WATER POLLUTION ABATEMENT PLAN APPLICATION

FOR

ROCKHARD YARD GEORGETOWN

700 Private Road 909
Georgetown, TX 78633

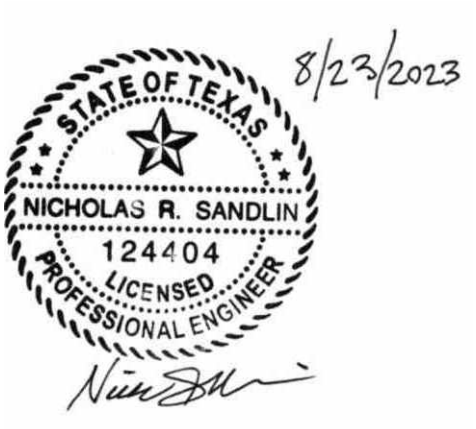
Prepared For:

ROCKHARD CO, LLC
3539 ALEXANDRITE WAY
ROUND ROCK, TX 78681

Prepared By:

Sandlin Services, LLC
TBPELS Firm # 21356
P: (806) 679-7303

August 23, 2023



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Agent Authorization Form (TCEQ-0599)

Application Fee Form (TCEQ-0574)

Check Payable to the "Texas Commission on Environmental Quality"

Core Data Form (TCEQ-10400)

Edwards Aquifer Application Cover Page (TCEQ-20705)

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

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

Administrative Review

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

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

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.

3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.

4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

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

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.

6. If the geologic assessment was completed before October 1, 2004 and the site contains "possibly sensitive" features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.

2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

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

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

Mid-Review Modifications

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

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

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

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

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

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

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

1. Regulated Entity Name: **Rockhard Yard Georgetown**					**2. Regulated Entity No.:**			
3. Customer Name: Rockhard Co LLC					**4. Customer No.: 605803527**			
5. Project Type: **(Please circle/check one)**	New		Modification		Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST / AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential		**8. Site (acres):**		5.98	
9. Application Fee:	$5,650		**10. Permanent BMP(s):**		Batch Detention Pond			
11. SCS (Linear Ft.):			**12. AST/UST (No. Tanks):**		1 - AST			
13. County:	Williamson		**14. Watershed:**		Berry 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.)	___	___	_x_
Region (1 req.)	___	___	_x_
County(ies)	___	___	_x_
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence _x_Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville ___Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San 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. NICK SANDLIN, P.E. (SANDLIN SERVICES, LLC)
Print Name of Customer/Authorized Agent
Signature of Customer/Authorized Agent — Date: 8/23/23

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

General Information Form
(TCEQ-0587)

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) 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 **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: NICK SANDLIN, P.E. (SANDLIN SERVICES, LLC)

Date: 8/23/23

Signature of Customer/Agent:

Project Information

1. Regulated Entity Name: ROCKHARD YARD GEORGETOWN
2. County: WILLIAMSON
3. Stream Basin: BRAZOS RIVER
4. Groundwater Conservation District (If applicable): N/A
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

   ☒ WPAP
   ☐ SCS
   ☐ Modification
   ☒ AST
   ☐ UST
   ☐ Exception Request

7. Customer (Applicant):

   Contact Person: CARLOS ROMAN
   Entity: ROCKHARD CO LLC
   Mailing Address: PO BOX 735
   City, State: ROUND ROCK, TX Zip: 78680-0735
   Telephone: 5122932565 FAX: _____
   Email Address: carlosviper23@yahoo.com

8. Agent/Representative (If any):

   Contact Person: NICK SANDLIN, P.E.
   Entity: SANDLIN SERVICES, LLC
   Mailing Address: 9111 JOLLYVILLE RD, STE 212
   City, State: AUSTIN, TX Zip: 78759
   Telephone: 806-679-7303 FAX: _____
   Email Address: nick@sandlinservices.com

9. Project Location:

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

10. ☒ The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

    Project site is located at 700 Private Road 909, Georgetown, TX 78633

11. ☒ **Attachment A – Road Map**. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.

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

    ☒ Project site boundaries.
    ☒ USGS Quadrangle Name(s).
    ☒ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
    ☒ Drainage path from the project site to the boundary of the Recharge Zone.

13. ☒ **The TCEQ must be able to inspect the project site or the application will be returned**. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

    ☐ Survey staking will be completed by this date: _____

14. ☒ **Attachment C – Project Description**. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:

- ☒ Area of the site
- ☒ Offsite areas
- ☒ Impervious cover
- ☒ Permanent BMP(s)
- ☒ Proposed site use
- ☒ Site history
- ☒ Previous development
- ☒ Area(s) to be demolished

15. Existing project site conditions are noted below:

- ☐ Existing commercial site
- ☐ Existing industrial site
- ☒ Existing residential site
- ☐ Existing paved and/or unpaved roads
- ☐ Undeveloped (Cleared)
- ☐ Undeveloped (Undisturbed/Uncleared)
- ☐ Other: _____

Prohibited Activities

16. ☒ I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);

(2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;

(3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;

(4) The use of sewage holding tanks as parts of organized collection systems; and

(5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).

(6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

17. ☒ I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);

(2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

(3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Administrative Information

18. The fee for the plan(s) is based on:

- ☒ For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
- ☐ For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
- ☒ For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
- ☐ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
- ☐ A request for an extension to a previously approved plan.

19. ☒ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

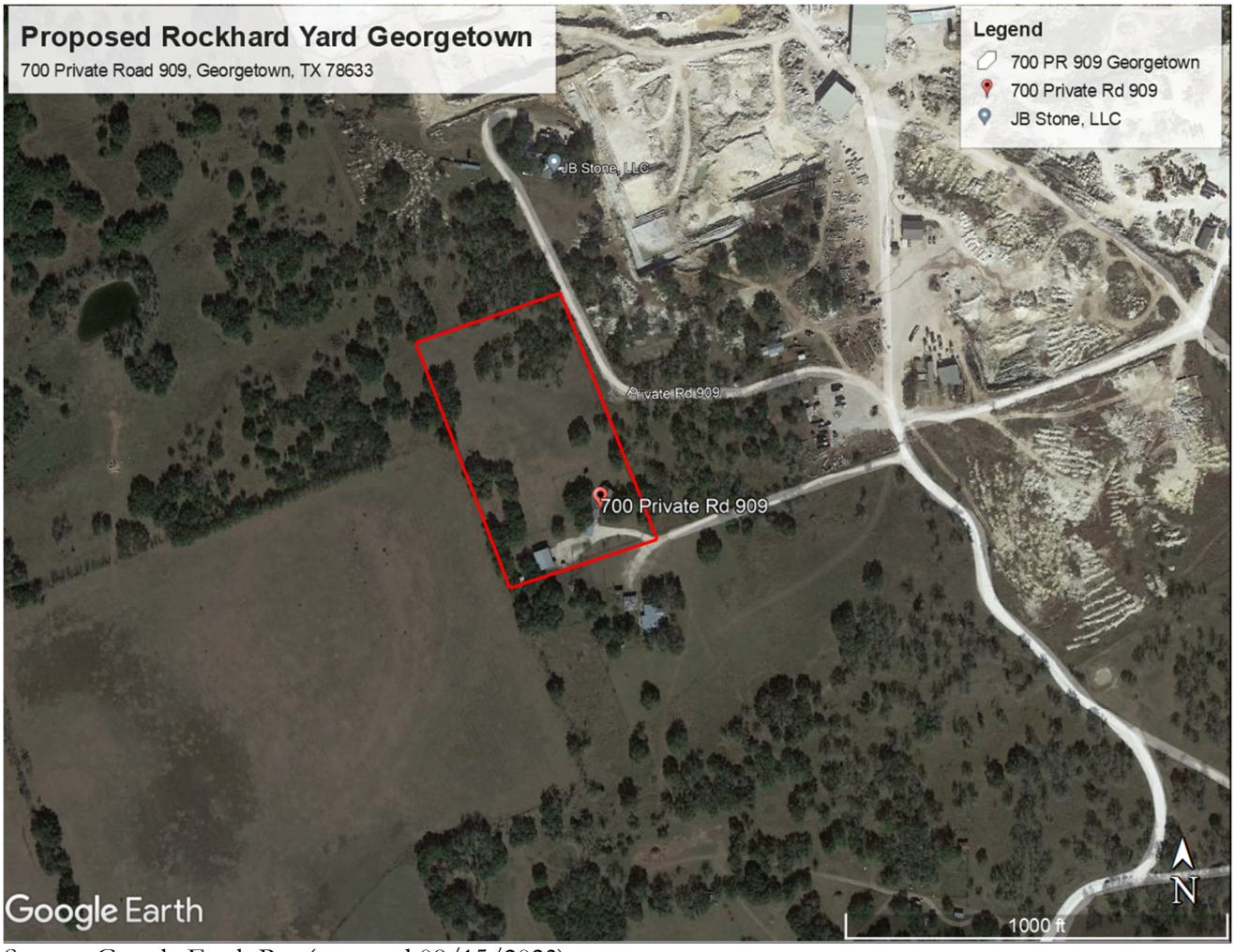
- ☐ TCEQ cashier
- ☒ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
- ☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

21. ☒ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

General Information Form
(TCEQ-0587)

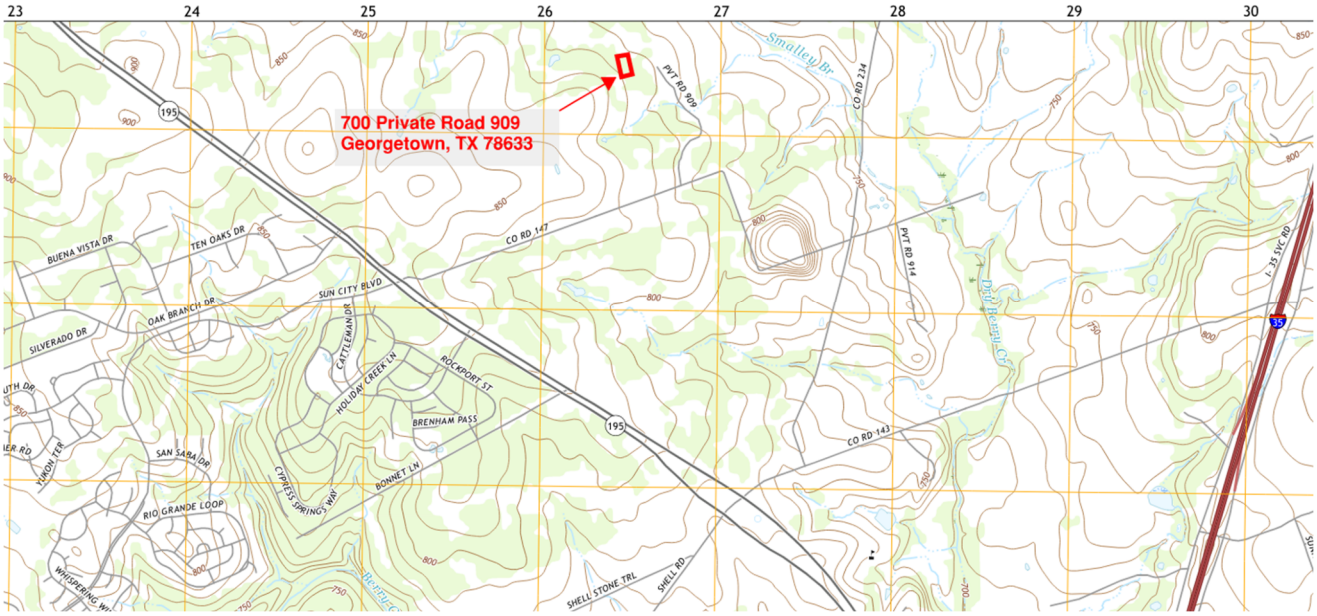
Attachment A:
Road Map



Source: Google Earth Pro (accessed 08/15/2023)

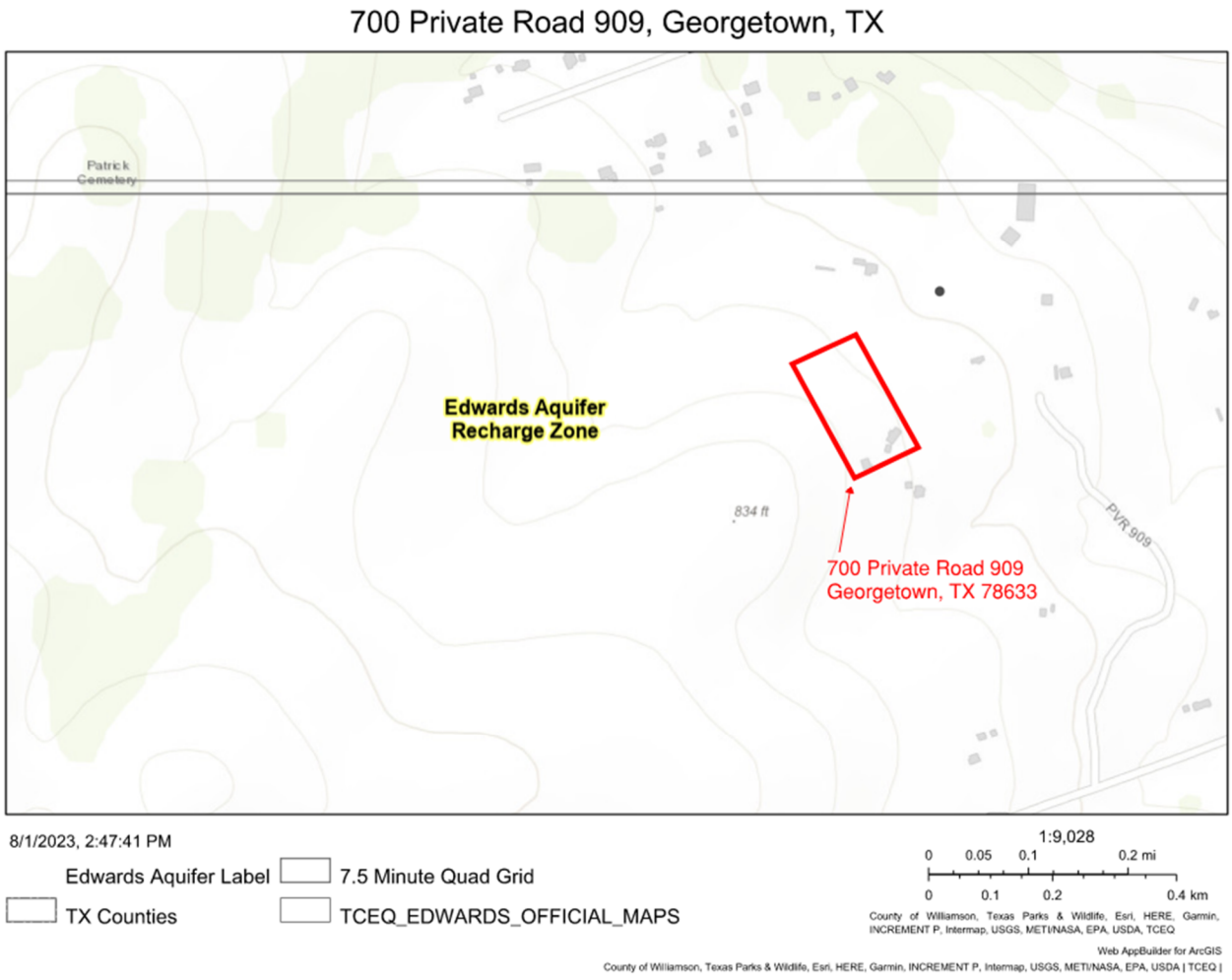
General Information Form
(TCEQ-0587)

Attachment B:
USGS Quadrangle Map
Edwards Aquifer Recharge Zone Map
FEMA FIRM Map



Source: Portion of USGS Quadrangle Map (TX_Georgetown_20220811_TM_geo)

EDWARDS AQUIFER ZONE MAP
Rockhard Yard Georgetown
700 Private Road 909
Georgetown, Williamson County, Texas 78633
Source: TCEQ Edwards Aquifer Viewer
Prepared: August 1, 2023



FEMA FIRM MAP PANEL

Source: Portion of FEMA FIRM Map Panel 48491C0285F (effective 12/20/2019)

USGS StreamStats Flow Path (accessed 08/01/2023)

General Information Form (TCEQ-0587)

Attachment C: Project Description

Proposed Development

The 5.98 AC project site is located at 700 Private Road 909, Georgetown, Texas 78633. The property is located inside the Williamson County Unincorporated Area. The project site was previously a single-family rural residence. The proposed development is a Base Parking Lot with Fuel Island/Tank and the required civil infrastructure sited north of the existing single-family rural residence on the north half of the property (WCAD Parcel # R078979). The proposed AST is a 6,000-gallon double-walled Diesel STI-921-UL142 steel tank. The property is within the Edwards Aquifer Recharge Zone and will therefore need a Water Pollution Abatement Plan (WPAP) and Aboveground Storage Tank Plan (AST). The WPAP proposes a Batch Detention Pond BMP for permanent stormwater detention and quality control.

Site Description and History

Carlos R. Roman currently owns the 5.98 AC property (Document # 2023059003 dated 07/13/2023). The survey of the property includes the 5.98-acre tract of land out of the Burrell Eaves Survey, Abstract No. 216 in Williamson County, Texas and described in Williamson County Document No. 2023059003 (Survey by Cookston and Associates, dated 01/28/2015).

Total land area (5.98 AC) is on land with 0% - 15% slopes. Elevation is between 800 FT and 810 FT. Vegetation at the undeveloped site is primarily cedar and native species.

Access

Existing joint access road to the property.

Impervious Cover (IC)

The Limits of Construction (LOC) is 3.58 AC.

Total existing impervious cover (IC) on the property is 0.38 AC of 5.975 AC for 6.36% IC, all of which is in Drainage Area-2 (DA-2) and associated with the existing rural residence structures. Existing project site IC in Drainage Area-1 (DA-1) is 0.0 AC of 3.76 AC for 0.0% IC. Existing project site IC in Drainage Area-2 (DA-2) is 0.38 AC of 2.22 AC for 17.1% IC.

The proposed IC on the total 5.975 AC property is 2.56 AC or 42.8% IC. The proposed project site IC in DA-1 is 2.18 AC of 3.84 AC for 56.8% IC. Proposed IC in DA-1 is associated with the proposed Base Parking Lot with Fuel Island/Tank and the associated civil infrastructure. The proposed IC in DA-2, which is associated with the existing rural residence structures, is 0.38 AC of 2.14 AC for 17.8% IC. Existing and proposed areas of impervious cover will be treated as shown in the permanent stormwater section.

Watershed and FEMA Floodplain Information

The project site is within the Berry Creek Watershed, which drains to the Brazos River Basin. No surface streams run across the property. Drainage is generally to the northeast to Smalley Branch of Dry Berry Creek.

The project site is not located within the boundaries of the 100-year floodplain of any waterway that is within the limits of the study of the Federal Emergency Insurance Administration (FEMA) FIRM Panel #48491C0285F (Effective date: 12/20/2019).

A Batch Detention Pond BMP is proposed for stormwater drainage and water quality at the developed project site. After the proposed project construction of the Batch Detention Pond BMP, total impervious cover at the 5.975 AC property will be approximately 44% IC.

Temporary Best Management Practices (BMPs)

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.

Prior to soil disturbing construction activity, temporary BMPs will be installed. Silt fencing will be installed along the down-gradient sides of the property to intercept and detain waterborne sediment from unprotected areas. The silt fence shall remain in place until the disturbed area is permanently stabilized.

Permanent Best Management Practices (BMPs)

A Batch Detention Pond permanent BMP is proposed for stormwater drainage and water quality at the developed project site. The batch detention pond BMP has a capture depth of 4 feet. On-site Drainage Area-1 (DA-1) to control is 3.84 AC. Existing impervious cover (IC) within the DA-1 is 0.0%. After the proposed project construction of the batch detention pond BMP, the proposed IC in DA-1 will be approximately 58.8% IC. Calculation details for the proposed batch detention pond BMP can be found on Sheet 8: Pond Plan of the construction plans.

After construction activities are complete, the Batch Detention Pond permanent BMP will be maintained as described in Attachment G of the Permanent Stormwater Section. Permanent seeding, sodding or mulching will be utilized as described in Attachment J of the Temporary Stormwater Section. Permanent BMPs for trash, herbicide/pesticide use, and general maintenance of the Batch Detention Pond BMP is also described in Attachment G of the Permanent Stormwater Section.

Offsite Areas

No offsite areas are anticipated to be affected by pre and post construction activities at the site. Temporary BMPs will minimize any anticipated effects of the proposed construction activities. The permanent Batch Detention Pond BMP will address any anticipated stormwater issues at the developed site.

Geologic Assessment Form
(TCEQ-0585)

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

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

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

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Mr. Chad M. Copeland, P.G., PWS

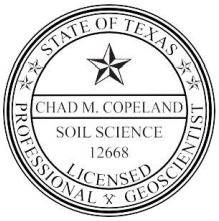
Telephone: (512) 335-1784 x 124

Fax: (512) 335-0527

Date: 08/21/2023

Representing: Ranger Environmental Services, LLC (State of Texas Geoscience Firm No. 50140)
(Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



08/21/2023

Regulated Entity Name: Rockhard Yard Georgetown

Project Information

1. Date(s) Geologic Assessment was performed: 08/02/2023
2. Type of Project:
   - ☒ WPAP
   - ☐ SCS
   - ☒ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Doss Silty Clay (DoC)	D	0.92 - 1.67
Eckrant Cobbly Clay (EaD)	D	0.33 - 1.67

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.
B. Soils having a moderate infiltration rate when thoroughly wetted.
C. Soils having a slow infiltration rate when thoroughly wetted.
D. Soils having a very slow infiltration rate when thoroughly wetted.

6. ☒ **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☒ **Attachment C – Site Geology**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☒ **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

   Applicant's Site Plan Scale: 1" = 40''
   Site Geologic Map Scale: 1" = 40' & ~131.25'
   Site Soils Map Scale (if more than 1 soil type): 1" = 131'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.

11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.

12. ☒ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☐ Geologic or manmade features were not discovered on the project site during the field investigation.

13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate.

14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☒ There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☒ The wells are not in use and will be properly abandoned.
    - ☐ The wells are in use and comply with 16 TAC Chapter 76.

    ☐ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

ATTACHMENT A

Geological Assessment Table
TCEQ-0585 Table

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: Rockhard Yard Georgetown

LOCATION			FEATURE CHARACTERISTICS											EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
F1	30.746402	-97.679225	MB	30	Kgt	0.3	--	--	--	--	--	--	N	5	35	X		X		Hilltop
F2	30.746855	-97.679053	MB	30	Kgt	--	--	--	--	--	--	--	V	5	35	X		X		Hilltop

* DATUM WGS84

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY

Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date 08/21/2023

Sheet 1 of 1

TCEQ-0585-Table (Rev. 10-01-04)

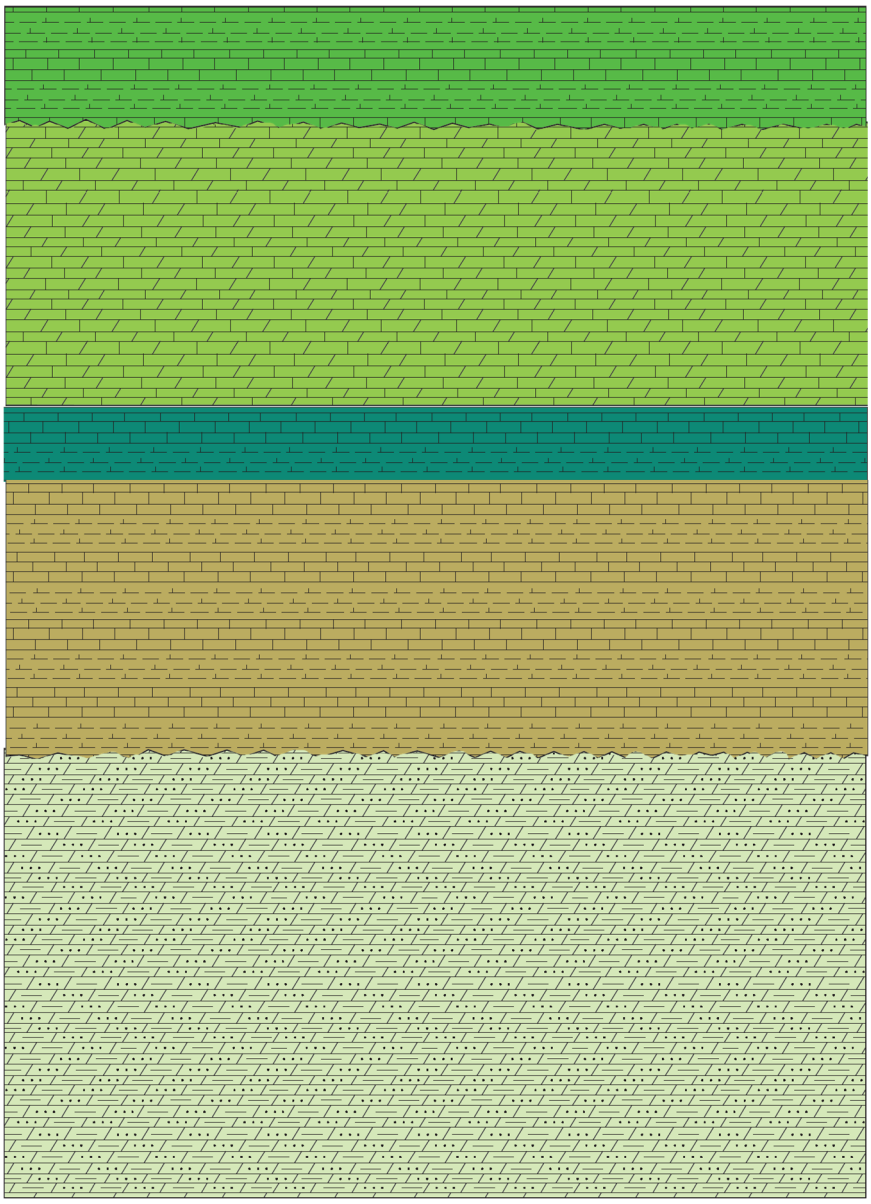
STATE OF TEXAS
CHAD M. COPELAND
SOIL SCIENCE
12668
LICENSED
PROFESSIONAL GEOSCIENTIST

08/21/2023

ATTACHMENT B

Stratigraphic Column

Edwards Aquifer



Georgetown Formation (Kgt)
Limestone and marl

Edwards Limestone (Ked)
Limestone and dolostone

Comanche Peak Formation (Kc)
Limestone and marl

Walnut Formation (Kwa)
Limestone and marl
(Includes Kkv, Kcp, Kbc)

Glen Rose Formation (Kgr)
Limestone, dolostone, and marl

STATE OF TEXAS
CHAD M. COPELAND
SOIL SCIENCE
12668
LICENSED
PROFESSIONAL GEOSCIENTIST

08/21/2023

Adapted from the Bureau of Economic Geology, 1990, Hydrogeology of the Northern Segment of the Edwards Aquifer, Austin Region, Report of Investigations No. 192, Figure 4

RANGER ENVIRONMENTAL SERVICES

Stratigraphic Column
Rockhard Yard Georgetown
700 PR 909, Georgetown, Texas

Ranger Project No. 6788

COMMENTS: NOT FOR CONSTRUCTION

ATTACHMENT C

Site Geology

RANGER
ENVIRONMENTAL SERVICES, LLC

GEOLOGIC ASSESSMENT
Rockhard Yard Georgetown
700 Private Road 909
Williamson County, Georgetown, Texas
August 2023

INTRODUCTION

Ranger Environmental Services, LLC (Ranger) was contracted to conduct a Geologic Assessment of the referenced property. This location lies within the designated Edwards Aquifer Recharge Zone. The site was previously a single-family residence. The property has three structures onsite. Since the subject site is located over the Edwards Aquifer Recharge Zone, site development should adhere to the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program Rules in accordance with Title 30 of the Texas Administrative Code, Section 213 (30 TAC§ 213).

PROJECT DESCRIPTION

The subject site consists of one approximate 5.98-acre lot, more or less, located at 700 Private Road 909, in Williamson County, Texas at approximately 30.74666° N and approximately 97.67910° W.

The site was previously used as a single-family residence. The property is partially developed and vegetated with native grasses.

METHODOLOGY

This assessment follows general guidelines contained in Texas Commission on Environmental Quality (TCEQ) guidance "*Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones"* (TCEQ Guidance 0585). The site is located on an area of the recharge zone that may contain karst features within the outcropping limestone. Karst features may be expressed as surface features but more commonly tend to persist with depth.

A field geologic assessment was conducted by Mr. Chad M. Copeland, P.G. and Mr. Ross Eide, GIT on August 2, 2023. During the assessment Ranger personnel observed that the site was developed for a single-family residence and was noted to be vegetated with native trees and grasses. It was noted that three permanent structures existed on the property at the time of the inspection.

The walking geologic survey was conducted on 50-foot center transects, where possible. No intrusive testing was conducted. If present, features identified in the field were photographed and recorded with a hand held global positioning system (GPS). Features may include, but were not limited to, caves, solution cavities, solution-enlarged fractures, faults, manmade features in bedrock, swallow holes, sinkholes, non-karst closed depressions, and zone clustered or aligned features. The geologic assessment table, stratigraphic column, geologic, soils and topographic maps are included herein.

RESEARCH INFORMATION

Prior to conducting the geologic survey, Ranger conducted a review of existing geologic data and maps to prepare for the field survey. Reviewed references included, but are not limited to:

- Barnes, V.E. 1974. *Geologic Atlas of Texas, Austin Sheet*. The University of Texas at Austin, Bureau of Economic Geology.
- Senger, R.K., E.W. Collins and C.W. Kreitler. 1990. Hydrogeology of the Northern Segment of the Edwards Aquifer, Austin Region, Report of Investigations 192. The University of Texas at Austin, Bureau of Economic Geology.
- Texas Commission on Environmental Quality. 1999. Complying with the Edwards Aquifer Rules: Administrative Guidance.
- Texas Commission on Environmental Quality. Revised 2004. Instructions to Geologist for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones.
- Sellards, E.H., W.S. Adkins and F.B. Plummer. 1932. The University of Texas Bulletin No. 3232. The Geology of Texas. Volume 1, Stratigraphy.
- U.S. Department of Agriculture National Resources Conversation Services (www.nrcs.usda.gov).
- Texas Commission on Environmental Quality (www.tceq.state.tx.us).
- FEMA Flood Plain Maps.
- Center for Geospatial Technology, Texas Tech University, obtained from the Texas Geologic Atlas of Texas.
- USGS Topographic Maps – Terrain Navigator Pro 2015.
- ESRI

SITE GEOLOGY

Referencing the Geologic Atlas of Texas, Austin Sheet, and The University of Texas Bulletin No. 3232, The Geology of Texas, Volume 1, the local stratigraphic unit that outcrop at the site is the Cretaceous age Georgetown Formation (Kgt). The Georgetown Formation consists primarily of nodular, moderately indurated limestones interbedded with marls. Georgetown limestones are typically fine grained, massive, and fossiliferous. Small vugs may be present within the formation but are not common. The formation is approximately 30 feet to 80 feet in thickness and thins

southward. Megafossils of Kingena wacoensis and Gryphaea washitaensis are found in the Georgetown Formation.

The subject site is underlain by Cretaceous sedimentary strata. In general, the Cretaceous strata dip regionally one degree towards the southeast. The area lies within the Balcones Fault Zone, a geologic province characterized in this region by north-northeast trending en echelon normal faults with the downthrown side most commonly to the east of the fault planes.

No vugs, caves, fractures, or solution cavities were observed during the site geologic inspection.

SITE SPECIFIC GEOLOGIC FEATURES

The following geologic features, as defined in Texas Commission on Environmental Quality (TCEQ) guidance "*Instructions to Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones*" (TCEQ Guidance 0585), were observed at the site:

F-1 (MB) Man-made Feature in Bedrock, Potential Water Well

A manmade feature in bedrock was observed at approximately 30.746402° N, 097.679225° W. The potential water well was noted to have a concrete pad with dimensions of approximately 4 feet by 4 feet. The concrete pad was noted to rise approximately 2 inches above ground surface. The casing of the feature measured 4 inches in diameter with an unknown depth. The casing was plugged to prevent infiltration. Therefore, the probability of rapid infiltration is low, and the catchment area is less than 1.6 acres.

F-2 (MB) Man-made Feature in Bedrock, Septic Field

A manmade feature in bedrock was observed at approximately 30.746855° N, 97.679053° W. The dimensions of the feature are unknown. The feature was not observed to intersect with underlying bedrock layers. Native vegetation was noted to exist over the septic tank/septic field. Therefore, the probability of rapid infiltration is low, and the catchment area is less than 1.6 acres.

SOIL DESCRIPTION

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) *Web Soil Survey*, the soil at the subject site was noted to be Eckrant cobbly clay, 1 to 8 percent slopes (EaD) and Doss silty clay, moist, 1 to 5 percent slopes (DoC).

Please see the attached USDA NRCS Custom Soil Resource Report for reference.

TOPOGRAPHY AND DRAINAGE

The site was noted to be slopping predominantly northeast. No surface water bodies were noted on the site during the geologic assessment.

CONCLUSIONS AND RECOMMENDATIONS

Ranger Environmental Services, LLC. conducted a Geologic Assessment of the site in accordance with 30 TAC§ 213. Ranger concludes that no sensitive features as defined by the TCEQ (30 TAC§ 213) were observed at the site.

This assessment does not address the possible presence of subsurface conditions that may be exposed during future construction and/or development. Should solution features or conditions be exposed during site construction activities that indicate a potential for hydraulic interconnectedness between the surface and the Edwards Aquifer, operations in the vicinity of the feature should be halted and the Texas Commission on Environmental Quality (TCEQ) Edwards Aquifer Protection Program should be contacted immediately in accordance with 30 TAC §213.5(f)(2).

LIMITATIONS

It should be noted that only areas readily accessible were inspected. There may be geologic features present that were not identified as part of this study. This non-intrusive visual field assessment cannot wholly eliminate the possibility of sensitive features at the site.

Prepared by:

08/21/2023

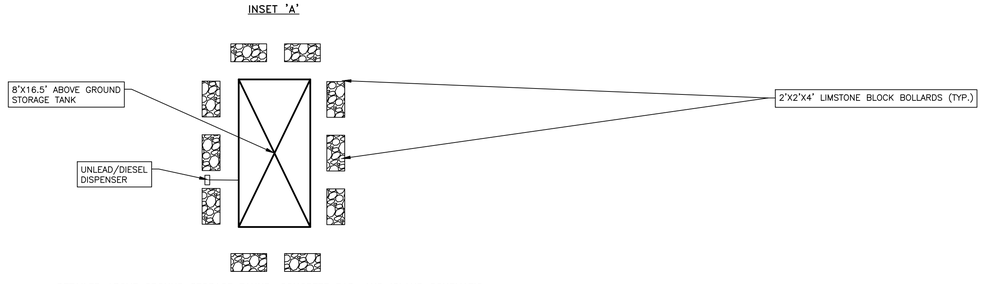
Mr. Chad M. Copeland, P.G.

Photograph 1:
Photograph documenting F-1, Potential Water Well.

Photograph 2:
Photograph documenting F-2, Septic Field.

ATTACHMENT D

Site Geologic Map(s)



DETAILED ABOVE GROUND STORAGE TANKS, CONCRETE PAD, AND ISLAND SCHEMATIC
N.T.S.

SEE PRODUCT DESCRIPTIONS FOR DETAIL, CONTAINMENT AND PROFILES

Base map modified by Ranger Env. Svc., LLC

Kgt-Georgetown Formation
F-x - Geologic Feature

0 15' 30' 60'
SCALE: 1" = 30'

IF DRAWING BAR DOES NOT MEASURE 2" THIS PRINT IS NOT TO SCALE

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER
8/23/2023

SITE PLAN LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- FIRE LANE
- PROPOSED CURB & GUTTER
- STREET CENTERLINE
- FENCE
- STRUCTURAL RETAINING WALL (BY OTHERS)
- PROPOSED CONCRETE SIDEWALK
- PROPOSED PARKING SPACES
- TRANSFORMER PAD
- SITE WALLS
- PHASING

TAS ACCESSIBLE ROUTE
TAS ACCESSIBLE ROUTES MAY NOT EXCEED A CROSS SLOPE OF 1:50 (2%) OR EXCEED A RUNNING SLOPE OF 1:20 (5%) UNLESS DESIGNED AS A RAMP. THE MAXIMUM RUNNING SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12 (8.33%). THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 INCHES. REFER TO GRADING SHEET(S).

- EX. WATER LINE
- EX. WASTEWATER
- EX. STORM SEWER LINE
- EX. FIRE HYDRANT
- EX. WATER METER
- EX. WASTEWATER MANHOLE
- PR. WATER LINE
- FIRE LINE
- PR. WASTEWATER
- PR. STORM SEWER LINE
- PR. FIRE HYDRANT
- PR. WATER METER
- PR. WASTEWATER MANHOLE
- FITTINGS AS NOTED
- GATE VALVE AS NOTED
- WW CLEAN OUT
- BACK FLOW PREVENTER
- FLOW ARROW
- EX. UTILITY POLE

SITE DATA	
	PROPOSED
TOTAL SITE AREA	5.99 AC / 261,121 SF
EXISTING ZONING SETBACKS	N/A – PROJECT NOT WITHIN CITY LIMITS
IMPERVIOUS COVER	2.18 AC OR 94,752 SF (36.3%)
BUILDING HEIGHT	N/A
FOUNDATION TYPE	N/A

NOTES

1. ALL PROPERTY BOUNDARIES ARE APPROXIMATE.
2. ABOVE GROUND STORAGE TANK SIZE AND SPECIFICATION TO BE PER AST APPLICATION TO TCEQ.
3. TANK LOCATION AND SIZE IS ESTIMATED AND WILL BE FIELD VERIFIED.
4. ALL TANKS SHOWN ARE DOUBLE WALLED AND THEREFORE HAVE THEIR OWN CONTAINMENT.
5. SEE ARCHITECTURAL PLANS FOR CANOPY DETAILS AND CONFIRMATION OF FUEL ISLAND DATA.

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

STATE OF TEXAS
CHAD M. COPELAND
SOIL SCIENCE
12668
LICENSED
PROFESSIONAL GEOSCIENTIST
08/21/2023

SANDLIN
ENGINEERING | CONSULTING
SERVICES, LLC
TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

SITE PLAN

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 6 OF ##

G:\Shared drives\Sandlin Services LLC\Sandlin Services Projects\Petroleum & Environmental Engineering Division\02-0015-009 Rock Hard Yard\CAD\Construction Sheets\S RHY SITE.dwg-SITE PLAN Plotted Aug 21, 2023 at 2:30pm by Admin | Last Saved by: Admin

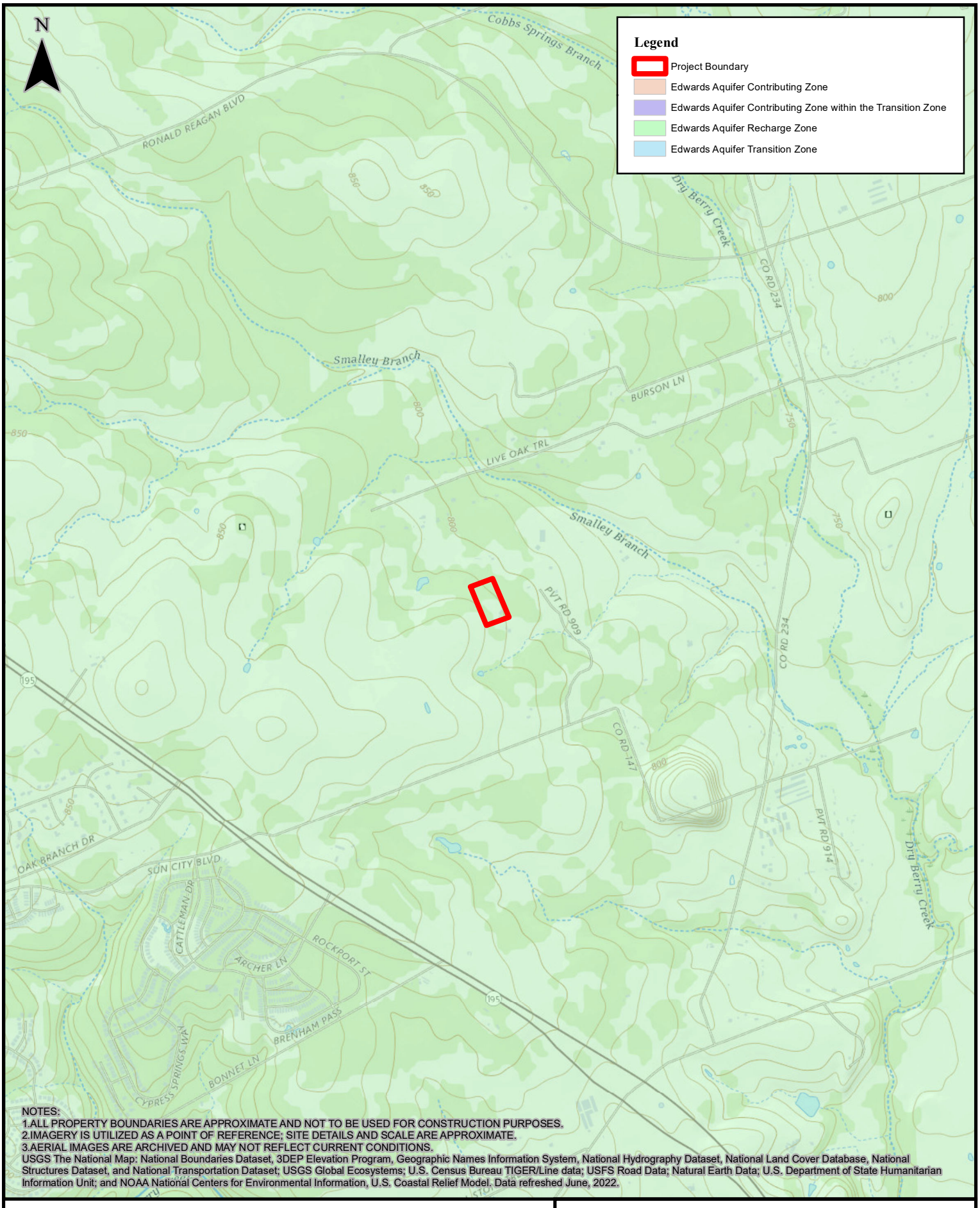
NOTES:
1.ALL PROPERTY BOUNDARIES ARE APPROXIMATE AND NOT TO BE USED FOR CONSTRUCTION PURPOSES.
2.IMAGERY IS UTILIZED AS A POINT OF REFERENCE; SITE DETAILS AND SCALE ARE APPROXIMATE.
3.AERIAL IMAGES ARE ARCHIVED AND MAY NOT REFLECT CURRENT CONDITIONS.
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

RANGER ENVIRONMENTAL SERVICES, LLC

0 35 70 140 210 280 Feet

1:1,500

Geologic Site Map
Rockhard Trucking
700 PR 909, Georgetown, TX



NOTES:
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2.IMAGERY IS UTILIZED AS A POINT OF REFERENCE; SITE DETAILS AND SCALE ARE APPROXIMATE.
3.AERIAL IMAGES ARE ARCHIVED AND MAY NOT REFLECT CURRENT CONDITIONS.
USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed June, 2022.

RANGER ENVIRONMENTAL SERVICES, INC.

0 600 1,200 2,400 3,600 4,800 Feet

1:24,000

Topographic Map (Georgetown Quadrangle)

Rockhard Trucking

700 PR 909, Georgetown, TX

NOTES:
1.ALL PROPERTY BOUNDARIES ARE APPROXIMATE AND NOT TO BE USED FOR CONSTRUCTION PURPOSES.
2.IMAGERY IS UTILIZED AS A POINT OF REFERENCE; SITE DETAILS AND SCALE ARE APPROXIMATE.
3.AERIAL IMAGES ARE ARCHIVED AND MAY NOT REFLECT CURRENT CONDITIONS.
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

RANGER ENVIRONMENTAL SERVICES, LLC

0 35 70 140 210 280 Feet

1:1,500

Edwards Aquifer Map
Rockhard Trucking
700 PR 909, Georgetown, TX

NOTES:
1.ALL PROPERTY BOUNDARIES ARE APPROXIMATE AND NOT TO BE USED FOR CONSTRUCTION PURPOSES.
2.IMAGERY IS UTILIZED AS A POINT OF REFERENCE; SITE DETAILS AND SCALE ARE APPROXIMATE.
3.AERIAL IMAGES ARE ARCHIVED AND MAY NOT REFLECT CURRENT CONDITIONS.
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

RANGER ENVIRONMENTAL SERVICES, LLC

0 35 70 140 210 280 Feet

1:1,500

Site Soil Map
Rockhard Trucking
700 PR 909, Georgetown, TX

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Williamson County, Texas

Rockhard Yard Georgetown

August 15, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:1,530 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Williamson County, Texas
Survey Area Data: Version 23, Aug 24, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DoC	Doss silty clay, moist, 1 to 5 percent slopes	2.7	44.7%
EaD	Eckrant cobbly clay, 1 to 8 percent slopes	3.3	55.3%
Totals for Area of Interest		**6.0**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Williamson County, Texas

DoC—Doss silty clay, moist, 1 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2s0st
Elevation: 630 to 1,840 feet
Mean annual precipitation: 30 to 36 inches
Mean annual air temperature: 66 to 68 degrees F
Frost-free period: 210 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Doss and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Doss

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

A - 0 to 9 inches: silty clay
Bk - 9 to 17 inches: silty clay
Cr - 17 to 80 inches: bedrock

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: 11 to 20 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 70 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: R081CY574TX - Shallow 29-35 PZ
Hydric soil rating: No

Minor Components

Brackett

Percent of map unit: 7 percent
Landform: Ridges
Landform position (two-dimensional): Backslope, footslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R081CY362TX - Steep Adobe 29-35 PZ
Hydric soil rating: No

Bolar

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R081CY357TX - Clay Loam 29-35 PZ
Hydric soil rating: No

Eckrant

Percent of map unit: 1 percent
Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R081CY360TX - Low Stony Hill 29-35 PZ
Hydric soil rating: No

Purves

Percent of map unit: 1 percent
Landform: Plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R081CY574TX - Shallow 29-35 PZ
Hydric soil rating: No

Denton

Percent of map unit: 1 percent
Landform: Plains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R081CY357TX - Clay Loam 29-35 PZ
Hydric soil rating: No

EaD—Eckrant cobbly clay, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2t0sg
Elevation: 650 to 1,900 feet
Mean annual precipitation: 30 to 35 inches
Mean annual air temperature: 65 to 69 degrees F
Frost-free period: 210 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Eckrant and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Eckrant

Setting

Landform: Ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

A1 - 0 to 4 inches: cobbly clay
A2 - 4 to 11 inches: very cobbly clay
R - 11 to 80 inches: bedrock

Properties and qualities

Slope: 1 to 8 percent
Surface area covered with cobbles, stones or boulders: 2.3 percent
Depth to restrictive feature: 4 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D

Ecological site: R081CY360TX - Low Stony Hill 29-35 PZ
Hydric soil rating: No

Minor Components

Brackett

Percent of map unit: 7 percent
Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Ecological site: R081CY355TX - Adobe 29-35 PZ
Hydric soil rating: No

Bexar

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R081CY361TX - Redland 29-35 PZ
Hydric soil rating: No

Krum

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R081CY357TX - Clay Loam 29-35 PZ
Hydric soil rating: No

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Aboveground Storage Tank Facility Plan (TCEQ-0575)

Aboveground Storage Tank Facility Plan Application

Texas Commission on Environmental Quality

For Permanent Storage on The Edwards Aquifer Recharge and Transition Zones And Relating to 30 TAC §213.5(e), 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.

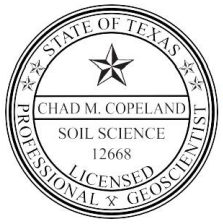
Signature

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 **Aboveground Storage Tank Facility Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: Mr. Chad M. Copeland, P.G., PWS

Date: 08/21/2023

Signature of Customer/Agent:



08/21/2023

Regulated Entity Name: Rockhard Yard Georgetown

Aboveground Storage Tank (AST) Facility Information

1. Tanks and substance stored:

Table 1 - Tank and Substance Storage

AST Number	*Size (Gallons)*	*Substance to be Stored*	*Tank Material*
1	6,000	Diesel	STI F921 - UL142 Double Wall Steel
2			
3			
4			

AST Number	*Size (Gallons)*	*Substance to be Stored*	*Tank Material*
5			

Total x 1.5 = 9,000 however, Double Wall Containment **Gallons**

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

   ☒ **Attachment A - Alternative Methods of Secondary Containment**. Alternative methods for providing secondary containment are proposed. Specifications that show equivalent protection for the Edwards Aquifer are attached.

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

Table 2 - Secondary Containment

Length (L) (Ft.)	*Width (W) (Ft.)*	*Height (H) (Ft.)*	*L x W x H = (Ft3)*	*Gallons*
NA				

Total: NA **Gallons**

4. ☐ 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

5. ☒ 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 Double wall tank on impervious cover.

6. ☒ **Attachment B - Scaled Drawing(s) of Containment Structure**. A scaled drawing of the containment structure that shows the following is attached:

   - ☒ 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.

Site Plan Requirements

Items 7 - 18 must be included on the Site Plan.

7. ☒ The Site Plan must have a minimum scale of 1" = 400'.

   Site Plan Scale: 1" = 40'.

8. 100-year floodplain boundaries:

   ☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
   ☒ No part of the project site is located within the 100-year floodplain.

   ☒ The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA Firm Map.

9. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Show lots, recreation centers, buildings, roads, etc.

   ☐ The layout of the development is shown with existing contours. Finished topographic contours will not differ from the existing topographic configuration and are not shown.

10. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

    ☒ There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply):
    ☐ The wells are not in use and have been properly abandoned.
    ☒ The wells are not in use and will be properly abandoned.
    ☐ The wells are in use and comply with 16 TAC § 76.

    ☐ There are no wells or test holes of any kind known to exist on the project site.

11. Geologic or manmade features which are on the site:

    ☒ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
    ☐ No sensitive geologic or manmade features were identified in the Geologic Assessment.
    ☐ **Attachment C - Exception to the Geologic Assessment**. A request and justification for an exception to a portion of the Geologic Assessment is attached.

12. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.

13. ☒ Areas of soil disturbance and areas which will not be disturbed.

14. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

15. ☒ Locations where soil stabilization practices are expected to occur.

16. ☐ Surface waters (including wetlands).

    ☒ N/A

17. ☐ Locations where stormwater discharges to surface water or sensitive features.

    ☒ There will be no discharges to surface water or sensitive features.

18. ☒ Legal boundaries of the site are shown.

Best Management Practices

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

    ☒ In the event of a spill, any spillage will be removed from the containment structure within 24 hours of the spill and disposed of properly.

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

20. ☒ All stormwater accumulating inside the containment structure will be disposed of through an authorized waste disposal contractor.

    ☐ Containment area will be covered by a roof.

    ☒ Containment area will not be covered by a roof.

    ☐ A description of the alternate method of stormwater disposal is submitted for the executive director's review and approval and is attached.

21. ☒ **Attachment D - Spill and Overfill Control**. A site-specific description of the methods to be used at the facility for spill and overfill control is attached.

22. ☒ **Attachment E - Response Actions to Spills**. A site-specific description of the planned response actions to spills that will take place at the facility is attached.

Administrative Information

23. A Water Pollution Abatement Plan (WPAP) is required for construction of any associated commercial, industrial or residential project located on the Recharge Zone.

    ☐ The WPAP application for this project was approved by letter dated _____. A copy of the approval letter is attached at the end of this application.

    ☐ The WPAP application for this project was submitted to the TCEQ on Concurrent with this plan, but has not been approved.

    ☐ A WPAP application is required for an associated project, but it has not been submitted.

☐ There will be no building or structure associated with this project. In the event a building or structure is needed in the future, the required WPAP will be submitted to the TCEQ.

☐ The proposed AST is located on the Transition Zone and a WPAP is not required. Information requested in 30 TAC 213.5 subsection (b) (4)(B) and (C) and (5) is provided with this application. (Forms TCEQ-0600 Permanent Stormwater Section and TCEQ-0602 Temporary Stormwater Section or Stormwater Pollution Prevention Plan/SW3P).

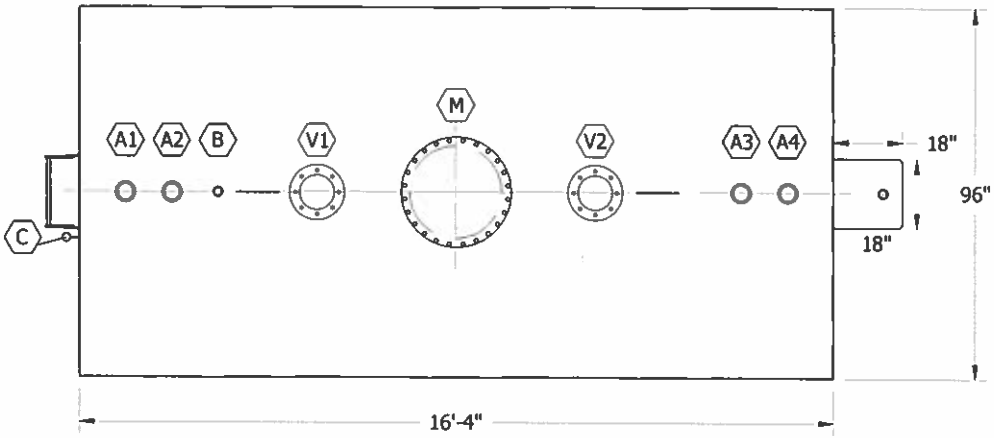
24. ☒ This facility is subject to the requirements for the reporting and cleanup of surface spills and overfills pursuant to 30 TAC 334 Subchapter D relating to Release Reporting and Corrective Action.

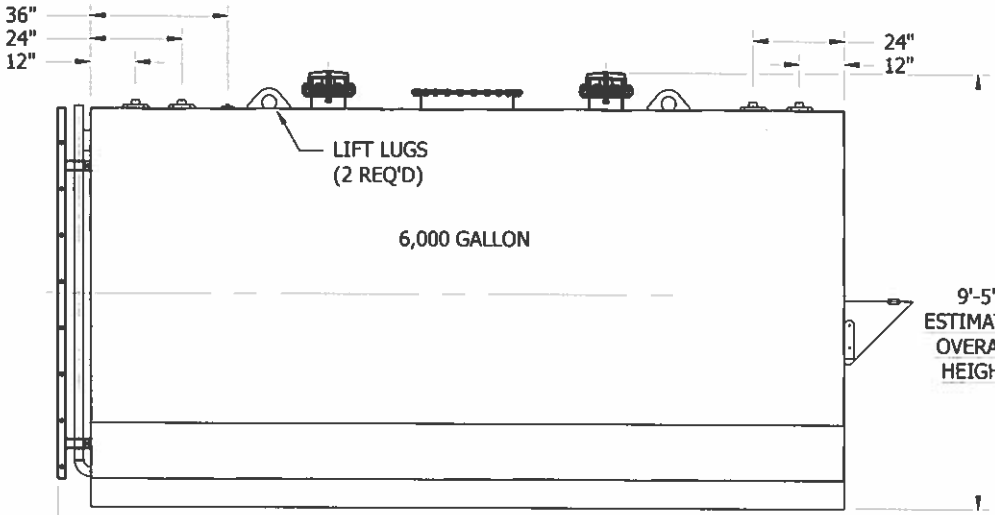
25. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

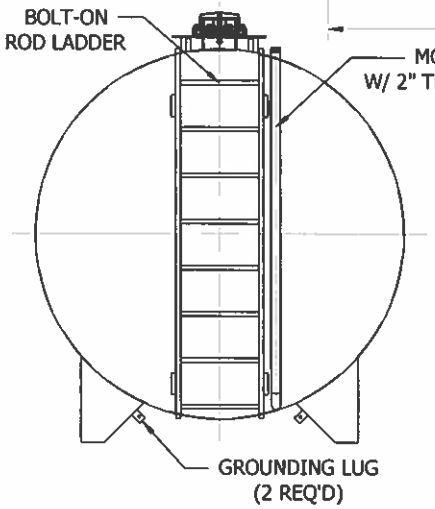
26. ☒ Any modification of this AST Facility Plan application will require executive director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

ATTACHMENT A

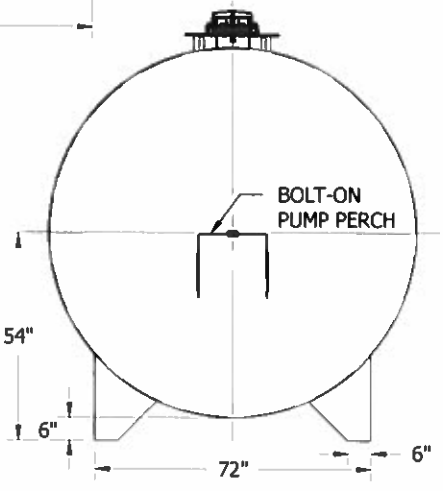
Alternative Methods of Secondary Containment







BILL OF MATERIALS			
A	4	4" THREADED OPENING	PRIMARY
B	1	2" THREADED OPENING	PRIMARY
C	1	2" INTERSTICE OPENING	PRIMARY
M	1	24" MANWAY	PRIMARY
V1	1	8" EMERGENCY VENT	PRIMARY
V2	1	8" EMERGENCY VENT	SECONDARY



NOTES:

EXTERNAL: BLAST; PRIME & WHITE ENAMEL TOP COAT
INTERNAL: BARE METAL

TEST INNER: 5 PSIG SOAP & WATER
TEST OUTTER: VACUUM

ESTIMATED WEIGHT: 10,000 LBS

REV.	DATE	DWG BY	APP'D	DESCRIPTION
3				
2				
1				
0	04/17/19	WH	JD	ISSUED FOR APPROVAL

WATCO TANKS, INC.

5877 FM 539, FLORESVILLE, TEXAS 78114

6,000 GALLON DOUBLE-WALL

STI F921 - UL 142
96" X 16'-4

DWG NO:
STD-6-SND-96-P

F921® aboveground storage tanks are manufactured with a double-wall steel design. Standard features include built-in, testable, interstitial monitoring capability and impermeable secondary containment. The F921® delivers uncompromising performance, reliability, service and economy.

Compatible With a Wide Range of Fuels and Chemicals, Including Biodiesel and Ethanol

F921® features:

- Meets UL 142, Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids
- Double-wall design offers integral, impermeable secondary containment to meet EPA SPCC requirements
- Primary and secondary tank can be tightness tested on site with standard testing procedures, or manufacturer may ship with vacuum in the interstice to prove integrity of both walls during installation
- Interstitial space can be monitored for leak detection
- Primary storage tank and secondary containment compatible with a wide range of fuels and chemicals

Additional features:

- Support designs available for all seismic requirements
- Choose from many integral support types, including saddles and skids
- Vertical tanks supported on legs, and skirted available, with Listing label
- Capacities range up to 75,000 gallons

Economical Double-Wall Design

F921® Benefits:

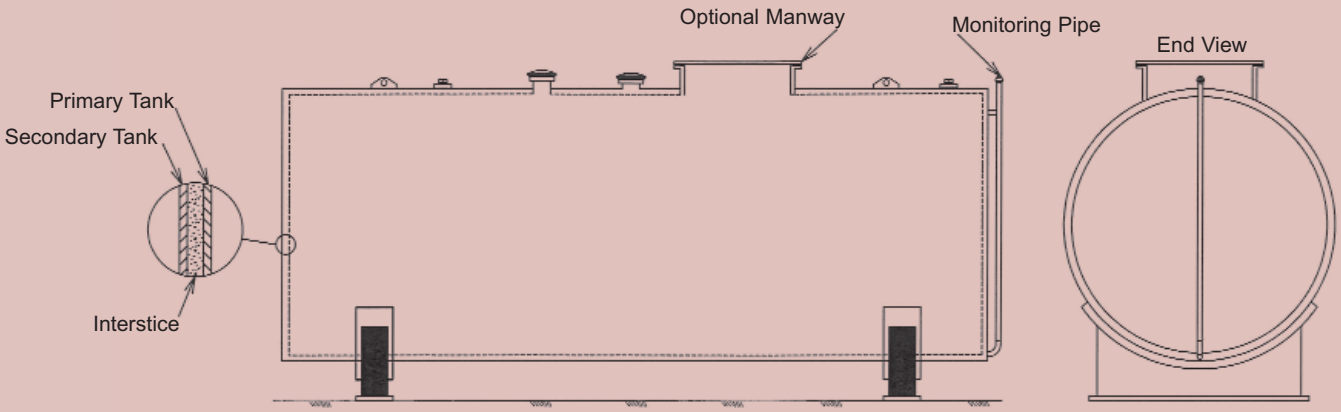
- Steel construction allows for recycling
- Low cost compartments and customization
- Built to nationally-recognized STI standards with strict third-party quality control inspection program

Available Designs:

- Horizontal
- Vertical
- Rectangular

F921® is available from a large network of STI Licensed Manufacturers • www.steeltank.com

F921® Double-Wall Aboveground Steel Storage Tanks



- **Steel Tank Institute F921® and Listing Labeled**
- **300˚ or 360˚ outer wall for secondary containment**
- **Variety of Listed supports available**
- **Compatible with a wide range of fuels and chemicals**
- **Capacities range up to 75,000 gallons**
- **Easily relocated**

F921® Guideline Specification

A) General

1. Provide F921® double-wall steel aboveground storage tanks.

B) Labeling

1. Tanks shall bear the Steel Tank Institute F921® Double-Wall Aboveground Storage Tank identification label.

C) Product Description

1. Tanks shall be manufactured in accordance with Steel Tank Institute F921®, Standard for Double-Wall Aboveground Storage Tanks.
2. Aboveground tank primary and secondary containment (inner and outer walls) shall be manufactured in accordance and listed with Underwriters Laboratories UL 142, Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids.
3. Tanks shall be double-wall with a steel inner wall for primary containment and provide integral secondary containment by an impervious steel outer wall.
4. Integral secondary containment shall be testable and provide access for interstitial leak detection monitoring.
5. Listed supports shall be used for all horizontal, rectangular and vertical double-wall tanks. Supports are designed for seismic loading, if neccessary.

D) Manufacturer

1. Manufacturer shall be a licensed member company of the Steel Tank Institute and subject to Steel Tank Institute's Quality Assurance program.

A division of STI/SPFA 944 Donata Court Lake Zurich, IL 60047 Ph: (847)438-8265 Fx: (847)438-8766 Web: www.steeltank.com

F921® is available from an extensive group of Steel Tank Institute fabricators who participate in the STI Quality Assurance Program. Under the program, independent quality control inspectors make unannounced visits to STI members, ensuring fabrication to the highest possible standards.

9/09-2M-Item #110-50-0001

Model 715 & 715S Remote Fill Box - Top Connection

SPECIFICATION SHEET

The Morrison 715 Series remote fill box is a simple 10-gallon capacity cabinet that provides containment of small spills during tank filling operations. Each unit is supplied with tank mount brackets for easy installation on storage tanks.

Fig. 715

Fig. 715S

Fig. 715
(flanged top connection)

ULC LISTED

Features

- 10-gallon (37.85 liter) capacity
- 2" or 3" male NPT threaded or 150# raised face flange top connection
- Vented and weatherproof
- Hinged door is lockable with a padlock
- Bottom sloped (right to left) toward drain and pump mounting location; drains on left side
- Vapor recovery mounting bracket integrated into the cabinet exterior
- Vapor recovery adaptor, cap, and u-bolt kits are available
- Available with hand pump assembly, ball valve, quick disconnect check valve coupler/adaptor, dry disconnect adaptor, and dust cap/plug in 2" or 3" configuration
- All connection assemblies are factory installed and tested prior to shipping
- DEF, Aviation, and E-85 models are available
- Post mount kits and four-leg stands are available in powder coated steel
- Four-leg stands are also available in stainless steel

Construction Details

- Box and door are 14-gauge steel, powder coated white, or 304 stainless steel
- Ball valve is Morrison 691 series brass or 691BSS series stainless steel
- Quick disconnect coupler and plug are aluminum, anodized aluminum, or stainless steel
- Quick disconnect adaptor and cap are anodized aluminum
- Dry disconnect adaptor and cap are aluminum, anodized aluminum, or stainless steel

Vapor recovery kit

- Vapor recovery adaptor is aluminum with FKM
- Vapor recovery cap is aluminum, powder coated orange
- Hand pump is steel construction, PTFE seals with FKM o-rings, or stainless steel with PTFE and FKM

Box dimensions

- Width = 24.38" Height = 28.88" (34.8" including flange) Depth = 19.19"

Approvals

CAN-ULC-S663-11; Florida DEP EQ-787

MORRISON BROS. CO.

Part numbers, drawings, and numbering system on next page.

Model 715 & 715S Remote Fill Box -Top Connection *(continued)*

Item Number	Size	Description	Weight
715--T00-0000-0	3″—10 gal.	Top connection w/ no outlets	101 lbs
715-TT3-0000-0	3″—10 gal.	Top connection w/ no internal components	135 lbs
715--TT3-000B-0	3″—10 gal.	Top connection w/ hand pump	
715--TT3-2QBB-0	3″—10 gal.	Top connection w/2” AL female QD coupler, BR ball valve, hand pump	141 lbs
715-TT3-2MBB-0	3″—10 gal.	Top connection w/2” AL male QD adaptor, BR ball valve, hand pump	141 lbs
715--TT3-3QBB-0	3″—10 gal.	Top connection w/3” AL female QD coupler, BR ball valve, hand pump	144 lbs
715--TT3-3MBB-0	3″—10 gal.	Top connection w/3” AL male QD adaptor, BR ball valve, hand pump	144 lbs
715--TT3-2DBB-0	3″—10 gal.	Top connection w/2” AL dry disc adaptor, BR ball valve, hand pump	143 lbs
715--TT3-3DBB-0	3″—10 gal.	Top connection w/3” AL dry disc adaptor, BR ball valve, hand pump	158 lbs
715--TT3-2MB0-0	3″—10 gal.	Top connection w/2” AL male QD adaptor, BR ball valve	
715--TT3-3MB0-0	3″—10 gal.	Top connection w/3” AL male QD adaptor, BR ball valve	
715--TT3-2QB0-0	3″—10 gal.	Top connection w/2” AL female QD coupler, BR ball valve	
715--TT3-2DS0-0	3″—10 gal.	Top connection w/2” AL dry disc adaptor, SS ball valve	
715--TT3-2DSE-0	3″—10 gal.	Top connection w/2” AL dry disc adaptor, SS ball valve, E85 hand pump	
715S-TT3-0000-0	3″—10 gal.	SS top connection w/ no internal components	135 lbs
715S-TT3-2QBB-0	3″—10 gal.	SS top connection w/2” AL female QD coupler, BR ball valve, hand pump	132 lbs
715S-TT3-2MBB-0	3″—10 gal.	SS top connection w/2” AL male QD adaptor, BR ball valve, hand pump	132 lbs
715S-TT3-3QBB-0	3″—10 gal.	SS top connection w/3” AL female QD coupler, BR ball valve, hand pump	144 lbs
715S-TT3-3MBB-0	3″—10 gal.	SS top connection w/3” AL male QD adaptor, BR ball valve, hand pump	144 lbs
715S-TT3-2DBB-0	3″—10 gal.	SS top connection w/2” AL dry disc adaptor, BR ball valve, hand pump	135 lbs
715S-TT3-3DBB-0	3″—10 gal.	SS top connection w/3” AL dry disc adaptor, BR ball valve, hand pump	148 lbs
715S-TT3-2DS0-0	3″—10 gal.	SS top connection w/2” AL dry disc adaptor, SS ball valve	
715S-TT3-3DS0-0	3″—10 gal.	SS top connection w/3” AL dry disc adaptor, SS ball valve	
715S-TT3-2DSE-0	3″—10 gal.	SS top connection w/2” AL dry disc adaptor, SS ball valve, E85 hand pump	
715S-TT3-2MBE-0	3″—10 gal.	SS top connection w/2” AL male QD adaptor, BR ball valve, E85 hand pump	
715S-TT3-3DSE-0	3″—10 gal.	SS top connection w/3” AL dry disc adaptor, SS ball valve, E85 hand pump	
715S-TT3-2ES0-0	3″—10 gal.	SS top connection w/2” SS dry disc adaptor, SS ball valve	
715S-TT3-2ESS-0	3″—10 gal.	SS top connection w/2” SS dry disc adaptor, SS ball valve, SS hand pump	
715S-TT3-2SS0-0	3″—10 gal.	SS top connection w/2” SS female QD coupler, SS ball valve	
715S-TT3-2SSS-0	3″—10 gal.	SS top connection w/2” SS female QD coupler, SS ball valve, SS hand pump	
715S-TT3-3SS0-0	3″—10 gal.	SS top connection w/3” SS female QD coupler, SS ball valve	
715S-TT3-3SSE-0	3″—10 gal.	SS top connection w/3” SS female QD coupler, SS ball valve, E85 hand pump	
715--TF4-0000-0	2”—10 gal.	Flanged top connection w/ no outlets	
715S-TF4-0000-0	2”—10 gal.	SS flanged top connection w/ no outlets	
715--TF5-0000-0	3”—10 gal.	Flanged top connection w/ no outlets	
715S-TF5-0000-0	3”—10 gal.	SS flanged top connection w/ no outlets	
715---VR30 AK		3” Vapor recovery kit	
715---VR40 AK		4” Vapor recovery kit	
715---P060 AK		Post mount kit - 3” x 60” post with clamps and base	
715---S400 AS		Four-leg stand for 715 fill box, powder coated steel	
715S--S400 AS		Four-leg stand for 715 fill box, stainless steel	
715---0373 AK		Mounting plate assembly kit	

**Please consult Price List for additional options.*

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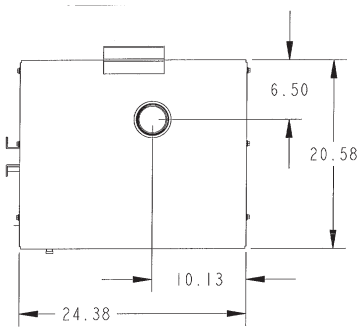
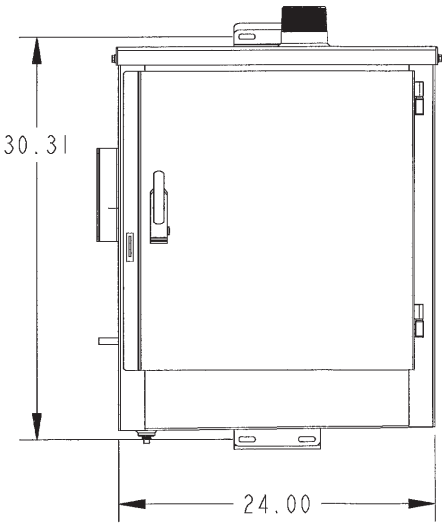
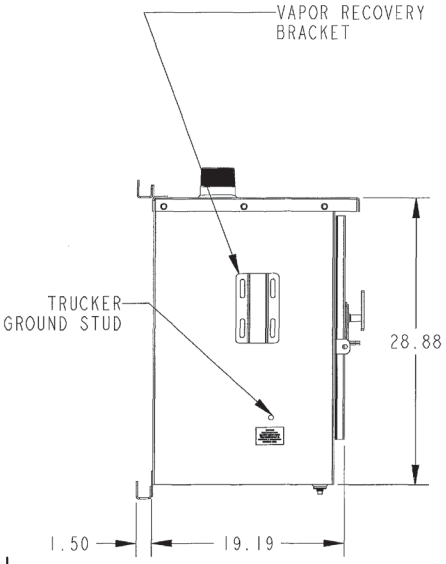


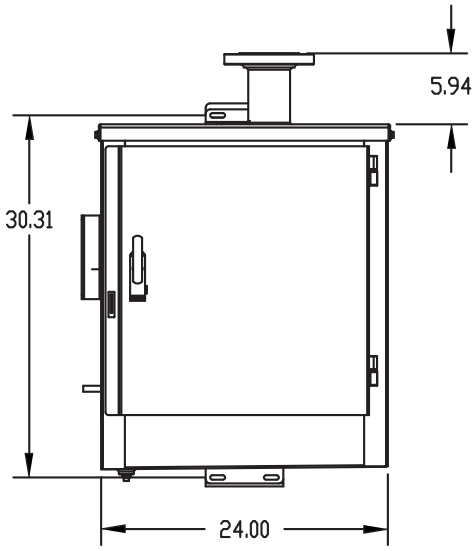
TOP VIEW



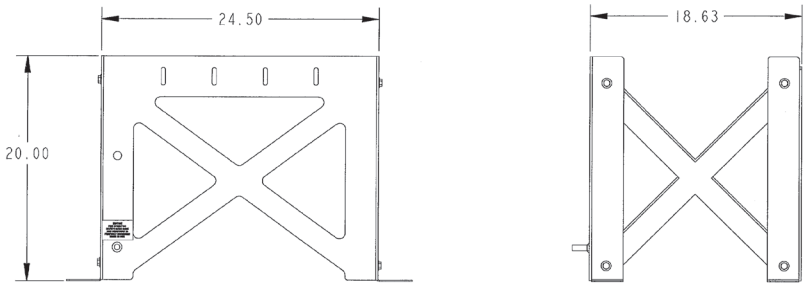
FRONT VIEW



LEFT VIEW



FRONT VIEW (WITH FLANGE)



FOUR-LEG STAND

715 Part Numbering System

How to "Build-a-Box"

To order, simply select desired option from each category and insert the corresponding letter or number in the appropriate space below.

Example:

715 [-] - [T][T][3] - [2][Q][B][B] - [0]

Model Number

Fill Box Construction
- `-` 10 gal. powder coated steel
- `S` 10 gal. 304 stainless steel
- `F` 7 gal. powder coated in-wall mount
- `FS` 7 gal. 304 stainless steel in-wall mount

Mounting Style
- `T` Tank/Wall

Outlet Location
- `0` No outlet
- `B` Bottom
- `F` Flange
- `K` Back
- `T` Top NPT male thread

Outlet Fitting
- `0` No outlet fitting
- `2` 2" Male NPT nipple
- `3` 3" Male NPT nipple
- `4` 2" 150# Raised face flange
- `5` 3" 150# Raised face flange

Component Size
- `0` Box only
- `2` 2" components
- `3` 3" components

Inlet Connection
- `0` Box only
- `D` Dry disconnect, hardcoated aluminum with stainless steel piston, FKM gaskets, and aluminum dust cap
- `E` Dry disconnect, stainless steel body and piston, FKM gasket, and stainless steel dust cap (only available in 2")
- `Q` 90° quick disconnect aluminum female coupler with brass check valve, FKM seals, and aluminum dust plug
- `S` 90° quick disconnect stainless steel coupler with check valve, FKM seals, and aluminum dust plug
- `M` 90° quick disconnect aluminum male adaptor with stainless steel check valve, FKM seals, and aluminum dust cap

Ball Valve
- `0` Box only
- `B` Full port NPT ball valve with brass body, hard chrome plated ball & PTFE seals
- `S` Full port, locking, NPT ball valve with stainless steel body and ball, PTFE seals

Hand Pump Assembly
- `0` No hand pump assembly
- `B` Base package*

  ** Hand pump assembly base package: Steel constructed hand pump with PTFE seals and FKM o-rings, reinforced polyurethane tubing, brass check valve and ball valve.*
- `E` E85 Package

  ** Hand Pump Assembly E85 Package: Steel constructed hand pump with PTFE seals and FKM o-rings, reinforced polyurethane tubing, stainless steel check valve and ball valve.*
- `S` Stainless Steel Package

  ** Hand Pump Assembly Stainless Steel Package: Stainless steel constructed hand pump with PTFE seals and FKM o-rings, reinforced polyurethane tubing, stainless steel check valve and ball valve.*

Open
- `0` Box only

Additional Options:
- *60" Post mount kit: 715---P060 AK*
- *Mounting Plate: 715---0373 2PPW (not compatible with in-wall models)*
- *Stand: 715---S400 AS (4-leg stand, powder coated steel)*
- *Stand: 715S--S400 AS (4-leg stand, stainless steel)*
- *Vapor recovery kits: 715---VR30 AK (3") and 715---VR40 AK (4")*

For a complete listing of 715 item numbers, please refer to the Morrison Price List.

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570 E. 7th Street, P.O. Box 238 | Dubuque, IA 52004-0238
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www.morbros.com

Revised 09.11.2019

Model 73590CA Check Valve Adaptor

SPECIFICATION SHEET

Application

The 73590CA cam and groove adaptor with check valve is used in specialized applications where it is necessary and/or convenient to be able to connect and disconnect tank filling components quickly and cleanly.

Fig. 73590CA (2”)

Features and Details

- Male quick connect adaptor mates with traditional quick disconnect fill couplers
- Integrated check valve and fill adaptor reduces product loss at disconnect
- Space saving 90º design saving design fits into small spaces such as Morrison model 715 remote fill boxes

Materials of Construction

- Hard coated aluminum body
- Stainless steel plunger
- Viton® disc

Item Number	Size	Description	Weight (lbs)
73590CA0200 AV	2”	90º check valve; male adaptor; female threads	2.0
73590CA0300 AV	3”	90º check valve; male adaptor; female threads	5.0

Optional dust caps:

Item Number	Size	Description
735DCA2000ACEVR	2”	Anodized aluminum dust cap; EVR approved
735DCA3000ACEVR	3”	Anodized aluminum dust cap; EVR approved

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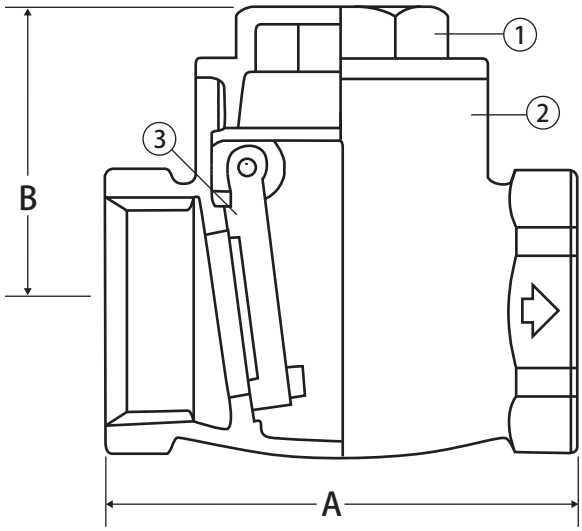
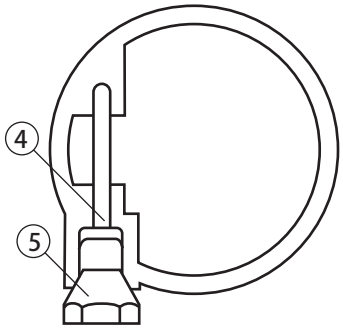
June 2019

Brass Horizontal Swing Check Valve

Threaded Connection • 200 WOG • Class 125

T-501





Features

- Residential and commercial applications

Approvals

- ANSI B1.20.1

Pressure Rating

- 200 WOG

Material Specifications

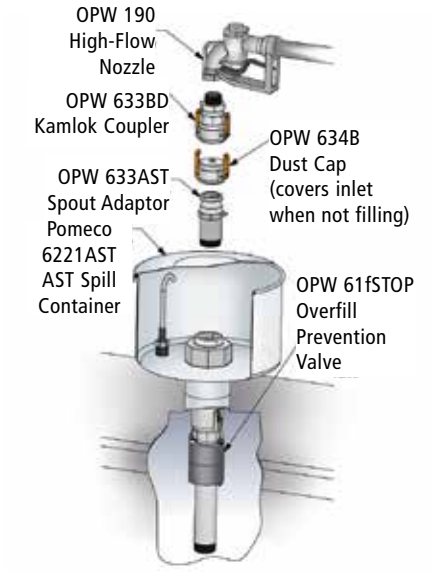
No.	Part	Materials
1	Cap	Cast Brass
2	Body	Cast Brass
3	Disc	Forged Brass
4	Hinge Pin	Brass
5	Screw	Brass

Dimensions

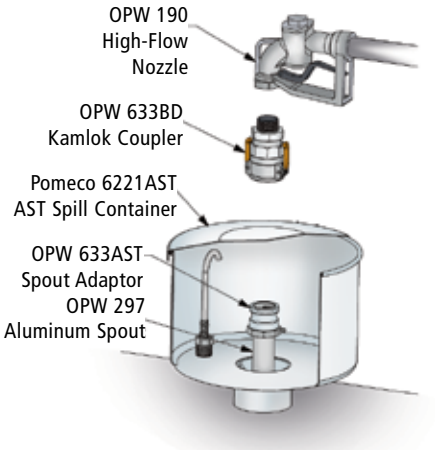
Part No.	Size	A	B
105-103	1/2"	2.13	1.54
105-104	3/4"	2.33	1.62
105-105	1"	2.72	1.77
105-106	1-1/4"	3.11	2.01
105-107	1-1/2"	3.51	2.25
105-108	2"	4.30	2.68
105-109	2-1/2"	5.32	3.35
105-110	3"	6.30	3.86
105-111	4"	7.49	4.53

Fuel Delivery Couplers And Accessories

Fuel Delivery Couplers and Accessories are designed to connect fuel delivery transport truck hoses or nozzles to the fill pipe of an aboveground storage tank.



Typical AST Filling Application



Typical AST Filling Application

Dedicated Gauging Port

For use with 633AST-0XXX Female NPT Kamlok Gauging Port.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

Product #	Description
204247	Dedicated Gauging Port

Kamlok® Couplers

The 633BD has a Kamlok® Coupler on one end and external threads on the other end. This coupler should be threaded into an OPW 190 Nozzle and then coupled to the 61ƒSTOP for filling ASTs.

Ordering Specifications

Elbow/Thread

Product #	in.	mm
633BD-1261	2 x 1-1/2	51 x 38
633B-0150	2 x 2	51 x 51

633B Coupler

Tank Inlet Spout Adaptors With Crossbar

The 633AST Series Adaptors, with a boss installed across the inlet, are designed to prohibit open-fills. Adaptors are supplied with the 61ƒSTOP to provide for tight-fills.

Ordering Specifications

Elbow/Thread

Product #	in.	mm
633AST-2061	2 x 2	51 x 51
633AST-3061	3 x 3	77 x 77

633AST Spout Adaptor

Tank Inlet Spout Adaptors

The 633AST is an adaptor that can be threaded onto a 297 Spout. The spout and adaptor assembly may then be attached to a 190 Nozzle equipped with a 633BD Kamlok® coupler for open filling of ASTs when a 61ƒSTOP is not installed.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

Elbow/Thread

Product #	in.	mm
633AST-0150	1.5 x 1.5	38 x 38
633AST-0200	2 x 2	51 x 51
633AST-0250	2.5 x 2.5	64 x 64
633AST-0300	3 x 3	76 x 76
633AST-0400	4 x 4	102 x 102

633FAST-XXXX, Male Thread Equivelent of Adaptors above

633AST Spout Adaptor

Dust Caps

The 634B Dust Caps are installed on 633AST Adaptors when not in use to deter dust, debris and water from entering the tank.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

Product #	Description	in.	mm
634B-0140	For 633AST-0150	1 1/2	38
634B-0150	Caps 633AST-2061 or 633AST-0200 Adaptor	2	51
634B-0160	Caps 1611AN-0200 or 633AST-0250 or 1611AN-2040 or 1612AN-2040 Adaptors	2 1/2	64
634B-0170	Caps 61ƒSTOP (633AST-3061) or 366AST-0300 or 1611AN-3060 or 1612AN-3060 Adaptors	3	77
634B-0180	1611AN-0300 Kamvalok® Adaptor or 633AST-0400 Adaptor	4	103

Dust Cap

OPW A DOVER COMPANY 9393 Princeton-Glendale Road ◆ Hamilton, Ohio USA 45011 Phone: (800) 422-2525 ◆ Fax: (800) 421-3297

Model 9095AA 3” Overfill Prevention Valve

NEW PRODUCT ANNOUNCEMENT

Application

The 9095AA series overfill prevention valve is designed to prevent the overfilling of liquid storage tanks by providing a positive shut-off during a pressurized fill.

9095AA0300 (3”)

Features and Details

- Installs on tank top by threading onto a 6” male NPT riser
- Direct fill adaptor has 3” male quick disconnect
- Remote adaptor has 3” female NPT inlet threads for piping to remote fill point
- Full flow until shut-off point
- 1.23” of float height adjustment
- Integral pressure relief
- Integral anti-siphon function
- Optional test mechanism
- Drop tube adaptor accepts 3” drop fill tubes (Morrison 419)

Materials of Construction

- Direct fill adaptor... passivated aluminum
- Remote adaptor... ductile iron, powder coated
- Body... passivated aluminum
- Shaft, linkage, and hardware... stainless steel
- Lower pipe... e-coated steel
- Drop tube adaptor... passivated aluminum

Operational Criteria

- Minimum 5 PSI flow requirements
- Maximum operating pressure is 100 PSI
- Maximum viscosity of 300 centistokes
- A tight fill connection is required for the valve to operate
- The estimated flow rate is 560 GPM at 10 PSI pressure drop (See flow curve)

NOTE

For use on clean liquids only.

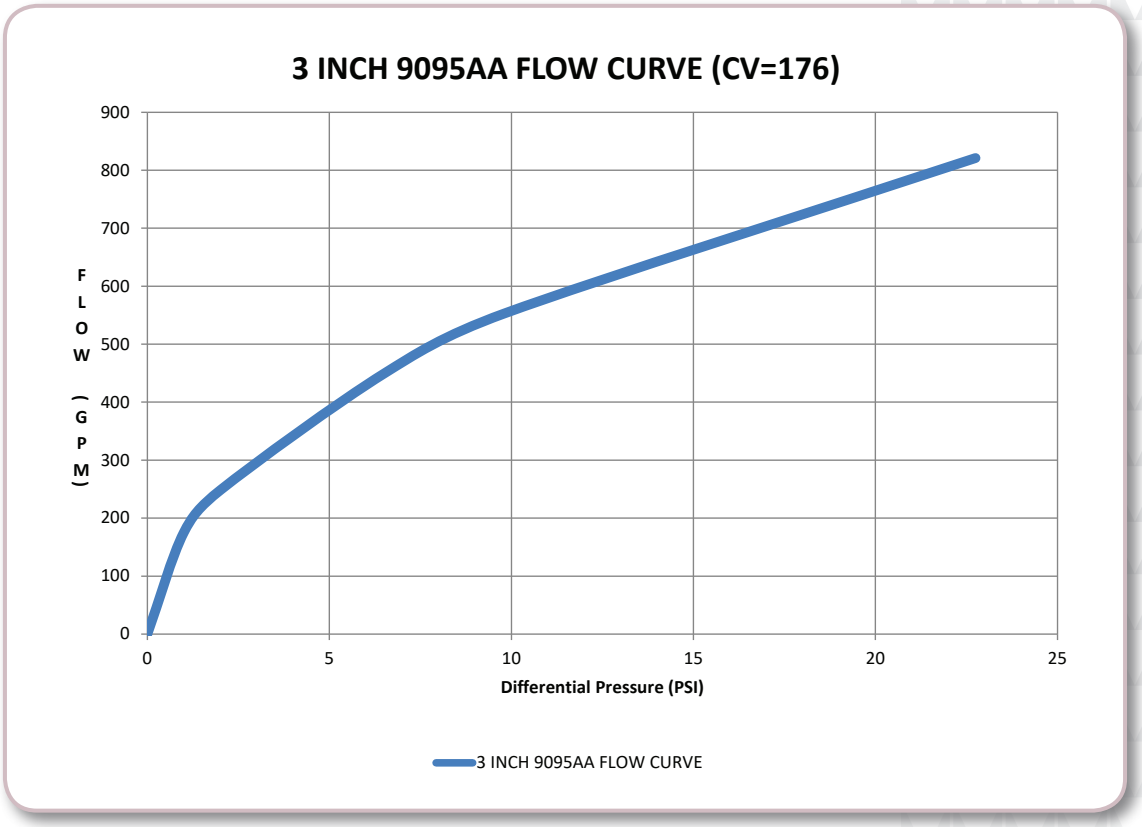
Code Compliance

ULC-S661-10 listed, NFPA 30, 30A, UFC, IFC, PEI/ RP200, PEI/RP 600, and Florida DEP EQ-851. California EVR models available

Item numbers and flow curve on next page.

Model 9095AA Overfill Prevention Valve *(continued)*

	Item Number	Size	Description	Weight (lbs)	List Price
	9095AA0300 AV	3"	AST overfill prevention valve, aluminum body, with 3" male quick disconnect x 6" female threads	21	$1,277.92
EVR	9095AA3300AVEVR	3"	AST overfill prevention valve, aluminum body with 3" female threaded x 6" Female threaded connections; CARB EVR approved	30	$1,277.92
EVR	9095AA9300AVEVR	3"	AST overfill prevention valve, aluminum body, less top connection; CARB EVR approved	14.4	$1,174.65
	9095ATM0100 AM	2" & 3"	Mechanical test mechanism kit	1	$114.31



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t. 563.583.5701 | 800.553.4840 | f. 563.583.5028
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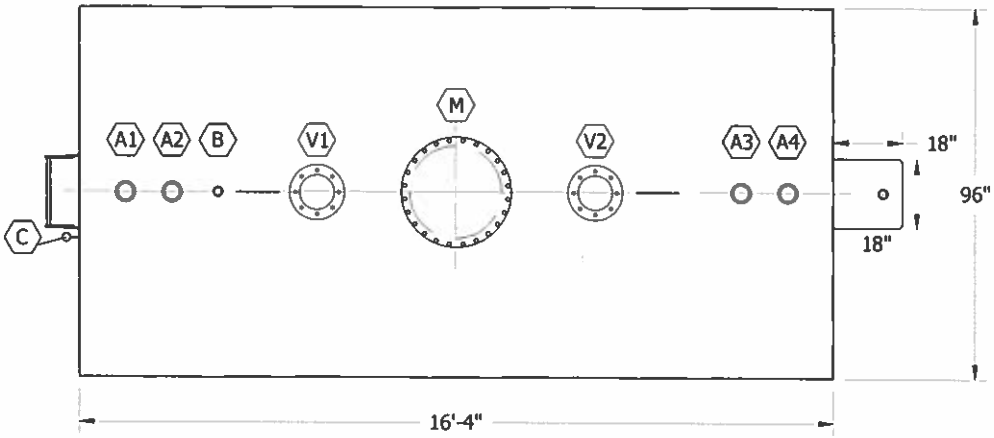
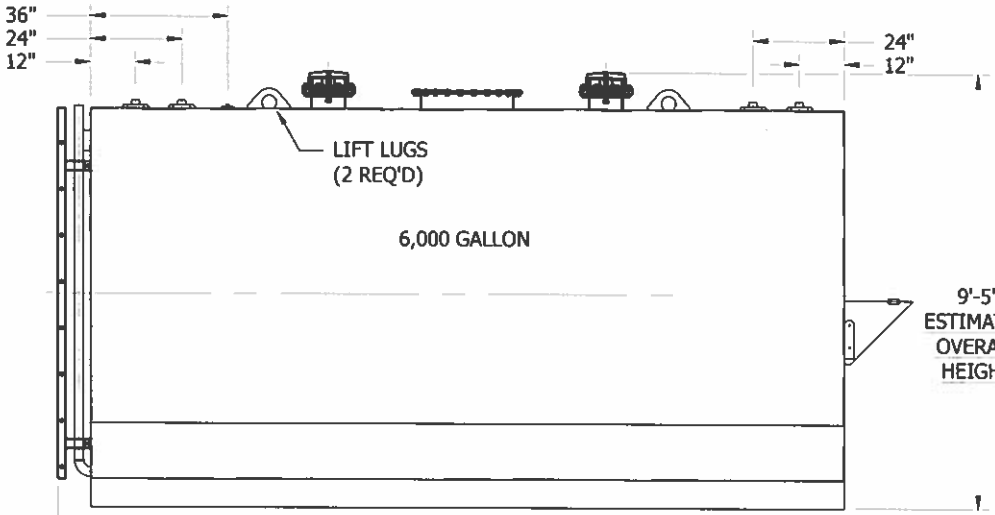
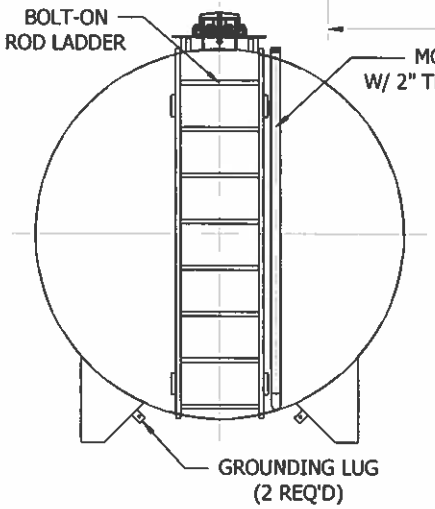
ATTACHMENT B

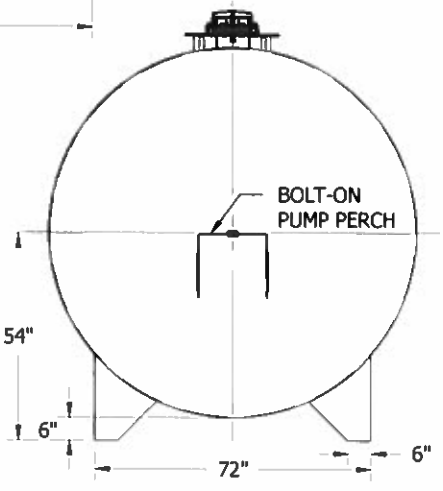
Scaled Drawing(s) of Containment Structure







BILL OF MATERIALS			
A	4	4" THREADED OPENING	PRIMARY
B	1	2" THREADED OPENING	PRIMARY
C	1	2" INTERSTICE OPENING	PRIMARY
M	1	24" MANWAY	PRIMARY
V1	1	8" EMERGENCY VENT	PRIMARY
V2	1	8" EMERGENCY VENT	SECONDARY



NOTES:

EXTERNAL: BLAST; PRIME & WHITE ENAMEL TOP COAT
INTERNAL: BARE METAL

TEST INNER: 5 PSIG SOAP & WATER
TEST OUTTER: VACUUM

ESTIMATED WEIGHT: 10,000 LBS

REV.	DATE	DWG BY	APP'D	DESCRIPTION
3				
2				
1				
0	04/17/19	WH	JD	ISSUED FOR APPROVAL

WATCO TANKS, INC.

5877 FM 539, FLORESVILLE, TEXAS 78114

6,000 GALLON DOUBLE-WALL

STI F921 - UL 142
96" X 16'-4

DWG NO:
STD-6-SND-96-P

ATTACHMENT D

Spill and Overfill Control

EXCELL FUELING SYSTEMS

June 22, 2020

Chad Copeland
Ranger Environmental Services, Inc
P.O. Box 201179
Austin, Texas 78720

RE: Rock Hard Co. - Spill control and overfill alarm

The installation of the new storage tank will be equipped with the following equipment to alleviate spills and overspills. While introducing fuel to the storage tank all connections will be in a remote fill basin capable of containing 15 gallons of product. The remote fill basing has a lockable valve to drain the spill safely if any event should occur. The system will also have an eighty-five percent alarm to notify the delivery driver that he/she is nearing the tanks limit. If the eighty-five percent alarm is ignored there will be an overfill valve that will slow the flow of fuel gradually and close completely when ninety-five percent capacity is reached. The system will be installed in accordance to local, state and federal rules.

Respectfully,

Chris Mays
Project Manager

HUB Certification #1742662468400

549 S. Loop 4
Buda, Texas 78610
Info@excellfs.com

MEMBER PEI PETROLEUM EQUIPMENT INSTITUTE

512-280-5230
800-393-5757
Fax 512-280-3580

Model 715 & 715S Remote Fill Box - Top Connection

SPECIFICATION SHEET

The Morrison 715 Series remote fill box is a simple 10-gallon capacity cabinet that provides containment of small spills during tank filling operations. Each unit is supplied with tank mount brackets for easy installation on storage tanks.

Fig. 715

Fig. 715S

Fig. 715
(flanged top connection)

ULC LISTED

Features

- 10-gallon (37.85 liter) capacity
- 2" or 3" male NPT threaded or 150# raised face flange top connection
- Vented and weatherproof
- Hinged door is lockable with a padlock
- Bottom sloped (right to left) toward drain and pump mounting location; drains on left side
- Vapor recovery mounting bracket integrated into the cabinet exterior
- Vapor recovery adaptor, cap, and u-bolt kits are available
- Available with hand pump assembly, ball valve, quick disconnect check valve coupler/adaptor, dry disconnect adaptor, and dust cap/plug in 2" or 3" configuration
- All connection assemblies are factory installed and tested prior to shipping
- DEF, Aviation, and E-85 models are available
- Post mount kits and four-leg stands are available in powder coated steel
- Four-leg stands are also available in stainless steel

Construction Details

- Box and door are 14-gauge steel, powder coated white, or 304 stainless steel
- Ball valve is Morrison 691 series brass or 691BSS series stainless steel
- Quick disconnect coupler and plug are aluminum, anodized aluminum, or stainless steel
- Quick disconnect adaptor and cap are anodized aluminum
- Dry disconnect adaptor and cap are aluminum, anodized aluminum, or stainless steel

Vapor recovery kit

- Vapor recovery adaptor is aluminum with FKM
- Vapor recovery cap is aluminum, powder coated orange
- Hand pump is steel construction, PTFE seals with FKM o-rings, or stainless steel with PTFE and FKM

Box dimensions

- Width = 24.38" Height = 28.88" (34.8" including flange) Depth = 19.19"

Approvals

CAN-ULC-S663-11; Florida DEP EQ-787

MORRISON BROS. CO.

Part numbers, drawings, and numbering system on next page.

Model 715 & 715S Remote Fill Box -Top Connection *(continued)*

Item Number	Size	Description	Weight
715--T00-0000-0	3″—10 gal.	Top connection w/ no outlets	101 lbs
715-TT3-0000-0	3″—10 gal.	Top connection w/ no internal components	135 lbs
715--TT3-000B-0	3″—10 gal.	Top connection w/ hand pump	
715--TT3-2QBB-0	3″—10 gal.	Top connection w/2” AL female QD coupler, BR ball valve, hand pump	141 lbs
715-TT3-2MBB-0	3″—10 gal.	Top connection w/2” AL male QD adaptor, BR ball valve, hand pump	141 lbs
715--TT3-3QBB-0	3″—10 gal.	Top connection w/3” AL female QD coupler, BR ball valve, hand pump	144 lbs
715--TT3-3MBB-0	3″—10 gal.	Top connection w/3” AL male QD adaptor, BR ball valve, hand pump	144 lbs
715--TT3-2DBB-0	3″—10 gal.	Top connection w/2” AL dry disc adaptor, BR ball valve, hand pump	143 lbs
715--TT3-3DBB-0	3″—10 gal.	Top connection w/3” AL dry disc adaptor, BR ball valve, hand pump	158 lbs
715--TT3-2MB0-0	3″—10 gal.	Top connection w/2” AL male QD adaptor, BR ball valve	
715--TT3-3MB0-0	3″—10 gal.	Top connection w/3” AL male QD adaptor, BR ball valve	
715--TT3-2QB0-0	3″—10 gal.	Top connection w/2” AL female QD coupler, BR ball valve	
715--TT3-2DS0-0	3″—10 gal.	Top connection w/2” AL dry disc adaptor, SS ball valve	
715--TT3-2DSE-0	3″—10 gal.	Top connection w/2” AL dry disc adaptor, SS ball valve, E85 hand pump	
715S-TT3-0000-0	3″—10 gal.	SS top connection w/ no internal components	135 lbs
715S-TT3-2QBB-0	3″—10 gal.	SS top connection w/2” AL female QD coupler, BR ball valve, hand pump	132 lbs
715S-TT3-2MBB-0	3″—10 gal.	SS top connection w/2” AL male QD adaptor, BR ball valve, hand pump	132 lbs
715S-TT3-3QBB-0	3″—10 gal.	SS top connection w/3” AL female QD coupler, BR ball valve, hand pump	144 lbs
715S-TT3-3MBB-0	3″—10 gal.	SS top connection w/3” AL male QD adaptor, BR ball valve, hand pump	144 lbs
715S-TT3-2DBB-0	3″—10 gal.	SS top connection w/2” AL dry disc adaptor, BR ball valve, hand pump	135 lbs
715S-TT3-3DBB-0	3″—10 gal.	SS top connection w/3” AL dry disc adaptor, BR ball valve, hand pump	148 lbs
715S-TT3-2DS0-0	3″—10 gal.	SS top connection w/2” AL dry disc adaptor, SS ball valve	
715S-TT3-3DS0-0	3″—10 gal.	SS top connection w/3” AL dry disc adaptor, SS ball valve	
715S-TT3-2DSE-0	3″—10 gal.	SS top connection w/2” AL dry disc adaptor, SS ball valve, E85 hand pump	
715S-TT3-2MBE-0	3″—10 gal.	SS top connection w/2” AL male QD adaptor, BR ball valve, E85 hand pump	
715S-TT3-3DSE-0	3″—10 gal.	SS top connection w/3” AL dry disc adaptor, SS ball valve, E85 hand pump	
715S-TT3-2ES0-0	3″—10 gal.	SS top connection w/2” SS dry disc adaptor, SS ball valve	
715S-TT3-2ESS-0	3″—10 gal.	SS top connection w/2” SS dry disc adaptor, SS ball valve, SS hand pump	
715S-TT3-2SS0-0	3″—10 gal.	SS top connection w/2” SS female QD coupler, SS ball valve	
715S-TT3-2SSS-0	3″—10 gal.	SS top connection w/2” SS female QD coupler, SS ball valve, SS hand pump	
715S-TT3-3SS0-0	3″—10 gal.	SS top connection w/3” SS female QD coupler, SS ball valve	
715S-TT3-3SSE-0	3″—10 gal.	SS top connection w/3” SS female QD coupler, SS ball valve, E85 hand pump	
715--TF4-0000-0	2”—10 gal.	Flanged top connection w/ no outlets	
715S-TF4-0000-0	2”—10 gal.	SS flanged top connection w/ no outlets	
715--TF5-0000-0	3”—10 gal.	Flanged top connection w/ no outlets	
715S-TF5-0000-0	3”—10 gal.	SS flanged top connection w/ no outlets	
715---VR30 AK		3” Vapor recovery kit	
715---VR40 AK		4” Vapor recovery kit	
715---P060 AK		Post mount kit - 3” x 60” post with clamps and base	
715---S400 AS		Four-leg stand for 715 fill box, powder coated steel	
715S--S400 AS		Four-leg stand for 715 fill box, stainless steel	
715---0373 AK		Mounting plate assembly kit	

**Please consult Price List for additional options.*

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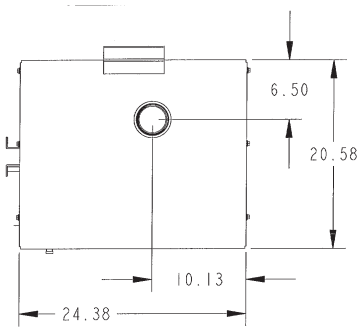
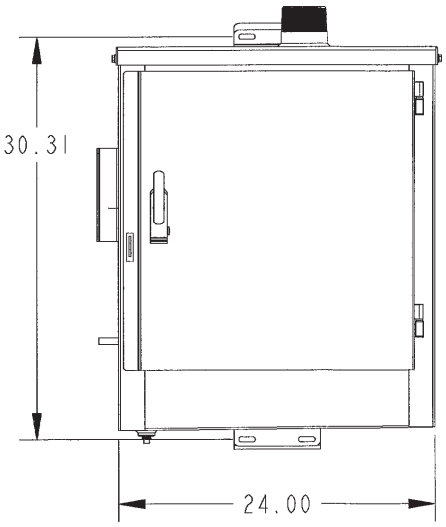
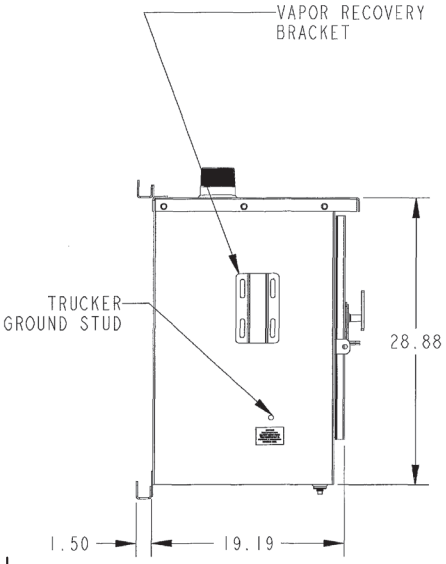


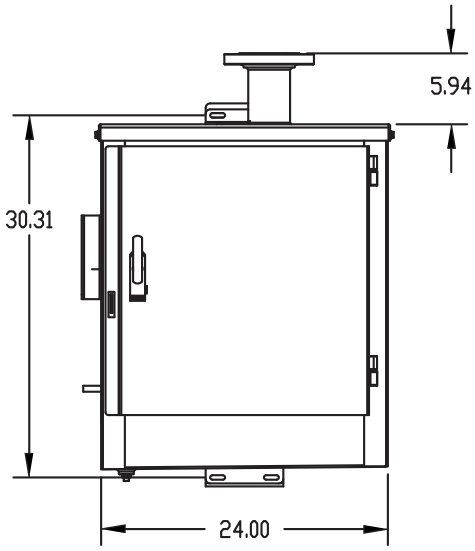
TOP VIEW



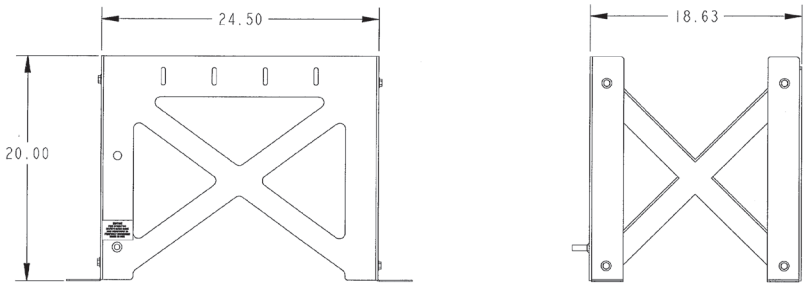
FRONT VIEW



LEFT VIEW



FRONT VIEW (WITH FLANGE)



FOUR-LEG STAND

715 Part Numbering System

How to "Build-a-Box"

To order, simply select desired option from each category and insert the corresponding letter or number in the appropriate space below.

Example:

715 [-] - [T][T][3] - [2][Q][B][B] - [0]

Model Number

Fill Box Construction
- `-` 10 gal. powder coated steel
- `S` 10 gal. 304 stainless steel
- `F` 7 gal. powder coated in-wall mount
- `FS` 7 gal. 304 stainless steel in-wall mount

Mounting Style
- `T` Tank/Wall

Outlet Location
- `0` No outlet
- `B` Bottom
- `F` Flange
- `K` Back
- `T` Top NPT male thread

Outlet Fitting
- `0` No outlet fitting
- `2` 2" Male NPT nipple
- `3` 3" Male NPT nipple
- `4` 2" 150# Raised face flange
- `5` 3" 150# Raised face flange

Component Size
- `0` Box only
- `2` 2" components
- `3` 3" components

Inlet Connection
- `0` Box only
- `D` Dry disconnect, hardcoated aluminum with stainless steel piston, FKM gaskets, and aluminum dust cap
- `E` Dry disconnect, stainless steel body and piston, FKM gasket, and stainless steel dust cap (only available in 2")
- `Q` 90° quick disconnect aluminum female coupler with brass check valve, FKM seals, and aluminum dust plug
- `S` 90° quick disconnect stainless steel coupler with check valve, FKM seals, and aluminum dust plug
- `M` 90° quick disconnect aluminum male adaptor with stainless steel check valve, FKM seals, and aluminum dust cap

Ball Valve
- `0` Box only
- `B` Full port NPT ball valve with brass body, hard chrome plated ball & PTFE seals
- `S` Full port, locking, NPT ball valve with stainless steel body and ball, PTFE seals

Hand Pump Assembly
- `0` No hand pump assembly
- `B` Base package*

  ** Hand pump assembly base package: Steel constructed hand pump with PTFE seals and FKM o-rings, reinforced polyurethane tubing, brass check valve and ball valve.*
- `E` E85 Package

  ** Hand Pump Assembly E85 Package: Steel constructed hand pump with PTFE seals and FKM o-rings, reinforced polyurethane tubing, stainless steel check valve and ball valve.*
- `S` Stainless Steel Package

  ** Hand Pump Assembly Stainless Steel Package: Stainless steel constructed hand pump with PTFE seals and FKM o-rings, reinforced polyurethane tubing, stainless steel check valve and ball valve.*

Open
- `0` Box only

Additional Options:
- *60" Post mount kit: 715---P060 AK*
- *Mounting Plate: 715---0373 2PPW (not compatible with in-wall models)*
- *Stand: 715---S400 AS (4-leg stand, powder coated steel)*
- *Stand: 715S--S400 AS (4-leg stand, stainless steel)*
- *Vapor recovery kits: 715---VR30 AK (3") and 715---VR40 AK (4")*

For a complete listing of 715 item numbers, please refer to the Morrison Price List.

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Revised 09.11.2019

Model 73590CA Check Valve Adaptor

SPECIFICATION SHEET

Application

The 73590CA cam and groove adaptor with check valve is used in specialized applications where it is necessary and/or convenient to be able to connect and disconnect tank filling components quickly and cleanly.

Fig. 73590CA (2”)

Features and Details

- Male quick connect adaptor mates with traditional quick disconnect fill couplers
- Integrated check valve and fill adaptor reduces product loss at disconnect
- Space saving 90º design saving design fits into small spaces such as Morrison model 715 remote fill boxes

Materials of Construction

- Hard coated aluminum body
- Stainless steel plunger
- Viton® disc

Item Number	Size	Description	Weight (lbs)
73590CA0200 AV	2”	90º check valve; male adaptor; female threads	2.0
73590CA0300 AV	3”	90º check valve; male adaptor; female threads	5.0

Optional dust caps:

Item Number	Size	Description
735DCA2000ACEVR	2”	Anodized aluminum dust cap; EVR approved
735DCA3000ACEVR	3”	Anodized aluminum dust cap; EVR approved

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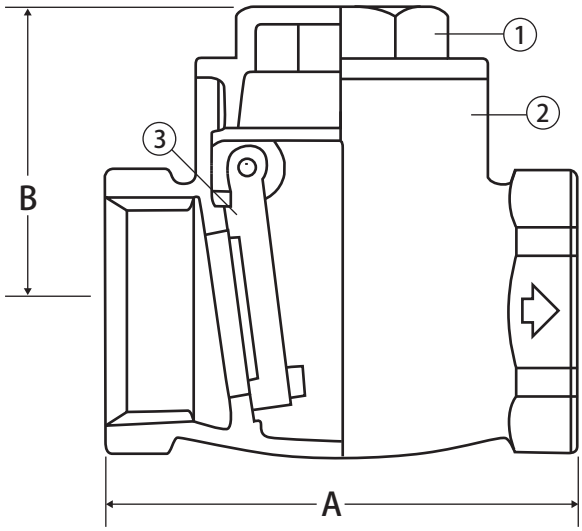
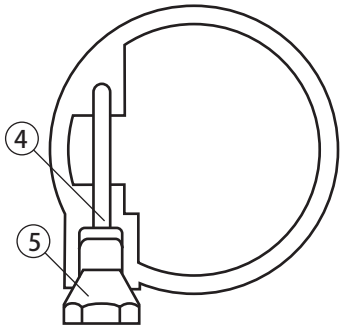
June 2019

Brass Horizontal Swing Check Valve

Threaded Connection • 200 WOG • Class 125

T-501





Features

- Residential and commercial applications

Approvals

- ANSI B1.20.1

Pressure Rating

- 200 WOG

Material Specifications

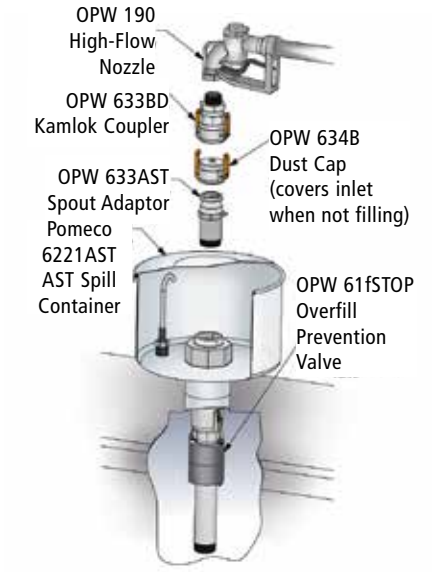
No.	Part	Materials
1	Cap	Cast Brass
2	Body	Cast Brass
3	Disc	Forged Brass
4	Hinge Pin	Brass
5	Screw	Brass

Dimensions

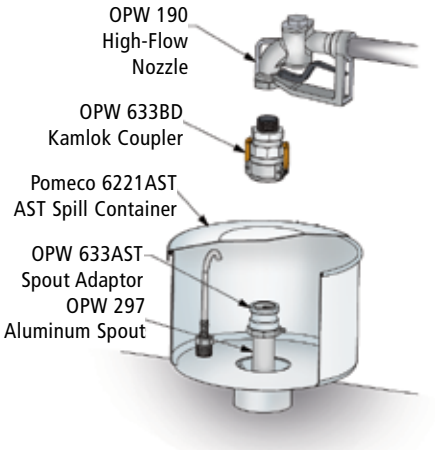
Part No.	Size	A	B
105-103	1/2"	2.13	1.54
105-104	3/4"	2.33	1.62
105-105	1"	2.72	1.77
105-106	1-1/4"	3.11	2.01
105-107	1-1/2"	3.51	2.25
105-108	2"	4.30	2.68
105-109	2-1/2"	5.32	3.35
105-110	3"	6.30	3.86
105-111	4"	7.49	4.53

Fuel Delivery Couplers And Accessories

Fuel Delivery Couplers and Accessories are designed to connect fuel delivery transport truck hoses or nozzles to the fill pipe of an aboveground storage tank.



Typical AST Filling Application



Typical AST Filling Application

Dedicated Gauging Port

For use with 633AST-0XXX Female NPT Kamlok Gauging Port.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

Product #	Description
204247	Dedicated Gauging Port

Kamlok® Couplers

The 633BD has a Kamlok® Coupler on one end and external threads on the other end. This coupler should be threaded into an OPW 190 Nozzle and then coupled to the 61ƒSTOP for filling ASTs.

Ordering Specifications

Elbow/Thread

Product #	in.	mm
633BD-1261	2 x 1-1/2	51 x 38
633B-0150	2 x 2	51 x 51

633B Coupler

Tank Inlet Spout Adaptors With Crossbar

The 633AST Series Adaptors, with a boss installed across the inlet, are designed to prohibit open-fills. Adaptors are supplied with the 61ƒSTOP to provide for tight-fills.

Ordering Specifications

Elbow/Thread

Product #	in.	mm
633AST-2061	2 x 2	51 x 51
633AST-3061	3 x 3	77 x 77

633AST Spout Adaptor

Tank Inlet Spout Adaptors

The 633AST is an adaptor that can be threaded onto a 297 Spout. The spout and adaptor assembly may then be attached to a 190 Nozzle equipped with a 633BD Kamlok® coupler for open filling of ASTs when a 61ƒSTOP is not installed.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

Elbow/Thread

Product #	in.	mm
633AST-0150	1.5 x 1.5	38 x 38
633AST-0200	2 x 2	51 x 51
633AST-0250	2.5 x 2.5	64 x 64
633AST-0300	3 x 3	76 x 76
633AST-0400	4 x 4	102 x 102

633FAST-XXXX, Male Thread Equivelent of Adaptors above

633AST Spout Adaptor

Dust Caps

The 634B Dust Caps are installed on 633AST Adaptors when not in use to deter dust, debris and water from entering the tank.

Ordering Specifications

CARB APPROVED AST EQUIPMENT

Product #	Description	in.	mm
634B-0140	For 633AST-0150	1 1/2	38
634B-0150	Caps 633AST-2061 or 633AST-0200 Adaptor	2	51
634B-0160	Caps 1611AN-0200 or 633AST-0250 or 1611AN-2040 or 1612AN-2040 Adaptors	2 1/2	64
634B-0170	Caps 61ƒSTOP (633AST-3061) or 366AST-0300 or 1611AN-3060 or 1612AN-3060 Adaptors	3	77
634B-0180	1611AN-0300 Kamvalok® Adaptor or 633AST-0400 Adaptor	4	103

Dust Cap

OPW A DOVER COMPANY 9393 Princeton-Glendale Road ◆ Hamilton, Ohio USA 45011 Phone: (800) 422-2525 ◆ Fax: (800) 421-3297

Model 9095AA 3” Overfill Prevention Valve

NEW PRODUCT ANNOUNCEMENT

Application

The 9095AA series overfill prevention valve is designed to prevent the overfilling of liquid storage tanks by providing a positive shut-off during a pressurized fill.

9095AA0300 (3”)

Features and Details

- Installs on tank top by threading onto a 6” male NPT riser
- Direct fill adaptor has 3” male quick disconnect
- Remote adaptor has 3” female NPT inlet threads for piping to remote fill point
- Full flow until shut-off point
- 1.23” of float height adjustment
- Integral pressure relief
- Integral anti-siphon function
- Optional test mechanism
- Drop tube adaptor accepts 3” drop fill tubes (Morrison 419)

Materials of Construction

- Direct fill adaptor... passivated aluminum
- Remote adaptor... ductile iron, powder coated
- Body... passivated aluminum
- Shaft, linkage, and hardware... stainless steel
- Lower pipe... e-coated steel
- Drop tube adaptor... passivated aluminum

Operational Criteria

- Minimum 5 PSI flow requirements
- Maximum operating pressure is 100 PSI
- Maximum viscosity of 300 centistokes
- A tight fill connection is required for the valve to operate
- The estimated flow rate is 560 GPM at 10 PSI pressure drop (See flow curve)

NOTE

For use on clean liquids only.

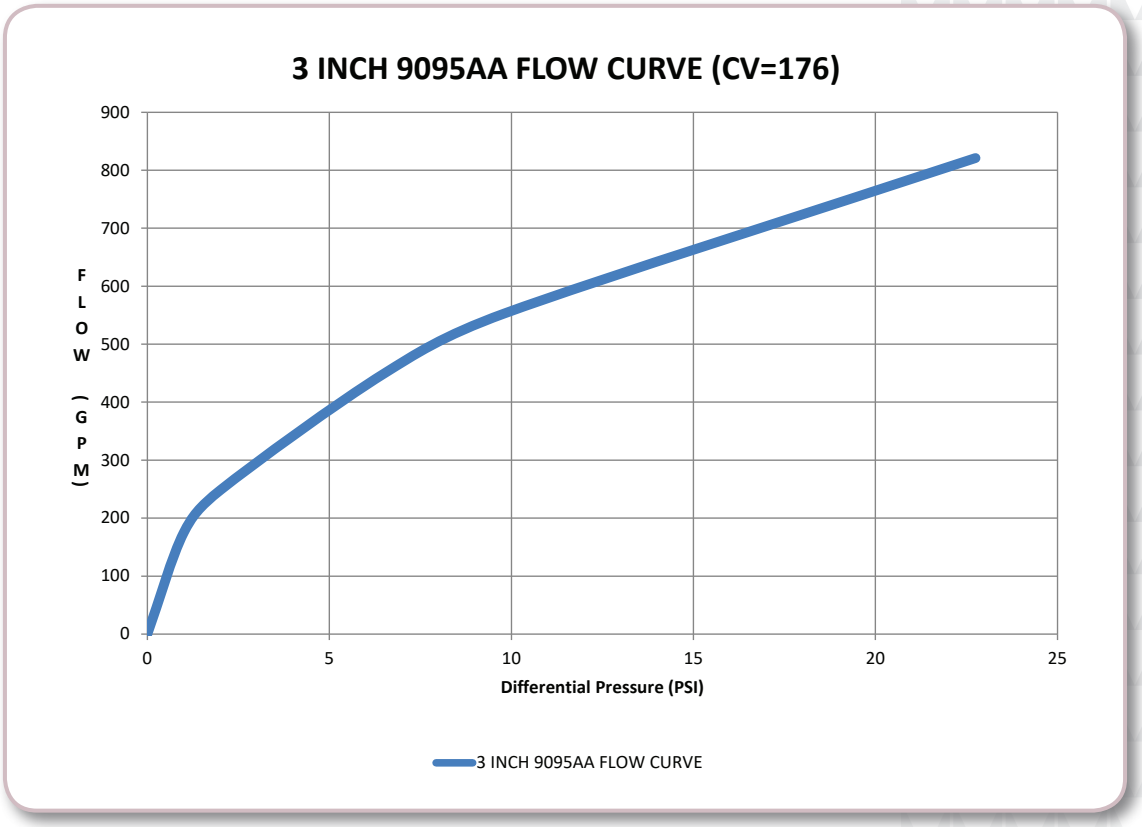
Code Compliance

ULC-S661-10 listed, NFPA 30, 30A, UFC, IFC, PEI/ RP200, PEI/RP 600, and Florida DEP EQ-851. California EVR models available

Item numbers and flow curve on next page.

Model 9095AA Overfill Prevention Valve *(continued)*

	Item Number	Size	Description	Weight (lbs)	List Price
	9095AA0300 AV	3"	AST overfill prevention valve, aluminum body, with 3" male quick disconnect x 6" female threads	21	$1,277.92
EVR	9095AA3300AVEVR	3"	AST overfill prevention valve, aluminum body with 3" female threaded x 6" Female threaded connections; CARB EVR approved	30	$1,277.92
EVR	9095AA9300AVEVR	3"	AST overfill prevention valve, aluminum body, less top connection; CARB EVR approved	14.4	$1,174.65
	9095ATM0100 AM	2" & 3"	Mechanical test mechanism kit	1	$114.31



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FR311VN

Technical Specifications

Motor	
Power - AC 115,230, 115/230 VAC	115/230
HZ 50,60,50/60	60/50
Power - DC 12, 24, 12/24	N/A
HP (Horsepower) Rating	3/4 HP
Power Cord Length (feet)	N/A
Power Cord Gauge (AWG)	N/A
DC Power Cord Connectors	N/A
Amps (FLA)	9.8/4.9 11.4/5.7
RPM	1725/1425
Duty Cycle	30 min.
Thermal Protection Switch	Yes
Circuit Protection Fuse	None
Certification	UL, cUL

Pump	
Type - Rotary, Diaphragm, Gear, Vane	Rotary Vane
GPM in Supplied Configuration	28.7
GPM Open Flow - no Hose or Nozzle	34.3
By-Pass Pressure Rating (PSI) - Max	26 PSI
Dry Vac (in Hg)	14
Head - Max (Ft.)	60.06
Anti-Siphon Valve	Anti-Siphon Ready
Inlet - Size / Thread	1.25"
Outlet - Size / Thread	NPT
Mount	Bung (NPT)
Material - Pump Housing	Cast Iron
Material - Wetted Material	Buna
Rotor Material	80% Iron / % Copper
Rotor Vane Material	Carbon
Compatible Fluids	Diesel, Gasoline, Bio-Diesel up to B20, E15, Kerosene
Strainer Mesh Size	40 x 40 x .008"
Warranty	2 Years

SERVICE KIT INFORMATION

Kit	Description	Parts
KIT300BD	Bio-Diesel Kit	Special shaft seal assembly, gasket, inlet gasket, bypass O-ring
KIT300BV	Bypass Kit	Poppet, spring, O-ring, cap
KIT300JC	Junction Box	Junction box cover, O-ring, hardware
KIT120NB	Nozzle Boot Kit	Nozzle boot, attaching hardware
KIT300NR	Nozzle Retainer Kit	Nozzle retainer and attaching hardware
KIT700BG	Inlet Kit	Inlet adapter, AST 2 x 1¼
KIT300SW	Switch Lever	Switch lever and nut
KIT120NB	Nozzle Boot Kit	Nozzle boot, attaching hardware
KIT300RG	Rotary Group	Rotor, 8 vanes, rotor key, gasket, rotor cover, 4 screws
KIT300SL	Shaft Seal	8 piece assembly
KIT300OT	Outlet Kit	Outlet flange, O-ring seal, attaching hardware
KIT700AS	Anti-Siphon Kit	Anti-siphon valve, Teflon tape, elbow adapter, stainless steel braided hose, attaching hardware

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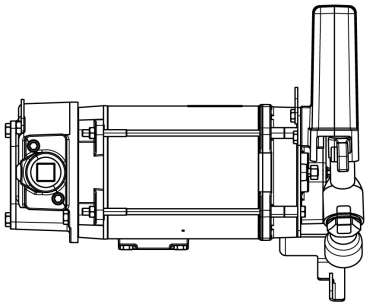
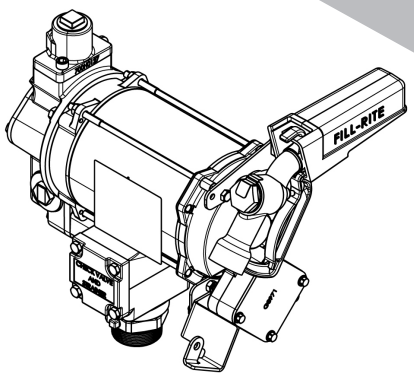
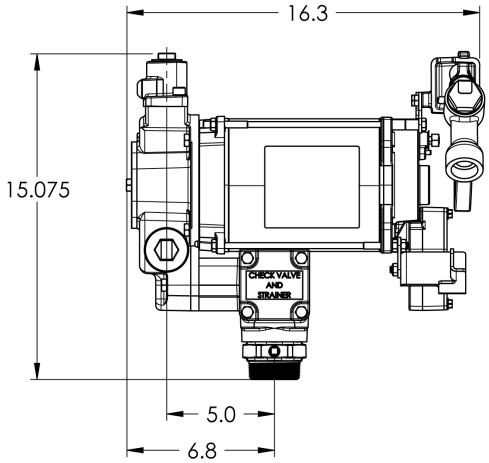
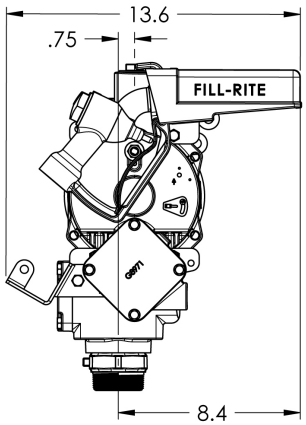


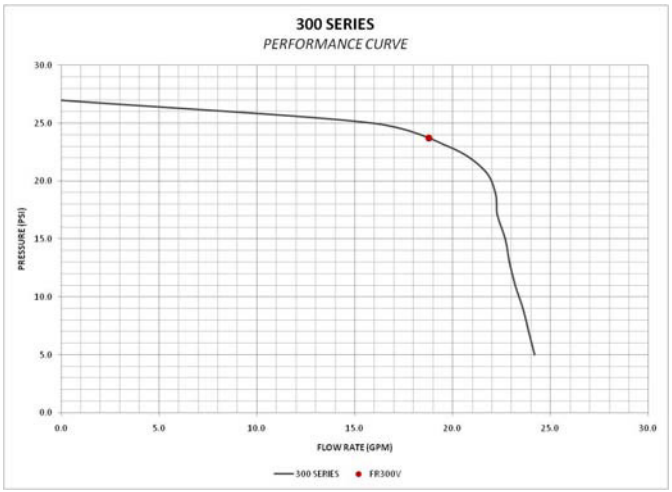






Accessories	
Suction Pipe Material	N/A
Suction Pipe Length	N/A
Nozzle - Size	1" Manual
Nozzle - Manual / Automatic	Manual
Hose Diameter	1"
Hose Length	12'
Hose Material of Construction	Black Nitrile Rubber
Hose Static Wire (Yes/No)	Yes
Certifications	UL, cUL

Measurements		
Overall Height		19.4"
Overall Width		17"
Overall Depth		17"
Intake Center Line to Discharge Center Line		2"
Intake Center Line to Back of Nozzle Boot		8.5"
Shipping Weight		94 lbs.
Qty per Pallet		8
Box Dimensions:	Length	21"
	Width	20"
	Height	17"



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CAM TWIST MAGNETIC

In-Line Breakaway

CAM TWIST Magnetic BREAKAWAY Standard

Vapor Recovery

The CAM TWIST Breakaway is the only breakaway that gives you the option to easily disconnect, inspect and reconnect while installed. With a twist the breakaway can be taken apart and inspected for damage, corrosion, and wear without removing the breakaway from service.

Designed to be installed between the dispenser and the nozzle. It is simple to inspect the unit. Our unique design seals the internal components before a separation is complete, thus reducing any exposure to product and any environmental impact. With the CAM TWIST alignment and reconnection is easy. Align the two halves together & let the magnets do the work while pushing the unit back together. It's that easy!

CATLOW'S CAM TWIST MAGNETIC IN-LINE DESIGN IS THE FUTURE OF BREAKAWAY TECHNOLOGY!

As a cost saving feature, Catlow has designed a replacement lower half unit so in the event of a drive off, you only have to replace the lower half!

FEATURES and BENEFITS:

*Inspectable, No "Remove-By" date
* Patented Magnetic Snap-back Technology
* Resists "Hydraulic Hammer" problems
* UL/ULC Listed, CARB Certified, Meets NFPA 30A Codes
*BSPP & BSPT threads available upon request
* Separation force designed at 230 or 300 lbs.
* Durable plastic cover prevents damage during a driveoff
* Replacement "Lower" half of Breakaway available
* Reduces Environmental Impact. No need to drain assemblies to change nozzle
* One year warranty

MATERIALS:

* Body is Aluminum
* O-ring & Seals are Viton
* Cover is Nylon

ORDERING SPECIFICATIONS

PART NUMBER	DESCRIPTION
CTM75	3/4" NPT (230 LBS PULL FORCE)
CTM100	1" NPT (300 LBS PULL FORCE)
CTMVA	VAC-ASSIST M34 X 1.5 (230 LBS PULL FORCE)
CTM75-HD	3/4" NPT (300 LBS PULL FORCE)
CTM75-L	3/4" LOWER UNIT
CTM75HD-L	3/4" LOWER UNIT, HEAVY DUTY
CTM100-L	1" LOWER UNIT
CTMVA-L	VAC-ASSIST LOWER UNIT

Accessories

PART NUMBER	DESCRIPTION
A13-SW	8" WHIP HOSE FOR CTM75 or HD
B9-SW	12" WHIP HOSE FOR CTM100
V1012-1-SW	12" WHIP HOSE FOR CTMVA
2976	O'RING KIT CTM75
2978	O'RING KIT CTM75-HD/CTM100
2977	O'RING KIT CTMVA

c UL us LISTED

CATLOW
2750 US RT 40
TIPP CITY, OHIO 45371 USA
Phone (800) 222-8569 Fax (937) 898-8631
www.catlow.com

CATLOW

www.catlow.com

C720

Twister Swivels

C720 TWISTER SWIVELS

Standard

Diesel

The Twister Swivel from Catlow raises the level of swivel flexibility with two (2) high flow 360 degree rotating swivel ends. Special seals protect this heavy duty swivel from extreme cold weather conditions and is designed for blended fuels.

Its high tech engineering, durable construction and economical price will not only "Twist & Turn" your hoses, but your profits as well.

FEATURES and BENEFITS:

*Lightweight and maintenance free
*UL/ULC listed
*360 degree swivel rotation in middle joint & male end
*Mates with all standard and diesel hoses
*Fluorosilicone seals perform to –40 degree F
*Does not affect existing hose length
*BSPP & BSPT threads available upon request
*Minimal flow restriction
*Both swivel joints have double o-rings
* 1 year warranty

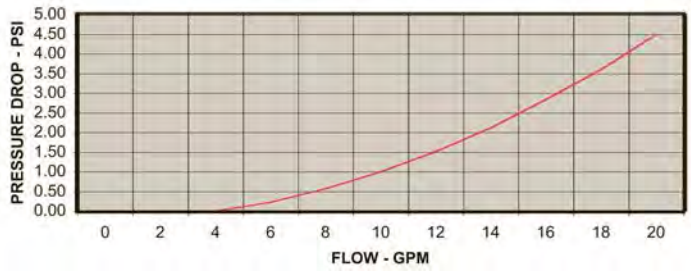
MATERIALS:

*Swivel elbow Cast Aluminum
*Swivel body Cast ZA-12 Zamak
*Bearing is Acetal
*Seals are Viton and Fluorosilicone

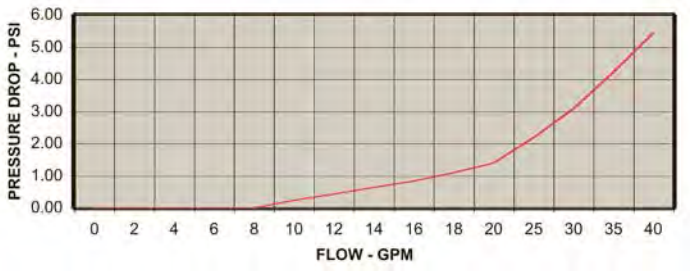
ORDERING SPECIFICATIONS

PART NUMBER	DESCRIPTION
C720 3/4	3/4"M x 3/4"F
C720 1x3/4	1"M x 3/4"F
C720 1x1	1"M x 1"F
C720 1X1B100	1"M X 1"F 100% BIO DIESEL FUEL
C720 1X1BP	1"M X 1"F BRITISH THREAD
C720 3/4BP	3/4"M X 3/4"F BRITISH THREAD
C720 3/4E85	3/4"M X 3/4"F E85 FUEL
C720 1X1E85	1"M X 1"F E85 FUEL

C720-3/4 SWIVEL



C720-1 SWIVEL



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CATLOW

www.catlow.com

MAX1

Automatic DIESEL Nozzle

MAX1 Automatic Nozzle

Diesel

The MAX 1 Hi-flow diesel nozzle is designed for durability. This heavy-duty nozzle can be used in high volume truckstop applications as well as high volume service stations.

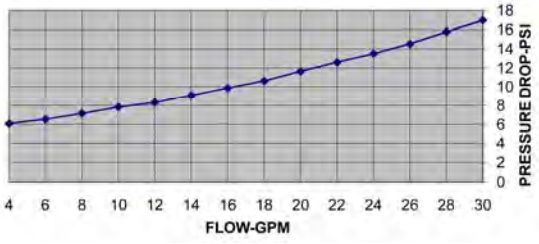
Available as a standard or prepay (no pressure/no flow) nozzle. The prepay nozzle is specifically designed for unattended self service and cardlock refueling locations. The prepay feature enables the station operator to control the dispensing of fuel.

FEATURES and BENEFITS:

*Available as full serve or self serve
*Rugged heavy duty design
*Automatic shut-off
*UL/ULC Listed
*Custom logo available upon request
*BSPP and BSPT threads available upon request
*Attitude Device available upon request (AD)
*Spout assembly easily replaced
*Full Cover provided for added protection
*Longer spout with Anchor Bushing available upon request (AR)
*One-hand, hold open mechanism for effortless operation
*Mates with all standard hardwall or softwall 1” hoses
*Completely rebuildable
* One year warranty

MATERIALS:

* Body is Sand cast Aluminum
*Lever/Handguard Super-Tuff glass filled Nylon
*Seals are Viton
*Spout is 1-3/16” OD Aluminum Spout
*Weight 4 lbs.



ORDERING SPECIFICATIONS

PART NUMBER	DESCRIPTION
NM1	NEW, DIESEL
NM1P	NEW, DIESEL PREPAY
NM1S	NEW, DIESEL SELF SERVE
NM1PS	NEW, DIESEL SELF SERVE, PREPAY
RM1	REBUILT, DIESEL
RM1P	REBUILT, DIESEL PREPAY

Accessories

PART NUMBER	DESCRIPTION
BS	DIESEL SPOUT ASSEMBLY
BS-P	DIESEL SPOUT ASSEMBLY PREPAY
C180 xx	COVER xx identifies color i.e. BK Black
C076 xx	SPLASH SHIELD xx identifies color i.e. BK

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CATLOW
2750 US RT 40
TIPP CITY, OHIO 45371 USA
Phone (800) 222-8569 Fax (937) 898-8631
www.catlow.com

HARDWALL HOSE ASSEMBLY

FLEX-ING™ brand Hardwall Hose features an abuse-resistant, solid wire braid construction that prevents kinking and assures a long service life and minimal maintenance. The ozone-resistant outer hose construction prevents ozone cracking and wear. This high quality hose offering features robust hose and fitting designs built to stand up to the harshest forecourt conditions.

HIGHLIGHTS

- Available in 5/8", 3/4" and 1" diameters, a variety of curb and whip hose lengths, and fixed or swivel fitting options.
- Available with swivel fitting option for enhanced ease of use.
- Resistant to ozone cracking and wear.
- High gloss cover retains color quality.
- Stainless steel ferrules and fluoroelastomer seals to ensure compatibility with gasoline, diesel, Ethanol blends (up to E10) and biodiesel blends (up to B5).
- Compatible with reel or retractable cable dispensing applications.

SPECIFICATIONS

- Tube: Synthetic rubber
- Cover: Ozone-resistant rubber
- Fittings: Machined nickel-plated carbon steel with chrome finish
- Reinforcement: Hardwall wire braided
- Temperature rating: -40 °F to 140 °F (-40 °C to 60 °C)
- For use with gasoline, diesel, Ethanol blends (up to E10) and biodiesel blends (up to B5).

Approvals/Certifications

- UL and cUL listed (UL 330, CAN/ULC-S612).

ORDERING INFORMATION

Complete model numbers have a specific order and are created using the following guidelines:

FLHFR A B C D E

FLHFR = FLEX-ON™ Hardwall Hose

A = Hose Diameter

1 = 5/8" 3 = 1"
2 = ¾"

B = Hose Length Feet

Use three-digit format

C = Hose Length Inches

Use two-digit format

D = Hose Color Options

Blank = Black GR = Green
YL = Yellow BL = Blue
RD = Red

E = Swivel Options

Blank = No Swivels
SWOE = Swivel on one end
SWEE = Swivel on both ends

Example: FLHFR200806YLSWOE = FLEX-ON™ Hardwall Hose, ¾" diameter, 8 feet, 6 inches length, yellow color, swivel on one end.

Franklin Fueling Systems
franklinfueling.com
3760 Marsh Rd. • Madison, WI 53718, USA
Tel: +1 608 838 8786 • Fax: +1 608 838 6433
Tel: USA & Canada +1 800 225 9787 • Tel: UK +44 (0) 1473 243300
Tel: Mex 001 800 738 7610 • Tel: FR +33 (0) 1 69 21 41 41 • Tel: CH +86 10 8565 4566

HOSE RETRIEVER

HOSE RETRACTOR - COUNTERWEIGHT

Application -

Keeping conventional and Stage II vapor recovery coaxial hoses raised to prevent traps in the vapor line. Potential accidents are reduced. Hose life is greatly extended.

Part Number - 880/882

UNIVERSAL Advantage

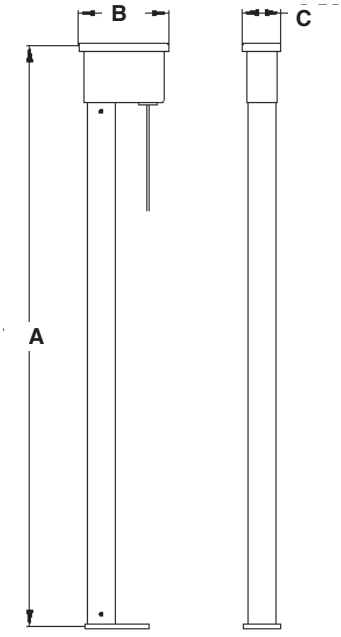
Only from Universal! - Our better looking profile blends in with today's modern dispensers.

Features -

- ✔ Easy to install and maintain
- ✔ Adaptable to most dispensers
- ✔ Corrosion resistant construction
- ✔ Plastic bushing minimizes cable wear
- ✔ Compatible with E-85

Construction -

- Aluminum Post (2"x2")
- Cast iron counterweight
- Plastic bushings
- Black polyester cable
- Includes both side and bottom mounting brackets



Model	Weight (lbs.)	A	B	C	Counter Weight
880	29	78-3/4"	5-1/2"	2-1/4	20lbs
882	38	92"	5-1/2"	2-1/4"	27lbs

Replacement Parts

Part Numbers	Description		
880-5	Cover Pulley	880-MBC	Square Bracket
880-8	Bushing	880-WA	Weight Assembly (1-1/2" x 1-1/2")
880-8A	Black Nylon Rope	880-WA-2	Weight Assembly (882) (1-3/4" x 1-3/4")
880-A	Body	880-AC	Body Assembly
880-B	Base	880-CA	Cover Assembly
880-C	Cover		

*Custom heights and counterweights available. Call for options.

UNIVERSAL VALVE COMPANY

478 Schiller Street, Elizabeth, NJ 07206 • (800) 223-0741 • (908) 351-0606 • Fax: (908) 351-0369 • universalvalve.com

ATTACHMENT E

Response Actions to Spills

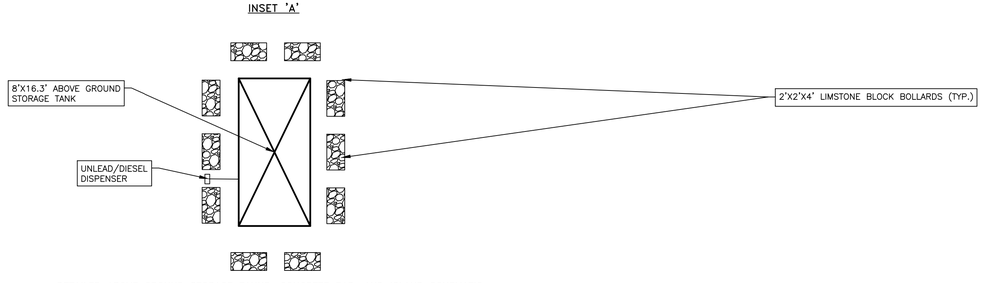
Spill Response Actions

Spill response actions will be in accordance with Texas Administrative Code (TAC) 30.327. If the amount of material spilled or discharged within any 24-hour period is equal to or greater than the reportable quantities as listed within TAC 30.327.4, the responsible person shall notify the SERC (1-800-832-8224) and/or City of Georgetown Fire Department (911) and TCEQ Regional Office (512-339-2929) within 24-hours. Additionally, any spill and/or leak will be addressed in accordance with the onsite SPCC Plan and SWP3.

All spills coincide with the Spill Rule which requires the party responsible for causing a spill that by its nature and size presents the threat of contaminating groundwater or surface water to:

- Control and contain the spill (or see that this is done)
- Clean up the results of the spill (or see that this is done)
- Notify the appropriate authorities, which may range from the local fire department to TCEQ, depending on the threat posed by the spill
- Make follow-up reports to TCEQ about the continuing progress of completion of the cleanup

During construction, the contractor will maintain a spill response kit on their vehicles consisting of sorbent material, shovels, brooms and disposable containers on site to respond to accidental spills. The contractor personnel will immediately clean up any oil, fuel or hydraulic fluid if observed being released from equipment or vehicles. Vehicles or equipment will cease operation until required repairs are made to the equipment.



DETAILED ABOVE GROUND STORAGE TANKS, CONCRETE PAD, AND ISLAND SCHEMATIC
N.T.S.

SEE PRODUCT DESCRIPTIONS FOR DETAIL, CONTAINMENT AND PROFILES

Base map modified by Ranger Env. Svc., LLC

0 15' 30' 60'

SCALE: 1" = 30'

IF DRAWING BAR DOES NOT MEASURE 2" THIS PRINT IS NOT TO SCALE

Kgt-Georgetown Formation
F-x - Geologic Feature

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER
8/23/2023

CHAD M. COPELAND
SOIL SCIENCE
12668
LICENSED
PROFESSIONAL SOIL SCIENTIST
08/21/2023

SITE PLAN LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- FIRE LANE
- PROPOSED CURB & GUTTER
- STREET CENTERLINE
- FENCE
- STRUCTURAL RETAINING WALL (BY OTHERS)
- PROPOSED CONCRETE SIDEWALK
- (R) PROPOSED PARKING SPACES
- (T) TRANSFORMER PAD
- SITE WALLS
- PHASING

TAS ACCESSIBLE ROUTE
TAS ACCESSIBLE ROUTES MAY NOT EXCEED A CROSS SLOPE OF 1:50 (2%) OR EXCEED A RUNNING SLOPE OF 1:20 (5%) UNLESS DESIGNED AS A RAMP. THE MAXIMUM RUNNING SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12 (8.33%). THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 INCHES. REFER TO GRADING SHEET(S).

- EX. WATER LINE
- EX. WASTEWATER
- EX. STORM SEWER LINE
- EX. FIRE HYDRANT
- EX. WATER METER
- EX. WASTEWATER MANHOLE
- PR. WATER LINE
- FIRE LINE
- PR. WASTEWATER
- PR. STORM SEWER LINE
- PR. FIRE HYDRANT
- PR. WATER METER
- PR. WASTEWATER MANHOLE
- FITTINGS AS NOTED
- GATE VALVE AS NOTED
- WW CLEAN OUT
- BFP BACK FLOW PREVENTER
- FLOW ARROW
- EX. UTILITY POLE

SITE DATA	
	PROPOSED
TOTAL SITE AREA	5.98 AC / 260,417 SF
EXISTING ZONING SETBACKS	N/A – PROJECT NOT WITHIN CITY LIMITS
IMPERVIOUS COVER	2.56 AC OR 111,301 SF (42.7%)
BUILDING HEIGHT	N/A
FOUNDATION TYPE	N/A

NOTES

1. ALL PROPERTY BOUNDARIES ARE APPROXIMATE.
2. ABOVE GROUND STORAGE TANK SIZE AND SPECIFICATION TO BE PER AST APPLICATION TO TCEQ.
3. TANK LOCATION AND SIZE IS ESTIMATED AND WILL BE FIELD VERIFIED.
4. ALL TANKS SHOWN ARE DOUBLE WALLED AND THEREFORE HAVE THEIR OWN CONTAINMENT.
5. SEE ARCHITECTURAL PLANS FOR CANOPY DETAILS AND CONFIRMATION OF FUEL ISLAND DATA.

TEXAS 811 BEFORE YOU DIG

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

ENGINEERING | CONSULTING
SANDLIN
SERVICES, LLC
TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

SITE PLAN

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 6 OF ##

G:\Shared drives\Sandlin Services LLC\Sandlin Services Projects\Petroleum & Environmental Engineering Division\02-0015-009 Rock Hard Yard\CAD\Construction Sheets\S RHY SITE.dwg-SITE PLAN Plotted Aug 21, 2023 at 2:30pm by Admin | Last Saved by: Admin

Water Pollution Abatement Plan Application Form (TCEQ-0584)

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b), 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.

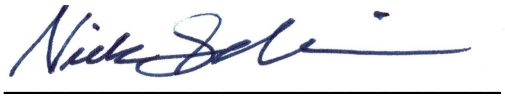
Signature

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 **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Print Name of Customer/Agent: NICK SANDLIN, P.E. (SANDLIN SERVICES, LLC)

Date: 8/23/23

Signature of Customer/Agent:



8/23/2023

Regulated Entity Name: ROCKHARD YARD GEORGETOWN

Regulated Entity Information

1. The type of project is:

   ☐ Residential: Number of Lots:_____
   ☐ Residential: Number of Living Unit Equivalents:_____
   ☒ Commercial
   ☐ Industrial
   ☐ Other:_____

2. Total site acreage (size of property):5.98

3. Estimated projected population:_____

4. The amount and type of impervious cover expected after construction are shown below:

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	16,553	÷ 43,560 =	0.38
Parking	94,748	÷ 43,560 =	2.18
Other paved surfaces		÷ 43,560 =	
Total Impervious Cover	111,514	÷ 43,560 =	2.56

Total Impervious Cover 2.56 **÷ Total Acreage** 5.98 **X 100 =** 42.7**% Impervious Cover**

5. ☒ **Attachment A - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.

6. ☒ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

For Road Projects Only

Complete questions 7 - 12 if this application is exclusively for a road project.

7. 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.

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

   ☐ Concrete
   ☐ Asphaltic concrete pavement
   ☐ Other: _____

9. Length of Right of Way (R.O.W.): _____ feet.

   Width of R.O.W.: _____ feet.
   L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

10. 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.

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

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

12. ☐ 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

13. ☒ **Attachment B - 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 the 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

14. The character and volume of wastewater is shown below:

_____% Domestic	_____Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day _____	

15. Wastewater will be disposed of by:

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

- ☐ **Attachment C - Suitability Letter from Authorized Agent**. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.
- ☐ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

☐ Sewage Collection System (Sewer Lines):

- ☐ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
- ☐ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.
- ☐ The SCS was previously submitted on_____.
- ☐ The SCS was submitted with this application.
- ☐ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

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

☐ Existing.
☐ Proposed.

16. ☐ All private service laterals will be inspected as required in 30 TAC §213.5.

Site Plan Requirements

Items 17 – 28 must be included on the Site Plan.

17. ☒ The Site Plan must have a minimum scale of 1" = 400'.

Site Plan Scale: 1" = 40'.

18. 100-year floodplain boundaries:

☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
☒ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA FIRM MAP PANEL # 48491C0285F (effective 12/20/2019)

19. ☒ 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, open space, etc. are shown on the plan.

☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, open space, etc. are shown on the site plan.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

☒ There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

☐ The wells are not in use and have been properly abandoned.
☒ The wells are not in use and will be properly abandoned.
☐ The wells are in use and comply with 16 TAC §76.

☒ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:

☒ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
☐ No sensitive geologic or manmade features were identified in the Geologic Assessment.
☐ **Attachment D - Exception to the Required Geologic Assessment**. A request and justification for an exception to a portion of the Geologic Assessment is attached.

22. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.
23. ☒ Areas of soil disturbance and areas which will not be disturbed.
24. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
25. ☒ Locations where soil stabilization practices are expected to occur.
26. ☐ Surface waters (including wetlands).

    ☒ N/A
27. ☐ Locations where stormwater discharges to surface water or sensitive features are to occur.

    ☒ There will be no discharges to surface water or sensitive features.
28. ☒ Legal boundaries of the site are shown.

Administrative Information

29. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
30. ☒ Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

Water Pollution Abatement Plan Application Form (TCEQ-0584)

Attachment A: Factors Affecting Surface Water Quality

The proposed use of the project site is a base parking lot with fuel island/tank and vehicle parking. The off-site drainage areas are undeveloped with natural vegetation. No industrial activities are planned for the site. Vehicle parking and fuel island/tank areas will drain to a Batch Detention Pond sized to contain stormwater runoff from PR-DA-1. The proposed 6,000-gallon AST UL-185 Fireguard Tank and fueling infrastructure are designed to address any potential fuel leaks or spills. (See AST Site Plan for details).

Water Pollution Abatement Plan Application Form (TCEQ-0584)

Attachment B: Volume and Character of Stormwater

Please see the construction plans for detention pond design and water quality calculations. Proposed flow patterns are improved, and volumes reduced.

Water Pollution Abatement Plan Application Form (TCEQ-0584)

Attachment C:
Suitability Letter from authorized Agent (if OSSF is proposed)

NOT APPLICABLE

Water Pollution Abatement Plan Application Form (TCEQ-0584)

Attachment D:
Exception to the Required Geologic Assessment
NOT APPLICABLE

Water Pollution Abatement Plan Application Form (TCEQ-0584)

Site Plan

0 15' 30' 60'

SCALE: 1" = 30'

IF DRAWING BAR DOES NOT MEASURE 2" THIS PRINT IS NOT TO SCALE

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER
8/23/2023

SITE PLAN LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- FIRE LANE
- PROPOSED CURB & GUTTER
- STREET CENTERLINE
- FENCE
- STRUCTURAL RETAINING WALL (BY OTHERS)
- PROPOSED CONCRETE SIDEWALK
- (R) PROPOSED PARKING SPACES
- (T) TRANSFORMER PAD
- SITE WALLS
- PHASING

TAS ACCESSIBLE ROUTE
TAS ACCESSIBLE ROUTES MAY NOT EXCEED A CROSS SLOPE OF 1:50 (2%) OR EXCEED A RUNNING SLOPE OF 1:20 (5%) UNLESS DESIGNED AS A RAMP. THE MAXIMUM RUNNING SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12 (8.33%). THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 INCHES. REFER TO GRADING SHEET(S).

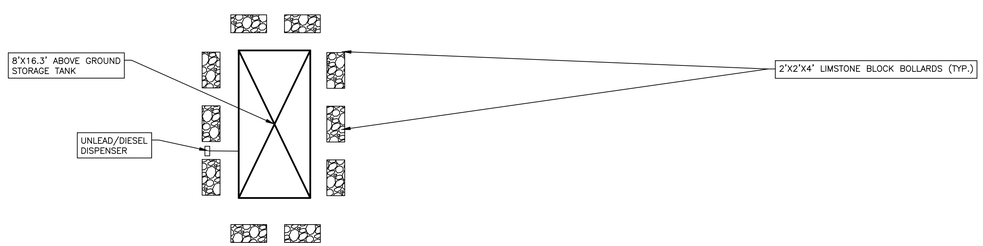
- EX. WATER LINE / PR. WATER LINE
- EX. WASTEWATER / FIRE LINE
- EX. STORM SEWER LINE / PR. WASTEWATER
- PR. STORM SEWER LINE
- EX. FIRE HYDRANT / PR. FIRE HYDRANT
- EX. WATER METER / PR. WATER METER
- EX. WASTEWATER MANHOLE / PR. WASTEWATER MANHOLE
- FITTINGS AS NOTED
- GATE VALVE AS NOTED / FLOW ARROW
- WW CLEAN OUT
- BFP BACK FLOW PREVENTER / EX. UTILITY POLE

SITE DATA	
	PROPOSED
TOTAL SITE AREA	5.98 AC / 260,417 SF
EXISTING ZONING SETBACKS	N/A – PROJECT NOT WITHIN CITY LIMITS
IMPERVIOUS COVER	2.56 AC OR 111,301 SF (42.7%)
BUILDING HEIGHT	N/A
FOUNDATION TYPE	N/A

NOTES

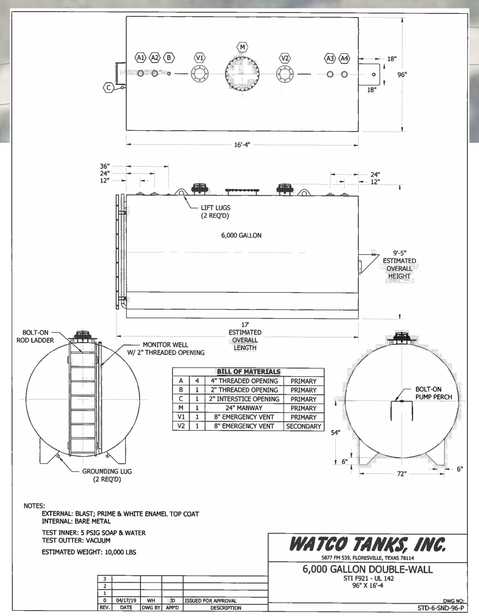
1. ALL PROPERTY BOUNDARIES ARE APPROXIMATE.
2. ABOVE GROUND STORAGE TANK SIZE AND SPECIFICATION TO BE PER AST APPLICATION TO TCEQ.
3. TANK LOCATION AND SIZE IS ESTIMATED AND WILL BE FIELD VERIFIED.
4. ALL TANKS SHOWN ARE DOUBLE WALLED AND THEREFORE HAVE THEIR OWN CONTAINMENT.
5. SEE ARCHITECTURAL PLANS FOR CANOPY DETAILS AND CONFIRMATION OF FUEL ISLAND DATA.

INSET 'A'



DETAILED ABOVE GROUND STORAGE TANKS, CONCRETE PAD, AND ISLAND SCHEMATIC
N.T.S.

SEE PRODUCT DESCRIPTIONS FOR DETAIL, CONTAINMENT AND PROFILES



BILL OF MATERIALS

A	4	4" THREADED OPENING	PRIMARY
B	1	2" THREADED OPENING	PRIMARY
C	1	2" INTERSTICE OPENING	PRIMARY
M	1	24" MANWAY	PRIMARY
V1	1	8" EMERGENCY VENT	PRIMARY
V2	1	8" EMERGENCY VENT	SECONDARY

NOTES:
EXTERNAL: BLAST; PRIME & WHITE ENAMEL TOP COAT
INTERNAL: BARE METAL
TEST INNER: 5 PSIG SOAP & WATER
TEST OUTTER: VACUUM
ESTIMATED WEIGHT: 10,000 LBS

WATCO TANKS, INC.
5677 FM 539, FLORESVILLE, TEXAS 78114
6,000 GALLON DOUBLE-WALL
STI F921 - UL 142
90° X 16'-4
DWG NO. STD-6-SND-96-P

REV	DATE	DWG BY	APP'D	DESCRIPTION
3				
2				
1				
0	04/17/19	WH	JD	ISSUED FOR APPROVAL

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

ENGINEERING | CONSULTING
SANDLIN
SERVICES, LLC
TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

SITE PLAN

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 6 OF ##

Temporary Stormwater Section
(TCEQ-0602)

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: NICK SANDLIN, P.E. (SANDLIN SERVICES, LLC)

Date: 8/23/23

Signature of Customer/Agent:

8/23/2023

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER

Regulated Entity Name: ROCKHARD YARD GEORGETOWN

Project Information

Potential Sources of Contamination

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

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

   ☐ The following fuels and/or hazardous substances will be stored on the site: _____

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

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

☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

☒ Fuels and hazardous substances will not be stored on the site.

2. ☒ **Attachment A - Spill Response Actions**. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.

3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ☒ **Attachment B - Potential Sources of Contamination**. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Sequence of Construction

5. ☒ **Attachment C - Sequence of Major Activities**. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.

   ☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

   ☐ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

6. ☒ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: Smalley Branch of Dry Berry Creek

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

8. ☐ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

   ☐ **Attachment E - Request to Temporarily Seal a Feature**. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

   ☒ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. ☒ **Attachment F - Structural Practices**. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.

10. ☒ **Attachment G - Drainage Area Map**. A drainage area map supporting the following requirements is attached:

    ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

    ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

    ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

    ☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be used in combination with other erosion and sediment controls within each disturbed drainage area.

☒ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

11. ☐ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations**. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

    ☒ N/A

12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.

13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Soil Stabilization Practices

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

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

18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

Temporary Stormwater Section (TCEQ-0602)

Attachment A: Spill Response Actions

Spill Response Actions

In the event of an accidental spill, immediate action shall be undertaken by the General Contractor to contain and remove the spilled material. All hazardous materials, including contaminated soil and liquid concrete waste (if applicable), shall be disposed of by the Contractor in the manner specified by Federal, State and Local regulations and by the manufacturer of such products. As soon as possible, the spill shall be reported to the appropriate agencies. As required under the provisions of the Clean Water Act, any spill or discharge entering waters of the United States shall be properly reported. The General Contractor shall prepare a written record of any spill and associated clean-up activities of petroleum products or hazardous materials in excess of 1 gallon or reportable quantities, whichever is less. The General Contractor shall provide notice to the Owner immediately upon identification of a reportable spill.

All spills of petroleum products or hazardous materials in excess of Reportable Quantities as defined by EPA or the State or Local agency regulations, shall be immediately reported within 24 hours to the EPA National Response Center (1-800-424-8802), TCEQ (1-800-832-8224), and local Fire Department (911).

The reportable quantity for hazardous materials can be found in 40 CFR 302:

Reportable Quantities		
Material	**Media Released to**	**Reportable Quantities**
Engine Oil, Fuel, Hydraulic & Brake Fluid	Land	25 gallons
Engine Oil, Fuel, Hydraulic & Brake Fluid	Water	Visible sheen
Antifreeze	Land	100 lbs (13 gal.)
Battery Acid	Land, Water	100 lbs
Refrigerant	Air	1 lb
Gasoline	Air, Land, Water	100 lbs
Engine Degreasers	Air, Land, Water	100 lbs

Please visit https://www.tceq.texas.gov/response/spills/spill_rq.html for more information

In order to minimize the potential for a spill of petroleum product or hazardous materials to come in contact with stormwater, the following steps shall be implemented.

a) All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids paints, paint solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) shall be stored in a secure location, under cover and in appropriate, tightly sealed containers when not in use.

b) The minimum practical quantity of all such materials shall be kept on the job site and scheduled for delivery as close to the time of use as practical. Post Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

c) A spill control and containment kit (containing for example: absorbent material such as kitty litter or sawdust, acid neutralizing agent, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) shall be provided on the construction site and construction employees shall be trained in when and how to use spill containment materials.

d) The contractor personnel will immediately clean up any oil, fuel or hydraulic fluid if observed being released from equipment or vehicles. Vehicles or equipment will cease operation until required repairs are made to the equipment.

e) All of the product in a container shall be used before the container is disposed of. All such containers shall be triple rinsed with water prior to disposal. The rinse water used in these containers shall be disposed of in a manner in compliance with State and Federal regulations and shall not be allowed to mix with stormwater discharges.

f) All products shall be stored in and used from the original container with the original product label.

g) All products shall be used in strict compliance with instructions on the product label.

h) The disposal of the excess or used products shall be in strict compliance with instructions on the product's label.

Spill Prevention and Control

Education

1.) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ. Information available in 30 TAC 327.4 and 40 CFR 302.4.

2.) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.

3.) Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).

4.) Establish a continuing education program to indoctrinate new employees.

5.) Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

1.) To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.

2.) Store hazardous materials and wastes in covered containers and protect from vandalism.

3.) Place a stockpile of spill cleanup materials where it will be readily accessible.

4.) Train employees in spill prevention and cleanup.

5.) Designate responsible individuals to oversee and enforce control measures.

6.) Spills should be covered and protected from stormwater runoff during rainfall to the extent that it doesn't compromise cleanup activities.

7.) Do not bury or wash spills with water.

8.) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.

9.) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.

10.) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.

11.) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

12.) Keep waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

1.) Clean up leaks and spills immediately.

2.) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.

3.) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

1.) Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.

2.) Use absorbent materials on small spills rather than hosing down or burying the spill.

3.) Absorbent materials should be promptly removed and disposed of properly.

4.) Follow the practice below for a minor spill:

5.) Contain the spread of the spill.

6.) Recover spilled materials.

7.) Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

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

1.) Contain spread of the spill.

2.) Notify the project foreman immediately.

3.) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.

4.) If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

5.) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

1.) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512- 339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.

2.) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.

3.) Notification should first be made by telephone and followed up with a written report.

4.) The services of a spills contractor or a Haz-Mat team should be obtained immediately. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

5.) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

More information on spill rules and appropriate responses is available on the TCEQ website at: http://www.tnrcc.state.tx.us/enforcement/emergency_response.html.

Vehicle and Equipment Maintenance

1.) If maintenance must occur onsite, use a designated area and a secondary containment, located away from drainage courses, to prevent the runon of stormwater and the runoff of spills.

2.) Regularly inspect onsite vehicles and equipment for leaks and repair immediately.

3.) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment onsite.

4.) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

5.) Place drip pans or absorbent materials under paving equipment when not in use.

6.) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.

7.) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.

8.) Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.

9.) Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

1.) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runon 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.

SPILL REPORT FORM

Notes to General Contractor:

- Control and contain the spill.
- Contact the appropriate regulatory agencies if the spill exceeds the applicable reportable quantity.
- Clean up the spill and dispose of waste according to federal, state and local regulations.
- Complete the Spill Report Form in full for each spill that exceeds the applicable reportable quantity and submit to the Owner.
- Call the Owner.
- Resolve as appropriate and as required by regulatory authorities.

SPILL REPORT FORM

DATE:
PROJECT:
PROJECT ADDRESS:

Spill Reported By: _____

Date / Time of Spill: _____

Describe spill location and events leading to spill: _____

_____

Material Spilled: _____

Source of Spill: _____

Amount Spilled: _____

Amount Spilled to Waterway (Name Waterway): _____

Containment or Clean up Action: _____

_____

Approximate depth (yards) of soil excavation: _____

List injuries or Personal Contamination: _____

Action to be taken to prevent future spills:
_____

Agencies notified of spill:
_____

_____

_____ _____
Contractor Signature and Printed Name **Date**

AFTER NOTIFYING GOVERNING AUTHORITIES, IMMEDIATELY COMPLETE THIS FORM AND CONTACT THE OWNER IF THE SPILL EXCEEDS THE REPORTABLE QUANTITY FOR THE GOVERNING AGENCY

Temporary Stormwater Section
(TCEQ-0602)

Attachment B:
Potential Sources of Contamination

Potential Sources of Contamination and Preventive Measures:

Potential Source: Concrete and concrete products used on-site during construction.
Preventive Measures: Concrete washout structure will be used if necessary.

Potential Source: Oil, grease, fuel, and hydraulic fluid contamination from construction equipment and vehicle dripping.
Preventative Measures: Vehicle maintenance will be performed at 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 the 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. And 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 stockpiled on site.
Preventative Measures: Silt fence shall be installed on the down gradient side of the stockpiled 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.

Temporary Stormwater Section
(TCEQ-0602)

Attachment C:
Sequence of Major Activities

The installation of erosion and sedimentation controls shall occur prior to any excavation of materials or major disturbances on the site. The sequence of major construction activities will be as follows. Approximate acreage (AC) expected to be disturbed is listed in parentheses next to each activity.

Intended Schedule or Sequence of Major Activities:

1. Submit written notice of construction to TCEQ regional office at least 48 hours prior to the start of any regulated activities. (See Permanent Stormwater Section – Attachment F)

2. A pre-construction conference prior to commencement of construction. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan (WPAP) and the TCEQ letter indicating the specific conditions of its approval. During these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.

3. Contractors must follow requirements as outlined in TCEQ General Construction Notes for the Water Pollution Abatement Plan (WPAP). WPAP Construction Notes are included on the Construction Plan sheets (See Permanent Stormwater Section – Attachment F).

4. Prior to beginning any construction activity, all temporary erosion and sedimentation BMPs and control measures must be properly installed and maintained in accordance with the approved plans and manufacturers specifications (3.58 Acres).

5. Evaluate temporary erosion control installation. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.

6. Review construction schedule and the Water Pollution Abatement Plan (WPAP) requirements.

7. Install the AST (0.01 Acres).

8. Piping and ancillary equipment installation.

9. Install tank fittings and other associated equipment.

10. Complete Permanent BMP construction and install landscaping (3.58 Acres).

11. Topsoil, Irrigation and Landscaping: Revegetate all disturbed areas according to plan.
12. Site cleanup and removal of temporary erosion/sedimentation BMP controls. (3.58 Acres)

Maximum total construction time is not expected to exceed 3 months.

Temporary Stormwater Section
(TCEQ-0602)

Attachment D:
Temporary Best Management Practices and Measures

1. There are approximately 0.0 AC of storm water that originate up gradient from the site and flow across the site through an onsite BMP.

2. Temporary BMPs will be installed prior to soil disturbing construction activity. Silt fencing will be placed along the down-gradient sides of the property and limits of construction to prevent silt from escaping the construction area during permanent BMP construction.

3. A gravel construction entrance exists on site to reduce vehicle "tracking" onto adjoining streets. A concrete washout pit may be used to collect all excess concrete during construction, if needed.

4. Temporary BMPs for this project will protect surface water or groundwater from turbid water, phosphorus, sediment, oil, and other contaminants, which may mobilize in stormwater flows by slowing the flow of runoff to allow sediment and suspended solids to settle out of the runoff.

5. 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.

6. There are no sensitive features or surface streams within the boundaries of the project that would require temporary BMPs. The temporary onsite BMPs will be used to treat stormwater runoff before it leaves the project and prevent pollutants from entering surface streams or any sensitive features down gradient of the site.

Temporary Stormwater Section
(TCEQ-0602)

Attachment E:
Request to Temporarily Seal a Feature
(NOT APPLICABLE)

Temporary Stormwater Section
(TCEQ-0602)

Attachment F:
Structural Practices

Structural BMPs will be used to limit runoff discharge of pollutants from exposed areas of the site. BMPs will be installed prior to soil disturbing construction activity. Silt fencing will be placed along the down-gradient sides of the property to prevent silt from escaping the construction area. A temporary construction entrance will be placed at the site entry/exit point to reduce tracking onto adjoining streets. A construction staging area will be used onsite to perform all vehicle maintenance and for equipment and material storage. A concrete truck washout pit will be placed on site to provide containment and easier cleanup of waste from concrete operations. The locations of all structural temporary BMPs are shown within the Site Plans.

Description of Temporary BMPs

Construction Entrance/Exit:
The purpose of a 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 where traffic will be entering or leaving the construction site from a public right-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 where access is not necessary. A rock stabilized construction entrance exists and will be used at all designated access points.

Silt Fence:
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.

Triangular Sediment Filter Dikes
Triangular sediment filter dikes (18"x18"x18" filter material with 6" square folded wire mesh frame) will be installed downgradient of the AST construction area with filter cloth placed over any existing stormwater

collection drains. The dike and filter cloth will be held in place with cloth sandbags. The facility's existing topography will not change as the AST will be placed on existing crushed rock.

Concrete Washout Area (if applicable)

The purpose of concrete washout areas is to prevent or reduce the discharge of pollutants to stormwater 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 stormwater pollution from concrete wastes:

- Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
- Avoid mixing excess amounts of fresh concrete.
- Perform washout of concrete trucks in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped onsite, except in designated areas.
- For onsite washout:
- Locate washout area at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
- Wash out waste into the temporary pit where the concrete can set, be broken up, and then disposed properly.

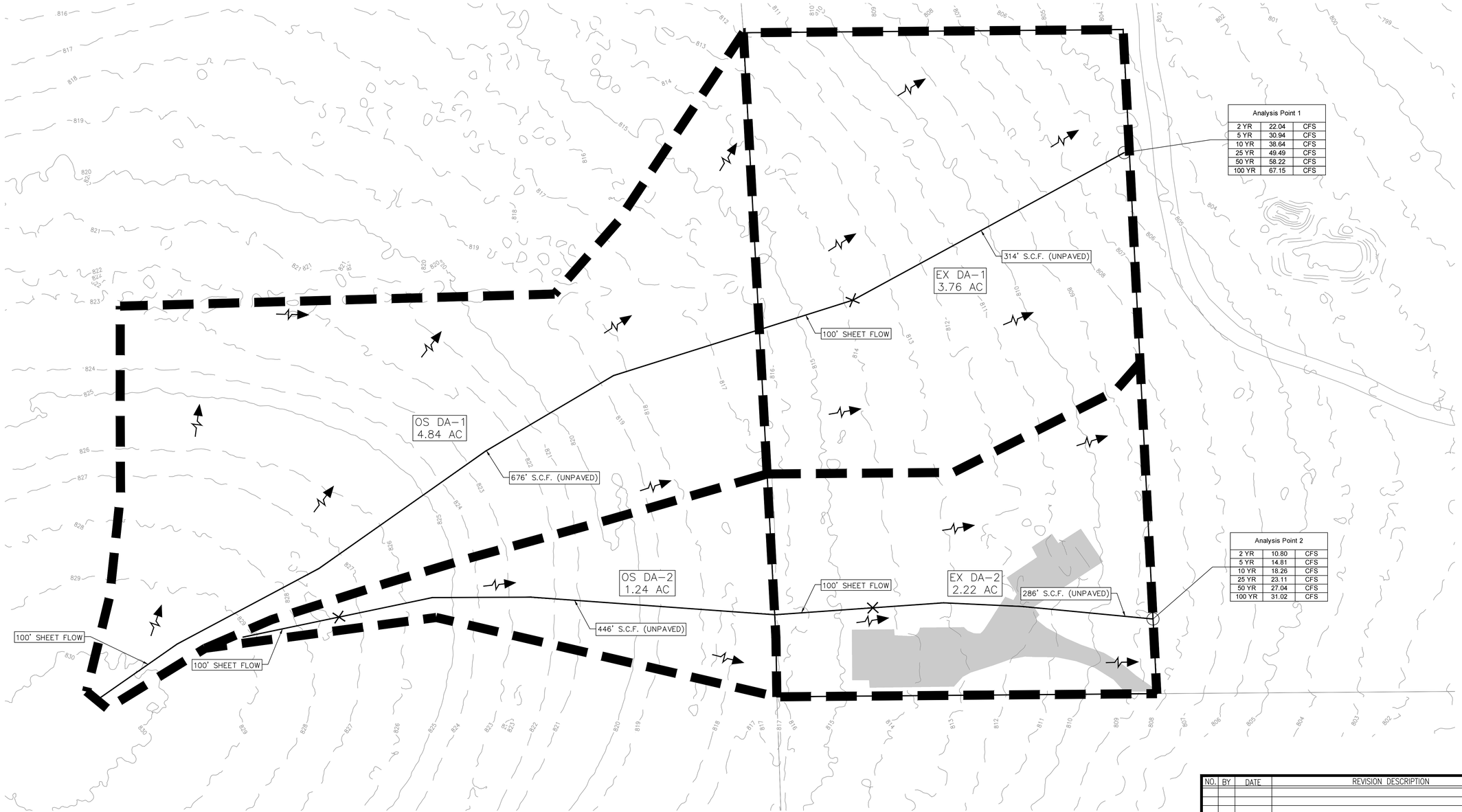
Temporary Stormwater Section
(TCEQ-0602)

Attachment G:
Drainage Area Map

Time of Concentration Calculations				Sheet Flow					Shallow Conc. Flow				Channel Flow				Total
Existing Flows		Area	Area	P_2	L	n	S	T_t	L	Surface Type	S	T_t	L	V_{avg}	T_t	T_c
From	To	(Ac)	(sf)	(in)	(ft)	-	(ft/ft)	(min)	(ft)	-	(ft/ft)	(min)	(ft)	(ft/s)	(min)	(min)
OS DA-1	ANALYSIS POINT 1	4.84	210,830	3.94	100	0.13	0.005	13.71	676	Unpaved	0.020	4.95	-	-	0.00	**18.66**
OS DA-2	ANALYSIS POINT 2	1.24	54,014	3.94	100	0.13	0.016	8.61	446	Unpaved	0.024	3.00	-	-	0.00	**11.61**
EX DA-1	ANALYSIS POINT 1	3.76	163,786	3.94	100	0.13	0.023	7.43	314	Unpaved	0.027	1.99	-	-	0.00	**9.43**
EX DA-2	ANALYSIS POINT 2	2.22	96,703	3.94	100	0.13	0.026	7.09	286	Unpaved	0.021	2.04	-	-	0.00	**9.13**

EXISTING CONDITIONS			IMPERVIOUS			GRASS		
Drainage Area	Total Area	Total Area	Area Impervious	Area Impervious	Area Impervious	Area Grass	Area Grass	Area Grass
	(Ac)	(sf)	(sf)	(Ac)	(%)	(sf)	(Ac)	(%)
OS DA-1	4.84	210,830	0	0.00	0.0%	210,830	4.84	100.0%
OS DA-2	1.24	54,014	0	0.00	0.0%	54,014	1.24	100.0%
EX DA-1	3.76	163,786	0	0.00	0.0%	163,786	3.76	100.0%
EX DA-2	2.22	96,703	16,554	0.38	17.1%	80,149	1.84	82.9%

Drainage Basin Characteristics - Existing Conditions									
Drainage Area	Area (Acres)	I.C. (%)	Tc (min)	Q2 (cfs)	Q5 (cfs)	Q10 (cfs)	Q25 (cfs)	Q50 (cfs)	Q100 (cfs)
OS DA-1	4.84	0.0%	11.19	11.83	16.54	20.61	26.34	30.95	35.67
OS DA-2	1.24	0.0%	6.97	3.62	5.06	6.30	8.05	9.46	10.89
EX DA-1	3.76	0.0%	5.66	11.37	15.80	19.62	24.98	29.32	33.71
EX DA-2	2.22	17.1%	5.48	7.18	9.75	11.96	15.06	17.58	20.13



Analysis Point 1		
2 YR	22.04	CFS
5 YR	30.94	CFS
10 YR	38.64	CFS
25 YR	49.49	CFS
50 YR	58.22	CFS
100 YR	67.15	CFS

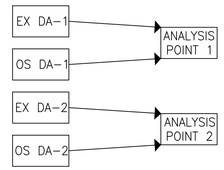
Analysis Point 2		
2 YR	10.80	CFS
5 YR	14.81	CFS
10 YR	18.26	CFS
25 YR	23.11	CFS
50 YR	27.04	CFS
100 YR	31.02	CFS

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER
8/23/2023

EXISTING DRAINAGE LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED CURB & GUTTER
- DRAINAGE AREA BOUNDARY
- EX. DA-X XX.XX AC — DRAINAGE AREA DESIGNATION AND AREA DRAINED
- FLOW ARROW
- TIME OF CONCENTRATION LINE (SHEET FLOW)
- TIME OF CONCENTRATION LINE (SHALLOW CONCENTRATED FLOW)
- 750 EXISTING CONTOURS
- 755 PROPOSED CONTOURS

EXISTING FLOW PATTERNS



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0 25' 50' 100'
SCALE: 1" = 50'

IF DRAWING BAR DOES NOT MEASURE 2" THIS PRINT IS NOT TO SCALE

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

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SERVICES, LLC
TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

EXISTING DRAINAGE AREA MAP

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

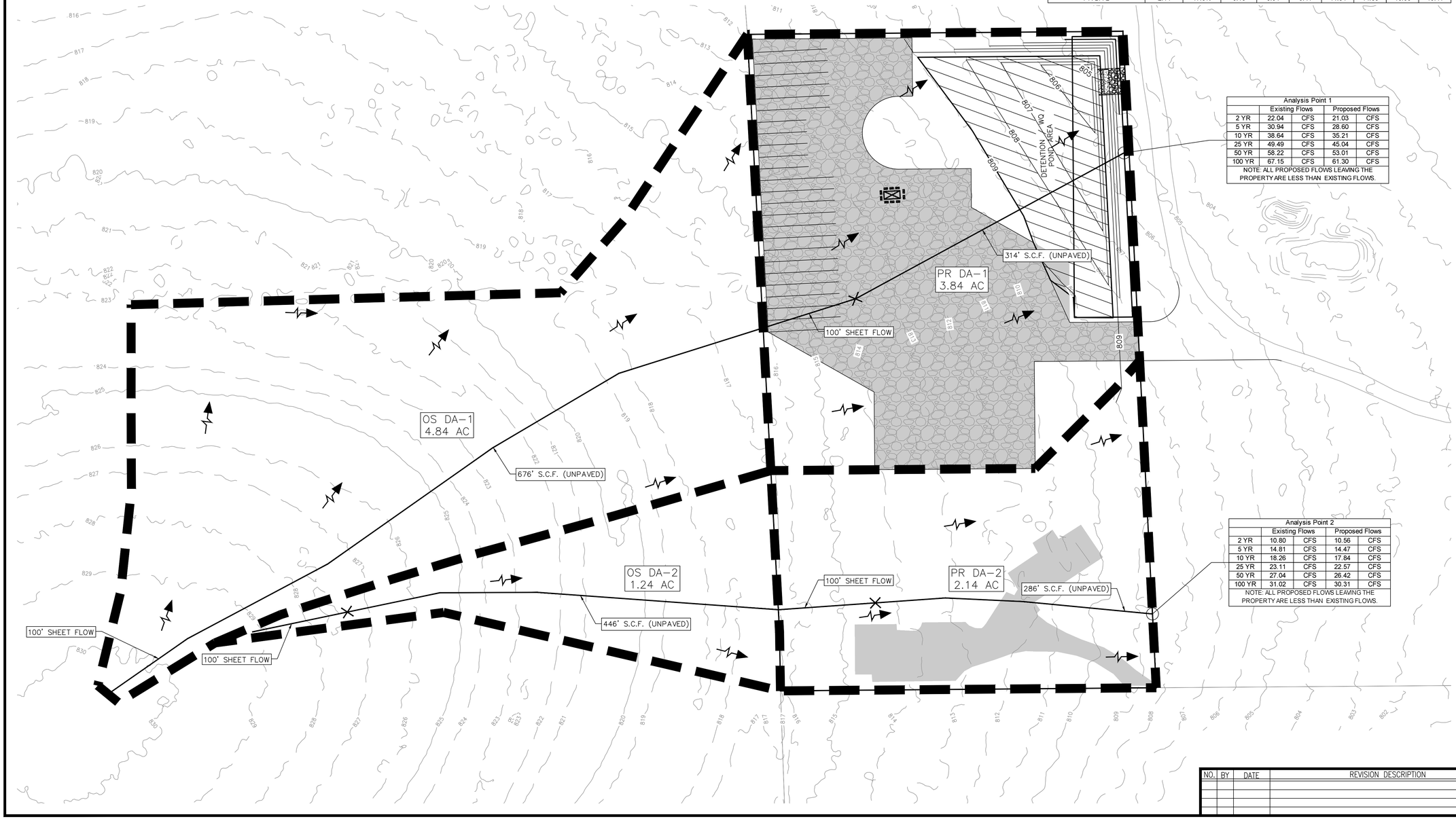
SHEET 8 OF ##

G:\Shared drives\Sandlin Services LLC\Sandlin Services Projects\Petroleum & Environmental Engineering Division\02-0015-009 Rock Hard Yard\CAD\Construction Sheets\S RHY EDAM.dwg-EXISTING DRAINAGE AREA MAP Plotted Aug 24, 2023 at 11:31am by $(x++) | Last Saved by: Admin

Time of Concentration Calculations				Sheet Flow					Shallow Conc. Flow				Channel Flow				Total
Existing Flows		Area	Area	P_2	L	n	S	T_t	L	Surface Type	S	T_t	L	V_{avg}	T_t	T_c
From	To	(Ac)	(sf)	(in)	(ft)	-	(ft/ft)	(min)	(ft)	-	(ft/ft)	(min)	(ft)	(ft/s)	(min)	(min)
OS DA-1	ANALYSIS POINT 1	4.84	210,830	3.94	100	0.13	0.005	13.71	676	Unpaved	0.020	4.95	-	-	0.00	**18.66**
OS DA-2	ANALYSIS POINT 2	1.24	54,014	3.94	100	0.13	0.016	8.61	446	Unpaved	0.024	3.00	-	-	0.00	**11.61**
PR DA-1	ANALYSIS POINT 1	3.84	167,270	3.94	100	0.012	0.023	1.11	314	Paved	0.027	1.58	-	-	0.00	**5.00**
PR DA-2	ANALYSIS POINT 2	2.14	93,218	3.94	100	0.13	0.026	7.09	286	Unpaved	0.021	2.04	-	-	0.00	**9.13**

PROPOSED CONDITIONS			IMPERVIOUS			GRASS		
Drainage Area	Total Area	Total Area	Area Impervious	Area Impervious	Area Impervious	Area Grass	Area Grass	Area Grass
	(Ac)	(sf)	(sf)	(Ac)	(%)	(sf)	(Ac)	(%)
OS DA-1	4.84	210,830	0	0.00	0.0%	210,830	4.84	100.0%
OS DA-2	1.24	54,014	0	0.00	0.0%	54,014	1.24	100.0%
PR DA-1	3.84	167,270	94,752	2.18	56.6%	72,518	1.66	43.4%
PR DA-2	2.14	93,218	16,554	0.38	17.8%	76,664	1.76	82.2%

Drainage Basin Characteristics - Proposed Conditions									
Drainage Area	Area (Acres)	I.C. (%)	Tc (min)	Q2 (cfs)	Q5 (cfs)	Q10 (cfs)	Q25 (cfs)	Q50 (cfs)	Q100 (cfs)
OS DA-1	4.84	0.0%	18.66	11.83	16.54	20.61	26.34	30.95	35.67
OS DA-2	1.24	0.0%	11.61	3.62	5.06	6.30	8.05	9.46	10.89
PR DA-1	3.84	56.6%	5.00	17.72	23.03	27.63	34.11	39.40	44.72
PR DA-2	2.14	17.8%	9.13	6.94	9.41	11.54	14.53	16.96	19.41



Analysis Point 1				
	Existing Flows		Proposed Flows	
2 YR	22.04	CFS	21.03	CFS
5 YR	30.94	CFS	28.60	CFS
10 YR	38.64	CFS	35.21	CFS
25 YR	49.49	CFS	45.04	CFS
50 YR	58.22	CFS	53.01	CFS
100 YR	67.15	CFS	61.30	CFS
NOTE: ALL PROPOSED FLOWS LEAVING THE PROPERTY ARE LESS THAN EXISTING FLOWS.				

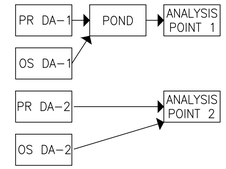
Analysis Point 2				
	Existing Flows		Proposed Flows	
2 YR	10.80	CFS	10.56	CFS
5 YR	14.81	CFS	14.47	CFS
10 YR	18.26	CFS	17.84	CFS
25 YR	23.11	CFS	22.57	CFS
50 YR	27.04	CFS	26.42	CFS
100 YR	31.02	CFS	30.31	CFS
NOTE: ALL PROPOSED FLOWS LEAVING THE PROPERTY ARE LESS THAN EXISTING FLOWS.				

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER
8/23/2023

PROPOSED DRAINAGE LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED CURB & GUTTER
- DRAINAGE AREA BOUNDARY
- PR. DA-X XX.XX AC — DRAINAGE AREA DESIGNATION AND AREA DRAINED
- FLOW ARROW
- TIME OF CONCENTRATION LINE (SHEET FLOW)
- TIME OF CONCENTRATION LINE (SHALLOW CONCENTRATED FLOW)
- 750 — EXISTING CONTOURS
- 755 — PROPOSED CONTOURS

PROPOSED FLOW PATTERNS



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PROPOSED DRAINAGE AREA MAP

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 9 OF ##

G:\Shared drives\Sandlin Services LLC\Sandlin Services Projects\Petroleum & Environmental Engineering Division\02-0015-009 Rock Hard Yard\CAD\Construction Sheets\S RHY PDAM.dwg-PROPOSED DRAINAGE AREA MAP Plotted Aug 24, 2023 at 11:31am b $(++) | Last Saved by: Admin

Temporary Stormwater Section
(TCEQ-0602)

Attachment H:
Temporary Sediment Pond(s) Plans and Calculations
(NOT APPLICABLE)

Temporary Stormwater Section
(TCEQ-0602)

Attachment I:
Inspection and Maintenance for BMPs

Inspection and Maintenance Guidelines for Construction BMPs

Silt Fence – Section 1.4.3
(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 during 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.

Temporary Construction Entrance/Exit – Section 1.4.2
(1) The entrance should be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.
(2) All sediment spilled, dropped, washed or tracked onto public rights-of-way should be removed immediately by contractor.
(3) When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.
(4) When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin.
(5) All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Personnel Responsible for Inspections
The agent that performs the inspections should be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWPPP for the site. Documentation of the inspector's qualifications is to be included in the attached Inspector Qualifications Log.

Inspection Schedule
The primary operator is required to choose one of the two inspections listed below.

☐ **Option 1:** Once every seven calendar days. If this alternative schedule is developed, then the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.

☐ **Option 2:** Once every 14 calendar days and within 24 hours of the end of a storm event of two inches or greater.

The inspections may occur on either schedule provided that documentation reflects the current schedule and that any changes to the schedule are conducted in accordance with the following provisions: the schedule may be changed a maximum of one time each month, the schedule change must be implemented at the beginning of a calendar month, and the reason for the schedule change must be documented (e.g., end of "dry" season and beginning of "wet" season).

If option 2 is the chosen frequency of inspections a rain gauge must be properly maintained on site or the storm event information from a weather station that is representative of the site location. For any day of rainfall during normal business hours that measures 0.25 inches or greater, proper documentation of the total rainfall measured for that day must be recorded.

Personnel provided by the permittee must inspect:

- disturbed areas of the construction site that have not been finally stabilized,
- areas used for storage of materials that are exposed to precipitation,
- structural controls (for evidence of, or the potential for, pollutants entering the drainage system),
- sediment and erosion control measures identified in the SWP3 (to ensure they are operating correctly), and
- locations where vehicles enter or exit the site (for evidence of off-site sediment tracking).

<u>Reductions in Inspection Frequency</u>
Where sites have been finally or temporarily stabilized or where runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or frozen ground exists), inspections must be conducted at least once every month. In arid, semi-arid, or drought-stricken areas, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater. A record of the total rainfall measured, as well as the approximate beginning and ending dates of winter or drought conditions resulting in monthly frequency of inspections in the attached Rain Gauge Log.

In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.

<u>Inspection Report Forms</u>
Use the Inspection Report Forms given as a checklist to ensure that all required areas of the construction site are addressed. There is space to document the inspector's name as well as when the inspections regularly take place. The tables will document that the required area was inspected. (If there were any areas of concern, briefly describe them in this space with a more detailed description in the narrative section. Use the last table to document any discharges found during the inspections).

Describe how effective the installed BMPs are performing. Describe any BMP failures that were noted during the investigation and describe any maintenance required due to the failure. If new BMPs are needed as the construction site changes, the inspector can use the space at the bottom of the section to list BMPs to be implemented before the next inspection.

Describe the inspector's qualifications, how the inspection was conducted, and describe any areas of non-compliance in detail. If an inspection report does not identify any incidents of non- compliance, then it must contain a certifying signature stating that the facility or site is in compliance. The report must be signed by a person and in the manner required by 30 TAC 305.128. There is space at the end of the form to allow for this certifying signature.

Whenever an inspection shows that BMP modifications are needed to better control pollutants in runoff, the changes must be completed within seven calendar days following the inspection. If existing BMPs are modified or if additional BMPs are needed, you must describe your implementation schedule, and wherever possible, make the required BMP changes before the next storm event.

The Inspection Report Form functions as the required report and must be signed in accordance with TCEQ rules at 30 TAC 305.128.

Corrective Action

Personnel Responsible for Corrective Actions

Both Primary and Secondary Operators are responsible for maintaining all necessary Corrective Actions. If an individual is specifically identified as the responsible party for modifying the contact information for that individual should be documented in the attached Inspector Qualifications Log.

Corrective Action Forms

The Temporary BMPs must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions must be completed within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the attached forms and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable. Actions taken because of inspections must be properly documented by completing the corrective action forms given.

Inspector Qualifications Log*

Inspector Name: ____
Qualifications (Check as appropriate and provide description):
☐ Training Course ____
☐ Supervised Experience ____
☐ Other ____
Inspector Name: ____
Qualifications (Check as appropriate and provide description):
☐ Training Course ____
☐ Supervised Experience ____
☐ Other ____

Inspector Name: ____
Qualifications (Check as appropriate and provide description):
☐ Training Course ____
☐ Supervised Experience ____
☐ Other ____

Inspector Name: ____
Qualifications (Check as appropriate and provide description):
☐ Training Course ____
☐ Supervised Experience ____
☐ Other ____

Inspector Name: ____
Qualifications (Check as appropriate and provide description):
☐ Training Course ____
☐ Supervised Experience ____
☐ Other ____

Inspector Name: ____
Qualifications (Check as appropriate and provide description):
☐ Training Course ____
☐ Supervised Experience ____
☐ Other ____

*The agent that performs the inspections should be knowledgeable of this general permit, familiar with the construction site, and knowledgeable of the SWPPP for the site. The contractor is to provide an inspector with a CPESC, CESSWI, or CISEC certification.

Amendment Log

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Construction Activity Sequence Log*

Name of Operator	Projected Dates Month/Year	Activity Disturbing Soil clearing, excavation, etc.	Location on-site where activity will be conducted	Acreage being disturbed

*Construction activity sequences for linear projects may be conducted on a rolling basis. As a result, construction activities may be at different stages at different locations in the project area. The Contractor is required to complete and update the schedule and adjust as necessary.

Stormwater Control Installation and Removal Log

Stormwater Control	Location On-Site	Installation Date	Removal Date

Stabilization Activities Log*

Date Activity Initiated	Description of Activity	Description of Stabilization Measure and Location	Date Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures Initiated

*Stabilization and erosion control practices may include, but are not limited to, establishing temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, and protecting existing trees and vegetation. List practices used where they are located, when they will be implemented, and whether they are temporary (interim) or permanent.

Inspection Frequency Log

Date	Frequency

Rain Gauge Log

Date	Location of Rain Gauge	Gauge Reading

General Information					
Name of Project		**Tracking Number**		**Inspection Date**	
Inspector Name, Title & Contact Information					
Present Phase of Construction					
Inspection Location (if multiple inspections are required, specify location where this inspection is being conducted)					

Inspection Frequency

Standard Frequency: ☐ Weekly ☐Every 14 days and within 24 hours of a 0.25" rain

Increased Frequency: ☐ Every 7 days and within 24 hours of a 0.25" rain

Reduced Frequency:

☐ Once per month (for stabilized areas)

☐ Once per month and within 24 hours of a 0.25" rain (for arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought)

☐ Once per month (for frozen conditions where earth-disturbing activities are being conducted)

Was this inspection triggered by a 0.25" storm event? ☐ Yes ☐ No

If yes, how did you determine whether a 0.25" storm event has occurred?

☐ Rain gauge on site ☐Weather station representative of site. Specify weather station source.

Total rainfall amount that triggered the inspection (in inches):

Unsafe Conditions for Inspection

Did you determine that any portion of your site was unsafe for inspection? ☐ Yes ☐No

If "yes," complete the following:

- Describe the conditions that prevented you from conducting the inspection in this location:

- Location(s) where conditions were found:

Condition and Effectiveness of Erosion and Sediment (E&S) Controls				
Type / Location of E&S Control	**Repairs or Other Maintenance Needed?**	**Corrective Action Required?**	**Date on Which Maintenance of Corrective Action First Identified?**	**Notes**
1.	☐ Yes ☐ No	☐ Yes ☐ No		
2.	☐ Yes ☐ No	☐ Yes ☐ No		
3.	☐ Yes ☐ No	☐ Yes ☐ No		
4.	☐ Yes ☐ No	☐ Yes ☐ No		
5.	☐ Yes ☐ No	☐ Yes ☐ No		
6.	☐ Yes ☐ No	☐ Yes ☐ No		
7.	☐ Yes ☐ No	☐ Yes ☐ No		
8.	☐ Yes ☐ No	☐ Yes ☐ No		
9.	☐ Yes ☐ No	☐ Yes ☐ No		

Condition and Effectiveness of Pollution Prevention (P_2) Practices				
Type / Location of P_2 Practices	**Repairs or Other Maintenance Needed?**	**Corrective Action Required?**	**Identification Date**	**Notes**
1.	☐ Yes ☐ No	☐ Yes ☐ No		
2.	☐ Yes ☐ No	☐ Yes ☐ No		
3.	☐ Yes ☐ No	☐ Yes ☐ No		
4.	☐ Yes ☐ No	☐ Yes ☐ No		
5.	☐ Yes ☐ No	☐ Yes ☐ No		
6.	☐ Yes ☐ No	☐ Yes ☐ No		
7.	☐ Yes ☐ No	☐ Yes ☐ No		
8.	☐ Yes ☐ No	☐ Yes ☐ No		
9.	☐ Yes ☐ No	☐ Yes ☐ No		

Stabilization of Exposed Soil			
Stabilization Area	**Stabilization Method**	**Have you Initiated Stabilization?**	**Notes**
1.		☐ YES ☐ NO If yes, provide date:	
2.		☐ YES ☐ NO If yes, provide date:	
3.		☐ YES ☐ NO If yes, provide date:	
4.		☐ YES ☐ NO If yes, provide date:	

Description of Discharges	
Was a stormwater discharge or other discharge occurring from any part of your site at the time of the inspection? ☐ YES ☐ NO **If "YES," provide the following information for each point of discharge:**	
Discharge Locations	**Observations**
1.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and / or sediment accumulation that can be attributed to your discharge? ☐ YES. ☐ NO If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:
2.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and / or sediment accumulation that can be attributed to your discharge? ☐ YES. ☐ NO If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:
3.	Describe the discharge: At points of discharge and the channels and banks of surface waters in the immediate vicinity, are there any visible signs of erosion and / or sediment accumulation that can be attributed to your discharge? ☐ YES. ☐ NO If yes, describe what you see, specify the location(s) where these conditions were found, and indicate whether modification, maintenance, or corrective action is needed to resolve the issue:

Contractor or Subcontractor Certification and Signature

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

Signature of Contractor or Subcontractor: _____ Date**:**

Printed Name and Affiliation:

Certification and Signature by Permittee

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

Signature of Permittee or
"Duly Authorized Representative": _____ **Date:**

Printed Name and Affiliation:

Section A – Initial Report **(Complete this section within 24 hours of discovering the condition that triggered corrective action.)**		
Name of Project:	Tracking Number:	Today's Date
Date Problem First Discovered:	Time Problem First Discovered:	
Name of Individual Completing this Form:	Contact Information:	

What site conditions triggered the requirement to conduct corrective action:

☐ A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or Part 3

☐ The stormwater controls that have been installed and maintained are not effective enough for the discharge to meet applicable water quality standards

☐ A prohibited discharge has occurred or is occurring

Provide a description of the problem:

Deadline for completing corrective action (Enter date that is either: (1) no more than 7 calendar days after the date you discovered the problem, or (2) if it is infeasible to complete work within the first 7 days, enter the date that is as soon as practicable following the 7th day):

If your estimated date of completion falls after the 7-day deadline, explain (1) why you believe it is infeasible to complete work within 7 days, and (2) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe:

Section B – Corrective Action Progress

(Complete this section no later than 7 calendar days after discovering the condition that triggered corrective action.)

Section B.1 – Why the Problem Occurred

Cause(s) of Problem (Add an additional sheet if necessary)	How This Was Determined and the Date You Determined the Cause
1.	1.
2.	2.

Section B.2 – Stormwater Control Modifications to be Implemented to Correct the Problem

List of Stormwater control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Completion Date	SWPPP Update Necessary?	Notes
1.		☐ Yes ☐ No Date:	
2.		☐ Yes ☐ No Date:	

Section A – Initial Report **(Complete this section within 24 hours of discovering the condition that triggered corrective action.)**		
Name of Project:	Tracking Number:	Today's Date
Date Problem First Discovered:	Time Problem First Discovered:	
Name of Individual Completing this Form:	Contact Information:	

What site conditions triggered the requirement to conduct corrective action:

☐ A required stormwater control was never installed, was installed incorrectly, or not in accordance with the requirements in Part 2 and/or Part 3

☐ The stormwater controls that have been installed and maintained are not effective enough for the discharge to meet applicable water quality standards

☐ A prohibited discharge has occurred or is occurring

Provide a description of the problem:

Deadline for completing corrective action (Enter date that is either: (1) no more than 7 calendar days after the date you discovered the problem, or (2) if it is infeasible to complete work within the first 7 days, enter the date that is as soon as practicable following the 7th day):

If your estimated date of completion falls after the 7-day deadline, explain (1) why you believe it is infeasible to complete work within 7 days, and (2) why the date you have established for making the new or modified stormwater control operational is the soonest practicable timeframe:

Section B – Corrective Action Progress

(Complete this section no later than 7 calendar days after discovering the condition that triggered corrective action.)

Section B.1 – Why the Problem Occurred

Cause(s) of Problem (Add an additional sheet if necessary)	How This Was Determined and the Date You Determined the Cause
1.	1.
2.	2.

Section B.2 – Stormwater Control Modifications to be Implemented to Correct the Problem

List of Stormwater control Modification(s) Needed to Correct Problem (Add an additional sheet if necessary)	Completion Date	SWPPP Update Necessary?	Notes
1.		☐ Yes ☐ No Date:	
2.		☐ Yes ☐ No Date:	

Contractor or Subcontractor Certification and Signature

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

Signature of Contractor or Subcontractor: _____ **Date:**

Printed Name and Affiliation:

Certification and Signature by Permittee

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

Signature of Permittee or
"Duly Authorized Representative": _____ **Date:**

Printed Name and Affiliation:

Temporary Stormwater Section
TCEQ-0602)

Attachment J:
Schedule of Interim and Permanent
Soil Stabilization Practices

Interim Vegetative Stabilization

Interim soil stabilization will not be required.

Permanent Vegetative 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.

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:

1. The dates when major grading activities occur,

2. The dates when construction activities temporarily or permanently cease on a portion of the site, and

3. 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 than 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.

Permanent 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)(C), (D)(Ii), (E), and (5), 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 **Permanent Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: NICK SANDLIN, P.E. (SANDLIN SERVICES, LLC

Date: 8/23/23

Signature of Customer/Agent

Regulated Entity Name: ROCKHARD YARD GEORGETOWN

Permanent Best Management Practices (BMPs)

Permanent best management practices and measures that will be used during and after construction is completed.

1. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

   ☐ N/A

2. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

   ☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____

☐ N/A

3. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

   ☐ N/A

4. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

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

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

   ☐ **Attachment A - 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.

6. ☒ **Attachment B - 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.

7. ☒ **Attachment C - BMPs for On-site Stormwater**.

   ☒ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.

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

8. ☐ **Attachment D - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.

   ☒ N/A

9. ☐ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

   ☒ The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.

   ☐ **Attachment E - Request to Seal Features**. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.

10. ☒ **Attachment F - Construction Plans**. All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:

    ☒ Design calculations (TSS removal calculations)
    ☒ TCEQ construction notes
    ☒ All geologic features
    ☒ All proposed structural BMP(s) plans and specifications

    ☐ N/A

11. ☒ **Attachment G - Inspection, Maintenance, Repair and Retrofit Plan**. A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
    ☒ A discussion of record keeping procedures

    ☐ N/A

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

    ☒ N/A

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

    ☒ N/A

Responsibility for Maintenance of Permanent BMP(s)

Responsibility for maintenance of best management practices and measures after construction is complete.

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

    ☐ N/A

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

    ☐ N/A

Permanent Stormwater Section
(TCEQ-0600)

Attachment A:
20% or Less Impervious Cover Waiver (if requested for multi-family, school, or small business site)
(NOT APPLICABLE)

Permanent Stormwater Section
(TCEQ-0600)

Attachment B:
BMPs for Upgradient Stormwater

Drainage Area DA-1 will drain to the proposed Batch Detention Pond BMP. The proposed Batch Detention Pond BMP is designed for 91% removal efficiency. Please see the Water Quality Calcs within the construction plans for calculation details.

Permanent Stormwater Section
(TCEQ-0600)

Attachment C:
BMPs for On-Site Stormwater

The proposed project will increase impervious cover (IC) and the volume of potential on-site stormwater. The Batch Detention Pond BMP is designed to capture and mitigate potential onsite stormwater flows.

Runoff from the developed project site area will convey to a Batch Detention Pond BMP that is designed to capture and detain the required water quality volume with a 91% removal efficiency. The Batch Detention Pond is designed to store 2,152 CF of sediment and a total capture volume of 13,618 CF of stormwater. See the construction plans for the Pond Plan and Water Quality Calculations.

Permanent Stormwater Section
(TCEQ-0600)

Attachment D:
BMPs for Surface Streams
(NOT APPLICABLE)

No surface streams flow across the property.

Permanent Stormwater Section
(TCEQ-0600)

Attachment E:
Request to Seal Features (if sealing a feature)
(NOT APPLICABLE)

No geological features are proposed for sealing.

Permanent Stormwater Section (TCEQ-0600)

Attachment F: Construction Plans

PROJECT CONTACTS

OWNER:

ROCKHARD CO., LLC
3539 ALEXANDRITE WAY
ROUND ROCK, TX 78681
CARLOSVIPER23@YAHOO.COM
CARLOS ROMAN

ENGINEER:

SANDLIN SERVICES, LLC
4501 WHISPERING VALLEY DR. UNIT#27
AUSTIN, TEXAS 78727
806-679-7303
CONTACT: NICHOLAS SANDLIN, P.E.

CONTRACTOR:
EXCELL FUELING SYSTEMS, INC
549 S LOOP 4
BUDA, TEXAS 78610
(512)280-5230

SURVEY AND BENCHMARK

ALL ELEVATIONS SHOWN HEREON ARE BASED ON THE FOLLOWING BENCHMARKS AND INFORMATION.

CONTRACTOR SHALL FIELD VERIFY ALL GRADES USED AND PROVIDE SITE SPECIFIC BENCHMARK

BEARINGS ARE BASED ON THE TEXAS STATE PLAN COORDINATE SYSTEM OF 1983, TEXAS CENTRAL ZONE (NAD 83)

LEGAL DESCRIPTION

SEE LEGAL TRACT SHEET – 5.974 AC

WATERSHED

WATERSHED: SAN GABRIEL RIVER

EDWARDS AQUIFER

THIS PROJECT LIES WITHIN THE EDWARDS AQUIFER RECHARGE ZONE AS DEFINED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)

FLOODPLAIN NOTE

THE 100-YEAR FLOODPLAIN AS DEFINED BY THE CITY REGULATION, IS CONTAINED WITHIN THE DRAINAGE EASEMENT(S) SHOWN HEREON, NO PORTION OF THIS TRACT IS WITHIN THE BOUNDARIES OF THE 100-YEAR FLOODPLAIN OF ANY WATERWAY THAT IS WITHIN THE LIMITS OF THE STUDY OF THE FEDERAL INSURANCE ADMINISTRATION FIRM PANEL #48491C0285F, AND INCORPORATED AREAS EFFECTIVE DATE DECEMBER 20, 2019 FOR WILLIAMSON COUNTY, TEXAS.

ROCKHARD YARD

FUEL & PARKING IMPROVEMENTS

ADDRESS: 700 PRIVATE ROAD 909, GEORGETOWN, TX 78633

ACCEPTED FOR CONSTRUCTION:

APPROVED BY TCEQ EAPP DATE

REVIEWED FOR COMPLIANCE WITH COUNTY REQUIREMENTS:

PERMIT NUMBER 2023-XXX-COC
APPROVED PER CERTIFICATE OF COMPLIANCE LETTER XXXXX, 2023

FOR WILLIAMSON COUNTY DATE

SHEET LIST	
NUMBER	TITLE
1	COVER PAGE
2	GENERAL NOTES
3	LEGAL TRACT
4	EROSION CONTROL PLAN
5	EROSION CONTROL DETAILS
6	SITE PLAN
7	GRADING PLAN
8	EXISTING DRAINAGE AREA MAP
9	PROPOSED DRAINAGE AREA MAP
10	POND PLAN
11	WATER QUALITY CALCS
12	WATER QUALITY DETAILS

SUBMITTED BY:

STATE OF TEXAS

COUNTY OF WILLIAMSON

I, NICHOLAS SANDLIN, P.E. #124404, DO HEREBY CERTIFY THAT THE PUBLIC WORKS AND DRAINAGE IMPROVEMENTS DESCRIBED HEREIN HAVE BEEN DESIGNED IN COMPLIANCE WITH THE SUBDIVISION AND BUILDING REGULATION ORDINANCES AND STORMWATER DRAINAGE POLICY ADOPTED BY THE CITY OF ROUND ROCK, TEXAS.

THIS PROPOSED DEVELOPMENT WILL NOT RESULT IN ANY IDENTIFIABLE ADVERSE IMPACT TO OTHER PROPERTIES. SEE DRAINAGE AREA MAPS AND CALCULATIONS FOR DETAILED ANALYSIS.

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER
8/23/2023

CONTRACTOR NOTES:

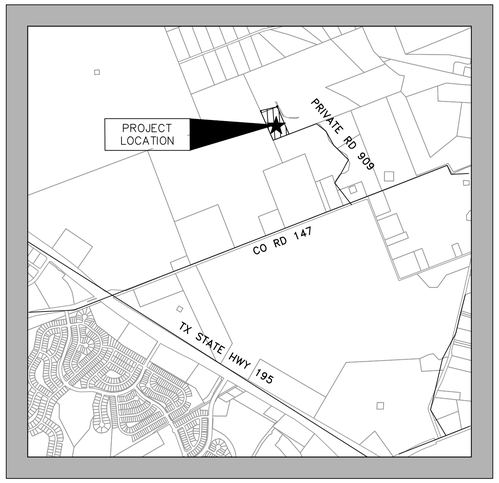
1. THE CONTRACTOR SHALL OBTAIN A "NOTICE OF PROPOSED INSTALLATION OF UTILITY LINE" PERMIT FROM THE COUNTY FOR ANY WORK PERFORMED IN THE EXISTING COUNTY RIGHT-OF-WAY (DRIVEWAY APRON, WATER MAIN TIE-IN, ETC.) THIS PERMIT APPLICATION WILL REQUIRE A LIABILITY AGREEMENT, A CONSTRUCTION COST ESTIMATE FOR WORK WITHIN THE RIGHT-OF-WAY INCLUDING PAVEMENT REPAIR (IF NEEDED), A PERFORMANCE BOND, CONSTRUCTION PLANS AND, IF NECESSARY, A TRAFFIC CONTROL PLAN. AN INSPECTION FEE, AND A PRE-CONSTRUCTION MEETING MAY ALSO BE REQUIRED, DEPENDING ON THE SCOPE OF WORK. THE PERMIT WILL BE REVIEWED AND APPROVED BY THE COUNTY ENGINEER, AND MUST ALSO BE APPROVED BY THE COUNTY COMMISSIONERS COURT IF ANY ROAD CLOSURE IS INVOLVED.
2. BY THE ACT OF SUBMITTING A BID FOR THIS PROPOSED CONTRACT, THE BIDDER WARRANTS THAT THE BIDDER, AND ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS HE INTENDS TO USE, HAVE CAREFULLY AND THOROUGHLY REVIEWED THE DRAWINGS, SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS AND HAVE FOUND THEM COMPLETE AND FREE FROM ANY AMBIGUITIES AND SUFFICIENT FOR THE PURPOSE INTENDED. THE BIDDER FURTHER WARRANTS THAT TO THE BEST OF HIS OR HIS SUBCONTRACTORS' AND MATERIAL SUPPLIERS' KNOWLEDGE, ALL MATERIALS AND PRODUCTS SPECIFIED OR INDICATED HEREIN ARE ACCEPTABLE FOR ALL APPLICABLE CODES AND AUTHORITIES.
3. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS HAS BEEN BASED UPON RECORD INFORMATION ONLY AND MAY NOT MATCH LOCATIONS AND/OR DEPTHS AS CONSTRUCTED. THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM 1-800-245-4545, OR THE OWNER OF EACH INDIVIDUAL UTILITY, FOR ASSISTANCE IN DETERMINING EXISTING UTILITY LOCATIONS AND DEPTHS PRIOR TO BEGINNING ANY CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING ANY CONSTRUCTION.
4. ENVIRONMENTAL INSPECTION HAS THE AUTHORITY TO MODIFY/CHANGE EROSION AND SEDIMENTATION CONTROLS TO KEEP THE PROJECT IN COMPLIANCE.
5. THE CONTRACTOR OR SURVEYOR WILL OBTAIN A DIGITAL COPY OF THE CAD FILES THAT REPRESENT THESE IMPROVEMENTS; SANDLIN SERVICES, LLC AND IT'S ASSOCIATES TAKE NO RESPONSIBILITY FOR THE LOCATION OF THESE IMPROVEMENTS IN ANY COORDINATE SYSTEM. DIGITAL FILES USED TO PRODUCE THESE PLANS WERE PARTIALLY CREATED BY PARTIES OTHER THAN SANDLIN SERVICES, LLC AND ARE NOT INTENDED FOR USE IN CONSTRUCTION STAKING. VERTICAL AND HORIZONTAL DATA SHALL BE INDEPENDENTLY VERIFIED BY CONTRACTOR'S R.P.L.S.
6. SANDLIN SERVICES, LLC HAS ENDEAVORED TO DESIGN THESE PLANS COMPLIANT WITH ADA/TDLR AND OTHER ACCESSIBILITY REQUIREMENTS. HOWEVER, THE CONTRACTOR SHALL NOT BE RELIEVED OF ANY RESPONSIBILITY FOR CONSTRUCTING THESE IMPROVEMENTS COMPLIANT WITH ALL APPLICABLE ACCESSIBILITY STANDARDS. IF THE CONTRACTOR NOTICES ANY DISCREPANCIES BETWEEN THESE PLANS AND ACCESSIBILITY LAWS/RULES, HE IS TO STOP WORK IN THE AREA OF CONFLICT AND NOTIFY THE ENGINEER IMMEDIATELY FOR A RESOLUTION AND/OR REVISION TO THESE PLANS. SANDLIN SERVICES, LLC SHALL NOT BE HELD RESPONSIBLE FOR CONSTRUCTING THIS SITE COMPLIANT WITH ACCESSIBILITY LAWS/RULES REGARDLESS OF WHAT IS SHOWN IN THESE PLANS.

SUBMITTAL RECORD

DATE	DESCRIPTION
8/21/2023	INITIAL SUBMITTAL

CORRECTIONS RECORD

NO.	DESCRIPTION	REVISE (R) ADD (D) VOID (V) SHEET NO.'s	TOTAL # SHEETS IN PLAN SET	NET CHANGE IMP. COVER (sq.ft.)	TOTAL SITE IMP. COVER (sq.ft.)/%	APPROVAL/ DATE	DATE IMAGED



PROJECT LOCATION MAP
N.T.S.

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

ENGINEERING | CONSULTING
SANDLIN
SERVICES, LLC

TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

COVER PAGE

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 1 OF ##

G:\Shared drives\Sandlin Services LLC\Sandlin Services Projects\Petroleum & Environmental Engineering Division\02-2015-009 Rock Hard Yard\CAD\Construction Sheets\S RHY CVR.dwg-COVER PAGE Plotted Aug 24, 2023 at 11:29am by Scott | Last Saved by: Scott

GENERAL NOTES:

1. THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING TYPE AND LOCATION OF UNDERGROUND, SURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT TYPE AND LOCATION OF ALL UTILITIES AFFECTED BY CONSTRUCTION FOR THIS PROJECT IN ORDER TO AVOID DAMAGING THOSE UTILITIES. THE CONTRACTOR SHALL a) IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF CONTRACTOR–DAMAGED UTILITIES, AND b) PAY FOR SAME AT NO EXTRA COST TO THE OWNER.
2. CONTRACTOR SHALL TELEPHONE "ONE–CALL" SYSTEM @ 1–800–344–8377 FOR EXISTING UTILITY LOCATIONS BEFORE BEGINNING CONSTRUCTION.
3. BEFORE BEGINNING ACTUAL EXCAVATION AND CONSTRUCTION OPERATION THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING FACILITIES IN THE AREA SO THESE COMPANIES CAN DETERMINE IF THE PROPOSED CONSTRUCTION WILL CONFLICT WITH THEIR FACILITIES. CONTRACTOR SHALL CONTACT THE FOLLOWING UTILITIES AT A MINIMUM:
   1. CITY OF AUSTIN WATER AND WASTEWATER UTILITY
   2. CITY OF AUSTIN ELECTRIC UTILITY
   3. AUSTIN GAS COMPANY
   4. AT&T TELEPHONE COMPANY
4. ALL EXCAVATION FOR THIS PROJECT SHALL BE UNCLASSIFIED.
5. THE BIDDER (CONTRACTOR AFTER AWARD) SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY UNREPORTED OBSTACLES OR DISCREPENCIES THAT MAY IMPEDE OR PREVENT THE PROPER CONSTRUCTION OF THIS PROJECT.
6. THE CONTRACTOR SHALL MAINTAIN CLEAR PASSAGE FOR LOCAL TRAFFIC AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
7. ALL WORK AND MATERIAL MUST MEET THE APPLICABLE CITY OF AUSTIN STANDARD SPECIFICATIONS AND CITY OF AUSTIN STANDARDS, LATEST REVISIONS.
8. CONTRACTOR/REPAIR CREW MUST NOTIFY CITY INSPECTOR AT LEAST TEWNTYFOUR (24) HOURS PRIOR TO BEGINNING PERMANENT BACK FILL OPERATIONS.
9. BACK FILL DENSITY SHALL BE AS SPECIFIED IN ITEM 510 OF THE STANDARD SPECIFICATIONS. TEST METHODS SHALL BE AS SPECIFIED IN THE CITY STANDARD SPECIFICATIONS UNLESS INDICATED OTHERWISE IN WRITING BY THE ENGINEER.
10. HOT MIX ASPHALTIC CONCRETE (H.M.A.C.), WHEN REQUIRED, SHALL BE FURNISHED AND PLACED IN ACCORDANCE WITH ITEM 340 OF THE STANDARD SPECIFICATIONS. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS FOR CUTS IN PUBLIC RIGHT OF WAY.
11. FLEXIBLE BASE SHALL BE FURNISHED AND INSTALLED IN COMPLIANCE WITH ITEM 210 OF THE STANDARD SPECIFICATIONS AND IN COMPLIANCE WITH THE CITY OF AUSTIN STANDARDS AND STANDARD SPECIFICATIONS FOR CUTS IN PUBLIC RIGHT OF WAY.
12. CONTRACTOR SHALL NOT ALLOW TRAFFIC ON NEWLY PLACED CONCRETE FOR AT LEAST 72 HOURS UNLESS OTHERWISE APPROVED IN ADVANCE BY THE ENGINEER.
13. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO PROTECT ROADWAY FACILITIES AT ALL TIMES.
14. WHERE REMOVAL OF BASE AND PAVEMENT IS NECESSARY FOR THIS PROJECT ALL BASE AND PAVEMENT SHALL BE REPLACED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, CITY'S STANDARD SPECIFICATIONS AND STANDARD SPECIFICATIONS FOR CUTS IN PUBLIC RIGHT OF WAY. ALL PAVEMENT CUTS SHALL BE SAW CUT PRIOR TO PLACEMENT OF H.M.A.C.
15. ALL WATER AND WASTEWATER SYSTEM IMPROVEMENTS, UTILITY CHANGES AND UTILITY RELOCATIONS MUST BE IN ACCORDANCE TO CITY OF AUSTIN WATER AND WASTEWATER SYSTEM DESIGN CRITERIA AND SPECIFICATIONS. ALL WATER AND WASTEWATER PLANS MUST BE PRESENTED TO THE CITY OF AUSTIN WATER AND WASTEWATER UTILITY FOR REVIEW AND APPROVAL. ALL WATER AND WASTEWATER CONSTRUCTION MUST BE INSPECTED BY THE CITY OF AUSTIN.
16. CONTRACTOR SHALL PROVIDE TEMPORARY DRIVEWAY ACCESS FOR ALL PROPERTY OWNERS ADJACENT TO CONSTRUCTION AREAS EXCEPT DURING PERIODS WHEN CONSTRUCTION IN THE AREA WOULD MAKE ACCESS UNSAFE. EMERGENCY ACCESS SHALL BE IMMEDIATELY PROVIDED TO DRIVEWAYS DURING CONSTRUCTION ON AN AS–NEEDED BASIS.
17. SLOPES OF ROADWAY CUTS AND EMBANKMENTS DAMAGED BY ANY OPERATION OF THE CONTRACTOR DURING THE EXECUTION OF THIS PROJECT SHALL BE REPAIRED AND RESTORED TO THE ORIGINAL PRE–CONSTRUCTION CONDITION IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF THE STANDARD SPECIFICATIONS. BACK FILL AND FILL PLACED DURING REMEDIAL GRADING SHALL BE COMPACTED TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE ORIGINAL CONDITIONS AND TO THE SATISFACTION OF THE ENGINEER AND GOVERNING AUTHORITIES.
18. NO EXPLOSIVES SHALL BE USED FOR THIS PROJECT WITHOUT A BLASTING PERMIT FROM THE CITY OF AUSTIN.
19. CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A SAFE, NEAT AND WORKMANLIKE MANNER AT ALL TIMES. JOB SITE SAFETY SHALL NOT BE COMPROMISED. ANY UNATTRACTIVE NUISANCE SHALL BE REMOVED OR CAMOUFLAGED BY CONTRACTOR WHEN DIRECTED BY THE OWNER OR ENGINEER.
20. CONTRACTOR SHALL NOTIFY CONSTRUCTION INSPECTION DIVISION OF THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION AT 974–7180 TO A) ARRANGE A PRE–CONSTRUCTION MEETING NOT LESS THAN FOURTEEN (14) DAYS PRIOR TO BEGINNING CONSTRUCTION, B) NOTIFY INSPECTOR FORTY–EIGHT (48) HOURS IN ADVANCE OF BEGINNING ANY CONSTRUCTION IN THE R.O.W. OR IN EASEMENTS, C) NOTIFY INSPECTOR TWENTY–FOUR (24) HOURS IN ADVANCE OF MAKING ANY SUPPLEMENTARY CONNECTION OR CLOSING OFF ANY WATER AND WASTEWATER SERVICES TO PROPERTY OWNER.
21. BEFORE DISCONNECTING ANY WATER LINE OR GAS LINE, CONTRACTOR MUST PROVIDE TWENTY–FOUR (24) HOUR NOTICE TO THE OWNER EXCEPT IN THE CASE OF A BONA FIDE EMERGENCY.
22. ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, WARNING SIGNS, AND FLAG MEN OPERATIONS SHALL BE PLACED, CONSTRUCTED, EXECUTED AND MAINTAINED IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUDTC), THE CITY OF AUSTIN STANDARD SPECIFICATION SERIES 800, AND THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL. IF A CONFLICT ARISES, THEN THE SERIES 800 SPECIFICATIONS SHALL CONTROL UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER.
23. WHERE PORTABLE SIGNS REQUIRE THE USE OF WEIGHTS, SANDBAGS SHALL BE USED. THE USE OF SOLID OBJECTS SUCH AS CONCRETE, ROCKS, IRON, ETC. SHALL NOT BE PERMITTED.
24. INSTALLATION OF CONSTRUCTION BARRICADING AND SIGNING SHALL BE COORDINATED THROUGH THE TRANSPORTATION ENGINEERING AND SIGNALS DIVISION OF THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION AT 974–7024.
25. ALL TRAFFIC CONTROL SIGNS SHALL REMAIN IN PLACE UNLESS OTHERWISE SHOWN ON THE PLANS. IF SIGNS REQUIRE RELOCATION, CONTRACTOR SHALL CONTACT THE TRANSPORTATION ENGINEERING AND SIGNALS DIVISION OF THE DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION AT 974–7024.
26. CONTRACTOR MUST RESTORE ALL PAVEMENT MARKINGS DISTURBED DURING CONSTRUCTION. CONTRACTOR SHALL OBSERVE ALL APPLICABLE MATERIALS, SPECIFICATIONS, AND INSTALLATION REQUIREMENTS INCLUDING SPECIAL ATTENTION TO MAINTAINING PROPER DIMENSIONS AND ALIGNMENT.
27. ALL HOLES, TRENCHES, AND OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY BARRICADES, FENCING, LIGHTS, AND/OR OTHER PROTECTIVE DEVICES AT ALL TIMES.
28. CONTRACTOR SHALL NOTIFY ALL APPLICABLE AUTHORITIES PRIOR TO EXCAVATION
29. REMOVAL OF EXCAVATED MATERIALS AND DAILY CLEANUP OPERATIONS SHALL BE PERFORMED TO THE SPECIFICATIONS AND TO THE SATISFACTION OT THE OWNER AND ENGINEER.
30. UNATTENDED TRENCHES MUST BE COVERED WITH STEEL PLATES CAPABLE OF SUPPORTING VEHICULAR TRAFFIC. THESE STEEL PLATES MUST BE ADEQUATELY ANCHORED TO PREVENT THEM FROM BECOMING DISLODGED.
31. ALL CONSTRUCTION AND TRENCHING OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). COPIES OF OSHA STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE.
32. CONTRACTOR SHALL MAINTAIN A SUPERINTENDENT UPON THE PROJECT AT ALL TIMES WORK IS IN PROGRESS.
33. CONTRACTOR SHALL COMPLY WITH CONSTRUCTION SEQUENCING WHICH IS SPECIFIED ELSEWHERE IN THE PLANS.
34. FOR CONSTRUCTION IN THE RIGHT OF WAY, A CONCRETE PERMIT IS REQUIRED.

TRENCH SAFETY NOTES:

1. IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS ALL TRENCHES OVER 5 FEET IN DEPTH IN EITHER HARD AND COMPACT OR SOFT AND UNSTABLE SOIL SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED. FURTHERMORE, ALL TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT WILL BE PROVIDED BY THE CONTRACTOR.
2. IN ACCORDANCE WITH THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, WHEN PERSONS ARE IN TRENCHES 4 FEET DEEP OR MORE, ADEQUATE MEANS OF EXIT, SUCH AS A LADDER OR STEPS MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.
3. IF TRENCH SAFETY SYSTEM DETAILS WERE NOT PROVIDED IN THE PLANS BECAUSE TRENCHES WERE ANTICIPATED TO BE LESS THAN 5 FEET IN DEPTH AND DURING CONSTRUCTION IT IS FOUND THAT TRENCHES ARE IN FACT 5 FEET IN DEPTH OR MORE IN DEPTH OR TRENCHES LESS THAN 5 FEET IN DEPTH ARE IN AN AREA WHERE HAZARDOUS GROUND MOVEMENT IS EXPECTED, ALL CONSTRUCTION SHALL CEASE, THE TRENCHED AREA SHALL BE BARRICADED AND THE ENGINEER NOTIFIED IMMEDIATELY. CONSTRUCTION SHALL NOT RESUME UNTIL APPROPRIATE TRENCH SAFETY SYSTEM DETAILS, AS DESIGN BY A PROFESSIONAL ENGINEER, ARE RETAINED AND COPIES SUBMITTED TO THE CITY OF ROUND ROCK.

STREET AND DRAINAGE NOTES:

1. ALL TESTING SHALL BE DONE BY AN INDEPENDENT LABORATORY AT THE OWNER'S EXPENSE. ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR. A CITY INSPECTOR SHALL BE PRESENT DURING ALL TESTS. TESTING SHALL BE COORDINATED WITH THE CITY INSPECTOR ANDO HE SHALL BE GIVEN A MINIMUM OF 24 HOURS NOTICE PRIOR TO ANY TESTING. TELEPHONE 218–5555 (INSPECTIONS)
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 3" OF TOP OF CURB. MATERIAL USED SHALL BE PRIMARILY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 3" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLODS AND SUITABLE FOR SUSTAINING PLANT LIFE.
3. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT INCLUDING GAS, ELECTRIC, TELEPHONE, CABLE TV, WATER SERVICES, ETC., SHALL BE A MINIMUM OF 30" BELOW SUBGRADE.
4. STREET RIGHTS—OF—–WAY SHALL BE GRADED AT A SLOPE OF 1/4" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED. HOWEVER, IN NO CASE SHALL THE WIDTH OF RIGHT–OF–WAY AT 1/4" PER FOOT SLOPE BE LESS THAN 10 FEET UNLESS A SPECIFIC REQUEST FOR AN ALTERNATE GRADING SCHEME IS MADE TO AND ACCEPTED BY THE CITY OF ROUND ROCK ENGINEERING AND DEVELOPMENT SERVICES DEPARTMENT.
5. BARRICADES BUILT TO CITY OF ROUND ROCK STANDARDS SHALL BE CONSTRUCTED ON ALL DEAD–END STREETS AND AS NECESSARY DURING CONSTRUCTION TO MAINTAIN JOB AND PUBLIC SAFETY.
6. ALL R.C.P. SHALL BE MINIMUM CLASS III
7. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISION OF THE CONSTRUCTION PLANS.
8. WHERE PI'S ARE OVER 20, SUBGRADES MUST SE STABILIZED UTILIZING A METHOD ACCEPTABLE TO THE CITY ENGINEER. THE GEOTECHNICAL ENGINEER SHALL RECOMMEND AN APPROPRIATE SUBGRADE STABILIZATION IF SULFATES ARE DETERMINED TO BE PRESENT

TRAFFIC MARKING NOTES:

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

EROSION AND SEDIMENTATION CONTROL NOTES:

1. EROSION CONTROL MEASURES, SITE WORK AND RESTORATION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF ROUND ROCK EROSION AND SEDIMENTATION CONTROL ORDINANCE.
2. ALL SLOPES SHALL BE SODDED OR SEEDED WITH APPROVED GRASS, GRASS MIXTURES OR GROUND COVER SUITABLE TO THE AREA AND SEASON IN WHICH THEY APPLIED.
3. SILT FENCES, ROCK BERMS, SEDIMENTATION BASINS SIMILARLY RECOGNIZED TECHNIQUES AND MATERIALS SHALL BE EMPLOYED DURING CONSTRUCTION TO PREVENT POINT SOURCE SEDIMENTATION LOADING OF DOWNSTREAM FACILITIES. SUCH INSTALLATION SHALL GE REGULARLY INSPECTED BY THE CITY OF ROUND ROCK FOR EFFECTIVENESS. ADDITIONAL MEASURES MAY BE REQUIRED IF, IN THE OPINION OF THE CITY ENGINEER, THEY ARE WARRANTED.
4. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED UNTIL FINAL INSPECTION AND APPROVAL THE PROJECT BY THE ENGINEER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN. ALL TEMPORARY EROSION CONTROL STRUCTURES AND TO REMOVE EACH STRUCTURE AS APPROVED BY THE ENGINEER,
5. ALL MUD, DIRT, ROCKS, DEBRIS, ETC., SPILLED, TRASH OR OTHERWISE DEPOSITED ON EXISTING PAVED STREET DRIVES AND AREAS USED BY THE PUBLIC SHALL BE CLEANED UP IMMEDIATELY.
6. ALL DISTURBED AREAS SHALL BE REVEGETATED

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF ROUND ROCK STANDARD SPECIFICATIONS MANUAL
2. ANY EXISTING UTILITIES, PAVEMENT, CURBS, SIDEWALKS, STRUCTURES, TREES, ETC... NOT PLANNED FOR DESTRUCTION OR REMOVAL THAT ARE DAMAGED OR REMOVED SHALL BE REPAIRED OR REPLACED AT HIS EXPENSE.
3. THE CONTRACTOR SHALL VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES WITH THE CONSTRUCTION PLANS FOUND IN THE FIELD SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE ENGINEER WHO SHALL BE RESPONSIBLE FOR REVISING THE PLANS AS APPROPRIATE.
4. MANHOLE FRAMES, COVERS, WALVES, CLEANQUTS, ETC. SHALL BE RAISED TO FINISHED GRADE PRIOR TO FINAL PAVING CONSTRUCTION.
5. THE CONTRACTOR SHALL GIVE THE CITY OF ROUND ROCK OR AHJ 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION. TELEPHONE 218–5428 (PLANNING AND DEVELOPMENT SERVICES DEPARTMENT).
6. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE REVEGETATED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. REVEGETATION OF ALL DISTURBED OF EXPOSED AREAS SHALL CONSIST OF SODDING OR SEEDING, AT THE CONTRACTOR'S OPTION. HOWEVER, THE TYPE OF REVEGETATION MUST EQUAL OR EXCEED THE TYPE OF VEGETATION PRESENT BEFORE CONSTRUCTION.
7. PRIOR TO ANY CONSTRUCTION, THE ENGINEER SHALL CONVENE A PRE–CONSTRUCTION CONFERENCE BETWEEN THE CITY OF ROUND ROCK, HIMSELF, THE CONTRACTOR, OTHER UTILITY COMPANIES, ANY AFFECTED PARTIES AND AND OTHER ENTITY THE CITY OR ENGINEER MAY REQUIRE.
8. THE CONTRACTOR AND THE ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. THE ENGINEER SHALL FURNISH THE CITY OF ROUND ROCK ACCURATE "AS—BUILT" DRAWINGS FOLLOWING COMPLETION OF ALL CONSTRUCTION. THESE "AS–BUILT DRAWINGS SHALL MEET WITH THE SATISFACTION OF THE ENGINEERING AND DEVELOPMENT SERVICES DEPARTMENT PRIOR TO FINAL ACCEPTANCE.
9. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND ANY TEMPORARY EASEMENTS. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. CLEAN–UP SHALL BE TO THE SATISFACTION OF THE CITY ENGINEER.
10. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL APPLY FOR AND SECURE ALL PROPER PERMITS FROM THE APPROPRIATE AUTHORITIES

SITE UTILITIES:

1. THIS CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
A. PERMITS ISSUED FOR THE PROJECT BY ANY REGULATORY AGENCIES
B. TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) "STANDARD SPECIFICATIONS FOR CONCSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES"
C. CITY OF ROUND ROCK CONSTRUCTION STANDARDS
D. WILLIAMSON COUNTY DEVELOPMENT ORDINANCE

2. ALL UTILITY TRENCHES UNDER OR WITHIN 2' OF EXISTING OR PROPOSED PAVEMENT OR BUILDING SHALL BE BACKFILLED WITH COMPACTED GRANULAR MATERIAL IN ACCORDANCE WITH TXDOT SPECIFICATIONS. CONTROLLED LOW–STRENGTH MATERIAL (CLSM) SHALL BE USED TO BACKFILL TRENCHES WITHIN PUBLIC RIGHT OF WAY. THE CLSM SHALL EXTEND 2 FT PAST THE PROPOSED PAVEMENT, CURB, OR SIDEWALK.

3. OPEN CUT TRENCHES SHALL BE SHEETED AND BRACED AS REQUIRED BY THE GOVERNING STATE, FEDERAL LAWS AND MUNICIPAL ORDINANCES, AND AS MAY BE NECESSARY TO PROTECT LIFE, PROPERTY OR THE WORK.

4. CONTRACTOR SHALL AT ALL TIMES DURING CONSTRUCTION PROVIDE AND MAINTAIN SUFFICIENT MEANS AND DEVICES TO REMOVE AND PROPERLY DISPOSE OF ALL WATER ENTERING THE EXCAVATIONS. WATER SHALL BE FILTERED AND DISCHARGED IN ACCORDANCE WITH THE T.P.D.E.S. REQUIREMENTS.

5. ALL PIPE SHALL BE INSTALLED ON A BEDDING OF APPROVED, COMPACTED GRANULAR MATERIAL UNLESS OTHERWISE APPROVED BY THE ENGINEER. THE BEDDING MATERIAL SHALL BE INSTALLED PER STANDARD SPECIFICATIONS AND PROVIDED PLAN DETAILS.

6. A MINIMUM HORIZONTAL SEPARATION OF 10 FEET SHALL BE MAINTAINED BETWEEN ALL WATER MAINS AND SEWERS. IF SEPARATION IS NOT POSSIBLE, WATER MAIN ENCASEMENT SHALL BE REQUIRED OR THE SEWER SHALL BE CONSTRUCTED OF WATER MAIN QUALITY PIPE.

7. WATER MAINS SHALL CROSS ABOVE SEWERS WITH A MINIMUM VERTICAL SEPARATION OF 18 INCHES WHILE STILL MAINTAINING THE REQUIRED DEPTH OF COVER. IF PROPER SEPARATION IS NOT POSSIBLE, OR IF THE WATER MAIN MUST BE ROUTED UNDER THE SEWER, WATER MAIN ENCASEMENT SHALL BE REQUIRED OR THE SEWER SHALL BE CONSTRUCTED OF WATER MAIN QUALITY PIPE.

8. ALL SANITARY SEWERS SHALL BE TESTED FOR EXFILTRATION OF AIR UNDER PRESSURE, INFILTRATION OF WATER, AND/OR EXFILTRATION OF WATER AS PER STANDARD SPECIFICATIONS. ALL SANITARY SEWERS SHALL BE DEFLECTION TESTED NO SOONER THAN 30 DAYS AFTER INSTALLATION. ALL MANHOLES SHALL BE TESTED FOR WATERTIGHTNESS BY EITHER ASTM C 969 OR ASTM C 1244.

9. STORM SEWER SHALL BE IN CONFORMANCE WITH THE FOLLOWING:
A. REINFORCED CONCRETE PIPE (RCP) CLASS III, ASTM C76
A. GASKETS – ASTM C443
B. FITTINGS – ASTM C443
B. SMOOTH INTERIOR WALLED HIGH DENSITY POLYETHYLENE PIPE (HDPE), ASTM D3212, N–12 WT
A. WATER TIGHT JOINTS
B. JOINT SHALL BE SEALED SUFFICIENTLY TO PREVENT JETTING OR LEAKING AT THE JOINT
C. PVC STORM SEWER PIPING, ASTM D 3034, SDR 35
B. BELL–AND–SPIGOT ENDS
C. ASTM F 477, ELASTOMERIC SEALS FOR GASKETED JOINTS
C. FRAME AND GRATES – ASTM A48 CLASS 30. 32" MIN OPENING, WEIGHING 210 LBS MIN, & MARKED "STORM"
A. TYPE 1 CLOSED LID = NEENAH R–1713
B. TYPE 1 OPEN LID = NEENAH R–2504
C. TYPE 3 = NEENAH R–3278–A
D. DITCH GRATE = NEENAH R–4342

10. SANITARY SEWER SHALL BE IN CONFORMANCE WITH THE FOLLOWING:
A. PIPE AND FITTING MATERIAL – POLYVINYL CHLORIDE (PVC) SDR 26, ASTM D 3034, TYPE PSM
B. MANHOLE LIDS & COVERS – ASTM A48 CLASS 30
C. GASKETS – FLEXIBLE ELASTOMERIC, ASTM F 477, ASTM D 3139
D. JOINTS – ASTM D 3212
E. BEDDING – CLASS II, ASTM 2321

11. ALL CLEANOUT RIMS SHALL BE CONSTRUCTED FLUSH WITH THE FINISHED GROUND SURFACE.

12. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF SANITARY SEWER SERVICES WITH WILLIAMSON COUNTY

13. CONTRACTOR SHALL COORDINATE WATER MAIN, FIRE AND DOMESTIC WATER SERVICES WITH JONAH WATER SUPPLY.

14. GENERAL CONTRACTOR SHALL COORDINATE ALL UTILITY LINES THAT ENTER THE BUILDING. IN GENERAL, PLUMBING PLANS SHOW ALL INTERIOR BUILDING PIPING AND PIPING UP TO 5–FEET OUTSIDE THE BUILDING. CIVIL PLANS SHOW SITE PIPING BEGINNING FROM 5–FEET OUTSIDE THE BUILDING. GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONNECTIONS.

15. CONTRACTOR SHALL COORDINATE ALL UTILITY LINE CROSSINGS TO ENSURE ALL PIPES MAINTAIN MINIMUM COVER, MINIMUM CLEARANCES, AND PROPER SEPARATION. GRAVITY LINES SHALL HAVE PRECEDENCE OVER PRESSURIZED LINES.

16. ALL TRENCH BACKFILL SHALL BE IMPORTED GRANULAR MATERIAL UNLESS EXISTING GRANULAR MATERIALS ARE SPECIFICALLY APPROVED BY THE OWNER'S REPRESENTATIVE.

17. ALL MANHOLES AND INLET CASTINGS LOCATED WITHIN BITUMINOUS ASPHALT PAVEMENT SHALL BE CONSTRUCTED WITH A CONCRETE APRON AT THE SURFACE.

18. FOR ALL WATERMAIN CONSTRUCTION:
A. WATER MAIN AND SERVICES TO BE INSTALLED WITH A MINIMUM OF 3'–6" OF COVER FROM FINISHED GRADE TO TOP OF WATER PIPE.
B. TWO COMPLETE PIPE LENGTHS OF RESTRAINED JOINT PIPE SHALL BE CONSTRUCTED ON THE BRANCH LEG OF ALL TEES AND BOTH SIDES OF ALL 90 DEGREE BENDS.
C. ONE COMPLETE PIPE LENGTH OF RESTRAINED JOINT PIPE SHALL BE CONSTRUCTED ON BOTH SIDES OF ALL 11–1/4 AND 22–1/2 DEGREE BENDS.
D. ALL BENDS, TEES, PLUGS, VALVES AND HYDRANTS SHALL BE RESTRAINED JOINT.
E. ALL DOMESTIC SERVICE PIPE LARGER 2" BUT SMALLER THAN 8" SHALL INCLUDE GALVANIZED THREADED NIPPLES CONFORMING TO ASTM A733 FROM THE MAIN TO THE GATE VALVE AND RESTRAINED COUPLING ADAPTER, THEN BE SCHEDULE 80 PVC (MEETING ASTM D1785) OR HDPE (MEETING AWWA C901) FROM COUPLING TO THE METER INSTALLATION. ALL SERVICE LINE MATERIAL SHALL BEAR THE NSF 61 SEAL OF APPROVAL FOR POTABLE WATER PIPE AND RATED AT 150 PSI WORKING PRESSURE.
F. FIRE SERVICE LEADS SHALL BE DUCTILE IRON PIPE.

INDEMNIFICATION:

THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER, THE JURISDICTIONS, AND SANDLIN SERVICES, LLC. FROM AND AGAINST ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING ATTORNEY'S FEES ARISING OUT OF OR RESULTING FROM THE PERFORMANCE OF THE CONTRACTOR'S WORK. IN ANY AND ALL CLAIMS AGAINST THE OWNER OR SANDLIN SERVICES, LLC. BY ANY EMPLOYEE OF THE CONTRACTOR, OR ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THE CONTRACTOR, OR ANYONE FOR WHOSE ACTS THE CONTRACTOR MAY BE LIABLE, THE INDEMNIFICATION OBLIGATION SHALL NOT BE LIMITED IN ANY WAY BY ANY LIMITATION ON THE AMOUNT OF DAMAGES, COMPENSATION OR BENEFITS PAYABLE BY OR FOR THE CONTRACTOR UNDER WORKER'S COMPENSATIONS ACTS, DISABILITY BENEFIT ACTS OR OTHER EMPLOYEE BENEFIT ACTS.

CONSTRUCTION MEANS, METHODS, SAFETY

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS, INCLUDING OSHA STANDARDS AND WITH ANY OTHER APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR TO PROTECT THEM FROM DAMAGE, INJURY OR LOSS. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT AND SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS UTILIZED BY THE CONTRACTOR AND HIS SUB–CONTRACTORS IN THE PERFORMANCE OF THEIR WORK AND SHALL TAKE ANY OTHER ACTIONS NECESSARY TO PROTECT THE LIFE AN HEALTH OF EMPLOYEES ON THE JOB AND THE SAFETY OF THE PUBLIC AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES OR PROCEDURES, EQUIPMENT, AND FOR SAFETY PRECAUTIONS OR PROGRAMS, UNLESS SUCH MEANS AND EQUIPMENT ARE SPECIFIED IN THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL COMPLY WITH LABOR, METHODS, AND EQUIPMENT OF THE "STANDARD SPECIFICATIONS."

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

The following/listed "construction notes" are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director (ED), nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code (TAC), Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water quality. Additionally, nothing contained in the following/listed "construction notes" restricts the powers of the ED, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in pollution of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, TAC, Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation. Failure to comply with any condition of the ED's approval, whether or not in contradiction of any "construction notes," is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, TAC § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following/listed "construction notes" in no way represent an approved exception by the ED to any part of Title 30 TAC, Chapters 213 and 217, or any other TCEQ applicable regulation

1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
   - the name of the approved project;
   - the activity start date; and
   - the contact information of the prime contractor.
2. All contractors conducting regulated activities associated with this project must be provided with complete copies of the approved Water Pollution Abatement Plan (WPAP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractors are required to keep on-site copies of the approved plan and approval letter.
3. If any sensitive feature(s) (caves, solution cavity, sink hole, etc.) is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. Construction activities may not be resumed until the TCEQ has reviewed and approved the appropriate protective measures in order to protect any sensitive feature and the Edwards Aquifer from potentially adverse impacts to water quality.
4. No temporary or permanent hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.
5. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the approved plans and manufacturers specifications. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.
6. Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams, sensitive features, etc.
7. Sediment must be removed from the sediment traps or sedimentation basins not later than

when it occupies 50% of the basin's design capacity.

8. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.
9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.
10. If portions of the site will have a temporary or permanent cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.
11. The following records shall be maintained and made available to the TCEQ upon request:
   - the dates when major grading activities occur;
   - the dates when construction activities temporarily or permanently cease on a portion of the site; and
   - the dates when stabilization measures are initiated.
12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:

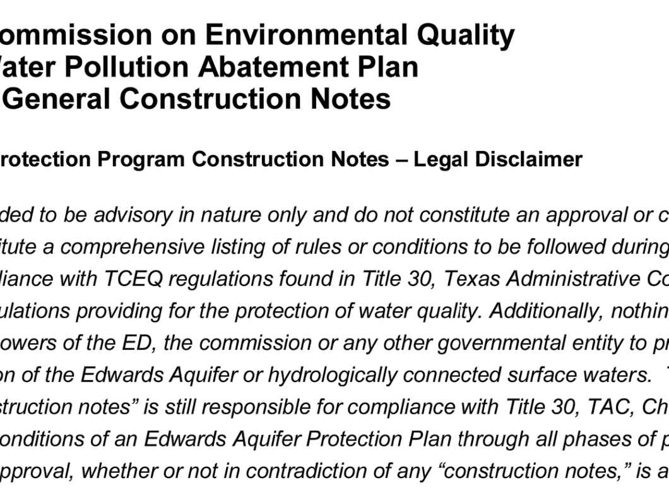
   A. any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;

   B. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;

   C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office	San Antonio Regional Office
12100 Park 35 Circle, Building A	14250 Judson Road
Austin, Texas 78753-1808	San Antonio, Texas 78233-4480
Phone (512) 339-2929	Phone (210) 490-3096
Fax (512) 339-3795	Fax (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.



WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

ENGINEERING | CONSULTING
SANDLIN
SERVICES, LLC

TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

GENERAL NOTES

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 2 OF ##

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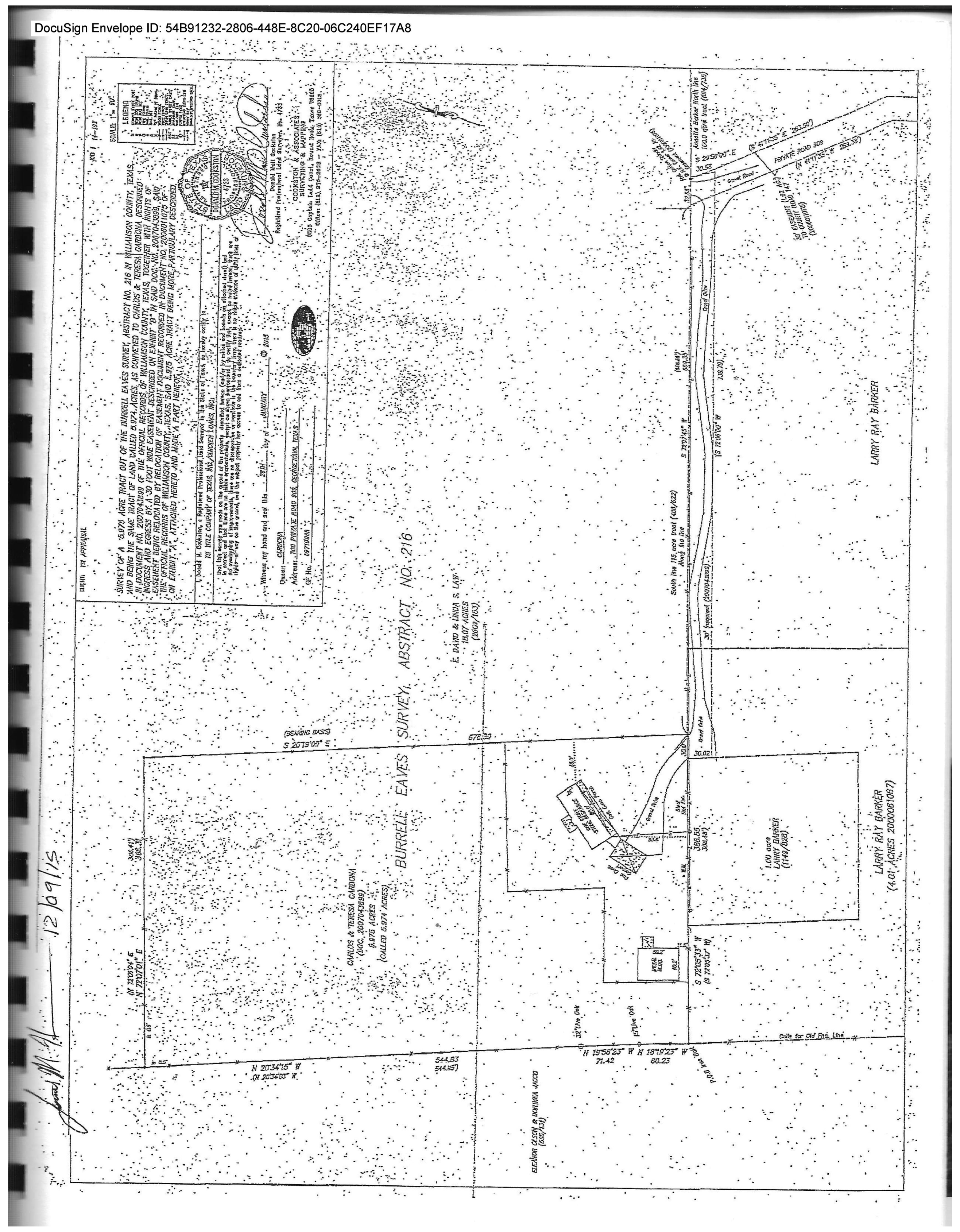


DocuSign Envelope ID: 54B91232-2806-448E-8C20-06C240EF17A8

EXHIBIT "A"

BEING A 5.975 ACRE TRACT OF LAND OUT OF THE BURRELL EAVES SURVEY, ABSTRACT NO. 216 IN WILLIAMSON COUNTY, TEXAS AND BEING THE SAME TRACT OF LAND CALLED 5.974 ACRES AS CONVEYED TO CARLOS AND TERESA CARDONA DESCRIBED IN DOCUMENT NO. 2007043899 OF THE OFFICIAL RECORDS OF WILLIAMSON COUNTY, TEXAS, TOGETHER WITH RIGHTS OF INGRESS AND EGRESS BY A 30 FOOT WIDE EASEMENT AS DESCRIBED ON EXHIBIT "B" IN SAID DOC. NO. 2007043899, OFFICIAL RECORDS OF WILLIAMSON COUNTY, SAID EASEMENT BEING RELOCATED BY RELOCATION OF EASEMENT DOCUMENT RECORDED IN DOCUMENT NO. 2006011075 OF THE OFFICIAL RECORDS OF WILLIAMSON COUNTY, TEXAS. SAID 5.975 ACRE TRACT BEING MORE PARTICULARY DESCRIBED AS FOLLOWS:

BEGINNING at an 1" iron bolt found on the west side of a steel fence corner post for the Southwest corner of the herein described tract, same being on the east line of that certain Elenora Olsen and Dorthia Jacob tract recorded in Volume 595, Page 131 of the Deed Records of Williamson County, Texas.

THENCE with the east line of said Olsen and Jacob tract the following 3 courses;

1. N 18°19'23"W for 60.23 feet to a 15" live oak tree for an angle point hereof.
2. N 19°56'23"W for 71.42 feet to a 32" live oak tree for an angle point hereof.
3. N 20°34'15"W for 544.83 feet to an iron 1/2" iron rod found for a northerly west corner of that certain E. David Salyer, et al, tract recorded in Volume 2609, Page 153, Official Records of Williamson County, for the Northwest corner of the herein described tract.

THENCE N 72°07'01"E along the common line between said Salyer tract and the herein described tract for 386.31 feet to a 1/2" iron rod found at an interior ell corner of said Salyer tract for the Northeast corner of the herein described tract.

THENCE S 20°19'00"E (Bearing Basis) with a west line of said Salyer tract for 676.39 feet to an iron rod found in the north line of that certain Larry R. Barker 4.01 acre tract recorded in Doc. No. 2000061067, Official Records of Williamson County for the Southeast corner hereof.

THENCE S 72°05'33"W passing the northeast corner of that certain 1.00 acre Larry R. Barker tract recorded in Volume 1149, Page 828, Official Records, at a call distance of 30.00 feet and continuing along the common line between said Barker tracts and the the herein described tract for a total distance of 386.55 feet to the **POINT OF BEGINNING** of the herein described tract and containing 5.975 acres of land.

SEE SURVEY ATTACHED HERETO AND MADE A PART HEREOF.

Date: 1/28/2015

Job No. 14-193

STATE OF TEXAS REGISTERED DONALD M. COOKSTON 4733 PROFESSIONAL LAND SURVEYOR

Donald "Matt" Cookston RPLS No. 4733

COOKSTON & ASSOCIATES

SURVEYING & MAPPING

(512) 276-2602

DocuSign Envelope ID: 54B91232-2806-448E-8C20-06C240EF17A8

EXHIBIT 'B' PAGE 1

1.62 ACRES

All that certain tract or parcel of land situated in Williamson County, Texas, out of the Burrell Eaves Survey, Abstract No. 216, and being a portion of that tract described as 100.00 acres, more or less, in a Deed granted to Annette Barker, dated January 4, 1978 and recorded in Volume 694, Page 735 Deed Records, of Williamson County, Texas, and further described by metes and bounds as follows:

BEGINNING: at a ½" iron pin found in the north margin of County Road 147 and the south line of said Annette Barker tract being the southwest corner of that tract called 5.00 acres in a Warranty Deed granted to Darren Lee Barker dated September 4,1985 and recorded in Volume 1415, Page 344 of the Official Records of Williamson County, Texas for the southeast corner of this tract;

THENCE: S 73°10'57" W 30.01 feet with the north margin of said county road and the south line of said Annette Barker tract to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set for the southwest corner of this tract from which a ½" iron pin with a yellow plastic cap inscribed "R.P.L.S. 4641" found for the southwest corner of a 5.00 acre tract (unrecorded) surveyed by Elwyn D. Richmond, Texas R.P.L.S. No. 4641, bears S 73° 10'57" W 271.76 feet;

THENCE: leaving the north margin of said county road into said Annette Barker tract for the west line of this tract for angle points of this tract the following fourteen (14) courses,

(1) N 18°04'27" W 363.81 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(2) N 14°11'32" W 203.35 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(3) N 21°17'25" E 45.10 feet to a cotton spindle set,

(4) N 34°12'08" E 174.77 feet to a cotton spindle set,

(5) N 60°42'33" E 82.01 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(6) N 82°43'20" E 79.36 feet to a cotton spindle set,

(7) N 54°24'44" E 71.23 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(8) N 12°09'08" E 137.16 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(9) N 19°13'02" W 184.70 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(10) N 54°17'14" W 212.00 feet to a cotton spindle set,

(11) N 35°04'37" W 80.60 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(12) N 43°44'27" W 140.03 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(13) N 36°37'38" W 97.06 feet to a cotton spindle set,

(14) N 15°27'25" W 206.80 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

THENCE: N 41°11'35" W 269.53 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set in the south line of that tract called 115 acres in a Warranty Deed granted to E. David Salyer, et al, dated September 19, 1994 and recorded as Document No. 9717201 of said official records and in the north line of said Annette Barker tract and a 30 foot easement recorded in Volume 1183, Page 429 and Volume 1149, Page 836 of said official records for the northwest corner of this tract from which a ½" iron pin found for the northeast corner of that tract called 4.01acres in a Special Warranty Deed granted to Larry Ray Barker dated August 30, 2000 and recorded as Document No. 2000061067 of said official records bears S 72°03'17" W 560.76 feet and a ½" iron pin found for the southwest corner of said Salyer tract (# 9717201) bears S 72°04'01" W 668.56 feet:

DocuSign Envelope ID: 54B91232-2806-448E-8C20-06C240EF17A8

EXHIBIT 'B' PAGE 2

THENCE: N 72°03'17" E 32.65 feet with the south line of said Salyer tract and the north line of said Annette Barker tract and said easement toa cotton spindle set for the northeast corner of this tract from which a ½" iron pin found for the southeast corner of that tract called 3 acres in a Warranty Deed granted to Eugene David Salyer dated April 15, 1998 and recorded as Document No. 9819693 of said official records bears N 72°03'17" E 628.82 feet and a ½" iron pin with a yellow plastic cap inscribed "CCC 4835" set at a fence corner for the northeast corner of said Annette Barker tract bears N 72°03'17" E 797.45 feet;

THENCE: leaving the south line of said Salyer tract (# 9717201) into said Annette Barker tract for the east line of this tract for angle points of this tract the following thirteen (13) courses.

(1) S 41°11'35" E 263.50 feet to a cotton spindle set,

(2) S 15°27'25" E 208.05 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(3) S 36°37'38"E 89.59 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(4) S 43°44'27" E 140.44 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(5) S 35°04'37" E 77.79 feet to a cotton spindle set,

(6) S 54°17'14" E 215.40 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(7) S 19°13'02" E 202.60 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(8) S 12°09'08" W 157.18 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(9) S 54°24'44" W 90.39 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(10) S 82°43'20" W 81.09 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

(11) S 60°42'33" W 69.11 feet to a cotton spindle set,

(12) S 34°12'08" W 184.31 feet to a cotton spindle set,

(13) S 21°17'25" W 33.11 feet to a ½" iron pin with a yellow plastic cap inscribed "CS, LTD" set,

THENCE: S 14°11'32" E 192.74 feet to a ½" iron pin found for the northwest corner of said Darren Barker tract for an angle point of this tract from which a ½" iron pin found for the northeast corner of said Darren Barker tract bears N 71°46'40" W 599.96 feet;

THENCE: S 18°04'27" E 363.46 feet with the west line of said Darren Barker tract to the point of BEGINNING and containing 1.62 acres.

Bearings cited hereon based on the east line of that tract called 4.00 acres in a Warranty Deed granted to Debra Ellen Scheler dated May 5, 1987 and recorded in Volume 1525, Page 45 of said official records having a record call of N 21°03' W 726.52 feet and a measured distance of 726.61 feet.

Castleberry Surveying, Ltd.
~~203 South IH 35, Suite 101C~~
Georgetown, Texas 78628

Kenneth Louis Crider,
Registered Professional Land Surveyor No. 5624

KLC/klc

STATE OF TEXAS NICHOLAS R. SANDLIN 124404 LICENSED PROFESSIONAL ENGINEER

8/23/2023

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

ENGINEERING | CONSULTING
SANDLIN
SERVICES, LLC

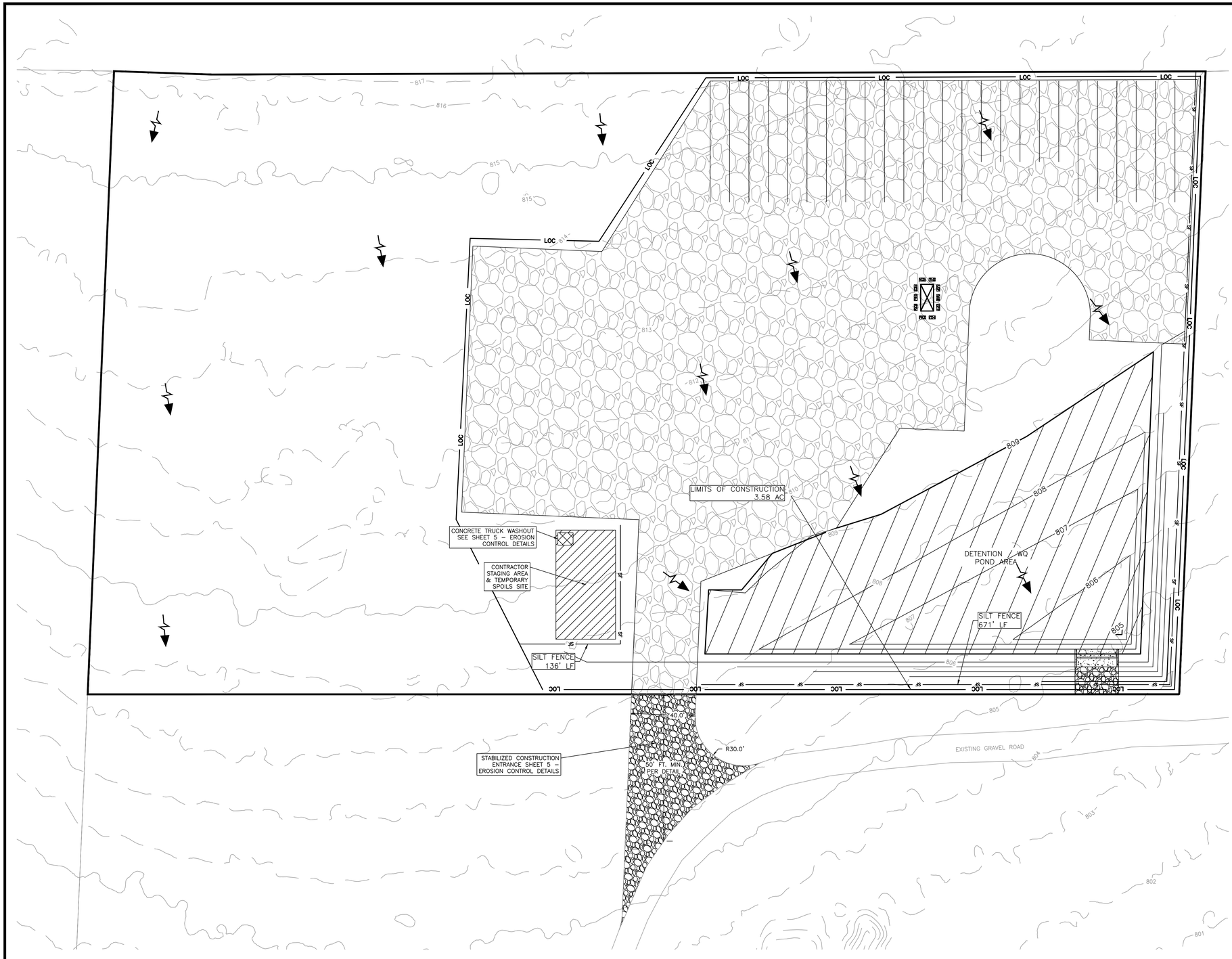
TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

LEGAL TRACT

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 3 OF ##



0 15' 30' 60'
SCALE: 1" = 30'

IF DRAWING BAR DOES NOT MEASURE 2" THIS PRINT IS NOT TO SCALE

NOTES:

1. THIS PROJECT IS SUBMITTED WITHOUT PHASING.
2. ALL EXISTING IMPERVIOUS COVER AND DRAINAGE PATTERNS WILL REMAIN UNCHANGED POST-DEVELOPMENT.
3. CONTRACTOR TO CUT AND REMOVE CONCRETE AS NECESSARY TO REMOVE ALL EXISTING PIPING. REFER TO PLANS BY OTHERS FOR EXACT LOCATION OF DISPENSERS AND PIPING.
4. ALL REQUIRED NOTICES AND PERMITS MUST BE PLACED IN A HIGHLY VISIBLE LOCATION ONSITE BEFORE THE COMMENCEMENT OF CONSTRUCTION.
5. ALL EROSION AND SEDIMENTATION CONTROLS (ESC) MUST BE INSTALLED PRIOR TO ANY DISTURBANCE TO THE PROJECT SITE.
6. ALL ESC USED ONSITE MUST BE REGULARLY MONITORED AND MAINTAINED AS NEEDED.
7. THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT PREVENTS TRACKING ONTO THE PUBLIC ROADWAY ON AN ONGOING/REGULAR BASIS. MUD AND OR DIRT TRACKED INTO THE ROADWAY MUST BE IMMEDIATELY REMOVED UPON DISCOVERY.
8. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY UPON INLET INSTALLATION.
9. INITIATE TEMPORARY STABILIZATION WHEN CONSTRUCTION CEASES IN A DISTURBED AREA FOR 14 DAYS.
10. INITIATE PERMANENT STABILIZATION IMMEDIATELY ONCE WORK HAS CEASED AND FINAL GRADE HAS BEEN ACHIEVED.
11. ALL DISTURBED/BARE AREAS WILL REQUIRE PERMANENT STABILIZATION BEFORE FINAL ACCEPTANCE CAN BE ACHIEVED. AVOID DISTURBING AREAS OF THE PROJECT THAT ARE NOT NECESSARY FOR CONSTRUCTION.
12. TEMPORARY ESC'S SHALL REMAIN IN PLACE IN ALL DISTURBED AREAS UNTIL ADEQUATE STABILIZATION HAS BEEN ACHIEVED.
13. THE TECHNICAL SPECS OF ESC DEVICES AND BEST MANAGEMENT PRACTICES (BMP) MEET OR EXCEED THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL.

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER
8/23/2023

EROSION CONTROL LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED CURB & GUTTER
- LOC LOC LOC — LIMITS OF CONSTRUCTION
- SF SF SF — SILT FENCE
- T T T — TREE PROTECTION FENCE
- STAGING & TEMPORARY SPOILS AREA
- STABILIZED CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT
- TEMPORARY ROCK BERM
- AREA INLET PROTECTION
- CURB INLET PROTECTION
- 750 — EXISTING CONTOURS
- 755 — PROPOSED CONTOURS
- 100 — EXISTING TREE (TO REMAIN)
- 100 — EXISTING TREE (TO BE REMOVED)

NOTE: ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY INSPECTOR AT TIME OF CONSTRUCTION.

EROSION CONTROL NOTES:

1. LIMITS OF CONSTRUCTION 3.58 AC (TOTAL DISTURBED ACREAGE)
2. THERE ARE NO HERITAGE OR PROTECTED TREES ONSITE
3. ALL STAGING & STORAGE SHALL OCCUR WITHIN THE BOUNDARIES OF THE PROPERTY AND LIMITS OF CONSTRUCTION.
4. INSTALL EROSION CONTROLS PER PLAN. WITH THE APPROVAL OF THE ENVIRONMENTAL INSPECTOR, ADJUST AS NEEDED DURING CONSTRUCTION.
5. CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS FROM ALL EXISTING OR NEWLY PAVED SURFACES AT THE END OF CONSTRUCTION.
6. TEMPORARY STAGING & STORAGE AREA/TEMPORARY SPOILS AREA IS TO BE USED DURING NORMAL WORK HOURS (7 A.M. TO 7 P.M.). ONCE CONSTRUCTION IS COMPLETE, CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS FROM AREA AND RESTORE TO ORIGINAL CONDITION OR BETTER.
7. ALL INLETS SHALL HAVE INLET PROTECTION IN PLACE UNTIL THE COMPLETION OF GRADING AND REVEGETATION.
8. IN AREAS WHERE SILT FENCE IS TO BE INSTALLED CROSSING CONTOURS, J-HOOKS SHALL BE ADDED TO THE SILT FENCE EVERY 100 FEET.
9. STABILIZATION OF ALL SLOPES 3:1 OR GREATER, SUITABLE MATTING (TYPE I) WILL BE UTILIZED IN CONJUNCTION WITH REVEGETATIVE EFFORTS ONSITE. CHANNEL STABILIZATION WILL USE TYPE II.

TEXAS 811 BEFORE YOU DIG

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

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SANDLIN
SERVICES, LLC

TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

EROSION CONTROL PLAN

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 4 OF ##

GUIDELINES FOR DESIGN AND INSTALLATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS

TYPE OF STRUCTURE	REACH LENGTH	MAXIMUM DRAINAGE AREA	SLOPE
SILT FENCE	N/A	2 ACRES	0 – 10%
	200 FEET	2 ACRES	10 – 20%
	100 FEET	1 ACRE	20 – 30%
	50 FEET	1/2 ACRE	> 30%
TRIANGLE FILTER DIKE	100 FEET	1/2 ACRE	< 30% SLOPE
	50 FEET	1/4 ACRE	> 30% SLOPE
ROCK BERM *, **	500 FEET	< 5 ACRES	0 – 10%

* FOR ROCK BERM DESIGN WHERE PARAMETERS ARE OTHER THAN STATED, DRAINAGE AREA CALCULATIONS AND ROCK BERM DESIGN MUST BE SUBMITTED FOR REVIEW.

** HIGH SERVICE ROCK BERMS MAY BE REQUIRED IN AREAS OF ENVIRONMENTAL SIGNIFICANCE AS DETERMINED BY THE CITY OF GEORGETOWN.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

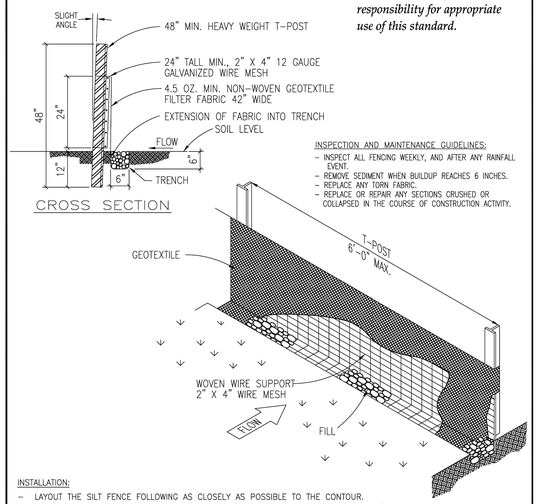
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
TEMPORARY EROSION AND SEDIMENTATION CONTROL GUIDELINES
REVISION NOTE: ADOPTED 6/21/2006 | DRAWING NAME: EC01 | SCALE: NTS | DATE: 1/2003 | DRAWN BY: MRS | APPROVED BY: TRB

NOTE: THIS SECTION IS INTENDED TO ASSIST THOSE PERSONS PREPARING WATER POLLUTION ABATEMENT PLANS (WPAP) OR STORM WATER POLLUTION PREVENTION PLANS (SW3P) THAT COMPLY WITH FEDERAL, STATE AND/OR LOCAL STORM WATER REGULATIONS.

1. THE CONTRACTOR TO INSTALL AND MAINTAIN EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING, GRADING, OR EXCAVATION). CONTRACTOR TO REMOVE EROSION/SEDIMENTATION CONTROLS AT THE COMPLETION OF PROJECT AND GRASS RESTORATION.
2. ALL PROJECTS WITHIN THE RECHARGE ZONE OF THE EDWARD'S AQUIFER SHALL SUBMIT A BEST MANAGEMENT PRACTICES AND WATER POLLUTION AND ABATEMENT PLAN TO THE TNRCC FOR APPROVAL PRIOR TO ANY CONSTRUCTION.
3. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS TO BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN AND WATER POLLUTION ABATEMENT PLAN. DEVIATIONS FROM THE APPROVED PLAN MUST BE SUBMITTED TO AND APPROVED BY THE OWNER'S REPRESENTATIVE.
4. ALL PLANTING SHALL BE DONE BETWEEN MAY 1 AND SEPTEMBER 15 EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING. IF PLANTING IS AUTHORIZED TO BE DONE OUTSIDE THE DATES SPECIFIED, THE SEED SHALL BE PLANTED WITH THE ADDITION OF WINTER FESCUE (KENTUCKY 31) AT A RATE OF 100lb/ACRE. GRASS SHALL BE COMMON BERMUDA GRASS, HULLED, MINIMUM 82% PURE LIVE SEED. ALL GRASS SEED SHALL BE FREE FROM NOXIOUS WEED, GRADE "A" RECENT CROP, RECLEANED AND TREATED WITH APPROPRIATE FUNGICIDE AT TIME OF MIXING. SEED SHALL BE FURNISHED IN SEALED, STANDARD CONTAINERS WITH DEALER'S GUARANTEED ANALYSIS.
5. ALL DISTURBED AREAS TO BE RESTORED AS NOTED IN THE WATER POLLUTION ABATEMENT PLAN.
6. THE PLANTED AREA TO BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF FOUR (4) INCHES. THE IRRIGATION TO OCCUR AT 10-DAY INTERVALS DURING THE FIRST TWO MONTHS TO INSURE GERMINATION AND ESTABLISHMENT OF THE GRASS . RAINFALL OCCURRENCES OF 1/2 INCH OR GREATER TO POSTPONE THE WATERING SCHEDULE ONE WEEK.
7. RESTORATION TO BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1-1/2 INCHES HIGH WITH 95% *COVERAGE*, PROVIDED NO BARE SPOTS LARGER THAN 25 SQUARE FEET EXIST.
8. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL TO BE PLACED IN ALL AREAS DISTURBED BY CONSTRUCTION.
9. THE CONTRACTOR TO HYDROMULCH OR SOD (AS SHOWN ON PLANS) ALL EXPOSED CUTS AND FILLS UPON COMPLETION OF CONSTRUCTION.
10. EROSION AND SEDIMENTATION CONTROLS TO BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILDUP WITHIN TREE DRIPLINE.
11. TO AVOID SOIL COMPACTION, CONTRACTOR SHALL NOT ALLOW VEHICULAR TRAFFIC, PARKING, OR STORAGE OF EQUIPMENT OR MATERIALS IN THE TREE DRIPLINE AREAS.
12. WHERE A FENCE IS CLOSER THAN FOUR (4) FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF EIGHT (8) FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE FENCING.
13. TREES TO BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
14. ANY ROOT EXPOSED BY CONSTRUCTION ACTIVITY TO BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOPSOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN TWO DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
15. CONTRACTOR TO PRUNE VEGETATION TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.). ALL FINISHED PRUNING TO BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE "NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES").
16. THE CONTRACTOR IS TO INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER EVERY RAINFALL EXCEEDING 1/4 INCH TO VERIFY THAT THEY HAVE NOT BEEN SIGNIFICANTLY DISTURBED. ANY ACCUMULATED SEDIMENT AFTER A SIGNIFICANT RAINFALL TO BE REMOVED AND PLACED IN THE OWNER DESIGNATED SPOIL DISPOSAL SITE. THE CONTRACTOR TO CONDUCT PERIODIC INSPECTIONS OF ALL EROSION/SEDIMENTATION CONTROLS AND TO MAKE ANY REPAIRS OR MODIFICATIONS NECESSARY TO ASSURE CONTINUED EFFECTIVE OPERATION OF EACH DEVICE.
17. WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT IMMEDIATELY ADJACENT TO A PROTECTED TREE, ERECT THE FENCE APPROXIMATELY TWO TO FOUR FEET (2'-4') BEHIND THE AREA IN QUESTION.
18. NO ABOVE AND/OR BELOW GROUND TEMPORARY FUEL STORAGE FACILITIES TO BE STORED ON THE PROJECT SITE.
19. IF EROSION AND SEDIMENTATION CONTROL SYSTEMS ARE EXISTING FROM PRIOR CONTRACTS, OWNER'S REPRESENTATIVE AND THE CONTRACTOR TO EXAMINE THE EXISTING EROSION AND SEDIMENTATION CONTROL SYSTEMS FOR DAMAGE PRIOR TO CONSTRUCTION. ANY DAMAGE TO PREEXISTING EROSION AND SEDIMENTATION CONTROLS NOTED TO BE REPAIRED AT OWNERS EXPENSE.
20. INTENTIONAL RELEASE OF VEHICLE OR EQUIPMENT FLUIDS ONTO THE GROUND IS NOT ALLOWED. CONTAMINATED SOIL RESULTING FROM ACCIDENTAL SPILL TO BE REMOVED AND DISPOSED OF PROPERLY.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
EROSION AND SEDIMENTATION AND TREE PROTECTION NOTES
REVISION NOTE: ADOPTED 6/21/2006 | DRAWING NAME: EC01A | SCALE: NTS | DATE: 1/2003 | DRAWN BY: MRS | APPROVED BY: TRB



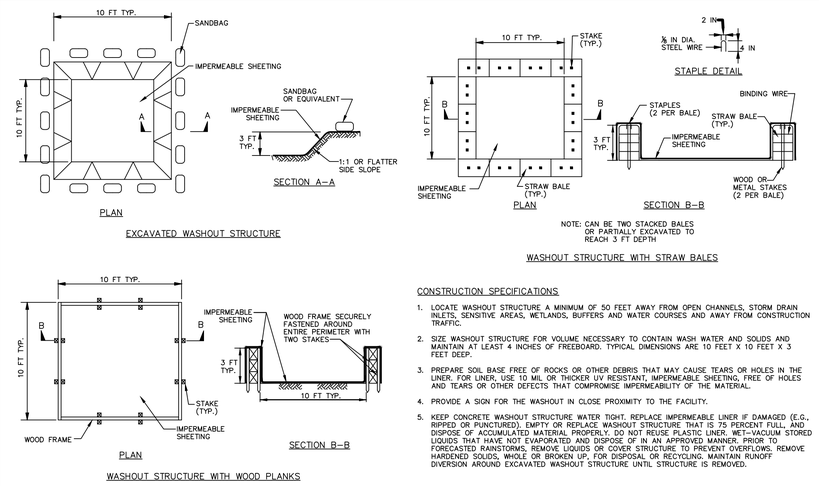
INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECT ALL FENCING WEEKLY, AND AFTER ANY RAINFALL EVENT.
- REMOVE SEDIMENT WHEN BUILDUP REACHES 6 INCHES.
- REPLACE ANY TORN FABRIC.
- REPLACE OR REPAIR ANY SECTIONS CRUSHED OR COLLAPSED IN THE COURSE OF CONSTRUCTION ACTIVITY.

INSTALLATION:
- LAYOUT THE SILT FENCE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS, PLANTS (INCLUDING GRASSES TALLER THAN 2") TO PROVIDE A SMOOTH FLOW APPROACH SURFACE. EXCAVATE 6" DEEP X 6" WIDE TRENCH ON UPSTREAM SIDE OF FACE PER PLANS.
- DRIVE THE HEAVY DUTY T-POST AT LEAST 12 INCHES INTO THE GROUND AND AT A SLIGHT ANGLE TOWARDS THE FLOW.
- ATTACH THE 2" X 4" 12 GAUGE WELDED WIRE MESH TO THE T-POST WITH 11 1/2 GAUGE GALVANIZED T-POST CLIPS. THE TOP OF THE WIRE TO BE 24" ABOVE GROUND LEVEL. THE WELDED WIRE MESH TO BE OVERLAPPED 6" AND TIED AT LEAST 6 TIMES WITH HOG RINGS.
- THE SILT FENCE TO BE INSTALLED WITH A SKIRT A MINIMUM OF 6" WIDE PLACED ON THE UPHILL SIDE OF THE FENCE INSIDE EXCAVATED TRENCH. THE FABRIC TO OVERLAP THE TOP OF THE WIRE BY 1".
- ANCHOR THE SILT FENCE BY BACKFILLING WITH EXCAVATED DIRT AND ROCKS (NOT LARGER THAN 2").
- GEOTEXTILE SPLICES SHOULD BE A MINIMUM OF 18" WIDE ATTACHED IN AT LEAST 6 PLACES. SPLICES IN CONCENTRATED FLOW AREAS WILL NOT BE ACCEPTED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SILT FENCE DETAIL
REVISION NOTE: ADOPTED 6/21/2006 | DRAWING NAME: EC02 | SCALE: NTS | DATE: 1/2003 | DRAWN BY: MRS | APPROVED BY: TRB

ONSITE CONCRETE WASHOUT STRUCTURE



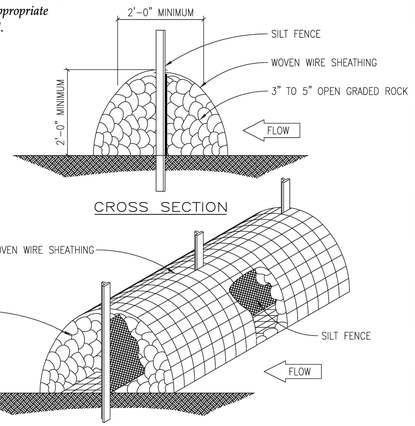
CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

Recommended Silt Fence Spacing on Sloping Sites

	Soil Type		
Slope angle	Silty	Clays	Sandy
Very steep (1:1)	50 ft.	75 ft.	100 ft.
Steep (2:1)	75 ft.	100 ft.	125 ft.
Moderate (4:1)	100 ft.	125 ft.	150 ft.
Slight (10:1)	125 ft.	150 ft.	200 ft.

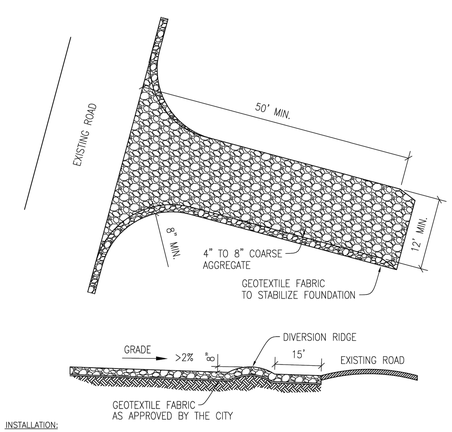
The Architect/Engineer assumes responsibility for appropriate use of this standard.



INSTALLATION:
- LAYOUT THE ROCK BERM FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
- CLEAR THE GROUND OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- PLACE WOVEN WIRE FABRIC ON THE GROUND ALONG THE PROPOSED INSTALLATION WITH ENOUGH OVERLAP TO COMPLETELY ENCIRCLE THE FINISHED SIZE OF THE BERM.
- INSTALL THE SILT FENCE ALONG THE CENTER OF THE PROPOSED BERM PLACEMENT. INSTALLATION SHOULD BE AS DESCRIBED IN DRAWING NO. EC-02 "SILT FENCE DETAIL".
- PLACE THE ROCK ALONG THE CENTER OF THE WIRE AND ON BOTH SIDES OF THE SILT FENCE TO THE DESIGNATED HEIGHT.
- WRAP THE STRUCTURE WITH THE PREVIOUSLY PLACED WIRE MESH SECURE ENOUGH SO THAT WHEN WALKED ACROSS THE STRUCTURE RETAINS IT'S SHAPE.
- SECURE WITH TIE WIRE.
- THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SILT REMOVED.

INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL EVENT BY THE CONTRACTOR. FOR THE INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE ON ROCK BERM.
- REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES AND DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER.
- REPAIR ANY LOOSE WIRE SHEATHING.
- THE BERM SHOULD BE RESHAPED AS NEEDED DURING INSPECTION.
- THE BERM SHOULD BE REPLACES WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
HIGH SERVICE ROCK BERM DETAIL
REVISION NOTE: ADOPTED 6/21/2006 | DRAWING NAME: EC04 | SCALE: NTS | DATE: 1/2003 | DRAWN BY: MRS | APPROVED BY: TRB

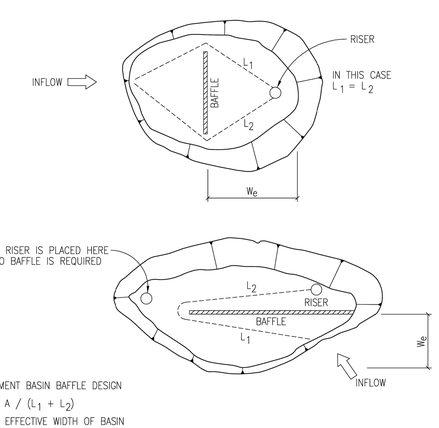


INSTALLATION:
- CLEAR THE AREA OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
- GRADE THE AREA FOR THE ENTRANCE TO FLOW BACK ON TO THE CONSTRUCTION SITE. RUNOFF FROM THE STABILIZED CONSTRUCTION
- PLACE GEOTEXTILE FABRIC AS APPROVED BY THE CITY.
- PLACE ROCK AS APPROVED BY THE CITY.

INSPECTIONS AND MAINTENANCE GUIDELINES:
- THE ENTRANCE SHOULD BE MAINTAINED IN A CONDITION, WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHTS-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY CONTRACTOR.
- WHEN NECESSARY, WHEELS SHOULD BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- ALL SEDIMENT SHOULD BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATER COURSE BY USING APPROVED METHODS.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
STABILIZED CONSTRUCTION ENTRANCE
REVISION NOTE: ADOPTED 6/21/2006 | DRAWING NAME: EC06 | SCALE: NTS | DATE: 1/2003 | DRAWN BY: MRS | APPROVED BY: TRB



SEDIMENT BASIN BAFFLE DESIGN

$W_e = A / (L_1 + L_2)$

W_e = EFFECTIVE WIDTH OF BASIN

A = SURFACE AREA OF BASIN WHEN FILLED TO RISER CREST

L_1, L_2 = SHORTEST TRAVEL DISTANCE AROUND THE BAFFLE FROM INLET TO OUTLET

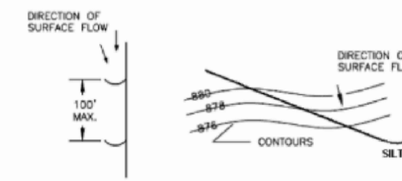
INSPECTION AND MAINTENANCE GUIDELINES:
- INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. REPAIR SHOULD BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
- TRASH AND OTHER DEBRIS SHOULD BE REMOVED AFTER EACH RAINFALL TO PREVENT CLOGGING OF THE OUTLET STRUCTURE.
- ACCUMULATED SILT SHOULD BE REMOVED AND THE BASIN SHOULD BE RE-GRADED TO ITS ORIGINAL DIMENSIONS AT SUCH POINT THAT THE CAPACITY OF THE IMPOUNDMENT HAS BEEN REDUCED TO 1/2 OF ITS ORIGINAL STORAGE CAPACITY.
- THE REMOVED SEDIMENT SHOULD BE STOCKPILED OR REDISTRIBUTED IN AREAS THAT ARE PROTECTED FROM EROSION.

The Architect/Engineer assumes responsibility for appropriate use of this standard.

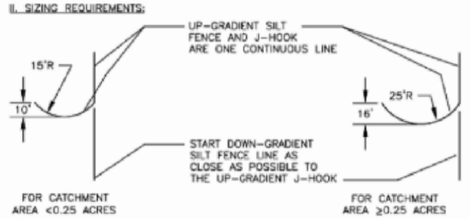
CITY OF GEORGETOWN CONSTRUCTION STANDARDS AND DETAILS
SEDIMENT BASIN BAFFLE DESIGN
REVISION NOTE: ADOPTED 6/21/2006 | DRAWING NAME: EC08 | SCALE: NTS | DATE: 1/2003 | DRAWN BY: MRS | APPROVED BY: TRB

PLAN VIEW

I. SPACING REQUIREMENTS



II. SIZING REQUIREMENTS:



J-hook Placement Details

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

SANDLIN
ENGINEERING | CONSULTING
SERVICES, LLC
TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

EROSION CONTROL DETAILS

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 5 OF ##

STATE OF TEXAS — NICHOLAS R. SANDLIN — 124404 — LICENSED PROFESSIONAL ENGINEER — 8/23/2023

0 15' 30' 60'

SCALE: 1" = 30'

IF DRAWING BAR DOES NOT MEASURE 2" THIS PRINT IS NOT TO SCALE

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER
8/23/2023

SITE PLAN LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- FIRE LANE
- PROPOSED CURB & GUTTER
- STREET CENTERLINE
- FENCE
- STRUCTURAL RETAINING WALL (BY OTHERS)
- PROPOSED CONCRETE SIDEWALK
- (R) PROPOSED PARKING SPACES
- (T) TRANSFORMER PAD
- SITE WALLS
- PHASING

TAS ACCESSIBLE ROUTE
TAS ACCESSIBLE ROUTES MAY NOT EXCEED A CROSS SLOPE OF 1:50 (2%) OR EXCEED A RUNNING SLOPE OF 1:20 (5%) UNLESS DESIGNED AS A RAMP. THE MAXIMUM RUNNING SLOPE OF A RAMP IN NEW CONSTRUCTION IS 1:12 (8.33%). THE MAXIMUM RISE FOR ANY RAMP RUN IS 30 INCHES. REFER TO GRADING SHEET(S).

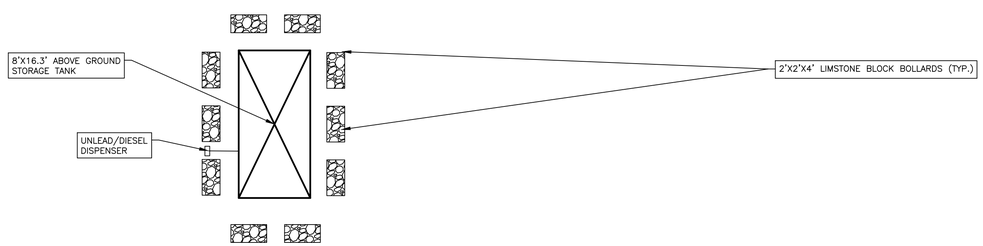
- EX. WATER LINE / PR. WATER LINE
- EX. WASTEWATER / FIRE LINE
- EX. STORM SEWER LINE / PR. WASTEWATER
- PR. STORM SEWER LINE
- EX. FIRE HYDRANT / PR. FIRE HYDRANT
- EX. WATER METER / PR. WATER METER
- EX. WASTEWATER MANHOLE / PR. WASTEWATER MANHOLE
- FITTINGS AS NOTED
- GATE VALVE AS NOTED / FLOW ARROW
- WW CLEAN OUT
- BFP BACK FLOW PREVENTER / EX. UTILITY POLE

SITE DATA	
	PROPOSED
TOTAL SITE AREA	5.98 AC / 260,417 SF
EXISTING ZONING SETBACKS	N/A – PROJECT NOT WITHIN CITY LIMITS
IMPERVIOUS COVER	2.56 AC OR 111,301 SF (42.7%)
BUILDING HEIGHT	N/A
FOUNDATION TYPE	N/A

NOTES

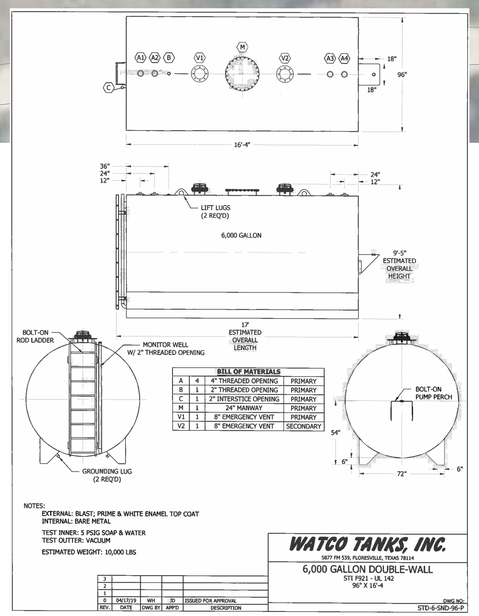
1. ALL PROPERTY BOUNDARIES ARE APPROXIMATE.
2. ABOVE GROUND STORAGE TANK SIZE AND SPECIFICATION TO BE PER AST APPLICATION TO TCEQ.
3. TANK LOCATION AND SIZE IS ESTIMATED AND WILL BE FIELD VERIFIED.
4. ALL TANKS SHOWN ARE DOUBLE WALLED AND THEREFORE HAVE THEIR OWN CONTAINMENT.
5. SEE ARCHITECTURAL PLANS FOR CANOPY DETAILS AND CONFIRMATION OF FUEL ISLAND DATA.

INSET 'A'



DETAILED ABOVE GROUND STORAGE TANKS, CONCRETE PAD, AND ISLAND SCHEMATIC
N.T.S.

SEE PRODUCT DESCRIPTIONS FOR DETAIL, CONTAINMENT AND PROFILES



BILL OF MATERIALS

A	4	4" THREADED OPENING	PRIMARY
B	1	2" THREADED OPENING	PRIMARY
C	1	2" INTERSTICE OPENING	PRIMARY
M	1	24" MANWAY	PRIMARY
V1	1	8" EMERGENCY VENT	PRIMARY
V2	1	8" EMERGENCY VENT	SECONDARY

NOTES:
EXTERNAL: BLAST; PRIME & WHITE ENAMEL TOP COAT
INTERNAL: BARE METAL
TEST INNER: 5 PSIG SOAP & WATER
TEST OUTTER: VACUUM
ESTIMATED WEIGHT: 10,000 LBS

WATCO TANKS, INC.
5677 FM 539, FLORESVILLE, TEXAS 78114
6,000 GALLON DOUBLE-WALL
STI F921 - UL 142
90° X 16'-4
DWG NO. STD-6-SND-96-P

REV	DATE	DWG BY	APP'D	DESCRIPTION
3				
2				
1				
0	04/17/19	WH	JD	ISSUED FOR APPROVAL

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

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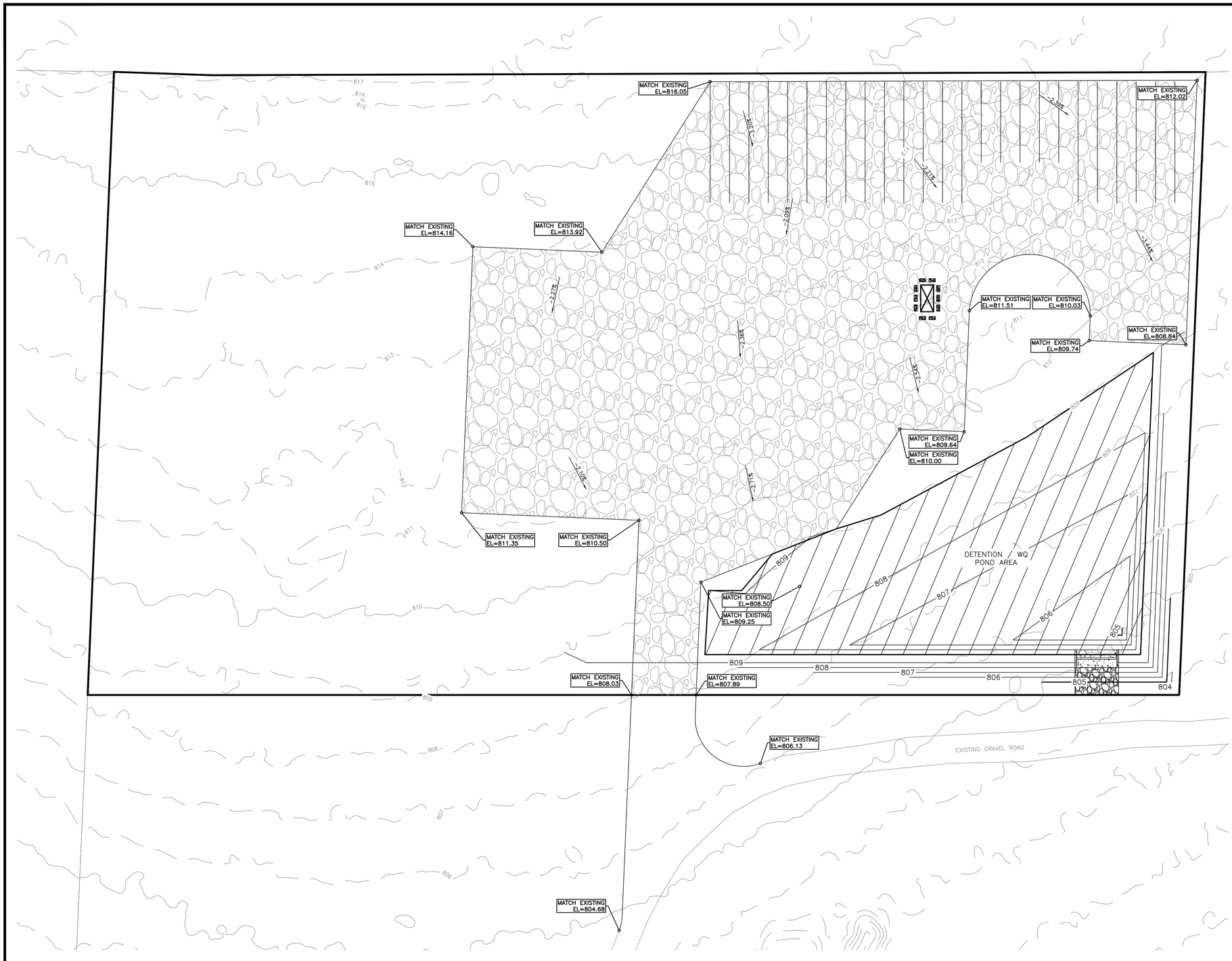
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

SITE PLAN

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 6 OF ##



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8/23/2023

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER

GRADING LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- GRADE CONTROL LINE
- PROPOSED CURB & GUTTER
- EXISTING CONTOURS (790)
- PROPOSED CONTOURS (795)
- EX. WATER LINE (W) / PR. WATER LINE (W)
- EX. WASTEWATER (WW) / PR. WASTEWATER (WW)
- EX. STORM SEWER LINE (STM) / PR. STORM SEWER LINE (STM)
- EX. FIRE HYDRANT / PR. FIRE HYDRANT
- EX. WATER METER (WM) / PR. WATER METER
- EX. WASTEWATER MANHOLE (WW) / PR. WASTEWATER MANHOLE
- 100 EXISTING TREE (TO REMAIN)
- 100 EXISTING TREE (TO BE REMOVED)
- EL:800.0 EXISTING GROUND ELEVATION
- TC:800.0 BC:800.0 PROPOSED CURB & GUTTER
- HP:800.0 HIGH POINT ELEVATION
- LP:800.0 LOW POINT ELEVATION
- TW:800.0 BW:800.0 PROPOSED TOP AND BOTTOM OF WALL
- FL:800.0 PROPOSED FLOW LINE
- 1.00% PROPOSED SLOPE (SLOPE DOWN)

GRADING NOTES

1. ALL MATERIALS AND CONSTRUCTION PROCEDURE WITHIN THE SCOPE OF THIS CONTRACT WHERE NO SPECIFICALLY COVERED IN THE CONSTRUCTION DOCUMENTS SHALL CONFORM TO ALL APPLICABLE CODES AND REGULATIONS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING TO ITS ORIGINAL CONDITION ANY DAMAGE DONE TO EXISTING IMPROVEMENTS OR UTILITIES.
3. EARTHWORK FOR THE BUILDING FOUNDATION, CONCRETE SLABS AND CONCRETE AND ASPHALT PAVEMENT SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
4. ADJUST PAVEMENT, CURB ELEVATIONS, AND/OR SIDEWALK ELEVATIONS AS NECESSARY TO ENSURE A CONTINUOUS GRADE WITH EXISTING ELEVATIONS.
5. EXISTING AND PROPOSED GRADE CONTOUR INTERVALS SHOWN ARE ONE FOOT (1').
6. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATIONS SHALL RECEIVE FOUR (4) INCHES OF TOPSOIL.
7. REFER TO GEOTECHNICAL REPORT FOR PAVING SECTION RECOMMENDATIONS.

TEXAS 811 BEFORE YOU DIG

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

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GRADING PLAN

ROCKHARD YARD

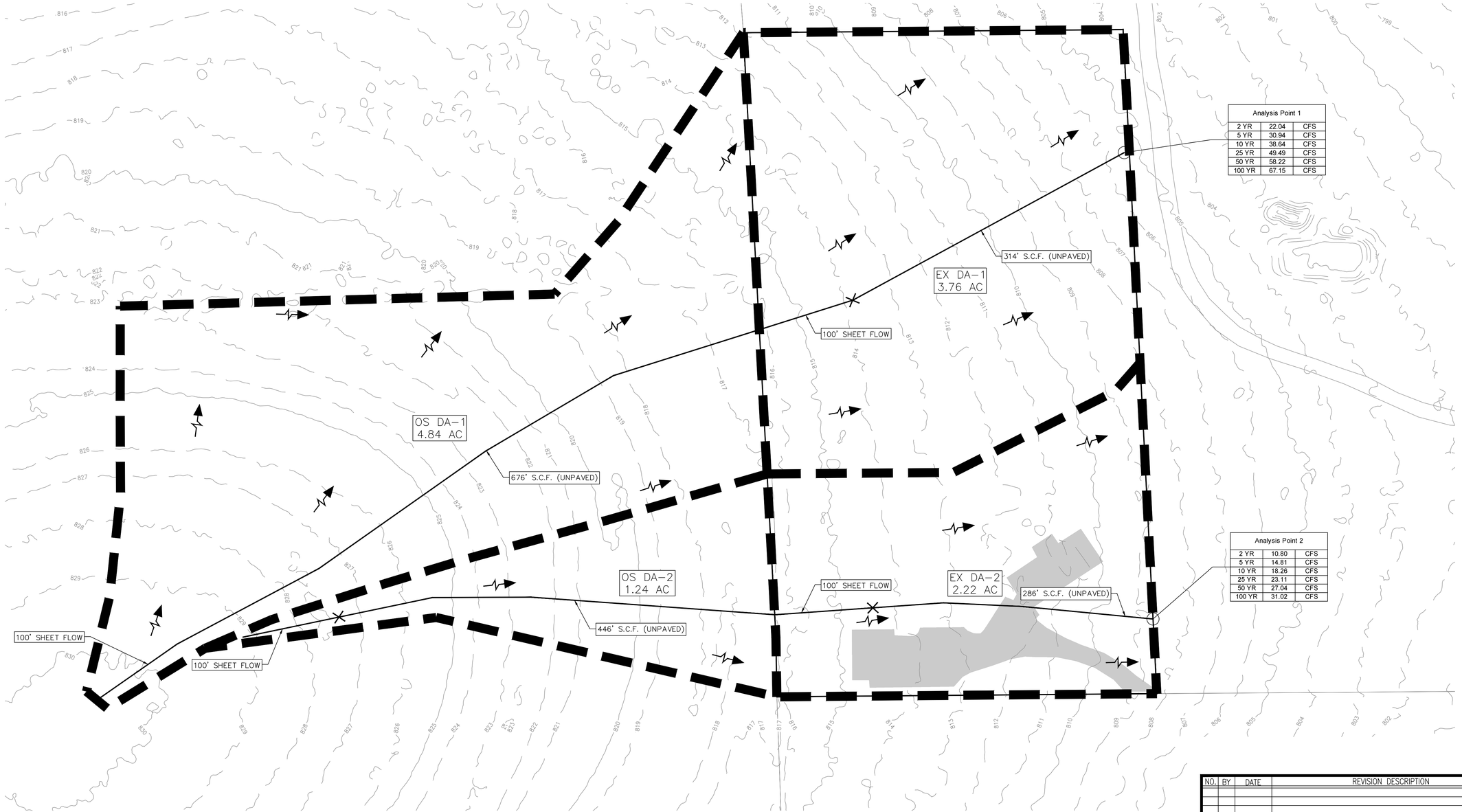
NO.	BY	DATE	REVISION DESCRIPTION

SHEET 7 OF ##

Time of Concentration Calculations				Sheet Flow					Shallow Conc. Flow				Channel Flow				Total
Existing Flows		Area	Area	P_2	L	n	S	T_t	L	Surface Type	S	T_t	L	V_{avg}	T_t	T_c
From	To	(Ac)	(sf)	(in)	(ft)	-	(ft/ft)	(min)	(ft)	-	(ft/ft)	(min)	(ft)	(ft/s)	(min)	(min)
OS DA-1	ANALYSIS POINT 1	4.84	210,830	3.94	100	0.13	0.005	13.71	676	Unpaved	0.020	4.95	-	-	0.00	**18.66**
OS DA-2	ANALYSIS POINT 2	1.24	54,014	3.94	100	0.13	0.016	8.61	446	Unpaved	0.024	3.00	-	-	0.00	**11.61**
EX DA-1	ANALYSIS POINT 1	3.76	163,786	3.94	100	0.13	0.023	7.43	314	Unpaved	0.027	1.99	-	-	0.00	**9.43**
EX DA-2	ANALYSIS POINT 2	2.22	96,703	3.94	100	0.13	0.026	7.09	286	Unpaved	0.021	2.04	-	-	0.00	**9.13**

EXISTING CONDITIONS			IMPERVIOUS			GRASS		
Drainage Area	Total Area	Total Area	Area Impervious	Area Impervious	Area Impervious	Area Grass	Area Grass	Area Grass
	(Ac)	(sf)	(sf)	(Ac)	(%)	(sf)	(Ac)	(%)
OS DA-1	4.84	210,830	0	0.00	0.0%	210,830	4.84	100.0%
OS DA-2	1.24	54,014	0	0.00	0.0%	54,014	1.24	100.0%
EX DA-1	3.76	163,786	0	0.00	0.0%	163,786	3.76	100.0%
EX DA-2	2.22	96,703	16,554	0.38	17.1%	80,149	1.84	82.9%

Drainage Basin Characteristics - Existing Conditions									
Drainage Area	Area (Acres)	I.C. (%)	Tc (min)	Q2 (cfs)	Q5 (cfs)	Q10 (cfs)	Q25 (cfs)	Q50 (cfs)	Q100 (cfs)
OS DA-1	4.84	0.0%	11.19	11.83	16.54	20.61	26.34	30.95	35.67
OS DA-2	1.24	0.0%	6.97	3.62	5.06	6.30	8.05	9.46	10.89
EX DA-1	3.76	0.0%	5.66	11.37	15.80	19.62	24.98	29.32	33.71
EX DA-2	2.22	17.1%	5.48	7.18	9.75	11.96	15.06	17.58	20.13



Analysis Point 1		
2 YR	22.04	CFS
5 YR	30.94	CFS
10 YR	38.64	CFS
25 YR	49.49	CFS
50 YR	58.22	CFS
100 YR	67.15	CFS

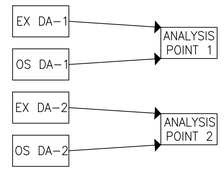
Analysis Point 2		
2 YR	10.80	CFS
5 YR	14.81	CFS
10 YR	18.26	CFS
25 YR	23.11	CFS
50 YR	27.04	CFS
100 YR	31.02	CFS

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER
8/23/2023

EXISTING DRAINAGE LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED CURB & GUTTER
- DRAINAGE AREA BOUNDARY
- EX. DA-X XX.XX AC — DRAINAGE AREA DESIGNATION AND AREA DRAINED
- FLOW ARROW
- TIME OF CONCENTRATION LINE (SHEET FLOW)
- TIME OF CONCENTRATION LINE (SHALLOW CONCENTRATED FLOW)
- 750 EXISTING CONTOURS
- 755 PROPOSED CONTOURS

EXISTING FLOW PATTERNS



N

0 25' 50' 100'
SCALE: 1" = 50'

IF DRAWING BAR DOES NOT MEASURE 2" THIS PRINT IS NOT TO SCALE

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SERVICES, LLC
TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

EXISTING DRAINAGE AREA MAP

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

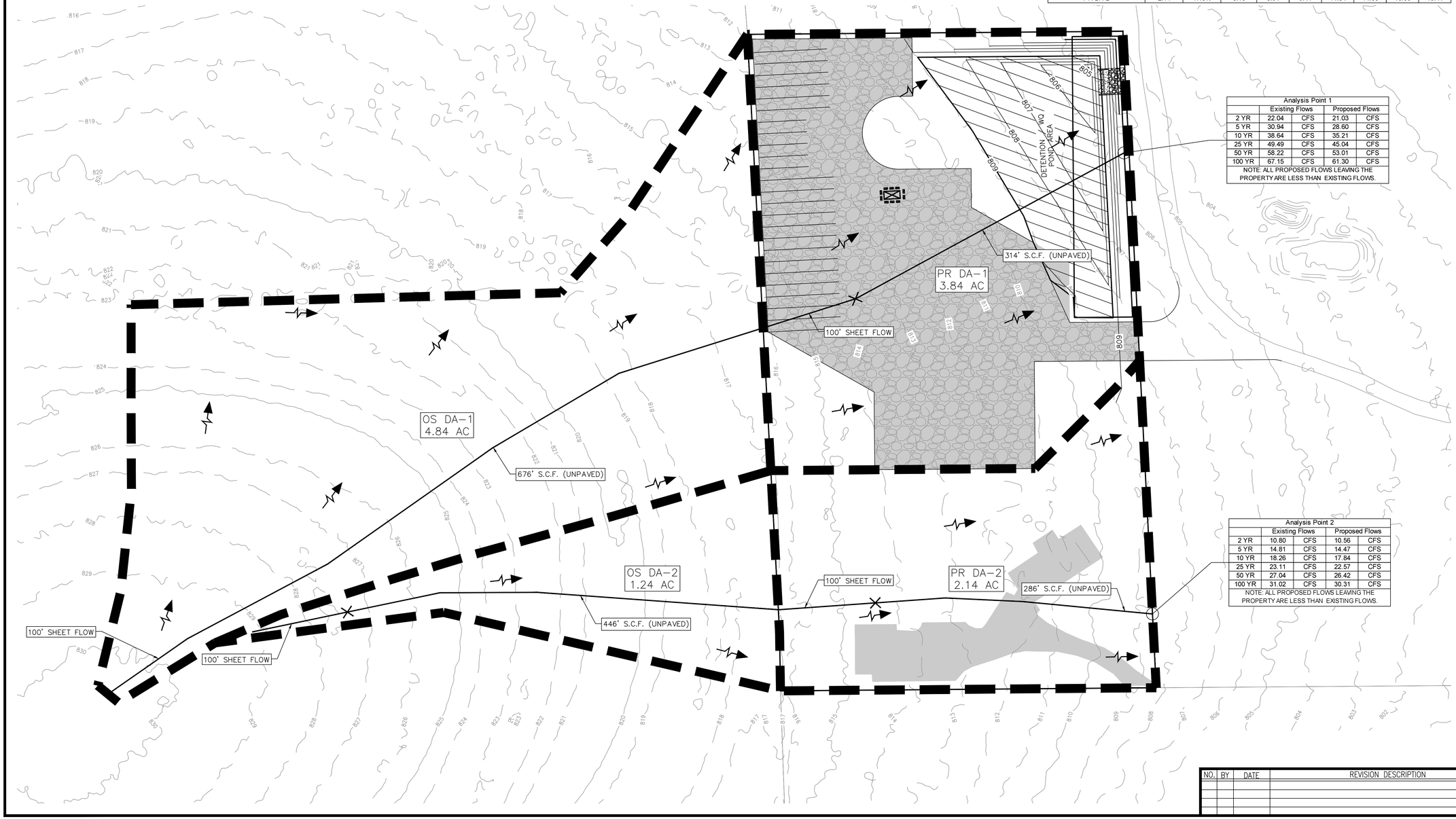
SHEET 8 OF ##

G:\Shared drives\Sandlin Services LLC\Sandlin Services Projects\Petroleum & Environmental Engineering Division\02-0015-009 Rock Hard Yard\CAD\Construction Sheets\S RHY EDAM.dwg-EXISTING DRAINAGE AREA MAP Plotted Aug 24, 2023 at 11:31am by $(x++) | Last Saved by: Admin

Time of Concentration Calculations				Sheet Flow					Shallow Conc. Flow				Channel Flow				Total
Existing Flows		Area	Area	P_2	L	n	S	T_t	L	Surface Type	S	T_t	L	V_{avg}	T_t	T_c
From	To	(Ac)	(sf)	(in)	(ft)	-	(ft/ft)	(min)	(ft)	-	(ft/ft)	(min)	(ft)	(ft/s)	(min)	(min)
OS DA-1	ANALYSIS POINT 1	4.84	210,830	3.94	100	0.13	0.005	13.71	676	Unpaved	0.020	4.95	-	-	0.00	**18.66**
OS DA-2	ANALYSIS POINT 2	1.24	54,014	3.94	100	0.13	0.016	8.61	446	Unpaved	0.024	3.00	-	-	0.00	**11.61**
PR DA-1	ANALYSIS POINT 1	3.84	167,270	3.94	100	0.012	0.023	1.11	314	Paved	0.027	1.58	-	-	0.00	**5.00**
PR DA-2	ANALYSIS POINT 2	2.14	93,218	3.94	100	0.13	0.026	7.09	286	Unpaved	0.021	2.04	-	-	0.00	**9.13**

PROPOSED CONDITIONS			IMPERVIOUS			GRASS		
Drainage Area	Total Area	Total Area	Area Impervious	Area Impervious	Area Impervious	Area Grass	Area Grass	Area Grass
	(Ac)	(sf)	(sf)	(Ac)	(%)	(sf)	(Ac)	(%)
OS DA-1	4.84	210,830	0	0.00	0.0%	210,830	4.84	100.0%
OS DA-2	1.24	54,014	0	0.00	0.0%	54,014	1.24	100.0%
PR DA-1	3.84	167,270	94,752	2.18	56.6%	72,518	1.66	43.4%
PR DA-2	2.14	93,218	16,554	0.38	17.8%	76,664	1.76	82.2%

Drainage Basin Characteristics - Proposed Conditions									
Drainage Area	Area (Acres)	I.C. (%)	Tc (min)	Q2 (cfs)	Q5 (cfs)	Q10 (cfs)	Q25 (cfs)	Q50 (cfs)	Q100 (cfs)
OS DA-1	4.84	0.0%	18.66	11.83	16.54	20.61	26.34	30.95	35.67
OS DA-2	1.24	0.0%	11.61	3.62	5.06	6.30	8.05	9.46	10.89
PR DA-1	3.84	56.6%	5.00	17.72	23.03	27.63	34.11	39.40	44.72
PR DA-2	2.14	17.8%	9.13	6.94	9.41	11.54	14.53	16.96	19.41



Analysis Point 1				
	Existing Flows		Proposed Flows	
2 YR	22.04	CFS	21.03	CFS
5 YR	30.94	CFS	28.60	CFS
10 YR	38.64	CFS	35.21	CFS
25 YR	49.49	CFS	45.04	CFS
50 YR	58.22	CFS	53.01	CFS
100 YR	67.15	CFS	61.30	CFS
NOTE: ALL PROPOSED FLOWS LEAVING THE PROPERTY ARE LESS THAN EXISTING FLOWS.				

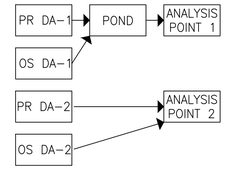
Analysis Point 2				
	Existing Flows		Proposed Flows	
2 YR	10.80	CFS	10.56	CFS
5 YR	14.81	CFS	14.47	CFS
10 YR	18.26	CFS	17.84	CFS
25 YR	23.11	CFS	22.57	CFS
50 YR	27.04	CFS	26.42	CFS
100 YR	31.02	CFS	30.31	CFS
NOTE: ALL PROPOSED FLOWS LEAVING THE PROPERTY ARE LESS THAN EXISTING FLOWS.				

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED
PROFESSIONAL ENGINEER
8/23/2023

PROPOSED DRAINAGE LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED CURB & GUTTER
- DRAINAGE AREA BOUNDARY
- PR. DA-X XX.XX AC — DRAINAGE AREA DESIGNATION AND AREA DRAINED
- FLOW ARROW
- TIME OF CONCENTRATION LINE (SHEET FLOW)
- TIME OF CONCENTRATION LINE (SHALLOW CONCENTRATED FLOW)
- 750 — EXISTING CONTOURS
- 755 — PROPOSED CONTOURS

PROPOSED FLOW PATTERNS



0 25' 50' 100'
SCALE: 1" = 50'

IF DRAWING BAR DOES NOT MEASURE 2" THIS PRINT IS NOT TO SCALE

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

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SANDLIN
SERVICES, LLC
TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

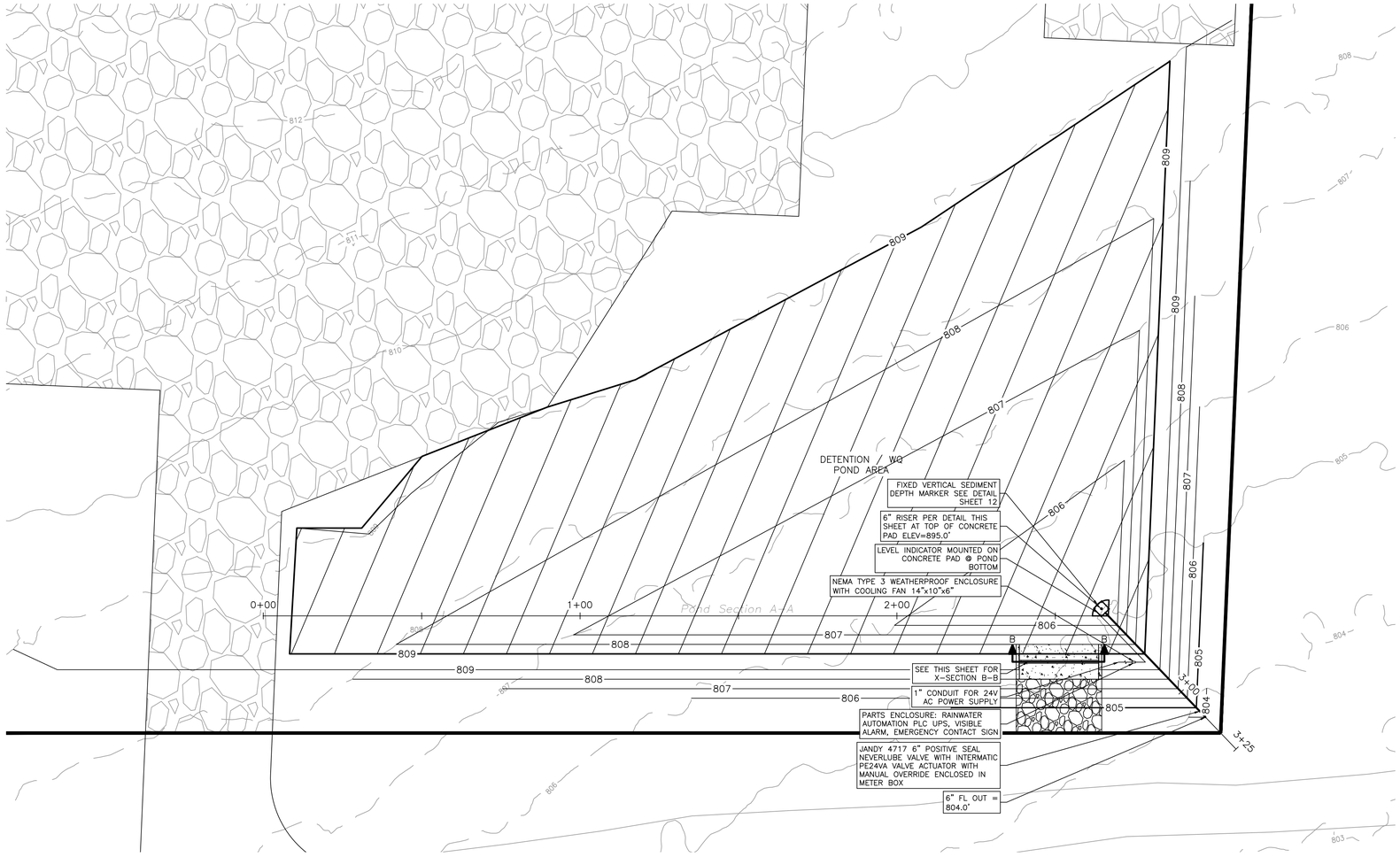
PROPOSED DRAINAGE AREA MAP

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 9 OF ##

G:\Shared drives\Sandlin Services LLC\Sandlin Services Projects\Petroleum & Environmental Engineering Division\02-0015-009 Rock Hard Yard\CAD\Construction Sheets\S RHY PDAM.dwg-PROPOSED DRAINAGE AREA MAP Plotted Aug 24, 2023 at 11:31am b $(++) | Last Saved by: Admin



Detention Analysis Summary

	Peak Flow Entering Pond (cfs)	Peak Flow Leaving Pond (cfs)	Peak Elevation (m.s.l.)	Freeboard (ft)	Analysis Point #1	
					Peak Pre-Dev Flows(cfs)	Peak Post-Dev Flows(cfs)
2-YR	24.71	21.03	808.13	1.37	22.04	21.03
5-YR	33.21	28.60	808.23	1.27	30.94	28.60
10-YR	40.60	35.21	808.30	1.20	38.64	35.21
25-YR	51.08	45.04	808.41	**1.09**	49.49	45.04
50-YR	59.48	53.01	808.49	1.01	58.22	53.01
100-YR	68.15	61.30	808.57	0.93	67.15	61.30

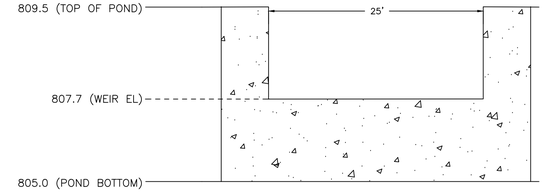
BATCH DETENTION POND - DRAWDOWN CALCULATIONS

Stage (ft amsl)	Storage (cf)	Head (ft)	Relative Volume (cf)	Time To Drain (hr)	Outflow Velocity (fps)
805.00	0.00	1.00	0	0.00	0.00
806.00	926.38	2.00	926	0.19	7.04
807.00	6039.47	3.00	5113	0.84	8.62
807.70	13618.30	3.70	7579	1.12	9.57
	Complete Drawdown Time			**2.15**	**hr**

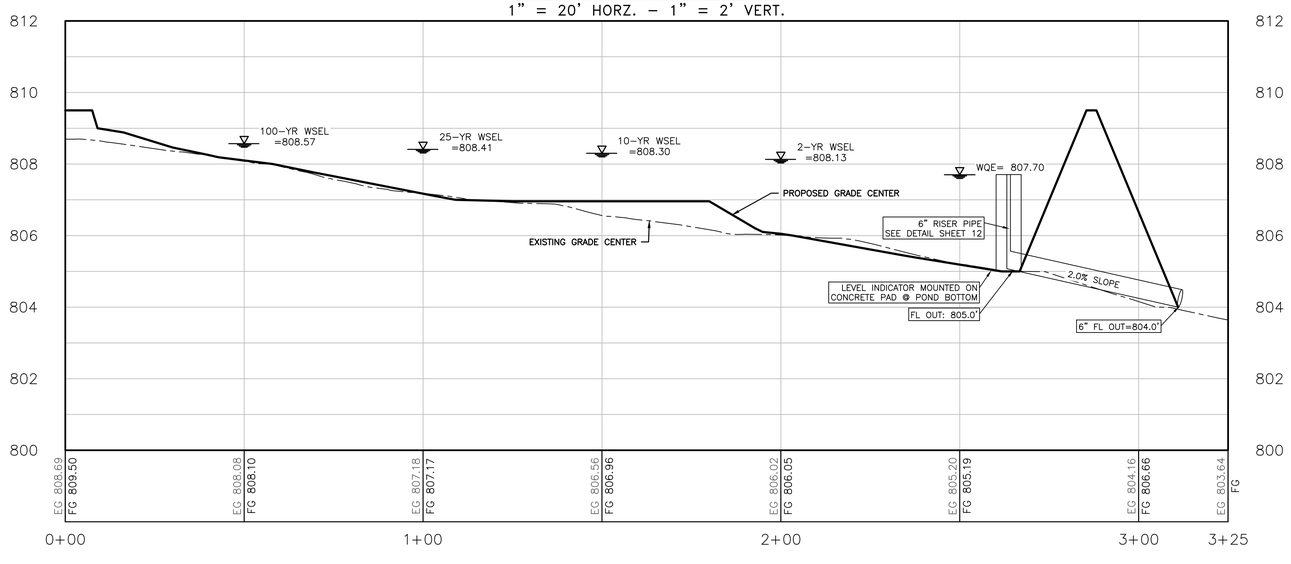
*Elevation of Downstream WSE = 804 ft asml
*Orifice Diameter (inches) = 6 in

BATCH DETENTION POND

Contributing Drainage Area =	PR DA-1	
Total Drainage Area =	5.98	acre
Pre-Development I.C. =	0.38	acre
Post-Development I.C. =	2.56	acre
Post-Development I.C. Fraction =	0.43	
$L_{M\ TOTAL\ PROJECT}$ =	2014	lbs
A_C =	**3.84**	acre
A_I =	**2.18**	acre
A_P =	**1.66**	acre
L_R =	**2218**	lbs
Fraction of Annual Runoff (F) =	0.91	
Rainfall Depth =	1.80	inch
Post Development Runoff Coefficient =	0.40	
On-site Water Quality Volume =	9967	cubic ft
Off-site area draining to BMP =	6.08	acre
Off-site Impervious cover draining to BMP =	0.00	acre
Impervious fraction of off-site area =	0.00	
Off-site Runoff Coefficient =	0.02	
Off-site Water Quality Volume =	795	cubic ft
Storage for Sediment =	2152	cubic ft
Total Capture Volume Required =	12914	cubic ft
Total Capture Volume Provided =	13618	cubic ft



SECTION B–B
OUTFALL DETAIL
SCALE: N.T.S.



POND SECTION A–A PROFILE
1" = 20' HORZ. – 1" = 2' VERT.

STATE OF TEXAS
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POND LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED CURB & GUTTER
- STRUCTURAL RETAINING WALL (BY OTHERS)
- SITE WALLS
- POND FENCE
- EXISTING CONTOURS (750)
- PROPOSED CONTOURS (755)
- EX. WATER LINE / PR. WATER LINE
- EX. WASTEWATER / PR. WASTEWATER
- EX. STORM SEWER LINE / PR. STORM SEWER LINE
- EX. FIRE HYDRANT / PR. FIRE HYDRANT
- EX. WATER METER / PR. WATER METER
- EX. WASTEWATER MANHOLE / PR. WASTEWATER MANHOLE
- DETAIL NUMBER (A) — SECTION A–A
- SECTION LABEL WITH DETAIL CALLOUT REFERENCE WITH BUBBLE

NOTES:

1. POST THE FOLLOWING SIGN UNDER THE VISIBLE ALARM FOR EMERGENCY CONTACT:

   EMERGENCY CONTACT:
   OWNER: XXX-XXX-XXXX
   TCEQ: 512-339-2929

2. POND BOTTOM SHALL BE VEGETATED PER THE SEEDING SPECIFICATION ON THE EROSION CONTROL PLAN SHEET.

0 10' 20' 40'
SCALE: 1" = 20'

IF DRAWING BAR DOES NOT MEASURE 2" THIS PRINT IS NOT TO SCALE

TEXAS 811 BEFORE YOU DIG

WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

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POND PLAN

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 10 OF ##

G:\Shared drives\Sandlin Services LLC\Sandlin Services Projects\Petroleum & Environmental Engineering Division\02-0015-009 Rock Hard York\CAD\Construction Sheets\S RHY POND.dwg-POND PLAN Plotted Aug 24, 2023 at 11:32am by Scott | Last Saved by: Admin

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: ROCK HARD YARD
Date Prepared: 8/13/2023

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

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

Page 3-29 Equation 3.3: $L_M = 28.93(A_N \times P)$ **<-- Increased to 28.93 per Georgetown standard of 85% removal efficiency**

where:
$L_{M\ TOTAL\ PROJECT}$ = Required TSS removal resulting from the proposed development = 85% of increased load
A_N = Net increase in impervious area for the project
P = Average annual precipitation, inches

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

County =	Williamson	
Total project area included in plan * =	5.98	acres
Predevelopment impervious area within the limits of the plan * =	0.38	acres
Total post-development impervious area within the limits of the plan* =	2.56	acres
Total post-development impervious cover fraction * =	0.43	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	2014	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 2

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

Drainage Basin/Outfall Area No. = 1 "PR DA-1"

Total drainage basin/outfall area =	3.84	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	2.18	acres
Post-development impervious fraction within drainage basin/outfall area =	0.57	
$L_{M\ THIS\ BASIN}$ =	1893	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Batch Detention
Removal efficiency = 91 percent

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

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

where:
A_C = Total On-Site drainage area in the BMP catchment area
A_I = Impervious area proposed in the BMP catchment area
A_P = Pervious area remaining in the BMP catchment area
L_R = TSS Load removed from this catchment area by the proposed BMP

A_C =	3.84	acres
A_I =	2.18	acres
A_P =	1.66	acres
L_R =	2218	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = 2014 lbs.

F = 0.91

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 =	1.80	inches
Post Development Runoff Coefficient =	0.40	
On-site Water Quality Volume =	9967	cubic feet

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

Off-site area draining to BMP =	6.08	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0.00	
Off-site Runoff Coefficient =	0.02	
Off-site Water Quality Volume =	795	cubic feet
Storage for Sediment =	2152	
Total Capture Volume (required water quality volume(s) x 1.20) =	12914	cubic feet

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED PROFESSIONAL ENGINEER
8/23/2023

POND LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED CURB & GUTTER
- STRUCTURAL RETAINING WALL (BY OTHERS)
- SITE WALLS
- POND FENCE
- 750 EXISTING CONTOURS
- 750 PROPOSED CONTOURS
- W EX. WATER LINE / W PR. WATER LINE
- WW EX. WASTEWATER / WW PR. WASTEWATER
- STM EX. STORM SEWER LINE / STM PR. STORM SEWER LINE
- EX. FIRE HYDRANT / PR. FIRE HYDRANT
- WM EX. WATER METER / PR. WATER METER
- WW EX. WASTEWATER MANHOLE / WW PR. WASTEWATER MANHOLE
- DETAIL NUMBER (A–A)
- SECTION A–A
- SECTION LABEL WITH DETAIL CALLOUT REFERENCE WITH BUBBLE

NOTES:

1. POST THE FOLLOWING SIGN UNDER THE VISIBLE ALARM FOR EMERGENCY CONTACT:

EMERGENCY CONTACT:
OWNER: XXX-XXX-XXXX
TCEQ: 512-339-2929

2. POND BOTTOM SHALL BE VEGETATED PER THE SEEDING SPECIFICATION ON THE EROSION CONTROL PLAN SHEET.

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SANDLIN SERVICES, LLC
TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

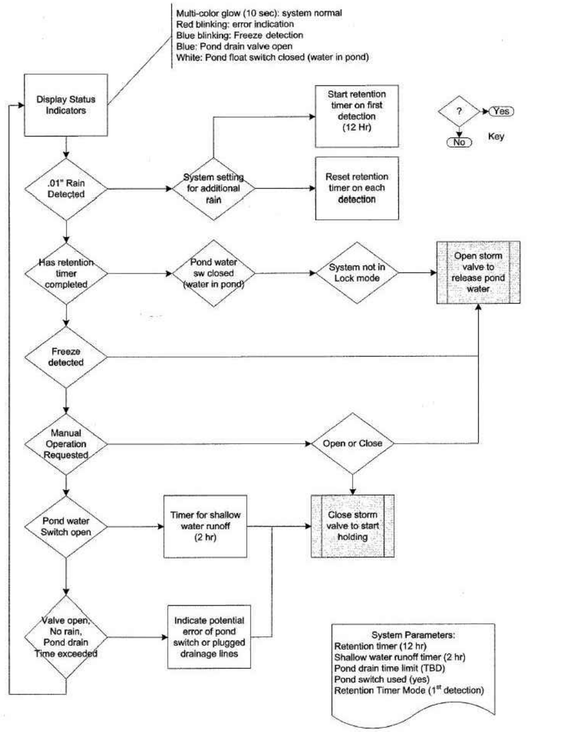
WATER QUALITY CALCS

ROCKHARD YARD

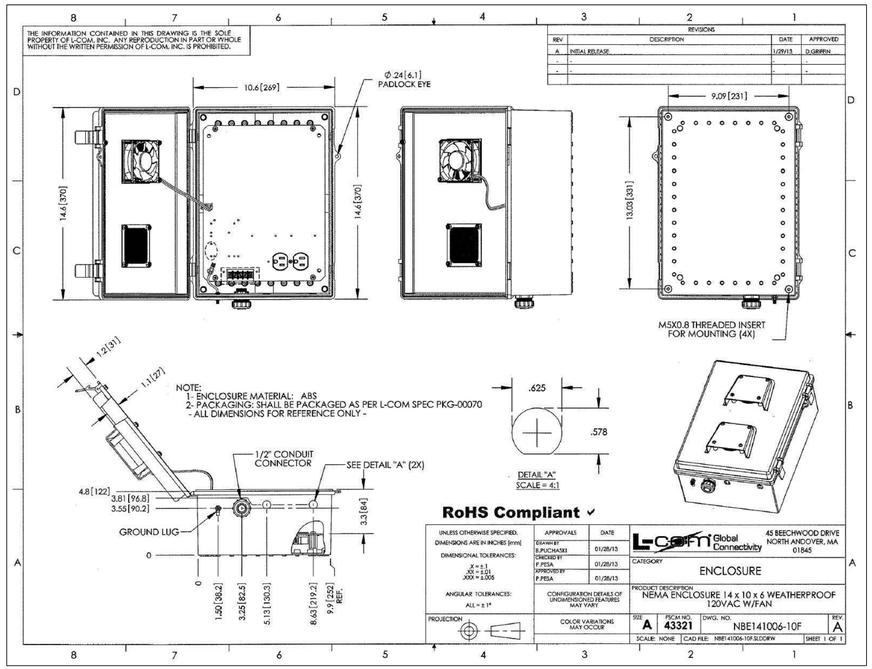
NO.	BY	DATE	REVISION DESCRIPTION

SHEET 11 OF ##

G:\Shared drives\Sandlin Services LLC\Sandlin Services Projects\Petroleum & Environmental Engineering Division\02-2015-009 Rock Hard Yard\CAD\Construction Sheets\S_RHY POND.dwg-POND PLAN Plotted Aug 24, 2023 at 11:32am by Scott | Last Saved by: Admin

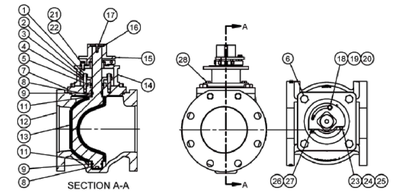


PROGRAMIBLE LOGIC FLOW CHART



800 SERIES MATERIAL LIST

2.5" to 12", 212F Max Temp., 175 psi Max Press, Bi-Directional



Item	Description	Material	Item	Description	Material
1	Gland Stud	Stainless Steel	15	Torque Collar	A536 GR 65-45-12
2	Hex Nut	Stainless Steel	16	Flat Washer	Q235-A Zinc Plated
3	Flat Washer	Stainless Steel	17	Socket Head Capscrew	Stainless Steel
4	Gland	ASTM A126 CL B	18	Hex Head Capscrew	Stainless Steel
5	V-Ring Set	NBR	19	Hex Nut	Stainless Steel
6	Hex Head Capscrew	Stainless Steel	20	Flat Washer	Stainless Steel
7	Cover	ASTM A126 CL B	21	Socket Head Capscrew	Stainless Steel
8	Bearing	SST, Sintered	22	Lock Washer	Stainless Steel
9	O-Ring	NBR	23	Socket Head Capscrew	Stainless Steel
10	O-Ring	NBR	24	Hex Nut	Stainless Steel
11	Thrust Washer	PTFE	25	Flat Washer	Stainless Steel
12	Body	ASTM A126 CL B	26	Hex Head Capscrew	Stainless Steel
13	Plug Molded	A536 GR 65-45-12 +NBR	27	Hex Nut	Stainless Steel
14	Torque Collar Adapter (Buried)	ASTM A126 CL B	28	Hex Head Capscrew	Stainless Steel

800 SERIES Cv Data (GPM@1PSI)

Size	2.5	3	4	5	6	8	10	12
Cv	425	680	1190	2000	2400	4600	5800	9100

Crispin/K-Flo Valves, 600 Fowler Ave., Berwick PA 18603 T: 800-247-VALV W: www.kflovalves.com

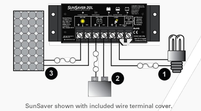
MORNINGSTAR PROFESSIONAL SERIES
World's Leading Solar Controllers & Inverters
+1-215-321-4457
sales@morningstarcorp.com

Technical Specifications

Versions	SS-10L-24V, SS-10L-12V, SS-6-12V, SS-6L-12V, SS-20L-12V, SS-10-12V, SS-20L-24V	
Electrical		
Max. PV and load ratings	Shown to the right	
System voltage	12V or 24V	
Min. battery voltage	6V*	
Regulation voltage	12 volt	24 volt
Sealed battery	14.1 V	28.2 V
Flooded battery	14.6 V	29.2 V
Load disconnect	11.5 V	23.0 V
LVD reconnect	12.6 V	25.2 V
Max. solar voltage		
12V battery	30 volts	
24V battery	60 volts	
Load in-rush capability		
SunSaver-6	45 amps	
SunSaver-10	65 amps	
SunSaver-20	140 amps	
Self-consumption	< 8 mA	
Voltage accuracy	12V: +/- 25 mV (typical) 24V: +/- 48 mV (typical)	
Transient surge protection	1500W per connection	
Mechanical		
Wire size	5 mm² / #10 AWG	
Weight (unpacked)	0.23kg / 8 oz.	
Dimensions	15.2 x 5.5 x 3.2 cm 6.0 x 2.2 x 1.3 inch	
Environmental		
Ambient temperature	-40°C to +60°C	
Storage temperature	-55°C to +80°C	
Humidity	100% non-condensing	
Tropicalization	Epoxy encapsulation Marine rated terminals Anodized aluminum case	

WARRANTY: Five year warranty period.
Contact Morningstar or your authorized distributor for complete terms.

*In periods following excessive battery drain, provided the controller is not power cycled, the controller can self-recover from a battery voltage of 1V and provide intermittent charging operation up to 6V at which normal operation will resume.



SunSaver shown with included wire terminal cover.

Specification Summary

Ratings	SS-6/6L	SS-10/10L	SS-20L
System voltage	12V	12V or 24V	12V or 24V
Min. battery voltage	6V*	6V*	6V*
Max. solar voltage	30V	30V or 60V	30V or 60V
Max. solar current	6.5A	10A	20A
Max. load current	6A	10A	20A

Battery Charging
- Charging method: 4 stage series PWM
- Charging stages: Bulk, absorption, float, equalize
- Temperature compensation
  - Coefficient: 12V: -30mV/°C; 24V: -60mV/°C
  - Range: -30°C to +60°C
  - Set points: Absorption, float, equalize

LED Indications
- Status LED (1): Charging or not charging; Solar error conditions
- Battery LED's (3): Battery level; Charging stage

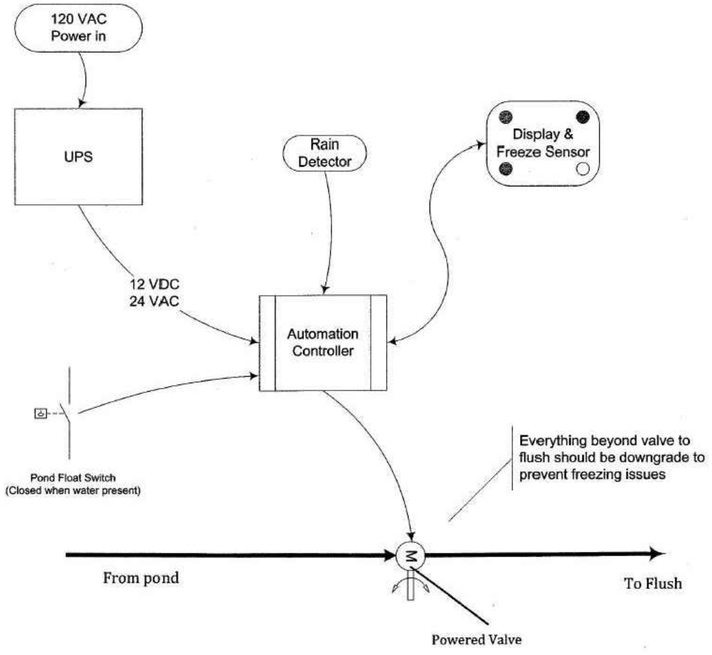
Certifications
- Hazardous Locations:
  - UL121201/CSA C22.2 #213 Class I, Div. 2 Groups A-D T5
  - ATEX II 3G Ex ec IIC T4...T5 Gc
  - IECEx Ex ec IIC T4...T5 Gc
- CE, RoHS and REACH Compliant
- IEC/EN 62109-1 Ed.1 2010
- UL 1604/ANSI/ISA 12.12.01-2000 (USA) and CSA C22.2 No. 213-M1987 (Reaffirmed 2004) (CANADA) Listed
- ETL Listed: UL 1741 (terminal cover required for compliance)
- FCC Title 47 (CFR), Part 15 Subpart B for Class B Device
- Manufactured in a Certified ISO 9001 Facility

Electronic Protections
- Solar: Overload, short-circuit, high voltage
- Load: Overload, short-circuit, high voltage
- Battery: High voltage
- All: Reverse polarity, high temperature, lightning and transient surges
- Reverse current at night

8 Pheasant Run, Newtown, PA 18940 USA | Control # MS-002634 REV 8/2022.EN | www.morningstarcorp.com

Due to Morningstar's policy of continuous improvement, product availability, features and specifications are subject to change without notice. Information in this publication has been checked for accuracy; however, no responsibility is assumed for typos or errors. ©2022 Morningstar Corporation

NOTE: CONTRACTOR TO USE 30W @ 24V SOLAR PANEL WITH THIS CONTROLLER OR APPROVED EQUAL



BATCH DETENTION POND LOGIC

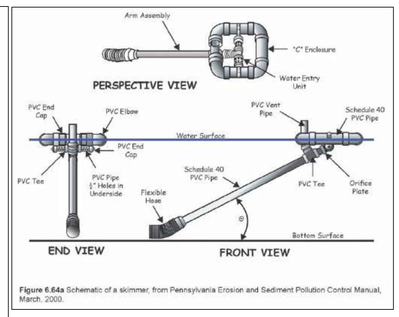
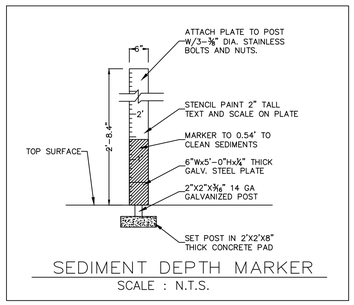
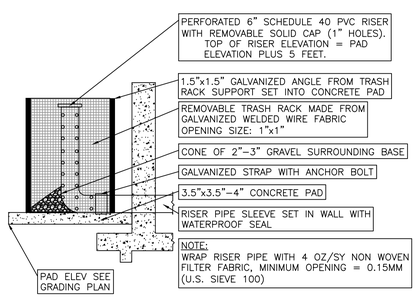
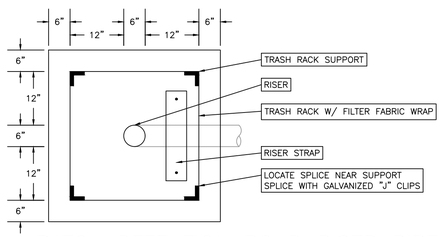


Figure 6.64a Schematic of a skimmer, from Pennsylvania Erosion and Sediment Pollution Control Manual, March, 2000.



SEDIMENT DEPTH MARKER
SCALE : N.T.S.





BATCH DETENTION POND RISER PIPE
N.T.S.

NOTES:

1. BASIN LINER IS REQUIRED PER TCEQ RG 348 DUE TO LOCATION OF THE POND IN THE RECHARGE ZONE.
2. POST THE FOLLOWING SIGN UNDER THE VISIBLE ALARM FOR EMERGENCY CONTACT:

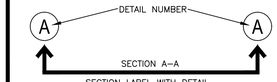
EMERGENCY CONTACT: TCEQ
TCEQ: 512-339-2929

3. POND BOTTOM SHALL BE VEGETATED PER THE SEEDING SPECIFICATION ON THE EROSION CONTROL PLAN SHEET.
4. VISIBLE ALARM SHALL BE INSTALLED TO INDICATE LOSS OF POND CONTROLLER POWER.

STATE OF TEXAS
NICHOLAS R. SANDLIN
124404
LICENSED PROFESSIONAL ENGINEER
8/23/2023

POND LEGEND

- PROPOSED PROPERTY/ PROJECT BOUNDARY LINE
- EXISTING R.O.W./PROPERTY LINE
- EXISTING EASEMENT LINE
- PROPOSED CURB & GUTTER
- STRUCTURAL RETAINING WALL (BY OTHERS)
- SITE WALLS
- POND FENCE
- EXISTING CONTOURS (750)
- PROPOSED CONTOURS (750)
- EX. WATER LINE (W)
- PR. WATER LINE (W)
- EX. WASTEWATER (WW)
- PR. WASTEWATER (WW)
- EX. STORM SEWER LINE (STM)
- PR. STORM SEWER LINE (STM)
- EX. FIRE HYDRANT
- PR. FIRE HYDRANT
- EX. WATER METER (WM)
- PR. WATER METER
- EX. WASTEWATER MANHOLE (WW)
- PR. WASTEWATER MANHOLE (WW)



SECTION LABEL WITH DETAIL CALLOUT REFERENCE WITH BUBBLE

NOTES:

1. POST THE FOLLOWING SIGN UNDER THE VISIBLE ALARM FOR EMERGENCY CONTACT:

EMERGENCY CONTACT:
OWNER: XXX-XXX-XXXX
TCEQ: 512-339-2929

2. POND BOTTOM SHALL BE VEGETATED PER THE SEEDING SPECIFICATION ON THE EROSION CONTROL PLAN SHEET.

TEXAS 811 BEFORE YOU DIG
WARNING !!!! CONTRACTOR TO FIELD VERIFY ALL EXIST. UTILITIES VERTICALLY AND HORIZONTALLY PRIOR TO CONSTRUCTION. THE CONTRACTOR IS TO CONTACT ENGINEER IF ANY EXISTING UTILITY INFORMATION DIFFERS FROM DATA SHOWN IN THE PLANS. CALL 811 BEFORE YOU DIG.

SANDLIN SERVICES, LLC
ENGINEERING | CONSULTING
TBPELS FIRM #21356
4501 WHISPERING VALLEY DRIVE UNIT 27 AUSTIN, TX 78727

WATER QUALITY DETAILS

ROCKHARD YARD

NO.	BY	DATE	REVISION DESCRIPTION

SHEET 12 OF ##

Permanent Stormwater Section (TCEQ-0600)

Attachment G: Inspection, Maintenance, Repair and Retrofit Plan

Recommended Maintenance Guidelines for Batch Detention Pond BMP

Batch detention ponds capture and temporarily detain the water quality volume. They capture the first flush of stormwater, allowing the solids fraction to settle, and they limit downstream erosion by controlling peak flow rates during erosive events. A batch detention pond can be used in combination with grassy swales to achieve water quality and drainage goals. Batch detention ponds may have moderate to somewhat higher maintenance requirements since they are active stormwater controls. There are many factors that may affect a batch detention pond's operation and that will be periodically checked. These factors can include mowing, removal of accumulated bottom sediments, removal of debris from all inflow and outflow structures, unclogging of orifice perforations, and the upkeep of all physical structures that are within the batch detention pond area.

Inspections

The batch detention pond 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 inspection(s) should occur between storm events so that manual operation of the valve and controller can be verified. The level sensor in the pond 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 outlets(s) as described below. Debris obstructing the valve should be removed. During each inspection, erosion areas inside and downstream of the BMP should be identified and repaired/revegetated immediately.

Mowing

The pond, pond side-slopes, and embankment of the pond 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 pond 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 pond basin side slopes and embankment all may periodically suffer from slumping and erosion. To correct these problems, corrective action, such as regrading and revegetation, may be necessary. Correction of erosion control should take place whenever required based on the periodic inspections.

Nuisance Control

Standing water or soggy conditions may occur in the pond 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 pond 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.) particularly in areas of permanent standing water.

Structural Repairs and Replacement

With each inspection, any damage to the structural elements of the pond 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 pond basin will eventually deteriorate and must be replaced.

Sediment Removal

A professionally designed batch detention pond 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 pond 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 pond 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.

Record Keeping

Maintenance and inspection records should be kept on file by the Owner of the permanent BMPs for a period of at least three (3) years. Repair and retrofit records should be kept on file by the Owner of the permanent BMPs for a period of at least five (5) years.

General Owner Responsibility

The OWNER or SUBSEQUENT OWNER shall bear all expenses for the operation and maintenance of this Permanent Water Quality Control (PWQC) system including but not limited to all general maintenance activities needed to keep this system in proper operation condition. If this system is abused or not maintained, then it may contribute to malfunction of the storm water system. All designated PWQC VFS areas shall remain free of construction, development, and encroachments.

You as the OWNER of this property have a responsibility to provide any SUBSEQUENT OWNER or your real estate agent with a copy of this Best Management Practices (BMP) Maintenance Plan if this facility is sold so that the BMPs can be properly maintained and operated. The same rights, duties, and responsibilities borne by the current OWNER shall be borne by each subsequent OWNER.

OWNER ACKNOWLEDGEMENT AND ACCEPTANCE:

ROCKHARD YARD GEORGETOWN

Carlos Roman
Print Name

Owner
Title

DocuSigned by:
Carlos Roman
3CD55EC0D304415...
Signature

8/22/2023
Date

PREPARED AND CERTIFIED BY ENGINEER:

Nick Sandlin, P.E.

8/23/23
Date

Permanent Stormwater Section
(TCEQ-0600)

Attachment H:
Pilot-Scale Field Testing Plan (if proposed)
(NOT APPLICABLE)

A pilot-scale field testing plan is not applicable. All BMP design and calculations are based on and comply with Edwards Aquifer Technical Guidance for Edwards Aquifer Rules (RG-348, revised July 2005).

Permanent Stormwater Section
(TCEQ-0600)

Attachment I:
Measures for Minimizing Surface Stream Contamination

No surface streams flow across the property. The property drains northeast to Smalley Branch of Dry Berry Creek, located approximately 0.3 miles northeast of the project site. The Batch Detention Pond BMP will address onsite water quality and stormwater drainage to mitigate and minimize any potential offsite surface stream contamination.

Agent Authorization Form
(TCEQ-0599)

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

I CARLOS ROMAN
Print Name

PRESIDENT
Title - Owner/President/Other

of ROCKHARD CO, LLC
Corporation/Partnership/Entity Name

have authorized NICK SANDLIN, P.E.
Print Name of Agent/Engineer

of SANDLIN SERVICES, LLC
Print Name of Firm

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

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

□SIGNATURE PAGE:

Applicant's Signature Carlos Date 8/21/23

THE STATE OF Texas §

County of Williamson §

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

GIVEN under my hand and seal of office on this 21 day of August, 2023.

NOTARY PUBLIC

ALFRED ROSALES
NOTARY PUBLIC · STATE OF TEXAS
ID # 13246628-6
COMM. EXP 05-01-2024

Typed or Printed Name of Notary

Alfred Rosales

MY COMMISSION EXPIRES: 5-1-2024

Application Fee Form
(TCEQ-0574)

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: ROCKHARD YARD GEORGETOWN
Regulated Entity Location: 700 PRIVATE ROAD 909, GEORGETOWN, TX 78633
Name of Customer: ROCKHARD CO LLC
Contact Person: CARLOS ROMAN Phone: 5122932565
Customer Reference Number (if issued):CN 605803527
Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

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

☒ Austin Regional Office
☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office
☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	5.98 Acres	$ 5,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	1 Tanks	$ 650
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____

Date: 8/23/23

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

Check Payable to the "Texas Commission on Environmental Quality"

Core Data Form
(TCEQ-10400)

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☒ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal (*Core Data Form should be submitted with the renewal form*) ☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 605803527		RN

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name (*If an individual, print last name first: eg: Doe, John*) — *If new Customer, enter previous Customer below:*

ROCKHARD CO LLC

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
801718266	32049939450		

11. Type of Customer: ☒ Corporation ☐ Individual Partnership: ☐ General ☒ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ **Yes** ☐ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator ☐ Other:
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

15. Mailing Address:								
	PO BOX 735							
	City	ROUND ROCK	State	TX	ZIP	78680	ZIP + 4	0735

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*

(512) 293-2565		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

ROCKHARD YARD GEORGETOWN

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	700 PRIVATE ROAD 909							
	City	GEORGETOWN	**State**	TX	**ZIP**	78633	**ZIP + 4**	
24. County	WILLIAMSON							

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

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.746725		**28. Longitude (W) In Decimal:**	-97.679175	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	44	48.21	97	40	45.03

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
1799		238990	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Parking Lot and AST for fueling

34. Mailing Address:	**700 PRIVATE ROAD 909**							
	City	**GEORGETOWN**	**State**	**TX**	**ZIP**	**78633**	**ZIP + 4**	
35. E-Mail Address:								

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
( ) -		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	NICK SANDLIN, P.E.	**41. Title:**	PROFESSIONAL ENGINEER

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(806 **)** 679-7303		**( )** -	nick@sandlinservices.com

SECTION V: Authorized Signature

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

Company:	SANDLIN SERVICES, LLC	**Job Title:**	PRINCIPAL AND PROFESSIONAL ENGINEER
Name *(In Print):*	NICK SANDLIN, P.E.	**Phone:**	**(** 806 **)** 679- **7303**
Signature:		**Date:**	8/23/23