and other conditions set forth in this general permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ or Commission), the laws of the State of Texas, and other orders of the Commission of the TCEQ. The issuance of this general permit does not grant to the permittee the right to use private or public property for conveyance of stormwater and certain non-stormwater discharges along the discharge route. This includes property belonging to but not limited to any individual, partnership, corporation or other entity. Neither does this general permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This general permit and the authorization contained herein shall expire at midnight, on March 5, 2028.

EFFECTIVE DATE: March 5, 2023

ISSUED DATE: February 27, 2023



For the Commission

TPDES GENERAL PERMIT NUMBER TXR150000
RELATING TO STORMWATER DISCHARGES ASSOCIATED WITH
CONSTRUCTION ACTIVITIES

Table of Contents

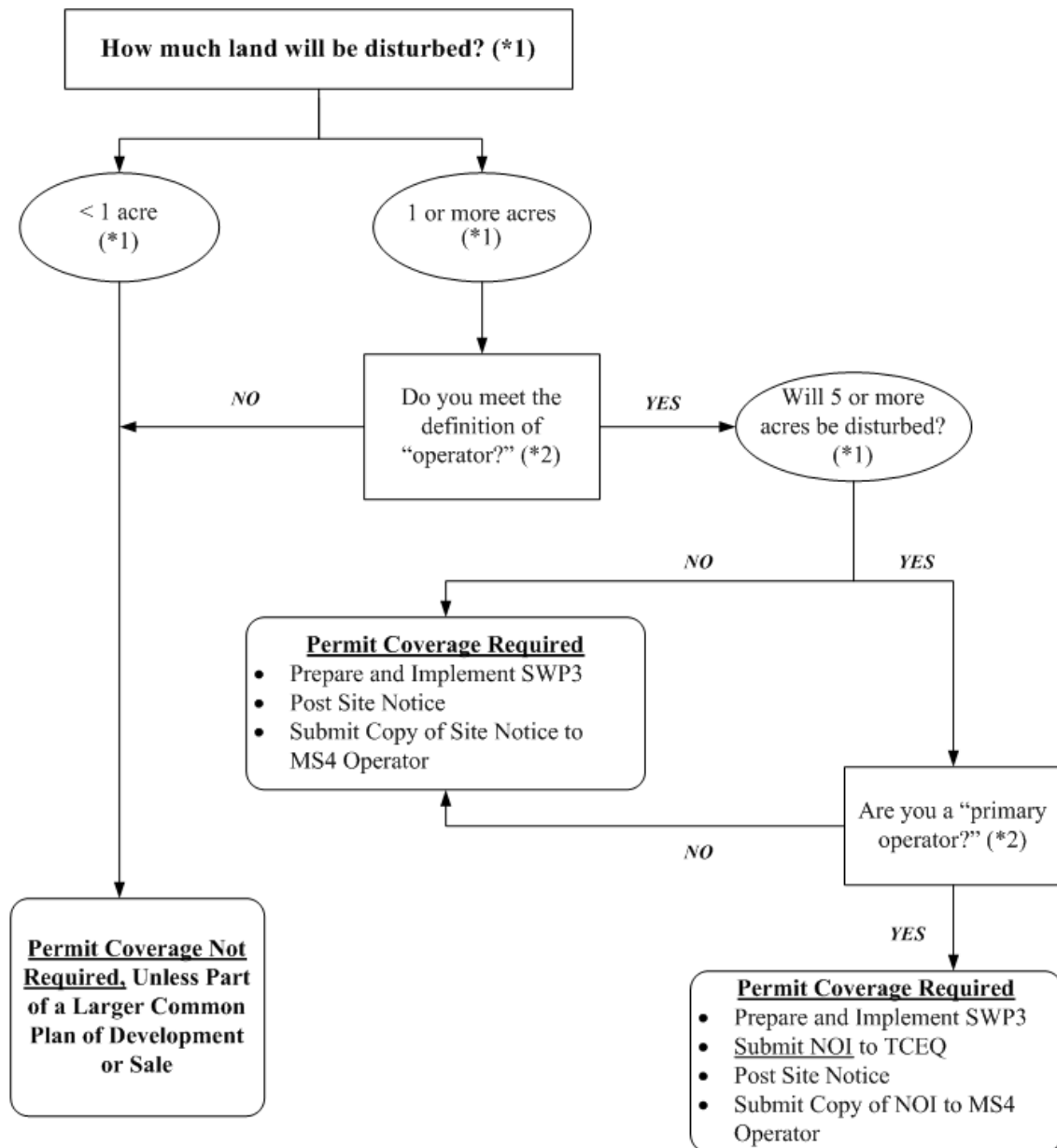
Part I. Flow Chart and Definitions	5
Section A. Flow Chart to Determine Whether Coverage is Required	5
Section B. Definitions.....	6
Part II. Permit Applicability and Coverage	12
Section A. Discharges Eligible for Authorization	12
1. Stormwater Associated with Construction Activity	12
2. Discharges of Stormwater Associated with Construction Support Activities	12
3. Non-Stormwater Discharges	12
4. Other Permitted Discharges	13
Section B. Concrete Truck Wash Out	13
Section C. Limitations on Permit Coverage	13
1. Post Construction Discharges	13
2. Prohibition of Non-Stormwater Discharges	13
3. Compliance with Water Quality Standards	14
4. Impaired Receiving Waters and Total Maximum Daily Load (TMDL) Requirements	14
5. Discharges to the Edwards Aquifer Recharge or Contributing Zone	14
6. Discharges to Specific Watersheds and Water Quality Areas	15
7. Protection of Streams and Watersheds by Other Governmental Entities.....	15
8. Indian Country Lands	15
9. Exempt Oil and Gas Activities	15
10. Stormwater Discharges from Agricultural Activities.....	16
11. Endangered Species Act.....	16
12. Storage of High-Level Radioactive Waste	16
13. Other	17
Section D. Deadlines for Obtaining Authorization to Discharge	17
1. Large Construction Activities	17
2. Small Construction Activities	17
Section E. Obtaining Authorization to Discharge	17
1. Automatic Authorization for Small Construction Activities with Low Potential for Erosion	17
2. Automatic Authorization for Small Construction Activities.....	18

3.	Authorization for Large Construction Activities	19
4.	Waivers for Small Construction Activities:.....	21
5.	Effective Date of Coverage	21
6.	Contents of the NOI	22
7.	Notice of Change (NOC)	22
8.	Signatory Requirement for NOI Forms, NOT Forms, NOC Forms, and Construction Site Notices	23
Section F. Terminating Coverage.....		24
1.	Notice of Termination (NOT) Required	24
2.	Minimum Contents of the NOT	24
3.	Termination of Coverage for Small Construction Sites and for Secondary Operators at Large Construction Sites.....	25
4.	Transfer of Day-to-Day Operational Control.....	25
Section G. Waivers from Coverage		26
1.	Waiver Applicability and Coverage.....	26
2.	Steps to Obtaining a Waiver	27
3.	Effective Date of an LREW	27
4.	Activities Extending Beyond the LREW Period.....	28
Section H. Alternative TPDES Permit Coverage.....		28
1.	Individual Permit Alternative	28
2.	General Permit Alternative	28
3.	Individual Permit Required	28
Section I. Permit Expiration.....		29
Part III. Stormwater Pollution Prevention Plans (SWP3)		29
Section A. Shared SWP3 Development		30
Section B. Responsibilities of Operators		30
1.	Secondary Operators and Primary Operators with Control Over Construction Plans and Specifications	30
2.	Primary Operators with Day-to-Day Operational Control	31
Section C. Deadlines for SWP3 Preparation, Implementation, and Compliance		31
Section D. Plan Review and Making Plans Available		31
Section E. Revisions and Updates to SWP3s		32
Section F. Contents of SWP3		32
Part IV. Erosion and Sediment Control Requirements Applicable to All Sites.....		43
Section A. Erosion and Sediment Controls		43
Section B. Soil Stabilization		44
Section C. Dewatering		44

Section D. Pollution Prevention Measures	44
Section E. Prohibited Discharges	45
Section F. Surface Outlets	45
Part V. Stormwater Runoff from Concrete Batch Plants	45
Section A. Benchmark Sampling Requirements	46
Section B. Best Management Practices (BMPs) and SWP3 Requirements	47
Section C. Prohibition of Wastewater Discharges.....	50
Part VI. Concrete Truck Wash Out Requirements	50
Part VII. Retention of Records.....	50
Part VIII. Standard Permit Conditions.....	51
Part IX. Fees.....	52
Appendix A: Automatic Authorization	53
Appendix B: Storm Erosivity (EI) Zones in Texas.....	55
Appendix C: Isoerodent Map.....	56
Appendix D: Erosivity Indices for EI Zones in Texas	57

Part I. Flow Chart and Definitions**Section A. Flow Chart to Determine Whether Coverage is Required**

When calculating the acreage of land area disturbed, include the disturbed land-area of all construction and construction support activities.



- (*1) To determine the size of the construction project, use the size of the entire area to be disturbed, and include the size of the larger common plan of development or sale, if the project is part of a larger project (refer to Part I.B., "Definitions," for an explanation of "common plan of development or sale").
- (*2) Refer to the definitions for "operator," "primary operator," and "secondary operator" in Part I., Section B. of this permit.

Section B. Definitions

Arid Areas – Areas with an average annual rainfall of zero (0) to ten (10) inches.

Best Management Practices (BMPs) – Schedules of activities, prohibitions of practices, maintenance procedures, structural controls, local ordinances, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control construction site runoff, spills or leaks, waste disposal, or drainage from raw material storage areas.

Commencement of Construction – The initial disturbance of soils associated with clearing, grading, or excavation activities, as well as other construction-related activities (e.g., demolition; grubbing; stockpiling of fill material; placement of raw materials at the site).

Common Plan of Development – A construction activity that is completed in separate stages, separate phases, or in combination with other construction activities. A common plan of development (also known as a “common plan of development or sale”) is identified by the documentation for the construction project that identifies the scope of the project, and may include plats, blueprints, marketing plans, contracts, building permits, a public notice or hearing, zoning requests, or other similar documentation and activities. A common plan of development does not necessarily include all construction projects within the jurisdiction of a public entity (e.g., a city or university). Construction of roads or buildings in different parts of the jurisdiction would be considered separate “common plans,” with only the interconnected parts of a project being considered part of a “common plan” (e.g., a building and its associated parking lot and driveways, airport runway and associated taxiways, a building complex, etc.). Where discrete construction projects occur within a larger common plan of development or sale but are located one quarter (1/4) mile or more apart, and the area between the projects is not being disturbed, each individual project can be treated as a separate plan of development or sale, provided that any interconnecting road, pipeline or utility project that is part of the same “common plan” is not included in the area to be disturbed.

Construction Activity – Includes soil disturbance activities, including clearing, grading, excavating, construction-related activity (e.g., stockpiling of fill material, demolition), and construction support activity. This does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g., the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing rights-of-way, and similar maintenance activities). Regulated construction activity is defined in terms of small and large construction activity.

Construction Support Activity – A construction-related activity that specifically supports construction activity, which can involve earth disturbance or pollutant-generating activities of its own, and can include, but are not limited to, activities associated with concrete or asphalt batch plants, rock crushers, equipment staging or storage areas, chemical storage areas, material storage areas, material borrow areas, and excavated material disposal areas. Construction support activity must only directly support the construction activity authorized under this general permit.

Dewatering – The act of draining accumulated stormwater or groundwater from building foundations, vaults, trenches, and other similar points of accumulation.

Discharge – For the purposes of this permit, the drainage, release, or disposal of pollutants in stormwater and certain non-stormwater from areas where soil disturbing activities (e.g., clearing, grading, excavation, stockpiling of fill material, and demolition), construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck wash out, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located.

Drought-Stricken Area – For the purposes of this permit, an area in which the National Oceanic and Atmospheric Administration’s U.S. Seasonal Drought Outlook indicates for the period during which the construction will occur that any of the following conditions are likely: (1) “Drought to persist or intensify”, (2) “Drought ongoing, some improvement”, (3) “Drought likely to improve, impacts ease”, or (4) “Drought development likely”. See http://www.cpc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html.

Edwards Aquifer – As defined under Texas Administrative Code (TAC) § 213.3 of this title (relating to the Edwards Aquifer), that portion of an arcuate belt of porous, water-bearing, predominantly carbonate rocks known as the Edwards and Associated Limestones in the Balcones Fault Zone trending from west to east to northeast in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties; and composed of the Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil’s River Limestone, Person Formation, Kainer Formation, Edwards Formation, and Georgetown Formation. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

Edwards Aquifer Recharge Zone – Generally, that area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other permeable features would create a potential for recharge of surface waters into the Edwards Aquifer. The recharge zone is identified as that area designated as such on official maps located in the offices of the Texas Commission on Environmental Quality (TCEQ) and the appropriate regional office. The Edwards Aquifer Map Viewer, located at <https://www.tceq.texas.gov/gis/edwards-viewer.html>

Edwards Aquifer Contributing Zone – The area or watershed where runoff from precipitation flows downgradient to the recharge zone of the Edwards Aquifer. The contributing zone is located upstream (upgradient) and generally north and northwest of the recharge zone for the following counties: all areas within Kinney County, except the area within the watershed draining to Segment No. 2304 of the Rio Grande Basin; all areas within Uvalde, Medina, Bexar, and Comal Counties; all areas within Hays and Travis Counties, except the area within the watersheds draining to the Colorado River above a point 1.3 miles upstream from Tom Miller Dam, Lake Austin at the confluence of Barrow Brook Cove, Segment No. 1403 of the Colorado River Basin; and all areas within Williamson County, except the area within the watersheds draining to the Lampasas River above the dam at Stillhouse Hollow reservoir, Segment No. 1216 of the Brazos River Basin. The contributing zone is illustrated on the Edwards Aquifer map viewer at <https://www.tceq.texas.gov/gis/edwards-viewer.html>

Effluent Limitations Guideline (ELG) – Defined in 40 Code of Federal Regulations (CFR) § 122.2 as a regulation published by the Administrator under § 304(b) of the Clean Water Act (CWA) to adopt or revise effluent limitations.

Facility or Activity – For the purpose of this permit, referring to a construction site, the location of construction activity, or a construction support activity that is regulated under this general permit, including all contiguous land and fixtures (for example, ponds and materials stockpiles), structures, or appurtenances used at a construction site or industrial site.

Final Stabilization – A construction site status where any of the following conditions are met:

- (a) All soil disturbing activities at the site have been completed and a uniform (that is, evenly distributed, without large bare areas) perennial vegetative cover with a density of at least 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, or gabions) have been employed.
- (b) For individual lots in a residential construction site by either:
 - (1) the homebuilder completing final stabilization as specified in condition (a) above; or
 - (2) the homebuilder establishing temporary stabilization for an individual lot prior to the time of transfer of the ownership of the home to the buyer and after informing the homeowner of the need for, and benefits of, final stabilization. If temporary stabilization is not feasible, then the homebuilder may fulfill this requirement by retaining perimeter controls or BMPs, and informing the homeowner of the need for removal of temporary controls and the establishment of final stabilization. Fulfillment of this requirement must be documented in the homebuilder's stormwater pollution prevention plan (SWP3).
- (c) For construction activities on land used for agricultural purposes (such as pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to surface water and areas that are not being returned to their preconstruction agricultural use must meet the final stabilization conditions of condition (a) above.
- (d) In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
 - (1) temporary erosion control measures (for example, degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator, and
 - (2) the temporary erosion control measures are selected, designed, and installed to achieve 70% of the native background vegetative coverage within three years.

High-Level Radioactive Waste – Meaning as assigned by 42 United States Code (U.S.C.) Section 10101 (12) and includes spent nuclear fuel as defined by 42 U.S.C. Section 10101 (23).

Hyperchlorination of Waterlines – Treatment of potable water lines or tanks with chlorine for disinfection purposes, typically following repair or partial replacement of the waterline or tank, and subsequently flushing the contents.

Impaired Water – A surface water body that is identified as impaired on the latest approved CWA § 303(d) List or waters with an EPA-approved or established total maximum daily load (TMDL) that are found on the latest EPA approved *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)*, which lists the category 4 and 5 water bodies.

Indian Country Land – (1) All land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation; (2) all dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and (3) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. (40 CFR § 122.2)

Indian Tribe – Any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian Reservation (40 CFR § 122.2).

Infeasible – Not technologically possible, or not economically practicable and achievable in light of best industry practices. (40 CFR § 450.11(b)).

Large Construction Activity – Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than five (5) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than five (5) acres of land. Large construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (for example, the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities).

Linear Project – Includes the construction of roads, bridges, conduits, substructures, pipelines, sewer lines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities in a long, narrow area.

Low Rainfall Erosivity Waiver (LREW) – A written submission to the executive director from an operator of a construction site that is considered as small construction activity under the permit, which qualifies for a waiver from the requirements for small construction activities, only during the period of time when the calculated rainfall erosivity factor is less than five (5).

Minimize – To reduce or eliminate to the extent achievable using stormwater controls that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer System (MS4) – A separate storm sewer system owned or operated by the United States, a state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over the disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, that discharges to surface water in the state.

Notice of Change (NOC) – Written notification to the executive director from a discharger authorized under this permit, providing changes to information that was previously provided to the agency in a notice of intent form.

Notice of Intent (NOI) – A written submission to the executive director from an applicant requesting coverage under this general permit.

Notice of Termination (NOT) – A written submission to the executive director from a discharger authorized under this general permit requesting termination of coverage.

Operator – The person or persons associated with a large or small construction activity that is either a primary or secondary operator as defined below:

Primary Operator – The person or persons associated with construction activity that meets either of the following two criteria:

- (a) the person or persons have on-site operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or

- (b) the person or persons have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a Stormwater Pollution Prevention Plan (SWP3) for the site or other permit conditions (for example, they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

Secondary Operator – The person or entity, often the property owner, whose operational control is limited to:

- (a) the employment of other operators, such as a general contractor, to perform or supervise construction activities; or
- (b) the ability to approve or disapprove changes to construction plans and specifications, but who does not have day-to-day on-site operational control over construction activities at the site.

Secondary operators must either prepare their own SWP3 or participate in a shared SWP3 that covers the areas of the construction site, where they have control over the construction plans and specifications.

If there is not a primary operator at the construction site, then the secondary operator is defined as the primary operator and must comply with the requirements for primary operators.

Outfall – For the purpose of this permit, a point source at the point where stormwater runoff associated with construction activity discharges to surface water in the state and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances that connect segments of the same stream or other water of the U.S. and are used to convey waters of the U.S.

Permittee – An operator authorized under this general permit. The authorization may be gained through submission of a notice of intent, by waiver, or by meeting the requirements for automatic coverage to discharge stormwater runoff and certain non-stormwater discharges from construction activity.

Point Source – Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are, or may be, discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff (40 CFR § 122.2).

Pollutant – Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, filter backwash, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into any surface water in the state. The term "pollutant" does not include tail water or runoff water from irrigation or rainwater runoff from cultivated or uncultivated rangeland, pastureland, and farmland. For the purpose of this permit, the term "pollutant" includes sediment.

Pollution – The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any surface water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose (Texas Water Code (TWC) § 26.001(14)).

Rainfall Erosivity Factor (R factor) – The total annual erosive potential that is due to climatic effects, and is part of the Revised Universal Soil Loss Equation (RUSLE).

Receiving Water – A “Water of the United States” as defined in 40 CFR § 122.2 or a surface water in the state into which the regulated stormwater discharges.

Semi-arid Areas – Areas with an average annual rainfall of 10 to 20 inches.

Separate Storm Sewer System – A conveyance or system of conveyances (including roads with drainage systems, streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains), designed or used for collecting or conveying stormwater; that is not a combined sewer, and that is not part of a publicly owned treatment works (POTW).

Small Construction Activity – Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and less than five (5) acres of land. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (for example, the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities).

Steep Slopes – Where a state, Tribe, local government, or industry technical manual (e.g., stormwater BMP manual) has defined what is to be considered a “steep slope”, this permit’s definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically defined as those that are 15 percent or greater in grade.

Stormwater (or Stormwater Runoff) – Rainfall runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Associated with Construction Activity – Stormwater runoff, as defined above, from a construction activity.

Structural Control (or Practice) – A pollution prevention practice that requires the construction of a device, or the use of a device, to reduce or prevent pollution in stormwater runoff. Structural controls and practices may include but are not limited to: silt fences, earthen dikes, drainage swales, sediment traps, check dams, subsurface drains, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins.

Surface Water in the State – Lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state (from the mean high water mark (MHW) out 10.36 miles into the Gulf), and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all water-courses and bodies of surface water, that are wholly or partially inside or bordering the state or subject to the jurisdiction of the state; except that waters in treatment systems which are authorized by state or federal law, regulation, or permit, and which are created for the purpose of waste treatment are not considered to be water in the state.

Temporary Stabilization – A condition where exposed soils or disturbed areas are provided a protective cover or other structural control to prevent the migration of pollutants. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either permanent stabilization can be achieved or until further construction activities take place.

Thawing Conditions – For the purposes of this permit, thawing conditions are expected based on the historical likelihood of two (2) or more days with daytime temperatures greater than 32 degrees Fahrenheit (°F). This date can be determined by looking at historical weather data.

NOTE: The estimation of thawing conditions is for planning purposes only. During construction, the permittee will be required to conduct site inspections based upon actual conditions (i.e., if thawing conditions occur sooner than expected, the permittee will be required to conduct inspections at the regular frequency).

Total Maximum Daily Load (TMDL) – The total amount of a pollutant that a water body can assimilate and still meet the Texas Surface Water Quality Standards.

Turbidity – A condition of water quality characterized by the presence of suspended solids and/or organic material.

Waters of the United States – Waters of the United States or waters of the U.S. means the term as defined in 40 CFR § 122.2.

Part II. Permit Applicability and Coverage

Section A. Discharges Eligible for Authorization

1. Stormwater Associated with Construction Activity

Discharges of stormwater runoff and certain non-stormwater discharges from small and large construction activities may be authorized under this general permit, except as described in Part II.C. of this permit.

2. Discharges of Stormwater Associated with Construction Support Activities

Discharges of stormwater runoff and certain non-stormwater discharges from construction support activities as defined in Part I.B. of this general permit may be authorized, provided that the following conditions are met:

- (a) the construction support activities are located within one (1) mile from the boundary of the construction site where the construction activity authorized under the permit is being conducted that requires the support of these activities;
- (b) an SWP3 is developed and implemented for the permitted construction site according to the provisions in Part III.F. of this general permit, including appropriate controls and measures to reduce erosion and the discharge of pollutants in stormwater runoff according to the provisions in Part IV. of this general permit;
- (c) the activities are directly related to the construction site;
- (d) the activities are not a commercial operation, nor serve other unrelated construction projects; and
- (e) the activities do not continue to operate beyond the completion of the construction activity at the project it supports.

Construction support activities that operate outside the terms provided in (a) through (e) above must obtain authorization under a separate Texas Pollutant Discharge Elimination System (TPDES) permit, which may include the TPDES Multi-Sector General Permit (MSGP), TXR050000 (related to stormwater discharges associated with industrial activity), an alternative general permit (if available), or an individual water quality permit.

3. Non-Stormwater Discharges

The following non-stormwater discharges from sites authorized under this general permit are also eligible for authorization under this general permit:

- (a) discharges from emergency fire-fighting activities (emergency fire-fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, or similar activities);
 - (b) uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life), which include flushings from systems that utilize potable water, surface water, or groundwater that does not contain additional pollutants (uncontaminated fire hydrant flushings do not include systems utilizing reclaimed wastewater as a source water);
 - (c) water from the routine external washing of vehicles, the external portion of buildings or structures, and pavement, where solvents, detergents, and soaps are not used, where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed; and if local state, or federal regulations are applicable, the materials are removed according to those regulations), and where the purpose is to remove mud, dirt, or dust;
 - (d) uncontaminated water used to control dust;
 - (e) potable water sources, including waterline flushings, but excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life;
 - (f) uncontaminated air conditioning condensate;
 - (g) uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents; and
 - (h) lawn watering and similar irrigation drainage.
4. Other Permitted Discharges

Any discharge authorized under a separate National Pollutant Discharge Elimination System (NPDES), TPDES, or TCEQ permit may be combined with discharges authorized by this general permit, provided those discharges comply with the associated permit.

Section B. Concrete Truck Wash Out

The wash out of concrete trucks at regulated construction sites must be performed in accordance with the requirements of Part VI of this general permit.

Section C. Limitations on Permit Coverage

1. Post Construction Discharges

Discharges that occur after construction activities have been completed, and after the construction site and any supporting activity site have undergone final stabilization, are not eligible for coverage under this general permit. Discharges originating from the sites are not authorized under this general permit following the submission of the Notice of Termination (NOT) or removal of the appropriate TCEQ site notice, as applicable, for the regulated construction activity.

2. Prohibition of Non-Stormwater Discharges

Except as otherwise provided in Part II.A. of this general permit, only discharges that are composed entirely of stormwater associated with construction activity may be authorized under this general permit.

3. Compliance with Water Quality Standards

Discharges to surface water in the state that would cause, have the reasonable potential to cause, or contribute to a violation of water quality standards or that would fail to protect and maintain existing designated uses of surface water in the state are not eligible for coverage under this general permit. The executive director may require an application for an individual permit or alternative general permit (see Parts II.H.2. and 3.) to authorize discharges to surface water in the state if the executive director determines that any activity will cause, has the reasonable potential to cause, or contribute to a violation of water quality standards or is found to cause, has the reasonable potential to cause, or contribute to, the impairment of a designated use. The executive director may also require an application for an individual permit considering factors described in Part II.H.3. of this general permit.

4. Impaired Receiving Waters and Total Maximum Daily Load (TMDL) Requirements

The permittee shall determine whether the authorized discharge is to an impaired water body on the latest EPA-approved CWA § 303(d) List or waters with an EPA-approved or established TMDL that are found on the latest EPA-approved *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)*, which lists the category 4 and 5 water bodies.

New sources or new discharges of the pollutants of concern to impaired waters are not authorized by this permit unless otherwise allowable under 30 TAC Chapter 305 and applicable state law. Impaired waters are those that do not meet applicable water quality standard(s) and are listed as category 4 or 5 in the current version of the *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)*, and waterbodies listed on the CWA § 303(d) List. Pollutants of concern are those for which the water body is listed as impaired.

Discharges of the pollutants of concern to impaired water bodies for which there is a TMDL are not eligible for coverage under this general permit unless they are consistent with the approved TMDL. Permittees must incorporate the conditions and requirements applicable to their discharges into their SWP3, in order to be eligible for coverage under this general permit. For consistency with the construction stormwater-related items in an approved TMDL, the SWP3 must be consistent with any applicable condition, goal, or requirement in the TMDL, TMDL Implementation Plan (I-Plan), or as otherwise directed by the executive director.

5. Discharges to the Edwards Aquifer Recharge or Contributing Zone

Discharges cannot be authorized by this general permit where prohibited by 30 TAC Chapter 213 (relating to Edwards Aquifer). In addition, commencement of construction (see definition for commencement of construction in Part I.B. above)) at a site regulated under 30 TAC Chapter 213, may not begin until the appropriate Edwards Aquifer Protection Plan (EAPP) has been approved by the TCEQ's Edwards Aquifer Protection Program.

- (a) For new discharges located within the Edwards Aquifer Recharge Zone, or within that area upstream from the recharge zone and defined as the Contributing Zone (CZ), operators must meet all applicable requirements of, and operate according to, 30 TAC Chapter 213 (Edwards Aquifer Rule) in addition to the provisions and requirements of this general permit.

- (b) For existing discharges located within the Edwards Aquifer Recharge Zone, the requirements of the agency-approved Water Pollution Abatement Plan (WPAP) under the Edwards Aquifer Rule are in addition to the requirements of this general permit. BMPs and maintenance schedules for structural stormwater controls, for example, may be required as a provision of the rule. All applicable requirements of the Edwards Aquifer Rule for reductions of suspended solids in stormwater runoff are in addition to the requirements in this general permit for this pollutant.
- (c) For discharges located within ten (10) stream miles upstream of the Edwards Aquifer recharge zone, applicants shall also submit a copy of the NOI to the appropriate TCEQ regional office.

Counties: Comal, Bexar, Medina, Uvalde, and Kinney

Contact: TCEQ Water Program Manager
San Antonio Regional Office
14250 Judson Road
San Antonio, Texas 78233-4480
(210) 490-3096

Counties: Williamson, Travis, and Hays

Contact: TCEQ Water Program Manager
Austin Regional Office
12100 Park 35 Circle
Room 179, Building A
Austin, Texas 78753
(512) 339-2929

6. Discharges to Specific Watersheds and Water Quality Areas

Discharges otherwise eligible for coverage cannot be authorized by this general permit where prohibited by 30 TAC Chapter 311 (relating to Watershed Protection) for water quality areas and watersheds.

7. Protection of Streams and Watersheds by Other Governmental Entities

This general permit does not limit the authority or ability of federal, other state, or local governmental entities from placing additional or more stringent requirements on construction activities or discharges from construction activities.

8. Indian Country Lands

Stormwater runoff from construction activities occurring on Indian Country lands are not under the authority of the TCEQ and are not eligible for coverage under this general permit. If discharges of stormwater require authorization under federal NPDES regulations, authority for these discharges must be obtained from the U.S. Environmental Protection Agency (EPA).

9. Exempt Oil and Gas Activities

The CWA § 402(l)(2) provides that stormwater discharges from construction activities related to oil and gas exploration, production, processing, or treatment, or transmission facilities are exempt from regulation under this permit. The term “oil and gas exploration, production, processing, or treatment operations, or transmission facilities” is defined in 33 U.S.C. Annotated § 1362 (24).

The exemption in CWA § 402(l)(2) *includes* stormwater discharges from construction activities regardless of the amount of disturbed acreage, which are necessary to prepare a site for drilling and the movement and placement of drilling equipment, drilling waste management pits, in field treatment plants, and in field transportation infrastructure (e.g., crude oil pipelines, natural gas treatment plants, and both natural gas transmission pipeline compressor and crude oil pumping stations) necessary for the operation of most producing oil and gas fields. Construction activities are defined in 33 U.S. Code § 1362(24) and interpreted by EPA in the final rule. *See* June 12, 2006 Amendments to the NPDES Regulations for Storm Water Discharges Associated with Oil and Gas Exploration, Production, Processing, or Treatment Operations or Transmission Facilities (71 FR 33628, Part V. Terminology).

The exemption *does not include* stormwater discharges from the construction of administrative buildings, parking lots, and roads servicing an administrative building at an oil and gas site, as these are considered traditional construction activities.

As described in 40 CFR § 122.26(c)(1)(iii) [*regulations prior to 2006*], discharges from oil and gas construction activities are waived from CWA § 402(l)(2) permit coverage *unless* the construction activity (or construction support activity) has had a discharge of stormwater resulting in the discharge of a reportable quantity of oil or hazardous substances or the discharge contributes to a violation of water quality standards.

Exempt oil and gas activities which have lost their exemption as a result of one of the above discharges, must obtain permit coverage under this general permit, an alternative general permit, or a TPDES individual permit prior to the next discharge.

10. Stormwater Discharges from Agricultural Activities

Stormwater discharges from agricultural activities that are not point source discharges of stormwater are not subject to TPDES permit requirements. These activities may include clearing and cultivating ground for crops, construction of fences to contain livestock, construction of stock ponds, and other similar agricultural activities. Discharges of stormwater runoff associated with the construction of facilities that are subject to TPDES regulations, such as the construction of concentrated animal feeding operations, would be point sources regulated under this general permit.

11. Endangered Species Act

Discharges that would adversely affect a listed endangered or threatened aquatic or aquatic-dependent species or its critical habitat are not authorized by this permit, unless the requirements of the Endangered Species Act are satisfied. Federal requirements related to endangered species apply to all TPDES permitted discharges and site-specific controls may be required to ensure that protection of endangered or threatened species is achieved. If a permittee has concerns over potential impacts to listed species, the permittee may contact TCEQ for additional information.

12. Storage of High-Level Radioactive Waste

Discharges of stormwater from construction activities associated with the construction of a facility that is licensed for the storage of high-level radioactive waste by the United States Nuclear Regulatory Commission under 10 CFR Part 72 are not authorized by this general permit. Texas Health and Safety Code (THSC) § 401.0525 prohibits TCEQ from issuing any TPDES authorizations for the construction or operation of these facilities.

Discharges of stormwater from the construction activities associated with the construction of a facility located at the site of currently or formerly operating nuclear power reactors and currently or formerly operating nuclear research and test reactors operated by a university are not prohibited under THSC § 401.0525 and continue to be regulated under this general permit.

13. Other

Nothing in Part II. of the general permit is intended to negate any person's ability to assert *force majeure* (act of God, war, strike, riot, or other catastrophe) defenses found in 30 TAC § 70.7

Section D. Deadlines for Obtaining Authorization to Discharge

1. Large Construction Activities

- (a) New Construction – Discharges from sites where the commencement of construction activity occurs on or after the effective date of this general permit must be authorized, either under this general permit or a separate TPDES permit, prior to the commencement of those construction activities.
- (b) Ongoing Construction – Operators of large construction activities continuing to operate after the effective date of this permit, and authorized under the TPDES Construction General Permit (CGP) TXR150000 (effective on March 5, 2018, and amended on January 28, 2022), must submit an NOI to renew authorization or an NOT to terminate coverage under this general permit within 90 days of the effective date of this general permit. During this interim or grace period, as a requirement of this TPDES permit, the operator must continue to meet the conditions and requirements of the issued and amended 2018 TPDES CGP.

2. Small Construction Activities

- (a) New Construction – Discharges from sites where the commencement of construction activity occurs on or after the effective date of this general permit must be authorized, either under this general permit or a separate TPDES permit, prior to the commencement of those construction activities.
- (b) Ongoing Construction – Discharges from ongoing small construction activities that commenced prior to the effective date of this general permit, and that do not meet the conditions to qualify for termination of this permit as described in Part II.F. of this general permit, must meet the requirements to be authorized, either under this general permit or a separate TPDES permit, within 90 days of the effective date of this general permit. During this interim period, as a requirement of this TPDES permit, the operator must continue to meet the conditions and requirements of the issued and amended 2018 TPDES CGP.

Section E. Obtaining Authorization to Discharge

1. Automatic Authorization for Small Construction Activities with Low Potential for Erosion

Operators of small construction activity, as defined in Part I.B. of this general permit, shall not submit an NOI for coverage, unless otherwise required by the executive director.

Operators of small construction activities, which occur in certain counties and during periods of low potential for erosion that do not meet the conditions of the waiver described in Part II.G. of this general permit, may be automatically authorized under this general permit if all the following conditions are met prior to the commencement of construction.

- (a) The construction activity occurs in a county and during the corresponding date range(s) listed in Appendix A;

- (b) The construction activity is initiated and completed, including either final or temporary stabilization of all disturbed areas, within the time frame identified in Appendix A for the location of the construction site;
- (c) All temporary stabilization is adequately maintained to effectively reduce or prohibit erosion, permanent stabilization activities have been initiated, and a condition of final stabilization is completed no later than 30 days following the end date of the time frame identified in Appendix A for the location of the construction site; the permittee signs a completed TCEQ Small Construction Site Notice for low potential for erosion (Form TCEQ-20964), including the certification statement;
- (d) A signed and certified copy of the TCEQ Small Construction Site Notice for low potential for erosion is posted at the construction site in a location where it is readily available for viewing by the general public, local, state, and federal authorities prior to commencing construction activities, and maintained in that location until final stabilization has been achieved;

NOTE: Posted TCEQ site notices may have a redacted signature as long as there is an original signed and certified TCEQ site notice, with a viewable signature, located on-site and available for review by any applicable regulatory authority.

- (e) A copy of the signed and certified TCEQ Small Construction Site Notice for low potential for erosion is provided to the operator of any MS4 receiving the discharge at least two (2) days prior to commencement of construction activities;
- (f) Discharges of stormwater runoff or other non-stormwater discharges from any supporting concrete batch plant or asphalt batch plant is separately authorized under an individual TPDES permit, another TPDES general permit, or under an individual TCEQ permit where stormwater and non-stormwater is disposed of by evaporation or irrigation (discharges are adjacent to water in the state); and
- (g) Any non-stormwater discharges are either authorized under a separate permit or authorization, are not considered by TCEQ to be a wastewater, or are captured and routed for disposal at a publicly operated treatment works or licensed waste disposal facility.

If all of the conditions in (a) – (h) above are met, then the operator(s) of small construction activities with low potential for erosion are not required to develop a SWP3.

If an operator is conducting small construction activities and any of the above conditions (a) – (h) are not met, the operator cannot declare coverage under the automatic authorization for small construction activities with low potential for erosion and must meet the requirements for automatic authorization (all other) small construction activities, described below in Part II.E.2.

For small construction activities that occur during a period with a low potential for erosion, where automatic authorization under this section is not available, an operator may apply for and obtain a waiver from permitting (Low Rainfall Erosivity Waiver – LREW), as described in Part II.G. of this general permit. Waivers from coverage under the LREW do not allow for any discharges of non-stormwater and the operator must ensure that discharges on non-stormwater are either authorized under a separate permit or authorization.

2. Automatic Authorization for Small Construction Activities

Operators of small construction activities as defined in Part I.B. of this general permit shall not submit an NOI for coverage, unless otherwise required by the executive director.

Operators of small construction activities, as defined in Part I.B. of this general permit or as defined but who do not meet in the conditions and requirements located in Part II.E.1 above, may be automatically authorized for small construction activities, provided that they meet all of the following conditions:

- (a) develop a SWP3 according to the provisions of this general permit, that covers either the entire site or all portions of the site for which the applicant is the operator, and implement the SWP3 prior to commencing construction activities;
- (b) all operators of regulated small construction activities must post a copy of a signed and certified TCEQ Small Construction Site Notice (Form TCEQ-20963), the notice must be posted at the construction site in a location where it is safely and readily available for viewing by the general public, local, state, and federal authorities, at least two (2) days prior to commencing construction activity, and maintain the notice in that location until completion of the construction activity (for linear construction activities, e.g. pipeline or highway, the TCEQ site notice must be placed in a publicly accessible location near where construction is actively underway; notice for these linear sites may be relocated, as necessary, along the length of the project, and the notice must be safely and readily available for viewing by the general public; local, state, and federal authorities);
- (c) operators must maintain a posted TCEQ Small Construction Site Notice on the approved TCEQ form at the construction site until final stabilization has been achieved; and

NOTE: Posted TCEQ site notices may have a redacted signature as long as there is an original signed and certified TCEQ Small Construction Site Notice, with a viewable signature, located on-site and available for review by an applicable regulatory authority.

- (d) provide a copy of the signed and certified TCEQ Small Construction Site Notice to the operator of any municipal separate storm sewer system (MS4) receiving the discharge at least two (2) days prior to commencement of construction activities.
- (e) if signatory authority is delegated by an authorized representative, then a Delegation of Signatory form must be submitted as required by 30 TAC § 305.128 (relating to Signatories to Reports). Operators for small construction activities must submit this form via mail following the instructions on the approved TCEQ paper form. A new Delegation of Signatory form must be submitted if the delegation changes to another individual or position.

As described in Part I.B of this general permit, large construction activities include those that will disturb less than five (5) acres of land, but that are part of a larger common plan of development or sale that will ultimately disturb five (5) or more acres of land and must meet the requirements of Part II.E.3. below.

3. Authorization for Large Construction Activities

Operators of large construction activities that qualify for coverage under this general permit must meet all of the following conditions:

- (a) develop a SWP3 according to the provisions of this general permit that covers either the entire site or all portions of the site where the applicant is the operator. The SWP3 must be developed and implemented prior to obtaining coverage and prior to commencing construction activities;
- (b) primary operators of large construction activities must submit an NOI prior to commencing construction activity at a construction site. A completed NOI must be submitted to TCEQ electronically using the online ePermits system on TCEQ's website.

Operators with an electronic reporting waiver must submit a completed paper NOI to TCEQ at least seven (7) days prior to commencing construction activity to obtain provisional coverage 48-hours from the postmark date for delivery to the TCEQ. An authorization is no longer provisional when the executive director finds the NOI is administratively complete, and an authorization number is issued to the permittee for the construction site indicated on the NOI.

If an additional primary operator is added after the initial NOI is submitted, the additional primary operator must meet the same requirements for existing primary operator(s), as indicated above.

If the primary operator changes due to responsibility at the site being transferred from one primary operator to another after the initial NOI is submitted, the new primary operator must submit an electronic NOI, unless they request and obtain a waiver from electronic reporting, at least ten (10) days prior to assuming operational control of a construction site and commencing construction activity.

- (c) all operators of large construction activities must post a TCEQ Large Construction Site Notice on the approved TCEQ form (Form TCEQ-20961) in accordance with Part III.D.2. of this permit. The TCEQ site notice must be located where it is safely and readily available for viewing by the general public, local, state, and federal authorities prior to commencing construction activities, and must be maintained in that location until final stabilization has been achieved. For linear construction activities, e.g., pipeline or highway, the TCEQ site notice must be placed in a publicly accessible location near where construction is actively underway; notice for these linear sites may be relocated, as necessary, along the length of the project, and the notice must be safely and readily available for viewing by the general public, local, state, and federal authorities;
- (d) two days prior to commencing construction activities, all primary operators must:
 - i. provide a copy of the signed NOI to the operator of any MS4 receiving the discharge and to any secondary construction operator, and
 - ii. list in the SWP3 the names and addresses of all MS4 operators receiving a copy;
- (e) if signatory authority is delegated by an authorized representative, then a Delegation of Signatories form must be submitted as required by 30 TAC § 305.128 (relating to Signatories to Reports). Primary operators must submit this form electronically using the State of Texas Environmental Electronic Reporting System (STEERS), TCEQ's online permitting system, or by paper if the permittee requested and obtained an electronic reporting waiver. A new Delegation of Signatories form must be submitted, if the delegation changes to another individual or position;
- (f) all persons meeting the definition of "secondary operator" in Part I of this permit are hereby notified that they are regulated under this general permit, but are not required to submit an NOI, provided that a primary operator at the site has submitted an NOI, or prior to commencement of construction activities, a primary operator is required to submit an NOI and the secondary operator has provided notification to the operator(s) of the need to obtain coverage (with records of notification available upon request). Any secondary operator notified under this provision may alternatively submit an NOI under this general permit, may seek coverage under an alternative TPDES individual permit, or may seek coverage under an alternative TPDES general permit if available; and

- (g) all secondary operators of large construction activities must post a copy of the signed and certified TCEQ Large Construction Site Notice for Secondary Operators on the approved TCEQ form (Form TCEQ-20962) and provide a copy of the signed and certified TCEQ site notice to the operator of any MS4 receiving the discharge at least two (2) days prior to the commencement construction activities.

NOTE: Posted TCEQ site notices may have a redacted signature as long as there is an original signed and certified TCEQ Large Construction Site Notice for Secondary Operators, with a viewable signature, located on-site and available for review by an applicable regulatory authority.

Applicants must submit an NOI using the online ePermits system (accessed using STEERS) available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

4. Waivers for Small Construction Activities:

Operators of certain small construction activities may obtain a waiver from coverage under this general permit, if applicable. The requirements are outlined in Part II.G. below.

5. Effective Date of Coverage

- (a) Operators of small construction activities as described in either Part II.E.1. or II.E.2. above are authorized immediately following compliance with the applicable conditions of Part II.E.1. or II.E.2. Secondary operators of large construction activities as described in Part II.E.3. above are authorized immediately following compliance with the applicable conditions in Part II.E.3. For activities located in areas regulated by 30 TAC Chapter 213, related to the Edwards Aquifer, this authorization to discharge is separate from the requirements of the operator's responsibilities under that rule. Construction may not commence for sites regulated under 30 TAC Chapter 213 until all applicable requirements of that rule are met.
- (b) Primary operators of large construction activities as described in Part II.E.3. above that electronically submit an NOI are authorized immediately following confirmation of receipt of the electronic form by the TCEQ, unless otherwise notified by the executive director.

Operators with an electronic reporting waiver are provisionally authorized 48-hours from the date that a completed paper NOI is postmarked for delivery to the TCEQ, unless otherwise notified by the executive director. An authorization is no longer provisional when the executive director finds the NOI is administratively complete and an authorization number is issued to the permittee for the construction site indicated on the NOI.

For construction activities located in areas regulated by 30 TAC Chapter 213, related to the Edwards Aquifer, this authorization to discharge is separate from the requirements of the operator's responsibilities under that rule. Construction activities may not commence for sites regulated under 30 TAC Chapter 213 until all applicable requirements of that rule are met.

- (c) Operators are not prohibited from submitting late NOIs or posting late site notices to obtain authorization under this general permit. The TCEQ reserves the right to take appropriate enforcement action for any unpermitted activities that may have occurred between the time construction commenced and authorization under this general permit was obtained.

- (d) If operators that submitted NOIs have active authorizations for construction activities that are ongoing when this general permit expires on March 5, 2028, and a new general permit is issued, a 90-day interim (grace) period is granted to provide coverage that is administratively continued until operators with active authorizations can obtain coverage under the newly issued CGP. The 90-day grace period starts on the effective date of the newly issued CGP.

6. Contents of the NOI

The NOI form shall require, at a minimum, the following information:

- (a) the TPDES CGP authorization number for existing authorizations under this general permit, where the operator submits an NOI to renew coverage within 90 days of the effective date of this general permit;
- (b) the name, address, and telephone number of the operator filing the NOI for permit coverage;
- (c) the name (or other identifier), address, county, and latitude/longitude of the construction project or site;
- (d) the number of acres that will be disturbed by the applicant;
- (e) the estimated construction project start date and end date;
- (f) confirmation that the project or site will not be located on Indian Country lands;
- (g) confirmation if the construction activity is associated with an oil and gas exploration, production, processing, or treatment, or transmission facility (see Part II.C.9.);
- (h) confirmation that the construction activities are not associated with the construction of a facility that is licensed for the storage of high-level radioactive waste by the United States Nuclear Regulatory Commission under 10 CFR Part 72 (see Part II.C.12.);
- (i) confirmation that a SWP3 has been developed in accordance with all conditions of this general permit, that it will be implemented prior to commencement of construction activities, and that it is compliant with any applicable local sediment and erosion control plans; for multiple operators who prepare a shared SWP3, the confirmation for an operator may be limited to its obligations under the SWP3 provided all obligations are confirmed by at least one operator;
- (j) name of the receiving water(s);
- (k) the classified segment number for each classified segment that receives discharges from the regulated construction activity (if the discharge is not directly to a classified segment, then the classified segment number of the first classified segment that those discharges reach); and
- (l) the name of all surface waters receiving discharges from the regulated construction activity that are on the latest EPA-approved CWA § 303(d) List of impaired waters or *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)* as not meeting applicable state water quality standards.

7. Notice of Change (NOC)

- (a) If relevant information provided in the NOI changes, the operator that has submitted the NOI must submit an NOC to TCEQ at least fourteen (14) days before the change occurs. Where a 14-day advance notice is not possible, the operator must submit an NOC to TCEQ within fourteen (14) days of discovery of the change. If the operator becomes aware that it failed to submit any relevant facts or submitted

incorrect information in an NOI, the correct information must be submitted to TCEQ in an NOC within fourteen (14) days after discovery.

- (b) Information on an NOC may include, but is not limited to, the following:
- i. a change in the description of the construction project;
 - ii. an increase in the number of acres disturbed (for increases of one (1) or more acres);
 - iii. or the name of the operator (where the name of the operator has changed).
- (c) Electronic NOC.

Applicants must submit an NOC using the online ePermits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. All waivers from electronic reporting are not transferrable. Electronic reporting waivers expire on the same date as the authorization to discharge, except for temporary waivers that expire one (1) year from issuance. A copy of the NOC form or letter must also be placed in the SWP3 and provided to the operator of any MS4 receiving the discharge. Operators are authorized immediately following confirmation of receipt of the electronic form by the TCEQ, unless otherwise notified by the executive director.

- (d) Paper NOC.

Applicants who request and obtain an electronic reporting waiver shall submit the NOC on a paper form provided by the executive director, or by letter if an NOC form is not available.

- (e) A copy of the NOC form or letter must also be placed in the SWP3 and provided to the operator of any MS4 receiving the discharge. A list that includes the names and addresses of all MS4 operators receiving a copy of the NOC (or NOC letter) must be included in the SWP3. Information that may not be included on an NOC includes but is not limited to the following:
- i. transfer of operational control from one operator to another, including a transfer of the ownership of a company. A transfer of ownership of a company includes changes to the structure of a company, such as changing from a partnership to a corporation or changing corporation types, so that the filing or charter number that is on record with the Texas Secretary of State (SOS) must be changed.
 - ii. coverage under this general permit is not transferable from one operator to another. Instead, the new operator will need to submit an NOI or LREW, as applicable, and the previous operator will need to submit an NOT.
 - iii. a decrease in the number of acres disturbed. This information must be included in the SWP3 and retained on site.

8. Signatory Requirement for NOI Forms, NOT Forms, NOC Forms, and Construction Site Notices

NOI forms, NOT forms, NOC forms, and Construction Site Notices that require a signature must be signed according to 30 TAC § 305.44 (relating to Signatories for Applications).

Section F. Terminating Coverage**1. Notice of Termination (NOT) Required**

Each operator that has submitted an NOI for authorization of large construction activities under this general permit must apply to terminate that authorization following the conditions described in this section of the general permit.

Authorization of large construction must be terminated by submitting an NOT electronically via the online ePermits system available through the TCEQ website, or on a paper NOT form to TCEQ supplied by the executive director with an approved waiver from electronic reporting. Authorization to discharge under this general permit terminates at midnight on the day a paper NOT is postmarked for delivery to the TCEQ or immediately following confirmation of the receipt of the NOT submitted electronically by the TCEQ.

Applicants must submit an NOT using the online ePermits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge, except for temporary waivers that expire one (1) year from issuance.

The NOT must be submitted to TCEQ, and a copy of the NOT provided to the operator of any MS4 receiving the discharge (with a list in the SWP3 of the names and addresses of all MS4 operators receiving a copy), within 30 days after any of the following conditions are met:

- (a) final stabilization has been achieved on all portions of the site that are the responsibility of the operator;
- (b) a transfer of operational control has occurred (See Section II.F.4. below); or
- (c) the operator has obtained alternative authorization under an individual TPDES permit or alternative TPDES general permit.

Compliance with the conditions and requirements of this permit is required until the NOT is submitted and approved by TCEQ.

2. Minimum Contents of the NOT

The NOT form shall require, at a minimum, the following information:

- (a) if authorization for construction activity was granted following submission of an NOI, the permittee's site-specific TPDES authorization number for a specific construction site;
- (b) an indication of whether final stabilization has been achieved at the site and a NOT has been submitted or if the permittee is simply no longer an operator at the site;
- (c) the name, address, and telephone number of the permittee submitting the NOT;
- (d) the name (or other identifier), address, county, and location (latitude/longitude) of the construction project or site; and
- (e) a signed certification that either all stormwater discharges requiring authorization under this general permit will no longer occur, or that the applicant is no longer the operator of the facility or construction site, and that all temporary structural erosion controls have either been removed, will be removed on a schedule defined in the SWP3, or have been transferred to a new operator if the new operator has applied for permit coverage. Erosion controls that are designed to remain in place for an indefinite period, such as mulches and fiber mats, are not required to be removed or scheduled for removal.

3. Termination of Coverage for Small Construction Sites and for Secondary Operators at Large Construction Sites

- (a) Each operator that has obtained automatic authorization for small construction or is a secondary operator for large construction must perform the following when terminating coverage under the permit:
 - i. remove the TCEQ site notice;
 - ii. complete the applicable portion of the TCEQ site notice related to removal of the TCEQ site notice; and
 - iii. submit a copy of the completed TCEQ site notice to the operator of any MS4 receiving the discharge (or provide alternative notification as allowed by the MS4 operator, with documentation of such notification included in the SWP3).
- (b) The activities described in Part II.F.3.(a) above must be completed by the operator within 30 days of meeting any of the following conditions:
 - i. final stabilization has been achieved on all portions of the site that are the responsibility of the operator;
 - ii. a transfer of day-to-day operational control over activities necessary to ensure compliance with the SWP3 and other permit conditions has occurred (See Section II.F.4. below); or
 - iii. the operator has obtained alternative authorization under an individual or general TPDES permit.

For Small Construction Sites and Secondary Operators at Large Construction Sites, authorization to discharge under this general permit terminates immediately upon removal of the applicable TCEQ construction site notice. Compliance with the conditions and requirements of this permit is required until the TCEQ construction site notice is removed. The construction site notice cannot be removed until final stabilization has been achieved.

4. Transfer of Day-to-Day Operational Control

- (a) When the primary operator of a large construction activity changes or operational control over activities necessary to ensure compliance with the SWP3 and other permit conditions is transferred to another primary operator, the original operator must do the following:
 - i. submit an NOT within ten (10) days prior to the date that responsibility for operations terminates, and the new operator must submit an NOI at least ten (10) days prior to the transfer of operational control, in accordance with condition (c) below; and
 - ii. submit a copy of the NOT from the primary operator terminating its coverage under the permit and its operational control of the construction site and submit a copy of the NOI from the new primary operator to the operator of any MS4 receiving the discharge in accordance with Part II.F.1. above.
- (b) For transfer of operational control, operators of small construction activities and secondary operators of large construction activities who are not required to submit an NOI must do the following:
 - i. the existing operator must remove the original TCEQ construction site notice, and the new operator must post the required TCEQ construction site notice prior to the transfer of operational control, in accordance with the conditions in Part II.F.4.(c) i or ii below; and

- ii. a copy of the TCEQ construction site notice, which must be completed and provided to the operator of any MS4 receiving the discharge, in accordance with Part II.F.3. above.
- (c) Each operator is responsible for determining its role as an operator as defined in Part I.B. and obtaining authorization under the permit, as described above in Part II.E. 1. - 3. Where authorization has been obtained by submitting an NOI for coverage under this general permit, permit coverage is not transferable from one operator to another. A transfer of operational control can include changes to the structure of a company, such as changing from a partnership to a corporation, or changing to a different corporation type such that a different filing (or charter) number is established with the Texas Secretary of State (SOS). A transfer of operational control can also occur when one of the following criteria is met, as applicable:
 - i. another operator has assumed control over all areas of the site that do not meet the definition for final stabilization;
 - ii. all silt fences and other temporary erosion controls have either been removed, scheduled for removal as defined in the SWP3, or transferred to a new operator, provided that the original permitted operator has attempted to notify the new operator in writing of the requirement to obtain permit coverage. Records of this notification (or attempt at notification) shall be retained by the operator transferring operational control to another operator in accordance with Part VI of this permit. Erosion controls that are designed to remain in place for an indefinite period, such as mulches and fiber mats, are not required to be removed or scheduled for removal; or
 - iii. a homebuilder has purchased one (1) or more lots from an operator who obtained coverage under this general permit for a common plan of development or sale. The homebuilder is considered a new operator and shall comply with the requirements of this permit. Under these circumstances, the homebuilder is only responsible for compliance with the general permit requirements as they apply to the lot(s) it has operational control over in a larger common plan of development, and the original operator remains responsible for common controls or discharges, and must amend its SWP3 to remove the lot(s) transferred to the homebuilder.

Section G. Waivers from Coverage

The executive director may waive the otherwise applicable requirements of this general permit for stormwater discharges from small construction activities under the terms and conditions described in this section.

1. Waiver Applicability and Coverage

Operators of small construction activities may apply for and receive a waiver from the requirements to obtain authorization under this general permit, when the calculated rainfall erosivity (R) factor for the entire period of the construction project is less than five (5).

The operator must submit a Low Rainfall Erosivity Waiver (LREW) certification form to the TCEQ electronically via the online ePermits system available through the TCEQ website. The LREW form is a certification by the operator that the small construction activity will commence and be completed within a period when the value of the calculated R factor is less than five (5).

Applicants who request and obtain an electronic reporting waiver shall submit the LREW on a paper form provided by the executive director at least seven (7) days prior to commencing construction activity to obtain provisional coverage 48-hours from the postmark date for delivery to the TCEQ. An authorization is no longer provisional when the executive director finds the LREW is administratively complete, and an authorization number is issued to the permittee for the construction site indicated on the LREW. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge, except for temporary waivers that expire one (1) year from issuance.

This LREW from coverage does not apply to any non-stormwater discharges, including what is allowed under this permit. The operator must ensure that all non-stormwater discharges are either authorized under a separate permit or authorization or are captured and routed to an authorized treatment facility for disposal.

2. Steps to Obtaining a Waiver

The construction site operator may calculate the R factor to request a waiver using the following steps:

- (a) estimate the construction start date and the construction end date. The construction end date is the date that final stabilization will be achieved.
- (b) find the appropriate Erosivity Index (EI) zone in Appendix B of this permit.
- (c) find the EI percentage for the project period by adding the results for each period of the project using the table provided in Appendix D of this permit, in EPA Fact Sheet 2.1, or in USDA Handbook 703, by subtracting the start value from the end value to find the percent EI for the site.
- (d) refer to the Isoerodent Map (Appendix C of this permit) and interpolate the annual isoerodent value for the proposed construction location.
- (e) multiply the percent value obtained in Step (c) above by the annual isoerodent value obtained in Step (d). This is the R factor for the proposed project. If the value is less than five (5), then a waiver may be obtained. If the value is five (5) or more, then a waiver may not be obtained, and the operator must obtain coverage under Part II.E.2. of this permit.

Alternatively, the operator may calculate a site-specific R factor utilizing the following online calculator: <https://lew.epa.gov/>, or using another available resource.

A copy of the LREW certification form is not required to be posted at the small construction site.

3. Effective Date of an LREW

Unless otherwise notified by the executive director, operators of small construction activities seeking coverage under an LREW are provisionally waived from the otherwise applicable requirements of this general permit 48-hours from the date that a completed paper LREW certification form is postmarked for delivery to TCEQ, or immediately upon receiving confirmation of approval of an electronic submittal, made via the online ePermits system available through the TCEQ website.

Applicants seeking coverage under an LREW must submit an application for an LREW using the online ePermits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

4. Activities Extending Beyond the LREW Period

If a construction activity extends beyond the approved waiver period due to circumstances beyond the control of the operator, the operator must either:

- (a) recalculate the R factor using the original start date and a new projected ending date, and if the R factor is still under five (5), submit a new LREW form at least two (2) days before the end of the original waiver period; or
- (b) obtain authorization under this general permit according to the requirements for automatic authorization for small construction activities in Part II.E.2. of this permit, prior to the end of the approved LREW period.

Section H. Alternative TPDES Permit Coverage

1. Individual Permit Alternative

Any discharge eligible for coverage under this general permit may alternatively be authorized under an individual TPDES permit according to 30 TAC Chapter 305 (relating to Consolidated Permits). Applications for individual permit coverage must be submitted at least 330 days prior to commencement of construction activities to ensure timely authorization. Existing coverage under this general permit should not be terminated until an individual permit is issued and in effect.

2. General Permit Alternative

Any discharges eligible for authorization under this general permit may alternatively be authorized under a separate general permit according to 30 TAC Chapter 205 (relating to General Permits for Waste Discharges), as applicable.

3. Individual Permit Required

The executive director may require an operator of a construction site, otherwise eligible for authorization under this general permit, to apply for an individual TPDES permit in the following circumstances:

- (a) the conditions of an approved TMDL or TMDL I-Plan on the receiving water;
- (b) the activity being determined to cause, has a reasonable potential to cause, or contribute to a violation of water quality standards or being found to cause, or contribute to, the loss of a designated use of surface water in the state; and
- (c) any other consideration defined in 30 TAC Chapter 205 (relating to General Permits for Waste Discharges) including 30 TAC § 205.4(c)(3)(D), which allows the commission to deny authorization under the general permit and require an individual permit if a discharger has been determined by the executive director to have been out of compliance with any rule, order, or permit of the commission, including non-payment of fees assessed by the executive director.

A discharger with a TCEQ compliance history rating of “unsatisfactory” is ineligible for coverage under this general permit. In that case, 30 TAC § 60.3 requires the executive director to deny or suspend an authorization to discharge under a general permit. However, per TWC § 26.040(h), a discharger is entitled to a hearing before the commission prior to having an authorization denied or suspended for having an “unsatisfactory” compliance history.

Denial of authorization to discharge under this general permit or suspension of a permittee’s authorization under this general permit for reasons other than compliance history shall be done according to commission rules in 30 TAC Chapter 205 (relating to General Permits for Waste Discharges).

Section I. Permit Expiration

1. This general permit is effective for a term not to exceed five (5) years. All active discharge authorizations expire on the date provided on page one (1) of this permit. Following public notice and comment, as provided by 30 TAC § 205.3 (relating to Public Notice, Public Meetings, and Public Comment), the commission may amend, revoke, cancel, or renew this general permit. All authorizations that are active at the time the permit term expires will be administratively continued as indicated in Part II.I.2. below and in Part II.D.1.(b) and D.2.(b) of this permit.
2. If the executive director publishes a notice of the intent to renew or amend this general permit before the expiration date, the permit will remain in effect for existing, authorized discharges until the commission takes final action on the permit. Upon issuance of a renewed or amended permit, permittees may be required to submit an NOI within 90 days following the effective date of the renewed or amended permit, unless that permit provides for an alternative method for obtaining authorization.
3. If the commission does not propose to reissue this general permit within 90 days before the expiration date, permittees shall apply for authorization under an individual permit or an alternative general permit. If the application for an individual permit is submitted before the expiration date, authorization under this expiring general permit remains in effect until the issuance or denial of an individual permit. No new NOIs will be accepted nor new authorizations honored under the general permit after the expiration date.

Part III. Stormwater Pollution Prevention Plans (SWP3)

All regulated construction site operators shall prepare an SWP3, prior to submittal of an NOI, to address discharges authorized under Parts II.E.2. and II.E.3. of this general permit that will reach waters of the U.S. This includes discharges to MS4s and privately owned separate storm sewer systems that drain into surface water in the state or waters of the U.S.

Individual operators at a site may develop separate SWP3s that cover only their portion of the project, provided reference is made to the other operators at the site. Where there is more than one (1) SWP3 for a site, operators must coordinate to ensure that BMPs and controls are consistent and do not negate or impair the effectiveness of each other.

Regardless of whether a single comprehensive SWP3 is developed or separate SWP3s are developed for each operator, it is the responsibility of each operator to ensure compliance with the terms and conditions of this general permit in the areas of the construction site where that operator has control over construction plans and specifications or day-to-day operations.

An SWP3 must describe the implementation of practices that will be used to minimize to the extent practicable the discharge of pollutants in stormwater associated with construction activity and non-stormwater discharges described in Part II.A.3., in compliance with the terms and conditions of this permit.

An SWP3 must also identify any potential sources of pollution that have been determined to cause, have a reasonable potential to cause, or contribute to a violation of water quality standards or have been found to cause or contribute to the loss of a designated use of surface water in the state from discharges of stormwater from construction activities and construction support activities. Where potential sources of these pollutants are present at a construction site, the SWP3 must also contain a description of the management practices that will be used to prevent these pollutants from being discharged into surface water in the state or waters of the U.S.

NOTE: Construction support activities can also include vehicle repair areas, fueling areas, etc. that are present at a construction site solely for the support construction activities and are only used by operators at the construction site.

The SWP3 is intended to serve as a road map for how the construction operator will comply with the effluent limits and other conditions of this permit. Additional portions of the effluent limits are established in Part IV. of the permit.

Section A. Shared SWP3 Development

For more effective coordination of BMPs and opportunities for cost sharing, a cooperative effort by the different operators at a site is encouraged. Operators of small and large construction activities must independently obtain authorization under this permit but may work together with other regulated operators at the construction site to prepare and implement a single, comprehensive SWP3, which can be shared by some or all operators, for the construction activities that each of the operators are performing at the entire construction site.

1. The SWP3 must include the following:
 - (a) for small construction activities – the name of each operator that participates in the shared SWP3;
 - (b) for large construction activities – the name of each operator that participates in the shared SWP3, the general permit authorization numbers of each operator (or the date that the NOI was submitted to TCEQ by each operator that has not received an authorization number for coverage under this permit); and
 - (c) for large and small construction activities – the signature of each operator participating in the shared SWP3.
2. The SWP3 must clearly indicate which operator is responsible for satisfying each shared requirement of the SWP3. If the responsibility for satisfying a requirement is not described in the plan, then each permittee is entirely responsible for meeting the requirement within the boundaries of the construction site where they perform construction activities. The SWP3 must clearly describe responsibilities for meeting each requirement in shared or common areas.
3. The SWP3 may provide that one operator is responsible for preparation of a SWP3 in compliance with the CGP, and another operator is responsible for implementation of the SWP3 at the project site.

Section B. Responsibilities of Operators

1. Secondary Operators and Primary Operators with Control Over Construction Plans and Specifications

All secondary operators and primary operators with control over construction plans and specifications shall:

- (a) ensure the project specifications allow or provide that adequate BMPs are developed to meet the requirements of Part III of this general permit;
- (b) ensure that the SWP3 indicates the areas of the project where they have control over project specifications, including the ability to make modifications in specifications;
- (c) ensure that all other operators affected by modifications in project specifications are notified in a timely manner so that those operators may modify their BMP s as necessary to remain compliant with the conditions of this general permit; and

- (d) ensure that the SWP3 for portions of the project where each operator has control indicates the name and site-specific TPDES authorization number(s) for operators with the day-to-day operational control over those activities necessary to ensure compliance with the SWP3 and other permit conditions. If a primary operator has not been authorized or has abandoned the site, the secondary operator is considered to be the responsible party and must obtain authorization as a primary operator under the permit, until the authority for day-to-day operational control is transferred to another primary operator. The new primary operator must update or develop a new SWP3 that will reflect the transfer of operational control and include any additional updates to the SWP3 to meet requirements of the permit.

2. Primary Operators with Day-to-Day Operational Control

Primary operators with day-to-day operational control of those activities at a project that are necessary to ensure compliance with an SWP3 and other permit conditions must ensure that the SWP3 accomplishes the following requirements:

- (a) meets the requirements of this general permit for those portions of the project where they are operators;
- (b) identifies the parties responsible for implementation of BMPs described in the SWP3;
- (c) indicates areas of the project where they have operational control over day-to-day activities; and
- (d) the name and site-specific TPDES authorization number of the parties with control over project specifications, including the ability to make modifications in specifications for areas where they have operational control over day-to-day activities.

Section C. Deadlines for SWP3 Preparation, Implementation, and Compliance

The SWP3 must be prepared prior to obtaining authorization under this general permit, and implemented prior to commencing construction activities that result in soil disturbance. The SWP3 must be prepared so that it provides for compliance with the terms and conditions of this general permit.

Section D. Plan Review and Making Plans Available

1. The SWP3 must be retained on-site at the construction site or, if the site is inactive or does not have an on-site location to store the plan, a notice must be posted describing the location of the SWP3. The SWP3 must be made readily available at the time of an on-site inspection to: the executive director; a federal, state, or local agency approving sediment and erosion plans, grading plans, or stormwater management plans; local government officials; and the operator of a municipal separate storm sewer receiving discharges from the site. If the SWP3 is retained off-site, then it shall be made available as soon as reasonably possible. In most instances, it is reasonable that the SWP3 shall be made available within 24 hours of the request.

NOTE: The SWP3 may be prepared and kept electronically, rather than in paper form, if the records are: (a) in a format that can be read in a similar manner as a paper record; (b) legally valid with no less evidentiary value than their paper equivalent; and (c) immediately accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be, if the records were stored in paper form.

2. Operators with authorization for construction activity under this general permit must post a TCEQ site notice at the construction site at a place readily available for viewing by the general public, and local, state, and federal authorities.

- (a) Primary and secondary operators of large construction activities must each post a TCEQ construction site notice, respective to their role as an operator at the construction site, as required above and according to requirements in Part II.E.3. of this general permit.
 - (b) Primary and secondary operators of small construction activities must post the TCEQ site notice as required in Part III.D.2.(a) above and for the specific type of small construction described in Part II.E.1. and 2. of the permit.
 - (c) If the construction project is a linear construction project, such as a pipeline or highway, the notices must be placed in a publicly accessible location near where construction is actively underway. TCEQ construction site notices for small and large construction activities at these linear construction sites may be relocated, as necessary, along the length of the project, but must still be readily available for viewing by the general public; local, state, and federal authorities; and contain the following information:
 - i. the site-specific TPDES authorization number for the project if assigned;
 - ii. the operator name, contact name, and contact phone number;
 - iii. a brief description of the project; and
 - iv. the location of the SWP3.
3. This permit does not provide the general public with any right to trespass on a construction site for any reason, including inspection of a site; nor does this permit require that permittees allow members of the general public access to a construction site.

Section E. Revisions and Updates to SWP3s

The permittee must revise or update the SWP3, including the site map, within seven (7) days of when any of the following occurs:

1. a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants and that has not been previously addressed in the SWP3;
2. changing site conditions based on updated plans and specifications, new operators, new areas of responsibility, and changes in BMPs; or
3. results of inspections or investigations by construction site personnel authorized by the permittee, operators of a municipal separate storm sewer system receiving the discharge, authorized TCEQ personnel, or a federal, state or local agency approving sediment and erosion plans indicate the SWP3 is proving ineffective in eliminating or significantly minimizing pollutants in discharges authorized under this general permit.

Section F. Contents of SWP3

The SWP3 must be developed and implemented by primary operators of small and large construction activities and include, at a minimum, the information described in this section and must comply with the construction and development effluent guidelines in Part IV. of the general permit.

1. A site or project description, which includes the following information:
 - (a) a description of the nature of the construction activity;
 - (b) a list of potential pollutants and their sources;
 - (c) a description of the intended schedule or sequence of activities that will disturb soils for major portions of the site, including estimated start dates and duration of activities;

- (d) the total number of acres of the entire property and the total number of acres where construction activities will occur, including areas where construction support activities (defined in Part I.B. of this general permit) occur;
- (e) data describing the soil or the quality of any discharge from the site;
- (f) a map showing the general location of the site (e.g., a portion of a city or county map);
- (g) a detailed site map (or maps) indicating the following:
 - i. property boundary(ies);
 - ii. drainage patterns and approximate slopes anticipated before and after major grading activities;
 - iii. areas where soil disturbance will occur (note any phasing), including any demolition activities;
 - iv. locations of all controls and buffers, either planned or in place;
 - v. locations where temporary or permanent stabilization practices are expected to be used;
 - vi. locations of construction support activities, including those located off-site;
 - vii. surface waters (including wetlands) either at, adjacent, or in close proximity to the site, and also indicate whether those waters are impaired;

NOTE: Surface waters adjacent to or in close proximity to the site means any receiving waters within the site and all receiving waters within one mile downstream of the site's discharge point(s).
 - viii. locations where stormwater discharges from the site directly to a surface water body or a municipal separate storm sewer system;
 - ix. vehicle wash areas; and
 - x. designated points on the site where vehicles will exit onto paved roads (for instance, this applies to construction transition from unstable dirt areas to exterior paved roads).

Where the amount of information required to be included on the map would result in a single map being difficult to read and interpret, the operator shall develop a series of maps that collectively include the required information.

- (h) the location and description of support activities authorized under the permittee's NOI, including asphalt plants, concrete plants, and other activities providing support to the construction site that is authorized under this general permit;
- (i) the name of receiving waters at or near the site that may be disturbed or that may receive discharges from disturbed areas of the project;
- (j) a copy of this TPDES general permit (an electronic copy of this TPDES general permit or a current link to this TPDES general permit on the TCEQ webpage is acceptable);
- (k) the NOI and the acknowledgement of provisional and non-provisional authorization for primary operators of large construction sites, and the TCEQ site notice for small construction sites and for secondary operators of large construction sites;
- (l) if signatory authority is delegated by an authorized representative, then a copy of the formal notification to TCEQ, as required by 30 TAC 305.128 relating to Signatories to Reports must be filed in the SWP3 and made available for review upon request by TCEQ or local MS4 Operator. For primary operators of large construction activities, the formal notification to TCEQ must be submitted either electronically through

STEERS, TCEQ's electronic reporting system, or, if qualifying for an electronic reporting waiver, by paper on a Delegation of Signatories form. For operators or small construction activities, the formal notification to TCEQ must be submitted by paper on a Delegation of Signatories form.

- (m) stormwater and allowable non-stormwater discharge locations, including storm drain inlets on site and in the immediate vicinity of the construction site where construction support activities will occur; and
- (n) locations of all pollutant-generating activities at the construction site and where construction support activities will occur, such as the following: Paving operations; concrete, paint and stucco washout and water disposal; solid waste storage and disposal; and dewatering operations.

2. A description of the BMPs that will be used to minimize pollution in runoff.

The description must identify the general timing or sequence for installation and implementation. At a minimum, the description must include the following components:

(a) General Requirements

- i. Erosion and sediment controls must be designed to retain sediment on-site to the extent practicable with consideration for local topography, soil type, and rainfall.
- ii. Control measures must be properly selected, installed, and maintained according to good engineering practices, and the manufacturer's or designer's specifications.
- iii. Controls must be developed to minimize the offsite transport of litter, construction debris, construction materials, and other pollutants required of Part IV.D.

(b) Erosion Control and Stabilization Practices

The SWP3 must include a description of temporary and permanent erosion control and stabilization practices for the construction site, where small or large construction activity will occur. The erosion control and stabilization practices selected by the permittee must be compliant with the requirements for sediment and erosion control, located in Part IV. of this permit. The description of the SWP3 must also include a schedule of when the practices will be implemented. Site plans must ensure that existing vegetation at the construction site is preserved where it is possible.

- i. Erosion control and stabilization practices may include but are not limited to: establishment of temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, slope texturing, temporary velocity dissipation devices, flow diversion mechanisms, and other similar measures.
- ii. The following records must be maintained and either attached to or referenced in the SWP3, and made readily available upon request to the parties listed in Part III.D.1 of this general permit:
 - (A) the dates when major grading activities occur;
 - (B) the dates when construction activities temporarily or permanently cease on a portion of the site; and
 - (C) the dates when stabilization measures are initiated.
- iii. Erosion control and stabilization measures must be initiated immediately in portions of the site where construction activities have temporarily ceased and will not resume for a period exceeding fourteen (14) calendar days. Stabilization

measures that provide a protective cover must be initiated immediately in portions of the site where construction activities have permanently ceased. The term “immediately” is used to define the deadline for initiating stabilization measures. In the context of this requirement, “immediately” means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased. Except as provided in (A) through (D) below, these measures must be completed as soon as practicable, but no more than fourteen (14) calendar days after the initiation of soil stabilization measures:

- (A) where the immediate initiation of vegetative stabilization measures after construction activity has temporarily or permanently ceased due to frozen conditions, non-vegetative controls must be implemented until thawing conditions (as defined in Part I.B. of this general permit) are present, and vegetative stabilization measures can be initiated as soon as practicable.
 - (B) in arid areas, semi-arid areas, or drought-stricken areas, as they are defined in Part I.B. of this general permit, where the immediate initiation of vegetative stabilization measures after construction activity has temporarily or permanently ceased or is precluded by arid conditions, other types of erosion control and stabilization measures must be initiated at the site as soon as practicable. Where vegetative controls are infeasible due to arid conditions, and within fourteen (14) calendar days of a temporary or permanent cessation of construction activity in any portion of the site, the operator shall immediately install non-vegetative erosion controls in areas of the construction site where construction activity is complete or has ceased. If non-vegetative controls are infeasible, the operator shall install temporary sediment controls as required in Part III.F.2.(b)iii.(C) below.
 - (C) in areas where non-vegetative controls are infeasible, the operator may alternatively utilize temporary perimeter controls. The operator must document in the SWP3 the reason why stabilization measures are not feasible, and must demonstrate that the perimeter controls will retain sediment on site to the extent practicable. The operator must continue to inspect the BMPs at the frequencies established in Part III.F.8.(c) for unstabilized sites.
 - (D) the requirement for permittees to initiate stabilization is triggered as soon as it is known with reasonable certainty that construction activity at the site or in certain areas of the site will be stopped for 14 or more additional calendar days. If the initiation or completion of vegetative stabilization is prevented by circumstances beyond the control of the permittee, the permittee must employ and implement alternative stabilization measures immediately. When conditions at the site changes that would allow for vegetative stabilization, then the permittee must initiate or complete vegetative stabilization as soon as practicable.
- iv. Final stabilization must be achieved prior to termination of permit coverage.
 - v. TCEQ does not expect that temporary or permanent stabilization measures to be applied to areas that are intended to be left un-vegetated or un-stabilized following construction (e.g., dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, or materials).

(c) Sediment Control Practices

The SWP3 must include a description of any sediment control practices used to remove eroded soils from stormwater runoff, including the general timing or sequence for implementation of controls. Controls selected by the permittee must be compliant with the requirements in Part IV. of this permit.

i. Sites With Drainage Areas of Ten (10) or More Acres

(A) Sedimentation Basin(s) or Impoundments

- (1) A sedimentation basin or similar impoundment is required, where feasible, for a common drainage location that serves an area with ten (10) or more acres disturbed at one time. A sedimentation basin or impoundment may be temporary or permanent, and must provide sufficient storage to contain a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained. When calculating the volume of runoff from a 2-year, 24-hour storm event, it is not required to include the flows from offsite areas and flow from onsite areas that are either undisturbed or have already undergone permanent stabilization, if these flows are diverted around both the disturbed areas of the site and the sediment basin or similar impoundment. Capacity calculations shall be included in the SWP3. Sedimentation basins must be designed for and appropriate for controlling runoff at the site and existing detention or retention ponds at the site may not be appropriate.
- (2) Where rainfall data is not available, or a calculation cannot be performed, the sedimentation basin must provide at least 3,600 cubic feet of storage per acre drained until final stabilization of the site.
- (3) If a sedimentation basin or impoundment is not feasible, then the permittee shall provide equivalent control measures until final stabilization of the site. In determining whether installing a sediment basin or impoundment is feasible, the permittee may consider factors such as site soils, slope, available area, public safety, precipitation patterns, site geometry, site vegetation, infiltration capacity, geotechnical factors, depth to groundwater, and other similar considerations. The permittee shall document the reason that the sediment basins or impoundments are not feasible, and shall utilize equivalent control measures, which may include a series of smaller sediment basins or impoundments.
- (4) Unless infeasible, when discharging from sedimentation basins and impoundments, the permittee shall utilize outlet structures that withdraw water from the surface.

- (B) Perimeter Controls: At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions.

ii. Controls for Sites with Drainage Areas Less than Ten (10) Acres:

- (A) Sediment traps and sediment basins may be used to control solids in stormwater runoff for drainage locations serving less than ten (10) acres. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area, and for those side slope boundaries deemed appropriate as dictated by individual site conditions.

- (B) Alternatively, a sediment basin that provides storage for a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained may be utilized. Where rainfall data is not available or a calculation cannot be performed, a temporary or permanent sediment basin providing 3,600 cubic feet of storage per acre drained may be provided. If a calculation is performed, then the calculation shall be included in the SWP3.
- (C) If sedimentation basins or impoundments are used, the permittee shall comply with the requirements in Part IV.F. of this general permit.

3. Description of Permanent Stormwater Controls

A description of any stormwater control measures that will be installed during the construction process to control pollutants in stormwater discharges that may occur after construction operations have been completed must be included in the SWP3. Permittees are responsible for the installation and maintenance of stormwater management measures, as follows:

- (a) permittees authorized under the permit for small construction activities are responsible for the installation and maintenance of stormwater control measures prior to final stabilization of the site; or
- (b) permittees authorized under the permit for large construction activities are responsible for the installation and maintenance of stormwater control measures prior to final stabilization of the site and prior to submission of an NOT.

4. Other Required Controls and BMPs

- (a) Permittees shall minimize, to the extent practicable, the off-site vehicle tracking of sediments and dust. The SWP3 shall include a description of controls utilized to control the generation of pollutants that could be discharged in stormwater from the site.
- (b) The SWP3 must include a description of construction and waste materials expected to be stored on-site and a description of controls to minimize pollutants from these materials.
- (c) The SWP3 must include a description of potential pollutant sources in discharges of stormwater from all areas of the construction site where construction activity, including construction support activities, will be located, and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.
- (d) Permittees shall place velocity dissipation devices at discharge locations and along the length of any outfall channel (i.e., runoff conveyance) to provide a non-erosive flow velocity from the structure to a water course, so that the natural physical and biological characteristics and functions are maintained and protected.
- (e) Permittees shall design and utilize appropriate controls in accordance with Part IV. of this permit to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water from the site.
- (f) Permittees shall ensure that all other required controls and BMPs comply with all of the requirements of Part IV. of this general permit.
- (g) For demolition of any structure with at least 10,000 square feet of floor space that was built or renovated before January 1, 1980, and the receiving waterbody is impaired for polychlorinated biphenyls (PCBs):
 - i. implement controls to minimize the exposure of PCB-containing building materials, including paint, caulk, and pre-1980 fluorescent lighting fixtures to precipitation and to stormwater; and

- ii. ensure that disposal of such materials is performed in compliance with applicable state, federal, and local laws.
5. Documentation of Compliance with Approved State and Local Plans
- (a) Permittees must ensure that the SWP3 is consistent with requirements specified in applicable sediment and erosion site plans or site permits, or stormwater management site plans or site permits approved by federal, state, or local officials.
 - (b) SWP3s must be updated as necessary to remain consistent with any changes applicable to protecting surface water resources in sediment erosion site plans or site permits, or stormwater management site plans or site permits approved by state or local official for which the permittee receives written notice.
 - (c) If the permittee is required to prepare a separate management plan, including but not limited to a WPAP or Contributing Zone Plan in accordance with 30 TAC Chapter 213 (related to the Edwards Aquifer), then a copy of that plan must be either included in the SWP3 or made readily available upon request to authorized personnel of the TCEQ. The permittee shall maintain a copy of the approval letter for the plan in its SWP3.
6. Maintenance Requirements
- (a) All protective measures identified in the SWP3 must be maintained in effective operating condition. If, through inspections or other means, as soon as the permittee determines that BMPs are not operating effectively, then the permittee shall perform maintenance as necessary to maintain the continued effectiveness of stormwater controls, and prior to the next rain event if feasible. If maintenance prior to the next anticipated storm event is impracticable, the reason shall be documented in the SWP3 and maintenance must be scheduled and accomplished as soon as practicable. Erosion and sediment controls that have been intentionally disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately upon discovery.
 - (b) If periodic inspections or other information indicates a control has been used incorrectly, is performing inadequately, or is damaged, then the operator shall replace or modify the control as soon as practicable after making the discovery.
 - (c) Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.
 - (d) If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event, if feasible. If the permittee does not own or operate the off-site conveyance, then the permittee shall work with the owner or operator of the property to remove the sediment.
7. Observation and Evaluation of Dewatering Controls Pursuant to Part IV.C. of this General Permit
- (a) Personnel provided by the permittee must observe and evaluate dewatering controls at a minimum of once per day on the days where dewatering discharges from the construction site occur. Personnel conducting these evaluations must be knowledgeable of this general permit, the construction activities at the site, and the SWP3 for the site. Personnel conducting these evaluations are not required to have signatory authority for reports under 30 TAC § 305.128 (relating to Signatories to Reports).

(b) Requirements for Observations and Evaluations

- i. A report summarizing the scope of any observation and evaluation must be completed within 24-hours following the evaluation. The report must also include, at a minimum, the following:
 - (A) date of the observations and evaluation;
 - (B) name(s) and title(s) of personnel making the observations and evaluation;
 - (C) approximate times that the dewatering discharge began and ended on the day of evaluation, or if the dewatering discharge is a continuous discharge that continues after normal business hours, indicate that the discharge is continuous (this information can be reported by personnel initiating the dewatering discharge);
 - (D) estimates of the rate (in gallons per day) of discharge on the day of evaluation;
 - (E) whether or not any indications of pollutant discharge were observed at the point of discharge (e.g., foam, oil sheen, noticeable odor, floating solids, suspended sediments, or other obvious indicators of stormwater pollution); and
 - (F) major observations, including: the locations of where erosion and discharges of sediment or other pollutants from the site have occurred; locations of BMPs that need to be maintained; locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and locations where additional BMPs are needed.
- ii. Actions taken as a result of evaluations, including the date(s) of actions taken, must be described within, and retained as a part of, the SWP3. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWP3 and this permit. The report must be retained as part of the SWP3 and signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).
- iii. The names and qualifications of personnel making the evaluations for the permittee may be documented once in the SWP3 rather than being included in each report.

8. Inspections of All Controls

- (a) Personnel provided by the permittee must inspect disturbed areas (cleared, graded, or excavated) of the construction site that do not meet the requirements of final stabilization in this general permit, all locations where stabilization measures have been implemented, areas of construction support activity covered under this permit, stormwater controls (including pollution prevention controls) for evidence of, or the potential for, the discharge of pollutants, areas where stormwater typically flows within the construction site, and points of discharge from the construction site.
 - i. Personnel conducting these inspections must be knowledgeable of this general permit, the construction activities at the site, and the SWP3 for the site.
 - ii. Personnel conducting these inspections are not required to have signatory authority for inspection reports under 30 TAC § 305.128 (relating to Signatories to Reports).

(b) Requirements for Inspections

- i. Inspect all stormwater controls (including sediment and erosion control measures identified in the SWP3) to ensure that they are installed properly, appear to be operational, and minimizing pollutants in discharges, as intended.
- ii. Identify locations on the construction site where new or modified stormwater controls are necessary.
- iii. Check for signs of visible erosion and sedimentation that can be attributed to the points of discharge where discharges leave the construction site or discharge into any surface water in the state flowing within or adjacent to the construction site.
- iv. Identify any incidents of noncompliance observed during the inspection.
- v. Inspect locations where vehicles enter or exit the site for evidence of off-site sediment tracking.
- vi. If an inspection is performed when discharges from the construction site are occurring: identify all discharge points at the site, and observe and document the visual quality of the discharge (i.e., color, odor, floating, settled, or suspended solids, foam, oil sheen, and other such indicators of pollutants in stormwater).
- vii. Complete any necessary maintenance needed, based on the results of the inspection and in accordance with the requirements listed in Part III.F.6. above.

(c) Inspection frequencies:

- i. Inspections of construction sites must be conducted at least once every fourteen (14) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater, unless as otherwise provided below in Part III.F.8.(c)ii. – v. below.
 - (A) If a storm event produces 0.5 inches or more of rain within a 24-hour period (including when there are multiple, smaller storms that alone produce less than 0.5 inches but together produce 0.5 inches or more in 24 hours), you are required to conduct one inspection within 24 hours of when 0.5 inches of rain or more has fallen. When the 24-hour inspection time frame occurs entirely outside of normal working hours, you must conduct an inspection by no later than the end of the next business day.
 - (B) If a storm event produces 0.5 inches or more of rain within a 24-hour period on the first day of a storm and continues to produce 0.5 inches or more of rain on subsequent days, you must conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the last day of the storm that produces 0.5 inches or more of rain (i.e., only two (2) inspections would be required for such a storm event). When the 24-hour inspection time frame occurs entirely outside of normal working hours, you must conduct an inspection by no later than the end of the next business day.
- ii. Inspection frequencies must be conducted at least once every month in areas of the construction site that meet final stabilization or have been temporarily stabilized.
- iii. Inspection frequencies for construction sites, where runoff is unlikely due to the occurrence of frozen conditions at the site, must be conducted at least once every month until thawing conditions begin to occur (see definitions for thawing conditions in Part I.B.). The SWP3 must also contain a record of the approximate beginning and ending dates of when frozen conditions occurred at the site, which resulted in inspections being conducted monthly, while those

conditions persisted, instead of at the interval of once every fourteen (14) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

- iv. In arid, semi-arid, or drought-stricken areas, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater. The SWP3 must also contain a record of the total rainfall measured, as well as the approximate beginning and ending dates of when drought conditions occurred at the site, which resulted in inspections being conducted monthly, while those conditions persisted, instead of at the interval of once every fourteen (14) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.
 - v. As an alternative to the inspection schedule in Part III.F.8.(c)i. above, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, then the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.
 - vi. The inspection procedures described in Part III.F.8.(c)i. – v above can be performed at the frequencies and under the applicable conditions indicated for each schedule option, provided that the SWP3 reflects the current schedule and that any changes to the schedule are made in accordance with the following provisions: the inspection frequency schedule can only be changed a maximum of once per calendar month and implemented within the first five (5) business days of a calendar month; and the reason for the schedule change documented in the SWP3 (e.g., end of “dry” season and beginning of “wet” season).
- (d) Utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities may provide inspection personnel with limited access to the areas described in Part III.F.8.(a) above.
- i. Inspection of linear construction sites could require the use of vehicles that could compromise areas of temporary or permanent stabilization, cause additional disturbance of soils, and result in the increase the potential for erosion. In these circumstances, controls must be inspected at least once every fourteen (14) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater, but representative inspections may be performed.
 - ii. For representative inspections, personnel must inspect controls along the construction site for 0.25 mile above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas described in Part III.F.8.(a) above. The conditions of the controls along each inspected 0.25-mile portion may be considered as representative of the condition of controls along that reach extending from the end of the 0.25-mile portion to either the end of the next 0.25-mile inspected portion, or to the end of the project, whichever occurs first.

As an alternative to the inspection schedule described in Part III.F.8.(c)i. above, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.

- iii. the SWP3 for a linear construction site must reflect the current inspection schedule. Any changes to the inspection schedule must be made in accordance with the following provisions:
 - (A) the schedule may be changed a maximum of one time each month;

- (B) the schedule change must be implemented at the beginning of a calendar month, and
 - (C) the reason for the schedule change must be documented in the SWP3 (e.g., end of “dry” season and beginning of “wet” season).
- (e) Adverse Conditions.
- Requirements for inspections may be temporarily suspended for adverse conditions. Adverse conditions are conditions that are either dangerous to personnel (e.g., high wind, excessive lightning) or conditions that prohibit access to the site (e.g., flooding, freezing conditions). Adverse conditions that result in the temporary suspension of a permit requirement to inspect must be documented and included as part of the SWP3. Documentation must include:
- i. the date and time of the adverse condition,
 - ii. names of personnel that witnessed the adverse condition, and
 - iii. a narrative for the nature of the adverse condition.
- (f) In the event of flooding or other adverse conditions which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.
- Inspection Reports.
- i. A report summarizing the scope of any inspection must be completed within 24-hours following the inspection. The report must also include the date(s) of the inspection and major observations relating to the implementation of the SWP3. Major observations in the report must include: the locations of where erosion and discharges of sediment or other pollutants from the site have occurred; locations of BMPs that need to be maintained; locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and locations where additional BMPs are needed.
 - ii. Actions taken as a result of inspections, including the date(s) of actions taken, must be described within, and retained as a part of, the SWP3. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWP3 and this permit. The report must be retained as part of the SWP3 and signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).
 - iii. The names and qualifications of personnel making the inspections for the permittee may be documented once in the SWP3 rather than being included in each report.
- (g) The SWP3 must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the SWP3 must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3 and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable. If necessary, modify your site map to reflect changes to your stormwater controls that are no longer accurately reflected on the current site map.
9. The SWP3 must identify and ensure the implementation of appropriate pollution prevention measures for all eligible non-stormwater components of the discharge, as listed in Part II.A.3. of this permit.
10. The SWP3 must include the information required in Part III.B. of this general permit.

11. The SWP3 must include pollution prevention procedures that comply with Part IV.D. of this general permit.

Part IV. Erosion and Sediment Control Requirements Applicable to All Sites

Except as provided in 40 CFR §§ 125.30-125.32, any discharge regulated under this general permit, with the exception of sites that obtained waivers based on low rainfall erosivity, must achieve, at a minimum, the following effluent limitations representing the degree of effluent reduction attainable by application of the best practicable control technology currently available (BPT). The BPT are also required by and must satisfy the Effluent Limitations Guideline (ELG) permitting requirement for application of 40 CFR § 450.24 New Source Performance Standards (NSPS), 40 CFR § 450.22 Best Available Technology Economically Achievable (BAT), and 40 CFR § 450.23 Best Conventional Pollutant Control Technology (BCT).

Section A. Erosion and Sediment Controls

Design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed, and maintained to:

1. control stormwater volume and velocity within the site to minimize soil erosion in order to minimize pollutant discharges;
2. control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge point(s);
3. minimize the amount of soil exposed during construction activity;
4. minimize the disturbance of steep slopes;
5. minimize sediment discharges from the site. The design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
6. provide and maintain appropriate natural buffers around surface water in the state. Direct stormwater to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges, unless infeasible. If providing buffers is infeasible, the permittee shall document the reason that natural buffers are infeasible and shall implement additional erosion and sediment controls to reduce sediment load;
7. preserve native topsoil at the site, unless the intended function of a specific area of the site dictates that the topsoil be disturbed or removed, or it is infeasible; and
8. minimize soil compaction. In areas of the construction site where final vegetative stabilization will occur or where infiltration practices will be installed, either:
 - (a) restrict vehicle and equipment use to avoid soil compaction; or
 - (b) prior to seeding or planting areas of exposed soil that have been compacted, use techniques that condition the soils to support vegetative growth, if necessary and feasible.

Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted.

9. TCEQ does not consider stormwater control features (e.g., stormwater conveyance channels, storm drain inlets, sediment basins) to constitute "surface water" for the purposes of triggering the buffer requirement in Part IV.A.(6) above.

Section B. Soil Stabilization

Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding fourteen (14) calendar days. In the context of this requirement, “immediately” means as soon as practicable, but no later than the end of the next workday, following the day when the earth-disturbing activities have temporarily or permanently ceased. Temporary stabilization must be completed no more than fourteen (14) calendar days after initiation of soil stabilization measures, and final stabilization must be achieved prior to termination of permit coverage. In arid, semi-arid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative non-vegetative stabilization measures must be employed as soon as practicable. Refer to Part III.F.2.(b) for complete erosion control and stabilization practice requirements. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed.

Section C. Dewatering

Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited, unless managed by appropriate controls to address sediment and prevent erosion. Operators must observe and evaluate the dewatering controls once per day while the dewatering discharge occurs as described in Part III.F.7. of this general permit.

Section D. Pollution Prevention Measures

Design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:

1. minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
2. minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater;
3. minimize the exposure of waste materials by closing waste container lids at the end of the workday and during storm events. For waste containers that do not have lids, where the container itself is not sufficiently secure enough to prevent the discharge of pollutants absent a cover and could leak, the permittee must provide either a cover (e.g., a tarp, plastic sheeting, temporary roof) to minimize exposure of wastes to precipitation, stormwater, and wind, or a similarly effective means designed to minimize the discharge of pollutants (e.g., secondary containment). Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a discharge of pollutants, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use);
4. minimize exposure of wastes by implementing good housekeeping measures. Wastes must be cleaned up and disposed of in designated waste containers on days of operation at the site. Wastes must be cleaned up immediately if containers overflow;

5. minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302 as soon as you have knowledge of the release. You must also, within seven (7) calendar days of knowledge of the release, provide a description of the release, the circumstances leading to the release, and the date of the release; and
6. minimize exposure of sanitary waste by positioning portable toilets so that they are secure and will not be tipped or knocked over, and so that they are located away from surface water in the state and stormwater inlets or conveyances.

Section E. Prohibited Discharges

The following discharges are prohibited:

1. wastewater from wash out of concrete, unless managed by an appropriate control;
2. wastewater from wash out and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
3. fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
4. soaps or solvents used in vehicle and equipment washing; and
5. toxic or hazardous substances from a spill or other release.

Section F. Surface Outlets

When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible. If infeasible, the permittee must provide documentation in the SWP3 to support the determination, including the specific conditions or time periods when this exception will apply.

Part V. Stormwater Runoff from Concrete Batch Plants

Discharges of stormwater runoff from concrete batch plants present at regulated construction sites and operated as a construction support activity may be authorized under the provisions of this general permit, provided that the following requirements are met for concrete batch plant(s) authorized under this permit. Only the discharges of stormwater runoff and non-stormwater from concrete batch plants that meet the requirements of a construction support activity can be authorized under this permit (see the requirements for “Non-Stormwater Discharges” in Part II.A.3. and “Discharges of Stormwater Associated with Construction Support Activity” in Part II.A.2.).

If discharges of stormwater runoff or non-stormwater from concrete batch plants are not authorized under this general permit, then discharges must be authorized under an alternative general permit or individual permit [see the requirement in Part II.A.2.(c)].

This permit does not authorize the discharge or land disposal of any wastewater from concrete batch plants at regulated construction sites. Authorization for these wastes must be obtained under an individual permit or an alternative general permit.

Section A. Benchmark Sampling Requirements

- Operators of concrete batch plants authorized under this general permit shall sample the stormwater runoff from the concrete batch plants according to the requirements of this section of this general permit, and must conduct evaluations on the effectiveness of the SWP3 based on the following benchmark monitoring values:

Table 1. Benchmark Parameters

Benchmark Parameter	Benchmark Value	Sampling Frequency	Sample Type
Oil and Grease (*1)	15 mg/L	1/quarter (*2) (*3)	Grab (*4)
Total Suspended Solids (*1)	50 mg/L	1/quarter (*2) (*3)	Grab (*4)
pH	6.0 – 9.0 Standard Units	1/quarter (*2) (*3)	Grab (*4)
Total Iron (*1)	1.3 mg/L	1/quarter (*2) (*3)	Grab (*4)

- (*1) All analytical results for these parameters must be obtained from a laboratory that is accredited based on rules located in 30 TAC § 25.4 (a) or through the National Environmental Laboratory Accreditation Program (NELAP). Analysis must be performed using sufficiently sensitive methods for analysis that comply with the rules located in 40 CFR §§ 136.1(c) and 122.44(i)(1)(iv).
- (*2) When discharge occurs. Sampling is required within the first 30 minutes of discharge. If it is not practicable to take the sample, or to complete the sampling, within the first 30 minutes, sampling must be completed within the first hour of discharge. If sampling is not completed within the first 30 minutes of discharge, the reason must be documented and attached to all required reports and records of the sampling activity.
- (*3) Sampling must be conducted at least once during each of the following periods. The first sample must be collected during the first full quarter that a stormwater discharge occurs from a concrete batch plant authorized under this general permit.
- January through March
April through June
July through September
October through December
- For projects lasting less than one full quarter, a minimum of one sample shall be collected, provided that a stormwater discharge occurred at least once following submission of the NOI or following the date that automatic authorization was obtained under Part II.E.2., and prior to terminating coverage.
- (*4) A grab sample shall be collected from the stormwater discharge resulting from a storm event that is at least 0.1 inches of measured precipitation that occurs at least 72 hours from the previously measurable storm event. The sample shall be collected downstream of the concrete batch plant, and where the discharge exits any BMPs utilized to handle the runoff from the batch plant, prior to commingling with any other water authorized under this general permit.

2. The permittee must compare the results of sample analyses to the benchmark values above, and must include this comparison in the overall assessment of the SWP3's effectiveness. Analytical results that exceed a benchmark value are not a violation of this permit, as these values are not numeric effluent limitations. Results of analyses are indicators that modifications of the SWP3 should be assessed and may be necessary to protect water quality. The operator must investigate the cause for each exceedance and must document the results of this investigation in the SWP3 by the end of the quarter following the sampling event.

The operator's investigation must identify the following:

- (a) any additional potential sources of pollution, such as spills that might have occurred;
- (b) necessary revisions to good housekeeping measures that are part of the SWP3;
- (c) additional BMPs, including a schedule to install or implement the BMPs; and
- (d) other parts of the SWP3 that may require revisions in order to meet the goal of the benchmark values.

Background concentrations of specific pollutants may also be considered during the investigation. If the operator is able to relate the cause of the exceedance to background concentrations, then subsequent exceedances of benchmark values for that pollutant may be resolved by referencing earlier findings in the SWP3. Background concentrations may be identified by laboratory analyses of samples of stormwater run-on to the permitted facility, by laboratory analyses of samples of stormwater run-off from adjacent non-industrial areas, or by identifying the pollutant is a naturally occurring material in soils at the site.

Section B. Best Management Practices (BMPs) and SWP3 Requirements

Minimum SWP3 Requirements – The following are required in addition to other SWP3 requirements listed in this general permit, which include, but are not limited to the applicable requirements located in Part III.F.8. of this general permit, as follows:

1. Description of Potential Pollutant Sources – The SWP3 must provide a description of potential sources (activities and materials) that can cause, have a reasonable potential to cause or contribute to a violation of water quality standards or have been found to cause, or contribute to, the loss of a designated use of surface water in the state in stormwater discharges associated with concrete batch plants authorized under this permit. The SWP3 must describe the implementation of practices that will be used to minimize to the extent practicable the discharge of pollutants in stormwater discharges associated with industrial activity and non-stormwater discharges (described in Part II.A.3. of this general permit), in compliance with the terms and conditions of this general permit, including the protection of water quality, and must ensure the implementation of these practices.

The following must be developed, at a minimum, in support of developing this description:

- (a) Drainage – The site map must include the following information:
 - i. the location of all outfalls for stormwater discharges associated with concrete batch plants that are authorized under this permit;
 - ii. a depiction of the drainage area and the direction of flow to the outfall(s);
 - iii. structural controls used within the drainage area(s);

- iv. the locations of the following areas associated with concrete batch plants that are exposed to precipitation: vehicle and equipment maintenance activities (including fueling, repair, and storage areas for vehicles and equipment scheduled for maintenance); areas used for the treatment, storage, or disposal of wastes; liquid storage tanks; material processing and storage areas; and loading and unloading areas; and
 - v. the locations of the following: any bag house or other dust control device(s); recycle/sedimentation pond, clarifier or other device used for the treatment of facility wastewater (including the areas that drain to the treatment device); areas with significant materials; and areas where major spills or leaks have occurred.
- (b) Inventory of Exposed Materials – A list of materials handled at the concrete batch plant that may be exposed to stormwater and precipitation and that have a potential to affect the quality of stormwater discharges associated with concrete batch plants that are authorized under this general permit.
- (c) Spills and Leaks – A list of significant spills and leaks of toxic or hazardous pollutants that occurred in areas exposed to stormwater and precipitation and that drain to stormwater outfalls associated with concrete batch plants authorized under this general permit must be developed, maintained, and updated as needed.
- (d) Sampling Data – A summary of existing stormwater discharge sampling data must be maintained, if available.
2. Measures and Controls – The SWP3 must include a description of management controls to regulate pollutants identified in the SWP3’s “Description of Potential Pollutant Sources” from Part V.B.1. of this permit, and a schedule for implementation of the measures and controls. This must include, at a minimum:
- (a) Good Housekeeping – Good housekeeping measures must be developed and implemented in the area(s) associated with concrete batch plants.
 - i. Operators must prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), settled dust, or other significant materials from paved portions of the site that are exposed to stormwater. Measures used to minimize the presence of these materials may include regular sweeping or other equivalent practices. These practices must be conducted at a frequency that is determined based on consideration of the amount of industrial activity occurring in the area and frequency of precipitation, and shall occur at least once per week when cement or aggregate is being handled or otherwise processed in the area.
 - ii. Operators must prevent the exposure of fine granular solids, such as cement, to stormwater. Where practicable, these materials must be stored in enclosed silos, hoppers or buildings, in covered areas, or under covering.
 - (b) Spill Prevention and Response Procedures – Areas where potential spills that can contribute pollutants to stormwater runoff and precipitation, and the drainage areas from these locations, must be identified in the SWP3. Where appropriate, the SWP3 must specify material handling procedures, storage requirements, and use of equipment. Procedures for cleaning up spills must be identified in the SWP3 and made available to the appropriate personnel.
 - (c) Inspections – Qualified facility personnel (i.e., a person or persons with knowledge of this general permit, the concrete batch plant, and the SWP3 related to the concrete batch plant(s) for the site) must be identified to inspect designated equipment and areas of the facility specified in the SWP3. Personnel conducting these inspections are not required to have signatory authority for inspection reports under 30 TAC § 305.128. Inspections of facilities in operation must be performed

once every seven (7) days. Inspections of facilities that are not in operation must be performed at a minimum of once per month. The current inspection frequency being implemented at the facility must be recorded in the SWP3. The inspection must take place while the facility is in operation and must, at a minimum, include all areas that are exposed to stormwater at the site, including material handling areas, above ground storage tanks, hoppers or silos, dust collection/containment systems, truck wash down and equipment cleaning areas. Follow-up procedures must be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections must be maintained and be made readily available for inspection upon request.

- (d) Employee Training – An employee training program must be developed to educate personnel responsible for implementing any component of the SWP3, or personnel otherwise responsible for stormwater pollution prevention, with the provisions of the SWP3. The frequency of training must be documented in the SWP3, and at a minimum, must consist of one (1) training prior to the initiation of operation of the concrete batch plant.
 - (e) Record Keeping and Internal Reporting Procedures – A description of spills and similar incidents, plus additional information that is obtained regarding the quality and quantity of stormwater discharges, must be included in the SWP3. Inspection and maintenance activities must be documented and records of those inspection and maintenance activities must be incorporated in the SWP3.
 - (f) Management of Runoff – The SWP3 shall contain a narrative consideration for reducing the volume of runoff from concrete batch plants by diverting runoff or otherwise managing runoff, including use of infiltration, detention ponds, retention ponds, or reusing of runoff.
3. Comprehensive Compliance Evaluation – At least once per year, one or more qualified personnel (i.e., a person or persons with knowledge of this general permit, the concrete batch plant, and the SWP3 related to the concrete batch plant(s) for the site) shall conduct a compliance evaluation of the plant. The evaluation must include the following:
- (a) visual examination of all areas draining stormwater associated with regulated concrete batch plants for evidence of, or the potential for, pollutants entering the drainage system. These include, but are not limited to: cleaning areas, material handling areas, above ground storage tanks, hoppers or silos, dust collection/containment systems, and truck wash down and equipment cleaning areas. Measures implemented to reduce pollutants in runoff (including structural controls and implementation of management practices) must be evaluated to determine if they are effective and if they are implemented in accordance with the terms of this permit and with the permittee's SWP3. The operator shall conduct a visual inspection of equipment needed to implement the SWP3, such as spill response equipment.
 - (b) based on the results of the evaluation, the following must be revised as appropriate within two (2) weeks of the evaluation: the description of potential pollutant sources identified in the SWP3 (as required in Part V.B.1., "Description of Potential Pollutant Sources"); and pollution prevention measures and controls identified in the SWP3 (as required in Part V.B.2., "Measures and Controls"). The revisions may include a schedule for implementing the necessary changes.
 - (c) the permittee shall prepare and include in the SWP3 a report summarizing the scope of the evaluation, the personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the SWP3, and actions taken in response to the findings of the evaluation. The report must identify any incidents of noncompliance. Where the report does not identify incidences of noncompliance, the report must contain a statement that the evaluation did not identify any

incidence(s), and the report must be signed according to 30 TAC § 305.128 (relating to Signatories to Reports).

- (d) the Comprehensive Compliance Evaluation may substitute for one of the required inspections delineated in Part V.B.2.(c) of this general permit.

Section C. Prohibition of Wastewater Discharges

Wastewater discharges associated with concrete production including wastewater disposal by land application are not authorized under this general permit. These wastewater discharges must be authorized under an alternative TCEQ water quality permit or otherwise disposed of in an authorized manner. Discharges of concrete truck wash out at construction sites may be authorized if conducted in accordance with the requirements of Part VI of this general permit.

Part VI. Concrete Truck Wash Out Requirements

This general permit authorizes the land disposal of wash out from concrete trucks at construction sites regulated under this general permit, provided the following requirements are met. Any discharge of concrete production wastewater to surface water in the state must be authorized under a separate TCEQ general permit or individual permit.

- A.** Discharge of concrete truck wash out water to surface water in the state, including discharge to storm sewers, is prohibited by this general permit.
- B.** Concrete truck wash out water shall be disposed in areas at the construction site where structural controls have been established to prevent discharge to surface water in the state, or to areas that have a minimal slope that allow infiltration and filtering of wash out water to prevent discharge to surface water in the state. Structural controls may consist of temporary berms, temporary shallow pits, temporary storage tanks with slow rate release, or other reasonable measures to prevent runoff from the construction site.
- C.** Wash out of concrete trucks during rainfall events shall be minimized. The discharge of concrete truck wash out water is prohibited at all times, and the operator shall insure that its BMPs are sufficient to prevent the discharge of concrete truck wash out as the result of rainfall or stormwater runoff.
- D.** The disposal of wash out water from concrete trucks, made under authorization of this general permit must not cause or contribute to groundwater contamination.
- E.** If a SWP3 is required to be implemented, the SWP3 shall include concrete wash out areas on the associated site map.

Part VII. Retention of Records

The permittee must retain the following records for a minimum period of three (3) years from the date that a NOT is submitted as required in Part II.F.1. and 2. of this permit. For activities in which an NOT is not required, records shall be retained for a minimum period of three (3) years from the date that the operator terminates coverage under Section II.F.3. of this permit. Records include:

- A.** a copy of the SWP3;
- B.** all reports and actions required by this permit, including a copy of the TCEQ construction site notice;
- C.** all data used to complete the NOI, if an NOI is required for coverage under this general permit; and
- D.** all records of submittal of forms submitted to the operator of any MS4 receiving the discharge and to the secondary operator of a large construction site, if applicable.

Part VIII. Standard Permit Conditions

- A.** The permittee has a duty to comply with all permit conditions. Failure to comply with any permit condition is a violation of the permit and statutes under which it was issued (CWA and TWC), and is grounds for enforcement action, for terminating, revoking and reissuance, or modification, or denying coverage under this general permit, or for requiring a discharger to apply for and obtain an individual TPDES permit, based on rules located in TWC § 23.086, 30 TAC § 305.66, and 40 CFR § 122.41 (a).
- B.** Authorization under this general permit may be modified, suspended, revoked and reissued, terminated or otherwise suspended for cause, based on rules located in TWC § 23.086, 30 TAC § 305.66, and 40 CFR § 122.41(f). Filing a notice of planned changes or anticipated non-compliance by the permittee does not stay any permit condition. The permittee must furnish to the executive director, upon request and within a reasonable time, any information necessary for the executive director to determine whether cause exists for modifying, revoking and reissuing, terminating or, otherwise suspending authorization under this permit, based on rules located in TWC § 23.086, 30 TAC § 305.66, and 40 CFR § 122.41 (h). Additionally, the permittee must provide to the executive director, upon request, copies of all records that the permittee is required to maintain as a condition of this general permit.
- C.** It is not a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the permit conditions.
- D.** Inspection and entry shall be allowed under TWC Chapters 26-28, Texas Health and Safety Code §§ 361.032-361.033 and 361.037, and 40 CFR § 122.41(i). The statement in TWC § 26.014 that commission entry of a facility shall occur according to an establishment's rules and regulations concerning safety, internal security, and fire protection is not grounds for denial or restriction of entry to any part of the facility or site, but merely describes the commission's duty to observe appropriate rules and regulations during an inspection.
- E.** The discharger is subject to administrative, civil, and criminal penalties, as applicable, under TWC Chapter 7 for violations including but not limited to the following:
 - 1. negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under CWA § 402, or any requirement imposed in a pretreatment program approved under CWA §§ 402(a)(3) or 402(b)(8);
 - 2. knowingly making any false statement, representation, or certification in any record or other document submitted or required to be maintained under a permit, including monitoring reports or reports of compliance or noncompliance; and
 - 3. knowingly violating CWA §303 and placing another person in imminent danger of death or serious bodily injury.
- F.** All reports and other information requested by the executive director must be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).
- G.** Authorization under this general permit does not convey property or water rights of any sort and does not grant any exclusive privilege.
- H.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

- I.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- J.** The permittee shall comply with the monitoring and reporting requirements in 40 CFR § 122.41(j) and (l), as applicable.
- K.** Analysis must be performed using sufficiently sensitive methods for analysis that comply with the rules located in 40 CFR §§ 136.1(c) and 122.44(i)(1)(iv).

Part IX. Fees

- A.** A fee of must be submitted along with the NOI:
 - 1. \$225 if submitting an NOI electronically, or
 - 2. \$325 if submitting a paper NOI.
- B.** Fees are due upon submission of the NOI. An NOI will not be declared administratively complete unless the associated fee has been paid in full.
- C.** No separate annual fees will be assessed for this general permit. The Water Quality Annual Fee has been incorporated into the NOI fees as described above.

Appendix A: Automatic Authorization

Periods of Low Erosion Potential by County – Eligible Date Ranges

Andrews: Nov. 15 - Apr. 30	Foard: Dec. 15 - Feb. 14
Archer: Dec. 15 - Feb. 14	Gaines: Nov. 15 - Apr. 30
Armstrong: Nov. 15 - Apr. 30	Garza: Nov. 15 - Apr. 30
Bailey: Nov. 1 - Apr. 30, or Nov. 15 - May 14	Glasscock: Nov. 15 - Apr. 30
Baylor: Dec. 15 - Feb. 14	Hale: Nov. 15 - Apr. 30
Borden: Nov. 15 - Apr. 30	Hall: Feb. 1 - Mar. 30
Brewster: Nov. 15 - Apr. 30	Hansford: Nov. 15 - Apr. 30
Briscoe: Nov. 15 - Apr. 30	Hardeman: Dec. 15 - Feb. 14
Brown: Dec. 15 - Feb. 14	Hartley: Nov. 15 - Apr. 30
Callahan: Dec. 15 - Feb. 14	Haskell: Dec. 15 - Feb. 14
Carson: Nov. 15 - Apr. 30	Hockley: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30
Castro: Nov. 15 - Apr. 30	Howard: Nov. 15 - Apr. 30
Childress: Dec. 15 - Feb. 14	Hudspeth: Nov. 1 - May 14
Cochran: Nov. 1 - Apr. 30, or Nov. 15 - May 14	Hutchinson: Nov. 15 - Apr. 30
Coke: Dec. 15 - Feb. 14	Irion: Dec. 15 - Feb. 14
Coleman: Dec. 15 - Feb. 14	Jeff Davis: Nov. 1 - Apr. 30 or Nov. 15 - May 14
Collingsworth: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28	Jones: Dec. 15 - Feb. 14
Concho: Dec. 15 - Feb. 14	Kent: Nov. 15 - Jan. 14 or Feb. 1 - Mar. 30
Cottle: Dec. 15 - Feb. 14	Kerr: Dec. 15 - Feb. 14
Crane: Nov. 15 - Apr. 30	Kimble: Dec. 15 - Feb. 14
Crockett: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30	King: Dec. 15 - Feb. 14
Crosby: Nov. 15 - Apr. 30	Kinney: Dec. 15 - Feb. 14
Culberson: Nov. 1 - May 14	Knox: Dec. 15 - Feb. 14
Dallam: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30	Lamb: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30
Dawson: Nov. 15 - Apr. 30	Loving: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Deaf Smith: Nov. 15 - Apr. 30	Lubbock: Nov. 15 - Apr. 30
Dickens: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30	Lynn: Nov. 15 - Apr. 30
Dimmit: Dec. 15 - Feb. 14	Martin: Nov. 15 - Apr. 30
Donley: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28	Mason: Dec. 15 - Feb. 14
Eastland: Dec. 15 - Feb. 14	Maverick: Dec. 15 - Feb. 14
Ector: Nov. 15 - Apr. 30	McCulloch: Dec. 15 - Feb. 14
Edwards: Dec. 15 - Feb. 14	Menard: Dec. 15 - Feb. 14
El Paso: Jan. 1 - Jul. 14, or May 15 - Jul. 31, or Jun. 1 - Aug. 14, or Jun. 15 - Sept. 14, or Jul. 1 - Oct. 14, or Jul. 15 - Oct. 31, or Aug. 1 - Apr. 30, or Aug. 15 - May 14, or Sept. 1 - May 30, or Oct. 1 - Jun. 14, or Nov. 1 - Jun. 30, or Nov. 15 - Jul. 14	Midland: Nov. 15 - Apr. 30
Fisher: Dec. 15 - Feb. 14	Mitchell: Nov. 15 - Apr. 30
Floyd: Nov. 15 - Apr. 30	Moore: Nov. 15 - Apr. 30
	Motley: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30
	Nolan: Dec. 15 - Feb. 14
	Oldham: Nov. 15 - Apr. 30

Construction General Permit

Parmer: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30
Pecos: Nov. 15 - Apr. 30
Potter: Nov. 15 - Apr. 30
Presidio: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Randall: Nov. 15 - Apr. 30
Reagan: Nov. 15 - Apr. 30
Real: Dec. 15 - Feb. 14
Reeves: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Runnels: Dec. 15 - Feb. 14
Schleicher: Dec. 15 - Feb. 14
Scurry: Nov. 15 - Apr. 30
Shackelford: Dec. 15 - Feb. 14
Sherman: Nov. 15 - Apr. 30
Stephens: Dec. 15 - Feb. 14
Sterling: Nov. 15 - Apr. 30
Stonewall: Dec. 15 - Feb. 14
Sutton: Dec. 15 - Feb. 14

TPDES General Permit No. TXR150000 Appendix A

Swisher: Nov. 15 - Apr. 30
Taylor: Dec. 15 - Feb. 14
Terrell: Nov. 15 - Apr. 30
Terry: Nov. 15 - Apr. 30
Throckmorton: Dec. 15 - Feb. 14
Tom Green: Dec. 15 - Feb. 14
Upton: Nov. 15 - Apr. 30
Uvalde: Dec. 15 - Feb. 14
Val Verde: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30
Ward: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30
Wichita: Dec. 15 - Feb. 14
Wilbarger: Dec. 15 - Feb. 14
Winkler: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Yoakum: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Young: Dec. 15 - Feb. 14
Wheeler: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28
Zavala: Dec. 15 - Feb. 14

Appendix B: Storm Erosivity (EI) Zones in Texas

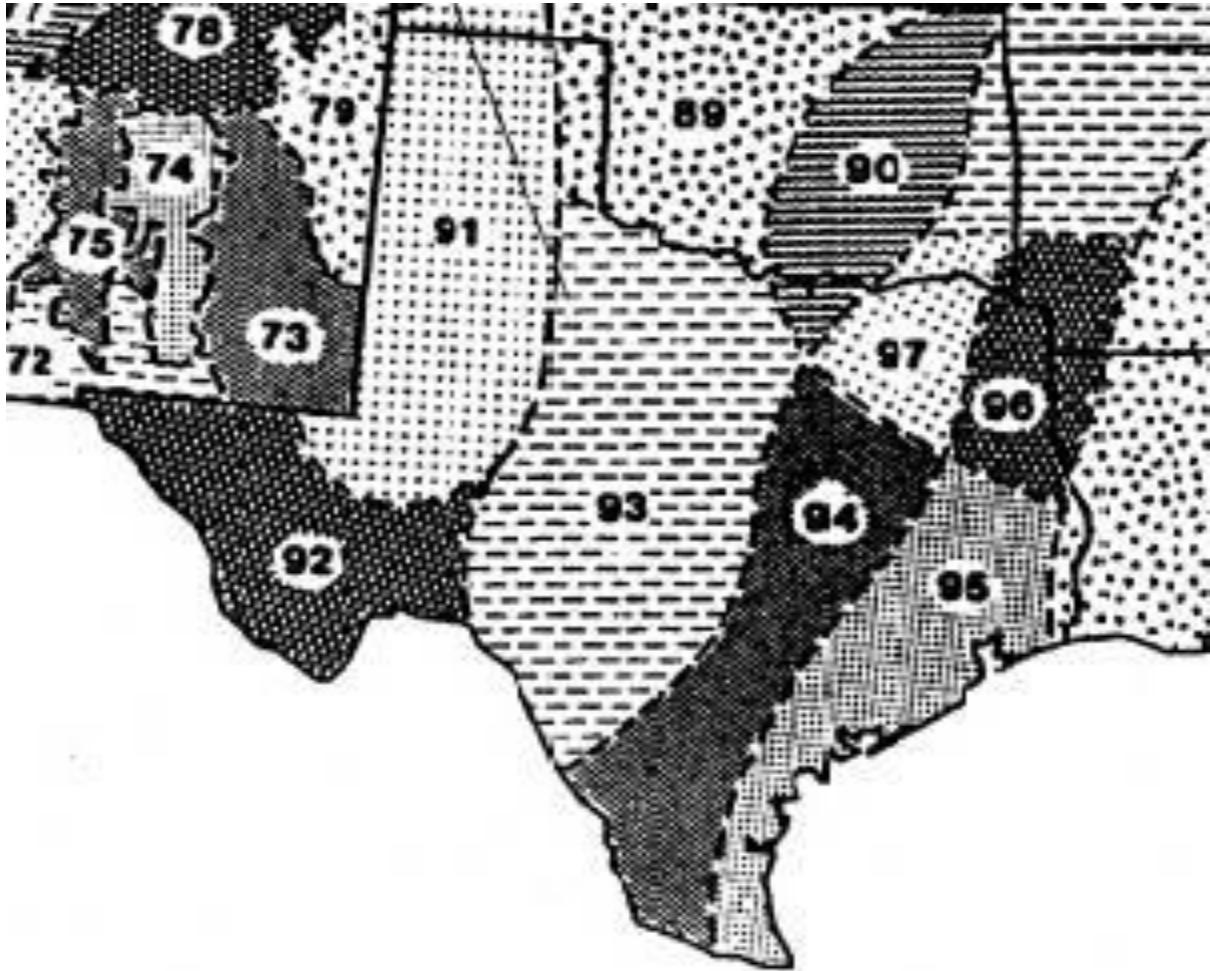


Figure B. EI Distribution Zones

Adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service

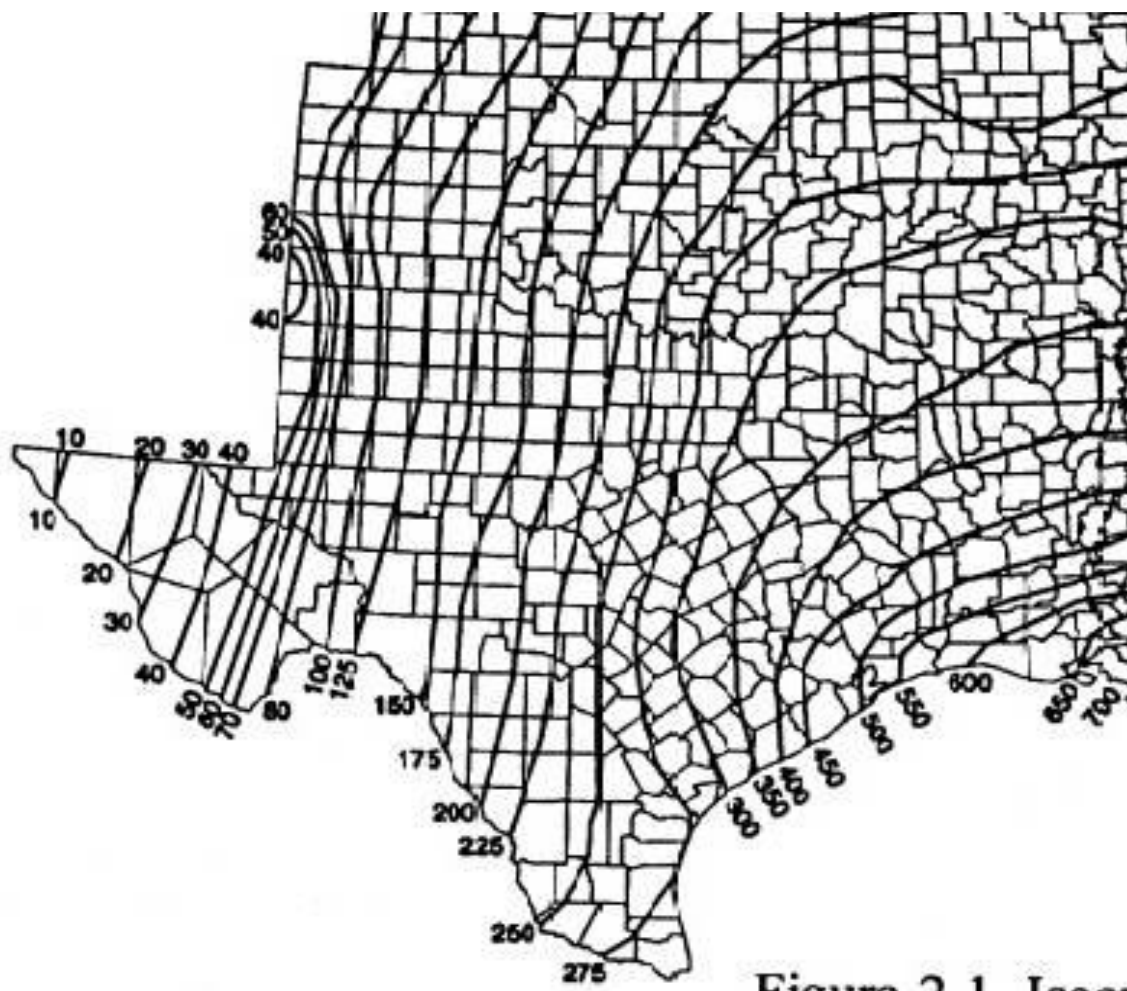
Appendix C: Isoerodent Map

Figure C. Isoerodent Map of Texas. Units are hundreds $\text{ft} \cdot \text{tonf} \cdot \text{in} (\text{ac} \cdot \text{h} \cdot \text{yr})^{-1}$

Adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service

Appendix D: Erosivity Indices for EI Zones in Texas**Table D.** EI as percentage of average annual computed selected geographic areas (EI number) by date period (month/day).

Date Periods* (Month/Day)																									
EI #	1/1	1/16	1/31	2/15	3/1	3/16	3/31	4/15	4/30	5/15	5/30	6/14	6/29	7/14	7/29	8/13	8/28	9/12	9/27	10/12	10/27	11/11	11/26	12/11	12/31
89	0	1	1	2	3	4	7	2	8	27	38	48	55	62	69	76	83	90	94	97	98	99	100	100	100
90	0	1	2	3	4	6	8	13	21	29	37	46	54	60	65	69	74	81	87	92	95	97	98	99	100
91	0	0	0	0	1	1	1	2	6	16	29	39	46	53	60	67	74	81	88	95	99	99	100	100	100
92	0	0	0	0	1	1	1	2	6	16	29	39	46	53	60	67	74	81	88	95	99	99	100	100	100
93	0	1	1	2	3	4	6	8	13	25	40	49	56	62	67	72	76	80	85	91	97	98	99	99	100
94	0	1	2	4	6	8	10	15	21	29	38	47	53	57	61	65	70	76	83	88	91	94	96	98	100
95	0	1	3	5	7	9	11	14	18	27	35	41	46	51	57	62	68	73	79	84	89	93	96	98	100
96	0	2	4	6	9	12	17	23	30	37	43	49	54	58	62	66	70	74	78	82	86	90	94	97	100
97	0	1	3	5	7	10	14	20	28	37	48	56	61	64	68	72	77	81	86	89	92	95	98	99	100
106	0	3	6	9	13	17	21	27	33	38	44	49	55	61	67	71	75	78	81	84	86	90	94	97	100

*Each period begins on the date listed in the table above and lasts until the day before the following period. The final period begins on December 11 and ends on December 31.

Table adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service.

APPENDIX F

PERMIT FORMS

NOTICE OF INTENT
CONSTRUCTION SITE NOTICE (LARGE)
TCEQ CZP APPROVAL LETTER

Texas Commission on Environmental Quality

Construction Notice of Intent

Site Information (Regulated Entity)

What is the name of the site to be authorized?	SILVER CREEK (LUNAROYA) SUBDIVISION
Does the site have a physical address?	No
Because there is no physical address, describe how to locate this site:	Silver Creek Rd., approx. 4,100 ft. southwest of the intersection w/Fitzhugh Rd.
City	DRIPPING SPRINGS
State	TX
ZIP	78620
County	HAYS
Latitude (N) (##.#####)	30.236851
Longitude (W) (-###.#####)	-98.056332
Primary SIC Code	1521
Secondary SIC Code	
Primary NAICS Code	236117
Secondary NAICS Code	

Regulated Entity Site Information

What is the Regulated Entity's Number (RN)?	RN111781852
What is the name of the Regulated Entity (RE)?	SILVER CREEK SUBDIVISION
Does the RE site have a physical address?	No
Because there is no physical address, describe how to locate this site:	1 MILE SW OF FITZHUGH RD AND SILVER CREEK ROAD
City	DRIPPING SPRINGS
State	TX
ZIP	78620
County	HAYS
Latitude (N) (##.#####)	30.236851
Longitude (W) (-###.#####)	-98.056332
Facility NAICS Code	236115
What is the primary business of this entity?	

Customer (Applicant) Information

How is this applicant associated with this site?	Operator
What is the applicant's Customer Number (CN)?	CN606165884
Type of Customer	Corporation

Full legal name of the applicant:

Legal Name	Dripping Springs Owner, LLC
Texas SOS Filing Number	804561958
Federal Tax ID	
State Franchise Tax ID	32084550501
State Sales Tax ID	
Local Tax ID	
DUNS Number	
Number of Employees	251-500
Independently Owned and Operated?	Yes
I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.	Yes

Responsible Authority Contact

Organization Name	Dripping Springs Owner, LLC
Prefix	
First	Brian
Middle	
Last	Sewell
Suffix	
Credentials	
Title	Chief Operating Officer

Responsible Authority Mailing Address

Enter new address or copy one from list:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	3990 HILLSBORO PIKE STE 400
Routing (such as Mail Code, Dept., or Attn:)	
City	NASHVILLE
State	TN
ZIP	37215
Phone (###-###-####)	6157782889
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	brian.sewell@southernland.com

Application Contact

Person TCEQ should contact for questions about this application:

Same as another contact?	
Organization Name	Doucet & Associates Inc
Prefix	

First	Jacob
Middle	
Last	Harris
Suffix	
Credentials	PE
Title	Project Manager
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	7401 W HIGHWAY 71 STE B160
Routing (such as Mail Code, Dept., or Attn:)	
City	AUSTIN
State	TX
ZIP	78735
Phone (###-###-####)	5125832656
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	jacharris@kleinfelder.com

CNOI General Characteristics

1) Is the project or site located on Indian Country Lands?	No
2) Is the project or site associated to a facility that is licensed for the storage of high-level radioactive waste by the United States Nuclear Regulatory Commission under 10 CFR Part 72?	No
3) Is your construction activity associated with an oil and gas exploration, production, processing, or treatment, or transmission facility?	No
4) Is the project or site associated to a quarrying facility that is located within either the John Graves Scenic Riverway or Coke Stevenson Scenic Riverway, as defined in 30 TAC 311.71?	No
5) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site?	1521
6) If applicable, what is the Secondary SIC Code(s)?	
7) What is the total number of acres that the construction project or site will disturb under the control of the primary operator?	70
8) What is the construction project or site type?	Single-family residential
9) Is the project part of a larger common plan of development or sale?	No
10) What is the estimated start date of the project?	07/01/2025
11) What is the estimated end date of the project?	02/28/2026

12) Will concrete truck washout be performed at the site?	Yes
13) What is the name of the first water body(s) to receive the stormwater runoff or potential runoff from the site?	Barton Creek
14) What is the segment number(s) of the classified water body(s) that the discharge will eventually reach?	1430
15) Is the discharge into a Municipal Separate Storm Sewer System (MS4)?	Yes
15.1) What is the name of the MS4 Operator?	City of Dripping Springs
16) Is the discharge or potential discharge within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, as defined in 30 TAC Chapter 213?	Yes
16.1) I certify that the copy of the TCEQ-approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) that is included or referenced in the Stormwater Pollution Prevention Plan will be implemented.	Yes
17) I certify that a stormwater pollution prevention plan (SWP3) has been developed, will be implemented prior to construction, and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the general permit TXR150000. Note: For multiple operators who prepare a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3 provided all obligations are confirmed by at least one operator.	Yes
18) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000).	Yes
19) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed.	Yes



LARGE CONSTRUCTION SITE NOTICE

FOR THE
Texas Commission on Environmental Quality (TCEQ)
Stormwater Program
TPDES GENERAL PERMIT TXR150000

“PRIMARY OPERATOR” NOTICE

This notice applies to construction sites operating under Part II.E.3. of the TPDES General Permit Number TXR150000 for discharges of stormwater runoff from construction sites equal to or greater than five acres, including the larger common plan of development. The information on this notice is required in Part III.D.2. of the general permit. Additional information regarding the TCEQ stormwater permit program may be found on the internet at:

http://www.tceq.state.tx.us/nav/permits/wq_construction.html

Site-Specific TPDES Authorization Number:	
Operator Name:	
Contact Name and Phone Number:	
Project Description: <i>Physical address or description of the site's location, and estimated start date and projected end date, or date that disturbed soils will be stabilized.</i>	
Location of Stormwater Pollution Prevention Plan:	

APPENDIX G

POST-CONSTRUCTION FORMS

NOTICE OF TERMINATION



TCEQ Office Use Only
Permit No:
CN:
RN:
Region:

Notice of Termination (NOT) for Authorizations under TPDES General Permit TXR150000

IMPORTANT INFORMATION:

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

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

ePermits: This form is available on our online permitting system.

Sign up for online permitting at: <https://www3.tceq.texas.gov/steers/>

What is the permit number to be terminated?

TXR15 TXRCW

Section 1. OPERATOR (Permittee)

a) What is the Customer Number (CN) issued to this entity?

CN

b) What is the Legal Name of the current permittee?

c) Provide the contact information for the Operator (Responsible Authority).

Prefix (Mr. Ms. or Miss):

First and Last Name: Suffix:

Title: Credentials:

Phone Number: Fax Number:

Email:

Mailing Address:

City, State, and Zip Code:

Country Mailing Information, if outside USA:

Section 2. APPLICATION CONTACT

This is the person TCEQ will contact if additional information is needed regarding this application.

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

☐ Yes, go to Section 3.

☐ No, complete section below

Prefix (Mr. Ms. or Miss):
First and Last Name: Suffix:
Title: Credentials:
Phone Number: Fax Number:
Email:
Mailing Address:
City, State, and Zip Code:
Country Mailing Information, if outside USA:

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

- a) TCEQ issued RE Reference Number (RN): RN
- b) Name of project or site as known by the local community:
- c) County, or counties if more than 1:
- d) Latitude: Longitude:
- e) Site Address/Location:
If the site has a physical address such as 12100 Park 35 Circle, Austin, TX 78753, complete Section 3A.
If the site does not have a physical address, provide a location description in Section 3B.
Example: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

Section 3A: Physical Address of Project or Site:

Street Number and Name:
City, State, and Zip Code:

Section 3B: Site Location Description:

Location description:

City where the site is located or, if not in a city, what is the nearest city:
Zip Code where the site is located:

Section 4. REASON FOR TERMINATION

Check the reason for termination:

- ☐ Final stabilization has been achieved on all portions of the site that are the responsibility of the Operator and all silt fences and other temporary erosion controls have been removed, or scheduled for removal as defined in the SWP3.
- ☐ Another permitted Operator has assumed control over all areas of the site that have not been finally stabilized, and temporary erosion controls that have been identified in the SWP3 have been transferred to the new Operator.

- ☐ The discharge is now authorized under an alternate TPDES permit.
- ☐ The activity never began at this site that is regulated under the general permit.

Section 5. CERTIFICATION

Signatory Name:

Signatory Title:

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

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

Signature (use blue ink): _____ Date: _____

Instructions for Notice of Termination (NOT) for Authorizations under TPDES General Permit TXR150000

GENERAL INFORMATION

Where to Send the Notice of Termination (NOT):

BY REGULAR U.S. MAIL:

Texas Commission on Environmental Quality
Stormwater Processing Center (MC-228)
P.O. Box 13087
Austin, Texas 78711-3087

BY OVERNIGHT/EXPRESS MAIL:

Texas Commission on Environmental Quality
Stormwater Processing Center (MC-228)
12100 Park 35 Circle
Austin, TX 78753

TCEQ Contact List:

Application status and form questions:	512-239-3700, swpermit@tceq.texas.gov
Technical questions:	512-239-4671, swgp@tceq.texas.gov
Environmental Law Division:	512-239-0600
Records Management - obtain copies of forms:	512-239-0900
Reports from databases (as available):	512-239-DATA (3282)
Cashier's office:	512-239-0357 or 512-239-0187

Notice of Termination Process:

A Notice of Termination is **effective on the date postmarked for delivery to TCEQ.**

When your NOT is received by the program, the form will be processed as follows:

- 1) Administrative Review: The form will be reviewed to confirm the following:
 - the permit number is provided;
 - the permit is active and has been approved;
 - the entity terminating the permit is the current permittee;
 - the site information matches the original permit record; and
 - the form has the required original signature with title and date.
- 2) Notice of Deficiency: If an item is incomplete or not verifiable as indicated above, a phone call will be made to the applicant to clear the deficiency. A letter will not be sent to the permittee if unable to process the form.
- 3) Confirmation of Termination: A Notice of Termination Confirmation letter will be mailed to the operator.

Change in Operator:

An authorization under the general permit is not transferable. If the operator of the regulated entity changes, the present permittee must submit a Notice of Termination and the new operator must submit a Notice of Intent. The NOT and NOI must be submitted not later than 10 days prior to the change in Operator status.

INSTRUCTIONS FOR FILLING OUT THE FORM

The majority of permit information related to the current operator and regulated entity are available at the following website: http://www2.tceq.texas.gov/wq_dpa/index.cfm.

Section 1. Operator (Current Permittee):

a) Customer Number (CN)

TCEQ's Central Registry assigns each customer a number that begins with CN, followed by nine digits. This is not a permit number, registration number, or license number. The Customer Number, for the current permittee, is available at the following website:

http://www2.tceq.texas.gov/wq_dpa/index.cfm.

b) Legal Name of Operator

The operator must be the same entity as previously submitted on the original Notice of Intent for the permit number provided. The current operator name, as provided on the current authorization, is available at the following website:

http://www2.tceq.texas.gov/wq_dpa/index.cfm.

c) Contact Information for the Operator (Responsible Authority)

Provide information for person signing the NOT application in the Certification section. This person is also referred to as the Responsible Authority.

Provide a complete mailing address for receiving mail from the TCEQ. Update the address if different than previously submitted for the Notice of Intent or Notice of Change. The mailing address must be recognized by the US Postal Service. You may verify the address on the following website: <https://tools.usps.com/go/ZipLookupAction!input.action>.

The phone number should provide contact to the operator.

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

Section 2. Application Contact:

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

Section 3. Regulated Entity (RE) Information on Project or Site:

a) Regulated Entity Reference Number (RN)

A number issued by TCEQ's Central Registry to sites where an activity regulated by TCEQ. This is not a permit number, registration number, or license number. The Regulated Entity Reference Number is available at the following website:

http://www2.tceq.texas.gov/wq_dpa/index.cfm.

b) Name of the Project or Site

Provide the name of the site as known by the public in the area where the site is located.

c) County

Identify the county or counties in which the regulated entity is located.

d) Latitude and Longitude

Enter the latitude and longitude of the site in degrees, minutes, and seconds or decimal form. The latitude and longitude as provided on the current authorization is available at the following website: http://www2.tceq.texas.gov/wq_dpa/index.cfm.

e) Site/Project (RE) Physical Address/Location Information

The physical address/location information, as provided on the current authorization, is available at the following website: http://www2.tceq.texas.gov/wq_dpa/index.cfm.

Section 3A. If a site has an address that includes a street number and street name, enter the complete address for the site. If the physical address is not recognized as a USPS delivery address, you may need to validate the address with your local police (911 service) or through an online map site used to locate the site. Please confirm this to be a complete and valid address. Do not use a rural route or post office box for a site location.

Section 3B. If a site does not have an address that includes a street number and street name, provide a complete written location description. For example: "The site is located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1."

Provide the city (or nearest city) and Zip Code of the facility location.

Section 4. Reason for Termination:

The Notice of Termination form is only for use to terminate the authorization (permit). The Permittee must indicate the specific reason for terminating by checking one of the options. If the reason is not listed then provide an attachment that explains the reason for termination.

Please read your general permit carefully to determine when to terminate your permit. Permits will not be reactivated after submitting a termination form. The termination is effective on the date postmarked for delivery to TCEQ.

Section 5. Certification:

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

IF YOU ARE A CORPORATION:

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

IF YOU ARE A MUNICIPALITY OR OTHER GOVERNMENT ENTITY:

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

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

30 Texas Administrative Code §305.44. Signatories to Applications

(a) All applications shall be signed as follows.

(1) For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

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

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

APPENDIX H

TEMPORARY STORMWATER SECTION

SEQUENCE OF MAJOR ACTIVITIES
TEMPORARY SEDIMENT POND(S) AND CALCULATIONS
INSPECTION AND MAINTENANCE FOR BMPs

TEMPORARY STORMWATER SECTION

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, Hays County, City of Dripping Springs, 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.
5. Begin installation of water line.
6. Begin installation of storm sewer. Upon completion, restore as much disturbed areas as possible, particularly channels and large open areas.
7. Regrade streets to subgrade.
8. Ensure that all underground utility crossings are completed. Lay first course base material on all streets.
9. Install ribbon curb.
10. Install sidewalk.
11. Lay final base course on all streets.
12. Lay asphalt.
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 14.
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

Temporary Sediment Pond(s) and Calculations:

No temporary sediment pond(s) are proposed for the Silver Creek (Lunaroya) Subdivision project.

TEMPORARY STORMWATER SECTION

Inspection and Maintenance for BMP's

The Temporary BMP's will be inspected on a weekly basis for their compliance with TCEQ criteria. Inspection of silt fence will occur weekly, and after any rainfall. Sediment shall be removed from silt fence when buildup reaches 6-inches and torn fabric must be replaced or a second line of fencing parallel to the torn section shall be provided. The contractor will be responsible for maintenance of these items. If cited by TCEQ, Hays County, or the City of Dripping Springs, the contractor will have 24 hours to bring the delinquent items up to standard. The contractor will keep a record of these items on site in the construction trailer. A Stormwater Pollution Prevention Plan will be filed prior to commencement of construction. The written SWPPP will include additional requirements regarding BMP monitoring, inspection, and maintenance.

SECTION 4

COPY OF NOTICE OF INTENT

(NOI)

Texas Commission on Environmental Quality

Construction Notice of Intent

Site Information (Regulated Entity)

What is the name of the site to be authorized?	SILVER CREEK (LUNAROYA) SUBDIVISION
Does the site have a physical address?	No
Because there is no physical address, describe how to locate this site:	Silver Creek Rd., approx. 4,100 ft. southwest of the intersection w/Fitzhugh Rd.
City	DRIPPING SPRINGS
State	TX
ZIP	78620
County	HAYS
Latitude (N) (##.#####)	30.236851
Longitude (W) (-###.#####)	-98.056332
Primary SIC Code	1521
Secondary SIC Code	
Primary NAICS Code	236117
Secondary NAICS Code	

Regulated Entity Site Information

What is the Regulated Entity's Number (RN)?	RN111781852
What is the name of the Regulated Entity (RE)?	SILVER CREEK SUBDIVISION
Does the RE site have a physical address?	No
Because there is no physical address, describe how to locate this site:	1 MILE SW OF FITZHUGH RD AND SILVER CREEK ROAD
City	DRIPPING SPRINGS
State	TX
ZIP	78620
County	HAYS
Latitude (N) (##.#####)	30.236851
Longitude (W) (-###.#####)	-98.056332
Facility NAICS Code	236115
What is the primary business of this entity?	

Customer (Applicant) Information

How is this applicant associated with this site?	Operator
What is the applicant's Customer Number (CN)?	CN606165884
Type of Customer	Corporation

Full legal name of the applicant:

Legal Name	Dripping Springs Owner, LLC
Texas SOS Filing Number	804561958
Federal Tax ID	
State Franchise Tax ID	32084550501
State Sales Tax ID	
Local Tax ID	
DUNS Number	
Number of Employees	251-500
Independently Owned and Operated?	Yes
I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.	Yes

Responsible Authority Contact

Organization Name	Dripping Springs Owner, LLC
Prefix	
First	Brian
Middle	
Last	Sewell
Suffix	
Credentials	
Title	Chief Operating Officer

Responsible Authority Mailing Address

Enter new address or copy one from list:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	3990 HILLSBORO PIKE STE 400
Routing (such as Mail Code, Dept., or Attn:)	
City	NASHVILLE
State	TN
ZIP	37215
Phone (###-###-####)	6157782889
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	brian.sewell@southernland.com

Application Contact

Person TCEQ should contact for questions about this application:

Same as another contact?	
Organization Name	Doucet & Associates Inc
Prefix	

First	Jacob
Middle	
Last	Harris
Suffix	
Credentials	PE
Title	Project Manager
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	7401 W HIGHWAY 71 STE B160
Routing (such as Mail Code, Dept., or Attn:)	
City	AUSTIN
State	TX
ZIP	78735
Phone (###-###-####)	5125832656
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	jacharris@kleinfelder.com

CNOI General Characteristics

1) Is the project or site located on Indian Country Lands?	No
2) Is the project or site associated to a facility that is licensed for the storage of high-level radioactive waste by the United States Nuclear Regulatory Commission under 10 CFR Part 72?	No
3) Is your construction activity associated with an oil and gas exploration, production, processing, or treatment, or transmission facility?	No
4) Is the project or site associated to a quarrying facility that is located within either the John Graves Scenic Riverway or Coke Stevenson Scenic Riverway, as defined in 30 TAC 311.71?	No
5) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site?	1521
6) If applicable, what is the Secondary SIC Code(s)?	
7) What is the total number of acres that the construction project or site will disturb under the control of the primary operator?	70
8) What is the construction project or site type?	Single-family residential
9) Is the project part of a larger common plan of development or sale?	No
10) What is the estimated start date of the project?	07/01/2025
11) What is the estimated end date of the project?	02/28/2026

12) Will concrete truck washout be performed at the site?	Yes
13) What is the name of the first water body(s) to receive the stormwater runoff or potential runoff from the site?	Barton Creek
14) What is the segment number(s) of the classified water body(s) that the discharge will eventually reach?	1430
15) Is the discharge into a Municipal Separate Storm Sewer System (MS4)?	Yes
15.1) What is the name of the MS4 Operator?	City of Dripping Springs
16) Is the discharge or potential discharge within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, as defined in 30 TAC Chapter 213?	Yes
16.1) I certify that the copy of the TCEQ-approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) that is included or referenced in the Stormwater Pollution Prevention Plan will be implemented.	Yes
17) I certify that a stormwater pollution prevention plan (SWP3) has been developed, will be implemented prior to construction, and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the general permit TXR150000. Note: For multiple operators who prepare a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3 provided all obligations are confirmed by at least one operator.	Yes
18) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000).	Yes
19) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed.	Yes

SECTION 5

AGENT AUTHORIZATION FORM

(TCEQ-0599)

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

I Brian Sewell,
Print Name

Chief Operating Officer,
Title - Owner/President/Other

of Dripping Springs Owner, LLC,
Corporation/Partnership/Entity Name

have authorized Jacob Harris, P.E.
Print Name of Agent/Engineer

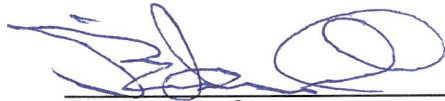
of Doucet & Associates, Inc. (Doucet)
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to \$10,000 per day per violation.
2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.
3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.
4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:



Applicant's Signature

04/17/25


Date

THE STATE OF Tennessee §

County of Davidson §

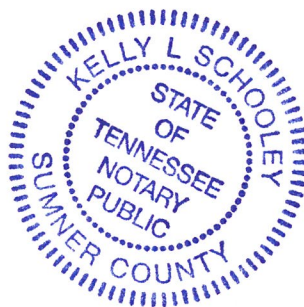
BEFORE ME, the undersigned authority, on this day personally appeared Brian Sewer known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 17 day of April, 2025


NOTARY PUBLIC

Kelly L Schooley
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: May 24, 2028



SECTION 6
APPLICATION FEE FORM
(TCEQ-0574)

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Silver Creek (Lunaroya) Subdivision

Regulated Entity Location: Silver Creek Rd., Dripping Springs, TX 78620

Name of Customer: Dripping Springs Owner, LLC

Contact Person: Jacob Harris, P.E.

Phone: 512-583-2656

Customer Reference Number (if issued): CN 606165884

Regulated Entity Reference Number (if issued): RN 111781852

Austin Regional Office (3373)

☒ Hays

☐ Travis

☐ Williamson

San Antonio Regional Office (3362)

☐ Bexar

☐ Medina

☐ Uvalde

☐ Comal

☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment.** This payment is being submitted to:

☒ Austin Regional Office

☐ San Antonio Regional Office

☐ Mailed to: TCEQ - Cashier

☐ Overnight Delivery to: TCEQ - Cashier

Revenues Section

Mail Code 214

P.O. Box 13088

Austin, TX 78711-3088

12100 Park 35 Circle

Building A, 3rd Floor

Austin, TX 78753

(512)239-0357

Site Location (Check All That Apply):

☐ Recharge Zone

☒ Contributing Zone

☐ Transition Zone

<i>Type of Plan</i>	<i>Size</i>	<i>Fee Due</i>
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	70 Acres	\$ 6,500
Sewage Collection System	L.F.	\$
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	Each	\$
Extension of Time	Each	\$

Signature: 

Date: 4/16/2025

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

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

SECTION 7

**CHECK PAYABLE TO
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)**

(copy not enclosed for privacy reasons)

SECTION 8
CORE DATA FORM
(TCEQ-10400)



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<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 Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 6061658		RN 111781852

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		4/16/2025			
<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)							
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>							
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>			
Dripping Springs Owner, LLC							
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)		
0804561958		32084550501		87-4107289			
11. Type of Customer:		<input type="checkbox"/> Corporation		<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input checked="" type="checkbox"/> Limited		
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		<input type="checkbox"/> Other:			
12. Number of Employees				13. Independently Owned and Operated?			
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input checked="" type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher				<input checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:							
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant							
15. Mailing Address:	3990 Hillsboro Pike, Suite 400						
	City	Nashville	State	TN	ZIP	37215	ZIP + 4
16. Country Mailing Information (if outside USA)				17. E-Mail Address (if applicable)			
				brian.sewell@southernland.com			

18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)
(830) 837-1982		() -

SECTION III: Regulated Entity Information

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

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

25. Description to Physical Location:	Silver Creek Rd. approximately 4,100 south of the intersection with Fitzhugh Rd.							
26. Nearest City					State	Nearest ZIP Code		
Dripping Springs					TX		78620	
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>								
27. Latitude (N) In Decimal:		30.236851°			28. Longitude (W) In Decimal:		-98.056332°	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
30	14	12.6636	-98	3	22.7946			
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			236117					
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
single-family residential construction								
34. Mailing Address:	3990 Hillsboro Pike, Suite 400							
	City	Nashville	State	TN	ZIP	37216	ZIP + 4	
35. E-Mail Address:	brian.sewell@southernland.com							
36. Telephone Number	37. Extension or Code				38. Fax Number (if applicable)			
(830) 837-1982					() -			

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

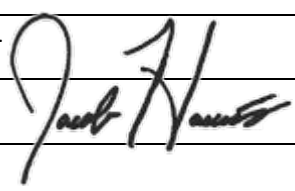
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input checked="" type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source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

SECTION IV: Preparer Information

40. Name:	Jacob Harris, P.E.	41. Title:	Project Manager
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 583-2656		() -	jacharris@kleinfelder.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:	Doucet	Job Title:	Project Manager
Name (In Print):	Jacob Harris, P.E.	Phone:	(512) 583- 2656
Signature:		Date:	4/16/2025

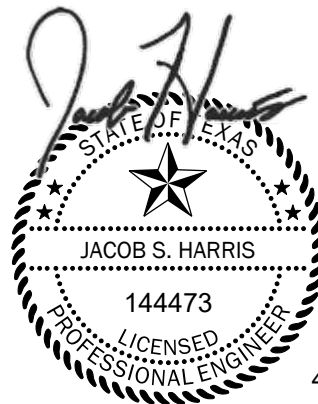
SECTION 9

OPTIONAL ENHANCED MEASURES

OPTIONAL ENHANCED MEASURES REPORT

Table of Contents

- 1.0 Introduction
- 2.0 Site Planning
 - 2.1 Sensitive Features
 - 2.2 Sensitive Features Identified During Construction
 - 2.3 Caves & Gate Construction
 - 2.4 Stream Buffers
- 3.0 Construction
- 4.0 Permanent BMP Implementation
 - 4.1 Hazardous Materials Traps (HMT)
 - 4.2 Total Suspended Solids Removal
- 5.0 Measures to Protect Stream Morphology
- 6.0 Maintenance Requirements
- 7.0 Appendix
 - 7.1 Geologic Assessment
 - 7.2 Exhibit 1 – Impervious Cover Calculations
 - 7.3 Table 2-1
 - 7.4 Figures 2-1 and 2-2
 - 7.5 Figures 2-3 and 2-4
 - 7.6 Figure 2-5



4/17/2025

Section 1.0: Introduction

Silver Creek (Lunaroya) Subdivision is a daily use residential subdivision in Dripping Springs, Hays County, Texas. The site area is approximately 70 acres located along Silver Creek Rd., approximately 4,100 ft. southwest of the intersection with Fitzhugh Rd. in Dripping Springs, Texas. The property is in the City of Dripping Springs Extraterritorial Jurisdiction (ETJ) and is planned to be developed in a single phase as a low density single-family residential subdivision with less 15% (12.13%) of impervious cover (8.49 acres) across the 70-acre development.

As the development will have less than 15% impervious cover, no permanent BMPs are required per TCEQ guidance.

Section 2.0: Site Planning

As described in Appendix A to RG-348, considerations for storm water treatment are important when site planning a project. This portion of the report will address the various considerations covered in the subsections of Section 2.0.

2.1 Sensitive Features

A Geologic Assessment was performed by Tarver Geologic Services, LLC in March 2025. Per the GA, karst features, as defined in TCEQ-0585 were not observed on the subject property. However, geologic features were noted on the property. See appendix.

2.2 Sensitive Features Identified During Construction

If encountered, sensitive features encountered during construction (not identified during the GA phase), but discovered by excavation during utility trenching, pond excavation, etc. will be protected as described in Section 2.1, Table 2-1 of the OEM. However, considering the underlying geology of this site and its location in the Contributing Zone, it is unlikely that sensitive features will be encountered. *(Please refer to Appendices 7.3-7.6 for Table 2-1 and Figures 2-1 through 2-5 should any features be encountered during construction.)*

2.3 Caves & Gate Construction

A Geologic Assessment was performed by Tarver Geologic Services, LLC. in March 2025. No caves were observed on the subject property. *(See Appendix 7.1).*

2.4 Stream Buffers

Per the TCEQ Optional Enhanced Measures for the Protection of Water Quality in the Edwards Aquifer, buffers are required for each tributary that receives more than 5 acres of runoff. This buffer increases in size as the drainage areas increase. The required setbacks are as follows:

No development occurs within the buffer zones. However, per TCEQ RG-348a regulations, stormwater management facilities may be within the buffer zones.

Section 3.0: Construction

Temporary Best Management Practices for erosion control during construction have been designed to be in compliance with the standard Edwards Aquifer Protection Program rules. For this project, the use of silt fence, mulch socks, and rock berms will prevent sediment from leaving the site. Siltation collected by the control measures will be cleaned from trap, fences, berms, etc. on a routine schedule as outlined in the SWPPP and contract specifications.

The total disturbed area is 13.38 acres. There is some off-site upstream water running through the property from the north which will be routed through the development, maintaining the existing drainage patterns.

The most likely instances of a spill of hydrocarbons or hazardous substances are:

1. Refueling construction equipment.
2. Performing operator-level maintenance, including adding petroleum, oils, or lubricants.
3. Unscheduled or emergency repairs, such as hydraulic fluid leaks.

Every effort will be taken to be cautious and prevent spills. In the event of a fuel or hazardous substance spill as defined by the Reportable Quantities Table 1 (page 3) of the TCEQ's Small-Business Handbook for Spill Response (RG-285, June 1997), the contractor is required to clean up the spill and notify TCEQ as required in RG-285. During business hours report spills to the TCEQ's Austin Regional Office at 512-339-2929, after business hours call 1-800-832-8224, the Environmental Response Hotline or 512-463-7727, the TCEQ Spill Reporting Hotline, which is also answered 24 hours a day. See the Contributing Zone Plan application for more information on temporary BMPs during construction.

Section 4.0: Permanent BMP Implementation

The storm water design intends to implement and integrate into the design and layout of the project the use of a stormwater system that mimics the natural state of storm water runoff. The intent of this design concept is to reduce the amount of runoff to allow more infiltration and evaporation.

4.1 Hazardous Materials Traps (HMT)

The project site will not create over 25,000 daily vehicle trips and therefore will not be required to construct a hazardous materials trap.

4.2 Total Suspended Solids (TSS) Removal

Reduction of 80% of the TSS load in storm water is not required because the overall impervious cover proposed is less than 15%.

Section 5.0: Measures to Protect Stream Morphology

Please refer to the provided drainage calculations that adequately demonstrate that no increase in discharge will occur as a result of the proposed development for the 2 yr., 10 yr. 25 yr., and 100 yr. storms.

Section 6.0: Maintenance Requirements

No Permanent BMPs are proposed and therefore no maintenance is required.

Appendix 7.1: Geologic Assessment by Tarver Geologic Services, LLC in March 2025



Environmental Services, Inc.

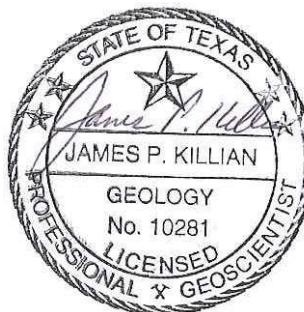
**GEOLOGIC ASSESSMENT
VILLAGE GROVE PROPERTY
840 SPORTS PARK ROAD
DRIPPING SPRINGS, HAYS COUNTY, TEXAS
HJN 22080.002 GA**

PREPARED FOR:

**DRIPPING SPRINGS PARTNERS LLC
AUSTIN, TEXAS**

PREPARED BY:

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



NOVEMBER 2022

TABLE OF CONTENTS

D. GEOLOGIC ASSESSMENT FORM (TCEQ-0585)

II. ATTACHMENTS:

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

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

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

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

Signature

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

Print Name of Geologist: James Killian

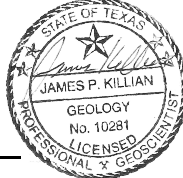
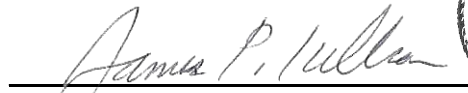
Telephone: 512-328-2430

Date: 3 November 2022

Fax: 512-328-1804

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

Signature of Geologist:



Regulated Entity Name: Village Grove Property; 840 Sports Park Road, Dripping Springs, Hays County, Texas

Project Information

1. Date(s) Geologic Assessment was performed: 20 and 21 September 2021; 31 October 2022

2. Type of Project:

- ☒ WPAP
☒ SCS

- ☐ AST
☐ UST

3. Location of Project:

- ☐ Recharge Zone
☐ Transition Zone
☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table.** Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.
5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
BrB Bolar clay loam, 1-3% slopes	D	3.33
BtD Brackett-Rock Outcrop-Comfort complex, undulating	C	1.4
BtG Brackett-Rock Outcrop-Real complex, steep	C	1.2

Soil Name	Group*	Thickness(feet)
DeB Denton silty clay, 1-3% slopes	C	3.0
DoC Doss silty clay, 1-5% slopes	C	2.0

** Soil Group Definitions (Abbreviated)*

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

6. ☒ **Attachment B – Stratigraphic Column.** A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.
7. ☒ **Attachment C – Site Geology.** A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.
8. ☒ **Attachment D – Site Geologic Map(s).** The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

Applicant's Site Plan Scale: 1" = 400'

Site Geologic Map Scale: 1" = 400'

Site Soils Map Scale (if more than 1 soil type): 1" = 500'

9. Method of collecting positional data:

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

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

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

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

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

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

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

- ☒ There are 4 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
☐ The wells are not in use and have been properly abandoned.
☒ The wells are not in use and will be properly abandoned.
☒ The wells are in use and comply with 16 TAC Chapter 76.
☐ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

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

**Table 1 – Soil Units, Infiltration
Characteristics and Thickness
(Continued)**

Soil Name	Group*	Thickness (feet)
RcD Real-Comfort-Doss Complex, 1-8% slopes	D	1.2
SuB Sunev clay loam, 1- 3% slopes	B	3.8
TaB Tarpley clay, 1-3% slopes	D	1.4

** Soil Group Definitions (Abbreviated)*

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

ATTACHMENT A
GEOLOGIC ASSESSMENT TABLE

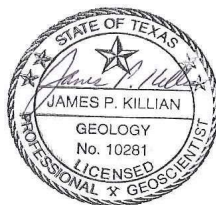
GEOLOGIC ASSESSMENT TABLE								PROJECT NAME:				Village Grove Property; 840 Sports Park Road, Dripping Springs, Hays County, Texas									
LOCATION			FEATURE CHARACTERISTICS											EVALUATION		PHYSICAL SETTING					
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12	
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DO	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY	
						X	Y	Z		10						<40	>40	<1.6	≥1.6		
M-1	30.185547	-98.071011	MB	30	Kgr(u)	140	120	4					N	5	35	X		X		Hilltop	
M-2	30.18449	-98.068813	MB	30	Kgr(u)	0.7	0.7	540					X	5	35	X		X		Hilltop	
M-3	30.186749	-98.071174	MB	30	Kgr(u)	50	30	3					C, F, O	5	35	X		X		Drainage	
M-4	30.185569	-98.073345	MB	30	Kgr(u)	0.5	0.5	600					X	5	35	X		X		Hillside	
M-5	30.184304	-98.076036	MB	30	Kgr(u)	0.7	0.7	480					X	5	35	X		X		Hillside	
M-6	30.184506	-98.076119	MB	30	Kgr(u)	0.5	0.5	-					X	5	35	X		X		Hillside	
M-7	30.184209	-98.076878	MB	30	Kgr(u)	4	4	-					C, F	5	35	X		X		Hillside	
M-8	30.185122	-98.077347	MB	30	Kgr(u)	8	3	5					N	5	35	X		X		Hillside	
M-9	30.18524	-98.077508	MB	30	Kgr(u)	8	3	4.5					N	5	35	X		X		Hillside	
M-10	30.185454	-98.076406	MB	30	Kgr(u)	5	3	5					N	5	35	X		X		Hillside	
M-11	30.185363	-98.076405	MB	30	Kgr(u)	8	3	4.5					N	5	35	X		X		Hillside	

* DATUM:

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Man-made feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

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

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



I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

James P. Killian

Date: 3 November 2022

Sheet 1 of 1

ATTACHMENT B
STRATIGRAPHIC COLUMN

Geologic Unit	Hydrologic Unit	Approx. Thickness at Project Site (ft)	Elevation (ft msl)	Depth (ft)
			1280	0
Upper Glen Rose Limestone (Kgr (u))	Confining Unit	250		
Lower Glen Rose Limestone (Kgr (l))		160	1030	250
Hensell Sand (Kh)	Trinity Aquifer	85	870	410
			785	495

Note: Unit elevation and thickness given with respect to a ground surface elevation of 1280 feet on the northern portion of the subject site.

ATTACHMENT C
DESCRIPTION OF SITE GEOLOGY

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

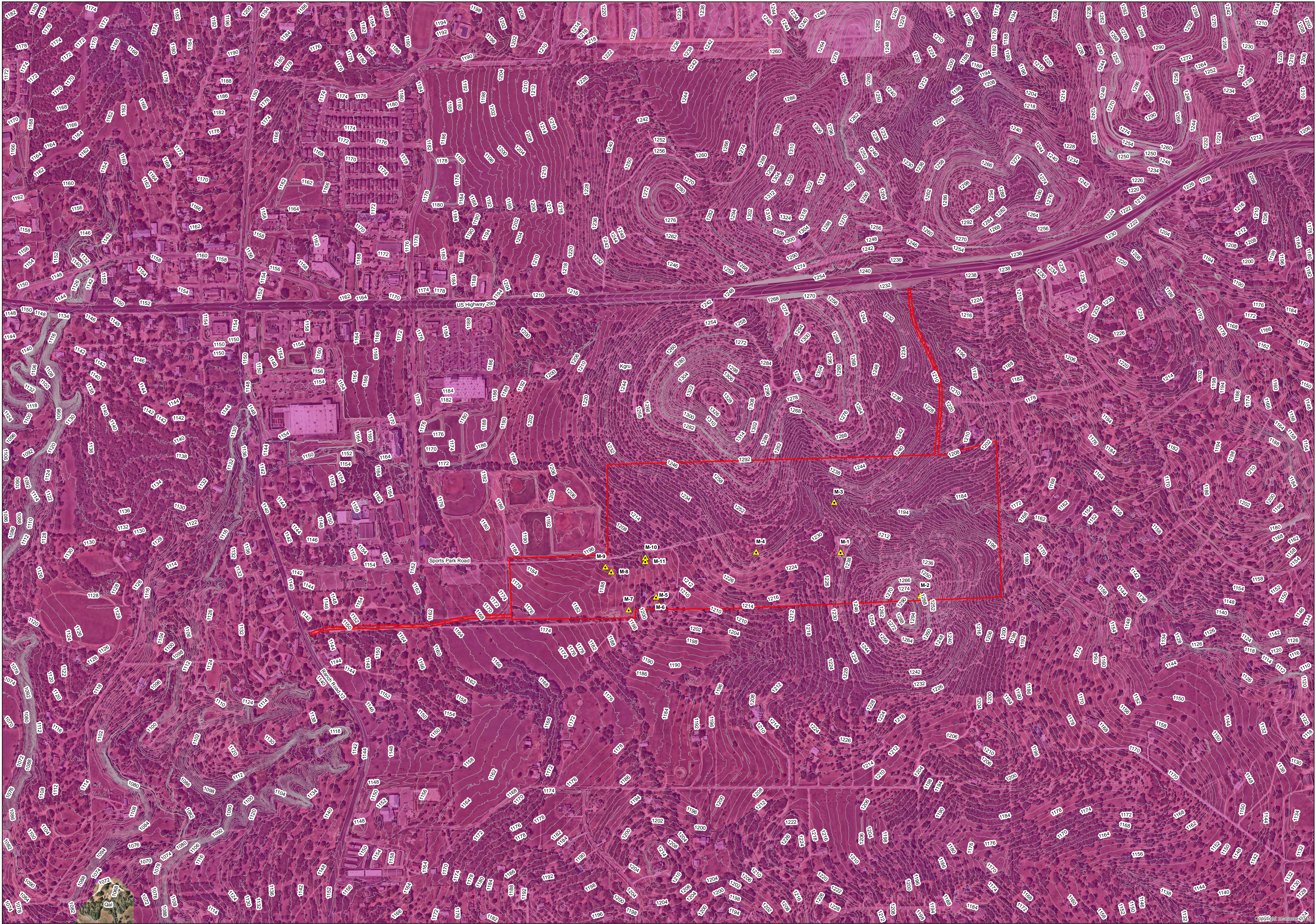
A geologic assessment of the Village Grove property was conducted pursuant to Texas rules for regulated activities in the Edwards Aquifer Contributing Zone (EACZ) (30 TAC 213). The subject site consists of approximately 113.2 acres comprising single-family residences, rangeland, and vacant woodlands located at 840 Sports Park Road, Dripping Springs, Hays County, Texas. Surrounding lands are used for recreational sports fields, single-family residences, and wooded rangeland. Assessment findings were used to develop recommendations for site construction measures intended to be protective of water resources at the subject site and adjacent areas.

The entire subject site is located within the EACZ as defined by the Texas Commission on Environmental Quality (TCEQ). The EACZ includes all watersheds that feed runoff into rivers and streams that flow over the Recharge Zone (TCEQ, 2005). These areas are generally north and west of the Recharge Zone.

The subject site is underlain by the Upper Member of the Glen Rose Formation (Kgr(u)), which has an estimated maximum thickness of 250 feet (UT-BEG, 1981).

No naturally occurring geologic features and 11 man-made features (M-1 to M-11) were identified at the subject site. Further information pertaining to the man-made features is presented in the following Attachments.

ATTACHMENT D
SITE GEOLOGIC MAP



	Date:	10/31/2022	Legend <ul style="list-style-type: none">▲ Man-made Feature— 2-Foot Contours■ Glen Rose Formation (Kgru)□ Subject Site	Attachment D Site Geologic Map Village Grove 840 Sports Park Road Dripping Springs, Hays County, Texas			 0 200 400 Feet Scale: 1" = 400'
	Drawn:	TED					
	HJN NO:	22080.002 GA					
	Source:	COA, 2012; Nearmap, 2022; UT-BEG, 1981					

ATTACHMENT E
SUPPORTING INFORMATION

1.0 INTRODUCTION AND METHODOLOGY

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

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

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

2.0 ENVIRONMENTAL SETTING

2.1 LOCATION AND GENERAL DESCRIPTION

The subject site consists of approximately 113.2 acres of single-family residential development with surrounding rangeland and vacant woodlands (Appendix F, Figure 1).

2.2 LAND USE

Current land uses on the subject site include single-family residences, rangeland for cattle, and vacant woodlands.

2.3 TOPOGRAPHY AND SURFACE WATER

The subject site is situated on flat to slightly sloping terrain within the Headwaters Onion Creek and the Gatlin Creek–Onion Creek watersheds (Appendix F, Figures 2 and 3). Surface elevations on the subject site vary from a minimum of approximately 1160 feet above mean sea level (amsl) near the southwestern border of the subject site to a maximum of approximately 1280 feet amsl near northern portion of the subject site (USGS, 1986). Drainage

on the subject site occurs primarily by overland sheet flow in a north-to-south direction towards an unnamed tributary of Onion Creek.

2.4 EDWARDS AQUIFER ZONE

The subject site is found within the Edwards Aquifer Contributing Zone (TCEQ, 2022) (Attachment F, Figure 2).

2.5 SURFACE SOILS

Eight soil units are mapped within the subject site (NRCS, 2022) (Appendix F, Figure 4). The soil units are described in further detail below.

Bolar clay loam, 1 to 3% slopes (BrB) is a gently sloping soil found on concave valley slopes and foot slopes of hills on uplands in the Edwards Plateau Land Resource Area. The soil has a surface layer of grayish-brown and dark brown clay about 14 inches thick. The next layer is brown clay loam which extends to a depth of about 28 inches. The underlying material is marl.

Brackett-Rock Outcrop-Comfort complex, 1 to 8% slopes (BtD) consists of loamy and clayey soils and rock outcrop on uplands in the Edwards Plateau Land Resource Area. Brackett soil makes up 50% of the complex on average, Rock outcrop makes up 20% on average, and Comfort soil makes up 15% on average. The surface layer of Brackett soil is grayish-brown clay loam about 6 inches thick, with pale brown clay loam subsoil extending to a depth of 17 inches. The Comfort soil surface layer is a dark brown stony clay about 4 inches thick, with dark reddish-brown subsoil extending to a depth of 11 inches. The Rock outcrop consists of exposures of limestone bedrock.

Brackett-Rock Outcrop-Real complex, 8 to 30% slopes (BtG) consists of shallow, loamy soils and rock outcrop on uplands in the Edwards Plateau Land Resource Area. Slopes are convex and range from 8 to 30%. Slopes have a benched appearance because of the horizontal layers of Rock outcrop. The Real and Brackett soils are between the areas of Rock outcrop. Brackett soil makes up 35% of the complex on average, Rock outcrop makes up 25% of the complex on average, and Real soil makes up 20% of the complex on average. The Real soil surface layer is very dark grayish-brown gravelly clay loam about 12 inches thick, and the underlying material is weakly cemented limestone.

Denton silty clay, 1 to 3% slopes (DeB) is a moderately deep, gently sloping soil on valley slopes on uplands in the Edwards Plateau Land Resource Area. Slopes are slightly convex to concave. The soil has a surface layer of dark grayish-brown silty clay about 14 inches thick. The layer below that extends to a depth of 25 inches and is dark brown silty clay. The subsoil is a yellowish-brown silty clay that extends to a depth of 33 inches. The underlying material, to a depth of 36 inches, is light brown and reddish-yellow silty clay. It is underlain by fractured limestone interbedded with calcareous clayey marl.

Doss silty clay, 1 to 5% slopes (DoC) is a shallow, gently sloping soil found on convex slopes of low hills and ridges on uplands in the Edwards Plateau Land Resource Area. The

surface layer of this soil is dark grayish-brown silty clay about 9 inches thick. The subsoil extends to a depth of 18 inches and is yellowish-brown clay loam. The underlying material, to a depth of about 24 inches, is weakly cemented limestone and marl.

Real-Comfort-Doss Complex, 1 to 8% slopes (RcD) consists of clay loam. The underlying material is weakly cemented limestone and marl. Permeability is moderately slow to moderate and the available water capacity is very low to low. The shrink-swell capacity is low.

Sunev clay loam, 1 to 3% slopes (SuB) is a deep, gently sloping soil found on valley slopes and foot slopes of hills on uplands in the Edwards Plateau Land Resource Area. Slopes are convex to concave and average 2%. The surface layer of this soil is dark grayish-brown clay loam about 11 inches thick. The subsoil, to a depth of 35 inches, is brown clay loam; to a depth of 45 inches, it is reddish-yellow clay loam.

Tarpley clay, 1 to 3% slopes (TaB) is a shallow, gently sloping soil on planes to slightly concave slopes on uplands in the Edwards Plateau Land Resource Area. The surface layer is typically dark brown clay about 6 inches thick. The next layer, to a depth of 17 inches, is dark reddish-brown clay. The underlying layer is fractured, indurated limestone bedrock.

2.6 WATER WELLS

A review of TCEQ and Texas Water Development Board (TWDB) records revealed three water wells on the subject site and 52 water wells within 0.5 miles of the subject site (TCEQ, 2022; TWDB, 2022). Horizon observed four private water wells on the subject site.

If the on-site wells are not intended for future use, they should be capped or properly abandoned according to the Administrative Rules of the Texas Department of Licensing and Regulation (TDLR), 16 Texas Administrative Code (TAC), Chapter 76. TCEQ publication RG-347, "Landowner's Guide to Plugging Abandoned Water Wells," provides specific guidance. If a well is intended for use, it must comply with 16 TAC §76.

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

2.7 GEOLOGY

Literature Review

The subject site is underlain by the Upper Member of the Glen Rose Formation (Kgr(u)), described as limestone, dolomite, and marl subdivided into two units by *Corbula* bed (C). Alternating resistant and recessive beds form stairstep topography. The limestone is aphanitic to fine grained, hard to soft and marly, light gray to yellowish-gray; the dolomite is fine grained, porous, yellowish-brown. Marine megafossils include molluscan steinkerns, rudistids, oysters, and echinoids. The upper part is relatively thinner bedded, more dolomitic, and less fossiliferous than the lower part, with a maximum thickness of about 250 feet (UT-BEG, 1981).

The site Stratigraphic Column is provided as Attachment B, and the Site Geologic Map is Attachment D.

Field Assessment

Horizon observed 11 man-made features on the subject site: an abandoned quarry (M-1), four private water wells (M-2, M-4, M-5, and M-6), a dry stock pond (M-3), a possible cistern (M-7), and test excavation pits (M-8 to M-11). The locations of these features are included in the Site Geologic Map provided as Attachment D.

Horizon observed no geologic or man-made features on the subject site that meet the TCEQ definition of a potential recharge feature.

3.0 CONCLUSIONS AND RECOMMENDATIONS

No geologic or man-made features were identified at the subject site that would require protection or mitigation pursuant to TCEQ rules for protection of the Edwards Aquifer (30 TAC 213).

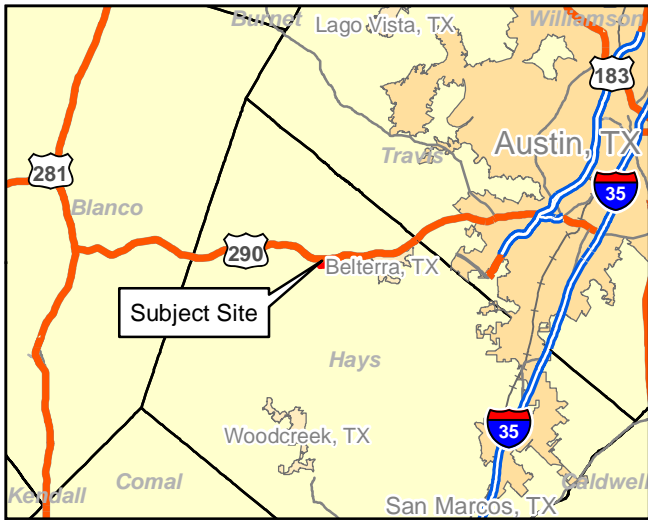
The subject site generally appears well-suited to development prospectuses. It should be noted that soil and drainage erosion would increase with ground disturbance. Native grasses and the cobbly content of the soil aid to prevent erosion. Soil and sedimentation fencing should be placed in all appropriate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

Because the subject site is located over the Edwards Aquifer Contributing Zone, it is possible that subsurface voids underlie the site. If any subsurface voids are encountered during site development, work should halt immediately so that a geologist may assess the potential for the void(s) to provide meaningful contribution to the Edwards Aquifer and/or local perched aquifer(s).

4.0 REFERENCES

- (COA) City of Austin. Geographic Information Systems / Maps. *2017 2-foot Contours*, <<http://austintexas.gov/departments/gis-and-maps/gis-data>>. Updated 15 August 2019.
- (Nearmap) Nearmap US, Inc. Nearmap Vertical™ digital orthographic photograph, <<https://go.nearmap.com>>. Imagery date 27 September 2022.
- (NRCS) US Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey, <<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>>. Soil map data layer updated 12 September 2019. Accessed 31 October 2022.
- (OSM) OpenStreetMap contributors. OpenStreetMap, <<http://www.openstreetmap.org>>. Available under the Open Database License (www.opendatacommons.org/licenses/odbl). Accessed 28 October 2022.
- (TCEQ) Texas Commission on Environmental Quality. Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones. Revised October 2004.
- _____. RG-348, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices. Revised July 2005.
- _____. Optional Enhanced Measures for the Protection of Water Quality in the Edwards Aquifer (Revised). Appendix A to RG-348, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices. September 2007.
- _____. Edwards Aquifer Protection Program. Edwards Aquifer Viewer, <<http://www.tceq.state.tx.us/field/eapp/viewer.html>>. Accessed 28 October 2022.
- (TWDB) Texas Water Development Board. Water Information Integration and Dissemination System. TWDB Groundwater Database (ArcIMS), <http://wiid.twdb.state.tx.us/ims/wmm_drl/viewer.htm?>. Accessed 31 October 2022.
- (TWSC) United States Geological Survey, Texas Water Science Center. Geologic Database of Texas, <<https://txpub.usgs.gov/txgeology/>>. Updated 1 February 2014; Accessed 28 October 2022.
- (UT-BEG) V.E. Barnes, University of Texas Bureau of Economic Geology. *Geologic Atlas of Texas*, Llano Sheet. 1981.
- (USGS) US Geological Survey. 7.5-minute series topographic maps, Dripping Springs, Texas, quadrangle. 1986.

ATTACHMENT F
ADDITIONAL SITE MAPS



Legend

Subject Site

Horizon
Environmental Services, Inc.

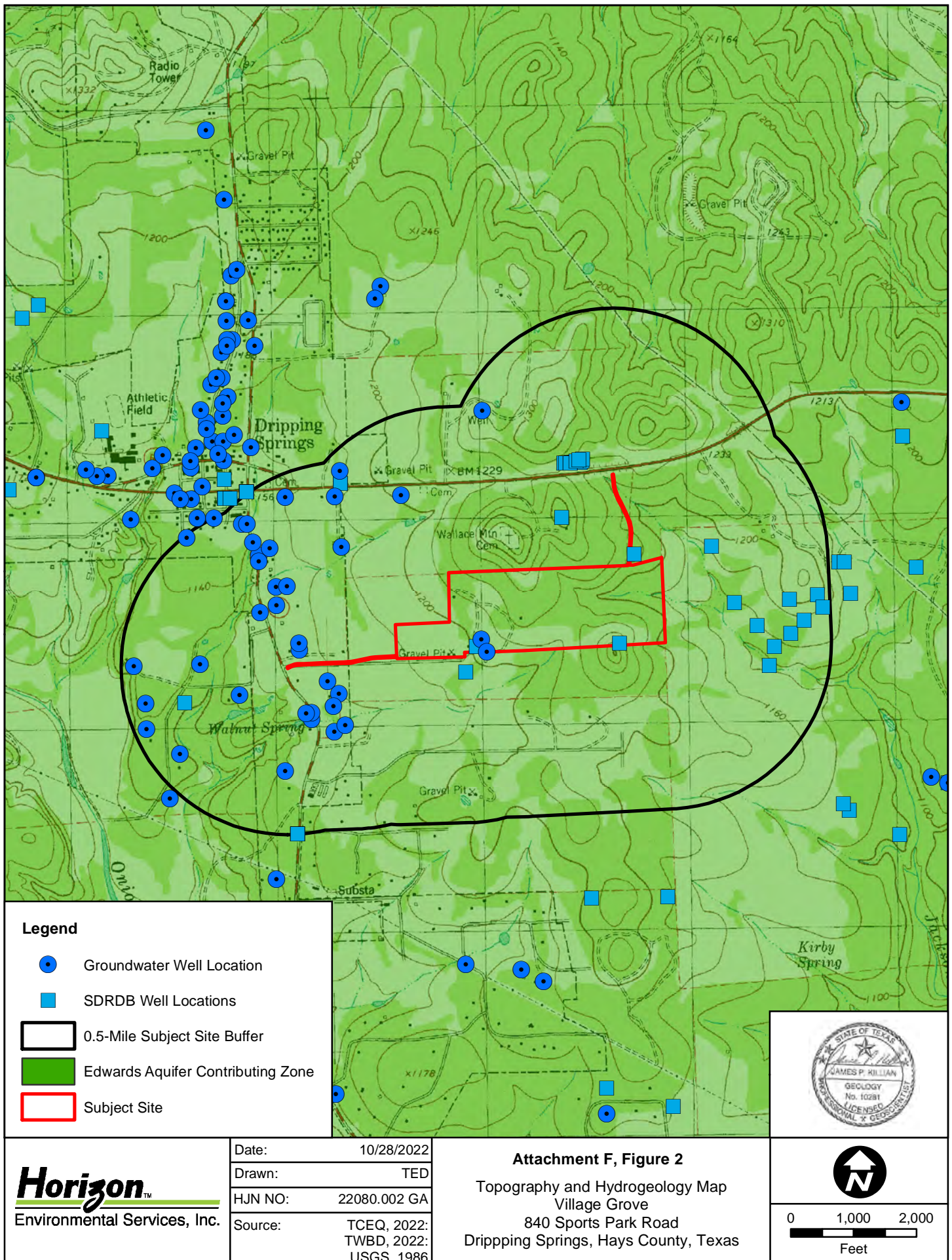
Date: 10/28/2022
Drawn: TED
HJN NO: 22080.002 GA
Source: OSM, 2022

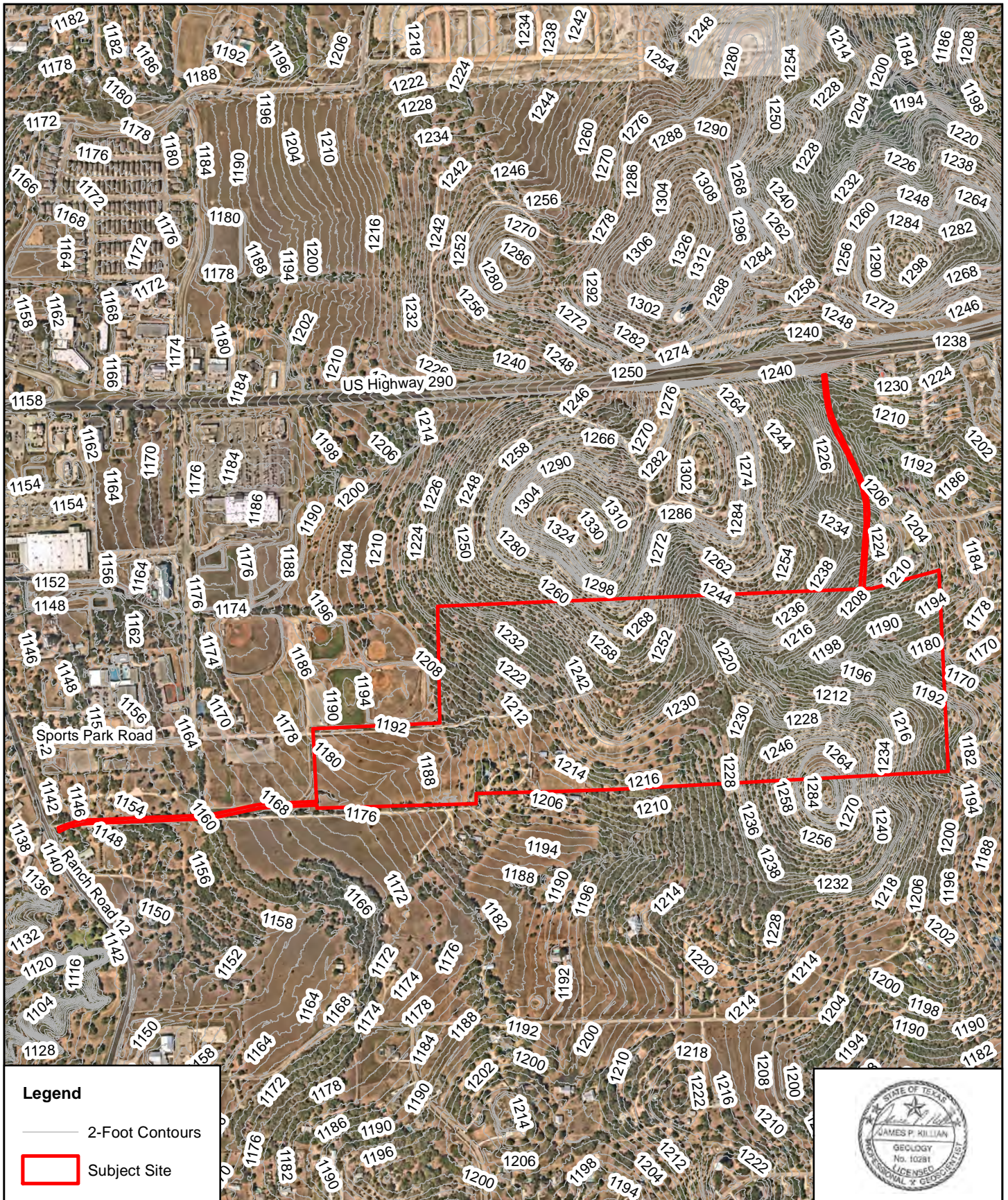
Attachment F, Figure 1

Vicinity Map
Village Grove
840 Sports Park Road
Dripping Springs, Hays County, Texas



0 1,000 2,000
Feet





Legend

— 2-Foot Contours

□ Subject Site

Horizon
Environmental Services, Inc.

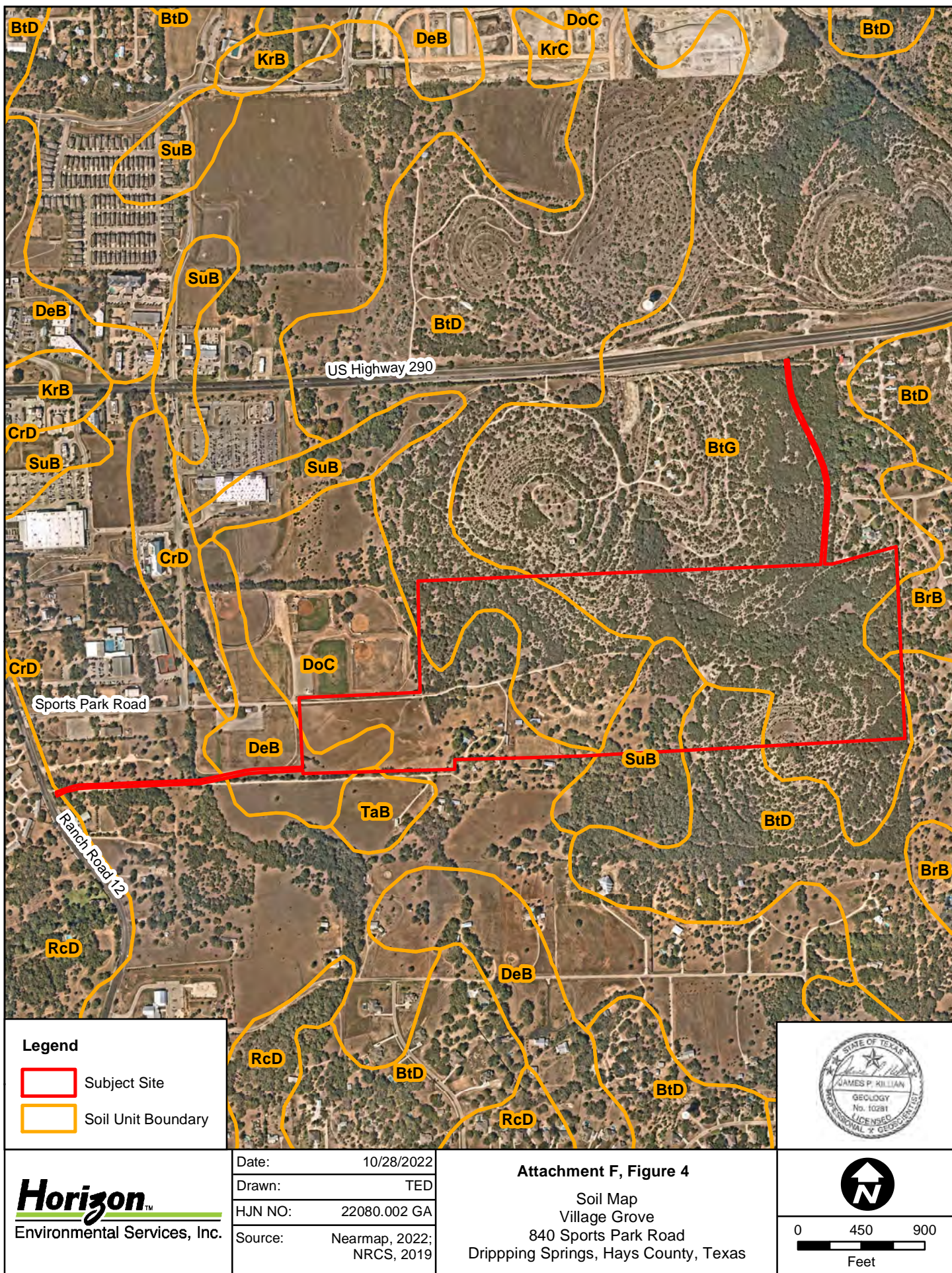
Date:	10/28/2022
Drawn:	TED
HJN NO:	22080.002 GA
Source:	COA, 2019; Nearmap, 2022

Attachment F, Figure 3

Site Topographic Map
Village Grove
840 Sports Park Road
Dripping Springs, Hays County, Texas



0 450 900
Feet



ATTACHMENT G
SITE PHOTOGRAPHS



PHOTO 1
Abandoned quarry (M-1)



PHOTO 2
Abandoned quarry (M-1)



PHOTO 3
Private water well (M-2)



PHOTO 4
Private water well (M-2)



PHOTO 5
Dry stock pond (M-3)



PHOTO 6
Private water well (M-4)

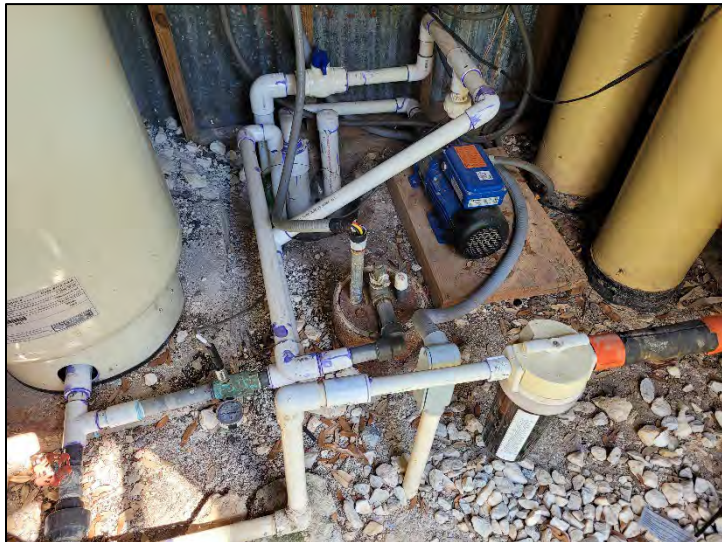


PHOTO 7
Private water well (M-4)



PHOTO 8
Private water well (M-5)



PHOTO 9
Private water well (M-6)



PHOTO 10
Possible cistern (M-7)



PHOTO 11
Possible cistern (M-7)



PHOTO 12
Test excavation pit (M-8)



PHOTO 13
Test excavation pit (M-8)



PHOTO 14
Test excavation pit (M-9)



PHOTO 15
Test excavation pit (M-10)



PHOTO 16
Test excavation pit (M-11)



PHOTO 17

General view of the northern portion of the subject site



PHOTO 18

General view of the northern portion of the subject site



PHOTO 19

General view of the northern portion of the subject site



PHOTO 20

General view of the northern portion of the subject site



PHOTO 21
General view of the northern portion of the subject site



PHOTO 22
General view of the western portion of the subject site



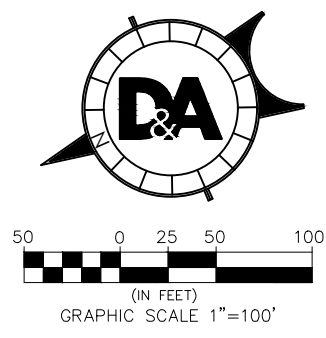
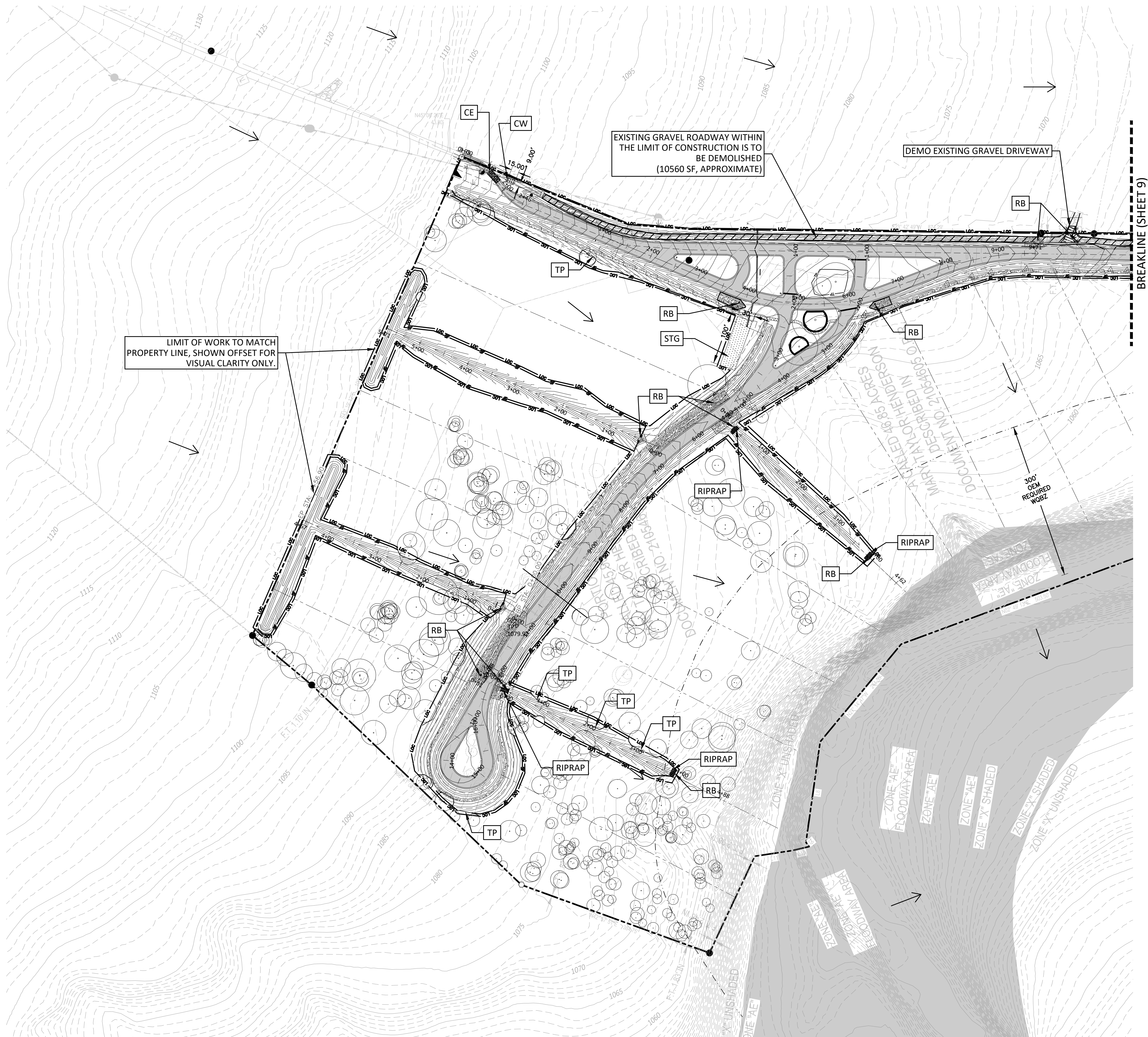
PHOTO 23
General view of the western portion of the subject site



PHOTO 24
General view of the western portion of the subject site

Appendix 7.2: Impervious Cover Calculations

Drawing: C:\pwworking\JF\dc-prod\jonathan.lanier\1401492\2408002 CD ESC & DEMO.dwg
User: JBAUSTIK
Date: 02-25-2023
Plot Date/Time: Feb. 10 25 - 10:23:41



LEGEND

- SUBDIVISION BOUNDARY
- LOT LINES
- EASEMENTS
- NOAA ATLAS 14 100-YR DEVELOPED FLOODPLAIN
- OVERALL LIMITS OF CONSTRUCTION
- CE TEMPORARY STONE CONSTRUCTION ENTRANCE. SEE DETAIL SHEET
- RB ROCK BERM SEE DETAIL SHEET
- SF SILT FENCE SEE DETAIL SHEET
- TP TREE PROTECTION FENCE SEE DETAIL SHEET
- TREES TO REMAIN AND TO REMOVE
- STG STAGING AND SPOILS AREA
- CW CONCRETE WASH OUT AREA
- BACK-FILL STORAGE AREA
- GRAVEL ROADWAY TO BE DEMOLISHED
- GRAVEL DRIVEWAY TO BE DEMOLISHED AND RECONSTRUCTED
- FLOW ARROW

SILVER CREEK SUBDIVISION Erosion Control	
Silt Fence	7,677 LF
Tree Protection Fencing	1,097 LF
Rock Berm	116 LF
Staging Area	1 EACH
Construction Entrance	1 EACH
Concrete Washout	1 EACH
Limits of Construction	10.05 ACRES



WARNING !!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

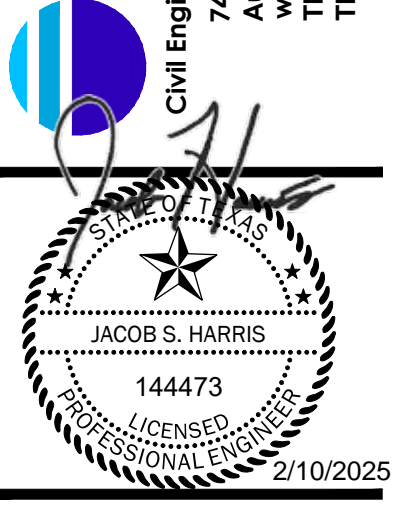
ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

- NOTES:
- PROPOSED CHANNELS WITHIN PROJECT AREA CAN BE USED AS TEMPORARY SEDIMENTATION BASIN.
 - 100 FT NATIVE BUFFER TO BE CLEARED OF CEDARS AND RE-SEED WITH NATIVE CENTRAL TEXAS DRAUGHT TOLERANT GRASSES. GRASS MIX SHALL BE APPROVED BY THE CITY.
 - WITHIN 100 FT NATIVE BUFFER, ALL HEALTHY OAK TREES 8 INCHES IN DIAMETER AND LARGER SHALL REMAIN.
 - SEE SHEET 10 FOR TREE LIST

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	130,000	÷ 43,560 =	2.98
Parking		÷ 43,560 =	
Other paved surfaces	239,825	÷ 43,560 =	5.51
Total Impervious Cover	369,825	÷ 43,560 =	8.49

Total Impervious Cover 8.49 ÷ Total Acreage 70 X 100 = 12.13% Impervious Cover



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

**EROSION & SEDIMENTATION
CONTROL PLAN & DEMOLITION
PLAN 1**

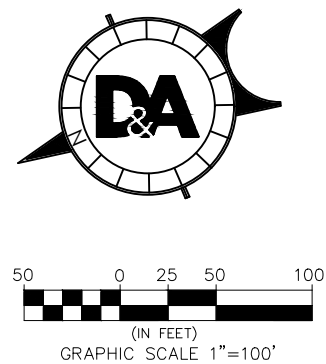
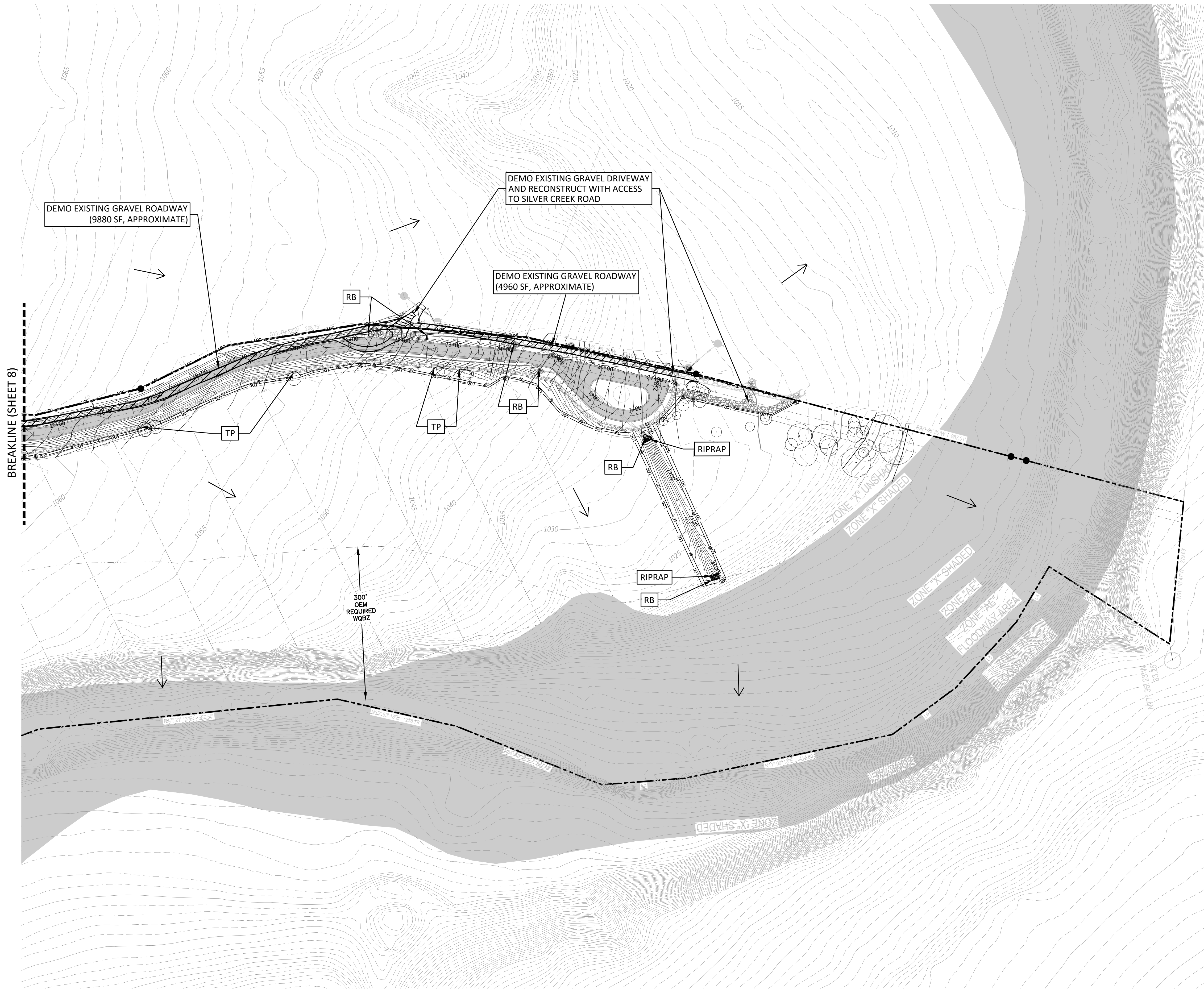
Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

11

OF 44

Project No.:
2408-002



LEGEND

- SUBDIVISION BOUNDARY
- LOT LINES
- EASEMENTS
- NOAA ATLAS 14 100-YR DEVELOPED FLOODPLAIN
- OVERALL LIMITS OF CONSTRUCTION
- LOC
- CE TEMPORARY STONE CONSTRUCTION ENTRANCE. SEE DETAIL SHEET
- RB ROCK BERM SEE DETAIL SHEET
- SF SILT FENCE SEE DETAIL SHEET
- TP TREE PROTECTION FENCE SEE DETAIL SHEET
- TREES TO REMAIN AND TO REMOVE
- STG STAGING AND SPOILS AREA
- CW CONCRETE WASH OUT AREA
- BACK-FILL STORAGE AREA
- GRAVEL ROADWAY TO BE DEMOED
- GRAVEL DRIVEWAY TO BE DEMOED AND RECONSTRUCTED
- FLOW ARROW



WARNING !!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

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

SILVER CREEK SUBDIVISION

Erosion Control

Silt Fence	7,677 LF
Tree Protection Fencing	1,097 LF
Rock Berm	116 LF
Staging Area	1 EACH
Construction Entrance	1 EACH
Concrete Washout	1 EACH
Limits of Construction	10.05 ACRES

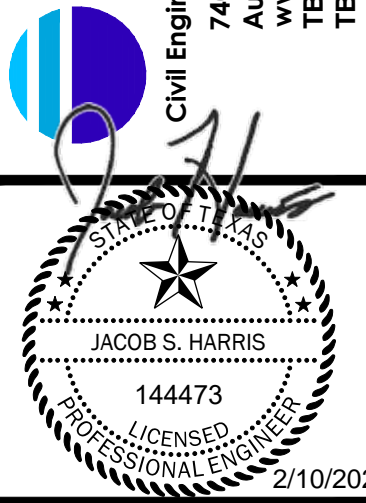
NOTES:

- PROPOSED CHANNELS WITHIN PROJECT AREA CAN BE USED AS TEMPORARY SEDIMENTATION BASIN.
- 100 FT NATIVE BUFFER TO BE CLEARED OF CEDARS AND RE-SEEDED WITH NATIVE CENTRAL TEXAS DRAUGHT TOLERANT GRASSES. GRASS MIX SHALL BE APPROVED BY THE CITY.
- WITHIN 100 FT NATIVE BUFFER, ALL HEALTHY OAK TREES 8 INCHES IN DIAMETER AND LARGER SHALL REMAIN.

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	130,000	÷ 43,560 =	2.98
Parking		÷ 43,560 =	
Other paved surfaces	239,825	÷ 43,560 =	5.51
Total Impervious Cover	369,825	÷ 43,560 =	8.49

Total Impervious Cover 8.49 ÷ Total Acreage 70 X 100 = 12.13% Impervious Cover



LUNAROYA SUBDIVISION

DRIPPING SPRINGS, TX

EROSION & SEDIMENTATION CONTROL PLAN & DEMOLITION PLAN 2

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

12

OF 44

Project No.:
2408-002

Appendix 7.3: Table 2-1

Table 2-1. Minimum Protective Standards for Sewer and Storm Drain Trenches

(from Table 5-1 Edwards Aquifer Guidance Document RG-348, Revised July 2005)				
Case	Description	Concern	Treatment	Notification/ Approval
1	Sensitive feature is less than or equal to six (6) inches in all directions and is located above the embedment of the pipe. All rock within and surrounding the feature is sound.	Not environmental nor pipe integrity	No abatement required.	None required.
2	Sensitive feature is either larger than six (6) inches in at least one direction or is located within the level of the pipe embedment. No portion of the sensitive feature may intersect the plane of trench floor. All rock within and surrounding the feature is sound.	Environmental	The sensitive feature shall be filled with concrete. Gravel to "fist sized" rock or sacks of gravel may be placed in feature prior to placement of the concrete as long as a minimum of eighteen (18) inches of concrete is used to close the feature).	Requires notification and prior written approval from the TCEQ.
3	Sensitive feature intersects the plane of the trench floor is less than four (4) feet in any direction. All rock within and surrounding the feature is sound.	Environmental	Sensitive feature shall be filled with concrete. Gravel to "fist sized" rock or sacks of gravel may be placed in feature prior to placement of concrete at least eighteen (18) inches of concrete is used to close the feature. The sewer line or storm sewer lines shall be concrete encased for width of the sensitive feature plus a minimum of five (5) feet on either end. The encasement shall provide a minimum of six (6) inches of concrete on all sides of the pipe and shall have compression strength of at least 2,500 psi (28-day strength). The concrete may be steel reinforced.	Requires notification and prior written approval from the TCEQ.
4	Sensitive feature intersects the plane of the trench floor and any opening in trench floor is greater than four (4) feet in any direction or the trench floor is unstable.	Environmental & Structural	Requires an engineered resolution at least as protective as Case 3 above. Additional protective measures, including rerouting of line, may be required.	Requires notification and prior written approval from the TCEQ.

Appendix 7.4: Figures 2-1 and 2-2

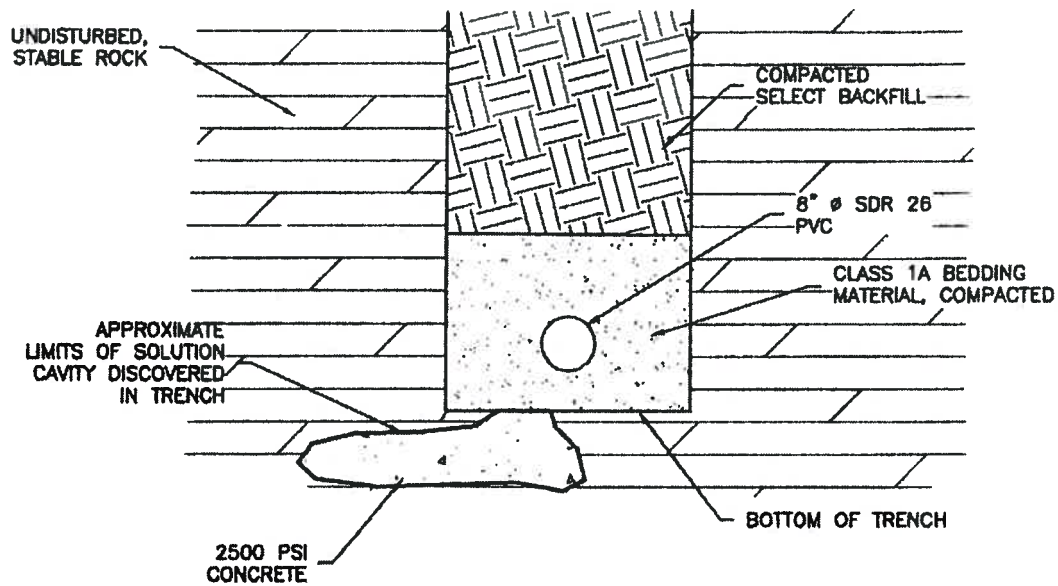


Figure 2-1. Filled Solution Feature (courtesy Kathryn Woodlee)

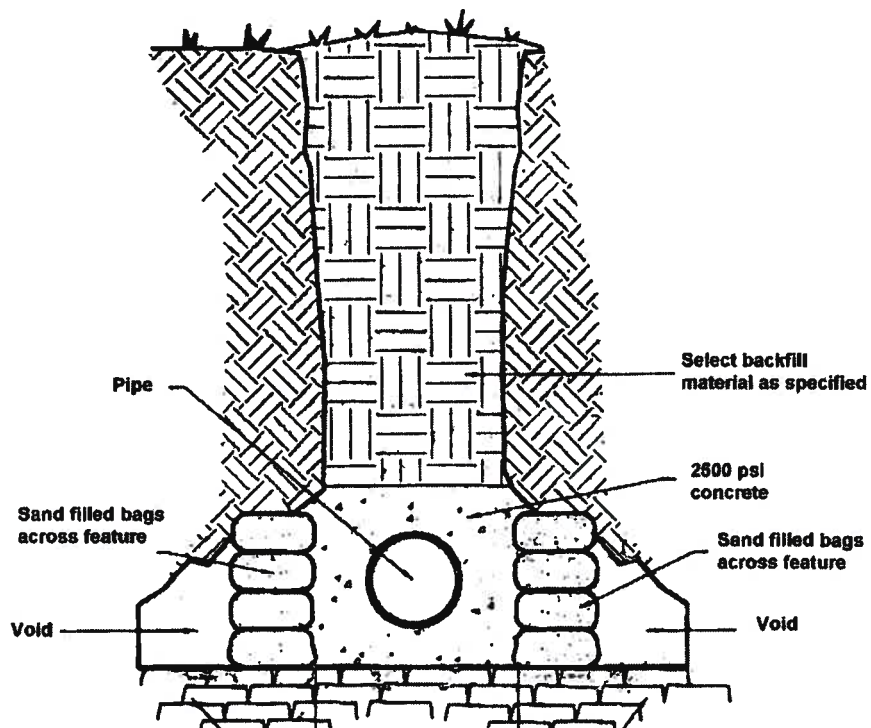


Figure 2-2. Example of Filled Void in Trench Excavation (courtesy Donald Bayes)

Appendix 7.5: Figures 2-3 and 2-4

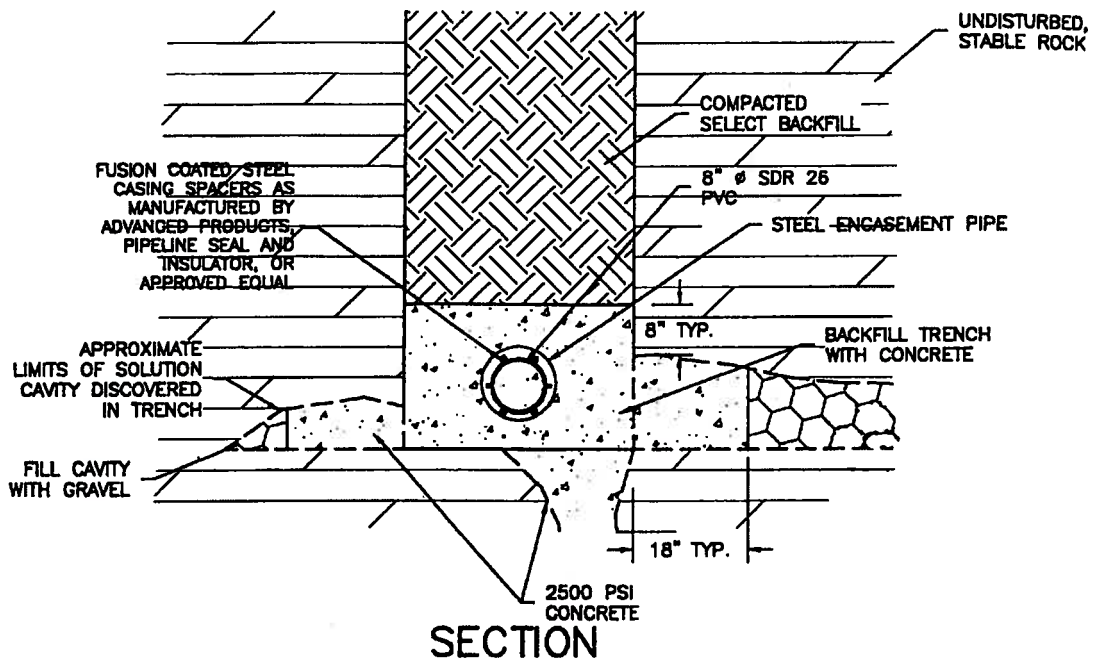


Figure 2-3. Utility Pipe Encased in External Steel Pipe (courtesy of Kathryn Woodlee)

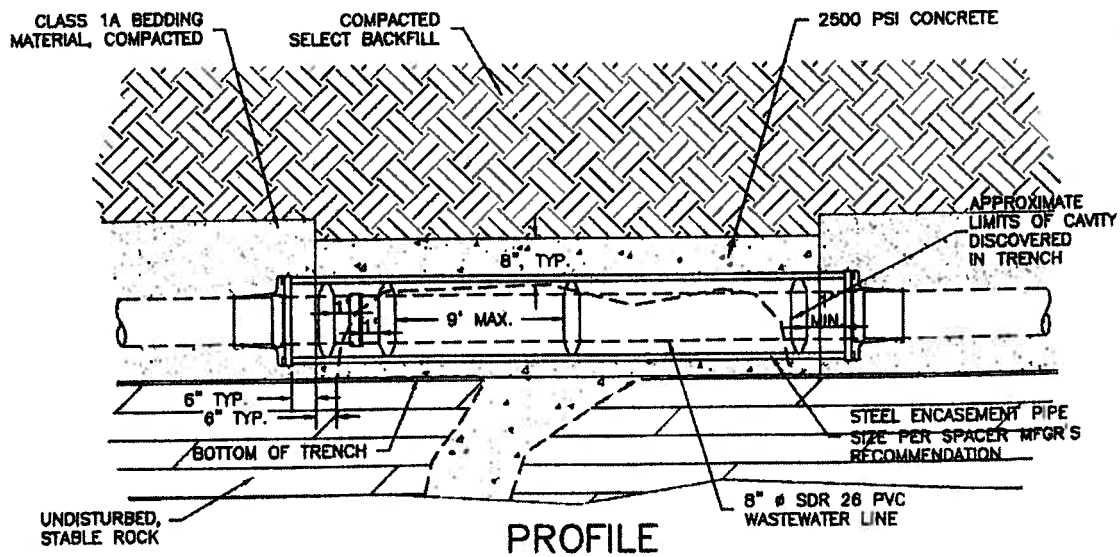


Figure 2-4. Profile View of Encased Utility Pipe (courtesy of Kathryn Woodlee)

Appendix 7.6: Figure 2-5

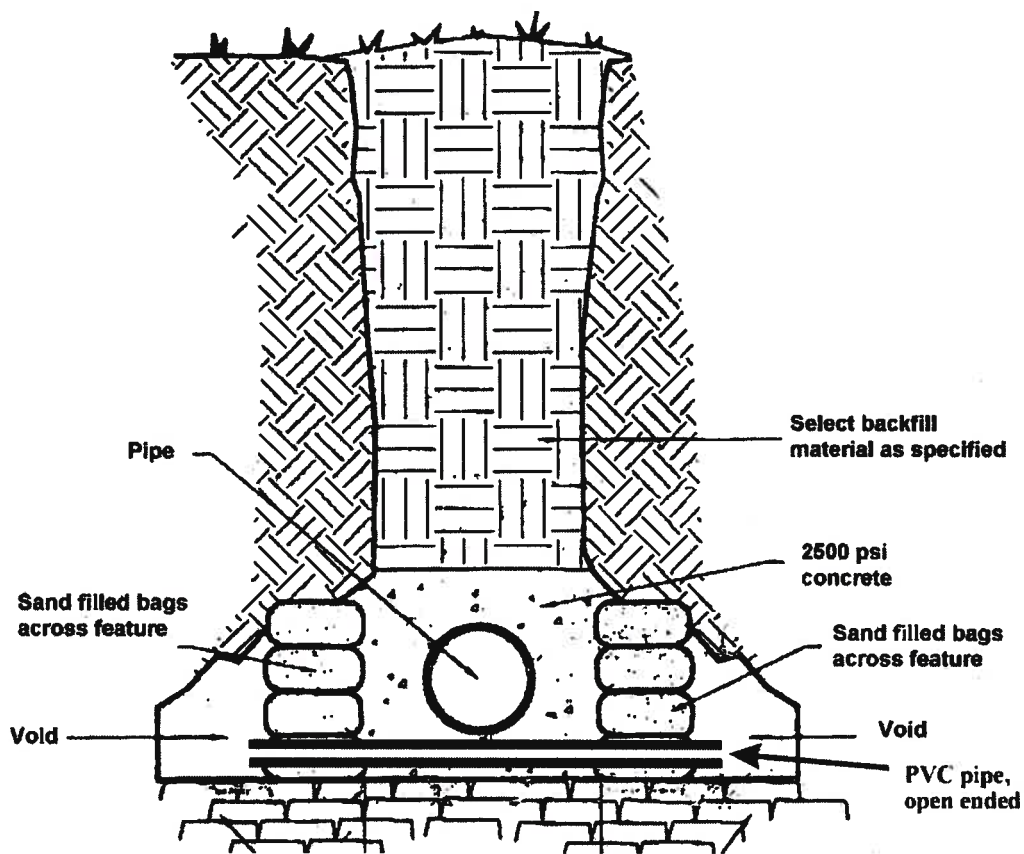


Figure 2-5. Cavity Fill with Pipe to Preserve Hydrologic Connectivity

SECTION 10

CONSTRUCTION PLANS

SUBDIVISION PLANS
for
LUNAROYA
DRIPPING SPRINGS, TEXAS
FEBRUARY 7, 2025

OWNER: DRIPPING SPRINGS OWNER, LLC
3990 HILLSBORO PIKE, SUITE 400
NASHVILLE, TN 37215

CONTACT: BRIAN SEWELL
(615) 778-2889
BRIAN.SEWELL@SOUTHERNLAND.COM

ENGINEER: DOUCET ENGINEERS
7401B HWY 71 WEST, SUITE 160
AUSTIN, TX 78735

CONTACT: JACOB HARRIS
(512) 583-2600
JACHARRIS@KLEINFELDER.COM

LAND SURVEY: MATKIN HOOVER ENGINEERING & SURVEYING
3303 SHELL ROAD, SUITE 3
GEORGETOWN, TX, 78628

CONTACT: KYLE L. PRESSLER, R.P.L.S.
(512) 868-2244


PROJECT ADDRESS: SILVER CREEK ROAD
DRIPPING SPRINGS, TX 78620

LEGAL DESCRIPTION: A 70.00 ACRE TRACT OF LAND, LOCATED IN PART OF THE MARCUS D. RAPER SURVEY, ABSTRACT NO. 394, IN HAYS COUNTY, TEXAS, BEING A PORTION OF A CALLED 45.90 ACRE TRACT OF LAND AS DESCRIBED OF RECORD IN DOCUMENT NO. 21054605, AND ALL OF A CALLED 46.85 ACRE TRACT OF LAND AS DESCRIBED OF RECORD IN DOCUMENT NO. 21054605, BOTH OF THE OFFICIAL PUBLIC RECORDS OF HAYS COUNTY, TEXAS.

WATERSHED STATUS: THIS PROJECT IS LOCATED WITHIN THE EDWARDS AQUIFER CONTRIBUTING ZONE.

FLOODPLAIN: ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP FOR HAYS COUNTY, TEXAS, COMMUNITY PANEL NUMBER 4803210106F, DATED SEPTEMBER 2, 2005. A PORTION OF THIS SUBDIVISION IS LOCATED WITHIN THE 100-YEAR FLOOD PLAIN.

I CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THESE ENGINEERING DOCUMENTS ARE COMPLETE, ACCURATE AND ADEQUATE FOR THE INTENDED PURPOSES, INCLUDING CONSTRUCTION, BUT ARE NOT AUTHORIZED FOR CONSTRUCTION PRIOR TO FORMAL CITY APPROVAL.

SUBMITTED BY: 
JACOB HARRIS, P.E.
DOUCET & ASSOCIATES
7401 B HWY. 71 WEST, SUITE 160
AUSTIN, TEXAS 78735
(512) 583-2600

2/10/2025
DATE

APPROVED BY: CITY OF DRIPPING SPRINGS SITE
DEVELOPMENT PERMIT # SUB2023-0008

DATE

MICHELLE FISCHER - CITY ADMINISTRATOR

DATE

CHAD GILPIN, P.E. - CITY ENGINEER

DATE

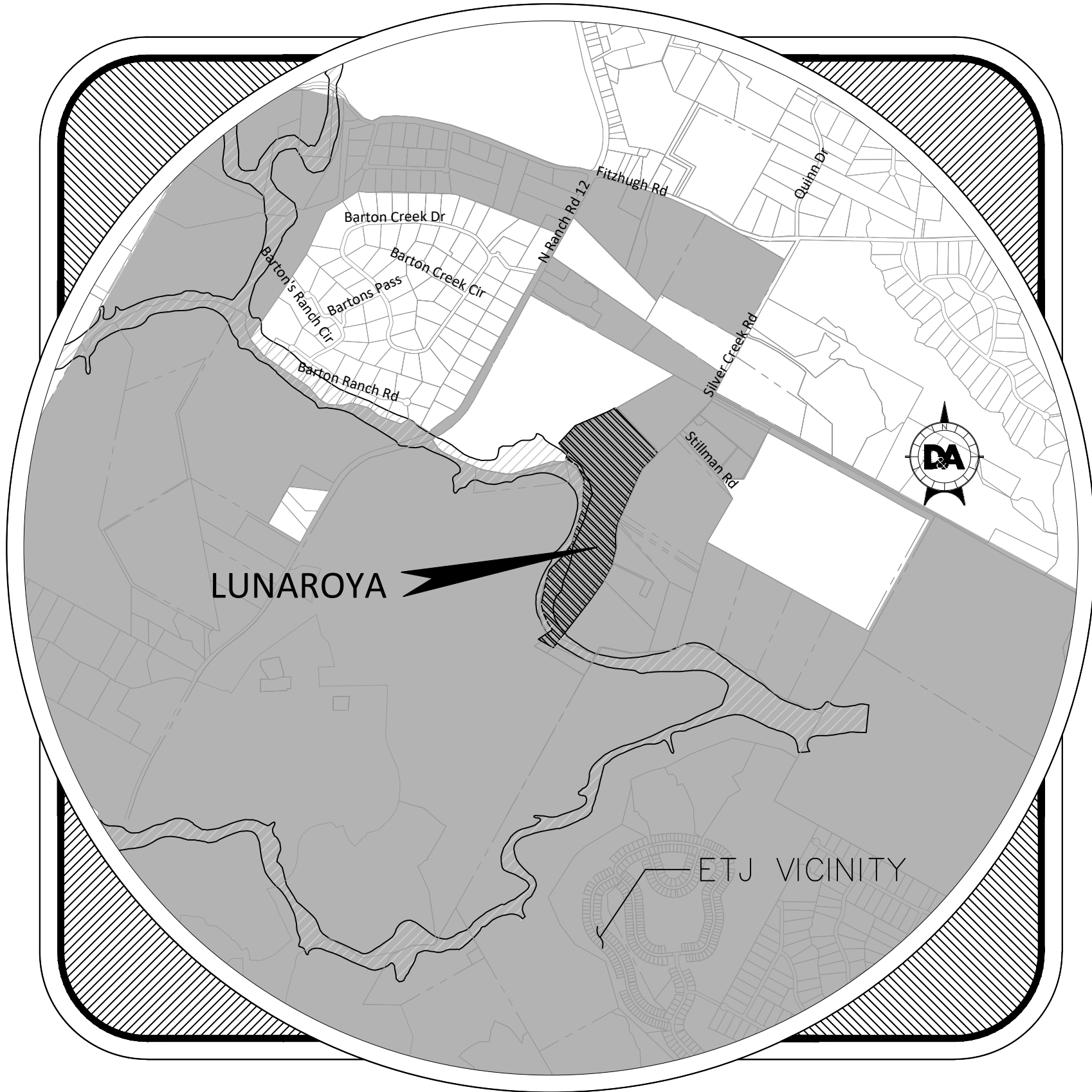
WEST TRAVIS COUNTY PUA

DATE

MUNICIPALITY Permit Number

REVISIONS:

NO.	DESCRIPTION	REVISE (R)/ADD (A) SHEET NO'S	TOTAL # SHEET IN PLAN SET	NET CHANGE IMP. COVER	SITE IMP. COVER	% SITE IMP. COVER	APPROVED DATE	TNR	COA
1									



VICINITY MAP
1" = 2000'



DOUCET

Civil Engineering // Entitlements // Geospatial
Austin, Tx. (North & South) - Gonzales, Tx.
San Antonio, Tx. - Houston, Tx.
www.doucetengineers.com

ELECTRONIC FILE NOTE:

AT THE BIDDER'S/CONTRACTOR'S REQUEST, DOUCET WILL FURNISH ELECTRONIC FILES AS SUPPORT DOCUMENTS FOR THE APPROVED CONSTRUCTION DOCUMENTS. THE ELECTRONIC FILES ARE PROVIDED AS A SERVICE AND ARE SUBORDINATE TO THE APPROVED CONTRACT DOCUMENTS. IN THE EVENT THE APPROVED CONTRACT DOCUMENTS ARE MODIFIED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPARE THE ELECTRONIC DOCUMENTS TO THE MODIFIED CONTRACT DOCUMENTS PRIOR TO RELEASE OF THE ELECTRONIC FILES. AN ELECTRONIC FILE RELEASE AGREEMENT WITH DOUCET AND ASSOCIATES MUST BE SIGNED BY THE CONTRACTOR.

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

SHEET LIST	
Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL NOTES
3	WTCPUA NOTES
4	PRELIMINARY PLAN 1
5	PRELIMINARY PLAN 2
6	PRELIMINARY PLAN 3
7	PRELIMINARY PLAN 4
8	EXISTING CONDITIONS I
9	EXISTING CONDITIONS II
10	TREE LIST
11	EROSION & SEDIMENTATION CONTROL PLAN & DEMOLITION PLAN 1
12	EROSION & SEDIMENTATION CONTROL PLAN & DEMOLITION PLAN 2
13	STRIPING & SIGNAGE PLAN
14	OVERALL ROADWAY PLAN
15	SILVER CREEK PLAN AND PROFILE 1
16	SILVER CREEK PLAN AND PROFILE 2
17	SILVER CREEK PLAN AND PROFILE 3
18	SILVER CREEK ENTRY LANE
19	SILVER CREEK CUL DE SAC DRIVEWAY CONNECTION PLAN AND PROFILE
20	SKYWARD LANE PROFILE 1
21	SKYWARD LANE PROFILE 2
22	SKYWARD LANE PROFILE 3
23	SILVER CREEK CULVERTS PLAN & PROFILE 1
24	SILVER CREEK CULVERTS PLAN & PROFILE 2
25	SILVER CREEK CULVERTS PLAN & PROFILE 3
26	SKYWARD CULVERTS PLAN & PROFILE
27	OVERALL WATER PLAN
28	WATER PLAN 1
29	WATER PLAN 2
30	WATER PLAN 3
31	WATER PLAN 4
32	OVERALL EXISTING DRAINAGE AREA MAP
33	OVERALL PROPOSED DRAINAGE AREA MAP
34	PROPOSED DRAINAGE AREA MAP
35	PROPOSED CHANNEL SECTIONS
36	EROSION CONTROL DETAILS 1
37	EROSION CONTROL DETAILS 2
38	TYPICAL SECTIONS
39	ROADWAY DETAILS 1
40	ROADWAY DETAILS 2
41	UTILITY DETAILS 1
42	UTILITY DETAILS 2
43	DRAINAGE DETAILS 1
44	DRAINAGE DETAILS 2

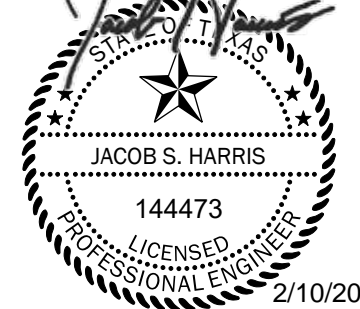
NOTES:

- OWNERSHIP AND MAINTENANCE OF ALL NON-SINGLE FAMILY LOTS DRAINAGE EASEMENTS FOR STORMWATER AND WATER QUALITY FACILITIES (EXCLUDING PUBLIC PARKLANDS) WILL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION.
- UTILITIES WILL BE PROVIDED BY THE FOLLOWING:
 - WATER - WEST TRAVIS COUNTY PUA
 - WASTEWATER - ADVANCED ON-SITE SEWAGE FACILITIES
 - ELECTRICITY - P.E.C.
 - GAS - TEXAS GAS SERVICE
- FINAL DETERMINATION FOR EASEMENTS TO BE DETERMINED WITH FINAL PLAT AND CONSTRUCTION PLANS.
- STORM WATER SHALL BE CONVEYED VIA DRAINAGE EASEMENTS.
- DESIGN STANDARDS PER CITY OF DRIPPING SPRINGS STANDARDS AND HAYS COUNTY STANDARDS.
- A 15 FT. PUBLIC UTILITY EASEMENT ADJACENT TO ALL PUBLIC STREETS IS HEREBY DEDICATED.
- NO OBJECTS, INCLUDING BUT NOT LIMITED TO BUILDINGS, FENCES, OR LANDSCAPING, SHALL BE ALLOWED IN A DRAINAGE EASEMENT.
- THE PROPERTY OWNER SHALL PROVIDE ACCESS TO DRAINAGE AND UTILITY EASEMENTS AS MAY BE NECESSARY AND SHALL NOT PROHIBIT ACCESS FOR INSPECTION, OPERATION AND MAINTENANCE.
- ALL DRAINAGE EASEMENTS ON PRIVATE PROPERTY SHALL BE MAINTAINED BY THE PROPERTY OWNER OR HIS/HER ASSIGNS.
- ALL (NEW) TELEPHONE AND CABLE TELEVISION UTILITY LINES AND ALL ELECTRIC UTILITY SERVICE LINES AND WIRES SHALL BE PLACED UNDERGROUND.
- ALL ELECTRICAL, CABLE TELEVISION, AND TELEPHONE SUPPORT EQUIPMENT (TRANSFORMERS, AMPLIFIERS, SWITCHING DEVICES, ETC.) NECESSARY FOR UNDERGROUND INSTALLATIONS IN SUBDIVISIONS SHALL BE PAD MOUNTED OR PLACE UNDERGROUND IN A PUBLIC UTILITY EASEMENT.
- A PROPERTY OWNERS ASSOCIATION WILL BE CREATED BY RESTRICTIVE COVENANTS AND MUST BE SUBMITTED TO THE CITY AT THE TIME OF FINAL PLAT.
- NO PORTION OF THIS PROPERTY IS LOCATED IN THE EDWARDS AQUIFER RECHARGE ZONE. THIS PROPERTY IS LOCATED ENTIRELY IN THE EDWARDS AQUIFER CONTRIBUTING ZONE.
- POST-DEVELOPMENT CONDITIONS RUNOFF RATE SHALL BE NO GREATER THAN THE PRE-DEVELOPED CONDITIONS FOR 2-, 5-, 10-, 25-, AND 100-YR STORM EVENTS. PRE- AND POST-DEVELOPMENT RUNOFF CALCULATIONS SHALL BE INCLUDED WITH THE CONSTRUCTION DRAWINGS FOR THIS SUBDIVISION.
- THE FIRST 347.51 LF OF SILVER CREEK ROAD WILL BE DEDICATED TO HAYS COUNTY. ALL REMAINING ROADWAYS PROPOSED ARE TO BE PRIVATE.
- DRIVEWAYS SHALL COMPLY WITH CHAPTER 721 OF HAYS COUNTY DEVELOPMENT REGULATIONS, AND BE PERMITTED THROUGH THE TRANSPORTATION DEPARTMENT OF HAYS COUNTY UNDER CHAPTER 751.
- ALL CULVERTS, WHEN REQUIRED SHALL COMPLY WITH THE CURRENT HAYS COUNTY STANDARD.
- MAILBOXES PLACED WITHIN THE ROW, SHALL BE OF AN APPROVED TXDOT OR FHWA DESIGN.
- A WATER QUALITY BMP MAINTENANCE PLAN HAS BEEN PREPARED FOR THIS DEVELOPMENT AND IS ON FILE AT CITY HALL IN SITE DEVELOPMENT CASE #SD2023-0008
- SIDEWALKS SHALL BE PROVIDED ALONG ONE SIDE OF THE ENTIRE FRONTAGE OF PUBLIC STREETS.
- SIDEWALKS WITHIN THE PUE SHALL BE MAINTAINED BY THE HOA.
- 15' PUA EASEMENT AND 15' PUBLIC UTILITY EASEMENT SHALL SERVE AS A PUBLIC ACCESS EASEMENT FOR H.O.A. TO MAINTAIN THE SIDEWALKS.
- NEIGHBORING PROPERTIES ALONG SILVER CREEK ROAD INCLUDING HAYS COUNTY PARCEL ID # 94015, #128359, #113448, #173021, AND #107215 SHALL MAINTAIN ACCESS THROUGH R.O.W. LOT 1.

WAIVER VAR2021-0023 ALLOWING THE REDUCTION OF THE WQBZ TO 25 FT BEYOND THE EDGE OF A STEEP SLOPE PURSUANT SECTION 22.05.017(c)(2) OF THE WATER QUALITY ORDINANCE WAS ADMINISTRATIVELY APPROVED BY THE CITY OF DRIPPING SPRINGS DEVELOPMENT REVIEW COMMITTEE WITH THE FOLLOWING CONDITIONS:

- THE REDUCED WATER QUALITY BUFFER ZONES FULLY CONTAINS THE 100-YR FLOODPLAIN.
- IMPERVIOUS COVERAGE OVER THE ENTIRE DEVELOPMENT WILL BE LIMITED NO MORE THAN 20% TOTAL.
- THE AREA ADJACENT TO THE TOP OF THE BLUFF FOR A DISTANCE OF AT LEAST 100-FT (100 FT NATIVE BUFFER) WILL BE CLEARED OF CEDARS AND RE-SEEDD WITH NATIVE CENTRAL TEXAS DRAUGHT TOLERANT GRASSES. GRASS MIX SHALL BE APPROVED BY THE CITY.
- A TREE SURVEY SHALL BE SUBMITTED WITH THE CONSTRUCTION PLANS FOR THE DEVELOPMENT PER SUB. ORD. SECTION 28.06.059.
- WITHIN THE 100 FT NATIVE BUFFER, ALL HEALTHY OAK TREES 8 INCHES IN DIAMETER AND LARGER SHALL REMAIN.
- THE STREETS WILL BE OF OPEN SWALE DESIGN WITH RIBBON CURB AND GRASS-LINED DITCHES CONSISTENT WITH WQO 22.05.015(D)(2). CURB AND GUTTER AND PIPED STORM SYSTEMS WILL NOT BE UTILIZED.
- PER SITE DEVELOPMENT ORDINANCE 28.04.015 (i) COMPLIANCE WITH THE CITY'S LIGHTING ORDINANCE IS A CONDITION OF VARIANCE APPROVAL. THIS SITE SHALL COMPLY WITH THE CITY'S CURRENT LIGHTING ORDINANCE.

DOUCET



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

COVER SHEET

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

1
OF 44

Project No.:
2408-002

Drawing: C:\pwworking\jfd-ccc-prod\jonathan.banister\06114942\2408002.CCD\c.dwg
User: JBA\JSTBR
Plot Date/Time: Feb. 10, 2025 - 09:03
Plot Date/Time: Feb. 10, 2025 - 10:23:16

STREET AND DRAINAGE NOTES:

1. CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY THE CITY OF DRIPPING SPRINGS AFTER COMPLETION. THE CONTRACTOR SHALL NOTIFY THE CITY OF DRIPPING SPRINGS NO LESS THAN 48 HOURS PRIOR TO ANY TESTING.
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANTLIFE.
3. STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF 1/4" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED. HOWEVER IN NO CASE SHALL THE WIDTH OF THE RIGHT-OF-WAY AT 1/4" PER FOOT SLOPE BE LESS THAN 10 FEET UNLESS A SPECIFIC REQUEST FOR AN ALTERNATE GRADING SCHEME IS MADE TO AND ACCEPTED BY THE CITY OF DRIPPING SPRINGS.
4. BARRICADES BUILT TO THE CITY OF DRIPPING SPRINGS STANDARDS SHALL BE ERECTED ON ALL DEAD-END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB AND PUBLIC SAFETY.
5. ALL REINFORCED CONCRETE PIPE (RCP) SHALL BE MINIMUM CLASS III.
6. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE CONSTRUCTION PLANS.
7. MOISTURE CONDITIONED SUBGRADE: THE SUBGRADE SHOULD BE SCARIFIED TO A DEPTH OF 6 INCHES AND MOISTURE ADJUSTED TO BETWEEN OPTIMUM AND +4 PERCENT OF OPTIMUM MOISTURE CONTENT. THE SUBGRADE SHOULD THEN BE RECOMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698. CARE SHOULD BE TAKEN TO INSURE THAT THE SUBGRADE DOES NOT DRY OUT OR BECOME SATURATED PRIOR TO PAVEMENT CONSTRUCTION.
8. WHENEVER SOIL INVESTIGATION OR EXCAVATION SHOWS MORE THAN 2 FEET OF EXPANSIVE SUBGRADE, WITH P.I. GREATER THAN 25, THE GEOTECHNICAL ENGINEER OF RECORD SHALL BE CONSULTED FOR ALTERNATIVE PAVEMENT DESIGN MEASURES.
9. AT INTERSECTIONS WHICH HAVE VALLEY DRAINAGE, THE CROWNS OF THE INTERSECTING STREETS WILL CULMINATE IN A DISTANCE OF 40 FEET FROM INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
10. A CURB LAYDOWN IS REQUIRED AT ALL POINTS WHERE THE PROPOSED SIDEWALK INTERSECTS THE CURB.
11. ALL MACHINE LAID CURB SHALL HAVE EXPANSION JOINTS AT 40' INTERVALS.
12. WHEN USING LIME FOR STABILIZATION OF THE SUBGRADE, IT SHALL BE PLACED IN SLURRY OR PELLET FORM. NO DRY LIME PLACEMENT IS PERMITTED.
13. ALL CURB SHALL BE REINFORCED WITH THREE #4 REBAR. INCLUDE DETAIL IN THE PLANS.
14. A LICENSE AGREEMENT FOR LANDSCAPING MAINTENANCE AND IRRIGATION IN STREET RIGHT-OF-WAYS SHALL BE EXECUTED BY THE DEVELOPER IN PARTY WITH THE CITY OF DRIPPING SPRINGS PRIOR TO FINAL ACCEPTANCE OF THE SUBDIVISION.

SPOIL SITE NOTES:

1. THE TEMPORARY SPOILS DISPOSAL SITE IS TO BE SHOWN ON THE EROSION CONTROL PLAN. THE DEPTH OF SPOIL WILL NOT EXCEED 10 FEET IN ANY AREA.
2. NO PERMANENT SPOILS DISPOSAL ON-SITE EXCEPT AS SHOWN ON THE PLANS.

CONSTRUCTION SEQUENCE:

1. HOLD PRE-CONSTRUCTION MEETING.
2. NO CLEARING OR ROUGH CUTTING MAY BE DONE UNTIL THE APPROVED EROSION AND SEDIMENT CONTROLS ARE IN PLACE AND APPROVED BY HAYS COUNTY.
3. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS AND STABILIZED CONSTRUCTION ENTRANCE, IF REQUIRED, IN THE APPROVED PLANS.
4. ROUGH CUT DRAINAGE CHANNELS.
5. ROUGH GRADE STREETS
6. INSTALL ALL UTILITIES IN THE RIGHTS-OF-WAY.
7. REGRADE AND COMPACT SUBGRADE. MEET WITH INSPECTOR AND /DESIGN ENGINEER TO DETERMINE AREAS OF DIFFERING STREET SECTIONS OR SUBGRADE PREPARATION, IF CALLED FOR IN THE GEOTECHNICAL REPORT.
8. INSURE ALL UNDERGROUND UNTILITY CROSSINGS ARE IN PLACE INCLUDING SLEEVES FOR DRY UTILITIES AND INSTALL FIRST COURSE OF BASE.
9. INSTALL CURBS, RIP-RAP AND MISCELLANEOUS CONCRETE.
10. INSTALL SECOND COURSE OF BASE.
11. PRIOR TO PAVING, ALL UTILITY TESTING MUST BE COMPLETE AND APPROVED BY THE UTILITY OWNER.
12. LAY ASPHALT.
13. FINAL GRADE ANY DITCHES AND PARKWAYS.
14. REVEGETATE ALL DISTURBED AREAS. DISPOSE OF SPOIL IN AN APPROVED MANNER.
15. SCHEDULE A FINAL INSPECTION.
16. AFTER ACCEPTANCE OF CONSTRUCTION, TEMPORARY EROSION CONTROLS MAY BE REMOVED.

TCEQ WATER DISTRIBUTION SYSTEM GENERAL CONSTRUCTION NOTES

1. 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. CONSTRUCTION FOR PUBLIC WATER SYSTEMS MUST ALWAYS, AT A MINIMUM, MEET TCEQ'S RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS.
2. AN APPOINTED ENGINEER SHALL NOTIFY IN WRITING THE LOCAL TCEQ'S REGIONAL OFFICE WHEN CONSTRUCTION WILL START. PLEASE KEEP IN MIND THAT UPON COMPLETION OF THE WATER WORKS PROJECT, THE ENGINEER OR OWNER SHALL NOTIFY THE COMMISSION'S WATER SUPPLY DIVISION, IN WRITING, AS TO ITS COMPLETION AND ATTEST TO THE FACT THAT THE WORK HAS BEEN COMPLETED ESSENTIALLY ACCORDING TO THE PLANS AND CHANGE ORDERS ON FILE WITH THE COMMISSION AS REQUIRED IN 30 TAC §290.39(H)(3).
3. 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, AS REQUIRED BY 30 TAC §290.44(A)(1).
4. 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, AS REQUIRED BY 30 TAC §290.44(A)(2).
5. 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, AS REQUIRED BY 30 TAC §290.44(A)(3).
6. 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, AS REQUIRED BY 30 TAC §290.44(A)(4).
7. 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.

O 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;

WHERE:

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

• 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).

O 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-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;

WHERE:

$$Q = \frac{SD \cdot P}{148,000}$$

• 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).
8. THE MAXIMUM ALLOWABLE LEAD CONTENT OF PIPES, PIPE FITTINGS, PLUMBING FITTINGS, AND FIXTURES TO 0.25 PERCENT.
9. THE SYSTEM MUST BE DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 35 PSI AT ALL POINTS WITHIN THE DISTRIBUTION NETWORK AT FLOW RATES OF AT LEAST 1.5 GALLONS PER MINUTE PER CONNECTION. WHEN THE SYSTEM IS INTENDED TO PROVIDE FIREFIGHTING CAPABILITY, IT MUST ALSO BE DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI UNDER COMBINED FIRE AND DRINKING WATER FLOW CONDITIONS AS REQUIRED BY 30 TAC §290.44(D).
10. THE CONTRACTOR SHALL INSTALL APPROPRIATE AIR RELEASE DEVICES IN THE DISTRIBUTION SYSTEM AT ALL POINTS WHERE TOPOGRAPHY OR OTHER FACTORS MAY CREATE AIR LOCKS IN THE LINES. ALL VENT OPENINGS TO THE ATMOSPHERE SHALL BE COVERED WITH 16-MESH OR FINER, CORROSION RESISTANT SCREENING MATERIAL OR AN ACCEPTABLE EQUIVALENT AS REQUIRED BY 30 TAC §290.44(D)(1).
11. PURSUANT TO 30 TAC §290.44(D)(4), ACCURATE WATER METERS SHALL BE PROVIDED. SERVICE CONNECTIONS AND METER LOCATIONS SHOULD BE SHOWN ON THE PLANS.
12. PURSUANT TO 30 TAC §290.44(D)(5), SUFFICIENT VALVES AND BLOWOFFS TO MAKE REPAIRS. THE ENGINEERING REPORT SHALL ESTABLISH CRITERIA FOR THIS DESIGN.
13. PURSUANT TO 30 TAC §290.44(D)(6), THE SYSTEM SHALL BE DESIGNED TO AFFORD EFFECTIVE CIRCULATION OF WATER. WITH A DEAD ENDS. PULL DEAD-END MAINS SHALL BE PROVIDED WITH ACCEPTABLE FLUSH VALVES AND DISCHARGE PIPING. ALL DEAD-END LINES LESS THAN TWO INCHES IN DIAMETER WILL NOT REQUIRE FLUSH VALVES IF THEY END AT A CUSTOMER SERVICE. WHERE DEAD ENDS ARE NECESSARY AS A STAGE IN THE GROWTH OF THE SYSTEM, THEY SHALL BE LOCATED AND ARRANGED TO ULTIMATELY CONNECT THE ENDS TO PROVIDE CIRCULATION.
14. THE CONTRACTOR SHALL MAINTAIN A MINIMUM SEPARATION DISTANCE IN ALL DIRECTIONS OF NINE FEET BETWEEN THE PROPOSED WATERLINE AND WASTEWATER COLLECTION FACILITIES INCLUDING MANHOLES AND SEPTIC TANK DRAINFIELDS. 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 30 TAC §290.44(E)(1-4) OF THE CURRENT RULES.
15. PURSUANT TO 30 TAC §290.44(E)(5), 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 GLASS 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.
16. PURSUANT TO 30 TAC §290.44(E)(6), 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.
17. PURSUANT TO 30 TAC §290.44(E)(7), 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.
18. PURSUANT TO 30 TAC §290.44(E)(8), WATERLINES SHALL NOT BE INSTALLED CLOSER THAN TEN FEET TO SEPTIC TANK DRAINFIELDS.
19. PURSUANT TO 30 TAC §290.44(F)(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.
20. PURSUANT TO 30 TAC §290.44(F)(2), WHEN WATERLINES ARE LAID UNDER ANY FLOWING OR INTERMITTENT STREAM OR SEMI-PERMANENT BODY OF WATER THE WATER MAIN 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.
21. THE CONTRACTOR SHALL DISINFECT THE NEW WATER MAINS IN ACCORDANCE WITH AWWA STANDARD C-651 AND 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 WATER LINE WILL BE REQUIRED OR AT THE NEXT AVAILABLE SAMPLING POINT BEYOND 1,000 FEET AS DESIGNATED BY THE DESIGN ENGINEER, IN ACCORDANCE WITH 30 TAC §290.44(F)(3).

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
CONTRIBUTING ZONE PLAN
GENERAL CONSTRUCTION NOTES
TCEQ-0592A (REV. 07/15/2015)

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

HAYS COUNTY GENERAL CONSTRUCTION NOTES

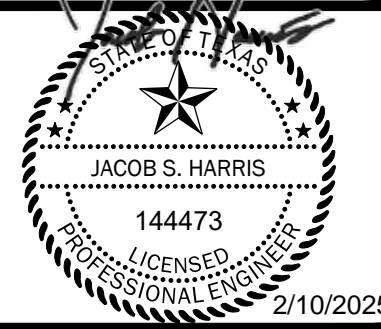
TO ALL CONTRACTORS: THESE PLANS ARE NOT TO BE CONSIDERED FINAL FOR CONSTRUCTION UNTIL APPROVED BY HAYS COUNTY. CHANGES MAY BE REQUIRED PRIOR TO APPROVAL.

1. SEVENTY-TWO (72) HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION, THE DEVELOPER SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH ALL PERTINENT PARTIES.
2. ALL ROADWAY AND DRAINAGE IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH HAYS COUNTY SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS FROM HAYS COUNTY ROAD AND BRIDGE DEPARTMENT PRIOR TO BEGINNING ANY ON-SITE CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING THE NECESSARY INSPECTIONS FROM THE HAYS COUNTY ROAD AND BRIDGE DEPARTMENT. ALL REPAIRS TO IMPROVEMENTS CAUSED BY CONTRACTOR'S FAILURE TO INSTALL IMPROVEMENTS IN ACCORDANCE WITH HAYS COUNTY SPECIFICATIONS AND THESE CONSTRUCTION PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. HAYS COUNTY TRANSPORTATION DEPARTMENT'S ACCEPTANCE OF THE IMPROVEMENTS ARE CONTINGENT ON REPAIRS BEING MADE TO HAYS COUNTY'S SATISFACTION. DELAYS CAUSED BY REPAIRS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
3. A MINIMUM OF TWO (2) BENCHMARKS SHALL BE SHOWN ON THE CONSTRUCTION PLANS.
4. ALL BEDDING MATERIALS USED WITHIN THE ROW SHALL COMPLY WITH COA ITEM 510.
5. ALL CONCRETE PLACED WITHIN THE ROW SHALL BE A MINIMUM OF CLASS A. THE USE OF REBAR CHAIRS AND TESTS CYLINDERS WILL BE REQUIRED ON PCC VALLEY GUTTER PLACEMENTS.
6. THE PROPOSED FULLY DEVELOPED STORMWATER RUNOFF RATE CANNOT EXCEED EXISTING CONDITIONS RUNOFF RATE.
7. DEWATERING OPERATIONS MUST USE SWPPP-SPECIFIED METHODS ONLY. IF SUCH METHODS ARE ONLY GENERAL OR NOT APPLICABLE, PUMP FROM THE TOP OF THE POOL (RATHER THAN THE BOTTOM) AND DISCHARGE TO A VEGETATED, UPLAND AREA (AWAY FROM WATERBODIES OR DRAINAGES) OR USE ANOTHER TYPE OF FILTRATION PRIOR TO DISCHARGE. REFER TO THE EPA 2017 GENERAL CONSTRUCTION PERMIT, SECTION 2.4, AS APPLICABLE.
8. THE CONTRACTOR SHALL SUPPLY QUALIFIED PERSONNEL TO PERFORM SWPPP INSPECTIONS ON PROJECT ≥ 1 ACRE. QUALIFIED PERSONNEL SHALL HAVE CISEC, CESSWI, OR EQUIVALENT CERTIFICATION APPROVED BY THE MS4.
9. CONTRACTOR SHALL ENSURE THAT MUD AND DEBRIS TRACKED ONTO PUBLICLY MAINTAINED ROADWAYS FROM VEHICLES LEAVING THE CONSTRUCTION SITE WILL BE CLEANED UP DAILY.
10. NO EXPLOSIVES SHALL BE USED FOR THIS PROJECT WITHOUT TCEQ APPROVAL.
11. ALL HOLES, TRENCHES AND OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY BARRICADES, FENCING, LIGHTS AND/OR OTHER PROTECTIVE DEVICES IN COMPLIANCE WITH COA 5095 AND OSHA REGULATIONS AT ALL TIMES.
12. THE CONTRACTOR SHALL SUBMIT A TRENCH SAFETY PLAN PREPARED AND SEALED BY AN ENGINEER LICENSED BY THE STATE OF TEXAS PRIOR TO THE START OF THE PROJECT. THE CONTRACTOR SHALL ASSIGN A COMPETENT PERSON THAT HAS BEEN PROPERLY TRAINED AND IS QUALIFIED TO MAKE INSPECTIONS AND SUPERVISE THE INSTALLATION, MAINTENANCE, AND REMOVAL OF THE TRENCH SAFETY OR EXCAVATION SAFETY SYSTEM.
13. HAYS COUNTY IS NOT RESPONSIBLE FOR SIDEWALK MAINTENANCE. A FULLY EXECUTED LICENSE AGREEMENT MUST BE IN-PLACE PRIOR TO CONSTRUCTION OF SIDEWALKS WITHIN HAYS COUNTY ROW.
14. CONTRACTOR SHALL COMPLY WITH CONSTRUCTION SEQUENCING WHICH MAY BE SPECIFIED SOMEWHERE IN THE CONSTRUCTION PLANS.
15. PERMIT IS REQUIRED FOR CONSTRUCTION IN "RIGHT OF WAY": ORDINANCE 7.10. NODRIVEWAY, UTILITY CONSTRUCTION, MAILBOXES, LANDSCAPING OR ANY OTHER ENCROACHMENT INTO RIGHT-OF-WAY OR EASEMENT SHALL BE ALLOWED WITHOUT FIRST OBTAINING A PERMIT FROM THE HAYS COUNTY ROAD AND BRIDGE DEPARTMENT.
16. PRIOR TO THE INSTALLATION OF ANY ROAD BUILDING MATERIAL THE SUBGRADE SHALL BE INSPECTED BY HAYS COUNTY. PRIOR TO PAVING, BASE MATERIAL SHALL BE INSPECTED BY HAYS COUNTY. THE OWNER OR HIS AGENT SHALL NOTIFY HAYS COUNTY FORTY-EIGHT (48) HOURS PRIOR TO THE TIME WHEN THE INSPECTION IS NEEDED: ORDINANCE 1.05; 2.06.
17. ALL OUTFALLS CONSTRUCTED WITHIN HAYS COUNTY MUST BE SUBMITTED TO HAYS COUNTY WITH GPS COORDINATES AT THE END OF EACH PROJECT. COORDINATES WILL BE SUBMITTED ON THE NAD 1983 STATE PLANE SOUTH CENTRAL FIPS 4204 FEET COORDINATE SYSTEM. ALL COORDINATES WILL BE SUBMITTED IN GRID UNITS. THE REQUIRED FILE TYPE FOR COORDINATE DATA SUBMISSIONS IS *.TXT FORMAT.
18. AT THE TIME A FINAL INSPECTION AND RELEASE OF PERFORMANCE SECURITY IS REQUESTED; THE DESIGN ENGINEER SHALL PROVIDE A COMPLETE SET OF "AS-BUILT" RECORD DRAWINGS IN PDF FORMAT (300DPI) ON A VIRUS FREE DISK AND SHALL CERTIFY THAT ALL ROAD AND DRAINAGE CONSTRUCTION HAS BEEN COMPLETED IN SUBSTANTIAL ACCORDANCE WITH PREVIOUSLY APPROVED PLANS AND SPECIFICATIONS, EXCEPT AS NOTED. NO PERFORMANCE SECURITY WILL BE RELEASED WITHOUT THESE EXHIBITS.

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

DOUCET



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

GENERAL NOTES

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

2

OF 44

Project No.:
2408-002



WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY
GENERAL CONSTRUCTION NOTES

CONTACT INFORMATION

Facilities Owner: (name/address/phone)
West Travis County PUA
13215 Bee Cave Parkway Building B, Suite 110
Bee Cave, Texas 78738
512/263-0100
jriechers@wtcpua.org

Land Owner: name/address/phone

Owner's representative responsible for plan alterations: name/phone

Maintenance: Person or firm responsible for erosion/ sedimentation control

Contractor: name/address/ phone

Person or firm responsible for tree/natural area protection. Contractor: name/address/phone

SPOILS MANAGEMENT AND DISPOSAL NOTES

- Temporary holding sites as necessary to stockpile excavated soils, embedment material, and/or piping and appurtenances may be located within the limits of construction as shown on the plans.
- No permanent spoils disposal shall be allowed on-site, unless approved by the owner and governing authority.
- All spoils materials shall be disposed of by the Contractor at an approved spoil disposal site. The Contractor shall be responsible for locating and securing a permit for the site; and shall notify the Owner and/or Engineer at least forty-eight (48) hours prior to disposal of any spoil material.

EROSION /SEDIMENTATION CONTROL NOTES

Use latest City of Austin, City of Dripping Springs, City of Bee Cave, Travis County, Hays County Erosion/Sedimentation Control notes, as appropriate.

STANDARD TREE PROTECTION NOTES

Use latest City of Austin, City of Dripping Springs, City of Bee Cave, Travis County, Hays County Erosion/Sedimentation Control notes, as appropriate

WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY (WTCPUA) NOTES

COVER SHEET NOTES

- The West Travis County Public Utility Agency is the _____ provider. Designate – water and/or wastewater provider, and if Retail or Wholesale customer.
- ___ Number/size of meter(s) for domestic purposes only.
_____ number/size landscape irrigation meter(s), as applicable.
- WTCPUA does not guarantee fire flow.
- A WTCPUA representative must be present at the time of connection to the existing system.
- All water and wastewater infrastructure shall be constructed in accordance with City of Austin water and wastewater construction specifications and with materials from the current approved City of Austin Standard Products List (SPL).

WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY (WTCPUA) NOTES - to be placed on General Notes Sheet

HOURS OF CONSTRUCTION

- No work shall be done between the hours of 8:00 P.M. and 6:00 A.M.; nor on Sundays or Legal Holidays without the written permission of the WTCPUA in each case, except such work as may be necessary for the proper care, maintenance and protection of the work already done or in the case of an emergency.

LIMITS OF CONSTRUCTION

- The limits of construction shall be bounded by the right of way line or permanent / temporary easement limits shown on the Plans. Limits of construction may be further restricted by placement of silt fence, tree protection fencing, or other appurtenances as shown on the Plans.
- Limits of construction shall be clearly delineated by the Contractor by installing silt fence, orange tensor fencing (4 - foot roll tied to 6-foot posts set at 10-foot intervals) or other barriers as approved by the Engineer. All temporary barriers shall be removed at the end of the project.
- Any areas outside the limits of construction disturbed by the Contractor shall immediately be restored to preconstruction condition.

SANITARY FACILITIES

- Provisions shall be made for necessary sanitary conveniences for the use of laborers on the work. The facilities must be properly secluded from public observation and shall be installed and maintained by the contractor.

PROTECTION OF BORE PITS

- Install barrier fencing (Tensor orange fencing or chain link fencing) to surround the bore pits. Barrier fencing shall remain in place at all times while the bore pit is open. Contractor shall be responsible for security and safety at the bore pits.

HORIZONTAL CONTROLS

- All linework shall be staked prior to construction with sealed cut sheets provided to the WTCPUA inspector prior to construction.

CONSTRUCTION SEQUENCING (modify to fit project)

- 48 hours prior to beginning any work, call the One-Call Board of Texas at 811 or 1-800-545-6005 for utility locations and obtain street cut permit for any work within city, county, and/or state right-of-way.
- Install temporary erosion controls and tree/natural area protection fencing prior to pre-construction meeting and prior to any site clearing, grubbing, excavation, material stockpiling, or other construction operations.

- Schedule and convene a preconstruction meeting including but not limited to the Owner's representative, Engineer, WTCPUA representative, Fire Department, City, County, TxDOT representative, and TCEQ representative, as applicable.
- Install traffic control measures.
- Contractor shall locate all existing utilities prior to initiating construction.
- Rough cut water quality ponds and direct runoff to ponds to act as a sediment trap.
- Remove and stockpile topsoil in areas as required.
- Rough cut roads/site, as necessary.
- Install all underground utilities. Contractor shall be responsible for coordinating with the WTCPUA when switching service to the WTCPUA system. It shall be the contractor's responsibility to provide materials/facilities to ensure service is maintained during switchover.
- Complete all underground installations, including installation of sleeves.
- Complete subgrade.
- Complete 1st course base.
- Complete final course base.
- Lay pavement and/or complete any pavement repair.
- Complete water quality ponds.
- Complete permanent erosion control and site restoration.
- Remove and dispose of temporary erosion controls.
- Complete any necessary final dress up of areas disturbed by construction operations.

TRAFFIC CONTROL NOTES (include if applicable)

- Plans shall indicate responsible agent for traffic control (Engineer or Contractor).
- Contractor shall maintain reasonable local vehicular traffic throughout construction operations.
- Contractor shall provide signs, barricades, flaggers, and other measures as required to allow for vehicular and pedestrian traffic to proceed safely with minimum inconvenience.
- Signs, barricades, flaggers, and related work shall be in accordance with the Texas Manual on Uniform Traffic Control Devices and with the requirements of the governing city/county.
- For any activity within TxDOT right-of-way, project must have a TxDOT permit. A copy of the TxDOT permit shall be provided to the WTCPUA prior to construction.

SWPPP NOTES

This project is subject to the Texas Commission on Environmental Quality's (TCEQ) Texas Pollution Discharge Elimination System (TPDES) General Permit TXR150000 for Construction Activities. The General Permit requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP), which has been provided by the OWNER for use by the CONTRACTOR. The OWNER shall provide the OWNER'S Notice of Intent (NOI) and Notice of Termination (NOT) to the TCEQ. The CONTRACTOR'S responsibilities are as follows:

- Maintain a copy of the SWPPP and a set of construction plans with the temporary erosion and sediment control plan at the Work site at all times.
- File a Notice of Intent (NOI) and applicable payment to the TCEQ at least 2 days prior to site disturbance.
- Post a copy of the OWNER'S and CONTRACTOR'S NOI forms at the Work site.
- Sign the certification and obtain a signed certification statement from all Subcontractors responsible for implementing the erosion and sediment control measures which indicates that the CONTRACTOR and Subcontractor understands the permit requirements (forms are in the SWPPP)
- Follow and comply with all aspects of the TPDES General Permit No. TXR150000. This includes but is not limited to field inspections and report, maintaining and repairing erosion controls and updating erosion controls and updating erosion control plan sheets based on field changes and modifications.
- File a copy of the CONTRACTOR'S Notice of Termination (NOT) with the TCEQ once the work is completed in accordance with the TPDES general permit no TXR.150000 and has been accepted by the owner.

WTCPUA WATER & WASTEWATER GENERAL CONSTRUCTION NOTES

- All construction operations shall be accomplished in accordance with applicable state statutes and U.S. Occupational Safety and Health Administration regulations (O.S.H.A.). Copies of O.S.H.A. standards may be purchased from the U.S. Government printing office. Information and related reference materials may be obtained from O.S.H.A. Austin Area Office - La Costa Green Bldg 1033, La Posada Dr, Suite 375, Austin, Texas 78752-3832, 512-374-0271.
- The attention of the contractor is directed to The City of Austin Standard Specifications and to the State Law, (Vernon's Annotated Texas Statutes, Article 1436 ©) and the need for effective precautionary measures when operating in the vicinity of electrical lines. The contractor is responsible for all safety requirements, and for coordination of all work with the appropriate electric utility company.
- The Contractor shall contact the One-Call Board of Texas at 811 or 1-800-545-6005 for existing utility locations prior to any excavation. The location and type of utilities and underground facilities shown on these plans are not guaranteed to be accurate or all-inclusive. It is the Contractor's responsibility to locate and protect all existing utilities. The Contractor shall verify all depths and locations of existing utilities prior to any construction. In addition to normal precautions when excavating, use extra caution when excavating within 25 feet of any utilities shown on the plans.
- The Contractor shall be responsible for all coordination between himself and other contractors and utilities in the vicinity of the project. This includes all water, wastewater, gas, electrical, telephone, cable television, and street and drainage work. Once the contractor becomes aware of a possible conflict, it is the contractor's responsibility to notify the engineer and WTCPUA inspector within twenty-four (24) hours.
- The contractor shall be responsible for disposing of all spoil material from the construction site. All spoils material shall be disposed of by the contractor at an approved spoil site. The contractor shall be responsible for locating and securing a permit for the site. The contractor shall notify the WTCPUA inspector at least forty-eight (48) hours prior to disposal of the material. No spoils are to remain overnight in the floodplain.
- No blasting or burning will be allowed.
- It shall be the responsibility of the contractor to repair, at his expense, all utilities, pavement, curb, fences or any other items damaged during construction regardless of whether these items are shown on the construction plans.

- Whenever existing utilities, indicated or not on plans, present obstructions to grade and/or alignment of proposed pipe, contractor is to immediately notify the engineer who will determine if existing improvements are to be relocated or if the grade and/or alignment of proposed pipe is to be changed.
- Dust prevention shall be provided by the Contractor at his own expense. Dust control shall include spraying of water on all disturbed areas, spoil piles, or haul materials associated with the project or other methods approved by the WTCPUA.
- Cleanup - upon completion and before making application for acceptance of the work, the contractor shall clean all streets and all ground occupied by him in connection with the work of all rubbish, excess materials, excess excavated materials, temporary structures and equipment. All parts of the work shall be left in a neat and presentable condition satisfactory to the WTCPUA and other governmental bodies having jurisdiction prior to submittal of the final payment.
- The contractor shall maintain access to businesses and residences at all times. The contractor shall coordinate with property owners to minimize disruption of deliveries, parking, and other activities.
- Dewatering, if necessary, shall be considered incidental to the work and shall not constitute a basis for additional payment.
- The minimum depth of cover from top of pipe to finished grade for all water lines shall be four feet. Install lines to avoid high points.
- Concrete shall be Class 'A' with a minimum 28-day compressive strength of 3,000 psi, unless otherwise noted.
- Reinforcing steel shall be ASTM A 615M, Grade 60 unless otherwise noted.
- All responsibility for the adequacy of these plans remains with the engineer who prepared them. In reviewing these plans, the WTCPUA must rely on the adequacy of the design engineer. Approval of these plans by the WTCPUA does not release the design engineer of these responsibilities.

WEST TRAVIS COUNTY PUA WATER AND WASTEWATER UTILITY NOTES

- West Travis County PUA is the water and / or wastewater service provider for this project. A pre-construction meeting with the WTCPUA shall be held prior to commencement of construction to schedule inspection of installation of water/wastewater facilities. Water facilities will be inspected up to, and including, the water meter and/or fire hydrants. The contact number for WTCPUA is (512) 263- 0100.
- The City of Austin standard specifications and standard details current at the time of construction shall govern materials and methods used to perform this work. City of Austin Specifications and Standard Details are available at <https://library.municode.com/tx/austin/codes/>
- Contractor shall obtain all approvals and permits, including but not limited to street/driveway cut and utility cut permits from the appropriate governmental agency before beginning construction within the right-of-way of a public street or alley.
- The WTCPUA shall be contacted at (512) 263-0100 at least 48 hours before connecting to their existing water and/or wastewater facilities.
- The Contractor shall contact the Austin Area "One Call" System at 811 or 1-800-545-6005 for existing utility locations prior to any excavation. In advance of construction, the contractor shall verify the location of all utilities to be extended, tied to, or altered, or subject to damage/inconvenience by the construction operations.
- No other utility service/appurtenances shall be placed near the property line, or other assigned location designated for water and wastewater utility service that would interfere with the water and/or wastewater services.
- Where water lines and 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). Any deviation these standards shall require a variance approved by TCEQ before submitting piping assignments to the WTCPUA.
- The City of Austin Specification item 509S will be required as a minimum trench safety measure. Contract documents, which include a trench safety plan signed and sealed by a Texas Professional Engineer and a pay item for trench safety measures, in compliance with OSHA, State, County, and City requirements before beginning work on the project.
- All material tests, including soil density tests and related soil analysis, shall be accomplished by an independent laboratory funded by the owner in accordance with City of Austin Standard Specification Item 1804S.4.
- Connections to existing WTCPUA water lines shall be made by cut-in tees in accordance with City of Austin Standard Specification Item 510.3(24). Isolation valves shall be installed on the ends of the cut-in tee, as necessary. A shut-out valve plan shall be provided showing the location of existing gate valves in the vicinity of the connection. The shut-out plan shall identify all affected property owners. Contractor shall perform all work and shall furnish all materials, including draining and cutting into existing piping and connecting a new pipeline or other extension into the existing pressure piping, forming an addition to the potable water transmission and distribution network and performing necessary shutoffs. Contractor shall schedule all such connections in advance and such schedule shall be approved by the WTCPUA before beginning the work. At least 48 hours-notice shall be given to the WTCPUA prior to making the connection, and a representative from the WTCPUA shall be present when the connection is made. Pressure taps may be approved on a case-by-case basis. "Size on Size" taps will NOT be permitted. When approved, any taps shall be made by use of and approved full circle, gasketed cast iron or ductile iron tapping sleeve. Concrete blocking shall be placed behind and under all tap sleeves prior to making the pressure tap and the use of precast blocks may be used to hold the tap in its correction position prior to blocking. The blocking behind and under the tap shall have a minimum of 24 hours curing time before the valve can be reopened for service from that tap. The contractor shall notify the WTCPUA inspector a minimum of seventy-two (72) hours in advance for the WTCPUA to notify the affected customers. The WTCPUA shall be present while all work is performed to make the connection.
- Thrust restraint shall be by metal thrust restraints in accordance with City of Austin Standard Specification Item 510.3(22).
- Fire hydrants shall be set in accordance with City of Standard Specification Item 511S.3 E and shall be approved Fire Department or other appropriate party prior to installation. Fire hydrants on mains under construction shall be securely wrapped with a poly wrap bag and taped into place. The poly wrap will be removed when the mains are accepted and placed in service. Fire hydrants that are to be used as drain hydrants shall be painted silver w/ blue caps prior to acceptance. Where Storz adaptors are required (Hays County), fire hydrants shall be manufactured with integral Storz adaptors.
- Water line testing and sterilization shall be performed in accordance with City of Austin Standard Specification Item 510.3(29) and/or TCEQ rules.
- Test pressure for 2-hour test shall be at 175 psi at the lowest point in the line.

Note:

Prior to pressure testing, contractor shall verify that thrust blocking and/or thrust restraint back to and including the valve against which the pressure test shall be performed, has been installed to at least the specifications of this project. Failure to verify that thrust blocking

- Water lines shall be filled with water and all air expelled at least 24 hours before testing. All service laterals and drain valve leads, with the hydrant valves closed and nozzle caps open shall be included in the tests.
- Contractor shall submit a Disinfection and Flushing Plan in accordance with AWWA standards to the WTCPUA for approval. Required flushing volumes, flushing schedule, and method of disposal of flush water shall be in accordance with the approved plan.
- Gate valves shall be resilient seated gate valves conforming to AWWA C509, with a minimum rated working pressure of 250 psig.
- Force main testing shall be performed in accordance with the City of Austin Standard Specification Item 510.3(27) and/or TCEQ rules.
- Gravity sanitary sewer main testing shall be performed in accordance with the City of Austin Standard Specification Items 510.3(26) and/or TCEQ rules. In addition, all gravity sanitary sewer mains shall be televised prior to acceptance by WTCPUA. Digital files (via CD-ROM) clearly showing televised recording shall be submitted to the Engineer of Record following inspection.
- Locator 'Finder' Wire - All non-metallic water lines shall have a finder wire located above the pipe. The wire shall be poly-insulated No. 10 solid copper and will terminate at each isolation valve such that it is accessible from the valve box.
- Locator 'Finder' Wire - All non-metallic wastewater lines shall have a finder wire located above the pipe. The wire shall be poly-insulated No. 10 solid copper and will terminate at readily accessible locations throughout the collection system.
- All valve risers shall have a 1'-6" square concrete box poured around them at finished grade.
- All manholes shall be lined with a corrosion resistant lining approved by the WTCPUA.
- Bolted and gasketed covers shall be used for all manholes located in the 100-year floodplain. Where there are more than three gasketed manholes in a row, vents shall be provided on every third manhole.
- The downstream end of any force main shall be terminated in a sanitary sewer manhole in a manner to minimize turbulence.
- Contractor shall have necessary Erosion and Sedimentation Controls in place prior to commencing water/wastewater facility construction.
- Record drawings, as stipulated by the WTCPUA, shall be submitted to the Engineer of Record for verification and furnished to the WTCPUA upon completion of the project.
- The WTCPUA will own and operate all water lines and appurtenances up to and including the water meter. These improvements will be defined by a recorded easement or in public right-of-way.
- Any portions of wastewater lines including services that are located outside of a recorded easement or public right-of-way will be owned and maintained by the property owner, or his/her assigns.
- Where existing water and/or wastewater infrastructure is to be abandoned, the engineer shall submit an abandonment plan for approval by the WTCPUA.
- Water services shall be installed using HDPE pipe. Copper is not allowed.
- For any storm sewer line crossing a water or wastewater line closer than 18", the storm sewer pipe shall be laid such that no storm sewer joints will be over the water pipe crossing.

OTHER NOTES – Engineer is responsible for including all applicable notes, including but not limited to County, City, TxDOT, State, Fire Department, TCEQ (CZP, WPAP, Organized Sewage Collection System Notes, General Construction Notes). Engineer is responsible for ensuring the current adopted version of all notes is included in the construction plans.

TCEQ WATER DISTRIBUTION SYSTEM
GENERAL CONSTRUCTION NOTES
(Revised February 2019 or latest version)

- 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)(1)].
- 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;

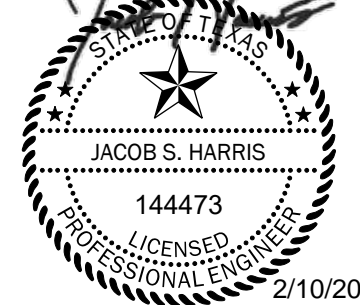
$$Q = \frac{LD\sqrt{P}}{148,000}$$

- 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).
- o 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)].
 - De-chlorination of disinfecting water shall be in strict accordance with current AWWA Standard C655-09 or most recent.

DOUCET



2/10/2025

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

WTCPUA NOTES

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

3

OF 44

Project No.:
2408-002

PARKLAND SUMMARY			
CATEGORY	DESCRIPTION	LOT#	Area (AC)
<1.0 AC	Entry Open Space	1	0.31
TOTAL	<1.0 AC		0.31
1.0 - 2.0 AC			
TOTAL	(1.0 - 2.0 AC)		0.00
2.0 - 5.0 AC			
TOTAL	(2.0 - 5.0 AC)		0.00
5.0 - 10.0 AC			
TOTAL	(5.0 - 10.0 AC)		0.00
>10.0 AC	PRIVATE OPEN SPACE	31	12.32
TOTAL	(>10.0 AC)		12.32
TOTAL PRIVATE PARKLAND			12.63

LOT SETBACKS	
FRONT	25'
REAR	10'
SIDE	5'
R.O.W. WIDTHS	
LOCAL	60' OR AS SHOWN
PAVEMENT WIDTHS	
LOCAL	20' OR AS SHOWN

LUNAROYA SUBDIVISION

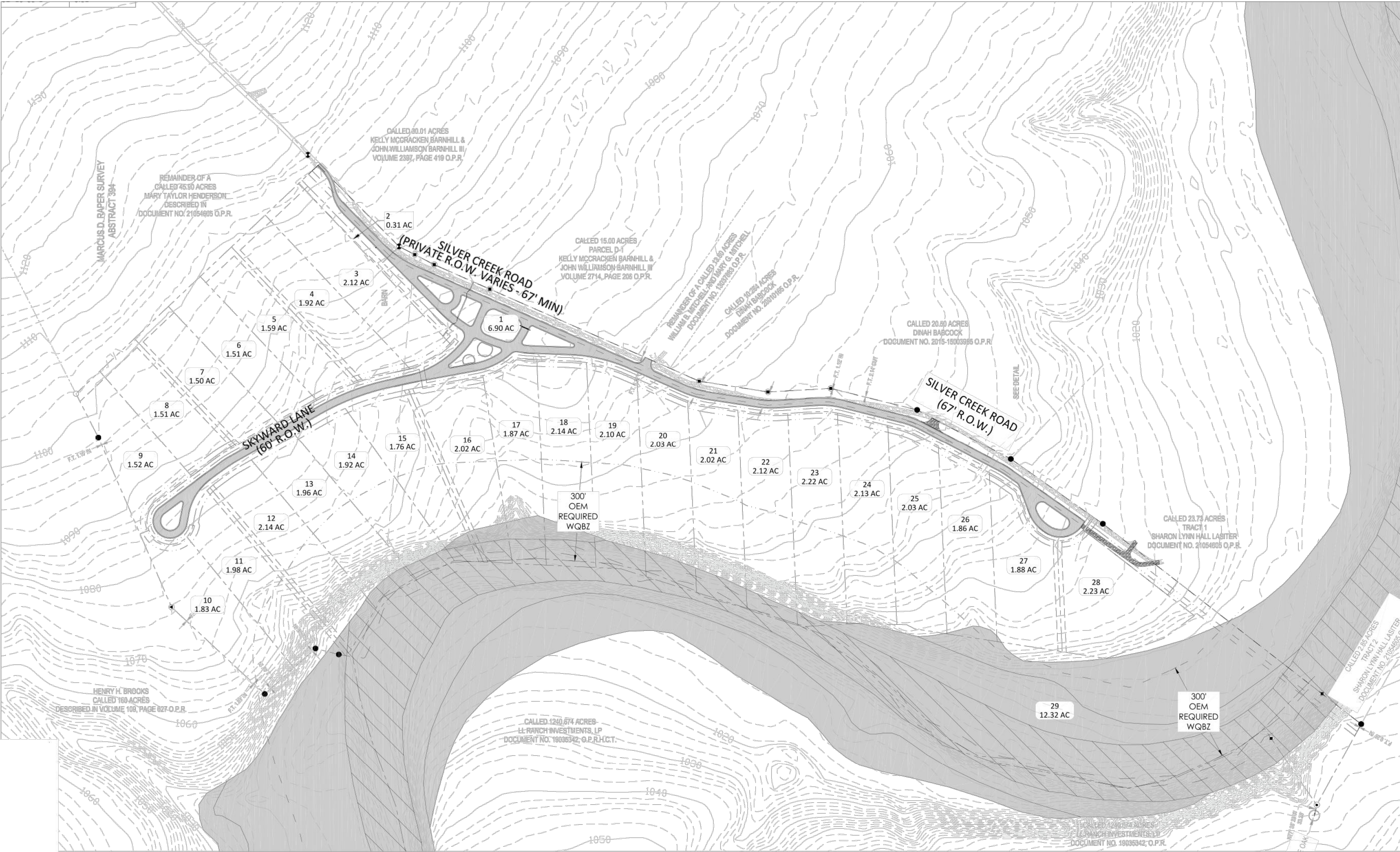
DRIPPING SPRINGS, HAYS COUNTY, TEXAS

OWNER/DEVELOPER:	DRIPPING SPRINGS OWNER, LLC 3990 HILLSBORO PIKE, SUITE 400 NASHVILLE, TN 37215 (615) 778-2889
CONTACT:	BRIAN SEWELL, CHIEF OPERATING OFFICER
ENGINEER:	DOUCET & ASSOCIATES 7401 B HWY. 71 WEST, SUITE 160 AUSTIN, TEXAS 78735 (512) 583-2600
CONTACT:	JACOB HARRIS, P.E.
LAND SURVEY:	MATKIN HOOVER ENGINEERING & SURVEYING 3303 SHELL ROAD, SUITE 3 GEORGETOWN, TEXAS 78628 (512) 868-2244
CONTACT:	KYLE L. PRESSLER, R.P.L.S.
UTILITY PROVIDERS:	WATER: WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY WASTEWATER: ADVANCED ON-SITE SEWAGE FACILITIES ELECTRIC: FEDERNALES ELECTRICAL COOPERATIVE GAS: TEXAS GAS SERVICE
JURISDICTION:	CITY OF DRIPPING SPRINGS ETJ
INDEPENDENT SCHOOL DISTRICT:	DRIPPING SPRINGS ISD
EMERGENCY SERVICE DISTRICT:	ESD 1 & 6
GROUNDWATER CONSERVATION DISTRICT:	HAYS TRINITY GCD

LEGAL DESCRIPTION:	A 70.00 ACRE TRACT OF LAND, LOCATED IN PART OF THE MARCUS D. RAPER SURVEY, ABSTRACT NO. 394, IN HAYS COUNTY, TEXAS, BEING A PORTION OF A CALLED 45.90 ACRE TRACT OF LAND AS DESCRIBED OF RECORD IN DOCUMENT NO. 21054605, AND ALL OF A CALLED 46.85 ACRE TRACT OF LAND AS DESCRIBED OF RECORD IN DOCUMENT NO. 21054605, BOTH OF THE OFFICIAL PUBLIC RECORDS OF HAYS COUNTY, TEXAS.
SITE AREA:	70.0 ACRES
WATERSHED:	NO PORTION OF THIS PROPERTY IS LOCATED IN THE EDWARDS AQUIFER RECHARGE ZONE. THIS PROPERTY IS LOCATED ENTIRELY IN THE EDWARDS AQUIFER CONTRIBUTING ZONE.
FLOODPLAIN:	ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP FOR HAYS COUNTY, TEXAS, COMMUNITY PANEL NUMBER 4803210106F, DATED SEPTEMBER 2, 2005. A PORTION OF THIS SUBDIVISION IS LOCATED WITHIN THE 100-YEAR FLOOD PLAIN.
SUBMITTED BY:	JACOB HARRIS, P.E.
ORIGINAL SUBMITTAL DATE:	AUGUST 19, 2022
AMENDMENT SUBMITTAL DATE:	JANUARY 2, 2025

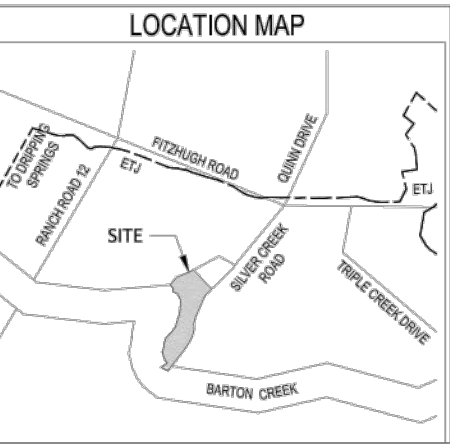
APPROVED BY: _____ DATE _____
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY

STATE OF TEXAS
COUNTY OF HAYS
CITY OF DRIPPING SPRINGS
THIS PRELIMINARY PLAT, MITCHELL TRACT SUBDIVISION, HAS BEEN SUBMITTED TO AND CONSIDERED BY THE CITY OF DRIPPING SPRINGS AND IS HEREBY APPROVED.
APPROVED, THIS DAY OF _____, 2025.
BY: _____
TORY CARPENTER, PLANNING DIRECTOR



LEGEND

- IRON ROD FOUND
- FIRE HYDRANT
- SIGN
- POWER POLE
- DOWN GUY
- SUBDIVISION BOUNDARY
- LOT LINES
- BUILDING SETBACK LINE
- EASEMENTS
- PROPOSED RIGHT OF WAY
- PROPOSED FACE OF CURB
- EXISTING CONTOURS
- WETLAND CRITICAL ENVIRONMENTAL FEATURE (CEP)
- P.P.D.
- O.S.
- WGBZ
- FEMA 100-YR FLOODPLAIN



SITE DATA TABLE		
TOTAL SITE AREA		70.0 AC
TOTAL RESIDENTIAL LOTS	26	49.91 AC
PRIVATE OPEN SPACE	1	12.32 AC
HOA LOTS	1	0.31 AC
STREET R.O.W.		4,757 LF
R.O.W. ACREAGE		7.46 AC

- NOTES:
- OWNERSHIP AND MAINTENANCE OF ALL NON-SINGLE FAMILY LOTS DRAINAGE EASEMENTS FOR STORMWATER AND WATER QUALITY FACILITIES (EXCLUDING PUBLIC PARKLANDS) WILL BE THE RESPONSIBILITY OF THE HOME OWNERS ASSOCIATION.
 - UTILITIES WILL BE PROVIDED BY THE FOLLOWING:
 - WATER - WTCUJA
 - WASTEWATER - ADVANCED ON-SITE SEWAGE FACILITIES
 - ELECTRICITY - P.E.C.
 - GAS - TEXAS GAS SERVICE
 - FINAL DETERMINATION FOR EASEMENTS TO BE DETERMINED WITH FINAL PLAT AND CONSTRUCTION PLANS.
 - STORM WATER SHALL BE CONVEYED VIA DRAINAGE EASEMENTS.
 - DESIGN STANDARDS PER CITY OF DRIPPING SPRINGS STANDARDS AND HAYS COUNTY STANDARDS.
 - A 15 FT. PUBLIC UTILITY EASEMENT ADJACENT TO ALL PUBLIC STREETS IS HEREBY DEDICATED.
 - NO OBJECTS, INCLUDING BUT NOT LIMITED TO BUILDINGS, FENCES, OR LANDSCAPING, SHALL BE ALLOWED IN A DRAINAGE EASEMENT.
 - THE PROPERTY OWNER SHALL PROVIDE ACCESS TO DRAINAGE AND UTILITY EASEMENTS AS MAY BE NECESSARY AND SHALL NOT PROHIBIT ACCESS FOR INSPECTION, OPERATION AND MAINTENANCE.
 - ALL DRAINAGE EASEMENTS ON PRIVATE PROPERTY SHALL BE MAINTAINED BY THE PROPERTY OWNER OR HIS/HER ASSIGNS.
 - ALL (NEW) TELEPHONE AND CABLE TELEVISION UTILITY LINES AND ALL ELECTRIC UTILITY SERVICE LINES AND WIRES SHALL BE PLACED UNDERGROUND.
 - ALL ELECTRICAL, CABLE TELEVISION, AND TELEPHONE SUPPORT EQUIPMENT (TRANSFORMERS, AMPLIFIERS, SWITCHING DEVICES, ETC.) NECESSARY FOR UNDERGROUND INSTALLATIONS IN SUBDIVISIONS SHALL BE PAD MOUNTED OR PLACED UNDERGROUND IN A PUBLIC UTILITY EASEMENT.
 - A PROPERTY OWNERS ASSOCIATION WILL BE CREATED BY RESTRICTIVE COVENANTS AND MUST BE SUBMITTED TO THE CITY AT THE TIME OF FINAL PLAT.
 - THE REDUCED WATER QUALITY BUFFER ZONES FULLY CONTAINS THE 100-YR FLOODPLAIN.
 - IMPERVIOUS COVERAGE OVER THE ENTIRE DEVELOPMENT WILL BE LIMITED NO MORE THAN 15% TOTAL.
 - THE AREA ADJACENT TO THE TOP OF THE BLUFF FOR A DISTANCE OF AT LEAST 100-FT (100 FT NATIVE BUFFER) WILL BE CLEARED OF CEDARS AND RE-SEEDED WITH NATIVE CENTRAL TEXAS DRAUGHT TOLERANT GRASSES. GRASS MIX SHALL BE APPROVED BY THE CITY.
 - A TREE SURVEY SHALL BE SUBMITTED WITH THE CONSTRUCTION PLANS FOR THE DEVELOPMENT PER SUB. ORD. SECTION 28.06.059.
 - WITHIN THE 100 FT NATIVE BUFFER, ALL HEALTHY OAK TREES 8 INCHES IN DIAMETER AND LARGER SHALL REMAIN.
 - THE STREETS WILL BE OF OPEN SWALE DESIGN WITH RIBBON CURB AND GRASS-LINED DITCHES CONSISTENT WITH WOOD 22.05.015(D)(2). CURB AND GUTTER AND PIPED STORM SYSTEMS WILL NOT BE UTILIZED.
 - SIDEWALK SHALL BE PROVIDED ON ONE SIDE OF ALL PROPOSED ROADS.
 - A PARKLAND FEE-IN-LIEU OF DEDICATION WILL BE REQUIRED.
 - NO PORTION OF THIS PROPERTY IS LOCATED IN THE EDWARDS AQUIFER RECHARGE ZONE. THIS PROPERTY IS LOCATED ENTIRELY IN THE EDWARDS AQUIFER CONTRIBUTING ZONE.
 - POST-DEVELOPMENT CONDITIONS RUNOFF RATE SHALL BE NO GREATER THAN THE PRE-DEVELOPED CONDITIONS FOR 2-, 10-, 25-, AND 100-YR STORM EVENTS. PRE- AND POST-DEVELOPMENT RUNOFF CALCULATIONS SHALL BE INCLUDED WITH THE CONSTRUCTION DRAWINGS FOR THIS SUBDIVISION.
 - THE FIRST 347.51 LF OF SILVER CREEK ROAD WILL BE DEDICATED TO HAYS COUNTY. ALL REMAINING ROADWAYS PROPOSED ARE TO BE PRIVATE.
 - DRIVEWAYS SHALL COMPLY WITH CHAPTER 721 OF HAYS COUNTY DEVELOPMENT REGULATIONS, AND BE PERMITTED THROUGH THE TRANSPORTATION DEPARTMENT OF HAYS COUNTY UNDER CHAPTER 751.
 - ALL CULVERTS, WHEN REQUIRED SHALL COMPLY WITH THE CURRENT HAYS COUNTY STANDARD.
 - MAILBOXES PLACED WITHIN THE ROW, SHALL BE OF AN APPROVED TxDOT OR FHWA DESIGN.
 - HAYS COUNTY IS NOT RESPONSIBLE FOR SIDEWALK MAINTENANCE. A FULLY EXECUTED LICENSE AGREEMENT MUST BE IN-PLACE PRIOR TO CONSTRUCTION OF SIDEWALKS WITHIN HAYS COUNTY ROW.
 - 15' PUA EASEMENT AND 15' PUBLIC UTILITY EASEMENT SHALL SERVE AS A PUBLIC ACCESS EASEMENT FOR H.O.A. TO MAINTAIN THE SIDEWALKS.
 - NEIGHBORING PROPERTIES ALONG SILVER CREEK ROAD INCLUDING HAYS COUNTY PARCEL ID # 94015, #128359, #113448, #173021, AND #107215 SHALL MAINTAIN ACCESS THROUGH R.O.W. LOT 1.

DOUCET
A Kleinfelder Company

Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 160
Austin, TX 78735, Tel: (512)-583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

SOUTHERN LAND AND COMPANY

LUNAROYA SUBDIVISION

HAYS COUNTY, TEXAS 78620

OVERALL PRELIMINARY PLAT

Designed:	JBB
Drawn:	JBB
Reviewed:	JH
Date:	1/29/2025
SHEET	
1	
OF 4	
Project No.:	2408-002

DOUCET
A Kleinfelder Company

Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 160
Austin, TX 78735, Tel: (512)-583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

LUNAROYA SUBDIVISION

DRIPPING SPRINGS, TX

PRELIMINARY PLAN 1

Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025
SHEET	
4	
OF 44	
Project No.:	2408-002



LEGEND

- IRON ROD FOUND
- FIRE HYDRANT
- SIGN
- POWER POLE
- DOWN GUY
- SUBDIVISION BOUNDARY
- LOT LINES
- BUILDING SETBACK LINE
- EASEMENTS
- PROPOSED RIGHT OF WAY
- PROPOSED FACE OF CURB
- EXISTING CONTOURS
- WETLAND CRITICAL ENVIRONMENTAL FEATURE (CEF)
- P.P.D. PUBLIC PARKLAND DEDICATION
- O.S. OPEN SPACE
- WQBZ WATER QUALITY BUFFER ZONE
- FEMA 100-YR FLOODPLAIN

LAYOUT KEY

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 160
Austin, TX 78735, Tel: (512)-583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

2/6/2025

**SOUTHERN LAND COMPANY
LUNAROYA SUBDIVISION
HAYS COUNTY, TEXAS 78620**

PRELIMINARY PLAT I

Designed:	JBB
Drawn:	JBB
Reviewed:	JH
Date:	11/13/2024
SHEET	
2	
OF 4	
Project No.:	2408-002

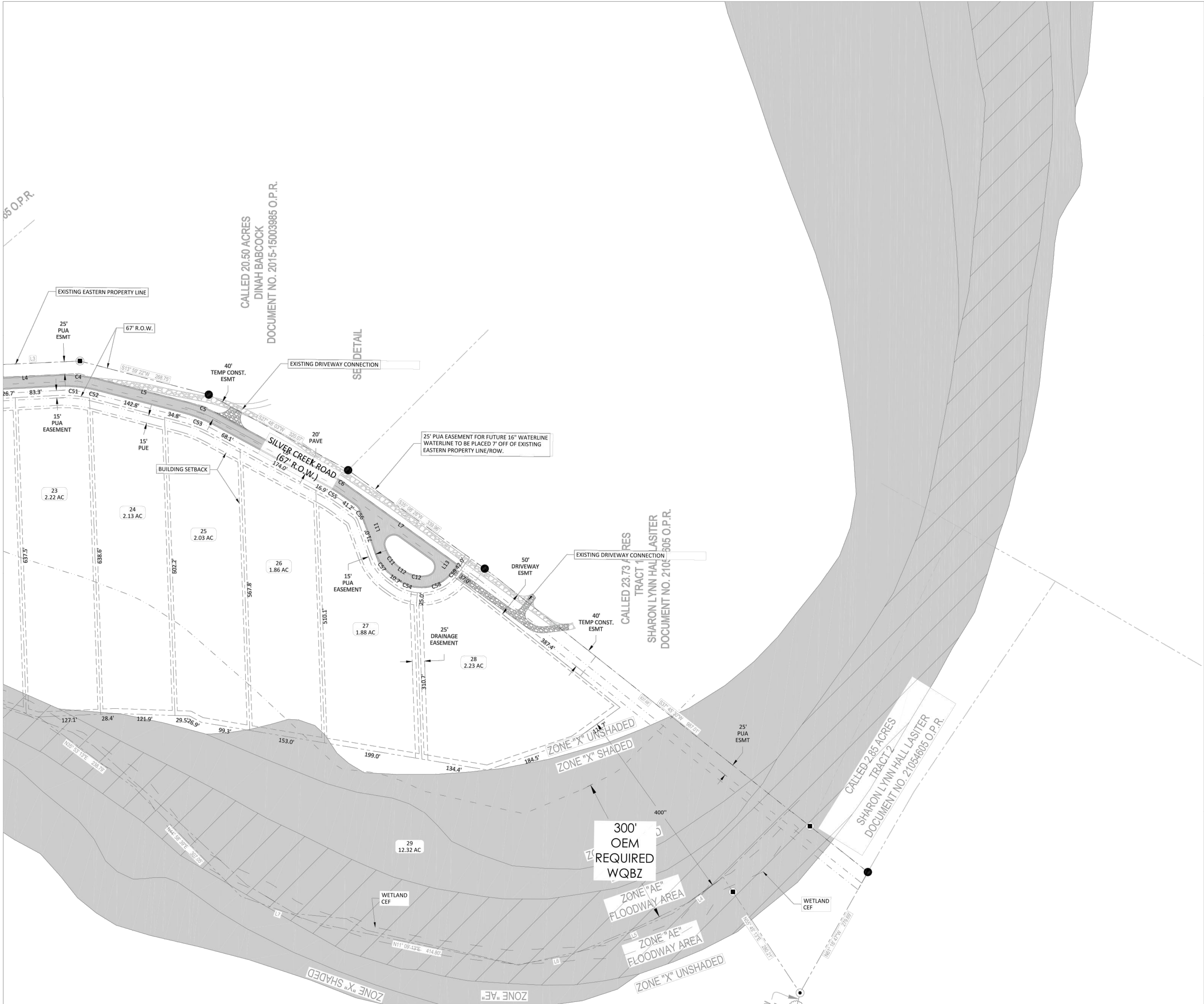
DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 160
Austin, TX 78735, Tel: (512)-583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

2/10/2025

**LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX**

PRELIMINARY PLAN 2

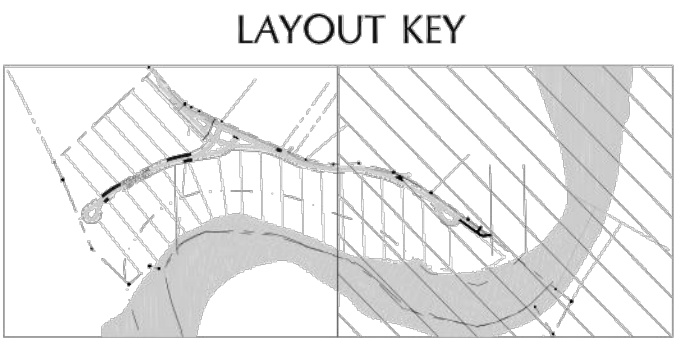
Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025
SHEET	
5	
OF 44	
Project No.:	2408-002



GRAPHIC SCALE 1"=100'

LEGEND

- IRON ROD FOUND
- FIRE HYDRANT
- SIGN
- POWER POLE
- DOWN GUY
- SUBDIVISION BOUNDARY
- LOT LINES
- BUILDING SETBACK LINE
- EASEMENTS
- PROPOSED RIGHT OF WAY
- PROPOSED FACE OF CURB
- EXISTING CONTOURS
- WETLAND CRITICAL ENVIRONMENTAL FEATURE (CEF)
- P.P.D.
- O.S.
- WQBZ
- FEMA 100-YR FLOODPLAIN



DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735 Tel: (512)-583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

JACOB S. HARRIS
144473
2/8/2025

SOUTHERN LAND COMPANY
LUNAROYA SUBDIVISION
HAYS COUNTY, TEXAS 78620

PRELIMINARY PLAT II

Designed:	JBB
Drawn:	JBB
Reviewed:	JH
Date:	11/13/2024
SHEET	
3	
OF 4	
Project No.:	2408-002

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735 Tel: (512)-583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

JACOB S. HARRIS
144473
2/10/2025

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

PRELIMINARY PLAN 3

Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025
SHEET	
6	
OF 44	
Project No.:	2408-002

SILVER CREEK ROAD			
Number	Length	Radius	Line/Chord Direction
L1	310.473		S45° 30' 56.29"W
C1	116.944	307.000	S34° 36' 10.46"W
L2	892.527		S23° 49' 30.55"W
C2	83.744	307.000	S16° 00' 38.05"W
L3	143.407		S08° 41' 07.74"W
C3	64.592	300.000	S02° 31' 02.72"W
L4	109.623		S03° 39' 02.30"E
C4	92.363	300.000	S05° 10' 09.67"W
L5	175.644		S13° 59' 21.64"W
C5	72.316	300.000	S20° 53' 42.14"W
L6	257.638		S27° 48' 02.64"W
C6	38.434	300.000	S31° 28' 15.14"W
L7	263.096		S35° 08' 27.64"W

SILVER CREEK ENTRY TURNAROUND			
Number	Length	Radius	Line/Chord Direction
C10	123.206	35.000	S55° 19' 47.17"E

SILVER CREEK ENTRY			
Number	Length	Radius	Line/Chord Direction
L8	262.774		S45° 30' 56.29"W
C7	151.433	400.000	S34° 40' 12.09"W
L9	7.500		S23° 49' 27.88"W
C8	151.433	400.000	S12° 58' 43.68"W
L10	108.141		S02° 07' 59.47"W
C9	189.298	500.000	S12° 58' 45.01"W

SILVER CREEK TURNAROUND			
Number	Length	Radius	Line/Chord Direction
L11	99.651		S69° 32' 31.12"W
C11	57.328	95.481	S52° 20' 29.38"W
L12	10.750		S35° 08' 27.64"W
C12	106.814	68.000	S09° 51' 32.36"E
L13	5.000		S54° 51' 32.36"E

SKYWARD LANE MAIN			
Number	Length	Radius	Line/Chord Direction
L14	25.566		N66° 17' 11.00"W
C13	198.635	203.750	N38° 17' 59.67"W
L15	196.135		N10° 22' 16.52"W
C14	25.720	638.286	N11° 31' 32.25"W
L16	51.223		N12° 40' 47.98"W
C15	220.810	750.000	N21° 06' 51.53"W
L17	303.815		N29° 32' 55.09"W
C16	34.819	280.000	N33° 06' 40.12"W
L18	172.785		N36° 40' 25.15"W
C17	155.394	40.000	S32° 01' 59.04"W
L19	32.478		S79° 15' 34.71"E
C18	133.788	180.000	S57° 57' 59.93"E

SKYWARD LANE ENTRANCE			
Number	Length	Radius	Line/Chord Direction
L20	70.274		N66° 17' 10.99"W
C19	279.335	304.161	N39° 00' 50.82"W

PARCEL CURVE TABEL					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C20	78.81	430.00	10.50	S40° 15' 55"W	78.70
C21	22.40	13.50	95.06	S82° 32' 50"W	19.92
C22	21.66	274.00	4.53	N47° 39' 24"W	21.65
C23	145.46	274.00	30.42	N30° 11' 00"W	143.76
C24	82.54	780.00	6.06	N15° 42' 41"W	82.50
C25	10.88	274.00	2.28	N13° 50' 13"W	10.88
C26	138.09	780.00	10.14	N23° 48' 54"W	137.91
C27	9.01	780.00	0.66	N29° 13' 04"W	9.01
C28	31.09	250.00	7.13	N33° 06' 40"W	31.07
C29	93.64	70.00	76.64	N74° 59' 41"W	86.81
C30	138.32	70.00	113.22	S10° 04' 37"W	116.89
C31	95.07	150.00	36.31	S61° 06' 09"E	93.49
C32	39.99	70.00	32.73	S62° 53' 43"E	39.44
C33	16.42	150.00	6.27	S39° 48' 35"E	16.41
C34	31.09	250.00	7.13	S33° 06' 40"E	31.07
C35	71.66	720.00	5.70	S26° 41' 50"E	71.63
C36	2.31	280.00	0.47	S12° 27' 45"E	2.31
C37	140.32	720.00	11.17	S18° 15' 47"E	140.09
C38	9.06	280.00	1.85	S11° 17' 54"E	9.06
C40	16.33	233.75	4.00	S12° 22' 23"E	16.33
C42	108.05	233.75	26.48	S27° 37' 02"E	107.09
C43	11.64	13.50	49.39	S16° 09' 58"E	11.28
C44	47.99	430.00	6.39	S5° 19' 49"W	47.96
C45	51.97	470.00	6.34	S5° 18' 03"W	51.94
C47	125.97	470.00	15.36	S16° 08' 49"W	125.59
C48	27.68	336.89	4.71	S21° 28' 26"W	27.67
C49	64.12	336.89	10.90	S13° 40' 05"W	64.02
C50	72.56	337.00	12.34	S2° 31' 03"W	72.42
C51	67.33	263.00	14.67	S3° 41' 02"W	67.15
C52	13.64	263.00	2.97	S12° 30' 14"W	13.64
C53	63.40	263.00	13.81	S20° 53' 42"W	63.24
C54	48.55	90.00	30.91	S19° 41' 11"W	47.97
C55	33.69	263.00	7.34	S31° 28' 15"W	33.67
C56	15.00	25.00	34.38	S52° 19' 44"W	14.78
C57	70.50	117.50	34.38	S52° 19' 48"W	69.45
C58	84.81	90.00	53.99	S22° 45' 51"E	81.71
C59	8.01	90.00	5.10	S52° 18' 35"E	8.01



DOUCET

A Kleinfelder Company

Civil Engineering // Entitlements // Geospatial

7401 B. Highway 71 W. Ste. 140

Austin, TX 78735, Tel: (512)-583-2600

www.doucelengineers.com

TBPELS Engineering Firm No. F-3937

TBPELS Surveying Firm No. 10194551



SOUTHERN LAND COMPANY
LUNAROYA SUBDIVISION
HAYS COUNTY, TEXAS 78620

DATA TABLES

Designed: JBB

Drawn: JBB

Reviewed: JH

Date: 11/13/2024

SHEET

4

OF 4

Project No.:

2408-002



DOUCET

A Kleinfelder Company

Civil Engineering // Entitlements // Geospatial

7401 B. Highway 71 W. Ste. 140

Austin, TX 78735, Tel: (512)-583-2600

www.doucelengineers.com

TBPELS Engineering Firm No. F-3937

TBPELS Surveying Firm No. 10194551



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

PRELIMINARY PLAN 4

Designed: JBB AD

Drawn: JBB

Reviewed: JH

Date: 2-10-2025

SHEET

7

OF 44

Project No.:

2408-002



BREAKLINE (SHEET 8)

CALLED 10.264 ACRES
 DINAH BABCOCK
 DOCUMENT NO. 2004

DOCUMENT NO. 2015-415003893
DINH BACH GCK
CALHEDED 20.02 ACRES
R.P. 0.0

SEE DETAIL

DOCUMENT NO. 21054603 O.P.R.
SHARON LYNN HALL LASTER
TRACT 1
CALLED 23.73 ACRES

CALLED 2.85 ACRES
 TRACT 2
 SHARON LYNN HALL LASITER
 DOCUMENT NO. 21054605 O.P.R.

APPROXIMATE CENTERLINE
OF BARTON CREEK

PROPOSED LIMITS OF CONSTRUCTION
SHOWN FOR REFERENCE ONLY

Diagram illustrating the zones for the proposed road:

- ZONE "X" UNSHAD
- ZONE "X" SHADED

ZONE "X" SHADED

NE "A"

ZONE "AE"

FLOODWAY AREA

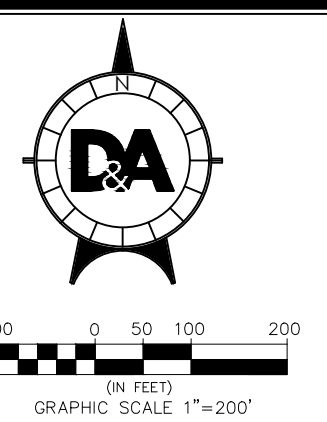
"AE"

15" LIVE OAK






















ZONE "X" SHADED

ZONE "X" UNSHADED

DOCUMENT NO. 190335342
 O.P. 1240.674 AGRES
 LL RANCH INVESTMENTS, LP
 CALLED



LEGEND

- | | |
|---|--|
|  | IRON ROD FOUND
(SIZE NOTED) |
|  | IRON PIPE FOUND
(SIZE NOTED) |
|  | BENCHMARK FOUND |
|  | CALCULATED POINT |
|  | COTTON SPINDLE FOUND |
|  | NAIL FOUND |
|  | FENCE POST OCCUPIES
PROPERTY CORNER |
|  | MONUMENT FOUND |
|  | CONCRETE MARKER FOUND |
| CO | CLEAN OUT |
|  | BOLLARD (SIZE NOTED) |
|  | ELECTRIC PULL BOX |
|  | ELECTRIC METER |
|  | ELECTRIC TRANSFORMER |
|  | ELECTRIC MANHOLE |
|  | POWER POLE |
|  | DOWN GUY |
|  | GRAVEL ROADWAY |
|  | EXISTING TREE |
|  | PROPERTY BOUNDARY |
|  | WIRE FENCE |
|  | OVERHEAD ELECTRIC |

UTILITY NOTE:
SOME POSSIBLE LOCATIONS OF UNDERGROUND UTILITIES ARE SHOWN
HEREON AS A PRECAUTIONARY MEASURE BASED UPON OBSERVED SURVEY
LOCATIONS. DOUGET & ASSOCIATES DOES NOT TAKE RESPONSIBILITY FOR
DETERMINING THE DEPTH OR LOCATION OF UNDERGROUND UTILITIES WITHIN
OR AROUND THE SUBJECT SITE. ALL UTILITIES SHOULD BE FIELD VERIFIED
AND CHECKED BY CONTRACTOR.

FLOODPLAIN NOTE:
A PORTION OF THIS PROPERTY (AS SHOWN HEREON) IS LOCATED WITHIN
- ZONE "X" UNSHADED, AREAS DETERMINED TO BE OUTSIDE THE 0.2%
ANNUAL CHANGE FLOODPLAIN.

-ZONE "X" SHADED, AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.

ZONE AE, BASE FLOOD ELEVATIONS DETERMINED, SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD. THE 1% ANNUAL CHANCE FLOOD (100-YEAR FLOOD), ALSO KNOWN AS THE BASE FLOOD, IS THE FLOOD THAT HAS A 1% CHANCE OF BEING EQUALLED OR EXCEEDED IN ANY GIVEN YEAR. THE SPECIAL FLOOD HAZARD AREA IS THE AREA SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD. THE BASE FLOOD ELEVATION IS THE WATER-SURFACE ELEVATION OF THE 1% ANNUAL CHANCE FLOOD.

- FLOODWAY AREAS IN ZONE "AE", THE FLOODWAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREAS THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANCE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL INCREASE IN FLOOD HEIGHTS.

AS SHOWN ON F.I.R.M. PANEL NO. 48209C0106F, HAYS COUNTY, TEXAS
DATED SEPTEMBER 2, 2005.

THIS FLOOD STATEMENT DOES NOT IMPLY THAT THE PROPERTY AND/OR THE STRUCTURES THEREON WILL BE FREE FROM FLOODING OR FLOOD DAMAGE. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

BASIS OF BEARING IS THE TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE (4204), NORTH AMERICAN DATUM 1983 (NAD83), 2011 ADJUSTMENT (EPOCH 2010). ALL COORDINATE VALUES AND DISTANCES SHOWN ARE LOCAL SURFACE VALUES AND MAY BE CONVERTED TO GRID BY DIVIDING THE SURFACE ADJUSTMENT FACTOR OF 1.00006 USING BM1 AS POINT OF ORIGIN.

BASE POINT INFORMATION (GRID)
BENCHMARK # 1
N=13,999,321.2205
E=2,267,673.1156
ELEV.=1,137.3763
CP=IRSAC 1/2 DOUCET
*NOT SHOW HERE ON THIS EXHIBIT

UNITS: US SURVEY FEET.

BENCHMARK # 200
N=13,999,334.62
E=2,267,699.10
ELEVATION: 1,136.60'
DESCRIPTION: MAGNAIL WITH SHINER SET IN ROAD LOCATED

THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE COMMITMENT. EASEMENTS OR OTHER MATTERS OF RECORD MAY EXIST WHERE NONE ARE SHOWN.

TREE SURVEY NOTE:
THE CRITICAL ROOT ZONE (CRZ) SHOWN HEREON WAS DETERMINED BY USING THE FORMULA OF TREE DIAMETER (IN INCHES) X 2 = CRITICAL ROOT ZONE (IN FEET). MULTI-TRUNK TREE DIAMETER WAS DETERMINED BY THE SUM OF THE PRIMARY TRUNK DIAMETER (IN INCHES) PLUS HALF THE DIAMETER (IN INCHES) OF EACH ADDITIONAL TRUNK.

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

EXISTING CONDITIONS PLAN

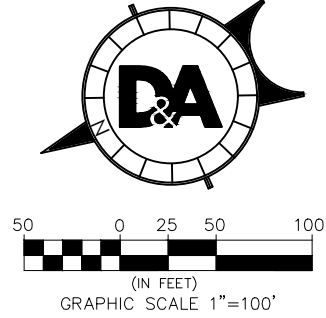
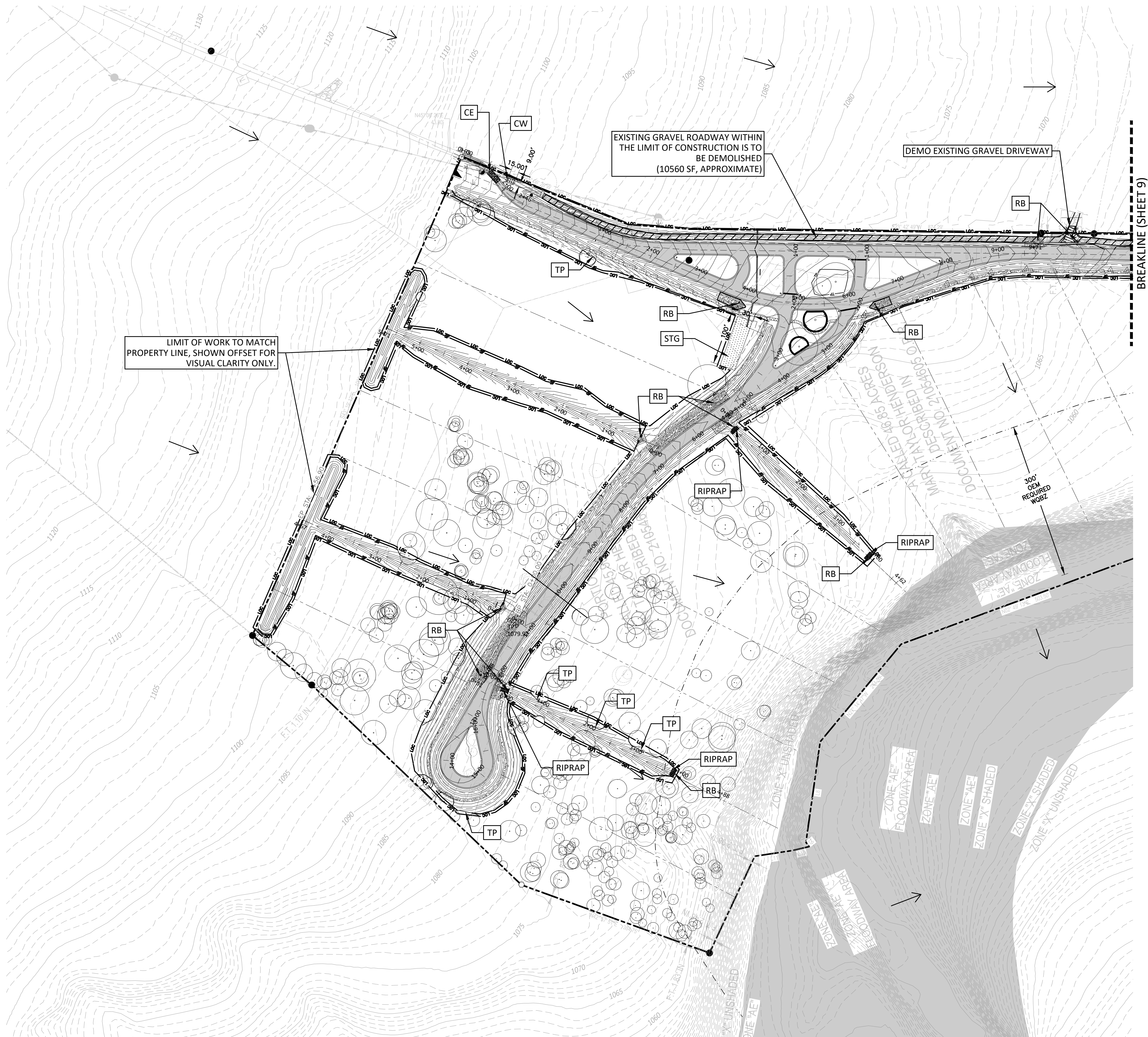
Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025
SHEET	
9	
OF 44	
Project No.: 2408-002	

TREES TO REMAIN				
NUMBER	SIZE(N)	SPECIES	CRZ(FT)	MT(N)
3000	14"	LIVE OAK 28'		
3001	14"	LIVE OAK 28'		
3002	27"	CEDAR ELM 54'	14 14 12	
3003	12"	LIVE OAK 24'		
3004	10"	LIVE OAK 20'		
3005	12"	LIVE OAK 24'		
3006	10"	LIVE OAK 20'		
3007	10"	LIVE OAK 20'		
3008	12"	LIVE OAK 24'		
3009	10"	LIVE OAK 20'		
3010	13"	LIVE OAK 26'		
3011	10"	LIVE OAK 20'		
3012	13"	LIVE OAK 26'		
3013	14"	LIVE OAK 28'		
3014	18"	LIVE OAK 36'	13 11	
3015	13"	LIVE OAK 26'		
3016	16"	LIVE OAK 32'		
3017	21"	LIVE OAK 42'		
3018	8"	LIVE OAK 16'		
3107	18"	LIVE OAK 36'		
3108	23"	LIVE OAK 46'		
3109	18"	LIVE OAK 36'		
3110	21"	LIVE OAK 42'		
3111	11"	LIVE OAK 22'		
3112	12"	LIVE OAK 24'		
3113	16"	LIVE OAK 32'		
3114	17"	LIVE OAK 34'		
3115	37"	LIVE OAK 74'		
3116	27"	LIVE OAK 54'		
3117	45"	LIVE OAK 90'		
3118	31"	LIVE OAK 62'		
3119	36"	LIVE OAK 72'	27 19	
3120	38"	LIVE OAK 76'		
3121	22"	LIVE OAK 44'		
3122	12"	LIVE OAK 24'		
3123	39"	LIVE OAK 78'	33 13	
3124	20"	LIVE OAK 40'		
3125	11"	LIVE OAK 22'	8 5 3	
3126	18"	LIVE OAK 36'		
3127	16"	LIVE OAK 32'		
3128	13"	LIVE OAK 26'		
3129	14"	LIVE OAK 28'		
3130	13"	LIVE OAK 26'	10 7	
3131	20"	LIVE OAK 40'	10 9 8 4	
3132	8"	LIVE OAK 16'		
3133	27"	LIVE OAK 54'	20 15	
3134	11"	LIVE OAK 22'		
3135	15"	LIVE OAK 30'		
3136	13"	LIVE OAK 26'		
3137	9"	LIVE OAK 18'		
3138	9"	LIVE OAK 18'		
3139	11"	LIVE OAK 22'		
3140	9"	LIVE OAK 18'		
3141	19"	LIVE OAK 38'	15 8	
3142	9"	LIVE OAK 18'		
3143	12"	LIVE OAK 24'		
3144	13"	LIVE OAK 26'		
3145	9"	LIVE OAK 18'		
3146	13"	LIVE OAK 26'		
3147	12"	LIVE OAK 24'		
3148	8"	LIVE OAK 16'		
3149	11"	LIVE OAK 22'		
3150	11"	LIVE OAK 22'		
3151	13"	LIVE OAK 26'		
3152	10"	LIVE OAK 20'		
3153	16"	LIVE OAK 32'	13 6	
3154	10"	LIVE OAK 20'		
3155	10"	LIVE OAK 20'		
3156	10"	LIVE OAK 20'		
3157	10"	LIVE OAK 20'		
3158	11"	LIVE OAK 22'	8 6	
3159	10"	LIVE OAK 20'		
3160	12"	LIVE OAK 24'		
3161	10"	LIVE OAK 20'		
3162	11"	LIVE OAK 22'		
3163	13"	LIVE OAK 26'		
3164	15"	LIVE OAK 30'	11 9	
3165	18"	LIVE OAK 36'		
3166	9"	LIVE OAK 18'		
3167	11"	LIVE OAK 22'		
3168	12"	LIVE OAK 24'		
3169	10"	LIVE OAK 20'		
3170	10"	LIVE OAK 20'		
3171	17"	LIVE OAK 34'	13 8	
3172	14"	LIVE OAK 28'		
3173	16"	LIVE OAK 32'		
3174	8"	LIVE OAK 16'		
3175	9"	LIVE OAK 18'		
3176	11"	LIVE OAK 22'		
3177	10"	LIVE OAK 20'		
3178	10"	LIVE OAK 20'		
3179	10"	LIVE OAK 20'		
3180	10"	LIVE OAK 20'		
3181	11"	LIVE OAK 22'		
3182	9"	LIVE OAK 18'		
3183	8"	LIVE OAK 16'		
3184	9"	LIVE OAK 18'		
3185	11"	LIVE OAK 22'	9 4	
3186	22"	LIVE OAK 44'	16 13	
3187	15"	LIVE OAK 30'		
3188	21"	LIVE OAK 42'	16 11	
3189	8"	LIVE OAK 16'		
3190	8"	LIVE OAK 16'		
3191	11"	LIVE OAK 22'	8 6	
3192	8"	LIVE OAK 16'		
3193	11"	LIVE OAK 22'	8 6	
3200	13"	LIVE OAK 26'		
3201	11"	LIVE OAK 22'		
3202	13"	LIVE OAK 26'	10 7	
3203	9"	LIVE OAK 18'		

TREES TO REMAIN				
NUMBER	SIZE(N)	SPECIES	CRZ(FT)	MT(N)
3204	18"	LIVE OAK 36'		
3205	16"	LIVE OAK 32'		
3206	25"	LIVE OAK 50'		
3207	17"	LIVE OAK 34'	12 11	
3208	15"	LIVE OAK 30'		
3209	21"	LIVE OAK 42'		
3210	31"	LIVE OAK 62'		
3211	26"	LIVE OAK 52'	15 10 6	
3212	14"	LIVE OAK 28'	10 6	
3213	28"	LIVE OAK 56'	13 10 10 10	
3214	16"	LIVE OAK 32'	12 6 7	
3215	12"	LIVE OAK 24'		
3216	20"	LIVE OAK 40'	14 12	
3217	18"	LIVE OAK 36'	12 12	
3218	13"	LIVE OAK 26'		
3219	16"	LIVE OAK 32'		
3220	13"	LIVE OAK 26'		
3221	10"	LIVE OAK 20'		
3222	13"	LIVE OAK 26'		
3223	16"	LIVE OAK 36'		
3224	15"	LIVE OAK 30'		
3225	17"	LIVE OAK 34'		
3226	20"	LIVE OAK 40'		
3227	19"	LIVE OAK 38'		
3228	10"	LIVE OAK 20'		
3229	14"	LIVE OAK 28'		
3230	12"	LIVE OAK 24'		
3231	15"	LIVE OAK 30'		
3232	16"	LIVE OAK 32'		
3233	15"	LIVE OAK 30'		
3234	8"	LIVE OAK 16'		
3235	15"	LIVE OAK 30'	11 8	
3236	10"	LIVE OAK 20'		
3237	9"	LIVE OAK 18'		
3238	13"	LIVE OAK 26'		
3239	16"	LIVE OAK 32'		
3240	15"	LIVE OAK 30'		
3241	15"	LIVE OAK 30'		
3242	14"	LIVE OAK 28'		
3243	13"	LIVE OAK 26'		
3244	13"	LIVE OAK 26'		
3245	27"	LIVE OAK 54'		
3246	17"	LIVE OAK 34'	10 10 4	
3247	15"	LIVE OAK 30'		
3248	14"	LIVE OAK 28'		
3249	16"	LIVE OAK 32'		
3250	16"	LIVE OAK 32'		
3251	16"	LIVE OAK 32'		
3252	18"	LIVE OAK 36'		
3253	10"	LIVE OAK 20'		
3254	16"	LIVE OAK 32'		
3255	14"	LIVE OAK 28'		
3256	15"	LIVE OAK 30'		
3257	14"	LIVE OAK 28'		
3258	14"	LIVE OAK 28'		
3259	14"	LIVE OAK 28'		
3260	18"	LIVE OAK 36'		
3261	15"	LIVE OAK 30'		
3262	13"	LIVE OAK 26'		
3263	11"	LIVE OAK 22'		
3264	14"	LIVE OAK 28'		
3265	9"	LIVE OAK 18'		
3266	12"	LIVE OAK 24'		
3267	16"	LIVE OAK 32'		
3268	20"	LIVE OAK 40'		
3269	18"	LIVE OAK 36'		
3270	16"	LIVE OAK 32'	10 6 6	
3271	12"	LIVE OAK 24'		
3272	8"	LIVE OAK 16'		
3273	20"	LIVE OAK 40'		
3274	21"	LIVE OAK 42'		
3275	13"	LIVE OAK 26'		
3276	16"	LIVE OAK 32'		
3277	23"	LIVE OAK 46'	14 11 8	
3278	11"	LIVE OAK 22'		
3279	9"	LIVE OAK 18'		
3280	11"	LIVE OAK 22'		
3281	9"	LIVE OAK 18'		
3282	11"	LIVE OAK 22'		
3283	9"	LIVE OAK 18'		
3284	13"	LIVE OAK 26'	10 6	
3285	10"	LIVE OAK 20'		
3286	13"	LIVE OAK 26'	10 6	
3287	16"	LIVE OAK 32'		
3288	10"	LIVE OAK 20'		
3289	15"	LIVE OAK 30'		
3290	14"	LIVE OAK 28'		
3291	15"	LIVE OAK 30'		
3292	17"	LIVE OAK 34'		
3293	12"	LIVE OAK 24'		
3294	11"	LIVE OAK 22'		
3295	8"	LIVE OAK 16'		
3296	10"	LIVE OAK 20'		
3297	12"	LIVE OAK 24'		
3298	13"	LIVE OAK 26'	10 6	
3299	11"	LIVE OAK 22'		
3300	16"	LIVE OAK 32'		
3301	38"	LIVE OAK 76'	21 21 14	
3302	14"	LIVE OAK 28'		
3303	12"	LIVE OAK 24'		
3304	18"	LIVE OAK 36'		
3305	16"	LIVE OAK 32'		
3306	25"	LIVE OAK 50'	13 12 12	
3307	13"	LIVE OAK 26'		
3308	18"	LIVE OAK 36'		
3309	11"	LIVE OAK 22'		
3310	15"	LIVE OAK 30'		
3311	30"	LIVE OAK 60'	21 19	
3312	24"	LIVE OAK 48'	17 15	
3313	29"	LIVE OAK 58'	15 15 14	

TREES TO REMAIN				
NUMBER	SIZE(N)	SPECIES	CRZ(FT)	MT(N)
3314	20"	LIVE OAK 40'	11 11 8	
3315	26"	LIVE OAK 52'		
3316	20"	LIVE OAK 40'		
3317	18"	LIVE OAK 36'	14 10	
3318	19"	LIVE OAK 38'		
3319	22"	LIVE OAK 44'	17 10	
3320	14"	LIVE OAK 28'		
3321	16"	LIVE OAK 32'		
3322	17"	LIVE OAK 34'		
3323	24"	LIVE OAK 48'	17 14	
3324	28"	LIVE OAK 56'		
3325	15"	LIVE OAK 30'		
3326	15"	LIVE OAK 30'		
3327	31"	LIVE OAK 62'	16 16 14	
3328	19"	LIVE OAK 38'		
3329	15"	LIVE OAK 30'		
3330	22"	LIVE OAK 44'		
3331	12"	LIVE OAK 24'		
3332	14"	LIVE OAK 28'		
3333	17"	LIVE OAK 34'		
3334	20"	LIVE OAK 40'		
3335	12"	LIVE OAK 24'		
3336	17"	LIVE OAK 34'		
3337	16"	LIVE OAK 32'		
3338	15"	CEDAR ELM 30'		
3339	11"	LIVE OAK 22'		
3340	17"	LIVE OAK 34'		
3341	13"	LIVE OAK 26'		
3342	14"	LIVE OAK 28'		
3343	11"	LIVE OAK 22'		
3344	22"	LIVE OAK 44'		
3345	18"	LIVE OAK 36'		
3346	14"	LIVE OAK 28'		
3347	9"	LIVE OAK 18'		
3348	14"	LIVE OAK 28'		
3349	11"	LIVE OAK 22'		
3350	10"	LIVE OAK 20'		
3351	18"	LIVE OAK 36'		
3352	10"	LIVE OAK 20'		
3353	12"	LIVE OAK 24'	9 6	
3354	10"	LIVE OAK 20'		
3355	9"	LIVE OAK 18'		
3356	19"	LIVE OAK 38'		
3357	15"	LIVE OAK 30'		
3358	13"	LIVE OAK 26'		
3359	11"	LIVE OAK 22'		
3360	13"	LIVE OAK 26'		
3361	10"	LIVE OAK 20'		
3362	11"	LIVE OAK 22'	8 7	
3363	8"	LIVE OAK 16'		
3364	10"	LIVE OAK 20'		
3365	10"	LIVE OAK 20'		
3366	15"	LIVE OAK 30'	11 9	
3367	17"	LIVE OAK 34'		
3368	15"	LIVE OAK 30'		
3369	14"	LIVE OAK 28'		
3370	15"	LIVE OAK 30'	11 8	
3371	8"	LIVE OAK 16'		
3372	12"	LIVE OAK 24'		
3373	12"	LIVE OAK 24'		
3374	12"	LIVE OAK 24'		
3375	14"	LIVE OAK 28'		
3376	18"	LIVE OAK 36'		
3377	15"	LIVE OAK 30'		
3378	23"	LIVE OAK 46'	18 10	
3379	8"	SHIN OAK 16'		
3380	18"	SHIN OAK 36'	10 7 6 5	
3381	14"	SHIN OAK 28'	8 8 5	
3382	10"	SHIN OAK 20'		
3383	11"	CEDAR ELM 22'		
3384	9"	CEDAR ELM 18'		
3385	25"	LIVE OAK 50'	16 10 8	
3386	18"	LIVE OAK 36'		
3387	29"	LIVE OAK 58'	20 18	
3388	13"	LIVE OAK 26'		
3389	17"	LIVE OAK 34'	12 11	
3390	19"	LIVE OAK 38'		
3391	18"	LIVE OAK 36'		
3392	9"	LIVE OAK 18'		
3393	16"	LIVE OAK 32'	14 5	
3394	19"	LIVE OAK 38'		
3395	27"	LIVE OAK 54'	17 10 10	
3396	15"	LIVE OAK 30'	11 9	
3397	17"	LIVE OAK 34'		
3398	16"	LIVE OAK 32'		
3399	17"	LIVE OAK 34'		
3400	13"	LIVE OAK 26'		
3401	10"	LIVE OAK 20'		
3402	10"	LIVE OAK 20'		
3403	13"	LIVE OAK 26'		
3404	8"	LIVE OAK 16'		
3405	17"	LIVE OAK 34'		
3406	11"	LIVE OAK 22'		
3407	14"	LIVE OAK 28'		
3408	17"	LIVE OAK 34'		
3409	19"	LIVE OAK 38'		
3410	26"	LIVE OAK 52'	19 14	
3411	26"	LIVE OAK 52'	14 13 13	
3412	11"	LIVE OAK 22'		
3413	11"	LIVE OAK 22'	8 7	
3414	13"	LIVE OAK 26'	9 8	
3415	14"	SHIN OAK 28'		
3416	15"	LIVE OAK 30'		
3417	13"	LIVE OAK 26'		
3418	8"	LIVE OAK 16'		
3419	17"	LIVE OAK 34'		
3420	21"	LIVE OAK 42'	11 10 10	
3421	18"	LIVE OAK 36'		
3422	9"	LIVE OAK 18'		
3423	11"	LIVE OAK 22'		

Drawing: C:\pwworking\JF\dc-prod\jonathan.lanier\14011402\2408002 CD ESC & DEMO.dwg
User: JBAUSTIK
Date: 02-25-2023
Plot Date/Time: Feb. 10 25 - 10:23:41



LEGEND

- SUBDIVISION BOUNDARY
- LOT LINES
- EASEMENTS
- NOAA ATLAS 14 100-YR DEVELOPED FLOODPLAIN
- OVERALL LIMITS OF CONSTRUCTION
- CE TEMPORARY STONE CONSTRUCTION ENTRANCE. SEE DETAIL SHEET
- RB ROCK BERM SEE DETAIL SHEET
- SF SILT FENCE SEE DETAIL SHEET
- TP TREE PROTECTION FENCE SEE DETAIL SHEET
- TREES TO REMAIN AND TO REMOVE
- STG STAGING AND SPOILS AREA
- CW CONCRETE WASH OUT AREA
- BACK-FILL STORAGE AREA
- GRAVEL ROADWAY TO BE DEMOLISHED
- GRAVEL DRIVEWAY TO BE DEMOLISHED AND RECONSTRUCTED
- FLOW ARROW

SILVER CREEK SUBDIVISION Erosion Control	
Silt Fence	7,677 LF
Tree Protection Fencing	1,097 LF
Rock Berm	116 LF
Staging Area	1 EACH
Construction Entrance	1 EACH
Concrete Washout	1 EACH
Limits of Construction	10.05 ACRES



WARNING !!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

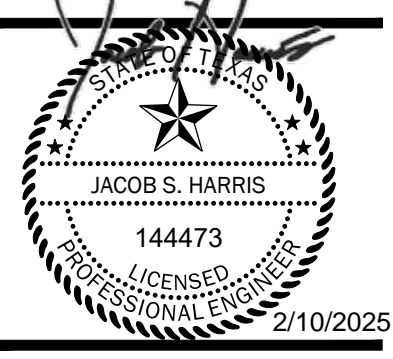
ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

- NOTES:
- PROPOSED CHANNELS WITHIN PROJECT AREA CAN BE USED AS TEMPORARY SEDIMENTATION BASIN.
 - 100 FT NATIVE BUFFER TO BE CLEARED OF CEDARS AND RE-SEED WITH NATIVE CENTRAL TEXAS DRAUGHT TOLERANT GRASSES. GRASS MIX SHALL BE APPROVED BY THE CITY.
 - WITHIN 100 FT NATIVE BUFFER, ALL HEALTHY OAK TREES 8 INCHES IN DIAMETER AND LARGER SHALL REMAIN.
 - SEE SHEET 10 FOR TREE LIST

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	130,000	÷ 43,560 =	2.98
Parking		÷ 43,560 =	
Other paved surfaces	239,825	÷ 43,560 =	5.51
Total Impervious Cover	369,825	÷ 43,560 =	8.49

Total Impervious Cover 8.49 ÷ Total Acreage 70 X 100 = 12.13% Impervious Cover



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

**EROSION & SEDIMENTATION
CONTROL PLAN & DEMOLITION
PLAN 1**

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

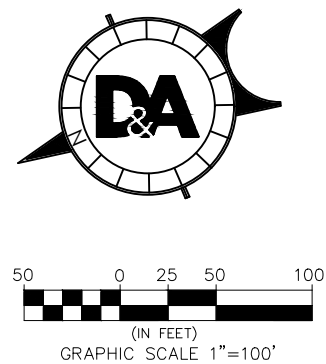
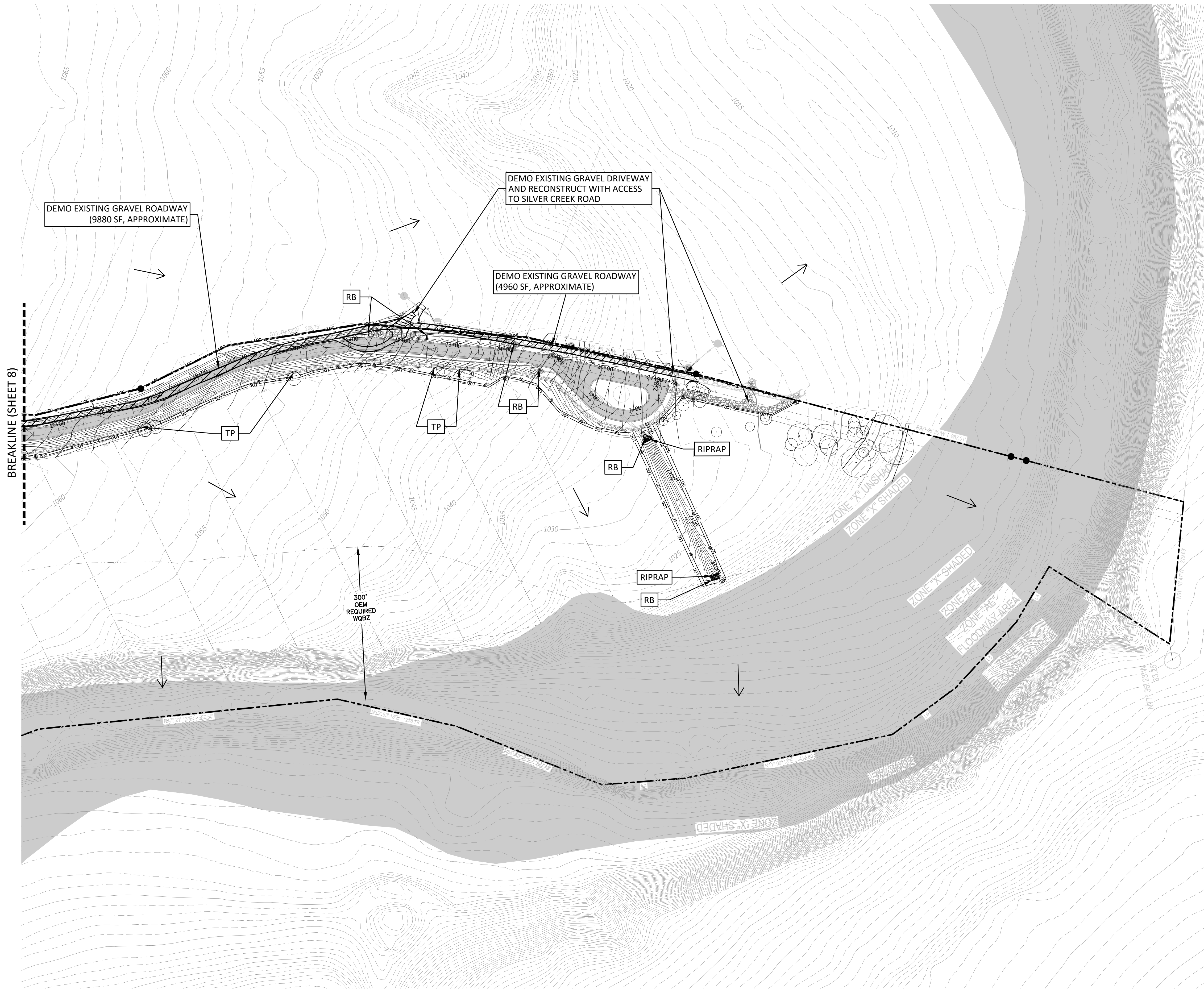
SHEET

11

OF 44

Project No.:
2408-002

Drawing: C:\pwworking\JH\dc-prod\jonathan.banister\00114912\2408002 CD ESC & DEMO.dwg
User: JBANISTER
Plot Date/Time: Feb. 10 25 - 10:23:49



LEGEND

- SUBDIVISION BOUNDARY
- LOT LINES
- EASEMENTS
- NOAA ATLAS 14 100-YR DEVELOPED FLOODPLAIN
- LOC OVERALL LIMITS OF CONSTRUCTION
- CE TEMPORARY STONE CONSTRUCTION ENTRANCE. SEE DETAIL SHEET
- RB ROCK BERM SEE DETAIL SHEET
- SF SILT FENCE SEE DETAIL SHEET
- TP TREE PROTECTION FENCE SEE DETAIL SHEET
- TREES TO REMAIN AND TO REMOVE
- STG STAGING AND SPOILS AREA
- CW CONCRETE WASH OUT AREA
- BACK-FILL STORAGE AREA
- GRAVEL ROADWAY TO BE DEMOED
- GRAVEL DRIVEWAY TO BE DEMOED AND RECONSTRUCTED
- FLOW ARROW



WARNING !!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION

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

SILVER CREEK SUBDIVISION

Erosion Control

Silt Fence	7,677 LF
Tree Protection Fencing	1,097 LF
Rock Berm	116 LF
Staging Area	1 EACH
Construction Entrance	1 EACH
Concrete Washout	1 EACH
Limits of Construction	10.05 ACRES

NOTES:

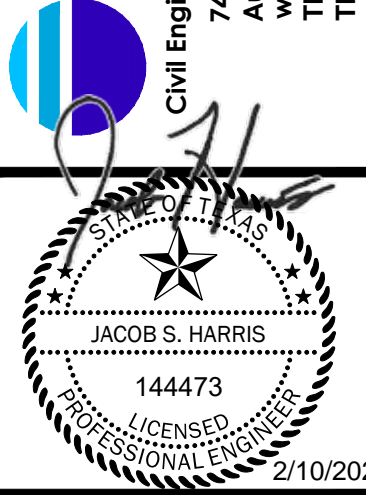
- PROPOSED CHANNELS WITHIN PROJECT AREA CAN BE USED AS TEMPORARY SEDIMENTATION BASIN.
- 100 FT NATIVE BUFFER TO BE CLEARED OF CEDARS AND RE-SEED WITH NATIVE CENTRAL TEXAS DRAUGHT TOLERANT GRASSES. GRASS MIX SHALL BE APPROVED BY THE CITY.
- WITHIN 100 FT NATIVE BUFFER, ALL HEALTHY OAK TREES 8 INCHES IN DIAMETER AND LARGER SHALL REMAIN.

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	130,000	÷ 43,560 =	2.98
Parking		÷ 43,560 =	
Other paved surfaces	239,825	÷ 43,560 =	5.51
Total Impervious Cover	369,825	÷ 43,560 =	8.49

Total Impervious Cover $\frac{8.49}{10.05} \times 100 = 84.5\%$ Impervious Cover

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512) 583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551



LUNAROYA SUBDIVISION

DRIPPING SPRINGS, TX

EROSION & SEDIMENTATION CONTROL PLAN & DEMOLITION PLAN 2

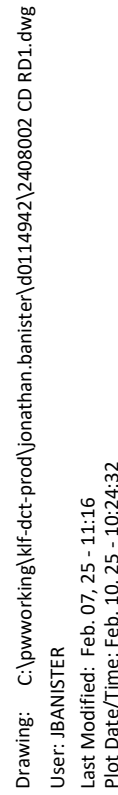
Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

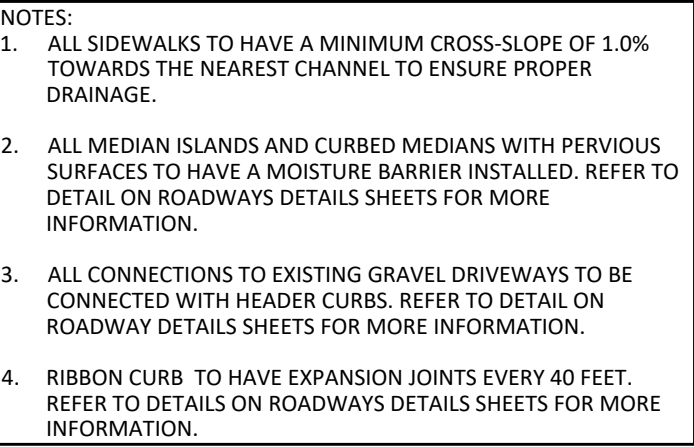
12

OF 44

Project No.:
2408-002

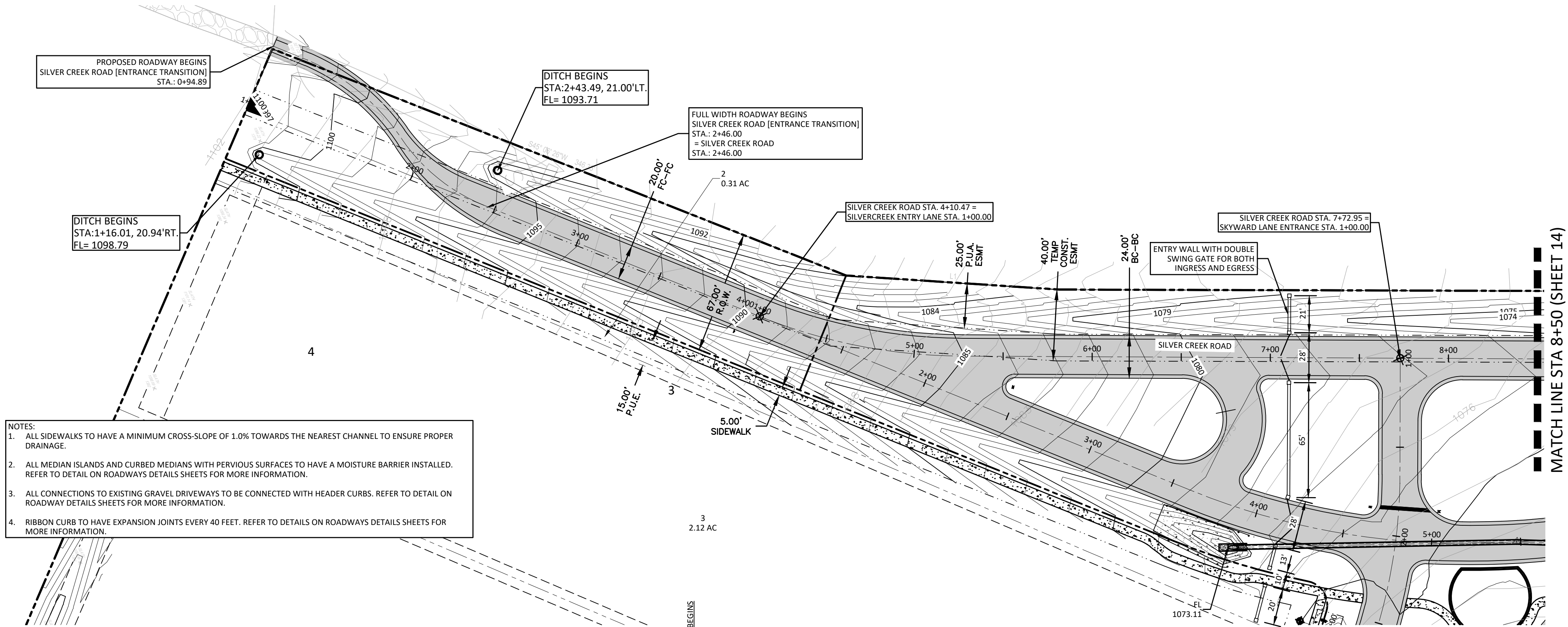


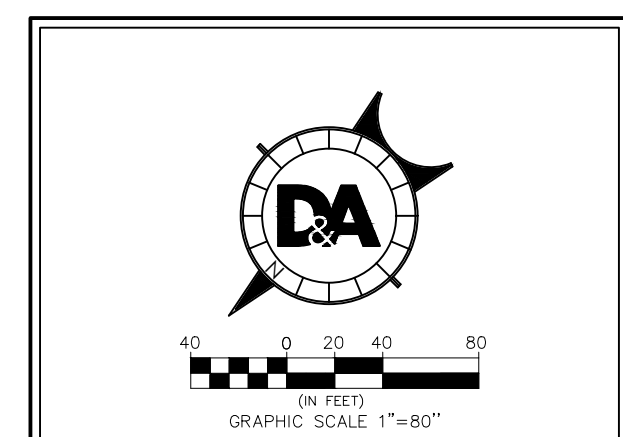
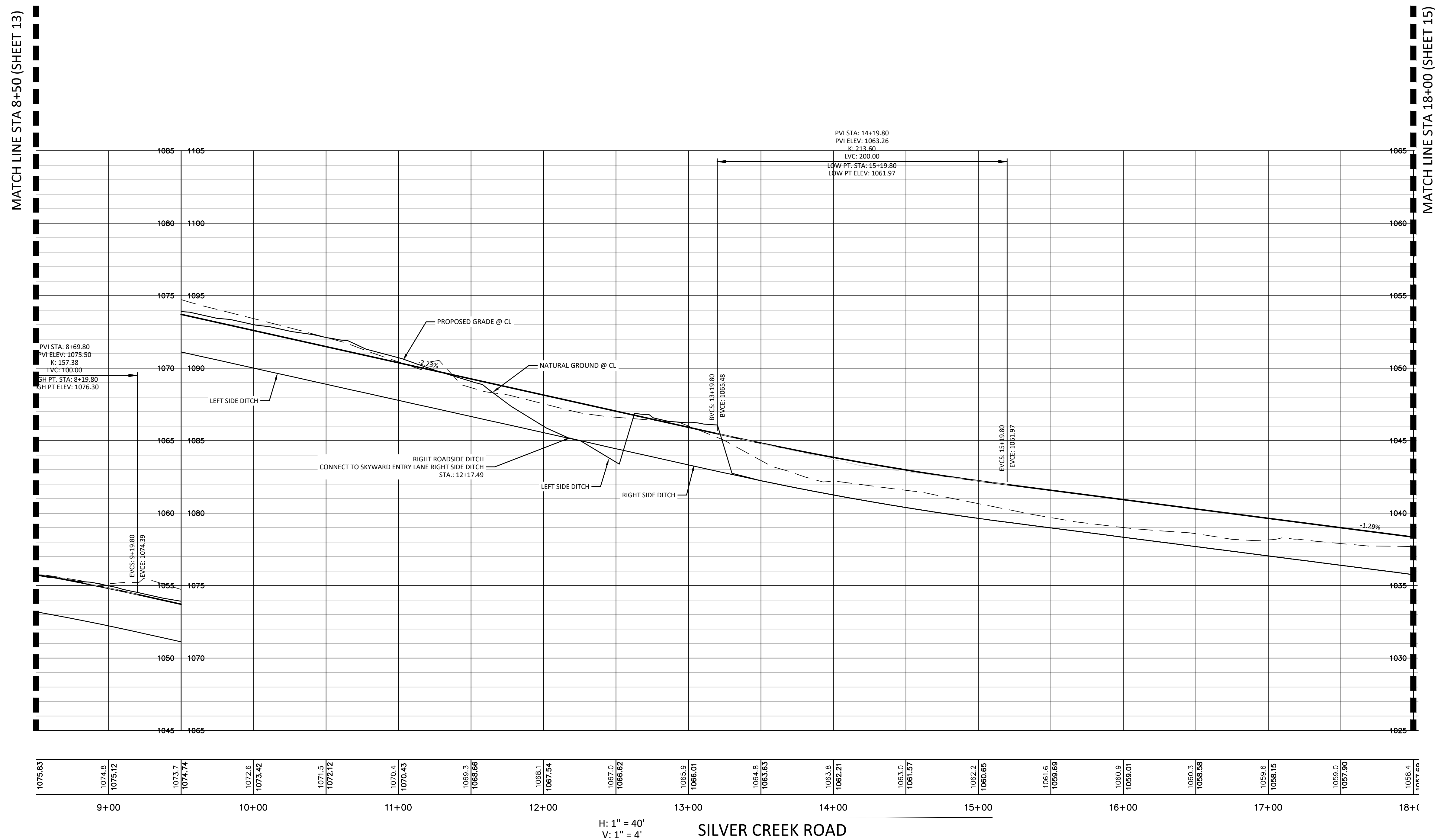
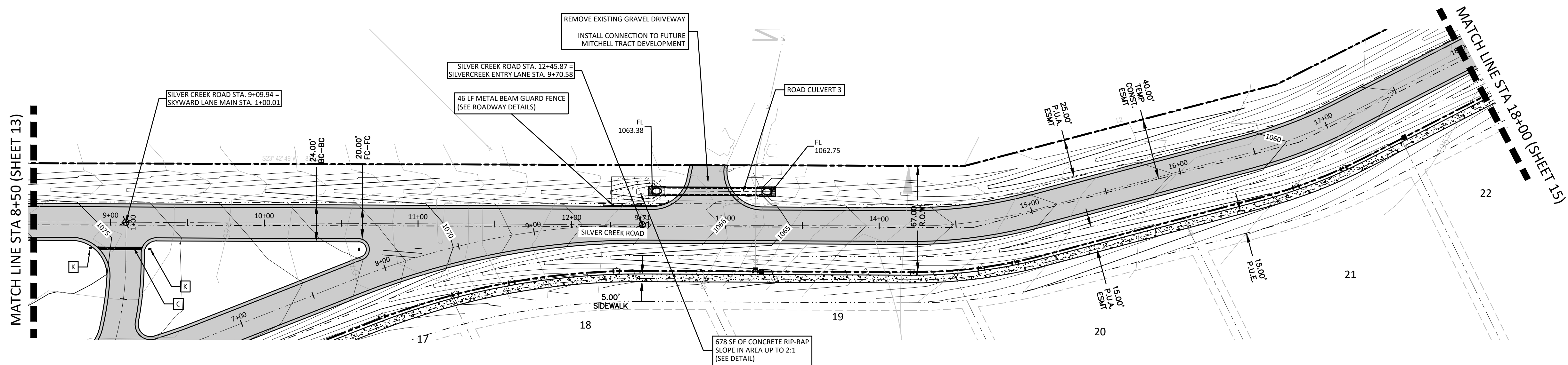
PUBLIC ROADWAY TABLE					
STREET NAME	CLASSIFICATION	R.O.W.	PAVEMENT WIDTH	RIBBON CURB (2')	CL LENGTH
SILVER CREEK ROAD	COUNTRY LANE	67'	20'	Y	3,043 LF
SKYWARD LANE	COUNTRY LANE	60'	20'	Y	1,714 LF







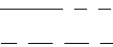
PAVEMENT WIDTHS		
SILVER CREEK ROAD	LOCAL	20' OR AS SHOWN
SKYWARD LANE	LOCAL	20' OR AS SHOWN

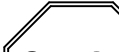
Drawing: C:\pwworking\MT-dcs-prod\Jonathan.Banister\0014842\2408002 CD RD1.dwg
User: JBANISTER
Date: 07-25-2025 11:16
Plot Date/Time: Feb. 10 25- 10:24:40





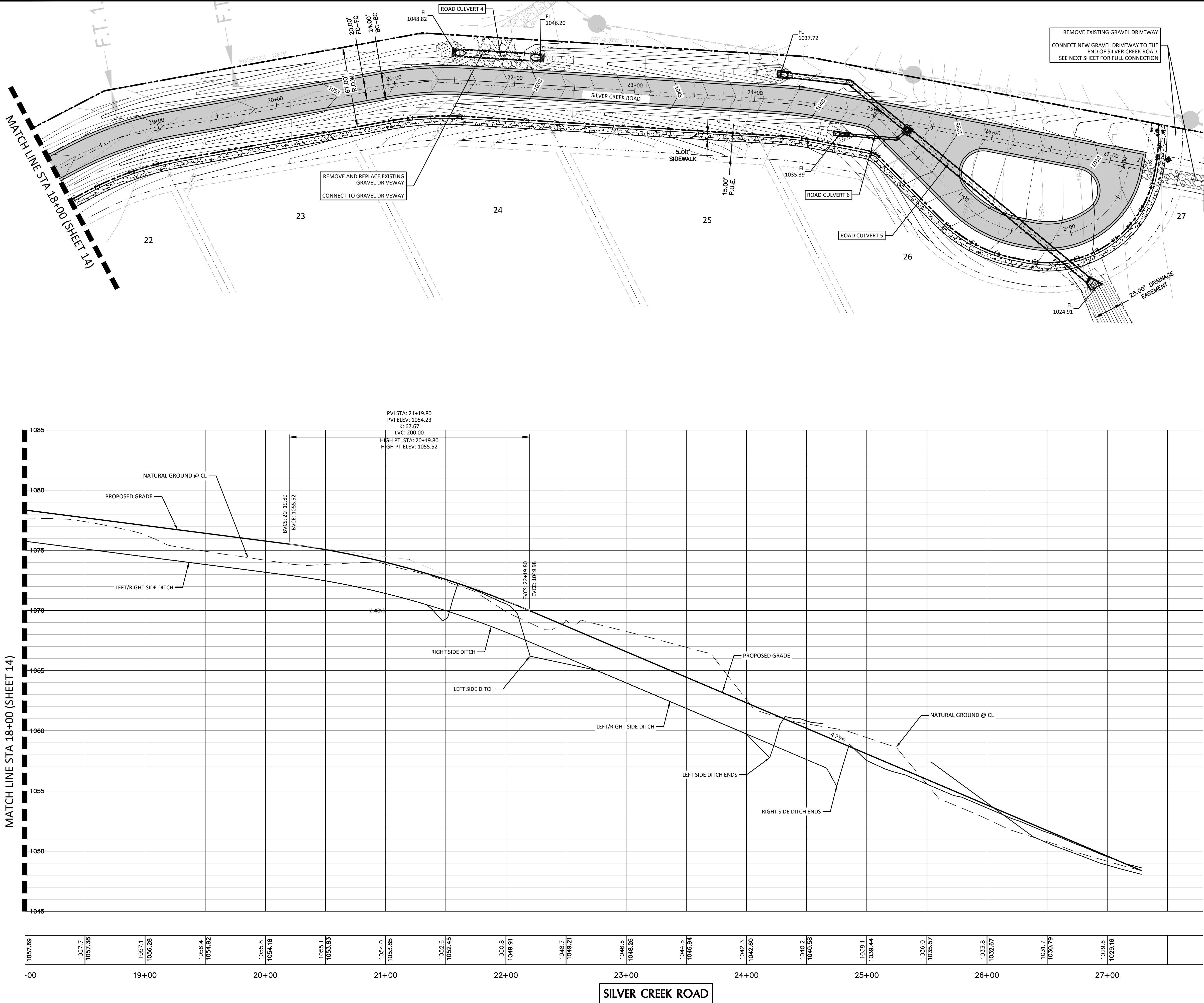
LEGEND

	PROPOSED HMAC SURFACE
	PROPOSED HMAC FOR FUTURE USE
	BOUNDARY LINE/ROW PROPERTY LINES EASEMENTS WIRE FENCE OVERHEAD ELECTRIC
	SINGLE WHITE SOLID LINE 24" (STOPBAR)
	SIGN POST - SEE SHEET 13 - STRIPING & SIGNAGE PLAN FOR DETAILS

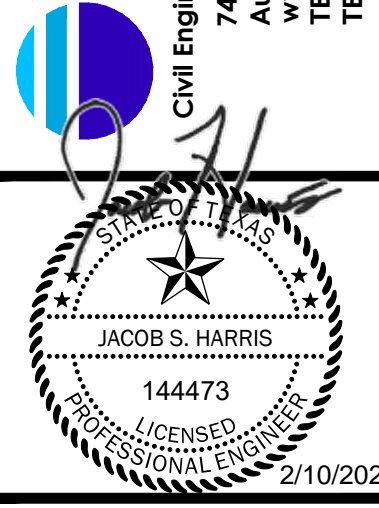
SIGN SUMMARY		
M.U.T.C.D. NUMBER	SPECIFICATION	DESCRIPTION
R1-1	30"X30"	

- NOTES:
1. ALL SIDEWALKS TO HAVE A MINIMUM CROSS-SLOPE OF 1.0% TOWARDS THE NEAREST CHANNEL TO ENSURE PROPER DRAINAGE.
 2. ALL MEDIAN ISLANDS AND CURBED MEDIANS WITH PAVEMENT SURFACES TO HAVE A MOISTURE BARRIER INSTALLED. REFER TO DETAIL ON ROADWAYS DETAILS SHEETS FOR MORE INFORMATION.
 3. ALL CONNECTIONS TO EXISTING GRAVEL DRIVEWAYS TO BE CONNECTED WITH HEADER CURBS. REFER TO DETAIL ON ROADWAY DETAILS SHEETS FOR MORE INFORMATION.
 4. RIBBON CURB TO HAVE EXPANSION JOINTS EVERY 40 FEET. REFER TO DETAILS ON ROADWAYS DETAILS SHEETS FOR MORE INFORMATION.

Drawing: C:\pwworking\jmc-prod\jonathan.banister\0014942\2408002 CD RD1.dwg
User: JBANISTER
Plot Date/Time: Feb. 10 25 - 11:16
Plot Date/Time: Feb. 10 25 - 10:24:55



DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512) 583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551



LUNAROYA SUBDIVISION

DRIPPING SPRINGS, TX

SILVER CREEK PLAN AND PROFILE

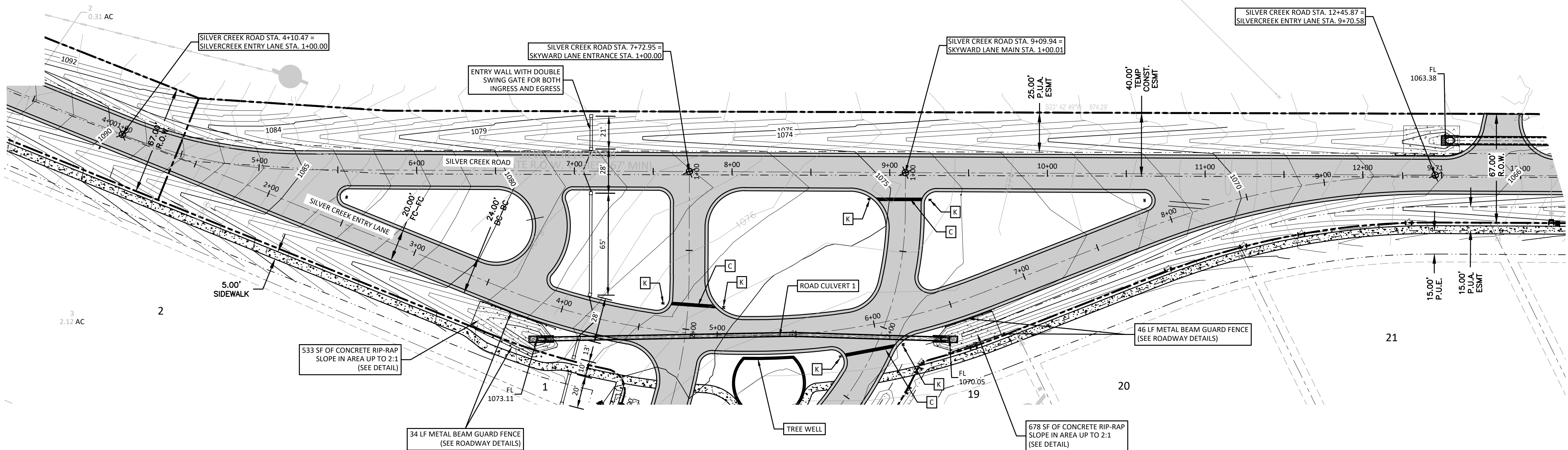
3

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

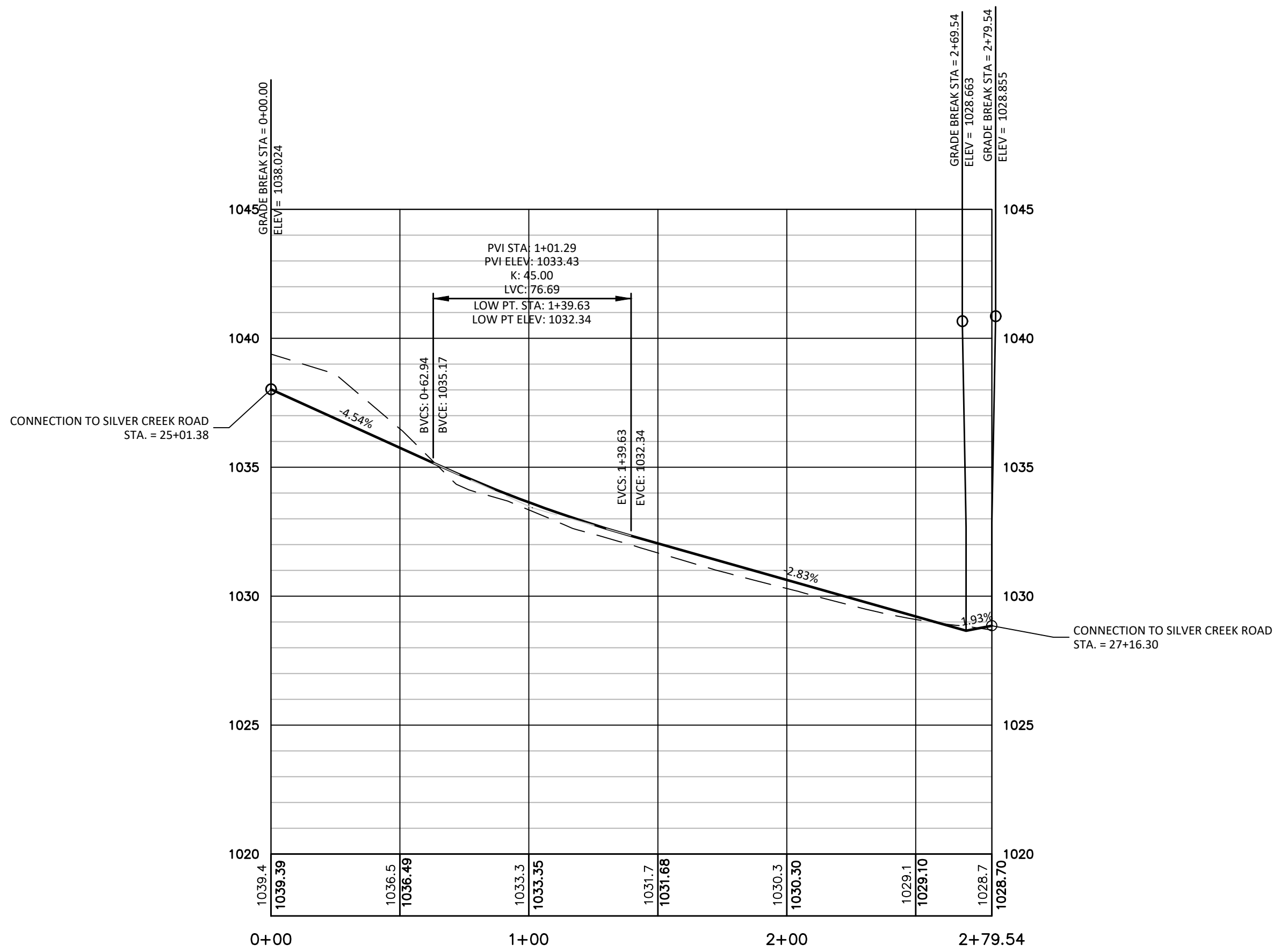
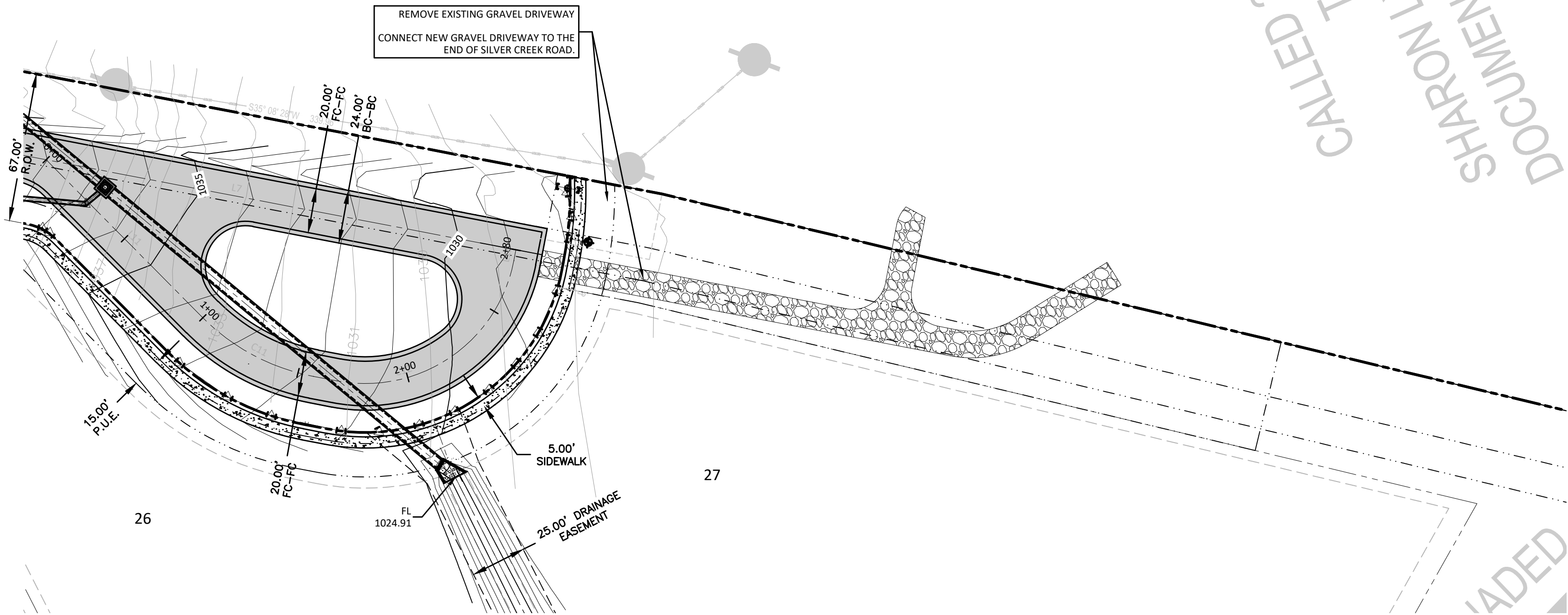
SHEET
17
OF 44

Project No.:
2408-002

Drawing: C:\pwworking\MT-dcs-prod\jonathan.banister\0014942\2408002_CD_R01.dwg
User: JBANISTER
Plot Date/Time: Feb. 10 25 - 11:16
Plot Date/Time: Feb. 10 25 - 10:55:09

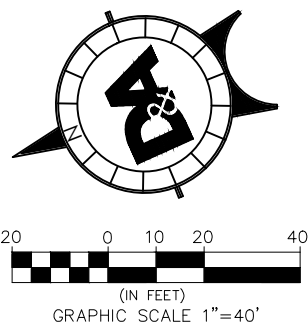


Drawing: C:\pwworking\JF\dc-prod\jonathan.banister\0014942\2408002.CD\RD1.dwg
User: JBANISTER
Plot Date/Time: Feb 10 25 - 11:16
Plot Date/Time: Feb 10 25 - 10:25:04



SILVERCREEK TURNAROUND

H: 1" = 40'
V: 1" = 4'

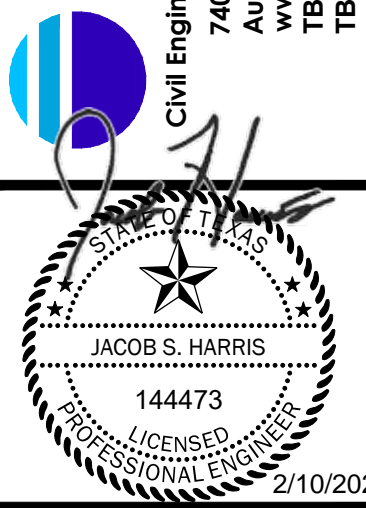


LEGEND

- PROPOSED HMA SURFACE
- PROPOSED HMA FOR FUTURE USE
- BOUNDARY LINE/ROW
- PROPERTY LINES
- EASEMENTS
- WIRE FENCE
- OVERHEAD ELECTRIC
- SINGLE WHITE SOLID LINE 24" (STOPBAR)
- SIGN POST - SEE SHEET 13 - STRIPING & SIGNAGE PLAN FOR DETAILS

- NOTES:
- ALL SIDEWALKS TO HAVE A MINIMUM CROSS-SLOPE OF 1.0% TOWARDS THE NEAREST CHANNEL TO ENSURE PROPER DRAINAGE.
 - ALL MEDIAN ISLANDS AND CURBED MEDIANS WITH PERVIOUS SURFACES TO HAVE A MOISTURE BARRIER INSTALLED. REFER TO DETAIL ON ROADWAYS DETAILS SHEETS FOR MORE INFORMATION.
 - ALL CONNECTIONS TO EXISTING GRAVEL DRIVEWAYS TO BE CONNECTED WITH HEADER CURBS. REFER TO DETAIL ON ROADWAY DETAILS SHEETS FOR MORE INFORMATION.
 - RIBBON CURB TO HAVE EXPANSION JOINTS EVERY 40 FEET. REFER TO DETAILS ON ROADWAYS DETAILS SHEETS FOR MORE INFORMATION.

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512) 583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551



LUNAROYA SUBDIVISION DRIPPING SPRINGS, TX

SILVER CREEK CUL DE SAC DRIVEWAY CONNECTION PLAN AND PROFILE

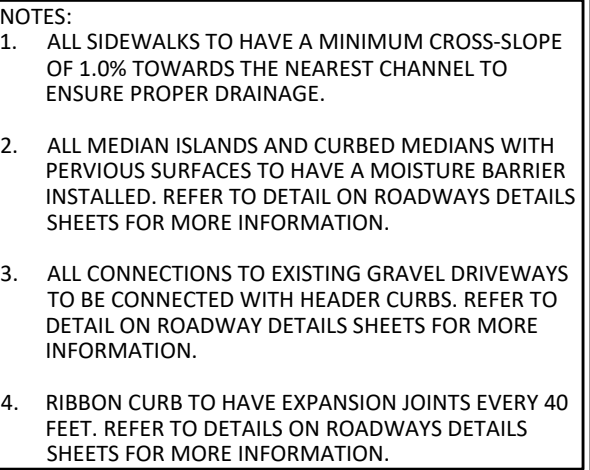
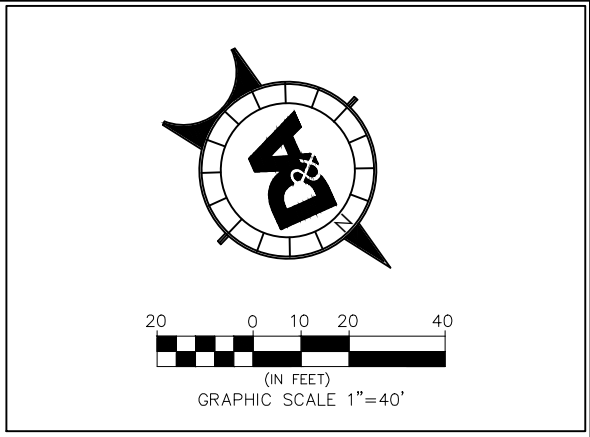
Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

19

OF 44

Project No.:
2408-002



H: 1" = 40'
V: 1" = 4'

$$V: 1'' = 4'$$

Drawing: C:\pwworking\klf-dct-prod\jonathan.banister\d0114942\2408002 CD RD1.dwg
User: JBANISTER
Last Modified: Feb. 07, 25 - 11:16
Plot Date/Time: Feb. 10, 25 - 10:25:09

DOUCET
A Kleinfelder Company

Mapping // Entitlements // Geospatial
10000 B. Highway 71 W. Ste. 160
Dallas, TX 78735, Tel: (512)-583-2600
www.doucetengineers.com
LUS Engineering Firm No. F-3937
LUS Surveying Firm No. 10194551


 Civil Engineer
 74
 Au
 w
 TE

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

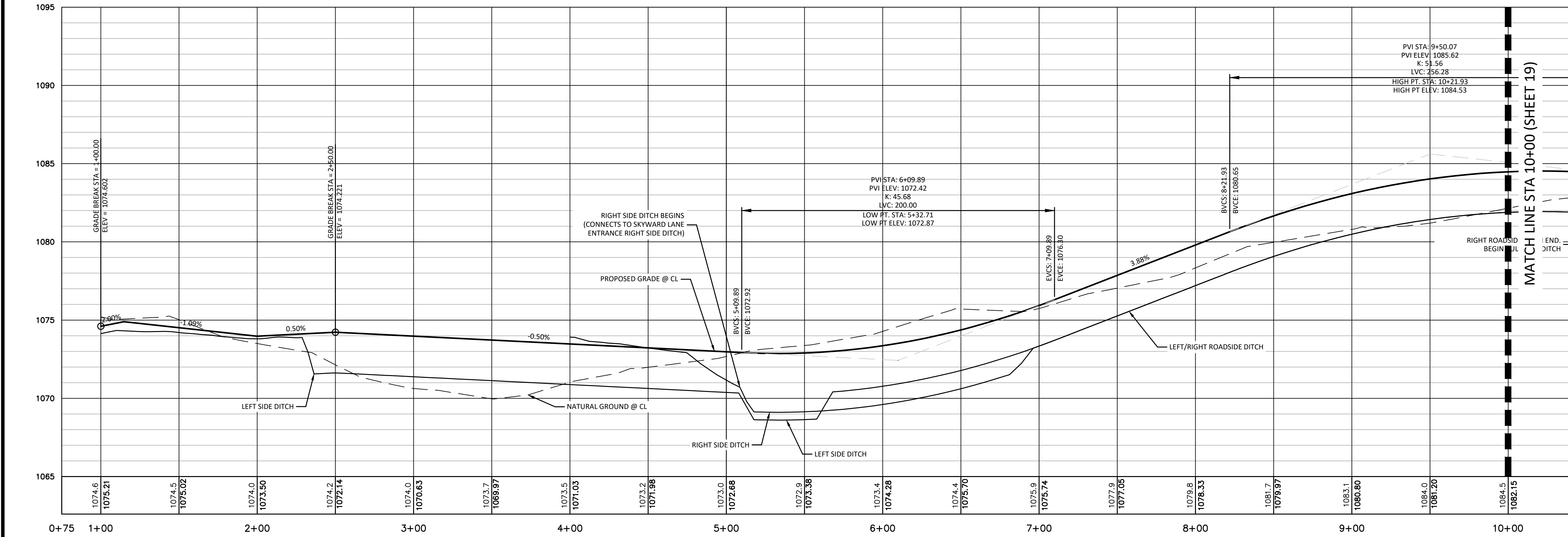
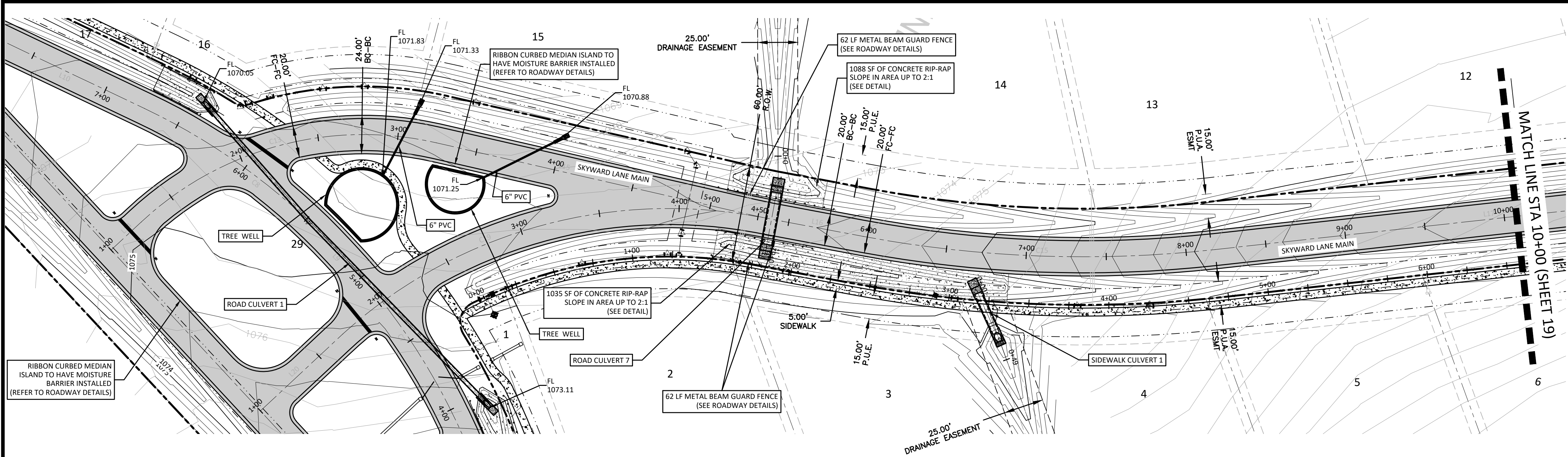
SKYWARD LANE PROFILE 1

Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025

SHEET

20

Project No.: 2408-002



SKYWARD LANE MAIN

H: 1" = 40'
V: 1" = 4'

LEGEND

	PROPOSED PAVEMENT
	FUTURE ROAD
	BOUNDARY LINE
	PROPERTY LINES
	EASEMENTS
	WIRE FENCE
	WOOD FENCE
	CHAIN LINK FENCE
	OVERHEAD ELECTRIC
	EDGE OF EXISTING ASPHALT
	SINGLE WHITE SOLID LINE 24" (STOPBAR)
	SIGN POST - SEE SHEET 13 - STRIPING & SIGNAGE PLAN FOR DETAILS

- NOTES:
1. ALL SIDEWALKS TO HAVE A MINIMUM CROSS-SLOPE OF 1.0% TOWARDS THE NEAREST CHANNEL TO ENSURE PROPER DRAINAGE.
 2. ALL MEDIAN ISLANDS AND CURBED MEDIANS WITH PERVIOUS SURFACES TO HAVE A MOISTURE BARRIER INSTALLED. REFER TO DETAIL ON ROADWAYS DETAILS SHEETS FOR MORE INFORMATION.
 3. ALL CONNECTIONS TO EXISTING GRAVEL DRIVEWAYS TO BE CONNECTED WITH HEADER CURBS. REFER TO DETAIL ON ROADWAY DETAILS SHEETS FOR MORE INFORMATION.
 4. RIBBON CURB TO HAVE EXPANSION JOINTS EVERY 40 FEET. REFER TO DETAILS ON ROADWAYS DETAILS SHEETS FOR MORE INFORMATION.

DOUCET
A Kleinfelder Company

Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512) 583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

2/10/2025

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

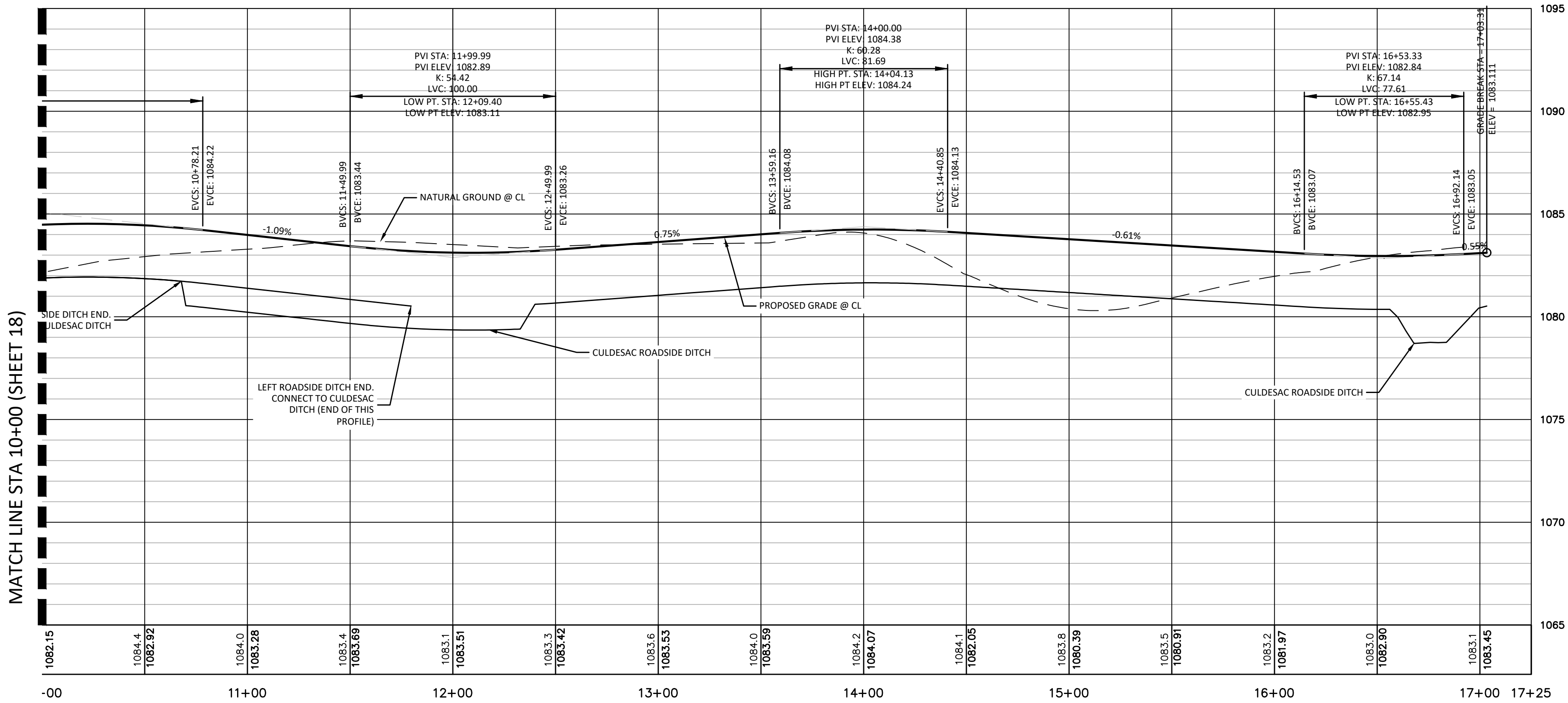
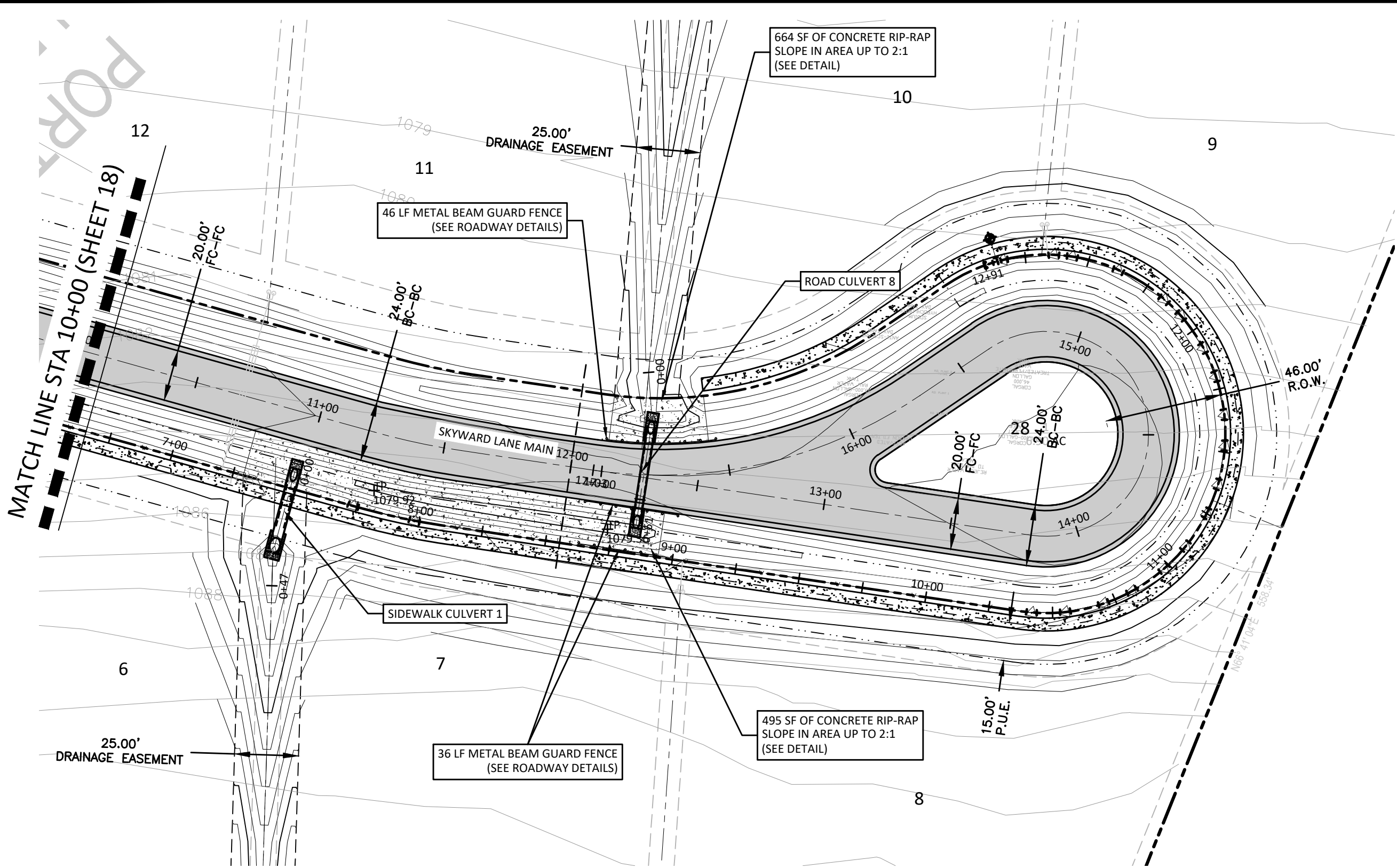
SKYWARD LANE PROFILE 2

Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025

SHEET
21
OF 44

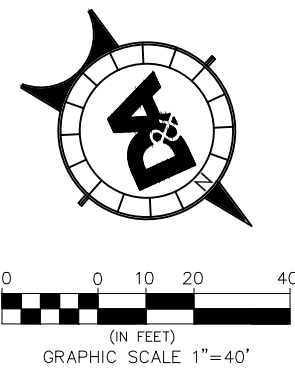
Project No.:
2408-002

Drawing: C:\pwworking\JF-dcc-prod\jonathan.banister\d014942\2408002 CD RD1.dwg
User: JBANISTER
Plot Date/Time: Feb 10 25 - 11:16
Plot Date/Time: Feb 10 25 - 10:55:09



NE MAIN

H: 1" = 40'
V: 1" = 4'

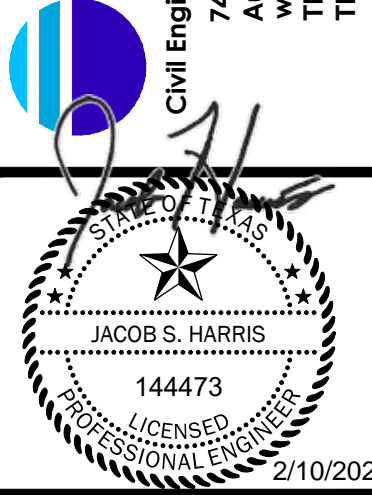


LEGEND

- PROPOSED PAVEMENT
- FUTURE ROAD
- BOUNDARY LINE
- PROPERTY LINES
- EASEMENTS
- WIRE FENCE
- WOOD FENCE
- CHAIN LINK FENCE
- OVERHEAD ELECTRIC
- EDGE OF EXISTING ASPHALT
- SINGLE WHITE SOLID LINE 24" (STOPBAR)
- SIGN POST - SEE SHEET 13 - STRIPING & SIGNAGE PLAN FOR DETAILS

- NOTES:
- ALL SIDEWALKS TO HAVE A MINIMUM CROSS-SLOPE OF 1.0% TOWARDS THE NEAREST CHANNEL TO ENSURE PROPER DRAINAGE.
 - ALL MEDIAN ISLANDS AND CURBED MEDIANS WITH PERVIOUS SURFACES TO HAVE A MOISTURE BARRIER INSTALLED. REFER TO DETAIL ON ROADWAYS DETAILS SHEETS FOR MORE INFORMATION.
 - ALL CONNECTIONS TO EXISTING GRAVEL DRIVEWAYS TO BE CONNECTED WITH HEADER CURBS. REFER TO DETAIL ON ROADWAY DETAILS SHEETS FOR MORE INFORMATION.
 - RIBBON CURB TO HAVE EXPANSION JOINTS EVERY 40 FEET. REFER TO DETAILS ON ROADWAYS DETAILS SHEETS FOR MORE INFORMATION.

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512) 583-2600
www.doucetengineers.com
TBP&LS Engineering Firm No. F-3937
TBP&LS Surveying Firm No. 10194551



LUNAROYA SUBDIVISION DRIPPING SPRINGS, TX

SKYWARD LANE PROFILE 3

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

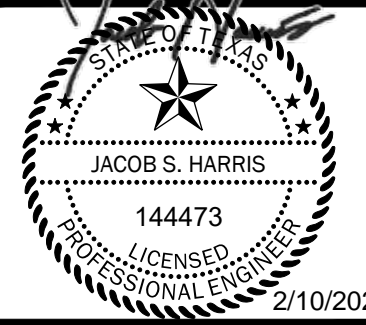
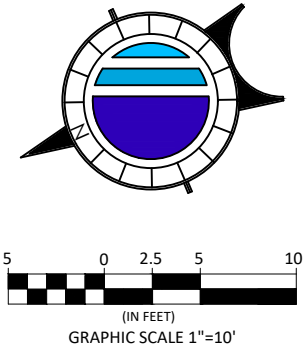
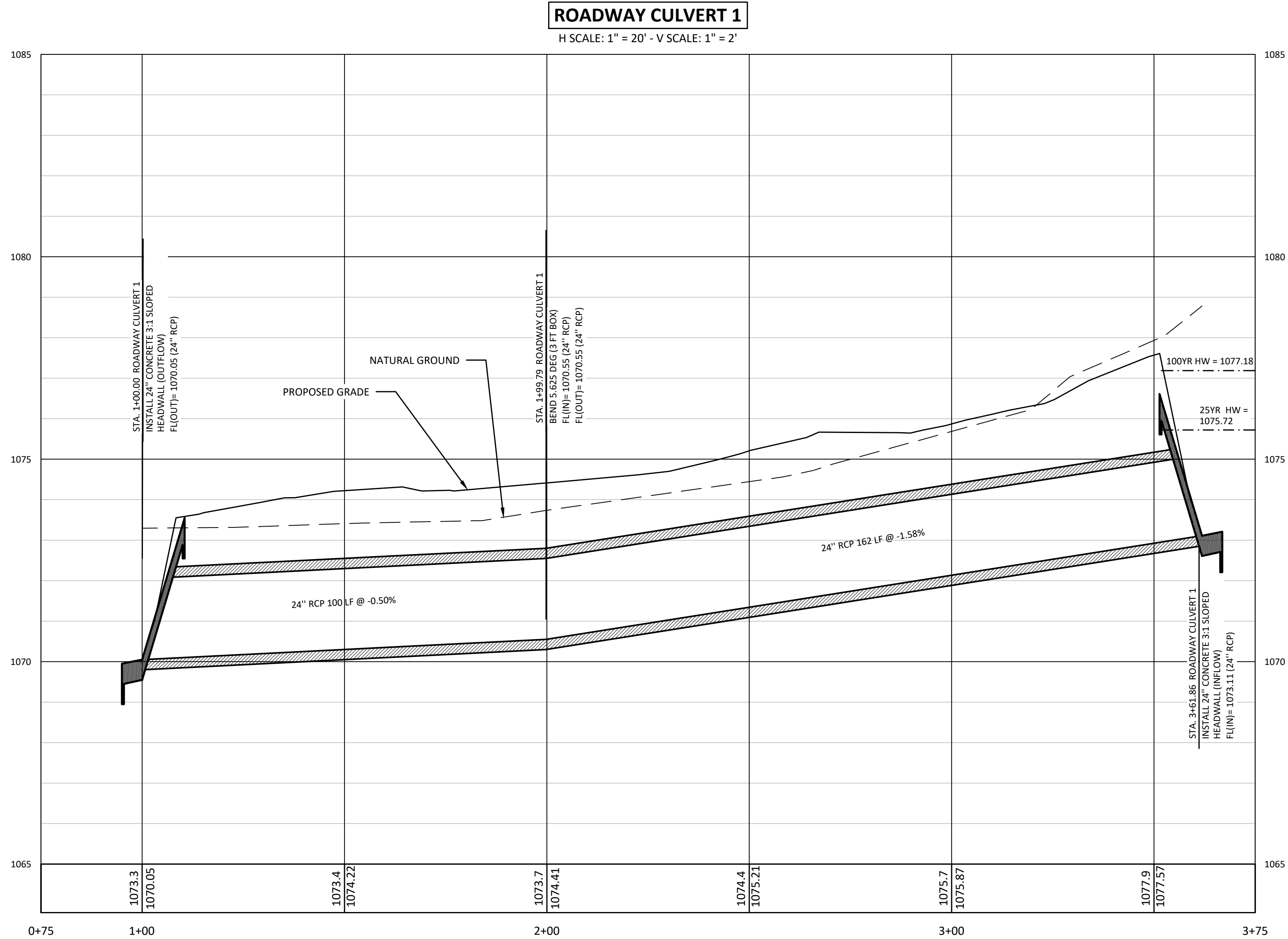
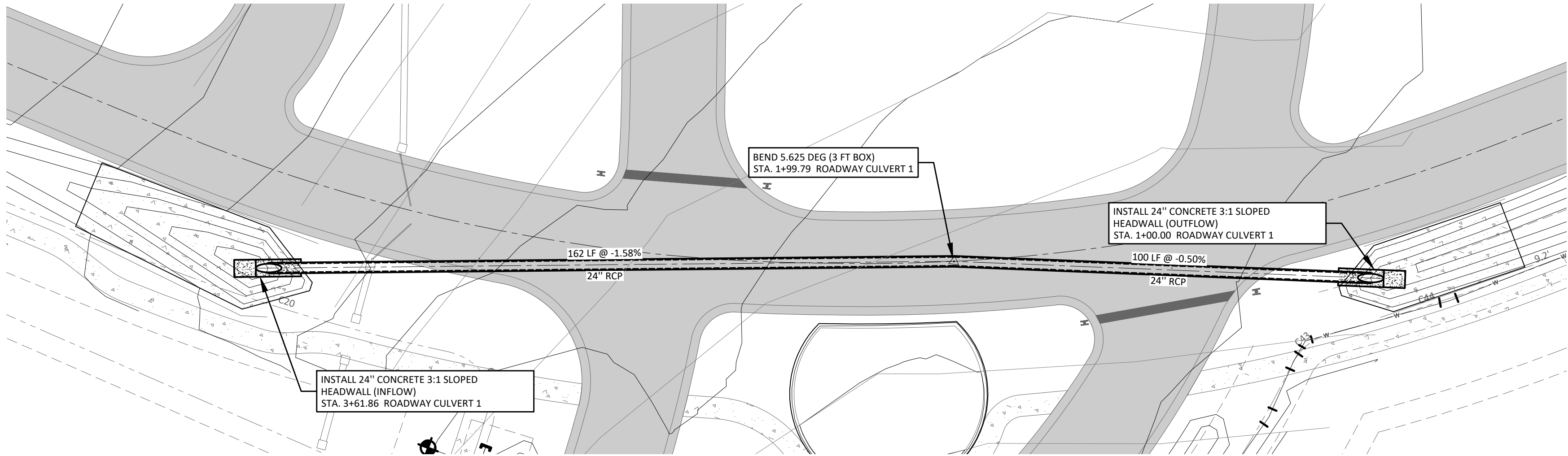
SHEET

22

OF 44

Project No.:
2408-002

Drawing: C:\pwworking\MT-dcs-prod\jonathan.banister\0014942\2408002 CD CULVERT.dwg
User: JBANISTER
Date: 2/10/2025 10:35:07 AM
Plot Date/Time: Feb. 10 25 - 10:35:32



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

**SILVER CREEK CULVERTS PLAN &
PROFILE 1**

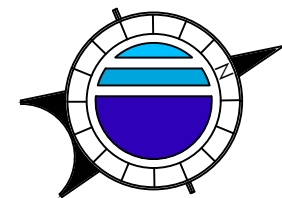
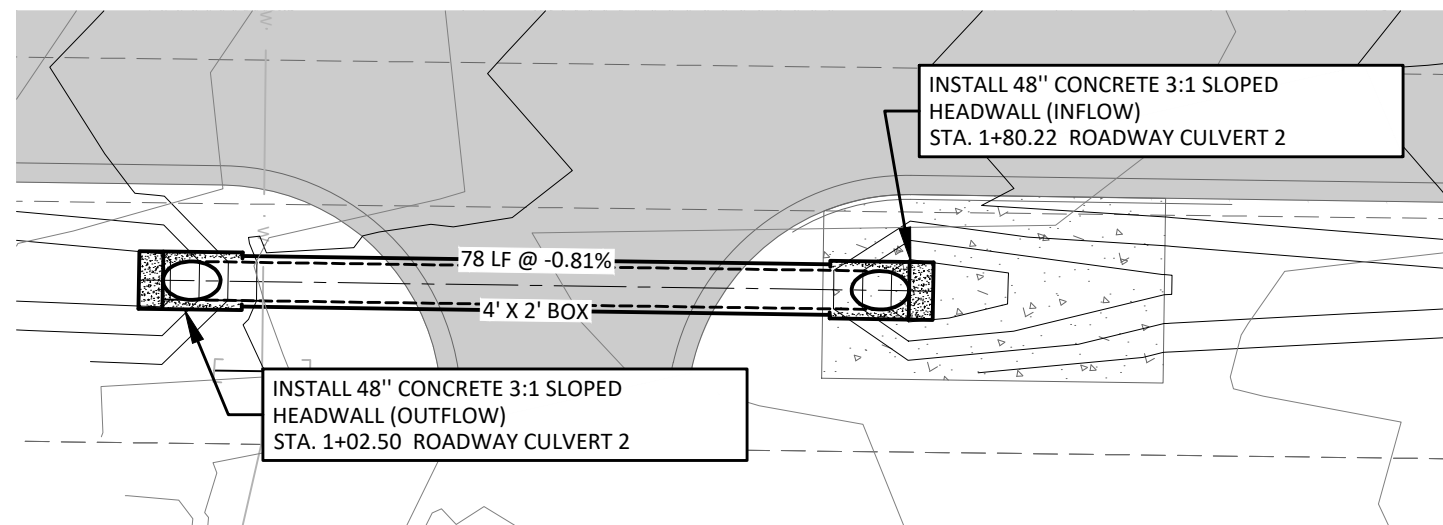
Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

SHEET

23

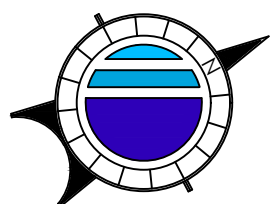
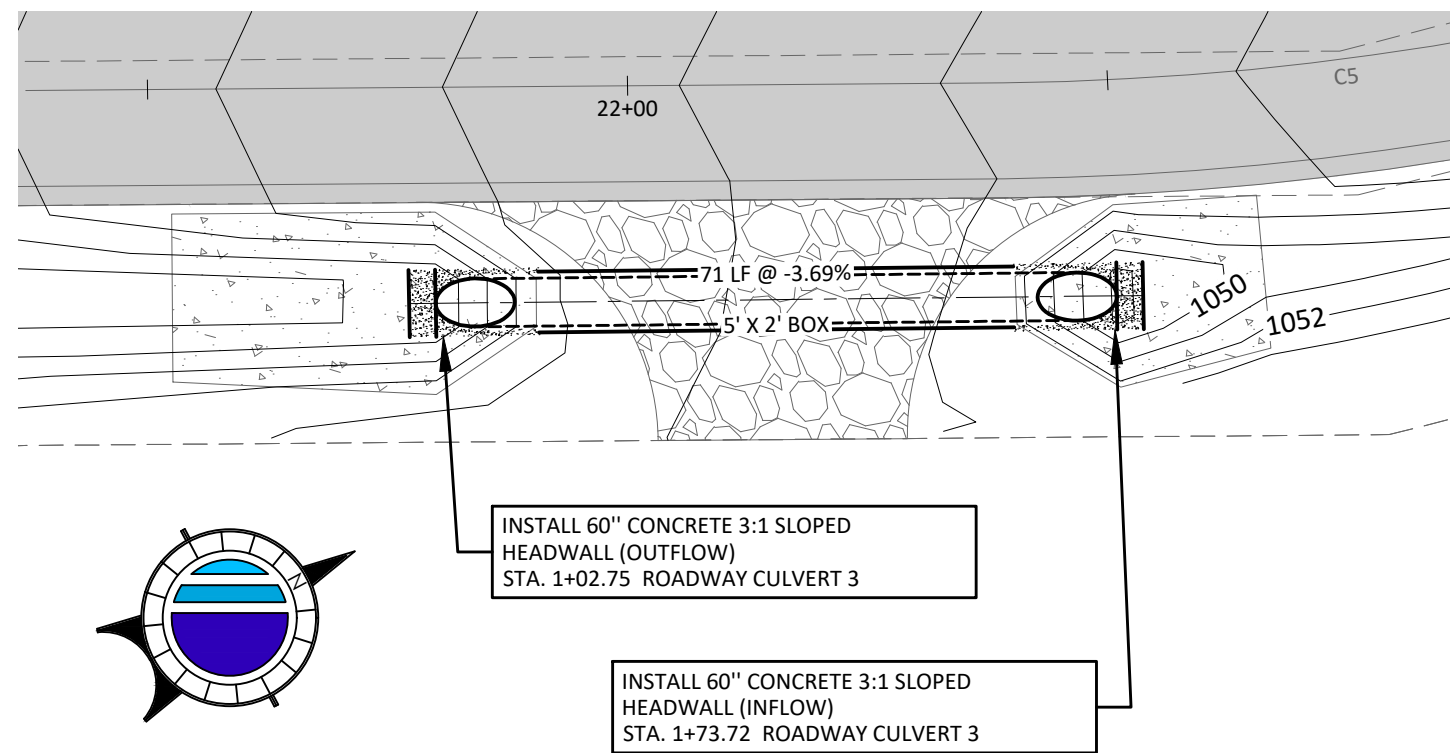
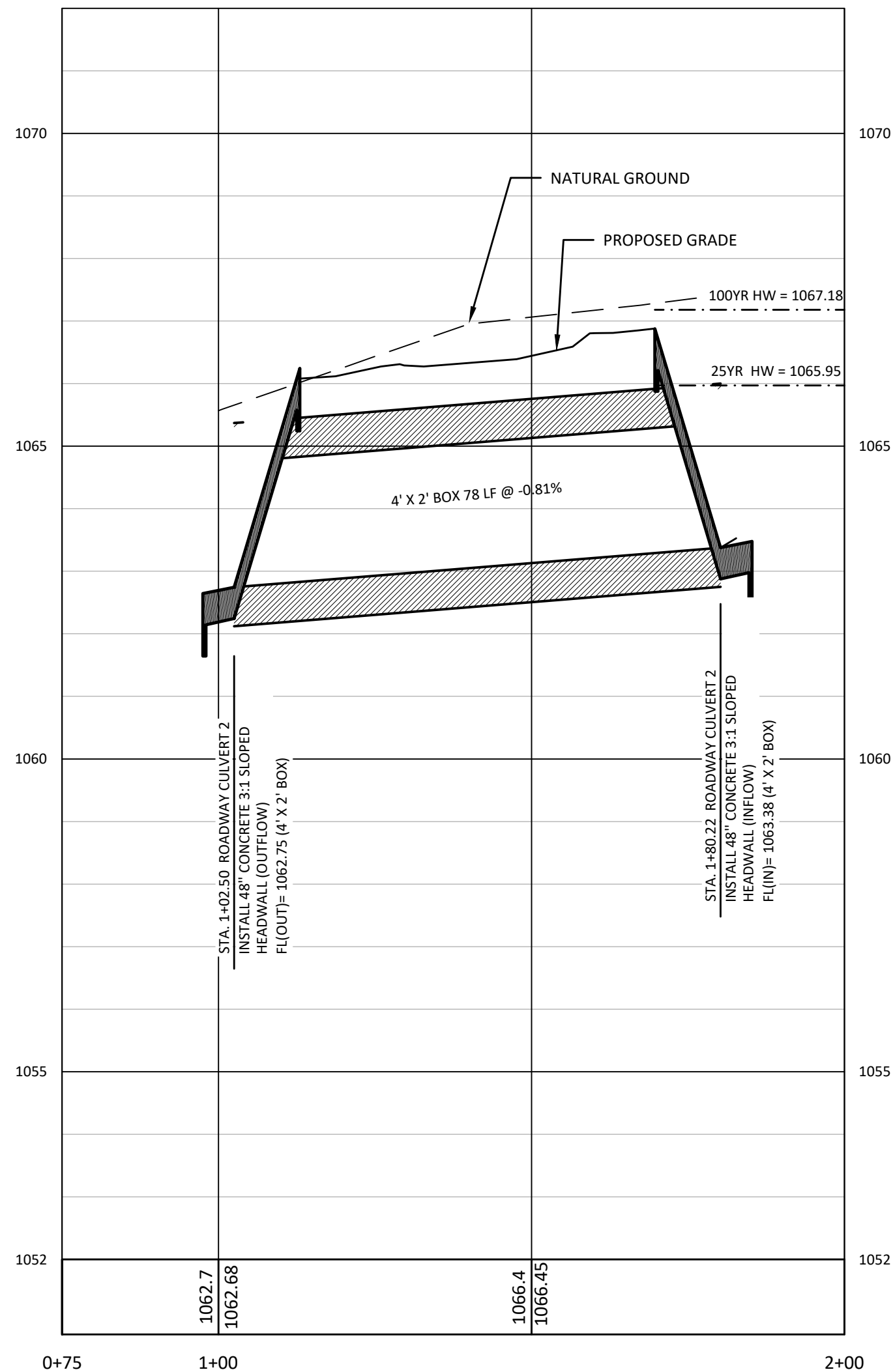
OF 44

Project No.:
2408-002



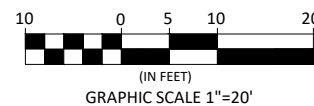
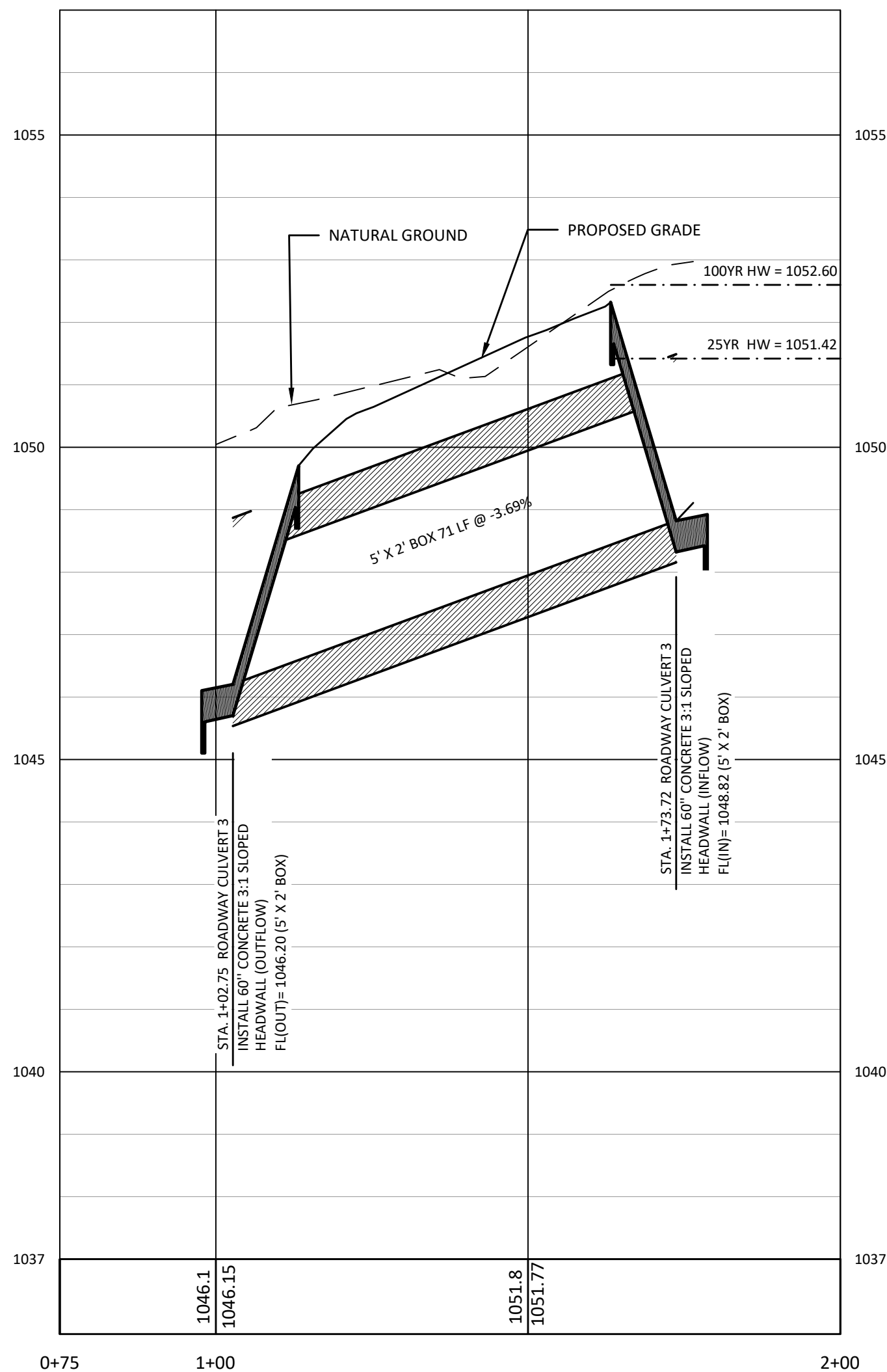
ROADWAY CULVERT 2

H SCALE: 1" = 20' - V SCALE: 1" = 2'

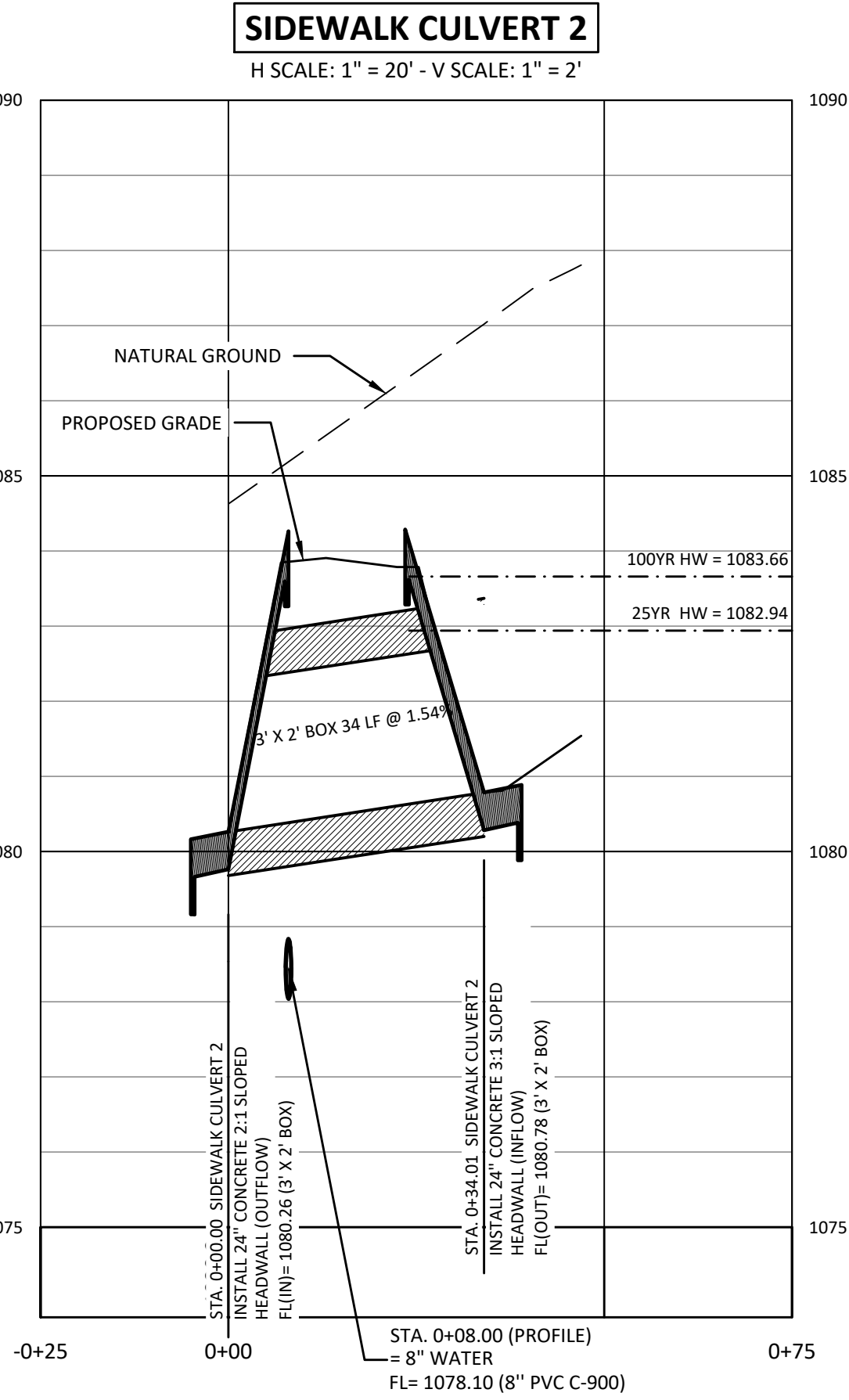
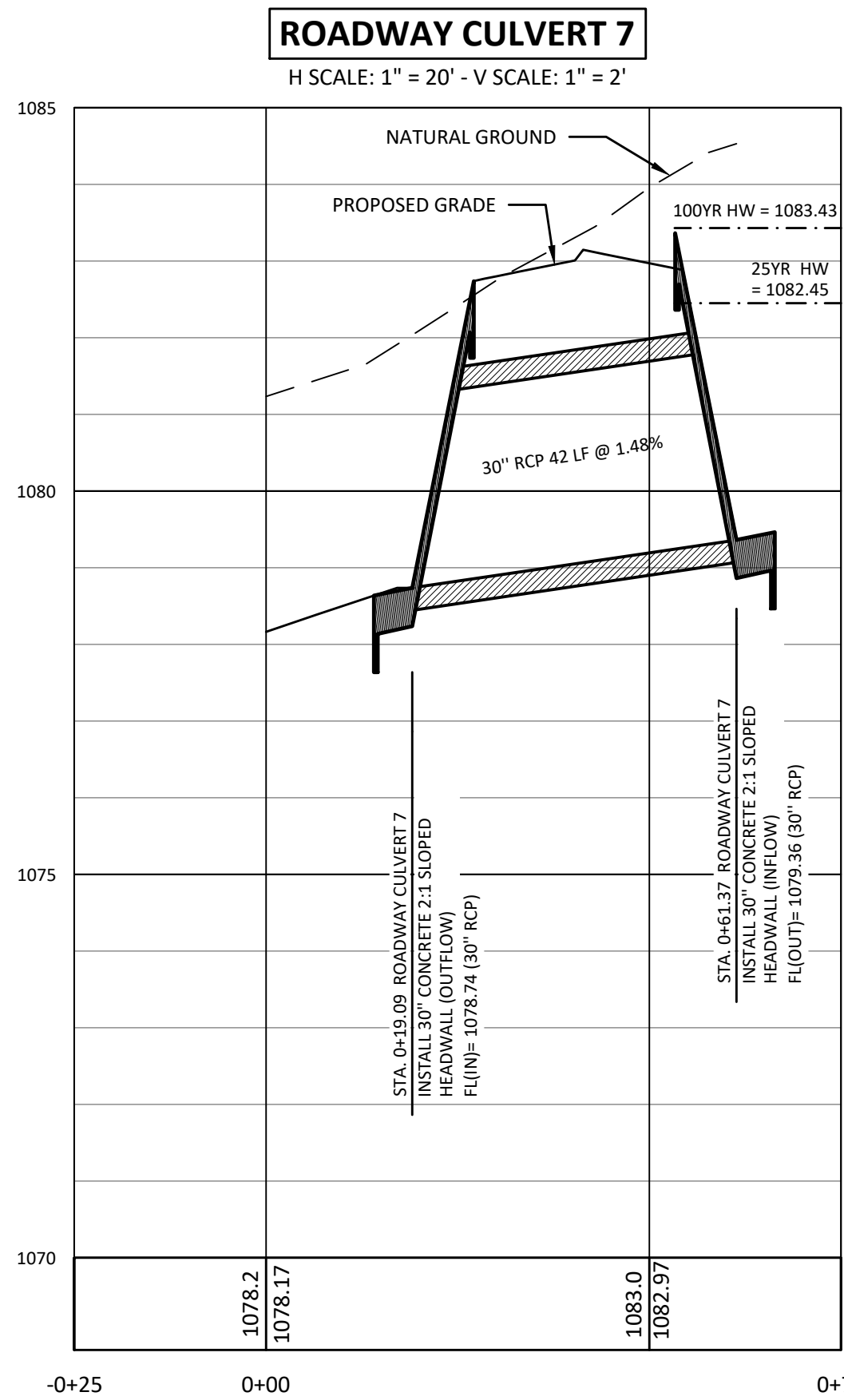
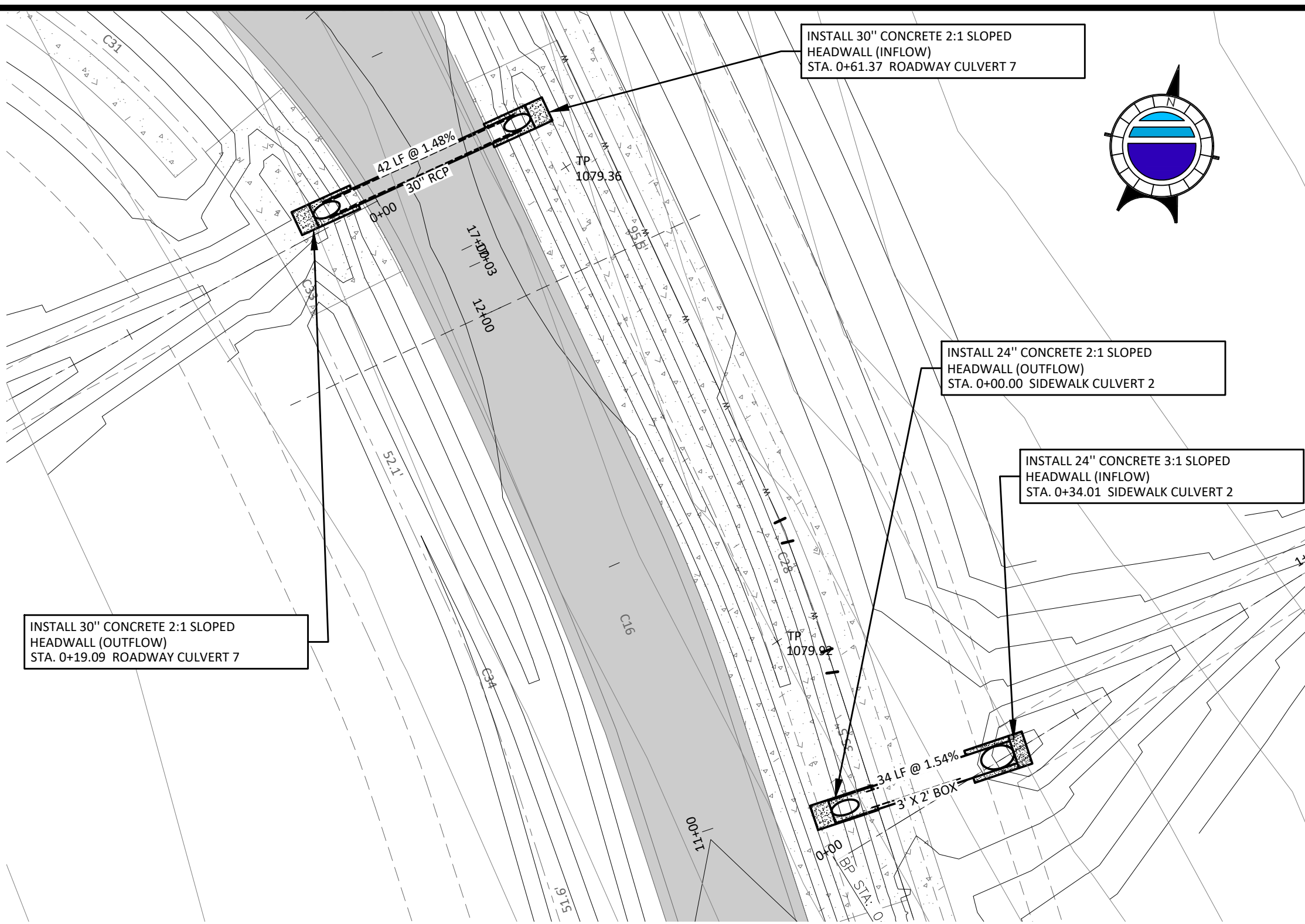
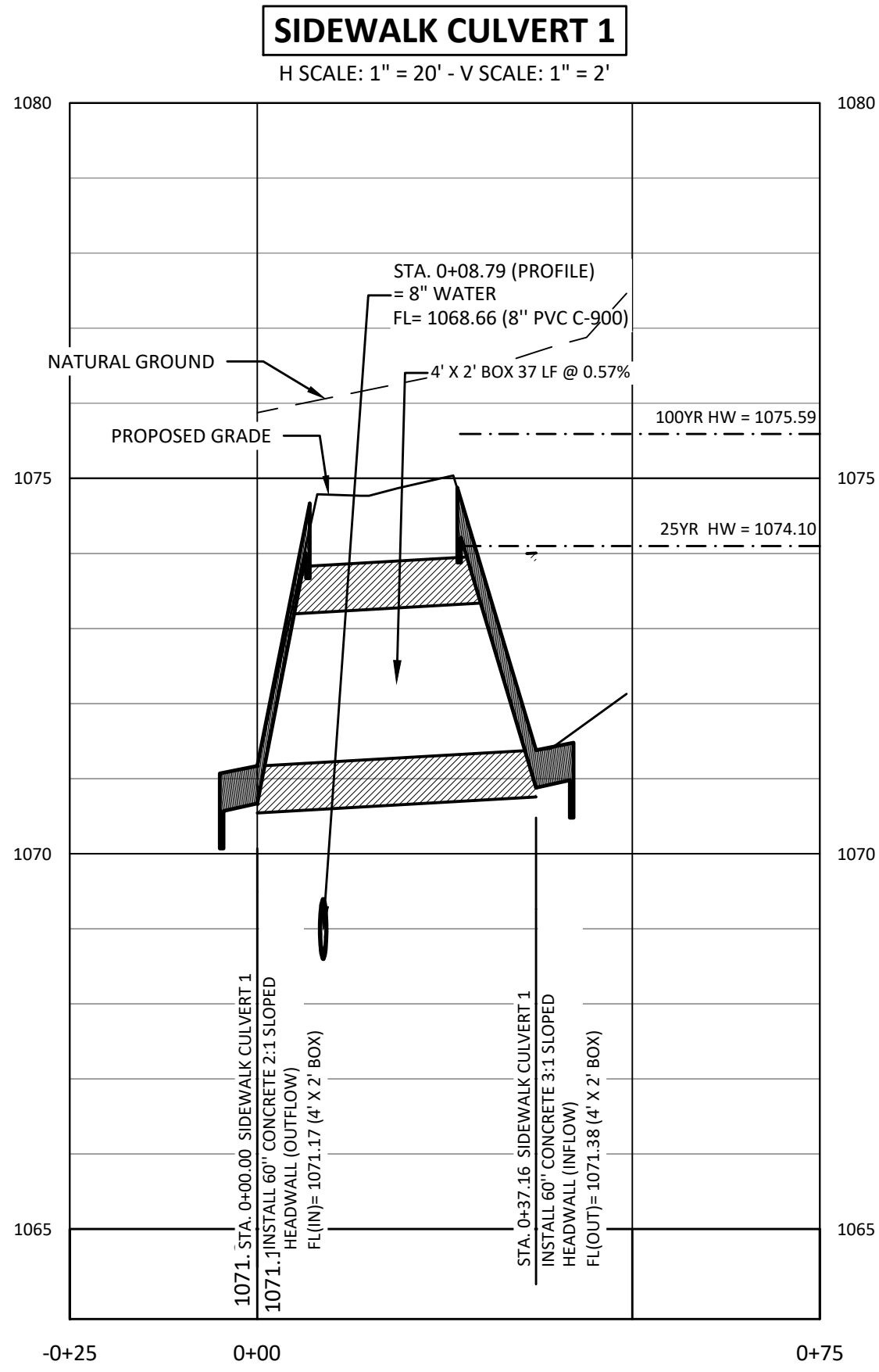
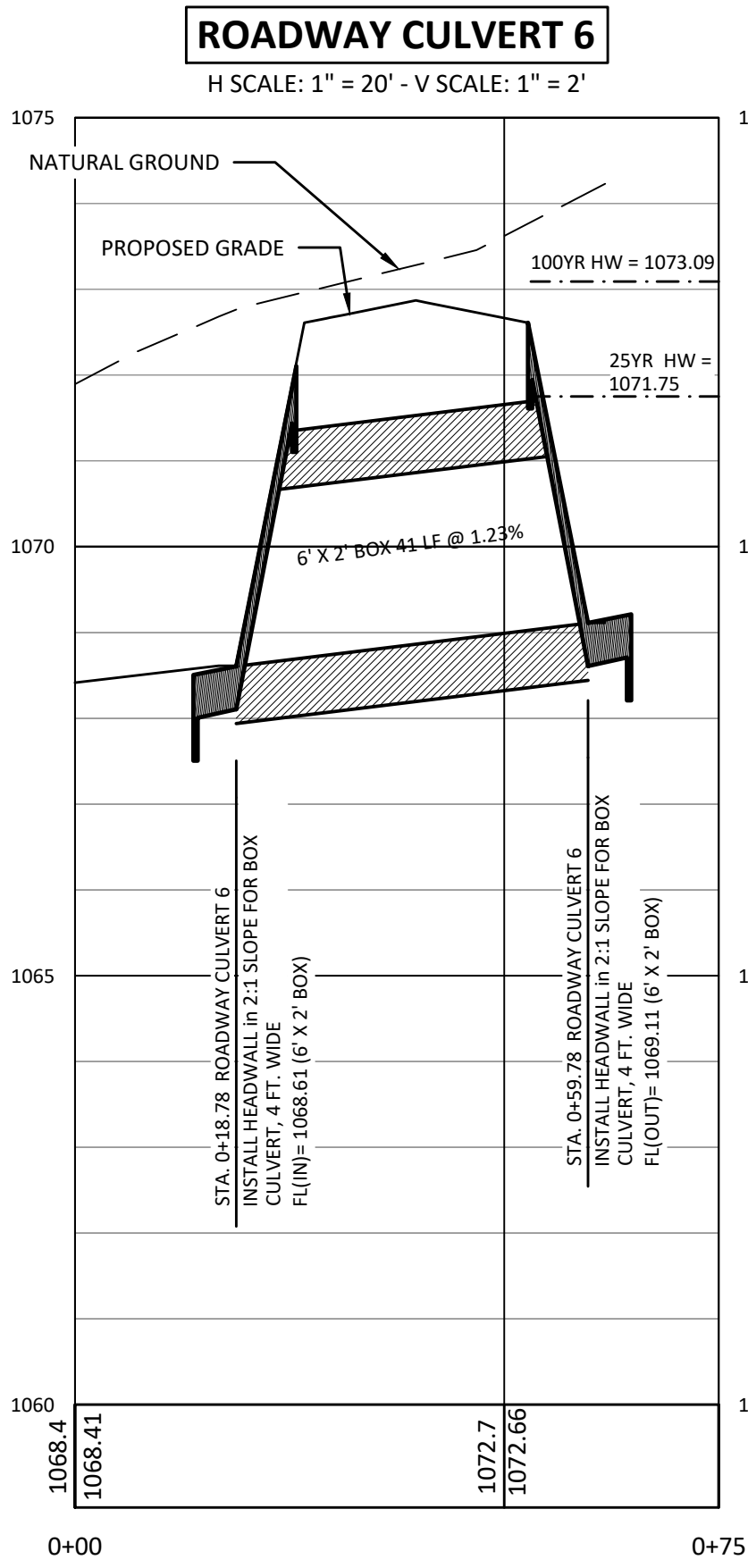
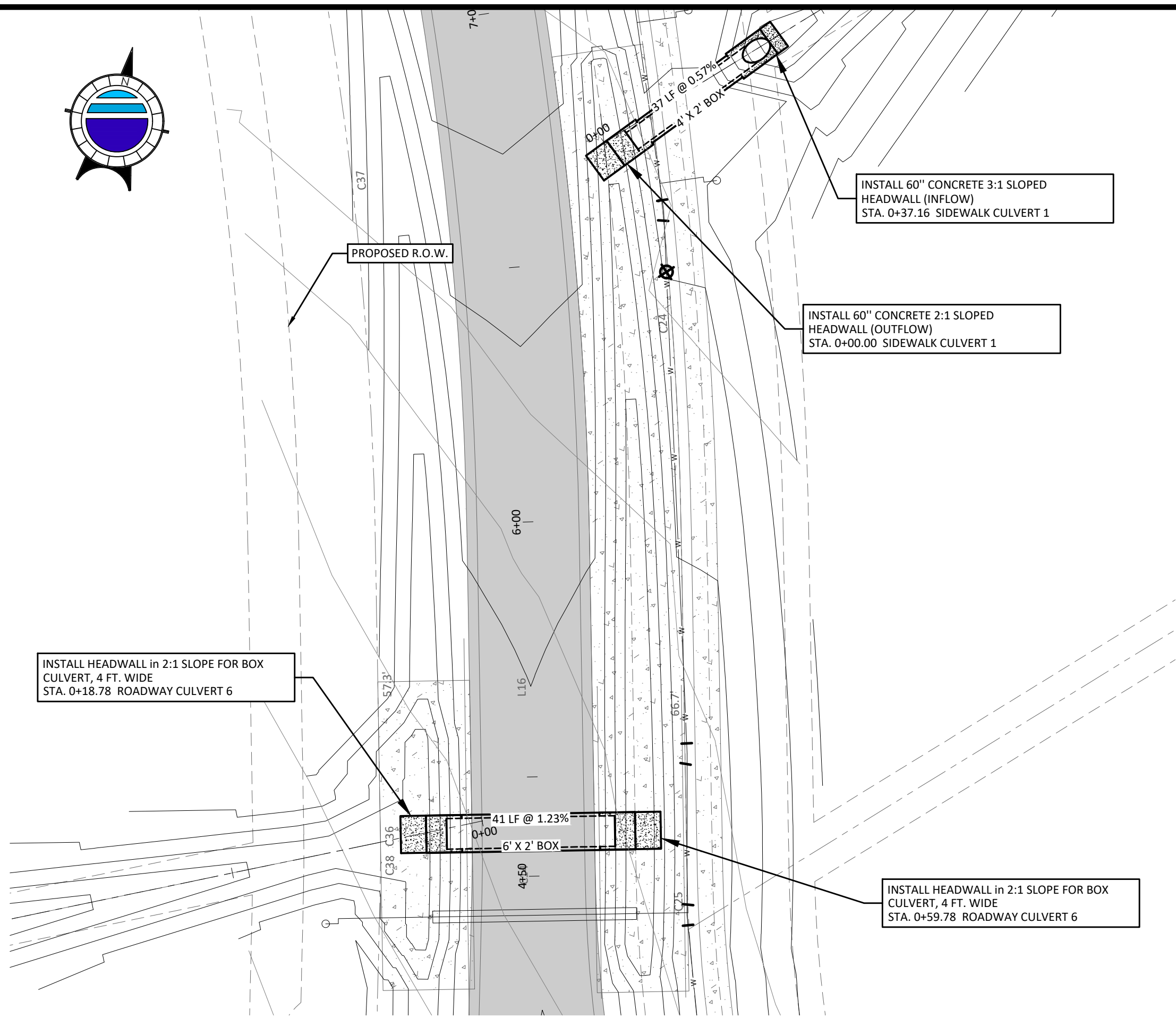


ROADWAY CULVERT 3

H SCALE: 1" = 20' - V SCALE: 1" = 2'



Drawing: C:\pwworking\JF\dc-prod\jonathan.banister\0014942\2408002 CD CULVERT.dwg
User: JBANISTER
Plot Date/Time: Feb. 10, 25 - 07:53
Plot Date/Time: Feb. 10, 25 - 10:25:59



Drawing: C:\pwworking\Jf\dc-prod\jonathan.banister\0014942\2408002 CD UT.dwg
User: JBANISTER
Date: 2/10/2025 11:20
Plot Date/Time: Feb. 10 25 - 10:45:16



LEGEND

	SUBDIVISION BOUNDARY
	LOT LINES
	EASEMENTS
	PROPOSED RIGHT OF WAY
	PROPOSED FACE OF CURB
	EXISTING WATER LINE
	PROPOSED WATER LINE
	FIRE HYDRANT
	WATER PLUG
	STEEL ENCASEMENT PIPE
	PROPOSED WATER TEE/CROSS
	PROPOSED WATER GATE VALVE
	PROPOSED AIR RELEASE VALVE
	WATER SERVICE
	WASTEWATER SERVICE
	EXISTING WASTEWATER LINE
	PROPOSED WASTEWATER LINE
	EXISTING STORM SEWER LINE
	PROPOSED STORM SEWER LINE

PROFILE LEGEND

	PROPOSED GRADE
	EXISTING GRADE
	PROPOSED WLN
	EXISTING WLN
	FUTURE WLN
	PROPOSED SSLN
	PIPE CROSSING

NOTE:

- 1) POTABLE WATER LINE AND REJECT WATER LINE SHOULD BE PLUGGED AT THE PROPERTY LINE.
- 2) FIRE HYDRANTS TO BE PLACED AT 800' MAX SPACING AND 400' FROM ANY BUILDING.
- 3) ALL SERVICE LINES CROSSING UNDERNEATH A ROADWAY SHALL BE ENCASED IN 2" PVC. SEE UTILITY DETAILS SHEETS FOR MORE INFORMATION.

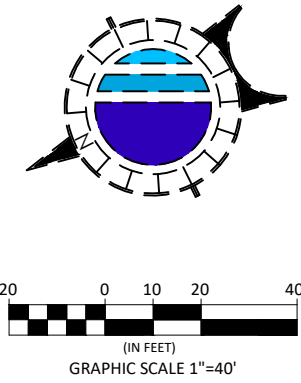
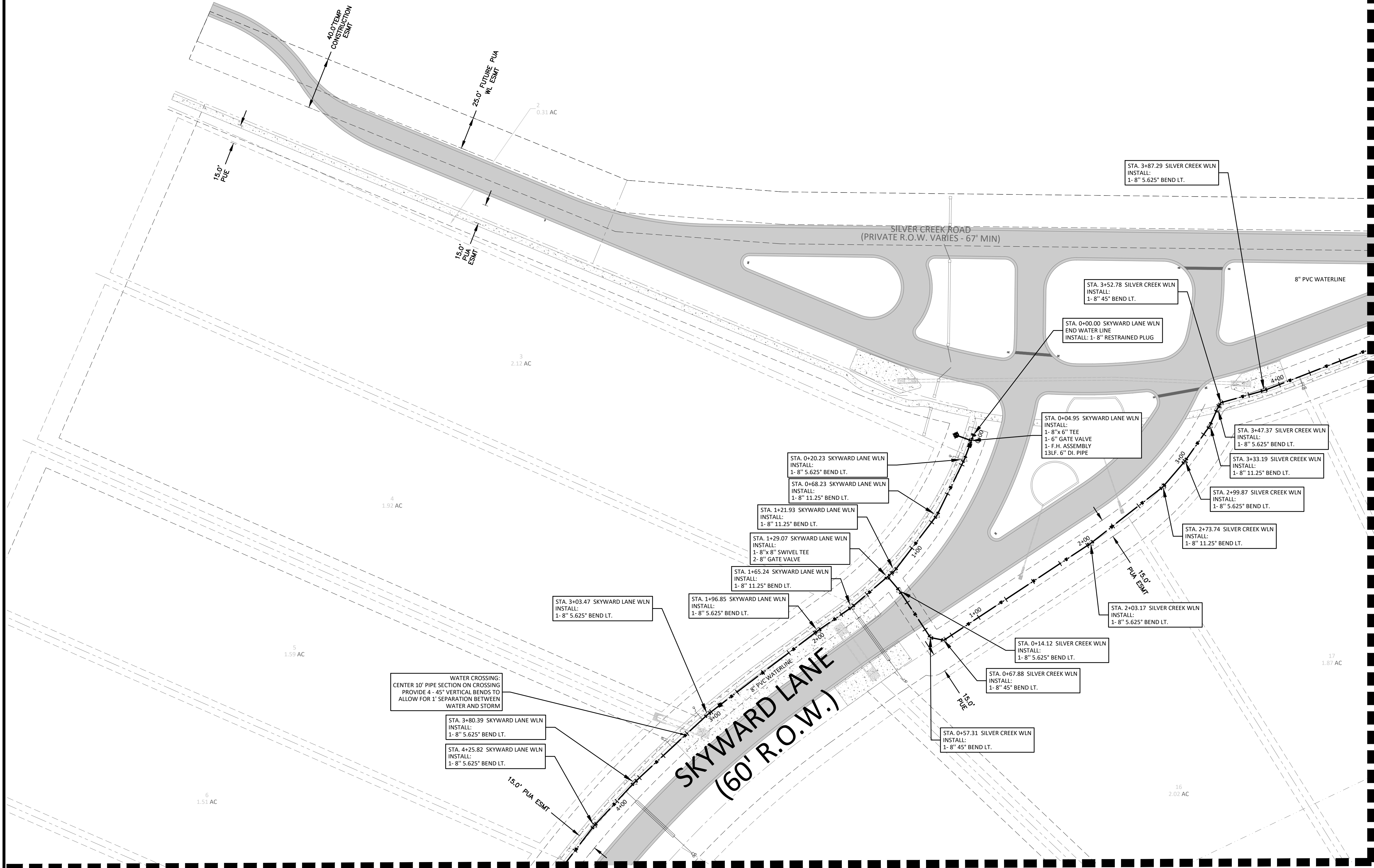
DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512) 583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

OVERALL WATER PLAN

Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025
SHEET	
27	
OF 44	
Project No.: 2408-002	

Drawing: C:\pwworking\JDC-prod\Jonathan.Banister\0014942\2408002 CD UT.dwg
User: JBANISTER
Plot Date/Time: Feb. 10 25 - 10:20
Plot Date/Time: Feb. 10 25 - 10:26:23



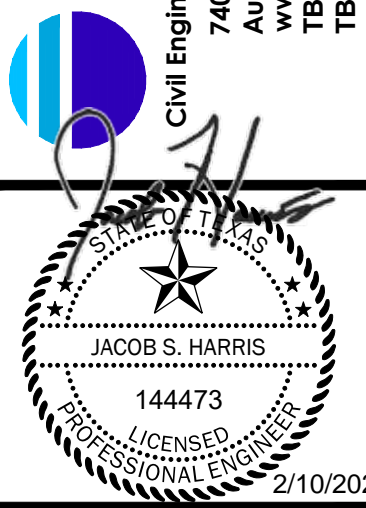
LEGEND

- SUBDIVISION BOUNDARY
- LOT LINES
- EASEMENTS
- PROPOSED RIGHT OF WAY
- PROPOSED FACE OF CURB
- EXISTING WATER LINE
- PROPOSED WATER LINE
- FIRE HYDRANT
- WATER PLUG
- STEEL ENCASEMENT PIPE
- PROPOSED WATER TEE/CROSS
- PROPOSED WATER GATE VALVE
- PROPOSED AIR RELEASE VALVE
- WATER SERVICE
- WASTEWATER SERVICE
- EXISTING WASTEWATER LINE
- PROPOSED WASTEWATER LINE
- EXISTING STORM SEWER LINE
- PROPOSED STORM SEWER LINE

PROFILE LEGEND

- PROPOSED GRADE
- EXISTING GRADE
- PROPOSED WLN
- EXISTING WLN
- FUTURE WLN
- PROPOSED SSLN
- PIPE CROSSING

MATCHLINE
SEE NEXT SHEET

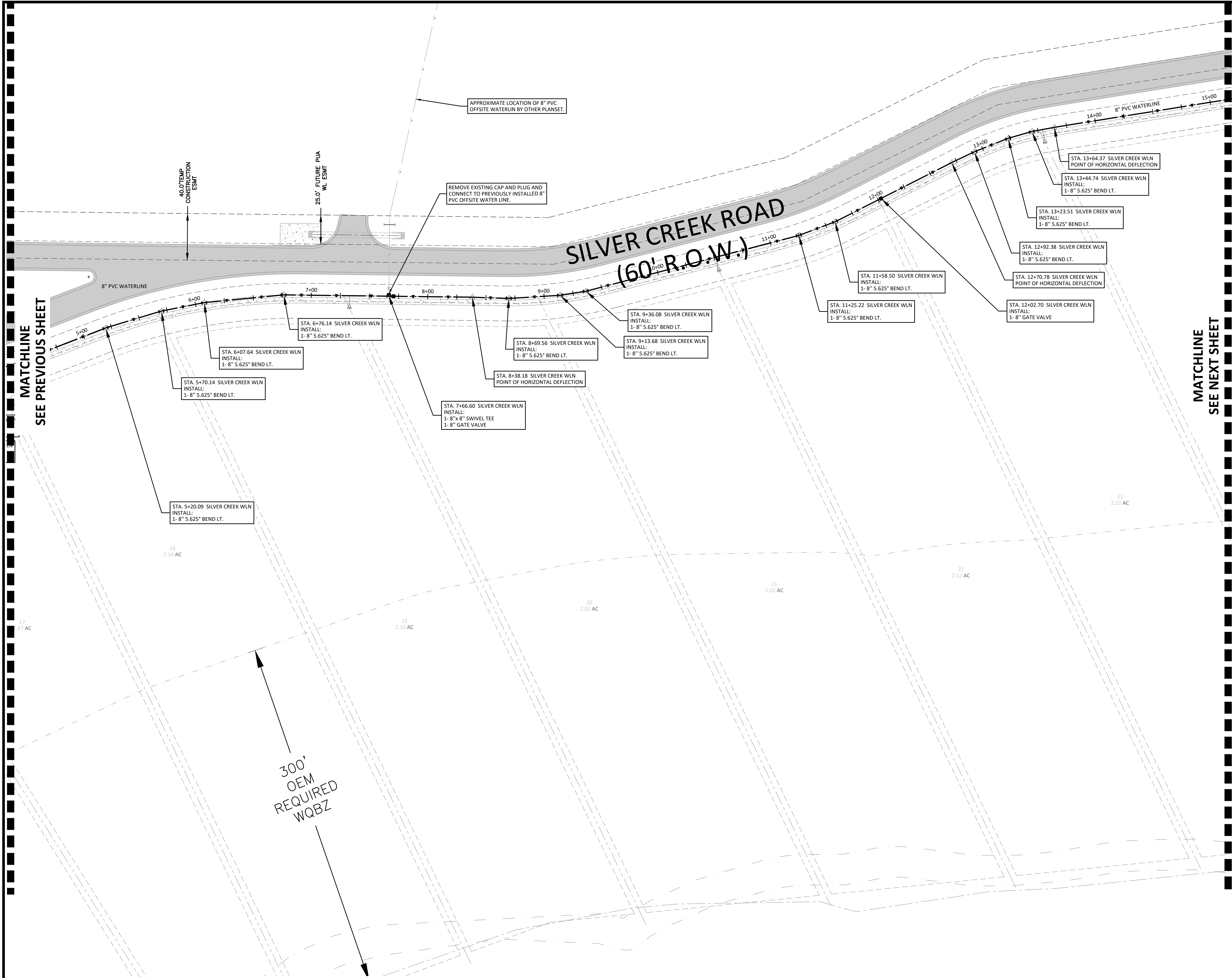


LUNAROYA SUBDIVISION DRIPPING SPRINGS, TX

WATER PLAN 1

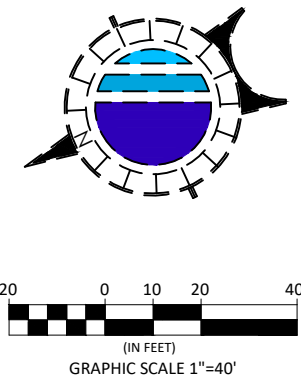
Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025
SHEET
28
OF 44
Project No.:
2408-002

Drawing: C:\pwworking\JF\dc-prod\Jonathan.Banister\0014942\2408002 CD UT.dwg
User: JBANISTER
Date: 07-25-2020
Plot Date/Time: Feb. 10 25- 10:06:28



MATCHLINE
SEE PREVIOUS SHEET

MATCHLINE
SEE NEXT SHEET



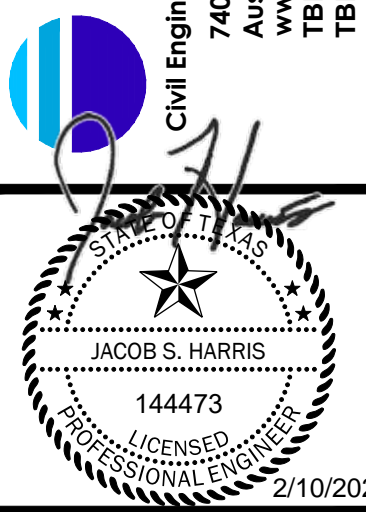
LEGEND

- SUBDIVISION BOUNDARY
- LOT LINES
- EASEMENTS
- PROPOSED RIGHT OF WAY
- PROPOSED FACE OF CURB
- EXISTING WATER LINE
- PROPOSED WATER LINE
- FIRE HYDRANT
- WATER PLUG
- STEEL ENCASEMENT PIPE
- PROPOSED WATER TEE/CROSS
- PROPOSED WATER GATE VALVE
- PROPOSED AIR RELEASE VALVE
- WATER SERVICE
- WASTEWATER SERVICE
- EXISTING WASTEWATER LINE
- PROPOSED WASTEWATER LINE
- EXISTING STORM SEWER LINE
- PROPOSED STORM SEWER LINE
- PIPE CROSSING

PROFILE LEGEND

- PROPOSED GRADE
- EXISTING GRADE
- PROPOSED WLN
- EXISTING WLN
- FUTURE WLN
- PROPOSED SSLN
- PIPE CROSSING

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512) 583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551



LUNAROYA SUBDIVISION DRIPPING SPRINGS, TX

WATER PLAN 2

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025

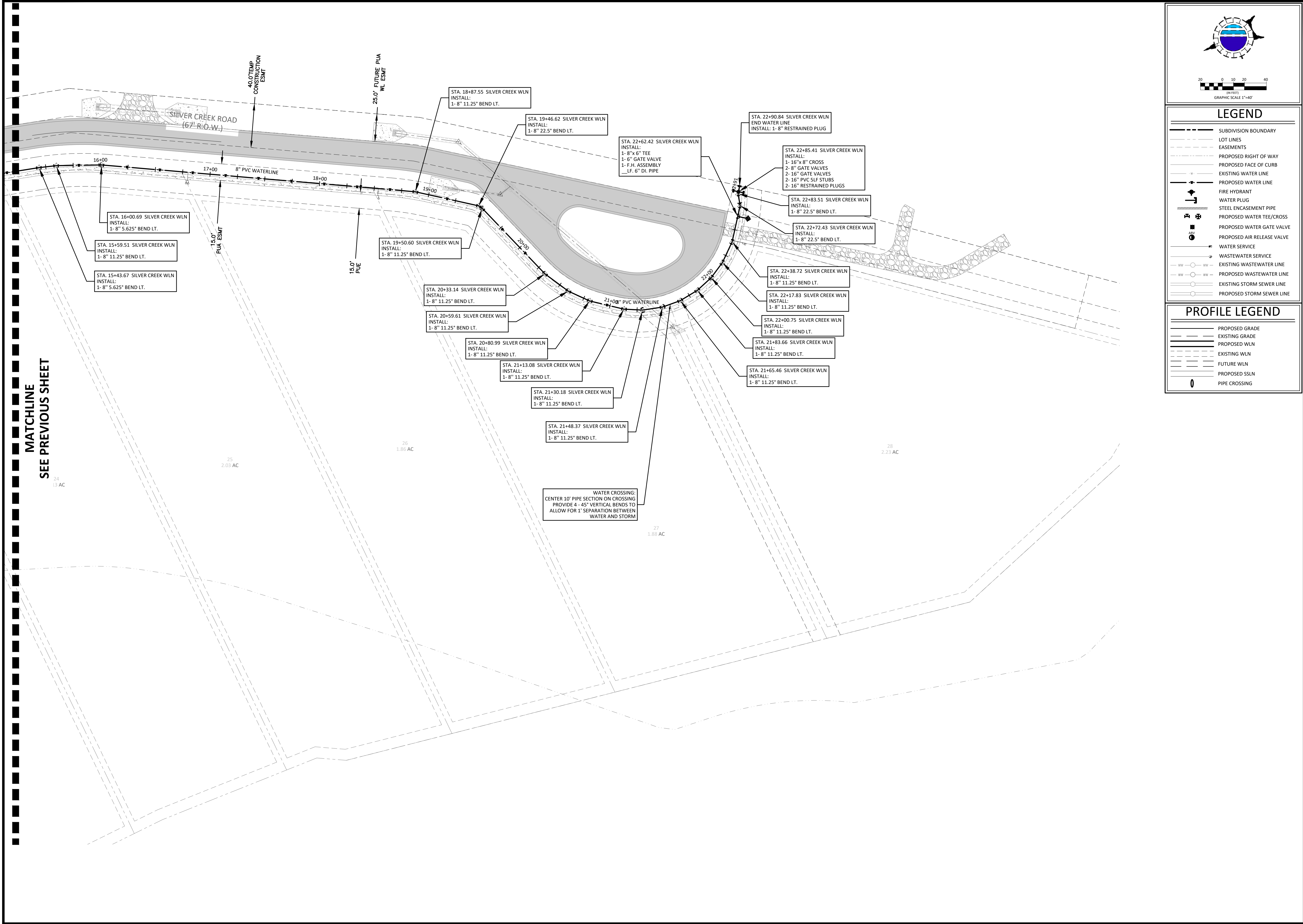
SHEET

29

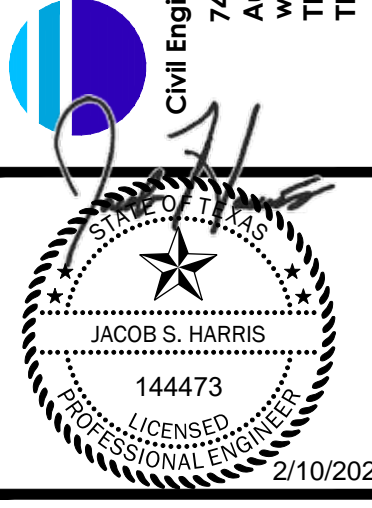
OF 44

Project No.:
2408-002

Drawing: C:\pwworking\JF\dc-prod\Jonathan.Banister\0014942\2408002 CD UT.dwg
User: JBANISTER
Date: 2/10/2025 07:25:11
Plot Date/Time: Feb. 10 25 10:26:33



DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735, Tel: (512) 583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

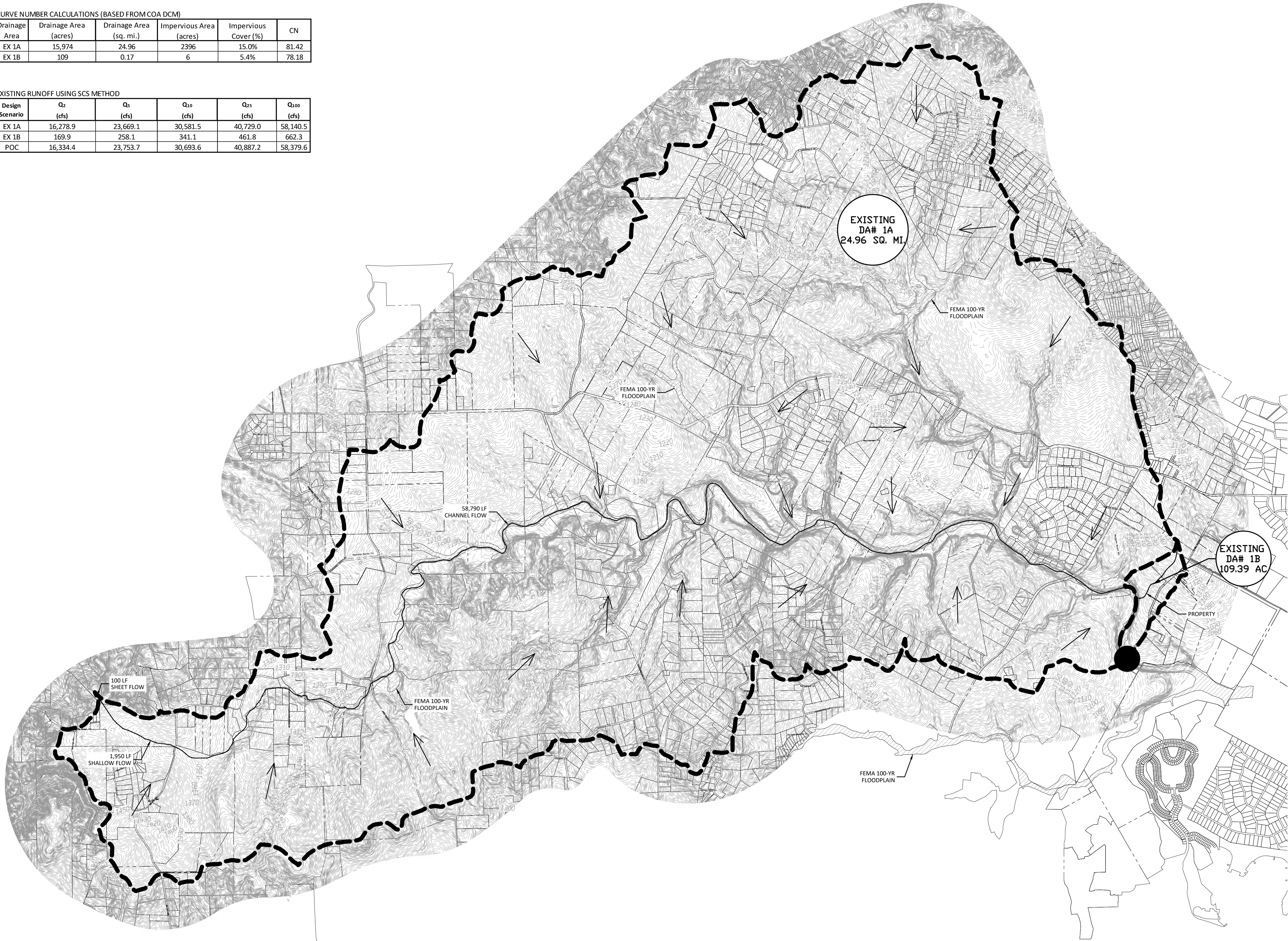
WATER PLAN 3

Designed: JBB AD
Drawn: JBB
Reviewed: JH
Date: 2-10-2025
SHEET
30
OF 44
Project No.:
2408-002

TIME OF CONCENTRATION CALCULATIONS (BASED FROM COA DCM)																				
Drainage Area	Drainage Area (acres)	Drainage Area (sq. mi.)	Sheet Flow					Shallow Concentrated Flow					Channel/Storm Drain Flow						Time of Concentration	Lag Time
			Length	n	ΔElev	Slope	Sub Tc	Length	ΔElev	Slope	n	Sub Tc	Length	Velocity	n	Slope	Area (sf)	Pw (ft)	Sub Tc	
EX 1A	15,974	24.96	100	0.15	2.97	0.030	7.44 min	1,950	63.03	0.032	0.05	11.21	58,790	16.07	0.03	0.007	4594.25	591.72	60.99 min	79.64
EX 1B	109	0.17	100	0.15	1	0.010	11.49 min	2,693	92.65	0.034	0.05	14.99	250	44.60	0.03	0.239	310.50	124.60	0.09 min	26.58

CURVE NUMBER CALCULATIONS (BASED FROM COA DCM)					
Drainage Area	Drainage Area (acres)	Drainage Area (sq. mi.)	Impervious Area (acres)	Impervious Cover (%)	CN
EX 1A	15,974	24.96	2396	15.0%	81.42
EX 1B	109	0.17	6	5.4%	78.18

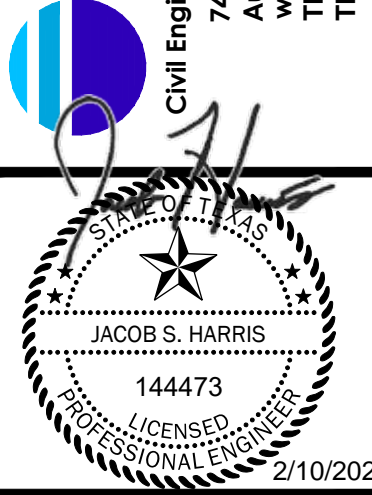
EXISTING RUNOFF USING SCS METHOD					
Design Scenario	Q ₂ (cfs)	Q ₅ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
EX 1A	16,278.9	23,669.1	30,581.5	40,729.0	58,140.5
EX 1B	169.9	258.1	341.1	461.8	662.3
POC	16,334.4	23,753.7	30,693.6	40,887.2	58,379.6



LEGEND

- DRAINAGE AREA
- TIME OF CONCENTRATION
- POINT OF CONFLUENCE
- 100-YR FLOODPLAIN (FEMA)
- FLOW ARROW

DOUCET
A Kleinfelder Company



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

OVERALL EXISTING DRAINAGE
AREA MAP

Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025
SHEET	
32	
OF 44	
Project No.: 2408-002	

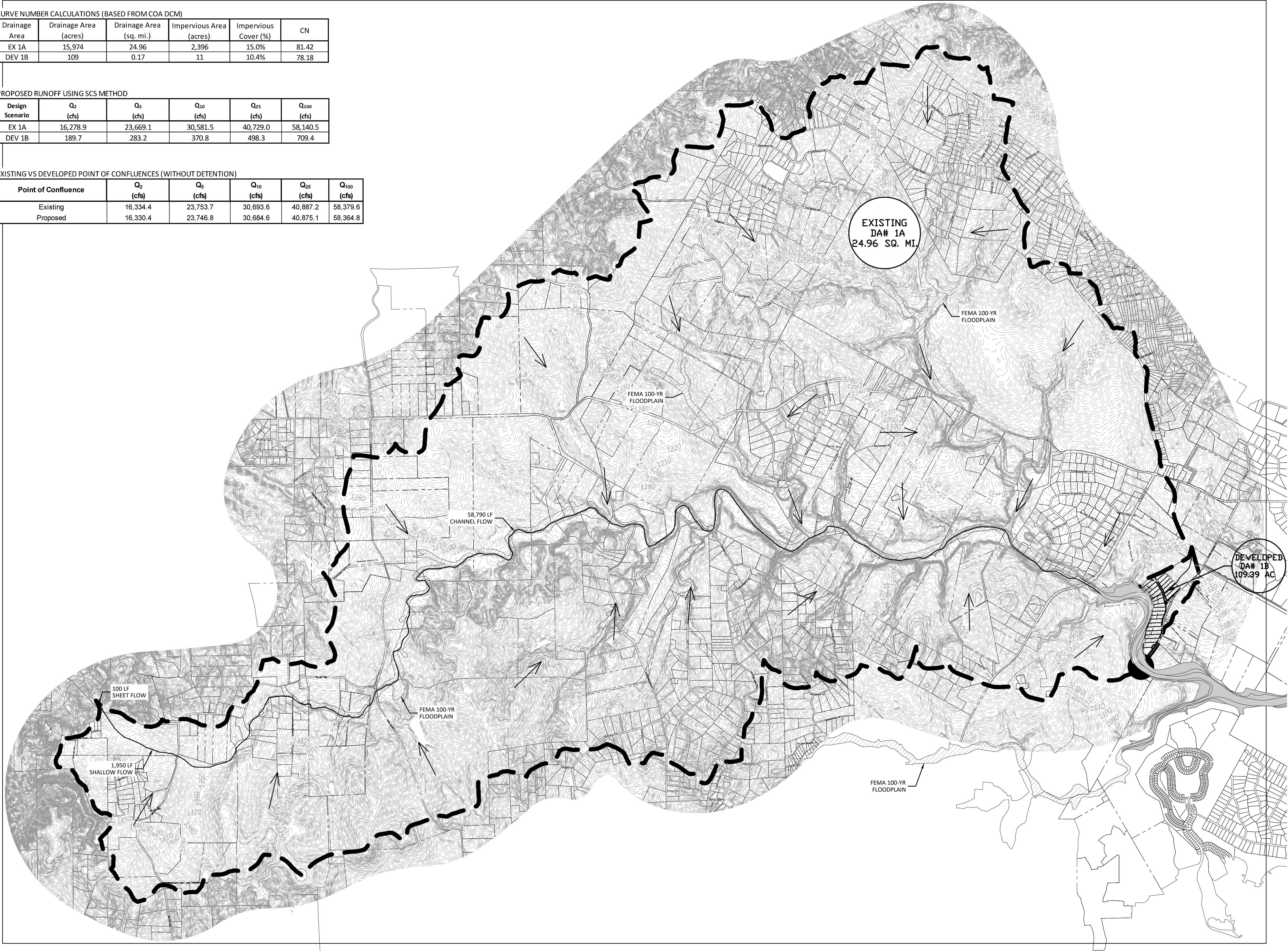
Drawing: C:\pwworking\JF\dc-prod\jonathan.banister\0014942\2408002 CD DA-FR.dwg
User: JBANISTER
Date: 02-25-2025
Plot Date/Time: Feb. 10 25 - 10:30:11

TIME OF CONCENTRATION CALCULATIONS (BASED FROM COA DCM)																					
Drainage Area	Drainage Area (acres)	Drainage Area (sq. mi.)	Sheet Flow					Shallow Concentrated Flow					Channel/Storm Drain Flow						Time of Concentration	Lag Time	
			Length	n	ΔElev	Slope	Sub Tc	Length	ΔElev	Slope	n	Sub Tc	Length	Velocity	n	Slope	Area (sf)	Pw (ft)			Sub Tc
EX 1A	15,974	24.96	100	0.15	2.97	0.030	7.44 min	1,950	63.03	0.032	0.05	11.21	58,790	16.07	0.03	0.007	4594.25	591.72	60.99 min	79.64	47.78
DEV 1B	109	0.17	100	0.15	1	0.010	11.49 min	2,620	87.68	0.033	0.025	11.74	150	58.89	0.03	0.416	310.50	124.60	0.04 min	23.28	13.97

CURVE NUMBER CALCULATIONS (BASED FROM COA DCM)					
Drainage Area	Drainage Area (acres)	Drainage Area (sq. mi.)	Impervious Area (acres)	Impervious Cover (%)	CN
EX 1A	15,974	24.96	2,396	15.0%	81.42
DEV 1B	109	0.17	11	10.4%	78.18

PROPOSED RUNOFF USING SCS METHOD					
Design Scenario	Q ₂ (cfs)	Q ₅ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
EX 1A	16,278.9	23,669.1	30,581.5	40,729.0	58,140.5
DEV 1B	189.7	283.2	370.8	498.3	709.4

EXISTING VS. DEVELOPED POINT OF CONFLUENCES (WITHOUT DETENTION)					
Point of Confluence	Q ₂ (cfs)	Q ₅ (cfs)	Q ₁₀ (cfs)	Q ₂₅ (cfs)	Q ₁₀₀ (cfs)
Existing	16,334.4	23,753.7	30,693.6	40,887.2	58,379.6
Proposed	16,330.4	23,746.8	30,684.6	40,875.1	58,364.8



DA

1000

0

500

1000

2000

(IN FEET)

GRAPHIC SCALE 1"=2000"

LEGEND

DRAINAGE AREA

TIME OF CONCENTRATION

POINT OF CONFLUENCE

100-YR FLOODPLAIN (FEMA)

FLOW ARROW

DOUCET

A Kleinfelder Company

Civil Engineering // Entitlements // Geospatial

7401 B. Highway 71 W. Ste. 140

Austin, TX 78735, Tel: (512) 583-2600

www.doucetengineers.com

TBPELS Engineering Firm No. F-3937

TBPELS Surveying Firm No. 10194551

JACOB S. HARRIS

144473

LICENSED PROFESSIONAL ENGINEER

2/10/2025

LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

OVERALL PROPOSED DRAINAGE
AREA MAP

Designed: JBB AD

Drawn: JBB

Reviewed: JH

Date: 2-10-2025

SHEET

33

OF 44

Project No.:

2408-002

Drawing: C:\pwworking\MT-dcc-prod\jonathan.banister\0014942\2408002 CD DA-RP.dwg
User: JBANISTER
Plot Date/Time: Feb. 10 25 - 10:38:17



Proposed Conditions - ATLAS 14														
DRG AREA LABEL	Area	AREA _{TOT}	LENGTH	n	Δ ELEV	SLOPE	SHEET TC	LENGTH	P/U	K	Δ ELEV	SLOPE	VEL	SHAL TC
A1	17.00	17.00	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
A2	4.19	21.19	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
A3	2.32	23.51	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
A4	1.00	24.51	300	0.24	8.69	0.029	20.0	1395	U	16.13	49.77	0.036	3.0	7.6
B1	6.73	6.73	300	0.24	8.96	0.030	20.0	1218	U	16.13	44.86	0.037	3.1	6.6
B2	2.39	9.12	300	0.24	8.69	0.029	20.0	1218	U	16.13	44.86	0.037	3.1	6.6
B3	1.94	11.06	300	0.24	8.69	0.029	20.0	1218	U	16.13	44.86	0.037	3.1	6.6
B4	1.07	12.13	300	0.24	5.41	0.018	20.0	1123	U	16.13	44.77	0.044	3.4	5.5
C1	6.39	6.39	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
C2	7.91	14.30	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
C3	5.01	19.31	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
C4	0.41	19.72	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5
D1	1.78	1.78												
D2	1.50	3.28												
D3	1.48	24.48	300	0.24	5.41	0.018	20.0	1123	U	16.13	49.77	0.044	3.4	5.5

Proposed Conditions - ATLAS 14														
DRG AREA LABEL	AREA _{TOT}	TC	C ₂	C ₁₀	C ₂₅	C ₅₀	C ₁₀₀	I ₂	I ₁₀	I ₂₅	I ₅₀	I ₁₀₀	Q ₂	Q ₁₀
A1	17.00	28.9	0.36	0.41	0.45	0.48	0.52	3.02	4.60	5.65	6.46	7.36	18.45	32.08
A2	21.19	29.5	0.36	0.41	0.45	0.48	0.52	2.97	4.54	5.56	6.37	7.25	22.68	39.41
A3	23.51	29.6	0.36	0.41	0.45	0.48	0.52	2.96	4.52	5.54	6.34	7.22	25.05	43.53
A4	24.51	31.1	0.36	0.41	0.45	0.48	0.52	2.89	4.42	5.42	6.20	7.06	25.54	44.39
B1	6.73	27.8	0.36	0.41	0.46	0.49	0.53	3.11	4.74	5.82	6.66	7.60	7.52	13.09
B2	9.12	28.2	0.36	0.41	0.46	0.49	0.53	3.08	4.70	5.77	6.60	7.52	10.11	17.57
B3	11.06	28.3	0.36	0.41	0.46	0.49	0.53	3.07	4.69	5.75	6.58	7.50	12.22	21.25
B4	12.13	29.5	0.36	0.41	0.46	0.49	0.53	2.97	4.54	5.56	6.37	7.25	12.98	22.56
C1	6.39	26.3	0.41	0.47	0.51	0.54	0.58	3.23	4.93	6.06	6.94	7.91	8.46	14.69
C2	14.30	27.6	0.41	0.47	0.51	0.54	0.58	3.12	4.77	5.85	6.70	7.64	18.31	31.78
C3	19.31	30.1	0.41	0.47	0.51	0.54	0.58	2.93	4.47	5.48	6.26	7.13	23.18	40.19
C4	19.72	31.7	0.41	0.47	0.51	0.54	0.58	2.87	4.38	5.37	6.15	7.00	23.22	40.28
D1	1.78	5.1	0.49	0.55	0.60	0.63	0.67	6.20	9.53	11.77	13.57	15.46	5.41	9.33
D2	3.28	11.1	0.49	0.55	0.60	0.63	0.67	4.76	7.33	9.05	10.47	11.92	7.65	13.23
D3	24.48	33.0	0.43	0.49	0.53	0.56	0.61	2.83	4.32	5.30	6.06	6.91	29.79	51.82

LEGEND

- DRAINAGE AREA
- TIME OF CONCENTRATION
- POINT OF CONFLUENCE
- 100-YR FLOODPLAIN (FEMA)
- VEGETATIVE FILTER STRIP
- FLOW ARROW

DOUCET
A Kleinfelder Company
Civil Engineering // Entitlements // Geospatial
7401 B. Highway 71 W. Ste. 140
Austin, TX 78735 Tel: (512) 583-2600
www.doucetengineers.com
TBPELS Engineering Firm No. F-3937
TBPELS Surveying Firm No. 10194551

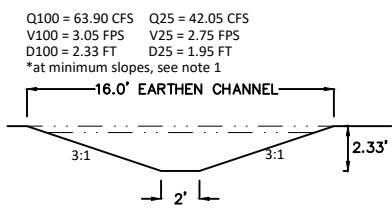
LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

PROPOSED DRAINAGE AREA MAP

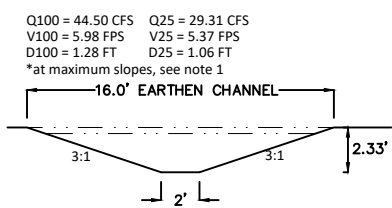
Designed:	JBB AD
Drawn:	JBB
Reviewed:	JH
Date:	2-10-2025

SHEET
34
OF 44

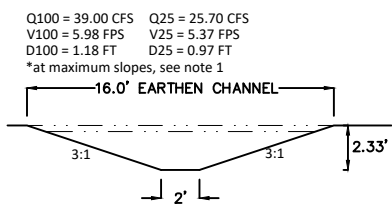
Project No.:
2408-002



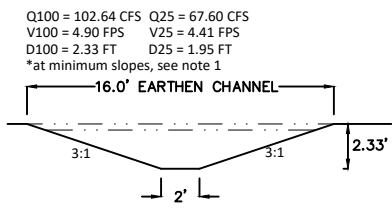
SKYWARD LANE
DITCH TYPICAL SECTION
SCALE: 1" = 10'



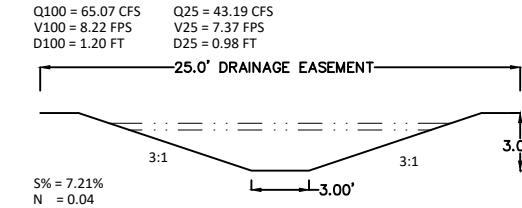
SKYWARD LANE
DITCH TYPICAL SECTION
SCALE: 1" = 10'



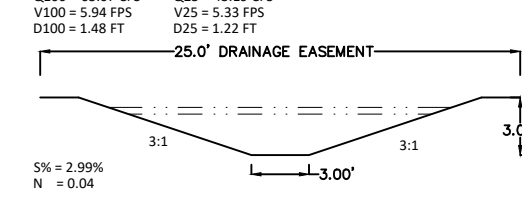
SILVER CREEK ROAD
DITCH TYPICAL SECTION
SCALE: 1" = 10'



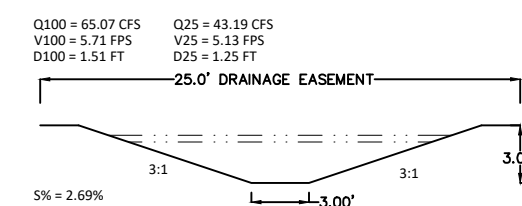
SILVER CREEK ROAD
DITCH TYPICAL SECTION
SCALE: 1" = 10'



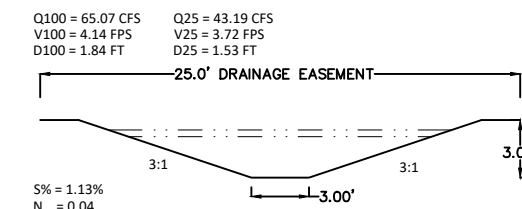
SKYWARD CHANNEL A SECTION
NTS



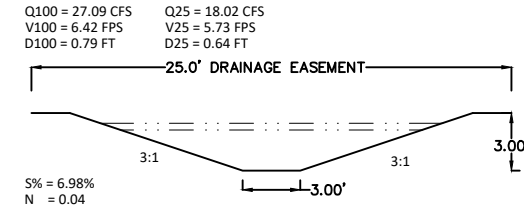
SKYWARD CHANNEL A SECTION
NTS



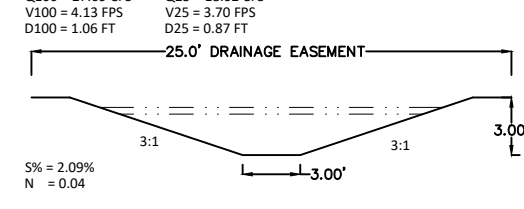
SKYWARD CHANNEL A SECTION (REAR LOT 4)
NTS



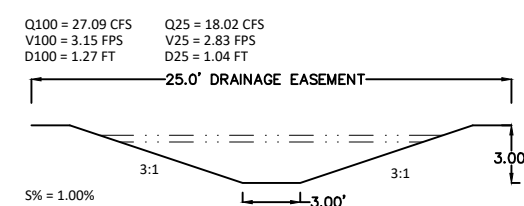
SKYWARD CHANNEL A SECTION (REAR LOT 5)
NTS



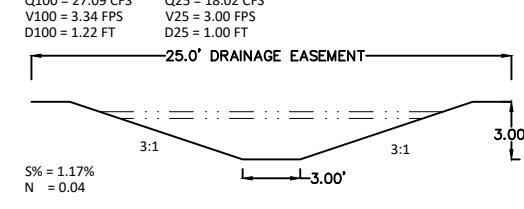
SKYWARD CHANNEL B SECTION
NTS



SKYWARD CHANNEL B SECTION
NTS

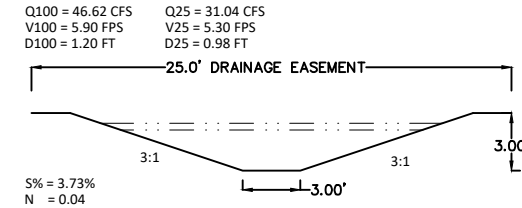


SKYWARD CHANNEL B SECTION REAR LOT 7
NTS

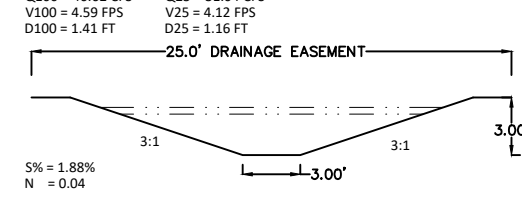


SKYWARD CHANNEL B SECTION REAR LOT 8/9
NTS

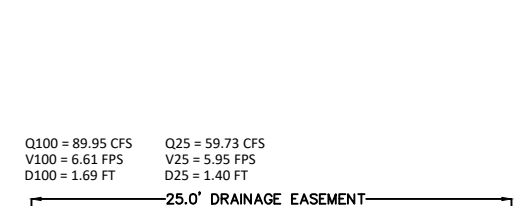
PM STATION	PM ELEVATION	GRADE IN	GRADE OUT	UNNING YIN
0+39.54	1080.81	1.00%	0.98%	Y
1+48.15	1088.39	6.98%	2.09%	Y
2+16.89	1089.83	2.09%	3.42%	N
4+39.90	1087.46	3.42%	0.00%	N



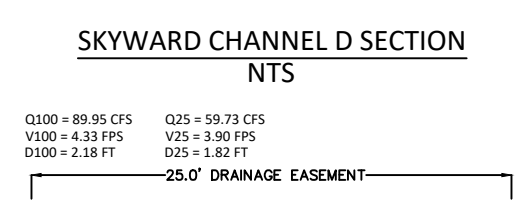
SKYWARD CHANNEL C SECTION
NTS



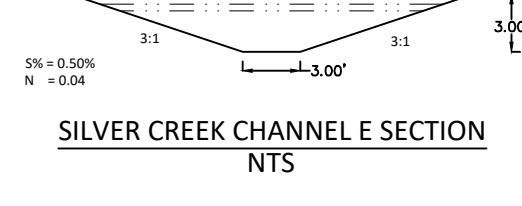
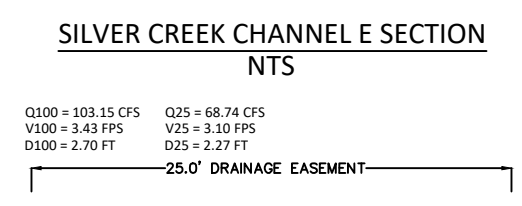
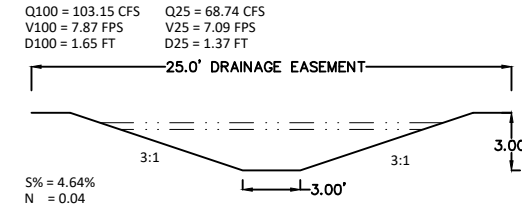
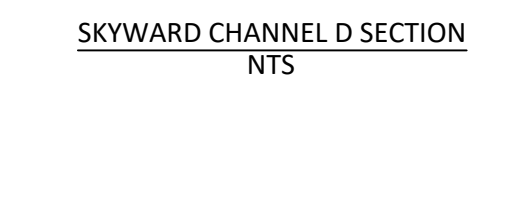
SKYWARD CHANNEL C SECTION
NTS



SKYWARD CHANNEL D SECTION
NTS



SKYWARD CHANNEL D SECTION
NTS

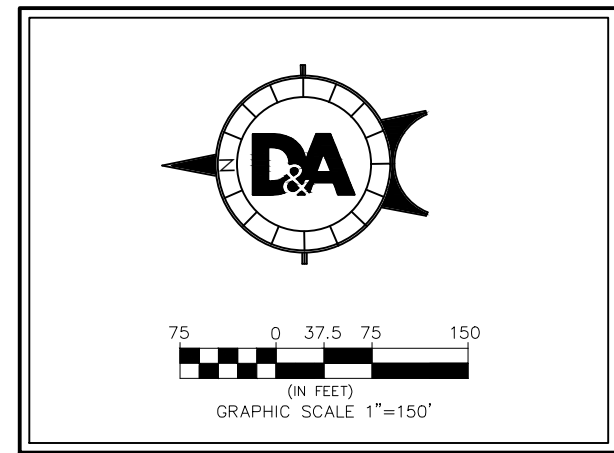


SILVER CREEK CHANNEL E SECTION
NTS

PM STATION	PM ELEVATION	GRADE IN	GRADE OUT	UNNING YIN
0+12.95	1078.80	0.00%	3.73%	N
3+49.58	1066.23	3.73%	1.88%	N
3+67.61	1065.52			N

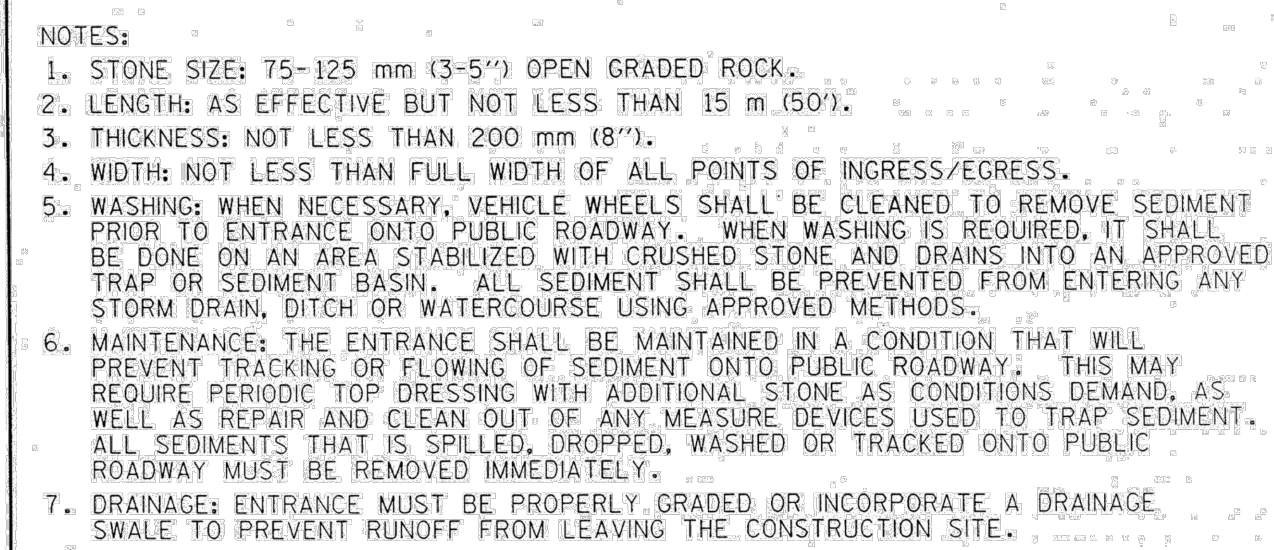
PM STATION	PM ELEVATION	GRADE IN	GRADE OUT	UNNING YIN
0+36.70	1068.36	1.02%	3.19%	N
1+40.82	1065.00	3.19%	1.35%	Y
3+00.00	1062.85	1.35%	1.00%	Y
3+91.51	1061.94			

PM STATION	PM ELEVATION	GRADE IN	GRADE OUT	UNNING YIN
0+14.95	1024.91	0.50%	0.50%	N
0+67.46	1024.85	0.50%	0.50%	N
1+21.16	1024.38	0.50%	0.57%	N
1+57.36	1024.17	0.57%	0.55%	N
1+63.56	1023.97	0.55%	4.64%	Y
2+43.59	1021.65	4.64%	4.64%	Y
2+93.62	1019.33	4.64%	2.84%	Y
3+08.36	1018.91	2.84%	2.92%	Y
3+21.91	1018.52			



LUNAROYA SUBDIVISION DRIPPING SPRINGS, TX

PROPOSED CHANNEL SECTIONS



The diagram illustrates the construction and standard symbols for a trench cross-section. The main cross-section shows a trench with a silt fence on one side. The silt fence is made of silt fence fabric (SF) and is supported by a 2" x 4" welded wire backing support for fabric (12.5 GA. WIRE). The fabric is attached to steel or wood fence posts with a maximum spacing of 2.4 m (8'). The fabric is buried in the trench, with a minimum depth of 150 mm (6") and a minimum width of 150 mm (6"). The fabric is also shown with a 600 mm (24") spacing between the posts. The trench is backfilled with material, and the flow of water is indicated by an arrow labeled "FLOW".

STANDARD SYMBOL FOR SILT FENCE (SF)

$\frac{SF}{L=}$

TRENCH CROSS SECTION

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

The image contains two technical drawings of a rock riprap apron structure.

SECTION VIEW: This cross-sectional diagram shows the profile of the apron. At the top left, a pipe is labeled "TOP OF BANK" with a diameter of 3. Below it, a horizontal line is labeled "1 (OR FLATTER)". A "STORM DRAIN" is shown as a pipe with diameter "D" entering the structure. The apron itself is composed of "ROCK RIPRAP LAYER" with a "THICKNESS = 2D50". Below the riprap is a "FILTER FABRIC OR GRANULAR FILTER". The apron is labeled "VEGETATED SLOPE WITH SOIL RETENTION BLANKET" and "MITRE CUT PIPE END TO MATCH SLOPE". The apron length is indicated as "La = 100". The bottom right shows "NATURAL GROUND".

PLAN VIEW: This top-down diagram shows the layout of the apron. It features a "STORM DRAIN" with diameter "D" and a "PERMANENT SOIL RETENTION BLANKET" with a width of 10. The apron is labeled "TERRACE" and "TOE OF SLOPE". The apron length is indicated as "La = 100". The apron width is indicated as "Wn = 60". The apron is composed of "ROCK RIPRAP LAYER" with a "THICKNESS = 2D50". The apron is labeled "VEGETATED SLOPE WITH SOIL RETENTION BLANKET" and "MITRE CUT PIPE END TO MATCH SLOPE". The apron length is indicated as "La = 100". The apron width is indicated as "Wn = 60".

LEGEND:

- D = PIPE DIAMETER
- D₅₀ = MEDIAN ROCK DIAMETER
- La = APRON LENGTH
- Wn = APRON WIDTH

- NOTE:**
1. ROCK RIPRAP SHALL BE SOUND MATERIAL AND GRADED PER REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 6916.
 2. ROCK SIZE (D_{90}) AND GRADATION SHALL BE STABLE FOR THE DESIGN HYDRAULIC CONDITIONS AND IN ADDITION WITHIN 1.5 TO 1.8 D PERMANENT STRUCTURAL PROTECTIVE, STONE RIPRAP OR OTHER ENGINEERING STANDARD OF PRACTICE FOR SIZING ROCK RIPRAP. ROCK RIPRAP D_{90} AND FILTER TYPE SHALL BE NOTED ON PLANS.
 3. GEOTEXTILE FILTER FABRIC SHALL MEET THE REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 6206.
 4. AGGREGATE FOR GRANULAR FILTER SHALL MEET THE REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 405. AGGREGATE SIZE CLASSIFICATION/GRADE, NUMBER OF LAYERS AND LAYER THICKNESS SHALL BE NOTED ON PLANS.

Diagram illustrating the Standard Symbol for Rock Berm (RB).

The diagram shows a perspective view of the Rock Berm (RB) and its cross-section.

Perspective View Dimensions:

- Length: 800 mm (2') MIN.
- Diameter: 450 mm (18") MIN.
- Structure: WOVEN WIRE SHEATHING
- Flow Direction: Indicated by an arrow labeled "FLOW".

Cross Section Dimensions:

- Top Width: 600 mm (24") MIN.
- Bottom Width: 100 mm (4")
- Height: 450 mm (18") MIN.
- Flow Direction: Indicated by an arrow labeled "FLOW".

STANDARD SYMBOL FOR ROCK BERM (RB)

CROSS SECTION

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

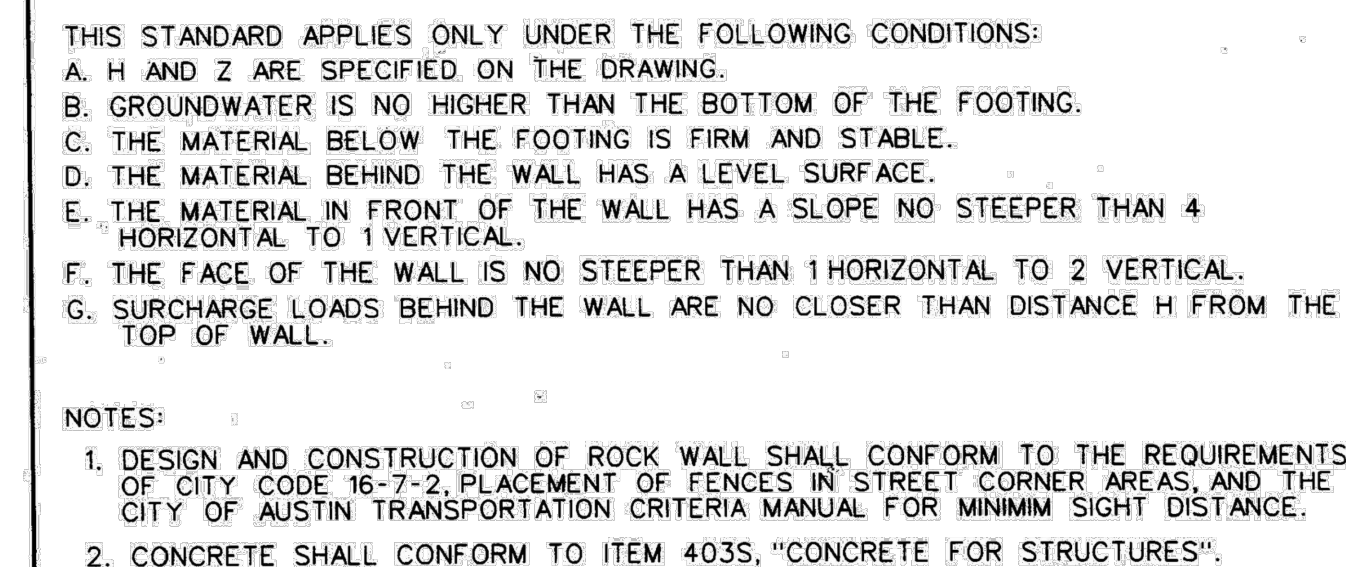
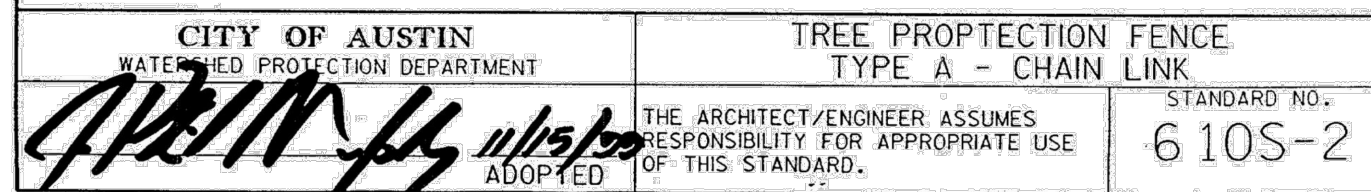
The drawing consists of two parts: a plan view and a section view.

Plan View (Top): Shows a square concrete washout. The outer edge is labeled "EDGE OF PLASTIC LINING". The inner square is labeled "10' MINIMUM". The bottom edge is labeled "VARIES SEE DESIGN CENTER". The bottom edge is also labeled "10 MIL. PLASTIC LINING". The right side is labeled "SANDBAG". A section line "A-A" is indicated with arrows pointing to the right.

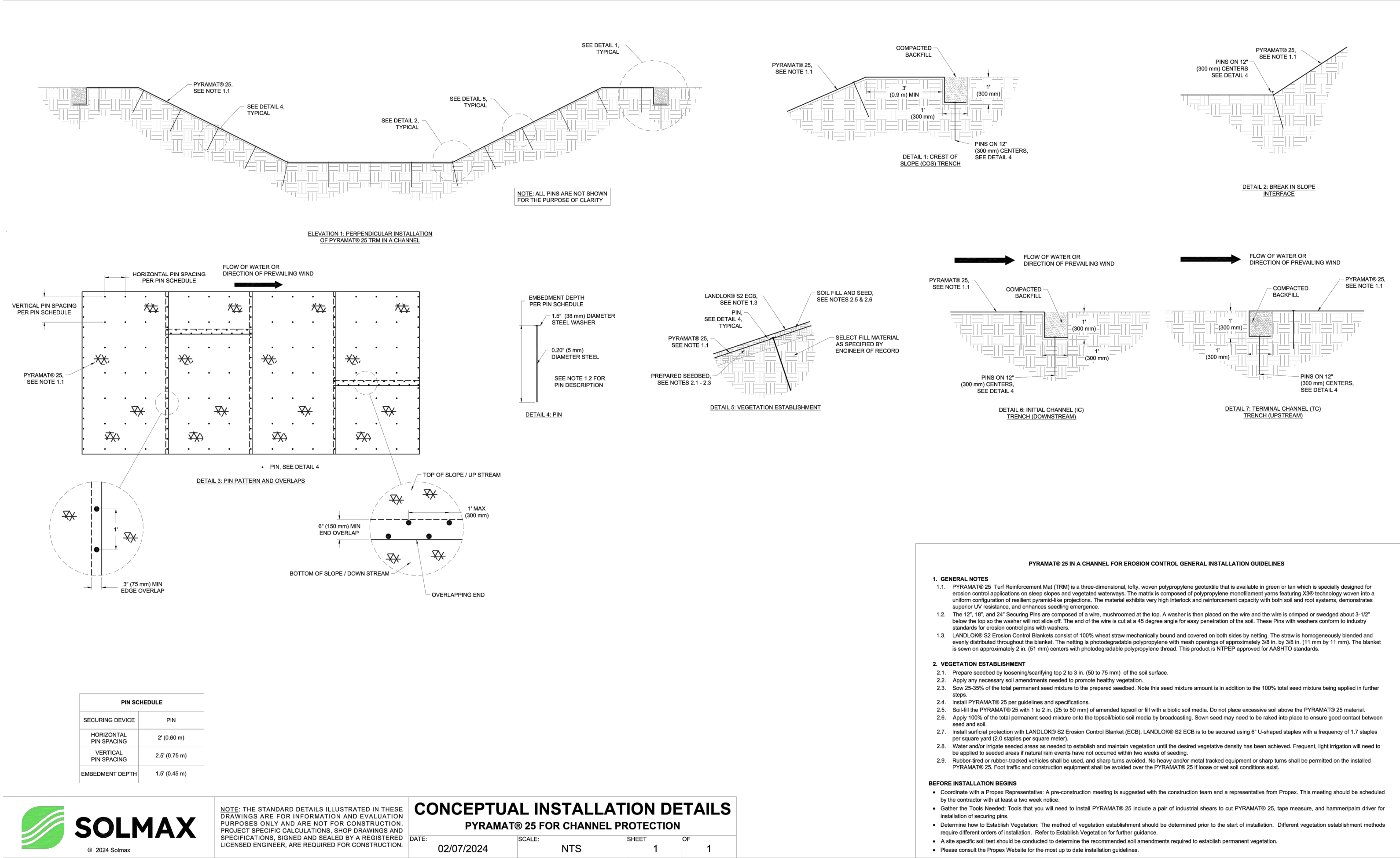
Section View (Bottom): Shows a cross-section of the washout. The top edge is labeled "10 MIL. PLASTIC LINING". The bottom edge is labeled "2' MIN". The right side is labeled "SANDBAG".

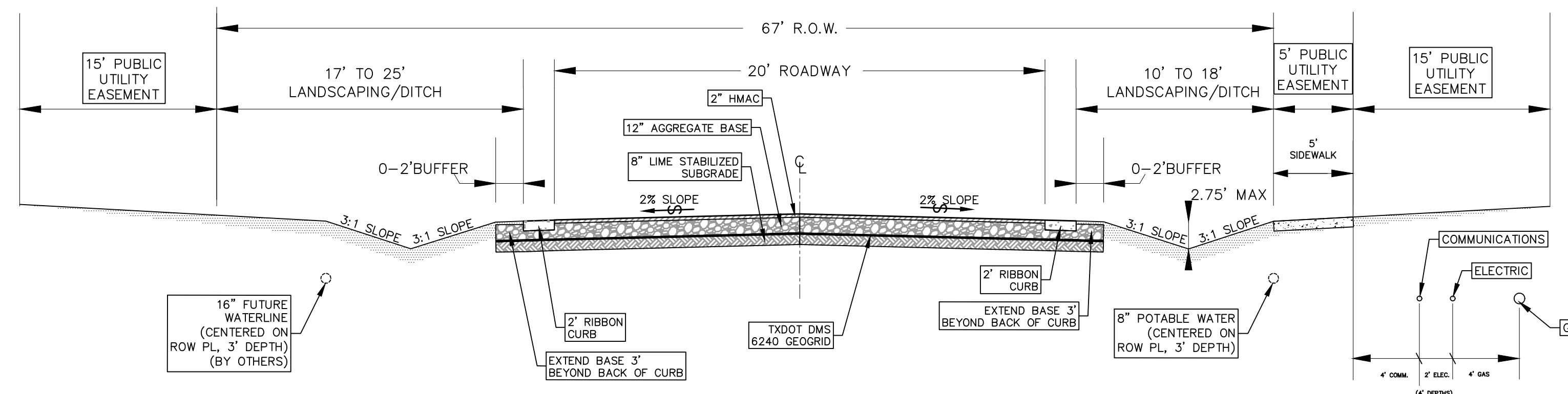
Section A-A (Bottom): Labeled "CONCRETE WASHOUT SECTION A-A" and "N.T.S." (Not To Scale).

NOTE: SANDBAGS MAY BE REPLACED BY A SOIL BERM TO ANCHOR THE PLASTIC LINING.

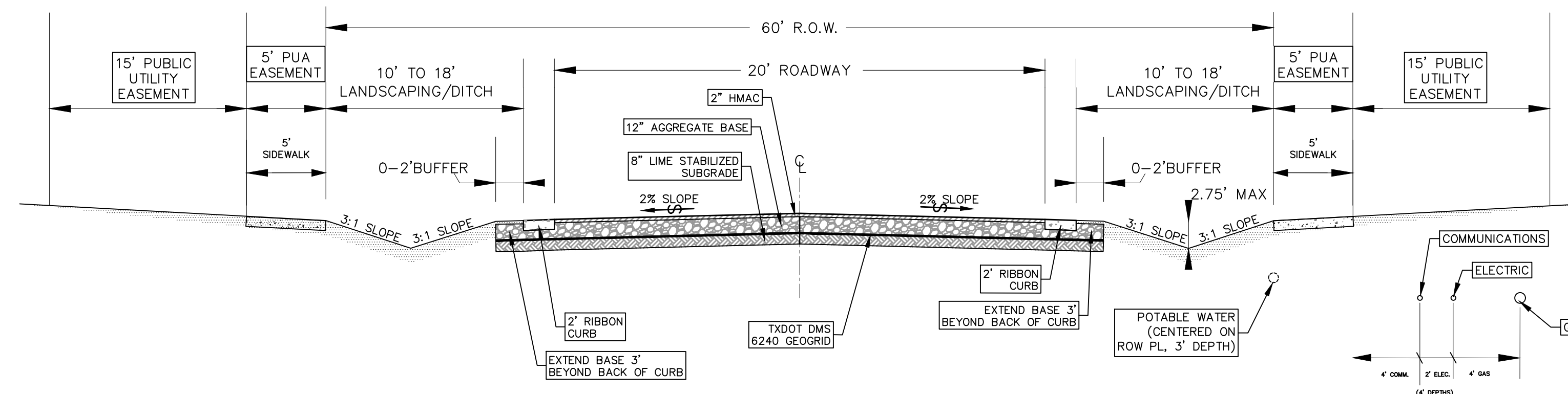


CITY OF AUSTIN DEPARTMENT OF WATERSHED PROTECTION AND DEVELOPMENT REVIEW		SLOPE PROTECTION AND TREE WELLS	
APR 11 1965 3/12/65 ADDED		THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-6 2 OF 2

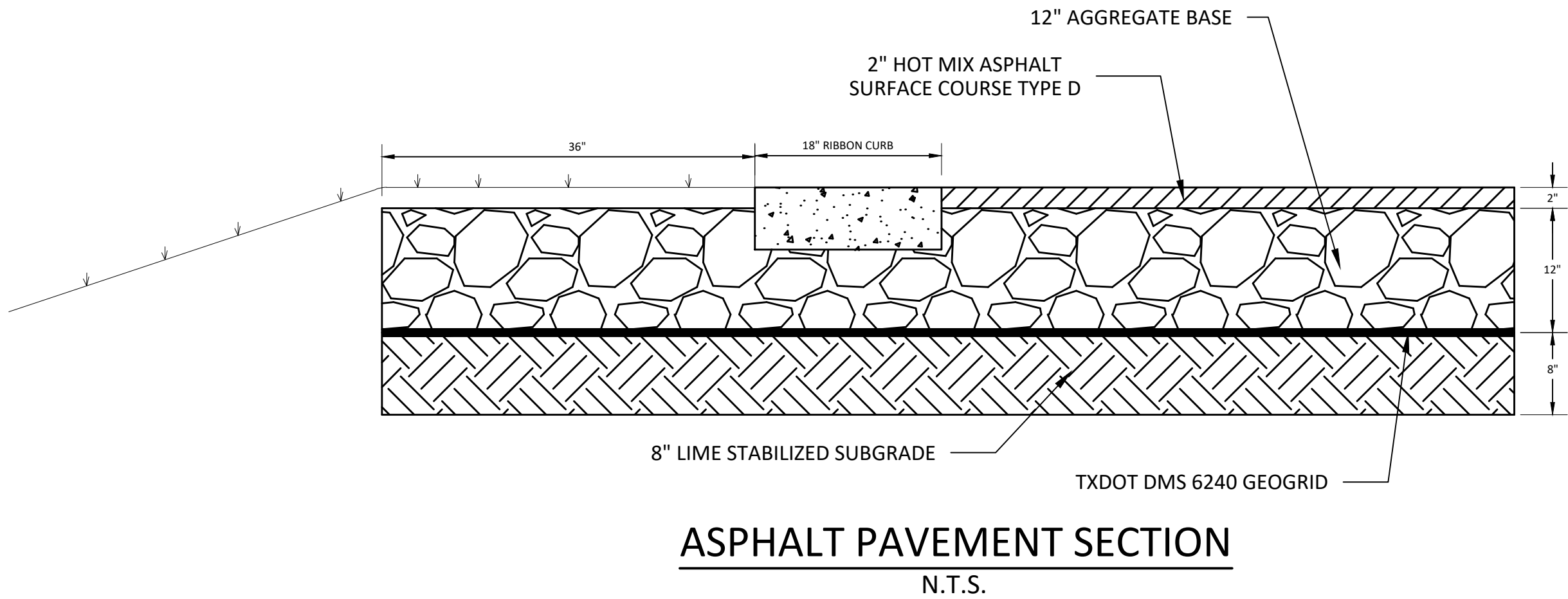
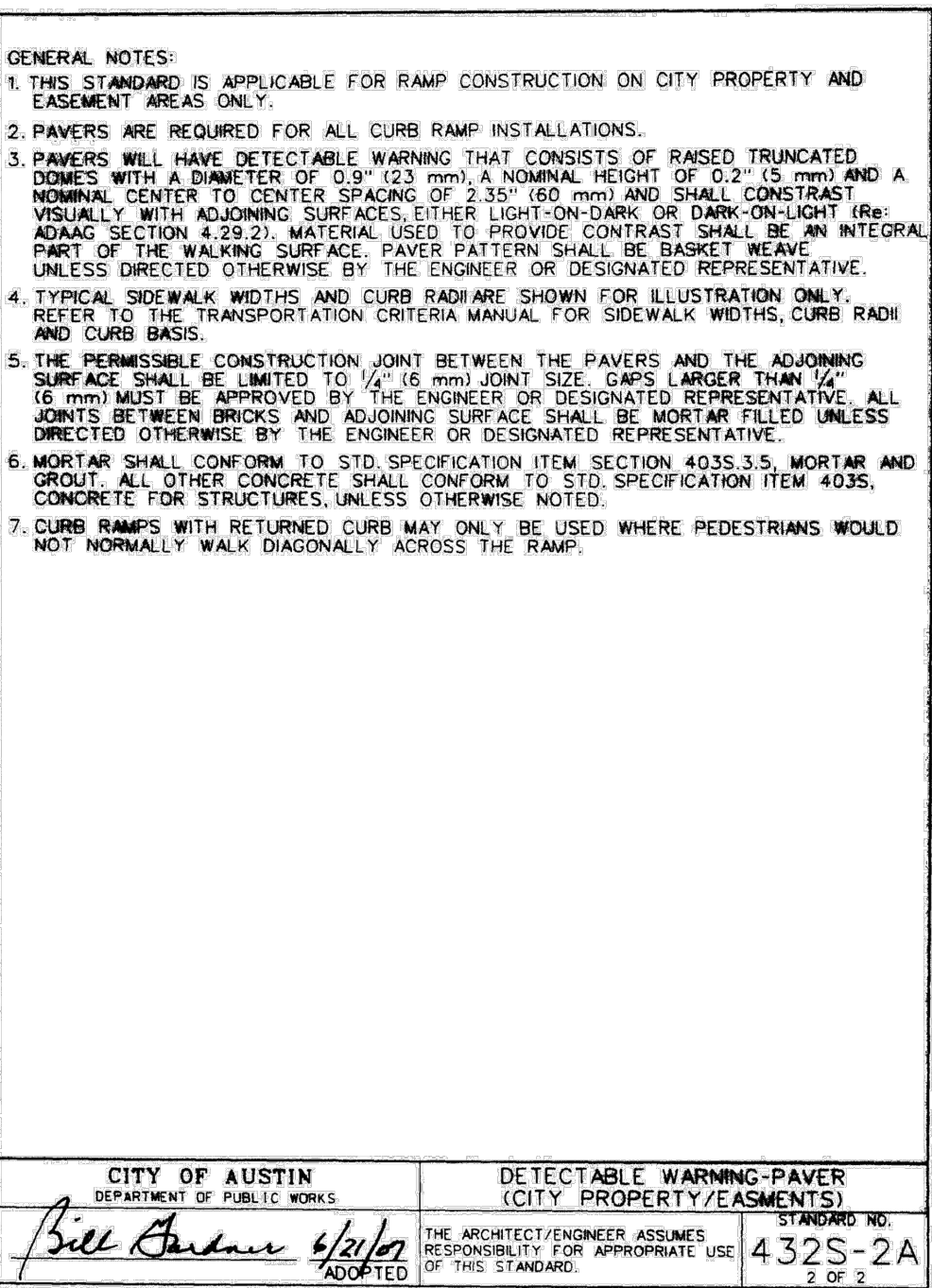
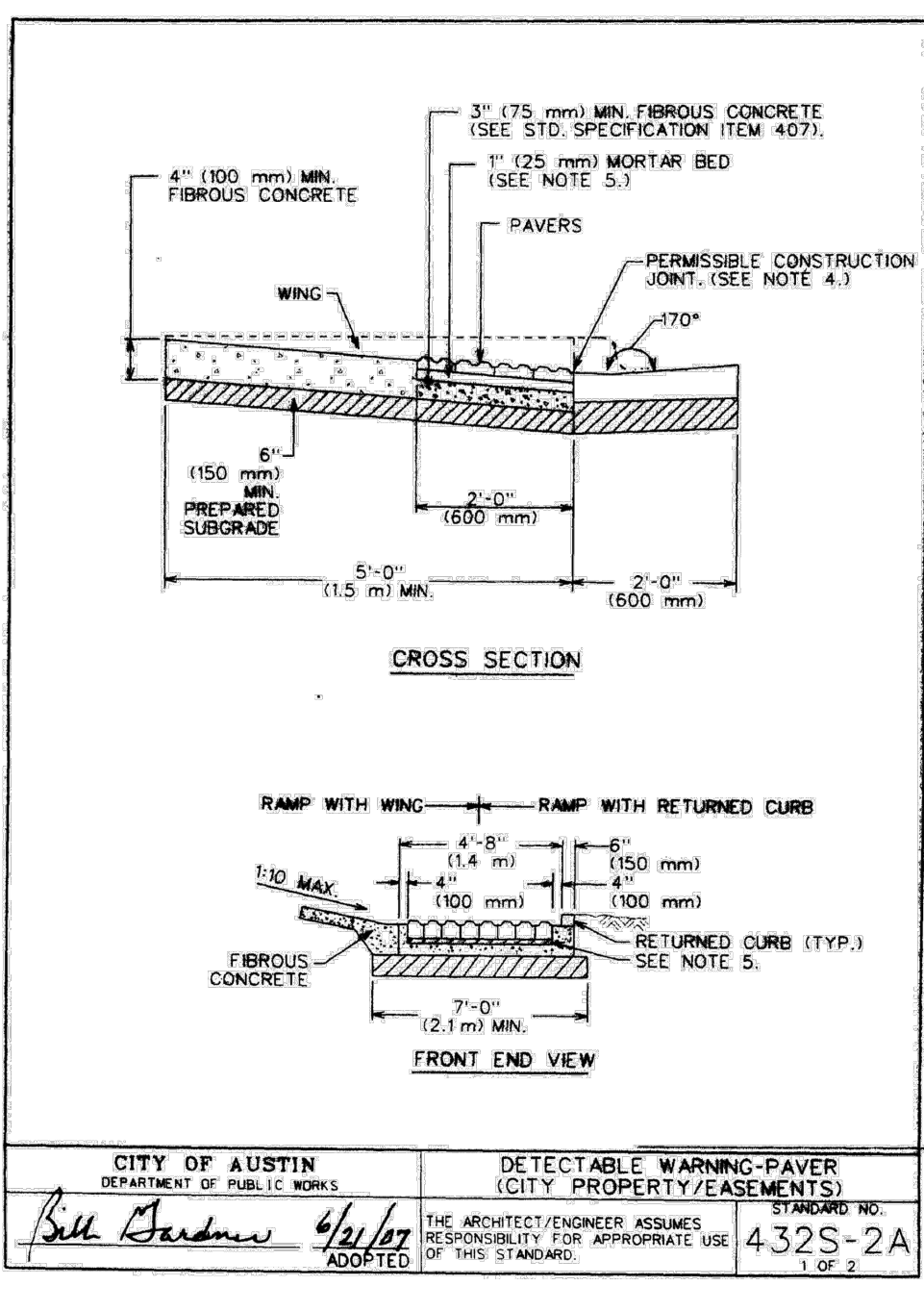
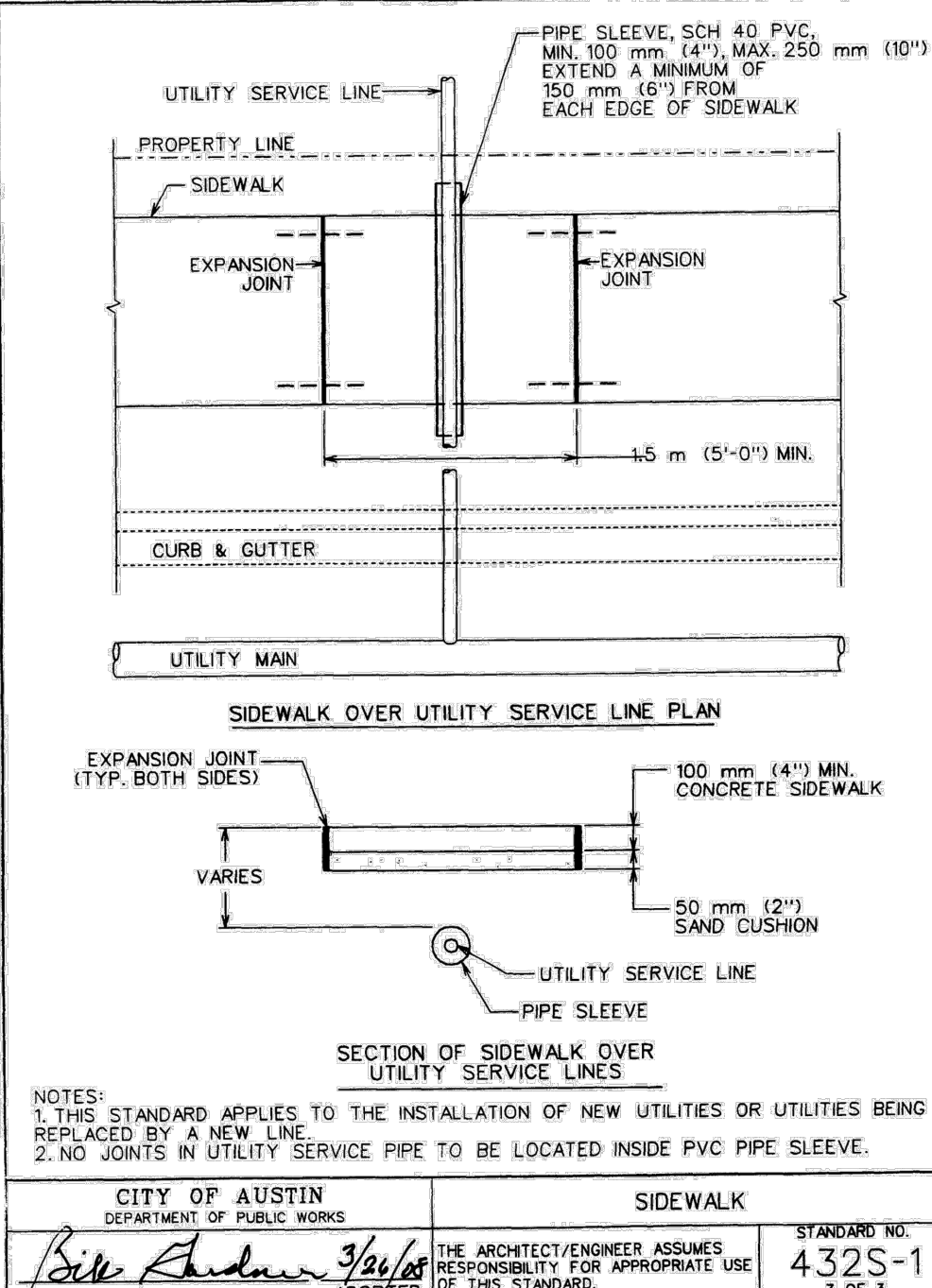
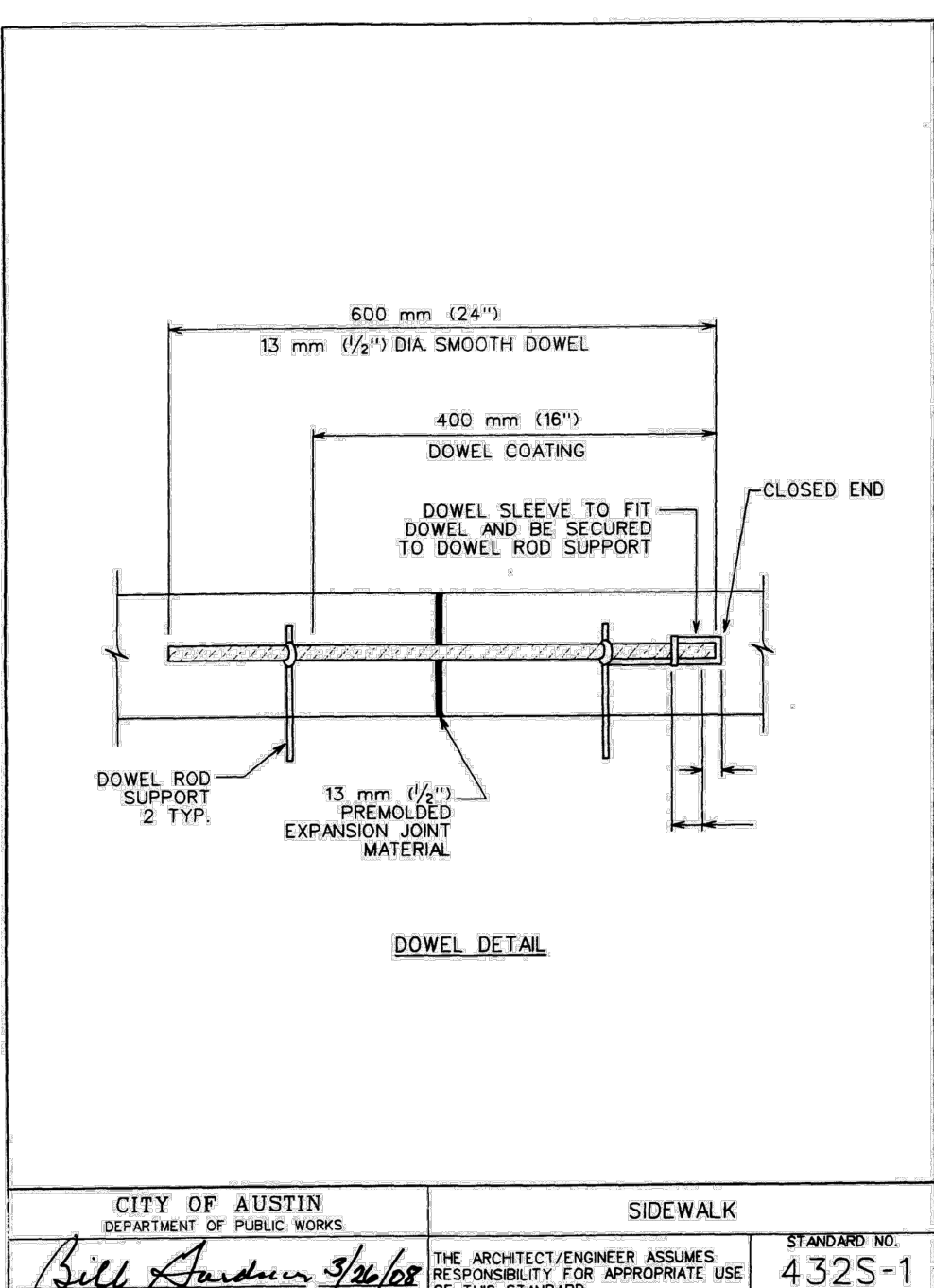
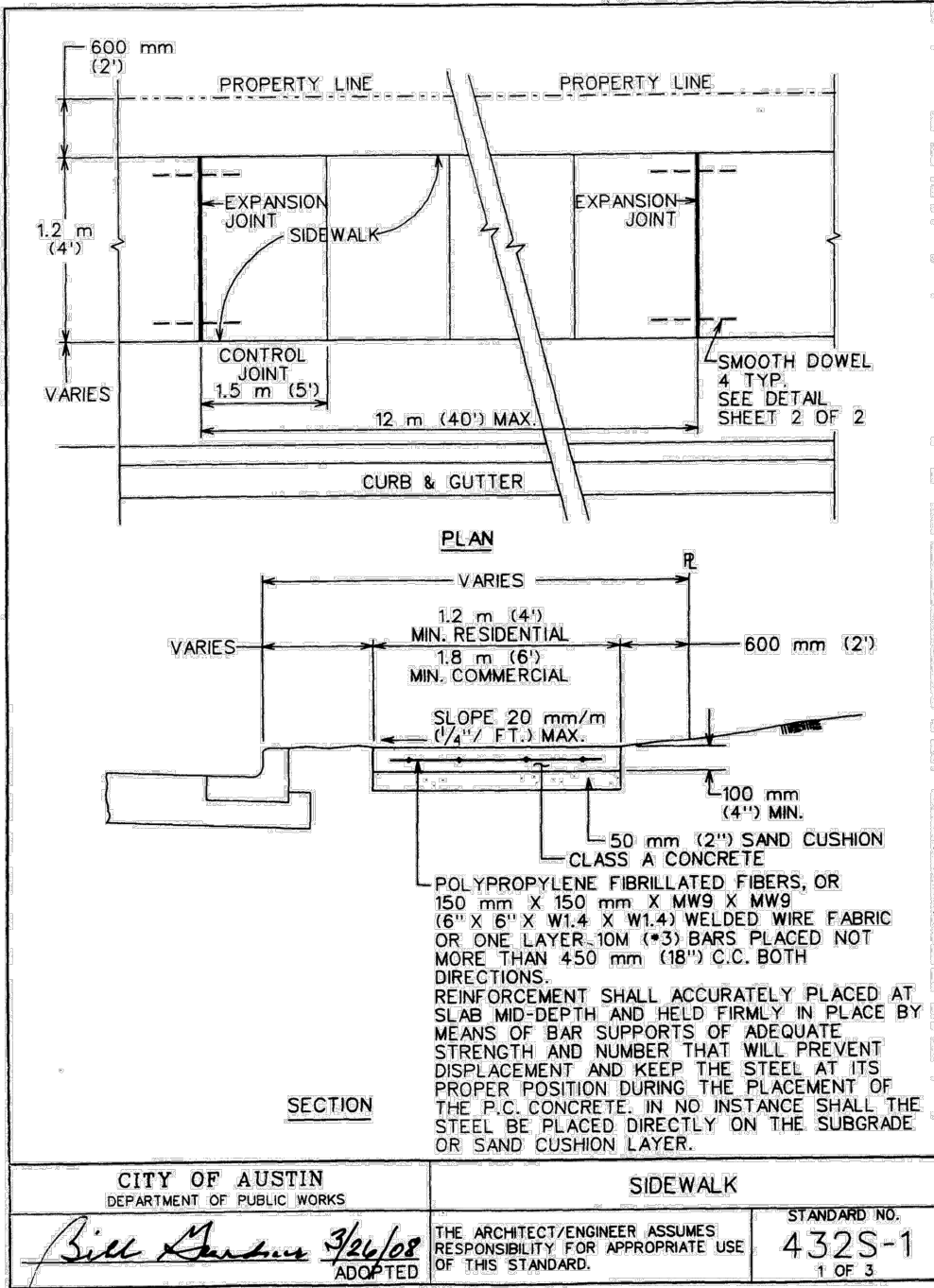




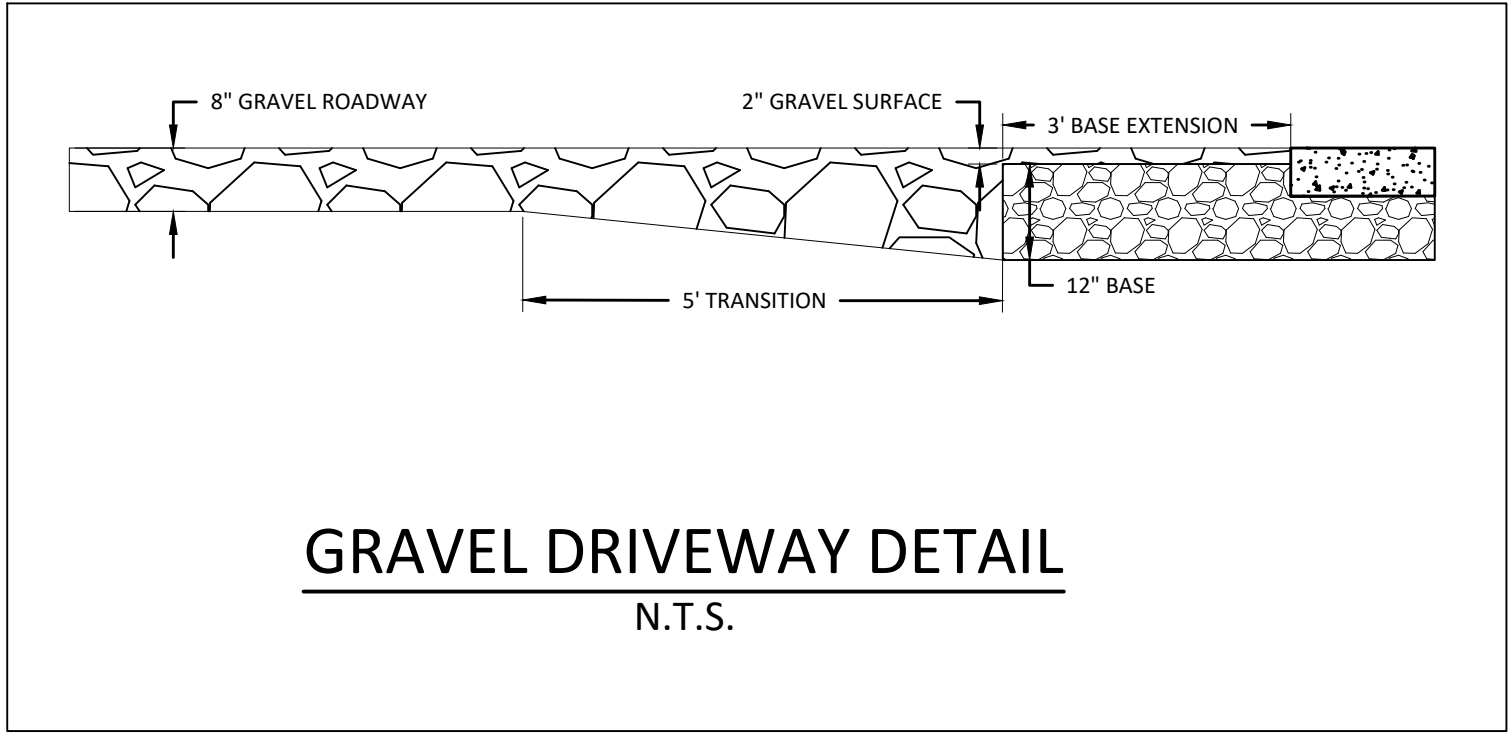
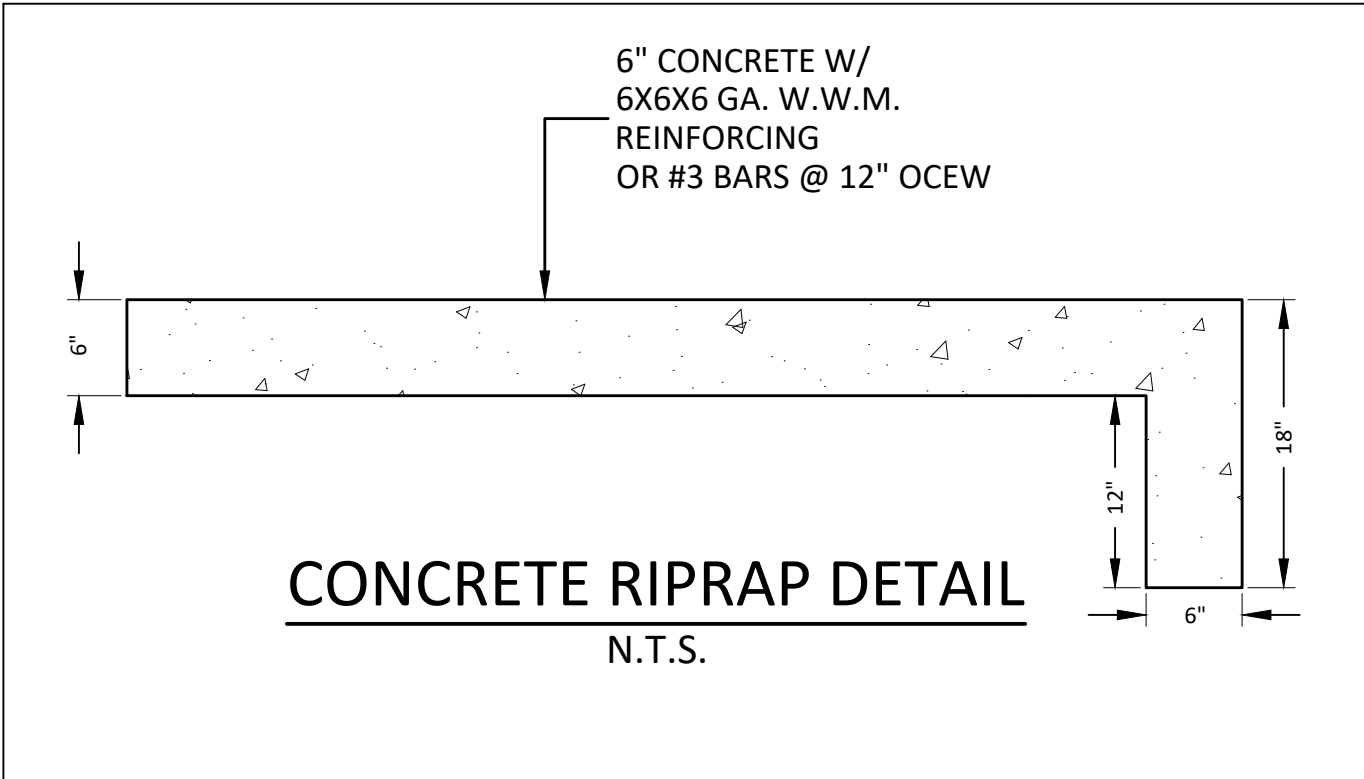
SILVERCREEK ROAD
67' R.O.W. STREET TYPICAL SECTION
N.T.S.

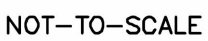
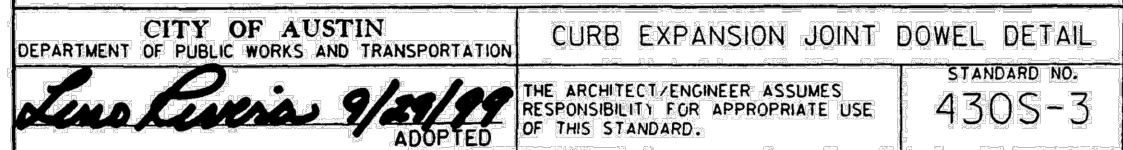
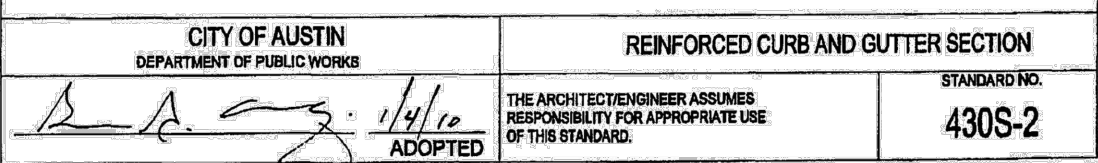


SKYWARD LANE
60' R.O.W. STREET TYPICAL SECTION
N.T.S.

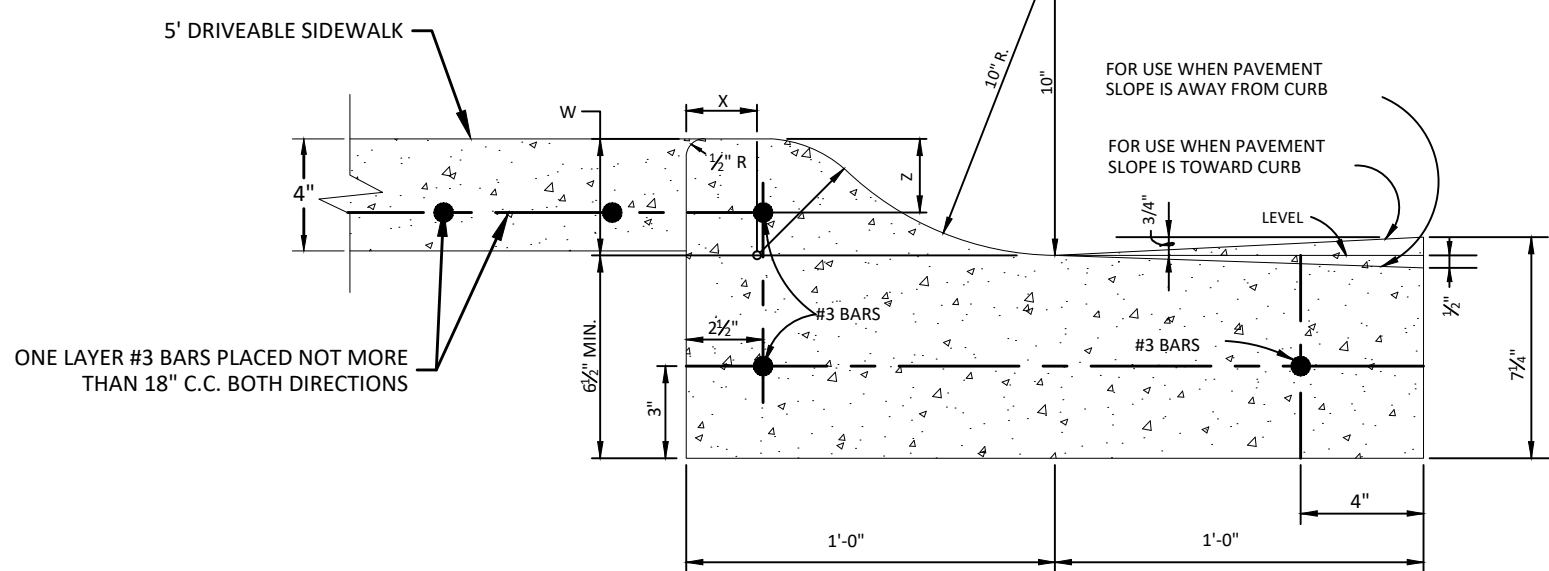


- NOTES:
1. ALL STREET PAVEMENT SHALL UTILIZE HOT MIX ASPHALT CONCRETE, TYPE D, TXDOT ITEM 340.
 2. ALL STREET BASE MATERIAL SHALL UTILIZE TXDOT SPECIFICATIONS, ITEM 247, TYPE A, FOR GRADES 1 & 2, AND HAVE A MINIMUM P.I. OF 4 FLEXIBLE BASE AND EXTEND AT LEAST 3 FEET BEYOND THE BACK OF CURBS. STREET BASE SHALL BE CONSISTENT FOR ALL LOCAL AND MINOR ARTERIAL ROADWAYS. THE BASE COURSE SHOULD BE MOISTURE CONDITIONED WITHIN ± 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT PLACED IN LIFTS NOT EXCEEDING 8-INCHES LOOSE MEASURE AND COMPACTED TO AT LEAST 100 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY TEST METHOD TXDOT-113-E.
 3. THE STRIPPING AND REMOVAL OPERATIONS SHOULD EXTEND TO AT LEAST 2 FEET BEYOND THE EDGE OF THE PROPOSED IMPROVEMENTS. AFTER STRIPPING AND ANY REQUIRED CUTS HAVE BEEN COMPLETED, THE SUBGRADE SOILS SHOULD BE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY TXDOT 114-E TO A DEPTH OF MINIMUM 8 INCHES. THE SOILS SHOULD BE MOISTURE CONDITIONED TO BETWEEN OPTIMUM AND 2 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT JUST PRIOR TO COMPACTION.
 4. GEOTECHNICAL PAVING RECOMMENDATIONS REPORT A221116 TERRADYNE ENGINEERING, INC. DATED MAR 3, 2023.



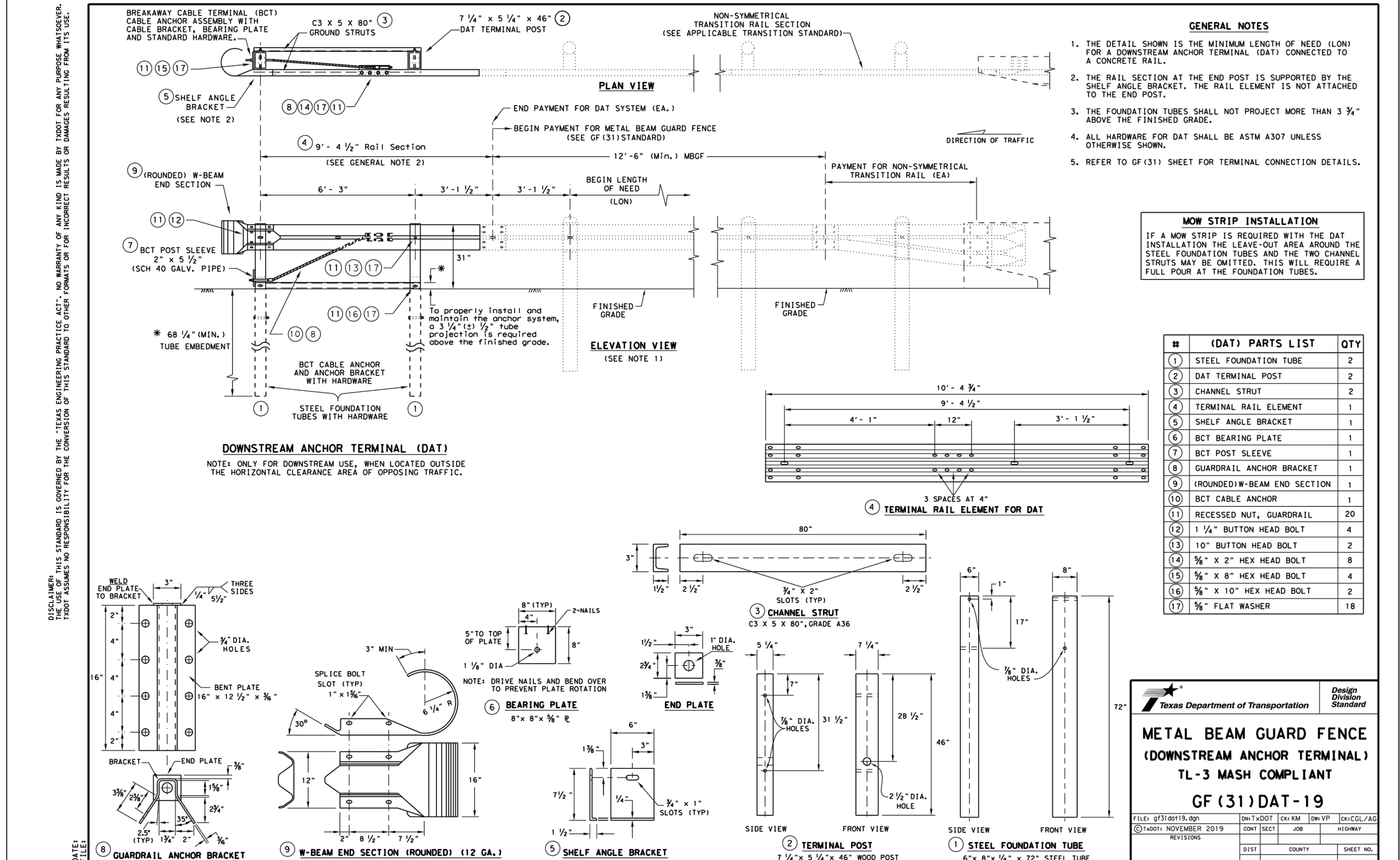
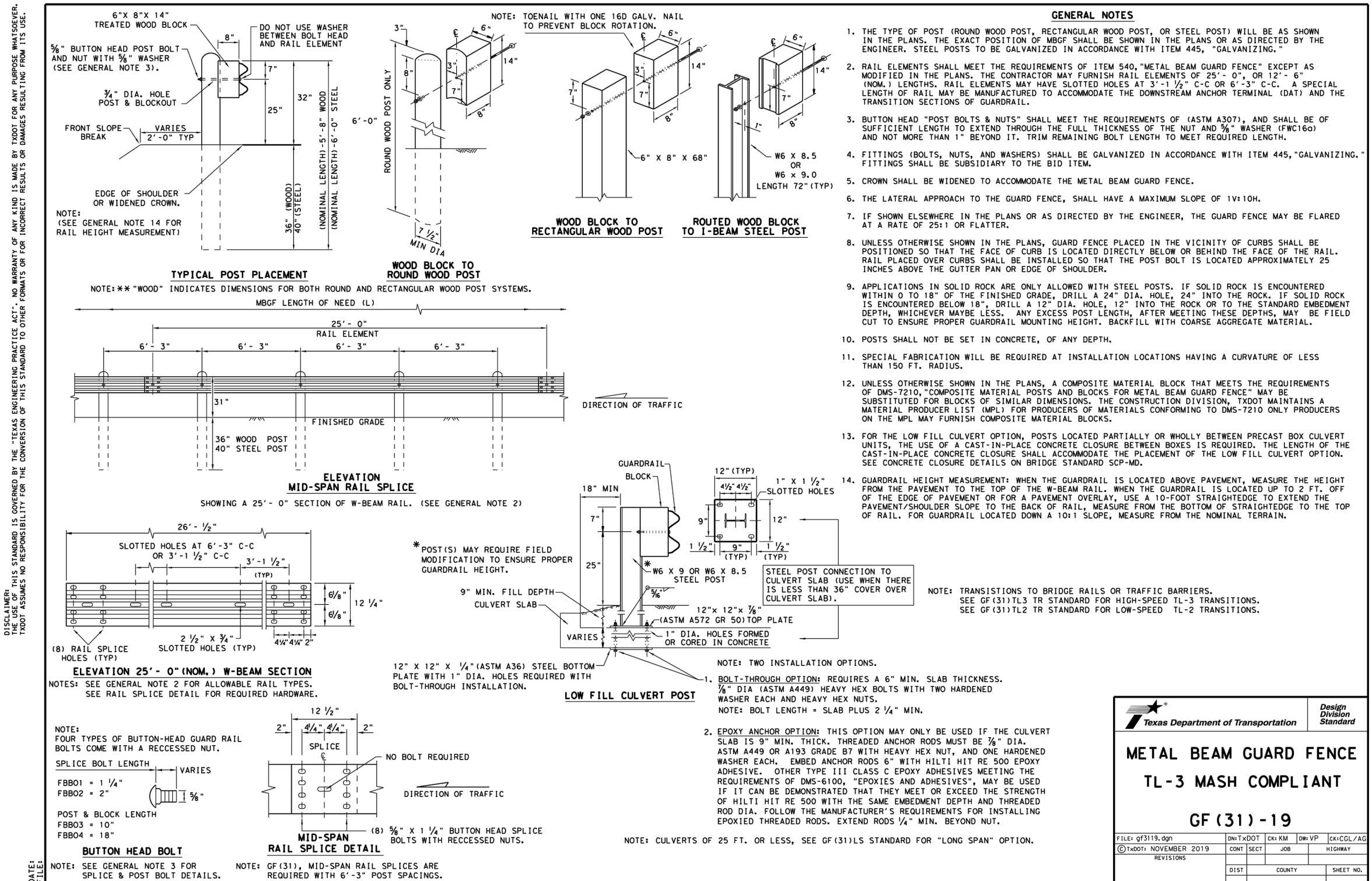


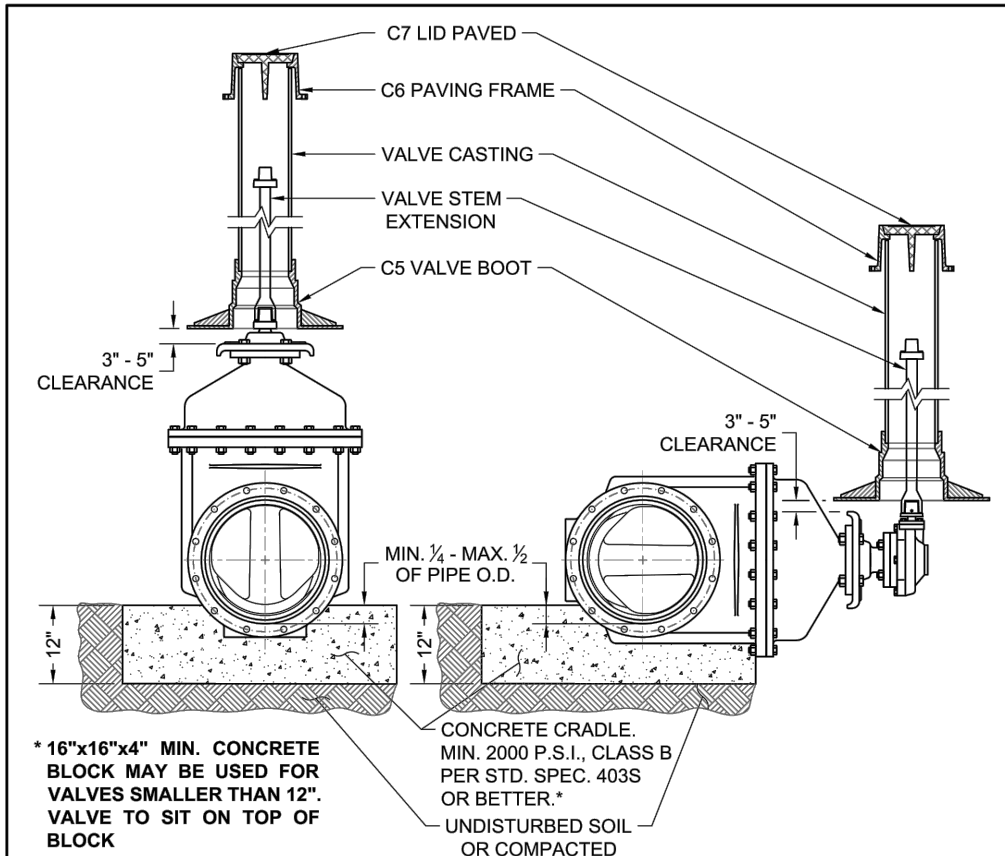
CURB SCHEDULE				
CURB SIZE	W	X	Y	Z
3"	3"	3 $\frac{3}{8}$ "	3 $\frac{3}{4}$ "	1 $\frac{1}{2}$ "
4"	4"	2 $\frac{1}{16}$ "	4"	2 $\frac{1}{2}$ "
5"	5"	1 $\frac{5}{16}$ "	4"	2 $\frac{1}{2}$ "



MOUNTABLE CONCRETE CURB AND GUTTER

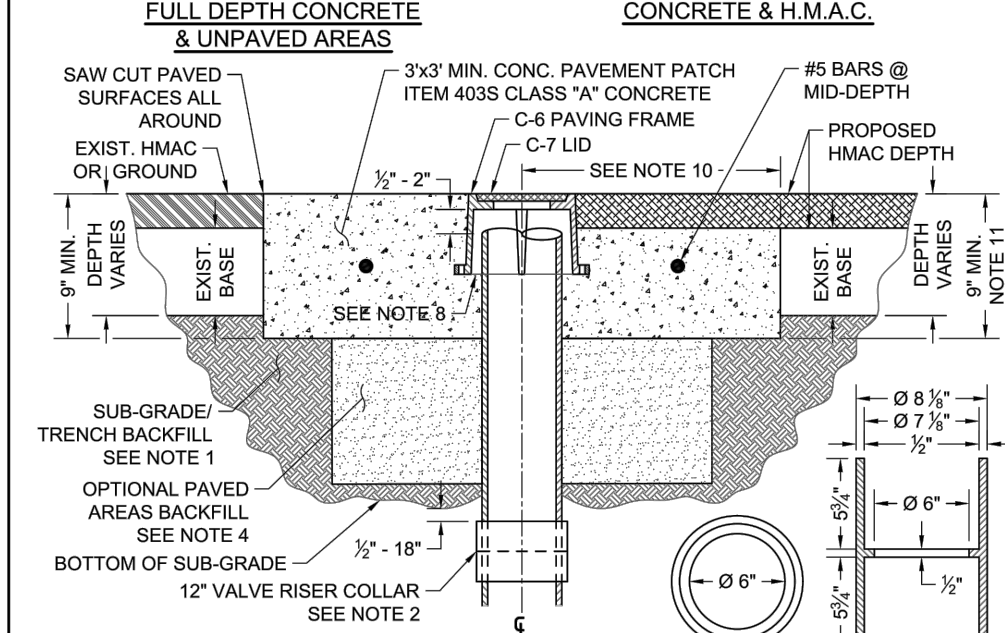
SCALE: NONE





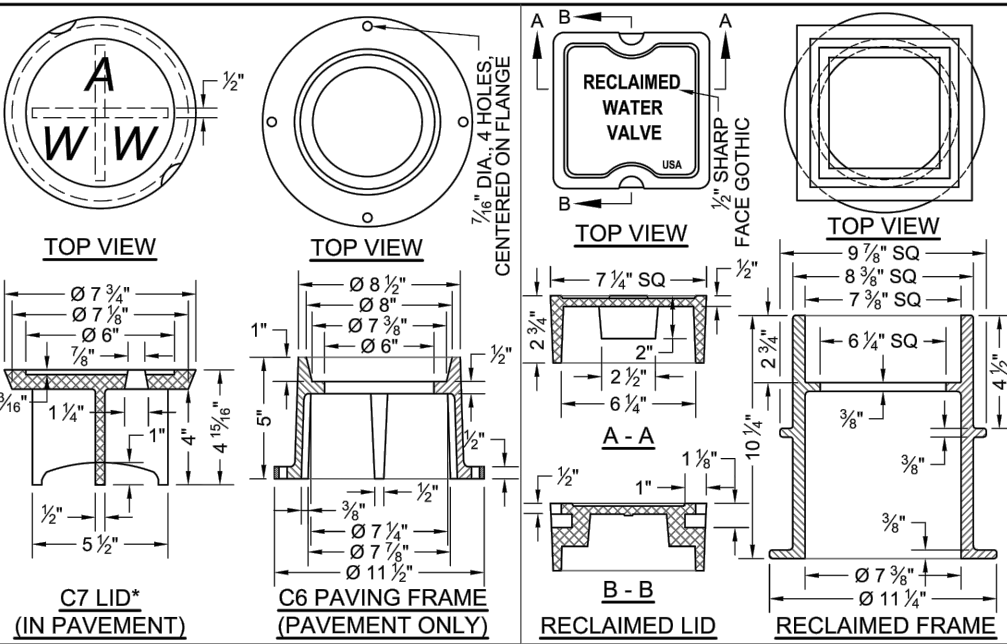
- NOTES:
- WELD SOCKET $2\frac{1}{2}$ " x 2" DEEP TO 1" SCH. 40 CARBON STEEL ROUND STEM EXTENSION, FITTED ON OPERATING NUT, [SCH. 40 FOR LENGTHS OVER 10']
 - VALVE CASTING SHALL BE 6" DI PIPE WITH BELL OR COLLAR CENTERED OVER VALVE BOOT.
 - NUT AT TOP OF VALVE EXTENSION ROD SHALL BE SQUARE 2" LONG WELDED TO TOP OF ROD.
 - VALVE STEM EXTENSIONS ARE REQUIRED ON ALL VALVES THAT EXCEED 3' DEEP FROM FINISHED GRADE. VALVE EXTENSIONS SHALL BE PLACED SUCH THAT THE EXTENSION NUT IS BETWEEN 12" AND 18" FROM FINISHED GRADE.
- RECLAIMED WATER:** ALL RECLAIMED PVC PIPE SHALL BE MANUFACTURED PURPLE PIPE. HDPE PIPE SHALL BE MANUFACTURED WITH PURPLE STRIPES. ALL OTHER PIPE AND APPURTENANCES SHALL BE MANUFACTURED PURPLE IF AVAILABLE. ALL PIPE AND FITTINGS THAT ARE NOT AVAILABLE FROM THE MANUFACTURER IN PURPLE SHALL BE PAINTED PURPLE PER SPL WW-3C. ALL BURIED DI AND CI PIPE AND FITTINGS SHALL ALSO BE WRAPPED IN PURPLE POLYETHYLENE PER SPL WW-2TD. ALL COVERS SHALL HAVE "RECLAIMED WATER" CAST INTO THEM.

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



- NOTES:
- SUB-GRADE/TRENCH BACKFILL SHALL BE COMPACTED AS PER ITEM 2015, SUB-GRADE PREPARATION.
 - TO ADJUST VALVE CASTINGS TO FINAL GRADE, REMOVE RISER PIPE BELOW SUB-GRADE AND INSTALL APPROPRIATE LENGTH OF NEW RISER PIPE TO ACHIEVE FINAL GRADE. CONNECT THE TWO PIECES OF RISER PIPE WITH A 6" COLLAR MIN. 12" LENGTH APPROXIMATELY CENTERED ON THE JOINT WITH THE TOP OF SLEEVE LOCATED $\frac{1}{2}$ " - 18" BELOW SUB-GRADE. THE INSIDE "I" OF COLLAR TO BE PAINTED WITH FLUORESCENT WHITE PAINT OR COVERED WITH FLUORESCENT WHITE TAPE. ALTERNATE: FOR OPTIONAL SINGLE PIECE RISER INSTALLATION SEE SHEET 4 OF 4.
 - CLEAN VALVE BOX OF ALL DEBRIS DOWN TO THE NUT OF THE VALVE. NUT SHALL OPERATE WITH NO OBSTRUCTION.
 - WHERE CASTINGS TO BE REMOVED REQUIRE EXCAVATION GREATER THAN 20" DEEP, CONTRACTOR MAY ELECT TO FILL EXCAVATION WITH CONTROLLED LOW STRENGTH MATERIAL (SPEC. ITEM 4025) TO THE UNDERSIDE OF THE CONCRETE. PAVEMENT PATCH IN LIEU OF COMPACTED BACKFILL.
 - REINFORCING STEEL SHALL MEET SPEC. ITEM 4063.7.
 - NO MORE THAN 2 SECTIONS OF PIPE SHALL BE USED FROM VALVE TO FINAL GRADE.
 - BELL AND SPIGOT IS ACCEPTABLE FOR DEPTH OVER 18".

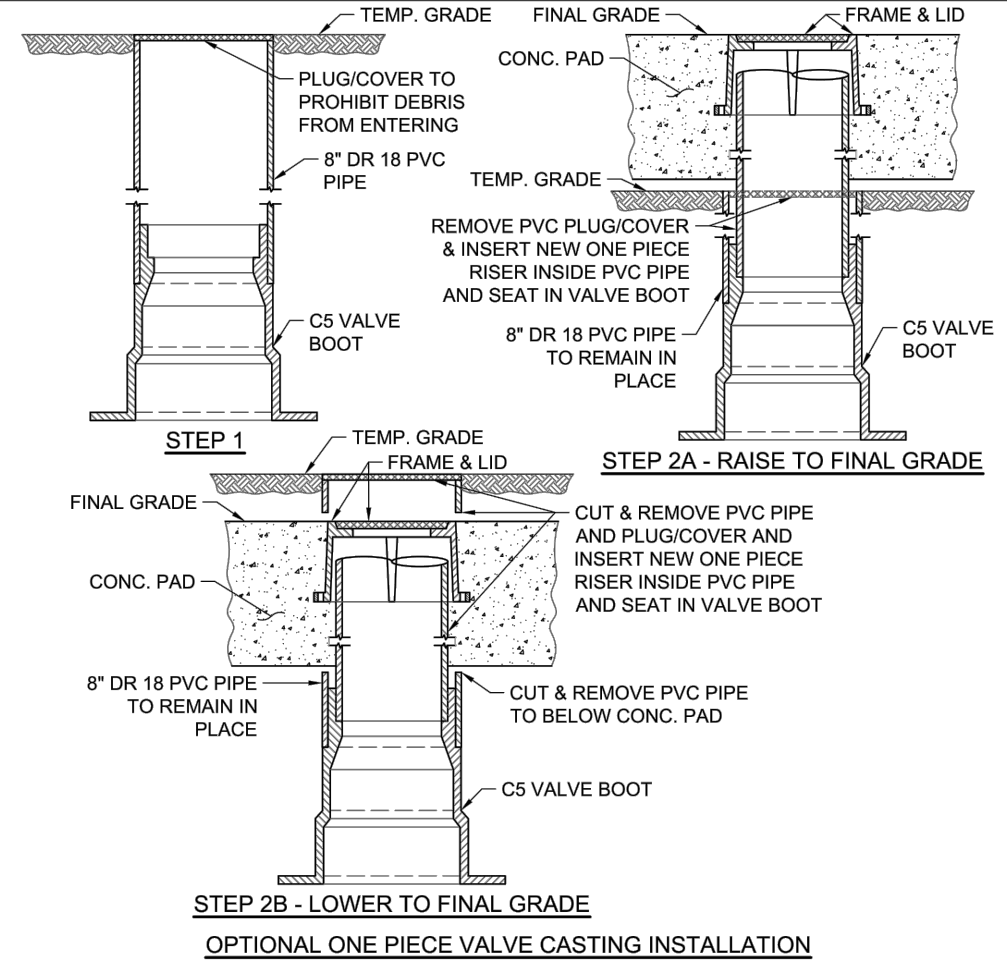
CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	STANDARD NO. 511-AW-01 3 OF 4
RECORD COPY SIGNED BY KATHI L FLOWERS	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	05/18/2016 ADOPTED



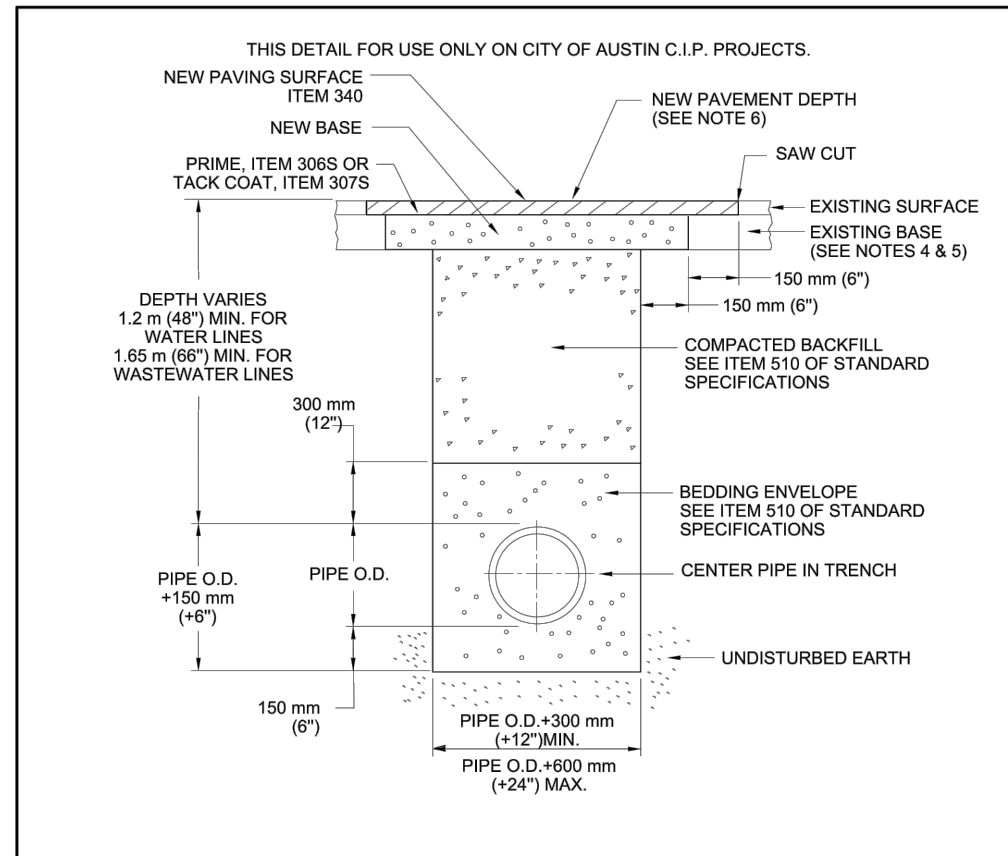
- NOTES:
- MATERIAL SHALL BE GRAY CAST IRON, ASTM A48, GRADE 30B.
 - THE MANUFACTURER'S IDENTIFICATION AND CASTING NUMBER, AND THE COUNTRY WHERE CAST, SHALL BE DISTINCTLY CAST ONTO EACH LID, FRAME COLLAR AND BASE.
 - DRAFT AND SHRINKAGE ALLOWANCE SHALL BE IN ACCORDANCE WITH NORMAL FOUNDRY PRACTICE.
 - CASTING FINISH BY MANUFACTURER SHALL INCLUDE REMOVAL OF FINIS AND FLASHING, AND PAINT WITH BLACK ASPHALT COATING.
- WEIGHTS:
- C7 LID: 13 LBS
RECLAIMED LID: 15 LBS
C6 FRAME: 23 LBS
RECLAIMED FRAME: 33 LBS
C5 BASE: 78 LBS
- * LETTERING SHALL BE 1 1/2" 2 PICK BAR SLOTS REQUIRED

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

- NOTES (CONT):
- PAVING FRAME SHALL BE FLUSH WITH THE CONC. PAD AND PLACED $\frac{1}{2}$ " - 2" ABOVE RISER PIPE (FRAME SHALL NOT REST ON RISER.)
 - IN UNPAVED AREAS, INSTALL ONE DELINEATOR STAKE IMMEDIATELY ADJACENT TO THE EDGE OF THE CONCRETE PAD. DELINEATOR SHALL BE BLUE FOR POTABLE WATER AND PURPLE FOR RECLAIMED WATER AND SHALL EXTEND AT LEAST 60" ABOVE GROUND. DELINEATORS SHALL HAVE 2" WIDE, WHITE IN COLOR, TYPE I REFLECTIVE TAPE MOUNTED DIAGONALLY AT 12" SPACING ON BOTH SIDES.
 - VALVE SHALL TYPICALLY BE CENTERED IN CONCRETE DIAMOND BUT MAY BE OFFSET WITH A MIN. OF 12" FROM CENTER OF VALVE LID TO EDGE OF CONCRETE IN ALL DIRECTIONS.
 - MIN. TOTAL DEPTH OF ASPHALT PLUS CONC. IS 9" AND MIN. DEPTH OF CONC. PAD SHALL BE 5"

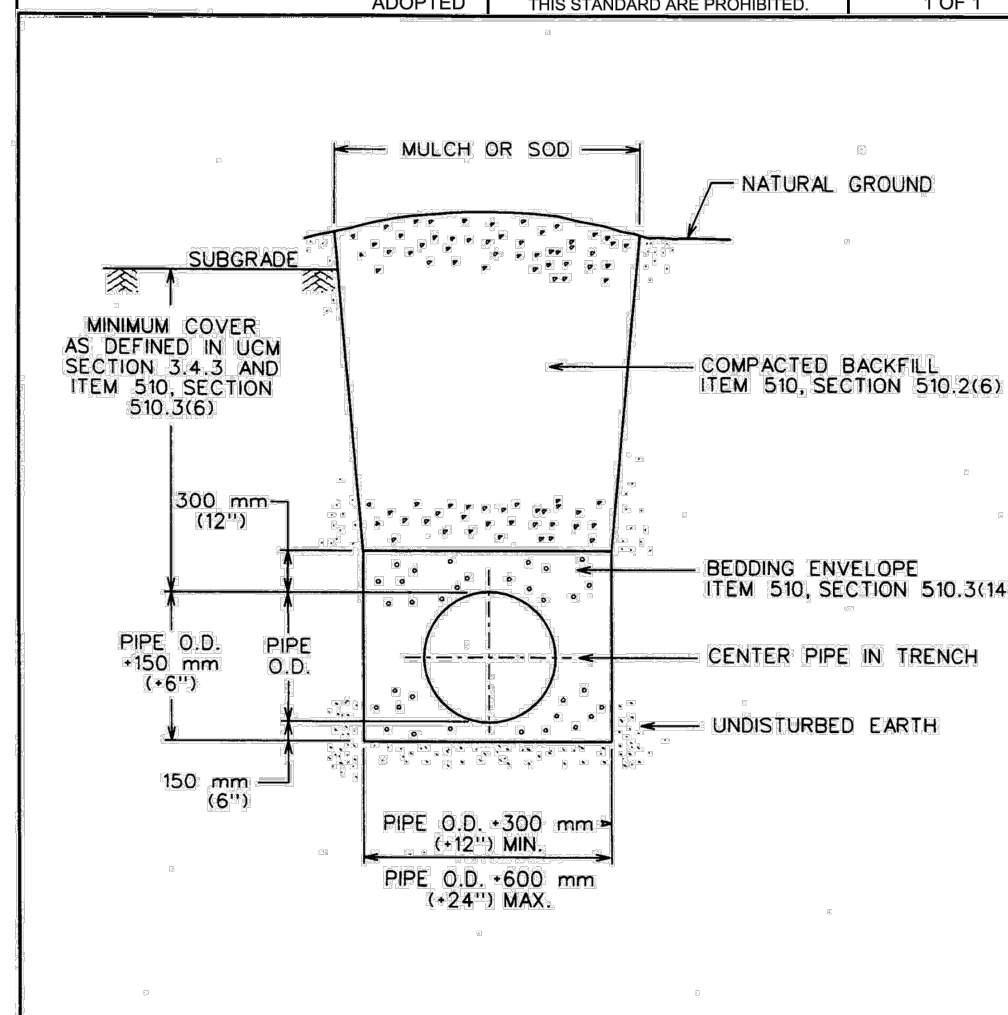


CITY OF AUSTIN AUSTIN WATER	TYPICAL GATE VALVE 4" - 16"	STANDARD NO. 511-AW-01 4 OF 4
RECORD COPY SIGNED BY KATHI L FLOWERS	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	05/18/2016 ADOPTED



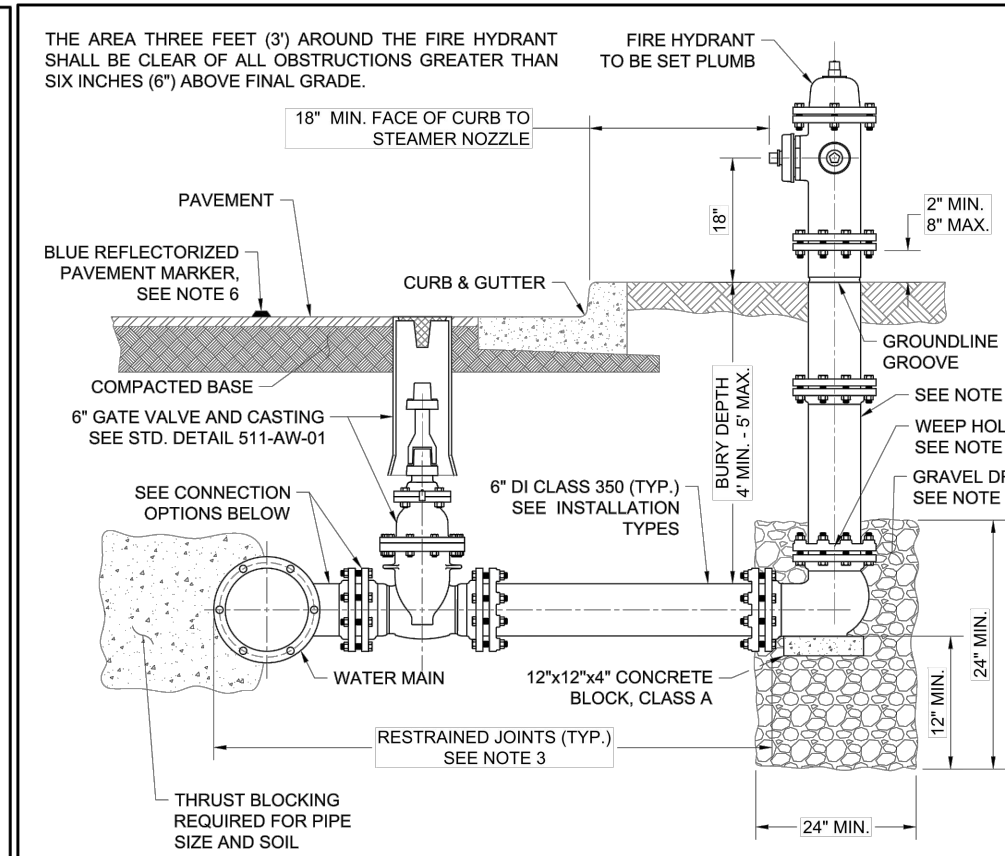
- NOTES:
- THE EXISTING PAVING SURFACE SHALL BE SAW CUT IN A STRAIGHT LINE A MINIMUM OF 300 mm (12") WIDER THAN THE UNDISTURBED SIDES OF THE TRENCH, SYMMETRIC ABOUT THE CENTER LINE OF THE EXCAVATION.
 - ANY CONCRETE PAVING SHALL BE SAW CUT 150 mm (6") WIDER THAN UNDISTURBED SIDES OF EXCAVATION.
 - IF EXCAVATION AREA IS OPEN FOR TEMPORARY PUBLIC USE, THE SURFACE SHALL BE MAINTAINED LEVEL WITH ADJACENT RIDING SURFACE WITH COLD MIX OR TEMPORARY HOT MIX ASPHALTIC CONCRETE.
 - ROAD BASE AND SURFACE MATERIALS IN THE TRENCH CUT SHALL BE REPLACED IN KIND OF EQUAL THICKNESS, OR MINIMUM BASE THICKNESS OF 250 mm (10"), WHICHEVER IS GREATER.
 - ALL DAMAGED AREAS OF PAVEMENT OUTSIDE THE TRENCH CUT SHALL BE REMOVED AND REPLACED WITH MINIMUM OF 200 mm (8") OF BASE OR MATCH EXISTING THICKNESS, WHICHEVER IS GREATER.
 - SURFACE PAVEMENT SHALL BE OF THE KIND AND THICKNESS AS EXISTING, OR MINIMUM 50 mm (2"), WHICHEVER IS GREATER.

CITY OF AUSTIN WATER AND WASTEWATER UTILITY	TYPICAL TRENCH WITH PAVED SURFACE	STANDARD NO. 510S-3 1 OF 1
RECORD COPY SIGNED BY LEON BARBA	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	8/19/02 ADOPTED



- REFERENCES:
- UTILITY CRITERIA MANUAL SECTION 3.4.3, "FINAL DESIGN"
 - STANDARD SPECIFICATION MANUAL ITEM 510, SECTION 510.2(6), "SELECT BACKFILL OR BORROW"; SECTION 510.3(6), "TRENCH DEPTH AND DEPTH OF COVER"; SECTION 510.3(14), "PIPE BEDDING ENVELOPE"

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE	STANDARD NO. 510S-5
RECORD COPY SIGNED BY KATHI L FLOWERS	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	3/13/06 ADOPTED

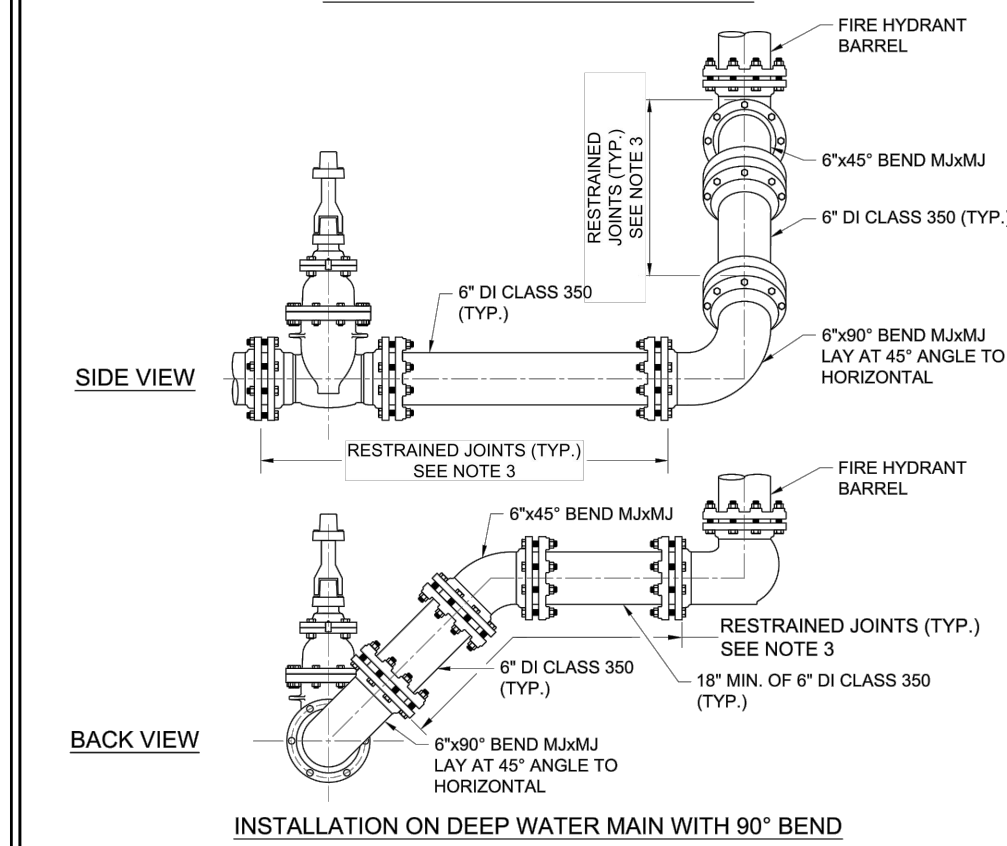
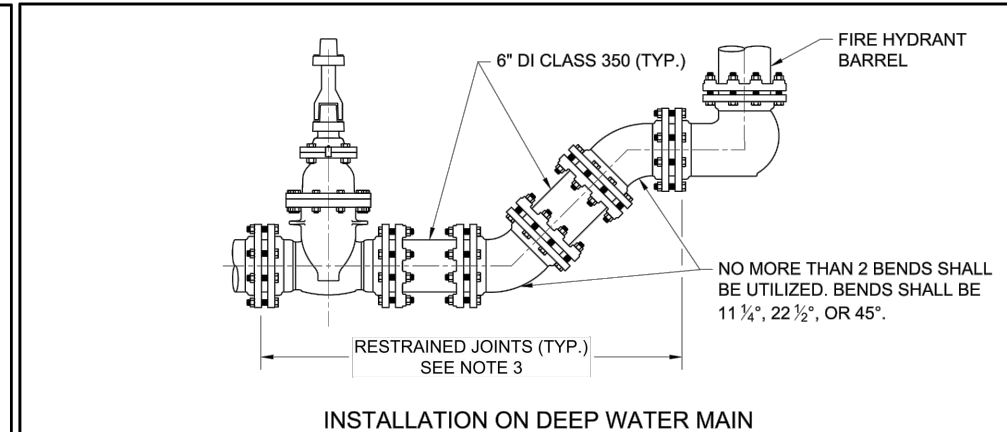


- NOTES:
- THE AREA THREE FEET (3') AROUND THE FIRE HYDRANT SHALL BE CLEAR OF ALL OBSTRUCTIONS GREATER THAN SIX INCHES (6") ABOVE FINAL GRADE.
 - THE FIRE HYDRANT SHALL BE SET PLUMB.
 - THE FIRE HYDRANT SHALL BE SET PLUMB.
 - THE FIRE HYDRANT SHALL BE SET PLUMB.
 - THE FIRE HYDRANT SHALL BE SET PLUMB.
 - THE FIRE HYDRANT SHALL BE SET PLUMB.

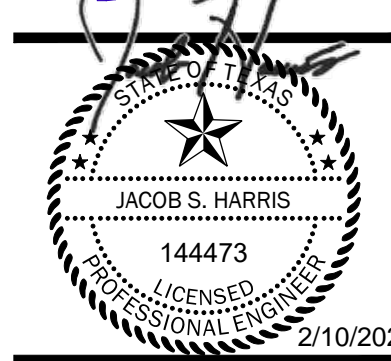
CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT ASSEMBLY	STANDARD NO. 511-AW-02 1 OF 3
RECORD COPY SIGNED BY JEFF A. KYLE	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	11/06/2023 ADOPTED

- NOTES: APPLICABLE TO ALL INSTALLATION TYPES.
- NO PART OF A HYDRANT OR ITS NOZZLE CAPS SHALL BE WITHIN 6" OF ANY SIDEWALK OR PEDESTRIAN RAMP. ANY FIRE HYDRANT PLACED NEAR A STREET CORNER SHALL BE LOCATED OUTSIDE THE CURVE RADIUS AND A MINIMUM OF 4' FROM RAMPS.
 - ONE BARREL EXTENSION NOT EXCEEDING 2' LENGTH MAY BE INSTALLED DIRECTLY BELOW THE FIRE HYDRANT IN ORDER TO MEET THE REQUIRED BURY DEPTH OF 4' - 5'. BREAK AWAY BOLTS (SHOE TYPES) SHALL BE PROPERLY SPACED AND PLACED.
 - FIRE LINE SHALL HAVE ALL JOINTS RESTRAINED FROM MAIN TO FIRE HYDRANT INCLUDING MU RESTRAINT OF TEE AT THE MAIN. JOINTS SHOWN MAY VARY. SEE SPL WW-27A, WW-27A-01, AND WW-27B FOR RESTRAINT OPTIONS.
 - BELOW EACH HYDRANT, A DRAINAGE PIT 24" IN DIAMETER AND 12" DEEP SHALL BE EXCAVATED AND FILLED WITH COMPACTED COARSE GRAVEL OR BROKEN STONE MIXED WITH COARSE SAND UNDER AND AROUND THE BOWL OF THE HYDRANT, AND TO A LEVEL 12" ABOVE THE HYDRANT DRAIN OPENING (SEE STD. SPEC. 510). THE HYDRANT DRAINAGE PIT SHALL NOT BE CONNECTED TO A SANITARY SEWER. THE DRAIN GRAVEL SHALL BE COVERED WITH FILTER FABRIC PER STD. SPEC. 600.
 - WRAP 8 MIL. POLY-FILM WRAP ON ALL BURIED PIPE AND FITTINGS. CUT SLITS IN POLY-FILM WRAP AT BOOT TO ALLOW WATER TO ESCAPE FROM WEEP HOLES AND POLY-WRAP.
 - A BLUE TYPE II-B-8 REFLECTORIZED PAVEMENT MARKER, CONFORMING TO STANDARD SPECIFICATION ITEM NO. 8635, SHALL BE PLACED 2 TO 3 FEET OFFSET FROM THE CENTERLINE OF PAVED STREETS, ON THE SIDE OF AND IN LINE WITH ALL NEWLY INSTALLED FIRE HYDRANTS.

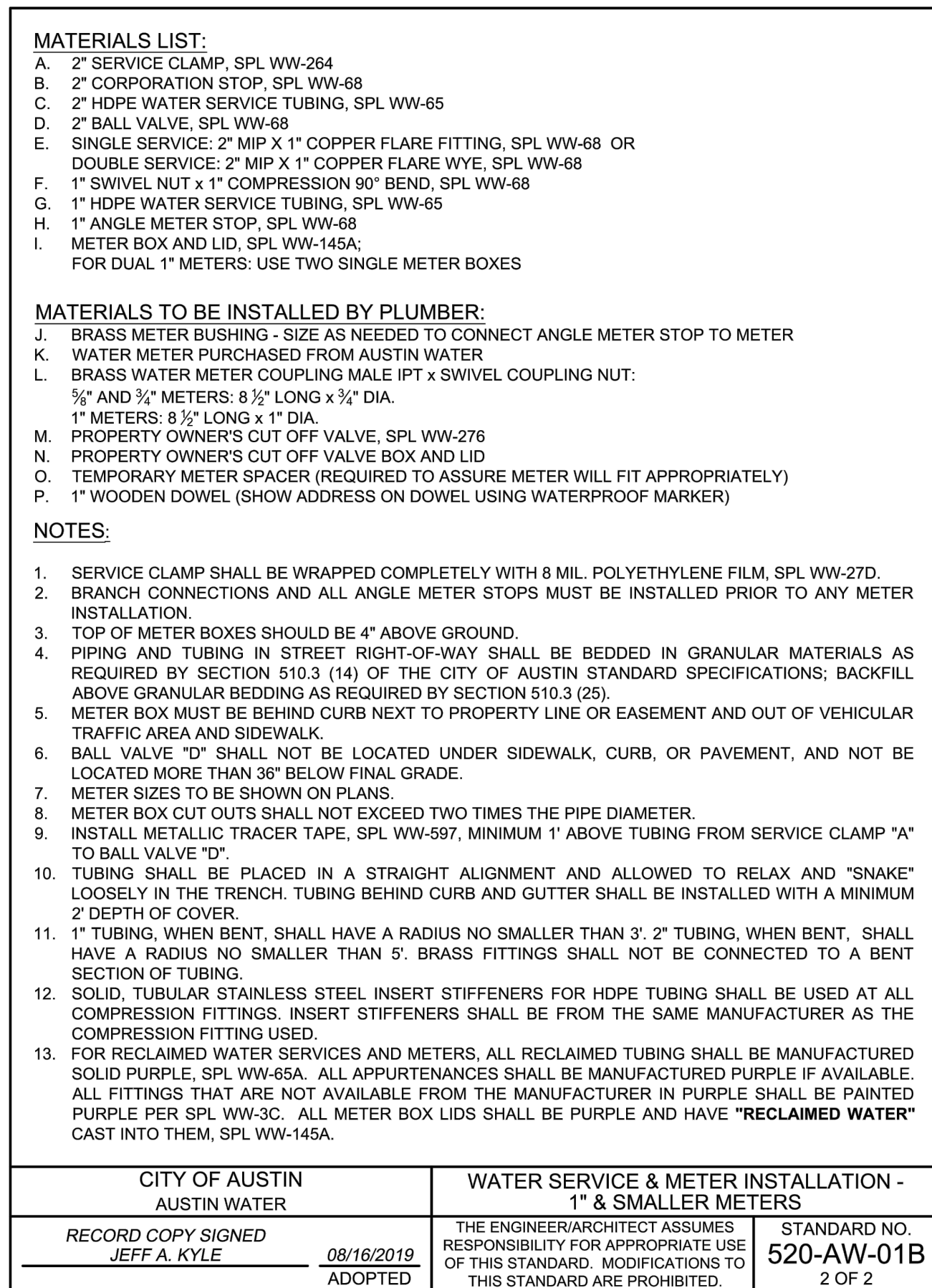
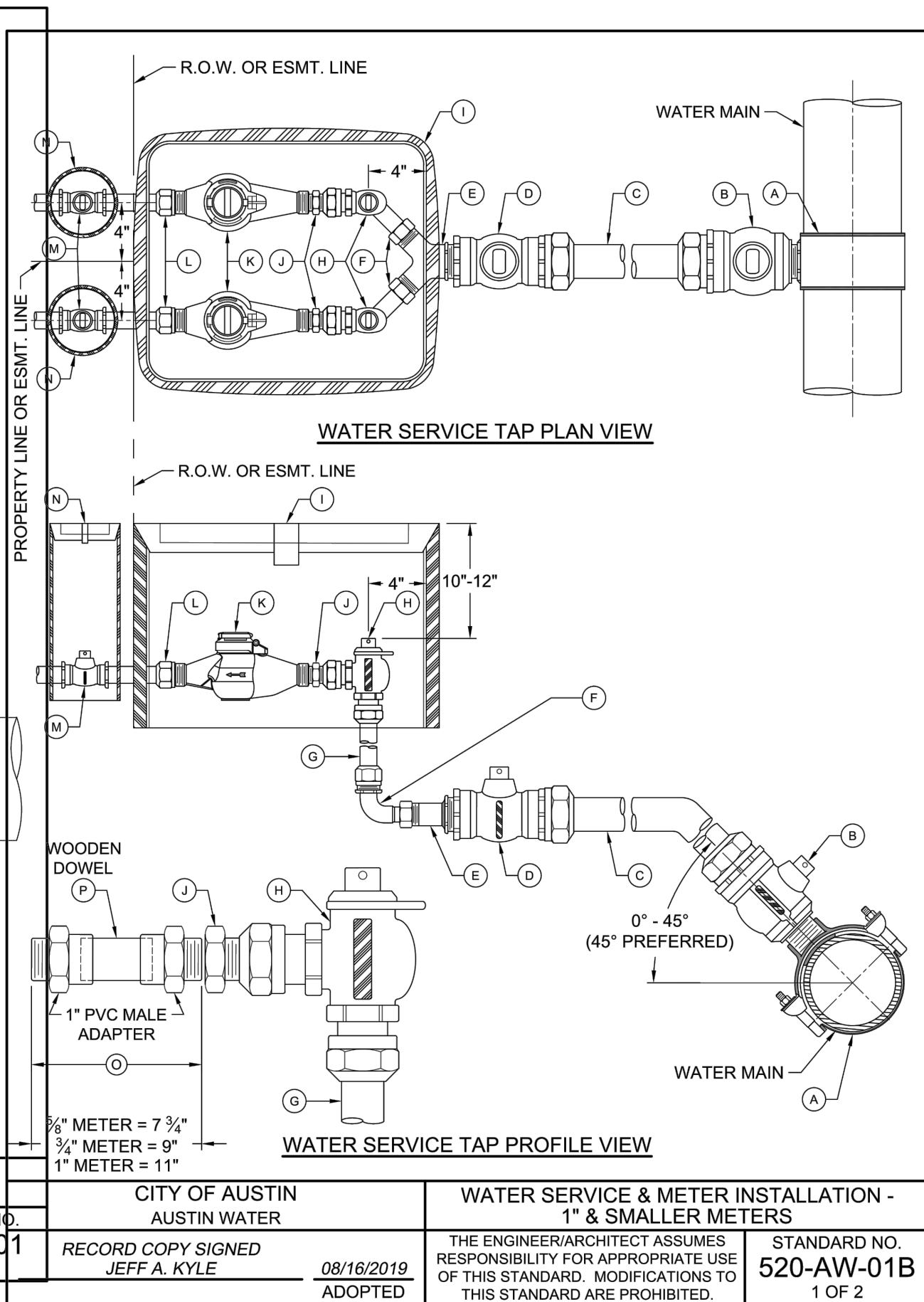
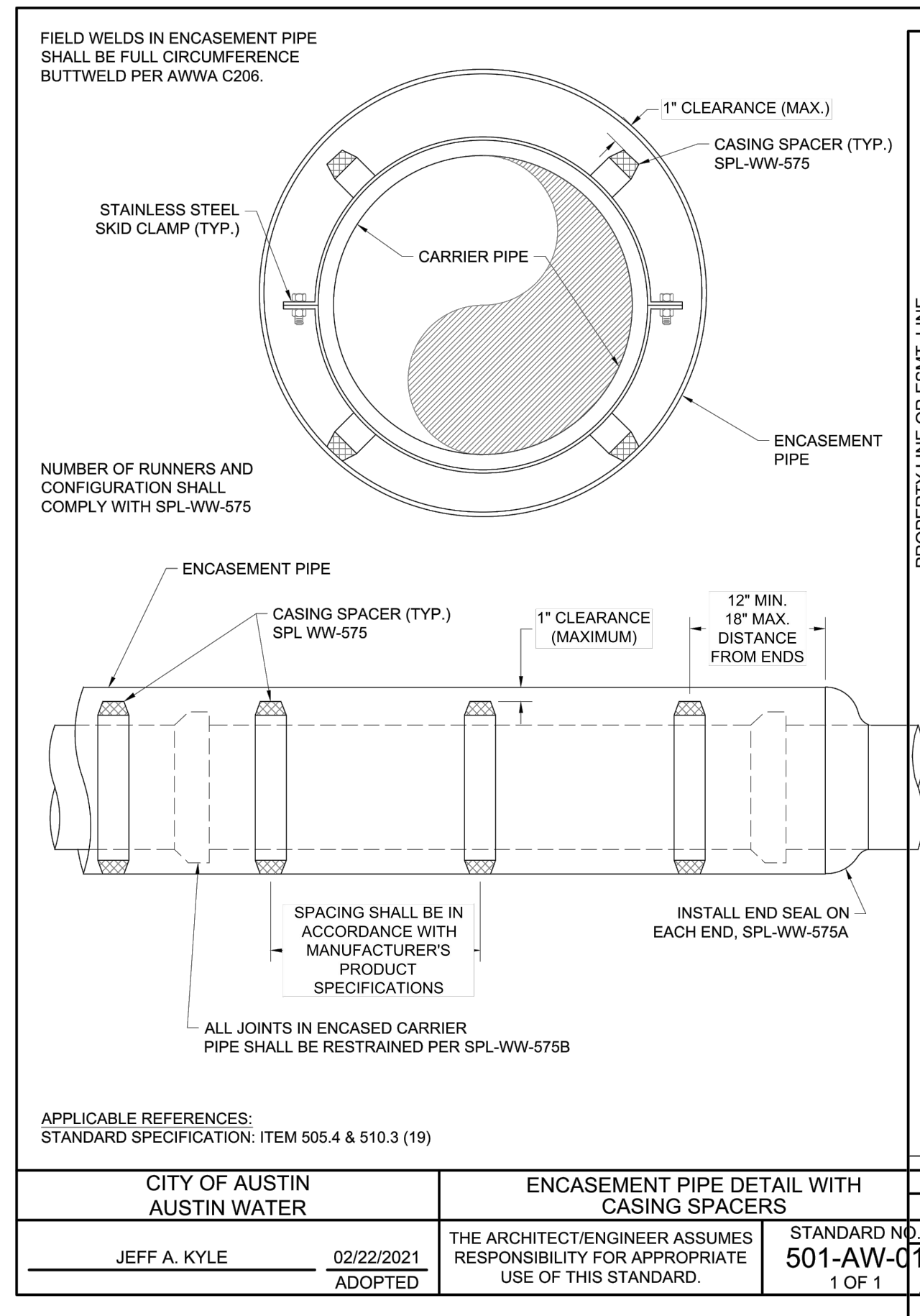
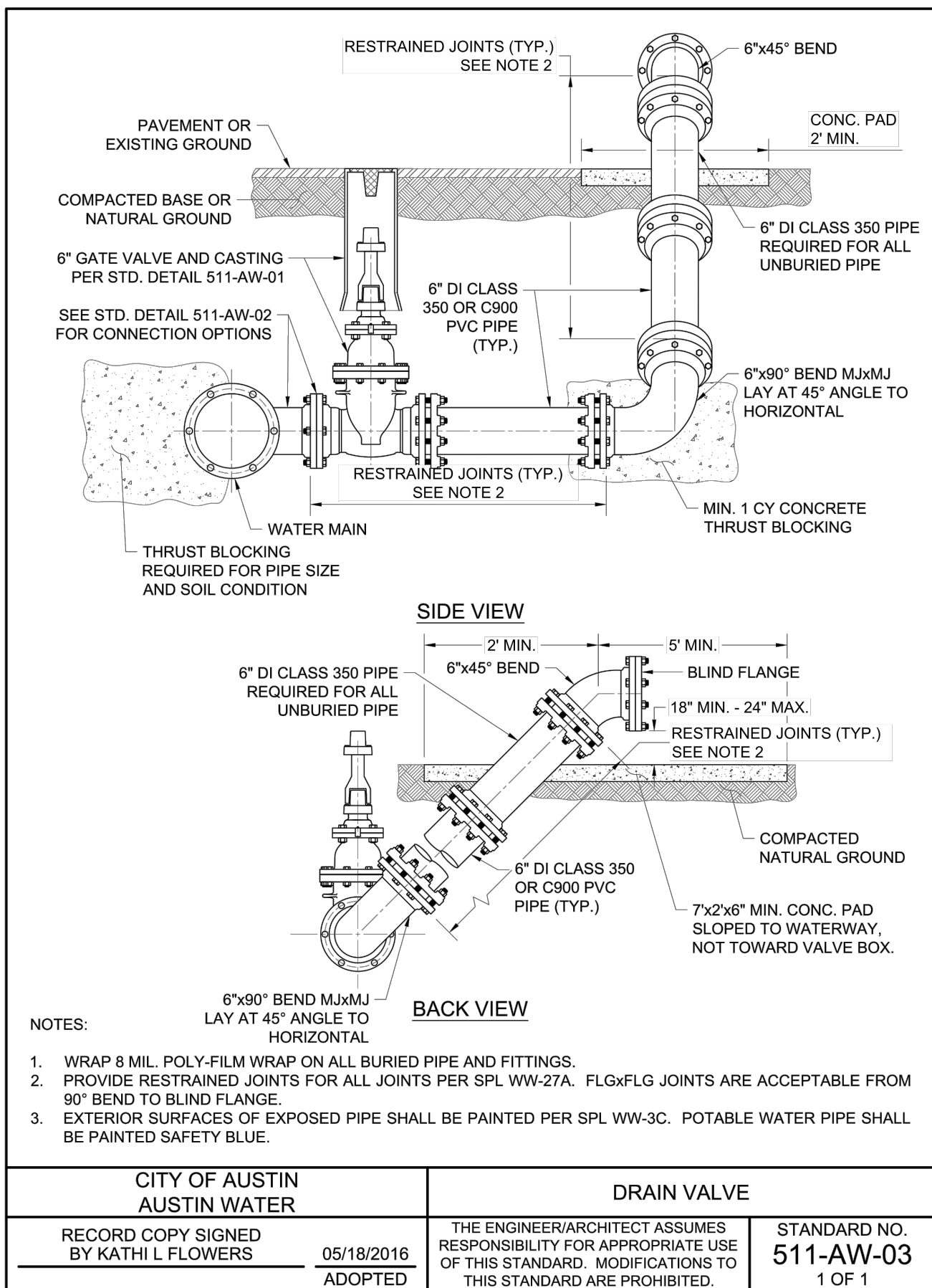
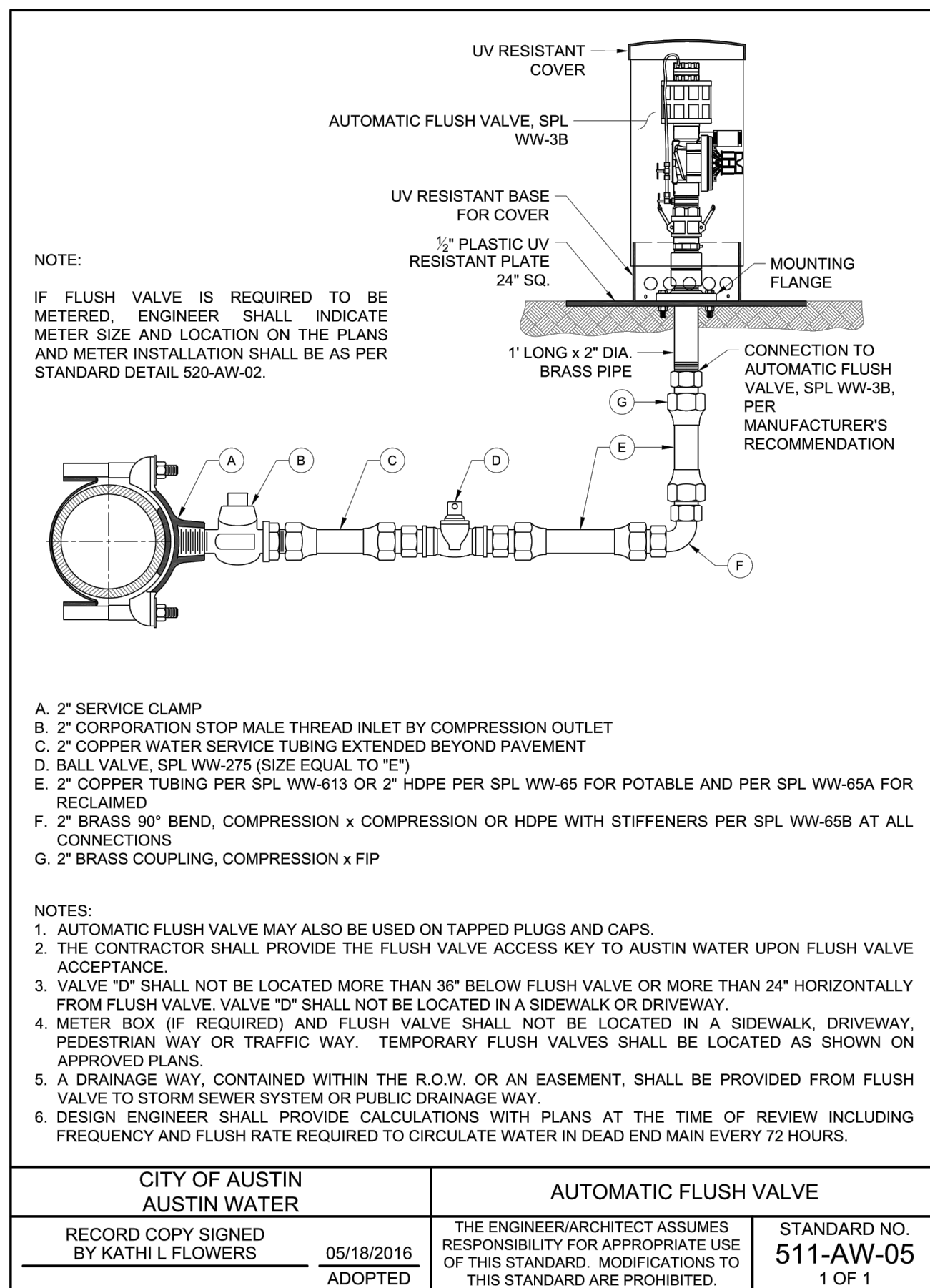
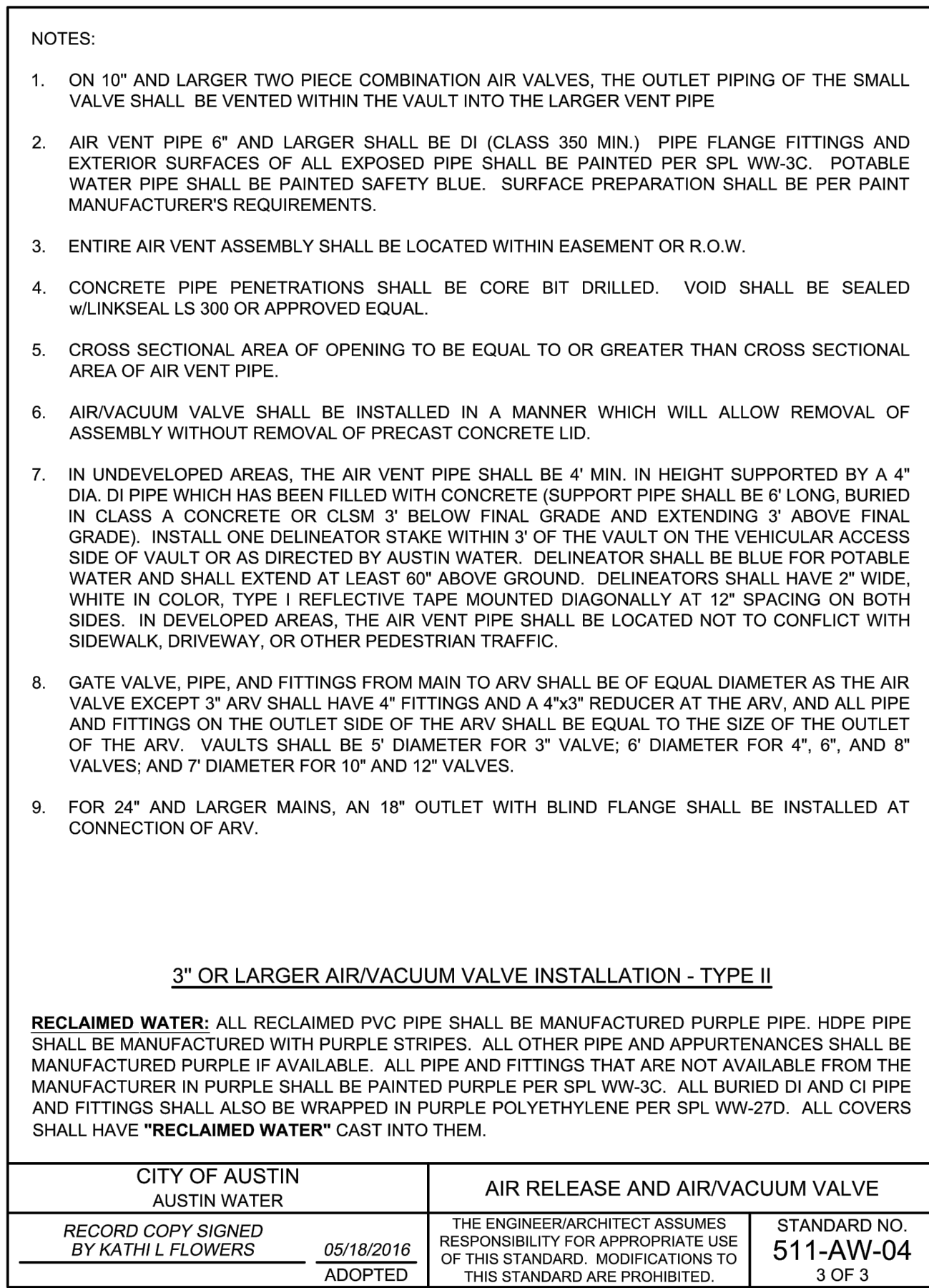
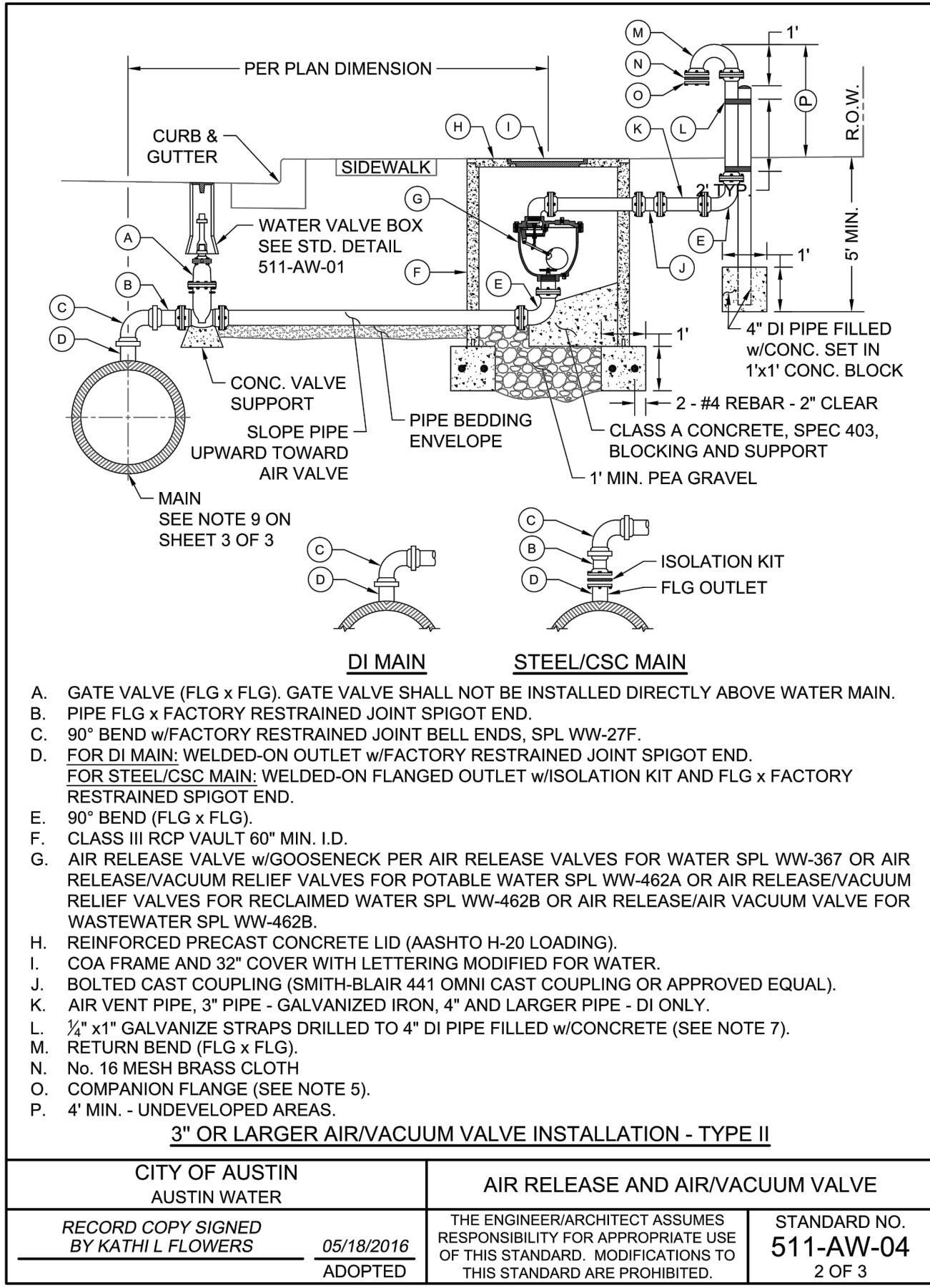
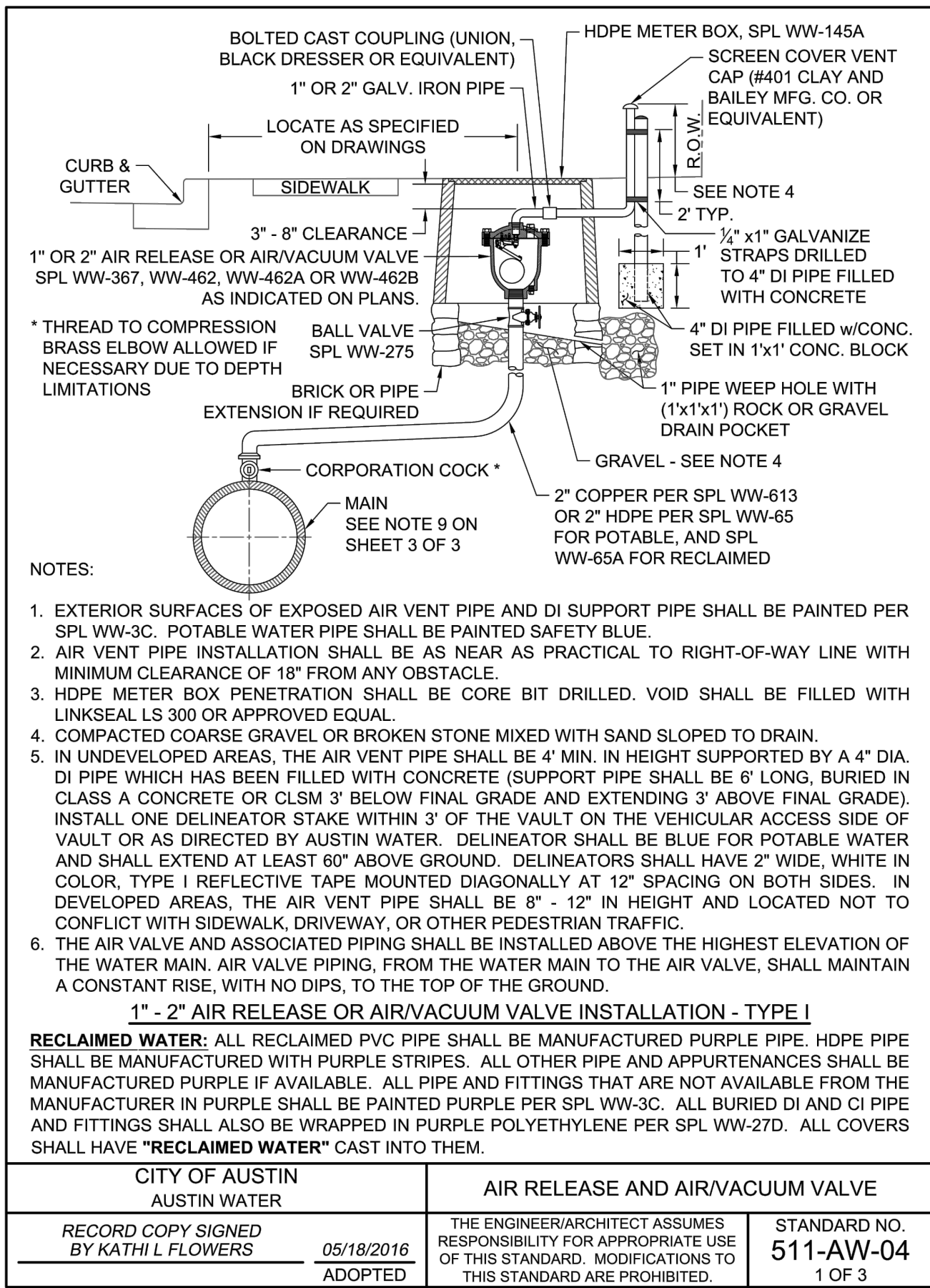
CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT ASSEMBLY	STANDARD NO. 511-AW-02 3 OF 3
RECORD COPY SIGNED BY JEFF A. KYLE	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	11/06/2023 ADOPTED

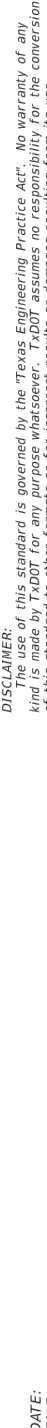


CITY OF AUSTIN AUSTIN WATER	FIRE HYDRANT ASSEMBLY	STANDARD NO. 511-AW-02 2 OF 3
RECORD COPY SIGNED BY JEFF A. KYLE	THE ENGINEER/ARCHITECT ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. MODIFICATIONS TO THIS STANDARD ARE PROHIBITED.	11/06/2023 ADOPTED



LUNAROYA SUBDIVISION DRIPPING SPRINGS, TX





Nominal Culvert Size	Conc Riprap (CFY/lin')	Pipe Culvert Size	Single Barrel Length	Multi-Barrel Length	Q2	Conditions For Use of Cross Pipes	Cross Pipe Sizes
12"	0.6	0" - 9"	N/A	2'-1"	1'-9"		
15"	0.7	0" - 11"	N/A	2'-5"	2'-2"		
18"	0.8	1'-2"	N/A	2'-10"	2'-8"	3 or more pipe culverts	3" Sid (3,500' 0.0)
21"	0.9	1'-4"	N/A	3'-2"	3'-1"		
24"	0.9	1'-6"	N/A	3'-6"	3'-7"		
27"	1.0	1'-8"	N/A	3'-10"	3'-11"		
30"	1.1	1'-10"	N/A	4'-2"	4'-4"	3 or more pipe culverts	3 1/2" Sid (4,000' 0.0)
33"	1.2	1'-11"	4'-2"	4'-5"	4'-8"	All pipe culverts	
36"	1.3	2'-0"	4'-4"	4'-8"	5'-1"	All pipe culverts	
42"	1.5	2'-6"	4'-11"	5'-5"	5'-10"		4" Sid (4,500' 0.0)
48"	1.7	2'-8"	5'-5"	6'-0"	6'-6"		
54"	2.0	3'-0"	5'-11"	6'-9"	7'-7"		
60"	2.2	3'-2"	6'-3"	7'-4"	8'-2"	All pipe culverts	
66"	2.4	3'-4"	6'-7"	7'-8"	8'-9"		
72"	2.7	3'-6"	7'-5"	8'-5"	9'-4"		5" Sid (5,567' 0.0)

1. The proper installation of the first cross pipe is critical for vehicle safety. Place the top of the first cross pipe no more than 12 inches below the curb.
2. Provide cross pipes, except the first bottom pipe, of the size shown in the table. Provide a 3/4" standard pipe (4" O.D.) for the first bottom pipe.
3. Install the third cross pipe from the bottom of the culvert without flowing into the riprap. Ensure that riprap concrete does not flow into the cross pipe so as to permit disassembly of the bolted end of the cross pipe. Clean the bottom of the culvert and install all other cross pipes using the bolted connection details.
4. Match cross slope as shown elsewhere in the plans. Cross slope of 6:1 or flatter is required for vehicle safety.
5. Riprap placed beyond the limits shown will be paid for as concrete riprap in excess of the limits shown.
6. Quantities shown are for one end of one reinforced concrete pipe (RCP) culvert. For multiple pipe culverts or for corrugated metal pipe (CMP) culverts, quantities will need to be adjusted.

MATERIAL NOTES:

Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise.

Provide cross piles that meet the requirements of ASTM A53 (Type E or S, Gr B), ASTM A500 (Gr B), or API 5LX52.

Provide ASTM A307 bolts and nuts.

Galvanize all steel components, except concrete reinforcing, after fabrication. Repair galvanizing damaged during transport or construction in accordance with the specifications.


GENERAL NOTES:

Cross pipes are designed for a traversing load of 10,000 pounds at yield as recommended by Research Report 280-2F, "Safety Treatment of Roadside Parallel-Drainage Structures", Texas Transportation Institute, March 1981.

Gravel and treatments (SET) shown herein are intended for use in the installation where out of control vehicles are likely to traverse the openings approximately perpendicular to the cross pipes.

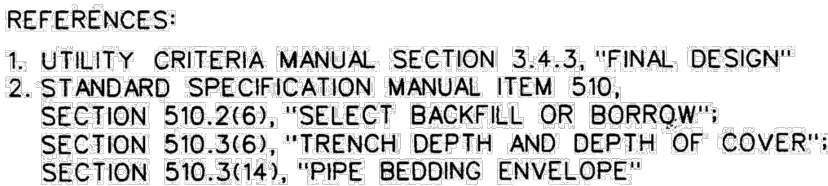
Construct concrete riprap and all necessary inverts in accordance with the requirements of Item 432, "Riprap".

Payment for riprap and subsoil is included in the Price Bid for each Safety End Treatment.

 Texas Department of Transportation
SAFETY END TREATMENT
FOR 12" DIA TO 72" DIA
PIPE CULVERTS
TYPE II ~ PARALLEL DRAIN

SETP-PD

setpds-20.sgn		DIR: GAF	CC: CAF	DP:
DOT	February 2020	COM	SECT	JOB
ADDITIONS				
		DIR	COUNTY	



1. GRADE CHANNEL SO THAT WATER WILL FLOW DOWN THE CENTER OF THE CHANNEL AND BE CONTAINED TO THE CHANNEL. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND. THE PREPARED SURFACE SHALL PROVIDE A FIRM UNYIELDING FOUNDATION FOR THE MATS.
2. APPLY SEED DIRECTLY TO THE PREPARED SOIL PRIOR TO FLEXAMAT INSTALLATION. USE SEED PER PROJECT SPECIFICATIONS.
3. INSTALL FLEXAMAT ROLLS. AVAILABLE WIDTHS ARE 4', 5.5', 8', 10', 12', AND 16'.
 - 3.1. TO ACHIEVE WIDER WIDTHS, INSTALL MATS ADJACENT TO ONE ANOTHER. BRIDGE LONGITUDINAL SEAM WITH 30" UNDERLAYMENT SEAM. 15" OF UNDERLAYMENT SHALL BE UNDER EACH MAT AND DIRECTLY AGAINST THE SUBGRADE.
 - 3.2. FLIP FLEXAMAT SEAMS BACK INTO THE CHANNEL SO THAT THEY FIT TIGHTLY.
 - 3.3. INSTALL 18" U-ANCHORS IN 3' INCREMENTS THE LENGTH OF THE LONGITUDINAL SEAM. U-ANCHORS CONSIST OF #3 REBAR SHAPED INTO A U SHAPE WITH 18" LEGS.
4. AT THE BEGINNING OF CHANNEL, THE INITIAL LEADING EDGE OF FLEXAMAT EXPOSED TO CONCENTRATED FLOWS SHALL BE EMBEDDED 18" VERTICALLY INTO THE SUBGRADE TO SERVE AS AN ANCHOR TRENCH. THE TRENCH SHOULD BE FILLED AND COMPACTED WITH SUITABLE FILL OR OTHER (AS SPECIFIED BY EOR). FLOWABLE FILL LEADING EDGE OF SEAM.
5. INSTALL ANCHORS IN 2' INCREMENTS BEHIND THE FIRST ROW OF BLOCKS EXTENDING FROM ANCHOR TRENCH. INSTALL ANCHORS DIRECTLY BEHIND BLOCKS.
6. FOR ADDITIONAL SECTIONS OF MAT, OVERLAP THE DOWNSTREAM SECTION 18" WITH UPSTREAM SECTION OF MAT. PRIOR TO INSTALLING OVERLAP, FLIP UPSTREAM MAT BACK 24". EXCAVATE 2.25" OF SOIL 18" FROM END OF UPSTREAM MAT. DOWNSTREAM SECTION IS LAID IN THE SHALLOW TRENCH. LIGHTLY SEED TOPSOIL AND SEED OVER EDGE. FLIP END OF UPSTREAM MAT OVER THE SOIL TO THE LEADING EDGE OF THE DOWNSTREAM MAT.
7. INSTALL 18" "U" ANCHORS IN 2' INCREMENTS ACROSS THE OVERLAP. INSTALL ANCHORS DIRECTLY BEHIND BLOCKS.
8. OUTSIDE EDGES OF THE MAT EXPOSED TO SURFACE FLOW SHALL HAVE THE OUTSIDE BLOCK RECESSED 12" IN SUBGRADE.

DOUCET
A Kleinfelder Company

Surveying // Entitlements // Geospatial
3. Highway 71 W. Ste. 160
1, TX 78735; Tel: (512)-583-2600
doucetengineers.com
LS Engineering Firm No. F-3937
LS Surveying Firm No. 10194551



LUNAROYA SUBDIVISION
DRIPPING SPRINGS, TX

DRAINAGE DETAILS 2

44
OF 44

Project No.:
2408-002