Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

- 1. <u>Edwards Aquifer applications</u> 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: Bandera Ranch				2. Regulated Entity No.:				
3. Customer Name: Helotes Bandera Ranch, LP		4. Customer No.:						
5. Project Type: (Please circle/check one)	New	Modif	ication	1	Extension		Exception	
6. Plan Type: (Please circle/check one)	WPAP CZP	scs	UST	AST	EXP EXT		Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Residential	Non-r	Non-residential 8. Sit		e (acres):	31.46		
9. Application Fee:	\$6,500	10. P	10. Permanent BMP(s):		Batch detention basins			
11. SCS (Linear Ft.):	N/A	12. A	12. AST/UST (No. Tanks):		N/A			
13. County:	Bexar	14. W	14. Watershed:		Leon Creek			

Application Distribution

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

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

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

Austin Region				
County:	Hays	Travis	Williamson	
Original (1 req.)			_	
Region (1 req.)	_	_		
County(ies)				
Groundwater Conservation District(s)	Edwards Aquifer AuthorityBarton Springs/ Edwards AquiferHays TrinityPlum 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.)	4				
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 Ranch ✓ HelotesHill 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 complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.		
Mistral Distraction		
Michael Richards		
Print Name of Customer/Authorized Agent		
10/26/23		
Signature of Customer/Authorized Agent Date		

FOR TCEQ INTERNAL USE ONLY				
Date(s)Reviewed:	¥	Date Adn	ministratively Comple	ete:
Received From:		Correct N	Number of Copies:	
Received By:		Distribut	ion Date:	
EAPP File Number:		Complex:		
Admin. Review(s) (No.):		No. AR Rounds:		
Delinquent Fees (Y/N):		Review Time Spent:		
Lat./Long. Verified:		SOS Customer Verification:		
Agent Authorization Complete/Notarized (Y/N):		Fee	Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):			Signed (Y/N):	
Core Data Form Incomplete Nos.:		Less than 90 days old (Y/N):		ld (Y/N):



CONTRIBUTING ZONE PLAN

BANDERA RANCH

Location: NEC of Bandera Rd & Scenic Loop Rd, Helotes, TX

KFW Job #: 1084-02-01

Date Submitted: November 2023



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SECTION 1 CONTRIBUTING ZONE PLAN

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: Michael Richards

Date: 10/26/23

Signature of Customer/Agent:

Regulated Entity Name: Bandera Ranch

Project Information

1. County: Bexar

2. Stream Basin: San Antonio River Basin

3. Groundwater Conservation District (if applicable): Trinity-Glen Rose

4. Customer (Applicant):

Contact Person: <u>Curtis</u> Thigpen Entity: <u>Helotes</u> Bandera Ranch, LP

Mailing Address: 1509 Old West 38th St, Ste. 3

City, State: <u>Austin</u>, TX Zip: <u>78731</u> Telephone: <u>512-9</u>34-8923 Fax: _____

Email Address: cthigpen@paravelcap.com

5.	Age	ent/Representative (if any):	
	Ent Ma City Tele	ntact Person: Michael Richards city: Colliers Engineering & Design ciling Address: 3421 Paesanos Pkwy y, State: San Antonio, TX ephone: 210-979-8444 ail Address: mike.richards@collierseng.com	Zip: <u>78231</u> Fax:
6.	Pro	oject Location:	
		The project site is located inside the city limits of the project site is located outside the city limits jurisdiction) of The project site is not located within any city's	s but inside the ETJ (extra-territorial
7.	$\overline{\mathbf{V}}$	The location of the project site is described below provided so that the TCEQ's Regional staff can boundaries for a field investigation.	easily locate the project and site
8.	V	The subject property is located at the northous (SH-16) and Scenic Loop Road Attachment A - Road Map. A road map showing project site is attached. The map clearly shows	ng directions to and the location of the
9.		Attachment B - USGS Quadrangle Map. A copy Quadrangle Map (Scale: 1" = 2000') is attached	
		✓ Project site boundaries.✓ USGS Quadrangle Name(s).	
10.	V	Attachment C - Project Narrative. A detailed n project is attached. The project description is c 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.	Exis	sting project site conditions are noted below:	
		Existing commercial site Existing industrial site Existing residential site	

Undeveloped (C	nd/or unpaved roads leared) ndisturbed/Not cleared)			
12. The type of project	s:			
	Industrial			
13. Total project area (s	ize of site): <u>31.46</u> Acres			
Total disturbed area	: <u>31.46</u> Acres			
14. Estimated projected	population: 450			
15. The amount and type below:	e of impervious cover ex	pected after construction	on is complete is shown	
Table 1 - Impervious	Cover			
Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres	
Structures/Rooftops	247,147	÷ 43,560 =	5.67	
Parking	411,620	÷ 43,560 =	9.45	
Other paved surfaces	89,122	÷ 43,560 =	2.05	
Total Impervious Cover	747,889	÷ 43,560 =	17.17	
Total Impervious Cover 17.17 ÷ Total Acreage 31.46 X 100 = 54.58% Impervious Cover 16. ✓ Attachment D - Factors Affecting Surface Water Quality. A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.				
17. Only inert materials as defined by 30 TAC 330.2 will be used as fill material.				
For Road Projects Only				
For Road Proje		330.2 will be used as fi	ll material.	

□ N/A

18. Type of project:
 TXDOT road project. County road or roads built to county specifications. City thoroughfare or roads to be dedicated to a municipality. Street or road providing access to private driveways.
19. Type of pavement or road surface to be used:
Concrete Asphaltic concrete pavement Other:
20. Right of Way (R.O.W.):
Length of R.O.W.: feet. Width of R.O.W.: feet. $L \times W = $ $Ft^2 \div 43,560 Ft^2/Acre = acres.$
21. Pavement Area:
Length of pavement area: feet. Width of pavement area: feet. L x W = Ft ² ÷ 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 Tar	nk):	
will be used licensing au the land is so the required relating to C Each lot in to size. The sy	t F - Suitability Letter from to treat and dispose of to thority's (authorized agen- suitable for the use of privalents for on-site sewage On-site Sewage Facilities. his project/development estem will be designed by and installed by a licensed	he wastewater from this nt) written approval is at vate sewage facilities and facilities as specified und is at least one (1) acre (4 a licensed professional e	site. The appropriate tached. It states that will meet or exceed der 30 TAC Chapter 285
	on System (Sewer Lines): ion system will convey th ent facility is:		on Creek Treatment
✓ Existing. ☐ Proposed.			
☐ N/A			
Permanent Ab Gallons	oveground Stor	rage Tanks(AST	s) ≥ 500
Complete questions 27 greater than or equal to	7 - 33 if this project includ to 500 aallons.	les the installation of AS	T(s) with volume(s)
N/A	or the gament		
27. Tanks and substance	ce stored:		
Table 2 - Tanks and	Substance Storage		
		Substance to be	
AST Number	Size (Gallons)	Stored	Tank Material
1			
2			
3			
4			
5			
		Tot	al x 1.5 = Gallons
	placed within a containm times the storage capac		•

5 of 11

•	stem, the containm umulative storage c		ed to capture one and	d one-half (1 1/2)	
for providir	Attachment G - Alternative Secondary Containment Methods. Alternative methods for providing secondary containment are proposed. Specifications showing equivalent protection for the Edwards Aquifer are attached.				
29. Inside dimensi	ons and capacity of	containment structu	ure(s):		
Table 3 - Second	dary Containment	t .			
Length (L)(Ft.)	Width(W)(Ft.)	Height (H)(Ft.)	L x W x H = (Ft3)	Gallons	
			То	tal: Gallons	
 ☐ All piping, hoses, and dispensers will be located inside the containment structure. ☐ Some of the piping to dispensers or equipment will extend outside the containment structure. ☐ The piping will be aboveground ☐ The piping will be underground 31. ☐ The containment area must be constructed of and in a material impervious to the substance(s) being stored. The proposed containment structure will be constructed of: ☐ Attachment H - AST Containment Structure Drawings. A scaled drawing of the 					
32. Attachment H - AST Containment Structure Drawings. A scaled drawing of the containment structure is attached that shows the following:					
 Interior dimensions (length, width, depth and wall and floor thickness). Internal drainage to a point convenient for the collection of any spillage. Tanks clearly labeled Piping clearly labeled Dispenser clearly labeled 					
33. Any spills must be directed to a point convenient for collection and recovery. Spills from storage tank facilities must be removed from the controlled drainage area for disposal within 24 hours of the spill.					
<u></u>		pillage will be remo	ved from the contain	nment 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
tems 34 - 46 must be included on the Site Plan.
34. $\sqrt{}$ The Site Plan must have a minimum scale of 1" = 400'.
Site Plan Scale: 1" = 60 '.
35. 100-year floodplain boundaries:
 Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled. ✓ No part of the project site is located within the 100-year floodplain. The 100-year floodplain boundaries are based on the following specific (including date of
material) sources(s): 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. $\boxed{\checkmark}$ A drainage plan showing all paths of drainage from the site to surface streams.
38. $\boxed{\checkmark}$ The drainage patterns and approximate slopes anticipated after major grading activities.
39. $\boxed{\checkmark}$ Areas of soil disturbance and areas which will not be disturbed.
40. Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
41. 🗹 Locations where soil stabilization practices are expected to occur.
42. Surface waters (including wetlands).
√ N/A
13. Locations where stormwater discharges to surface water.
✓ There will be no discharges to surface water.
14. Temporary aboveground storage tank facilities.
Temporary aboveground storage tank facilities will not be located on this site.

45. Permanent aboveground storage tank facilities.	
Permanent aboveground storage tank facilities will not be located on this site.	
46. 🗹 Legal boundaries of the site are shown.	
Permanent Best Management Practices (BMPs)	
Practices and measures that will be used during and after construction is completed.	
47. Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.	
□ N/A	
48. These practices and measures have been designed, and will be constructed, opera 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 activities removed. These quantities have been calculated in accordance with technical guid prepared or accepted by the executive director.	ity is
 The TCEQ Technical Guidance Manual (TGM) was used to design permanent BN and measures for this site. A technical guidance other than the TCEQ TGM was used to design permanent and measures for this site. The complete citation for the technical guidance the was used is: 	BMPs
□ N/A	
49. ✓ Owners must insure that permanent BMPs and measures are constructed and fundas designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification let must be submitted to the appropriate regional office within 30 days of site comple	ne ter
	٥.
50. Where a site is used for low density single-family residential development and has 20 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 whole site as described in the property boundaries required by 30 TAC §213.4(g) (related Application Processing and Approval), may no longer apply and the property owner motify the appropriate regional office of these changes.	he r the ting to
 The site will be used for low density single-family residential development and 20% or less impervious cover. The site will be used for low density single-family residential development but I more than 20% impervious cover. 	
The site will not be used for low density single-family residential development.	

fam imp rec inco the and	e executive director may waive the requirement for other permanent BMPs for multi- nily residential developments, schools, or small business sites where 20% or less pervious cover is used at the site. This exemption from permanent BMPs must be orded in the county deed records, with a notice that if the percent impervious cover reases above 20% or land use changes, the exemption for the whole site as described in a property boundaries required by 30 TAC §213.4(g) (relating to Application Processing di Approval), may no longer apply and the property owner must notify the appropriate tional 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 wate 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.
\checkmark	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 calculat structural plans and specifications, ar	ions, TCEQ Construction Notes, all proposed appropriate details.
□ N/A	
specific plan for the inspection, main	ance, Repair and Retrofit Plan. A site and BMP tenance, repair, and, if necessary, retrofit of the tached. The plan fulfills all of the following:
measures Signed by the owner or responsib	ineer designing the permanent BMPs and le party ocumenting inspections, maintenance, repairs,
and, if necessary, retrofit. Contains a discussion of record ke	
□ N/A	
<u>—</u>	ing Plan. Pilot studies for BMPs that are not require prior approval from the TCEQ. A plan for
√ N/A	
of the measures that will be used to a and changes in the way in which wate and development is attached. The m creation of stronger flows and in-stre	zing Surface Stream Contamination. A description avoid or minimize surface stream contamination er enters a stream as a result of the construction easures address increased stream flashing, the ram velocities, and other in-stream effects caused ase erosion that result in water quality
✓ N/A	
Responsibility for Maintena Measures after Construction	nce of Permanent BMPs and n is Complete.
until such time as the maintenance o entity having ownership or control of owner's association, a new property ownership of the property is transfer	taining the permanent BMPs after construction bligation is either assumed in writing by another the property (such as without limitation, an owner or lessee, a district, or municipality) or the red to the entity. Such entity shall then be other entity assumes such obligations in writing or
appropriate regional office within 30	y must be filed with the executive director at the days of the transfer if the site is for use as a elopment, a multi-family residential development,

or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

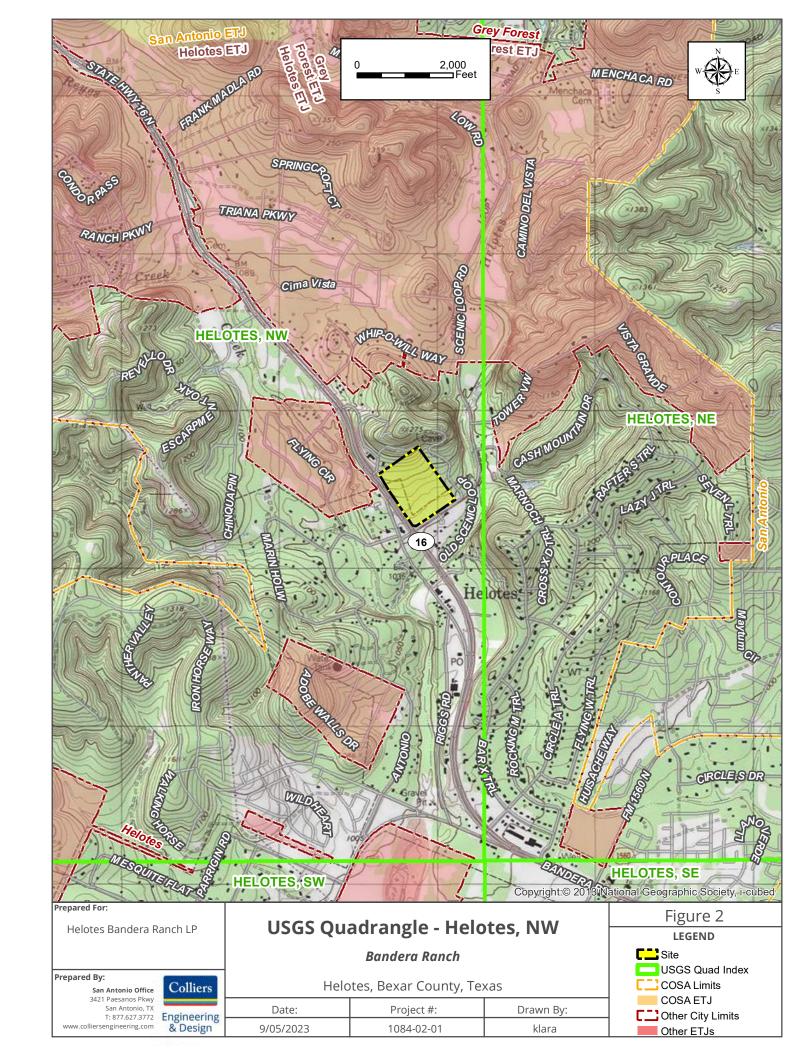
Administrative Information

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

ROAD MAP



USGS QUADRANGLE MAP



PROJECT NARRATIVE

Bandera Ranch is a proposed mixed-use development located on 31.46 acres within the City of Helotes in Bexar County, Texas. The project is located entirely in the Edwards Aquifer Contributing Zone within the Leon Creek Watershed. The project is located at the northeast corner of the Bandera Road and Scenic Loop Road intersection.

The regulated activity that is being applied for as part of this permit is for multi-family residential and commercial construction necessary for development of the entire tract. The subject site encompasses 31.46 acres and it is anticipated that the entire tract will be disturbed at some point of the construction process. The total proposed development will produce 17.17 acres of impervious cover which is greater than 20% of the total project area. In accordance with 30 TAC 213, permanent BMP's are required to treat the runoff produced by the site.

There will not be any storage of regulated quantities of hazardous materials. Furthermore, San Antonio Water System (SAWS) is the water and sewer service provider for the tract.

FACTORS AFFECTING WATER QUALITY

Materials that are anticipated to be used on site that could be a potential source of contamination include the following:

During Construction:

- 1. Concrete and Masonry Materials
- 2. Wood, plastic, and metal Materials
- 3. Tar and hydrocarbons from paving operations
- 4. Oil, Grease, fuel, and hydraulic fluid from construction equipment and vehicle drippings
- 5. Fertilizers, Herbicides, and Pesticides
- 6. Cleaning solutions and detergents
- 7. Miscellaneous construction trash and debris
- 8. Soil erosion and sedimentation due to construction activity

Ultimate Use:

- 1. Pollutants generated from vehicles utilizing the roadways
- 2. Fertilizers, Herbicides, and pesticides used to maintain landscaping and lawns
- 3. Miscellaneous trash and debris generated from the public
- 4. Dumping of Hazardous Materials into the storm drainage system by the general public

(This is not intended to be an all inclusive list)

All practical management practices will be used to reduce the risk of spills and other exposure of any contaminant to surface or groundwater.

VOLUME AND CHARACTER OF STORMWATER

The Bandera Ranch site currently consists of native vegetation and trees. The proposed development will consist of multiple duplexes as well as a commercial component, which will likely include restaurants and retail spaces. The runoff coefficient for the undeveloped site is 0.52, where-as the post-development weighted runoff coefficient will be 0.86 (0.80 for multifamily, 0.97 for commercial). Runoff from a majority of the proposed impervious cover will be captured within the storm drain system and will discharge into one of the two proposed water quality basins. Once treatment has been completed, the basin will discharge into the adjacent Scenic Loop Rd ROW and ultimately sheet flow to Helotes Creek, which is located approximately 550' from the subject site. The rainfall intensities used to calculate storm water runoff produced by the site were obtained from the City of San Antonio UDC.

Please refer to the Drainage Area Maps provided in Exhibit 2 within the report for hydrologic characteristics and runoff computations.

SUITABILITY LETTER FROM AUTHORIZED AGENT

Not applicable. Wastewater shall be disposed of by connecting to the San Antonio Water System (SAWS) existing wastewater system, and shall be disposed of at the Leon Creek Water Recycling Center.

ALTERNATIVE SECONDARY CONTAINMENT METHODS

Not applicable. No aboveground storage tanks shall be installed.

AST CONTAINMENT STRUCTURE DRAWINGS

Not applicable. No aboveground storage tanks shall be installed.

20% OR LESS IMPERVIOUS COVER WAIVER

Not applicable.

BMPs For Up-Gradient Stormwater

Approximately 6.05 acres of upgradient stormwater flow through the subject site. Impervious cover within the upstream catchment area was estimated using the Bexar County Appraisal District information in conjunction with aerial images of the offsite area. These were input into the TSS Removal Worksheets and have been accounted for with our basin designs.

BMPs For On-Site Stormwater

Two (2) permanent BMP devices will be used to treat storm water runoff from the site. The required amount of pollutant load to be treated from the site is 14,011 pounds TSS.

Batch detention basins will be constructed to treat the required pollutant load for the proposed development. Both basins have been sized to capture the total required volume of 76,281 cubic feet. Furthermore, the larger basin has been designed to provide the necessary overtreatment due to the 0.12 acres of impervious cover that exits the site untreated.

Please reference the Exhibits Section at the end of this report for construction plans and specifications.

BMPs For Surface Streams

Not applicable. There are no existing surface streams onsite, therefore additional BMP's are not required.

CONSTRUCTION PLANS

Calculations for the load removal requirements for the project and the load removal provided by the permanent BMP's are provided in the attached spreadsheet, which have been signed and sealed by a professional engineer licensed in the State of Texas. The load removal requirements are derived from the equations from the TCEQ Technical Guidance Manual based upon project area and increase in impervious cover. Provided within the calculations is a summary of the amount of pollutant load required to be removed from the drainage areas and the amount of removal provided by the permanent BMP's.

The table provided below outlines the proposed permanent BMP information for ease of understanding.

Drainage Basin	Proposed BMP	Total Area (Ac)	Pre Development Impervious Area (Ac)	Post Development Impervious Area (Ac)	Lm (lbs)	Lr (lbs)
1	Batch Detention	19.56	0	9.51	7760	7858
2	Batch Detention	11.78	0	7.54	6153	6153
3	Untreated	0.37	0	0.14	98	0
TOTAL		31.46	0	17.17	14011	14011

All construction plans, details, specifications, and construction notes are provided within the Exhibits Section.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

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

Characters shown in red are data entry fields.

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

1. The Required Load Reduction for the total project:

Calculations from RG-348

Pages 3-27 to 3-30

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

where:

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

A_N = Net increase in impervious area for the project

P = Average annual precipitation, inches

lbs.

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

Total project area included in plan *= 31.46 acres
Predevelopment impervious area within the limits of the plan *= 0.00 acres
Total post-development impervious area within the limits of the plan *= 17.17 acres
Total post-development impervious cover fraction *= 0.05 acres
P = 30 inches

LM TOTAL PROJECT = 14011

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

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

3

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

Dustanna	Deals IOutfall	A	Ma -
Drainage	Basin/Outfall	Area	NO. =

Total drainage basin/outfall area =	19.56	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	9.51	acres
Post-development impervious fraction within drainage basin/outfall area =	0.49	
LATUE BASIN =	7760	lbs

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 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

MICHAEL B. RICHARDS

121665

1/CENSE

11/3/23

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

 $\begin{array}{lll} A_{C} = & \mbox{19.56} & \mbox{acres} \\ A_{I} = & \mbox{9.51} & \mbox{acres} \\ A_{P} = & \mbox{10.05} & \mbox{acres} \\ L_{R} = & \mbox{9131} & \mbox{lbs} \end{array}$

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

Desired L_{M THIS BASIN} = 7858 lbs.

F = **0.86**

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

Calculations from RG-348

Pages 3-34 to 3-36

Rainfall Depth = 1.38 inches
Post Development Runoff Coefficient = 0.35

On site Water Quality Volume = 34396 cubic for

On-site Water Quality Volume = 34296 cubic feet

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

Off-site area draining to BMP = 4.27 acres
Off-site Impervious cover draining to BMP = 0.13 acres
Impervious fraction of off-site area = 0.03

Off-site Runoff Coefficient = 0.06

Off-site Water Quality Volume = 1191 cubic feet

Storage for Sediment = 7097

Total Capture Volume (required water quality volume(s) x 1.20) = 42584 cubic feet coving sections are used to calculate the required water quality volume(s) for the selected BMP.

The values for BMP Types not selected in cell C45 will show NA.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

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1. The Required Load Reduction for the total project:

Calculations from RG-348

Pages 3-27 to 3-30

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

where:

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

A_N = Net increase in impervious area for the project

P = Average annual precipitation, inches

lbs.

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

County = Bexar
Total project area included in plan * = 31.46 acres
Predevelopment impervious area within the limits of the plan * = 0.00 acres
Total post-development impervious area within the limits of the plan * = 17.17 acres
Total post-development impervious cover fraction * = 0.55
P = 30 inches

L_{M TOTAL PROJECT} = 14011

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

3

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

Drainage Basin/Outfall Area No. =

Total drainage basin/outfall area = 11.78 acres
Predevelopment impervious area within drainage basin/outfall area = 0.00 acres
Post-development impervious area within drainage basin/outfall area = 7.54 acres
Post-development impervious fraction within drainage basin/outfall area = 0.64

L_{M.THIS BASIN} = 6153 lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 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



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

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

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

 $\begin{array}{llll} A_C = & & 11.78 & \text{acres} \\ A_I = & & 7.54 & \text{acres} \\ A_P = & & 4.24 & \text{acres} \\ L_R = & & 7185 & \text{lbs} \end{array}$

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

Desired L_{M THIS BASIN} = 6153 lbs.

F = **0.86**

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

Calculations from RG-348

Pages 3-34 to 3-36

Rainfall Depth = 1.38 inches
Post Development Runoff Coefficient = 0.45
On-site Water Quality Volume = 26628 cubic feet

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

Off-site area draining to BMP = 1.78 acres
Off-site Impervious cover draining to BMP = 0.26 acres
Impervious fraction of off-site area = 0.15

Off-site Runoff Coefficient = 0.16

Off-site Water Quality Volume = 1453 cubic feet

Storage for Sediment = 5616

Total Capture Volume (required water quality volume(s) x 1.20) = 33697 cubic feet owing sections are used to calculate the required water quality volume(s) for the selected BMP

The values for BMP Types not selected in cell C45 will show NA.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Bandera Ranch

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

1. The Required Load Reduction for the total project:

Calculations from RG-348

Pages 3-27 to 3-30

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

where:

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

A_N = Net increase in impervious area for the project

P = Average annual precipitation, inches

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

Bexar Total project area included in plan 31.46 acres 0.00 Predevelopment impervious area within the limits of the plan * = acres Total post-development impervious area within the limits of the plan* = acres Total post-development impervious cover fraction * = 30 inches

> 14011 lbs. LM TOTAL PROJECT =

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

3

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

Drainage	Basin/Outfall	Area	No =

Total drainage basin/outfall area =	0.12	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.12	acres
Post-development impervious fraction within drainage basin/outfall area =	1.00	
L _{M THIS BASIN} =	98	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Untreated Removal efficiency =

percent

MICHAEL B. RICHARDS

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

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

INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

Batch detention basins may have somewhat higher maintenance requirements than an extended detention basin since they are active stormwater controls. The maintenance activities are identical to those for extended detention basins with the addition of maintenance and inspections of the automatic controller and the valve at the outlet.

- Inspections: 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.
- 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.
- Litter and Debris Removal: 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.
- Erosion Control: 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 shold take place whenever required based on
 the periodic inspections.
- Nuisance Control: Standing water or soggy conditions may occur in the basin. Some standing
 water may occur after a storm event since the valve may close with 2 to 3 inches of water in the
 basin. Some flow into the basin may also occur between storms due to spring flow and
 residential water use that enters the storm sewer system. Twice a year, the facility should be
 evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.).
- Structural Repairs and Replacement: With each inspection, any damage to structural elements of
 the basin (pipes, concrete drainage structures, retaining walls, etc.) should be identified and
 repaired immediately. An example of this type of repair can include patching 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.

- Sediment Removal: A properly designed batch detention basin will accumulate quantities of sediment over time. The accumulated sediment can detract from the appearance of the facility and reduce the pollutant removal performance of the facility. The sediment also 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.
- 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.

SIGNATURE

This inspection and maintenance plan outlines the procedures necessary to maintain the performance of the Permanent Best Management Practices for this project. It should be noted that the plan provides guidelines that may have to be adjusted dependent on site specific and weather related conditions.

It is the responsibility of the owner to contract with a representative to provide the inspections and maintenance as outlined in the plan for the duration of the project. The owner will maintain this responsibility until it is assumed or transferred to another entity in writing. If the property is leased or sold, the responsibility for the maintenance will be required to be transferred through the lease agreement, binding covenants, closing documents, or other binding legal instrument.

I, the owner, have read and understand the requirements of the Inspection and Maintenance Plan for the proposed Permanent Best Management Practices for my project. I acknowledge that I will maintain responsibility for the implementation and execution of the plan until the responsibility is transferred to or assumed by another party in writing through a binding legal instrument.

Owner: Curtis Thiggen

10.27.23

Date

Owner

Helotes Bandera Ranch, LP

PILOT-SCALE FIELD TESTING PLAN

Not applicable. The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMP's and measures for this site, therefore pilot-scale field testing is not required.

MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

No surface streams exist onsite. During the construction phase, temporary BMP's, both structural and nonstructural, will be used to prevent pollution from leaving the site. All disturbed areas will be re-vegetated as soon as practical.

SECTION 2 TEMPORARY STORMWATER

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: <u>Mich</u>ael Richards

Date: <u>10/26</u>/23

Signature of Customer/Agent:

Regulated Entity Name: Bandera Ranch

Project Information

Potential Sources of Contamination

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

1.	Fuels for construction equipment and hazardous substances which will be used during construction:
	☐ The following fuels and/or hazardous substances will be stored on the site:
	These fuels and/or hazardous substances will be stored in:
	Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

	Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year. Aboveground storage tanks with a cumulative storage capacity of 500 gallons or
	more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.
	\checkmark 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

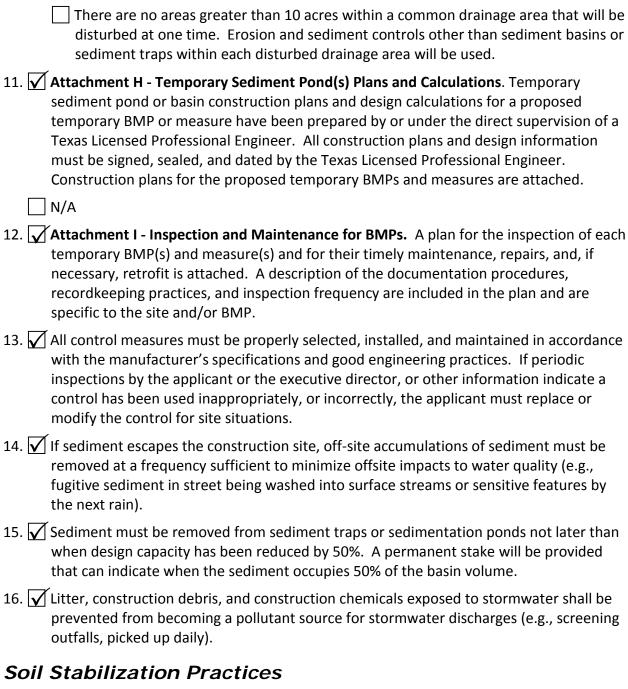
Temporary Best Management Practices (TBMPs)

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.

receive discharges from disturbed areas of the project: Helotes Creek (1906A)

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 appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.
- 22. Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

SPILL RESPONSE ACTIONS

If there is an accidental spill on site, the contractor shall respond with appropriate action. The contractor will be required to contact the owner and in turn the owner will contact the TCEQ in the event of a spill on site. In addition to the following guidance, reference the latest version of TCEQ's Technical Guidance Manual (TGM) RG-348 Section 1.4.16.

The following steps help reduce the storm water impacts of leaks and spills.

Education

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

General Measures

- 1. To the extent that the work can be accomplished safely, spills of oil, petroleum products, and substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.
- 2. Store hazardous materials and wastes in covered containers and protect from vandalism.
- 3. Place a stockpile of spill cleanup materials where it will be readily accessible.
- 4. Train employees in spill prevention and cleanup.
- 5. Designate responsible individuals to oversee and enforce control measures.
- 6. Spills should be covered and protected from storm water run-on during rainfall to the extent that it doesn't compromise cleanup activities.
- 7. Do not bury or wash spills with water.

Cleanup

1. Clean up leaks and spills immediately.

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

Minor Spills

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

Semi-Significant Spills

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

Spills should be cleaned up immediately:

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

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

1. Notify the TCEQ by telephone as soon as possible and within 24 hours at (512)339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and

- 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
- 2. For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.
- 3. Notification should first be made by telephone and followed up with a written report.
- 4. The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.
- 5. Other agencies which may need to be consulted include, but not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

Vehicle And Equipment Maintenance

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

Vehicle and Equipment Fueling

- 1. If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.
- 2. Discourage "topping off" of fuel tanks.

Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

POTENTIAL SOURCES OF CONTAMINATION

Potential Source: Oil, grease, fuel, and hydraulic fluid contamination from construction equipment and vehicle dripping.

Preventative Measures: Vehicle maintenance when possible will be performed within the construction staging area or a local maintenance shop.

Potential Source: Miscellaneous trash and litter from construction workers and material wrappings.

Preventative Measures: Trash containers will be placed throughout the site to encourage proper disposal of trash.

Potential Source: Silt leaving the site.

Preventative Measures: Contractor will install all temporary best management practices prior to start of construction including the stabilized construction entrance to prevent tracking onto adjoining streets.

Potential Source: Construction Debris.

Preventative Measures: 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: Soil and Mud from Construction Vehicle tires as they leave the site.

Preventative Measures: A stabilized construction exit shall be utilized as vehicles leave the site. Any soil, mud, etc. carried from the project onto public roads shall be cleaned up within 24 hours.

Potential Source: Sediment from soil, sand, gravel and excavated materials stock piled on site.

Preventative Measures: Silt fence shall be installed on the down gradient side of the stock piled materials. Reinforced rock berms shall be installed at all downstream discharge locations.

Potential Source: Portable toilet spill.

Preventative Measures: Toilets on the site will be emptied on a regular basis by the contracted toilet company..

SEQUENCE OF MAJOR ACTIVITIES

Intended Schedule or Sequence of Major Activities:

- 1. Installation of BMPs (4.11 Acres)
- 2. Site clearing Activities (<u>31.46</u> Acres)
- 3. Rough Subgrade Preparation (earthwork, grading, street and drainage excavation and embankment) (<u>9.46</u> Acres)
- 4. Wet and Dry Utility Construction (1.50 Acres)
- 5. Final Subgrade Preparation (<u>9.46</u> Acres)
- 6. Installation of Base Materials (9.46 Acres)
- 7. Concrete (foundations, curbs, flatwork) (7.71 Acres)
- 8. Building Construction (<u>5.66</u> Acres)
- 9. Paving Activities (<u>9.46</u> Acres)
- 10. Topsoil, Irrigation and Landscaping (<u>11.99</u> Acres)
- 11. Site cleanup and Removal of BMPs (31.46 Acres)

TEMPORARY BEST MANAGEMENT PRACTICES AND MEASURES

A: Surface water originates up-gradient from the site. These areas will continue flowing through the subject site and be routed through the permanent structural BMP's proposed with this development.

Perimeter swales, dikes and slope drains may be necessary to route the upgradient stormwater through the site in order to get these areas to drain through the proposed basins. Stabilizing measures will be applied, to the maximum extent practicable, after the removal of any vegetative cover and/or altering the soil structure by clearing, grading, and compacting.

B: Surface and ground water do not originate from on-site or flows off-site. Therefore, additional Temporary Best Management Practices and Measures to prevent pollution of surface and ground water will not be required.

Temporary Best Management Practices and Measures will be installed prior to soil disturbing construction activity to prevent pollution caused by contaminated storm water runoff from the site. Silt fencing will be placed along the down-gradient sides of the property to prevent silt from escaping the construction area. Inlet protection will be placed on all inlets. A temporary construction entrance will be placed on site to reduce vehicle "tracking" onto adjoining streets. A concrete washout pit will be used to collect all excess concrete during construction. A construction staging area will be used for equipment storage and vehicle maintenance.

Practices may also be implemented on site for interim and permanent stabilization. Stabilization practices may include but are not limited to: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, and other similar measures.

- **C:** The temporary on-site Temporary Best Management Practices and Measures will be used to treat stormwater runoff before it leaves the project and prevent pollutants from entering into surface streams or any sensitive features.
- **D:** Should any natural occurring sensitive features be located during the course of construction, the owner, geologist and engineer of record shall be notified immediately. A Solution Feature Discovery Notification Form will then be submitted to the Texas Commission of Environmental Quality for review.

REQUEST TO TEMPORARILY SEAL A FEATURE

No solution features have been identified at this time. Therefore, a request to temporarily seal a naturally-occurring sensitive feature will not be required.

STRUCTURAL PRACTICES

Structural practices will be installed to prevent pollution caused by contaminated storm water runoff discharge from exposed areas of the site. All structural practices will be installed prior to the removal of any vegetative cover and/or altering the soil structure by clearing, grading, and compacting. The location of all structural practices for the subject site is shown on the Erosion Control Plan (Exhibit 1-A). Details and specifications for the selected structural practices are also provided in Exhibit 1-A. The following describes the structural practices used.

Concrete Washout Areas

The purpose of concrete washout areas is to prevent or reduce the discharge of pollutants to storm water from concrete waste by conducting washout offsite, performing onsite washout in a designated area, and training employees and subcontractors.

The following steps will help reduce storm water pollution from concrete wastes:

- 1. Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- 2. Avoid mixing excess amounts of fresh concrete.
- 3. Perform washout of concrete trucks in designated areas only.
- 4. Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- 5. Do not allow excess concrete to be dumped onsite, except in designated areas.

For onsite washout:

- Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
- 2. Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.

Below grade concrete washout facilities are typical. These consist of a lined excavation sufficiently large to hold expected volume of washout material. Above grade facilities are used if excavation is not practical. Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this section, with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. Plastic lining material should be a minimum of 10mil in polyethylene sheeting and should be

free of holes, tears, or other defects that compromise the impermeability of the material.

When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Silt Fence

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 installed, silt fences are not likely to be effective.

The purpose of a silt fence is to intercept and detain water-borne 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 areas of concentrated flow.

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 at any time.

Materials:

- 1. Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width 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%, and minimum apparent opening size of U.S. Sieve No. 30.
- 2. Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/ft2, and Brindell hardness exceeding 140.
- 3. Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

Installation:

- 1. Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1-foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.
- 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 ¼ acre/100 feet of fence.
- 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 trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence.
- 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 backfilled with compacted material.
- 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 ends of fabric meet.
- 6. Silt fence should be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

Common Trouble Points:

- 1. Fence not installed along the contour causing water to concentrate and flow over the fence.
- 2. Fabric not seated securely to ground (runoff passing under fence)
- 3. Fence not installed perpendicular to flow line (runoff escaping around sides)
- 4. Fence treating too large an area, or excessive channel flow (runoff overtops or collapses fence)

Temporary Construction Entrance/Exit

The purpose of a temporary gravel construction entrance is to provide a stable entrance/exit condition from the construction site and keep mud and sediment off public roads. A stabilized construction entrance is a stabilized pad of crushed stone located at any point traffic will be entering or leaving the construction site from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking or flowing of sediment onto public rights-of-way. This practice should be used at all points of construction ingress and egress.

Excessive amounts of mud can also present a safety hazard to roadway users. To minimize the amount of sediment loss to nearby roads, access to the construction site should be limited to as few points as possible and vegetation around the perimeter should be protected were access is not necessary. A rock stabilized construction entrance should be used at all designated access points.

Materials:

- 1. The aggregate should consist of 4 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 8 inches.
- 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 rack should be included in the plans. Divert wastewater to a sediment trap or basin.

Installation: (North Carolina, 1993)

- 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 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.
- 6. Place stone to dimensions and grade shown on plans. Leave 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 drainage.

Common trouble points:

- 1. Inadequate runoff control sediment washes onto public road.
- 2. Stone too small or geotextile fabric absent, results in muddy condition as stone is pressed into soil.
- 3. 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 edge.
- 5. Unstable foundation use geotextile fabric under pad and/or improve foundation drainage.

Inlet Protection

Storm sewers that are made operational prior to stabilization of the associated drainage areas can convey large amounts of sediment to natural drainage ways. In case of extreme sediment loading, the storm sewer itself may clog and lose a major portion of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets. The following guidelines for inlet protection are based primarily on recommendations by the Virginia Dept. of Conservation and Recreation (1992) and the North Central Texas Council of Governments (NCTCOG, 1993b).

In developments for which drainage is to be conveyed by underground storm sewers (i.e., streets with curbs and gutters), all inlets that may receive storm runoff from disturbed areas should be protected. Temporary inlet protection is a series of different measures that provide protection against silt transport or accumulation in storm sewer systems. This clogging can greatly reduce or completely stop the flow in the pipes. The different measures are used for different site conditions and inlet types.

Care should be taken when choosing a specific type of inlet protection. Field experience has shown that inlet protection that causes excessive ponding in an area of high construction activity may become so inconvenient that it is removed or bypassed, thus transmitting sediment-laden flows unchecked. In such situations, a structure with an adequate overflow mechanism should be utilized.

It should also be noted that inlet protection devices are designed to be installed on construction sites and not on streets and roads open to the public. When used on public streets these devices will cause ponding of runoff, which can cause minor flooding and can present a traffic hazard. An example of appropriate siting would be a new subdivision where the storm drain system is installed before the area is stabilized and the streets open to the general public. When construction occurs adjacent to active streets, the sediment should be controlled on site and not on public thoroughfares. Occasionally, roadwork or utility installation will occur on public roads. In these cases, inlet protection is an appropriate temporary BMP.

The following inlet protection devices are for drainage areas of one acre or less. Runoff from larger disturbed areas should be routed to a temporary sediment trap or basin. Filter barrier protection using silt fence is appropriate when the

drainage area is less than one acre and the basin slope is less than five percent. This type of protection is not applicable in paved areas.

Block and gravel protection is used when flows exceed 0.5 cubic feet per second and it is necessary to allow for overtopping to prevent flooding. This form of protection is also useful for curb type inlets as it works well in paved areas.

Wire mesh and gravel protection is used when flows exceed 0.5 cubic feet per second and construction traffic may occur over the inlet. This form of protection may be used with both curb and drop inlets.

Excavated impoundment protection around a drop inlet may be used for protection against sediment entering a storm drain inlet. With this method, it is necessary to install weep holes to allow the impoundment to drain completely. If this measure is implemented, the impoundment should be sized such that the volume of excavation is 3,600 cubic feet per acre (equivalent to 1 inch of runoff) of disturbed area entering the inlet.

Materials:

- 1. Filter fabric should be a nylon reinforced polypropylene fabric which meets the following minimum criteria: Tensile Strength, 90 lbs.; Puncture Rating, 60 lbs.; Mullen Burst Rating, 280 psi; Apparent Opening Size, U.S. Sieve No. 70.
- 2. Posts for fabric should be 2" x 4" pressure treated wood stakes or galvanized steel, tubular in cross-section or they may be standard fence "T" posts.
- 3. Concrete blocks should be standard 8" x 8" x 16" concrete masonry units.
- 4. Wire mesh should be standard hardware cloth or comparable wire mesh with an opening size not to exceed 1/2 inch.

Guidelines for installation:

Silt Fence Drop Inlet Protection

- 1. Silt fence should conform to the specifications listed above and should be cut from a continuous roll to avoid joints.
- 2. For stakes, use 2 x 4-inch wood or equivalent metal with a minimum length of 3 feet.
- 3. Space stakes evenly around the perimeter of the inlet a maximum of 3 feet apart, and securely drive them into the ground, approximately 18 inches deep.
- 4. To provide needed stability to the installation, a frame with 2 x 4- inch wood strips around the crest of the overflow area at a maximum of 1½ feet above the drop inlet crest should be provided.

- 5. Place the bottom 12 inches of the fabric in a trench and backfill the trench with 12 inches of compacted soil.
- 6. Fasten fabric securely by staples or wire to the stakes and frame. Joints must be overlapped to the next stake.
- 7. It may be necessary to build a temporary dike on the down slope side of the structure to prevent bypass flow.

If the drop inlet is above the finished grade, the grate may be completely covered with filter fabric. The fabric should be securely attached to the entire perimeter of the inlet using 1"x 2" wood strips and appropriate fasteners.

Gravel and Wire Mesh Drop Inlet Sediment Filter

- 1. Wire mesh should be laid over the drop inlet so that the wire extends a minimum of 1 foot beyond each side of the inlet structure. Wire mesh with 1/2-inch openings should be used. If more than one strip of mesh is necessary, the strips should be overlapped.
- 2. Coarse aggregate should be placed over the wire mesh. The depth of stone should be at least 12 inches over the entire inlet opening. The stone should extend beyond the inlet opening at least 18 inches on all sides.
- 3. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stones must be pulled away from the inlet, cleaned and/or replaced.

Note: This filtering device has no overflow mechanism; therefore, ponding is likely especially if sediment is not removed regularly. This type of device should never be used where overflow may endanger an exposed fill slope. Consideration should also be given to the possible effects of ponding on traffic movement, nearby structures, working areas, adjacent property, etc.

Block and Gravel Drop Inlet Sediment Filter

- 1. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, with the ends of adjacent blocks abutting. The height of the barrier can be varied, depending on design needs, by stacking combinations of 4-inch, 8-inch and 12- inch wide blocks. The barrier of blocks should be between 12 and 24 inches high.
- 2. Wire mesh should be placed over the outside vertical face (webbing) of the concrete blocks to prevent stone from being washed through the holes in the blocks. Wire mesh with 1/2-inch openings should be used.
- 3. Stone should be piled against the wire to the top of the block barrier.

4. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stone must be pulled away from the blocks, cleaned and replaced.

Block and Gravel Curb Inlet Sediment Filter

- 1. Two concrete blocks should be placed on their sides abutting the curb at either side of the inlet opening.
- 2. A 2- inch x 4- inch stud should be cut and placed through the outer holes of each spacer block to help keep the front blocks in place.
- 3. Concrete blocks should be placed on their sides across the front of the inlet and abutting the spacer blocks.
- 4. Wire mesh should be placed over the outside vertical face (webbing) of the concrete blocks to prevent stone from being washed through the holes in the blocks. Wire mesh with 1/2-inch openings should be used.
- 5. Coarse aggregate should be piled against the wire to the top of the barrier.
- 6. If the stone filter becomes clogged with sediment so that it no longer adequately performs its function, the stone must be pulled away from the blocks, cleaned and/or replaced.

Excavated Drop Inlet Sediment Trap

- 1. The excavated trap should be sized to provide a minimum storage capacity calculated at 3,600 cubic feet per acre of drainage area. A trap should be no less than 1-foot nor more than 2 feet deep measured from the top of the inlet structure. Side slopes should not be steeper than 2:1.
- 2. The slope of the basin may vary to fit the drainage area and terrain. Observations must be made to check trap efficiency and modifications should be made as necessary to ensure satisfactory trapping of sediment. Where an inlet is located so as to receive concentrated flows, such as in a highway median, it is recommended that the basin have a rectangular shape in a 2:1 (length/width) ratio, with the length oriented in the direction of the flow.
- 3. Sediment should be removed and the trap restored to its original dimensions when the sediment has accumulated to one- half the design depth of the trap. Removed sediment should be deposited in a suitable area and in a manner such that it will not erode.

Curb Inlet Protection with 2-inch x 4-inch Wooden Weir

1. Attach a continuous piece of wire mesh (30-inch minimum width x inlet throat length plus 4 feet) to the 2-inch x 4-inch wooden weir (with a

- total length of throat length plus 2 feet). Wood should be "construction grade" lumber.
- 2. Place a piece of approved filter cloth of the same dimensions as the wire mesh over the wire mesh and securely attach to the 2- inch x 4- inch weir.
- 3. Securely nail the 2-inch x 4-inch weir to the 9-inch long vertical spacers which are to be located between the weir and inlet face at a maximum 6- foot spacing.
- 4. Place the assembly against the inlet throat and nail 2-foot (minimum) lengths of 2-inch x 4- inch board to the top of the weir at spacer locations. These 2- inch x 4-inch anchors should extend across the inlet tops and be held in place by sandbags or alternate weight.
- 5. The assembly should be placed so that the end spacers are a minimum 1 foot beyond both ends of the throat opening.
- 6. Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place coarse aggregate over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or around the filter cloth.
- 7. This type of protection should be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
- 8. Assure that storm flow does not bypass inlet by installing temporary earth or asphalt dikes directing flow into inlet.

Bagged Gravel Inlet Filter

Sandbags filled with pea gravel can also be used to construct a sediment barrier around curb and drain inlets. The sandbags should be filled with washed pea gravel and stacked to form a continuous barrier about 1 foot high around the inlets. The bags should be tightly abutted against each other to prevent runoff from flowing between the bags.

Common Trouble Points:

- 1. Gaps between the inlet protection and the curb (flows bypass around side of filter).
- 2. Filter fabric skirt not anchored to pavement (flows pass under filter).

DRAINAGE AREA MAP

The existing and proposed condition drainage maps are provided at the end of this form. Silt fencing will be used in combination with other erosion and sediment controls within each disturbed drainage area.

TEMPORARY SEDIMENT POND(S) PLANS AND CALCULATIONS

More than 10 acres will be disturbed during construction activities. However, the permanent basins will be implemented immediately upon the commencement of construction. Therefore, temporary ponds/calculations will not be necessary.

INSPECTION AND MAINTENANCE FOR BMPS

Maintenance

All temporary and sediment control BMPs will be maintained and repaired as needed to assure continued performance of their intended function. All maintenance and repair of BMPs will be conducted in accordance with manufacturers' specifications.

All temporary erosion and sediment control BMPs will be removed within 30 days after final site stabilization is achieved or after the temporary BMPs are no longer needed. Trapped sediment will be removed or stabilized on site. Disturbed soil areas resulting from removal of BMPs or vegetation will be permanently stabilized as soon as possible.

Erosion and sediment controls are designed to prevent soil erosion and sediment migration offsite, to the extent practicable, which may result from construction activity. This design considers local topography, soil type, and rainfall.

Control measures must be installed and maintained according to the manufacturer's specifications. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the permitee must replace or modify the control for site situations.

If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts, and whenever feasible, prior to the next rain event.

The controls must be installed, maintained, and operated in a manner that will limit, to the extent practicable, offsite transport of litter, construction debris, and construction materials.

Inspections

An inspection will be performed by the qualified personnel, as designated by the permitee, on a weekly basis and after any rainfall event. An inspection and maintenance report shall be made per inspection. An inspection form has been included in this report and in the SWPPP. Based on the inspection results, the controls shall be corrected before the next scheduled inspection.

A log of inspection results will be maintained on-site and will include the name of the inspector, date, major observations, and necessary corrective measures. Reports of maintenance and inspection activities will be maintained on-site, in conformance with the TPDES permit conditions. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWPPP. This report must be signed by the responsible party.

Major observations shall, at a minimum, include the following:

- The locations of discharges of sediment or other pollutants from the site;
- Locations of BMPs that need to be maintained;
- Locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and
- Location where additional BMPs are needed.

All needed repairs or modifications will be reported to the contractors to permit the timely implementation of required actions. Necessary repairs of modifications will be implemented within seven days of inspection. The SWPPP will be modified within seven days to reflect any modifications to measures as a result of inspection.

The SWPPP must be amended whenever there is a change in design, construction, operation or maintenance that has a significant effect on the discharge of pollutants to the waters of the United States that was not addressed in the SWPPP.

The SWPPP must be amended when inspections or investigations by site operations, local, state or federal officials indicate that the SWPPP is proving ineffective in eliminating or significantly minimizing pollutants from the construction site or otherwise is not achieving the general objectives of controlling pollutants in storm water discharges associated with construction activity.

INSPECTION FORM

Project Name:					
Owner (s)/Operator (s):			ION		
Permit Numbers(s):	NOT APPLICABLE	COMPLIANCE	NEEDS CORRECTION		
Inspection Date:	77	Ľ	OR		
	APF	MP	SC C		
	101	ĭ N	IEE	COMMENTS	
RECORD KEEPING	_ <	-	_<	COMMENTS	
SWP3 Current					
NOI and Permit Posted					
BEST MANAGEMENT PRACTICES (BMPs)					
Vegetative Buffers					
Soil Covering(Including mulch and temporary vegetation)					
Outlet Protection					
Sediment Control Basins					
Silt Fence					
Stabilized Entrances/Exits					
Construction Staging Areas					
Inlet Protection					
Gravel Filter Bags					
Vegetated Filter Strip					
Concrete Truck Washout Pit					
Trash Receptacles					
General Site Cleanliness					
Other					
Other					
Other					
MAJOR OBSERVATIONS					
CERTIFICATION "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." "I further certify I am an authorized signatory in accordance with the provisions of 30 TAC §305.128."					
INSPECTOR NAME/SIGNATURE: (Inspector must attach a brief summary of qualifications to this report.)		_		DATE:	
				2.47	
OWNER NAME/SIGNATURE:				DATE:	

SCHEDULE OF INTERIM AND PERMANENT SOIL STABILIZATION

Construction practices shall disturb the minimal amount of existing ground cover as required for land clearing, grading, and construction activity for the shortest amount of time possible to minimize the potential of erosion and sedimentation from the site. Existing vegetation shall be maintained and left in place until it is necessary to disturb for construction activity. For this project the following stabilization practices will be implemented:

- 1. Hydraulic Mulch and Seeding: Disturbed areas subject to erosion shall be stabilized with hydraulic mulch and/or seeded and watered to provide interim stabilization. For areas that are not to be sodded as per the project landscaping plan, a minimum of 85% vegetative cover will be established to provide permanent stabilization.
- 2. Sodding and Wood Mulch: As per the project landscaping plan, Sodding and wood mulch will be applied to landscaped areas to provide permanent stabilization prior to project completion.

Records of the following shall be maintained by the permitee in the attached Project Timeline:

- a) The dates when major grading activities occur;
 - b) The dates when construction activities temporarily or permanently cease on a portion of the site; and
- c) The dates when stabilization measures are initiated.

Stabilization measures must be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, and except as provided in the following, must be initiated no more that fourteen (14) days after the construction activity in that portion of the site has temporarily or permanently ceased:

Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practical.

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 the site.

In arid areas (areas with an average rainfall of 0-10 inches), semiarid areas (areas with an average annual rainfall of 10 to 20 inches), and 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 practical.

PROJECT TIMELINE

	DATES WHEN MAJOR GRADING ACTIVITIES OCCUR
Date	Construction Activity
DATES WHE	N CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE
Date	Construction Activity
Date	Construction Activity
	DATES WHEN STABILIZATION MEASURES ARE INITIATED
Date	Stabilization Activity



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:
 - 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 applicat	ole afte	er June 3	3, 2018)
Is t	this NOI for a renewal of an existing authorizat	ion?	□ Yes	⊠ No
If Y	Yes, provide the authorization number here: TX	R15		to enter text
NC	OTE: If an authorization number is not provided	l, a new	v numbe	er will be assigned.
SE	CTION 1. OPERATOR (APPLICANT)			
a)	If the applicant is currently a customer with To (CN) issued to this entity? CN	CEQ, w	hat is th	ne Customer Number
	(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.)			
	<u>Helotes Bandera Ranch, LP</u>			
c)	What is the contact information for the Opera	itor (Re	esponsil	ole Authority)?
	Prefix (Mr. Ms. Miss): <u>Mr.</u>			
	First and Last Name: Curtis Thigpen Suffix:			
	Title: Owner Credentials:	xt.		
	Phone Number: $512-934-9823$ Fax Number: N/A			
	E-mail: Click here to enter text.			
	Mailing Address: <u>1509 Old West 38th St., Ste. 3</u>	<u>3</u>		
	City, State, and Zip Code: <u>Austin, TX 78731</u>			
	Mailing Information if outside USA:			
	Territory:			
	Country Code: Postal C	Code:		e to enter text.
d)	Indicate the type of customer:			
	□ Individual	□ Fe	deral Go	overnment
	☑ Limited Partnership	□ Co	ounty Go	overnment
	□ General Partnership	□ Sta	ate Gove	ernment
	☐ Trust	□ Cit	ty Gove	rnment
	☐ Sole Proprietorship (D.B.A.)	□ Ot	her Gov	ernment
	☐ Corporation	□ Ot	her:	ck 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	ı, check No.)
f)	Number of Employees. Sele	ect the range a	pplicable to your company.	
	⊠ 0-20		□ 251-500	
	□ 21-100		□ 501 or higher	
	□ 101-250			
g)		_	ers: (Required for Corporati ls, Government, or Sole Pro	
	State Franchise Tax ID Nun	nber:	e to enter text,	
	Federal Tax ID:	to enter text <u>.</u>		
	Texas Secretary of State Ch	narter (filing) N	umber: Click here to enter	text.
	DUNS Number (if known):		nter text.	
SE	CTION 2. APPLICATION CO	NTACT		
			religions identified above?	
18	the application contact the s	same as me ap	pucant identified above?	
	✓ Yes, go to Section 3			
_	□ No, complete this sect	ion		
	efix (Mr. Ms. Miss):			
	st and Last Name:	e to enter text.	Suffix: Click here to enter t	ext.
		Credential:	ck here to enter text.	
Or	ganization Name:	e to enter text.		
Ph	one Number:	nter text Fax I	Number:	text.
E-r	nail: Click here to enter text			
Ma	iling Address:	enter text.		
Int	ernal Routing (Mail Code, Et	tc.): Click here	to enter text.	
Cit	y, State, and Zip Code:		text.	
Ma	iling information if outside	USA:		
Te	rritory: Click here to enter to	ext.		
Co	untry Code:	Posta	l Code: Click here to enter t	ext.
SE	CTION 3. REGULATED ENTI	TY (RE) INFOR	MATION ON PROJECT OR S	SITE
a)	If this is an existing permit issued to this site? RN		-	mber (RN)
	(Refer to Section 3.a) of the	Instructions)		
	(Lieute to deciding dia) of the			

- b) Name of project or site (the name known by the community where it's located): Bandera Ranch
- c) In your own words, briefly describe the type of construction occurring at the regulated site (residential, industrial, commercial, or other): <u>Multi-family residential & commercial development</u>
- d) County or Counties (if located in more than one): Bexar
- e) Latitude: 29.5836 Longitude: 98.6916
- 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.

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Seci	110771	<i>H</i> -

Street Number and Name:	Click here to enter text
City, State, and Zip Code:	

Section B:

Location Description: <u>NEC of Bandera Rd and Scenic Loop Rd</u>

City (or city nearest to) where the site is located: <u>Helotes</u>

Zip Code where the site is located: 78023

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>1522</u>
- d) What is the Secondary SIC Code(s), if applicable? 5812
- e) What is the total number of acres to be disturbed? 31.46
- 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? $3/1/24$
h)	What is the estimated end date of the project? $3/1/26$
i)	Will concrete truck washout be performed at the site? $\ oxtimes$ Yes $\ oxtimes$ No
j)	What is the name of the first water body(ies) to receive the stormwater runoff or potential runoff from the site? <u>Helotes Creek</u>
k)	What is the segment number(s) of the classified water body(ies) that the discharge will eventually reach? $\underline{1906A}$
1)	Is the discharge into a Municipal Separate Storm Sewer System (MS4)?
	⊠ Yes □ No
	If Yes, provide the name of the MS4 operator: <u>City of Helotes</u>
	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
3)	I certify that I have obtained a copy and understand the terms and conditions of the
a)	Construction General Permit (TXR150000).
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.
c)	I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. $\hfill \boxtimes$ 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).

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 a my direction or supervision in accordance with a syste personnel properly gather and evaluate the informatio the person or persons who manage the system, or tho gathering the information, the information submitted belief, true, accurate, and complete. I am aware there a submitting false information, including the possibility knowing violations.	em designed to assure that qualified on submitted. Based on my inquiry of se persons directly responsible for is, to the best of my knowledge and are significant penalties for
I further certify that I am authorized under 30 Texas A and submit this document, and can provide document 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.)

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.)
\square 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
☐ If this application is for renewal of an existing authorization, the authorization number is provided.
OPERATOR INFORMATION
□ Customer Number (CN) issued by TCEQ Central Registry
□ Legal name as filed to do business in Texas. (Call TX SOS 512-463-5555 to verify.)
\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.
$\hfill\square$ Application contact and address is complete & verifiable with USPS. $\underline{\text{http://www.usps.com}}$
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
☐ 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 Tayas Administrative Code (TAC) 8305 44 and is original

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

GENERAL INFORMATION

Where to Send the Notice of Intent (NOI):

By Regular Mail: By Overnight or Express Mail:

TCEQ 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 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 TCEQ.

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

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

Change in Operator

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

TCEQ Central Registry Core Data Form

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

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

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

INSTRUCTIONS FOR FILLING OUT THE NOI FORM

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

Section 1. OPERATOR (APPLICANT)

a) Customer Number (CN)

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

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

b) Legal Name of Applicant

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

c) Contact Information for the Applicant (Responsible Authority)

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

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

The phone number should provide contact to the applicant.

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

d) Type of Customer (Entity Type)

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

Individual

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

Partnership

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

Trust or Estate

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

Sole Proprietorship (DBA)

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

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

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

Corporation

A customer that meets all of these conditions:

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

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

Government

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

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

Other

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

e) Independent Entity

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

f) Number of Employees

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

g) Customer Business Tax and Filing Numbers

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

State Franchise Tax ID Number

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

Federal Tax ID

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

TX SOS Charter (filing) Number

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

DUNS Number

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

Section 2. APPLICATION CONTACT

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

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

a) Regulated Entity Number (RN)

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

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

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

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

b) Name of the Project or Site

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

c) Description of Activity Regulated

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

d) County

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

e) Latitude and Longitude

Enter the latitude and longitude of the site in degrees, minutes, and seconds or decimal form. For help obtaining the latitude and longitude, go to: http://www.tceg.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=&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 Quality General Permit Payment Submittal Form

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

Instructions:

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

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

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

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

Fee Code:	GPA	General Permit	t: TXR150000
1 Check or	· Money	Order No	nere to enter text

- 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:		

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

SECTION 3 ADDITIONAL FORMS

Agent Authorization Form

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

	Curtis Thigpen	
	Print Name	
	Owner	
	Title - Owner/President/Other	
of	Helotes Bandera Ranch, LP	
	Corporation/Partnership/Entity Nam	0
have authorized	Michael Richards	AND AND A STATE OF
	Print Name of Agent/Engineer	A TOTAL BELL TO THE SAME
of	Colliers Engineering & Design	
	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.
- 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.
- Application fees are due and payable at the time the application is submitted. The
 application fee must be sent to the TCEQ cashier or to the appropriate regional office.
 The application will not be considered until the correct fee is received by the
 commission.
- 4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.
- 5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

/0-28-23 Date

THE STATE OF **Texas** §

County of <u>Travis</u> §

BEFORE ME, the undersigned authority, on this day personally appeared <u>Curtis Thigpen</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.

Amy L Burtnett
My Commission Expires
1/30/2027
Notary ID 125069441

MOTARY PUBLIC

1- My LBWINETT

MY COMMISSION EXPIRES: 1-30-27

Application Fee Form

Texas Commission on Environment Name of Proposed Regulated Entity Regulated Entity Location: NEC of Name of Customer: Helotes Band Contact Person: Michael Richard Customer Reference Number (if is Regulated Entity Reference Number Austin Regional Office (3373)	ry: <u>Band</u> era Ranch f Bandera Rd & Sce dera Ranch, LP Attn: s Phor sued):CN						
☐ Hays San Antonio Regional Office (3362)	Travis		W	illiamson			
✓ Bexar ☐ Comal Application fees must be paid by c			er, payab				
Commission on Environmental Question must be submitted with you	-						
form must be submitted with your fee payment. This payment is being submitted to: ☐ Austin Regional Office ☐ Mailed to: TCEQ - Cashier ☐ Revenues Section ☐ Mail Code 214 ☐ P.O. Box 13088 ☐ Austin, TX 78711-3088 Site Location (Check All That Apply): This payment is being submitted to: ☐ Overnight Delivery to: TCEQ - Cashier ☐ 12100 Park 35 Circle ☐ Building A, 3rd Floor ☐ Austin, TX 78753 ☐ (512)239-0357							
Recharge Zone	Contributing Zone]	Transi	tion Zone			
Type of Plan)	Size		Fee Due			
Water Pollution Abatement Plan, One Single Family Residentia Water Pollution Abatement Plan, O	l Dwelling		Acres	\$			
Plan: Multiple Single Family Reside			Acres	\$			
Water Pollution Abatement Plan, (Plan: Non-residential	Contributing Zone	31.46	Acres	\$ 6,500			
Sewage Collection System			L.F.	\$			
Lift Stations without sewer lines			Acres	\$			
Underground or Aboveground Sto	rage Tank Facility		Tanks	\$			
Piping System(s)(only)			Each	\$			
Exception			Each	\$			
Extension of Time			Each	\$			

Date: <u>10/26</u>/23

Signature:

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, institutional,	< 1	\$3,000
multi-family residential, schools, and other sites	1 < 5	\$4,000
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

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	Fee
Exception Request	\$500

Extension of Time Requests

Project	Fee
Extension of Time Request	\$150



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for	Submissi	on (If other is checked	l please describe	in space pr	ovided.)					
New Pern	nit, Registra	ation or Authorization	(Core Data Forn	should be s	submitted v	with the prog	ram application.)			
Renewal	(Core Data	Form should be submi	tted with the rei	newal form)			Other			
2. Customer Reference Number (if issued) Follow this link to search for CN or RN numbers in							gulated Entity Re	ference	Number (if	issued)
CN				RN						
SECTIO	N II:	Customer	Inform	ation	<u>1</u>					
4. General Cւ	ıstomer In	formation	5. Effective I	Date for Cu	ustomer li	nformation	Updates (mm/dd/	′уууу)		
New Custor	mer		pdate to Custor	ner Informa	tion	Chai	nge in Regulated En	ity Own	ership	
Change in Lo	egal Name ((Verifiable with the Te	xas Secretary of	State or Tex	as Comptro	oller of Public	Accounts)			
		ibmitted here may i oller of Public Accou	-	tomatical	ly based o	on what is c	urrent and active	with th	ne Texas Sec	retary of State
6. Customer	Legal Nam	ne (If an individual, pri	nt last name firs	t: eg: Doe, J	lohn)		If new Customer,	enter pre	evious Custom	ner below:
Helotes Bande	ra Ranch, LF)								
7. TX SOS/CP	A Filing N	umber	8. TX State 1	ax ID (11 d	ligits)		9. Federal Tax ID 10. DUNS Number (if			
0804747721			32086461731				(9 digits)			
							92-0836859			
11. Type of C	ustomer:	☐ Corpora	tion			☐ Indivi	dual	Partne	ership: 🗌 Ger	neral 🛛 Limited
Government: [City 🔲 (County 🗌 Federal 📗	Local State	Other		☐ Sole P	roprietorship	Ot	her:	
12. Number o	of Employ	ees					13. Independer	ntly Ow	ned and Op	erated?
☑ 0-20 □ 2	21-100	101-250 251-	500 🗌 501 a	nd higher			⊠ Yes	□ No		
14. Customer	Role (Pro	posed or Actual) – as i	t relates to the I	Regulated Er	ntity listed	on this form.	Please check one of	the follo	owing	
⊠Owner ☐Occupationa	al Licensee	Operator Responsible Pa		ner & Opera CP/BSA App			Other:			
15. Mailing	1509 Old	West 38 th St. Ste. 3								
Address:	City	Austin		State	TX	ZIP	78731		ZIP + 4	6328
16. Country N	 Vlailing Inf	 formation (if outside	USA)		1	7. E-Mail A	ddress (if applicabl	e)		
					С	thigpen@par	avelcap.com			
18 Telenhon	e Number	Ŀ	1	9 Fytensic	on or Code	۵	20 Fax N	umher	(if annlicable)	

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512) 934-8923		() -
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SECTION III: Regulated Entity Information

21. General Regulated En	itity Informa	ation (If 'New Reg	gulated Entity" is s	selected, a	new permi	it applicati	ion is als	so required.)		
New Regulated Entity	Update to	Regulated Entity	Name Upda	ate to Regi	ulated Entit	ty Informa	tion			
The Regulated Entity Nar as Inc, LP, or LLC).	ne submitte	d may be upda	ited, in order to	meet TCE	Q Core Do	ata Stand	dards (removal of org	ganizatio	nal endings such
22. Regulated Entity Nam	ne (Enter nam	ne of the site whe	re the regulated a	ction is tak	ing place.)					
Bandera Ranch										
23. Street Address of the Regulated Entity:										
(No PO Boxes)	City		State		ZI	IP			ZIP + 4	
24. County	Bexar	1	'					1		1
	I.	If no Stre	et Address is pr	ovided, fi	elds 25-28	8 are req	uired.			
25. Description to Physical Location:	NEC of Band	dera Rd and Sceni	ic Loop Rd							
26. Nearest City							State		Nea	rest ZIP Code
Helotes						1 -	TX		780	23
Ticiotes										
Latitude/Longitude are rused to supply coordinate	-	-	-			ı Standar	ds. (Ge	cocoding of the	e Physical	Address may be
Latitude/Longitude are re	es where no	-	-						98.6916	Address may be
Latitude/Longitude are rused to supply coordinate	es where no	ne have been p	-		асу).					Address may be Seconds
Latitude/Longitude are rused to supply coordinate 27. Latitude (N) In Decim Degrees	al: Minutes	29.5836 25.5836	Seconds 1.13		28. Longi			cimal: Minutes 41	98.6916	Seconds 29.85
Latitude/Longitude are rused to supply coordinate 27. Latitude (N) In Decim Degrees 29 29. Primary SIC Code	es where no al: Minutes 30.	29.5836 29.5836 Secondary SIC	Seconds 1.13	ain accure	28. Longi Degrees Primary N.	itude (W) In De	cimal: Minutes 41 32. Secon	98.6916	Seconds 29.85
Latitude/Longitude are rused to supply coordinate 27. Latitude (N) In Decim Degrees 29 29. Primary SIC Code (4 digits)	Minutes 30.	29.5836 29.5836 35 Secondary SIC	Seconds 1.13	31. F	Degrees Primary N. 6 digits)	itude (W) In De	cimal: Minutes 41 32. Secor (5 or 6 digi	98.6916	Seconds 29.85
Latitude/Longitude are rused to supply coordinate 27. Latitude (N) In Decim Degrees 29 29. Primary SIC Code (4 digits) 1522	### Add to the control of the contro	29.5836 35 Secondary SIC ligits)	Seconds 1.13 Code	31. F (5 or	Degrees Primary N. 6 digits)	98) In De	cimal: Minutes 41 32. Secon	98.6916	Seconds 29.85
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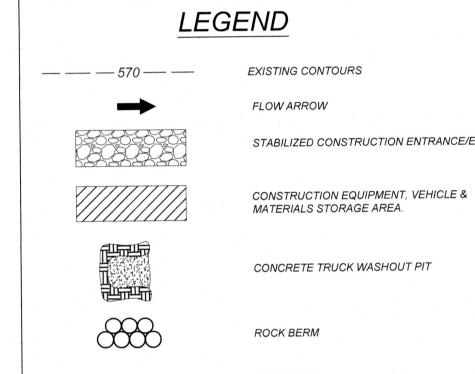
39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

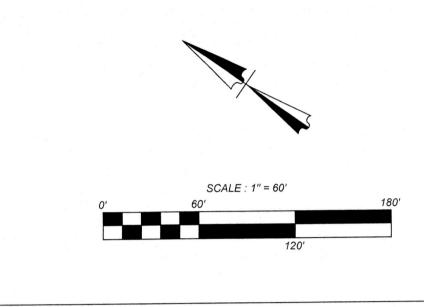
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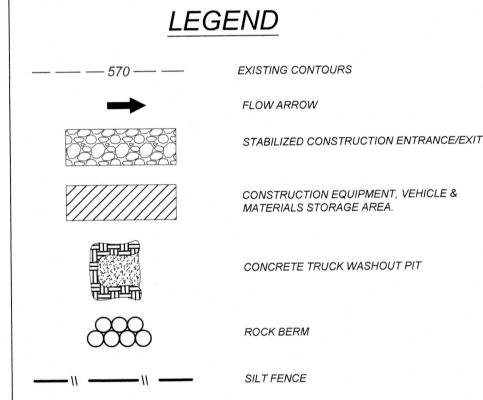
☐ Dam Safety	l _i	☐ Districts ☐ Edwards Aquifer			Emissions In	ventory Air	☐ Industrial Hazardous Waste		
	75 m.								
☐ Municipal Sol	id Waste	New Source Review Air	OSSF		Petroleum St	corage Tank	☐ PWS		
	1								
Sludge		Storm Water	☐ Title V Air		Tires		☐ Used Oil		
☐ Voluntary Cle	anup	Wastewater	☐ Wastewater Agricu	lture	Water Rights		Other:		
SECTION	IV: Pro	eparer Inf	<u>ormation</u>						
40. Name:	Michael Richard	ls		41. Title:	Sr. Project N	Manager			
42. Telephone N	umber	43. Ext./Code	44. Fax Number	45. E-Mail	Address	ÿ			
(210) 979-8444			() -	mike.richard	chards@collierseng.com				
SECTION	V: Au	thorized S	<u>ignature</u>						
16. By my signature to submit this form o	below, I certify on behalf of the	, to the best of my kno e entity specified in Sec	wledge, that the information tion II, Field 6 and/or as re	on provided in tl quired for the u	his form is true pdates to the	e and complete ID numbers ide	and that I have signature authority ntified in field 39.		
Company:	Colliers En	gineering & Design		Job Title:	Sr. Project	Manager			
Name (In Print):	Michael R	ichards				Phone:	(210) 979- 8444		
Signature:	Mal	1				Date:	10/26/2023		

EXHIBIT 1 SITE PLAN & DETAILS









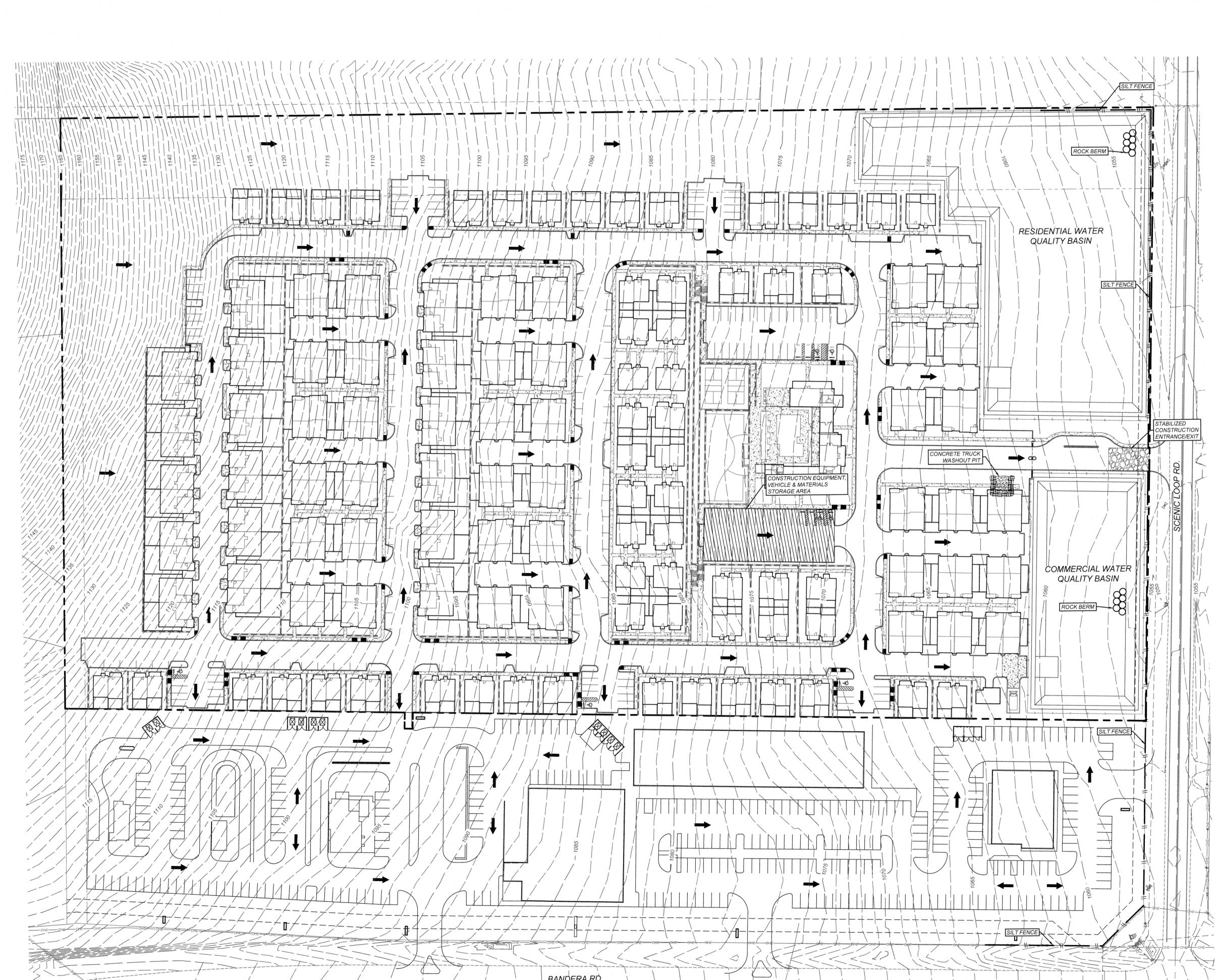
MICHAEL B. RICHAR'

121665

11/3/23

PLAT NO.

SHEET NUMBER:



ISOMETRIC PLAN VIEW

Materials:
(1) Silt fence material should be polypropylene, polyethylene or polyamide woven or nonwoven fabric. The fabric width 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%, and minimum apparent opening size of U.S. Sieve No.

(2) Fence posts should be made of hot rolled steel, at least 4 feet long with Tee or Ybar cross section, surface painted or galvanized, minimum nominal weight 1.25 lb/fl2, and Brindell hardness exceeding 140. (3) Woven wire backing to support the fabric should be galvanized 2" x 4" welded wire, 12 gauge minimum.

(1) Steel posts, which support the silt fence, should be installed on a slight angle toward the anticipated runoff source. Post must be embedded a minimum of 1- foot deep and spaced not more than 8 feet on center. Where water concentrates, the maximum spacing should be 6 feet.

(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/i 00 feet of fence. MAX. 6' SPACING MIN. (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 trenched in (e.g., pavement or rock outcrop), weight fabric flap with 3 inches of pea gravel on uphill side to prevent flow from seeping under fence. (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 backfilled with compacted material. (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 ends of fabric meet.

(6) Silt fence should be removed when the site is completely stabilized so as not to block or impede stone flow or drainage.

Inspection and Maintenance Guidelines: (1) Inspect all fencing weekly, and after any rainfall.

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

THE MATERIAL, INSTALLATION, INSPECTION, AND MAINTENANCE OF FIBER ROLLS WILL BE PER THE MANUFACTURE'S SPECIFICATIONS AND SHALL ALSO COMPLY WITH THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY CURRENT "TECHNICAL GUIDANCE ON BEST MANAGEMENT PRACTICES" AS NOTED BELOW. Install fiber roll along a level contour.

(1) Core material: Core material should be biodegradable or recyclable. Material may be compost, mulch, aspen wood fibers, chipped site vegetation, agricultural rice or wheat straw, coconut fiber, 100% recyclable fibers, or similar materials.

(2) Containment Mesh: Containment mesh should be 100% biodegradable, photodegradable or recyclable such as burlap, twine, UV photodegradable plastic, polyester, or similar material. When the fiber role will remain in place as part of a vegetative system use biodegradable or photodegradable mesh. For temporary installation recyclable mesh is recommended.

Implementation: (1) Locate fiber rolls on level contours spaced as follows: Slope inclination of 4:1 (H:V) or flatter: Fiber rolls should be placed at a

maximum interval of 20 ft. Slope inclination between 4:1 and 2:1 (H:V): Fiber Rolls should be placed at a maximum interval of 15 ft. (a closer spacing is more effective). Slope inclination 2:1 (H:V) or greater: Fiber Rolls should be placed at a maximum interval of 10 ft. (a closer spacing is more effective). (2) Turn the ends of the fiber roll up slope to prevent runoff from going around the

(3) Stake fiber rolls into a 2 to 4 in. deep trench with a width equal to the diameter of (4) Drive stakes at the end of each fiber roll and spaced 4 ft maximum on center. (5) Use wood stakes with a nominal classification of 0.75 by 0.75 in. and minimum length of 24 in. (6) If more than one fiber roll is placed in a row, the rolls should be overlapped, not

Inspection and Maintenance Guidelines: (1) Inspect prior to forecast rain, daily during extended rain events, after rain events,

CONSTRUCTION

EQUIPMENT & VEHICLE STORAGE AND**MAINTENANCE**

AREA

CONSTRUCTION

AND WASTE

MATERIAL

STORAGE

AREA

(2) Repair or replace split, torn, unraveling, or slumping fiber rolls. (3) If the fiber roll is used as a sediment capture device, or as an erosion control device to maintain sheet flows, sediment that accumulates behind the role must be periodically removed in order to maintain its effectiveness. Sediment should be removed when the accumulation reaches one-half the designated sediment storage depth, usually one-half the distance between the top of the fiber roll and the adjacent ground surface. Sediment removed during maintenance may be incorporated into earthwork on the site or disposed of at an appropriate location.

FABRIC CROSS-SECTION OF A CONSTRUCTION ENTRANCE/EXIT

Materials:

(1) The aggregate should consist of 4 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 8 inches. (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 (4) If a washing facility is required, a level area with a minimum of 4 inch diameter washed stone or commercial rack should be included in the plans. Divert wastewater to a sediment trap or basin.

AGGREGATE GEOTEXTILE FABRICA TO STABILIZE FOUNDATION

CONSTRUCTION ENTRANCE/EXIT

Installation: (North Carolina, 1993) (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.

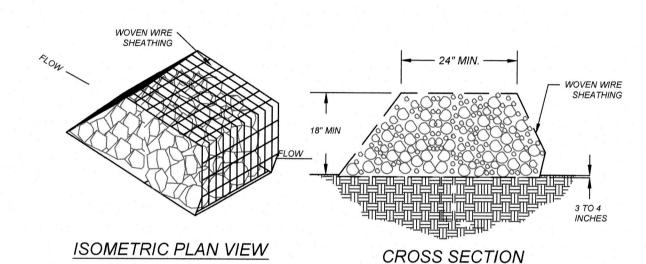
(2) The minimum width of the entrance/exit should be 12 feet or the full width of exit roadway, whichever is greater. (3) The construction entrance should be at least 50 feet long. (4) If the slope toward the road exceeds 2%, construct a ridge, 6 to 8 inches high with 3:1 (H:V) side slopes, across the 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.

(6) Place stone to dimensions and grade shown on plans. Leave 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 drainage.

nspection and Maintenance Guidelines: 1) The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair andlor 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 (5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

STABILIZED CONSTRUCTION ENTRANCE / EXIT



<u>Materials:</u>
(1) The berm structure should be, secured with a woven wire sheathing having maximum opening of 1 inch and a minimum wire diameter of 20 gauge galvanized and should be secured with shoat rings. (2) Clean, open graded 3- to 5-inch diameter rock should be used, except in areas where high velocities or large volumes of flow are expected, where 5- to 8-inch diameter rocks may be used.

(1) Lay out the woven wire sheathing perpendicular to the flow line. The sheathing should be 20 gauge woven wire mesh with 1 inch openings. (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 Figure 1-28), to a height not less than

(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, airl 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.

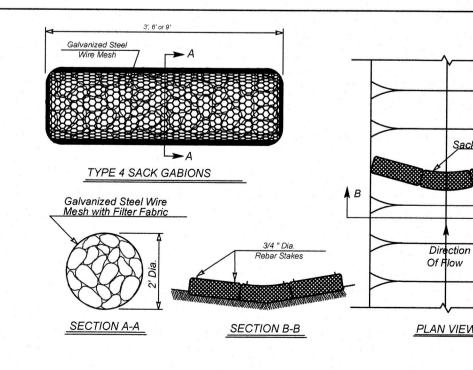
Inspection and Maintenance Guidelines:

(1) Inspection should be made weekly and after each rainfall by the responsible party. For installations in streambeds, additional daily inspections should be made. (2) Remove sediment and other debris when buildup reaches 6 inches and dispose of the accumulated silt in an approved manner that will not cause any additional siltation.

(3) Repair any loose wire sheathing. (4) The berm should be reshaped as needed during inspection.

(5) The berm should be replaced when the structure ceases to function as intended due to silt accumulation among the rocks, washout, construction traffic damage, etc. (6) The rock berm should be left in place until all upstream areas are stabilized and accumulated silt

ROCK BERM



GENERAL NOTES:

THE TOP OF THE SACK GABIONS SHOULD BE LEVEL AND ORIENTED PERPENDICULAR TO THE DIRECTION OF FLOW. FILTER FABRIC MATERIAL SHALL BE FASTENED TO WOVEN WIRE

FILTER FABRIC MATERIAL SHOULD MEET THE FOLLOWING SPECIFICATIONS: RESISTANT TO ULTRAVIOLET LIGHT, FABRIC SHOULD BE NON-WOVEN GEOTEXTILE WITH MINIMUM WEIGHT OF 3.5 OUNCES PER SQUARE YARD, MINIMUM MULLEN BURST STRENGTH OF 200 POUNDS PER SQUARE INCH AND A FLOW THRU RATE OF 120 GALLONS PER MINUTE PER SQUARE FOOT OF FRONTAL AREA. STONE SIZE: ±4"-8" OPEN GRADED CRUSHED LIMESTONE. INSPECT WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACE AS NEEDED.

NATURAL GROUND, SILT SHALL BE REMOVED AND DISPOSED IN AN APPROVED MANNER THAT WILL NOT CONTRIBUTE TO RESILTATION.
CONTAMINATED SEDIMENT MUST BE REMOVED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.

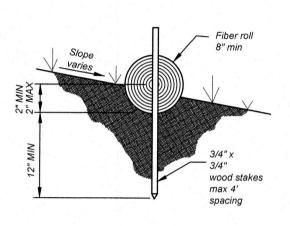
ICHAEL B. RICHAR

121665

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Vertical spacing measured along the face of the slope varies between Install a fiber roll near 10' and 20'

TYPICAL FIBER ROLL INSTALLATION



ENTRENCHMENT DETAIL

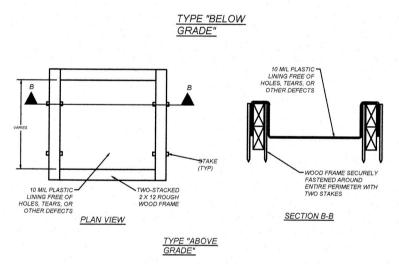
FIBER ROLL

slope where it transitions

into a steeper slope

SECTION A-A PLAN VIEW

SILT FENCE

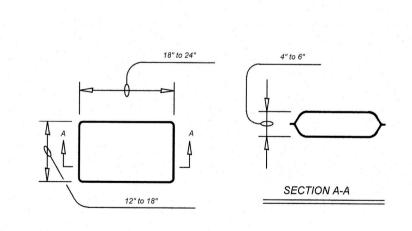


GENERAL NOTES:

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 FROM STORM WATER RUNOFF AND AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.

CONCRETE TRUCK WASHOUT PIT

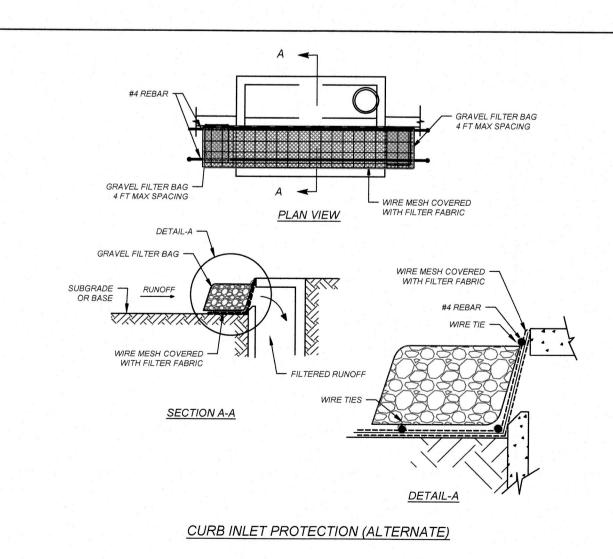


GENERAL NOTES:

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

THE FILTER BAG SHALL BE FILLED WITH CLEAN, MEDIUM TO COARSE GRAVEL (0.31 TO 0.75 INCH DIAMETER).

GRAVEL FILTER BAG DETAIL



- FILTERED RUNOFF

SECTION A-A

ALL STORM DRAINAGE SYSTEMS INLETS SHOULD FILTER RUNOFF BEFORE

THE WATER IS DISCHARGED INTO STREAMS OR ONTO ADJACENT PROPERTIES, UNLESS TREATMENT IS PROVIDED ELSEWHERE.

IF NO ADDITIONAL DOWNSTREAM TREATMENT EXISTS, THE MAXIMUM DRAINAGE AREA TRIBUTARY TO AN AREA DRAIN INSTALLED WITH A GRAVEL

ALL CURB INLET GRAVEL FILTERS SHOULD BE INSPECTED AND REPAIRED AFTER EACH RUNOFF EVENT. SEDIMENT SHOULD BE REMOVED WHEN MATERIAL IS WITHIN THREE INCHES OF THE TOP OF THE CONCRETE BLOCKS.

PERIODICALLY, THE GRAVEL SHOULD BE RAKED TO INCREASE INFILTRATION AND FILTERING OF RUNOFF WATERS.

CURB INLET PROTECTION GRAVEL FILTER BAGS

GENERAL NOTES:

FILTER SHOULD BE ONE ACRE.

TYPICAL CONSTRUCTION STAGING AREA PLAN VIEW SOD PLACED IN CHECKER BOARD PATTERN SECTION A-A CHANNEL TO BE STABILIZED WITH SOD PLACED IN A CHECKER BOARD PATTERN TON THE CHANNEL BOTTOM AND ON THE SIDES UP TO 1/3 THE DEPTH OF

/EXIT

TYPE 4 SACK GABIONS

CHANNEL LINING

FIELD

OFFICE

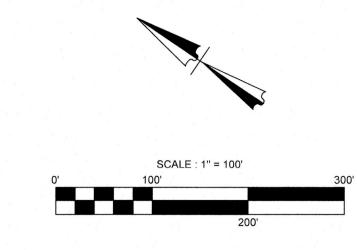
SILT FENCE

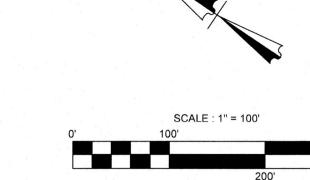
FLOW ARROWS

PLAT NO.

THIS 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

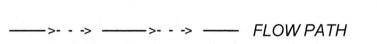
EXHIBIT 2 EXISTING & PROPOSED DRAINAGE AREA MAPS

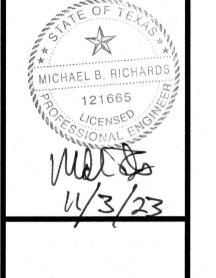




LEGEND

	STUDY POINT
	DRAINAGE AREA BOUNDARY
 	—— EXISTING CONTOURS
	PROPOSED UNIT
-	FLOW ARROW

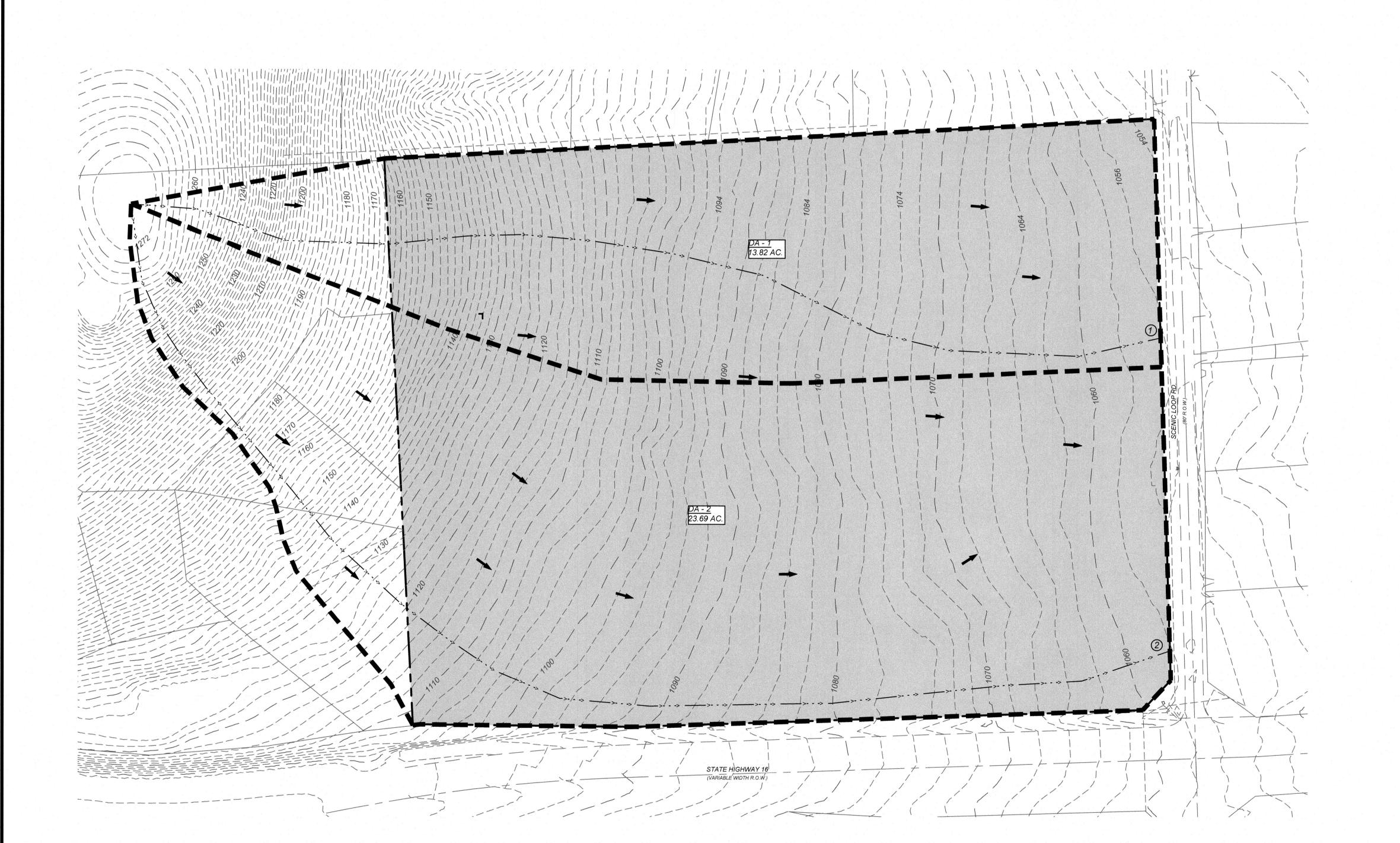


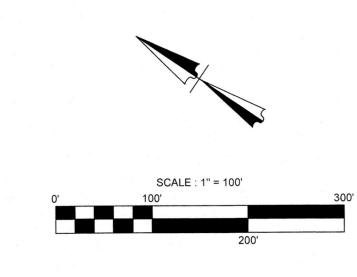




JOB NO.: 1084-01-01 DATE: MAY 2023 DRAWN: SM CHECKED: MR SHEET NUMBER:

13.82 23.69 0.52 0.52 DA-2





							2.3							
Study Point	AREA	(Acres)	С	T _{ovrl} (min)	Carryover	T _{sc} (min)	T _{ch} (min)	T _{tot} (min)	I ₅ (in/hr)	I ₂₅ (in/hr)	I ₁₀₀ (in/hr)	Q_5 (ft ³ /s)	Q ₂₅ (ft ³ /s)	Q ₁₀₀ (ft ³ /s)
1	DA-1	23.83	0.77	6.00		1	3	10	6.360	8.880	11.230	116.70	162.94	206.06
2	DA-2	13.56	0.96	11.00		2	4	17	4.980	6.910	8.640	64.83	89.95	112.47
3	DA-3	0.12	0.96	5.00	2 2	0	0	5	7.940	11.140	14.010	0.91	1.28	1.61



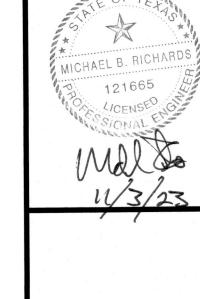
The study point

DRAINAGE AREA BOUNDARY

EXISTING CONTOURS

PROPOSED UNIT

FLOW ARROW



IBUTING ZONE PLAN
OSED CONDITIONS

JOB NO.: 1084-01-01 DATE: MAY 2023 DRAWN: SM CHECKED: MR

03, 2023, 1:31pm User ID: mrichards

SHEET NUMBER:

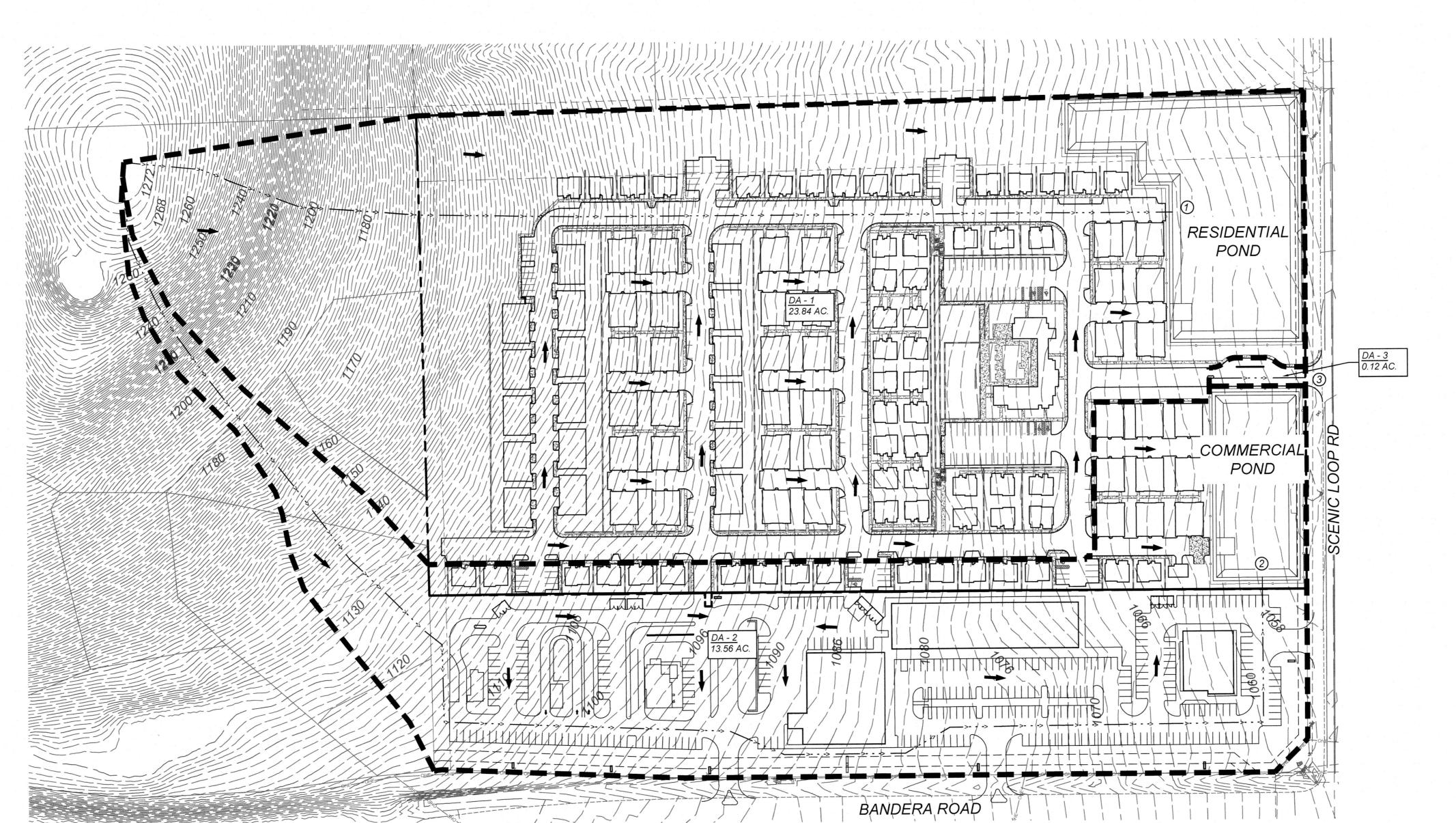
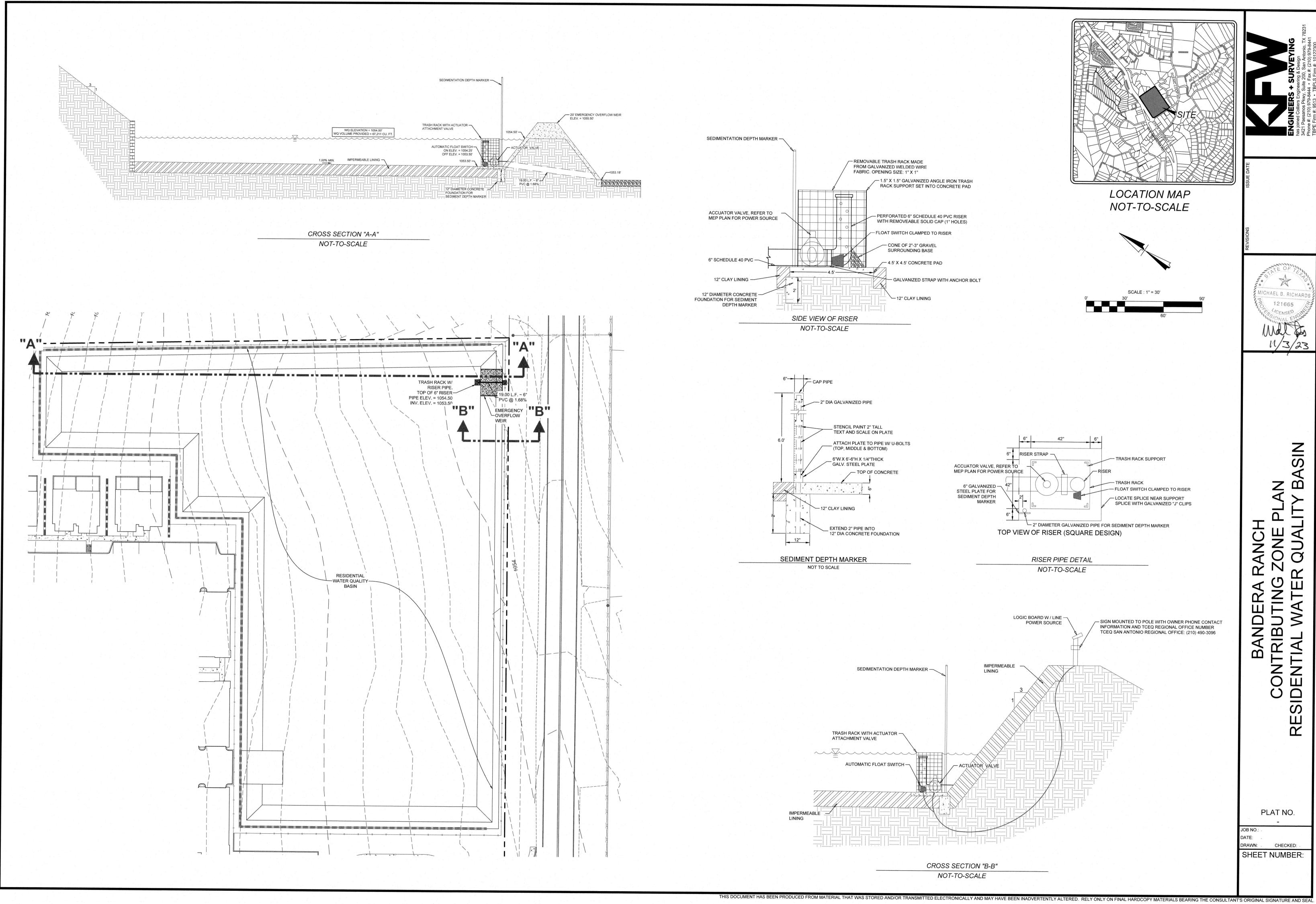


EXHIBIT 3 WATER QUALITY PLAN & DETAILS





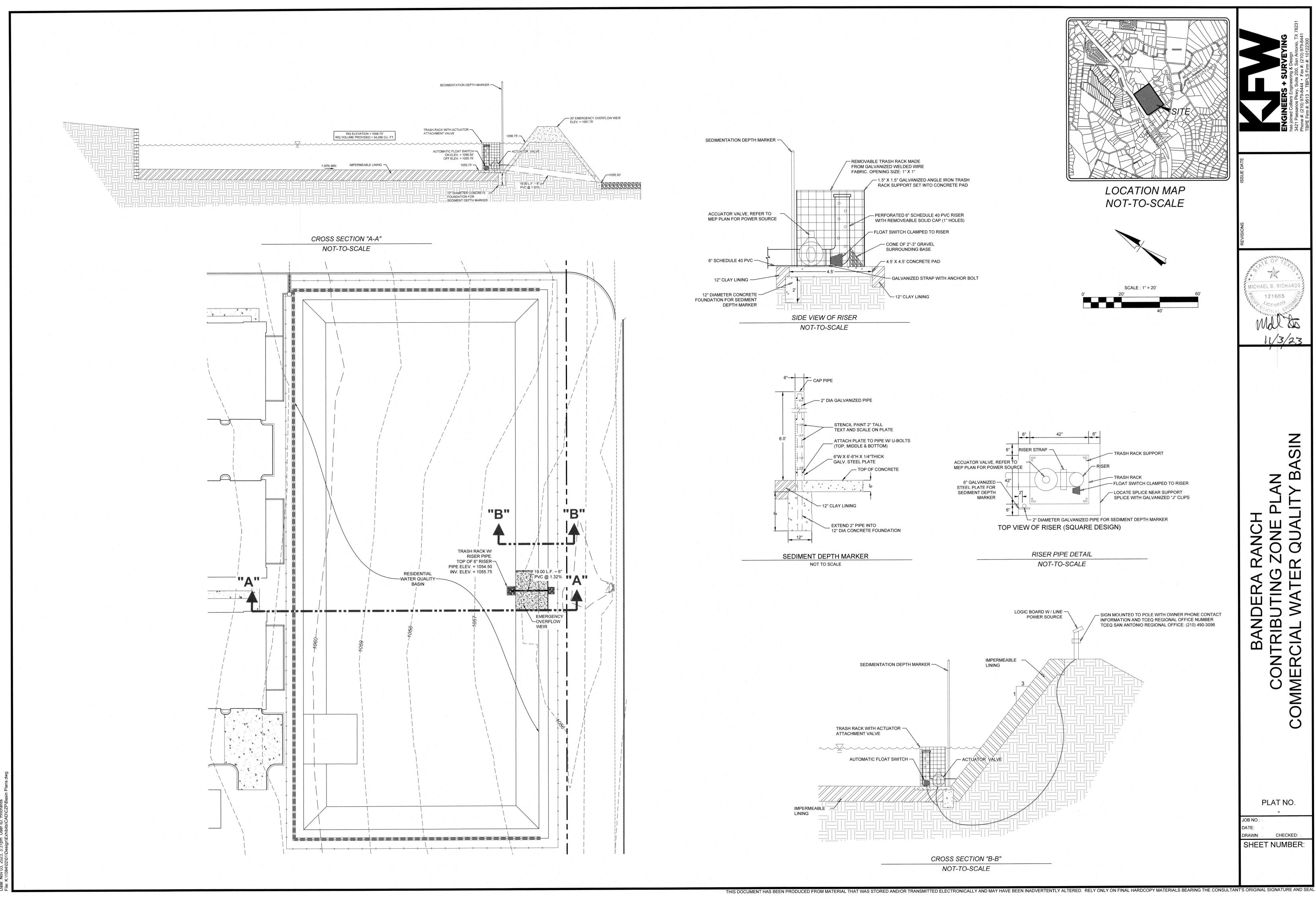
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SIN BANDERA FATER ITIAL WATER

PLAT NO.

JOB NO.:

CHECKED: SHEET NUMBER:



MICHAEL B. RICHARD 121665

ASIN

PLAT NO.

CHECKED: SHEET NUMBER: