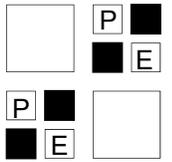


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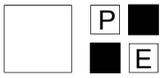
STRUCTURAL CIVIL TRANSPORTATION
2205 WEST PARMER LANE, SUITE #201, AUSTIN, TEXAS 78727
512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951

CONTRIBUTING ZONE PLAN TCEQ 10257

BAGDAD Gas Station
1646 N BAGDAD ROAD,
LEANDER, TEXAS 78641

Contributing Zone Plan Checklist

- **Edwards Aquifer Application Cover Page (TCEQ-20705)**
- **Contributing Zone Plan Application (TCEQ-10257)**
 - Attachment A - Road Map
 - Attachment B - USGS Quadrangle Map
 - Attachment C - Project Narrative
 - Attachment D - Factors Affecting Surface Water Quality
 - Attachment E - Volume and Character of Stormwater
 - Attachment F - Suitability Letter from Authorized Agent (if OSSF is proposed)
 - Attachment G - Alternative Secondary Containment Methods (if AST with an alternative method of secondary containment is proposed)
 - Attachment H - AST Containment Structure Drawings (if AST is proposed)
 - Attachment I - 20% or Less Impervious Cover Declaration (if project is multi-family residential, a school, or a small business and 20% or less impervious cover is proposed for the site)
 - Attachment J - BMPs for Upgradient Stormwater
 - Attachment K - BMPs for On-site Stormwater
 - Attachment L - BMPs for Surface Streams
 - Attachment M - Construction Plans
 - Attachment N - Inspection, Maintenance, Repair and Retrofit Plan
 - Attachment O - Pilot-Scale Field Testing Plan, if BMPs not based on Complying with the Edwards Aquifer Rules: Technical Guidance for BMPs
 - Attachment P - Measures for Minimizing Surface Stream Contamination
- **Storm Water Pollution Prevention Plan (SWPPP)**
 - OR-**
- **Temporary Stormwater Section (TCEQ-0602)**
 - Attachment A - Spill Response Actions
 - Attachment B - Potential Sources of Contamination
 - Attachment C - Sequence of Major Activities
 - Attachment D - Temporary Best Management Practices and Measures
 - Attachment E - Request to Temporarily Seal a Feature, if sealing a feature
 - Attachment F - Structural Practices
 - Attachment G - Drainage Area Map
 - Attachment H - Temporary Sediment Pond(s) Plans and Calculations
 - Attachment I - Inspection and Maintenance for BMPs
 - Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices
- **Copy of Notice of Intent (NOI)**
- **Agent Authorization Form (TCEQ-0599), if application submitted by agent**



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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: Gabriel Leander, LLC				2. Regulated Entity No.:					
3. Customer Name: Mike Momin				4. Customer No.:					
5. Project Type: (Please circle/check one)	<input checked="" type="radio"/> New	Modification			Extension		Exception		
6. Plan Type: (Please circle/check one)	WPAP	<input checked="" type="radio"/> CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check one)	Residential		<input checked="" type="radio"/> Non-residential			8. Site (acres):		1.51 ACRES	
9. Application Fee:	\$4000		10. Permanent BMP(s):			Detention and Water Quality Pond			
11. SCS (Linear Ft.):	N/A		12. AST/UST (No. Tanks):			N/A			
13. County:	Williamson		14. Watershed:			Brushy Creek			

Application Distribution

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

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

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

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

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

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.

Mirza Tahir Baig

Print Name of Customer/Authorized Agent

12-02-2025

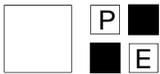
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Authorized Agent

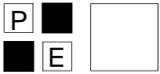
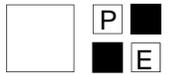
Date

****FOR TCEQ INTERNAL USE ONLY****

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



PROFESSIONAL STRUCIVIL ENGINEERS, INC.



STRUCTURAL CIVIL TRANSPORTATION



2205 WEST PARMER LANE, SUITE #201, AUSTIN, TEXAS 78727
512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951

Contributing Zone Plan Application (TCEQ-10257)

Contributing Zone Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Contributing Zone to the Edwards Aquifer and Relating to 30 TAC §213.24(1), Effective June 1, 1999

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

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

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Contributing Zone Plan Application** is hereby submitted for TCEQ review and Executive Director approval. The application was prepared by:

Print Name of Customer/Agent: Mirza Tahir Baig

Date: 12-02-2025

Signature of Customer/Agent:



Regulated Entity Name: Gabriel Leander LLC.

Project Information

1. County: Williamson
2. Stream Basin: Edwards Aquifer Contributing Zone
3. Groundwater Conservation District (if applicable): N/A
4. Customer (Applicant):

Contact Person: Mike Momin

Entity: Gabriel Leander, LLC

Mailing Address: 7930 Thaxton Road Suite 100

City, State: City of Austin, Texas

Telephone: 512-576-0294

Email Address: allstarmart@yahoo.com

Zip: 78747

Fax: _____

5. Agent/Representative (If any):

Contact Person: Mirza Tahir Baig

Entity: Professional StruCIVIL Engineers, Inc

Mailing Address: 2205 W Parmer Lane, Ste. 201

City, State: Austin Texas

Zip: 78727

Telephone: 512-238-6422

Fax: _____

Email Address: psce@psceinc.com

6. Project Location:

The project site is located inside the city limits of _____.

The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of _____.

The project site is not located within any city's limits or ETJ.

7. The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation. 1646 N Bagdad RD, Leander, TX 78641

8. **Attachment A - Road Map.** A road map showing directions to and the location of the project site is attached. The map clearly shows the boundary of the project site.

9. **Attachment B - USGS Quadrangle Map.** A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000") is attached. The map(s) clearly show:

Project site boundaries.

USGS Quadrangle Name(s).

10. **Attachment C - Project Narrative.** A detailed narrative description of the proposed project is attached. The project description is consistent throughout the application and contains, at a minimum, the following details:

Area of the site

Offsite areas

Impervious cover

Permanent BMP(s)

Proposed site use

Site history

Previous development

Area(s) to be demolished

11. Existing project site conditions are noted below:

Existing commercial site

Existing industrial site

Existing residential site

- Existing paved and/or unpaved roads
- Undeveloped (Cleared)
- Undeveloped (Undisturbed/Not cleared)
- Other: _____

12. The type of project is:

- Residential: # of Lots: _____
- Residential: # of Living Unit Equivalents: _____
- Commercial
- Industrial
- Other: _____

13. Total project area (size of site): 1.51 Acres

Total disturbed area: 1.51 Acres

14. Estimated projected population: 11

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

Table 1 - Impervious Cover

<i>Impervious Cover of Proposed Project</i>	<i>Sq. Ft.</i>	<i>Sq. Ft./Acre</i>	<i>Acres</i>
Structures/Rooftops	5,920.00	÷ 43,560 =	0.14
Parking	32,635.08	÷ 43,560 =	0.75
Other paved surfaces	4,744.23	÷ 43,560 =	0.11
Total Impervious Cover	43,299.31	÷ 43,560 =	0.99

Total Impervious Cover $\frac{43,299.31}{43,560} \div \text{Total Acreage } 0.99 \times 100 = 58.40\%$ **% Impervious Cover**

16. **Attachment D - Factors Affecting Surface Water Quality.** A detailed description of all factors that could affect surface water quality is attached. If applicable, this includes the location and description of any discharge associated with industrial activity other than construction.

17. Only inert materials as defined by 30 TAC 330.2 will be used as fill material.

For Road Projects Only

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

N/A

18. Type of project:

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

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

- Concrete
- Asphaltic concrete pavement
- Other: _____

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

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

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

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

21. Pavement Area:

Length of pavement area: _____ feet.

Width of pavement area: _____ feet.

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

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

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

A rest stop will not be included in this project.

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

N/A

26. Wastewater will be disposed of by:

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

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

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

Sewage Collection System (Sewer Lines):

The sewage collection system will convey the wastewater to the Leander 2243 (name) Treatment Plant. The treatment facility is:

Existing.

Proposed.

N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

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

N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

<i>AST Number</i>	<i>Size (Gallons)</i>	<i>Substance to be Stored</i>	<i>Tank Material</i>
1			
2			
3			
4			
5			

Total x 1.5 = _____ Gallons

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

one tank system, the containment structure is sized to capture one and one-half (1 1/2) times the cumulative storage capacity of all systems.

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

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

Table 3 - Secondary Containment

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

Total: _____ Gallons

30. Piping:

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

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

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

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

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

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

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

Site Plan Requirements

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

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

45. Permanent aboveground storage tank facilities.
 Permanent aboveground storage tank facilities will not be located on this site.
46. Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

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

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

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

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

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

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

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

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

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

N/A

55. **Attachment M - Construction Plans.** Construction plans and design calculations for the proposed permanent BMPs and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. Construction plans for the proposed permanent BMPs and measures are

attached and include: Design calculations, TCEQ Construction Notes, all proposed structural plans and specifications, and appropriate details.

N/A

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

Prepared and certified by the engineer designing the permanent BMPs and measures

Signed by the owner or responsible party

Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit.

Contains a discussion of record keeping procedures

N/A

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

N/A

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

N/A

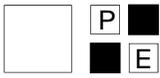
Responsibility for Maintenance of Permanent BMPs and Measures after Construction is Complete.

59. The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.
60. A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development,

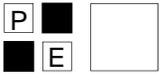
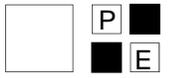
or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

Administrative Information

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



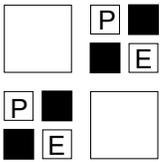
PROFESSIONAL STRUCIVIL ENGINEERS, INC.



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2205 WEST PARMER LANE, SUITE #201, AUSTIN, TEXAS 78727
512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951



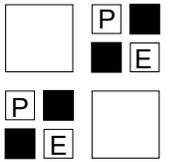
ATTACHMENT A Road Map



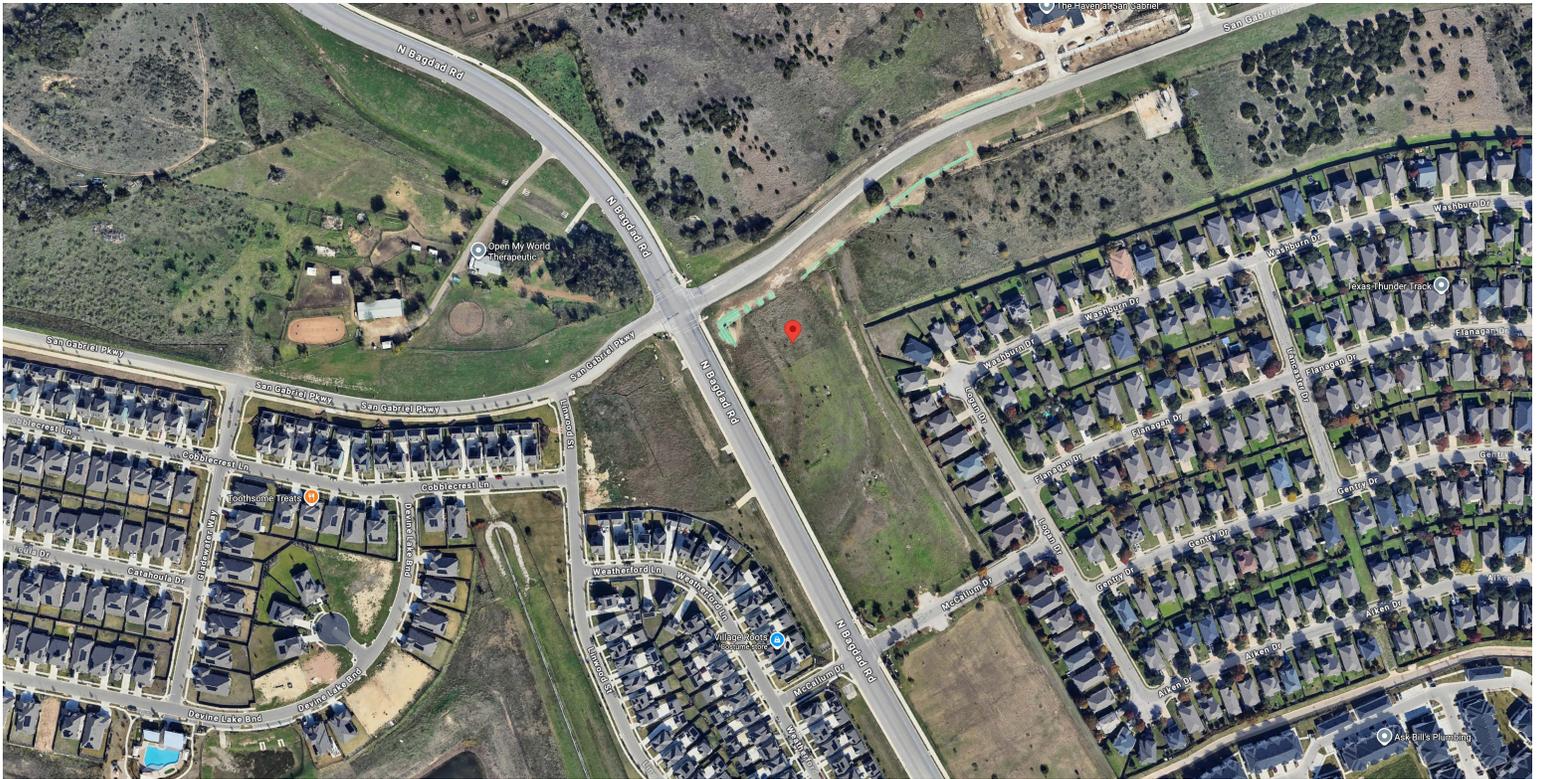
PROFESSIONAL STRUCIVIL ENGINEERS, INC.

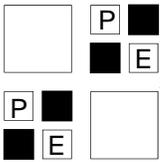
STRUCTURAL CIVIL TRANSPORTATION

2205 WEST FARMER LANE, SUITE #201, AUSTIN, TEXAS 78727
512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951

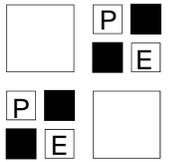


Road Map





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ATTACHMENT B USGS Quadrangle Map



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

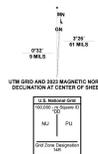


NAMELESS QUADRANGLE
TEXAS
7.5-MINUTE SERIES

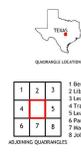


Project Site

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
Vertical datum: datum of 1988 (MGS2011), projection and
1:000-meter grid/Commercial Transverse Mercator, Zone 14R
This map is a legal document. Boundaries may be
generated for this map scale. Private lands with government
concessions may not be shown. Obtain permission before
entering private lands.



SCALE 1:24 000
Kilometers
Meters
Miles
Feet
CONTOUR INTERVAL: 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
This map was produced to conform with the
National Geospatial Program US Topo Product Standard.



ROAD CLASSIFICATION
Expressway
Secondary Hwy
Road
Interstate Route
Local Connector
Local Road
400
US Route
State Route



Edwards Aquifer Map

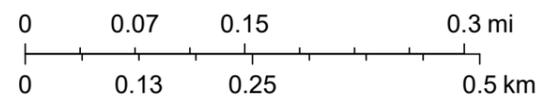


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Edwards Aquifer Label

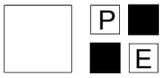
-  TX Counties
-  7.5 Minute Quad Grid
-  TCEQ_EDWARDS_OFFICIAL_MAPS

1:9,028



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.

Web AppBuilder for ArcGIS



PROFESSIONAL STRUCIVIL ENGINEERS, INC.

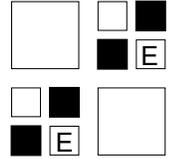
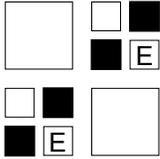
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ATTACHMENT C

Project Narrative



ATTACHMENT C – PROJECT NARRATIVE

Area of the site: The Bagdad gas Station is located at the 1646 N Bagdad Road, Leander, Texas 78641. There are proposed driveway access located along Bagdad road and San Gabriel Parkway. The site will be constructed on a 1.51 acre lot. The area included within the limits of construction for this project will be 1.51 acres. The proposed development will consist of a C-store, General Retail Sales Service, Gas Station with its associated parking lot and driving aisle.

Impervious Cover: The site does not have existing impervious cover. The proposed impervious cover for this project will be of 43,299.31 sf 0.99 acres impervious cover with a 5,920 sf General Retail Building. The total impervious cover is 65.92 for this development.

ORDINANCE STATUS:

This is an application subject to the requirements of Unified Development Code (UDC). This project is located in the Brushy Creek watershed, and the project lies within the contributing Zone of the Edwards Aquifer Recharge Zone. Impervious Cover on this property shall not exceed the limits outlined in Unified Development Code.

ACCESS:

The access to the subject property will be provided along Bagdad Road and San Gabriel Parkway.

WATER QUALITY:

The Water Quality Pond is required for the proposed development.

WATER AND WASTEWATER:

The City of Leander provides water and wastewater service to the subject property.

SEDIMENTATION/EROSION/TREE SURVEY:

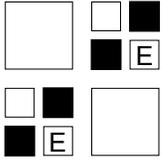
All sedimentation / erosion controls are required and will be in accordance with the City of Leander Unified Development Code. No trees lie within the area proposed for the parking, and driveway and are small enough to be of an unprotected status.

CRITICAL ENVIRONMENTAL FEATURES:

The subject site portion of this project has no Critical Environmental Features (CEF's). No evidence of caves, sinkholes, springs or wetlands lies within the development area of the tract. The site is located within the Contributing Zone of the Edwards Aquifer Recharge Zone.

DRAINAGE/DETENTION:

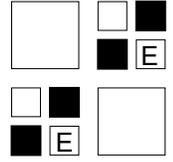
On-Site Detention Pond for the proposed impervious cover shall be provided with this development.



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STRUCTURAL CIVIL ENVIRONMENTAL

12710 RESEARCH BLVD., SUITE #390, AUSTIN, TEXAS 78759
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Attachment D – Factors Affecting Surface Water Quality

- Runoff and erosion of sediment and pollutants from exposed soil due to clearing and grubbing, grading, landscaping, and other earthwork activities.
- Runoff from the construction equipment storage and maintenance. This may include typical automotive fluids, lubricants and fuels.
- Runoff from lawn and landscape chemicals such as pesticides and herbicides.

Attachment J – BMPs for Upgradient Stormwater

The Bagdad Road will have no surface water, ground water, or stormwater, that would originated upgradient from the site.

Attachment K – BMPs for On-site Stormwater

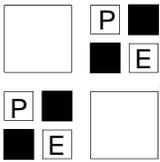
The onsite drainage will be routed via public storm sewers, swales, grading, and curb and gutter into the proposed water quality ponds.

Attachment L – BMPs for Surface Streams

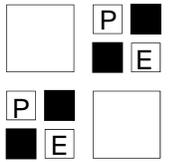
All the proposed developed drainage will be routed towards the erosion and sedimentation controls during construction and storm sewer pipes after construction. The proposed water quality pond will prevent pollutants from entering surface streams. The TCEQ "Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices", revised July 2005, was used to design the water quality BMPs.

Attachment M - Construction Plans

See Attached Construction Plans



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ATTACHMENT E

Volume and Character of Stormwater

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

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

1. The Required Load Reduction for the total project:

Calculations from RG-348

Pages 3-27 to 3-30

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

where:

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

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

County = **Williamson**
 Total project area included in plan * = **1.51** acres
 Predevelopment impervious area within the limits of the plan * = **0.00** acres
 Total post-development impervious area within the limits of the plan * = **0.96** acres
 Total post-development impervious cover fraction * = **0.64**
 P = **32** inches



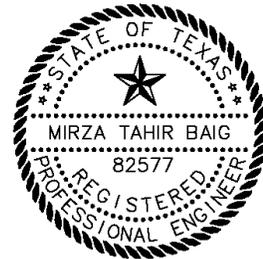
$L_{M \text{ TOTAL PROJECT}}$ = **836** lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = **1**

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

Drainage Basin/Outfall Area No. = **1**
 Total drainage basin/outfall area = **1.51** acres
 Predevelopment impervious area within drainage basin/outfall area = **0.00** acres
 Post-development impervious area within drainage basin/outfall area = **0.96** acres
 Post-development impervious fraction within drainage basin/outfall area = **0.64**
 $L_{M \text{ THIS BASIN}}$ = **836** lbs.



3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Sand Filter**
 Removal efficiency = **89** percent

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

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

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

where:

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

A_C = **1.51** acres
 A_I = **0.96** acres
 A_P = **0.55** acres
 L_R = **954** lbs

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

Desired $L_{M \text{ THIS BASIN}}$ = **836** lbs.

F = **0.88**

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 = **1.50** inches
 Post Development Runoff Coefficient = **0.45**
 On-site Water Quality Volume = **3682** cubic feet

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

Storage for Sediment = **736**
Total Capture Volume (required water quality volume(s) x 1.20) = 4418 cubic feet

The following sections are used to calculate the required water quality volume(s) for the selected BMP.
 The values for BMP Types not selected in cell C45 will show NA.

7. Retention/Irrigation System

Designed as Required in RG-348

Pages 3-42 to 3-46

Required Water Quality Volume for retention basin = **NA** cubic feet

Irrigation Area Calculations:

Soil infiltration/permeability rate = **0.1** in/hr Enter determined permeability rate or assumed value of 0.1
 Irrigation area = **NA** square feet
NA acres

8. Extended Detention Basin System

Designed as Required in RG-348

Pages 3-46 to 3-51

Required Water Quality Volume for extended detention basin = **NA** cubic feet

9. Filter area for Sand Filters

Designed as Required in RG-348

Pages 3-58 to 3-63

9A. Full Sedimentation and Filtration System

Water Quality Volume for sedimentation basin = **4418** cubic feet

Minimum filter basin area = **205** square feet

Maximum sedimentation basin area = **1841** square feet For minimum water depth of 2 feet

Minimum sedimentation basin area = **460** square feet For maximum water depth of 8 feet

9B. Partial Sedimentation and Filtration System

Water Quality Volume for combined basins = **4418** cubic feet

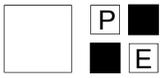
Minimum filter basin area = **368** square feet

Maximum sedimentation basin area = **1473** square feet For minimum water depth of 2 feet

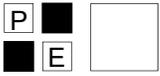
Minimum sedimentation basin area = **92** square feet For maximum water depth of 8 feet



A handwritten signature in blue ink, appearing to read "Mirza Tahir Baig", written over a horizontal line.



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ATTACHMENT M

Construction Plans

BAGDAD GAS STATION

SITE DEVELOPMENT PLANS

PROJECT NUMBER SD-22-0023

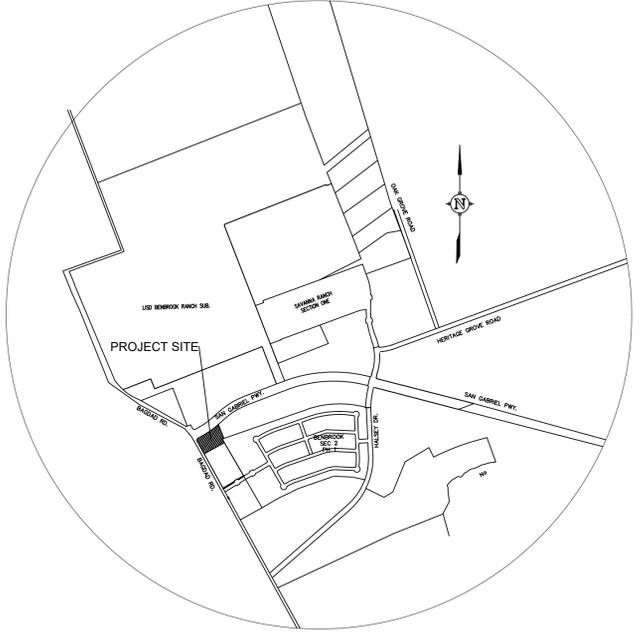
1646 N BAGDAD ROAD, LEANDER, TEXAS 78641



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MIRZA TAHIR BAIG, P.E., #82577 ON 09/03/2025 FIRM REGISTRATION F-4951

SUBMITTAL DATE 08/30/2022
 PROJECT TITLE BAGDAD GAS STATION
 STREET ADDRESS 1646 N BAGDAD RD., LEANDER, TEXAS 78641
 PROPERTY OWNER GABRIEL LEANDER LLC.
 7930 THAXTON ROAD SUITE 100
 AUSTIN, TEXAS 78747
 CONTACT: MIKE MOMIN 512-576-0294
 DESIGN COMPANY PROFESSIONAL STRUCIVIL ENGINEERS
 2205 W. PARMER LN., SUITE 201, AUSTIN, TX 78727
 CONTACT: MIRZA TAHIR BAIG P.E. (512) 238-6422
 SURVEYOR ALL STAR LAND SURVEYING
 9020 ANDERSON MILL RD, AUSTIN, TX 78729 (512) 249-8149
 EDWARD RUMSEY, RPLS #5729
 LANDSCAPE ARCHITECT BLAIR LANDSCAPE ARCHITECTS, LLC
 306 W. MAIN ST. SUITE 12, ROUND ROCK, TEXAS 78664
 CONTACT: WILL BLAIR (512)-589-7873
 NAME OF WATERSHED BRUSHY CREEK
 CLASSIFICATION LOCAL COMMERCIAL
 100-YEAR FLOOD PLAIN THIS PROPERTY IS NOT LOCATED IN 100 YEARS FLOOD PLAN AS (ZONE "X")
 SHOWN ON THE FEDERAL INSURANCE ADMINISTRATION FLOOD HAZARD
 BOUNDARY MAP, PANEL NO. 48491C0435F, DECEMBER 20, 2019.
 LEGAL DESCRIPTION BENBROOK RANCH SEC 2 PH 2A, BLOCK A, LOT 1, ACRES 1.508
 RECHARGE ZONE THIS PROPERTY IS LOCATED WITHIN THE CONTRIBUTING ZONE OF THE EDWARDS AQUIFER
 RELATED CASES FINAL PLAT: DOC #2017017736, DA-22-0035, PICP-24-0170

SITE INFORMATION TABLE	
LOT AREA	1.51 ACRES
BUILDING	5,920.0 SF 0.136 ACRES (9.02%)
PARKING	32,635.08 SF 0.749 ACRES (49.67%)
SIDEWALK	4,744.23 SF 0.109 ACRES (7.23%)
TOTAL IMPERVIOUS COVER	43,299.31 SF 0.994 ACRES (65.92%)
ZONING	LC-3-A
PROPOSED USAGE	RETAIL SALES & SERVICE, GAS STATION
FUTURE LAND USE	NEIGHBORHOOD CENTER



LOCATION MAP
SCALE 1"=2000'-0"

- LIST OF DRAWINGS
1. COVER SHEET
 2. GENERAL NOTES
 3. FINAL PLAT SHEET 1
 4. FINAL PLAT SHEET 2
 5. EXISTING CONDITIONS & DEMOLITION PLAN
 6. EROSION SEDIMENTATION CONTROL PLAN
 7. GRADING & DRAINAGE PLAN SHEET 1
 8. GRADING & DRAINAGE PLAN SHEET 2
 9. GRADING & DRAINAGE PLAN SHEET 3
 10. GRADING & DRAINAGE PLAN SHEET 4
 11. SITE PLAN
 12. UTILITY PLAN
 13. ROAD & SIDEWALK CLOSURE PLAN
 14. GENERAL DETAILS SHEET 1
 15. GENERAL DETAILS SHEET 2
 16. GENERAL DETAILS SHEET 3
 17. GENERAL DETAILS SHEET 4
 18. GENERAL DETAILS SHEET 5
 19. GENERAL DETAILS SHEET 6
 20. LANDSCAPE PLAN SHEET 1
 21. LANDSCAPE PLAN SHEET 2
 22. LANDSCAPE PLAN SHEET 3
 23. MAJOR CORRIDOR STREETSCAPE PLAN
 24. ADDRESS SITE PLAN

- GENERAL SITE PLAN NOTES:
- (1) THIS PROJECT WILL BE CONSTRUCTED IN ACCORDANCE WITH THE 2015 EDITION OF THE INTERNATIONAL BUILDING AND FIRE CODE.
 - (2) THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT. IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISLATION RELATED TO ACCESSIBLY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS.
 - (3) THE EXTERIOR SURFACE AREA OF ALL PRIMARY STRUCTURE WALLS AND THE FUEL CANOPY COLUMNS ARE COMPRISED OF (100%) MASONRY. OTHERWISE, FUEL PUMPS MAY NOT BE PLACED CLOSER TO THE ROADWAY THAN THE PRIMARY BUILDING.
 - (4) TCEQ LETTER AND SUPPORT CALCULATIONS WERE APPROVED AND UPLOADED ON THE CITY HUB.

THIS SITE DEVELOPMENT PLAN HAS BEEN REVIEWED AND APPROVED BY THE CITY OF LEANDER. ALL CONSTRUCTION ON THE SUBJECT SITE MUST BE CONSTRUCTED CONSISTENT WITH THESE PLANS.

APPROVED BY:

ROBIN M. GRIFFIN, AICP, EXECUTIVE DIRECTOR OF DEVELOPMENT SERVICES _____ DATE _____

EMILY TRUMAN, P.E., CFM, CITY ENGINEER _____ DATE _____

ASHLEA BOYLE, CPRP, DIRECTOR OF PARKS AND RECREATION _____ DATE _____

CHIEF JOSHUA DAVIS, FIRE MARSHAL _____ DATE _____

REVISION BLOCK

REVISION	DESCRIPTION	APPROVAL

THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY, REGULATORY COMPLIANCE, AND ADEQUACY OF THESE PLANS AND/OR SPECIFICATIONS WHETHER OR NOT THE PLANS AND/OR SPECIFICATIONS WERE REVIEWED BY THE CITY ENGINEER(S).

PROJECT NUMBER: SD-22-0023

GENERAL NOTES

REVISED JULY 22, 2024
CITY CONTACTS:
ENGINEERING MAIN LINE: 512-528-2721
PLANNING DEPARTMENT: 512-528-2750
PUBLIC WORKS MAIN LINE: 512-259-2640
STORMWATER INSPECTIONS: 512-285-0055
UTILITIES MAIN LINE: 512-259-1142
UTILITIES ON-CALL: 512-690-4760

PEC CONTACTS
PUBLIC SAFETY LINE: 1-888-343-7702
CUSTOMER OUTAGE LINE: 1-800-396-9037

- 1. CONTRACTORS SHALL HAVE AN APPROVED SET OF PLANS WITH APPROVED REVISIONS ON SITE AT ALL TIMES. FAILURE TO HAVE APPROVED PLANS ON SITE MAY RESULT IN ISSUANCE OF WORK STOPPAGE.
2. CONTACT 811 SYSTEM FOR EXISTING WATER AND WASTEWATER LOCATIONS 48 HOURS PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR 48 HOURS BEFORE...
4. ANY TESTING, CONTRACTOR SHALL PROVIDE QUALITY TESTING FOR ALL INFRASTRUCTURES TO BE ACCEPTED AND MAINTAINED BY THE CITY OF LEANDER AFTER COMPLETION.
5. EXCESS SOIL SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE. NOTIFY THE CITY OF LEANDER IF THE DISPOSAL SITE IS INSIDE THE CITY'S JURISDICTIONAL BOUNDARIES.
6. BURNING IS PROHIBITED.
7. NO WORK IS TO BE PERFORMED BETWEEN THE HOURS OF 9:00 P.M. AND 7:00 A.M. OR WEEKENDS. THE CITY INSPECTOR RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UNCOVER ALL WORK PERFORMED WITHOUT INSPECTION.
8. CONTACT THE CITY INSPECTOR 4 DAYS PRIOR TO WORK FOR APPROVAL TO SCHEDULE ANY INSPECTIONS ON WEEKENDS OR CITY HOLIDAYS.
9. NO BLASTING IS ALLOWED.
10. ANY CHANGES OR REVISIONS TO THESE PLANS MUST FIRST BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER FOR REVIEW AND WRITTEN APPROVAL PRIOR TO CONSTRUCTION OF THE REVISION. ALL CHANGES AND REVISIONS SHALL USE REVISION CLOUDS TO HIGHLIGHT ALL REVISIONS AND CHANGES WITH EACH SUBMITTAL. REVISION TRIANGLE MARKERS AND NUMBERS SHALL BE USED TO MARK REVISIONS. ALL CLOUDS AND TRIANGLE MARKERS FROM PREVIOUS REVISIONS MUST BE REMOVED. REVISION INFORMATION SHALL BE UPDATED ON COVER SHEET AND AFFECTED PLAN SHEET TITLE BLOCK.
11. THE CONTRACTOR AND ENGINEER SHALL KEEP ACCURATE RECORDS OF ALL CONSTRUCTION THAT DEVIATES FROM THE PLANS. THE ENGINEER SHALL FURNISH THE CITY OF LEANDER ACCURATE "RECORD DRAWINGS" FOLLOWING THE COMPLETION OF ALL CONSTRUCTION. THESE "RECORD DRAWINGS" SHALL MEET THE SATISFACTION OF THE ENGINEERING DEPARTMENTS PRIOR TO FINAL ACCEPTANCE.
12. THE CONTRACTOR WILL REIMBURSE THE CITY FOR ALL REPAIR AND/OR COST INCURRED AS A RESULT OF ANY DAMAGE TO ANY PUBLIC INFRASTRUCTURE WITHIN CITY EASEMENT OR PUBLIC RIGHT-OF-WAY, REGARDLESS OF THESE PLANS.
13. WHEN CONSTRUCTION IS BEING CARRIED OUT WITHIN EASEMENTS, THE CONTRACTOR SHALL CONFINE HIS WORK TO WITHIN THE PERMANENT AND TEMPORARY EASEMENTS. PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL TRASH AND DEBRIS WITHIN THE PERMANENT EASEMENTS. CLEANUP SHALL BE TO THE SATISFACTION OF THE ENGINEER OF RECORD AND CITY.
14. CONTRACTOR TO LOCATE, PROTECT, AND MAINTAIN BENCHMARKS, MONUMENTS, CONTROL POINTS AND PROJECT ENGINEERING REFERENCE POINTS. RE-ESTABLISH DISTURBED OR DESTROYED ITEMS BY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF TEXAS, AT NO ADDITIONAL COST TO THE PROPERTY OWNER. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA). OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 1033 LA POSADA DR. SUITE 375, AUSTIN, TEXAS 78752-3832.
15. ALL MANHOLE FRAMES/COVERS AND WATER VALVE/METER BOXES MUST BE ADJUSTED TO FINISHED GRADE AT THE OWNER'S EXPENSE BY THE CONTRACTOR FOR CITY CONSTRUCTION INSPECTOR INSPECTION. ALL UTILITY ADJUSTMENTS SHALL BE COMPLETED PRIOR TO FINAL PAVING. CONTRACTOR SHALL BACKFILL AROUND MANHOLES AND VALVE BOXES WITH CLASS A CONCRETE.
16. ALL MATERIALS AND CONSTRUCTION PROCEDURES WITHIN THE SCOPE OF THIS CONTRACT WHERE NOT SPECIFICALLY COVERED IN THE PROJECT SPECIFICATIONS SHALL CONFORM TO ALL CITY OF LEANDER DETAILS AND CITY OF AUSTIN STANDARD SPECIFICATIONS.
17. PROJECT SPECIFICATIONS TAKE PRECEDENCE OVER PLANS AND SPECIAL CONDITIONS GOVERN OVER TECHNICAL SPECIFICATIONS.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL PERMITS, TESTS, APPROVALS AND ACCEPTANCES REQUIRED TO COMPLETE CONSTRUCTION OF THIS PROJECT.
19. THE CONTRACTOR MUST OBTAIN A CONSTRUCTION WATER METER FOR ALL WATER USED DURING CONSTRUCTION. A COPY OF THIS PERMIT MUST BE CARRIED AT ALL TIMES BY ALL WHO USE WATER.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADS AND DRIVES ADJACENT TO AND NEAR THE SITE FREE FROM SOIL, SEDIMENT AND DEBRIS. CONTRACTOR WILL NOT REMOVE SOIL, SEDIMENT OR DEBRIS FROM ANY AREA OR VEHICLE BY MEANS OF WATER. ONLY SHOVELING AND SWEEPING WILL BE ALLOWED. THE CONTRACTOR WILL BE RESPONSIBLE FOR DUST CONTROL FROM THE SITE. THE CONTRACTOR SHALL KEEP THE SITE AREA CLEAN AND MAINTAINED AT ALL TIMES, TO THE SATISFACTION OF THE CITY. THE SUBDIVISION (OR SITE) WILL NOT BE ACCEPTED (OR CERTIFICATE OF OCCUPANCY ISSUED) UNTIL THE SITE HAS BEEN CLEANED TO THE SATISFACTION OF THE CITY.
21. TREES IN EXISTING ROW SHOULD BE PROTECTED OR NOTED IN THE PLANS TO BE REMOVED.

CONSTRUCTION SEQUENCE NOTES

- 1. REACH OUT TO THE CITY FOR PRE-CONSTRUCTION MEETING AND CONSTRUCTION PERMIT.
2. SET-UP E/S CONTROLS AND TREE PROTECTION AND REACH OUT TO CITY FOR INSPECTION.
3. SET UP TEMPORARY TRAFFIC CONTROLS.
4. CONSTRUCT THE DRAINAGE PONDS AND STORM WATER FEATURES.
5. START UTILITY, ROAD IMPROVEMENTS (SONNY DRIVE), GRADING, WATER AND WASTEWATER TAPS AND ALL NECESSARY INFRASTRUCTURE CONSTRUCTION.
6. REQUEST FINAL WALK THROUGH AND CONDUCT WALK THROUGH WITH ENGINEER OF RECORD AND CITY DEPARTMENT.
7. ENGINEER OF RECORD IS RESPONSIBLE TO PREPARE AND SUBMIT CLOSEOUT DOCUMENTS FOR PROJECT CLOSEOUT.

EROSION CONTROL NOTES

- 1. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES AND SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
2. THE TEMPORARY SPOLS DISPOSAL SITE IS TO BE SHOWN IN THE EROSION CONTROL MAP.
3. ANY ON-SITE SPOLS DISPOSAL SHALL BE REMOVED PRIOR TO ACCEPTANCE UNLESS SPECIFICALLY SHOWN ON THE PLANS. THE DEPTH OF SPILL SHALL NOT EXCEED 10 FEET IN ANY AREA.
4. ALL AREAS DISTURBED OR EXPOSED DURING CONSTRUCTION SHALL BE RESTORED WITH A MINIMUM OF 6 INCHES OF TOPSOIL AND COMPOST BLEND. TOPSOIL ON SINGLE FAMILY LOTS MAY BE INSTALLED WITH HOME CONSTRUCTION. THE TOPSOIL AND COMPOST BLEND SHALL CONSIST OF 75% TOPSOIL AND 25% COMPOST.
5. SEEDING FOR REESTABLISHING VEGETATION SHALL COMPLY WITH THE AUSTIN GROW GREEN GUIDE OR WILLIAMSON COUNTY'S PROTOCOL FOR SUSTAINABLE ROADSIDES (SPEC 164---WC001 SEEDING FOR EROSION CONTROL). RESEEDING VARIETIES OF BERMUUDA SHALL NOT BE USED.
6. STABILIZED CONSTRUCTION ENTRANCE IS REQUIRED AT ALL POINTS WHERE CONSTRUCTION TRAFFIC IS EXITING THE PROJECT ONTO EXISTING PAVEMENT. LINEAR CONSTRUCTION PROJECTS MAY REQUIRE SPECIAL CONSIDERATION. ROADWAYS SHALL REMAIN CLEAR OF SILT AND MUD.
7. TEMPORARY STOP SIGNS SHOULD BE INSTALLED AT ALL CONSTRUCTION ENTRANCES WHERE A STOP CONDITION DOES NOT ALREADY EXIST.
8. IN THE EVENT OF INCLEMENT WEATHER THAT MAY RESULT IN A FLOODING SITUATION, THE CONTRACTOR SHALL REMOVE INLET PROTECTION MEASURES UNTIL SUCH TIME AS THE WEATHER EVENT HAS PASSED.

WATER AND WASTEWATER NOTES

WATER AND WASTEWATER GENERAL NOTES

- 1. ALL NEWLY INSTALLED PIPES AND RELATED PRODUCTS MUST CONFORM TO AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION (ANSI/NSF) STANDARD 61 AND MUST BE CERTIFIED BY AND ORGANIZATION ACCREDITED BY ANSI.
2. ALL WATER SERVICE, WASTEWATER SERVICE AND VALVE LOCATIONS SHALL BE APPROPRIATELY STAMPED AS FOLLOWS:
WATER SERVICE "W" ON TOP OF CURB
WASTEWATER SERVICE "S" ON TOP OF CURB
VALVE "V" ON TOP OF CURB
3. OPEN UTILITIES SHALL NOT BE PERMITTED ACROSS THE EXISTING PAVED SURFACES. WATER AND WASTEWATER LINES ACROSS THE EXISTING PAVED SURFACES SHALL BE BORED AND INSTALLED IN STEEL EASEMENT PIPES. BELL RESTRAINTS SHALL BE PROVIDED AT JOINTS.
4. INTERIOR SURFACES OF ALL DUCTILE IRON POTABLE OR RECLAIMED WATER PIPE SHALL BE CEMENT-MORTAR LINED AND SEAL COATED AS REQUIRED BY AWWA C104.
5. SAND, AS DESCRIBED IN AUSTIN SPECIFICATION ITEM S10 PIPE, SHALL NOT BE USED AS BEDDING FOR WATER AND WASTEWATER LINES. ACCEPTABLE BEDDING MATERIALS ARE PIPE BEDDING STONE, PEA GRAVEL AND IN LIEU OF SAND, A NATURALLY OCCURRING OR MANUFACTURED STONE MATERIAL CONFORMING TO ASTM C33 FOR STONE QUALITY AND MEETING THE FOLLOWING GRADATION SPECIFICATION:
6. DENSITY TESTING FOR TRENCH BACKFILL SHALL BE DONE IN MAXIMUM 12" LIFTS.

Table with 2 columns: SIEVE SIZE, PERCENT RETAINED BY WEIGHT. Rows include 1/2", 3/8", #4, #10.

WATER

- 1. SAMPLING TAPS SHALL BE BROUGHT UP TO 3 FEET ABOVE GRADE AND SHALL BE EASILY ACCESSIBLE FOR CITY PERSONNEL. AT THE CONTRACTOR'S REQUEST, AND IN HIS PRESENCE, SAMPLES FOR BACTERIOLOGICAL TESTING WILL BE COLLECTED BY THE CITY OF LEANDER NOT LESS THAN 24 HOURS AFTER THE TREATED LINE HAS BEEN FLUSHED OF THE CONCENTRATED CHLORINE SOLUTION AND CHARGED WITH WATER APPROVED BY THE CITY.
2. CITY PERSONNEL WILL OPERATE OR AUTHORIZE THE CONTRACTOR TO OPERATE ALL WATER VALVES THAT WILL PASS THROUGH THE CITY'S POTABLE WATER. THE CONTRACTOR MAY BE FINED \$500 OR MORE, INCLUDING ADDITIONAL THEFT OF WATER FINES, IF A WATER VALVE IS OPERATED IN AN UNAUTHORIZED MANNER, REGARDLESS OF WHO OPERATED THE VALVE.
3. THE CONTRACTOR IS HEREBY NOTIFIED THAT CONNECTING TO, SHUTTING DOWN, OR TERMINATING EXISTING UTILITY LINES MAY HAVE TO OCCUR AT OFF-PEAK HOURS. SUCH HOURS ARE USUALLY OUTSIDE NORMAL WORKING HOURS AND POSSIBLY BETWEEN 12 AM AND 6 AM AFTER COORDINATING WITH CITY CONSTRUCTION INSPECTORS AND INFORMING AFFECTED PROPERTIES.
4. PRESSURE TAPS OR HOT TAPS SHALL BE IN ACCORDANCE WITH CITY OF LEANDER STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. A CITY OF LEANDER INSPECTOR MUST BE PRESENT WHEN THE CONTRACTOR MAKES A TAP, AND/OR ASSOCIATED TESTS. A MINIMUM OF TWO (2) WORKING DAYS NOTICE IS REQUIRED. "SIZE ON SIZE" TAPS SHALL NOT BE PERMITTED UNLESS MADE BY THE USE OF AN APPROVED FULL-CIRCLE GASKETED TAPPING SLEEVE. CONCRETE THRUST BLOCKS SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES A MINIMUM OF 24 HOURS PRIOR TO THE BRANCH BEING PLACED INTO SERVICE. THRUST BLOCKS SHALL BE INSPECTED PRIOR TO BACKFILL.
5. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A BLACK POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP SHALL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED INTO SERVICE.
6. THRUST BLOCKS OR RESTRAINTS SHALL BE IN ACCORDANCE WITH THE CITY OF LEANDER STANDARD SPECIFICATIONS AND REQUIRED AT ALL FITTINGS PER DETAIL OR MANUFACTURER'S RECOMMENDATION. ALL FITTINGS SHALL HAVE BOTH THRUST BLOCKS AND RESTRAINTS.
7. ALL DEAD END WATER MAINS SHALL HAVE "FIRE HYDRANT ASSEMBLY" OR "BLOW-OFF VALVE AND THRUST BLOCK" OR "BLOW-OFF VALVE AND THRUST RESTRAINTS". THRUST RESTRAINTS SHALL BE INSTALLED ON THE MINIMUM LAST THREE PIPE LENGTHS (STANDARD 20' LAYING LENGTH). ADDITIONALL THRUST RESTRAINTS MAY BE REQUIRED BASED UPON THE MANUFACTURERS RECOMMENDATION AND/OR ENGINEER'S DESIGN.
8. PIPE MATERIAL FOR PUBLIC WATER MAINS SHALL BE PVC (AWWA C900-DR14 MIN. 305 PSI PRESSURE RATING), WATER SERVICES (2" OR LESS) SHALL BE POLYETHYLENE TUBING (BLACK, 200PSI, AND SDR--(9)), COPPER PIPES AND FITTINGS ARE NOT ALLOWED IN THE PUBLIC RIGHT OF WAY. ALL PLASTIC PIPES FOR USE IN PUBLIC WATER SYSTEMS MUST BEAR THE NATIONAL SANITATION FOUNDATION SEAL OF APPROVAL (NSF-PW).
9. ALL FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE (AWWA C115/C151 PRESSURE CLASS 350).
10. ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED WITH MINIMUM 8-MIL POLYETHYLENE.
11. LINE FLUSHING OR ANY ACTIVITY USING A LARGE QUANTITY OF WATER MUST BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.
12. ALL WATER METER BOXES SHALL BE:
a. SINGLE, 1" METER AND BELOW DF#37F-12-10A, OR EQUAL
b. DUAL, 1" METERS AND BELOW DF#35F-12-10A, OR EQUAL
c. 1.5" SINGLE METER DF#55C-14-10A, OR EQUAL
d. 2" SINGLE METER DF#1730F-12-10A, OR EQUAL
13. ALL WATER VALVE COVERS ARE TO BE PAINTED BLUE.

WASTEWATER

- 1. CURVILINEAR WASTEWATER DESIGN LAYOUT IS NOT PERMITTED.
2. MANDREL TESTING SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
3. MANHOLES SHALL BE COATED PER CITY OF AUSTIN SPL WM-511 (RAVEN 405 OR SPRAYWALL). PENETRATIONS TO EXISTING WASTEWATER MANHOLES REQUIRE THE CONTRACTOR TO RECOAT THE ENTIRE MANHOLE IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATIONS SECTION NO. 506.5.
4. RECLAIMED AND RECYCLED WATER LINE SHALL BE CONSTRUCTED OF "PURPLE PIPE." ALL RECLAIMED AND RECYCLED WATER VALVE COVERS SHALL BE SQUARE AND PAINTED PURPLE.
5. FORCE MAIN PIPES NEED TO HAVE SWEEPING WIRES FOR JOINTS.

STREET AND DRAINAGE NOTES

- 1. THE CITY OF LEANDER HAS NOT REVIEWED THESE PLANS FOR COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). IT IS THE RESPONSIBILITY OF THE OWNER TO PROVIDE COMPLIANCE WITH ALL LEGISLATION RELATED TO ACCESSIBILITY WITHIN THE LIMITS OF CONSTRUCTION SHOWN IN THESE PLANS. ALL SIDEWALKS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND TEXAS ACCESSIBILITY STANDARDS (TAS).
2. BACKFILL BEHIND THE CURB SHALL BE COMPACTED TO OBTAIN A MINIMUM OF 95% MAXIMUM DENSITY TO WITHIN 6" OF TOP OF CURB. MATERIAL USED SHALL BE CLEARLY GRANULAR WITH NO ROCKS LARGER THAN 6" IN THE GREATEST DIMENSION. THE REMAINING 6" SHALL BE CLEAN TOPSOIL FREE FROM ALL CLOUDS AND SUITABLE FOR SUSTAINING PLANT LIFE.
3. A MINIMUM OF 6" OF TOPSOIL SHALL BE PLACED BETWEEN THE CURB AND RIGHT-OF-WAY AND IN ALL DRAINAGE CHANNELS EXCEPT CHANNELS CUT IN STABLE ROCK.
4. DEPTH OF COVER FOR ALL CROSSINGS UNDER PAVEMENT, INCLUDING GAS, ELECTRIC TELEPHONE, CABLE TV, ETC., SHALL BE A MINIMUM OF 36" BELOW SUBGRADE.
5. STREET RIGHT-OF-WAY SHALL BE GRADED AT A SLOPE OF 1/4" PER FOOT TOWARD THE CURB UNLESS OTHERWISE INDICATED.
6. ALL DRAINAGE PIPE IN PUBLIC RIGHT OF WAY OR EASEMENTS SHALL BE REINFORCED CONCRETE PIPE MINIMUM CLASS III OF TONGUE AND GROOVE, OR O-RING JOINT DESIGN. CORRUGATED METAL PIPE IS NOT ALLOWED IN PUBLIC RIGHT OR WAY OR EASEMENTS.
7. THE CONTRACTOR MUST PROVIDE A PNEUMATIC TRUCK PER TxDOT SPEC FOR PROOF ROLLING.
8. ALL STRIPING, WITH THE EXCEPTION OF STOP BARS, CROSS WALKS, WORDS AND ARROWS, IS TO BE TYPE II (WATER BASED). STOP BARS, CROSS WALKS, WORDS AND ARROWS REQUIRE TYPE I THERMOPLASTIC.
9. MANHOLE FRAMES, COVERS, VALVES, CLEAN-OUTS, ETC. SHALL BE RAISED TO GRADE PRIOR TO FINAL PAVEMENT CONSTRUCTION.
10. A STOP BAR SHALL BE PLACED AT ALL STOP SIGN LOCATIONS.
11. THE GEOTECHNICAL ENGINEER SHALL INSPECT THE SUBGRADE FOR COMPLIANCE WITH THE DESIGN ASSUMPTIONS MADE DURING PREPARATION OF THE SOILS REPORT. ANY ADJUSTMENTS THAT ARE REQUIRED SHALL BE MADE THROUGH REVISIONS OF THE APPROVED CONSTRUCTION PLANS.
12. GEOTECHNICAL INVESTIGATION INFORMATION AND PAVEMENT RECOMMENDATIONS WERE PROVIDED BY CAPITAL GEOTECHNICAL SERVICES PLLC, PROJECT #23-0140, DATED MARCH 26,2024. WATER RECOMMENDATIONS ARE AS FOLLOWS: a. PROVIDE RECOMMENDATIONS.
13. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL, CITY OF LEANDER STANDARD DETAILS AND TEXAS DEPARTMENT OF TRANSPORTATION CRITERIA, SHALL BE SUBMITTED TO THE CITY OF LEANDER FOR REVIEW AND APPROVAL PRIOR TO ANY PARTIAL OR COMPLETE ROADWAY CLOSURES. TRAFFIC CONTROL PLANS MUST BE SITE SPECIFIC AND SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
14. ALL LANE CLOSURES SHALL OCCUR ONLY BETWEEN THE HOURS OF 9 AM AND 4 PM UNLESS OTHERWISE NOTED ON THE PLANS. ANY NIGHT TIME LANE CLOSURES REQUIRE APPROVAL OF THE CITY ENGINEER AND SHALL OCCUR BETWEEN THE HOURS OF 8 PM AND 6 AM. LANE CLOSURES OBSERVED BY THE CITY DURING PEAK HOURS OF 6 AM TO 9 AM OR 4 PM TO 8 PM WILL BE SUBJECT TO A FINE AND/OR SUBSEQUENT ISSUANCE OF WORK STOPPAGE.
15. TEMPORARY ROCK CRUSHING IS NOT ALLOWED. ALL SOURCES OF FLEXIBLE BASE MATERIAL ARE REQUIRED TO BE APPROVED BY THE CITY. PRIOR TO BASE PLACEMENT ALL CURRENT TRIAXIAL TEST REPORTS FOR PROPOSED STOCK PILES ARE TO BE SUBMITTED TO THE CITY CONSTRUCTION INSPECTOR FOR REVIEW AND APPROVAL. AT ROAD INTERSECTIONS THAT HAVE A VALLEY CUTTER, THE GROWN TO THE INTERSECTING ROAD WILL BE CULMINATED AT A DISTANCE OF 40 FEET FROM THE INTERSECTING CURB LINE UNLESS OTHERWISE NOTED.
17. NO PONDING OF WATER SHALL BE ALLOWED TO COLLECT ON OR NEAR THE INTERSECTION OF PRIVATE DRIVEWAYS AND PUBLIC STREETS. RECONSTRUCTION OF THE DRIVEWAY APPROACH SHALL BE AT THE CONTRACTOR'S EXPENSE.
18. ALL DRIVEWAY APPROACHES SHALL HAVE A UNIFORM TWO PERCENT SLOPE WITHIN THE PUBLIC RIGHT OF WAY UNLESS APPROVED IN WRITING BY THE ENGINEERING DEPARTMENT.
19. IMPROVEMENTS THAT INCLUDE RECONSTRUCTION OF AN EXISTING TYPE II DRIVEWAY SHALL BE DONE IN A MANNER WHICH RETAINS OPERATIONS OF NOT LESS THAN HALF OF THE DRIVEWAY TO REMAIN OPEN AT ALL TIMES. FULL CLOSURE OF SUCH DRIVEWAY CAN BE CONSIDERED WITH WRITTEN AUTHORIZATION OBTAINED BY THE CONTRACTOR FROM ALL PROPERTY OWNERS AND ACCESS EASEMENT RIGHT HOLDERS ALLOWING THE FULL CLOSURE OF THE DRIVEWAY.
20. CONTRACTOR MUST CLEAR FIVE (5) FEET BEYOND ALL PUBLIC RIGHT OF WAY TO PREVENT FUTURE VEGETATIVE GROWTH INTO THE SIDEWALK AREAS.
21. SLOPE OF NATURAL GROUND ADJACENT TO THE PUBLIC RIGHT OF WAY SHALL NOT EXCEED 3:1 SLOPE. IF A 3:1 SLOPE IS NOT POSSIBLE, SLOPE PROTECTION OR RETAINING WALL MUST BE SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO FINAL ACCEPTANCE.
22. THERE SHALL BE NO WATER, WASTEWATER OR DRAINAGE APPURTENANCES, INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, METERS, CLEAN-OUTS, MANHOLES, OR VAULTS IN ANY DRIVEWAY, SIDEWALK, TRAFFIC OR PEDESTRIAN AREA.
23. PUBLIC SIDEWALKS SHALL NOT USE CURB INLETS AS PARTIAL WALKING SURFACE. SIDEWALKS SHALL NOT USE THRUST BLOCK, BOXES, METERS, CHECK VALVE VAULTS, COMMUNICATION VAULTS, OR OTHER BURIED OR PARTIALLY BURIED INFRASTRUCTURE AS A VEHICULAR OR PEDESTRIAN SURFACE.
24. ALL WET UTILITIES SHALL BE INSTALLED AND ALL DENSITIES MUST HAVE PASSED INSPECTION(S) PRIOR TO THE INSTALLATION OF DRY UTILITIES.
25. DRY UTILITIES SHALL BE INSTALLED AFTER SUBGRADE IS CUT AND BEFORE THE FIRST COURSE OF BASE. NO TRENCHING COMPACTED BASE. IF NECESSARY DRY UTILITIES INSTALLED AFTER FIRST COURSE BASE SHALL BE BORED ACROSS THE FULL WIDTH OF THE PUBLIC RIGHT-OF-WAY.
26. A MINIMUM OF SEVEN (7) DAYS OF CURE TIME IS REQUIRED FOR HMAc PRIOR TO THE INTRODUCTION OF VEHICULAR TRAFFIC TO ALL STREETS.

TRENCH SAFETY NOTES

- 1. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT ARE DESCRIBED IN ITEM 509S "TRENCH SAFETY SYSTEMS" OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND SHALL BE IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATION SAFETY AND HEALTH ADMINISTRATION REGULATIONS.

GRADING NOTES

- 1. POSITIVE DRAINAGE SHALL BE MAINTAINED ON ALL SURFACE AREAS WITHIN THE SCOPE OF THIS PROJECT. CONTRACTOR SHOULD TAKE PRECAUTIONS NOT TO ALLOW ANY PONDING OF WATER.
2. THE CONTRACTOR SHALL CONSTRUCT EARTHEN EMBANKMENTS WITH SLOPES NO STEEPER THAN 3:1 AND COMPACT SOIL TO 95% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
3. AREAS OF SOIL DISTURBANCE ARE LIMITED TO GRADING AND IMPROVEMENTS SHOWN. ALL OTHER AREAS WILL NOT BE DISTURBED.

BENCHMARK NOTES

BM#1: COTTON SPINDLE WITH WASHER
STAMPED "ZAMORA" SET IN PAVEMENT
N=10,189,677.38, & E=3,069,868.51
ELEVATION= 1,018.42', NAVD 1988 DATUM
BM#2: COTTON SPINDLE WITH WASHER
STAMPED "ZAMORA" SET IN PAVEMENT
N=10,189,284.48, & E=3,070,060.89
ELEVATION= 1,017.16', NAVD 1988 DATUM

BEARING BASIS:
BEARINGS ARE GRID NORTH BASED ON THE TEXAS COORDINATE SYSTEM CENTRAL TEXAS ZONE (4203)
NAD83 HARN HORIZONTAL CONTROL

Table with 2 columns: FLEXIBLE PAVEMENT SECTION, THICKNESS IN INCHES. Rows include HOT MIX ASPHALTIC CONCRETE (2.00), AGGREGATE BASE (8.00), COMPACTED SUBGRADE (6.00).

Table with 2 columns: RIGID PAVEMENT SECTION, THICKNESS IN INCHES. Rows include PORTLAND CEMENT CONCRETE (7.00), COMPACTED SUBGRADE (8.00).

ACCESSIBLE SITE PLAN NOTE

- 1) ACCESSIBLE ROUTES WITHIN THE BOUNDARY OF THE SITE MUST BE PROVIDED FROM PUBLIC TRANSPORTATION TOPS, ACCESSIBLE PARKING AND PASSENGER LOADING ZONES, AND PUBLIC STREETS OR SIDEWALKS TO THE ACCESSIBLE BUILDING ENTRANCE THEY SERVE. [BC1104.1]
2) ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 1:50. [ANSI 403.3]
3) OUTDOOR RAMPS AND THEIR APPROACHES MUST BE DESIGNED SO THAT WATER WILL NOT ACCUMULATE ON WALKING SURFACES. [ANSI 405.10]
4) CHANGES IN LEVEL GREATER THAN 1/2 INCH MUST BE ACCOMPLISHED BY MEANS OF A CURB RAMP, RAMP, ELEVATOR, OR PLATFORM LIFT. STAIRS SHALL NOT BE PART OF AN ACCESSIBLE ROUTE. [ANSI 405.9]
5) GROUND SURFACES ALONG ACCESSIBLE ROUTES MUST BE STABLE, FIRM, AND SLIP RESISTANT. [ANSI 302.1] SURFACE TEXTURE SHALL BE PROVIDED.
4) PARKING ACCESS AISLES MUST BE PART OF THE ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE AND MUST HAVE A RUNNING SLOPE NO GREATER THAN 1:20 AND A CROSS SLOPE NO GREATER THAN 1:50. [ANSI 502.5]
5) PARKED VEHICLE OVERHANGS MUST NOT REDUCE THE CLEAR WIDTH OF AN ACCESSIBLE CIRCULATION ROUTE TO LESS THAN 36". WHEN THE SIDEWALK TO A MINIMUM OF 5 FEET OR PROVIDE WHEEL STOPS 1.5 FEET FROM THE CURB. [ANSI 403.5, TABLE 403.5]
6) CURB RAMPS MUST BE PROVIDED WHEREVER AN ACCESSIBLE ROUTE CROSSES A CURB. [ANSI 406.1]
7) IF A CURB RAMP IS LOCATED WHERE PEDESTRIANS MUST WALK ACROSS THE RAMP, IT MUST HAVE FLARED SIDES. IF THE LEVEL LANDING AT THE TOP OF THE RAMP IS LESS THAN 48" WIDE, THE SLOPE OF THE FLARE MAY NOT EXCEED 1:12; OTHERWISE, THE MAXIMUM SLOPE OF THE FLARE IS 1:10. CURB RAMPS WITH RETURNED CURBS MAY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP. [ANSI 406.3, FIG. 406.3, TCM FIG. 4-1, 4-5]
8) CURB RAMPS AT MARKED CROSSINGS MUST BE WHOLLY CONTAINED WITHIN THE MARKINGS, EXCLUDING ANY FLARED SIDES.[ANSI 406.6]
9) EVERY ACCESSIBLE PARKING SPACE MUST BE IDENTIFIED BY A SIGN, CENTERED AT THE HEAD OF THE PARKING SPACE. THE SIGN MUST INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND STATE RESERVED, OR EQUIVALENT LANGUAGE. CHARACTERS AND SYMBOLS ON SUCH SIGNS MUST BE LOCATED 60" MINIMUM ABOVE GROUND SO THAT THEY CANNOT BE OBLSCURED BY A VEHICLE PARKED IN THE SPACE.
10) SIGNAGE SHALL BE PROVIDED INDICATING OFF-SITE PARKING AS FOLLOWS: ONE SIGN SHALL BE PROVIDED AT THE OFF-SITE PARKING INDICATING THE PROPERTY OR USE WHICH IT SERVES, AND ONE SIGN SHALL BE PROVIDED ON THE SITE OF THE USE SERVED INDICATING THE LOCATION OF THE OFF-SITE PARKING.
11) APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATES COMPLIANCE WITH APPLICABLE CITY REGULATIONS ONLY. COMPLIANCE WITH ACCESSIBILITY STANDARDS SUCH AS THE 2010 STANDARDS FOR ACCESSIBLE DESIGN OR THE 2012 TEXAS ACCESSIBILITY STANDARDS WAS NOT VERIFIED. THE APPLICANT IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE ACCESSIBILITY STANDARDS.
12) ALL SIDEWALK AND ACCESSIBLE ROUTE SHALL BE CONCRETE FINISH.

Professional Engineer Seal for Mirza Tahir Baig, License No. 82577, State of Texas. Includes registration information and a table for revision tracking.

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Revision tracking table with columns for Rev, Date, and Description.

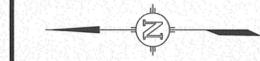
PROJECT NO: SD-22-0023

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Project and sheet identification: PROJECT 30356, SHEET 2 OF 24.

PROJECT NUMBER: SD-22-0023

THESE DRAWINGS ARE AN INSTRUMENT OF SERVICE. THEY AND ALL INFORMATION CONTAINED HEREIN SHALL REMAIN THE PROPERTY OF THE FEEC, INC. AND SHALL NOT BE REPRODUCED, COPIED, REPRODUCED IN ANY MANNER, OR USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF THE FEEC, INC. ALL RIGHTS RESERVED. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE BEFORE PROCEEDING WITH EACH PHASE OF HIS WORK AND BE RESPONSIBLE FOR SAME. NO WARRANTY, EXPRESSED OR IMPLIED, IS EITHER GIVEN OR INTENDED. THE LIMIT OF LIABILITY SHALL NOT EXCEED THE FEE PAID FOR THESE PLANS.



LEGEND

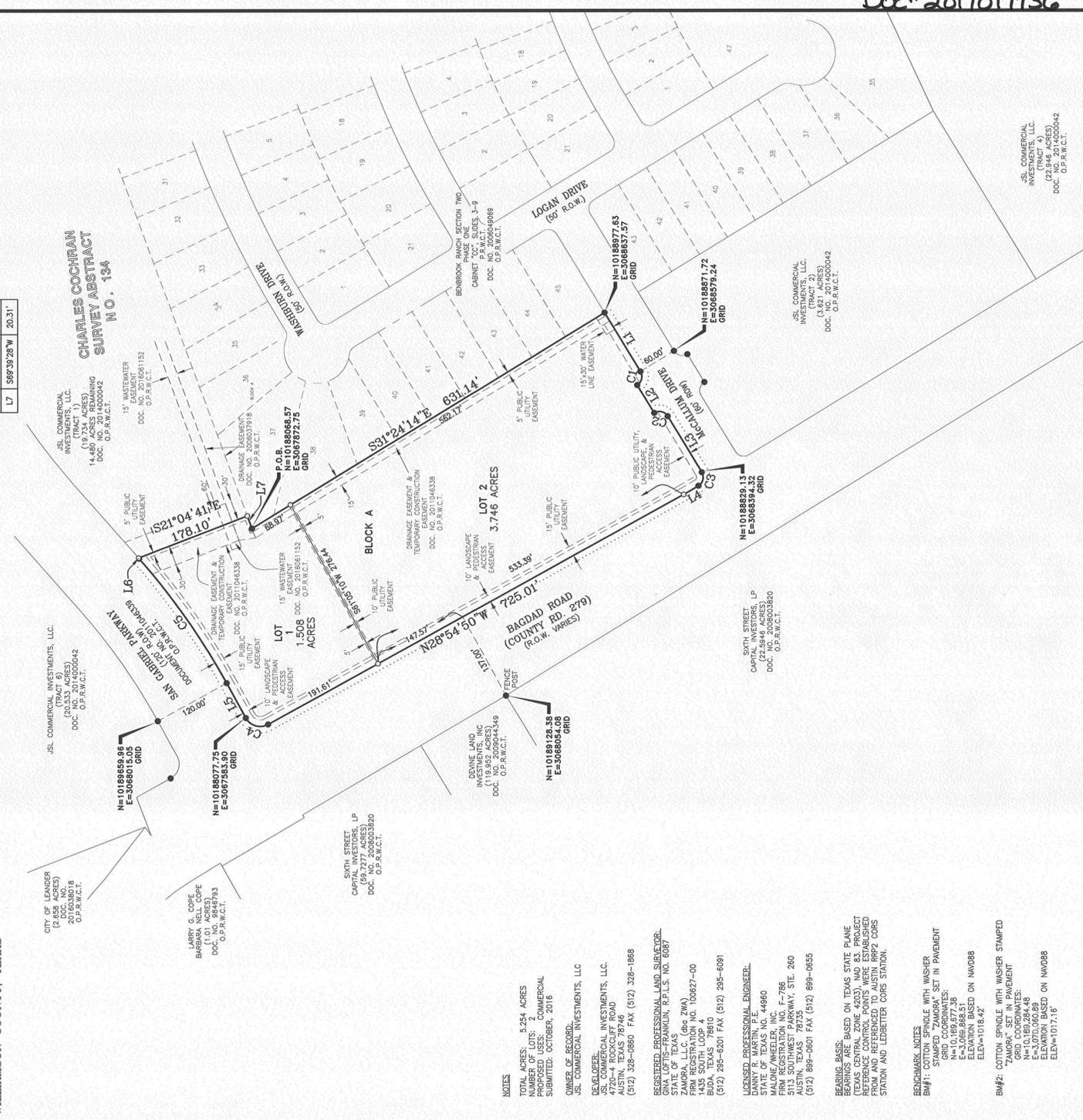
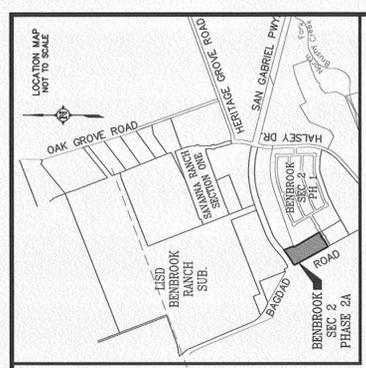
- 1/2" IRON ROD FOUND UNLESS NOTED
- 1/2" IRON ROD WITH CAP STAMPED "ZWA" SET
- RIGHT-OF-WAY
- OFFICIAL PUBLIC RECORDS
- OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS
- DEED RECORDS, WILLIAMSON COUNTY, TEXAS
- PLAT RECORDS, WILLIAMSON COUNTY, TEXAS
- RECORD INFORMATION
- POINT OF BEGINNING
- SIDEWALK



SCALE 1" = 100'
 OCTOBER, 2016
 WILLIAMSON COUNTY, TEXAS

CURVE TABLE			
CURVE	LENGTH	DELTA	RADIUS
C1	23.56'	90°00'00"	15.00'
C2	23.56'	90°00'00"	15.00'
C3	23.56'	90°00'00"	15.00'
C4	39.27'	90°00'00"	25.00'
C5	232.68'	123°43'37"	1060.00'

Line Table			
LINE	DIRECTION	LENGTH	CHORD
L1	S58°35'46"W	105.12'	105.12'
L2	S58°35'46"W	49.79'	49.79'
L3	S58°35'46"W	100.11'	100.11'
L4	N29°58'00"W	26.30'	26.30'
L5	N61°04'58"E	60.86'	60.86'
L6	N48°30'20"E	1.16'	1.16'
L7	S68°39'28"W	20.31'	20.31'



NOTES

TOTAL ACRES: 5.254 ACRES
 NUMBER OF LOTS: 2 COMMERCIAL
 PROPOSED USES: COMMERCIAL
 SUBMITTED: OCTOBER, 2016

OWNER OF RECORD:
 JSL COMMERCIAL INVESTMENTS, LLC

DEVELOPER:
 JSL COMMERCIAL INVESTMENTS, LLC
 19734 ACRES
 AUSTIN, TEXAS 78746
 (512) 328-0860 FAX (512) 328-1868

REGISTERED PROFESSIONAL LAND SURVEYOR:
 GINA LOFTIS-FRANKLIN, R.P.L.S. NO. 6097
 10000 W. SOUTH LOOP WEST, SUITE 200
 AUSTIN, TEXAS 78746
 FIRM REGISTRATION NO. 100827-00
 1435 SOUTH LOOP WEST, SUITE 200
 AUSTIN, TEXAS 78746
 (512) 889-5601 FAX (512) 889-0655

LICENSED PROFESSIONAL ENGINEER:
 DANNY R. MARTIN, P.E.
 STATE OF TEXAS NO. 44960
 10000 W. SOUTH LOOP WEST, SUITE 200
 AUSTIN, TEXAS 78746
 FIRM REGISTRATION NO. F-786
 5113 SOUTHWEST PARKWAY, STE. 260
 AUSTIN, TEXAS 78725
 (512) 889-5601 FAX (512) 889-0655

BEARING BASIS: BASED ON TEXAS STATE PLANE (TEXAS CENTRAL ZONE 4203), AND B.S. PROJECT REFERENCE CONTROL POINTS WERE ESTABLISHED FROM AND REFERENCED TO AUSTIN BRPZ CORNER STATION AND LESBEITER CORNER STATION.

BENCHMARK NOTES

BM#1: COTTON SPINDLE WITH WASHER STAMPED
 STATION COORDINATES:
 N=10,169,977.38
 E=3,069,866.51
 ELEVATION BASED ON NAVD83
 ELEV=1018.42'

BM#2: COTTON SPINDLE WITH WASHER STAMPED
 STATION COORDINATES:
 N=10,169,284.48
 E=3,069,866.51
 ELEVATION BASED ON NAVD83
 ELEV=1017.16'

ZWA
Zamora, L.L.C.
Professional Land Surveyors
 1435 South Loop 4 • Buda, Texas 78601
 Telephone: (512) 295-6201 • Fax: (512) 295-6091

BENBROOK RANCH SECTION 2 PHASE 2A FINAL PLAT

SHEET 1 OF 3
 ZWA PLAT NO. 1017-11

Doc # 2017017736

PROJECT: 30356

SHEET 3 OF 24

Project: **BAGDAD GAS STATION**
 1646 N BAGDAD RD.
 LEANDER, TEXAS 78641

Title: **FINAL PLAT**

PROJECT NO: SD-22-0023

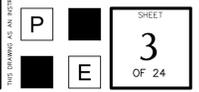
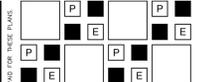
PROFESSIONAL STRUCTURAL ENGINEERS, INC.
 CONSULTING CIVIL AND STRUCTURAL ENGINEERS

12710 RESEARCH BLVD., SUITE 900, AUSTIN, TX 78759 | TEL: 512.238.6021 FAX: 512.238.6095

MIRZA TAHR BAIG
 82577
 PROFESSIONAL SURVEYOR

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MIRZA TAHR BAIG, P.E., #82577 ON 08/19/2025
 FIRM REGISTRATION F-4951

No.	Description	Date	Drawn
6			
5			
4			
3			
2			
1			
0			



THIS DRAWING IS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF THE FEEC, INC. AND SHALL NOT BE REPRODUCED, REPRODUCED IN ANY MANNER, OR USED FOR CONSTRUCTION WITHOUT THE WRITTEN PERMISSION OF THE FEEC, INC. ALL RIGHTS RESERVED. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE BEFORE PROCEEDING. EACH PARTY OF HIS WORK AND BE RESPONSIBLE FOR SAME. NO WARRANTY, EXPRESSED OR IMPLIED, IS EITHER OR INTENDED. THE LIMIT OF LIABILITY SHALL NOT EXCEED THE FEE PAID FOR THESE PLANS.

LEGAL DESCRIPTION

DESCRIPTION OF 5.254 ACRE TRACT OF LAND, SITUATED IN THE CHARLES COCHRAN SURVEY, ABSTRACT NO. 134 IN WILLIAMSON COUNTY, TEXAS, BEING PART OF THAT CERTAIN 19.734 ACRE TRACT OF LAND KNOWN AS TRACT NO. 1, AS DESCRIBED IN DEED TO JSL COMMERCIAL INVESTMENTS, LLC OF RECORD IN DOCUMENT NO. 201400042 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, SAID 5.254 ACRE TRACT BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2 inch iron rod found for the most westerly corner of Lot 37, Block A, Benbrook Ranch Section Two, Phase One, a subdivision of record in Cabinet CC, Slides 3-9, of the Plat Records of Williamson County, Texas, and in Document No. 2006049069 of the Official Public Records of Williamson County, Texas, and being also an ell corner of said 19.734 acre tract;

THENCE S 31°24'14" E with the west line of Block A, of said Benbrook Ranch Section Two, Phase One subdivision and the southerly line of said 19.734 acre tract, for a distance of **631.14 feet** to a 1/2 inch iron rod found for the south west corner of Lot 45, Block A of said Benbrook Ranch Section Two, Phase One subdivision, being also the most southerly southeast corner of said 19.734 acres tract, being also the north right-of-way line of McCallum Drive, a 60 foot right-of-way, dedicated in said Benbrook Ranch Section Two, Phase One subdivision, and the southeast corner of the herein described tract;

THENCE with the north right-of-way of said McCallum Drive, the south line of said 19.734 acre tract, and the south line of the herein described tract, the following six (6) courses and distances:

- S 58°35'46" W**, for a distance of **105.12 feet** to a 1/2 inch iron rod found at the beginning of a curve to the right,
- along said curve to the right, an arc distance of **23.56 feet**, said curve having a radius of **15.00 feet**, a central angle of **90°00'00"** and a chord bearing of **N 76°24'14" W** for a chord distance of **21.21 feet** to a 1/2 inch iron rod set with cap stamped "ZWA" at the end of said curve,
- S 58°35'46" W**, for a distance of **49.79 feet** to a 1/2 inch iron rod found at the beginning of a curve to the right,
- along said curve to the right, an arc distance of **23.56 feet**, said curve having a radius of **15.00 feet**, a central angle of **90°00'00"** and a chord bearing of **S 13°35'46" W** for a chord distance of **21.21 feet** to a 1/2 inch iron rod found at the end of said curve,
- S 58°35'46" W**, for a distance of **100.11 feet** to a 1/2 inch iron rod found at the beginning of a curve to the right, and
- along said curve to the right, an arc distance of **23.56 feet**, said curve having a radius of **15.00 feet**, a central angle of **90°00'00"** and a chord bearing of **N 76°24'14" W** for a chord distance of **21.21 feet** to a 1/2 inch iron rod found at the end of said curve on the east right-of-way line of Bagdad Road (County Road 279), a variable width right-of-way, being also in the west line of said 19.734 acre tract, for the southwest corner of the herein described tract;

THENCE with the east line of said Bagdad Road, County Road 279 and the west line of said 19.734 acre tract, the following three (3) courses and distances;

- N 29°56'00" W**, for a distance of **26.30 feet** to a 1/2 inch iron rod set with cap stamped "ZWA"
- N 28°54'50" W**, for a distance of **725.01 feet** to a 1/2 inch iron rod found with cap stamped "BWR" at the beginning of a curve to the right, and
- along said curve to the right, an arc distance of **39.27 feet**, said curve having a radius of **25.00 feet**, a central angle of **90°00'00"** and a chord bearing of **N 16°04'58" E** for a chord distance of **35.36 feet** to a 1/2 inch iron rod found with cap stamped "BWR" at the end of said curve and being on the south line of San Gabriel Parkway, a 120 foot wide right-of-way

THENCE with the departing the east line of said Bagdad Road, County Road 279, with the south line of said San Gabriel Parkway and being the north line of said 19.734 acre tract, the following three (3) courses and distances;

- N 61°04'58" E**, for a distance of **60.86 feet** to a 1/2 inch iron rod found with cap stamped "ZWA" beginning a curve to the left,
- along said curve to the left, an arc distance of **232.68 feet**, said curve having a radius of **1060.00 feet**, a central angle of **12°34'37"** and a chord bearing of **N 54°47'39" E** for a chord distance of **232.21 feet** to a 1/2 inch iron rod found with cap stamped "ZWA" at the end of said curve, and
- N 48°30'20" E**, for a distance of **1.16 feet** to a point for the north corner of the herein described tract,

THENCE S 21°04'41" E, departing the south line of said San Gabriel Parkway, and over and across said 19.734 acre tract, for a distance of **178.10 feet** to a point on the south line of said 19.734 acre tract, and being the north line of said Lot 37, Block A, of said Benbrook Ranch Section Two, Phase One subdivision;

THENCE S 69°39'28" W, along the north line of said Benbrook Ranch Section Two, Phase One subdivision, and the south line of said 19.734 acre tract for a distance of **20.31 feet** to the **POINT OF BEGINNING** and containing **5.254 acres** of land.

BEARING BASIS NOTE

BEARINGS ARE BASED ON TEXAS STATE PLANE (TEXAS CENTRAL ZONE 4203), NAD 83, PROJECT REFERENCE CONTROL POINTS WERE ESTABLISHED FROM AND REFERENCED TO AUSTIN RRP2 CORS STATION AND LEDBETTER STATION.

PROJECT: 1017-11 SEC2 PH2A JOB NUMBER: 13-1017-11 DATE: OCTOBER 2016 SCALE: 1" = 100' SURVEYOR: GLF TECHNICIAN: SEGURA DRAWING: 1017-11 88 Sec2 PH2A.dwg FIELDNOTES: PARTYCHIEF: FIELDBOOKS:	 <p>ZWA Zamora, L.L.C. Professional Land Surveyors 1435 South Loop 4 • Buda, Texas 78601 Telephone: (512) 295-6201 • Fax (512) 295-6091</p>	BENBROOK RANCH SECTION 2 PHASE 2A FINAL PLAT	SHEET 2 OF 3 ZWA PLAT No. 1017-11
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STATE OF TEXAS KNOW ALL BY THESE PRESENTS
 COUNTY OF WILLIAMSON
 THAT JSL COMMERCIAL INVESTMENTS, L.L.C., A TEXAS LIMITED LIABILITY COMPANY, ACTING HEREIN BY AND THROUGH ITS MANAGER, JOHN S. LLOYD, AS OWNER OF THAT CERTAIN 19.734 ACRE TRACT OF LAND, AS DESCRIBED AS TRACT 1, AS CONVEYED TO BY A SPECIAL WARRANTY DEED RECORDED IN DOCUMENT NO. 201400042 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, ALL SITUATED IN THE CHARLES COCHRAN SURVEY, ABSTRACT NO. 134 IN WILLIAMSON COUNTY, TEXAS.

DOES HEREBY SUBDIVIDE A TOTAL OF 5.254 ACRES OF LAND IN ACCORDANCE WITH THE ATTACHED MAP OR PLAT AND DOES HEREBY CONSENT TO ALL PLAT NOTE REQUIREMENTS SHOWN HEREON, AND DOES HEREBY DEDICATE ALL ADDITIONAL RIGHTS-OF-WAY, STREETS, ALLEYS, EASEMENTS, PARKS, AND OTHER SPACES TO PUBLIC USE, OR, WHEN THE SUBDIVIDER HAS MADE PROVISION FOR PERPETUAL MAINTENANCE THEREOF, TO THE INHABITANTS OF THE SUBDIVISION. THIS SUBDIVISION IS TO BE KNOWN AS:

"BENBROOK RANCH, SECTION 2 PHASE 2A, FINAL PLAT"

FURTHER, JSL COMMERCIAL INVESTMENTS, L.L.C., ACKNOWLEDGES THAT IT IS THE RESPONSIBILITY OF THE LOT OWNER, NOT THE CITY, TO ASSURE COMPLIANCE WITH THE PROVISIONS OF ALL APPLICABLE STATE, FEDERAL AND LOCAL LAWS AND REGULATIONS RELATING TO THE ENVIRONMENT, INCLUDING, BUT NOT LIMITED TO, THE ENDANGERED SPECIES ACT, STATE ACQUIFER REGULATIONS AND MUNICIPAL WATERFED ORDINANCES.

TO CERTIFY WHICH, WITNESS BY MY HAND THIS 7 DAY OF February, 2017, A.D.

JSL COMMERCIAL INVESTMENTS, L.L.C.
 BY: JOHN S. LLOYD, MANAGER
 JSL COMMERCIAL INVESTMENTS, L.L.C.
 4720-4 ROCKCLIFF ROAD
 AUSTIN, TEXAS 78746

BEFORE ME THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED JOHN S. LLOYD, KNOWN BY ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED, IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS 7 DAY OF February, 2017, A.D.

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS
 COODY MITCHELL
 My Notary ID #: 12070342
 Expires May 26, 2019

- GENERAL NOTES**
- THIS SUBDIVISION IS LOCATED WITHIN THE CONTRIBUTING ZONE OF THE EDWARDS AQUIFER. NO CONSTRUCTION IN THIS SUBDIVISION MAY BEGIN UNTIL THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY HAS APPROVED THE CONTRIBUTING ZONE PLAN IN WRITING.
 - THIS SUBDIVISION IS WHOLLY CONTAINED WITHIN THE CURRENT CORPORATE LIMITS OF THE CITY OF LEANDER, TEXAS.
 - NO LOT IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO THE CITY OF LEANDER WATER DISTRIBUTION AND WASTEWATER COLLECTION FACILITIES.
 - A BUILDING PERMIT IS REQUIRED FROM THE CITY OF LEANDER PRIOR TO CONSTRUCTION OF ANY BUILDING OR SITE IMPROVEMENTS ON ANY LOT IN THIS SUBDIVISION.
 - NO BUILDINGS, FENCES, LANDSCAPING OR OTHER STRUCTURES ARE PERMITTED WITHIN DRAINAGE EASEMENTS SHOWN EXCEPT AS APPROVED BY THE CITY OF LEANDER PUBLIC WORKS DEPARTMENT.
 - PROPERTY OWNER SHALL PROVIDE FOR ACCESS TO DRAINAGE EASEMENTS AS MAY BE NECESSARY AND SHALL NOT PROHIBIT ACCESS BY THE CITY OF LEANDER.
 - ALL EASEMENTS ON PRIVATE PROPERTY SHALL BE MAINTAINED BY THE PROPERTY OWNER OR HIS OR HER ASSIGNS.
 - NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA AS SHOWN ON THE FLOOD INSURANCE RATE MAP PANEL # 4849100435E FOR WILLIAMSON CO., EFFECTIVE SEPTEMBER 26, 2008.
 - BUILDING SETBACKS NOT SHOWN HEREON SHALL COMPLY WITH THE MOST CURRENT ZONING ORDINANCE OF THE CITY OF LEANDER.
 - TEN (10) FOOT WIDE SIDEWALKS SHALL BE INSTALLED ON THE SUBDIVISION SIDE OF SAN GABRIEL PARKWAY AND BAGDAD ROAD, AND A FOUR (4) FOOT WIDE SIDEWALK ON THE SUBDIVISION SIDE OF MCCALLUM DRIVE.
 - ALL UTILITY LINES MUST BE LOCATED UNDERGROUND.
 - ALL DRIVE LANES, FIRE LANES, AND DRIVEWAYS WITHIN THIS SUBDIVISION SHALL PROVIDE FOR RECIPROCAL ACCESS FOR INGRESS AND EGRESS TO ALL OTHER LOTS WITHIN THE SUBDIVISION AND TO ADJACENT PROPERTIES.
 - IN ADDITION TO THE EASEMENTS SHOWN HEREON, A FIFTEEN (15) FOOT WIDE PUBLIC UTILITY EASEMENT IS DEDICATED ALONG AND ADJACENT TO THE RIGHT-OF-WAY OF BAGDAD ROAD AND SAN GABRIEL PARKWAY; A TEN (10) FOOT WIDE PUBLIC UTILITY EASEMENT IS DEDICATED ALONG AND ADJACENT TO THE RIGHT-OF-WAY OF MCCALLUM DRIVE, AND A FIVE (5) FOOT WIDE PUBLIC UTILITY EASEMENT IS DEDICATED ALONG ALL SIDE AND REAR LOT LINES.
 - IN ADDITION TO THE EASEMENTS SHOWN HEREON, A TEN (10) FOOT WIDE LANDSCAPE AND PEDESTRIAN ACCESS EASEMENT IS DEDICATED ALONG AND ADJACENT TO THE RIGHT-OF-WAY OF BAGDAD ROAD, MCCALLUM DRIVE, AND SAN GABRIEL PARKWAY.
 - AT THE TIME OF SITE DEVELOPMENT PERMIT, THE APPLICANT WILL PROVIDE A PAYMENT TO THE CITY IN LIEU OF A TRAFFIC IMPACT ANALYSIS (TIA), UNLESS A TIA FOR THE ENTIRE DEVELOPMENT AS PROPOSED IN THE CONCEPT PLAN INDICATES THAT AVERAGE DAILY TRIPS ARE ESTIMATED BELOW 2,000.

STATE OF TEXAS KNOW ALL BY THESE PRESENTS
 COUNTY OF WILLIAMSON
 APPROVED THIS 23rd DAY OF February, 2017, A.D. AT A PUBLIC MEETING OF THE PLANNING AND ZONING COMMISSION OF THE CITY OF LEANDER, TEXAS, AND AUTHORIZED TO BE FILED FOR RECORD BY THE COUNTY CLERK OF WILLIAMSON COUNTY, TEXAS.

SID SOKOL, CHAIRMAN
 PLANNING & ZONING COMMISSION
 CITY OF LEANDER, TEXAS

ELLEN RIZALATE, SECRETARY
 PLANNING & ZONING COMMISSION
 CITY OF LEANDER, TEXAS

PROJECT: 1017-11 SEC2 PH2A JOB NUMBER: 13-1017-11 DATE: OCTOBER 2016 SCALE: 1" = 100' SURVEYOR: GLF TECHNICIAN: SEGURA DRAWING: 1017-11 88 Sec2 PH2A.dwg FIELDNOTES: PARTYCHIEF: FIELDBOOKS:	 <p>ZWA Zamora, L.L.C. Professional Land Surveyors 1435 South Loop 4 • Buda, Texas 78601 Telephone: (512) 295-6201 • Fax (512) 295-6091</p>	BENBROOK RANCH SECTION 2 PHASE 2A FINAL PLAT	SHEET 3 OF 3 ZWA PLAT No. 1017-11
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BY SIGNED THIS PLAT, JEFFERY M. HUTCHENS, EXECUTIVE VICE PRESIDENT OF MOODY NATIONAL BANK HEREBY SUBORDINATES ANY DEED OF TRUST, MORTGAGE OR OTHER TYPE OF LIEN OWNED BY THE LIENHOLDER WITH RESPECT TO THE PROPERTY TO THE EASEMENTS CONVEYED TO THE CITY OR THE PUBLIC UNDER THIS PLAT.

JEFFERY M. HUTCHENS
 EXECUTIVE VICE PRESIDENT
 MOODY NATIONAL BANK
 860 EAST ANDERSON LAKE
 AUSTIN, TEXAS 78752

BEFORE ME THE UNDERSIGNED AUTHORITY, ON THIS DAY PERSONALLY APPEARED

Jeffery M. Hutchens, KNOWN BY ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED, IN THE CAPACITY THEREIN STATED.

GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS 7th DAY OF Feb, 2017, A.D.

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS
 JEFFREY HERMAN
 Notary Public
 State of Texas
 ID # 1246312-2
 Comm. Expires 10-22-2019

STATE OF TEXAS KNOW ALL BY THESE PRESENTS
 COUNTY OF HAYS

I, GINA LOFTIS-FRANKLIN, REGISTERED PROFESSIONAL LAND SURVEYOR, IN THE STATE OF TEXAS, DO HEREBY STATE THAT THIS PLAT IS TRUE AND CORRECTLY MADE FROM AN ACTUAL SURVEY ON THE GROUND OF THE PROPERTY LEGALLY DESCRIBED HEREON. ALL EASEMENTS OF RECORD ARE SHOWN HEREON OR NOTED ON THE PLAT (AS LISTED IN SCHEDULE B, FURNISHED BY STEWART TITLE GUARANTY COMPANY, C.F. NUMBER 162479-COM, ISSUED FEBRUARY 16, 2016 AND DATED MONTH, 2016), AND THAT THERE ARE NO APPARENT DISCREPANCIES, CONFLICTS, OVERLAPPING OR IMPROVEMENTS, MISLE UTILITY LINES OR ROADS IN PLACE EXCEPT AS SHOWN ON THE ACCOMPANYING PLAT, AND THAT THE CORNER MONUMENTS SHOWN THEREON WERE PROPERLY PLACED UNDER MY SUPERVISION IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF THE CITY OF LEANDER, TEXAS.

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL AT BUDA, HAYS COUNTY, TEXAS, THIS 2nd DAY OF February, 2017, A.D.

GINA LOFTIS-FRANKLIN, R.P.L.S. (No. 6067)
 STATE OF TEXAS
 ZAMORA, L.L.C. (Gina ZWA)
 FIRM REGISTRATION NO. 100827-00
 1435 SOUTH LOOP 4
 BUDA, TEXAS 78601
 (512) 295-6201 OFFICE, (512) 295-6091 FAX

STATE OF TEXAS KNOW ALL BY THESE PRESENTS
 COUNTY OF TRAVIS

I, DANNY R. MARTIN, AM AUTHORIZED UNDER THE LAWS OF THE STATE OF TEXAS TO PRACTICE THE PROFESSION OF ENGINEERING, AND DO HEREBY STATE THAT THIS PLAT CONFORMS WITH THE APPLICABLE ORDINANCES OF THE CITY OF LEANDER, TEXAS AND THAT NO PORTION OF THIS SUBDIVISION IS CONTAINED WITHIN THE LIMITS OF A 100 YEAR FLOOD PLAIN RECOGNIZED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) PER FLOOD INSURANCE RATE MAP (FIRM) NO. 4849100435E, (WILLIAMSON COUNTY) EFFECTIVE DATE SEPTEMBER 26, 2008.

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL AT AUSTIN, TRAVIS COUNTY, TEXAS, THIS THE 6th DAY OF February, 2017, A.D.

DANNY R. MARTIN
 STATE OF TEXAS NO. 44960
 MALONE/WHEELER, INC.
 FIRM REGISTRATION NO. F-786
 5113 SOUTHWEST PARKWAY, STE. 250
 AUSTIN, TEXAS 78735
 (512) 899-0801 OFFICE, (512) 899-0555 FAX

STATE OF TEXAS KNOW ALL BY THESE PRESENTS
 COUNTY OF WILLIAMSON

I, NANCY RISTER, CLERK OF THE COUNTY COURT OF WILLIAMSON COUNTY, DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT IN WRITING, WITH ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE ON THE 28th DAY OF February, 2017, A.D., AT 8:15 O'CLOCK A.M., AND DULY RECORDED THIS THE 28th DAY OF February, 2017, A.D., AT 9:06 O'CLOCK A.M., IN THE PLAT RECORDS

OF WILLIAMSON COUNTY, TEXAS IN DOCUMENT NUMBER 2017011736

TO CERTIFY WHICH, WITNESS MY HAND AND SEAL AT THE COUNTY COURT OF WILLIAMSON COUNTY, AT MY OFFICE IN GEORGETOWN, TEXAS, THE DATE LAST SHOWN ABOVE WRITTEN.

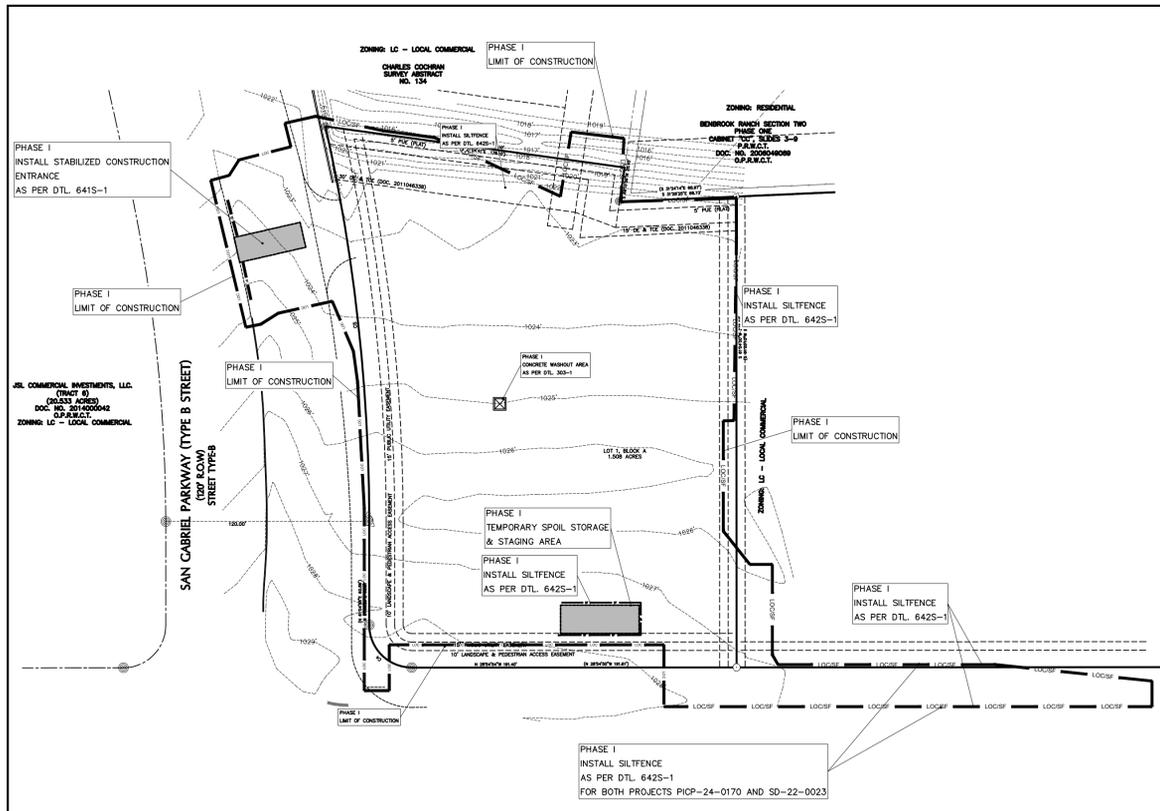
NANCY RISTER, CLERK COUNTY COURT OF WILLIAMSON COUNTY, TEXAS
 BY: Connie Phelps
 CLERK

PROJECT: 1017-11 SEC2 PH2A JOB NUMBER: 13-1017-11 DATE: OCTOBER 2016 SCALE: 1" = 100' SURVEYOR: GLF TECHNICIAN: SEGURA DRAWING: 1017-11 88 Sec2 PH2A.dwg FIELDNOTES: PARTYCHIEF: FIELDBOOKS:	 <p>ZWA Zamora, L.L.C. Professional Land Surveyors 1435 South Loop 4 • Buda, Texas 78601 Telephone: (512) 295-6201 • Fax (512) 295-6091</p>	BENBROOK RANCH SECTION 2 PHASE 2A FINAL PLAT	SHEET 3 OF 3 ZWA PLAT No. 1017-11
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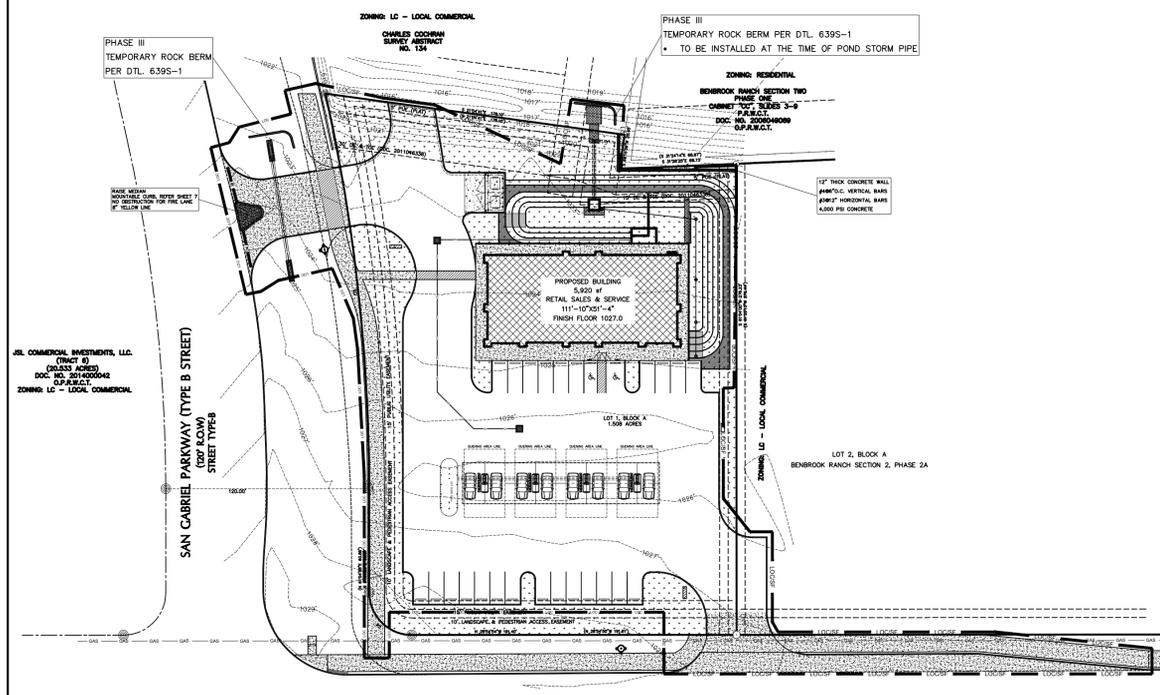
PROJECT NUMBER: SD-22-0023

 <p>MIRZA TAHR BAIG LICENSED PROFESSIONAL ENGINEER NO. 82577 EXPIRES 08/19/2025 FIRM REGISTRATION F-4951</p>	THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MIRZA TAHR BAIG, P.E., #82577 ON 08/19/2025 FIRM REGISTRATION F-4951
PROJECT: 30356 SHEET: 4 OF 24	PROJECT NO: SD-22-0023 PROJECT: BAGDAD GAS STATION 1646 N BAGDAD RD. LEANDER, TEXAS 78641 TITLE: FINAL PLAT

THIS DRAWING IS AN INSTRUMENT OF SERVICE, AND SHALL REMAIN THE PROPERTY OF THE FIRM, INC. AND SHALL NOT BE REPRODUCED, REPRODUCED IN ANY MANNER, OR USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN PERMISSION OF THE FIRM, INC. ALL RIGHTS RESERVED. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE BEFORE PROCEEDING WITH EACH PHASE OF HIS WORK AND BE RESPONSIBLE FOR SAME. NO WARRANTY, EXPRESSED OR IMPLIED, IS GIVEN OR INTENDED. THE LIMIT OF LIABILITY SHALL NOT EXCEED THE FEE PAID FOR THESE PLANS.

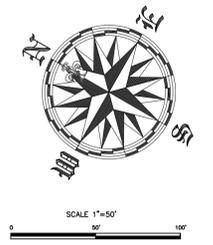


EROSION & SEDIMENTATION CONTROL PLAN | PHASE I
SCALE 1"=50'-0"



BAGDAD ROAD (COUNTY RD. 279)
ROW VARIES
STREET TYPE C

EROSION & SEDIMENTATION CONTROL PLAN | PHASE III
SCALE 1"=50'-0"



APPENDIX P-1 EROSION CONTROL NOTES

- THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
- THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. THE ESC PLAN SHALL BE CONSULTED AND USED AS THE BASIS FOR A TIDES REQUIRED SWPPP. IF A SWPPP IS REQUIRED, IT SHALL BE AVAILABLE FOR REVIEW BY THE CITY OF AUSTIN ENVIRONMENTAL INSPECTOR AT ALL TIMES DURING CONSTRUCTION, INCLUDING AT THE PRE-CONSTRUCTION MEETING. THE CHECKLIST BELOW CONTAINS THE BASIC ELEMENTS THAT SHALL BE REVIEWED FOR PERMIT APPROVAL BY TRAVIS COUNTY EV PLAN REVIEWERS AS WELL AS TRAVIS COUNTY EV INSPECTORS.
--- PLAN SHEETS SUBMITTED MUST SHOW THE FOLLOWING:
✓ DIRECTION OF FLOW DURING GRADING OPERATIONS.
✓ LOCATION, DESCRIPTION, AND CALCULATIONS FOR OFF-SITE FLOW DIVERSION STRUCTURES.
✓ AREAS THAT WILL NOT BE DISTURBED; NATURAL FEATURES TO BE PRESERVED.
✓ DELINEATION OF CONTRIBUTING DRAINAGE AREA TO EACH PROPOSED BMP (E.G., SILT FENCE, SEDIMENT BASIN, ETC.)
✓ LOCATION AND TYPE OF E&S BMPs FOR EACH PHASE OF DISTURBANCE.
✓ CALCULATIONS FOR BMPs AS REQUIRED.
- LOCATION AND DESCRIPTION OF TEMPORARY STABILIZATION MEASURES.
- LOCATION OF ON-SITE SPOILS, DESCRIPTION OF HANDLING AND DISPOSAL OF BORROW MATERIALS, AND DESCRIPTION OF ON-SITE PERMANENT SPOILS DISPOSAL AREAS, INCLUDING SIZE, DEPTH OF FILL AND REVEGETATION PROCEDURES.
- DESCRIBE SEQUENCE OF CONSTRUCTION AS IT PERTAINS TO ESC INCLUDING THE FOLLOWING ELEMENTS:
1. INSTALLATION SEQUENCE OF CONTROLS (E.G. PERIMETER CONTROLS, THEN SEDIMENT BASINS, THEN TEMPORARY STABILIZATION, THEN PERMANENT, ETC.)
2. PROJECT PHASING IF REQUIRED (LOC GREATER THAN 25 ACRES)
3. SEQUENCE OF GRADING OPERATIONS AND NOTATION OF TEMPORARY STABILIZATION MEASURES TO BE USED
4. SCHEDULE FOR CONVERTING TEMPORARY BASINS TO PERMANENT WQ CONTROLS
5. SCHEDULE FOR REMOVAL OF TEMPORARY CONTROLS
6. ANTI-CORROSION SCHEDULE FOR TEMPORARY CONTROLS
--- CATEGORIZE EACH BMP UNDER ONE OF THE FOLLOWING AREAS OF BMP ACTIVITY AS DESCRIBED BELOW
3.1 MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL
3.2 CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT
3.3 STABILIZE SOILS
3.4 PROTECT SLOPES
3.5 PROTECT STORM DRAIN INLETS
3.6 ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS
3.7 RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES
3.8 ESTABLISH STABILIZED CONSTRUCTION EXITS
3.9 ANY ADDITIONAL BMPs
--- NOTE THE LOCATION OF EACH BMP ON YOUR SITE MAP(S).
--- FOR ANY STRUCTURAL BMPs, YOU SHOULD PROVIDE DESIGN SPECIFICATIONS AND DETAILS AND REFER TO THEM.
--- FOR MORE INFORMATION, SEE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL 1.4.
- THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
- A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND ENVIRONMENTAL INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOTIFY TRAVIS COUNTY TMS, 512-854-9383, AT LEAST THREE DAYS PRIOR TO THE MEETING DATE. TRAVIS COUNTY APPROVED ESC PLAN AND TIDES SWPPP (IF REQUIRED) SHOULD BE REVIEWED BY EV INSPECTOR PRIOR TO PRE-CONSTRUCTION MEETING.
- ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY AUTHORIZED COUNTY STAFF. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
- THE CONTRACTOR IS REQUIRED TO PROVIDE A CERTIFIED INSPECTOR WITH EITHER A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), CERTIFIED EROSION, SEDIMENT AND STORMWATER INSPECTOR (CESSWI) OR CERTIFIED INSPECTOR OF SEDIMENTATION AND EROSION CONTROLS (CISEC) CERTIFICATION TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
- PRIOR TO FINAL ACCEPTANCE BY THE COUNTY, HAIL RODS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
- ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS: ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A TRAVIS COUNTY ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.
- TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW:
A. ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO PLACE A MINIMUM OF SIX (6) INCHES OF TOPSOIL [SEE STANDARD SPECIFICATION ITEM NO. 601S.3(A)]. DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.
• TOPSOIL SALVAGED FROM THE EXISTING SITE IS ENCOURAGED FOR USE, BUT IT SHOULD MEET THE STANDARDS SET FORTH IN 601S.
• AN OWNER/ENGINEER MAY PROPOSE USE OF ONSITE SALVAGED TOPSOIL WHICH DOES NOT MEET THE CRITERIA OF STANDARD SPECIFICATION 601S BY PROVIDING A SOIL ANALYSIS AND A WRITTEN STATEMENT FROM A QUALIFIED PROFESSIONAL IN SOILS, LANDSCAPE ARCHITECTURE, OR AGRONOMY INDICATING THE ONSITE TOPSOIL WILL PROVIDE AN EQUIVALENT GROWTH MEDIA AND SPECIFYING WHAT, IF ANY, SOIL AMENDMENTS ARE REQUIRED.
• SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ONSITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL-BLENDED MATERIAL.
THE VEGETATIVE STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION SHALL BE AS FOLLOWS:

BAGDAD ROAD (COUNTY RD. 279)
ROW VARIES
STREET TYPE C

EROSION & SEDIMENTATION CONTROL PLAN | PHASE II
SCALE 1"=50'-0"

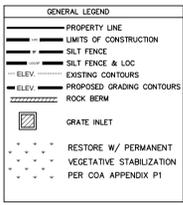
EROSION CONTROL PHASING NOTES:

- PHASE I: INITIAL PHASE BEFORE THE CONSTRUCTION BEGIN
ITEMS: CONSTRUCTION ENTRANCE, SPOIL STORAGE, CONCRETE WASH OUT, SILT FENCE AND LIMIT OF CONSTRUCTION
- PHASE II : DURING CONSTRUCTION PHASE AND SITE WORK
ITEMS: EROSION CONTROLS REQUIRED DURING CONSTRUCTION.
- PHASE III : FINAL CONSTRUCTION PHASE.
ITEMS: RIP RAP, ROCK BERM

ENVIRONMENTAL NOTES:

- IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING.
- ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN-COMPLIANCE WITH THE CITY OF LEANDER RULES AND REGULATIONS.
- CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
- THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY.
- PERPENDICULAR EROSION CONTROLS MUST BE INSTALLED EVERY 30 FEET AS THE TRENCH IS BACKFILLED.
- IN THE EVENT OF INCLEMENT WEATHER THAT MAY RESULT IN A FLOODING SITUATION, THE CONTRACTOR SHALL REMOVE INLET PROTECTION MEASURES UNTIL SUCH TIME AS THE WEATHER EVENT HAS PASSED.
- ON-SITE EROSION CONTROL MEASURES TO BE ESTABLISHED AND MAINTAINED AROUND TEMPORARY/PERMANENT SPOILS LOCATIONS, CONCRETE WASHOUT AND CONTRACTOR STAGING AREAS
- AN INITIAL SITE INSPECTION MUST BE CONDUCTED BY THE CITY OF LEANDER TO VERIFY THAT ALL EROSION AND SEDIMENT CONTROLS HAVE BEEN PROPERLY INSTALLED AND PER THE PLAN. APPROVAL BY THE CITY MUST BE GIVEN BEFORE CONSTRUCTION CAN BEGIN.
- ALL ROCK BERMS SHALL BE REMOVED BY THE CONTRACTOR.

DISTURBED ACREAGE 3.49 ACRES



PROJECT NUMBER: SD-22-0023

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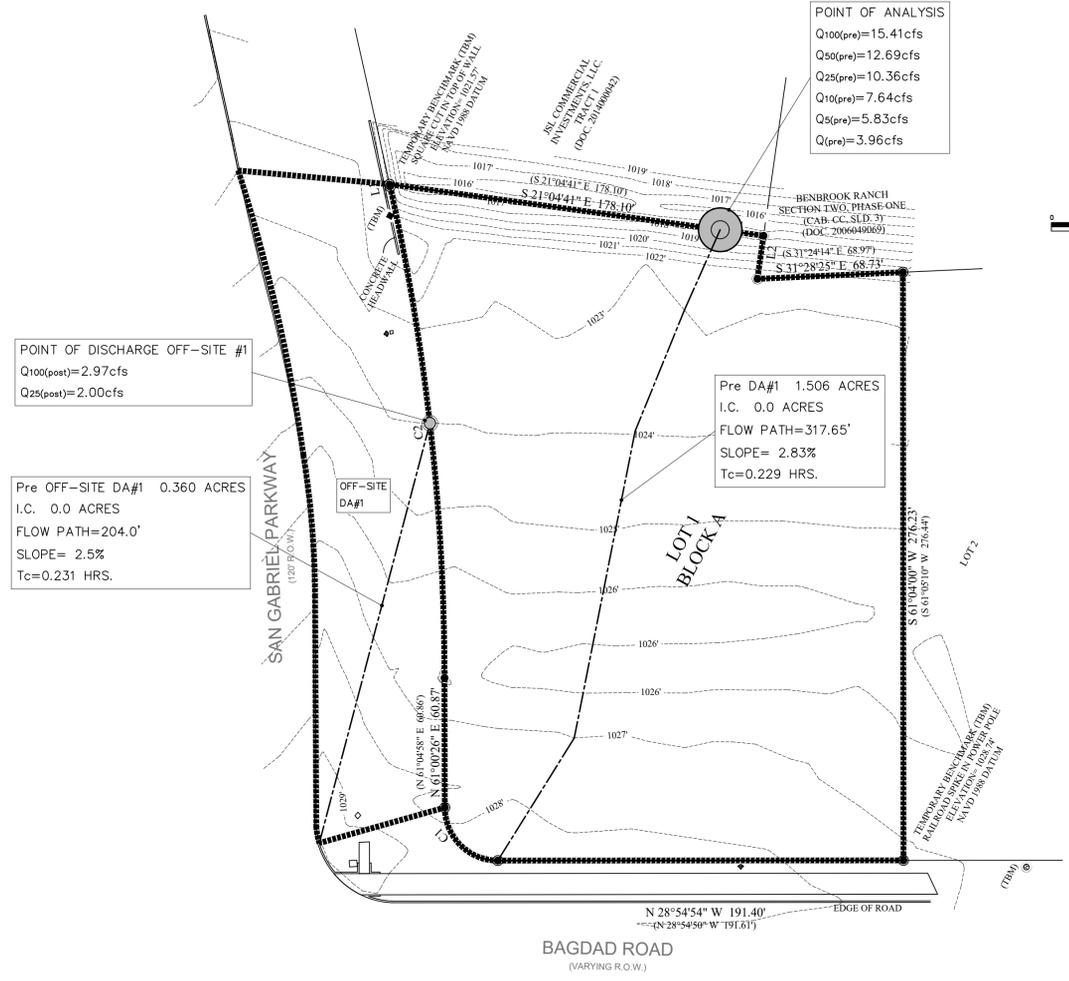
PROJECT NO: SD-22-0023

Project: BAGDAD GAS STATION
1646 N BAGDAD RD.
LEANDER, TEXAS 78641

Title: EROSION & SEDIMENTATION CONTROL PLAN

PROJECT: 30356

SHEET: 6 OF 24



PRE DEVELOPMENT DRAINAGE AREA MAP
 SCALE 1"=40'-0"

POST DEVELOPMENT DRAINAGE AREA MAP
 SCALE 1"=40'-0"

DRAINAGE SUMMARY TABLE (PRE & POST CONDITIONS)

BASIN NAME	PRE DA#1	POST DA#1	POST DA#2	POST DA#3	POST DA#4	POST DA#5	PRE OFF-SITE DA#1	POST OFF-SITE DA#1	TOTAL PRE "Q"	TOTAL POST "Q"	TOTAL POST "Q" RELEASE
DRAINAGE AREA (acres)	1.506	0.846	0.209	0.162	0.077	0.226	0.360	0.360			
IMPERVIOUS COVER (acres)	0.00	0.664	0.169	0.162	0.0	0.0	0.0	0.014			
CN	84	84	84	84	84	84	84	84			
CN Adjusted	84	94.99	95.32	98.00	84	84	84	84.54			
Tc (hrs.)	0.229	0.083	0.083	0.083	0.083	0.262	0.231	0.228			
2YRS. (cfs)	3.20	2.78	0.69	0.57	0.19	0.46	0.76	0.76	3.96	5.46	2.46
5 YRS (cfs)	4.71	3.73	0.93	0.75	0.28	0.68	1.11	1.11	5.83	7.48	4.23
10YRS. (cfs)	6.17	4.64	1.15	0.92	0.37	0.89	1.47	1.45	7.64	9.42	6.19
25YRS. (cfs)	8.37	6.01	1.49	1.18	0.50	1.21	2.00	1.97	10.36	12.36	9.22
50 YRS (cfs)	10.25	7.19	1.78	1.40	0.61	1.48	2.44	2.41	12.69	14.87	11.51
100YRS. (cfs)	12.44	8.57	2.12	1.67	0.74	1.80	2.97	2.92	15.41	17.82	14.24

NOTE: THE DRAINAGE ANALYSIS ARE BASED ON ATLAS 14 PRECIPITATION-FREQUENCY ATLAS OF THE UNITED STATES.

DETENTION POND AREA & VOLUME			COMPOSITE OUTFLOW SUMMARY TABLE			POND OUTLET STRUCTURE SUMMARY TABLE			
ELEVATION FT	AREA ACRES	VOLUME AC-FT	ELEVATION FT	ORIFICE-1 AC-FT	WEIR-1 AC-FT	TOTAL Q RELEASE	ELEVATION (IN)	PEAK FLOW "Q" (OUT)	PEAK FLOW "Q" (IN)
1,021.00	0.0	0.000	1,021.00	0.00	0.00	0.00	2YRS. 1,023.10	4.24	1.41
1,022.00	0.052	0.026	1,021.50	0.35	0.00	0.35	5YRS. 1,023.40	5.69	2.54
1,023.00	0.071	0.088	1,022.00	0.58	0.00	0.58	10YRS. 1,023.66	7.08	3.89
1,024.00	0.091	0.169	1,022.28	0.68	0.00	0.68	25YRS. 1,024.00	9.18	6.05
1,025.00	0.115	0.272	1,022.50	0.75	0.41	1.16	50YRS. 1,024.21	10.98	7.63
			1,023.00	0.88	2.44	3.32	100YRS. 1,024.45	13.10	9.52
			1,023.50	0.99	5.39	6.38			
			1,024.00	1.10	9.02	10.12			
			1,024.50	1.19	13.23	14.42			
			1,025.00	1.28	17.94	19.22			

2, 10, 25, & 100YRS. ELEVATIONS & VOLUME EVENTS		
POND VOLUME AC-FT	ELEVATION FT	ELEVATION FT
2YRS. 0.09	1,023.10	1,023.10
5YRS. 0.11	1,023.40	1,023.40
10YRS. 0.13	1,023.66	1,023.66
25YRS. 0.16	1,024.00	1,024.00
50YRS. 0.18	1,024.21	1,024.21
100YRS. 0.21	1,024.45	1,024.45

TIME OF CONCENTRATION CALCULATIONS TABLE

BASIN NAME	TR55 SHEET FLOW			TR55 SHALLOW CONCENTRATED FLOW			TIME OF CONCENTRATION Tc=Tc1+Tc2
	Length(ft)	Slope(%)	Tc1(hrs.)	Length(ft)	Slope(%)	Tc2(hrs.)	
PRE DA#1	100.00	3.60	0.202	217.00	2.00	0.026	0.229
PRE OFFSITE DA#1	100.00	3.00	0.218	104.0	2.00	0.0127	0.231
POST DA#1	100.00	1.00	0.0324	113.00	1.00	0.0154	0.083
POST DA#2	92.50	1.50	0.0259	0.000	-	-	0.083
POST DA#3	100.00	1.00	0.0324	51.00	1.00	0.007	0.083
POST DA#4	100.00	1.25	0.0296	37.83	1.25	0.006	0.083
POST DA#5	100.00	2.00	0.256	49.00	2.00	0.006	0.262
POST OFFSITE DA#1	100.00	3.00	0.218	104.00	2.00	0.010	0.228

NOTES: MANNING'S N(PRE)=0.30 & N(POST)=0.016,
 2 YRS. 24 HR. DEPTH= 3.93 INCH
 5 YRS. 24 HR. DEPTH= 5.17 INCH
 10 YRS. 24 HR. DEPTH= 6.36 INCH
 25 YRS. 24 HR. DEPTH= 8.15 INCH
 50 YRS. 24 HR. DEPTH= 9.69 INCH
 100 YRS. 24 HR. DEPTH= 11.50 INCH
 PER NOAA ATLAS 14, VOLUME 11, VERSION 2

STRUCTURAL STABILIZATION CALCULATIONS

QU LB/SQ.IN	QN,MAX LB/SQ.IN	BEAR,CAP SF	RM KIP/FT	OTM KIP/FT	OVERT. SF	RES F KIP	SLID F KIP	SLID. SF	DEFL IN
26.52	6.30	4.03	6.21	2.13	2.92	1.67	0.75	2.23	0.15

REINFORCEMENT REQ. STEM(SQ.IN) 0.29 BASE(SQ.IN) 0.43

NOTE:
 ALLOWABLE SF FOR OVERTURNING =1.50
 ALLOWABLE SF FOR SLIDING =1.50
 ALLOWABLE SF FOR BEARING CAPACITY =2.00

PROJECT NUMBER: SD-22-0023

PROFESSIONAL STRUCTURAL ENGINEERS, INC.
 CONSULTING CIVIL AND STRUCTURAL ENGINEERS
 12710 RESEARCH BLVD., SUITE 300, AUSTIN, TX 78759 | TEL: 512.238.6022 FAX: 512.238.6005

MIRZA TAHR BAIG
 82577
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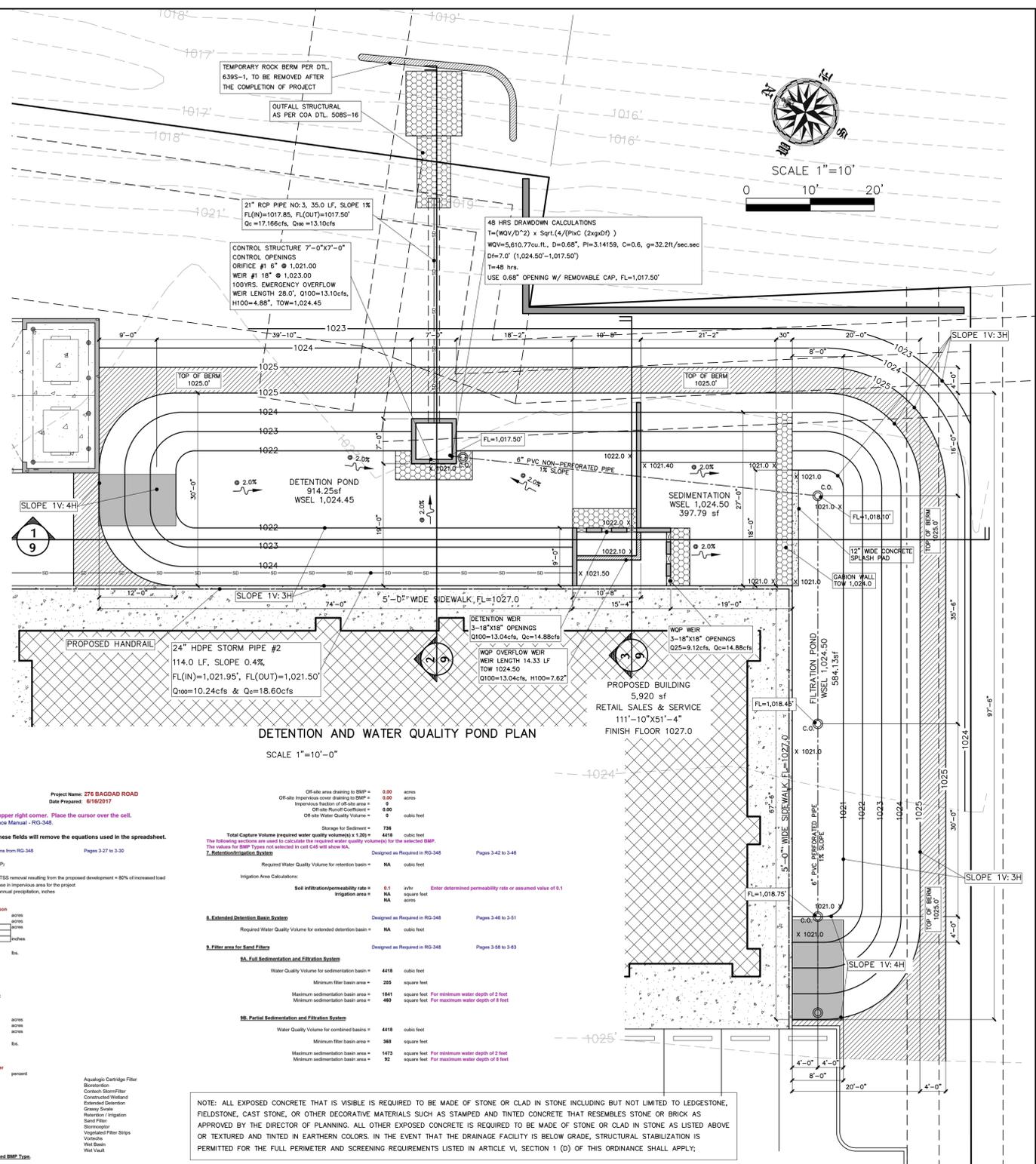
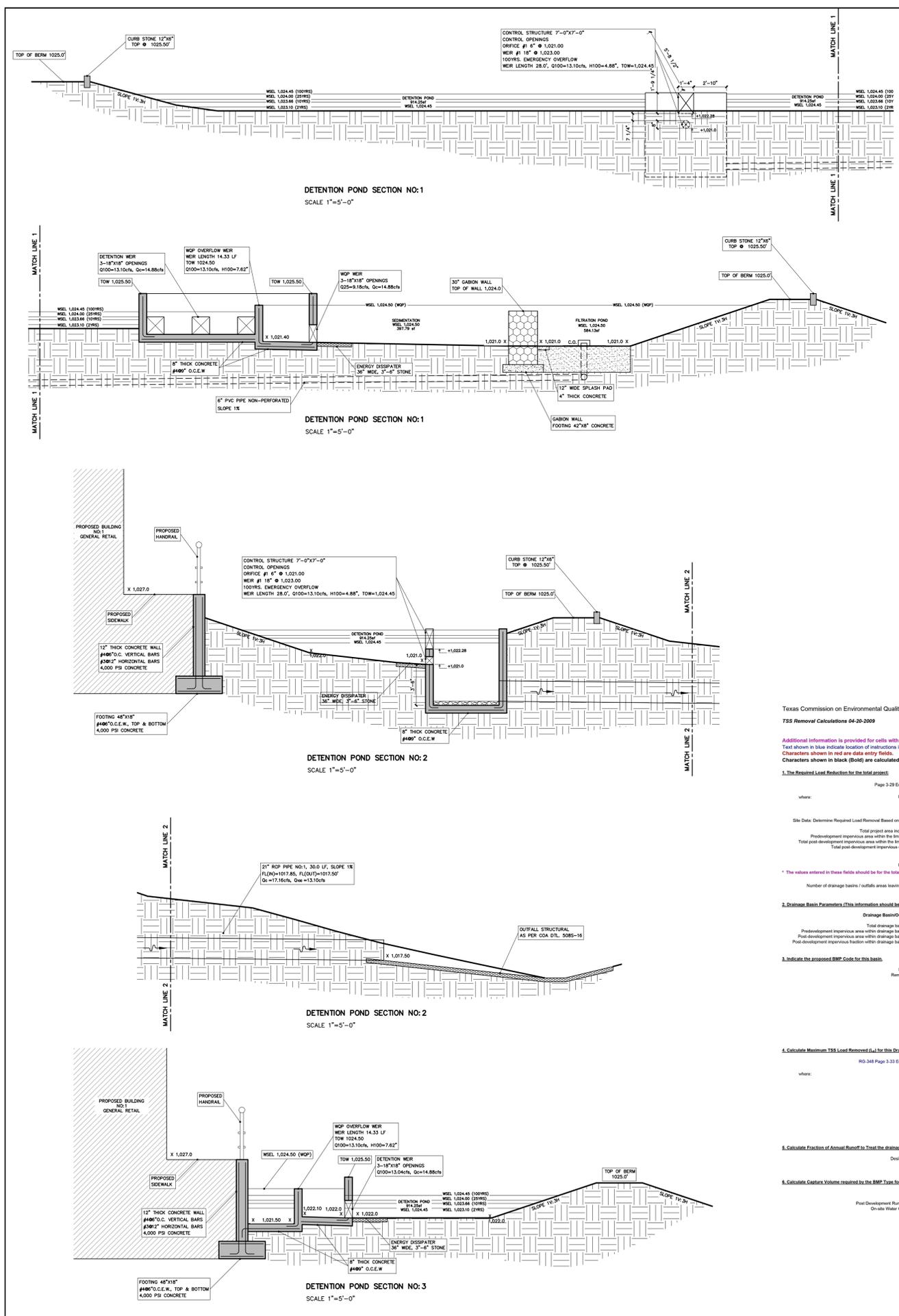
PROJECT NO: SD-22-0023

BAGDAD GAS STATION
 1646 N BAGDAD RD.
 LEANDER, TEXAS 78641

Title: GRADING & DRAINAGE PLAN SHEET 2
DRAINAGE AREA MAP

30356

8
 OF 24



Texas Commission on Environmental Quality
TSS Removal Calculations 04-20-2009

Project Name: **576 BAGDAD ROAD**
 Date Prepared: **6/16/2017**

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 indicates 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:

where:

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

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

3. Indicate the proposed BMP Code for this basin:

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

where:

5. Calculate Fraction of Annual Runoff to Treat (this drainage basin / outfall area):

6. Calculate Capture Volume required by the BMP Type for this drainage basin (cuft/acre):

7. Extended Detention Basin System:

8. Filter area for Sand Filters:

9. Full Sedimentation and Filtration System:

10. Partial Sedimentation and Filtration System:

NOTE: ALL EXPOSED CONCRETE THAT IS VISIBLE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE INCLUDING BUT NOT LIMITED TO LEDGESTONE, FIELDSTONE, CAST STONE, OR OTHER DECORATIVE MATERIALS SUCH AS STAMPED AND TINTED CONCRETE THAT RESEMBLES STONE OR BRICK AS APPROVED BY THE DIRECTOR OF PLANNING. ALL OTHER EXPOSED CONCRETE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE AS LISTED ABOVE OR TEXTURED AND TINTED IN EARTHEN COLORS. IN THE EVENT THAT THE DRAINAGE FACILITY IS BELOW GRADE, STRUCTURAL STABILIZATION IS PERMITTED FOR THE FULL PERIMETER AND SCREENING REQUIREMENTS LISTED IN ARTICLE VI, SECTION 1 (D) OF THIS ORDINANCE SHALL APPLY.

ELEV	POND		FILTRATION POND		SEDIMENTATION POND	
	AREA SF	VOLUME CU.FT.	AREA SF	VOLUME CU.FT.	AREA SF	VOLUME CU.FT.
1,021.0	584.13	0.0	0.0	0.0		
1,021.40	690.70	254.96	397.79	79.56		
1,022.0	859.04	721.58	475.89	353.66		
1,023.0	1,162.23	1,732.22	539.40	861.30		
1,024.0	1,493.69	3,060.18	602.91	1,432.45		
1,024.50	1,670.02	3,851.11	705.92	1,759.66		

WATER QUALITY POND VOLUME @ 1,024.50 = 5,610.77 CU.FT.
 PROVIDED WATER QUALITY POND VOLUME = 5,610.77 CU.FT.
 REQUIRED WATER QUALITY POND VOLUME = 4,418.0 CU.FT.

PROFESSIONAL STRUCTURAL ENGINEERS, INC.
 CONSULTING CIVIL AND STRUCTURAL ENGINEERS
 12710 RESEARCH BLVD., SUITE 900, AUSTIN, TX 78759 | TEL: 512.238.6021 | FAX: 512.238.8995

PROJECT NO: SD-22-0023
 Title: GRADING & DRAINAGE PLAN SHEET 3
 DETENTION & WATER QUALITY PONDS

PROJECT: **BAGDAD GAS STATION**
 1646 N BAGDAD RD.
 LEANDER, TEXAS 78641

30356
 SHEET **9** OF 24

CITY OF AUSTIN STANDARD SPECIFICATION ITEM NO. 620S – FILTER FABRIC

TABLE 2: HIGH FLOW FILTER FABRIC REQUIREMENTS

PROPERTY	TEST METHOD	REQUIREMENTS
FABRIC WEIGHT	D 3776	3.0 OUNCES/SQUARE YARD MINIMUM
ULTRAVIOLET (UV) RADIATION STABILITY	D 4355	70% STRENGTH RETAINED MINIMUM, AFTER 500 HOURS IN XENON ARC DEVICE
MULLEN BURST STRENGTH	D 3786	120 POUND PER SQUARE INCH MINIMUM
WATER FLOW RATE	D 4491	275 GALLONS/MINUTE/SQUARE FEET MINIMUM

Specification Item No. 594S
Gabions and Revet Mattresses

594S.2 MATERIALS

GABIONS AND REVET MATTRESSES SHALL BE CONSTRUCTED OF GALVANIZED STEEL WIRE WITH POLYVINYLCHLORIDE (PVC) FLEXIBLE COATING. THE GABIONS AND REVET MATTRESSES SHALL BE OF THE CONSTRUCTION AND SIZES SPECIFIED IN THE DRAWINGS AND SHALL MEET THE SPECIFICATIONS PRESENTED HEREIN. UNLESS OTHERWISE SPECIFIED IN THE DRAWINGS OR APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE, THE GABIONS AND REVET MATTRESSES MAY BE CONSTRUCTED OF EITHER DOUBLE TWIST WOVEN MESH OR WELDED WIRE MESH.

GABIONS SHALL BE FURNISHED IN THE SPECIFIED DIMENSIONS WITHIN A TOLERANCE OF ± 5 PERCENT. REVET MATTRESSES SHALL BE FURNISHED IN THE SPECIFIED DIMENSIONS WITHIN A TOLERANCE OF 5 PERCENT FOR THE LENGTH AND WIDTH AND 10 PERCENT FOR THE HEIGHT. FOR EACH INDIVIDUAL GABION OR REVET MATTRESS, THE SAME MESH STYLE SHALL BE USED FOR THE BASE, FRONT, ENDS, BACK, DIAPHRAGMS AND LID PANELS. EACH GABION OR REVET MATTRESS SHALL BE MANUFACTURED AND DIVIDED INTO CELLS OF EQUAL LENGTH, NO GREATER THAN 3 FEET (0.9 METER), BY DIAPHRAGM PANELS.

(1) GABION AND REVET MATTRESS WIRE

GABION WIRE SHALL BE GALVANIZED STEEL, CLASS 3 OR A COATING, SOFT TEMPER CONFORMING TO ASTM A 641, AND SHALL SPECIFICALLY MEET THE REQUIREMENTS GIVEN BELOW FOR GABIONS (12 GAGE WIRE) AND/OR REVET MATTRESSES (13.5 WIRE GAGE) AS CALLED FOR IN THE DRAWINGS. PVC COATING OF THE WIRE MAY BE FUSE-BONDED OR EXTRUDED ONTO THE WIRE. GALVANIZATION OF WELDED WIRE SHALL BE PERFORMED EITHER BEFORE OR AFTER WELDING.

Table 1: Requirements – Mesh Wire for Gabions and Revet Mattress Units

Characteristic	Gabions	Revet Mattresses
Wire Gage	12 gage	13.5 gage
Maximum Tensile Strength (ASTM 641)	70,000 psi (483 mpa)	75,000 psi (517 mpa)
Nominal Wire Diameter (ASTM A 641)	0.106 inch (2.7 mm)	0.0866 inch (2.2 mm)
Minimum Diameter (ASTM A 641, Table 3)	0.102 inch (2.6 mm)	0.0826 inch (2.9 mm)
Galvanizing, Zinc (ASTM A 641, Table 1)	0.80 oz/ft ² (245 gr/m ²)	0.70 oz/ft ² (215 gr/m ²)

(2) GABION MESH

(A) WOVEN MESH

WOVEN MESH SHALL BE OF A UNIFORM NON-RAVELING, DOUBLE TWIST HEXAGONAL PATTERN NOMINALLY OF DIMENSIONS 3.25 INCHES BY 4.5 INCHES (83 MM BY 114 MM). SELVEDGE WIRE SHALL BE 10 GAGE (NOMINAL DIAMETER OF 3.4 MM).

(B) WELDED MESH

MESH OPENING SHALL BE NOMINALLY 3 INCHES BY 3 INCHES (75 MM BY 75 MM). STRENGTH OF WELDS SHALL MEET THE FOLLOWING REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH SECTION 13.4 OF ASTM A-974:

Table 2: Minimum Weld Strength Requirements

Type of Structure	Wire Size (Diameter) Gage (mm)	Minimum Average Weld Shear Strength English Units (SI Units)
Gabions	12 (2.7)	472 lbf (2.10 kN)
Revet Mattress	13.5 (2.2)	292 lbf (1.30 kN)

(C) MANUFACTURING

TWISTED WIRE MESH GABIONS SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-975, WHILE WELDED WIRE MESH GABIONS SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-974.

(3) REVET MATTRESSES

(A) WOVEN MESH

WOVEN MESH SHALL BE OF A UNIFORM NON-RAVELING, DOUBLE TWIST HEXAGONAL PATTERN, NOMINALLY OF DIMENSIONS 2.5" X 3.25" (64 MM BY 83 MM). SELVEDGE WIRE SHALL BE 12 GAGE (NOMINAL DIAMETER OF 2.7 MM).

(B) WELDED MESH

MESH OPENING SHALL BE NOMINALLY 1.5" X 3.0" (38 MM BY 76 MM). STRENGTH OF WELDS SHALL MEET THE REQUIREMENTS LISTED IN TABLE 2 FOR 13.5 GAGE (2.2 MM) WIRE, WHEN TESTED IN ACCORDANCE WITH SECTION 13.4 OF ASTM A-974:

(C) MANUFACTURING

TWISTED WIRE MESH REVET MATTRESSES SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-975, WHILE WELDED WIRE MESH REVET MATTRESSES SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-974.

(4) PVC COATING

ALL WIRE USED IN FABRICATION OF THE GABIONS, REVET MATTRESSES AND WIRING OPERATIONS DURING CONSTRUCTION SHALL, AFTER ZINC COATING, HAVE A FUSE-BONDED OR EXTRUDED COATING OF PVC. THE COATING SHALL BE GRAY IN COLOR. THE THICKNESS SHALL BE NOMINALLY 0.020 INCH (0.5 MM), AND SHALL NOT BE LESS THAN 0.015 INCH (0.38 MM) IN THICKNESS. IT SHALL BE CAPABLE OF RESISTING DELETERIOUS EFFECTS OF NATURAL WEATHER EXPOSURE, AND IMMERSION IN SALT WATER.

FOR PVC-COATED WELDED WIRE FABRIC PANEL, CUTTING OF THE PANELS SHALL NOT BE ALLOWED CLOSER THAN 1/4 INCH 1/8 INCH (6 MM 3.18 MM) AFTER FABRICATION IN ORDER TO PREVENT EXPOSURE NEAR THE WELDS.

(A) INITIAL PROPERTIES:

1) WOVEN MESH:

THE INITIAL PROPERTIES OF THE PVC COATING MATERIAL SHALL HAVE A DEMONSTRATED ABILITY TO CONFORM TO THE FOLLOWING REQUIREMENTS SPECIFIED IN ASTM A-975:

A) SPECIFIC GRAVITY:

THE SPECIFIC GRAVITY AS DETERMINED IN ACCORDANCE WITH ASTM D-792 SHALL BE BETWEEN 1.3 TO 1.35.

B) DUROMETER HARDNESS:

THE HARDNESS AS DETERMINED IN ACCORDANCE WITH ASTM D-2240 SHALL BE BETWEEN 50 TO 60, SHORE D.

C) TENSILE STRENGTH:

THE TENSILE STRENGTH WHEN TESTED IN ACCORDANCE WITH ASTM D-412 SHALL NOT BE LESS THAN 2985 PSI (20.6 MPA).

D) MODULUS OF ELASTICITY AT 100% ELONGATION:

THE MODULUS OF ELASTICITY WHEN DETERMINED IN ACCORDANCE WITH ASTM D-412 SHALL NOT BE LESS THAN 2700 PSI (18.6 MPA).

E) RESISTANCE TO ABRASION:

THE PERCENTAGE LOSS IN WEIGHT (MASS) DURING ABRASION TESTING IN ACCORDANCE WITH ASTM D-1242 SHALL BE LESS THAN 12%.

F) BRITTLINESS TEMPERATURE:

THE BRITTLINESS TEMPERATURE SHALL NOT BE HIGHER THAN 150F (-9.00C) OR A LOWER TEMPERATURE SPECIFIED BY THE ENGINEER, WHEN TESTED IN ACCORDANCE WITH ASTM D-746. THE MAXIMUM BRITTLINESS TEMPERATURE SHOULD BE AT LEAST 150F (80C) BELOW THE MINIMUM TEMPERATURE AT WHICH THE GABION WILL BE HANDLED OR FILLED.

2) WELDED MESH:

THE INITIAL PROPERTIES OF THE PVC COATING MATERIAL SHALL HAVE A DEMONSTRATED ABILITY TO CONFORM TO THE FOLLOWING REQUIREMENTS SPECIFIED IN ASTM A-974:

A) SPECIFIC GRAVITY:

THE SPECIFIC GRAVITY AS DETERMINED IN ACCORDANCE WITH ASTM D-792 SHALL BE BETWEEN 1.20 AND 1.40.

B) DUROMETER HARDNESS:

THE HARDNESS AS DETERMINED IN ACCORDANCE WITH ASTM D-2240 SHALL NOT BE LESS THAN 75, SHORE A.

C) TENSILE STRENGTH:

THE TENSILE STRENGTH WHEN TESTED IN ACCORDANCE WITH ASTM D-638 SHALL NOT BE LESS THAN 2275 PSI (15.7 MPA).

D) MODULUS OF ELASTICITY:

THE MODULUS OF ELASTICITY WHEN DETERMINED IN ACCORDANCE WITH ASTM D-638 SHALL NOT BE LESS THAN 1980 PSI (13.7 MPA).

E) RESISTANCE TO ABRASION:

THE PERCENTAGE LOSS IN WEIGHT (MASS) SHALL BE LESS THAN 12 % DURING ABRASION TESTING IN ACCORDANCE WITH ASTM D-1242, METHOD B, AT 200 CYCLES, CS1-A ABRADER TAPE, 80 GRIT.

F) BRITTLINESS TEMPERATURE:

THE BRITTLINESS TEMPERATURE SHALL NOT BE HIGHER THAN 150F (-9.00C) OR A LOWER TEMPERATURE SPECIFIED BY THE ENGINEER, WHEN TESTED IN ACCORDANCE WITH ASTM D-746. THE MAXIMUM BRITTLINESS TEMPERATURE SHOULD BE AT LEAST 150F (80C) BELOW THE MINIMUM TEMPERATURE AT WHICH THE GABION WILL BE HANDLED OR FILLED.

G) ADHESION:

THE PVC COATING ON THE WIRE SHALL ADHERE TO THE WIRE SUCH THAT THE COATING BREAKS RATHER THAN SEPARATES FROM THE WIRE, WHEN TESTED IN ACCORDANCE WITH THE PVC ADHESION TEST DESCRIBED IN SECTION 13.3 OF ASTM A-974.

H) MANDREL BEND:

THE PVC-COATED WIRE, WHEN SUBJECTED TO A SINGLE 3600 BEND AT 00F (-180C) AROUND A MANDREL TEN TIMES THE DIAMETER OF THE WIRE, SHALL NOT EXHIBIT BREAKS OR CRACKS IN THE PVC COATING.

(B) PERFORMANCE TESTS:

THE PVC COATING SHALL HAVE THE DEMONSTRATED ABILITY TO WITHSTAND THE SPECIFIED EXPOSURE TESTING.

- EXPOSURE TO SALT SPRAY: THE PVC SHALL SHOW NO EFFECT AFTER 3000 HOURS OF SALT SPRAY EXPOSURE IN ACCORDANCE WITH ASTM TEST METHOD B-117.
- EXPOSURE TO ULTRAVIOLET RAYS: THE PVC SHALL SHOW NO EFFECT OF EXPOSURE TO ULTRAVIOLET LIGHT WITH TEST EXPOSURE OF 3000 HOURS, USING APPARATUS TYPE E AND 1450F (630C), WHEN TESTED IN ACCORDANCE WITH ASTM PRACTICE D-1499 AND G-23.

(C) PROPERTIES AFTER EXPOSURE TESTS:

AFTER CONCLUSION OF THE SALT SPAY AND EXPOSURE TO ULTRAVIOLET LIGHT TESTS, THE PVC SHALL NOT SHOW CRACKS, BLISTERS OR SPLITS, NOR ANY NOTICEABLE CHANGE IN COLOR. IN ADDITION THE PVC COATING SHALL NOT SHOW CRACKS OR BREAKS AFTER THE WIRES ARE TWISTED IN THE FABRICATION OF THE MESH, NOR SHALL THERE BE ANY MOISTURE INTRUSION UNDER THE PVC COATING AS A RESULT OF THE TEST.

AFTER COMPLETION OF THE EXPOSURE TESTS THE FOLLOWING CRITERIA SHALL ALSO BE MET:

1) WOVEN MESH:

- THE SPECIFIC GRAVITY SHALL NOT CHANGE MORE THAN 6% OF ITS INITIAL VALUE.
- THE DUROMETER HARDNESS SHALL NOT CHANGE MORE THAN 10% OF ITS INITIAL VALUE.
- THE TENSILE STRENGTH SHALL NOT CHANGE MORE THAN 25% OF ITS INITIAL VALUE.
- THE RESISTANCE TO ABRASION SHALL NOT CHANGE MORE THAN 10% OF ITS INITIAL VALUE.

2) WELDED MESH:

- THE SPECIFIC GRAVITY SHALL NOT CHANGE MORE THAN 6% OF ITS INITIAL VALUE.
- THE MODULUS OF ELASTICITY SHALL NOT CHANGE MORE THAN 25% OF ITS INITIAL VALUE.
- THE TENSILE STRENGTH SHALL NOT CHANGE MORE THAN 25% OF ITS INITIAL VALUE.
- THE RESISTANCE TO ABRASION SHALL NOT CHANGE MORE THAN 10% OF ITS INITIAL VALUE.

(D) SALT SPRAY RESISTANCE FOR FASTENER:

THE FASTENERS FOR TWISTED MESH WIRE GABIONS AND REVET MATTRESSES SHALL BE SUBJECTED TO SALT SPRAY TEST OF TEST METHOD B-117 FOR A PERIOD OF NOT LESS THAN 48 1 HOUR CYCLE LENGTH. AFTER TESTING THE FASTENERS, THE SELVEDGE, OR MESH WIRE CONFINED BY THE FASTENERS SHALL SHOW NO RUSTY SPOTS ON ANY PART OF THE SURFACE EXCLUDING THE CUT ENDS.

(5) STONE

(A) GABION BASKET STONES

STONE FILL SHALL BE DURABLE AND OF SUITABLE QUALITY TO ENSURE PERMANENCE IN THE STRUCTURE. THE STONE USED TO FILL THE GABION BASKETS SHALL BE A CLEAN, SOUND, AND DURABLE ROCK MEETING THE FOLLOWING REQUIREMENTS. IT SHALL HAVE A WEARING LOSS LESS THAN 35 PERCENT WHEN THE STONE IS TESTED WITH THE LOS ANGELES ABRASION MACHINE IN ACCORDANCE WITH ASTM TEST METHOD C535 (TXDOT TEST METHOD TEX-410.A). THE LOSS OF MATERIAL EXPERIENCED DURING FIVE CYCLES OF MAGNESIUM SULFATE EXPOSURE CONDUCTED IN ACCORDANCE WITH TXDOT TEST METHOD TEX-411.A FOR ROCK RIPRAP SHALL NOT EXCEED 18 PERCENT. THE STONE SHALL BE WELL GRADED TO PRODUCE A DENSE FILL, ANGULAR IN TEXTURE, WHILE MEETING THE FOLLOWING GRADATION REQUIREMENTS:

Table 3: Gabion Stone Gradation Requirements

Sieve Size	Percent by Weight (Mass)
US (SI)	% Passing Each Individual Sieve
8 Inch (200 mm)	100
4 Inch (100 mm)	0 – 5
3 Inch (75 mm)	0

THE MINIMUM UNIT WEIGHT (UNIT MASS) OF A ROCK FILLED GABION SHALL BE 120 PCF [1.92 MEGAGRAMS (MG) PER CUBIC METER]. VERIFICATION OF UNIT WEIGHT (MASS) SHALL BE PERFORMED WHEN ORDERED BY THE ENGINEER, BY CONSTRUCTING A TEST GABION WITH MATERIALS SUPPLIED FOR CONSTRUCTION WITH THE SAME EFFORT AND METHOD INTENDED FOR PRODUCTION GABIONS.

(B) REVET MATTRESS STONE:

THE STONE USED TO FILL THE REVET MATTRESSES SHALL BE AS SPECIFIED FOR GABIONS EXCEPT THAT IT SHALL HAVE A MAXIMUM DIMENSION OF 5 INCHES (125MM) AND A MINIMUM DIMENSION OF 3 INCHES (75 MM). THE MAJORITY OF THE STONE SHALL BE IN THE 3 TO 4 INCH (75 TO 100 MM) RANGE; CUBICAL OR ROUNDED IN SHAPE. A TOLERANCE OF 5% SHALL BE ALLOWED ON THE UPPER AND LOWER DIMENSIONS OF THE ROCK.

(b) CONNECTIONS

(A) WIRE

LACING WIRE AND CONNECTING WIRE SHALL BE 13.5 GAGE [0.087 INCH (2.20 MM)] PVC COATED GALVANIZED STEEL, CLASS 3, SOFT TEMPER, CONFORMING TO ASTM A-641. DURING TESTING, ANY SEPARATION OF 2 INCHES (50 MM) OR MORE BETWEEN CONNECTING WIRES SHALL BE CONSIDERED AS A FAILURE.

(B) SPIRAL BINDER FOR WELDED WIRE MESH

SPIRAL BINDERS SHALL CONSIST OF 0.106 INCH (2.7 MM) PVC COATED WIRE FOR THE GABION AND 0.087 INCH (2.2 MM) PVC COATED WIRE FOR THE REVET MATTRESSES. SPIRAL BINDERS SHALL HAVE A 3.0 INCH (75 MM) MAXIMUM SEPARATION BETWEEN CONTINUOUS SUCCESSIVE LOOPS (3 INCH OR 75MM PITCH).

THE BINDER SHALL BE MADE OF GALVANIZED STEEL, CLASS 3, SOFT TEMPER, CONFORMING TO ASTM A-641.

(C) ALTERNATE FASTENERS FOR TWISTED WOVEN MESH

ALTERNATE FASTENERS, ACCEPTABLE FOR USE BY THE INTENDED GABION BASKET MANUFACTURER, MAY BE SUBMITTED TO THE ENGINEER FOR CONSIDERATION AND APPROVAL PRIOR TO CONSTRUCTION. THE FASTENERS MAY CONSIST OF SPLIT RING OR INTERLOCKING FASTENERS. ALTERNATE FASTENERS SYSTEMS SHALL PRODUCE A JOINT THAT MEETS THE REQUIREMENTS OF ASTM A-975, SECTION 7, TABLE 2.

(7) FASTENER SYSTEM

THE CONTRACTOR SHALL PROVIDE A COMPLETE DESCRIPTION OF THE FASTENER SYSTEM, INCLUDING THE NUMBER OF FASTENERS REQUIRED FOR ALL VERTICAL AND HORIZONTAL CONNECTIONS FOR SINGLE- AND MULTIPLE-BASKET JOININGS, AS WELL AS THE NUMBER AND SIZE WIRES THE FASTENER IS CAPABLE OF PROPERLY JOINING. THE CONTRACTOR SHALL PROVIDE A DESCRIPTION OF A PROPERLY INSTALLED FASTENER, INCLUDING TEST REPORTS, DRAWINGS AND/OR PHOTOGRAPHS. PROPERLY FORMED FASTENERS SHALL MEET THE REQUIREMENTS OF ASTM A-974 FOR WELDED WIRE MESH OR ASTM A-975 FOR TWISTED WOVEN MESH.

(A) EACH INTERLOCKING FASTENER SHALL BE LOCKED AND CLOSED.

(B) EACH OVERLAPPING RING FASTENER SHALL BE CLOSED AND THE FREE ENDS SHALL OVERLAP AN AVERAGE OF 1 INCH (25 MM).

(C) SPIRAL BINDERS SHALL BE SCREWED INTO POSITION SUCH THAT THEY PASS THROUGH EACH MESH OPENING ALONG THE JOINT. IN ORDER TO PREVENT UNRAVELING, BOTH ENDS OF THE SPIRAL SHALL BE CRIMPED BACK AROUND ITSELF.

(D) WIRE FASTENERS SHALL NOT BE USED TO JOIN MORE WIRES, OR LARGER WIRES, THAN TESTED AND APPROVED FOR THE APPLICATION.

(8) PANEL TO PANEL JOINT STRENGTH

THE MINIMUM STRENGTH OF THE JOINED PANELS SHALL BE AS SPECIFIED IN SECTION 7.3 OF ASTM A-974 FOR WELDED WIRE PANELS OR SECTION 7.3 OF ASTM A-975 FOR TWISTED WOVEN MESH.

(9) MISCELLANEOUS

AGGREGATE BEDDING, GEOTEXTILES OR OTHER MATERIALS SHALL CONFORM TO THE REQUIREMENTS ESTABLISHED ON THE DRAWINGS.

(10) CERTIFICATE OF COMPLIANCE

THE CONTRACTOR SHALL SUBMIT CERTIFICATES OF COMPLIANCE FOR ALL MATERIALS PROPOSED FOR USE TO THE ENGINEER FOR REVIEW AND APPROVAL ONE WEEK PRIOR TO CONSTRUCTION.

Sand Bed. The sand bed for city-maintained filtration basins must be built to the "Sand Bed with Gravel Layer"

configuration below unless topographic constraints make this design unfeasible. Unfeasible is considered: assuming

(for the purposes of this selection process only) a maximum ponding depth of three feet in the sedimentation basin,

If it is not feasible to obtain an outlet for the drainage from the filtration basin within one-hundred (100) feet of the crest of the filtration embankment, then the "trench design" may be used. For ponds not maintained by the city, the sand

bed may be a choice of one of the two configurations given below.

Note: Sand bed depths are final, compacted depths. Consolidation effects must be taken into account.

– Sand Bed with Gravel Layer (detail #3/13 of this sheet).

The top layer is to be a minimum of twelve (12) inches of 0.02–0.04 inch diameter sand which corresponds

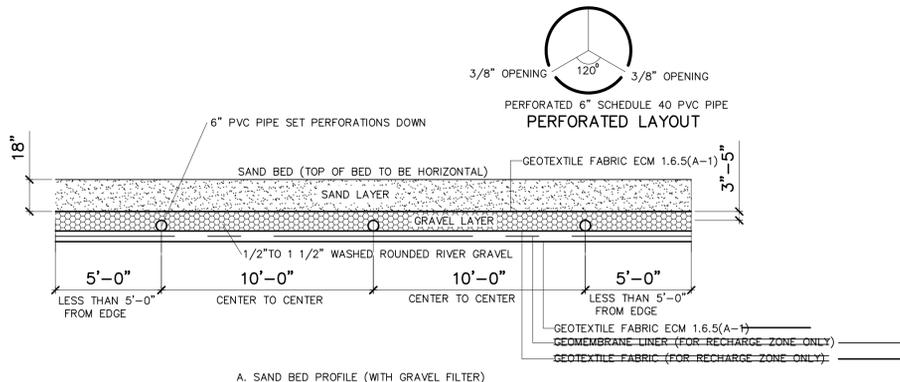
with ASTM C-33 concrete sand (smaller sand size is not acceptable). Under the sand shall be a layer of

one-half (0.5) to one and one-half (1.5) inch diameter washed, rounded, river gravel which provides a minimum of

three (3) inches of cover over the top of the underdrain lateral pipes. Two (2) inches of gravel is required under the

lateral pipes. The sand and gravel must be separated by a layer of geotextile fabric meeting the specifications listed

in Section 1.6.2(C).



A. SAND BED PROFILE (WITH GRAVEL FILTER)

CITY OF AUSTIN STANDARD DETAIL NO. 661-1, OPTION A
SAND BED FILTRATION CONFIGURATIONS USING GEOMEMBRANE LINER

Professional Engineer Seal for Mirza Tahir Bag, P.E., #82577 ON 08/19/2025, Firm Registration F-4951.

Rev	Description	Date	Drawn
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PROFESSIONAL STRUCTURAL ENGINEERS, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS
12710 RESEARCH BLVD., SUITE 900, AUSTIN, TX 78759 | TEL: 512.238.6421 FAX: 512.238.8995

Project: BAGDAD GAS STATION
1646 N BAGDAD RD.
LEANDER, TEXAS 78641

PROJECT NO: SD-22-0023

Title: GRADING & DRAINAGE PLAN SHEET 4
WATER QUALITY POND DETAILS

PROJECT: 30356

SHEET: 10 OF 24

PROJECT NUMBER: SD-22-0023

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GENERAL LEGEND	
[Symbol]	PROPERTY LINE
[Symbol]	LIMITS OF CONSTRUCTION
[Symbol]	SILT FENCE
[Symbol]	SILT FENCE & LOC
[Symbol]	PUBLIC UTILITY EASEMENT
[Symbol]	DRAINAGE EASEMENT
[Symbol]	ELECTRICAL EASEMENT
[Symbol]	SANITARY SEWER EASEMENT
[Symbol]	WATER SURFACE ELEVATION
[Symbol]	CORRUGATED METAL PIPE
[Symbol]	EXISTING CONTOURS
[Symbol]	PROPOSED GRADING CONTOURS
UTILITY LEGEND	
[Symbol]	FIRE HYDRANT
[Symbol]	GATE VALVE
[Symbol]	PLUG OR CAP
[Symbol]	STORM SEWER MANHOLE
[Symbol]	WATER MAIN MANHOLE
[Symbol]	WW CLEAN-OUT
[Symbol]	WATER LINE
[Symbol]	WASTEWATER LINE
[Symbol]	STORM SEWER LINE
[Symbol]	FLOW INDICATOR(SHOWN TO RIGHT)
[Symbol]	PROPOSED SERVICE TAP
[Symbol]	WATER METER
[Symbol]	IRRIGATION METER
[Symbol]	STORM SEWER INLET
[Symbol]	WATER SERVICE (SINGLE)
[Symbol]	WATER SERVICE (DOUBLE)
[Symbol]	UTILITY POLE
[Symbol]	LIGHT POLE
[Symbol]	OVERHEAD ELECTRIC (EXISTING)
[Symbol]	WIRE FENCE
EROSION CONTROL LEGEND	
[Symbol]	TREE (EXISTING)
[Symbol]	TREE (TO BE REMOVED) (R)
[Symbol]	TREE PROTECTION

SITE INFORMATION TABLE			
LOT AREA	1.51 ACRES		
BUILDING	5,920.0 SF	0.136 ACRES (9.02%)	
PARKING	32,635.08 SF	0.749 ACRES (49.67%)	
SIDEWALK	4,744.23 SF	0.109 ACRES (7.23%)	
TOTAL IMPERVIOUS COVER	43,299.31 SF	0.994 ACRES (65.92%)	
ZONING	LC-3-A		
PROPOSED USAGE	RETAIL SALES & SERVICE, GAS STATION		
ALLOWABLE IMPERVIOUS COVER	1.647		

BUILDING INFORMATION TABLE			
BUILDING COVERAGE	5,920.0 SF (9.02%)		
NUMBER OF STORIES	1		
TYPE OF CONSTRUCTION	II-B (STEEL STRUCTURE)		
MAX. BUILDING HEIGHT	30'-8"		
ALLOWABLE BUILDING HEIGHT	35'-0"		
ALLOWABLE STRUCTURE COVERAGE	40%		
OCCUPANCY CLASSIFICATION	M		

PARKING TABLE			
TOTAL PARKING SPACES REQUIRED	24		
	5,920.0/250sf=24		
TOTAL PARKING SPACES PROVIDED	28		

SUMMARY OF PARKING SPACES			
PROVIDED STANDARD SPACES	26		
PROVIDED HANDICAP VAN	1		
PROVIDED STANDARD HANDICAP	1		

FIRE DEPARTMENT NOTES:

1) FIRE LANE STRIPING: FIRE APPARATUS ACCESS ROADS SHALL BE CONTINUOUSLY MARKED BY PAINTED LINES OF RED TRAFFIC PAINT SIX INCHES (6") IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE. THE WORDS "FIRE LANE TOW AWAY ZONE" OR "FIRE ZONE TOW AWAY ZONE" SHALL APPEAR IN FOUR INCH (4") WHITE LETTERS AT 25 FEET INTERVALS OR LESS, ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANES. WHERE A CURB IS AVAILABLE, THE STRIPING SHALL BE ON THE VERTICAL FACE OF THE CURB.

2) FIRE LANE SIGNS: SIGNS SHALL READ "FIRE LANE TOW AWAY ZONE" OR "FIRE ZONE TOW AWAY ZONE" AND SHALL BE 12" WIDE AND 18" HIGH. SIGNS SHALL BE PAINTED ON A WHITE BACKGROUND WITH LETTERS AND BORDERS IN RED, USING NOT LESS THAN 2" LETTERING. SIGNS SHALL BE PERMANENTLY AFFIXED TO A STATIONARY POST AND THE BOTTOM OF THE SIGN SHALL BE SIX FEET, SIX INCHES (6'6") ABOVE FINISHED GRADE. SIGNS SHALL BE SPACED NOT MORE THAN THIRTY-FIVE FEET (35') APART. SIGNS MAY BE INSTALLED ON PERMANENT BUILDINGS OR WALLS OR AS APPROVED BY THE FIRE CODE OFFICIAL.

LEANDER FIRE DEPARTMENT	
IFC 2015 WITH CITY OF AUSTIN LOCAL AMENDMENTS	1,500
C-STORE WITH GAS SALES, GENERAL RETAIL	II-B
5,920.0 sf	NFPA-13
CONSTRUCTION CLASSIFICATION	N/A
BUILDING FIRE AREA (S.F.)	N/A
AUTOMATIC FIRE SPRINKLER SYSTEM TYPE (IF APPLICABLE)	N/A
REDUCED FIRE FLOW DEMAND @ 20 PSI FOR HAVING A SPRINKLER SYSTEM(GPM)	N/A
(IF APPLICABLE)	N/A
AFD FIRE HYDRANT FLOW TEST DATE	NO
AFD FIRE HYDRANT FLOW TEST LOCATION	N/A
HIGH-RISE	N/A
ALTERNATIVE METHOD OF COMPLIANCE	N/A
-AMOC (IF APPLICABLE)	N/A
NUMBER OF FIRE HYDRANT REQUIRED	2

SITE PLAN NOTE:

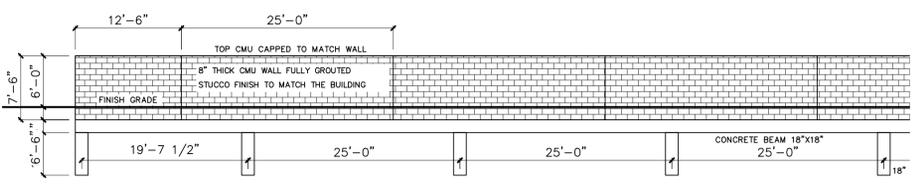
- ELECTRICAL, TELEPHONE AND OTHER LINE: ALL ELECTRICAL, TELEPHONE, CABLE TELEVISION AND SIMILAR LINES SHALL BE PLACED UNDERGROUND. SUCH LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE REGULATIONS AND REQUIREMENTS ESTABLISHED BY EACH UTILITY OR SERVICE COMPANY, AS APPLICABLE, AND CITY ORDINANCE.
- ALL SITE UTILITY LINE ARE PROPOSED TO BE LOCATED UNDERGROUND.
- ALL EASEMENTS OF RECORD AS INDICATED ON THE MOST RECENT TITLE RUN (DATED: MAY 22, 2017, CONDUCTED BY INDEPENDENCE TITLE) FOR THIS PROPERTY ARE SHOWN ON THIS SITE PLAN.
- AL CLAWSON DISPOSAL, INC. SHALL BE THE SOLE PROVIDER OF WASTE HAULING FOR THIS SITE BOTH DURING AND AFTER CONSTRUCTION.
- GARBAGE DUMPSTERS ARE LOCATED NO CLOSER TO A ROADWAY THAN THE FRONT WALL OF THE PRINCIPAL STRUCTURE LOCATED CLOSEST TO THE ROADWAY. GARBAGE DUMPSTERS ARE SCREENED BY A WALL (COMPRISED OF MASONRY COMPATIBLE WITH THE STRUCTURE OR WOODCRETE) AT LEAST AS HIGH AS THE CONTAINER. THE OPEN SIDE TO THE DUMPSTER OR OTHER TRASH RECEPTACLE IS A GATE CONSTRUCTED OF SOLID WOOD OR METAL. THE DUMPSTER IS ORIENTED FOR PICKUP BY A FRONT LOAD GARBAGE TRUCK.
- FOR 90 GALLON ROLL OUT CONTAINER STORED OUTSIDE, IT IS REQUIRED TO BE ENCLOSED BY PRIVACY FENCE.
- THE COLUMNS ASSOCIATED WITH THE CANOPY STRUCTURE WILL MEET THE MASONRY REQUIREMENTS AND BE COMPATIBLE WITH THE PROPOSED BUILDING MATERIALS.
- THE FUEL PUMPS WILL BE SCREENED FROM VIEW BY THE INSTALLATION OF PLANTINGS.
- EXTERIOR LIGHTING SHALL BE SHIELDED SUCH THAT THE LIGHT SOURCE IS NOT DIRECTLY VISIBLE FROM THE PUBLIC ROW OR ADJACENT RESIDENTIAL DISTRICTS OR USES AT THE PROPERTY LINE. UNSHIELDED "WALL PACK" LIGHTING IS NOT PROPOSED.
- AIR CONDITIONING UNITS ARE NOT PROPOSED FORWARD THE FRONT WALL OF THE BUILDING.
- HOURS OF OPERATION LIMITED TO BETWEEN 5:00 A.M. AND 10:00 P.M. SUNDAY THROUGH THURSDAY, AND 5:00 A.M. TO 11:00 P.M. FRIDAY AND SATURDAY BECAUSE OF LC ZONING.
- A DRIVEWAY DETERMINATION LETTER HAS BEEN ISSUED FOR THIS TRACT BY THE CITY OF LEANDER.
- THE AREA OF ANY OUTDOOR DISPLAY OF MERCHANDISE DOES NOT EXCEED 30% OF THE GROSS FLOOR AREA OF THE BUILDING.
- THE COMBINATION OF OUTDOOR DISPLAY, OUTDOOR STORAGE AND ACCESSORY BUILDINGS DOES NOT EXCEED 40% OF THE GROSS FLOOR AREA OF THE PRIMARY BUILDING.

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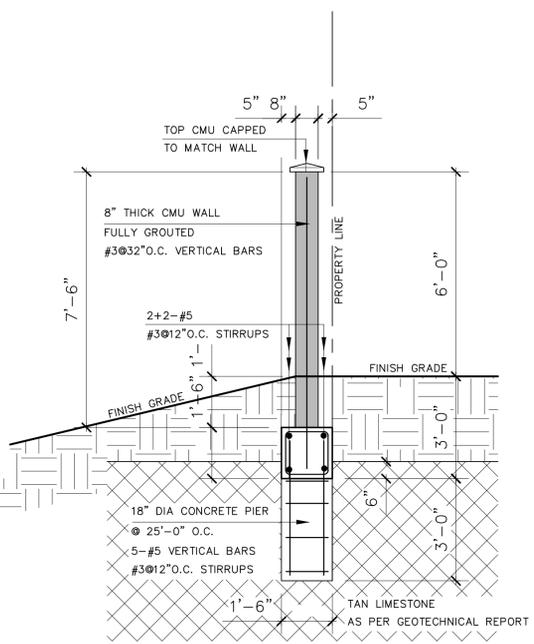
PROFESSIONAL STRUCTURAL ENGINEERS, INC.
CONSULTING CIVIL AND STRUCTURAL ENGINEERS

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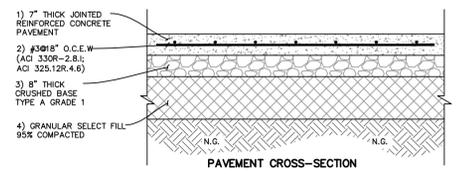
PROJECT NO: SD-22-0023



ELEVATION OF MASONRY WALL NO:1
SCALE 1"=10'-0"



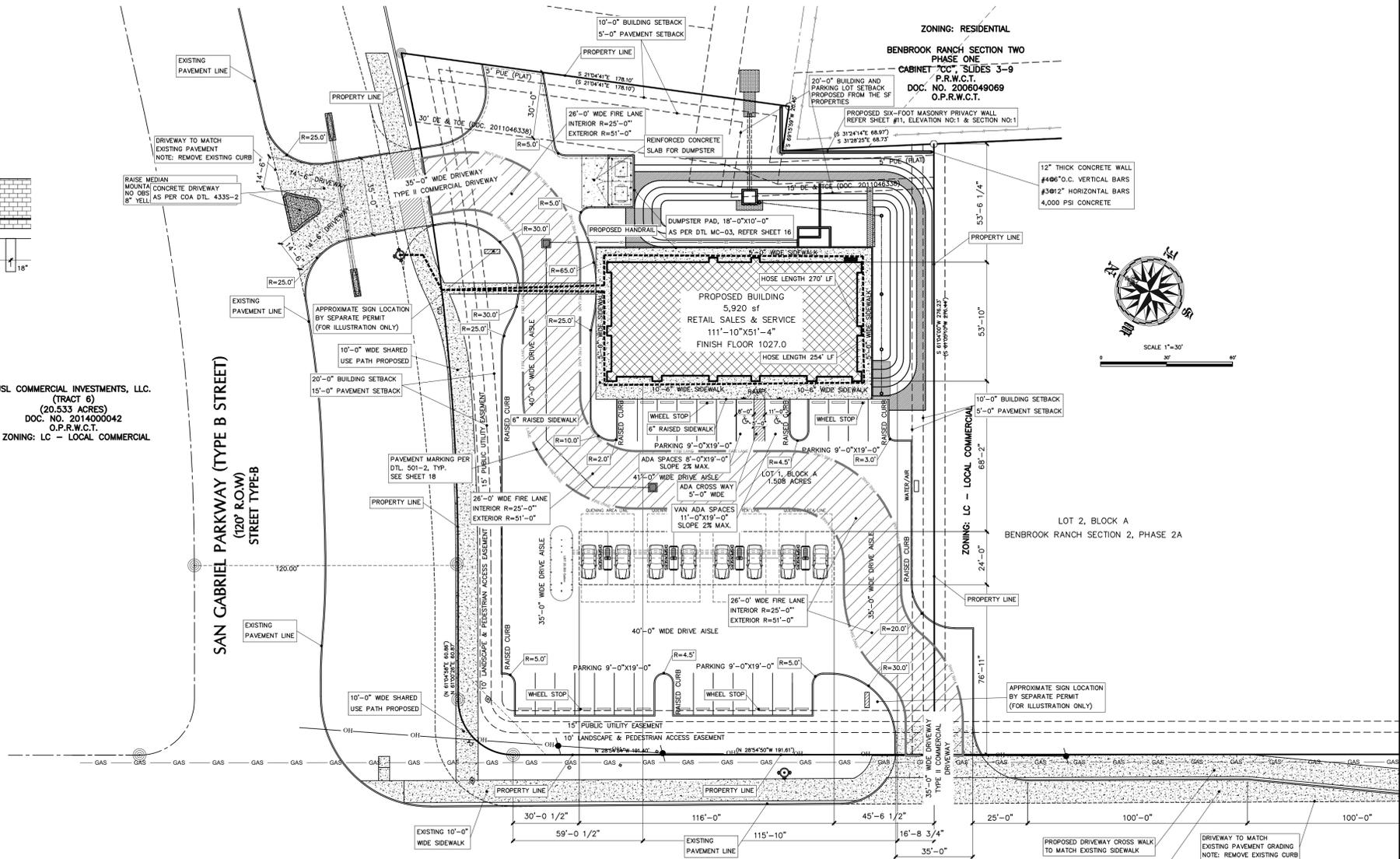
MASONRY WALL NO:1 SECTION
SCALE 1"=2'-6"



PAVEMENT THICKNESS DESIGN:

CONCRETE PAVEMENT ON THICK GRANULAR SELECT FILL

- 7" THICK JOINTED REINFORCED CONCRETE PAVEMENT (JRCP)
- REINFORCEMENT #3@18" O.C.E.W IN THE MIDDLE
- 8" THICK CRUSHED BASE (I.E. TxDOT TYPE A GRADE 1)
- GRANULAR SELECT FILL, 95% COMPACTED, AND PROOF-ROLLED IMMEDIATELY BEFORE PLACING BASE AND CONCRETE
- PAVEMENT TO BE IN COMPLIANCE WITH THE GEOTECHNICAL REPORT. VERIFY DURING CONSTRUCTION.



BAGDAD ROAD (COUNTY RD. 279)
ROW VARIES
STREET TYPE-C

PROJECT NUMBER: SD-22-0023

BAGDAD GAS STATION
1646 N BAGDAD RD.
LEANDER, TEXAS 78641

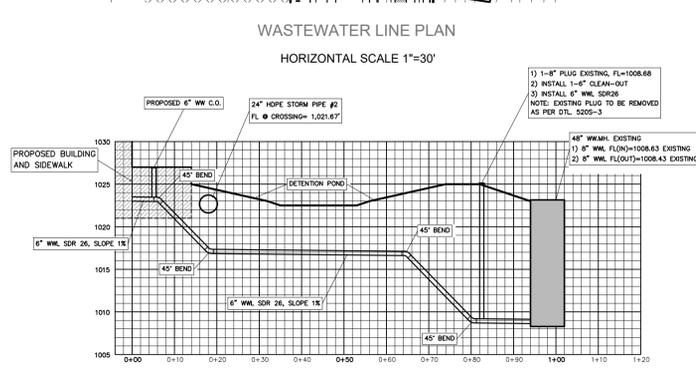
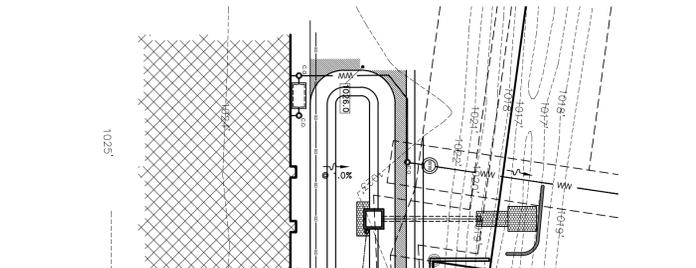
PROJECT: 30356

SHEET 11 OF 24

PROJECT NO: SD-22-0023

FIRE DEPARTMENT NOTES

- 1) UNDERGROUND MAINS FEEDING NFPA 13 SPRINKLER SYSTEMS MUST BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA 13, AND THE FIRE CODE, BY A LICENSED SPRINKLER CONTRACTOR WITH A PLUMBING PERMIT. THE ENTIRE MAIN MUST BE HYDROSTATICALLY TESTED AT ONE TIME, UNLESS ISOLATION VALVES ARE PROVIDED BETWEEN TESTED SECTIONS.
- 2) FOR UNDERGROUND MAINS FEEDING HYDRANTS ONLY, THE MAIN MUST BE INSTALLED AND TESTED IN COMPLIANCE WITH NFPA 24, AND THE FIRE CODE.



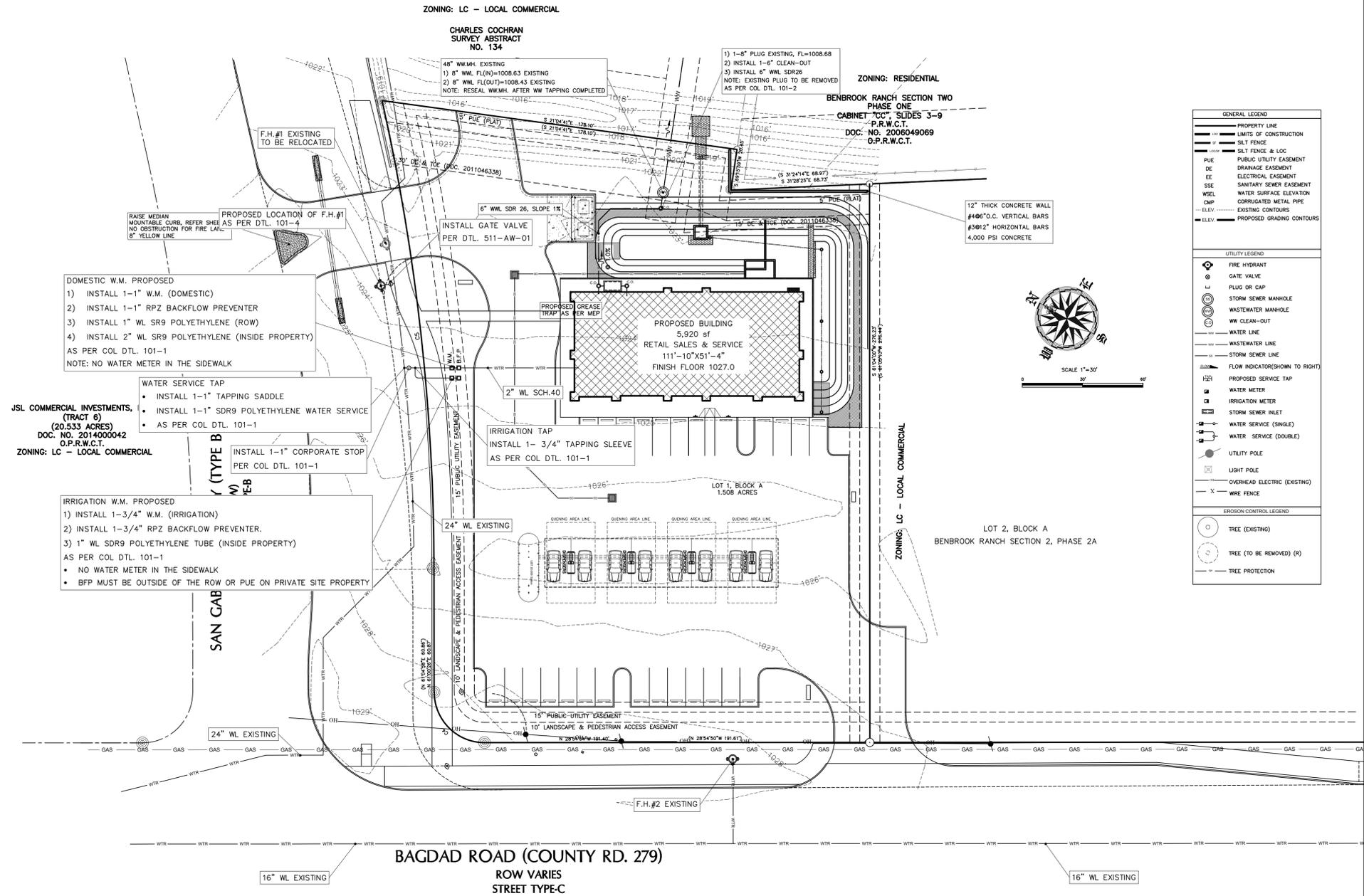
WATER & WASTEWATER DEMAND TABLE

TOTAL L.U.E. REQUIRED	4.0
WASTEWATER DEMAND	
AVERAGE DRY WEATHER FLOW (ADWF)	0.68 GPM
PEAK DRY WEATHER FLOW (PDWF)	2.99 GPM
PEAK WET WEATHER FLOW (PWWF)	3.77 GPM
WATER DEMAND	
AVERAGE DAY DEMAND (ADD)	1.94 GPM
PEAK DAY DEMAND (PDD)	5.15 GPM
PEAK HOUR DEMAND (PHD)	8.75 GPM
FIRE FLOW DEMAND	1,500 GPM

- UTILITY NOTE:**
- ALL (NEW) TELEPHONE AND CABLE TELEVISION UTILITY LINES AND ALL ELECTRIC UTILITY LATERAL AND SERVICES LINES AND WIRES SHALL BE PLACED UNDERGROUND.
 - WHERE EXISTING OVERHEAD ELECTRICAL SERVICE EXISTS, ELECTRIC UTILITY SERVICE LINES FOR STREET OR SITE LIGHTING SHALL BE PLACED UNDERGROUND.
 - ALL ELECTRICAL, CABLE TELEVISION, AND TELEPHONE SUPPORT EQUIPMENT (TRANSFORMERS, AMPLIFIERS, SWITCHING DEVICES, ETC.) NECESSARY FOR UNDERGROUND INSTALLATIONS IN SUBDIVISIONS SHALL BE PAD MOUNTED OR PLACED UNDERGROUND IN A PUBLIC UTILITY EASEMENT RATHER THAN A RIGHT-OF-WAY.
 - ALL SITE UTILITY LINES ARE PROPOSED TO BE UNDERGROUND.

- SERVICE PROVIDER:**
- 1) WATER CITY OF LEANDER
 - 2) WASTEWATER CITY OF LEANDER

1 - SINGLE FAMILY RURAL



- SERVICE PROVIDER:**
- 1) WATER CITY OF LEANDER
 - 2) WASTEWATER CITY OF LEANDER

PROJECT NUMBER: SD-22-0023

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MIRZA TAHR BAIG, P.E., #82577 ON 09/03/2025
FIRM REGISTRATION F-4951

PROFESSIONAL STRUCTURAL ENGINEERS, INC.
CONSULTING CIVIL AND STRUCTURAL ENGINEERS
12710 RESEARCH BLVD., SUITE 300, AUSTIN, TX 78759 | TEL: 512.238.6422 | FAX: 512.238.8995

PROJECT NO: SD-22-0023

BAGDAD GAS STATION
1646 N BAGDAD RD.
LEANDER, TEXAS 78641

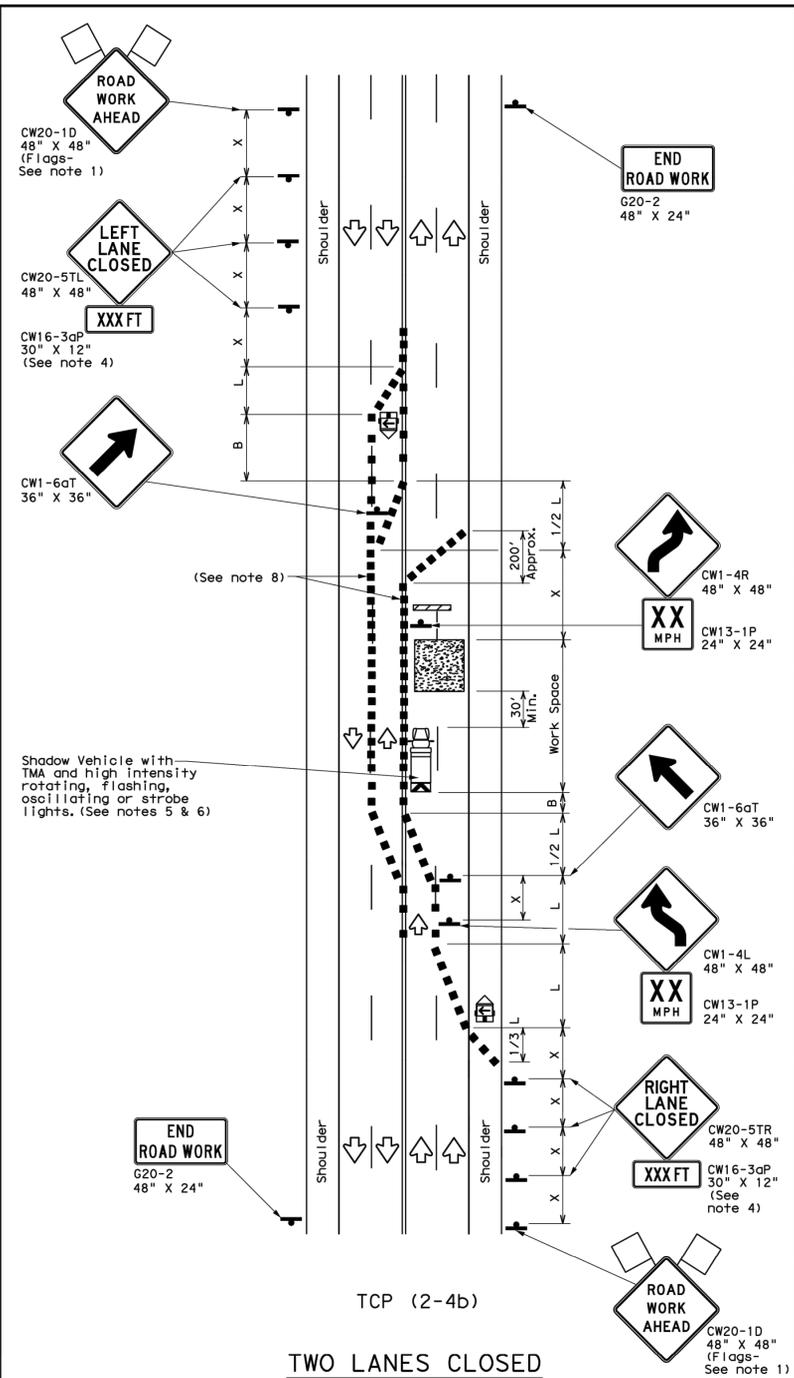
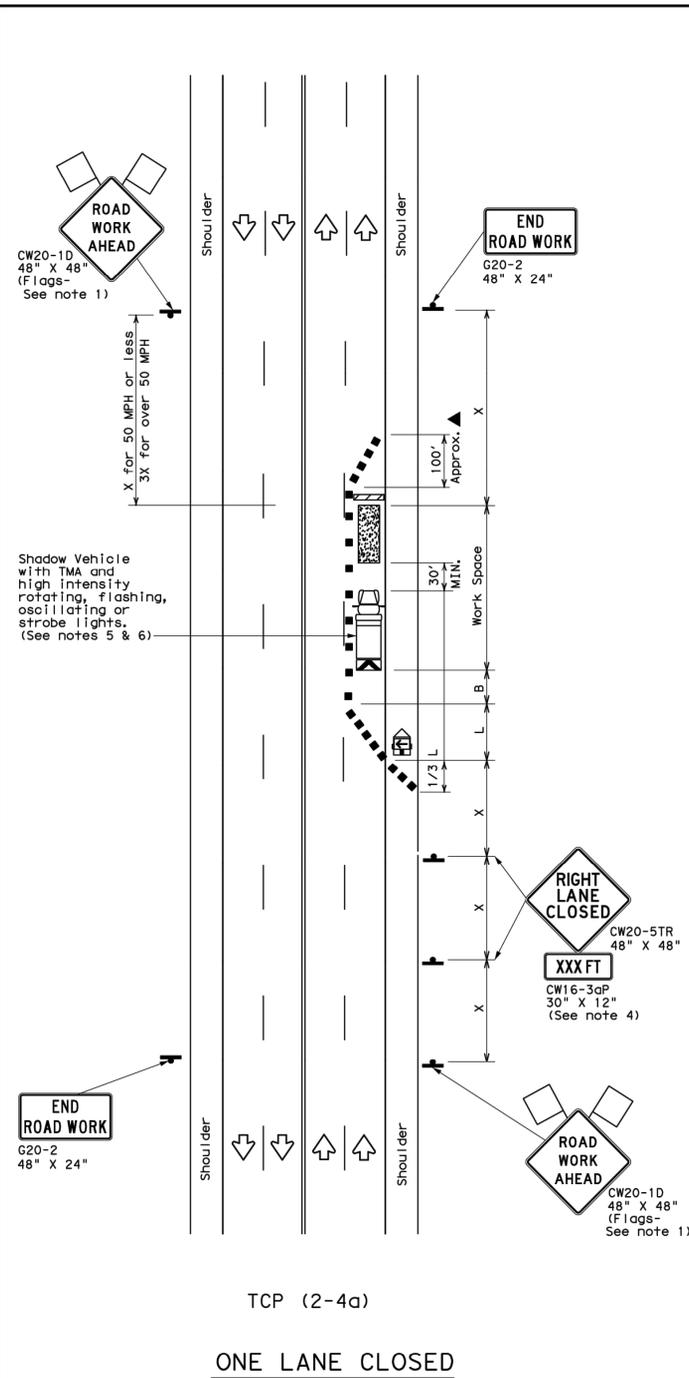
UTILITY PLAN

PROJECT: 30356

SHEET: 12 OF 24

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DATE: _____
 FILE: _____



LEGEND

	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "A"	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	$L = WS$	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70	700'	770'	840'	70'	140'	800'	475'	
75	750'	825'	900'	75'	150'	900'	540'	

* Conventional Roads Only
 ** Taper lengths have been rounded off.
 L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE

MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
		✓	✓	

- GENERAL NOTES**
- Flags attached to signs where shown, are REQUIRED.
 - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
 - The downstream taper is optional. When used, it should be 100 feet minimum length per lane.
 - For short term applications, when post mounted signs are not used, the distance legend may be shown on the sign face rather than on a CW16-3aP supplemental plaque.
 - A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
 - Additional Shadow Vehicles with TMAs may be positioned in each closed lane, on the shoulder or off the paved surface, next to those shown in order to protect a wider work space.
- TCP (2-4a)**
- If this TCP is used for a left lane closure, CW20-5TL "LEFT LANE CLOSED" signs shall be used and channelizing devices shall be placed on the centerline to protect the work space from opposing traffic with the arrow board placed in the closed lane near the end of the merging taper.
- TCP (2-4b)**
- For shorter durations where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/2(S) where S is the speed in mph. This tighter devices spacing is intended for the area of conflicting markings, not the entire work zone.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation
 Traffic Operations Division

TRAFFIC CONTROL PLAN
LANE CLOSURES ON MULTILANE CONVENTIONAL ROADS
TCP (2-4) - 12

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REVISIONS	DATE	BY	CHK	JOB	HIGHWAY
8-95	2-12				
1-97					
4-98					
3-03					

164

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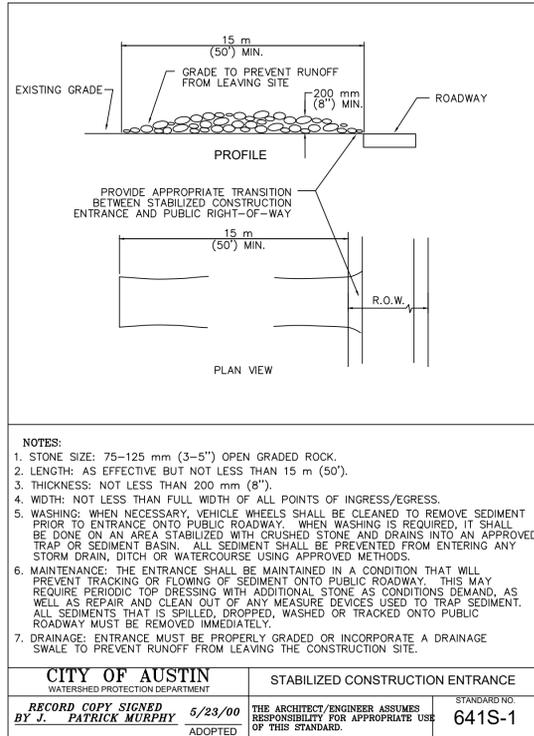
PROJECT NO: SD-22-0023

Project: BAGDAD GAS STATION
 1646 N BAGDAD RD.
 LEANDER, TEXAS 78641

Title: ROAD & SIDEWALK CLOSURE PLAN

PROJECT: 30356

SHEET: 13 OF 24



- NOTES:**
1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
 2. LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
 3. THICKNESS: NOT LESS THAN 200 mm (8").
 4. WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
 5. WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
 6. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TRUCK WASHING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO ROADWAY MUST BE REMOVED IMMEDIATELY.
 7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

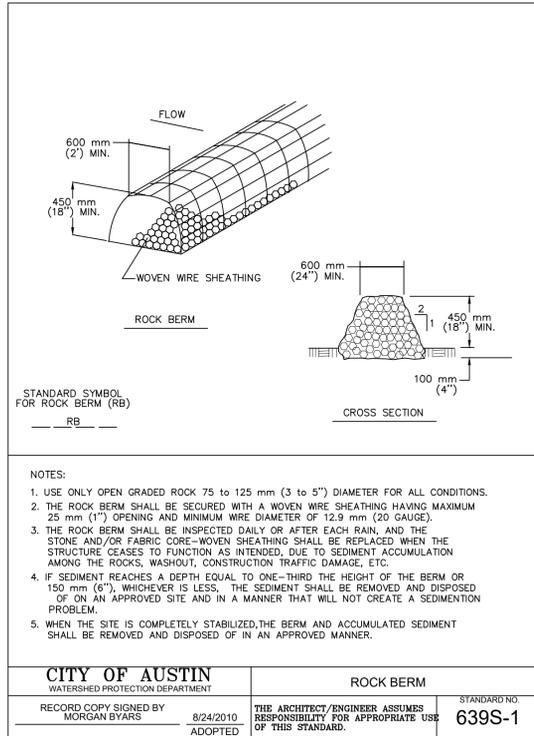
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

STABILIZED CONSTRUCTION ENTRANCE

RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 641S-1



- NOTES:**
1. USE ONLY OPEN GRADED ROCK 75 TO 125 mm (3 TO 5") DIAMETER FOR ALL CONDITIONS.
 2. THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
 3. THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
 4. IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
 5. WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

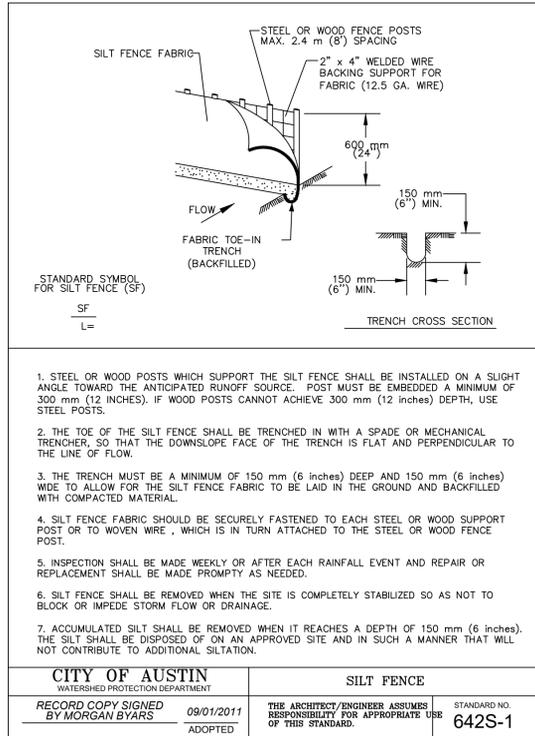
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

ROCK BERM

RECORD COPY SIGNED BY MORGAN BYARS 8/24/2010 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 639S-1



- NOTES:**
1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.
 2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
 3. THE TRENCH MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
 4. SILT FENCE FABRIC SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.
 5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
 6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
 7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

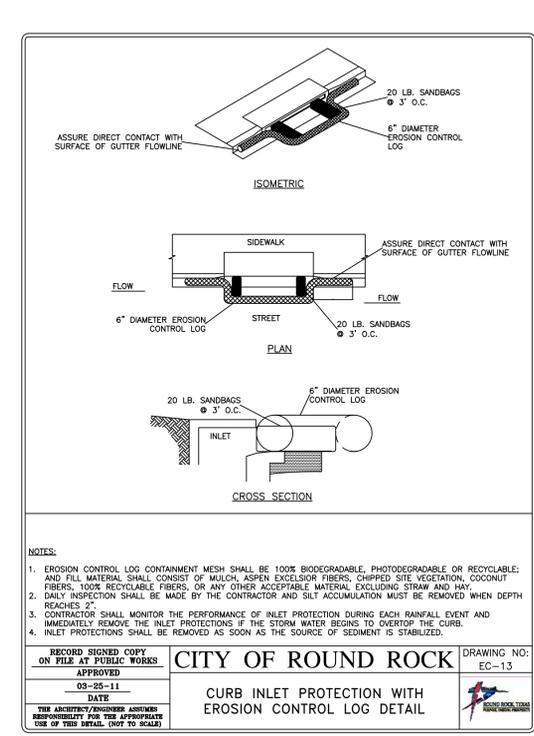
CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

SILT FENCE

RECORD COPY SIGNED BY MORGAN BYARS 09/01/2011 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 642S-1



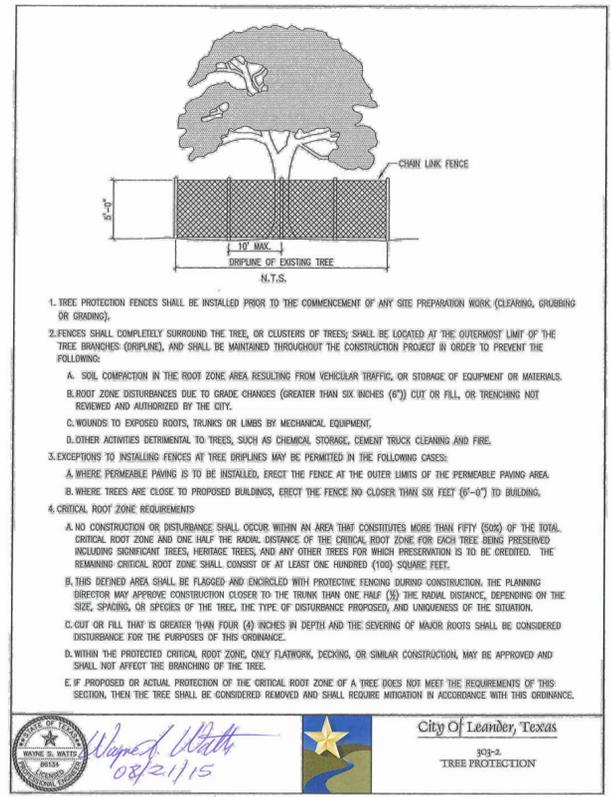
CITY OF ROUND ROCK

CURB INLET PROTECTION WITH EROSION CONTROL LOG DETAIL

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS APPROVED 03-25-11 DATE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)

STANDARD NO. EC-13

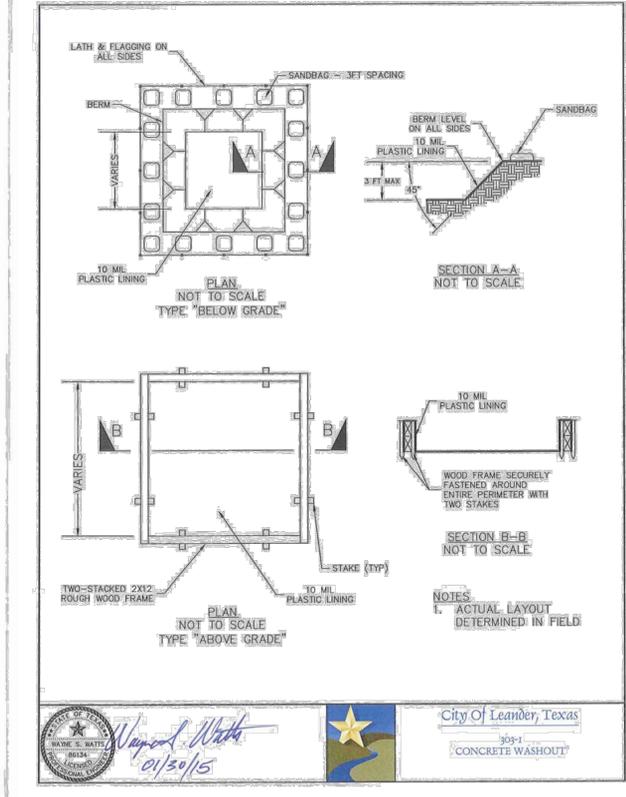


- 1. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).**
- 2. FENCES SHALL COMPLETELY SURROUND THE TREE, OR CLUSTERS OF TREES, SHALL BE LOCATED AT THE OUTERMOST LIMIT OF THE TREE BRANCHES (DRIPLINE), AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT THE FOLLOWING:**
- A. SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MATERIALS.
 - B. ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN SIX INCHES (6") CUT OR FILL, OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY.
 - C. WOUNDS TO EXPOSED ROOTS, TRUNKS OR LIMBS BY MECHANICAL EQUIPMENT.
 - D. OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING AND FIRE.
- 3. EXCEPTIONS TO INSTALLING FENCES AT TREE DRIPLINES MAY BE PERMITTED IN THE FOLLOWING CASES:**
- A. WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
 - B. WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN SIX FEET (6'-0") TO BUILDING.
- 4. CRITICAL ROOT ZONE REQUIREMENTS**
- A. NO CONSTRUCTION OR DISTURBANCE SHALL OCCUR WITHIN AN AREA THAT CONSTITUTES MORE THAN FIFTY (50%) OF THE TOTAL CRITICAL ROOT ZONE AND ONE HALF THE RADIAL DISTANCE OF THE CRITICAL ROOT ZONE FOR EACH TREE BEING PRESERVED INCLUDING SIGNIFICANT TREES, HERITAGE TREES, AND ANY OTHER TREES FOR WHICH PRESERVATION IS TO BE CREDITED. THE REMAINING CRITICAL ROOT ZONE SHALL CONSIST OF AT LEAST ONE HUNDRED (100) SQUARE FEET.
 - B. THIS DEFINED AREA SHALL BE FLAGGED AND ENCLOSED WITH PROTECTIVE FENCING DURING CONSTRUCTION. THE PLANNING DIRECTOR MAY APPROVE CONSTRUCTION CLOSER TO THE TRUNK THAN ONE HALF (1/2) THE RADIAL DISTANCE, DEPENDING ON THE SIZE, SPACING, OR SPECIES OF THE TREE, THE TYPE OF DISTURBANCE PROPOSED, AND UNUSUALNESS OF THE SITUATION.
 - C. CUT OR FILL THAT IS GREATER THAN FOUR (4) INCHES IN DEPTH AND THE SEVERING OF MAJOR ROOTS SHALL BE CONSIDERED DISTURBANCE FOR THE PURPOSES OF THIS ORDINANCE.
 - D. WITHIN THE PROTECTED CRITICAL ROOT ZONE, ONLY FLATWORK, DECKING, OR SIMILAR CONSTRUCTION MAY BE APPROVED AND SHALL NOT AFFECT THE BRANCHING OF THE TREE.
 - E. IF PROPOSED OR ACTUAL PROTECTION OF THE CRITICAL ROOT ZONE OF A TREE DOES NOT MEET THE REQUIREMENTS OF THIS SECTION, THEN THE TREE SHALL BE CONSIDERED REMOVED AND SHALL REQUIRE MITIGATION IN ACCORDANCE WITH THIS ORDINANCE.

City Of Leander, Texas

301-2 TREE PROTECTION

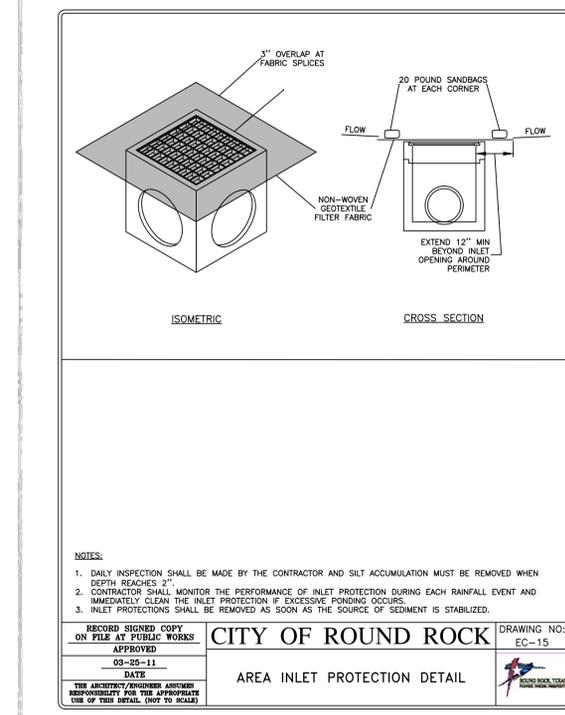
Wagner, Wally 08/21/15



City Of Leander, Texas

301-2 CONCRETE WASHOUT

Wagner, Wally 01/30/15



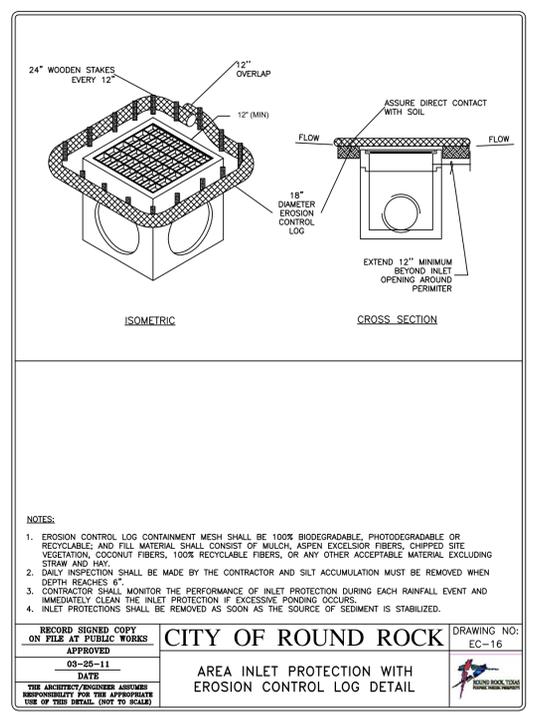
CITY OF ROUND ROCK

AREA INLET PROTECTION DETAIL

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THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)

STANDARD NO. EC-15



CITY OF ROUND ROCK

AREA INLET PROTECTION WITH EROSION CONTROL LOG DETAIL

RECORD SIGNED COPY ON FILE AT PUBLIC WORKS APPROVED 03-25-11 DATE

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS DETAIL. (NOT TO SCALE)

STANDARD NO. EC-16

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MIRZA TAHR BAIG
P.E., #82577 ON 08/19/2025
FIRM REGISTRATION F-4951

PROJECT NO: SD-22-0023

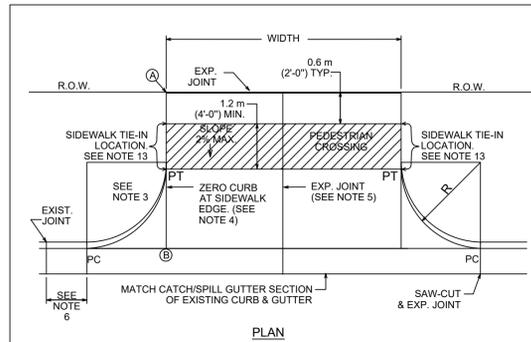
BAGDAD GAS STATION
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LEANDER, TEXAS 78641

GENERAL DETAILS SHEET 1

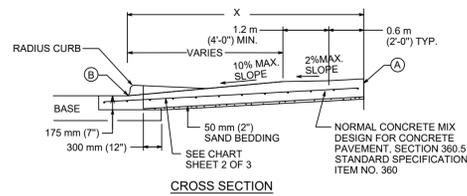
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14
OF 24

PROJECT NUMBER: SD-22-0023

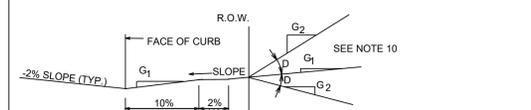


NOTE: ALL DRIVEWAYS SHALL BE SLOPED TOWARDS THE STREET FROM THE R.O.W. LINE. ELEVATION OF POINT A ABOVE POINT B IS, TYPICALLY A MINIMUM OF 150 mm (6") PLUS 20 mm (1") (RISE/FOOT) OVER DISTANCE "X" IN METERS (FEET).



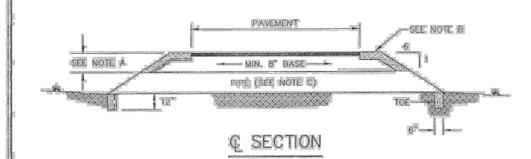
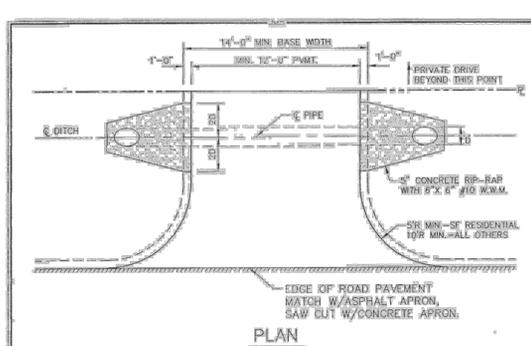
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE II DRIVEWAY	
RECORD COPY SIGNED BY CLAUDIO TRAM	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 1 OF 2

USE	THICKNESS	REINFORCEMENT
DRIVEWAYS FOR PASSENGER VEHICLE PARKING LOTS	150 mm (6") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDLE OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS
ALL OTHERS	175 mm (7") MIN.	125 mm (5") MIN. CONCRETE WITH ONE LAYER OF 13M (#4) BARS PLACED ON CHAIRS AT MIDDLE OF SLAB AT NO MORE THAN 450 mm (18") O.C. BOTH DIRECTIONS



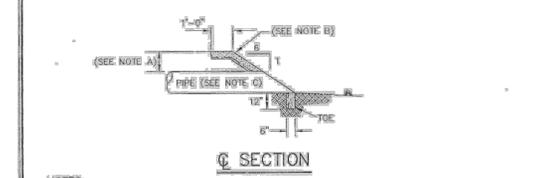
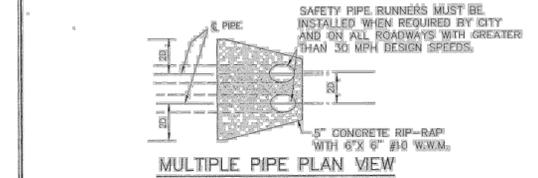
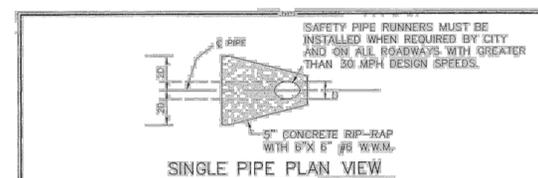
- NOTES:
- ALL TYPE II DRIVEWAYS SHALL HAVE RADIUS ENDS.
 - DRIVEWAY WIDTHS AND RADI DIMENSIONS, ONE/TWO WAY TRAVEL REQUIREMENTS, AND GEOMETRIC LAY-OUT ARE HIGHLY VARIABLE. SUBJECT TO SITE SPECIFIC CONDITIONS AND REQUIREMENTS. SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 DRIVEWAYS.
 - THE DRIVEWAY EDGE SHALL BE SMOOTHLY TRANSITIONED INTO THE SIDEWALK TIE-IN LOCATION BEGINNING AT THE RADIUS LINE.
 - "ZERO" CURB AT PT OR SIDEWALK EDGE, WHICHEVER IS ENCOUNTERED FIRST.
 - PLACE AN EXPANSION JOINT DOWN THE CENTER OF DRIVEWAY ALL DRIVEWAYS.
 - IF DIMENSION IS LESS THAN 1.5 METERS (5 FEET), REMOVE CURB AND GUTTER TO EXISTING JOINT AND FOUR MONOLITHICALLY WITH DRIVEWAY.
 - IF THE BASE IS OVER-EXCAVATED WHERE THE CURB AND GUTTER WERE REMOVED, BACKFILL WITH CONCRETE MONOLITHICALLY WITH THE DRIVEWAY.
 - TYPE II DRIVEWAYS ARE TO BE LOCATED NO CLOSER TO THE CORNER OF INTERSECTING RIGHT OF WAY THAN 60% OF PARCEL FRONTAGE AT 30 METERS (100 FEET); WHICHEVER IS LESS.
 - DRIVEWAY SHALL NOT BE CONSTRUCTED WITHIN THE CURB RETURN OF A STREET INTERSECTION.
 - WHILE THE PROPERTY OWNER REMAINS RESPONSIBLE FOR GRADE BREAKS WITHIN PRIVATE PROPERTY, THE FIRE DEPARTMENT SHALL BE CONSULTED WHERE THE DRIVEWAY IS ESSENTIAL TO EMERGENCY VEHICLE ACCESS AND "G2" IS GREATER THAN 15%.
 - USE 12 MM (1/2") ASPHALT BOARD OR OTHER APPROVED MATERIAL FOR CURB AND GUTTER EXPANSION JOINTS. SIDEWALK, AT THE R.O.W. LINE AND AT MIDWIDTH, SEE NOTE 5.
 - SEE TRANSPORTATION CRITERIA MANUAL, SECTION 5 FOR OTHER DRIVEWAY REQUIREMENTS.
 - THE SIDEWALK, REGARDLESS OF ITS LOCATION WITH RESPECT TO THE CURB OR PROPERTY LINE, SHALL BE CONNECTED TO THE DRIVEWAY AT THESE LOCATIONS.
 - WATER METER BOXES AND WASTEWATER CLEAN OUTS ARE PROHIBITED FROM BEING LOCATED IN DRIVEWAY AREAS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		TYPE II DRIVEWAY	
RECORD COPY SIGNED BY CLAUDIO TRAM	02/24/10 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 433S-2 1 OF 2



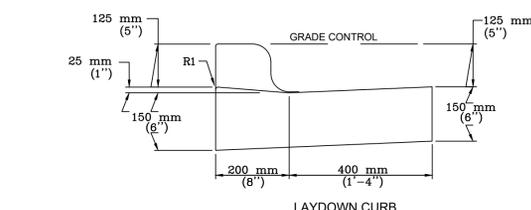
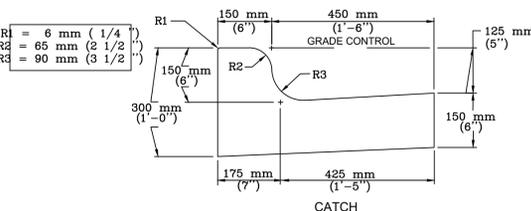
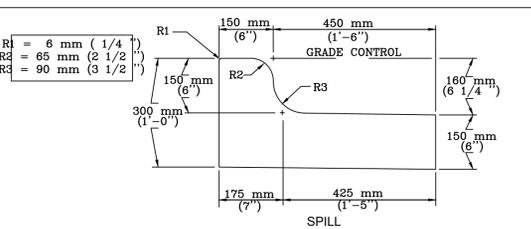
- NOTES:
- MIN. COVER TO BE DETERMINED BY CITY ENGINEER.
 - 5" CONCRETE RIP-RAP WITH 6"X 6" #8 W.W.M. SHALL BE INSTALLED.
 - PIPE SIZE AND NUMBER TO BE DESIGNATED BY CITY ENGINEER.
 - 6" CONCRETE WITH #4 BARS @ 18" C-C MAY BE INSTALLED IN LIEU OF ASPHALT PAINT, WHERE APPROPRIATE, OR AS DIRECTED BY CITY.

CITY OF LEANDER, TEXAS		DRIVEWAY APRON WITH CULVERT PIPE	
Scale: NTS	Drawn by: RW	Date: 2/24/10	Sheet No: 202-2

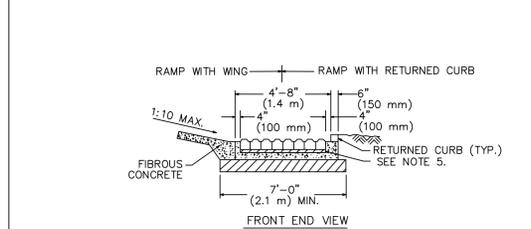
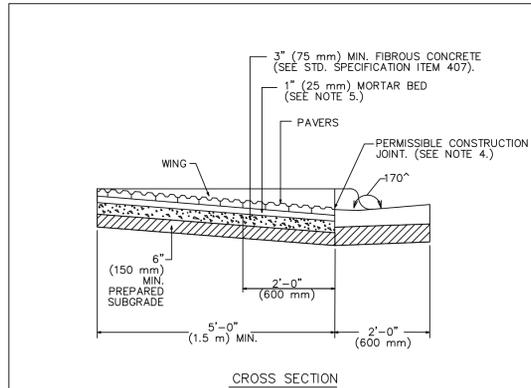


- NOTES:
- MIN. COVER TO BE DETERMINED BY CITY ENGINEER.
 - 5" CONCRETE RIP-RAP WITH 6"X 6" #8 W.W.M. SHALL BE INSTALLED.
 - PIPE SIZE AND NUMBER TO BE DESIGNATED BY CITY ENGINEER.

CITY OF LEANDER, TEXAS		SAFETY END FOR CULVERT PIPE	
Scale: NTS	Drawn by: RW	Date: 2/24/10	Sheet No: 202-3



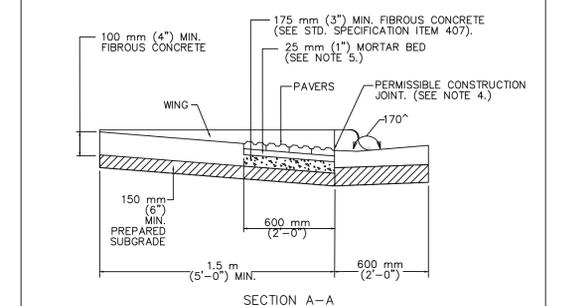
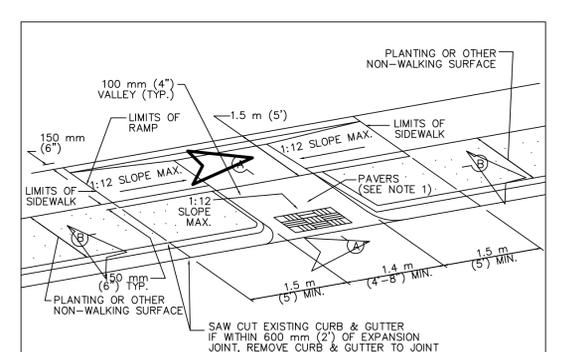
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION		CURB AND GUTTER SECTION	
RECORD COPY SIGNED BY LINO RIVERA	9/29/99 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 430S-1



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		DETECTABLE WARNING-PAVER (PRIVATE PROPERTY)	
RECORD COPY SIGNED BY BILL GARDNER	06/21/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-2B 1 OF 2

- GENERAL NOTES:
- THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION WITHIN PRIVATE PROPERTY ONLY.
 - PAVERS ARE REQUIRED FOR ALL CURB RAMP INSTALLATIONS.
 - PAVERS WILL HAVE DETECTABLE WARNING THAT CONSISTS OF RAISED, TRUNCATED DOMES WITH A DIAMETER OF 0.3" (23 mm), A NOMINAL HEIGHT OF 0.2" (5 mm) AND A NOMINAL CENTER TO CENTER SPACING OF 2.35" (60 mm) AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT (RE: ADAAG SECTION 4.29.2). MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. PAVES PATTERN SHALL BE BASKET WEAVE UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
 - TYPICAL SIDEWALK WIDTHS AND CURB RADI ARE SHOWN FOR ILLUSTRATION ONLY. REFER TO THE TRANSPORTATION CRITERIA MANUAL FOR SIDEWALK WIDTHS, CURB RADI AND CURB BASIS.
 - THE PERMISSIBLE CONSTRUCTION JOINT BETWEEN THE PAVERS AND THE ADJOINING SURFACE SHALL BE LIMITED TO 1/4" (6 mm) JOINT SIZE. GAPS LARGER THAN 1/4" (6 mm) MUST BE APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. ALL JOINTS BETWEEN BRICKS AND ADJOINING SURFACE SHALL BE MORTAR FILLED UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
 - MORTAR SHALL CONFORM TO STD. SPECIFICATION ITEM SECTION 403S.3.5. MORTAR AND GROUT. ALL OTHER CONCRETE SHALL CONFORM TO STD. SPECIFICATION ITEM 403S. CONCRETE FOR STRUCTURES, UNLESS OTHERWISE NOTED.
 - CURB RAMPS WITH RETURNED CURB MAY ONLY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK DIAGONALLY ACROSS THE RAMP.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		DETECTABLE WARNING-PAVER (PRIVATE PROPERTY)	
RECORD COPY SIGNED BY BILL GARDNER	06/21/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-2B 2 OF 2



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS		COMBINED SIDEWALK CURB RAMP WITH PAVERS	
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 432S-3F 1 OF 2

Professional Engineer Seal for Mirza Tahir Baig, No. 82577, State of Texas, Civil Engineering.

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MIRZA TAHIR BAIG, P.E., #82577 ON 08/19/2025. FIRM REGISTRATION F-4951.

Rev.	Date	Description
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PROFESSIONAL STRUCTURAL ENGINEERS, INC.
CONSULTING CIVIL AND STRUCTURAL ENGINEERS

12710 RESEARCH BLVD., SUITE 500, AUSTIN, TX 78759 | TEL: 512.238.6021 | FAX: 512.238.6005

Scale: NTS
Drawn by: RW
Date: 2/24/10
Sheet No: 202-3

PROJECT NO: SD-22-0023

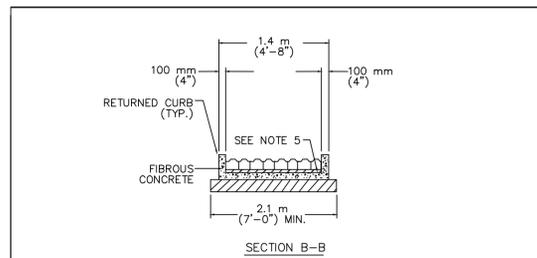
Project: BAGDAD GAS STATION
1646 N BAGDAD RD.
LEANDER, TEXAS 78641

Title: GENERAL DETAILS SHEET 2

PROJECT: 30356

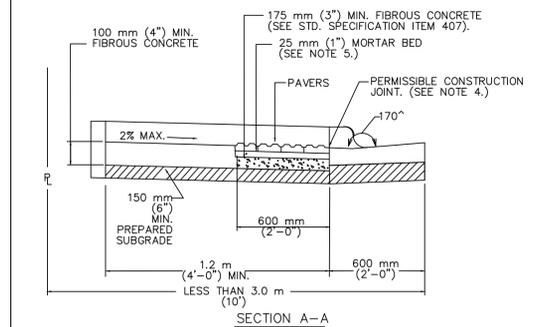
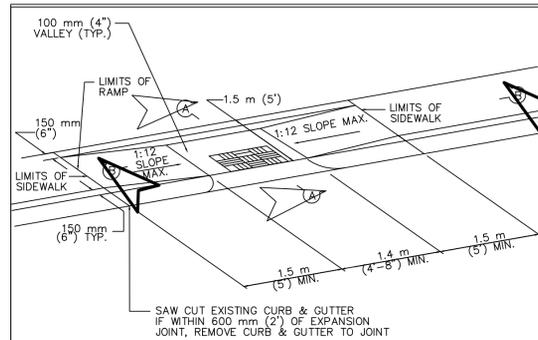
SHEET: 15 OF 24

PROJECT NUMBER: SD-22-0023

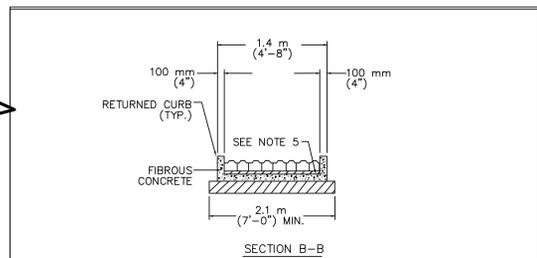


- GENERAL NOTES:**
- THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION WITHIN RIGHT-OF-WAY OR EASEMENT ONLY.
 - PAVERS WILL HAVE DETECTABLE WARNING THAT CONSISTS OF RAISED TRUNCATED DOMES WITH A DIAMETER OF 23 mm (0.9"), A NOMINAL HEIGHT OF 5 mm (0.2") AND A NOMINAL CENTER TO CENTER SPACING OF 60 mm (2.35") AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT (Re: ADAAG SECTION 4.29.2). MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. A BASKET WEAVE PAVER PATTERN SHALL BE USED UNLESS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. PAVER PATTERN VARIES PER MANUFACTURER'S RECOMMENDATIONS. REFER TO STANDARD DETAIL 432S-5 FOR PAVER BASE PREPARATION DETAILS.
 - THE CURB, GUTTER AND RAMP SYSTEM SHALL BE CONFIGURED TO MAINTAIN ALL RUNOFF FROM A 25 YEAR FREQUENCY STORM WITHIN THE RIGHT-OF-WAY (DRAINAGE CRITERIA MANUAL SECTION 1.2.2.B).
 - TYPICAL SIDEWALK WIDTHS AND CURB RADII ARE SHOWN FOR ILLUSTRATION ONLY. REFER TO THE TRANSPORTATION CRITERIA MANUAL FOR SIDEWALK WIDTHS, CURB RADII AND CURB BASIC REQUIREMENTS.
 - THE PERMISSIBLE CONSTRUCTION JOINT BETWEEN THE PAVERS AND THE ADJOINING SURFACE SHALL BE LIMITED TO 6 mm (1/4") JOINT SIZE. GAPS LARGER THAN 6 mm (1/4") MUST BE APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. ALL JOINTS BETWEEN BRICKS AND ADJOINING SURFACE SHALL BE MORTAR FILLED UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
 - MORTAR SHALL CONFORM TO STD. SPECIFICATION ITEM SECTION 403S.3.5, MORTAR AND GROUT. ALL OTHER CONCRETE SHALL CONFORM TO STD. SPECIFICATION ITEM 403S, CONCRETE FOR STRUCTURES, UNLESS OTHERWISE NOTED.
 - CURB RAMPS WITH 100 mm (4") CONCRETE VALLEY MAY ONLY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK DIAGONALLY ACROSS THE RAMP.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	COMBINED SIDEWALK CURB RAMP WITH PAVERS	STANDARD NO. 432S-3F
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

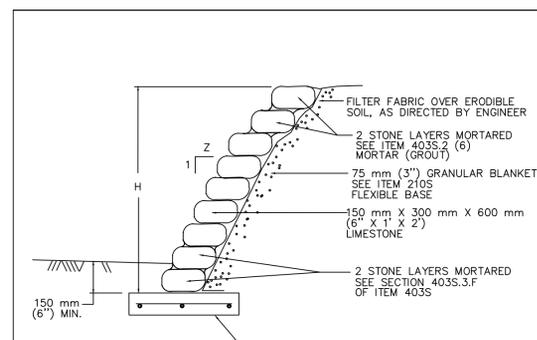


CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	COMBINED SIDEWALK CURB RAMP WITH PAVERS WITHIN LIMITED ROW ONLY	STANDARD NO. 432S-3G
RECORD COPY SIGNED BY BILL GARDNER	06/21/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



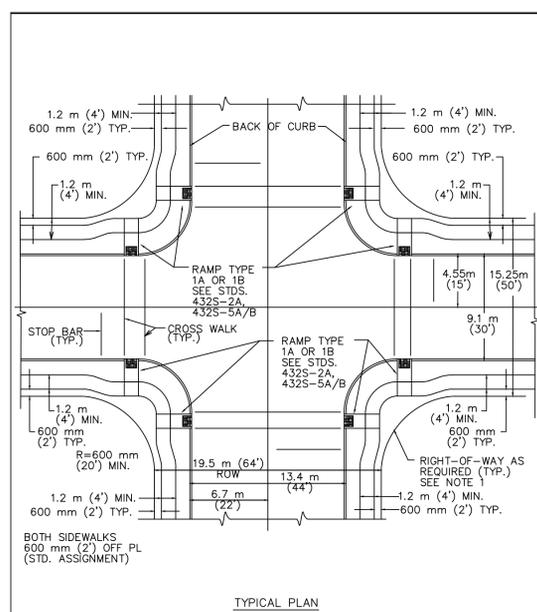
- GENERAL NOTES:**
- THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION WITHIN RIGHT-OF-WAY OR EASEMENT ONLY.
 - PAVERS WILL HAVE DETECTABLE WARNING THAT CONSISTS OF RAISED TRUNCATED DOMES WITH A DIAMETER OF 23 mm (0.9"), A NOMINAL HEIGHT OF 5 mm (0.2") AND A NOMINAL CENTER TO CENTER SPACING OF 60 mm (2.35") AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT (Re: ADAAG SECTION 4.29.2). MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. A BASKET WEAVE PAVER PATTERN SHALL BE USED UNLESS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. PAVER PATTERN VARIES PER MANUFACTURER'S RECOMMENDATIONS. REFER TO STANDARD DETAIL 432S-5 FOR PAVER BASE PREPARATION DETAILS.
 - THE CURB, GUTTER AND RAMP SYSTEM SHALL BE CONFIGURED TO MAINTAIN ALL RUNOFF FROM A 25 YEAR FREQUENCY STORM WITHIN THE RIGHT-OF-WAY (DRAINAGE CRITERIA MANUAL SECTION 1.2.2.B).
 - TYPICAL SIDEWALK WIDTHS AND CURB RADII ARE SHOWN FOR ILLUSTRATION ONLY. REFER TO THE TRANSPORTATION CRITERIA MANUAL FOR SIDEWALK WIDTHS, CURB RADII AND CURB BASIC REQUIREMENTS.
 - THE PERMISSIBLE CONSTRUCTION JOINT BETWEEN THE PAVERS AND THE ADJOINING SURFACE SHALL BE LIMITED TO 6 mm (1/4") JOINT SIZE. GAPS LARGER THAN 6 mm (1/4") MUST BE APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. ALL JOINTS BETWEEN BRICKS AND ADJOINING SURFACE SHALL BE MORTAR FILLED UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR DESIGNATED REPRESENTATIVE.
 - MORTAR SHALL CONFORM TO STD. SPECIFICATION ITEM SECTION 403S.3.5, MORTAR AND GROUT. ALL OTHER CONCRETE SHALL CONFORM TO STD. SPECIFICATION ITEM 403S, CONCRETE FOR STRUCTURES, UNLESS OTHERWISE NOTED.
 - CURB RAMPS WITH 100 mm (4") CONCRETE VALLEY MAY ONLY BE USED WHERE PEDESTRIANS WOULD NOT NORMALLY WALK DIAGONALLY ACROSS THE RAMP.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	COMBINED SIDEWALK CURB RAMP WITH PAVERS WITHIN LIMITED ROW ONLY	STANDARD NO. 432S-3G
RECORD COPY SIGNED BY BILL GARDNER	06/21/07 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

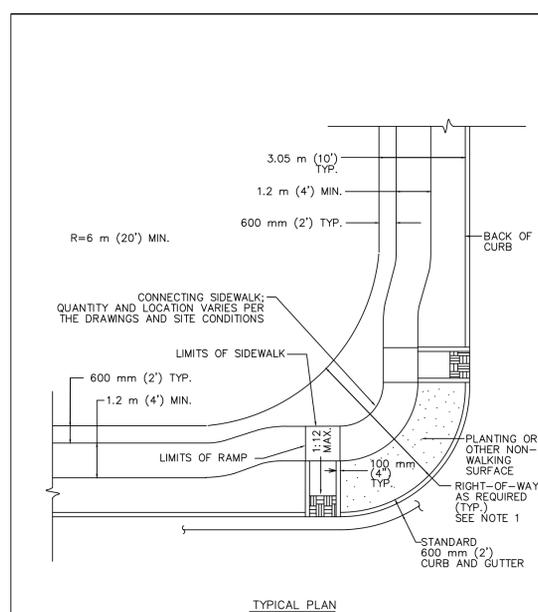


- GENERAL NOTES:**
- DESIGN AND CONSTRUCTION OF ROCK WALL SHALL CONFORM TO THE REQUIREMENTS OF CITY CODE 16-7-2, PLACEMENT OF FENCES IN STREET CORNER AREAS, AND THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL FOR MINIMUM SIGHT DISTANCE.
 - CONCRETE SHALL CONFORM TO ITEM 403S, "CONCRETE FOR STRUCTURES".

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	DRY STACK ROCK WALL FOR SLOPE PROTECTION	STANDARD NO. 623S-1
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



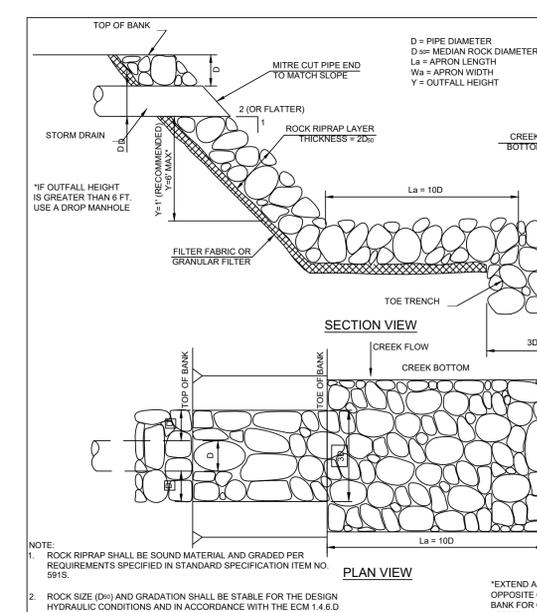
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE 1A/1B CURB RAMPS-FULL INTERSECTION	STANDARD NO. 432S-3B
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE 1A/1B CURB RAMPS-FULL INTERSECTION	STANDARD NO. 432S-3B
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

- GENERAL NOTES:**
- THIS STANDARD IS APPLICABLE FOR RAMP CONSTRUCTION WITHIN RIGHT-OF-WAY OR EASEMENT ONLY.
 - THIS STANDARD REPRESENTS A TYPICAL CURB RAMP DESIGN FOR A NEWLY CONSTRUCTED INTERSECTION WITH A 6 m (20') RADIUS. LARGER RADII, STREET GRADES, LIMITED SIGHT DISTANCES, STREET CLASSIFICATION, SIGNALIZATION AND OTHER FACTORS MAY REQUIRE THE ENGINEER OR DESIGNATED REPRESENTATIVE TO MODIFY THIS STANDARD. SUFFICIENT RIGHT-OF-WAY SHALL BE DEDICATED SUCH THAT THE ENTIRE CURB RAMP, INCLUDING LANDING, AND THE INTER-CONNECTING SIDEWALK ARE CONTAINED WITHIN THE RIGHT-OF-WAY.
 - THE CURB, GUTTER AND RAMP SYSTEM SHALL BE CONFIGURED TO MAINTAIN ALL RUNOFF FROM A 25 YEAR FREQUENCY STORM WITHIN THE RIGHT-OF-WAY (DRAINAGE CRITERIA MANUAL SECTION 1.2.2.B). WHEN THERE IS AN ELEVATION DIFFERENCE BETWEEN THE BOTTOM OF RAMPS (E. ELEVATION AT THE GUTTER) WITHIN A QUADRANT OF AN INTERSECTION, THE LOWER ELEVATION RAMP SHALL BE CONSTRUCTED WITH A POSITIVE RAMP SLOPE OF 1:12 IN ACCORDANCE WITH STANDARDS 432S-5, 432S-5A AND 432S-5B.
 - STANDARD ASSIGNMENT OF SIDEWALKS IS 600 mm (2') OFF PROPERTY LINE, EXCEPT AS INDICATED ON THE DRAWINGS.
 - ALTHOUGH CURB RAMPS MAY BE PLACED WITHIN THE RADIUS, PLACING THE RAMP OUTSIDE OF THE RADIUS WILL ALLOW FOR THE GREATEST DIFFERENCE IN ELEVATION BETWEEN THE RAMPS.
 - WINGS ARE REQUIRED ONLY IF PEDESTRIANS WOULD NORMALLY CROSS THE RAMP.
 - LANDINGS SHALL BE FLAT AND MATCH PT, PC OR TOP OF CURB ELEVATION.
 - CURB RAMPS WILL BE PERPENDICULAR TO ROADWAY CENTERLINES AND SHALL ALIGN WITH EACH OTHER.
 - GRADES ON SIDEWALKS LEADING TO OR FROM THE RAMPS SHALL FOLLOW CURB GRADES.
 - THE SLOPE OF THE SIDEWALK WHICH IS LOCATED WITHIN THE RADIUS AND CONNECTS TWO CURB RAMPS SHALL NOT EXCEED 1:20. THE DEVELOPER, AS PART OF THE CURB RAMP INSTALLATION, SHALL CONSTRUCT THIS CONNECTING SIDEWALK.
 - STRIPING AND SIGNAGE NOT REQUIRED IN ALL INSTANCES. STOP BARS, IF REQUIRED, SHALL BE LOCATED 1.2 m (4') FROM CROSSWALK.
 - IF A MEDIAN EXTENDS INTO THE CROSSWALK AREA, AN OPENING SHALL BE PROVIDED IN THE MEDIAN THE SAME WIDTH AS THE CURB RAMP.
 - CURB INLETS SHALL NOT BE LOCATED WITHIN 3.0 m (10') OF A CURB RAMP.
 - GUTTER SHALL PROVIDE SMOOTH TRANSITION TO RAMPS.

CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	TYPE 1A/1B CURB RAMPS-FULL INTERSECTION	STANDARD NO. 432S-3B
RECORD COPY SIGNED BY BILL GARDNER	03/13/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



- NOTE:**
- ROCK RIPRAP SHALL BE SOUND MATERIAL AND GRADED PER REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 591S.
 - ROCK SIZE (Dm) AND GRADATION SHALL BE STABLE FOR THE DESIGN HYDRAULIC CONDITIONS AND IN ACCORDANCE WITH THE EGM 1.4.6.D PERMANENT STRUCTURAL PRACTICES. STONE RIPRAP OR OTHER ENGINEERING STANDARD OF PRACTICES FOR SIZING ROCK RIPRAP, ROCK RIPRAP Dm AND FILTER TYPE SHALL BE NOTED ON PLANS.
 - GEOTEXTILE FILTER FABRIC SHALL MEET THE REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 620S.
 - AGGREGATE FOR GRANULAR FILTER SHALL MEET THE REQUIREMENTS SPECIFIED IN STANDARD SPECIFICATION ITEM NO. 403, AGGREGATE SIZE CLASSIFICATION/GRADE, NUMBER OF LAYERS AND LAYER THICKNESS SHOULD BE NOTED ON THE PLANS.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STORMDRAIN OUTFALL PROTECTION PIPE DISCHARGE ON SLOPE-LOW BANK	STANDARD NO. 508S-16
RECORD COPY SIGNED BY MORGAN BYARS	09/01/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

PROFESSIONAL STRUCTURAL ENGINEERS, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS
12710 RESEARCH BLVD., SUITE 900, AUSTIN, TX 78759 | TEL: 512.238.6622 | FAX: 512.238.6905

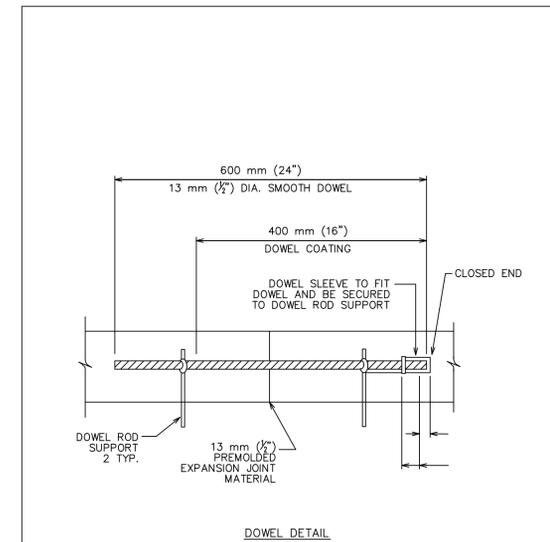
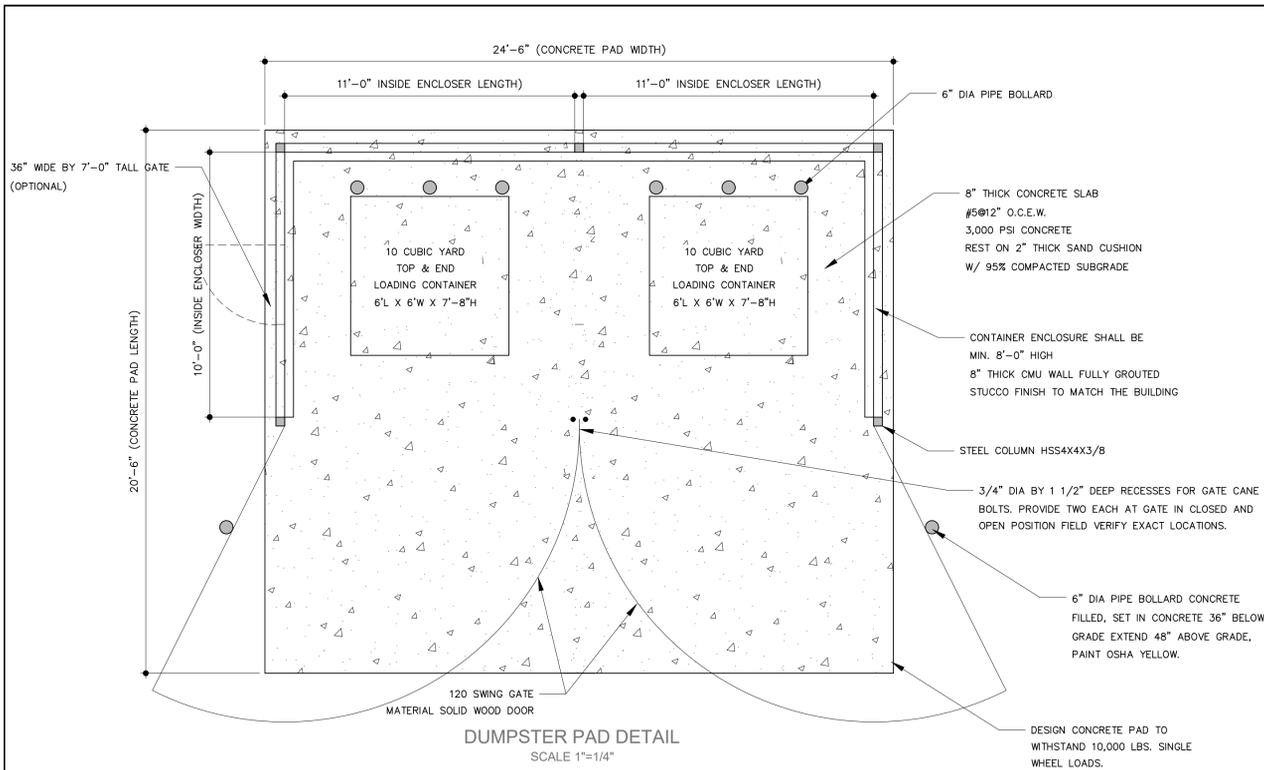
PROJECT NO: SD-22-0023

BAGDAD GAS STATION
1646 N BAGDAD RD.
LEANDER, TEXAS 78641

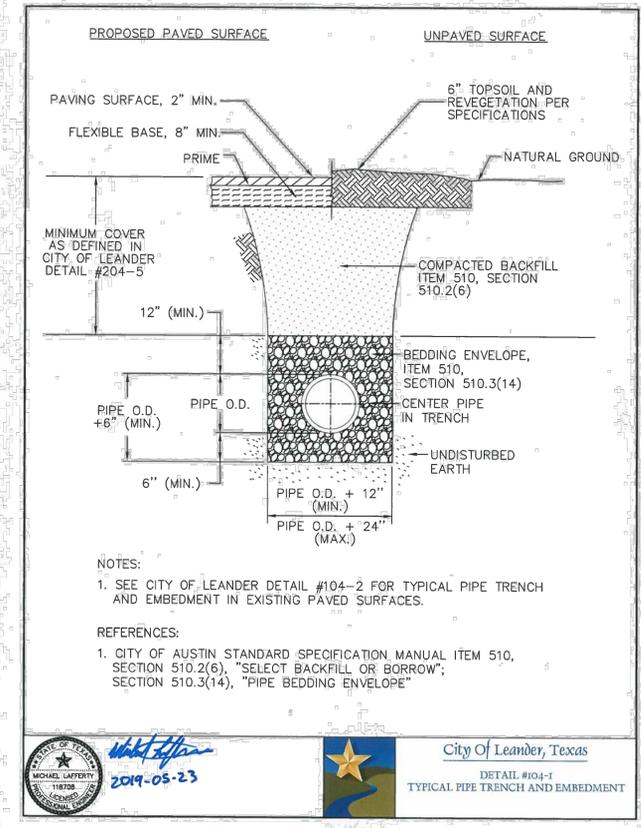
GENERAL DETAILS SHEET 3

30356

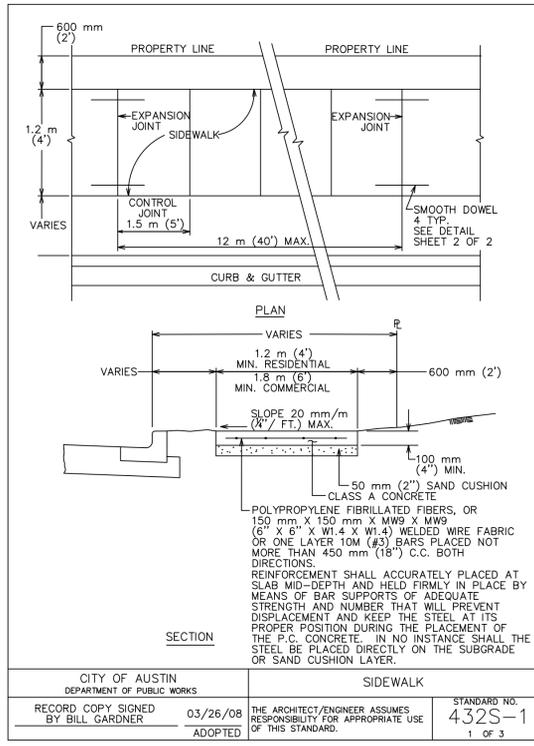
16 OF 24



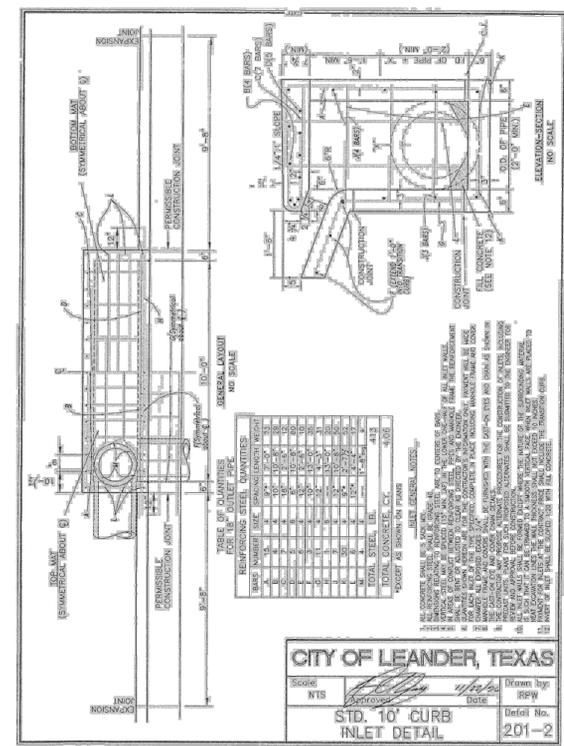
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	STANDARD NO. 432S-1 2 OF 3
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



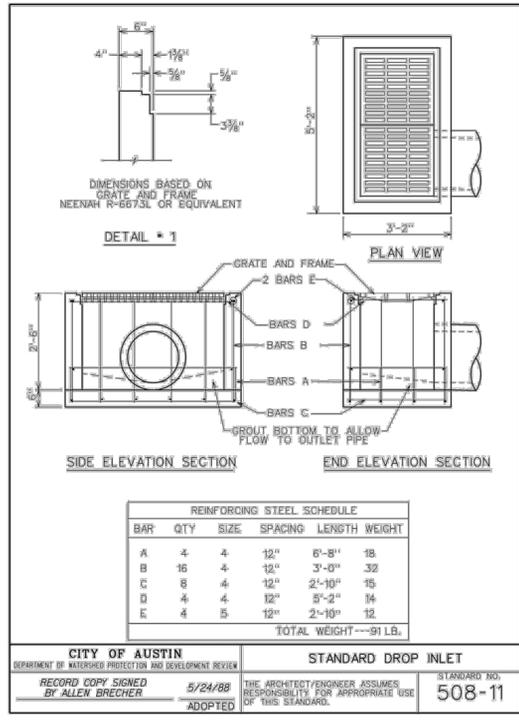
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	STANDARD NO. 432S-1 2 OF 3
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



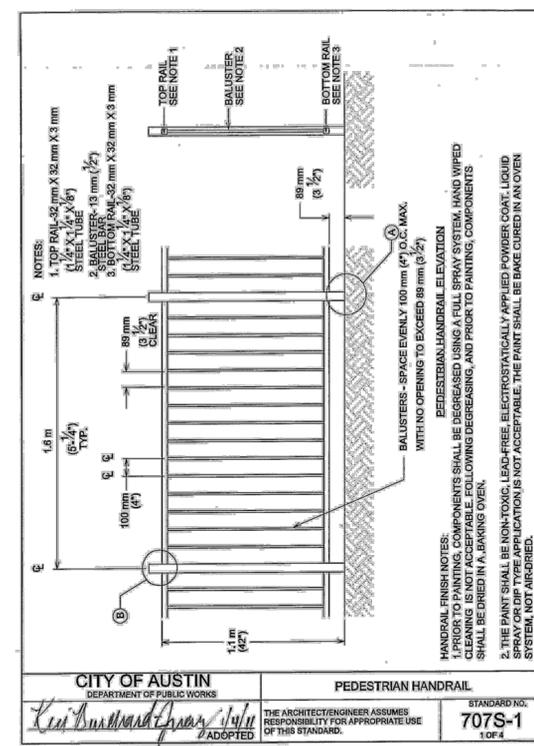
CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	SIDEWALK	STANDARD NO. 432S-1 1 OF 3
RECORD COPY SIGNED BY BILL GARDNER	03/26/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN DEPARTMENT OF WATERPROOF PROTECTION AND DEVELOPMENT REVIEW	STANDARD DROP INLET	STANDARD NO. 508-11
RECORD COPY SIGNED BY ALLEN BRECHER	5/24/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	PEDESTRIAN HANDRAIL	STANDARD NO. 707S-1 1 OF 4
RECORD COPY SIGNED BY ALLEN BRECHER	5/24/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.



CITY OF AUSTIN DEPARTMENT OF PUBLIC WORKS	PEDESTRIAN HANDRAIL	STANDARD NO. 707S-1 1 OF 4
RECORD COPY SIGNED BY ALLEN BRECHER	5/24/08 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

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12710 RESEARCH BLVD., SUITE 900, AUSTIN, TX 78759 | TEL: 512.238.6622 FAX: 512.238.6995

PROJECT: BAGDAD GAS STATION
1646 N BAGDAD RD.
LEANDER, TEXAS 78641

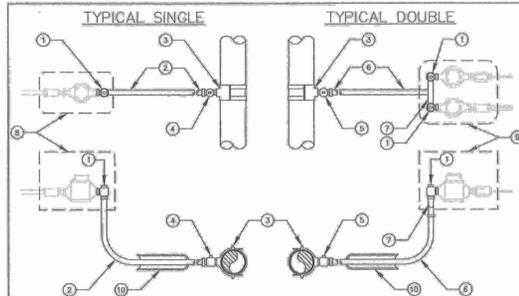
PROJECT NO: SD-22-0023

GENERAL DETAILS SHEET 4

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17 OF 24

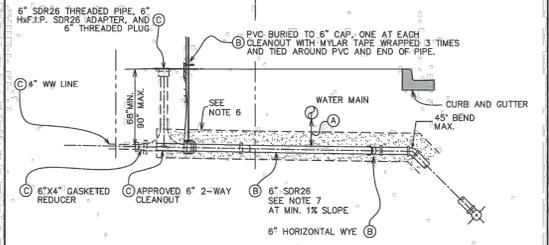
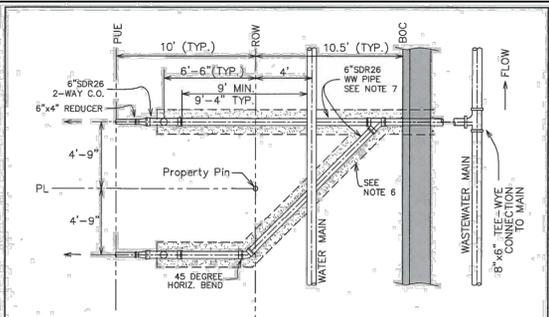
PROJECT NUMBER: SD-22-0023



ITEM	SIZE & DESCRIPTION	SPEC. OR EQUAL
1	1" x 1" ANGLE METER STOP, LOCKING	AS APPROVED
2	1" SDR9 POLYETHYLENE TUBING	CLASS 250
3	EPOXY COATED DUCTILE IRON TAPPING SADDLE	AS APPROVED
4	1" CORPORATION STOP	AS APPROVED
5	1 1/2" CORPORATION STOP	AS APPROVED
6	1 1/2" SDR9 POLYETHYLENE TUBING	CLASS 250
7	BRASS U-BRANCH, 1 1/2" X 1"	FORD, OR EQUAL
8	METER BOX, SINGLE	DFW37F-12-1CA, OR EQUAL
9	METER BOX, DOUBLE	DFW39F-12-1CA, OR EQUAL
10	3" SCH. 40 PVC SLEEVE FOR LONG SIDE SERVICES (TYP.)	

NOTES:
 1. SERVICE SADDLE SHALL BE WRAPPED COMPLETELY WITH 8 MIL POLYETHYLENE FILM.
 2. PIPING AND TUBING IN STREET RIGHT-OF-WAY SHALL BE BEDDED IN GRANULAR MATERIALS.
 3. BRANCH CONNECTION AND BOTH ANGLE METER STOPS SHALL BE INSTALLED PRIOR TO FIRST METER INSTALLATION.
 4. SLEEVES FOR LONG-SIDE SERVICE TO BEGIN AND TERMINATE 6" BEHIND BACK OF CURB.
 5. TOP OF METER BOXES SHOULD BE 1" ABOVE GROUND.
 6. METER BOX SHALL BE BEHIND CURB AT ROW/PROPERTY LINE OR EASEMENT. METER BOX SHALL NOT BE INSTALLED IN SIDEWALK, DRIVEWAY OR VEHICULAR TRAVEL AREA.
 7. 1" X 3/4" BRASS METER BUSHING REQUIRED FOR 5/8" AND 3/4" METERS.
 8. AXIS OF METER ASSEMBLY (LINE THROUGH METER STOP, METER, CHECK VALVE, PIPING AND OWNER'S CUTOFF) SHALL BE 11" BELOW TOP OF BOX. METER BOXES ARE SIZED TO ACCOMMODATE METER STOP, WATER METER AND CHECK VALVE.

City of Leander, Texas
 DETAIL #101-1
 WATER SERVICE CONNECTIONS
 Wayne A. Watts
 02/26/15



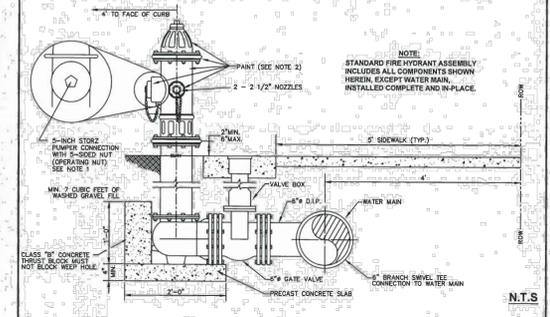
NOTES:
 (A) WATER MAIN SHALL CROSS ABOVE 6" WASTEWATER SERVICE, TWO-FOOT (2') MINIMUM VERTICAL SEPARATION.
 (B) TO BE INSTALLED AND INSPECTED DURING SUBDIVISION CONSTRUCTION. UTILITY CONTRACTOR INSTALLS SERVICE STUB WITH PLUG OR CAP.
 (C) 2-WAY CLEANOUTS, 6" H.F.I.P. ADAPTER, REDUCER, AND 4" SERVICE LINE INSTALLED BY BLDG. PLUMBER. PERMITS DEPARTMENT SHALL INSPECT CUSTOMER'S WASTEWATER LINE AND ALL APPURTENANCES INSTALLED BY BUILDING PLUMBER.

City of Leander, Texas
 DETAIL #101-2
 1 OF 2
 WASTEWATER SERVICE CONNECTIONS
 Wayne A. Watts
 02/26/15

NOTES:
 1. DURING SUBDIVISION CONSTRUCTION, UTILITY CONTRACTOR INSTALLS WASTEWATER CONNECTION TO MAIN, 6" HORIZONTAL WYE FOR DOUBLE SERVICES, 6" SERVICE BRANCH AND PLUG(S) FOR 6" SERVICE BRANCH STUB. CONTRACTOR TIES MYLAR TAPE TO END OF 6" STUB, WRAPS 3 TIMES AROUND LENGTH OF PVC BURIED TO THE DEPTH OF THE 6" STUB AND TIES TO TOP OF PVC EXTENDING A MINIMUM OF 2 FEET ABOVE GROUND.
 ALL WASTEWATER PIPING SHALL HAVE ELASTOMERIC GASKET TYPE JOINTS AND SHALL SLOPE DOWNWARD TO MAIN 1/8" PER FOOT MINIMUM TO 45° MAXIMUM DEPTH OF SERVICE STUB AT PROPERTY LINE WILL BE SHOWN ON PLANS BY ENGINEER. IF GREATER THAN 8' OTHERWISE THE INSTALLED DEPTH WILL TYPICALLY BE 6' TO 8'. IF WASTEWATER SERVICE LINE TO MAIN REQUIRES DEFLECTION EXCEEDING 45°, REFER TO DETAIL 520-6. ALL INSTALLATIONS SHALL BE MADE IN ACCORDANCE WITH INFORMATION SHOWN ON APPLICABLE STANDARD DRAWINGS AND WILL BE INSPECTED BY CITY OF LEANDER CONSTRUCTION INSPECTION PERSONNEL.
 2. CUSTOMER REMOVES PLUG FROM 6" SERVICE LINE STUB, INSTALLS 6" 2-WAY CLEANOUT, 6" BY 4" REDUCER, RISER FOR CLEANOUT, 6" H.F.I.P. ADAPTER, 6" THREADED PLUG, AND 4" SERVICE LINE TO STRUCTURE. IF WASTEWATER WILL NOT SATISFACTORILY FLOW BY GRAVITY FROM STRUCTURE TO SEWER SERVICE STUB & WASTEWATER MAIN, PUMP EQUIPMENT MUST BE PROVIDED BY THE CUSTOMER AS PART OF CUSTOMER'S WASTEWATER SYSTEM.
 3. CUSTOMER IS RESPONSIBLE FOR PUBLIC PIPING SYSTEM UNTIL WASTEWATER IS CONNECTED. ANY MISSING OR DAMAGED PARTS SHALL BE REINSTALLED BY CUSTOMER WHO SHALL GUARANTEE FOR A PERIOD OF TWO (2) YEARS FROM DATE OF ACCEPTANCE. THAT CONNECTIONS TO CITY SYSTEMS ARE FREE FROM DEFECTS IN WORKMANSHIP OR MATERIAL. CUSTOMER ALSO HAS THE RESPONSIBILITY TO ASSURE THAT ALL 2-WAY-CLEANOUTS REMAIN CLEAR OF SIDEWALKS AND OTHER OBSTRUCTIONS.
 4. CITY OF LEANDER ACTIVITY IS LIMITED TO INSPECTION OF CONNECTIONS TO THE CITY'S WASTEWATER SYSTEM FOR MAINTENANCE PURPOSES. THE CITY'S RESPONSIBILITY ENDS AT THE CUSTOMER'S WASTEWATER CONNECTION TO THE 2-WAY-CLEANOUT.
 5. PIPING AND TUBING IN STREET RIGHT-OF-WAY AND IN EASEMENT AREA SHALL BE BEDDED IN GRANULAR MATERIALS AS REQUIRED BY CITY OF AUSTIN STANDARD SPECIFICATION SECTION 510.3 (14) UNLESS OTHERWISE NOTED ON THIS DETAIL. MATERIALS SHALL BE AS SPECIFIED IN 510.2 (2)(A) AND (3)(B). BACKFILL ABOVE THE GRANULAR BEDDING SHALL BE AS REQUIRED BY SECTION 510.3 (25). SERVICE LINES IN THESE AREAS SHALL HAVE A MINIMUM COVER BELOW FINAL STREET GRADE OF .42'. ANY EXCEPTION MUST BE SPECIFICALLY APPROVED BY THE ENGINEER.
 6. ALL SANITARY SEWER PIPE WITHIN 9' OF WATER MAINS SHALL BE BEDDED IN CEMENT STABILIZED SAND PER TCEQ CHAPTER 217, & 290 REQUIREMENTS. BEDDING SHALL EXTEND A MINIMUM OF 12" ABOVE PIPE, 4" BELOW PIPE, AND 12" BEYOND JOINTS AT EACH END.
 7. PIPE MATERIAL FOR WASTEWATER SERVICES SHALL BE 6" SDR-26 PVC D2241 160 PSI RATED.
 8. NO METER BOX OR CLEAN OUT SHALL BE SET IN SIDEWALK OR DRIVEWAY AREA WITHOUT WRITTEN APPROVAL FROM THE CITY ENGINEERING DEPT.
 9. NO JOINTS SHALL BE PERMITTED BETWEEN THE 6"x6" HORIZONTAL WYE AND THE 6" 2-WAY CLEANOUT EXCEPT FOR THE 6" 45-DEGREE BEND REQUIRED FOR DOUBLE SERVICES.

City of Leander, Texas
 DETAIL #101-2
 2 OF 2
 WASTEWATER SERVICE CONNECTIONS
 Wayne A. Watts
 02/26/15

FIRE HYDRANTS LACKING INTEGRAL STORZ CONNECTOR SHALL BE REJECTED (NO STORZ ADAPTERS ALLOWED)



NOTES:
 1. FIRE HYDRANT SHALL BE CLOW MEDALLION F2545, AMERICAN DARLING B-84-B-5, MUELLER SUPER CENTURION, E4 500250 WATERMASTER, KENNEDY K810 GUARDIAN, AWM 2750, OR APPROVED EQUAL VIA SUBMITTAL PROCESS. THE PRIMARY FEATURES REQUIRED INCLUDE: FACTORY INSTALLED INTEGRAL 5-INCH STORZ PUMPER NOZZLE; 1.5-INCH PENT OPERATING NUT ON NOZZLE CAP; OPEN LEFT; FACTORY PAINTED.
 2. HYDRANTS SHALL BE FACTORY PAINTED WITH FLUAT ALUMINUM SILVER PAINT OR SHERWIN WILLIAMS SILVER B59511. HYDRANTS WILL NOT BE ACCEPTED IF PAINTED AFTER DELIVERY OR IF PAINT IS FLAT IN APPEARANCE.
 3. ALL DUCTILE OR CAST IRON FITTINGS AND/OR PIPE SHALL BE POLYWRAPPED.
 4. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY FLANGE. ALL FITTINGS SHALL BE EQUIPPED WITH JOINT RESTRAINT "MEGALUG" OR APPROVED EQUAL. ALL ANCHOR FITTING TO BE CONCRETE THRUST BLOCKED.
 5. BLUE, R-ORBITAL REFLECTIVE PAVEMENT MARKER, ULTIMATE NET NIGHT VISIBILITY SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION AT THE CORRESPONDING ROADWAY STATION OFFSET 6' (SIX INCHES) FROM CENTER OF STREET TO THE SIDE HYDRANT IS LOCATED. AT INTERSECTIONS, MARKERS SHALL BE PLACED ON BOTH ROADWAYS ADJACENT TO HYDRANT.
 6. SET F.H. ON LOT LINE, (EXTENDED WHEN POSSIBLE).
 7. F.H. LOCATED AT STREET INTERSECTIONS SHALL BE PLACED A MINIMUM OF TEN FEET (10') FROM RADIUS TANGENT POINT.
 8. NO OBSTRUCTIONS SHALL BE PERMITTED WITHIN THREE FEET (3') IN ALL DIRECTIONS FROM F.H.
 9. 5-INCH STORZ PUMPER NOZZLE SHALL FACE THE FIRE LANE OR TRAVEL WAY UNLESS OTHERWISE NOTED.

City of Leander, Texas
 DETAIL #101-3
 STANDARD FIRE HYDRANT ASSEMBLY
 Wayne A. Watts
 02/05/19

Rev	Description	Date	Drawn
6			
5			
4			
3			
2			
1			
0			

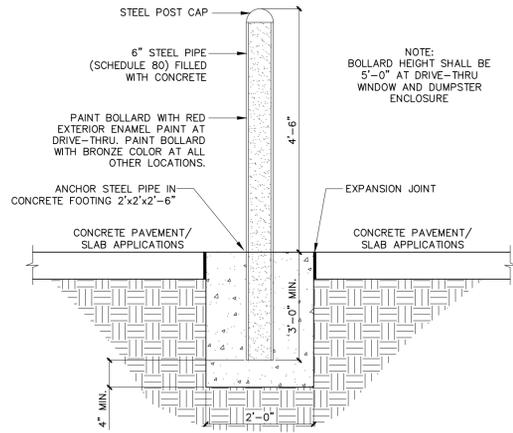
PROFESSIONAL STRUCTURAL ENGINEERS, INC.
 CONSULTING CIVIL AND STRUCTURAL ENGINEERS
 12710 RESEARCH BLVD., SUITE 300, AUSTIN, TX 78759 | TEL: 512.238.6622 FAX: 512.238.8995

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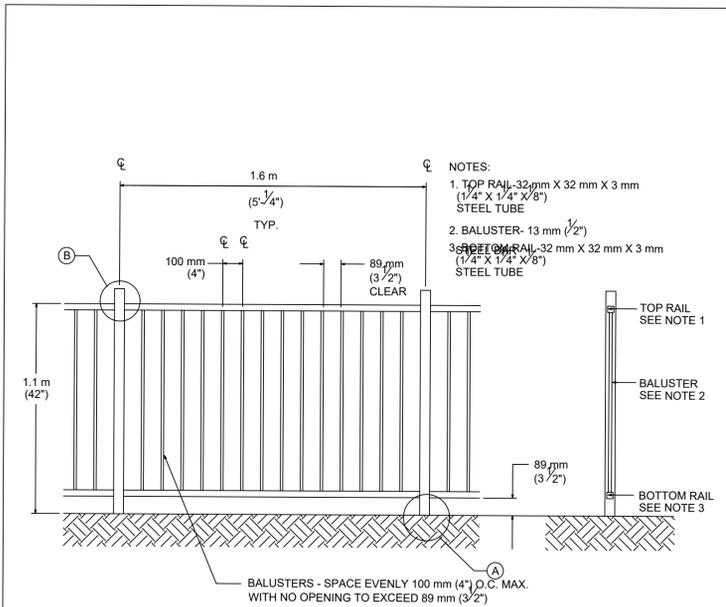
PROJECT NO: SD-22-0023

Project:
BAGDAD GAS STATION
 1646 N BAGDAD RD.
 LEANDER, TEXAS 78641
 Title:
GENERAL DETAILS SHEET 5

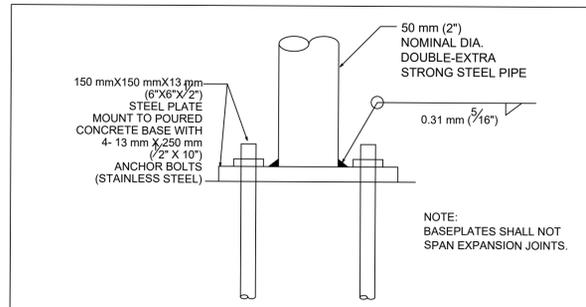
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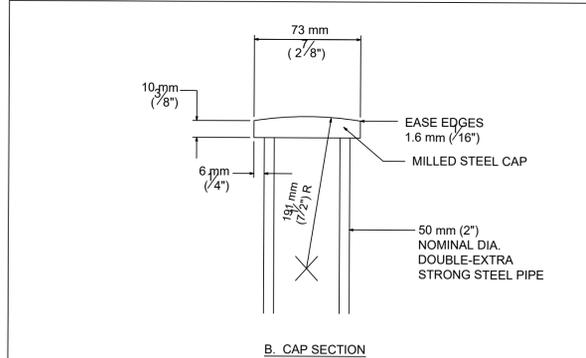
BOLLARD DETAIL
N.T.S.



WROUGHT IRON HANDRAIL DETAIL

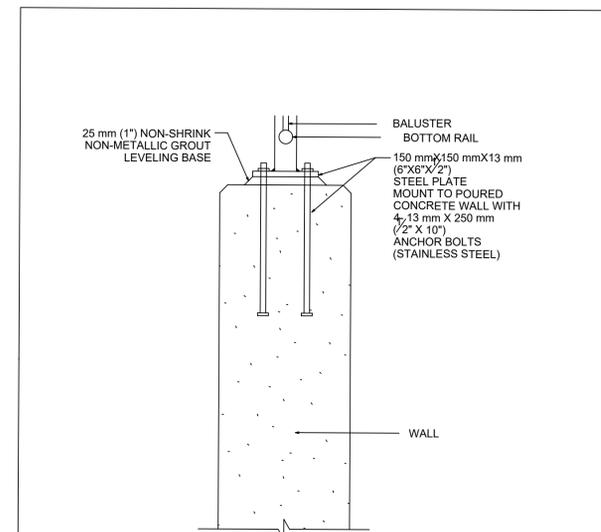


A. BASE PLATE DETAIL



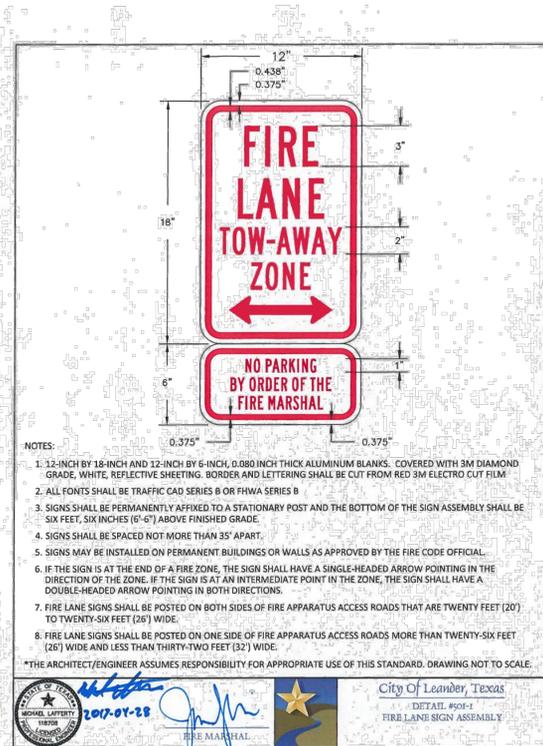
B. CAP SECTION

WROUGHT IRON HANDRAIL DETAIL



WALL MOUNTING DETAIL

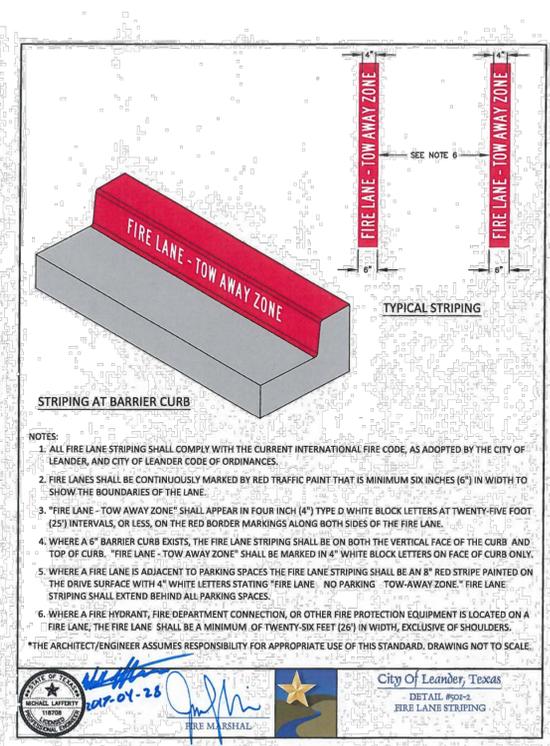
WROUGHT IRON HANDRAIL DETAIL



- NOTES:**
- 12-INCH BY 18-INCH AND 12-INCH BY 6-INCH, 0.080 INCH THICK ALUMINUM BLANKS, COVERED WITH 3M DIAMOND GRADE, WHITE, REFLECTIVE SHEETING. BORDER AND LETTERING SHALL BE CUT FROM RED 3M ELECTRO CUT FILM.
 - ALL FONTS SHALL BE TRAFFIC CAP SERIES B OR PHWA SERIES B.
 - SIGNS SHALL BE PERMANENTLY AFFIXED TO A STATIONARY POST AND THE BOTTOM OF THE SIGN ASSEMBLY SHALL BE SIX FEET, SIX INCHES (6'-6") ABOVE FINISHED GRADE.
 - SIGNS SHALL BE SPACED NOT MORE THAN 35' APART.
 - SIGNS MAY BE INSTALLED ON PERMANENT BUILDINGS OR WALLS AS APPROVED BY THE FIRE CODE OFFICIAL.
 - IF THE SIGN IS AT THE END OF A FIRE ZONE, THE SIGN SHALL HAVE A SINGLE-HEADED ARROW POINTING IN THE DIRECTION OF THE ZONE. IF THE SIGN IS AT AN INTERMEDIATE POINT IN THE ZONE, THE SIGN SHALL HAVE A DOUBLE-HEADED ARROW POINTING IN BOTH DIRECTIONS.
 - FIRE LANE SIGNS SHALL BE POSTED ON BOTH SIDES OF FIRE APPARATUS ACCESS ROADS THAT ARE TWENTY FEET (20') TO TWENTY-SIX FEET (26') WIDE.
 - FIRE LANE SIGNS SHALL BE POSTED ON ONE SIDE OF FIRE APPARATUS ACCESS ROADS MORE THAN TWENTY-SIX FEET (26') WIDE AND LESS THAN THIRTY-TWO FEET (32') WIDE.
- *THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

City of Leander, Texas
DETAIL #501-1
FIRE LANE SIGN ASSEMBLY

2017-01-28
FIRE MARSHAL

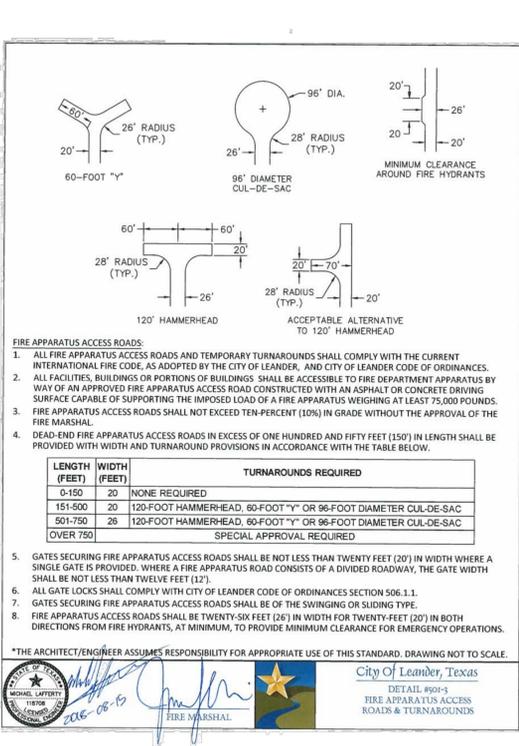


STRIPING AT BARRIER CURB

- NOTES:**
- ALL FIRE LANE STRIPING SHALL COMPLY WITH THE CURRENT INTERNATIONAL FIRE CODE, AS ADOPTED BY THE CITY OF LEANDER, AND CITY OF LEANDER CODE OF ORDINANCES.
 - FIRE LANES SHALL BE CONTINUOUSLY MARKED BY RED TRAFFIC PAINT THAT IS MINIMUM SIX INCHES (6") IN WIDTH TO SHOW THE BOUNDARIES OF THE LANE.
 - "FIRE LANE - TOW AWAY ZONE" SHALL APPEAR IN FOUR INCH (4") TYPE D WHITE BLOCK LETTERS AT TWENTY-FIVE FOOT (25') INTERVALS, OR LESS, ON THE RED BORDER MARKINGS ALONG BOTH SIDES OF THE FIRE LANE.
 - WHERE A 6" BARRIER CURB EXISTS, THE FIRE LANE STRIPING SHALL BE ON BOTH THE VERTICAL FACE OF THE CURB AND TOP OF CURB. "FIRE LANE - TOW AWAY ZONE" SHALL BE MARKED IN 4" WHITE BLOCK LETTERS ON FACE OF CURB ONLY.
 - WHERE A FIRE LANE IS ADJACENT TO PARKING SPACES THE FIRE LANE STRIPING SHALL BE AN 8" RED STRIPE PAINTED ON THE DRIVE SURFACE WITH 4" WHITE LETTERS STARTING "FIRE LANE - NO PARKING - TOW-AWAY ZONE." FIRE LANE STRIPING SHALL EXTEND BEHIND ALL PARKING SPACES.
 - WHERE A FIRE HYDRANT, FIRE DEPARTMENT CONNECTION, OR OTHER FIRE PROTECTION EQUIPMENT IS LOCATED ON A FIRE LANE, THE FIRE LANE SHALL BE A MINIMUM OF TWENTY-SIX FEET (26') IN WIDTH, EXCLUSIVE OF SHOULDERS.
- *THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. DRAWING NOT TO SCALE.

City of Leander, Texas
DETAIL #501-3
FIRE LANE STRIPING

2017-01-28
FIRE MARSHAL



- FIRE APPARATUS ACCESS ROADS:**
- ALL FIRE APPARATUS ACCESS ROADS AND TEMPORARY TURNAROUNDS SHALL COMPLY WITH THE CURRENT INTERNATIONAL FIRE CODE, AS ADOPTED BY THE CITY OF LEANDER, AND CITY OF LEANDER CODE OF ORDINANCES.
 - ALL FACILITIES, BUILDINGS OR PORTIONS OF BUILDINGS SHALL BE ACCESSIBLE TO FIRE DEPARTMENT APPARATUS BY WAY OF AN APPROVED FIRE APPARATUS ACCESS ROAD CONSTRUCTED WITH AN ASPHALT OR CONCRETE DRIVING SURFACE CAPABLE OF SUPPORTING THE IMPOSED LOAD OF A FIRE APPARATUS WEIGHING AT LEAST 75,000 POUNDS.
 - FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED TEN PERCENT (10%) IN GRADE WITHOUT THE APPROVAL OF THE FIRE MARSHAL.
 - DEAD-END FIRE APPARATUS ACCESS ROADS IN EXCESS OF ONE HUNDRED AND FIFTY FEET (150') IN LENGTH SHALL BE PROVIDED WITH WIDTH AND TURNAROUND PROVISIONS IN ACCORDANCE WITH THE TABLE BELOW.

LENGTH (FEET)	WIDTH (FEET)	TURNAROUNDS REQUIRED
0-150	20	NONE REQUIRED
151-500	20	120-FOOT HAMMERHEAD, 60-FOOT "Y" OR 96-FOOT DIAMETER CUL-DE-SAC
501-750	26	120-FOOT HAMMERHEAD, 60-FOOT "Y" OR 96-FOOT DIAMETER CUL-DE-SAC
OVER 750		SPECIAL APPROVAL REQUIRED

City of Leander, Texas
DETAIL #501-3
FIRE APPARATUS ACCESS ROADS & TURNAROUNDS

2016-08-15
FIRE MARSHAL

Professional Structural Engineers, Inc. and Structural Engineers
12710 RESEARCH BLVD., SUITE 900, AUSTIN, TX 78759 | TEL: 512.238.6021 FAX: 512.238.6005

PROJECT NO: SD-22-0023

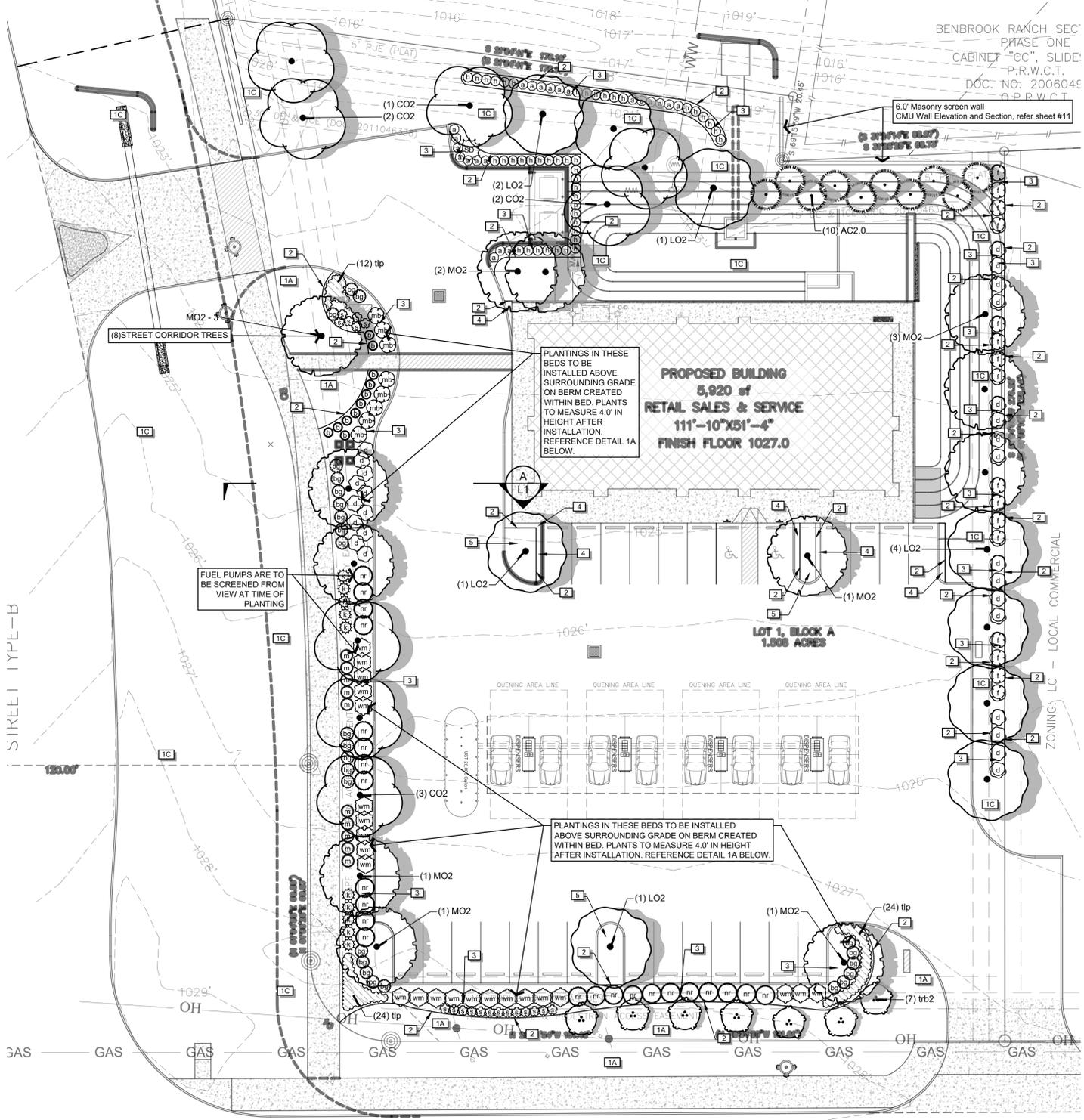
PROJECT: BAGDAD GAS STATION
1646 N BAGDAD RD.
LEANDER, TEXAS 78641

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19 OF 24

GENERAL DETAILS SHEET 6

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PLANT SCHEDULE

TREES	CODE	COMMON NAME	BOTANICAL NAME	CONT	CAL	SIZE	GROW GREEN	QTY
	AC2.0	Arizona Cypress	Cupressus arizonica	-	2"Cal	6' H min	Yes	10 (25%)
	CO2	Chinquapin Oak	Quercus muehlenbergii	-	2"Cal	6' H min	Yes	8 (20%)
	LO2	Live Oak	Quercus virginiana	-	2"Cal	6' H min	Yes	9 (23%)
	MO2	Monterey Oak	Quercus polymorpha 'Monterey'	-	2"Cal	6' H min	Yes	12 (30%)
ORNAMENTAL TREES	CODE	COMMON NAME	BOTANICAL NAME	CONT	CAL	SIZE	QTY	
	nr	Nellie R. Stevens Holly	Ilex x 'Nellie R Stevens'	-	2"Cal	6' H min	Yes	23
	trb2	Texas Redbud	Cercis canadensis texensis	-	2"Cal	6' H min	Yes	7
SHRUBS	CODE	COMMON NAME	BOTANICAL NAME	CONT	SIZE	SPACING		
	a	Powis Castle Artemisia	Artemisia x 'Powis Castle'	1 gal		22		
	b	Bicolor Iris	Diets bicolor	5 gal		11		
	bg	Bush Germander	Teucrium fruticans 'Compacta'	5 gal		26		
	d	Dwarf Palmetto	Sabal minor	5 gal		27		
	f	Flowering Senna	Cassia corymbosa	5 gal		16		
	h	Dwarf Burford Holly	Ilex cornuta 'Burfordii Nana'	5 gal		44		
	k	Knock Out Rose	Rosa acicularis 'Knock Out'	5 gal		10		
	m	Maiden Grass	Miscanthus sinensis 'Gracillimus'	5 gal		10		
	mb	Mexican Bush Sage	Salvia leucantha	5 gal		8		
	s	Pink Salvia Greggii	Salvia greggii 'Pink'	5 gal		19		
	SD	Spanish Dagger	Yucca treculeana	5 gal		1		
	wm	Wax Myrtle	Myrica cerifera	15 gal		23		
	tip	Trailing Lantana, Purple	Lantana montevidensis 'Purple'	1 gal		24" o.c. 60		

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1A	Lawn, Sod
1C	Lawn, Hydromulch Native Seed
2	Steel Edge
3	Mulch
4	Decomposed Granite
5	River Cobble

TREE LIST

N/A No existing trees on site

LANDSCAPE SUMMARY TABLE

Overall Required Landscape Area				Provided Landscape Area			
	%	SQFT	Total		SQFT	%	Total
Multi-Family	20%	0	0	Total Area	9,859	15	15
Office/Professional	15%	0	0	Total Provided	22,606	34	34
Commercial	15%	65,724	9,858.6				
Industrial/Manufacturing	10%	0	0	Turfgrass Maximum	4,959	50	
School/Church/Community	15%	0	0	Turfgrass Provided	3,072	31	
Park	15%	0	0	Landscape area between ROW and building	12,017	53	

*The minimum percentage of landscape area may include setback areas. However, the setback areas are required to be landscaped even if they exceed the above percentage.

Setback Areas		REQUIRED		PROVIDED		DIFFERENCE	
	SQFT	Trees	Inches	Trees	Inches	Inches	Shrubs
Front (Bagdad)	2094	600	3.49	7	14	14	7
Front (San Gabriel Pkwy)	3180	600	5.3	11	22	22	11
East Side 4802	600	8.0	Units	16	32	32	16
South 2143	600	3.57	Units	7	14	14	7

Tree Credits/Replacement Requirements		Replacement	Credits
Total Caliper Inches Surveyed	= 0		
Total Caliper Inches On Site X 50%	= 0		
Total Inches to be Removed (8-17.99")	= 0	0	
Total Inches to be Removed (18"+)	= 0		
50% of Total - Total Inches Removed	= 0		
Total Inches to be Retained (8-17.99")	= 0		0
Total Inches to be Retained (18"+)	= 0		0
TOTALS		0	0 -0

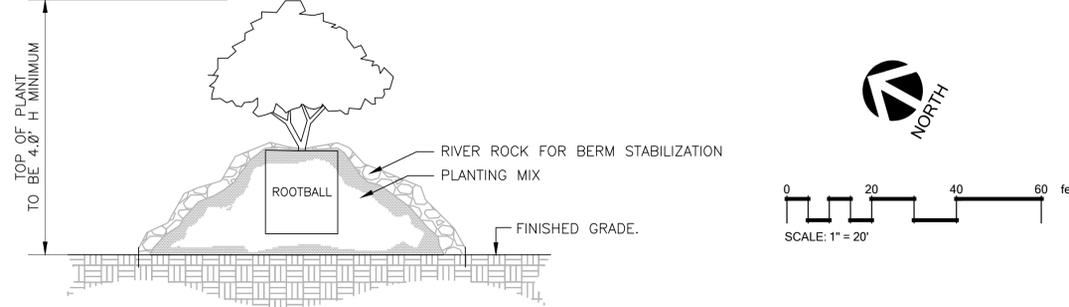
CITY NOTES

- The developer and subsequent owners of the landscaped property, or the manager or agent of the owner, shall be responsible for the maintenance of all landscape areas. Said areas shall be maintained so as to present a healthy, neat and orderly appearance at all times and shall be kept free of refuse and debris. All planted areas shall be provided with an automatic irrigation system and watered as necessary to ensure continuous healthy growth and development. Maintenance shall include the replacement of all dead plant material if that material was used to meet the requirements of the Landscape Ordinance.
- Tree caliper is the trunk diameter of a tree at one (1) foot above natural grade per the Composite Zoning Ordinance.
- All new landscapes (non-residential and residential) are required to have a minimum of six inches (6") of soil depth in areas planted with turfgrass. This six-inch (6") minimum soil depth will consist of 75 percent soil blended with 25 percent compost. The soil/compost blend shall be incorporated into the top two inches of the native soil. The six-inch (6") depth requirement does not apply to the area between the drip line and trunk of existing trees, shrub beds or wildscape areas. Areas with existing native vegetation that remain undisturbed shall be exempt from the soil depth provision; provided that native soil and vegetation in such area is fenced during construction and protected from disturbance and compaction during the construction process.
- All disturbed areas and ROW will be re-vegetated by the developer.
- All invasive species shall be removed from the property.
- No more than 50% of the same species may be planted to meet the tree planting requirements.
- A minimum pervious area 3 feet in radius and not less than 50% of the calculated drip line area is provided around the trunks of all existing and proposed trees.
- No landscaping over 3 feet high is located within 40 feet of the intersection of any street. (Measured from the edge of pavement as if the curbs or pavement edges are not rounded off and intersect at a right angle).
- In the event of a conflict with tree removal/preservation call outs on plan sheet(s) versus tree removal/preservation matrix, the tree removal/preservation matrix shall apply. It is the contractor's responsibility to verify with City staff should any inconsistency exist within an approved plan set. No in-field changes are made to approved plans, no exceptions.

NOTES

- Provide mulch tree ring for all trees outside of beds. Install per detail #1 on specifications sheet. Provide bubbler. Mulch is in addition to quantities listed.
- Contractor is responsible for verifying all plant and material quantities.
- Irrigation permit to be submitted separately from the Site and Building permit and will not be reviewed or approved under the Site and Building permit.
- Irrigation sleeves shall be run to all landscaped areas prior to concrete pour.
- Drip irrigation in all beds and spray irrigation in all lawn areas.

BAGDAD ROAD (COUNTY RD. 279)



SECTION VIEW - BERM PLANTINGS

Irrigation system will be reviewed under the irrigation application process



Date

Description

Rev

Consultant Seal

Company Name and Address

William S. Blair
(512) 522-8979
info@blairla.com
www.blairla.com
100 Congress Ave.
Ste 2000
Austin, TX 78701

BLAIR LANDSCAPE ARCHITECTURE, LLC
QUALITY. INTEGRITY. RELIABILITY.

Project Name and Address

279 Bagdad Gas Station
1540 W. San Gabriel
Leander, Texas

September 25, 2024

Sheet Title

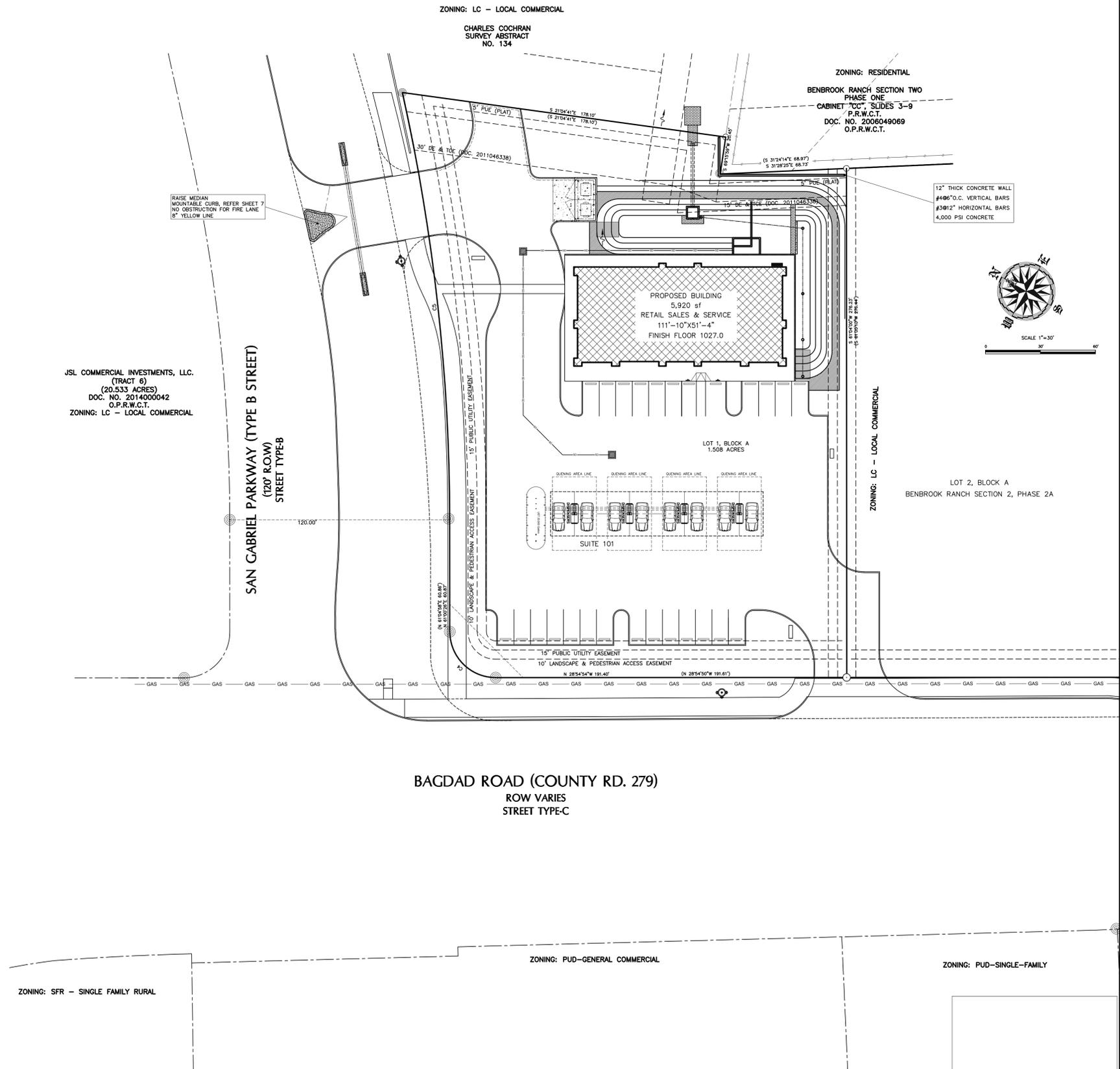
Landscape Plan

Design By: Will Blair
Issue Date: 07/24/2022
Project Number: 22070-LP

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22-SD-023

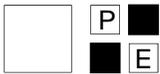
GENERAL LEGEND	
	PROPERTY LINE
	LIMITS OF CONSTRUCTION
	SILT FENCE
	SILT FENCE & LOC
	PUBLIC UTILITY EASEMENT
	DRAINAGE EASEMENT
	ELECTRICAL EASEMENT
	SANITARY SEWER EASEMENT
	WATER SURFACE ELEVATION
	CORRUGATED METAL PIPE
	EXISTING CONTOURS
	PROPOSED GRADING CONTOURS
UTILITY LEGEND	
	FIRE HYDRANT
	GATE VALVE
	PLUG OR CAP
	STORM SEWER MANHOLE
	WASTEWATER MANHOLE
	WW CLEAN-OUT
	WATER LINE
	WASTEWATER LINE
	STORM SEWER LINE
	FLOW INDICATOR (SHOWN TO RIGHT)
	PROPOSED SERVICE TAP
	WATER METER
	IRRIGATION METER
	STORM SEWER INLET
	WATER SERVICE (SINGLE)
	WATER SERVICE (DOUBLE)
	UTILITY POLE
	LIGHT POLE
	OVERHEAD ELECTRIC (EXISTING)
	WIRE FENCE
EROSION CONTROL LEGEND	
	TREE (EXISTING)
	TREE (TO BE REMOVED) (R)
	TREE PROTECTION



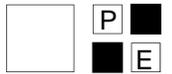
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PROFESSIONAL STRUCTURAL ENGINEERS, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS 12710 RESEARCH BLVD., SUITE 300, AUSTIN, TX 78759 TEL: 512.238.6422 FAX: 512.238.8096	
PROJECT NO: SD-22-0023	
Project: BAGDAD GAS STATION 1646 N BAGDAD RD. LEANDER, TEXAS 78641 Title: ADDRESS SITE PLAN	
PROJECT	P
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SHEET	24
OF 24	

PROJECT NUMBER: SD-22-0023

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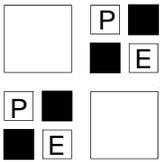
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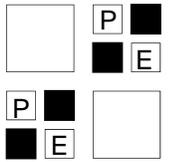
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ATTACHMENT N

Inspection, Maintenance, Repair and Retrofit Plan



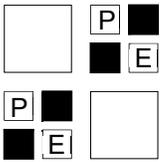
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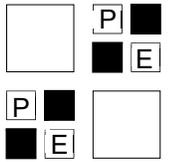
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ATTACHMENT P

Measures for Minimizing Surface Stream Contamination



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ATTACHMENT I – MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

Measures for temporary controls are:

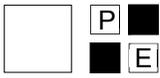
Temporary Construction Entrance/Exit. The purpose of a temporary gravel construction entrance is to provide a stable entrance/exit condition from the construction site and keep mud and sediment off public roads. A stabilized construction entrance is a stabilized pad of crushed stone located at any point traffic will be entering or leaving the construction site from a public right-of-way, street, alley, sidewalk or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking or flowing of sediment onto public rights-of-way. This practice will be used at all points of construction ingress and egress. The entrance will 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 onto public rights-of-way will be removed immediately by contractor. When necessary, wheels will be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it will be done on an area stabilized with crushed stone that drains into appropriate designated area. All sediment will be prevented from entering and storm drain, ditch or water course by using approved methods. Refer to the following sheets, attached to this section for location of the construction entrance, and for the detail describing the construction entrance.

Silt Fence. A silt fence is a barrier consisting of geotextile fabric supported by metal posts to prevent soil and sediment loss from a site. When properly used, silt fences can be highly effective at controlling sediment from disturbed areas. They cause runoff to pond, allowing heavier solids to settle out. The purpose of a silt fence is to intercept and detain water-borne sediment from unprotected areas of a limited extent. Silt fence will be used during the entire period of construction near the perimeter of a disturbed area to intercept sediment while allowing water to percolate through. This fence will remain in place until the disturbed area is permanently stabilized. All fencing will be inspected weekly, and after any rainfall. Sediment will be removed when buildup reaches 6 inches. Any torn fabric will be replaced or a second line of fencing will be installed parallel to the torn section. Any sections of fencing that are crushed or collapsed in the course of construction activity will be replaced or repaired. If a section of fence is obstructing vehicular access it will be relocated to a spot where it will provide equal protection, but will not obstruct vehicles. When construction is complete, the sediment will be disposed of in a manner that will not cause additional siltation and the prior location of the silt fence will be revegetated. The fence itself will be disposed of in an approved landfill. Refer to the attached sheets for location of silt-fencing and detail describing the silt-fencing.

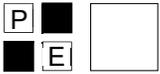
Concrete Washout Area. The concrete washout area will be located on the northernmost corner of the property. Please see the attached sheet. The purpose of concrete washout areas is to prevent or reduce the discharge of pollutants to stormwater from concrete waste by conducting washout offsite, performing 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.



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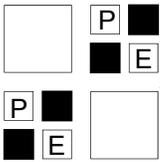
For onsite washout:

- 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 wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.

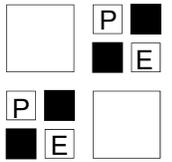
Below grade concrete washout facilities are typical. These consist of a lined excavation sufficiently large to hold expected volume of washout material. Above grade facilities are used if excavation is not practical. Temporary concrete washout facility (type above grade) should be constructed as shown on the details at the end of this section, with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. Plastic lining material should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material. When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Measures for permanent control are:

One pond is proposed on this project to minimize surface stream contamination and change the way in which water enters a stream as a result of the construction and development. A partial sand filtration and sedimentation system will be used to treat storm water runoff for the subject site. The proposed pond has a water quality volume of 7,920.85 cubic feet. The sedimentation basin has a volume of 3,716.65 cubic feet and an area of 953.55 square feet. The filtration basin has a volume of 4,204.20 cubic feet and an area of 1,001.0 square feet.



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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: Mirza Tahir Baig

Date: 12-02-2025

Signature of Customer/Agent:



Regulated Entity Name: Gabriel Leander, LLC

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: _____

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

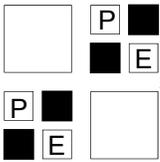
Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

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

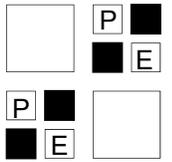
20. All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.
21. If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately 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.



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ATTACHMENT A

Spill Response Actions

ATTACHMENT B

Potential Sources of Contamination

ATTACHMENT C

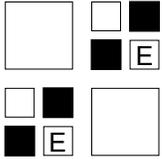
Sequence of Major Activities

ATTACHMENT D

**Temporary Best Management Practices and
Measures**

ATTACHMENT F

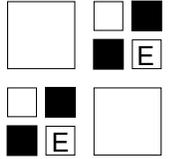
Structural Practices



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TEMPORARY STORMWATER SECTION ATTACHMENTS (TCEQ-0602)

Attachment I – Spill Response Actions

The responsible person shall immediately abate and contain the spill or discharge and cooperate fully with the executive director and the local incident command system. The responsible person shall also begin reasonable response actions based on the significance of the spill.

Minor Spills:

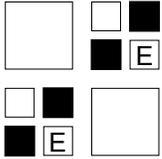
1. Minor spills typically involve small quantities of oil, gasoline, paint, etc; which can be controlled by the first responder at the discovery of the spill.
2. Use absorbent materials on small spills rather than hosing down or burying the spill.
3. Absorbent materials should be promptly removed and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

Semi-Significant Spills:

1. This response may require the cessation of all other activities.
2. Spills should be cleaned up immediately
3. Contain spread of the spill.
4. Notify the project foreman immediately.
5. 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.
6. If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
7. If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant / Hazardous Spills:

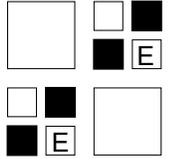
1. Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor’s responsibility to have all emergency phone numbers at the construction site.



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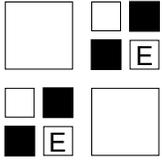
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2. For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119 and 302, the contractor should notify the National Response Center at 1-800-424-8802.
3. Notification should first be made by telephone and followed up with a written report.
4. The services of a spill's 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.

Other recommendations to consider:

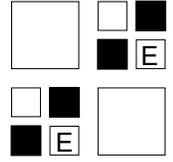
- Always wear appropriate safety equipment such as gloves, coveralls, goggles, and respirators.
- Access Materials Safety Data Sheets (MSDS) for information about spilled materials.
- Keep MSDSs readily available for each chemical used or stored at the facility.
- A MSDS contains information that enables persons responsible for handling, using or encountering chemicals to estimate the likely harm, potential hazards and risks that might arise in emergency situations involving those chemicals.
- Obtain a MSDS free of charge by calling the manufacturer's phone number from the label on the chemical container.
- Clean up surfaces contaminated by hazardous chemicals only if you are trained, experienced, and qualified. Excavate spills on pervious (e.g. soil) surfaces as quickly as possible to prevent spread of the contamination. Contact the Watershed Protection Department for soil cleanup instructions. Sweep up and containerize dry material spills on impervious surfaces (e.g. pavement) for proper disposal. Absorb liquid spills on impervious surfaces with sorbent materials (e.g. clay sorbent, pads, booms, etc.) and containerize for proper disposal. Do not use wet/dry shop vacuum for gasoline, solvents or other volatile fluids because of explosion hazards.
- Post a site-specific spill contingency plan at your facility. This should provide step-by-step instructions in the event of a spill. Practice these steps in a "spill drill." The Watershed Protection Department provides information regarding spill contingency plans and a fact sheet detailing proper spill handling. A phone number is provided at the end of this fact sheet.



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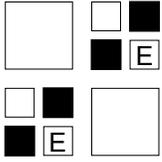
Attachment B - Potential Sources of Contamination:

- Leaking fuel or oil from construction vehicles and human litter. Refer to Attachment A for the spill response actions during construction.
- Total Suspended Solids (TSS)
- Loss of vegetative ground cover due to inadequate watering or mismanagement
- Over fertilizing vegetative areas
- The accidental or improper discharge of the following:
 - a. Concrete
 - b. Cleaning solvents
 - c. Detergents
 - d. Petroleum based products
 - e. Acids
 - f. Paints
 - g. Paints solvents
 - h. Concrete additives
 - i. Portable restrooms

Attachment C - Sequence of Major Activities

(Construction may be concurrent with other elements, but must be completed in the order shown below) See attached site plan

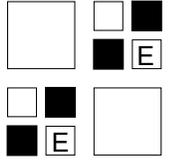
- A. Install erosion controls as indicated on approved site plan.
- B. Install tree protection.
- C. Contact "the city". Schedule on-site pre-construction coordination meeting. Evaluation of temporary erosion control installation. Review construction schedule with the erosion control plan.
- D. Inspect and maintain all controls as per general notes.
- E. Construct proposed elements.
- F. Complete construction and install landscaping.
- G. Re-vegetate disturbed areas or complete a developer's contract for the re-vegetation along with the engineer's concurrence letter.
- H. Project engineer inspects job and writes concurrence letter to the city. Final inspection is scheduled upon receipt of letter.
- I. Receive operating permit and city clearance for occupancy.
- J. Remove temporary erosion/sedimentation controls upon inspector's approval of adequate re-vegetation



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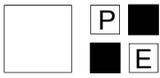


Attachment D - Temporary Best Management Practices and Measures

- A stabilized construction entrance to trap sediment and prevent it from being tracked offsite.
- The primary temporary erosion and sedimentation control is silt fencing placed on all downstream sides of construction. Silt fence is used to prevent sediment from low volume storm events from entering the drainage ways and receiving waters by capturing the sediment before it is able to leave the site.
- To prevent or reduce the discharge to pollutants to stormwater from concrete waste all concrete washout performed on site will be done within the designated concrete washout area.
- All construction debris and litter shall be collected and disposed of in designated temporary spoils and contractor staging area. Construction waste receptacles will be emptied when full and removed when project is completed.
- To provide protection against silt transport or accumulation in storm sewer systems inlet protection devices are to be utilized for each inlet on site.
- Temporary rock berms are to be utilized in order to serve as check dams in areas of concentrated flow to intercept sediment-laden runoff, detain the sediment and release the water in sheet flow.
- Triangular sediment filter dikes are to be used to intercept and detain water-borne sediment from unprotected areas where silt fence is not feasible.
- The rough-cut pond for the proposed WQP will be utilized as a temporary sediment basin during construction for the purpose of capturing and slowly releasing the runoff from larger disturbed areas thereby allowing sedimentation to take place.
- A gravity filter bag will be utilized in order to empty the rough-cut temporary sediment basin and capture the sediment without allowing it to leave the site. The bag shall be replaced when it no longer filters sediment or passes water at a reasonable rate.

Attachment F - Structural Practices

- The primary structural practice to divert flows away from exposed soil is the silt fence placed on all downstream sides of construction. Silt fence is used to prevent sediment from low volume storm events entering the drainage ways and receiving waters.
- Curb-and-gutter, when constructed, will also prevent flows from exposed soils.



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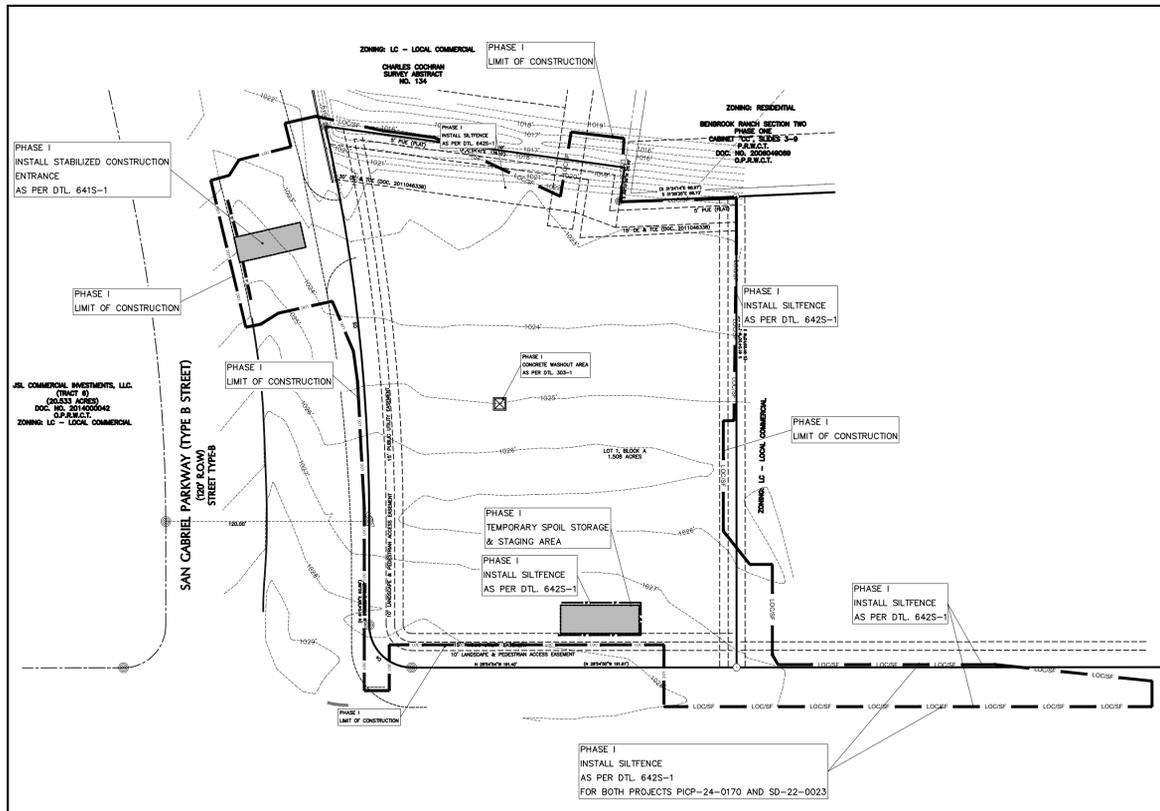
STRUCTURAL CIVIL TRANSPORTATION

2205 WEST PARMER LANE, SUITE #201, AUSTIN, TEXAS 78727
512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951

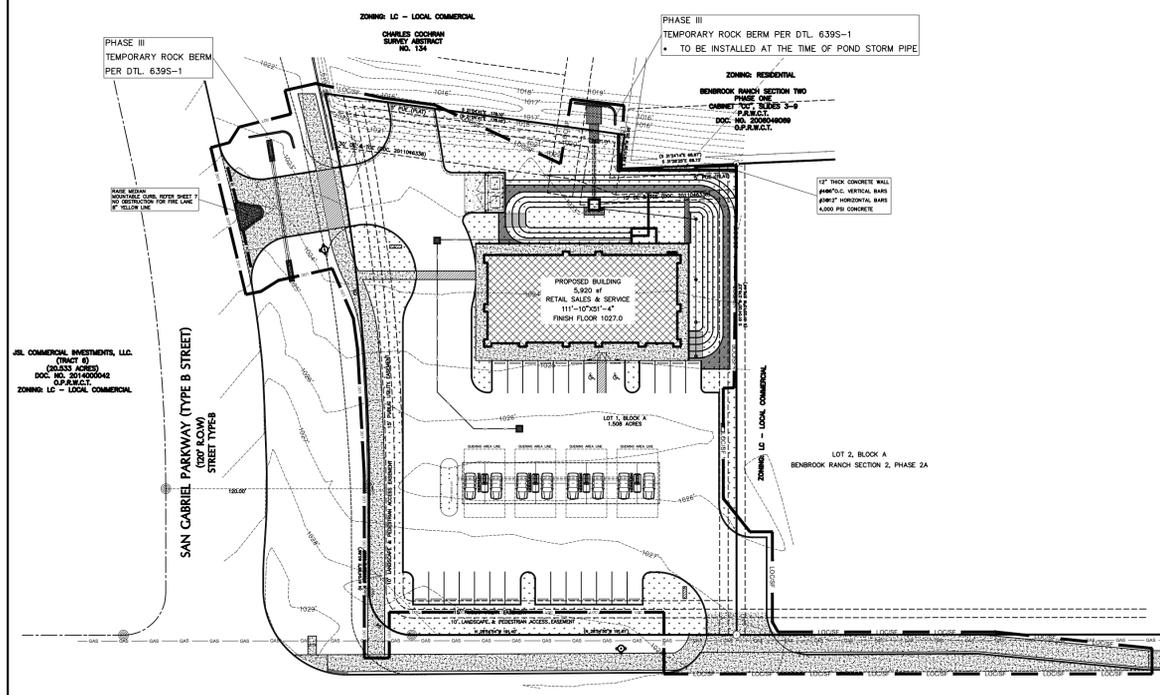


ATTACHMENT G

Drainage Area Map

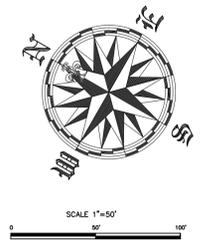


EROSION & SEDIMENTATION CONTROL PLAN | PHASE I
SCALE 1"=50'-0"



BAGDAD ROAD (COUNTY RD. 279)
ROW VARIES
STREET TYPE C

EROSION & SEDIMENTATION CONTROL PLAN | PHASE III
SCALE 1"=50'-0"



APPENDIX P-1 EROSION CONTROL NOTES

- THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
- THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. THE ESC PLAN SHALL BE CONSULTED AND USED AS THE BASIS FOR A TIDES REQUIRED SWPPP. IF A SWPPP IS REQUIRED, IT SHALL BE AVAILABLE FOR REVIEW BY THE CITY OF AUSTIN ENVIRONMENTAL INSPECTOR AT ALL TIMES DURING CONSTRUCTION, INCLUDING AT THE PRE-CONSTRUCTION MEETING. THE CHECKLIST BELOW CONTAINS THE BASIC ELEMENTS THAT SHALL BE REVIEWED FOR PERMIT APPROVAL BY TRAVIS COUNTY EV PLAN REVIEWERS AS WELL AS TRAVIS COUNTY EV INSPECTORS.
--- PLAN SHEETS SUBMITTED MUST SHOW THE FOLLOWING:
✓ DIRECTION OF FLOW DURING GRADING OPERATIONS.
✓ LOCATION, DESCRIPTION, AND CALCULATIONS FOR OFF-SITE FLOW DIVERSION STRUCTURES.
✓ AREAS THAT WILL NOT BE DISTURBED; NATURAL FEATURES TO BE PRESERVED.
✓ DELINEATION OF CONTRIBUTING DRAINAGE AREA TO EACH PROPOSED BMP (E.G., SILT FENCE, SEDIMENT BASIN, ETC.)
✓ LOCATION AND TYPE OF E&S BMPs FOR EACH PHASE OF DISTURBANCE.
✓ CALCULATIONS FOR BMPs AS REQUIRED.
- LOCATION AND DESCRIPTION OF TEMPORARY STABILIZATION MEASURES.
- LOCATION OF ON-SITE SPOILS, DESCRIPTION OF HANDLING AND DISPOSAL OF BORROW MATERIALS, AND DESCRIPTION OF ON-SITE PERMANENT SPOILS DISPOSAL AREAS, INCLUDING SIZE, DEPTH OF FILL AND REVEGETATION PROCEDURES.
- DESCRIBE SEQUENCE OF CONSTRUCTION AS IT PERTAINS TO ESC INCLUDING THE FOLLOWING ELEMENTS:
1. INSTALLATION SEQUENCE OF CONTROLS (E.G. PERIMETER CONTROLS, THEN SEDIMENT BASINS, THEN TEMPORARY STABILIZATION, THEN PERMANENT, ETC.)
2. PROJECT PHASING IF REQUIRED (LOC GREATER THAN 25 ACRES)
3. SEQUENCE OF GRADING OPERATIONS AND NOTATION OF TEMPORARY STABILIZATION MEASURES TO BE USED
4. SCHEDULE FOR CONVERTING TEMPORARY BASINS TO PERMANENT WQ CONTROLS
5. SCHEDULE FOR REMOVAL OF TEMPORARY CONTROLS
6. ANTI-CORROSION MAINTENANCE SCHEDULE FOR TEMPORARY CONTROLS
--- CATEGORIZE EACH BMP UNDER ONE OF THE FOLLOWING AREAS OF BMP ACTIVITY AS DESCRIBED BELOW
3.1 MINIMIZE DISTURBED AREA AND PROTECT NATURAL FEATURES AND SOIL
3.2 CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT
3.3 STABILIZE SOILS
3.4 PROTECT SLOPES
3.5 PROTECT STORM DRAIN INLETS
3.6 ESTABLISH PERIMETER CONTROLS AND SEDIMENT BARRIERS
3.7 RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES
3.8 ESTABLISH STABILIZED CONSTRUCTION EXITS
3.9 ANY ADDITIONAL BMPs
--- NOTE THE LOCATION OF EACH BMP ON YOUR SITE MAP(S).
--- FOR ANY STRUCTURAL BMPs, YOU SHOULD PROVIDE DESIGN SPECIFICATIONS AND DETAILS AND REFER TO THEM.
--- FOR MORE INFORMATION, SEE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL 1.4.
- THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
- A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND ENVIRONMENTAL INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOTIFY TRAVIS COUNTY TMR, 512-854-9383, AT LEAST THREE DAYS PRIOR TO THE MEETING DATE. TRAVIS COUNTY APPROVED ESC PLAN AND TIDES SWPPP (IF REQUIRED) SHOULD BE REVIEWED BY EV INSPECTOR PRIOR TO PRE-CONSTRUCTION MEETING.
- ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVISING ENGINEER, ENVIRONMENTAL SPECIALIST AS APPROPRIATE. MAJOR REVISIONS MUST BE APPROVED BY AUTHORIZED COUNTY STAFF. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
- THE CONTRACTOR IS REQUIRED TO PROVIDE A CERTIFIED INSPECTOR WITH EITHER A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC), CERTIFIED EROSION, SEDIMENT AND STORMWATER INSPECTOR (CESSWI) OR CERTIFIED INSPECTOR OF SEDIMENTATION AND EROSION CONTROLS (CISEC) CERTIFICATION TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
- PRIOR TO FINAL ACCEPTANCE BY THE COUNTY, HAIL RODS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
- ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS: ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A TRAVIS COUNTY ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.
- TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW:
A. ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO PLACE A MINIMUM OF SIX (6) INCHES OF TOPSOIL [SEE STANDARD SPECIFICATION ITEM NO. 601S.(X)(A)]. DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES.
• TOPSOIL SALVAGED FROM THE EXISTING SITE IS ENCOURAGED FOR USE, BUT IT SHOULD MEET THE STANDARDS SET FORTH IN 601S.
• AN OWNER/ENGINEER MAY PROPOSE USE OF ONSITE SALVAGED TOPSOIL WHICH DOES NOT MEET THE CRITERIA OF STANDARD SPECIFICATION 601S BY PROVIDING A SOIL ANALYSIS AND A WRITTEN STATEMENT FROM A QUALIFIED PROFESSIONAL IN SOILS, LANDSCAPE ARCHITECTURE, OR AGRONOMY INDICATING THE ONSITE TOPSOIL WILL PROVIDE AN EQUIVALENT GROWTH MEDIA AND SPECIFYING WHAT, IF ANY, SOIL AMENDMENTS ARE REQUIRED.
• SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ONSITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL-BLENDED MATERIAL.
THE VEGETATIVE STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION SHALL BE AS FOLLOWS:

BAGDAD ROAD (COUNTY RD. 279)
ROW VARIES
STREET TYPE C

EROSION & SEDIMENTATION CONTROL PLAN | PHASE II
SCALE 1"=50'-0"

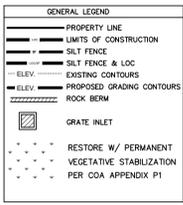
EROSION CONTROL PHASING NOTES:

- PHASE I: INITIAL PHASE BEFORE THE CONSTRUCTION BEGIN
ITEMS: CONSTRUCTION ENTRANCE, SPOIL STORAGE, CONCRETE WASH OUT, SILT FENCE AND LIMIT OF CONSTRUCTION
- PHASE II : DURING CONSTRUCTION PHASE AND SITE WORK
ITEMS: EROSION CONTROLS REQUIRED DURING CONSTRUCTION.
- PHASE III : FINAL CONSTRUCTION PHASE.
ITEMS: RIP RAP, ROCK BERM

ENVIRONMENTAL NOTES:

- IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING.
- ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN-COMPLIANCE WITH THE CITY OF LEANDER RULES AND REGULATIONS.
- CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
- THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY.
- PERPENDICULAR EROSION CONTROLS MUST BE INSTALLED EVERY 30 FEET AS THE TRENCH IS BACKFILLED.
- IN THE EVENT OF INCLEMENT WEATHER THAT MAY RESULT IN A FLOODING SITUATION, THE CONTRACTOR SHALL REMOVE INLET PROTECTION MEASURES UNTIL SUCH TIME AS THE WEATHER EVENT HAS PASSED.
- ON-SITE EROSION CONTROL MEASURES TO BE ESTABLISHED AND MAINTAINED AROUND TEMPORARY/PERMANENT SPOILS LOCATIONS, CONCRETE WASHOUT AND CONTRACTOR STAGING AREAS
- AN INITIAL SITE INSPECTION MUST BE CONDUCTED BY THE CITY OF LEANDER TO VERIFY THAT ALL EROSION AND SEDIMENT CONTROLS HAVE BEEN PROPERLY INSTALLED AND PER THE PLAN. APPROVAL BY THE CITY MUST BE GIVEN BEFORE CONSTRUCTION CAN BEGIN.
- ALL ROCK BERMS SHALL BE REMOVED BY THE CONTRACTOR.

DISTURBED ACREAGE 3.49 ACRES



PROJECT NUMBER: SD-22-0023

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MIRZA TAHR BAIG, P.E., #82577 ON 09/03/2025 FIRM REGISTRATION F-4951

PROFESSIONAL STRUCTURAL ENGINEERS, INC. CONSULTING CIVIL AND STRUCTURAL ENGINEERS
12710 RESEARCH BLVD., SUITE 900, AUSTIN, TX 78759 | TEL: 512.238.6422 | FAX: 512.238.6506

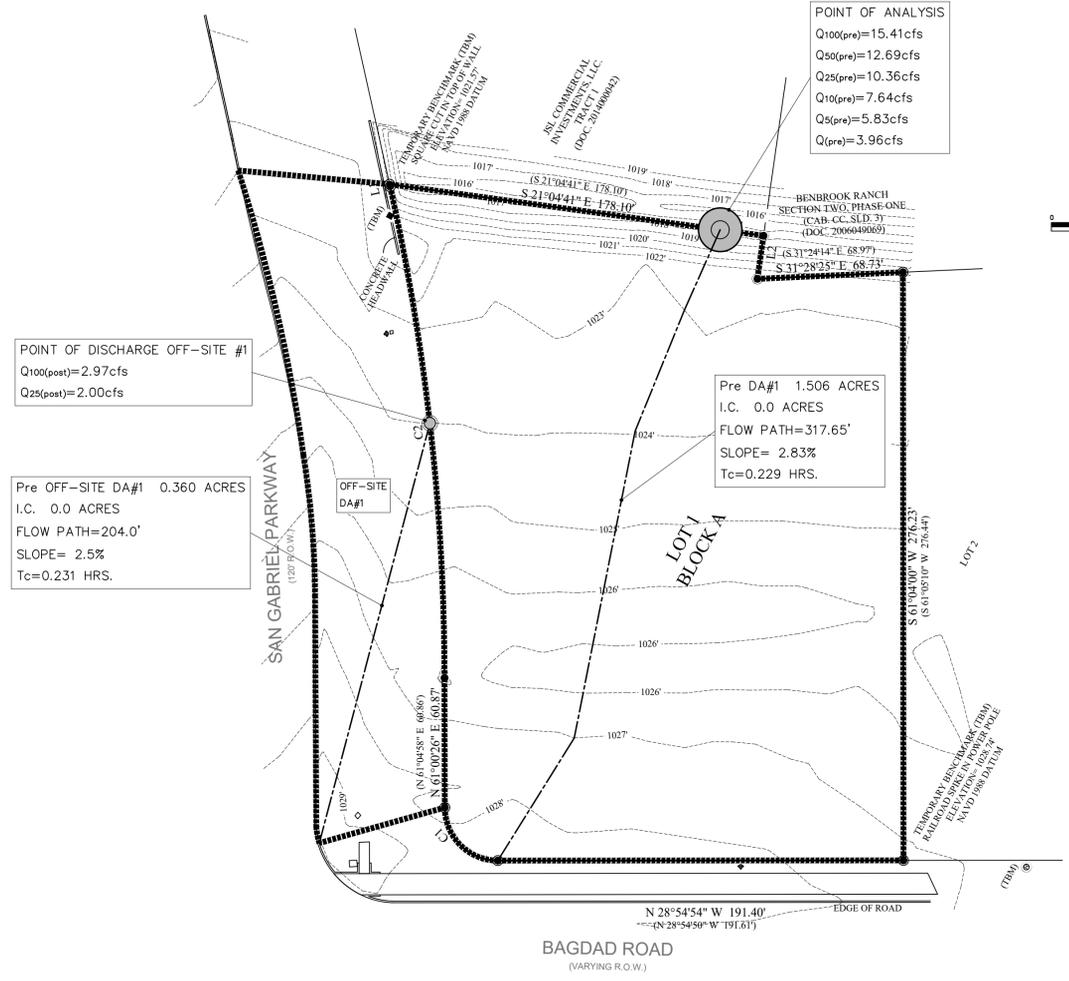
PROJECT NO: SD-22-0023

Project: BAGDAD GAS STATION
1646 N BAGDAD RD.
LEANDER, TEXAS 78641

Title: EROSION & SEDIMENTATION CONTROL PLAN

PROJECT 30356

SHEET 6 OF 24



PRE DEVELOPMENT DRAINAGE AREA MAP
 SCALE 1"=40'-0"

POST DEVELOPMENT DRAINAGE AREA MAP
 SCALE 1"=40'-0"

DRAINAGE SUMMARY TABLE (PRE & POST CONDITIONS)

BASIN NAME	PRE DA#1	POST DA#1	POST DA#2	POST DA#3	POST DA#4	POST DA#5	PRE OFF-SITE DA#1	POST OFF-SITE DA#1	TOTAL PRE "Q"	TOTAL POST "Q"	TOTAL POST "Q" RELEASE
DRAINAGE AREA (acres)	1.506	0.846	0.209	0.162	0.077	0.226	0.360	0.360			
IMPERVIOUS COVER (acres)	0.00	0.664	0.169	0.162	0.0	0.0	0.0	0.014			
CN	84	84	84	84	84	84	84	84			
CN Adjusted	84	94.99	95.32	98.00	84	84	84	84.54			
Tc (hrs.)	0.229	0.083	0.083	0.083	0.083	0.262	0.231	0.228			
2YRS. (cfs)	3.20	2.78	0.69	0.57	0.19	0.46	0.76	0.76	3.96	5.46	2.46
5 YRS (cfs)	4.71	3.73	0.93	0.75	0.28	0.68	1.11	1.11	5.83	7.48	4.23
10YRS. (cfs)	6.17	4.64	1.15	0.92	0.37	0.89	1.47	1.45	7.64	9.42	6.19
25YRS. (cfs)	8.37	6.01	1.49	1.18	0.50	1.21	2.00	1.97	10.36	12.36	9.22
50 YRS (cfs)	10.25	7.19	1.78	1.40	0.61	1.48	2.44	2.41	12.69	14.87	11.51
100YRS. (cfs)	12.44	8.57	2.12	1.67	0.74	1.80	2.97	2.92	15.41	17.82	14.24

NOTE: THE DRAINAGE ANALYSIS ARE BASED ON ATLAS 14 PRECIPITATION-FREQUENCY ATLAS OF THE UNITED STATES.

DETENTION POND AREA & VOLUME

ELEVATION FT	AREA ACRES	VOLUME AC-FT
1,021.00	0.0	0.000
1,022.00	0.052	0.026
1,023.00	0.071	0.088
1,024.00	0.091	0.169
1,025.00	0.115	0.272

2, 10, 25, & 100YRS. ELEVATIONS & VOLUME EVENTS

EVENTS	POND VOLUME AC-FT	ELEVATION FT
2YRS.	0.09	1,023.10
5YRS	0.11	1,023.40
10YRS.	0.13	1,023.66
25YRS.	0.16	1,024.00
50YRS	0.18	1,024.21
100YRS.	0.21	1,024.45

COMPOSITE OUTFLOW SUMMARY TABLE

ELEVATION FT	ORIFICE-1	WEIR-1	TOTAL Q RELEASE
1,021.00	cfs	cfs	cfs
1,021.00	0.00	0.00	0.00
1,021.50	0.35	0.00	0.35
1,022.00	0.58	0.00	0.58
1,022.28	0.68	0.00	0.68
1,022.50	0.75	0.41	1.16
1,023.00	0.88	2.44	3.32
1,023.50	0.99	5.39	6.38
1,024.00	1.10	9.02	10.12
1,024.50	1.19	13.23	14.42
1,025.00	1.28	17.94	19.22

POND OUTLET STRUCTURE SUMMARY TABLE

EVENTS (IN)	ELEVATION (OUT)	PEAK FLOW "Q" (cfs)	PEAK FLOW "Q" (cfs)
2YRS.	1,023.10	4.24	1.41
5YRS	1,023.40	5.69	2.54
10YRS.	1,023.66	7.08	3.89
25YRS.	1,024.00	9.18	6.05
50YRS	1,024.21	10.98	7.63
100YRS.	1,024.45	13.10	9.52

TIME OF CONCENTRATION CALCULATIONS TABLE

BASIN NAME	TR55 SHEET FLOW Length(ft)	Slope(%)	Tc1(hrs.)	TR55 SHALLOW CONCENTRATED FLOW Length(ft)	Slope(%)	Tc2(hrs.)	TIME OF CONCENTRATION Tc=Tc1+Tc2
PRE DA#1	100.00	3.60	0.202	217.00	2.00	0.026	0.229
PRE OFFSITE DA#1	100.00	3.00	0.218	104.0	2.00	0.0127	0.231
POST DA#1	100.00	1.00	0.0324	113.00	1.00	0.0154	0.083
POST DA#2	92.50	1.50	0.0259	0.000	-	-	0.083
POST DA#3	100.00	1.00	0.0324	51.00	1.00	0.007	0.083
POST DA#4	100.00	1.25	0.0296	37.83	1.25	0.006	0.083
POST DA#5	100.00	2.00	0.256	49.00	2.00	0.006	0.262
POST OFFSITE DA#1	100.00	3.00	0.218	104.00	2.00	0.010	0.228

NOTES: MANNING'S N(PRE)=0.30 & N(POST)=0.016,
 2 YRS. 24 HR. DEPTH= 3.93 INCH
 5 YRS. 24 HR. DEPTH= 5.17 INCH
 10 YRS. 24 HR. DEPTH= 6.36 INCH
 25 YRS. 24 HR. DEPTH= 8.15 INCH
 50 YRS. 24 HR. DEPTH= 9.69 INCH
 100 YRS. 24 HR. DEPTH= 11.50 INCH
 PER NOAA ATLAS 14, VOLUME 11, VERSION 2

STRUCTURAL STABILIZATION CALCULATIONS

QU LB/SQ.IN	QN,MAX LB/SQ.IN	BEAR.CAP SF	RM KIP.FT	OTM KIP.FT	OVERT. SF	RES F KIP	SLID F KIP	SLID. SF	DEFL IN
26.52	6.30	4.03	6.21	2.13	2.92	1.67	0.75	2.23	0.15

REINFORCEMENT REQ.

STEM(SQ.IN)	BASE(SQ.IN)
0.29	0.43

NOTE:
 ALLOWABLE SF FOR OVERTURNING =1.50
 ALLOWABLE SF FOR SLIDING =1.50
 ALLOWABLE SF FOR BEARING CAPACITY =2.00

PROJECT NUMBER: SD-22-0023

PROFESSIONAL STRUCTURAL ENGINEERS, INC.
 CONSULTING CIVIL AND STRUCTURAL ENGINEERS
 12710 RESEARCH BLVD., SUITE 300, AUSTIN, TX 78759 | TEL: 512.238.6022 FAX: 512.238.6095

MIRZA TAHR BAIG
 82577
 THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY MIRZA TAHR BAIG, P.E., #82577 ON 08/19/2025
 FIRM REGISTRATION F-4951

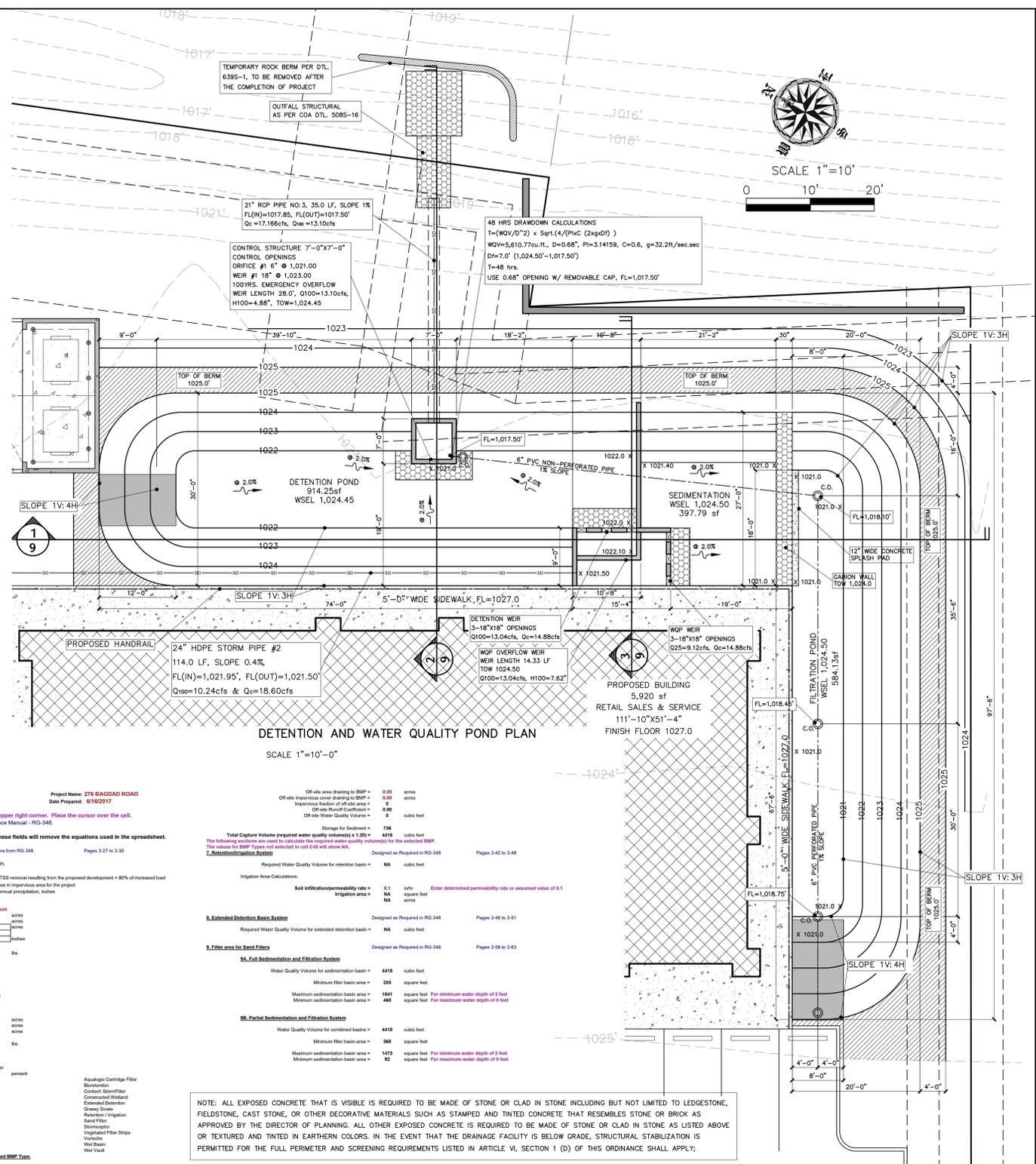
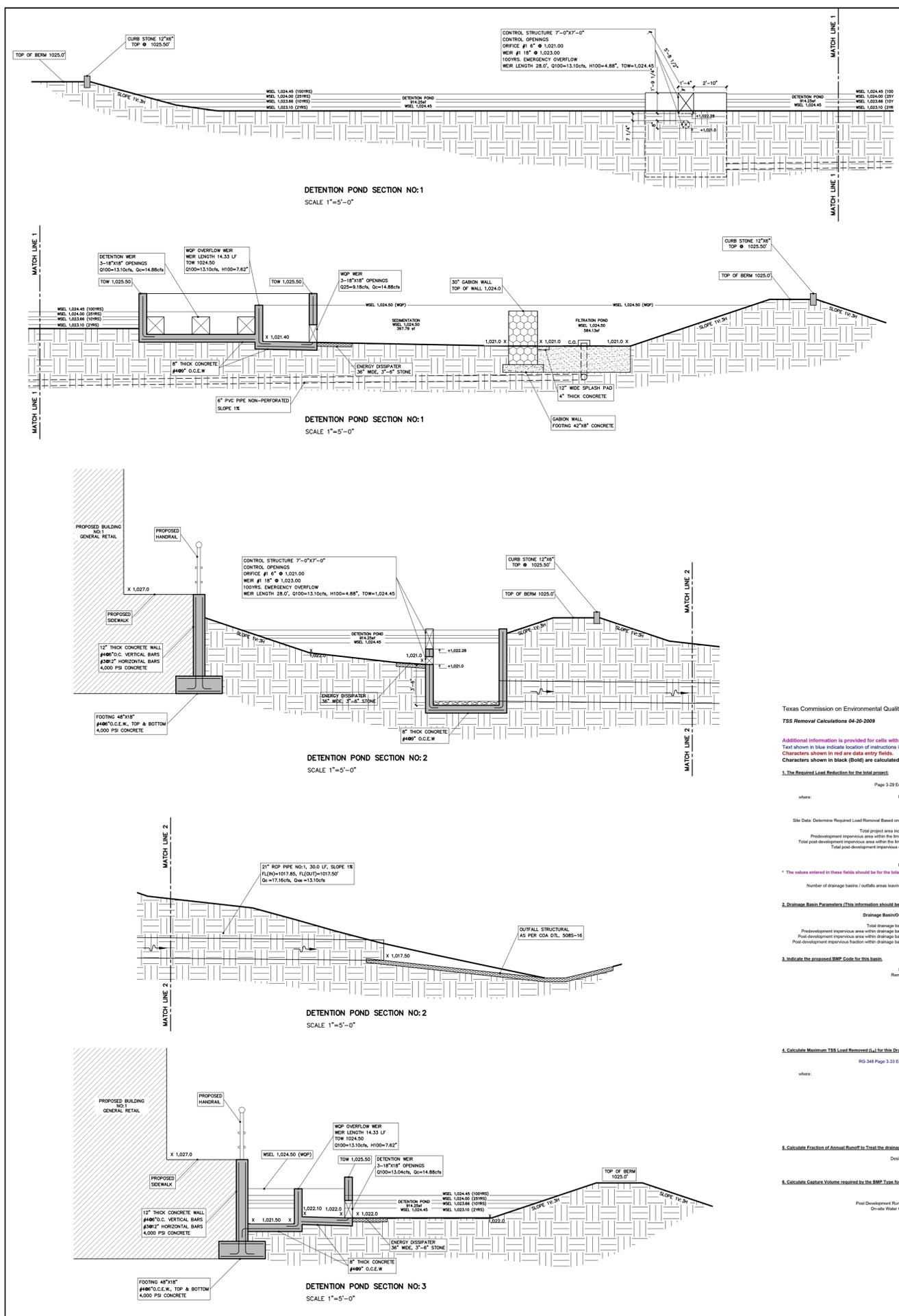
PROJECT NO: SD-22-0023

BAGDAD GAS STATION
 1646 N BAGDAD RD.
 LEANDER, TEXAS 78641

GRADING & DRAINAGE PLAN SHEET 2
 DRAINAGE AREA MAP

30356

8
 OF 24



Texas Commission on Environmental Quality
TSS Removal Calculations 04-20-2009

Project Name: **576 BAGDAD ROAD**
 Date Prepared: **6/16/2017**

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 indicates 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:

where:

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

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

3. Indicate the proposed BMP Code for this basin:

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

where:

5. Calculate Fraction of Annual Runoff to Treat (this drainage basin / outfall area):

6. Calculate Capture Volume required by the BMP Type for this drainage basin (cuft/acre):

7. Extended Detention Basin System:

8. Filter area for Sand Filters:

9. Full Sedimentation and Filtration System:

10. Partial Sedimentation and Filtration System:

11. Calculate Pond Volume:

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100. Calculate Pond Volume:

NOTE: ALL EXPOSED CONCRETE THAT IS VISIBLE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE INCLUDING BUT NOT LIMITED TO LEDGESTONE, FIELDSTONE, CAST STONE, OR OTHER DECORATIVE MATERIALS SUCH AS STAMPED AND TINTED CONCRETE THAT RESEMBLES STONE OR BRICK AS APPROVED BY THE DIRECTOR OF PLANNING. ALL OTHER EXPOSED CONCRETE IS REQUIRED TO BE MADE OF STONE OR CLAD IN STONE AS LISTED ABOVE OR TEXTURED AND TINTED IN EARTHEN COLORS. IN THE EVENT THAT THE DRAINAGE FACILITY IS BELOW GRADE, STRUCTURAL STABILIZATION IS PERMITTED FOR THE FULL PERIMETER AND SCREENING REQUIREMENTS LISTED IN ARTICLE VI, SECTION 1 (D) OF THIS ORDINANCE SHALL APPLY.

ELEV	POND		FILTRATION POND		SEDIMENTATION POND	
	AREA SF	VOLUME CU.FT.	AREA SF	VOLUME CU.FT.	AREA SF	VOLUME CU.FT.
1,021.0	584.13	0.0	0.0	0.0	0.0	0.0
1,021.40	690.70	254.96	397.79	79.56	79.56	79.56
1,022.0	859.04	721.58	475.89	353.66	353.66	353.66
1,023.0	1,162.23	1,732.22	539.40	861.30	861.30	861.30
1,024.0	1,493.69	3,060.18	602.91	1,432.45	1,432.45	1,432.45
1,024.50	1,670.02	3,851.11	705.92	1,759.66	1,759.66	1,759.66

WATER QUALITY POND VOLUME @ 1,024.50 = 5,610.77 CU.FT.
 PROVIDED WATER QUALITY POND VOLUME = 5,610.77 CU.FT.
 REQUIRED WATER QUALITY POND VOLUME = 4,418.0 CU.FT.

Professional Structural Engineers, Inc. Consulting Civil and Structural Engineers
 12710 RESEARCH BLVD., SUITE 900, AUSTIN, TX 78759 | TEL: 512.238.6021 FAX: 512.238.6095

PROJECT NO: SD-22-0023

PROJECT: BAGDAD GAS STATION
 1646 N BAGDAD RD.
 LEANDER, TEXAS 78641

Title: GRADING & DRAINAGE PLAN SHEET 3
 DETENTION & WATER QUALITY PONDS

30356

SHEET 9 OF 24

PROJECT NO: SD-22-0023

30356

SHEET 9 OF 24

CITY OF AUSTIN STANDARD SPECIFICATION ITEM NO. 620S – FILTER FABRIC

TABLE 2: HIGH FLOW FILTER FABRIC REQUIREMENTS

PROPERTY	TEST METHOD	REQUIREMENTS
FABRIC WEIGHT	D 3776	3.0 OUNCES/SQUARE YARD MINIMUM
ULTRAVIOLET (UV) RADIATION STABILITY	D 4355	70% STRENGTH RETAINED MINIMUM, AFTER 500 HOURS IN XENON ARC DEVICE
MULLEN BURST STRENGTH	D 3786	120 POUND PER SQUARE INCH MINIMUM
WATER FLOW RATE	D 4491	275 GALLONS/MINUTE/SQUARE FEET MINIMUM

Specification Item No. 594S
Gabions and Revet Mattresses

594S.2 MATERIALS

GABIONS AND REVET MATTRESSES SHALL BE CONSTRUCTED OF GALVANIZED STEEL WIRE WITH POLYVINYLCHLORIDE (PVC) FLEXIBLE COATING. THE GABIONS AND REVET MATTRESSES SHALL BE OF THE CONSTRUCTION AND SIZES SPECIFIED IN THE DRAWINGS AND SHALL MEET THE SPECIFICATIONS PRESENTED HEREIN. UNLESS OTHERWISE SPECIFIED IN THE DRAWINGS OR APPROVED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE, THE GABIONS AND REVET MATTRESSES MAY BE CONSTRUCTED OF EITHER DOUBLE TWIST WOVEN MESH OR WELDED WIRE MESH.

GABIONS SHALL BE FURNISHED IN THE SPECIFIED DIMENSIONS WITHIN A TOLERANCE OF ± 5 PERCENT. REVET MATTRESSES SHALL BE FURNISHED IN THE SPECIFIED DIMENSIONS WITHIN A TOLERANCE OF 5 PERCENT FOR THE LENGTH AND WIDTH AND 10 PERCENT FOR THE HEIGHT. FOR EACH INDIVIDUAL GABION OR REVET MATTRESS, THE SAME MESH STYLE SHALL BE USED FOR THE BASE, FRONT, ENDS, BACK, DIAPHRAGMS AND LID PANELS. EACH GABION OR REVET MATTRESS SHALL BE MANUFACTURED AND DIVIDED INTO CELLS OF EQUAL LENGTH, NO GREATER THAN 3 FEET (0.9 METER), BY DIAPHRAGM PANELS.

(1) GABION AND REVET MATTRESS WIRE

GABION WIRE SHALL BE GALVANIZED STEEL, CLASS 3 OR A COATING, SOFT TEMPER CONFORMING TO ASTM A 641, AND SHALL SPECIFICALLY MEET THE REQUIREMENTS GIVEN BELOW FOR GABIONS (12 GAGE WIRE) AND/OR REVET MATTRESSES (13.5 WIRE GAGE) AS CALLED FOR IN THE DRAWINGS. PVC COATING OF THE WIRE MAY BE FUSE-BONDED OR EXTRUDED ONTO THE WIRE. GALVANIZATION OF WELDED WIRE SHALL BE PERFORMED EITHER BEFORE OR AFTER WELDING.

Table 1: Requirements – Mesh Wire for Gabions and Revet Mattress Units

Characteristic	Gabions	Revet Mattresses
Wire Gage	12 gage	13.5 gage
Maximum Tensile Strength (ASTM 641)	70,000 psi (483 mpa)	75,000 psi (517 mpa)
Nominal Wire Diameter (ASTM A 641)	0.106 inch (2.7 mm)	0.0866 inch (2.2 mm)
Minimum Diameter (ASTM A 641, Table 3)	0.102 inch (2.6 mm)	0.0826 inch (2.9 mm)
Galvanizing, Zinc (ASTM A 641, Table 1)	0.80 oz/ft ² (245 gr/m ²)	0.70 oz/ft ² (215 gr/m ²)

(2) GABION MESH

(A) WOVEN MESH

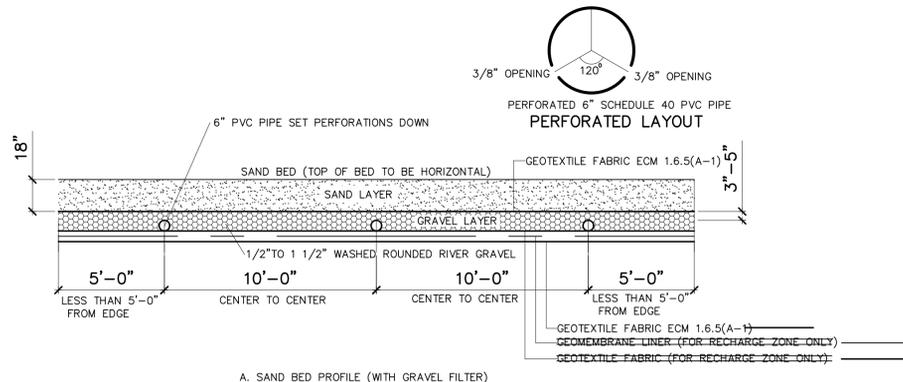
WOVEN MESH SHALL BE OF A UNIFORM NON-RAVELING, DOUBLE TWIST HEXAGONAL PATTERN NOMINALLY OF DIMENSIONS 3.25 INCHES BY 4.5 INCHES (83 MM BY 114 MM). SELVEDGE WIRE SHALL BE 10 GAGE (NOMINAL DIAMETER OF 3.4 MM).

(B) WELDED MESH

MESH OPENING SHALL BE NOMINALLY 3 INCHES BY 3 INCHES (75 MM BY 75 MM). STRENGTH OF WELDS SHALL MEET THE FOLLOWING REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH SECTION 13.4 OF ASTM A-974:

Table 2: Minimum Weld Strength Requirements

Type of Structure	Wire Size (Diameter)		Minimum Average Weld Shear Strength
	Gage (mm)	English Units (SI Units)	
Gabions	12 (2.7)		472 lbf (2.10 kN)
Revet Mattress	13.5 (2.2)		292 lbf (1.30 kN)



CITY OF AUSTIN STANDARD DETAIL NO. 661-1, OPTION A
SAND BED FILTRATION CONFIGURATIONS USING GEOMEMBRANE LINER

(C) MANUFACTURING

TWISTED WIRE MESH GABIONS SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-975, WHILE WELDED WIRE MESH GABIONS SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-974.

(3) REVET MATTRESSES

(A) WOVEN MESH

WOVEN MESH SHALL BE OF A UNIFORM NON-RAVELING, DOUBLE TWIST HEXAGONAL PATTERN, NOMINALLY OF DIMENSIONS 2.5" X 3.25" (64 MM BY 83 MM). SELVEDGE WIRE SHALL BE 12 GAGE (NOMINAL DIAMETER OF 2.7 MM).

(B) WELDED MESH

MESH OPENING SHALL BE NOMINALLY 1.5" X 3.0" (38 MM BY 76 MM). STRENGTH OF WELDS SHALL MEET THE REQUIREMENTS LISTED IN TABLE 2 FOR 13.5 GAGE (2.2 MM) WIRE, WHEN TESTED IN ACCORDANCE WITH SECTION 13.4 OF ASTM A-974:

(C) MANUFACTURING

TWISTED WIRE MESH REVET MATTRESSES SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-975, WHILE WELDED WIRE MESH REVET MATTRESSES SHALL BE MANUFACTURED IN CONFORMANCE WITH ASTM A-974.

(4) PVC COATING

ALL WIRE USED IN FABRICATION OF THE GABIONS, REVET MATTRESSES AND WIRING OPERATIONS DURING CONSTRUCTION SHALL, AFTER ZINC COATING, HAVE A FUSE-BONDED OR EXTRUDED COATING OF PVC. THE COATING SHALL BE GRAY IN COLOR. THE THICKNESS SHALL BE NOMINALLY 0.020 INCH (0.5 MM), AND SHALL NOT BE LESS THAN 0.015 INCH (0.38 MM) IN THICKNESS. IT SHALL BE CAPABLE OF RESISTING DELETERIOUS EFFECTS OF NATURAL WEATHER EXPOSURE, AND IMMERSION IN SALT WATER.

FOR PVC-COATED WELDED WIRE FABRIC PANEL, CUTTING OF THE PANELS SHALL NOT BE ALLOWED CLOSER THAN 1/4 INCH 1/8 INCH (6 MM 3.18 MM) AFTER FABRICATION IN ORDER TO PREVENT EXPOSURE NEAR THE WELDS.

(A) INITIAL PROPERTIES:

1) WOVEN MESH:

THE INITIAL PROPERTIES OF THE PVC COATING MATERIAL SHALL HAVE A DEMONSTRATED ABILITY TO CONFORM TO THE FOLLOWING REQUIREMENTS SPECIFIED IN ASTM A-975:

A) SPECIFIC GRAVITY:

THE SPECIFIC GRAVITY AS DETERMINED IN ACCORDANCE WITH ASTM D-792 SHALL BE BETWEEN 1.3 TO 1.35.

B) DUROMETER HARDNESS:

THE HARDNESS AS DETERMINED IN ACCORDANCE WITH ASTM D-2240 SHALL BE BETWEEN 50 TO 60, SHORE D.

C) TENSILE STRENGTH:

THE TENSILE STRENGTH WHEN TESTED IN ACCORDANCE WITH ASTM D-412 SHALL NOT BE LESS THAN 2985 PSI (20.6 MPA).

D) MODULUS OF ELASTICITY AT 100% ELONGATION:

THE MODULUS OF ELASTICITY WHEN DETERMINED IN ACCORDANCE WITH ASTM D-412 SHALL NOT BE LESS THAN 2700 PSI (18.6 MPA).

E) RESISTANCE TO ABRASION:

THE PERCENTAGE LOSS IN WEIGHT (MASS) DURING ABRASION TESTING IN ACCORDANCE WITH ASTM D-1242 SHALL BE LESS THAN 12%.

F) BRITTLINESS TEMPERATURE:

THE BRITTLINESS TEMPERATURE SHALL NOT BE HIGHER THAN 150F (-9.00C) OR A LOWER TEMPERATURE SPECIFIED BY THE ENGINEER, WHEN TESTED IN ACCORDANCE WITH ASTM D-746. THE MAXIMUM BRITTLINESS TEMPERATURE SHOULD BE AT LEAST 150F (80C) BELOW THE MINIMUM TEMPERATURE AT WHICH THE GABION WILL BE HANDLED OR FILLED.

2) WELDED MESH:

THE INITIAL PROPERTIES OF THE PVC COATING MATERIAL SHALL HAVE A DEMONSTRATED ABILITY TO CONFORM TO THE FOLLOWING REQUIREMENTS SPECIFIED IN ASTM A-974:

A) SPECIFIC GRAVITY:

THE SPECIFIC GRAVITY AS DETERMINED IN ACCORDANCE WITH ASTM D-792 SHALL BE BETWEEN 1.20 AND 1.40.

B) DUROMETER HARDNESS:

THE HARDNESS AS DETERMINED IN ACCORDANCE WITH ASTM D-2240 SHALL NOT BE LESS THAN 75, SHORE A.

C) TENSILE STRENGTH:

THE TENSILE STRENGTH WHEN TESTED IN ACCORDANCE WITH ASTM D-638 SHALL NOT BE LESS THAN 2275 PSI (15.7 MPA).

D) MODULUS OF ELASTICITY:

THE MODULUS OF ELASTICITY WHEN DETERMINED IN ACCORDANCE WITH ASTM D-638 SHALL NOT BE LESS THAN 1980 PSI (13.7 MPA).

E) RESISTANCE TO ABRASION:

THE PERCENTAGE LOSS IN WEIGHT (MASS) SHALL BE LESS THAN 12 % DURING ABRASION TESTING IN ACCORDANCE WITH ASTM D-1242, METHOD B, AT 200 CYCLES, CS1-A ABRADER TAPE, 80 GRIT.

F) BRITTLINESS TEMPERATURE:

THE BRITTLINESS TEMPERATURE SHALL NOT BE HIGHER THAN 150F (-9.00C) OR A LOWER TEMPERATURE SPECIFIED BY THE ENGINEER, WHEN TESTED IN ACCORDANCE WITH ASTM D-746. THE MAXIMUM BRITTLINESS TEMPERATURE SHOULD BE AT LEAST 150F (80C) BELOW THE MINIMUM TEMPERATURE AT WHICH THE GABION WILL BE HANDLED OR FILLED.

G) ADHESION:

THE PVC COATING ON THE WIRE SHALL ADHERE TO THE WIRE SUCH THAT THE COATING BREAKS RATHER THAN SEPARATES FROM THE WIRE, WHEN TESTED IN ACCORDANCE WITH THE PVC ADHESION TEST DESCRIBED IN SECTION 13.3 OF ASTM A-974.

H) MANDREL BEND:

THE PVC-COATED WIRE, WHEN SUBJECTED TO A SINGLE 3600 BEND AT 00F (-180C) AROUND A MANDREL TEN TIMES THE DIAMETER OF THE WIRE, SHALL NOT EXHIBIT BREAKS OR CRACKS IN THE PVC COATING.

(B) PERFORMANCE TESTS:

THE PVC COATING SHALL HAVE THE DEMONSTRATED ABILITY TO WITHSTAND THE SPECIFIED EXPOSURE TESTING.

- EXPOSURE TO SALT SPRAY: THE PVC SHALL SHOW NO EFFECT AFTER 3000 HOURS OF SALT SPRAY EXPOSURE IN ACCORDANCE WITH ASTM TEST METHOD B-117.
- EXPOSURE TO ULTRAVIOLET RAYS: THE PVC SHALL SHOW NO EFFECT OF EXPOSURE TO ULTRAVIOLET LIGHT WITH TEST EXPOSURE OF 3000 HOURS, USING APPARATUS TYPE E AND 1450F (630C), WHEN TESTED IN ACCORDANCE WITH ASTM PRACTICE D-1499 AND G-23.

(C) PROPERTIES AFTER EXPOSURE TESTS:

AFTER CONCLUSION OF THE SALT SPAY AND EXPOSURE TO ULTRAVIOLET LIGHT TESTS, THE PVC SHALL NOT SHOW CRACKS, BLISTERS OR SPLITS, NOR ANY NOTICEABLE CHANGE IN COLOR. IN ADDITION THE PVC COATING SHALL NOT SHOW CRACKS OR BREAKS AFTER THE WIRES ARE TWISTED IN THE FABRICATION OF THE MESH, NOR SHALL THERE BE ANY MOISTURE INTRUSION UNDER THE PVC COATING AS A RESULT OF THE TEST.

AFTER COMPLETION OF THE EXPOSURE TESTS THE FOLLOWING CRITERIA SHALL ALSO BE MET:

1) WOVEN MESH:

- THE SPECIFIC GRAVITY SHALL NOT CHANGE MORE THAN 6% OF ITS INITIAL VALUE.
- THE DUROMETER HARDNESS SHALL NOT CHANGE MORE THAN 10% OF ITS INITIAL VALUE.
- THE TENSILE STRENGTH SHALL NOT CHANGE MORE THAN 25% OF ITS INITIAL VALUE.
- THE RESISTANCE TO ABRASION SHALL NOT CHANGE MORE THAN 10% OF ITS INITIAL VALUE.

2) WELDED MESH:

- THE SPECIFIC GRAVITY SHALL NOT CHANGE MORE THAN 6% OF ITS INITIAL VALUE.
- THE MODULUS OF ELASTICITY SHALL NOT CHANGE MORE THAN 25% OF ITS INITIAL VALUE.
- THE TENSILE STRENGTH SHALL NOT CHANGE MORE THAN 25% OF ITS INITIAL VALUE.
- THE RESISTANCE TO ABRASION SHALL NOT CHANGE MORE THAN 10% OF ITS INITIAL VALUE.

(D) SALT SPRAY RESISTANCE FOR FASTENER:

THE FASTENERS FOR TWISTED MESH WIRE GABIONS AND REVET MATTRESSES SHALL BE SUBJECTED TO SALT SPRAY TEST OF TEST METHOD B-117 FOR A PERIOD OF NOT LESS THAN 48 1 HOUR CYCLE LENGTH. AFTER TESTING THE FASTENERS, THE SELVEDGE, OR MESH WIRE CONFINED BY THE FASTENERS SHALL SHOW NO RUSTY SPOTS ON ANY PART OF THE SURFACE EXCLUDING THE CUT ENDS.

(5) STONE

(A) GABION BASKET STONES

STONE FILL SHALL BE DURABLE AND OF SUITABLE QUALITY TO ENSURE PERMANENCE IN THE STRUCTURE. THE STONE USED TO FILL THE GABION BASKETS SHALL BE A CLEAN, SOUND, AND DURABLE ROCK MEETING THE FOLLOWING REQUIREMENTS. IT SHALL HAVE A WEARING LOSS LESS THAN 35 PERCENT WHEN THE STONE IS TESTED WITH THE LOS ANGELES ABRASION MACHINE IN ACCORDANCE WITH ASTM TEST METHOD C535 (TXDOT TEST METHOD TEX-410.A). THE LOSS OF MATERIAL EXPERIENCED DURING FIVE CYCLES OF MAGNESIUM SULFATE EXPOSURE CONDUCTED IN ACCORDANCE WITH TXDOT TEST METHOD TEX-411.A FOR ROCK RIPRAP SHALL NOT EXCEED 18 PERCENT. THE STONE SHALL BE WELL GRADED TO PRODUCE A DENSE FILL, ANGULAR IN TEXTURE, WHILE MEETING THE FOLLOWING GRADATION REQUIREMENTS:

Table 3: Gabion Stone Gradation Requirements

Sieve Size	Percent by Weight (Mass)
US (SI)	% Passing Each Individual Sieve
8 Inch (200 mm)	100
4 Inch (100 mm)	0 - 5
3 Inch (75 mm)	0

THE MINIMUM UNIT WEIGHT (UNIT MASS) OF A ROCK-FILLED GABION SHALL BE 120 PCF [1.92 MEGAGRAMS (MG) PER CUBIC METER]. VERIFICATION OF UNIT WEIGHT (MASS) SHALL BE PERFORMED WHEN ORDERED BY THE ENGINEER, BY CONSTRUCTING A TEST GABION WITH MATERIALS SUPPLIED FOR CONSTRUCTION WITH THE SAME EFFORT AND METHOD INTENDED FOR PRODUCTION GABIONS.

(B) REVET MATTRESS STONE:

THE STONE USED TO FILL THE REVET MATTRESSES SHALL BE AS SPECIFIED FOR GABIONS EXCEPT THAT IT SHALL HAVE A MAXIMUM DIMENSION OF 5 INCHES (125MM) AND A MINIMUM DIMENSION OF 3 INCHES (75 MM). THE MAJORITY OF THE STONE SHALL BE IN THE 3 TO 4 INCH (75 TO 100 MM) RANGE; CUBICAL OR ROUNDED IN SHAPE. A TOLERANCE OF 5% SHALL BE ALLOWED ON THE UPPER AND LOWER DIMENSIONS OF THE ROCK.

(b) CONNECTIONS

(A) WIRE

LACING WIRE AND CONNECTING WIRE SHALL BE 13.5 GAGE [0.087 INCH (2.20 MM)] PVC COATED GALVANIZED STEEL, CLASS 3, SOFT TEMPER, CONFORMING TO ASTM A-641. DURING TESTING, ANY SEPARATION OF 2 INCHES (50 MM) OR MORE BETWEEN CONNECTING WIRES SHALL BE CONSIDERED AS A FAILURE.

(B) SPIRAL BINDER FOR WELDED WIRE MESH

SPIRAL BINDERS SHALL CONSIST OF 0.106 INCH (2.7 MM) PVC COATED WIRE FOR THE GABION AND 0.087 INCH (2.2 MM) PVC COATED WIRE FOR THE REVET MATTRESSES. SPIRAL BINDERS SHALL HAVE A 3.0 INCH (75 MM) MAXIMUM SEPARATION BETWEEN CONTINUOUS SUCCESSIVE LOOPS (3 INCH OR 75MM PITCH). THE BINDER SHALL BE MADE OF GALVANIZED STEEL, CLASS 3, SOFT TEMPER, CONFORMING TO ASTM A-641.

(C) ALTERNATE FASTENERS FOR TWISTED WOVEN MESH

ALTERNATE FASTENERS, ACCEPTABLE FOR USE BY THE INTENDED GABION BASKET MANUFACTURER, MAY BE SUBMITTED TO THE ENGINEER FOR CONSIDERATION AND APPROVAL PRIOR TO CONSTRUCTION. THE FASTENERS MAY CONSIST OF SPLIT RING OR INTERLOCKING FASTENERS. ALTERNATE FASTENERS SYSTEMS SHALL PRODUCE A JOINT THAT MEETS THE REQUIREMENTS OF ASTM A-975, SECTION 7, TABLE 2.

(7) FASTENER SYSTEM

THE CONTRACTOR SHALL PROVIDE A COMPLETE DESCRIPTION OF THE FASTENER SYSTEM, INCLUDING THE NUMBER OF FASTENERS REQUIRED FOR ALL VERTICAL AND HORIZONTAL CONNECTIONS FOR SINGLE- AND MULTIPLE-BASKET JOININGS, AS WELL AS THE NUMBER AND SIZE WIRES THE FASTENER IS CAPABLE OF PROPERLY JOINING. THE CONTRACTOR SHALL PROVIDE A DESCRIPTION OF A PROPERLY INSTALLED FASTENER, INCLUDING TEST REPORTS, DRAWINGS AND/OR PHOTOGRAPHS. PROPERLY FORMED FASTENERS SHALL MEET THE REQUIREMENTS OF ASTM A-974 FOR WELDED WIRE MESH OR ASTM A-975 FOR TWISTED WOVEN MESH.

(A) EACH INTERLOCKING FASTENER SHALL BE LOCKED AND CLOSED.

(B) EACH OVERLAPPING RING FASTENER SHALL BE CLOSED AND THE FREE ENDS SHALL OVERLAP AN AVERAGE OF 1 INCH (25 MM).

(C) SPIRAL BINDERS SHALL BE SCREWED INTO POSITION SUCH THAT THEY PASS THROUGH EACH MESH OPENING ALONG THE JOINT. IN ORDER TO PREVENT UNRAVELING, BOTH ENDS OF THE SPIRAL SHALL BE CRIMPED BACK AROUND ITSELF.

(D) WIRE FASTENERS SHALL NOT BE USED TO JOIN MORE WIRES, OR LARGER WIRES, THAN TESTED AND APPROVED FOR THE APPLICATION.

(B) PANEL TO PANEL JOINT STRENGTH

THE MINIMUM STRENGTH OF THE JOINED PANELS SHALL BE AS SPECIFIED IN SECTION 7.3 OF ASTM A-974 FOR WELDED WIRE PANELS OR SECTION 7.3 OF ASTM A-975 FOR TWISTED WOVEN MESH.

(9) MISCELLANEOUS

AGGREGATE BEDDING, GEOTEXTILES OR OTHER MATERIALS SHALL CONFORM TO THE REQUIREMENTS ESTABLISHED ON THE DRAWINGS.

(10) CERTIFICATE OF COMPLIANCE

THE CONTRACTOR SHALL SUBMIT CERTIFICATES OF COMPLIANCE FOR ALL MATERIALS PROPOSED FOR USE TO THE ENGINEER FOR REVIEW AND APPROVAL ONE WEEK PRIOR TO CONSTRUCTION.

Sand Bed. The sand bed for city-maintained filtration basins must be built to the "Sand Bed with Gravel Layer"

configuration below unless topographic constraints make this design unfeasible. Unfeasible is considered: assuming

(for the purposes of this selection process only) a maximum ponding depth of three feet in the sedimentation basin,

If it is not feasible to obtain an outlet for the drainage from the filtration basin within one-hundred (100) feet of the crest of the filtration embankment, then the "trench design" may be used. For ponds not maintained by the city, the sand

bed may be a choice of one of the two configurations given below.

Note: Sand bed depths are final, compacted depths. Consolidation effects must be taken into account.

- Sand Bed with Gravel Layer (detail #3/13 of this sheet).

The top layer is to be a minimum of twelve (12) inches of 0.02-0.04 inch diameter sand which corresponds

with ASTM C-33 concrete sand (smaller sand size is not acceptable). Under the sand shall be a layer of

one-half (0.5) to one and one-half (1.5) inch diameter washed, rounded, river gravel which provides a minimum of

three (3) inches of cover over the top of the underdrain lateral pipes. Two (2) inches of gravel is required under the

lateral pipes. The sand and gravel must be separated by a layer of geotextile fabric meeting the specifications listed

in Section 1.6.2(C).

Professional Engineer Seal for Mirza Tahir Bag, P.E., #82577 ON, State of Texas, Civil Engineering, Exp. 08/19/2025, Firm Registration F-4951.

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Project: BAGDAD GAS STATION, 1646 N BAGDAD RD., LEANDER, TEXAS 78641

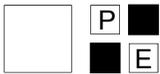
PROJECT NO: SD-22-0023

Title: GRADING & DRAINAGE PLAN SHEET 4 WATER QUALITY POND DETAILS

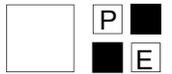
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SHEET: 10 OF 24

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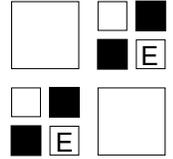
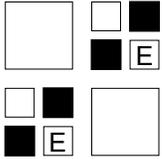
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ATTACHMENT I

Inspection and Maintenance for BMP's

ATTACHMENT J

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



TEMPORARY STORMWATER SECTION ATTACHMENTS (TCEQ-0602)

Attachment I – Inspection and Maintenance for BMPs

Stabilized Construction Entrance

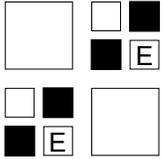
- A. The entrance should be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment.
- B. All sediment spilled, dropped, washed, or tracked onto public rights-of-way should be removed immediately by contractor.
- C. When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way.
- D. 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.
- E. All sediment should be prevented from entering any storm drain, ditch or water course by using approved methods.

Silt Fence

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

Concrete Washout Area

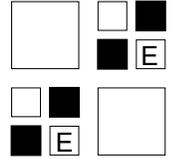
1. Incorporate requirements for concrete waste management into material supplier and subcontractor agreements.
2. Avoid mixing excess amounts of fresh concrete
3. Perform washout of concrete trucks in designated areas only.



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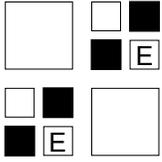
4. Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
5. Do not allow excess concrete to be dumped onsite, except in designated areas.
6. Locate washout at least 50 feet from sensitive features, storm drains, open ditches, or water bodies. Do not allow runoff from this area by constructing a temporary pit or bermed area large enough for liquid and solid waste.
7. Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.
8. Plastic lining should be a minimum of 10 mil in polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material.
9. When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of. Materials used to construct the temporary concrete washout facilities should be removed from the site of the work and disposed of. Holes, depressions, or other ground disturbances caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Rock Berms

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

Triangular Filter Dike

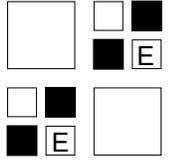
1. Inspection should be made weekly or after each rainfall event and repair or replacement should be made promptly as needed by the contractor.
2. Inspect and realign dikes as needed to prevent gaps between sections.
3. Accumulated silt should be removed after each rainfall, and disposed of in a manner which will not cause additional siltation.



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4. After the site is completely stabilized, the dikes and any remaining silt should be removed. Silt should be disposed of in a manner that will not contribute to additional siltation.

Inlet Protection

1. Inspection should be made weekly and after each rainfall. Repair or replacement should be made promptly as needed by the contractor.
2. Remove sediment when buildup reaches a depth of 3 inches. Removed sediment should be deposited in a suitable area and in such a manner that it will not erode.
3. Check placement of device to prevent gaps between device and curb.
4. Inspect filter fabric and patch or replace if torn or missing
5. Structures should be removed and the area stabilized only after the remaining drainage area has been properly stabilized.

Sediment Basin

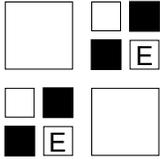
1. Inspection should be made weekly and after each rainfall. Check the embankment, spillways, and outlet for erosion damage, and inspect the embankment for the piping and settlement. Repair should be made promptly as needed by the contractor.
2. Trash and other debris should be removed after each rainfall to prevent clogging of the outlet structure.
3. 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 75% of its original storage capacity.
4. The removed sediment should be stockpiled or redistributed in areas that are protected from erosion.

Gravity Bag Filter

1. Inspection of the flow conditions, bag conditions, bag capacity, and the secondary barrier is required.
2. Replace the bag when it no longer filters sediment or passes water at a reasonable rate. The bag is disposed of offsite.

Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

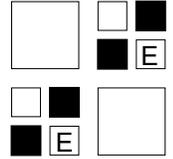
- A. All disturbed areas to be revegetated are required to place a minimum of six (6) inches of topsoil



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[see Standard Specification Item No. 601S.3(A)]. Do not add topsoil within the critical root zone of existing trees. The topsoil shall be composed of 3 parts of soil mixed with 1-part compost, by volume. The compost shall be Dillo Dirt or an equal approved by the Engineer, or designated representative. The approved equal, if used, shall meet the definition of compost (as defined by the U.S. Composting Council). The soil shall be locally available native soil that meets the following specifications:

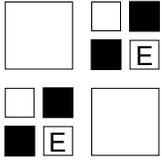
- Shall be free of trash, weeds, deleterious materials, rocks, and debris
- 100% shall pass through a 0.375-inch (3/8") screen
- Soil Texture class to be Loam, Sandy Clay Loam, or Sandy Loam in accordance with the USDA texture triangle. Soil known locally as "red death" or Austin Sandy Loam is not an allowable soil. Textural composition shall meet the following criteria:

Texture Class	Minimum	Maximum
Clay	5%	25%
Slit	10%	50%
Sand	30%	80%

Topsoil salvaged from the existing site may often be used, but it should meet the same standards as set forth in these standards.

B. (From 30 TAC 213.5(b)(4)(D)(i)(-b-): Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 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 temporary or permanently cease is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 21 days, temporary stabilization measures do not have to be initiated on that of site. In areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

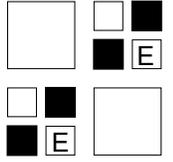
The vegetative stabilization of areas disturbed by construction shall be as follows:



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TEMPORARY VEGETATIVE STABILIZATION:

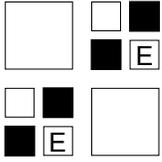
1. From September 15 to March 1, seeding shall be with cool season cover crops (Wheat at 0.5 pounds per 1000 SF, Oats at 0.5 pounds per 1000 SF, Cereal Rye Grain at 0.5 pounds per 1000 SF) with a total rate of 1.5 pounds per 1000 SF. Cool season cover crops are not permanent erosion control.
2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pounds per 1000 SF.
 - A. Fertilizer shall be water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1/2 pound per 1000 SF.
 - B. Hydromulch shall comply with Table1, below.
 - C. Temporary erosion control shall be acceptable when the grass has grown at least 1 1/2 inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
 - D. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Table 1: Hydromulching for Temporary Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
70/30 Wood/Cellulose Blend Mulch	70% Wood 30%Paper 3%Tackifier	0-3 months	Moderate slopes; from flat to 3:1	5.9 lbs/1000 sf
Wood Fiber Mulch	96%Wood 3%Tackifier	0-3 months	Moderate slopes; from flat to 3:1	45.9 lbs/1000 sf

PERMANENT VEGETATIVE STABILIZATION:

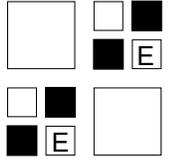
1. From September 15 to March 1, seeding is considered to be temporary stabilization only. If cool season cover crops exist where permanent vegetative stabilization is desired, the grasses shall be mowed to a height of less than one-half (1/2) inch and the area shall be re-seeded in accordance with 2. below.
2. From March 2 to September 14, seeding shall be with hulled Bermuda at a rate of 1 pound per 1000SF with a purity of 95% with 85% germination. Bermuda grass is a warm season grass and is considered permanent erosion control.



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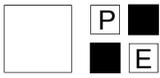
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- A. Fertilizer shall be a water soluble with an analysis of 15-15-15 to be applied once at planting and once during the period of establishment at a rate of 1/2 pound per 1000 SF.
- B. Hydromulch shall comply with Table 2, below.
- C. The planted area shall be irrigated or sprinkled in a manner that will not erode the topsoil, but will sufficiently soak the soil to a depth of six inches. The irrigation shall occur at daily intervals (minimum) during the first two months. Rainfall occurrences of ½ inch or more shall postpone the watering schedule for one week.
- D. Permanent erosion control shall be acceptable when the grass has grown at least 1½ inches high with 95% coverage, provided no bare spots larger than 16 square feet exist.
- E. When required, native grass seeding shall comply with requirements of the City of Austin Environmental Criteria Manual.

Table 2: Hydromulching for Permanent Vegetative Stabilization

Material	Description	Longevity	Typical Applications	Application Rates
Bonded Fiber Matrix (BFM)	80% Thermally Refined Wood 10% Tackifier	6 months	On slopes up to 2:1 and erosive soil conditions	68.9 lbs/SF to 80.3 lbs/1000SF
Fiber Reinforced Matrix (FRM)	75% Thermally Refined Wood 5% Reinforcing Fibers 10% Tackifier	12 months	On slopes up to 1:1 and erosive soil conditions	68.9 lbs/SF to 80.3 lbs/1000SF



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STRUCTURAL CIVIL TRANSPORTATION

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512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951



Notice of Intent (NOI)



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

IMPORTANT:

- Use the [INSTRUCTIONS](#) to fill out each question in this form.
- Use the [CHECKLIST](#) to make certain you filled out all required information. Incomplete applications **WILL** delay approval or result in denial.
- Once processed your permit can be viewed at: <http://www.tceq.texas.gov/goto/wq-dpa>

ePERMITS: Sign up now for online NOI: <https://www3.tceq.texas.gov/steers/>
 Pay a \$225 reduced application fee by using ePermits.

APPLICATION FEE:

- You must pay the **\$325** Application Fee to TCEQ for the paper application to be complete.
- Payment and NOI must be mailed to separate addresses.
- Did you know you can pay on line?
 - Go to <http://www.tceq.texas.gov/goto/epay>
 - Select Fee Type: GENERAL PERMIT CONSTRUCTION STORM WATER DISCHARGE NOI APPLICATION

• **Provide your payment information below, for verification of payment:**

Mailed Check/Money Order Number: _____
 Name Printed on Check: _____
 Copy of check enclosed? Yes

EPAY Voucher Number: _____
 Is the Payment Voucher copy attached? Yes

RENEWAL: Is this NOI a Renewal of an existing General Permit Authorization? (Note: A permit cannot be renewed after June 3, 2013.)

Yes The Permit number is: TXR15_____

(If a permit number is not provided, a new number will be assigned.)

No

1) OPERATOR (Applicant)

a) If the applicant is currently a customer with TCEQ, what is the Customer Number (CN) issued to this entity? You may search for your CN at:
<http://www.tceq.texas.gov/goto/cr-customer>

CN_____

b) What is the Legal Name of the entity (applicant) applying for this permit?

(The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)

c) What is the contact information for the Operator (Responsible Authority)? The mailing address must be recognized by the US Postal Service (USPS). You may verify the address at: <https://tools.usps.com/go/ZipLookupAction!input.action>

Prefix (Mr. Ms. Miss): _____

First/Last Name: _____ Suffix: _____

Title: _____ Credential: _____

Phone Number: _____ Ext: _____ Fax Number: _____

E-mail: _____

Mailing Address: _____

Internal Routing (Mail Code, Etc.): _____

City: _____ State: _____ ZIP Code: _____

If outside USA: _____

Territory: _____ Country Code: _____ Postal Code: _____

d) Indicate the type of Customer (The instructions will help determine your customer type):

Individual	Limited Partnership	Sole Proprietorship-DBA
Joint Venture	General Partnership	Corporation
Trust	Estate	Federal Government
State Government	County Government	City Government
Other Government		

e) Independent Operator? (If governmental entity, subsidiary, or part of a larger corporation, check "No".)

Yes No

f) Number of Employees:

0-20; 21-100; 101-250; 251-500; or 501 or higher

g) Customer Business Tax and Filing Numbers:

(REQUIRED for Corporations and Limited Partnerships. Not Required for Individuals, Government, or Sole Proprietors)

State Franchise Tax ID Number: _____

Federal Tax ID: _____

Texas Secretary of State Charter (filing) Number: _____

DUNS Number (if known): _____

2) APPLICATION CONTACT

If TCEQ needs additional information regarding this application, who should be contacted?

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

Yes, go to Section 3).

No, complete section below

Prefix (Mr. Ms. Miss): _____
First/Last Name: _____ Suffix: _____
Title: _____ Credential: _____
Organization Name: _____
Phone Number: _____ Ext: _____ Fax Number: _____
E-mail: _____
Mailing Address: _____
Internal Routing (Mail Code, Etc.): _____
City: _____ State: _____ ZIP Code: _____
Mailing Information if outside USA:
Territory: _____ Country Code: _____ Postal Code: _____

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

If the site of your business is part of a larger business site or if other businesses were located at this site before yours, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search TCEQ's Central Registry to see if the larger site may already be registered as a regulated site at:

<http://www.tceq.texas.gov/goto/cr-searchrn>

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

a) TCEQ issued RE Reference Number (RN): **RN** _____

b) Name of project or site (the name known by the community where located):

c) In your own words, briefly describe the primary business of the Regulated Entity: (Do not repeat the SIC and NAICS code):

d) County (or counties if > 1)

e) Latitude: _____ Longitude: _____

f) Does the site have a physical address?

Yes, complete Section A for a physical address.

No, complete section B for site location information.

Section A: Enter the physical address for the site.

Verify the address with USPS. If the address is not recognized as a delivery address, provide the address as identified for overnight mail delivery, 911 emergency or other online map tools to confirm an address.

Physical Address of Project or Site:

Street Number: _____ Street Name: _____

City: _____ State: _____ ZIP Code: _____

Section B: Enter the site location information.

If no physical address (Street Number & Street Name), provide a written location access description to the site. (Example: located 2 miles west from intersection of Hwy 290 & IH35 accessible on Hwy 290 South)

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

State: _____ ZIP Code where the site is located: _____

4) GENERAL CHARACTERISTICS

a) Is the project/site located on Indian Country Lands?

Yes - If the answer is Yes, you must obtain authorization through EPA, Region 6.

No

b) Is your construction activity associated with a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources?

Yes - If the answer is Yes, you may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization through EPA, Region 6.

No

c) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site?

Primary SIC Code: _____

d) If applicable, what is the Secondary SIC Code(s): _____

e) What is the total number of acres disturbed? _____

f) Is the project site part of a larger common plan of development or sale?

Yes - If the answer is Yes, the total number of acres disturbed can be less than 5 acres.

No - If the answer is No, the total number of acres disturbed must be 5 or more. If the total number of acres disturbed is less than 5 then the project site does not qualify for coverage through this Notice of Intent. Coverage will be denied. See the requirements in the general permit for small construction sites.

g) What is the name of the first water body(s) to receive the stormwater runoff or potential runoff from the site?

h) What is the segment number(s) of the classified water body(s) that the discharge will eventually reach?

i) Is the discharge into an MS4?

Yes - If the answer is Yes, provide the name of the MS4 operator below.

Note: The general permit requires you to send a copy of the NOI to the MS4 operator.

No

j) Are any of the surface water bodies receiving discharges from the construction site on the latest EPA-approved CWA 303(d) List of impaired waters?

Yes - If the answer is Yes, provide the name(s) of the impaired water body(s) below.

No

k) Is the discharge or potential discharge within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer as defined in 30 TAC Chapter 213?

Yes - If the answer is Yes, complete certification below by checking "Yes."

No

I certify that a copy of the TCEQ approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) is either included or referenced in the Stormwater Pollution Prevention Plan.

Yes

5) CERTIFICATION

Check Yes to the certifications below. Failure to indicate Yes to **ALL** items may result in denial of coverage under the general permit.

- a) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000). Yes
- b) I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas. Yes
- c) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. Yes
- d) I certify that a Stormwater Pollution Prevention Plan has been developed, will be implemented prior to construction and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the general permit TXR150000. Note: For multiple operators who operate under a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3 provided all obligations are confirmed by at least one operator. Yes

Operator Certification:

I, Mustaqali (Mike) Momin (Gabriel Leander, LLC) Owner/Manager

 Typed or printed name Title

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

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

Signature:  Date: 12/3/2025
 (Use blue ink)

NOTICE OF INTENT CHECKLIST (TXR150000)

- Did you complete everything? Use this checklist to be sure!
- Are you ready to mail your form to TCEQ? Go to the General Information Section of the Instructions for mailing addresses.

This checklist is for use by the operator to ensure a complete application. Missing information may result in denial of coverage under the general permit. (See NOI process description in the Instructions)

Application Fee:

If paying by Check:

Check was mailed **separately** to the TCEQs Cashier's Office. (See Instructions for Cashier's address and Application address.)

Check number and name on check is provided in this application.

If using ePay:

The voucher number is provided in this application or a copy of the voucher is attached.

PERMIT NUMBER:

Permit number provided – if this application is for renewal of an existing authorization.

OPERATOR INFORMATION - Confirm each item is complete:

Customer Number (CN) issued by TCEQ Central Registry

Legal name as filed to do business in Texas (Call TX SOS 512/463-5555)

Name and title of responsible authority signing the application

Mailing address is complete & verifiable with USPS. www.usps.com

Phone numbers/e-mail address

Type of operator (entity type)

Independent operator

Number of employees

For corporations or limited partnerships – Tax ID and SOS filing numbers

Application contact and address is complete & verifiable with USPS. <http://www.usps.com>

REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE - Confirm each item is complete:

Regulated Entity Reference Number (RN) (if site is already regulated by TCEQ)

Site/project name/regulated entity

Latitude and longitude <http://www.tceq.texas.gov/gis/sqmaview.html>

County

Site/project physical address. Do not use a rural route or post office box.

Business description

GENERAL CHARACTERISTICS - Confirm each item is complete:

Indian Country Lands –the facility is not on Indian Country Lands

Construction activity related to facility associated to oil, gas, or geothermal resources

Standard Industrial Classification (SIC) Code www.osha.gov/oshstats/sicser.html

Acres disturbed is provided and qualifies for coverage through a NOI

Common plan of development or sale

Receiving water body(s)

Segment number(s)

Impaired water body(s)

MS4 operator

Edwards Aquifer rule

CERTIFICATION

Certification statements have been checked indicating "Yes"

Signature meets 30 Texas Administrative Code (TAC) 305.44 and is original.

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

General Information and Instructions

GENERAL INFORMATION

Where to Send the Notice of Intent (NOI):

BY REGULAR U.S. MAIL

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

BY OVERNIGHT/EXPRESS MAIL

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

TCEQ Contact List:

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

Notice of Intent Process:

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

- 1) **Administrative Review:** Each item on the form will be reviewed for a complete response. In addition, the operator's legal name must be verified with Texas Secretary of State as valid and active (if applicable). The address(s) on the form must be verified with the US Postal service as receiving regular mail delivery. Never give an overnight/express mailing address.
- 2) **Notice of Deficiency:** If an item is incomplete or not verifiable as indicated above, a notice of deficiency (NOD) will be mailed to the operator. The operator will have 30 days to respond to the NOD. The response will be reviewed for completeness.
- 3) **Acknowledgment of Coverage:** An Acknowledgment Certificate will be mailed to the operator. This certificate acknowledges coverage under the general permit.
-or-
Denial of Coverage: If the operator fails to respond to the NOD or the response is inadequate, coverage under the general permit may be denied. If coverage is denied, the operator will be notified.

General Permit (Your Permit)

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

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

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

General Permit Forms

The Notice of Intent (NOI), Notice of Termination (NOT), and Notice of Change (NOC) (including instructions) are available in Adobe Acrobat PDF format on the TCEQ web site <http://www.tceq.texas.gov>.

Change in Operator

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

TCEQ Central Registry Core Data Form

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

You can find the information on the Central Registry web site at <http://www15.tceq.texas.gov/crpub/>. You can search by the Regulated Entity (RN), Customer Number (CN) or Name (Permittee), or by your permit number under the search field labeled "Program ID". Capitalize all letters in the permit number.

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

Fees associated with a General Permit

Payment of the fee may be made by check or money order, payable to TCEQ, or through EPAY (electronic payment through the web).

Application Fee: This fee is required to be paid at the time the NOI is submitted. Failure to submit payment at the time the application is filed will cause delays in acknowledgment or denial of coverage under the general permit.

Mailed Payments:

Payment must be mailed under separate cover at one of the addresses below using the attached Application Fee submittal form. (DO NOT SEND A COPY OF THE NOI WITH THE APPLICATION FEE SUBMITTAL FORM)

BY REGULAR U.S. MAIL
Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL
Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, TX 78753

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

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

INSTRUCTIONS FOR FILLING OUT THE NOI FORM

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

1. Operator (Applicant)

a) Enter assigned Customer Number (CN)

TCEQ's Central Registry will assign each customer a number that begins with CN, followed by nine digits. **This is not a permit number, registration number, or license number.** If this customer has not been assigned a CN, leave the space for the CN blank. If this customer has already been assigned this number, enter the permittee's CN.

b) Legal Name

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

c) Operator Contact's (Responsible Authority) Contact Information and Mailing Address

Provide the first and last name, and the title of the person signing the Certification section of the application. This person must be an individual having signatory authority in accordance with 30 TAC Chapter §305.44. This person is also referred to as the Responsible Authority.

Provide a complete mailing address for receiving mail from the TCEQ. The address must be verifiable with the US Postal Service at <https://tools.usps.com/go/ZipLookupAction!input.action> for regular mail delivery (not overnight express mail). If you find that the address is not verifiable using the USPS web search, please indicate the address is used by the USPS for regular mail delivery.

The area code and phone number should provide contact to the operator. Leave Extension blank if not applicable.

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

d) Type of Customer (Entity Type)

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

Sole Proprietorship – DBA

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

- be under the person's name
- have its own name (doing business as or d.b.a.)
- have any number of employees

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

Individual

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

Partnership

- A customer that is established as a partnership as defined by the Texas Secretary of State Office (TX SOS). A Limited Partnership or Limited Liability Partnership (Partnership) is required to file with the Texas Secretary of State. A General Partnership or Joint Venture is not required to register with the state.
- **Partnership (Limited Partnership or Limited Liability Partnership):** A limited partnership is defined in the Act as a partnership formed by two or more persons under the provisions of Section 3 of the Uniform Limited Partnership Act (Art. 6132a, Revised Civil Statutes of Texas) and having as members one or more general partners and one or more limited partners. The limited partners as such are not bound by the obligations of the partnership. Limited partners may not take part in the day-to-day operations of the business. A Limited Partnership must file with the Texas Secretary of State. A registered limited liability partnership is a general or limited partnership that is registered with the Texas Secretary of State. The partnership's name must contain the words "Registered Limited Liability Partnership" or the abbreviation "L.L.P." as the last words or letters of its name.
- **General Partnership:** A general partner may or may not invest, participates in running the partnership and is liable for all acts and debts of the partnership and any member of it. A General Partnership does not have limited partners. For a General Partnership, there is no registration with the state or even written agreement necessary for a general partnership to be formed. The legal definition of a partnership is generally stated as "an association of two or more persons to carry on as co-owners a business for profit" (Revised Uniform Partnership Act § 101 [1994]).
- **Joint Venture:** A joint venture is but another name for a special partnership. It might be distinguished from a general partnership in that the latter is formed for the transaction of a general business, while a joint venture is usually limited to a single transaction. That is, a joint venture is a special combination of persons in the nature of a partnership engaged in the joint prosecution of a particular transaction for mutual benefit or profit.

Corporation

A customer meets all of these conditions:

- is a legally incorporated entity under the laws of any state or country
- is recognized as a corporation by the Texas Secretary of State
- has proper operating authority to operate in Texas.
- The corporation's 'legal name' as filed with the Texas Secretary of State must be provided as applicant. An 'assumed' name of a corporation is not recognized as the 'legal name' of the entity.

Government

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

The customer is either an agency of one of these levels of government or the governmental body itself. The government agency's 'legal name' must be provided as the

applicant. A department name or other description of the organization should not be included as a part of the 'legal name' as applicant.

Trust or Estate

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

Other Government

A utility district, water district, tribal government, college district, council of governments, or river authority. Write in the specific type of government.

e) Independent Entity

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

f) Number of Employees

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

g) Customer Business Tax and Filing Numbers

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

State Franchise Tax ID Number

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

Federal Tax ID

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

TX SOS Charter (filing) Number

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

DUNS Number

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

2. APPLICATION CONTACT

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

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

a) Regulated Entity Reference Number (RN)

A number issued by TCEQ's Central Registry to sites (a location where a regulated activity occurs) regulated by TCEQ. This is not a permit number, registration number, or license number. If this regulated entity has not been assigned an RN, leave this space blank.

If the site of your business is part of a larger business site, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search TCEQ's Central Registry to see if the larger site may already be registered as a regulated site at: <http://www.tceq.texas.gov/goto/cr-searchrn>

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

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

b) Site/Project Name/Regulated Entity

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

c) Description of Activity Regulated

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

d) County

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

e) Latitude and Longitude

Enter the latitude and longitude of the site in degrees, minutes, and seconds or decimal form. For help obtaining the latitude and longitude, go to:

<http://www.tceq.texas.gov/gis/sqmapview.html> or <http://nationalmap.gov/ustopo>

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

Enter the complete address for the site in Section A if the address can be validated through the US Postal Service. If the physical address is not recognized as a USPS delivery address, you may need to validate the address with your local police (911 service) or through an online map site used to locate a site. Please confirm this to be a complete and valid address. Do not use a rural route or post office box for a site location.

If a site does not have an address that includes a street (or house) number and street name, enter NO ADDRESS for the street name in Section A. In Section B provide a complete written location description. For example: "The site is located 2 miles west from intersection of Hwy 290 & IH35, located on the southwest corner of the Hwy 290 South bound lane."

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

4. GENERAL CHARACTERISTICS

a) Indian Country Lands

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

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

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

[http://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=30](http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=30)

Construction activities associated with a facility related to oil, gas or geothermal resources may include the construction of a well site; treatment or storage facility; underground hydrocarbon or natural gas storage facility; reclamation plant; gas processing facility; compressor station; terminal facility where crude oil is stored prior to refining and at which refined products are stored solely for use at the facility; a carbon dioxide geologic storage facility; and a gathering, transmission, or distribution pipeline that will transport crude oil or natural gas, including natural gas liquids, prior to refining of such oil or the use of the natural gas in any manufacturing process or as a residential or industrial fuel.

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

c) Primary Standard Industrial Classification (SIC) Code

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

Common SIC Codes related to construction activities include:

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

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

For help with SIC Codes, go to:

<http://www.osha.gov/pls/imis/sicsearch.html>

d) Secondary SIC Code

Secondary SIC Code(s) may be provided. Leave blank if not applicable. For help with SIC Codes, go to: <http://www.osha.gov/pls/imis/sicsearch.html>

e) Total Number of Acres Disturbed

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

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

f) Common Plan of Development

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

For more information on "What is a common plan of development?" go to:

www.tceq.texas.gov/permitting/stormwater/common_plan_of_development_steps.html

For further information, go to the TCEQ stormwater construction webpage at:

www.tceq.texas.gov/goto/construction and search for "Additional Guidance and Quick Links". If you have any further questions about this item, please call the stormwater technical staff at (512)239-4671.

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

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

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

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

Identify the classified segment number(s) receiving a discharge directly or indirectly. Go to the following link to find the segment number of the classified water body where stormwater will flow from the site: www.tceq.texas.gov/waterquality/monitoring/viewer.html

You may also find the segment number in TCEQ publication GI-316:

www.tceq.texas.gov/publications/gi/gi-316

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

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

Call the Water Quality Assessments section at (512)239-4671 for further assistance.

i) Discharge into MS4 – Identify the MS4 Operator

The discharge may initially be into a municipal separate storm sewer system (MS4). If the stormwater discharge is into an MS4, provide the name of the entity that operates the MS4 where the stormwater discharges. An MS4 operator is often a city, town, county, or utility district, but possibly can be another form of government. Please note that the Construction General Permit requires the Operator to supply the MS4 with a copy of the NOI submitted to TCEQ. For assistance, you may call the technical staff at (512)239-4671.

j) Surface Water bodies on list of impaired waters – Identify the impaired water body(s)

Indicate Yes or No if any surface water bodies receiving discharges from the construction site are on the latest EPA-approved CWA 303(d) List of impaired waters. Provide the name(s) of surface water bodies receiving discharges or potential discharges from the construction site that are on the latest EPA-approved CWA 303(d) List of impaired waters. The EPA-approved CWA 303(d) List of impaired waters in Texas can be found at:

www.tceq.texas.gov/waterquality/assessment/305_303.html

NOTE: Do not use any "draft" documents.

k) Discharges to the Edwards Aquifer Recharge Zone and Certification

See maps on the TCEQ website to determine if the site is located within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer at: www.tceq.texas.gov/field/eapp/viewer.html

If the discharge or potential discharge is within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, a site specific authorization approved by the Executive Director under the Edwards Aquifer Protection Program (30 TAC Chapter 213) is required before construction can begin. The certification must be answered "Yes" for coverage under the Construction General Permit. The TCEQ approved plan must be readily available for TCEQ staff to review at the time that the NOI is submitted.

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

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

5. CERTIFICATIONS

Failure to indicate **Yes** to ALL of the certification items may result in denial of coverage under the general permit.

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

Provisional coverage under the Construction General Permit (TXR150000) begins 7 days after the completed paper NOI is postmarked for delivery to the TCEQ. (Electronic applications submitted through ePermits have immediate provisional coverage). You must obtain a copy and read the Construction General Permit before submitting your application. You may view and print the Construction General Permit for which you are seeking coverage at the TCEQ web site: www.tceq.texas.gov/goto/construction

b) Certification of Legal Name

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

c) Understanding of Notice of Termination

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

d) Certification of Stormwater Pollution Prevention Plan

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

Operator Certification:

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

IF YOU ARE A CORPORATION:

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

IF YOU ARE A MUNICIPALITY OR OTHER GOVERNMENT ENTITY:

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

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

30 Texas Administrative Code

§305.44. Signatories to Applications

(a) All applications shall be signed as follows.

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

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

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

Texas Commission on Environmental Quality General Permit Payment Submittal Form

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

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

Mail this form and your check to:

BY REGULAR U.S. MAIL

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

BY OVERNIGHT/EXPRESS MAIL

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

Fee Code: GPA

General Permit:

TXR150000

1. Check / Money Order Number: _____
2. Amount of Check/Money Order: _____
3. Date of Check or Money Order: _____
4. Name on Check or Money Order: _____
5. NOI INFORMATION

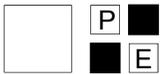
If the check is for more than one NOI, list each Project/Site (RE) Name and Physical Address exactly as provided on the NOI. DO NOT SUBMIT A COPY OF THE NOI WITH THIS FORM AS IT COULD CAUSE DUPLICATE PERMIT ENTRIES.

See Attached List of Sites (If more space is needed, you may attach a list.)

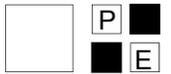
Project/Site (RE) Name: _____

Project/Site (RE) Physical Address:

Staple Check in This Space



PROFESSIONAL STRUCIVIL ENGINEERS, INC.



STRUCTURAL CIVIL TRANSPORTATION



2205 WEST PARMER LANE, SUITE #201, AUSTIN, TEXAS 78727
512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951

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 _____
Mike Momin
_____ ,
Print Name
Member
_____ ,
Title - Owner/President/Other
of _____
Gabriel Leander, LLC
_____ ,
Corporation/Partnership/Entity Name
have authorized _____
Mirza Tahir Baig
_____ ,
Print Name of Agent/Engineer
of _____
Professional StruCIVIL Engineers, Inc
_____ ,
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:

[Handwritten Signature]
Applicant's Signature

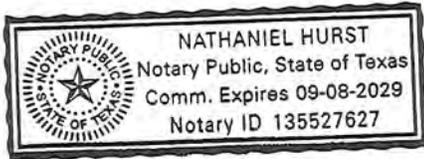
12/3/2025
Date

THE STATE OF Tx §

County of Trawls §

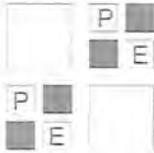
BEFORE ME, the undersigned authority, on this day personally appeared Mustagal: Manik known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 3rd day of December, 2025.



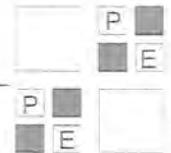
[Handwritten Signature]
NOTARY PUBLIC
Nathaniel Hurst
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 09/08/2029



PROFESSIONAL STRUCIVIL ENGINEERS, INC.

STRUCTURAL CIVIL TRANSPORTATION
2205 WEST PARMER LANE, SUITE #201, AUSTIN, TEXAS 78727
512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951



I, Mike Momin, Gabriel Leander, LLC, have read the best management practices (BMPs) for permanent storm water found in Attachment G of the TCEQ Application. Instruction and guidance as mentioned above has been provided to me so that I may be able to recognize issues that may require immediate attention with temporary on site BMPs. Appropriate project staff will be assigned to weekly monitor the BMPs for this project and repair or replace as necessary.

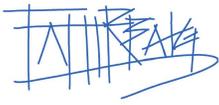


Mike Momin
Gabriel Leander, LLC

12/3/2025

Date

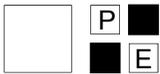
I, Mirza Tahir Baig, have prepared and certified the Inspection, Maintenance, Repair and, if necessary, retrofit (IMRR) plan of the permanent BMPs and measures found as Attachment G of the TCEQ application.



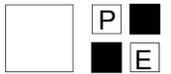
Mirza T. Baig, P.
Professional StruCIVIL Engineers, Inc.

12-02-2025

Date



PROFESSIONAL STRUCIVIL ENGINEERS, INC.



STRUCTURAL CIVIL TRANSPORTATION



2205 WEST PARMER LANE, SUITE #201, AUSTIN, TEXAS 78727
512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951

Application Fee Form (TCEQ-0574)

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: Gabriel Leander, LLC

Regulated Entity Location: 1646 N Bagdad Road, City of Leander, Texas 78747

Name of Customer: Gabriel Leander, LLC Mike Momin

Contact Person: PSCE, Inc

Phone: 512 238 6422

Customer Reference Number (if issued): CN _____

Regulated Entity Reference Number (if issued): RN _____

Austin Regional Office (3373)

Hays

Travis

Williamson

San Antonio Regional Office (3362)

Bexar

Medina

Uvalde

Comal

Kinney

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

Austin Regional Office

San Antonio Regional Office

Mailed to: TCEQ - Cashier

Overnight Delivery to: TCEQ - Cashier

Revenues Section

Mail Code 214

P.O. Box 13088

Austin, TX 78711-3088

12100 Park 35 Circle

Building A, 3rd Floor

Austin, TX 78753

(512)239-0357

Site Location (Check All That Apply):

Recharge Zone

Contributing Zone

Transition Zone

<i>Type of Plan</i>	<i>Size</i>	<i>Fee Due</i>
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	\$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	1.5 Acres	\$ 4000
Sewage Collection System	L.F.	\$
Lift Stations without sewer lines	Acres	\$
Underground or Aboveground Storage Tank Facility	Tanks	\$
Piping System(s)(only)	Each	\$
Exception	Each	\$
Extension of Time	Each	\$

Signature: _____



Date: 12.02.2025

Application Fee Schedule

Texas Commission on Environmental Quality

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	Project Area in Acres	Fee
One Single Family Residential Dwelling	< 5	\$650
Multiple Single Family Residential and Parks	< 5	\$1,500
	5 < 10	\$3,000
	10 < 40	\$4,000
	40 < 100	\$6,500
	100 < 500	\$8,000
	≥ 500	\$10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1	\$3,000
	1 < 5	\$4,000
	5 < 10	\$5,000
	10 < 40	\$6,500
	40 < 100	\$8,000
	≥ 100	\$10,000

Organized Sewage Collection Systems and Modifications

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

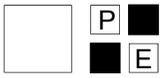
Project	Cost per Tank or Piping System	Minimum Fee- Maximum Fee
Underground and Aboveground Storage Tank Facility	\$650	\$650 - \$6,500

Exception Requests

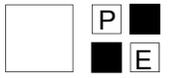
Project	Fee
Exception Request	\$500

Extension of Time Requests

Project	Fee
Extension of Time Request	\$150



PROFESSIONAL STRUCIVIL ENGINEERS, INC.



STRUCTURAL CIVIL TRANSPORTATION



2205 WEST PARMER LANE, SUITE #201, AUSTIN, TEXAS 78727
512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951

Core Data Form (TCEQ-10400)



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input checked="" type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other	
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry	3. Regulated Entity Reference Number (if issued)
CN		RN

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates mm dd yyyy	
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership <input type="checkbox"/> Change in Legal Name (separable with the Texas Secretary of State or Texas Comptroller of Public Accounts)			
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>			
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)		<i>If new Customer, enter previous Customer below:</i>	
Gabriel Leander, LLC.			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID	10. DUNS Number (if applicable)
802712176	82-1449004	9 digits	
11. Type of Customer:	<input checked="" type="checkbox"/> Corporation	<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Sole Proprietorship	<input type="checkbox"/> Other:	
12. Number of Employees		13. Independently Owned and Operated?	
<input checked="" type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role Proposed or Actual – as it relates to the Regulated Entity listed on this form. Please check one of the following			
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other: <input type="checkbox"/> Occupational License <input type="checkbox"/> Responsible Party <input type="checkbox"/> CP/BSA Applicant			
15. Mailing Address:	1646 N Bagdad RD		
	City	City of Leander	State TX ZIP 78747 ZIP + 4
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
		allstarmart@yahoo.com	
18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)	

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected, a new permit application is also required.)							
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input checked="" type="checkbox"/> Update to Regulated Entity Information							
<i>The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>							
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)							
Gabriel Leander, LLC.							
23. Street Address of the Regulated Entity: <i>(No PO Boxes)</i>		1646 N Bagdad Rd					
City	City of Leander	State	TX	ZIP	78641	ZIP + 4	
24. County	Willamson						

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:							
26. Nearest City		State			Nearest ZIP Code		
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>							
27. Latitude (N) In Decimal:		30 35 34.9 N		28. Longitude (W) In Decimal:		97 52 54.4	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds		
29. Primary SIC Code		30. Secondary SIC Code		31. Primary NAICS Code		32. Secondary NAICS Code	
4 digits		4 digits		(5 or 6 digits)		5 or 6 digits	
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)							
C- STORE, GASOLINE AND RETAIL SALES							
34. Mailing Address:		4125 East A7930 Thaxton Road Suite 100					
City	Austin	State	TX	ZIP	78747	ZIP + 4	
35. E-Mail Address:		allstarmart@yahoo.com					
36. Telephone Number		37. Extension or Code			38. Fax Number (if applicable)		
(512) 576-0294					() -		

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits registration numbers that will be affected by the updates submitted on this form. See the Core Data form instructions for additional guidance.

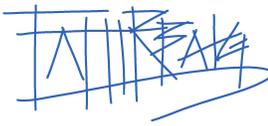
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input checked="" type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial a ardous aste
<input type="checkbox"/> Municipal Solid aste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSS	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> P S
<input type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> oluntary Cleanup	<input type="checkbox"/> Wastewater	<input type="checkbox"/> astewater Agriculture	<input type="checkbox"/> ater Rights	<input type="checkbox"/> Other:

SECTION IV: Preparer Information

40. Name:	Mir a Tahir Baig	41. Title:	Civil Engineer - Agent
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 238-6422		() -	psce@psceinc.com

SECTION V: Authorized Signature

46. By my signature below, I cer fy, to the best of my knowledge, that the informa on provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the en ty speci ed in Sec on II, Field 6 and/or as required for the updates to the ID numbers iden ed in eld 39.

Company:	Professional StruCl IL Engineers, Inc - Mir a Tahir Baig	Job Title:	Civil Engineer - Agent
Name (In Print):	Mir a Tahir Baig	Phone:	(512) 238- 6422
Signature:		Date:	12-02-2025