SIMMONS VALLEY PHASE 1

Contributing Zone Plan Application

October 2023





October 20, 2023

Ms. Lillian Butler Texas Commission on Environmental Quality (TCEQ) Region 13 14250 Judson Road San Antonio, Texas 78233-4480

Re: Simmons Valley Phase 1

Contributing Zone Plan Application

Dear Ms. Butler:

Please find included herein the Simmons Valley Phase 1 Contributing Zone Plan Application. This Contributing Zone Plan Application has been prepared in accordance with the Texas Administrative Code (30 TAC 213) and current policies for development over the Edwards Aquifer Contributing Zone.

This Contributing Zone Application applies to an approximately 207.42-acre site as identified by the project limits. Please review the plan information for the items it is intended to address. If acceptable, please provide a written approval of the plan in order that construction may begin at the earliest opportunity.

Appropriate review fees (\$8,000) and fee application form are included. If you have questions or require additional information, please do not hesitate to contact me at your earliest convenience.

Sincerely,

Pape-Dawson Engineers

Matthew Geistweidt, P.E.

Associate Vice President

Attachments

 $P:\label{eq:proposed_propose$

SIMMONS VALLEY PHASE 1

Contributing Zone Plan Application



October 2023



EDWARDS AQUIFER APPLICATION COVER PAGE (TCEQ-20705)

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

- 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

- 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:				2. Regulated Entity No.:					
3. Customer Name:				4. Customer No.:					
5. Project Type: (Please circle/check one)	New		Modification		Extension		Exception		
6. Plan Type: (Please circle/check one)	WPAP	(CZP)	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Resider	ntial	Non-residential		8. Site		e (acres):		
9. Application Fee:			10. P	10. Permanent BMP(s):		s):			
11. SCS (Linear Ft.):			12. AST/UST (No. Tanks):		ıks):				
13. County:			14. W	14. Watershed:					

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.)		_			
Region (1 req.)		_	_		
County(ies)					
Groundwater Conservation District(s)	Edwards Aquifer AuthorityBarton Springs/ Edwards AquiferHays Trinity Plum Creek	Barton Springs/ Edwards Aquifer	NA		
City(ies) Jurisdiction	AustinBudaDripping SpringsKyleMountain CitySan MarcosWimberleyWoodcreek	AustinBee CavePflugervilleRollingwoodRound RockSunset ValleyWest Lake Hills	AustinCedar ParkFlorenceGeorgetownJerrellLeanderLiberty HillPflugervilleRound Rock		

	Sa	an Antonio Region			
County:	Bexar	Comal	Kinney	Medina	Uvalde
Original (1 req.)					
Region (1 req.)					
County(ies)					
Groundwater Conservation District(s)	Edwards Aquifer Authority Trinity-Glen Rose	Edwards Aquifer Authority	Kinney	EAA Medina	EAA Uvalde
City(ies) Jurisdiction	Castle HillsFair Oaks RanchHelotesHill Country VillageHollywood ParkSan Antonio (SAWS)Shavano Park	Bulverde Fair Oaks Ranch Garden Ridge New Braunfels Schertz	NA	San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is hereby submitted to TCEQ for adm		
Print Name of Customer/Authorized Agent		
Much Start	10/20/2023	
Signature of Customer/Authorized Agent	Date	

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

CONTRIBUTING ZONE PLAN APPLICATION (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: Matthew Geistweidt, P.E.

Date: 10/20/2023

Signature of Customer/Agent:

Regulated Entity Name: Simmons Valley Phase 1

Project Information

1. County: Comal

2. Stream Basin: Cypress Creek

3. Groundwater Conservation District (if applicable): Edwards Aquifer

4. Customer (Applicant):

Contact Person: Richard Mott

Entity: Lennar Homes of Texas Land and Construction, Ltd.

Mailing Address: 100 NE Loop 410, Ste 1155

Email Address: richard.mott@lennar.com

5.	Agent/Representative (If any):
	Contact Person: Matthew Geistweidt, P.E. Entity: Pape-Dawson Engineers Mailing Address: 2000 NW Loop 410 City, State: San Antonio, TX Telephone: (210) 375-9000 Email Address: mgeistweidt@pape-dawson.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 Spring Branch. ☐ 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.
	From TCEQ's Regional Office, turn left on Judson Rd toward N Loop 1604. Travel west on N Loop 1604 for approximately 5.1 miles towards US HWY 281 N. Travel north on US HWY 281 for approximately 22 miles. The site is located on the left, approximately 0.20 miles northwest of the US HWY 281 and Rebecca Creek Road intersection.
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:

2 of 11

	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: 219
	Residential: # of Living Unit Equivalents:
	Commercial
	Industrial
	Other:
	

13. Total project area (size of site): 207.42 Acres

Total disturbed area: 207.42 Acres

14. Estimated projected population: 866 (219 homes * 4 persons/home)

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

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	1,144,321	÷ 43,560 =	26.27
Parking	118,483	÷ 43,560 =	2.72
Other paved surfaces	786,258	÷ 43,560 =	18.05
Total Impervious Cover	2,049,062	÷ 43,560 =	47.04

Total Impervious Cover $\underline{47.04}$ ÷ Total Acreage $\underline{207.42}$ X 100 = $\underline{22.7}$ % 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. \boxtimes 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. \bowtie 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 x W = $Ft^2 \div 43,560 Ft^2/Acre = acres$. 21. Pavement Area: Length of pavement area: _____ feet. Width of pavement area: feet. L x W = $Ft^2 \div 43,560 Ft^2/Acre =$ acres. Pavement area acres ÷ R.O.W. area acres x 100 = % 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 Simmons Valley Wastewater (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

AST Number	Size (Gallons)	Substance to be Stored	Tank Material
1			
2			
3			

AST Number	Size (Ga	llons)	Stored Tan		Tank Ma	nk Material	
4							
5							
	I			Tot	al x 1	5 =	Gallons
one-half (1 one tank sy	l be placed within 1/2) times the storstem, the containrumulative storage	rage capaci nent struct	ty of the s ure is size	system. For fac d to capture o	cilities	s with m	ore than
for providin	t G - Alternative Se ng secondary conta for the Edwards Ac	inment are	proposed				
29. Inside dimensio			ent structi	ure(s):			
Table 3 - Second Length (L)(Ft.)	Width(W)(Ft.)		(H)(Ft.)	L x W x H = (I	Ft3)	Ga	llons
		11019110	()()				
20 Dining					To	otal:	Gallons
Some of the structure. The piping v	oses, and dispense e piping to dispense will be abovegroun will be undergroun	ers or equi _l Id					
	ment area must bo s) being stored. Th				-		
	t H - AST Containm nt structure is attac			_	drawi	ing of th	e
☐ Internal ☐ Tanks cle	dimensions (lengt drainage to a poir early labeled learly labeled		· ·			-	

Substance to be

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. \square The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = <u>200</u> '.
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): Comal County Unincorporated Areas FIRM Panel 48091C0070F, effective 09/02/2009.
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. \(\sum \) Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
41. \(\sum \) 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.
Pe	ermanent Best Management Practices (BMPs)
Pro	actices 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 6213 4(g) (relating to

	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 multifamily 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.
\boxtimes	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
_	consibility for Maintenance of Permanent BMPs and sures 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 Executiv	ve
Dire	ctor approval prior to construction, and may require submission of a revised	
appl	ication, with appropriate fees.	

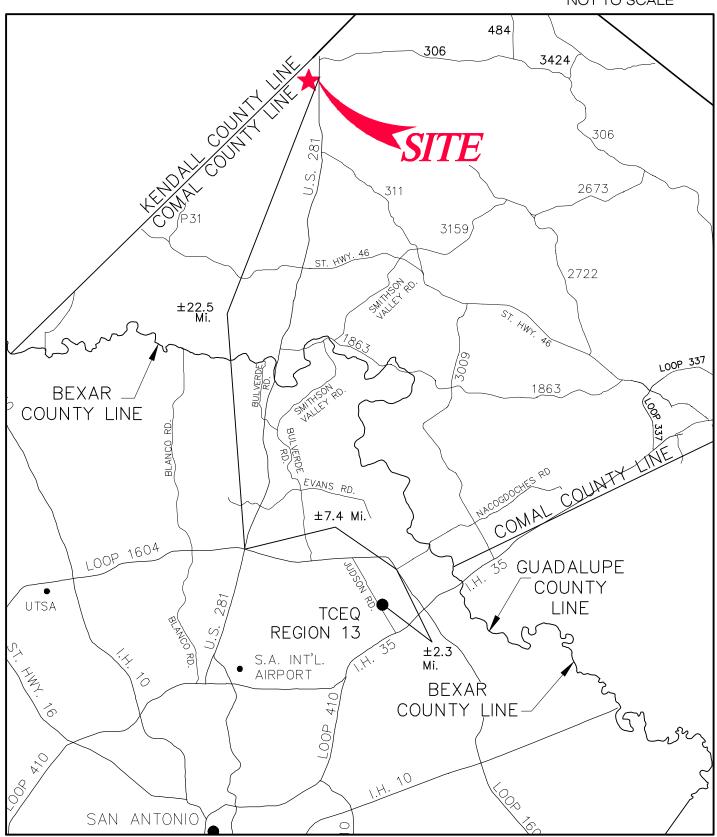
63. 🗌	The site description, controls, maintenance, and inspection requirements for the storm
	water pollution prevention plan (SWPPP) developed under the EPA NPDES general
	permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC
	§213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have
	been met by the SWPPP document.

	X	The Tempo	rary Storm	water Section	(TCFO-0602)) is included	with the	application
L	/ \	THE TELLIPO	rary Storing	water section	110002	, is illelaaca	WILLI CIIC	application

ATTACHMENT A

SIMMONS VALLEY PHASE 1 Contributing Zone Plan Application



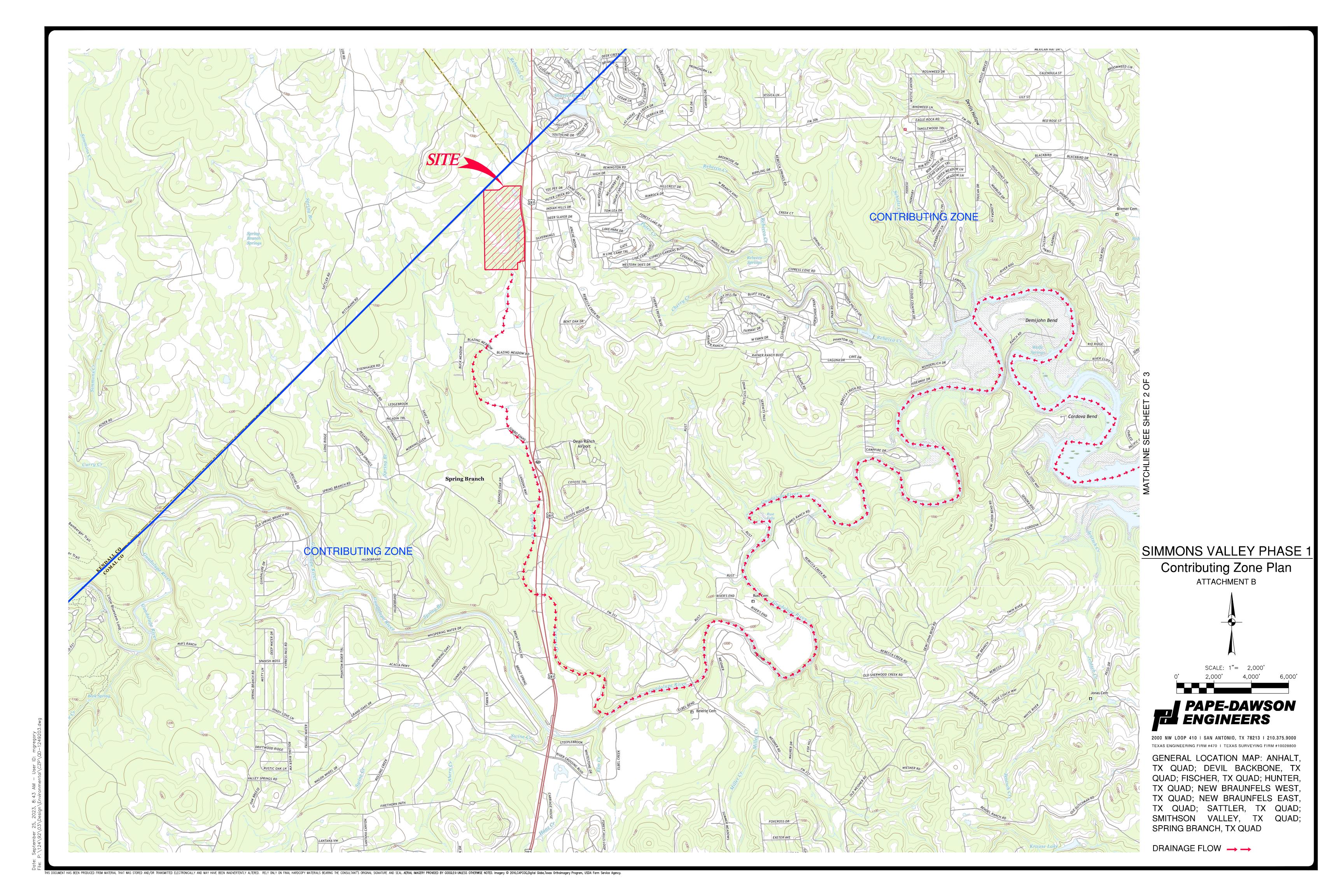


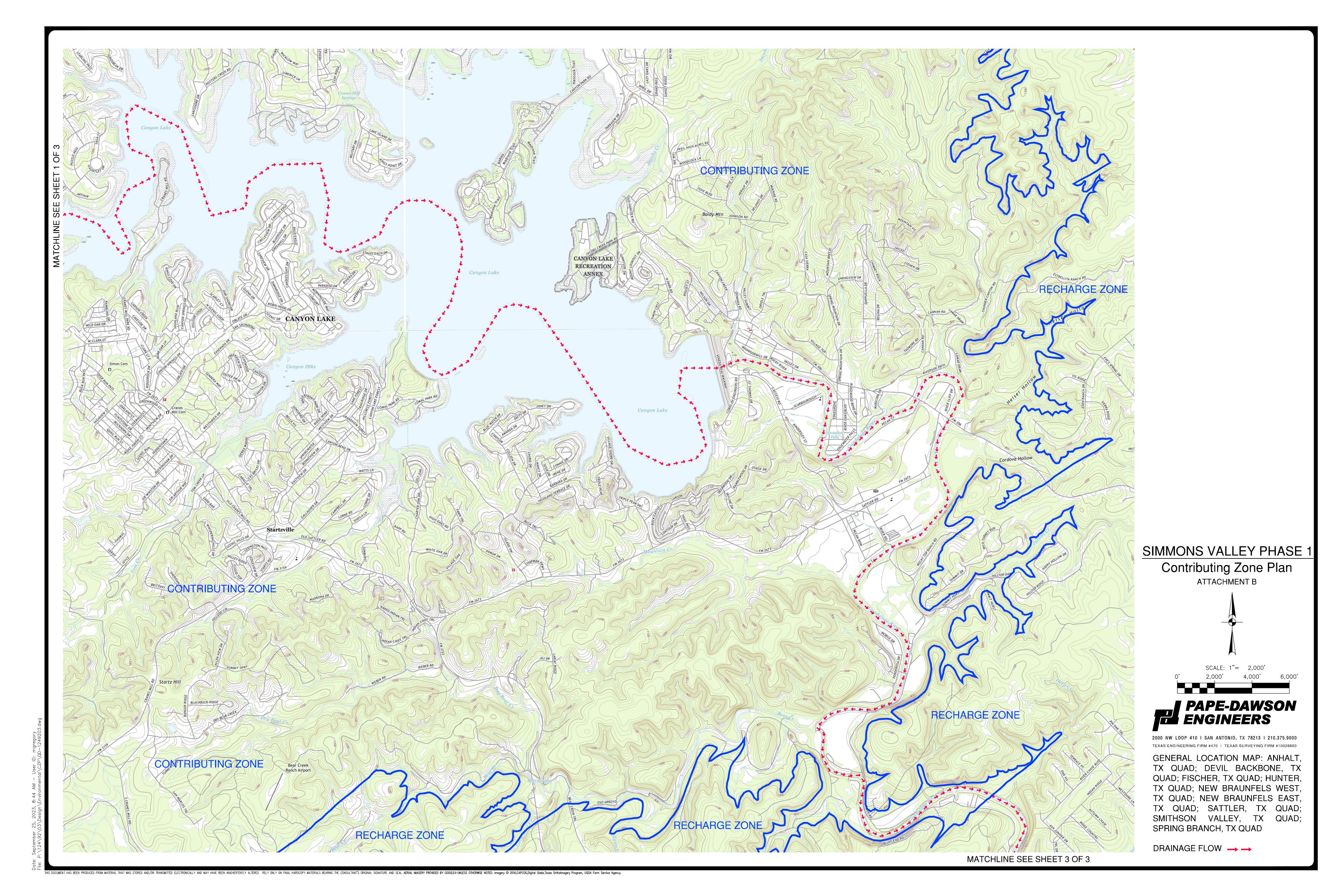
Pape-Dawson Engineers, Inc.

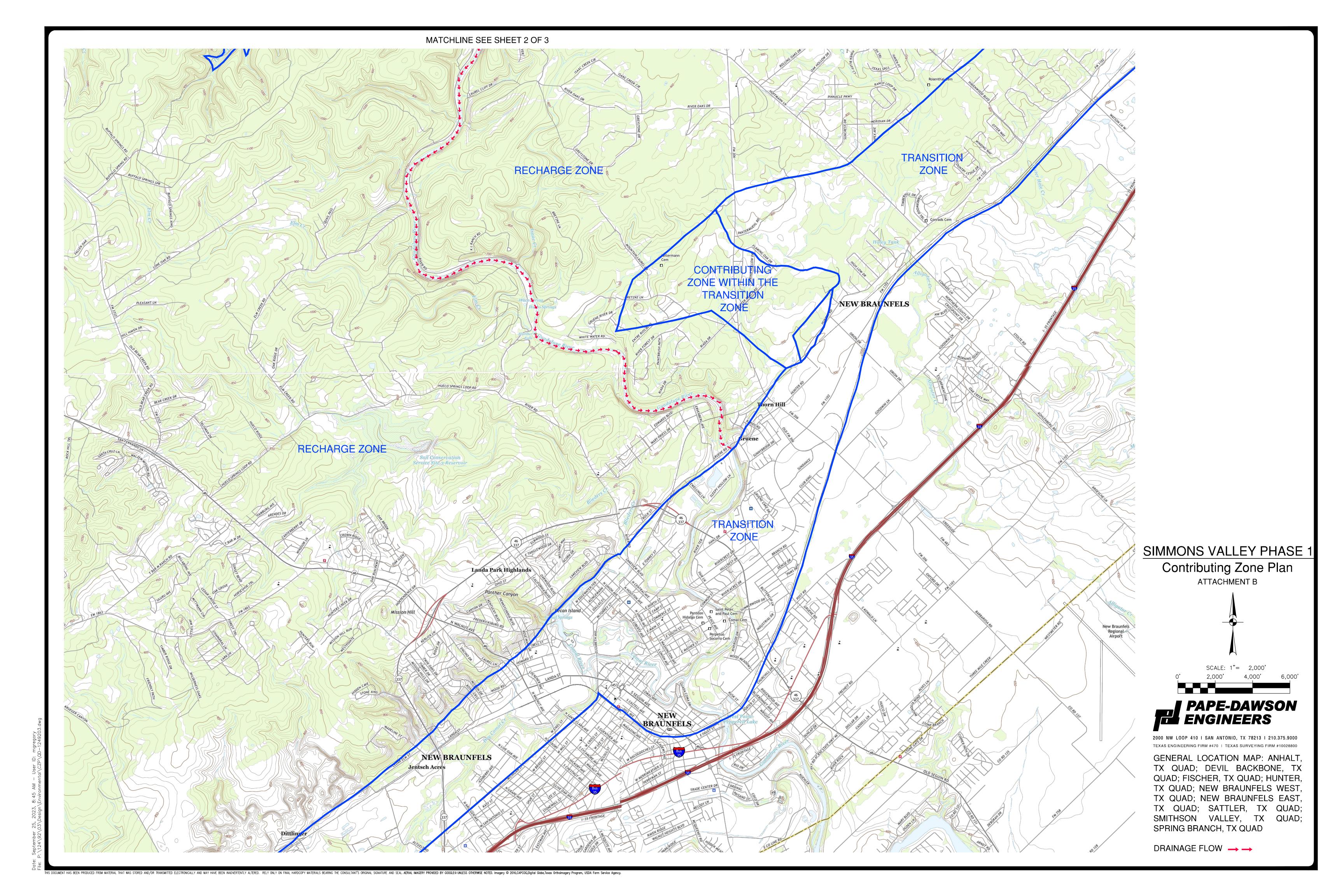
Date: Sep 25, 2023, 11: 36am User ID: mgregory
File: P: \124\92\03\Design\Environmenta\\02P\RM-1249203.dwg

ATTACHMENT A Road Map

ATTACHMENT B







ATTACHMENT C

SIMMONS VALLEY PHASE 1 Contributing Zone Plan

Attachment C – Project Narrative

The Simmons Valley Phase 1 Contributing Zone Plan (CZP) proposes the construction of a single-family residential development on an approximately 207.42-acre site located approximately 0.20 miles northwest of US 281 N and Rebecca Creek Road intersection, in Spring Branch, Comal County, Texas. The site is mostly undeveloped with the exception of approximately 1.90 acres of existing impervious cover from a dirt road, which pre-dates 30 TAC 213 rules. The site drains to Cypress Creek within the Guadalupe River Basin and does contain the 100-year floodplain. Since the project is located entirely over the Edwards Aquifer Contributing Zone, a Geologic Assessment was not conducted and is not required by 30 TAC 213 regulations. Therefore, no naturally occurring sensitive features are known to exist on the site.

This CZP proposes demolition of the existing road, additional clearing grading, stockpiling, excavation, installation of utilities and drainage improvements for the construction of a single-family residential development with 219 homes, one (1) batch detention basin, an amenity center, elevated storage tank, wastewater treatment plant, and associated streets and sidewalks. Mass grading and utility installation will disturb 207.42 acres of the project site, while home building will be limited to approximately 84.62 acres for this proposed phase. Approximately 47.04 acres of impervious cover, or 22.7% of the 207.42-acre project limits are proposed for construction in this CZP. The Proposed Best Management Practices (PBMPs) for stormwater treatment is one (1) batch detention basin, one (1) interim vegetative filter strip, three (3) fifteen-foot (15') engineered vegetative filter strips (VFS), and one (1) fifty-foot (50') vegetative filter strip designed in accordance with the TCEQ's Technical Guidance Manual (TGM) RG-348 (2005) to remove 80% of the increase in Total Suspended Solids (TSS) from the site.

Approximately 42.03 acres of impervious cover from Watershed "A" will be treated by the proposed water quality basin. Watersheds "B", "C", and "D" will each be treated via fifteen-foot (15') engineered VFS. Watershed "C" is a sub-watershed of Watershed "E", where Watershed "E" will be treated via one (1) interim VFS. The proposed elevated storage tank will be treated via the fifty-foot (50') vegetative filter strip. Approximately 0.78 acres of impervious cover from the proposed turn lane will remain uncaptured; however, approximately 1.90 acres of grandfathered impervious cover reduces the required treatment in TSS loading. Please see the Treatment Summary Table located in the Exhibits section with this application.

Potable water service is to be provided by the City of Spring Branch. The proposed development will generate approximately 43,800 gallons per day (average flow) of domestic wastewater based on the assumption of 219 homes (219 EDU * 200 gpd/EDU= 43,800 gpd).

Wastewater will be disposed of by conveyance to the proposed Simmons Valley Wastewater Treatment Plant.



ATTACHMENT D

SIMMONS VALLEY PHASE 1 Contributing Zone Plan

Attachment D - Factors Affecting Surface Water Quality

Potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges from the site during construction include:

- Soil erosion due to the demolition and clearing of the site;
- Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle drippings;
- Hydrocarbons from asphalt paving operations;
- Miscellaneous trash and litter from construction workers and material wrappings;
- Concrete truck washout.
- Potential overflow/spills from portable toilets

Potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges from the site after development include:

- Oil, grease, fuel and hydraulic fluid contamination from vehicle drippings;
- Dirt and dust which may fall off vehicles; and
- Miscellaneous trash and litter.



ATTACHMENT E

SIMMONS VALLEY PHASE 1 Contributing Zone Plan

Attachment E - Volume and Character of Stormwater

Stormwater runoff will increase as a result of this development. For a 25-year storm event, the overall project will generate approximately 345 cfs. The runoff coefficient for the site changes from approximately 0.55 before development to 0.72 after development. Values are based on the Rational Method using runoff coefficients per the City of Spring Branch Unified Development Code.



ATTACHMENT J

SIMMONS VALLEY PHASE 1 Contributing Zone Plan

Attachment J – BMPs for Upgradient Stormwater

No upgradient stormwater will flow across the project limits.

The Proposed Best Management Practices (PBMPs) for stormwater treatment are one (1) batch detention basin, one (1) interim vegetative filter strip, three (3) fifteen-foot (15') engineered vegetative filter strips (VFS), and one (1) fifty-foot (50') vegetative filter strip designed in accordance with the TCEQ's Technical Guidance Manual (TGM) RG-348 (2005) to remove 80% of the increase in Total Suspended Solids (TSS) from the site.



ATTACHMENT K

SIMMONS VALLEY PHASE 1 Contributing Zone Plan

<u>Attachment K – BMPs for Onsite Stormwater</u>

The Proposed Best Management Practices (PBMPs) for stormwater treatment are one (1) batch detention basin, one (1) interim vegetative filter strip, three (3) fifteen-foot (15') engineered vegetative filter strips (VFS), and one (1) fifty-foot (50') vegetative filter strip designed in accordance with the TCEQ's Technical Guidance Manual (TGM) RG-348 (2005) to remove 80% of the increase in Total Suspended Solids (TSS) from the site.



ATTACHMENT L

Attachment L - BMPs for Surface Streams

Cypress Creek crosses the project limits. The Proposed Best Management Practices (PBMPs) for stormwater treatment are one (1) batch detention basin, one (1) interim vegetative filter strip, three (3) fifteen-foot (15') engineered vegetative filter strips (VFS), and one (1) fifty-foot (50') vegetative filter strip designed in accordance with the TCEQ's Technical Guidance Manual (TGM) RG-348 (2005) to remove 80% of the increase in Total Suspended Solids (TSS) from the site.



ATTACHMENT M

<u>Attachment M – Construction Plans</u>

Please refer to the Exhibits Section of this application for the Contributing Zone Plan Site Plans.



ATTACHMENT N

PERMANENT POLLUTION ABATEMENT MEASURES MAINTENANCE SCHEDULE AND MAINTENANCE PROCEDURES

This document has been prepared to provide a description and schedule for the performance of maintenance on permanent pollution abatement measures. Maintenance measures to be performed will be dependent on what permanent pollution abatement measures are incorporated into the project. The project specific water pollution abatement plan should be reviewed to determine what permanent pollution abatement measures are incorporated into a project.

It should also be noted that the timing and procedures presented herein are general guidelines, adjustment to the timing and procedures may have to be made depending on project specific characteristics as well as weather related conditions but may not be altered without TCEQ approval.

Where a project is occupied by the owner, the owner may provide for maintenance with his own skilled forces or contract for recommended maintenance of Permanent Best Management Practices. Where a project is occupied or leased by a tenant, the owner shall require tenants to contract for such maintenance services either through a lease agreement, property owners association covenants, or other binding document.

I understand that I am responsible for maintenance of the Permanent Pollution Abatement Measures included in this project until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property or ownership is transferred.

I, the owner, have read and understand the requirements of the attached Maintenance Plan and Schedule.

Richard Mott, VP of Land Development

Lennar Homes of Texas Land and Construction, Ltd

INSPECTION AND MAINTENANCE SCHEDULE FOR PERMANENT POLLUTION ABATEMENT MEASURES

Recommended Frequency	Task to be Performed												
	1	2	3	4	5	6	7	8	9	10	11	12	13
After Rainfall	1							√			√		4
Biannually*	√	4	√	4	√	٧	√	√	1	√	√	√	√

^{*}At least one biannual inspection must occur during or immediately after a rainfall event. $\sqrt{\text{Indicates maintenance procedure that applies to this specific site.}}$

See description of maintenance task to be performed on the following pages. Frequency of maintenance tasks may vary depending on amount of rainfall and other weather-related conditions but may not be altered without TCEQ approval.

A written record should be kept of inspection results and maintenance performed.

	Task No. & Description	Included in this project		
1.	Mowing	Yes	No	
2.	Litter and Debris Removal	Yes	Ne	
3.	Erosion Control	Yes	Ne	
4.	Level Sensor	Yes	Ne	
5.	Nuisance Control	Yes	Ne	
6.	Structural Repairs and Replacement	Yes	Ne	
7.	Discharge Pipe	Yes	No	
8.	Detention and Drawdown Time	Yes	No	
9.	Sediment Removal	Yes	Ne	
10	. Logic Controller	Yes	Ne	
11	. Vegetated Filter Strips	Yes	Ne	
12	. Visually Inspect Security Fencing for Damage or Breach	Yes	No	
13	. Recordkeeping for Inspections, Maintenance, and Repairs	Yes	₩e	

MAINTENANCE PROCEDURES FOR PERMANENT POLLUTION ABATEMENT MEASURES

Note: Additional guidance can be obtained from TCEQ's Technical Guidance Manual (TGM) RG-348 (2005) Section 3.5.

<u>Inspections</u>. Inspections should take place a minimum of twice a year. One inspection should take place during wet weather to determine if the basin is meeting the target detention time of 12 hours and a drawdown time of no more than 48 hours. The remaining inspections should occur between storm events so that manual operation of the valve and controller can be verified. The level sensor in the basin should be inspected and any debris or sediment in the area should be removed. The outlet structure and the trash screen should be inspected for signs of clogging. Debris and sediment should be removed from the orifice and outlet(s) as described in previous sections. Debris obstructing the valve should be removed. During each inspection, erosion areas inside and downstream of this BMP should be identified and repaired/revegetated immediately. *A written record should be kept of inspection results and corrective measures taken*

- 1. Mowing. The basin, basin side-slopes, and embankment of the basin must be mowed to prevent woody growth and control weeds. A mulching mower should be used, or the grass clippings should be caught and removed. Mowing should take place at least twice a year, or more frequently if vegetation exceeds 18 inches in height. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas.
- <u>Litter and Debris Removal</u>. Litter and debris removal should take place at least twice a year, as
 part of the periodic mowing operations and inspections. Debris and litter should be removed
 from the surface of the basin. Particular attention should be paid to floatable debris around the
 outlet structure. The outlet should be checked for possible clogging or obstructions and any
 debris removed.
- 3. <u>Erosion control</u>. The basin side slopes and embankment all may periodically suffer from slumping and erosion. To correct these problems, corrective action, such as regrading and revegetation, may be necessary. Correction of erosion control should take place whenever required based on the periodic inspections.
- 4. <u>Level Sensor</u>. The level sensor in the basin should be inspected and any debris or sediment in the area should be removed. Litter and debris removal should take place at least twice a year, as part of the periodic mowing operations and inspections. Debris and litter should be removed from the surface of the basin.
- 5. <u>Nuisance Control</u>. Standing water or soggy conditions may occur in the basin. Some standing water may occur after a storm event since the valve may close with 2 to 3 inches of water in the basin. Some flow into the basin may also occur between storms due to spring flow and residential water use that enters the storm sewer system. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.).
- 6. <u>Structural Repairs and Replacement</u>. With each inspection, any damage to structural elements of the basin (pipes, concrete drainage structures, retaining walls, etc.) should be identified and



SIMMONS VALLEY PHASE 1

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repaired immediately. An example of this type of repair can include patching of cracked concrete, sealing of voids, removal of vegetation from cracks and joints. The various inlet/outlet structures in a basin will eventually deteriorate and must be replaced. A written record should be kept of inspection results and corrective measures taken

- 7. <u>Discharge Pipe</u>. The basin discharge pipe shall be checked for accumulation of silt, debris or other obstructions which could block flow. Soil accumulations, vegetative overgrowth and other blockages should be cleared from the pipe discharge point. Erosion at the point of discharge shall be monitored. If erosion occurs, the addition of rock rubble to disperse the flow should be accomplished. A written record should be kept of inspection results and corrective measures taken
- 8. <u>Detention and Drawdown Time</u>. One inspection should take place during wet weather to determine if the basin is meeting the target detention time of 12 hours and a drawdown time of no more than 48 hours. This characteristic can be a sign of the need for maintenance. The minimum drawdown time is 24 hours. If drawdown time is less than 24 hours, the actuator valve shall be checked and partially closed to limit the drawdown time. Extensive drawdown time greater than 48 hours may indicated blockage of the discharge pipe. Corrective actions should be performed and completed within 15 working days. A written record of the inspection findings and corrective actions performed should be made.
- 9. <u>Sediment Removal</u>. A properly designed batch detention basin will accumulate quantities of sediment over time. The accumulated sediment can detract from the appearance of the facility and reduce the pollutant removal performance of the facility. The sediment also tends to accumulate near the outlet structure and can interfere with the level sensor operation. Sediment shall be removed from the basin at least every 5 years, when sediment depth exceeds 6 inches, when the sediment interferes with the level sensor or when the basin does not drain within 48 hours. Care should be taken not to compromise the basin lining during maintenance.
- 10. Logic Controller. The Logic Controller should be inspected as part of the twice-yearly investigations. Verify that the external indicators (active, cycle in progress) are operating properly by turning the controller off and on, and by initiating a cycle by triggering the level sensor in the basin. The valve should be manually opened and closed using the open/close switch to verify valve operation and to assist in inspecting the valve for debris. The solar panel should be inspected and any dust or debris on the panel should be carefully removed. The controller and all other circuitry and wiring should be inspected for signs of corrosion, damage from insects, water leaks, or other damage. At the end of the inspection, the controller should be reset.
- 11. Vegetated Filter Strips. Vegetation height for native grasses shall be limited to no more than 18-inches. When vegetation exceeds that height, the filter strip shall be cut to a height of approximately 4 inches. Turf grass shall be limited to a height of 4-inches with regular maintenance that utilizes a mulching mower. Trash and debris shall be removed from filter strip prior to cutting. Check filter strip for signs of concentrated flow and erosion. Areas of filter strip showing signs of erosion shall be repaired by scarifying the eroded area, reshaping, regrading,



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and placement of solid block sod over the affected area. A written record of the inspection findings and corrective actions performed should be made

- 12. <u>Visually Inspect Security Fencing for Damage or Breach</u>. Check maintenance access gates for proper operation. Damage to fencing or gates shall be repaired within 5 working days. *A written record should be kept of inspection results and maintenance performed.*
- 13. Recordkeeping Procedures for Inspections, Maintenance, Repairs, and Retrofits.
 - Written records shall be kept by the party responsible for maintenance or a designated representative.
 - Written records shall be retained for a minimum of five years.



ATTACHMENT P

<u>Attachment P – Measures for Minimizing Surface Stream Contamination</u>

Any points where discharge from the site is concentrated and erosive velocities exist will include appropriately sized energy dissipators to reduce velocities to non-erosive levels.



TEMPORARY STORMWATER SECTION (TCEQ-0602)

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Matthew Geistweidt, P.E.

Date: 10/20/2023

Signature of Customer/Agent:

Regulated Entity Name: Simmons Valley Phase 1

Project Information

Potential Sources of Contamination

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

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

$oxed{\boxtimes}$ The following fuels and/or hazardous substances will be stored on the site:	construction
staging area	

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

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

	 Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year. Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
	Fuels and hazardous substances will not be stored on the site.
2.	Attachment A - Spill Response Actions. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.
3.	Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.
4.	Attachment B - Potential Sources of Contamination. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.
S	equence of Construction
5.	Attachment C - Sequence of Major Activities. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.
	 For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given. For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.
6.	Name the receiving water(s) at or near the site which will be disturbed or which will

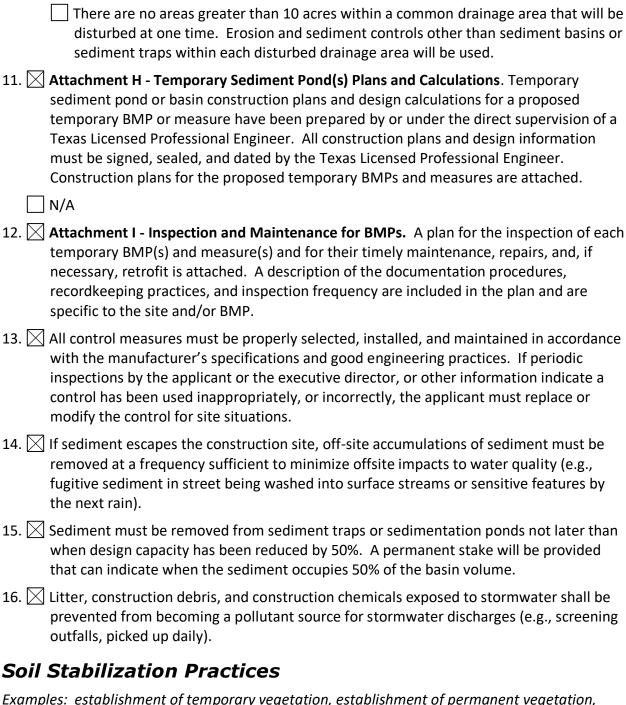
Temporary Best Management Practices (TBMPs)

receive discharges from disturbed areas of the project: Cypress Creek

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

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

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



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

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

- 18. Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
 19. Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.
 Administrative Information
 20. All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
 21. If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The
- 22. Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

proposed to protect the aquifer from any adverse impacts.

appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods

ATTACHMENT A

Attachment A - Spill Response Actions

In the event of an accidental leak or spill:

- Spill must be contained and cleaned up immediately.
- Spills will not be merely buried or washed with water.
- Contractor shall take action to contain spill. Contractor may use sand or other absorbent material stockpiled on site to absorb spill. Absorbent material should be spread over the spill area to absorb the spilled product.
- In the event of an uncontained discharge the contractor shall utilize onsite equipment to construct berms downgradient of the spill with sand or other absorbent material to contain and absorb the spilled product.
- Spill containment/absorbent materials along with impacted media must be collected and stored in such a way so as not to continue to affect additional media (soil/water). Once the spill has been contained, collected material should be placed on poly or plastic sheeting until removed from the site. The impacted media and cleanup materials should be covered with plastic sheeting and the edges weighed down with paving bricks or other similarly dense objects as the material is being accumulated. This will prevent the impacted media and cleanup materials from becoming airborne in windy conditions or impacting runoff during a rain event. The stockpiled materials should not be located within an area of concentrated runoff such as along a curb line or within a swale.
- Contaminated soils and cleanup materials will be sampled for waste characterization. When the analysis results are known the contaminated soils and cleanup materials will be removed from the site and disposed in a permitted landfill in accordance with applicable regulations.
- The contractor will be required to notify the owner, who will in turn contact TCEQ to notify them in
 the event of a significant hazardous/reportable quantity spill. Additional notifications as required by
 the type and amount of spill will be conducted by owner or owner's representative.

In the event of an accidental significant or hazardous spill:

The contractor will be required to report significant or hazardous spills in reportable quantities to:

- Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site. https://www.tceq.texas.gov/response/spills/spill_rq.html
- For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.



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- Notification should first be made by telephone and followed up with a written report.
- The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction
 personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at
 the job site.
- Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.
- Contaminated soils will be sampled for waste characterization. When the analysis results are known the contaminated soils will be removed from the site and disposed in a permitted landfill in accordance with applicable regulations.

Additional guidance can be obtained from TCEQ's Technical Guidance Manual (TGM) RG-348 (2005) Section 1.4.16. Contractor shall review this section.



ATTACHMENT B

Attachment B – Potential Sources of Contamination

Other potential sources of contamination during construction include:

Potential Source Preventative Measure

- Asphalt products used on this project.
- After placement of asphalt, emulsion or coatings, the contractor will be responsible for immediate cleanup should an unexpected rain occur. For the duration of the asphalt product curing time, the contractor will maintain standby personnel and equipment to contain any asphalt wash-off should an unexpected rain occur. The contractor will be instructed not to place asphalt products on the ground within 48 hours of a forecasted rain.
- Potential Source •
- Oil, grease, fuel and hydraulic fluid contamination from construction equipment and vehicle dripping.

Preventative Measure

- Vehicle maintenance when possible will be performed within the construction staging area.
- Construction vehicles and equipment shall be checked regularly for leaks and repaired immediately.
- Potential Source •
- Accidental leaks or spills of oil, petroleum products and substances listed under 40 CFR parts 110, 117, and 302 used or stored temporarily on site.

Preventative Measure

- Contractor to incorporate into regular safety meetings, a discussion of spill prevention and appropriate disposal procedures.
- Contractor's superintendent or representative overseer shall enforce proper spill prevention and control measures.
- Hazardous materials and wastes shall be stored in covered containers and protected from vandalism.
- A stockpile of spill cleanup materials shall be stored on site where it will be readily accessible.
- Potential Source •
- Miscellaneous trash and litter from construction workers and material wrappings.

Preventive Measure

Trash containers will be placed throughout the site to encourage proper trash disposal.

Potential Source • Preventive Measure

- Construction debris.
 - Construction debris will be monitored daily by contractor. Debris will be collected weekly and placed in disposal bins. Situations requiring immediate attention will be addressed on a case by case basis.



Potential Source • Preventative Measure

Spills/Overflow of waste from portable toilets

- Portable toilets will be placed away from high traffic vehicular areas and storm drain inlets.
- Portable toilets will be placed on a level ground surface.
- Portable toilets will be inspected regularly for leaks and will be serviced and sanitized at time intervals that will maintain sanitary conditions.



ATTACHMENT C

<u>Attachment C – Sequence of Major Activities</u>

The sequence of major activities which disturb soil during construction on this site will be divided into two stages. The first is site preparation that will include installation of TBMPs, clearing and grubbing of vegetation where applicable. This will disturb approximately 207.42 acres. The second is construction that will include construction of homes, streets, amenity center, elevated storage tanks, water treatment plant, and the batch detention basin, landscaping and site cleanup. This will disturb approximately 207.42 acres.



ATTACHMENT D

<u>Attachment D – Temporary Best Management Practices and Measures</u>

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

No upgradient water will cross the site. All TBMPs are adequate for the drainage areas they serve.

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

Site preparation, which is the initiation of all activity on the project, will disturb the largest amount of soil. Therefore, before any of this work can begin, the clearing and grading contractor will be responsible for the installation of all on-site control measures. The methodology for pollution prevention of on-site stormwater will include: (1) erection of silt fences along the downgradient boundary of construction activities for temporary erosion and sedimentation controls, (2) installation of rock berms with silt fencing downgradient from areas of concentrated stormwater flow for temporary erosion control, (3) Installation of gravel bags and drain inlet protection at inlets and downgradient areas of construction activities for sediment control (4) installation of stabilized construction entrance/exit(s) to reduce the dispersion of sediment from the site, and (5) installation of construction staging area(s).

Prior to the initiation of construction, all previously installed control measures will be repaired or reestablished for their designed or intended purpose. This work, which is the remainder of all activity on the project, may also disturb additional soil. The construction contractor will be responsible for the installation of all remaining on-site control measures that includes installation of the concrete truck washout pit(s), as construction phasing warrants.

Temporary measures are intended to provide a method of slowing the flow of runoff from the construction site in order to allow sediment and suspended solids to settle out of the runoff. By containing the sediment and solids within the site, they will not enter surface streams and/or sensitive features.

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

As this site is entirely over the Edwards Aquifer Contributing Zone, a Geologic Assessment was not conducted and is not required; therefore, no sensitive features were identified. Cypress Creek crosses the project limits.

Temporary measures are intended to provide a method of slowing the flow of runoff from the construction site in order to allow sediment and suspended solids to settle out of the runoff. By containing the sediment and solids within the site, they will not enter surface streams and/or sensitive features.



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

Since the project is located entirely over the Edwards Contributing Zone, a Geologic Assessment was not conducted and is not required by 30 TAC 213 regulations. Therefore, no naturally-occurring sensitive features are known to exist on the site. 30 TAC 213(f)(2) only applies to projects over the Edwards Recharge Zone.

ATTACHMENT F

<u>Attachment F – Structural Practices</u>

The following structural measures will be installed prior to the initiation of site preparation activities:

- Erection of silt fences along the downgradient boundary of construction activities and rock berms with silt fence for secondary protection, as located on Exhibit 1 and illustrated in Exhibit 2.
- Installation of gravel bags and drain inlet protection at inlets and downgradient areas of construction activities, as located on Exhibit 1 and illustrated in Exhibit 2.
- Installation of stabilized construction entrance/exit(s) and construction staging area(s), as located on Exhibit 1, and illustrated on Exhibit 2.

The following structural measures will be installed at the initiation of construction activities or as appropriate based on the construction sequencing:

• Installation of concrete truck washout pit(s), as required and located on Exhibit 1 and illustrated on Exhibit 2.



ATTACHMENT G

Attachment G - Drainage Area Map

For areas that will have more than ten (10) acres within a common drainage area disturbed at one time, smaller temporary sediment basins will be used. Refer to included exhibits for additional details. All TBMPs utilized are adequate for the drainage areas served.



ATTACHMENT H

<u>Attachment H – Temporary Sedimentation Pond(s) Plans and Calculations</u>

One (1) temporary sediment basin will be proposed for this site with a required volume of 366,226 cf as calculated from the maximum contributing basin watershed acreage (27.3 acres) multiplied by 3.7 inches of rainfall of required storage per one (1) acre disturbed for Comal County. A combination of upstream TBMP measures is being utilized for this site to reduce disturbed area sediment, and all are adequate for the drainage areas served.



ATTACHMENT I

SIMMONS VALLEY PHASE 1

Contributing Zone Plan

INSPECTIONS

Designated and qualified person(s) shall inspect Pollution Control Measures weekly and within 24 hours after a storm event. An inspection report that summarizes the scope of the inspection, names and qualifications of personnel conducting the inspection, date of the inspection, major observations, and actions taken as a result of the inspection shall be recorded and maintained as part of Storm Water TPDES data for a period of three years after the Notice of Termination (NOT) has been filed. A copy of the Inspection Report Form is provided in this Storm Water Pollution Prevention Plan.

As a minimum, the inspector shall observe: (1) significant disturbed areas for evidence of erosion, (2) storage areas for evidence of leakage from the exposed stored materials, (3) structural controls (rock berm outlets, silt fences, drainage swales, etc.) for evidence of failure or excess siltation (over 6 inches deep), (4) vehicle exit point for evidence of off-site sediment tracking, (5) vehicle storage areas for signs of leaking equipment or spills, (6) concrete truck rinse-out pit for signs of potential failure, (7) embankment, spillways, and outlet of sediment basin (where applicable) for erosion damage, and (8) sediment basins (where applicable) for evidence that basin has accumulated 50% of its volume in silt. Deficiencies noted during the inspection will be corrected and documented within seven calendar days following the inspection or before the next anticipated storm event if practicable.

Contractor shall review Sections 1.3 and 1.4 of TCEQ's Technical Guidance Manual for additional BMP inspection and maintenance requirements.



SIMMONS VALLEY PHASE 1 Contributing Zone Plan

Pollution		Corrective Action Required		
Prevention		Description	Data	
Measure	nspected Compliance	Description	Date Completed	
	<u>≅</u> 8	(use additional sheet if necessary)	Completed	
Best Management Practices				
Natural vegetation buffer strips				
Temporary vegetation				
Permanent vegetation				
Sediment control basin				
Silt fences				
Rock berms				
Gravel filter bags				
Drain inlet protection				
Other structural controls				
Vehicle exits (off-site tracking)				
Material storage areas (leakage)				
Equipment areas (leaks, spills)				
Concrete washout pit (leaks, failure)				
General site cleanliness				
Trash receptacles				
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				
A brief statement describing the qualified under penalty of law that this document a system designed to assure that qualified personnel p	nd all attach		vision in accordance with a	
or persons who manage the system, or those persons of my knowledge and belief, true, accurate, and com the possibility of fine and imprisonment for knowing	plete. I am a violations."	aware there are significant penalties for submitting f		
"I further certify I am an authorized signatory in acco				
Inspector's Name	Inspector	's Signature Date		

SIMMONS VALLEY PHASE 1 Contributing Zone Plan

PROJECT MILESTONE DATES

Date when major site grading activities begin: **Construction Activity** Date Installation of BMPs Dates when construction activities temporarily or permanently cease on all or a portion of the project: **Construction Activity** <u>Date</u> Dates when stabilization measures are initiated: **Stabilization Activity** Date

Removal of BMPs

ATTACHMENT J

SIMMONS VALLEY PHASE 1 Contributing Zone Plan

Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices

Interim on-site stabilization measures, which are continuous, will include minimizing soil disturbances by exposing the smallest practical area of land required for the shortest period of time and maximizing use of natural vegetation. As soon as practical, all disturbed soil will be stabilized as per project specifications in accordance with pages 1-35 to 1-60 of TCEQ's Technical Guidance Manual (TGM) RG-348 (2005). Mulching, netting, erosion blankets and seeding are acceptable.

Stabilization measures will be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and except as provided below, will be initiated no more than fourteen (14) days after the construction activity in that portion of the site has temporarily or permanently ceased. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within twenty-one (21) days, temporary stabilization measures do not have to be initiated on that portion of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonably arid conditions, stabilization measures must be initiated as soon as practicable.



NOTICE OF INTENT (TCEQ-20022)



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

IMPORTANT INFORMATION

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

Use the NOI Checklist to ensure all required information is completed correctly. **Incomplete applications delay approval or result in automatic denial.**

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

ePERMITS

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

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

APPLICATION FEE AND PAYMENT

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

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

Provide your payment information for verification of payment:

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

RE	NEWAL (This portion of the NOI is not applic	cable after June 3, 2018)			
Is t	his NOI for a renewal of an existing authoriz	ation? □ Yes □ No			
If Y	es, provide the authorization number here:	ΓXR15			
NC	TE: If an authorization number is not provid	ed, a new number will be assigned.			
SE	CTION 1. OPERATOR (APPLICANT)				
a)) If the applicant is currently a customer with TCEQ, what is the Customer Number (CN) issued to this entity? CN $\underline{602412207}$				
	(Refer to Section 1.a) of the Instructions)				
b) What is the Legal Name of the entity (applicant) applying for this permit? (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)					
	Click here to enter text.				
c)	What is the contact information for the Ope	erator (Responsible Authority)?			
	Prefix (Mr. Ms. Miss):				
	First and Last Name:	Suffix:			
	Title: Credentials: Credentials:				
		Number:			
	E-mail: Click here to enter text.				
	Mailing Address:				
	City, State, and Zip Code:				
	Mailing Information if outside USA:				
	Territory:				
•	,	al Code:			
d)	Indicate the type of customer:	_			
	□ Individual	☐ Federal Government			
	☐ Limited Partnership	□ County Government			
	☐ General Partnership	□ State Government			
	□ Trust	□ City Government			
	☐ Sole Proprietorship (D.B.A.)	□ Other Government			
	☐ Corporation	☐ Other: lick here to enter text.			
	□ Estate				
e)	Is the applicant an independent operator?	□ Yes □ No			

	(If a governmental entity, a subsidiary, or part of a larger corporation, check No.)		
f)	Number of Employees. Select the range applicable to your company.		
	□ 0-20	□ 251 - 500	
	□ 21-100	□ 501 or higher	
	□ 101-250		
g)		umbers: (Required for Corporations and Limited viduals, Government, or Sole Proprietors.)	
	State Franchise Tax ID Number:	k here to enter text.	
	Federal Tax ID:		
	Texas Secretary of State Charter (filin	ng) Number:	
	DUNS Number (if known):	to enter text.	
SEC	CTION 2. APPLICATION CONTACT		
Is t	the application contact the same as th	ne applicant identified above?	
10 (☐ Yes, go to Section 3	te applicant racinina above.	
	☐ No, complete this section		
Dno	efix (Mr. Ms. Miss):		
	est and Last Name:	Suffix: lick here to enter text	
r ii Tit			
	ganization Name:	toyt	
		Fax Number:	
	mail: Mak here to enter text	Tax Ivanisci.	
	uling Address:		
	ernal Routing (Mail Code, Etc.):	here to enter text.	
	ry, State, and Zip Code:	nter text	
	uiling information if outside USA:		
Te	rritory:		
Co	untry Code:	Postal Code: Mark Mark Mark Mark Mark Mark Mark Mark	
SF(CTION 3. REGULATED ENTITY (RE) IN	NEORMATION ON PROJECT OR SITE	
a)	a) If this is an existing permitted site, what is the Regulated Entity Number (RN) issued to this site? RN		
	(Refer to Section 3.a) of the Instructi	ons)	

- b) Name of project or site (the name known by the community where it's located): Simmons Valley Phase 1
- c) In your own words, briefly describe the type of construction occurring at the regulated site (residential, industrial, commercial, or other): single-family residential
- d) County or Counties (if located in more than one): Comal
- e) Latitude: 29.923362 N Longitude: -98.412168 W
- f) Site Address/Location

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

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

C		4 -
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\mathcal{L}	o_{i}	Z 1.

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

Section B:

Location Description: <u>Approximately 0.20 mi NW of Rebecca Creek Road and US HWY 281 intersection</u>

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

Zip Code where the site is located: 78070

SECTION 4. GENERAL CHARACTERISTICS

- a) Is the project or site located on Indian Country Lands?
 - □ Yes, do not submit this form. You must obtain authorization through EPA Region 6.

⊠ No

- b) Is your construction activity associated with a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources?
 - ☐ Yes. Note: The construction stormwater runoff may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization through EPA Region 6.

⊠ No

- c) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site? <u>1521</u>
- d) What is the Secondary SIC Code(s), if applicable? 1623
- e) What is the total number of acres to be disturbed? 207.42
- f) Is the project part of a larger common plan of development or sale?

	□ Yes
	No. The total number of acres disturbed, provided in e) above, must be 5 or more. If the total number of acres disturbed is less than 5, do not submit this form. See the requirements in the general permit for small construction sites.
g)	What is the estimated start date of the project? <u>12/01/2023</u>
h)	What is the estimated end date of the project? $12/01/2024$
i)	Will concrete truck washout be performed at the site? \square Yes \square No
j)	What is the name of the first water body(ies) to receive the stormwater runoff or potential runoff from the site? <u>Cypress Creek</u>
k)	What is the segment number(s) of the classified water body(ies) that the discharge will eventually reach? <u>1806_01</u>
l)	Is the discharge into a Municipal Separate Storm Sewer System (MS4)?
	□ Yes ⊠ No
	If Yes, provide the name of the MS4 operator:
	Note: The general permit requires you to send a copy of this NOI form to the MS4 operator.
m)	Is the discharge or potential discharge from the site within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, as defined in 30 TAC Chapter 213?
	⊠ Yes, complete the certification below.
	□ No, go to Section 5
	I certify that the copy of the TCEQ-approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) that is included or referenced in the Stormwater Pollution Prevention Plan will be implemented.
SE	CTION 5. NOI CERTIFICATION
a)	I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000). \Box Yes
b)	I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas. \Box Yes
c)	I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. \Box Yes
d)	I certify that a Stormwater Pollution Prevention Plan has been developed, will be implemented prior to construction and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the Construction General Permit (TXR150000). \Box Yes
	Note: For multiple operators who prepare a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3, provided all obligations are

confirmed by at least one operator.

Operator Signatory Name:
Operator 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: _____

SECTION 6. APPLICANT CERTIFICATION SIGNATURE

NOTICE OF INTENT CHECKLIST (TXR150000)

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

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

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

A DOMES A PROPERTY.
APPLICATION FEE
If paying by check:
☐ Check was mailed separately to the TCEQs Cashier's Office. (See Instructions for Cashier's address and Application address.)
☐ Check number and name on check is provided in this application.
If using ePay:
\square The voucher number is provided in this application and a copy of the voucher is attached.
RENEWAL
$\hfill\square$ If this application is for renewal of an existing authorization, the authorization number is provided.
OPERATOR INFORMATION
☐ Customer Number (CN) issued by TCEQ Central Registry
\square Legal name as filed to do business in Texas. (Call TX SOS 512–463–5555 to verify.)
\square Name and title of responsible authority signing the application.
□ Phone number and e-mail address
□ Mailing address is complete & verifiable with USPS. <u>www.usps.com</u>
☐ Type of operator (entity type). Is applicant an independent operator?
□ Number of employees.
\square For corporations or limited partnerships – Tax ID and SOS filing numbers.
☐ Application contact and address is complete & verifiable with USPS. http://www.usps.com
REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE
☐ Regulated Entity Number (RN) (if site is already regulated by TCEQ)
☐ Site/project name and construction activity description
□ County
☐ Latitude and longitude http://www.tceq.texas.gov/gis/sqmaview.html

□ Site Address/Location. Do not use a rural route or post office box.				
GENERAL CHARACTERISTICS				
□ Indian Country Lands –the facility is not on Indian Country Lands.				
Construction activity related to facility associated to oil, gas, or geothermal resources				
☐ Primary SIC Code that best describes the construction activity being conducted at the site. www.osha.gov/oshstats/sicser.html				
\square Estimated starting and ending dates of the project.				
□ Confirmation of concrete truck washout.				
\square Acres disturbed is provided and qualifies for coverage through a NOI.				
□ Common plan of development or sale.				
□ Receiving water body or water bodies.				
□ Segment number or numbers.				
□ MS4 operator.				
□ Edwards Aquifer rule.				
CERTIFICATION				
☐ Certification statements have been checked indicating Yes.				
☐ Signature meets 30 Texas Administrative Code (TAC) §305.44 and is original.				

Instructions for Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity under TPDES General Permit (TXR15000)

GENERAL INFORMATION

Where to Send the Notice of Intent (NOI):

By Regular Mail: By Overnight or Express Mail:

TCEQ

Stormwater Processing Center (MC228) Stormwater Processing Center (MC228)

P.O. Box 13087 12100 Park 35 Circle

Austin, Texas 78711–3087 Austin, TX

Application Fee:

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

Mailed Payments:

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

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

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

TCEQ Contact List:

Application – status and form questions: 512–239–3700,

swpermit@tceq.texas.gov 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 Intent Process:

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

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

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

or

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

General Permit (Your Permit)

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

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

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

Change in Operator

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

TCEQ Central Registry Core Data Form

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

For existing customers and sites, you can find the Customer Number and Regulated Entity Number by entering the following web address into your internet browser: http://www15.tceq.texas.gov/crpub/ or you can contact the TCEQ Stormwater Processing Center at 512–239–3700 for assistance. On the website, you can search by your permit number, the Regulated Entity (RN) number, or the Customer Number (CN). If you do not know these numbers, you can select "Advanced Search" to search by permittee name, site address, etc.

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

INSTRUCTIONS FOR FILLING OUT THE NOI FORM

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

Section 1. OPERATOR (APPLICANT)

a) Customer Number (CN)

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

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

b) Legal Name of Applicant

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

c) Contact Information for the Applicant (Responsible Authority)

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

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

The phone number should provide contact to the applicant.

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

d) Type of Customer (Entity Type)

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

Individual

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

Partnership

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

Trust or Estate

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

Sole Proprietorship (DBA)

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

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

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

Corporation

A customer that meets all of these conditions:

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

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

Government

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

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

Other

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

e) Independent Entity

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

f) Number of Employees

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

g) Customer Business Tax and Filing Numbers

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

State Franchise Tax ID Number

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

Federal Tax ID

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

TX SOS Charter (filing) Number

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

DUNS Number

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

Section 2. APPLICATION CONTACT

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

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

a) Regulated Entity Number (RN)

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

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

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

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

b) Name of the Project or Site

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

c) Description of Activity Regulated

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

d) County

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

e) Latitude and Longitude

Enter the latitude and longitude of the site in degrees, minutes, and seconds or decimal form. For help obtaining the latitude and longitude, go to: http://www.tceq.texas.gov/gis/sqmaview.html.

f) Site Address/Location

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

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

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

Section 4. GENERAL CHARACTERISTICS

a) Indian Country Lands

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

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

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

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

carbon dioxide geologic storage facility; and a gathering, transmission, or distribution pipeline that will transport crude oil or natural gas, including natural gas liquids, prior to refining of such oil or the use of the natural gas in any manufacturing process or as a residential or industrial fuel.

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

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

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

c) Primary Standard Industrial Classification (SIC) Code

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

Common SIC Codes related to construction activities include:

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

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

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

d) Secondary SIC Code

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

e) Total Number of Acres Disturbed

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

If you have any questions about this item, please contact the stormwater technical staff by phone at 512–239–4671 or by email at swgp@tceq.texas.gov.

f) Common Plan of Development

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

For more information on what a common plan of development is, refer to the definition of "Common Plan of Development" in the Definitions section of the general permit or enter the following link into your internet browser: www.tceq.texas.gov/permitting/stormwater/common_plan_of_development_steps.html

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

g) Estimated Start Date of the Project

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

h) Estimated End Date of the Project

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

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

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

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

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

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

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

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

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

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

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

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

1) Discharge into MS4 - Identify the MS4 Operator

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

that the Construction General Permit requires the Operator to supply the MS4 with a copy of the NOI submitted to TCEQ. For assistance, you may call the technical staff at 512–239–4671.

m) Discharges to the Edwards Aquifer Recharge Zone and Certification

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

See maps on the TCEQ website to determine if the site is located within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer by entering the following link into an internet browser: www.tceq.texas.gov/field/eapp/viewer.html or by contacting the TCEQ Water Quality Division at 512–239–4671 for assistance.

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

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

Section 5. NOI CERTIFICATION

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

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

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

b) Certification of Legal Name

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

c) Understanding of Notice of Termination

A permittee shall terminate coverage under the Construction General Permit through the submittal of a NOT when the operator of the facility changes, final stabilization has been reached, the discharge becomes authorized under an individual permit, or the construction activity never began at this site.

d) Certification of Stormwater Pollution Prevention Plan

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

Section 6. APPLICANT CERTIFICATION SIGNATURE

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

If you are a corporation:

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

If you are a municipality or other government entity:

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

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

30 Texas Administrative Code

§305.44. Signatories to Applications

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

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

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

Texas Commission on Environmental Q u a lity General Permit Payment Submittal F o r m

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

Instructions:

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

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

By Regular U.S. Mail
Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC–214
P.O. Box 13088
Austin, TX 78711–3088

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

Fee	Code:	GPA	General Permit:	TXR150000

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

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

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

Project/Site (RE) Name:	o enter text.	
Project/Site (RE) Physical Address:	Click here to enten	

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

AGENT AUTHORIZATION FORM (TCEQ-0599)

Owner Authorization Form

Texas Commission on Environmental Quality for Required Signature Edwards Aquifer Protection Program Relating to 30 TAC Chapter 213 Effective June 1, 1999

Land Owner Authorization

I, Mary Jane Cielencki
Land Owner Signatory Name
am the owner of the property located at

Mary Jane Cielencki et al, as Cielencki Family Living Revocable Trust; Deborah Ann Cielencki Neimitz, Janice Marie Cielencki and Stanley Edmund Cielencki Land Owner Name (Legal Entity or Individual)

A-558 SUR- 26 C STROUD, ACRES 58.477; A-558 SUR- 26 C STROUD, ACRES 56., A-558 SUR- 26 C STROUD, ACRES 40.; A-558 SUR- 26 C STROUD, ACRES 20.; A-558 SUR- 26

Legal description of the property referenced in the application

and am duly authorized in accordance with §213.4(c)(2) and §213.4(d)(1) or §213.23(c)(2) and §213.23(d) relating to the right to submit an application, signatory authority, and proof of authorized signatory.

I do hereby authorize Lennar Homes of Texas Land and Construction, Ltd.

Applicant Name (Legal Entity or Individual)

to conduct regulated activities for construction of a single family residential development in compliance with submitted CZP

Description of the proposed regulated activities

at approx. 0.2 mi northwest of US Hwy 281 N and Rebecca Creek Road (204.706 ac legal limit)

Precise location of the authorized regulated activities

Land Owner Acknowledgement

l understand that Cielencki Family Living Revocable Trust; Deborah Ann Cielencki Neimitz, Janice Marie Cielencki and Stanley Edmund Cielencki

Land Owner Name (Legal Entity or Individual)

Is ultimately responsible for compliance with the approved or conditionally approved Edwards Aquifer protection plan and any special conditions of the approved plan through all phases of plan implementation even if the responsibility for compliance and the right to possess and control the property referenced in the application has been contractually assumed by another legal entity. I further understand that any failure to comply with any condition of the executive director's approval is a violation is subject to administrative rule or orders and penalties as provided under §213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Land Owner Signature

not
Mary Jane Gelenchi 9/29/2023 Land Owner Signature Date
THE STATE OF § TX
County of § Guadalupe
BEFORE ME, the undersigned authority, on this day personally appeared <u>Mary Jane</u> <u>ieleuck</u> 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 <u>29 flay</u> of <u>September</u>
Zoranne Johnson
ROXANNE JOHNSON My Notary ID # 125011217 Expires August 5, 2024 MY COMMISSION EXPIRES: 08/05/2024
Attached: (Mark all that apply)
Lease Agreement
Signed Contract
Deed Recorded Easement
🔀 Other legally binding document
termed U / U

Applicant Acknowledgement

I, Richard Mott	of	Lennar Homes of Texas Land and Construction, Ltd.	
Applicant Signatory Name		Applicant Name (Legal Entity or Individual)	
acknowledge that Cielencki Family Living	Revocable Trust; Deborah Ann Ci	ielencki Neimitz, Janice Marie Cielencki and Stanley Edmund Cielencki	
Lai	nd Owner Name (Le	gal Entity or Individual)	
has provided Lennar Homes of Texas Land and Construction, Ltd.			
А	pplicant Name (Lega	al Entity or Individual)	
with the right to possess and co	ntrol the property re	eferenced in the Edwards Aquifer protection plan.	
I understand that Lennar Home	es of Texas Land a	nd Construction, Ltd.	
	Applicant Name (Le	egal Entity or Individual)	
Aquifer protection plan and any implementation. I further unde director's approval is a violation	special conditions or rstand that failure to is subject to admini	approved or conditionally approved Edwards of the approved plan through all phases of plan o comply with any condition of the executive istrative rule or orders and penalties as provided ation may also be subject to civil penalties and	
Applicant Signature			
		10/3/2013	
Applicant Signature		Date	
THE STATE OF § Texas			
County of § Beeco			
BEFORE ME, the undersigned au known to me to be the person w	vhose name is subsc	personally appeared <u>Richard Moth</u> ribed to the foregoing instrument, and he purpose and consideration therein expressed.	
GIVEN under my hand and seal of	of office on this $\underline{3}$	_ day of OCtobe	
		NOTARY PUBLIC	
		Josha C. Scates	
Notary ID	C SCATES #129847013	Typed or Printed Name of Notary	
My Commis	ssion Expires	MY COMMISSION EXPIRES: 1-29-24	

Agent Authorization Form

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

l	Richard Mott	
	Print Name	
	VP of Land Development	
	Title - Owner/President/Other	
of	Lennar Homes of Texas Land and Construction, Ltd	
	Corporation/Partnership/Entity Name	
have authorized _	Pape-Dawson Consulting Engineers, LLC	
	Print Name of Agent/Engineer	
of	Pape-Dawson Consulting Engineers, LLC	
	Print Name of Firm	

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

I also understand that:

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

SIGNATURE PAGE:

THE STATE OF 1

County of \checkmark

GIVEN under my hand and seal of office on this 💋

Typed or Printed Name of Notary

MY COMMISSION EXPIRES:

MEGHAN JANE GRACE Notary Public, State of Texas Comm. Expires 01-07-2025 Notary ID 12081891

APPLICATION FEE FORM (TCEQ-0574)

Application Fee Form

lexas Commission on Environme	ntal Quality	
Name of Proposed Regulated Ent	ity: <u>Simmons Valley Pha</u> s	<u>se 1</u>
Regulated Entity Location: 0.20 m	ii NW of Rebecca Creek I	Rd & US HWY 281 intersection
Name of Customer: Lennar Home	s of Texas land and Cons	struction, Ltd.
Contact Person: Richard Mott	Phone	e: <u>(210) 889-5516</u>
Customer Reference Number (if is	ssued):CN <u>602412207</u>	
Regulated Entity Reference Numb	per (if issued):RN	
Austin Regional Office (3373)		
☐ Hays	Travis	Williamson
San Antonio Regional Office (336	52)	
☐ Bexar	Medina	Uvalde
	Kinney	
Application fees must be paid by	check, certified check, o	r money order, payable to the Texas
Commission on Environmental Q	uality . Your canceled ch	neck will serve as your receipt. This
form must be submitted with yo	ur fee payment . This pa	yment is being submitted to:
Austin Regional Office	☐ Sa	n Antonio Regional Office
Mailed to: TCEQ - Cashier	⊠ 0₁	vernight Delivery to: TCEQ - Cashier
Revenues Section	12	2100 Park 35 Circle
Mail Code 214	Вι	uilding A, 3rd Floor
P.O. Box 13088	Αι	ustin, TX 78753
Austin, TX 78711-3088	(5	12)239-0357
Site Location (Check All That App	oly):	
Recharge Zone	Contributing Zone	Transition Zone

Type of Plan	Size	Fee Due
Water Pollution Abatement Plan, Contributing Zone		
Plan: One Single Family Residential Dwelling	Acres	\$
Water Pollution Abatement Plan, Contributing Zone		
Plan: Multiple Single Family Residential and Parks	207.42 Acres	\$ 8,000
Water Pollution Abatement Plan, Contributing Zone		
Plan: Non-residential	Acres	\$
Sewage Collection System	L.F.	\$
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	Each	\$
Extension of Time	Each	\$

1 of 2

Date:	

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

	Project Area in	
Project	Acres	Fee
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,	< 1	\$3,000
institutional, multi-family residential, schools, and	1 < 5	\$4,000
other sites where regulated activities will occur)	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	Fee
Exception Request	\$500

Extension of Time Requests

Project	Fee
Extension of Time Request	\$150

CORE DATA FORM (TCEQ-10400)



TCEQ Core Data Form

TCEQ Use Only

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

SECTION I: General Information

1. Reason for Submission (If other is a	checked please describ	oe in space pr	rovided.)						
⊠ New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)									
☐ Renewal (Core Data Form should be submitted with the renewal form) ☐ Other									
2. Customer Reference Number (if iss	1 Ollow	this link to sear	OII	Regulated	l Entity Reference	Number (if issued)		
CN 602412207		or RN numbers tral Registry**	s in F	RN					
SECTION II: Customer Information									
4. General Customer Information	5. Effective Date fo	r Customer I	Informati	ion Updat	es (mm/dd/yyyy)				
 □ New Customer □ Update to Customer Information □ Change in Regulated Entity Ownership □ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts) 									
The Customer Name submitted	here may be upda	ated auton	naticall	y based	on what is cur	rent and	active with the		
Texas Secretary of State (SOS)	or Texas Comptro	oller of Pul	blic Ac	counts (CPA).				
6. Customer Legal Name (If an individua	l, print last name first: eg	: Doe, John)		If new Cu	ıstomer, enter previo	ous Custom	er below:		
Lennar Homes of Texas land a	and Construction	Ltd							
7. TX SOS/CPA Filing Number	8. TX State Tax ID (9. Feder	al Tax ID (9 digits)	10. DUN	S Number (if applicable)		
11. Type of Customer: Corporat	ion	☐ Individu	al	Pa	ırtnership: 🗌 Genera	l Limited			
Government: ☐ City ☐ County ☐ Federal [☐ State ☐ Other	☐ Sole Pro	oprietorsl	hip 🗆	Other:				
12. Number of Employees					pendently Owned	and Opera	ited?		
0-20 21-100 101-250		01 and highe		☐ Yes	No	. ,,			
14. Customer Role (Proposed or Actual)		<u> </u>		з тогт. Ріеа	se cneck one of the f	ollowing			
Owner Opera	tor	☐ Owner & 0 ☐ Voluntary	•	Applicant	☐Other:				
15. Mailing									
Address: City	Sta	ate	ZII	D		ZIP + 4			
16. Country Mailing Information (if outs					S (if applicable)	211 1 4			
10. Country Maining Information (Frouts	ide USA)		17. E-IVIG	an Addres	ъ (іт арріісаріе)				
18. Telephone Number	19. Ext	tension or Co	ode		20. Fax Number	· (if applical	ble)		
() -		100 20000000000000000000000000000000000			() -				
					,				
	SECTION III: Regulated Entity Information								
21. General Regulated Entity Information (<i>If 'New Regulated Entity" is selected below this form should be accompanied by a permit application</i>) ☑ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information									
	The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal								
of organizational endings such	•				. 0, .		,		
22. Regulated Entity Name (Enter name	of the site where the reg	ulated action is	taking pla	ace.)					
Simmons Valley Phase 1									

TCEQ-10400 (02/21) Page 1 of 2

23. Street Address of											
the Regulated Entity: (No PO Boxes)					<u> </u>	1					
	City			State		ZIP			ZIP +	4	
24. County	Coma	.1									
		Enter Ph	nysical Lo	cation Descripti	on if no str	eet address	s is provi	ded.			
25. Description to Physical Location:	Appro	oximatel	ly 0.20 i	mi NW of Re	ebecca Cı	reek Road	d and U	S HW	Y 281 i	nter	esection
26. Nearest City							State			Near	est ZIP Code
Spring Branch							TX			780	70
27. Latitude (N) In Decin	nal:	29.9	23362 1	N	28. L	ongitude (\	V) In Dec	imal:	-98.41	216	8 W
Degrees	Minutes		S	econds	Degre	es	M	inutes	I.		Seconds
29		55		24.1		-98			24		43.8
29. Primary SIC Code (4	(4 digits) 30. Secondary SIC Code (4 digits) 31. Primary NAICS Code (5 or 6 digits) 32. Secondary NAICS Code (5 or 6 digits)						CS Code				
1521	1623 1623 237110										
33. What is the Primary	Business	of this e	ntity? (Do not repeat the SIC	or NAICS des	cription.)		1			
Single-Family Resi	dential										
					100 NE Lo	op 410, Ste	1155				
34. Mailing											
Address:	City	Sar	n Antonio	State	ТХ	ZIP	78	3216	ZIP -	+ 4	
35. E-Mail Address:	 			5		I.mott@leni			1	-	
36. Telepho		ber		37. Extension				Fax Nu	mber (if a	oilaar	cable)
•	89-5516							() -		,
9. TCEQ Programs and ID	Number	rs Check al	l Programs	and write in the pe	rmits/registra	ition numbers	that will be	affected	by the upd	lates	submitted on this
☐ Dam Safety	☐ Dist	tricts			ifer	er			Hazardous Waste		
☐ Municipal Solid Waste	☐ Nev	v Source Re	eview Air	OSSF		☐ Petrole	um Storag	e Tank	☐ PWS	S	
Sludge	Sto	rm Water		☐ Title V Air		☐ Tires	☐ Tires ☐ Used Oil		d Oil		
☐ Voluntary Cleanup	☐ Was	ste Water		☐ Wastewater A	Agriculture	culture Water Rights		Other:			
SECTION IV. Dro	nanan	Inform	action								
SECTION IV: Pre	parer	11110111	<u> 1auon</u>								
40. Name: Jean Autrey, P.E., CESSWI			41. Title: Project Manager								
42. Telephone Number	43. Ext./C	Code	44. Fax	Number	45. E-N	lail Address	3				
(210) 375-9000			(210)	375-9010	jautre	y@pape-	dawson	.com			
SECTION V: Aut	horize	d Sign	ature								
6. By my signature below, ignature authority to submit	I certify,	to the bes	t of my kn								

identified in field 39.

Company:	Pape-Dawson Engineers Job Title:			e Vice Preside	nt
Name (In Print):	Matthew Geistweidt, P.E.			Phone:	(210) 375- 9000
Signature:	Mut Stat			Date:	10/20/2023

TCEQ-10400 (02/21) Page 2 of 2

POLLUTANT LOAD AND REMOVAL CALCULATIONS

SIMMONS VALLEY PHASE 1

Treatment Summary by Watershed

Watershed	Total Watershed Area (ac.)	*Grandfathered Impervious Cover (ac)	Proposed Impervious Cover (ac.)	Total Impervious Cover to Be Treated (ac.)	РВМР	Required TSS Removal Annually (lbs)	TSS Removed Annually (lbs)
Α	75.43	1.12	42.03	40.91	Water Quality Basin "A"	36,721	36,721
В	0.78		0.26	0.26	15' Engineered VFS	233	233
С	2.11		0.96	0.96	15' Engineered VFS	862	862
D	0.64		0.22	0.22	15' Engineered VFS	197	220
E	5.68		1.11	1.11	Interim VFS	996	996
Uncaptured Turn Lane	3.09	0.78	0.78	0.00	Overtreatment	0	-
EST	1.97		1.68	1.68	50' VFS	1,508	1,635
TOTAL	89.71	1.90	47.04	45.14		40,518	40,667

^{*1.90} ac of existing grandfathered impervious cover to be accounted in TSS loading Watershed E contains sub-watershed C which is treated by a 15' VFS

Water Quality Basin Summary

	•		
Basin	Designed Capture Volume (cf)	Required Volume (cf)	Excess Volume Capacity (cf)
Α	155,817	154,277	1,540

TSS Removal Calculations 04-20-2009

Date Prepared: 10/20/2023

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

Characters shown in red are data entry fields

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

1. The Required Load Reduction for the total project

Calculations from RG-348

ann 2 27 to 2 1

Project Name: Simmons Val

Page 3-29 Equation 3.3: L_M = 27.2(A_N x P)

where:

 $L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = E A_{N} = Net increase in impervious area for the project P = Average annual precipitation, inches

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

Predevelopment impervious area within the limits of the plar =

Total post-development impervious area within the limits of the plar =

Total post-development impervious area within the limits of the plar =

Total post-development impervious cover fraction* =

P = 33 inches

 $L_{M TOTAL PROJECT} =$ 40518 lbs.

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

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

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

Drainage Basin/Outfall Area No. =

Total drainage basin/outfall area Predevelopment impervious area within drainage basin/outfall are = Post-development impervious area within drainage basin/outfall are = 42.03 acres Post-development impervious fraction within drainage basin/outfall are = 0.56 0.56 light presents = 36721 libs.

3. Indicate the proposed BMP Code for this basin

Proposed BMP = Extended Detention
Removal efficiency = 91 percent

Aqualogic Cartrid Bioretention Contech StormFi Constructed Wet Extended Detent Grassy Swale Retention / Irrigal Sand Filter Stormceptor Vegetated Filter ! Vortechs Wet Basin Wet Vault

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A x 34.6 + A_P x 0.54)

where:

 A_{C} = Total On-Site drainage area in the BMP catchment area A_{I} = Impervious area proposed in the BMP catchment area A_{P} = Pervious area remaining in the BMP catchment area

L_R = TSS Load removed from this catchment area by the proposed BMP

 $\begin{array}{llll} A_{\text{C}} = & \textbf{75.43} & \text{acres} \\ A_{\text{I}} = & \textbf{42.03} & \text{acres} \\ A_{\text{P}} = & \textbf{33.40} & \text{acres} \\ L_{\text{R}} = & \textbf{44212} & \text{lbs} \end{array}$

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

Desired L_{M THIS BASIN} = 36721 lbs.

F = **0.83**

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

Calculations from RG-348

Rainfall Depth = 1.20 inches
Post Development Runoff Coefficient = 0.39
On-site Water Quality Volume = 128564 cubic feet

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

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

Storage for Sediment = 25713

Total Capture Volume (required water quality volume(s) x 1.20) = 154277 cubic feet



Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name:

Date Prepared: ########

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell. Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348. Characters shown in red are data entry fields.

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

Calculations from RG-348 1. The Required Load Reduction for the total project:

Page 3-29 Equation 3.3: L_M = 27.2(A_N x P)

L_{M TOTAL PROJECT} = Required TSS removal resulting from the proposed development = 80% of increased lo where:

A_N = Net increase in impervious area for the project P = Average annual precipitation, inches

Site Data: Determine Required Load Removal Based on the Entire Project County =
Total project area included in plan ' =
Predevelopment impervious area within the limits of the plan' =
Total post-development impervious area within the limits of the plan' =
Total post-development impervious cover fraction' =
Total post-development impervious cover fraction' =
P = 0.23

> 40518 L_{M TOTAL PROJECT} =

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

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

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

Drainage Basin/Outfall Area No. =

Total drainage basin/outfall area= Predevelopment impervious area within drainage basin/outfall are:= 0.000 0.260 acres acres Post-development impervious area within drainage basin/outfall are: = Post-development impervious fraction within drainage basin/outfall are = 0.33 L_{M THIS BASIN} = lbs

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 percent

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

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A x 34.6 + A₀ x 0.54)

 $\ensuremath{\text{A}_{\text{C}}}$ = Total On-Site drainage area in the BMP catchment area A_i = Impervious area proposed in the BMP catchment area A_p = Pervious area remaining in the BMP catchment area L_R = TSS Load removed from this catchment area by the proposed BMP

A_C = A_I = A_P = 0.781 0.26 0.52 acres acres 260 lbs

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

Desired Lature BASIN = 233

MATTHEW GEISTWEIDT

118861

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ONAL EN 0/20/2023

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name:

Date Prepared: 10/20/2023

Pages 3-27 to 3-30

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell. Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348. Characters shown in red are data entry fields.

1. The Required Load Reduction for the total project:

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

Page 3-29 Equation 3.3: L_M = 27.2(A_N x P)

 $L_{\text{M TOTAL PROJECT}}$ = Required TSS removal resulting from the proposed development = 80% of increased load and the proposed developm

A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

Calculations from RG-348

40518 lbs.

Site Data: Determine Required Load Removal Based on the Entire Project
County =
Total project area included in plan '=
Predevelopment impervious area within the limits of the plar '=
Total post-development impervious are acres acres

L_{M TOTAL PROJECT} = * The values entered in these fields should be for the total project area

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

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

Drainage Basin/Outfall Area No. = Total drainage basin/outfall area=
Predevelopment impervious area within drainage basin/outfall are =
Post-development impervious area within drainage basin/outfall are =
Post-development impervious fraction within drainage basin/outfall are = 0.00 0.96 0.45 acres acres L_{M THIS BASIN} = 862 lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter S
Removal efficiency = 85 per percent

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

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A x 34.6 + Ap x 0.54)

A_C = Total On-Site drainage area in the BMP catchment area A_I = Impervious area proposed in the BMP catchment area

 A_P = Pervious area remaining in the BMP catchment area L_R = TSS Load removed from this catchment area by the proposed BMP

2.113 acres A_i = 0.96 acres A_P = 1.15 acres

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

Desired L_{M THIS BASIN} = 862

0.91

MATTHEW GEISTWEID 118861 SONAL ENG 10/20/2023

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name:

Date Prepared: 10/20/2023

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell. Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348. Characters shown in red are data entry fields.

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

1. The Required Load Reduction for the total project:

Calculations from RG-348

Pages 3-27 to 3-30

Page 3-29 Equation 3.3: L_M = 27.2(A_N x P)

 $L_{\text{M TOTAL PROJECT}}$ = Required TSS removal resulting from the proposed development = 80% of increased load and the proposed developm A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

> 40518 lbs.

Site Data: Determine Required Load Removal Based on the Entire Project
County =
Total project area included in plan '=
Predevelopment impervious area within the limits of the plar '=
Total post-development impervious are acres acres

L_{M TOTAL PROJECT} = * The values entered in these fields should be for the total project area

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

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

Drainage Basin/Outfall Area No. = 0.644 0.00 0.22 0.34 Predevelopment impervious area within drainage basin/outfall are = Post-development impervious area within drainage basin/outfall are = Post-development impervious fraction within drainage basin/outfall are:= acres acres L_{M THIS BASIN} = lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter S
Removal efficiency = 85 per percent

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

Wet Vault

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A x 34.6 + Ap x 0.54)

A_C = Total On-Site drainage area in the BMP catchment area A_I = Impervious area proposed in the BMP catchment area

 A_P = Pervious area remaining in the BMP catchment area L_R = TSS Load removed from this catchment area by the proposed BMP

0.644 acres A_i = 0.22 acres A_P = 0.42 acres

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

Desired L_{M THIS BASIN} = 220

1.00

MATTHEW GEISTWEIDT 118861 SS/ONAL ENG

TSS Removal Calculations 04-20-2009

Project Name: Simmons Val Date Prepared: 10/20/2023

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the category that the technical Guidance Manual - RG-348.

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1. The Required Load Reduction for the total project:

Calculations from RG-348

Pages 3-27 to 3-3

Page 3-29 Equation 3.3: L_M = 27.2(A_N x P)

where:

 $L_{\text{M TOTAL PROJECT}}$ = Required TSS removal resulting from the proposed development = ϵ A_{N} = Net increase in impervious area for the project
P = Average annual precipitation, inches

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

County = Comal
Total project area included in plan = 207.42 acres
Predevelopment impervious area within the limits of the plan = 190 acres
Total post-development impervious area within the limits of the plan = 47.04 Total post-development impervious cover fraction = 0.23 per = 33 inches

L_{M TOTAL PROJECT} = 40518 lbs.

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

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

	Drainage Basin/Outfall Area No. =	EST	
	Total drainage basin/outfall area =	1.97	acres
Predevelopment impervious a	rea within drainage basin/outfall area=	0.00	acres
Post-development impervious a	rea within drainage basin/outfall area=	1.68	acres
Post-development impervious fract	tion within drainage basin/outfall area=	0.85	
	L _{M THIS BASIN} =	1508	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Vegetated Filter Strips
Removal efficiency = 85 percent

Aqualogic Cartrid Bioretention Contech StormFii Constructed Wetl Extended Detenti Grassy Swale Retention / Irrigat Sand Filter Stormceptor Vegetated Filter \$ Vortechs Wet Basin Wet Vault

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_I x 34.6 + A_P x 0.54)

where:

 A_C = Total On-Site drainage area in the BMP catchment area A_I = Impervious area proposed in the BMP catchment area

 A_P = Pervious area remaining in the BMP catchment area L_R = TSS Load removed from this catchment area by the proposed BMP

 $A_C = 1.97$ acres $A_I = 1.68$ acres $A_P = 0.29$ acres $L_R = 1635$ lbs

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

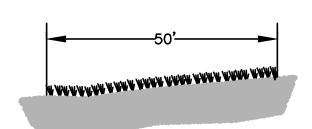
Desired $L_{M THIS BASIN} =$ 1635 lbs.

F = 1.00

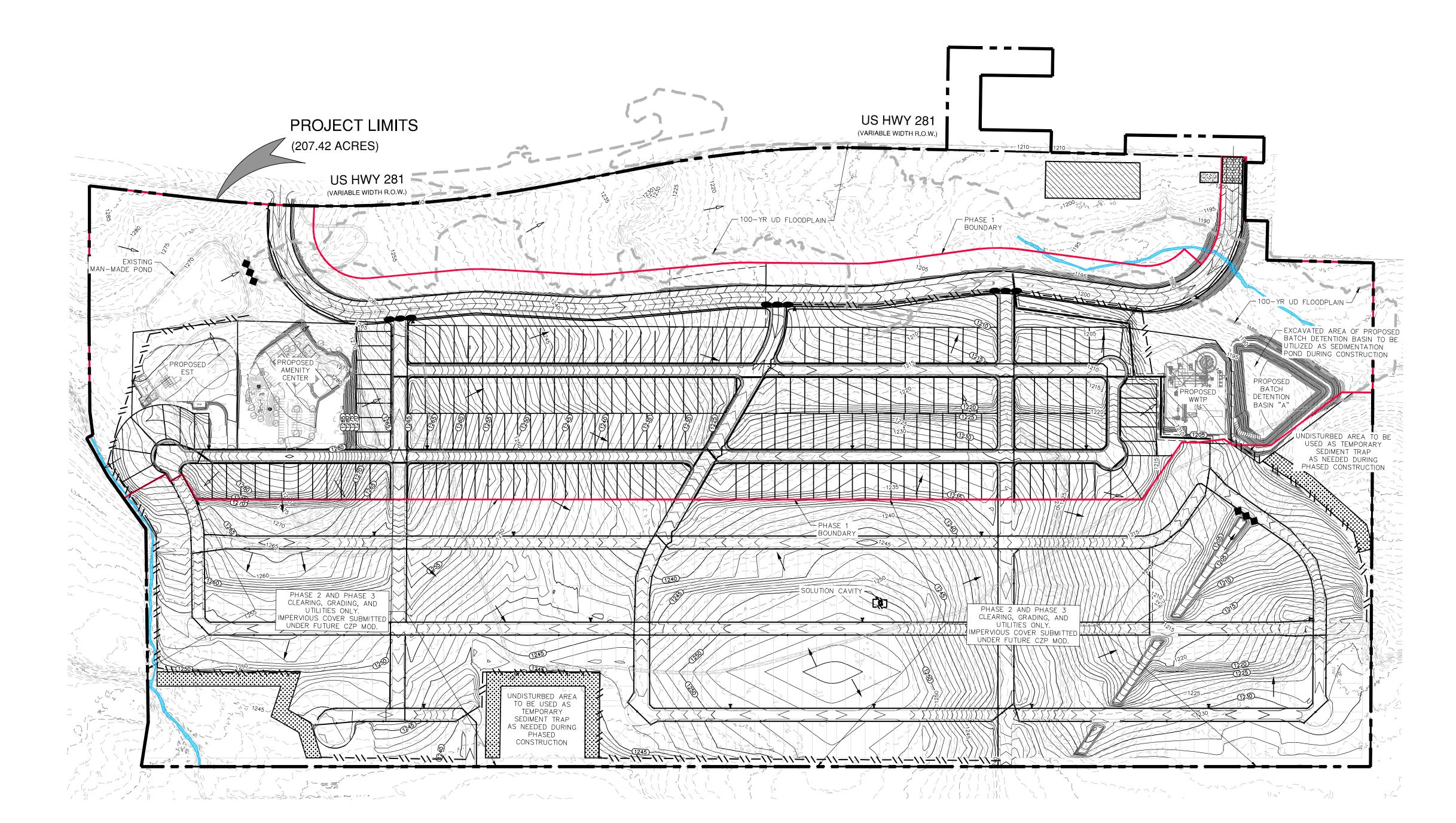


^{*} The values entered in these fields should be for the total project area.

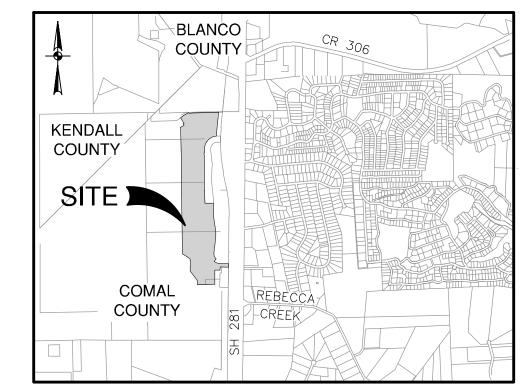
EXHIBITS

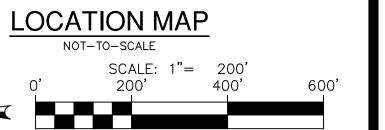


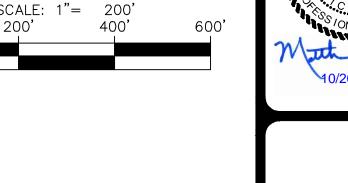
VEGETATIVE BUFFER STRIP DETAIL



i							
	SWP3 MODIFICATIONS						
DATE	SIGNATURE	DESCRIPTION					







MATTHEW GEISTWEID

LEGEND PROJECT LIMITS PROPERTY BOUNDARY EXISTING CONTOUR PROPOSED CONTOUR FLOW ARROW (EXISTING) FLOW ARROW (PROPOSED) PHASE 1 BOUNDARY 100-YR UD FLOODPLAIN POTENTIAL WATERS OF THE US

ROCK BERM GRAVEL FILTER BAGS STABILIZED CONSTRUCTION ENTRANCE/EXIT (FIELD LOCATE) CONSTRUCTION EQUIPMENT, VEHICLE & MATERIALS STORAGE AREA

(FIELD LOCATE) CONCRETE TRUCK WASH-OUT PIT (FIELD LOCATE)

50' VEGETATIVE BUFFER STRIP

GENERAL NOTES 1. DO NOT DISTURB VEGETATED AREAS (TREES, GRASS, WEEDS, BRUSH, ETC.) ANY MORE THAN NECESSARY FOR CONSTRUCTION.

AND CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD TO BE DETERMINED IN THE FIELD. 3. STORM WATER POLLUTION PREVENTION CONTROLS MAY NEED TO BE MODIFIED IN THE FIELD TO ACCOMPLISH THE DESIRED EFFECT. ALL MODIFICATIONS ARE TO BE NOTED ON THIS EXHIBIT AND SIGNED AND DATED

2. CONSTRUCTION ENTRANCE/EXIT LOCATION, CONCRETE WASH-OUT PI

BY THE RESPONSIBLE PARTY. 4. RESTRICT ENTRY/EXIT TO THE PROJECT SITE TO DESIGNATED LOCATIONS

BY USE OF ADEQUATE FENCING, IF NECESSARY. 5. ALL STORM WATER POLLUTION PREVENTION CONTROLS ARE TO BE

MAINTAINED AND IN WORKING CONDITIONS AT ALL TIMES. 6. FOR A COMPLETE LISTING OF TEMPORARY STORM WATER POLLUTION PREVENTION CONTROLS REFER TO THE TPDES STORM WATER POLLUTION

7. STORM WATER POLLUTION PREVENTION STRUCTURES SHOULD BE CONSTRUCTED WITHIN THE SITE BOUNDARIES. SOME OF THESE FEATURES MAY BE SHOWN OUTSIDE THE SITE BOUNDARIES ON THIS PLAN FOR VISUAL

8. AS SOON AS PRACTICAL, ALL DISTURBED SOIL THAT WILL NOT BE COVERED BY IMPERVIOUS COVER SUCH AS PARKWAY AREAS, EASEMENT AREAS, EMBANKMENT SLOPES, ETC. WILL BE STABILIZED PER APPLICABLE PROJECT SPECIFICATIONS.

9. BEST MANAGEMENT PRACTICES MAY BE INSTALLED IN STAGES TO COINCIDE WITH THE DISTURBANCE OF UPGRADIENT AREAS. 10. BEST MANAGEMENT PRACTICES MAY BE REMOVED IN STAGES ONCE THE

PRACTICES HAS BEEN STABILIZED IN ACCORDANCE WITH TPDES 11. UPON COMPLETION OF THE PROJECT, INCLUDING SITE STABILIZATION, AND BEFORE FINAL PAYMENT IS ISSUED, CONTRACTOR SHALL REMOVE ALL

WATERSHED FOR THAT PORTION CONTROLLED BY THE BEST MANAGEMENT

SEDIMENT AND EROSION CONTROL MEASURES, PAYING SPECIAL ATTENTION TO ROCK BERMS IN DRAINAGE FEATURES. 12. WHERE VEGETATED FILTER STRIPS ARE INDICATED, CONTRACTOR SHALL

VERIFY THAT SUFFICIENT VEGETATION EXISTS, OTHERWISE CONTRACTOR SHALL PLACE SILT FENCING IN LIEU OF VEGETATED FILTER STRIP.

13. OTHER AREAS WITHIN THE PROJECT LIMITS, WITH THE EXCEPTION OF A CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE YARD, ARE NOT A PART OF THIS TPDES STORM WATER POLLUTION PREVENTION PLAN (SWP3) AND WILL NOT BE DISTURBED BY CIVIL CONSTRUCTION ACTIVITIES. HOUSÉ CONSTRUCTION ACTIVITIES WILL REQUIRE A SEPARATE STORM WATER POLLUTION PREVENTION PLAN.

14. PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL COORDINATE PLACEMENT OF TEMPORARY BEST MANAGEMENT PRACTICES WITHIN TXDOT RIGHT-OF-WAY WITH TXDOT.

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE POLLUTION ABATEMENT SIZING AND TREATMENT REQUIREMENTS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S EDWARDS AQUIFER TECHNICAL GUIDANCE MANUA

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF POLLUTION ABATEMENT ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

JOB NO. 12492-03 ATE OCTOBER 2023 DESIGNER DB/MGG CHECKED EDK DRAWN SR

IS DOCUMENT HAS BEEN PRODUCED FROM MATERIAL THAT WAS STORED AND/OR TRANSMITTED ELECTRONICALLY AND MAY HAVE BEEN INADVERTENTLY ALTERED. RELY ONLY ON FINAL HARDCOPY MATERIALS BEARING THE CONSULTANT'S ORIGINAL SIGNATURE AND SEAL. AERIAL IMAGERY PROVIDED BY GOOGLE® UNILESS OTHERWISE NOTED. Imagery © 2016,CAPCOG,Digital Globe,Texas Orthoimagery Program, USDA Farm Service Agency.

SCHEMATIC OF TEMPORARY CONSTRUCTION ENTRANCE/EXIT

MATERIALS . THE AGGREGATE SHOULD CONSIST OF 4-INCH TO 8-INCH WASHED STONE OVER A STABLE FOUNDATION AS SPECIFIED IN THE PLAN. 2. THE AGGREGATE SHOULD BE PLACED WITH A MINIMUM THICKNESS OF

3. THE GEOTEXTILE FABRIC SHOULD BE DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA WITH AN APPROXIMATE WEIGHT OF 6 OZ/YD2, A MULLEN BURST RATING OF 140 LB/IN2, AND AN EQUIVALENT OPENING SIZE GREATER THAN A NUMBER 50 SIEVE.

4. IF A WASHING FACILITY IS REQUIRED, A LEVEL AREA WITH A MINIMUM OF 4-INCH DIAMETER WASHED STONE OR COMMERCIAL ROCK SHOULD BE INCLUDED IN THE PLANS. DIVERT WASTEWATER TO A SEDIMENT TRAP OF

INSTALLATION

8-INCHES.

1. AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE. 2. THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12 FEET OR THE

FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER. 3. THE CONSTRUCTION ENTRANCE SHOULD BE AT LEAST 50 FEET LONG.

4. IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE 6-INCHES TO 8-INCHES HIGH WITH 3:1 (H:V) SIDE SLOPES. ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE PUBLIC ROAD.

5. PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITIONS ARE ANTICIPATED.

SURFACE SMOOTH AND SLOPE FOR DRAINAGE. 7. DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE STONE PAD TO A SEDIMENT TRAP OR BASIN.

8. INSTALL PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD

6. PLACE STONE TO DIMENSIONS AND GRADE SHOWN ON PLANS. LEAVE

STABILIZE FOUNDATION SECTION "A-A" OF A

CONSTRUCTION ENTRANCE/EXIT

GEOTEXTILE FABRIC TO

COMMON TROUBLE POINTS 1. INADEQUATE RUNOFF CONTROL-SEDIMENT WASHES ONTO PUBLIC ROAD.

. STONE TOO SMALL OR GEOTEXTILE FABRIC ABSENT, RESULTS IN MUDDY CONDITION AS STONE IS PRESSED INTO SOIL.

. PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC—EXTEND PAD BEYOND THE MINIMUM 50-FOOT LENGTH AS NECESSARY. 4. PAD NOT FLARED SUFFICIENTLY AT ROAD SURFACE, RESULTS IN MUD BEING

TRACKED ON TO ROAD AND POSSIBLE DAMAGE TO ROAD. 5. UNSTABLE FOUNDATION - USE GEOTEXTILE FABRIC UNDER PAD AND/OR IMPROVE FOUNDATION DRAINAGE.

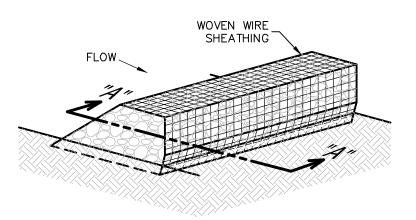
INSPECTION AND MAINTENANCE GUIDELINES THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION. WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES

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

5. ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.



ISOMETRIC PLAN VIEW

ROCK BERMS

THE PURPOSE OF A ROCK BERM IS TO SERVE AS A CHECK DAM IN AREAS OF CONCENTRATED FLOW, TO INTERCEPT SEDIMENT-LADEN RUNOFF, DETAIN THE SEDIMENT AND RELEASE THE WATER IN SHEET FLOW. THE ROCK BERM SHOULD BE USED WHEN THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 5 ACRES. ROCK BERMS ARE USED IN AREAS WHERE THE VOLUME OF RUNOFF IS TOO GREAT FOR A SILT FENCE TO CONTAIN. THEY ARE LESS EFFECTIVE FOR SEDIMENT REMOVAL THAN SILT FENCES, PARTICULARLY FOR FINE PARTICLES, BUT ARE ABLE TO WITHSTAND HIGHER FLOWS THAN A SILT FENCE. AS SUCH, ROCK BERMS ARE OFTEN USED IN AREAS OF CHANNEL FLOWS (DITCHES, GULLIES, ETC.). ROCK BERMS ARE MOST EFFECTIVE AT REDUCING BED LOAD IN CHANNELS AND SHOULD NOT BE SUBSTITUTED FOR OTHER EROSION AND SEDIMENT CONTROL MEASURES FARTHER UP THE WATERSHED.

INSPECTION AND MAINTENANCE GUIDELINES . 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.

A SILT FENCE IS A BARRIER CONSISTING OF GEOTEXTILE FABRIC SUPPORTED

BY METAL POSTS TO PREVENT SOIL AND SEDIMENT LOSS FROM A SITE.

WHEN PROPERLY USED, SILT FENCES CAN BE HIGHLY EFFECTIVE AT

CONTROLLING SEDIMENT FROM DISTURBED AREAS. THEY CAUSE RUNOFF TO

POND, ALLOWING HEAVIER SOLIDS TO SETTLE OUT. IF NOT PROPERLY

THE PURPOSE OF A SILT FENCE IS TO INTERCEPT AND DETAIN WATER-BORN

SEDIMENT FROM UNPROTECTED AREAS OF A LIMITED EXTENT. SILT FENCE IS

USED DURING THE PERIOD OF CONSTRUCTION NEAR THE PERIMETER OF A

DISTURBED AREA TO INTERCEPT SEDIMENT WHILE ALLOWING WATER TO

PERCOLATE THROUGH. THIS FENCE SHOULD REMAIN IN PLACE UNTIL THE

DISTURBED AREA IS PERMANENTLY STABILIZED. SILT FENCE SHOULD NOT BE

USED WHERE THERE IS A CONCENTRATION OF WATER IN A CHANNEL OR

DRAINAGE WAY. IF CONCENTRATED FLOW OCCURS AFTER INSTALLATION,

CORRECTIVE ACTION MUST BE TAKEN SUCH AS PLACING A ROCK BERM IN THE

SILT FENCING WITHIN THE SITE MAY BE TEMPORARILY MOVED DURING THE DAY

TO ALLOW CONSTRUCTION ACTIVITY PROVIDED IT IS REPLACED AND PROPERLY

ANCHORED TO THE GROUND AT THE END OF THE DAY. SILT FENCES ON THE

PERIMETER OF THE SITE OR AROUND DRAINAGE WAYS SHOULD NOT BE MOVED

I. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE, OR

POLYAMIDE WOVEN OR NONWOVEN FABRIC. THE FABRIC SHOULD BE 36

INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST

STRENGTH EXCEEDING 190 LB/IN2, ULTRAVIOLET STABILITY EXCEEDING 70%,

. FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET

LONG WITH TEE OR Y-BAR CROSS SECTION, SURFACE PAINTED OR

GALVANIZED, MINIMUM WEIGHT 1.25 LB/FT, AND BRINDELL HARDNESS

3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED

1. STEEL POSTS, WHICH SUPPORT THE SILT FENCE, SHOULD BE INSTALLED ON

A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST

BE EMBEDDED A MINIMUM OF 1-FOOT DEEP AND SPACED NOT MORE THAN 8

FEET ON CENTER. WHERE WATER CONCENTRATES, THE MAXIMUM SPACING

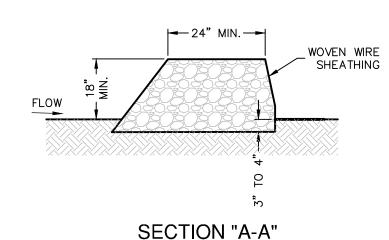
2. LAY OUT FENCING DOWN-SLOPE OF DISTURBED AREA, FOLLOWING THE

CONTOUR AS CLOSELY AS POSSIBLE. THE FENCE SHOULD BE SITED SO THAT

THE MAXIMUM DRAINAGE AREA IS 1/4 ACRE/100 FEET OF FENCE.

AND MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NUMBER 30.

INSTALLED, SILT FENCES ARE NOT LIKELY TO BE EFFECTIVE.



MATERIALS

SHEATHING HAVING MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE DIAMETER OF 20 GAUGE GALVANIZED AND SHOULD BE SECURED WITH SHOAT 2. CLEAN, OPEN GRADED 3-INCH TO 5-INCH DIAMETER ROCK SHOULD BE USED, EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF

FLOW ARE EXPECTED, WHERE 5-INCH TO 8-INCH DIAMETER ROCKS MAY BE

THE BERM STRUCTURE SHOULD BE SECURED WITH A WOVEN WIRE

INSTALLATION

1. LAY OUT THE WOVEN WIRE SHEATHING PERPENDICULAR TO THE FLOW LINE THE SHEATHING SHOULD BE 20 GAUGE WOVEN WIRE MESH WITH 1 INCH

2. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H:V) OR FLATTER. 3. PLACE THE ROCK ALONG THE SHEATHING AS SHOWN IN THE DIAGRAM TO A HEIGHT NOT LESS THAN 18".

4. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH TIE WIRE SO THAT THE ENDS OF THE SHEATHING OVERLAP AT LEAST 2 INCHES, AND THE BERM RETAINS ITS SHAPE WHEN WALKED UPON. 5. BERM SHOULD BE BUILT ALONG THE CONTOUR AT ZERO PERCENT GRADE

OR AS NEAR AS POSSIBLE 6. THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP TO PREVENT FAILURE OF THE CONTROL.

COMMON TROUBLE POINTS

. INSUFFICIENT BERM HEIGHT OR LENGTH (RUNOFF QUICKLY ESCAPES OVER THE TOP OR AROUND THE SIDES OF BERM).

2. BERM NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING AROUND ONE SIDE).

3. THE TOE OF THE SILT FENCE SHOULD BE TRENCHED IN WITH A SPADE OR

MECHANICAL TRENCHER, SO THAT THE DOWN-SLOPE FACE OF THE TRENCH IS

FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE

SEEPING UNDER FENCE.

ENDS OF FABRIC MEET

TO THE TORN SECTION.

VEHICLE ACCESS POINTS.

FENCE).

BACKFILLED WITH COMPACTED MATERIAL.

COMMON TROUBLE POINTS

CONCENTRATE AND FLOW OVER THE FENCE.

(RUNOFF OVERTOPS OR COLLAPSES FENCE).

1. INSPECT ALL FENCING WEEKLY, AND AFTER RAINFALL

2. REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.

ITSELF SHOULD BE DISPOSED OF IN AN APPROVED LANDFILL.

TRENCHED IN (E.G., PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP

WITH 3 INCHES OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM

4. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE

TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND

5. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT

POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE

POST. THERE SHOULD BE A 3-FOOT OVERLAP, SECURELY FASTENED WHERE

6. SILT FENCE SHOULD BE REMOVED WHEN THE SITE IS COMPLETELY

FENCE NOT INSTALLED ALONG THE CONTOUR CAUSING WATER TO

2. FABRIC NOT SEATED SECURELY TO GROUND (RUNOFF PASSING UNDER

3. FENCE NOT INSTALLED PERPENDICULAR TO FLOW LINE (RUNOFF ESCAPING

4. FENCE TREATING TOO LARGE AN AREA, OR EXCESSIVE CHANNEL FLOW

3. REPLACE TORN FABRIC OR INSTALL A SECOND LINE OF FENCING PARALLEL

4. REPLACE OR REPAIR 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

WHEN CONSTRUCTION IS COMPLETE, THE SEDIMENT SHOULD BE DISPOSED

OF IN A MANNER THAT WILL NOT CAUSE ADDITIONAL SILTATION AND THE

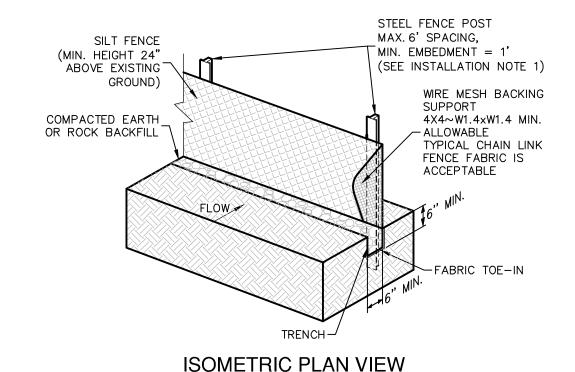
PRIOR LOCATION OF THE SILT FENCE SHOULD BE REVEGETATED. THE FENCE

INSPECTION AND MAINTENANCE GUIDELINES

STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

ROCK BERM DETAIL

NOT-TO-SCALE



STABILIZED CONSTRUCTION ENTRANCE/EXIT DETAIL

NOT-TO-SCALE

SEDIMENT BASIN

SHOOTS OR GRASS BLADES.

HEALTHY: MOWED AT A 2"-3"

GRASS SHOULD BE GREEN AND

- THATCH- GRASS CLIPPINGS AND

-ROOT ZONE - SOIL AND ROOTS.

DEAD LEAVES, UP TO 1/2" THICK.

SHOULD BE 1/2"-3/4" THICK, WITH

DENSE ROOT MAT FOR STRENGTH.

LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT

1. SOD SHOULD BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4" INCH

STANDARD SIZE SECTIONS OF SOD SHOULD BE STRONG ENOUGH TO

SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN

4. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD

PRIOR TO SOIL PREPARATION, AREAS TO BE SODDED SHOULD BE BROUGHT

THE SURFACE SHOULD BE CLEARED OF ALL TRASH, DEBRIS AND OF ALL

FERTILIZE ACCORDING TO SOIL TESTS. FERTILIZER NEEDS CAN BE

ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD

DETERMINED BY A SOIL TESTING LABORATORY OR REGIONAL RECOMMENDATIONS CAN BE MADE BY COUNTY AGRICULTURAL EXTENSION AGENTS. FERTILIZER

SHOULD BE WORKED INTO THE SOIL TO A DEPTH OF 3 INCHES WITH A DISC,

FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE CONTOUR.

SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. ON SLOPING LAND, THE

SOD STRIPS IN WATERWAYS SHOULD BE LAID PERPENDICULAR TO THE

DIRECTION OF FLOW. CARE SHOULD BE TAKEN TO BUTT ENDS OF STRIPS

2. AFTER ROLLING OR TAMPING, SOD SHOULD BE PEGGED OR STAPLED TO

RESIST WASHOUT DURING THE ESTABLISHMENT PERIOD. MESH OR OTHER

NETTING MAY BE PEGGED OVER THE SOD FOR EXTRA PROTECTION IN CRITICAL

(± 1/4" INCH) AT THE TIME OF CUTTING. THIS THICKNESS SHOULD EXCLUDE

ENDS AND TRIMMING PIECES. ANGLED ENDS CAUSED BY THI AUTOMATIC SOD CUTTER MUST BE MATCHED

LAY SOD ACROSS THE DIRECTION OF FLOW

MATERIALS

OF 36 HOURS.

SHOOT GROWTH AND THATCH.

SITE PREPARATION

TORN OR UNEVEN PADS SHOULD NOT BE ACCEPTABLE.

SUSPENDED FROM A FIRM GRASP ON ONE END OF THE SECTION.

TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLAN.

INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.

OVERLAP. A SHARPENED MASON'S TROWEL

IS A HANDY TOOL FOR TUCKING DOWN THE

APPEARANCE OF GOOD SOD

ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE

2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.

3. MOW WHEN THE SOD IS ESTABLISHED - IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

> IN CRITICAL AREAS, SECURE SOD WITH NETTING. USE STAPLES.

GENERAL INSTALLATION (VA. DEPT. OF

SOD ALSO SHOULD NOT BE LAID ON SOIL SURFACES THAT ARE FROZEN. 2. PIECES OF SOD SHOULD BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND 2. DURING PERIODS OF HIGH TEMPERATURE, THE SOIL SHOULD BE LIGHTLY LENGTH, WITH A MAXIMUM ALLOWABLE DEVIATION IN ANY DIMENSION OF 5%.

> THE FIRST ROW OF SOD SHOULD BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND BUTTING TIGHTLY AGAINST EACH OTHER. LATERAL JOINTS SHOULD BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. CARE SHOULD BE EXERCISED TO ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS

> 4. ON SLOPES 3:1 OR GREATER, OR WHEREVER EROSION MAY BE A PROBLEM, SOD SHOULD BE LAID WITH STAGGERED JOINTS AND SECURED BY STAPLING OF OTHER APPROVED METHODS. SOD SHOULD BE INSTALLED WITH THE LENGTH PERPENDICULAR TO THE SLOPE (ON CONTOUR).

> ROLLED OR TAMPED TO PROVIDE FIRM CONTACT BETWEEN ROOTS AND SOIL. 6. AFTER ROLLING, SOD SHOULD BE IRRIGATED TO A DEPTH SUFFICIENT THAT THE UNDERSIDE OF THE SOD PAD AND THE SOIL 4 INCHES BELOW THE SOD IS

UNTIL SUCH TIME A GOOD ROOT SYSTEM BECOMES DEVELOPED, IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHOULD BE PERFORMED AS OFTEN AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF AT LEAST 4

8. THE FIRST MOWING SHOULD NOT BE ATTEMPTED UNTIL THE SOD IS FIRMLY ROOTED, USUALLY 2-3 WEEKS. NOT MORE THAN ONE THIRD OF THE GRASS

INSPECTION AND MAINTENANCE GUIDELINES SOD SHOULD BE INSPECTED WEEKLY AND AFTER EACH RAIN EVENT TO

DAMAGE FROM STORMS OR NORMAL CONSTRUCTION ACTIVITIES SUCH AS TIRE RUTS OR DISTURBANCE OF SWALE STABILIZATION SHOULD BE REPAIRED AS

SOON AS PRACTICAL.

SOD INSTALLATION DETAIL NOT-TO-SCALE

WITH THE GROUND.

USE PEGS OR STAPLES TO FASTEN SOD

FIRMLY - AT THE ENDS OF STRIPS AND

THE STRIPS ARE LONG. WHEN READY TO

MOW, DRIVE PEGS OR STAPLES FLUSH

IN THE CENTER, OR EVERY 3-4 FEET IF

INCORRECT

SOD INSTALLATION

PEG OR

STAPLE

SILT FENCE

AREAS OF CONCENTRATED FLOW.

2" X 4" WELDED WIRE, 12 GAUGE MINIMUM.

INSTALLATION

SHOULD BE 6 FEET.

AT ANY TIME.

CONSERVATION, 1992 SOD SHOULD NOT BE CUT OR LAID IN EXCESSIVELY WET OR DRY WEATHER.

IRRIGATED IMMEDIATELY PRIOR TO LAYING THE SOD, TO COOL THE SOIL AND REDUCE ROOT BURNING AND DIEBACK.

(SEE FIGURE ABOVE).

5. AS SODDING OF CLEARLY DEFINED AREAS IS COMPLETED, SOD SHOULD BE

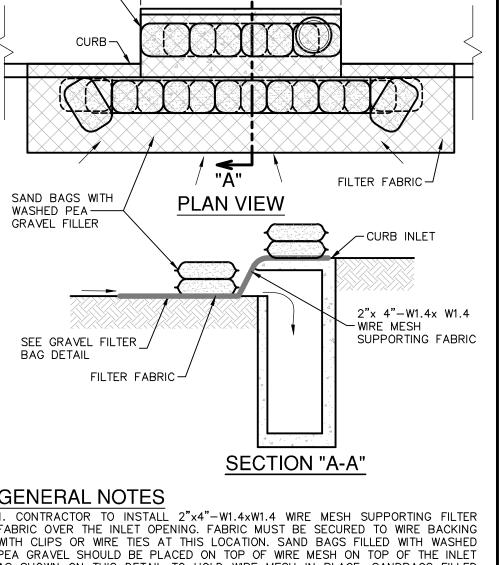
LEAF SHOULD BE REMOVED AT ANY ONE CUTTING.

LOCATE AND REPAIR ANY DAMAGE.

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SILT FENCE DETAIL

NOT-TO-SCALE



CONTRACTOR TO INSTALL 2"x4"-W1.4xW1.4 WIRE MESH SUPPORTING FILTER FABRIC OVER THE INLET OPENING. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR WIRE TIES AT THIS LOCATION. SAND BAGS FILLED WITH WASHED PEA GRAVEL SHOULD BE PLACED ON TOP OF WIRE MESH ON TOP OF THE INLET AS SHOWN ON THIS DETAIL TO HOLD WIRE MESH IN PLACE. SANDBAGS FILLED WITH WASHED PEA GRAVEL SHOULD ALSO BE PLACED ALONG THE GUTTER AS SHOWN ON THIS DETAIL TO HOLD WIRE MESH IN PLACE. SAND BAGS TO BE STACKED TO FORM A CONTINUOUS BARRIER AROUND INLETS.

2. THE BAGS SHOULD BE TIGHTLY ABUTTED AGAINST EACH OTHER TO PREVENT RUNOFF FROM FLOWING BETWEEN THE BAGS. INSPECTION AND MAINTENANCE GUIDELINES

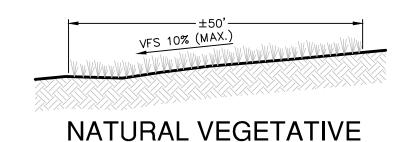
. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY THE

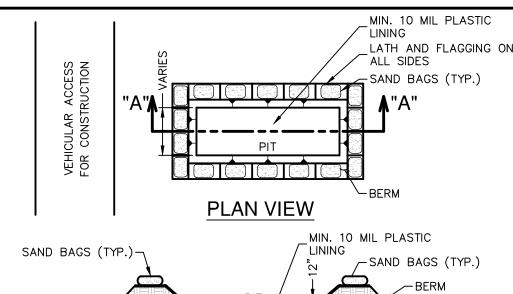
2. REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. 3. CHECK PLACEMENT OF DEVICE TO PREVENT GAPS BETWEEN DEVICE AND

4. INSPECT FILTER FABRIC AND PATCH OR REPLACE IF TORN OR MISSING. 5. STRUCTURES SHOULD BE REMOVED AND THE AREA STABILIZED ONLY AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

BAGGED GRAVEL CURB INLET PROTECTION DETAIL

NOT-TO-SCALE





GENERAL NOTES

FROM STORM WATER RUNOFF.

TEMPORARY CONCRETE WASHOUT FACILITY SHOULD BE CONSTRUCTED WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

MATERIALS

SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL

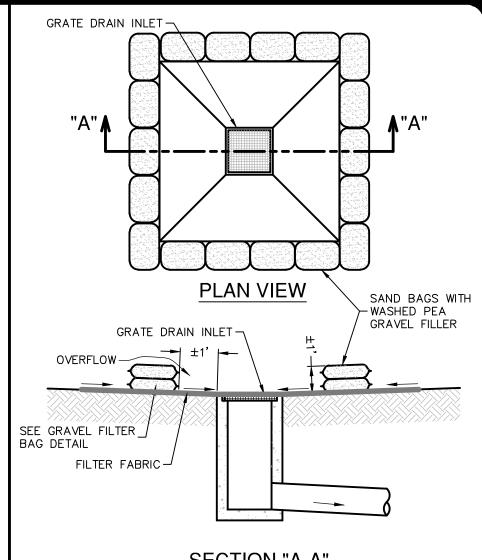
MAINTENANCE

AND DISPOSED OF. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT

REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE

BACKFILLED AND REPAIRED. CONCRETE TRUCK WASHOUT

PIT DETAIL



SECTION "A-A"

GENERAL NOTES

THE SANDBAGS SHOULD BE FILLED WITH WASHED PEA GRAVEL AND STACKED TO FORM A CONTINUOUS BARRIER ABOUT 1 FOOT HIGH AROUND

2. THE BAGS SHOULD BE TIGHTLY ABUTTED AGAINST EACH OTHER TO

PREVENT RUNOFF FROM FLOWING BETWEEN THE BAGS. INSPECTION AND MAINTENANCE GUIDELINES . INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFAL REPAIR OR REPLACEMENT SHOULD BE MADE PROMPTLY AS NEEDED BY

THE CONTRACTOR. . REMOVE SEDIMENT WHEN BUILDUP REACHES A DEPTH OF 3 INCHES. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MATTER THAT IT WILL NOT ERODE. 3. CHECK PLACEMENT OF DEVICE TO PREVENT GAPS BETWEEN DEVICE

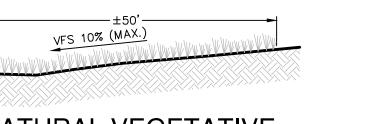
AND CURB. 4. INSPECT FILTER FABRIC AND PATCH OR REPLACE IF TORN OR

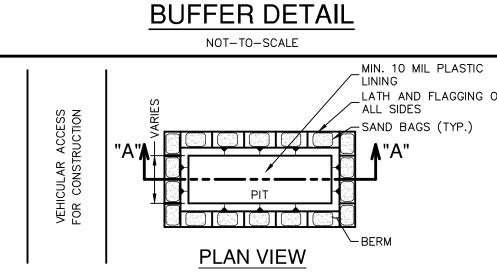
5. STRUCTURES SHOULD BE REMOVED AND THE AREA STABILIZED ONLY

AFTER THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

BAGGED GRAVEL GRATE INLET

PROTECTION DETAIL NOT-TO-SCALE





SECTION "A-A"

. DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE. . WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.

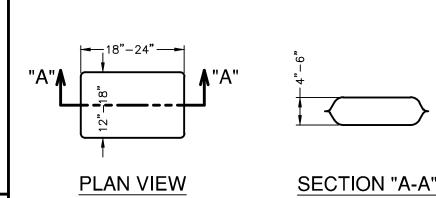
. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION 4. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES,

PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL IN POLYETHYLENE

STORM DRAINS, OPEN DITCHES OR WATER BODIES.

. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED

FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCES CAUSED BY THE

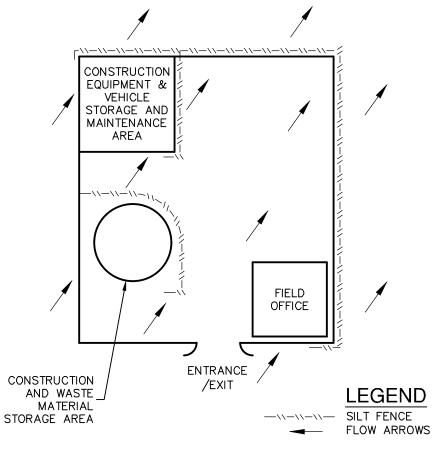


THE FILTER BAG MATERIAL SHALL BE MADE OF POLYPROPYLENE. POLYETHYLENE OR POLYAMIDE WOVEN FABRIC, MIN. UNIT WEIGHT OF 4 OUNCES/SY, HAVE A MULLEN BURST STRENGTH EXCEEDING 300 PSI AND ULTRAVIOLET STABILITY EXCEEDING 70%.

THE FILTER BAG SHALL BE FILLED WITH CLEAN, MEDIUM WASHED PEA GRAVEL TO COARSE GRAVEL (0.31 TO 0.75 INCH DIAMETER). SAND SHALL NOT BE USED TO FILL THE FILTER BAGS.

GRAVEL FILTER BAG DETAIL

NOT-TO-SCALE



CONSTRUCTION STAGING AREA

NOT-TO-SCALE

HE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE POLLUTION ABATEMEN SIZING AND TREATMENT REQUIREMENTS OF THE TEXAS COMMISSION ON IVIRONMENTAL QUALITY'S EDWARDS AQUIFER TECHNICAL GUIDANCE MANUA

IIS SHEET HAS BEEN PREPARED FOR PURPOSE F POLLUTION ABATEMENT ONLY, ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN TH

OCTOBER 2023 ESIGNER

HECKED EDK DRAWN SR

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EDK

MATTHEW GEISTWE

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TIGHTLY (SEE FIGURE ABOVE).

INSTALLATION IN CHANNELS

<

SIMMC

CIVIL IMPROVEMENT PLANS. NOT-TO-SCALE

15' ENGINEERED VEGETATIVE FILTER STRIP DETAIL

MAN-MADE POND
TO BE UTILIZED
AS WWTP REUSE POND

50' VEGETATIVE FILTER STRIP DETAIL

PROJECT LIMITS

US HWY 281

HINTERIM VEGETATIVE /

FILTER STRIP __0.606 AC

PHASE 2 AND PHASE 3

CLEARING, GRADING, AND

UTILITIES ONLY. IMPERVIOUS COVER SUBMITTE UNDER FUTURE CZP MOD.

- Miles - it with the manifest of forms of or one - - -

(207.42 ACRES)

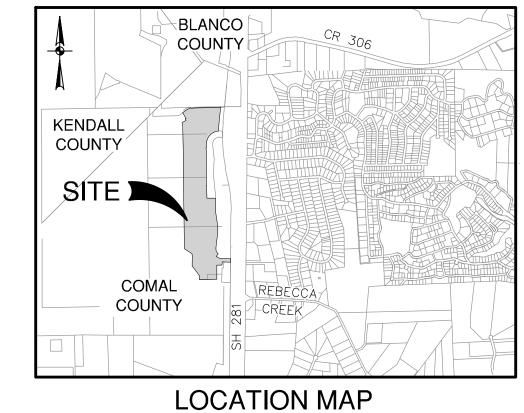
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Treatment Summary	by Watershed						
Watershed	Total Watershed Area (ac.)	*Grandfathered Impervious Cover (ac)	Proposed Impervious Cover (ac.)	Total Impervious Cover to Be Treated (ac.)	РВМР	Required TSS Removal Annually (lbs)	TSS Removed Annually (lbs)
Α	75.43	1.12	42.03	40.91	Water Quality Basin "A"	36,721	36,721
В	0.78		0.26	0.26	15' Engineered VFS	233	233
С	2.11		0.96	0.96	15' Engineered VFS	862	862
D	0.64		0.22	0.22	15' Engineered VFS	197	220
E	5.68		1.11	1.11	Interim VFS	996	996
Uncaptured Turn Lane	3.09	0.78	0.78	0.00	Overtreatment	0	-
EST	1.97		1.68	1.68	50' VFS	1,508	1,635
TOTAL	89.71	1.90	47.04	45.14		40,518	40,667
*1.90 ac of existing gra	andfathered impervi	ous cover to be acco	unted in TSS loading	3			

Watershed E contains sub-watershed C which is treated by a 15' VFS

US HWY 281

(VARIABLE WIDTH R.O.W.)



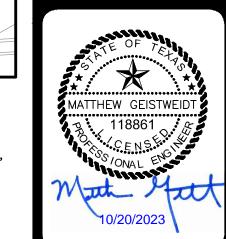
NOT-TO-SCALE

LEGEND

SCALE: 1"= 200' 200' 400'

PROPERTY BOUNDARY

EXISTING CONTOUR



SIMMON:

JOB NO. 12492-03

ATE OCTOBER 2023

DESIGNER DEK G

CHECKED JA DRAWN MG

ENT POLLUTION ABATEMENT MEASURES:

2.) ALL PERMANENT BMP'S MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE POLLUTION ABATEMENT SIZING AND TREATMENT REQUIREMENTS OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S EDWARDS AQUIFER TECHNICAL GUIDANCE MANUAL

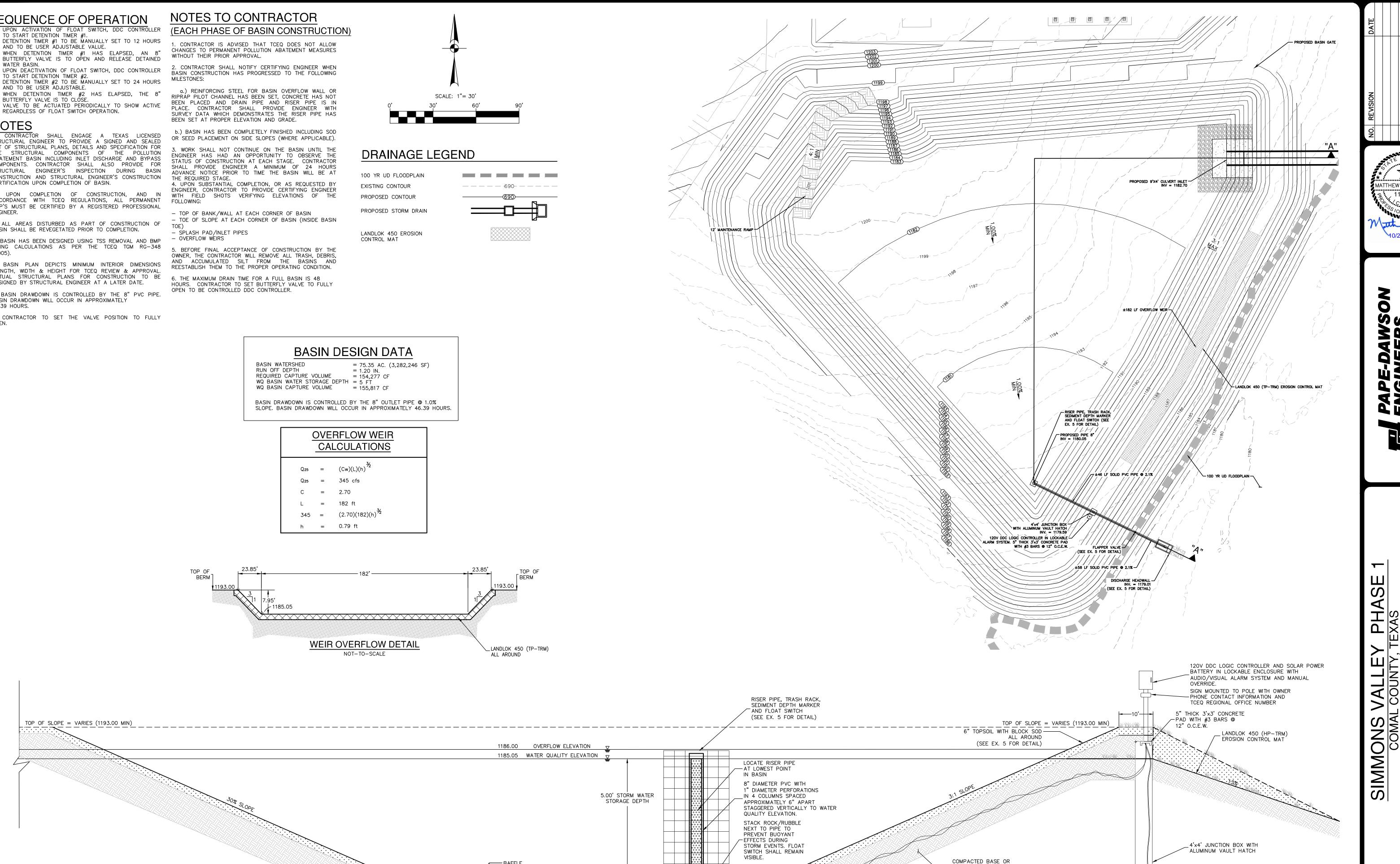
THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF POLLUTION ABATEMENT ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD EXHIBIT 3 BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS.

		fire and a feel and a second and a feel of the	y ~~ j	9/6	EXISTING CONTOUR
2527			T ois	970 ———	PROPOSED CONTOUR
	7 2033/1/201	195		—⊳	FLOW ARROW (EXISTING)
7-100-YR UD FLOODPLAIN	PHASE 1	1190		→	FLOW ARROW (PROPOSED)
	BOUNDARY				PHASE 1 BOUNDARY
			ma .co.		WATERSHED AREA
	1205	1100	and the state of t		100-YR UD FLOODPLAIN
		1200	0-YR UD FLOODPLAIN	X xx ac	WATERSHED DESIGNATION
		1205		* * * * * * *	VEGETATIVE FILTER STRIP
		1310			UNCAPTURED IMPERVIOUS COVER
A A 75.59.9AC	1/20	PROPOSED D	ROPOSED BATCH ETENTION ASIN "A"	+ + + + + + + + + + + + + + + + + + + +	POTENTIAL WATERS OF THE US (WOTUS)
	1230 (1225)	12202			EXISTING IMPERVIOUS COVER (1.90 AC)
				SUMMARY OF PERMANENT POLLUT	ION ABATEMENT MEASURES:
	1235			1.) TEMPORARY BMP'S WILL BE NIMPROVEMENTS ARE COMPLETED A INCLUDING SUFFICIENT VEGETATION	AND THE SITE HAS BEEN STABILIZED,
PHASE 1 BOUNDARY SOLUTION CAVITY	PHASE 2 AND PHAS CLEARING, GRADING, UTILITIES ONLY	AND THE TOTAL PROPERTY OF THE		SHALL MINIMIZE THE AREA OF SOIL SHALL BE REVEGETATED TO STAGGERED PATTERN. SEE DETAIL DETAIL SHEET AND REFER TO SEC GUIDANCE MANUAL RG-348 (2005 AND ON SLOPES > 15%. THE CON'SOD WITH THE PLACEMENT OF TO A PROTECTIVE MATTING OR HYDRAUNTIL VEGETATION IS ESTABLISHED BE THOSE APPROVED BY TXDOT A COMPLIANCE WITH THE TGM RG-3 GRASS TYPE TO BE DETERMINED BE	5). SOD SHOULD BE USED IN CHANNELS TRACTOR MAY SUBSTITUTE THE USE OF P SOIL AND A FRIABLE SEED BED WITH AULIC MULCH ALONG WITH WATERING D. APPLICATIONS AND PRODUCTS SHALL AS OF FEBRUARY 2001 AND IN 648 (2005). SEED MIXTURE AND/OR BY OWNER AND SHOULD BE IN 2005) GUIDELINES. IRRIGATION MAY BE H SUFFICIENT VEGETATION.
	IMPERVIOUS COVER SUB UNDER FUTURE CZP	MITTED MOD. 1220 (1220) (1225)		ESTABLISH VEGETATION, CONTRACTOPSOIL PRIOR TO REVEGETATION. 4.) PERMANENT BMP'S FOR THIS BASIN, ONE (1) INTERIM VEGETATIVE FILTER STRIP, AND THE FILTER STRIPS. THESE PERMANENT	TOR SHALL PLACE A MINIMUM OF 6" OF SITE INCLUDE ONE (1) WATER QUALITY VE FILTER STRIP, ONE (1) 50' HREE (3) 15' ENGINEERED VEGETATIVE T BMP'S HAVE BEEN DESIGNED TO
		1225 (1230)		(TSS) FOR THE 83.00 ACRES IN A TECHNICAL GUIDANCE MANUAL (TO	
		\$\text{230}		·	ROJECT RANGE FROM APPROXIMATELY 2%
				PERMANENT POLLUTION ABATEMEN	NT MEASURES:
				1.) SILT FENCING AND ROCK BER MAINTAINED UNTIL THE ROADWAY, BUILDING CONSTRUCTION ARE COM	RMS, WHERE APPROPRIATE, WILL BE UTILITY, DRAINAGE IMPROVEMENTS, AND MPLETED.
				STRIP, ONE (1) 50' VEGETATIVE FI	TRIPS WILL SERVE AS THE PERMANENT
				3.) ENERGY DISSIPATORS (TO HE AT POINTS OF CONCENTRATED DISMAY BE ENCOUNTERED.	CLP REDUCE EROSION) WILL BE PROVIDED SCHARGE WHERE EXCESSIVE VELOCITIES
				NOTES:	
				1.) CONTRACTOR SHALL INSTALL STABILIZATION PRIOR TO SITE CLC	AND ESTABLISH VEGETATION FOR SOIL DSEOUT.
				2) ALL DEDMANENT DMD'S MILS.	T RE CERTIFIED RY A RECISTERED

FOR PERMIT

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SEQUENCE OF OPERATION UPON ACTIVATION OF FLOAT SWITCH, DDC CONTROLLER TO START DETENTION TIMER #1. DETENTION TIMER #1 TO BE MANUALLY SET TO 12 HOURS AND TO BE USER ADJUSTABLE VALUE. WHEN DETENTION TIMER #1 HAS ELAPSED, AN 8" BUTTERFLY VALVE IS TO OPEN AND RELEASE DETAINED UPON DEACTIVATION OF FLOAT SWITCH, DDC CONTROLLER TO START DETENTION TIMER #2. DETENTION TIMER #2 TO BE MANUALLY SET TO 24 HOURS AND TO BE USER ADJUSTABLE. WHEN DETENTION TIMER #2 HAS ELAPSED, THE 8" BUTTERFLY VALVE IS TO CLOSE. VALVE TO BE ACTUATED PERIODICALLY TO SHOW ACTIVE REGARDLESS OF FLOAT SWITCH OPERATION. NOTES CONTRACTOR SHALL ENGAGE A TEXAS LICENSED STRUCTURAL ENGINEER TO PROVIDE A SIGNED AND SEALED SET OF STRUCTURAL PLANS, DETAILS AND SPECIFICATION FOR THE STRUCTURAL COMPONENTS OF THE POLLUTION ABATEMENT BASIN INCLUDING INLET DISCHARGE AND BYPASS COMPONENTS. CONTRACTOR SHALL ALSO PROVIDE FOR STRUCTURAL ENGINEER'S INSPECTION DURING BASIN CONSTRUCTION AND STRUCTURAL ENGINEER'S CONSTRUCTION CERTIFICATION UPON COMPLETION OF BASIN. 2. UPON COMPLETION OF CONSTRUCTION, AND IN ACCORDANCE WITH TCEQ REGULATIONS, ALL PERMANENT BMP'S MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL 3. ALL AREAS DISTURBED AS PART OF CONSTRUCTION OF BASIN SHALL BE REVEGETATED PRIOR TO COMPLETION. 4. BASIN HAS BEEN DESIGNED USING TSS REMOVAL AND BMP SIZING CALCULATIONS AS PER THE TCEQ TGM RG-348 5. BASIN PLAN DEPICTS MINIMUM INTERIOR DIMENSIONS (LENGTH, WIDTH & HEIGHT FOR TCEQ REVIEW & APPROVAL. ACTUAL STRUCTURAL PLANS FOR CONSTRUCTION TO BE DESIGNED BY STRUCTURAL ENGINEER AT A LATER DATE. 6. BASIN DRAWDOWN IS CONTROLLED BY THE 8" PVC PIPE. BASIN DRAWDOWN WILL OCCUR IN APPROXIMATELY 46.39 HOURS. 7. CONTRACTOR TO SET THE VALVE POSITION TO FULLY



BLOCKS

VARIES

PERFORATIONS TO EXTEND TO LOWEST POINT OF THE

SECTION "A-A"

BASIN FOR DISCHARGE

NATIVE MATERIAL CONSISTING-

 $\overline{}$

CONTRACTOR TO ADD

IMPROVEMENT PLANS.

WATERTIGHT SEAL ON BOTH-ENDS OF 8" DISCHARGE PIPE

OF CLAY (SEE GEOTECH

REPORT FOR DETAILS)

±46 LF ~ 8" OUTFALL PIPE @ 1.0%

THE ENGINEERING SEAL HAS BEEN AFFIXED TO THIS SHEET ONLY FOR THE

SIZING AND TREATMENT REQUIREMENTS OF THE TEXAS COMMISSION ON

PURPOSE OF DEMONSTRATING COMPLIANCE WITH THE POLLUTION ABATEMENT

ENVIRONMENTAL QUALITY'S EDWARDS AQUIFER TECHNICAL GUIDANCE MANUAL

8" VALVE WITH WATERPROOF ELECTRIC

↑TO DISCHARGE ——

- ±58 LF ~ 8" OUTFALL PIPE @ 1.0%

ACTUATOR AND MANUAL OVERRIDE

THIS SHEET HAS BEEN PREPARED FOR PURPOSES OF POLLUTION

SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL

ABATEMENT ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION

MATTHEW GEISTWEID

JOB NO. 12492-03

DATE OCTOBER 2023

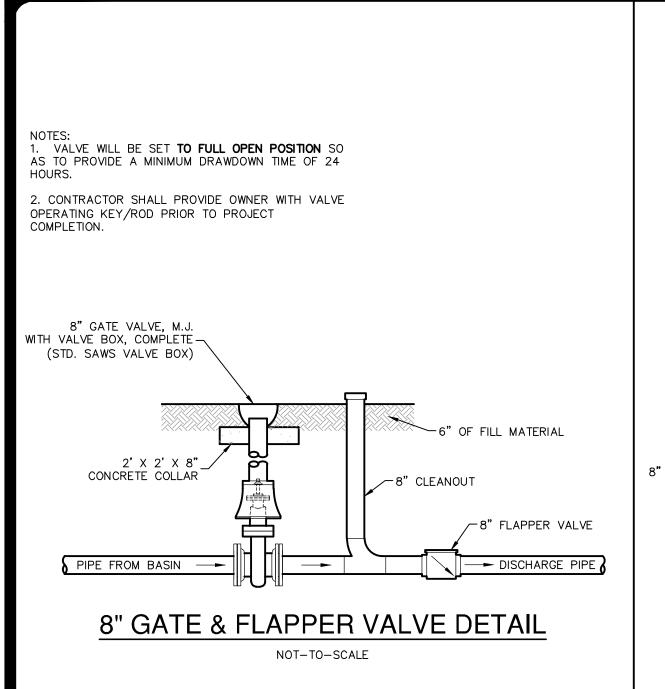
DESIGNER DB/MGG CHECKED EDK DRAWN SR

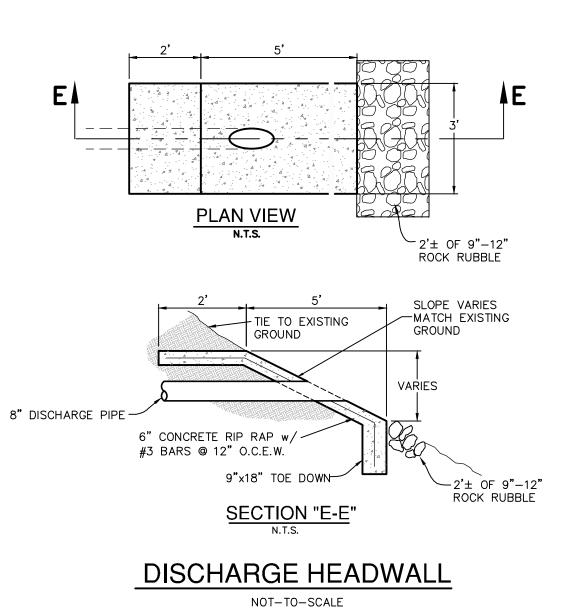
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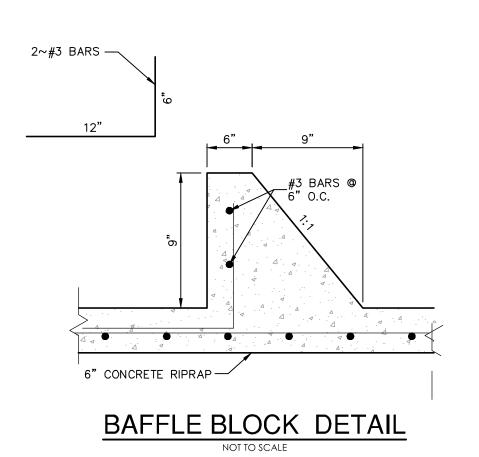
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LAY SOD IN A STAGGERED PATTERN. BUTT

DO NOT LEAVE SPACES AND DO NOT

OVERLAP. A SHARPENED MASON'S TROWEL

IS A HANDY TOOL FOR TUCKING DOWN THE

BUTTING - ANGLED ENDS CAUSED BY THE

AUTOMATIC SOD CUTTER MUST BE MATCHED

ENDS AND TRIMMING PIECES.

LAY SOD ACROSS THE

MATERIALS

36 HOURS.

SHOOT GROWTH AND THATCH.

SITE PREPARATION

OR UNEVEN PADS SHOULD NOT BE ACCEPTABLE.

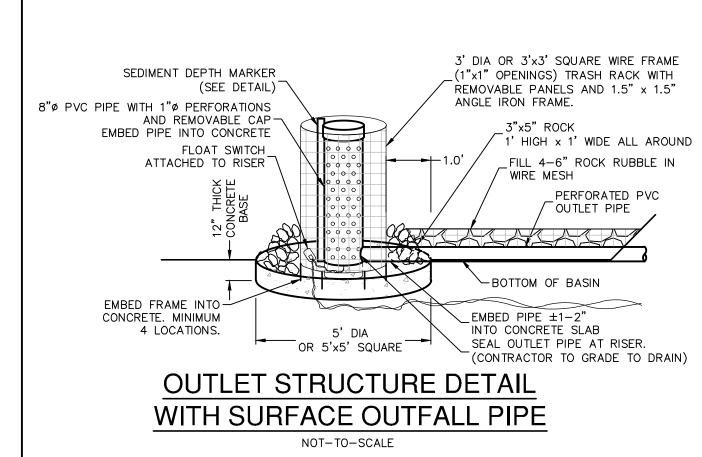
A FIRM GRASP ON ONE END OF THE SECTION.

FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLAN.

DISCING OPERATION SHOULD BE ON THE CONTOUR.

CORRECTLY.

THE STRIPS TIGHTLY AGAINST EACH OTHER.



<u>SHOOTS</u> OR GRASS BLADES. GRASS SHOULD BE GREEN AND HEALTHY: MOWED AT A 2"-3"

-THATCH- GRASS CLIPPINGS AND

ROOT ZONE - SOIL AND ROOTS.

DEAD LEAVES, UP TO 1/2" THICK.

DENSE ROOT MAT FOR STRENGTH.

SHOULD BE 1/2"-3/4" THICK, WITH

CUTTING HEIGHT.

APPEARANCE OF GOOD SOD

SOON AS THE SOD IS LAID.

THE MOWER HIGH (2"-3").

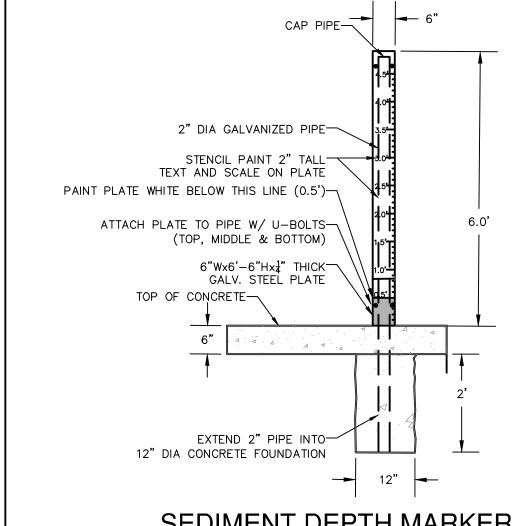
1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE

3. MOW WHEN THE SOD IS ESTABLISHED - IN 2-3 WEEKS. SET

2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS

IN CRITICAL AREAS, SECURE SOD

WITH NETTING. USE STAPLES.



SEDIMENT DEPTH MARKER

NOT TO SCALE

NOTE: ONCE SEDIMENT IS ABOVE THE 6" DESIGNATION. THE BASIN MUST BE CLEANED OUT TO DESIGN ELEVATIONS AND VOLUMES PER PLAN. SEDIMENT MARKER TO BE LOCATED WITHIN 10' OF THE RISER PIPE.

MATTHEW GEISTWEID

NOTES TO CONTRACTOR (EACH PHASE OF BASIN CONSTRUCTION) 1. CONTRACTOR IS ADVISED THAT TCEQ DOES NOT ALLOW

WITHOUT THEIR PRIOR APPROVAL. 2. CONTRACTOR SHALL NOTIFY CERTIFYING ENGINEER WHEN BASIN CONSTRUCTION HAS PROGRESSED TO THE FOLLOWING

CHANGES TO PERMANENT POLLUTION ABATEMENT MEASURES

a.) REINFORCING STEEL FOR BASIN OVERFLOW WALL OR RIPRAP PILOT CHANNEL HAS BEEN SET. CONCRETE HAS NOT BEEN PLACED AND DRAIN PIPE AND RISER PIPE IS IN PLACE. CONTRACTOR SHALL PROVIDE ENGINEER WITH SURVEY DATA WHICH DEMONSTRATES THE RISER PIPE HAS BEEN SET AT PROPER ELEVATION AND GRADE.

b.) BASIN HAS BEEN COMPLETELY FINISHED INCLUDING SOD OR SEED PLACEMENT ON SIDE SLOPES (WHERE APPLICABLE).

3. WORK SHALL NOT CONTINUE ON THE BASIN UNTIL THE ENGINEER HAS HAD AN OPPORTUNITY TO OBSERVE THE STATUS OF CONSTRUCTION AT EACH STAGE. CONTRACTOR SHALL PROVIDE ENGINEER A MINIMUM OF 24 HOURS ADVANCE NOTICE PRIOR TO TIME THE BASIN WILL BE AT THE REQUIRED STAGE.

4. UPON SUBSTANTIAL COMPLETION, OR AS REQUESTED BY ENGINEER, CONTRACTOR TO PROVIDE CERTIFYING ENGINEER WITH

- FIELD SHOTS VERIFYING ELEVATIONS OF THE FOLLOWING: - TOP OF BANK/WALL AT EACH CORNER OF BASIN
- TOE OF SLOPE AT EACH CORNER OF BASIN (INSIDE BASIN - SPLASH PAD/INLET PIPES

OVERFLOW WÉIRS

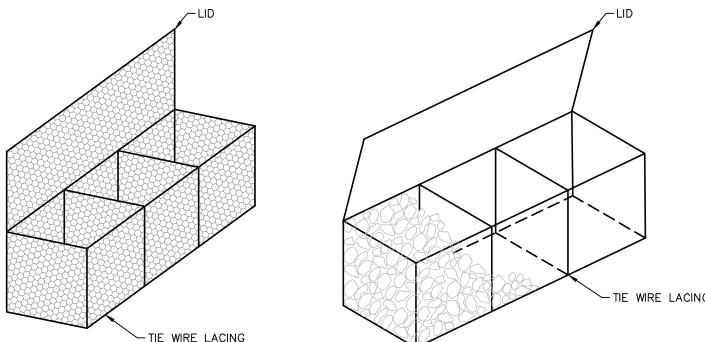
5. BEFORE FINAL ACCEPTANCE OF CONSTRUCTION BY THE OWNER, THE CONTRACTOR WILL REMOVE ALL TRASH, DEBRIS, AND ACCUMULATED SILT FROM THE BASINS AND REESTABLISH THEM TO THE PROPER OPERATING CONDITION.

6. THE MINIMUM DRAIN TIME FOR A FULL BASIN IS 24.1 HOURS. CONTRACTOR TO SET BUTTERFLY VALVE TO FULLY OPEN TO BE CONTROLLED DDC CONTROLLER.

TIE WIRE LACING-

TYPICAL ASSEMBLED GABION MATTRESS DETAIL

NOT-TO-SCALE



TYPICAL ASSEMBLED GABION BASKET DETAIL NOT-TO-SCALE

-TIE WIRE LACING

INSTALLATION IN CHANNELS . SOD STRIPS IN WATERWAYS SHOULD BE LAID PERPENDICULAR TO THE DIRECTION OF FLOW. CARE SHOULD BE TAKEN TO BUTT ENDS OF STRIPS TIGHTLY (SEE FIGURE ABOVE).

1. SOD SHOULD BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4" INCH

(± 1/4" INCH) AT THE TIME OF CUTTING. THIS THICKNESS SHOULD EXCLUDE

2. PIECES OF SOD SHOULD BE CUT TO THE SUPPLIER'S STANDARD WIDTH AND

3. STANDARD SIZE SECTIONS OF SOD SHOULD BE STRONG ENOUGH TO SUPPORT

4. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF

1. PRIOR TO SOIL PREPARATION, AREAS TO BE SODDED SHOULD BE BROUGHT TO

2. THE SURFACE SHOULD BE CLEARED OF ALL TRASH, DEBRIS AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES AND OTHER OBJECTS THAT WOULD

3. FERTILIZE ACCORDING TO SOIL TESTS. FERTILIZER NEEDS CAN BE DETERMINED BY A SOIL TESTING LABORATORY OR REGIONAL RECOMMENDATIONS CAN BE MADE

BY COUNTY AGRICULTURAL EXTENSION AGENTS. FERTILIZER SHOULD BE WORKED INTO THE SOIL TO A DEPTH OF 3 INCHES WITH A DISC, SPRINGTOOTH HARROW OR

OTHER SUITABLE EQUIPMENT. ON SLOPING LAND, THE FINAL HARROWING OR

INTERFERE WITH PLANTING, FERTILIZING OR MAINTENANCE OPERATIONS.

THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED FROM

LENGTH, WITH A MAXIMUM ALLOWABLE DEVIATION IN ANY DIMENSION OF 5%. TORN

2. AFTER ROLLING OR TAMPING, SOD SHOULD BE PEGGED OR STAPLED TO RESIST WASHOUT DURING THE ESTABLISHMENT PERIOD. MESH OR OTHER NETTING MAY BE PEGGED OVER THE SOD FOR EXTRA PROTECTION IN CRITICAL AREAS.

GENERAL INSTALLATION (VA. DEPT. OF CONSERVATION, 1992)

WITH THE GROUND.

. SOD SHOULD NOT BE CUT OR LAID IN EXCESSIVELY WET OR DRY WEATHER. SOD ALSO SHOULD NOT BE LAID ON SOIL SURFACES THAT ARE FROZEN.

CORRECT

INCORRECT

SOD INSTALLATION

USE PEGS OR STAPLES TO FASTEN SOD

FIRMLY - AT THE ENDS OF STRIPS AND

IN THE CENTER, OR EVERY 3-4 FEET IF

THE STRIPS ARE LONG. WHEN READY TO MOW, DRIVE PEGS OR STAPLES FLUSH

2. DURING PERIODS OF HIGH TEMPERATURE, THE SOIL SHOULD BE LIGHTLY IRRIGATED IMMEDIATELY PRIOR TO LAYING THE SOD, TO COOL THE SOIL AND REDUCE ROOT BURNING AND DIEBACK.

3. THE FIRST ROW OF SOD SHOULD BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND BUTTING TIGHTLY AGAINST EACH OTHER. LATERAL JOINTS SHOULD BE STAGGERED TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. CARE SHOULD BE EXERCISED TO ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS (SEE FIGURE ABOVE).

4. ON SLOPES 3:1 OR GREATER, OR WHEREVER EROSION MAY BE A PROBLEM, SOD SHOULD BE LAID WITH STAGGERED JOINTS AND SECURED BY STAPLING OR OTHER APPROVED METHODS. SOD SHOULD BE INSTALLED WITH THE LENGTH PERPENDICULAR TO THE SLOPE (ON CONTOUR).

5. AS SODDING OF CLEARLY DEFINED AREAS IS COMPLETED, SOD SHOULD BE ROLLED OR TAMPED TO PROVIDE FIRM CONTACT BETWEEN ROOTS AND SOIL. 6. AFTER ROLLING, SOD SHOULD BE IRRIGATED TO A DEPTH SUFFICIENT THAT THE UNDERSIDE OF THE SOD PAD AND THE SOIL 4 INCHES BELOW THE SOD IS THOROUGHLY WET.

7. UNTIL SUCH TIME A GOOD ROOT SYSTEM BECOMES DEVELOPED, IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHOULD BE PERFORMED AS OFTEN AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF AT LEAST 4 INCHES. 8. THE FIRST MOWING SHOULD NOT BE ATTEMPTED UNTIL THE SOD IS FIRMLY ROOTED, USUALLY 2-3 WEEKS. NOT MORE THAN ONE THIRD OF THE GRASS LEAF SHOULD BE REMOVED AT ANY ONE CUTTING.

INSPECTION AND MAINTENANCE GUIDELINES 1. SOD SHOULD BE INSPECTED WEEKLY AND AFTER EACH RAIN EVENT TO LOCATE

AND REPAIR ANY DAMAGE. 2. DAMAGE FROM STORMS OR NORMAL CONSTRUCTION ACTIVITIES SUCH AS TIRE

RUTS OR DISTURBANCE OF SWALE STABILIZATION SHOULD BE REPAIRED AS SOON

SOD INSTALLATION DETAIL

NOT-TO-SCALE

1. CONTRACTOR SHALL INSTALL AND ESTABLISH VEGETATION IN BASINS PER BASIN DETAIL SHEET PRIOR TO SITE CLOSEOUT. 2. UPON COMPLETION OF CONSTRUCTION, AND IN ACCORDANCE WITH

TCEQ REGULATIONS, ALL PERMANENT BMP'S (FILTERSTRIPS AND BASINS)

3. ALL AREAS DISTURBED AS PART OF CONSTRUCTION OF BASINS SHALL BE REVEGATATED PRIOR TO COMPLETION.

MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.

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JOB NO. 12492-03 ATE OCTOBER 2023 DESIGNER DB/MGG HECKED EDK DRAWN SR

SIMM

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